| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 1 | 583 |
| | | NORTHWEST ARKANSAS NATIONAL AIRPORT ACCESS (F) | | | | |

"A FULLY CONTROLLED ACCESS FACILITY"
ARKANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS FOR STATE HIGHWAY

# NORTHWEST ARKANSAS NATIONAL AIRPORT ACCESS (F)

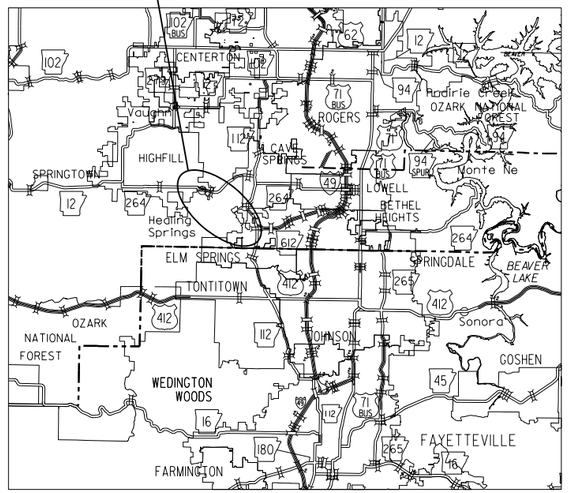
## BENTON COUNTY

## ROUTE NEW SECTION NEW

## JOB 090069

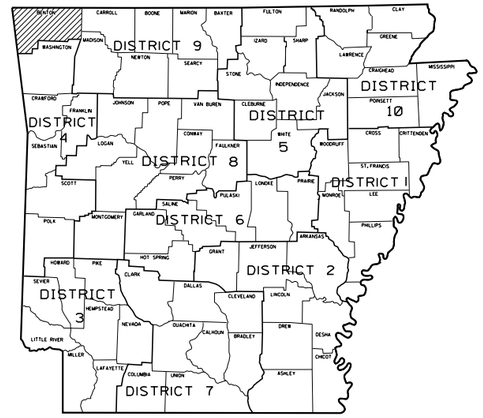
FED. AID PROJ. CPFCDS-0004(80)

PROJECT LOCATION




VICINITY MAP

NOT TO SCALE




ARKANSAS HIGHWAY DISTRICT 9

### BRIDGE CONSTRUCTION DATA

(1B) STA. 142+74.61 BRIDGE END
BRIDGE NO. B7656 OVER WAGER DR.
40'-0" CLEAR ROADWAY
25°00'00" LT. FORWARD SKEW
257'-4 1/16" BRIDGE LENGTH
STA. 145+32.99 BRIDGE END

(1A) STA. 143+07.25 BRIDGE END
BRIDGE NO. A7656 OVER WAGER DR.
40'-0" CLEAR ROADWAY
25°00'00" LT. FORWARD SKEW
257'-4 1/16" BRIDGE LENGTH
STA. 145+63.66 BRIDGE END

(2B) STA. 157+83.13 BRIDGE END
BRIDGE NO. B7657 OVER OSAGE CREEK
40'-0" CLEAR ROADWAY
1022'-2" BRIDGE LENGTH
STA. 168+09.23 BRIDGE END

(2A) STA. 158+30.90 BRIDGE END
BRIDGE NO. A7657 OVER OSAGE CREEK
40'-0" CLEAR ROADWAY
1022'-2" BRIDGE LENGTH
STA. 168+49.16 BRIDGE END

(3A) STA. 175+62.91 BRIDGE END
BRIDGE NO. A7658 OVER LITTLE OSAGE CREEK
40'-0" CLEAR ROADWAY
30°00'00" RT. FORWARD SKEW
592'-6 7/8" BRIDGE LENGTH
STA. 181+55.48 BRIDGE END

(3B) STA. 176+13.71 BRIDGE END
BRIDGE NO. B7658 OVER LITTLE OSAGE CREEK
40'-0" CLEAR ROADWAY
30°00'00" RT. FORWARD SKEW
592'-6 7/8" BRIDGE LENGTH
STA. 182+06.29 BRIDGE END

(4A) STA. 190+97.73 BRIDGE END
BRIDGE NO. A7659 OVER HADEN RD.
40'-0" CLEAR ROADWAY
32°00'00" RT. FORWARD SKEW
228'-6 5/8" BRIDGE LENGTH
STA. 193+26.29 BRIDGE END

(4B) STA. 191+52.72 BRIDGE END
BRIDGE NO. B7659 OVER HADEN RD.
40'-0" CLEAR ROADWAY
32°00'00" RT. FORWARD SKEW
228'-6 5/8" BRIDGE LENGTH
STA. 193+81.28 BRIDGE END

(5B) STA. 210+53.08 BRIDGE END
BRIDGE NO. B7660 OVER HOLMES RD.
42'-0" CLEAR ROADWAY
45°00'00" LT. FORWARD SKEW
323'-0 3/4" BRIDGE LENGTH
STA. 213+81.30 BRIDGE END

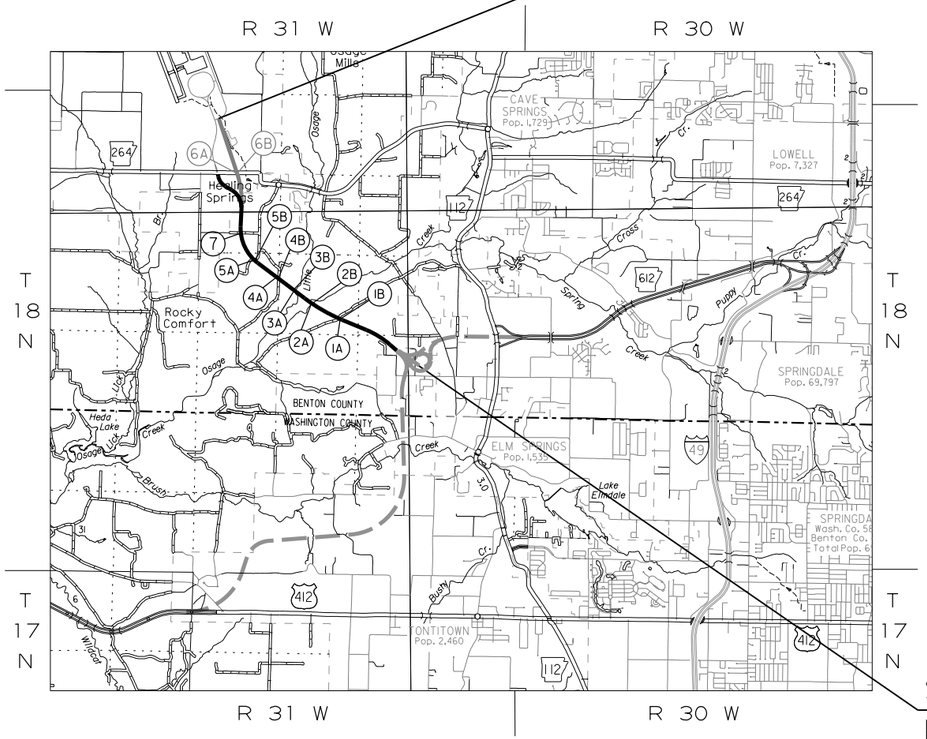
(5A) STA. 211+45.07 BRIDGE END
BRIDGE NO. A7660 OVER HOLMES RD.
46'-0" CLEAR ROADWAY
45°00'00" LT. FORWARD SKEW
323'-0 3/4" BRIDGE LENGTH
STA. 214+63.57 BRIDGE END

(6B) STA. 272+25.66 BRIDGE END (FUTURE)
BRIDGE NO. XXXXX XNA ACCESS RD.
40'-0" CLEAR ROADWAY
112'-4" BRIDGE LENGTH
STA. 273+37.97 BRIDGE END

(6A) STA. 272+57.69 BRIDGE END (FUTURE)
BRIDGE NO. XXXXX XNA ACCESS RD.
40'-0" CLEAR ROADWAY
112'-4" BRIDGE LENGTH
STA. 273+69.99 BRIDGE END

### BRIDGE DATA (OVERPASSES)

(7) STA. 22+35.68 BRIDGE END
BRIDGE NO. 07661 MALONE LN.
30'-0" CLEAR ROADWAY
7°00'00" RT. FORWARD SKEW
218'-2 1/8" BRIDGE LENGTH
STA. 24+53.86 BRIDGE END




· DESIGN TRAFFIC DATA ·

| | |
|---|---|
| DESIGN YEAR | 2044 |
| 2024 ADT | 4,500 |
| 2044 ADT | 24,500 |
| 2044 DHV | 2,365 |
| DIRECTIONAL DISTRIBUTION | 60% |
| TRUCKS | 5% |
| DESIGN SPEED | 70 MPH |

PROJECT COORDINATES

| | BEGIN | MID-POINT | END |
|---|---|---|---|
| LATITUDE | N 36°13'32" | N 36°14'25" | N 36°16'00" |
| LONGITUDE | W 94°15'07" | W 94°16'57" | W 94°17'35" |
| STATION | 100+00.00 | 205+00.00 | 310+00.00 |

| | | | | | |
|---|---|---|---|---|---|
| GROSS LENGTH OF PROJECT | 21000.00 | FEET OR | 3.977 | MILES |
| NET " " ROADWAY | 18463.63 | " " | 3.497 | MILES |
| NET " " BRIDGES | 2536.38 | " " | 0.480 | MILES |
| NET " " PROJECT | 21000.00 | " " | 3.977 | MILES |

GARVER LLC No. 766 — CERTIFICATE OF AUTHORIZATION — ARKANSAS ENGINEER

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No. 14994 — DUSTIN L. TACKETT

Digitally Signed 11/20/2023

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 2 | 583 |
| | | INDEX OF SHEETS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 3 | 583 |
| | | INDEX OF SHEETS AND STANDARD DRAWINGS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

Digitally Signed 11/20/2023

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| 375 | DETAILS OF ELASTOMERIC BEARINGS HOLMES RD. | A7660 & B7660 | 66823 |
| 376 | DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE A HOLMES RD. (SHEET 1 OF 8) | A7660 | 66824 |
| 377 | DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE A HOLMES RD. (SHEET 2 OF 8) | A7660 | 66825 |
| 378 | DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE A HOLMES RD. (SHEET 3 OF 8) | A7660 | 66826 |
| 379 | DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE A HOLMES RD. (SHEET 4 OF 8) | A7660 | 66827 |
| 380 | DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE A HOLMES RD. (SHEET 5 OF 8) | A7660 | 66828 |
| 381 | DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE A HOLMES RD. (SHEET 6 OF 8) | A7660 | 66829 |
| 382 | DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE A HOLMES RD. (SHEET 7 OF 8) | A7660 | 66830 |
| 383 | DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE A HOLMES RD. (SHEET 8 OF 8) | A7660 | 66831 |
| 384 | DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE B HOLMES RD. (SHEET 1 OF 8) | B7660 | 66832 |
| 385 | DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE B HOLMES RD. (SHEET 2 OF 8) | B7660 | 66833 |
| 386 | DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE B HOLMES RD. (SHEET 3 OF 8) | B7660 | 66834 |
| 387 | DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE B HOLMES RD. (SHEET 4 OF 8) | B7660 | 66835 |
| 388 | DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE B HOLMES RD. (SHEET 5 OF 8) | B7660 | 66836 |
| 389 | DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE B HOLMES RD. (SHEET 6 OF 8) | B7660 | 66837 |
| 390 | DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE B HOLMES RD. (SHEET 7 OF 8) | B7660 | 66838 |
| 391 | DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE B HOLMES RD. (SHEET 8 OF 8) | B7660 | 66839 |
| 392 | LAYOUT OF BRIDGE MALONE LN. OVER XNA ACCESS RD. (SHEET 1 OF 2) | 07661 | 66840 |
| 393 | LAYOUT OF BRIDGE MALONE LN. OVER XNA ACCESS RD. (SHEET 2 OF 2) | 07661 | 66841 |
| 394 | DETAILS OF END BENTS MALONE LN. (SHEET 1 OF 3) | 07661 | 66842 |
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| 396 | DETAILS OF END BENTS MALONE LN. (SHEET 3 OF 3) | 07661 | 66844 |
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| 401 | DETAILS OF 216'-0" CONTINUOUS PLATE GIRDER UNIT (SHEET 2 OF 5) | 07661 | 66849 |
| 402 | DETAILS OF 216'-0" CONTINUOUS PLATE GIRDER UNIT (SHEET 3 OF 5) | 07661 | 66850 |
| 403 | DETAILS OF 216'-0" CONTINUOUS PLATE GIRDER UNIT (SHEET 4 OF 5) | 07661 | 66851 |
| 404 | DETAILS OF 216'-0" CONTINUOUS PLATE GIRDER UNIT (SHEET 5 OF 5) | 07661 | 66852 |
| 405 | DETAILS OF RETAINING WALLS (SHEET 1 OF 4) | A7660 | 66853 |
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| 409 | COMMON DETAILS OF RETAINING WALLS (SHEET 1 OF 3) | A7660 & 07661 | 66857 |
| 410 | COMMON DETAILS OF RETAINING WALLS (SHEET 2 OF 3) | A7660 & 07661 | 66858 |
| 411 | COMMON DETAILS OF RETAINING WALLS (SHEET 3 OF 3) | A7660 & 07661 | 66859 |
| 412 | DETAILS OF 70' TO 85' STEEL OVERHEAD SIGN STRUCTURE (SHEET 1 OF 6) | OH-XNA-04-01 | 66860 |
| 413 | DETAILS OF 70' TO 85' STEEL OVERHEAD SIGN STRUCTURE (SHEET 2 OF 6) | OH-XNA-04-02 | 66861 |
| 414 | DETAILS OF 70' TO 85' STEEL OVERHEAD SIGN STRUCTURE (SHEET 3 OF 6) | OH-XNA-04-03 | 66862 |
| 415 | DETAILS OF 70' TO 85' STEEL OVERHEAD SIGN STRUCTURE (SHEET 4 OF 6) | OH-XNA-04-04 | 66863 |
| 416 | DETAILS OF 70' TO 85' STEEL OVERHEAD SIGN STRUCTURE (SHEET 5 OF 6) | OH-XNA-04-05 | 66864 |
| 417 | DETAILS OF 70' TO 85' STEEL OVERHEAD SIGN STRUCTURE (SHEET 6 OF 6) | OH-XNA-04-06 | 66865 |
| 418 | DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE (SHEET 1 OF 5) | TM-XNA-04-01 | 66866 |
| 419 | DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE (SHEET 2 OF 5) | TM-XNA-04-01 | 66867 |
| 420 | DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE (SHEET 3 OF 5) | TM-XNA-04-01 | 66868 |
| 421 | DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE (SHEET 4 OF 5) | TM-XNA-04-01 | 66869 |
| 422 | DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE (SHEET 5 OF 5) | TM-XNA-04-01 | 66870 |
| 423 - 583 | CROSS SECTIONS | | |


NOTE: CROSS SECTIONS NOT NORMALLY INCLUDED IN PLANS SOLD TO PROSPECTIVE BIDDERS, BUT MAY BE HAD UPON REQUEST.

## BRIDGE STANDARD DRAWINGS

| DRWG.NO. | TITLE | DATE |
|---|---|---|
| 55000 | STANDARD DETAILS FOR EMBANKMENT CONSTRUCTION AND BACKFILL AT BRIDGE ENDS | 02-27-14 |
| 55001 | STANDARD DETAILS FOR DUMPED RIPRAP AND FILTER BLANKET AND COMPUTING EXCAVATION FOR STRUCTURES | 02-27-14 |
| 55002 | STANDARD DETAILS FOR CONCRETE RIPRAP | 02-27-14 |
| 55005 | STANDARD DETAILS FOR PERMANENT STEEL BRIDGE DECK FORMS FOR STEEL & CONCRETE GIRDER SPANS | 03-24-16 |
| 55006 | STANDARD GENERAL NOTES FOR STEEL BRIDGE STRUCTURES | 09-02-15 |
| 55007 | STANDARD DETAILS FOR STEEL BRIDGE STRUCTURES | 02-11-16 |
| 55008 | STANDARD DETAILS FOR POURED SILICONE JOINTS | 02-11-16 |
| 55009 | STANDARD DETAILS FOR NEOPRENE STRIP SEAL JOINTS | 02-11-16 |
| 55010 | STANDARD DETAILS FOR TYPE D BRIDGE NAME PLATE | 04-14-23 |
| 55020 | STANDARD DETAILS FOR STEEL H-PILES AND PILE ENCASEMENTS | 03-24-16 |
| 55030F | STANDARD DETAILS FOR TYPE F APPROACH GUTTERS | 04-08-21 |
| 55040F1 | STANDARD DETAILS FOR TYPE F APPROACH SLAB | 09-07-23 |
| 55070 | STANDARD DETAILS FOR BRIDGE TRAFFIC RAIL TYPE SSTR36 | 09-27-22 |
| 55071 | STANDARD DETAILS FOR BRIDGE TRAFFIC RAIL TYPE SSTR42 | 07-06-22 |

## ROADWAY STANDARD DRAWINGS

| DRWG.NO. | TITLE | DATE |
|---|---|---|
| CDP-1 | CONCRETE DITCH PAVING | 12-08-16 |
| CG-1 | CURBING DETAILS | 11-29-07 |
| DR-1 | DETAILS OF DRIVEWAYS & ISLANDS | 05-19-22 |
| DR-2 | DETAILS OF DRIVEWAYS & STREET TURNOUTS | 05-19-22 |
| FES-1 | FLARED END SECTION | 10-18-96 |
| FES-2 | FLARED END SECTION | 10-18-96 |
| FPC-9 | DETAILS OF DROP INLETS & JUNCTION BOXES | 11-16-01 |
| FPC-9D | DETAILS OF DROP INLETS | 08-22-02 |
| FPC-9E | DETAILS OF DROP INLETS (TYPE C) | 08-22-02 |
| FPC-9M | DETAILS OF DROP INLET (TYPE MO) | 08-22-02 |
| GR-6 | GUARD RAIL DETAILS | 05-19-22 |
| GR-8 | GUARD RAIL DETAILS | 11-07-19 |
| GR-9 | GUARD RAIL DETAILS | 11-07-19 |
| GR-10 | GUARD RAIL DETAILS | 11-07-19 |
| GR-11 | GUARD RAIL DETAILS | 11-07-19 |
| GR-12 | GUARD RAIL DETAILS | 05-14-20 |
| GRT-1 | GUARD RAIL DETAILS | 11-07-19 |
| PBC-1 | PRECAST CONCRETE BOX CULVERTS | 01-28-15 |
| PCC-1 | CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING | 02-27-14 |
| PCM-1 | METAL PIPE CULVERT FILL HEIGHTS & BEDDING | 02-27-14 |
| PCP-1 | PLASTIC PIPE CULVERT (HIGH DENSITY POLYETHYLENE) | 02-27-14 |
| PCP-2 | PLASTIC PIPE CULVERT (PVC F949) | 02-27-14 |
| PCP-3 | PLASTIC PIPE CULVERT (POLYPROPYLENE) | 02-27-20 |
| PM-1 | PAVEMENT MARKING DETAILS | 02-27-20 |
| PM-2 | PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS | 05-14-20 |
| PU-1 | DETAILS OF PIPE UNDERDRAIN | 12-08-16 |
| RCB-1 | REINFORCED CONCRETE BOX CULVERT DETAILS | 07-26-12 |
| RCB-2 | EXCAVATION PAY LIMITS, BACKFILL, & SOLID SODDING FOR BOX CULVERTS | 11-20-03 |
| SD-4 | LOOP DETECTOR INSTALLATION | 11-07-19 |
| SD-5 | CONTROLLER CABINET UTILITY DRAWER | 09-12-13 |
| SD-6 | HEAVY DUTY PULL BOX | 11-16-17 |
| SD-8 | SIGNAL HEAD PLACEMENT | 12-08-16 |
| SD-9 | SERVICE POINT | 11-07-19 |
| SD-11 | STEEL POLE WITH MAST ARM | 11-16-17 |
| SD-16 | OVERHEAD SIGN DETAILS (OVERHEAD SIGN MOUNTED ON STEEL POLE WITH MAST ARM) | 09-12-13 |
| SE-1 | TABLES AND METHOD OF SUPERELEVATION FOR ONE-WAY TRAFFIC | 11-07-19 |
| SE-2 | TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC | 11-07-19 |
| SHS-1 | STANDARD HIGHWAY SIGNS AND SUPPORTS ASSEMBLIES | 09-12-13 |
| SHS-2 | U-CHANNEL POST ASSEMBLIES | 07-25-19 |
| SHS-3 | DETAIL OF BREAKAWAY SIGN SUPPORTS FOR GUIDE SIGNS | 05-19-22 |
| SHS-4 | DETAIL OF BREAKAWAY SIGN SUPPORTS FOR STANDARD SIGNS | 09-12-13 |
| SHS-5 | DETAILS OF GUIDE SIGN PANELS | 09-12-13 |
| SHS-7 | DETAIL OF OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS | 09-12-13 |
| SI-1 | DETAILS OF SPECIAL ITEMS | 10-25-18 |
| TC-1 | STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION | 11-07-19 |
| TC-2 | STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION | 05-20-21 |
| TC-3 | STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION | 08-12-21 |
| TC-4 | STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER | 11-07-19 |
| TC-5 | STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER | 11-07-19 |
| TEC-1 | TEMPORARY EROSION CONTROL DEVICES | 11-16-17 |
| TEC-2 | TEMPORARY EROSION CONTROL DEVICES | 06-02-94 |
| TEC-3 | TEMPORARY EROSION CONTROL DEVICES | 11-03-94 |
| TR-1 | DETAILS OF STANDARD TURNOUT FOR ENTRANCE & EXIT RAMPS | 01-12-00 |
| TR-1A | DETAILS OF STANDARD TURNOUT FOR ENTRANCE & EXIT RAMPS (NON REINFORCED) | 08-22-02 |
| WF-1 | WIRE FENCE TYPE A AND B | 08-22-02 |
| WF-2 | WIRE FENCE WATER GAPS | 04-20-79 |



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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 4 | 583 |
| | | GOVERNING SPECIFICATIONS AND GENERAL NOTES | | | | |

## GOVERNING SPECIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

**NUMBER** **TITLE**

ERRATA_____ ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273___ REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273___ SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273___ SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273___ SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273___ SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273___ SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273___ SUPPLEMENT - WAGE RATE DETERMINATION
FHWA-1273___ SUPPLEMENT - TRAINING PROGRAM - JOB NUMBER 090069
100-3_____ CONTRACTOR'S LICENSE
100-4_____ DEPARTMENT NAME CHANGE
102-2_____ ISSUANCE OF PROPOSALS
103-2_____ CONTACT INFORMATION FOR MOTORIST DAMAGE CLAIMS
105-4_____ MAINTENANCE DURING CONSTRUCTION
107-2_____ RESTRAINING CONDITIONS
108-1_____ LIQUIDATED DAMAGES
108-2_____ WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
110-1_____ PROTECTION OF WATER QUALITY AND WETLANDS
210-1_____ UNCLASSIFIED EXCAVATION
303-1_____ AGGREGATE BASE COURSE
306-1_____ QUALITY CONTROL AND ACCEPTANCE
307-1_____ CEMENT
308-1_____ CEMENT
400-1_____ TACK COATS
400-4_____ DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
400-5_____ PERCENT AIR VOIDS FOR ACHM MIX DESIGNS
400-6_____ LIQUID ANTI-STRIP ADDITIVE
400-7_____ TRACKLESS TACK
404-3_____ DESIGN OF ASPHALT MIXTURES
409-2_____ ASPHALT LABORATORY FACILITY
410-1_____ CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
410-2_____ DEVICES FOR MEASURING DENSITY FOR ROLLING PATTERNS
410-4_____ EVALUATION OF ACHM SUBLOT REPLACEMENT MATERIAL
416-1_____ RECYCLED ASPHALT PAVEMENT
501-2_____ CEMENT
502-1_____ WELDED WIRE REINFORCEMENT
600-2_____ INCIDENTAL CONSTRUCTION
603-1_____ LANE CLOSURE NOTIFICATION
604-1_____ RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-3_____ TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)
605-1_____ CONCRETE DITCH PAVING
606-1_____ PIPE CULVERTS FOR SIDE DRAINS
617-1_____ GUARDRAIL TERMINAL (TYPE 2)
617-2_____ GUARDRAIL DELINEATORS
620-1_____ MULCH COVER
621-1_____ FILTER SOCKS
632-1_____ CONCRETE ISLAND
634-1_____ CURBING
700-2_____ TRAFFIC CONTROL FACILITIES
723-1_____ GENERAL REQUREMENTS FOR SIGNS
730-1_____ BREAKAWAY SIGN SUPPORT
800-1_____ STRUCTURES
802-3_____ CONCRETE FOR STRUCTURES
802-4_____ CEMENT
804-2_____ REINFORCING STEEL FOR STRUCTURES
807-2_____ STEEL STRUCTURES
808-1_____ INSTALLATION OF ELASTOMERIC BEARINGS
808-2_____ ELASTOMERIC BEARINGS

## GOVERNING SPECIFICATIONS

JOB 090069___ ACTUATED CONTROLLER
JOB 090069___ AIRPORT CLEARANCE REQUIREMENTS
JOB 090069___ ASSESMENT OF WORKING DAYS - MAINTENANCE OF TRAFFIC
JOB 090069___ BIDDING REQUIREMENTS AND CONDITIONS
JOB 090069___ BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 090069___ BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB 090069___ BUY AMERICA - CONSTRUCTION MATERIALS
JOB 090069___ CABINET DRAWER ASSEMBLY
JOB 090069___ CARGO PREFERENCE ACT REQUIREMENTS
JOB 090069___ CAVE DISCOVERY
JOB 090069___ CLASS C FLY ASH IN PORTLAND CEMENT CONCRETE PAVEMENT AND CLASS S(AE) CONCRETE
JOB 090069___ COLD MILLING - COUNTY PROPERTY
JOB 090069___ CONCRETE BRIDGE DECK CURING AND SURFACE TREATMENT RESTRICTIONS
JOB 090069___ CONCRETE DITCH PAVING
JOB 090069___ CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS
JOB 090069___ CONSTRUCTION PROJECT INFORMATION SIGN
JOB 090069___ COORDINATION OF WORK
JOB 090069___ DELAY IN RIGHT OF WAY OCCUPANCY
JOB 090069___ DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
JOB 090069___ DESIGN OF ASPHALT MIXTURES - AGGREGATES
JOB 090069___ DETENTION POND CLAY LINER
JOB 090069___ DIRECT TENSION INDICATORS FOR HIGH STRENGTH BOLT ASSEMBLIES
JOB 090069___ DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB 090069___ DRILLED SHAFT FOUNDATIONS
JOB 090069___ DRILLED SHAFT FOUNDATIONS FOR STEEL SIGN STRUCTURES
JOB 090069___ ELECTRICAL CONDUCTORS FOR LUMINAIRES
JOB 090069___ ELECTRICAL CONDUCTORS-IN-CONDUIT (ITS)
JOB 090069___ ELECTRICAL CONCUCTORS-IN-CONDUIT (TRAFFIC SIGNAL)
JOB 090069___ ENHANCED THERMOPLASTIC PAVEMENT MARKING
JOB 090069___ FLEXIBLE BEGINNING OF WORK - CALENDAR DAY CONTRACT
JOB 090069___ FURNISHING, INSTALLING, & LEAVING IN PLACE PRECAST CONCRETE BARRIER WALL
JOB 090069___ GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 090069___ HYBRID VIDEO/RADAR DETECTION SYSTEM
JOB 090069___ INTELLIGENT TRANSPORTATION SYSTEM CABINET
JOB 090069___ LED LUMINAIRE ASSEMBLY (BUG U0 TYPE)
JOB 090069___ LED TRAFFIC SIGNAL HEAD
JOB 090069___ LIQUIDATED DAMAGES PROCEDURE FOR BID LETTINGS
JOB 090069___ LONGITUDINAL JOINT DENSITITES FOR ACHM SUFACE COURSES
JOB 090069___ LONGITUDINAL TINING
JOB 090069___ MAINTENANCE OF TRAFFIC
JOB 090069___ MANDATORY ELECTRONIC CONTRACT
JOB 090069___ MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 090069___ NONDESTRUCTIVE TESTING OF DRILLED SHAFTS
JOB 090069___ NONDESTRUCTIVE TESTING OF DRILLED SHAFTS FOR STEEL SIGN STRUCTURES
JOB 090069___ OFF-SITE RESTRAINING CONDITIONS FOR INDIANA AND NORTHERN LONG-EARED BATS
JOB 090069___ OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORT
JOB 090069___ OVERHEAD DYNAMIC MESSAGE SIGN ASSEMBLY
JOB 090069___ PAN-TILT-ZOOM CAMERA SYSTEM
JOB 090069___ PARTNERING REQUIREMENTS
JOB 090069___ PCC PAVEMENT SURFACE SMOOTHNESS (IRI)
JOB 090069___ PERCENT WITHIN LIMITS/PAVEMENT SMOOTHNESS (IRI)
JOB 090069___ PLASTIC PIPE
JOB 090069___ PRE-BID ON SITE INVESTIGATION OF SOIL CONDITIONS
JOB 090069___ PRICE ADJUSTMENT FOR ASPHALT BINDER
JOB 090069___ PRICE ADJUSTMENT FOR FUEL
JOB 090069___ PROHIBITION OF CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT
JOB 090069___ PROSECUTION AND PROGRESS WITH BID SCHEDULE
JOB 090069___ RADAR VEHICLE DETECTION SYSTEM
JOB 090069___ REACTIVE AGGREGATE TESTING
JOB 090069___ REMOVING AND REPLACING TOPSOIL
JOB 090069___ RETAINING WALLS
JOB 090069___ RETROREFLECTIVE BACKPLATES
JOB 090069___ ROCK FILL
JOB 090069___ SECTION 404 INDIVIDUAL PERMIT REQUIREMENTS
JOB 090069___ SERVICE POINT ASSEMBLY (ITS DEVICES)
JOB 090069___ SERVICE POINT ASSEMBLY (TRAFFIC CONTROL DEVICES)
JOB 090069___ SHORING FOR CULVERTS
JOB 090069___ SITE USE (A+C) - CALENDAR DAY CONTRACT
JOB 090069___ SOIL STABILIZATION
JOB 090069___ SPECIAL SAFETY REQUIREMENTS FOR BRIDGES
JOB 090069___ STEEL SIGN STRUCTURES
JOB 090069___ STORM WATER POLLUTION PREVENTION PLAN
JOB 090069___ STREET NAME SIGN (MAST ARM MOUNTED)
JOB 090069___ SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 090069___ TEXTURED COATING FINISH
JOB 090069___ THERMOPLASTIC PAVEMENT MARKING (YIELD LINE)
JOB 090069___ TILT TOWER
JOB 090069___ TOTAL SOLAR ECLIPSE
JOB 090069___ TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES LEFT IN PLACE
JOB 090069___ UTILITY ADJUSTMENTS
JOB 090069___ VALUE ENGINEERING
JOB 090069___ WARM MIX ASPHALT
JOB 090069___ WATER POLLUTION CONTROL
JOB 090069___ WIRE ROPE SAFETY FENCE (WRSF) SPECIFICATIONS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

Digitally Signed 11/20/2023

## GENERAL NOTES

1. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
2. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
3. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING U. S. MAILBOXES WITHIN THE PROJECT LIMITS IN SUCH A MANNER THAT THE PUBLIC MAY RECEIVE CONTINUED MAIL SERVICE. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS BID ITEMS.
5. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
6. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO ENSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCE MAY BE CONSTRUCTED INITIALLY, OR IN LIEU THEREOF, THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.
8. THE SEQUENCE AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS IS A GENERAL OUTLINE FOR THE CONSTRUCTION OF THIS PROJECT, AND IN NO WAY IS IT INTENDED TO COVER EVERY ITEM IN THE PROJECT. ITEMS NOT CRITICAL TO THE CONSTRUCTION SEQUENCE MAY BE CONSTRUCTED IN ANY STAGE AS APPROVED BY THE RESIDENT ENGINEER.
9. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
10. THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

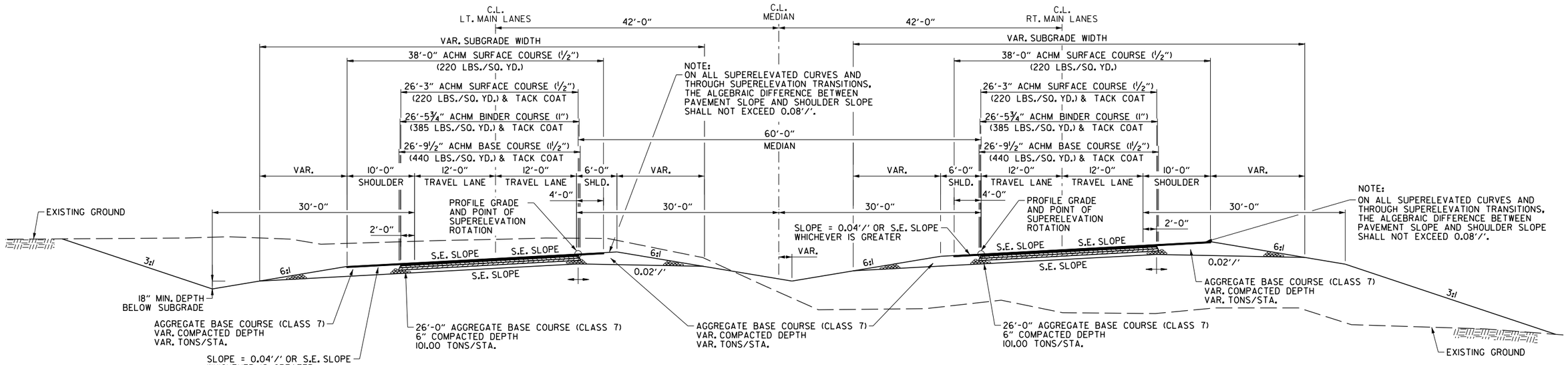


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| | | 6 | ARK. | 090069 | 5 | 583 |
| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023




## XNA ACCESS RD. DIVIDED HIGHWAY SUPERELVATED SECTION ALTERNATE I

STA. 100+00.00 TO STA. 102+62.50
STA. 103+33.77 TO STA. 126+92.55
STA. 251+43.25 TO STA. 272+25.66 RT. LANES (FUTURE)
STA. 251+43.25 TO STA. 272+57.69 LT. LANES (FUTURE)
STA. 273+37.97 TO STA. 274+51.42 RT. LANES (FUTURE)
STA. 273+69.99 TO STA. 274+51.42 LT. LANES (FUTURE)

NOTE: SEE BRIDGE PLANS FOR

STA. 272+25.66 TO STA. 273+37.97 RT. LANES (FUTURE)
STA. 272+57.69 TO STA. 273+69.99 LT. LANES (FUTURE)

NOTES:

REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

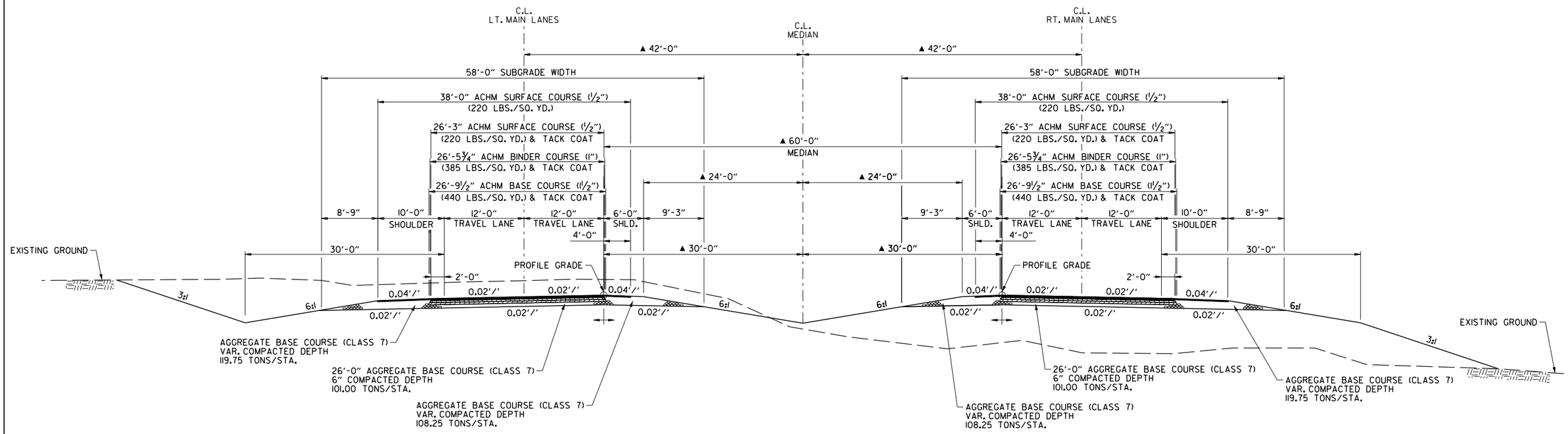
TYPICAL SECTIONS OF IMPROVEMENT

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| | | 6 | ARK. | 090069 | 6 | 583 |
| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023




▲ CONTROLLED BY NORTH SHIFT ALIGNMENTS STA. 299+85.27 TO STA. 304+46.93

## XNA ACCESS RD. DIVIDED HIGHWAY TYPICAL SECTION ALTERNATE I

STA. 102+62.50 TO STA. 103+33.77
STA. 126+92.55 TO STA. 139+16.95
STA. 173+02.34 TO STA. 175+27.91 LT. LANES
STA. 173+02.34 TO STA. 175+78.71 RT. LANES
STA. 181+90.48 TO STA. 190+62.73 LT. LANES
STA. 182+41.29 TO STA. 191+17.72 RT. LANES
STA. 193+61.29 TO STA. 206+39.45 LT. LANES
STA. 194+16.28 TO STA. 206+39.45 RT. LANES
STA. 274+51.42 TO STA. 289+85.27 (FUTURE)
STA. 299+85.27 TO STA. 304+46.93 (FUTURE)

NOTE: SEE BRIDGE PLANS FOR

STA. 175+27.91 TO STA. 181+90.48 LT. LANES
STA. 175+78.71 TO STA. 182+41.29 RT. LANES
STA. 190+62.73 TO STA. 193+61.29 LT. LANES
STA. 191+17.72 TO STA. 194+16.28 RT. LANES

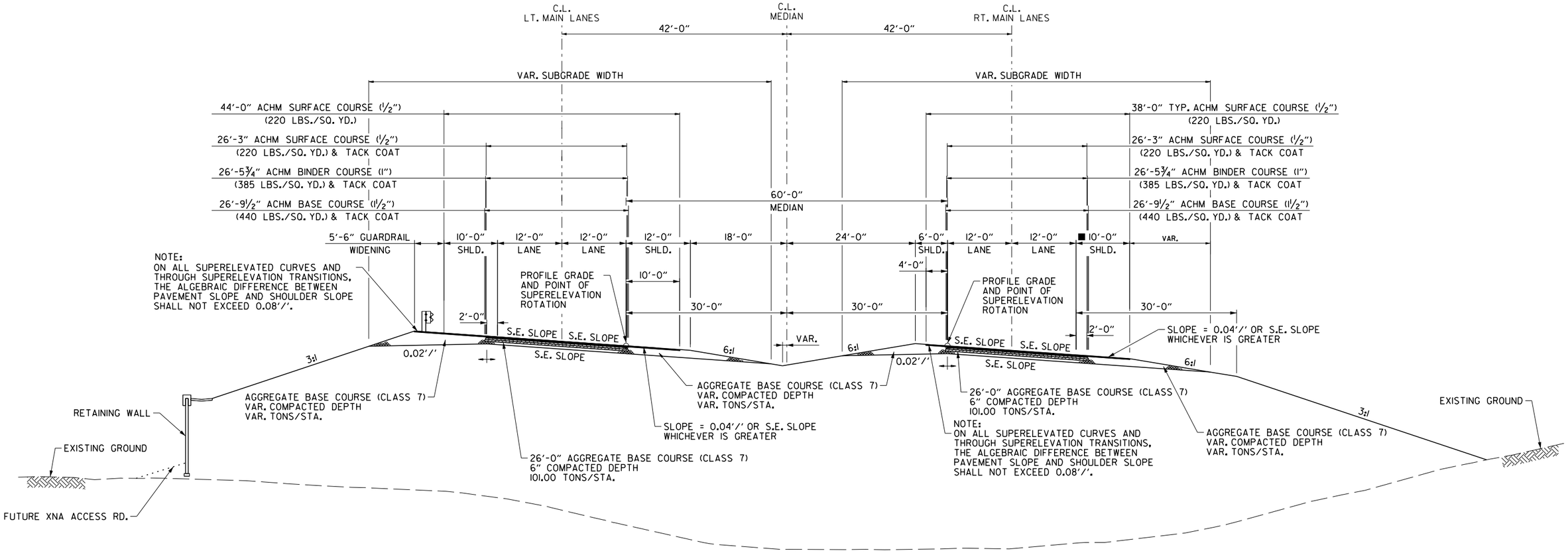


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| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

■ XNA ACCESS RD. RIGHT LANES OUTSIDE SHOULDER TRANSITIONS
FROM 10' AT 206+80.00 TO 12' AT 207+40.00
FROM 12' AT 214+00.00 TO 10' AT 215+40.00
10'-2" AVG. WIDTH




## XNA ACCESS RD. DIVIDED HIGHWAY SUPERELEVATED SECTION ALTERNATE 1

STA. 214+16.30 TO STA. 217+09.85 RT. LANES
STA. 214+98.57 TO STA. 217+09.85 LT. LANES

NOTES:

REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

TYPICAL SECTIONS OF IMPROVEMENT

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| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

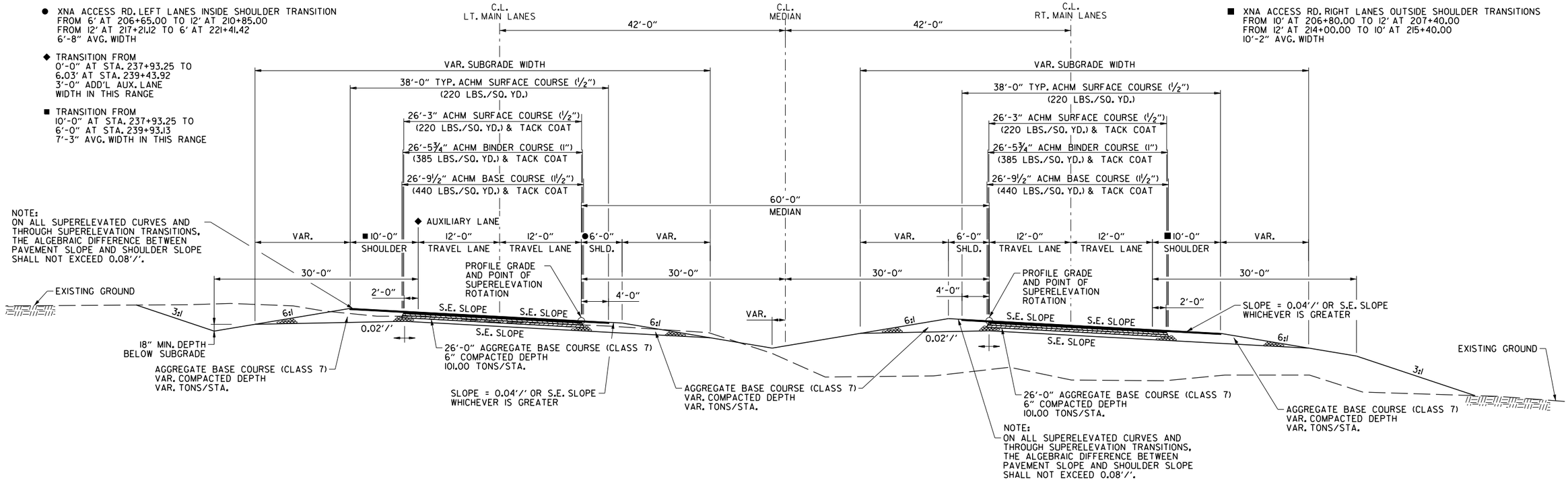
DIGITALLY SIGNED 10/20/2023

● XNA ACCESS RD. LEFT LANES INSIDE SHOULDER TRANSITION
FROM 6′ AT 206+65.00 TO 12′ AT 210+85.00
FROM 12′ AT 217+21.12 TO 6′ AT 221+41.42
6′-8″ AVG. WIDTH

◆ TRANSITION FROM
0′-0″ AT STA. 237+93.25 TO
6.03′ AT STA. 239+43.92
3′-0″ ADD′L AUX. LANE
WIDTH IN THIS RANGE

■ TRANSITION FROM
10′-0″ AT STA. 237+93.25 TO
6′-0″ AT STA. 239+93.13
7′-3″ AVG. WIDTH IN THIS RANGE

■ XNA ACCESS RD. RIGHT LANES OUTSIDE SHOULDER TRANSITIONS
FROM 10′ AT 206+80.00 TO 12′ AT 207+40.00
FROM 12′ AT 214+00.00 TO 10′ AT 215+40.00
10′-2″ AVG. WIDTH




## XNA ACCESS RD. DIVIDED HIGHWAY SUPERELVATED SECTION ALTERNATE I

STA. 139+16.95 TO STA. 142+39.61 RT. LANES
STA. 139+16.95 TO STA. 142+72.25 LT. LANES
STA. 145+67.99 TO STA. 157+48.13 RT. LANES
STA. 145+98.66 TO STA. 157+95.90 LT. LANES
STA. 168+44.23 TO STA. 173+02.34 RT. LANES
STA. 168+84.16 TO STA. 173+02.34 LT. LANES
STA. 206+39.45 TO STA. 210+18.08 RT. LANES
STA. 206+39.45 TO STA. 211+10.07 LT. LANES
STA. 217+09.85 TO STA. 237+93.25 RT. LANES
STA. 217+09.85 TO STA. 237+93.25 LT. LANES
STA. 237+93.25 TO STA. 238+26.48
◆ STA. 238+26.48 TO STA. 239+43.92 LT. LANES
STA. 238+26.48 TO STA. 239+43.92 RT. LANES (FUTURE)

NOTE: SEE BRIDGE PLANS FOR

STA. 142+39.61 TO STA. 145+67.99 RT. LANES
STA. 142+72.25 TO STA. 145+98.66 LT. LANES
STA. 157+48.13 TO STA. 168+44.23 RT. LANES
STA. 157+95.90 TO STA. 168+84.16 LT. LANES
STA. 210+18.08 TO STA. 214+16.30 RT. LANES
STA. 211+10.07 TO STA. 214+98.57 LT. LANES

NOTES:

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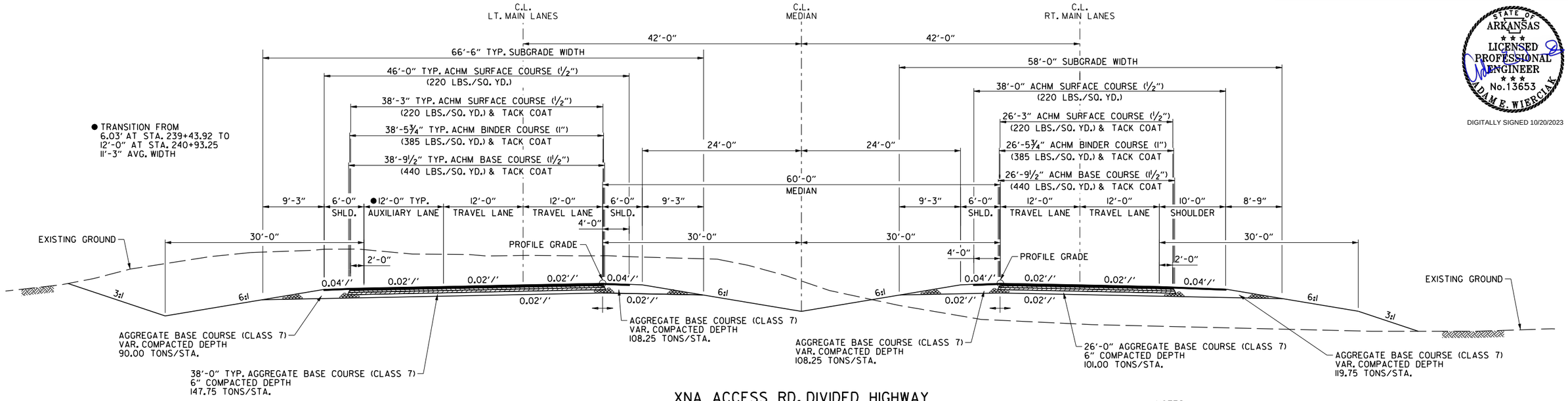
THE FINAL 2″ OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.



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| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
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ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023




## XNA ACCESS RD. DIVIDED HIGHWAY TYPICAL SECTION W/ AUXILIARY LANE ALTERNATE 1

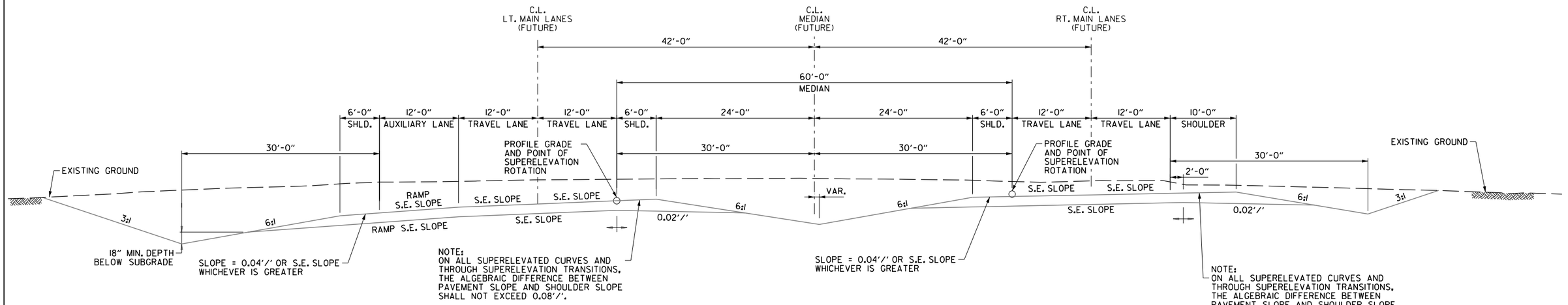
STA. 239+43.92 TO STA. 245+30.90 LT. LANES
STA. 239+43.92 TO STA. 248+17.84 RT. LANES (FUTURE)
STA. 245+30.90 TO STA. 248+17.84 LT. LANES (FUTURE)

NOTES:

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## XNA ACCESS RD. TYPICAL DIVIDED HIGHWAY SUPERELEVATED SECTION W/ ACCEL. LANE

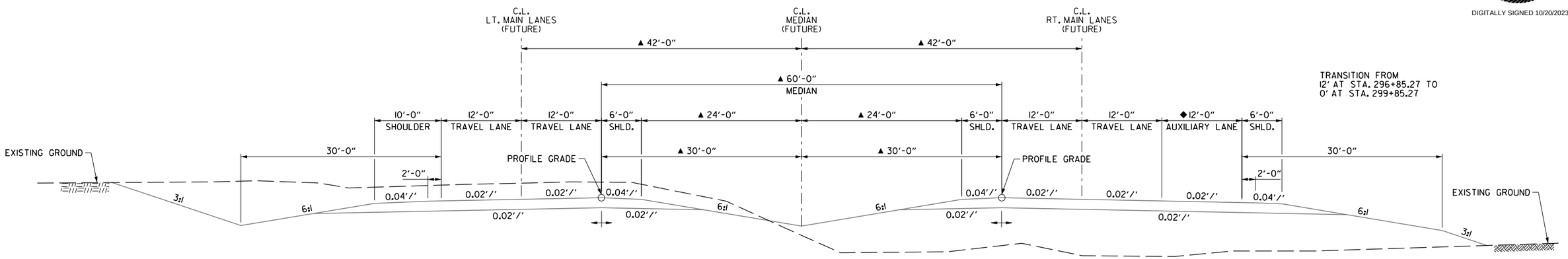
STA. 248+17.84 TO STA. 251+43.25 (FUTURE)

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| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
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▲ CONTROLLED BY NORTH SHIFT ALIGNMENTS STA. 296+50.00 TO STA. 299+85.27

## XNA ACCESS RD. TYPICAL DIVIDED HIGHWAY SECTION W/ ACCEL. LANE

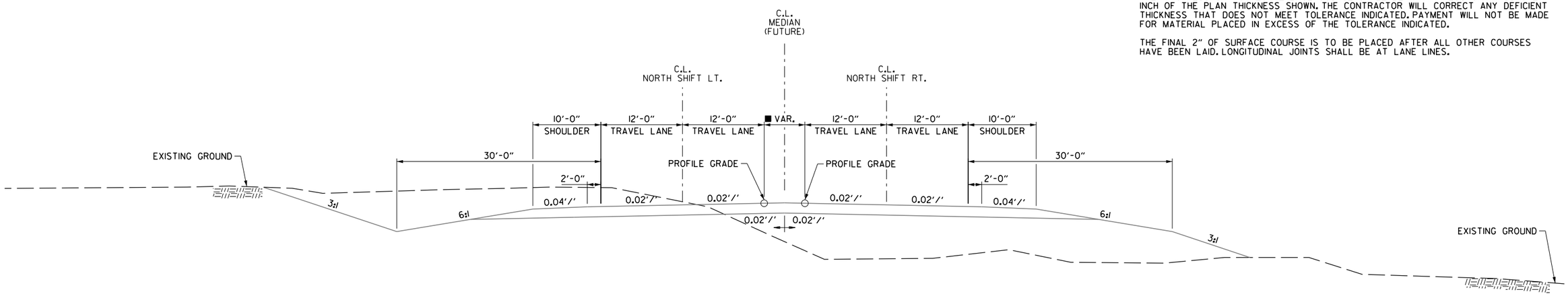
STA. 289+85.27 TO STA. 299+85.27 (FUTURE)

NOTES:

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## XNA ACCESS RD. TYPICAL HIGHWAY SECTION

STA. 304+46.93 TO STA. 310+00.00 (FUTURE)

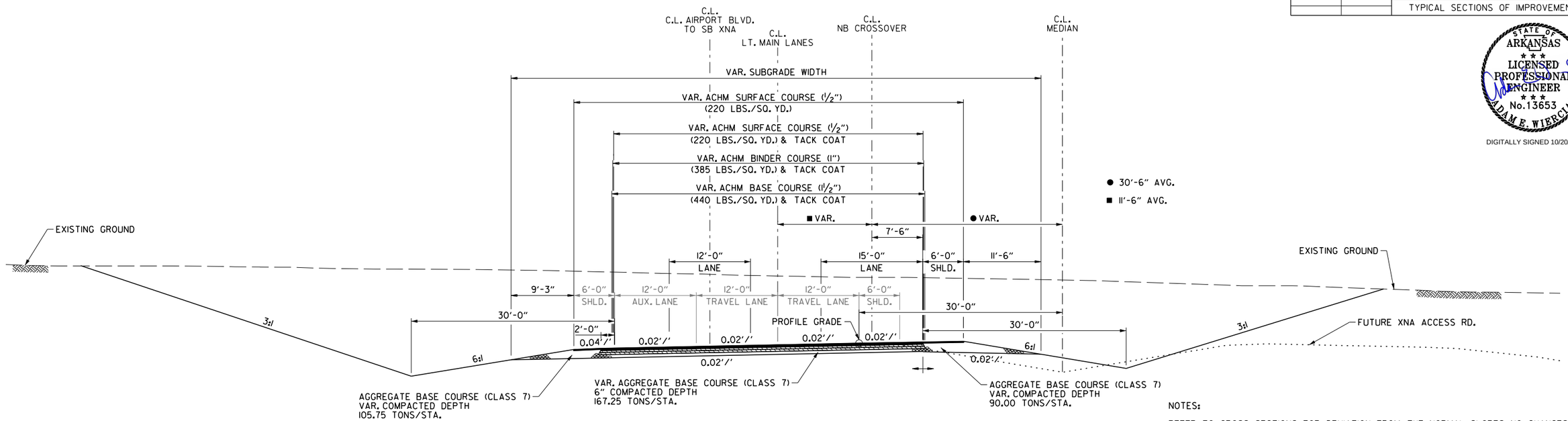
■ CONTROLLED BY NORTH SHIFT ALIGNMENTS STA. 304+46.93 TO STA. 307+50.02
0' FROM STA. 307+50.02 TO STA. 310+00.14



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| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
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## XNA ACCESS RD. INTERIM CONDITION TYPICAL SECTION ALTERNATE 1

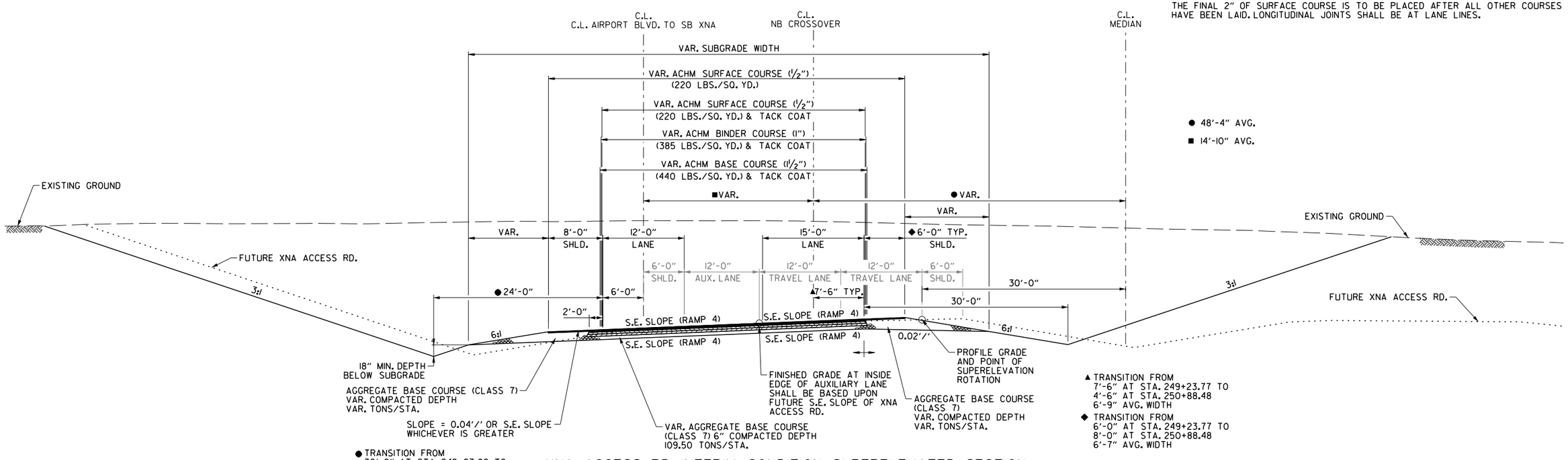
STA. 245+30.90 TO STA. 247+82.38

NOTES:

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● TRANSITION FROM 30'-0" AT STA. 249+23.09 TO 24'-0" AT STA. 250+88.48

▲ TRANSITION FROM 7'-6" AT STA. 249+23.77 TO 4'-6" AT STA. 250+88.48 6'-9" AVG. WIDTH

◆ TRANSITION FROM 6'-0" AT STA. 249+23.77 TO 8'-0" AT STA. 250+88.48 6'-7" AVG. WIDTH

## XNA ACCESS RD. INTERIM CONDITION SUPERELEVATED SECTION ALTERNATE 1

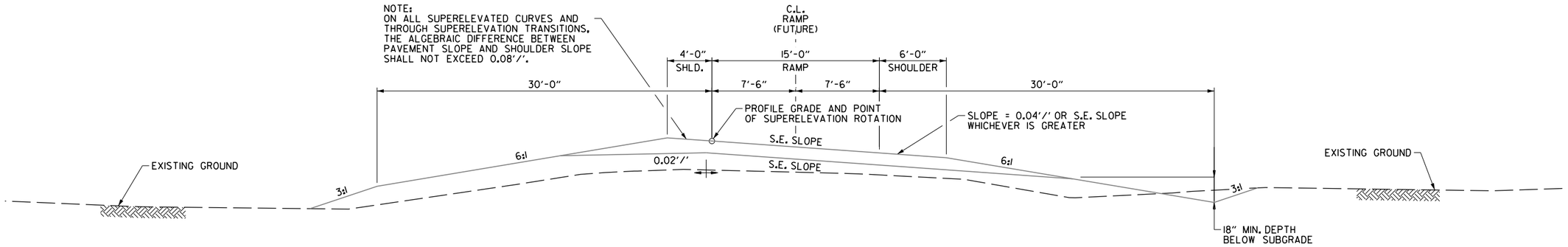
STA. 247+82.38 TO STA. 250+88.48

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STATE OF ARKANSAS
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## SINGLE LANE RAMP
## SUPERELEVATED TYPICAL SECTION

(SHOWN IN DIRECTION OF TRAFFIC)

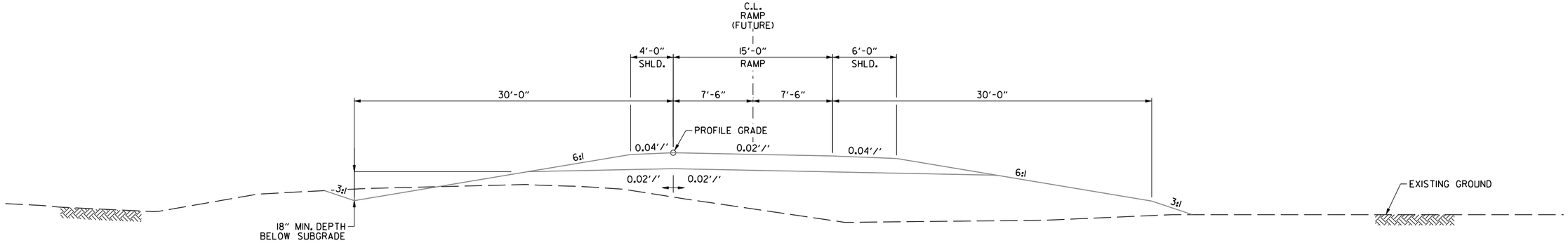
HWY. 264 RAMP 1 STA. 258+26.28 TO STA. 266+16.54 (FUTURE)
HWY. 264 RAMP 1 STA. 272+12.90 TO STA. 272+52.37 (FUTURE)
HWY. 264 RAMP 2 STA. 269+63.43 TO STA. 269+66.35 (FUTURE)
HWY. 264 RAMP 2 STA. 279+45.18 TO STA. 289+85.71 (FUTURE)
HWY. 264 RAMP 3 STA. 275+78.46 TO STA. 290+35.93 (FUTURE)
HWY. 264 RAMP 4 STA. 251+42.07 TO STA. 260+78.94 (FUTURE)

NOTES:

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## SINGLE LANE RAMP
## TYPICAL SECTION

(SHOWN IN DIRECTION OF TRAFFIC)

HWY. 264 RAMP 1 STA. 255+35.03 TO STA. 258+26.28 (FUTURE)
HWY. 264 RAMP 1 STA. 266+16.54 TO STA. 272+12.90 (FUTURE)
HWY. 264 RAMP 2 STA. 278+95.89 TO STA. 279+45.18 (FUTURE)
HWY. 264 RAMP 3 STA. 275+26.32 TO STA. 275+78.46 (FUTURE)
HWY. 264 RAMP 3 STA. 290+35.93 TO STA. 291+66.51 (FUTURE)
HWY. 264 RAMP 4 STA. 260+78.94 TO STA. 266+14.32 (FUTURE)

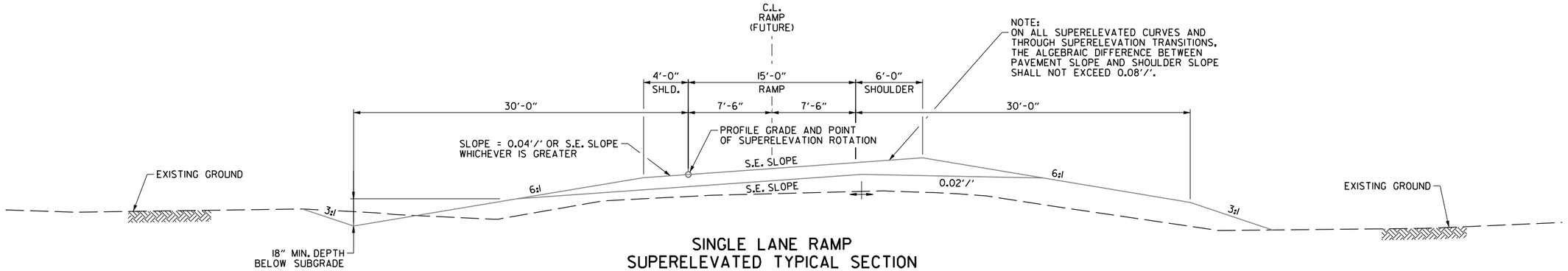
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## SINGLE LANE RAMP SUPERELEVATED TYPICAL SECTION

(SHOWN IN DIRECTION OF TRAFFIC)

HWY. 264 RAMP 2 STA. 269+66.35 TO STA. 278+95.89 (FUTURE)
HWY. 264 RAMP 3 STA. 274+31.32 TO STA. 275+26.32 (FUTURE)
HWY. 264 RAMP 4 STA. 266+14.32 TO STA. 275+43.19 (FUTURE)

NOTES:

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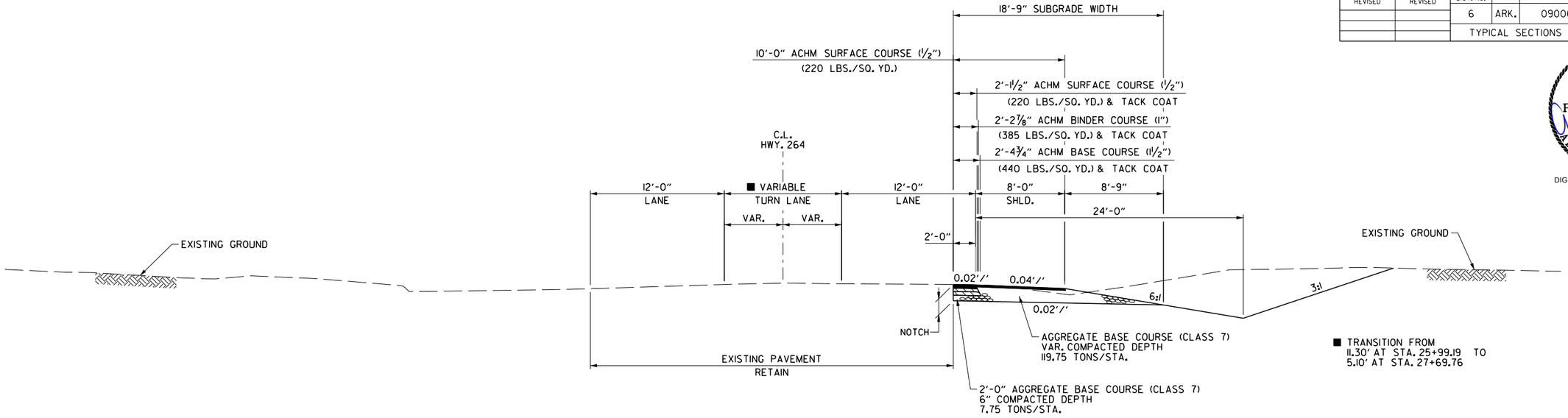
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## HWY. 264 NOTCH AND WIDEN SECTION W/ TURN LANE

STA. 25+99.19 TO STA. 27+69.76

NOTES:

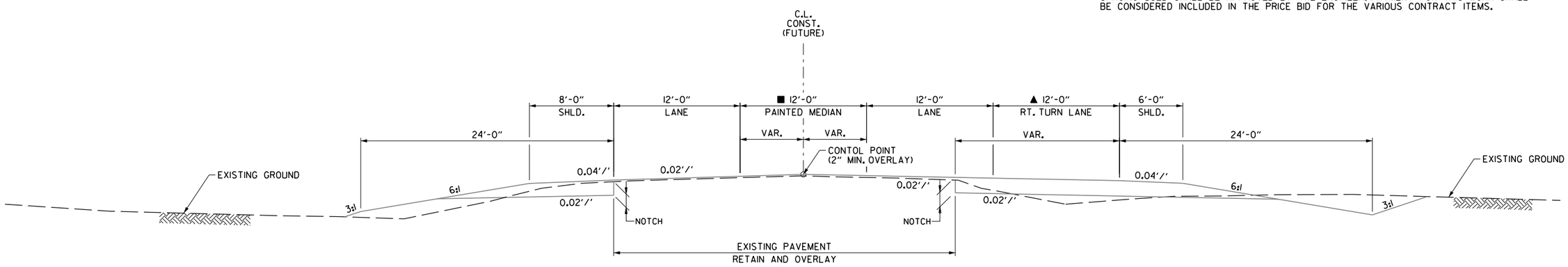
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## NOTCH AND WIDEN SECTION WITH PAINTED MEDIAN AND RT. TURN LANE

HWY. 264 STA. 24+24.87 TO STA. 27+60.00 (FUTURE)

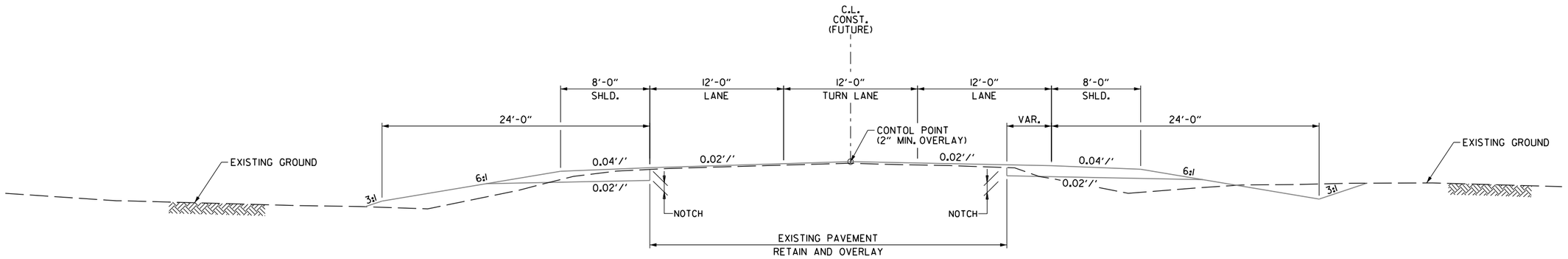
TYPICAL SECTIONS OF IMPROVEMENT


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| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023




## NOTCH AND WIDEN SECTION W/ TURN LANE

HWY. 264 STA. 27+60.00 TO STA. 29+65.43 (FUTURE)

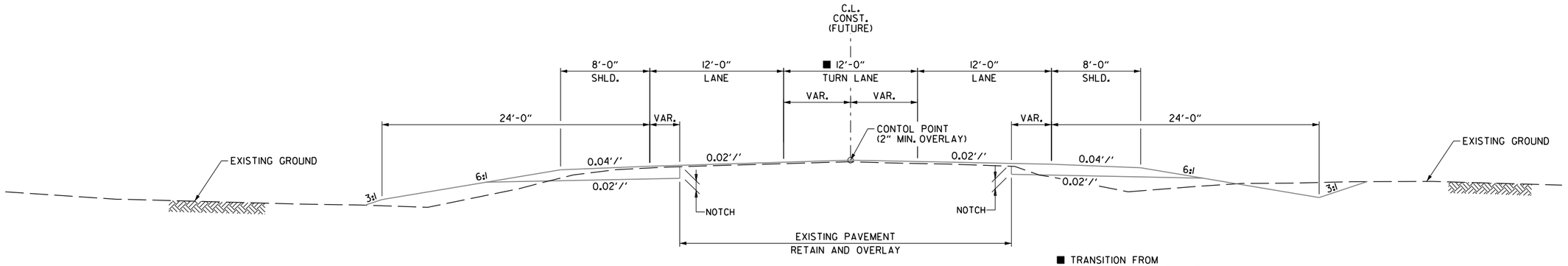
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■ TRANSITION FROM
12' AT STA. 29+65.43 TO
8.74' AT STA. 30+55.00
1.91' AT STA. 45+80.00 TO
0' AT STA. 46+32.39

## NOTCH AND WIDEN TYPICAL SECTION

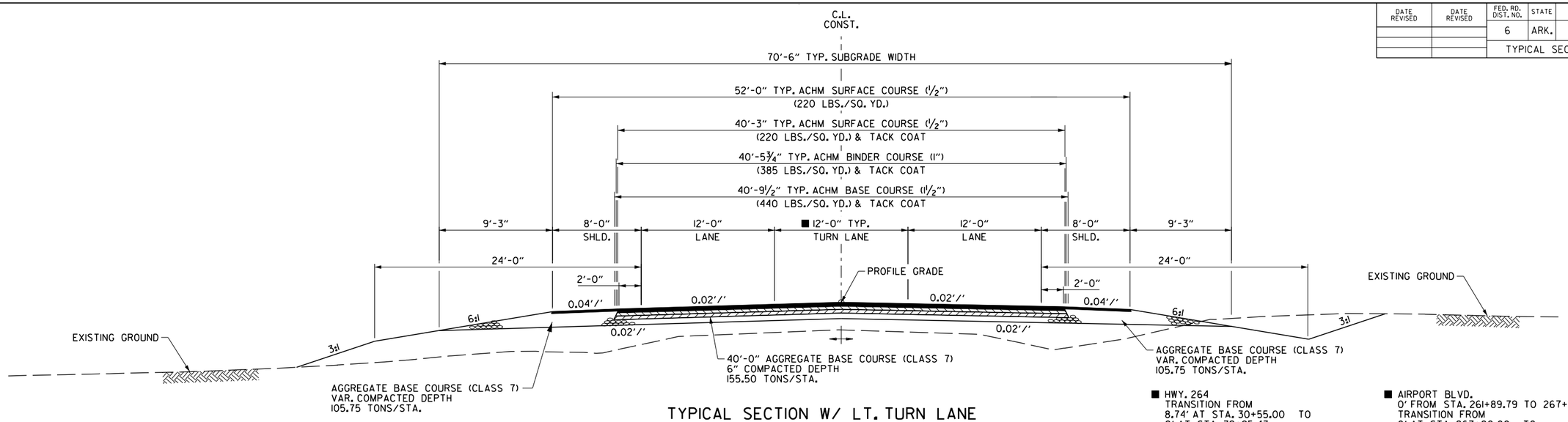
HWY. 264 STA. 29+65.43 TO STA. 30+55.00 (FUTURE)
HWY. 264 STA. 45+80.00 TO STA. 46+75.00 (FUTURE)


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| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
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No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023




## TYPICAL SECTION W/ LT. TURN LANE ALTERNATE 1

AIRPORT BLVD. STA. 261+89.78 TO STA. 268+81.34
HWY. 264 STA. 30+55.00 TO STA. 41+77.24 (FUTURE)
HWY. 264 STA. 45+15.00 TO STA. 45+80.00 (FUTURE)

■ HWY. 264
TRANSITION FROM
8.74' AT STA. 30+55.00 TO
0' AT STA. 32+95.43
0' FROM STA. 32+95.25 TO 36+49.24
0' AT STA. 36+49.24 TO
12' AT STA. 39+79.24
4.27' AT STA. 45+15.00 TO
1.91' AT STA. 45+80.00

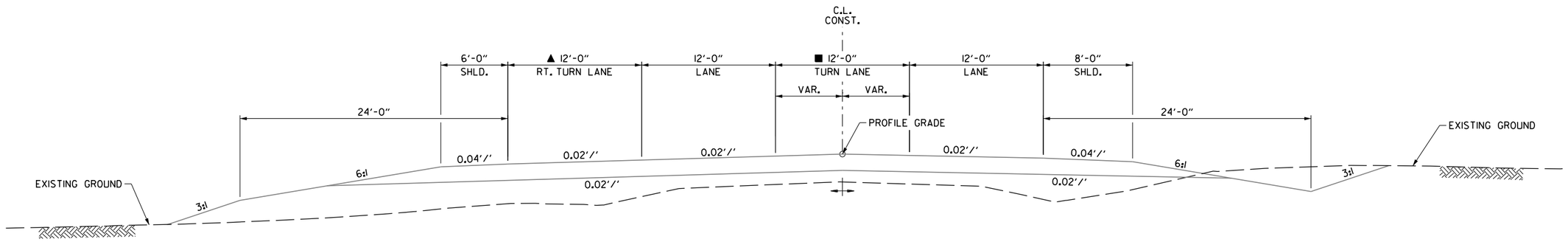
■ AIRPORT BLVD.
0' FROM STA. 261+89.79 TO 267+00.00
TRANSITION FROM
0' AT STA. 267+00.00 TO
8.03' AT STA. 268+81.34
2'-2" AVG. WIDTH
1'-1" AVG. WIDTH

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## TYPICAL SECTION W/ LT. & RT. TURN LANE

HWY. 264 STA. 41+77.24 TO STA. 45+15.00 (FUTURE)

■ TRANSITION FROM
12' AT STA. 43+02.39 TO
4.27' AT STA. 45+15.00

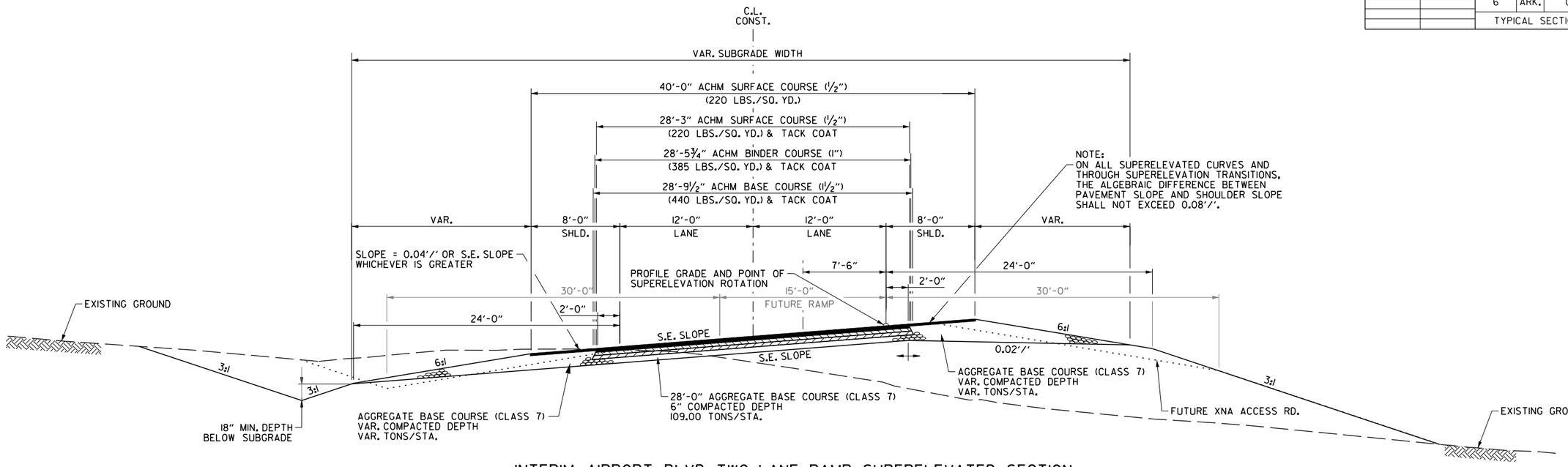
▲ TRANSITION FROM
12' AT STA. 43+72.33 TO
0' AT STA. 44+82.33
0' FROM STA. 44+82.33 TO 45+15.00



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| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
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DIGITALLY SIGNED 10/20/2023




## INTERIM AIRPORT BLVD. TWO-LANE RAMP SUPERELEVATED SECTION ALTERNATE I

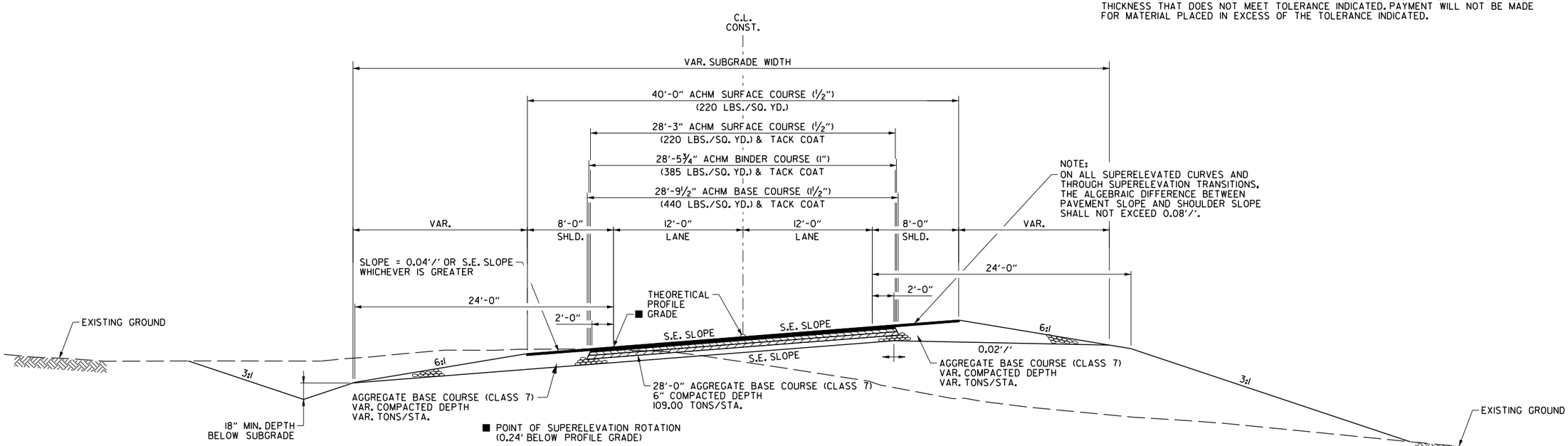
HWY. 264 RAMP 4 STA. 250+88.55 TO STA. 257+78.94
AIRPORT BLVD. CURVE EXTENSION STA. 257+78.94 TO STA. 260+02.28

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## INTERIM AIRPORT BLVD. TWO-LANE RAMP SUPERELEVATED SECTION ALTERNATE I

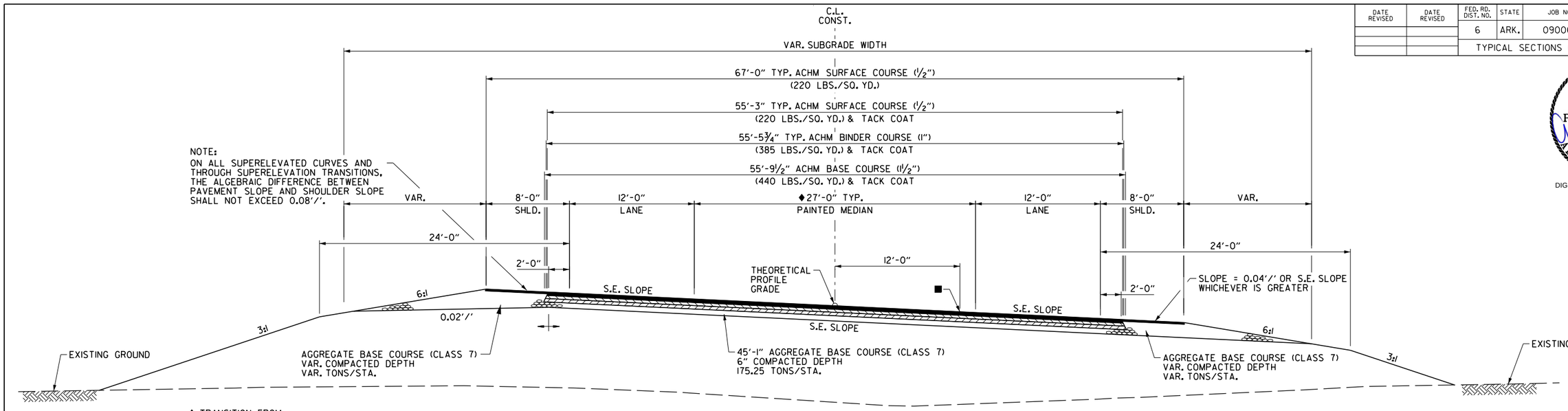
AIRPORT BLVD. STA. 260+02.28 TO STA. 261+89.79



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STATE OF ARKANSAS
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♦ TRANSITION FROM
8.03' AT STA. 261+81.34 TO
23.00' AT STA. 272+18.90
27.00' FROM STA. 276+86.50 TO STA. 277+37.88
17'-1" AVG. WIDTH

■ POINT OF SUPERELEVATION ROTATION
(0.24' BELOW PROFILE GRADE)

## INTERIM AIRPORT BLVD. SUPERELEVATED SECTION WITH PAINTED MEDIAN ALTERNATE 1

AIRPORT BLVD. STA. 268+81.34 TO STA. 272+18.90
AIRPORT BLVD. STA. 276+86.50 TO STA. 277+37.88

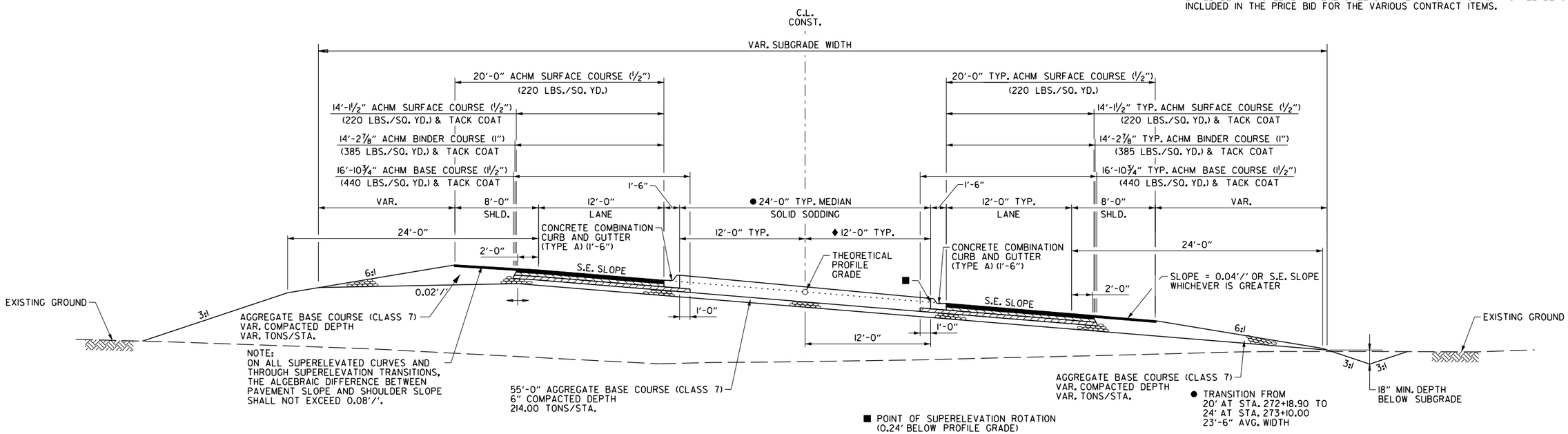
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■ POINT OF SUPERELEVATION ROTATION
(0.24' BELOW PROFILE GRADE)

● TRANSITION FROM
20' AT STA. 272+18.90 TO
24' AT STA. 273+10.00
23'-6" AVG. WIDTH

♦ TRANSITION RT. GRASSED MEDIAN FROM
12' AT STA. 273+94.00 TO
0' AT STA. 275+04.00
0' FROM STA. 275+04.00 TO STA. 276+86.50
5'-8" AVG. WIDTH

## INTERIM AIRPORT BLVD. SUPERELEVATED SECTION WITH CURB AND GUTTER MEDIAN ALTERNATE 1

AIRPORT BLVD. STA. 272+18.90 TO STA. 276+86.50

TYPICAL SECTIONS OF IMPROVEMENT

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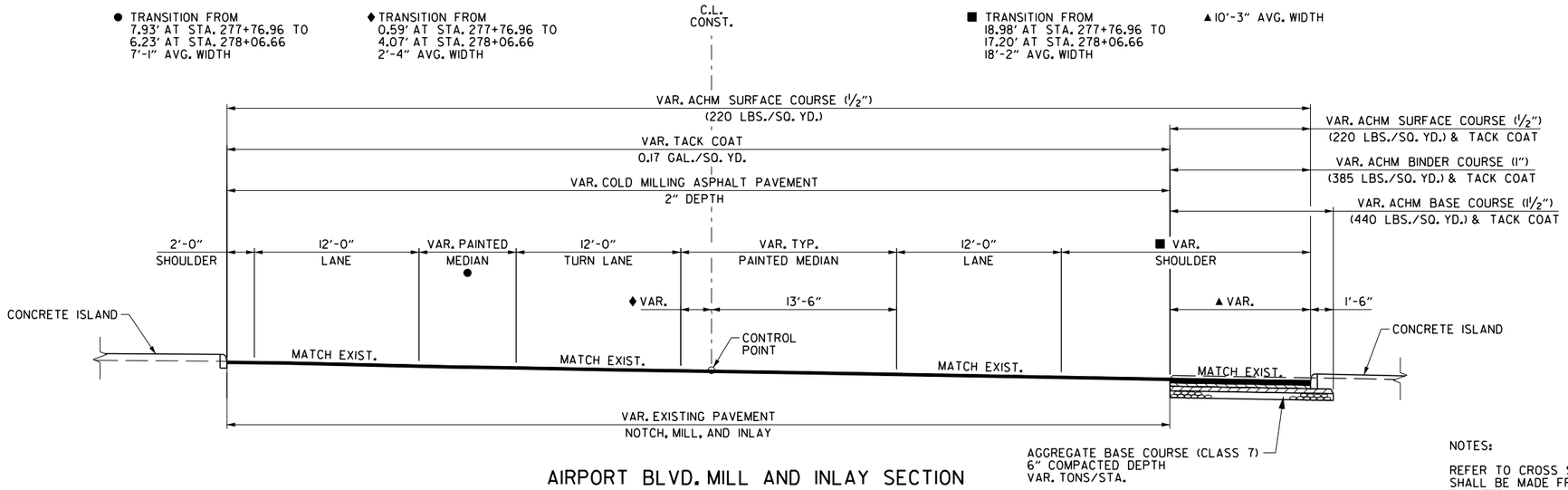
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● TRANSITION FROM 7.93' AT STA. 277+76.96 TO 6.23' AT STA. 278+06.66 7'-1" AVG. WIDTH

♦ TRANSITION FROM 0.59' AT STA. 277+76.96 TO 4.07' AT STA. 278+06.66 2'-4" AVG. WIDTH

■ TRANSITION FROM 18.98' AT STA. 277+76.96 TO 17.20' AT STA. 278+06.66 18'-2" AVG. WIDTH

▲ 10'-3" AVG. WIDTH




## AIRPORT BLVD. MILL AND INLAY SECTION

AIRPORT BLVD. STA. 277+76.96 TO STA. 278+06.66

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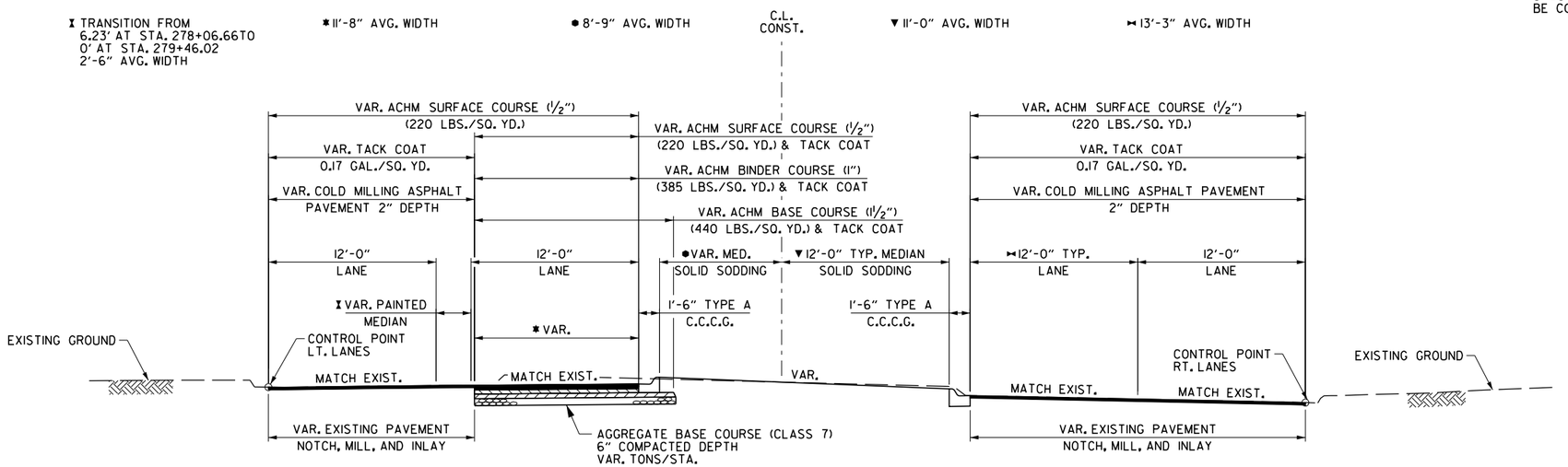
I TRANSITION FROM 6.23' AT STA. 278+06.66TO 0' AT STA. 279+46.02 2'-6" AVG. WIDTH

✱ 11'-8" AVG. WIDTH

● 8'-9" AVG. WIDTH

▼ 11'-0" AVG. WIDTH

⋈ 13'-3" AVG. WIDTH



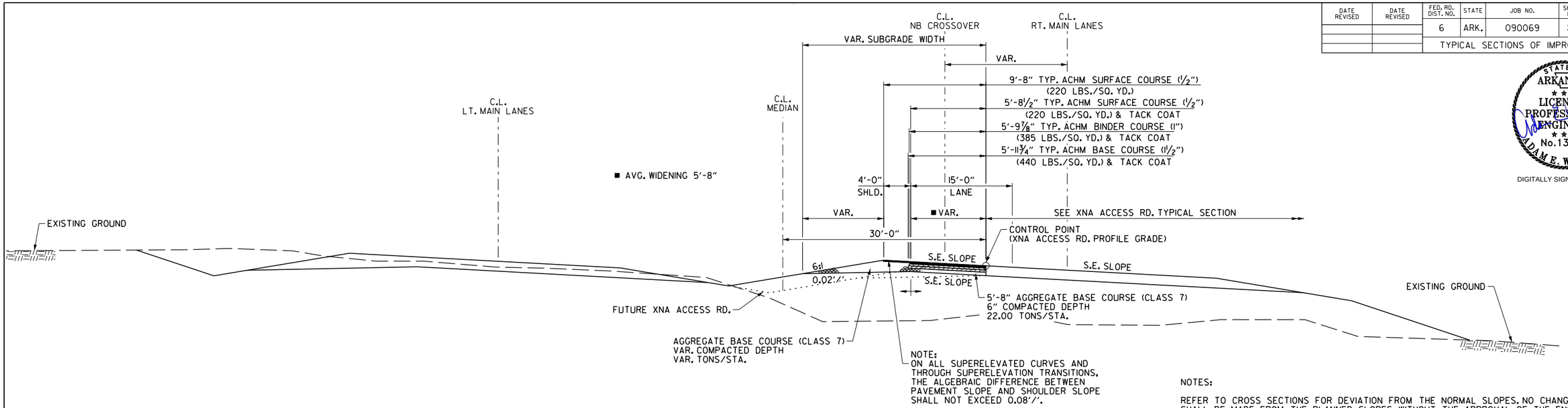

## AIRPORT BLVD. MILL AND INLAY SECTION WITH GRASSED MEDIAN

AIRPORT BLVD. STA. 278+06.66 TO STA. 279+46.02


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STATE OF ARKANSAS
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DIGITALLY SIGNED 10/20/2023




## NB CROSSOVER SUPERELEVATED NOTCH AND WIDEN SECTION ALTERNATE I

STA. 234+98.78 TO STA. 238+24.14

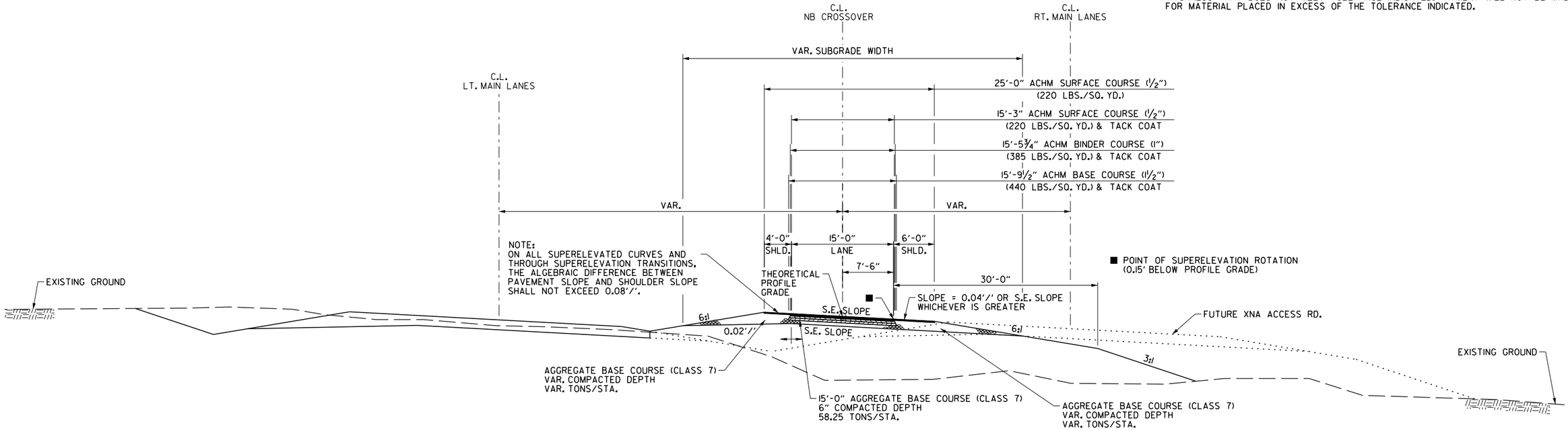
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## NB CROSSOVER SUPERELEVATED SECTION ALTERNATE I

STA. 238+24.14 TO STA. 239+43.14

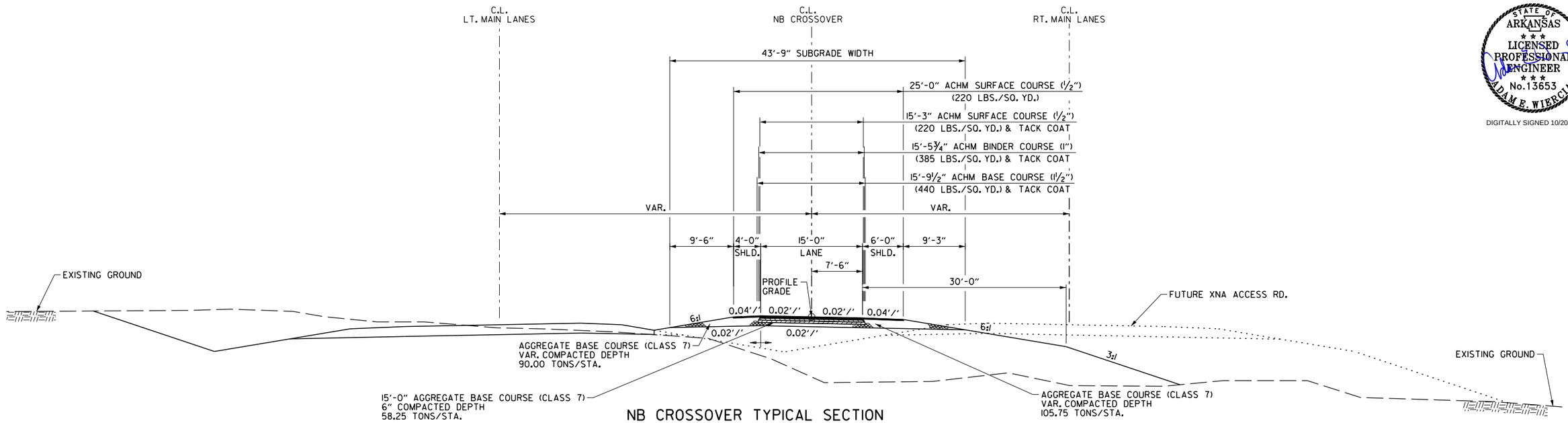


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## NB CROSSOVER TYPICAL SECTION ALTERNATE I

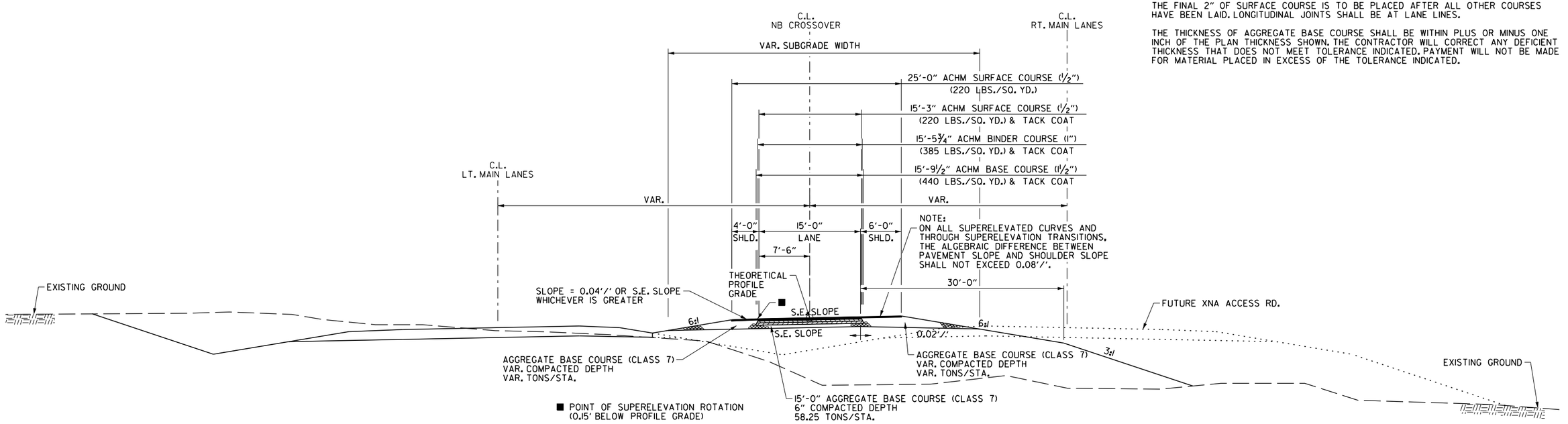
STA. 239+43.14 TO STA. 240+27.55

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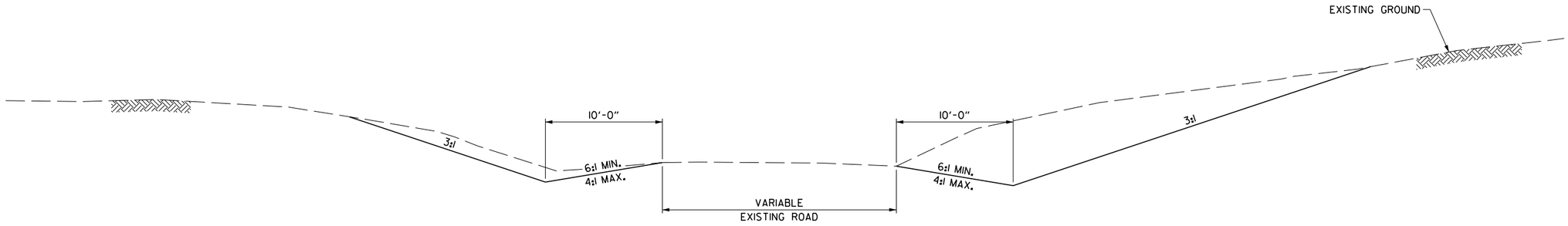
STA. 240+27.55 TO STA. 245+30.96



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## LOCAL ROAD DITCH IMPROVEMENT SECTION

| | |
|---|---|
| WAGER DR. | STA. 3+63.00 TO STA. 6+75.00 RT. |
| HADEN RD. | STA. 0+10.00 TO STA. 5+70.00 RT. |
| | STA. 0+75.00 TO STA. 5+70.00 LT. |
| HOLMES RD. | STA. 13+75.00 TO STA. 22+50.00 RT. |
| | STA. 17+28.00 TO STA. 23+00.00 LT. |

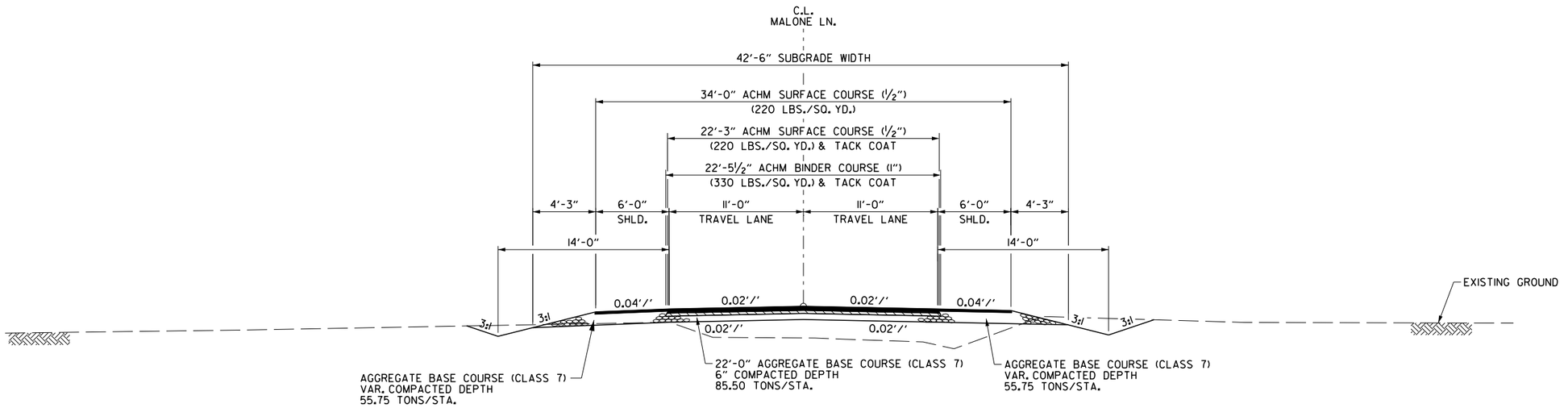
NOTES:

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THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

BLEEDER DITCHES - PRIOR TO AND DURING PLACEMENT OF PAVEMENT AT THE NOTCH, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) AND SPACING USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.




## MALONE LN. TYPICAL SECTION

STA. 14+75.00 TO STA. 22+35.68
STA. 24+53.86 TO STA. 31+25.00

NOTE: SEE BRIDGE PLANS FOR
STA. 22+35.68 TO STA. 24+53.86

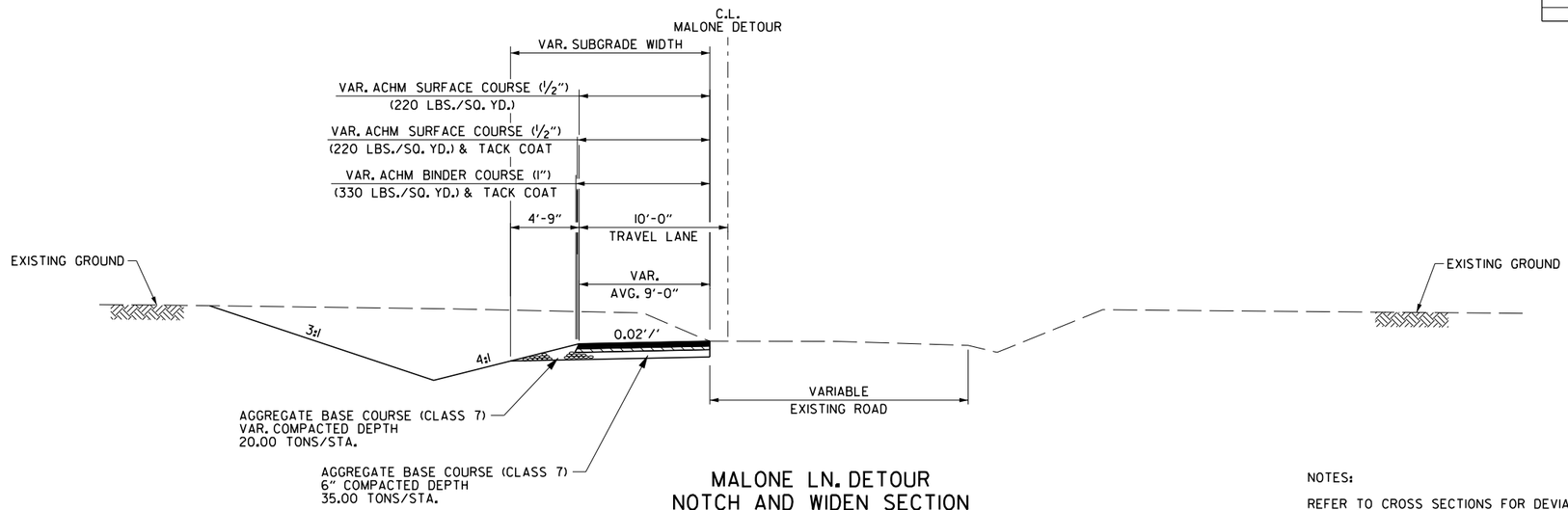


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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 23 | 583 |
| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023




## MALONE LN. DETOUR
## NOTCH AND WIDEN SECTION

STA. 40+76.64 TO STA. 43+30.63
STA. 62+96.65 TO STA. 65+00.00

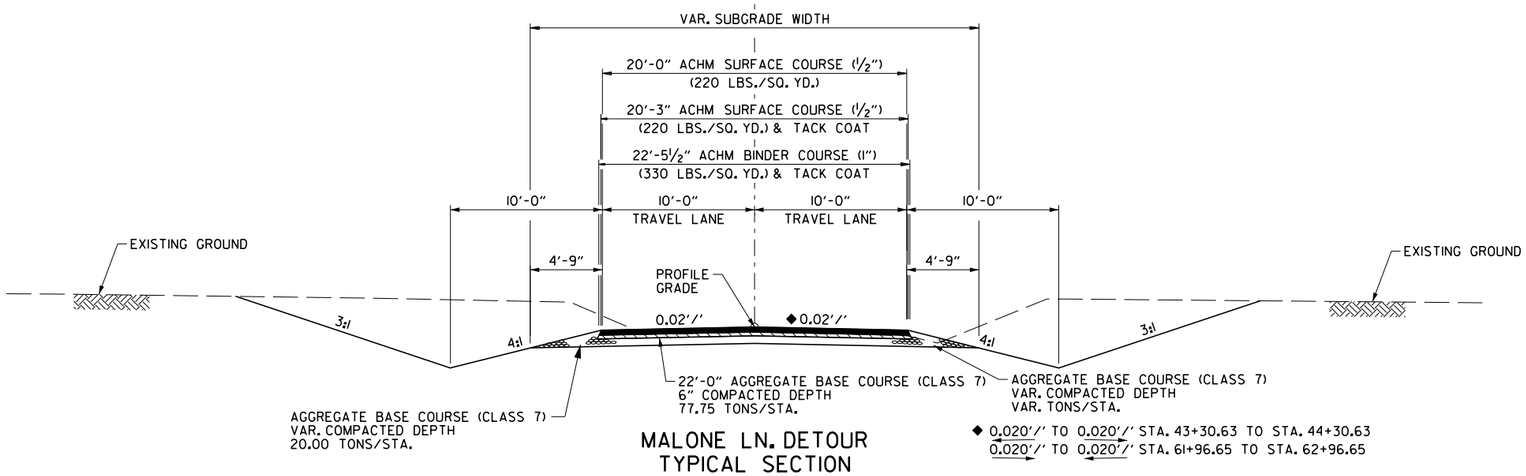
NOTES:

REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

BLEEDER DITCHES - PRIOR TO AND DURING PLACEMENT OF PAVEMENT AT THE NOTCH, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) AND SPACING USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.




## MALONE LN. DETOUR
## TYPICAL SECTION

STA. 43+30.63 TO STA. 62+96.65

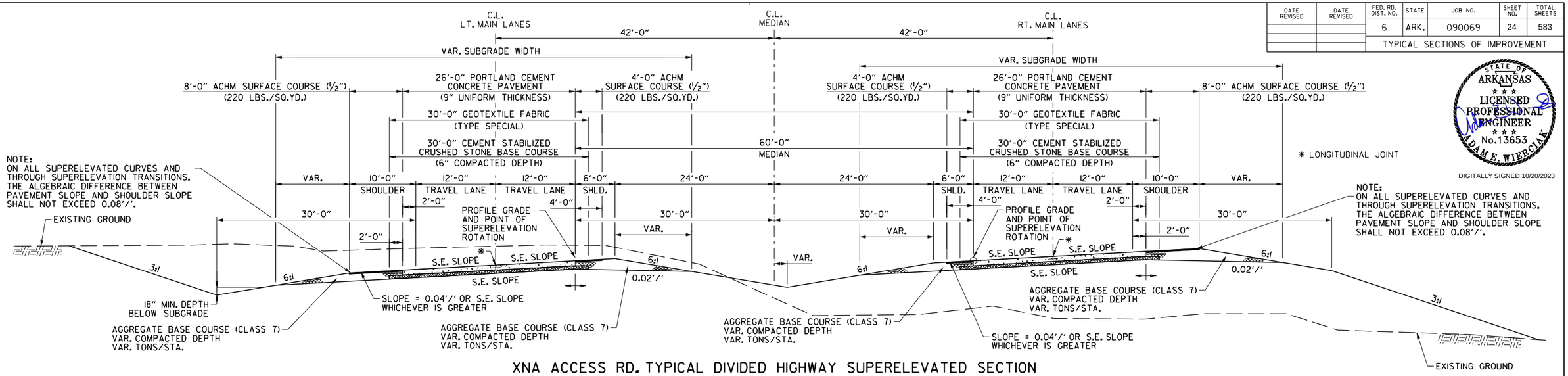
◆ 0.020'/' TO 0.020'/' STA. 43+30.63 TO STA. 44+30.63
0.020'/' TO 0.020'/' STA. 61+96.65 TO STA. 62+96.65



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| | | 6 | ARK. | 090069 | 24 | 583 |
| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023




## XNA ACCESS RD. TYPICAL DIVIDED HIGHWAY SUPERELEVATED SECTION ALTERNATE 2

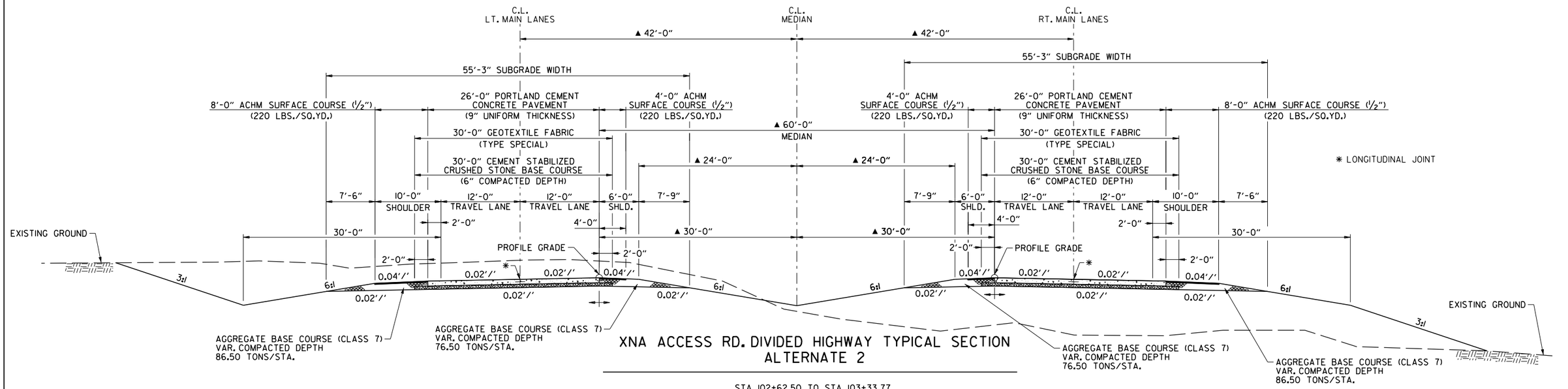
STA. 100+00.00 TO STA. 102+62.50
STA. 103+33.77 TO STA. 126+92.55
STA. 251+43.25 TO STA. 272+25.66 RT. LANES (FUTURE)
STA. 251+43.25 TO STA. 272+57.69 LT. LANES (FUTURE)
STA. 273+37.97 TO STA. 274+51.42 RT. LANES (FUTURE)
STA. 273+69.99 TO STA. 274+51.42 LT. LANES (FUTURE)

NOTE: SEE BRIDGE PLANS FOR

STA. 272+25.66 TO STA. 273+37.97 RT. LANES (FUTURE)
STA. 272+57.69 TO STA. 273+69.99 LT. LANES (FUTURE)

NOTES:

REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.




## XNA ACCESS RD. DIVIDED HIGHWAY TYPICAL SECTION ALTERNATE 2

STA. 102+62.50 TO STA. 103+33.77
STA. 126+92.55 TO STA. 139+16.95
STA. 173+02.34 TO STA. 175+27.91 LT. LANES
STA. 173+02.34 TO STA. 175+78.71 RT. LANES
STA. 181+90.48 TO STA. 190+62.73 LT. LANES
STA. 182+41.29 TO STA. 191+17.72 RT. LANES
STA. 193+61.29 TO STA. 206+39.45 LT. LANES
STA. 194+16.28 TO STA. 206+39.45 RT. LANES
STA. 274+51.42 TO STA. 289+85.27 (FUTURE)
STA. 299+85.27 TO STA. 304+46.93 (FUTURE)

NOTE: SEE BRIDGE PLANS FOR

STA. 175+27.91 TO STA. 181+90.48 LT. LANES
STA. 175+78.71 TO STA. 182+41.29 RT. LANES
STA. 190+62.73 TO STA. 193+61.29 LT. LANES
STA. 191+17.72 TO STA. 194+16.28 RT. LANES

▲ CONTROLLED BY NORTH SHIFT ALIGNMENTS STA. 299+85.27 TO STA. 304+46.93

TYPICAL SECTIONS OF IMPROVEMENT


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| | | 6 | ARK. | 090069 | 25 | 583 |
| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

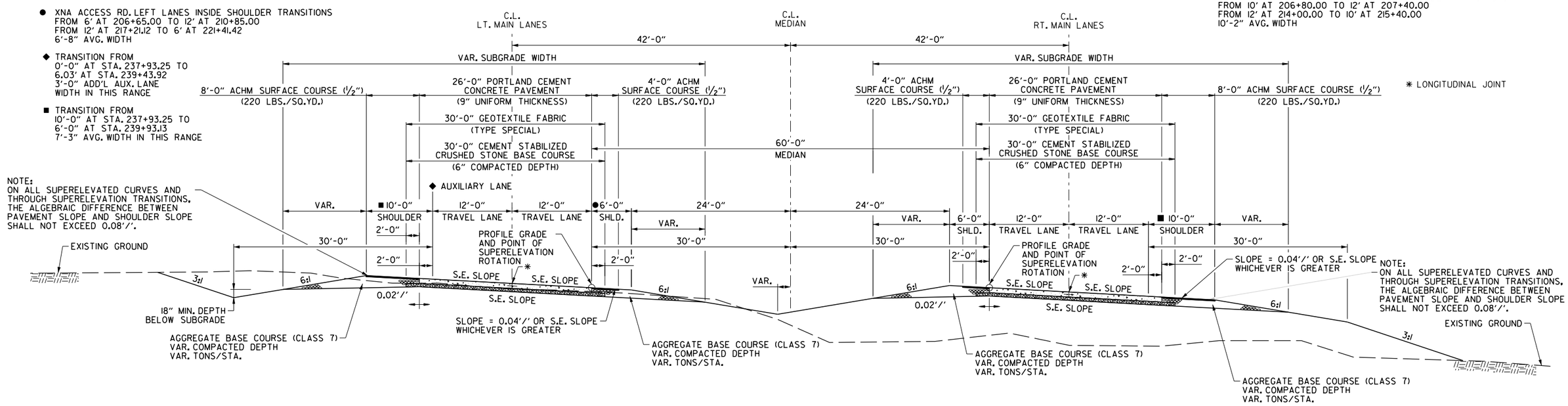
● XNA ACCESS RD. LEFT LANES INSIDE SHOULDER TRANSITIONS
FROM 6' AT 206+65.00 TO 12' AT 210+85.00
FROM 12' AT 217+21.12 TO 6' AT 221+41.42
6'-8" AVG. WIDTH

◆ TRANSITION FROM
0'-0" AT STA. 237+93.25 TO
6.03' AT STA. 239+43.92
3'-0" ADD'L AUX. LANE
WIDTH IN THIS RANGE

■ TRANSITION FROM
10'-0" AT STA. 237+93.25 TO
6'-0" AT STA. 239+93.13
7'-3" AVG. WIDTH IN THIS RANGE

■ XNA ACCESS RD. RIGHT LANES OUTSIDE SHOULDER TRANSITIONS
FROM 10' AT 206+80.00 TO 12' AT 207+40.00
FROM 12' AT 214+00.00 TO 10' AT 215+40.00
10'-2" AVG. WIDTH

✱ LONGITUDINAL JOINT




## XNA ACCESS RD. TYPICAL DIVIDED HIGHWAY SUPERELEVATED SECTION ALTERNATE 2

STA. 139+16.95 TO STA. 142+39.61 RT. LANES
STA. 139+16.95 TO STA. 142+72.25 LT. LANES
STA. 145+67.99 TO STA. 157+48.13 RT. LANES
STA. 145+98.66 TO STA. 157+95.90 LT. LANES
STA. 168+44.23 TO STA. 173+02.34 RT. LANES
STA. 168+84.16 TO STA. 173+02.34 LT. LANES
STA. 206+39.45 TO STA. 210+18.08 RT. LANES
STA. 206+39.45 TO STA. 211+10.07 LT. LANES
STA. 217+09.85 TO STA. 237+93.25 RT. LANES
STA. 217+09.85 TO STA. 237+93.25 LT. LANES
STA. 237+93.25 TO STA. 238+26.48
◆ STA. 238+26.48 TO STA. 239+43.92 LT. LANES
STA. 238+26.48 TO STA. 239+43.92 RT. LANES (FUTURE)

NOTE: SEE BRIDGE PLANS FOR

STA. 142+39.61 TO STA. 145+67.99 RT. LANES
STA. 142+72.25 TO STA. 145+98.66 LT. LANES
STA. 157+48.13 TO STA. 168+44.23 RT. LANES
STA. 157+95.90 TO STA. 168+84.16 LT. LANES
STA. 210+18.08 TO STA. 214+16.30 RT. LANES
STA. 211+10.07 TO STA. 214+98.57 LT. LANES

NOTES:

REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

TYPICAL SECTIONS OF IMPROVEMENT

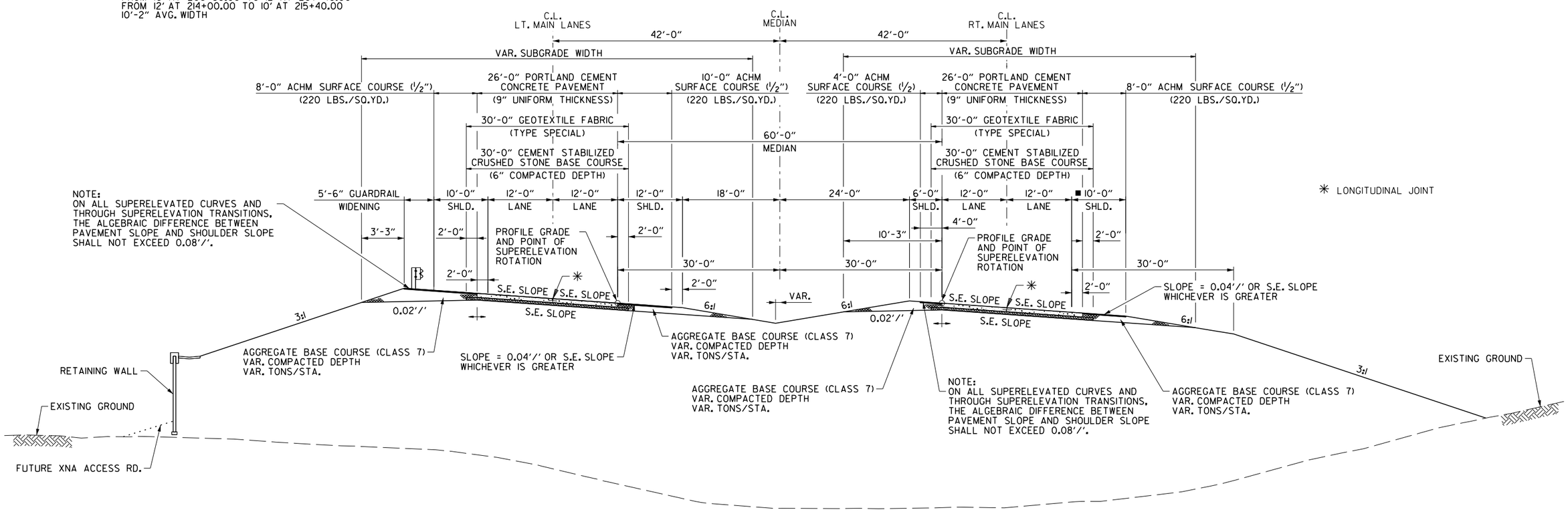
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| | | 6 | ARK. | 090069 | 26 | 583 |
| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

■ XNA ACCESS RD. RIGHT LANES OUTSIDE SHOULDER TRANSITIONS
FROM 10' AT 206+80.00 TO 12' AT 207+40.00
FROM 12' AT 214+00.00 TO 10' AT 215+40.00
10'-2" AVG. WIDTH




✳ LONGITUDINAL JOINT

NOTE:
ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATION TRANSITIONS, THE ALGEBRAIC DIFFERENCE BETWEEN PAVEMENT SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 0.08'/'.

## XNA ACCESS RD. TYPICAL DIVIDED HIGHWAY SUPERELEVATED SECTION ALTERNATE 2

STA. 214+16.30 TO STA. 217+09.85 RT. LANES
STA. 214+98.57 TO STA. 217+09.85 LT. LANES

NOTES:

REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

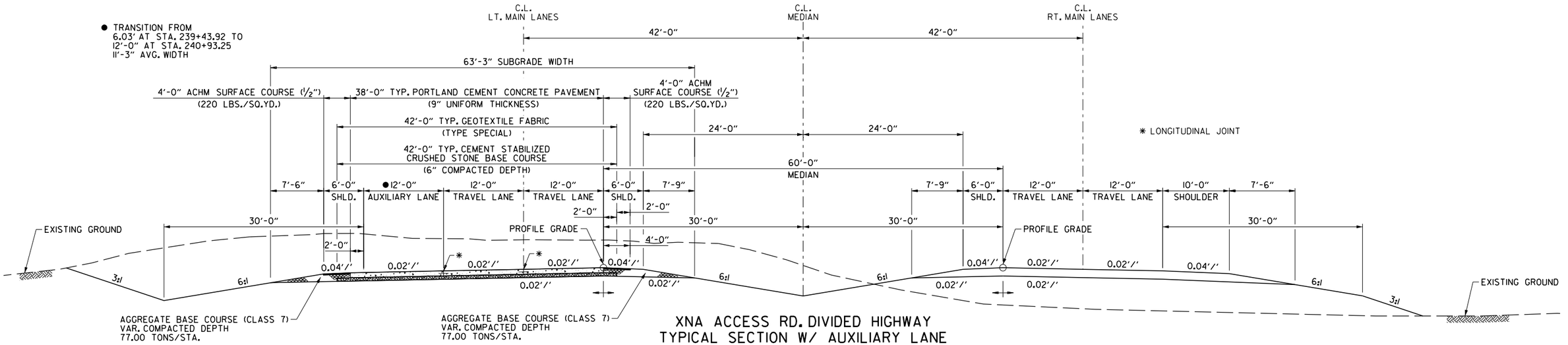
TYPICAL SECTIONS OF IMPROVEMENT

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| | | 6 | ARK. | 090069 | 27 | 583 |
| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023



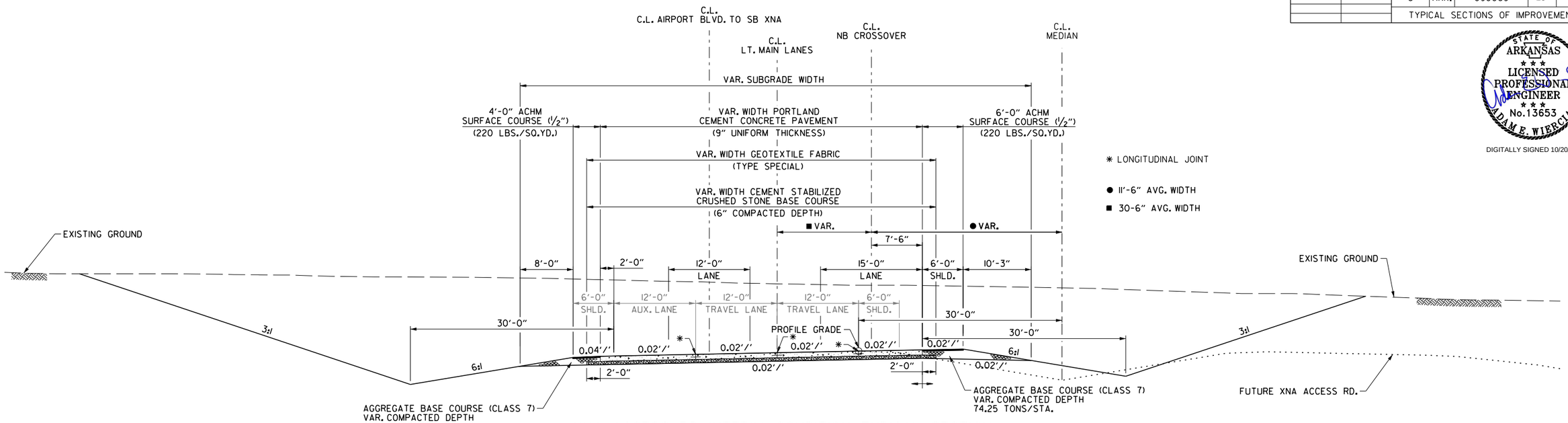

## XNA ACCESS RD. DIVIDED HIGHWAY
## TYPICAL SECTION W/ AUXILIARY LANE
## ALTERNATE 2

STA. 239+43.92 TO STA. 245+30.90 LT. LANES
STA. 239+43.92 TO STA. 248+17.84 RT. LANES (FUTURE)
STA. 245+30.90 TO STA. 248+17.84 LT. LANES (FUTURE)

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| | | 6 | ARK. | 090069 | 28 | 583 |
| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
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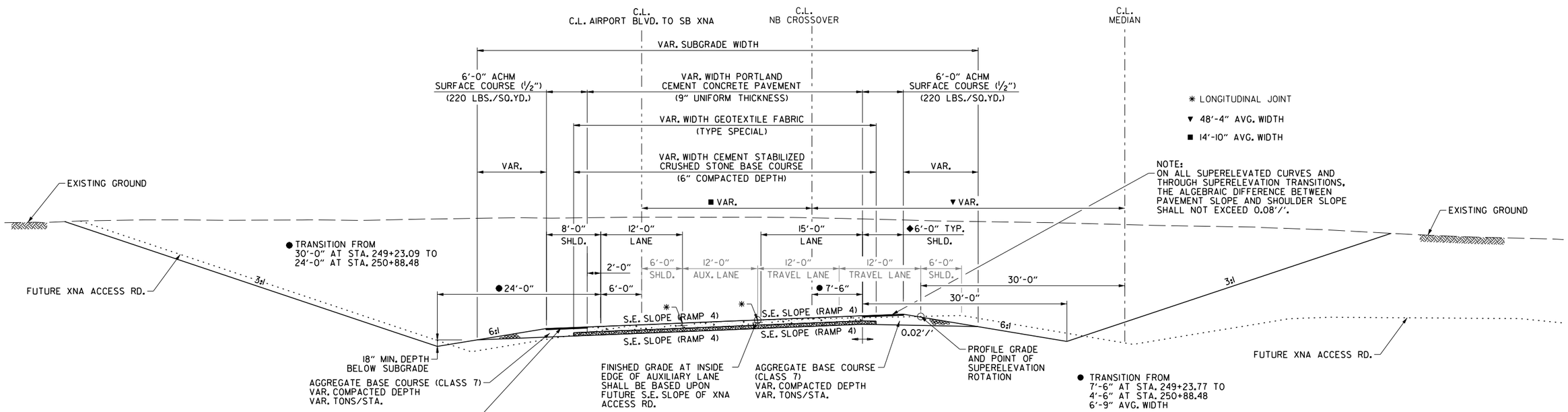



## XNA ACCESS RD. INTERIM CONDITION TYPICAL SECTION ALTERNATE 2

STA. 245+30.90 TO STA. 247+82.38

NOTES:

REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.




## XNA ACCESS RD. INTERIM CONDITION SUPERELEVATED SECTION ALTERNATE 2

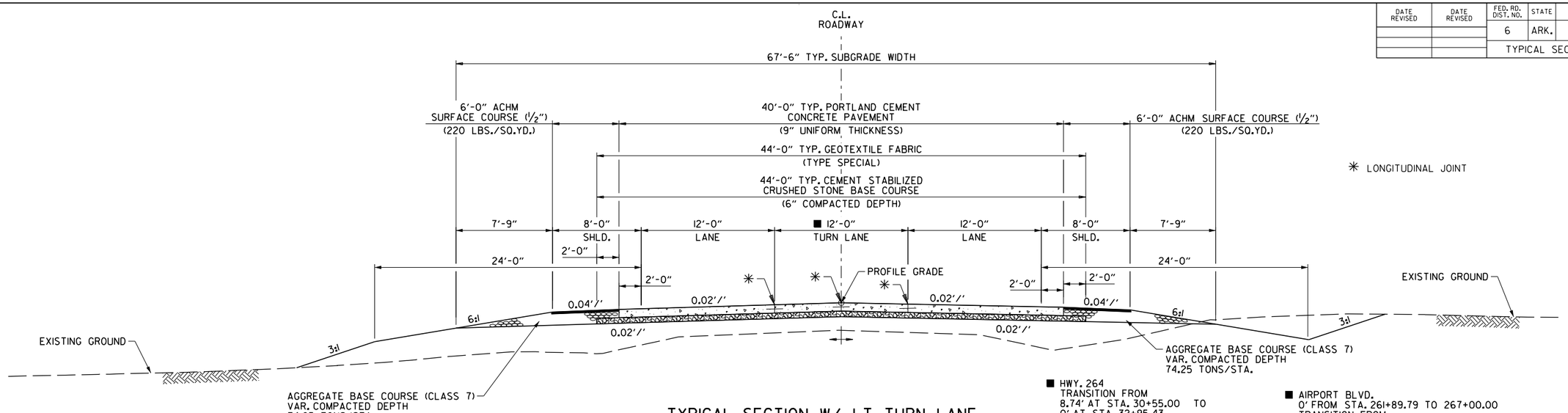
STA. 247+82.38 TO STA. 250+88.48



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| | | 6 | ARK. | 090069 | 29 | 583 |
| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
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## TYPICAL SECTION W/ LT. TURN LANE ALTERNATE 2

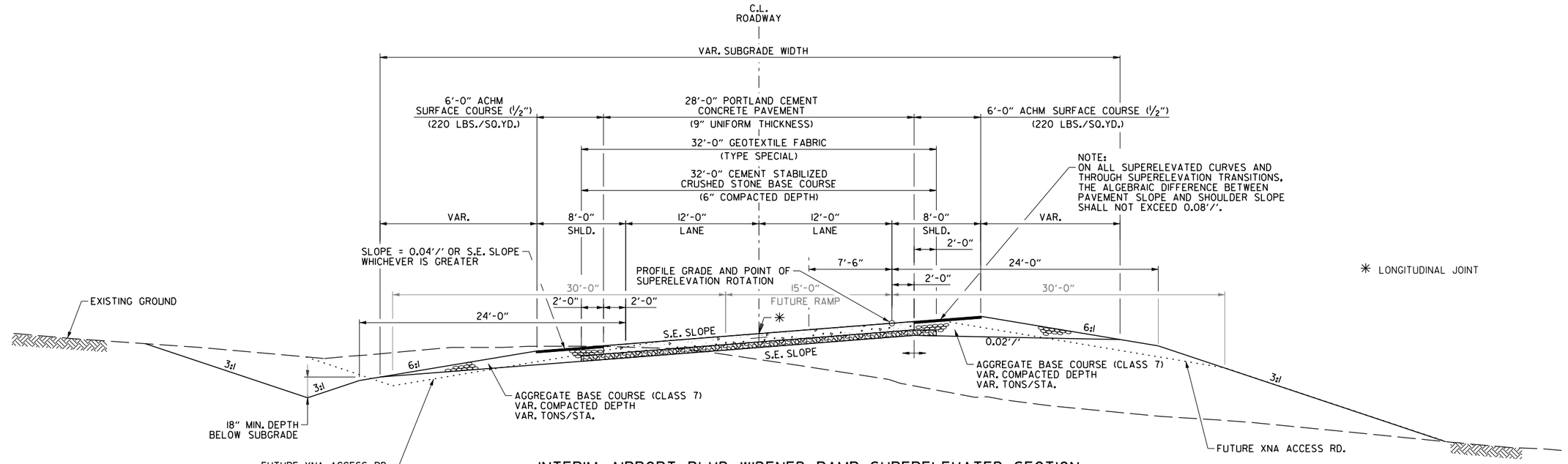
AIRPORT BLVD. STA. 261+89.78 TO STA. 268+81.34
HWY. 264 STA. 30+55.00 TO STA. 41+77.24 (FUTURE)
HWY. 264 STA. 45+15.00 TO STA. 45+80.00 (FUTURE)

■ HWY. 264
TRANSITION FROM
8.74' AT STA. 30+55.00 TO
0' AT STA. 32+95.43
0' FROM STA. 32+95.25 TO 36+49.24
0' AT STA. 36+49.24 TO
12' AT STA. 39+79.24
4.27' AT STA. 45+15.00 TO
1.91' AT STA. 45+80.00

■ AIRPORT BLVD.
0' FROM STA. 261+89.79 TO 267+00.00
TRANSITION FROM
0' AT STA. 267+00.00 TO
8.03' AT STA. 268+81.34
1'-1" AVG. WIDTH

NOTES:

REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.




## INTERIM AIRPORT BLVD. WIDENED RAMP SUPERELEVATED SECTION ALTERNATE 2

HWY. 264 RAMP 4 STA. 250+88.55 TO STA. 257+78.94
AIRPORT BLVD. CURVE EXTENSION STA. 257+78.94 TO STA. 260+02.28

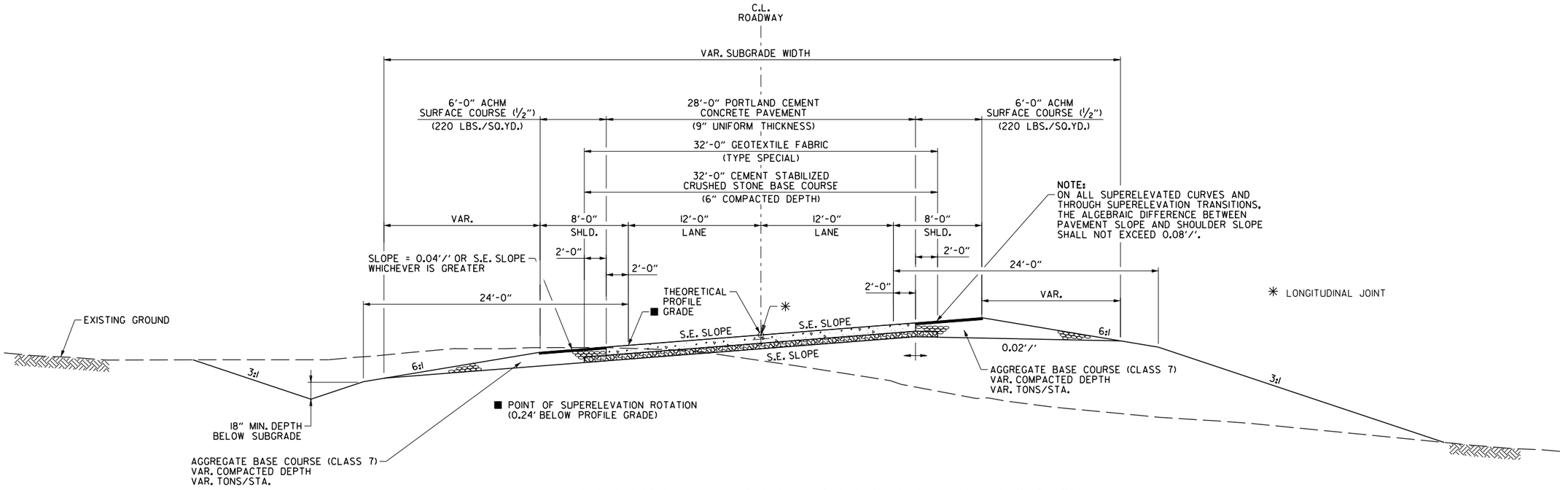


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| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
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DIGITALLY SIGNED 10/20/2023




## INTERIM AIRPORT BLVD. WIDENED RAMP SUPERELEVATED SECTION ALTERNATE 2

AIRPORT BLVD. STA. 260+02.28 TO STA. 261+89.79

NOTES:

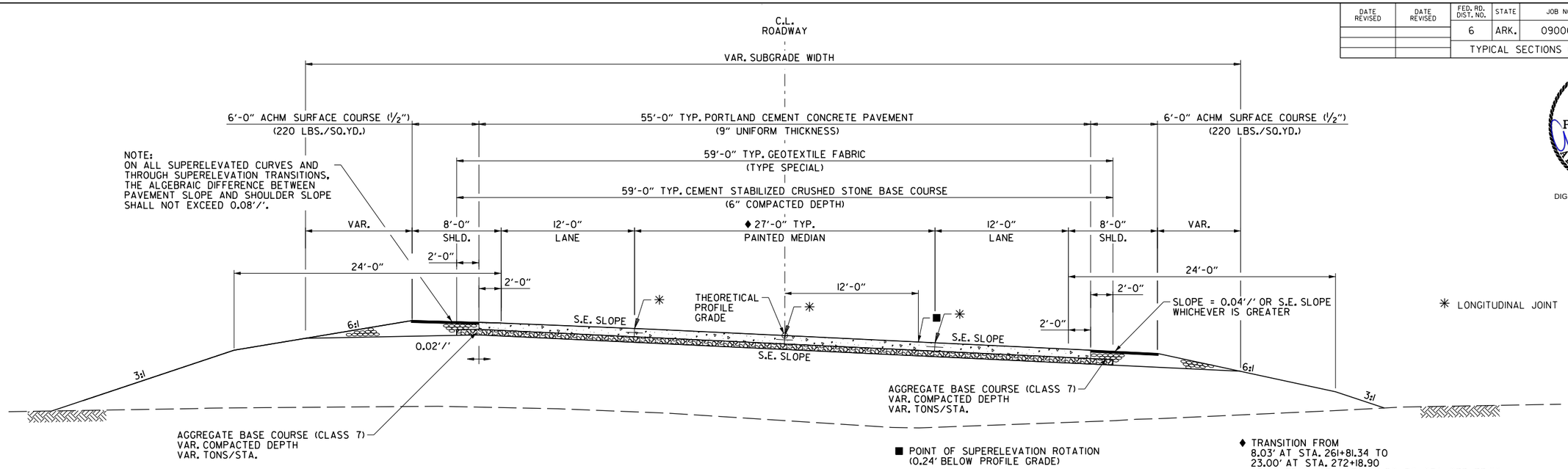
REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.



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| | | 6 | ARK. | 090069 | 31 | 583 |
| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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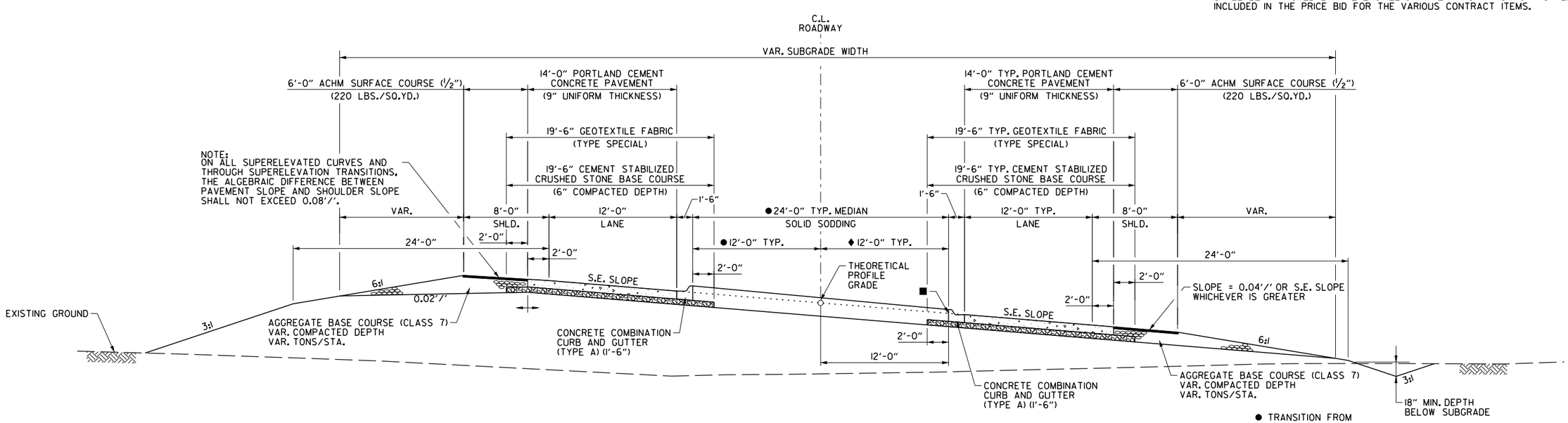

## INTERIM AIRPORT BLVD. SUPERELEVATED SECTION WITH PAINTED MEDIAN ALTERNATE 2

AIRPORT BLVD. STA. 268+81.34 TO STA. 272+18.90
AIRPORT BLVD. STA. 276+86.50 TO STA. 277+37.88

NOTES:

REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.




## INTERIM AIRPORT BLVD. SUPERELEVATED TYPICAL SECTION WITH CURB AND GUTTER MEDIAN ALTERNATE 2

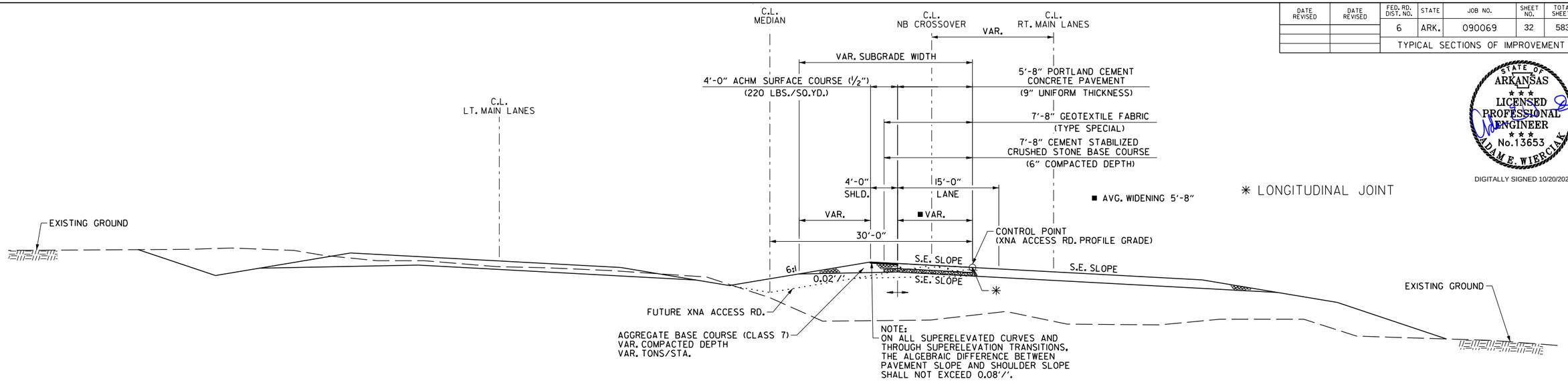
AIRPORT BLVD. STA. 272+18.90 TO STA. 276+86.50

TYPICAL SECTIONS OF IMPROVEMENT

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STATE OF ARKANSAS
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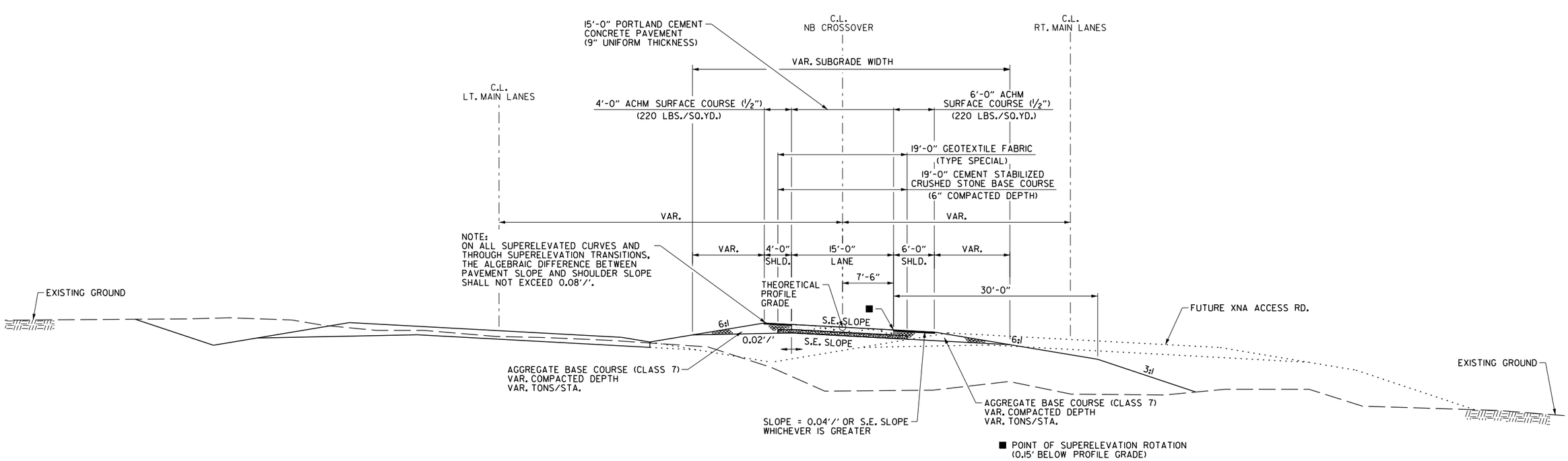



## NB CROSSOVER SUPERELEVATED NOTCH AND WIDEN SECTION ALTERNATE 2

STA. 234+98.78 TO STA. 238+24.14

NOTES:

REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.




## NB CROSSOVER SUPERELEVATED SECTION ALTERNATE 2

STA. 238+24.14 TO STA. 239+43.14

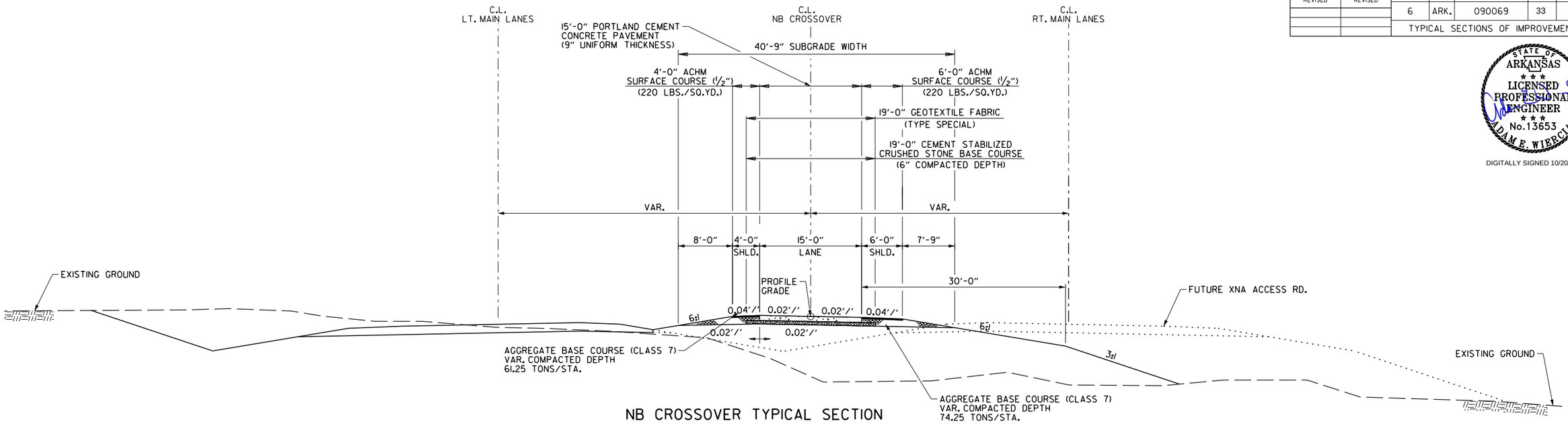


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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 33 | 583 |
| | | TYPICAL SECTIONS OF IMPROVEMENT | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

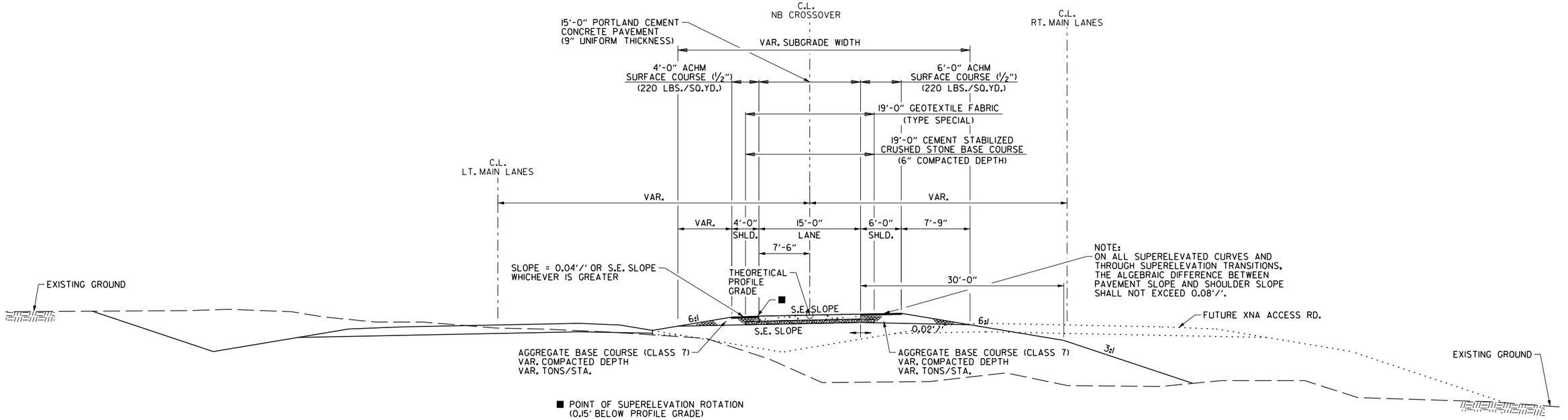



## NB CROSSOVER TYPICAL SECTION ALTERNATE 2

STA. 239+43.14 TO STA. 240+27.55

NOTES:

REFER TO CROSS SECTIONS FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.




## NB CROSSOVER SUPERELEVATED SECTION ALTERNATE 2

STA. 240+27.55 TO STA. 245+30.96

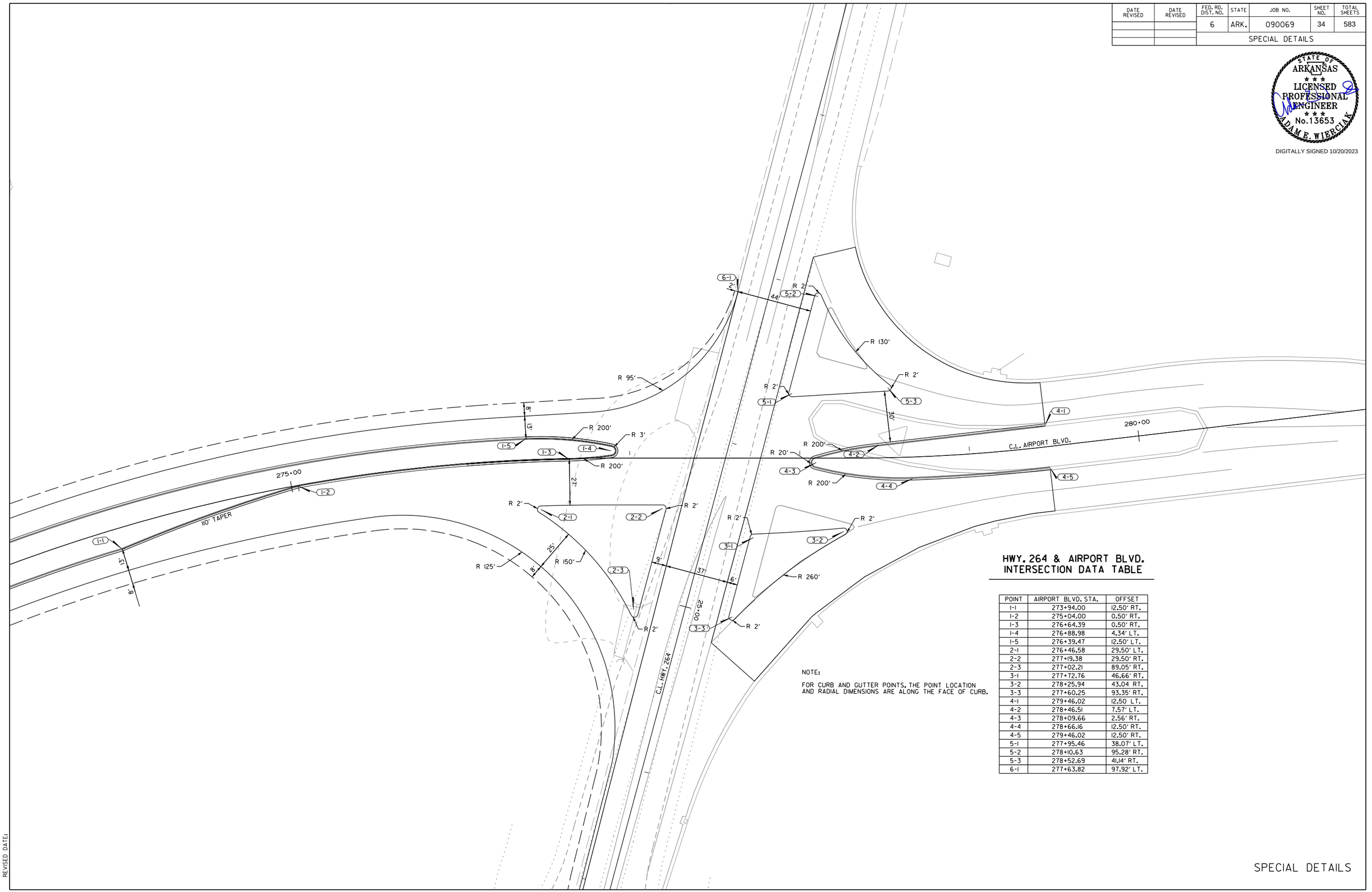
TYPICAL SECTIONS OF IMPROVEMENT

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 34 | 583 |
| | | SPECIAL DETAILS | | | | |

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ADAM E. WIERCIAK

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## HWY. 264 & AIRPORT BLVD. INTERSECTION DATA TABLE

| POINT | AIRPORT BLVD. STA. | OFFSET |
|---|---|---|
| I-1 | 273+94.00 | 12.50' RT. |
| I-2 | 275+04.00 | 0.50' RT. |
| I-3 | 276+64.39 | 0.50' RT. |
| I-4 | 276+88.98 | 4.34' LT. |
| I-5 | 276+39.47 | 12.50' LT. |
| 2-1 | 276+46.58 | 29.50' LT. |
| 2-2 | 277+19.38 | 29.50' RT. |
| 2-3 | 277+02.21 | 89.05' RT. |
| 3-1 | 277+72.76 | 46.66' RT. |
| 3-2 | 278+25.94 | 43.04 RT. |
| 3-3 | 277+60.25 | 93.35' RT. |
| 4-1 | 279+46.02 | 12.50 LT. |
| 4-2 | 278+46.51 | 7.57' LT. |
| 4-3 | 278+09.66 | 2.56' RT. |
| 4-4 | 278+66.16 | 12.50' RT. |
| 4-5 | 279+46.02 | 12.50' RT. |
| 5-1 | 277+95.46 | 38.07' LT. |
| 5-2 | 278+10.63 | 95.28' RT. |
| 5-3 | 278+52.69 | 41.14' RT. |
| 6-1 | 277+63.82 | 97.92' LT. |

NOTE:

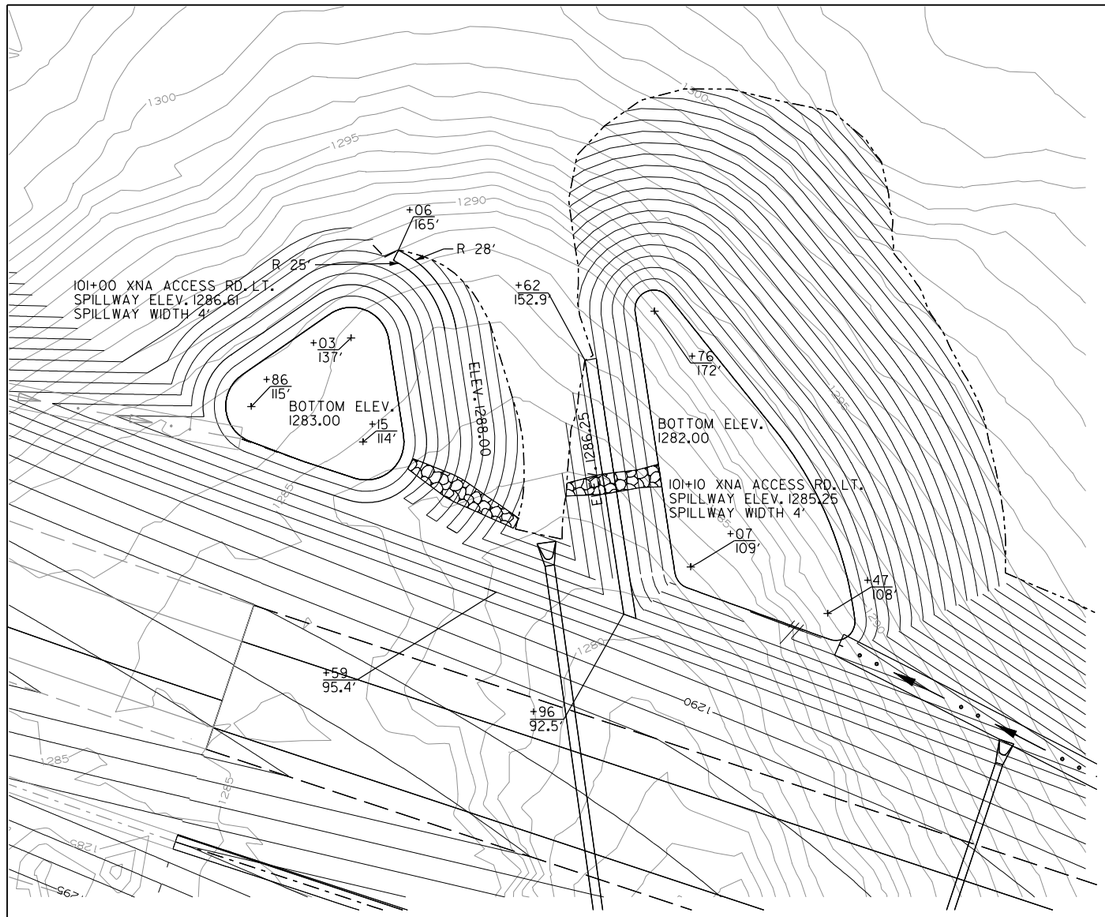
FOR CURB AND GUTTER POINTS, THE POINT LOCATION AND RADIAL DIMENSIONS ARE ALONG THE FACE OF CURB.

SPECIAL DETAILS

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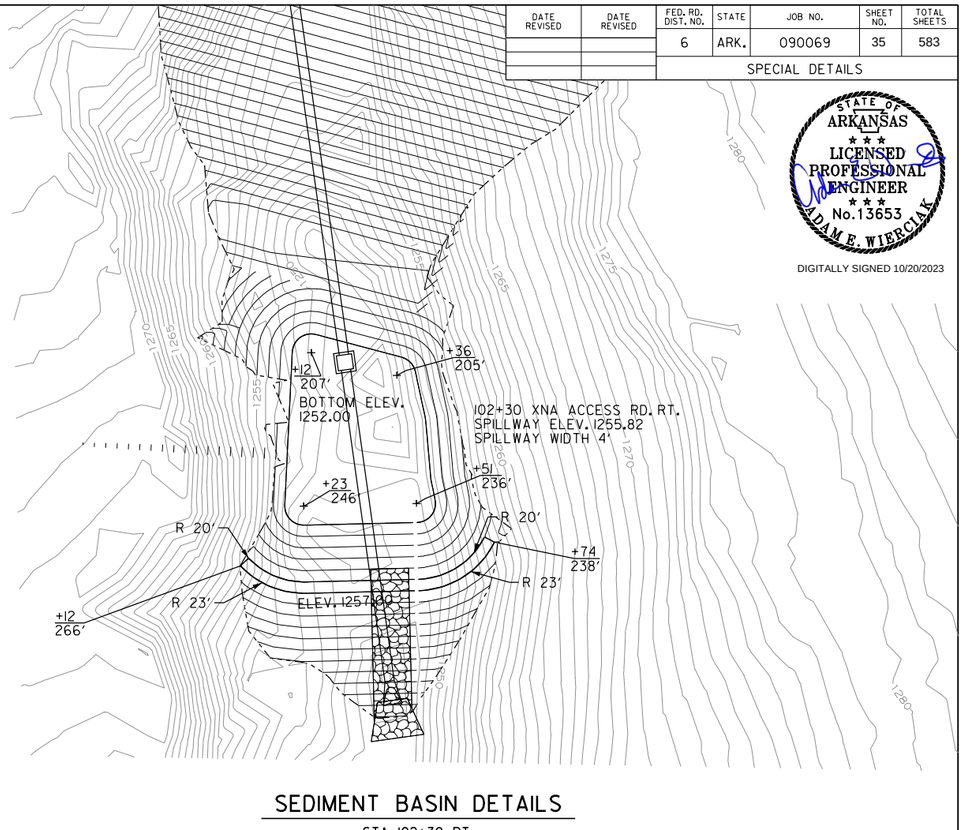
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 35 | 583 |
| | | SPECIAL DETAILS | | | | |

STATE OF ARKANSAS
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ADAM E. WIERCIAK
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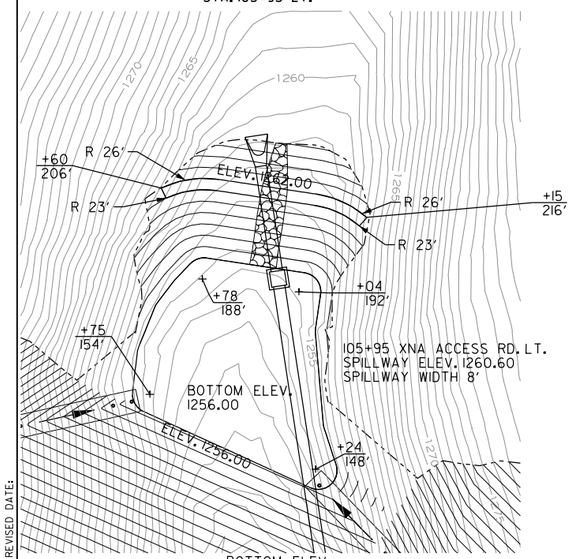

## SEDIMENT BASIN DETAILS

STA. 100+00 LT. AND 101+10 LT.



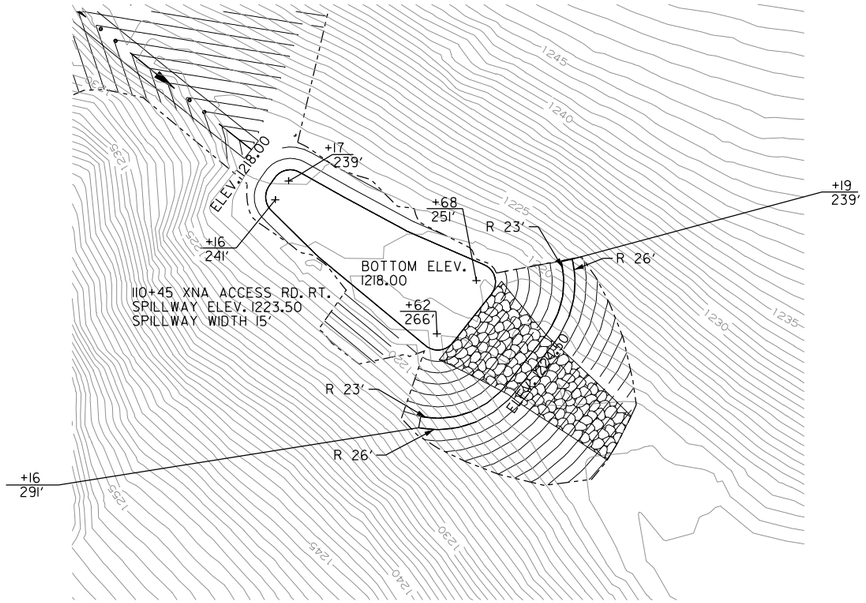

## SEDIMENT BASIN DETAILS

STA. 102+30 RT.



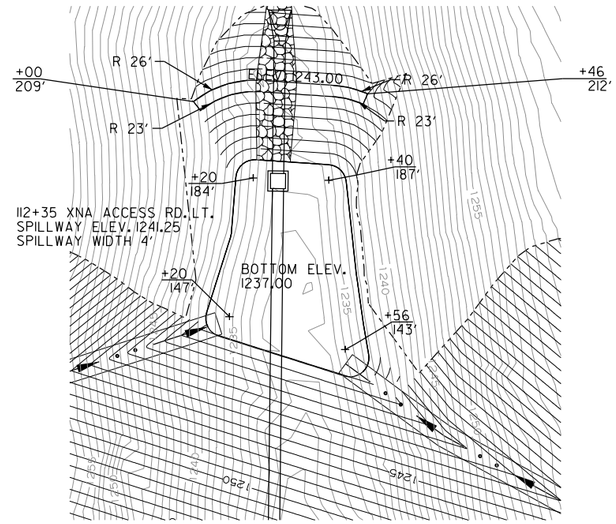

## SEDIMENT BASIN DETAILS

STA. 105+95 LT.




## SEDIMENT BASIN DETAILS

STA. 110+45 RT.




## SEDIMENT BASIN DETAILS

STA. 112+35 LT.

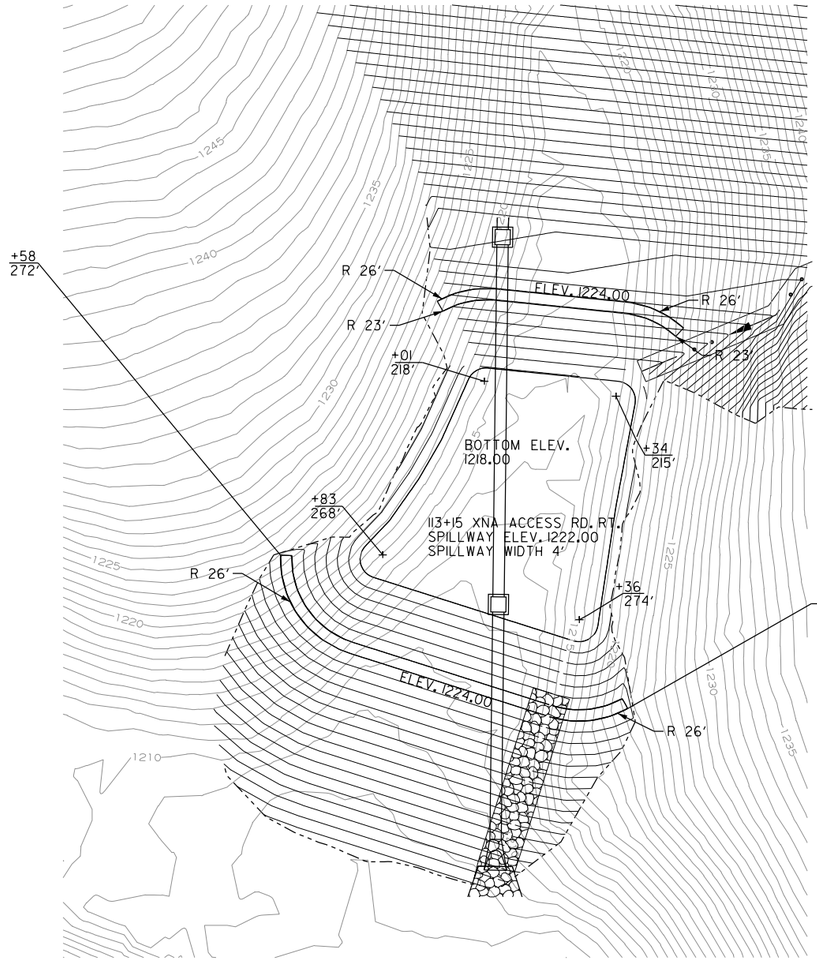
SPECIAL DETAILS

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 36 | 583 |
| | | SPECIAL DETAILS | | | | |

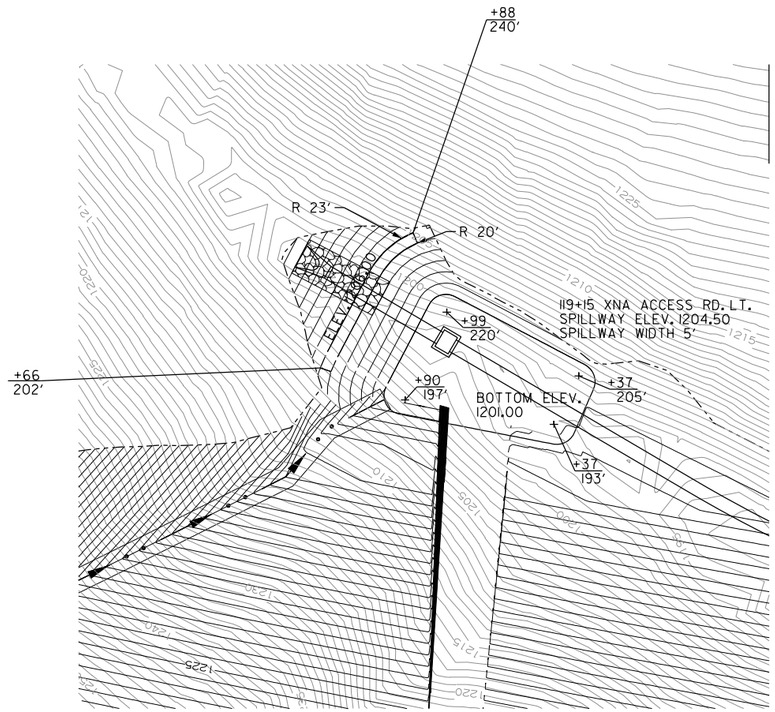
STATE OF ARKANSAS
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No. 13653
ADAM E. WIERCIAK

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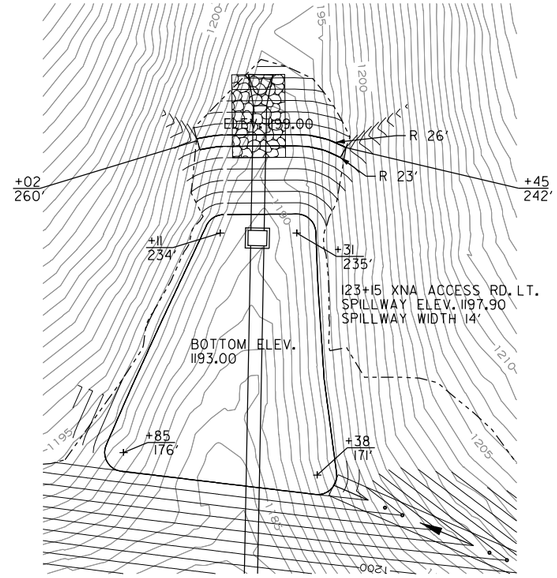

## SEDIMENT BASIN DETAILS

STA. 113+15 RT.




## SEDIMENT BASIN DETAILS

STA. 119+15 LT.



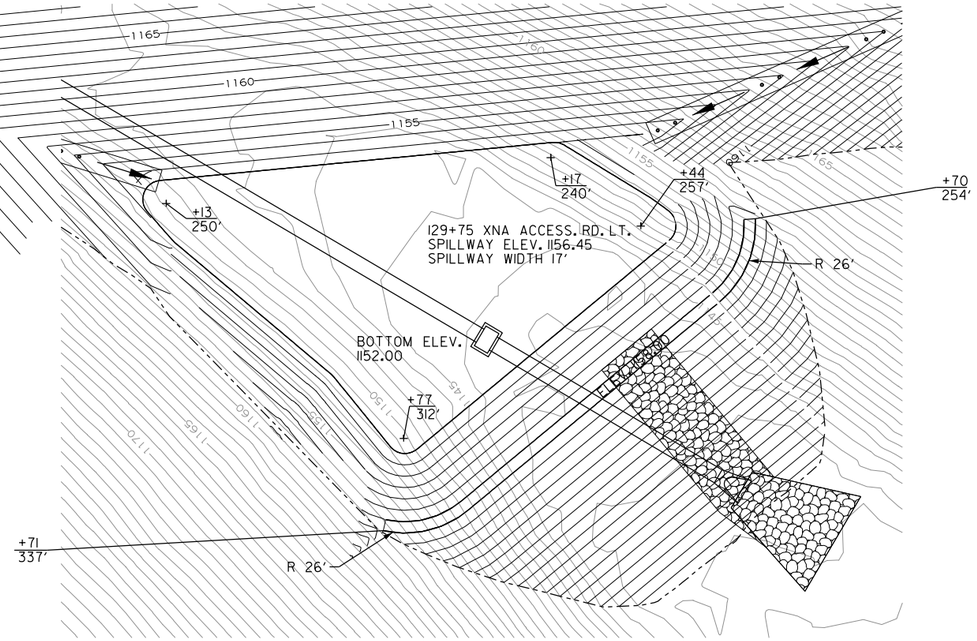

## SEDIMENT BASIN DETAILS

STA. 123+15 LT.



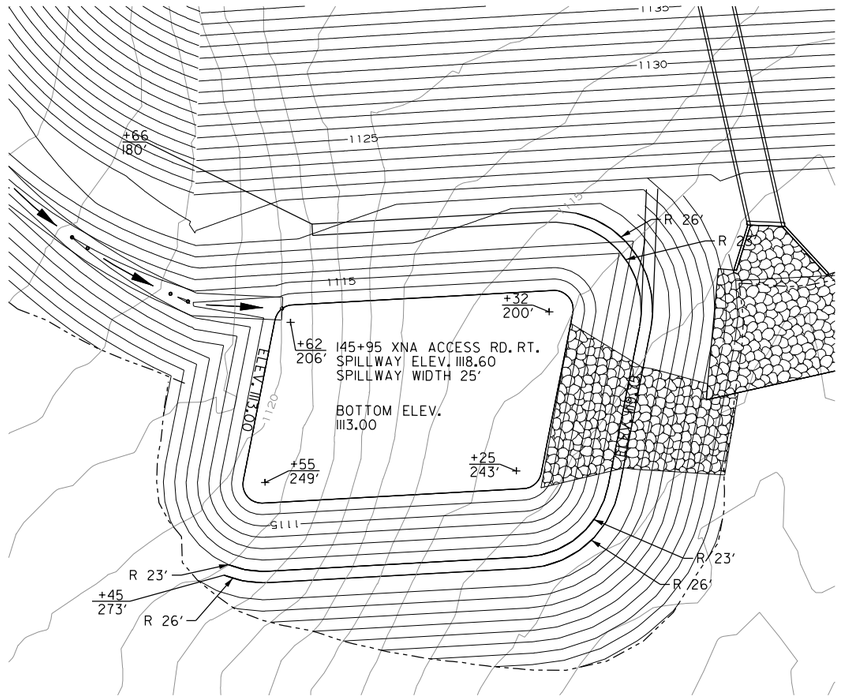
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| | | 6 | ARK. | 090069 | 37 | 583 |
| | | SPECIAL DETAILS | | | | |



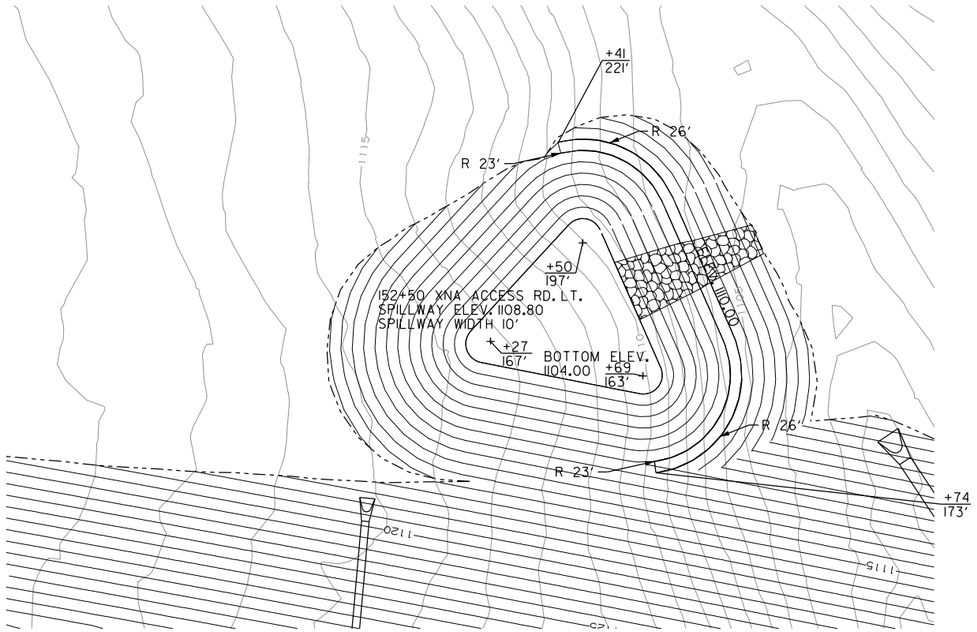

## SEDIMENT BASIN DETAILS

STA. 129+75 RT.



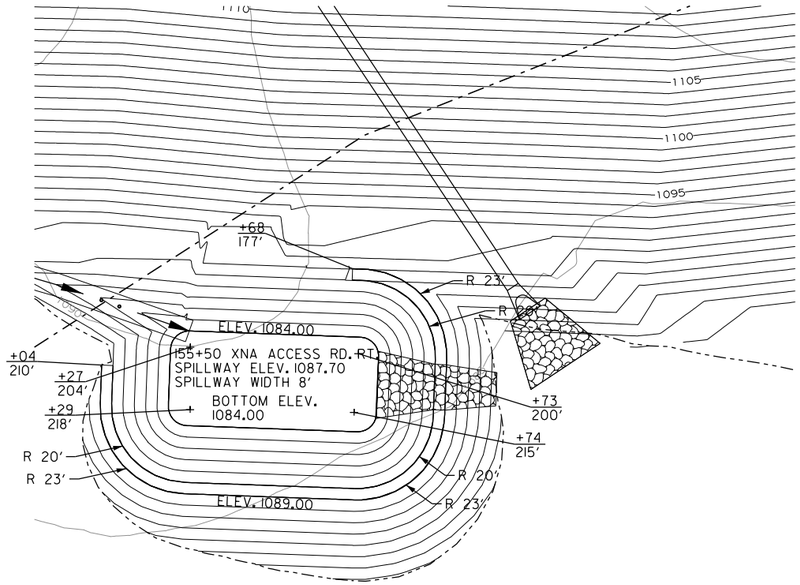

## SEDIMENT BASIN DETAILS

STA. 145+95 RT.




## SEDIMENT BASIN DETAILS

STA. 152+50 LT.




## SEDIMENT BASIN DETAILS

STA. 155+50 RT.

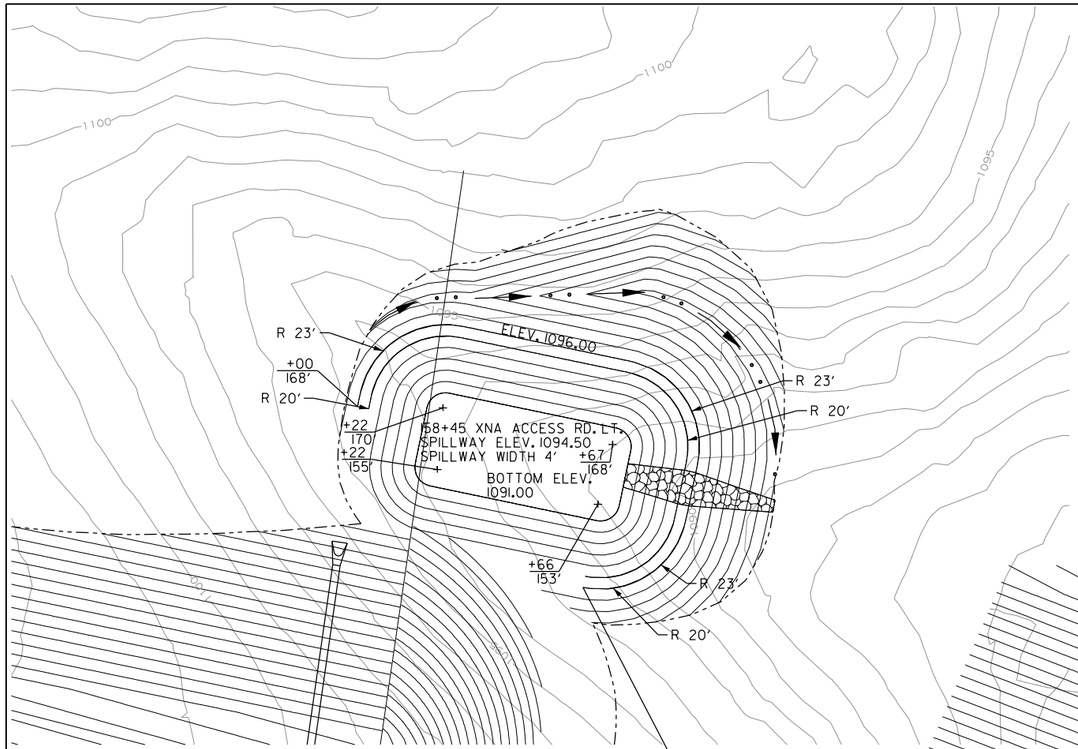
STATE OF ARKANSAS
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No. 13653
ADAM E. WIERCIAK
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REVISED DATE:

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| | | SPECIAL DETAILS | | | | |

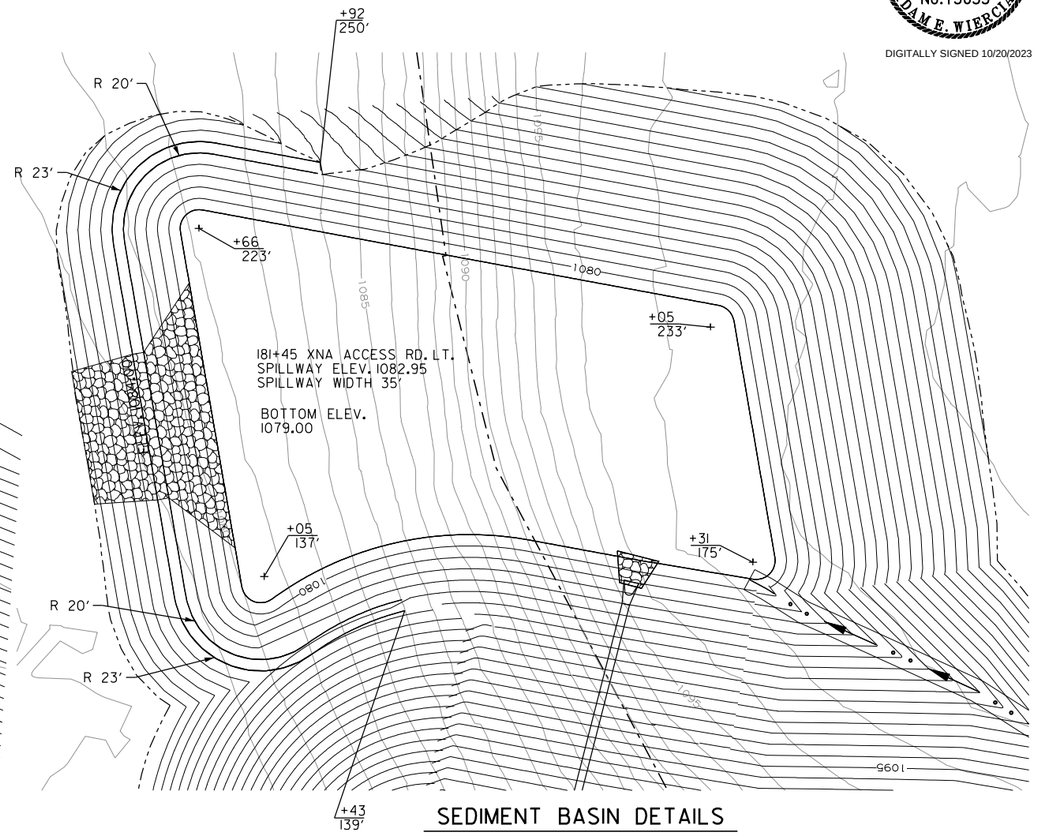
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023



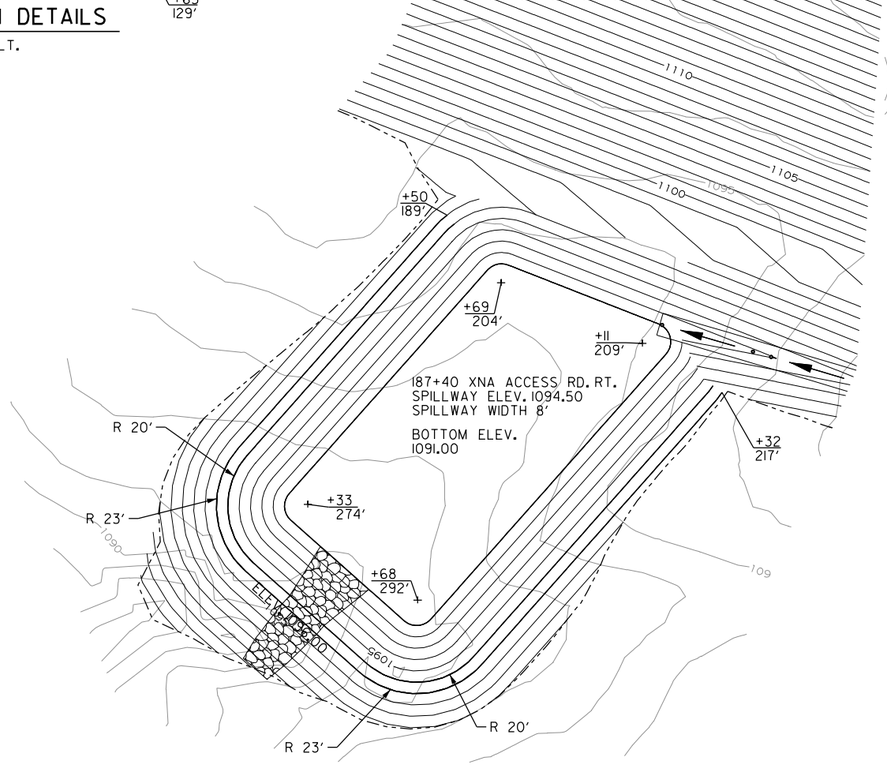

## SEDIMENT BASIN DETAILS

STA. 158+45 LT.




## SEDIMENT BASIN DETAILS

STA. 181+45 LT.




## SEDIMENT BASIN DETAILS

STA. 187+40 RT.

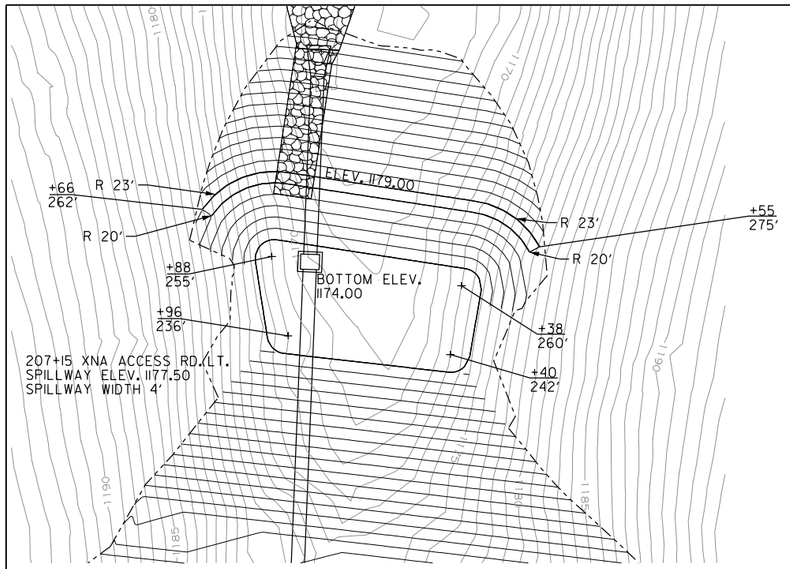
SPECIAL DETAILS

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | SPECIAL DETAILS | | | | |

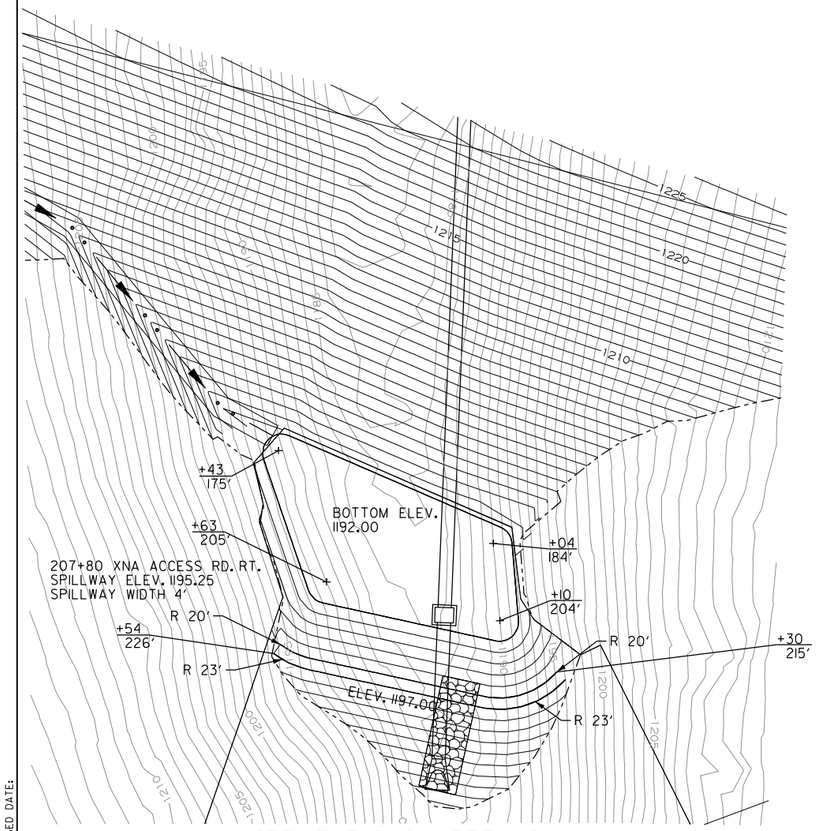
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023



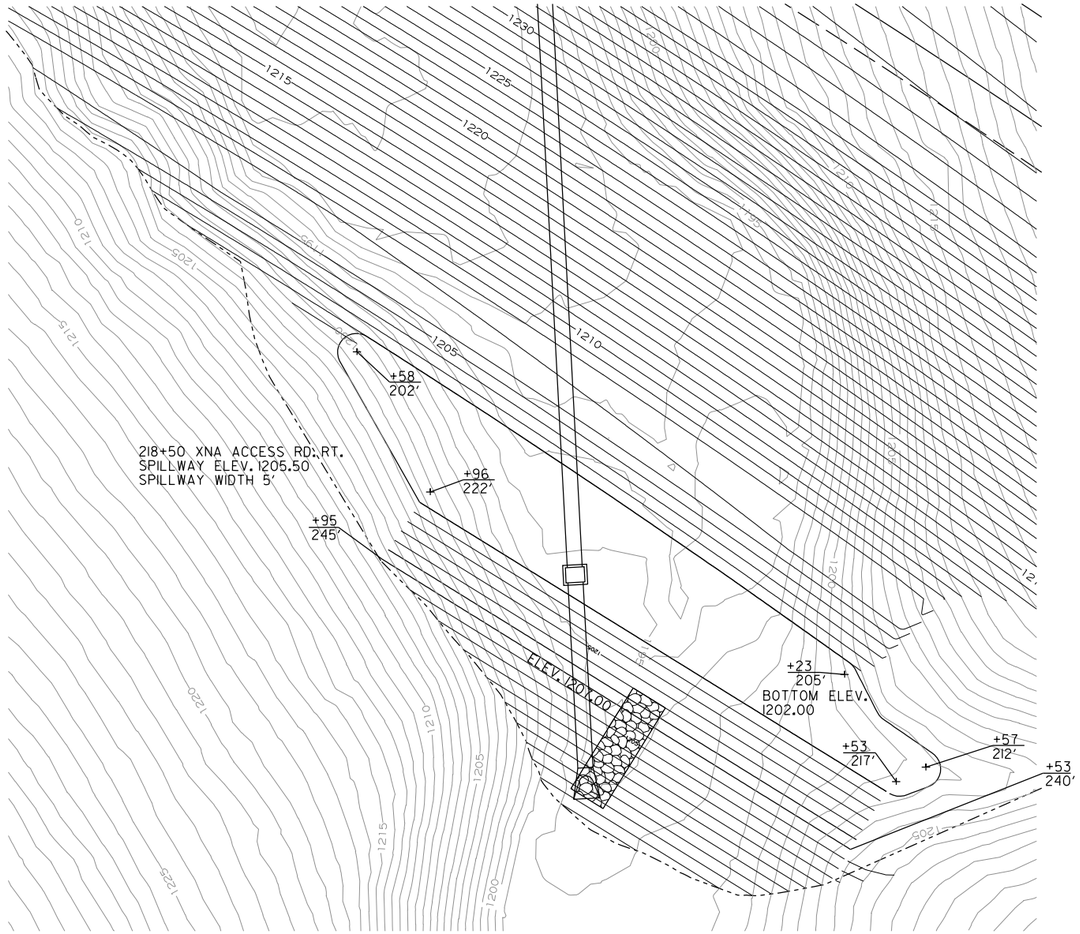

## SEDIMENT BASIN DETAILS

STA. 207+15 LT.




## SEDIMENT BASIN DETAILS

STA. 207+80 RT.




## SEDIMENT BASIN DETAILS

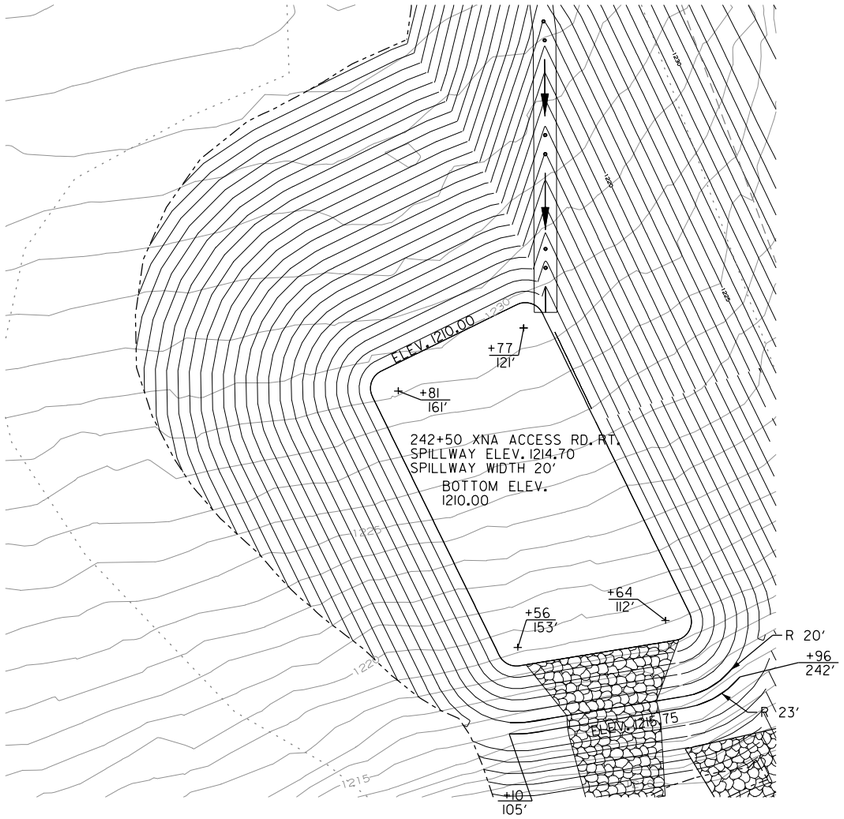
STA. 218+50 RT.

SPECIAL DETAILS

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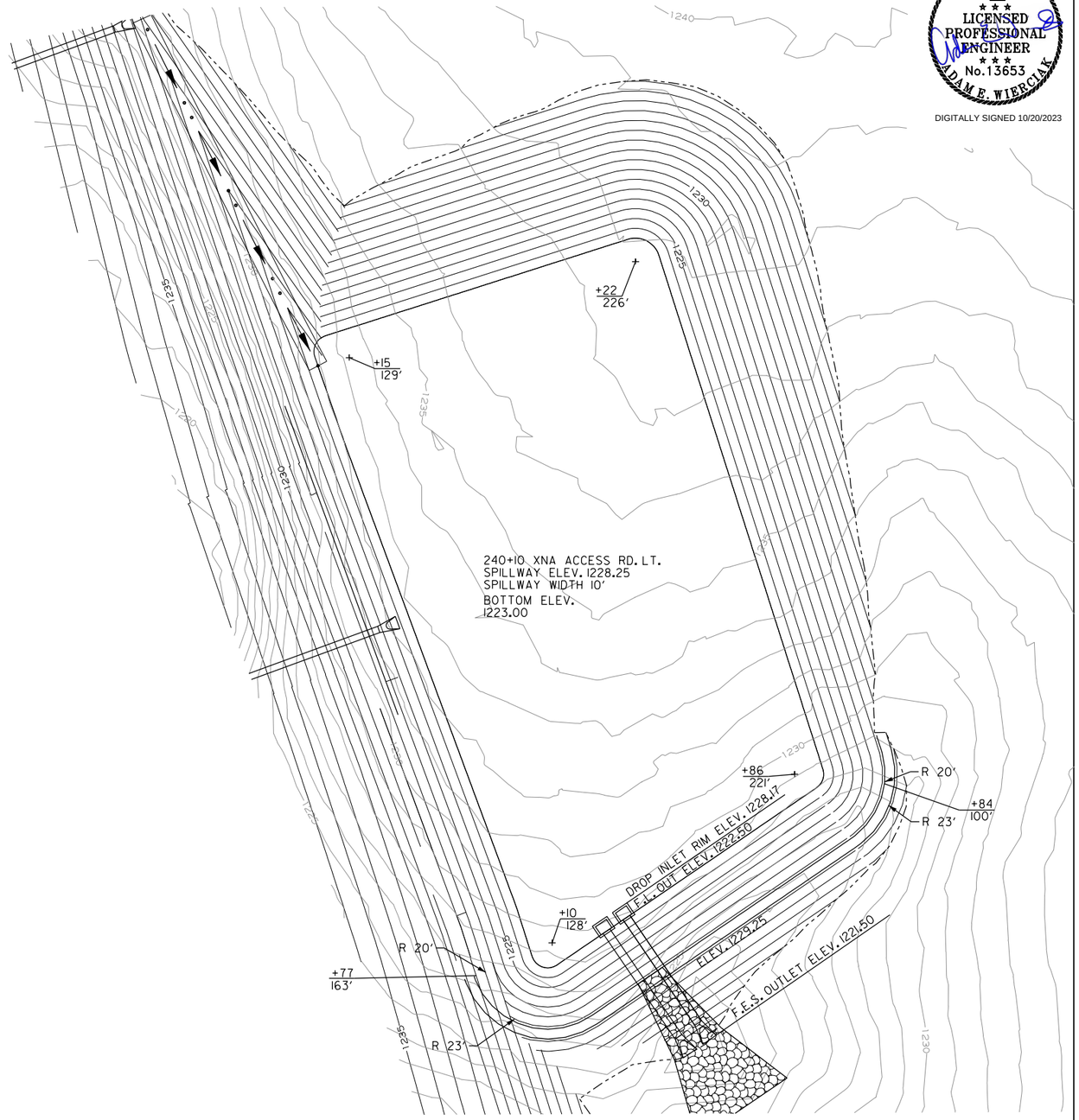
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| | | 6 | ARK. | 090069 | 40 | 583 |
| | | SPECIAL DETAILS | | | | |

STATE OF ARKANSAS
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ADAM E. WIERCIAK
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SEDIMENT BASIN DETAILS

STA. 242+50 RT.



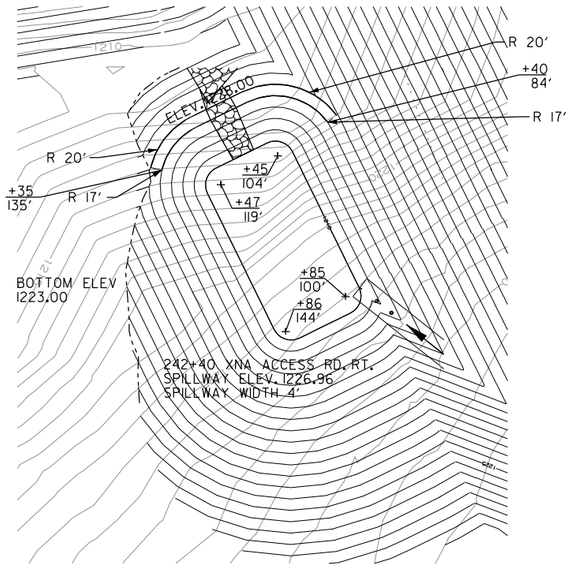

SEDIMENT BASIN DETAILS

STA. 240+10 LT.



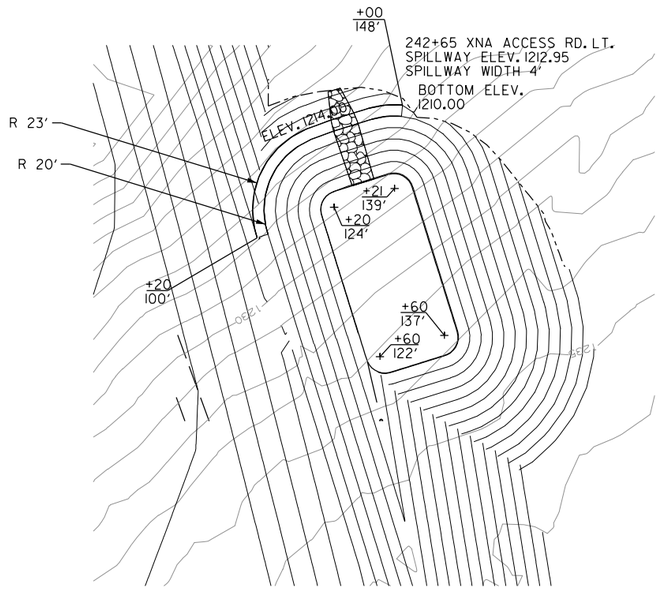
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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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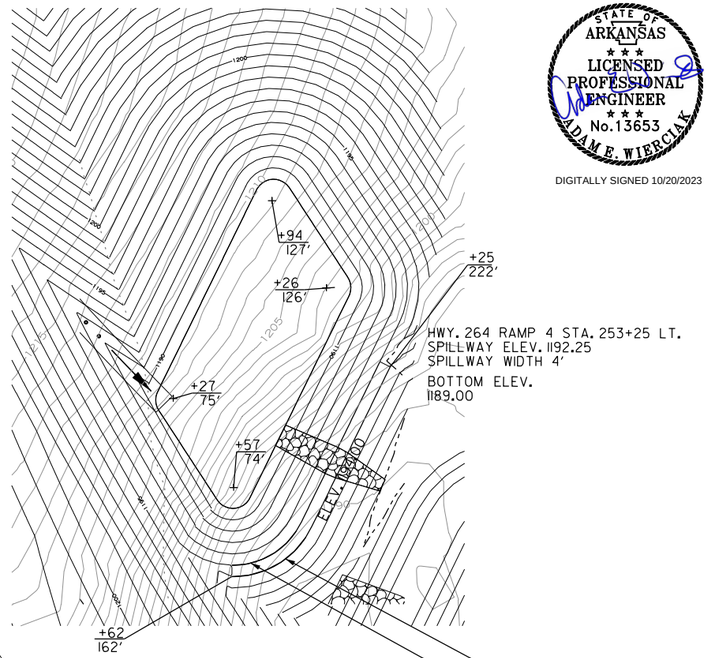

## SEDIMENT BASIN DETAILS

STA. 242+40 RT.



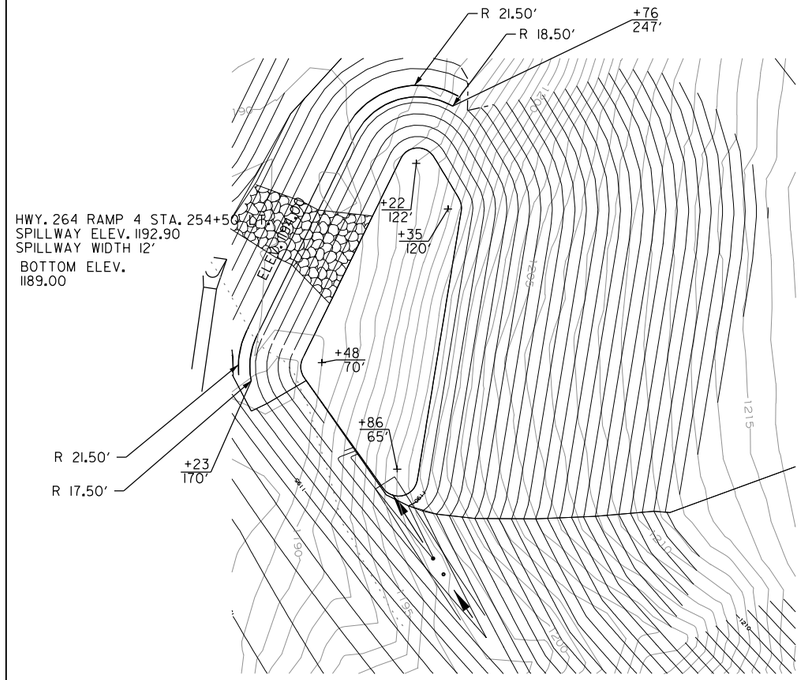

## SEDIMENT BASIN DETAILS

STA. 242+65 LT.



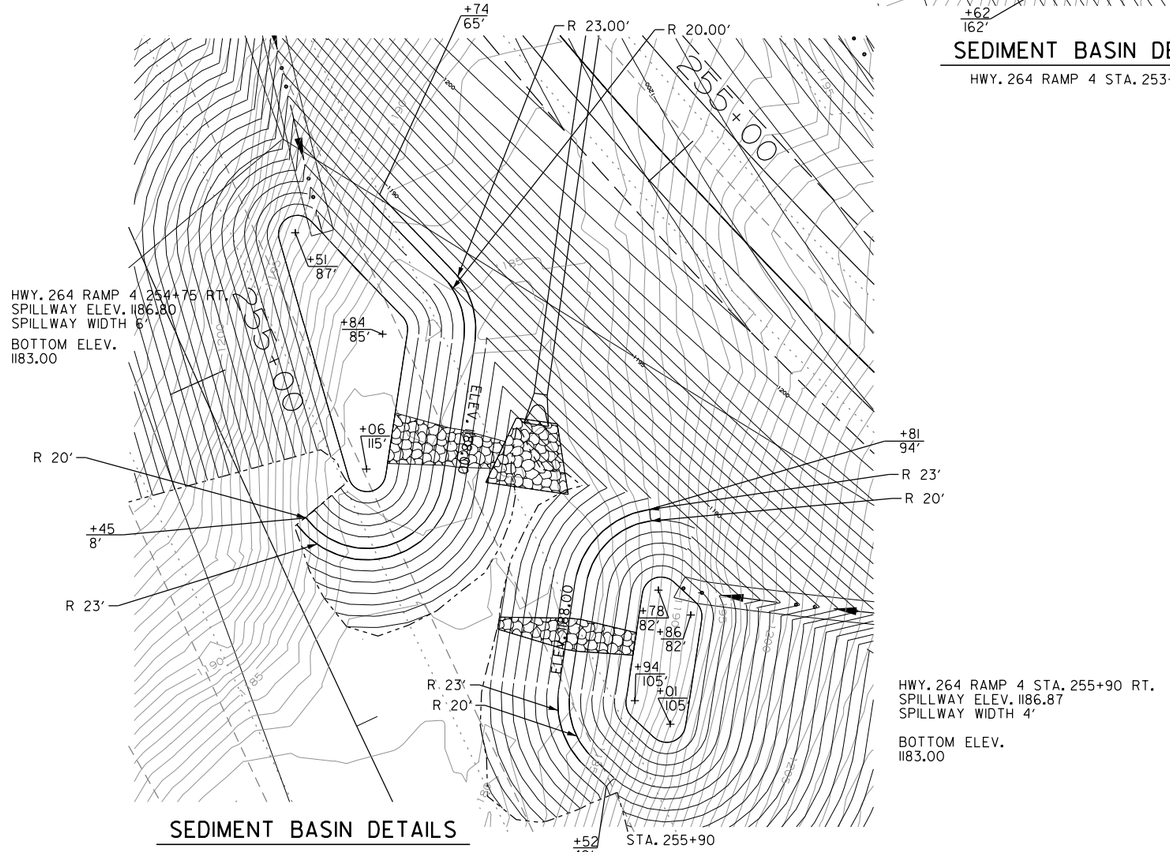

## SEDIMENT BASIN DETAILS

HWY. 264 RAMP 4 STA. 253+25 LT.




## SEDIMENT BASIN DETAILS

HWY. 264 RAMP 4 STA. 254+50 LT.




## SEDIMENT BASIN DETAILS

HWY. 264 RAMP 4 STA. 255+10 RT.

HWY. 264 RAMP 4 STA. 255+90 RT.
SPILLWAY ELEV. 1186.87
SPILLWAY WIDTH 4'

BOTTOM ELEV.
1183.00

STATE OF ARKANSAS
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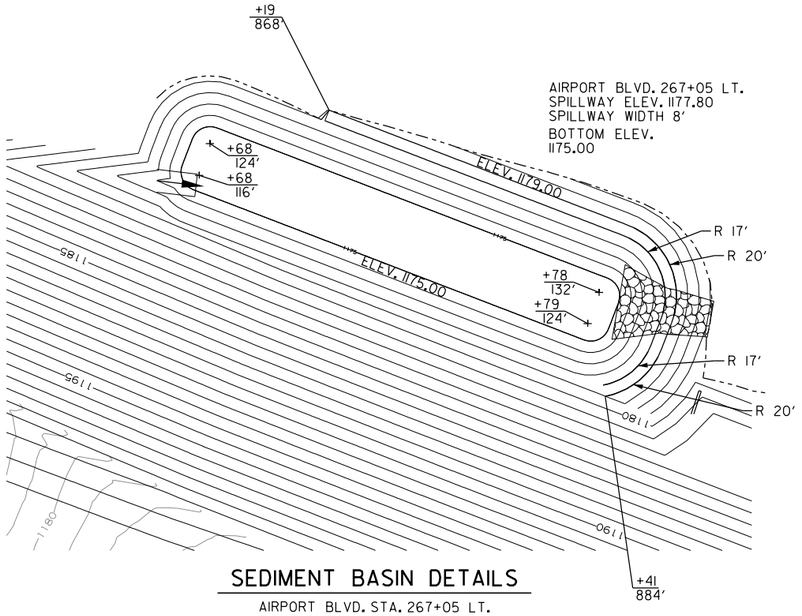
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| | | SPECIAL DETAILS | | | | |

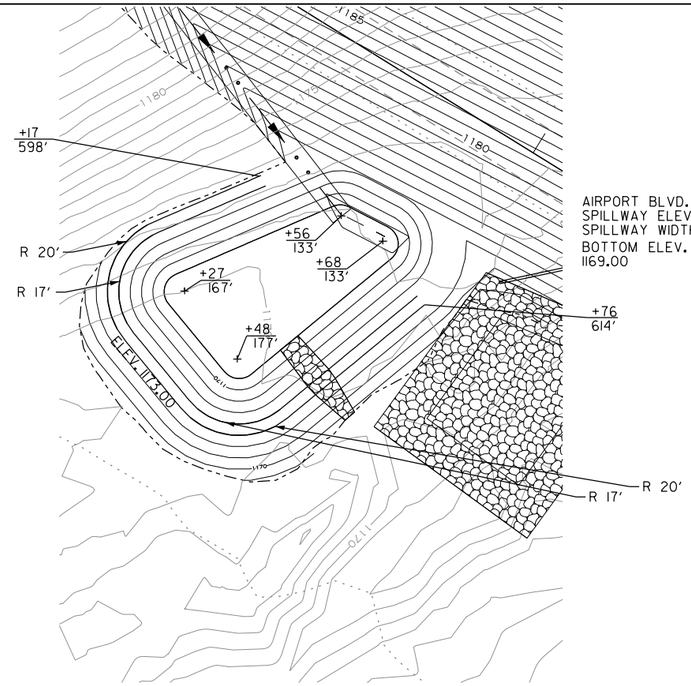
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

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## SEDIMENT BASIN DETAILS

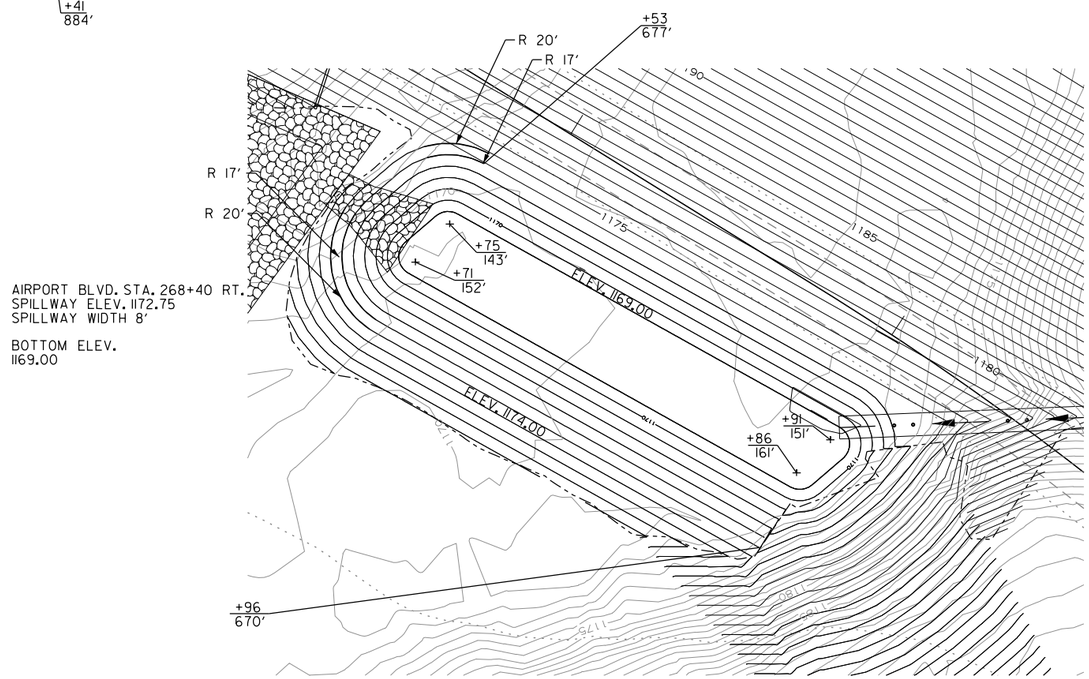
AIRPORT BLVD. STA. 267+05 LT.




AIRPORT BLVD. STA. 266+60 RT.
SPILLWAY ELEV. 1171.74
SPILLWAY WIDTH 4'
BOTTOM ELEV.
1169.00

## SEDIMENT BASIN DETAILS

AIRPORT BLVD. STA. 266+60 RT.




AIRPORT BLVD. STA. 268+40 RT.
SPILLWAY ELEV. 1172.75
SPILLWAY WIDTH 8'

BOTTOM ELEV.
1169.00

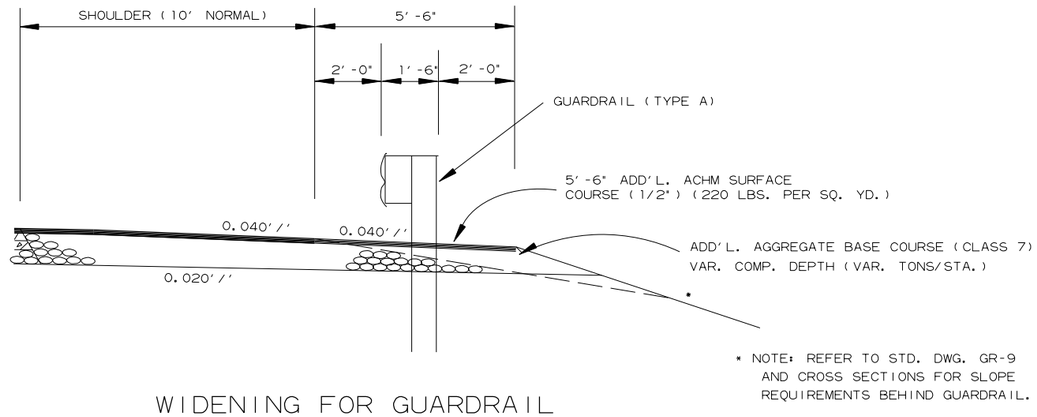
## SEDIMENT BASIN DETAILS

AIRPORT BLVD. STA. 268+40 RT.

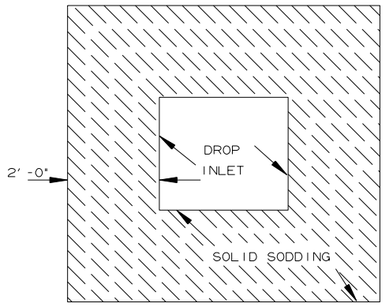


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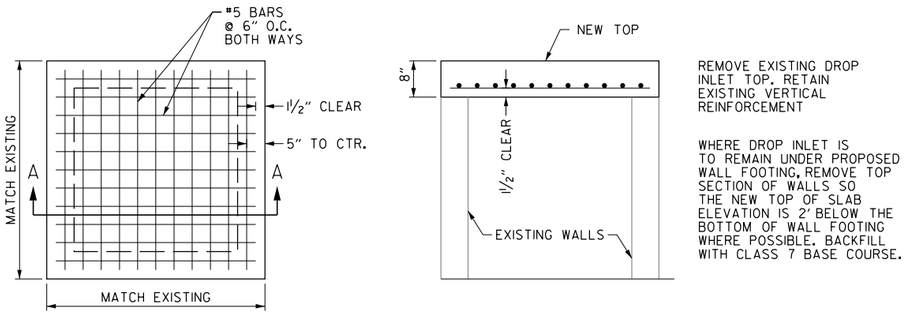
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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 43 | 583 |
| | | SPECIAL DETAILS | | | | |




WIDENING FOR GUARDRAIL




DETAIL FOR SOLID SODDING AROUND DROP INLETS



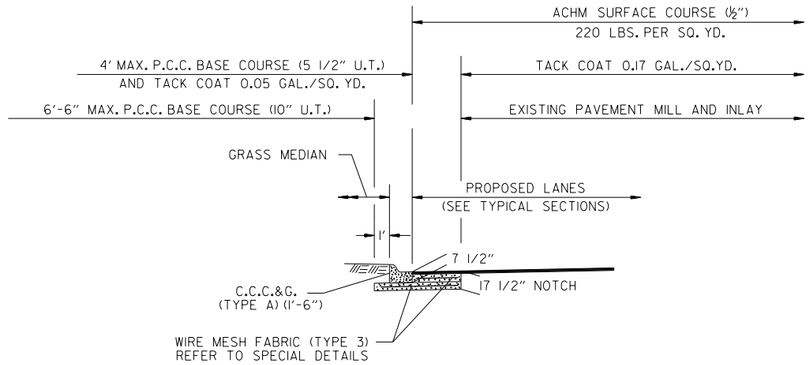

TOP VIEW SECTION A-A

DETAILS OF MODIFIED DROP INLET




6.0" Radius, 1.3" Border, Black on Orange;
"Job XXXXXX" C 2K; "Start Date Mo Year" C 2K;
"Est Completion Mo Year" C 2K; "IDRIVE " Arial;
" ARKANSAS.COM " Arial;

CONSTRUCTION PROJECT INFORMATION SIGN




P.C.C. BASE WIDENING DETAIL

P.C.C. BASE WIDENING TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

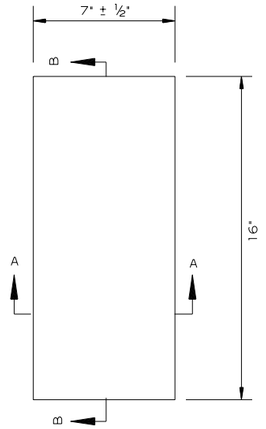
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023



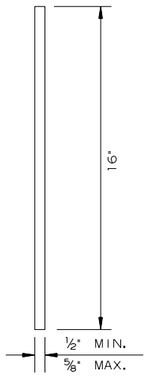
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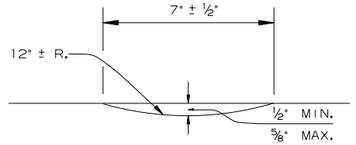
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PLAN

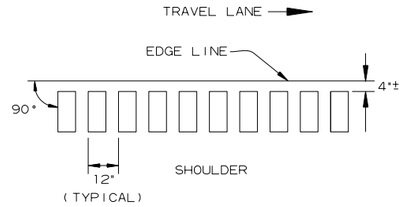



SECTION B-B

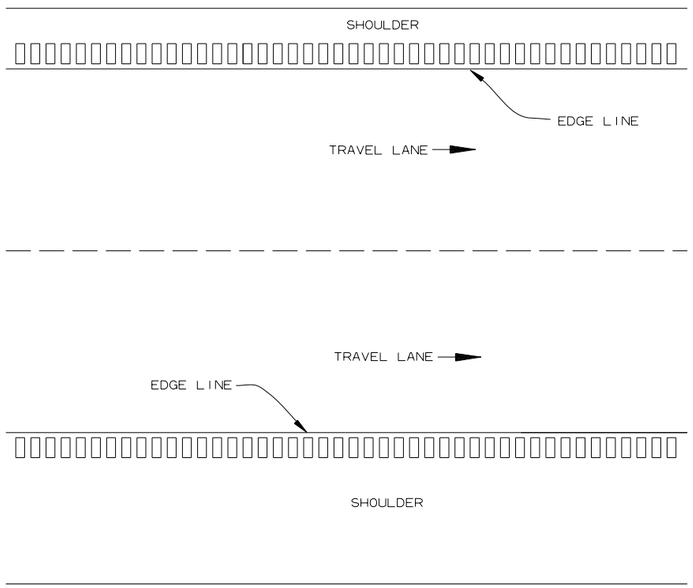



SECTION A-A

DETAILS OF RUMBLE STRIPS




LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER




PLAN VIEW

NOTES:

1. ALIGNMENT OF RUMBLE STRIPS SHALL GENERALLY BE STRAIGHT AND OFFSET APPROXIMATELY 4" FROM THE OUTER EDGE OF THE EDGE LINE. THIS OFFSET MAY BE ADJUSTED TO ACCOMMODATE VARIATIONS IN THE EDGE LINE.
2. THE ½" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 16" LENGTH. SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.
3. RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS, APPROACH SLABS, OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.

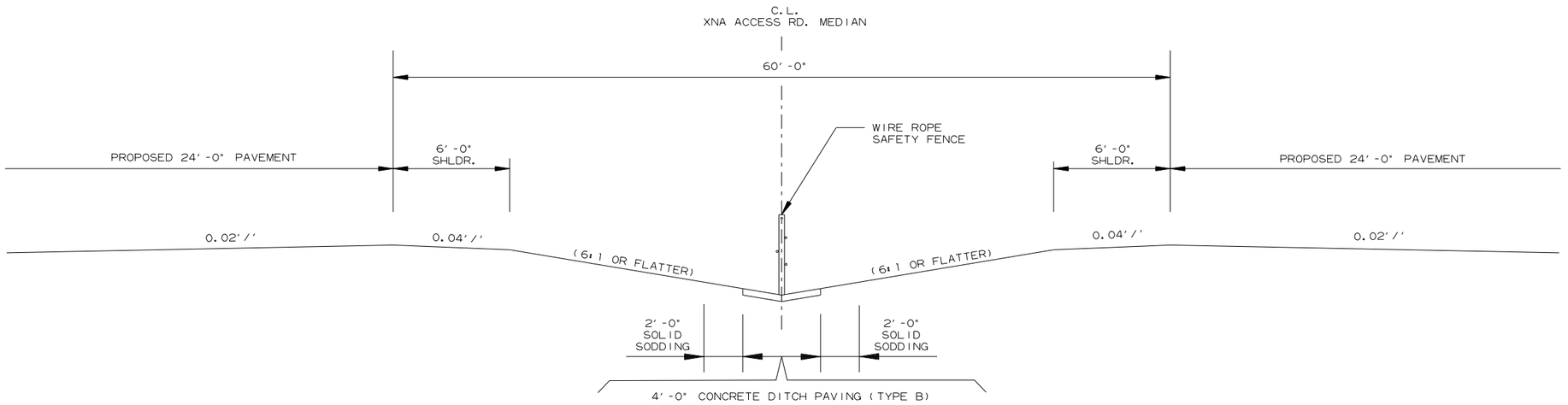
SPECIAL DETAILS


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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | SPECIAL DETAILS | | | | |

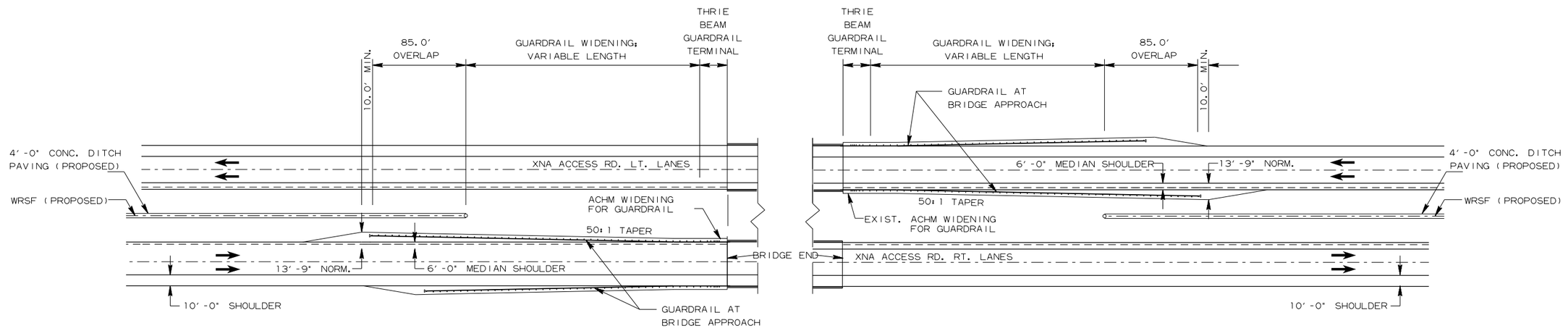
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## PROPOSED TYPICAL SECTION
## WRSF IN BOTTOM OF DITCH

NOTE: SEE PLAN & PROFILE SHEETS FOR LOCATIONS OF WRSF




# DETAIL OF WIRE ROPE SAFETY FENCE AT BRIDGE ENDS

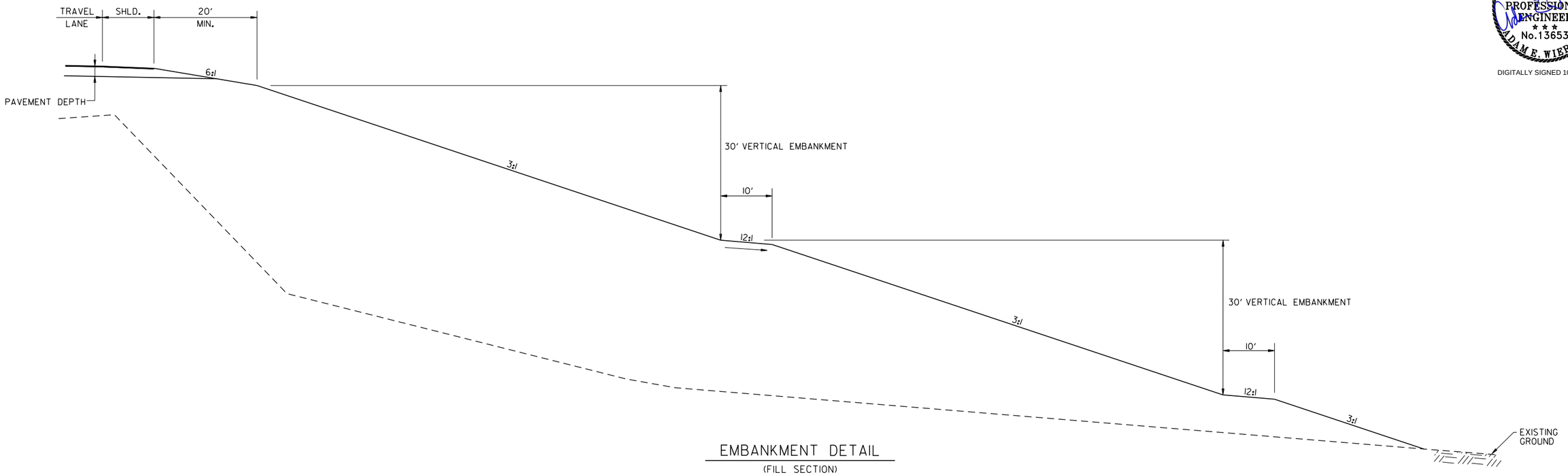
WRSF IN C.L. MEDIAN

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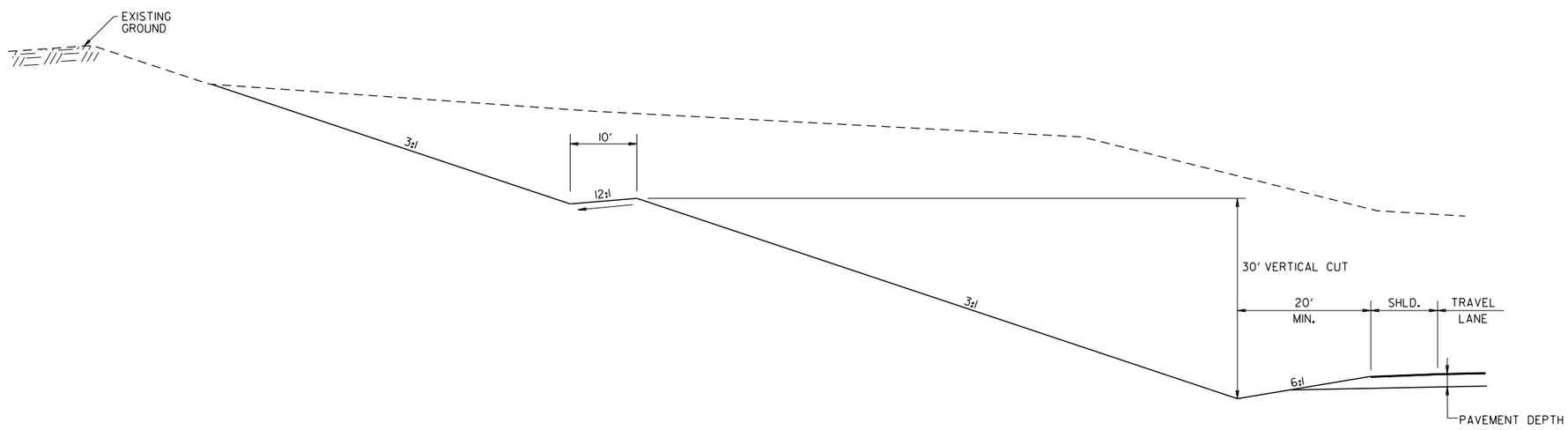
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| | | 6 | ARK. | 090069 | 46 | 583 |
| | | SPECIAL DETAILS | | | | |

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EMBANKMENT DETAIL
(FILL SECTION)



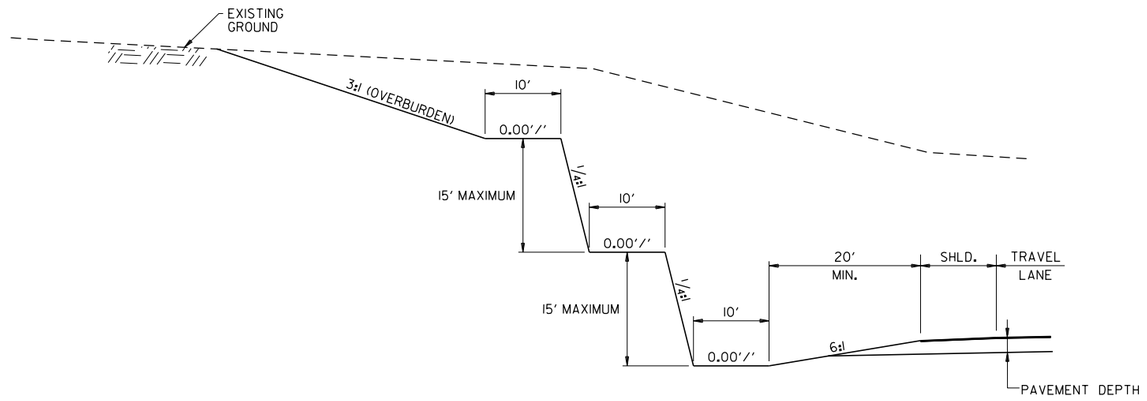

EXCAVATION DETAIL
(CUT SECTION)

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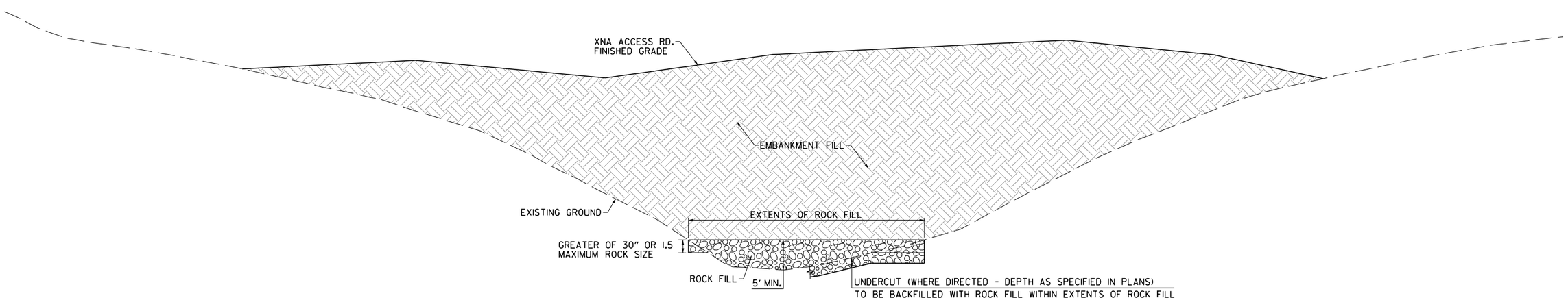
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| | | 6 | ARK. | 090069 | 47 | 583 |
| | | SPECIAL DETAILS | | | | |

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EXCAVATION IN SOLID ROCK DETAIL
(CUT SECTION)

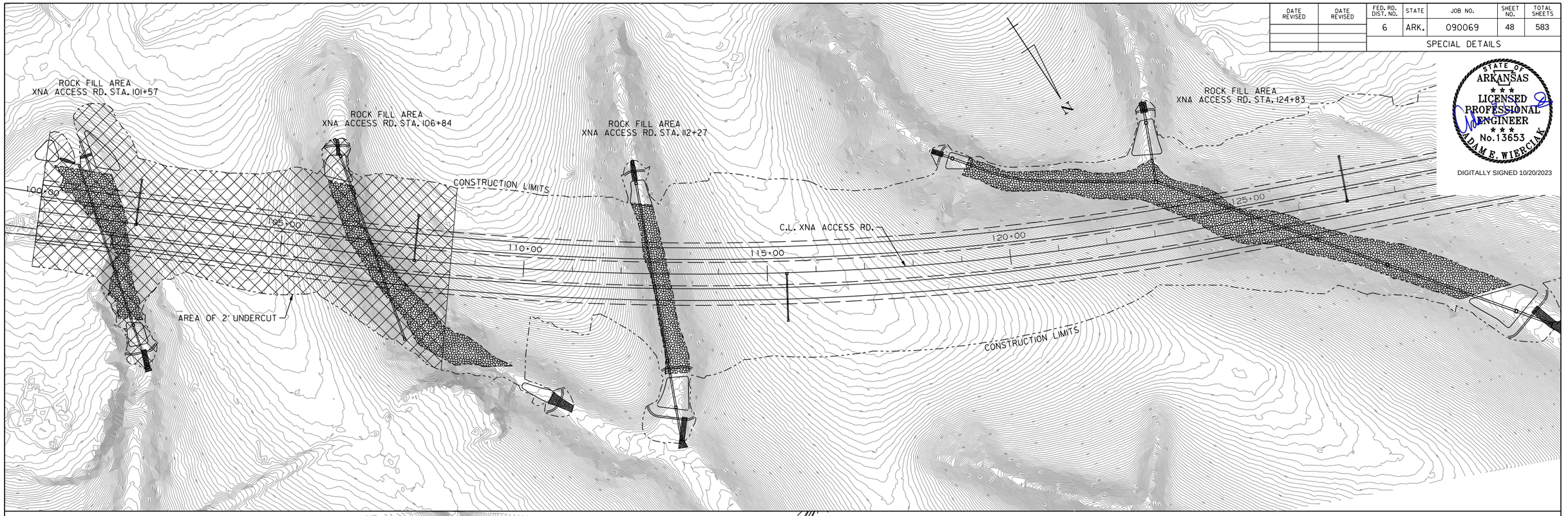


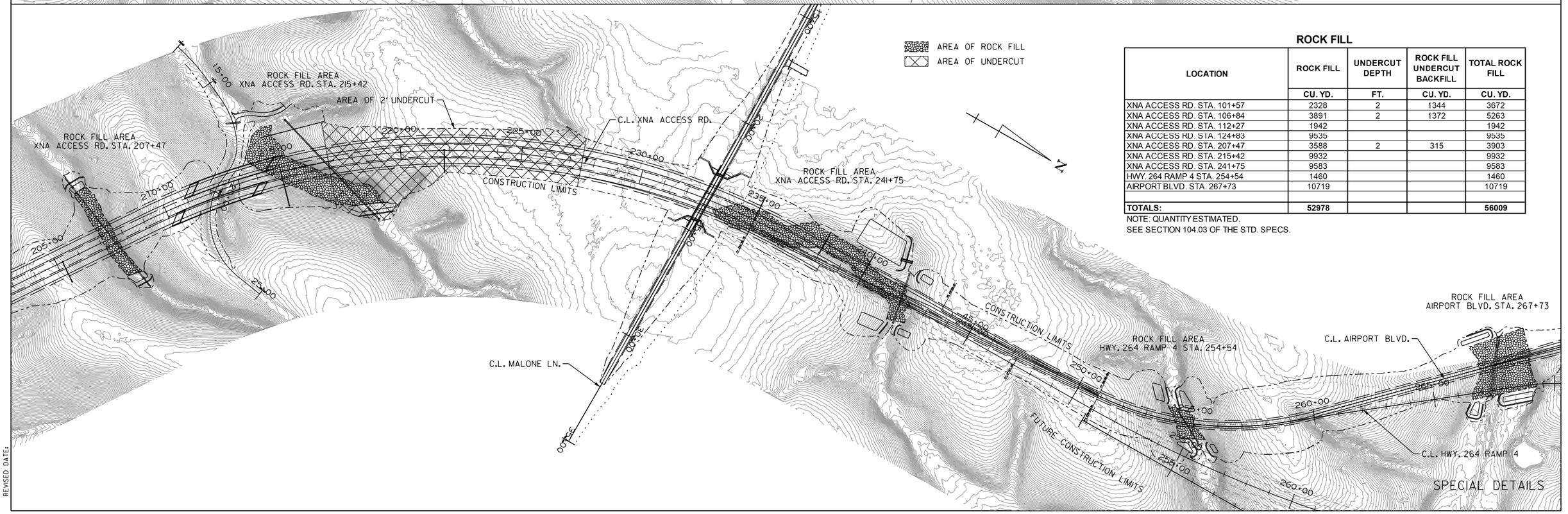

ROCK FILL DETAIL

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| | | 6 | ARK. | 090069 | 48 | 583 |
| | | SPECIAL DETAILS | | | | |

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## ROCK FILL

| LOCATION | ROCK FILL | UNDERCUT DEPTH | ROCK FILL UNDERCUT BACKFILL | TOTAL ROCK FILL |
|---|---|---|---|---|
| | CU. YD. | FT. | CU. YD. | CU. YD. |
| XNA ACCESS RD. STA. 101+57 | 2328 | 2 | 1344 | 3672 |
| XNA ACCESS RD. STA. 106+84 | 3891 | 2 | 1372 | 5263 |
| XNA ACCESS RD. STA. 112+27 | 1942 | | | 1942 |
| XNA ACCESS RD. STA. 124+83 | 9535 | | | 9535 |
| XNA ACCESS RD. STA. 207+47 | 3588 | 2 | 315 | 3903 |
| XNA ACCESS RD. STA. 215+42 | 9932 | | | 9932 |
| XNA ACCESS RD. STA. 241+75 | 9583 | | | 9583 |
| HWY. 264 RAMP 4 STA. 254+54 | 1460 | | | 1460 |
| AIRPORT BLVD. STA. 267+73 | 10719 | | | 10719 |
| | | | | |
| **TOTALS:** | **52978** | | | **56009** |

NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

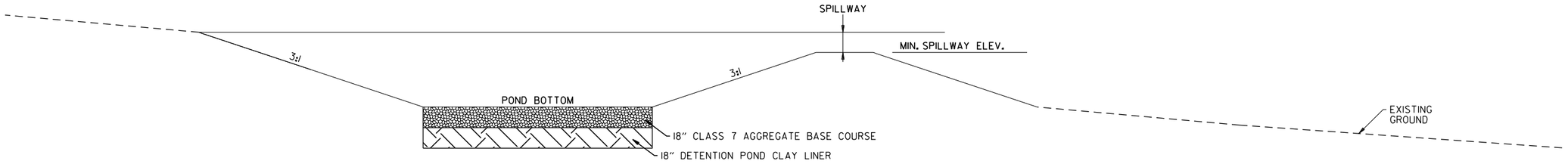
SPECIAL DETAILS

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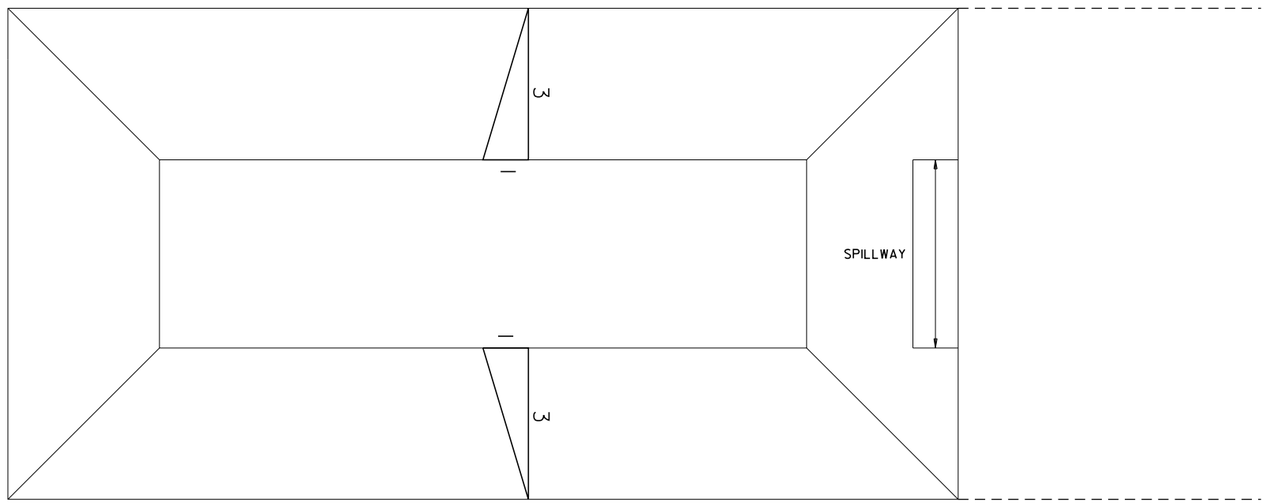
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PERMANENT SEDIMENT BASIN PROFILE

NOTE: SEE STANDARD DRAWING TEC-2 FOR ADDITIONAL SEDIMENT BASIN DETAILS




PERMANENT SEDIMENT BASIN TOP VIEW

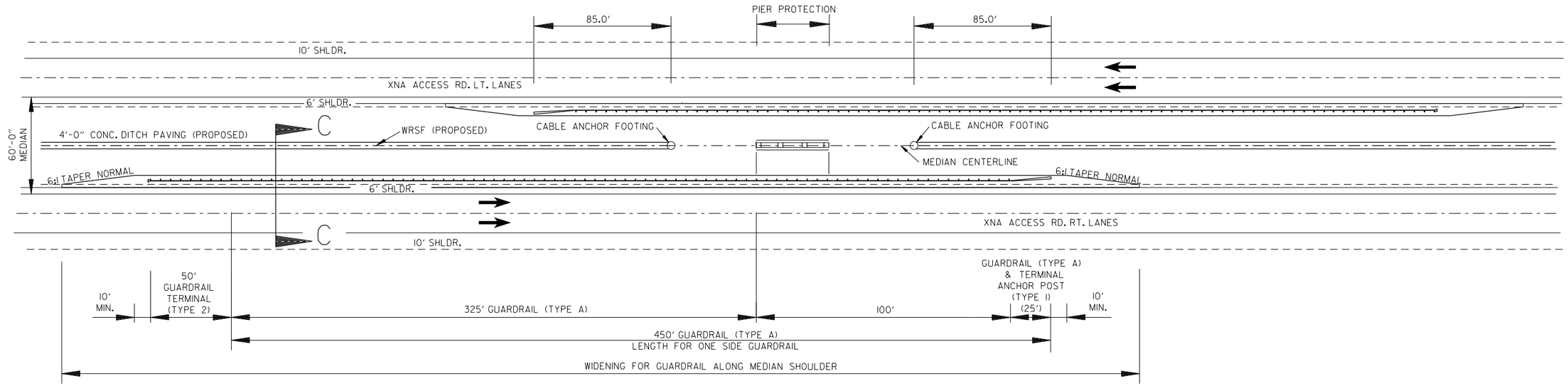


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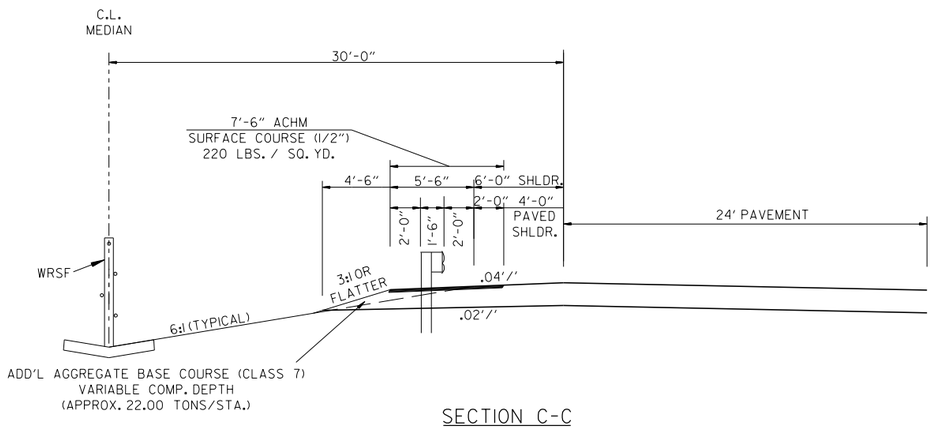
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| | | SPECIAL DETAILS | | | | |

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## DETAIL AT OVERPASSES
### WRSF ON CL MEDIAN
DIMENSIONS ARE TYPICAL BOTH DIRECTIONS

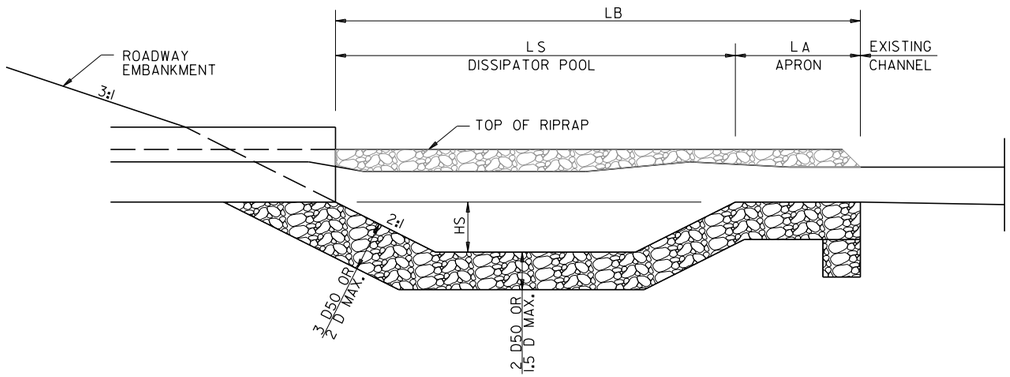



SECTION C-C

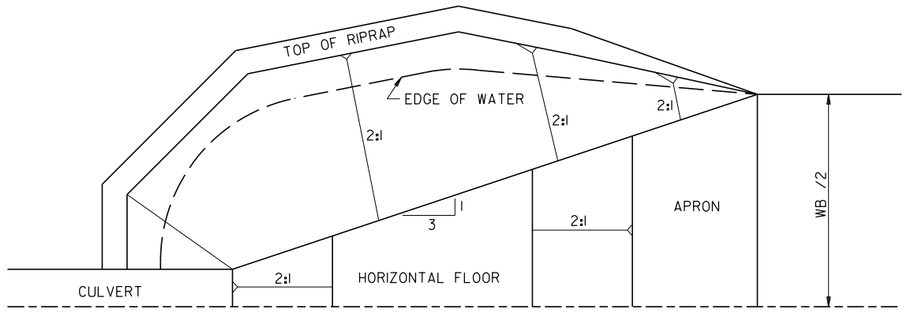


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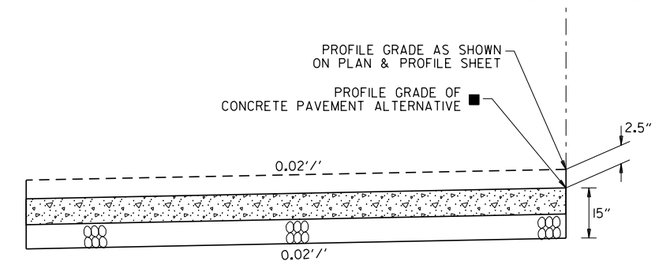



PROFILE OF RIPRAP BASIN



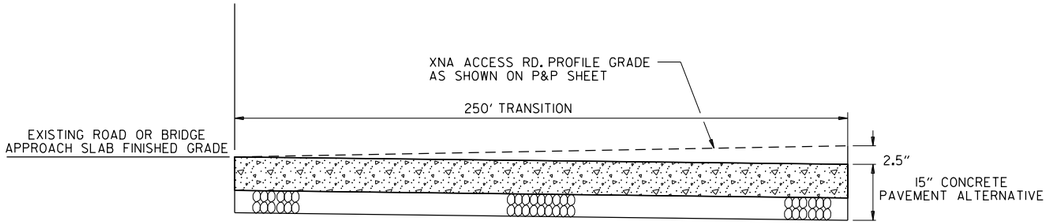

HALF PLAN OF RIPRAP BASIN

| RIPRAP BASIN | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| STATION | ROCK SIZE | | BASIN | | | | | APRON | POOL | |
| LOCATION | D50 (ft.) | D MAX (ft) | THICK (ft.) | D FLOW ( ft.) | VEL. (f.p.s.) | LB LENGTH (ft.) | WB WIDTH (ft.) | LA LENGTH (FT.) | LS LENGTH (ft.) | HS DEPTH (ft.) |
| AIRPORT BLVD. 267+73 | 0.6 | 1 | 1.26 | 1.48 | 6.15 | 36 | 30 | 12 | 24 | 2.43 |




■ PROFILE GRADE FOR THE XNA ACCESS RD. CONCRETE PAVEMENT ALTERNATIVE SECTION IS 2.5" LOWER THAN SHOWN ON THE PLAN AND PROFILE SHEETS.

PROFILE GRADE DETAIL
FOR XNA ACCESS RD. CONCRETE ALTERNATIVE




TRANSITION AT EXISTING ROADS DETAIL
FOR XNA ACCESS RD. CONCRETE ALTERNATIVE

NOTE:
PROFILE GRADE SHOWN ON PLAN AND PROFILE SHEETS IS 17.5" ABOVE SUBGRADE. USE 1" PER 100' TRANSITION IN SUBGRADE TO MEET PAVEMENT GRADES AT EXISTING ROADS AND BRIDGE APPROACH SLABS. TRANSITION IN SUBGRADE TO BE INCLUDED IN SUBGRADE PREPARATION.


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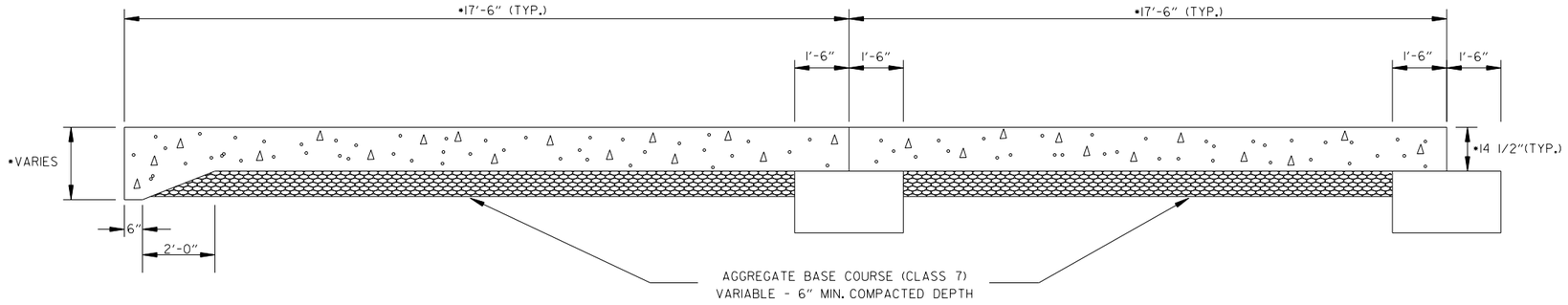


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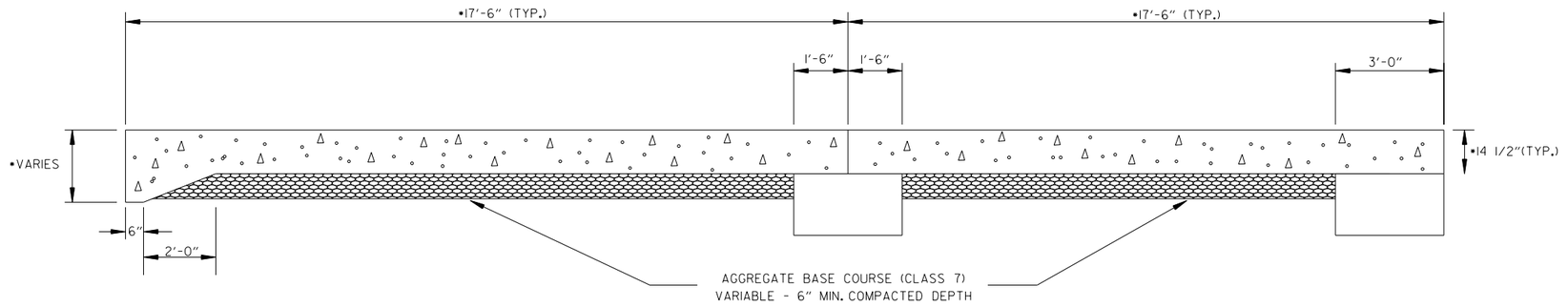
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| | | SPECIAL DETAILS | | | | |

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SECTION OF APPROACH SLAB
(FOR CONCRETE PAVEMENT)




SECTION OF APPROACH SLAB
(FOR ASPHALT PAVEMENT)


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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | 6 | ARK. | 090069 | 53 | 583 |
| | | SPECIAL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

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TABULAR DATA BY: AEW DATE: 9/16/21
CHECKED BY: SAD DATE: 9/26/21

## INLET WINGWALL TABLE

| OVER ALL WIDTH | CLEAR HEIGHT | FOOTING THK. | WING WALL THK. | BOX SKEW (DEG.) | SLOPE | HDWL LENGTH | HEEL | WALL HEIGHT AT HDWL | WALL HEIGHT AT WING END | WINGWALL ANGLE (DEGREE) WING A | WINGWALL ANGLE (DEGREE) WING B | FOOTING WIDTH AT WALL END | WIDTH OF WING FOOTINGS AT HDWL WING A | WIDTH OF WING FOOTINGS AT HDWL WING B | FOOTING DIMENSION PARALLEL WITH HDWL WING A | FOOTING DIMENSION PARALLEL WITH HDWL WING B | LENGTH OF WINGWALLS WING A | LENGTH OF WINGWALLS WING B | LENGTH OF FOOTING HEEL WING A | LENGTH OF FOOTING HEEL WING B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OW | H | WB | CW | SK | SL | K | HL | WH1 | WH2 | AF1 | AF2 | WE | WF1 | WF2 | G1 | G2 | W1 | W2 | W3 | W4 |
| 9'-2" | 5'-0" | 0'-9" | 0'-8" | 15 | 3:1 | 8'-3 3/8" | 1'-0" | 5'-10" | 1'-8" | 15 | 45 | 2'-2" | 2'-9 1/2" | 3'-1" | 0'-10 3/4" | 1'-0" | 12'-6" | 17'-6" | 14'-2 5/8" | 19'-2 5/8" |

| CLASS "S" CONCRETE (Includes apron) | REINFORCING STEEL (Includes apron and laps if required) |
|---|---|
| INLET | INLET |
| CU.YD | LBS. |
| 6.26 | 628 |

| WING | F1 BAR SIZE | F1 MAX. SPACING | F1 NO. REQ'D | F1 LENGTHS VARY | F1 | F2 BAR SIZE | F2 SPACING | F2 NO. REQ'D | F2 LENGTHS | F3 BAR SIZE | F3 SPACING | F3 NO. REQ'D | F3 LENGTHS | F4 BAR SIZE | F4 SPACING | F4 NO. REQ'D | F4 LENGTHS VARY | F5 BAR SIZE | F5 SPACING | F5 NO. REQ'D | F5 LENGTHS | F6 BAR SIZE | F6 SPACING | F6 NO. REQ'D | F6 LENGTHS VARY | F6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WING A | 4 | 12 | 13 | L | Min 2'-8" | - | - | - | - | - | - | - | - | 4 | 18 | 4 | Min | 4 | 18 | 2 | 12'-2" | 4 | 18 | 9 | L Min 3'-3" | |
| | | | | | Max 7'-4" | | | | | | | | | | | | 6'-4" | | | | | | | | Max 7'-3" | |
| | | | | X | Min 0'-9" | | | | X - | | | | X - | | | | Max | | | | | | | | X Min 1'-4" | |
| | | | | | Max 1'-5" | | | | | | | | | | | | 10'-10" | | | | | | | | Max 1'-4" | |
| | | | | Y | Min 2'-0" | | | | Y - | | | | Y - | | | | | | | | | | | | Y Min 2'-0" | |
| | | | | | Max 6'-0" | | | | | | | | | | | | | | | | | | | | Max 6'-0" | |
| WING B | 4 | 12 | 18 | L | Min 2'-8" | - | - | - | - | - | - | - | - | 4 | 18 | 6 | Min | 4 | 18 | 2 | 17'-2" | 4 | 18 | 12 | L Min 3'-4" | |
| | | | | | Max 7'-7" | | | | | | | | | | | | 2'-8" | | | | | | | | Max 7'-3" | |
| | | | | X | Min 0'-9" | | | | X - | | | | X - | | | | Max | | | | | | | | X Min 1'-4" | |
| | | | | | Max 1'-8" | | | | | | | | | | | | 15'-3" | | | | | | | | Max 1'-4" | |
| | | | | Y | Min 2'-0" | | | | Y - | | | | Y - | | | | | | | | | | | | Y Min 2'-1" | |
| | | | | | Max 6'-0" | | | | | | | | | | | | | | | | | | | | Max 6'-0" | |

| WING | F7 NO. REQ'D | F7 LENGTHS | F8 BAR SIZE | F8 SPACING | F8 NO. REQ'D | F8 LENGTHS VARY | F9 BAR SIZE | F9 SPACING | F9 NO. REQ'D | F9 LENGTHS | F10 BAR SIZE | F10 NO. REQ'D | F10 LENGTHS | F11 BAR SIZE | F11 NO. REQ'D | F11 LENGTHS | F12 BAR SIZE | F12 SPACING | F12 NO. REQ'D | F12 LENGTHS | REINF. STEEL QTY. PER WING (LBS) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WING A | 4 | 15'-1" | 6 | 18 | 8 | Min 1'-8" | - | - | - | Min - | 4 | 2 | 12'-8" | 4 | 2 | 13'-8" | 6 | 12 | 5 | L 3'-4" | 265 |
| | | | | | | Max 2'-3" | | | | Max - | | | | | | | | | | X 1'-8" | |
| WING B | 4 | 20'-1" | 6 | 18 | 12 | Min 1'-8" | - | - | - | Min - | 4 | 2 | 17'-6" | 4 | 2 | 19'-10" | 6 | 12 | 5 | L 3'-4" | 363 |
| | | | | | | Max 2'-7" | | | | Max - | | | | | | | | | | X 1'-8" | |

This drawing to be used in conjunction with
SHEET 1 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'GENERAL NOTES & LONGITUDINAL SECTION LENGTH SCHEDULE',
SHEET 2 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF SINGLE-BARREL R.C. BOX CULVERT',
SHEET 4 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF WINGWALLS', and
STANDARD DRAWING RCB-2.

For additional information and outlet sections, see Sheet 2 of 2.

## INLET SKEWED END SECTION

| SKEW (DEGREE) | SLOPE | DESIGN FILL DEPTH (FT.) | CLEAR SPAN (FT.) | CLEAR HEIGHT (FT.) | SECTION LENGTH | TOP SLAB THICKNESS | BOTTOM SLAB THK. | SIDE WALL THICKNESS | HEADWALL DEPTH | OVER ALL WIDTH | OVER ALL HEIGHT | TOP SLAB REINFORCING STEEL "a" SIZE | "a" SPACING | "a" LENGTHS VARY | "a" NO. REQ'D | BOTTOM SLAB REINFORCING STEEL "b" SIZE | "b" SPACEING | "b" LENGTHS VARY | "b" NO. REQ'D | SIDE WALL REINFORCING STEEL "f" SIZE | "f" SPACING | "f" NO. REQ'D | "f" LENGTH | TOP SLAB DISTRIBUTION REINFORCING STEEL "d" SIZE | "d" SPACING | "d" NO. REQ'D | "d" LENGTHS VARY | BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE | "e" SPACING | "e" NO. REQ'D | "e" LENGTHS VARY | SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE | "d1" SPACING | "d1" NO. REQ'D | "d1" LENGTH | HEADWALL REINFORCING STEEL "k1", "k2" & "h" BAR | "k1", "k2" & "h" SIZE | "k1", "k2" & "h" NO. REQ'D | "k1", "k2" & "h" LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SK | SL | D | S | H | LL | T | B | C | HD | OW | OH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | 3:1 | 10 | 8 | 5 | 3'-2" | 8 | 8 | 6 | 3 | 9'-0" | 6'-4" | 5 | 4.5 | Max 8'-8" / Min 5'-1" / 8'-8" | 2 / 6 | 5 | 4.5 | Max 8'-8" / Min 5'-11" / 8'-8" | 2 / 6 | 4 | 8.5 | 10 | 6'-0" | 4 | 12 | 9 | Max 4'-3" / Min 1'-10" | 4 | 12 | 9 | Max 4'-3" / Min 1'-10" | 4 | 12 | 5 | LONG 4'-3" / SHORT 1'-10" | "k1" / "k2" / "h" | 4 | 6 / 11 | 9'-0" / 9'-0" / 1'-7" / Y / 0'-7" |

| CLASS "S" CONCRETE (Includes HDWL) | REINFORCING STEEL (GR. 60) (Includes HDWL) |
|---|---|
| CU. YDS. | LBS. |
| 2.21 | 320 |

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

## INLET SLOPE SECTION(S)

| R.C. BOX SECTION | DESIGN FILL DEPTH (FT.) D | CLEAR SPAN (FT.) S | CLEAR HEIGHT (FT.) H | TOP SLAB THICKNESS T | BOTTOM SLAB THK. B | SIDE WALL THICKNESS C | OVER ALL WIDTH OW | OVER ALL HEIGHT OH | SECTION LENGTH (FT.) SL | TOP SLAB REINFORCING STEEL "a" LENGTH = OW - 4" SIZE | "a" SPACING | "a" NO. REQ'D | "a" LENGTH | BOTTOM SLAB REINFORCING STEEL "b" LENGTH = OW - 4" SIZE | "b" SPACING | "b" NO. REQ'D | "b" LENGTH | SIDE WALL REINFORCING STEEL "f" LENGTH = OH - 4" SIZE | "f" SPACING | "f" NO. REQ'D | "f" LENGTH | TOP SLAB DISTRIBUTION REINF. STEEL "d" LENGTH = SL SIZE | "d" SPACING | "d" NO. REQ'D | BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE | "e" SPACING | "e" NO. REQ'D | SIDE WALL DISTRIBUTION REINF.STEEL "d1" LENGTH = SL SIZE | "d1" SPACING | "d1" NO. REQ'D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 10 | 8 | 5 | 8 | 8 | 6 | 9'-0" | 6'-4" | 19.73 | 5 | 4.5 | 52 | 8'-8" | 5 | 4.5 | 52 | 8'-8" | 4 | 8.5 | 54 | 6'-0" | 4 | 12 | 9 | 4 | 12 | 9 | 4 | 12 | 10 |
| B | 15 | 8 | 5 | 9 | 9 | 6 | 9'-0" | 6'-6" | 11.16 | 6 | 5 | 26 | 8'-8" | 6 | 5 | 26 | 8'-8" | 4 | 6.5 | 40 | 6'-2" | 4 | 12 | 9 | 4 | 12 | 9 | 4 | 12 | 10 |
| C | 20 | 8 | 5 | 10 | 10 | 6 | 9'-0" | 6'-8" | 11.16 | 6 | 4.5 | 29 | 8'-8" | 7 | 6 | 22 | 8'-8" | 4 | 4 | 66 | 6'-4" | 4 | 11 | 10 | 4 | 11 | 10 | 4 | 12 | 10 |
| D | 25 | 8 | 5 | 11 | 11 | 6.5 | 9'-1" | 6'-10" | 11.16 | 7 | 5.5 | 24 | 8'-9" | 7 | 5.5 | 24 | 8'-9" | 4 | 4 | 66 | 6'-6" | 4 | 10 | 11 | 4 | 10 | 11 | 4 | 12 | 10 |

| HDWL DEPTH HD | ADDITIONAL REINF. FOR HDWL LBS | "h" HDWL BARS SIZE | Y | LENGTH | NO. REQ'D |
|---|---|---|---|---|---|
| | | | | | |

| CLASS "S" CONCRETE CU. YDS. | REINFORCING STEEL (GR. 50) LBS. |
|---|---|
| 12.42 | 1576 |
| 7.65 | 1109 |
| 8.27 | 1325 |
| 9.12 | 1438 |
| | |
| | |
| | |
| TOTAL | |
| 37.46 | 5447 |

## MID-SECTION

| R.C. BOX SECTION | DESIGN FILL DEPTH (FT.) D | CLEAR SPAN (FT.) S | CLEAR HEIGHT (FT.) H | TOP SLAB THK. T | BOTTOM SLAB THK. B | SIDE WALL THK C | OVER ALL WIDTH OW | OVER ALL HEIGHT OH | SECTION LENGTH (FT.) SL | TOP SLAB REINFORCING STEEL "a" LENGTH = OW - 4" SIZE | "a" SPACING | "a" NO. REQ'D | "a" LENGTH | BOTTOM SLAB REINFORCING STEEL "b" LENGTH = OW - 4" SIZE | "b" SPACING | "b" NO. REQ'D | "b" LENGTH | SIDE WALL REINFORCING STEEL "f" LENGTH = OH - 4" SIZE | "f" SPACING | "f" NO. REQ'D | "f" LENGTH | TOP SLAB DISTRIBUTION REINF. STEEL "d" LENGTH = SL SIZE | "d" SPACING | "d" NO. REQ'D | BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE | "e" SPACING | "e" NO. REQ'D | SIDE WALL DISTRIBUTION REINF. STEEL "d1" LENGTH = SL SIZE | "d1" SPACING | "d1" NO. REQ'D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| E | 30 | 8 | 5 | 12 | 12 | 7 | 9'-2" | 7'-0" | 202.92 | 7 | 5 | 487 | 8'-10" | 7 | 5 | 487 | 8'-10" | 7 | 11 | 462 | 6'-8" | 4 | 9 | 12 | 4 | 9 | 12 | 4 | 12 | 10 |

| CLASS "S" CONCRETE CU. YDS. | REINFORCING STEEL (Gr. 60) LBS. |
|---|---|
| 181.63 | 28714 |

## MID-SECTION BAR LAP TABLE

| # of Long. Laps Req'd. | SL = Section Length |
|---|---|
| 0 | < 40.0 ft |
| 1 | >40.0 ft - 78.0 ft |
| 2 | >78.0 ft - 116.0 ft |
| 3 | >116.0 ft - 154.0 ft |
| 4 | >154.0 ft - 192.0 ft |
| 5 | >192.0 ft - 230.0 ft |
| 6 | >230.0 ft - 268.0 ft |
| 7 | >268.0 ft - 306.0 ft |
| 8 | >306.0 ft -344.0 ft |

| Min. Bar Lap Length | |
|---|---|
| #4 | 1'-9" |
| #5 | 2'-2" |
| #6 | 2'-7" |
| #7 | 3'-6" |
| #8 | 4'-7" |

| Bar Pin Dia. Table | |
|---|---|
| #4 | 3" |
| #5 | 3 3/4" |
| #6 | 4 1/2" |
| #7 | 5 1/4" |
| #8 | 6" |

| Design Fill Depth | Range of Actual Fill Depth |
|---|---|
| 2 | 0.0 ft - 2.0 ft |
| 5 | >2.0 ft - 5.0 ft |
| 10 | >5.0 ft - 10.0 ft |
| 15 | >10.0 ft - 15.0 ft |
| 20 | >15.0 ft - 20.0 ft |
| 25 | >20.0 ft - 25.0 ft |
| 30 | >25.0 ft - 30.0 ft |
| 35 | >30.0 ft - 35.0 ft |
| 40 | >35.0 ft - 40.0 ft |

Data shown for Mid-Section, Slope Section(s), and Skewed End Section is based on the design fill depth shown in the table, see PLAN AND PROFILE SHEETS for actual fill depth.

# SHEET 1 OF 2
# DETAILS OF R.C. BOX CULVERT
## SINGLE BARREL BOX CULVERT
## XNA ACCESS RD. STA. 146+40
## SPECIAL DETAILS

LRFD

aewiercia 10/20/2023 12:51:19 PM
WORKSPACE: AHTD
L:\20\T\10\T600 - XNA Access - NEPA\Drawings\r090069_SD_02.dgn
REVISED DATE:
Ver. LI17

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 54 | 583 |
| | | SPECIAL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

TABULAR DATA BY: AEW DATE: 9/16/21
CHECKED BY: SAD DATE: 9/26/21

## OUTLET WINGWALL TABLE

| OVER ALL WIDTH | CLEAR HEIGHT | FOOTING THK. | WING WALL THK. | BOX SKEW (DEG.) | SLOPE | HDWL LENGTH | HEEL | WALL HEIGHT AT HDWL | WALL HEIGHT AT WING END | WINGWALL ANGLE (DEGREE) WING A | WINGWALL ANGLE (DEGREE) WING B | FOOTING WIDTH AT WALL END | WIDTH OF WING FOOTINGS AT HDWL WING A | WIDTH OF WING FOOTINGS AT HDWL WING B | FOOTING DIMENSION PARALLEL WITH HDWL WING A | FOOTING DIMENSION PARALLEL WITH HDWL WING B | LENGTH OF WINGWALLS WING A | LENGTH OF WINGWALLS WING B | LENGTH OF FOOTING HEEL WING A | LENGTH OF FOOTING HEEL WING B | CLASS "S" CONCRETE (Includes apron) | REINFORCING STEEL (Includes apron and laps if required) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | OUTLET | OUTLET |
| OW | H | WB | CW | SK | SL | K | HL | WH1 | WH2 | AF1 | AF2 | WE | WF1 | WF2 | G1 | G2 | W1 | W2 | W3 | W4 | CU.YD | LBS. |
| 9'-2" | 5'-0" | 0'-9" | 0'-8" | 15 | 3:1 | 8'-3 3/8" | 1'-0" | 5'-10" | 1'-8" | 15 | 45 | 2'-2" | 2'-9 1/2" | 3'-1" | 0'-10 3/4" | 1'-0" | 12'-6" | 17'-6" | 14'-2 5/8" | 19'-2 5/8" | 6.78 | 628 |

| WING | F1 BAR SIZE | F1 MAX. SPACING | F1 NO. REQ'D | F1 LENGTHS VARY | F1 | F2 BAR SIZE | F2 SPACING | F2 NO. REQ'D | F2 LENGTHS | F3 BAR SIZE | F3 SPACING | F3 NO. REQ'D | F3 LENGTHS | F4 BAR SIZE | F4 SPACING | F4 NO. REQ'D | F4 LENGTHS VARY | F5 BAR SIZE | F5 SPACING | F5 NO. REQ'D | F5 LENGTHS | F6 BAR SIZE | F6 SPACING | F6 NO. REQ'D | F6 LENGTHS VARY | F6 | F7 BAR SIZE | F7 NO. REQ'D | F7 LENGTHS | F8 BAR SIZE | F8 SPACING | F8 NO. REQ'D | F8 LENGTHS VARY | F9 BAR SIZE | F9 SPACING | F9 NO. REQ'D | F9 LENGTHS | F10 BAR SIZE | F10 NO. REQ'D | F10 LENGTHS | F11 BAR SIZE | F11 NO. REQ'D | F11 LENGTHS | F12 BAR SIZE | F12 SPACING | F12 NO. REQ'D | F12 LENGTHS | | REINF. STEEL QTY. PER WING (LBS) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WING A | 4 | 12 | 13 | L | Min | 2'-8" | | | | | | | | | | | Min | | | | | | | | Min | L | 3'-3" | 4 | 6 | 15'-1" | 6 | 18 | 8 | Min | | | | Min | 4 | 2 | 12'-8" | 4 | 2 | 13'-8" | 6 | 12 | 5 | L | 3'-4" | 265 |
| | | | | | Max | 7'-4" | | | | | | | | | | | 6'-4" | | | | | | | | Max | | Max | 7'-3" | | | | | | | 1'-8" | | | | | | | | | | | | | |
| | | | | X | Min | 0'-9" | - | - | - | - | - | - | - | | | | | 4 | 18 | 2 | 12'-2" | 4 | 18 | 9 | X | Min | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Max | 1'-5" | | | | | | | | | | | 10'-10" | | | | | | | | Max | | Max | 1'-4" | | | | | | | 2'-3" | | | | | | | | | | | | | |
| | | | | Y | Min | 2'-0" | | | | | | | | | | | | | | | | | | | | | | Y | Min | 2'-0" | | | | | | | | | | | | | | | | | | |
| | | | | | Max | 6'-0" | | | | | | | | | | | | | | | | | | | | | | | Max | 6'-0" | | | | | | | | | | | | | | | | | | |
| WING B | 4 | 12 | 18 | L | Min | 2'-8" | | | | | | | | | | | Min | | | | | | | | Min | L | 3'-4" | 4 | 6 | 20'-1" | 6 | 18 | 12 | Min | | | | Min | 4 | 2 | 17'-6" | 4 | 2 | 19'-10" | 6 | 12 | 5 | L | 3'-4" | 363 |
| | | | | | Max | 7'-7" | | | | | | | | | | | 2'-8" | | | | | | | | Max | | Max | 7'-3" | | | | | | | 1'-8" | | | | | | | | | | | | | |
| | | | | X | Min | 0'-9" | - | - | - | - | - | - | - | | | | | 4 | 18 | 2 | 17'-2" | 4 | 18 | 12 | X | Min | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | Max | 1'-8" | | | | | | | | | | | 15'-3" | | | | | | | | Max | | Max | 1'-4" | | | | | | | 2'-7" | | | | | | | | | | | | | |
| | | | | Y | Min | 2'-0" | | | | | | | | | | | | | | | | | | | | | | Y | Min | 2'-1" | | | | | | | | | | | | | | | | | | |
| | | | | | Max | 6'-0" | | | | | | | | | | | | | | | | | | | | | | | Max | 6'-0" | | | | | | | | | | | | | | | | | | |

## OUTLET SKEWED END SECTION

| SKEW (DEGREE) | SLOPE | DESIGN FILL DEPTH (FT.) | CLEAR SPAN (FT.) | CLEAR HEIGHT (FT.) | SECTION LENGTH | TOP SLAB THICKNESS | BOTTOM SLAB THK. | SIDE WALL THICKNESS | HEADWALL DEPTH | OVER ALL WIDTH | OVER ALL HEIGHT | TOP SLAB REINFORCING STEEL "a" SIZE | "a" SPACING | "a" LENGTHS VARY | "a" NO. REQ'D | BOTTOM SLAB REINFORCING STEEL "b" SIZE | "b" SPACEING | "b" LENGTHS VARY | "b" NO. REQ'D | SIDE WALL REINFORCING STEEL "f" SIZE | "f" SPACING | "f" NO. REQ'D | "f" LENGTH | TOP SLAB DISTRIBUTION REINFORCING STEEL "d" SIZE | "d" SPACING | "d" NO. REQ'D | "d" LENGTHS VARY | BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE | "e" SPACING | "e" NO. REQ'D | "e" LENGTHS VARY | SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE | "d1" SPACING | "d1" NO. REQ'D | "d1" LENGTH | HEADWALL REINFORCING STEEL "k1", "k2" & "h" BAR | SIZE | NO. REQ'D | LENGTH | CLASS "S" CONCRETE (Includes HDWL) | ① REINFORCING STEEL (GR. 60) (Includes HDWL) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SK | SL | D | S | H | LL | T | B | C | HD | OW | OH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | CU. YDS. | LBS. |
| 15 | 3:1 | 10 | 8 | 5 | 3'-2" | 8 | 8 | 6 | 3 | 9'-0" | 6'-4" | 5 | 4.5 | Max 9'-9" / Min 5'-11" | 2 | 5 | 4.5 | Max 8'-8" / Min 5'-11" | 2 | 4 | 8.5 | 10 | 6'-0" | 4 | 12 | 9 | Max 4'-3" / Min 1'-10" | 4 | 12 | 9 | Max 4'-3" / Min 1'-10" | 4 | 12 | 5 | Max 4'-3" / LONG 4'-3" / SHORT 1'-10" | "k1" / "k2" / "h" | 4 / 4 / 4 | 6 / 6 / 11 | 9'-0" / 9'-0" / 1'-7" / Y / 0'-7" | 2.21 | 320 |
| | | | | | | | | | | | | | | 8'-8" | 6 | | | 8'-8" | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | |

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

## OUTLET SLOPE SECTION(S)

| R.C. BOX SECTION | DESIGN FILL DEPTH (FT.) | CLEAR SPAN (FT.) | CLEAR HEIGHT (FT.) | TOP SLAB THICKNESS | BOTTOM SLAB THK. | SIDE WALL THICKNESS | OVER ALL WIDTH | OVER ALL HEIGHT | SECTION LENGTH (FT.) | TOP SLAB REINFORCING STEEL "a" LENGTH = OW - 4" SIZE | SPACING | NO. REQ'D | LENGTH | BOTTOM SLAB REINFORCING STEEL "b" LENGTH = OW - 4" SIZE | SPACING | NO. REQ'D | LENGTH | SIDE WALL REINFORCING STEEL "f" LENGTH = OH - 4" SIZE | SPACING | NO. REQ'D | LENGTH | TOP SLAB DISTRIBUTION REINF. STEEL "d" LENGTH = SL SIZE | SPACING | NO. REQ'D | BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE | SPACING | NO. REQ'D | SIDE WALL DISTRIBUTION REINF.STEEL "d1" LENGTH = SL SIZE | SPACING | NO. REQ'D | CLASS "S" CONCRETE CU. YDS. | REINFORCING STEEL (GR. 50) LBS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | D | S | H | T | B | C | OW | OH | SL | | | | | | | | | | | | | | | | | | | | | | | | |
| A | 10 | 8 | 5 | 8 | 8 | 6 | 9'-0" | 6'-4" | 31.06 | 5 | 4.5 | 82 | 8'-8" | 5 | 4.5 | 82 | 8'-8" | 4 | 8.5 | 86 | 6'-0" | 4 | 12 | 9 | 4 | 12 | 9 | 4 | 12 | 10 | 19.56 | 2463 |
| B | 15 | 8 | 5 | 9 | 9 | 6 | 9'-0" | 6'-6" | 12.49 | 6 | 5 | 29 | 8'-8" | 6 | 5 | 29 | 8'-8" | 4 | 6.5 | 46 | 6'-2" | 4 | 12 | 9 | 4 | 12 | 9 | 4 | 12 | 10 | 8.56 | 1237 |
| C | 20 | 8 | 5 | 10 | 10 | 6 | 9'-0" | 6'-8" | 12.49 | 6 | 4.5 | 33 | 8'-8" | 7 | 6 | 24 | 8'-8" | 4 | 4 | 74 | 6'-4" | 4 | 11 | 10 | 4 | 11 | 10 | 4 | 12 | 10 | 9.25 | 1478 |
| D | 25 | 8 | 5 | 11 | 11 | 6.5 | 9'-1" | 6'-10" | 12.49 | 7 | 5.5 | 27 | 8'-9" | 7 | 5.5 | 27 | 8'-9" | 4 | 4 | 74 | 6'-6" | 4 | 10 | 11 | 4 | 10 | 11 | 4 | 12 | 10 | 10.21 | 1605 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | TOTAL | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 47.58 | 6782 |

| HDWL DEPTH | ADDITIONAL REINF. FOR HDWL | "h" HDWL BARS | | | |
|---|---|---|---|---|---|
| HD | LBS | SIZE | Y | LENGTH | NO. REQ'D |
| | | | | | |

| Min. Bar Lap Length | |
|---|---|
| #4 | 1'-9" |
| #5 | 2'-2" |
| #6 | 2'-7" |
| #7 | 3'-6" |
| #8 | 4'-7" |

| Bar Pin Dia. Table | |
|---|---|
| #4 | 3" |
| #5 | 3 3/4" |
| #6 | 4 1/2" |
| #7 | 5 1/4" |
| #8 | 6" |

The required number of bars and lengths shown are for estimating purpose only. The actual number and length required shall be determined in field.

Unless otherwise noted, all dimensions are in inches.

SHEET 2 OF 2

# DETAILS OF R.C. BOX CULVERT

SINGLE BARREL BOX CULVERT
XNA ACCESS RD. STA. 146+40

SPECIAL DETAILS

LRFD

aewierciak 10/20/2023 12:51:25 PM
WORKSPACE: AHTD
L:\2017\17017600 - XNA Access - NEPA\Drawings\r090069_SD_02.dgn
REVISED DATE:
Ver. 1.17

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 55 | 583 |
| | | SPECIAL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

TABULAR DATA BY: AEW DATE: 9/16/21
CHECKED BY: SAD DATE: 9/26/21

## INLET WINGWALL TABLE

| OVER ALL WIDTH | CLEAR HEIGHT | FOOTING THK. | WING WALL THK. | BOX SKEW (DEG.) | SLOPE | HDWL LENGTH | HEEL | WALL HEIGHT AT HDWL | WALL HEIGHT AT WING END | WINGWALL ANGLE (DEGREE) WING A | WINGWALL ANGLE (DEGREE) WING B | FOOTING WIDTH AT WALL END | WIDTH OF WING FOOTINGS AT HDWL WING A | WIDTH OF WING FOOTINGS AT HDWL WING B | FOOTING DIMENSION PARALLEL WITH HDWL WING A | FOOTING DIMENSION PARALLEL WITH HDWL WING B | LENGTH OF WINGWALLS WING A | LENGTH OF WINGWALLS WING B | LENGTH OF FOOTING HEEL WING A | LENGTH OF FOOTING HEEL WING B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OW | H | WB | CW | SK | SL | K | HL | WH1 | WH2 | AF1 | AF2 | WE | WF1 | WF2 | G1 | G2 | W1 | W2 | W3 | W4 |
| 7'-4" | 6'-0" | 0'-9" | 0'-8" | 25 | 3:1 | 6'-11 7/8" | 2'-0" | 6'-10" | 2'-0" | 5 | 55 | 3'-2" | 3'-3 7/8" | 3'-9" | 0'-6 7/8" | 0'-5 3/8" | 14'-6" | 25'-0" | 18'-1 3/8" | 28'-7 3/8" |

| CLASS "S" CONCRETE (Includes apron) | REINFORCING STEEL (Includes apron and laps if required) |
|---|---|
| INLET | INLET |
| CU.YD | LBS. |
| 9.76 | 987 |

| WING | F1 BAR SIZE | F1 MAX. SPACING | F1 NO. REQ'D | F1 LENGTHS VARY | F1 | F2 BAR SIZE | F2 SPACING | F2 NO. REQ'D | F2 LENGTHS | F3 BAR SIZE | F3 SPACING | F3 NO. REQ'D | F3 LENGTHS | F4 BAR SIZE | F4 SPACING | F4 NO. REQ'D | F4 LENGTHS VARY | F5 BAR SIZE | F5 SPACING | F5 NO. REQ'D | F5 LENGTHS | F6 BAR SIZE | F6 SPACING | F6 NO. REQ'D | F6 LENGTHS VARY | F6 | F7 BAR SIZE | F7 NO. REQ'D | F7 LENGTHS | F8 BAR SIZE | F8 SPACING | F8 NO. REQ'D | F8 LENGTHS VARY | F9 BAR SIZE | F9 SPACING | F9 NO. REQ'D | F9 LENGTHS | F10 BAR SIZE | F10 NO. REQ'D | F10 LENGTHS | F11 BAR SIZE | F11 NO. REQ'D | F11 LENGTHS | F12 BAR SIZE | F12 SPACING | F12 NO. REQ'D | F12 LENGTHS | | REINF. STEEL QTY. PER WING (LBS) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WING A | 4 | 12 | 15 | L Min | 3'-0" | - | - | - | L - | - | - | - | L - | 4 | 18 | 4 | Min | 4 | 18 | 4 | 14'-2" | 4 | 18 | 10 | L Min | 4'-9" | 4 | 8 | 18'-11" | 6 | 18 | 10 | Min | - | - | - | Min | 4 | 2 | 14'-10" | 4 | 2 | 15'-5" | 6 | 12 | 6 | L | 3'-4" | 376 |
| | | | | L Max | 7'-10" | | | | | | | | | | | | 4'-10" | | | | | | | | Max 9'-3" | | | | | | | | 2'-8" | | | | | | | | | | | | | | | |
| | | | | X Min | 0'-9" | | | | X - | | | | X - | | | | Max | | | | | | | | X Min 2'-4" | | | | | | | | - | | | | | | | | | | | | X | 1'-8" | |
| | | | | X Max | 0'-11" | | | | | | | | | | | | 9'-4" | | | | | | | | Max 2'-4" | | | | | | | | Max | | | | | | | | | | | | | | |
| | | | | Y Min | 2'-4" | | | | Y - | | | | Y - | | | | | | | | | | | | Y Min 2'-6" | | | | | | | | 2'-10" | | | | | | | | | | | | | | |
| | | | | Y Max | 7'-0" | | | | | | | | | | | | | | | | | | | | Max 7'-0" | | | | | | | | - | | | | | | | | | | | | | | |
| WING B | 4 | 12 | 25 | L Min | 3'-1" | - | - | - | L - | - | - | - | L - | 4 | 18 | 4 | Min | 4 | 18 | 4 | 24'-8" | 4 | 18 | 17 | L Min | 4'-3" | 4 | 8 | 29'-5" | 6 | 18 | 17 | Min | - | - | - | Min | 4 | 2 | 25'-0" | 4 | 2 | 27'-5" | 6 | 12 | 6 | L | 3'-4" | 611 |
| | | | | L Max | 8'-3" | | | | | | | | | | | | 8'-5" | | | | | | | | Max 9'-3" | | | | | | | | 2'-8" | | | | | | | | | | | | | | |
| | | | | X Min | 0'-9" | | | | X - | | | | X - | | | | Max | | | | | | | | X Min 2'-4" | | | | | | | | - | | | | | | | | | | | | X | 1'-8" | |
| | | | | X Max | 1'-4" | | | | | | | | | | | | 16'-3" | | | | | | | | Max 2'-4" | | | | | | | | Max | | | | | | | | | | | | | | |
| | | | | Y Min | 2'-5" | | | | Y - | | | | Y - | | | | | | | | | | | | Y Min 2'-5" | | | | | | | | 3'-3" | | | | | | | | | | | | | | |
| | | | | Y Max | 7'-0" | | | | | | | | | | | | | | | | | | | | Max 7'-0" | | | | | | | | - | | | | | | | | | | | | | | |

## INLET SKEWED END SECTION

| SKEW (DEGREE) | SLOPE | DESIGN FILL DEPTH (FT.) | CLEAR SPAN (FT.) | CLEAR HEIGHT (FT.) | SECTION LENGTH | TOP SLAB THICKNESS | BOTTOM SLAB THK. | SIDE WALL THICKNESS | HEADWALL DEPTH | OVER ALL WIDTH | OVER ALL HEIGHT | TOP SLAB REINFORCING STEEL "a" SIZE | SPACING | LENGTHS VARY | NO. REQ'D | BOTTOM SLAB REINFORCING STEEL "b" SIZE | SPACEING | LENGTHS VARY | NO. REQ'D | SIDE WALL REINFORCING STEEL "f" SIZE | SPACING | NO. REQ'D | LENGTH | TOP SLAB DISTRIBUTION REINFORCING STEEL "d" SIZE | SPACING | NO. REQ'D | LENGTHS VARY | BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE | SPACING | NO. REQ'D | LENGTHS VARY | SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE | SPACING | NO. REQ'D | LENGTH | HEADWALL REINFORCING STEEL "k1", "k2" & "h" BAR | SIZE | NO. REQ'D | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SK | SL | D | S | H | LL | T | B | C | HD | OW | OH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | 3:1 | 10 | 6 | 6 | 3'-8" | 7 | 7 | 6 | 3 | 7'-0" | 7'-2" | 4 | 4.5 | Max 6'-8" / Min 3'-7" | 4 | 4 | 4 | Max 6'-8" / Min 3'-7" | 5 | 4 | 6 | 15 | 6'-10" | 4 | 12 | 7 | Max 5'-1" / Min 1'-10" | 4 | 12 | 7 | Max 5'-1" / Min 1'-10" | 4 | 12 | 6 | LONG 5'-1" / SHORT 1'-10" | "k1" / "k2" / "h" | 4 / 4 / 4 | 6 / 6 / 9 | 7'-5" / 7'-5" / 1'-6" / Y / 0'-6" |
| | | | | | | | | | | | | | | 6'-8" | 6 | | | 6'-8" | 6 | | | | | | | | | | | | | | | | | | | | | | |

| CLASS "S" CONCRETE (Includes HDWL) | REINFORCING STEEL (GR. 60) (Includes HDWL) |
|---|---|
| CU. YDS. | LBS. |
| 2.06 | 281 |

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

## INLET SLOPE SECTION(S)

| R.C. BOX SECTION | DESIGN FILL DEPTH (FT.) D | CLEAR SPAN (FT.) S | CLEAR HEIGHT (FT.) H | TOP SLAB THICKNESS T | BOTTOM SLAB THK. B | SIDE WALL THICKNESS C | OVER ALL WIDTH OW | OVER ALL HEIGHT OH | SECTION LENGTH (FT.) SL | TOP SLAB REINFORCING STEEL "a" LENGTH = OW - 4" SIZE | SPACING | NO. REQ'D | LENGTH | BOTTOM SLAB REINFORCING STEEL "b" LENGTH = OW - 4" SIZE | SPACING | NO. REQ'D | LENGTH | SIDE WALL REINFORCING STEEL "f" LENGTH = OH - 4" SIZE | SPACING | NO. REQ'D | LENGTH | TOP SLAB DISTRIBUTION REINF. STEEL "d" LENGTH = SL SIZE | SPACING | NO. REQ'D | BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE | SPACING | NO. REQ'D | SIDE WALL DISTRIBUTION REINF.STEEL "d1" LENGTH = SL SIZE | SPACING | NO. REQ'D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 10 | 6 | 6 | 7 | 7 | 6 | 7'-0" | 7'-2" | 21.48 | 4 | 4.5 | 57 | 6'-8" | 4 | 4 | 64 | 6'-8" | 4 | 6 | 84 | 6'-10" | 4 | 12 | 7 | 4 | 12 | 7 | 4 | 12 | 7 | 4 | 12 | 12 |
| B | 15 | 6 | 6 | 7.5 | 7.5 | 6.5 | 7'-1" | 7'-3" | 12.16 | 5 | 5 | 29 | 6'-9" | 5 | 4.5 | 32 | 6'-9" | 5 | 7 | 40 | 6'-11" | 4 | 12 | 7 | 4 | 12 | 7 | 4 | 12 | 12 |
| C | 20 | 6 | 6 | 8.5 | 8.5 | 7 | 7'-2" | 7'-5" | 12.29 | 6 | 6.5 | 22 | 6'-10" | 6 | 6 | 24 | 6'-10" | 4 | 4 | 72 | 7'-1" | 4 | 12 | 7 | 4 | 12 | 7 | 4 | 12 | 12 |
| D | 25 | 6 | 6 | 9 | 9 | 7.5 | 7'-3" | 7'-6" | 18.62 | 6 | 5.5 | 40 | 6'-11" | 6 | 5 | 44 | 6'-11" | 6 | 8 | 54 | 7'-2" | 4 | 12 | 7 | 4 | 12 | 7 | 4 | 12 | 12 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| HDWL DEPTH | ADDITIONAL REINF. FOR HDWL | "h" HDWL BARS | | | |
|---|---|---|---|---|---|
| HD | LBS | SIZE | Y | LENGTH | NO. REQ'D |
| | | | | | |

| CLASS "S" CONCRETE | REINFORCING STEEL (GR. 50) |
|---|---|
| CU. YDS. | LBS. |
| 11.27 | 1338 |
| 6.92 | 976 |
| 7.81 | 1078 |
| 12.67 | 1841 |
| | |
| | |
| | |
| TOTAL | |
| 38.67 | 5233 |

## MID-SECTION

| R.C. BOX SECTION | DESIGN FILL DEPTH (FT.) D | CLEAR SPAN (FT.) S | CLEAR HEIGHT (FT.) H | TOP SLAB THK. T | BOTTOM SLAB THK. B | SIDE WALL THK C | OVER ALL WIDTH OW | OVER ALL HEIGHT OH | SECTION LENGTH (FT.) SL | TOP SLAB REINFORCING STEEL "a" LENGTH = OW - 4" SIZE | SPACING | NO. REQ'D | LENGTH | BOTTOM SLAB REINFORCING STEEL "b" LENGTH = OW - 4" SIZE | SPACING | NO. REQ'D | LENGTH | SIDE WALL REINFORCING STEEL "f" LENGTH = OH - 4" SIZE | SPACING | NO. REQ'D | LENGTH | TOP SLAB DISTRIBUTION REINF. STEEL "d" LENGTH = SL SIZE | SPACING | NO. REQ'D | BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE | SPACING | NO. REQ'D | SIDE WALL DISTRIBUTION REINF. STEEL "d1" LENGTH = SL SIZE | SPACING | NO. REQ'D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| E | 30 | 6 | 6 | 9.5 | 10 | 8 | 7'-4" | 7'-7 1/2" | 167.11 | 6 | 4.5 | 445 | 7'-0" | 6 | 5 | 401 | 7'-0" | 7 | 10 | 400 | 7'-4" | 4 | 11 | 8 | 4 | 11 | 8 | 4 | 12 | 12 |

| CLASS "S" CONCRETE | REINFORCING STEEL (Gr. 60) |
|---|---|
| CU. YDS. | LBS. |
| 123.27 | 18170 |

| Min. Bar Lap Length | |
|---|---|
| #4 | 1'-9" |
| #5 | 2'-2" |
| #6 | 2'-7" |
| #7 | 3'-6" |
| #8 | 4'-7" |

| Bar Pin Dia. Table | |
|---|---|
| #4 | 3" |
| #5 | 3 3/4" |
| #6 | 4 1/2" |
| #7 | 5 1/4" |
| #8 | 6" |

## MID-SECTION BAR LAP TABLE

| # of Long. Laps Req'd. | SL = Section Length |
|---|---|
| 0 | < 40.0 ft |
| 1 | >40.0 ft - 78.0 ft |
| 2 | >78.0 ft - 116.0 ft |
| 3 | >116.0 ft - 154.0 ft |
| 4 | >154.0 ft - 192.0 ft |
| 5 | >192.0 ft - 230.0 ft |
| 6 | >230.0 ft - 268.0 ft |
| 7 | >268.0 ft - 306.0 ft |
| 8 | >306.0 ft -344.0 ft |

| Design Fill Depth | Range of Actual Fill Depth |
|---|---|
| 2 | 0.0 ft - 2.0 ft |
| 5 | >2.0 ft - 5.0 ft |
| 10 | >5.0 ft - 10.0 ft |
| 15 | >10.0 ft - 15.0 ft |
| 20 | >15.0 ft - 20.0 ft |
| 25 | >20.0 ft - 25.0 ft |
| 30 | >25.0 ft - 30.0 ft |
| 35 | >30.0 ft - 35.0 ft |
| 40 | >35.0 ft - 40.0 ft |

This drawing to be used in conjunction with
SHEET 1 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'GENERAL NOTES & LONGITUDINAL SECTION LENGTH SCHEDULE',
SHEET 2 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF SINGLE-BARREL R.C. BOX CULVERT',
SHEET 4 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF WINGWALLS', and
STANDARD DRAWING RCB-2.

For additional information and outlet sections, see Sheet 2 of 2.

Data shown for Mid-Section, Slope Section(s), and Skewed End Section is based on the design fill depth shown in the table, see PLAN AND PROFILE SHEETS for actual fill depth.

# SHEET 1 OF 2
# DETAILS OF R.C. BOX CULVERT
## SINGLE BARREL BOX CULVERT
## AIRPORT BLVD. STA. 267+73
## SPECIAL DETAILS

LRFD

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WORKSPACE: AHTD
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REVISED DATE:
Ver. LI17

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 56 | 583 |
| | | SPECIAL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

TABULAR DATA BY: AEW DATE: 9/16/21
CHECKED BY: SAD DATE: 9/26/21

## OUTLET WINGWALL TABLE

| OVER ALL WIDTH | CLEAR HEIGHT | FOOTING THK. | WING WALL THK. | BOX SKEW (DEG.) | SLOPE | HDWL LENGTH | HEEL | WALL HEIGHT AT HDWL | WALL HEIGHT AT WING END | WINGWALL ANGLE (DEGREE) WING A | WINGWALL ANGLE (DEGREE) WING B | FOOTING WIDTH AT WALL END | WIDTH OF WING FOOTINGS AT HDWL WING A | WIDTH OF WING FOOTINGS AT HDWL WING B | FOOTING DIMENSION PARALLEL WITH HDWL WING A | FOOTING DIMENSION PARALLEL WITH HDWL WING B | LENGTH OF WINGWALLS WING A | LENGTH OF WINGWALLS WING B | LENGTH OF FOOTING HEEL WING A | LENGTH OF FOOTING HEEL WING B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OW | H | WB | CW | SK | SL | K | HL | WH1 | WH2 | AF1 | AF2 | WE | WF1 | WF2 | G1 | G2 | W1 | W2 | W3 | W4 |
| 7'-4" | 6'-0" | 0'-9" | 0'-8" | 25 | 3:1 | 6'-7 3/8" | 2'-0" | 6'-10" | 2'-0" | 5 | 55 | 3'-2" | 3'-3 7/8" | 3'-9" | 0'-6 7/8" | 0'-5 3/8" | 14'-6" | 25'-0" | 17'-9 3/8" | 28'-3 3/8" |

| CLASS "S" CONCRETE (Includes apron) | REINFORCING STEEL (Includes apron and laps if required) |
|---|---|
| OUTLET | OUTLET |
| CU.YD | LBS. |
| 10.31 | 983 |

| WING | F1 BAR SIZE | F1 MAX. SPACING | F1 NO. REQ'D | F1 LENGTHS VARY | F1 | F2 BAR SIZE | F2 SPACING | F2 NO. REQ'D | F2 LENGTHS | F3 BAR SIZE | F3 SPACING | F3 NO. REQ'D | F3 LENGTHS | F4 BAR SIZE | F4 SPACING | F4 NO. REQ'D | F4 LENGTHS VARY | F5 BAR SIZE | F5 SPACING | F5 NO. REQ'D | F5 LENGTHS | F6 BAR SIZE | F6 SPACING | F6 NO. REQ'D | F6 LENGTHS VARY | F6 | F7 BAR SIZE | F7 NO. REQ'D | F7 LENGTHS | F8 BAR SIZE | F8 SPACING | F8 NO. REQ'D | F8 LENGTHS VARY | F9 BAR SIZE | F9 SPACING | F9 NO. REQ'D | F9 LENGTHS | F10 BAR SIZE | F10 NO. REQ'D | F10 LENGTHS | F11 BAR SIZE | F11 NO. REQ'D | F11 LENGTHS | F12 BAR SIZE | F12 SPACING | F12 NO. REQ'D | F12 LENGTHS | | REINF. STEEL QTY. PER WING (LBS) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WING A | 4 | 12 | 15 | L | Min | 3'-0" | - | - | - | L | - | - | - | L | - | - | - | L | Min | 4'-10" | 4 | 18 | 4 | 14'-2" | 4 | 18 | 10 | L | Min | 4'-9" | 4 | 8 | 18'-7" | 6 | 18 | 10 | Min | 2'-8" | - | - | - | Min | - | 4 | 2 | 14'-10" | 4 | 2 | 15'-5" | 6 | 12 | 6 | L | 3'-4" | 374 |
| | | | | | Max | 7'-10" | | | | | | | | | | | | | Max | 9'-4" | | | | | | | | | Max | 9'-3" | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | X | Min | 0'-9" | | | | X | | | | | | | | X | Min | 2'-4" | | | | | | | X | Min | 2'-4" | | | | | | | | Max | 2'-8" | | | | Max | - | | | | | | | | | | |
| | | | | | Max | 0'-11" | | | | | | | | | | | | | Max | 2'-4" | | | | | | | | Max | 2'-4" | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Y | Min | 2'-4" | | | | Y | | | | | | | | Y | Min | 2'-6" | | | | | | | Y | Min | 2'-6" | | | | | | | | Max | 2'-10" | | | | Max | - | | | | | | | | | | |
| | | | | | Max | 7'-0" | | | | | | | | | | | | | Max | 7'-0" | | | | | | | | Max | 7'-0" | | | | | | | | | | | | | | | | | | | | | | | |
| WING B | 4 | 12 | 25 | L | Min | 3'-1" | - | - | - | L | - | - | - | L | - | - | - | L | Min | 8'-5" | 4 | 18 | 4 | 24'-8" | 4 | 18 | 17 | L | Min | 4'-3" | 4 | 8 | 29'-1" | 6 | 18 | 17 | Min | 2'-8" | - | - | - | Min | - | 4 | 2 | 25'-0" | 4 | 2 | 27'-5" | 6 | 12 | 6 | L | 3'-4" | 609 |
| | | | | | Max | 8'-3" | | | | | | | | | | | | | Max | 16'-3" | | | | | | | | Max | 9'-3" | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | X | Min | 0'-9" | | | | X | | | | | | | | X | Min | 2'-4" | | | | | | | X | Min | 2'-4" | | | | | | | | Max | 2'-8" | | | | Max | - | | | | | | | | | | |
| | | | | | Max | 1'-4" | | | | | | | | | | | | | Max | 2'-4" | | | | | | | | Max | 2'-4" | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Y | Min | 2'-5" | | | | Y | | | | | | | | Y | Min | 2'-5" | | | | | | | Y | Min | 2'-5" | | | | | | | | Max | 3'-3" | | | | Max | - | | | | | | | | | | |
| | | | | | Max | 7'-0" | | | | | | | | | | | | | Max | 7'-0" | | | | | | | | Max | 7'-0" | | | | | | | | | | | | | | | | | | | | | | | |

## OUTLET SKEWED END SECTION

| SKEW (DEGREE) | SLOPE | DESIGN FILL DEPTH (FT.) | CLEAR SPAN (FT.) | CLEAR HEIGHT (FT.) | SECTION LENGTH | TOP SLAB THICKNESS | BOTTOM SLAB THK. | SIDE WALL THICKNESS | HEADWALL DEPTH | OVER ALL WIDTH | OVER ALL HEIGHT | TOP SLAB REINFORCING STEEL "a" SIZE | "a" SPACING | "a" LENGTHS VARY | "a" NO. REQ'D | BOTTOM SLAB REINFORCING STEEL "b" SIZE | "b" SPACEING | "b" LENGTHS VARY | "b" NO. REQ'D | SIDE WALL REINFORCING STEEL "f" SIZE | "f" SPACING | "f" NO. REQ'D | "f" LENGTH | TOP SLAB DISTRIBUTION REINFORCING STEEL "d" SIZE | "d" SPACING | "d" NO. REQ'D | "d" LENGTHS VARY | BOTTOM SLAB DISTRIBUTION REINFORCING STEEL "e" SIZE | "e" SPACING | "e" NO. REQ'D | "e" LENGTHS VARY | SIDE WALL DISTRIBUTION REINFORCING STEEL "d1" SIZE | "d1" SPACING | "d1" NO. REQ'D | "d1" LENGTH | HEADWALL REINFORCING STEEL "k1", "k2" & "h" BAR | "k1", "k2" & "h" SIZE | "k1", "k2" & "h" NO. REQ'D | "k1", "k2" & "h" LENGTH | CLASS "S" CONCRETE (Includes HDWL) CU. YDS. | ① REINFORCING STEEL (GR. 60) (Includes HDWL) LBS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SK | SL | D | S | H | LL | T | B | C | HD | OW | OH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | 3:1 | 10 | 6 | 6 | 3'-8" | 7 | 7 | 6 | 3 | 7'-0" | 7'-2" | 4 | 4.5 | Max 6'-8" / Min 3'-7" | 4 | 4 | 4 | Max 6'-8" / Min 3'-7" | 5 | 4 | 6 | 15 | 6'-10" | 4 | 12 | 7 | Max 5'-1" / Min 1'-10" | 4 | 12 | 7 | Max 5'-1" / Min 1'-10" | 4 | 12 | 6 | LONG 5'-1" / SHORT 1'-10" | "k1" / "k2" / "h" | 4 / 4 / 9 | 6 / 6 / Y | 7'-5" / 7'-5" / 1'-6" / 0'-6" | 2.06 | 281 |

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Grade 60)."

## OUTLET SLOPE SECTION(S)

| R.C. BOX SECTION | DESIGN FILL DEPTH (FT.) D | CLEAR SPAN (FT.) S | CLEAR HEIGHT (FT.) H | TOP SLAB THICKNESS T | BOTTOM SLAB THK. B | SIDE WALL THICKNESS C | OVER ALL WIDTH OW | OVER ALL HEIGHT OH | SECTION LENGTH (FT.) SL | TOP SLAB REINFORCING STEEL "a" LENGTH = OW - 4" SIZE | "a" SPACING | "a" NO. REQ'D | "a" LENGTH | BOTTOM SLAB REINFORCING STEEL "b" LENGTH = OW - 4" SIZE | "b" SPACING | "b" NO. REQ'D | "b" LENGTH | SIDE WALL REINFORCING STEEL "f" LENGTH = OH - 4" SIZE | "f" SPACING | "f" NO. REQ'D | "f" LENGTH | TOP SLAB DISTRIBUTION REINF. STEEL "d" LENGTH = SL SIZE | "d" SPACING | "d" NO. REQ'D | BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE | "e" SPACING | "e" NO. REQ'D | SIDE WALL DISTRIBUTION REINF.STEEL "d1" LENGTH = SL SIZE | "d1" SPACING | "d1" NO. REQ'D | CLASS "S" CONCRETE CU. YDS. | REINFORCING STEEL (GR. 50) LBS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 10 | 6 | 6 | 7 | 7 | 6 | 7'-0" | 7'-2" | 1 | 4 | 4.5 | 2 | 6'-8" | 4 | 4 | 3 | 6'-8" | 4 | 6 | 4 | 6'-10" | 4 | 12 | 7 | 4 | 12 | 7 | 4 | 12 | 12 | 0.52 | 91 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | TOTAL | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0.52 | 91 |

| HDWL DEPTH HD | ADDITIONAL REINF. FOR HDWL LBS | "h" HDWL BARS SIZE | Y | LENGTH | NO. REQ'D |
|---|---|---|---|---|---|
| | | | | | |

| Min. Bar Lap Length | |
|---|---|
| #4 | 1'-9" |
| #5 | 2'-2" |
| #6 | 2'-7" |
| #7 | 3'-6" |
| #8 | 4'-7" |

| Bar Pin Dia. Table | |
|---|---|
| #4 | 3" |
| #5 | 3 3/4" |
| #6 | 4 1/2" |
| #7 | 5 1/4" |
| #8 | 6" |

The required number of bars and lengths shown are for estimating purpose only. The actual number and length required shall be determined in field.

Unless otherwise noted, all dimensions are in inches.

SHEET 2 OF 2

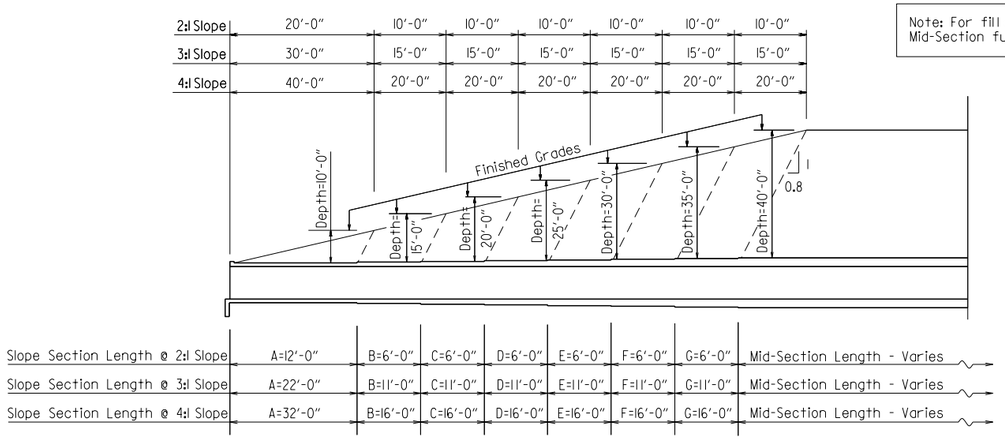
# DETAILS OF R.C. BOX CULVERT

SINGLE BARREL BOX CULVERT
AIRPORT BLVD. STA. 267+73

SPECIAL DETAILS

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| | | 6 | ARK. | 090069 | 57 | 583 |
| | | SPECIAL DETAILS | | | | |

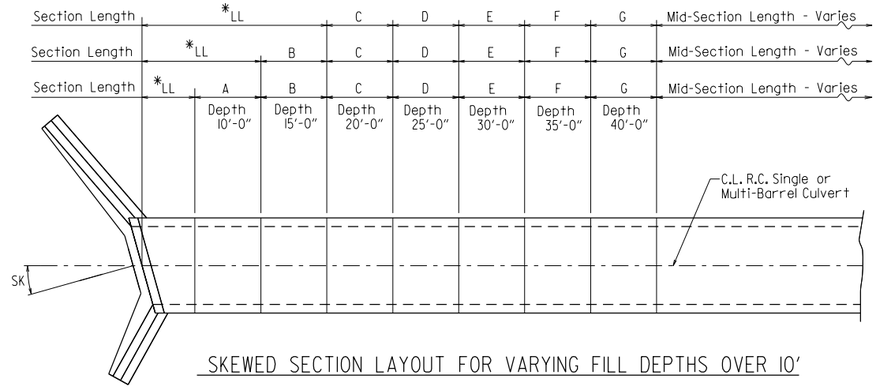



## LONGITUDINAL SECTION LENGTH SCHEDULE FOR VARYING FILL DEPTHS OVER 10'

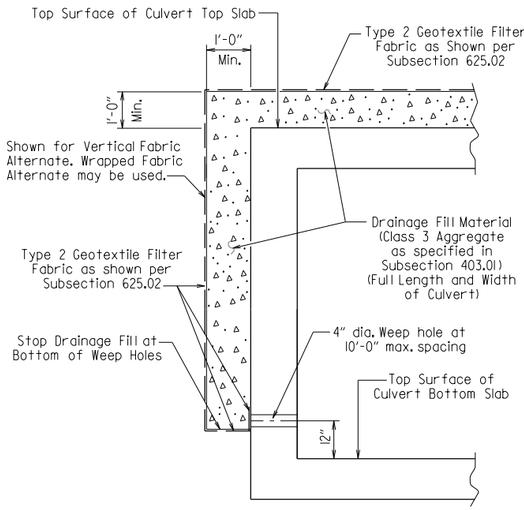
Lengths for Non-Skewed Boxes

Note: For fill depths 10' and under, use Mid-Section full length of box culvert.

*LL = Skewed End Section Length - See "Skewed End Section Details" Length LL varies with skew angle, overall box width and fill depth and may eliminate the need for some slope section lengths as shown.

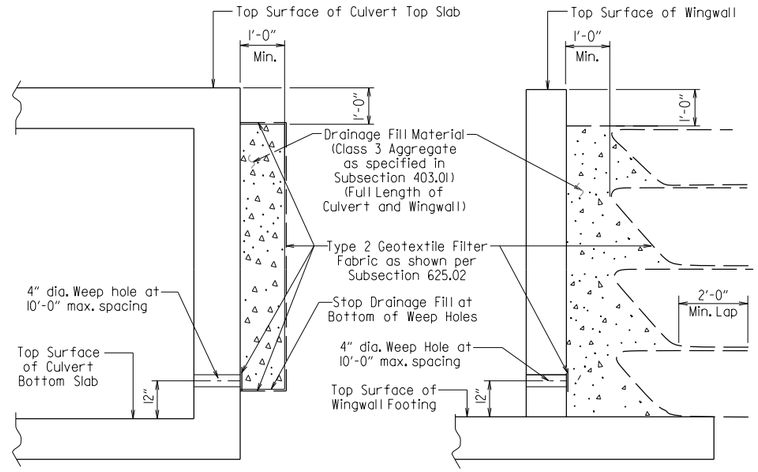



## SKEWED SECTION LAYOUT FOR VARYING FILL DEPTHS OVER 10'




## CULVERT DRAINAGE DETAIL FOR ROCK FILL

This detail shall be used when rock fill is specified for embankment construction.

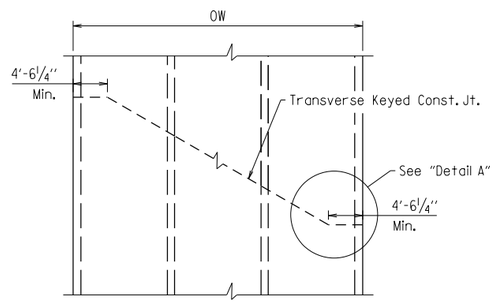



For Details of Excavation and Pay Limits, see Standard Drawing RCB-2.

VERTICAL FABRIC ALTERNATE
(Shown for Culvert, Similar for Wingwall)

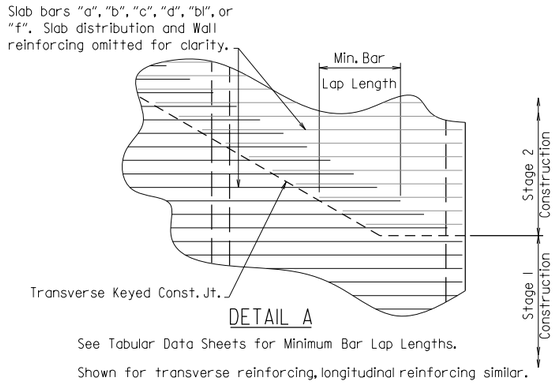
WRAPPED FABRIC ALTERNATE
(Shown for Wingwall, Similar for Culvert)

## WINGWALL & CULVERT DRAINAGE DETAIL




## SKEWED TRANSVERSE JOINT DETAIL

This detail shall be used to construct a skewed transverse joint only for Multi-Barrel Culverts and only when required by the Maintenance of Traffic Plans. Otherwise, transverse joints should be made normal to the centerline of the barrel.




## DETAIL A

See Tabular Data Sheets for Minimum Bar Lap Lengths.

Shown for transverse reinforcing, longitudinal reinforcing similar.

GENERAL NOTES:

**CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 edition) with applicable Supplemental Specifications and Special Provisions. Section and Subsection refer to the Standard Construction Specifications unless otherwise noted in the Plans.**

**DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications, Fifth Edition (2010) with 2010 interim revisions.**

**LIVE LOADING: HL-93**

**All concrete shall be Class S with a minimum 28-day compressive strength of 3,500 psi and shall be poured in the dry. All exposed corners to have ¾" chamfers.**

**Reinforcing Steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M31 or M322, Type A, with mill test reports.**

**Reinforcing Steel Tolerances: The tolerances for reinforcing steel shall meet those listed in 'Manual of Standard Practice' published by Concrete Reinforcing Steel Institute (CRSI) except that the tolerance for truss bars such as Figure 3 on page 7-4 of the CRSI Manual shall be minus zero to plus 1/2 inch.**

**Excavation and backfilling shall be in accordance with the requirements of Section 801.**

**Membrane Waterproofing shall conform to the requirements of Section 815. Membrane Waterproofing shall be Type C and as directed by the Engineer applied to all construction joints in the top slab and the sidewalls of R.C. Box culverts and to the construction joint between wingwalls and R.C. Box culvert walls.**

**Weep Holes in box culvert walls shall have a maximum horizontal spacing of 10'-0" and shall be spaced to clear all reinforcing steel. The drain opening shall be 4" diameter and shall be placed 12" above the top of the bottom slab.**

**Weep Holes in wingwalls shall have a maximum horizontal spacing of 10'-0" and shall be spaced to clear all reinforcing steel. There shall be a minimum of two (2) weep holes in each wingwall. The drain opening shall be 4" diameter and shall be placed 12" above the top of the wingwall footing.**

**The barrel components of the culvert may be constructed using continuous pours. For longer culvert construction, the Contractor may use multiple pours with transverse construction joints spaced a minimum of 50 feet apart unless superseded by stage construction or site constraints as approved by the Engineer. Construction joints between footings and walls shall be made only where shown in the Plans. Joints shall be keyed and shall be normal to the centerline of barrel except as noted. Reinforcing shall be continuous through joints unless noted otherwise. Reinforcing through stage construction joints shall provide the minimum bar lap length shown on the Tabular Data Sheets. All longitudinal construction joints shall be submitted to the Engineer for approval.**

**Membrane Waterproofing, Weep Holes, Geotextile Filter Fabric, and Drainage Fill Material will not be paid for directly but shall be considered subsidiary to Class S Concrete.**

**When the top slab of the box culvert serves as finished roadway surface, curing and finishing shall be in accordance with subsections 802.17 and 802.20 for bridge roadway surface and a tine finish shall be applied in accordance with subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish. Curing and finishing shall not be paid for directly, but shall be considered incidental to the item "Class S Concrete-Roadway". Class 1 Protective Surface Treatment shall be applied to the roadway surface and this work shall be paid for under the unit price bid for "Class 1 Protective Surface Treatment".**

**When precast reinforced concrete box culverts are substituted for cast in place box culverts, they shall be manufactured according to ASTM C 1577 and meet the requirements of Section 607. When the top slab of the box culvert serves as the finished roadway surface, a precast reinforced concrete box culvert substitution is not allowed.**

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

SHEET 1 OF 4

# GENERAL DETAILS OF R.C. BOX CULVERT

GENERAL NOTES &
LONGITUDINAL SECTION LENGTH SCHEDULE

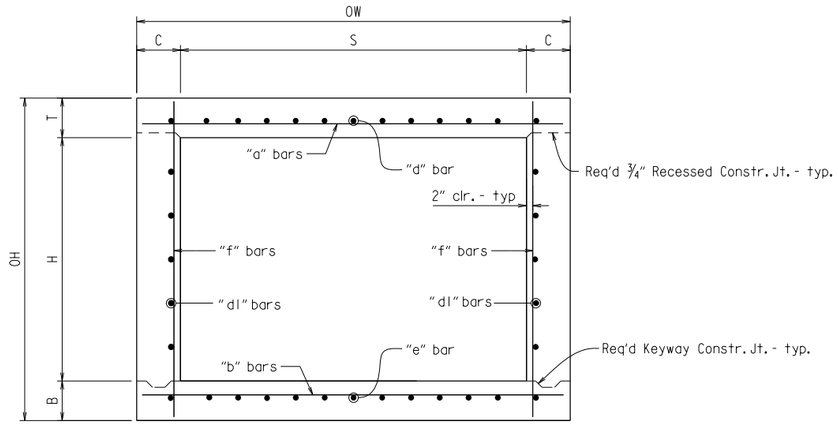
SPECIAL DETAILS

LRFD

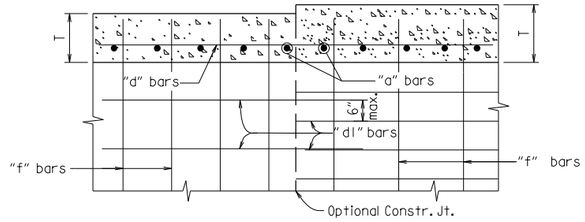
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| | | SPECIAL DETAILS | | | | |

Note: When top slab of culvert serves as finished roadway surface, see General Notes on Sheet 1 of 4.



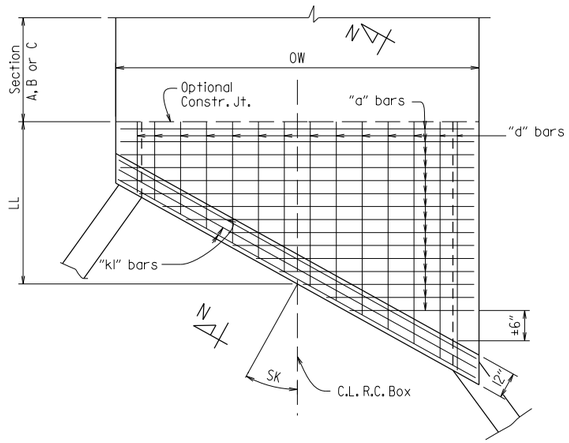

## TYPICAL SECTION M-M



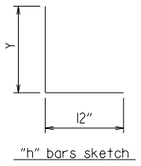

Longitudinal Bar Spacing at individual sections shall be maintained, which may result in noncontact bar laps.

## LONGITUDINAL LAP DETAIL AT CHANGE IN SECTIONS

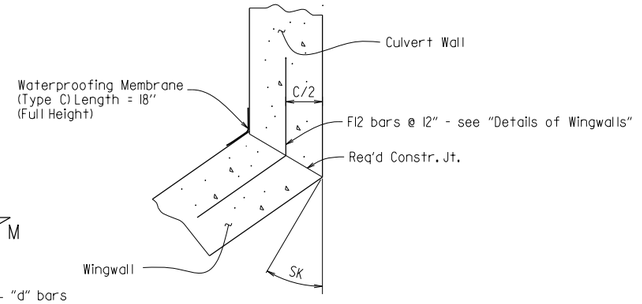
TOP SLAB SHOWN, BOTTOM SLAB SIMILAR




TOP SLAB REINFORCEMENT

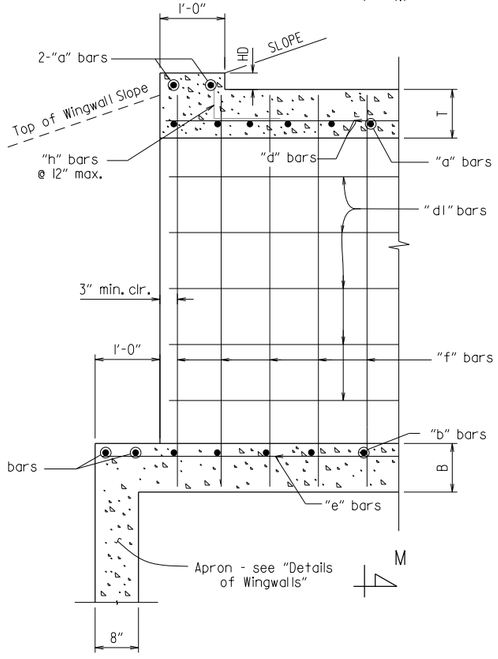



"h" bars sketch



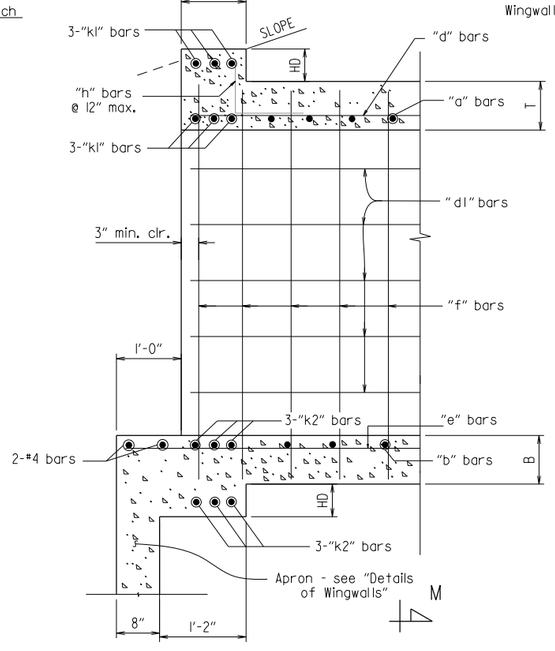

## WINGWALL ATTACHMENT

See "Details of Wingwalls" for additional information and wingwall details.



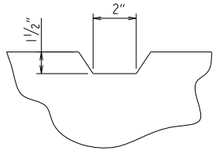

## PART LONGITUDINAL SECTION

(Non-Skewed Ends)



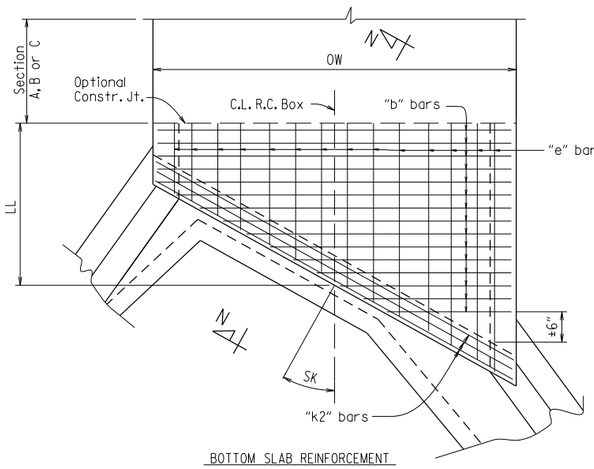

## PART LONGITUDINAL SECTION N-N

(Skewed Ends)




## TYPICAL KEYWAY DETAIL

(All Construction Joints)




BOTTOM SLAB REINFORCEMENT

## SKEWED END SECTION DETAILS

# SHEET 2 OF 4
# GENERAL DETAILS OF R.C. BOX CULVERT

## DETAILS OF SINGLE BARREL R.C. BOX CULVERT

## SPECIAL DETAILS

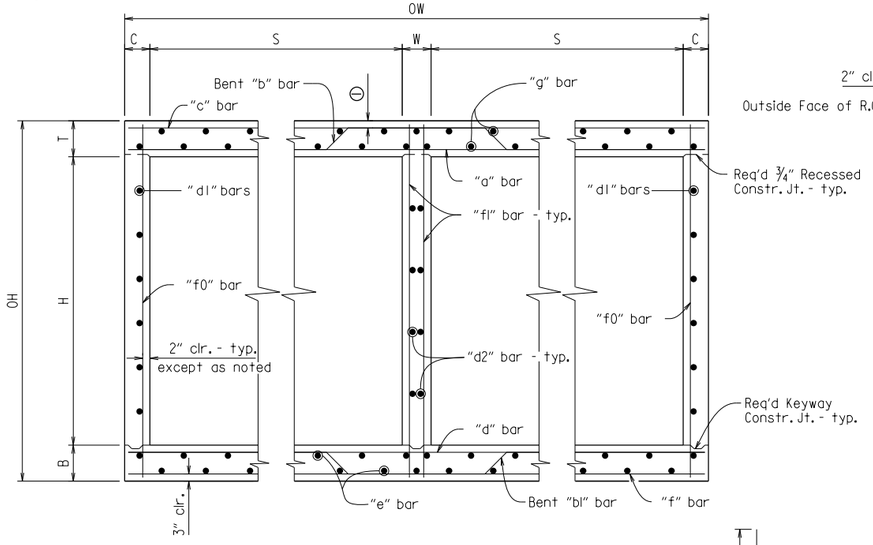
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LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

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| | | 6 | ARK. | 090069 | 59 | 583 |
| | | SPECIAL DETAILS | | | | |

① 2" clr. for fill depth (D) greater than 2 ft.
2½" clr. for fill depth (D) equal to or less than 2 ft.

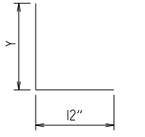
Note: When top slab of culvert serves as finished roadway surface, see General Notes on Sheet 1 of 4.



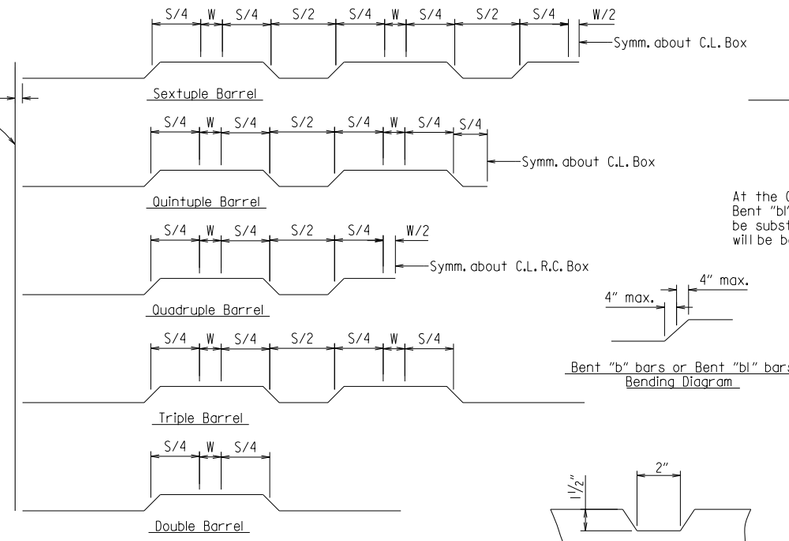

## TYPICAL SECTION M-M

Top Slab
Straight "c" bars shall alternate with Bent "b" bars in top.
Straight "a" bars shall alternate with Bent "b" bars in bottom.

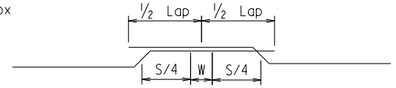
Bottom Slab
Straight "d" bars shall alternate with Bent "bl" bars in top.
Straight "f" bars shall alternate with Bent "bl" bars in bottom.




"h" bars sketch




## Bent "b" bars or Bent "bl" bars sketch

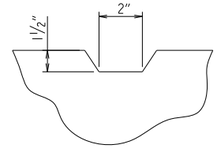



Lap Detail
For Bent "b" bars and Bent "bl" bars

At the Contractor's option in lieu of providing Bent "b" or Bent "bl" bars, one bar top and bottom of equivalent size may be substituted for each bent bar. Payment for the reinforcing will be based on the weight of the "b" or "bl" bar.

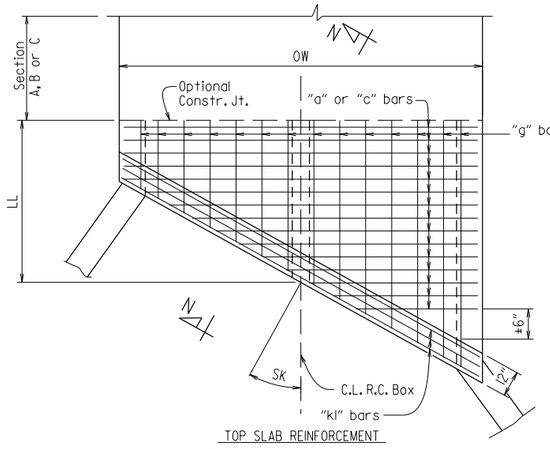



Bent "b" bars or Bent "bl" bars Bending Diagram

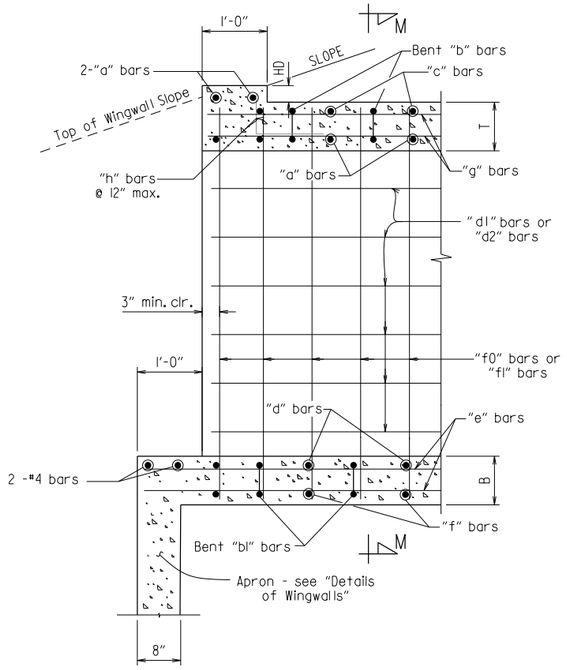



## TYPICAL KEYWAY DETAIL

(All Construction Joints)

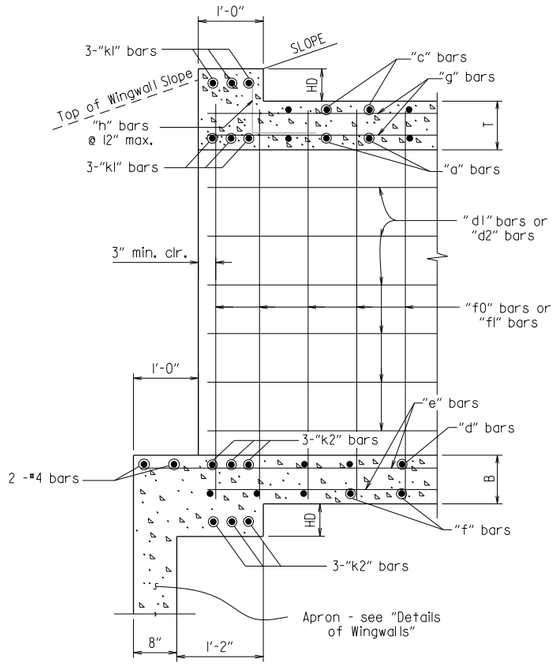



TOP SLAB REINFORCEMENT
Straight "c" bars in top.
Straight "a" bars in bottom.



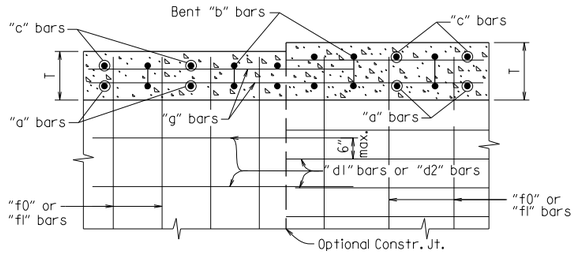

## PART LONGITUDINAL SECTION

(Non-Skewed Ends)




## PART LONGITUDINAL SECTION N-N

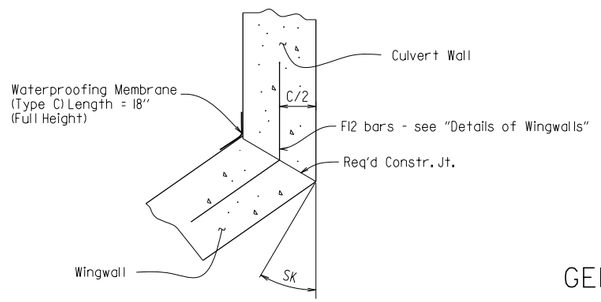
(Skewed Ends)




Longitudinal Bar Spacing at individual sections shall be maintained, which may result in noncontact bar laps.

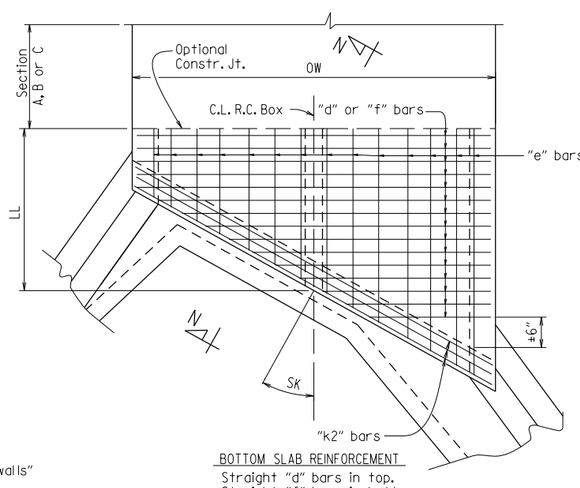
## LONGITUDINAL LAP DETAIL AT CHANGE IN SECTIONS

TOP SLAB SHOWN, BOTTOM SLAB SIMILAR




## WINGWALL ATTACHMENT

See "Details of Wingwalls" for additional information and wingwall details.




BOTTOM SLAB REINFORCEMENT
Straight "d" bars in top.
Straight "f" bars in bottom.

## SKEWED END SECTION DETAILS

# SHEET 3 OF 4
# GENERAL DETAILS OF R.C. BOX CULVERT

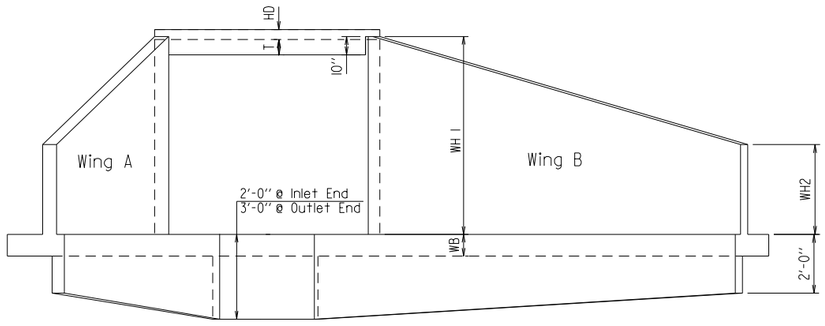
DETAILS OF MULTI-BARREL
R.C. BOX CULVERT

SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

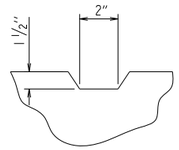
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| | | SPECIAL DETAILS | | | | |



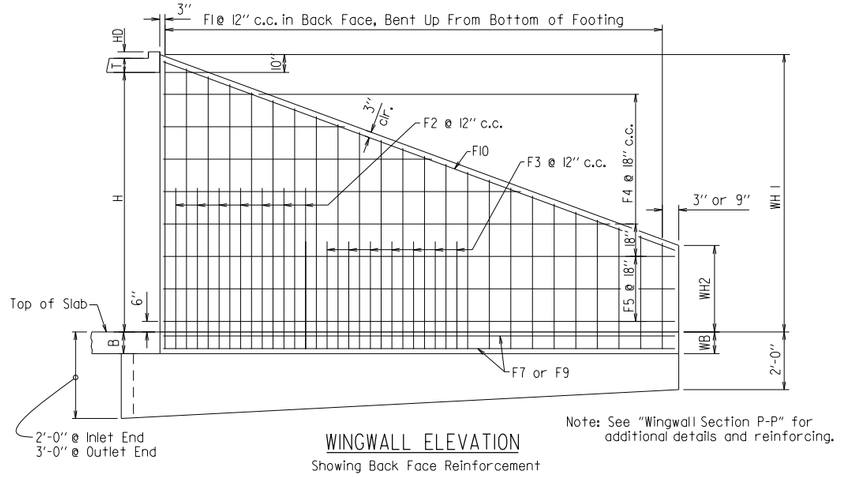

END ELEVATION

Flared Wingwalls Shown




TYPICAL KEYWAY DETAIL

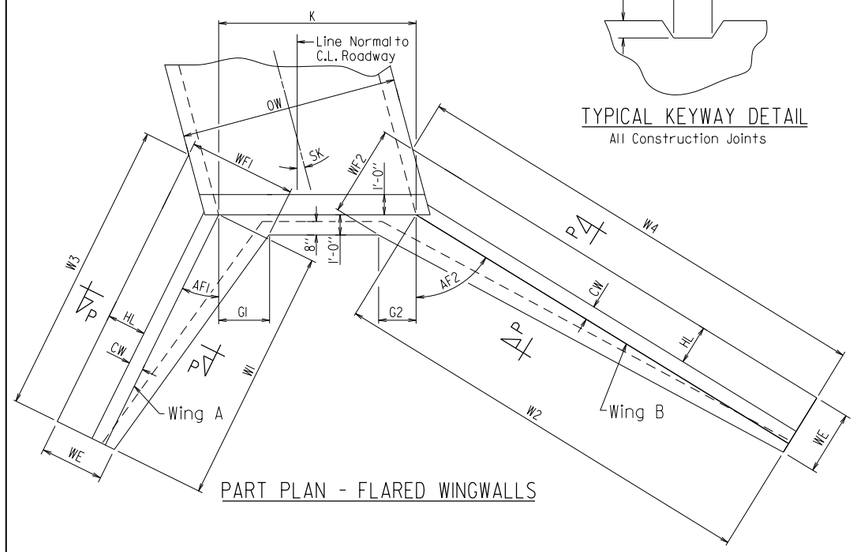
All Construction Joints



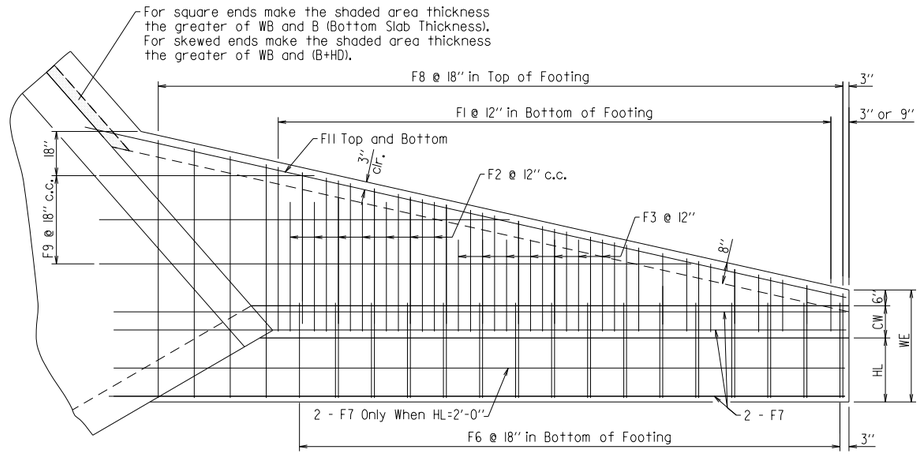

WINGWALL ELEVATION

Showing Back Face Reinforcement

Note: See "Wingwall Section P-P" for additional details and reinforcing.

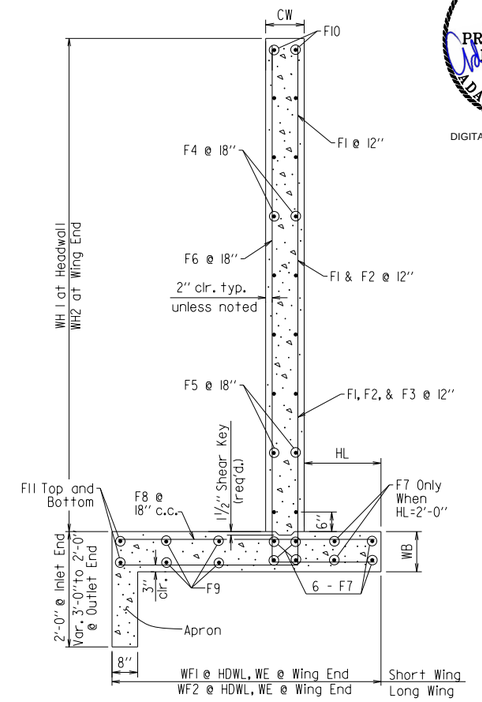



PART PLAN - FLARED WINGWALLS

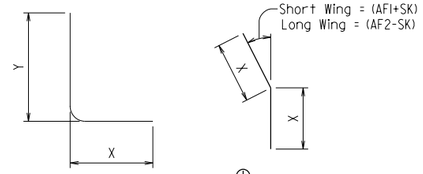



PLAN - FLARED WINGWALLS

Showing Footing Reinforcement



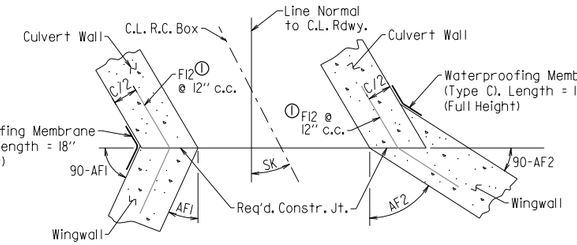

WINGWALL SECTION P-P




F1, F2, F3, & F6 BARS

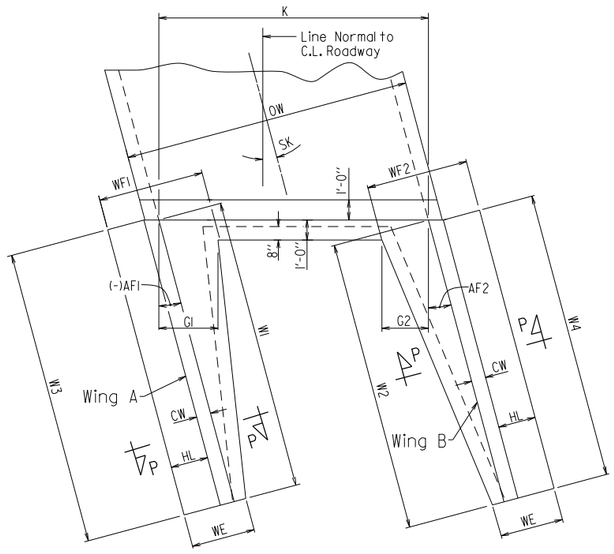
①F12 BAR

①F12 is a straight bar for parallel wingwalls

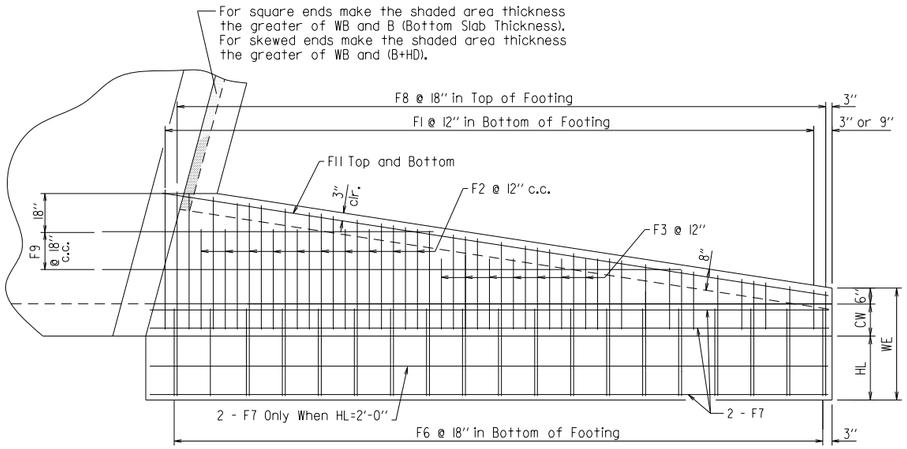



CONSTRUCTION JOINTS

Flared Wingwalls Shown




PART PLAN - PARALLEL WINGWALLS




PLAN - PARALLEL WINGWALLS

Showing Footing Reinforcement

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

# SHEET 4 OF 4
# GENERAL DETAILS OF R.C. BOX CULVERT
## DETAILS OF WINGWALLS
## SPECIAL DETAILS

LRFD

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WORKSPACE: AHTD
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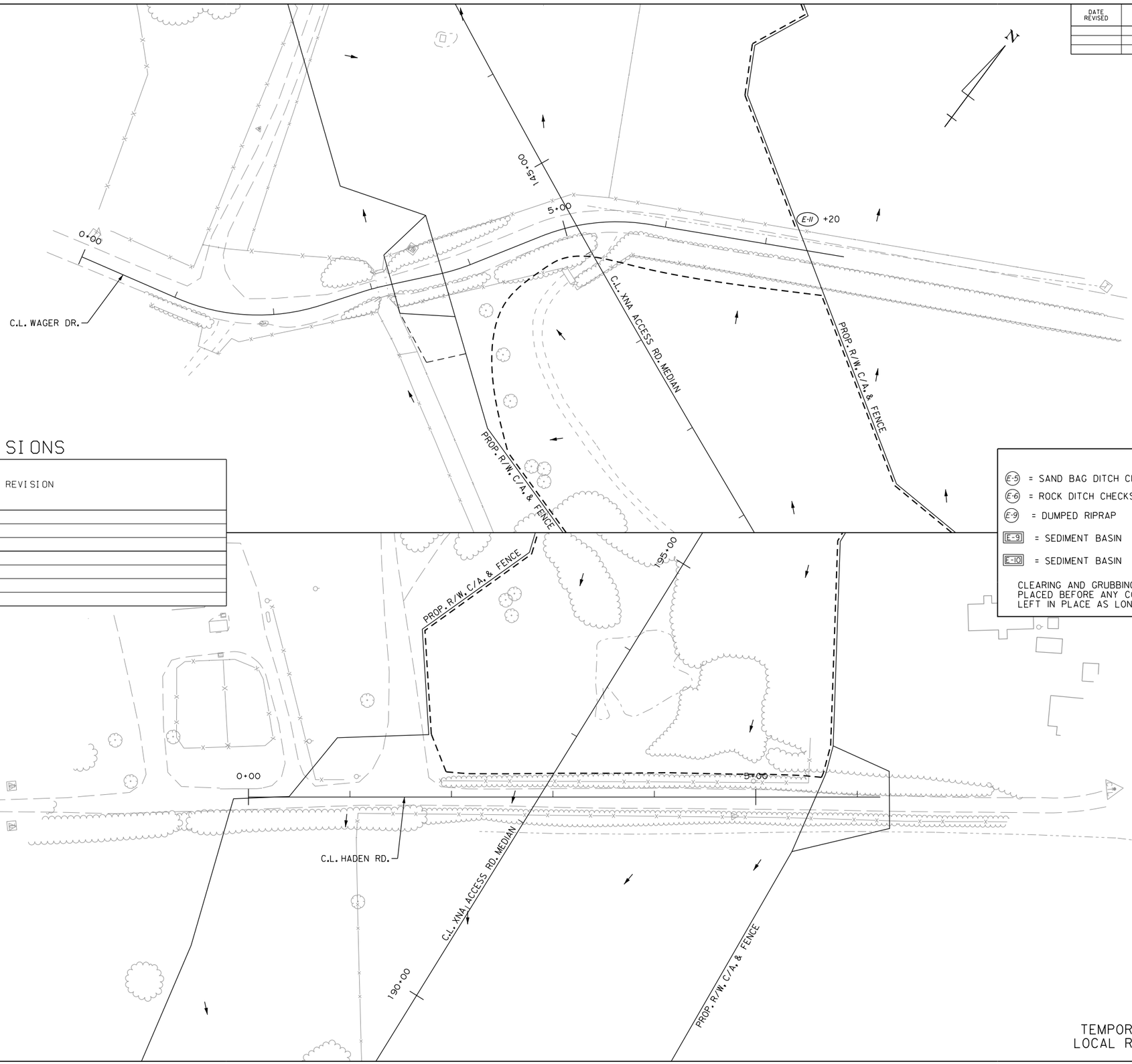
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 61 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

## REVISIONS

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## LEGEND

- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-9 = DUMPED RIPRAP
- E-9 = SEDIMENT BASIN
- E-10 = SEDIMENT BASIN
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE
- E-8 = DIVERSION DITCH
- E-12 = SLOPE PIPE DRAIN (12")
- E-14 = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

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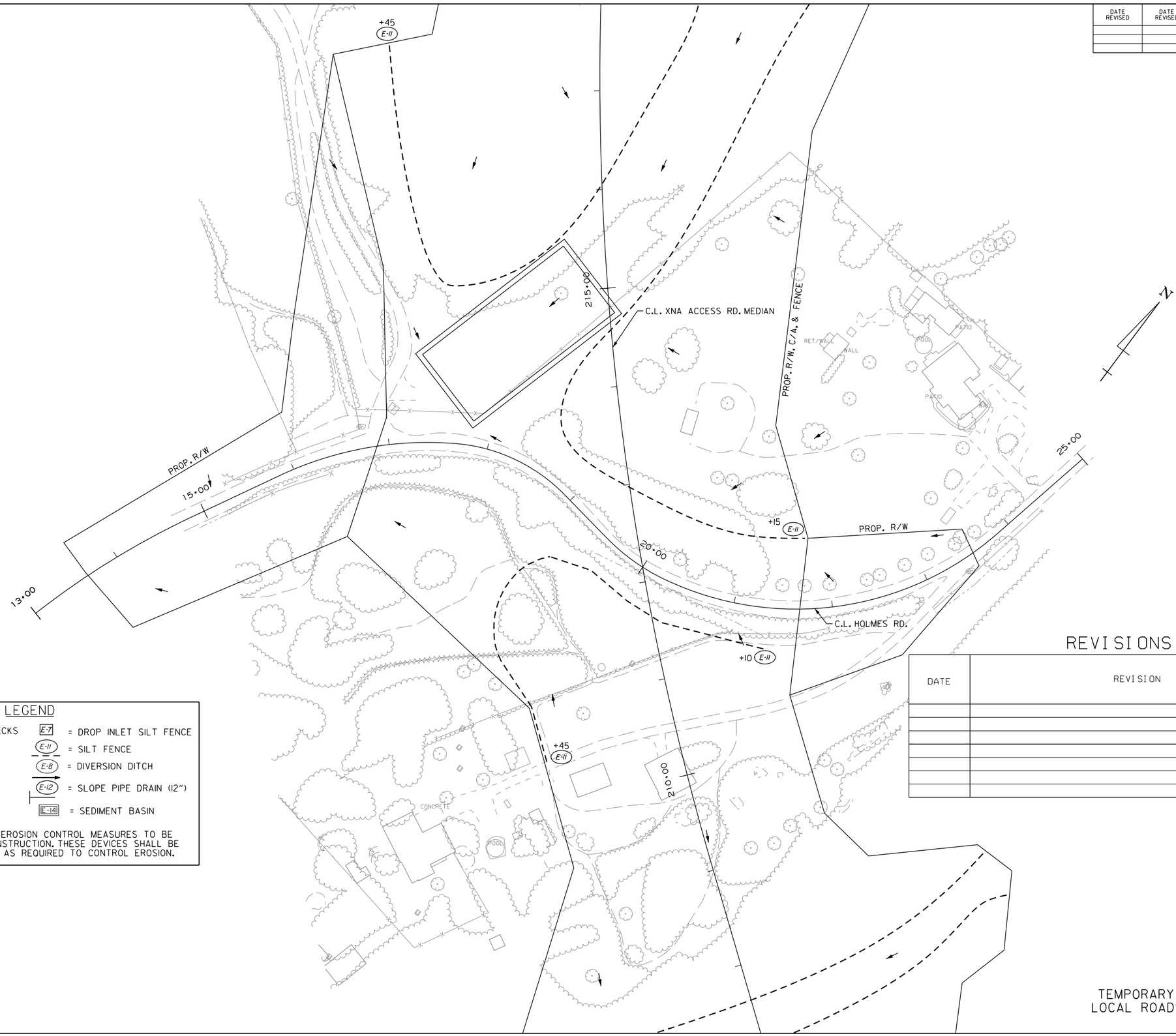
TEMPORARY EROSION CONTROL DETAILS
LOCAL ROADS - CLEARING AND GRUBBING

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| | | 6 | ARK. | 090069 | 62 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023




## LEGEND

| | | | |
|---|---|---|---|
| E-5 | = SAND BAG DITCH CHECKS | E-7 | = DROP INLET SILT FENCE |
| E-6 | = ROCK DITCH CHECKS | E-11 | = SILT FENCE |
| E-9 | = DUMPED RIPRAP | E-8 | = DIVERSION DITCH |
| E-9 | = SEDIMENT BASIN | E-12 | = SLOPE PIPE DRAIN (12") |
| E-10 | = SEDIMENT BASIN | E-14 | = SEDIMENT BASIN |

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

## REVISIONS

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TEMPORARY EROSION CONTROL DETAILS
LOCAL ROADS - CLEARING AND GRUBBING


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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 63 | 583 |

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

N

PROP. R/W

C.L. MALONE LN.

10+00 15+00 20+00 25+

BARBWIRE

PN:273 PD:CPS

PN:726 PD:ARDOT STD. MON. STAMPED PN:726

PN:272 PD:60D CPS

PN:274 PD:CPS

PN:727 PD:ARDOT STD. MON. STAMPED PN:727

OPEN STORAGE

CONSTRUCTION AREA

SWAMP

BARB WIRE

## LEGEND

- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-9 = DUMPED RIPRAP
- E-9 = SEDIMENT BASIN
- E-10 = SEDIMENT BASIN
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE
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- E-12 = SLOPE PIPE DRAIN (12")
- E-14 = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

| DATE | REVISIONS |
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N

T.C.E.

E-11 +55

PROP. R/W

C.L. MALONE LN.

25+00 30+00 35+00

BARBWIRE

PN:271 PD:60D CPS

PN:728 PD:ARDOT STD. MON. STAMPED PN:728

POND

BARB WIRE

E-11 +25

E-11 +80

PROP. R/W

MALONE LN.

HADEN RD

PN:270 PD:60D

COMTEL CABLE ROUTE

E-11 +05

T.C.E.

MALONE LN.

| SILT FENCE | E-11 | LIN. FT. |
|---|---|---|
| STA. 24+55 TO 35+25 | LT. | 1201 |
| STA. 25+05 TO 32+80 | RT. | 851 |

TEMPORARY EROSION CONTROL DETAILS
LOCAL ROADS - CLEARING AND GRUBBING

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 64 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

N

C.L. AIRPORT BLVD.

280.00

I.C.E.

I.C.E.

HWY. 264

| SILT FENCE | E-11 | LIN. FT. |
|---|---|---|
| STA. 25+70 TO 27+75 | RT. | 217 |

20+00

25+00

30+00

PROP. R/W

+60 E-11

E-11 +75

C.L. HWY. 264

+70 E-11

275.00

PROP. R/W, C/A, & FENCE

## LEGEND

- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-9 = DUMPED RIPRAP
- E-9 = SEDIMENT BASIN
- E-10 = SEDIMENT BASIN
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE
- E-8 = DIVERSION DITCH
- E-12 = SLOPE PIPE DRAIN (12")
- E-14 = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

## REVISIONS

| DATE | REVISION |
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TEMPORARY EROSION CONTROL DETAILS
HWY. 264 - CLEARING & GRUBBING


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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 65 | 583 |

TEMPORARY EROSION CONTROL DETAILS

XNA ACCESS RD.

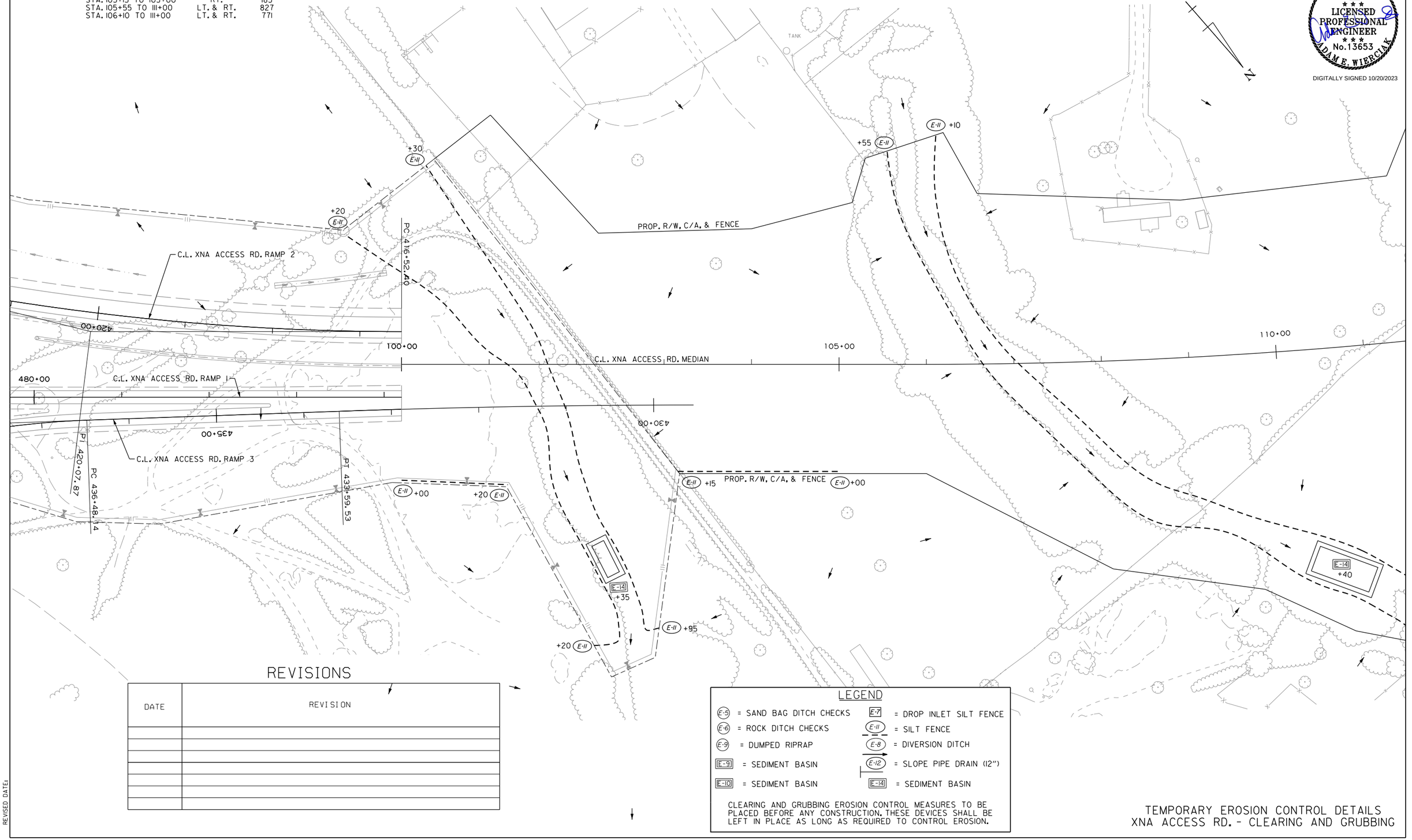
| SILT FENCE (E-11) | | LIN. FT. |
|---|---|---|
| STA. 99+20 TO 102+20 | LT. & RT. | 617 |
| STA. 100+00 TO 120+00 | RT. | 122 |
| STA. 100+30 TO 102+95 | LT. & RT. | 609 |
| STA. 103+15 TO 105+00 | RT. | 185 |
| STA. 105+55 TO 111+00 | LT. & RT. | 827 |
| STA. 106+10 TO 111+00 | LT. & RT. | 771 |

XNA ACCESS RD.

| SEDIMENT BASIN (E-14) | | CU. YDS. |
|---|---|---|
| STA. 102+35 | RT. | 232 |
| STA. 110+40 | RT. | 593 |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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## REVISIONS

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## LEGEND

- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-9 = DUMPED RIPRAP
- E-9 = SEDIMENT BASIN
- E-10 = SEDIMENT BASIN
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE
- E-8 = DIVERSION DITCH
- E-12 = SLOPE PIPE DRAIN (12")
- E-14 = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - CLEARING AND GRUBBING

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| | | 6 | ARK. | 090069 | 66 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

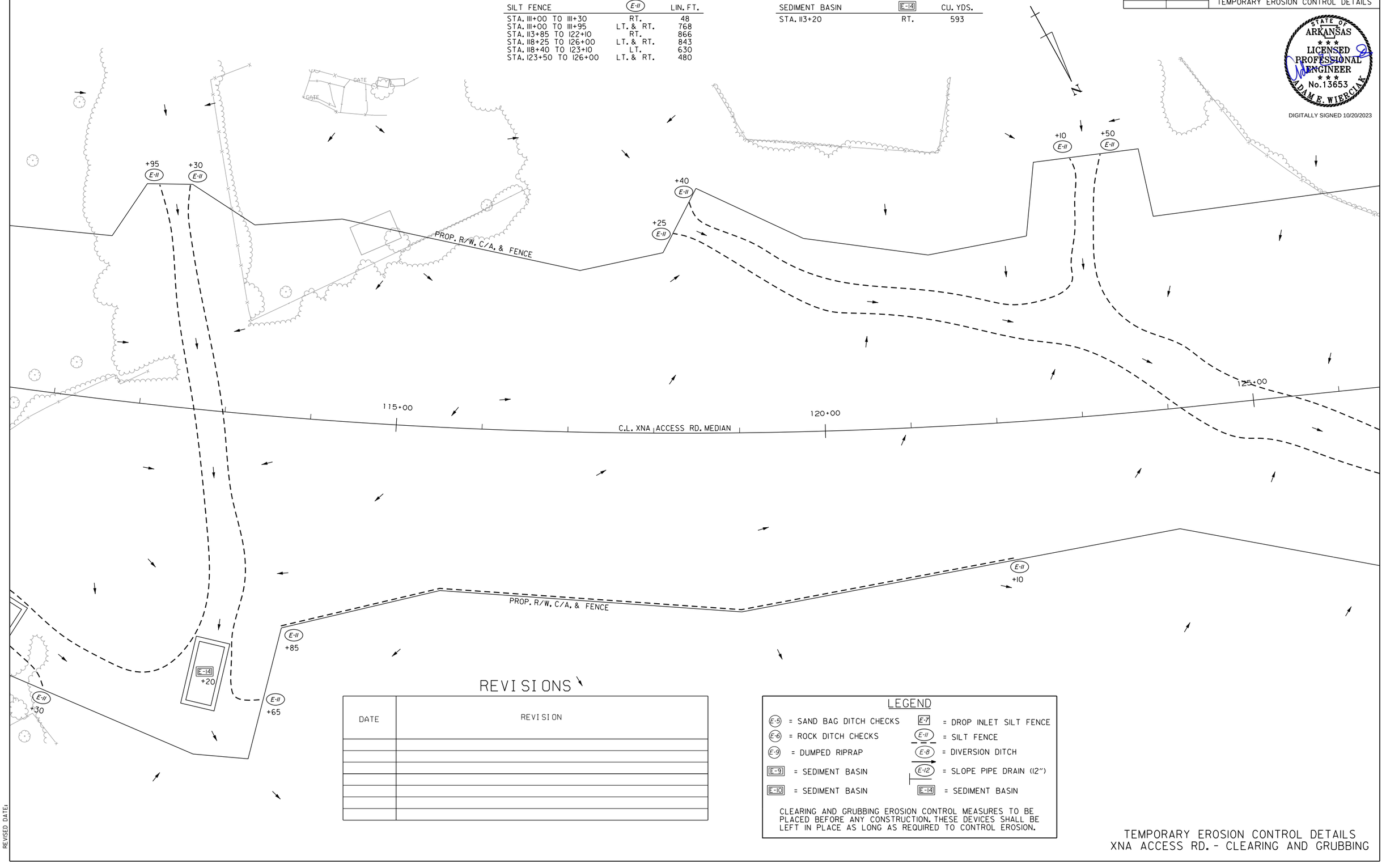
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| SILT FENCE | (E-11) | LIN. FT. |
|---|---|---|
| STA. 111+00 TO 111+30 | RT. | 48 |
| STA. 111+00 TO 111+95 | LT. & RT. | 768 |
| STA. 113+85 TO 122+10 | RT. | 866 |
| STA. 118+25 TO 126+00 | LT. & RT. | 843 |
| STA. 118+40 TO 123+10 | LT. | 630 |
| STA. 123+50 TO 126+00 | LT. & RT. | 480 |

XNA ACCESS RD.

| SEDIMENT BASIN | E-14 | CU. YDS. |
|---|---|---|
| STA. 113+20 | RT. | 593 |

STATE OF ARKANSAS
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No. 13653
ADAM E. WIERCIAK
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REVISIONS

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LEGEND

| | | | |
|---|---|---|---|
| (E-5) | = SAND BAG DITCH CHECKS | E-7 | = DROP INLET SILT FENCE |
| (E-6) | = ROCK DITCH CHECKS | (E-11) | = SILT FENCE |
| (E-9) | = DUMPED RIPRAP | (E-8) | = DIVERSION DITCH |
| E-9 | = SEDIMENT BASIN | (E-12) | = SLOPE PIPE DRAIN (12") |
| E-10 | = SEDIMENT BASIN | E-14 | = SEDIMENT BASIN |

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

TEMPORARY EROSION CONTROL DETAILS
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| | | 6 | ARK. | 090069 | 67 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

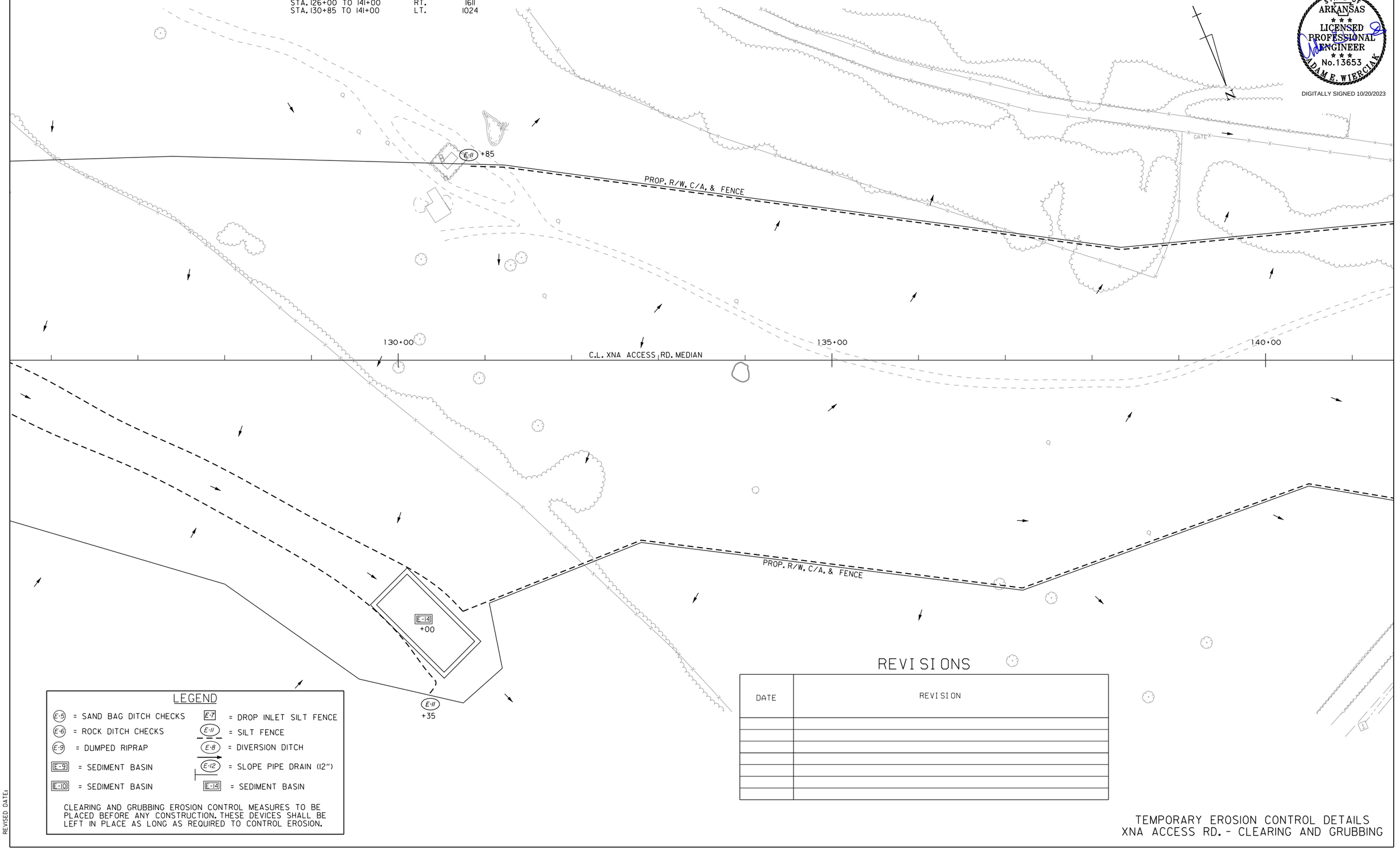
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| SILT FENCE | (E-11) | LIN. FT. |
|---|---|---|
| STA. 126+00 TO 130+35 | RT. | 551 |
| STA. 126+00 TO 141+00 | RT. | 1611 |
| STA. 130+85 TO 141+00 | LT. | 1024 |

XNA ACCESS RD.

| SEDIMENT BASIN | (E-14) | CU. YDS. |
|---|---|---|
| STA. 130+00 | RT. | 1333 |

STATE OF ARKANSAS
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LEGEND

| | | | |
|---|---|---|---|
| (E-5) | = SAND BAG DITCH CHECKS | [E-7] | = DROP INLET SILT FENCE |
| (E-6) | = ROCK DITCH CHECKS | (E-11) | = SILT FENCE |
| (E-9) | = DUMPED RIPRAP | (E-8) | = DIVERSION DITCH |
| [E-9] | = SEDIMENT BASIN | (E-12) | = SLOPE PIPE DRAIN (12") |
| [E-10] | = SEDIMENT BASIN | [E-14] | = SEDIMENT BASIN |

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

REVISIONS

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TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - CLEARING AND GRUBBING

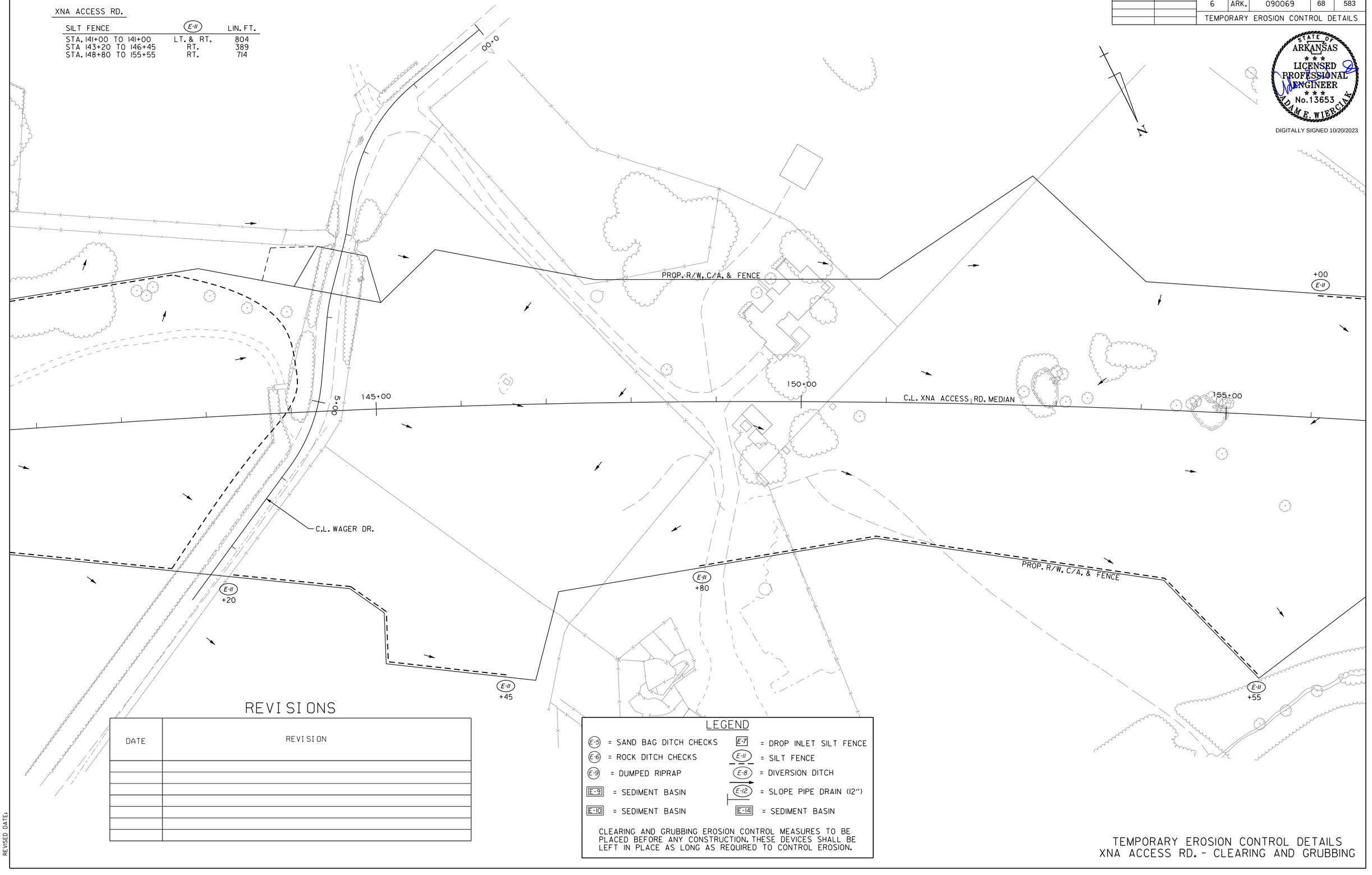
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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 68 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

XNA ACCESS RD.

| SILT FENCE (E-11) | | LIN. FT. |
|---|---|---|
| STA. 141+00 TO 141+00 | LT. & RT. | 804 |
| STA 143+20 TO 146+45 | RT. | 389 |
| STA. 148+80 TO 155+55 | RT. | 714 |

STATE OF ARKANSAS
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## REVISIONS

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## LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-9) = DUMPED RIPRAP
- [E-9] = SEDIMENT BASIN
- [E-10] = SEDIMENT BASIN
- [E-7] = DROP INLET SILT FENCE
- (E-11) = SILT FENCE
- (E-8) = DIVERSION DITCH
- (E-12) = SLOPE PIPE DRAIN (12")
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CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - CLEARING AND GRUBBING

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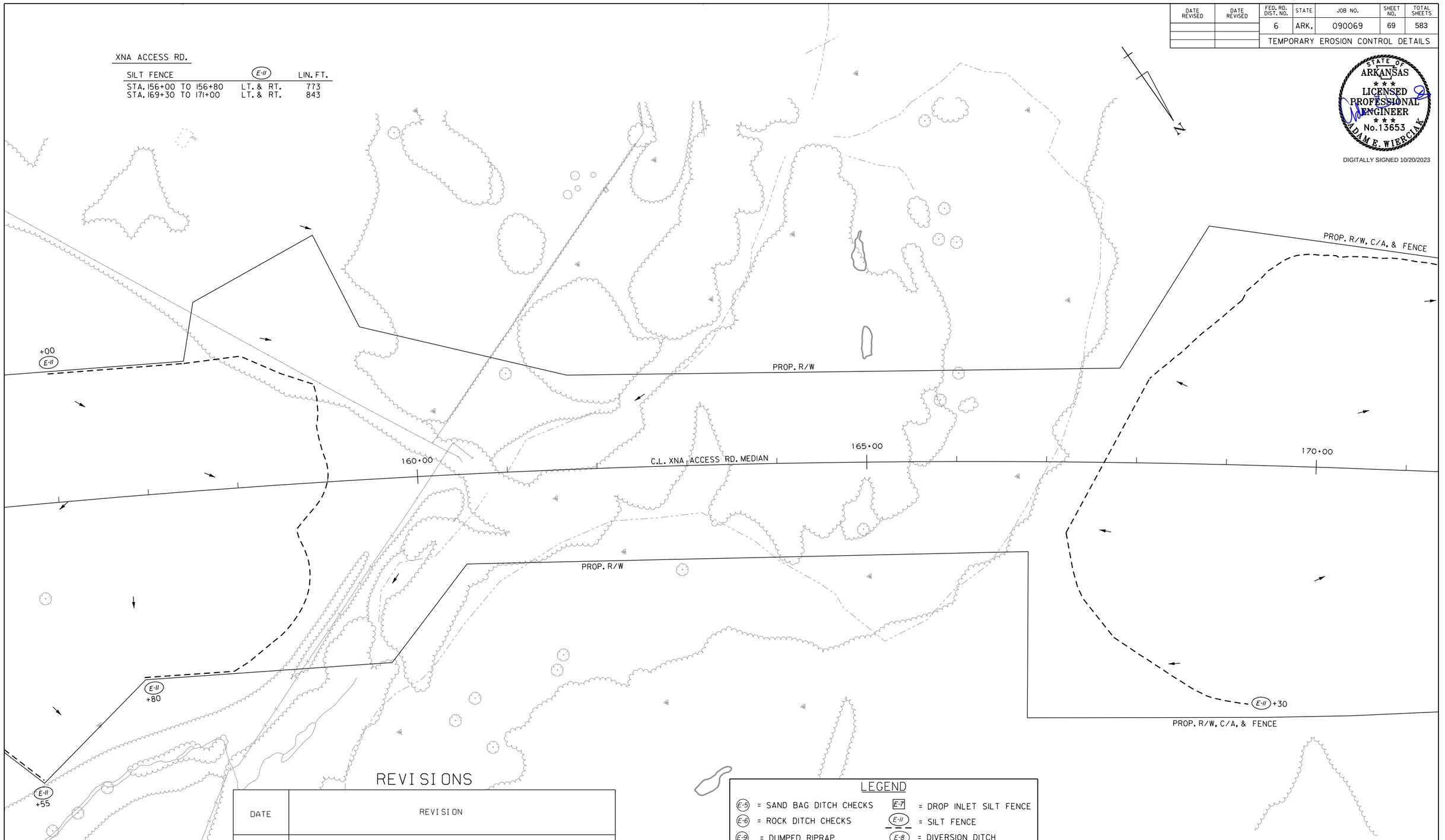
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 69 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

XNA ACCESS RD.

| SILT FENCE (E-11) | | LIN. FT. |
|---|---|---|
| STA. 156+00 TO 156+80 | LT. & RT. | 773 |
| STA. 169+30 TO 171+00 | LT. & RT. | 843 |

STATE OF ARKANSAS
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## LEGEND

- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-9 = DUMPED RIPRAP
- E-9 = SEDIMENT BASIN
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- E-7 = DROP INLET SILT FENCE
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TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - CLEARING AND GRUBBING

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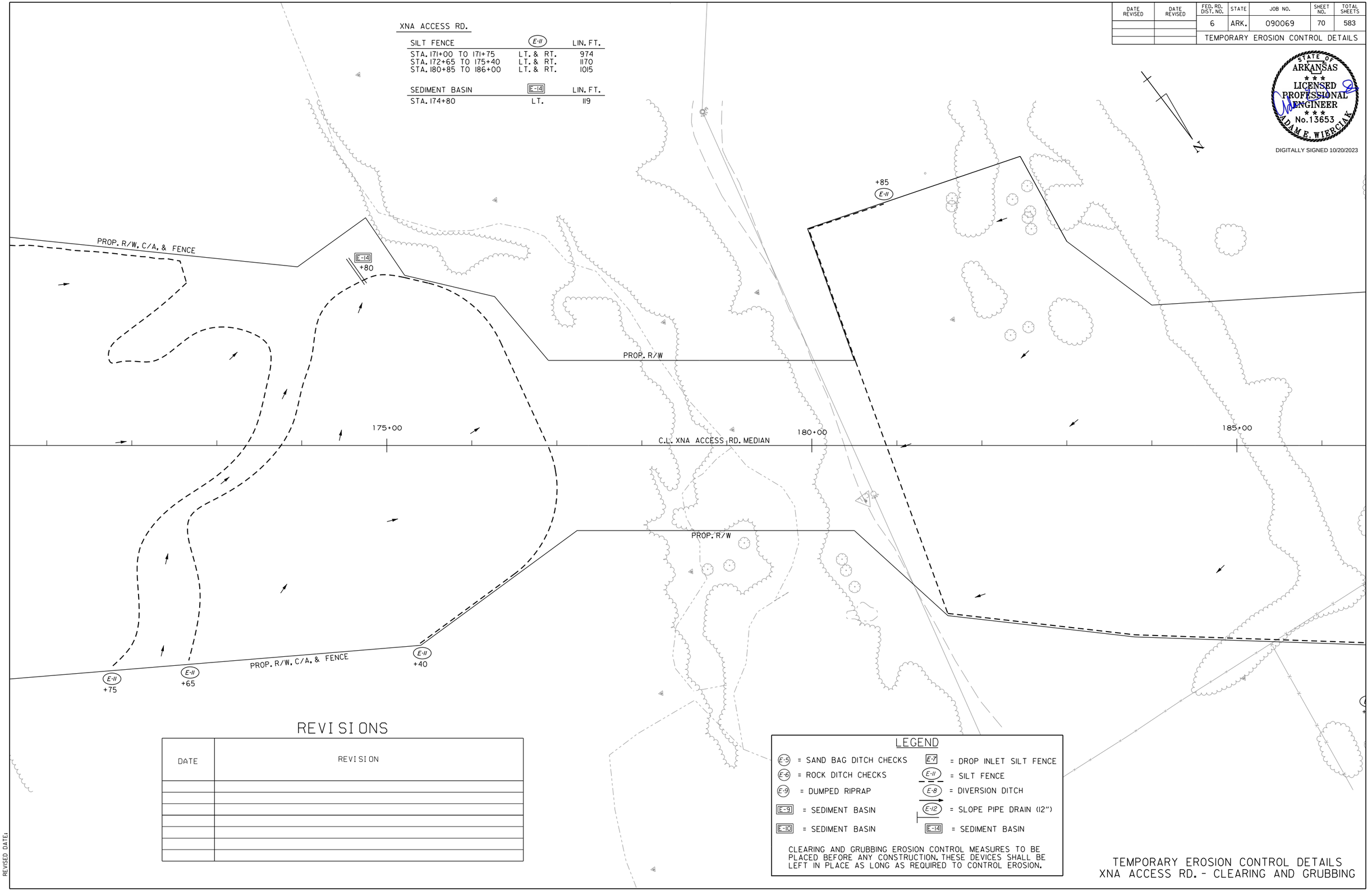
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| | | 6 | ARK. | 090069 | 70 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

XNA ACCESS RD.

| SILT FENCE (E-11) | | LIN. FT. |
|---|---|---|
| STA. 171+00 TO 171+75 | LT. & RT. | 974 |
| STA. 172+65 TO 175+40 | LT. & RT. | 1170 |
| STA. 180+85 TO 186+00 | LT. & RT. | 1015 |

| SEDIMENT BASIN (E-14) | | LIN. FT. |
|---|---|---|
| STA. 174+80 | LT. | 119 |




## REVISIONS

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## LEGEND

- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-9 = DUMPED RIPRAP
- E-9 = SEDIMENT BASIN
- E-10 = SEDIMENT BASIN
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE
- E-8 = DIVERSION DITCH
- E-12 = SLOPE PIPE DRAIN (12")
- E-14 = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

# TEMPORARY EROSION CONTROL DETAILS
# XNA ACCESS RD. - CLEARING AND GRUBBING

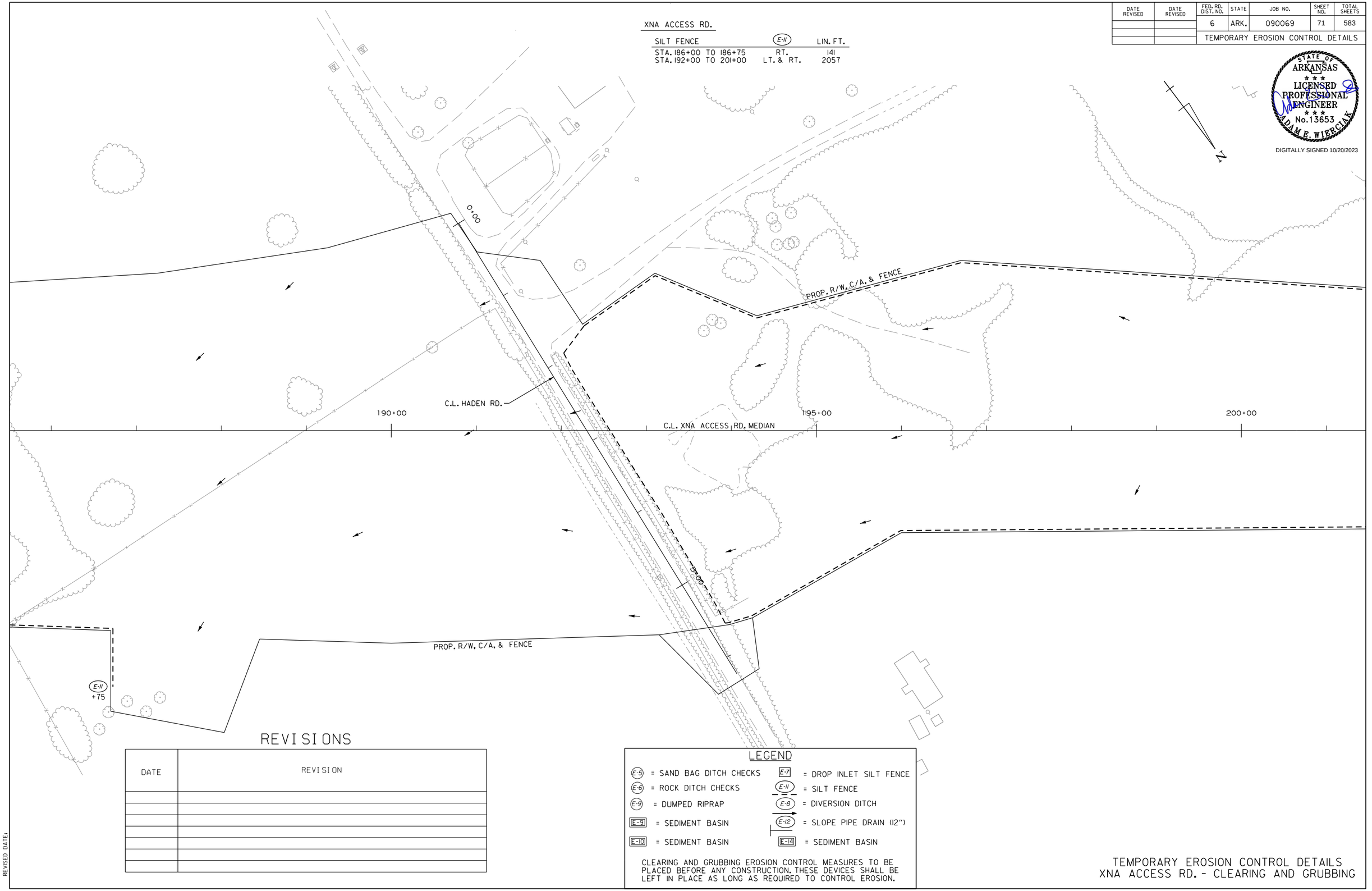
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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 71 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

XNA ACCESS RD.

| SILT FENCE | (E-11) | LIN. FT. |
|---|---|---|
| STA. 186+00 TO 186+75 | RT. | 141 |
| STA. 192+00 TO 201+00 | LT. & RT. | 2057 |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023




## REVISIONS

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## LEGEND

| | | | |
|---|---|---|---|
| (E-5) | = SAND BAG DITCH CHECKS | [E-7] | = DROP INLET SILT FENCE |
| (E-6) | = ROCK DITCH CHECKS | (E-11) | = SILT FENCE |
| (E-9) | = DUMPED RIPRAP | (E-8) | = DIVERSION DITCH |
| [E-9] | = SEDIMENT BASIN | (E-12) | = SLOPE PIPE DRAIN (12") |
| [E-10] | = SEDIMENT BASIN | [E-14] | = SEDIMENT BASIN |

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - CLEARING AND GRUBBING

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| | | 6 | ARK. | 090069 | 72 | 583 |

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

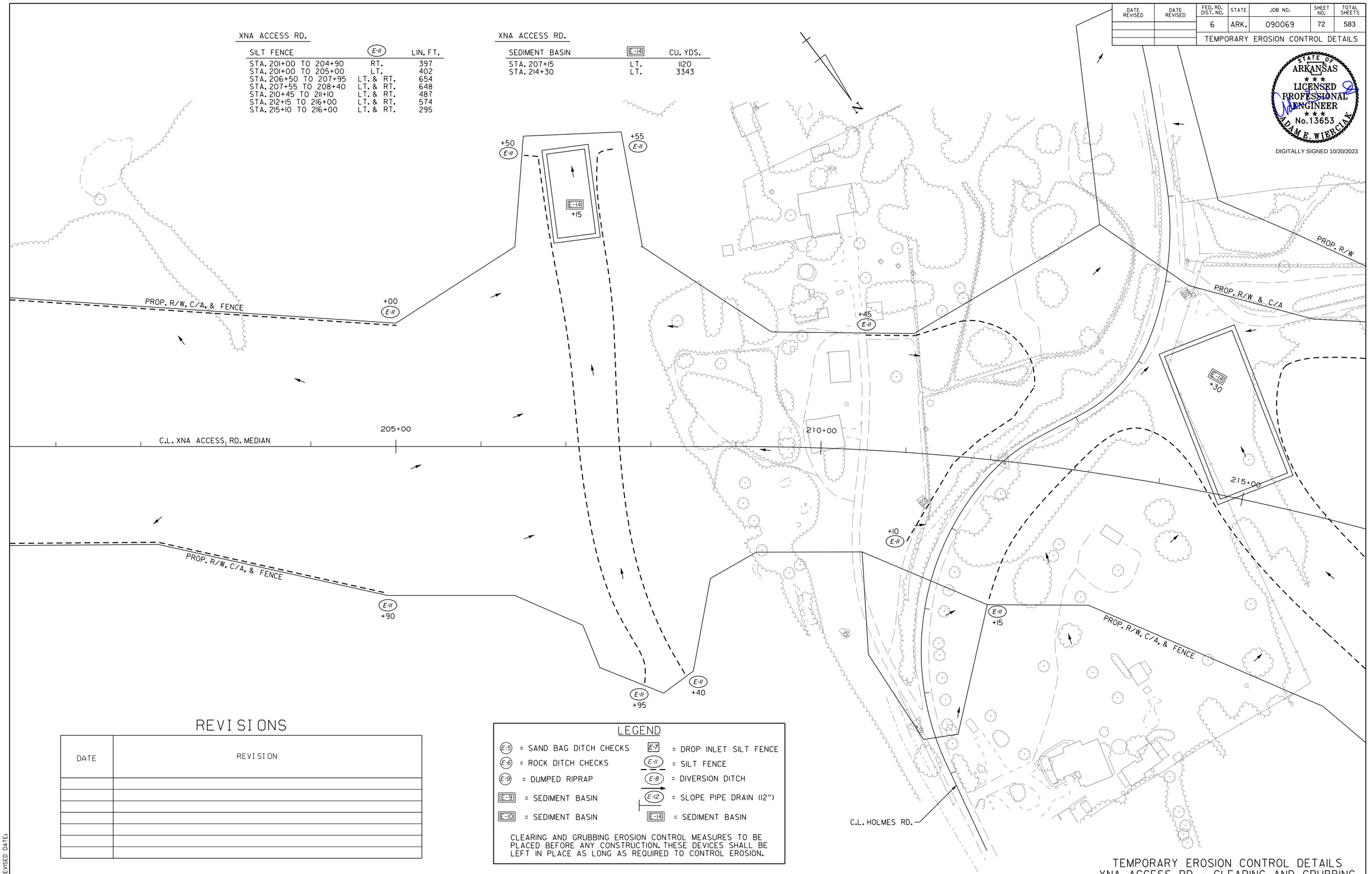
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XNA ACCESS RD.

| SILT FENCE (E-11) | | LIN. FT. |
|---|---|---|
| STA. 201+00 TO 204+90 | RT. | 397 |
| STA. 201+00 TO 205+00 | LT. | 402 |
| STA. 206+50 TO 207+95 | LT. & RT. | 654 |
| STA. 207+55 TO 208+40 | LT. & RT. | 648 |
| STA. 210+45 TO 211+10 | LT. & RT. | 487 |
| STA. 212+15 TO 216+00 | LT. & RT. | 574 |
| STA. 215+10 TO 216+00 | LT. & RT. | 295 |

XNA ACCESS RD.

| SEDIMENT BASIN (E-14) | | CU. YDS. |
|---|---|---|
| STA. 207+15 | LT. | 1120 |
| STA. 214+30 | LT. | 3343 |




## REVISIONS

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LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-9) = DUMPED RIPRAP
- [E-9] = SEDIMENT BASIN
- [E-10] = SEDIMENT BASIN
- [E-7] = DROP INLET SILT FENCE
- (E-11) = SILT FENCE
- (E-8) = DIVERSION DITCH
- (E-12) = SLOPE PIPE DRAIN (12")
- [E-14] = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - CLEARING AND GRUBBING

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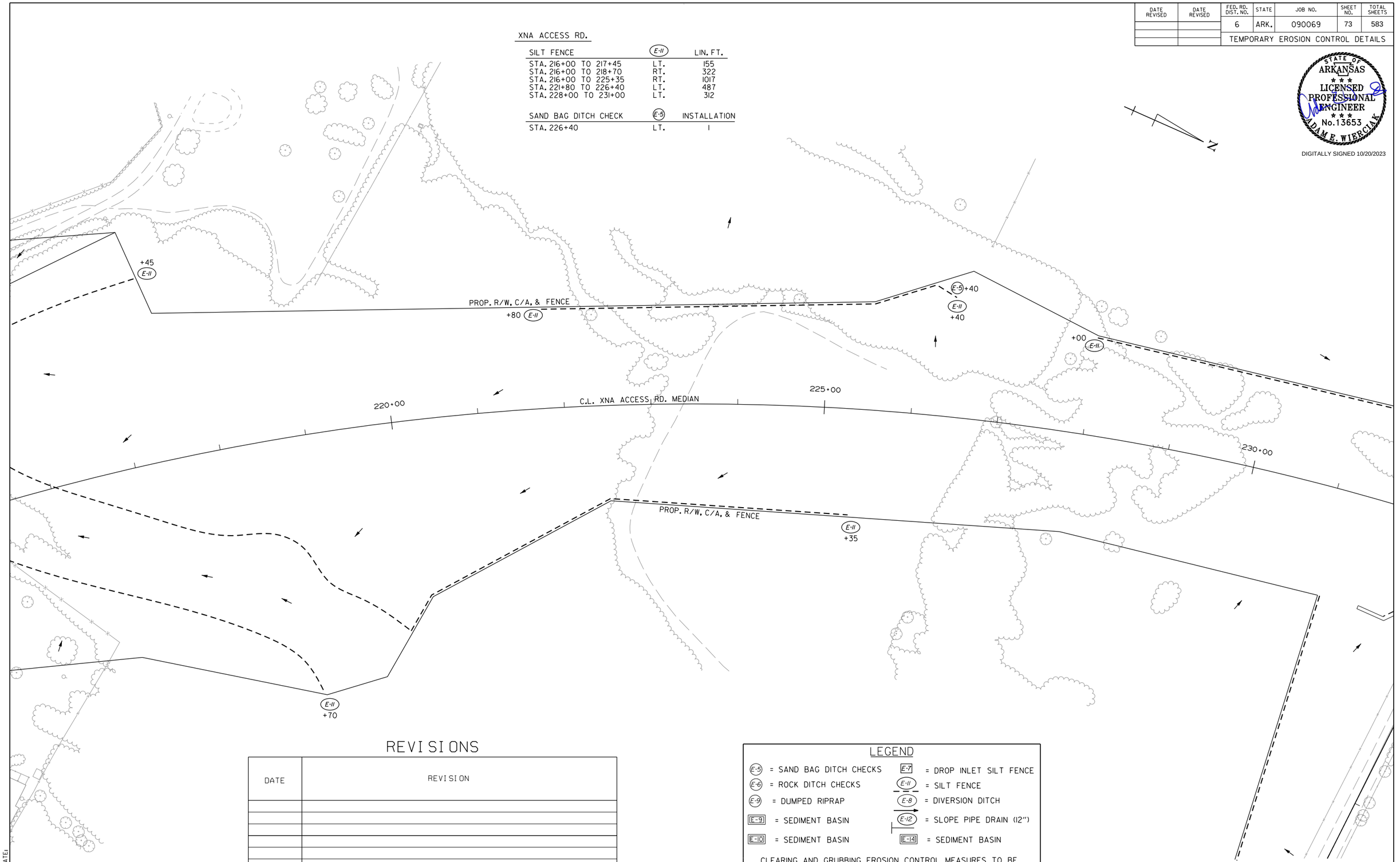
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| | | 6 | ARK. | 090069 | 73 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

XNA ACCESS RD.

| SILT FENCE | (E-11) | LIN. FT. |
|---|---|---|
| STA. 216+00 TO 217+45 | LT. | 155 |
| STA. 216+00 TO 218+70 | RT. | 322 |
| STA. 216+00 TO 225+35 | RT. | 1017 |
| STA. 221+80 TO 226+40 | LT. | 487 |
| STA. 228+00 TO 231+00 | LT. | 312 |

| SAND BAG DITCH CHECK | (E-5) | INSTALLATION |
|---|---|---|
| STA. 226+40 | LT. | 1 |




## REVISIONS

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## LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-9) = DUMPED RIPRAP
- [E-9] = SEDIMENT BASIN
- [E-10] = SEDIMENT BASIN
- [E-7] = DROP INLET SILT FENCE
- (E-11) = SILT FENCE
- (E-8) = DIVERSION DITCH
- (E-12) = SLOPE PIPE DRAIN (12")
- [E-14] = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

TEMPORARY EROSION CONTROL DETAILS
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| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

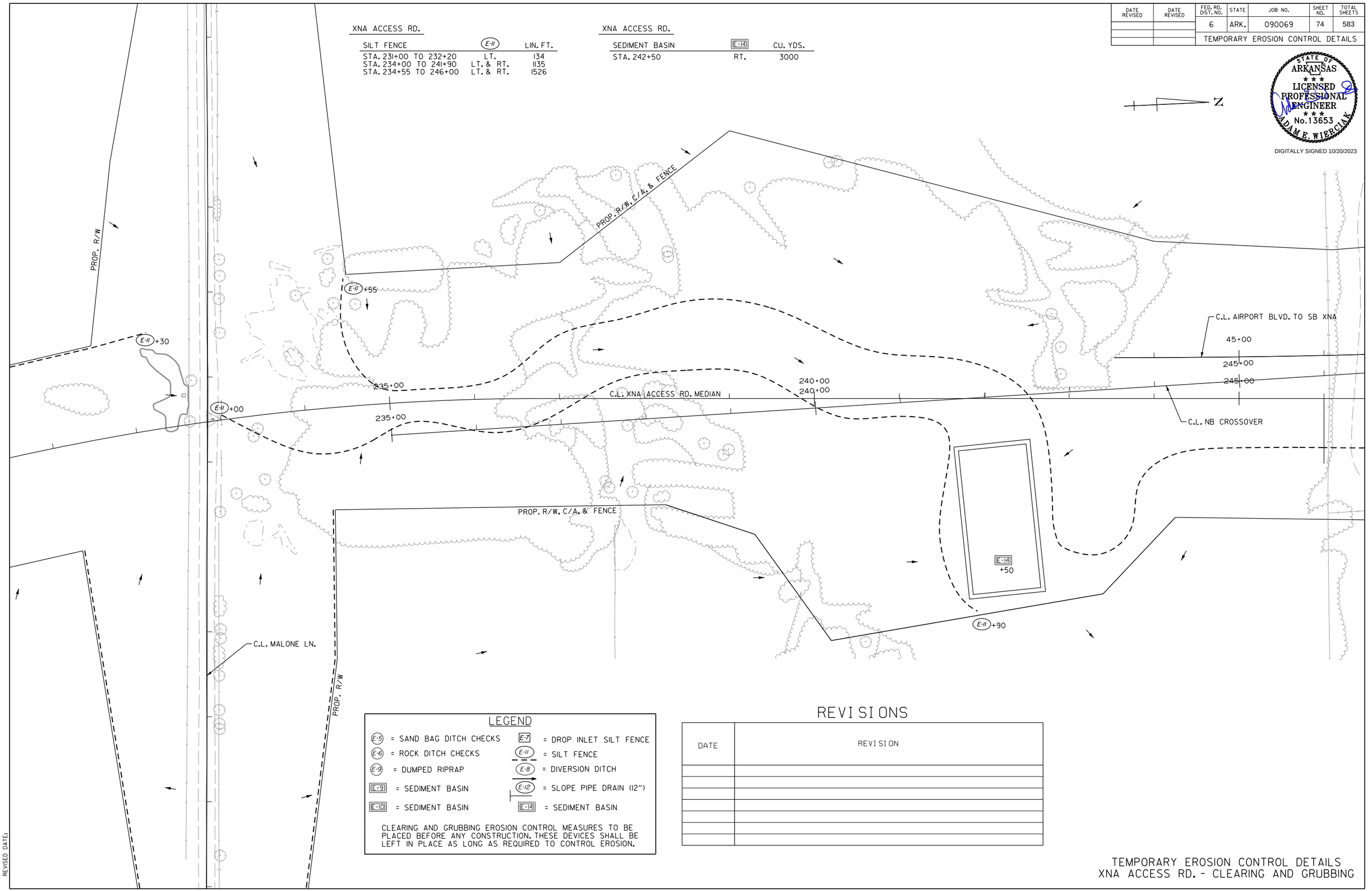
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

XNA ACCESS RD.

| SILT FENCE | (E-11) | LIN. FT. |
|---|---|---|
| STA. 231+00 TO 232+20 | LT. | 134 |
| STA. 234+00 TO 241+90 | LT. & RT. | 1135 |
| STA. 234+55 TO 246+00 | LT. & RT. | 1526 |

XNA ACCESS RD.

| SEDIMENT BASIN | (E-14) | CU. YDS. |
|---|---|---|
| STA. 242+50 | RT. | 3000 |




## LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-9) = DUMPED RIPRAP
- [E-9] = SEDIMENT BASIN
- [E-10] = SEDIMENT BASIN
- [E-7] = DROP INLET SILT FENCE
- (E-11) = SILT FENCE
- (E-8) = DIVERSION DITCH
- (E-12) = SLOPE PIPE DRAIN (12")
- [E-14] = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

## REVISIONS

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TEMPORARY EROSION CONTROL DETAILS
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## LEGEND

| | |
|---|---|
| (E-5) = SAND BAG DITCH CHECKS | [E-7] = DROP INLET SILT FENCE |
| (E-6) = ROCK DITCH CHECKS | (E-11) = SILT FENCE |
| (E-9) = DUMPED RIPRAP | (E-8) = DIVERSION DITCH |
| [E-9] = SEDIMENT BASIN | (E-12) = SLOPE PIPE DRAIN (12") |
| [E-10] = SEDIMENT BASIN | [E-14] = SEDIMENT BASIN |

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

## REVISIONS

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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 75 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

**XNA ACCESS RD.**

| SILT FENCE | (E-11) | LIN. FT. |
|---|---|---|
| STA. 246+00 TO 252+75 | LT. & RT. | 1493 |

**AIRPORT BLVD.**

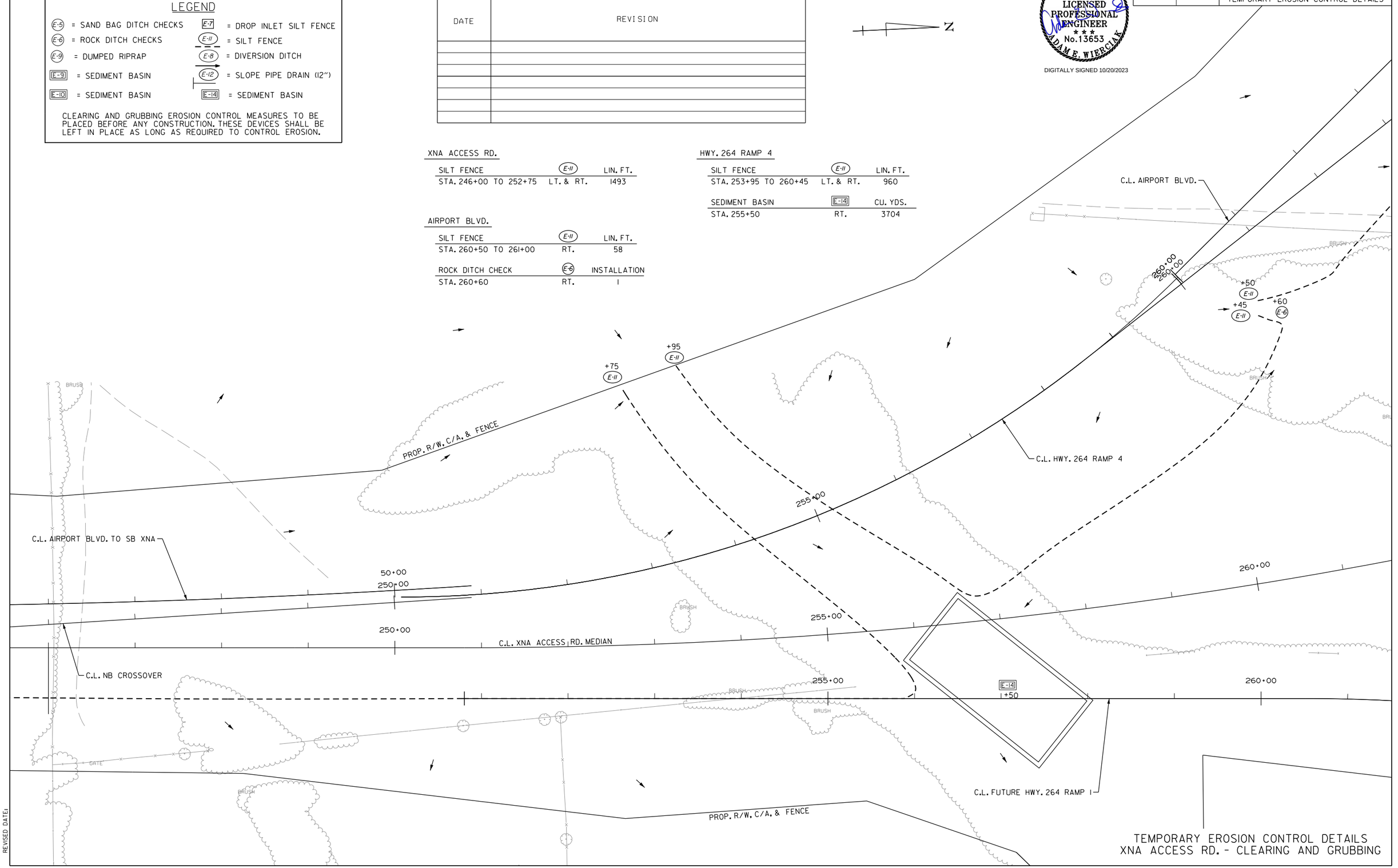
| SILT FENCE | (E-11) | LIN. FT. |
|---|---|---|
| STA. 260+50 TO 261+00 | RT. | 58 |

| ROCK DITCH CHECK | (E-6) | INSTALLATION |
|---|---|---|
| STA. 260+60 | RT. | 1 |

**HWY. 264 RAMP 4**

| SILT FENCE | (E-11) | LIN. FT. |
|---|---|---|
| STA. 253+95 TO 260+45 | LT. & RT. | 960 |

| SEDIMENT BASIN | [E-14] | CU. YDS. |
|---|---|---|
| STA. 255+50 | RT. | 3704 |




TEMPORARY EROSION CONTROL DETAILS
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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 76 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

## LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-9) = DUMPED RIPRAP
- [E-9] = SEDIMENT BASIN
- [E-10] = SEDIMENT BASIN
- [E-7] = DROP INLET SILT FENCE
- (E-11) = SILT FENCE
- (E-8) = DIVERSION DITCH
- (E-12) = SLOPE PIPE DRAIN (12")
- [E-14] = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

PROP. R/W, C/A, & FENCE

+85 (E-11)

265+00

C.L. AIRPORT BLVD.

265+00

270+00

270+00

(E-11) +85

[E-14] +50

C.L. FUTURE HWY. 264 RAMP 4

275+00

+95 (E-11) +35

C.L. HWY. 264

26+00

275+00

AIRPORT BLVD.

| SILT FENCE | (E-11) | LIN. FT. |
|---|---|---|
| STA. 261+00 TO 266+85 | LT. & RT. | 1161 |
| STA. 268+85 TO 276+95 | LT. & RT. | 1425 |

| SEDIMENT BASIN | [E-14] | CU. YDS. |
|---|---|---|
| STA. 267+25 | RT. | 18750 |

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TEMPORARY EROSION CONTROL DETAILS
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| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

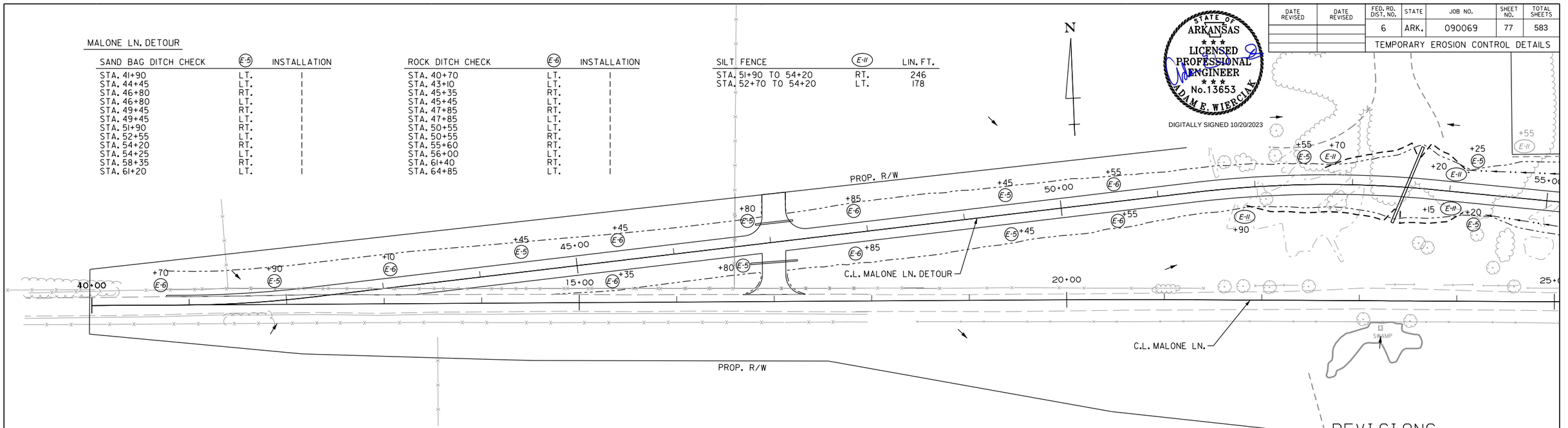
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

MALONE LN. DETOUR

| SAND BAG DITCH CHECK | (E-5) | INSTALLATION |
|---|---|---|
| STA. 41+90 | LT. | I |
| STA. 44+45 | LT. | I |
| STA. 46+80 | RT. | I |
| STA. 46+80 | LT. | I |
| STA. 49+45 | RT. | I |
| STA. 49+45 | LT. | I |
| STA. 51+90 | RT. | I |
| STA. 52+55 | LT. | I |
| STA. 54+20 | RT. | I |
| STA. 54+25 | LT. | I |
| STA. 58+35 | RT. | I |
| STA. 61+20 | LT. | I |

| ROCK DITCH CHECK | (E-6) | INSTALLATION |
|---|---|---|
| STA. 40+70 | LT. | I |
| STA. 43+10 | LT. | I |
| STA. 45+35 | RT. | I |
| STA. 45+45 | LT. | I |
| STA. 47+85 | RT. | I |
| STA. 47+85 | LT. | I |
| STA. 50+55 | LT. | I |
| STA. 50+55 | RT. | I |
| STA. 55+60 | RT. | I |
| STA. 56+00 | LT. | I |
| STA. 61+40 | RT. | I |
| STA. 64+85 | LT. | I |

| SILT FENCE | (E-11) | LIN. FT. |
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| STA. 51+90 TO 54+20 | RT. | 246 |
| STA. 52+70 TO 54+20 | LT. | 178 |



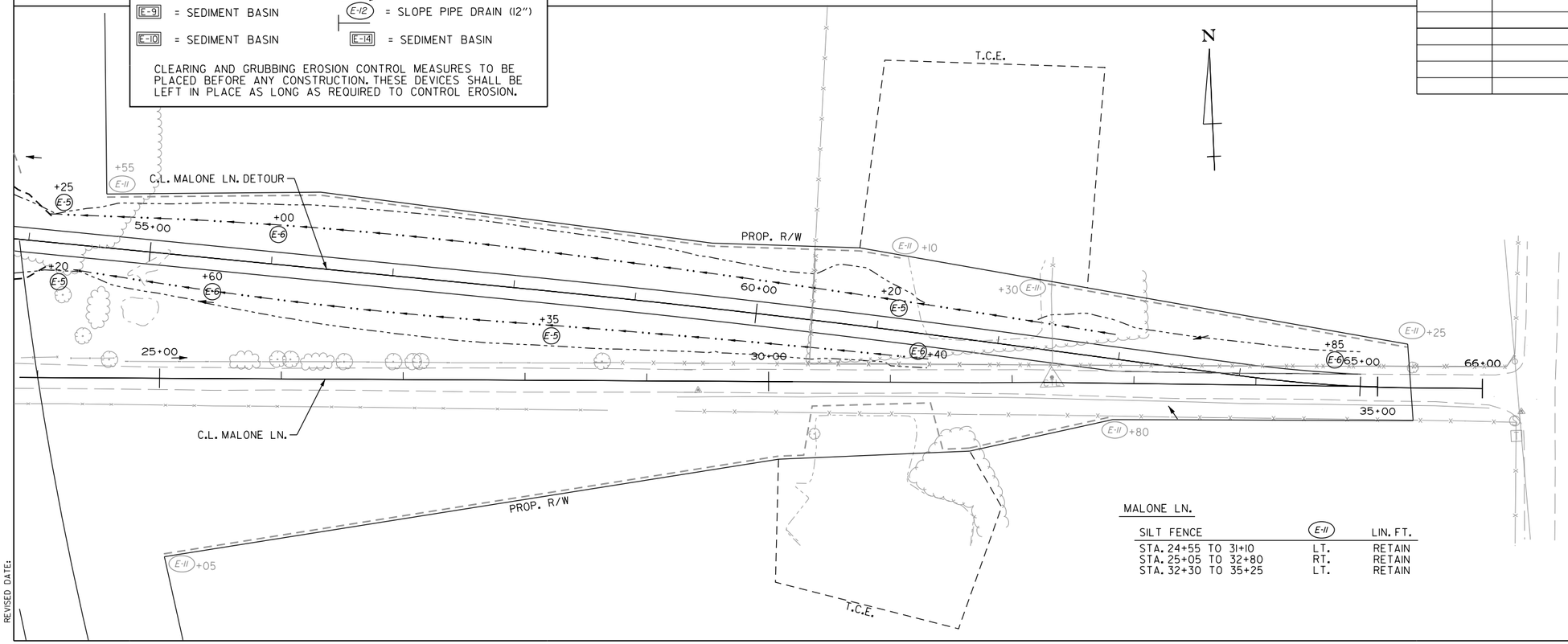

## LEGEND

| | | | |
|---|---|---|---|
| (E-5) | = SAND BAG DITCH CHECKS | E-7 | = DROP INLET SILT FENCE |
| (E-6) | = ROCK DITCH CHECKS | (E-11) | = SILT FENCE |
| (E-9) | = DUMPED RIPRAP | (E-8) | = DIVERSION DITCH |
| E-9 | = SEDIMENT BASIN | (E-12) | = SLOPE PIPE DRAIN (12") |
| E-10 | = SEDIMENT BASIN | E-14 | = SEDIMENT BASIN |

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

## REVISIONS

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MALONE LN.

| SILT FENCE | (E-11) | LIN. FT. |
|---|---|---|
| STA. 24+55 TO 31+10 | LT. | RETAIN |
| STA. 25+05 TO 32+80 | RT. | RETAIN |
| STA. 32+30 TO 35+25 | LT. | RETAIN |

TEMPORARY EROSION CONTROL DETAILS
LOCAL ROADS - STAGE I

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| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

STATE OF ARKANSAS
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No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

WAGER DR.

| SAND BAG DITCH CHECK (E-5) | | INSTALLATION |
|---|---|---|
| STA. 4+00 | RT. | I |
| STA. 5+35 | LT. | I |
| STA. 5+85 | LT. | I |
| STA. 5+90 | RT. | I |
| STA. 6+50 | RT. | I |

| ROCK DITCH CHECK (E-6) | | INSTALLATION |
|---|---|---|
| STA. 4+40 | RT. | I |
| STA. 4+60 | LT. | I |
| STA. 5+10 | LT. | I |

HADEN RD.

| SAND BAG DITCH CHECK (E-5) | | INSTALLATION |
|---|---|---|
| STA. 0+30 | RT. | I |
| STA. 0+40 | RT. | I |
| STA. 0+80 | RT. | I |
| STA. 0+85 | LT. | I |
| STA. 1+35 | RT. | I |
| STA. 2+00 | LT. | I |
| STA. 2+50 | LT. | I |
| STA. 4+70 | RT. | I |
| STA. 5+15 | RT. | I |
| STA. 5+60 | LT. | I |
| STA. 5+65 | RT. | I |

| ROCK DITCH CHECK (E-6) | | INSTALLATION |
|---|---|---|
| STA. 3+20 | RT. | I |
| STA. 4+00 | LT. | I |
| STA. 5+90 | LT. | I |

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## LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-9) = DUMPED RIPRAP
- [E-9] = SEDIMENT BASIN
- [E-10] = SEDIMENT BASIN
- [E-7] = DROP INLET SILT FENCE
- (E-11) = SILT FENCE
- (E-8) = DIVERSION DITCH
- (E-12) = SLOPE PIPE DRAIN (12")
- [E-14] = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

C.L. WAGER DR.
C.L. HADEN RD.
C.L. XNA ACCESS RD. MEDIAN
PROP. R/W

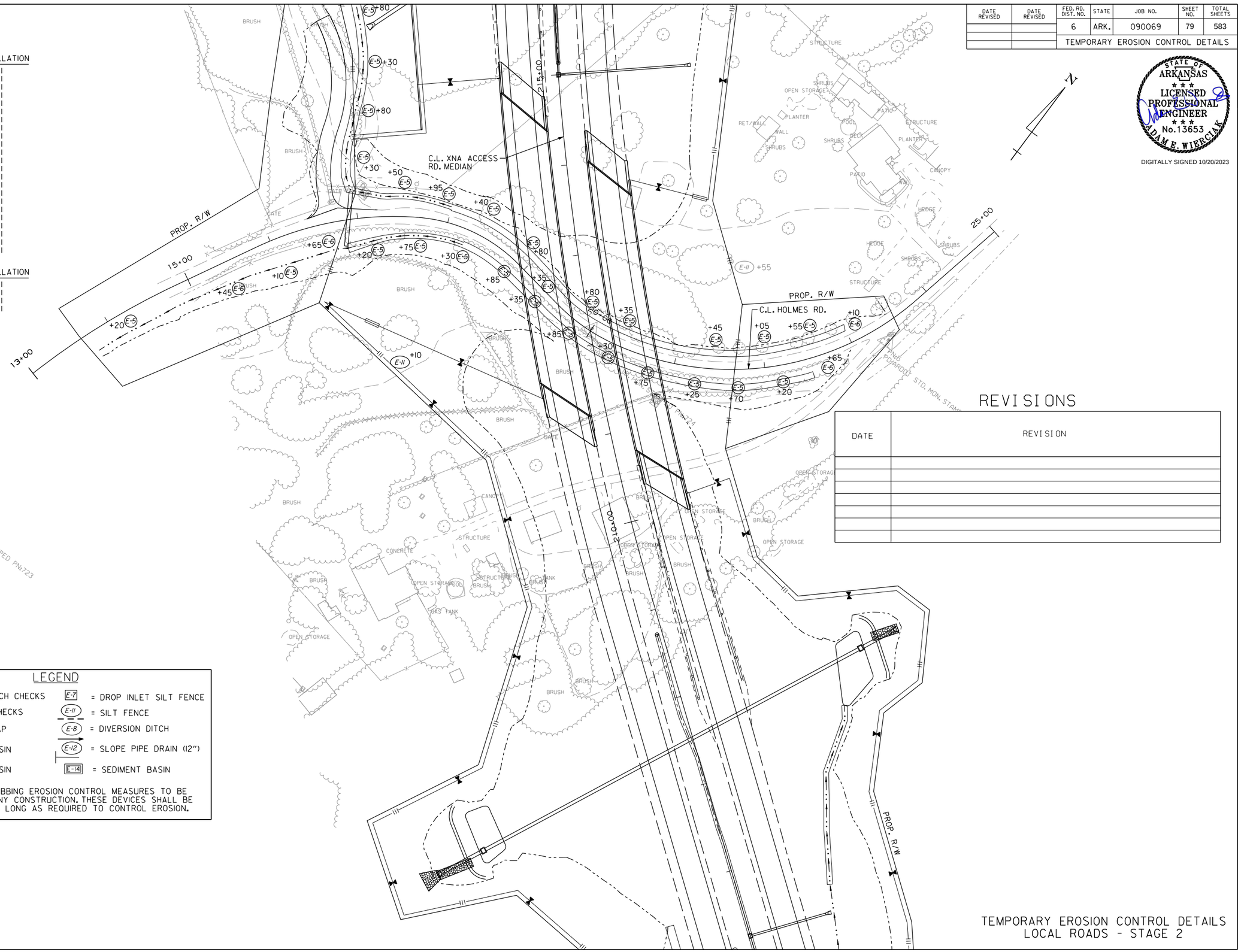
# TEMPORARY EROSION CONTROL DETAILS
# LOCAL ROADS - STAGE 2


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WORKSPACE: AHTD
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HOLMES RD.

| SAND BAG DITCH CHECK | (E-5) | INSTALLATION |
|---|---|---|
| STA. 14+20 | RT. | I |
| STA. 16+10 | RT. | I |
| STA. 17+20 | RT. | I |
| STA. 17+50 | LT. | I |
| STA. 17+75 | RT. | I |
| STA. 17+95 | LT. | I |
| STA. 18+30 | RT. | I |
| STA. 18+40 | LT. | I |
| STA. 18+80 | LT. | I |
| STA. 18+85 | RT. | I |
| STA. 19+35 | RT. | I |
| STA. 19+35 | LT. | I |
| STA. 19+80 | LT. | I |
| STA. 19+85 | RT. | I |
| STA. 20+30 | RT. | I |
| STA. 20+35 | LT. | I |
| STA. 20+75 | RT. | I |
| STA. 21+25 | RT. | I |
| STA. 21+45 | LT. | I |
| STA. 21+70 | RT. | I |
| STA. 22+05 | LT. | I |
| STA. 22+20 | RT. | I |
| STA. 22+55 | LT. | I |

| ROCK DITCH CHECK | (E-6) | INSTALLATION |
|---|---|---|
| STA. 15+45 | RT. | I |
| STA. 16+65 | RT. | I |
| STA. 22+65 | RT. | I |
| STA. 23+10 | LT. | I |




## LEGEND

| | |
|---|---|
| (E-5) = SAND BAG DITCH CHECKS | E-7 = DROP INLET SILT FENCE |
| (E-6) = ROCK DITCH CHECKS | (E-11) = SILT FENCE |
| (E-9) = DUMPED RIPRAP | (E-8) = DIVERSION DITCH |
| E-9 = SEDIMENT BASIN | (E-12) = SLOPE PIPE DRAIN (12") |
| E-10 = SEDIMENT BASIN | E-14 = SEDIMENT BASIN |

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | 6 | ARK. | 090069 | 79 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

## REVISIONS

| DATE | REVISION |
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TEMPORARY EROSION CONTROL DETAILS
LOCAL ROADS - STAGE 2

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| | | 6 | ARK. | 090069 | 80 | 583 |

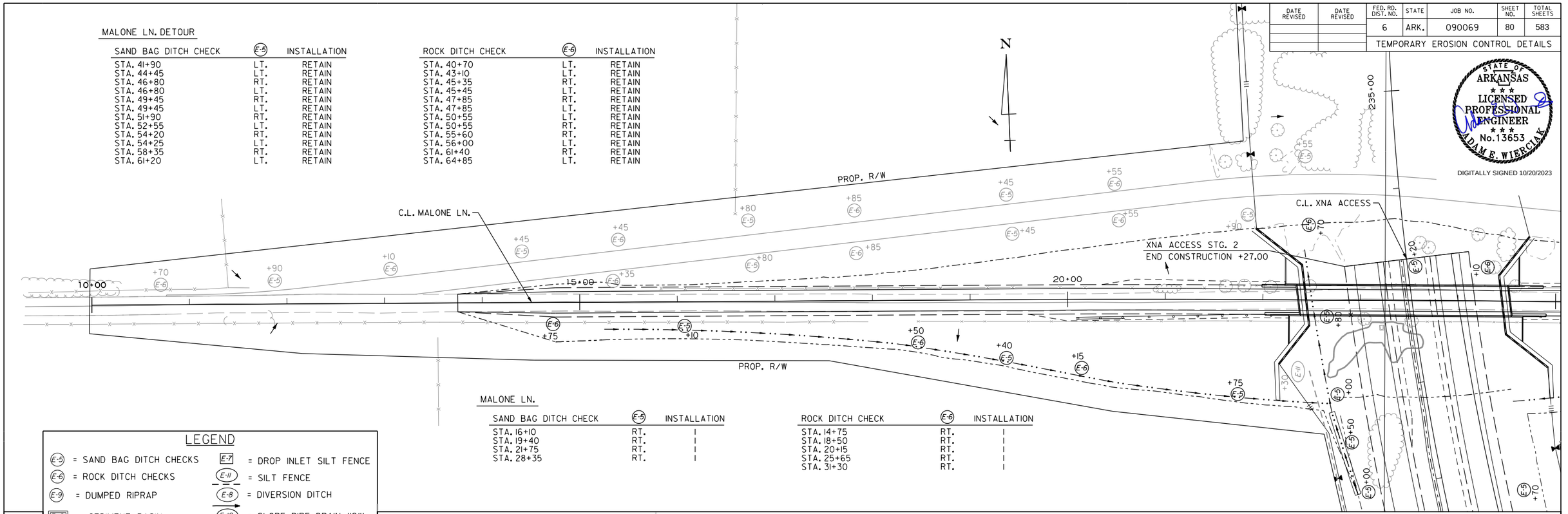
TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

MALONE LN. DETOUR

| SAND BAG DITCH CHECK | (E-5) | INSTALLATION |
|---|---|---|
| STA. 41+90 | LT. | RETAIN |
| STA. 44+45 | LT. | RETAIN |
| STA. 46+80 | RT. | RETAIN |
| STA. 46+80 | LT. | RETAIN |
| STA. 49+45 | RT. | RETAIN |
| STA. 49+45 | LT. | RETAIN |
| STA. 51+90 | RT. | RETAIN |
| STA. 52+55 | LT. | RETAIN |
| STA. 54+20 | RT. | RETAIN |
| STA. 54+25 | LT. | RETAIN |
| STA. 58+35 | RT. | RETAIN |
| STA. 61+20 | LT. | RETAIN |

| ROCK DITCH CHECK | (E-6) | INSTALLATION |
|---|---|---|
| STA. 40+70 | LT. | RETAIN |
| STA. 43+10 | LT. | RETAIN |
| STA. 45+35 | RT. | RETAIN |
| STA. 45+45 | LT. | RETAIN |
| STA. 47+85 | RT. | RETAIN |
| STA. 47+85 | LT. | RETAIN |
| STA. 50+55 | LT. | RETAIN |
| STA. 50+55 | RT. | RETAIN |
| STA. 55+60 | RT. | RETAIN |
| STA. 56+00 | LT. | RETAIN |
| STA. 61+40 | RT. | RETAIN |
| STA. 64+85 | LT. | RETAIN |




MALONE LN.

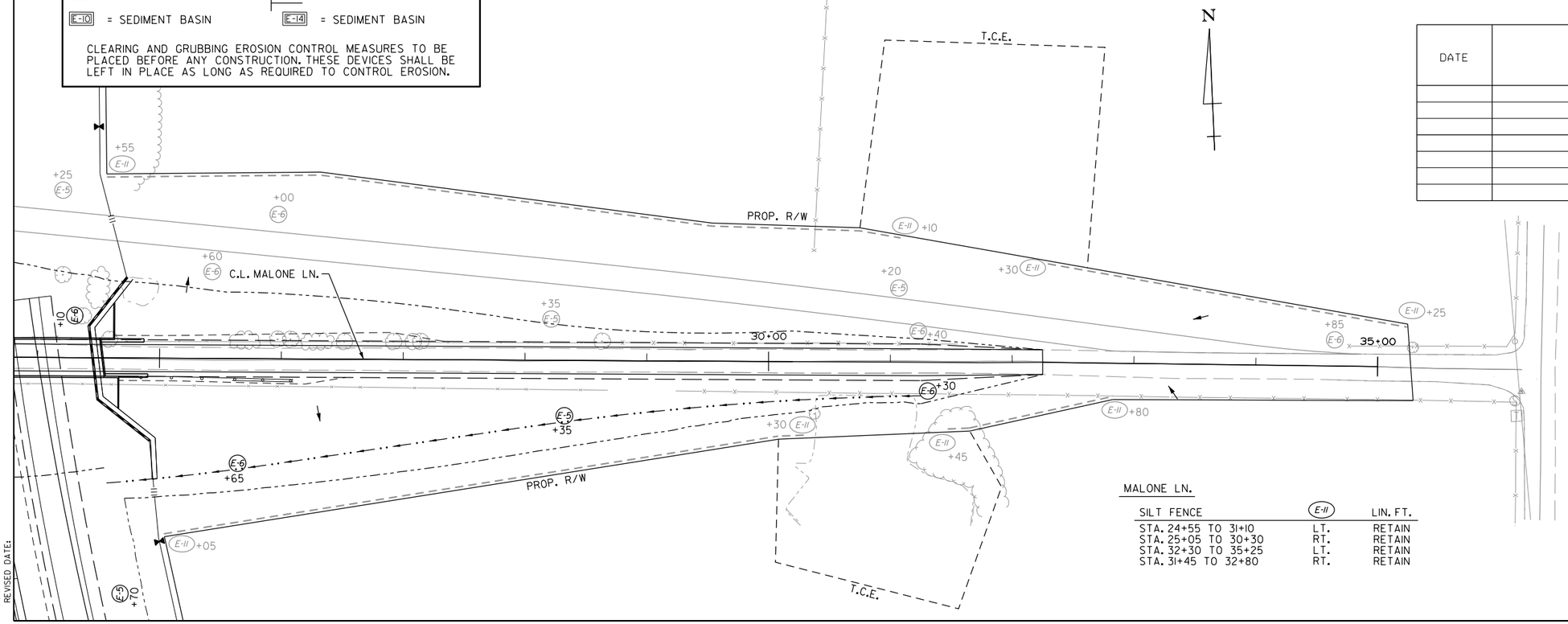
| SAND BAG DITCH CHECK | (E-5) | INSTALLATION |
|---|---|---|
| STA. 16+10 | RT. | I |
| STA. 19+40 | RT. | I |
| STA. 21+75 | RT. | I |
| STA. 28+35 | RT. | I |

| ROCK DITCH CHECK | (E-6) | INSTALLATION |
|---|---|---|
| STA. 14+75 | RT. | I |
| STA. 18+50 | RT. | I |
| STA. 20+15 | RT. | I |
| STA. 25+65 | RT. | I |
| STA. 31+30 | RT. | I |

## LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-9) = DUMPED RIPRAP
- E-9 = SEDIMENT BASIN
- E-10 = SEDIMENT BASIN
- E-7 = DROP INLET SILT FENCE
- (E-11) = SILT FENCE
- (E-8) = DIVERSION DITCH
- (E-12) = SLOPE PIPE DRAIN (12")
- E-14 = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.




## REVISIONS

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MALONE LN.

| SILT FENCE | (E-11) | LIN. FT. |
|---|---|---|
| STA. 24+55 TO 31+10 | LT. | RETAIN |
| STA. 25+05 TO 30+30 | RT. | RETAIN |
| STA. 32+30 TO 35+25 | LT. | RETAIN |
| STA. 31+45 TO 32+80 | RT. | RETAIN |

TEMPORARY EROSION CONTROL DETAILS
LOCAL ROADS - STAGE 2

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| | | 6 | ARK. | 090069 | 81 | 583 |
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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

N

HWY. 264

| SILT FENCE | E-11 | LIN. FT. |
|---|---|---|
| STA. 25+70 TO 27+75 | RT. | RETAIN |

C.L. AIRPORT BLVD.

280.00

I.C.E.

I.C.E.

20+00

25+00

30+00

PROP. R/W

C.L. HWY. 264

+60 E-11

E-11 +75

+70 E-11

+05 E-6

+25 E-5

PROP. R/W, C/A, & FENCE

275.00

+95 E-6

+35 E-5

+80 E-5

E-7 +25

+25 E-5

## LEGEND

- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-9 = DUMPED RIPRAP
- E-9 = SEDIMENT BASIN
- E-10 = SEDIMENT BASIN
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE
- E-8 = DIVERSION DITCH
- E-12 = SLOPE PIPE DRAIN (12")
- E-14 = SEDIMENT BASIN

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TEMPORARY EROSION CONTROL DETAILS
HWY. 264 - STAGE 2

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| | | 6 | ARK. | 090069 | 82 | 583 |

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
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No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

XNA ACCESS RD.

| SILT FENCE | E-11 | LIN. FT. |
|---|---|---|
| STA. 100+00 TO 120+00 | RT. | RETAIN |
| STA. 102+05 TO 102+80 | RT. | 155 |
| STA. 103+15 TO 105+00 | RT. | RETAIN |
| STA. 105+50 TO 106+25 | LT. | 117 |

| ROCK DITCH CHECK | E-6 | INSTALLATION |
|---|---|---|
| STA. 104+60 | RT. | I |

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 100+75 | MEDIAN | I |
| STA. 101+65 | LT. | I |
| STA. 101+90 | MEDIAN | I |
| STA. 102+95 | MEDIAN | I |
| STA. 103+90 | MEDIAN | I |
| STA. 104+10 | LT. | I |
| STA. 104+60 | LT. | I |
| STA. 104+70 | MEDIAN | I |
| STA. 105+05 | LT. | I |
| STA. 105+35 | MEDIAN | I |
| STA. 105+45 | LT. | I |
| STA. 105+60 | RT. | I |
| STA. 106+00 | MEDIAN | I |
| STA. 106+10 | RT. | I |
| STA. 106+50 | RT. | I |
| STA. 106+50 | LT. | I |

XNA ACCESS RD.

| SEDIMENT BASIN | E-9 | CU. YDS. |
|---|---|---|
| STA. 100+00 | LT. | 111 |
| STA. 101+10 | LT. | 388 |
| STA. 110+45 | RT. | 439 |

| SEDIMENT BASIN | E-10 | CU. YDS. |
|---|---|---|
| STA. 102+30 | RT. | 101 |
| STA. 105+95 | LT. | 351 |

XNA ACCESS RD.

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 106+60 | MEDIAN | I |
| STA. 106+95 | LT. | I |
| STA. 107+00 | RT. | I |
| STA. 107+25 | MEDIAN | I |
| STA. 107+40 | LT. | I |
| STA. 107+50 | RT. | I |
| STA. 107+75 | MEDIAN | I |
| STA. 107+80 | RT. | I |
| STA. 108+30 | RT. | I |
| STA. 108+40 | MEDIAN | I |
| STA. 108+80 | RT. | I |
| STA. 109+00 | MEDIAN | I |
| STA. 109+15 | LT. | I |
| STA. 109+25 | RT. | I |
| STA. 109+60 | MEDIAN | I |
| STA. 109+75 | RT. | I |
| STA. 109+75 | LT. | I |
| STA. 110+25 | MEDIAN | I |
| STA. 110+35 | LT. | I |
| STA. 110+85 | LT. | I |
| STA. 110+90 | MEDIAN | I |

| DROP INLET SILT FENCE | E-7 | INSTALLATION |
|---|---|---|
| STA. 102+00 | MEDIAN | I |
| STA. 107+75 | MEDIAN | I |

| DIVERSION DITCHES | E-8 | LIN. FT. |
|---|---|---|
| STA. 101+45 TO 102+50 | RT. | 105 |
| STA. 105+40 TO 106+50 | RT. | 105 |

| SLOPE DRAIN | E-12 | LIN. FT. |
|---|---|---|
| STA. 102+50 | RT. | 70 |
| STA. 106+50 | RT. | 60 |

| DUMPED RIP RAP | E-9 | CU. YDS. |
|---|---|---|
| STA. 102+50 | RT. | 2 |
| STA. 106+50 | LT. | 2 |

C.L. XNA ACCESS RD. STA. 100+00 LT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1286.00
BOT. ELEV. = 1282.00
D.A. = 0.83 AC.

C.L. XNA ACCESS RD. STA. 101+10 LT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1286.00
BOT. ELEV. = 1282.00
D.A. = 2.91 AC.

C.L. XNA ACCESS RD. STA. 105+95 LT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1262.00
BOT. ELEV. = 1256.00
D.A. = 2.63 AC.

C.L. XNA ACCESS RD. STA. 102+30 RT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1257.00
BOT. ELEV. = 1252.00
D.A. = 0.76 AC.

C.L. XNA ACCESS RD. STA. 110+45 RT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1224.00
BOT. ELEV. = 1218.00
D.A. = 3.29 AC.

PROP. R/W, C/A, & FENCE

C.L. XNA ACCESS RD. RAMP 2

C.L. XNA ACCESS RD. RAMP 1

C.L. XNA ACCESS RD. RAMP 3

C.L. XNA ACCESS RD. MEDIAN

420+00 100+00 105+00 110+00 480+00 435+00 430+00

## REVISIONS

| DATE | REVISION |
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## LEGEND

- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-9 = DUMPED RIPRAP
- E-9 = SEDIMENT BASIN
- E-10 = SEDIMENT BASIN
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE
- E-8 = DIVERSION DITCH
- E-12 = SLOPE PIPE DRAIN (12")
- E-14 = SEDIMENT BASIN

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TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - STAGE 2

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| | | 6 | ARK. | 090069 | 83 | 583 |

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

XNA ACCESS RD.

| SEDIMENT BASIN | E-10 | CU. YDS. |
|---|---|---|
| STA. 112+35 | LT. | 279 |
| STA. 113+15 | RT. | 412 |
| STA. 119+15 | LT. | 281 |
| STA. 123+15 | LT. | 659 |

XNA ACCESS RD.

| SILT FENCE | E-11 | LIN. FT. |
|---|---|---|
| STA. 111+90 TO 112+55 | LT. | 115 |
| STA. 112+50 TO 113+65 | RT. | 253 |
| STA. 113+85 TO 122+10 | RT. | RETAIN |
| STA. 118+50 TO 118+90 | LT. | 93 |
| STA. 122+90 TO 123+50 | LT. | 106 |

| ROCK DITCH CHECK | E-6 | INSTALLATION |
|---|---|---|
| STA. 115+20 | RT. | I |

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 111+35 | LT. | I |
| STA. 111+45 | MEDIAN | I |
| STA. 111+75 | LT. | I |
| STA. 112+10 | MEDIAN | I |
| STA. 112+25 | LT. | I |
| STA. 112+55 | LT. | I |
| STA. 112+75 | MEDIAN | I |
| STA. 112+95 | LT. | I |
| STA. 113+35 | MEDIAN | I |
| STA. 113+45 | LT. | I |
| STA. 113+55 | RT. | I |
| STA. 113+95 | MEDIAN | I |
| STA. 113+95 | LT. | I |

XNA ACCESS RD.

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 113+95 | RT. | I |
| STA. 114+30 | RT. | I |
| STA. 114+60 | MEDIAN | I |
| STA. 114+70 | RT. | I |
| STA. 115+20 | MEDIAN | I |
| STA. 115+65 | LT. | I |
| STA. 115+85 | MEDIAN | I |
| STA. 116+25 | LT. | I |
| STA. 116+45 | MEDIAN | I |
| STA. 116+80 | LT. | I |
| STA. 117+05 | MEDIAN | I |
| STA. 117+25 | LT. | I |
| STA. 117+60 | RT. | I |
| STA. 117+70 | LT. | I |
| STA. 117+70 | MEDIAN | I |
| STA. 118+10 | LT. | I |
| STA. 118+10 | RT. | I |
| STA. 118+30 | MEDIAN | I |
| STA. 118+60 | RT. | I |
| STA. 118+65 | LT. | I |
| STA. 118+90 | MEDIAN | I |
| STA. 119+10 | RT. | I |
| STA. 119+50 | MEDIAN | I |
| STA. 119+60 | RT. | I |
| STA. 120+10 | RT. | I |
| STA. 120+10 | MEDIAN | I |
| STA. 120+60 | RT. | I |
| STA. 120+75 | MEDIAN | I |

XNA ACCESS RD.

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 121+10 | RT. | I |
| STA. 121+35 | MEDIAN | I |
| STA. 121+65 | RT. | I |
| STA. 121+95 | MEDIAN | I |
| STA. 122+15 | RT. | I |
| STA. 122+60 | MEDIAN | I |
| STA. 122+65 | RT. | I |
| STA. 123+20 | RT. | I |
| STA. 123+20 | MEDIAN | I |
| STA. 123+60 | LT. | I |
| STA. 123+70 | RT. | I |
| STA. 123+85 | LT. | I |
| STA. 123+85 | MEDIAN | I |
| STA. 124+20 | RT. | I |
| STA. 124+45 | LT. | I |
| STA. 124+50 | MEDIAN | I |
| STA. 124+70 | RT. | I |
| STA. 125+05 | LT. | I |
| STA. 125+10 | MEDIAN | I |
| STA. 125+15 | RT. | I |
| STA. 125+65 | RT. | I |
| STA. 125+75 | MEDIAN | I |

| DROP INLET SILT FENCE | E-7 | INSTALLATION |
|---|---|---|
| 115+40 | MEDIAN | I |

C.L. XNA ACCESS RD. STA. 112+35 LT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1243.00
BOT. ELEV. = 1237.00
D.A. = 2.09 AC.

C.L. XNA ACCESS RD. STA. 119+15 LT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1206.00
BOT. ELEV. = 1201.00
D.A. = 2.11 AC.

C.L. XNA ACCESS RD. STA. 123+15 LT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1199.00
BOT. ELEV. = 1193.00
D.A. = 4.94 AC.

C.L. XNA ACCESS RD. STA. 113+15 RT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1224.00
BOT. ELEV. = 1218.00
D.A. = 3.09 AC.

PROP. R/W, C/A, & FENCE

C.L. XNA ACCESS RD. MEDIAN

115+00 120+00 125+00

GATE GATE

N

| DIVERSION DITCHES | E-8 | LIN. FT. |
|---|---|---|
| STA. 112+05 TO 112+65 | LT. | 60 |
| STA. 112+45 TO 114+30 | RT. | 185 |
| STA. 118+05 TO 124+30 | LT. | 620 |

| SLOPE DRAIN | E-12 | LIN. FT. |
|---|---|---|
| STA. 112+65 | LT. | 65 |
| STA. 114+30 | RT. | 65 |
| STA. 122+65 | LT. | 100 |
| STA. 124+30 | LT. | 65 |

| DUMPED RIP RAP | E-9 | CU. YDS. |
|---|---|---|
| STA. 112+65 | LT. | 2 |
| STA. 114+30 | RT. | 2 |
| STA. 124+30 | LT. | 2 |

## REVISIONS

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## LEGEND

- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-9 = DUMPED RIPRAP
- E-9 = SEDIMENT BASIN
- E-10 = SEDIMENT BASIN
- E-7 = DROP INLET SILT FENCE
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- E-8 = DIVERSION DITCH
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XNA ACCESS RD. - STAGE 2

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TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

XNA ACCESS RD.

| SILT FENCE | E-11 | LIN. FT. |
|---|---|---|
| STA. 129+65 TO 130+95 | RT. | 231 |
| STA. 130+95 TO 141+00 | RT. | RETAIN |
| STA. 130+85 TO 141+00 | LT. | RETAIN |

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 126+15 | RT. | |
| STA. 126+30 | MEDIAN | |
| STA. 126+65 | RT. | |
| STA. 126+90 | MEDIAN | |
| STA. 127+10 | RT. | |
| STA. 127+50 | MEDIAN | |
| STA. 127+60 | RT. | |
| STA. 128+00 | RT. | |
| STA. 128+10 | MEDIAN | |
| STA. 128+50 | RT. | |
| STA. 128+75 | MEDIAN | |
| STA. 128+85 | LT. | |
| STA. 129+00 | RT. | |
| STA. 129+35 | MEDIAN | |
| STA. 129+45 | LT. | |

XNA ACCESS RD.

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 129+95 | MEDIAN | |
| STA. 130+10 | LT. | |
| STA. 130+60 | MEDIAN | |
| STA. 130+65 | RT. | |
| STA. 130+70 | LT. | |
| STA. 131+20 | RT. | |
| STA. 131+25 | MEDIAN | |
| STA. 131+30 | LT. | |
| STA. 131+60 | RT. | |
| STA. 131+85 | MEDIAN | |
| STA. 131+90 | LT. | |
| STA. 132+05 | RT. | |
| STA. 132+50 | MEDIAN | |
| STA. 132+55 | RT. | |
| STA. 132+55 | LT. | |
| STA. 133+05 | RT. | |
| STA. 133+10 | MEDIAN | |
| STA. 133+15 | LT. | |

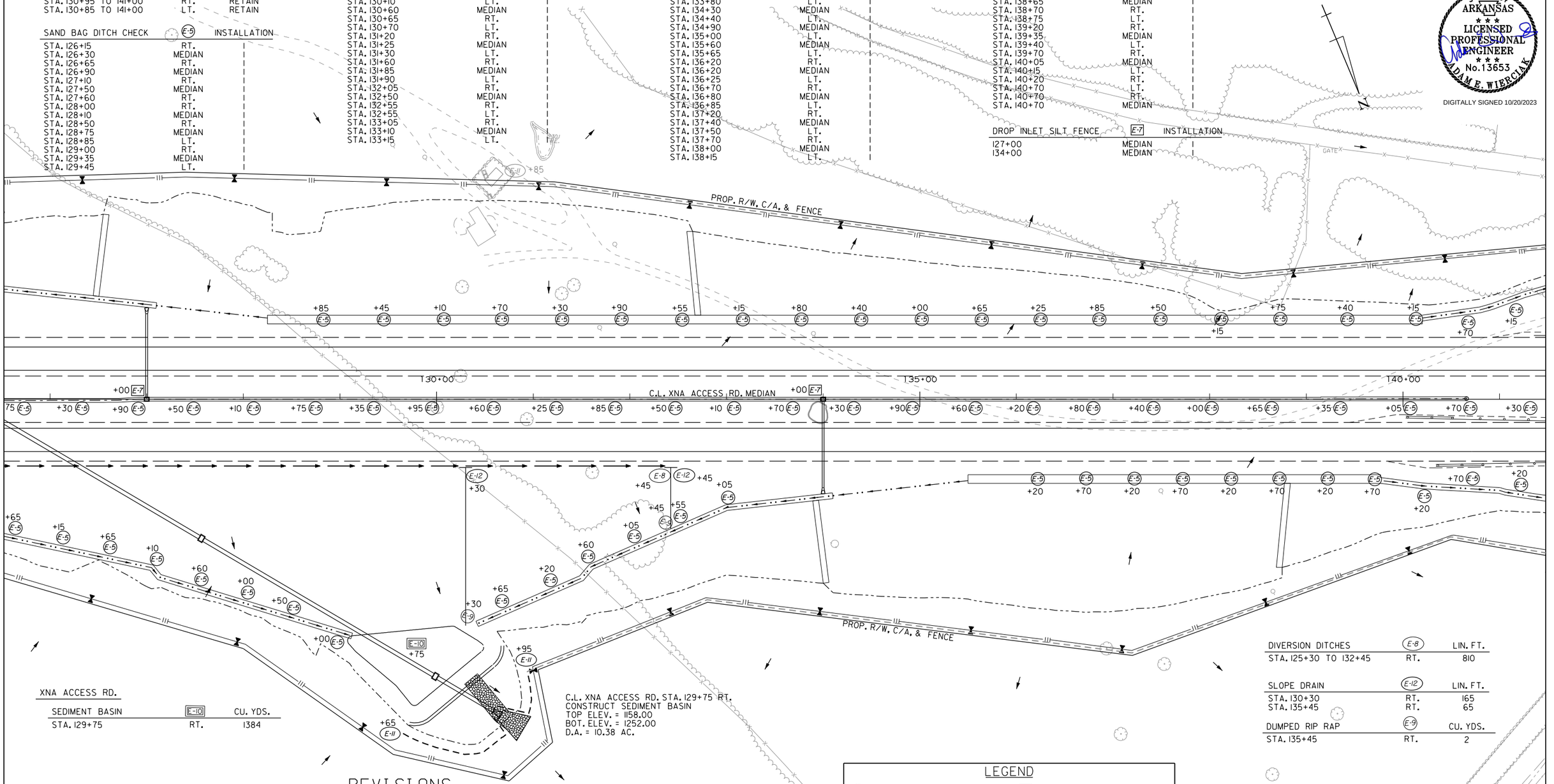
XNA ACCESS RD.

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 133+70 | MEDIAN | |
| STA. 133+80 | LT. | |
| STA. 134+30 | MEDIAN | |
| STA. 134+40 | LT. | |
| STA. 134+90 | MEDIAN | |
| STA. 135+00 | LT. | |
| STA. 135+60 | MEDIAN | |
| STA. 135+65 | LT. | |
| STA. 136+20 | RT. | |
| STA. 136+20 | MEDIAN | |
| STA. 136+25 | LT. | |
| STA. 136+70 | RT. | |
| STA. 136+80 | MEDIAN | |
| STA. 136+85 | LT. | |
| STA. 137+20 | RT. | |
| STA. 137+40 | MEDIAN | |
| STA. 137+50 | LT. | |
| STA. 137+70 | RT. | |
| STA. 138+00 | MEDIAN | |
| STA. 138+15 | LT. | |

XNA ACCESS RD.

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 138+20 | RT. | |
| STA. 138+65 | MEDIAN | |
| STA. 138+70 | RT. | |
| STA. 138+75 | LT. | |
| STA. 139+20 | RT. | |
| STA. 139+35 | MEDIAN | |
| STA. 139+40 | LT. | |
| STA. 139+70 | RT. | |
| STA. 140+05 | MEDIAN | |
| STA. 140+15 | LT. | |
| STA. 140+20 | RT. | |
| STA. 140+70 | LT. | |
| STA. 140+70 | RT. | |
| STA. 140+70 | MEDIAN | |

| DROP INLET SILT FENCE | E-7 | INSTALLATION |
|---|---|---|
| 127+00 | MEDIAN | |
| 134+00 | MEDIAN | |




XNA ACCESS RD.

| SEDIMENT BASIN | E-10 | CU. YDS. |
|---|---|---|
| STA. 129+75 | RT. | 1384 |

C.L. XNA ACCESS RD. STA. 129+75 RT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1158.00
BOT. ELEV. = 1252.00
D.A. = 10.38 AC.

| DIVERSION DITCHES | E-8 | LIN. FT. |
|---|---|---|
| STA. 125+30 TO 132+45 | RT. | 810 |

| SLOPE DRAIN | E-12 | LIN. FT. |
|---|---|---|
| STA. 130+30 | RT. | 165 |
| STA. 135+45 | RT. | 65 |

| DUMPED RIP RAP | E-9 | CU. YDS. |
|---|---|---|
| STA. 135+45 | RT. | 2 |

## LEGEND

- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-9 = DUMPED RIPRAP
- E-9 = SEDIMENT BASIN
- E-10 = SEDIMENT BASIN
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE
- E-8 = DIVERSION DITCH
- E-12 = SLOPE PIPE DRAIN (12")
- E-14 = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

## REVISIONS

| DATE | REVISION |
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TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - STAGE 2

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 85 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

XNA ACCESS RD.

| SEDIMENT BASIN | E-9 | CU. YDS. |
|---|---|---|
| STA. 141+95 | RT. | 1112 |
| STA. 152+50 | LT. | 283 |
| STA. 155+50 | RT. | 275 |

| SILT FENCE | E-11 | LIN. FT. |
|---|---|---|
| STA. 141+00 TO 142+70 | LT. | RETAIN |
| STA 141+00 TO 142+50 | RT. | RETAIN |
| STA. 142+70 TO 143+95 | LT. | 130 |
| STA. 143+20 TO 146+45 | RT. | RETAIN |
| STA. 145+25 TO 146+25 | LT. | 147 |
| STA. 146+45 TO 148+80 | RT. | 386 |
| STA. 146+60 TO 152+05 | LT. | 460 |
| STA. 148+80 TO 155+55 | RT. | RETAIN |
| STA. 152+35 TO 153+20 | LT. | 142 |
| STA. 155+55 TO 156+00 | RT. | 58 |

XNA ACCESS RD.

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 141+15 | LT. | I |
| STA. 141+20 | RT. | I |
| STA. 141+30 | MEDIAN | I |
| STA. 141+65 | LT. | I |
| STA. 141+70 | RT. | I |
| STA. 141+90 | MEDIAN | I |
| STA. 142+15 | LT. | I |
| STA. 142+20 | RT. | I |
| STA. 142+55 | MEDIAN | I |
| STA. 142+60 | LT. | I |
| STA. 142+75 | RT. | I |
| STA. 143+05 | LT. | I |
| STA. 143+15 | RT. | I |
| STA. 143+55 | LT. | I |
| STA. 144+10 | LT. | I |
| STA. 144+10 | RT. | I |
| STA. 144+50 | RT. | I |
| STA. 144+85 | RT. | I |
| STA. 144+90 | RT. | I |
| STA. 145+00 | RT. | I |
| STA. 145+05 | RT. | I |
| STA. 145+10 | LT. | I |
| STA. 145+25 | RT. | I |

XNA ACCESS RD.

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 145+55 | RT. | I |
| STA. 146+30 | MEDIAN | I |
| STA. 146+85 | MEDIAN | I |
| STA. 147+50 | MEDIAN | I |
| STA. 148+15 | MEDIAN | I |
| STA. 148+75 | MEDIAN | I |
| STA. 149+30 | MEDIAN | I |
| STA. 149+85 | MEDIAN | I |
| STA. 150+50 | MEDIAN | I |
| STA. 151+10 | MEDIAN | I |
| STA. 151+70 | MEDIAN | I |
| STA. 152+35 | MEDIAN | I |
| STA. 153+00 | MEDIAN | I |
| STA. 153+60 | MEDIAN | I |
| STA. 154+20 | MEDIAN | I |
| STA. 154+85 | MEDIAN | I |
| STA. 155+55 | MEDIAN | I |

| ROCK DITCH CHECK | E-6 | INSTALLATION |
|---|---|---|
| STA. 146+30 | LT. | I |
| STA. 153+50 | LT. | I |

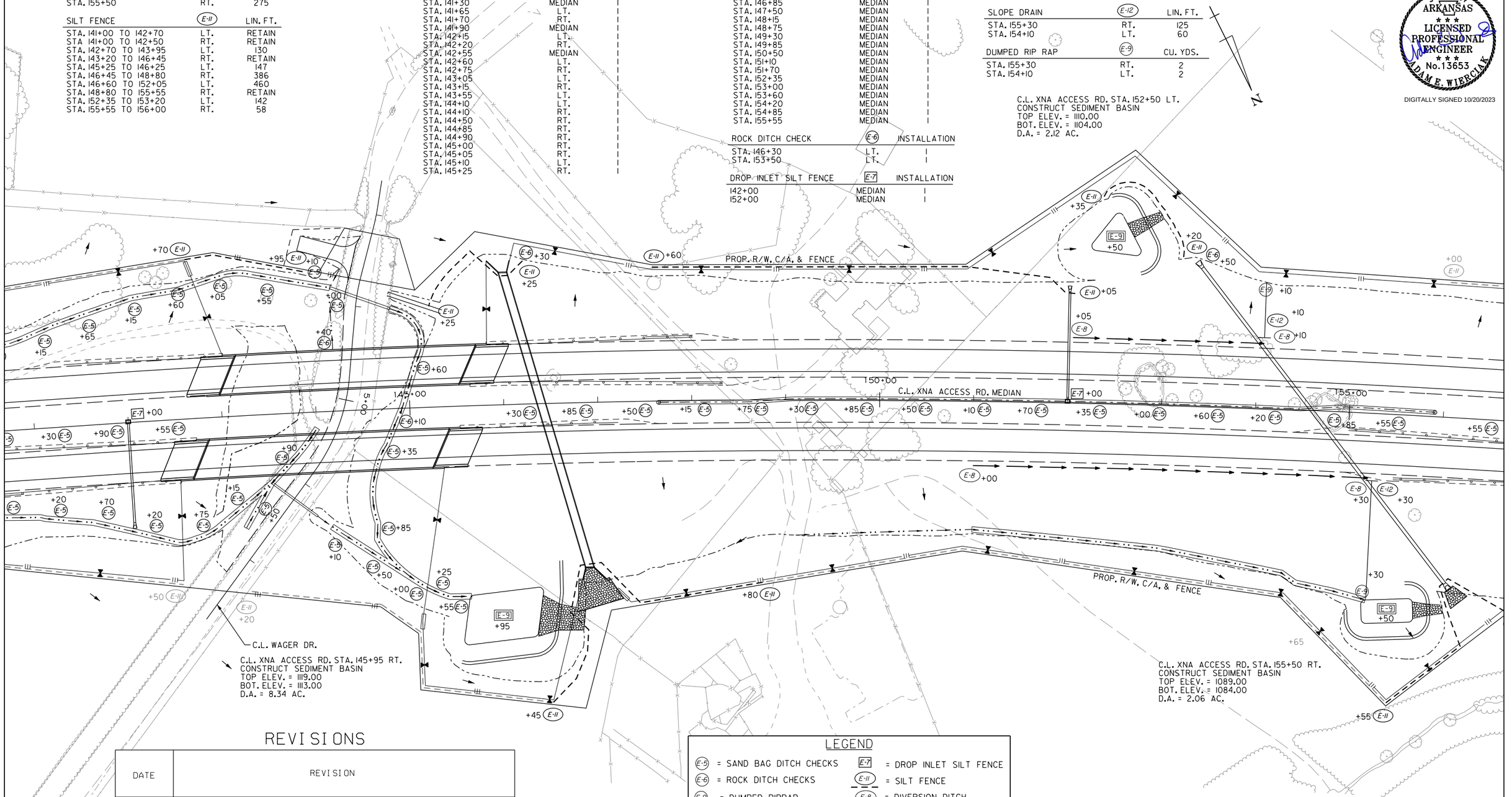
| DROP INLET SILT FENCE | E-7 | INSTALLATION |
|---|---|---|
| 142+00 | MEDIAN | I |
| 152+00 | MEDIAN | I |

| DIVERSION DITCHES | E-8 | LIN. FT. |
|---|---|---|
| STA. 150+30 TO 155+30 | RT. | 425 |
| STA. 153+05 TO 154+10 | LT. | 180 |

| SLOPE DRAIN | E-12 | LIN. FT. |
|---|---|---|
| STA. 155+30 | RT. | 125 |
| STA. 154+10 | LT. | 60 |

| DUMPED RIP RAP | E-9 | CU. YDS. |
|---|---|---|
| STA. 155+30 | RT. | 2 |
| STA. 154+10 | LT. | 2 |

C.L. XNA ACCESS RD. STA. 152+50 LT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1110.00
BOT. ELEV. = 1104.00
D.A. = 2.12 AC.




REVISIONS

| DATE | REVISION |
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LEGEND

| | | | |
|---|---|---|---|
| E-5 | = SAND BAG DITCH CHECKS | E-7 | = DROP INLET SILT FENCE |
| E-6 | = ROCK DITCH CHECKS | E-11 | = SILT FENCE |
| E-9 | = DUMPED RIPRAP | E-8 | = DIVERSION DITCH |
| E-9 | = SEDIMENT BASIN | E-12 | = SLOPE PIPE DRAIN (12") |
| E-10 | = SEDIMENT BASIN | E-14 | = SEDIMENT BASIN |

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - STAGE 2

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 86 | 583 |

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

XNA ACCESS RD.

| SILT FENCE | E-11 | LIN. FT. |
|---|---|---|
| STA. 156+00 TO 156+80 | RT. | 192 |
| STA. 156+00 TO 157+55 | LT. | RETAIN |
| STA. 156+80 TO 158+90 | LT. & RT. | RETAIN |
| STA. 157+55 TO 158+05 | LT. | 77 |
| STA. 158+90 TO 159+10 | LT. | 77 |
| STA. 169+30 TO 171+00 | LT. & RT. | RETAIN |

| ROCK DITCH CHECK | E-6 | INSTALLATION |
|---|---|---|
| STA. 159+00 | LT. | 1 |
| STA. 159+15 | MEDIAN | 1 |
| STA. 170+45 | LT. | 1 |

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 156+55 | MEDIAN | 1 |
| STA. 157+30 | MEDIAN | 1 |
| STA. 157+90 | MEDIAN | 1 |
| STA. 158+40 | LT. | 1 |

XNA ACCESS RD.

| SEDIMENT BASIN | E-9 | CU. YDS. |
|---|---|---|
| STA. 158+45 | LT. | 237 |

| DROP INLET SILT FENCE | E-7 | INSTALLATION |
|---|---|---|
| 158+00 | MEDIAN | 1 |

C.L. XNA ACCESS RD. STA. 158+45 LT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1096.00
BOT. ELEV. = 1091.00
D.A. = 1.78 AC.

N

PROP. R/W, C/A, & FENCE
PROP. R/W
C.L. XNA ACCESS RD. MEDIAN
160+00
165+00
170+00
PROP. R/W, C/A, & FENCE
PROP. R/W
PROP. R/W, C/A, & FENCE

REVISIONS

| DATE | REVISION |
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LEGEND

| | | | |
|---|---|---|---|
| E-5 | = SAND BAG DITCH CHECKS | E-7 | = DROP INLET SILT FENCE |
| E-6 | = ROCK DITCH CHECKS | E-11 | = SILT FENCE |
| E-9 | = DUMPED RIPRAP | E-8 | = DIVERSION DITCH |
| E-9 | = SEDIMENT BASIN | E-12 | = SLOPE PIPE DRAIN (12") |
| E-10 | = SEDIMENT BASIN | E-14 | = SEDIMENT BASIN |

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - STAGE 2

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 87 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

## XNA ACCESS RD.

| SILT FENCE (E-11) | | LIN. FT. |
|---|---|---|
| STA. 171+00 TO 172+55 | LT. | RETAIN |
| STA. 175+00 TO 175+40 | LT. & RT. | RETAIN |
| STA. 180+85 TO 186+00 | LT. & RT. | RETAIN |

| SAND BAG DITCH CHECK (E-5) | | INSTALLATION |
|---|---|---|
| STA. 171+10 | LT. | I |
| STA. 172+35 | MEDIAN | I |
| STA. 172+40 | RT. | I |
| STA. 172+55 | RT. | I |
| STA. 173+10 | LT. | I |
| STA. 173+85 | MEDIAN | I |
| STA. 174+10 | LT. | I |
| STA. 174+60 | LT. | I |
| STA. 182+10 | MEDIAN | I |
| STA. 182+30 | LT. | I |
| STA. 182+85 | LT. | I |
| STA. 183+10 | MEDIAN | I |
| STA. 183+45 | LT. | I |
| STA. 183+85 | MEDIAN | I |
| STA. 184+50 | MEDIAN | I |
| STA. 185+30 | MEDIAN | I |
| STA. 185+95 | MEDIAN | I |

| ROCK DITCH CHECK (E-6) | | INSTALLATION |
|---|---|---|
| STA. 171+25 | RT. | I |
| STA. 171+90 | LT. | I |
| STA. 184+90 | LT. | I |

| DROP INLET SILT FENCE (E-7) | | INSTALLATION |
|---|---|---|
| 172+45 | MEDIAN | I |
| 173+70 | MEDIAN | I |
| 182+00 | MEDIAN | I |

| SEDIMENT BASIN (E-9) | | LIN. FT. |
|---|---|---|
| STA. 174+80 | LT. | 119 |
| STA. 181+45 | LT. | 1931 |

PROP. R/W

C.L. XNA ACCESS RD. STA. 174+80 LT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1086.00
D.A. = 8.39 AC.

C.L. XNA ACCESS RD. STA. 181+45 LT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1084.00
BOT. ELEV. = 1079.00
D.A. = 14.48 AC.

PROP. R/W, C/A, & FENCE

175+00

C.L. XNA ACCESS RD. MEDIAN

180+00

185+00

PROP. R/W

PROP. R/W, C/A, & FENCE

PROP. R/W, C/A, & FENCE

## REVISIONS

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## LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-9) = DUMPED RIPRAP
- [E-9] = SEDIMENT BASIN
- [E-10] = SEDIMENT BASIN
- [E-7] = DROP INLET SILT FENCE
- (E-11) = SILT FENCE
- (E-8) = DIVERSION DITCH
- (E-12) = SLOPE PIPE DRAIN (12")
- [E-14] = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - STAGE 2

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 88 | 583 |

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

XNA ACCESS RD.

| SAND BAG DITCH CHECK | (E-5) | INSTALLATION |
|---|---|---|
| STA. 186+45 | MEDIAN | I |
| STA. 186+95 | MEDIAN | I |
| STA. 187+25 | LT. | I |
| STA. 187+45 | MEDIAN | I |
| STA. 187+95 | MEDIAN | I |
| STA. 188+10 | RT. | I |
| STA. 188+45 | MEDIAN | I |
| STA. 188+95 | MEDIAN | I |
| STA. 189+45 | MEDIAN | I |
| STA. 189+95 | MEDIAN | I |
| STA. 190+10 | RT. | I |
| STA. 190+45 | MEDIAN | I |
| STA. 190+60 | RT. | I |
| STA. 190+95 | MEDIAN | I |
| STA. 191+10 | RT. | I |
| STA. 191+60 | RT. | I |
| STA. 192+10 | RT. | I |
| STA. 192+15 | LT. | I |
| STA. 192+50 | LT. | I |
| STA. 192+60 | RT. | I |
| STA. 192+80 | LT. | I |
| STA. 193+15 | LT. | I |
| STA. 193+60 | LT. | I |
| STA. 193+85 | MEDIAN | I |
| STA. 194+00 | RT. | I |
| STA. 194+10 | LT. | I |
| STA. 194+35 | RT. | I |
| STA. 194+35 | MEDIAN | I |

XNA ACCESS RD.

| SAND BAG DITCH CHECK | (E-5) | INSTALLATION |
|---|---|---|
| STA. 194+60 | LT. | I |
| STA. 194+70 | RT. | I |
| STA. 194+85 | MEDIAN | I |
| STA. 195+10 | LT. | I |
| STA. 195+15 | RT. | I |
| STA. 195+35 | MEDIAN | I |
| STA. 195+55 | RT. | I |
| STA. 195+60 | LT. | I |
| STA. 195+85 | MEDIAN | I |
| STA. 196+05 | RT. | I |
| STA. 196+10 | LT. | I |
| STA. 196+35 | MEDIAN | I |
| STA. 196+55 | RT. | I |
| STA. 196+60 | LT. | I |
| STA. 196+85 | MEDIAN | I |
| STA. 197+05 | RT. | I |
| STA. 197+10 | LT. | I |
| STA. 197+35 | MEDIAN | I |
| STA. 197+55 | RT. | I |
| STA. 197+60 | LT. | I |

XNA ACCESS RD.

| SAND BAG DITCH CHECK | (E-5) | INSTALLATION |
|---|---|---|
| STA. 197+85 | MEDIAN | I |
| STA. 198+05 | RT. | I |
| STA. 198+10 | LT. | I |
| STA. 198+35 | MEDIAN | I |
| STA. 198+55 | RT. | I |
| STA. 198+60 | LT. | I |
| STA. 198+85 | MEDIAN | I |
| STA. 199+05 | RT. | I |
| STA. 199+10 | LT. | I |
| STA. 199+35 | MEDIAN | I |
| STA. 199+55 | RT. | I |
| STA. 199+60 | LT. | I |
| STA. 199+85 | MEDIAN | I |
| STA. 200+05 | RT. | I |
| STA. 200+10 | LT. | I |
| STA. 200+35 | MEDIAN | I |
| STA. 200+55 | RT. | I |
| STA. 200+60 | LT. | I |
| STA. 200+85 | MEDIAN | I |

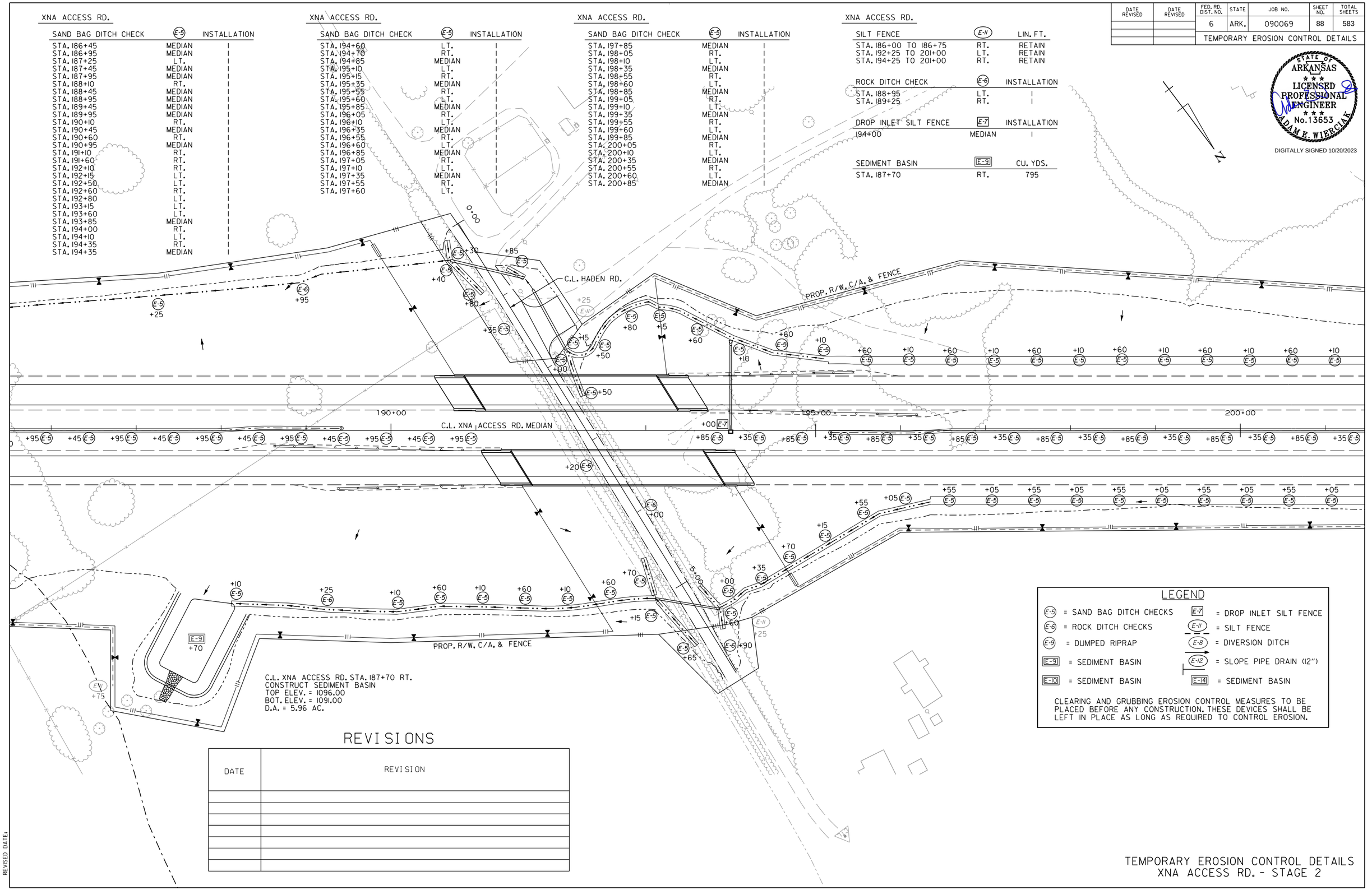
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| SILT FENCE | (E-11) | LIN. FT. |
|---|---|---|
| STA. 186+00 TO 186+75 | RT. | RETAIN |
| STA. 192+25 TO 201+00 | LT. | RETAIN |
| STA. 194+25 TO 201+00 | RT. | RETAIN |

| ROCK DITCH CHECK | (E-6) | INSTALLATION |
|---|---|---|
| STA. 188+95 | LT. | I |
| STA. 189+25 | RT. | I |

| DROP INLET SILT FENCE | (E-7) | INSTALLATION |
|---|---|---|
| 194+00 | MEDIAN | I |

| SEDIMENT BASIN | (E-9) | CU. YDS. |
|---|---|---|
| STA. 187+70 | RT. | 795 |




LEGEND

| | | | |
|---|---|---|---|
| (E-5) | = SAND BAG DITCH CHECKS | (E-7) | = DROP INLET SILT FENCE |
| (E-6) | = ROCK DITCH CHECKS | (E-11) | = SILT FENCE |
| (E-9) | = DUMPED RIPRAP | (E-8) | = DIVERSION DITCH |
| [E-9] | = SEDIMENT BASIN | (E-12) | = SLOPE PIPE DRAIN (12") |
| [E-10] | = SEDIMENT BASIN | [E-14] | = SEDIMENT BASIN |

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

REVISIONS

| DATE | REVISION |
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TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - STAGE 2

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 89 | 583 |

TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

XNA ACCESS RD.

| SILT FENCE | E-11 | LIN. FT. |
|---|---|---|
| STA. 201+00 TO 205+00 | LT. | RETAIN |
| STA. 206+55 TO 207+80 | LT. | 222 |
| STA. 201+00 TO 204+90 | RT. | RETAIN |
| STA. 207+45 TO 208+45 | RT. | 171 |
| STA. 210+45 TO 211+10 | LT. & RT. | RETAIN |

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 201+05 | RT. | I |
| STA. 201+10 | LT. | I |
| STA. 201+35 | MEDIAN | I |
| STA. 201+55 | RT. | I |
| STA. 201+60 | LT. | I |
| STA. 201+85 | MEDIAN | I |
| STA. 202+05 | RT. | I |
| STA. 202+10 | LT. | I |
| STA. 202+35 | MEDIAN | I |
| STA. 202+55 | RT. | I |
| STA. 202+60 | LT. | I |
| STA. 202+85 | MEDIAN | I |
| STA. 203+05 | RT. | I |
| STA. 203+10 | LT. | I |
| STA. 203+35 | MEDIAN | I |
| STA. 203+55 | RT. | I |
| STA. 203+60 | LT. | I |
| STA. 203+85 | MEDIAN | I |
| STA. 204+05 | RT. | I |
| STA. 204+10 | LT. | I |
| STA. 204+35 | MEDIAN | I |
| STA. 204+60 | LT. | I |
| STA. 204+85 | MEDIAN | I |
| STA. 205+10 | LT. | I |

XNA ACCESS RD.

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 205+35 | MEDIAN | I |
| STA. 205+70 | RT. | I |
| STA. 205+85 | MEDIAN | I |
| STA. 206+20 | RT. | I |
| STA. 206+35 | MEDIAN | I |
| STA. 206+70 | RT. | I |
| STA. 206+85 | MEDIAN | I |
| STA. 207+15 | RT. | I |
| STA. 207+35 | MEDIAN | I |
| STA. 207+55 | RT. | I |
| STA. 207+85 | MEDIAN | I |
| STA. 208+45 | MEDIAN | I |
| STA. 209+15 | MEDIAN | I |
| STA. 209+90 | MEDIAN | I |
| STA. 214+10 | MEDIAN | I |
| STA. 214+30 | LT. | I |
| STA. 214+80 | LT. | I |
| STA. 215+30 | LT. | I |
| STA. 215+80 | LT. | I |

| DROP INLET SILT FENCE | E-7 | INSTALLATION |
|---|---|---|
| 205+25 | MEDIAN | I |
| 215+00 | MEDIAN | I |

| SEDIMENT BASIN | E-10 | CU. YDS. |
|---|---|---|
| STA. 207+15 | LT. | 487 |
| STA. 207+80 | RT. | 276 |

C.L. XNA ACCESS RD. STA. 207+15 LT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1197.00
BOT. ELEV. = 1192.00
D.A. = 3.65 AC.

C.L. XNA ACCESS RD. STA. 207+80 RT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1179.00
BOT. ELEV. = 1174.00
D.A. = 2.07 AC.

| DIVERSION DITCHES | E-8 | LIN. FT. |
|---|---|---|
| STA. 206+30 TO 210+00 | LT. | 270 |

| SLOPE DRAIN | E-12 | LIN. FT. |
|---|---|---|
| STA. 206+30 | LT. | 65 |

| DUMPED RIP RAP | E-9 | CU. YDS. |
|---|---|---|
| STA. 206+30 | LT. | 2 |

## REVISIONS

| DATE | REVISION |
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## LEGEND

- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-9 = DUMPED RIPRAP
- E-9 = SEDIMENT BASIN
- E-10 = SEDIMENT BASIN
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE
- E-8 = DIVERSION DITCH
- E-12 = SLOPE PIPE DRAIN (12")
- E-14 = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

PROP. R/W, C/A, & FENCE
C.L. XNA ACCESS RD. MEDIAN
PROP. R/W, C/A, & FENCE
C.L. HOLMES RD.
205+00
210+00
215+00
15+00
25+00

TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - STAGE 2

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 90 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

XNA ACCESS RD.

| SILT FENCE | (E-11) | LIN. FT. |
|---|---|---|
| STA. 217+95 TO 219+95 | RT. | 230 |
| STA. 219+95 TO 225+35 | RT. | RETAIN |
| STA. 221+80 TO 226+40 | LT. | RETAIN |
| STA. 228+00 TO 231+00 | LT. | RETAIN |

| SAND BAG DITCH CHECK | (E-5) | INSTALLATION |
|---|---|---|
| STA. 216+30 | LT. | 1 |
| STA. 216+60 | MEDIAN | 1 |
| STA. 216+80 | LT. | 1 |
| STA. 220+00 | RT. | 1 |
| STA. 220+30 | MEDIAN | 1 |
| STA. 220+50 | RT. | 1 |
| STA. 221+00 | RT. | 1 |
| STA. 221+50 | RT. | 1 |
| STA. 223+50 | MEDIAN | 1 |

| ROCK DITCH CHECK | (E-6) | INSTALLATION |
|---|---|---|
| STA. 222+05 | RT. | 1 |

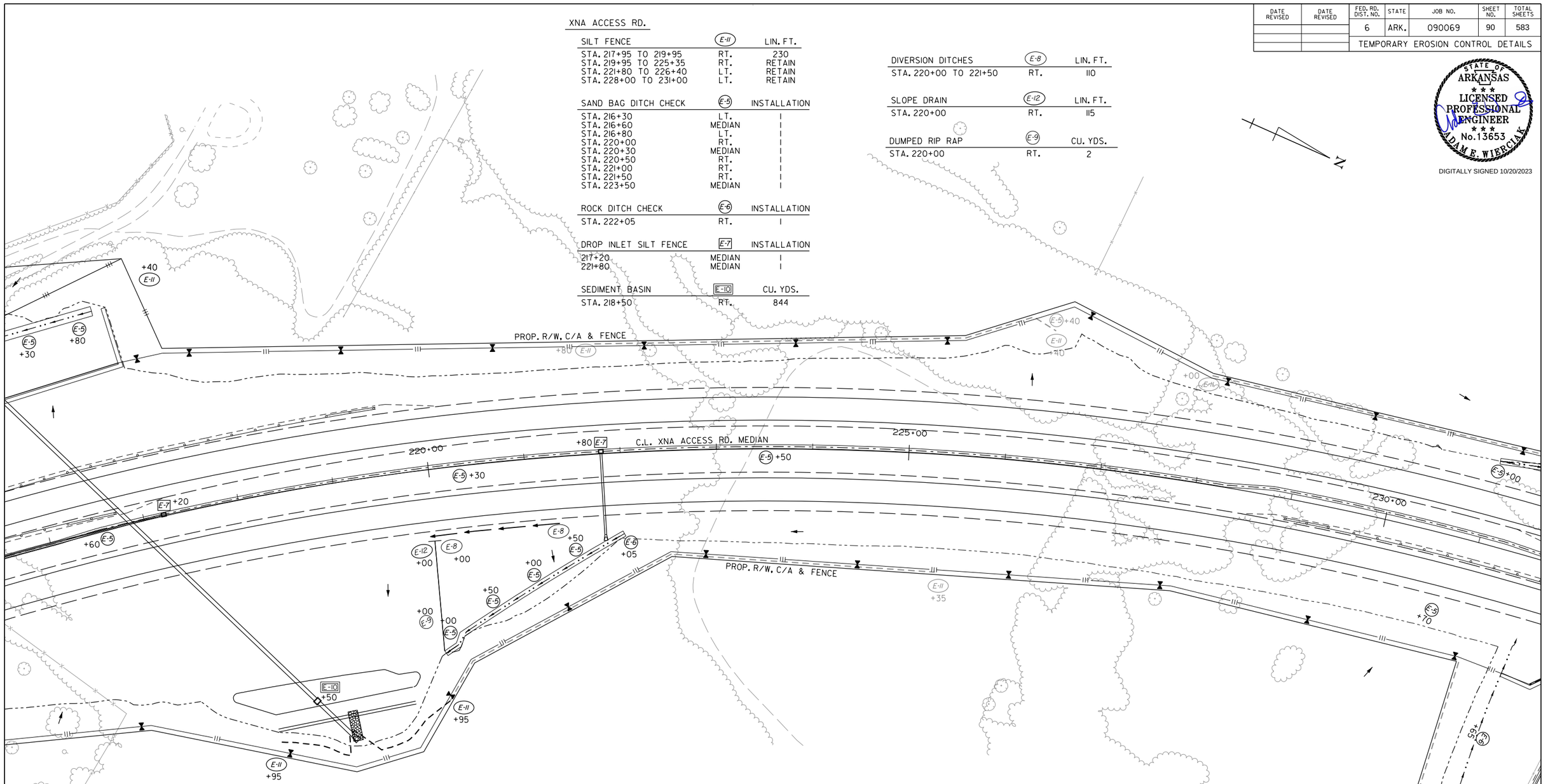
| DROP INLET SILT FENCE | [E-7] | INSTALLATION |
|---|---|---|
| 217+20 | MEDIAN | 1 |
| 221+80 | MEDIAN | 1 |

| SEDIMENT BASIN | [E-10] | CU. YDS. |
|---|---|---|
| STA. 218+50 | RT. | 844 |

| DIVERSION DITCHES | (E-8) | LIN. FT. |
|---|---|---|
| STA. 220+00 TO 221+50 | RT. | 110 |

| SLOPE DRAIN | (E-12) | LIN. FT. |
|---|---|---|
| STA. 220+00 | RT. | 115 |

| DUMPED RIP RAP | (E-9) | CU. YDS. |
|---|---|---|
| STA. 220+00 | RT. | 2 |




C.L. XNA ACCESS RD. STA. 218+50 RT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1207.00
BOT. ELEV. = 1202.00
D.A. = 6.33 AC.

## REVISIONS

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## LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-9) = DUMPED RIPRAP
- [E-9] = SEDIMENT BASIN
- [E-10] = SEDIMENT BASIN
- [E-7] = DROP INLET SILT FENCE
- (E-11) = SILT FENCE
- (E-8) = DIVERSION DITCH
- (E-12) = SLOPE PIPE DRAIN (12")
- [E-14] = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - STAGE 2

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 91 | 583 |

TEMPORARY EROSION CONTROL DETAILS

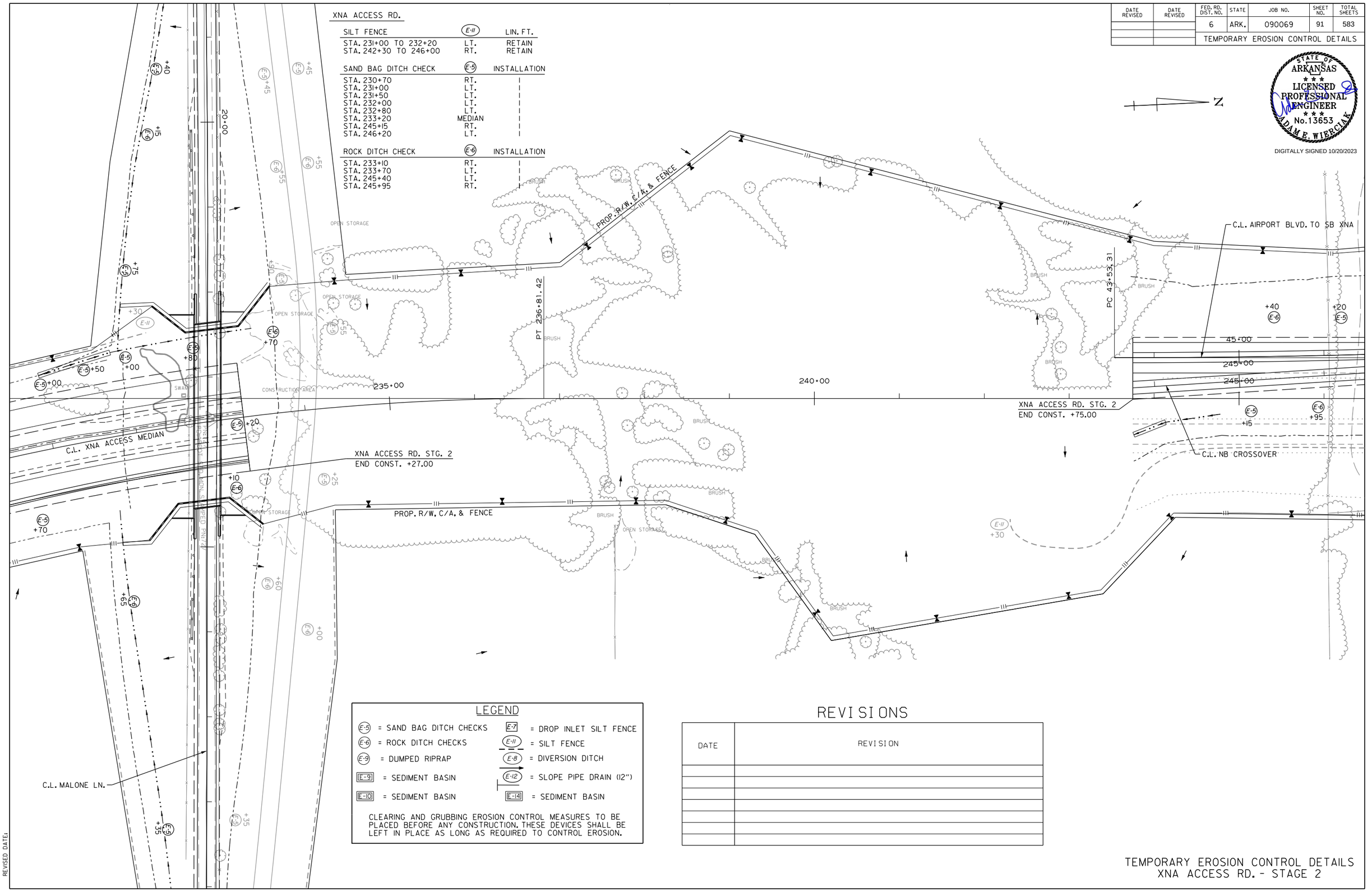
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

XNA ACCESS RD.

| SILT FENCE | E-11 | LIN. FT. |
|---|---|---|
| STA. 231+00 TO 232+20 | LT. | RETAIN |
| STA. 242+30 TO 246+00 | RT. | RETAIN |

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 230+70 | RT. | I |
| STA. 231+00 | LT. | I |
| STA. 231+50 | LT. | I |
| STA. 232+00 | LT. | I |
| STA. 232+80 | LT. | I |
| STA. 233+20 | MEDIAN | I |
| STA. 245+15 | RT. | I |
| STA. 246+20 | LT. | I |

| ROCK DITCH CHECK | E-6 | INSTALLATION |
|---|---|---|
| STA. 233+10 | RT. | I |
| STA. 233+70 | LT. | I |
| STA. 245+40 | LT. | I |
| STA. 245+95 | RT. | I |




## LEGEND

- E-5 = SAND BAG DITCH CHECKS
- E-6 = ROCK DITCH CHECKS
- E-9 = DUMPED RIPRAP
- E-9 = SEDIMENT BASIN
- E-10 = SEDIMENT BASIN
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE
- E-8 = DIVERSION DITCH
- E-12 = SLOPE PIPE DRAIN (12")
- E-14 = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

## REVISIONS

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TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - STAGE 2


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## LEGEND

| | | | |
|---|---|---|---|
| E-5 | = SAND BAG DITCH CHECKS | E-7 | = DROP INLET SILT FENCE |
| E-6 | = ROCK DITCH CHECKS | E-11 | = SILT FENCE |
| E-9 | = DUMPED RIPRAP | E-8 | = DIVERSION DITCH |
| E-9 | = SEDIMENT BASIN | E-12 | = SLOPE PIPE DRAIN (12") |
| E-10 | = SEDIMENT BASIN | E-14 | = SEDIMENT BASIN |

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

## REVISIONS

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| | | 6 | ARK. | 090069 | 92 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

STATE OF ARKANSAS
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No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

N

### XNA ACCESS RD.

| SILT FENCE | E-11 | LIN. FT. |
|---|---|---|
| STA. 246+00 TO 252+40 | RT. | RETAIN |

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 246+20 | LT. | I |
| STA. 246+70 | RT. | I |
| STA. 247+70 | LT. | I |
| STA. 248+10 | LT. | I |
| STA. 248+95 | LT. | I |
| STA. 249+50 | LT. | I |
| STA. 249+95 | LT. | I |

| ROCK DITCH CHECK | E-6 | INSTALLATION |
|---|---|---|
| STA. 246+95 | LT. | I |
| STA. 247+40 | RT. | I |
| STA. 248+30 | LT. | I |
| STA. 248+80 | LT. | I |
| STA. 249+45 | LT. | I |

### HWY. 264 RAMP 4

| SILT FENCE | E-11 | LIN. FT. |
|---|---|---|
| STA. 256+05 TO 260+45 | RT. | RETAIN |

| SAND BAG DITCH CHECK | E-5 | INSTALLATION |
|---|---|---|
| STA. 250+65 | RT. | I |
| STA. 250+95 | LT. | I |
| STA. 251+50 | LT. | I |
| STA. 251+75 | RT. | I |
| STA. 252+00 | LT. | I |
| STA. 252+55 | LT. | I |
| STA. 252+95 | RT. | I |
| STA. 253+05 | LT. | I |
| STA. 253+40 | RT. | I |
| STA. 253+90 | RT. | I |
| STA. 254+00 | LT. | I |
| STA. 254+35 | RT. | I |
| STA. 255+75 | RT. | I |
| STA. 256+90 | LT. | I |

### HWY. 264 RAMP 4

| ROCK DITCH CHECK | E-6 | INSTALLATION |
|---|---|---|
| STA. 250+10 | RT. | I |
| STA. 250+45 | LT. | I |
| STA. 251+15 | RT. | I |
| STA. 252+35 | RT. | I |
| STA. 255+05 | LT. | I |
| STA. 256+35 | RT. | I |
| STA. 259+60 | LT. | I |

| SEDIMENT BASIN | E-9 | CU. YDS. |
|---|---|---|
| STA. 253+25 | LT. | 393 |
| STA. 254+50 | LT. | 432 |
| STA. 254+75 | RT. | 292 |
| STA. 255+90 | RT. | 133 |

### AIRPORT BLVD.

| SILT FENCE | E-11 | LIN. FT. |
|---|---|---|
| STA. 260+50 TO 262+00 | RT. | RETAIN |

C.L. XNA ACCESS RD. STA. 254+50 LT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1193.50
BOT. ELEV. = 1189.00
D.A. = 3.24 AC.

C.L. XNA ACCESS RD. STA. 253+25 LT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1193.10
BOT. ELEV. = 1189.00
D.A. = 2.95 AC.

C.L. XNA ACCESS RD. STA. 255+90 RT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1188.00
BOT. ELEV. = 1183.00
D.A. = 1.00 AC.

C.L. XNA ACCESS RD. STA. 255+10 RT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1188.00
BOT. ELEV. = 1183.00
D.A. = 2.19 AC.

C.L. AIRPORT BLVD.
C.L. HWY. 264 RAMP 4
C.L. AIRPORT BLVD. TO SB XNA
C.L. NB CROSSOVER
C.L. XNA ACCESS RD. MEDIAN
C.L. FUTURE HWY. 264 RAMP 1
PROP. R/W, C/A, & FENCE
BRUSH
GATE
250+00
255+00
260+00

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TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - STAGE 2

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | 6 | ARK. | 090069 | 93 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

## LEGEND

| | |
|---|---|
| (E-5) = SAND BAG DITCH CHECKS | [E-7] = DROP INLET SILT FENCE |
| (E-6) = ROCK DITCH CHECKS | (E-11) = SILT FENCE |
| (E-9) = DUMPED RIPRAP | (E-8) = DIVERSION DITCH |
| [E-9] = SEDIMENT BASIN | (E-12) = SLOPE PIPE DRAIN (12") |
| [E-10] = SEDIMENT BASIN | [E-14] = SEDIMENT BASIN |

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

PROP. R/W, C/A, & FENCE

C.L. XNA ACCESS RD. STA. 267+05 LT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1179.00
BOT. ELEV. = 1175.00
D.A. = 1.40 AC.

C.L. AIRPORT BLVD.

C.L. XNA ACCESS RD. STA. 266+60 RT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1173.00
BOT. ELEV. = 1169.00
D.A. = 1.53 AC.

C.L. XNA ACCESS RD. STA. 268+40 RT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1174.00
BOT. ELEV. = 1169.00
D.A. = 4.23 AC.

265+00

270+00

275+00

C.L. HWY. 264

00+82

AIRPORT BLVD.

| SILT FENCE | (E-11) | LIN. FT. |
|---|---|---|
| STA. 262+00 TO 267+00 | RT. | RETAIN |
| STA. 266+85 TO 268+10 | LT. | RETAIN |
| STA. 267+30 TO 269+05 | RT. | RETAIN |
| STA. 269+05 TO 276+95 | LT. | RETAIN |

| DROP INLET SILT FENCE | [E-7] | INSTALLATION |
|---|---|---|
| 272+25 | MEDIAN | 1 |

| SEDIMENT BASIN | [E-9] | CU. YDS. |
|---|---|---|
| STA. 266+60 | RT. | 204 |
| STA. 267+05 | LT. | 187 |
| STA. 268+40 | RT. | 564 |

| DIVERSION DITCHES | (E-8) | LIN. FT. |
|---|---|---|
| STA. 265+81 TO 269+81 | RT. | 400 |
| STA. 266+09 TO 269+57 | LT. | 350 |

| SLOPE DRAIN | (E-12) | LIN. FT. |
|---|---|---|
| STA. 265+81 | RT. | 65 |
| STA. 266+09 | LT. | 65 |

| DUMPED RIP RAP | (E-9) | CU. YDS. |
|---|---|---|
| STA. 265+81 | RT. | 2 |
| STA. 266+09 | LT. | 2 |

AIRPORT BLVD.

| ROCK DITCH CHECK | (E-6) | INSTALLATION |
|---|---|---|
| STA. 264+05 | RT. | I |
| STA. 264+20 | LT. | I |
| STA. 266+65 | RT. | I |
| STA. 266+85 | LT. | I |
| STA. 272+95 | RT. | I |
| STA. 275+05 | RT. | I |

| SAND BAG DITCH CHECK | (E-5) | INSTALLATION |
|---|---|---|
| STA. 264+75 | RT. | I |
| STA. 264+80 | LT. | I |
| STA. 265+25 | RT. | I |
| STA. 265+30 | LT. | I |
| STA. 265+80 | RT. | I |
| STA. 265+80 | LT. | I |
| STA. 266+20 | RT. | I |
| STA. 266+20 | LT. | I |
| STA. 269+35 | RT. | I |
| STA. 269+80 | RT. | I |
| STA. 270+25 | RT. | I |
| STA. 270+75 | RT. | I |
| STA. 271+25 | RT. | I |
| STA. 271+80 | RT. | I |
| STA. 272+35 | RT. | I |
| STA. 274+25 | RT. | I |

## REVISIONS

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TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - STAGE 2

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TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

## XNA ACCESS RD.

| SILT FENCE (E-11) | | LIN. FT. |
|---|---|---|
| STA. 240+90 TO 241+75 | LT. | RETAIN |
| STA. 241+90 TO 242+55 | RT. | RETAIN |

| SAND BAG DITCH CHECK (E-5) | | INSTALLATION |
|---|---|---|
| STA. 234+90 | LT. | I |
| STA. 234+90 | MEDIAN | I |
| STA. 235+30 | RT. | I |
| STA. 237+00 | LT. | I |
| STA. 237+90 | MEDIAN | I |
| STA. 238+90 | LT. | I |
| STA. 239+15 | RT. | I |
| STA. 239+65 | RT. | I |
| STA. 239+75 | MEDIAN | I |
| STA. 240+15 | RT. | I |
| STA. 240+65 | RT. | I |
| STA. 241+90 | MEDIAN | I |
| STA. 243+05 | RT. | I |
| STA. 230+70 | RT. | RETAIN |
| STA. 231+00 | LT. | RETAIN |
| STA. 231+50 | LT. | RETAIN |
| STA. 232+00 | LT. | RETAIN |
| STA. 232+80 | LT. | RETAIN |
| STA. 245+15 | RT. | RETAIN |
| STA. 246+20 | LT. | RETAIN |

## XNA ACCESS RD.

| ROCK DITCH CHECK (E-6) | | INSTALLATION |
|---|---|---|
| STA. 233+90 | RT. | I |
| STA. 234+15 | LT. | I |
| STA. 235+95 | LT. | I |
| STA. 237+90 | LT. | I |
| STA. 238+15 | RT. | I |
| STA. 243+50 | LT. | I |
| STA. 243+65 | RT. | I |
| STA. 233+10 | RT. | RETAIN |
| STA. 245+40 | LT. | RETAIN |
| STA. 245+95 | RT. | RETAIN |

C.L. XNA ACCESS RD. STA. 240+10 LT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1228.00
BOT. ELEV. = 1223.00
D.A. = 24.30 AC.

C.L. XNA ACCESS RD. STA. 242+40 LT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1228.00
BOT. ELEV. = 1223.00
D.A. = 0.70 AC.

C.L. XNA ACCESS RD. STA. 241+20 RT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1215.00
BOT. ELEV. = 1210.00
D.A. = 7.48 AC.

C.L. XNA ACCESS RD. STA. 242+65 RT.
CONSTRUCT SEDIMENT BASIN
TOP ELEV. = 1214.00
BOT. ELEV. = 1210.00
D.A. = 0.62 AC.

| SEDIMENT BASIN (E-9) | | CU. YDS. |
|---|---|---|
| STA. 242+20 | RT. | 997 |
| STA. 242+40 | LT. | 93 |
| STA. 242+65 | RT. | 83 |

| SEDIMENT BASIN (E-10) | | CU. YDS. |
|---|---|---|
| STA. 240+10 | LT. | 3240 |

| DROP INLET SILT FENCE (E-7) | | INSTALLATION |
|---|---|---|
| 235+00 | MEDIAN | I |
| 238+00 | MEDIAN | I |
| 240+00 | MEDIAN | I |
| 241+85 | MEDIAN | I |

### LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-9) = DUMPED RIPRAP
- [E-9] = SEDIMENT BASIN
- [E-10] = SEDIMENT BASIN
- [E-7] = DROP INLET SILT FENCE
- (E-11) = SILT FENCE
- (E-8) = DIVERSION DITCH
- (E-12) = SLOPE PIPE DRAIN (12")
- [E-14] = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

## REVISIONS

| DATE | REVISION |
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C.L. AIRPORT BLVD. TO SB XNA
C.L. NB CROSSOVER
C.L. MALONE LN.
C.L. XNA ACCESS RD. MEDIAN
PROP. R/W, C/A, & FENCE
PT 236+81.42
PC 243+53.31
PI 234+98.78
XNA ACCESS RD. STG. 3
BEGIN CONST. +27.00
XNA ACCESS RD. STG. 3
END CONST. +75.00
OPEN STORAGE
BRUSH

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WORKSPACE: AHTD
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REVISED DATE:

TEMPORARY EROSION CONTROL DETAILS
XNA ACCESS RD. - STAGE 3

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 95 | 583 |

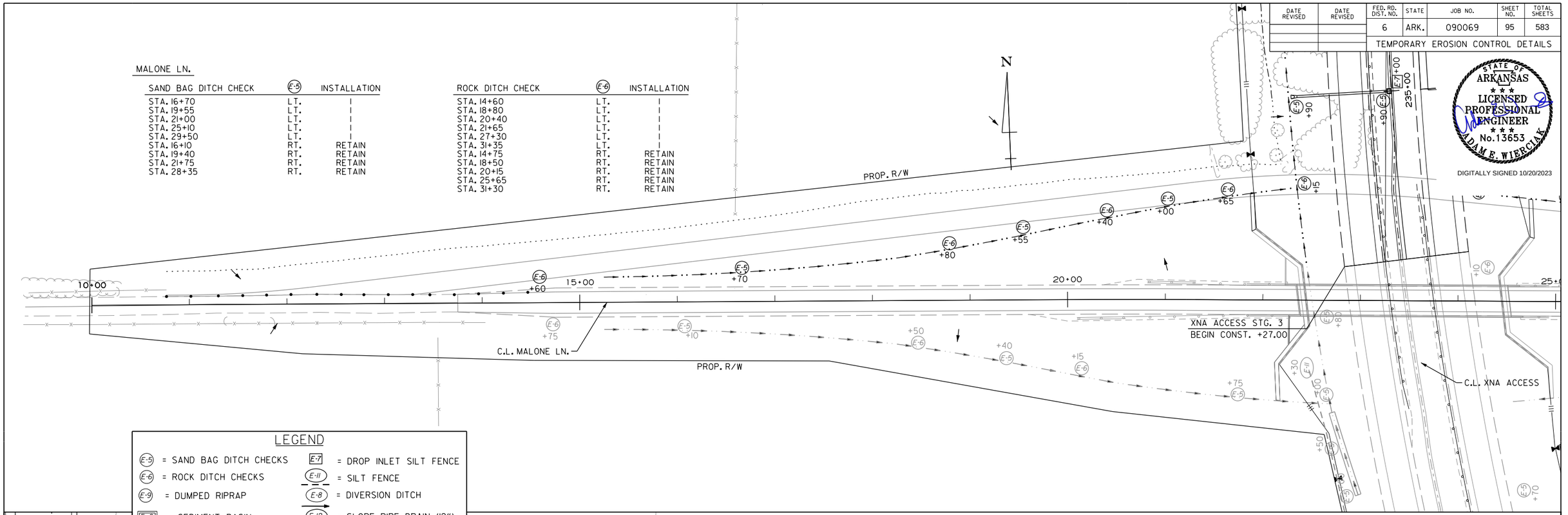
TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

MALONE LN.

| SAND BAG DITCH CHECK | (E-5) | INSTALLATION |
|---|---|---|
| STA. 16+70 | LT. | I |
| STA. 19+55 | LT. | I |
| STA. 21+00 | LT. | I |
| STA. 25+10 | LT. | I |
| STA. 29+50 | LT. | I |
| STA. 16+10 | RT. | RETAIN |
| STA. 19+40 | RT. | RETAIN |
| STA. 21+75 | RT. | RETAIN |
| STA. 28+35 | RT. | RETAIN |

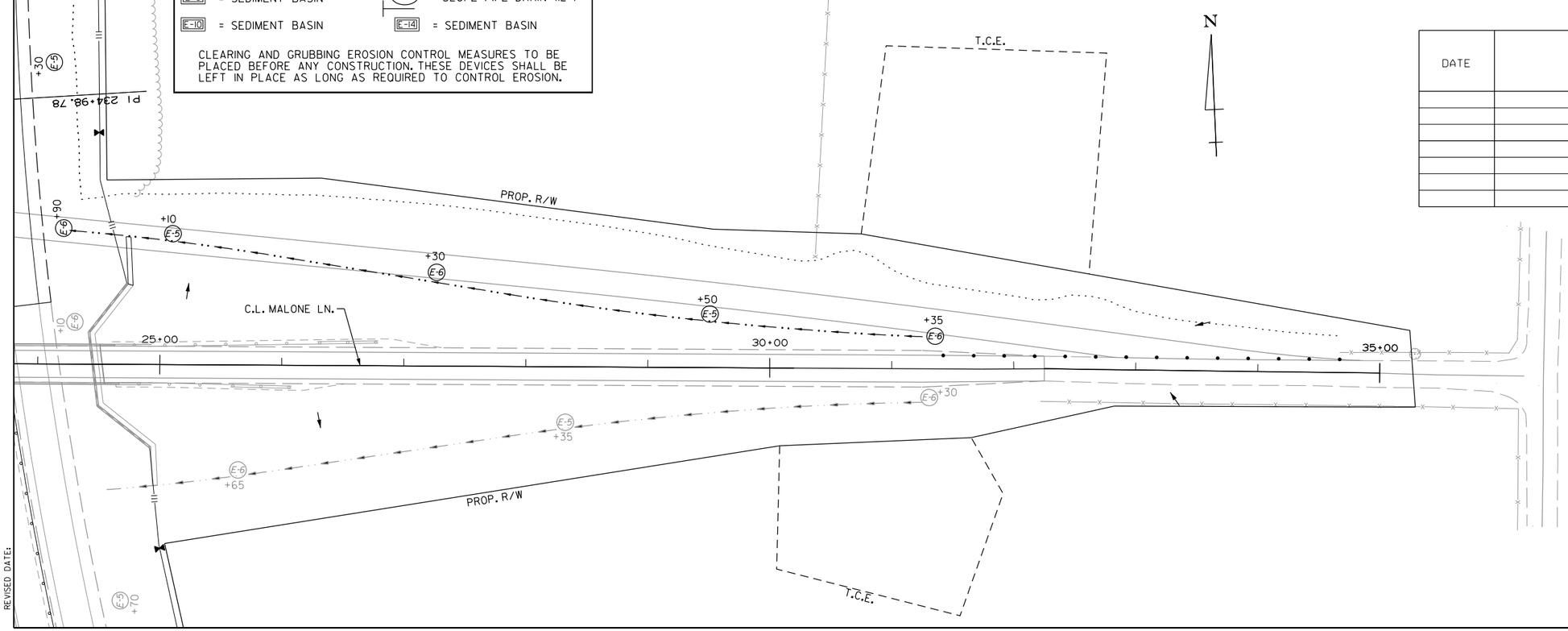
| ROCK DITCH CHECK | (E-6) | INSTALLATION |
|---|---|---|
| STA. 14+60 | LT. | I |
| STA. 18+80 | LT. | I |
| STA. 20+40 | LT. | I |
| STA. 21+65 | LT. | I |
| STA. 27+30 | LT. | I |
| STA. 31+35 | LT. | I |
| STA. 14+75 | RT. | RETAIN |
| STA. 18+50 | RT. | RETAIN |
| STA. 20+15 | RT. | RETAIN |
| STA. 25+65 | RT. | RETAIN |
| STA. 31+30 | RT. | RETAIN |




## LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-9) = DUMPED RIPRAP
- [E-9] = SEDIMENT BASIN
- [E-10] = SEDIMENT BASIN
- [E-7] = DROP INLET SILT FENCE
- (E-11) = SILT FENCE
- (E-8) = DIVERSION DITCH
- (E-12) = SLOPE PIPE DRAIN (12")
- [E-14] = SEDIMENT BASIN

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.




## REVISIONS

| DATE | REVISION |
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TEMPORARY EROSION CONTROL DETAILS
LOCAL ROADS - STAGE 3

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| | | 6 | ARK. | 090069 | 96 | 583 |
| | | TEMPORARY EROSION CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

N

HWY. 264

| SILT FENCE | (E-11) | LIN. FT. |
|---|---|---|
| STA. 25+70 TO 27+75 | RT. | RETAIN |

C.L. AIRPORT BLVD.

PN:734
PD:ARDOT STD. MON. STAMPED PN:734

280.00

I.C.E.

I.C.E.

PN:10
RD:HSLD SQUARE

VAULT

20+00

25+00

30+00

PROP. R/W

+60 (E-11)

STRUCTURE

BRUSH

PROP. R/W-C/A & FENCE

275.00

OPEN STORAGE

+70 (E-11)

BRUSH

(E-11) +75

C.L. HWY. 264

BRUSH

BRUSH

VAULT

BRUSH

## LEGEND

| | |
|---|---|
| (E-5) = SAND BAG DITCH CHECKS | E-7 = DROP INLET SILT FENCE |
| (E-6) = ROCK DITCH CHECKS | (E-11) = SILT FENCE |
| (E-9) = DUMPED RIPRAP | (E-8) = DIVERSION DITCH |
| E-9 = SEDIMENT BASIN | (E-12) = SLOPE PIPE DRAIN (12") |
| E-10 = SEDIMENT BASIN | E-14 = SEDIMENT BASIN |

CLEARING AND GRUBBING EROSION CONTROL MEASURES TO BE PLACED BEFORE ANY CONSTRUCTION. THESE DEVICES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED TO CONTROL EROSION.

## REVISIONS

| DATE | REVISION |
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TEMPORARY EROSION CONTROL DETAILS
HWY. 264 - STAGE 3

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 97 | 583 |

MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

STAGE 1 CONSTRUCTION SEQUENCE NOTES:

1) MAINTAIN TRAFFIC ON EXISTING MALONE LN.

2) INSTALL ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES.

3) CONSTRUCT MALONE LN. DETOUR.

C.L. MALONE LN. DETOUR
PI = 41+53.52
Δ = 5°44'49" LT.
D = 5°00'00"
T = 57.52'
L = 114.94'
PC = 40+96.00
PT = 42+10.94
e = NO SUPER

STAGE 1 TRAFFIC
STAGE 1 TRAFFIC DRUMS
STAGE 1 PAVING
STAGE 1 GRADING

N

ROAD CLOSED
(1) R11-2 (48" X 30")
(1) W1-6 (48" X 24")
16' BARR. TYPE III LT.

END ROAD WORK
(1) G20-2 (48" X 24")

ROAD WORK AHEAD
(1) W20-1 (48" X 48")

16 TRAFFIC DRUMS AT 25' O.C.

C.L. MALONE LN. STA. 10+76.64 =
C.L. MALONE LN. DETOUR STA. 40+76.64

C.L. XNA ACCESS RD. MEDIAN STA. 233+98.85 =
C.L. MALONE LN. DETOUR STA. 53+45.67
Δ 81°12'33"

C.L. MALONE LN. DETOUR
PI = 53+21.75
Δ = 11°40'57" RT.
D = 5°00'00"
T = 117.23'
L = 233.65'
PC = 52+04.52
PT = 54+38.17
e = NO SUPER

C.L. XNA ACCESS RD. MEDIAN

MALONE LN. DETOUR

RIGHT SHOULDER CLOSED
(4 PER STG.) W21-5a (36" X 36")
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

C.L. MALONE LN. DETOUR
PI = 64+69.02
Δ = 7°01'03" LT.
D = 5°00'00"
T = 70.26'
L = 140.35'
PC = 63+98.76
PT = 65+39.11
e = NO SUPER

STAGE 1 TRAFFIC
STAGE 1 TRAFFIC DRUMS
STAGE 1 PAVING
STAGE 1 GRADING

ROAD CLOSED
(1) R11-2 (48" X 30")
(1) W1-6 (48" X 24")
16' BARR. TYPE III RT.

ROAD WORK AHEAD
(1) W20-1 (48" X 48")
M6-1R (21"X15")

END ROAD WORK
(1) G20-2 (48" X 24")

17 TRAFFIC DRUMS AT 25' O.C.

C.L. MALONE LN. STA. 34+84.32 =
C.L. MALONE LN. DETOUR STA. 64+98.25

ROAD WORK AHEAD
(1) W20-1 (48" X 48")
M6-1L (21"X15")

C.L. MALONE LN. DETOUR
PI = 60+00.24
Δ = 2°00'00" RT.
D = 0°30'00"
T = 199.89'
L = 399.73'
PC = 58+00.34
PT = 62+00.09
e = NO SUPER

MAINTENANCE OF TRAFFIC DETAILS
LOCAL ROADS - STAGE I

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| | | 6 | ARK. | 090069 | 98 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STAGE 2 CONSTRUCTION SEQUENCE NOTES:

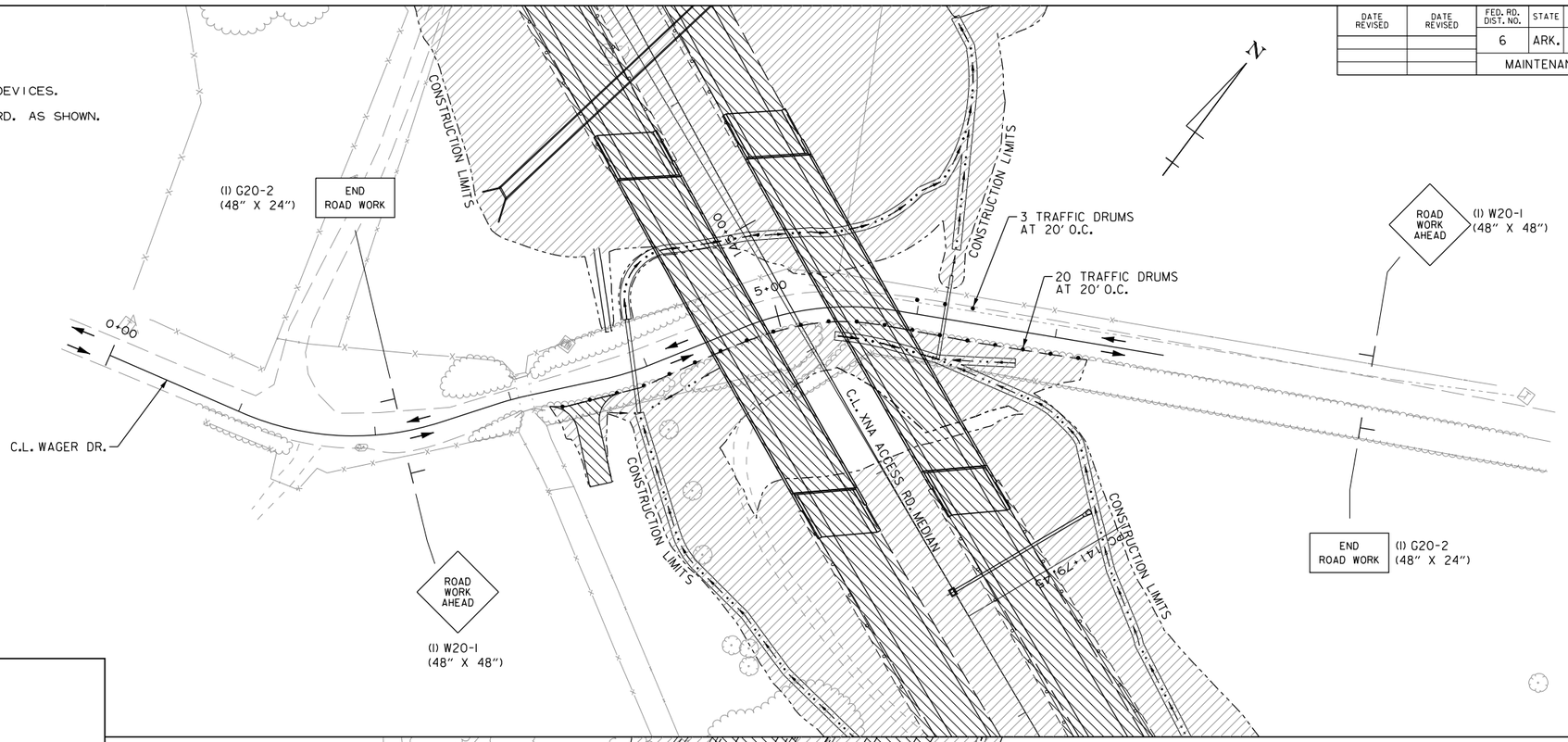
1) MAINTAIN TRAFFIC ON EXISTING ALIGNMENTS.

2) INSTALL ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES.

3) CONSTRUCT XNA ACCESS RD., WAGER DR., AND HADEN RD. AS SHOWN.

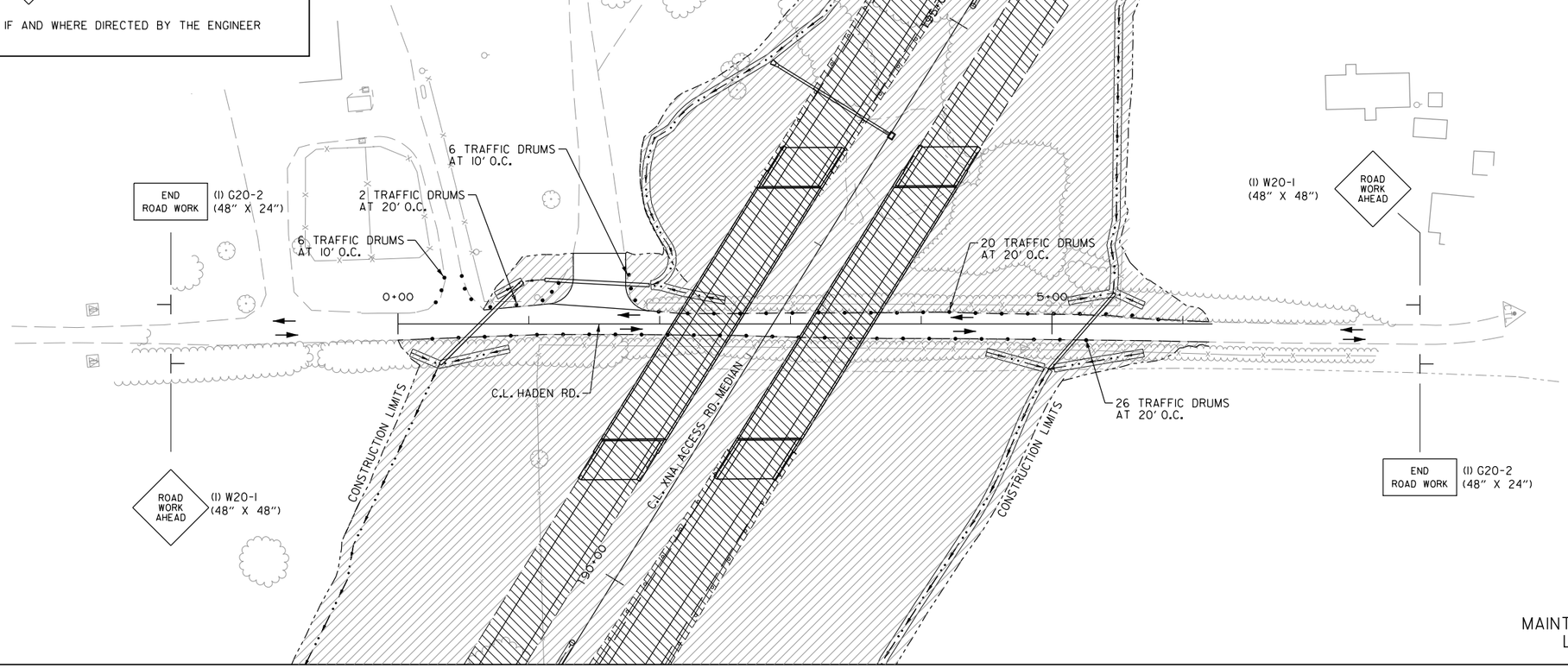
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

STAGE 2 TRAFFIC
STAGE 2 TRAFFIC DRUMS
STAGE 2 PAVING
STAGE 2 GRADING




RIGHT SHOULDER CLOSED (4 PER STG.) W21-5a (36" X 36")

TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER




MAINTENANCE OF TRAFFIC DETAILS
LOCAL ROADS - STAGE 2

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 99 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STAGE 2 CONSTRUCTION SEQUENCE NOTES:

1) MAINTAIN TRAFFIC ON HOLMES RD. EXISTING ALIGNMENT.

2) INSTALL ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES.

3) CONSTRUCT XNA ACCESS RD. AND HOLMES RD. AS SHOWN.

STAGE 2 TRAFFIC

STAGE 2 TRAFFIC DRUMS

STAGE 2 PAVING

STAGE 2 GRADING

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

N

6 TRAFFIC DRUMS AT 10' O.C.

34 TRAFFIC DRUMS AT 20' O.C.

CONSTRUCTION LIMITS

C.L. XNA ACCESS RD. MEDIAN

CONSTRUCTION LIMITS

RET/WALL

WALL

ROAD WORK AHEAD

(1) W20-1 (48" X 48")

25.00

(1) G20-2 (48" X 24")

END ROAD WORK

15.00

CONSTRUCTION LIMITS

13.00

(1) G20-2 (48" X 24")

END ROAD WORK

C.L. HOLMES RD.

48 TRAFFIC DRUMS AT 20' O.C.

CONSTRUCTION LIMITS

ROAD WORK AHEAD

(1) W20-1 (48" X 48")

CONCRETE

POOL

PC 209+01.95

RIGHT SHOULDER CLOSED

(4 PER STG.) W21-5a (36" X 36")

TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

MAINTENANCE OF TRAFFIC DETAILS
LOCAL ROADS - STAGE 2

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| | | 6 | ARK. | 090069 | 100 | 583 |

MAINTENANCE OF TRAFFIC DETAILS

STAGE 2 CONSTRUCTION SEQUENCE NOTES:

1) INSTALL ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES.

2) SHIFT TRAFFIC TO MALONE LN. DETOUR CONSTRUCTED IN STAGE 1.

3) CONSTRUCT MALONE LN. OVERPASS AND APPROACH ROADWAY. CONSTRUCT RT. SIDE TO FINAL CONDITION AND GRADE LT. SIDE WITH TEMPORARY 2:1 SLOPE.

4) CONSTRUCT RT. SIDE GUARDRAIL ON MALONE OVERPASS APPROACH. OMIT LEFT SIDE GUARDRAIL IN THIS STAGE.

N

STAGE 2 TRAFFIC
STAGE 2 TRAFFIC DRUMS
STAGE 2 PAVING
STAGE 2 GRADING

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
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C.L. XNA ACCESS RD. MEDIAN STA. 233+98.85 =
C.L. MALONE LN. DETOUR STA. 53+45.67
Δ 81°12'33"

235+00

C.L. XNA ACCESS RD. MEDIAN

XNA ACCESS RD. STG. 2
END CONST. +27.00

END ROAD WORK — (1) G20-2 (48" X 24")

ROAD CLOSED — (1) R11-2 (48" X 30")

(1) W1-6 (48" X 24")

16' BARR. TYPE III RT.

40+00
45+00
50+00
PI 20+56.32
20+00
15+00
S 88°01'38" E
S 87°16'55" E
BARBWIRE
OPEN STORAGE
CONSTRUCTION AREA
POND
PC 19+90.95
PT 21+21.68

21 TRAFFIC DRUMS AT 25' O.C.

ROAD WORK AHEAD — (1) W20-1 (48" X 48")

C.L. MALONE LN. STA. 10+76.64 =
C.L. MALONE LN. DETOUR STA. 40+76.64

BARB WIRE

55+00
60+00
30+00
PI 31+73.58
PI 32+25.01
65+00
35+00
66+00
HADEN RD.
MALONE LN.
PN+270
PD600

ROAD CLOSED — (1) R11-2 (48" X 30")

(1) W1-6 (48" X 24")

16' BARR. TYPE III LT.

21 TRAFFIC DRUMS AT 25' O.C.

ROAD WORK AHEAD — (1) W20-1 (48" X 48") — M6-1R (21"X15")

C.L. MALONE LN. STA. 35+26.35 =
C.L. MALONE LN. DETOUR STA. 65+40.32

END ROAD WORK — (1) G20-2 (48" X 24")

ROAD WORK AHEAD — (1) W20-1 (48" X 48") — M6-1L (21"X15")

MAINTENANCE OF TRAFFIC DETAILS
LOCAL ROADS - STAGE 2

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| | | 6 | ARK. | 090069 | 101 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STAGE 2 CONSTRUCTION SEQUENCE NOTES:

1) MAINTAIN HWY. 264 AND AIRPORT BLVD. TRAFFIC ON EXISTING ALIGNMENT.

2) INSTALL ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES.

3) CONSTRUCT AIRPORT BLVD. AS SHOWN.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

N

STAGE 3 TRAFFIC
STAGE 3 TRAFFIC DRUMS
STAGE 3 PAVING
STAGE 3 GRADING

ROAD WORK AHEAD — (I) W20-1 (48" X 48")

END ROAD WORK — (I) G20-2 (48" X 24")

C.L. AIRPORT BLVD.

280.00

END ROAD WORK — (I) G20-2 (48" X 24")

13 TRAFFIC DRUMS AT 40' O.C.

20+00

25+00

30+00

C.L. HWY. 264

DO NOT PASS — (I) R4-1 (24" X 30")

ROAD WORK 500 FT — (I) W20-1 (48" X 48")

ROAD WORK 1000 FT — (I) W20-1 (48" X 48")

ROAD WORK 1500 FT — (I) W20-1 (48" X 48")

500' 500' 500'

16' BARR. TYPE III LT.

16' BARR. TYPE III RT.

END ROAD WORK — (I) G20-2 (48" X 24")

CONSTRUCTION LIMITS

CONSTRUCTION LIMITS

60.542

ROAD WORK 1500 FT — (I) W20-1 (48" X 48")

ROAD WORK 1000 FT — (I) W20-1 (48" X 48")

ROAD WORK 500 FT — (I) W20-1 (48" X 48")

500' 500' 500'

DO NOT PASS — (I) R4-1 (24" X 30")

RIGHT SHOULDER CLOSED — (4 PER STG.) W21-5a (36" X 36")

TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

MAINTENANCE OF TRAFFIC DETAILS
HWY. 264 - STAGE 2

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| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

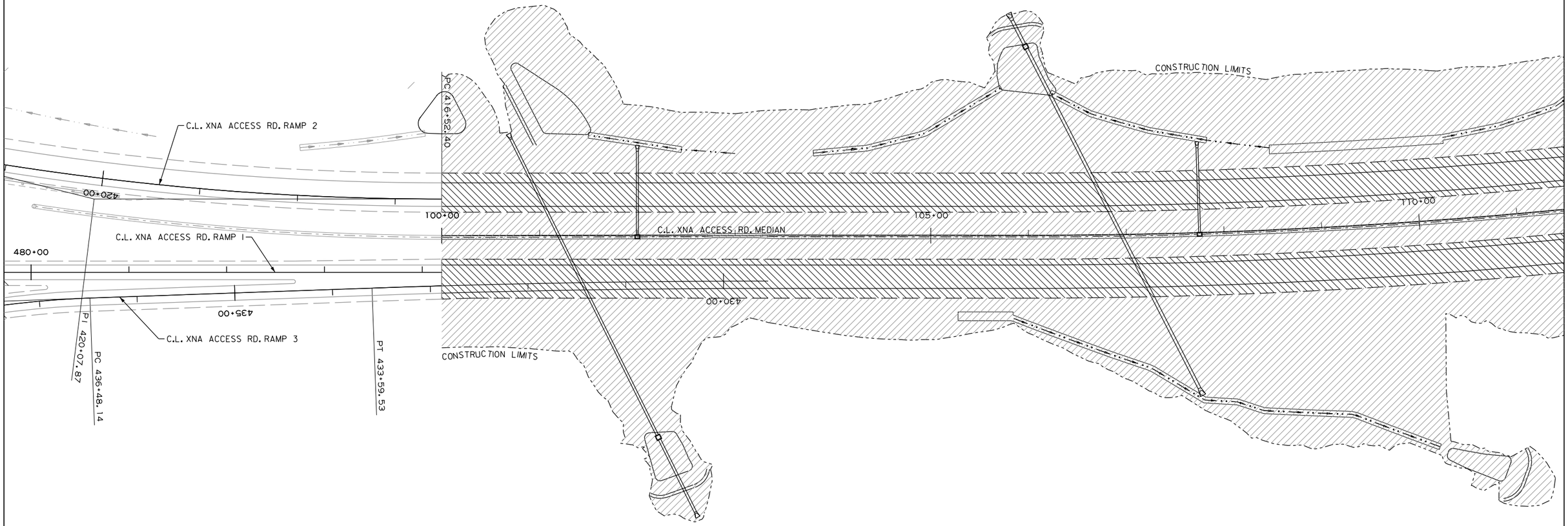
STAGE 2 PAVING
STAGE 2 GRADING

STAGE 2 CONSTRUCTION SEQUENCE NOTES:

1) CONSTRUCT XNA ACCESS RD. AS SHOWN.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023




MAINTENANCE OF TRAFFIC DETAILS
XNA ACCESS RD. - STAGE 2

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| | | 6 | ARK. | 090069 | 103 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STAGE 2 CONSTRUCTION SEQUENCE NOTES:

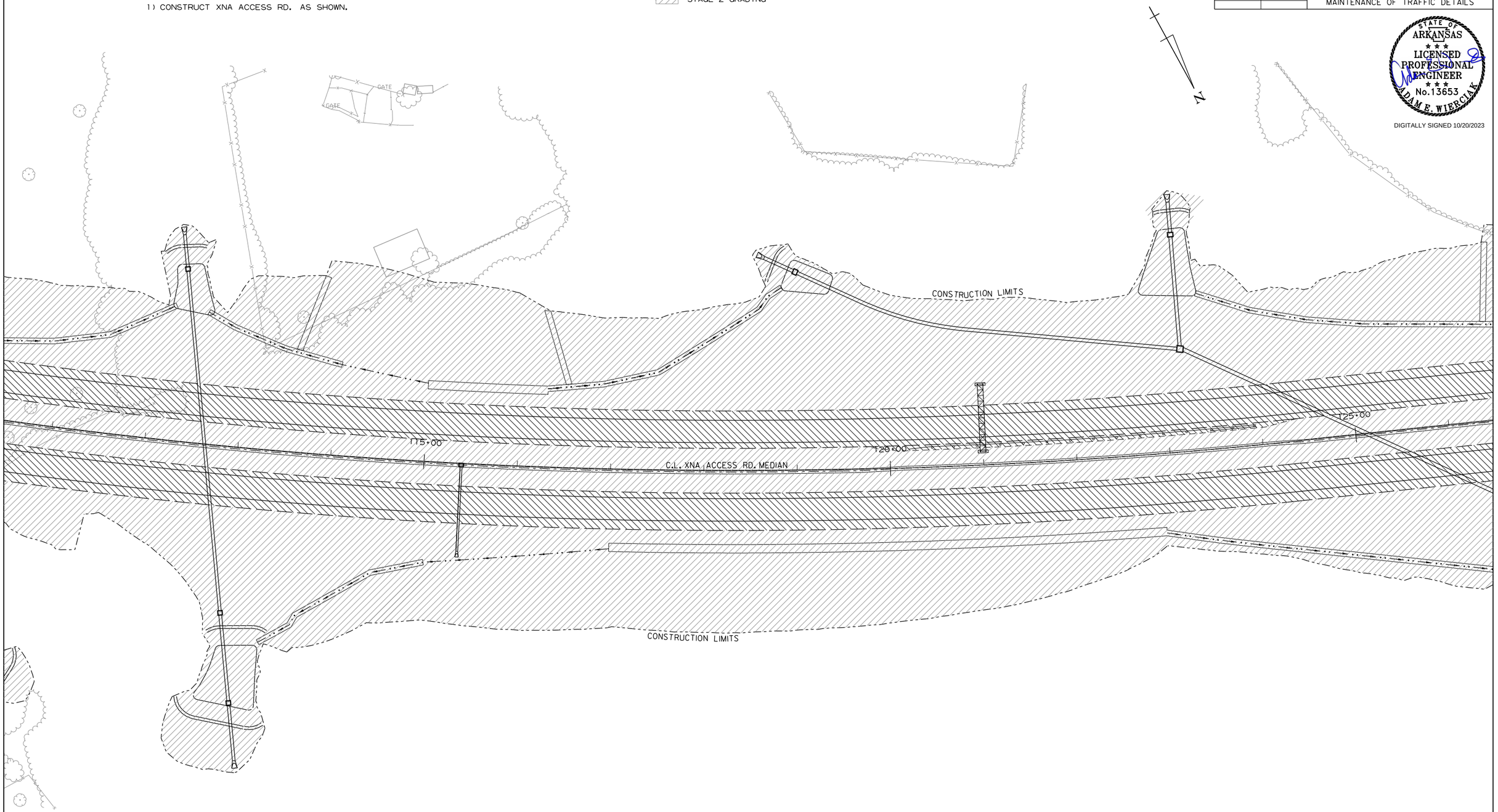
1) CONSTRUCT XNA ACCESS RD. AS SHOWN.

STAGE 2 PAVING

STAGE 2 GRADING

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023




MAINTENANCE OF TRAFFIC DETAILS
XNA ACCESS RD. - STAGE 2

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STAGE 2 CONSTRUCTION SEQUENCE NOTES:

1) CONSTRUCT XNA ACCESS RD. AS SHOWN.

STAGE 2 PAVING

STAGE 2 GRADING

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | 6 | ARK. | 090069 | 104 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

N

CONSTRUCTION LIMITS

GATE

130+00

135+00

140+00

C.L. XNA ACCESS RD. MEDIAN

CONSTRUCTION LIMITS

MAINTENANCE OF TRAFFIC DETAILS
XNA ACCESS RD. - STAGE 2

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | 6 | ARK. | 090069 | 105 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STAGE 2 CONSTRUCTION SEQUENCE NOTES:

1) MAINTAIN TRAFFIC ON EXISTING ALIGNMENT.

2) INSTALL ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES.

3) CONSTRUCT XNA ACCESS RD. AND WAGER DR. AS SHOWN.

STAGE 2 TRAFFIC

STAGE 2 TRAFFIC DRUMS

STAGE 2 PAVING

STAGE 2 GRADING

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

N

00+00

CONSTRUCTION LIMITS

145+00

50'

150+00

C.L. XNA ACCESS RD. MEDIAN

155+00

CONSTRUCTION LIMITS

CONSTRUCTION LIMITS

CONSTRUCTION LIMITS

C.L. WAGER DR.

MAINTENANCE OF TRAFFIC DETAILS
XNA ACCESS RD. - STAGE 2

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 106 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

STAGE 2 CONSTRUCTION SEQUENCE NOTES:

1) CONSTRUCT XNA ACCESS RD. AS SHOWN.

STAGE 2 PAVING
STAGE 2 GRADING

CONSTRUCTION LIMITS
CONSTRUCTION LIMITS
CONSTRUCTION LIMITS
CONSTRUCTION LIMITS
160+00
165+00
170+00
C.L. XNA ACCESS RD. MEDIAN
OSAGE CREEK
N

MAINTENANCE OF TRAFFIC DETAILS
XNA ACCESS RD. - STAGE 2

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 107 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STAGE 2 CONSTRUCTION SEQUENCE NOTES:

1) CONSTRUCT XNA ACCESS RD. AS SHOWN.

STAGE 2 PAVING

STAGE 2 GRADING

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

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CONSTRUCTION LIMITS

CONSTRUCTION LIMITS

175+00

C.L. XNA ACCESS RD. MEDIAN

180+00

185+00

CONSTRUCTION LIMITS

CONSTRUCTION LIMITS

LITTLE OSAGE CREEK

MAINTENANCE OF TRAFFIC DETAILS
XNA ACCESS RD. - STAGE 2

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STAGE 2 CONSTRUCTION SEQUENCE NOTES:

1) MAINTAIN TRAFFIC ON EXISTING ALIGNMENT.

2) INSTALL ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES.

3) CONSTRUCT XNA ACCESS RD. AND HADEN RD. AS SHOWN.

STAGE 2 TRAFFIC

STAGE 2 TRAFFIC DRUMS

STAGE 2 PAVING

STAGE 2 GRADING

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 108 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

N

0+00

CONSTRUCTION LIMITS

C.L. HADEN RD.

CONSTRUCTION LIMITS

185+00

190+00

195+00

200+00

C.L. XNA ACCESS RD. MEDIAN

5+00

CONSTRUCTION LIMITS

CONSTRUCTION LIMITS

MAINTENANCE OF TRAFFIC DETAILS
XNA ACCESS RD. - STAGE 2

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 109 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STAGE 2 CONSTRUCTION SEQUENCE NOTES:

1) MAINTAIN TRAFFIC ON EXISTING ALIGNMENT.

2) INSTALL ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES.

3) CONSTRUCT XNA ACCESS RD. AND HOLMES RD. AS SHOWN.

STAGE 2 TRAFFIC

STAGE 2 TRAFFIC DRUMS

STAGE 2 PAVING

STAGE 2 GRADING

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

N

CONSTRUCTION LIMITS

200+00

205+00

C.L. XNA ACCESS RD. MEDIAN

210+00

CONSTRUCTION LIMITS

15+00

85.93

215+00

CONSTRUCTION LIMITS

C.L. HOLMES RD.

25.00

MAINTENANCE OF TRAFFIC DETAILS
XNA ACCESS RD. - STAGE 2

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 110 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STAGE 2 CONSTRUCTION SEQUENCE NOTES:

1) CONSTRUCT XNA ACCESS RD. AS SHOWN.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

STAGE 2 PAVING
STAGE 2 GRADING

N

CONSTRUCTION LIMITS

220+00

C.L. XNA ACCESS RD. MEDIAN

225+00

230+00

215+00

CONSTRUCTION LIMITS

CONSTRUCTION LIMITS

INSTALL 193' P.C.C.B TAPER
W/ SPECIAL END UNIT

INSTALL 753' P.C.C.B STA. 225+73 TO STA. 233+26
W/ 2 SPECIAL END UNITS
TO REMAIN IN PLACE AT END OF JOB

MAINTENANCE OF TRAFFIC DETAILS
XNA ACCESS RD. - STAGE 2

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| | | 6 | ARK. | 090069 | 111 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STATE OF ARKANSAS
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STAGE 2 CONSTRUCTION SEQUENCE NOTES:

1) THRU TRAFFIC ON MALONE LN. DETOUR
2) INSTALL ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES.
3) CONSTRUCT XNA ACCESS RD., NB CROSSOVER, AND MALONE LN. AS SHOWN.

STAGE 2 TRAFFIC
STAGE 2 TRAFFIC DRUMS
STAGE 2 PAVING
STAGE 2 GRADING

N

50+00
20+00
OPEN STORAGE
BRUSH
CONSTRUCTION AREA
235+00
XNA ACCESS RD. STG. 2
END CONST. 233+27.00
230+00
CONSTRUCTION LIMITS
55+00
INSTALL 753' P.C.C.B STA. 225+73 TO STA. 233+26
W/ 2 SPECIAL END UNITS
TO REMAIN IN PLACE AT END OF JOB
C.L. MALONE LN.
C.L. MALONE LN. DETOUR
240+00
C.L. AIRPORT BLVD. TO SB XNA
45+00
245+00
XNA ACCESS RD. STG. 2
END CONST. 243+75
C.L. NB CROSSOVER

MAINTENANCE OF TRAFFIC DETAILS
XNA ACCESS RD. - STAGE 2

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 112 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

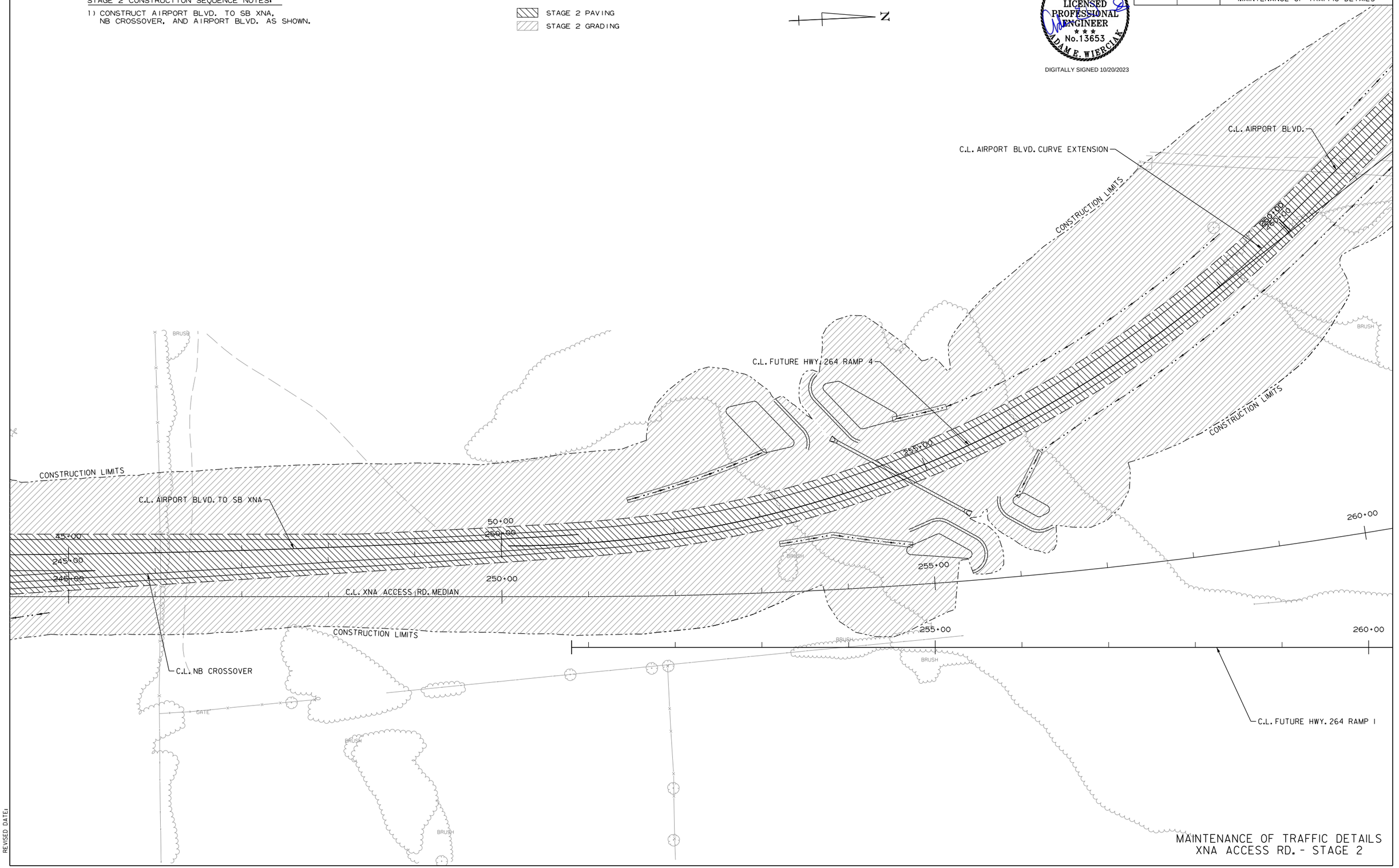
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No.13653
ADAM E. WIERCIAK
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STAGE 2 CONSTRUCTION SEQUENCE NOTES:

1) CONSTRUCT AIRPORT BLVD. TO SB XNA, NB CROSSOVER, AND AIRPORT BLVD. AS SHOWN.

STAGE 2 PAVING
STAGE 2 GRADING

N




MAINTENANCE OF TRAFFIC DETAILS
XNA ACCESS RD. - STAGE 2

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 113 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

STAGE 2 CONSTRUCTION SEQUENCE NOTES:

1) CONSTRUCT AIRPORT BLVD. AS SHOWN.

STAGE 2 TRAFFIC
STAGE 2 TRAFFIC DRUMS
STAGE 2 PAVING
STAGE 2 GRADING

C.L. AIRPORT BLVD.
CONSTRUCTION LIMITS
265+00
265+00
CONSTRUCTION LIMITS
270+00
C.L. FUTURE HWY. 264 RAMP 4
270+00
275+00
CONSTRUCTION LIMITS
C.L. FUTURE HWY. 264 RAMP 4
C.L. FUTURE XNA ACCESS RD. MEDIAN
C.L. HWY. 264
275+00
60+00

N

# MAINTENANCE OF TRAFFIC DETAILS
# XNA ACCESS RD. - STAGE 2

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 114 | 583 |

MAINTENANCE OF TRAFFIC DETAILS

STAGE 3A CONSTRUCTION SEQUENCE NOTES:

1) INSTALL ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES.

2) SHIFT TRAFFIC TO MALONE LN. OVERPASS CONSTRUCTED IN STAGE 2.

3) RESTORE AREA OF MALONE LN. DETOUR TO PRE-CONSTRUCTION GRADES. CONSTRUCT LT. SIDE OF MALONE LN. TO FINAL CONDITION.

4) CONSTRUCT GUARDRAIL ON LT. SIDE OF MALONE LN.

N

STAGE 3A TRAFFIC
STAGE 3A TRAFFIC DRUMS
STAGE 3A PAVING
STAGE 3A GRADING

STATE OF ARKANSAS
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C.L. XNA ACCESS RD. MEDIAN STA. 233+98.85 =
C.L. MALONE LN. DETOUR STA. 53+46.36
A 81°12'33"

END ROAD WORK
(I) G20-2 (48" X 24")

10+00
S 88°01'38" E
BARBWIRE

ROAD WORK AHEAD
(I) W20-1 (48" X 48")

16 TRAFFIC DRUMS AT 25' O.C.

BARB WIRE

15+00
20+00
PI 20+56.32

OPEN STORAGE
OPEN STORAGE

INSTALL 53' P.C.C.B. TAPER
INSTALL 493' P.C.C.B. STA. 17+06 TO STA. 21+99 W/ 1 SPECIAL END UNIT

PC 19+90.95
PT 21+21.68

XNA ACCESS RD. STG. 3
BEGIN CONST. 233+27.00

PI 234+

25+00
30+00
PI 31+73.58
PI 32+25.01
35+00

INSTALL 533' P.C.C.B. STA. 24+87 TO STA. 30+20 W/ 1 SPECIAL END UNIT
INSTALL 133' P.C.C.B. TAPER
14 TRAFFIC DRUMS AT 25' O.C.

ROAD WORK AHEAD
(I) W20-1 (48" X 48")
M6-1R (21"X15")

HADEN RD.
MALONE LN.
HADEN RD

N

ROAD WORK AHEAD
(I) W20-1 (48" X 48")
M6-1L (21"X15")

END ROAD WORK
(I) G20-2 (48" X 24")

MAINTENANCE OF TRAFFIC DETAILS
LOCAL ROADS - STAGE 3A

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 115 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STAGE 3A CONSTRUCTION SEQUENCE NOTES:

1) RETAIN ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES.

2) MAINTAIN TRAFFIC ON HWY. 264 AND AIRPORT BLVD EXISTING ALIGNMENTS.

3) REMOVE AIRPORT BLVD. RAISED MEDIAN AS SHOWN.

STATE OF ARKANSAS
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No.13653
ADAM E. WIERCIAK
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N

STAGE 3A TRAFFIC

STAGE 3A TRAFFIC DRUMS

STAGE 3A PAVING

ROAD WORK AHEAD (I) W20-1 (48" X 48")

END ROAD WORK (I) G20-2 (48" X 24")

C.L. AIRPORT BLVD.

14 TRAFFIC DRUMS AT 20' O.C.

9 TRAFFIC DRUMS AT 20' O.C.

DO NOT PASS (I) R4-1 (24" X 30")

ROAD WORK 500 FT (I) W20-1 (48" X 48")

ROAD WORK 1000 FT (I) W20-1 (48" X 48")

ROAD WORK 1500 FT (I) W20-1 (48" X 48")

500' 500' 500'

ROAD CLOSED (I) R11-2 (48" X 30")

16' BARR. TYPE III LT.

16' BARR. TYPE III RT.

END ROAD WORK (I) G20-2 (48" X 24")

C.L. HWY. 264

PN:734 PD:ARDOT STD. MON. STAMPED PN:734

PN:1453 PD:60D NAIL

PN:1454 PD:60D NAIL

PN:1455 PD:60D NAIL

PN:1452 PD:60D NAIL

PN:110 PD:SLOPE STAKE

TBM

SWB FOC

FOC BURIED

GAS BLACKHILL

CENTURY LINK FOC

D.I. 1-30" TY:RCP INVERT OF PIPE

D.I. 1-24" TY:CMP CN:20 FILLED

D.I. 1-30" TY:RCP W/FES CN:2 FILLED

TELECOM FOC

STRUCTURE

BRUSH

OPEN STORAGE

CURB

BUMP (4 PER STG.) W8-1 (30" X 30")

TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

MAINTENANCE OF TRAFFIC DETAILS
HWY. 264 - STAGE 3A

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| | | 6 | ARK. | 090069 | 116 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

STAGE 3A CONSTRUCTION SEQUENCE NOTES:

1) DEMOLISH MALONE LN. DETOUR AND CONSTRUCT SECTION OF XNA ACCESS RD. AS SHOWN.

STAGE 3A PAVING
STAGE 3A GRADING
STAGE 3A TRAFFIC

N

PC 19+90.95
PI 20+56.32
PT 21+21.68
20.00
22.00
230+00
235+00
240+00
245+00
PT 236+81.42
PC 43+53.31
PI 234+98.78
XNA ACCESS RD. STG. 3
BEGIN CONST. +27.00
C.L. XNA ACCESS RD. MEDIAN
C.L. AIRPORT BLVD. TO SB XNA
C.L. NB CROSSOVER
XNA ACCESS RD. STG. 3
END CONST. +75.00
INSTALL 554' P.C.C.B STA. 233+26 TO STA. 238+26
W/ 2 SPECIAL END UNITS
TO REMAIN IN PLACE AT END OF JOB
C.L. MALONE LN.
OPEN STORAGE
BRUSH

MAINTENANCE OF TRAFFIC DETAILS
XNA ACCESS RD. - STAGE 3A

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 117 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STATE OF ARKANSAS
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N

1" = 300'

STAGE 3B CONSTRUCTION SEQUENCE NOTES:

1) UPON COMPLETION OF CONSTRUCTION OF THE XNA ACCESS ROAD AND IMMEDIATELY PRIOR TO OPENING TO TRAFFIC, REMOVE P.C.C.B. LEFT IN PLACE IN JOB 012326.

REMOVE 1323' P.C.C.B. AND SPECIAL END UNIT LEFT IN PLACE JOB 012326

C.L. XNA ACCESS RD. RAMP 4

C.L. XNA ACCESS RD. RAMP 3

REMOVE 1273' P.C.C.B. W/ T.I.A.B. AND SPECIAL END UNIT LEFT IN PLACE JOB 012326

C.L. XNA ACCESS RD. RAMP 2

C.L. XNA ACCESS RD. RAMP 1

C.L. HWY. 612 MEDIAN

REMOVE 1346' P.C.C.B. W/ T.I.A.B. AND SPECIAL END UNIT LEFT IN PLACE JOB 012326

REMOVE 280' P.C.C.B. W/ T.I.A.B. LEFT IN PLACE JOB 012326

MAINTENANCE OF TRAFFIC DETAILS
HWY. 612 INTERCHANGE - STAGE 3B

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 118 | 583 |
| | | MAINTENANCE OF TRAFFIC DETAILS | | | | |

STAGE 3B CONSTRUCTION SEQUENCE NOTES:

1) RETAIN ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES.
2) MAINTAIN TRAFFIC ON HWY. 264 AND AIRPORT BLVD EXISTING ALIGNMENTS.
3) CONSTRUCT AIRPORT BLVD. RAISED MEDIAN AND CHANNELIZED ISLANDS AS SHOWN.
4) MILL AND INLAY 2" OF ACHM ON AIRPORT BLVD. AS SHOWN.

STATE OF ARKANSAS
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DIGITALLY SIGNED 10/20/2023

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STAGE 3B TRAFFIC
STAGE 3B TRAFFIC DRUMS
STAGE 3B PAVING
STAGE 3B GRADING

ROAD WORK AHEAD
(1) W20-1 (48" X 48")

END ROAD WORK
(1) G20-2 (48" X 24")

C.L. AIRPORT BLVD.

280'-00

11 TRAFFIC DRUMS AT 20' O.C.

11 TRAFFIC DRUMS AT 20' O.C.

10 TRAFFIC DRUMS AT 20' O.C.

END ROAD WORK
(1) G20-2 (48" X 24")

DO NOT PASS
(1) R4-1 (24" X 30")

ROAD WORK 500 FT
(1) W20-1 (48" X 48")

ROAD WORK 1000 FT
(1) W20-1 (48" X 48")

ROAD WORK 1500 FT
(1) W20-1 (48" X 48")

500' 500' 500'

20+00 25+00 30+00

C.L. HWY. 264

ROAD CLOSED
(1) R11-2 (48" X 30")

16' BARR. TYPE III LT.

16' BARR. TYPE III RT.

275'-00

OPEN STORAGE

BUMP
(4 PER STG.) W8-1 (30" X 30")

TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

MAINTENANCE OF TRAFFIC DETAILS
HWY. 264 - STAGE 3B

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| | | 6 | ARK. | 090069 | 119 | 583 |
| | | PERMANENT PAVEMENT MARKING DETAILS | | | | |

STATE OF ARKANSAS
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6" WHITE ENHANCED THERMOPLASTIC PAVEMENT MARKING

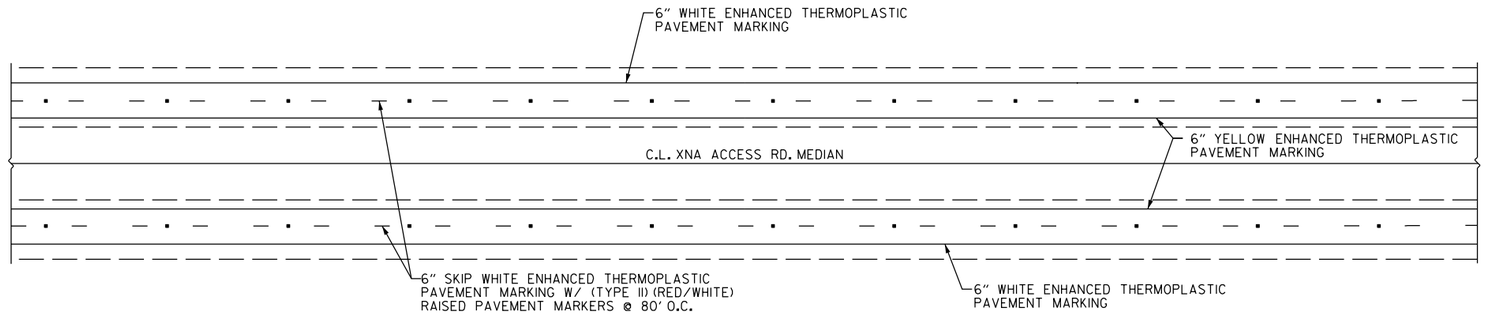
| STA. | STA. | LOCATION | LIN. FT. |
|---|---|---|---|
| 130+00 | 225+00 | MAIN LANES LT. | 9500 |
| 130+00 | 225+00 | MAIN LANES RT. | 9500 |
| 130+00 | 225+00 | MAIN LANES LT. (SKIP) | 2375 |
| 130+00 | 225+00 | MAIN LANES RT. (SKIP) | 2375 |

6" YELLOW ENHANCED THERMOPLASTIC PAVEMENT MARKING

| STA. | STA. | LOCATION | LIN. FT. |
|---|---|---|---|
| 130+00 | 225+00 | MAIN LANES LT. | 9500 |
| 130+00 | 225+00 | MAIN LANES RT. | 9500 |

RAISED PAVEMENT MARKERS TYPE II (RED/WHITE)

| STA. | STA. | LOCATION | EA. |
|---|---|---|---|
| 130+00 | 225+00 | MAIN LANES LT. | 119 |
| 130+00 | 225+00 | MAIN LANES RT. | 119 |



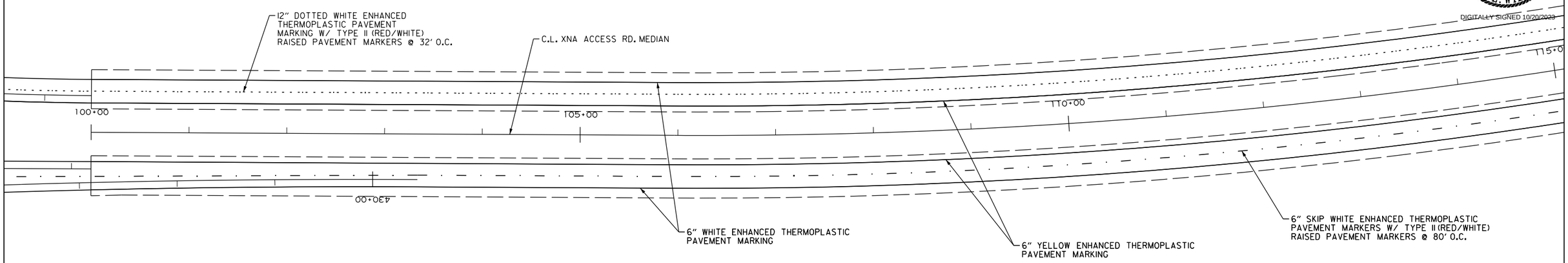

TYPICAL PERMANENT PAVEMENT MARKING LAYOUT - 4 LANE DIVIDED HIGHWAY

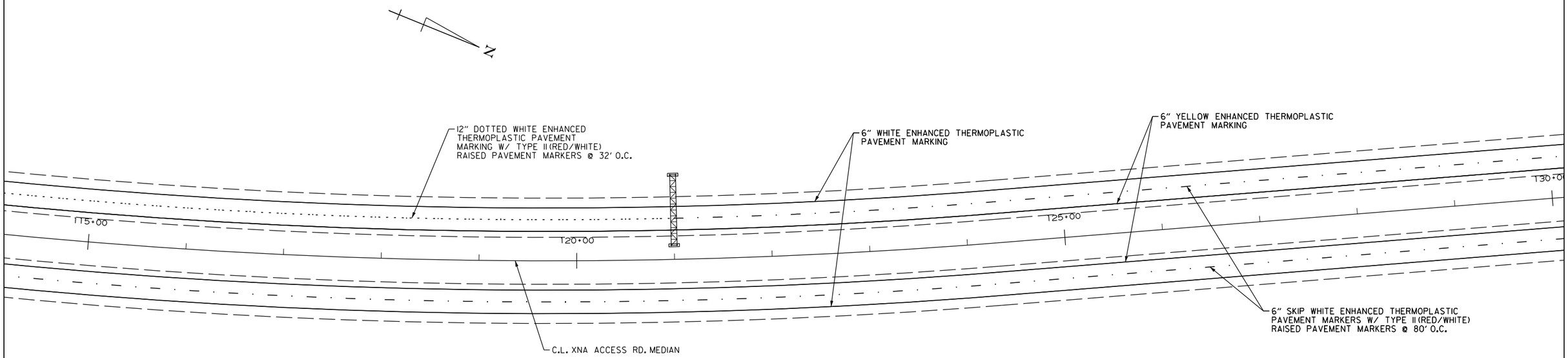

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| | | 6 | ARK. | 090069 | 120 | 583 |
| | | PERMANENT PAVEMENT MARKING DETAILS | | | | |

6" WHITE ENHANCED THERMOPLASTIC PAVEMENT MARKING = 6975 LIN. FT.
6" YELLOW ENHANCED THERMOPLASTIC PAVEMENT MARKING = 6000 LIN. FT.
12" WHITE ENHANCED THERMOPLASTIC PAVEMENT MARKING = 840 LIN. FT.
TYPE II WHITE/RED RAISED PAVEMENT MARKERS AT 32' SPACING = 65 EACH
TYPE II WHITE/RED RAISED PAVEMENT MARKERS AT 80' SPACING = 49 EACH

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023



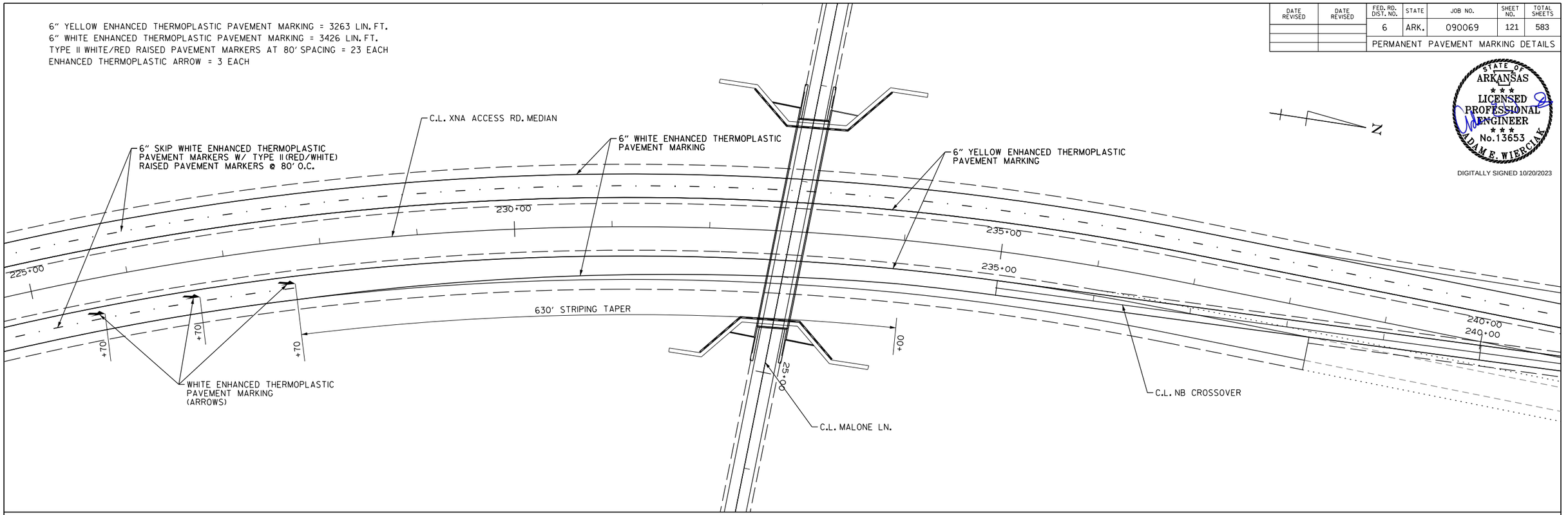




PERMANENT PAVEMENT MARKING DETAILS

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 121 | 583 |
| | | PERMANENT PAVEMENT MARKING DETAILS | | | | |

6" YELLOW ENHANCED THERMOPLASTIC PAVEMENT MARKING = 3263 LIN. FT.
6" WHITE ENHANCED THERMOPLASTIC PAVEMENT MARKING = 3426 LIN. FT.
TYPE II WHITE/RED RAISED PAVEMENT MARKERS AT 80' SPACING = 23 EACH
ENHANCED THERMOPLASTIC ARROW = 3 EACH




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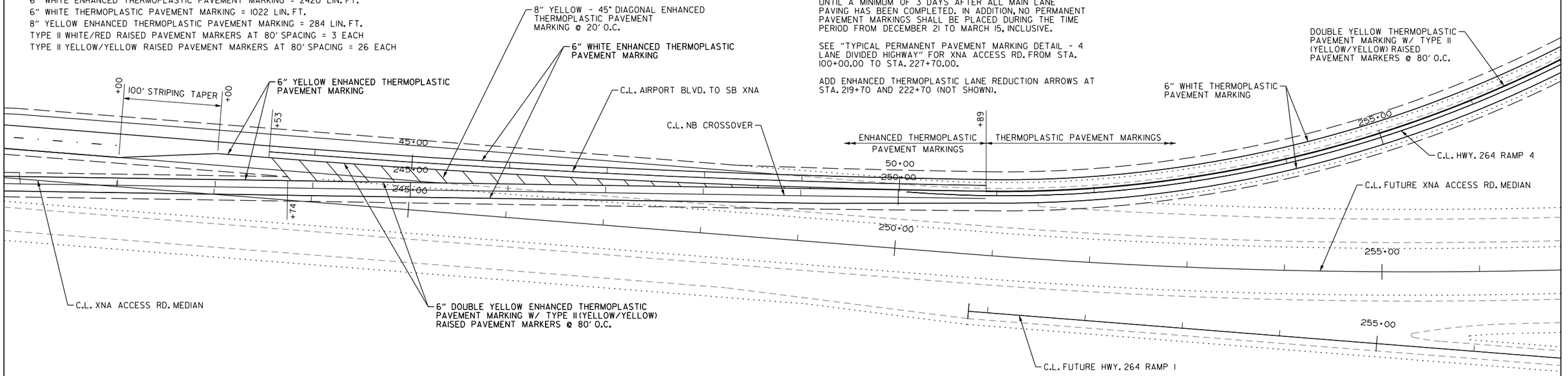
6" YELLOW ENHANCED THERMOPLASTIC PAVEMENT MARKING = 3832 LIN. FT.
6" YELLOW THERMOPLASTIC PAVEMENT MARKING = 1022 LIN. FT.
6" WHITE ENHANCED THERMOPLASTIC PAVEMENT MARKING = 2420 LIN. FT.
6" WHITE THERMOPLASTIC PAVEMENT MARKING = 1022 LIN. FT.
8" YELLOW ENHANCED THERMOPLASTIC PAVEMENT MARKING = 284 LIN. FT.
TYPE II WHITE/RED RAISED PAVEMENT MARKERS AT 80' SPACING = 3 EACH
TYPE II YELLOW/YELLOW RAISED PAVEMENT MARKERS AT 80' SPACING = 26 EACH

NOTES:

NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED UNTIL A MINIMUM OF 3 DAYS AFTER ALL MAIN LANE PAVING HAS BEEN COMPLETED. IN ADDITION, NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED DURING THE TIME PERIOD FROM DECEMBER 21 TO MARCH 15, INCLUSIVE.

SEE "TYPICAL PERMANENT PAVEMENT MARKING DETAIL - 4 LANE DIVIDED HIGHWAY" FOR XNA ACCESS RD. FROM STA. 100+00.00 TO STA. 227+70.00.

ADD ENHANCED THERMOPLASTIC LANE REDUCTION ARROWS AT STA. 219+70 AND 222+70 (NOT SHOWN).



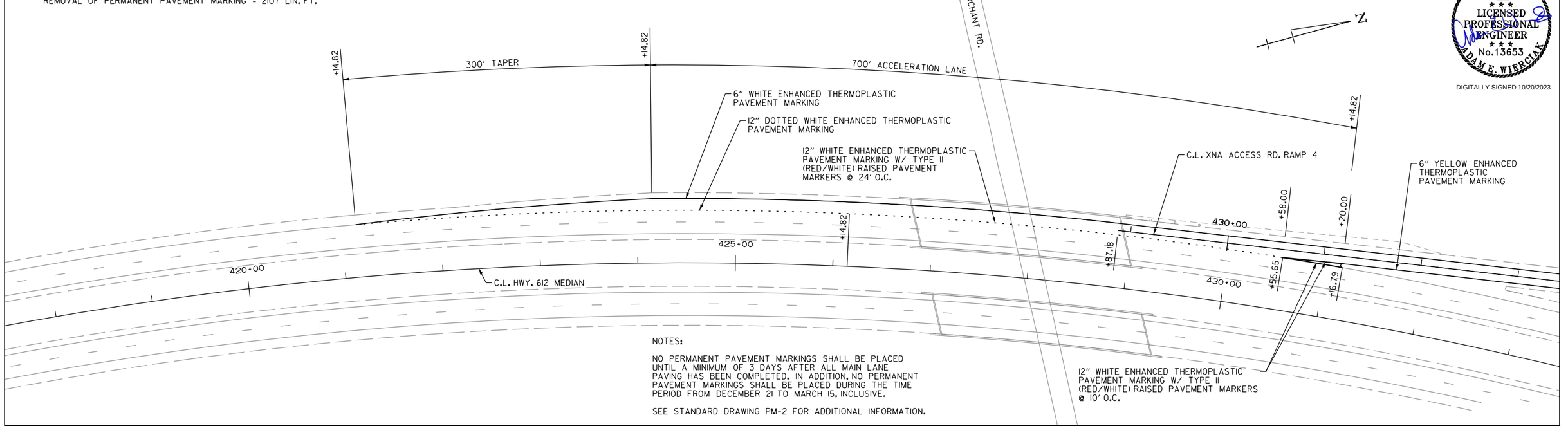

PERMANENT PAVEMENT MARKING DETAILS

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 122 | 583 |
| | | PERMANENT PAVEMENT MARKING DETAILS | | | | |

6" WHITE ENHANCED THERMOPLASTIC PAVEMENT MARKING = 2835 LIN. FT.
6" YELLOW ENHANCED THERMOPLASTIC PAVEMENT MARKING = 2802 LIN. FT.
12" WHITE ENHANCED THERMOPLASTIC PAVEMENT MARKING = 1107 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (RED/WHITE) = 119 EACH
REMOVAL OF PERMANENT PAVEMENT MARKING = 2107 LIN. FT.

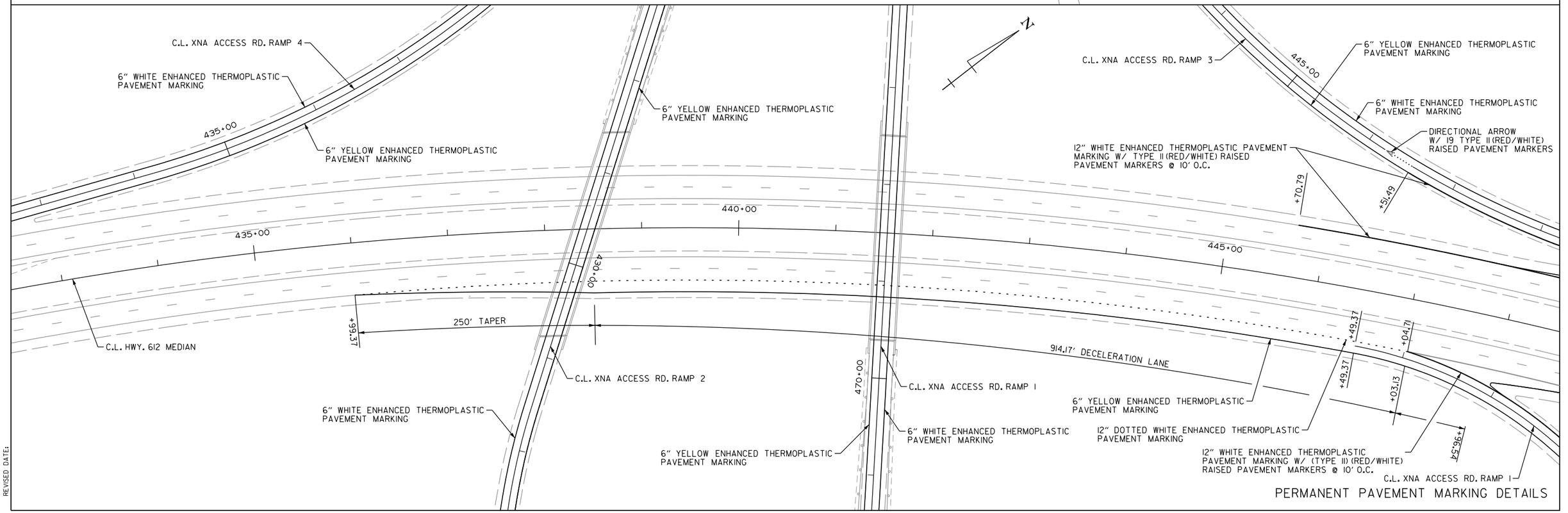
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023




NOTES:

NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED UNTIL A MINIMUM OF 3 DAYS AFTER ALL MAIN LANE PAVING HAS BEEN COMPLETED. IN ADDITION, NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED DURING THE TIME PERIOD FROM DECEMBER 21 TO MARCH 15, INCLUSIVE.

SEE STANDARD DRAWING PM-2 FOR ADDITIONAL INFORMATION.

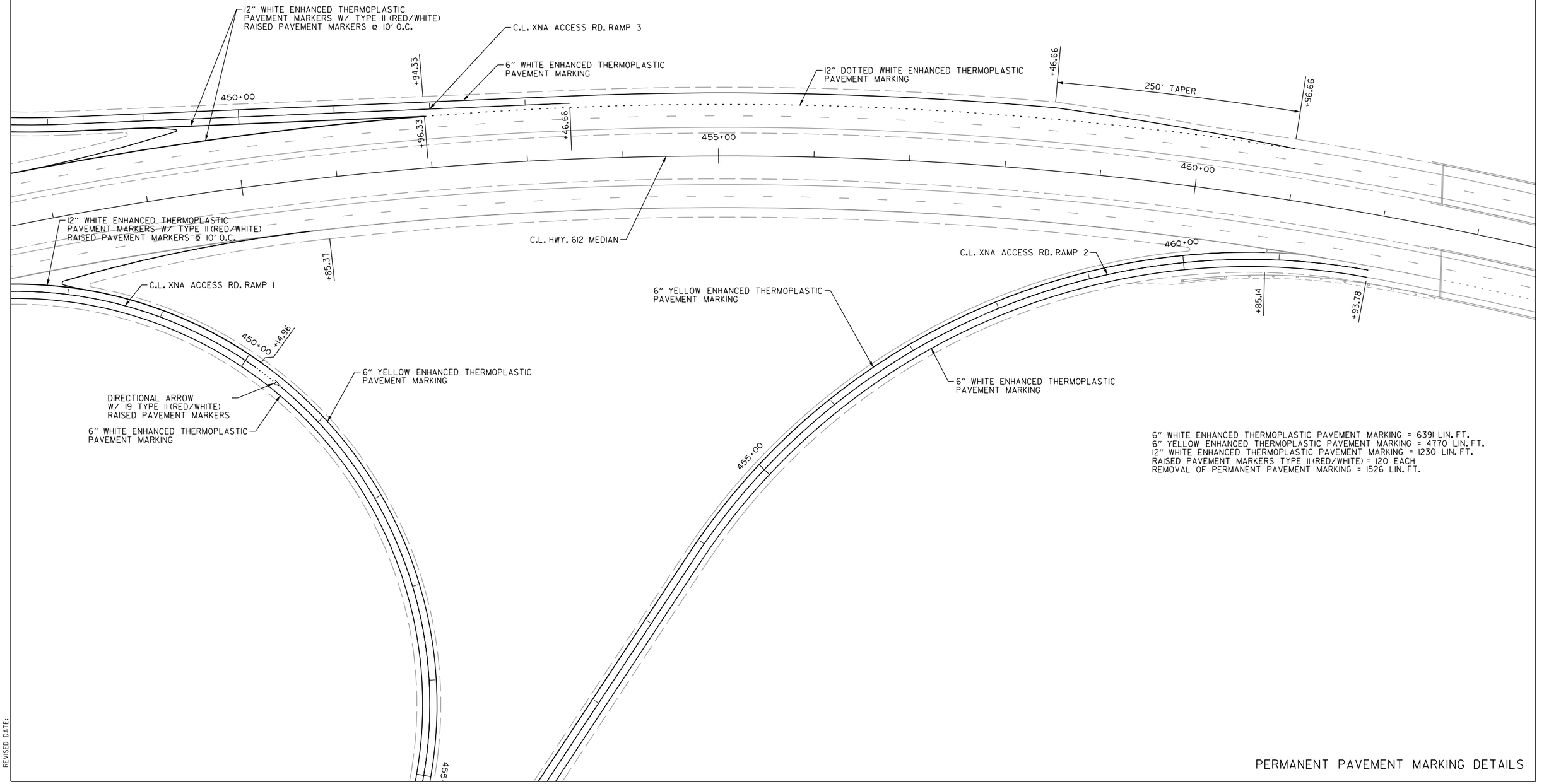



PERMANENT PAVEMENT MARKING DETAILS

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 123 | 583 |
| | | PERMANENT PAVEMENT MARKING DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
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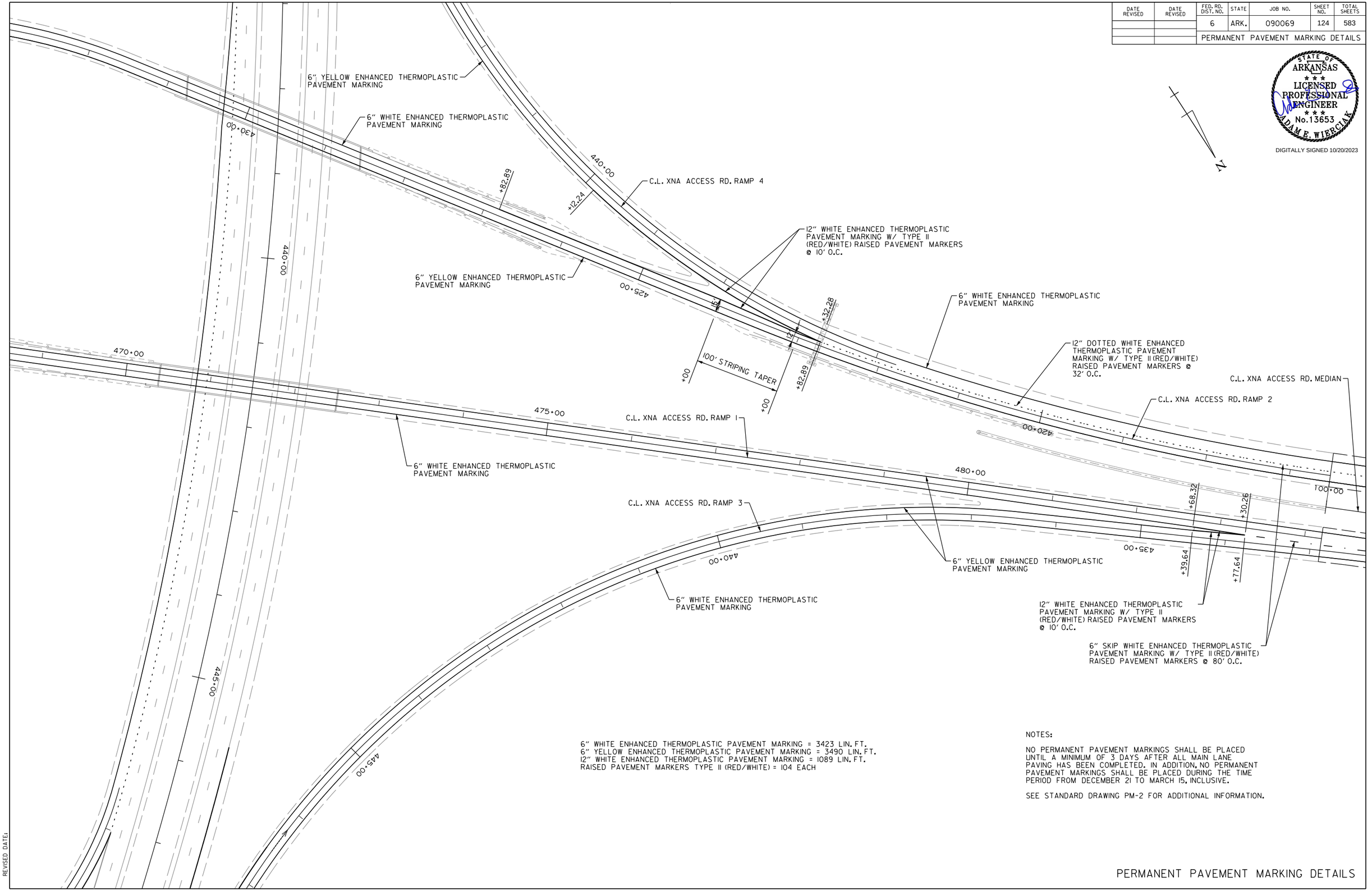

6" WHITE ENHANCED THERMOPLASTIC PAVEMENT MARKING = 6391 LIN. FT.
6" YELLOW ENHANCED THERMOPLASTIC PAVEMENT MARKING = 4770 LIN. FT.
12" WHITE ENHANCED THERMOPLASTIC PAVEMENT MARKING = 1230 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (RED/WHITE) = 120 EACH
REMOVAL OF PERMANENT PAVEMENT MARKING = 1526 LIN. FT.

PERMANENT PAVEMENT MARKING DETAILS

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 124 | 583 |
| | | PERMANENT PAVEMENT MARKING DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023




6" WHITE ENHANCED THERMOPLASTIC PAVEMENT MARKING = 3423 LIN. FT.
6" YELLOW ENHANCED THERMOPLASTIC PAVEMENT MARKING = 3490 LIN. FT.
12" WHITE ENHANCED THERMOPLASTIC PAVEMENT MARKING = 1089 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (RED/WHITE) = 104 EACH

NOTES:

NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED UNTIL A MINIMUM OF 3 DAYS AFTER ALL MAIN LANE PAVING HAS BEEN COMPLETED. IN ADDITION, NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED DURING THE TIME PERIOD FROM DECEMBER 21 TO MARCH 15, INCLUSIVE.

SEE STANDARD DRAWING PM-2 FOR ADDITIONAL INFORMATION.

PERMANENT PAVEMENT MARKING DETAILS

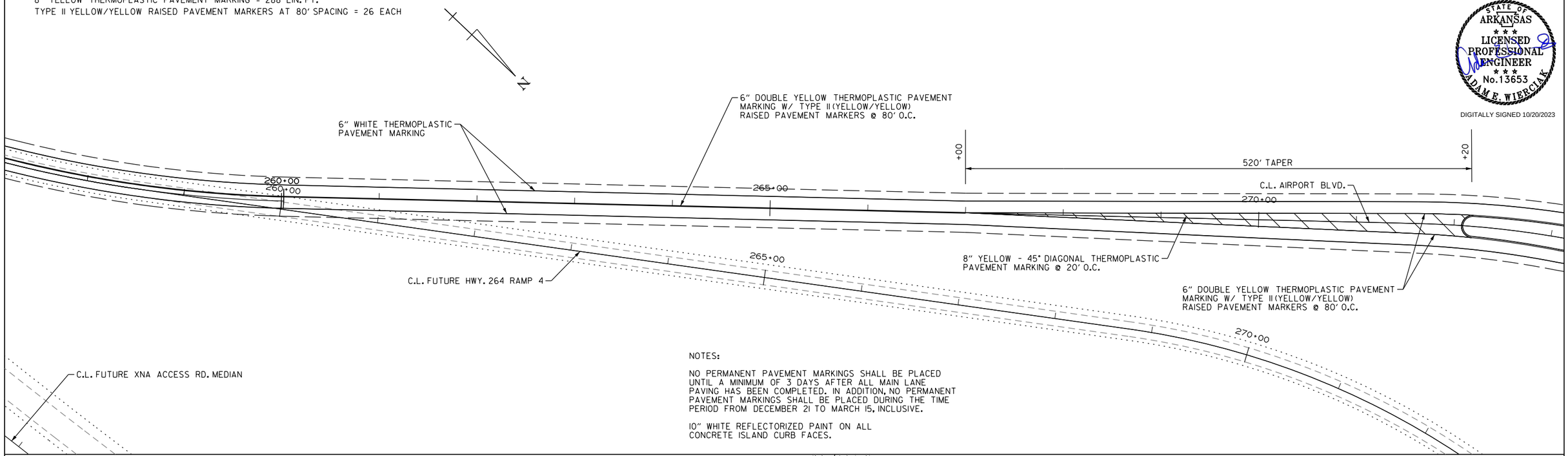
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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 125 | 583 |
| | | PERMANENT PAVEMENT MARKING DETAILS | | | | |

STATE OF ARKANSAS
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No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

AIRPORT BLVD.

6" YELLOW THERMOPLASTIC PAVEMENT MARKING = 3074 LIN. FT.
6" WHITE THERMOPLASTIC PAVEMENT MARKING = 3000 LIN. FT.
8" YELLOW THERMOPLASTIC PAVEMENT MARKING = 288 LIN. FT.
TYPE II YELLOW/YELLOW RAISED PAVEMENT MARKERS AT 80' SPACING = 26 EACH



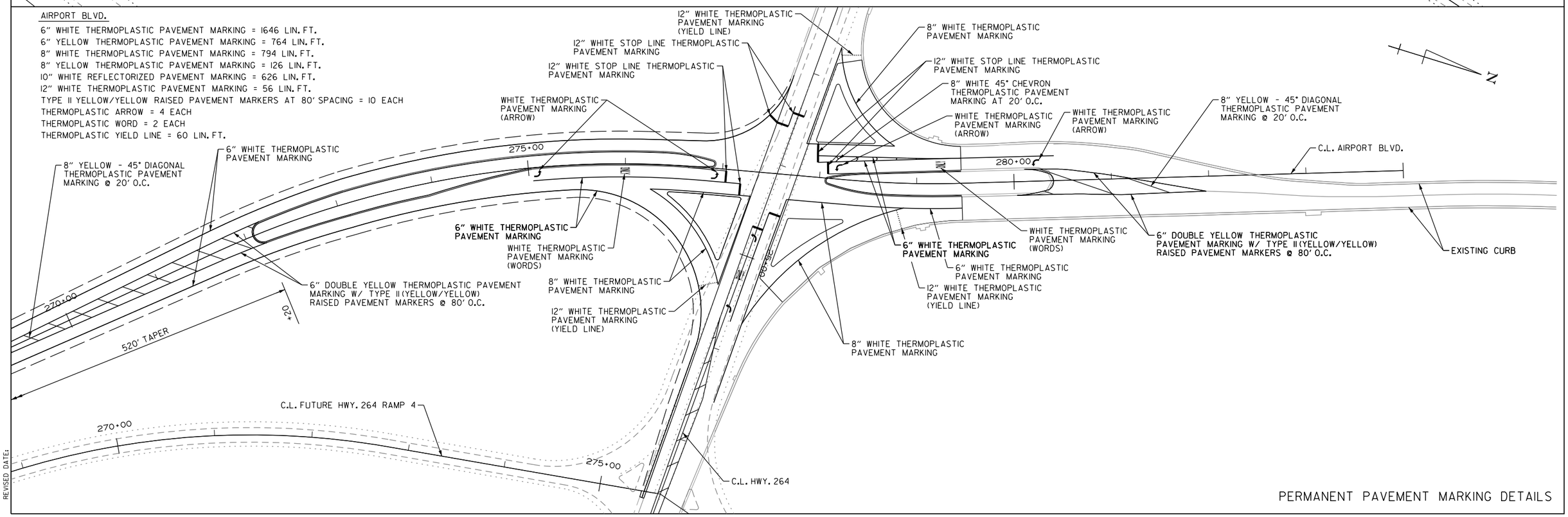

NOTES:

NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED UNTIL A MINIMUM OF 3 DAYS AFTER ALL MAIN LANE PAVING HAS BEEN COMPLETED. IN ADDITION, NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED DURING THE TIME PERIOD FROM DECEMBER 21 TO MARCH 15, INCLUSIVE.

10" WHITE REFLECTORIZED PAINT ON ALL CONCRETE ISLAND CURB FACES.

AIRPORT BLVD.

6" WHITE THERMOPLASTIC PAVEMENT MARKING = 1646 LIN. FT.
6" YELLOW THERMOPLASTIC PAVEMENT MARKING = 764 LIN. FT.
8" WHITE THERMOPLASTIC PAVEMENT MARKING = 794 LIN. FT.
8" YELLOW THERMOPLASTIC PAVEMENT MARKING = 126 LIN. FT.
10" WHITE REFLECTORIZED PAVEMENT MARKING = 626 LIN. FT.
12" WHITE THERMOPLASTIC PAVEMENT MARKING = 56 LIN. FT.
TYPE II YELLOW/YELLOW RAISED PAVEMENT MARKERS AT 80' SPACING = 10 EACH
THERMOPLASTIC ARROW = 4 EACH
THERMOPLASTIC WORD = 2 EACH
THERMOPLASTIC YIELD LINE = 60 LIN. FT.




PERMANENT PAVEMENT MARKING DETAILS

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 126 | 583 |
| | | PERMANENT PAVEMENT MARKING DETAILS | | | | |

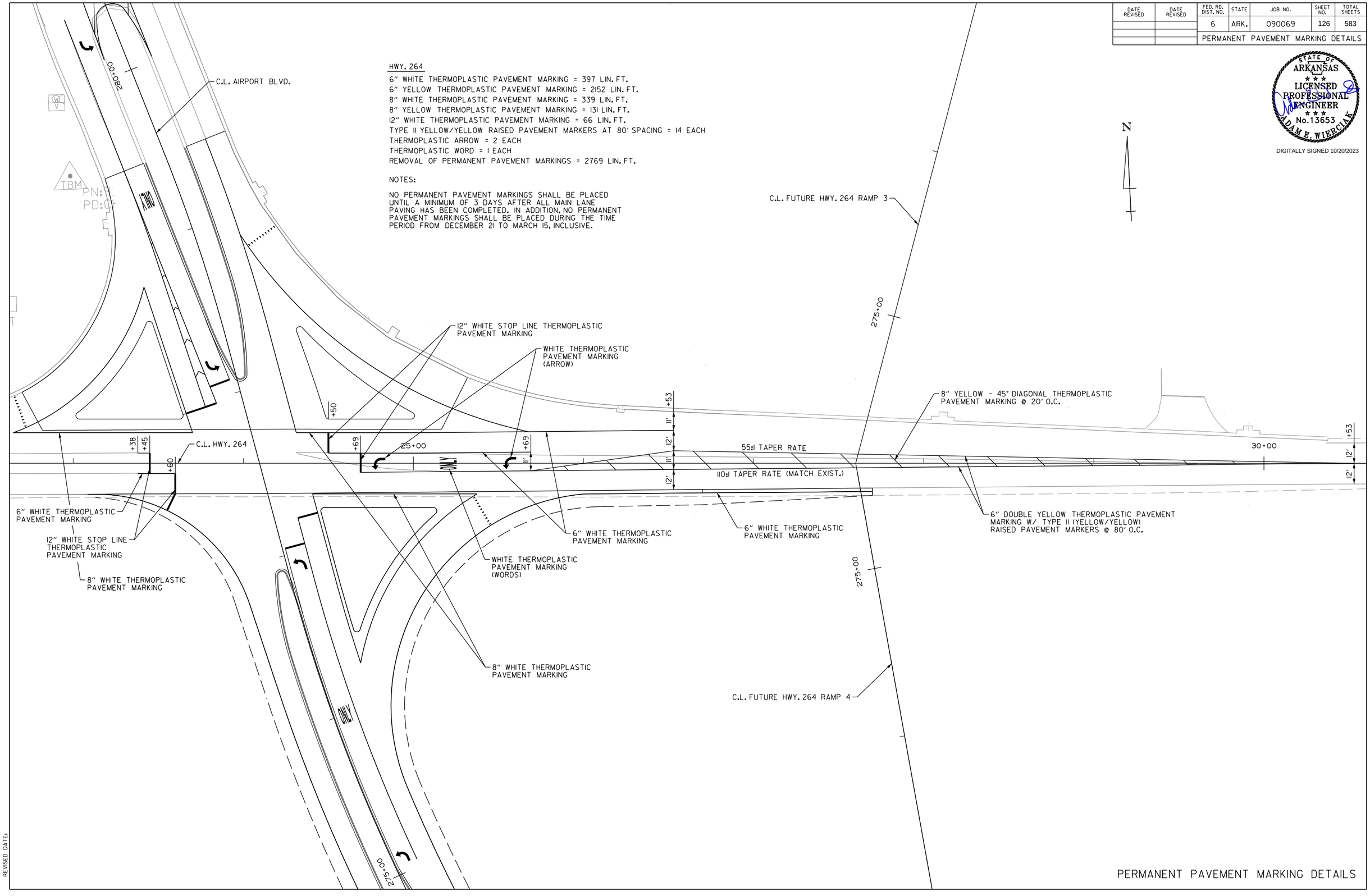
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

HWY. 264

6" WHITE THERMOPLASTIC PAVEMENT MARKING = 397 LIN. FT.
6" YELLOW THERMOPLASTIC PAVEMENT MARKING = 2152 LIN. FT.
8" WHITE THERMOPLASTIC PAVEMENT MARKING = 339 LIN. FT.
8" YELLOW THERMOPLASTIC PAVEMENT MARKING = 131 LIN. FT.
12" WHITE THERMOPLASTIC PAVEMENT MARKING = 66 LIN. FT.
TYPE II YELLOW/YELLOW RAISED PAVEMENT MARKERS AT 80' SPACING = 14 EACH
THERMOPLASTIC ARROW = 2 EACH
THERMOPLASTIC WORD = 1 EACH
REMOVAL OF PERMANENT PAVEMENT MARKINGS = 2769 LIN. FT.

NOTES:

NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED UNTIL A MINIMUM OF 3 DAYS AFTER ALL MAIN LANE PAVING HAS BEEN COMPLETED. IN ADDITION, NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED DURING THE TIME PERIOD FROM DECEMBER 21 TO MARCH 15, INCLUSIVE.




PERMANENT PAVEMENT MARKING DETAILS

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 127 | 583 |
| | | QUANTITIES | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

## CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

| DESCRIPTION | STAGE 1 | STAGE 2 | STAGE 3 | END OF JOB | REMOVAL OF PERMANENT PAVEMENT MARKINGS | CONSTRUCTION PAVEMENT MARKINGS | REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS | RAISED PAVEMENT MARKERS | | ENHANCED THERMOPLASTIC PAVEMENT MARKING | | | | | THERMOPLASTIC PAVEMENT MARKING | | | | | | | | REFLECTORIZED PAINT PAVEMENT MARKING |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | TYPE II | TYPE II | 6" | | 8" | 12" | ARROWS | 6" | | 8" | | 12" | YIELD LINE | WORDS | ARROWS | 10" |
| | | | | | | | | (WHITE/RED) | (YELLOW/YELLOW) | WHITE | YELLOW | YELLOW | WHITE | | WHITE | YELLOW | WHITE | YELLOW | WHITE | | | | WHITE |
| | LIN. FT. - EACH | | | | | LIN. FT. | | EACH | | LIN. FT. | | | | EACH | LIN. FT. | | | | | | EACH | | LIN. FT. |
| REMOVAL OF PERMANENT PAVEMENT MARKINGS | | | 2769 | 3633 | 6402 | | | | | | | | | | | | | | | | | | |
| CONSTRUCTION PAVEMENT MARKINGS | 1569 | 5047 | 758 | | | 7374 | | | | | | | | | | | | | | | | | |
| REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS | | 1569 | 5047 | | | | 6616 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) | | | | 721 | | | | 721 | | | | | | | | | | | | | | | |
| RAISED PAVEMENT MARKERS TYPE II (YELLOW/YELLOW) | | | | 76 | | | | | 76 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6") | | | | 49220 | | | | | | 49220 | | | | | | | | | | | | | |
| ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6") | | | | 43157 | | | | | | | 43157 | | | | | | | | | | | | |
| ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (8") | | | | 284 | | | | | | | | 284 | | | | | | | | | | | |
| ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (12") | | | | 4266 | | | | | | | | | 4266 | | | | | | | | | | |
| ENHANCED THERMOPLASTIC PAVEMENT MARKING (ARROWS) | | | | 5 | | | | | | | | | | 5 | | | | | | | | | |
| THERMOPLASTIC PAVEMENT MARKING WHITE (6") | | | | 6065 | | | | | | | | | | | 6065 | | | | | | | | |
| THERMOPLASTIC PAVEMENT MARKING YELLOW (6") | | | | 7012 | | | | | | | | | | | | 7012 | | | | | | | |
| THERMOPLASTIC PAVEMENT MARKING WHITE (8") | | | | 1133 | | | | | | | | | | | | | 1133 | | | | | | |
| THERMOPLASTIC PAVEMENT MARKING YELLOW (8") | | | | 545 | | | | | | | | | | | | | | 545 | | | | | |
| THERMOPLASTIC PAVEMENT MARKING WHITE (12") | | | | 122 | | | | | | | | | | | | | | | 122 | | | | |
| THERMOPLASTIC PAVEMENT MARKING (YIELD LINE) | | | | 60 | | | | | | | | | | | | | | | | 60 | | | |
| THERMOPLASTIC PAVEMENT MARKING (WORDS) | | | | 3 | | | | | | | | | | | | | | | | | 3 | | |
| THERMOPLASTIC PAVEMENT MARKING (ARROWS) | | | | 6 | | | | | | | | | | | | | | | | | | 6 | |
| REFLECTORIZED PAINT PAVEMENT MARKING WHITE (10") | | | | 626 | | | | | | | | | | | | | | | | | | | 626 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| **TOTALS:** | | | | | **6402** | **7374** | **6616** | **721** | **76** | **49220** | **43157** | **284** | **4266** | **5** | **6065** | **7012** | **1133** | **545** | **122** | **60** | **3** | **6** | **626** |

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

## ADVANCE WARNING SIGNS AND DEVICES

| SIGN NUMBER | DESCRIPTION | SIGN SIZE | STAGE 1 | STAGE 2 | STAGE 3A | STAGE 3B | MAXIMUM NUMBER REQUIRED | TOTAL SIGNS REQUIRED | | *CONSTRUCTION PROJECT INFORMATION SIGN UPDATE | TRAFFIC DRUMS | BARRICADES (TYPE III) | | FURNISHING & INSTALLING PRECAST CONC. BARRIER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | RIGHT | LEFT | |
| | | | LIN. FT. - EACH | | | | | NO. | SQ. FT. | EACH | | LIN. FT. | | |
| W20-1 | ROAD WORK 1500 FT. | 48"x48" | 2 | 2 | 2 | 2 | 2 | 2 | 32.0 | | | | | |
| W20-1 | ROAD WORK 1000 FT. | 48"x48" | 2 | 2 | 2 | 2 | 2 | 2 | 32.0 | | | | | |
| W20-1 | ROAD WORK 500 FT. | 48"x48" | 2 | 2 | 2 | 2 | 2 | 2 | 32.0 | | | | | |
| W20-1 | ROAD WORK AHEAD | 48"x48" | 3 | 10 | 4 | 1 | 10 | 10 | 160.0 | | | | | |
| G20-2 | END ROAD WORK | 48"x24" | 2 | 11 | 5 | 3 | 11 | 11 | 88.0 | | | | | |
| R11-2 | ROAD CLOSED | 48"x30" | 2 | 5 | 5 | 5 | 5 | 5 | 50.0 | | | | | |
| R11-4 | ROAD CLOSED TO THRU TRAFFIC | 60"X30" | 2 | | | | 2 | 2 | 25.0 | | | | | |
| OM-3R | OBJECT MARKER | 12"x36" | | | | | | | | | | | | |
| W1-6 | LARGE ARROW | 48"x24" | 2 | 2 | | | 2 | 2 | 16.0 | | | | | |
| W1-8 | CHEVRONS | 18"x24" | | | | | | | | | | | | |
| R4-1 | DO NOT PASS | 24"x30" | 2 | 2 | 2 | 2 | 2 | 2 | 10.0 | | | | | |
| R4-2 | PASS WITH CARE | 24"x30" | | | | | | | | | | | | |
| W21-5A | RIGHT SHOULDER CLOSED | 36"x36" | 4 | 4 | 4 | 4 | 4 | 4 | 36.0 | | | | | |
| M6-1L | LEFT TUN ARROW | 21"x15" | 1 | | 1 | | 1 | 1 | 2.2 | | | | | |
| M6-1R | RIGHT TURN ARROW | 21"x15" | 1 | | | | 1 | 1 | 2.2 | | | | | |
| SPECIAL | CONSTRUCTION PROJECT INFORMATION SIGN | 48"x96" | 1 | 1 | 1 | 1 | 1 | 1 | 32.0 | | | | | |
| | | | | | | | | | | | | | | |
| | CONSTRUCTION PROJECT INFORMATION SIGN UPDATE | | | | | | | | | 3 | | | | |
| | | | | | | | | | | | | | | |
| | TRAFFIC DRUMS | | 33 | 226 | 53 | 22 | 226 | | | | 226 | | | |
| | | | | | | | | | | | | | | |
| | TYPE III BARRICADE-RT. (16') | | 2 | 6 | 5 | 5 | 6 | | | | | 96 | | |
| | TYPE III BARRICADE-LT. (16') | | 2 | 6 | 5 | 5 | 6 | | | | | | 96 | |
| | | | | | | | | | | | | | | |
| | FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER | | | | 1026 | | 1026 | | | | | | | 1026 |
| | | | | | | | | | | | | | | |
| **TOTALS:** | | | | | | | | | **517.4** | **3** | **226** | **96** | **96** | **1026** |

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.



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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 128 | 583 |
| | | QUANTITIES | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

## CLEARING AND GRUBBING

| STATION | STATION | LOCATION | CLEARING | GRUBBING |
|---|---|---|---|---|
| | | | STATION | |
| 100+00 | 104+00 | XNA ACCESS RD. | 4 | 4 |
| 105+00 | 133+00 | XNA ACCESS RD. | 28 | 28 |
| 137+00 | 145+00 | XNA ACCESS RD. | 8 | 8 |
| 148+00 | 151+00 | XNA ACCESS RD. | 3 | 3 |
| 152+00 | 156+00 | XNA ACCESS RD. | 4 | 4 |
| 158+00 | 187+00 | XNA ACCESS RD. | 29 | 29 |
| 190+00 | 246+00 | XNA ACCESS RD. | 56 | 56 |
| 247+00 | 260+00 | HWY. 264 RAMP 4 | 13 | 13 |
| 260+00 | 278+00 | AIRPORT BLVD. | 18 | 18 |
| | | | | |
| TOTALS: | | | 163 | 163 |

## REMOVAL AND DISPOSAL OF ITEMS

| STATION | STATION | LOCATION | CURB AND GUTTER | PRECAST CONCRETE BARRIER LEFT IN PLACE | SIGNS | SIGN FOUNDATIONS | BUILDINGS | CATTLE GUARD | POSTS | SEPTIC SYSTEM |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | LIN. FT. | LIN. FT. | EACH | EACH | EACH | EACH | EACH | EACH |
| 108+08 | 108+88 | XNA ACCESS RD. LT. | | | | | 2 | | | |
| 114+30 | 114+93 | XNA ACCESS RD. LT. | | | | | 1 | | | |
| 130+50 | 130+63 | XNA ACCESS RD. LT. | | | | | 2 | | | |
| 143+90 | 143+90 | XNA ACCESS RD. LT. | | | | | | 1 | | |
| 144+75 | 144+80 | XNA ACCESS RD. RT. | | | | | | | 6 | |
| 149+00 | 149+00 | XNA ACCESS RD. LT. | | | | | | | | 1 |
| 149+50 | 149+50 | XNA ACCESS RD. RT. | | | | | | | 4 | |
| 150+40 | 150+40 | XNA ACCESS RD. LT. | | | | | | | 4 | |
| 209+79 | 210+32 | XNA ACCESS RD. LT. | | | | | 2 | | | |
| 210+50 | 210+50 | XNA ACCESS RD. LT. | | | | | | | | 1 |
| 213+00 | 213+00 | XNA ACCESS RD. RT. | | | | | | | | 1 |
| 213+41 | 213+69 | XNA ACCESS RD. RT. | | | | | 1 | | | |
| 266+12 | 267+42 | XNA ACCESS RD. RT. | | | | | 2 | | | |
| 278+00 | 280+38 | AIRPORT BLVD. | 300 | | 2 | 2 | | | | |
| 283+00 | 283+00 | AIRPORT BLVD. | | | 1 | 1 | | | | |
| 421+05 | 433+95 | HWY. 612 MEDIAN LT. | | 1323 | | | | | | |
| 436+00 | 448+94 | HWY. 612 MEDIAN RT. | | 1273 | | | | | | |
| 447+71 | 460+93 | HWY. 612 MEDIAN | | 1346 | | | | | | |
| 459+64 | 462+73 | HWY. 612 MEDIAN RT. | | 280 | | | | | | |
| | | | | | | | | | | |
| TOTALS: | | | 300 | 4222 | 3 | 3 | 10 | 1 | 14 | 3 |

## REMOVAL AND DISPOSAL OF FENCE

| STATION | STATION | LOCATION | FENCE | GATES |
|---|---|---|---|---|
| | | | LIN. FT. | EACH |
| 100+38 | 102+22 | XNA ACCESS RD. LT. | 299 | |
| 102+22 | 103+18 | XNA ACCESS RD. RT. | 158 | |
| 107+64 | 109+25 | XNA ACCESS RD. LT. | 272 | |
| 108+20 | 111+21 | XNA ACCESS RD. LT. | 391 | |
| 111+21 | 112+06 | XNA ACCESS RD. RT. | 104 | |
| 112+85 | 115+25 | XNA ACCESS RD. LT. | 358 | |
| 126+05 | 129+36 | XNA ACCESS RD. LT. | 407 | |
| 129+36 | 132+15 | XNA ACCESS RD. RT. | 365 | |
| 146+89 | 148+41 | XNA ACCESS RD. LT. | 222 | |
| 147+68 | 148+41 | XNA ACCESS RD. RT. | 262 | 1 |
| 149+44 | 149+48 | XNA ACCESS RD. LT. | 6 | |
| 149+48 | 149+92 | XNA ACCESS RD. RT. | 198 | 1 |
| 149+48 | 150+31 | XNA ACCESS RD. RT. | 119 | |
| 150+31 | 152+70 | XNA ACCESS RD. LT. | 346 | 1 |
| 150+55 | 151+12 | XNA ACCESS RD. LT. | 80 | |
| 157+62 | 160+50 | XNA ACCESS RD. LT. | 362 | |
| 158+59 | 160+16 | XNA ACCESS RD. RT. | 258 | |
| 160+16 | 160+62 | XNA ACCESS RD. LT. | 71 | |
| 160+18 | 160+87 | XNA ACCESS RD. LT. | 116 | |
| 185+44 | 188+98 | XNA ACCESS RD. RT. | 423 | |
| 188+98 | 199+22 | XNA ACCESS RD. LT. | 251 | 1 |
| 213+73 | 214+09 | XNA ACCESS RD. LT. | 33 | 1 |
| 213+87 | 215+72 | XNA ACCESS RD. LT. | 94 | 1 |
| 216+15 | 216+32 | XNA ACCESS RD. RT. | 24 | |
| 246+05 | 259+27 | XNA ACCESS RD. RT. | 1312 | 1 |
| 3+19 | 7+31 | WAGER DR. LT. | 422 | |
| 3+22 | 7+62 | WAGER DR. RT. | 447 | |
| 0+63 | 0+94 | HADEN RD. LT. | 40 | |
| 1+08 | 6+38 | HADEN RD. RT. | 524 | |
| 1+89 | 5+54 | HADEN RD. LT. | 407 | |
| 15+20 | 16+35 | HOLMES RD. RT. | 113 | |
| 15+31 | 16+73 | HOLMES RD. LT. | 147 | |
| 16+74 | 18+66 | HOLMES RD. LT. | 516 | 1 |
| 19+87 | 21+94 | HOLMES RD. RT. | 303 | 1 |
| 22+80 | 22+89 | HOLMES RD. RT. | 9 | |
| 22+93 | 23+53 | HOLMES RD. RT. | 47 | |
| 10+00 | 35+00 | MALONE LN. RT. | 2500 | |
| 10+00 | 35+00 | MALONE LN. LT. | 2500 | |
| | | | | |
| TOTALS: | | | 14506 | 9 |

## SOIL LOG (BOX 1 OF 2)

| STATION | LOCATION | DEPTH | LIQUID LIMIT | PLASTICITY INDEX | AASHTO CLASSIFICATION |
|---|---|---|---|---|---|
| | | FEET | | | |
| 101+00 | C.L. XNA ACCESS | 0.5-1.5 | 26 | 10 | A-4 |
| 135+00 | C.L. XNA ACCESS | 9-10 | 67 | 27 | A-7-5 |
| 135+00 | C.L. XNA ACCESS | 24-25 | 51 | 13 | A-7-5 |
| 148+90 | C.L. XNA ACCESS | 0.5-1.5 | 27 | 4 | A-4 |
| 148+90 | C.L. XNA ACCESS | 2.5-3.5 | --- | --- | A-7-6 |
| 170+00 | C.L. XNA ACCESS | 2.5-3.5 | 30 | 10 | A-4 |
| 185+00 | C.L. XNA ACCESS | 2.5-3.5 | NON-PLASTIC | | A-1-b |
| 185+00 | C.L. XNA ACCESS | 4.5-5.5 | 34 | 10 | A-2-4 |
| 188+50 | C.L. XNA ACCESS | 0.5-1.5 | NON-PLASTIC | | A-4 |
| 188+50 | C.L. XNA ACCESS | 2.5-3.5 | 37 | 14 | A-7-6 |
| 196+75 | C.L. XNA ACCESS | 0.5-1.5 | 42 | 22 | A-2-7 |
| 196+75 | C.L. XNA ACCESS | 14-15 | 38 | 11 | A-2-6 |
| 200+00 | C.L. XNA ACCESS | 0.5-1.5 | 24 | 1 | A-4 |
| 200+00 | C.L. XNA ACCESS | 4.5-5.5 | 34 | 7 | A-2-4 |
| 200+00 | C.L. XNA ACCESS | 9.0-10.0 | 61 | 33 | A-7-6 |
| 209+00 | C.L. XNA ACCESS | 0.5-1.5 | 35 | 15 | A-2-6 |
| 220+00 | C.L. XNA ACCESS | 0.5-1.5 | --- | --- | A-2-4 |
| 225+00 | C.L. XNA ACCESS | 0.5-1.5 | 26 | 8 | A-4 |
| 230+00 | C.L. XNA ACCESS | 0.5-1.5 | 42 | 22 | A-7-6 |
| 235+00 | C.L. XNA ACCESS | 0.5-1.5 | 27 | 3 | A-4 |
| 240+00 | C.L. XNA ACCESS | 0.5-1.5 | 23 | 3 | A-2-4 |
| 240+00 | C.L. XNA ACCESS | 2.5-3.5 | 30 | 5 | A-4 |
| 240+00 | C.L. XNA ACCESS | 4.5-5.5 | --- | --- | A-4 |
| 245+00 | C.L. XNA ACCESS | 6.5-7.5 | 51 | 24 | A-2-7 |
| 250+00 | C.L. XNA ACCESS | 4.5-5.5 | 44 | 17 | A-2-7 |
| 250+00 | C.L. XNA ACCESS | 19-20 | 45 | 7 | A-2-5 |
| 260+00 | C.L. XNA ACCESS | 14-15 | 51 | 14 | A-2-7 |
| 265+00 | C.L. XNA ACCESS | 0.5-1.5 | NON-PLASTIC | | A-4 |
| 265+00 | C.L. XNA ACCESS | 2.5-3.5 | 41 | 23 | A-7-6 |
| 270+00 | C.L. XNA ACCESS | 0.5-1.5 | 33 | 5 | A-4 |
| 270+00 | C.L. XNA ACCESS | 2.5-3.5 | 49 | 27 | A-7-6 |
| 275+00 | C.L. XNA ACCESS | 0.5-1.5 | 34 | 16 | A-6 |
| 275+00 | C.L. XNA ACCESS | 2.5-3.5 | 29 | 10 | A-4 |
| 280+00 | C.L. XNA ACCESS | 0.5-1.5 | --- | --- | A-4 |
| 285+00 | C.L. XNA ACCESS | 0.5-1.5 | --- | --- | A-1-b |
| 290+00 | C.L. XNA ACCESS | 0.5-1.5 | NON-PLASTIC | | |
| 290+00 | C.L. XNA ACCESS | 4.5-5.5 | 55 | 31 | A-7-6 |
| 295+00 | C.L. XNA ACCESS | 2.5-3.5 | NON-PLASTIC | | A-4 |
| 300+00 | C.L. XNA ACCESS | 0.5-1.5 | 34 | 8 | A-2-4 |
| 300+00 | C.L. XNA ACCESS | 2.5-3.5 | 30 | 12 | A-2-6 |
| 305+00 | C.L. XNA ACCESS | 0.5-1.5 | NON-PLASTIC | | A-2-4 |
| 309+00 | C.L. XNA ACCESS | 0.5-1.5 | 28 | 8 | A-4 |
| 309+00 | C.L. XNA ACCESS | 2.5-3.5 | 49 | 27 | A-7-6 |
| 253+00 | C.L. XNA ACCESS | 0.5-1.5 | --- | --- | A-4 |
| 253+00 | C.L. XNA ACCESS | 14-15 | NON-PLASTIC | | A-2-4 |
| 258+00 | C.L. XNA ACCESS | 9-10 | 37 | 14 | A-2-6 |
| 263+00 | C.L. XNA ACCESS | 14-15 | 34 | 10 | A-4 |
| 267+00 | C.L. XNA ACCESS | 0.5-1.5 | --- | --- | A-4 |
| 267+00 | C.L. XNA ACCESS | 2.5-3.5 | 35 | 15 | A-6 |
| 272+00 | C.L. XNA ACCESS | 2.5-3.5 | 55 | 27 | A-7-6 |
| 277+00 | C.L. XNA ACCESS | 0.5-1.5 | 25 | 6 | A-4 |
| 277+00 | C.L. XNA ACCESS | 2.5-3.5 | 49 | 25 | A-7-6 |
| 459+00 | C.L. XNA ACCESS | 0.5-1.5 | NON-PLASTIC | | A-4 |
| 459+00 | C.L. XNA ACCESS | 2.5-3.5 | 42 | 21 | A-7-6 |
| 465+00 | C.L. XNA ACCESS | 0.5-1.5 | 33 | 5 | A-4 |

## SOIL LOG (BOX 2 OF 2)

| STATION | LOCATION | DEPTH | LIQUID LIMIT | PLASTICITY INDEX | AASHTO CLASSIFICATION |
|---|---|---|---|---|---|
| | | FEET | | | |
| 469+00 | C.L. XNA ACCESS | 0.5-1.5 | 35 | 14 | A-6 |
| 475+00 | C.L. XNA ACCESS | 0.5-1.5 | 33 | 10 | A-4 |
| 475+00 | C.L. XNA ACCESS | 2.5-3.5 | 36 | 13 | A-6 |
| 425+75 | C.L. XNA ACCESS | 2.5-3.5 | 48 | 28 | A-7-6 |
| 435+00 | C.L. XNA ACCESS | 0.5-1.5 | NON-PLASTIC | | A-4 |
| 435+00 | C.L. XNA ACCESS | 4.5-5.5 | 54 | 27 | A-7-6 |
| 440+00 | C.L. XNA ACCESS | 2.5-3.5 | 33 | 8 | A-4 |
| 445+00 | C.L. XNA ACCESS | 0.5-1.5 | 24 | 3 | A-4 |
| 445+00 | C.L. XNA ACCESS | 4.5-5.5 | 55 | 20 | A-2-7 |
| 440+00 | C.L. XNA ACCESS | 0.5-1.5 | NON-PLASTIC | | A-4 |
| 440+00 | C.L. XNA ACCESS | 2.5-3.5 | 29 | 12 | A-2-6 |
| 445+00 | C.L. XNA ACCESS | 2.5-3.5 | 40 | 16 | A-6 |
| 445+00 | C.L. XNA ACCESS | 9-10 | NON-PLASTIC | | A-1-b |
| 432+00 | C.L. XNA ACCESS | 0.5-1.5 | --- | --- | A-4 |
| 432+00 | C.L. XNA ACCESS | 2.5-3.5 | 39 | 16 | A-6 |
| 437+00 | C.L. XNA ACCESS | 0.5-1.5 | 31 | 12 | A-6 |
| 14+40 | C.L.MALONE LN. | 2.5-3.5 | 77 | 38 | A-7-5 |
| 18+40 | C.L.MALONE LN. | 0.5-1.5 | 35 | 13 | A-6 |
| 18+40 | C.L.MALONE LN. | 4.5-5.5 | NON-PLASTIC | | A-4 |
| 28+40 | C.L.MALONE LN. | 0.5-1.5 | 36 | 20 | A-6 |
| 28+40 | C.L.MALONE LN. | 2.5-3.5 | 35 | 13 | A-6 |
| 32+40 | C.L.MALONE LN. | 0.5-1.5 | NON-PLASTIC | | A-4 |
| 32+40 | C.L.MALONE LN. | 2.5-3.5 | 39 | 18 | A-6 |
| 142+80 | C.L. XNA ACCESS | 0.5-1.5 | --- | --- | A-1-b |
| 145+75 | C.L. XNA ACCESS | 2.5-3.5 | NON-PLASTIC | | A-4 |
| 142+60 | C.L. XNA ACCESS | 6.5-7.5 | 32 | 7 | A-2-4 |
| 145+55 | C.L. XNA ACCESS | 2.5-3.5 | 30 | 11 | A-6 |
| 145+55 | C.L. XNA ACCESS | 14-15 | 32 | 14 | A-2-6 |
| 158+30 | C.L. XNA ACCESS | 6.5-7.5 | 34 | 17 | A-2-6 |
| 158+30 | C.L. XNA ACCESS | 14-15 | 40 | 19 | A-6 |
| 157+85 | C.L. XNA ACCESS | 9-10 | NON-PLASTIC | | A-4 |
| 175+45 | C.L. XNA ACCESS | 4.5-5.5 | 38 | 6 | A-4 |
| 181+45 | C.L. XNA ACCESS | 0.5-1.5 | 27 | 7 | A-4 |
| 181+45 | C.L. XNA ACCESS | 4.5-5.5 | 25 | 4 | A-1-b |
| 176+00 | C.L. XNA ACCESS | 6.5-7.5 | 37 | 16 | A-2-6 |
| 182+15 | C.L. XNA ACCESS | 0.5-1.5 | 37 | 11 | A-6 |
| 190+90 | C.L. XNA ACCESS | 2.5-3.5 | 38 | 16 | A-6 |
| 190+90 | C.L. XNA ACCESS | 9-10 | 32 | 13 | A-6 |
| 193+20 | C.L. XNA ACCESS | 2.5-3.5 | 29 | 9 | A-4 |
| 193+20 | C.L. XNA ACCESS | 9-10 | 63 | 42 | A-7-6 |
| 191+60 | C.L. XNA ACCESS | 2.5-3.5 | 42 | 19 | A-7-6 |
| 191+60 | C.L. XNA ACCESS | 6.5-7.5 | 39 | 21 | A-6 |
| 193+90 | C.L. XNA ACCESS | 9-10 | 29 | 6 | A-2-4 |
| 210+55 | C.L. XNA ACCESS | 2.5-3.5 | 45 | 16 | A-2-7 |
| 22+36 | C.L. MALONE LN. | 2.5-3.5 | NON-PLASTIC | | A-4 |
| 24+57 | C.L. MALONE LN. | 6.5-7.5 | 56 | 24 | A-7-5 |

SOIL CHARACTERISTICS TABULATED ABOVE ARE REPRESENTATIVE AT THE LOCATION OF THE SAMPLE, AND FROM SURFACE INDICATIONS ARE TYPICAL FOR THE LIMITS SHOWN. THESE DATA ARE SHOWN FOR INFORMATION ONLY. THE STATE WILL NOT BE RESPONSIBLE FOR VARIATIONS IN THE SOIL CHARACTERISTICS AND/OR EXTENT OF SAME DIFFERING FROM THE ABOVE TABULATIONS.
Z- AUGER REFUSAL
NP - NON-PLASTIC
ND - NOT DETERMINABLE

## CONCRETE BASE

| STATION | STATION | LOCATION | LENGTH | PORTLAND CEMENT CONCRETE BASE | | | |
|---|---|---|---|---|---|---|---|
| | | | | AVG. WID. | 5 1/2" U.T. | AVG. WID. | 10" U.T. |
| | | | FEET | FEET | SQ. YD. | FEET | SQ. YD. |
| 278+16.10 | 279+46.02 | AIRPORT BLVD. LT. - MILL AND INLAY | 129.92 | 2.27 | 32.77 | 3.15 | 45.47 |
| | | AIRPORT BLVD. LT. NW. ISLAND - MILL AND INLAY | 37.55 | 2.63 | 10.97 | 1.57 | 6.55 |
| | | | | | | | |
| TOTALS: | | | | | 43.74 | | 52.02 |



cewiercia 10/20/2023 12:52:26 PM
WORKSPACE: AHTD
L:\2017\170\7600 - XNA Access - NEPA\Drawings\r090069_QTY.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 129 | 583 |
| | | QUANTITIES | | | | |

## EARTHWORK

| LOCATION / DESCRIPTION | UNCLASSIFIED EXCAVATION | ROCK EXCAVATION | REMOVING AND REPLACING TOPSOIL | COMPACTED EMBANKMENT | ROCK FILL |
|---|---|---|---|---|---|
| | | | CU. YD. | | |
| STAGE 2 - XNA ACCESS RD. | 1064193 | 123971 | 58517 | 1256655 | 46426 |
| STAGE 3 - XNA ACCESS RD. | 6633 | | 3493 | 34989 | 9583 |
| | | | | | |
| STAGE 2 - HWY. 264 RAMP 4 | 58244 | | | 4613 | |
| | | | | | |
| STAGE 2 - HWY. 264 | 366 | | | | |
| | | | | | |
| STAGE 2 - WAGER DR. | 1636 | | | | |
| STAGE 2 - HADEN RD. | 1848 | | | 7 | |
| STAGE 2 - HOLMES RD. | 3667 | | | | |
| STAGE 2 - MALONE LN. | 8196 | | | 44018 | |
| STAGE 3 - MALONE LN. | 18 | | | 5520 | |
| STAGE 2 - AIRPORT BLVD. | 47171 | | | 78126 | |
| STAGE 2 - AIRPORT BLVD. CURVE EXTENSION | 45264 | | | | |
| | | | | | |
| STAGE 2 - NB CROSSOVER | 24311 | | | | |
| STAGE 3 - NB CROSSOVER | 2054 | | | 14775 | |
| | | | | | |
| STAGE 1 - MALONE LN. DETOUR | 9934 | | 1720 | 2738 | |
| STAGE 3 - MALONE LN. DETOUR | 4763 | | | 6206 | |
| | | | | | |
| DRIVEWAYS - ALL STAGES | 1185 | | | 188 | |
| | | | | | |
| STAGE 2 - XNA ACCESS RD. 173+96 LT. DITCH | 84 | | | | |
| STAGE 2 - WAGER DR. 3+80 BERM LT. | | | | 30 | |
| STAGE 2 - WAGER DR. 3+90 INLET DITCH | 581 | | | | |
| STAGE 2 - WAGER DR. 3+90 OUTLET DITCH | 1620 | | | | |
| STAGE 2 - WAGER DR. 6+20 OUTLET DITCH | 497 | | | | |
| STAGE 2 - HADEN RD. 5+28 OUTLET DITCH | 217 | | | | |
| | | | | | |
| OSAGE CREEK BRIDGE END EXCAVATION | 8705 | | | | |
| HOLMES RD. BRIDGE END EXCAVATION | 464 | | | | |
| | | | | | |
| MSE RETAINING WALL NO. 1 | 537 | | | | |
| MSE RETAINING WALL NO. 2 | 491 | | | | |
| MSE RETAINING WALL NO. 3 | 622 | | | | |
| | | | | | |
| **TOTALS:** | **1293301** | **123971** | **63730** | **1447865** | **56009** |

## TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES LEFT IN PLACE

| STATION | STATION | LOCATION | FURNISHING, INSTALLING AND LEAVING IN PLACE PRECAST CONCRETE BARRIER WALL |
|---|---|---|---|
| | | | LIN. FT. |
| 225+73 | 238+26 | XNA ACCESS RD. RT. | 1307 |
| | | | |
| **TOTAL:** | | | **1307** |

## COLD MILLING ASPHALT PAVEMENT

| STATION | STATION | LOCATION | AVG. WIDTH | COLD MILLING ASPHALT PAVEMENT |
|---|---|---|---|---|
| | | | FEET | SQ. YD. |
| 277+76.96 | 279+46.02 | AIRPORT BLVD. | 95.87 | 1800.93 |
| | | | | |
| **TOTAL:** | | | | **1800.93** |

NOTE: COORDINATE COLD MILLING STOCKPILE LOCATIONS WITH DISTRICT ENGINEER.
STOCKPILE LOCATIONS SHALL BE NO FURTHER THAN FIVE MILES FROM EACH SITE.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

## CONCRETE DITCH PAVING

| STATION | STATION | LOCATION | LENGTH | "W" | "B" | CONC. DITCH PAVING (TYPE A) | CONC. DITCH PAVING (TYPE B) | SOLID SODDING | WATER |
|---|---|---|---|---|---|---|---|---|---|
| | | | LIN. FT. | FEET | FEET | SQ. YD. | SQ. YD. | SQ. YD. | M. GAL. |
| 101+50 | 102+45 | XNA ACCESS RD. LT. | 96 | 6.00 | | | 64.00 | 42.67 | 0.54 |
| 103+80 | 105+72 | XNA ACCESS RD. LT. | 208 | 6.00 | | | 138.67 | 92.44 | 1.16 |
| 105+28 | 105+84 | XNA ACCESS RD. RT. | 56 | 9.00 | | | 56.00 | 24.89 | 0.31 |
| 105+84 | 110+05 | XNA ACCESS RD. RT. | 463 | 6.00 | | | 308.67 | 205.78 | 2.59 |
| 106+22 | 107+85 | XNA ACCESS RD. LT. | 169 | 6.00 | | | 112.67 | 75.11 | 0.95 |
| 108+50 | 110+30 | XNA ACCESS RD. LT. | 178 | 9.00 | | | 178.00 | 79.11 | 1.00 |
| 110+30 | 112+19 | XNA ACCESS RD. LT. | 200 | 6.00 | | | 133.33 | 88.89 | 1.12 |
| 112+55 | 114+05 | XNA ACCESS RD. LT. | 155 | 6.00 | | | 103.33 | 68.89 | 0.87 |
| 113+39 | 115+05 | XNA ACCESS RD. RT. | 202 | 6.00 | | | 134.67 | 89.78 | 1.13 |
| 113+58 | 113+83 | XNA ACCESS RD. LT. | 84 | 6.00 | | | 56.00 | 37.33 | 0.47 |
| 115+00 | 116+30 | XNA ACCESS RD. LT. | 128 | 9.00 | | | 128.00 | 56.89 | 0.72 |
| 116+27 | 116+53 | XNA ACCESS RD. LT. | 83 | 6.00 | | | 55.33 | 36.89 | 0.46 |
| 116+30 | 118+85 | XNA ACCESS RD. LT. | 283 | 6.00 | | | 188.67 | 125.78 | 1.58 |
| 117+00 | 122+90 | XNA ACCESS RD. RT. | 599 | 9.00 | | | 599.00 | 266.22 | 3.35 |
| 122+90 | 129+13 | XNA ACCESS RD. RT. | 649 | 6.00 | | | 432.67 | 288.44 | 3.63 |
| 123+42 | 127+10 | XNA ACCESS RD. LT. | 376 | 6.00 | | | 250.67 | 167.11 | 2.11 |
| 126+48 | 126+58 | XNA ACCESS RD. LT. | 85 | 6.00 | | | 56.67 | 37.78 | 0.48 |
| 128+25 | 140+20 | XNA ACCESS RD. LT. | 1195 | 9.00 | | | 1195.00 | 531.11 | 6.69 |
| 130+42 | 134+10 | XNA ACCESS RD. RT. | 398 | 6.00 | | | 265.33 | 176.89 | 2.23 |
| 132+62 | 132+70 | XNA ACCESS RD. LT. | 87 | 6.00 | | | 58.00 | 38.67 | 0.49 |
| 133+92 | 134+03 | XNA ACCESS RD. RT. | 86 | 6.00 | | | 57.33 | 38.22 | 0.48 |
| 135+50 | 139+77 | XNA ACCESS RD. RT. | 427 | 9.00 | | | 427.00 | 189.78 | 2.39 |
| 138+72 | 138+80 | XNA ACCESS RD. RT. | 87 | 6.00 | | | 58.00 | 38.67 | 0.49 |
| 139+77 | 143+40 | XNA ACCESS RD. RT. | 379 | 6.00 | | | 252.67 | 168.44 | 2.12 |
| 140+20 | 144+21 | XNA ACCESS RD. LT. | 413 | 6.00 | | | 275.33 | 183.56 | 2.31 |
| 141+10 | 145+59 | XNA ACCESS RD. RT. | 171 | 6.00 | | | 114.00 | 76.00 | 0.96 |
| 151+00 | 155+27 | XNA ACCESS RD. RT. | 428 | 6.00 | | | 285.33 | 190.22 | 2.40 |
| 172+00 | 173+00 | XNA ACCESS RD. RT. | 100 | 6.00 | | | 66.67 | 44.44 | 0.56 |
| 172+00 | 175+00 | XNA ACCESS RD. LT. | 300 | 6.00 | | | 200.00 | 133.33 | 1.68 |
| 172+45 | 172+45 | XNA ACCESS RD. RT. | 87 | 6.00 | | | 58.00 | 38.67 | 0.49 |
| 172+47 | 172+47 | XNA ACCESS RD. LT. | 87 | 6.00 | | | 58.00 | 38.67 | 0.49 |
| 182+30 | 184+00 | XNA ACCESS RD. LT. | 175 | 6.00 | | | 116.67 | 77.78 | 0.98 |
| 188+12 | 193+11 | XNA ACCESS RD. RT. | 501 | 6.00 | | | 334.00 | 222.67 | 2.81 |
| 192+06 | 195+15 | XNA ACCESS RD. LT. | 343 | 6.00 | | | 228.67 | 152.44 | 1.92 |
| 193+81 | 196+35 | XNA ACCESS RD. RT. | 277 | 6.00 | | | 184.67 | 123.11 | 1.55 |
| 195+15 | 205+60 | XNA ACCESS RD. LT. | 1045 | 9.00 | | | 1045.00 | 464.44 | 5.85 |
| 196+35 | 204+50 | XNA ACCESS RD. RT. | 815 | 9.00 | | | 815.00 | 362.22 | 4.56 |
| 205+55 | 207+40 | XNA ACCESS RD. RT. | 201 | 6.00 | | | 134.00 | 89.33 | 1.13 |
| 213+98 | 216+96 | XNA ACCESS RD. LT. | 325 | 10.00 | 4.00 | 361.11 | | 144.44 | 1.82 |
| 214+52 | 217+12 | XNA ACCESS RD. LT. | 415 | 4.00 | | | 184.44 | 184.44 | 2.32 |
| 219+95 | 222+00 | XNA ACCESS RD. RT. | 225 | 6.00 | | | 150.00 | 100.00 | 1.26 |
| 231+00 | 231+85 | XNA ACCESS RD. LT. | 88 | 6.00 | | | 58.67 | 39.11 | 0.49 |
| 238+00 | 239+18 | XNA ACCESS RD. LT. | 118 | 6.00 | | | 78.67 | 52.44 | 0.66 |
| 239+18 | 240+76 | XNA ACCESS RD. RT. | 166 | 6.00 | | | 110.67 | 73.78 | 0.93 |
| 242+84 | 244+13 | XNA ACCESS RD. RT. | 147 | 6.00 | | | 98.00 | 65.33 | 0.82 |
| 251+46 | 253+11 | XNA ACCESS RD. LT. | 165 | 6.00 | | | 110.00 | 73.33 | 0.92 |
| 253+23 | 254+77 | XNA ACCESS RD. LT. | 154 | 6.00 | | | 102.67 | 68.44 | 0.86 |
| 254+64 | 255+29 | XNA ACCESS RD. LT. | 65 | 6.00 | | | 43.33 | 28.89 | 0.36 |
| 256+03 | 256+36 | XNA ACCESS RD. LT. | 33 | 6.00 | | | 22.00 | 14.67 | 0.18 |
| 251+50 | 253+25 | HWY. 264 RAMP 4 LT. | 171 | 6.00 | | | 114.00 | 76.00 | 0.96 |
| 253+15 | 254+55 | HWY. 264 RAMP 4 RT. | 156 | 6.00 | | | 104.00 | 69.33 | 0.87 |
| 254+85 | 255+50 | HWY. 264 RAMP 4 LT. | 63 | 6.00 | | | 42.00 | 28.00 | 0.35 |
| 255+81 | 256+25 | HWY. 264 RAMP 4 RT. | 58 | 6.00 | | | 38.67 | 25.78 | 0.32 |
| 3+99 | 6+13 | WAGER DR. LT. | 321 | 6.00 | | | 214.00 | 142.67 | 1.80 |
| 5+40 | 6+75 | WAGER DR. RT. | 131 | 6.00 | | | 87.33 | 58.22 | 0.73 |
| 0+10 | 0+85 | HADEN RD. RT. | 78 | 6.00 | | | 52.00 | 34.67 | 0.44 |
| 0+75 | 0+85 | HADEN RD. LT. | 23 | 6.00 | | | 15.33 | 10.22 | 0.13 |
| 1+93 | 2+50 | HADEN RD. LT. | 57 | 6.00 | | | 38.00 | 25.33 | 0.32 |
| 4+50 | 4+94 | HADEN RD. RT. | 45 | 6.00 | | | 30.00 | 20.00 | 0.25 |
| 5+02 | 5+70 | HADEN RD. RT. | 69 | 6.00 | | | 46.00 | 30.67 | 0.39 |
| 5+12 | 5+70 | HADEN RD. LT. | 58 | 6.00 | | | 38.67 | 25.78 | 0.32 |
| 16+85 | 18+25 | HOLMES RD. RT. | 127 | 6.00 | | | 84.67 | 56.44 | 0.71 |
| 16+92 | 18+00 | HOLMES RD. LT. | 118 | 6.00 | | | 78.67 | 52.44 | 0.66 |
| 18+00 | 23+00 | HOLMES RD. LT. | 500 | 7.00 | | | 388.89 | 222.22 | 2.80 |
| 18+25 | 22+50 | HOLMES RD. RT. | 435 | 7.00 | | | 338.33 | 193.33 | 2.44 |
| 264+60 | 266+69 | AIRPORT BLVD. LT. | 218 | 6.00 | | | 145.33 | 96.89 | 1.22 |
| 264+70 | 266+56 | AIRPORT BLVD. RT. | 203 | 6.00 | | | 135.33 | 90.22 | 1.14 |
| 268+91 | 272+50 | AIRPORT BLVD. RT. | 373 | 6.00 | | | 248.67 | 165.78 | 2.09 |
| | | | | | | | | | |
| **TOTALS:** | | | | | | **361.11** | **12423.36** | **7431.52** | **93.61** |

BASIS OF ESTIMATE:
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING.

## PRESPLITTING

| LOCATION | PRESPLITTING |
|---|---|
| | SQ.YD. |
| ENTIRE PROJECT - TO BE USED IF AND WHERE | 26000 |
| DIRECTED BY THE ENGINEER | |
| | |
| **TOTAL:** | **26000** |

NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

## SOIL STABILIZATION

| STATION | STATION | LOCATION / DESCRIPTION | SOIL STABILIZATION |
|---|---|---|---|
| | | | TON |
| ENTIRE | PROJECT | TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER. | 1000 |
| **TOTAL:** | | | **1000** |

QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

## APPROACH GUTTERS AND SLABS

| STATION | STATION | LOCATION | APPROACH GUTTER (TYPE F) | APPROACH SLABS | REINFORCING STEEL-RDWY. (GR. 60) | AGGREGATE BASE CRS. (CLASS 7) |
|---|---|---|---|---|---|---|
| | | | CU.YD. | | POUND | TON |
| 142+39.61 | 142+74.61 | XNA ACCESS RD. LANES - RT. | 8.04 | 73.15 | 9383 | 40.3 |
| 142+72.25 | 143+07.25 | XNA ACCESS RD. LANES - LT. | 8.04 | 73.15 | 9383 | 40.3 |
| 145+32.99 | 145+67.99 | XNA ACCESS RD. LANES - RT. | 8.20 | 73.15 | 9383 | 40.3 |
| 145+63.66 | 145+98.66 | XNA ACCESS RD. LANES - LT. | 8.20 | 73.15 | 9383 | 40.3 |
| 157+48.13 | 157+83.13 | XNA ACCESS RD. LANES - RT. | 7.86 | 71.06 | 8865 | 42.4 |
| 157+95.90 | 158+30.90 | XNA ACCESS RD. LANES - LT. | 7.86 | 71.06 | 8865 | 42.4 |
| 168+09.23 | 168+44.23 | XNA ACCESS RD. LANES - RT. | 7.86 | 71.06 | 8865 | 42.4 |
| 168+49.16 | 168+84.16 | XNA ACCESS RD. LANES - LT. | 7.86 | 71.06 | 8865 | 42.4 |
| 175+27.91 | 175+62.91 | XNA ACCESS RD. LANES - LT. | 7.56 | 74.03 | 9535 | 40.3 |
| 175+78.71 | 176+13.71 | XNA ACCESS RD. LANES - RT. | 7.56 | 74.03 | 9535 | 40.3 |
| 181+55.48 | 181+90.48 | XNA ACCESS RD. LANES - LT. | 7.56 | 74.03 | 9535 | 40.3 |
| 182+06.29 | 182+41.29 | XNA ACCESS RD. LANES - RT. | 7.56 | 74.03 | 9535 | 40.3 |
| 190+62.73 | 190+97.73 | XNA ACCESS RD. LANES - LT. | 7.98 | 74.45 | 9617 | 40.3 |
| 191+17.72 | 191+52.72 | XNA ACCESS RD. LANES - RT. | 7.98 | 74.45 | 9617 | 40.3 |
| 193+26.29 | 193+61.29 | XNA ACCESS RD. LANES - LT. | 7.76 | 74.45 | 9617 | 40.3 |
| 193+81.28 | 194+16.28 | XNA ACCESS RD. LANES - RT. | 7.76 | 74.45 | 9617 | 40.3 |
| 210+18.08 | 210+53.08 | XNA ACCESS RD. LANES - RT. | 7.82 | 82.73 | 10807 | 40.3 |
| 211+10.07 | 211+45.07 | XNA ACCESS RD. LANES - LT. | 7.82 | 91.30 | 11883 | 40.3 |
| 213+81.30 | 214+16.30 | XNA ACCESS RD. LANES - RT. | 7.82 | 82.55 | 10770 | 40.3 |
| 214+63.57 | 214+98.57 | XNA ACCESS RD. LANES - LT. | 7.82 | 91.12 | 11862 | 40.3 |
| 21+99.08 | 22+34.08 | MALONE LN. - LT. | 4.07 | | 205 | |
| 22+02.28 | 22+37.28 | MALONE LN. - RT. | 4.12 | | 207 | |
| 24+52.27 | 24+87.27 | MALONE LN. - LT. | 4.12 | | 205 | |
| 24+55.46 | 24+90.46 | MALONE LN. - RT. | 4.07 | | 207 | |
| | | | | | | |
| **TOTALS:** | | | **173.30** | **1518.46** | **195746** | **814.4** |



dewierciak 10/20/2023 12:52:33 PM
WORKSPACE: AHTD
L:\2017\170176\00 - XNA Access - NEPA\Drawings\r090069_QTY.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 130 | 583 |
| | | QUANTITIES | | | | |

## DRIVEWAYS & TURNOUTS

| STATION | SIDE | LOCATION | WIDTH | ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD. (PG 64-22) | | AGGREGATE BASE COURSE (CLASS 7) | TEMPORARY CULVERTS | SIDE DRAINS | | STANDARD DRAWINGS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 18" | 18" | 30" | |
| | | | FEET | SQ. YD. | TON | TON | LIN. FT. | LIN. FT. | | |
| 3+50 | RT. | WAGER DR. | 16 | 121.55 | 13.37 | 49.63 | | | | DR-2 |
| 1+54 | LT. | HADEN RD | 40 | 202.58 | 22.28 | 82.72 | | | 80 | DR-2, PCC-1, PCM-1, PCP-1, PCP-2, PCP-3 |
| 16+70 | LT. | HOLMES RD. | 16 | 399.87 | 43.99 | 163.28 | | | | DR-2 |
| 17+00 | LT. | MALONE LN. | 24 | 285.13 | 31.36 | 116.43 | | 48 | | DR-2, PCC-1, PCM-1, PCP-1, PCP-2, PCP-3 |
| 17+00 | LT. | MALONE LN. STAGE 1 | 24 | 261.18 | 28.73 | 106.65 | 88 | | | DR-2, PCC-1, PCM-1, PCP-1, PCP-2, PCP-3 |
| | | | | | | | | | | |
| * ENTIRE PROJECT - TEMPORARY DRIVES | | | | 65.00 | 7.15 | 26.54 | | | | |
| | | | | | | | | | | |
| **TOTALS:** | | | | **1335.31** | **146.88** | **545.25** | **88** | **48** | **80** | |

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2")...94.3% MIN. AGGR...5.7% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22

THE CONTRACTOR, WITH THE APPROVAL OF THE ENGINEER, WILL BE ALLOWED TO SUBSTITUTE A HIGHER PERFORMANCE GRADE ASPHALT SURFACE COURSE FOR DRIVEWAYS AND MINOR SIDE STREET CONSTRUCTION AT NO ADDITIONAL COST TO THE DEPARTMENT.

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

## SELECTED PIPE BEDDING

| LOCATION | SELECTED PIPE BEDDING |
|---|---|
| | CU.YD. |
| ENTIRE PROJECT TO BE USED IF | |
| AND WHERE DIRECTED BY THE | 872 |
| ENGINEER | |
| | |
| **TOTAL:** | **872** |

NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

## PAVEMENT REPAIR OVER CULVERTS (CONCRETE)

| STATION | LOCATION | WIDTH | LENGTH | CU.YD. |
|---|---|---|---|---|
| | | FEET | | |
| 0+90 | HADEN RD. | 9.67 | 34 | 9.1 |
| 5+28 | HADEN RD. | 8.50 | 27 | 6.4 |
| 17+06 | HOLMES RD. | 10.83 | 23 | 6.9 |
| 3+90 | WAGER DR. | 9.08 | 27 | 6.8 |
| 6+20 | WAGER DR. | 8.50 | 25 | 5.9 |
| | | | | |
| **TOTAL:** | | | | **35.1** |

AVG. DEPTH = 9"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

## 4" PIPE UNDERDRAIN

| STATION | STATION | LOCATIONS | 4" PIPE UNDERDRAINS | UNDERDRAIN OUTLET PROTECTORS |
|---|---|---|---|---|
| | | | LIN. FT. | EACH |
| * ENTIRE PROJECT TO BE USED IF AND | | | 100 | 5 |
| WHERE DIRECTED BY THE ENGINEER | | | | |
| | | | | |
| **TOTALS:** | | | **100** | **5** |

* NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

## STRUCTURES

| STATION | DESCRIPTION | REINFORCED CONCRETE PIPE CULVERT | | | | | | | | | | | PIPE CULVERT ALTERNATES | | | | | | | | FLARED END SECTIONS FOR R.C. PIPE CULVERTS | | | | | TEMPORARY CULVERTS | DROP INLETS | | | | | SPAN | HEIGHT | LENGTH | CLASS S CONCRETE-ROADWAY | REINF. STEEL-ROADWAY (GRADE 60) | UNCL.EXC. FOR STR.-ROADWAY | SOLID SODDING | WATER | STD. DWG. NOS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | (CLASS III) | | | | | | (CLASS IV) | (CLASS V) | | | | ALT. 1 (CLASS IV) | | | | ALT. 2-6 (WITH CLASS IV ALT. 1) | | | | | | | | | | TYPE | | | | EXT. | | | | | | | | |
| | | 18" | 24" | 30" | 36" | 42" | 48" | 48" | 30" | 36" | 42" | 48" | 24" | 30" | 36" | 48" | 24" | 30" | 36" | 48" | 24" | 30" | 36" | 42" | 48" | 30" | C | MO | RM | ST | 4' | | | | | | | | |
| | | LIN. FT. | | | | | | | | | | | | | | | | | | | EACH | | | | | LIN. FT. | EACH | | | | | LIN. FT. | | | CU.YD. | POUND | CU.YD. | SQ.YD. | M.GAL. | |
| 101+22 | XNA ACCESS RD. RT. | | | 83 | | | | | 338 | | | | | | | | | | | | | 2 | | | | | | | 1 | | | | | | | 31 | 0.39 | FPC-9D, PCC-1, FES-1, FES-2 |
| 102+00 | XNA ACCESS RD. RT. | | 86 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 13 | 0.16 | FPC-9D, PCC-1, FES-1, FES-2 |
| 105+97 | XNA ACCESS RD. LT. | | | | 28 | | | | | 390 | | | | | | | | | | | | | 2 | | | | | | 1 | | | | | | | 39 | 0.49 | FPC-9D, PCC-1, FES-1, FES-2 |
| 107+75 | XNA ACCESS RD. RT. | | 87 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 13 | 0.16 | FPC-9D, PCC-1, FES-1, FES-2 |
| 112+27 | XNA ACCESS RD. LT. | | | | 35 | | | | | 366 | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | | 22 | 0.28 | FPC-9D, PCC-1, FES-1, FES-2 |
| 112+98 | XNA ACCESS RD. RT. | | | | 93 | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | 5 | 0.06 | FPC-9D, PCC-1, FES-1, FES-2 |
| 113+15 | XNA ACCESS RD. RT. | | | | 60 | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | | 22 | 0.28 | FPC-9D, PCC-1, FES-1, FES-2 |
| 115+40 | XNA ACCESS RD. RT. | | 91 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 13 | 0.16 | FPC-9D, PCC-1, FES-1, FES-2 |
| 119+00 | XNA ACCESS RD. LT. | | | | | 34 | | | | | 420 | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | | 28 | 0.35 | FPC-9D, PCC-1, FES-1, FES-2 |
| 123+20 233' LT. | XNA ACCESS RD. LT. | | | | | 33 | | | | | 118 | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | | 28 | 0.35 | FPC-9D, PCC-1, FES-1, FES-2 |
| 123+20 110' LT. | XNA ACCESS RD. LT. | | | | | | | | | | | 499 | | | | | | | | | | | | | | | | | | 1 | | | | | | | 5 | 0.06 | FPC-9S, PCC-1, FES-1, FES-2 |
| 127+00 | XNA ACCESS RD. MEDIAN | | 87 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 13 | 0.16 | FPC-9D, PCC-1, FES-1, FES-2 |
| 127+57 | XNA ACCESS RD. RT. | | | | | | | | | | | 277 | | | | | | | | | | | | | | | | | | 1 | | | | | | | 5 | 0.06 | FPC-9S, PCC-1, FES-1, FES-2 |
| 129+99 | XNA ACCESS RD. RT. | | | | | | | 69 | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | | | | | 5 | 0.06 | FPC-9D, PCC-1, FES-1, FES-2 |
| 134+00 | XNA ACCESS RD. MEDIAN | | 90 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 13 | 0.16 | FPC-9D, PCC-1, FES-1, FES-2 |
| 142+00 | XNA ACCESS RD. LT. | | 106 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 13 | 0.16 | FPC-9D, PCC-1, FES-1, FES-2 |
| 146+40 | XNA ACCESS RD. MEDIAN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 | 5 | 328 | 246.67 | 42839 | 316 | 352 | 4.44 | RCB-1, RCB-2, SPECIAL DETAILS |
| 152+00 | XNA ACCESS RD. LT. | | 115 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 13 | 0.16 | FPC-9D, PCC-1, FES-1, FES-2 |
| 154+60 | XNA ACCESS RD. MEDIAN | | | | | | | | | | 423 | | | | | | | | | | | | | 2 | | | | | | | | | | | | | 46 | 0.58 | PCC-1 |
| 158+00 | XNA ACCESS RD. LT. | | 121 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 13 | 0.16 | FPC-9D, PCC-1, FES-1, FES-2 |
| 172+45 | XNA ACCESS RD. LT. | | | 167 | | | | | | | | | | | | | | | | | | 2 | | | | | | | 1 | | | | | | | 31 | 0.39 | FPC-9D, PCC-1, FES-1, FES-2 |
| 173+70 | XNA ACCESS RD. LT. | 121 | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | 5 | 0.06 | FPC-9D, PCC-1, FES-1, FES-2 |
| 182+00 | XNA ACCESS RD. RT. | | 155 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 13 | 0.16 | FPC-9D, PCC-1, FES-1, FES-2 |
| 194+00 | XNA ACCESS RD. RT. | | 100 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 13 | 0.16 | FPC-9D, PCC-1, FES-1, FES-2 |
| 205+25 | XNA ACCESS RD. MEDIAN | | 85 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 13 | 0.16 | FPC-9D, PCC-1, FES-1, FES-2 |
| 206+98 | XNA ACCESS RD. LT. | | | | | 47 | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | | 28 | 0.35 | FPC-9D, PCC-1, FES-1, FES-2 |
| 207+96 | XNA ACCESS RD. RT. | | | | | 36 | | | | | 468 | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | | 28 | 0.35 | FPC-9D, PCC-1, FES-1, FES-2 |
| 215+00 | XNA ACCESS RD. MEDIAN | | 138 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 13 | 0.16 | FPC-9D, PCC-1, FES-1, FES-2 |
| 217+21 | XNA ACCESS RD. MEDIAN | 217 | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | 5 | 0.06 | FPC-9D, PCC-1, FES-1, FES-2 |
| 218+44 | XNA ACCESS RD. RT. | | | | | | 49 | | | | | 500 | | | | | | | | | | | | | 2 | | | | 1 | | | | | | | 63 | 0.79 | FPC-9D, PCC-1, FES-1, FES-2 |
| 221+80 | XNA ACCESS RD. LT. | | 85 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 13 | 0.16 | FPC-9D, PCC-1, FES-1, FES-2 |
| 235+00 | XNA ACCESS RD. LT. | | 95 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 13 | 0.16 | FPC-9D, PCC-1, FES-1, FES-2 |
| 238+00 | XNA ACCESS RD. LT. | | 91 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 13 | 0.16 | FPC-9D, PCC-1, FES-1, FES-2 |
| 240+00 | XNA ACCESS RD. LT. | | 98 | | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 13 | 0.16 | FPC-9D, PCC-1, FES-1, FES-2 |
| 241+08 | XNA ACCESS RD. LT. | | | 78 | | | | | | | | | | | | | | | | | | 2 | | | | | | | 2 | | | | | | | 26 | 0.33 | FPC-9D, FES-1, FES-3 |
| 241+84 | XNA ACCESS RD. LT. | | | | | | | 199 | | | | | | | | | | | | | | | | | 2 | | | | 1 | | | | | | | 63 | 0.79 | FPC-9D, PCC-1, FES-1, FES-2 |
| 254+67 | HWY. 264 RAMP 4 - C.D. | | | | | | | | | | 167 | | | | | | | | | | | | | 2 | | | | | | | | | | | | | 46 | 0.58 | PCC-1, FES-1, FES-2 |
| 3+90 | WAGER DR. - C.D. | | | | | | | | | | | | | 67 | | | | 67 | | | | | | | | | | | | | | | | | | | | | PCC-1, PCM-1, PCP-1, PCP-3 |
| 6+20 | WAGER DR. - C.D. | | | | | | | | | | | | 60 | | | | 60 | | | | | | | | | | | | | | | | | | | | | PCC-1, PCM-1, PCP-1, PCP-2 |
| 0+90 | HADEN RD. - C.D. | | | | | | | | | | | | | | 89 | | | | 89 | | | | | | | | | | | | | | | | | | | PCC-1, PCM-1, PCP-1, PCP-1 |
| 5+28 | HADEN RD. - C.D. | | | | | | | | | | | | 76 | | | | 76 | | | | | | | | | | | | | | | | | | | | | PCC-1, PCM-1, PCP-1, PCP-1 |
| 17+06 | HOLMES RD. - C.D. | | | | | | | | | | | | | | | 60 | | | | 60 | | | | | | | | | | | | | | | | | | PCC-1, PCM-1, PCP-1, PCP-2 |
| 267+73 | AIRPORT BLVD. - C.D. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 | 6 | 240 | 186.65 | 26036 | 57 | 256 | 3.23 | RCB-1, RCB-2, SPECIAL DETAILS |
| 272+25 | AIRPORT BLVD. MEDIAN | | 54 | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 1 | | 1 | | | | | | | 42 | 0.53 | FPC-9M, PCC-1, FES-1, FES-2 |
| 53+54 | MALONE LN. DETOUR | | | | | | | | | | | | | | | | | | | | | | | | | 84 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **TOTALS:** | | **338** | **1684** | **328** | **216** | **150** | **49** | **268** | **338** | **756** | **1596** | **1276** | **136** | **67** | **89** | **60** | **136** | **67** | **89** | **60** | **17** | **6** | **4** | **8** | **5** | **84** | **1** | **1** | **33** | **2** | **1** | | | | **433.32** | **68875** | **373** | **1389** | **17.42** | |

BASIS OF ESTIMATE:
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING

NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.

NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.



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WORKSPACE: AHTD
L:\20IT\170I7600 - XNA Access - NEPA\Drawings\r090069_QTY.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 131 | 583 |
| | | QUANTITIES | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

## GUARDRAIL

| STATION | STATION | LOCATION | GUARDRAIL (TYPE A) | THRIE BEAM GUARDRAIL TERMINAL | GUARDRAIL TERMINAL (TYPE 2) | TERMINAL ANCHOR POST (TYPE 1) |
|---|---|---|---|---|---|---|
| | | | LIN. FT. | EACH | | |
| 120+19.61 | 123+94.61 | XNA ACCESS RD. LT. LANES INSIDE | 300 | | 1 | 1 |
| 140+02.88 | 142+71.63 | XNA ACCESS RD. RT. LANES INSIDE | 200 | 1 | 1 | |
| 140+34.10 | 142+52.85 | XNA ACCESS RD. RT. LANES OUTSIDE | 150 | 1 | 1 | |
| 141+35.55 | 143+04.30 | XNA ACCESS RD. LT. LANES OUTSIDE | 125 | 1 | | 1 |
| 145+52.65 | 147+21.40 | XNA ACCESS RD. RT. LANES INSIDE | 125 | 1 | | 1 |
| 145+64.63 | 148+33.38 | XNA ACCESS RD. LT. LANES INSIDE | 200 | 1 | 1 | |
| 145+83.16 | 148+01.91 | XNA ACCESS RD. LT. LANES OUTSIDE | 150 | 1 | 1 | |
| 154+99.95 | 157+68.70 | XNA ACCESS RD. RT. LANES INSIDE | 200 | 1 | 1 | |
| 155+49.89 | 157+68.64 | XNA ACCESS RD. RT. LANES OUTSIDE | 150 | 1 | 1 | |
| 168+63.47 | 170+82.22 | XNA ACCESS RD. LT. LANES OUTSIDE | 150 | 1 | 1 | |
| 168+63.53 | 171+32.28 | XNA ACCESS RD. LT. LANES INSIDE | 200 | 1 | 1 | |
| 173+15.21 | 175+83.96 | XNA ACCESS RD. RT. LANES INSIDE | 200 | 1 | 1 | |
| 173+88.26 | 176+07.01 | XNA ACCESS RD. RT. LANES OUTSIDE | 150 | 1 | 1 | |
| 181+62.18 | 183+80.93 | XNA ACCESS RD. LT. LANES OUTSIDE | 150 | 1 | 1 | |
| 181+85.24 | 184+53.99 | XNA ACCESS RD. LT. LANES INSIDE | 200 | 1 | 1 | |
| 188+61.25 | 191+30.00 | XNA ACCESS RD. RT. LANES INSIDE | 200 | 1 | 1 | |
| 189+36.25 | 191+55.00 | XNA ACCESS RD. RT. LANES OUTSIDE | 150 | 1 | 1 | |
| 193+27.01 | 195+45.76 | XNA ACCESS RD. LT. LANES OUTSIDE | 150 | 1 | 1 | |
| 193+52.01 | 196+20.76 | XNA ACCESS RD. LT. LANES INSIDE | 200 | 1 | 1 | |
| 207+90.33 | 210+59.08 | XNA ACCESS RD. RT. LANES INSIDE | 200 | 1 | 1 | |
| 207+97.38 | 210+16.13 | XNA ACCESS RD. RT. LANES OUTSIDE | 150 | 1 | 1 | |
| 214+55.53 | 216+74.28 | XNA ACCESS RD. LT. LANES INSIDE | 200 | 1 | 1 | |
| 215+35.72 | 219+54.47 | XNA ACCESS RD. LT. LANES OUTSIDE | 350 | 1 | 1 | |
| 228+95.65 | 233+92.82 | XNA ACCESS RD. RT. LANES INSIDE | 425 | | 1 | 1 |
| 231+75.47 | 236+75.41 | XNA ACCESS RD. LT. LANES INSIDE | 425 | | 1 | 1 |
| 20+08.38 | 22+27.13 | MALONE LN. RT. | 150 | 1 | 1 | |
| 20+79.70 | 22+23.45 | MALONE LN. LT. | 75 | 1 | 1 | |
| 24+62.41 | 26+81.16 | MALONE LN. LT. | 150 | 1 | 1 | |
| 24+66.10 | 26+09.85 | MALONE LN. RT. | 75 | 1 | 1 | |
| | | | | | | |
| **TOTALS:** | | | **5550** | **26** | **27** | **5** |

## WIRE ROPE SAFETY FENCE

| STATION | STATION | LOCATION | WIRE ROPE SAFETY FENCE | **WRSF ANCHORS | CONCRETE DITCH PAVING (TYPE B) | | | SOLID SODDING | WATER |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | LENGTH | AVG. WID. | | | |
| | | | LIN. FT. | EACH | LIN. FT. | LIN. FT. | SQ. YD. | SQ. YD. | M. GAL |
| 100+00.00 | 140+66.00 | XNA ACCESS RD. MEDIAN | 4066 | 1 | 4066 | 4.0 | 1807 | 1807 | 22.77 |
| 147+65.00 | 155+91.00 | XNA ACCESS RD. MEDIAN | 826 | 2 | 826 | 4.0 | 367 | 367 | 4.62 |
| 170+41.00 | 173+89.00 | XNA ACCESS RD. MEDIAN | 348 | 2 | 348 | 4.0 | 155 | 155 | 1.95 |
| 183+60.00 | 189+42.00 | XNA ACCESS RD. MEDIAN | 582 | 2 | 582 | 4.0 | 259 | 259 | 3.26 |
| 195+17.00 | 208+73.00 | XNA ACCESS RD. MEDIAN | 1356 | 2 | 1356 | 4.0 | 603 | 603 | 7.60 |
| 215+13.00 | 242+20.00 | XNA ACCESS RD. MEDIAN | 2707 | 2 | 2707 | 4.0 | 1203 | 1203 | 15.16 |
| | | | | | | | | | |
| **TOTALS:** | | | **9885** | **11** | | | **4394** | **4394** | **55.36** |

BASIS OF ESTIMATE:
WATER.....12.6 GAL/SQ. YD. OF SOLID SODDING
** FOR INFORMATION ONLY.

## FENCING

| STATION | STATION | LOCATION | WIRE FENCE (TYPE A) | * 16'-0" GATES |
|---|---|---|---|---|
| | | | LIN. FT. | EACH |
| 100+37 | 143+04 | XNA ACCESS RD. LT. | 4712 | 1 |
| 103+18 | 142+52 | XNA ACCESS RD. RT. | 4520 | |
| 145+35 | 146+80 | XNA ACCESS RD. RT. | 503 | 1 |
| 145+84 | 145+86 | XNA ACCESS RD. LT. | 88 | |
| 146+11 | 158+18 | XNA ACCESS RD. LT. | 1760 | 1 |
| 147+05 | 157+70 | XNA ACCESS RD. RT. | 1288 | 1 |
| 168+22 | 176+06 | XNA ACCESS RD. RT. | 1120 | 1 |
| 168+62 | 175+33 | XNA ACCESS RD. LT. | 1033 | 1 |
| 181+63 | 190+74 | XNA ACCESS RD. LT. | 1555 | 1 |
| 182+37 | 191+54 | XNA ACCESS RD. RT. | 1555 | 1 |
| 193+25 | 211+52 | XNA ACCESS RD. LT. | 2752 | 1 |
| 194+05 | 210+16 | XNA ACCESS RD. RT. | 1917 | 1 |
| 213+76 | 231+93 | XNA ACCESS RD. RT. | 1928 | 1 |
| 215+01 | 215+01 | XNA ACCESS RD. LT. | 90 | |
| 217+10 | 232+40 | XNA ACCESS RD. LT. | 1632 | |
| 233+36 | 251+00 | XNA ACCESS RD. RT. | 1869 | |
| 233+74 | 251+00 | XNA ACCESS RD. LT. | 1820 | |
| 251+00 | 271+72 | HWY. 264 RAMP 1 RT. | 2349 | |
| 251+00 | 260+00 | HWY. 264 RAMP 4 LT. | 771 | |
| 260+00 | 268+13 | AIRPORT BLVD. LT. | 862 | |
| 268+41 | 277+45 | AIRPORT BLVD. LT. | 1026 | 1 |
| 42+55 | 47+49 | HWY. 264 RT. | 501 | |
| | | | | |
| **TOTALS:** | | | **35651** | **12** |

* DENOTES ALTERNATE BID ITEM.

## PERMANENT EROSION CONTROL

| STATION | STATION | LOCATION | SEEDING | LIME | MULCH COVER | WATER | SECOND SEEDING APPLICATION | SOLID SODDING | SEDIMENT BASIN | ROCK FILTER FOR SEDIMENT BASIN | DUMPED RIPRAP | GEOTEXTILE FABRIC (TYPE 5) | SEDIMENT BASIN | ROCK FILTER FOR SEDIMENT BASIN | PIPE CULVERT FOR SEDIMENT BASIN | GEOTEXTILE FABRIC (TYPE 5) | DUMPED RIPRAP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | SEDIMENT BASIN WITH RIPRAP OUTLET (E-9) | | | | SEDIMENT BASIN WITH PIPE OUTLET (E-10) | | | | |
| | | | ACRE | TON | ACRE | M.GAL. | ACRE | SQ.YD. | CU.YD. | TON | CU. YD. | SQ. YD. | CU.YD. | TON | LIN. FT. | SQ. YD. | CU. YD. |
| ENTIRE | PROJECT | CLEARING AND GRUBBING | | | | | | | | | | | | | | | |
| ENTIRE | PROJECT | STAGE 1 | | | | | | | | | | | | | | | |
| ENTIRE | PROJECT | STAGE 2 | | | | | | | 7895 | 124 | 829 | 1195 | 5074 | 131 | 45 | 357 | 203 |
| ENTIRE | PROJECT | STAGE 3 | | | | | | | 1173 | 20 | 136 | 192 | 3240 | 19 | 5 | 373 | 51 |
| | | | | | | | | | | | | | | | | | |
| *ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER. | | | 121.63 | 243.26 | 121.63 | 12421.7 | 121.63 | 1223 | 907 | 15 | 97 | 139 | 832 | 15 | 5 | 74 | 26 |
| | | | | | | | | | | | | | | | | | |
| **TOTALS:** | | | **121.63** | **243.26** | **121.63** | **12421.7** | **121.63** | **1223** | **9975** | **159** | **1062** | **1526** | **9146** | **165** | **55** | **804** | **280** |

BASIS OF ESTIMATE:
LIME .....2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING

*QUANTITIES ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

## TEMPORARY EROSION CONTROL

| STATION | STATION | LOCATION | TEMPORARY SEEDING | MULCH COVER | WATER | SAND BAG DITCH CHECKS | ROCK DITCH CHECKS | DROP INLET SILT FENCE | SILT FENCE | DIVERSION DITCH | PIPE FOR SLOPE DRAINS | DUMPED RIPRAP | FILTER SOCK | SEDIMENT BASIN | OBLITERATION OF SEDIMENT BASIN | *SEDIMENT REMOVAL & DISPOSAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | (E-5) | (E-6) | (E-7) | (E-11) | (E-8) | (E-12) | (E-9) | (E-13) | (E-14) | | |
| | | | ACRE | ACRE | M.GAL. | BAG | CU.YD. | LIN. FT. | LIN. FT. | LIN. FT. | LIN. FT. | CU.YD. | LIN. FT. | CU.YD. | CU.YD. | CU. YD. |
| ENTIRE | PROJECT | CLEARING AND GRUBBING | | | | 22 | 3 | | 35244 | | | | | 32728 | 32728 | 34035 |
| ENTIRE | PROJECT | STAGE 1 | 3.83 | 3.83 | 78.1 | 264 | 36 | | 424 | | | | | | | 40 |
| ENTIRE | PROJECT | STAGE 2 | 109.32 | 109.32 | 2230.1 | 9680 | 144 | 340 | 3132 | 4393 | 1319 | 24 | | | | 617 |
| ENTIRE | PROJECT | STAGE 3 | 12.31 | 12.31 | 251.1 | 440 | 45 | 80 | | | | | | | | 38 |
| | | | | | | | | | | | | | | | | |
| *ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER. | | | | | | 1041 | 23 | 40 | 3880 | 440 | 132 | 3 | 1000 | 3273 | 3273 | 3473 |
| | | | | | | | | | | | | | | | | |
| **TOTALS:** | | | **125.46** | **125.46** | **2559.3** | **11447** | **251** | **460** | **42680** | **4833** | **1451** | **27** | **1000** | **36001** | **36001** | **38203** |

BASIS OF ESTIMATE:
WATER.....20.4 M.G. / ACRE OF TEMPORARY SEEDING
SAND BAG DITCH CHECKS.....22 BAGS / LOCATION
ROCK DITCH CHECKS.....3 CU.YD./LOCATION
DROP INLET SILT FENCE.....20 LIN.FT./LOCATION

NOTE: THE TEMPORARY EROSION CONTROL DEVICES SHOWN ABOVE AND ON THE PLANS SHALL BE INSTALLED IN SUCH A SEQUENCE AS TO DETER EROSION AND SEDIMENTATION ON U.S. WATERWAYS AS EXPLAINED BY THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT.

*QUANTITIES ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

QUANTITIES

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 132 | 583 |
| | | QUANTITIES | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

## EROSION CONTROL MATTING

| STATION | STATION | LOCATION | LENGTH | CLASS 3 |
|---|---|---|---|---|
| | | | LIN. FT. | SQ. YD. |
| 102+45.00 | 103+80.00 | XNA ACCESS RD. LT. | 135.00 | 120.00 |
| 103+15.00 | 105+28.00 | XNA ACCESS RD. RT. | 213.00 | 189.33 |
| 107+85.00 | 108+50.00 | XNA ACCESS RD. LT. | 65.00 | 57.78 |
| 114+05.00 | 115+00.00 | XNA ACCESS RD. LT. | 95.00 | 84.44 |
| 115+05.00 | 117+00.00 | XNA ACCESS RD. RT. | 195.00 | 173.33 |
| 127+10.00 | 128+50.00 | XNA ACCESS RD. LT. | 140.00 | 124.44 |
| 134+10.00 | 135+50.00 | XNA ACCESS RD. RT. | 140.00 | 124.44 |
| 149+07.00 | 151+00.00 | XNA ACCESS RD. RT. | 193.00 | 171.56 |
| 170+00.00 | 172+00.00 | XNA ACCESS RD. LT. | 200.00 | 177.78 |
| 171+00.00 | 172+00.00 | XNA ACCESS RD. RT. | 100.00 | 88.89 |
| 173+00.00 | 173+75.00 | XNA ACCESS RD. RT. | 75.00 | 66.67 |
| 184+00.00 | 190+70.00 | XNA ACCESS RD. LT. | 670.00 | 595.56 |
| 204+50.00 | 205+55.00 | XNA ACCESS RD. RT. | 105.00 | 93.33 |
| 222+00.00 | 239+17.00 | XNA ACCESS RD. RT. | 1717.00 | 1526.22 |
| 231+85.00 | 238+00.00 | XNA ACCESS RD. LT. | 615.00 | 546.67 |
| 242+60.00 | 251+46.00 | XNA ACCESS RD. LT. | 886.00 | 787.56 |
| 250+88.55 | 253+15.00 | HWY. 264 R4 RT. | 226.45 | 201.29 |
| 255+50.00 | 260+00.00 | HWY. 264 R4 LT. | 450.00 | 400.00 |
| 256+25.00 | 260+00.00 | HWY. 264 R4 RT. | 375.00 | 333.33 |
| 03+65.00 | 05+54.00 | WAGER DR. LT. | 189.00 | 168.00 |
| 13+75.00 | 16+85.00 | HOLMES RD. RT. | 310.00 | 275.56 |
| 13+75.00 | 22+69.00 | MALONE LN. LT. | 894.00 | 794.67 |
| 13+75.00 | 16+75.00 | MALONE LN. RT. | 300.00 | 266.67 |
| 17+24.00 | 22+34.00 | MALONE LN. RT. | 510.00 | 453.33 |
| 24+25.00 | 32+25.00 | MALONE LN. RT. | 800.00 | 711.11 |
| 24+55.00 | 32+25.00 | MALONE LN. LT. | 770.00 | 684.44 |
| 260+02.00 | 264+60.00 | AIRPORT BLVD. LT. | 458.00 | 407.11 |
| 260+02.00 | 264+70.00 | AIRPORT BLVD. RT. | 468.00 | 416.00 |
| 272+50.00 | 277+38.00 | AIRPORT BLVD. RT. | 488.00 | 433.78 |
| 244+10.00 | 250+89.40 | N.B. CROSSOVER RT. | 679.40 | 603.91 |
| 54+20.00 | 65+00.00 | MALONE DETOUR LT. | 1080.00 | 960.00 |
| 54+15.00 | 61+45.00 | MALONE DETOUR RT. | 730.00 | 648.89 |
| 44+70.00 | 46+77.00 | MALONE DETOUR RT. | 207.00 | 184.00 |
| 47+25.00 | 51+90.00 | MALONE DETOUR RT. | 465.00 | 413.33 |
| 40+77.00 | 46+87.00 | MALONE DETOUR LT. | 610.00 | 542.22 |
| 47+25.00 | 52+75.00 | MALONE DETOUR LT. | 550.00 | 488.89 |
| | | | | |
| TOTAL: | | | | 14314.53 |

NOTE: AVERAGE WIDTH = 8'-0"

## CONCRETE ISLAND

| STATION | LOCATION | CURB FACE TYPE | CONCRETE ISLAND |
|---|---|---|---|
| | | | SQ.YD. |
| 276+45 | AIRPORT BLVD. ISLAND RT. | TYPE C | 226 |
| 277+71 | AIRPORT BLVD. ISLAND RT. | TYPE C | 124 |
| 277+94 | AIRPORT BLVD. ISLAND LT. | TYPE C | 164 |
| | | | |
| TOTAL: | | | 513 |

## CONCRETE COMBINATION CURB AND GUTTER

| STATION | STATION | LOCATION | TYPE A (1' 6") |
|---|---|---|---|
| | | | LIN. FT. |
| 278+00 | 279+46 | AIRPORT BLVD. MEDIAN | 284 |
| 272+07 | 276+93 | AIRPORT BLVD. MEDIAN | 987 |
| | | | |
| TOTAL: | | | 1271 |

## MAILBOXES

| LOCATION | MAILBOXES | MAILBOX SUPPORTS (SINGLE) |
|---|---|---|
| | EACH | |
| STA. 16+75 - HOLMES RD. LT. | 1 | 1 |
| | | |
| TOTALS: | 1 | 1 |

## BENCH MARKS

| STATION | LOCATION | BENCH MARKS |
|---|---|---|
| | | EACH |
| 142+75 | BEGIN BRIDGE OVER WAGER DR. - C.L. BRIDGE | 1 |
| 157+83 | BEGIN BRIDGE OVER OSAGE CREEK - C.L. BRIDGE | 1 |
| 175+63 | BEGIN BRIDGE OVER LITTLE OSAGE CREEK - C.L. BRIDGE | 1 |
| 190+98 | BEGIN BRIDGE OVER HADEN RD. - C.L. BRIDGE | 1 |
| 210+53 | BEGIN BRIDGE OVER HOLMES RD. - C.L. BRIDGE | 1 |
| 22+36 | BEGIN BRIDGE OVER XNA ACCESS RD. - C.L. BRIDGE | 1 |
| | | |
| TOTAL: | | 6 |

NOTE: SHOWN FOR INFORMATION ONLY. BENCH MARKS SHALL BE FURNISHED AND PLACED BY STATE FORCES.

## RUMBLE STRIPS IN ASPHALT SHOULDERS

| STATION | STATION | LOCATION | * RUMBLE STRIPS IN ASPHALT SHOULDERS |
|---|---|---|---|
| | | | LIN.FT. |
| 100+00 | 142+48 | XNA ACCESS RD. RT. LANES INSIDE | 4248 |
| 100+00 | 142+64 | XNA ACCESS RD. LT. LANES INSIDE | 4264 |
| 145+77 | 157+48 | XNA ACCESS RD. RT. LANES INSIDE | 1171 |
| 145+90 | 157+96 | XNA ACCESS RD. LT. LANES INSIDE | 1206 |
| 168+44 | 175+68 | XNA ACCESS RD. RT. LANES INSIDE | 724 |
| 168+84 | 175+38 | XNA ACCESS RD. LT. LANES INSIDE | 654 |
| 182+31 | 191+06 | XNA ACCESS RD. RT. LANES INSIDE | 876 |
| 182+01 | 190+74 | XNA ACCESS RD. LT. LANES INSIDE | 873 |
| 194+05 | 210+37 | XNA ACCESS RD. RT. LANES INSIDE | 1632 |
| 193+73 | 210+89 | XNA ACCESS RD. LT. LANES INSIDE | 1717 |
| 214+36 | 245+31 | XNA ACCESS RD. RT. LANES INSIDE | 3095 |
| 214+77 | 245+31 | XNA ACCESS RD. LT. LANES INSIDE | 3053 |
| | | | |
| TOTAL: | | | 23513 |

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

## RUMBLE STRIPS IN ASPHALT SHOULDERS (ALTERNATE 1)

| STATION | STATION | LOCATION | * RUMBLE STRIPS IN ASPHALT SHOULDERS |
|---|---|---|---|
| | | | LIN.FT. |
| 100+00 | 142+31 | XNA ACCESS RD. RT. LANES OUTSIDE | 4231 |
| 100+00 | 142+81 | XNA ACCESS RD. LT. LANES OUTSIDE | 4281 |
| 145+60 | 157+48 | XNA ACCESS RD. RT. LANES OUTSIDE | 1188 |
| 146+07 | 157+96 | XNA ACCESS RD. LT. LANES OUTSIDE | 1189 |
| 168+44 | 175+89 | XNA ACCESS RD. RT. LANES OUTSIDE | 745 |
| 168+84 | 175+18 | XNA ACCESS RD. LT. LANES OUTSIDE | 634 |
| 182+52 | 191+29 | XNA ACCESS RD. RT. LANES OUTSIDE | 877 |
| 181+80 | 190+51 | XNA ACCESS RD. LT. LANES OUTSIDE | 871 |
| 194+28 | 209+98 | XNA ACCESS RD. RT. LANES OUTSIDE | 1570 |
| 193+50 | 211+31 | XNA ACCESS RD. LT. LANES OUTSIDE | 1781 |
| 213+98 | 238+26 | XNA ACCESS RD. RT. LANES OUTSIDE | 2429 |
| 215+18 | 250+07 | XNA ACCESS RD. LT. LANES OUTSIDE | 3489 |
| 238+24 | 250+89 | NB. CROSSOVER LANE RT. | 1265 |
| 250+89 | 260+00 | HWY. 264 R4 LANE RT. | 911 |
| 250+89 | 260+00 | HWY. 264 R4 LANE LT. | 911 |
| 260+00 | 277+38 | AIRPORT BLVD. LANE RT. | 1738 |
| 260+00 | 277+38 | AIRPORT BLVD. LANE LT. | 1738 |
| | | | |
| TOTAL: | | | 29848 |

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

## RUMBLE STRIPS IN PORTLAND CEMENT CONCRETE SHOULDERS (ALTERNATE 2)

| STATION | STATION | LOCATION | * RUMBLE STRIPS IN PORTLAND CEMENT CONCRETE SHOULDERS |
|---|---|---|---|
| | | | LIN.FT. |
| 100+00 | 142+31 | XNA ACCESS RD. RT. LANES OUTSIDE | 4231 |
| 100+00 | 142+81 | XNA ACCESS RD. LT. LANES OUTSIDE | 4281 |
| 145+60 | 157+48 | XNA ACCESS RD. RT. LANES OUTSIDE | 1188 |
| 146+07 | 157+96 | XNA ACCESS RD. LT. LANES OUTSIDE | 1189 |
| 168+44 | 175+89 | XNA ACCESS RD. RT. LANES OUTSIDE | 745 |
| 168+84 | 175+18 | XNA ACCESS RD. LT. LANES OUTSIDE | 634 |
| 182+52 | 191+29 | XNA ACCESS RD. RT. LANES OUTSIDE | 877 |
| 181+80 | 190+51 | XNA ACCESS RD. LT. LANES OUTSIDE | 871 |
| 194+28 | 209+98 | XNA ACCESS RD. RT. LANES OUTSIDE | 1570 |
| 193+50 | 211+31 | XNA ACCESS RD. LT. LANES OUTSIDE | 1781 |
| 213+98 | 238+26 | XNA ACCESS RD. RT. LANES OUTSIDE | 2429 |
| 215+18 | 250+07 | XNA ACCESS RD. LT. LANES OUTSIDE | 3489 |
| 238+24 | 250+89 | NB. CROSSOVER LANE RT. | 1265 |
| 250+89 | 260+00 | HWY. 264 R4 LANE RT. | 911 |
| 250+89 | 260+00 | HWY. 264 R4 LANE LT. | 911 |
| 260+00 | 277+38 | AIRPORT BLVD. LANE RT. | 1738 |
| 260+00 | 277+38 | AIRPORT BLVD. LANE LT. | 1738 |
| | | | |
| TOTAL: | | | 29848 |

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

## RETAINING WALLS

| STATION | STATION | LOCATION | UNCLASSIFIED EXCAVATION | CONCRETE DITCH PAVING (TYPE B) | SELECT GRANULAR BACKFILL | AGGREGATE BASE COURSE (CLASS 7) | RETAINING WALL | TEXTURED COATING FINISH |
|---|---|---|---|---|---|---|---|---|
| | | | CU. YDS. | SQ. YD. | CU. YDS. | TON | SQ. FT. | SQ. YD. |
| 217+10 | 214+90 | XNA ACCESS (RETAINING WALL NO. 1) | 537 | 121 | 1004 | 491 | 2948 | |
| 22+09 | 22+04 | MALONE LN. (RETAINING WALL NO. 2) | 491 | 77 | 2509 | | 3900 | 3 |
| 24+78 | 24+90 | MALONE LN. (RETAINING WALL NO. 3) | 622 | 75 | 2046 | | 3391 | 3 |
| | | | | | | | | |
| TOTALS: | | | 1650 | 273 | 5559 | 491 | 10239 | 6 |

## DUMPED RIPRAP AND FILTER BLANKET

| STATION | LOCATION | DUMPED RIPRAP | FILTER BLANKET |
|---|---|---|---|
| | | CU. YD. | SQ. YD. |
| 101+22 | CD - XNA ACCESS RD. | 8 | 12 |
| 106+95 | CD - XNA ACCESS RD. | 17 | 23 |
| 112+64 | CD - XNA ACCESS RD. | 19 | 23 |
| 125+10 | CD - XNA ACCESS RD. | 82 | 62 |
| 146+40 | CD - XNA ACCESS RD. | 197 | 126 |
| 154+60 | CD - XNA ACCESS RD. | 23 | 32 |
| 172+45 | CD - XNA ACCESS RD. | 8 | 12 |
| 207+52 | CD - XNA ACCESS RD. | 24 | 32 |
| 216+86 | CD - XNA ACCESS RD. | 35 | 41 |
| 241+88 | CD - XNA ACCESS RD. | 52 | 53 |
| 254+67 | CD - HWY. 264 RAMP 4 | 29 | 32 |
| 267+73 | CD - AIRPORT BLVD. ( RIPRAP BASIN) | 1898 | 1478 |
| 0+90 | CD - HADEN RD. | 12 | 17 |
| 5+20 | CD - HADEN RD. | 5 | 8 |
| 16+98 | CD - HOLMES RD. | 23 | 31 |
| 6+20 | CD - WAGER DR. | 7 | 10 |
| 182+00 | MD - XNA ACCESS RD. | 5 | 8 |
| | | | |
| | TO BE USED IF AND WHERE | 500 | 500 |
| | DIRECTED BY THE ENGINEER | | |
| | | | |
| TOTALS: | | 2944 | 2500 |

*NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS

NOTE: FILTER BLANKET SHALL BE GEOTEXTILE FABRIC (TYPE 5).

## DETENTION POND CLAY LINER

| STATION | LOCATION | DETENTION POND CLAY LINER | AGGREGATE BASE COURSE (CLASS 7) |
|---|---|---|---|
| | | SQ. YD. | TONS |
| 100+00 | XNA ACCESS RD. LT. | 164 | 172 |
| 101+10 | XNA ACCESS RD. LT. | 308 | 323 |
| 102+30 | XNA ACCESS RD. RT. | 306 | 321 |
| 105+95 | XNA ACCESS RD. LT. | 298 | 313 |
| 110+45 | XNA ACCESS RD. RT. | 136 | 143 |
| 112+35 | XNA ACCESS RD. LT. | 201 | 211 |
| 113+15 | XNA ACCESS RD. RT. | 384 | 403 |
| 119+15 | XNA ACCESS RD. LT. | 155 | 163 |
| 123+15 | XNA ACCESS RD. LT. | 358 | 376 |
| 129+75 | XNA ACCESS RD. RT. | 712 | 748 |
| 145+95 | XNA ACCESS RD. RT. | 454 | 477 |
| 152+50 | XNA ACCESS RD. LT. | 153 | 161 |
| 155+50 | XNA ACCESS RD. RT. | 150 | 158 |
| 158+45 | XNA ACCESS RD. LT. | 150 | 158 |
| 174+80 | XNA ACCESS RD. LT. | 1 | 1 |
| 181+45 | XNA ACCESS RD. LT. | 1258 | 1321 |
| 187+70 | XNA ACCESS RD. RT. | 533 | 560 |
| 207+15 | XNA ACCESS RD. LT. | 179 | 188 |
| 207+80 | XNA ACCESS RD. RT. | 243 | 255 |
| 218+50 | XNA ACCESS RD. RT. | 503 | 528 |
| 240+10 | XNA ACCESS RD. LT. | 2163 | 2271 |
| 241+20 | XNA ACCESS RD. RT. | 511 | 537 |
| 242+20 | XNA ACCESS RD. LT. | 136 | 143 |
| 242+65 | XNA ACCESS RD. RT. | 136 | 143 |
| 253+25 | HWY. 264 RAMP 4 LT. | 266 | 279 |
| 254+50 | HWY. 264 RAMP 4 LT. | 244 | 256 |
| 254+75 | HWY. 264 RAMP 4 RT. | 144 | 151 |
| 255+90 | HWY. 264 RAMP 4 RT. | 70 | 74 |
| 266+60 | AIRPORT BLVD. RT. | 164 | 172 |
| 267+05 | AIRPORT BLVD. LT. | 231 | 243 |
| 268+40 | AIRPORT BLVD. RT. | 278 | 292 |
| | | | |
| | | | |
| | *TO BE USED IF AND WHERE | 500 | 500 |
| | DIRECTED BY THE ENGINEER | | |
| | | | |
| TOTALS: | | 11489 | 12041 |

*NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS



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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 133 | 583 |
| | | QUANTITIES | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

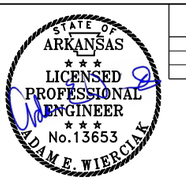
DIGITALLY SIGNED 10/20/2023

## BASE AND SURFACING

| STATION | STATION | LOCATION | LENGTH | AGGREGATE BASE COURSE (CLASS 7) | | TACK COAT | | | | | | | ACHM BASE COURSE (1 1/2") | | | | ACHM BINDER COURSE (1") | | | | | ACHM SURFACE COURSE (1/2") | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | TON / STATION | TON | (0.05 GAL. PER SQ. YD.) | | | (0.17 GAL. PER SQ. YD.) | | | TOTAL GALLONS | AVG. WID. | SQ.YD. | POUND / SQ.YD. | PG 70-22 | AVG. WID. | SQ.YD. | POUND / SQ.YD. | PG 64-22 | PG 70-22 | AVG. WID. | SQ.YD. | POUND / SQ.YD. | PG 64-22 | PG 70-22 | AVG. WID. | SQ.YD. | POUND / SQ.YD. | PG 64-22 | PG 70-22 | TOTAL PG 64-22 | TOTAL PG 70-22 |
| | | | FEET | | | TOTAL WID. FEET | SQ.YD. | GALLON | TOTAL WID. FEET | SQ.YD. | GALLON | | FEET | | | TON | FEET | | | TON | TON | FEET | | | TON | TON | FEET | | | TON | TON | TON | TON |
| **LOCAL ROADS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 277+76.96 | 278+06.66 | AIRPORT BLVD. | 29.70 | 45.75 | 13.59 | 32.25 | 106.43 | 5.32 | 68.83 | 227.14 | 11.36 | 16.68 | 11.75 | 38.78 | 440.00 | 8.53 | 10.25 | 33.83 | 385.00 | | 6.51 | 10.25 | 33.83 | 220.00 | | 3.72 | 79.08 | 260.96 | 220.00 | | 28.71 | | 32.43 |
| 278+06.66 | 279+46.02 | AIRPORT BLVD. | 139.36 | 55.00 | 76.65 | 37.51 | 580.82 | 29.04 | 39.75 | 615.51 | 30.78 | 59.82 | 14.17 | 219.41 | 440.00 | 48.27 | 11.67 | 180.70 | 385.00 | | 34.78 | 11.67 | 180.70 | 220.00 | | 19.88 | 51.75 | 801.32 | 220.00 | | 88.15 | | 108.03 |
| 25+99.19 | 27+69.76 | HWY. 264 - NOTCH AND WIDEN | 170.57 | 127.50 | 217.48 | 6.77 | 128.31 | 6.42 | | | | 6.42 | 2.40 | 45.49 | 440.00 | 10.01 | 2.24 | 42.45 | 385.00 | | 8.17 | 2.13 | 40.37 | 220.00 | | 4.44 | 10.00 | 189.52 | 220.00 | | 20.85 | | 25.29 |
| 14+75.00 | 22+35.68 | MALONE LN. - FULL DEPTH | 760.68 | 197.00 | 1498.54 | 44.71 | 3778.89 | 188.94 | | | | 188.94 | | | | | 22.46 | 1898.32 | 385.00 | 365.43 | | 22.25 | 1880.57 | 220.00 | 206.86 | | 34.00 | 2873.68 | 220.00 | 316.10 | | 522.96 | |
| 24+53.86 | 31+25.00 | MALONE LN. - FULL DEPTH | 671.14 | 197.00 | 1322.15 | 44.71 | 3334.07 | 166.70 | | | | 166.70 | | | | | 22.46 | 1674.87 | 385.00 | 322.41 | | 22.25 | 1659.21 | 220.00 | 182.51 | | 34.00 | 2535.42 | 220.00 | 278.90 | | 461.41 | |
| **DETOUR LANES** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40+76.64 | 43+30.63 | MALONE LN. - NOTCH AND WIDEN | 253.99 | 55.00 | 139.69 | 18.36 | 518.14 | 25.91 | | | | 25.91 | | | | | 9.23 | 260.48 | 330.00 | 42.98 | | 9.13 | 257.66 | 220.00 | 28.34 | | 9.00 | 253.99 | 220.00 | 27.94 | | 56.28 | |
| 43+30.63 | 62+96.65 | MALONE LN. - FULL DEPTH | 1966.02 | 117.75 | 2314.99 | 42.71 | 9329.86 | 466.49 | | | | 466.49 | | | | | 22.46 | 4906.31 | 330.00 | 809.54 | | 20.25 | 4423.55 | 220.00 | 486.59 | | 20.00 | 4368.93 | 220.00 | 480.58 | | 967.17 | |
| 62+96.65 | 65+00.00 | MALONE LN. - NOTCH AND WIDEN | 203.35 | 55.00 | 111.84 | 18.36 | 414.83 | 20.74 | | | | 20.74 | | | | | 9.23 | 208.55 | 330.00 | 34.41 | | 9.13 | 206.29 | 220.00 | 22.69 | | 9.00 | 203.35 | 220.00 | 22.37 | | 45.06 | |
| **ADDITIONAL FOR TURNOUTS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 277+66.98 | 279+46.02 | AIRPORT BLVD. RT. | 179.04 | | | | | | 27.47 | 546.47 | 27.32 | 27.32 | | | | | | | | | | | | | | | 27.47 | 546.47 | 220.00 | | 60.11 | | 60.11 |
| 277+85.75 | 279+46.02 | AIRPORT BLVD. LT. | 160.27 | | | | | | 23.77 | 423.29 | 21.16 | 21.16 | | | | | | | | | | | | | | | 23.77 | 423.29 | 220.00 | | 46.56 | | 46.56 |
| **ADDITIONAL FOR GUARDRAIL** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19+59.73 | 22+27.13 | MALONE LN. RT. | 267.40 | VAR. | 91.30 | | | | | | | | | | | | | | | | | | | | | | 4.79 | 142.28 | 220.00 | 15.65 | | | |
| 20+35.20 | 22+23.45 | MALONE LN. LT. | 188.25 | VAR. | 52.21 | | | | | | | | | | | | | | | | | | | | | | 3.89 | 81.37 | 220.00 | 8.95 | | | |
| 24+62.41 | 27+33.17 | MALONE LN. LT. | 270.76 | VAR. | 90.48 | | | | | | | | | | | | | | | | | | | | | | 4.69 | 141.01 | 220.00 | 15.51 | | | |
| 24+66.10 | 26+52.85 | MALONE LN. RT. | 186.75 | VAR. | 52.01 | | | | | | | | | | | | | | | | | | | | | | 3.91 | 81.05 | 220.00 | 8.92 | | | |
| **TOTALS:** | | | | | **5980.93** | | **18191.35** | **909.56** | | **1812.41** | **90.62** | **1000.18** | | **303.68** | | **66.81** | | **9205.51** | | **1574.77** | **49.46** | | **8682.18** | | **926.99** | **28.04** | | **12902.64** | | **1174.92** | **244.38** | **2052.88** | **272.42** |

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.3% MIN. AGGR.....5.7% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.4% MIN. AGGR.....4.6% ASPHALT BINDER
ACHM BASE COURSE (1 1/2").....96.0% MIN. AGGR.....4.0% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.


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REVISED DATE:




DIGITALLY SIGNED 10/20/2023

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 134 | 583 |
| | | QUANTITIES | | | | |

## BASE AND SURFACING (ALTERNATE 1 - BOX 1 OF 2)

| STATION | STATION | LOCATION | LENGTH | AGGREGATE BASE COURSE (CLASS 7) | | TACK COAT (0.05 GAL. PER SQ. YD.) | | | ACHM BASE COURSE (1 1/2") | | | | ACHM BINDER COURSE (1") | | | | ACHM SURFACE COURSE (1/2") | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | TON / STATION | TON | TOTAL WID. | SQ.YD. | GALLON | AVG. WID. | SQ.YD. | POUND / SQ.YD. | PG 70-22 | AVG. WID. | SQ.YD. | POUND / SQ.YD. | PG 70-22 | AVG. WID. | SQ.YD. | POUND / SQ.YD. | PG 70-22 | AVG. WID. | SQ.YD. | POUND / SQ.YD. | PG 70-22 | TOTAL PG 70-22 |
| | | | FEET | | | FEET | | | FEET | | | TON | FEET | | | TON | FEET | | | TON | FEET | | | TON | TON |
| **XNA ACCESS RD. - LEFT LANES** | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100+00.00 | 102+62.50 | XNA ACCESS RD. - LT. LANES | 262.50 | 329.00 | 863.63 | 79.52 | 2319.33 | 115.97 | 26.79 | 781.38 | 440.00 | 171.90 | 26.48 | 772.33 | 385.00 | 148.67 | 26.25 | 765.63 | 220.00 | 84.22 | 38.00 | 1108.33 | 220.00 | 121.92 | 206.14 |
| 102+62.50 | 103+33.77 | XNA ACCESS RD. - LT. LANES | 71.27 | 329.00 | 234.48 | 79.52 | 629.71 | 31.49 | 26.79 | 212.15 | 440.00 | 46.67 | 26.48 | 209.69 | 385.00 | 40.37 | 26.25 | 207.87 | 220.00 | 22.87 | 38.00 | 300.92 | 220.00 | 33.10 | 55.97 |
| 103+33.77 | 126+92.55 | XNA ACCESS RD. - LT. LANES | 2358.78 | 329.00 | 7760.39 | 79.52 | 20841.13 | 1042.06 | 26.79 | 7021.30 | 440.00 | 1544.69 | 26.48 | 6940.05 | 385.00 | 1335.96 | 26.25 | 6879.78 | 220.00 | 756.78 | 38.00 | 5959.29 | 220.00 | 1095.52 | 1852.30 |
| 126+92.55 | 139+16.95 | XNA ACCESS RD. - LT. LANES | 1224.40 | 329.00 | 4028.28 | 79.52 | 10818.25 | 540.91 | 26.79 | 3644.63 | 440.00 | 801.82 | 26.48 | 3602.46 | 385.00 | 693.47 | 26.25 | 3571.17 | 220.00 | 392.83 | 38.00 | 5169.69 | 220.00 | 568.67 | 961.50 |
| 139+16.95 | 142+72.25 | XNA ACCESS RD. - LT. LANES | 355.30 | 329.00 | 1168.94 | 79.52 | 3139.27 | 156.96 | 26.79 | 1057.61 | 440.00 | 232.67 | 26.48 | 1045.37 | 385.00 | 201.23 | 26.25 | 1036.29 | 220.00 | 113.99 | 38.67 | 1526.61 | 220.00 | 167.93 | 281.92 |
| 145+98.66 | 157+95.90 | XNA ACCESS RD. - LT. LANES | 1197.24 | 329.00 | 3938.92 | 79.52 | 10578.23 | 528.91 | 26.79 | 3563.78 | 440.00 | 784.03 | 26.48 | 3522.55 | 385.00 | 678.09 | 26.25 | 3491.95 | 220.00 | 384.11 | 38.67 | 5144.14 | 220.00 | 565.86 | 949.97 |
| 168+84.16 | 173+02.34 | XNA ACCESS RD. - LT. LANES | 418.18 | 329.00 | 1375.81 | 79.52 | 3694.85 | 184.74 | 26.79 | 1244.78 | 440.00 | 273.85 | 26.48 | 1230.38 | 385.00 | 236.85 | 26.25 | 1219.69 | 220.00 | 134.17 | 38.67 | 1796.78 | 220.00 | 197.65 | 331.82 |
| 173+02.34 | 175+27.91 | XNA ACCESS RD. - LT. LANES | 225.57 | 329.00 | 742.13 | 79.52 | 1993.04 | 99.65 | 26.79 | 671.45 | 440.00 | 147.72 | 26.48 | 663.68 | 385.00 | 127.76 | 26.25 | 657.91 | 220.00 | 72.37 | 38.00 | 952.41 | 220.00 | 104.77 | 177.14 |
| 181+90.48 | 190+62.73 | XNA ACCESS RD. - LT. LANES | 872.25 | 329.00 | 2869.70 | 79.52 | 7706.81 | 385.34 | 26.79 | 2596.40 | 440.00 | 571.21 | 26.48 | 2566.35 | 385.00 | 494.02 | 26.25 | 2544.06 | 220.00 | 279.85 | 38.00 | 3682.83 | 220.00 | 405.11 | 684.96 |
| 193+61.29 | 206+39.45 | XNA ACCESS RD. - LT. LANES | 1278.16 | 329.00 | 4205.15 | 79.52 | 11293.25 | 564.66 | 26.79 | 3804.66 | 440.00 | 837.03 | 26.48 | 3760.63 | 385.00 | 723.92 | 26.25 | 3727.97 | 220.00 | 410.08 | 38.00 | 5396.68 | 220.00 | 593.63 | 1003.71 |
| 206+39.45 | 211+10.07 | XNA ACCESS RD. - LT. LANES | 470.62 | 329.00 | 1548.34 | 79.52 | 4158.19 | 207.91 | 26.79 | 1400.88 | 440.00 | 308.19 | 26.48 | 1384.67 | 385.00 | 266.55 | 26.25 | 1372.64 | 220.00 | 150.99 | 38.67 | 2022.10 | 220.00 | 222.43 | 373.42 |
| 214+98.57 | 217+09.85 | XNA ACCESS RD. - LT. LANES | 211.28 | 372.00 | 785.96 | 79.52 | 1866.78 | 93.34 | 26.79 | 628.91 | 440.00 | 138.36 | 26.48 | 621.63 | 385.00 | 119.66 | 26.25 | 616.23 | 220.00 | 67.79 | 44.00 | 1032.92 | 220.00 | 113.62 | 181.41 |
| 217+09.85 | 237+93.25 | XNA ACCESS RD. - LT. LANES | 2083.40 | 329.00 | 6854.39 | 79.52 | 18408.00 | 920.40 | 26.79 | 6201.59 | 440.00 | 1364.35 | 26.48 | 6129.83 | 385.00 | 1179.99 | 26.25 | 6076.58 | 220.00 | 668.42 | 38.67 | 6951.68 | 220.00 | 984.68 | 1653.10 |
| 237+93.25 | 238+26.48 | XNA ACCESS RD. - LT. LANES | 33.23 | 311.00 | 103.35 | 89.19 | 329.31 | 16.47 | 29.79 | 109.99 | 440.00 | 24.20 | 29.48 | 108.85 | 385.00 | 20.95 | 29.92 | 110.47 | 220.00 | 12.15 | 38.92 | 143.70 | 220.00 | 15.81 | 27.96 |
| 238+26.48 | 239+43.92 | XNA ACCESS RD. - LT. LANES | 117.44 | 311.00 | 365.24 | 89.19 | 1163.83 | 58.19 | 29.79 | 388.73 | 440.00 | 85.52 | 29.48 | 384.68 | 385.00 | 74.05 | 29.92 | 390.42 | 220.00 | 42.95 | 38.92 | 507.86 | 220.00 | 55.86 | 98.81 |
| 239+43.92 | 245+30.90 | XNA ACCESS RD. - LT. LANES | 586.98 | 346.00 | 2030.95 | 113.27 | 7387.47 | 369.37 | 38.04 | 2480.97 | 440.00 | 545.81 | 37.73 | 2460.75 | 385.00 | 473.69 | 37.50 | 2445.75 | 220.00 | 269.03 | 45.25 | 2951.21 | 220.00 | 324.63 | 593.66 |
| 245+30.90 | 247+82.38 | XNA ACCESS RD. INTERIM CONDITION - LT. LANES | 251.48 | 363.00 | 912.87 | 136.52 | 3814.67 | 190.73 | 45.79 | 1279.47 | 440.00 | 281.48 | 45.48 | 1270.81 | 385.00 | 244.63 | 45.25 | 1264.39 | 220.00 | 139.08 | 55.00 | 1536.82 | 220.00 | 169.05 | 308.13 |
| 247+82.38 | 250+88.77 | XNA ACCESS RD. INTERIM CONDITION - LT. LANES | 306.39 | 335.50 | 1027.94 | 90.27 | 3073.09 | 153.65 | 30.38 | 1034.24 | 440.00 | 227.53 | 30.06 | 1023.34 | 385.00 | 196.99 | 29.83 | 1015.51 | 220.00 | 111.71 | 42.17 | 1435.61 | 220.00 | 157.92 | 269.63 |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| **XNA ACCESS RD. - RIGHT LANES** | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100+00.00 | 102+62.50 | XNA ACCESS RD. - RT. LANES | 262.50 | 329.00 | 863.63 | 79.52 | 2319.33 | 115.97 | 26.79 | 781.38 | 440.00 | 171.90 | 26.48 | 772.33 | 385.00 | 148.67 | 26.25 | 765.63 | 220.00 | 84.22 | 38.00 | 1108.33 | 220.00 | 121.92 | 206.14 |
| 102+62.50 | 103+33.77 | XNA ACCESS RD. - RT. LANES | 71.27 | 329.00 | 234.48 | 79.52 | 629.71 | 31.49 | 26.79 | 212.15 | 440.00 | 46.67 | 26.48 | 209.69 | 385.00 | 40.37 | 26.25 | 207.87 | 220.00 | 22.87 | 38.00 | 300.92 | 220.00 | 33.10 | 55.97 |
| 103+33.77 | 126+92.55 | XNA ACCESS RD. - RT. LANES | 2358.78 | 329.00 | 7760.39 | 79.52 | 20841.13 | 1042.06 | 26.79 | 7021.30 | 440.00 | 1544.69 | 26.48 | 6940.05 | 385.00 | 1335.96 | 26.25 | 6879.78 | 220.00 | 756.78 | 38.00 | 5959.29 | 220.00 | 1095.52 | 1852.30 |
| 126+92.55 | 139+16.95 | XNA ACCESS RD. - RT. LANES | 1224.40 | 329.00 | 4028.28 | 79.52 | 10818.25 | 540.91 | 26.79 | 3644.63 | 440.00 | 801.82 | 26.48 | 3602.46 | 385.00 | 693.47 | 26.25 | 3571.17 | 220.00 | 392.83 | 38.00 | 5169.69 | 220.00 | 568.67 | 961.50 |
| 139+16.95 | 142+39.61 | XNA ACCESS RD. - RT. LANES | 322.66 | 329.00 | 1061.55 | 79.52 | 2850.88 | 142.54 | 26.79 | 960.45 | 440.00 | 211.30 | 26.48 | 949.34 | 385.00 | 182.75 | 26.25 | 941.09 | 220.00 | 103.52 | 38.17 | 1368.44 | 220.00 | 150.53 | 254.05 |
| 145+67.99 | 157+48.13 | XNA ACCESS RD. - RT. LANES | 1180.14 | 329.00 | 3882.66 | 79.52 | 10427.19 | 521.36 | 26.79 | 3512.88 | 440.00 | 772.83 | 26.48 | 3472.23 | 385.00 | 668.40 | 26.25 | 3442.08 | 220.00 | 378.63 | 38.17 | 5005.10 | 220.00 | 550.56 | 929.19 |
| 168+44.23 | 173+02.34 | XNA ACCESS RD. - RT. LANES | 458.11 | 329.00 | 1507.18 | 79.52 | 4047.66 | 202.38 | 26.79 | 1363.64 | 440.00 | 300.00 | 26.48 | 1347.86 | 385.00 | 259.46 | 26.25 | 1336.15 | 220.00 | 146.98 | 38.17 | 1942.90 | 220.00 | 213.72 | 360.70 |
| 173+02.34 | 175+78.71 | XNA ACCESS RD. - RT. LANES | 276.37 | 329.00 | 909.26 | 79.52 | 2441.88 | 122.09 | 26.79 | 822.66 | 440.00 | 180.99 | 26.48 | 813.14 | 385.00 | 156.53 | 26.25 | 806.08 | 220.00 | 88.67 | 38.00 | 1166.90 | 220.00 | 128.36 | 217.03 |
| 182+41.29 | 191+17.72 | XNA ACCESS RD. - RT. LANES | 876.43 | 329.00 | 2883.45 | 79.52 | 7743.75 | 387.19 | 26.79 | 2608.84 | 440.00 | 573.94 | 26.48 | 2578.65 | 385.00 | 496.39 | 26.25 | 2556.25 | 220.00 | 281.19 | 38.00 | 3700.48 | 220.00 | 407.05 | 688.24 |
| 194+16.28 | 206+39.45 | XNA ACCESS RD. - RT. LANES | 1223.17 | 329.00 | 4024.23 | 79.52 | 10807.39 | 540.37 | 26.79 | 3640.97 | 440.00 | 801.01 | 26.48 | 3598.84 | 385.00 | 692.78 | 26.25 | 3567.58 | 220.00 | 392.43 | 38.00 | 5164.50 | 220.00 | 568.10 | 960.53 |
| 206+39.45 | 210+18.08 | XNA ACCESS RD. - RT. LANES | 378.63 | 329.00 | 1245.69 | 79.52 | 3345.41 | 167.27 | 26.79 | 1127.06 | 440.00 | 247.95 | 26.48 | 1114.01 | 385.00 | 214.45 | 26.25 | 1104.34 | 220.00 | 121.48 | 38.17 | 1605.81 | 220.00 | 176.64 | 298.12 |
| 214+16.30 | 217+09.85 | XNA ACCESS RD. - RT. LANES | 293.55 | 330.50 | 970.18 | 79.52 | 2593.68 | 129.68 | 26.79 | 873.80 | 440.00 | 192.24 | 26.48 | 863.69 | 385.00 | 166.26 | 26.25 | 856.19 | 220.00 | 94.18 | 38.17 | 1244.98 | 220.00 | 136.95 | 231.13 |
| 217+09.85 | 237+93.25 | XNA ACCESS RD. - RT. LANES | 2083.40 | 329.00 | 6854.39 | 79.52 | 18408.00 | 920.40 | 26.79 | 6201.59 | 440.00 | 1364.35 | 26.48 | 6129.83 | 385.00 | 1179.99 | 26.25 | 6076.58 | 220.00 | 668.42 | 38.17 | 6835.93 | 220.00 | 971.95 | 1640.37 |
| 237+93.25 | 238+26.48 | XNA ACCESS RD. - RT. LANES | 33.23 | 329.00 | 109.33 | 79.52 | 293.61 | 14.68 | 26.79 | 98.91 | 440.00 | 21.76 | 26.48 | 97.77 | 385.00 | 18.82 | 26.25 | 96.92 | 220.00 | 10.66 | 38.17 | 140.93 | 220.00 | 15.50 | 26.16 |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| **RAMPS** | | | | | | | | | | | | | | | | | | | | | | | | | |
| 250+88.55 | 257+78.94 | HWY. 264 RAMP 4 | 690.39 | 320.50 | 2212.70 | 85.52 | 6560.24 | 328.01 | 28.79 | 2208.48 | 440.00 | 485.87 | 28.48 | 2184.70 | 385.00 | 420.55 | 28.25 | 2167.06 | 220.00 | 238.38 | 40.00 | 3068.40 | 220.00 | 337.52 | 575.90 |
| 234+98.78 | 238+24.14 | NB CROSSOVER | 325.36 | 112.00 | 364.40 | 17.76 | 642.04 | 32.10 | 6.06 | 219.08 | 440.00 | 48.20 | 5.91 | 213.65 | 385.00 | 41.13 | 5.79 | 209.31 | 220.00 | 23.02 | 9.67 | 349.58 | 220.00 | 38.45 | 61.47 |
| 238+24.14 | 239+43.14 | NB CROSSOVER | 119.00 | 254.00 | 302.26 | 46.52 | 615.10 | 30.76 | 15.79 | 208.78 | 440.00 | 45.93 | 15.48 | 204.68 | 385.00 | 39.40 | 15.25 | 201.64 | 220.00 | 22.18 | 25.00 | 330.56 | 220.00 | 36.36 | 58.54 |
| 239+43.14 | 240+27.55 | NB CROSSOVER | 84.41 | 254.00 | 214.40 | 46.52 | 436.31 | 21.82 | 15.79 | 148.09 | 440.00 | 32.58 | 15.48 | 145.19 | 385.00 | 27.95 | 15.25 | 143.03 | 220.00 | 15.73 | 25.00 | 234.47 | 220.00 | 25.79 | 41.52 |
| 240+27.55 | 245+30.96 | NB CROSSOVER | 503.41 | 254.00 | 1278.66 | 46.52 | 2602.07 | 130.10 | 15.79 | 883.20 | 440.00 | 194.30 | 15.48 | 865.87 | 385.00 | 166.68 | 15.25 | 853.00 | 220.00 | 93.83 | 25.00 | 1398.36 | 220.00 | 153.82 | 247.65 |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| **LOCAL ROADS** | | | | | | | | | | | | | | | | | | | | | | | | | |
| 257+78.94 | 260+02.28 | AIRPORT BLVD. CURVE EXTENSION | 223.34 | 320.50 | 715.80 | 85.52 | 2122.23 | 106.11 | 28.79 | 714.44 | 440.00 | 157.18 | 28.48 | 706.75 | 385.00 | 136.05 | 28.25 | 701.04 | 220.00 | 77.11 | 40.00 | 992.62 | 220.00 | 109.19 | 186.30 |
| 260+02.28 | 261+89.79 | AIRPORT BLVD. | 187.51 | 320.50 | 600.97 | 85.52 | 1781.76 | 89.09 | 28.79 | 599.82 | 440.00 | 131.96 | 28.48 | 593.36 | 385.00 | 114.22 | 28.25 | 588.57 | 220.00 | 64.74 | 40.00 | 833.38 | 220.00 | 91.67 | 156.41 |
| 261+89.78 | 268+81.34 | AIRPORT BLVD. | 691.56 | 324.50 | 2244.11 | 88.77 | 6821.09 | 341.05 | 29.88 | 2295.98 | 440.00 | 505.12 | 29.56 | 2271.39 | 385.00 | 437.24 | 29.33 | 2253.72 | 220.00 | 247.91 | 41.08 | 3156.59 | 220.00 | 347.22 | 595.13 |
| 268+81.34 | 272+18.90 | AIRPORT BLVD. | 337.56 | 386.75 | 1305.51 | 149.51 | 5607.62 | 280.38 | 45.88 | 1720.81 | 440.00 | 378.58 | 45.56 | 1708.80 | 385.00 | 328.94 | 45.33 | 1700.18 | 220.00 | 187.02 | 57.08 | 2140.88 | 220.00 | 235.50 | 422.52 |
| 272+18.90 | 276+86.50 | AIRPORT BLVD. | 467.60 | 425.50 | 1989.64 | 85.52 | 4443.24 | 222.16 | 36.63 | 1903.13 | 440.00 | 418.69 | 31.31 | 1626.73 | 385.00 | 313.15 | 31.08 | 1614.78 | 220.00 | 177.63 | 42.83 | 2225.26 | 220.00 | 244.78 | 422.41 |
| 276+86.50 | 277+37.88 | AIRPORT BLVD. | 51.38 | 386.75 | 198.71 | 149.51 | 853.54 | 42.68 | 45.88 | 261.92 | 440.00 | 57.62 | 45.56 | 260.10 | 385.00 | 50.07 | 45.33 | 258.78 | 220.00 | 28.47 | 57.08 | 325.86 | 220.00 | 35.84 | 64.31 |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| **ADDITIONAL FOR TURNOUTS** | | | | | | | | | | | | | | | | | | | | | | | | | |
| 275+45.19 | 277+36.21 | AIRPORT BLVD. RT. | 191.02 | 110.50 | 211.08 | 78.02 | 1655.93 | 82.80 | 26.15 | 555.02 | 440.00 | 122.10 | 25.99 | 551.62 | 385.00 | 106.19 | 25.88 | 549.29 | 220.00 | 60.42 | 26.75 | 567.75 | 220.00 | 62.45 | 122.87 |
| 276+23.21 | 277+44.58 | AIRPORT BLVD. LT. | 121.37 | 48.00 | 58.26 | 37.76 | 509.21 | 25.46 | 12.73 | 171.67 | 440.00 | 37.76 | 12.57 | 169.51 | 385.00 | 32.63 | 12.46 | 168.03 | 220.00 | 18.48 | 12.33 | 166.28 | 220.00 | 18.29 | 36.77 |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| **SUBTOTALS (BOX 1 OF 2):** | | | | | **88847.67** | | **245433.51** | **12271.66** | | **82883.60** | | **18234.37** | | **81690.29** | | **15725.35** | | **81010.45** | | **8911.17** | | **116123.77** | | **12773.61** | **21684.78** |

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.3% MIN. AGGR.....5.7% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.4% MIN. AGGR.....4.6% ASPHALT BINDER
ACHM BASE COURSE (1 1/2").....96.0% MIN. AGGR.....4.0% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

awierciak 10/20/2023 12:53:03 PM
WORKSPACE: AHTD
L:\20\7\7017600 - XNA Access - NEPA\Drawings\r090069_QTY.dgn
REVISED DATE:




DIGITALLY SIGNED 10/20/2023

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 135 | 583 |
| | | QUANTITIES | | | | |

## BASE AND SURFACING (ALTERNATE 1 - BOX 2 OF 2)

| STATION | STATION | LOCATION | LENGTH | AGGREGATE BASE COURSE (CLASS 7) | | TACK COAT (0.05 GAL. PER SQ. YD.) | | | ACHM BASE COURSE (1 1/2") | | | | ACHM BINDER COURSE (1") | | | | ACHM SURFACE COURSE (1/2") | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | TON / STATION | TON | TOTAL WID. | SQ.YD. | GALLON | AVG. WID. | SQ.YD. | POUND / SQ.YD. | PG 70-22 | AVG. WID. | SQ.YD. | POUND / SQ.YD. | PG 70-22 | AVG. WID. | SQ.YD. | POUND / SQ.YD. | PG 70-22 | AVG. WID. | SQ.YD. | POUND / SQ.YD. | PG 70-22 | TOTAL PG 70-22 |
| | | | FEET | | | FEET | | | FEET | | | TON | FEET | | | TON | FEET | | | TON | FEET | | | TON | TON |
| **ADDITIONAL FOR SUPERELEVATION** | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100+00.00 | 102+62.50 | XNA ACCESS RD. - LT. LANES | 262.50 | 50.00 | 131.25 | | | | | | | | | | | | | | | | | | | | |
| 103+33.77 | 106+83.77 | XNA ACCESS RD. - LT. LANES | 350.00 | 34.88 | 122.08 | | | | | | | | | | | | | | | | | | | | |
| 106+83.77 | 123+42.55 | XNA ACCESS RD. - LT. LANES | 1658.78 | 69.75 | 1157.00 | | | | | | | | | | | | | | | | | | | | |
| 123+42.55 | 126+92.55 | XNA ACCESS RD. - LT. LANES | 350.00 | 34.88 | 122.08 | | | | | | | | | | | | | | | | | | | | |
| 139+16.95 | 142+66.95 | XNA ACCESS RD. - LT. LANES | 350.00 | 26.50 | 92.75 | | | | | | | | | | | | | | | | | | | | |
| 142+66.95 | 142+72.25 | XNA ACCESS RD. - LT. LANES | 5.30 | 53.00 | 2.81 | | | | | | | | | | | | | | | | | | | | |
| 145+98.66 | 157+95.90 | XNA ACCESS RD. - LT. LANES | 1197.24 | 53.00 | 634.54 | | | | | | | | | | | | | | | | | | | | |
| 168+84.16 | 169+52.34 | XNA ACCESS RD. - LT. LANES | 68.18 | 53.00 | 36.14 | | | | | | | | | | | | | | | | | | | | |
| 169+52.34 | 173+02.34 | XNA ACCESS RD. - LT. LANES | 350.00 | 26.50 | 92.75 | | | | | | | | | | | | | | | | | | | | |
| 206+39.45 | 209+89.45 | XNA ACCESS RD. - LT. LANES | 350.00 | 72.75 | 254.63 | | | | | | | | | | | | | | | | | | | | |
| 209+89.45 | 211+10.07 | XNA ACCESS RD. - LT. LANES | 120.62 | 145.50 | 175.50 | | | | | | | | | | | | | | | | | | | | |
| 214+98.57 | 235+93.92 | XNA ACCESS RD. - LT. LANES | 2095.35 | 145.50 | 3048.73 | | | | | | | | | | | | | | | | | | | | |
| 235+93.92 | 237+93.25 | XNA ACCESS RD. - LT. LANES | 199.33 | 97.63 | 194.61 | | | | | | | | | | | | | | | | | | | | |
| 237+93.25 | 239+43.92 | XNA ACCESS RD. - LT. LANES | 150.67 | 24.88 | 37.49 | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| 103+33.77 | 106+83.77 | XNA ACCESS RD. - RT. LANES | 350.00 | 43.75 | 153.13 | | | | | | | | | | | | | | | | | | | | |
| 106+83.77 | 123+42.55 | XNA ACCESS RD. - RT. LANES | 1658.78 | 87.50 | 1451.43 | | | | | | | | | | | | | | | | | | | | |
| 123+42.55 | 126+92.55 | XNA ACCESS RD. - RT. LANES | 350.00 | 43.75 | 153.13 | | | | | | | | | | | | | | | | | | | | |
| 139+16.95 | 142+39.61 | XNA ACCESS RD. - RT. LANES | 322.66 | 16.88 | 54.47 | | | | | | | | | | | | | | | | | | | | |
| 145+67.99 | 157+48.13 | XNA ACCESS RD. - RT. LANES | 1180.14 | 33.75 | 398.30 | | | | | | | | | | | | | | | | | | | | |
| 168+44.23 | 169+52.34 | XNA ACCESS RD. - RT. LANES | 108.11 | 33.75 | 36.49 | | | | | | | | | | | | | | | | | | | | |
| 169+52.34 | 173+02.34 | XNA ACCESS RD. - RT. LANES | 350.00 | 16.88 | 59.08 | | | | | | | | | | | | | | | | | | | | |
| 206+39.45 | 209+89.45 | XNA ACCESS RD. - RT. LANES | 350.00 | 58.88 | 206.08 | | | | | | | | | | | | | | | | | | | | |
| 209+89.45 | 210+18.08 | XNA ACCESS RD. - RT. LANES | 28.63 | 117.75 | 33.71 | | | | | | | | | | | | | | | | | | | | |
| 214+16.30 | 235+93.92 | XNA ACCESS RD. - RT. LANES | 2177.62 | 117.75 | 2564.15 | | | | | | | | | | | | | | | | | | | | |
| 235+93.92 | 237+93.25 | XNA ACCESS RD. - RT. LANES | 199.33 | 97.50 | 194.35 | | | | | | | | | | | | | | | | | | | | |
| 237+93.25 | 238+26.48 | XNA ACCESS RD. - RT. LANES | 33.23 | 48.75 | 16.20 | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| 250+88.55 | 257+78.94 | HWY. 264 RAMP 4 | 690.39 | 37.00 | 255.44 | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| 257+78.94 | 259+39.78 | AIRPORT BLVD. | 160.84 | 37.00 | 59.51 | | | | | | | | | | | | | | | | | | | | |
| 259+39.78 | 261+89.78 | AIRPORT BLVD. | 250.00 | 18.50 | 46.25 | | | | | | | | | | | | | | | | | | | | |
| 268+81.34 | 272+56.34 | AIRPORT BLVD. | 375.00 | 19.25 | 72.19 | | | | | | | | | | | | | | | | | | | | |
| 272+56.34 | 274+26.84 | AIRPORT BLVD. | 170.50 | 38.50 | 65.64 | | | | | | | | | | | | | | | | | | | | |
| 274+26.84 | 277+37.88 | AIRPORT BLVD. | 311.04 | 23.50 | 73.09 | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| 238+24.14 | 239+43.14 | NB CROSSOVER | 119.00 | 24.00 | 28.56 | | | | | | | | | | | | | | | | | | | | |
| 240+27.55 | 243+27.55 | NB CROSSOVER | 300.00 | 18.13 | 54.39 | | | | | | | | | | | | | | | | | | | | |
| 243+27.55 | 245+30.96 | NB CROSSOVER | 203.41 | 36.25 | 73.74 | | | | | | | | | | | | | | | | | | | | |
| **ADDITIONAL FOR GUARDRAIL** | | | | | | | | | | | | | | | | | | | | | | | | | |
| 119+59.49 | 124+51.45 | XNA ACCESS RD. LT. LANES INSIDE | 491.96 | VAR. | 333.35 | | | | | | | | | | | | | | | | 6.74 | 368.68 | 220.00 | 40.55 | 40.55 |
| 139+32.88 | 142+71.63 | XNA ACCESS RD. RT. LANES INSIDE | 338.75 | VAR. | 232.31 | | | | | | | | | | | | | | | | 6.83 | 256.93 | 220.00 | 28.26 | 28.26 |
| 139+82.10 | 142+52.85 | XNA ACCESS RD. RT. LANES OUTSIDE | 270.75 | VAR. | 129.03 | | | | | | | | | | | | | | | | 4.74 | 142.71 | 220.00 | 15.70 | 15.70 |
| 140+92.55 | 143+04.30 | XNA ACCESS RD. LT. LANES OUTSIDE | 211.75 | VAR. | 87.42 | | | | | | | | | | | | | | | | 4.11 | 96.69 | 220.00 | 10.64 | 10.64 |
| 145+52.65 | 147+77.14 | XNA ACCESS RD. RT. LANES INSIDE | 224.49 | VAR. | 125.28 | | | | | | | | | | | | | | | | 5.55 | 138.56 | 220.00 | 15.24 | 15.24 |
| 145+64.63 | 149+03.30 | XNA ACCESS RD. LT. LANES INSIDE | 338.67 | VAR. | 232.79 | | | | | | | | | | | | | | | | 6.84 | 257.46 | 220.00 | 28.32 | 28.32 |
| 145+83.65 | 148+53.91 | XNA ACCESS RD. LT. LANES OUTSIDE | 270.26 | VAR. | 128.31 | | | | | | | | | | | | | | | | 4.73 | 141.91 | 220.00 | 15.61 | 15.61 |
| 154+31.90 | 157+70.70 | XNA ACCESS RD. RT. LANES INSIDE | 338.80 | VAR. | 232.71 | | | | | | | | | | | | | | | | 6.84 | 257.38 | 220.00 | 28.31 | 28.31 |
| 154+99.90 | 157+70.65 | XNA ACCESS RD. LT. LANES OUTSIDE | 270.75 | VAR. | 126.91 | | | | | | | | | | | | | | | | 4.67 | 140.36 | 220.00 | 15.44 | 15.44 |
| 168+61.48 | 171+32.23 | XNA ACCESS RD. LT. LANES OUTSIDE | 270.75 | VAR. | 127.98 | | | | | | | | | | | | | | | | 4.70 | 141.54 | 220.00 | 15.57 | 15.57 |
| 168+61.53 | 172+00.28 | XNA ACCESS RD. LT. LANES INSIDE | 338.75 | VAR. | 233.54 | | | | | | | | | | | | | | | | 6.86 | 258.29 | 220.00 | 28.41 | 28.41 |
| 172+45.19 | 175+83.94 | XNA ACCESS RD. RT. LANES INSIDE | 338.75 | VAR. | 235.14 | | | | | | | | | | | | | | | | 6.91 | 260.06 | 220.00 | 28.61 | 28.61 |
| 173+36.28 | 176+07.03 | XNA ACCESS RD. RT. LANES OUTSIDE | 270.75 | VAR. | 128.03 | | | | | | | | | | | | | | | | 4.71 | 141.60 | 220.00 | 15.58 | 15.58 |
| 181+62.17 | 184+32.92 | XNA ACCESS RD. LT. LANES OUTSIDE | 270.75 | VAR. | 128.03 | | | | | | | | | | | | | | | | 4.71 | 141.60 | 220.00 | 15.58 | 15.58 |
| 181+85.26 | 185+24.01 | XNA ACCESS RD. LT. LANES INSIDE | 338.75 | VAR. | 235.14 | | | | | | | | | | | | | | | | 6.91 | 260.06 | 220.00 | 28.61 | 28.61 |
| 187+91.25 | 191+30.00 | XNA ACCESS RD. RT. LANES INSIDE | 338.75 | VAR. | 232.91 | | | | | | | | | | | | | | | | 6.84 | 257.60 | 220.00 | 28.34 | 28.34 |
| 188+84.25 | 191+55.00 | XNA ACCESS RD. RT. LANES OUTSIDE | 270.75 | VAR. | 127.60 | | | | | | | | | | | | | | | | 4.69 | 141.12 | 220.00 | 15.52 | 15.52 |
| 193+24.04 | 195+94.79 | XNA ACCESS RD. LT. LANES OUTSIDE | 270.75 | VAR. | 127.39 | | | | | | | | | | | | | | | | 4.68 | 140.89 | 220.00 | 15.50 | 15.50 |
| 193+49.01 | 196+87.76 | XNA ACCESS RD. LT. LANES INSIDE | 338.75 | VAR. | 232.91 | | | | | | | | | | | | | | | | 6.84 | 257.60 | 220.00 | 28.34 | 28.34 |
| 207+20.33 | 210+59.08 | XNA ACCESS RD. LT. LANES OUTSIDE | 338.75 | VAR. | 232.55 | | | | | | | | | | | | | | | | 6.83 | 257.20 | 220.00 | 28.29 | 28.29 |
| 207+45.45 | 210+16.13 | XNA ACCESS RD. LT. LANES OUTSIDE | 270.68 | VAR. | 126.90 | | | | | | | | | | | | | | | | 4.67 | 140.35 | 220.00 | 15.44 | 15.44 |
| 214+55.53 | 217+39.53 | XNA ACCESS RD. LT. LANES INSIDE | 284.00 | VAR. | 180.15 | | | | | | | | | | | | | | | | 6.31 | 199.24 | 220.00 | 21.92 | 21.92 |
| 215+00.62 | 220+18.47 | XNA ACCESS RD. LT. LANES OUTSIDE | 517.85 | VAR. | 301.63 | | | | | | | | | | | | | | | | 5.80 | 333.60 | 220.00 | 36.70 | 36.70 |
| 228+37.19 | 234+51.11 | XNA ACCESS RD. RT. LANES INSIDE | 613.92 | VAR. | 422.09 | | | | | | | | | | | | | | | | 6.84 | 466.83 | 220.00 | 51.35 | 51.35 |
| 231+23.26 | 237+30.20 | XNA ACCESS RD. LT. LANES INSIDE | 606.94 | VAR. | 427.89 | | | | | | | | | | | | | | | | 7.02 | 473.24 | 220.00 | 52.06 | 52.06 |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | **88847.67** | | **245433.51** | **12271.66** | | **82883.60** | | **18234.37** | | **81690.29** | | **15725.35** | | **81010.45** | | **8911.17** | | **116123.77** | | **12773.61** | **21684.78** |
| | | | | | **17279.68** | | | | | | | | | | | | | | | | | **5671.50** | | **623.89** | **623.89** |
| | | | | | **106127.35** | | **245433.51** | **12271.66** | | **82883.60** | | **18234.37** | | **81690.29** | | **15725.35** | | **81010.45** | | **8911.17** | | **121795.27** | | **13397.50** | **22308.67** |

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.3% MIN. AGGR.....5.7% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.4% MIN. AGGR.....4.6% ASPHALT BINDER
ACHM BASE COURSE (1 1/2").....96.0% MIN. AGGR.....4.0% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.



aewierciak
WORKSPACE: AHTD
L:\2017\170176\600 - XNA Access - NEPA\Drawings\r090069_QTY.dgn
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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 136 | 583 |
| | | QUANTITIES | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

## BASE AND SURFACING (ALTERNATE 2 - BOX 1 OF 2)

| STATION | STATION | LOCATION | LENGTH | CEMENT STABILIZED CRUSHED STONE BASE COURSE (6" COMPACTED DEPTH) | | | | GEOTEXTILE FABRIC | | ACHM SURFACE COURSE (1/2") | | | | PORTLAND CEMENT CONCRETE PAVEMENT (9" U.T.) | | AGGREGATE BASE COURSE (CLASS 7) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | AVG. WID. | PROCESSING | CEMENT | AGGREGATE | AVG. WID. | SQ.YD. | AVG. WID. | SQ.YD. | POUND / SQ.YD. | PG 64-22 | AVG. WID. | SQ.YD. | TON / STATION | TON |
| | | | FEET | FEET | SQ. YD. | TON | TON | FEET | | FEET | | | TON | FEET | | | |
| **XNA ACCESS RD. - LEFT LANES** | | | | | | | | | | | | | | | | | |
| 100+00.00 | 102+62.50 | XNA ACCESS RD. - LT. LANES | 262.50 | 30.00 | 875.00 | 18.38 | 287.88 | 30.00 | 875.00 | 12.00 | 350.00 | 220.00 | 38.50 | 26.00 | 758.33 | 163.00 | 427.88 |
| 102+62.50 | 103+33.77 | XNA ACCESS RD. - LT. LANES | 71.27 | 30.00 | 237.57 | 4.99 | 78.16 | 30.00 | 237.57 | 12.00 | 95.03 | 220.00 | 10.45 | 26.00 | 205.89 | 163.00 | 116.17 |
| 103+33.77 | 126+92.55 | XNA ACCESS RD. - LT. LANES | 2358.78 | 30.00 | 7862.60 | 165.11 | 2586.80 | 30.00 | 7862.60 | 12.00 | 3145.04 | 220.00 | 345.95 | 26.00 | 6814.25 | 163.00 | 3844.81 |
| 126+92.55 | 139+16.95 | XNA ACCESS RD. - LT. LANES | 1224.40 | 30.00 | 4081.33 | 85.71 | 1342.76 | 30.00 | 4081.33 | 12.00 | 1632.53 | 220.00 | 179.58 | 26.00 | 3537.16 | 163.00 | 1995.77 |
| 139+16.95 | 142+72.25 | XNA ACCESS RD. - LT. LANES | 355.30 | 30.00 | 1184.33 | 24.87 | 389.64 | 30.00 | 1184.33 | 12.67 | 500.18 | 220.00 | 55.02 | 26.00 | 1026.42 | 163.00 | 579.14 |
| 145+98.66 | 157+95.90 | XNA ACCESS RD. - LT. LANES | 1197.24 | 30.00 | 3990.80 | 83.81 | 1312.97 | 30.00 | 3990.80 | 12.67 | 1685.45 | 220.00 | 185.40 | 26.00 | 3458.69 | 163.00 | 1951.50 |
| 168+84.16 | 173+02.34 | XNA ACCESS RD. - LT. LANES | 418.18 | 30.00 | 1393.93 | 29.27 | 458.60 | 30.00 | 1393.93 | 12.67 | 588.70 | 220.00 | 64.76 | 26.00 | 1208.08 | 163.00 | 681.63 |
| 173+02.34 | 175+27.91 | XNA ACCESS RD. - LT. LANES | 225.57 | 30.00 | 751.90 | 15.79 | 247.38 | 30.00 | 751.90 | 12.00 | 300.76 | 220.00 | 33.08 | 26.00 | 651.65 | 163.00 | 367.68 |
| 181+90.48 | 190+62.73 | XNA ACCESS RD. - LT. LANES | 872.25 | 30.00 | 2907.50 | 61.06 | 956.57 | 30.00 | 2907.50 | 12.00 | 1163.00 | 220.00 | 127.93 | 26.00 | 2519.83 | 163.00 | 1421.77 |
| 193+61.29 | 206+39.45 | XNA ACCESS RD. - LT. LANES | 1278.16 | 30.00 | 4260.53 | 89.47 | 1401.71 | 30.00 | 4260.53 | 12.00 | 1704.21 | 220.00 | 187.46 | 26.00 | 3692.46 | 163.00 | 2083.40 |
| 206+39.45 | 211+10.07 | XNA ACCESS RD. - LT. LANES | 470.62 | 30.00 | 1568.73 | 32.94 | 516.11 | 30.00 | 1568.73 | 12.67 | 662.53 | 220.00 | 72.88 | 26.00 | 1359.57 | 163.00 | 767.11 |
| 214+98.57 | 217+09.85 | XNA ACCESS RD. - LT. LANES | 211.28 | 30.00 | 704.27 | 14.79 | 231.70 | 30.00 | 704.27 | 18.00 | 422.56 | 220.00 | 46.48 | 26.00 | 610.36 | 199.25 | 420.98 |
| 217+09.85 | 237+93.25 | XNA ACCESS RD. - LT. LANES | 2083.40 | 30.00 | 6944.67 | 145.84 | 2284.80 | 30.00 | 6944.67 | 12.67 | 2932.96 | 220.00 | 322.63 | 26.00 | 6018.71 | 163.00 | 3395.94 |
| 237+93.25 | 238+26.48 | XNA ACCESS RD. - LT. LANES | 33.23 | 33.00 | 121.84 | 2.56 | 40.09 | 33.00 | 121.84 | 11.92 | 44.01 | 220.00 | 4.84 | 29.00 | 107.07 | 151.25 | 50.26 |
| 238+26.48 | 239+43.92 | XNA ACCESS RD. - LT. LANES | 117.44 | 33.00 | 430.61 | 9.04 | 141.67 | 33.00 | 430.61 | 11.92 | 155.54 | 220.00 | 17.11 | 29.00 | 378.42 | 151.25 | 177.63 |
| 239+43.92 | 245+30.90 | XNA ACCESS RD. - LT. LANES | 586.98 | 41.25 | 2690.33 | 56.50 | 885.12 | 41.25 | 2690.33 | 8.00 | 521.76 | 220.00 | 57.39 | 37.25 | 2429.45 | 144.00 | 845.25 |
| 245+30.90 | 247+82.38 | XNA ACCESS RD. INTERIM CONDITION - LT. LANES | 251.48 | 68.00 | 1900.07 | 39.90 | 625.12 | 68.00 | 1900.07 | 10.00 | 279.42 | 220.00 | 30.74 | 64.00 | 1788.30 | 135.50 | 340.76 |
| 247+82.38 | 250+88.48 | XNA ACCESS RD. INTERIM CONDITION - LT. LANES | 306.10 | 33.58 | 1142.09 | 23.98 | 375.75 | 33.58 | 1142.09 | 12.58 | 427.86 | 220.00 | 47.06 | 29.58 | 1006.05 | 135.50 | 414.77 |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| **XNA ACCESS RD. - RIGHT LANES** | | | | | | | | | | | | | | | | | |
| 100+00.00 | 102+62.50 | XNA ACCESS RD. - RT. LANES | 262.50 | 30.00 | 875.00 | 18.38 | 287.88 | 30.00 | 875.00 | 12.00 | 350.00 | 220.00 | 38.50 | 26.00 | 758.33 | 163.00 | 427.88 |
| 102+62.50 | 103+33.77 | XNA ACCESS RD. - RT. LANES | 71.27 | 30.00 | 237.57 | 4.99 | 78.16 | 30.00 | 237.57 | 12.00 | 95.03 | 220.00 | 10.45 | 26.00 | 205.89 | 163.00 | 116.17 |
| 103+33.77 | 126+92.55 | XNA ACCESS RD. - RT. LANES | 2358.78 | 30.00 | 7862.60 | 165.11 | 2586.80 | 30.00 | 7862.60 | 12.00 | 3145.04 | 220.00 | 345.95 | 26.00 | 6814.25 | 163.00 | 3844.81 |
| 126+92.55 | 139+16.95 | XNA ACCESS RD. - RT. LANES | 1224.40 | 30.00 | 4081.33 | 85.71 | 1342.76 | 30.00 | 4081.33 | 12.00 | 1632.53 | 220.00 | 179.58 | 26.00 | 3537.16 | 163.00 | 1995.77 |
| 139+16.95 | 142+39.61 | XNA ACCESS RD. - RT. LANES | 322.66 | 30.00 | 1075.53 | 22.59 | 353.85 | 30.00 | 1075.53 | 12.16 | 435.95 | 220.00 | 47.95 | 26.00 | 932.13 | 163.00 | 525.94 |
| 145+67.99 | 157+48.13 | XNA ACCESS RD. - RT. LANES | 1180.14 | 30.00 | 3933.80 | 82.61 | 1294.22 | 30.00 | 3933.80 | 12.16 | 1594.50 | 220.00 | 175.40 | 26.00 | 3409.29 | 163.00 | 1923.63 |
| 168+44.23 | 173+02.34 | XNA ACCESS RD. - RT. LANES | 458.11 | 30.00 | 1527.03 | 32.07 | 502.39 | 30.00 | 1527.03 | 12.16 | 618.96 | 220.00 | 68.09 | 26.00 | 1323.43 | 163.00 | 746.72 |
| 173+02.34 | 175+78.71 | XNA ACCESS RD. - RT. LANES | 276.37 | 30.00 | 921.23 | 19.35 | 303.08 | 30.00 | 921.23 | 12.00 | 368.49 | 220.00 | 40.53 | 26.00 | 798.40 | 163.00 | 450.48 |
| 182+41.29 | 191+17.72 | XNA ACCESS RD. - RT. LANES | 876.43 | 30.00 | 2921.43 | 61.35 | 961.15 | 30.00 | 2921.43 | 12.00 | 1168.57 | 220.00 | 128.54 | 26.00 | 2531.91 | 163.00 | 1428.58 |
| 194+16.28 | 206+39.45 | XNA ACCESS RD. - RT. LANES | 1223.17 | 30.00 | 4077.23 | 85.62 | 1341.41 | 30.00 | 4077.23 | 12.00 | 1630.89 | 220.00 | 179.40 | 26.00 | 3533.60 | 163.00 | 1993.77 |
| 206+39.45 | 210+18.08 | XNA ACCESS RD. - RT. LANES | 378.63 | 30.00 | 1262.10 | 26.50 | 415.23 | 30.00 | 1262.10 | 12.16 | 511.57 | 220.00 | 56.27 | 26.00 | 1093.82 | 163.00 | 617.17 |
| 214+16.30 | 217+09.85 | XNA ACCESS RD. - RT. LANES | 293.55 | 30.00 | 978.50 | 20.55 | 321.93 | 30.00 | 978.50 | 12.16 | 396.62 | 220.00 | 43.63 | 26.00 | 848.03 | 163.00 | 478.49 |
| 217+09.85 | 237+93.25 | XNA ACCESS RD. - LT. LANES | 2083.40 | 30.00 | 6944.67 | 145.84 | 2284.80 | 30.00 | 6944.67 | 12.16 | 2814.90 | 220.00 | 309.64 | 26.00 | 6018.71 | 163.00 | 3395.94 |
| 237+93.25 | 238+26.48 | XNA ACCESS RD. - RT. LANES | 33.23 | 30.00 | 110.77 | 2.33 | 36.44 | 30.00 | 110.77 | 12.16 | 44.90 | 220.00 | 4.94 | 26.00 | 96.00 | 163.00 | 54.16 |
| | | | | | | | | | | | | | | | | | |
| **RAMPS** | | | | | | | | | | | | | | | | | |
| 250+88.55 | 257+78.94 | HWY. 264 RAMP 4 | 690.39 | 32.00 | 2454.72 | 51.55 | 807.60 | 32.00 | 2454.72 | 12.00 | 920.52 | 220.00 | 101.26 | 28.00 | 2147.88 | 148.50 | 1025.23 |
| 234+98.78 | 238+24.14 | NB CROSSOVER | 325.36 | 7.67 | 277.28 | 5.82 | 91.23 | 7.67 | 277.28 | 4.00 | 144.60 | 220.00 | 15.91 | 5.67 | 204.98 | 61.25 | 199.28 |
| 238+24.14 | 239+43.14 | NB CROSSOVER | 119.00 | 19.00 | 251.22 | 5.28 | 82.65 | 19.00 | 251.22 | 10.00 | 132.22 | 220.00 | 14.54 | 15.00 | 198.33 | 135.50 | 161.25 |
| 239+43.14 | 240+27.55 | NB CROSSOVER | 84.41 | 19.00 | 178.20 | 3.74 | 58.63 | 19.00 | 178.20 | 10.00 | 93.79 | 220.00 | 10.32 | 15.00 | 140.68 | 135.50 | 114.38 |
| 240+27.55 | 245+30.96 | NB CROSSOVER | 503.41 | 19.00 | 1062.75 | 22.32 | 349.64 | 19.00 | 1062.75 | 10.00 | 559.34 | 220.00 | 61.53 | 15.00 | 839.02 | 135.50 | 682.12 |
| | | | | | | | | | | | | | | | | | |
| **LOCAL ROADS** | | | | | | | | | | | | | | | | | |
| 257+78.94 | 260+02.28 | AIRPORT BLVD. CURVE EXTENSION | 223.34 | 32.00 | 794.10 | 16.68 | 261.26 | 32.00 | 794.10 | 12.00 | 297.79 | 220.00 | 32.76 | 28.00 | 694.84 | 148.50 | 331.66 |
| 260+02.28 | 261+89.79 | AIRPORT BLVD. | 187.51 | 32.00 | 666.70 | 14.00 | 219.34 | 32.00 | 666.70 | 12.00 | 250.01 | 220.00 | 27.50 | 28.00 | 583.36 | 148.50 | 278.45 |
| 261+89.78 | 268+81.34 | AIRPORT BLVD. | 691.56 | 33.08 | 2541.87 | 53.38 | 836.28 | 33.08 | 2541.87 | 12.00 | 922.08 | 220.00 | 101.43 | 29.08 | 2234.51 | 148.50 | 1026.97 |
| 268+81.34 | 272+18.90 | AIRPORT BLVD. | 337.56 | 49.08 | 1840.83 | 38.66 | 605.63 | 49.08 | 1840.83 | 12.00 | 450.08 | 220.00 | 49.51 | 45.08 | 1690.80 | 148.50 | 501.28 |
| 272+18.90 | 276+86.50 | AIRPORT BLVD. | 467.60 | 45.33 | 2355.15 | 49.46 | 774.84 | 45.33 | 2355.15 | 12.00 | 623.47 | 220.00 | 68.58 | 34.33 | 1783.63 | 148.50 | 694.39 |
| 276+86.50 | 277+37.88 | AIRPORT BLVD. | 51.38 | 49.08 | 280.19 | 5.88 | 92.18 | 49.08 | 280.19 | 12.00 | 68.51 | 220.00 | 7.54 | 45.08 | 257.36 | 148.50 | 76.30 |
| | | | | | | | | | | | | | | | | | |
| **ADDITIONAL FOR TURNOUTS** | | | | | | | | | | | | | | | | | |
| 275+45.19 | 277+36.21 | AIRPORT BLVD. RT. | 191.02 | 27.75 | 588.98 | 12.37 | 193.77 | 27.75 | 588.98 | 1.00 | 21.22 | 220.00 | 2.33 | 25.75 | 546.53 | 8.50 | |
| 276+23.21 | 277+44.58 | AIRPORT BLVD. LT. | 121.37 | 14.33 | 193.25 | 4.06 | 63.58 | 14.33 | 193.25 | | | | | 12.33 | 166.28 | | |
| | | | | | | | | | | | | | | | | | |
| **SUBTOTALS (BOX 1 OF 2):** | | | | | **93342.13** | **1960.21** | **30709.56** | | **93342.13** | | **35903.12** | | **3949.34** | | **80959.84** | | **42973.27** |

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.3% MIN. AGGR.....5.7% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.4% MIN. AGGR.....4.6% ASPHALT BINDER
ACHM BASE COURSE (1 1/2").....96.0% MIN. AGGR.....4.0% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.
CEMENT STABILIZED CRUSHED STONE BASE COURSE .....94.0% AGGREGATE.....6.0% CEMENT



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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 137 | 583 |
| | | QUANTITIES | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

## BASE AND SURFACING (ALTERNATE 2 - BOX 2 OF 2)

| STATION | STATION | LOCATION | LENGTH | CEMENT STABILIZED CRUSHED STONE BASE COURSE (6" COMPACTED DEPTH) | | | | GEOTEXTILE FABRIC | | ACHM SURFACE COURSE (1/2") | | | | PORTLAND CEMENT CONCRETE PAVEMENT (9" U.T.) | | AGGREGATE BASE COURSE (CLASS 7) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | AVG. WID. | PROCESSING | CEMENT | AGGREGATE | AVG. WID. | SQ.YD. | AVG. WID. | SQ.YD. | POUND / SQ.YD. | PG 64-22 | AVG. WID. | SQ.YD. | TON / STATION | TON |
| | | | FEET | FEET | SQ. YD. | TON | TON | FEET | | FEET | | | TON | FEET | | | |
| **ADDITIONAL FOR SUPERELEVATION** | | | | | | | | | | | | | | | | | |
| 100+00.00 | 102+62.50 | XNA ACCESS RD. - LT. LANES | 262.50 | | | | | | | | | | | | | 29.88 | 78.44 |
| 103+33.77 | 106+83.77 | XNA ACCESS RD. - LT. LANES | 350.00 | | | | | | | | | | | | | 25.25 | 88.38 |
| 106+83.77 | 123+42.55 | XNA ACCESS RD. - LT. LANES | 1658.78 | | | | | | | | | | | | | 50.50 | 837.68 |
| 123+42.55 | 126+92.55 | XNA ACCESS RD. - LT. LANES | 350.00 | | | | | | | | | | | | | 25.25 | 88.38 |
| 139+16.95 | 142+66.95 | XNA ACCESS RD. - LT. LANES | 350.00 | | | | | | | | | | | | | 26.75 | 93.63 |
| 142+66.95 | 142+72.25 | XNA ACCESS RD. - LT. LANES | 5.30 | | | | | | | | | | | | | 53.50 | 2.84 |
| 145+98.66 | 157+95.90 | XNA ACCESS RD. - LT. LANES | 1197.24 | | | | | | | | | | | | | 53.50 | 640.52 |
| 168+84.16 | 169+52.34 | XNA ACCESS RD. - LT. LANES | 68.18 | | | | | | | | | | | | | 53.50 | 36.48 |
| 169+52.34 | 173+02.34 | XNA ACCESS RD. - LT. LANES | 350.00 | | | | | | | | | | | | | 26.75 | 93.63 |
| 206+39.45 | 209+89.45 | XNA ACCESS RD. - LT. LANES | 350.00 | | | | | | | | | | | | | 54.38 | 190.33 |
| 209+89.45 | 211+10.07 | XNA ACCESS RD. - LT. LANES | 120.62 | | | | | | | | | | | | | 108.75 | 131.17 |
| 214+98.57 | 217+09.85 | XNA ACCESS RD. - LT. LANES | 211.28 | | | | | | | | | | | | | 117.50 | 248.25 |
| 217+09.85 | 235+93.92 | XNA ACCESS RD. - LT. LANES | 1884.07 | | | | | | | | | | | | | 108.75 | 2048.93 |
| 235+93.92 | 237+93.25 | XNA ACCESS RD. - LT. LANES | 199.33 | | | | | | | | | | | | | 80.75 | 160.96 |
| 237+93.25 | 239+43.92 | XNA ACCESS RD. - LT. LANES | 150.67 | | | | | | | | | | | | | 39.00 | 58.76 |
| | | | | | | | | | | | | | | | | | |
| 103+33.77 | 106+83.77 | XNA ACCESS RD. - RT. LANES | 350.00 | | | | | | | | | | | | | 32.25 | 112.88 |
| 106+83.77 | 123+42.55 | XNA ACCESS RD. - RT. LANES | 1658.78 | | | | | | | | | | | | | 64.50 | 1069.91 |
| 123+42.55 | 126+92.55 | XNA ACCESS RD. - RT. LANES | 350.00 | | | | | | | | | | | | | 32.25 | 112.88 |
| 139+16.95 | 142+39.61 | XNA ACCESS RD. - RT. LANES | 322.66 | | | | | | | | | | | | | 11.75 | 37.91 |
| 145+67.99 | 157+48.13 | XNA ACCESS RD. - RT. LANES | 1180.14 | | | | | | | | | | | | | 23.50 | 277.33 |
| 168+44.23 | 169+52.34 | XNA ACCESS RD. - RT. LANES | 108.11 | | | | | | | | | | | | | 23.50 | 25.41 |
| 169+52.34 | 173+02.34 | XNA ACCESS RD. - RT. LANES | 350.00 | | | | | | | | | | | | | 11.75 | 41.13 |
| 206+39.45 | 209+89.45 | XNA ACCESS RD. - RT. LANES | 350.00 | | | | | | | | | | | | | 40.25 | 140.88 |
| 209+89.45 | 210+18.08 | XNA ACCESS RD. - RT. LANES | 28.63 | | | | | | | | | | | | | 80.50 | 23.05 |
| 214+16.30 | 217+09.85 | XNA ACCESS RD. - RT. LANES | 293.55 | | | | | | | | | | | | | 80.50 | 236.31 |
| 217+09.85 | 235+93.92 | XNA ACCESS RD. - RT. LANES | 1884.07 | | | | | | | | | | | | | 80.50 | 1516.68 |
| 235+93.92 | 237+93.25 | XNA ACCESS RD. - RT. LANES | 199.33 | | | | | | | | | | | | | 67.50 | 134.55 |
| 237+93.25 | 238+26.48 | XNA ACCESS RD. - RT. LANES | 33.23 | | | | | | | | | | | | | 53.00 | 17.61 |
| | | | | | | | | | | | | | | | | | |
| 250+88.55 | 257+78.94 | HWY. 264 RAMP 4 | 690.39 | | | | | | | | | | | | | 84.00 | 579.93 |
| | | | | | | | | | | | | | | | | | |
| 257+78.94 | 259+39.78 | AIRPORT BLVD. | 160.84 | | | | | | | | | | | | | 84.00 | 135.11 |
| 259+39.78 | 261+89.78 | AIRPORT BLVD. | 250.00 | | | | | | | | | | | | | 42.00 | 105.00 |
| 268+81.34 | 272+56.34 | AIRPORT BLVD. | 375.00 | | | | | | | | | | | | | 44.50 | 166.88 |
| 272+56.34 | 274+26.84 | AIRPORT BLVD. | 170.50 | | | | | | | | | | | | | 89.00 | 151.75 |
| 274+26.84 | 277+37.88 | AIRPORT BLVD. | 311.04 | | | | | | | | | | | | | 55.50 | 172.63 |
| | | | | | | | | | | | | | | | | | |
| 238+24.14 | 239+43.14 | NB CROSSOVER | 119.00 | | | | | | | | | | | | | 15.25 | 18.15 |
| 240+27.55 | 243+27.55 | NB CROSSOVER | 300.00 | | | | | | | | | | | | | 14.75 | 44.25 |
| 243+27.55 | 245+30.96 | NB CROSSOVER | 203.41 | | | | | | | | | | | | | 29.75 | 60.51 |
| | | | | | | | | | | | | | | | | | |
| **ADDITIONAL FOR GUARDRAIL** | | | | | | | | | | | | | | | | | |
| 119+59.49 | 124+51.45 | XNA ACCESS RD. LT. LANES INSIDE | 491.96 | | | | | | | 6.74 | 368.68 | 220.00 | 40.55 | | | VAR. | 290.34 |
| 139+32.88 | 142+71.63 | XNA ACCESS RD. RT. LANES INSIDE | 338.75 | | | | | | | 6.83 | 256.93 | 220.00 | 28.26 | | | VAR. | 202.33 |
| 139+82.10 | 142+52.85 | XNA ACCESS RD. RT. LANES OUTSIDE | 270.75 | | | | | | | 4.74 | 142.71 | 220.00 | 15.70 | | | VAR. | 112.38 |
| 140+92.55 | 143+04.30 | XNA ACCESS RD. LT. LANES OUTSIDE | 211.75 | | | | | | | 4.11 | 96.69 | 220.00 | 10.64 | | | VAR. | 76.14 |
| 145+52.65 | 147+77.14 | XNA ACCESS RD. RT. LANES INSIDE | 224.49 | | | | | | | 5.55 | 138.56 | 220.00 | 15.24 | | | VAR. | 109.12 |
| 145+64.63 | 149+03.30 | XNA ACCESS RD. LT. LANES INSIDE | 338.67 | | | | | | | 6.84 | 257.46 | 220.00 | 28.32 | | | VAR. | 202.75 |
| 145+83.65 | 148+53.91 | XNA ACCESS RD. LT. LANES OUTSIDE | 270.26 | | | | | | | 4.73 | 141.91 | 220.00 | 15.61 | | | VAR. | 111.75 |
| 154+31.90 | 157+70.70 | XNA ACCESS RD. RT. LANES INSIDE | 338.80 | | | | | | | 6.84 | 257.38 | 220.00 | 28.31 | | | VAR. | 202.69 |
| 154+99.90 | 157+70.65 | XNA ACCESS RD. RT. LANES OUTSIDE | 270.75 | | | | | | | 4.67 | 140.36 | 220.00 | 15.44 | | | VAR. | 110.53 |
| 168+61.48 | 171+32.23 | XNA ACCESS RD. LT. LANES OUTSIDE | 270.75 | | | | | | | 4.70 | 141.54 | 220.00 | 15.57 | | | VAR. | 111.46 |
| 168+61.53 | 172+00.28 | XNA ACCESS RD. LT. LANES INSIDE | 338.75 | | | | | | | 6.86 | 258.29 | 220.00 | 28.41 | | | VAR. | 203.40 |
| 172+45.19 | 175+83.94 | XNA ACCESS RD. RT. LANES INSIDE | 338.75 | | | | | | | 6.91 | 260.06 | 220.00 | 28.61 | | | VAR. | 204.80 |
| 173+36.28 | 176+07.03 | XNA ACCESS RD. RT. LANES OUTSIDE | 270.75 | | | | | | | 4.71 | 141.60 | 220.00 | 15.58 | | | VAR. | 111.51 |
| 181+62.17 | 184+32.92 | XNA ACCESS RD. LT. LANES OUTSIDE | 270.75 | | | | | | | 4.71 | 141.60 | 220.00 | 15.58 | | | VAR. | 111.51 |
| 181+85.26 | 185+24.01 | XNA ACCESS RD. LT. LANES INSIDE | 338.75 | | | | | | | 6.91 | 260.06 | 220.00 | 28.61 | | | VAR. | 204.80 |
| 187+91.25 | 191+30.00 | XNA ACCESS RD. RT. LANES INSIDE | 338.75 | | | | | | | 6.84 | 257.60 | 220.00 | 28.34 | | | VAR. | 202.86 |
| 188+84.25 | 191+55.00 | XNA ACCESS RD. RT. LANES OUTSIDE | 270.75 | | | | | | | 4.69 | 141.12 | 220.00 | 15.52 | | | VAR. | 111.13 |
| 193+24.04 | 195+94.79 | XNA ACCESS RD. LT. LANES OUTSIDE | 270.75 | | | | | | | 4.68 | 140.89 | 220.00 | 15.50 | | | VAR. | 110.95 |
| 193+49.01 | 196+87.76 | XNA ACCESS RD. LT. LANES INSIDE | 338.75 | | | | | | | 6.84 | 257.60 | 220.00 | 28.34 | | | VAR. | 202.86 |
| 207+20.33 | 210+59.08 | XNA ACCESS RD. LT. LANES OUTSIDE | 338.75 | | | | | | | 6.83 | 257.20 | 220.00 | 28.29 | | | VAR. | 202.55 |
| 207+45.45 | 210+16.13 | XNA ACCESS RD. RT. LANES OUTSIDE | 270.68 | | | | | | | 4.67 | 140.35 | 220.00 | 15.44 | | | VAR. | 110.53 |
| 214+55.53 | 217+39.53 | XNA ACCESS RD. LT. LANES INSIDE | 284.00 | | | | | | | 6.31 | 199.24 | 220.00 | 21.92 | | | VAR. | 156.90 |
| 215+00.62 | 220+18.47 | XNA ACCESS RD. LT. LANES OUTSIDE | 517.85 | | | | | | | 5.80 | 333.60 | 220.00 | 36.70 | | | VAR. | 262.71 |
| 228+37.19 | 234+51.11 | XNA ACCESS RD. RT. LANES INSIDE | 613.92 | | | | | | | 6.84 | 466.83 | 220.00 | 51.35 | | | VAR. | 367.63 |
| 231+23.26 | 237+30.20 | XNA ACCESS RD. LT. LANES INSIDE | 606.94 | | | | | | | 7.02 | 473.24 | 220.00 | 52.06 | | | VAR. | 372.68 |
| | | | | | | | | | | | | | | | | | |
| **SUBTOTALS (BOX 1 OF 2):** | | | | | **93342.13** | **1960.21** | **30709.56** | | **93342.13** | | **35903.12** | | **3949.34** | | **80959.84** | | **42973.27** |
| **SUBTOTALS (BOX 2 OF 2):** | | | | | | | | | | | **5671.50** | | **623.89** | | | | **14445.43** |
| **TOTALS:** | | | | | **93342.13** | **1960.21** | **30709.56** | | **93342.13** | | **41574.62** | | **4573.23** | | **80959.84** | | **57418.70** |

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.3% MIN. AGGR.....5.7% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.4% MIN. AGGR.....4.6% ASPHALT BINDER
ACHM BASE COURSE (1 1/2").....96.0% MIN. AGGR.....4.0% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.
CEMENT STABILIZED CRUSHED STONE BASE COURSE .....94.0% AGGREGATE.....6.0% CEMENT



aewierciak 10/20/2023 12:53:26 PM
WORKSPACE: AHTD
L:\201\701\701600 - XNA Access - NEPA\Drawings\r090069_QTY.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 138 | 583 |
| | | A7656, B7656, A7657 & B7657 | | QUANTITIES | | 66711 |

# SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 090069

| BRIDGE NO. | NAME PLATE TITLE | UNIT OF STRUCTURE | ITEM NO. | 801 | SP, SS & 802 | SP, SS & 802 | SP & 803 | SS & 804 | SS & 804 | SS & 805 | SS & 805 | SS & 805 | SP, SS & 807 | SP, SS & 807 | SS & 807 | SS & 808 | SS & 809 | SS & 809 | 812 | SS & 816 | SS & 816 | SS & 816 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ITEM | UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE | CLASS S CONCRETE - BRIDGE | CLASS S(AE) CONCRETE - BRIDGE | CLASS 2 PROTECTIVE SURFACE TREATMENT | REINFORCING STEEL - BRIDGE (GRADE 60) | EPOXY COATED REINFORCING STEEL (GRADE 60) | STEEL PILING (HP12X53) (1) | STEEL PILING (HP14X73) (1) | PREBORING (2) | STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50) | STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W) | PAINTING STRUCTURAL STEEL | ELASTOMERIC BEARINGS | SILICONE JOINT SEALANT | ARMORED JOINT WITH NEOPRENE STRIP SEAL | BRIDGE NAME PLATE (TYPE D) | FILTER BLANKET | DUMPED RIPRAP | CONCRETE RIPRAP |
| | | | UNIT | CU. YD. | CU. YD. | CU. YD. | SQ. YD. | POUND | POUND | LIN. FT. | LIN. FT. | LIN. FT. | POUND | POUND | TON | CU. IN. | LIN. FT. | LIN. FT. | EACH | SQ. YD. | CU. YD. | CU. YD. |
| A7656 | XNA ACCESS ROAD OVER WAGER DRIVE | BENT NO. 1A | | | 57.40 | | 4.9 | 7,417 | 664 | 173 | | 164 | 920 | | | 3,262.5 | 48 | | 1 | | | 29 |
| | | BENT NO. 2A | | 265 | 165.84 | | | 31,827 | | | 480 | 456 | | | | 2,852.0 | | | | | | |
| | | BENT NO. 3A | | 171 | 170.49 | | | 32,825 | | | 480 | 456 | | | | 2,852.0 | | | | | | |
| | | BENT NO. 4A | | | 55.57 | | 4.9 | 7,191 | 572 | 343 | | | 920 | | | 3,262.5 | 48 | | | | | 109 |
| | | 255'-0" CONTINUOUS PLATE GIRDER UNIT | | | | 349.00 | 1,133.3 | | 92,704 | | | | 301,650 | | 149.9 | | | | | | | |
| | | TOTALS FOR BRIDGE NO. A7656 | | 436 (3) | 449.30 | 349.00 | 1,143.1 | 79,260 | 93,940 | 516 | 960 | 1,076 | 303,490 | | 149.9 | 12,229.0 | 96 | | 1 | | | 138 |
| B7656 | XNA ACCESS ROAD OVER WAGER DRIVE | BENT NO. 1B | | | 57.20 | | 4.9 | 7,417 | 664 | 333 | | | 920 | | | 3,262.5 | 48 | | 1 | | | 51 |
| | | BENT NO. 2B | | 348 | 169.03 | | | 32,522 | | | 600 | 576 | | | | 2,852.0 | | | | | | |
| | | BENT NO. 3B | | 323 | 172.57 | | | 33,280 | | | 528 | 504 | | | | 2,852.0 | | | | | | |
| | | BENT NO. 4B | | | 55.70 | | 4.9 | 7,191 | 572 | 350 | | | 920 | | | 3,262.5 | 48 | | | | | 112 |
| | | 255'-0" CONTINUOUS PLATE GIRDER UNIT | | | | 349.00 | 1,133.3 | | 92,704 | | | | 301,650 | | 149.9 | | | | | | | |
| | | TOTALS FOR BRIDGE NO. B7656 | | 671 | 454.50 | 349.00 | 1,143.1 | 80,410 | 93,940 | 683 | 1,128 | 1,080 | 303,490 | | 149.9 | 12,229.0 | 96 | | 1 | | | 163 |
| A7657 | OSAGE CREEK | BENT NO. 1A | | | 63.44 | | 4.4 | 7,505 | 756 | 279 | | | | 835 | | 8,100.0 | | 42 | 1 | 793 | 455 | |
| | | BENT NO. 2A | | | 77.77 | | | 24,456 | | | | | | | | 3,071.5 | | | | | | |
| | | BENT NO. 3A | | | 87.74 | | | 26,704 | | | | | | | | 3,780.0 | | | | | | |
| | | BENT NO. 4A | | | 87.04 | | | 26,543 | | | | | | | | 3,071.5 | | | | | | |
| | | BENT NO. 5A | | | 84.19 | | | 25,970 | | | | | | | | 16,200.0 | | | | | | |
| | | BENT NO. 6A | | | 84.19 | | | 25,901 | | | | | | | | 3,071.5 | | | | | | |
| | | BENT NO. 7A | | | 83.46 | | | 25,740 | | | | | | | | 3,780.0 | | | | | | |
| | | BENT NO. 8A | | | 82.75 | | | 25,580 | | | | | | | | 3,071.5 | | | | | | |
| | | BENT NO. 9A | | 35 | 62.92 | | 4.4 | 7,481 | 756 | 108 | | 99 | | 835 | | 8,100.0 | | 42 | | 267 | 173 | |
| | | 510'-0" CONTINUOUS PLATE GIRDER UNIT | | | | 783.40 | 2,266.7 | | 192,849 | | | | | 732,460 | 137.3 | | | | | | | |
| | | 510'-0" CONTINUOUS PLATE GIRDER UNIT | | | | 783.40 | 2,266.7 | | 192,849 | | | | | 732,460 | 137.3 | | | | | | | |
| | | TOTALS FOR BRIDGE NO. A7657 | | 35 (3) | 713.50 | 1,566.80 | 4,542.2 | 195,880 | 387,210 | 387 | | 99 | | 1,466,590 | 274.6 | 52,246.0 | | 84 | 1 | 1,060 | 628 | |
| B7657 | OSAGE CREEK | BENT NO. 1B | | | 63.47 | | 4.4 | 7,505 | 756 | 306 | | | | 835 | | 8,100.0 | | 42 | 1 | 1,304 | 727 | |
| | | BENT NO. 2B | | | 79.90 | | | 24,938 | | | | | | | | 3,071.5 | | | | | | |
| | | BENT NO. 3B | | | 89.17 | | | 27,025 | | | | | | | | 3,780.0 | | | | | | |
| | | BENT NO. 4B | | | 87.04 | | | 26,543 | | | | | | | | 3,071.5 | | | | | | |
| | | BENT NO. 5B | | | 84.90 | | | 26,130 | | | | | | | | 16,200.0 | | | | | | |
| | | BENT NO. 6B | | | 81.34 | | | 25,259 | | | | | | | | 3,071.5 | | | | | | |
| | | BENT NO. 7B | | | 82.76 | | | 25,580 | | | | | | | | 3,780.0 | | | | | | |
| | | BENT NO. 8B | | | 82.07 | | | 25,419 | | | | | | | | 3,071.5 | | | | | | |
| | | BENT NO. 9B | | 35 | 62.95 | | 4.4 | 7,481 | 756 | 108 | | 99 | | 835 | | 8,100.0 | | 42 | | 248 | 162 | |
| | | 510'-0" CONTINUOUS PLATE GIRDER UNIT | | | | 783.40 | 2,266.7 | | 192,849 | | | | | 732,460 | 137.3 | | | | | | | |
| | | 510'-0" CONTINUOUS PLATE GIRDER UNIT | | | | 783.40 | 2,266.7 | | 192,849 | | | | | 732,460 | 137.3 | | | | | | | |
| | | TOTALS FOR BRIDGE NO. B7657 | | 35 (3) | 713.60 | 1,566.80 | 4,542.2 | 195,880 | 387,210 | 414 | | 99 | | 1,466,590 | 274.6 | 52,246.0 | | 84 | 1 | 1,552 | 889 | |
| SUBTOTAL FOR SHEET 1 | | | | 1,177 | 2,330.90 | 3,831.60 | 11,370.6 | 551,430 | 962,300 | 2,000 | 2,088 | 2,354 | 606,980 | 2,933,180 | 849.0 | 128,950.0 | 192 | 168 | 4 | 2,612 | 1,517 | 301 |

(1) All steel piling shall be Grade 50 and are required to have QPL-approved driving points which will not be paid for directly but will be considered subsidiary to the items "STEEL PILING (HP12X53)" AND "STEEL PILING (HP14X73)". All piles shall conform to Std. Dwg. No. 55020.

(2) Quantity of Preboring shown is for estimating and bidding purposes only. Actual quantities will be determined in the field.

(3) Bridge A7656 includes approximately 145 cu. yd. of rock excavation.

Bridge A7657 includes approximately 35 cu. yd. of rock excavation.

Bridge B7657 includes approximately 35 cu. yd. of rock excavation.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 1 OF 6
SCHEDULE OF BRIDGE QUANTITIES
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JULY 2023 FILENAME: b090069_q1.dgn
CHECKED BY: JES DATE: AUG. 2023 SCALE: No Scale
DESIGNED BY: RAK DATE: JULY 2023
BRIDGE NO. A7656, B7656, A7657 & B7657 DRAWING NO. 66711

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 139 | 583 |
| | | A7656, B7656, A7657 & B7657 | | QUANTITIES | | 66712 |

# SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 090069

| BRIDGE NO. | NAME PLATE TITLE | UNIT OF STRUCTURE | ITEM NO. | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ITEM | CORING DRILLED SHAFT (1) | CROSSHOLE SONIC LOGGING (72" DIA.) | CROSSHOLE SONIC LOGGING (108" DIA.) | THERMAL INTEGRITY PROFILING (72" DIA.) | THERMAL INTEGRITY PROFILING (108" DIA.) | DRILLED SHAFT (72" DIA.) | DRILLED SHAFT (108" DIA.) | PERMANENT STEEL CASING (84" DIA.) | PERMANENT STEEL CASING (120" DIA.) | TEXTURED COATING FINISH |
| | | | UNIT | LIN. FT. | EACH | EACH | EACH | EACH | LIN. FT. | LIN. FT. | LIN. FT. | LIN. FT. | SQ. YD. |
| A7656 | XNA ACCESS ROAD OVER WAGER DRIVE | BENT NO. 1A | | | | | | | | | | | 52 |
| | | BENT NO. 2A | | | | | | | | | | | 123 |
| | | BENT NO. 3A | | | | | | | | | | | 198 |
| | | BENT NO. 4A | | | | | | | | | | | 47 |
| | | 255'-0" CONTINUOUS PLATE GIRDER UNIT | | | | | | | | | | | 622 |
| | | TOTALS FOR BRIDGE NO. A7656 | | | | | | | | | | | 1,042 |
| B7656 | XNA ACCESS ROAD OVER WAGER DRIVE | BENT NO. 1B | | | | | | | | | | | 52 |
| | | BENT NO. 2B | | | | | | | | | | | 150 |
| | | BENT NO. 3B | | | | | | | | | | | 183 |
| | | BENT NO. 4B | | | | | | | | | | | 47 |
| | | 255'-0" CONTINUOUS PLATE GIRDER UNIT | | | | | | | | | | | 622 |
| | | TOTALS FOR BRIDGE NO. B7656 | | | | | | | | | | | 1,054 |
| A7657 | OSAGE CREEK | BENT NO. 1A | | | | | | | | | | | 28 |
| | | BENT NO. 2A | | | | 1 | | 1 | | 30 | | 12 | |
| | | BENT NO. 3A | | 30 | | 1 | | 1 | | 30 | | 12 | |
| | | BENT NO. 4A | | | | 1 | | 1 | | 35 | | 17 | |
| | | BENT NO. 5A | | 31 | | 1 | | 1 | | 31 | | 13 | |
| | | BENT NO. 6A | | | | 1 | | 1 | | 30 | | 12 | |
| | | BENT NO. 7A | | 28 | | 1 | | 1 | | 28 | | 10 | |
| | | BENT NO. 8A | | | | 1 | | 1 | | 34 | | 16 | |
| | | BENT NO. 9A | | | | | | | | | | | 28 |
| | | 510'-0" CONTINUOUS PLATE GIRDER UNIT | | | | | | | | | | | 1,246 |
| | | 510'-0" CONTINUOUS PLATE GIRDER UNIT | | | | | | | | | | | 1,246 |
| | | TOTALS FOR BRIDGE NO. A7657 | | 89 | | 7 | | 7 | | 218 | | 92 | 2,548 |
| B7657 | OSAGE CREEK | BENT NO. 1B | | | | | | | | | | | 28 |
| | | BENT NO. 2B | | | | 1 | | 1 | | 27 | | 9 | |
| | | BENT NO. 3B | | 28 | | 1 | | 1 | | 28 | | 10 | |
| | | BENT NO. 4B | | | | 1 | | 1 | | 30 | | 12 | |
| | | BENT NO. 5B | | 34 | | 1 | | 1 | | 34 | | 16 | |
| | | BENT NO. 6B | | | | 1 | | 1 | | 27 | | 9 | |
| | | BENT NO. 7B | | 28 | | 1 | | 1 | | 28 | | 10 | |
| | | BENT NO. 8B | | | | 1 | | 1 | | 34 | | 16 | |
| | | BENT NO. 9B | | | | | | | | | | | 28 |
| | | 510'-0" CONTINUOUS PLATE GIRDER UNIT | | | | | | | | | | | 1,246 |
| | | 510'-0" CONTINUOUS PLATE GIRDER UNIT | | | | | | | | | | | 1,246 |
| | | TOTALS FOR BRIDGE NO. B7657 | | 90 | | 7 | | 7 | | 208 | | 82 | 2,548 |
| | | SUBTOTAL FOR SHEET 2 | | 179 | | 14 | | 14 | | 426 | | 174 | 7,192 |

(1) Quantity shown is for estimating and bidding purposes only. Actual quantity, if any, will be determined in the field.

## TABLE OF APPROACH SLAB QUANTITIES

(For Information Only)

| Bridge No. | Item | Reinforcing Steel | Concrete |
|---|---|---|---|
| | Unit | Lbs. | Cu. Yds. |
| A7656 | Begin Bridge | 8,973 | 73.15 |
| | End Bridge | 8,973 | 73.13 |
| B7656 | Begin Bridge | 8,973 | 73.15 |
| | End Bridge | 8,973 | 73.13 |
| A7657 | Begin Bridge | 8,666 | 71.06 |
| | End Bridge | 8,666 | 71.06 |
| B7657 | Begin Bridge | 8,666 | 71.06 |
| | End Bridge | 8,666 | 71.06 |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 2 OF 6
SCHEDULE OF BRIDGE QUANTITIES
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JULY 2023 FILENAME: b090069_q2.dgn
CHECKED BY: JES DATE: AUG. 2023 SCALE: No Scale
DESIGNED BY: RAK DATE: JULY 2023
BRIDGE NO. A7656, B7656, A7657 & B7657 DRAWING NO. 66712

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 140 | 583 |
| | | A7658, B7658, A7659 & B7659 | | QUANTITIES | | 66713 |

# SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 090069

| BRIDGE NO. | NAME PLATE TITLE | UNIT OF STRUCTURE | ITEM NO. | 801 | SP, SS & 802 | SP, SS & 802 | SP & 803 | SS & 804 | SS & 804 | SS & 805 | SS & 805 | SS & 805 | SP, SS & 807 | SP, SS & 807 | SS & 807 | SS & 808 | SS & 809 | SS & 809 | 812 | SS & 816 | SS & 816 | SS & 816 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ITEM | UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE | CLASS S CONCRETE - BRIDGE | CLASS S(AE) CONCRETE - BRIDGE | CLASS 2 PROTECTIVE SURFACE TREATMENT | REINFORCING STEEL - BRIDGE (GRADE 60) | EPOXY COATED REINFORCING STEEL (GRADE 60) | STEEL PILING (HP12X53) (1) | STEEL PILING (HP14X73) (1) | PREBORING (2) | STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50) | STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W) | PAINTING STRUCTURAL STEEL | ELASTOMERIC BEARINGS | SILICONE JOINT SEALANT | ARMORED JOINT WITH NEOPRENE STRIP SEAL | BRIDGE NAME PLATE (TYPE D) | FILTER BLANKET | DUMPED RIPRAP | CONCRETE RIPRAP |
| | | | UNIT | CU. YD. | CU. YD. | CU. YD. | SQ. YD. | POUND | POUND | LIN. FT. | LIN. FT. | LIN. FT. | POUND | POUND | TON | CU. IN. | LIN. FT. | LIN. FT. | EACH | SQ. YD. | CU. YD. | CU. YD. |
| A7658 | LITTLE OSAGE CREEK | BENT NO. 1A | | | 83.96 | | 5.1 | 11,348 | 927 | 315 | | | | 90 | | 11,340.0 | | 48 | 1 | 1,161 | 580 | |
| | | BENT NO. 2A | | | 68.33 | | | 17,681 | | | | | | | | 7,800.0 | | | | | | |
| | | BENT NO. 3A | | | 70.48 | | | 18,265 | | | | | | | | 7,800.0 | | | | | | |
| | | BENT NO. 4A | | | 80.73 | | 5.1 | 11,386 | 927 | 333 | | | | 90 | | 11,340.0 | | 48 | | 1,413 | 707 | |
| | | 590'-0" CONTINUOUS PLATE GIRDER UNIT | | | | 814.30 | 2,622.3 | | 225,216 | | | | | 1,310,770 | 261.6 | | | | | | | |
| | | TOTALS FOR BRIDGE NO. A7658 | | | 303.50 | 814.30 | 2,632.5 | 58,680 | 227,070 | 648 | | | | 1,310,950 | 261.6 | 38,280.0 | | 96 | 1 | 2,574 | 1,287 | |
| B7658 | LITTLE OSAGE CREEK | BENT NO. 1B | | | 83.78 | | 5.1 | 11,348 | 927 | 297 | | | | 90 | | 11,340.0 | | 48 | 1 | 1,087 | 543 | |
| | | BENT NO. 2B | | | 68.76 | | | 17,789 | | | | | | | | 7,800.0 | | | | | | |
| | | BENT NO. 3B | | | 71.13 | | | 18,347 | | | | | | | | 7,800.0 | | | | | | |
| | | BENT NO. 4B | | | 85.73 | | 5.1 | 11,386 | 927 | 333 | | | | 90 | | 11,340.0 | | 48 | | 1,635 | 818 | |
| | | 590'-0" CONTINUOUS PLATE GIRDER UNIT | | | | 814.30 | 2,622.3 | | 225,216 | | | | | 1,310,770 | 261.6 | | | | | | | |
| | | TOTALS FOR BRIDGE NO. B7658 | | | 309.40 | 814.30 | 2,632.5 | 58,870 | 227,070 | 630 | | | | 1,310,950 | 261.6 | 38,280.0 | | 96 | 1 | 2,722 | 1,361 | |
| A7659 | XNA ACCESS ROAD OVER HADEN ROAD | BENT NO. 1A | | | 59.15 | | 5.2 | 7,564 | 576 | 531 | | | 996 | | | 3,368.8 | 51 | | 1 | | | 205 |
| | | BENT NO. 2A | | 127 | 120.79 | | | 23,237 | | 288 | | | | | | 2,218.2 | | | | | | |
| | | BENT NO. 3A | | 206 | 122.65 | | | 23,560 | | 324 | | | | | | 2,559.5 | | | | | | |
| | | BENT NO. 4A | | | 64.11 | | 5.2 | 8,359 | 713 | 638 | | | 996 | | | 2,537.5 | 51 | | | | | 186 |
| | | 226'-0" CONTINUOUS PLATE GIRDER UNIT | | | | 309.60 | 1,004.5 | | 82,851 | | | | 231,298 | | 117.0 | | | | | | | |
| | | TOTALS FOR BRIDGE NO. A7659 | | 333 | 366.70 | 309.60 | 1,014.9 | 62,270 | 84,140 | 1,781 | | | 233,290 | | 117.0 | 10,684.0 | 102 | | 1 | | | 391 |
| B7659 | XNA ACCESS ROAD OVER HADEN ROAD | BENT NO. 1B | | | 58.71 | | 5.2 | 7,564 | 576 | 513 | | | 996 | | | 3,368.8 | 51 | | 1 | | | 245 |
| | | BENT NO. 2B | | 140 | 123.10 | | | 23,659 | | 288 | | | | | | 2,218.2 | | | | | | |
| | | BENT NO. 3B | | 198 | 123.10 | | | 23,658 | | 324 | | | | | | 2,559.5 | | | | | | |
| | | BENT NO. 4B | | | 63.99 | | 5.2 | 8,359 | 713 | 484 | | | 996 | | | 2,537.5 | 51 | | | | | 230 |
| | | 226'-0" CONTINUOUS PLATE GIRDER UNIT | | | | 309.60 | 1,004.5 | | 82,851 | | | | 231,298 | | 117.0 | | | | | | | |
| | | TOTALS FOR BRIDGE NO. B7659 | | 338 | 368.90 | 309.60 | 1,014.9 | 63,240 | 84,140 | 1,609 | | | 233,290 | | 117.0 | 10,684.0 | 102 | | 1 | | | 475 |
| SUBTOTAL FOR SHEET 3 | | | | 671 | 1,348.50 | 2,247.80 | 7,294.8 | 243,060 | 622,420 | 4,668 | | | 466,580 | 2,621,900 | 757.2 | 97,928.0 | 204 | 192 | 4 | 5,296 | 2,648 | 866 |

(1) All steel piling shall be Grade 50 and are required to have QPL-approved driving points which will not be paid for directly but will be considered subsidiary to the items "STEEL PILING (HP12X53)" AND "STEEL PILING (HP14X73)". All piles shall conform to Std. Dwg. No. 55020.

(2) Quantity of Preboring shown is for estimating and bidding purposes only. Actual quantities will be determined in the field.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 3 OF 6
SCHEDULE OF BRIDGE QUANTITIES
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEWSEC. NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JULY 2023 FILENAME: b090069_q3.dgn
CHECKED BY: JES DATE: AUG. 2023 SCALE: No Scale
DESIGNED BY: RAK DATE: JULY 2023
BRIDGE NO. A7658, B7658, A7659 & B7659 DRAWING NO. 66713

JESkinner 10/20/2023 2:10:39 PM
WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069xd_S003_QT.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 141 | 583 |
| | | A7658, B7658, A7659 & B7659 | | QUANTITIES | | 66714 |

# SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 090069

| BRIDGE NO. | NAME PLATE TITLE | UNIT OF STRUCTURE | ITEM NO. | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ITEM | CORING DRILLED SHAFT (1) | CROSSHOLE SONIC LOGGING (72" DIA.) | CROSSHOLE SONIC LOGGING (108" DIA.) | THERMAL INTEGRITY PROFILING (72" DIA.) | THERMAL INTEGRITY PROFILING (108" DIA.) | DRILLED SHAFT (72" DIA.) | DRILLED SHAFT (108" DIA.) | PERMANENT STEEL CASING (84" DIA.) | PERMANENT STEEL CASING (120" DIA.) | TEXTURED COATING FINISH |
| | | | UNIT | LIN. FT. | EACH | EACH | EACH | EACH | LIN. FT. | LIN. FT. | LIN. FT. | LIN. FT. | SQ. YD. |
| A7658 | LITTLE OSAGE CREEK | BENT NO. 1A | | | | | | | | | | | 35 |
| | | BENT NO. 2A | | 26 | 2 | | 2 | | 52 | | 28 | | |
| | | BENT NO. 3A | | 24 | 2 | | 2 | | 48 | | 24 | | |
| | | BENT NO. 4A | | | | | | | | | | | 35 |
| | | 590'-0" CONTINUOUS PLATE GIRDER UNIT | | | | | | | | | | | 1,442 |
| | | TOTALS FOR BRIDGE NO. A7658 | | 50 | 4 | | 4 | | 100 | | 52 | | 1,512 |
| B7658 | LITTLE OSAGE CREEK | BENT NO. 1B | | | | | | | | | | | 35 |
| | | BENT NO. 2B | | 26 | 2 | | 2 | | 52 | | 28 | | |
| | | BENT NO. 3B | | 24 | 2 | | 2 | | 48 | | 24 | | |
| | | BENT NO. 4B | | | | | | | | | | | 35 |
| | | 590'-0" CONTINUOUS PLATE GIRDER UNIT | | | | | | | | | | | 1,442 |
| | | TOTALS FOR BRIDGE NO. B7658 | | 50 | 4 | | 4 | | 100 | | 52 | | 1,512 |
| A7659 | XNA ACCESS ROAD OVER HADEN ROAD | BENT NO. 1A | | | | | | | | | | | 47 |
| | | BENT NO. 2A | | | | | | | | | | | 161 |
| | | BENT NO. 3A | | | | | | | | | | | 167 |
| | | BENT NO. 4A | | | | | | | | | | | 55 |
| | | 226'-0" CONTINUOUS PLATE GIRDER UNIT | | | | | | | | | | | 561 |
| | | TOTALS FOR BRIDGE NO. A7659 | | | | | | | | | | | 991 |
| B7659 | XNA ACCESS ROAD OVER HADEN ROAD | BENT NO. 1B | | | | | | | | | | | 47 |
| | | BENT NO. 2B | | | | | | | | | | | 166 |
| | | BENT NO. 3B | | | | | | | | | | | 168 |
| | | BENT NO. 4B | | | | | | | | | | | 55 |
| | | 226'-0" CONTINUOUS PLATE GIRDER UNIT | | | | | | | | | | | 561 |
| | | TOTALS FOR BRIDGE NO. B7659 | | | | | | | | | | | 997 |
| SUBTOTAL FOR SHEET 4 | | | | 100 | 8 | | 8 | | 200 | | 104 | | 5,012 |

(1) Quantity shown is for estimating and bidding purposes only. Actual quantity, if any, will be determined in the field.

## TABLE OF APPROACH SLAB QUANTITIES

(For Information Only)

| Bridge No. | Item | Reinforcing Steel | Concrete |
|---|---|---|---|
| | Unit | Lbs. | Cu. Yds. |
| A7658 | Begin Bridge | 9,139 | 74.03 |
| | End Bridge | 9,139 | 74.03 |
| B7658 | Begin Bridge | 9,139 | 74.03 |
| | End Bridge | 9,139 | 74.03 |
| A7659 | Begin Bridge | 9,202 | 74.45 |
| | End Bridge | 9,202 | 74.45 |
| B7659 | Begin Bridge | 9,202 | 74.45 |
| | End Bridge | 9,202 | 74.45 |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 4 OF 6
SCHEDULE OF BRIDGE QUANTITIES
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JULY 2023 FILENAME: b090069_q4.dgn
CHECKED BY: JES DATE: AUG. 2023 SCALE: No Scale
DESIGNED BY: RAK DATE: JULY 2023
BRIDGE NO. A7658, B7658, A7659 & B7659 DRAWING NO. 66714

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WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069x0_S004_QT.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 142 | 583 |
| | | SEE TABLE | | QUANTITIES | | 66715 |

# SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 090069

| BRIDGE NO. | NAME PLATE TITLE | UNIT OF STRUCTURE | ITEM NO. | 801 | SP, SS & 802 | SP, SS & 802 | SP & 803 | SS & 804 | SS & 804 | SS & 805 | SS & 805 | SS & 805 | SP, SS & 807 | SP, SS & 807 | SS & 807 | SS & 808 | SS & 809 | SS & 809 | 812 | SS & 816 | SS & 816 | SS & 816 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ITEM | UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE | CLASS S CONCRETE - BRIDGE | CLASS S(AE) CONCRETE - BRIDGE | CLASS 2 PROTECTIVE SURFACE TREATMENT | REINFORCING STEEL - BRIDGE (GRADE 60) | EPOXY COATED REINFORCING STEEL (GRADE 60) | STEEL PILING (HP12X53) (1) | STEEL PILING (HP14X73) (1) | PREBORING (2) | STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50) | STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W) | PAINTING STRUCTURAL STEEL | ELASTOMERIC BEARINGS | SILICONE JOINT SEALANT | ARMORED JOINT WITH NEOPRENE STRIP SEAL | BRIDGE NAME PLATE (TYPE D) | FILTER BLANKET | DUMPED RIPRAP | CONCRETE RIPRAP |
| | | | UNIT | CU. YD. | CU. YD. | CU. YD. | SQ. YD. | POUND | POUND | LIN. FT. | LIN. FT. | LIN. FT. | POUND | POUND | TON | CU. IN. | LIN. FT. | LIN. FT. | EACH | SQ. YD. | CU. YD. | CU. YD. |
| A7660 | XNA ACCESS ROAD OVER HOLMES ROAD | BENT NO. 1A | | | 78.11 | | 7.7 | 8,982 | 801 | 717 | | 706 | 1,448 | | | 3,570.0 | 70 | | 1 | | | 124 |
| | | BENT NO. 2A | | 750 | 291.72 | | | 45,289 | | | 810 | | | | | 3,276.0 | | | | | | |
| | | BENT NO. 3A | | 507 | 313.50 | | | 50,229 | | | 650 | 620 | | | | 3,276.0 | | | | | | |
| | | BENT NO. 4A | | | 285.82 | | | 43,953 | | | 1,130 | | | | | 3,276.0 | | | | | | |
| | | BENT NO. 5A | | | 75.75 | | 7.7 | 8,997 | 801 | 933 | | | 1,448 | | | 3,570.0 | 70 | | | | | 341 |
| | | 320'-0" CONTINUOUS PLATE GIRDER UNIT | | | | 488.20 | 1,639.6 | | 130,728 | | | | 411,534 | | 208.5 | | | | | | | |
| | | TOTALS FOR BRIDGE NO. A7660 | | 1,257 | 1,044.90 | 488.20 | 1,655.0 | 157,450 | 132,330 | 1,650 | 2,590 | 1,326 | 414,430 | | 208.5 | 16,968.0 | 140 | | 1 | | | 465 |
| B7660 | XNA ACCESS ROAD OVER HOLMES ROAD | BENT NO. 1B | | | 73.31 | | 6.6 | 8,547 | 801 | 183 | | 172 | 1,243 | | | 6,111.0 | 64 | | 1 | | | 22 |
| | | BENT NO. 2B | | 627 | 286.87 | | | 39,255 | | | 630 | 600 | | | | 2,808.0 | | | | | | |
| | | BENT NO. 3B | | 755 | 325.16 | | | 47,935 | | | 690 | 660 | | | | 2,808.0 | | | | | | |
| | | BENT NO. 4B | | 512 | 319.86 | | | 46,733 | | | 680 | | | | | 2,808.0 | | | | | | |
| | | BENT NO. 5B | | | 71.80 | | 6.6 | 8,570 | 801 | 642 | | | 1,243 | | | 6,111.0 | 64 | | | | | 124 |
| | | 320'-0" CONTINUOUS PLATE GIRDER UNIT | | | | 456.80 | 1,496.9 | | 122,218 | | | | 392,804 | | 198.9 | | | | | | | |
| | | TOTALS FOR BRIDGE NO. B7660 | | 1,894 (3) | 1,077.00 | 456.80 | 1,510.1 | 151,040 | 123,820 | 825 | 2,000 | 1,432 | 395,290 | | 198.9 | 20,646.0 | 128 | | 1 | | | 146 |
| 07661 | MALONE LANE OVER XNA ACCESS ROAD | BENT NO. 1 | | | 39.44 | | 3.4 | 5,535 | 483 | 335 | | 330 | 580 | | | 3,132.0 | 34 | | 1 | | | 13 |
| | | BENT NO. 2 | | 154 | 129.62 | | | 24,880 | | | 896 | 880 | | | | 2,552.0 | | | | | | |
| | | BENT NO. 3 | | | 39.44 | | 3.4 | 5,535 | 483 | 310 | | 305 | 580 | | | 2,436.0 | 34 | | | | | 13 |
| | | 216'-0" CONTINUOUS PLATE GIRDER UNIT | | | | 220.70 | 720.0 | | 58,594 | | | | 217,820 | | 110.1 | | | | | | | |
| | | TOTALS FOR BRIDGE NO. 07661 | | 154 (3) | 208.50 | 220.70 | 726.8 | 35,950 | 59,560 | 645 | 896 | 1,515 | 218,980 | | 110.1 | 8,120.0 | 68 | | 1 | | | 26 |
| | | SUBTOTAL FOR SHEET 5 | | 3,305 | 2,330.40 | 1,165.70 | 3,891.9 | 344,440 | 315,710 | 3,120 | 5,486 | 4,273 | 1,028,700 | | 517.5 | 45,734.0 | 336 | | 3 | | | 637 |
| | | SUBTOTAL FOR SHEET 1 | | 1,177 | 2,330.90 | 3,831.60 | 11,370.6 | 551,430 | 962,300 | 2,000 | 2,088 | 2,354 | 606,980 | 2,933,180 | 849.0 | 128,950.0 | 192 | 168 | 4 | 2,612 | 1,517 | 301 |
| | | SUBTOTAL FOR SHEET 3 | | 671 | 1,348.50 | 2,247.80 | 7,294.8 | 243,060 | 622,420 | 4,668 | | | 466,580 | 2,621,900 | 757.2 | 97,928.0 | 204 | 192 | 4 | 5,296 | 2,648 | 866 |
| | | TOTALS FOR JOB NO. 090069 | | 5,153 | 6,009.80 | 7,245.10 | 22,557.3 | 1,138,930 | 1,900,430 | 9,788 | 7,574 | 6,627 | 2,102,260 | 5,555,080 | 2,123.7 | 272,612.0 | 732 | 360 | 11 | 7,908 | 4,165 | 1,804 |

(1) All steel piling shall be Grade 50 and are required to have QPL-approved driving points which will not be paid for directly but will be considered subsidiary to the items "STEEL PILING (HP12X53)" AND "STEEL PILING (HP14X73)". All piles shall conform to Std. Dwg. No. 55020.

(2) Quantity of Preboring shown is for estimating and bidding purposes only. Actual quantities will be determined in the field.

(3) Bridge B7660 includes approximately 69 cu. yd. of rock excavation.
Bridge 07661 includes approximately 76 cu. yd. of rock excavation.

## BRIDGE NUMBERS

| |
|---|
| A7656 |
| B7656 |
| A7657 |
| B7657 |
| A7658 |
| B7658 |
| A7659 |
| B7659 |
| A7660 |
| B7660 |
| 07661 |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 5 OF 6
SCHEDULE OF BRIDGE QUANTITIES
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JULY 2023 FILENAME: b090069_q5.dgn
CHECKED BY: JES DATE: AUG. 2023 SCALE: No Scale
DESIGNED BY: RAK DATE: JULY 2023
BRIDGE NO. SEE TABLE DRAWING NO. 66715

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 143 | 583 |
| | | SEE TABLE | | QUANTITIES | | 66716 |

# SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 090069

| BRIDGE NO. | NAME PLATE TITLE | UNIT OF STRUCTURE | ITEM NO. | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ITEM | CORING DRILLED SHAFT (1) | CROSSHOLE SONIC LOGGING (72" DIA.) | CROSSHOLE SONIC LOGGING (108" DIA.) | THERMAL INTEGRITY PROFILING (72" DIA.) | THERMAL INTEGRITY PROFILING (108" DIA.) | DRILLED SHAFT (72" DIA.) | DRILLED SHAFT (108" DIA.) | PERMANENT STEEL CASING (84" DIA.) | PERMANENT STEEL CASING (120" DIA.) | TEXTURED COATING FINISH |
| | | | UNIT | LIN. FT. | EACH | EACH | EACH | EACH | LIN. FT. | LIN. FT. | LIN. FT. | LIN. FT. | SQ. YD. |
| A7660 | XNA ACCESS ROAD OVER HOLMES ROAD | BENT NO. 1A | | | | | | | | | | | 63 |
| | | BENT NO. 2A | | | | | | | | | | | 224 |
| | | BENT NO. 3A | | | | | | | | | | | 290 |
| | | BENT NO. 4A | | | | | | | | | | | 216 |
| | | BENT NO. 5A | | | | | | | | | | | 65 |
| | | 320'-0" CONTINUOUS PLATE GIRDER UNIT | | | | | | | | | | | 785 |
| | | TOTALS FOR BRIDGE NO. A7660 | | | | | | | | | | | 1,643 |
| B7660 | XNA ACCESS ROAD OVER HOLMES ROAD | BENT NO. 1B | | | | | | | | | | | 63 |
| | | BENT NO. 2B | | | | | | | | | | | 127 |
| | | BENT NO. 3B | | | | | | | | | | | 210 |
| | | BENT NO. 4B | | | | | | | | | | | 207 |
| | | BENT NO. 5B | | | | | | | | | | | 64 |
| | | 320'-0" CONTINUOUS PLATE GIRDER UNIT | | | | | | | | | | | 791 |
| | | TOTALS FOR BRIDGE NO. B7660 | | | | | | | | | | | 1,462 |
| 07661 | MALONE LANE OVER XNA ACCESS ROAD | BENT NO. 1 | | | | | | | | | | | 41 |
| | | BENT NO. 2 | | | | | | | | | | | 103 |
| | | BENT NO. 3 | | | | | | | | | | | 40 |
| | | 216'-0" CONTINUOUS PLATE GIRDER UNIT | | | | | | | | | | | 449 |
| | | TOTALS FOR BRIDGE NO. 07661 | | | | | | | | | | | 633 |
| | | SUBTOTAL FOR SHEET 6 | | | | | | | | | | | 3,738 |
| | | SUBTOTAL FOR SHEET 2 | | 179 | | 14 | | 14 | | 426 | | 174 | 7,192 |
| | | SUBTOTAL FOR SHEET 4 | | 100 | 8 | | 8 | | 200 | | 104 | | 5,012 |
| | | TOTALS FOR JOB NO. 090069 | | 279 | 8 | 14 | 8 | 14 | 200 | 426 | 104 | 174 | 15,942 |

## BRIDGE NUMBERS

| |
|---|
| A7656 |
| B7656 |
| A7657 |
| B7657 |
| A7658 |
| B7658 |
| A7659 |
| B7659 |
| A7660 |
| B7660 |
| 07661 |

## TABLE OF APPROACH SLAB QUANTITIES

(For Information Only)

| Bridge No. | Item | Reinforcing Steel | Concrete |
|---|---|---|---|
| | Unit | Lbs. | Cu. Yds. |
| A7660 | Begin Bridge | 11,473 | 91.30 |
| | End Bridge | 11,452 | 91.12 |
| B7660 | Begin Bridge | 10,397 | 82.73 |
| | End Bridge | 10,360 | 82.55 |

(1) Quantity shown is for estimating and bidding purposes only. Actual quantity, if any, will be determined in the field.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 6 OF 6
SCHEDULE OF BRIDGE QUANTITIES
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JULY 2023 FILENAME: b090069_q6.dgn
CHECKED BY: JES DATE: AUG. 2023 SCALE: No Scale
DESIGNED BY: RAK DATE: JULY 2023
BRIDGE NO. SEE TABLE DRAWING NO. 66716

JESkinner 10/20/2023 2:10:41 PM
WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069x0_5006_QT.dgn

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 144 | 583 |
| | | SUMMARY OF QUANTITIES | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

Digitally Signed 11/20/2023

## SUMMARY OF QUANTITIES (BOX 1 OF 3)

| | ITEM NUMBER | ITEM | | ASPHALT QUANTITIES - ALTERNATE NO. 1 | CONCRETE QUANTITIES - ALTERNATE NO. 2 | UNIT |
|---|---|---|---|---|---|---|
| | 201 | CLEARING | | 163 | 163 | STATION |
| | 201 | GRUBBING | | 163 | 163 | STATION |
| | 202 | REMOVAL AND DISPOSAL OF CURB AND GUTTER | | 300 | 300 | LIN. FT. |
| | 202 | REMOVAL AND DISPOSAL OF FENCE | | 14506 | 14506 | LIN. FT. |
| | 202 | REMOVAL AND DISPOSAL OF GATES | | 9 | 9 | EACH |
| | 202 | REMOVAL AND DISPOSAL OF POSTS | | 14 | 14 | EACH |
| | 202 | REMOVAL AND DISPOSAL OF SIGN FOUNDATIONS | | 3 | 3 | EACH |
| | 202 | REMOVAL AND DISPOSAL OF PRECAST CONCRETE BARRIER WALL LEFT IN PLACE | | 4222 | 4222 | LIN. FT. |
| | 202 | REMOVAL AND DISPOSAL OF BUILDINGS | | 10 | 10 | EACH |
| | 202 | REMOVAL AND DISPOSAL OF CATTLE GUARD | | 1 | 1 | EACH |
| | 202 | REMOVAL AND DISPOSAL OF SIGNS | | 3 | 3 | EACH |
| | 202 | REMOVAL AND DISPOSAL OF SEPTIC SYSTEM | | 3 | 3 | EACH |
| | 210 | ROCK EXCAVATION | | 123971 | 123971 | CU. YD. |
| | SP, SS, & 210 | UNCLASSIFIED EXCAVATION | | 1294951 | 1294951 | CU. YD. |
| | SP | SELECT GRANULAR BACKFILL | | 5559 | 5559 | CU. YD. |
| | 210 | PRESPLITTING | | 26000 | 26000 | SQ. YD. |
| | SP & 210 | COMPACTED EMBANKMENT | | 1447865 | 1447865 | CU. YD. |
| | SP & 210 | ROCK FILL | | 56009 | 56009 | CU. YD. |
| | SP | REMOVING AND REPLACING TOPSOIL | | 63730 | 63730 | CU. YD. |
| | SP & 210 | SOIL STABILIZATION | | 1000 | 1000 | TON |
| | SP, SS, & 303 | AGGREGATE BASE COURSE (CLASS 7) | | 126000 | 77291 | TON |
| | SP, SS, & 308 | AGGREGATE IN CEMENT STABILIZED CRUSHED STONE BASE COURSE | | | 30710 | TON |
| | SS & 308 | CEMENT IN CEMENT STABILIZED CRUSHED STONE BASE COURSE | | | 1960 | TON |
| | SS & 308 | PROCESSING CEMENT STABILIZED CRUSHED STONE BASE COURSE | | | 93342 | SQ. YD. |
| | SP, SS, & 309 | PORTLAND CEMENT CONCRETE BASE (10" UNIFORM THICKNESS) | | 52 | 52 | SQ. YD. |
| | SP, SS, & 309 | PORTLAND CEMENT CONCRETE BASE (5 1/2" UNIFORM THICKNESS) | | 44 | 44 | SQ. YD. |
| | SS & 401 | TACK COAT | | 13272 | 1000 | GAL. |
| | SP, SS, & 405 | MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2") | | 17569 | 64 | TON |
| | SP, SS, & 405 | ASPHALT BINDER (PG 70-22) IN ACHM BASE COURSE (1 1/2") | | 732 | 3 | TON |
| | SP, SS, & 406 | MINERAL AGGREGATE IN ACHM BINDER COURSE (1") | | 16551 | 1550 | TON |
| | SP, SS, & 406 | ASPHALT BINDER (PG 64-22) IN ACHM BINDER COURSE (1") | | 72 | 72 | TON |
| | SP, SS, & 406 | ASPHALT BINDER (PG 70-22) IN ACHM BINDER COURSE (1") | | 726 | 2 | TON |
| | SP, SS, & 407 | MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2") | | 23368 | 6644 | TON |
| | SP, SS, & 407 | ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2") | | 125 | 386 | TON |
| | SP, SS, & 407 | ASPHALT BINDER (PG 70-22) IN ACHM SURFACE COURSE (1/2") | | 1287 | 16 | TON |
| | SP & 412 | COLD MILLING ASPHALT PAVEMENT | | 1801 | 1801 | SQ. YD. |
| | SP, SS, & 501 | PORTLAND CEMENT CONCRETE PAVEMENT (9" UNIFORM THICKNESS) | | | 80960 | SQ. YD. |
| | SP, SS, & 504 | APPROACH SLABS | | 1518.46 | 1518.46 | CU. YD. |
| | SP, SS, & 504 | APPROACH GUTTERS | | 173.30 | 173.30 | CU. YD. |
| | 601 | MOBILIZATION | | 1.00 | 1.00 | LUMP SUM |
| | 602 | FURNISHING FIELD LABORATORY | | 1 | 1 | EACH |
| | SP & 602 | FURNISHING FIELD OFFICE | | 1 | 1 | EACH |
| | SP, SS, & 603 | MAINTENANCE OF TRAFFIC | | 1.00 | 1.00 | LUMP SUM |
| | 603 | 18" TEMPORARY CULVERT | | 88 | 88 | LIN. FT. |
| | 603 | 30" TEMPORARY CULVERT | | 84 | 84 | LIN. FT. |
| | SS & 604 | SIGNS | | 517 | 517 | SQ. FT. |
| | SP, SS, & 604 | CONSTRUCTION PROJECT INFORMATION SIGN UPDATE | | 3 | 3 | EACH |
| | SS & 604 | BARRICADES | | 192 | 192 | LIN. FT. |
| | SS & 604 | TRAFFIC DRUMS | | 226 | 226 | EACH |
| | SS & 604 | FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER | | 1026 | 1026 | LIN. FT. |
| | SP, SS, & 604 | FURNISHING, INSTALLING AND LEAVING IN PLACE PRECAST CONCRETE BARRIER | | 1307 | 1307 | LIN. FT. |
| | 604 | CONSTRUCTION PAVEMENT MARKINGS | | 7374 | 7374 | LIN. FT. |
| | 604 | REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS | | 6616 | 6616 | LIN. FT. |
| | 604 | REMOVAL OF PERMANENT PAVEMENT MARKINGS | | 6402 | 6402 | LIN. FT. |
| | SP, SS, & 605 | CONCRETE DITCH PAVING (TYPE A) | | 361 | 361 | SQ. YD. |
| | SP, SS, & 605 | CONCRETE DITCH PAVING (TYPE B) | | 17090 | 17090 | SQ. YD. |
| | SS & 606 | 18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III) | | 338 | 338 | LIN. FT. |
| | SS & 606 | 24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III) | | 1684 | 1684 | LIN. FT. |
| * | SS & 606 | 24" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV) | (ALTERNATE NO. 1) | 136 | 136 | LIN. FT. |
| | SS & 606 | 30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III) | | 328 | 328 | LIN. FT. |
| * | SS & 606 | 30" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV) | (ALTERNATE NO. 1) | 67 | 67 | LIN. FT. |
| | SS & 606 | 30" REINFORCED CONCRETE PIPE CULVERTS (CLASS V) | | 338 | 338 | LIN. FT. |
| | SS & 606 | 36" REINFORCED CONCRETE PIPE CULVERTS (CLASS III) | | 216 | 216 | LIN. FT. |
| * | SS & 606 | 36" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV) | (ALTERNATE NO. 1) | 89 | 89 | LIN. FT. |
| | SS & 606 | 36" REINFORCED CONCRETE PIPE CULVERTS (CLASS V) | | 756 | 756 | LIN. FT. |
| | SS & 606 | 42" REINFORCED CONCRETE PIPE CULVERTS (CLASS III) | | 150 | 150 | LIN. FT. |
| | SS & 606 | 42" REINFORCED CONCRETE PIPE CULVERTS (CLASS V) | | 1596 | 1596 | LIN. FT. |
| | SS & 606 | 48" REINFORCED CONCRETE PIPE CULVERTS (CLASS III) | | 49 | 49 | LIN. FT. |
| | SS & 606 | 48" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV) | | 268 | 268 | LIN. FT. |
| * | SS & 606 | 48" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV) | (ALTERNATE NO. 1) | 60 | 60 | LIN. FT. |
| | SS & 606 | 48" REINFORCED CONCRETE PIPE CULVERTS (CLASS V) | | 1276 | 1276 | LIN. FT. |
| * | SS & 606 | 24" ASPHALT COATED CORRUGATED STEEL PIPE CULVERTS (16 GAUGE) | (ALTERNATE NO. 2) | 136 | 136 | LIN. FT. |
| * | SS & 606 | 30" ASPHALT COATED CORRUGATED STEEL PIPE CULVERTS (16 GAUGE) | (ALTERNATE NO. 2) | 67 | 67 | LIN. FT. |
| * | SS & 606 | 36" ASPHALT COATED CORRUGATED STEEL PIPE CULVERTS (14 GAUGE) | (ALTERNATE NO. 2) | 89 | 89 | LIN. FT. |
| * | SS & 606 | 48" ASPHALT COATED CORRUGATED STEEL PIPE CULVERTS (14 GAUGE) | (ALTERNATE NO. 2) | 60 | 60 | LIN. FT. |
| * | SS & 606 | 24" ALUMINUM COATED CORRUGATED STEEL PIPE CULVERTS (16 GAUGE) | (ALTERNATE NO. 3) | 136 | 136 | LIN. FT. |
| * | SS & 606 | 30" ALUMINUM COATED CORRUGATED STEEL PIPE CULVERTS (16 GAUGE) | (ALTERNATE NO. 3) | 67 | 67 | LIN. FT. |
| * | SS & 606 | 36" ALUMINUM COATED CORRUGATED STEEL PIPE CULVERTS (14 GAUGE) | (ALTERNATE NO. 3) | 89 | 89 | LIN. FT. |
| * | SS & 606 | 48" ALUMINUM COATED CORRUGATED STEEL PIPE CULVERTS (14 GAUGE) | (ALTERNATE NO. 3) | 60 | 60 | LIN. FT. |
| * | SS & 606 | 24" POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE CULVERTS (16 GAUGE) | (ALTERNATE NO. 4) | 136 | 136 | LIN. FT. |
| * | SS & 606 | 30" POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE CULVERT (16 GAUGE) | (ALTERNATE NO. 4) | 67 | 67 | LIN. FT. |
| * | SS & 606 | 36" POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE CULVERT (14 GAUGE) | (ALTERNATE NO. 4) | 89 | 89 | LIN. FT. |
| * | SS & 606 | 48" POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE CULVERT (14 GAUGE) | (ALTERNATE NO. 4) | 60 | 60 | LIN. FT. |
| * | SP, SS, & 606 | 24" HIGH DENSITY POLYETHYLENE PIPE | (ALTERNATE NO. 5) | 136 | 136 | LIN. FT. |
| * | SP, SS, & 606 | 30" HIGH DENSITY POLYETHYLENE PIPE | (ALTERNATE NO. 5) | 67 | 67 | LIN. FT. |
| * | SP, SS, & 606 | 36" HIGH DENSITY POLYETHYLENE PIPE | (ALTERNATE NO. 5) | 89 | 89 | LIN. FT. |
| * | SP, SS, & 606 | 48" HIGH DENSITY POLYETHYLENE PIPE | (ALTERNATE NO. 5) | 60 | 60 | LIN. FT. |
| * | SP, SS, & 606 | 24" PVC PIPE | (ALTERNATE NO. 6) | 136 | 136 | LIN. FT. |
| * | SP, SS, & 606 | 30" PVC PIPE | (ALTERNATE NO. 6) | 67 | 67 | LIN. FT. |
| * | SP, SS, & 606 | 36" PVC PIPE | (ALTERNATE NO. 6) | 89 | 89 | LIN. FT. |
| * | SP, SS, & 606 | 48" PVC PIPE | (ALTERNATE NO. 6) | 60 | 60 | LIN. FT. |
| | SS & 606 | 24" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS | | 17 | 17 | EACH |

* DENOTES ALTERNATE BID ITEMS.



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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 145 | 583 |
| | | SUMMARY OF QUANTITIES | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 11/02/2023

## SUMMARY OF QUANTITIES (BOX 2 OF 3)

| ITEM NUMBER | ITEM | ASPHALT QUANTITIES - ALTERNATE NO. 1 | CONCRETE QUANTITIES - ALTERNATE NO. 2 | UNIT |
|---|---|---|---|---|
| SS & 606 | 30" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS | 6 | 6 | EACH |
| SS & 606 | 36" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS | 4 | 4 | EACH |
| SS & 606 | 42" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS | 8 | 8 | EACH |
| SS & 606 | 48" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS | 5 | 5 | EACH |
| SP, SS, & 606 | 18" SIDE DRAIN | 48 | 48 | LIN. FT. |
| SP, SS, & 606 | 30" SIDE DRAIN | 80 | 80 | LIN. FT. |
| SS & 606 | SELECTED PIPE BEDDING | 872 | 872 | CU. YD. |
| SS & 609 | DROP INLETS (TYPE C) | 1 | 1 | EACH |
| SS & 609 | DROP INLETS (TYPE MO) | 1 | 1 | EACH |
| SS & 609 | DROP INLETS (TYPE RM) | 33 | 33 | EACH |
| SS & 609 | DROP INLETS (TYPE ST) | 2 | 2 | EACH |
| SS & 609 | DROP INLET EXTENSIONS (4') | 1 | 1 | EACH |
| SS & 611 | 4" PIPE UNDERDRAINS | 100 | 100 | LIN. FT. |
| SS & 611 | UNDERDRAIN OUTLET PROTECTORS | 5 | 5 | EACH |
| SS & 615 | PAVEMENT REPAIR OVER CULVERTS (CONCRETE) | 35 | 35 | CU. YD. |
| SS & 617 | GUARDRAIL (TYPE A) | 5550 | 5550 | LIN. FT. |
| SS & 617 | TERMINAL ANCHOR POSTS (TYPE 1) | 5 | 5 | EACH |
| SS & 617 | GUARDRAIL TERMINAL (TYPE 2) | 27 | 27 | EACH |
| SS & 617 | THRIE BEAM GUARDRAIL TERMINAL | 26 | 26 | EACH |
| SP | WIRE ROPE SAFETY FENCE | 9885 | 9885 | LIN. FT. |
| SS & 619 | WIRE FENCE (TYPE A) | 35651 | 35651 | LIN. FT. |
| * SS & 619 | 16' STEEL GATES (ALTERNATE NO. 1) | 12 | 12 | EACH |
| * SS & 619 | 16' ALUMINUM GATES (ALTERNATE NO. 2) | 12 | 12 | EACH |
| 620 | LIME | 243 | 243 | TON |
| 620 | SEEDING | 121.63 | 121.63 | ACRE |
| SS & 620 | MULCH COVER | 247.09 | 247.09 | ACRE |
| 620 | WATER | 15147.39 | 15147.39 | M. GAL. |
| 621 | TEMPORARY SEEDING | 125.46 | 125.46 | ACRE |
| 621 | SILT FENCE | 42680 | 42680 | LIN. FT. |
| 621 | SAND BAG DITCH CHECKS | 11447 | 11447 | BAG |
| 621 | DIVERSION DITCH | 4833 | 4833 | LIN. FT. |
| 621 | DROP INLET SILT FENCE | 460 | 460 | LIN. FT. |
| 621 | SEDIMENT BASIN | 55122 | 55122 | CU. YD. |
| 621 | ROCK FILTER FOR SEDIMENT BASIN | 324 | 324 | TON |
| 621 | PIPE CULVERT FOR SEDIMENT BASIN | 55 | 55 | LIN. FT. |
| 621 | OBLITERATION OF SEDIMENT BASIN | 36001 | 36001 | CU. YD. |
| 621 | SEDIMENT REMOVAL AND DISPOSAL | 38203 | 38203 | CU. YD. |
| 621 | PIPE FOR SLOPE DRAINS | 1451 | 1451 | LIN. FT. |
| 621 | ROCK DITCH CHECKS | 251 | 251 | CU. YD. |
| SS & 621 | FILTER SOCK (18") | 1000 | 1000 | LIN. FT. |
| 623 | SECOND SEEDING APPLICATION | 121.63 | 121.63 | ACRE |
| 624 | SOLID SODDING | 14438 | 14438 | SQ. YD. |
| 625 | GEOTEXTILE FABRIC (TYPE 5) | 2330 | 2330 | SQ. YD. |
| SP & 625 | GEOTEXTILE FABRIC (TYPE SPECIAL) | | 93342 | SQ. YD. |
| 626 | EROSION CONTROL MATTING (CLASS 3) | 14315 | 14315 | SQ. YD. |
| SP, SS, & 632 | CONCRETE ISLAND | 513 | 513 | SQ. YD. |
| SS & 634 | CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1' 6") | 1271 | 1271 | LIN. FT. |
| 635 | ROADWAY CONSTRUCTION CONTROL | 1.00 | 1.00 | LUMP SUM |
| 637 | MAILBOXES | 1 | 1 | EACH |
| 637 | MAILBOX SUPPORTS (SINGLE) | 1 | 1 | EACH |
| 642 | RUMBLE STRIPS IN ASPHALT SHOULDERS | 53361 | 23513 | LIN. FT. |
| 642 | RUMBLE STRIPS IN PORTLAND CEMENT CONCRETE SHOULDERS | | 29848 | LIN. FT. |
| SP & 701 | ACTUATED CONTROLLER TS2-TYPE 2 (8 PHASES) | 1 | 1 | EACH |
| SP | ETHERNET SWITCH, T100 HARDENED (8-PORT) | 2 | 2 | EACH |
| SP | POLE MOUNTED ITS CABINET | 1 | 1 | EACH |
| SP | CELLULAR MODEM | 2 | 2 | EACH |
| SP | PTZ CAMERA SYSTEM | 2 | 2 | EACH |
| SP & 706 | TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY) | 14 | 14 | EACH |
| SP & 706 | TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY) | 2 | 2 | EACH |
| 708 | TRAFFIC SIGNAL CABLE (5C/14 A.W.G.) | 840 | 840 | LIN. FT. |
| 708 | TRAFFIC SIGNAL CABLE (7C/14 A.W.G.) | 62 | 62 | LIN. FT. |
| 708 | TRAFFIC SIGNAL CABLE (20C/14 A.W.G.) | 768 | 768 | LIN. FT. |
| SP | ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.) | 539 | 539 | LIN. FT. |
| SP | ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.) | 230 | 230 | LIN. FT. |
| SP | ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.) | 37 | 37 | LIN. FT. |
| SP | ELECTRICAL CONDUCTORS-IN-CONDUIT, COPPER (3C/8 A.W.G., E.G.C.) | 578 | 578 | LIN. FT. |
| SP | ELECTRICAL CONDUCTORS-IN-CONDUIT, COPPER (3C/0, A.W.G., #8 E.G.C.) | 418 | 418 | LIN. FT. |
| SP | ELECTRICAL CONDUCTORS FOR LUMINAIRES | 998 | 998 | LIN. FT. |
| 709 | GALVANIZED STEEL CONDUIT (2") | 28 | 28 | LIN. FT. |
| 710 | NON-METALLIC CONDUIT (2") | 926 | 926 | LIN. FT. |
| 710 | NON-METALLIC CONDUIT (3") | 537 | 537 | LIN. FT. |
| SS & 711 | CONCRETE PULL BOX (TYPE 2) | 4 | 4 | EACH |
| SS & 711 | CONCRETE PULL BOX (TYPE 1 HD) | 1 | 1 | EACH |
| SS & 711 | CONCRETE PULL BOX (TYPE 2 HD) | 10 | 10 | EACH |
| SS & 711 | CONCRETE PULL BOX (TYPE 3 HD) | 2 | 2 | EACH |
| SS & 714 | TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (34') | 2 | 2 | EACH |
| SS & 714 | TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (44') | 1 | 1 | EACH |
| SS & 714 | TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (56') | 1 | 1 | EACH |
| SP | LED LUMINAIRE ASSEMBLY | 4 | 4 | EACH |
| SP | TILT TOWER (60') | 1 | 1 | EACH |
| SP | SERVICE POINT ASSEMBLY (1 CIRCUIT) | 2 | 2 | EACH |
| SP | SERVICE POINT ASSEMBLY (2 CIRCUITS) | 1 | 1 | EACH |
| 718 | REFLECTORIZED PAINT PAVEMENT MARKING WHITE (10") | 626 | 626 | LIN. FT. |
| 719 | THERMOPLASTIC PAVEMENT MARKING WHITE (6") | 6065 | 6065 | LIN. FT. |
| 719 | THERMOPLASTIC PAVEMENT MARKING WHITE (8") | 1133 | 1133 | LIN. FT. |
| 719 | THERMOPLASTIC PAVEMENT MARKING WHITE (12") | 122 | 122 | LIN. FT. |
| 719 | THERMOPLASTIC PAVEMENT MARKING YELLOW (6") | 7012 | 7012 | LIN. FT. |
| 719 | THERMOPLASTIC PAVEMENT MARKING YELLOW (8") | 545 | 545 | LIN. FT. |
| 719 | THERMOPLASTIC PAVEMENT MARKING (WORDS) | 3 | 3 | EACH |
| 719 | THERMOPLASTIC PAVEMENT MARKING (ARROWS) | 6 | 6 | EACH |
| SP & 719 | THERMOPLASTIC PAVEMENT MARKING (YIELD LINE) | 60 | 60 | LIN. FT. |
| SP | ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6") | 49220 | 49220 | LIN. FT. |

* DENOTES ALTERNATE BID ITEMS.



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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 146 | 583 |
| | | SUMMARY OF QUANTITIES AND REVISIONS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 12/19/2023

## SUMMARY OF QUANTITIES (BOX 3 OF 3)

| ITEM NUMBER | ITEM | ASPHALT QUANTITIES - ALTERNATE NO. 1 | CONCRETE QUANTITIES - ALTERNATE NO. 2 | UNIT |
|---|---|---|---|---|
| SP | ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (12") | 4266 | 4266 | LIN. FT. |
| SP | ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6") | 43157 | 43157 | LIN. FT. |
| SP | ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (8") | 284 | 284 | LIN. FT. |
| SP | ENHANCED THERMOPLASTIC PAVEMENT MARKING (ARROWS) | 5 | 5 | EACH |
| 721 | RAISED PAVEMENT MARKERS (TYPE II) | 797 | 797 | EACH |
| SP | STEEL TEE MOUNT SIGN STRUCTURE (TM-XNA-04-01) | 1 | 1 | EACH |
| SP | STEEL OVERHEAD SIGN STRUCTURE (OH-XNA-04-01) | 1 | 1 | EACH |
| SS & 725 | GUIDE SIGN-ROADSIDE MOUNTED (DEMOUNTABLE LEGEND) | 784 | 784 | SQ. FT. |
| SS & 725 | GUIDE SIGN-OVERHEAD MOUNTED (DEMOUNTABLE LEGEND) | 775 | 775 | SQ. FT. |
| SS & 726 | STANDARD SIGN | 1396 | 1396 | SQ. FT. |
| SS & 727 | EXIT NUMBER PANEL (TYPE A) | 70 | 70 | SQ. FT. |
| SS & 730 | BREAKAWAY SIGN SUPPORT (TYPE G-2) | 3912 | 3912 | POUND |
| SP | OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G-1) | 72 | 72 | EACH |
| SP | OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G-2) | 3 | 3 | EACH |
| SP | OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-1) | 47 | 47 | EACH |
| SP | OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-2) | 1 | 1 | EACH |
| SP | OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-3) | 3 | 3 | EACH |
| SP | 18" STREET NAME SIGN | 2 | 2 | EACH |
| SP & 733 | HYBRID VIDEO/RADAR DETECTOR | 4 | 4 | EACH |
| SP & 733 | VIDEO CABLE (EXTERIOR CAT 5E) | 974 | 974 | LIN. FT. |
| SP & 733 | VIDEO MONITOR (CLR) | 1 | 1 | EACH |
| SP & 733 | CENTRAL CONTROL UNIT (8 CHANNEL) | 1 | 1 | EACH |
| 801 | UNCLASSIFIED EXCAVATION FOR STRUCTURES-ROADWAY | 373 | 373 | CU. YD. |
| SP, SS, & 802 | CLASS S CONCRETE-ROADWAY | 433.32 | 433.32 | CU. YD. |
| SP | RETAINING WALL | 10239 | 10239 | SQ. FT. |
| SP | TEXTURED COATING FINISH | 6 | 6 | SQ. YD. |
| SS & 804 | REINFORCING STEEL-ROADWAY (GRADE 60) | 264621 | 264621 | POUND |
| SS & 816 | FILTER BLANKET | 2500 | 2500 | SQ. YD. |
| SS & 816 | DUMPED RIPRAP | 4313 | 4313 | CU. YD. |
| SP | OVERHEAD DMS ASSEMBLY | 2 | 2 | EACH |
| SP | DETENTION POND CLAY LINER | 11489 | 11489 | SQ. YD. |
| SP | RADAR DETECTION SYSTEM | 2 | 2 | EACH |
| | | | | |
| | **STRUCTURES OVER 20' SPAN** | | | |
| 636 | BRIDGE CONSTRUCTION CONTROL | 1.00 | 1.00 | LUMP SUM |
| 801 | UNCLASSIFIED EXCAVATION FOR STRUCTURES-BRIDGE | 5153 | 5153 | CU. YD. |
| SP, SS, & 802 | CLASS S CONCRETE-BRIDGE | 6010 | 6010 | CU. YD. |
| SP, SS, & 802 | CLASS S(AE) CONCRETE-BRIDGE | 7245 | 7245 | CU. YD. |
| SP | TEXTURED COATING FINISH | 15942 | 15942 | SQ. YD. |
| SP & 803 | CLASS 2 PROTECTIVE SURFACE TREATMENT | 22557 | 22557 | SQ. YD. |
| SS & 804 | REINFORCING STEEL-BRIDGE (GRADE 60) | 1138930 | 1138930 | POUND |
| SS & 804 | EPOXY COATED REINFORCING STEEL (GRADE 60) | 1900430 | 1900430 | POUND |
| SS & 805 | STEEL PILING (HP 12X53) | 9788 | 9788 | LIN. FT. |
| SS & 805 | STEEL PILING (HP 14X73) | 7574 | 7574 | LIN. FT. |
| SP | CORING DRILLED SHAFT | 279 | 279 | LIN. FT. |
| SP | DRILLED SHAFT (72" DIAMETER) | 200 | 200 | LIN. FT. |
| SP | DRILLED SHAFT (108" DIAMETER) | 426 | 426 | LIN. FT. |
| SP | PERMANENT STEEL CASING (84" DIAMETER) | 104 | 104 | LIN. FT. |
| SP | PERMANENT STEEL CASING (120" DIAMETER) | 174 | 174 | LIN. FT. |
| SS & 805 | PREBORING | 6627 | 6627 | LIN. FT. |
| SP | CROSSHOLE SONIC LOGGING (72" DIAMETER) | 8 | 8 | EACH |
| SP | CROSSHOLE SONIC LOGGING (108" DIAMETER) | 14 | 14 | EACH |
| SP | THERMAL INTEGRITY PROFILING (72" DIA.) | 8 | 8 | EACH |
| SP | THERMAL INTEGRITY PROFILING (108" DIA.) | 14 | 14 | EACH |
| SP, SS, & 807 | STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50) | 2102260 | 2102260 | POUND |
| SP, SS, & 807 | STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W) | 5555080 | 5555080 | POUND |
| SS & 807 | PAINTING STRUCTURAL STEEL | 2124 | 2124 | TON |
| SS & 808 | ELASTOMERIC BEARINGS | 272612 | 272612 | CU. IN. |
| SS & 809 | ARMORED JOINT WITH NEOPRENE STRIP SEAL | 360 | 360 | LIN. FT. |
| SS & 809 | SILICONE JOINT SEALANT | 732 | 732 | LIN. FT. |
| 812 | BRIDGE NAME PLATE (TYPE D) | 11 | 11 | EACH |
| SS & 816 | FILTER BLANKET | 7908 | 7908 | SQ. YD. |
| SS & 816 | DUMPED RIPRAP | 4165 | 4165 | CU. YD. |
| SS & 816 | CONCRETE RIPRAP | 1804 | 1804 | CU. YD. |
| | | | | |

## REVISIONS

| DATE | REVISION | SHEET NUMBER |
|---|---|---|
| 12-20-23 | REVISED ELECTRICAL CONDUCTORS FOR LUMINAIRES, MAINTENANCE OF TRAFFIC, PAN-TILT-ZOOM CAMERA SYSTEM, AND STORM WATER POLLUTION PREVENTION PLAN SPECIAL PROVISIONS. REVISED ITS PLAN, ELEVATION, DETAIL, AND QUANTITY SHEETS TO REFLECT UPDATED SITE LAYOUT NAMES. | 146, 255-257, 259, 263 |
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WORKSPACE: AHTD
L:\20\T\T017600 - XNA Access - NEPA\Drawings\r-090069_QTY_SUM.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 147 | 583 |
| | | SURVEY CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

SURVEY CONTROL COORDINATES

Project Name: s090069
Date: 11/25/2020
Coordinate System: ARKANSAS STATE PLANE - NORTH ZONE BASED ON GPS CONTROL, PROJECTED TO GROUND.
Units: U.S. SURVEY FOOT

| Point Name | Northing | Easting | Elev | Feature | Description |
|---|---|---|---|---|---|
| 1 | 696908.6395 | 651937.4046 | 1233.885 | CTL | ARDOT STD. MON. STAMPED PN:1 |
| 2 | 696284.6711 | 651910.1287 | 1268.223 | CTL | ARDOT STD. MON. STAMPED PN:2 |
| 3 | 696059.0504 | 645672.6514 | 1274.863 | CTL | ARDOT STD. MON. STAMPED PN:3 |
| 4 | 696869.6718 | 646317.9291 | 1285.077 | CTL | ARDOT STD. MON. STAMPED PN:4 |
| 5 | 702562.8503 | 638982.8531 | 1233.796 | CTL | ARDOT STD. MON. STAMPED PN:5 |
| 6 | 708211.1600 | 637585.1113 | 1207.867 | CTL | ARDOT STD. MON. STAMPED PN:6 |
| 7 | 710688.7257 | 636708.4139 | 1227.458 | CTL | ARDOT STD. MON. STAMPED PN:7 |
| 8 | 702033.7288 | 647567.1741 | 1105.022 | CTL | ARDOT STD. MON. STAMPED PN:8 |
| 9 | 707254.9311 | 640431.2677 | 1125.919 | CTL | ARDOT STD. MON. STAMPED PN:9 |
| 100 | 708883.4824 | 639356.9220 | 1204.125 | GPS | ARDOT GPS =040130 |
| 101 | 710051.8595 | 639387.7674 | 1230.606 | GPS | ARDOT GPS =040130A |
| 102 | 699295.7006 | 645498.6398 | 1093.228 | GPS | ARDOT GPS =040131 |
| 103 | 700214.3168 | 646829.4743 | 1090.337 | GPS | ARDOT GPS =040131A |
| 104 | 697413.9488 | 654462.8620 | 1248.896 | GPS | ARDOT GPS =040117-2 |
| 105 | 698906.9800 | 653962.7164 | 1172.761 | GPS | ARDOT GPS =040117A-2 |
| 106 | 693485.7955 | 647781.8527 | 1260.511 | GPS | ARDOT GPS =040059 |
| 107 | 694480.1068 | 647863.0228 | 1281.155 | GPS | ARDOT GPS =040059A |
| 701 | 690212.0213 | 647597.1092 | 1154.226 | CTL | ARDOT STD. MON. STAMPED PN:701 |
| 702 | 690321.8943 | 648200.8044 | 1143.688 | CTL | ARDOT STD. MON. STAMPED PN:702 |
| 703 | 690444.2726 | 649009.1711 | 1155.293 | CTL | ARDOT STD. MON. STAMPED PN:703 |
| 704 | 693176.4458 | 647726.8091 | 1242.695 | CTL | ARDOT STD. MON. STAMPED PN:704 |
| 705 | 692890.1684 | 648934.8417 | 1221.938 | CTL | ARDOT STD. MON. STAMPED PN:705 |
| 706 | 694384.9360 | 649048.0657 | 1274.649 | CTL | ARDOT STD. MON. STAMPED PN:706 |
| 707 | 694344.2670 | 650455.9846 | 1235.010 | CTL | ARDOT STD. MON. STAMPED PN:707 |
| 708 | 695668.1455 | 646031.6890 | 1289.270 | CTL | ARDOT STD. MON. STAMPED PN:708 |
| 709 | 695528.8852 | 647896.8383 | 1288.382 | CTL | ARDOT STD. MON. STAMPED PN:709 |
| 710 | 696144.8971 | 649143.4603 | 1297.004 | CTL | ARDOT STD. MON. STAMPED PN:710 |
| 711 | 696144.3069 | 651135.5825 | 1273.321 | CTL | ARDOT STD. MON. STAMPED PN:711 |
| 712 | 696794.4988 | 646646.6951 | 1292.016 | CTL | ARDOT STD. MON. STAMPED PN:712 |
| 713 | 697483.2021 | 650522.3188 | 1208.616 | CTL | ARDOT STD. MON. STAMPED PN:713 |
| 714 | 697884.7759 | 647781.6455 | 1274.869 | CTL | ARDOT STD. MON. STAMPED PN:714 |
| 715 | 698106.2371 | 643456.6659 | 1128.003 | CTL | ARDOT STD. MON. STAMPED PN:715 |
| 716 | 698532.3356 | 644267.6214 | 1132.135 | CTL | ARDOT STD. MON. STAMPED PN:716 |
| 717 | 698994.4697 | 645086.2011 | 1122.310 | CTL | ARDOT STD. MON. STAMPED PN:717 |
| 718 | 699892.8850 | 643266.4329 | 1080.435 | CTL | ARDOT STD. MON. STAMPED PN:718 |
| 719 | 699742.7761 | 641103.0618 | 1077.829 | CTL | ARDOT STD. MON. STAMPED PN:719 |
| 720 | 700514.7819 | 641257.7764 | 1078.097 | CTL | ARDOT STD. MON. STAMPED PN:720 |
| 721 | 701184.8761 | 641742.5748 | 1079.995 | CTL | ARDOT STD. MON. STAMPED PN:721 |
| 722 | 701730.2916 | 640332.0489 | 1123.435 | CTL | ARDOT STD. MON. STAMPED PN:722 |
| 723 | 701806.7097 | 638228.7419 | 1155.917 | CTL | ARDOT STD. MON. STAMPED PN:723 |
| 724 | 702377.6664 | 638713.6034 | 1205.070 | CTL | ARDOT STD. MON. STAMPED PN:724 |
| 725 | 703096.1627 | 639056.3027 | 1247.168 | CTL | ARDOT STD. MON. STAMPED PN:725 |
| 726 | 704249.7795 | 637054.2141 | 1248.690 | CTL | ARDOT STD. MON. STAMPED PN:726 |
| 727 | 704200.2217 | 637823.2091 | 1241.547 | CTL | ARDOT STD. MON. STAMPED PN:727 |
| 728 | 704156.3163 | 638704.9442 | 1245.232 | CTL | ARDOT STD. MON. STAMPED PN:728 |
| 729 | 707366.1896 | 637078.1533 | 1174.856 | CTL | ARDOT STD. MON. STAMPED PN:729 |
| 730 | 707269.0704 | 637823.4090 | 1202.844 | CTL | ARDOT STD. MON. STAMPED PN:730 |
| 731 | 706782.3889 | 638590.9791 | 1212.725 | CTL | ARDOT STD. MON. STAMPED PN:731 |
| 732 | 707744.0194 | 635326.3961 | 1225.953 | CTL | PK NAIL |
| 733 | 708260.6098 | 635355.5985 | 1228.130 | CTL | PK NAIL |
| 734 | 708688.2875 | 635966.9860 | 1239.675 | CTL | ARDOT STD. MON. STAMPED PN:734 |
| 735 | 708167.5349 | 637564.9130 | 1206.658 | CTL | PK NAIL |
| 736 | 707404.0128 | 639439.5603 | 1137.826 | CTL | ARDOT STD. MON. STAMPED PN:736 |
| 737 | 708094.6005 | 639243.1898 | 1175.746 | CTL | PK NAIL |
| 738 | 708701.5081 | 639328.1669 | 1198.395 | CTL | ARDOT STD. MON. STAMPED PN:738 |
| 739 | 709672.3018 | 637331.0629 | 1206.705 | CTL | ARDOT STD. MON. STAMPED PN:739 |
| 740 | 711711.2934 | 636411.4905 | 1237.757 | CTL | PK NAIL |
| 741 | 713279.2245 | 635193.9540 | 1251.974 | CTL | PK NAIL |
| 742 | 713207.1223 | 635854.4986 | 1245.222 | CTL | ARDOT STD. MON. STAMPED PN:742 |
| 743 | 713687.1736 | 636333.4285 | 1247.153 | CTL | PK NAIL |
| 901 | 701801.7028 | 649629.5974 | 1096.596 | TBM | SQ.CUT IN LIGHT POLE BASE |
| 902 | 700736.8665 | 647710.6418 | 1100.339 | TBM | X CUT IN FIRE HYDRANT BOLT |
| 903 | 693023.7638 | 646500.0404 | 1212.904 | TBM | RBR-ALUMCAP |
| 904 | 695809.2576 | 647184.9382 | 1299.194 | TBM | PK NAIL,AT END OF PAVMNT S SIDE RD |
| 906 | 707084.5862 | 645149.1504 | 1121.315 | TBM | NEW TBM SET BY S5111 WHEN CHECK |
| 907 | 690318.0228 | 650298.5599 | 1164.457 | TBM | SQ.CUT HDWL,NW COR OF BOX CU |
| 908 | 697002.4017 | 650783.7849 | 1222.326 | TBM | PK NAIL |
| 909 | 707324.0769 | 640468.1682 | 1125.754 | TBM | CHISLD SQUARE |
| 910 | 708390.7123 | 636355.4380 | 1217.467 | TBM | CHSLD SQUARE |
| 911 | 710369.5504 | 636376.6818 | 1223.607 | TBM | CHSLD SQUARE |
| 912 | 700136.6370 | 640252.6140 | 1095.469 | TBM | REBAR ALUM CAP |
| 913 | 703818.3174 | 645391.3394 | 1214.879 | TBM | 8 SPIKE IN A STUMP |
| 914 | 701945.0313 | 647717.1905 | 1108.712 | TBM | ALUMINUM CAP |
| 915 | 700954.5530 | 648462.3871 | 1104.023 | TBM | CHSLD SQUARE |
| 916 | 713231.1872 | 636140.5178 | 1242.969 | TBM | CHSLD SQUARE |
| 7101 | 695368.9600 | 654531.4200 | 1279.124 | CTL | PK NAIL |
| 7102 | 695818.6389 | 655879.9716 | 1264.674 | CTL | ARDOT STD. MON. STAMPED PN:7102 |
| 7103 | 696916.4956 | 652446.4549 | 1257.501 | CTL | ARDOT STD. MON. STAMPED PN:7103 |
| 7104 | 696595.6472 | 654481.3875 | 1271.989 | CTL | PK NAIL |
| 7105 | 696699.4260 | 656420.3724 | 1263.503 | CTL | PK NAIL |
| 7106 | 697464.8635 | 654408.1909 | 1243.280 | CTL | PK NAIL |
| 7107 | 697477.8761 | 655728.0455 | 1210.368 | CTL | ARDOT STD. MON. STAMPED PN:7107 |
| 7108 | 699158.5550 | 651805.1383 | 1200.332 | CTL | ARDOT STD. MON. STAMPED PN:7108 |
| 7109 | 699143.9774 | 652051.0293 | 1172.038 | CTL | PK NAIL |
| 7110 | 699235.7174 | 652347.9467 | 1221.093 | CTL | ARDOT STD. MON. STAMPED PN:7110 |
| 7111 | 699508.3714 | 653568.5641 | 1185.737 | CTL | PK NAIL |
| 7112 | 699449.4955 | 654247.3511 | 1167.141 | CTL | PK NAIL |
| 7113 | 700683.2299 | 652143.3920 | 1138.771 | CTL | PK NAIL |
| 7114 | 701164.8766 | 652785.1832 | 1130.345 | CTL | PK NAIL |
| 7115 | 701385.5937 | 653870.2101 | 1129.132 | CTL | PK NAIL |
| 7116 | 702326.4818 | 651778.8328 | 1105.691 | CTL | PK NAIL |
| 7117 | 702347.3406 | 652217.7077 | 1111.757 | CTL | PK NAIL |
| 7118 | 702351.6239 | 652574.6432 | 1107.034 | CTL | ARDOT STD. MON. STAMPED PN:7118 |
| 7119 | 700541.0858 | 649596.7331 | 1201.866 | CTL | ARDOT STD. MON. STAMPED PN:7119 |
| 7120 | 700900.5132 | 649635.1675 | 1184.595 | CTL | ARDOT STD. MON. STAMPED PN:7120 |
| 7121 | 702359.9291 | 646982.9512 | 1115.475 | CTL | PK NAIL |
| 7122 | 702698.4986 | 647488.4992 | 1122.295 | CTL | ARDOT STD. MON. STAMPED PN:7122 |
| 7123 | 704284.1930 | 644920.1875 | 1189.780 | CTL | PK NAIL |
| 7124 | 704526.3048 | 645505.0446 | 1202.349 | CTL | PK NAIL |
| 7125 | 704962.5842 | 643416.6294 | 1116.673 | CTL | PK NAIL |
| 7126 | 705368.9948 | 642985.4435 | 1092.339 | CTL | ARDOT STD. MON. STAMPED PN:7126 |
| 7127 | 705929.8461 | 643847.2128 | 1124.551 | CTL | ARDOT STD. MON. STAMPED PN:7127 |
| 7128 | 706190.5378 | 643468.6612 | 1101.515 | CTL | ARDOT STD. MON. STAMPED PN:7128 |
| 7129 | 706177.9147 | 644514.5808 | 1131.385 | CTL | ARDOT STD. MON. STAMPED PN:7129 |
| 7130 | 706679.4854 | 643558.0524 | 1104.103 | CTL | PK NAIL |
| 7131 | 707007.1128 | 643846.2945 | 1145.661 | CTL | ARDOT STD. MON. STAMPED PN:7131 |
| 7132 | 707160.8110 | 645843.3177 | 1157.279 | CTL | ARDOT STD. MON. STAMPED PN:7132 |
| 7133 | 707486.0762 | 645524.1964 | 1128.477 | CTL | PK NAIL |
| 7134 | 706350.3510 | 642216.3487 | 1098.527 | CTL | PK NAIL |
| 7135 | 707150.0804 | 641643.4626 | 1108.991 | CTL | PK NAIL |
| 7703 | 690459.5291 | 648985.4609 | 1156.563 | CTL | PK NAIL |
| 7704 | 693150.4219 | 647722.5845 | 1244.463 | CTL | PK NAIL |
| 7706 | 694404.9062 | 649065.8653 | 1276.205 | CTL | PK NAIL |
| 7709 | 695528.5150 | 647884.7060 | 1288.725 | CTL | PK NAIL |
| 7711 | 696152.9892 | 651144.5920 | 1272.893 | CTL | PK NAIL |
| 7742 | 713226.6146 | 635846.4506 | 1244.235 | CTL | PK NAIL |

*Note - Rebar and Cap - Standard - 5/8" Rebar with 2" Aluminum Cap stamped
*(standard markings common to all caps), or as indicated
(other markings indicated in the point description of the individual point).
USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT
A PROJECT CAF OF 0.9999386648 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.
THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
GRID DISTANCE = GROUND DISTANCE X CAF.
GRID COORDINATES ARE STORED UNDER FILE NAME s090069gi.ctl
HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE AT A SPECIFIC POINT.

REFERENCE POINTS (1500 SERIES) ARE TO BE USED TO ESTABLISH CONTROL IF THE PRIMARY CONTROL POINTS LISTED ABOVE HAVE BEEN DESTROYED.
REFERENCE POINTS ARE NOT TO BE USED FOR VERTICAL CONTROL

BASIS OF BEARING:
ARKANSAS STATE PLANE GRID BEARINGS - 0301-NORTH ZONE
DETERMINED FROM GPS CONTROL POINTS: 040059 - 040059A, 040117-2 - 040117A-2, 040130 - 040130A, 040131 - 040131A
CONVERGENCE ANGLE AT PN:7123: 01 19 01.90 LEFT AT LAT N 36 14 49.26 LON W 94 15 49.01
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.



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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 148 | 583 |
| | | SURVEY CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

**ALIGNMENT NAME: XNA ACCESS RD.**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8000 | 100+00.00 | POB | 696391.3234 | 648122.1911 |
| 8001 | 105+96.27 | PC | 69783.0886 | 647672.6800 |
| 8002 | 124+30.05 | PT | 697748.1167 | 646122.5657 |
| 8003 | 141+79.45 | PC | 698424.2224 | 644509.0961 |
| 8004 | 170+39.84 | PT | 699845.8107 | 642035.5325 |
| 8005 | 209+01.95 | PC | 702172.1037 | 638952.6376 |
| 8006 | 236+81.42 | PT | 704590.1983 | 637816.4293 |
| 8007 | 250+80.34 | PC | 705987.6448 | 637880.5455 |
| 8008 | 271+88.92 | PT | 708064.3699 | 637591.7860 |
| 8009 | 310+12.14 | POE | 711690.8896 | 636381.2622 |

**ALIGNMENT NAME: HWY. 264 RAMP 1**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8070 | 250+80.34 | POB | 705984.9636 | 637938.9840 |
| 8071 | 260+51.28 | PC | 706954.8808 | 637983.4848 |
| 8072 | 263+91.54 | PT | 707291.6017 | 638029.1957 |
| 8080 | 272+72.23 | POE | 708150.2942 | 638224.8332 |

**ALIGNMENT NAME: HWY. 264 RAMP 2**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8080 | 269+42.81 | POB | 708150.2942 | 638224.8332 |
| 8081 | 272+16.87 | PC | 708416.8900 | 638161.3143 |
| 8082 | 276+33.39 | PT | 708770.1233 | 637952.5537 |
| 8083 | 281+70.18 | PC | 709130.9369 | 637555.1237 |
| 8084 | 291+47.04 | PT | 709940.2717 | 637027.2873 |

**ALIGNMENT NAME: HWY. 264 RAMP 3**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8090 | 274+10.74 | POB | 708199.8514 | 636808.5216 |
| 8091 | 278+03.46 | PC | 708574.4510 | 636926.4427 |
| 8092 | 288+10.93 | PT | 709569.4369 | 636967.4758 |
| 8093 | 294+10.94 | PC | 710154.6424 | 636835.0513 |
| 8094 | 296+01.21 | PT | 710337.8308 | 636783.8879 |

**ALIGNMENT NAME: HWY. 264 RAMP 4**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8100 | 250+07.38 | PC | 705917.4451 | 637818.7631 |
| 8101 | 258+53.94 | PT | 706714.5972 | 637583.8377 |
| 8102 | 268+76.82 | PC | 707547.6769 | 636990.3082 |
| 8103 | 272+77.77 | PT | 707917.1689 | 636845.2454 |
| 8090 | 275+62.83 | POE | 708199.8514 | 636808.5216 |

**ALIGNMENT NAME: XNA ACCESS RD. RAMP 1**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8020 | 446+49.37 | PC | 695894.0800 | 649491.7460 |
| 8021 | 466+31.90 | PT | 695244.7887 | 649494.7995 |
| 8022 | 484+19.97 | POE | 696419.5934 | 648146.8296 |

**ALIGNMENT NAME: XNA ACCESS RD. RAMP 2**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8030 | 416+52.40 | PC | 696363.0533 | 648097.5527 |
| 8031 | 423+59.72 | PT | 695837.5410 | 648568.2982 |
| 8032 | 431+54.43 | PC | 695184.8079 | 649021.6264 |
| 8033 | 448+58.06 | PT | 695524.4254 | 650284.2349 |
| 8034 | 453+83.07 | PC | 696047.6838 | 650326.9788 |
| 8035 | 461+93.78 | PT | 696649.9528 | 650779.4207 |

**ALIGNMENT NAME: XNA ACCESS RD. RAMP 3**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8040 | 429+54.36 | PC | 696645.6746 | 647901.1223 |
| 8041 | 433+59.53 | PT | 696384.9250 | 648211.2071 |
| 8042 | 436+48.14 | PC | 696203.1088 | 648435.3511 |
| 8043 | 448+18.14 | PT | 696127.5100 | 649530.9289 |
| 8044 | 453+46.66 | POE | 696400.9202 | 649983.2237 |

**ALIGNMENT NAME: XNA ACCESS RD. RAMP 4**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8050 | 428+87.18 | POB | 694531.9579 | 648392.5526 |
| 8051 | 434+19.69 | PC | 695025.8482 | 648591.6462 |
| 8052 | 444+24.83 | PT | 695975.4184 | 648454.8251 |

**ALIGNMENT NAME: HWY. 612**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8060 | 414+23.52 | PC | 693081.9784 | 648169.7965 |
| 8061 | 475+77.50 | PT | 696898.5938 | 652143.4544 |

**ALIGNMENT NAME: HWY. 264**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8110 | 10+00.00 | POB | 708272.7252 | 635050.0511 |
| 8111 | 14+40.55 | PI | 708255.4186 | 635490.2610 |
| 8112 | 19+74.40 | PC | 708236.0788 | 636023.7607 |
| 8113 | 22+49.29 | PT | 708224.4732 | 636298.4029 |
| 8114 | 30+83.50 | PC | 708184.2554 | 637131.6442 |
| 8115 | 35+98.17 | PT | 708165.2169 | 637645.9478 |
| 8116 | 42+00.16 | PI | 708149.7036 | 638247.7439 |
| 8117 | 49+00.00 | POE | 708127.3956 | 638947.2252 |

**ALIGNMENT NAME: WAGER DR.**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8120 | 0+00.00 | POB | 698207.1754 | 643907.2968 |
| 8121 | 1+02.08 | PC | 698230.5177 | 644006.6720 |
| 8122 | 2+47.13 | PT | 698309.6516 | 644124.4874 |
| 8123 | 2+92.67 | PC | 698346.7560 | 644150.8970 |
| 8124 | 3+12.22 | PT | 698362.1073 | 644162.9894 |
| 8125 | 3+68.04 | PC | 698404.2230 | 644199.6176 |
| 8126 | 4+01.35 | PT | 698431.0483 | 644219.2990 |
| 8127 | 4+75.36 | PC | 698494.1362 | 644257.9905 |
| 8128 | 5+84.91 | PT | 698567.7495 | 644337.2975 |
| 8129 | 7+78.32 | POE | 698656.3232 | 644509.2311 |

**ALIGNMENT NAME: HADEN RD.**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8130 | 0+00.00 | POB | 700879.6352 | 640260.7097 |
| 8131 | 6+22.61 | POE | 701499.5556 | 640318.5242 |

**ALIGNMENT NAME: HOLMES RD.**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8140 | 13+00.00 | PC | 701969.2860 | 638248.9729 |
| 8141 | 14+84.60 | PT | 702140.6313 | 638316.6024 |
| 8142 | 15+83.77 | PC | 702228.1974 | 638363.1622 |
| 8143 | 17+67.30 | PCC | 702361.0983 | 638486.7092 |
| 8144 | 18+92.08 | PT | 702385.6293 | 638606.3329 |
| 8145 | 19+53.09 | PC | 702376.0847 | 638666.5953 |
| 8146 | 20+25.34 | PCC | 702377.4836 | 638738.4585 |
| 8147 | 23+86.26 | PT | 702616.8685 | 638981.0806 |
| 8148 | 25+00.00 | POE | 702728.1239 | 639004.7286 |

**ALIGNMENT NAME: MALONE LN.**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8150 | 10+00.00 | POB | 704245.3835 | 636474.0030 |
| 8151 | 19+90.95 | PC | 704209.6857 | 637464.3174 |
| 8152 | 21+21.68 | PT | 704204.2316 | 637594.9250 |
| 8153 | 31+73.58 | PI | 704154.3489 | 638645.6487 |
| 8154 | 32+25.01 | PI | 704152.4234 | 638697.0349 |
| 8155 | 35+00.01 | POE | 704137.3853 | 638971.6244 |

**ALIGNMENT NAME: AIRPORT BLVD.**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8160 | 260+02.28 | POB | 706827.1143 | 637487.5879 |
| 8161 | 271+62.59 | PC | 707687.4430 | 636709.0310 |
| 8162 | 276+82.71 | PT | 708144.8536 | 636474.0534 |
| 8163 | 278+29.84 | PC | 708288.6446 | 636442.8683 |
| 8164 | 279+46.02 | PT | 708400.4883 | 636411.6901 |
| 8165 | 283+99.99 | POE | 708829.9424 | 636264.5155 |

**ALIGNMENT NAME: XNA ACCESS RD. NB CROSSOVER**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8170 | 234+98.78 | POB | 704408.2830 | 637851.3718 |
| 8171 | 250+89.40 | POE | 705998.6484 | 637822.8966 |

**ALIGNMENT NAME: XNA ACCESS RD. - NORTH SHIFT LT.**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8180 | 1296+50.00 | PC | 710385.5318 | 636772.7095 |
| 8181 | 1301+57.33 | PT | 710870.1615 | 636622.7791 |
| 8182 | 1304+12.32 | PC | 711115.3646 | 636552.8283 |
| 8183 | 1307+50.54 | PT | 711438.4511 | 636452.8747 |

**ALIGNMENT NAME: XNA ACCESS RD. - NORTH SHIFT RT.**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8190 | 2296+50.00 | PC | 710412.1282 | 636852.3878 |
| 8191 | 2301+57.39 | PT | 710389.6992 | 636681.1353 |
| 8192 | 2304+12.25 | PC | 711127.6429 | 636589.8171 |
| 8193 | 2307+50.51 | PT | 711446.0235 | 636475.6488 |

**ALIGNMENT NAME: AIRPORT BLVD. TO SB XNA**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8200 | 43+53.31 | PC | 705263.5805 | 637799.2742 |
| 8201 | 50+88.89 | PT | 705998.9615 | 637809.3887 |

**ALIGNMENT NAME: AIRPORT BLVD. CURVE EXTENSION**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8210 | 257+78.94 | PC | 706652.2719 | 637625.5304 |
| 8211 | 260+02.28 | PT | 706830.1337 | 637490.9245 |

**ALIGNMENT NAME: HWY. 112 RAMP 1**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8220 | 479+96.17 | PC | 696823.2927 | 652558.8253 |
| 8221 | 481+86.45 | PT | 696806.1738 | 652748.2525 |
| 8222 | 485+96.30 | PC | 696749.0052 | 653154.1012 |
| 8223 | 491+49.64 | PT | 696545.0491 | 653662.7041 |
| 8224 | 496+06.27 | POE | 696278.6812 | 654033.6029 |

**ALIGNMENT NAME: MALONE LN. DETOUR .**

| POINT | STATION | TYPE | NORTHING | EASTING |
|---|---|---|---|---|
| 8250 | 40+00.00 | POB | 704245.3835 | 636474.0030 |
| 8251 | 40+96.00 | PC | 704241.9253 | 636569.9399 |
| 8252 | 42+10.94 | PT | 704243.5475 | 636684.8191 |
| 8253 | 52+04.52 | PC | 704307.3629 | 637676.3509 |
| 8254 | 54+38.17 | PT | 704298.5769 | 637909.4308 |
| 8255 | 58+00.34 | PC | 704248.1721 | 638268.0797 |
| 8256 | 62+00.09 | PT | 70418564.1000 | 638662.8854 |
| 8257 | 63+98.76 | PC | 704151.1425 | 638858.5362 |
| 8258 | 65+39.11 | PT | 704135.2856 | 638997.8993 |
| 8259 | 65+98.88 | POE | 704135.1758 | 639057.5874 |

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WORKSPACE: AHTD
L:\2017\170176\600 - XNA Access - NEPA\Drawings\r090069_SC_02.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 149 | 583 |
| | | SURVEY CONTROL DETAILS | | | | |

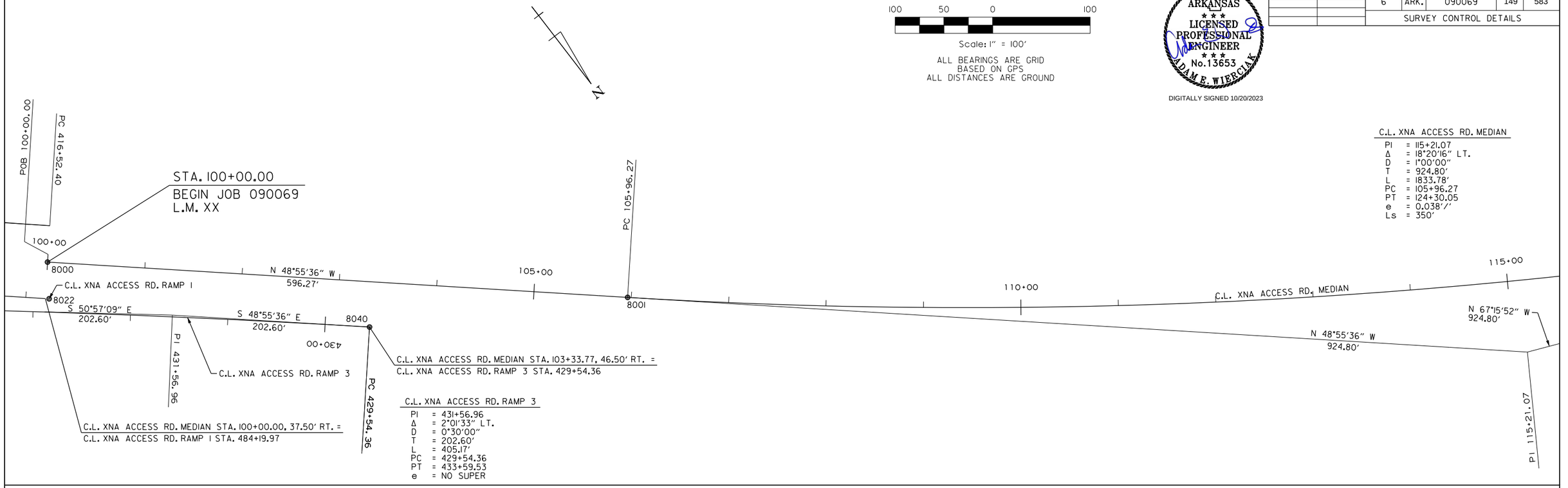
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Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

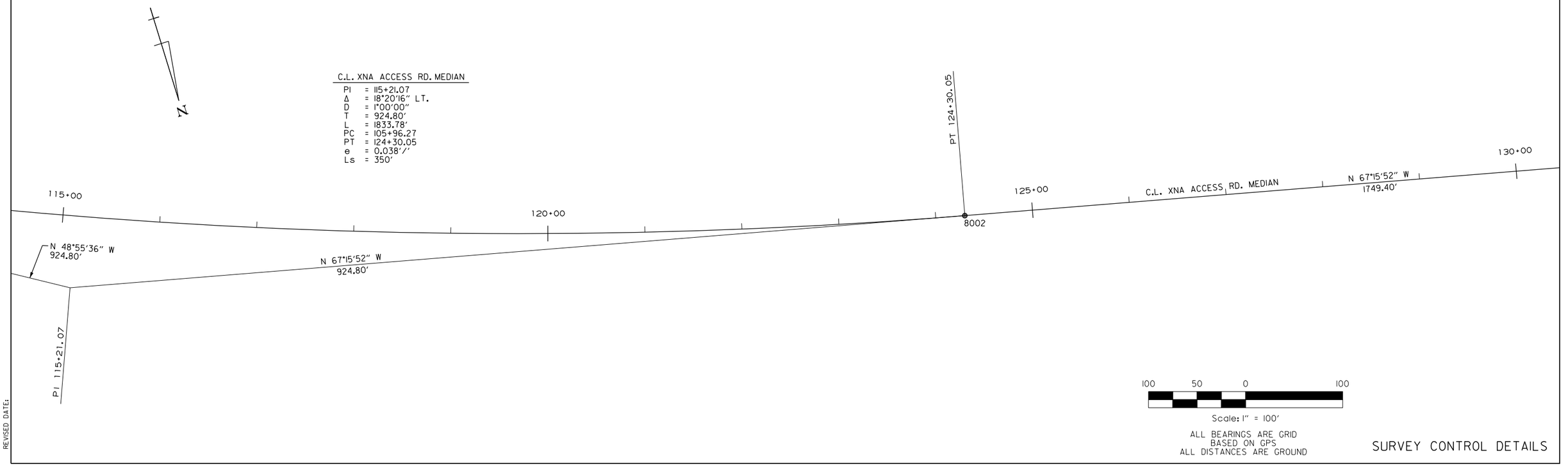
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023




C.L. XNA ACCESS RD. MEDIAN
PI = 115+21.07
Δ = 18°20'16" LT.
D = 1°00'00"
T = 924.80'
L = 1833.78'
PC = 105+96.27
PT = 124+30.05
e = 0.038'/'
Ls = 350'

C.L. XNA ACCESS RD. RAMP 3
PI = 431+56.96
Δ = 2°01'33" LT.
D = 0°30'00"
T = 202.60'
L = 405.17'
PC = 429+54.36
PT = 433+59.53
e = NO SUPER




100 50 0 100

Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

SURVEY CONTROL DETAILS

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 150 | 583 |
| | | SURVEY CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
ADAM E. WIERCIAK
No.13653

DIGITALLY SIGNED 10/20/2023

100 50 0 100

Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

SURVEY BASELINE N47°16'03"W
3016.88'

PK NAIL W/ 715
PONTIOT STD. MON. STAMPED PN.715

SURVEY BASELINE N42°23'42"W
3261.30'

PI 3+84.73

PC

PT

PC 4+75.36

PT 5+84.91

PI 5+31.5

130+00

135+00

140+00

145+00

C.L. XNA ACCESS RD. MEDIAN

N 67°15'52" W
1749.40'

8003

N 67°15'52" W
1437.67'

PC 141+79.45

C.L. XNA ACCESS RD. MEDIAN
PI = 156+17.12
Δ = 14°18'07" RT.
D = 0°30'00"
T = 1437.67'
L = 2860.39'
PC = 141+79.45
PT = 170+39.84
e = R.C.
Ls = 350'

8120

POB 0+00.00

N 76°46'53" E
102.08'

8121

PI 1+77.92

N 76°46'53" E
75.84'

PC 1+02.08

N 35°26'31" E
75.84'

C.L. WAGER DR.
PI = 1+77.92
Δ = 41°20'22" LT.
D = 28°30'00"
T = 75.84'
L = 145.05'
PC = 1+02.08
PT = 2+47.13
e = MATCH EXIST.
Ls = MATCH EXIST.

C.L. WAGER DR.

N 35°26'31" E
45.54'

8122

PT 2+47.13

C.L. WAGER DR.
PI = 3+02.46
Δ = 5°34'18" RT.
D = 28°30'00"
T = 9.79'
L = 19.55'
PC = 2+92.67
PT = 3+12.22
e = MATCH EXIST.
Ls = MATCH EXIST.

PC 2+92.67
PT 3+12.22

8123

N 35°26'31" E
9.79'

PI 3+02.46

8124

N 41°00'49" E
9.79'

N 41°00'49" E
55.82'

C.L. WAGER DR.
PI = 3+84.73
Δ = 9°29'35" LT.
D = 28°30'00"
T = 16.69'
L = 33.31'
PC = 3+68.04
PT = 4+01.35
e = MATCH EXIST.
Ls = MATCH EXIST.

PI 3+84.73

8125

N 41°00'49" E
16.69'

PC 3+68.04

C.L. WAGER DR.
PI = 5+31.53
Δ = 31°13'25" RT.
D = 28°30'00"
T = 56.17'
L = 109.55'
PC = 4+75.36
PT = 5+84.91
e = MATCH EXIST.
Ls = MATCH EXIST.

N 31°31'14" E
16.69'

8126

PT 4+01.35

N 31°31'14" E
74.01'

C.L. XNA ACCESS RD. MEDIAN STA. 144+29.30 =
C.L. WAGER DR. STA. 5+11.77
∠ 72°05'09"

PC 4+75.36

8127

PT 5+84.91

POINTOT STD. MON. STAMPED PN.716

145+00

N 31°31'14" E
56.17'

PI 5+31.53

N 62°44'39" E
56.17'

8128

N 62°44'39" E
193.41'

8129

POE 7+78.32

PI 156+17.12

N 67°15'52" W
1437.67'

N 52°57'45" W
1437.67'

150+00

C.L. XNA ACCESS RD. MEDIAN

155+00

C.L. XNA ACCESS RD. MEDIAN
PI = 156+17.12
Δ = 14°18'07" RT.
D = 0°30'00"
T = 1437.67'
L = 2860.39'
PC = 141+79.45
PT = 170+39.84
e = R.C.
Ls = 350'

100 50 0 100

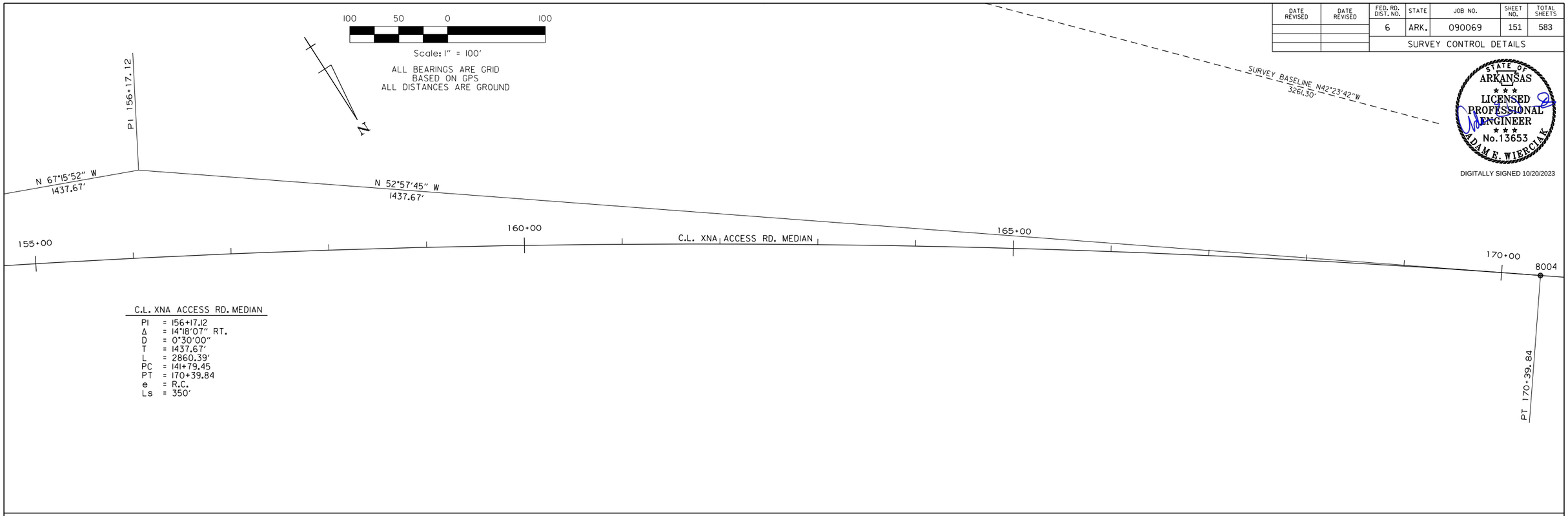
Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

SURVEY CONTROL DETAILS

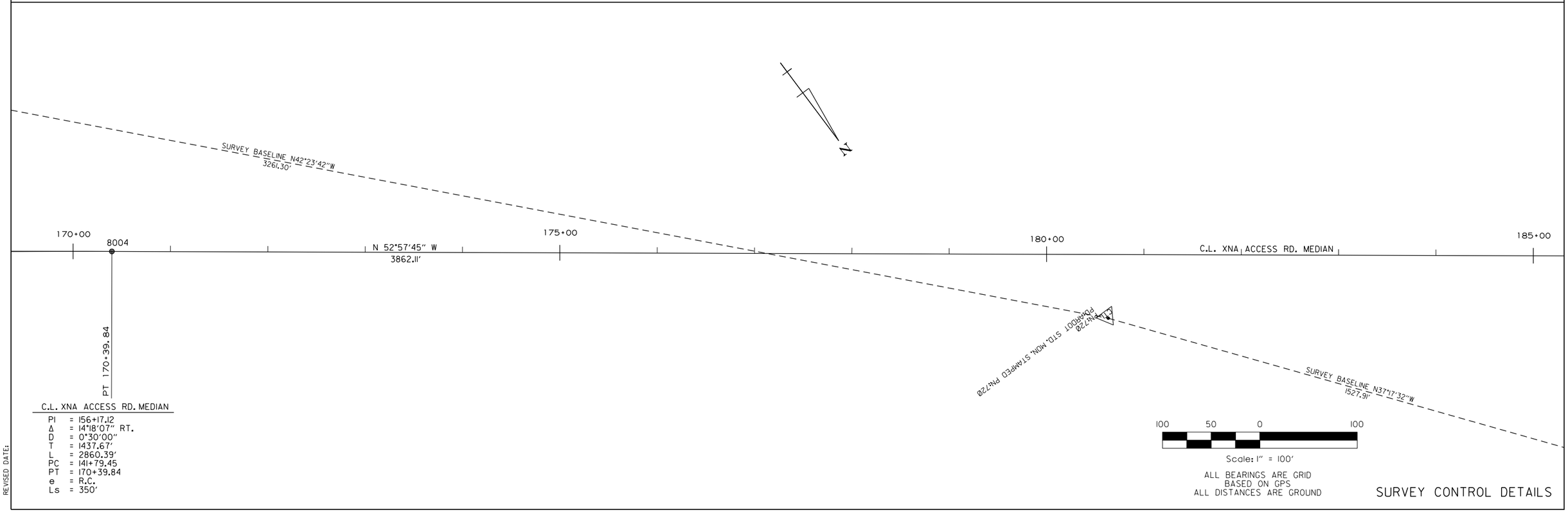
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 151 | 583 |
| | | SURVEY CONTROL DETAILS | | | | |




STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023




SURVEY CONTROL DETAILS

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 152 | 583 |
| | | SURVEY CONTROL DETAILS | | | | |

100 50 0 100

Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

POB 0+00.00

0+00

8130

C.L. HADEN RD.

C.L. XNA ACCESS RD. MEDIAN STA. 192+29.92 =
C.L. HADEN RD. STA. 2+86.58
∢ 58°17'26"

185+00 190+00 195+00 200+00

N 52°57'45" W
3862.11'

C.L. XNA ACCESS RD. MEDIAN

N 05°19'41" E
622.61'

5+00

POE 6+22.61

8131

SURVEY BASELINE N37°17'32"W
1527.91'

PK722
PKNAIL
STD. MON. STAMPED PK722

SURVEY BASELINE N68°11'55"W
1743.12'

100 50 0 100

Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

SURVEY CONTROL DETAILS

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | SURVEY CONTROL DETAILS | | | | |

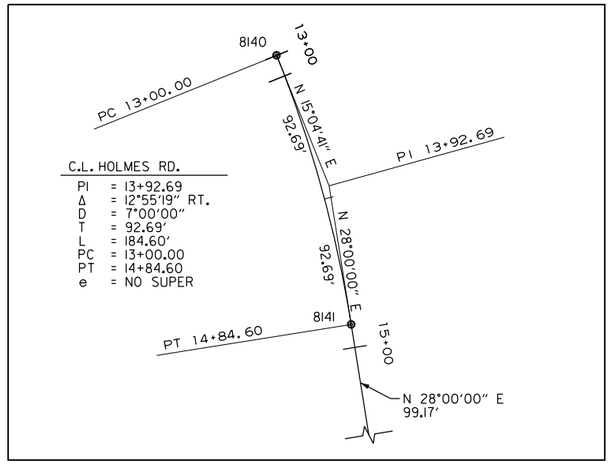
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

100 50 0 100

Scale: 1" = 100'

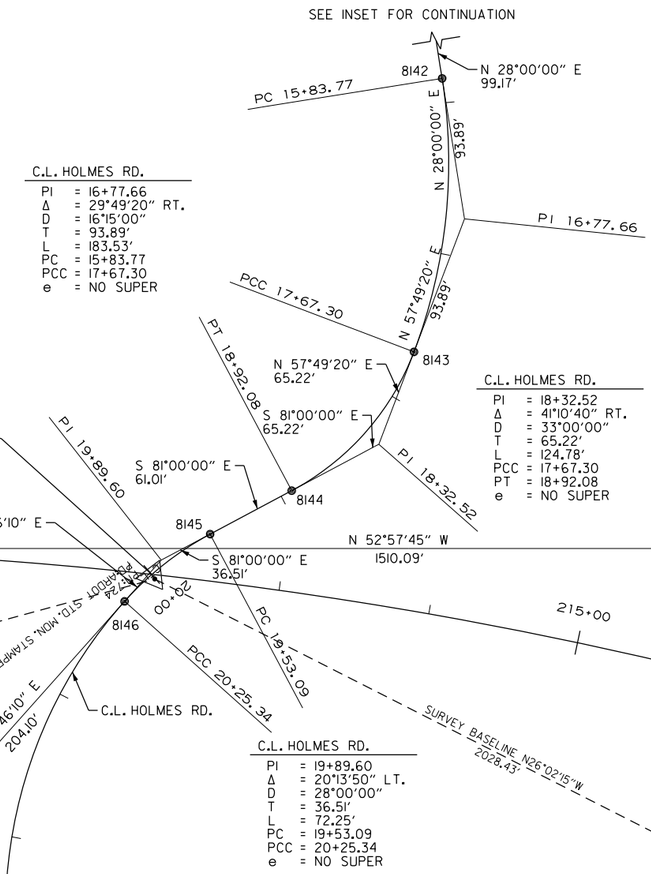
ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N




INSET

SEE INSET FOR CONTINUATION




SURVEY CONTROL DETAILS


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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | SURVEY CONTROL DETAILS | | | | |

100 50 0 100

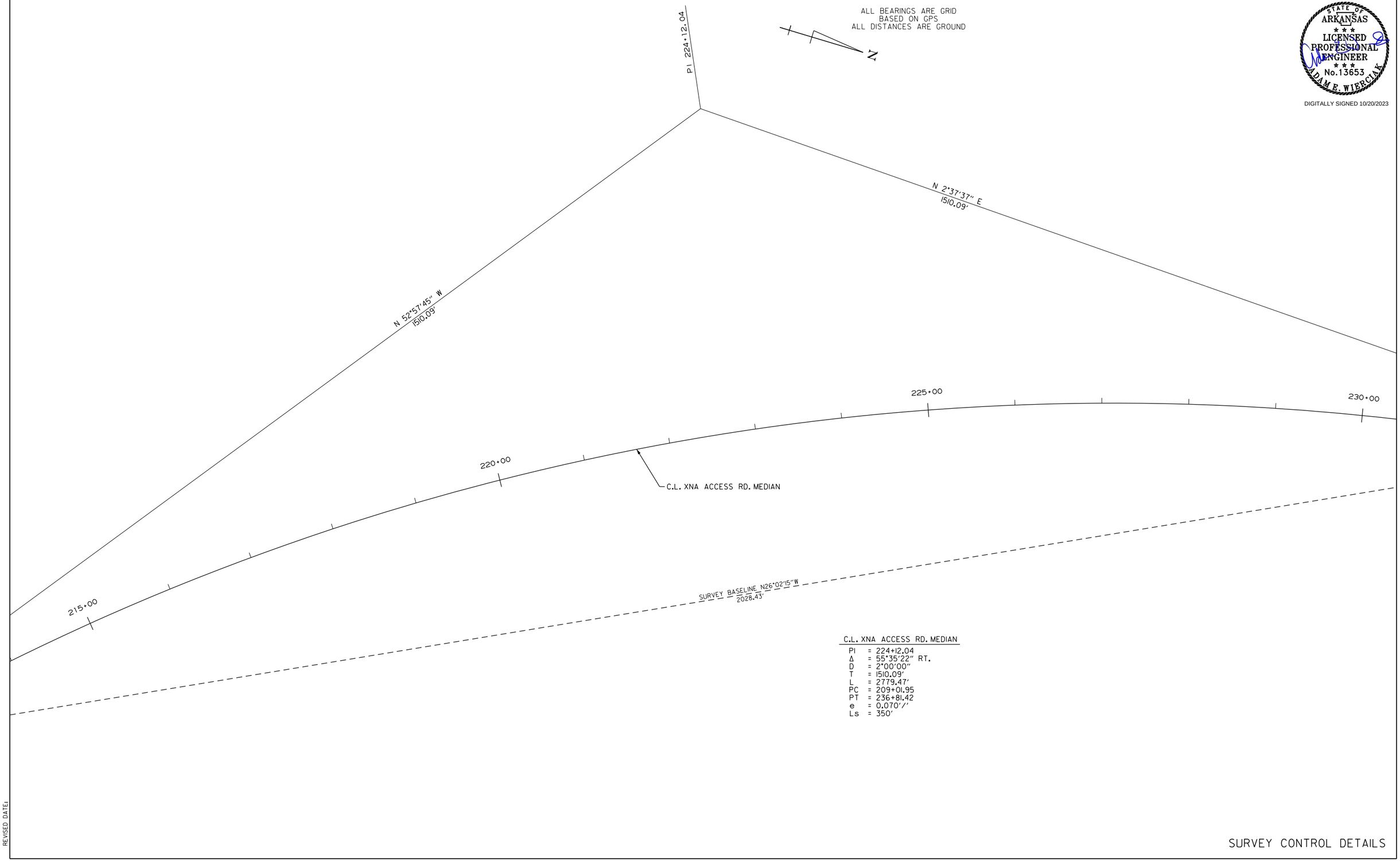
Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023




C.L. XNA ACCESS RD. MEDIAN

| | |
|---|---|
| PI | = 224+12.04 |
| Δ | = 55°35'22" RT. |
| D | = 2°00'00" |
| T | = 1510.09' |
| L | = 2779.47' |
| PC | = 209+01.95 |
| PT | = 236+81.42 |
| e | = 0.070'/' |
| Ls | = 350' |

SURVEY CONTROL DETAILS

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 155 | 583 |
| | | SURVEY CONTROL DETAILS | | | | |

100 50 0 100

Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

POB 10+00.00
8150
S 87°56'08" E
990.96'
PC 19+90.95
8151
20+00
PI 20+56.32
PT 21+21.68
8152
S 88°10'43" E
158.48'
S 87°18'55" E
101.60'
C.L. MALONE LN.

C.L. MALONE LN.
PI = 20+56.32
Δ = 0°39'13" RT.
D = 0°30'00"
T = 65.36'
L = 130.72'
PC = 19+90.95
PT = 21+21.68
e = NO SUPER

SURVEY BASELINE N13°14'33"W
3252.45'

PT 236+81.42

C.L. XNA ACCESS RD. MEDIAN

C.L. AIRPORT BLVD. TO SB XNA
PI = 47+21.22
Δ = 3°40'40" LT.
D = 0°30'00"
T = 367.91'
L = 735.58'
PC = 43+53.31
PT = 50+88.89
e = MATCH PR.
Ls = MATCH PR.

C.L. XNA ACCESS RD. MEDIAN STA. 243+53.31, 48.00' LT. =
C.L. AIRPORT BLVD. TO SB XNA STA. 43+53.31

PC 43+53.31
C.L. AIRPORT BLVD. TO SB XNA
45+00
8200
N 2°37'37" E
367.91'
245+00
245+00

N 2°37'37" E
1510.09'
235+00
8006
N 2°37'37" E
1398.92'
240+00
240+00
235+00
N 1°01'33" W
1590.62'
8170
230+00
C.L. NB CROSSOVER

POB 234+98.78
C.L. XNA ACCESS RD. MEDIAN STA. 234+98.78, 37.50' RT. =
C.L. NB CROSSOVER STA. 234+98.78

C.L. XNA ACCESS RD. MEDIAN STA. 241+78.69 =
C.L. NB CROSSOVER STA. 241+77.55
∢ 3°39'10"

S 86°45'55" E
141.34'
SURVEY BASELINE N26°02'15"W
2028.43'
ARKANSAS STD. MON. STAMPED PIN 1727
25+00

C.L. XNA ACCESS RD. MEDIAN STA. 232+84.19 =
C.L. MALONE LN. STA. 15+29.38
∢ 82°14'11"

C.L. XNA ACCESS RD. MEDIAN
PI = 224+12.04
Δ = 55°35'22" RT.
D = 2°00'00"
T = 1510.09'
L = 2779.47'
PC = 209+01.95
PT = 236+81.42
e = 0.070'/'
Ls = 350'

8153
S 87°51'15" E
51.43'
8154
S 86°51'55" E
275'
POE 35+00.01
8155

SURVEY CONTROL DETAILS

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 156 | 583 |
| | | SURVEY CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

100 50 0 100
Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

**C.L. AIRPORT BLVD. TO SB XNA**
PI = 47+21.22
Δ = 3°40'40" LT.
D = 0°30'00"
T = 367.91'
L = 735.58'
PC = 43+53.31
PT = 50+88.89
e = MATCH PR.
Ls = MATCH PR.

**C.L. HWY. 264 RAMP 4**
PI = 254+46.97
Δ = 38°05'42" LT.
D = 4°30'00"
T = 439.59'
L = 846.56'
PC = 250+07.38
PT = 258+53.94
e = 0.078'/'
Ls = 300'

**C.L. XNA ACCESS RD. MEDIAN**
PI = 261+46.69
Δ = 21°05'09" LT.
D = 1°00'00"
T = 1066.35'
L = 2108.58'
PC = 250+80.34
PT = 271+88.92
e = 0.038'/'
Ls = 350'

C.L. XNA ACCESS RD. MEDIAN STA. 250+07.38, 58.50' LT. =
C.L. HWY. 264 RAMP 4 STA. 250+07.38

C.L. HWY. 264 RAMP 4 STA. 250+89.11, 10.50' LT. =
C.L. AIRPORT BLVD. TO SB XNA STA. 50+88.89

C.L. HWY. 264 RAMP 4 STA. 250+88.55, 3.00' RT. =
C.L. NB CROSSOVER STA. 250+89.40

C.L. XNA ACCESS RD. MEDIAN STA. 250+80.34, 58.50' RT. =
C.L. HWY. 264 RAMP 1 STA. 250+80.34

C.L. XNA ACCESS RD. MEDIAN STA. 272+97.83 =
C.L. HWY. 264 STA. 35+09.49
Δ 69°50'34"

45+00 245+00 N 2°37'37" E 367.91' 50+00 250+00 N 1°03'03" E 367.91' N 1°01'33" W 1590.62' 8201 8100 8171 N 2°37'37" E 439.59' N 38°28'05" W 439.59' 255+00 260+00
245+00 N 2°37'37" E 1398.92' 250+00 255+00 N 2°37'37" E 1066.35' 260+00
PC 250+07.38 PT 50+88.89 PI 47+21.22 C.L. AIRPORT BLVD. TO SB XNA C.L. HWY. 264 RAMP 4 C.L. NB CROSSOVER C.L. XNA ACCESS RD. MEDIAN
8007 8070 PC 250+80.34 POB 250+80.34 POE 250+89.40 PI 254+46.97 C.L. XNA ACCESS RD. MEDIAN STA. 250+80.34, 58.50' RT. = C.L. HWY. 264 RAMP 1 STA. 250+80.34 255+00 N 2°37'37" E 970.94' 260+00 C.L. HWY. 264 RAMP 1

260+00 265+00 270+00 8008 PT 271+88.92 PI 33+40.84 S 88°31'24" E 257.34' 35+00 275+00 N 18°27'32" W 3823.22'
C.L. XNA ACCESS RD. MEDIAN
PK NAIL PIN 25 PIN 26 PODAROOT STD. MON. STAMPED PK NAIL
8115 PT 35+98.17 S 88°31'24" E 601.99' C.L. HWY. 264
260+00 8071 N 2°37'37" E 170.58' N 12°50'05" E 170.58' PC 260+51.28 PI 261+46.69 PI 262+21.86 PT 263+91.54 8072
PIN 30 PODAROOT STD. MON. STAMPED PIN 30 N 18°27'32" W 1066.35' N 2°37'37" E 1066.35'

**C.L. HWY. 264 RAMP 1**
= 262+21.86
Δ = 10°12'28" RT.
D = 3°00'00"
T = 170.58'
L = 340.26'
PC = 260+51.28
PT = 263+91.54
e = 0.058'/'
Ls = 300'

SURVEY CONTROL DETAILS

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 157 | 583 |
| | | SURVEY CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

100 50 0 100

Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

C.L. HWY. 264 RAMP 3

PI = 283+19.21
Δ = 30°13'27" LT.
D = 3°00'00"
T = 515.75'
L = 1007.47'
PC = 278+03.46
PT = 288+10.93
e = 0.058'/'
Ls = 300'

N 17°28'25" E
515.75'

PI 283+19.21

285+00

N 12°45'02" W
515.75'

PT 288+10.93

N 12°45'02" W
8092 600.01'

290+00

C.L. HWY. 264 RAMP 3

275+00

280+00

285+00

N 18°27'32" W
3823.22'

290+00

C.L. XNA ACCESS RD. MEDIAN

290+00

N 18°27'32" W
499.36'

N 47°45'53" W
499.36'

285+00

PI 286+69.54

C.L. HWY. 264 RAMP 2

C.L. HWY. 264 RAMP 2

PI = 286+69.54
Δ = 29°18'21" RT.
D = 3°00'00"
T = 499.36'
L = 976.86'
PC = 281+70.18
PT = 291+47.04
e = 0.058'/'
Ls = 300'

C.L. HWY. 264 RAMP 3

PI = 295+06.15
Δ = 5°42'30" LT.
D = 3°00'00"
T = 95.21'
L = 190.27'
PC = 294+10.94
PT = 296+01.21
e = NO SUPER

C.L. XNA ACCESS RD. MEDIAN STA. 296+01.21, 46.50' LT. =
C.L. HWY. 264 RAMP 3 STA. 296+01.21

PC 294+10.94

PI 295+06.15

PT 296+01.21

C.L. XNA ACCESS RD. MEDIAN STA. 296+50.00, 42.00' LT. =
C.L. NORTH SHIFT LT. STA. 1296+50.00

PC 1296+50.00

SURVEY BASELINE N20°20'11"E
2133.42'

PI 1299+03.71

C.L. NORTH SHIFT LT.

PI = 1299+03.71
Δ = 2°32'12" RT.
D = 0°30'00"
T = 253.71'
L = 507.33'
PC = 1296+50.00
PT = 1301+57.33
e = NO SUPER

PT 1301+57.33

C.L. NORTH SHIFT LT.

PI = 1305+81.46
Δ = 2°32'12" LT.
D = 0°45'00"
T = 169.14'
L = 338.22'
PC = 1304+12.32
PT = 1307+50.54
e = NO SUPER

PC 1304+12.32

290+00

N 18°27'32" W
600.01'

C.L. HWY. 264 RAMP 3

8093

N 12°45'02" W
95.21'

295+00

N 18°27'32" W
95.21'

8094

8180

N 18°27'32" W
253.71'

1300+00

N 15°55'20" W
253.71'

8181

N 15°55'20" W
254.99'

8182

N 15°55'20" W

1305+00

169.14'

1305+00

C.L. NORTH SHIFT LT.

290+00

N 18°27'32" W
3823.22'

295+00

300+00

2300+00

SURVEY BASELINE N16°11'30"W
1064.80'

N 20°59'45" W

169.16'

2305+00

C.L. XNA ACCESS RD. MEDIAN

C.L. NORTH SHIFT RT.

8190

N 18°27'32" W
253.74'

PI 2299+03.74

STA. 1+00 N. STAMPEDE PARKWAY

N 20°59'45" W
253.74'

8191

N 20°59'45" W
254.86'

8192

C.L. NORTH SHIFT RT.

PI = 2305+81.41
Δ = 2°32'13" RT.
D = 0°45'00"
T = 169.16'
L = 338.26'
PC = 2304+12.25
PT = 2307+50.51
e = NO SUPER

290+00

N 18°27'32" W
499.36'

8084

C.L. HWY. 264 RAMP 2

PT 291+47.04

C.L. XNA ACCESS RD. MEDIAN STA. 291+47.04, 58.50' RT. =
C.L. HWY. 264 RAMP 2 STA. 291+47.04

C.L. XNA ACCESS RD. MEDIAN STA. 296+50.00, 42.00' RT. =
C.L. NORTH SHIFT RT. STA. 2296+50.00

PC 2296+50.00

PT 2301+57.39

PC 2304+12.25

C.L. NORTH SHIFT RT.

PI = 2299+03.74
Δ = 2°32'13" LT.
D = 0°30'00"
T = 253.74'
L = 507.39'
PC = 2296+50.00
PT = 2301+57.39
e = NO SUPER

100 50 0 100

Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

SURVEY CONTROL DETAILS

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 158 | 583 |
| | | SURVEY CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

100 50 0 100

Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

C.L. NORTH SHIFT LT.
PI = 1305+81.46
Δ = 2°32'12" LT.
D = 0°45'00"
T = 169.14'
L = 338.22'
PC = 1304+12.32
PT = 1307+50.54
e = NO SUPER

C.L. NORTH SHIFT LT.

C.L. XNA ACCESS RD. MEDIAN STA. 307+50.02, 12.00' LT. =
C.L. NORTH SHIFT LT. STA. 1307+50.54

PI 1305+81.46

PT 1307+50.54

POE 310+12.14

N 15°55'20" W
169.14'

1305+00

N 18°27'32" W
169.14'

305+00

8183

N 18°27'32" W
3823.22'

310+00

8009

SURVEY BASELINE N20°25'25"W
1596.17'

8193

SURVEY BASELINE N16°11'30"W
1064.80'

2305+00

N 20°59'45" W
169.16'

N 18°27'32" W
169.16'

C.L. XNA ACCESS RD. MEDIAN

PT NO.748
POLPK NAIL

PI 2305+81.41

PT 2307+50.51

STA. 310+00.00
END JOB 090069
L.M. XX

C.L. XNA ACCESS RD. MEDIAN STA. 307+49.99, 12.00' RT. =
C.L. NORTH SHIFT RT. STA. 2307+50.51

C.L. NORTH SHIFT RT.

C.L. NORTH SHIFT RT.
PI = 2305+81.41
Δ = 2°32'13" RT.
D = 0°45'00"
T = 169.16'
L = 338.26'
PC = 2304+12.25
PT = 2307+50.51
e = NO SUPER



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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 159 | 583 |
| | | SURVEY CONTROL DETAILS | | | | |

100 50 0 100

Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

C.L. XNA ACCESS RD. MEDIAN

265+00

N 18°27'32" W
1066.35'

270+00

PT 35+98.17

8115

S 88°31'24" E
690.99'

C.L. HWY. 264

40+00

C.L. HWY. 264 RAMP 2

PI = 274+31.61
Δ = 34°21'48" LT.
D = 8°15'00"
T = 214.74'
L = 416.52'
PC = 272+16.87
PT = 276+33.39
e = 0.100'/'
Ls = 350'

PT 276+33.39

N 47°45'53" W
536.79'

8082

275+00

N 47°45'53" W
214.74'

N 13°24'05" W
214.74'

PC 272+16.87

PI 274+31.61

265+00

N 12°50'05" E
880.69'

C.L. HWY. 264 RAMP 1

C.L. HWY. 264 RAMP 1 STA. 272+72.23 =
C.L. HWY. 264 41+77.24
∢ 78°38'31"

270+00

POE 272+72.23

POB 269+42.81

270+00

N 13°24'05" W
274.06'

8081

8080

C.L. HWY. 264 RAMP 2

PI 42+00.16
Δ = 0°21'00" RT.

8116

C.L. HWY. 264 RAMP 2 STA. 269+42.81 =
C.L. HWY. 264 41+77.24
∢ 75°07'19"

S 88°10'24" E
699.84'

45+00

SURVEY CONTROL DETAILS

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 160 | 583 |
| | | SURVEY CONTROL DETAILS | | | | |

100 50 0 100

Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

C.L. HWY. 264 RAMP 3

| | |
|---|---|
| PI | = 283+19.21 |
| Δ | = 30°13'27" LT. |
| D | = 3°00'00" |
| T | = 515.75' |
| L | = 1007.47' |
| PC | = 278+03.46 |
| PT | = 288+10.93 |
| e | = 0.058'/' |
| Ls | = 300' |

N 17°28'25" E
515.75'

PI 283+19.21

N 12°45'02" W
515.75'

280+00

285+00

285+00

PT 288+10.93

8092

N 18°27'32" W
3823.22'

C.L. XNA ACCESS RD. MEDIAN

N 12°45'02" W
600.01'

290+00

C.L. HWY. 264 RAMP 3

N 47°45'53" W
499.36'

285+00

N 18°27'32" W
499.36'

290+00

280+00

8083

N 47°45'53" W
536.79'

PC 281+70.18

PI 286+69.54

290+00

C.L. HWY. 264 RAMP 2

8084

C.L. HWY. 264 RAMP 2

| | |
|---|---|
| PI | = 286+69.54 |
| Δ | = 29°18'21" RT. |
| D | = 3°00'00" |
| T | = 499.36' |
| L | = 976.86' |
| PC | = 281+70.18 |
| PT | = 291+47.04 |
| e | = 0.058'/' |
| Ls | = 300' |

PT 291+47.04

C.L. XNA ACCESS RD. MEDIAN STA. 291+47.04 58.50' RT. =
C.L. HWY. 264 RAMP 2 STA. 291+47.04

SURVEY CONTROL DETAILS

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 161 | 583 |
| | | SURVEY CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

100 50 0 100
Scale: 1" = 100'
ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

C.L. HWY. 264 RAMP 4
PI = 254+46.97
Δ = 38°05'42" LT.
D = 4°30'00"
T = 439.59'
L = 846.56'
PC = 250+07.38
PT = 258+53.94
e = 0.078'/'
Ls = 300'

C.L. AIRPORT BLVD. CURVE EXTENSION
PI = 258+90.90
Δ = 10°03'01" LT.
D = 4°30'00"
T = 111.96'
L = 223.34'
PC = 257+78.94
PT = 260+02.28
e = 0.078'/'
Ls = 250'

SURVEY BASELINE N13°14'33"W 3252.45'

C.L. AIRPORT BLVD.
N 42°08'37" W 1160.31'
N 35°28'05" W 1022.88'
N 35°28'05" W 439.59'
N 32°05'36" W 111.96'
N 42°08'37" W 111.96'
PC 257+78.94
PT 258+53.94
PI 258+90.90
PT 260+02.28
POB 260+02.28
260+00
265+00
270+00
8160
8210
8101
8211
C.L. AIRPORT BLVD. CURVE EXTENSION
C.L. HWY. 264 RAMP 4
STD. MON. STAMPED PNI729
PNI729 POINT

C.L. AIRPORT BLVD. CURVE EXTENSION STA. 260+02.28, 4.50' LT. =
C.L. AIRPORT BLVD. STA. 260+02.28

C.L. HWY. 264 RAMP 4 STA. 260+01.95, 8.63' LT. =
C.L. AIRPORT BLVD. CURVE EXTENSION STA. 260+02.28

C.L. HWY. 264 RAMP 4
PI = 270+81.40
Δ = 28°03'58" RT.
D = 7°00'00"
T = 204.58'
L = 400.95'
PC = 268+76.82
PT = 272+77.77
e = 0.098'/'
Ls = 350'

PC 268+76.82
PI 270+81.40
PC 271+62.59
N 35°28'05" W 204.58'
N 7°24'07" W 204.58'
8102

PI 274+28.72
PT 22+49.29
S 87°14'12" E 137.45'
N 12°14'12" W 266.13'
N 42°08'37" W 266.13'
275+00
SURVEY BASELINE N40°02'44"W 1727.03'
C.L. AIRPORT BLVD.
270+00
N 42°08'37" W 1160.31'
8161
8162
N 12°14'12" W 147.13'
PC 271+62.59
PI 270+81.40
PC 278+29.84
PT 279+46.02
PT 276+82.71
S 87°14'12" E 833.21'
00+52
8163
N 12°14'12" W 58.16'
8164
280+00
N 18°55'00" W 58.16'
N 18°55'00" W 453.97'
PI 278+88.00
POE 283+99.99
8165
STD. MON. STAMPED PNI734
PNI734 POINT
PUNCHOLD SQUARE Ø1.5IN

C.L. AIRPORT BLVD.
PI = 274+28.72
Δ = 29°54'25" RT.
D = 5°45'00"
T = 266.13'
L = 520.12'
PC = 271+62.59
PT = 276+82.71
e = 0.082'/'
Ls = 375'

C.L. AIRPORT BLVD.
PI = 278+88.00
Δ = 6°40'48" LT.
D = 5°45'00"
T = 58.16'
L = 116.18'
PC = 278+29.84
PT = 279+46.02
e = NO SUPER
Ls = NO SUPER

C.L. HWY. 264 RAMP 4 STA. 275+62.83 =
C.L. HWY. 264 27+60.00
Δ 79°50'05"

C.L. AIRPORT BLVD. STA. 277+56.28 =
C.L. HWY. 264 STA. 24+09.53
Δ 75°00'00"

C.L. HWY. 264 RAMP 4
PI = 270+81.40
Δ = 28°03'58" RT.
D = 7°00'00"
T = 204.58'
L = 400.95'
PC = 268+76.82
PT = 272+77.77
e = 0.098'/'
Ls = 350'

270+00
N 35°28'05" W 204.58'
N 7°24'07" W 204.58'
C.L. HWY. 264 RAMP 4
8103
N 7°24'07" W 285.06'
275+00
PT 272+77.77
POE 275+62.83
C.L. HWY. 264
8090
C.L. HWY. 264 RAMP 3

100 50 0 100
Scale: 1" = 100'
ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

SURVEY CONTROL DETAILS

aewierciak 10/20/2023 12:54:02 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 162 | 583 |
| | | SURVEY CONTROL DETAILS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

100 50 0 100
Scale: 1" = 100'

N

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

POB 10+00.00
10+00
8110
S 87°44'55" E
440.55'
PN:733
PD:PK NAIL
PI 14+40.55
= 0°10'31" LT.
8111
15+00
C.L. HWY. 264
S 87°55'26" E
533.85'
8112
20+00
S 87°55'26" E
137.45'
PI 21+11.85
S 87°14'12" E
137.45'
8113
25+00
S 87°14'12" E
834.21'

C.L. HWY. 264
PI = 21+11.85
Δ = 0°41'14" RT.
D = 0°15'00"
T = 137.45'
L = 274.89'
PC = 19+74.40
PT = 22+49.29
e = NO SUPER

PC 19+74.40
PT 22+49.29

280.
8164
PN:910
PD:CHSLD SQUARE
TBM
N 18°55'00" W
358.16'
PI 279+46.72
PI 278+88.00
N 12°14'12" W
358.16'
C.L. AIRPORT BLVD.
8163
PC 278+29.84
N 12°14'12" W
147.13'
SURVEY BASELINE
N 40°02'44" W
1727.03'
8162
N 12°14'12" W
266.13'
PI 276+82.71

C.L. AIRPORT BLVD. 277+56.28 =
C.L. HWY. 264 24+09.53
∢ 75°00'00"

N

25+00
8090
S 87°14'12" E
834.21'
C.L. HWY. 264
30+00
PC 30+83.50
8114
S 87°14'12" E
257.34'
S 88°31'24" E
257.34'
35+00
PT 35+98.17
8115
S 88°31'24" E
601.99'
40+00

C.L. HWY. 264
PI = 33+40.84
Δ = 1°17'12" LT.
D = 0°15'00"
T = 257.34'
L = 514.67'
PC = 30+83.50
PT = 35+98.17
e = NO SUPER

275+00
N 17°28'25" E
392.72'
C.L. HWY. 264 RAMP 3
C.L. HWY. 264 RAMP 3 274+10.74 =
C.L. HWY. 264 27+60.00
∢ 75°17'23"
275+00
N 18°27'32" W
382.22'
PN:6
PD:ARDOT STD. MON. STAMPED PN:6
PN:735
PD:PK NAIL
C.L. XNA ACCESS RD. MEDIAN
PI 33+40.84
C.L. HWY. 264 RAMP 4 275+62.83 =
C.L. HWY. 264 27+60.00
∢ 79°50'05"
275+00
N 7°24'07" W
285.06'
C.L. HWY. 264 RAMP 4
C.L. XNA ACCESS RD. MEDIAN STA. 272+97.83 =
C.L. HWY. 264 STA. 35+09.49
∢ 69°50'34"
PT 271+88.92
N 18°27'32" W
1066.35'
SURVEY BASELINE
N 40°02'44" W
1727.03'
C.L. AIRPORT BLVD.
275+00

100 50 0 100
Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

SURVEY CONTROL DETAILS

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 163 | 583 |
| | | SURVEY CONTROL DETAILS | | | | |

100 50 0 100

Scale: 1" = 100'

ALL BEARINGS ARE GRID
BASED ON GPS
ALL DISTANCES ARE GROUND

N

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

N 47°45'53" W
214.74'

PI 274+31.61

275+00

N 13°24'05" W
214.14'

8081

PC 272+16.87

N 13°24'05" W
214.06'

C.L. HWY. 264 RAMP 2 STA. 269+42.81 =
C.L. HWY. 264 41+77.24
Δ 75°07'19"

C.L. HWY. 264 RAMP 2

270+00

40+00

S 88°31'24" E
601.99'

8080

8116

C.L. HWY. 264

45+00

S 88°10'24" E
699.84'

8117

POE 49+00.00

PN:737
PD:PK NAIL

C.L. HWY. 264 RAMP 1 STA. 272+72.23 =
C.L. HWY. 264 41+77.24
Δ 78°38'31"

PI 42+00.16
Δ = 0°21'00" RT.

N 12°50'05" E
880.69'

C.L. HWY. 264 RAMP 1

270+00

SURVEY CONTROL DETAILS

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 164 | 583 |
| | | PLAN - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

## FENCING

| STA. | STA. | SIDE | TYPE | UNIT |
|---|---|---|---|---|
| 100+37 | 111+00 | XNA ACCESS RD. LT. | A | 1212 LIN. FT. |
| 103+18 | 111+00 | XNA ACCESS RD. RT. | A | 850 LIN. FT. |

## WIRE ROPE SAFETY FENCE

| STA. | STA. | LOCATION | LENGTH |
|---|---|---|---|
| 100+00 | 111+00 | XNA ACCESS RD. MEDIAN | 1100 LIN. FT. |

## REMOVAL AND DISPOSAL OF FENCE

| STA. | STA. | SIDE | UNIT |
|---|---|---|---|
| 100+38 | 102+22 | LT. | 299 LIN. FT. |
| 102+22 | 103+18 | RT. | 158 LIN. FT. |
| 107+64 | 109+25 | LT. | 272 LIN. FT. |
| 108+20 | 111+21 | LT. | 391 LIN. FT. |

## CONCRETE DITCH PAVING (TYPE B)

| STA. | STA. | SIDE | "W" | SQ. YDS. |
|---|---|---|---|---|
| 101+50 | 102+45 | LT. = 96 LIN. FT. | 6'-0" | 64 |
| 103+80 | 105+72 | LT. = 208 LIN. FT. | 6'-0" | 139 |
| 105+28 | 105+84 | RT. = 56 LIN. FT. | 9'-0" | 56 |
| 105+84 | 110+05 | RT. = 463 LIN. FT. | 6'-0" | 309 |
| 106+22 | 107+85 | LT. = 169 LIN. FT. | 6'-0" | 113 |
| 108+50 | 110+30 | LT. = 178 LIN. FT. | 9'-0" | 178 |
| 110+30 | 111+00 | LT. = 70 LIN. FT. | 6'-0" | 47 |

STA. 102+00 CONSTRUCT
DROP INLET 1' RT. H=2'-11"
WITH 24" x 86' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 86 LIN. FT.
24" F.E.S. = 1 EACH

STA. 105+97 CONSTRUCT
DROP INLET 193' LT. H=4'-3"
WITH 36" x 28' PIPE INLET
FROM F.E.S. AT STA. 105+82 LT.
Q50 = 37 CFS DA = 6.7 ACRES
AND 36" x 390' PIPE OUTLET
TO F.E.S. AT 107+71 RT.
26°RT. FWD. SKEW
TYPE RM DROP INLET = 4'X4'
W/ MODIFIED TOP AND
5 LIN. FT. 18" PERFORATED
RISER PIPE
36" R.C. PIPE (CLASS III)
(TYPE 2 BEDDING) = 28 LIN. FT.
36" R.C. PIPE (CLASS V)
(TYPE 2 BEDDING) = 390 LIN. FT.
36" F.E.S. = 2 EACH

C.L. XNA ACCESS RD. MEDIAN
PI = 115+21.07
Δ = 18°20'16" LT.
D = 1°00'00"
T = 924.80'
L = 1833.78'
PC = 105+96.27
PT = 124+30.05
e = 0.038'/'
Ls = 350'

STA. 107+75 CONSTRUCT
DROP INLET 1' RT. H=2'-11"
WITH 24" x 87' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 87 LIN. FT.
24" F.E.S. = 1 EACH

+01.63
285'

+36.85
234.49'

C.L. XNA ACCESS RD. MEDIAN STA. 100+00.00, 37.50' LT. =
C.L. XNA ACCESS RD. RAMP 2 STA. 416+52.40

STA. 100+00.00
BEGIN JOB 090069

STA. 100+00
BEGIN WRSF

+30
235.71'

+20
265'

+15
185'

+60
195'

+00
180'

+45
190'

+25
150'

+00
155'

EXIST. R/W, C/A, & FENCE
JOB 012326

PROP. R/W, C/A, & FENCE

CONSTRUCTION LIMITS

C.L. XNA ACCESS RD. RAMP 2

PC 416+52.40

EXIST. R/W

PC 105+96.27

S 34°46'49" E

420+00

S 48°55'36" E

10'

24'

6'

30'

110+00

105+00

C.L. XNA ACCESS RD. MEDIAN

N 48°55'36" W

30'

6'

24'

10'

480+00

C.L. XNA ACCESS RD. RAMP 1

NOSE
+70.26
11.43' RT.

100+00

N 48°55'36" W

S 50°57'09" E

S 48°55'36" E

430+00

435+00

PI 420+07.87

PC 436+48.14

C.L. XNA ACCESS RD. RAMP 3

NOSE
+37.08
7.50' LT.

PI 433+59.53

PI 431+56.66

PC 429+54.36

+17.83
125'

+00
125'

WIRE ROPE SAFETY FENCE

CONSTRUCTION LIMITS

PROP. R/W, C/A, & FENCE

EXIST. R/W, C/A, & FENCE
JOB 012326

C.L. XNA ACCESS RD. MEDIAN STA. 100+00.00, 37.50' RT. =
C.L. XNA ACCESS RD. RAMP 1 STA. 484+19.97

C.L. XNA ACCESS RD. MEDIAN STA. 103+33.77, 46.50' RT. =
C.L. XNA ACCESS RD. RAMP 3 STA. 429+54.36

STA. 101+22 CONSTRUCT
DROP INLET 206' RT. H=5'-3"
WITH 30" x 338' PIPE INLET
FROM F.E.S. AT STA. 100+70 LT.
Q50 = 21 CFS DA = 3.7 ACRES
AND 30" x 83' PIPE OUTLET
TO F.E.S. AT STA. 102+60 RT.
26°RT. FWD. SKEW
TYPE RM DROP INLET = 4'X4'
W/ MODIFIED TOP AND
4 LIN. FT. 18" PERFORATED
RISER PIPE
30" R.C. PIPE (CLASS V)
(TYPE 3 BEDDING) = 338 LIN. FT.
30" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 83 LIN. FT.
30" F.E.S. = 2 EACH
DUMPED RIPRAP = 8 CU.YD.

+00
125'

+05
237.75'

+70
270'

+65
325'

XNA ACCESS RD.

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# XNA ACCESS RD. PROFILE

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 165 | 583 |
| | | PROFILE - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 100+00.00 LT. LANES MATCH SUPERELEVATION (0.058'/') XNA ACCESS RD. RAMP 2
STA. 102+62.50 LT. LANES END SUPERELEVATION

STA. 103+33.77 BEGIN SUPERELEVATION
STA. 106+83.77 MAX. SUPERELEVATION (0.038'/')
STA. 123+42.55 MAX. SUPERELEVATION (0.038'/')
STA. 126+92.55 END SUPERELEVATION

C.L. XNA ACCESS RD. MEDIAN STA. 100+00.00, 37.50' LT. =
C.L. XNA ACCESS RD. RAMP 2 STA. 416+52.40, 7.50' LT.
ELEV. 1295.00

C.L. XNA ACCESS RD. MEDIAN STA. 100+00.00, 37.50' RT. =
C.L. XNA ACCESS RD. RAMP 1 STA. 484+19.97, 7.50' LT.
ELEV. 1295.00

STA. 100+00.00
BEGIN JOB 090069
ELEV. 1295.00

PVI 100+00.00
ELEV. 1295.00

-1.41%

PVC 101+10.00
ELEV. 1293.45

XNA 102+00
TOP ELEV.=1288.00

PVI 103+50.00
ELEV. 1290.07

PVT 105+90.00
ELEV. 1282.32

PROFILE GRADE

XNA 107+75
TOP ELEV.=1272.34

EXISTING GROUND

F.L. ELEV.=1285.08
F.L. ELEV.=1283.90 LT.

VC=480.00'
K=263.74
e=-1.09'

+50.00 LT. 1282.00
+45.00 LT. 1285.60
+00.00 LT. 1285.88
+75.00 LT. 1284.16
+35.00 LT. 1280.67
+93.58 LT. 1274.10
+85.00 RT. 1279.65
+72.00 LT. 1256.00
+23.00 LT. 1256.00
+65.00 LT. 1261.85
+23.00 RT. 1258.32
+25.00 LT. 1265.87
+85.00 LT. 1267.84
+50.00 LT. 1269.19
+30.00 LT. 1269.38
+90.00 LT. 1258.99
+75.00 RT. 1245.32
+22.00 RT. 1235.91
+05.00 RT. 1220.32

3.79% LT. DITCH GRADE
XNA 102+22 RT.
TOP ELEV.=1256.00
0.50% LT. DITCH GRADE
-5.82% LT. DITCH GRADE
-11.22% LT. DITCH GRADE
XNA 105+97 LT.
TOP ELEV.=1261.00
23.08% LT. DITCH GRADE
5.46% RT. DITCH GRADE
F.L. ELEV.=1269.42
F.L. ELEV.=1267.51 LT.
3.29% LT. DITCH GRADE
2.08% LT. DITCH GRADE
-3.23%
-6.40% RT. DITCH GRADE
-7.32% LT. DITCH GRADE
-11.22% LT. DITCH GRADE
18.79% RT. DITCH GRADE
-25.00% RT. DITCH GRADE
13.94% LT. DITCH GRADE
6.68% LT. DITCH GRADE

PR. F.L. = 1281.85 LT.
PR. F.L. = 1245.93 RT.
F.L. ELEV.=1246.85(SW)
F.L. ELEV.=1246.75(NE)
F.L. ELEV.=1251.85(SW)
F.L. ELEV.=1251.75(NE)
PR. F.L. = 1257.50 LT.
PR. F.L. = 1245.28 RT.

1360 1350 1340 1330 1320 1310 1300 1290 1280 1270 1260 1250 1240 1230 1220 1210 1200 1190 1180

100+00 101+00 102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00 110+00 111+00

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 166 | 583 |
| | | PLAN - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

STA. 112+27 CONSTRUCT
DROP INLET 185' LT. H=4'-2"
WITH 36" x 35' PIPE INLET
FROM F.E.S. AT STA. 112+19 LT.
Q50 = 42 CFS DA = 7.7 ACRES
AND 36" x 366' PIPE OUTLET
TO DROP INLET AT 112+98 RT.
11°RT. FWD. SKEW
TYPE RM DROP INLET = 4'X4'
W/ MODIFIED TOP AND
5 LIN. FT. 18" PERFORATED
RISER PIPE
36" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 35 LIN. FT.
36" R.C. PIPE (CLASS V)
(TYPE 2 BEDDING) = 366 LIN. FT.
36" F.E.S. = 1 EACH

FENCING

| STA. | STA. | SIDE | TYPE | UNIT |
|---|---|---|---|---|
| 111+00 | 126+00 | XNA ACCESS RD. LT. | A | 1709 LIN. FT. |
| 111+00 | 126+00 | XNA ACCESS RD. RT. | A | 1715 LIN. FT. |

WIRE ROPE SAFETY FENCE

| STA. | STA. | LOCATION | LENGTH |
|---|---|---|---|
| 111+00 | 126+00 | XNA ACCESS RD. MEDIAN | 1500 LIN. FT. |

CONCRETE DITCH PAVING (TYPE B)

| STA. | STA. | SIDE | "W" | SQ. YDS. |
|---|---|---|---|---|
| 111+00 | 112+19 | LT. = 130 LIN. FT. | 6'-0" | 87 |
| 112+55 | 114+05 | LT. = 155 LIN. FT. | 6'-0" | 103 |
| 113+39 | 115+05 | RT. = 202 LIN. FT. | 6'-0" | 135 |
| 113+58 | 113+83 | LT. = 84 LIN. FT. | 6'-0" | 56 |
| 115+00 | 116+30 | LT. = 128 LIN. FT. | 9'-0" | 128 |
| 116+27 | 116+53 | LT. = 83 LIN. FT. | 6'-0" | 55 |
| 116+30 | 118+85 | LT. = 283 LIN. FT. | 6'-0" | 189 |
| 117+00 | 122+90 | RT. = 599 LIN. FT. | 9'-0" | 599 |
| 122+90 | 126+00 | RT. = 320 LIN. FT. | 6'-0" | 213 |
| 123+42 | 126+00 | LT. = 265 LIN. FT. | 6'-0" | 178 |

| STA. | STA. | SIDE | GUARDRAIL (TYPE A) | TERMINAL ANCHOR POST (TYPE I) | GUARDRAIL TERMINAL (TYPE 2) |
|---|---|---|---|---|---|
| 120+19.61 | 123+94.61 | LT. LANES INSIDE | 300 LIN. FT. | 1 EACH | 1 EACH |

C.L. XNA ACCESS RD. MEDIAN
PI = 115+21.07
Δ = 18°20'16" LT.
D = 1°00'00"
T = 924.80'
L = 1833.78'
PC = 105+96.27
PT = 124+30.05
e = 0.038'/'
Ls = 350'

STA. 119+00 CONSTRUCT
DROP INLET 213' LT. H=5'-3"
WITH 42" x 34' PIPE INLET
FROM F.E.S. AT STA. 118+63 LT.
Q50 = 48 CFS DA = 8.7 ACRES
AND 42" x 420' PIPE OUTLET
TO JUNCTION BOX AT 123+20 LT.
TYPE RM DROP INLET = 4'X4'
W/ MODIFIED TOP AND
4 LIN. FT. 18" PERFORATED
RISER PIPE
42" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 34 LIN. FT.
42" R.C. PIPE (CLASS V)
(TYPE 2 BEDDING) = 420 LIN. FT.
42" F.E.S. = 1 EACH

STA. 123+20 CONSTRUCT
DROP INLET 233' LT. H=5'-3"
WITH 42" x 33' PIPE INLET
FROM F.E.S. AT STA. 123+20 LT.
Q50 = 51 CFS DA = 9.4 ACRES
AND 42" x 118' PIPE OUTLET
TO DROP INLET AT 123+20 RT.
TYPE RM DROP INLET = 4'X4'
W/ MODIFIED TOP AND
5 LIN. FT. 18" PERFORATED
RISER PIPE
42" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 33 LIN. FT.
42" R.C. PIPE (CLASS V)
(TYPE 2 BEDDING) = 118 LIN. FT.
42" F.E.S. = 1 EACH

STA. 123+20 CONSTRUCT
JUNCTION BOX 110' LT. H=35'-0"
WITH 48" x 499' PIPE OUTLET
TO JUNCTION BOX AT STA. 127+57 RT.
Q50 = 99 CFS DA = 18 ACRES
TYPE ST JUNCTION BOX = 6'X6'
48" R.C. PIPE (CLASS V)
(TYPE 1 BEDDING) = 499 LIN. FT.

STA. 121+00 INSTALL
OVERHEAD HIGHWAY SIGN
XNA ACCESS RD. LT. LANES
SEE SIGNING PLANS

CONSTRUCT PIPE ON RADIAL ALIGNMENT BY
USING 1° PULL AT EACH JOINT
(EQUIVALENT RADIUS = 352' FOR 42" PIPE)

STA. 112+98 CONSTRUCT
DROP INLET 178' RT. H=12'-10"
WITH 36" x 93' PIPE OUTLET
TO DROP INLET AT 113+15 RT.
TYPE RM DROP INLET = 4'X4'
36" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 93 LIN. FT.

STA. 113+15 CONSTRUCT
DROP INLET 273' RT. H=8'-3"
WITH 36" x 60' PIPE OUTLET
TO F.E.S. AT 113+26 RT.
TYPE RM DROP INLET = 4'X4'
W/ MODIFIED TOP AND
5 LIN. FT. 18" PERFORATED
RISER PIPE
36" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 60 LIN. FT.
36" F.E.S. = 1 EACH
DUMPED RIPRAP = 19 CU.YD.

STA. 115+40 CONSTRUCT
DROP INLET 1' RT. H=2'-11"
WITH 24" x 91' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 91 LIN. FT.
24" F.E.S. = 1 EACH

REMOVAL AND DISPOSAL OF FENCE

| STA. | STA. | SIDE | UNIT |
|---|---|---|---|
| 111+21 | 112+06 | RT. | 104 LIN. FT. |
| 112+85 | 115+25 | LT. | 358 LIN. FT. |

+80 255'
+35 260'
+45 190'
+15 220'
+20 235'
+10 188.17'
+10 210'
+50 285'
+80 225'
+30 200.08'
+50 215'
+65 300'
+95 305'
+05 225'
+85 245'
+60 189.92'
+00 208.45'
+00 400'
+60 400'
+00 140'

PROP. R/W, C/A, & FENCE
CONSTRUCTION LIMITS
C.L. XNA ACCESS RD. MEDIAN
WIRE ROPE SAFETY FENCE
PT 124+30.05
PI 115+21.07
115+00
120+00
125+00
N 48°55'36" W
N 67°15'52" W
10'
24'
6'
30'

XNA ACCESS RD.

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WORKSPACE: AHTD
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REVISED DATE:

# XNA ACCESS RD. PROFILE

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 167 | 583 |
| | | PROFILE - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 103+33.77 BEGIN SUPERELEVATION
STA. 106+83.77 MAX. SUPERELEVATION (0.038'/')
STA. 123+42.55 MAX. SUPERELEVATION (0.038'/')
STA. 126+92.55 END SUPERELEVATION

XNA 112+27 LT.
TOP ELEV.=1242.00
3.27% LT. DITCH GRADE
XNA 112+98 RT.
TOP ELEV.=1227.29
XNA 113+15 RT.
TOP ELEV.=1223.00
22.11% LT. DITCH GRADE
+50.00 LT. 1252.26
11.22% LT. DITCH GRADE
F.L. ELEV.=1232.85(SW)
F.L. ELEV.=1232.75(NE)
+19.00 LT. 1237.00
+55.00 LT. 1237.00
11.67% LT. DITCH GRADE
PR. F.L. = 1235.80 LT.
PR. F.L. = 1208.25 RT.
+85.00 LT. 1240.50
7.22% LT. DITCH GRADE
F.L. ELEV.=1214.65(SW)
F.L. ELEV.=1214.45(NE)
+42.50 LT. 1244.65
+25.00 RT. 1212.49
F.L. ELEV.=1209.85(SW)
F.L. ELEV.=1209.75(NE)
21.79% RT. DITCH GRADE
+05.00 LT. 1246.70
5.73% RT. DITCH GRADE
+50.00 RT. 1239.73
0.59% RT. DITCH GRADE
XNA 115+40
TOP ELEV.=1247.63
1.58% LT. DITCH GRADE
F.L. ELEV.=1244.71
+00.00 LT. 1248.20
F.L. ELEV.=1243.09 RT.
+05.00 RT. 1242.88
PROFILE GRADE
-3.23%
+30.00 LT. 1244.00
+90.00 LT. 1239.84
-6.93% LT. DITCH GRADE
+00.00 RT. 1244.04
+50.00 LT. 1233.25
-10.99% LT. DITCH GRADE
23.89% LT. DITCH GRADE
XNA 119+00 LT.
TOP ELEV.=1205.00
PR. F.L. = 1198.69 LT.
+75.00 LT. 1202.00
F.L. ELEV.=1195.85(SW)
F.L. ELEV.=1195.75(NE)
XNA 123+20, 110' LT.
TOP ELEV.=1213.50
XNA 123+20 LT., 233' LT.
TOP ELEV.=1198.00
EXISTING GROUND
+90.00 RT. 1224.99
-10.88% RT. DITCH GRADE
F.L. ELEV.=1187.85(SW)
F.L. ELEV.=1187.75(NE)
+42.00 LT. 1193.00
F.L. ELEV.=1179.00(SE)
F.L. ELEV.=1179.00(SW)
F.L. ELEV.=1178.50(NW)
10.46% LT. DITCH GRADE
+00.00 LT. 1199.06
5.95% LT. DITCH GRADE
+60.00 LT. 1202.63
0.51% LT. DITCH GRADE
+20.00 LT. 1204.39
2.93% LT. DITCH GRADE
PR. F.L. = 1192.69 LT.
PR. F.L. = 1141.42 RT.

1310 1300 1290 1280 1270 1260 1250 1240 1230 1220 1210 1200 1190 1180 1170 1160 1150 1140 1130

111+00 112+00 113+00 114+00 115+00 116+00 117+00 118+00 119+00 120+00 121+00 122+00 123+00 124+00 125+00 126+00

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 168 | 583 |
| | | PLAN - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

CONCRETE DITCH PAVING (TYPE B)

| STA. | STA. | SIDE | "W" | SQ. YDS. |
|---|---|---|---|---|
| 126+00 | 127+10 | LT. = 110 LIN. FT. | 6'-0" | 73 |
| 126+00 | 129+13 | RT. = 327 LIN. FT. | 6'-0" | 218 |
| 126+48 | 126+58 | LT. = 85 LIN. FT. | 6'-0" | 57 |
| 128+25 | 140+20 | LT. = 1195 LIN. FT. | 9'-0" | 1195 |
| 130+42 | 134+10 | RT. = 398 LIN. FT. | 6'-0" | 265 |
| 132+62 | 132+70 | LT. = 87 LIN. FT. | 6'-0" | 58 |
| 133+92 | 134+03 | RT. = 86 LIN. FT. | 6'-0" | 57 |
| 135+50 | 139+77 | RT. = 427 LIN. FT. | 9'-0" | 427 |
| 138+72 | 138+80 | RT. = 87 LIN. FT. | 6'-0" | 58 |
| 139+77 | 141+00 | RT. = 124 LIN. FT. | 6'-0" | 83 |
| 140+20 | 141+00 | LT. = 81 LIN. FT. | 6'-0" | 54 |

FENCING

| STA. | STA. | SIDE | TYPE | UNIT |
|---|---|---|---|---|
| 126+00 | 141+00 | XNA ACCESS RD. LT. | A | 1508 LIN. FT. |
| 126+00 | 141+00 | XNA ACCESS RD. RT. | A | 1692 LIN. FT. |

WIRE ROPE SAFETY FENCE

| STA. | STA. | LOCATION | LENGTH |
|---|---|---|---|
| 126+00 | 140+66 | XNA ACCESS RD. MEDIAN | 1466 LIN. FT. |

STA. 127+00 CONSTRUCT
MEDIAN DROP INLET H=2'-11"
WITH 24" x 87' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 87 LIN. FT.
24" F.E.S. = 1 EACH

+40
235'

PROP. R/W, C/A, & FENCE

+22.13
225'

CONSTRUCTION LIMITS

+33
130'

10'
24'
6'
30'
6'
30'
24'
10'

130+00

N 67°15'52" W

C.L. XNA ACCESS RD. MEDIAN

135+00

140+00

WIRE ROPE SAFETY FENCE

STA. 140+66
END WRSF

+50
145'

CONSTRUCTION LIMITS

+80.46
210'

PROP. R/W, C/A, & FENCE

+20
265'

STA. 134+00 CONSTRUCT
MEDIAN DROP INLET H=2'-11"
WITH 24" x 90' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 90 LIN. FT.
24" F.E.S. = 1 EACH

+00
258.04'

+05
280'

+20
355'

+55
367.51'

+75
395'

STA. 127+57 CONSTRUCT
JUNCTION BOX 144' RT. H=33'-9"
WITH 48" x 277' PIPE OUTLET
TO DROP INLET AT 129+99 RT.
TYPE ST JUNCTION BOX = 6'X4'
48" R.C. PIPE (CLASS V)
(TYPE 3 BEDDING) = 277 LIN. FT.

STA. 129+99 CONSTRUCT
DROP INLET 287' RT. H=10'-0"
WITH 48" x 69' PIPE OUTLET
TO F.E.S. AT 130+62 RT.
TYPE RM DROP INLET = 6'X4'
W/ MODIFIED TOP AND
5 LIN. FT. 18" PERFORATED
RISER PIPE
48" R.C. PIPE (CLASS IV)
(TYPE 3 BEDDING) = 69 LIN. FT.
48" F.E.S. = 1 EACH
DUMPED RIPRAP = 82 CU.YD.

REMOVAL AND DISPOSAL OF FENCE

| STA. | STA. | SIDE | UNIT |
|---|---|---|---|
| 129+36 | 132+15 | RT. | 365 LIN. FT. |

XNA ACCESS RD.

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REVISED DATE:

# XNA ACCESS RD. PROFILE

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 169 | 583 |
| | | PROFILE - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

STA. 103+33.77 BEGIN SUPERELEVATION
STA. 106+83.77 MAX. SUPERELEVATION (0.038'/')
STA. 123+42.55 MAX. SUPERELEVATION (0.038'/')
STA. 126+92.55 END SUPERELEVATION

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 139+16.95 BEGIN SUPERELEVATION
STA. 142+66.95 MAX. SUPERELEVATION (0.020'/') R.C.
STA. 169+52.34 MAX. SUPERELEVATION (0.020'/') R.C.
STA. 173+02.34 END SUPERELEVATION

XNA 127+00
TOP ELEV.=1209.93

0.51% LT. DITCH GRADE

F.L. ELEV.=1205.29 LT.

+25.00 LT. 1205.96

-10.88% RT. DITCH GRADE

+04.00 RT. 1179.95

XNA 127+57 RT.
TOP ELEV.=1188.73

-13.43% RT. DITCH GRADE

F.L. ELEV.=1155.26(SE)
F.L. ELEV.=1154.98(NW)

+12.17 RT. 1152.00

XNA 129+99 RT.
TOP ELEV.=1157.00

F.L. ELEV.=1142.10(SE)
F.L. ELEV.=1142.00(NW)

+42.00 RT. 1152.00

11.34% RT. DITCH GRADE

+00.00 RT. 1181.25

PROFILE GRADE
XNA 134+00
TOP ELEV.=1187.32

-3.23%

F.L. ELEV.=1184.40

0.50% RT. DITCH GRADE

F.L. ELEV.=1181.75 RT.

+50.00 RT. 1182.50

EXISTING GROUND

+75.00 RT. 1168.77

-5.42% RT. DITCH GRADE

+20.00 LT. 1167.92

-7.57% LT. DITCH GRADE

+80.00 LT. 1163.38

-12.29% LT. DITCH GRADE

+00.00 RT. 1162.00

1270 1260 1250 1240 1230 1220 1210 1200 1190 1180 1170 1160 1150 1140 1130 1120 1110 1100 1090

126+00 127+00 128+00 129+00 130+00 131+00 132+00 133+00 134+00 135+00 136+00 137+00 138+00 139+00 140+00 141+00

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 170 | 583 |
| | | PLAN - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

CONCRETE DITCH PAVING (TYPE B)

| STA. | STA. | SIDE | "W" | SQ. YDS. |
|---|---|---|---|---|
| 141+00 | 144+21 | LT. = 332 LIN. FT. | 6'-0" | 221 |
| 141+00 | 143+40 | RT. = 255 LIN. FT. | 6'-0" | 170 |
| 144+10 | 145+59 | RT. = 171 LIN. FT. | 6'-0" | 114 |
| 151+00 | 155+27 | RT. = 428 LIN. FT. | 6'-0" | 285 |

FENCING

| STA. | STA. | SIDE | TYPE | UNIT |
|---|---|---|---|---|
| 141+00 | 143+04 | XNA ACCESS RD. LT. | A | 283 LIN. FT. |
| 141+00 | 142+52 | XNA ACCESS RD. RT. | A | 263 LIN. FT. |
| 145+35 | 146+80 | XNA ACCESS RD. RT. | A | 503 LIN. FT. |
| 145+84 | 145+86 | XNA ACCESS RD. LT. | A | 88 LIN. FT. |
| 146+11 | 156+00 | XNA ACCESS RD. LT. | A | 1109 LIN. FT. |
| 147+05 | 156+00 | XNA ACCESS RD. RT. | A | 958 LIN. FT. |

| STA. | STA. | SIDE | GUARDRAIL (TYPE A) | THRIE BEAM GUARDRAIL TERMINAL | GUARDRAIL TERMINAL (TYPE 2) | GUARDRAIL TERMINAL (TYPE 1) |
|---|---|---|---|---|---|---|
| 140+02.88 | 142+71.63 | RT. LANES INSIDE | 200 LIN. FT. | 1 EACH | 1 EACH | |
| 140+34.10 | 142+52.85 | RT. LANES OUTSIDE | 150 LIN. FT. | 1 EACH | 1 EACH | |
| 145+64.63 | 148+33.38 | LT. LANES INSIDE | 200 LIN. FT. | 1 EACH | 1 EACH | |
| 145+83.16 | 148+01.91 | LT. LANES OUTSIDE | 150 LIN. FT. | 1 EACH | 1 EACH | |
| 141+35.55 | 143+04.30 | LT. LANES OUTSIDE | 125 LIN. FT. | 1 EACH | | 1 EACH |
| 145+52.65 | 147+21.40 | RT. LANES INSIDE | 125 LIN. FT. | 1 EACH | | 1 EACH |

STA. 145+76 INSTALL
VARIABLE MESSAGE SIGN
XNA ACCESS RD. MEDIAN
SEE ITS PLANS

WIRE ROPE SAFETY FENCE

| STA. | STA. | LOCATION | LENGTH |
|---|---|---|---|
| 147+65 | 155+91 | XNA ACCESS RD. MEDIAN | 826 LIN. FT. |

STA. 152+00 CONSTRUCT
DROP INLET 1' LT. H=2'-11"
WITH 24" x 115' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 115 LIN. FT.
24" F.E.S. = 1 EACH

STA. 146+40 CONSTRUCT
8' x 5' x 328' R.C. BOX CULVERT
15° RT. FWD. SKEW
WITH 31 WINGS LT. AND RT.
Q50 = 185 CFS DA = 89 ACRES

STA. 143+07.25 BRIDGE END
BRIDGE NO. A7656 OVER WAGER DR.
40'-0" CLEAR ROADWAY
25°00'00" LT. FORWARD SKEW
257'-4 11/16" BRIDGE LENGTH
STA. 145+63.66 BRIDGE END

PI 1+77.92
PC 1+02.08
PT 2+47.13
PC 2+92.67
PT 3+12.22
PI 3+02.46
PC 3+68.04
PT 4+01.35
PC 4+75.36
PT 5+84.91
PI 5+31.63
PC 141+79.45
PI 156+17.12
PT 170+39.84

+00 175'
+39 194'
+73.53 157'
+85 195'
+96 180'
+75 185'
+10 125'
+10 148.27'
+60 145'
+90 145'
+65 270'
+00 150'
+90 160'
+35 200'
+55 310'
+60 210'
+00 240'
+00 300'
+80 325'
+10 221.33'

T.C.E.
PROP. R/W, C/A, & FENCE
CONSTRUCTION LIMITS
16' GATE
PROP. R/W
BEGIN BRIDGE STA. 143+07.25
END BRIDGE STA. 145+63.66
END BRIDGE STA. 145+32.99
STA. 147+65 BEGIN WRSF
STA. 155+91 END WRSF
STA. 140+66 END WRSF
BEGIN BRIDGE STA. 142+74.61
C.L. WAGER DR.
C.L. XNA ACCESS RD. MEDIAN STA. 144+29.30 =
C.L. WAGER DR. STA. 5+11.77
Δ 72°05'09"
N 67°15'52" W
C.L. XNA ACCESS RD. MEDIAN
WIRE ROPE SAFETY FENCE
SPECIAL FLOOD HAZARD AREA

STA. 142+74.61 BRIDGE END
BRIDGE NO. B7656 OVER WAGER DR.
40'-0" CLEAR ROADWAY
25°00'00" LT. FORWARD SKEW
257'-4 11/16" BRIDGE LENGTH
STA. 145+32.99 BRIDGE END

STA. 142+00 CONSTRUCT
DROP INLET 0.9' LT. H=2'-11"
WITH 24" x 106' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 106 LIN. FT.
24" F.E.S. = 1 EACH

C.L. XNA ACCESS RD. MEDIAN

| | |
|---|---|
| PI | = 156+17.12 |
| Δ | = 14°18'07" RT. |
| D | = 0°30'00" |
| T | = 1437.67' |
| L | = 2860.39' |
| PC | = 141+79.45 |
| PT | = 170+39.84 |
| e | = R.C. |
| Ls | = 350' |

STA. 154+60 CONSTRUCT
42" X 423' R.C. PIPE CULVERT
40° RT. FWD. SKEW
(CLASS V) (TYPE 3 BEDDING)
WITH FES RT.
Q50 = 53 CFS DA = 9.6 ACRES
DUMPED RIPRAP = 23 CU.YD.

REMOVAL AND DISPOSAL OF FENCE

| STA. | STA. | SIDE | UNIT | GATES |
|---|---|---|---|---|
| 146+89 | 148+41 | LT. | 222 LIN. FT. | |
| 147+68 | 148+41 | RT. | 262 LIN. FT. | 1 EACH |
| 149+44 | 149+48 | LT. | 6 LIN. FT. | |
| 149+48 | 149+92 | RT. | 198 LIN. FT. | 1 EACH |
| 149+48 | 150+31 | RT. | 119 LIN. FT. | |
| 150+31 | 152+70 | LT. | 346 LIN. FT. | 1 EACH |
| 150+55 | 151+12 | LT. | 80 LIN. FT. | |

XNA ACCESS RD.

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# XNA ACCESS RD. PROFILE

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 171 | 583 |
| | | PROFILE - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

STA. 139+16.95 BEGIN SUPERELEVATION
STA. 142+66.95 MAX. SUPERELEVATION (0.020'/') R.C.
STA. 169+52.34 MAX. SUPERELEVATION (0.020'/') R.C.
STA. 173+02.34 END SUPERELEVATION

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

XNA 142+00
TOP ELEV.=1162.00

BEGIN BRIDGE RT.
STA. 142+74.61

BEGIN BRIDGE LT.
STA. 143+07.25

END BRIDGE RT.
STA. 145+32.99

END BRIDGE LT.
STA. 145+63.66

PROFILE GRADE

-3.23%

F.L. ELEV.=1159.08

F.L. ELEV.=1148.41 RT.

+00.00 RT. 1162.00

-13.59% RT. DITCH GRADE

+49.01 RT. 1141.75

-12.29% LT. DITCH GRADE

+25.00 LT. 1133.26

-5.05% LT. DITCH GRADE

+05.00 LT. 1129.22

20'-10" MIN. LT.

21'-3" MIN. RT.

EXISTING GROUND

-4.40% RT. DITCH GRADE

+63.27 RT. 1117.20

+00.00 RT. 1115.58

PR. F.L. = 1122.67 LT.
PR. F.L. = 1112.30 RT.

XNA 152+00
TOP ELEV.=1129.36

F.L. ELEV.=1126.44

PVC 154+00.00
ELEV. 1126.96

VC=1000.00'
K=367.65
e=3.40'

-2.03% RT. DITCH GRADE

+10.00 RT. 1118.65

+00.00 RT. 1114.80

F.L. ELEV.=1116.07 LT.

-5.81% RT. DITCH GRADE

-8.52% RT. DITCH GRADE

+00.00 RT. 1103.17

PR. F.L. = 1101.83 LT.
PR. F.L. = 1084.34 RT.

+25.00 RT. 1084.00

1210 1200 1190 1180 1170 1160 1150 1140 1130 1120 1110 1100 1090 1080 1070 1060 1050 1040 1030

141+00 142+00 143+00 144+00 145+00 146+00 147+00 148+00 149+00 150+00 151+00 152+00 153+00 154+00 155+00 156+00

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 172 | 583 |
| | | PLAN - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

FENCING

| STA. | STA. | SIDE | TYPE | UNIT |
|---|---|---|---|---|
| 156+00 | 158+18 | XNA ACCESS RD. LT. | A | 651 LIN. FT. |
| 156+00 | 157+70 | XNA ACCESS RD. RT. | A | 330 LIN. FT. |
| 168+62 | 171+00 | XNA ACCESS RD. LT. | A | 429 LIN. FT. |
| 168+22 | 171+00 | XNA ACCESS RD. RT. | A | 489 LIN. FT. |

WIRE ROPE SAFETY FENCE

| STA. | STA. | LOCATION | LENGTH |
|---|---|---|---|
| 170+41 | 171+00 | XNA ACCESS RD. MEDIAN | 59 LIN. FT. |

N

STA. 158+00 CONSTRUCT
DROP INLET 3.6' LT. H=2'-11"
WITH 24" x 121' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 121 LIN. FT.
24" F.E.S. = 1 EACH

+00 275'
+65 209.53'
+50 145'
+45 170'
16' GATE
+70 105'
PROP. R/W
+80 105'
+75 265'
PROP. R/W, C/A, & FENCE
CONSTRUCTION LIMITS
PI 156+17.12
CONSTRUCTION LIMITS
BEGIN BRIDGE STA. 158+30.90
N 52°57'45" W
10'
24'
6'
30'
160+00
C.L. XNA ACCESS RD. MEDIAN
165+00
170+00
END BRIDGE STA. 168+49.16
STA. 158+30.90 BRIDGE END
BRIDGE NO. A7657 OVER OSAGE CREEK
40'-0" CLEAR ROADWAY
1022'-2" BRIDGE LENGTH
STA. 168+49.16 BRIDGE END
BEGIN BRIDGE STA. 157+83.13
STA. 155+91 END WRSF
PROP. R/W
+50 100'
STA. 157+83.13 BRIDGE END
BRIDGE NO. B7657 OVER OSAGE CREEK
40'-0" CLEAR ROADWAY
1022'-2" BRIDGE LENGTH
STA. 168+09.23 BRIDGE END
OSAGE CREEK
+80 100'
END BRIDGE STA. 168+09.23
PT 170+39.84
STA. 170+41 BEGIN WRSF
CONSTRUCTION LIMITS
+60 205'
+80 205'
SPECIAL FLOOD HAZARD AREA
+80 285'
16' GATE
PROP. R/W, C/A, & FENCE
+53.23 280'
+49.81 275'
+55 310'

C.L. XNA ACCESS RD. MEDIAN

| | |
|---|---|
| PI | = 156+17.12 |
| Δ | = 14°18'07" RT. |
| D | = 0°30'00" |
| T | = 1437.67' |
| L | = 2860.39' |
| PC | = 141+79.45 |
| PT | = 170+39.84 |
| e | = R.C. |
| Ls | = 350' |

REMOVAL AND DISPOSAL OF FENCE

| STA. | STA. | SIDE | UNIT |
|---|---|---|---|
| 157+62 | 160+50 | LT. | 362 LIN. FT. |
| 158+59 | 160+16 | RT. | 258 LIN. FT. |
| 160+16 | 160+62 | LT. | 71 LIN. FT. |
| 160+18 | 160+87 | LT. | 116 LIN. FT. |

| STA. | STA. | SIDE | GUARDRAIL (TYPE A) | THRIE BEAM GUARDRAIL TERMINAL | GUARDRAIL TERMINAL (TYPE 2) |
|---|---|---|---|---|---|
| 154+99.95 | 157+68.70 | RT. LANES INSIDE | 200 LIN. FT. | 1 EACH | 1 EACH |
| 155+49.89 | 157+68.64 | RT. LANES OUTSIDE | 150 LIN. FT. | 1 EACH | 1 EACH |
| 168+63.47 | 170+82.22 | LT. LANES OUTSIDE | 150 LIN. FT. | 1 EACH | 1 EACH |
| 168+63.53 | 171+32.28 | LT. LANES INSIDE | 200 LIN. FT. | 1 EACH | 1 EACH |

XNA ACCESS RD.

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# XNA ACCESS RD. PROFILE

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 173 | 583 |
| | | PROFILE - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 139+16.95 BEGIN SUPERELEVATION
STA. 142+66.95 MAX. SUPERELEVATION (0.020'/') R.C.
STA. 169+52.34 MAX. SUPERELEVATION (0.020'/') R.C.
STA. 173+02.34 END SUPERELEVATION

XNA 158+00
TOP ELEV.=1112.58

VC=1000.00'
K=367.65
e=3.40'

BEGIN BRIDGE RT.
STA. 157+83.13

BEGIN BRIDGE LT.
STA. 158+30.90

-3.23%

PVI 159+00.00
ELEV. 1110.81

F.L. ELEV.=1109.66
PR. F.L. = 1095.98 LT.

PVT 164+00.00
ELEV. 1108.26

PROFILE GRADE

-0.51%

050 DESIGN H.W.
ELEV. = 1085.6

EXISTING GROUND

END BRIDGE RT.
STA. 168+09.23

END BRIDGE LT.
STA. 168+49.16

+00.00 LT. 1102.53

-2.72% LT. DT.

1190 1180 1170 1160 1150 1140 1130 1120 1110 1100 1090 1080 1070 1060 1050 1040 1030 1020 1010

156+00 157+00 158+00 159+00 160+00 161+00 162+00 163+00 164+00 165+00 166+00 167+00 168+00 169+00 170+00 171+00

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 174 | 583 |
| | | PLAN - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

FENCING

| STA. | STA. | SIDE | TYPE | UNIT |
|---|---|---|---|---|
| 171+00 | 175+33 | XNA ACCESS RD. LT. | A | 604 LIN. FT |
| 171+00 | 176+06 | XNA ACCESS RD. RT. | A | 631 LIN. FT. |
| 181+63 | 186+00 | XNA ACCESS RD. LT. | A | 986 LIN. FT. |
| 182+37 | 186+00 | XNA ACCESS RD. RT. | A | 509 LIN. FT. |

| STA. | STA. | SIDE | GUARDRAIL (TYPE A) | THRIE BEAM GUARDRAIL TERMINAL | GUARDRAIL TERMINAL (TYPE 2) |
|---|---|---|---|---|---|
| 173+15.21 | 175+83.96 | RT. LANES INSIDE | 200 LIN. FT. | 1 EACH | 1 EACH |
| 173+88.26 | 176+07.01 | RT. LANES OUTSIDE | 150 LIN. FT. | 1 EACH | 1 EACH |
| 181+62.18 | 183+80.93 | LT. LANES OUTSIDE | 150 LIN. FT. | 1 EACH | 1 EACH |
| 181+85.24 | 184+53.99 | LT. LANES INSIDE | 200 LIN. FT. | 1 EACH | 1 EACH |

WIRE ROPE SAFETY FENCE

| STA. | STA. | LOCATION | LENGTH |
|---|---|---|---|
| 171+00 | 173+89 | XNA ACCESS RD. MEDIAN | 289 LIN. FT. |
| 183+60 | 186+00 | XNA ACCESS RD. MEDIAN | 240 LIN. FT. |

STA. 172+45 CONSTRUCT
DROP INLET 0.5' LT. H=3'-6"
WITH 30" x 82' PIPE INLET
FROM F.E.S. RT. AND
WITH 30" x 85' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
30" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 167 LIN. FT.
30" F.E.S. = 2 EACH
Q50 = 29 CFS DA = 5.3 ACRES

STA. 182+00 CONSTRUCT
DROP INLET 1.3' RT. H=2'-11"
WITH 24" x 155' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 155 LIN. FT.
24" F.E.S. = 1 EACH
DUMPED RIPRAP = 5 CU.YD.

STA. 173+70 CONSTRUCT
DROP INLET 2.5' LT. H=2'-5"
WITH 18" x 121' PIPE OUTLET
DROP INLET AT STA. 172+45
TYPE RM DROP INLET = 4'X3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 121 LIN. FT.

CONCRETE DITCH PAVING (TYPE B)

| STA. | STA. | SIDE | "W" | SQ. YDS. |
|---|---|---|---|---|
| 172+00 | 173+00 | RT. = 100 LIN. FT. | 6'-0" | 67 |
| 172+00 | 175+00 | LT. = 300 LIN. FT. | 6'-0" | 200 |
| 172+45 | 172+45 | RT. = 87 LIN. FT. | 6'-0" | 58 |
| 172+47 | 172+47 | LT. = 87 LIN. FT. | 6'-0" | 58 |
| 182+30 | 184+00 | LT. = 175 LIN. FT. | 6'-0" | 117 |

PROP. R/W, C/A, & FENCE
CONSTRUCTION LIMITS
+75 267.71'
+95 210'
+20.97 200'
+26.87 175'
+90 100'
+95 255'
+45 340'
+00 240'
+00 165'
+50 100'
+23.76 100'
+50 100'
+60 200'
+80 225'
+40 235'
STA. 173+96 142.80' LT.
END SP. DT. 3.09%
ELEV. 1093.83
STA. 173+96 97.76' LT.
END SP. DT. 0.50%
END SP. DT. 4.84%
BEGIN SP. DT. 3.01%
ELEV. 1095.09
STA. 173+89
END WRSF
16' GATE
LITTLE OSAGE CREEK
STA. 175+62.91 BRIDGE END
BRIDGE NO. A7658 OVER LITTLE OSAGE CREEK
40'-0" CLEAR ROADWAY
30°00'00" RT. FORWARD SKEW
592'-6 7/8" BRIDGE LENGTH
STA. 181+55.48 BRIDGE END
SPECIAL FLOOD HAZARD AREA
WIRE ROPE SAFETY FENCE
BEGIN BRIDGE STA. 175+62.91
175+00
C.L. XNA ACCESS RD. MEDIAN
180+00
N 52°57'45" W
END BRIDGE STA. 181+55.48
185+00
END BRIDGE STA. 182+06.29
BEGIN BRIDGE STA. 176+13.71
STA. 176+13.71 BRIDGE END
BRIDGE NO. B7658 OVER LITTLE OSAGE CREEK
40'-0" CLEAR ROADWAY
30°00'00" RT. FORWARD SKEW
592'-6 7/8" BRIDGE LENGTH
STA. 182+06.29 BRIDGE END
STA. 183+60
BEGIN WRSF
WIRE ROPE SAFETY FENCE
16' GATE
CONSTRUCTION LIMITS
PROP. R/W
PROP. R/W, C/A, & FENCE
CONSTRUCTION LIMITS
10' 24' 6' 30'

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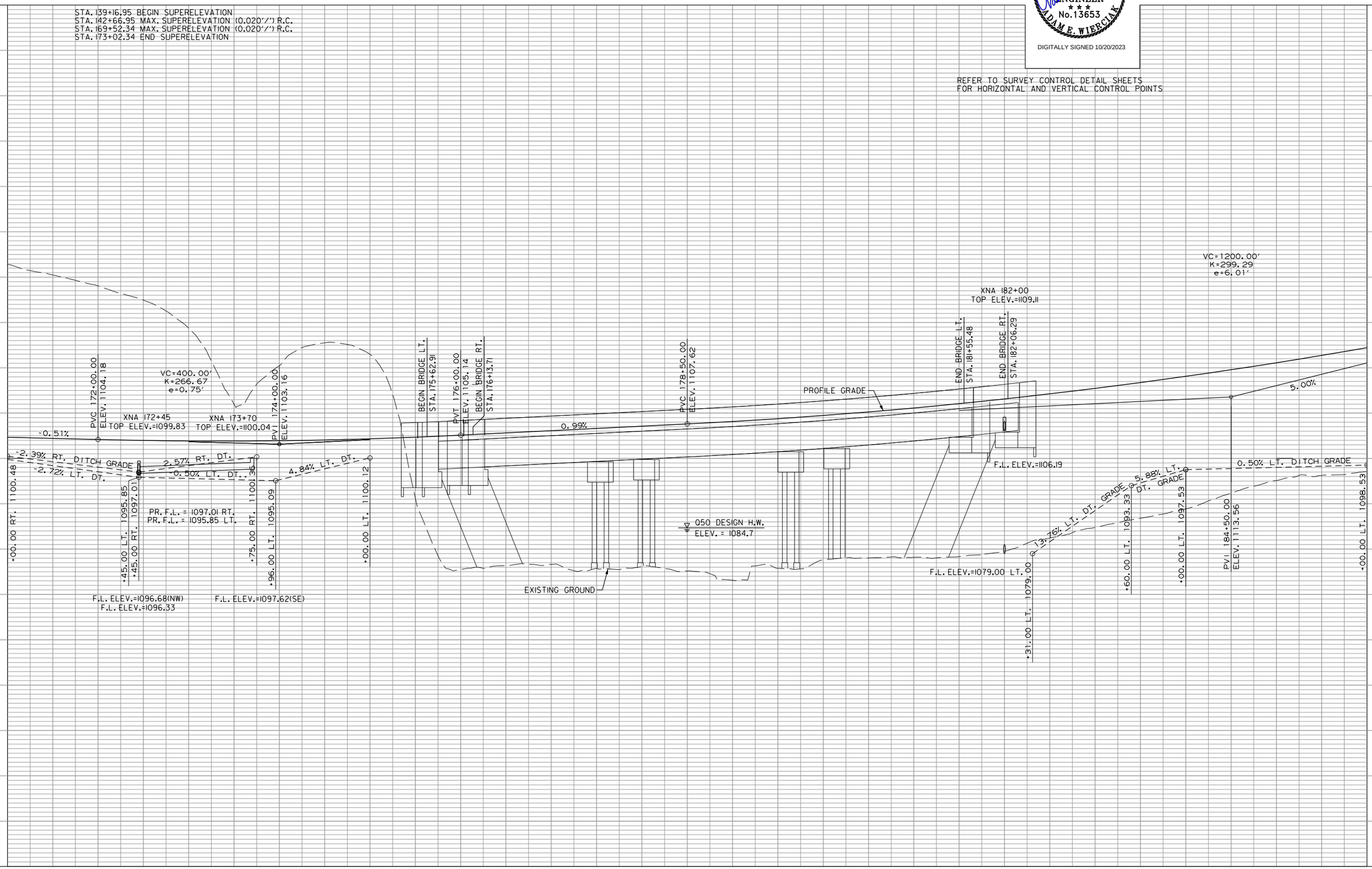
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| | | 6 | ARK. | 090069 | 175 | 583 |
| | | PROFILE - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

# XNA ACCESS RD. PROFILE

STA. 139+16.95 BEGIN SUPERELEVATION
STA. 142+66.95 MAX. SUPERELEVATION (0.020'/') R.C.
STA. 169+52.34 MAX. SUPERELEVATION (0.020'/') R.C.
STA. 173+02.34 END SUPERELEVATION

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS




1190 1180 1170 1160 1150 1140 1130 1120 1110 1100 1090 1080 1070 1060 1050 1040 1030 1020 1010

171+00 172+00 173+00 174+00 175+00 176+00 177+00 178+00 179+00 180+00 181+00 182+00 183+00 184+00 185+00 186+00

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 176 | 583 |
| | | PLAN - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

FENCING

| STA. | STA. | SIDE | TYPE | UNIT |
|---|---|---|---|---|
| 186+00 | 190+74 | XNA ACCESS RD. LT. | A | 569 LIN. FT. |
| 186+00 | 191+54 | XNA ACCESS RD. RT. | A | 1046 LIN. FT. |
| 193+25 | 201+00 | XNA ACCESS RD. LT. | A | 930 LIN. FT. |
| 194+05 | 201+00 | XNA ACCESS RD. RT. | A | 781 LIN. FT. |

| STA. | STA. | SIDE | GUARDRAIL (TYPE A) | THRIE BEAM GUARDRAIL TERMINAL | GUARDRAIL TERMINAL (TYPE 2) |
|---|---|---|---|---|---|
| 188+61.25 | 191+30.00 | RT. LANES INSIDE | 200 LIN. FT. | 1 EACH | 1 EACH |
| 189+36.25 | 191+55.00 | RT. LANES OUTSIDE | 150 LIN. FT. | 1 EACH | 1 EACH |
| 193+27.01 | 195+45.76 | LT. LANES OUTSIDE | 150 LIN. FT. | 1 EACH | 1 EACH |
| 193+52.01 | 196+20.76 | LT. LANES INSIDE | 200 LIN. FT. | 1 EACH | 1 EACH |

WIRE ROPE SAFETY FENCE

| STA. | STA. | LOCATION | LENGTH |
|---|---|---|---|
| 186+00 | 189+42 | XNA ACCESS RD. MEDIAN | 342 LIN. FT. |
| 195+17 | 201+00 | XNA ACCESS RD. MEDIAN | 583 LIN. FT. |

N

STA. 194+00 CONSTRUCT
DROP INLET 1.5' RT. H=2'-11"
WITH 24" x 100' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 100 LIN. FT.
24" F.E.S. = 1 EACH

+70 255.48' 0.00
+00.81 210'
+25 215'
+25 185'
16' GATE
PROP. R/W
+75 200'
+10 185'
+70 200'
PROP. R/W, C/A, & FENCE
CONSTRUCTION LIMITS
+25 125'
+30 135'

STA. 190+97.73 BRIDGE END
BRIDGE NO. A7659 OVER HADEN RD.
40'-0" CLEAR ROADWAY
32°00'00" RT. FORWARD SKEW
228'-6⅝" BRIDGE LENGTH
STA. 193+26.29 BRIDGE END

N 51°19'41" E

BEGIN BRIDGE STA. 190+97.73
END BRIDGE STA. 193+26.29

10' 24' 6' 30' 6' 30' 24' 10'

190+00 C.L. XNA ACCESS RD. MEDIAN 195+00 N 52°57'45" W 200+00

STA. 189+42 END WRSF
WIRE ROPE SAFETY FENCE
BEGIN BRIDGE STA. 191+52.72
END BRIDGE STA. 193+81.28
STA. 195+17 BEGIN WRSF
PROP. R/W, C/A, & FENCE
+00 120'

C.L. XNA ACCESS RD. MEDIAN STA. 192+29.92 =
C.L. HADEN RD. STA. 2+86.58
∢ 58°17'26"

C.L. HADEN RD.
5.00
16' GATE
WIRE ROPE SAFETY FENCE

CONSTRUCTION LIMITS
PROP. R/W, C/A, & FENCE
+70 235'
+45 245'
+00 250'
+15 240'
PROP. R/W
+25 220'
+97.61 228.19'
+32.70 280'
+85 310'
+70 330'
+03.38 355'

STA. 191+52.72 BRIDGE END
BRIDGE NO. B7659 OVER HADEN RD.
40'-0" CLEAR ROADWAY
32°00'00" RT. FORWARD SKEW
228'-6⅝" BRIDGE LENGTH
STA. 193+81.28 BRIDGE END

REMOVAL AND DISPOSAL OF FENCE

| STA. | STA. | SIDE | UNIT | GATES |
|---|---|---|---|---|
| 185+44 | 188+98 | RT. | 423 LIN. FT. | |
| 188+98 | 199+22 | LT. | 251 LIN. FT. | 1 EACH |

CONCRETE DITCH PAVING (TYPE B)

| STA. | STA. | SIDE | "W" | SQ. YDS. |
|---|---|---|---|---|
| 188+12 | 193+11 | RT. = 501 LIN. FT. | 6'-0" | 334 |
| 192+06 | 195+15 | LT. = 343 LIN. FT. | 6'-0" | 229 |
| 193+81 | 196+35 | RT. = 277 LIN. FT. | 6'-0" | 185 |
| 195+15 | 201+00 | LT. = 585 LIN. FT. | 9'-0" | 585 |
| 196+35 | 201+00 | RT. = 465 LIN. FT. | 9'-0" | 465 |

SPECIAL FLOOD HAZARD AREA

XNA ACCESS RD.

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 177 | 583 |
| | | PROFILE - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

# XNA ACCESS RD. PROFILE

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

EXISTING GROUND

PROFILE GRADE

XNA 194+00
TOP ELEV.=1157.07

9.25% LT. DITCH GRADE

5.00%

VC=1200.00'
K=299.25
e=6.01'

PVT 190+50.00
ELEV. 1143.56

BEGIN BRIDGE LT.
STA. 190+97.73

BEGIN BRIDGE RT.
STA. 191+52.72

END BRIDGE LT.
STA. 193+26.29

END BRIDGE RT.
STA. 193+81.28

31'-5 7/8" MIN. LT.
35'-3 1/8" MIN. RT.

22.74% LT. DITCH GRADE

25.00% RT. DITCH GRADE

F.L. ELEV.=1154.15

12.64% RT. DITCH GRADE

16.68% RT. DITCH GRADE

F.L. ELEV.=1146.14 LT.

1.16% LT. DITCH GRADE

3.94% RT. DITCH GRADE

3.07% RT. DITCH GRADE

+00.00 LT. 1098.53

+12.00 RT. 1091.00

+75.00 RT. 1096.00

+70.00 LT. 1104.00

+50.00 RT. 1102.89

+29.00 LT. 1130.00

+10.79 RT. 1121.97

+34.96 RT. 1126.00

+50.00 LT. 1157.51

+10.00 LT. 1163.06

+75.00 RT. 1161.01

+35.00 RT. 1168.60

1230 1220 1210 1200 1190 1180 1170 1160 1150 1140 1130 1120 1110 1100 1090 1080 1070 1060 1050

186+00 187+00 188+00 189+00 190+00 191+00 192+00 193+00 194+00 195+00 196+00 197+00 198+00 199+00 200+00 201+00

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| | | 6 | ARK. | 090069 | 178 | 583 |
| | | PLAN - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

WIRE ROPE SAFETY FENCE

| STA. | STA. | LOCATION | LENGTH |
|---|---|---|---|
| 201+00 | 208+73 | XNA ACCESS RD. MEDIAN | 773 LIN. FT. |
| 215+13 | 216+00 | XNA ACCESS RD. MEDIAN | 87 LIN. FT. |

FENCING

| STA. | STA. | SIDE | TYPE | UNIT |
|---|---|---|---|---|
| 201+00 | 211+52 | XNA ACCESS RD. LT. | A | 1822 LIN. FT. |
| 201+00 | 210+16 | XNA ACCESS RD. RT. | A | 1136 LIN. FT. |
| 213+76 | 216+00 | XNA ACCESS RD. RT. | A | 343 LIN. FT. |
| 215+01 | 215+01 | XNA ACCESS RD. LT. | A | 90 LIN. FT. |

REMOVAL AND DISPOSAL OF FENCE

| STA. | STA. | SIDE | UNIT | GATES |
|---|---|---|---|---|
| 213+73 | 214+09 | LT. | 33 LIN. FT. | 1 EACH |
| 213+87 | 215+72 | LT. | 94 LIN. FT. | 1 EACH |
| 216+15 | 216+32 | RT. | 24 LIN. FT. | |

| STA. | STA. | SIDE | GUARDRAIL (TYPE A) | THRIE BEAM GUARDRAIL TERMINAL | GUARDRAIL TERMINAL (TYPE 2) |
|---|---|---|---|---|---|
| 207+90.33 | 210+59.08 | RT. LANES INSIDE | 200 LIN. FT. | 1 EACH | 1 EACH |
| 207+97.38 | 210+16.13 | RT. LANES OUTSIDE | 150 LIN. FT. | 1 EACH | 1 EACH |
| 214+55.53 | 216+74.28 | LT. LANES INSIDE | 200 LIN. FT. | 1 EACH | 1 EACH |

CONCRETE DITCH PAVING (TYPE A)

| STA. | STA. | SIDE | "B" | "W" | SQ. YDS. |
|---|---|---|---|---|---|
| 213+98 | 216+00 | LT. = 222 LIN. FT. | 4'-0" | 10'-0" | 247 |

CONCRETE DITCH PAVING (TYPE B)

| STA. | STA. | SIDE | "W" | SQ. YDS. |
|---|---|---|---|---|
| 201+00 | 205+60 | LT. = 460 LIN. FT. | 9'-0" | 460 |
| 201+00 | 204+50 | RT. = 350 LIN. FT. | 9'-0" | 350 |
| 205+55 | 207+40 | RT. = 201 LIN. FT. | 6'-0" | 134 |
| 214+52 | 216+00 | LT. = 234 LIN. FT. | 4'-0" | 104 |

STA. 206+98 CONSTRUCT
DROP INLET 256' LT. H=8'-0"
WITH 42" x 47' PIPE OUTLET
TO F.E.S. AT 206+87 LT.
TYPE RM DROP INLET = 4'X5'
W/MODIFIED TOP AND
4 LIN. FT. 18" PERFORATED
RISER PIPE
42" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 47 LIN. FT.
42" F.E.S. = 1 EACH
DUMPED RIPRAP = 24 CU.YD.

STA. 205+25 CONSTRUCT
MEDIAN DROP INLET H=3'-4"
WITH 24" x 85' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 85 LIN. FT.
24" F.E.S. = 1 EACH

STA. 207+96 CONSTRUCT
DROP INLET 205' RT. H=6'-6"
WITH 42" x 36' PIPE INLET
FROM F.E.S. AT STA. 208+04 RT.
Q50 = 53 CFS DA = 9.6 ACRES
DUMPED RIPRAP = 24 CU.YD.
AND 42" x 468' PIPE OUTLET
TO DROP INLET AT 206+98 LT.
12°RT. FWD. SKEW
TYPE RM DROP INLET = 4'X5'
W/ MODIFIED TOP AND
4 LIN. FT. 18" PERFORATED
RISER PIPE
42" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 36 LIN. FT.
42" R.C. PIPE (CLASS V)
(TYPE 2 BEDDING) = 468 LIN. FT.
42" F.E.S. = 1 EACH

C.L. XNA ACCESS RD. MEDIAN

| | |
|---|---|
| PI | = 224+12.04 |
| Δ | = 55°35'22" RT. |
| D | = 2°00'00" |
| T | = 1510.09' |
| L | = 2779.47' |
| PC | = 209+01.95 |
| PT | = 236+81.42 |
| e | = 0.070'/' |
| Ls | = 350' |

STA. 210+53.08 BRIDGE END
BRIDGE NO. B7660 OVER HOLMES RD.
42'-0" CLEAR ROADWAY
45°00'00" LT. FORWARD SKEW
323'-0¾" BRIDGE LENGTH
STA. 213+81.30 BRIDGE END

STA. 211+45.07 BRIDGE END
BRIDGE NO. A7660 OVER HOLMES RD.
46'-0" CLEAR ROADWAY
45°00'00" LT. FORWARD SKEW
323'-0¾" BRIDGE LENGTH
STA. 214+63.57 BRIDGE END

STA. 215+00 CONSTRUCT
MEDIAN DROP INLET H=2'-11"
WITH 24" x 138' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 138 LIN. FT.
24" F.E.S. = 1 EACH

C.L. XNA ACCESS RD. MEDIAN STA. 212+15.24 =
C.L. HOLMES RD. STA. 20+00.00
∢ 47°26'17"

N 52°57'45" W C.L. XNA ACCESS RD. MEDIAN

BEGIN BRIDGE STA. 211+45.07
BEGIN BRIDGE STA. 210+53.08
END BRIDGE STA. 214+63.57
END BRIDGE STA. 213+81.30
STA. 215+13 BEGIN WRSF
STA. 208+73 END WRSF

420' SHOULDER TAPER
140' SHOULDER TAPER

PC 209+01.95
PC 15+83.77
PT 14+84.60
PI 16+77.66
PCC 17+67.30
PT 18+92.08
PI 19+32.52
PI 19+82.60
PC 19+53.09
PCC 20+25.34
PI 22+29.44
PT 23+86.26
POE 25+00.00

PROP. R/W
PROP. R/W. C/A. & FENCE
PROP. R/W & C/A
CONSTRUCTION LIMITS
WIRE ROPE SAFETY FENCE
RETAINING WALL
16' GATE
C.L. HOLMES RD.

+00 145'
+40 235'
+50 365'
+65 370'
+90 235'
+40 135'
+00 140'
+90 290'
+10 340'
+95 235'
+35 225'
+54.98 214.45'
+20 115'
+90 175'
+40 175'
+20 210'
+40 260'
+50 264'
+15 290'
+70 155'
+55 120'
+25 124.09'
+70 240'
+15 170'
+40 155'
+50 335'
+95 325'
+00 205+00
+65 206+98
+00 210+00
+85 212+15.24
+40 214+00
+00 215+00

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XNA ACCESS RD.

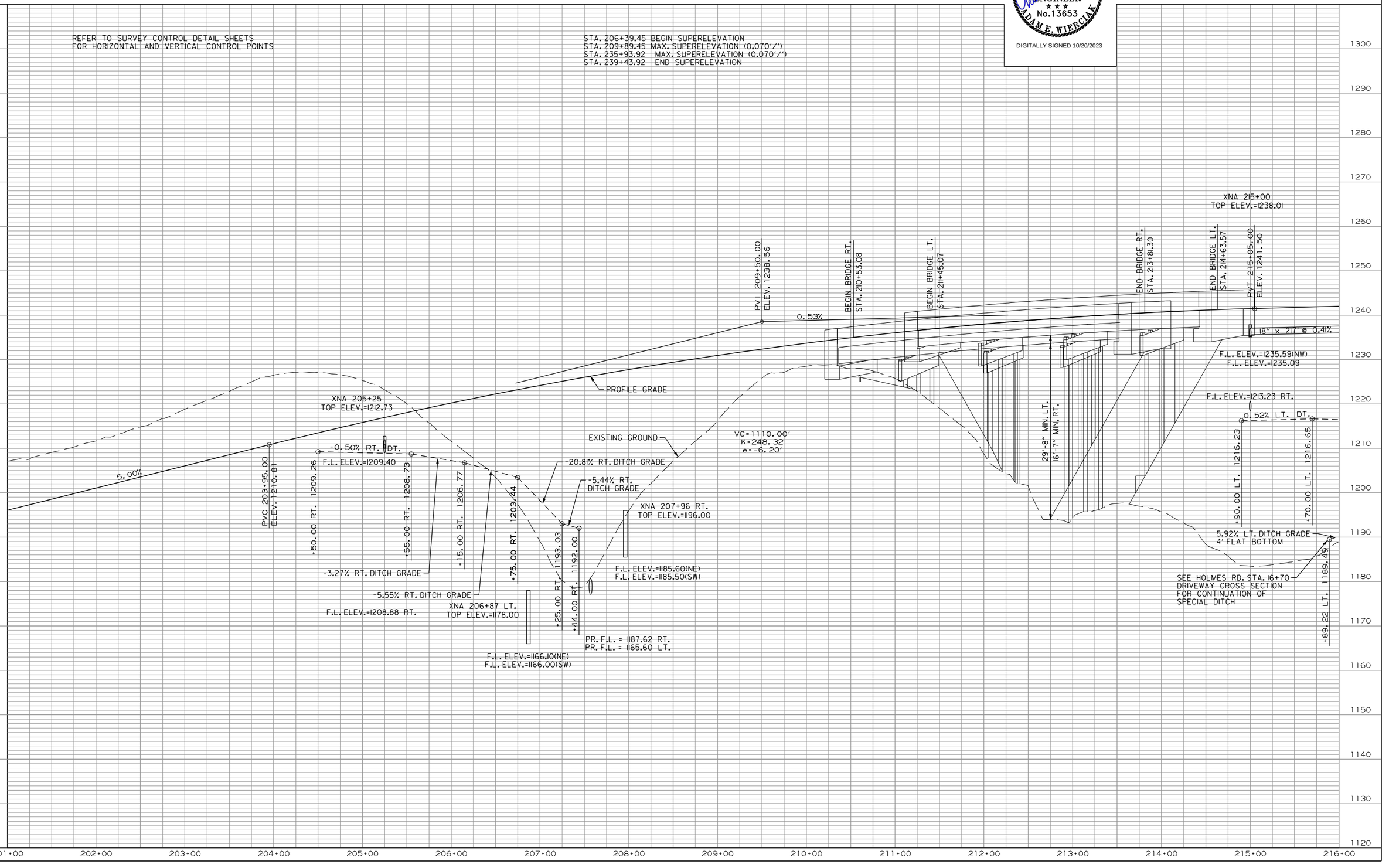
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| | | 6 | ARK. | 090069 | 179 | 583 |
| | | PROFILE - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

# XNA ACCESS RD. PROFILE

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 206+39.45 BEGIN SUPERELEVATION
STA. 209+89.45 MAX. SUPERELEVATION (0.070'/')
STA. 235+93.92 MAX. SUPERELEVATION (0.070'/')
STA. 239+43.92 END SUPERELEVATION




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| | | 6 | ARK. | 090069 | 180 | 583 |
| | | PLAN - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

FENCING

| STA. | STA. | SIDE | TYPE | UNIT |
|---|---|---|---|---|
| 217+10 | 231+00 | XNA ACCESS RD. LT. | A | 1479 LIN. FT. |
| 216+00 | 231+00 | XNA ACCESS RD. RT. | A | 1496 LIN. FT. |

WIRE ROPE SAFETY FENCE

| STA. | STA. | LOCATION | LENGTH |
|---|---|---|---|
| 216+00 | 231+00 | XNA ACCESS RD. MEDIAN | 1500 LIN. FT. |

PI 224+12.04

STA. 217+21 CONSTRUCT
MEDIAN DROP INLET H=2'-5"
WITH 18" x 217' PIPE OUTLET
TO DROP INLET AT STA. 215+00
TYPE RM. DROP INLET = 4'X3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 217 LIN. FT.

STA. 221+80 CONSTRUCT
DROP INLET 3' LT. H=2'-11"
WITH 24" x 85' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 85 LIN. FT.
24" F.E.S. = 1 EACH

STA. 218+44 CONSTRUCT
DROP INLET 221' RT. H=6'-6"
WITH 48" x 49' PIPE INLET
FROM F.E.S. AT STA. 218+78 RT.
Q50 = 81 CFS DA = 30 ACRES
AND 48" x 500' PIPE OUTLET
TO F.E.S. AT STA. 215+66 LT.
33°RT. FWD. SKEW
TYPE RM DROP INLET = 4'X5'
W/ MODIFIED TOP AND
4 LIN. FT. 18" PERFORATED
RISER PIPE
48" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 49 LIN. FT.
48" R.C. PIPE (CLASS V)
(TYPE 1 BEDDING) = 500 LIN. FT.
48" F.E.S. = 2 EACH

| STA. | STA. | SIDE | GUARDRAIL (TYPE A) | THRIE BEAM GUARDRAIL TERMINAL | GUARDRAIL TERMINAL (TYPE 2) |
|---|---|---|---|---|---|
| 215+35.72 | 219+54.47 | LT. LANES OUTSIDE | 350 LIN. FT. | 1 EACH | 1 EACH |

C.L. XNA ACCESS RD. MEDIAN

| | |
|---|---|
| PI | = 224+12.04 |
| Δ | = 55°35'22" RT. |
| D | = 2°00'00" |
| T | = 1510.09' |
| L | = 2779.47' |
| PC | = 209+01.95 |
| PT | = 236+81.42 |
| e | = 0.070'/' |
| Ls | = 350' |

CONCRETE DITCH PAVING (TYPE A)

| STA. | STA. | SIDE | "B" | "W" | SQ. YDS. |
|---|---|---|---|---|---|
| 216+00 | 216+96 | LT. = 103 LIN. FT. | 4'-0" | 10'-0" | 114 |

CONCRETE DITCH PAVING (TYPE B)

| STA. | STA. | SIDE | "W" | SQ. YDS. |
|---|---|---|---|---|
| 216+00 | 217+12 | LT. = 181 LIN. FT. | 4'-0" | 80 |
| 219+95 | 222+00 | RT. = 225 LIN. FT. | 6'-0" | 150 |

PROP. R/W
+35 270'
+55 170'
RETAINING WALL
N 52°57'45" W
PROP. R/W, C/A, & FENCE
CONSTRUCTION LIMITS
WIRE ROPE SAFETY FENCE
+50 125'
+55 170'
N 2°37'37" E
+00 115'
225+00
220+00
420' SHOULDER TAPER
C.L. XNA ACCESS RD. MEDIAN
230+00
630' STRIPING TAPER
CONSTRUCTION LIMITS
PROP. R/W, C/A, & FENCE
+50 110'
+70.00
+90 115'
+10 125'
+25 205'
+54.98 214.45'
+55 290'
+75 300'
BRUSH
STORAGE STRUCTURE
SHRUBS
STRUCTURE
XNA ACCESS RD.

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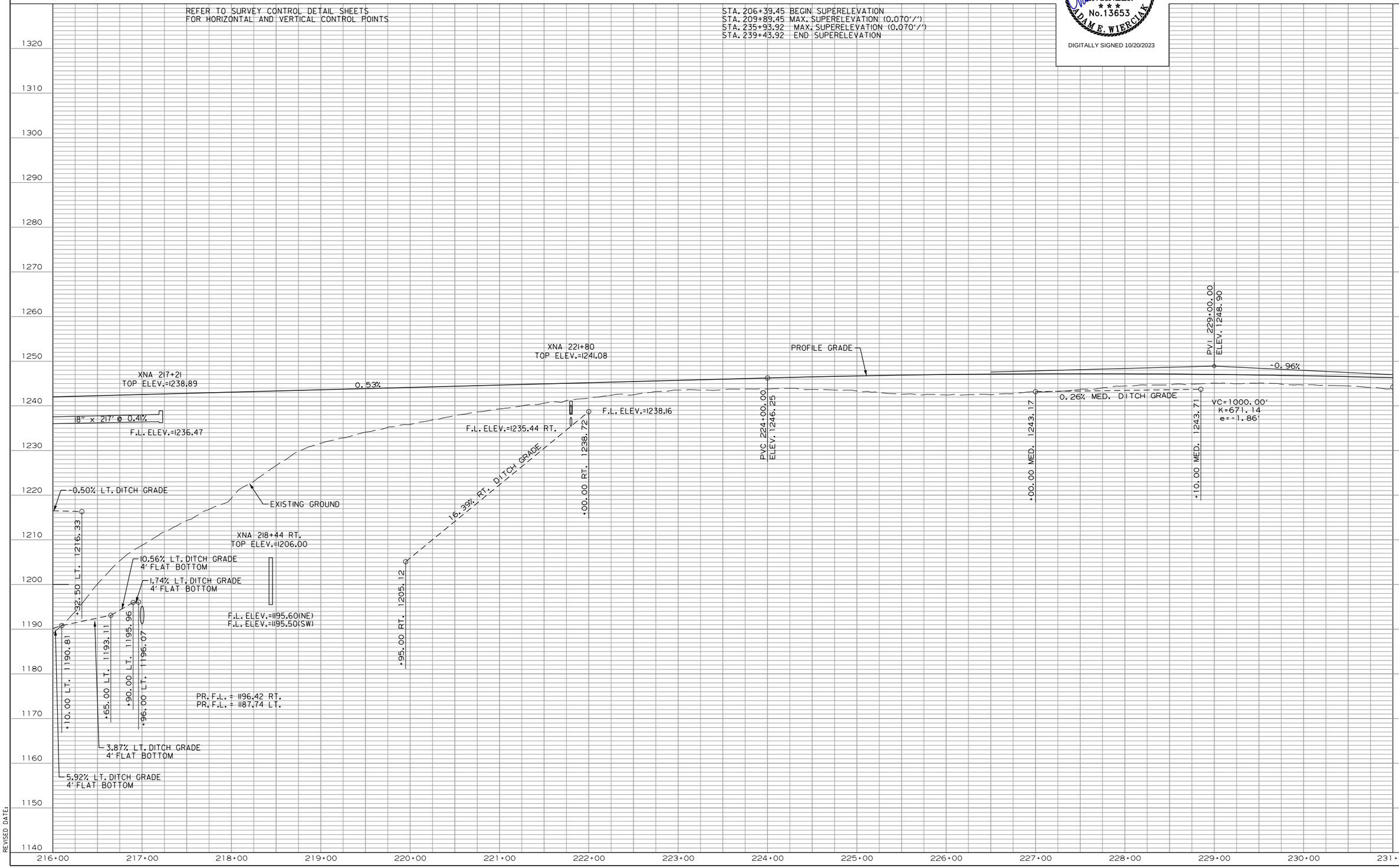
# XNA ACCESS RD. PROFILE

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 181 | 583 |
| | | PROFILE - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 206+39.45 BEGIN SUPERELEVATION
STA. 209+89.45 MAX. SUPERELEVATION (0.070'/')
STA. 235+93.92 MAX. SUPERELEVATION (0.070'/')
STA. 239+43.92 END SUPERELEVATION




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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 182 | 583 |
| | | PLAN - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

STA. 235+00 CONSTRUCT
DROP INLET 2.5' LT. H=2'-11"
WITH 24" x 95' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 95 LIN. FT.
24" F.E.S. = 1 EACH

STA. 238+00 CONSTRUCT
DROP INLET 8.5' LT. H=4'-5"
WITH 24" x 91' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 91 LIN. FT.
24" F.E.S. = 1 EACH

STA. 240+00 CONSTRUCT
DROP INLET 14.2' LT. H=6'-3"
WITH 24" x 98' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 98 LIN. FT.
24" F.E.S. = 1 EACH

STA. 241+08 CONSTRUCT
DROP INLETS 154' AND 147' LT. H=2'-8"
WITH DBL. 30" x 39' PIPE OUTLET TO F.E.S.
TYPE RM DROP INLET 4'X3' = 2 EACH
30" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 78 LIN. FT.
30" F.E.S. = 2 EACH

STA. 241+84 CONSTRUCT
DROP INLET 20' LT. H=18'-10"
WITH 48" x 91' PIPE INLET
FROM F.E.S. AT STA. 241+66 LT.
Q50 = 88 CFS DA = 39 ACRES
DUMPED RIPRAP = 52 CU.YD.
AND 48" x 108' PIPE OUTLET
TO F.E.S. AT STA. 241+84 RT.
11°RT. FWD. SKEW
TYPE RM DROP INLET = 4'X6'
48" R.C. PIPE (CLASS IV)
(TYPE 3 BEDDING) = 199 LIN. FT.
48" F.E.S. = 2 EACH

WIRE ROPE SAFETY FENCE

| STA. | STA. | LOCATION | LENGTH |
|---|---|---|---|
| 231+00 | 242+20 | XNA ACCESS RD. MEDIAN | 1120 LIN. FT. |

PC 209+01.95
PI 220+56.32
PT 234+21.68
PROP. R/W
C.L. MALONE LN.
C.L. XNA ACCESS RD. MEDIAN STA. 232+84.19 =
C.L. MALONE LN. STA. 15+29.38
∢ 82°14'11"
WIRE ROPE SAFETY FENCE
PROP. R/W, C/A, & FENCE
WIRE ROPE SAFETY FENCE
10' LT. OF NB LANE EDGE
300' TAPER
100' STRIPING TAPER
CONSTRUCTION LIMITS
C.L. XNA ACCESS RD. MEDIAN STA. 243+53.31, 48.00' LT. =
C.L. AIRPORT BLVD. TO SB XNA STA. 43+53.31
1050' ACCELERATION LANE
PC 43+53.31
PT 236+81.42
C.L. XNA ACCESS RD. MEDIAN
C.L. NB CROSSOVER
END RT. LANES CONSTRUCTION
STA. 238+26.48
STA. 242+20
END WRSF
N 1°01'33" W
N 2°37'37" E
CONSTRUCTION LIMITS
PROP. R/W, C/A, & FENCE
PI 234+98.78
C.L. XNA ACCESS RD. MEDIAN STA. 234+98.78, 37.50' RT. =
C.L. NB CROSSOVER STA. 234+98.78
630' STRIPING TAPER
C.L. XNA ACCESS RD. MEDIAN STA. 241+78.69 =
C.L. NB CROSSOVER STA. 241+77.55
∢ 3°39'10"
PROP. R/W
PROP. R/W
OPEN STORAGE
BRUSH
SWAMP
CONSTRUCTION LIMITS

+00 315'
+20 320'
+60 155'
+65 110'
+00 160'
+00 185'
+09.93 175'
+25 120'
+25 125'
+30 160'
+25 140'
+40 230'
+10 125'
+10 295'
+20 285'

C.L. XNA ACCESS RD. MEDIAN

| | |
|---|---|
| PI | = 224+12.04 |
| Δ | = 55°35'22" RT. |
| D | = 2°00'00" |
| T | = 1510.09' |
| L | = 2779.47' |
| PC | = 209+01.95 |
| PT | = 236+81.42 |
| e | = 0.070'/' |
| Ls | = 350' |

C.L. AIRPORT BLVD. TO SB XNA

| | |
|---|---|
| PI | = 47+21.22 |
| Δ | = 3°40'40" LT. |
| D | = 0°30'00" |
| T | = 367.91' |
| L | = 735.58' |
| PC | = 43+53.31 |
| PT | = 50+88.89 |
| e | = MATCH PR. |
| Ls | = MATCH PR. |

CONCRETE DITCH PAVING (TYPE B)

| STA. | STA. | SIDE | "W" | SQ. YDS. |
|---|---|---|---|---|
| 231+00 | 231+85 | LT. = 88 LIN. FT. | 6'-0" | 59 |
| 238+00 | 239+18 | LT. = 118 LIN. FT. | 6'-0" | 79 |
| 239+18 | 240+76 | RT. = 166 LIN. FT. | 6'-0" | 111 |
| 242+84 | 244+13 | RT. = 147 LIN. FT. | 6'-0" | 98 |

| STA. | STA. | SIDE | GUARDRAIL (TYPE A) | TERMINAL ANCHOR POST (TYPE 1) | GUARDRAIL TERMINAL (TYPE 2) |
|---|---|---|---|---|---|
| 228+95.65 | 233+92.82 | RT. LANES INSIDE | 425 LIN. FT. | 1 EACH | 1 EACH |
| 231+75.47 | 236+75.41 | LT. LANES INSIDE | 425 LIN. FT. | 1 EACH | 1 EACH |

FENCING

| STA. | STA. | SIDE | TYPE | UNIT |
|---|---|---|---|---|
| 231+00 | 232+40 | XNA ACCESS RD. LT. | A | 153 LIN. FT. |
| 231+00 | 231+93 | XNA ACCESS RD. RT. | A | 89 LIN. FT. |
| 233+36 | 246+00 | XNA ACCESS RD. RT. | A | 1367 LIN. FT. |
| 233+74 | 246+00 | XNA ACCESS RD. LT. | A | 1311 LIN. FT. |

XNA ACCESS RD.

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# XNA ACCESS RD. PROFILE

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 183 | 583 |
| | | PROFILE - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

STA. 206+39.45 BEGIN SUPERELEVATION
STA. 209+89.45 MAX. SUPERELEVATION (0.070'/')
STA. 235+93.92 MAX. SUPERELEVATION (0.070'/')
STA. 239+43.92 END SUPERELEVATION

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL POINTS

MALONE LN.
16'-7" LT. MIN.
18'-1" RT. MIN.
PVT 234+00.00
ELEV.=1244.10
XNA 235+00
TOP ELEV.=1239.14
PROFILE GRADE
-0.96%
XNA 238+00
TOP ELEV.=1237.43
PVC 239+70.00
ELEV.=1238.63
XNA 240+00
TOP ELEV.=1235.15
XNA 241+84 LT.
TOP ELEV.=1235.15
PVI 244+00.00
ELEV.=1234.50
-3.04%
4.88% LT. DT.
-1.63% LT. DITCH GRADE
F.L. ELEV.=1236.49
-0.52% RT. DITCH GRADE
F.L. ELEV.=1233.21
2.02% LT. DITCH GRADE
F.L. ELEV.=1230.37
F.L. ELEV.=1234.94 LT.
F.L. ELEV.=1228.89 LT.
EXISTING GROUND
F.L. ELEV.=1223.00 LT.
F.L. ELEV.=1216.44(W)
F.L. ELEV.=1216.28(E)
PR. F.L. = 1221.97 LT.
PR. F.L. = 1209.67 RT.
-4.99% LT. DITCH GRADE
2.30% LT. DITCH GRADE
VC=860.00'
K=413.46
e=-2.24'
+00.00 LT. 1244.21
+85.00 LT. 1240.06
+00.00 LT. 1234.94
+94.00 RT. 1235.77
+00.00 LT. 1228.89
+26.48 RT. 1234.55
+18.00 LT. 1223.00
+60.00 LT. 1223.00
+25.00 LT. 1226.80

1310 1300 1290 1280 1270 1260 1250 1240 1230 1220 1210 1200 1190 1180 1170 1160 1150 1140 1130

231+00 232+00 233+00 234+00 235+00 236+00 237+00 238+00 239+00 240+00 241+00 242+00 243+00 244+00 245+00 246+00

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 184 | 583 |
| | | PLAN - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

N

CONCRETE DITCH PAVING (TYPE B)

| STA. | STA. | SIDE | "W" | SQ. YDS. |
|---|---|---|---|---|
| 251+46 | 253+11 | LT. = 165 LIN. FT. | 6'-0" | 110 |
| 253+23 | 254+77 | LT. = 154 LIN. FT. | 6'-0" | 103 |
| 254+64 | 255+29 | LT. = 65 LIN. FT. | 6'-0" | 43 |
| 256+03 | 256+36 | LT. = 33 LIN. FT. | 6'-0" | 22 |

C.L. AIRPORT BLVD. TO SB XNA
PI = 47+21.22
Δ = 3°04'40" LT.
D = 0°30'00"
T = 367.91'
L = 735.58'
PC = 43+53.31
PT = 50+88.89
e = MATCH PR.
Ls = MATCH PR.

C.L. HWY. 264 RAMP 4 STA. 250+89.11, 10.50' LT. =
C.L. AIRPORT BLVD. TO SB XNA STA. 50+88.89

PROP. R/W, C/A, & FENCE

+40
400'

CONSTRUCTION LIMITS

PC 257+78.94

PT 258+53.94

258°00'00"
250.00

258°00'00"

C.L. FUTURE HWY. 264 RAMP 4

+09.93
175'

+85
205'

1050' ACCELERATION LANE

+43.25

CONSTRUCTION LIMITS

C.L. XNA ACCESS RD. MEDIAN STA. 250+07.38, 58.50' LT. =
C.L. HWY. 264 RAMP 4 STA. 250+07.38

PC 250+07.38

PT 50+88.89

NOSE
+42.04
7.50' RT.

C.L. AIRPORT BLVD. TO SB XNA

50.00
250.00

255.00

N 38°28'05" W

C.L. XNA ACCESS RD. MEDIAN STA. 261+46.69
PI = 261+46.69
Δ = 21°05'09" LT.
D = 1°00'00"
T = 1066.35'
L = 2108.58'
PC = 250+80.34
PT = 271+88.92
e = 0.038'/'
Ls = 350'

CONSTRUCTION LIMITS

260+00

C.L. NB CROSSOVER

250+00

N 2°37'37" E

255+00

C.L. XNA ACCESS RD. MEDIAN

NOSE
+43.25
57.82' LT.

N 2°37'37" E

PI 47+21.22

C.L. HWY. 264 RAMP 4 STA. 250+88.55, 3.00' RT. =
C.L. NB CROSSOVER STA. 250+89.40

PI 250+89.40

NOSE
+30.09
68.85' RT.

255+00

C.L. FUTURE HWY. 264 RAMP 1

260+00

N 2°37'37" E

PC 250+80.34

C.L. XNA ACCESS RD. MEDIAN STA. 250+80.34, 58.50' RT. =
C.L. HWY. 264 RAMP 1 STA. 250+80.34

PI 254+49.47

NOSE
+35.03
7.50' LT.

PC 260+51.28

PROP. R/W, C/A, & FENCE

+25
145'

250' TAPER

FUTURE CONSTRUCTION LIMITS

+60
200'

+30
195'

+08.96
185.61'

+90
270'

+91.62
320'

+70
320'

PROP. R/W, C/A, & FENCE

+60
360'

FENCING

| STA. | STA. | SIDE | TYPE | UNIT |
|---|---|---|---|---|
| 246+00 | 251+00 | XNA ACCESS RD. LT. | A | 509 LIN. FT. |
| 246+00 | 251+00 | XNA ACCESS RD. RT. | A | 502 LIN. FT. |

REMOVAL AND DISPOSAL OF FENCE

| STA. | STA. | SIDE | UNIT | GATES |
|---|---|---|---|---|
| 246+05 | 259+27 | RT. | 1312 LIN. FT. | 1 EACH |

XNA ACCESS RD.

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# XNA ACCESS RD. PROFILE

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 185 | 583 |
| | | PROFILE - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 248+17.84 BEGIN SUPERELEVATION
STA. 251+67.84 MAX. SUPERELEVATION (0.038'/')
STA. 271+01.42 MAX. SUPERELEVATION (0.038'/')
STA. 274+51.42 END SUPERELEVATION

VC=860.00'
K=413.46
e=2.24'

PVT 248+30.00
ELEV. 1221.43

-3.04%

PROFILE GRADE

PVC 251+25.00
ELEV. 1212.46

EXISTING GROUND

VC=900.00'
K=206.42
e=4.90'

+50.00 RT. 1205.98

-2.79% RT. DITCH GRADE

+35.03 RT. 1198.02

PVI 255+75.00
ELEV. 1198.78

1.32%

PVT 260+25.00
ELEV. 1204.72

1290 1280 1270 1260 1250 1240 1230 1220 1210 1200 1190 1180 1170 1160 1150 1140 1130 1120 1110

246+00 247+00 248+00 249+00 250+00 251+00 252+00 253+00 254+00 255+00 256+00 257+00 258+00 259+00 260+00 261+00


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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 186 | 583 |
| | | PLAN - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

C.L. AIRPORT BLVD. INTERIM CONNECTION

C.L. FUTURE HWY. 264 RAMP 4

N

C.L. XNA ACCESS RD. MEDIAN
PI = 261+46.69
Δ = 21°05'09" LT.
D = 1°00'00"
T = 1066.35'
L = 2108.58'
PC = 250+80.34
PT = 271+88.92
e = 0.038'/'
Ls = 350'

PC 30+83.50

N 90°00'00" E

PI 33+40.84

PT 271+88.92

BEGIN BRIDGE
STA. 272+57.69

C.L. XNA ACCESS RD. MEDIAN STA. 272+97.83 =
C.L. HWY. 264 STA. 35+09.49
Δ 69°50'34"

265+00

C.L FUTURE XNA ACCESS RD. MEDIAN

270+00

275+00

END BRIDGE
STA. 273+69.99

N 18°27'32" W

35.00

PI 262+21.86

PI 261+46.69

BEGIN BRIDGE
STA. 272+25.66

END BRIDGE
STA. 273+37.97

PT 35+98.17

+00
275'

PT 263+91.54

265.00

N 12°50'05" E

PROP. R/W C/A. & FENCE

C.L. HWY. 264

S 88°31'24" E

+50
395'

C.L. FUTURE HWY. 264 RAMP 1

+50
480'

270.00

40.00

XNA ACCESS RD.

10' 24' 6' 30' 30' 6' 24' 10'

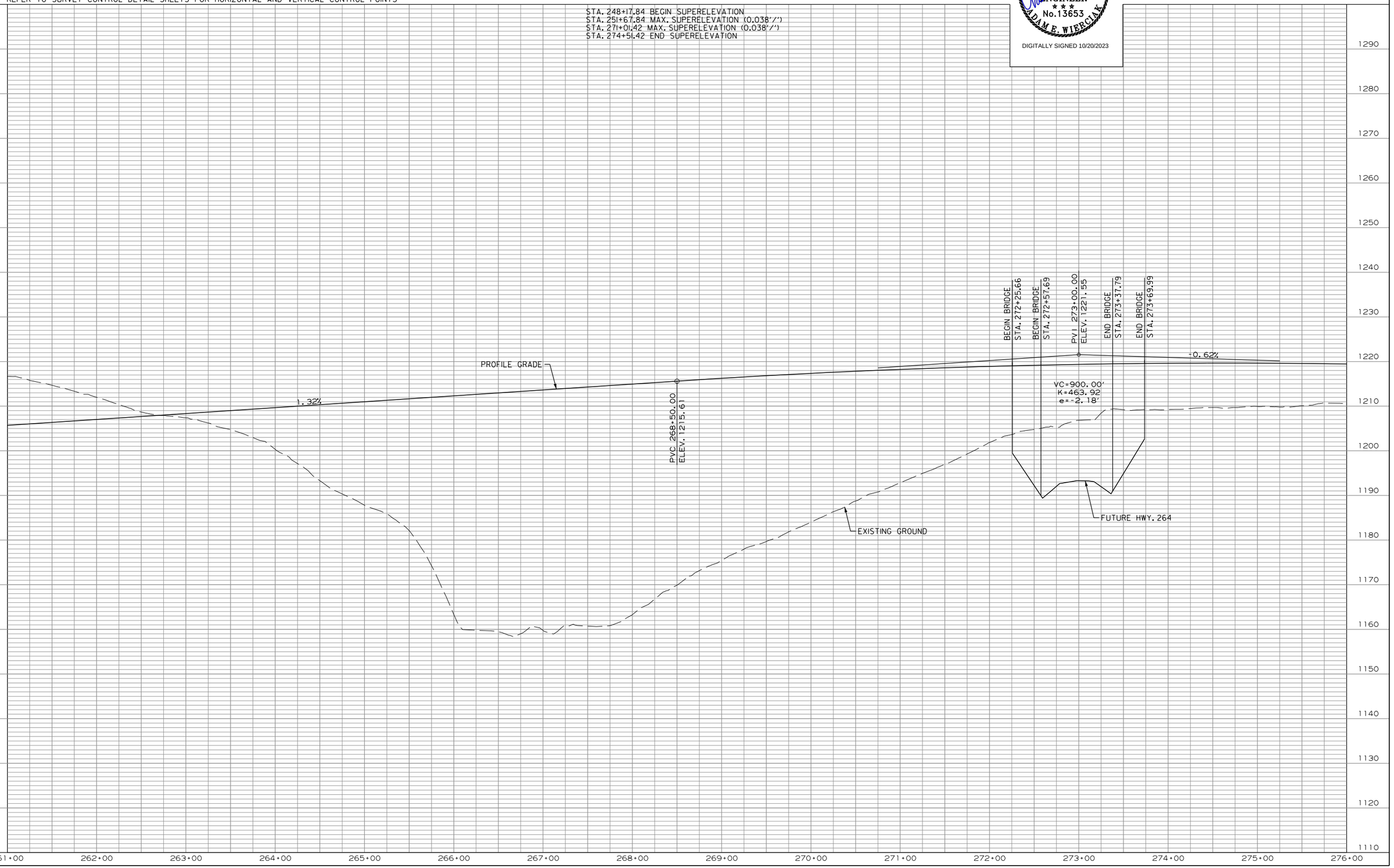
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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 187 | 583 |
| | | PROFILE - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 248+17.84 BEGIN SUPERELEVATION
STA. 251+67.84 MAX. SUPERELEVATION (0.038'/')
STA. 271+01.42 MAX. SUPERELEVATION (0.038'/')
STA. 274+51.42 END SUPERELEVATION




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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 188 | 583 |
| | | PLAN & PROFILE - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

N

C.L. FUTURE HWY. 264 RAMP 3

N 17°28'25" E

4' 6' 6'

285+00

N 12°45'02" W

290+00

PI 283+19.21

FUTURE CONSTRUCTION LIMITS

10' 24' 6' 30'

280+00

C.L. XNA ACCESS RD. MEDIAN

N 18°27'32" W

285+00

30' 6' 24' 10'

290+00

57.84' RT. +85.27 NOSE 00+00

N 18°27'32" W

N 47°45'53" W

285+00

4' 6' 6'

C.L. FUTURE HWY. 264 RAMP 2

FUTURE CONSTRUCTION LIMITS

7.50' LT. +85.71 NOSE

PT 291+47.04

PI 296+69.54

700' ACCELERATION LANE

+85.27

XNA ACCESS RD.

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

1250 1240 1230 1220 1210 1200 1190 1180 1170 1160

VC=900.00'
K=463.92
e=-2.18'

PVT 277+50.00
ELEV. 1218.76

-0.62%

PROFILE GRADE

PVC 287+00.00
ELEV. 1212.87

VC=400.00'
K=213.90
e=0.94'

1.25%

PVI 289+00.00
ELEV. 1211.63

PVT 291+00.00
ELEV. 1214.13

EXISTING GROUND

276+00 277+00 278+00 279+00 280+00 281+00 282+00 283+00 284+00 285+00 286+00 287+00 288+00 289+00 290+00 291+00

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 189 | 583 |
| | | PLAN & PROFILE - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

C.L. XNA ACCESS RD. MEDIAN STA. 296+01.21, 46.50' LT. =
C.L. HWY. 264 RAMP 3 STA. 296+01.21

C.L. XNA ACCESS RD. MEDIAN STA. 296+50.00, 42.00' LT. =
C.L. NORTH SHIFT LT. STA. 1296+50.00

C.L. NORTH SHIFT LT.
PI = 1299+03.71
Δ = 2°32'12" RT.
D = 0°30'00"
T = 253.71'
L = 507.33'
PC = 1296+50.00
PT = 1301+57.33
e = NO SUPER

C.L. NORTH SHIFT LT.
PI = 1305+81.46
Δ = 2°32'12" LT.
D = 0°45'00"
T = 169.14'
L = 338.22'
PC = 1304+12.32
PT = 1307+50.54
e = NO SUPER

C.L. NORTH SHIFT RT.
PI = 2299+03.74
Δ = 2°32'13" RT.
D = 0°30'00"
T = 253.74'
L = 507.39'
PC = 2296+50.00
PT = 2301+57.39
e = NO SUPER

C.L. NORTH SHIFT RT.
PI = 2305+81.41
Δ = 2°32'13" RT.
D = 0°45'00"
T = 169.16'
L = 338.26'
PC = 2304+12.25
PT = 2307+50.51
e = NO SUPER

C.L. XNA ACCESS RD. MEDIAN STA. 291+47.04, 58.50' RT. =
C.L. HWY. 264 RAMP 2 STA. 291+47.04

C.L. XNA ACCESS RD. MEDIAN STA. 296+50.00, 42.00' RT. =
C.L. NORTH SHIFT RT. STA. 2296+50.00

C.L. FUTURE HWY. 264 RAMP 3
C.L. FUTURE HWY. 264 RAMP 2
C.L. FUTURE NORTH SHIFT LT.
C.L. FUTURE NORTH SHIFT RT.
C.L. FUTURE XNA ACCESS RD. MEDIAN
FUTURE CONSTRUCTION LIMITS
FUTURE CONSTRUCTION LIMITS

NOSE +66.51 7.50' LT.
NOSE +67.29 72.82' LT.
PC 294+10.94
PI 295+06.15
PT 296+01.21
PC 1296+50.00
PI 1299+03.71
PT 1301+57.333
PC 1304+12.32
PI 1305+81.46
PT 291+47.04
PC 2296+50.00
PI 2299+03.74
PT 2301+57.39
PC 2304+12.25
PI 2305+81.41

295+00 N 12°45'02" W N 18°27'32" W
1300+00 N 18°27'32" W N 15°55'20" W
1305+00
295+00 N 18°27'32" W
300+00 N 18°27'32" W
2300+00 N 18°27'32" W N 20°59'45" W
2305+00

30' 30' 6' 24' 10' 36' 6'

700' ACCELERATION LANE
300' TAPER
+85.27
+85.27

XNA ACCESS RD.

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

PVT 291+00.00
ELEV. 1214.13

1.25%

PROFILE GRADE
EXISTING GROUND

1270 1260 1250 1240 1230 1220 1210 1200 1190 1180

291+00 292+00 293+00 294+00 295+00 296+00 297+00 298+00 299+00 300+00 301+00 302+00 303+00 304+00 305+00 306+00

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 190 | 583 |
| | | PLAN & PROFILE - XNA ACCESS RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

C.L. NORTH SHIFT LT.
PI = 1305+81.46
Δ = 2°32'12" LT.
D = 0°45'00"
T = 169.14'
L = 338.22'
PC = 1304+12.32
PT = 1307+50.54
e = NO SUPER

C.L. NORTH SHIFT RT.
PI = 2305+81.41
Δ = 2°32'13" RT.
D = 0°45'00"
T = 169.16'
L = 338.26'
PC = 2304+12.25
PT = 2307+50.51
e = NO SUPER

C.L. XNA ACCESS RD. MEDIAN STA. 307+50.02, 12.00' LT. = C.L. NORTH SHIFT LT. STA. 1307+50.54

C.L. XNA ACCESS RD. MEDIAN STA. 307+49.99, 12.00' RT. = C.L. NORTH SHIFT RT. STA. 2307+50.51

C.L. FUTURE XNA ACCESS RD. MEDIAN

PI 1305+81.46
PT 1307+50.54
FUTURE CONSTRUCTION LIMITS
C.L. FUTURE NORTH SHIFT LT.
100' R.
10'
48'
N 18°27'32" W
310+00
AIRPORT BLVD.
PI 2305+81.41
PT 2307+50.51
C.L. FUTURE NORTH SHIFT RT.
PNT 2+48 PUBLIC MAIL
STA. 310+00.00
END JOB 090069
REGIONAL AVE.

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

PVI 310+00.00
ELEV. 1237.88
STA. 310+00.00
END JOB 090069
ELEV. 1237.88
PROFILE GRADE
1.25%
EXISTING GROUND

1280 1270 1260 1250 1240 1230 1220 1210 1200 1190
306+00 307+00 308+00 309+00 310+00 311+00

XNA ACCESS RD.

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 191 | 583 |
| | | INTERCHANGE LAYOUT | | | | |

300 150 0 300

Scale: 1" = 300'

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

N

PC 19+74.40
20.00
6-1
PI 21+11.85
PT 22+49.29
C.L. HWY. 264 RAMP 4 275+62.83 =
C.L. HWY. 264 27+60.00
Δ 79°50'05"
PI 274+28.72
PC 278+29.84
PT 279+46.02
POE 283+99.99
275+00
280+00
PC 271+62.59
PT 276+82.71
25.00
PI 278+88.00
C.L. HWY. 264 RAMP 3 274+10.74 =
C.L. HWY. 264 27+60.00
Δ 75°17'23"
C.L. XNA ACCESS RD. MEDIAN STA. 250+07.38, 58.50' LT. =
C.L. HWY. 264 RAMP 4 STA. 250+07.38
C.L. AIRPORT BLVD.
270+00
PI 270+81.40
265+00
PC 250+07.38
PC 250+80.34
PI 258+53.94
PI 260+02.28
260+00
4-1
4-2
PC 268+76.82
PT 272+77.77
C.L. FUTURE HWY. 264 RAMP 4
30.00
PC 30+83.50
C.L. HWY. 264
PC 278+03.46
3-1
C.L. XNA ACCESS RD. MEDIAN STA. 296+01.21 46.50' LT. =
C.L. HWY. 264 RAMP 3 STA. 296+01.21
3-2
C.L. FUTURE HWY. 264 RAMP 3
PT 288+10.93
PC 294+10.94
PT 296+01.21
250+00
255+00
PI 283+19.21
PI 286+69.54
285+00
290+00
295+00
PI 33+40.84
PT 271+88.92
6-2
C.L. FUTURE XNA ACCESS RD.
5-1
PI 254+46.97
PI 261+46.69
PI 262+21.86
C.L. XNA ACCESS RD. MEDIAN STA. 272+97.83 =
C.L. HWY. 264 STA. 35+09.49
Δ 69°50'34"
PT 35+98.17
35.00
2-2
PT 291+47.04
PI 295+06.15
C.L. XNA ACCESS RD. MEDIAN STA. 250+80.34 58.50' RT. =
C.L. HWY. 264 RAMP 1 STA. 250+80.34
1-1
PC 260+51.28
PT 263+91.54
C.L. FUTURE HWY. 264 RAMP 1
PI 42+00.16
Δ = 0°21'00" RT.
40.00
2-1
PC 272+16.87
PT 276+33.39
PC 281+70.18
C.L. FUTURE HWY. 264 RAMP 2
C.L. XNA ACCESS RD. MEDIAN STA. 291+47.04 58.50' RT. =
C.L. HWY. 264 RAMP 2 STA. 291+47.04
C.L. HWY. 264 RAMP 1 STA. 272+72.23 =
C.L. HWY. 264 41+77.24
Δ 78°38'31"
45.00
PI 274+13.61
C.L. HWY. 264 RAMP 2 STA. 269+42.81 =
C.L. HWY. 264 41+77.24
Δ 75°07'19"

## CURVE DATA

| CURVE | PC | PI | PT | Δ | D | TANGENT FEET | LENGTH FEET | e FT./FT. | Ls FEET | DESIGN SPEED |
|---|---|---|---|---|---|---|---|---|---|---|
| 1-1 | 260+51.28 | 262+21.86 | 263+91.54 | 10°12'28" RT. | 3°00'00" | 170.58 | 340.26 | 0.058 | 300 | 50 MPH |
| 2-1 | 272+16.87 | 274+31.61 | 276+33.39 | 34°21'48" LT. | 8°15'00" | 214.74 | 416.52 | 0.100 | 350 | 50 MPH |
| 2-2 | 281+70.18 | 286+69.54 | 291+47.04 | 29°18'21" RT. | 3°00'00" | 499.36' | 976.86 | 0.058 | 300 | 50 MPH |
| 3-1 | 278+03.46 | 283+19.21 | 288+10.93 | 30°13'27" LT. | 3°00'00" | 515.75 | 1007.47 | 0.058 | 300 | 50 MPH |
| 3-2 | 294+10.94 | 295+06.15 | 296+01.21 | 5°42'30" LT. | 3°00'00" | 95.21 | 190.27 | N/A | N/A | 50 MPH |
| 4-1 | 250+07.38 | 254+46.97 | 258+53.94 | 38°05'42" LT. | 4°30'00" | 439.59 | 846.56 | 0.078 | 300 | 50 MPH |
| 4-2 | 268+76.82 | 270+81.40 | 272+77.77 | 28°03'58" RT. | 7°00'00" | 204.58 | 400.95 | 0.098 | 350 | 50 MPH |
| 5-1 | 250+80.34 | 261+46.69 | 271+88.92 | 21°05'09" LT. | 1°00'00" | 1066.35 | 2108.58 | 0.038 | 350 | 70 MPH |
| 6-1 | 19+74.40 | 21+11.85 | 22+49.29 | 0°41'14" RT. | 0°15'00" | 137.45 | 274.89 | N/A | N/A | 55 MPH |
| 6-2 | 30+83.50 | 33+40.84 | 35+98.17 | 1°17'12" LT. | 0°15'00" | 257.34 | 514.67 | N/A | N/A | 55 MPH |

INTERCHANGE LAYOUT
HWY. 264

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 192 | 583 |
| | | INTERCHANGE LAYOUT | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

Scale: 1" = 400'

C.L. XNA ACCESS RD. MEDIAN STA. 103+33.77 46.50' RT. =
C.L. XNA ACCESS RD. RAMP 3 STA. 429+54.36

C.L. XNA ACCESS RD. MEDIAN STA. 100+00.00 37.50' LT. =
C.L. XNA ACCESS RD. RAMP 2 STA. 416+52.40

C.L. XNA ACCESS RD. RAMP 2 STA. 421+81.07 9.00' RT. =
C.L. XNA ACCESS RD. RAMP 4 STA. 444+24.83

C.L. MEDIAN STA. 438+43.91 =
C.L. XNA ACCESS RD. RAMP 2 STA. 429+61.07

C.L. MEDIAN STA. 428+87.18 58.50' LT. =
C.L. XNA ACCESS RD. RAMP 4 STA. 428+87.18

C.L. XNA ACCESS RD. MEDIAN STA. 100+00.00 37.50' RT. =
C.L. XNA ACCESS RD. RAMP 1 STA. 484+19.97

C.L. MEDIAN STA. 441+53.13 =
C.L. XNA ACCESS RD. RAMP 1 STA. 471+49.90

C.L. MEDIAN STA. 446+49.37 58.50' RT. =
C.L. XNA ACCESS RD. RAMP 1 STA. 446+49.37

C.L. MEDIAN STA. 453+46.66 58.50' LT. =
C.L. XNA ACCESS RD. RAMP 3 STA. 453+46.66

C.L. MEDIAN STA. 461+93.78 58.50' RT. =
C.L. XNA ACCESS RD. RAMP 2 STA. 461+93.78

C.L. XNA ACCESS RD. MEDIAN
C.L. XNA ACCESS RD. RAMP 3
C.L. XNA ACCESS RD. RAMP 4
C.L. XNA ACCESS RD. RAMP 1
C.L. XNA ACCESS RD. RAMP 2
C.L. HWY. 612 MEDIAN

SURVEY BASELINE N34°13'40"W 3013.64'
SURVEY BASELINE N09°25'40"W 2893.64'
PN:7704 PDPK NAIL
PN:704 FDHARDOT STD. MON. STAMPED PN:704

P.I. 454+00.41
N48°55'36"W 596.27'
PC 429+54.36
S 48°55'36" E 202.60'
P.I. 431+56.96
S 50°57'09" E 202.60'
POB 100+00.00
PC 416+52.40
S 48°55'36" E 355.47'
POE 484+19.97
PT 433+59.53
S 50°57'09" E 288.61'
PC 436+48.14
P.I. 420+07.87
S 34°46'49" E 355.47'
PT 444+24.83
PT 423+59.72
N 38°21'12" W 554.76'
P.I. 439+74.45
S 50°57'09" E 671.14'
N 58°50'50" E 671.14'
PT 448+18.14
N 58°50'50" E 528.51'
POE 453+46.66
P.I. 458+41.73
S 87°41'25" E 3976.89'
P.I. 443+19.28
PC 434+19.69
N 21°57'18" E 554.76'
N 21°57'18" E 532.51'
POB 428+87.18
N 0°00'00" E 3976.89'
PC 431+54.43
S 34°46'49" E 794.71'
N 48°55'36" W 1788.07'
PC 446+49.37
PT 466+31.90
N 71°33'14" E 458.66'
N 4°40'12" E 458.66'
PC 453+83.07
N 4°40'12" E 525.00'
PT 448+58.06
PT 461+93.78
PT 475+77.50
S 87°41'25" E 6994.34'
N 0°00'00" E 5203.25'
PC 414+23.52
P.I. 450+91.40
S 34°46'49" E 1936.97'
N 4°40'12" E 1936.97'

| CURVE DATA | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| CURVE | PC | PI | PT | Δ | D | TANGENT FEET | LENGTH FEET | e FT./FT. | Ls FEET | DESIGN SPEED |
| 1-1 | 446+49.37 | N/A | 466+31.90 | 262°41'08" RT. | 13°15'00" | N/A | 1982.53 | 0.100 | 350 | 40 MPH |
| 2-1 | 416+52.40 | 420+07.87 | 423+59.72 | 14°08'47" RT. | 2°00'00" | 355.47 | 707.32 | 0.070 | 350 | 70 MPH |
| 2-2 | 431+54.43 | 450+91.40 | 448+58.06 | 140°32'59" LT. | 8°15'00" | 1936.97 | 1703.63 | 0.100 | 350 | 50 MPH |
| 2-3 | 453+83.07 | 458+41.73 | 461+93.78 | 66°53'02" RT. | 8°15'00" | 458.66 | 810.71 | 0.100 | 350 | 50 MPH |
| 3-1 | 429+54.36 | 431+56.96 | 433+59.53 | 2°01'33" LT. | 0°30'00" | 202.60 | 405.17 | N/A | N/A | 50 MPH |
| 3-2 | 436+48.14 | 443+19.28 | 448+18.14 | 70°12'01" LT. | 6°00'00" | 671.14 | 1170.00 | 0.092 | 350 | 50 MPH |
| 4-1 | 434+19.69 | 439+74.45 | 444+24.83 | 60°18'30" LT. | 6°00'00" | 554.76 | 1005.14 | 0.092 | 350 | 50 MPH |
| 612-5 | 414+23.52 | 454+00.41 | 475+77.50 | 92°18'35" RT. | 1°30'00" | 3976.89 | 6153.98 | 0.054 | 350 | 70 MPH |

INTERCHANGE LAYOUT
HWY. 612

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 193 | 583 |

PLAN & PROFILE - HWY. 264 RAMP 1

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

CONSTRUCTION LIMITS
C.L. HWY. 264 RAMP 4
PC 250+07.38
PT 50+88.89
50+00
250+00
N 35°28'05" W
255+00
CONSTRUCTION LIMITS
N
260+00
N 2°37'37" E
C.L. FUTURE XNA ACCESS RD. MEDIAN
N 18°27'32" W
PI 250+89.40
68.85' RT.
NOSE
+30.08
101.24'
6'
4'
N 2°37'37" E
255+00
260+00
PI 262+21.86
FUTURE CONSTRUCTION LIMITS
N 12°50'05" E
265+00
C.L. XNA ACCESS RD. MEDIAN STA. 250+80.34 58.50' RT. =
C.L. HWY. 264 RAMP 1 STA. 250+80.34
PC 250+80.34
PI 254+96.97
NOSE
+35.03
7.50' LT.
C.L. FUTURE HWY. 264 RAMP 1
+08.96
185.6'
PC 260+51.28
PI 261+46.69
FUTURE CONSTRUCTION LIMITS
+60
200'
+30
195'
+90
270'
+70
320'
+91.62
320'
+00
275'
PT 263+91.54
PROP. R/W, C/A, & FENCE

C.L. HWY. 264 RAMP 1
PI = 262+21.86
Δ = 10°12'28" RT.
D = 3°00'00"
T = 170.58'
L = 340.26'
PC = 260+51.28
PT = 263+91.54
e = 0.058'/'
Ls = 300'

| FENCING | | | | |
|---|---|---|---|---|
| STA. | STA. | SIDE | TYPE | UNIT |
| 251+00 | 265+00 | HWY. 264 RAMP 1 RT. | A | 1579 LIN. FT. |

HWY. 264 RAMP 1

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 250+80.34 MATCH XNA ACCESS RD. (0.0235'/')
STA. 254+23.76 END SUPERELEVATION

STA. 258+26.28 BEGIN SUPERELEVATION
STA. 261+26.28 MAX. SUPERELEVATION (0.058'/')
STA. 263+16.54 MAX. SUPERELEVATION (0.058'/')
STA. 266+16.54 END SUPERELEVATION

C.L. XNA ACCESS RD. MEDIAN STA. 255+30.09, 68.85' RT. =
C.L. HWY. 264 RAMP 1 STA. 255+35.03, 7.50' LT.
ELEV. 1205.60

PVI 255+35.03
ELEV. 1205.60
-0.79%
PVC 258+50.00
ELEV. 1203.11
PVI 260+50.00
ELEV. 1201.53
VC=400.00'
K=96.85
e=-2.06'
PROFILE GRADE
EXISTING GROUND
PVT 262+50.00
ELEV. 1191.69
-4.92%
PVC 269+00.00
ELEV. 1179.39

1240
1230
1220
1210
1200
1190
1180
1170
1160
1150
250+00
251+00
252+00
253+00
254+00
255+00
256+00
257+00
258+00
259+00
260+00
261+00
262+00
263+00
264+00
265+00

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 194 | 583 |
| | | PLAN & PROFILE - HWY. 264 RAMP 1 | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

N

FENCING

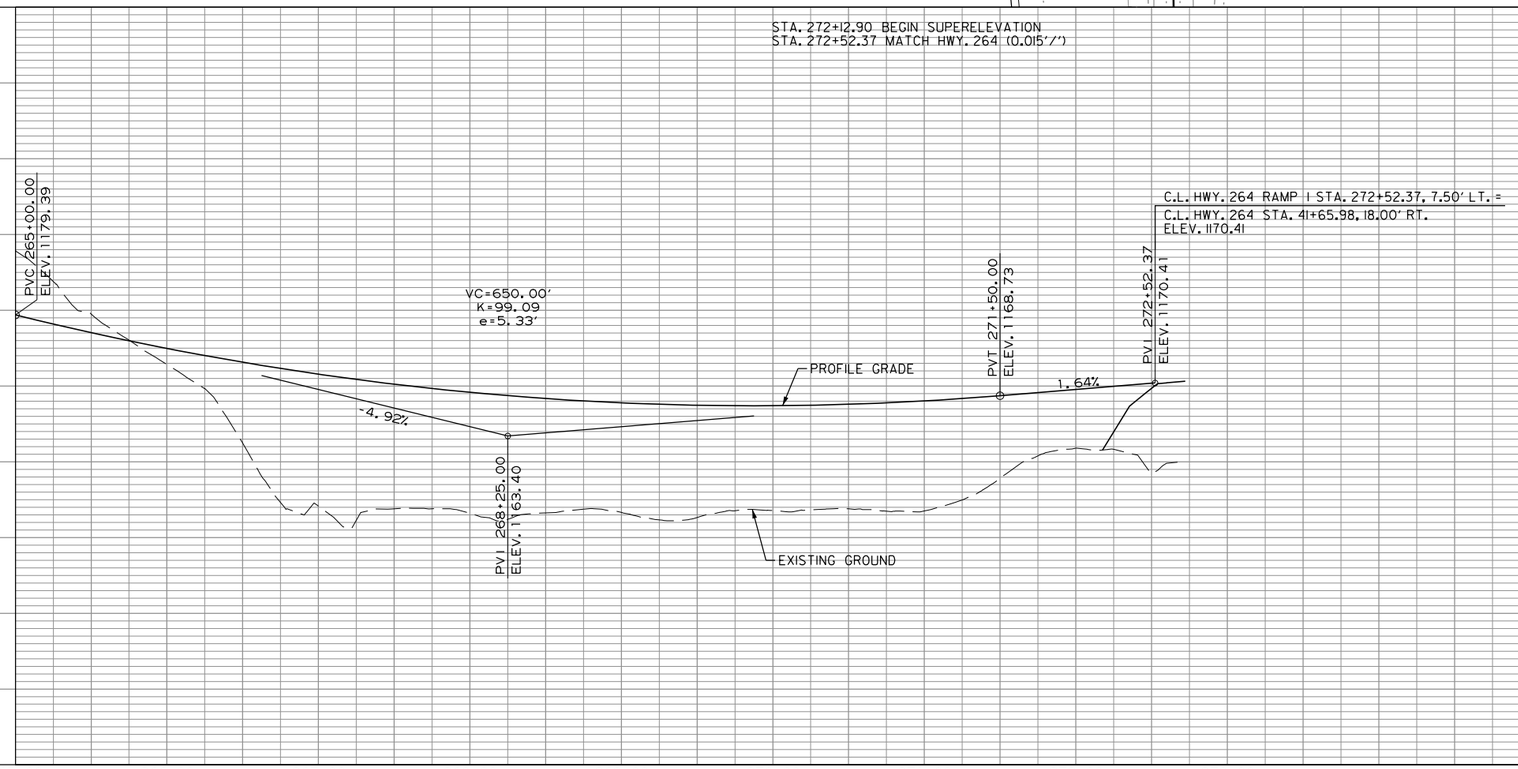
| STA. | STA. | SIDE | TYPE | UNIT |
|---|---|---|---|---|
| 265+00 | 271+72 | HWY. 264 RAMP 1 RT. | A | 770 LIN. FT. |

265+00
N 12°50'05" E
270+00
C.L. FUTURE HWY. 264 RAMP 1
FUTURE CONSTRUCTION LIMITS
+50 395'
+50 480'
PROP. R/W, C/A, & FENCE
+80 565'
+25 615'
+60 665'
FUTURE CONSTRUCTION LIMITS
CONCRETE ISLAND
PI 42+00.16
Δ = 0°21'00" RT.
175' R.
75' R.
S. 88°31'24" E
40+00
8' 3½' 8'
S. 88°10'24" E
C.L. HWY. 264
C.L. HWY. 264 RAMP 1 STA. 272+72.23 =
C.L. HWY. 264 41+77.24
∢ 78°38'31"
C.L. FUTURE HWY. 264 RAMP 2
PC 272+16.87
R = 270.00
FUTURE CONSTRUCTION LIMITS
275+00
N 47°45'53" W
N 13°24'05" W
PI 274+31.91
125' R.
CONCRETE ISLAND

HWY. 264 RAMP 1

STA. 272+12.90 BEGIN SUPERELEVATION
STA. 272+52.37 MATCH HWY. 264 (0.015'/')

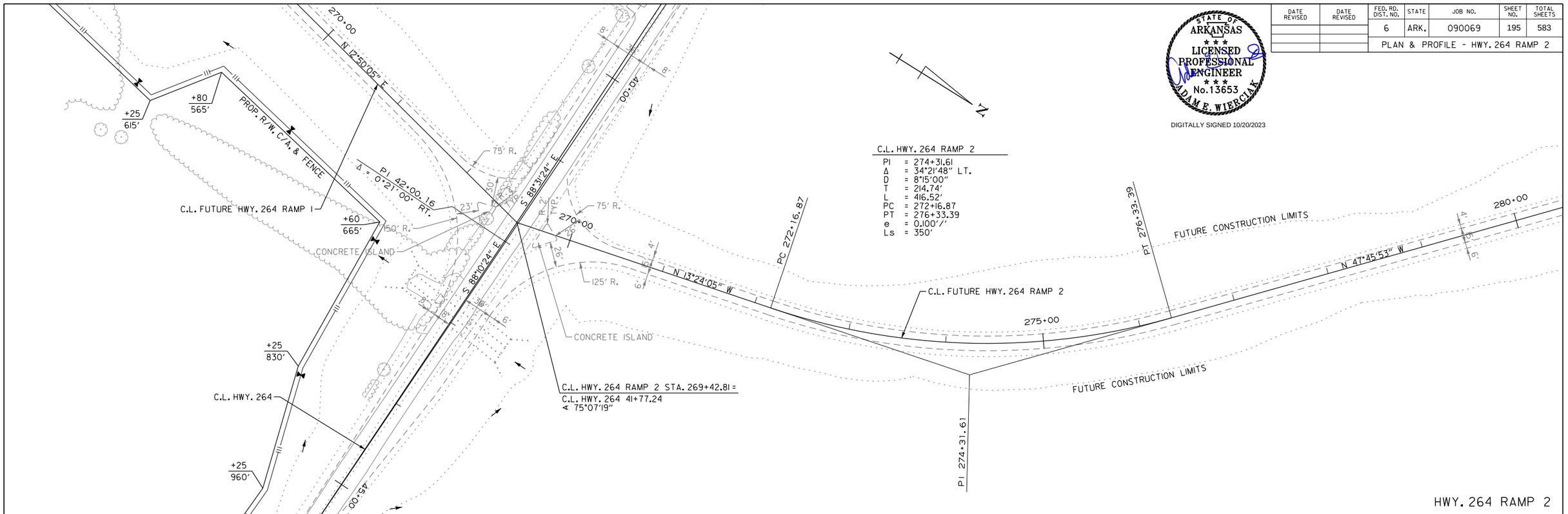
REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS




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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 195 | 583 |
| | | PLAN & PROFILE - HWY. 264 RAMP 2 | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

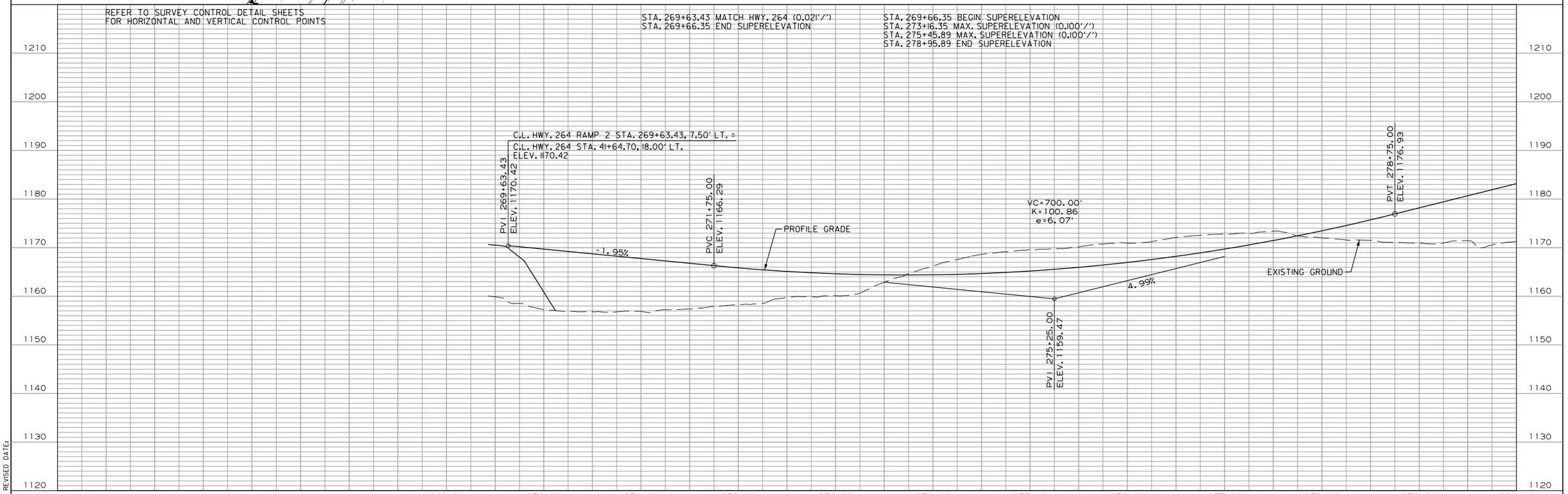



HWY. 264 RAMP 2

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 269+63.43 MATCH HWY. 264 (0.021'/')
STA. 269+66.35 END SUPERELEVATION

STA. 269+66.35 BEGIN SUPERELEVATION
STA. 273+16.35 MAX. SUPERELEVATION (0.100'/')
STA. 275+45.89 MAX. SUPERELEVATION (0.100'/')
STA. 278+95.89 END SUPERELEVATION





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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 196 | 583 |
| | | PLAN & PROFILE - HWY. 264 RAMP 2 | | | | |

STATE OF ARKANSAS
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ADAM E. WIERCIAK

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C.L. FUTURE HWY. 264 RAMP 3

PT 288+10

C.L. FUTURE XNA ACCESS RD. MEDIAN

285+00

290+00

N 12°45'02" W

N 47°45'53" W

FUTURE CONSTRUCTION LIMITS

C.L. FUTURE HWY. 264 RAMP 2

PI 286+69.54

NOSE +85.27 57.84' RT.

NOSE +85.71 7.50' LT.

N 18°27'32" W

PC 294

PI 295+06.1

295+00

280+00

PC 281+70.18

PT 291+47.04

C.L. HWY. 264 RAMP 2

PI = 286+69.54
Δ = 29°18'21" RT.
D = 3°00'00"
T = 499.36'
L = 976.86'
PC = 281+70.18
PT = 291+47.04
e = 0.058'/'
Ls = 300'

C.L. XNA ACCESS RD. MEDIAN STA. 291+47.04 58.50' RT. =
C.L. HWY. 264 RAMP 2 STA. 291+47.04

HWY. 264 RAMP 2

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 279+45.18 BEGIN SUPERELEVATION
STA. 282+45.18 MAX. SUPERELEVATION (0.058'/')
STA. 290+72.04 MAX. SUPERELEVATION (0.058'/')
STA. 293+72.04 END SUPERELEVATION

C.L. HWY. 264 RAMP 2 STA. 289+85.71, 7.50' LT. =
C.L. XNA ACCESS RD. STA. 289+85.27, 57.84' RT.
ELEV. 1212.44

PVI 285+00.00
ELEV. 1208.12

PVI 289+85.71
ELEV. 1212.44

PROFILE GRADE

0.89%

4.99%

PVC 282+50.00
ELEV. 1195.65

VC=500.00'
K=121.95
e=-2.56'

PVT 287+50.00
ELEV. 1210.34

EXISTING GROUND

1240 1230 1220 1210 1200 1190 1180 1170 1160 1150

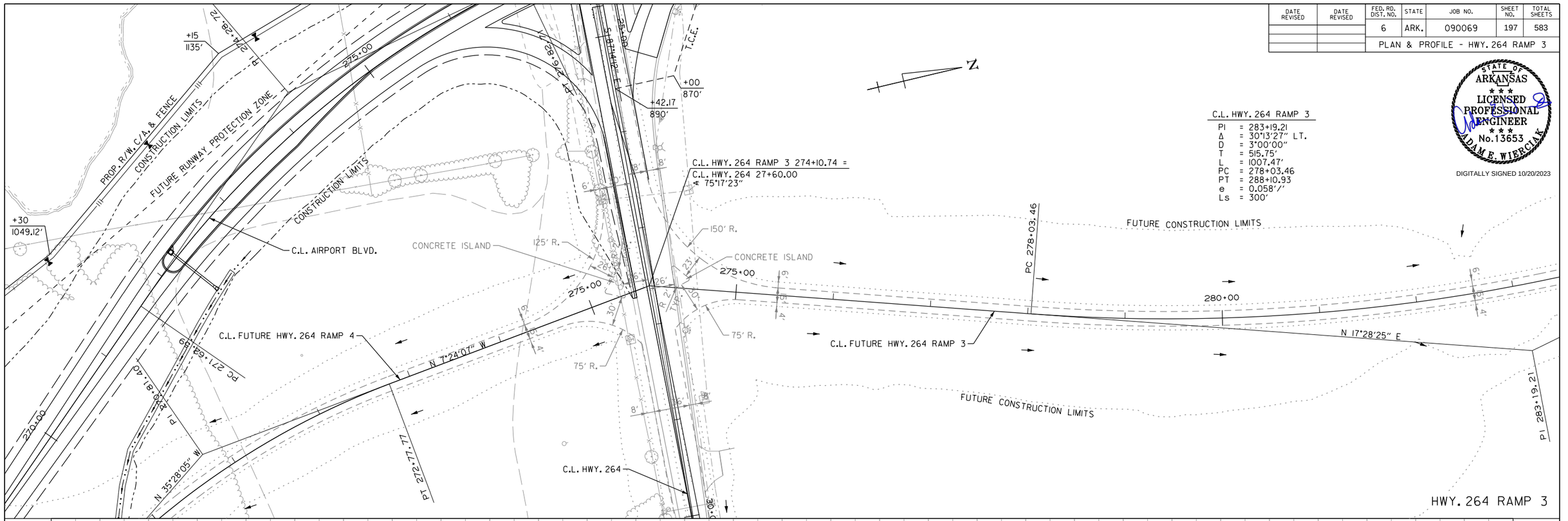
280+00 281+00 282+00 283+00 284+00 285+00 286+00 287+00 288+00 289+00 290+00 291+00

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 197 | 583 |
| | | PLAN & PROFILE - HWY. 264 RAMP 3 | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

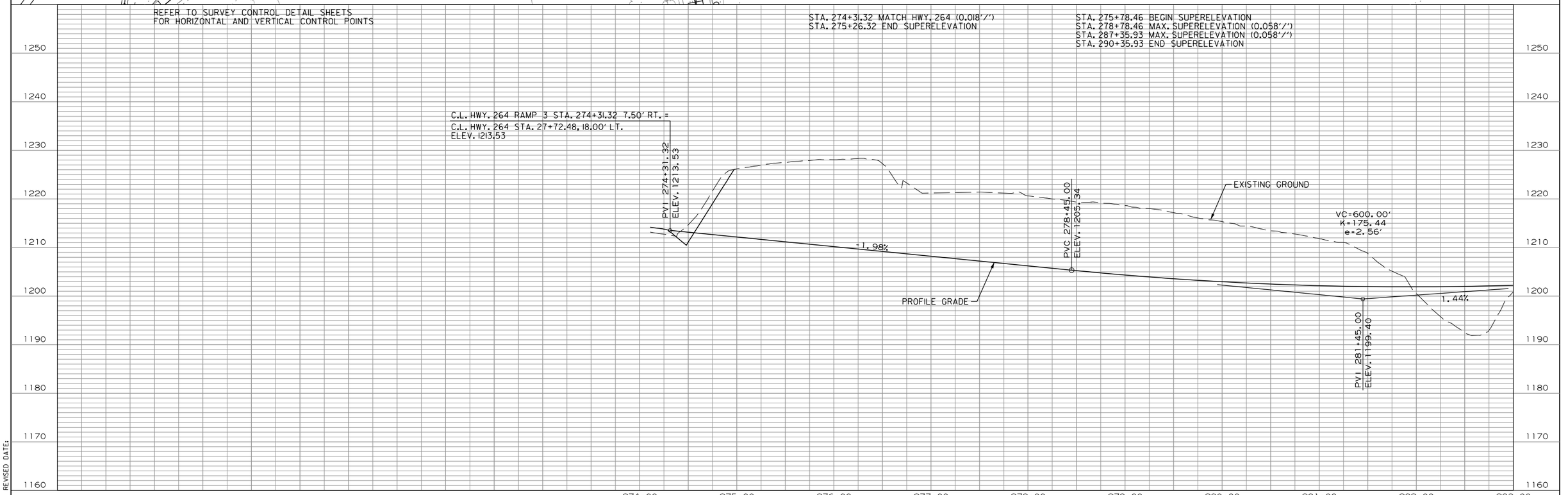
C.L. HWY. 264 RAMP 3
PI = 283+19.21
Δ = 30°13'27" LT.
D = 3°00'00"
T = 515.75'
L = 1007.47'
PC = 278+03.46
PT = 288+10.93
e = 0.058'/'
Ls = 300'




REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 274+31.32 MATCH HWY. 264 (0.018'/')
STA. 275+26.32 END SUPERELEVATION

STA. 275+78.46 BEGIN SUPERELEVATION
STA. 278+78.46 MAX. SUPERELEVATION (0.058'/')
STA. 287+35.93 MAX. SUPERELEVATION (0.058'/')
STA. 290+35.93 END SUPERELEVATION




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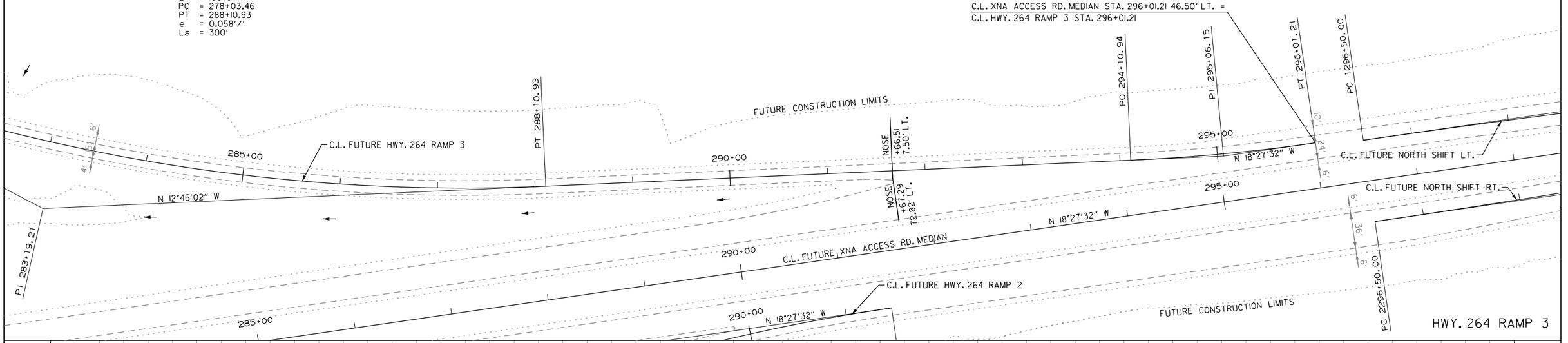
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 198 | 583 |
| | | PLAN & PROFILE - HWY. 264 RAMP 3 | | | | |

STATE OF ARKANSAS
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No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

C.L. HWY. 264 RAMP 3
PI = 283+19.21
Δ = 30°13'27" LT.
D = 3°00'00"
T = 515.75'
L = 1007.47'
PC = 278+03.46
PT = 288+10.93
e = 0.058'/'
Ls = 300'

C.L. HWY. 264 RAMP 3
PI = 295+06.15
Δ = 5°42'30" LT.
D = 3°00'00"
T = 95.21'
L = 190.27'
PC = 294+10.94
PT = 296+01.21
e = NO SUPER

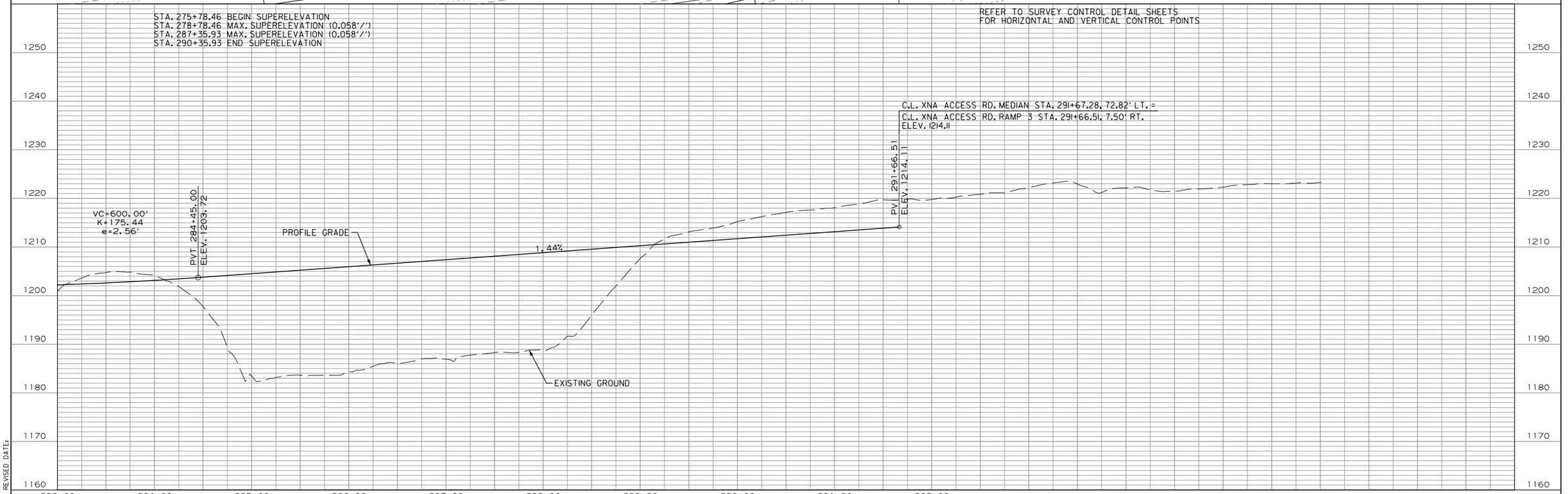
C.L. XNA ACCESS RD. MEDIAN STA. 296+01.21 46.50' LT. =
C.L. HWY. 264 RAMP 3 STA. 296+01.21




STA. 275+78.46 BEGIN SUPERELEVATION
STA. 278+78.46 MAX. SUPERELEVATION (0.058'/')
STA. 287+35.93 MAX. SUPERELEVATION (0.058'/')
STA. 290+35.93 END SUPERELEVATION

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

C.L. XNA ACCESS RD. MEDIAN STA. 291+67.28, 72.82' LT. =
C.L. XNA ACCESS RD. RAMP 3 STA. 291+66.51, 7.50' RT.
ELEV. 1214.11




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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 199 | 583 |

PLAN & PROFILE - HWY. 264 RAMP 4

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

**FENCING**

| STA. | STA. | SIDE | TYPE | UNIT |
|---|---|---|---|---|
| 251+00 | 260+00 | HWY. 264 RAMP 4 LT | A | 771 LIN. FT. |

**CONCRETE DITCH PAVING (TYPE B)**

| STA. | STA. | SIDE | "W" | SQ. YDS. |
|---|---|---|---|---|
| 251+50 | 253+25 | LT. = 171 LIN. FT. | 6'-0" | 114 |
| 253+15 | 254+55 | RT. = 156 LIN. FT. | 6'-0" | 104 |
| 254+85 | 255+50 | LT. = 63 LIN. FT. | 6'-0" | 42 |
| 255+81 | 256+25 | RT. = 58 LIN. FT. | 6'-0" | 39 |

C.L. XNA ACCESS RD. MEDIAN STA. 250+07.38, 58.50' LT. =
C.L. HWY. 264 RAMP 4 STA. 250+07.38

STA. 254+67 CONSTRUCT
42" X 167' R.C. PIPE CULVERT
41° RT. FWD. SKEW
(CLASS V) (TYPE 3 BEDDING)
WITH FES LT. AND RT.
Q50 = 67 CFS DA = 31 ACRES
DUMPED RIPRAP = 29 CU.YD.

**C.L. HWY. 264 RAMP 4**

| | |
|---|---|
| PI | = 254+46.97 |
| Δ | = 38°05'42" LT. |
| D | = 4°30'00" |
| T | = 439.59' |
| L | = 846.56' |
| PC | = 250+07.38 |
| PT | = 258+53.94 |
| e | = 0.078'/' |
| Ls | = 300' |

+85
205'

+40
400'

PROP. R/W, C/A, & FENCE

CONSTRUCTION LIMITS

FUTURE CONSTRUCTION LIMITS

C.L. AIRPORT BLVD.

C.L. AIRPORT BLVD. CURVE EXTENSION

C.L. FUTURE HWY. 264 RAMP 4

C.L. FUTURE XNA ACCESS RD. MEDIAN

C.L. FUTURE HWY. 264 RAMP 1

PC 250+07.38
50.00
250.00
PT 250+57.38
NOSE +42.07 7.50' RT.
NOSE +43.25 57.82' LT.
N 2°37'37" E 250.00
PI 250+89.40
PC 250+80.34
PC 257+78.94
PT 258+53.94
PT 260+02.28
260.00
255.00
N 35°28'05" W
PI 258+90.00
PI 254+46.97

HWY. 264 RAMP 4

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 247+82.38 BEGIN SUPERELEVATION
STA. 250+82.38 MAX. SUPERELEVATION (0.078'/')
STA. 257+78.94 MAX. SUPERELEVATION (0.078'/')
STA. 260+78.94 END SUPERELEVATION

C.L. XNA ACCESS RD. MEDIAN STA. 251+43.25, 57.82' LT. =
C.L. XNA ACCESS RD. RAMP 4 STA. 251+42.07, 7.50' RT.
ELEV. 1210.89

PVI 251+42.07
ELEV. 1210.89
PVC 252+50.00
ELEV. 1207.16
PVI 255+00.00
ELEV. 1198.51
PVT 257+50.00
ELEV. 1199.76

-3.46%
-8.48% LT. DITCH GRADE
-5.97% RT. DITCH GRADE
VC=500.00'
K=126.26
e=2.47'
PROFILE GRADE
0.50%
EXISTING GROUND

+50.00 LT. 1203.93
+15.00 RT. 1201.60
+26.00 LT. 1189.00
+75.00 RT. 1198.03
+55.00 RT. 1183.00
+85.00 LT. 1189.00
+50.00 LT. 1191.60
+50.00 RT. 1183.58
+25.00 RT. 1194.00
+85.00 RT. 1195.76
+78.94 LT. 1192.75
+78.94 RT. 1196.23

-18.78% RT. DITCH GRADE
2.66% LT. DITCH GRADE
PR. F.L. = 1187.61 LT.
PR. F.L. = 1182.54 RT.
25.00% RT. DITCH GRADE
2.93% RT. DITCH GRADE
0.50% LT. DITCH GRADE
0.50% RT. DITCH GRADE

1240 1230 1220 1210 1200 1190 1180 1170 1160 1150

251+00 252+00 253+00 254+00 255+00 256+00 257+00 258+00 259+00 260+00 261+00 262+00 263+00 264+00

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 200 | 583 |

PLAN & PROFILE - HWY. 264 RAMP 4

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

PROP. R/W, C/A, & FENCE
FUTURE RUNWAY PROTECTION ZONE
CONSTRUCTION LIMITS
C.L. AIRPORT BLVD.
+25
835'
270+00
PI 270+81.40
PC 271+62.59
CONSTRUCTION LIMITS
C.L. HWY. 264 RAMP 4 275+62.83 =
C.L. HWY. 264 27+60.00
Δ 79°50'05"
PT 276+82.71
S 81°14'12" E
+42.17
890'
T.C.E.
+70
930'
PI 278+88.00
+00
870'
265+00
N 35°28'05" W
C.L. FUTURE HWY. 264 RAMP 4
FUTURE CONSTRUCTION LIMITS
270+00
CONCRETE ISLAND
125' R.
N 7°24'07" W
275+00
265+00
PC 268+76.82
PT 272+77.77
FUTURE CONSTRUCTION LIMITS
150' R.
75' R.
CONCRETE ISLAND
275+00
C.L. FUTURE HWY. 264 RAMP 3
C.L. HWY. 264
N 17°28'25" E
HWY. 264 RAMP 4

C.L. HWY. 264 RAMP 4
PI = 270+81.40
Δ = 28°03'58" RT.
D = 7°00'00"
T = 204.58'
L = 400.95'
PC = 268+76.82
PT = 272+77.77
e = 0.098'/'
Ls = 350'

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 266+14.32 BEGIN SUPERELEVATION
STA. 269+64.32 MAX. SUPERELEVATION (0.098'/')
STA. 271+90.27 MAX. SUPERELEVATION (0.098'/')
STA. 274+21.63 END SUPERELEVATION (R.C.)

C.L. HWY. 264 RAMP 4 STA. 275+43.19, 7.50' RT. =
C.L. HWY. 264 STA. 27+70.85, 18.00' RT.
ELEV. 1213.56

PVC 270+50.00
ELEV. 1206.26
VC=300.00'
K=212.77
e=0.53'
PVT 273+50.00
ELEV. 1209.87
PVI 275+43.19
ELEV. 1213.56
PROFILE GRADE
0.50%
1.91%
PVI 272+00.00
ELEV. 1207.01
EXISTING GROUND

1240 1230 1220 1210 1200 1190 1180 1170 1160 1150

264+00 265+00 266+00 267+00 268+00 269+00 270+00 271+00 272+00 273+00 274+00 275+00 276+00

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| | | 6 | ARK. | 090069 | 201 | 583 |

PLAN & PROFILE - HWY. 264

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

N

10+00 S 87°44'55" E

PI 14+40.55
Δ = 0°10'31" LT.

C.L. HWY. 264

15+00 S 87°55'26" E 20+00 S 87°14'12" E

PI 21+11.85

PC 19+74.40

720' EXISTING TAPER TO REMAIN

180' EXISTING TAPER TO REMAIN

HENDRIX RD.

C.L. HWY. 264
PI = 21+11.85
Δ = 0°41'14" RT.
D = 0°15'00"
T = 137.45'
L = 274.89'
PC = 19+74.40
PT = 22+49.29
e = NO SUPER

+00 1065'
PI 278+46.00
EX. 250' R.
EX. 100' R.
+25 1100'
+70 930'
+00 1155'
+50 1176.59'
PC 278+29.84
25+00
+95 1200'
95' R.
+40 1130'
PT 22+49.29
PI 276+28.29
125' R.
FUTURE RUNWAY PROTECTION ZONE
C.L. AIRPORT BLVD. STA. 277+56.28 =
C.L. HWY. 264 STA. 24+09.53
∢ 75°00'00"
C.L. AIRPORT BLVD.
HWY. 264

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

+26.53
FUTURE LANE RESTRIPING
+80.21
FUTURE 100' VERTICAL TRANSITION TO MATCH EXISTING
+80.21
FUTURE NOTCH, WIDEN, & OVERLAY
EXISTING GROUND

1260 1250 1240 1230 1220 1210 1200 1190 1180 1170

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 202 | 583 |
| | | PLAN & PROFILE - HWY. 264 | | | | |

STATE OF ARKANSAS
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No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

N

C.L. HWY. 264
PI = 33+40.84
Δ = 1°17'12" LT.
D = 0°15'00"
T = 257.34'
L = 514.67'
PC = 30+83.50
PT = 35+98.17
e = NO SUPER

C.L. FUTURE HWY. 264 RAMP 3
C.L. FUTURE XNA ACCESS RD. MEDIAN
N 17°28'25" E
N 18°27'32" W
275.00
660' TAPER
+53.00
+70
930'
EX. 250' R
T.C.E.
+00
870'
+69
84' TAPER
+53
150' R.
275.00
75' R.
C.L. HWY. 264 RAMP 3 274+10.74 =
C.L. HWY. 264 27+60.00
Δ 75°17'23"
PC 30+83.50
C.L. XNA ACCESS RD. MEDIAN STA. 272+97.83 =
C.L. HWY. 264 STA. 35+09.49
Δ 69°50'40"
FUTURE CONSTRUCTION LIMITS
PT 35+98.17
25+00
30+00
35+00
40+00
S 87°14'12" E
S 88°31'24" E
C.L. HWY. 264
CURB
DITCH
CURB
60' PAVED DITCH
FLOWLINE
FLOWLINE
24'
8'
8'
24'
+42.17
890'
PT 276+82.71
125' R.
125' R.
75' R.
FUTURE CONSTRUCTION LIMITS
PI 33+40.84
275.00
N 24°01'21" W
C.L. HWY. 264 RAMP 4 275+62.83 =
C.L. HWY. 264 27+60.00
Δ 79°50'05"
PT 271+88.92
30'
30'
6'
24'
10'
10'
24'
6'
C.L. FUTURE HWY. 264 RAMP 4
HWY. 264

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

+99.19
+69.76
NOTCH & WIDEN SECTION
PVI 26+50.00
ELEV. 1216.74
FUTURE NOTCH, WIDEN, & OVERLAY SECTION
+55.00
XNA ACCESS RD.
EXISTING GROUND
-2.33%
PVI 34+00.00
ELEV. 1199.27
PVC 31+50.00
ELEV. 1205.09
VC=500.00'
K=189.39
e=-1.65'
FUTURE VERTICAL CURVE FOR 55 MPH
IMPROVEMENTS ON HWY. 264 THROUGH
PROJECT AREA
PVC 36+75.00
ELEV. 1185.60
4.97%
PVT 36+50.00
ELEV. 1186.84
VC=1000.00'
K=126.10
e=9.91'

1240 1230 1220 1210 1200 1190 1180 1170 1160 1150

25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00 39+00 40+00

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 203 | 583 |
| | | PLAN & PROFILE - HWY. 264 | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

N

FENCING

| STA. | STA. | SIDE | TYPE | UNIT |
|---|---|---|---|---|
| 42+55 | 47+49 | HWY. 264 RT. | A | 501 LIN. FT. |

C.L. FUTURE HWY. 264 RAMP 2

C.L. HWY. 264 RAMP 2 STA. 269+42.81 =
C.L. HWY. 264 41+77.24
∢ 75°07'19"

125' R.

75' R.

270+00

40+00

S 88°31'24" E

45+00

C.L. HWY. 264

+25
1171.35'

S 88°10'24" E

PN:737
PD:PK NAIL

PAVEMENT
PD:PK NAIL

BRUSH

75' R.

150' R.

PROP. R/W, C/A, & FENCE

+25
960'

+70
1150'

+25
830'

+60
665'

PI 42+00.16
Δ = 0°21'00" RT.

N 12°50'05" E

C.L. HWY. 264 RAMP 1 STA. 272+72.23 =
C.L. HWY. 264 41+77.24
∢ 78°38'31"

C.L. FUTURE HWY. 264 RAMP 1

PC 272+16.87

HWY. 264

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

+80.00
+75.00
+75.00
FUTURE NOTCH, WIDEN, & OVERLAY
FUTURE 100' VERTICAL TRANSITION TO MATCH EXISTING

VC=1000.00'
K=126.10
e=9.91'

FUTURE VERTICAL CURVE FOR 55 MPH IMPROVEMENTS ON HWY. 264 THROUGH PROJECT AREA

PVT 46+75.00
ELEV. 1175.55

EXISTING GROUND

-4.97%

2.96%

PVI 41+75.00
ELEV. 1160.75

FUT. F.L. = 1152.07 LT.
FUT. F.L. = 1150.92 RT.

1210
1200
1190
1180
1170
1160
1150
1140
1130
1120

40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 204 | 583 |
| | | PLAN & PROFILE - WAGER DR. | | | | |

C.L. WAGER DR.
PI = 1+77.92
Δ = 41°20'22" LT.
D = 28°30'00"
T = 75.84'
L = 145.05'
PC = 1+02.08
PT = 2+47.13
e = MATCH EXIST.
Ls = MATCH EXIST.

C.L. WAGER DR.
PI = 3+84.73
Δ = 9°29'35" LT.
D = 28°30'00"
T = 16.69'
L = 33.31'
PC = 3+68.04
PT = 4+01.35
e = MATCH EXIST.
Ls = MATCH EXIST.

CONSTRUCT BERM
4' WIDE TOP WITH 3:1 SIDE SLOPES
AT ELEV. 1127.00
FROM STA. 3+80, 31.90' LT. TO
STA. 3+95, 91.20' LT.

STA. 3+90 CONSTRUCT
30" X 67' PIPE CULVERT
11° LT. FWD. SKEW
QIO = 18 CFS DA = 5.6 ACRES
30" R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING) = 67 LIN. FT.
30" PIPE ALTERNATES (TYPE 2 BEDDING) = 67 LIN. FT.

STA. 3+50 INSTALL
CONSTRUCT APPROACH ON RT.
43 CU. YDS. FILL
1 CU. YDS. CUT

C.L. WAGER DR.
PI = 3+02.46
Δ = 5°34'18" RT.
D = 28°30'00"
T = 9.79'
L = 19.55'
PC = 2+92.67
PT = 3+12.22
e = MATCH EXIST.
Ls = MATCH EXIST.

C.L. WAGER DR.
PI = 5+31.53
Δ = 31°13'25" RT.
D = 28°30'00"
T = 56.17'
L = 109.55'
PC = 4+75.36
PT = 5+84.91
e = MATCH EXIST.
Ls = MATCH EXIST.

STA. 4+46 71.70' LT.
END SP. DT. -2.97%
BEGIN SP. DT. -2.00%
ELEV. 1122.62

STA. 4+02 46.80' LT.
BEGIN SP. DT. -2.97%
ELEV. 1124.52

STA. 3+85 30' RT.
END SP. DT. -18.52%
ELEV. 1126.23

STA. 3+85 46.15' RT.
END SP. DT. -5.05%
BEGIN SP. DT. -18.52%
ELEV. 1129.22

C.L. XNA ACCESS RD.
STA. 5+92.14 213.32' LT.
END SP. DT. -3.03%
ELEV. 1113.01

STA. 6+06.15 194.98' LT.
END SP. DT. -3.03%
BEGIN SP. DT. -3.72%
ELEV. 1113.87

STA. 6+13.65 158.56' LT.
END SP. DT. -3.80%
END SP. DT. -4.10%
BEGIN SP. DT. -3.03%
ELEV. 1115.00

STA. 6+15.58 124.87' LT.
END SP. DT. -13.16%
BEGIN SP. DT. -3.80%
ELEV. 1116.28

STA. 5+53.24 55.81' LT.
END SP. DT. -2.00%
BEGIN SP. DT. -4.10%
ELEV. 1120.55

STA. 6+19.85 50.00' LT.
END SP. DT. -2.90%
BEGIN SP. DT. -13.16%
ELEV. 1126.14

C.L. XNA ACCESS RD. MEDIAN STA. 144+29.30 =
C.L. WAGER DR. STA. 5+11.77
∢ 72°05'09"

STA. 6+20 31' LT.
BEGIN SP. DT. -2.90%
ELEV. 1126.70

STA. 6+20 29.00' RT.
END SP. DT. -11.82%
ELEV. 1127.90

STA. 7+28 69.40' RT.
END SP. DT. -13.59%
BEGIN SP. DT. -11.82%
ELEV. 1141.75

STA. 6+20 CONSTRUCT
24" X 60' PIPE CULVERT
QIO = 17 CFS DA = 4.1 ACRES
24" R.C. PIPE CULVERT (CLASS IV) (TYPE 3 BEDDING) = 60 LIN. FT.
24" PIPE ALTERNATES (TYPE 2 BEDDING) = 60 LIN. FT.

REMOVAL AND DISPOSAL OF FENCE

| STA. | STA. | SIDE | UNIT |
|---|---|---|---|
| 3+19 | 7+31 | LT. | 422 LIN. FT. |
| 3+22 | 7+62 | RT. | 447 LIN. FT. |

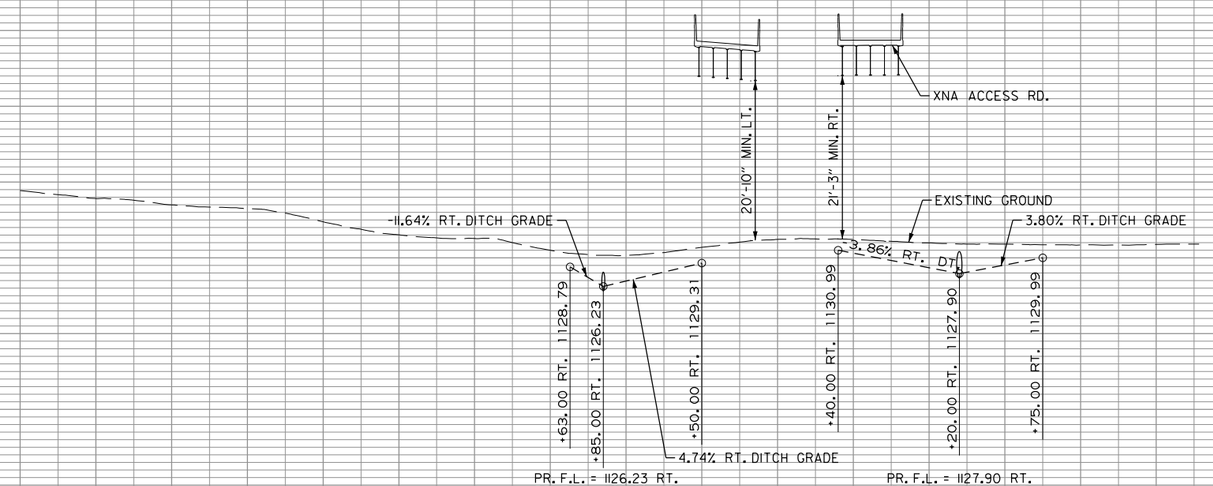
CONCRETE DITCH PAVING (TYPE B)

| STA. | STA. | SIDE | "W" | SQ. YDS. |
|---|---|---|---|---|
| 3+99 | 6+13 | LT. = 321 LIN. FT. | 6'-0" | 214 |
| 5+40 | 6+75 | RT. = 131 LIN. FT. | 6'-0" | 87 |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

WAGER DR.

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS





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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 205 | 583 |
| | | PLAN & PROFILE - HADEN RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

STA. 1+54 INSTALL
30" x 80' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH
4 CU. YDS. FILL
18 CU. YDS. CUT

STA. 2+16 160' LT.
END SP. DT. 14.33%
BEGIN SP. DT. 34.23%
ELEV. 1130.00

STA. 2+08 58.19' LT.
END SP. DT. 14.33%
BEGIN SP. DT. 17.15%
ELEV. 1113.35

STA. 1+93 30' LT.
END SP. DT. 17.15%
ELEV. 1105.95

STA. 0+90 CONSTRUCT
36" X 89' PIPE CULVERT
QIO = 26 CFS DA = 6.4 ACRES
36" R.C. PIPE CULVERT (CLASS IV) (TYPE 3 BEDDING) = 89 LIN. FT.
36" PIPE ALTERNATES (TYPE 2 BEDDING) = 89 LIN. FT.

STA. 0+32.11 30.63' RT.
BEGIN SP. DT. 1.16%
ELEV. 1104.00

STA. 5+28 CONSTRUCT
24" X 76' PIPE CULVERT
41° LT. FWD. SKEW
QIO = 16 CFS DA = 2.6 ACRES
24" R.C. PIPE CULVERT (CLASS IV) (TYPE 3 BEDDING) = 76 LIN. FT.
24" PIPE ALTERNATES (TYPE 2 BEDDING) = 76 LIN. FT.

STA. 5+46.34 52.12' LT.
END SP. DT. 16.68%
BEGIN SP. DT. 34.23%
ELEV. 1121.97

STA. 5+48 23' LT.
END SP. DT. 34.23%
ELEV. 1112.00

STA. 4+97.60 34.52' RT.
BEGIN SP. DT. 3.94%
ELEV. 1109.28

STA. 4+22.30 177.80' RT.
END SP. DT. 3.94%
BEGIN SP. DT. 3.94%
ELEV. 1102.89

C.L. XNA ACCESS RD.

C.L. XNA ACCESS RD. MEDIAN STA. 192+29.92 =
C.L. HADEN RD. STA. 2+86.58
∢ 58°17'26"

C.L. HADEN RD.

PROP. R/W

PROP. R/W. C/A. & FENCE

N 52°57'45" W

N 5°19'41" E

190.00'

20' R

40'

CONCRETE DITCH PAVING (TYPE B)

| STA. | STA. | SIDE | "W" | SQ. YDS. |
|---|---|---|---|---|
| 0+10 | 0+85 | RT. = 78 LIN. FT. | 6'-0" | 51 |
| 0+75 | 0+95 | LT. = 23 LIN. FT. | 6'-0" | 15 |
| 1+93 | 2+50 | LT. = 57 LIN. FT. | 6'-0" | 38 |
| 4+50 | 4+94 | RT. = 45 LIN. FT. | 6'-0" | 30 |
| 5+02 | 5+70 | RT. = 69 LIN. FT. | 6'-0" | 46 |
| 5+12 | 5+70 | LT. = 58 LIN. FT. | 6'-0" | 39 |

REMOVAL AND DISPOSAL OF FENCE

| STA. | STA. | SIDE | UNIT |
|---|---|---|---|
| 0+63 | 0+94 | LT. | 40 LIN. FT. |
| 1+08 | 6+38 | RT. | 524 LIN. FT. |
| 1+89 | 5+54 | LT. | 407 LIN. FT. |

HADEN RD.

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

XNA ACCESS RD.

33'-5⅞" MIN. LT.

35'-3⅛" MIN. RT.

EXISTING GROUND

7.19% RT. DITCH GRADE
-14.50% RT. DITCH GRADE
-13.95% LT. DT.
1.00% LT. DT.
-5.51% LT. DITCH GRADE
14.09% LT. DITCH GRADE
7.88% LT. DITCH GRADE
7.02% RT. DITCH GRADE
7.69% RT. DITCH GRADE

+10.00 RT. 1107.13
+31.60 RT. 1104.00
+75.00 LT. 1107.75
+85.00 RT. 1107.84
+94.70 LT. 1105.00
+00.00 LT. 1106.05
+50.00 LT. 1110.00
+50.00 RT. 1112.62
+97.60 RT. 1109.28
+12.00 LT. 1114.01
+48.50 LT. 1112.00
+70.00 RT. 1114.85
+70.00 LT. 1115.03

PR. F.L. = 1105.00 LT.
PR. F.L. = 1104.00 RT.

PR. F.L. = 1112.00 LT.
PR. F.L. = 1109.28 RT.

1160 1150 1140 1130 1120 1110 1100 1090 1080 1070

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 206 | 583 |
| | | PLAN & PROFILE - HOLMES RD. | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023

STA. 16+70 INSTALL
CONSTRUCT APPROACH ON LT.
56 CU. YDS. FILL
1137 CU. YDS. CUT

C.L. HOLMES RD.
PI = 16+77.66
Δ = 29°49'20" RT.
D = 16°15'00"
T = 93.89'
L = 183.53'
PC = 15+83.77
PCC = 17+67.30
e = NO SUPER

C.L. HOLMES RD.
PI = 18+32.52
Δ = 41°10'40" RT.
D = 33°00'00"
T = 65.22'
L = 124.78'
PCC = 17+67.30
PT = 18+92.08
e = NO SUPER

STA. 17+06 CONSTRUCT
48" X 60' PIPE CULVERT
13° LT. FWD. SKEW
Q10 = 81 CFS DA = 41 ACRES
48" R.C. PIPE CULVERT (CLASS IV) (TYPE 3 BEDDING) = 60 LIN. FT.
48" PIPE ALTERNATES (TYPE 2 BEDDING) = 60 LIN. FT.

C.L. HOLMES RD.
PI = 13+92.69
Δ = 12°55'19" RT.
D = 7°00'00"
T = 92.69'
L = 184.60'
PC = 13+00.00
PT = 14+84.60
e = NO SUPER

C.L. HOLMES RD.
PI = 19+89.60
Δ = 20°13'50" LT.
D = 28°00'00"
T = 36.51'
L = 72.25'
PC = 19+53.09
PCC = 20+25.34
e = NO SUPER

C.L. HOLMES RD.
PI = 22+29.44
Δ = 66°46'10" LT.
D = 18°30'00"
T = 204.10'
L = 360.92'
PCC = 20+25.34
PT = 23+86.26
e = NO SUPER

C.L. XNA ACCESS RD. MEDIAN STA. 212+19.33 =
C.L. HOLMES RD. STA. 20+00.00
Δ 48°38'53"

CONCRETE DITCH PAVING (TYPE B)

| STA. | STA. | SIDE | "W" | SQ. YDS. |
|---|---|---|---|---|
| 16+85 | 18+25 | RT. = 127 LIN. FT. | 6'-0" | 85 |
| 16+92 | 18+00 | LT. = 118 LIN. FT. | 6'-0" | 79 |
| 18+00 | 23+00 | LT. = 500 LIN. FT. | 7'-0" | 389 |
| 18+25 | 22+50 | RT. = 435 LIN. FT. | 7'-0" | 338 |

REMOVAL AND DISPOSAL OF FENCE

| STA. | STA. | SIDE | UNIT | GATES |
|---|---|---|---|---|
| 15+20 | 16+35 | RT. | 113 LIN. FT. | |
| 15+31 | 16+73 | LT. | 147 LIN. FT. | |
| 16+74 | 18+66 | LT. | 516 LIN. FT. | 1 EACH |
| 19+87 | 21+94 | RT. | 303 LIN. FT. | 1 EACH |
| 22+80 | 22+89 | RT. | 9 LIN. FT. | |
| 22+93 | 23+53 | RT. | 47 LIN. FT. | |

HOLMES RD.

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

XNA ACCESS RD.
29'-8" MIN. LT.
16'-7" MIN. RT.
EXISTING GROUND
8.94% RT. DITCH GRADE
11.50% RT. DITCH GRADE
4' FLAT BOTTOM
+75.00 RT. 1164.25
+85.00 RT. 1168.90
+98.00 LT. 1169.64
PR. F.L. = 1169.64 LT.
PR. F.L. = 1168.90 RT.
+00.00 LT. 1180.42
+25.00 RT. 1181.41
10.57% LT. DITCH GRADE

1240 1230 1220 1210 1200 1190 1180 1170 1160 1150

13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 207 | 583 |

PLAN & PROFILE - MALONE LN.

| STA. | STA. | SIDE | GUARDRAIL (TYPE A) | THRIE BEAM GUARDRAIL TERMINAL | GUARDRAIL TERMINAL (TYPE 2) |
|---|---|---|---|---|---|
| 20+08.38 | 22+27.13 | MALONE LN. RT. | 150 LIN. FT. | 1 EACH | 1 EACH |
| 20+79.70 | 22+23.45 | MALONE LN. LT. | 75 LIN. FT. | 1 EACH | 1 EACH |

STATE OF ARKANSAS
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No. 13653
ADAM E. WIERCIAK
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N

STA. 17+00 INSTALL
18"X48' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH
87 CU. YDS. FILL
4 CU. YDS. CUT

C.L. XNA ACCESS RD. MEDIAN STA. 232+84.07 =
C.L. MALONE LN. STA. 23+52.77
∢ 81°57'43"

PROP. R/W
DETOUR CONSTRUCTION LIMITS
CONSTRUCTION LIMITS
24'
+30 1343.30'
10+00
N 92°03'52" W
BARBWIRE
+85 1349.95'
+55 1135'
+30 900'
+00 600'
+75
+75
BARB WIRE
8'
4'
22'
4'
15+00
+00
20+00
C.L. MALONE LN.
S 87°16'55" E
PI 20+56.32
PC 19+90.95
PT 21+21.68
+20 320'
+65 110'
+60 155'
BEGIN BRIDGE STA. 22+35.68
END BRIDGE STA. 24+53.86
25+00
N 2°37'37" E
C.L. XNA ACCESS RD. MEDIAN
+10 125'
CONSTRUCTION LIMITS
PROP. R/W. C/A. & FENCE
30'
6'
24'
10'
MALONE LN.

100' TRANSITION TO MATCH EXIST.

STA. 22+35.68 BRIDGE END
BRIDGE NO. 07661 MALONE LN.
30'-0" CLEAR ROADWAY
7°00'00" RT. FORWARD SKEW
218'-2 1/8" BRIDGE LENGTH
STA. 24+53.86 BRIDGE END

REMOVAL AND DISPOSAL OF FENCE

| STA. | STA. | SIDE | UNIT |
|---|---|---|---|
| 10+00 | 25+00 | LT. | 1500 LIN. FT. |
| 10+00 | 25+00 | RT. | 1500 LIN. FT. |

C.L. MALONE LN.

| | | |
|---|---|---|
| PI | = | 20+56.32 |
| Δ | = | 0°39'13" RT. |
| D | = | 0°30'00" |
| T | = | 65.36' |
| L | = | 130.72' |
| PC | = | 19+90.95 |
| PT | = | 21+21.68 |
| e | = | NO SUPER |

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

100' VERTICAL TRANSITION TO MATCH EXISTING
+75
+75
PVI 14+75.00 ELEV. 1249.78
-0.82%
PVC 14+85.00 ELEV. 1249.70
+25.00 RT. 1246.45
+25.00 LT. 1246.46
VC=480.00'
K=82.41
e=3.49'
EXISTING GROUND
-0.50% RT. DITCH GRADE
-0.50% LT. DITCH GRADE
PVI 17+25.00 ELEV. 1247.72
+25.00 RT. 1244.95
+25.00 LT. 1244.96
-1.62% RT. DITCH GRADE
-1.62% LT. DITCH GRADE
PVT 19+65.00 ELEV. 1259.72
+1.00%
PVC 20+05.00 ELEV. 1261.72
PROFILE GRADE
+50.00 RT. 1241.31
+50.00 LT. 1241.31
-0.64% RT. DITCH GRADE
-2.67% LT. DITCH GRADE
+34.00 LT. 1236.40
+70.00 RT. 1239.90
BEGIN BRIDGE STA. 22+35.68
PVI 23+00.00 ELEV. 1276.47
-4.59%
16'-7" MIN. LT.
VC=590.00'
K=61.53
e=-7.07'
18'-1" MIN. RT.
XNA ACCESS RD.
+26.00 LT. 1237.77
+57.00 RT. 1239.37
BEGIN BRIDGE STA. 24+53.86
1300
1290
1280
1270
1260
1250
1240
1230
1220
1210
10+00
11+00
12+00
13+00
14+00
15+00
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25+00

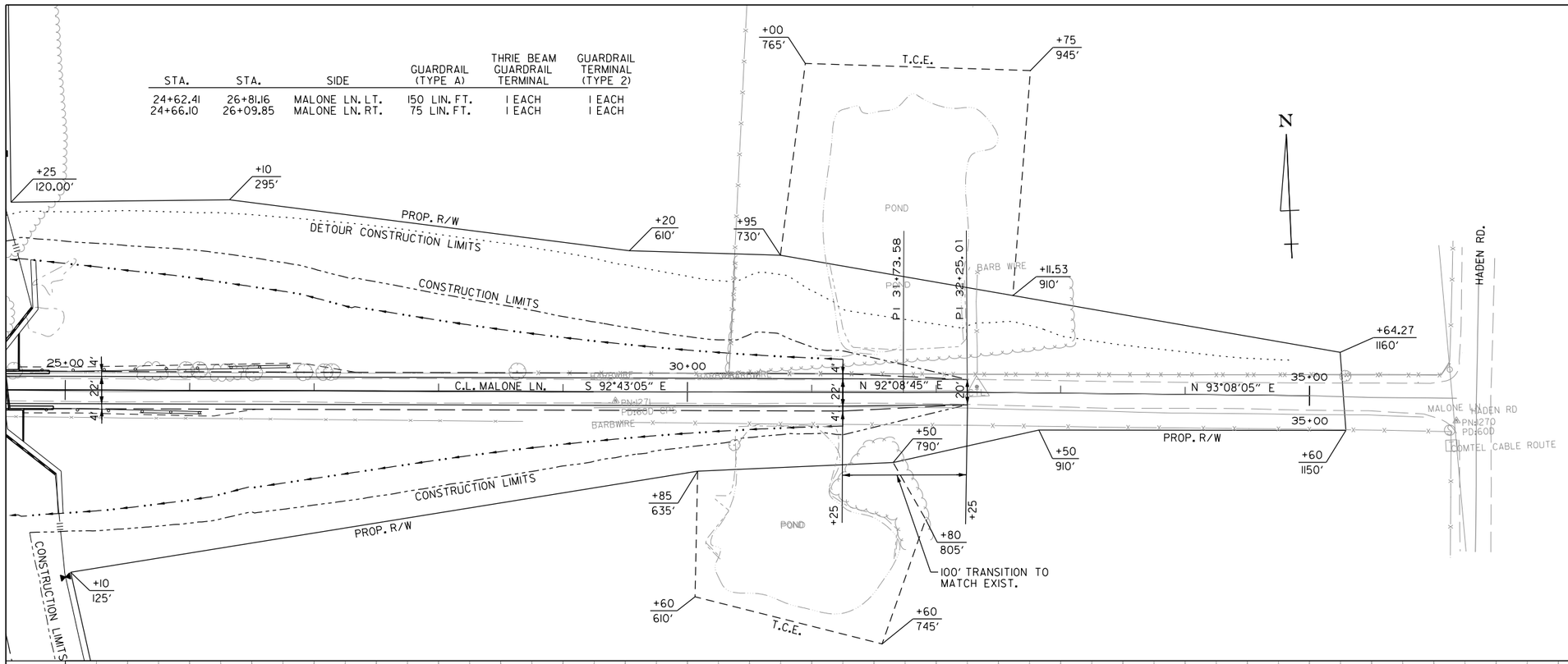
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| | | 6 | ARK. | 090069 | 208 | 583 |
| | | PLAN & PROFILE - MALONE LN. | | | | |

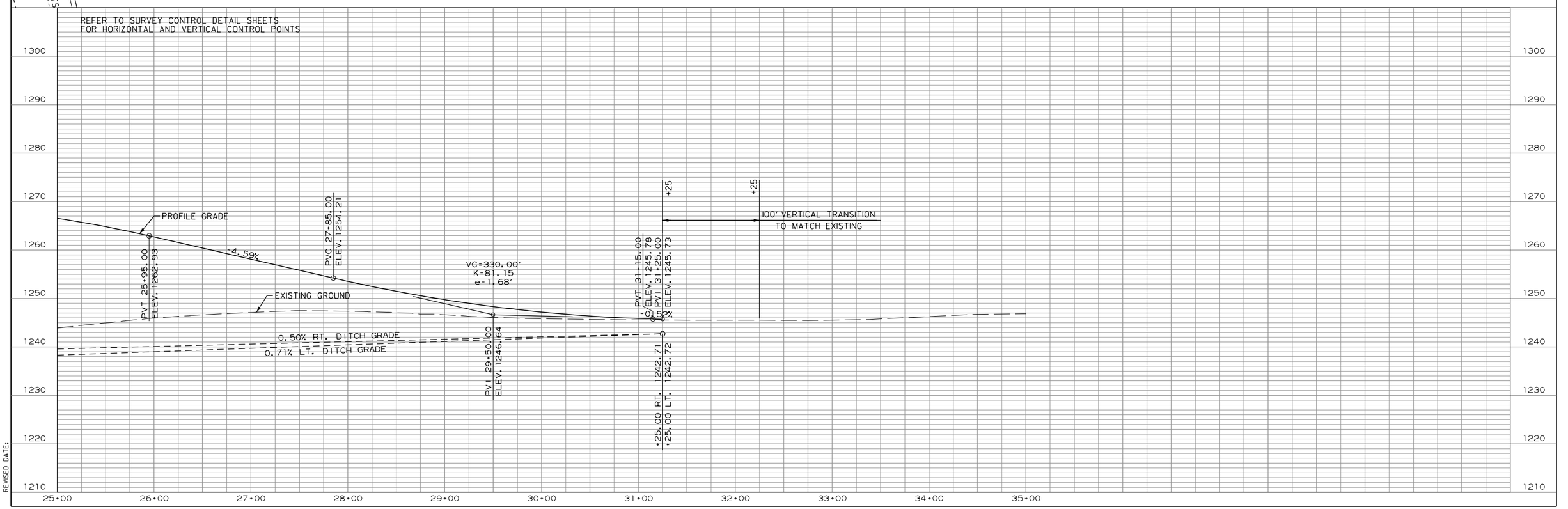
| STA. | STA. | SIDE | GUARDRAIL (TYPE A) | THRIE BEAM GUARDRAIL TERMINAL | GUARDRAIL TERMINAL (TYPE 2) |
|---|---|---|---|---|---|
| 24+62.41 | 26+81.16 | MALONE LN. LT. | 150 LIN. FT. | 1 EACH | 1 EACH |
| 24+66.10 | 26+09.85 | MALONE LN. RT. | 75 LIN. FT. | 1 EACH | 1 EACH |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023




MALONE LN.





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REVISED DATE:

| FENCING | | | | |
|---|---|---|---|---|
| STA. | STA. | SIDE | TYPE | UNIT |
| 260+00 | 265+00 | AIRPORT BLVD. LT. | A | 481 LIN. FT. |

C.L. HWY. 264 RAMP 4
PI = 254+46.97
Δ = 38°05'42" LT.
D = 4°30'00"
T = 439.59'
L = 846.56'
PC = 250+07.38
PT = 258+53.94
e = 0.078'/'
Ls = 300'

C.L. AIRPORT BLVD. CURVE EXTENSION
PI = 258+90.90
Δ = 10°03'01" LT.
D = 4°30'00"
T = 111.96'
L = 223.34'
PC = 257+78.94
PT = 260+02.28
e = 0.078'/'
Ls = 250'

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 209 | 583 |
| | | PLAN & PROFILE - AIRPORT BLVD. | | | | |

C.L. XNA ACCESS RD. MEDIAN STA. 250+07.38, 58.50' LT. =
C.L. HWY. 264 RAMP 4 STA. 250+07.38

C.L. HWY. 264 RAMP 4 STA. 250+89.11, 10.50' LT. =
C.L. AIRPORT BLVD. TO SB XNA STA. 50+88.89

C.L. HWY. 264 RAMP 4 STA. 250+88.55, 3.00' RT. =
C.L. NB CROSSOVER STA. 250+89.40

C.L. HWY. 264 RAMP 4 STA. 257+78.94 =
C.L. AIRPORT BLVD. CURVE EXTENSION STA. 257+78.94

+85
205'

+40
400'

+24.89
590'

CONSTRUCTION LIMITS

PROP. R/W, C/A, & FENCE

FUTURE CONSTRUCTION LIMITS

PC 250+07.38

PT 50+88.89

50.00

250.00

N 2°37'37" E

250.00

NOSE +42.07 7.50' RT.

NOSE +43.25 57.82' LT.

PI 250+89.40

PC 250+80.34

C.L. XNA ACCESS RD. MEDIAN

N 2°37'37" E

N 35°28'05" W

C.L. FUTURE HWY. 264 RAMP 1

C.L. HWY. 264 RAMP 4

255.00

PC 257+78.94

PT 258+53.94

C.L. AIRPORT BLVD. CURVE EXTENSION

PT 260+02.28

260.00

260.00

N 32°05'36" W

N 42°08'37" W

PI 258+90.90

C.L. AIRPORT BLVD.

N 42°08'37" W

265.00

265.00

42'

8'

8'

6'

5'

4'

CONSTRUCTION LIMITS

FUTURE CONSTRUCTION LIMITS

C.L. FUTURE HWY. 264 RAMP 4

C.L. AIRPORT BLVD. CURVE EXTENSION STA. 260+02.28, 4.50' LT. =
C.L. AIRPORT BLVD. STA. 260+02.28

C.L. HWY. 264 RAMP 4 STA. 260+01.95, 8.63' LT. =
C.L. AIRPORT BLVD. CURVE EXTENSION STA. 260+02.28

AIRPORT BLVD.

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 257+78.94 MATCH HWY. 264 RAMP 4 (0.078'/')
STA. 259+39.78 MAX. SUPERELEVATION (0.078'/')
STA. 261+89.78 END SUPERELEVATION

UTILIZE HWY. 264 RAMP 4 PROFILE

+42.07

+78.94

EXISTING GROUND

PVI 251+42.07
ELEV. 1210.89

PVC 252+50.00
ELEV. 1207.16

-3.46%

-8.48% LT. DITCH GRADE

-5.97% RT. DITCH GRADE

VC=500.00'
K=126.26
e=2.47'

+50.00 LT. 1203.93

+15.00 RT. 1201.60

+26.00 LT. 1189.00

+75.00 RT. 1198.03

-18.78% RT. DITCH GRADE

+55.00 RT. 1183.00

+85.00 LT. 1189.00

PVI 255+00.00
ELEV. 1198.51

2.66% LT. DITCH GRADE

PR. F.L. = 1187.61 LT.
PR. F.L. = 1182.54 RT.

+50.00 LT. 1191.60

+50.00 RT. 1183.58

+25.00 RT. 1194.00

25.00% RT. DITCH GRADE

+85.00 RT. 1195.76

2.93% RT. DITCH GRADE

0.50% LT. DITCH GRADE

PVT 257+50.00
ELEV. 1199.76

PVI 257+78.94
ELEV. 1199.90

+78.94 RT. 1192.23

+78.94 LT. 1192.75

0.50%

0.50% RT. DITCH GRADE

-0.50% RT. DITCH GRADE

+75.00 RT. 1196.71

+40.00 LT. 1193.55

0.50% LT. DITCH GRADE

PVI 260+02.28
ELEV. 1200.55

PVI 260+02.28
ELEV. 1199.39

0.29%

+02.28 RT. 1196.07

PROFILE GRADE

+25.00 LT. 1196.42

0.50%

-0.50% LT. DITCH GRADE

-0.50% RT. DITCH GRADE

PVC 264+00.00
ELEV. 1201.38

VC=400.00'
K=330.58
e=0.61'

+00.00 LT. 1195.04

+10.00 RT. 1194.03

-2.99% LT. DITCH GRADE

-2.94% RT. DITCH GRADE

+60.00 LT. 1193.25

+70.00 RT. 1192.26

-5.97% LT. DITCH GRADE

-5.89% RT. DITCH GRADE

1240 1230 1220 1210 1200 1190 1180 1170 1160 1150

250+00 251+00 252+00 253+00 254+00 255+00 256+00 257+00 258+00 259+00 260+00 261+00 262+00 263+00 264+00 265+00

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | PLAN & PROFILE - AIRPORT BLVD. | | | | |

CONCRETE DITCH PAVING (TYPE B)

| STA. | STA. | SIDE | "W" | SQ. YDS. |
|---|---|---|---|---|
| 264+60 | 266+69 | LT. = 218 LIN. FT. | 6'-0" | 145 |
| 264+70 | 266+56 | RT. = 203 LIN. FT. | 6'-0" | 135 |
| 268+91 | 272+50 | RT. = 373 LIN. FT. | 6'-0" | 249 |

FENCING

| STA. | STA. | SIDE | TYPE | UNIT |
|---|---|---|---|---|
| 265+00 | 268+13 | AIRPORT BLVD. LT. | A | 381 LIN. FT. |
| 268+41 | 277+45 | AIRPORT BLVD. LT. | A | 1026 LIN. FT. |

STA. 267+73 CONSTRUCT
6' x 6' x 240' R.C. BOX CULVERT
23° LT. FWD. SKEW
WITH 3:1 WINGS LT. AND RT.
AND RIPRAP BASIN ON OUTLET
050 = 262 CFS DA = 141 ACRES
DUMPED RIPRAP = 1898 CU.YD.

STA. 272+25 CONSTRUCT
DROP INLET LT. H=6'-3"
WITH 4' EXT. AND
24"x54' PIPE OUTLET
TO F.E.S. RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 54 LIN. FT.

+50 995'
+30 1049.12'
+10.00
+15 1135'
C.L. AIRPORT BLVD. STA. 277+56.28 =
C.L. HWY. 264 STA. 24+09.53
Δ 75°00'00"
PT 22+49.29
+95 1200'
+40 1130'
+25 835'
610' TAPER
16' GATE
FUTURE RUNWAY PROTECTION ZONE
CONSTRUCTION LIMITS
PROP. R/W, C/A, & FENCE
R1 274+28.72
S87°14'12"E
T.C.E.
+50 1176.59'
+00 1155'
CONCRETE ISLAND W/ TYPE C CURB FACE
+25 1100'
R 130'
PC 278+29.84
28°
PT 279+46.02
+00 1065'
R 95'
R 3' TYP.
C.L. AIRPORT BLVD.
270+00
N42°8'37"W
+00.00
265+00
8'
24'
8'
12'
12'
8'
+94
110' TAPER
+04
275+00
R 125'
N 12°41'12" W
R 150'
25'
8'
12'
12'
280+00
N 18°55'00" W
R 3' TYP.
PI 270+81.40
PC 271+62.59
C.L. AIRPORT BLVD.
PI = 274+28.72
Δ = 29°54'25" RT.
D = 5°45'00"
T = 266.13'
L = 520.12'
PC = 271+62.59
PT = 276+82.71
e = 0.082'/'
Ls = 375'
CONCRETE ISLAND W/ TYPE C CURB FACE
C.L. AIRPORT BLVD.
PI = 278+88.00
Δ = 6°40'48" LT.
D = 5°45'00"
T = 58.16'
L = 116.18'
PC = 278+29.84
PT = 279+46.02
e = NO SUPER
Ls = NO SUPER
PT 276+82.71
R 260'
R 2' TYP.
+00 965'
EX. R 250'
+70 930'
T.C.E.
+42.17 890'
+00 870'
CONCRETE ISLAND W/ TYPE C CURB FACE
PI 278+88.00
C.L. FUTURE HWY. 264 RAMP 4
PC 268+76.82
FUTURE CONSTRUCTION LIMITS
FUTURE CONSTRUCTION LIMITS
FUTURE CONSTRUCTION LIMITS
C.L. AIRPORT BLVD. STA. 277+37.88 =
C.L. HWY. 264 STA. 24+14.30, 17.77' RT.
ELEV. 1220.59

AIRPORT BLVD.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAME. WIERCIAK
DIGITALLY SIGNED 10/20/2023

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 268+81.34 BEGIN SUPERELEVATION
STA. 272+56.34 MAX. SUPERELEVATION (0.082'/')
STA. 274+26.84 MAX. SUPERELEVATION (0.082'/')
STA. 277+37.88 END SUPERELEVATION (0.008'/', MATCH HWY. 264)

PVI 266+00.00
ELEV. 1202.38
VC=400.00'
K=330.58
e=0.61'
PVT 268+00.00
ELEV. 1205.80
0.50%
1.71%
PVC 272+25.00
ELEV. 1213.07
AIRPORT BLVD. 272+25 LT.
TOP ELEV.=1215.09
F.L. ELEV.=1209.09
PVI 274+25.00
ELEV. 1216.49
VC=400.00'
K=1000.00
e=-0.20'
PVT 276+25.00
ELEV. 1219.11
1.31%
PVI 277+37.88
ELEV. 1220.59
+76.96
MILL AND INLAY
+46.02
-9.84% LT. DITCH GRADE
+20.00 LT. 1189.67
+30.00 RT. 1188.79
-15.66% RT. DITCH GRADE
-5.97% LT. DITCH GRADE
-5.89% RT. DITCH GRADE
+56.00 RT. 1169.00
+69.00 LT. 1175.00
PR. F.L. = 1174.24 LT.
PR. F.L. = 1168.83 RT.
+91.00 RT. 1169.00
+00.00 RT. 1190.49
+35.00 RT. 1195.84
19.72% RT. DITCH GRADE
15.29% RT. DITCH GRADE
-5.26% RT. DITCH GRADE
F.L. ELEV.=1205.84 RT.
+50.00 RT. 1207.15
+84.64 RT. 1207.66
1.47% RT. DITCH GRADE

1250 1240 1230 1220 1210 1200 1190 1180 1170 1160

265+00 266+00 267+00 268+00 269+00 270+00 271+00 272+00 273+00 274+00 275+00 276+00 277+00 278+00 279+00

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| | | 6 | ARK. | 090069 | 211 | 583 |
| | | PLAN & PROFILE - NB CROSSOVER | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

+20 320'
PI 20+56.32
PT 21+21.68
PROP. R/W
S 88°10'43" E
+60 155'
+00 160'
Z
CONSTRUCTION LIMITS
+65 110'
PROP. R/W, C/A, & FENCE
PT 236+81.42
BRUSH
+00 115'
N 2°37'37" E
SWAMP
235+00
C.L. NB CROSSOVER
240+00
240+00
C.L. XNA ACCESS RD. MEDIAN
N 1°01'33" W
235+00
230+00
C.L. XNA ACCESS RD. MEDIAN STA. 241+78.69 =
C.L. NB CROSSOVER STA. 241+77.55
Δ 3°39'10"
C.L. MALONE LN.
PI 234+98.78
C.L. XNA ACCESS RD. MEDIAN STA. 234+98.78, 37.50' RT. =
C.L. NB CROSSOVER STA. 234+98.78
+25 120'
+25 125'
+30 160'
CONSTRUCTION LIMITS
PROP. R/W, C/A, & FENCE
+10 125'
S 86°45'55" E
25.00
PROP. R/W
FUTURE CONSTRUCTION LIMITS
NB CROSSOVER

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

STA. 238+24.14 MATCH PR. SUPERELEVATION (0.037'/')
STA. 239+43.14 END SUPERELEVATION

STA. 240+27.55 BEGIN SUPERELEVATION
STA. 243+27.55 MAX. SUPERELEVATION (0.020'/') R.C.
STA. 245+30.96 MATCH PR. SUPERELEVATION (0.020'/') R.C.

C.L. XNA ACCESS RD. MEDIAN STA. 238+26.48, 22.48' RT. =
C.L. NB CROSSOVER STA. 238+24.14
ELEV. 1240.17

PVI 238+24.14
ELEV. 1240.17
-0.69%
PROFILE GRADE
PVI 242+05.00
ELEV. 1237.54
-2.44%
VC=600.00'
K=342.86
e=-1.31'
PVC 239+05.00
ELEV. 1239.61
-15.47% RT. DITCH GRADE
+24.14 RT. 1234.55
+12.86 RT. 1234.00
-0.62% RT. DITCH GRADE
EXISTING GROUND
+68.00 RT. 1210.00
+77.00 RT. 1210.00

1270
1260
1250
1240
1230
1220
1210
1200
1190
1180

235+00 236+00 237+00 238+00 239+00 240+00 241+00 242+00 243+00

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PLAN & PROFILE - NB CROSSOVER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

C.L. HWY. 264 RAMP 4 STA. 250+89.11, 10.50' LT. =
C.L. AIRPORT BLVD. TO SB XNA STA. 50+88.89

PROP. R/W, C/A, & FENCE

C.L. FUTURE HWY. 264 RAMP 4

+00 185'

+09.93 175'

+85 205'

CONSTRUCTION LIMITS

PC 43+53.31

C.L. AIRPORT BLVD. TO SB XNA

PC 250+07.38

PT 50+88.89

50+00

250+00

45+00

245+00

N 2°37'37" E

N 1°01'33" W

N 1°03'03" W

165' TAPER

C.L. HWY 264 RAMP 4 STA. 250+88.55, 3.00' LT. =
C.L. NB CROSSOVER STA. 250+89.40

255+00

N 35°28'05" W

C.L. XNA ACCESS RD. MEDIAN

C.L. NB CROSSOVER

PI 47+21.22

PI 250+89.40

CONSTRUCTION LIMITS

C.L. FUTURE HWY. 264 RAMP 1

PC 250+80.34

PI 254+46.97

PROP. R/W, C/A, & FENCE

FUTURE CONSTRUCTION LIMITS

+25 140'

+25 145'

+60 200'

+30 195'

NB CROSSOVER

STA. 240+27.55 BEGIN SUPERELEVATION
STA. 243+27.55 MAX. SUPERELEVATION (0.020'/') R.C.
STA. 245+30.96 MATCH PR. SUPERELEVATION (0.020'/') R.C.

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

C.L. XNA ACCESS RD. MEDIAN STA. 245+30.90, 22.48' LT. =
C.L. NB CROSSOVER STA. 245+30.96
ELEV. 1229.59

VC=600.00'
K=342.86
e=-1.31'

PVI 245+30.96
ELEV. 1229.59

PROFILE GRADE

EXISTING GROUND

PVT 245+05.00
ELEV. 1230.22

+50.00 RT. 1221.68

+10.00 RT. 1226.87

+75.00 RT. 1227.20

16.00% RT. DITCH GRADE

8.65% RT. DITCH GRADE

0.50% RT. DITCH GRADE

1270 1260 1250 1240 1230 1220 1210 1200 1190 1180

243+00 244+00 245+00 246+00 247+00 248+00 249+00 250+00

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PLAN & PROFILE - MALONE LN. DETOUR

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

N

STA. 53+54 CONSTRUCT TEMPORARY
30" X 84' TEMPORARY CULVERT
18° LT. FWD. SKEW
QIO = 32 CFS DA = 18 ACRES
30" TEMPORARY CULVERT = 84 LIN. FT.

C.L. MALONE LN. DETOUR
PI = 41+60.32
Δ = 6°25'30" LT.
D = 5°00'00"
T = 64.32'
L = 128.50'
PC = 40+96.00
PT = 42+24.50
e = NO SUPER

C.L. XNA ACCESS RD. MEDIAN STA. 233+98.85 =
C.L. MALONE LN. DETOUR STA. 53+45.67
∢ 81°12'33"

STA. 47+03 INSTALL
18" X 40' TEMPORARY CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH
0 CU. YDS. FILL
10 CU. YDS. CUT

STA. 47+03 INSTALL
18" X 48' TEMPORARY CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH
0 CU. YDS. FILL
28 CU. YDS. CUT

C.L. MALONE LN. DETOUR
PI = 52+62.06
Δ = 12°21'38" RT.
D = 5°00'00"
T = 124.09'
L = 247.21'
PC = 51+37.97
PT = 53+85.18
e = NO SUPER

C.L. MALONE LN. STA. 10+76.64 =
C.L. MALONE LN. DETOUR STA. 40+76.64

MALONE LN. DETOUR

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

+76.64
NOTCH AND WIDEN
+30.63
PVI 43+30.63
ELEV. 1251.78
-1.12%
PROFILE GRADE
EXISTING GROUND
PVC 51+50.00
ELEV. 1242.57
VC=300.00'
K=88.20
e=1.28'
XNA ACCESS RD.
2.28%
PVI 53+00.00
ELEV. 1240.89
F.L. INLET 1235.25
F.L. OUTLET 1231.99

1290 1280 1270 1260 1250 1240 1230 1220 1210 1200

39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00 53+00 54+00

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| | | PLAN & PROFILE - MALONE LN. DETOUR | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK
DIGITALLY SIGNED 10/20/2023

N

+00 765′ — T.C.E. — +75 945′

C.L. MALONE LN. DETOUR
PI = 64+70.21
Δ = 7°01′03″ RT.
D = 5°00′00″
T = 70.26′
L = 140.35′
PC = 63+99.95
PT = 65+40.30
e = NO SUPER

+25 120.00′ — +10 295′ — PROP. R/W — +20 610′ — +95 730′ — +11.53 910′ — +64.27 1160′

55+00 — S 82°00′00″ E — 60+00 — PI 60+01.43 — PC 63+99.95 — PT 65+40.30 — HADEN RD.

CONSTRUCTION LIMITS — CONSTRUCTION LIMITS

POND — POND — BARB WIRE

PT 53+85.18 — 25+00 — PC 58+01.53 — 30+00 — 35+00 — 65+00 — 66+00

C.L. MALONE LN. — S 87°16′55″ E — S 87°01′03″ E

BARBWIRE — BARBWIRE — BARBWIRE — BARBWIRE — PN:271 PD:60D CPS

20′ — 20′

MALONE LN. HADEN RD — PN:270 PD:60A CPS

C.L. MALONE LN. STA. 35+26.35 = C.L. MALONE LN. DETOUR STA. 65+40.32

+50 910′ — +60 1150′ — PI 64+70.21

+50 790′ — PT 62+01.28 — +85 635′ — +80 805′

POND

PROP. R/W

C.L. XNA ACCESS RD. MEDIAN

+10 125′

C.L. MALONE LN. DETOUR
PI = 60+01.43
Δ = 2°00′00″ RT.
D = 0°30′01″
T = 199.89′
L = 399.73′
PC = 58+01.53
PT = 62+01.28
e = NO SUPER

+60 610′ — T.C.E. — +60 745′

MALONE LN. DETOUR

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL POINTS

PVT 54+50.00 ELEV. 1244.31 — 2.28% — PVI 56+40.80 ELEV. 1248.65 — PVT 57+90.80 ELEV. 1247.86 — -0.53% — PVI 62+96.65 ELEV. 1245.20 — 0.87% — PVI 65+00.00 ELEV. 1246.98

VC=300.00′ K=106.99 e=-1.05′

PROFILE GRADE — EXISTING GROUND

0.30% RT. DITCH GRADE — 0.30% LT. DITCH GRADE

+14.00 LT. 1239.83 — +33.00 RT. 1241.16 — PVC 54+90.80 ELEV. 1245.23 — +45.00 RT. 1243.30 — +96.65 LT. 1242.48 — +96.65 — NOTCH AND WIDEN — +00.00

1290 1280 1270 1260 1250 1240 1230 1220 1210 1200

54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00 62+00 63+00 64+00 65+00 66+00

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| | | 6 | ARK. | 090069 | 215 | 583 |
| | | SUMMARY OF TRAFFIC SIGNAL QUANTITIES | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

Digitally Signed 10/20/2023

## TRAFFIC SIGNAL QUANTITIES

| ITEM NUMBER | ITEM | QUANTITY | UNIT |
|---|---|---|---|
| SP & 701 | ACTUATED CONTROLLER TS2-TYPE 2 (8 PHASES) | 1 | EACH |
| SP & 706 | TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY) | 14 | EACH |
| SP & 706 | TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY) | 2 | EACH |
| 708 | TRAFFIC SIGNAL CABLE (5C/14 A.W.G.) | 840 | LIN. FT. |
| 708 | TRAFFIC SIGNAL CABLE (7C/14 A.W.G.) | 62 | LIN. FT. |
| 708 | TRAFFIC SIGNAL CABLE (20C/14 A.W.G.) | 768 | LIN. FT. |
| SP | ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.) | 539 | LIN. FT. |
| SP | ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.) | 230 | LIN. FT. |
| SP | ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.) | 37 | LIN. FT. |
| SP | ELECTRICAL CONDUCTORS FOR LUMINAIRES | 998 | LIN. FT. |
| 710 | NON-METALLIC CONDUIT (2") | 29 | LIN. FT. |
| 710 | NON-METALLIC CONDUIT (3") | 494 | LIN. FT. |
| SS & 711 | CONCRETE PULL BOX (TYPE 2) | 4 | EACH |
| SS & 711 | CONCRETE PULL BOX (TYPE 1 HD) | 1 | EACH |
| SS & 711 | CONCRETE PULL BOX (TYPE 2 HD) | 3 | EACH |
| SS & 714 | TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (34') | 2 | EACH |
| SS & 714 | TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (44') | 1 | EACH |
| SS & 714 | TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (56') | 1 | EACH |
| SP | LED LUMINAIRE ASSEMBLY | 4 | EACH |
| SP | SERVICE POINT ASSEMBLY (2 CIRCUITS) | 1 | EACH |
| SP | 18" STREET NAME SIGN | 2 | EACH |
| SP & 733 | HYBRID VIDEO/RADAR DETECTOR | 4 | EACH |
| SP & 733 | VIDEO CABLE (EXTERIOR CAT 5E) | 974 | LIN. FT. |
| SP & 733 | VIDEO MONITOR (CLR) | 1 | EACH |
| SP & 733 | CENTRAL CONTROL UNIT (8 CHANNEL) | 1 | EACH |

DATE: 8/24/2023 FILE NAME: t090069_SUMQ.dgn

LOCATION: HWY. 264 AND AIRPORT BLVD./XNA ACCESS RD.
CITY: HIGHFILL
COUNTY: BENTON
DISTRICT: 09 SCALE: N/A DRAWN BY: AS

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 216 | 583 |
| | | TRAFFIC SIGNAL NOTES | | | | |

## TRAFFIC SIGNAL NOTES:

1. THE TRAFFIC SIGNAL SHALL NOT BE PUT INTO OPERATION OR SWITCHED TO THE NEXT CONSTRUCTION STAGE PRIOR TO THE FOLLOWING:

   A. ALL TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED ACCORDING TO THE PLANS, SPECIAL PROVISIONS, AND PROPERLY FUNCTIONAL. THIS INCLUDES BUT NOT LIMITED TO: CABINETS, PULL BOXES, JUNCTION BOXES, POLES, MAST ARMS, FOUNDATIONS, LUMINAIRES, SIGNAL HEADS, PEDESTRIAN SIGNAL HEAD, PUSH BUTTONS, DETECTION SYSTEM, CONDUITS, CONDUCTORS, CABLE,

   B. THE DETECTION SYSTEM SHALL BE INSTALLED, SETUP, AND CONFIGURED BY THE CONTRACTOR OR THEIR SUPPLIER PER PLANS. A TRAFFIC OPERATIONS INSPECTOR SHALL INSPECT AND PROVIDE APPROVAL IN ORDER TO PUT THE

   C. THE TRAFFIC CONTROLLER AND CONFLICT MONITOR SHALL BE PROGRAMMED TO OPERATE AS REQUIRED PER THE PLANS (PHASING DIAGRAM, INTERVAL CHART, AND ANY ADDITIONAL NOTES), SPECIAL PROVISIONS AND ARDOT

   D. TIMING SETTINGS HAVE BEEN PROGRAMMED AS REQUIRED BY ITS MANAGEMENT SECTION-MAINTENANCE DIVISION AND APPROVED.

   E. THE TRAFFIC SIGNAL HAS BEEN INSPECTED AND APPROVED BY A TRAFFIC

   F. ALL REQUIRED DOCUMENTS RELATED TO THE TRAFFIC SIGNAL EQUIPMENT, THIS INCLUDES BUT NOT LIMITED TO: TEST RESULTS, CONFIGURATION/DATA REPORTS, WARRANTYS, AND ANY OTHER DOCUMENTATION REQUIRED PER

2. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING

3. TRAFFIC SIGNAL CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OR ASSIGNED DEPARTMENT PROJECT INSPECTOR EACH DAY PRIOR TO SIGNAL RELATED WORK. NO WORK ON TRAFFIC SIGNALS WILL BE ALLOWED OR APPROVED

4. THE CONTRACTOR SHALL PERFORM ALL WORK POSSIBLE THAT WILL MINIMIZE THE TIME THAT THE TRAFFIC SIGNAL IS OUT OF OPERATION. IF, IN THE OPINION OF THE ENGINEER, TRAFFIC CONDITIONS WARRANT, THE CONTRACTOR SHALL PROVIDE

5. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (CURRENT EDITION) NATIONAL ELECTRICAL CODE, NFPA 101 (CURRENT EDITION) LIFE SAFETY CODE, STATE ELECTRICAL CODE

6 EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (E.G.C.) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST POLE. SOLIDLY BOND E.G.C. TO GROUND LUG OF CONTROL CABINET AND TO POLE GROUND. ENSURE THAT

7. ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE WITH EXTERNAL RAINTIGHT BREAKER (MAIN BREAKER), GALVANIZED STEEL SERVICE RISER, METER LOOP (IF REQUIRED), AND WEATHERHEAD AT A MUTUALLY ACCEPTABLE POINT WITHIN THE RIGHT-OF-WAY. IF THE SERVICE POINT IS OVER 10 FEET FROM THE CONTROLLER, THE CONTRACTOR SHALL PROVIDE AND INSTALL A SEPARATE TWO CIRCUIT EXTERNAL BREAKER (SECONDARY BREAKER) ON OR NEAR THE TRAFFIC SIGNAL CONTROLLER CABINET AND SHALL INSTALL CONDUIT, ELECTRICAL SERVICE WIRE (2c/#6 A.W.G. USE RATED, WITH GROUND TYPICAL), AND PERFORM WIRING TO TAP INTO THE CITY'S/ COUNTY'S MAIN BREAKER AS PART OF THIS CONTRACT. CONDUIT IS PAID FOR AS A SEPARATE ITEM OF THIS CONTRACT. TWO CIRCUIT BREAKERS, CONSIDERED SUBSIDIARY TO THE CONTROL EQUIPMENT,

8. CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH

9. TRAFFIC CONTROLLER CABINET AND LAYOUT SHALL BE SUCH THAT IT IS NOT NECESSARY TO SHUT DOWN POWER OR REMOVE LOAD SWITCHES IN ORDER TO

10. CONTROLLER CABINET SHALL BE WIRED SUCH THAT DURING FLASH OPERATIONS POWER TO THE LOAD SWITCHES CANNOT BACKFEED TO LOAD SWITCH POWER

11. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, STANDARD DRAWINGS, AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.

12. CONTROLLER CABINET LAYOUT AND ORIENTATION SHALL CONFORM TO IMSA

13. DOOR PANEL TEST PUSH BUTTONS SHALL ACTUATE INDICATED PHASES. DETECTOR ASSIGNMENTS AND/OR SIDE PANEL JUMPERS MAY REQUIRE

14. ALL SYSTEM DETECTOR RACKS AND ASSOCIATED EQUIPMENT SHALL BE PROTECTED BY THE MAIN CONTROLLER CABINET POWER SURGE PROTECTION.

15. ONE VIDEO PROGRAMMNG MODULE SHALL BE PROVIDED FOR AIMING AND SETUP OF DETECTORS IF THE VIDEO SYSTEM CANNOT BE ADJUSTED THROUGH

16. HARDWARE INPUTS MAY BE DETERMINED BY SUPPLIER. EACH DETECTOR OUTPUT SHALL INPUT THE CONTROLLER THROUGH A SEPARATE INPUT UNLESS OTHERWISE NOTED AND BE PROGRAMMED TO ACTUATE THE ASSOCIATED PHASE.

17. THE LOCAL RADIO WITH ANTENNA AND TRAFFIC SIGNAL CONTROLLER SHALL BE COMPATIBLE WITH THE EXISTING COORDINATION SYSTEM IN THE CITY/COUNTY.

18. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY PUSHING OR BORING METHOD OR AS DIRECTED BY THE ENGINEER. PVC OR HDPE CONDUIT SHALL BE USED AND SHALL BE UL LISTED. PVC CONDUIT SHALL BE MARKED "DIR. BORING" OR "DIRECTIONAL BORING" PER NEC. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD AS SHOWN IN THE

19. ALL CONDUIT SHALL BE THREE (3") INCH DIAMETER UNLESS SPECIFIED ON PLANS. ALL CONDUIT UNDER THE ROADWAY, SIDEWALKS, AND DRIVEWAYS SHALL HAVE A MINIMUM DEPTH OF 24" FROM THE TOP OF THE CONDUIT TO THE FINISHED GRADE.

20. CONDUIT BELL END FITTINGS SHALL BE INSTALLED ON ALL TERMINATING ENDS OF NON-METALLIC CONDUIT RUNS. THIS INCLUDES PULL BOXES, POLE BASES, AND TRAFFIC SIGNAL CABINETS. THE COST OF THE FITTINGS SHALL BE CONSIDERED SUBSIDARY TO THE PAY ITEM. ALL NON-METALLIC CONDUIT SHALL USE LONG

21. ALL CONCRETE PULL BOXES SHALL BE (TYPE 2 HD) UNLESS OTHERWISE INDICATED. PULL BOX LIDS SHALL CLOSE FLUSH WITHOUT PINCHING ANY CONDUCTORS. CONDUIT LENGTHS IN PULL BOXES SHALL BE SET ACCORDINGLY.

22 ALL CONCRETE PULL BOXES SHALL BE SET ON A GRAVEL OR CRUSHED STONE BEDDING AS SPECIFIED IN SECTION 711, CONCRETE PULL BOX, OF THE STANDARD

23. CONTRACTOR SHALL ATTACH A PERMANENT TAG OF RIGID PLASTIC OR NON-FERROUS METAL TO EACH CONDUIT AT PULLBOXES, POLE BASES, JUNCTION BOXES AND CONTROLLER CABINETS. TAGS SHALL BE EMBOSSED, STAMPED OR ENGRAVED WITH LETTERS 1/4" OR GREATER IN HEIGHT AND SECURED TO THE CONDUIT WITH NYLON OR PLASTIC TIES. EACH TAG SHALL INDICATE THE END
    EXAMPLES FOR CONDUIT IN SIDE CABINET: "TO POLE A AND B" OR "TO POLE C"
    EXAMPLES FOR CONDUIT IN PULL BOX: "TO POLE A" OR "TO TRAFFIC CABINET"

24. ALL STEEL POLES SHALL BE DESIGNED TO MEET THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES

25. ALL TRAFFIC SIGNAL POLES SHALL BE GALVANIZED.

26. CONNECTION OF TRAFFIC SIGNAL DISPLAY TO FIELD WIRING SHALL UTILIZE AN APPROVED TERMINAL STRIP BEHIND HAND-HOLE COVER AT BASE OF POLE. TERMINAL STRIP SHALL PROVIDE PROTECTION TO PREVENT EXPOSURE TO THE PUBLIC IN THE EVENT THAT POLE COVER IS MISSING. PAYMENT FOR TERMINAL STRIPS SHALL BE INCLUDED IN ITEM 714 TRAFFIC SIGNAL MAST ARM AND POLE

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27. FOUNDATION FOR ALL POLES SHALL BE EXTENDED IF NECESSARY TO ACCOMMODATE THE REQUIREMENTS FOR SIGNAL HEAD CLEARANCE ABOVE ROADWAY ONLY AT LOCATIONS WHERE THE GROUND ELEVATION AT THE POLE IS BELOW THE ELEVATION OF THE ROADWAY (SEE NOTES ON STANDARD DRAWING). PAYMENT WILL BE INCLUDED IN SECTION 714 TRAFFIC SIGNAL MAST ARM AND POLE

28. TO DETERMINE UTILITY CLEARANCES ABOVE THE TRAFFIC SIGNAL POLE, REFER TO THE POLE SCHEDULE FOR VERTICAL SHAFT HEIGHT. WHERE THE POLE SCHEDULE INDICATES THAT A LUMINAIRE ARM WILL BE USED, THIRTY-EIGHT (38') FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE LUMINAIRE ARM. WHERE THE POLE SCHEDULE INDICATES A TRAFFIC SIGNAL POLE WITHOUT A LUMINAIRE ARM, A HEIGHT OF TWENTY-ONE (21') FEET SHOULD BE USED TO DETERMINE UTILITY

29. THE DESIRABLE MINIMUM DISTANCE FROM THE FACE OF ROADWAY CURB OR SHOULDER EDGE TO THE FACE OF NON-BREAKAWAY POLE OR OBSTRUCTION IS SIX (6') FEET. REFER TO TRAFFIC SIGNAL PLANS FOR SPECIFIC LOCATION OF POLES, CONTROLLER AND ANY OTHER NON-BREAKAWAY OBSTRUCTIONS. REFER TO "DESIGN PARAMETERS, MINIMUM CLEAR ZONE DISTANCE" FOR MINIMUM DISTANCE FROM THE EDGE OF TRAVELED WAY TO THE FACE OF A NON-BREAKAWAY POLE OR

30. AS DETERMINED BY THE ENGINEER, FOUNDATION EMBEDMENT MAY BE DECREASED BY A MAXIMUM OF TWO FEET IF COMPETENT ROCK IS ENCOUNTERED PRIOR TO ACHIEVING PLAN EMBEDMENT AND AT LEAST HALF OF THE REMAINING

31. LED LUMINAIRE ASSEMBLIES SHALL HAVE A BUG RATING OF U0.

32. BACKPLATES SHALL BE SUPPLIED FOR ALL TRAFFIC SIGNAL HEADS, REFER TO THE RETROREFLECTIVE BACKPLATES SPECIAL PROVISION FOR REQUIREMENTS.

33. PAVEMENT MARKINGS SHOWN FOR REFERENCE ONLY. SEE PERMANENT PAVEMEN

34. BEFORE FINAL ACCEPTANCE OF THE TRAFFIC SIGNAL, THE CONTRACTOR SHALL PROVIDE TWO (2) SETS OF LEDGER SIZE (11" X 17") AS-BUILT TRAFFIC SIGNAL PLANS

DATE: 8/21/2023 FILE NAME: t090069_GN.dgn

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CITY: HIGHFILL
COUNTY: BENTON
DISTRICT: 09 SCALE: N/A DRAWN BY: AS

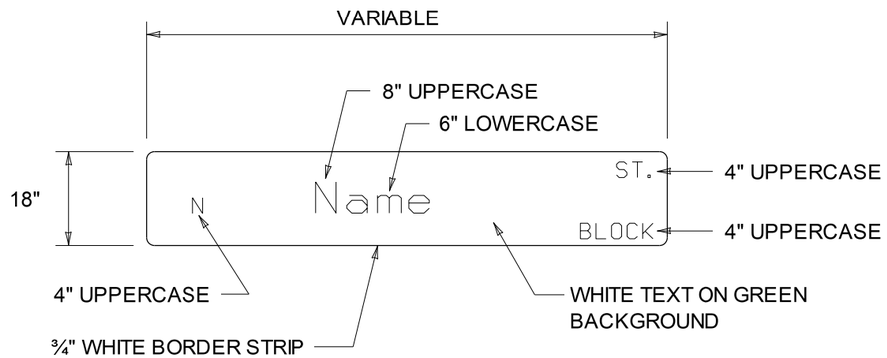
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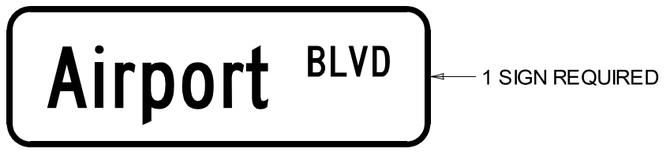
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| | | TRAFFIC SIGNAL STREET NAME SIGNS | | | | |

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# OVERHEAD STREET NAME MARKER
# STANDARD MAST ARM MOUNTED







NOTES:

1. REFLECTIVE SHEETING SHALL COMPLY WITH ASTM 4956 TYPE 8 OR 9 REFLECTIVE SHEETING. SHEETING AND LEGEND SHALL BE APPLIED IN SUCH A MANNER TO PROVIDE WRINKLE AND BUBBLE FREE SURFACES. APPLICATION OF SHEETING IS CAUSE FOR REJECTION OF MATERIALS DUE TO WORKMANSHIP.
2. ALUMINUM SIGN BLANK SHALL BE ALLOY 6061-T6 OR 5052-H38. THE ALUMINUM SIGN SHALL BE ALSO ALODIZED. THE ALUMINUM SHEETING SHALL BE 0.100 INCH NOMINAL THICKNESS AND OF THE SIZE SHOWN WITH 1.5" CORNER RADII. PRIOR TO FABRICATION OF THE SIGNS, THE LAYOUT SHALL FIRST BE APPROVED BY AN AGENT OF THE CITY/ COUNTY.
3. WHEN CROSSROAD HAS TWO NAMES, THE SIGN FOR THE CROSSROAD TO THE LEFT MAY BE INSTALLED ON THE BACKSIDE OF THE MAST ARM ON THE NEARSIDE LEFT POLE. SEE STANDARD DRAWING SHEET FOR MORE INFORMATION FOR MOUNTING ON MAST ARM ASSEMBLY.
4. THE SERIES C 2000 STANDARD ALPHABET SHALL BE USED FOR ALL LETTERS.

DATE: 8/21/2023 FILE NAME: t090069_SNS.dgn

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CITY: HIGHFILL
COUNTY: BENTON
DISTRICT: 09 SCALE: N/A DRAWN BY: AS

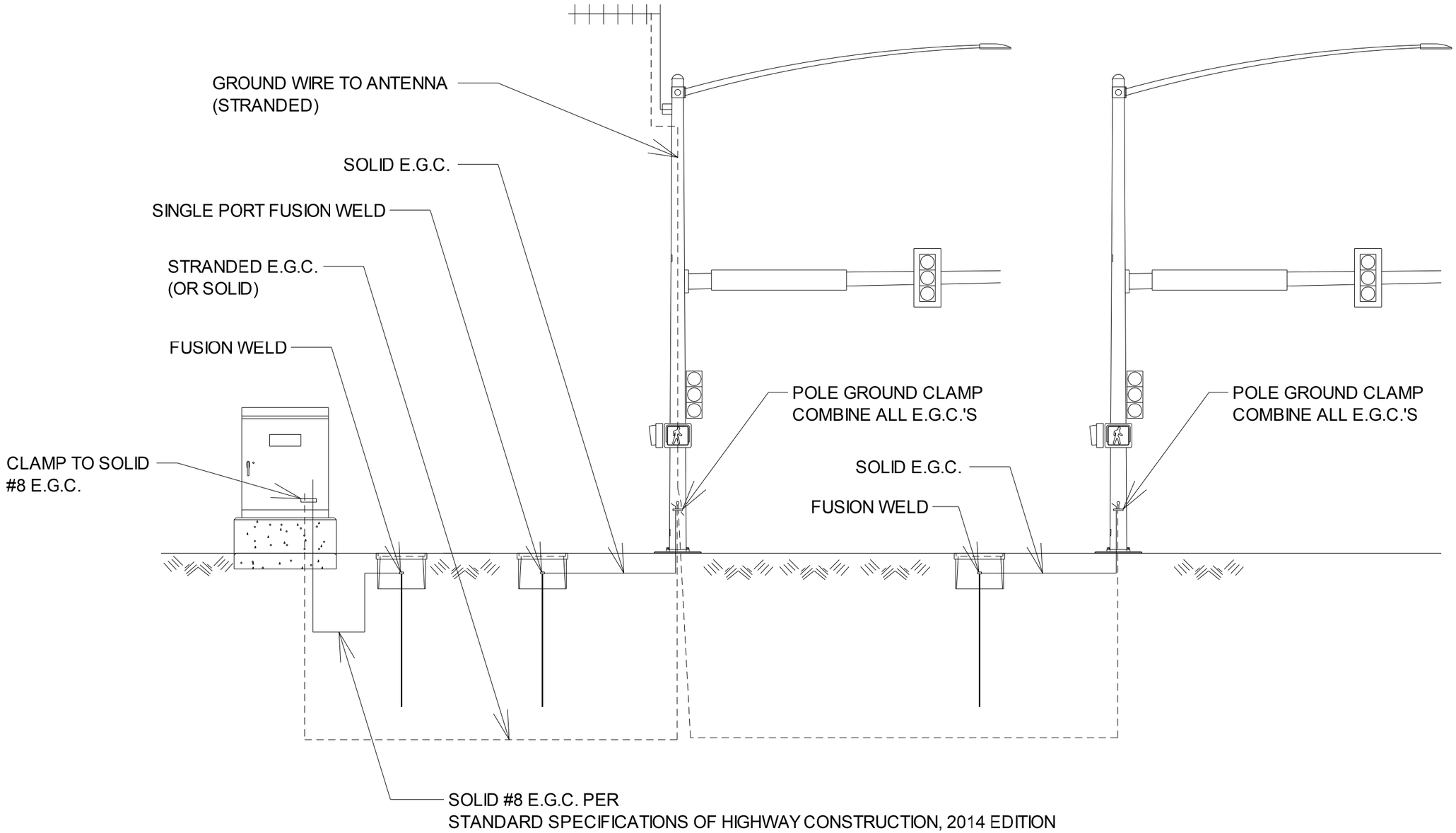

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| | | 6 | ARK. | 090069 | 218 | 583 |
| | | GROUNDING ARRAY DETAIL | | | | |

# GROUNDING ARRAY
# SINGLE-PORT FUSION WELDS

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CITY: HIGHFILL
COUNTY: BENTON
DISTRICT: 09 SCALE: N/A DRAWN BY: AS

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| | | 6 | ARK. | 090069 | 219 | 583 |
| | | SIGNALIZATION PLAN SHEET | | | | |

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## PHASING DIAGRAM



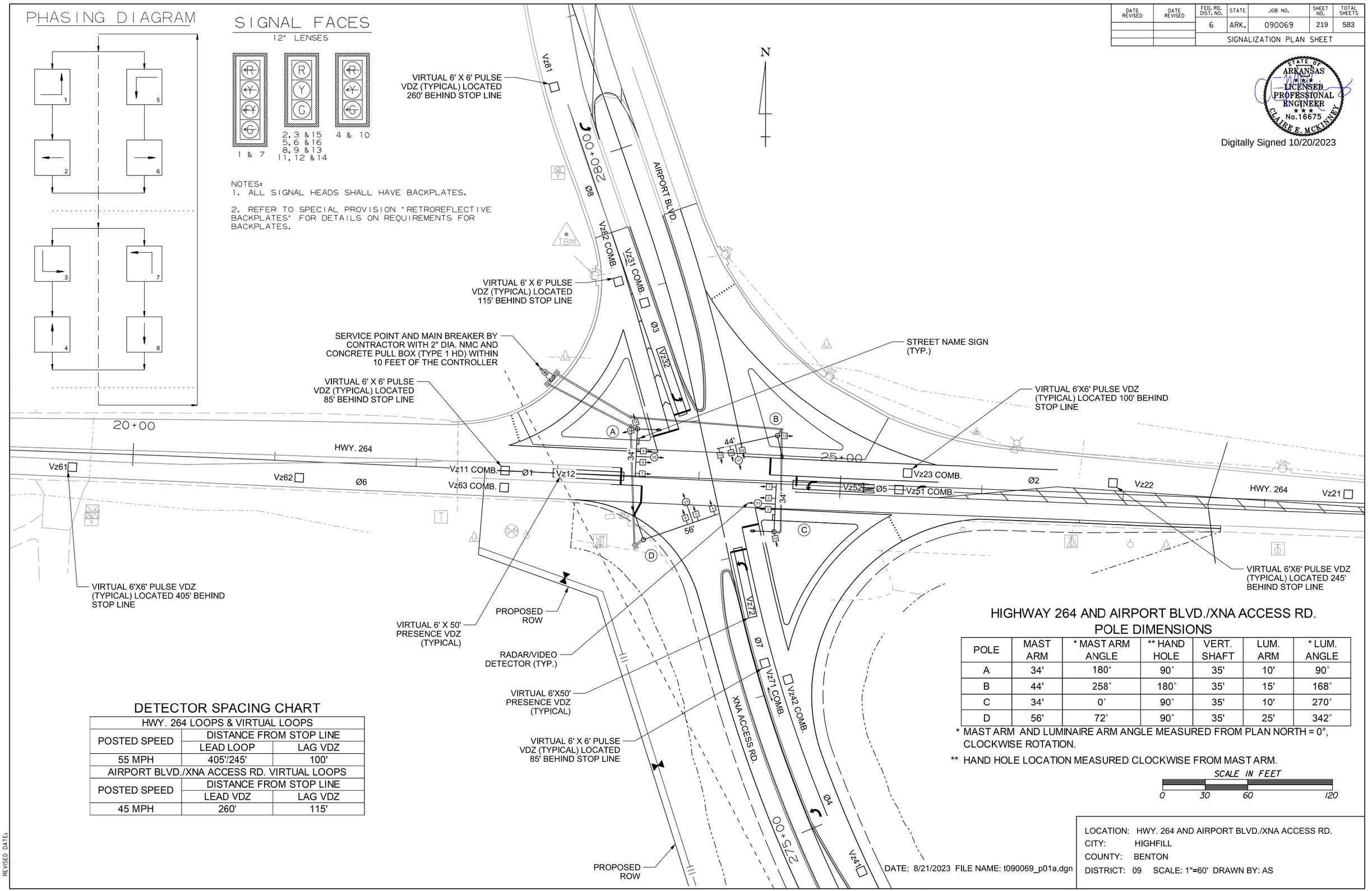

## SIGNAL FACES

12" LENSES




1 & 7 | 2,3 &15 5,6 &16 8,9 &13 11,12 &14 | 4 & 10

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.




## DETECTOR SPACING CHART

| HWY. 264 LOOPS & VIRTUAL LOOPS | | |
|---|---|---|
| POSTED SPEED | DISTANCE FROM STOP LINE | |
| | LEAD LOOP | LAG VDZ |
| 55 MPH | 405'/245' | 100' |
| AIRPORT BLVD./XNA ACCESS RD. VIRTUAL LOOPS | | |
| POSTED SPEED | DISTANCE FROM STOP LINE | |
| | LEAD VDZ | LAG VDZ |
| 45 MPH | 260' | 115' |

## HIGHWAY 264 AND AIRPORT BLVD./XNA ACCESS RD.
## POLE DIMENSIONS

| POLE | MAST ARM | * MAST ARM ANGLE | ** HAND HOLE | VERT. SHAFT | LUM. ARM | * LUM. ANGLE |
|---|---|---|---|---|---|---|
| A | 34' | 180° | 90° | 35' | 10' | 90° |
| B | 44' | 258° | 180° | 35' | 15' | 168° |
| C | 34' | 0° | 90° | 35' | 10' | 270° |
| D | 56' | 72° | 90° | 35' | 25' | 342° |

* MAST ARM AND LUMINAIRE ARM ANGLE MEASURED FROM PLAN NORTH = 0°, CLOCKWISE ROTATION.

** HAND HOLE LOCATION MEASURED CLOCKWISE FROM MAST ARM.

SCALE IN FEET
0 30 60 120

DATE: 8/21/2023 FILE NAME: t090069_p01a.dgn

LOCATION: HWY. 264 AND AIRPORT BLVD./XNA ACCESS RD.
CITY: HIGHFILL
COUNTY: BENTON
DISTRICT: 09 SCALE: 1"=60' DRAWN BY: AS

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# HIGHWAY. 264 AND AIRPORT BLVD./XNA ACCESS RD.

## POLE LOCATIONS

| POLE | LOCATION & STATION | OFFSET | X, Y COORDINATES |
|---|---|---|---|
| A | HWY. 264 - STA. 23+55.00 | 34.00' LT. | 636405.63, 708253.34 |
| B | HWY. 264 - STA. 24+54.00 | 34.00' LT. | 636504.52, 708248.56 |
| C | HWY. 264 - STA. 24+55.00 | 34.00' RT. | 636502.03, 708180.61 |
| D | HWY. 264 - STA. 23+63.00 | 44.00' RT. | 636409.85, 708175.04 |

TOP OF POLE FOUNDATION ELEVATION SHALL BE THREE (3) INCHES ABOVE THE FINISHED SURFACE ELEVATION AT THE LOCATIONS SHOWN ABOVE.

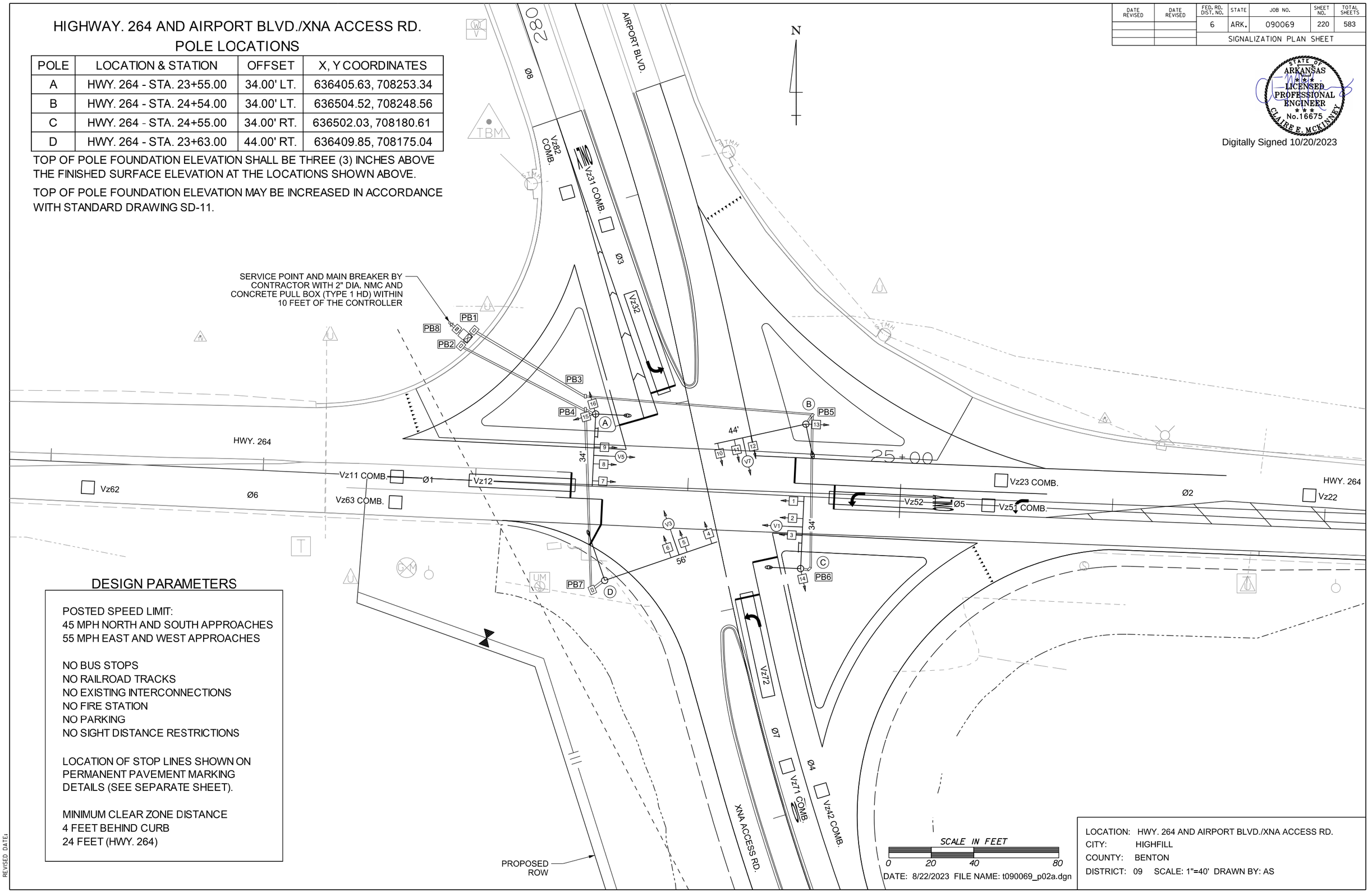
TOP OF POLE FOUNDATION ELEVATION MAY BE INCREASED IN ACCORDANCE WITH STANDARD DRAWING SD-11.

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 220 | 583 |
| | | SIGNALIZATION PLAN SHEET | | | | |

STATE OF ARKANSAS
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SERVICE POINT AND MAIN BREAKER BY CONTRACTOR WITH 2" DIA. NMC AND CONCRETE PULL BOX (TYPE 1 HD) WITHIN 10 FEET OF THE CONTROLLER




## DESIGN PARAMETERS

POSTED SPEED LIMIT:
45 MPH NORTH AND SOUTH APPROACHES
55 MPH EAST AND WEST APPROACHES

NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON PERMANENT PAVEMENT MARKING DETAILS (SEE SEPARATE SHEET).

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB
24 FEET (HWY. 264)

SCALE IN FEET
0 20 40 80

DATE: 8/22/2023 FILE NAME: t090069_p02a.dgn

LOCATION: HWY. 264 AND AIRPORT BLVD./XNA ACCESS RD.
CITY: HIGHFILL
COUNTY: BENTON
DISTRICT: 09 SCALE: 1"=40' DRAWN BY: AS


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# HIGHWAY 264 AND AIRPORT BLVD./XNA ACCESS RD.
## PULL BOX LOCATIONS

| PULL BOX | TYPE | LOCATION & STATION | * OFFSET | * X, Y COORDINATES |
|---|---|---|---|---|
| PB1 | 2 HD | HWY. 264 - STA. 22+96.00 | 70.47' LT. | 636348.45, 708292.68 |
| PB2 | 2 HD | HWY. 264 - STA. 22+90.15 | 62.89' LT. | 636342.25, 708285.32 |
| PB3 | 2 | HWY. 264 - STA. 23+49.76 | 42.10' LT. | 636400.79,708261.68 |
| PB4 | 2 | HWY. 264 - STA. 23+50.06 | 35.94' LT. | 636400.79, 708255.51 |
| PB5 | 2 | HWY. 264 - STA. 24+56.84 | 38.28' LT. | 636507.55, 708252.71 |
| PB6 | 2 | HWY. 264 - STA. 24+58.91 | 33.90' RT. | 636506.15, 708180.51 |
| PB7 | 2 HD | HWY. 264 - STA. 23+57.41 | 48.76' RT. | 636404.04, 708170.55 |
| PB8 | 1 HD | HWY. 264 - STA. 22+87.81 | 70.72' LT. | 636340.29, 708293.25 |

* CENTER OF PULL BOX

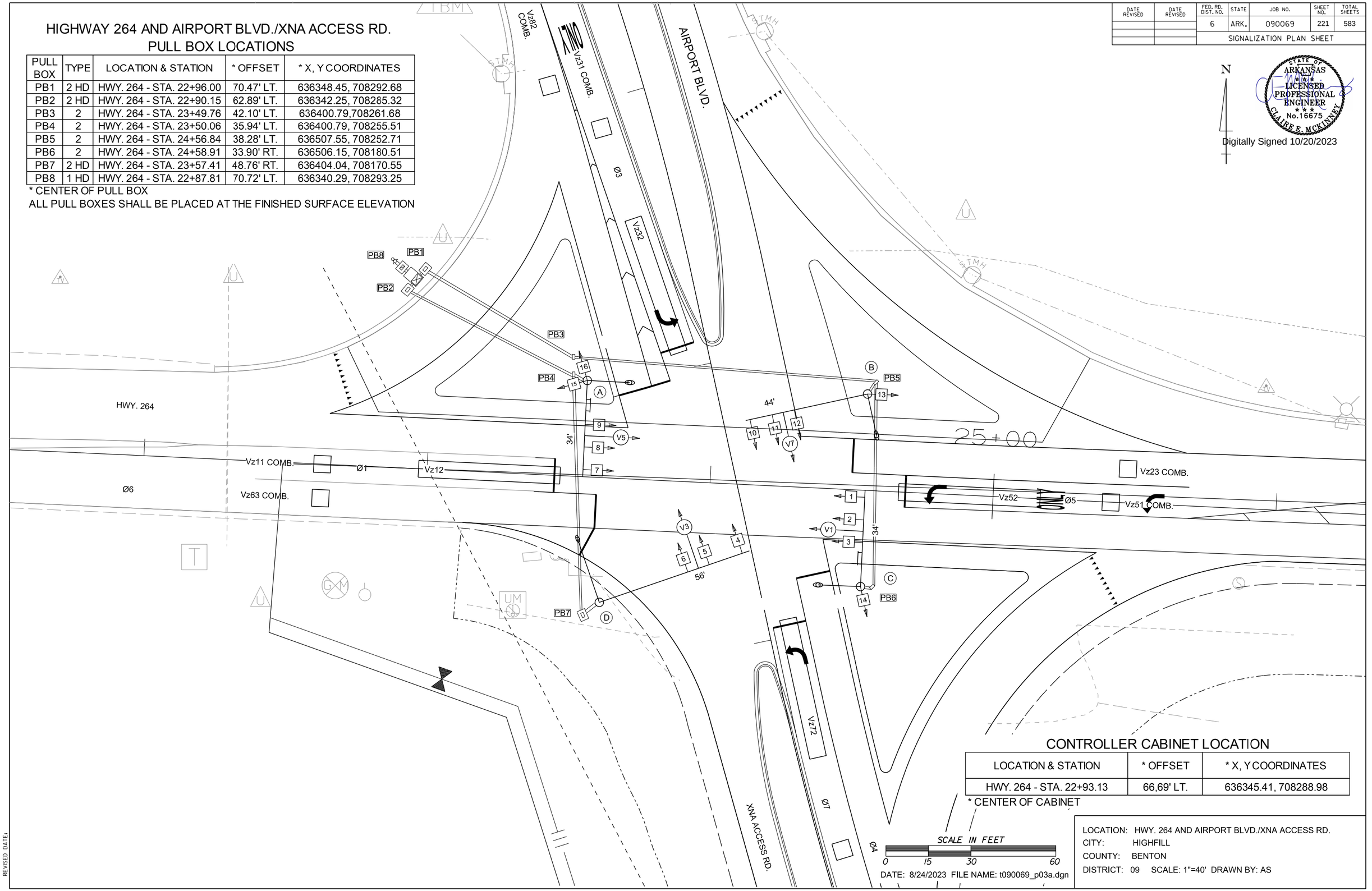
ALL PULL BOXES SHALL BE PLACED AT THE FINISHED SURFACE ELEVATION

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 221 | 583 |
| | | SIGNALIZATION PLAN SHEET | | | | |

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## CONTROLLER CABINET LOCATION

| LOCATION & STATION | * OFFSET | * X, Y COORDINATES |
|---|---|---|
| HWY. 264 - STA. 22+93.13 | 66,69' LT. | 636345.41, 708288.98 |

* CENTER OF CABINET

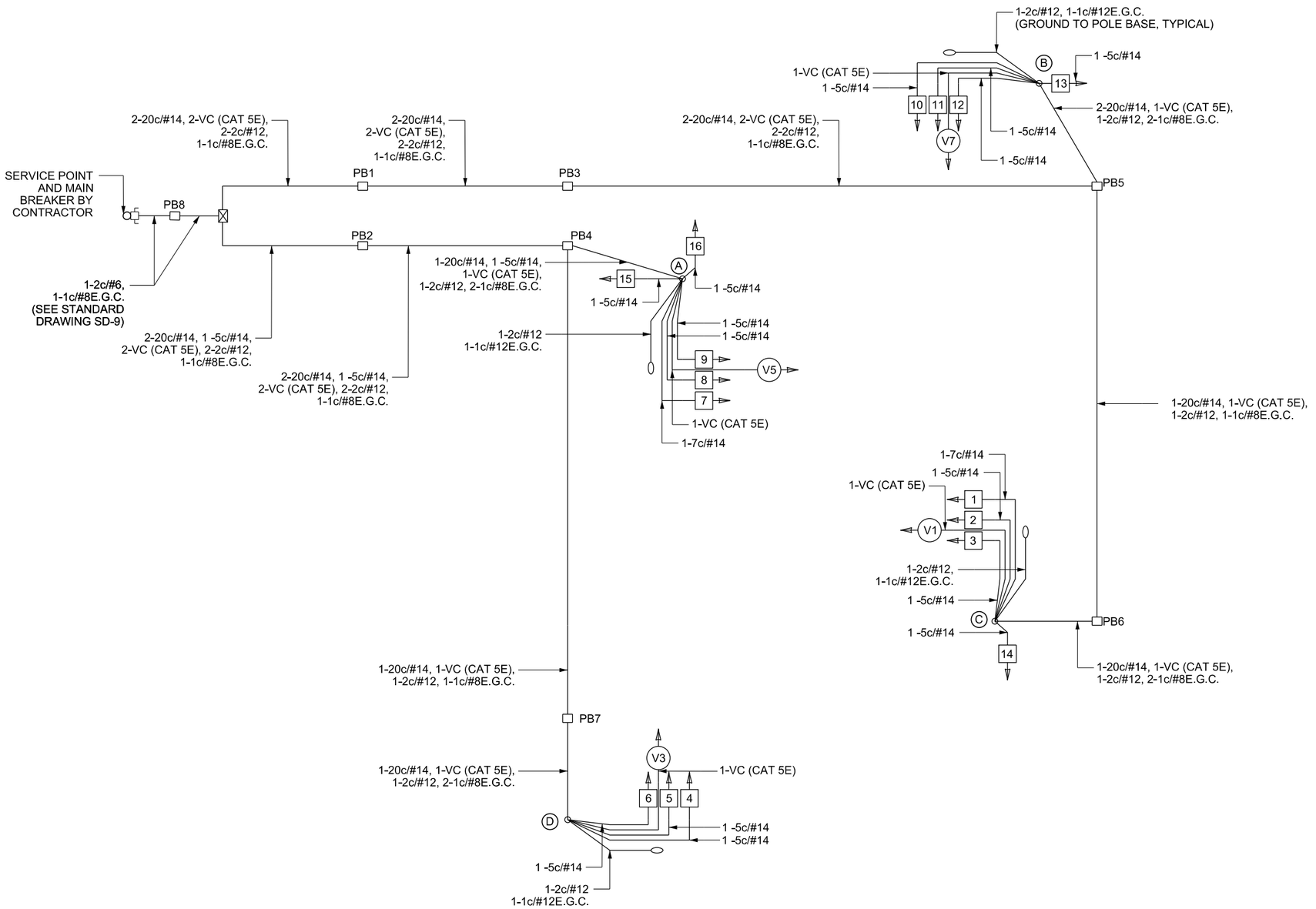
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LOCATION: HWY. 264 AND AIRPORT BLVD./XNA ACCESS RD.
CITY: HIGHFILL
COUNTY: BENTON
DISTRICT: 09 SCALE: 1"=40' DRAWN BY: AS

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 222 | 583 |
| | | SIGNALIZATION PLAN SHEET | | | | |

# WIRING DIAGRAM




NOTES TO CONTRACTOR:

1. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.
2. SEE GROUNDING ARRAY DETAIL ON SHEET 218.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

Digitally Signed 10/20/2023

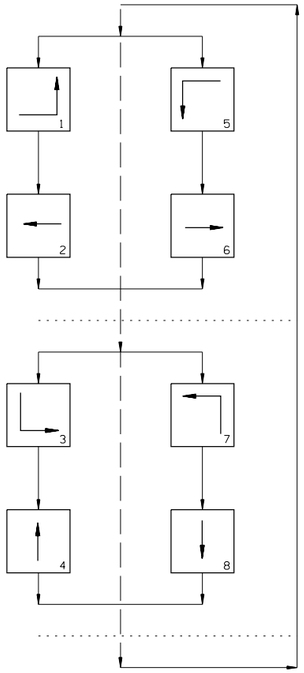
DATE: 8/24/2023 FILE NAME: t090069_p04a.dgn

LOCATION: HWY. 264 AND AIRPORT BLVD./XNA ACCESS RD.
CITY: HIGHFILL
COUNTY: BENTON
DISTRICT: 09 SCALE: N/A DRAWN BY: AS

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WORKSPACE: AHTD
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REVISED DATE:

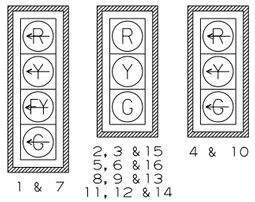
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 223 | 583 |
| | | SIGNALIZATION PLAN SHEET | | | | |

## PHASING DIAGRAM




## SIGNAL FACES

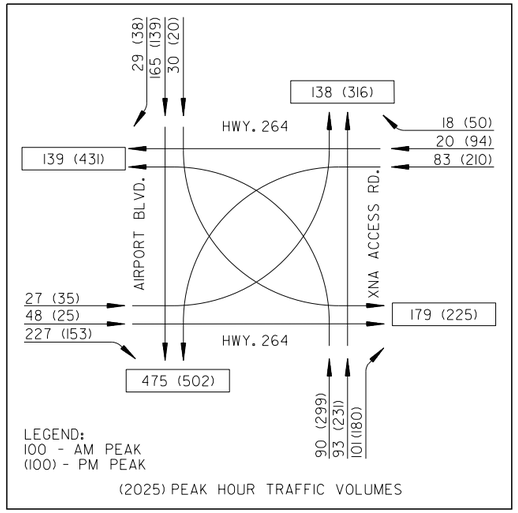
12" LENSES




NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.

2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.

## TRAFFIC FLOW DIAGRAM




STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

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## DETECTOR CHART

| DETECTOR SYSTEM DESCRIPTION: JOB 090069 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HWY. 264 AND AIRPORT BLVD./XNA ACCESS RD. DETECTOR ASSIGNMENTS | | | | HARDWARE INPUTS BY SUPPLIER | | | PROGRAM ASSIGNMENTS | | | COMMENTS | TUBE LENGTHS |
| | | | | | | | LOCAL | | MASTER SYSTEM | | |
| DET. ID # | LOCATION DIRECTION | TYPE | DET. # | CAB. TRM. # | AMP CHN. # | CON. IMP. # | PHS | SYSTEM DET. # | DETECTOR NUMBERS | | |
| Vz11 | EB LEFT TURN FAR | COMB. | | | | V9 | 1 | 1 | | V1 | 23" |
| Vz12 | EB LEFT TURN | LOCAL | | | | V1 | 1 | | | V1 | 23" |
| | | | | | | | | | | | |
| Vz21 | WB ADVANCE | LOCAL | | | | V2 | 2 | | | V5 | 23" |
| Vz22 | WB INTERMEDIATE | LOCAL | | | | 17 | 2 | | | V5 | 23" |
| Vz23 | WB NEAR | COMB. | | | | V10 | 2 | 2 | | V5 | 23" |
| | | | | | | | | | | | |
| Vz31 | SB LEFT TURN FAR | COMB. | | | | V11 | 3 | 3 | | V3 | 23" |
| Vz32 | SB LEFT TURN | LOCAL | | | | V3 | 3 | | | V3 | 23" |
| | | | | | | | | | | | |
| Vz41 | NB ADVANCE | LOCAL | | | | V4 | 4 | | | V7 | 23" |
| Vz42 | NB NEAR | COMB. | | | | V12 | 4 | 4 | | V7 | 23" |
| | | | | | | | | | | | |
| Vz51 | WB LEFT TURN FAR | COMB. | | | | V13 | 5 | 5 | | V5 | 23" |
| Vz52 | WB LEFT TURN | LOCAL | | | | V5 | 5 | | | V5 | 23" |
| | | | | | | | | | | | |
| Vz61 | EB ADVANCE | LOCAL | | | | V6 | 6 | | | V1 | 23" |
| Vz62 | EB INTERMEDIATE | LOCAL | | | | 18 | 6 | | | V1 | 23" |
| Vz63 | EB NEAR | COMB. | | | | V14 | 6 | 6 | | V1 | 23" |
| | | | | | | | | | | | |
| Vz71 | NB LEFT TURN FAR | COMB. | | | | V15 | 7 | 7 | | V7 | 23" |
| Vz72 | NB LEFT TURN | LOCAL | | | | V7 | 7 | | | V7 | 23" |
| | | | | | | | | | | | |
| Vz81 | SB ADVANCE | LOCAL | | | | V8 | 8 | | | V3 | 23" |
| Vz82 | SB NEAR | COMB. | | | | V16 | 8 | 8 | | V3 | 23" |
| | | | | | SPARE: | | | | | | |

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION.
THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

## INTERVAL CHART

| SIGNAL FACES | HWY. 264 AND AIRPORT BLVD./XNA ACCESS RD. | | | | | | | | | | | | | | FLASH SEQUENCE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1+5 | CLR. | 1+6 | CLR. | 2+5 | CLR. | 2+6 | CLR. | 3+8 | CLR. | 4+7 | CLR. | 4+8 | CLR. | |
| 1 | ~~<G~~ | * | ~~<G~~ | * | ~~<FY~~ | *** | ~~<FY~~ | *** | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ |
| 2, 3, & 15 | R | R | G | ** | R | R | G | ** | R | R | R | R | R | R | R |
| 4 | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<G~~ | ~~<Y~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ |
| 5, 6, & 16 | R | R | R | R | R | R | R | R | G | ** | R | R | G | ** | R |
| 7 | ~~<G~~ | * | ~~<FY~~ | *** | ~~<G~~ | * | ~~<FY~~ | *** | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ |
| 8, 9, & 13 | R | R | R | R | G | ** | G | ** | R | R | R | R | R | R | R |
| 10 | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ | ~~<G~~ | ~~<Y~~ | ~~<R~~ | ~~<R~~ | ~~<R~~ |
| 11, 12, & 14 | R | R | R | R | R | R | R | R | R | R | G | ** | G | ** | R |

* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE
*** DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

DATE: 8/22/2023 FILE NAME: t090069_p04a.dgn

LOCATION: HWY. 264 AND AIRPORT BLVD./ XNA ACCESS RD.
CITY: HIGHFILL
COUNTY: BENTON
DISTRICT: 09 SCALE: N/A DRAWN BY: AS

$$USER$$ $$DATE$$ $$TIME$$
WORKSPACE: $$WORKSPACE$$
$$FILE$$
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 224 | 583 |
| | | SIGN QUANTITY SHEET | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY
Digitally Signed 10/20/2023

## STANDARD SIGN QUANTITIES (BOX 1 of 2)

| SIGN NO./LOCATION | STANDARD ROADSIDE SIGNS TO BE MOUNTED | OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS | | | | |
|---|---|---|---|---|---|---|
| | | G-1 | G-2 | G2-1 | G2-2 | G2-3 |
| | | EACH | EACH | EACH | EACH | EACH |
| SS-RMP3-04-STA434+00NB | W4-3R | | | 1 | | |
| SS-XNA-04-STA109+00NB(L) | R2-1 (75 MPH) | | | 1 | | |
| SS-XNA-04-STA109+00NB(R) | R2-1 (75 MPH) | | | 1 | | |
| SS-XNA-04-STA136+00NB | W8-13 | | | 1 | | |
| SS-XNA-04-STA142+60NB | OM3-R | 1 | | | | |
| SS-XNA-04-STA142+75NB | OM3-L | 1 | | | | |
| SS-XNA-04-STA145+55SB | OM3-L | 1 | | | | |
| SS-XNA-04-STA145+70SB | OM3-R | 1 | | | | |
| SS-XNA-04-STA152+00SB | W8-13 | | | 1 | | |
| SS-XNA-04-STA152+00NB | W8-13 | | | 1 | | |
| SS-XNA-04-STA157+85NB(L) | OM3-L | 1 | | | | |
| SS-XNA-04-STA157+85NB(R) | OM3-R | 1 | | | | |
| SS-XNA-04-STA157+75NB | I-3 | 1 | | | | |
| SS-XNA-04-STA168+55SB | I-3 | 1 | | | | |
| SS-XNA-04-STA168+50SB(L) | OM3-L | 1 | | | | |
| SS-XNA-04-STA168+50SB(R) | OM3-R | 1 | | | | |
| SS-XNA-04-STA170+50NB | W8-13 | | | 1 | | |
| SS-XNA-04-STA174+00SB | W8-13 | | | 1 | | |
| SS-XNA-04-STA175+80SB | OM3-L | 1 | | | | |
| SS-XNA-04-STA176+05NB | OM3-R | 1 | | | | |
| SS-XNA-04-STA176+00NB | I-3 | | | 1 | | |
| SS-XNA-04-STA181+50SB | I-3 | | | 1 | | |
| SS-XNA-04-STA181+45SB | OM3-R | 1 | | | | |
| SS-XNA-04-STA181+70SB | OM3-L | 1 | | | | |
| SS-XNA-04-STA185+50NB | W8-13 | | | 1 | | |
| SS-XNA-04-STA188+00SB | W8-13 | | | 1 | | |
| SS-XNA-04-STA191+40NB | OM3-L | 1 | | | | |
| SS-XNA-04-STA191+65NB | OM3-R | 1 | | | | |
| SS-XNA-04-STA193+15SB | OM3-R | 1 | | | | |
| SS-XNA-04-STA193+40SB | OM3-L | 1 | | | | |
| SS-XNA-04-STA199+00SB | W8-13 | | | 1 | | |
| SS-XNA-04-STA199+50NB | W19-2 | | | 1 | | |
| SS-XNA-04-STA204+50NB | W8-13 | | | 1 | | |
| SS-XNA-04-STA210+00NB(L) | W9-1L | | | 1 | | |
| SS-XNA-04-STA210+00NB(R) | W9-1L | | | 1 | | |
| SS-XNA-04-STA210+30NB | OM3-R | 1 | | | | |
| SS-XNA-04-STA210+75NB | OM3-L | 1 | | | | |
| SS-XNA-04-STA214+40SB | OM3-L | 1 | | | | |
| SS-XNA-04-STA214+50NB(L) | W3-5 | | | 1 | | |
| SS-XNA-04-STA214+50NB(R) | W3-5 | | | 1 | | |
| SS-XNA-04-STA214+90SB | OM3-R | 1 | | | | |
| SS-XNA-04-STA219+00NB(L) | W4-2L | | | 1 | | |
| SS-XNA-04-STA219+00NB(R) | W4-2L | | | 1 | | |
| SS-XNA-04-STA221+00SB | W8-13 | | | 1 | | |
| SS-XNA-04-STA226+50SB(L) | R2-1 (75 MPH) | | | 1 | | |
| SS-XNA-04-STA226+50SB(R) | R2-1 (75 MPH) | | | 1 | | |
| SS-XNA-04-STA226+50NB(L) | R2-1 (55 MPH) | | | 1 | | |
| SS-XNA-04-STA226+50NB(R) | R2-1 (55 MPH) | | | 1 | | |
| SS-MAL-04-STA19+00EB | W8-13 | 1 | | | | |
| SS-MAL-04-STA22+30EB | OM3-L | 1 | | | | |
| SS-MAL-04-STA22+30EB | OM3-R | 1 | | | | |
| SS-MAL-04-STA24+55WB | OM3-R | 1 | | | | |
| SS-MAL-04-STA24+55WB | OM3-L | 1 | | | | |
| SS-MAL-04-STA28+00WB | W8-13 | 1 | | | | |
| SS-XNA-04-STA243+00SB | R4-7 | 1 | | | | |
| SS-XNA-04-STA248+00NB | W6-3, R5-1 | | | 1 | | |
| SS-RMP4-04-STA252+00EB | W6-1 | | | 1 | | |
| SS-AB-04-STA267+00SB | R2-1 (55 MPH) | | | 1 | | |
| SS-AB-04-STA267+00NB | M2-1, M1-5 | 1 | | | | |
| SS-AB-04-STA270+00NB | W3-3 | | | 1 | | |
| SS-AB-04-STA272+00NB | R4-7 | 1 | | | | |
| SS-AB-04-STA273+00NB | D1-1 | | 1 | | | |
| SS-AB-04-STA274+50NB | M3-4, M1-5, M5-1L ; M3-2, M1-5, M6-2R | | | 1 | | |
| SS-AB-04-STA278+90NB | R1-2, R5-1 | | | | | 1 |
| SS-AB-04-STA280+20SB | R4-7 | 1 | | | | |
| SS-AB-04-STA280+5SB | M4-5,M1-1,M6-3<br>M3-2, M1-5, M5-1L ; M3-4, M1-5, M6-2R | | | 1 | | |
| SS-AB-04-STA284+00SB | W3-3 | | | 1 | | |
| SS-264-04-STA21+00EB | D1-1 | | 1 | | | |
| **SUBTOTALS** | | 32 | 2 | 33 | 0 | 1 |

## STANDARD SIGN QUANTITIES (BOX 2 of 2)

| SIGN NO./LOCATION | STANDARD ROADSIDE SIGNS TO BE MOUNTED | OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS | | | | |
|---|---|---|---|---|---|---|
| | | G-1 | G-2 | G2-1 | G2-2 | G2-3 |
| | | EACH | EACH | EACH | EACH | EACH |
| SS-264-04-STA22+65WB | R1-2, R5-1 | | | | | 1 |
| SS-264-04-STA25+50EB | R1-2, R5-1 | | | | | 1 |
| SS-264-04-STA27+00WB | D1-1 | | 1 | | | |
| SS-RMP1-04-STA468+00WB | W8-13 | | | 1 | | |
| SS-RMP1-04-STA470+40WB | OM3-L | 1 | | | | |
| SS-RMP1-04-STA470+40WB | OM3-R | 1 | | | | |
| SS-RMP1-04-STA476+50WB | W4-3 | | | 1 | | |
| SS-RMP2-04-STA424+90EB | E5-1 | | | 1 | | |
| SS-RMP2-04-STA426+00EB | W8-13 | | | 1 | | |
| SS-RMP2-04-STA428+00EB | W1-2L, W13-1P | | | | 1 | |
| SS-RMP2-04-STA428+50EB | OM3-L | 1 | | | | |
| SS-RMP2-04-STA428+60EB | OM3-R | 1 | | | | |
| SS-RMP2-04-STA431+50EB | W1-8L | 1 | | | | |
| SS-RMP2-04-STA432+50EB | W1-8L | 1 | | | | |
| SS-RMP2-04-STA433+50EB | W1-8L | 1 | | | | |
| SS-612-04-STA436+00WB | W4-1R | | | 1 | | |
| SS-612-04-STA439+00EB | W13-2 | | | 1 | | |
| SS-RMP2-04-STA434+50EB | W1-8L | 1 | | | | |
| SS-RMP2-04-STA435+50EB | W1-8L | 1 | | | | |
| SS-RMP2-04-STA436+50EB | W1-8L | 1 | | | | |
| SS-RMP2-04-STA437+50EB | W1-8L | 1 | | | | |
| SS-RMP2-04-STA438+50EB | W1-8L | 1 | | | | |
| SS-RMP2-04-STA439+50EB | W1-8L | 1 | | | | |
| SS-RMP2-04-STA440+50EB | W1-8L | 1 | | | | |
| SS-RMP2-04-STA441+50EB | W1-8L | 1 | | | | |
| SS-RMP2-04-STA442+50EB | W1-8L | 1 | | | | |
| SS-RMP2-04-STA443+50EB | W1-8L | 1 | | | | |
| SS-RMP2-04-STA444+50EB | W1-8L | 1 | | | | |
| SS-RMP2-04-STA445+50EB | W1-8L | 1 | | | | |
| SS-RMP2-04-STA446+50EB | W1-8L | 1 | | | | |
| SS-RMP2-04-STA447+50EB | W1-8L | 1 | | | | |
| SS-RMP1-04-STA456+00WB | W1-8R | 1 | | | | |
| SS-RMP1-04-STA457+00WB | W1-8R | 1 | | | | |
| SS-RMP1-04-STA458+00WB | W1-8R | 1 | | | | |
| SS-RMP1-04-STA459+00WB | W1-8R | 1 | | | | |
| SS-RMP1-04-STA460+00WB | W1-8R | 1 | | | | |
| SS-RMP1-04-STA461+00WB | W1-8R | 1 | | | | |
| SS-RMP1-04-STA462+00WB | W1-8R | 1 | | | | |
| SS-RMP1-04-STA463+00WB | W1-8R | 1 | | | | |
| SS-RMP1-04-STA464+00WB | W1-8R | 1 | | | | |
| SS-RMP1-04-STA465+00WB | W1-8R | 1 | | | | |
| SS-RMP1-04-STA452+00WB | W1-8R | 1 | | | | |
| SS-RMP1-04-STA453+00WB | W1-8R | 1 | | | | |
| SS-RMP1-04-STA454+00WB | W1-8R | 1 | | | | |
| SS-RMP1-04-STA455+00WB | W1-8R | 1 | | | | |
| SS-RMP4-04-STA433+00WB | W8-13 | | | 1 | | |
| SS-RMP4-04-STA428+90WB | OM3-R | 1 | | | | |
| SS-612-04-STA446+00EB | W13-7 | | | 1 | | |
| SS-612-04-STA448+15WB | E5-1 | | | 1 | | |
| SS-612-04-STA448+50EB | E5-1 | | | 1 | | |
| SS-612-04-STA456+00EB | W4-3R | | | 1 | | |
| SS-RMP1-04-STA449+00WB | W1-8R | 1 | | | | |
| SS-RMP1-04-STA450+00WB | W1-8R | 1 | | | | |
| SS-RMP1-04-STA451+00WB | W1-8R | 1 | | | | |
| SS-RMP3-04-STA450+00WB | W13-3 | | | 1 | | |
| SS-RMP2-04-STA459+00EB | W8-13 | | | 1 | | |
| SS-RMP2-04-STA461+00EB | W4-3R | | | 1 | | |
| SS-RMP2-04-STA462+70EB | OM3-R | 1 | | | | |
| | | | | | | |
| | | | | | | |
| **SUBTOTALS** | | 40 | 1 | 14 | 1 | 2 |
| **TOTALS** | | 72 | 3 | 47 | 1 | 3 |

aewierciak 10/20/2023 12:55:05 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 225 | 583 |
| | | SIGN QUANTITY SHEET | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

Digitally Signed 10/20/2023

## STANDARD ROADSIDE SIGN
## SHEET ALUMINUM 0.100" THICKNESS (5 SF OR LESS)

| SIGN NO. | SIZE OF SIGN | UNIT AREA (SQ. FT.) | QUANTITY REQUIRED | TOTAL SIGN AREA (SQ. FT.) | LEGEND/BACKGROUND |
|---|---|---|---|---|---|
| M1-1 | 24" x 24" | 4.00 | 1 | 4.00 | WHITE/BLUE |
| M1-5 | 30" x 24" | 5.00 | 5 | 25.00 | BLACK/WHITE |
| M2-1 | 21" x 15" | 2.19 | 1 | 2.19 | WHITE/BLUE |
| M3-2 | 24" x 12" | 2.00 | 2 | 4.00 | BLACK/WHITE |
| M3-4 | 24" x 12" | 2.00 | 2 | 4.00 | BLACK/WHITE |
| M4-5 | 24" x 12" | 2.00 | 1 | 2.00 | BLACK/WHITE |
| M5-1L | 21" x 15" | 2.19 | 2 | 4.38 | BLACK/WHITE |
| M6-2R | 21" x 15" | 2.19 | 1 | 2.19 | BLACK/WHITE |
| M6-3 | 21" x 15" | 2.19 | 1 | 2.19 | WHITE/BLUE |
| R4-7 | 24" x 30" | 5.00 | 2 | 10.00 | BLACK/WHITE |
| OM3-L | 12" x 36" | 3.00 | 14 | 42.00 | BLACK/YELLOW |
| OM3-R | 12" x 36" | 3.00 | 16 | 48.00 | BLACK/YELLOW |
| W1-8L | 30" x 36" | 7.50 | 17 | 127.50 | BLACK/YELLOW |
| W1-8R | 30" x 36" | 7.50 | 17 | 127.50 | BLACK/YELLOW |
| W13-1P | 24" x 24" | 4.00 | 1 | 4.00 | BLACK/YELLOW |
| **TOTAL 0.100" THICKNESS** | | | | **408.95** | |

## STANDARD ROADSIDE SIGNS
## SHEET ALUMINUM 0.125" THICKNESS (GREATER THAN 5 SF)

| SIGN NO. | SIZE OF SIGN | UNIT AREA (SQ. FT.) | QUANTITY REQUIRED | TOTAL SIGN AREA (SQ. FT.) | LEGEND/BACKGROUND |
|---|---|---|---|---|---|
| E5-1 | 72" x 60" | 30 | 3 | 90.00 | WHITE/GREEN |
| R1-2 | 48" x 48" x 48" | 6.93 | 3 | 20.79 | RED/WHITE |
| R2-1 | 30" x 36" | 7.5 | 1 | 7.50 | BLACK/WHITE |
| R2-1 | 36" x 48" | 12 | 6 | 72.00 | BLACK/WHITE |
| R4-7 | 36" x 48" | 12 | 1 | 12.00 | BLACK/WHITE |
| R5-1 | 36" x 36" | 9 | 4 | 36.00 | WHITE/RED |
| W1-2L | 48" x 48" | 16 | 1 | 16.00 | BLACK/YELLOW |
| W3-3 | 48" x 48" | 16 | 2 | 32.00 | BLACK/YELLOW |
| W3-5 | 48" x 48" | 16 | 2 | 32.00 | BLACK/YELLOW |
| W4-1R | 48" x 48" | 16 | 1 | 16.00 | BLACK/YELLOW |
| W4-2L | 48" x 48" | 16 | 2 | 32.00 | BLACK/YELLOW |
| W4-3R | 48" x 48" | 16 | 4 | 64.00 | BLACK/YELLOW |
| W6-1 | 48" x 48" | 16 | 1 | 16.00 | BLACK/YELLOW |
| W6-3 | 48" x 48" | 16 | 1 | 16.00 | BLACK/YELLOW |
| W8-13 | 36" x 36" | 9 | 2 | 18.00 | BLACK/YELLOW |
| W8-13 | 48" x 48" | 16 | 14 | 224.00 | BLACK/YELLOW |
| W9-1L | 48" x 48" | 16 | 2 | 32.00 | BLACK/YELLOW |
| W13-2 | 48" x 60" | 20 | 1 | 20.00 | BLACK/YELLOW |
| W13-3 | 48" x 60" | 20 | 2 | 40.00 | BLACK/YELLOW |
| W13-7 | 48" x 84" | 28 | 1 | 28.00 | BLACK/YELLOW |
| W19-2 | 144" x 48" | 48 | 1 | 48.00 | BLACK/YELLOW |
| D1-1 | 96" x 36" | 24 | 1 | 24.00 | WHITE/GREEN |
| D1-1 | 102" x 36" | 25.5 | 2 | 51.00 | WHITE/GREEN |
| I-3 | 48" x 24" | 8 | 2 | 16.00 | WHITE/GREEN |
| I-3 | 72" x 24" | 12 | 2 | 24.00 | WHITE/GREEN |
| **TOTAL 0.125" THICKNESS** | | | | **987.29** | |

## GUIDE SIGN - ROADSIDE MOUNTED

| SIGN NO./LOCATION | STRUCTURE TYPE | | | | BREAKAWAY SIGN SUPPORT | | | | | | | | | | EXIT NUMBER PANEL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GUIDE SIGN | | | STEEL SECT. A-572 | | SIGN POST LENGTH | | STUB POST | | FOOTINGS | | | SIGN POST AND STUB | LEGEND | TYPE |
| | TYPE | LENGTH | HEIGHT | AREA | | | H-1 | H-2 | H-1 | H-2 | DIA. | DEPTH | EMBED. | | | A |
| | G-2 | FT. | FT. | SQ. FT. | BEAM | LBS | LIN FT | | LIN FT | | LIN FT | | | POUND | | SQ. FT. |
| GM-XNA-04-STA146+50SB | 1 | 19.00 | 12.50 | 237.50 | W8 | 18 | 17.2 | 20.1 | 3.66 | 3.66 | 1.5 | 5 | 3.33 | 803.29 | | |
| GM-612-04-STA394+00EB | 1 | 14.00 | 9.50 | 133.00 | W8 | 18 | 16.75 | 18.85 | 3.66 | 3.66 | 1.5 | 5 | 3.33 | 772.69 | EXIT 8 | 17.50 |
| GM-612-04-STA436+00EB | 1 | 14.00 | 10.00 | 140.00 | W8 | 18 | 17 | 19.1 | 3.66 | 3.66 | 1.5 | 5 | 3.33 | 781.69 | EXIT 8 | 17.50 |
| GM-612-04-STA461+00WB | 1 | 14.00 | 10.00 | 140.00 | W8 | 18 | 17 | 19.1 | 3.66 | 3.66 | 1.5 | 5 | 3.33 | 781.69 | EXIT 8 | 17.50 |
| GM-612-04-STA505+00WB | 1 | 14.00 | 9.50 | 133.00 | W8 | 18 | 16.75 | 18.85 | 3.66 | 3.66 | 1.5 | 5 | 3.33 | 772.69 | EXIT 8 | 17.50 |
| **TOTALS:** | **5** | | | **783.5** | | | | | | | | | | **3912.03** | | **70.00** |



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| | | 6 | ARK. | 090069 | 226 | 583 |
| | | SIGN QUANTITY SHEET | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

Digitally Signed 10/20/2023

| GUIDE SIGN - OVERHEAD MOUNTED | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SIGN NO./ LOCATION | STRUCTURE TYPE | SIGN | | | | GUARDRAIL | | | | | |
| | | STANDARD SIGN | GUIDE SIGN LENGTH | GUIDE SIGN HEIGHT | | TYPE A | TERM. ANCHOR TYPE 1 | GUARD RAIL TERM. | AGG. BASE CR (CL. 7) | ACHM SURF. CR. 220 | |
| | OH | SQ. FT. | LIN. FT. | | SQ. FT. | LIN. FT. | EACH | EACH | TON | TON | |
| **OH-XNA-04-01** | 1 | | | | | SEE ROADWAY PLANS FOR GUARDRAIL DETAILS | | | | | |
| OH-XNA-04-STA121+00SB-A | | | 14.5 | 13 | 188.5 | | | | | | |
| OH-XNA-04-STA121+00SB-B | | | 14.5 | 13 | 188.5 | | | | | | |
| **EX-XNA-04-02** | | 20 | | | | | | | | | |
| OH-XNA-04-STA422+75SB-A | | | 14.5 | 13 | 188.5 | | | | | | |
| OH-XNA-04-STA422+75SB-B | | | 19 | 11 | 209 | | | | | | |
| **TOTALS** | **1** | **20** | | | **774.50** | | | | | | |

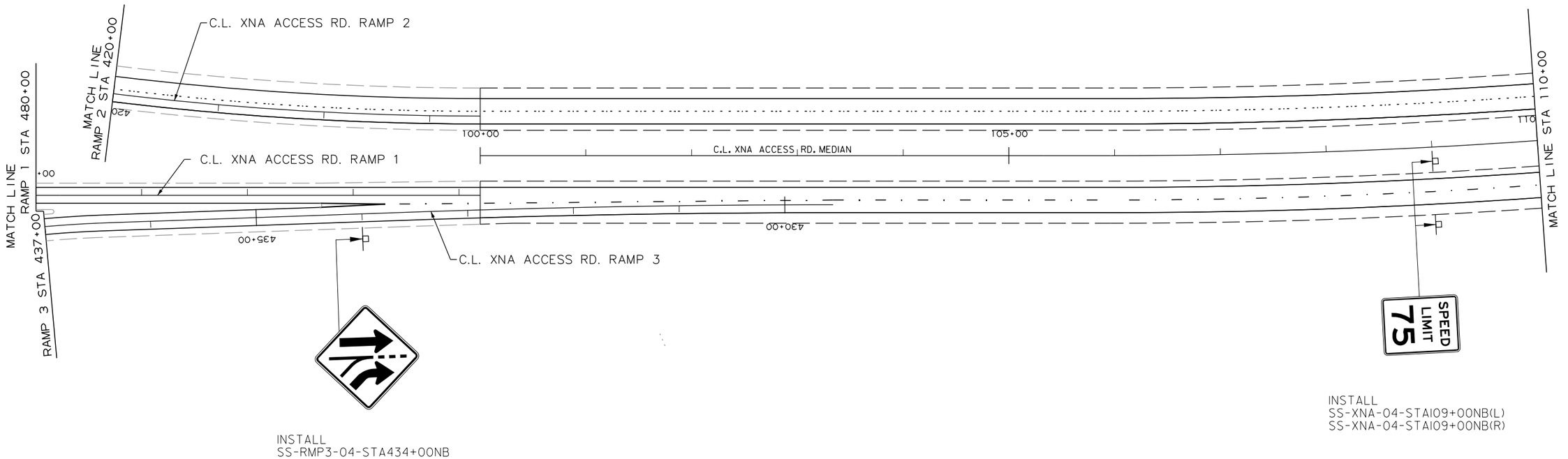
| SIGNING SUMMARY OF QUANTITIES | | | |
|---|---|---|---|
| ITEM NUMBER | ITEM | UNIT | ESTIMATED QUANTITY |
| SP | STEEL OVERHEAD SIGN STRUCTURE (OH-XNA-04-01) | EACH | 1 |
| SS & 725 | GUIDE SIGN - ROADSIDE MOUNTED (DEMOUNTABLE LEGEND) | SQ. FT. | 784 |
| SS & 725 | GUIDE SIGN - OVERHEAD MOUNTED (DEMOUNTABLE LEGEND) | SQ. FT. | 775 |
| SS & 726 | STANDARD SIGN | SQ. FT. | 1396 |
| SS & 727 | EXIT NUMBER PANEL (TYPE A) | SQ. FT. | 70 |
| SS & 730 | BREAKAWAY SIGN SUPPORT (TYPE G-2) | POUND | 3912 |
| SP | OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G-1) | EACH | 72 |
| SP | OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G-2) | EACH | 3 |
| SP | OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-1) | EACH | 47 |
| SP | OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-2) | EACH | 1 |
| SP | OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-3) | EACH | 3 |


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| | | SIGN PLACEMENT SHEET | | | | |

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INSTALL
SS-RMP3-04-STA434+00NB

INSTALL
SS-XNA-04-STA109+00NB(L)
SS-XNA-04-STA109+00NB(R)

N

SCALE IN FEET
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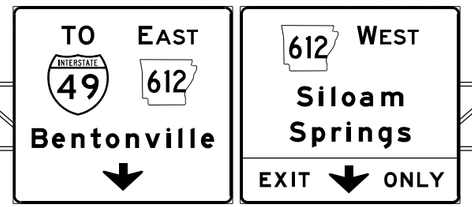
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|---|---|---|---|---|---|---|
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| | | SIGN PLACEMENT SHEET | | | | |

INSTALL
OH-XNA-04-STAI2I+00SB-A

INSTALL
OH-XNA-04-STAI2I+00SB-B



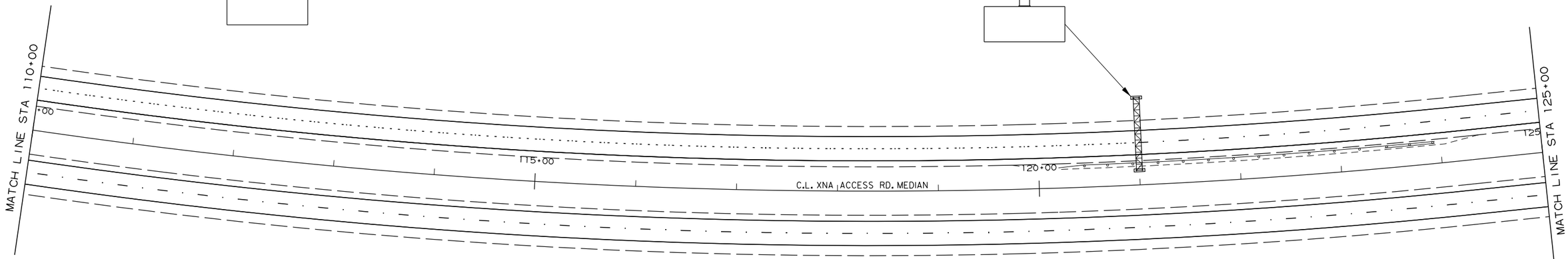


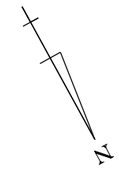


INSTALL
OH-XNA-04-01

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SCALE IN FEET

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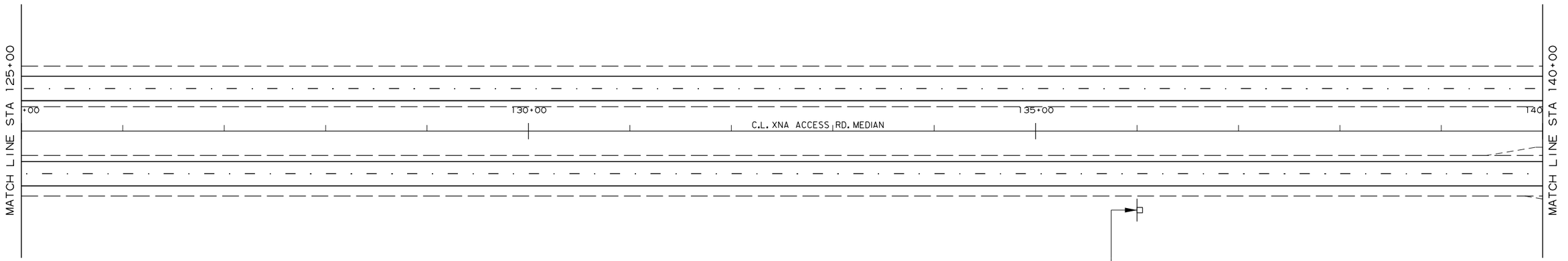
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STATE OF ARKANSAS
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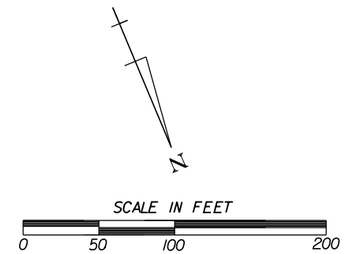
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INSTALL
SS-XNA-04-STA136+00NB



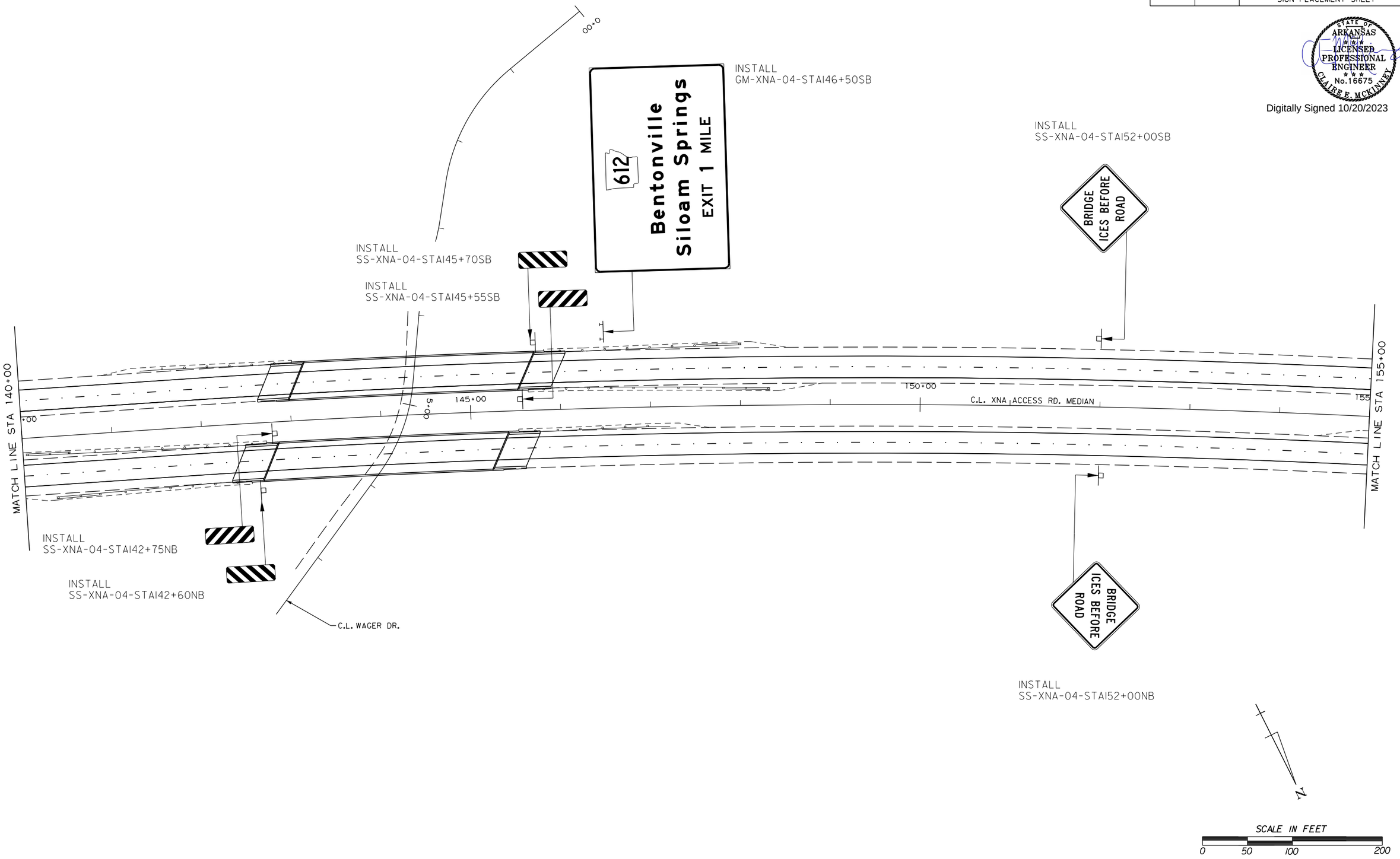

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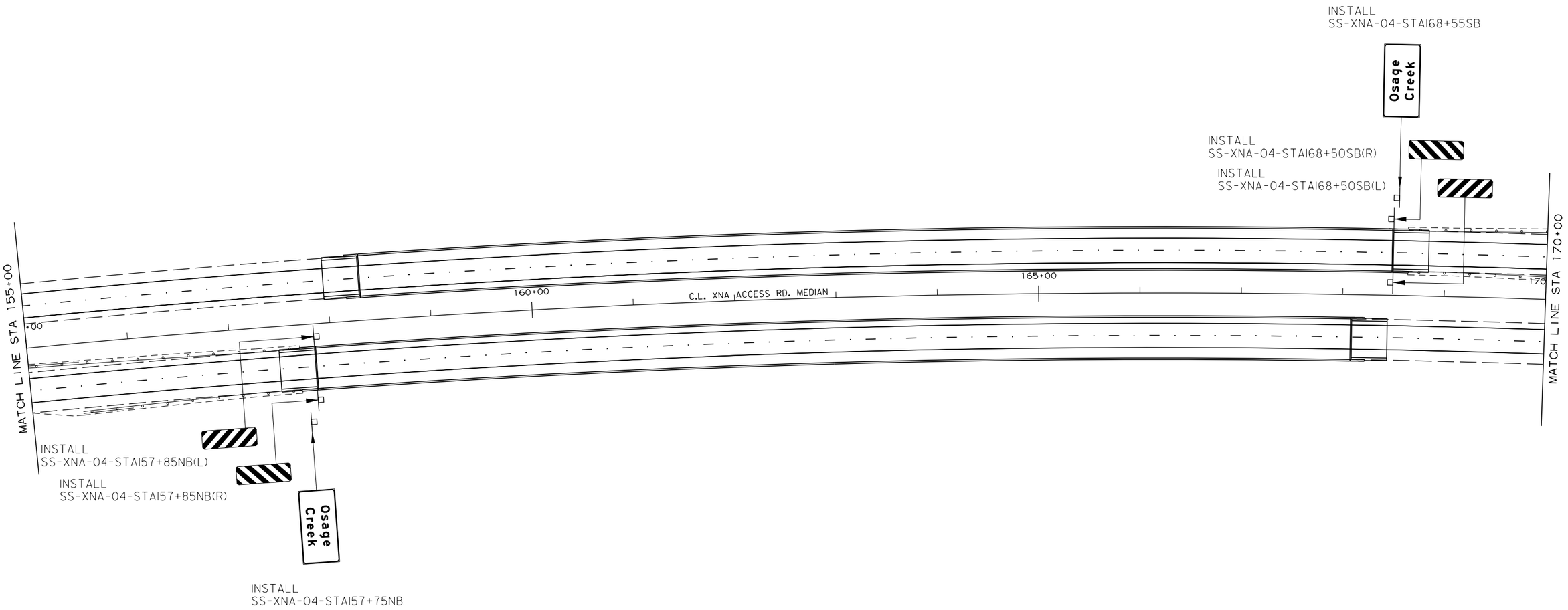

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N

SCALE IN FEET
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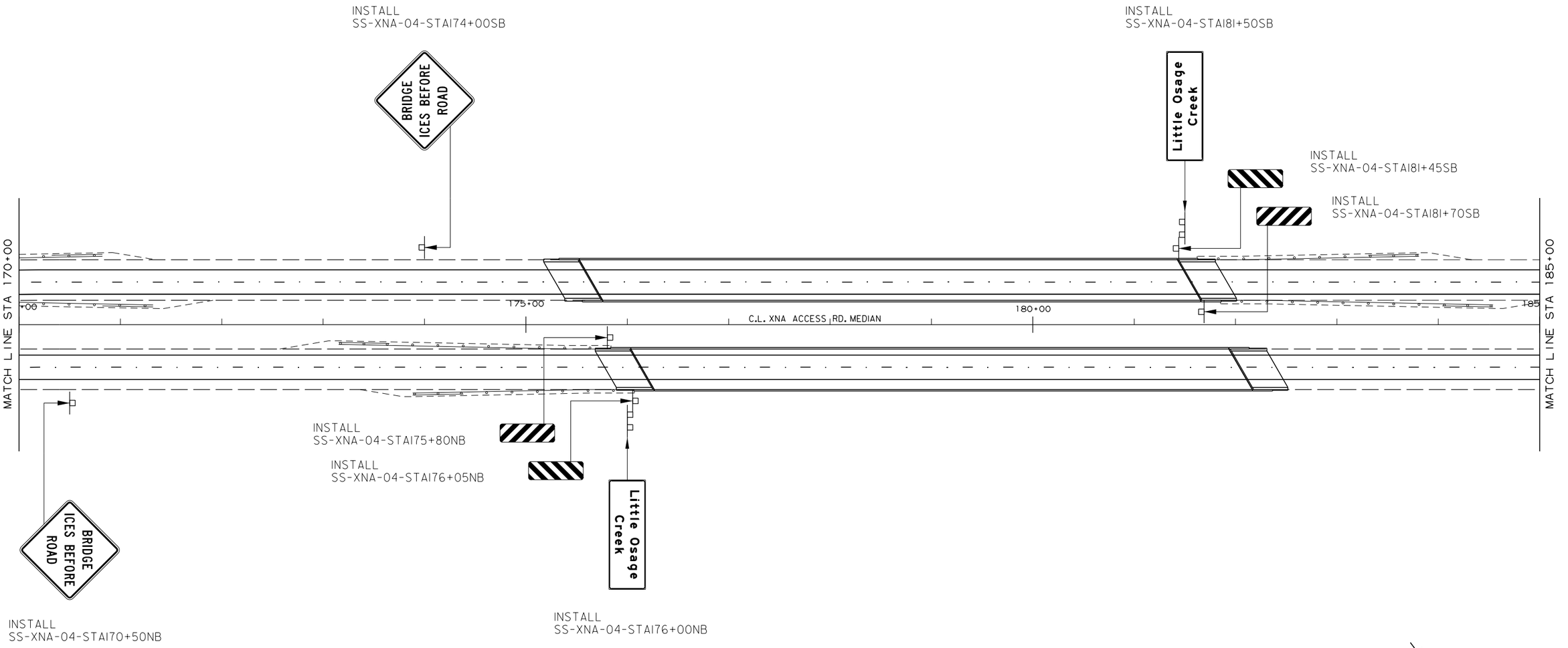
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N

SCALE IN FEET
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SIGN PLACEMENT SHEET


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| | | SIGN PLACEMENT SHEET | | | | |

STATE OF ARKANSAS
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N

INSTALL
SS-XNA-04-STAI88+00SB

INSTALL
SS-XNA-04-STAI99+00SB

BRIDGE ICES BEFORE ROAD

BRIDGE ICES BEFORE ROAD

0.00

C.L. HADEN RD.

INSTALL
SS-XNA-04-STAI93+15SB

INSTALL
SS-XNA-04-STAI93+40SB

MATCH LINE STA 185+00

+00

190+00

195+00

200

MATCH LINE STA 200+00

C.L. XNA ACCESS RD. MEDIAN

INSTALL
SS-XNA-04-STAI91+40NB

INSTALL
SS-XNA-04-STAI91+65NB

5.00

BRIDGE ICES BEFORE ROAD

INSTALL
SS-XNA-04-STAI85+50NB

INSTALL
SS-XNA-04-STAI99+50NB

EXPRESSWAY ENDS
1/2 MILE

SCALE IN FEET
0 50 100 200

SIGN PLACEMENT SHEET

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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

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N

MATCH LINE STA 200+00

200+00

205+00

210+00

C.L. XNA ACCESS RD. MEDIAN

80.02

215+00

MATCH LINE STA 215+00

INSTALL
SS-XNA-04-STA214+90SB

INSTALL
SS-XNA-04-STA214+40SB

INSTALL
SS-XNA-04-STA210+75NB

INSTALL
SS-XNA-04-STA210+30NB

BRIDGE ICES BEFORE ROAD

INSTALL
SS-XNA-04-STA204+50NB

LEFT LANE ENDS

INSTALL
SS-XNA-04-STA210+00NB(L)
SS-XNA-04-STA210+00NB(R)

SPEED LIMIT 55

INSTALL
SS-XNA-04-STA214+50NB(L)
SS-XNA-04-STA214+50NB(R)

C.L. HOLMES RD.

25.00

SCALE IN FEET
0 50 100 200

SIGN PLACEMENT SHEET

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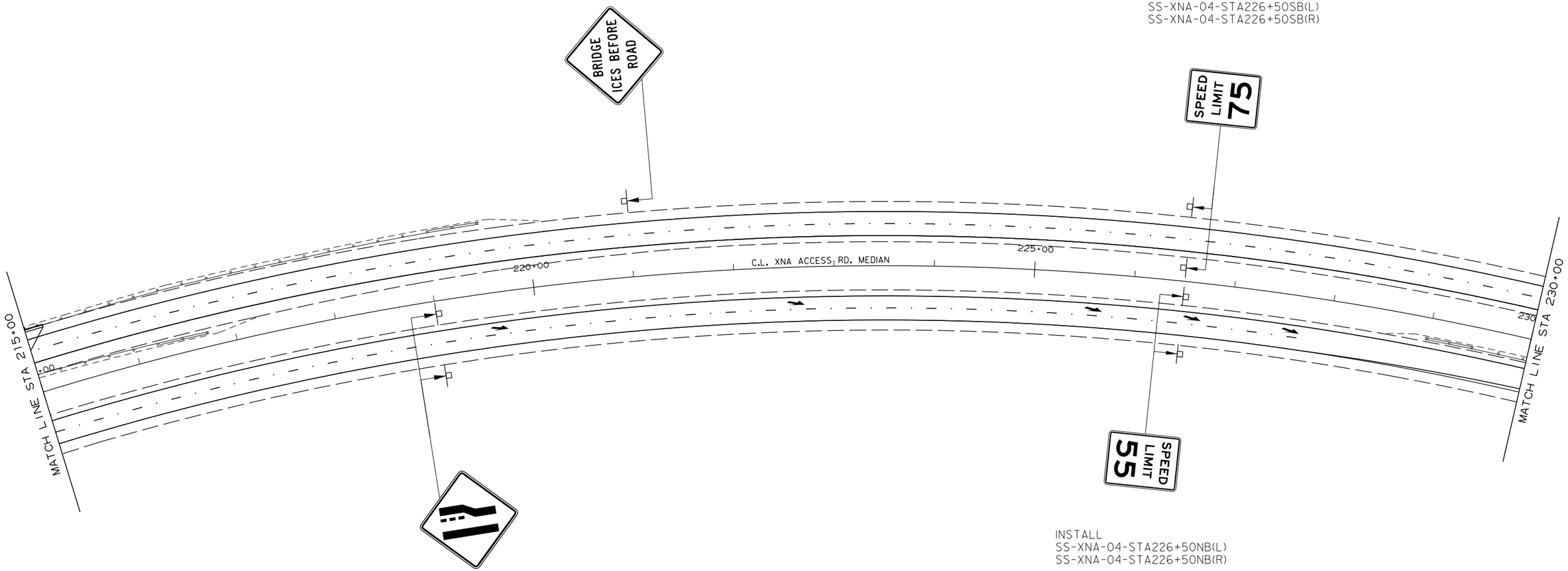
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| | | SIGN PLACEMENT SHEET | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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INSTALL
SS-XNA-04-STA221+00SB

INSTALL
SS-XNA-04-STA226+50SB(L)
SS-XNA-04-STA226+50SB(R)




INSTALL
SS-XNA-04-STA219+00NB(L)
SS-XNA-04-STA219+00NB(R)

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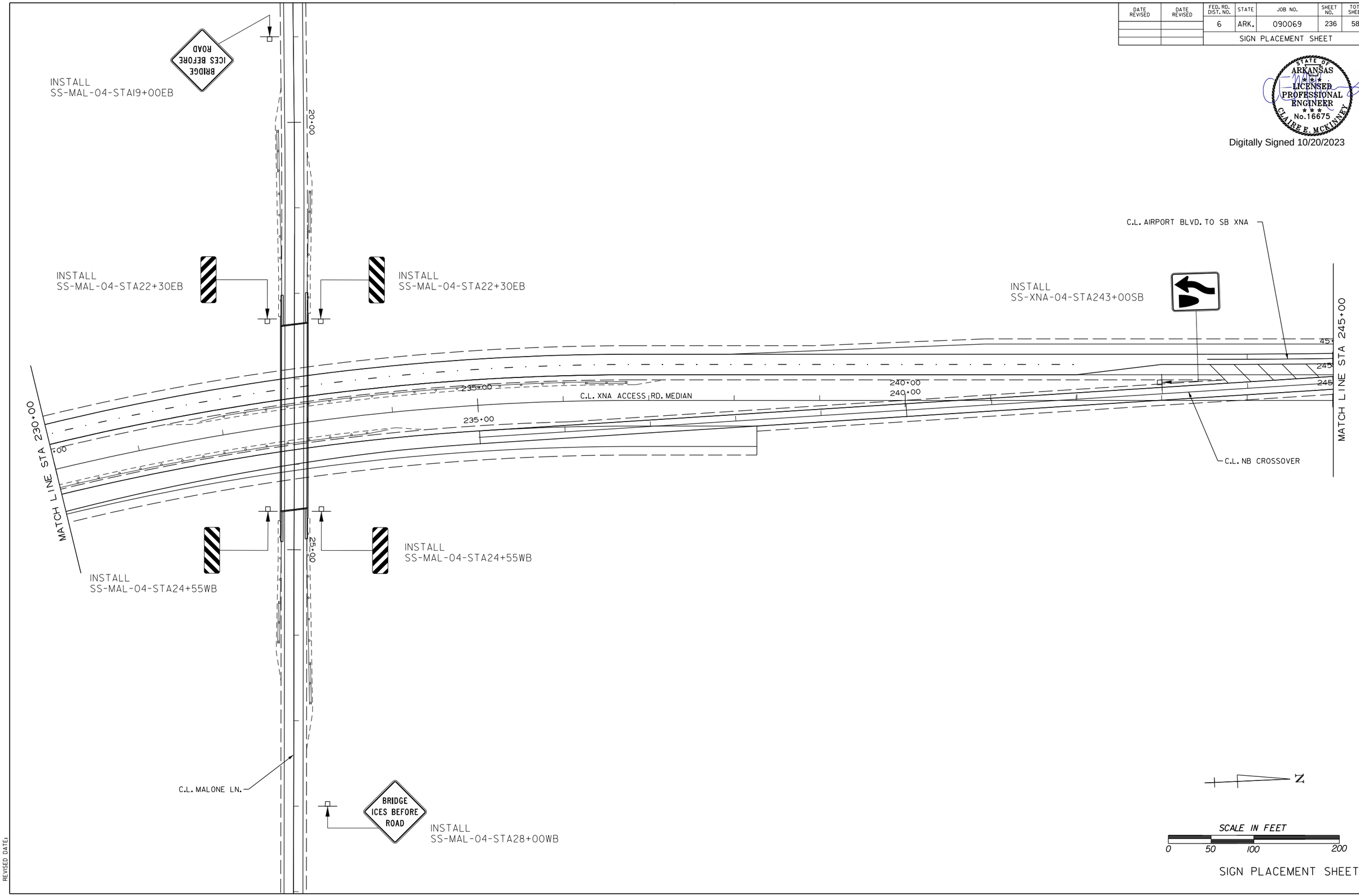
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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
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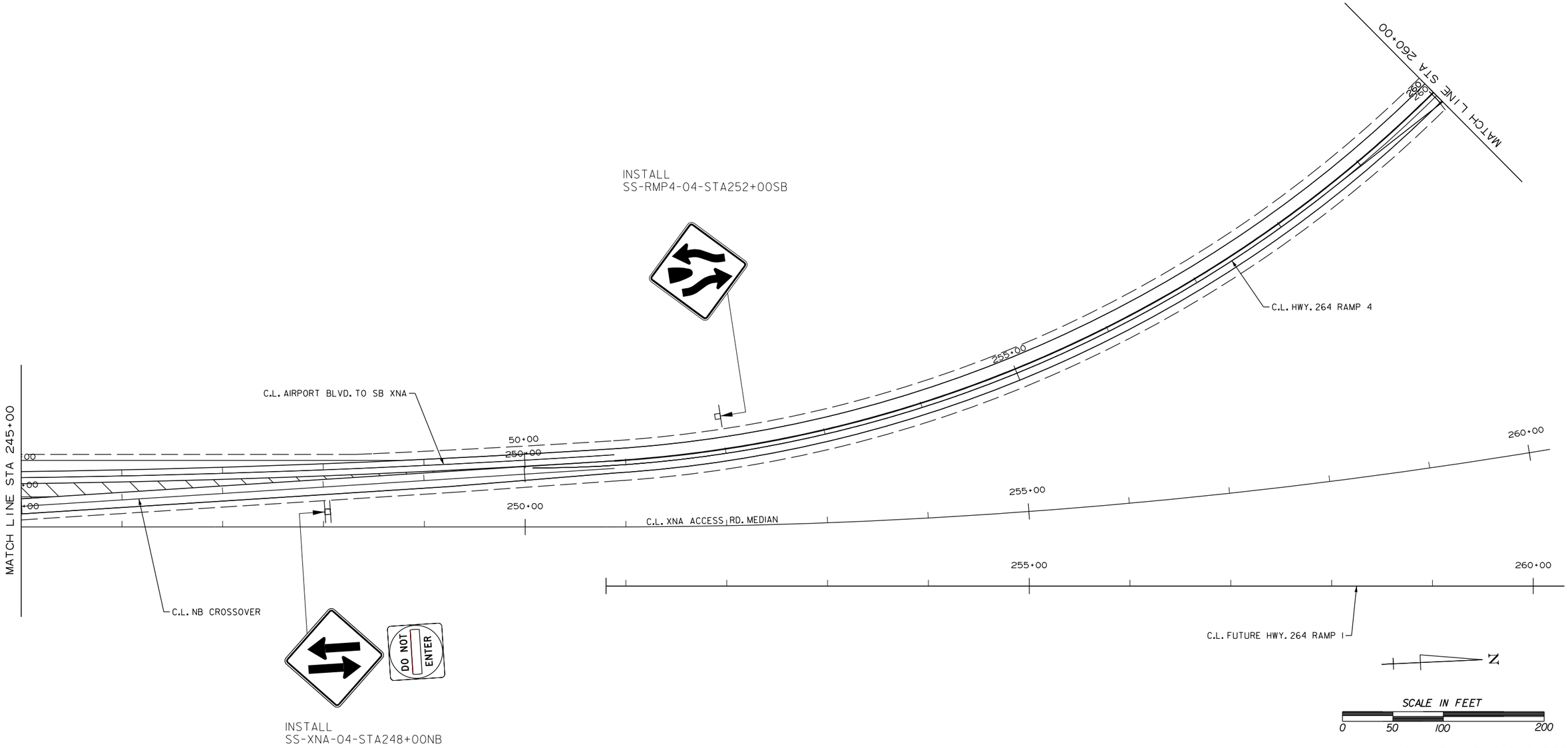

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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

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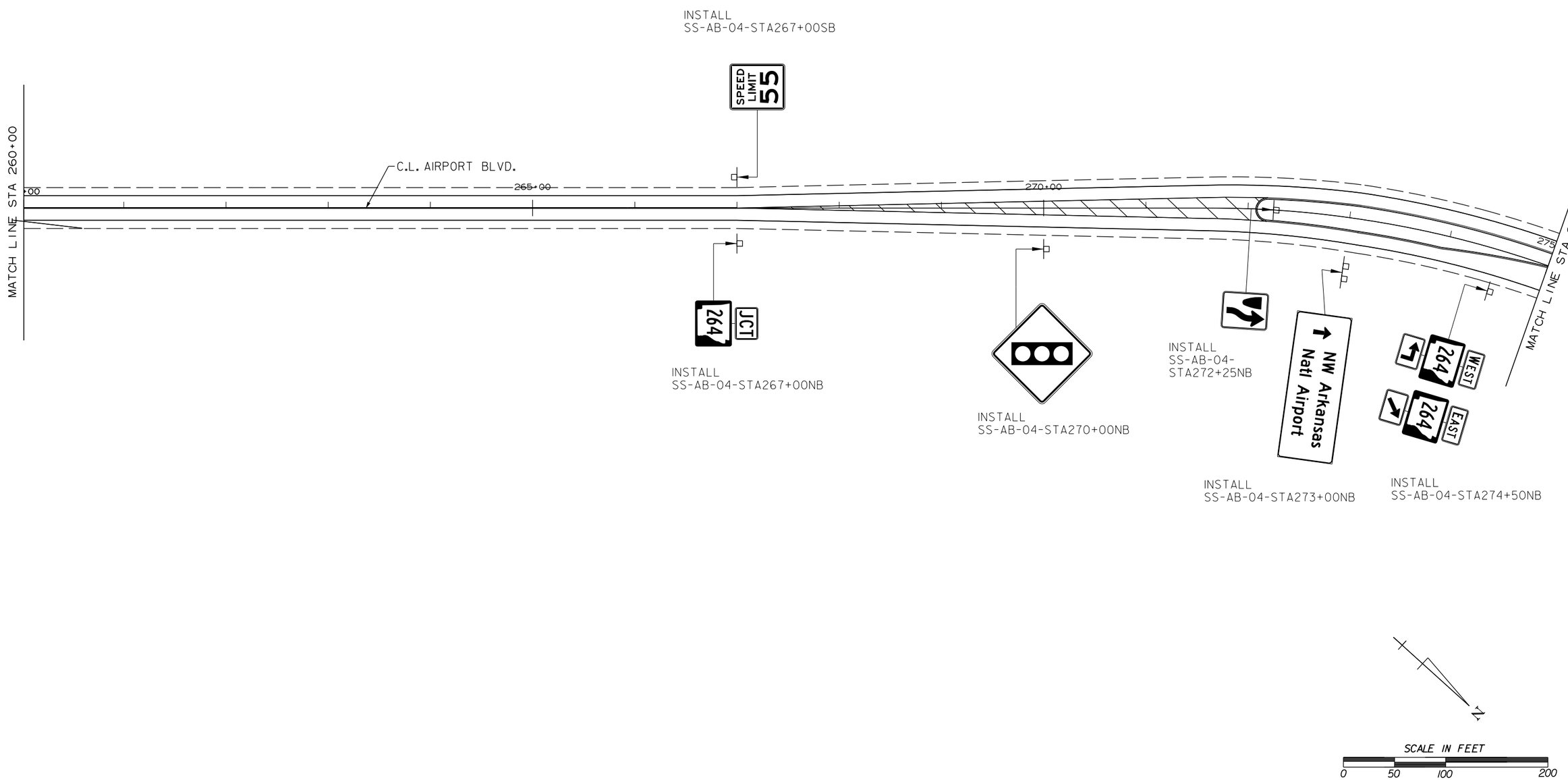

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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

Digitally Signed 10/20/2023



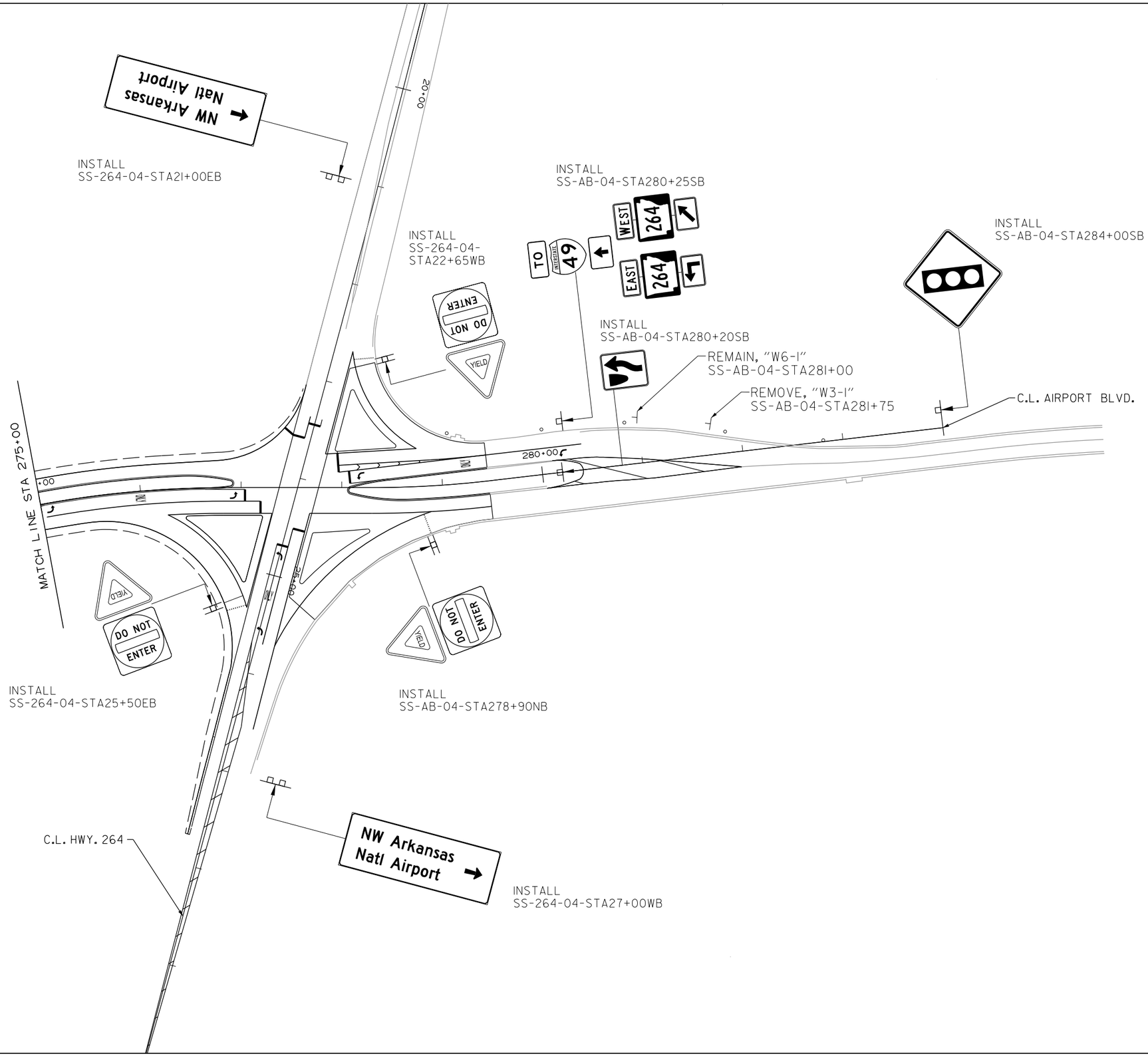

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SIGN PLACEMENT SHEET

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| | | SIGN PLACEMENT SHEET | | | | |

STATE OF ARKANSAS
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No.16675
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MAINTAIN
SS-612-72-STA394+00WB

BRIDGE ICES BEFORE ROAD

Washington Co

MAINTAIN
SS-612-72-STA401+00WB

390+00 395+00 400+00 405

C.L. HWY 612 MEDIAN

BREAK LINE STA 405+00

NW Arkansas National Airport 1 MILE

EXIT 8

INSTALL
GM-612-72-STA394+00EB

Benton Co

MAINTAIN
SS-612-04-STA401+00EB

N

SCALE IN FEET
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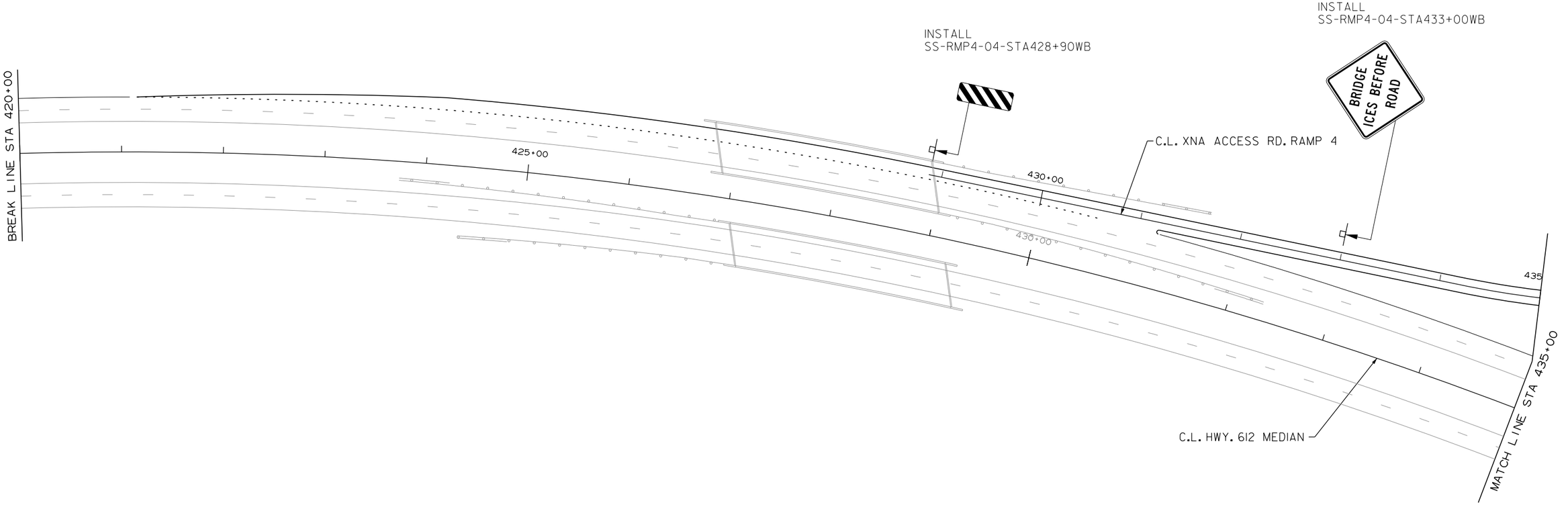
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| | | 6 | ARK. | 090069 | 241 | 583 |
| | | SIGN PLACEMENT SHEET | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

Digitally Signed 10/20/2023




SIGN PLACEMENT SHEET

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | SIGN PLACEMENT SHEET | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

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N

SCALE IN FEET
0 50 100 200

MATCH LINE STA 443+00

INSTALL
SS-RMPI-04-STA468+00WB

BRIDGE ICES BEFORE ROAD

MATCH LINE STA 443+00

INSTALL
SS-RMPI-04-STA476+50WB

INSTALL
SS-RMPI-04-STA470+40WB

C.L. HWY. 612 MEDIAN

440+00

C.L. XNA ACCESS RD. RAMP 3

470+00

MATCH LINE STA 467+00

INSTALL
SS-RMPI-04-STA470+40WB

475+00

C.L. XNA ACCESS RD. RAMP 1

MATCH LINE STA 480+00

INSTALL
SS-RMP2-04-STA424+90EB

EXIT

INSTALL
SS-RMP2-04-STA426+00EB

BRIDGE ICES BEFORE ROAD

INSTALL
SS-RMP2-04-STA428+50EB

INSTALL
SS-612-04-STA439+00EB

EXIT
XX
MPH

MATCH LINE STA 420+00

425+00

MATCH LINE STA 434+00

C.L. XNA ACCESS RD. RAMP 2

430+00

C.L. XNA ACCESS RD. RAMP 4

440+00

XX
MPH

INSTALL
SS-RMP2-04-STA428+60EB

INSTALL
SS-RMP2-04-STA428+00EB

INSTALL
SS-RMP2-04-STA431+50EB

INSTALL
SS-RMP2-04-STA432+50EB

INSTALL
SS-RMP2-04-STA433+50EB

TO EAST
INTERSTATE 49 612
Bentonville

612 WEST
Siloam Springs
EXIT ONLY

EXISTING
OH-XNA-04-02

INSTALL
OH-XNA-04-STA422+75EB-B

INSTALL
OH-XNA-04-STA422+75EB-A

INSTALL
SS-XNA-04-STA422+75EB

RAMP
XX
MPH

EXIT 8
NW Arkansas National Airport

INSTALL
GM-612-04-STA436+00EB

INSTALL
SS-612-04-STA436+00WB

435+00

MATCH LINE STA 435+00

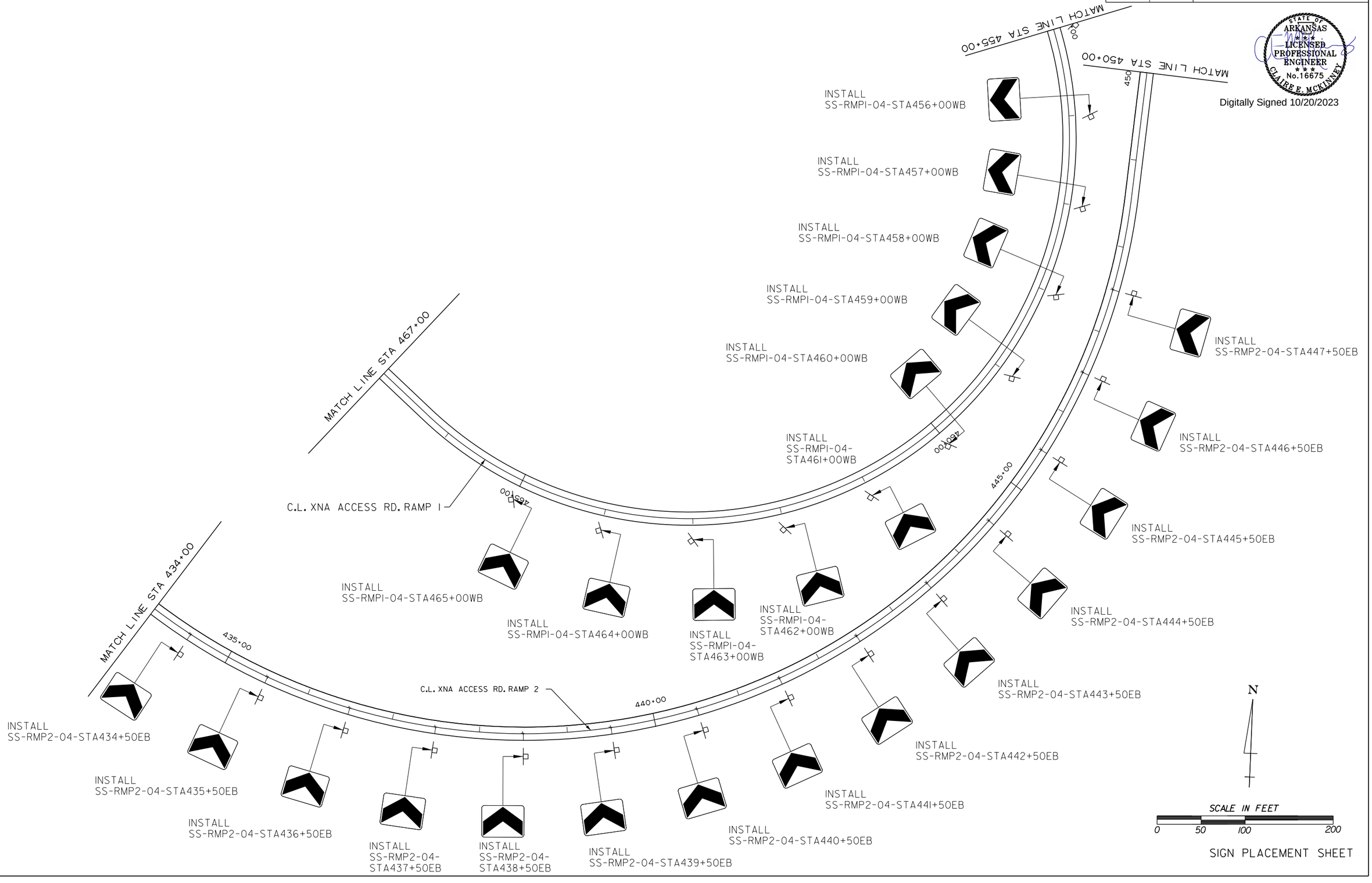
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| | | SIGN PLACEMENT SHEET | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

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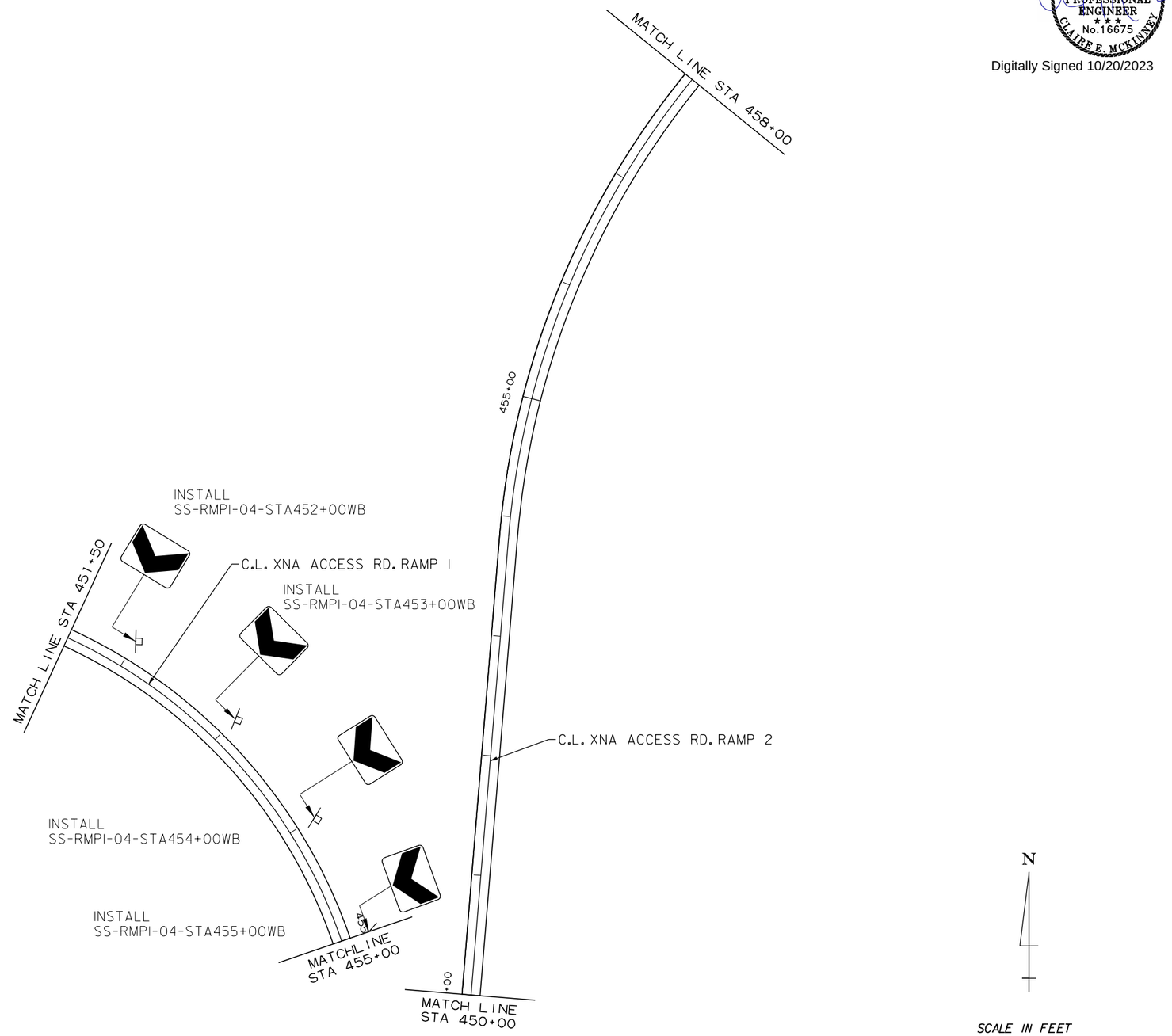

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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
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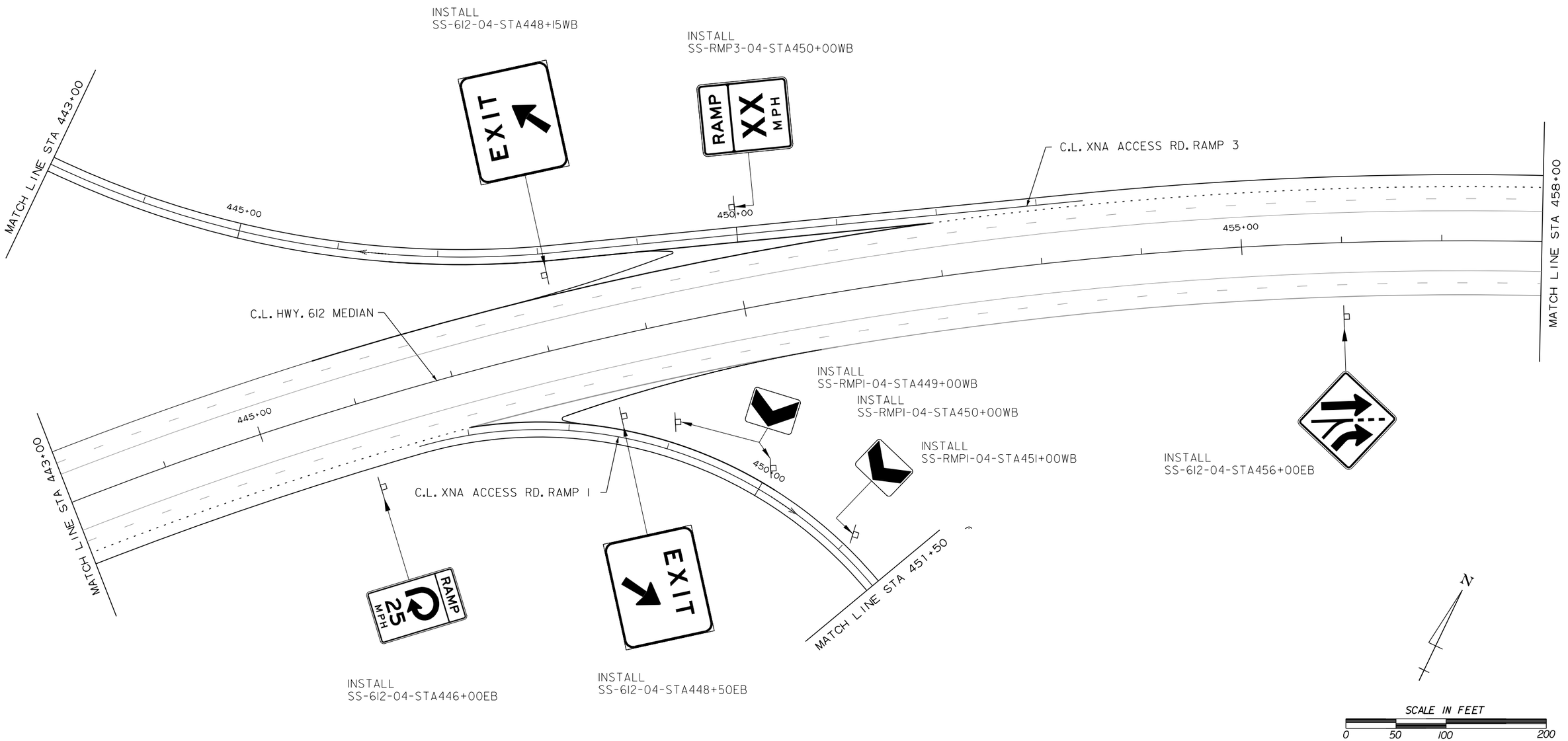

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| | | SIGN PLACEMENT SHEET | | | | |

STATE OF ARKANSAS
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No.16675
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SIGN PLACEMENT SHEET

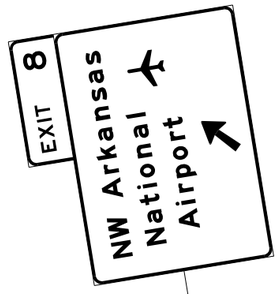
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| | | 6 | ARK. | 090069 | 246 | 583 |
| | | SIGN PLACEMENT SHEET | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
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INSTALL
GM-612-04-STA461+00WB




C.L. HWY. 612 MEDIAN

460+00
465+00
470+00

MATCH LINE STA 458+00

BREAK LINE STA 473+00

EXISTING
0C-612-04-002

C.L. RAMP 2

INSTALL
SS-RMP2-04-STA462+70EB

INSTALL
SS-RMP2-04-STA461+00EB




INSTALL
SS-RMP2-04-STA459+00EB

N

SCALE IN FEET
0 50 100 200

SIGN PLACEMENT SHEET

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| | | SIGN PLACEMENT SHEET | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

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N

EXIT 8
NW Arkansas National Airport
1 MILE

INSTALL
GM-XNA-04-STA505+00WB

BREAK LINE STA 495+00

MATCH LINE STA 510+00

C.L. HWY 112

C.L. HWY 612 MEDIAN

15+00

20+00

25+00

495+00

500+00

505+00

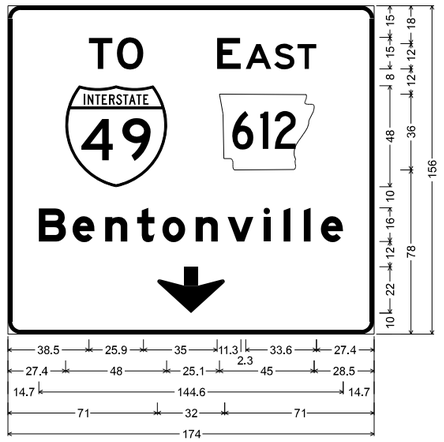
510+00

SCALE IN FEET
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SIGN PLACEMENT SHEET

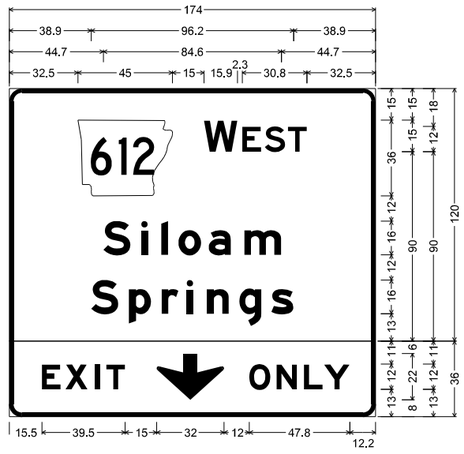
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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 248 | 583 |
| | | SIGN DETAIL SHEET | | | | |




6.0" Radius, 2.0" Border, White on Green;
"TO", E 2K; "EAST", E 2K; "Bentonville", E Mod 2K;
Down Arrow 22.0" 270°;

OH-XNA-04-STAI2I+00SB-A




6.0" Radius, 2.0" Border, White on Green;
"W EST", E 2K; "Siloam", E Mod 2K; "Springs", E Mod 2K;

E11-1_174x36;
6.0" Radius, 2.0" Border, Black on Yellow;
"EXIT", E Mod 2K specified length; Down Arrow 22.0" 270°;
"ONLY", E Mod 2K specified length;

OH-XNA-04-STAI2I+00SB-B

NOTES:
THE CONTRACTOR WILL VERIFY SIGN PLACEMENT AND MAKE ANY ADJUSTMENTS NECESSARY TO ALIGN SIGNS OVER INTENDED LANES.

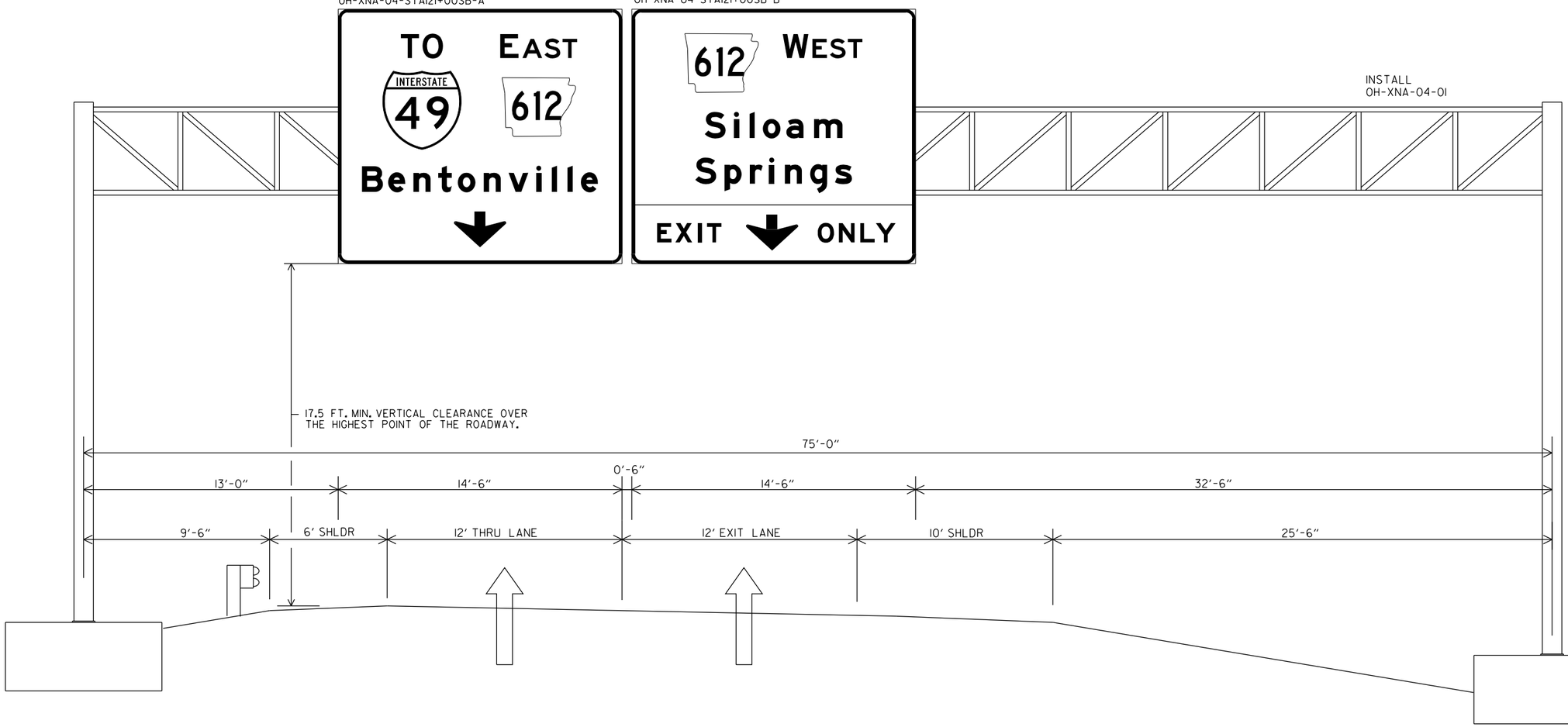
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

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OH-XNA-04-STAI2I+00SB-A

OH-XNA-04-STAI2I+00SB-B

INSTALL
OH-XNA-04-01



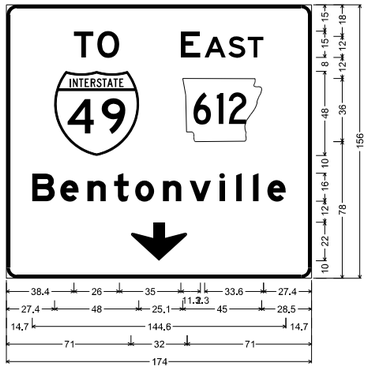

SIGN DETAIL SHEET


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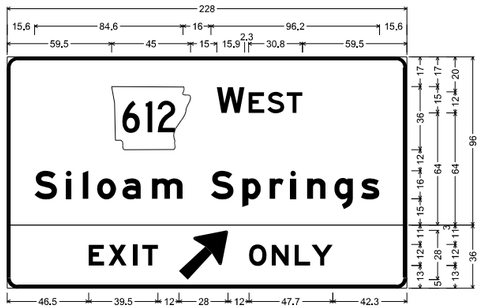
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| | | 6 | ARK. | 090069 | 249 | 583 |
| | | SIGN DETAIL SHEET | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

Digitally Signed 10/20/2023



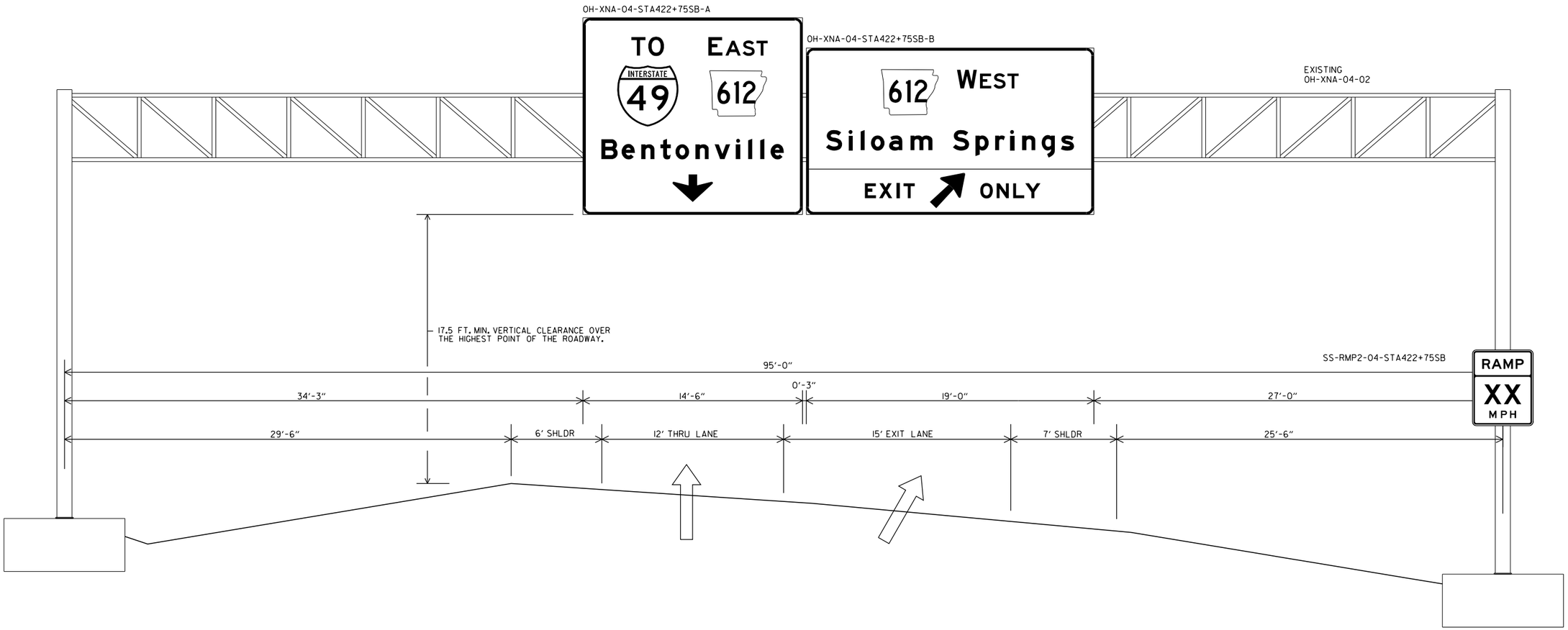

6.0" Radius, 2.0" Border, White on Green;
"TO", E 2K; "EAST", E 2K;
"Bentonville", E Mod 2K;
Down Arrow 22.0" 270";
OH-XNA-04-STA422+75SB-A




6.0" Radius, 2.0" Border, White on Green;
"WEST", E 2K; "Siloam Springs", E Mod 2K;

E11-1d_180x36;
6.0" Radius, 2.0" Border, Black on Yellow;
"EXIT", E Mod 2K specified length; Arrow Custom - 35.6" 45";
"ONLY", E Mod 2K specified length;
OH-XNA-04-STA422+75SB-B

NOTES:
THE CONTRACTOR WILL VERIFY SIGN PLACEMENT AND MAKE ANY ADJUSTMENTS NECESSARY TO ALIGN SIGNS OVER INTENDED LANES.




SIGN DETAIL SHEET


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| | | SIGN DETAIL SHEET | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

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E5-1(72" X 60")

SS-RMP2-04-STA424+90EB
SS-612-04-STA448+15WB
SS-612-04-STA448+50EB




M2-1(21" X 15")
M1-5 (30" X 24")

SS-AB-04-STA267+00NB

M3-4 (24" X 12")
M1-5 (30" X 24")
M5-1L (21" X 15")




M3-2 (24" X 12")
M1-5 (30" X 24")
M6-2R (21" X 15")

SS-AB-04-STA274+50NB




M4-5 (24" X 12")
M1-1(24" X 24")
M6-3 (21" X 15")

M3-2 (24" X 12")
M1-5 (30" X 24")
M5-1L (21" X 15")




M3-4 (24" X 12")
M1-5 (30" X 24")
M6-2R (21" X 15")

SS-AB-04-STA280+25SB



0M3-L (12" X 36")

SS-XNA-04-STA142+75NB
SS-XNA-04-STA145+55SB
SS-XNA-04-STA157+85NB
SS-XNA-04-STA168+50SB
SS-XNA-04-STA175+80NB
SS-XNA-04-STA181+70SB
SS-XNA-04-STA191+40NB
SS-XNA-04-STA193+40SB
SS-XNA-04-STA210+75NB
SS-XNA-04-STA214+40SB
SS-RMP2-04-STA428+50EB
SS-RMP1-04-STA470+40WB
SS-MAL-04-STA22+30EB
SS-MAL-04-STA24+55WB



0M3-R (12" X 36")

SS-XNA-04-STA142+60NB
SS-XNA-04-STA145+70SB
SS-XNA-04-STA157+85NB
SS-XNA-04-STA168+50SB
SS-XNA-04-STA176+05NB
SS-XNA-04-STA181+45SB
SS-XNA-04-STA191+65NB
SS-XNA-04-STA193+15SB
SS-XNA-04-STA210+30NB
SS-XNA-04-STA214+90SB
SS-RMP4-04-STA428+90WB
SS-RMP2-04-STA462+70EB
SS-RMP2-04-STA428+60EB
SS-RMP1-04-STA470+40WB
SS-MAL-04-STA22+30EB
SS-MAL-04-STA24+55WB




R5-1(36" X 36")




R1-2 (48" X 48" X 48")

SS-264-04-STA25+50EB
SS-AB-04-STA278+90NB
SS-264-04-STA22+65WB




R2-1(30" X 36")

SS-AB-04-STA267+00SB




R2-1(36" X 48")

SS-XNA-04-STA226+50NB(L)
SS-XNA-04-STA226+50NB(R)




R2-1(36" X 48")

SS-XNA-04-STA109+00NB(L)
SS-XNA-04-STA109+00NB(R)
SS-XNA-04-STA226+50SB(L)
SS-XNA-04-STA226+50SB(R)



R4-7 (24" X 30")

SS-AB-04-STA272+00NB
SS-AB-04-STA280+20SB



R4-7 (36" X 48")

SS-XNA-04-STA243+00SB

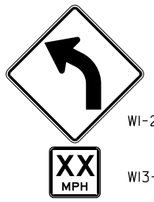


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| | | 6 | ARK. | 090069 | 251 | 583 |
| | | SIGN DETAIL SHEET | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

Digitally Signed 10/20/2023




W1-2L (48" X 48")
W13-1P (24" X 24")

SS-RMP2-04-STA428+00EB



W1-8L (30" X 36")

SS-RMP2-04-STA431+50EB
SS-RMP2-04-STA432+50EB
SS-RMP2-04-STA433+50EB
SS-RMP2-04-STA434+50EB
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W3-3 (48" X 48")

SS-AB-04-STA270+00NB
SS-AB-04-STA284+00SB




W3-5 (48" X 48")

SS-XNA-04-STA214+50NB(L)
SS-XNA-04-STA214+50NB(R)



W4-1R (48" X 48")

SS-612-04-STA436+00WB



W4-2L (48" X 48")

SS-XNA-04-STA219+00NB(L)
SS-XNA-04-STA219+00NB(R)



W4-3R (48" X 48")

SS-RMP3-04-STA434+00NB
SS-RMP1-04-STA476+50WB
SS-RMP2-04-STA461+00EB
SS-612-04-STA456+00EB



W1-8R (30" X 36")

SS-RMP1-04-STA449+00WB
SS-RMP1-04-STA450+00WB
SS-RMP1-04-STA451+00WB
SS-RMP1-04-STA452+00WB
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SS-RMP1-04-STA463+00WB
SS-RMP1-04-STA464+00WB
SS-RMP1-04-STA465+00WB



W6-1 (48" X 48")

SS-RMP4-04-STA252+00SB




R5-1 (36" X 36")



W6-3 (48" X 48")

SS-XNA-04-STA248+00NB




W8-13 (48" X 48")

SS-XNA-04-STA136+00NB
SS-XNA-04-STA152+00SB
SS-XNA-04-STA152+00NB
SS-XNA-04-STA170+50NB
SS-XNA-04-STA174+00SB
SS-XNA-04-STA185+50NB
SS-XNA-04-STA188+00SB
SS-XNA-04-STA199+00SB
SS-XNA-04-STA204+50NB
SS-XNA-04-STA221+00SB
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SS-RMP2-04-STA426+00EB
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SS-RMP4-04-STA432+00WB



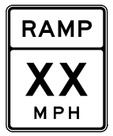

W9-1L (48" X 48")

SS-XNA-04-STA210+00NB(L)
SS-XNA-04-STA210+00NB(R)




W13-2 (48" X 60")

SS-612-04-STA439+00EB




W13-3 (48" X 60")

SS-RMP2-04-STA422+75SB
SS-RMP3-04-STA450+00WB




W13-7 (48" X 84")

SS-612-04-STA446+00EB




W8-13 (36" X 36")

SS-MAL-04-STA19+00EB
SS-MAL-04-STA28+00WB

W19-2 (144" X 48")




SS-XNA-04-STA199+50NB

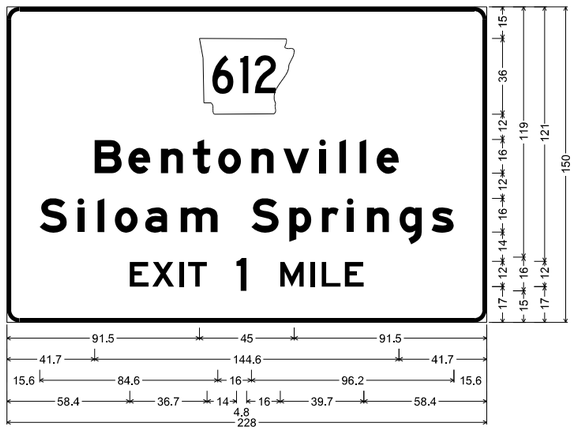


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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 252 | 583 |
| | | SIGN DETAIL SHEET | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

Digitally Signed 10/20/2023




6.0" Radius, 2.0" Border, White on Green;
"Bentonville", E Mod 2K; "Siloam Springs", E Mod 2K; "EXIT", E 2K; "1", E 2K;
"MILE", E 2K;

GM-XNA-04-STA146+50SB




6.0" Radius, 2.0" Border, White on Green;
"NW", E Mod 2K; "Arkansas", E Mod 2K;
"National", E Mod 2K; "Airport", E Mod 2K;
Arrow Custom - 30.0" 45°;
Airport Symbol;

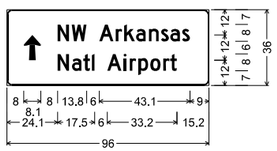
GM-612-04-STA436+00EB
GM-612-04-STA461+00WB




6.0" Radius, 2.0" Border, White on Green;
"EXIT", E 2K specified length; "8", E 2K;

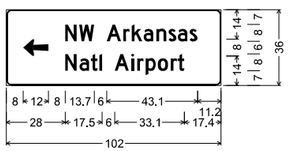
6.0" Radius, 2.0" Border, White on Green;
"NW", E Mod 2K; "Arkansas", E Mod 2K;
"National", E Mod 2K; "Airport", E Mod 2K;
Arrow Custom - 25.0" 90°; "1 MILE", E Mod 2K;

GM-612-04-STA394+00EB
GM-612-04-STA505+00WB



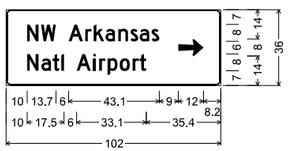

D1-1_96x36;
2.3" Radius, 0.8" Border, White on Green;
Arrow Custom - 12.0" 90°;
"NW", D 2K; "Arkansas", D 2K;
"Natl", D 2K; "Airport", D 2K;

SS-AB-04-STA273+00NB



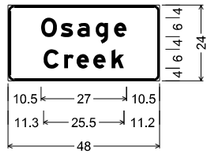

D1-1_102x36;
2.3" Radius, 0.8" Border, White on Green;
Arrow Custom - 12.0" 180°;
"NW", D 2K; "Arkansas", D 2K;
"Natl", D 2K; "Airport", D 2K;

SS-264-04-STA21+00EB



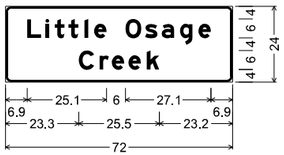

D1-1_102x36;
2.3" Radius, 0.8" Border, White on Green;
"NW", D 2K; "Arkansas", D 2K;
"Natl", D 2K; "Airport", D 2K;
Arrow Custom - 12.0" 0°;

SS-264-04-STA27+00WB




I-3_48x24;
1.9" Radius, 0.8" Border, White on Green;
"Osage", E Mod 2K;
"Creek", E Mod 2K;

SS-XNA-04-STA157+75NB
SS-XNA-04-STA168+55SB




I-3_72x24;
1.9" Radius, 0.8" Border, White on Green;
"Little Osage", E Mod 2K;
"Creek", E Mod 2K;

SS-XNA-04-STA176+00NB
SS-XNA-04-STA181+50SB



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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 253 | 583 |
| | | ITS GENERAL NOTES | | | | |




Digitally Signed 10/20/2023

NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (CURRENT EDITION) NATIONAL ELECTRIC CODE, NFPA 101 (CURRENT EDITION) LIFE SAFETY CODE, STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.

2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE DOCUMENTATION TO PROJECT ENGINEER TO ENSURE ARKANSAS STATE CODES (§17-28-101 ET SEQ. AND §20-31-101 ET SEQ.) ARE MET. THE DOCUMENTATION SHALL INCLUDE:

   a. THE ELECTRICIANS' LICENSE INFORMATION AND EXPIRATION DATE.

   b. THE RATIO OF LICENSED-ELECTRICIAN-TO APPRENTICE-ELECTRICIANS.

   c. PRINTED SEARCH RESULT OF LICENSED ELECTRICIANS FROM ARKANSAS DEPARTMENT OF LABOR ELECTRICIAN LICENSEE DIRECTORY (https://www.ark.org/labor/electrician/search.php). ALL LICENSES SHALL BE VALID AND CURRENT.

3. EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (E.G.C.) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST POLE. SOLIDLY BOND E.G.C. TO GROUND LUG OF CONTROL CABINET AND TO POLE GROUND. ENSURE THAT ONLY ONE NEUTRAL-TO-GROUND BOND EXISTS IN THE SYSTEM AND THAT IT IS AT THE MAIN BREAKER.

4. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, STANDARD DRAWINGS AND WITH THE MANAUL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.

5. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY PUSHING OR BORING METHOD OR AS DIRECTED BY THE ENGINEER. PVC OR HDPE CONDUIT SHALL BE USED AND SHALL BE UL LISTED. PVC CONDUIT SHALL BE MARKED "DIR. BORING" OR "DIRECTIONAL BORING" PER NEC. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRANCHING METHOD AS SHOWN IN THE STANDARD DRAWINGS MAY BE USED. THE ENGINEER SHALL GRANT A WRITTEN APPROVAL PRIOR TO USING THE TRENCHING METHOD.

6. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.

7. CONTROLLER CABINET LAYOUT AND ORIENTATION SHALL CONFORM TO IMSA STANDARDS.

8. CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OR ASSIGNED DEPARTMENT PROJECT INSPECTOR EACH DAY PRIOR TO ITS RELATED WORK. NO WORK WILL BE ALLOWED OR APPROVED WITHOUT THIS PRIOR NOTIFICATION.

9. CONTRACTOR SHALL ATTACH A PERMANENT TAG OF RIGID PLASTIC OR NON-FERROUS METAL TO EACH CONDUIT AT PULL BOXES, POLE BASES, JUNCTION BOXES, AND CONTROLLER CABINETS. TAGS SHALL BE EMBOSSED, STAMPED, OR ENGRAVED WITH LETTERS ¼" OR GREATER IN HEIGHT AND SECURED TO THE CONDUIT WITH NYLON OR PLASTIC TIES. EACH TAG SHALL INDICATE THE END LOCATION OF CONDUIT RUN. THE COST OF THE TAGS SHALL BE SUBSIDIARY TO THE CONDUIT PAY ITEM.

10. THE CONTRACTOR SHALL PERFORM ALL WORK POSSIBLE THAT WILL MINIMIZE THE TIME THAT THE ITS EQUIPMENT IS OUT OF OPERATION.

11. ALL NON-METALLIC CONDUIT RUNS HAVE BELL RING FITTINGS INSTALLED ON THE TERMINATING ENDS OF THE CONDUIT. THIS INCLUDES PULL BOXES, POLE BASES, AND TRAFFIC SIGNAL CABINETS.

12. THE CONTRACTOR SHALL PROVIDE THE IMEI NUMBER OF THE CELLULAR MODEM PRIOR TO DROPPING THE MODEM OFF TO BE CONFIGURED. REFER TO THE OVERHEAD DMS ASSEMBLY SPECIAL PROVISION FOR MORE DETAILS.

13. THE CONTRACTOR SHALL NOT ENGAGE IN EXCAVATION OR DEMOLITION ACTIVITIES WITHOUT HAVING FIRST NOTIFIED THE ARKANSAS ONE CALL CENTER IN ACCORDANCE WITH A.C.A. & 14-271 UNDERGROUND FACILITIES DAMAGE PREVENTION ACT. NOT ALL UTILITY COMPANIES ARE MEMBERS OF THE ARKANSAS ONE CALL SYSTEM. THE CONTRACTOR IS ADVISED TO CONTACT ALL NON-MEMBER UTILITIES AS WELL AS THE ONE CALL CENTER.

14. UNDERGROUND UTILITIES MAY EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. SOME UTILITIES MAY HAVE BEEN RELOCATED SINCE THE TIME OF DESIGN AND THE CONTRACTOR'S NOTICE TO PROCEED. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES INVOLVED AND VERIFY THE LOCATIONS OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL IT IS NO LONGER NECESSARY.

15. ITS EQUIPMENT SHOWN ON THESE PLANS ARE IN APPROXIMATE LOCATIONS. ALL EQUIPMENT SHALL BE FIELD LOCATED BY THE CONTRACTOR WITH PROPOSED LOCATIONS APPROVED BY THE ENGINEER TO VERIFY PROPER PLACEMENT AND BEST SIGHT DISTANCE FOR EQUIPMENT, ADEQUATE ROADSIDE PROTECTION, ETC. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT, PULLBOXES, AND CONDUIT WITHIN PUBLIC RIGHT-OF-WAY.

16. FINAL LOCATIONS OF ALL OVERHEAD DMS ASSEMBLY, AND THEIR RESPECTIVE STRUCTURES SHALL BE SUBMITTED TO THE ITS MANAGEMENT SECTION FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

17. FIELD LOCATION ADJUSTMENTS MAY BE REQUIRED AT TIME OF EQUIPMENT INSTALLATION DUE TO POTENTIAL CONFLICTS OR OTHER FACTORS THAT WERE UNIDENTIFIABLE DURING THE PROJECT DESIGN PHASE. ANY REQUIRED ADJUSTMENTS SHALL BE APPROVED BY THE PROJECT ENGINEER.

18. SEE SHEET 1 OF 5 STANDARD DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE FOR DETAILS AND NOTES ON OVERHEAD TEE MOUNT STRUCTURE AND STRUCTURAL REQUIREMENTS.

19. THE FOLLOWING REQUIREMENTS WILL NEED TO BE MET PRIOR TO ACCEPTANCE OF PAY ITEM OVERHEAD DMS ASSEMBLY:

   a. THE OVERHEAD DMS ASSEMBLY WILL NEED TO BE INSTALLED IN FULL WITH ALL ASSOCIATED EQUIPMENT AND PARTS LISTED WITHIN THE SPECIAL PROVISION.
   b. THE OVERHEAD DMS ASSEMBLY IS PERMANENTLY CONNECTED TO UTILITY POWER SERVICE POINT, POWERED ON, AND FUNCTIONING PROPERLY.
   c. THE OVERHEAD DMS ASSEMBLY IS TESTED, COMMISSIONED, AND APPROVED BY A MANUFACTURER REPRESENTATIVE. THE REPRESENTATIVE WILL NEED TO BE ON SITE AND PROVIDE A CERTIFIED DOCUMENT OF THE COMMISSIONED DMS.
   d. THE OVERHEAD DMS ASSEMBLY IS INSPECTED AND APPROVED BY ARDOT ITS MANAGEMENT INSPECTOR.
   e. UPON ARDOT ITS MANAGEMENT INSPECTOR APPROVAL, A THIRTY DAY PERFORMANCE TEST WILL COMMENCE. REFER TO SPECIAL PROVISIONS FOR MORE DETAILS ON THE THIRTY DAY PERFORMANCE TEST.

20. DMS SHALL BE COMMISSIONED AND PUT INTO OPERATIONS IN BATCHES NOT GREATER THAN FIVE OR AS DIRECTED AND APPROVED BY THE ENGINEER.

21. WHERE APPLICABLE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THE ITS LOCATIONS AND EQUIPMENT ARE INSTALLED AND OPERATIONAL PRIOR TO BEGINNING OF OTHER CONSTRUCTION PARTS OF THE PROJECT. LOCATIONS WHERE GUARDRAIL INSTALLATION IS REQUIRED, THE ITS EQUIPMENT SHALL BE INSTALLED AFTER THE REQUIRED GUARDRAIL IS IN PLACE. THE CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING THE TRAFFIC SIGNAL WORK WITH THE DEPARTMENT'S ITS MANAGEMENT SECTION-MAINTENANCE DIVISION AND THE RESIDENT ENGINEER OFFICE.

22. FOR DYNAMIC MESSAGE SIGN CONNECTION TO STRUCTURE, SEE MANUFACTURER RECOMMENDATIONS.

    SEE SPECIAL PROVISION "OVERHEAD DYNAMIC MESSAGE SIGN ASSEMBLY" FOR ADDITIONAL DETAILS. DYNAMIC MESSAGE SIGN ASSEMBLIES ARE TO BE CENTERED ON THE TEE MOUNT STRUCTURE; PLACED AS SHOWN IN PLANS ON OVERHEAD SIGN STRUCTURE (OSS) AND AS DIRECTED BY THE ENGINEER.

23. IF THE SERVICE POINT IS MORE THAN 10 FEET FROM THE DMS CONTROLLER CABINET, THE CONTRACTOR SHALL PROVIDE AND INSTALL A SEPARATE TWO CIRCUIT EXTERNAL BREAKER (SECONDARY BREAKER) ON OR NEAR THE DMS CONTROLLER CABINET AND SHALL INSTALL CONDUIT, ELECTRICAL SERVICE WIRE WITH GROUND AS SPECIFIED ON THE PLANS, AND PERFORM WIRING TO TAP INTO ARDOT'S MAIN BREAKER AS PART OF THIS CONTRACT. CONDUIT IS PAID FOR AS A SEPARATE ITEM OF THIS CONTRACT. THERE ARE TWO CIRCUIT BREAKERS THAT SHALL BE CONSIDERED SUBSIDIARY TO THE PAY ITEM SERVICE POINT ASSEMBLY.

24. MINIMUM OFFSET DISTANCE FROM EDGE OF GUARDRAIL TO ITS EQUIPMENT SHALL BE GREATER THAN 5'.

25. ROADWAY EDGE OF ABOVE GROUND ITS EQUIPMENT TO BE 30' MINIMUM FROM EDGE OF TRAVEL LANE. TO MAINTAIN CLEAR ZONE UNLESS PROTECTED BY GUARD RAIL, WIRE ROPE SAFETY FENCE SHALL BE USED AS APPROVED BY THE PROJECT ENGINEER.

26. ALL CONCRETE PULL BOXES SHALL BE TYPE 2 HD UNLESS OTHERWISE INDICATED. PULL BOX LIDS SHALL CLOSE FLUSH WITHOUT PINCHING ANY CONDUCTORS. CONDUIT LENGTHS IN PULL BOXES SHALL BE SET ACCORDINGLY. ANY CONDUCTORS THAT HAVE BEEN DAMAGED BY PINCHING SHALL BE COMPLETELY REPLACED AT THE CONTRACTOR'S EXPENSE.

27. COPPER GROUND RODS SHALL BE EXOTHERMICALLY WELDED.

28. CONTRACTOR SHALL USE TWO, 2-INCH CONDUITS FROM EACH TYPE 3 PULL BOX TO OVERHEAD TEE-MOUNT. TWO (2) SHALL BE USED FOR POWER WIRING AND TWO (2) FOR COMMUNICATION (SIGNAL) CABLING. REFER TO ITS TEE-MOUNT STANDARD DETAIL SHEET AND ITS DETAIL SHEET FOR ADDITIONAL INFO.

29. WHERE RIGID METAL CONDUIT (RMC) IS SHOWN ON PLANS (TYPICALLY EXISTING OSS), THE RMC SUPPORT FITTING(S) SHALL BE SPACED NO MORE THAN 20' MAXIMUM ON OSS.

30. ALL ABOVE GROUND CONDUIT SHALL BE RMC. NMC SHALL NOT BE ALLOWED ABOVE GROUND UNLESS SPECIFICALLY NOTED ON PLANS.

31. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LTC) AND ITS PROPER FITTINGS SHALL BE CONSIDERED SUBSIDIARY TO THE UNIT PRICE BID FOR OVERHEAD DMS ASSEMBLY. NO SEPARATE PAYMENT SHALL BE MADE.

32. COMMUNICATION / POWER CABLES USED FOR CCTV, RDS, AND CELLULAR MODEM FROM NETWORK SWITCH TO EQUIPMENT SHALL BE COST ABSORBED. NO SEPARATE PAYMENT SHALL BE MADE.

33. DMS (SIGNAL/COMM) FIBER OPTIC REQUIREMENTS:
    50/125 um MM GRADED INDEX, OM3 STANDARD COMPLIANT LASER OPTIMIZED, STANDARD AND PREFERRED FOR MOST SYSTEMS. FIBER OPTIC CABLE SHALL BE 6 STRAND CORNING/95-050-99-X. FIBER OPTIC CABLE DIAMETER SHALL BE 50/125 um 6 FIBER OD, 0.195" (4.0MM) W-1489-DX. ALL ENDS SHALL HAVE UNICAM LC CONNECTORS WITH TWO STRANDS FOR REDUNDANT TX/RX AND TWO UNUSED FIBERS.

34. CONDUIT FOR FIBER OPTIC CABLE SHALL BE REQUIRED TO UTILIZE A MINIMUM OF 6" RADIUS BENDS. NO ELBOW JOINTS ALLOWED.

35. A TRACER WIRE SHALL BE INSTALLED IN CONDUIT THAT CARRIES FIBER OPTIC AND/OR COMMUNICATION CABLE, COST TO BE ABSORBED, NO SEPARATE PAYMENT WILL BE MADE.

36. CONTRACTOR SHALL FIELD VERIFY CAMERA SITE LOCATION AND ORIENTATION FOR COMPLETE COVERAGE OF ROADWAY PRIOR TO INSTALLING CCTV OR RDS. BRACKETS, LOCATIONS, AND ORIENTATIONS SHALL BE APPROVED BY THE ENGINEER.

37. CONTRACTOR/SUPPLIER TO SIZE STAINLESS STEEL BANDING TO FIT THE OVERHEAD SIGN STRUCTURE (OSS) SUPPORT. RADAR VEHICLE DETECTION SYSTEM (RDS), BANDING ARE CONSIDERED SUBSIDIARY TO SPECIAL PROVISION "RADAR VEHICLE DETECTION SYSTEM". NO SEPARATE PAYMENT SHALL BE MADE.

38. CONTRACTOR/SUPPLIER TO SIZE PROVIDE SQUARE TUBING OR STRUT TUBING TO MOUNT THE APPROVED RADAR DETECTION SYSTEM (RDS). BANDING AND SUPPORT POLE ARE CONSIDERED SUBSIDIARY TO SPECIAL PROVISION "RADAR VEHICLE DETECTION SYSTEM". NO SEPARATE PAYMENT SHALL BE MADE.

39. BEFORE FINAL ACCEPTANCE OF ITS ITEMS, THE CONTRACTOR SHALL PROVIDE TWO (2) SETS OF LEDGER SIZE (11"X17") AS BUILT ITS PLANS TO ARDOT ITS MANAGEMENT.

40. ALL CONDUIT SHALL BE TWO (2") INCH DIAMETER UNLESS SPECIFIED ON PLANS. ALL CONDUIT UNDER THE ROADWAY SHALL HAVE A MINIMUM DEPTH OF 24" FROM THE TOP OF THE CONDUIT TO THE FINISH GRADE. CONDUIT DEPTH MAY NEED TO INCREASE NEAR OTHER STRUCTURES.

41. ALL CABINETS SHALL BE INSTALLED DOWNSTREAM OF TRAFFIC. GROUND MOUNT CABINETS SHALL BE ORIENTED IN A WAY THAT THE BACK OF CABINET FACES THE TRAFFIC AND THE DOOR OPENS TOWARD THE DIRECTION OF TRAFFIC.

42. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS OF REPAIR OR REPLACEMENT OF EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.

43. ALL ELECTRICAL COMPONENTS SHALL BE UL LISTED.

44. SLACK CABLES IN PULL BOXES SHALL BE 3 FEET MINIMUM.

45. ALL STRUCTURES SHALL BE BONDED TO EQUIPMENT GROUND CONDUCTOR. REFER TO NEC ARTICLE 250.



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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 254 | 583 |
| | | ITS SYSTEM MAP | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

Digitally Signed 10/20/2023

XNA/HWY 612 CCTV N
STA. 211+37

XNA/HWY 612 DMS SB-NB,
CCTV S, RDS SB-NB
STA. 145+76

Eagle Corner
HIGHFILL
Pop. 583
NORTHWEST ARKANSAS REGIONAL AIRPORT
Osage Mills
Healing Springs
CAVE SPRINGS
Pop. 1,729
LOWELL
Pop. 7,327
SPRINGDALE
Pop. 69,797
ELM SPRINGS
Pop. 1,535
SPRINGDALE
Pop. 69,797
JONTTOWN
East Flint Cr.
Osage Creek
Little Osage Creek
Hedda Lick Creek
Brush Creek
Cross Creek
Spring Creek
Puppy Cr.
Lake Elmdale
Busby Cr.
Osage Creek
ILLINOIS
112
264
612
412
49
6.1
7.5
5.4
0.4
4.8
2.5
1.8
2.1
0.8
4.2
3.0
1.3
1.4
1.9
2.6
6.6

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| 12-12-2023 | | 6 | ARK. | 090069 | 255 | 583 |
| | | ITS QUANTITIES SHEET | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.8141
NICCI D. TINER

DIGITALLY SIGNED 12/12/2023

## SUMMARY OF ITS QUANTITIES

| ITEM NUMBER | ITEM | HWY 612 - STA. 145+76 | HWY 612 - STA. 211+37 | QUANTITY | UNIT |
|---|---|---|---|---|---|
| SP | ETHERNET SWITCH, T100 HARDENED (8-PORT) | 1 | 1 | 2 | EACH |
| SP | POLE MOUNTED ITS CABINET | | 1 | 1 | EACH |
| SP | CELLULAR MODEM | 1 | 1 | 2 | EACH |
| SP | PTZ CAMERA SYSTEM | 1 | 1 | 2 | EACH |
| SP | ELECTRICAL CONDUCTORS-IN-CONDUIT, COPPER (3C/8 A.W.G., E.G.C.) | 189 | 389 | 578 | LIN. FT. |
| SP | ELECTRICAL CONDUCTORS-IN-CONDUIT, COPPER (3C/0, A.W.G., #8 E.G.C.) | 418 | | 418 | LIN. FT. |
| 709 | GALVANIZED STEEL CONDUIT (2") | 14 | 14 | 28 | LIN. FT. |
| 710 | NON-METALLIC CONDUIT (2") | 562 | 335 | 897 | LIN. FT. |
| 710 | NON-METALLIC CONDUIT (3") | 43 | | 43 | LIN. FT. |
| SS & 711 | CONCRETE PULL BOX (TYPE 2 HD) | 3 | 4 | 7 | EACH |
| SS & 711 | CONCRETE PULL BOX (TYPE 3 HD) | 2 | | 2 | EACH |
| SP | TILT TOWER (60') | | 1 | 1 | EACH |
| SP | SERVICE POINT ASSEMBLY (1 CIRCUIT) | 1 | 1 | 2 | EACH |
| SP | STEEL TEE MOUNT SIGN STRUCTURE (TM-XNA-04-01) | 1 | | 1 | EACH |
| SP | OVERHEAD DMS ASSEMBLY | 2 | | 2 | EACH |
| SP | RADAR DETECTION SYSTEM | 2 | | 2 | EACH |



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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| 12-12-2023 | | 6 | ARK. | 090069 | 256 | 583 |
| | | ITS PLAN SHEET (STA 145+76) | | | | |

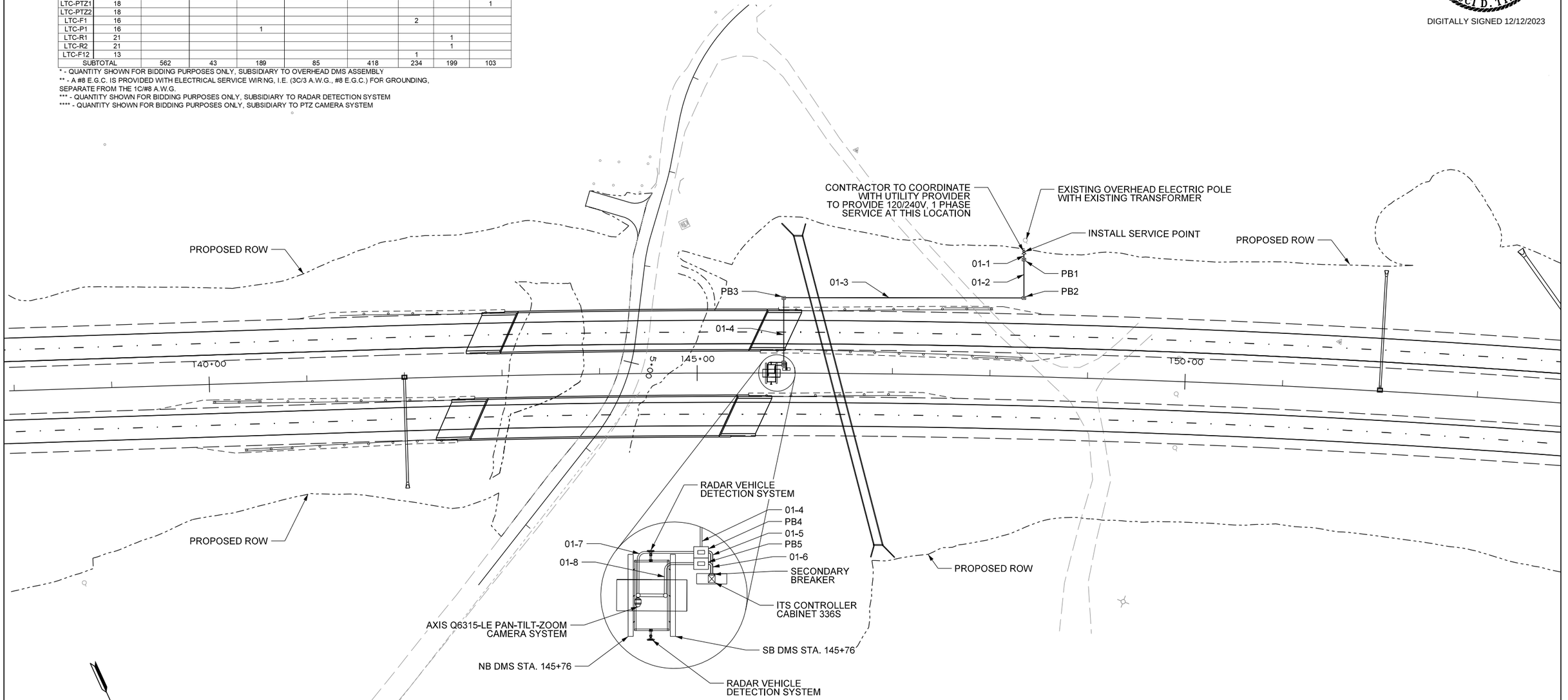
| SUMMARY OF CONDUIT AND CABLES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RUN NO. | TOTAL LENGTH (FT.) | CONDUIT | | CONDUCTORS | | | COMM. | | |
| | | 2" NON-METALLIC CONDUIT | 3" NON-METALLIC CONDUIT | 3C/#8 A.W.G. 1C/#8 E.G.C. | 1C/#8 A.W.G. * / ** | 3C/0 A.W.G. 1C/#8 E.G.C. | F.O. CABLE* | RADAR CABLE*** | CAT5E**** |
| 01-1 | 25 | 1 | | | | 1 | | | |
| 01-2 | 46 | 1 | | | | 1 | | | |
| 01-3 | 252 | 1 | | | | 1 | | | |
| 01-4 | 72 | 1 | | | | 1 | | | |
| 01-5 | 23 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 01-6 | 20 | 1 | 1 | 1 | | | 1 | 1 | |
| 01-7 | 36 | 2 | | 1 | 1 | | 1 | 1 | 1 |
| 01-8 | 26 | 2 | | 1 | | | 1 | 1 | |
| CABLING IN OH TEE STRUCTURE | | | | | | | | | |
| Column-1 | 26 | | | 1 | 1 | | 1 | 1 | 1 |
| Column-2 | 26 | | | 1 | | | 1 | 1 | |
| LTC-F2 | 16 | | | | | | 2 | | |
| LTC-P2 | 16 | | | 1 | | | | | |
| LTC-PTZ1 | 18 | | | | | | | | 1 |
| LTC-PTZ2 | 18 | | | | | | | | |
| LTC-F1 | 16 | | | | | | 2 | | |
| LTC-P1 | 16 | | | 1 | | | | | |
| LTC-R1 | 21 | | | | | | | 1 | |
| LTC-R2 | 21 | | | | | | | 1 | |
| LTC-F12 | 13 | | | | | | 1 | | |
| SUBTOTAL | | 562 | 43 | 189 | 85 | 418 | 234 | 199 | 103 |

* - QUANTITY SHOWN FOR BIDDING PURPOSES ONLY, SUBSIDIARY TO OVERHEAD DMS ASSEMBLY
** - A #8 E.G.C. IS PROVIDED WITH ELECTRICAL SERVICE WIRING, I.E. (3C/3 A.W.G., #8 E.G.C.) FOR GROUNDING, SEPARATE FROM THE 1C/#8 A.W.G.
*** - QUANTITY SHOWN FOR BIDDING PURPOSES ONLY, SUBSIDIARY TO RADAR DETECTION SYSTEM
**** - QUANTITY SHOWN FOR BIDDING PURPOSES ONLY, SUBSIDIARY TO PTZ CAMERA SYSTEM

## ITS QUANTITIES

| ITEM NUMBER | ITEM | QUANTITY | UNIT |
|---|---|---|---|
| SP | ETHERNET SWITCH, T100 HARDENED (8-PORT) | 1 | EACH |
| SP | CELLULAR MODEM | 1 | EACH |
| SP | PTZ CAMERA SYSTEM | 1 | EACH |
| SP | ELECTRICAL CONDUCTORS-IN-CONDUIT, COPPER (3C/8 A.W.G., E.G.C.) | 189 | LIN. FT. |
| SP | ELECTRICAL CONDUCTORS-IN-CONDUIT, COPPER (3C/0, A.W.G., #8 E.G.C.) | 418 | LIN. FT. |
| 709 | GALVANIZED STEEL CONDUIT (2") | 14 | LIN. FT. |
| 710 | NON-METALLIC CONDUIT (2") | 562 | LIN. FT. |
| 710 | NON-METALLIC CONDUIT (3") | 43 | LIN. FT. |
| SS & 711 | CONCRETE PULL BOX (TYPE 2 HD) | 3 | EACH |
| SS & 711 | CONCRETE PULL BOX (TYPE 3 HD) | 2 | EACH |
| SP | SERVICE POINT ASSEMBLY (1 CIRCUIT) | 1 | EACH |
| SP | STEEL TEE MOUNT SIGN STRUCTURE (TM-XNA-04-01) | 1 | EACH |
| SP | OVERHEAD DMS ASSEMBLY | 2 | EACH |
| SP | RADAR DETECTION SYSTEM | 2 | EACH |

STATE OF ARKANSAS
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| PULL BOX SCHEDULE | | | | |
|---|---|---|---|---|
| PULL BOX | TYPE | LOCATION & STATION | * OFFSET | * X, Y COORDINATES |
| PB1 | 2 HD | HWY. 612 - STA. 148+32.00 | 119.67' LT | 643862.29, 698585.86 |
| PB2 | 2 HD | HWY. 612 - STA. 148+32.97 | 80.42' LT | 643878.62, 698621.56 |
| PB3 | 2 HD | HWY. 612 - STA. 145+88.45 | 76.91' LT | 644102.54, 698519.16 |
| PB4 | 3 HD | HWY. 612 - STA. 145+88.68 | 10.90' LT | 644129.98, 698579.16 |
| PB5 | 3 HD | HWY. 612 - STA. 145+88.68 | 7.98' LT | 644131.25, 698581.77 |

| SERVICE POINT AND DMS SUMMARY | | | | |
|---|---|---|---|---|
| ITEM ID | TYPE | LOCATION & STATION | * OFFSET | * X, Y COORDINATES |
| SP1 | N/A | HWY. 612 - STA. 148+31.74 | 128.00' LT | 643858.89, 698578.27 |
| DMS 1 | N/A | HWY. 612 - STA. 145+76.00 | 0.00' LT | 644146.24, 698583.89 |

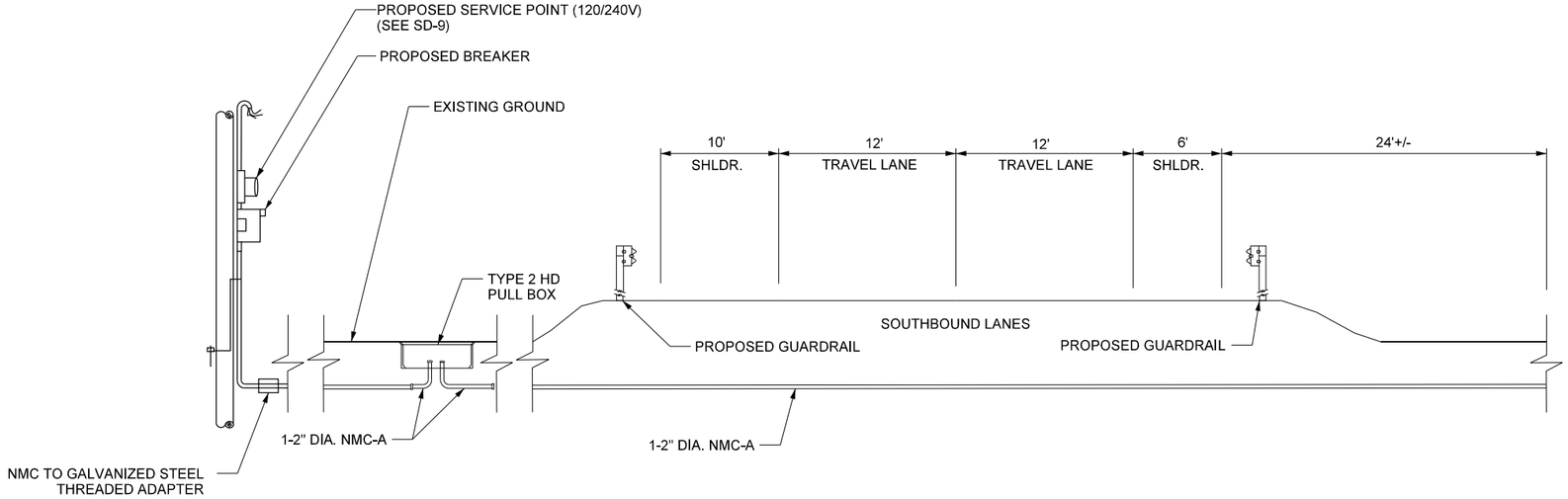
*CENTER OF PULL BOX; ALL PULL BOXES SHALL BE AT THE FINISHED SURFACE ELEVATION

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| 12-12-2023 | | 6 | ARK. | 090069 | 257 | 583 |
| | | ITS ELEVATION SHEET (STA 145+76) | | | | |

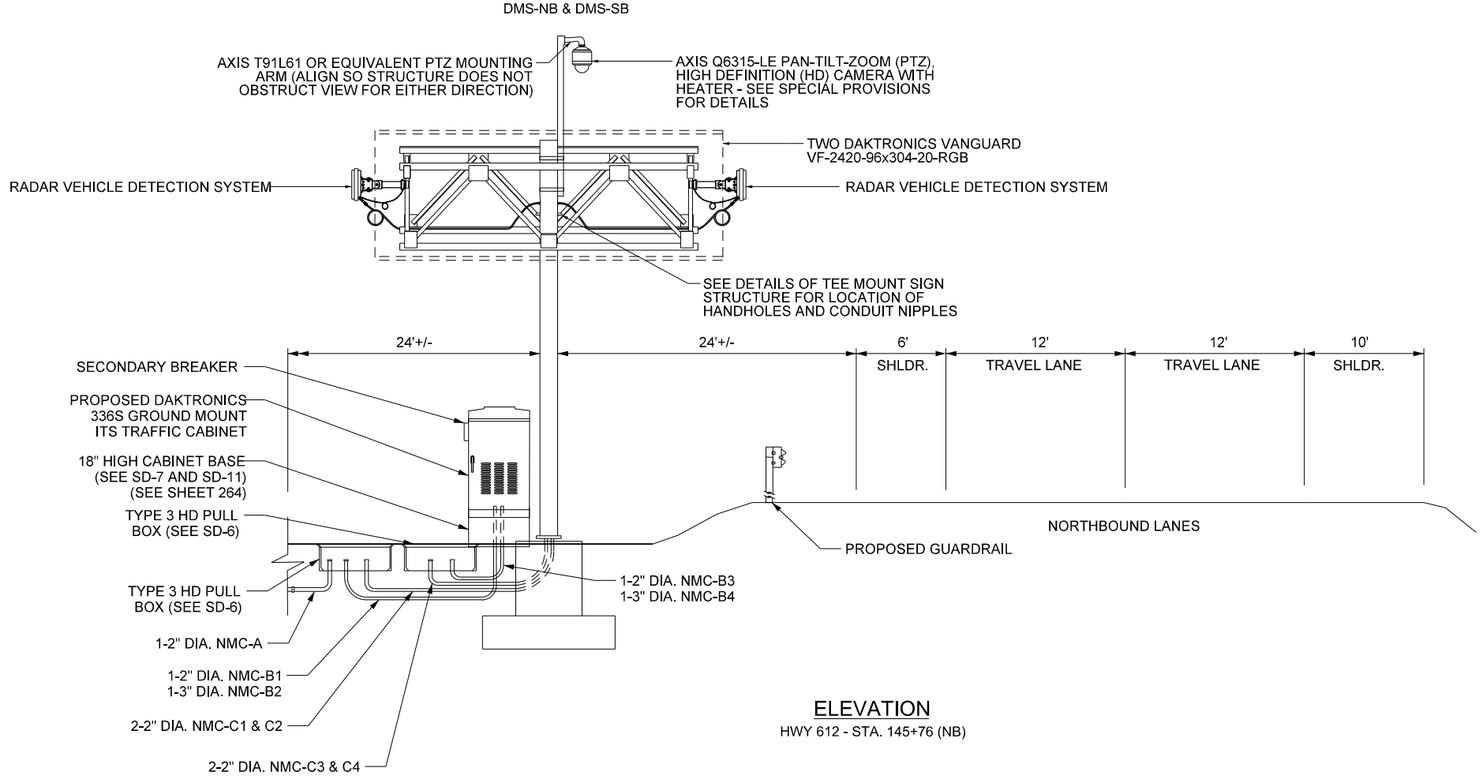
STATE OF ARKANSAS
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No.8141
NICCI D. TINER

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ELEVATION

HWY 612 - STA. 145+76 (SB)




ELEVATION

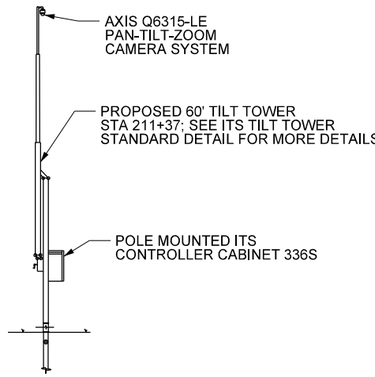
HWY 612 - STA. 145+76 (NB)

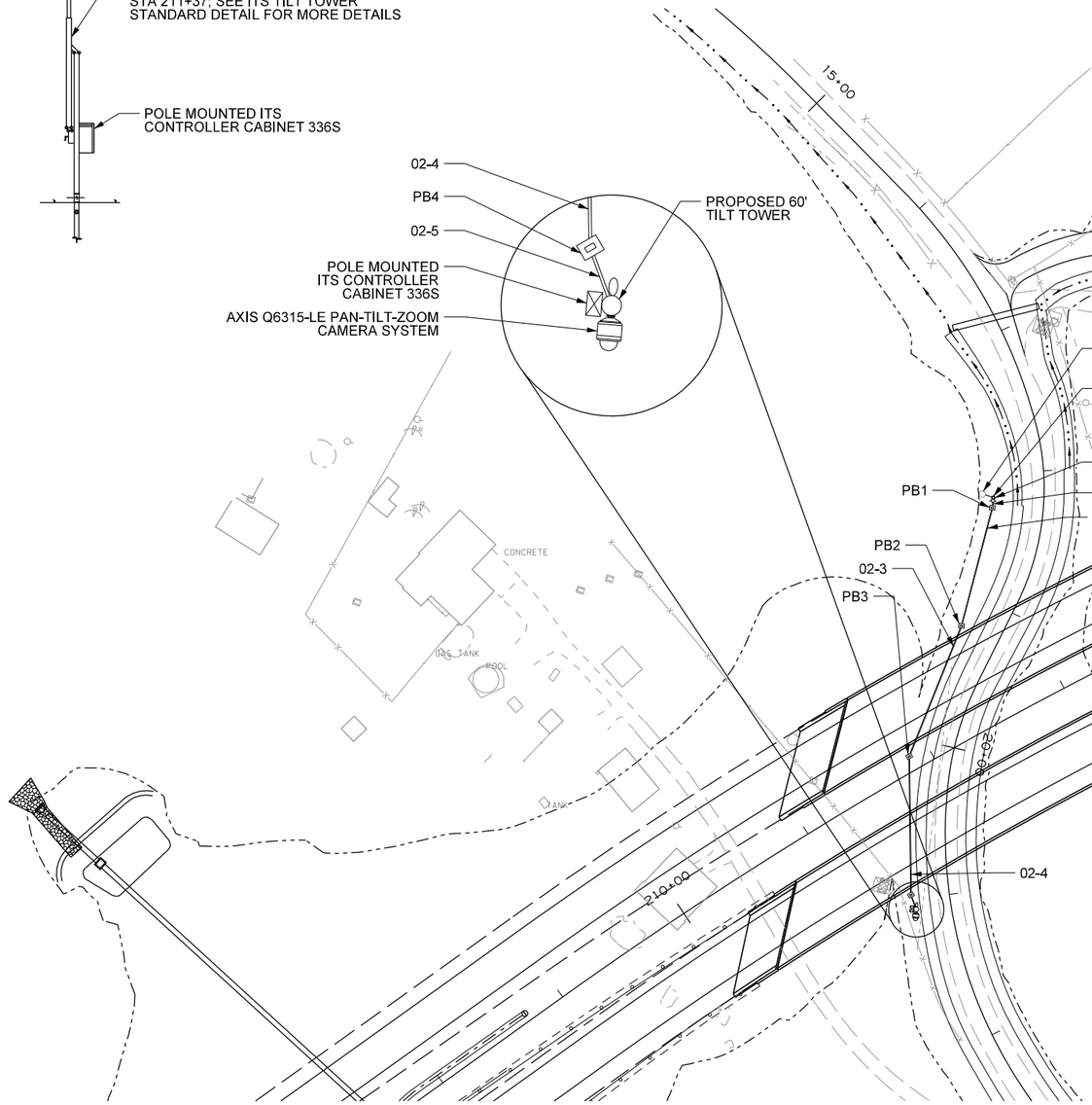
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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 258 | 583 |
| | | ITS PLAN SHEET (STA 211+37) | | | | |

STATE OF ARKANSAS
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No.16675
CLAIRE E. MCKINNEY

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SCALE IN FEET
0 50 100 200

## ITS QUANTITIES

| ITEM NUMBER | ITEM | QUANTITY | UNIT |
|---|---|---|---|
| SP | ETHERNET SWITCH, T100 HARDENED (8-PORT) | 1 | EACH |
| SP | POLE MOUNTED ITS CABINET | 1 | EACH |
| SP | CELLULAR MODEM | 1 | EACH |
| SP | PTZ CAMERA SYSTEM | 1 | EACH |
| SP | ELECTRICAL CONDUCTORS-IN-CONDUIT, COPPER (3C/8 A.W.G., E.G.C.) | 389 | LIN. FT. |
| 709 | GALVANIZED STEEL CONDUIT (2") | 14 | LIN. FT. |
| 710 | NON-METALLIC CONDUIT (2") | 335 | LIN. FT. |
| SS & 711 | CONCRETE PULL BOX (TYPE 2 HD) | 4 | EACH |
| SP | TILT TOWER (60') | 1 | EACH |
| SP | SERVICE POINT ASSEMBLY (1 CIRCUIT) | 1 | EACH |

| SUMMARY OF CONDUIT AND CABLES | | | | | | |
|---|---|---|---|---|---|---|
| RUN NO. | TOTAL LENGTH (FT.) | CONDUIT | CONDUCTORS | | | |
| | | 2" NON-METALLIC CONDUIT | 3C/#8 A.W.G. 1C/#8 E.G.C. | 1C/#8 A.W.G. * / ** | RADAR CABLE*** | CAT5E**** |
| 02-1 | 24 | 1 | 1 | | | |
| 02-2 | 89 | 1 | 1 | | | |
| 02-3 | 102 | 1 | 1 | | | |
| 02-4 | 100 | 1 | 1 | | | |
| 02-5 | 20 | 1 | 1 | | | |
| CABLING IN TILT TOWER | | | | | | |
| Tilt Tower | 54 | | 1 | 1 | 1 | 1 |
| SUBTOTAL | | 335 | 389 | 54 | 54 | 54 |

* - QUANTITY SHOWN FOR BIDDING PURPOSES ONLY, SUBSIDIARY TO TILT TOWER
** - A #8 E.G.C. IS PROVIDED WITH ELECTRICAL SERVICE WIRING, I.E. (3C/3 A.W.G., #8 E.G.C.) FOR GROUNDING, SEPARATE FROM THE 1C/#8 A.W.G.
*** - QUANTITY SHOWN FOR BIDDING PURPOSES ONLY, SUBSIDIARY TO RADAR DETECTION SYSTEM
**** - QUANTITY SHOWN FOR BIDDING PURPOSES ONLY, SUBSIDIARY TO PTZ CAMERA SYSTEM

| PULL BOX SCHEDULE | | | | |
|---|---|---|---|---|
| PULL BOX ID | TYPE | LOCATION & STATION | * OFFSET | * X, Y COORDINATES |
| PB1 | 2 HD | HWY. 612 - STA. 213+13.07 | 131.10' LT | 638550.15, 702350.12 |
| PB2 | 2 HD | HWY. 612 - STA. 212+59.00 | 70.09' LT | 638632.84, 702354.08 |
| PB3 | 2 HD | HWY. 612 - STA. 21'+85.85 | 10.06' LT | 638728.11, 702346.65 |
| PB4 | 2 HD | HWY. 612 - STA. 21'+38.84 | 71.68' RT | 638817.43, 702375.84 |

| SERVICE POINT AND DMS SUMMARY | | | | |
|---|---|---|---|---|
| ITEM ID | TYPE | LOCATION & STATION | * OFFSET | * X, Y COORDINATES |
| SP1 | N/A | HWY. 612 - STA. 213+16.66 | 136.93' LT | 643858.89, 698578.27 |
| TILT TOWER 1 | N/A | HWY. 612 - STA. 21'+37.00 | 81.95' RT | 644146.24, 698583.89 |

*CENTER OF PULL BOX; ALL PULL BOXES SHALL BE AT THE FINISHED SURFACE ELEVATION


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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| 12-12-2023 | | 6 | ARK. | 090069 | 259 | 583 |
| | | ITS VOLTAGE DROP CALCULATIONS | | | | |

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## VOLTAGE DROP CALCULATIONS

| Site No. | Panel ID | ITS Equipment | | | | # of Sets | Wire Size | One-Way Length (ft) | Line Current (Amps) | Voltage (Line-to-Line) | Phase | Power Factor (100% or 85%) | Wire Type | Conduit Type | Impedance (Ω/1000 ft) | Voltage Drop (Volts) | %VD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DMS | CCTV | RDS | Comm | | | | | | | | | | | | |
| 1 | HWY 612 - STA 145+76 | 2 | 1 | 2 | 1 | 1 | 1/0 | 455 | 100 | 240 | 1 | 85% | Copper | PVC | 0.13 | 10.31 | 4.30% |
| 2 | HWY 612 - STA 211+37 | 0 | 1 | 0 | 1 | 1 | 8 | 367 | 50 | 120 | 1 | 85% | Copper | PVC | 0.69 | 4.89 | 4.08% |

| | POWER REQUIREMENTS | | | |
|---|---|---|---|---|
| | DMS | CCTV | RDS | Comm |
| Power (Amps) | 37.50 | 5.78 | 1.25 | 3.88 |

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REVISED DATE:

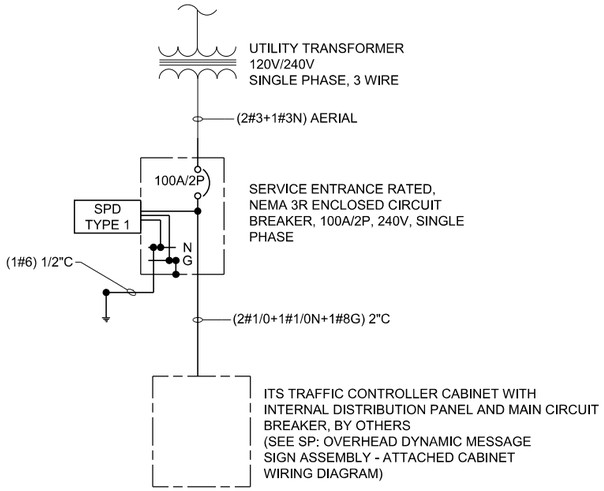
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 260 | 583 |
| | | ITS SYSTEM POWER DIAGRAMS | | | | |

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CLAIRE E. MCKINNEY

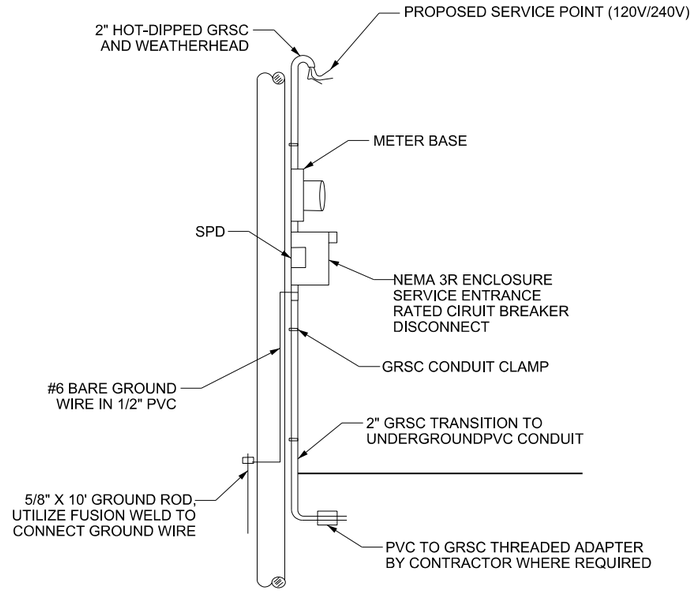
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## ONE LINE DIAGRAM FOR DUAL DMS SYSTEMS

SCALE: NONE

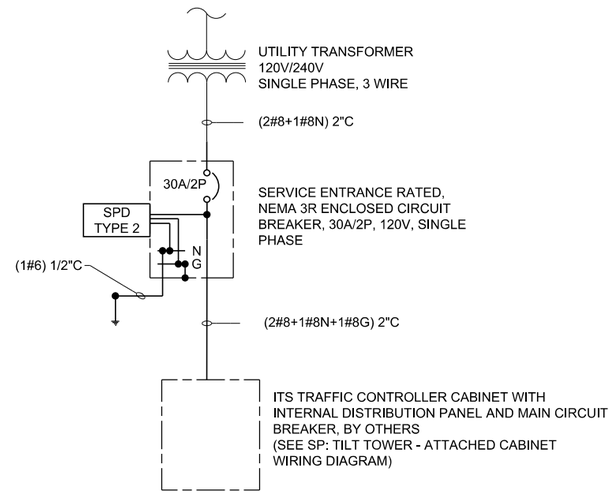



A




## ONE LINE DIAGRAM FOR TILT TOWER SYSTEMS

SCALE: NONE




B

| Site No. | Panel ID | One-Line Diagram | Wire Size | ITS Equipment | | | |
|---|---|---|---|---|---|---|---|
| | | | | DMS | CCTV | RDS | Comm |
| 1 | HWY 612_STA 145+76 | A | 1/0 | 2 | 1 | 2 | 1 |
| 2 | HWY 612_STA 211+37 | B | 8 | | 1 | | 1 |



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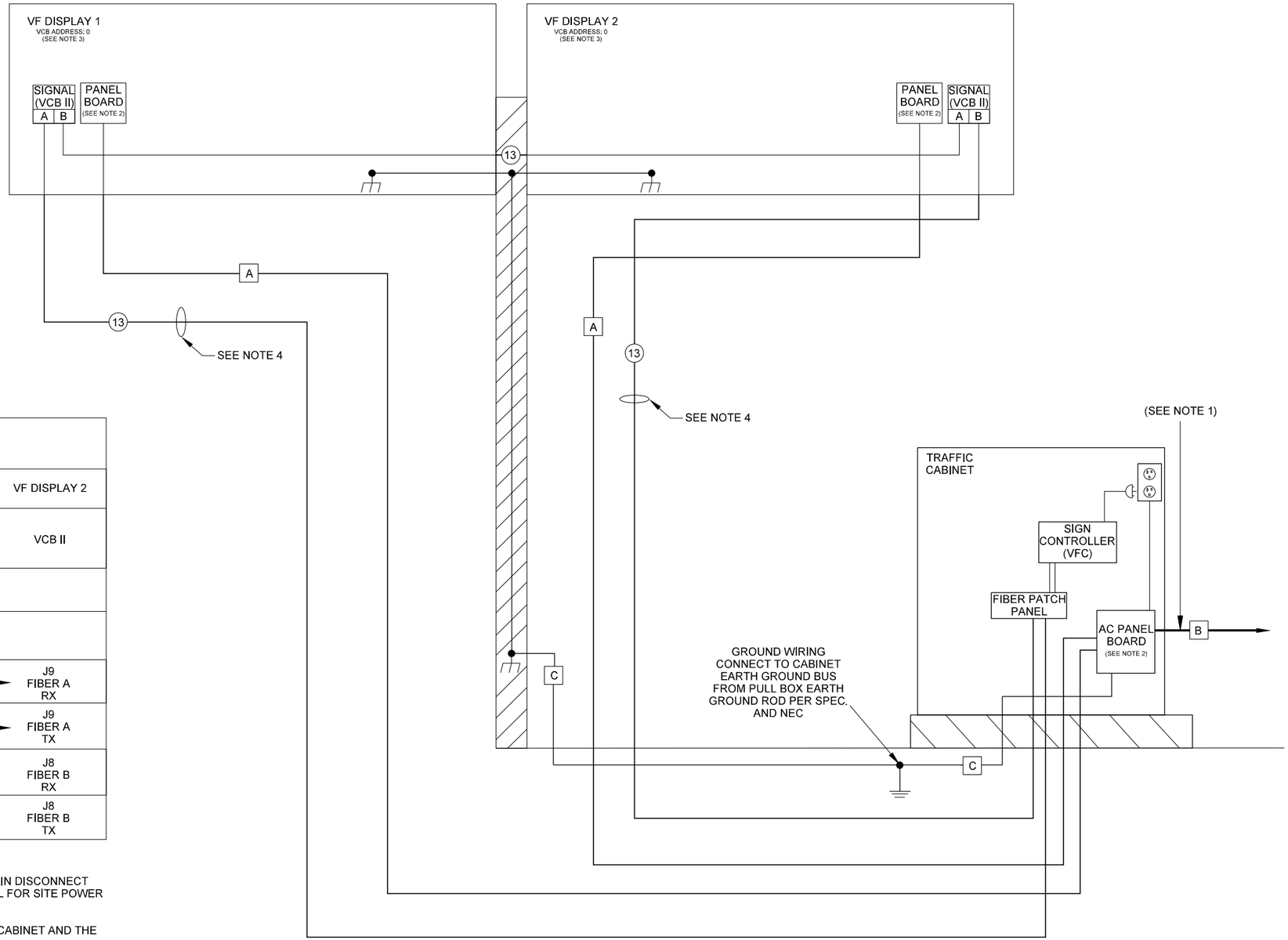
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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 261 | 583 |
| | | ITS WIRING DIAGRAM | | | | |

GENERAL NOTES:

IT IS THE RESPONSIBILTY OF THE ELECTRICAL INSTALLATION CONTRACTOR TO ENSURE THAT ALL ELECTRICAL WORK PERFORMED ON SITE MEETS OR EXCEEDS ALL LOCAL AND NATIONAL ELECTRICAL CODES

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FIBER OPTIC REQUIREMENTS:

50/125 um MM GRADED INDEX, OM3 STANDARD COMPLIANT LASER OPTIMIZED, STANDARD AND PREFERRED FOR MOST SYSTEMS. FIBER OPTIC CABLE SHALL BE 6 STRAND CORNING/95-050-99-X. FIBER OPTIC CABLE DIAMETER SHALL BE 50/125 um 6 FIBER OD, 0.195" (4.0MM) W-1489-DX. ALL ENDS SHALL HAVE UNICAM LC CONNECTORS WITH TWO STRANDS FOR REDUNDANT TX/RX AND TWO UNUSED FIBERS.

SITE FIBER INTERCONNECT

| TRAFFIC CABINET | | VF DISPLAY 1 | VF DISPLAY 2 |
|---|---|---|---|
| SIGN CONTROLLER (VFC) | FIBER PATCH PANEL | VCB II | VCB II |
| J5 FIBER A TX | FIBER A TX | J9 FIBER A RX | |
| J5 FIBER A RX | FIBER A RX | J9 FIBER A TX | |
| | | J8 FIBER B RX | J9 FIBER A RX |
| | | J8 FIBER B TX | J9 FIBER A TX |
| J6 FIBER B TX | FIBER B TX | | J8 FIBER B RX |
| J6 FIBER B RX | FIBER B RX | | J8 FIBER B TX |

NOTES:

1. WIRE BETWEEN TRAFFIC CABINET PANEL BOARD AND MAIN DISCONNECT SIZED AS SPECIFIED. CONTACT DAKTRONICS PERSONNEL FOR SITE POWER NUMBER AND SIGN PARAMETERS.
2. DAKTRONICS SUPPLIED PANEL BOARDS IN THE TRAFFIC CABINET AND THE VF-2X20 (DMS) ACCEPTS 8 AWG TO 1 AWG WIRE.
3. SEE DISPLAY MANUAL FOR INSTRUCTIONS ON VCB ADDRESSING.
4. 6 STRAND MM F.O. CABLE, SEE F.O. REQUIREMENTS FOR ADDITIONAL INFORMATION.
5. LIQUID-TIGHT CONDUIT SHALL BE 1.5" FLEXIBLE WATER TIGHT CONDUIT CONNECTING FROM THE 1.5" THREADED CONDUIT NIPPLE OF THE OH TEE STRUCTURE TO THE 1.5" HUB CONNECTOR ON THE DMS FOR COMMUNICATION (SIGNAL) CABLING OR POWER WIRING.
6. SEE TEE MOUNT STRUCTURE CONDUIT RUNS (ISOMETRIC VIEW) TABLE ON SHEET 265 FOR MORE DETAILS.

WIRE DETAIL

| ID TAG | DESCRIPTION | FUNCTION |
|---|---|---|
| 13 | F.O.CABLE, 6 STRAND, 50/125 uM, LC CONNECTORS (2 SPARE) | SIGNAL |
| A | 3C/8 A.W.G. E.G.C. | 120/240 VAC (FROM CABINET TO DMS) |
| B | FOR WIRING TYPE, SEE "SITE CONDUIT RUNS AND CABLING" TABLE | 120/240 VAC (FROM SERV. POLE TO CABINET) |
| C | 1C/8 A.W.G. | SYSTEM GROUND INTERCONNECTION |

* - GROUND BOND CONNECTION BETWEEN EQUIPMENT AND SERVICE POINT GROUND AS PER MANUFACTURER'S RECOMMENDATION, INSTALLATION OF GROUND BOND CONNECTION IS SUBSIDIARY TO PAY ITEM "OVERHEAD DMS ASSEMBLY".

## WIRING DIAGRAM

DUAL DMS

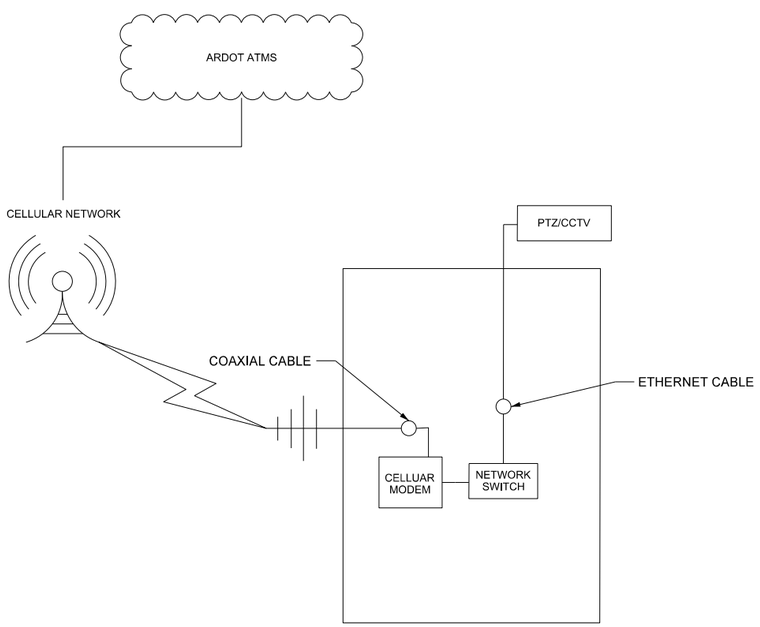
ITS WIRING DIAGRAM


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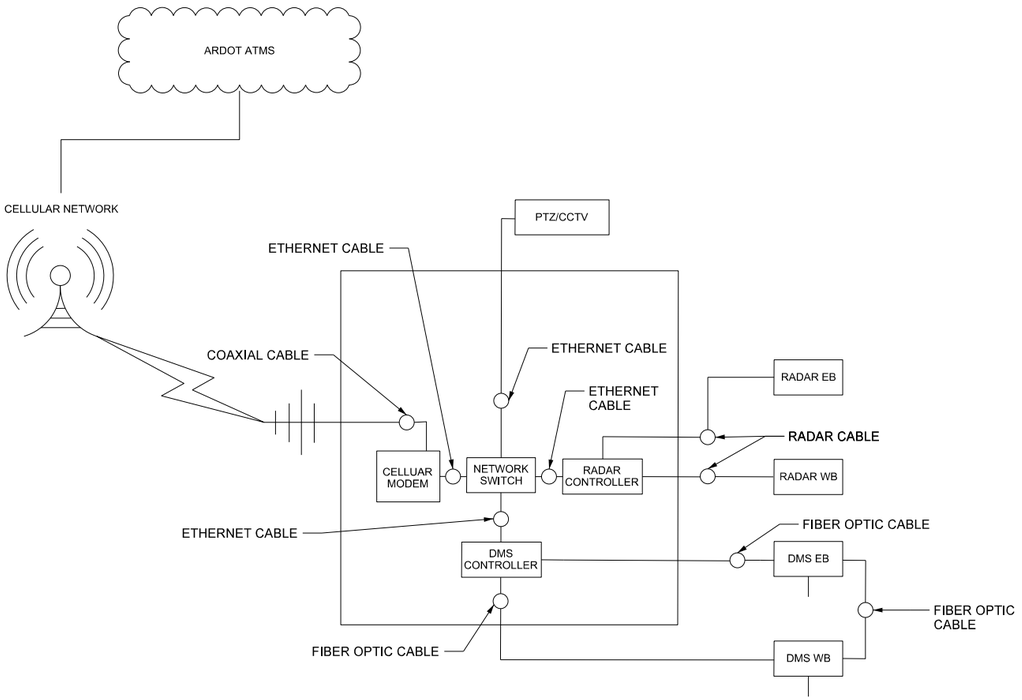
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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 262 | 583 |
| | | ITS BLOCK DIAGRAM | | | | |

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TILT TOWER BLOCK DIAGRAM




DUAL DMS BLOCK DIAGRAM

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ITS BLOCK DIAGRAM

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| 12-12-2023 | | 6 | ARK. | 090069 | 263 | 583 |
| | | ITS DETAIL | | | | |

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| TEE-MOUNT STRUCTURE CONDUIT RUNS | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SITE | LOCATION | DMS | PTZ | RDS | NMC-A (2" DIA.) | NMC-B1 (2" DIA.) | NMC-B2 (3" DIA.) | NMC-C1 (2" DIA.) | NMC-C2 (2' DIA.) | COLUMN 1 | LTC-F1 (1.5" DIA.) | LTC-P1 (1.5" DIA.) | LTC-R1 (1.5" DIA.) | LTC-F12 (1.5" DIA.) | LTC-PTZ1 (1.5" DIA.) | LTC-PTZ2 (1.5" | NMC-B3 (2" DIA.) | NMC-B4 (3" DIA.) | NMC-C3 (2" DIA.) | NMC-C4 (2" DIA.) | COLUMN 2 | LTC-F2 (1.5" DIA.) | LTC-P2 (1.5" DIA.) | LTC-R2 (1.5" DIA.) |
| 1 | HWY 612 - STA 145+76 | 2 | 1 | 2 | 1-3C/0 A.W.G., #8 E.G.C. | 1-F.O. CBL 1-CAT5E, 1-R CBL | 1-3C/0 A.W.G., #8 E.G.C., | 1-F.O. CBL 1-CAT5E, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. | 3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-R CBL, 1-CAT5E | 2-F.O. CABLE | 3C/8 A.W.G., #8 E.G.C. | 1-R CABLE | 1-F.O. CABLE | 1-CAT5E CBL | SPARE | 1-F.O. CBL, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. | 1-F.O. CBL, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. | 3C/8 A.W.G., #8 E.G.C. | 2-F.O. CBL | 3C/8 A.W.G., #8 E.G.C. | 1-R CBL |
| CONDUIT FILL (LARGEST FILL %) | | N/A | N/A | N/A | 8% | 8% | 10% | 8% | 2% | N/A | 9% | 3% | 5% | 5% | 4% | N/A | 5% | 1% | 5% | 2% | N/A | 9% | 3% | 5% |

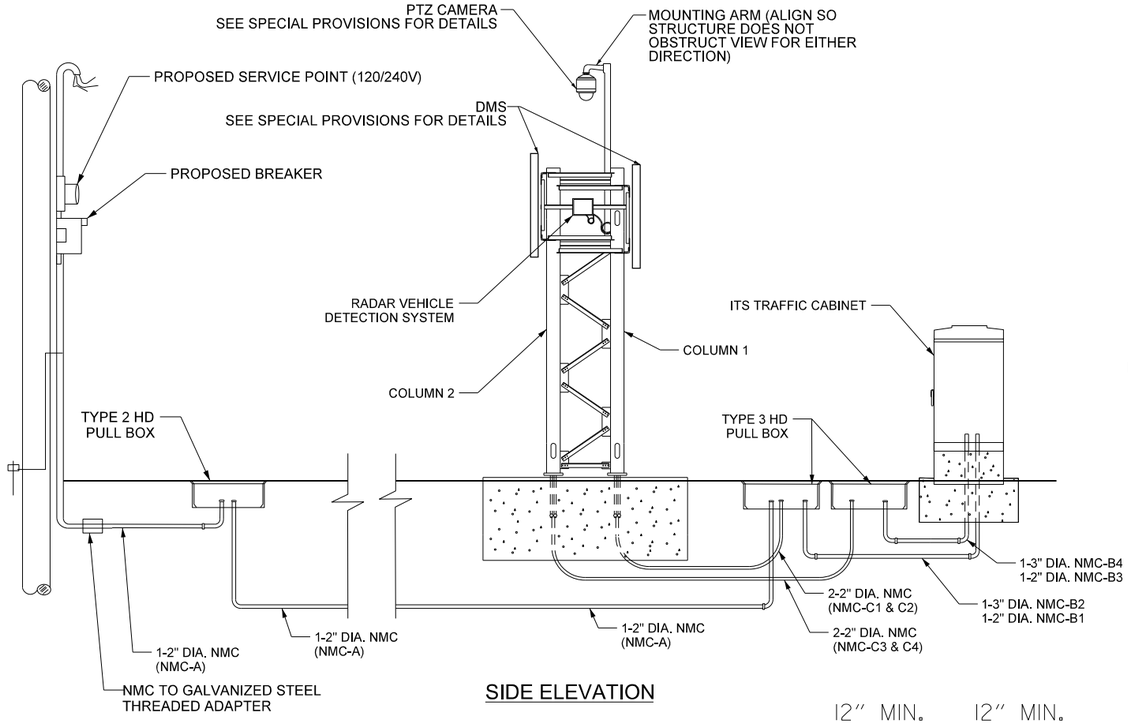
REFER TO ITS PLAN SHEETS FOR MORE DETAILS. 1-1C#8 A.W.G., E.G.C. - UTILIZED FOR DMS GROUNDING

NOTES:

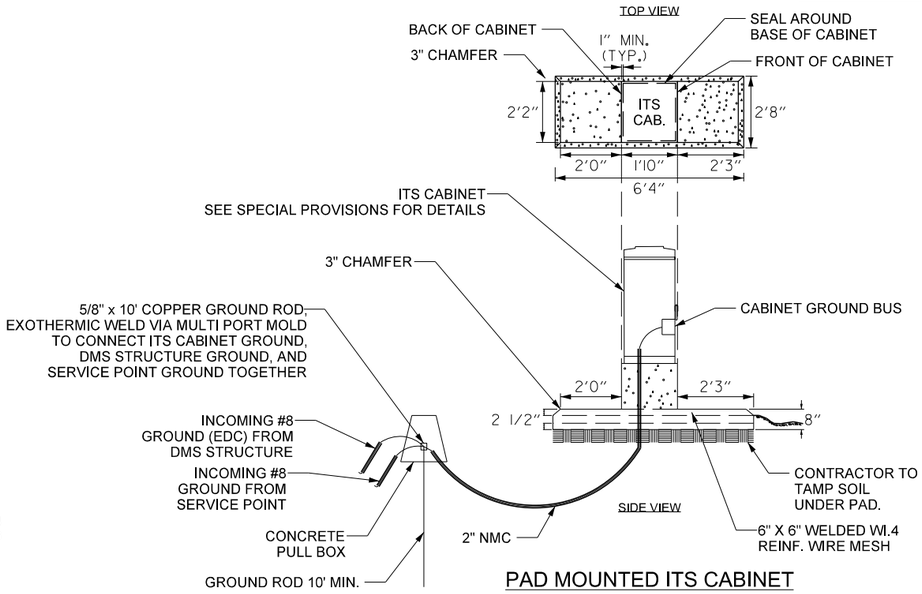
1. CONDUITS BETWEEN SERVICE POINT AND PULL BOXES ARE NUMBERED WITH LETTER A.
2. CONDUITS BETWEEN ITS CABINET AND PULL BOXES ARE NUMBERED WITH LETTER B.
3. CONDUITS BETWEEN DMS STRUCTURE AND PULL BOXES ARE NUMBERED WITH LETTER C.

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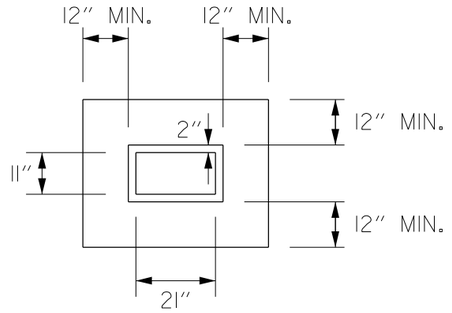
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 264 | 583 |
| | | ITS TEE-MOUNT STANDARD DETAIL | | | | |



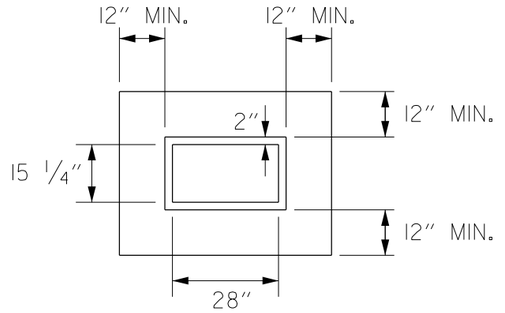

SIDE ELEVATION



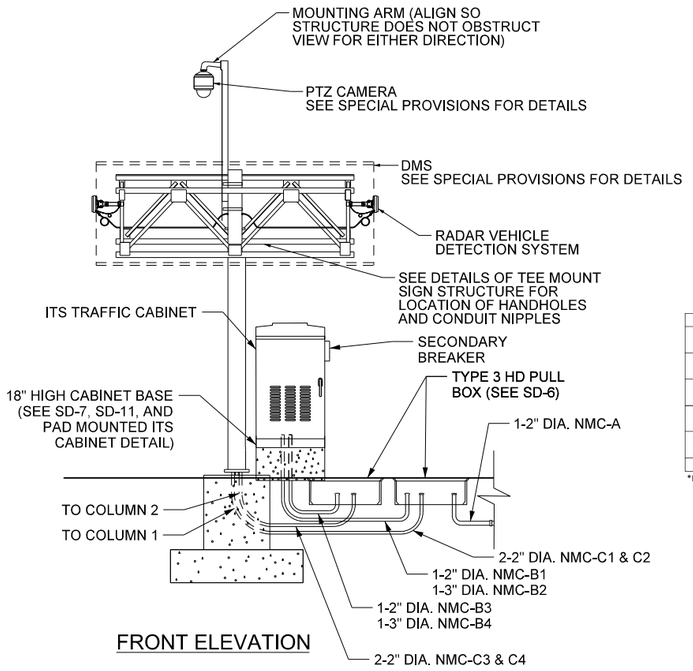

PAD MOUNTED ITS CABINET




TYPE 2 HD PULL BOX




TYPE 3 HD PULL BOX




FRONT ELEVATION

TEE-MOUNT STRUCTURE CONDUIT RUNS (STANDARD DETAIL)

| SITE | LOCATION | DMS | PTZ | RDS | NMC-A (2" DIA.) | NMC-B1 (2" DIA.) | NMC-B2 (3" DIA.) | NMC-C1 (2" DIA.) | NMC-C2 (2" DIA.) | COLUMN 1 | LTC-F1 (1.5" DIA.) | LTC-P1 (1.5" DIA.) | LTC-R1 (1.5" DIA.) | LTC-F12 (1.5" DIA.) | LTC-PTZ1 (1.5" DIA.) | LTC-PTZ2 (1.5" DIA.) | NMC-B3 (2" DIA.) | NMC-B4 (3" DIA.) | NMC-C3 (2" DIA.) | NMC-C4 (2" DIA.) | COLUMN 2 | LTC-F2 (1.5" DIA.) | LTC-P2 (1.5" DIA.) | LTC-R2 (1.5" DIA.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| # | STAND-ALONE DMS | 1 | 1 | 1 | * | 1-F.O. CBL 1-CAT5E, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. * | 1-F.O. CBL 1-CAT5E, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. | 3C/8 A.W.G., #3 E.G.C. 1-F.O. CBL, 1-R CBL, 1-CAT5E | 1-F.O. CBL | 3C/8 A.W.G., #8 E.G.C. | 1-R CBL | SPARE | 1-CAT5E CBL | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE |
| # | DUAL DMS (1 TEE MOUNT) | 2 | 1 | 2 | * | 1-F.O. CBL 1-CAT5E, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. * | 1-F.O. CBL 1-CAT5E, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. | 3C/8 A.W.G., #3 E.G.C. 1-F.O. CBL, 1-R CBL, 1-CAT5E | 2-F.O. CBL | 3C/8 A.W.G., #8 E.G.C. | 1-R CBL | 1-F.O. CBL | 1-CAT5E CBL | SPARE | 1-F.O. CBL, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. | 1-F.O. CBL, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. | 3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-R CBL | 2-F.O. CBL | 3C/8 A.W.G., #8 E.G.C. | 1-R CBL |
| #A* | (2) SEPARATE DMS STRUCTURES* | 1 | 1 | 1 | * | 1-F.O. CBL 1-CAT5E, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. * | 1-F.O. CBL 1-CAT5E, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. | 3C/8 A.W.G., #3 E.G.C. 1-F.O. CBL, 1-R CBL, 1-CAT5E | 1-F.O. CBL | 3C/8 A.W.G., #8 E.G.C. | 1-R CBL | SPARE | 1-CAT5E CBL | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE |
| #B* | | 1 | 1 | N/A | * | 1-F.O. CBL 1-CAT5E | 3C/8 A.W.G., #8 E.G.C. * | 1-F.O. CBL 1-CAT5E | 3C/8 A.W.G., #8 E.G.C. | 3C/8 A.W.G., #3 E.G.C. 1-F.O. CBL, 1-CAT5E | 1-F.O. CBL | 3C/8 A.W.G., #8 E.G.C. | SPARE | SPARE | 1-CAT5E CBL | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE |
| CONDUIT FILL (LARGEST FILL %) | | N/A | N/A | N/A | * | 8% | * | 8% | 2% | N/A | 9% | 3% | 5% | 5% | 4% | N/A | 5% | 1% | 5% | 2% | N/A | 9% | 3% | 5% |

*REFER TO SITE LAYOUT SHEETS FOR MORE DETAILS ON POWER CONDUCTOR SIZING FROM ELECTRICAL SERVICE POINT

NOTES:
1. CONDUITS BETWEEN SERVICE POINT AND PULL BOXES ARE NUMBERED WITH LETTER A.
2. CONDUITS BETWEEN ITS CABINET AND PULL BOXES ARE NUMBERED WITH LETTER B.
3. CONDUITS BETWEEN DMS STRUCTURE AND PULL BOXES ARE NUMBERED WITH LETTER C.

LEGEND
DMS: DYNAMIC MESSAGING BOARD
NMC: NON-METALLIC CONDUIT
LTC: LIQUID TIGHT CONDUIT
F: FIBER OPTIC
PTZ: PAN-TILT-ZOOM CAMERA
P: POWER
R: RADAR DETECTION SENSOR

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.16675 CLAIRE E. MCKINNEY

Digitally Signed 10/20/2023

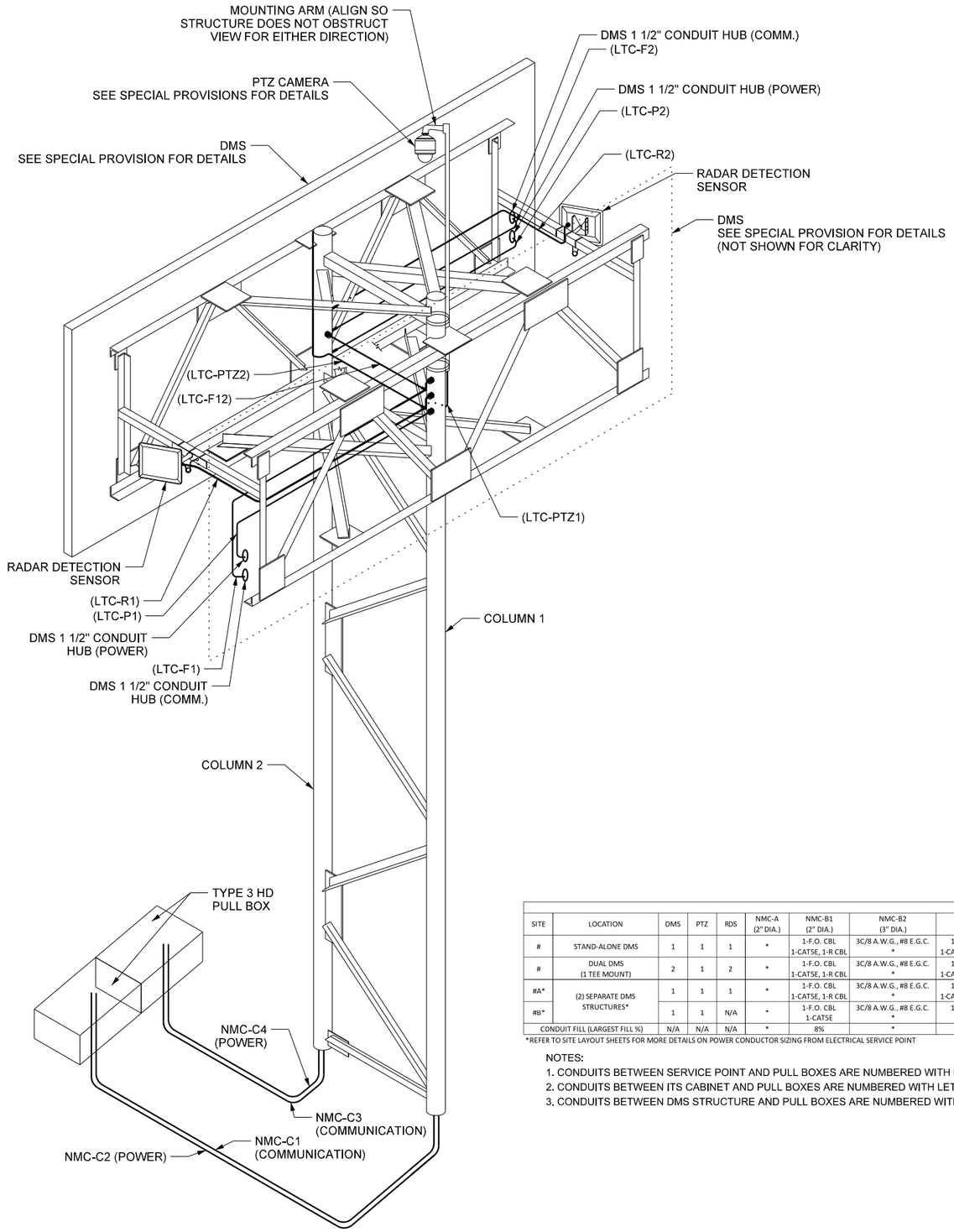
ITS TEE-MOUNT STANDARD DETAIL

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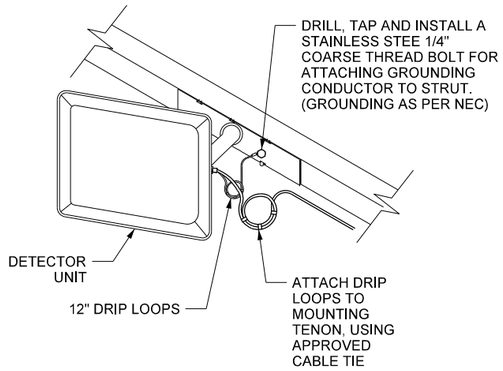
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| | | ITS TEE-MOUNT STANDARD DETAIL | | | | |

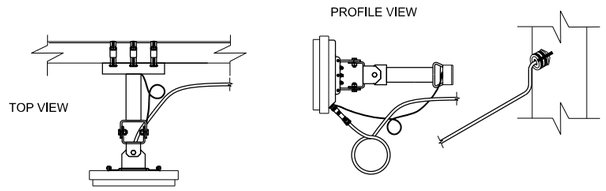
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

Digitally Signed 10/20/2023




ISOMETRIC VIEW
NOT TO SCALE




SENSOR MOUNTING BRACKET DETAILS
NOT TO SCALE

| TEE-MOUNT STRUCTURE CONDUIT RUNS (STANDARD DETAIL) | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SITE | LOCATION | DMS | PTZ | RDS | NMC-A (2" DIA.) | NMC-B1 (2" DIA.) | NMC-B2 (3" DIA.) | NMC-C1 (2" DIA.) | NMC-C2 (2" DIA.) | COLUMN 1 | LTC-F1 (1.5" DIA.) | LTC-P1 (1.5" DIA.) | LTC-R1 (1.5" DIA.) | LTC-F12 (1.5" DIA.) | LTC-PTZ1 (1.5" DIA.) | LTC-PTZ2 (1.5" DIA.) | NMC-B3 (2" DIA.) | NMC-B4 (3" DIA.) | NMC-C3 (2" DIA.) | NMC-C4 (2" DIA.) | COLUMN 2 | LTC-F2 (1.5" DIA.) | LTC-P2 (1.5" DIA.) | LTC-R2 (1.5" DIA.) |
| # | STAND-ALONE DMS | 1 | 1 | 1 | * | 1-F.O. CBL 1-CAT5E, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. * | 1-F.O. CBL 1-CAT5E, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. | 3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-R CBL, 1-CAT5E | 1-F.C. CBL | 3C/8 A.W.G., #8 E.G.C. | 1-R CBL | SPARE | 1-CAT5E CBL | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE |
| # | DUAL DMS (1 TEE MOUNT) | 2 | 1 | 2 | * | 1-F.O. CBL 1-CAT5E, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. * | 1-F.O. CBL 1-CAT5E, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. | 3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-R CBL, 1-CAT5E | 2-F.C. CBL | 3C/8 A.W.G., #8 E.G.C. | 1-R CBL | 1-F.O. CBL | 1-CAT5E CBL | SPARE | 1-F.O. CBL, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. | 1-F.O. CBL, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. | 3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-R CBL | 2-F.O. CBL | 3C/8 A.W.G., #8 E.G.C. | 1-R CBL |
| #A* | (2) SEPARATE DMS STRUCTURES* | 1 | 1 | 1 | * | 1-F.O. CBL 1-CAT5E, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. * | 1-F.O. CBL 1-CAT5E, 1-R CBL | 3C/8 A.W.G., #8 E.G.C. | 3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-R CBL, 1-CAT5E | 1-F.C. CBL | 3C/8 A.W.G., #8 E.G.C. | 1-R CBL | SPARE | 1-CAT5E CBL | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE |
| #B* | | 1 | 1 | N/A | * | 1-F.O. CBL 1-CAT5E | 3C/8 A.W.G., #8 E.G.C. | 1-F.O. CBL 1-CAT5E | 3C/8 A.W.G., #8 E.G.C. | 3C/8 A.W.G., #8 E.G.C. 1-F.O. CBL, 1-CAT5E | 1-F.C. CBL | 3C/8 A.W.G., #8 E.G.C. | SPARE | SPARE | 1-CAT5E CBL | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE | SPARE |
| CONDUIT FILL (LARGEST FILL %) | | N/A | N/A | N/A | * | 8% | * | 8% | 2% | N/A | 9% | 3% | 5% | 5% | 4% | N/A | 5% | 1% | 5% | 2% | N/A | 9% | 3% | 5% |

*REFER TO SITE LAYOUT SHEETS FOR MORE DETAILS ON POWER CONDUCTOR SIZING FROM ELECTRICAL SERVICE POINT

NOTES:
1. CONDUITS BETWEEN SERVICE POINT AND PULL BOXES ARE NUMBERED WITH LETTER A.
2. CONDUITS BETWEEN ITS CABINET AND PULL BOXES ARE NUMBERED WITH LETTER B.
3. CONDUITS BETWEEN DMS STRUCTURE AND PULL BOXES ARE NUMBERED WITH LETTER C.

LEGEND
DMS: DYNAMIC MESSAGING BOARD
NMC: NON-METALLIC CONDUIT
LTC: LIQUID TIGHT CONDUIT
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P: POWER
R: RADAR DETECTION SENSOR

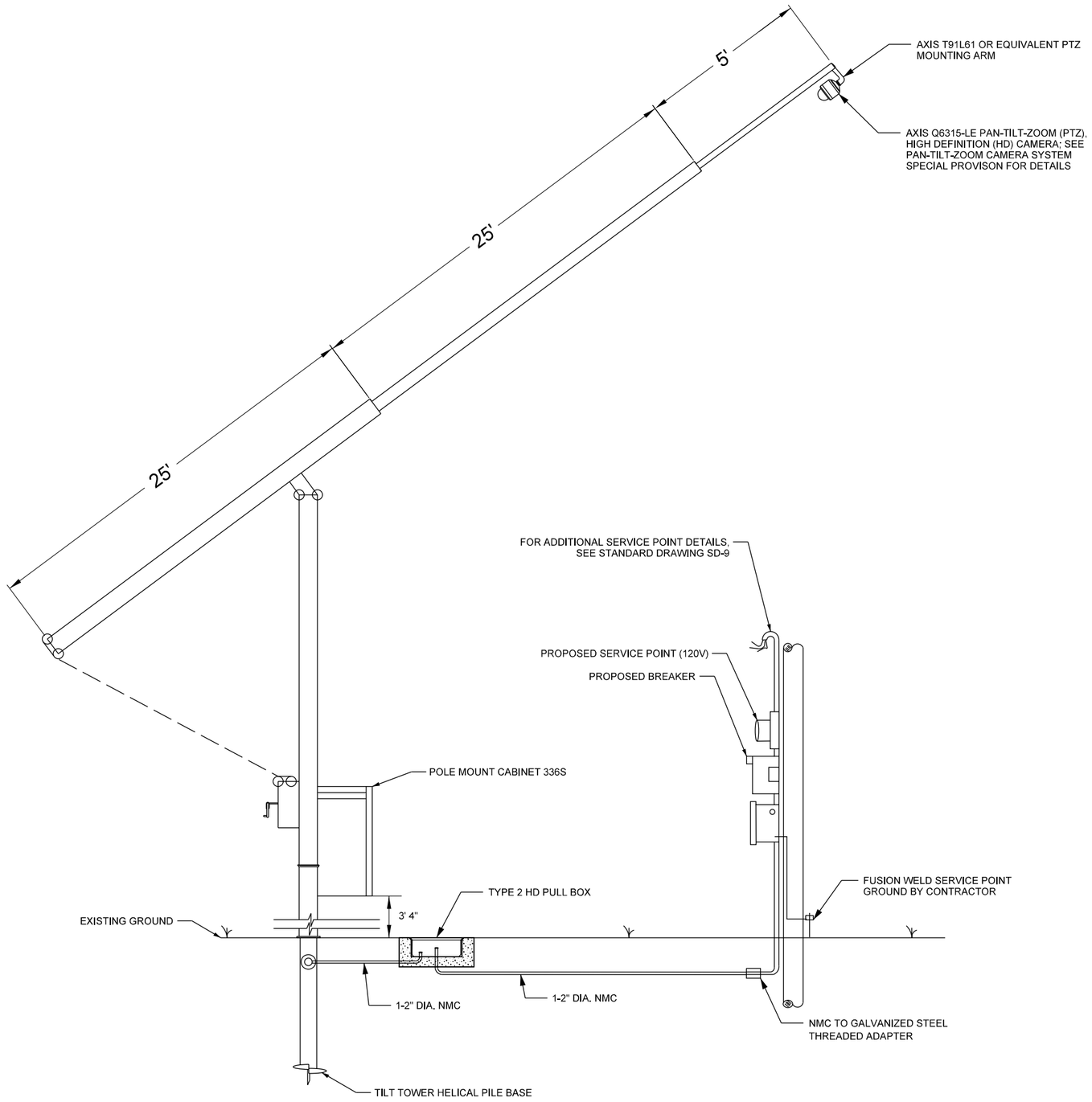
ITS TEE-MOUNT STANDARD DETAIL

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 266 | 583 |
| | | ITS TILT TOWER STANDARD DETAIL | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16675
CLAIRE E. MCKINNEY

Digitally Signed 10/20/2023



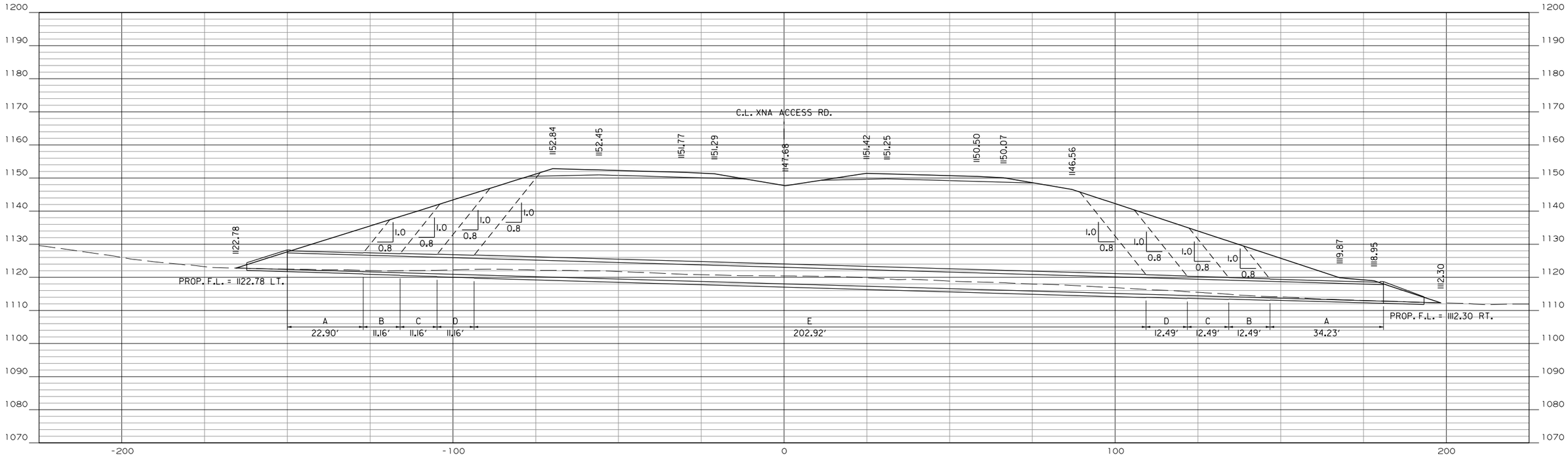

ITS TILT TOWER STANDARD DETAIL

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 267 | 583 |
| | | CULVERT DIAGRAMS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023




## XNA ACCESS RD. STA. 146+40 - CULVERT DIAGRAM

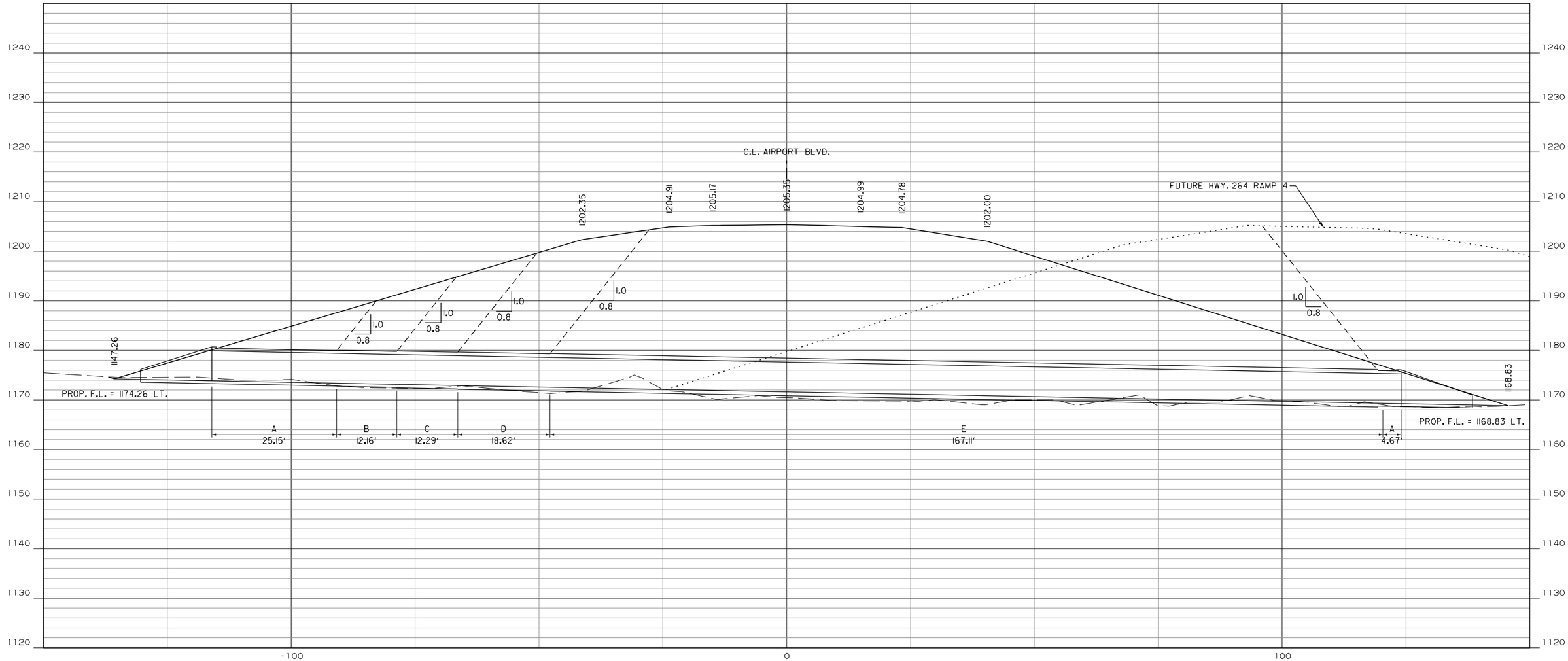
STA. 146+40 CONSTRUCT
8' x 5' x 303' R.C. BOX CULVERT
15° RT. FWD. SKEW
WITH 3:1 WINGS LT. AND RT.
Q50 = 185 CFS DA = 89 ACRES

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 268 | 583 |
| | | CULVERT DIAGRAMS | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13653
ADAM E. WIERCIAK

DIGITALLY SIGNED 10/20/2023




## AIRPORT BLVD. STA. 267+73 - CULVERT DIAGRAM

STA. 267+73 CONSTRUCT
6' x 6' x 240' R.C. BOX CULVERT
23° LT. FWD. SKEW
WITH 3:1 WINGS LT. AND RT.
Q50 = 262 CFS DA = 141 ACRES

CULVERT DIAGRAMS

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WORKSPACE: AHTD
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 269 | 583 |
| | | SEE TABLE | | GENERAL NOTES | | 66717 |

## PROJECT GENERAL NOTES

BENCHMARK: Vertical Control Data are shown on the Survey Control Data Sheets.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 Edition) with applicable Supplemental Specifications and Special Provisions. Unless otherwise noted in the plans, Section and Subsection numbers refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications (2017, 8th Edition)

LIVE LOADING: HL-93

MATERIALS AND STRENGTHS:

| | |
|---|---|
| Class S(AE) Concrete (Superstructure) | f'c = 4,000 psi |
| Class S Concrete (Substructure) | f'c = 3,500 psi |
| Reinforcing Steel AASHTO M 31 or M 322, Type A) | fy = 60,000 psi |
| Reinforcing Steel (ASTM A706) | fy = 60,000 psi |
| Structural Steel (ASTM A709, Gr. 50) | Fy = 50,000 psi |
| Structural Steel (ASTM A709, Gr. 50W) | Fy = 50,000 psi |
| Structural Steel (ASTM A709, Gr. 36) | Fy = 36,000 psi |

BORING LOGS: Boring logs may be obtained from the Construction Contract Development Section of the Program Management Division.

BRIDGE DECK: The concrete bridge deck shall be given a tine finish as specified for final finishing in Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.

PROTECTIVE SURFACE TREATMENT: Class 2 Protective Surface Treatment shall be applied to the roadway surface in accordance with Subsection 803.

TEXTURED COATING: Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in Special Provision "TEXTURED COATING FINISH" and in accordance with Subsection 802.19(b)(3). Textured Coating Finish shall not be applied on surfaces where Class 2 Protective Surface Treatment is applied.

For additional notes, see "GENERAL NOTES" on each bridge layout.

### BRIDGE NUMBERS

| |
|---|
| A7656 |
| B7656 |
| A7657 |
| B7657 |
| A7658 |
| B7658 |
| A7659 |
| B7659 |
| A7660 |
| B7660 |
| 07661 |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER

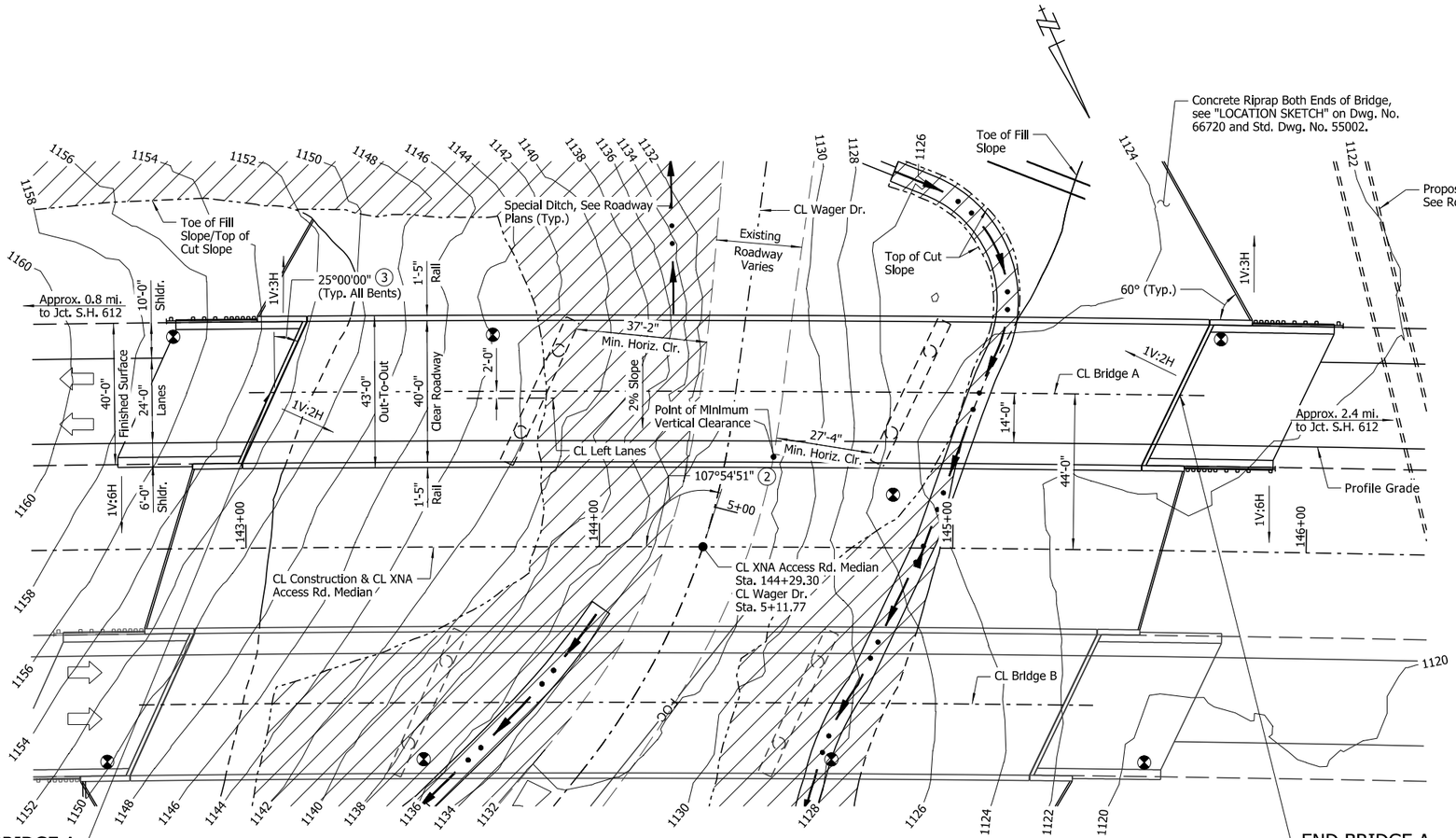
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BRIDGE ENGINEER

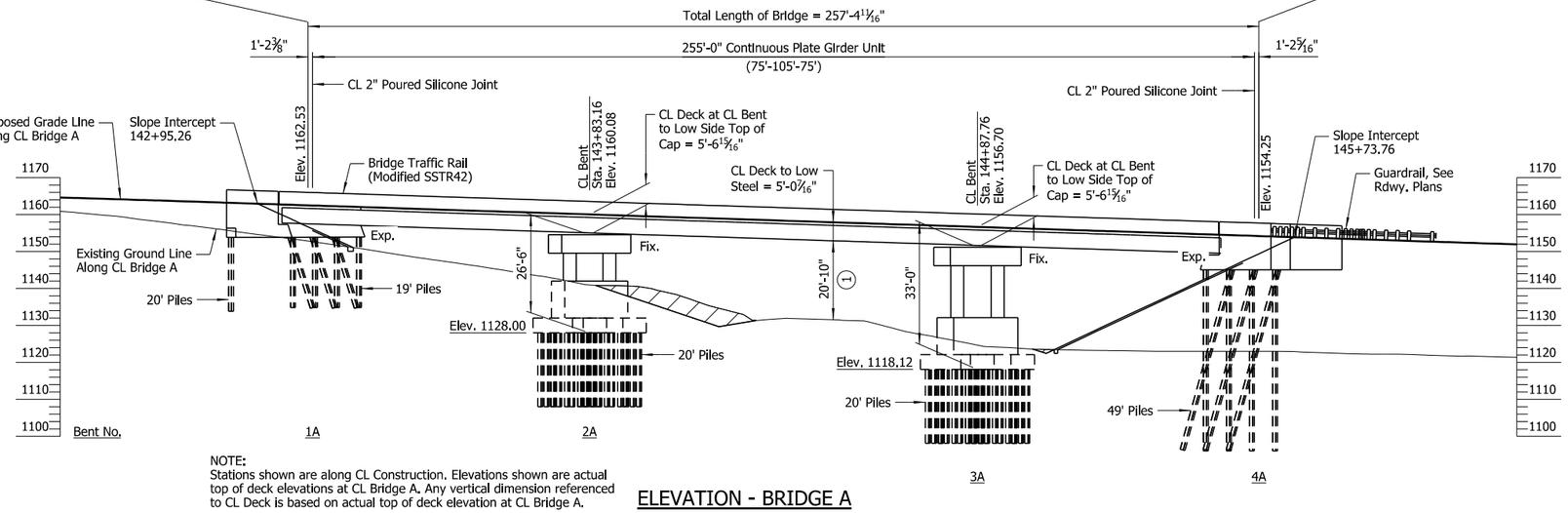
PROJECT GENERAL NOTES
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: JES DATE: AUG. 2022 SCALE: No Scale
DESIGNED BY: CSW DATE: MAR. 2022
BRIDGE NO. SEE TABLE DRAWING NO. 66717

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 270 | 583 |
| | | A7656 | | LAYOUT | | 66718 |




NOTE:
Stations shown are along CL Construction. Elevations shown are actual top of deck elevations at CL Bridge A. Any vertical dimension referenced to CL Deck is based on actual top of deck elevation at CL Bridge A.

FOR R/W DATA, SEE ROADWAY PLANS

NOTES:
Use Type F Approach Slab (W = 36'-0") at each end of bridge. See Std. Dwg. No. 55040F1.

Use Type F Approach Gutters at each end of bridge. See Std. Dwg. No. 55030F.

## EXISTING UTILITIES LEGEND

FOC = Fiber Optic Cable

NOTE:
Utilities shown are based on locations at time of survey and do not reflect any potential utility relocations prior to construction.

## HORIZONTAL CURVE DATA

XNA Access Rd. Median
PI = 156+17.12
Δ = 14°18'07" Rt.
D = 0°30'00"
T = 1437.67'
L = 2860.39'
e = 0.02%
R = 11459.16'

NOTES:
For "PROJECT GENERAL NOTES", see Dwg. No. 66717.

For "GENERAL NOTES" and "LOCATION SKETCH", see Dwg. No. 66720.

For "ELEVATION OF SOIL BORINGS - BRIDGE A", "BORING LEGEND" and "N-VALUES", see Dwg. No. 66721.

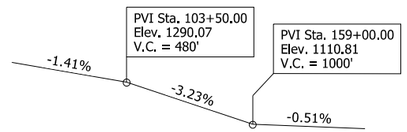
CL Construction is on a 0°30'00" curve right. CL Girders and the longitudinal lines of the bridge and approach slabs and gutters shall be constructed on curves concentric with CL Construction.

(1) Point of Minimum Vertical Clearance

(2) Angle measured at point of intersection between line tangent to CL XNA Access Rd. Median and line tangent to CL Wager Dr.

(3) For Bents 1A & 4A:
Measured from CL Joint to a line radial to CL Bridge A at CL Joint.

For Bents 2A & 3A:
Measured from CL Bent to a line radial to CL Bridge A at CL Bent.




## VERTICAL CURVE DATA

XNA Access Rd.
(Profile Grade 14' Right of CL Bridge A)

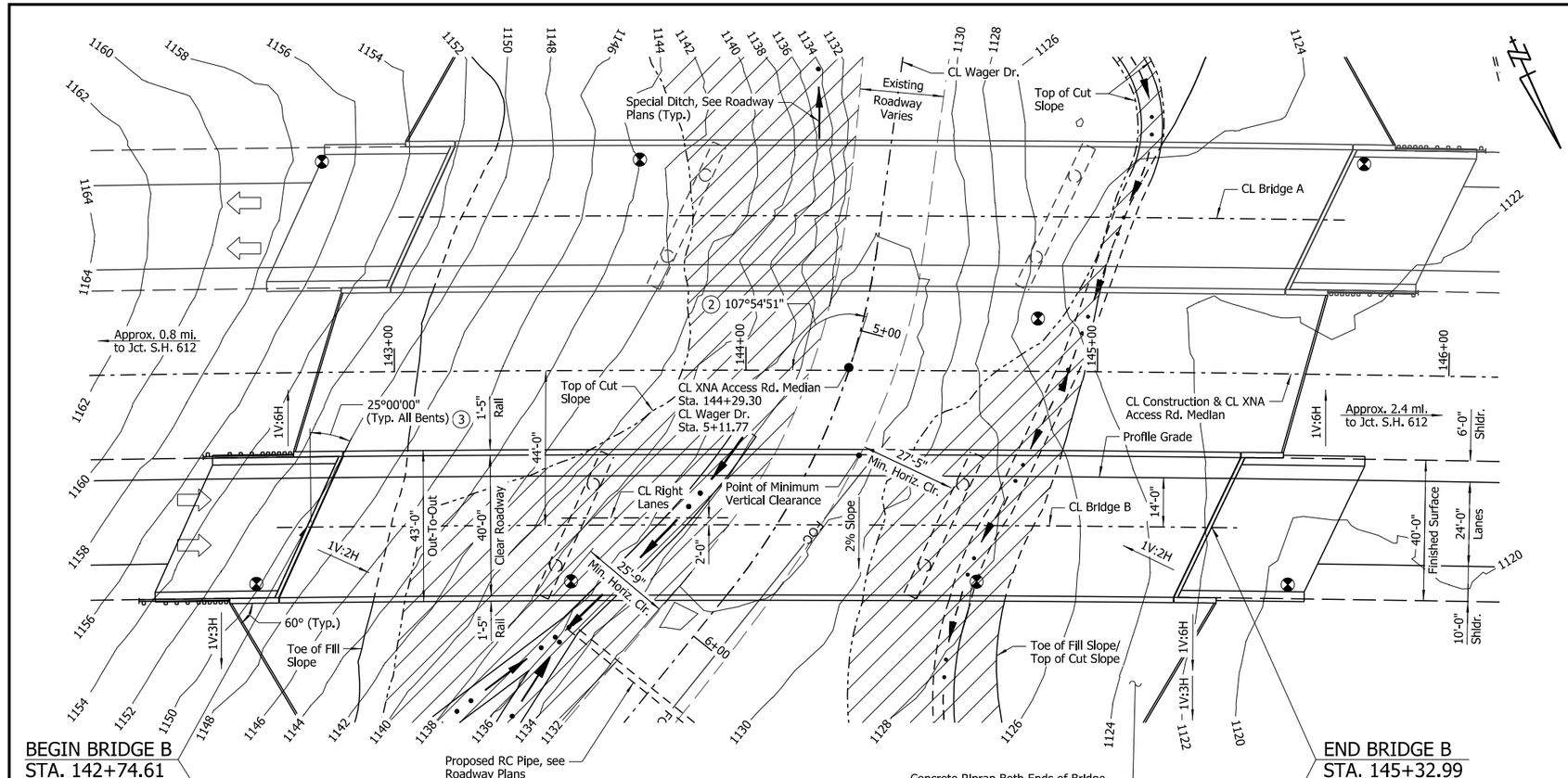
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 1 OF 4
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER WAGER DR.
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

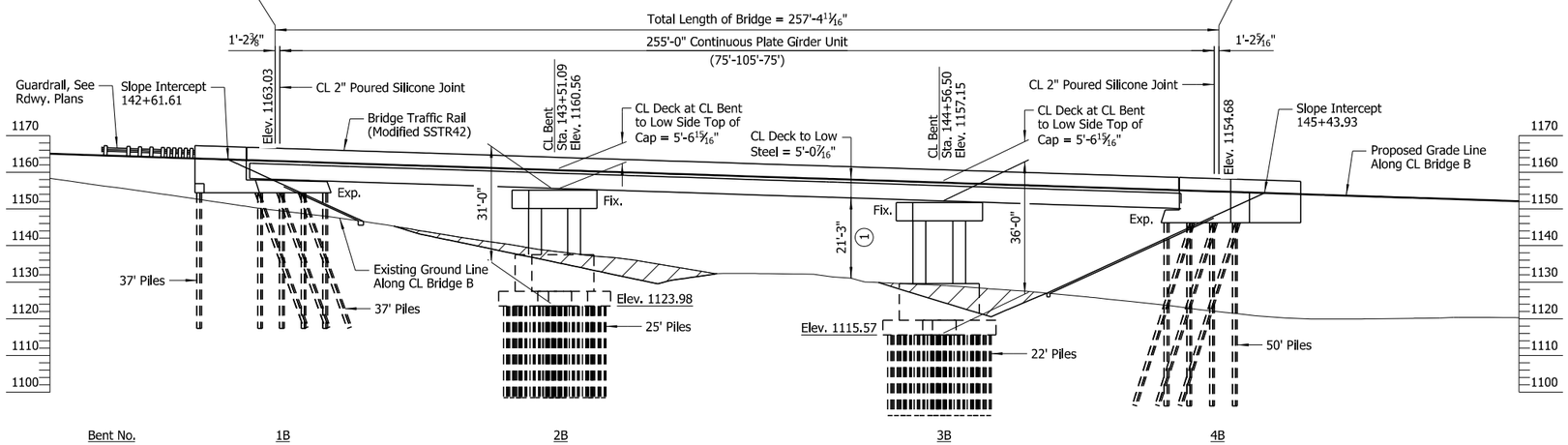
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DESIGNED BY: CSW DATE: MAR. 2022
BRIDGE NO. A7656 DRAWING NO. 66718

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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 271 | 583 |
| | | B7656 | | LAYOUT | | 66719 |




## PLAN - BRIDGE B




## ELEVATION - BRIDGE B

NOTE:
Stations shown are along CL Construction. Elevations shown are actual top of deck elevations at CL Bridge B. Any vertical dimension referenced to CL Deck is based on actual top of deck elevation at CL Bridge B.

FOR R/W DATA, SEE ROADWAY PLANS

NOTES:
Use Type F Approach Slab (W = 36'-0") at each end of bridge. See Std. Dwg. No. 55040F1.

Use Type F Approach Gutters at each end of bridge. See Std. Dwg. No. 55030F.

## EXISTING UTILITIES LEGEND

FOC = Fiber Optic Cable

NOTE:
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## HORIZONTAL CURVE DATA

XNA Access Rd. Median
PI = 156+17.12
Δ = 14°18'07" Rt.
D = 0°30'00"
T = 1437.67'
L = 2860.39'
e = 0.02%
R = 11459.16'

NOTES:
For "PROJECT GENERAL NOTES", see Dwg. No. 66717.

For "GENERAL NOTES" & "LOCATION SKETCH", see Dwg. No. 66720.

For "ELEVATION OF SOIL BORINGS - BRIDGE B", BORING LEGEND" and "N-VALUES", see Dwg. No. 66721.

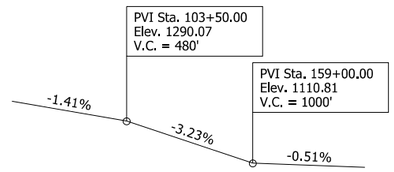
CL Construction is on a 0°30'00" curve right. CL Girders and the longitudinal lines of the bridge and approach slabs and gutters shall be constructed on curves concentric with CL Construction.

(1) Point of Minimum Vertical Clearance

(2) Angle measured at point of intersection between line tangent to CL XNA Access Rd. Median and line tangent to CL Wager Dr.

(3) For Bents 1B & 4B:
Measured from CL Joint to a line radial to CL Bridge B at CL Joint.

For Bents 2B & 3B:
Measured from CL Bent to a line radial to CL Bridge B at CL Bent.




## VERTICAL CURVE DATA

XNA Access Rd.
(Profile Grade 14' Left of CL Bridge B)

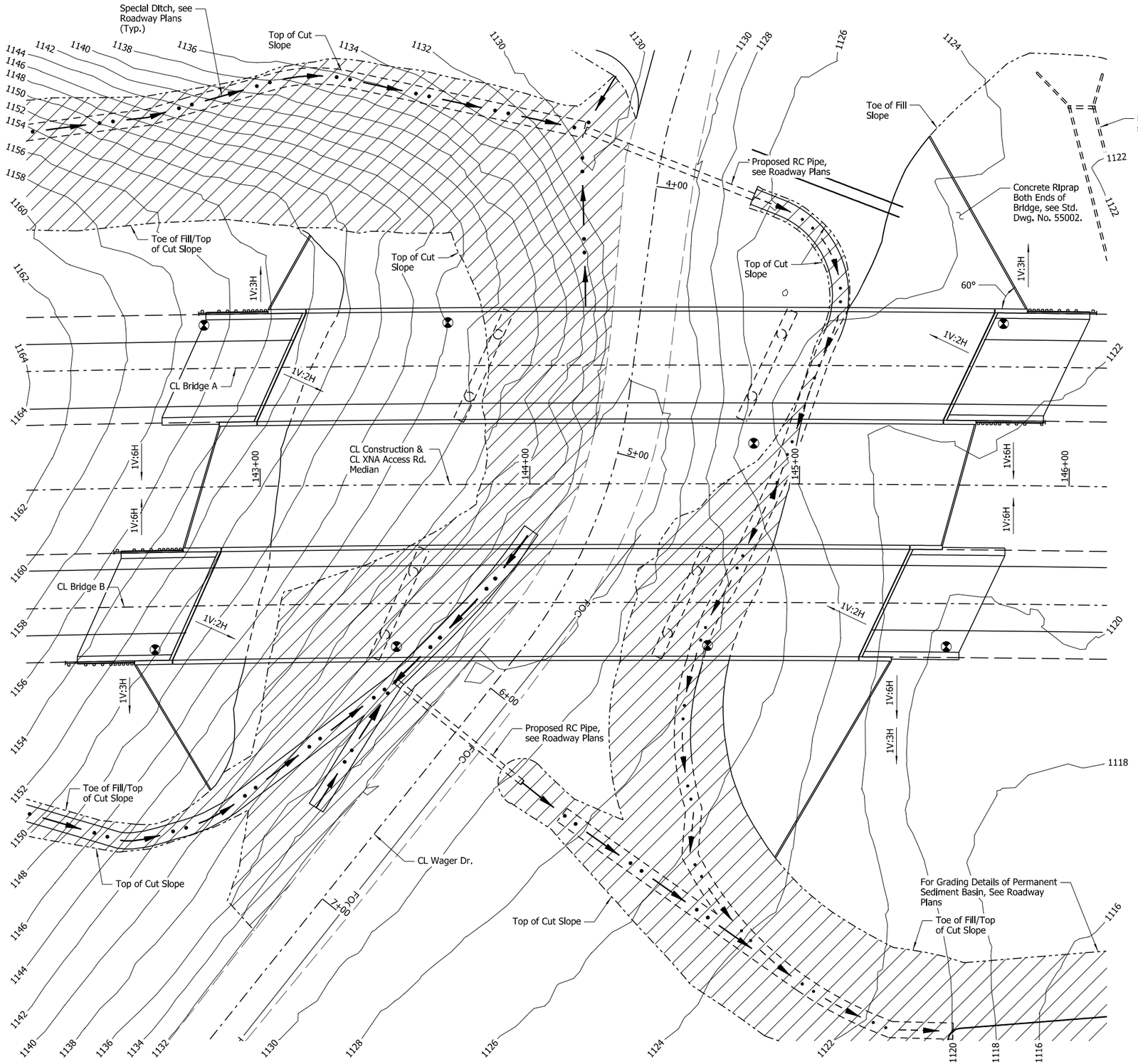
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 2 OF 4
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER WAGER DR.
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CSW DATE: MAR. 2022 FILENAME: b090069b1_l2.dgn
CHECKED BY: JES DATE: AUG. 2023 SCALE: 1" = 20'-0"
DESIGNED BY: CSW DATE: MAR. 2022
BRIDGE NO. B7656 DRAWING NO. 66719

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 272 | 583 |
| | | A7656 & B7656 | | LAYOUT | | 66720 |




LOCATION SKETCH

## EXISTING UTILITIES LEGEND

FOC = Fiber Optic Cable

NOTE:
Utilities shown are based on locations at time of survey and do not reflect any potential utility relocations prior to construction.

## GENERAL NOTES

SEISMIC ZONE: 1 $S_{D1}$: 0.08g SITE CLASS: C

SEISMIC OPERATIONAL CLASSIFICATION: Essential

STEEL PILING: All piling in Bents 1A, 4A, 1B & 4B shall be HP12x53 (Grade 50) and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 96 tons per pile and into the material designated as Moderately Hard to Hard Cherty Limestone on the boring legend. All piling in Bents 2A, 3A, 2B & 3B shall be HP14x73 (Grade 50) and shall be driven with an approved air, steam or diesel hammer to a minimum safe bearing capacity of 133 tons per pile and into the material designated as Moderately Hard to Hard Cherty Limestone on the boring legend. Minimum penetration shall be 10' below natural ground for all piles in Bents 1A, 4A, 1B & 4B and 19' below bottom of footing for all piles in Bents 2A, 3A, 2B & 3B. Piling in end bents shall be driven after embankment to bottom of cap is in place. Lengths shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with Section 805. The Contractor shall use approved steel H-Pile driving points on all piles.

PREBORING: Preboring is required for all piles at Bents 1A, 2A, 3A, 2B & 3B. The depth of preboring shall be to a depth sufficient to provide the specified minimum penetration and to a minimum 5' depth into material designated as Moderately Hard to Hard Cherty Limestone on the boring legend, whichever is lower. The actual size and depth of preboring shall be determined in the field by the Engineer. The Contractor shall be responsible for keeping the prebored hole free of debris prior to driving the pile and backfilling which may require the use of temporary casing or other approved methods. After driving is completed, the prebored hole shall be backfilled with Class S Concrete. Any related cost for backfilling and temporary casing will not be paid for directly, but shall be considered subsidiary to the item "PREBORING".

PILE FOOTINGS: The top of the footings at Bents 2A, 3A, 2B & 3B shall be set a minimum of 2' below natural or finished ground or at the elevations shown on the plans, whichever is lower. Foundations for footings shall be prepared in accordance with Subsection 801.04. Foundation piles shall not be driven until after the excavation to bottom of footing is complete. Excavations shall be backfilled and compacted to the level of the existing or finished ground in accordance with Subsection 801.08.

PAINTING: All Grade 50 structural steel, except galvanized members and surfaces in contact with concrete, shall be painted as specified in Subsection 807.75. The color of paint shall be Red Brown and shall match Federal Standard 595B, Color Chip No. 30108.

| DETAIL DRAWINGS: | DRAWING NO(S).: |
|---|---|
| End Bents | 66722-66727 |
| Intermediate Bents | 66728-66730 |
| Elastomeric Bearings | 66731 |
| 255'-0" Continuous Plate Girder Unit | 66732-66737 |
| Concrete Riprap | 55002 |
| General Notes For Steel Bridge Structures | 55006 |
| Details for Steel Bridge Structures | 55007 |
| Poured Silicone Joints | 55008 |
| Steel H-Piling | 55020 |
| Type F Approach Gutters | 55030F |
| Type F Approach Slabs | 55040F1 |
| Bridge Traffic Rail | 66737 & 55071 |

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SHEET 3 OF 4
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER WAGER DR.
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY

ROUTE NEW SEC.NEW

ARKANSAS STATE HIGHWAY COMMISSION

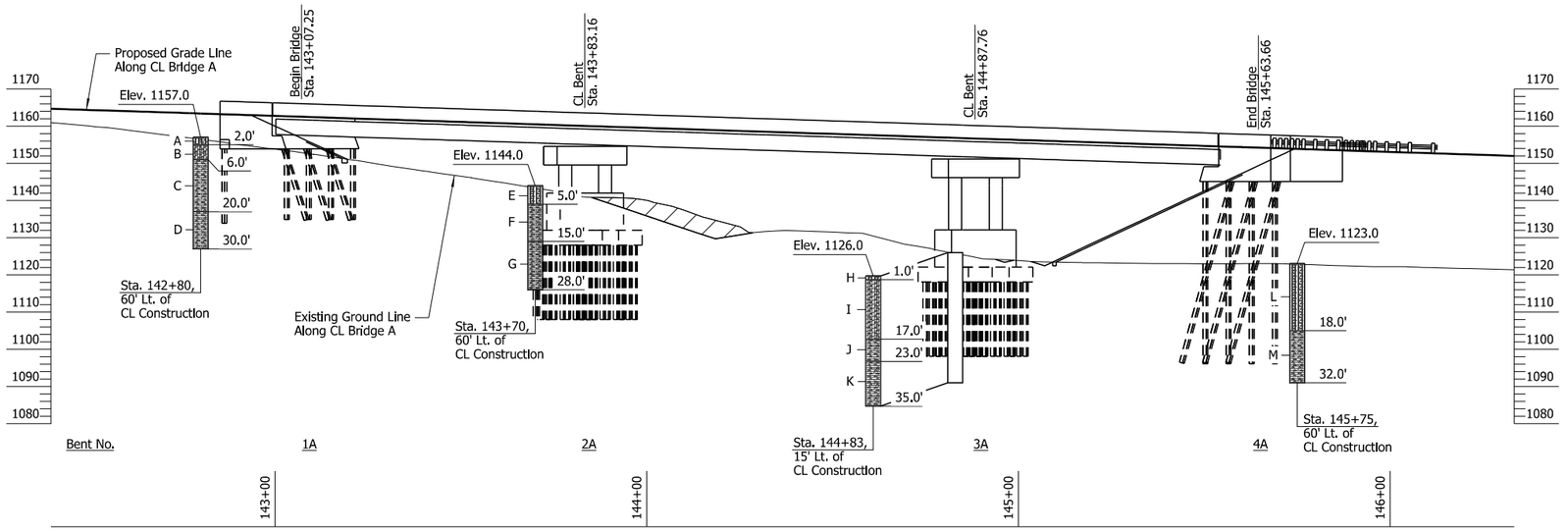
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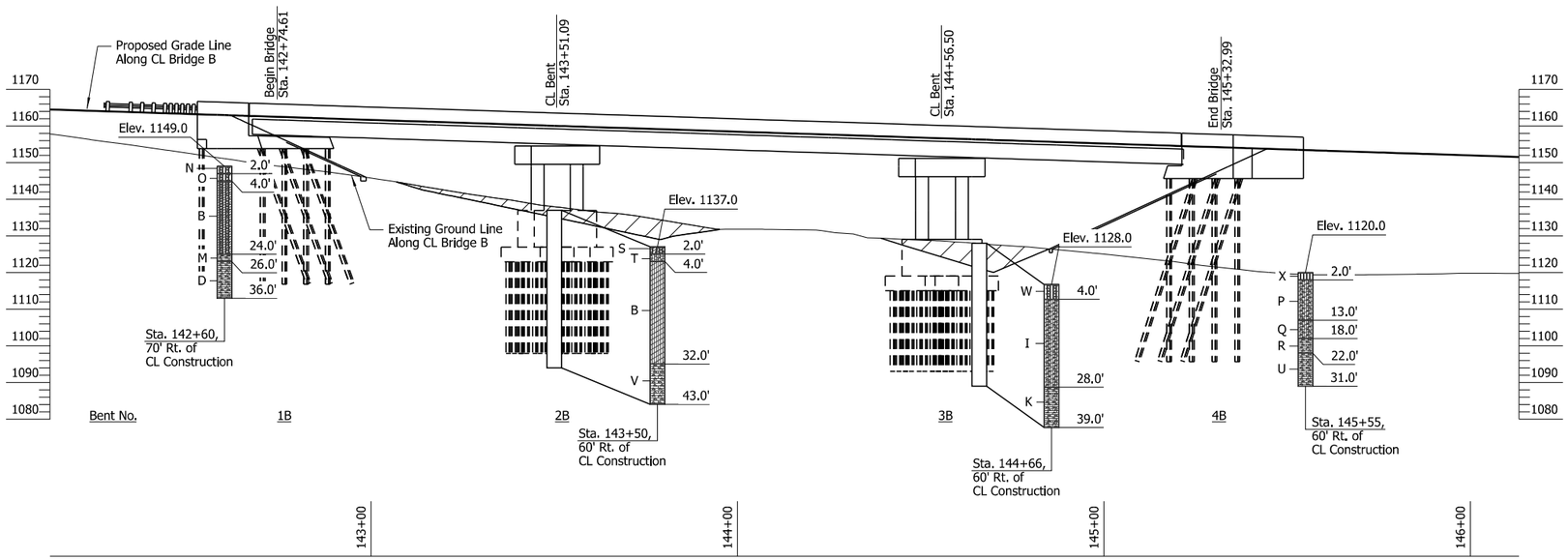
BRIDGE NO. A7656 & B7656 DRAWING NO. 66720

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 273 | 583 |
| | | A7656 & B7656 | | LAYOUT | | 66721 |




ELEVATION OF SOIL BORINGS - BRIDGE A




ELEVATION OF SOIL BORINGS - BRIDGE B

## N-VALUES

| Sta. 142+80, 60' Lt. of CL Construction | Sta. 143+70, 60' Lt. of CL Construction | Sta. 144+83, 15' Lt. of CL Construction | Sta. 145+75, 60' Lt. of CL Construction |
|---|---|---|---|
| 0.5-1.5, N=10 | 0.5-1.5, N=23 | 0.5-1.5, N=11 | 0.5-1.5, N=9 |
| 2.5-3.0, N=50/6" | 2.5-3.5, N=50/7" | 2.5-3.5, N=24 | 2.5-3.5, N=13 |
| 4.0-4.5, N=50/3" | 4.5-5.0, N=50/3" | 4.5-5.5, N=24 | 4.5-5.5, N=13 |
| 5.0-5.5, N=50/1" | | 6.5-7.5, N=37 | 6.5-7.5, N=22 |
| | | 9.0-10.0, N=46 | 9.0-10.0, N=19 |
| | | 14.0-15.0, N=20 | 14.0-15.0, N=19 |
| | | 19.0-20.0, N=50/2" | 18.0-19.0, N=50/1" |
| | | 22.5-23.0, N=25/0" | 20.0-21.0, N=50/1" |

| Sta. 142+60, 70' Rt. of CL Construction | Sta. 143+50, 60' Rt. of CL Construction | Sta. 144+66, 60' Rt. of CL Construction | Sta. 145+55, 60' Rt. of CL Construction |
|---|---|---|---|
| 0.5-1.5, N=19 | 0.5-1.5, N=13 | 0.5-1.5, N=9 | 0.5-1.5, N=5 |
| 2.5-3.5, N=48 | 2.5-3.5, N=44 | 2.5-3.5, N=10 | 2.5-3.5, N=10 |
| 4.5-5.5, N=50/11" | 4.5-5.5, N=50/8" | 4.5-5.5, N=33 | 4.5-5.5, N=13 |
| 6.5-7.5, N=50/7" | 6.5-7.5, N=50/8" | 6.5-7.5, N=15 | 6.5-7.5, N=11 |
| 8.5-9.0, N=50/4" | 9.0-10.0, N=28 | 9.0-10.0, N=50/8" | 9.0-10.0, N=40 |
| 14.0-15.0, N=50/7" | 14.0-15.0, N=25 | 14.0-15.0, N=35 | 14.0-15.0, N=16 |
| 18.5-19.0, N=50/1" | 19.0-20.0, N=23 | 19.0-20.0, N=13 | 19.0-20.0, N=50/6" |
| 23.5-24.0, N=50/3" | 24.0-25.0, N=29 | 24.0-25.0, N=25 | 21.0-22.0, N=50/1" |
| | 29.0-30.0, N=50/7" | 28.0-28.5, N=50/4" | |

## BORING LEGEND

A - Loose to medium dense brown and tan silt
B - Very stiff reddish brown silty clay
C - Moderately hard to hard light gray w/ tan weathered cherty limestone
D - Moderately hard to hard light gray cherty limestone
E - Medium dense tan silt
F - Moderately hard to hard light gray w/ tan slightly weathered cherty limestone
G - Moderately hard to hard gray w/ light gray cherty limestone
H - Medium dense brown silt
I - Stiff to very stiff reddish brown silty clay
J - Moderately hard gray, light gray and tan weathered cherty limestone
K - Moderately hard to hard light gray and gray cherty limestone
L - Loose brown silt, slightly clayey
M - Moderately hard to hard light gray slightly weathered cherty limestone
N - Medium dense dark brown silt
O - Dense gray and tan silt, slightly clayey
P - Firm to stiff tan and brown silty clay
Q - Stiff tan and reddish brown silty clay
R - Moderately hard light gray w/ tan highly weathered cherty limestone
S - Stiff brown clayey silt
T - Dense brown silty chert gravel
U - Moderately hard to hard gray cherty limestone
V - Moderately hard light gray cherty limestone
W - Loose reddish tan silt
X - Loose dark brown silt

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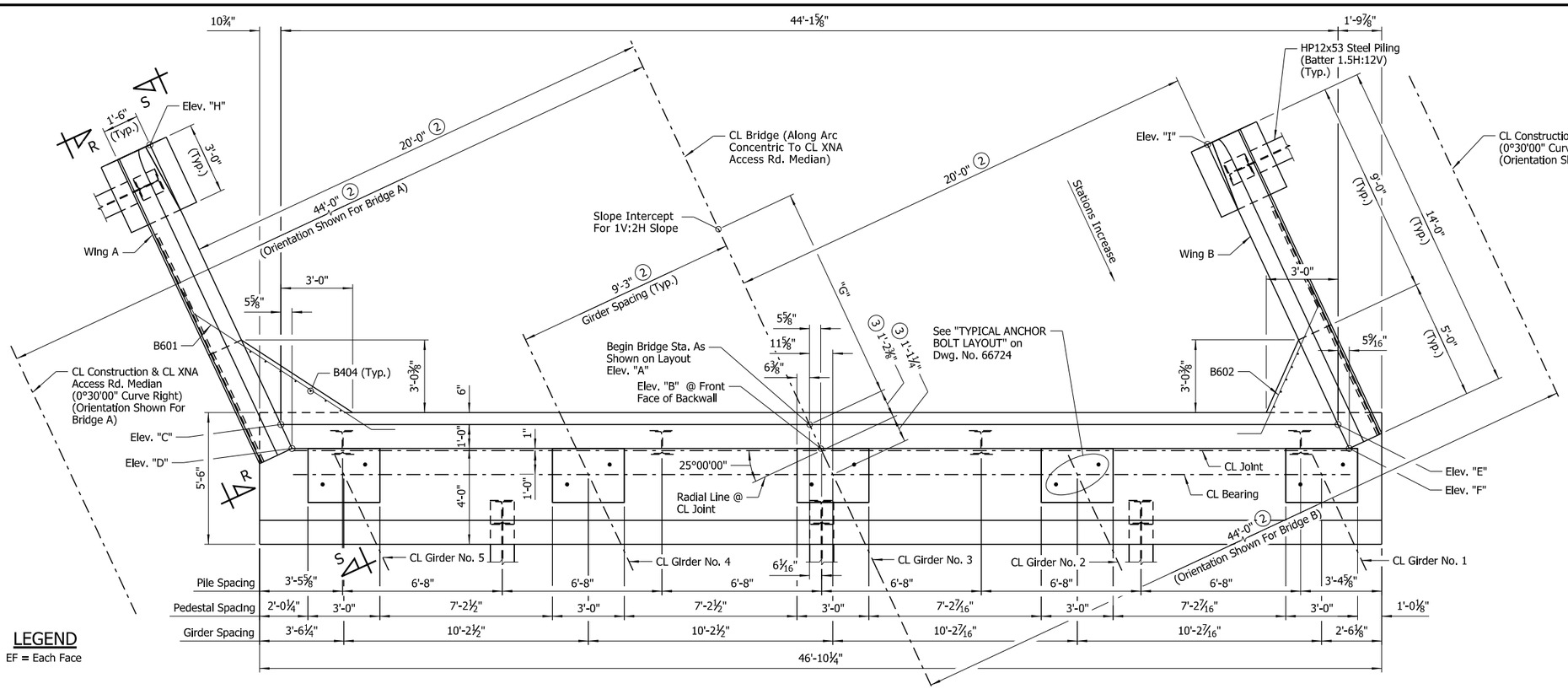
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 4 OF 4
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER WAGER DR.
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: CSW DATE: MAR. 2022
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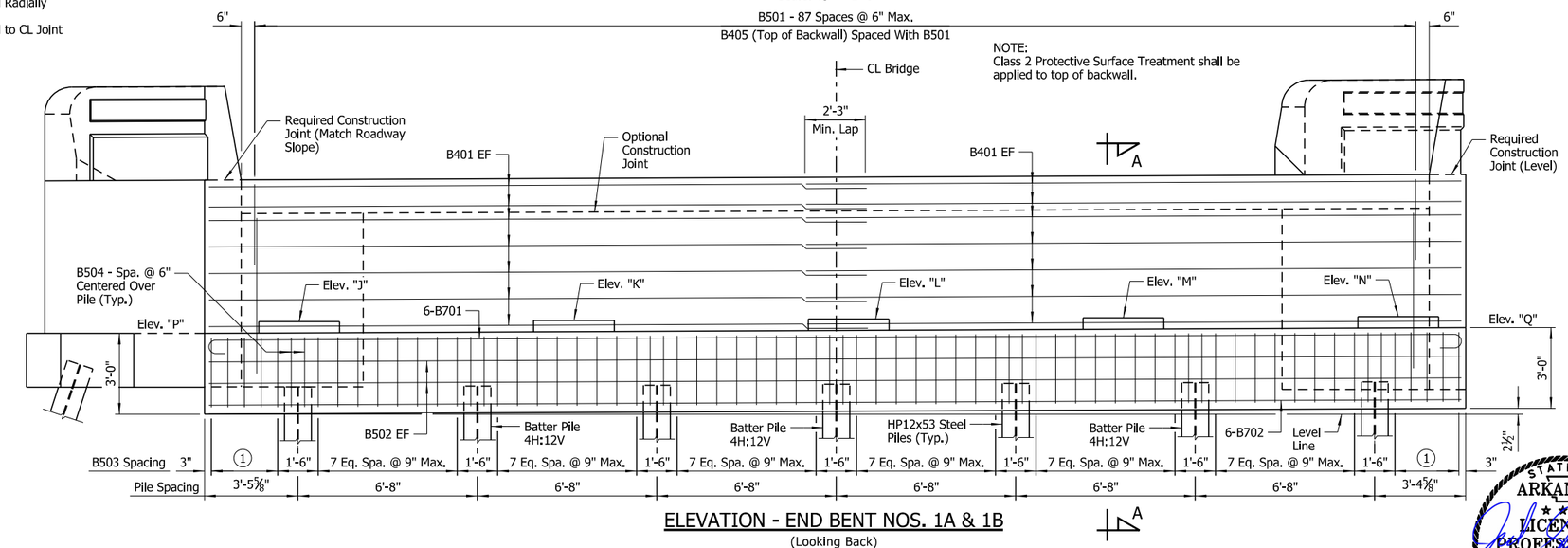



## LEGEND

EF = Each Face

## PLAN - END BENT NOS. 1A & 1B

Scale: ⅜" = 1'-0"




## ELEVATION - END BENT NOS. 1A & 1B

(Looking Back)
Scale: ⅜" = 1'-0"

① 4 Spa. @ 8" Max.
② Measured Radially
③ Measured to CL Joint

### TABLE OF VARIABLES (END BENT NOS. 1A & 1B)

| Location | "A" | "B" | "C" | "D" | "E" | "F" | "G" | "H" | "I" | "J" | "K" | "L" | "M" | "N" | "P" | "Q" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| End Bent No. 1A | 1162.53 | 1162.50 | 1162.44 | 1162.40 | 1162.63 | 1162.60 | 11'-11⅞" | 1162.85 | 1163.05 | 1157.14 | 1157.19 | 1157.24 | 1157.28 | 1157.33 | 1156.70 | 1156.91 |
| End Bent No. 1B | 1163.03 | 1162.99 | 1162.93 | 1162.90 | 1163.13 | 1163.09 | 13'-0" | 1163.35 | 1163.54 | 1157.64 | 1157.69 | 1157.73 | 1157.78 | 1157.82 | 1157.20 | 1157.41 |

## GENERAL NOTES

Structural steel in end bents shall be ASTM A709, Gr. 50 and shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in Special Provision "TEXTURED COATING FINISH" and in accordance with Subsection 802.19(b)(3).

See Std. Dwg. No. 55006 for additional notes.

For additional information, see Layout.

NOTES:
CL Construction is on a 0°30'00" curve right.

All longitudinal lines are on curves concentric with CL Construction.

For "SECTION A-A" and "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66724.

For "BAR LIST - BENT NOS. 1A & 1B" and "BAR BENDING DIAGRAMS", see Dwg. No. 66727.

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# SHEET 1 OF 6
# DETAILS OF END BENTS
# XNA ACCESS RD. OVER WAGER DR.

ROUTE SEC.

## ARKANSAS STATE HIGHWAY COMMISSION

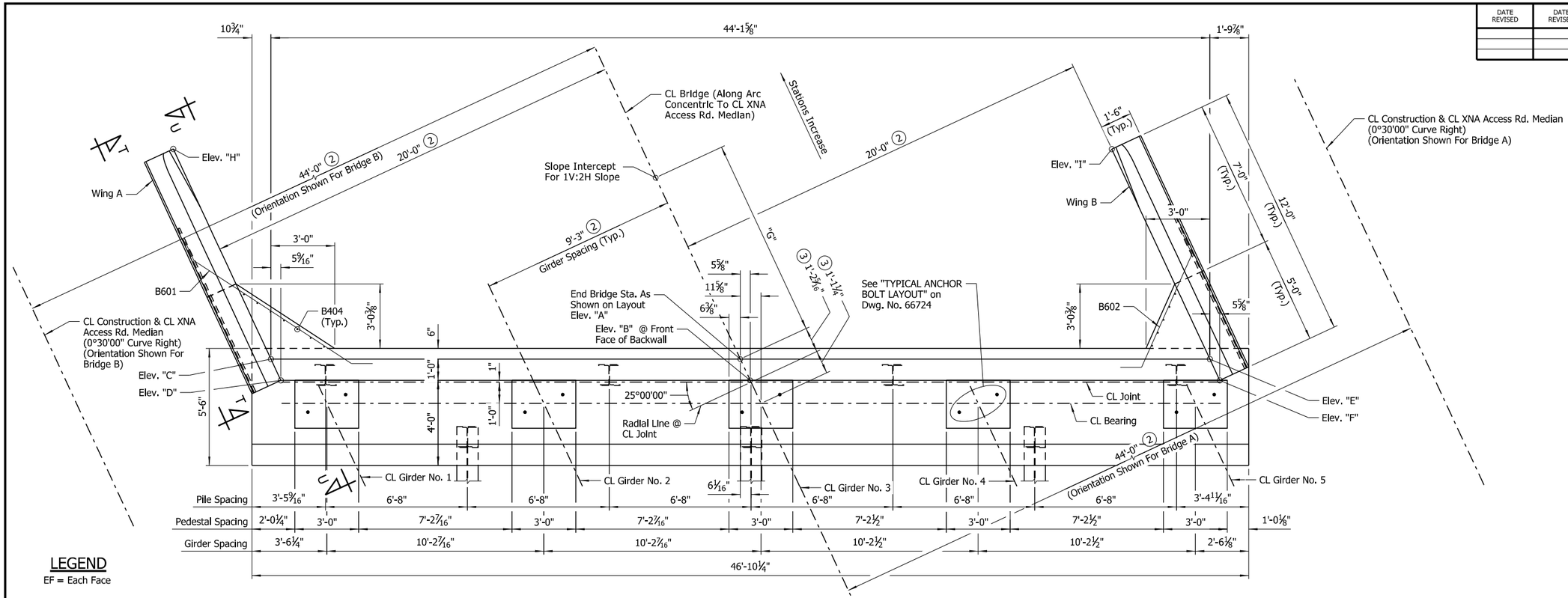
LITTLE ROCK, ARK.

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DESIGNED BY: RAK DATE: FEB. 2023

BRIDGE NO. A7656 & B7656 DRAWING NO. 66722

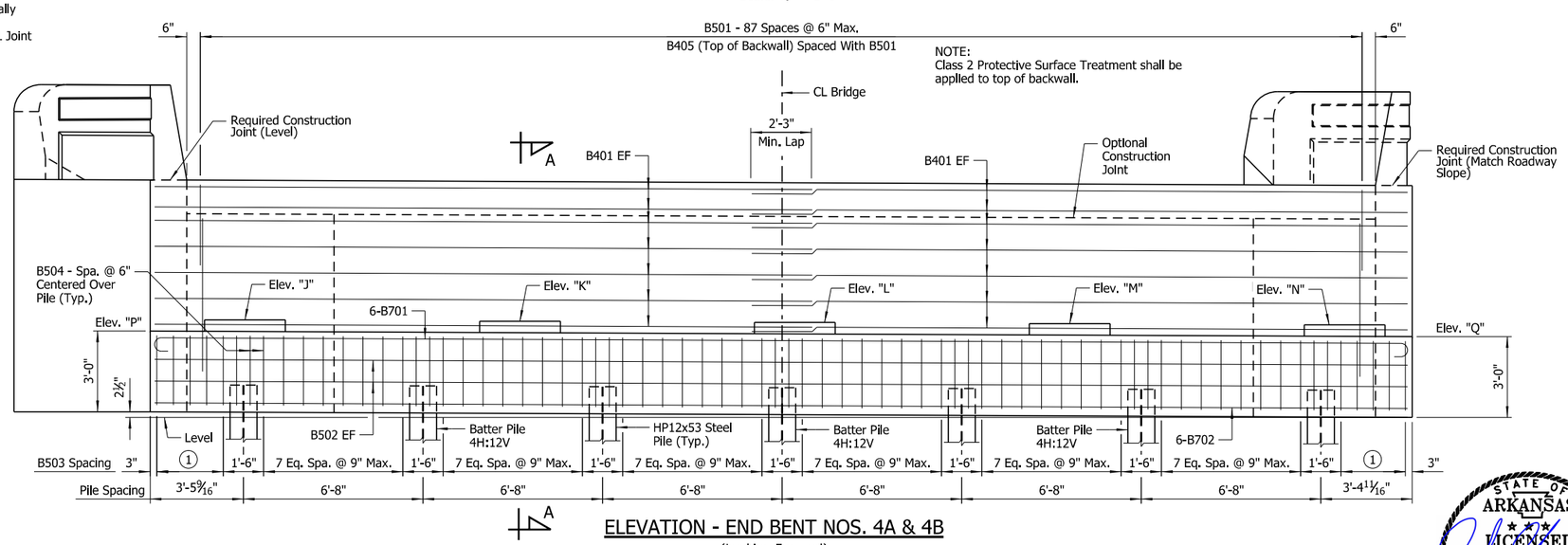
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 275 | 583 |
| | | A7656 & B7656 | | END BENTS | | 66723 |




## PLAN - END BENT NOS. 4A & 4B

Scale: ⅜" = 1'-0"




## ELEVATION - END BENT NOS. 4A & 4B

(Looking Forward)
Scale: ⅜" = 1'-0"

## LEGEND

EF = Each Face

(1) 4 Spa. @ 8" Max.
(2) Measured Radially
(3) Measured to CL Joint

NOTES:
CL Construction is on a 0°30'00" curve right.

All longitudinal lines are on curves concentric with CL Construction.

For "SECTION A-A" and "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66724.

For "BAR LIST - BENT NOS. 4A & 4B" and "BAR BENDING DIAGRAMS", see Dwg. No. 66727.

### TABLE OF VARIABLES (END BENT NOS. 4A & 4B)

| Location | "A" | "B" | "C" | "D" | "E" | "F" | "G" | "H" | "I" | "J" | "K" | "L" | "M" | "N" | "P" | "Q" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| End Bent No. 4A | 1154.25 | 1154.29 | 1154.35 | 1154.39 | 1154.15 | 1154.19 | 10'-1⅛" | 1154.00 | 1153.80 | 1149.20 | 1149.15 | 1149.10 | 1149.06 | 1149.01 | 1148.79 | 1148.58 |
| End Bent No. 4B | 1154.68 | 1154.72 | 1154.78 | 1154.82 | 1154.58 | 1154.62 | 10'-11¼" | 1154.43 | 1154.23 | 1149.62 | 1149.58 | 1149.53 | 1149.49 | 1149.44 | 1149.22 | 1149.01 |

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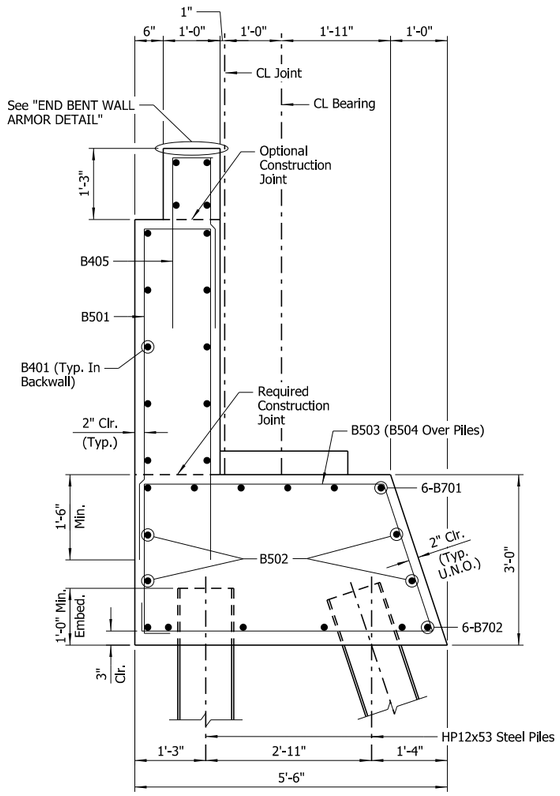
SHEET 2 OF 6
DETAILS OF END BENTS
XNA ACCESS RD. OVER WAGER DR.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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BRIDGE NO. A7656 & B7656 DRAWING NO. 66723

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| | | A7656 & B7656 | | END BENTS | | 66724 |

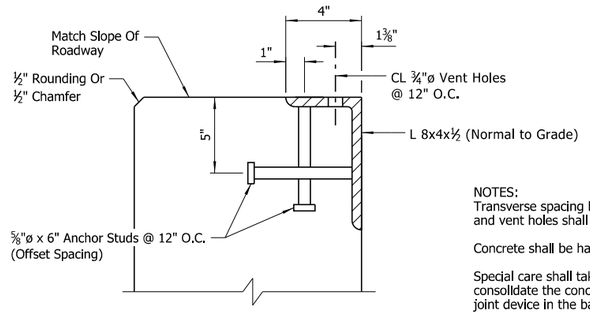



## SECTION A-A

Scale: ¾" = 1'-0"

No portion of the backwall shall be poured until the girders are in place. The portion of the backwall above the optional construction joint at the paving bracket shall not be placed until the adjacent deck pour has been made. Refer to the "EXPANSION DEVICE INSTALLATION AT END BENTS" note on Std. Dwg. No. 55008.

No heavy construction equipment shall be allowed within 10' of the backwall until the deck concrete placement for the adjacent span has been completed.




## END BENT WALL ARMOR DETAIL

No Scale

NOTES:
Transverse spacing between vertical anchor studs and vent holes shall be 6".

Concrete shall be hand packed under joint armor.

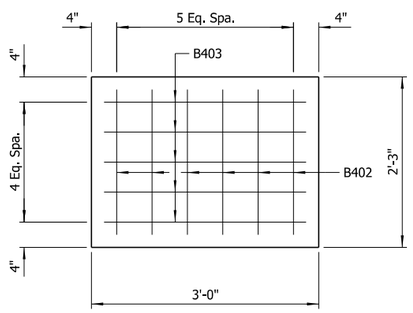
Special care shall taken to properly and thoroughly consolidate the concrete in the vicinity of the expansion joint device in the backwall, see Section 802.09(a)(3).

The profile of the end bent wall armor shall be established based on the vertical curve as shown on the layout.

## LEGEND

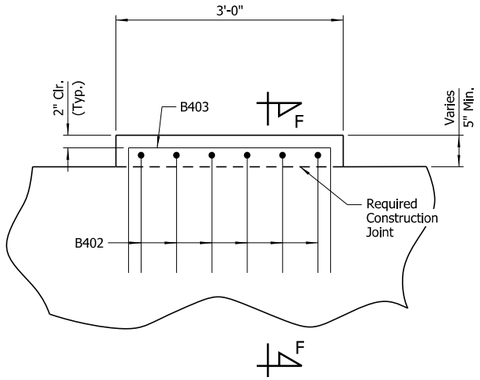
U.N.O. = Unless Noted Otherwise
EF = Each Face

| TABLE OF VARIABLES | | | |
|---|---|---|---|
| Bent Nos. | Location | "A" | "B" |
| 1A & 1B | Girder No. 1 | 24°57'10" | 4 15/16" |
| | Girder No. 2 | 24°58'27" | 4 15/16" |
| | Girder No. 3 | 24°59'44" | 4 15/16" |
| | Girder No. 4 | 25°01'01" | 5" |
| | Girder No. 5 | 25°02'19" | 5" |
| 4A & 4B | Girder No. 1 | 24°57'45" | 4 15/16" |
| | Girder No. 2 | 24°59'02" | 4 15/16" |
| | Girder No. 3 | 25°00'20" | 4 15/16" |
| | Girder No. 4 | 25°01'37" | 5" |
| | Girder No. 5 | 25°02'55" | 5" |



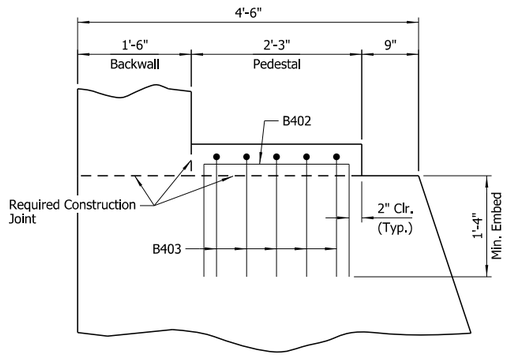

## PEDESTAL PLAN

Scale: 1" = 1'-0"



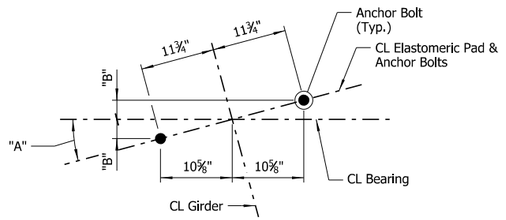

## TYPICAL PEDESTAL DETAIL

Scale: 1" = 1'-0"




## SECTION F-F

Scale: 1" = 1'-0"




## TYPICAL ANCHOR BOLT LAYOUT

No Scale

NOTE:
For details of elastomeric bearings & anchor bolts, see Dwg. No. 66731.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER

Digitally Signed 10/20/2023
BRIDGE ENGINEER

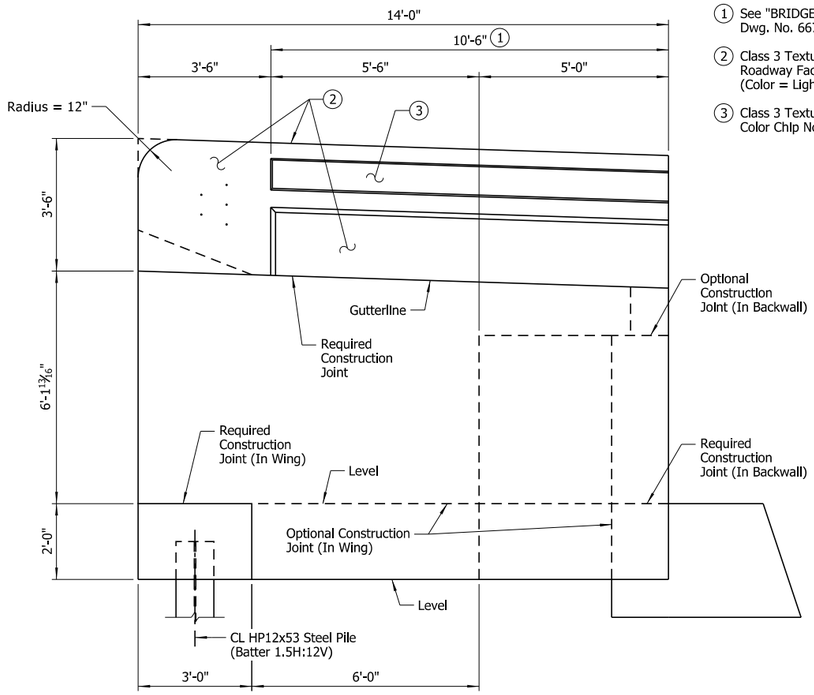
SHEET 3 OF 6
DETAILS OF END BENTS
XNA ACCESS RD. OVER WAGER DR.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: FEB. 2023 FILENAME: b090069m1_a3.dgn
CHECKED BY: BWD DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: FEB. 2023

BRIDGE NO. A7656 & B7656 DRAWING NO. 66724

JESkinner 10/20/2023 2:10:53 PM
WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069x1_S203_AB.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 277 | 583 |
| | | A7656 & B7656 | | END BENTS | | 66725 |



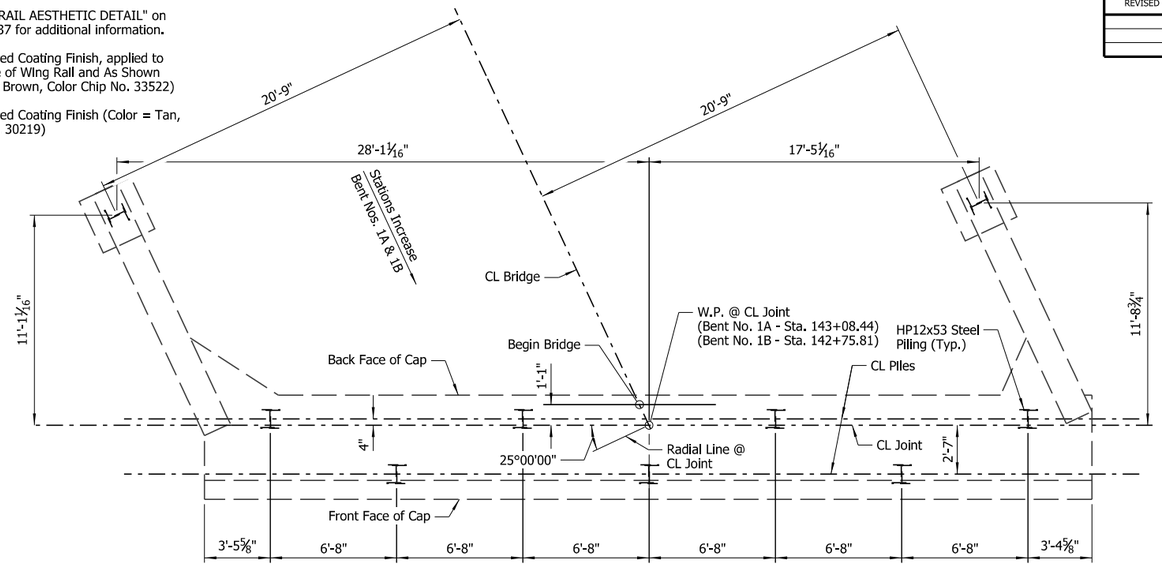

## VIEW R-R

Scale: ½" = 1'-0"

(1) See "BRIDGE RAIL AESTHETIC DETAIL" on Dwg. No. 66737 for additional information.

(2) Class 3 Textured Coating Finish, applied to Roadway Face of Wing Rail and As Shown (Color = Light Brown, Color Chip No. 33522)

(3) Class 3 Textured Coating Finish (Color = Tan, Color Chip No. 30219)

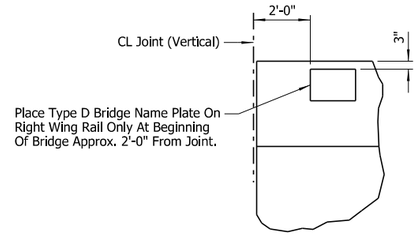



## FOUNDATION PLAN - END BENT NOS. 1A & 1B

Scale: ¼" = 1'-0"

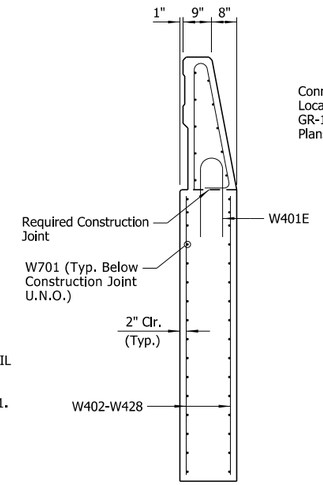
| TABLE OF VARIABLES | | | |
|---|---|---|---|
| Bent No. | Location | Elev. "A" | Elev. "B" |
| 1A | Wing A | 1162.40 | 1162.85 |
| 1A | Wing B | 1162.60 | 1163.05 |
| 1B | Wing A | 1162.90 | 1163.35 |
| 1B | Wing B | 1163.09 | 1163.54 |

(4) Required at all wings for proposed and future guardrail connections



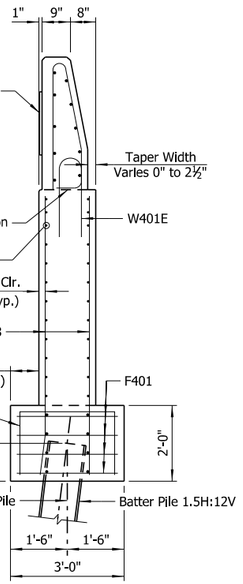

## VIEW SHOWING LOCATION OF NAME PLATE

No Scale



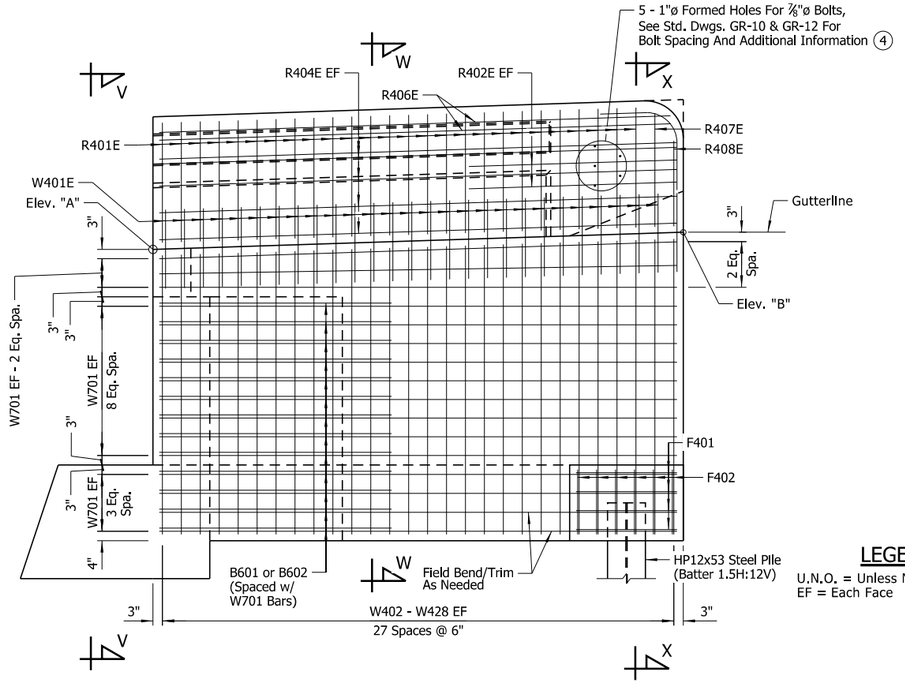

## SECTION W-W

Scale: ½" = 1'-0"



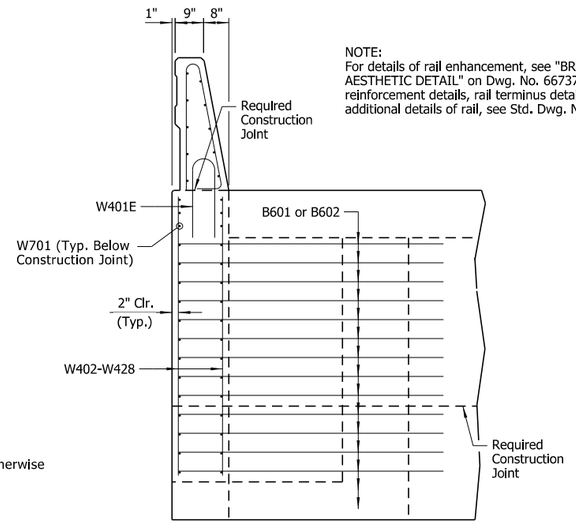

## SECTION X-X

Scale: ½" = 1'-0"




## SECTION S-S

Scale: ½" = 1'-0"




NOTE:
For details of rail enhancement, see "BRIDGE RAIL AESTHETIC DETAIL" on Dwg. No. 66737. For reinforcement details, rail terminus details, and additional details of rail, see Std. Dwg. No. 55071.

## SECTION V-V

Scale: ½" = 1'-0"

## LEGEND

U.N.O. = Unless Noted Otherwise
EF = Each Face

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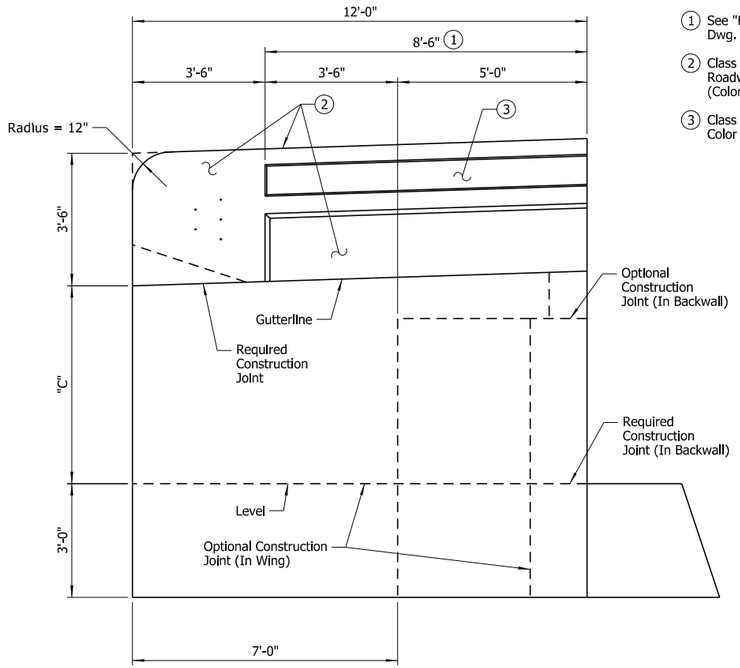
SHEET 4 OF 6
DETAILS OF END BENTS
XNA ACCESS RD. OVER WAGER DR.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: FEB. 2023 FILENAME: b090069m1_a4.dgn
CHECKED BY: BWD DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: FEB. 2023

BRIDGE NO. A7656 & B7656 DRAWING NO. 66725

JEskinner 10/20/2023 2:10:54 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 278 | 583 |
| | | A7656 & B7656 | | END BENTS | | 66726 |




## VIEW T-T

Scale: ½" = 1'-0"

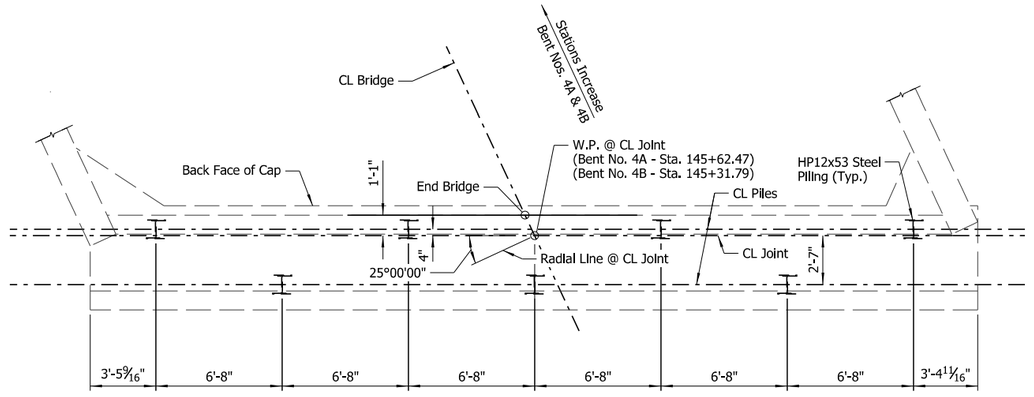
(1) See "BRIDGE RAIL AESTHETIC DETAIL" on Dwg. No. 66737 for additional information.

(2) Class 3 Textured Coating Finish, applied to Roadway Face of Wing Rail and As Shown (Color = Light Brown, Color Chip No. 33522)

(3) Class 3 Textured Coating Finish (Color = Tan, Color Chip No. 30219)

## LEGEND

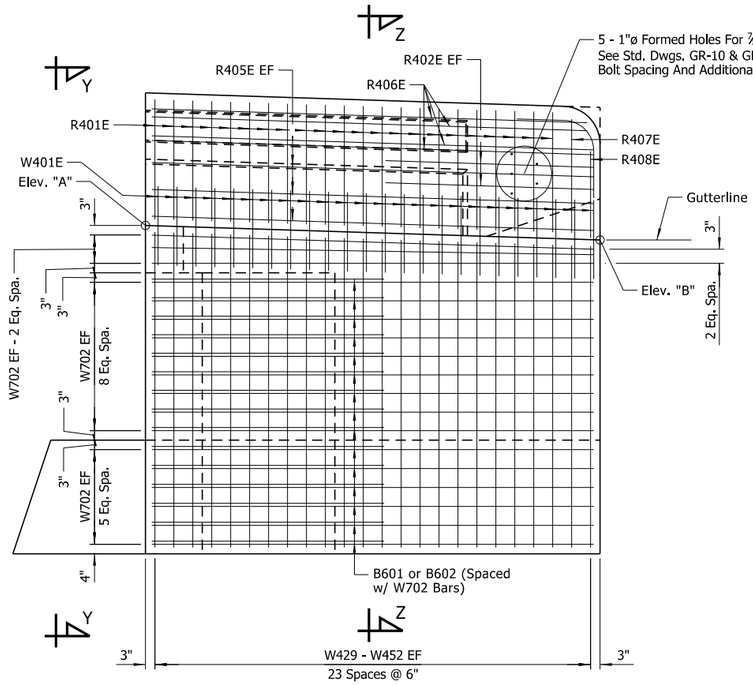
U.N.O. = Unless Noted Otherwise
EF = Each Face




## FOUNDATION PLAN - END BENT NOS. 4A & 4B

Scale: ¼" = 1'-0"

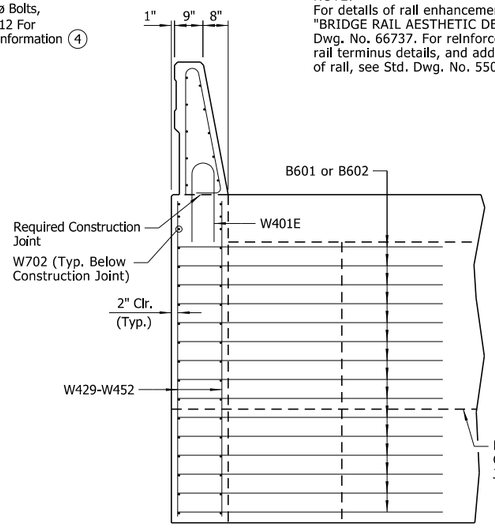
(4) Required at all wings for proposed and future guardrail connections




## SECTION U-U

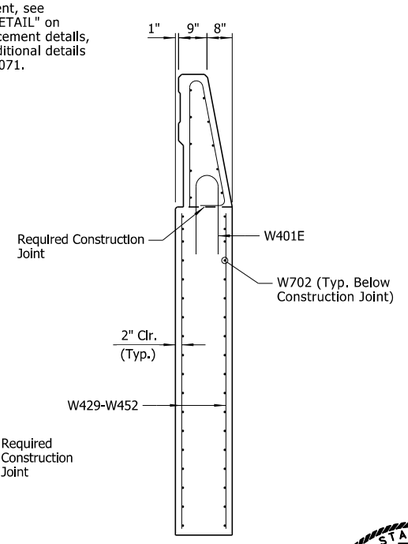
Scale: ½" = 1'-0"

NOTE:
For details of rail enhancement, see "BRIDGE RAIL AESTHETIC DETAIL" on Dwg. No. 66737. For reinforcement details, rail terminus details, and additional details of rail, see Std. Dwg. No. 55071.




## SECTION Y-Y

Scale: ½" = 1'-0"




## SECTION Z-Z

Scale: ½" = 1'-0"

| TABLE OF VARIABLES | | | | |
|---|---|---|---|---|
| Bent No. | Location | Elev. "A" | Elev. "B" | "C" |
| 4A | Wing A | 1154.39 | 1154.00 | 5'-2½" |
| 4A | Wing B | 1154.19 | 1153.80 | 5'-2½" |
| 4B | Wing A | 1154.82 | 1154.43 | 5'-2⅝" |
| 4B | Wing B | 1154.62 | 1154.23 | 5'-2⅝" |

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SHEET 5 OF 6
DETAILS OF END BENTS
XNA ACCESS RD. OVER WAGER DR.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: FEB. 2023 FILENAME: b090069m1_a5.dgn
CHECKED BY: BWD DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: FEB. 2023

BRIDGE NO. A7656 & B7656 DRAWING NO. 66726

JEskinner 10/20/2023 2:10:55 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | A7656 & B7656 | | END BENTS | | 66727 |

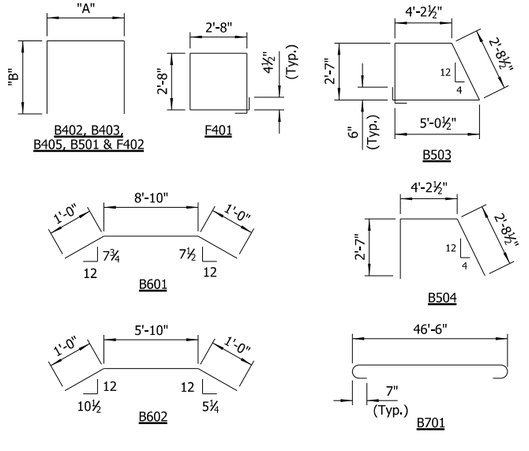
## BAR LIST - BENT NOS. 1A & 1B

| MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|
| B401 | 28 | 24'-7" | | | Str. |
| B402 | 30 | 5'-1" | 1'-11" | 1'-8" | 2" |
| B403 | 25 | 6'-2" | 2'-8" | 1'-10" | 2" |
| B404 | 12 | 7'-0" | | | Str. |
| B405 | 88 | 5'-4" | 8" | 2'-5" | 2" |
| | | | | | |
| B501 | 88 | 12-11½" | 1'-2" | 6'-0" | 2½" |
| B502 | 4 | 46'-6" | | | Str. |
| B503 | 58 | 15'-0½" | | | 2½" |
| B504 | 14 | 9'-3" | | | 2½" |
| | | | | | |
| B601 | 13 | 10'-10" | | | 4½" |
| B602 | 13 | 7'-10" | | | 4½" |
| | | | | | |
| B701 | 6 | 48'-2" | | | 5¼" |
| B702 | 6 | 46'-6" | | | Str. |
| | | | | | |
| F401 | 8 | 11'-0" | | | 2" |
| F402 | 10 | 5'-7" | 2'-7" | 1'-7" | 2" |
| | | | | | |
| R401E | 52 | 7'-6" | | | 3" |
| R402E | 8 | 5'-6" | | | Str. |
| R404E | 2 | 3'-8" | | | 8½" |
| R405E | 16 | 13'-8" | | | Str. |
| R406E | 4 | 13'-6" | | | Str. |
| R407E | 2 | 6'-8" | | | 3" |
| R408E | 2 | 5'-1" | | | 3" |
| | | | | | |
| W401E | 56 | 4'-7" | | | 6" |
| W402 To W428 | 4 Each | 7'-4" To 7'-9" | | | Str. |
| | | | | | |
| W701 | 64 | 13'-8" | | | Str. |

## BAR LIST - BENT NOS. 4A & 4B

| MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|
| B401 | 28 | 24'-7" | | | Str. |
| B402 | 30 | 5'-1" | 1'-11" | 1'-8" | 2" |
| B403 | 25 | 6'-2" | 2'-8" | 1'-10" | 2" |
| B404 | 12 | 7'-0" | | | Str. |
| B405 | 88 | 5'-4" | 8" | 2'-5" | 2" |
| | | | | | |
| B501 | 88 | 12'-11½" | 1'-2" | 6'-0" | 2½" |
| B502 | 4 | 46'-6" | | | Str. |
| B503 | 58 | 15'-0½" | | | 2½" |
| B504 | 14 | 9'-3" | | | 2½" |
| | | | | | |
| B601 | 13 | 10'-10" | | | 4½" |
| B602 | 13 | 7'-10" | | | 4½" |
| | | | | | |
| B701 | 6 | 48'-2" | | | 5¼" |
| B702 | 6 | 46'-6" | | | Str. |
| | | | | | |
| R401E | 44 | 7'-6" | | | 3" |
| R402E | 8 | 5'-6" | | | Str. |
| R404E | 2 | 3'-8" | | | 8½" |
| R405E | 16 | 11'-8" | | | Str. |
| R406E | 4 | 11'-6" | | | Str. |
| R407E | 2 | 6'-8" | | | 3" |
| R408E | 2 | 5'-1" | | | 3" |
| | | | | | |
| W401E | 48 | 4'-7" | | | 6" |
| W429 To W452 | 4 Each | 7'-4" To 7'-9" | | | Str. |
| | | | | | |
| W702 | 72 | 11'-8" | | | Str. |

## BAR BENDING DIAGRAMS




NOTES:
Dimensions of bars are out-to-out.

Number of bars shown is for one end bent only.

Bars designated with "E" suffix shall be epoxy coated.

See Std. Dwg. No. 55071 for Bar Bending Diagrams of R401E, R404E, R407E, R408E and W401E.

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SHEET 6 OF 6
DETAILS OF END BENTS
XNA ACCESS RD. OVER WAGER DR.

ROUTE SEC.

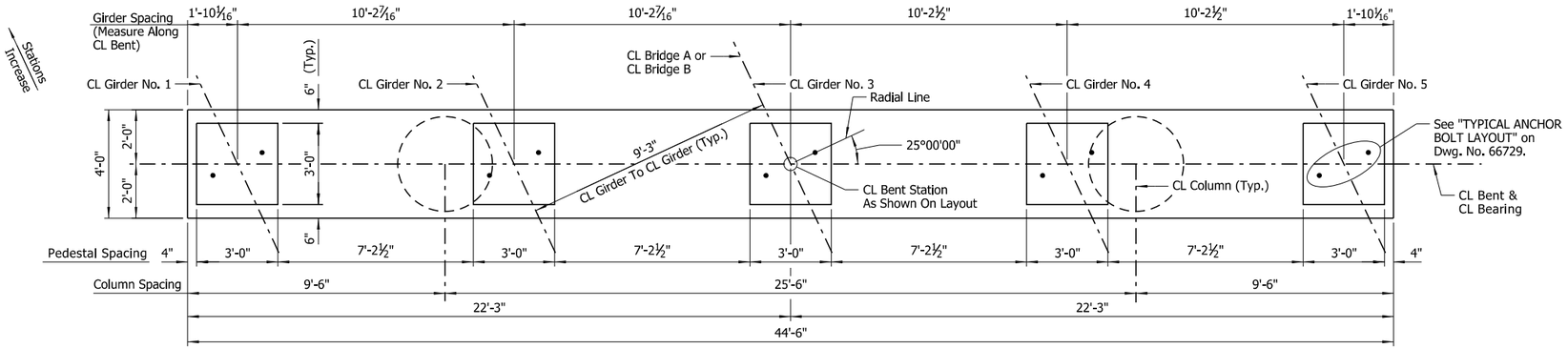
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: FEB. 2023 FILENAME: b090069m1_a6.dgn
CHECKED BY: BWD DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: FEB. 2023

BRIDGE NO. A7656 & B7656 DRAWING NO. 66727

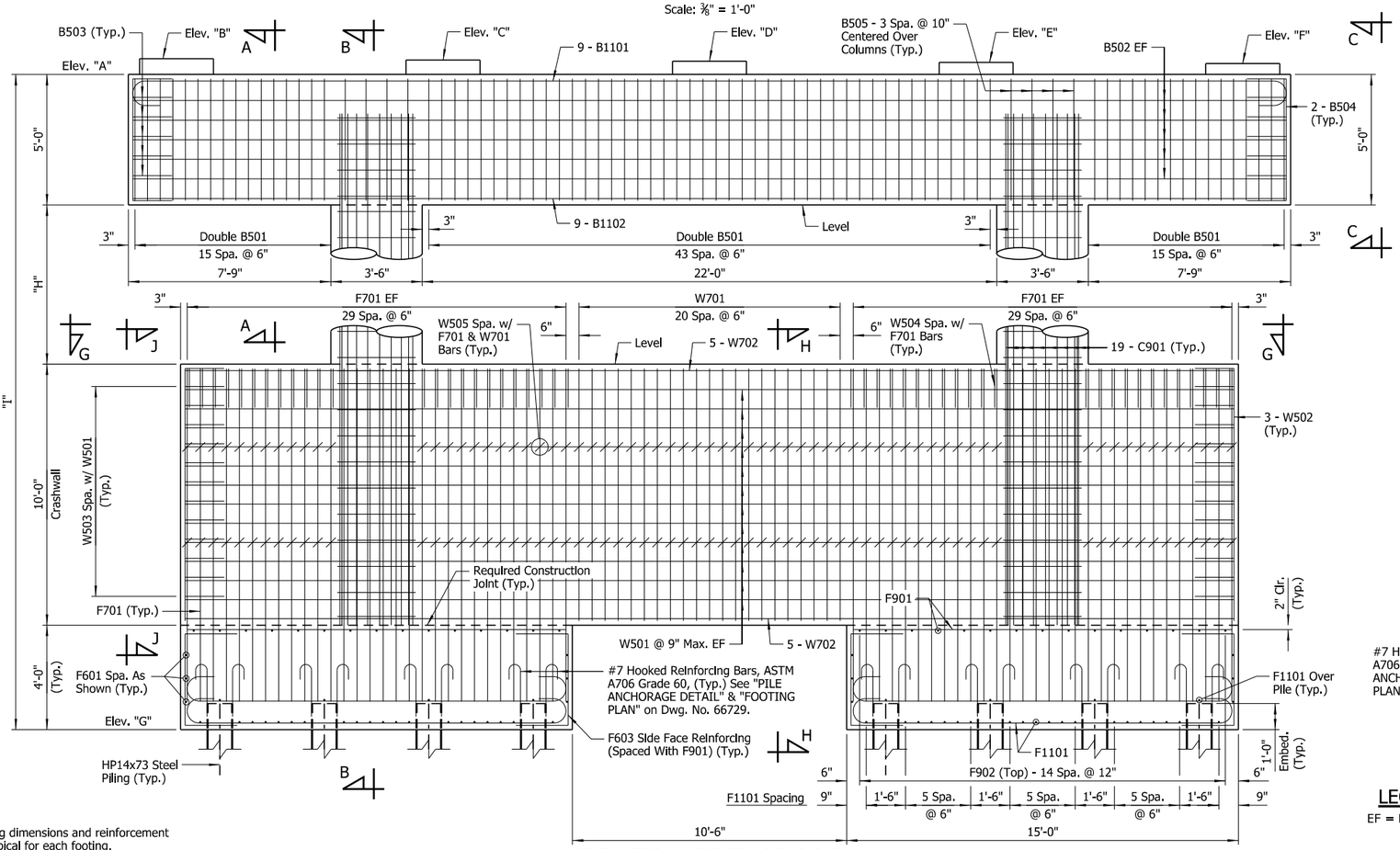
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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 280 | 583 |
| | | A7656 & B7656 | | INTERMEDIATE BENTS | | 66728 |




## PLAN - BENT NOS. 2 & 3

Scale: 3/8" = 1'-0"




NOTE:
Footing dimensions and reinforcement are typical for each footing.

## ELEVATION - BENT NOS. 2 & 3

(Looking Ahead)
Scale: 3/8" = 1'-0"

| TABLE OF VARIABLES | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| BENT NO. | Elev. "A" | Elev. "B" | Elev. "C" | Elev. "D" | Elev. "E" | Elev. "F" | Elev. "G" | "H" | "I" | "J" |
| 2A | 1154.50 | 1155.10 | 1155.06 | 1155.01 | 1154.96 | 1154.92 | 1128.00 | 7'-6" | 26'-6" | 17 |
| 3A | 1151.12 | 1151.72 | 1151.68 | 1151.63 | 1151.59 | 1151.54 | 1118.12 | 14'-0" | 33'-0" | 24 |
| 2B | 1154.98 | 1155.58 | 1155.53 | 1155.49 | 1155.44 | 1155.40 | 1123.98 | 12'-0" | 31'-0" | 22 |
| 3B | 1151.57 | 1152.17 | 1152.13 | 1152.08 | 1152.04 | 1151.99 | 1115.57 | 17'-0" | 36'-0" | 27 |

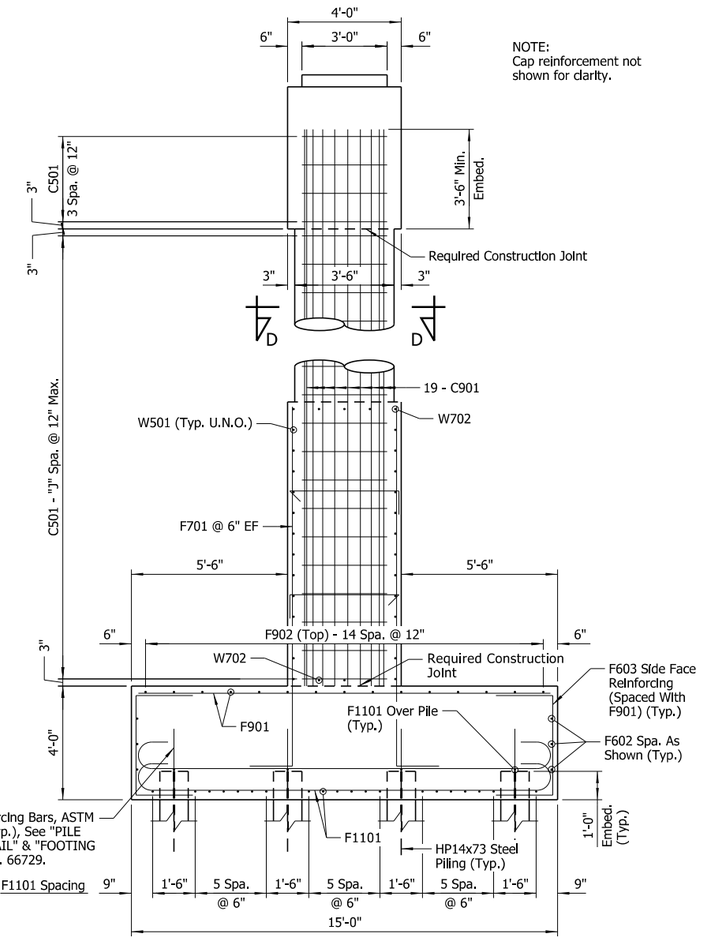
NOTES:
Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified In Special Provision "TEXTURED COATING FINISH" and In accordance with Subsection 802.19(b)(3).

For "SECTION A-A", "VIEW C-C", "SECTION D-D", "FOOTING PLAN" and "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66729.

For "SECTION G-G", "SECTION H-H", "SECTION J-J", "BAR LIST (PER BENT) and "BAR BENDING DIAGRAMS", see Dwg. No. 66730.

For Standard General Notes, see Dwg. No. 55006.

For additional information, see Layout.




## SECTION B-B

Scale: 3/8" = 1'-0"

## LEGEND

EF = Each Face

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# SHEET 1 OF 3
# DETAILS OF INTERMEDIATE BENTS
# XNA ACCESS RD. OVER WAGER DR.

ROUTE SEC.

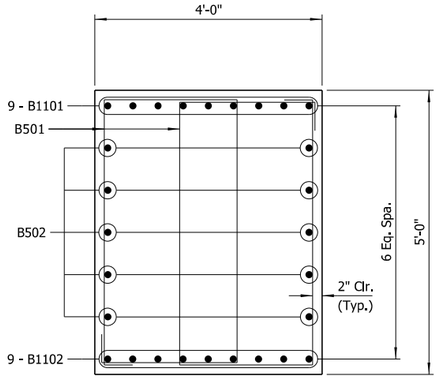
## ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: CWT DATE: AUG. 2023 FILENAME: b090069m1_b1.dgn
CHECKED BY: JES DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: BWD DATE: JULY 2023
BRIDGE NO. A7656 & B7656 DRAWING NO. 66728

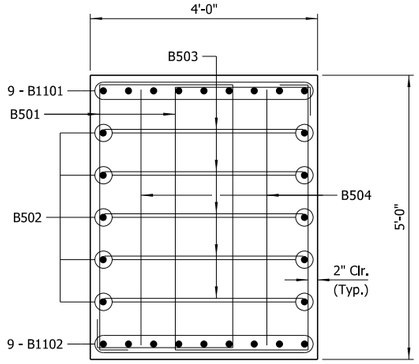
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 281 | 583 |
| | | A7656 & B7656 | INTERMEDIATE BENTS | | | 66729 |



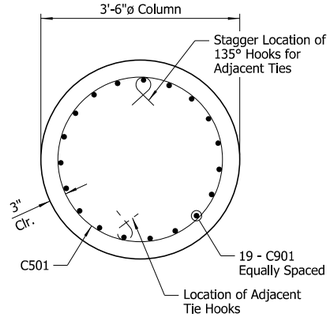

## SECTION A-A

Scale: ¾" = 1'-0"



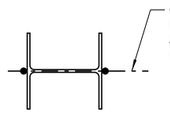

## VIEW C-C

Scale: ¾" = 1'-0"



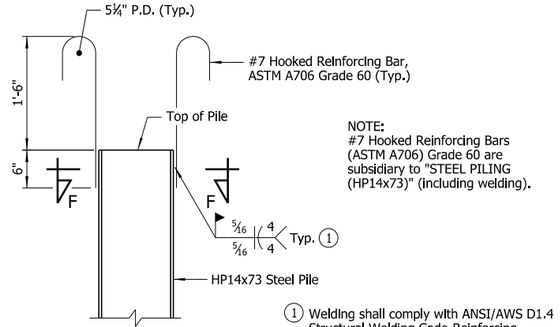

## SECTION D-D

Scale: ¾" = 1'-0"




## SECTION F-F

No Scale

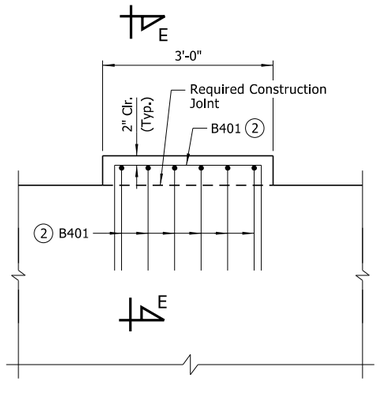



## PILE ANCHORAGE DETAIL

No Scale

NOTE:
#7 Hooked Reinforcing Bars (ASTM A706) Grade 60 are subsidiary to "STEEL PILING (HP14x73)" (including welding).

(1) Welding shall comply with ANSI/AWS D1.4 Structural Welding Code-Reinforcing Steel and applicable portions of ANSI/AWS D1.5 Bridge Welding Code.

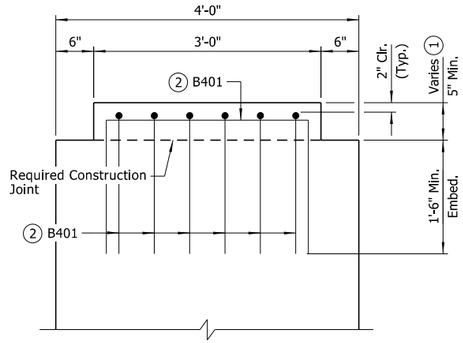



## TYPICAL PEDESTAL DETAIL

Scale: ¾" = 1'-0"

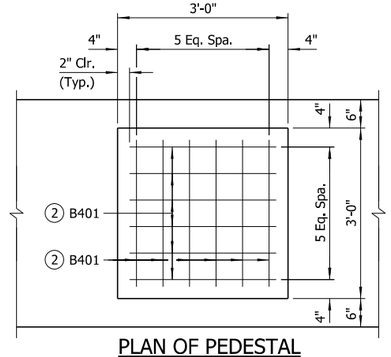
(1) See Dwg. No. 66728 for pedestal elevations.

(2) B401 locations may be adjusted as necessary to avoid interference with anchor bolts or sheet metal sleeves.



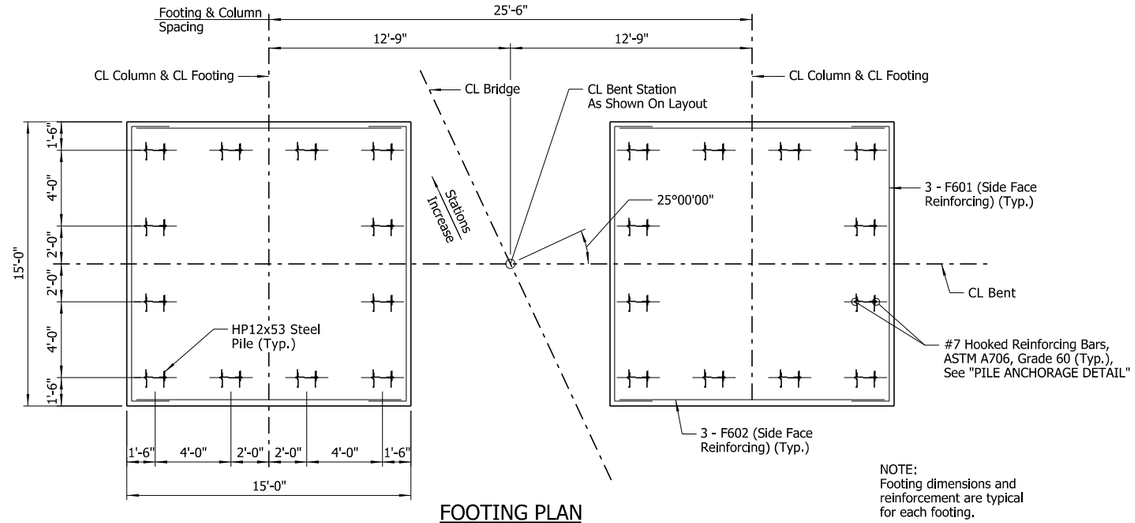

## SECTION E-E

Scale: 1" = 1'-0"




## PLAN OF PEDESTAL

Scale: ¾" = 1'-0"

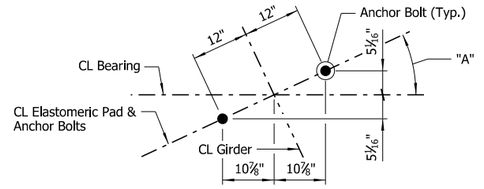



## FOOTING PLAN

Scale: ¾" = 1'-0"

NOTE:
Footing dimensions and reinforcement are typical for each footing.

| TABLE OF VARIABLES | |
|---|---|
| Girder No. | "A" |
| 1 | 24°57'26" |
| 2 | 24°58'43" |
| 3 | 25°00'00" |
| 4 | 25°01'17" |
| 5 | 25°02'35" |




## TYPICAL ANCHOR BOLT LAYOUT

No Scale

NOTE:
For details of elastomeric bearings and anchor bolts, see Dwg. No. 66731.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 2 OF 3
DETAILS OF INTERMEDIATE BENTS
XNA ACCESS RD. OVER WAGER DR.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CWT DATE: AUG. 2023 FILENAME: b090069m1_b2.dgn
CHECKED BY: JES DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: BWD DATE: JULY 2023
BRIDGE NO. A7656 & B7656 DRAWING NO. 66729

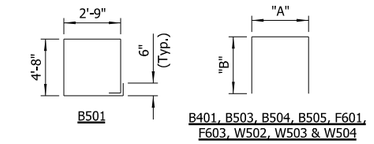
JESkinner 10/20/2023 2:10:57 PM
WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069x1_S212_BE.dgn

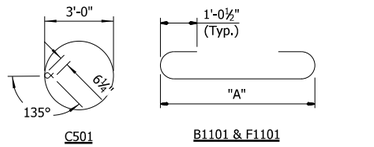
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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 282 | 583 |
| | | A7656 & B7656 | INTERMEDIATE BENTS | | | 66730 |

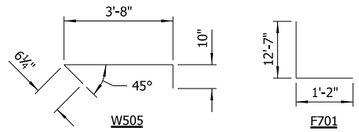
## BAR LIST (PER BENT)

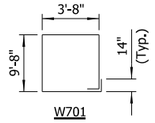
| MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|
| B401 | 60 | 6'-8" | 2'-8" | 2'-1" | 2" |
| | | | | | |
| B501 | 152 | 15'-4" | | | 2½" |
| B502 | 10 | 44'-2" | | | Str. |
| B503 | 10 | 7'-3½" | 3'-6" | 2'-0" | 2½" |
| B504 | 4 | 8'-3½" | 4'-6" | 2'-0" | 2½" |
| B505 | 8 | 12'-9½" | 3'-8" | 4'-8" | 2½" |
| | | | | | |
| B1101 | 9 | 45'-2" | 44'-2" | | 11¼" |
| B1102 | 9 | 44'-2" | | | Str. |
| | | | | | |
| C501 | "C" | 10'-10" | | | 3¾" |
| | | | | | |
| C901 | 38 | "D" | | | Str. |
| | | | | | |
| F601 | 12 | 18'-4½" | 14'-8" | 2'-0" | 4½" |
| F602 | 12 | 14'-8" | | | Str. |
| F603 | 60 | 7'-3½" | 3'-7" | 2'-0" | 4½" |
| | | | | | |
| F701 | 120 | 13'-7" | | | 5¼" |
| | | | | | |
| F901 | 60 | 14'-8" | | | Str. |
| | | | | | |
| F1101 | 96 | 17'-8" | 14'-8" | | 11¼" |
| | | | | | |
| W501 | 24 | 40'-2" | | | Str. |
| W502 | 6 | 13'-5½" | 9'-8" | 2'-0" | 2½" |
| W503 | 24 | 7'-3½" | 3'-6" | 2'-0" | 2½" |
| W504 | 48 | 7'-5½" | 3'-8" | 2'-0" | 2½" |
| W505 | 138 | 4'-11" | | | 2½" |
| | | | | | |
| W701 | 21 | 28'-1" | | | 5¼" |
| W702 | 10 | 40'-2" | | | Str. |

## BAR BENDING DIAGRAMS



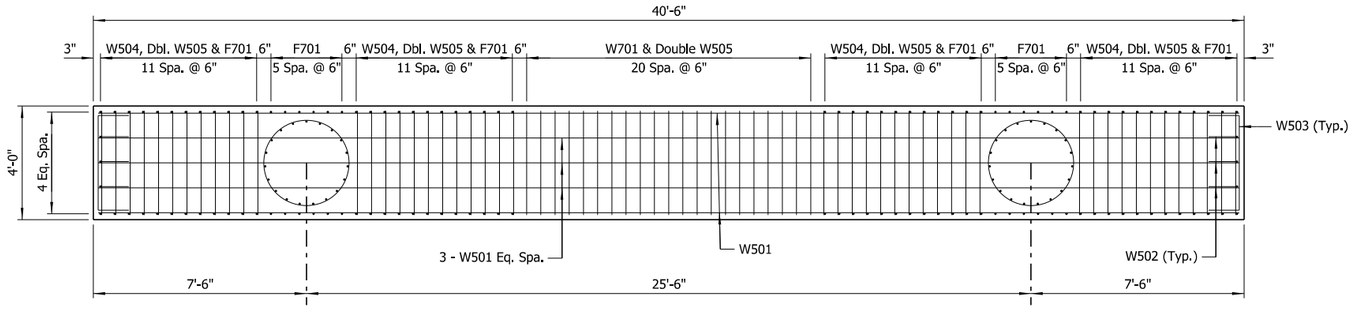




NOTES:
Dimensions of bars are out-to-out.

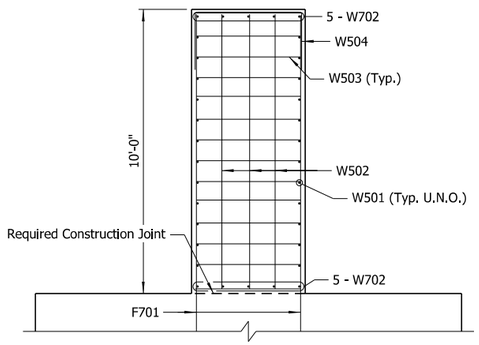
Number of bars shown is for a single bent.




VIEW G-G
Scale: ⅜" = 1'-0"

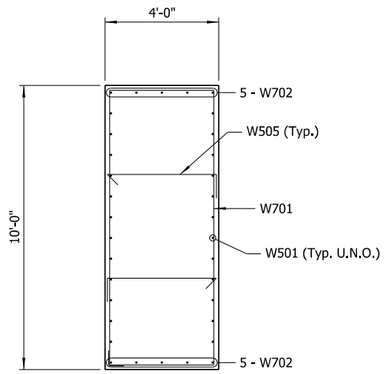
## TABLE OF VARIABLES

| BENT NO. | "C" | "D" |
|---|---|---|
| 2A | 44 | 21'-0" |
| 3A | 58 | 27'-6" |
| 2B | 54 | 25'-6" |
| 3B | 64 | 30'-6" |




VIEW J-J
Scale: ⅜" = 1'-0"

NOTE:
Footing reinforcement not shown for clarity.




SECTION H-H
Scale: ⅜" = 1'-0"

LEGEND
U.N.O. = Unless Noted Otherwise

STATE OF ARKANSAS
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No.16458
JOEL E. SKINNER
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SHEET 3 OF 3
DETAILS OF INTERMEDIATE BENTS
XNA ACCESS RD. OVER WAGER DR.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

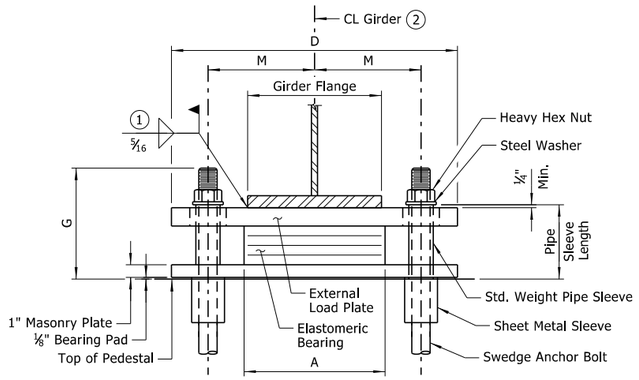
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CHECKED BY: JES DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: BWD DATE: JULY 2023
BRIDGE NO. A7656 & B7656 DRAWING NO. 66730

JESkinner 10/20/2023 2:10:58 PM
WORKSPACE: ARDOT Bridge (2019)
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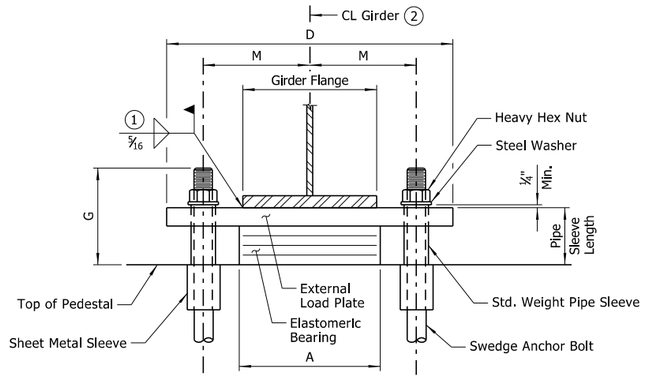
| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 283 | 583 |
| | | A7656 & B7656 | ELASTOMERIC BEARINGS | | | 66731 |

## TABLE OF FABRICATOR VARIABLES

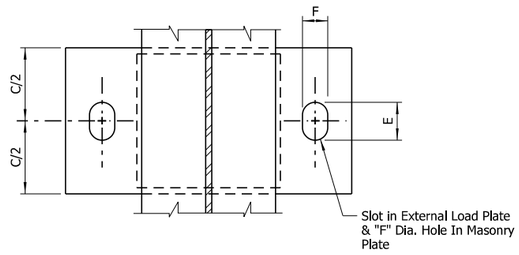
| Bridge Nos. | Location | | Bearing Type | No. Of Bearings Each Bent | ③ Maximum Design Load (Kips) | G | H | Elastomeric Pad | | | | | | | External Load Plate | | | | | | | | Anchor Bolt | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bent No. | Girder No. | | | | | | A | B | N | $t_i$ | $t_e$ | No. & Thickness Of Steel Laminae | T | C | D | E | F | K | M | $T_a$ | $T_b$ | Anchor Bolt (Dia. x L) | Grade | Pipe Sleeve Size (Dia. x L) | Sheet Metal Sleeve Size (Dia. x L) | Steel Washer Size (O.D.) |
| A7656 & B7656 | 1 | All | Exp. | 5 | 114 | $9\frac{11}{16}$" | $6\frac{11}{16}$" | 18" | 10" | 5 | ½" | ¼" | 6 @ 12 Ga. | $3\frac{5}{8}$" | 11" | $29\frac{1}{2}$" | 5" | $2\frac{5}{8}$" | ½" | $11\frac{3}{4}$" | 1.82" | 2.18" | $1\frac{3}{4}$" x 31" | 55 | 2" x $6\frac{15}{16}$" | 4" x 13" | $3\frac{3}{8}$" |
| | 2 | All | Fixed | 5 | 304 | $7\frac{7}{8}$" | $4\frac{3}{8}$" | 18" | 13" | 3 | ½" | ¼" | 4 @ 12 Ga. | $2\frac{7}{16}$" | 14" | $30\frac{1}{2}$" | $3\frac{1}{8}$" | $3\frac{1}{8}$" | ½" | 12" | 1.77" | 2.23" | $2\frac{1}{4}$" x 35" | 55 | $2\frac{1}{2}$" x $4\frac{5}{8}$" | 4" x 13" | 4" |
| | 3 | All | Fixed | 5 | 304 | $7\frac{7}{8}$" | $4\frac{3}{8}$" | 18" | 13" | 3 | ½" | ¼" | 4 @ 12 Ga. | $2\frac{7}{16}$" | 14" | $30\frac{1}{2}$" | $3\frac{1}{8}$" | $3\frac{1}{8}$" | ½" | 12" | 1.77" | 2.23" | $2\frac{1}{4}$" x 35" | 55 | $2\frac{1}{2}$" x $4\frac{5}{8}$" | 4" x 13" | 4" |
| | 4 | All | Exp. | 5 | 114 | $9\frac{11}{16}$" | $6\frac{11}{16}$" | 18" | 10" | 5 | ½" | ¼" | 6 @ 12 Ga. | $3\frac{5}{8}$" | 11" | $29\frac{1}{2}$" | 5" | $2\frac{5}{8}$" | ½" | $11\frac{3}{4}$" | 1.82" | 2.18" | $1\frac{3}{4}$" x 31" | 55 | 2" x $6\frac{15}{16}$" | 4" x 13" | $3\frac{3}{8}$" |



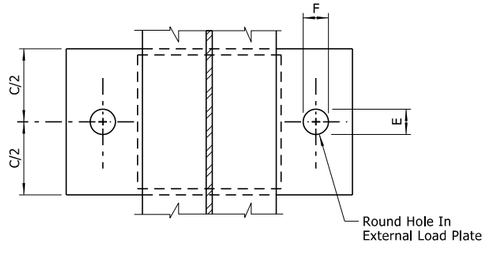

FRONT VIEW - AT BENT NOS. 1 & 4




FRONT VIEW - AT BENT NOS. 2 & 3

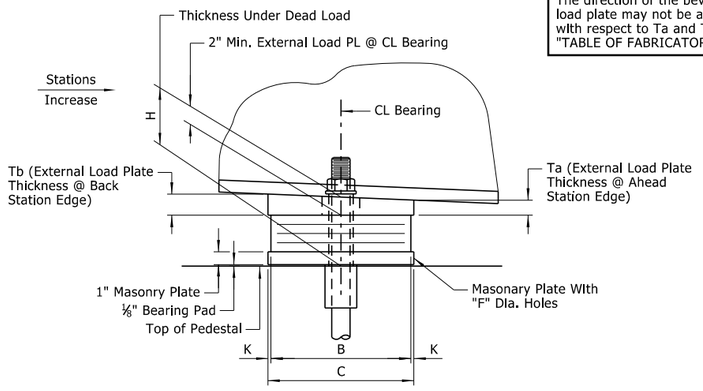



PLAN VIEW - AT BENT NOS. 1 & 4

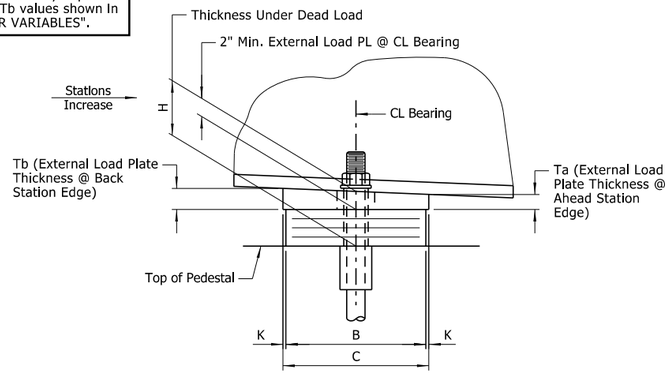



PLAN VIEW - AT BENT NOS. 2 & 3

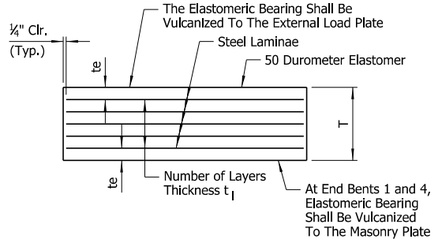
The direction of the bevel of the external load plate may not be accurately depicted with respect to Ta and Tb values shown in "TABLE OF FABRICATOR VARIABLES".




SIDE VIEW - AT BENT NOS. 1 & 4




SIDE VIEW - AT BENT NOS. 2 & 3




$t_e$ = Thickness Of Elastomer Cover On Top And Bottom Of Pad
$t_i$ = Thickness Of Elastomer Between Steel Laminae
N = Number Of Elastomer Layers Of Thickness $t_i$

## ELASTOMERIC BEARING

① Care shall be taken to ensure that the external load plate is in full and complete contact with the girder flange before welding begins. Unless otherwise approved by the Engineer, welding of the external load plate at expansion bearings to the girder will be allowed only when: 1) the approximate average air temperature during the 24 hour period immediately preceding welding is between 40°F and 80°F; and 2) the slots in the external load plate are positioned to center on the anchor bolts; and 3) no horizontal deformation of the elastomeric pad is evident. If welding at other temperatures is required, the Engineer will provide adjustment data.

② CL elastomeric pad shall be aligned with CL girder.

③ Maximum Design Load (Kips) = LRFD Service I Limit State

## GENERAL NOTES

Elastomeric bearings shall conform to Section 808 and shall be paid for at the unit price bid for "ELASTOMERIC BEARINGS".

External load plates and masonry plates shall conform to ASTM A709, Grade 50. Pipe sleeves shall be ASTM A500, Grade B, and shall be galvanized to conform to AASHTO M 232, Class C or ASTM B695, Class 50.

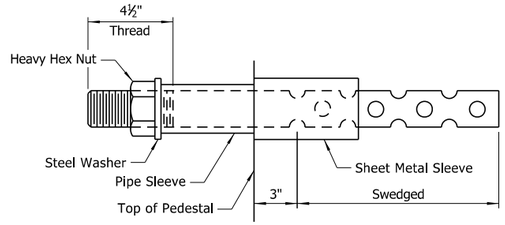
External load plates and masonry plates shall be completely fabricated (including bevel, bolt holes and all shop welding) and shall be cleaned before vulcanizing to the elastomeric bearing. The surfaces in contact with the elastomeric bearing shall be cleaned in accordance with Subsection 808.03. Other surfaces shall be blast cleaned in accordance with Subsection 807.84(b) for painted steel.

Anchor bolts, washers and nuts shall conform to Subsection 807.07. The anchor bolt grade of steel shall be as specified in the "TABLE OF FABRICATOR VARIABLES". Indentations shall be circular with rounded bottoms and staggered as shown in the details.

Pipe sleeves, anchor bolts, washers and nuts shall be paid for at the unit price bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)". External load plates and masonry plates will not be measured or paid for separately but will be considered subsidiary to the unit price bid for "ELASTOMERIC BEARINGS".

Bearings with masonry plates shall be seated in accordance with Subsection 807.66. Bearings without masonry plates shall be seated in accordance with Subsection 808.08. This work and materials are considered subsidiary to the item "ELASTOMERIC BEARINGS" and will not be paid for directly.

Prior to erection of the girders, the Contractor shall verify the orientation of the bearings with respect to Ta and Tb.




## ANCHOR BOLT DETAIL

NOTES:
Anchor bolts may be cast in place or drilled and grouted into place. If anchor bolts are to be cast in place, the galvanized sheet metal sleeves will not be required.

If anchor bolts are to be drilled and grouted in place, the galvanized sheet metal sleeves shall be cast in place as shown. Sleeves shall be dry packed with styrofoam, urethane foam or approved equal prior to pouring of concrete. After pouring of the cap and prior to erection of structural steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the concrete. Bolts placed in drilled holes shall be accurately set and fixed using a QPL-approved epoxy or non-shrink grout that completely fills the holes. Galvanized sheet metal sleeves shall meet the requirements of ASTM A653, CS Type B or approved equivalent, be of minimum 16 gage thickness, and be galvanized according to ASTM B695, Class 50. Sheet metal sleeves will not be paid for directly but will be considered subsidiary to the item "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER

Digitally Signed 10/20/2023
BRIDGE ENGINEER

# DETAILS OF ELASTOMERIC BEARINGS XNA ACCESS RD. OVER WAGER DR.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

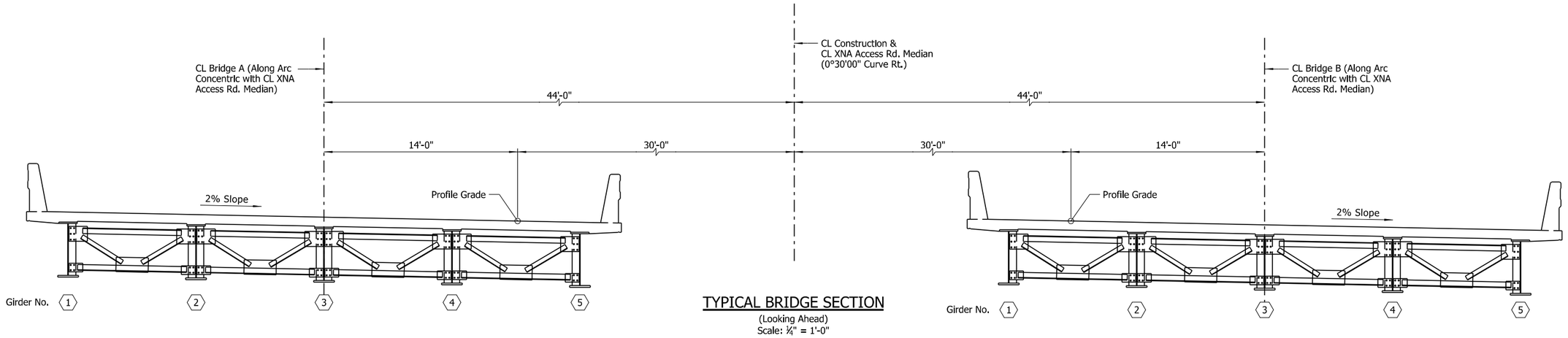
LITTLE ROCK, ARK.

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CHECKED BY: AJK DATE: JULY 2023 SCALE: No Scale
DESIGNED BY: RAK DATE: FEB. 2023

BRIDGE NO. A7656 & B7656 DRAWING NO. 66731

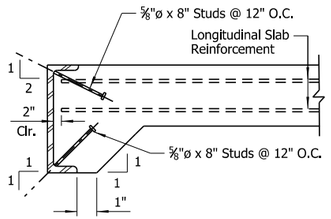
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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 284 | 583 |
| | | A7656 & B7656 | | 255'-0" UNIT | | 66732 |




## TYPICAL BRIDGE SECTION

(Looking Ahead)
Scale: ¼" = 1'-0"




## DETAIL OF ANCHORS AND PLACEMENT OF LONGITUDINAL REINFORCEMENT

No Scale

NOTE:
As an alternate to ⅝"ø studs, ½"ø x 8" studs spaced @ 8" o.c. may be used. Use weight of ⅝"ø stud as basis of measurement of Structural Steel in anchors.

TABLE OF SILICONE JOINT DATA

| Bent No(s). | "A" Width Perpendicular To Joint At 24 Hour Average Temperature (1) Of: | | | "B" Perpendicular To Joint At 60°F | Bumper Plate Size |
|---|---|---|---|---|---|
| | 40°F | 60°F | 80°F | | |
| 1A | 2⅛" | 2" | 1⅞" | 2¼"± | 1" x 1" x 12" |
| 4A & 4B | 2¼" | 2" | 1¾" | 2¼"± | 1" x 1" x 12" |
| 1B | 2 3/16" | 2" | 1 13/16" | 2¼"± | 1" x 1" x 12" |

(1) The temperature used to set the joint opening shall be the approximate average air temperature during the 24-hour period immediately before the bolts are tightened. The Engineer shall establish the temperature. Interpolation of the table may be necessary.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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JOEL E. SKINNER
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 1 OF 6
DETAILS OF 255'-0" CONTINUOUS PLATE GIRDER UNIT
XNA ACCESS RD. OVER WAGER DR.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

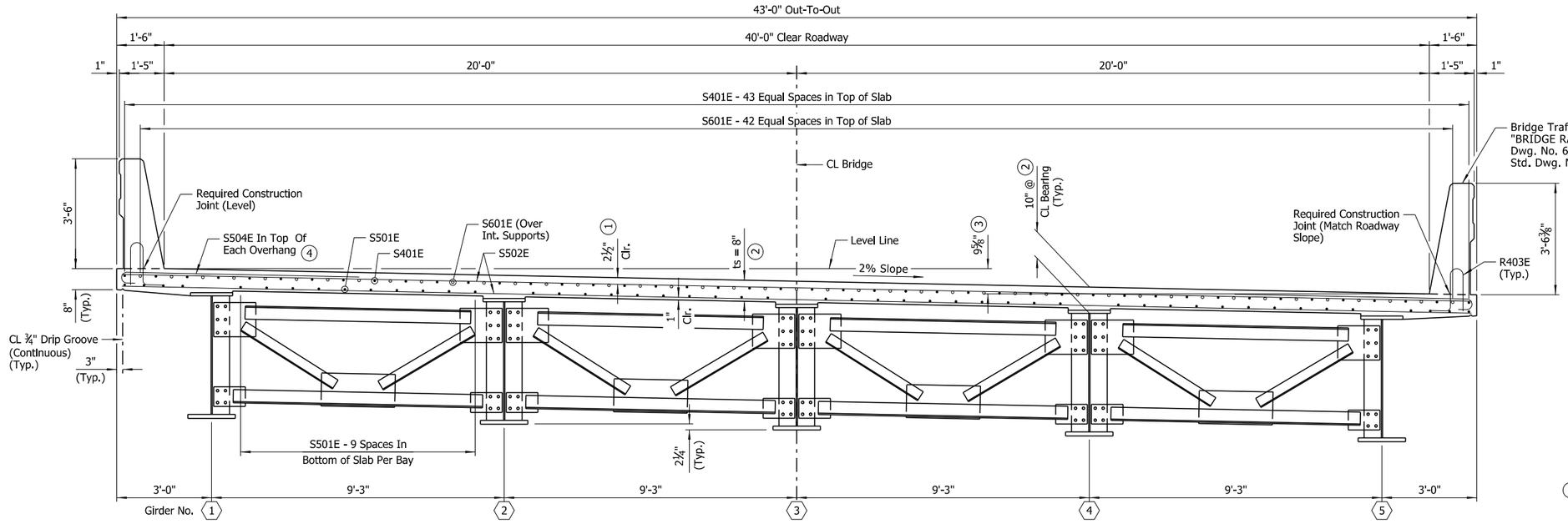
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: MAY 2023 FILENAME: b090069m1_s1.dgn
CHECKED BY: JES DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: BWD DATE: MAY 2023

BRIDGE NO. A7656 & B7656 DRAWING NO. 66732

JESkinner 10/20/2023 2:10:59 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 285 | 583 |
| | | A7656 & B7656 | | 255'-0" UNIT | | 66733 |




## TYPICAL ROADWAY SECTION

(Looking Ahead)
Scale: ½" = 1'-0"

SLAB REINFORCING:
Transverse: S502E @ 6" O.C. In Top & Bottom
S504E @ 6" O.C. In Top Of Overhangs
(Bundled w/#5 Bars)

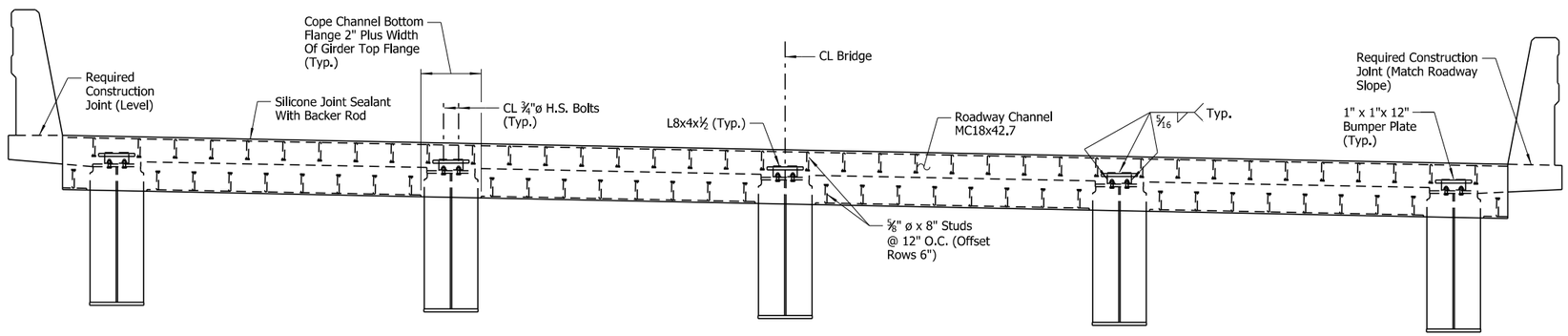
Longitudinal: S401E In Top (Placed As Shown)
S501E In Bottom (Placed As Shown)
S601E In Top (Placed as shown over Int. Supports, see "REINFORCING PLAN & SLAB POURING SEQUENCE" on Dwg. No. 66737 for additional information)

(1) TOLERANCE:
Minus = ¼"
Plus = Amount of slab thickening used to meet slab thickness tolerance - See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Std. Dwg. No. 55007.

(2) See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Std. Dwg. No. 55007.

(3) Measured gutterline to gutterline.

(4) Bundled with #5 bars in top. Rotate as needed to avoid interference with bottom mat of deck reinforcement.




## TYPICAL SECTION THRU JOINT

(Shown At End Bent No. 1, Looking Ahead; End Bent No. 4 Similar)
No Scale

EXPANSION DEVICE
Rdwy. Channel: MC18x42.7
Conn. Angles: L8x4x½
Detail device ⅛" high and provide ¼" shims using 2 - 1/16" and 1 - ⅛" plates

NOTES:
For Standard General Notes and details, see Std. Dwg. Nos. 55006 & 55007.

For additional details of poured silicone joint, see Std. Dwg. No. 55008.

Bar positions and clearances from the forms shall be maintained by means of stays, ties, hangers or other approved devices per Subsection 804.06. Placement of slab bolsters or high-chairs with full-length lower runners directly on removable deck forms will not be allowed.

Class 2 Protective Surface Treatment shall be applied to the roadway surface.

Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in Special Provision "TEXTURED COATING FINISH" and in accordance with Subsection 802.19(b)(3). Textured Coating Finish shall not be applied on surfaces where Class 2 Protective Surface Treatment is applied.

All structural steel shall be ASTM A709, Gr. 50 unless noted otherwise, and all structural steel shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

The profile of the Roadway Channel shall be established based on the vertical curve in conjunction with the skew.

All horizontal dimensions shown are measured along a line radial to CL Construction.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER
Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 2 OF 6
# DETAILS OF 255'-0" CONTINUOUS PLATE GIRDER UNIT
# XNA ACCESS RD. OVER WAGER DR.

ROUTE SEC.

## ARKANSAS STATE HIGHWAY COMMISSION

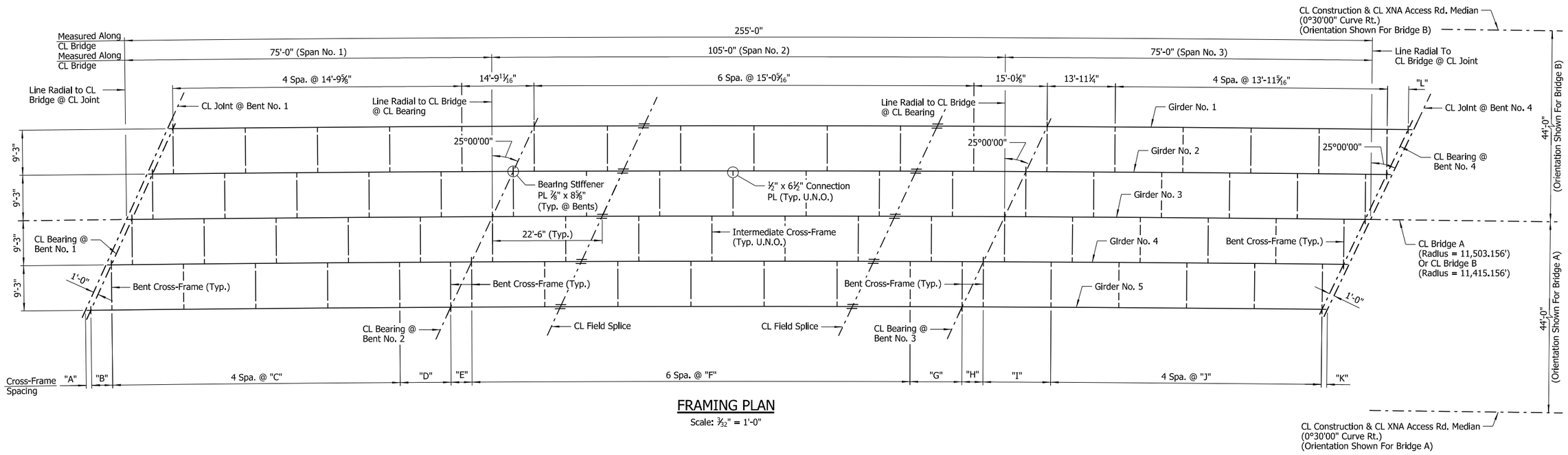
LITTLE ROCK, ARK.

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CHECKED BY: JES DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: BWD DATE: NOV. 2022

BRIDGE NO. A7656 & B7656 DRAWING NO. 66733

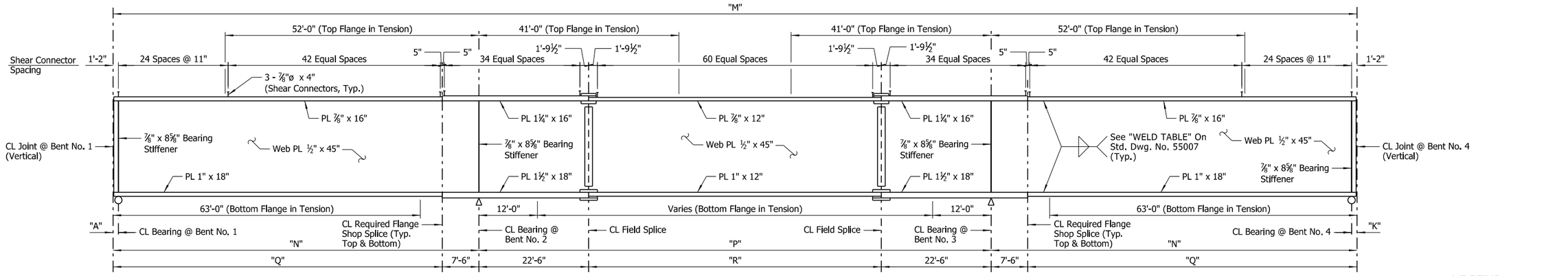
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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 286 | 583 |
| | | A7656 & B7656 | | 255'-0" UNIT | | 66734 |




## FRAMING PLAN

Scale: 3/32" = 1'-0"




## TYPICAL GIRDER ELEVATION

(Dimensions Measured Along CL Girder)
No Scale

## TABLE OF VARIABLES

| BRIDGE NO. | GIRDER NO. | "A" | "B" | "C" | "D" | "E" | "F" | "G" | "H" | "I" | "J" | "K" | "L" | "M" | "N" | "P" | "Q" | "R" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A7656 & B7656 | 1 | 1'-1¼" | - | - | - | - | - | - | - | - | - | 1'-1¼" | 4'-3 11/16" | 255'-4 5/16" | 75'-1 7/16" | 105'-2 1/16" | 67'-7 7/16" | 60'-2 1/16" |
| | 2 | 1'-1¼" | 4'-3⅝" | 14'-9½" | 10'-5 13/16" | 4'-3 11/16" | 15'-0⅛" | 10'-8 9/16" | 4'-3 11/16" | 13'-11 1/16" | 13'-11 3/16" | 1'-1¼" | 4'-3¾" | 255'-2½" | 75'-0¾" | 105'-1" | 67'-6¾" | 60'-1" |
| | 3 | 1'-1¼" | 4'-3 11/16" | 14'-9⅜" | 10'-5 5/16" | 4'-3 11/16" | 15'-0" | 10'-8 5/16" | 4'-3 11/16" | 13'-11 1/16" | 13'-11" | 1'-1¼" | 4'-3 11/16" | 255'-0" | 75'-0" | 105'-0" | 67'-6" | 60'-0" |
| | 4 | 1'-1¼" | 4'-3¾" | 14'-9 3/16" | 10'-5½" | 4'-3¾" | 14'-11⅞" | 10'-8" | 4'-3¾" | 13'-10 13/16" | 13'-10⅞" | 1'-1¼" | 4'-3⅝" | 254'-9½" | 74'-11¼" | 104'-11" | 67'-5¼" | 59'-11" |
| | 5 | 1'-1¼" | 4'-3 13/16" | 14'-9 1/16" | 10'-5¼" | 4'-3 13/16" | 14'-11 1/16" | 10'-8" | 4'-3 13/16" | 13'-10¾" | 13'-10 1/16" | 1'-1¼" | - | 254'-7 1/16" | 74'-10 9/16" | 104'-9 15/16" | 67'-4 9/16" | 59'-9 15/16" |

NOTES:
All girders are oriented along curves concentric with CL Bridge.

All cross-frames are oriented along lines radial to CL Bridge.

All structural steel shall be ASTM A709, Gr. 50 unless noted otherwise and shall be paid for at the unit price per pound bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

Bolted Field Splices shown may be eliminated or shop welded splices may be substituted with approval of the Engineer. Payment will be made on the basis of the Plan Quantities.

The Contractor shall ensure that beams are stable throughout the erection process. The Contractor will be responsible for providing temporary bracing or stiffening devices to accommodate handling stresses in individual members or segments of the structure during erection.

For "GENERAL NOTES", see Std. Dwg. No. 55006.

For "DETAILS OF WELDED SPLICES FOR PLATE GIRDERS" & "SHEAR CONNECTOR DETAIL", see Std. Dwg. No. 55007.

For cross-frame details, stiffener and connection plate details, see Dwg. No. 66735.

For details of field splices, see Dwg. No. 66736.

NOTE:
The erection of the structural steel shall be performed according to a plan permitting the steel to be erected plumb with bolts tightened while the steel is as close as possible to the no-load condition, so that the bolt holes can be aligned. This requirement may necessitate the use of large capacity cranes, temporary shoring or jacking frames.

## LEGEND

U.N.O. = Unless Noted Otherwise

STATE OF ARKANSAS
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No.16458
JOEL E. SKINNER

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BRIDGE ENGINEER

# SHEET 3 OF 6
# DETAILS OF 255'-0" CONTINUOUS PLATE GIRDER UNIT XNA ACCESS RD. OVER WAGER DR.

ROUTE SEC.

## ARKANSAS STATE HIGHWAY COMMISSION

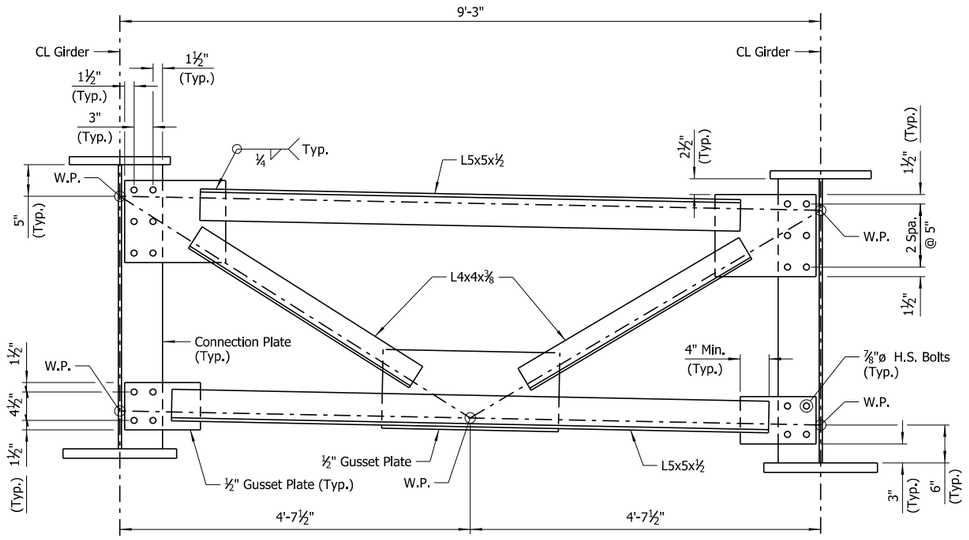
LITTLE ROCK, ARK.

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CHECKED BY: JES DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: BWD DATE: NOV. 2022

BRIDGE NO. A7656 & B7656 DRAWING NO. 66734

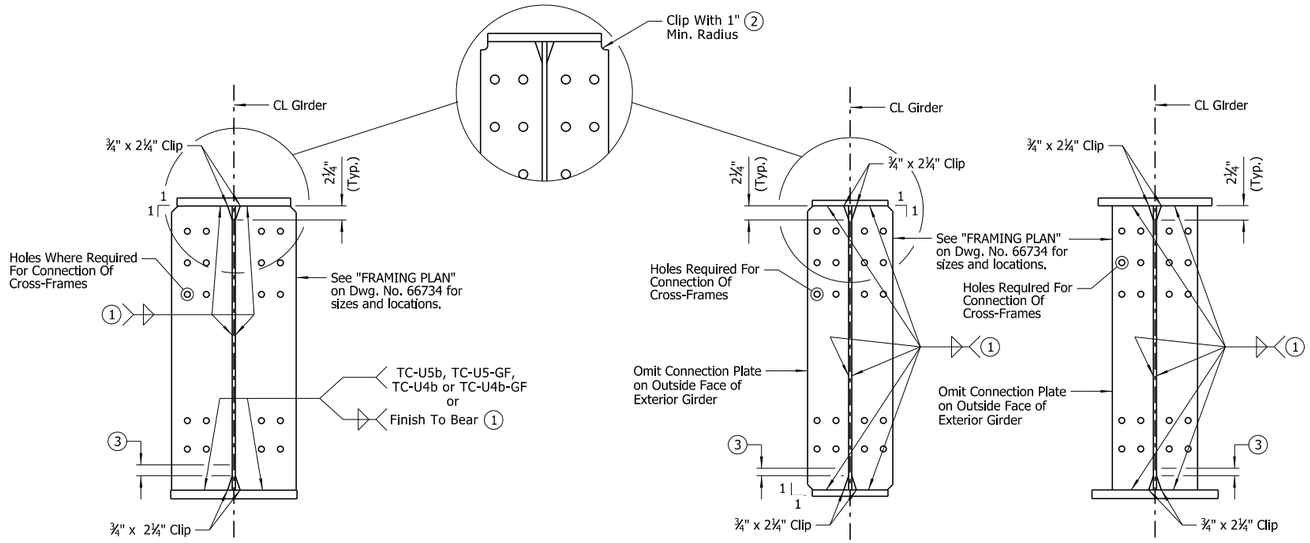
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 287 | 583 |
| | | A7656 & B7656 | | 255'-0" UNIT | | 66735 |




INTERMEDIATE CROSS-FRAME DETAIL

Scale: 1" = 1'-0"




BEARING STIFFENER DETAIL

Scale: 1" = 1'-0"

GIRDER WITH 12" TOP FLANGE

GIRDER WITH 16" TOP FLANGE

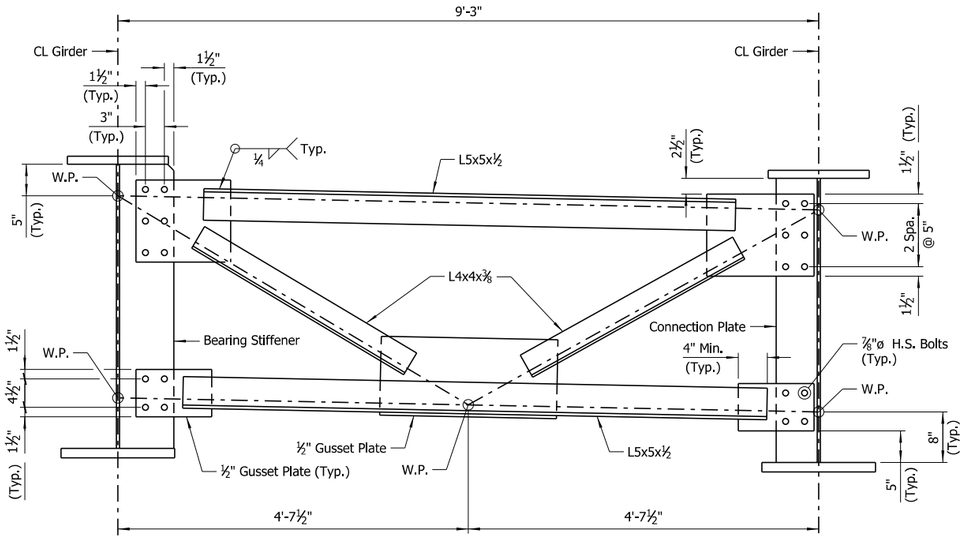
CONNECTION PLATE DETAIL

Scale: 1" = 1'-0"

(1) See "WELD TABLE" on Std. Dwg. No. 55007 for minimum weld size.

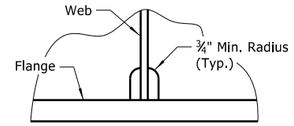
(2) If permanent deck forms are used, the Fabricator shall clip the plate as necessary to accommodate the deck form supports.

(3) Stop weld ¼" to 1" from end of clip (Typ.)




BENT CROSS-FRAME DETAIL

Scale: 1" = 1'-0"




Height and width of clip shall be as noted in other details.

ALTERNATE CLIP DETAIL

(For Bearing Stiffeners and Cross-frame Connection Plates)
No Scale

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SHEET 4 OF 6
DETAILS OF 255'-0" CONTINUOUS PLATE GIRDER UNIT
XNA ACCESS RD. OVER WAGER DR.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

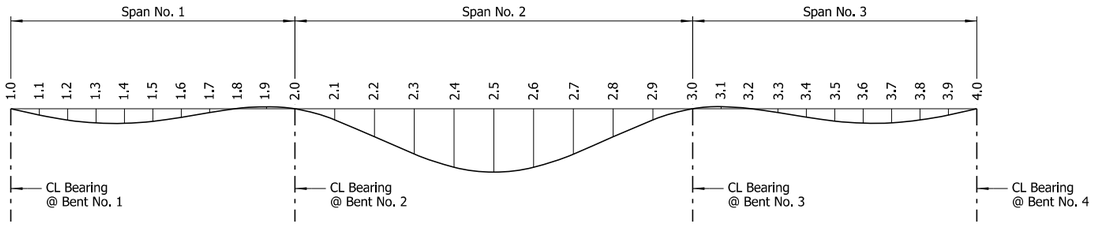
LITTLE ROCK, ARK.

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CHECKED BY: JES DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: BWD DATE: NOV. 2022

BRIDGE NO. A7656 & B7656 DRAWING NO. 66735

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 288 | 583 |
| | | A7656 & B7656 | | 255'-0" UNIT | | 66736 |



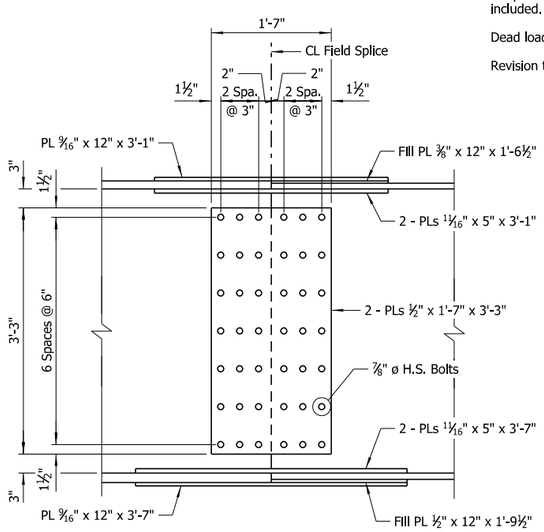

## DEAD LOAD DEFLECTION DIAGRAM

No Scale

NOTES:
Camber for dead load deflection plus vertical curve +/- ¼" tolerance. Deflections shown are along CL girder from the plane perpendicular to the web extending from CL Bearing to CL Bearing. Vertical curve corrections not included. Negative sign (-) indicates point above chord.

Dead load deflections shown include an assumed loading of 18 psf to account for stay-in-place metal deck forms.

Revision to the deflection tables may be necessary upon review of the Contractor's submitted forming details.



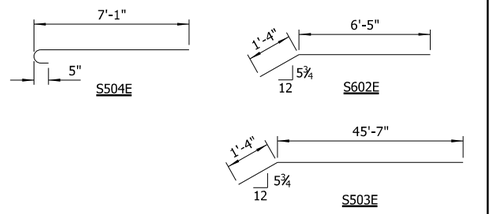

## ELEVATION OF FIELD SPLICE

Scale: 1" = 1'-0"

## BAR LIST

| MARK | NO. REQ'D | LENGTH | P.D. |
|---|---|---|---|
| R400E | 32 | 6'-3" | 3" |
| R401E | 1027 | 7'-6" | 3" |
| R402E | 112 | 5'-6" | Str. |
| R403E | 1027 | 3'-8" | 3", 6" |
| R409E | 80 | 10'-10" | Str. |
| R410E | 80 | 12'-1" | Str. |
| R411E | 120 | 16'-3" | Str. |
| R412E | 60 | 19'-7" | Str. |
| | | | |
| S401E | 308 | 38'-9" | Str. |
| | | | |
| S501E | 240 | 53'-8" | Str. |
| S502E | 944 | 42'-8" | Str. |
| S503E | 4 | 46'-11" | 3¾" |
| S504E | 1008 | 7'-8" | 3¾" |
| S505E to S536E | 4 Ea. | 7'-4" to 40'-7" | Str. |
| | | | |
| S601E | 86 | 46'-0" | Str. |
| S602E | 32 | 7'-9" | 4½" |

## BAR BENDING DIAGRAMS




NOTES:
Dimensions of bars are out-to-out.

Bar designations ending with "E" indicate epoxy coated bars.

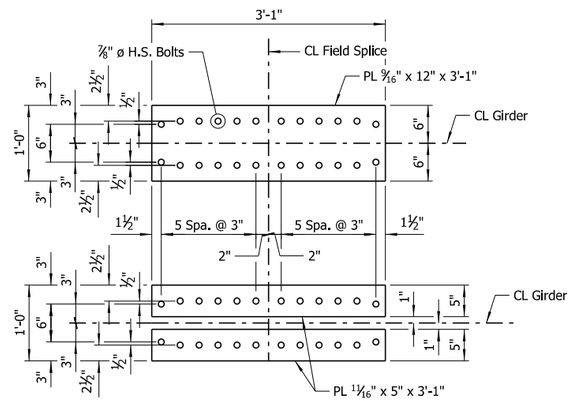
For bar bending diagrams of R400E, R401E & R403E, see Std. Dwg. No. 55071.

The first bar desigmation number indicates the reinforcing bar size.

Number of bars shown is for one 255' unit.

## TABLE OF DEAD LOAD DEFLECTIONS (INCHES)

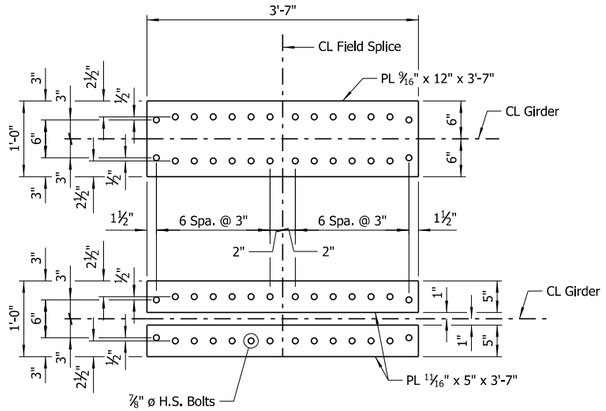
| | Point Of Deflection | Exterior Girder | | | Interior Girder | | |
|---|---|---|---|---|---|---|---|
| | | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail |
| SPAN NO. 1 | 1.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 1.1 | 0.026 | 0.125 | 0.140 | 0.028 | 0.149 | 0.163 |
| | 1.2 | 0.047 | 0.226 | 0.255 | 0.051 | 0.272 | 0.297 |
| | 1.3 | 0.060 | 0.284 | 0.320 | 0.064 | 0.340 | 0.372 |
| | 1.4 | 0.062 | 0.290 | 0.328 | 0.067 | 0.349 | 0.383 |
| | 1.5 | 0.054 | 0.248 | 0.282 | 0.058 | 0.299 | 0.330 |
| | 1.6 | 0.039 | 0.169 | 0.194 | 0.041 | 0.202 | 0.224 |
| | 1.7 | 0.019 | 0.073 | 0.087 | 0.021 | 0.088 | 0.100 |
| | 1.8 | 0.002 | -0.012 | -0.008 | 0.002 | -0.014 | -0.012 |
| | 1.9 | -0.006 | -0.044 | -0.047 | -0.007 | -0.052 | -0.054 |
| SPAN NO. 2 | 2.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 2.1 | 0.040 | 0.224 | 0.247 | 0.043 | 0.268 | 0.290 |
| | 2.2 | 0.101 | 0.566 | 0.627 | 0.110 | 0.678 | 0.736 |
| | 2.3 | 0.163 | 0.913 | 1.011 | 0.178 | 1.102 | 1.195 |
| | 2.4 | 0.210 | 1.183 | 1.310 | 0.229 | 1.419 | 1.540 |
| | 2.5 | 0.229 | 1.289 | 1.427 | 0.249 | 1.538 | 1.669 |
| | 2.6 | 0.212 | 1.194 | 1.323 | 0.230 | 1.421 | 1.542 |
| | 2.7 | 0.166 | 0.930 | 1.029 | 0.179 | 1.105 | 1.199 |
| | 2.8 | 0.102 | 0.576 | 0.637 | 0.110 | 0.681 | 0.739 |
| | 2.9 | 0.042 | 0.235 | 0.260 | 0.044 | 0.272 | 0.295 |
| SPAN NO. 3 | 3.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 3.1 | -0.007 | -0.046 | -0.049 | -0.007 | -0.052 | -0.055 |
| | 3.2 | 0.002 | -0.014 | -0.012 | 0.003 | -0.009 | -0.007 |
| | 3.3 | 0.019 | 0.071 | 0.085 | 0.021 | 0.087 | 0.098 |
| | 3.4 | 0.039 | 0.165 | 0.190 | 0.042 | 0.200 | 0.221 |
| | 3.5 | 0.054 | 0.246 | 0.280 | 0.058 | 0.295 | 0.324 |
| | 3.6 | 0.062 | 0.288 | 0.325 | 0.066 | 0.344 | 0.378 |
| | 3.7 | 0.060 | 0.282 | 0.318 | 0.064 | 0.337 | 0.370 |
| | 3.8 | 0.048 | 0.227 | 0.255 | 0.051 | 0.269 | 0.294 |
| | 3.9 | 0.027 | 0.127 | 0.143 | 0.029 | 0.152 | 0.166 |
| | 4.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |




## TOP FLANGE FIELD SPLICE

Scale: 1" = 1'-0"

NOTES:
All field connections shall be bolted with ⅞"ø H.S. bolts using 15/16"ø open holes.




## BOTTOM FLANGE FIELD SPLICE

Scale: 1" = 1'-0"

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SHEET 5 OF 6
DETAILS OF 255'-0" CONTINUOUS PLATE GIRDER UNIT
XNA ACCESS RD. OVER WAGER DR.

ROUTE SEC.

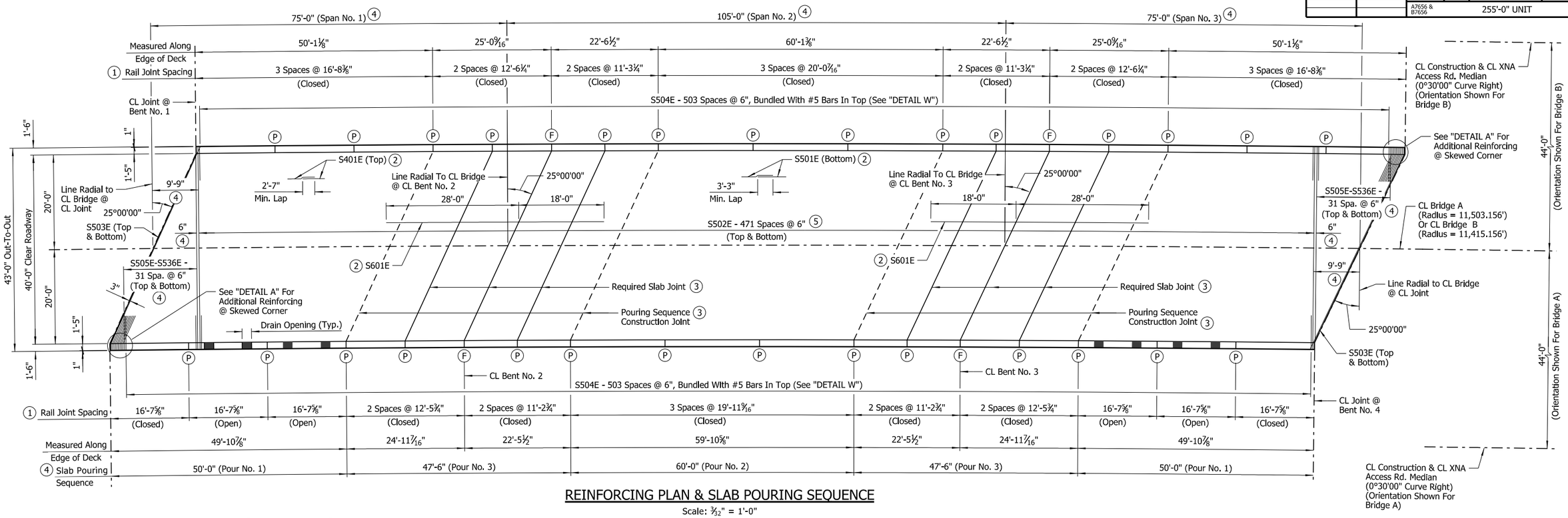
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: BWD DATE: NOV. 2022

BRIDGE NO. A7656 & B7656 DRAWING NO. 66736

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 289 | 583 |
| | | A7656 & B7656 | | 255'-0" UNIT | | 66737 |




## REINFORCING PLAN & SLAB POURING SEQUENCE

Scale: 3⁄32" = 1'-0"

## TABLE OF VARIABLES

| Closed Rail Panels | | | Open Rail Panels | | | | | |
|---|---|---|---|---|---|---|---|---|
| Panel Length | A | R4XXE | Panel Length | B | C | D | E | R4XXE |
| 11'-2¾" | 22 | 09 | 16'-7⅝" | 8 | 3'-2" | 12 | 6'-3⅜" | 11 |
| 11'-3¼" | 22 | 09 | | | | | | |
| 12'-5¾" | 24 | 10 | | | | | | |
| 12'-6¼" | 25 | 10 | | | | | | |
| 16'-7⅝" | 33 | 11 | | | | | | |
| 16'-8⅜" | 33 | 11 | | | | | | |
| 19'-11⁹⁄₁₆" | 39 | 12 | | | | | | |
| 20'-0⁷⁄₁₆" | 40 | 12 | | | | | | |

(1) Measured along inside face of rail. Rail joints designated with symbol (F) shall be stopped 6" from top of slab. All other rail joints with symbol (P) shall be partial-depth joints stopped 16" from top of slab.

(2) Place as shown in "TYPICAL ROADWAY SECTION" on Dwg. No. 66733.

(3) See "TRANSVERSE SLAB JOINT DETAIL" on Std. Dwg. No. 55007.

(4) Measured along CL Bridge

NOTES:
Pours with the same number may be placed simultaneously or separately. All Pour(s) (1) must be placed before Pours (2) can be placed. Pour (2) must be placed before Pour(s) (3) can be placed. 48 hours shall elapse between the end of a pour and the start of the next pour. A minimum of 72 hours shall elapse between adjacent pours.

Concrete in bridge superstructure shall be placed, consolidated and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

A minimum of 72 hours shall elapse between the completion of the entire deck slab and the start of a railing pour. Any railing pours made before the entire slab unit has been placed must be approved by the Engineer.

No deviations from the pouring sequence shown will be allowed.

Required slab joints and pouring sequence joints shall align with rail joints as shown.

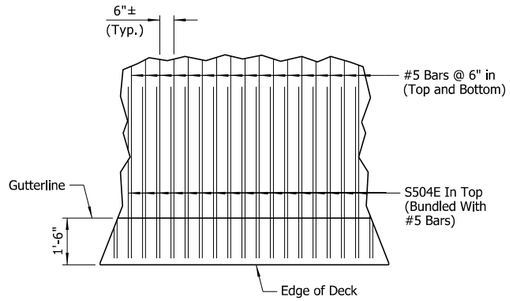
For "GENERAL NOTES", see Std. Dwg. No. 55006.

Unless noted otherwise, spacing shown for all transverse reinforcing is measured along CL Bridge. All transverse reinforcing shall be placed on lines radial to CL Bridge.

All longitudinal lines and longitudinal slab reinforcing shall be placed along curves concentric with CL Bridge.

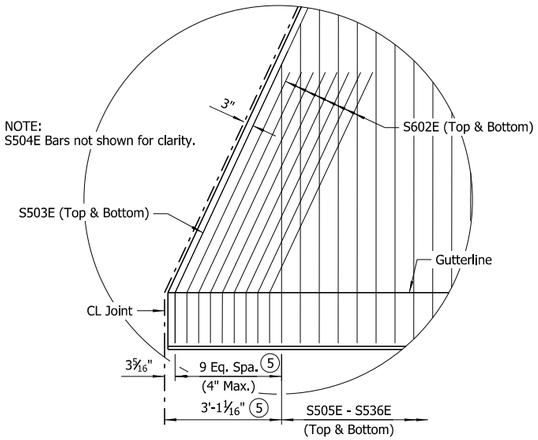
For "BAR LIST" & "BAR BENDING DIAGRAMS", see Dwg. No. 66736.

For Concrete Bridge Rail details, see Std. Dwg. No. 55071.




## DETAIL W

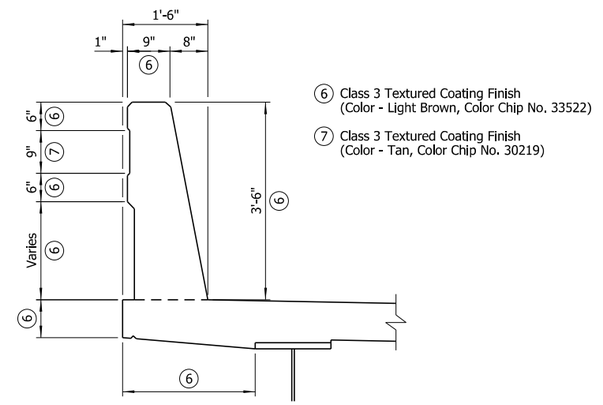
No Scale




## DETAIL A

No Scale

(5) Measured along edge of deck




## BRIDGE RAIL AESTHETIC DETAIL

No Scale

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BRIDGE ENGINEER

# SHEET 6 OF 6
# DETAILS OF 255'-0" CONTINUOUS PLATE GIRDER UNIT XNA ACCESS RD. OVER WAGER DR.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: NOV. 2022 FILENAME: b090069m1_s6.dgn
CHECKED BY: JES DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: BWD DATE: NOV. 2022

BRIDGE NO. A7656 & B7656 DRAWING NO. 66737

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 290 | 583 |
| | | A7657 | | LAYOUT | | 66738 |

For Grading Details of Permanent Sediment Basin, See Roadway Plans.

NOTES:
Use Type F Approach Slab (W = 36'-0") at each end of bridge. See Std. Dwg. No. 55040F1.

Use Type F Approach Gutters at each end of bridge. See Std. Dwg. No. 55030F.

Approx. 1.4 mi. to Jct. S.H. 612

Place 1'-6" Dumped Riprap on top of Filter Blanket in the limits shown. See Std. Dwg. No. 55001.

Boring Test Hole (Typ.)

Toe of Fill Slope

CL Bridge A

CL Bridge B

Profile Grade

CL Left Lanes

CL Construction & CL XNA Access Rd. Median

10'-0" Shldr.

10'-0" (Typ.)

2'-0"

40'-0" Finished Surface

24'-0" Lanes

30'-0" Shldr.

6'-0"

60'-0" Median

2% Slope

14'-0"

44'-0"

43'-0" Out-To-Out

40'-0" Clear Roadway

1'-5" Rail

1'-5" Rail

00+55

151+00

160+00

161+00

162+00

163+00

164+00

165+00

BEGIN BRIDGE A
STA. 158+30.90

PLAN - BRIDGE A

1 1V:6H
2 1V:3H
3 1V:2H

## HORIZONTAL CURVE DATA

XNA Access Rd. Median
PI = 156+17.12
Δ = 14°18'07" Rt.
D = 0°30'00"
T = 1437.67'
L = 2860.39'
R = 11459.16'

Total Length of Bridge = 1022'-2"

1'-1"

510'-0" Continuous Plate Girder Unit (110'-145'-145'-110')

510'-0" Continuous Plate Girder Unit (110'-145'-145'-110')

CL 2½" Strip Seal Joint (4" Movement Rating)

CL 5" Finger Joint

Slope Intercept Sta. 158+16.00

Elev. 1115.85

CL Deck at CL Bent to Low Side Top of Cap = 7'-1 11/16"

CL Bent Sta. 159+41.56 Elev. 1113.74

Bridge Traffic Rail (Modified SSTR42)

CL Bent Sta. 160+86.01 Elev. 1111.48

CL Deck at CL Bent to Low Side Top of Cap = 7'-2⅜"

CL Deck at CL Bent to Low Side Top of Cap = 7'-1 11/16"

CL Bent Sta. 162+30.45 Elev. 1109.80

CL Deck at CL Bent to Low Side Top of Cap = 7'-6 15/16"

CL Bent Sta. 163+40.03 Elev. 1108.89

CL Deck at CL Bent to Low Side Top of Cap = 7'-1 11/16"

CL Bent Sta. 164+49.61 Elev. 1108.29

CL Deck to Low Steel = 6'-3 7/16"

Proposed Grade Line Along CL Bridge A

Existing Ground Line Along CL Bridge A

Exp.

Fix.

31' Piles

31' Piles

Elev. 1088.10

Tip Elev. 1058.60

18'-6"

29'-6"

108"ø Drilled Shaft With 120"ø Permanent Steel Casing (Typ. at Bents 2A-8A)

Elev. 1078.78

Tip Elev. 1049.28

25'-6"

29'-6"

Elev. 1077.66

Tip Elev. 1043.16

25'-0"

34'-6"

Exp.

Exp.

Elev. 1078.31

Tip Elev. 1047.81

23'-0"

30'-6"

23'-0"

29'-6"

Fix.

Design H.W. ($Q_{50}$) Elev. 1086.0

Elev. 1078.15

Tip Elev. 1048.65

Design H.W. To Low Steel = 13.9'

-3.23%

-0.51%

PVI Sta. 159+00.00
Elev. 1110.81
V.C. = 1000'

## VERTICAL CURVE DATA

XNA Access Rd.
(Profile Grade 14' Right of CL Bridge A)

Bent No. 1A 2A 3A 4A 5A 6A

158+00 159+00 160+00 161+00 162+00 163+00 164+00 165+00

ELEVATION - BRIDGE A

NOTES:
Stations shown are along CL Construction. Elevations shown are actual top of deck elevations at CL Bridge A. Any vertical dimension referenced to CL Deck is based on actual top of deck elevation at CL Bridge A.

For "PROJECT GENERAL NOTES", see Dwg. No. 66717.

For "GENERAL NOTES", see Dwg. No. 66739.

For "HYDRAULIC DATA", see Dwg. No. 66741.

For "ELEVATION OF SOIL BORINGS - BRIDGE A", "BORING LEGEND" and "N-VALUES", see Dwg. No. 66742.

CL Construction is on a 0°30'00" curve right. CL Girders and the longitudinal lines of the bridge and approach slabs and gutters shall be constructed on curves concentric with CL Construction. CL Joint at Bents 1A, 5A, & 9A and CL Bent at Bents 2A-4A & 6A-8A shall be constructed on lines radial to CL Construction.

FOR R/W DATA, SEE ROADWAY PLANS

STATE OF ARKANSAS
ADAM B. HALL
LICENSED PROFESSIONAL ENGINEER
No.14498
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 1 OF 5
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER OSAGE CREEK
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: CSW DATE: MAR. 2022
BRIDGE NO. A7657 DRAWING NO. 66738

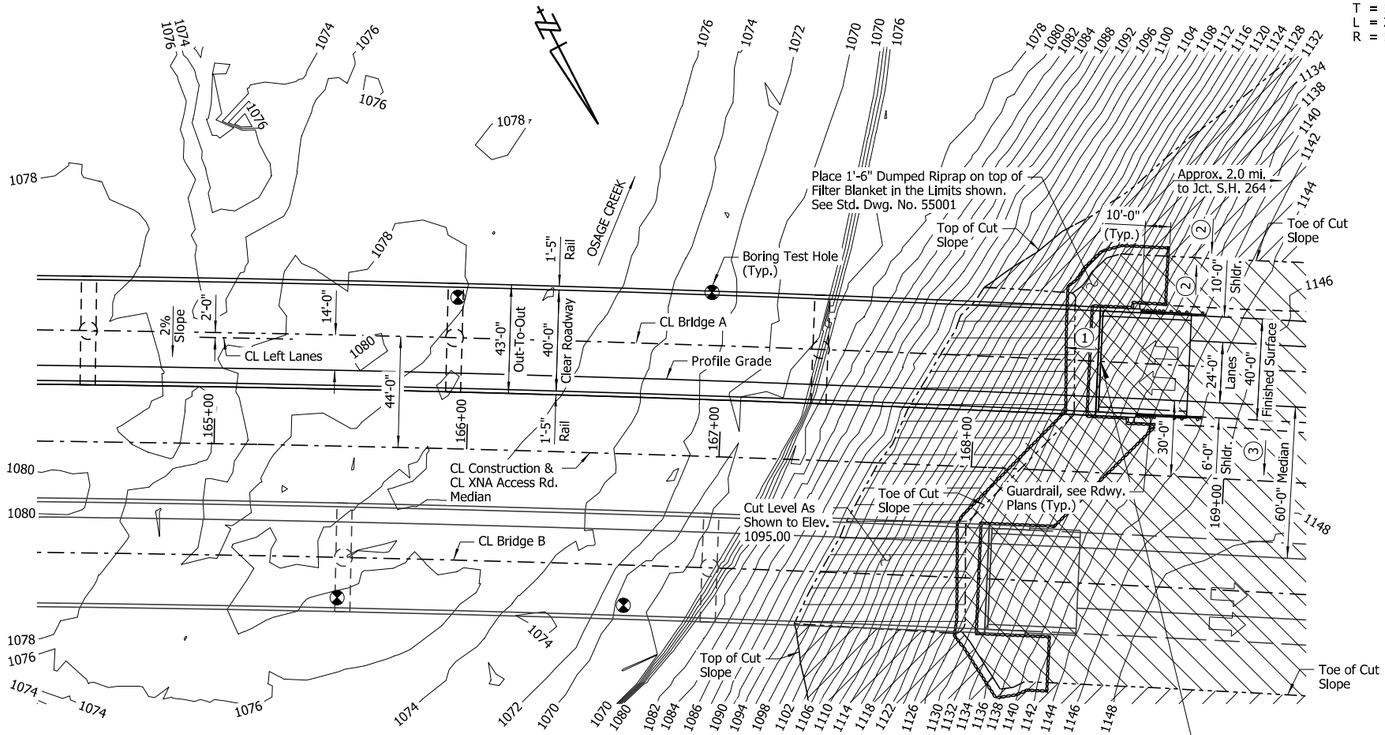
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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | A7657 | | LAYOUT | | 66739 |

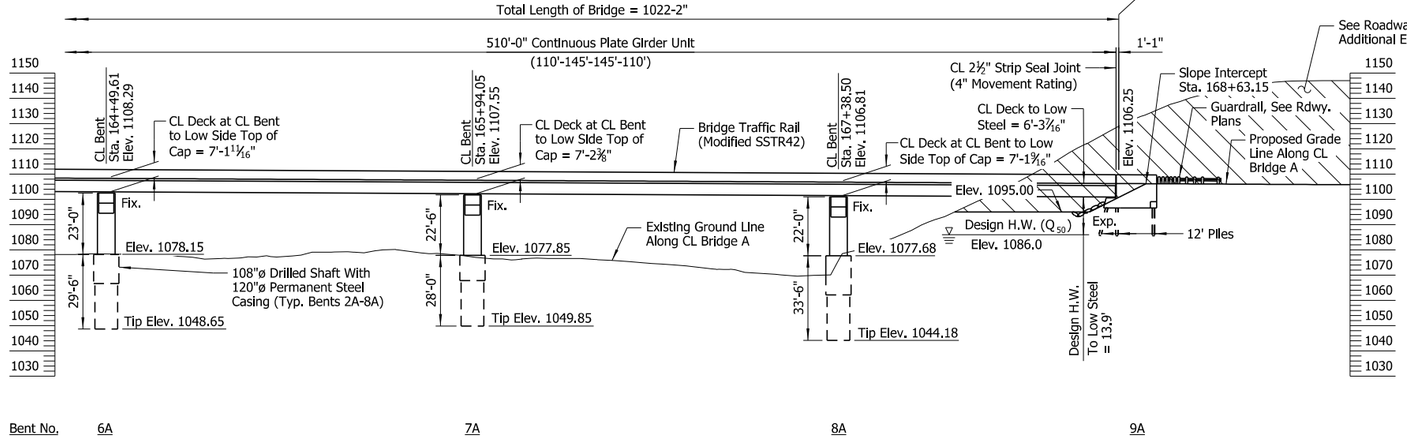
NOTE:
Excavate existing ground at end of bridge as shown.
Approx. 8,705 cubic yards of excavation.

## HORIZONTAL CURVE DATA

XNA Access Rd. Median
PI = 156+17.12
Δ = 14°18'07" Rt.
D = 0°30'00"
T = 1437.67'
L = 2860.39'
R = 11459.16'




PLAN - BRIDGE A




ELEVATION - BRIDGE A

FOR R/W DATA, SEE ROADWAY PLANS

NOTES:
Use Type F Approach Slab (W = 36'-0") at each end of bridge. See Std. Dwg. No. 55040F1.

Use Type F Approach Gutters at each end of bridge. See Std. Dwg. No. 55030F.

## GENERAL NOTES

SEISMIC ZONE: 1 $S_{D1}$: 0.05g SITE CLASS: B

SEISMIC OPERATIONAL CLASSIFICATION: Essential

STEEL PILING: All piling shall be HP12x53 (Grade 50) and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 96 tons per pile and into the material designated as moderately hard to hard cherty limestone on the boring legend. Minimum penetration at Bents 1A & 1B shall be 10' below natural ground and at Bents 9A & 9B shall be 10' below bottom of cap for all piles. Piling in end bents shall be driven after embankment to bottom of cap is in place. Lengths of piling shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with Section 805. Actual pile lengths are to be determined in the field. The Contractor shall use approved steel H-Pile driving points on all piles.

WAITING PERIOD: Piling at End Bent Nos. 1A and 1B shall be driven no sooner than 45 days after embankment construction is completed to the final roadway section. Pile driving shall not begin until approval is given by the Engineer.

PREBORING: Preboring is required for all piles at Bents 9A & 9B. The depth of preboring shall be to a depth sufficient to provide the specified minimum penetration and to a minimum 5' depth into material designated as moderately hard to hard cherty limestone on the boring legend, whichever is lower. The actual size and depth of preboring shall be determined in the field by the Engineer. The Contractor shall be responsible for keeping the prebored hole free of debris prior to driving the pile and backfilling which may require the use of temporary casing or other approved methods. After driving is completed, the prebored hole shall be backfilled with Class S Concrete to the top of the rock and the remaining length backfilled in accordance with Subsection 805.08(a). Any related cost for backfilling and temporary casing will not be paid for directly, but shall be considered subsidiary to the item "PREBORING".

DRILLED SHAFTS: Drilled shafts at Bents 2A-8A & 2B-8B shall be constructed in accordance with Special Provision "DRILLED SHAFT FOUNDATIONS". Drilled shafts shall be socketed into material designated as moderately hard to hard cherty limestone on the boring legend and to the minimum rock penetrations and tip elevations shown in the plans. No adjustment to plan tip elevations shall be made without prior approval from the Engineer.

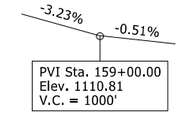
NONDESTRUCTIVE TESTING: Crosshole Sonic Logging (CSL) and Thermal Integrity Profiling (TIP) shall be performed on each drilled shaft. Testing shall be performed in accordance with Special Provision "NONDESTRUCTIVE TESTING OF DRILLED SHAFTS".

PAINTING: The following weathering steel surfaces shall be painted as specified in Subsection 807.75:

- All steel surfaces within 10 feet of bridge deck expansion joints, including diaphragms, cross-frames, connection bolts and bearings.
- All steel surfaces exposed to the outside face of the bridge, including outside faces & bottom of the exposed exterior girders, splice plates and bolts, stiffeners, drip plates and bearings.

ASTM F3125, Grade A325 Type 3 bolts shall be used within these painted zones and shall be painted. Galvanized members, the expansion device, and surfaces in contact with concrete shall not be painted. The color of paint shall be Brown equal or close to Fed. Std. 595 B, Color Chip No. 30108 and as approved by the Engineer. The finish system may be applied in the shop. Any damage to the paint system occurring during transport or installation shall be corrected according to the manufacturer's recommendations at no cost to the Department.

| DETAIL DRAWINGS: | DRAWING NO(S).: |
|---|---|
| End Bents | 66743-66746 |
| Intermediate Bents | 66747-66749 |
| Elastomeric Bearings | 66750 & 66751 |
| 510'-0" Continuous Plate Girder Unit | 66752-66761 |
| Dumped Riprap | 55001 |
| General Notes For Steel Bridge Structures | 55006 |
| Details for Steel Bridge Structures | 55007 |
| Neoprene Strip Seal Joint | 55009 |
| Steel H-Piling | 55020 |
| Type F Approach Gutters | 55030F |
| Type F Approach Slabs | 55040F1 |
| Bridge Traffic Rail | 66760 & 55071 |




## VERTICAL CURVE DATA

XNA Access Rd.
(Profile Grade 14' Right of CL Bridge A)

NOTES:
Stations shown are along CL Construction. Elevations shown are actual top of deck elevations at CL Bridge A. Any vertical dimension referenced to CL Deck is based on actual top of deck elevation at CL Bridge A.

For "PROJECT GENERAL NOTES", see Dwg. No. 66717.

For "HYDRAULIC DATA", see Dwg. No. 66741.

For "ELEVATION OF SOIL BORINGS - BRIDGE A", "BORING LEGEND" and "N-VALUES", see Dwg. No. 66742.

CL Construction is on a 0°30'00" curve right. CL Girders and the longitudinal lines of the bridge and approach slabs and gutters shall be constructed on curves concentric with CL Construction. CL Joint at Bents 1A, 5A, & 9A and CL Bent at Bents 2A-4A & 6A-8A shall be constructed on lines radial to CL Construction.

1 1V:2H
2 1V:3H or Flatter
3 1V:6H

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL
Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 2 OF 5
# LAYOUT OF BRIDGES
# XNA ACCESS RD. OVER OSAGE CREEK
# NORTHWEST ARKANSAS
# NATIONAL AIRPORT ACCESS (F)
# BENTON COUNTY

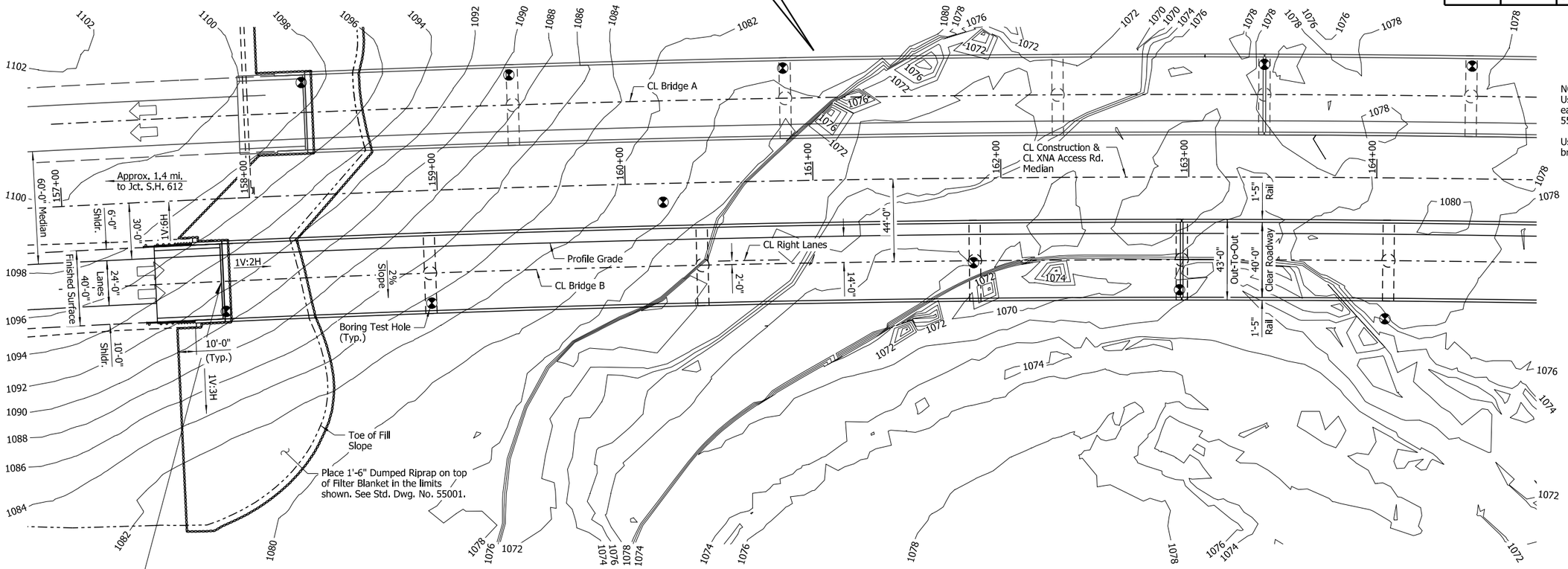
ROUTE NEW SEC.NEW

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: CSW DATE: MAR. 2022
BRIDGE NO. A7657 DRAWING NO. 66739

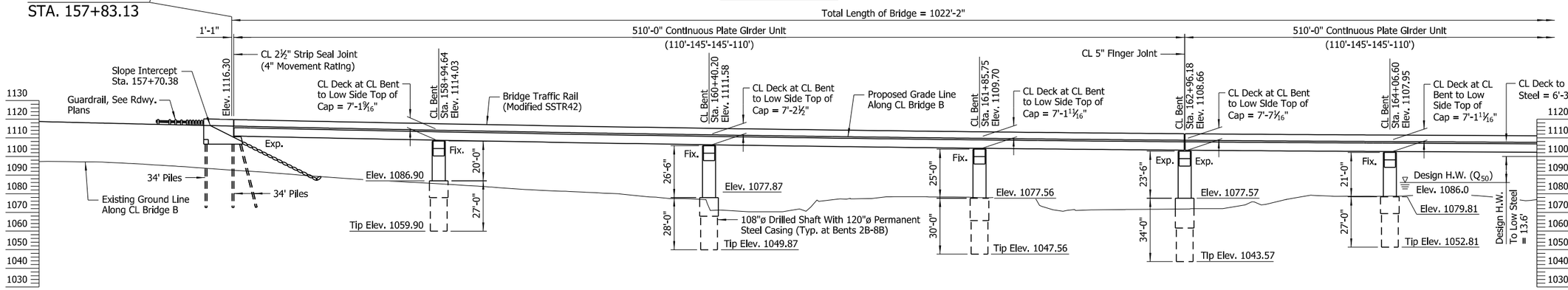
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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 292 | 583 |
| | | B7657 | | LAYOUT | | 66740 |




## PLAN - BRIDGE B

BEGIN BRIDGE B
STA. 157+83.13




## ELEVATION - BRIDGE B

NOTES:
Use Type F Approach Slab (W = 36'-0") at each end of bridge. See Std. Dwg. No. 55040F1.

Use Type F Approach Gutters at each end of bridge. See Std. Dwg. No. 55030F.

## HORIZONTAL CURVE DATA

XNA Access Rd. Median
PI = 156+17.12
Δ = 14°18'07" Rt.
D = 0°30'00"
T = 1437.67'
L = 2860.39'
R = 11459.16'

## VERTICAL CURVE DATA

XNA Access Rd.
(Profile Grade 14' Left of CL Bridge B)

NOTES:
Stations shown are along CL Construction. Elevations shown are actual top of deck elevations at CL Bridge B. Any vertical dimension referenced to CL Deck is based on actual top of deck elevation at CL Bridge B.

For "PROJECT GENERAL NOTES", see Dwg. No. 66717.

For "GENERAL NOTES", see Dwg. No. 66739.

For "HYDRAULIC DATA", see Dwg. No. 66741.

For "ELEVATION OF SOIL BORINGS - BRIDGE B", "BORING LEGEND" and "N-VALUES", see Dwg. No. 66742.

CL Construction is on a 0°30'00" curve right. CL Girders and the longitudinal lines of the bridge and approach slabs and gutters shall be constructed on curves concentric with CL Construction. CL Joint at Bents 1B, 5B, & 9B and CL Bent at Bents 2B-4B & 6B-8B shall be constructed on lines radial to CL Construction.

**FOR R/W DATA, SEE ROADWAY PLANS**

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL
Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 3 OF 5
# LAYOUT OF BRIDGES
# XNA ACCESS RD. OVER OSAGE CREEK
# NORTHWEST ARKANSAS
# NATIONAL AIRPORT ACCESS (F)
# BENTON COUNTY

ROUTE NEW SEC.NEW

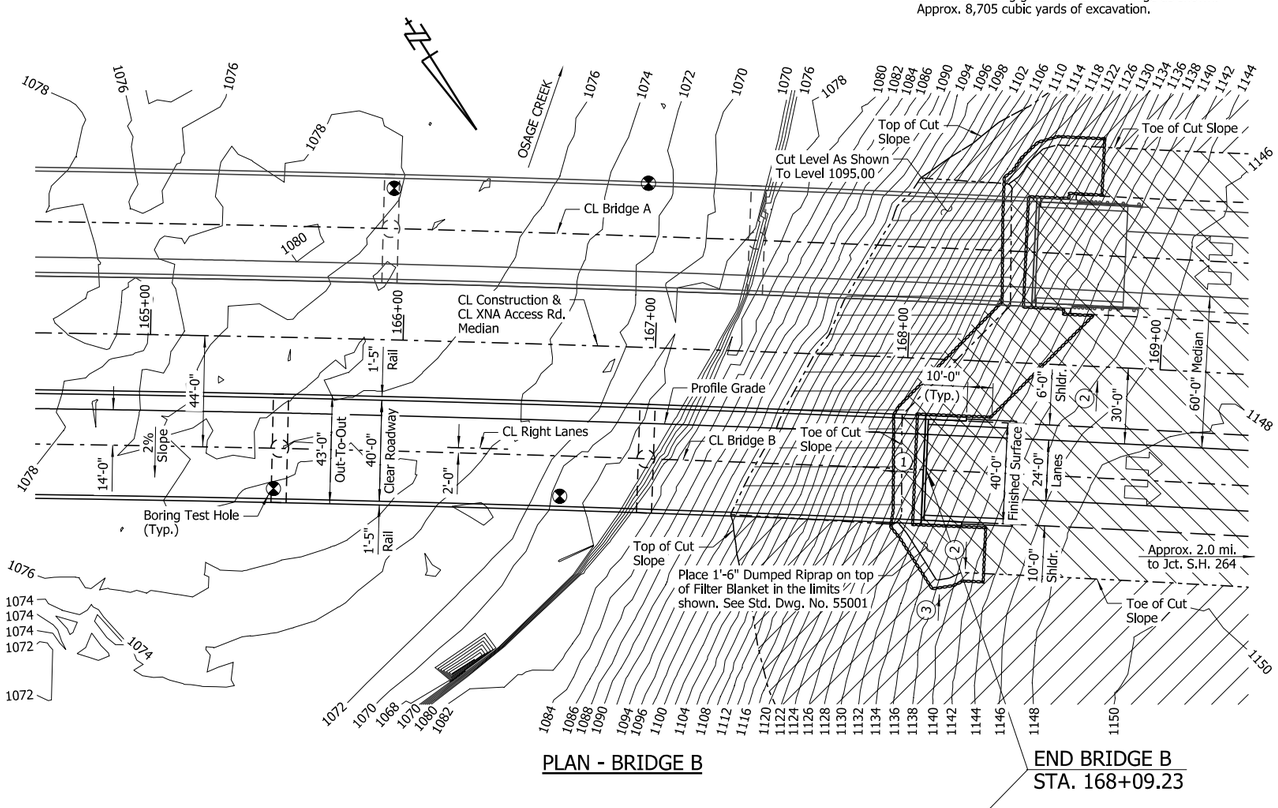
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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BRIDGE NO. B7657 DRAWING NO. 66740

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 293 | 583 |
| | | B7657 | | LAYOUT | | 66741 |

NOTE:
Excavate existing ground at end of bridge as shown.
Approx. 8,705 cubic yards of excavation.




PLAN - BRIDGE B

NOTES:
Use Type F Approach Slab (W = 36'-0") at each end of bridge.
See Std. Dwg. No. 55040F1.

Use Type F Approach Gutters at each end of bridge. See Std. Dwg. No. 55030F.

## HORIZONTAL CURVE DATA

XNA Access Rd. Median
PI = 156+17.12
Δ = 14°18'07" Rt.
D = 0°30'00"
T = 1437.67'
L = 2860.39'
R = 11459.16'

## HYDRAULIC DATA

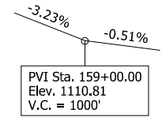
| FLOOD DESCRIPTION | FREQUENCY | DISCHARGE | NATURAL WATER SURFACE ELEVATION (1) | WATER SURFACE ELEVATION WITH BACKWATER |
|---|---|---|---|---|
| | YEARS | CFS | FEET | FEET |
| DESIGN | 50 | 29,658 | 1085.2 | 1086.1 |
| BASE | 100 | 34,652 | 1086.0 | 1087.0 |
| EXTREME | 500 | 47,462 | 1087.9 | 1088.9 |
| OVERTOPPING | N/A | N/A | N/A | N/A |

(1) Unconstricted water surface without structure or roadway approaches

(1) 1V:2H
(2) 1V:6H
(3) 1V:3H

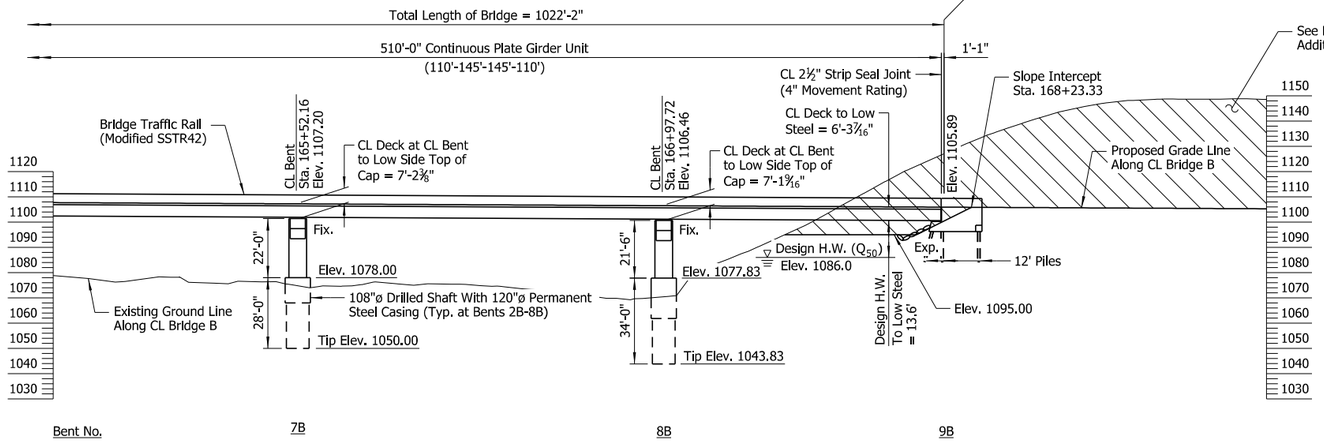
Proposed Bridge A Low Steel Elev. = 1099.98 (Sta. 168+47.08)
Proposed Bridge B Low Steel Elev. = 1099.62 (Sta. 168+07.14)

Drainage Area = 82.3 square miles
Historical High Water Elev. = N/A




## VERTICAL CURVE DATA

XNA Access Rd.
(Profile Grade 14' Left of CL Bridge B)




ELEVATION - BRIDGE B

NOTES:
Stations shown are along CL Construction. Elevations shown are actual top of deck elevations at CL Bridge B.
Any vertical dimension referenced to CL Deck is based on actual top of deck elevation at CL Bridge B.

For "PROJECT GENERAL NOTES", see Dwg. No. 66717.

For "GENERAL NOTES", see Dwg. No. 66739.

For "ELEVATION OF SOIL BORINGS - BRIDGE B", "BORING LEGEND" and "N-VALUES", see Dwg. No. 66742.

CL Construction is on a 0°30'00" curve right. CL Girders and the longitudinal lines of the bridge and approach slabs and gutters shall be constructed on curves concentric with CL Construction. CL Joint at Bents 1B, 5B, & 9B and CL Bent at Bents 2B-4B & 6B-8B shall be constructed on lines radial to CL Construction.

FOR R/W DATA, SEE ROADWAY PLANS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL

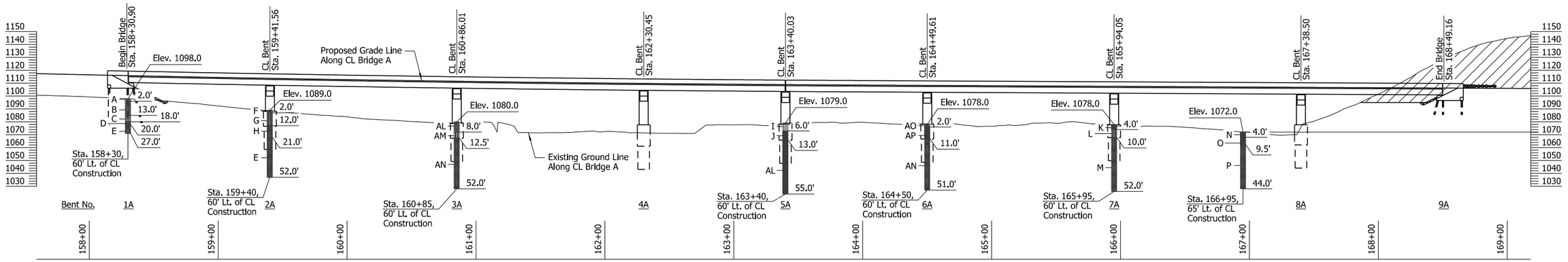
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BRIDGE ENGINEER

SHEET 4 OF 5
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER OSAGE CREEK
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

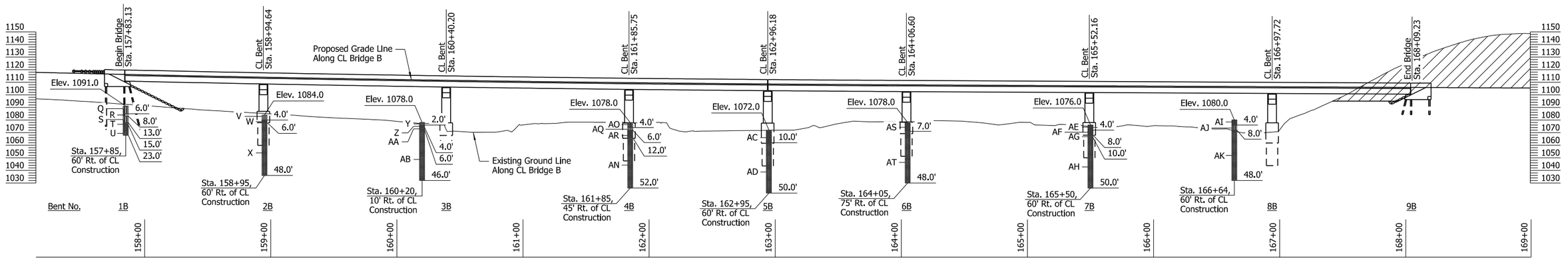
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BRIDGE NO. B7657 DRAWING NO. 66741

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 294 | 583 |
| | | A7657 & B7657 | | LAYOUT | | 66742 |




## ELEVATION OF SOIL BORINGS - BRIDGE A




## ELEVATION OF SOIL BORINGS - BRIDGE B

## BORING LEGEND

A - Medium dense reddish tan silt
B - Stiff to very stiff reddish brown silty clay
C - Very soft brown and tan clayey silt
D - Moderately hard light gray and gray slightly weathered cherty limestone
E - Moderately hard to hard light gray and gray cherty limestone
F - Medium dense tan silt
G - Stiff to very stiff reddish tan silty clay
H - Moderately hard to hard light gray and very light gray cherty limestone
I - Very loose brown silt
J - Loose tan fine to coarse gravel
K - Loose tan and brown sandy fine to coarse gravel and cobbles
L - Dense reddish brown silty fine sand
M - Moderately hard light gray slightly weathered cherty limestone
N - Very loose to loose brown and tan silty fine sand
O - Loose tan cherty limestone cobbles
P - Moderately hard to hard gray w/ light gray cherty limestone
Q - Medium dense reddish brown silt
R - Very loose reddish brown silt
S - Medium dense reddish tan silt
T - Moderately hard reddish tan and light gray weathered cherty limestone
U - Moderately hard to hard light gray and gray cherty limestone
V - Very soft reddish brown silty clay
W - Dense reddish brown fine sandy silt
X - Moderately hard light gray and gray cherty limestone
Y - Loose brown silt
Z - Medium dense tan fine sandy silt
AA - Moderately hard gray and light gray chert
AB - Moderately hard to hard gray and light gray cherty limestone
AC - Very loose to loose brown and tan sandy fine to coarse gravel
AD - Moderately hard to hard light gray and gray chert
AE - Loose brown silty fine to medium sand
AF - Loose tan sandy fine to coarse gravel
AG - Moderately hard slightly weathered chert
AH - Moderately hard to hard light gray and gray cherty limestone
AI - Loose tan and brown sandy fine to coarse gravel and cobbles
AJ - Medium dense to dense reddish brown silty fine sand
AK - Moderately hard light gray and tan slightly weathered cherty limestone
AL - Moderately hard to hard light gray cherty limestone

AL - Very soft to soft brown and tan clayey silt
AM - Medium dense tan and brown silt
AN - Moderately hard to hard light gray and gray cherty limestone
AO - Loose brown silt
AP - Very loose to loose brown and tan silty fine to coarse gravel, sandy
AQ - Firm brown and tan silty clay
AR - Medium dense brown silty fine to coarse gravel, sandy
AS - Loose tan sandy fine to coarse gravel
AT - Moderately hard gray and light gray cherty limestone

## N-VALUES

| Sta. 158+30 60' Lt. of CL Construction | Sta. 159+40 60' Lt. of CL Construction | Sta. 160+85 60' Lt. of CL Construction | Sta. 163+40 60' Lt. of CL Construction | Sta. 164+50 60' Lt. of CL Construction | Sta. 165+95 60' Lt. of CL Construction | Sta. 166+95 65' Lt. of CL Construction |
|---|---|---|---|---|---|---|
| 0.5-1.5, N=15 | 0.5-1.5, N=11 | 0.5-1.5, N=4 | 0.5-1.5, N=4 | 0.5-1.5, N=5 | 0.5-1.5, N=6 | 0.5-1.5, N=4 |
| 2.5-3.5, N=22 | 2.5-3.5, N=43 | 2.5-3.5, N=5 | 2.5-3.5, N=3 | 2.5-3.5, N=4 | 2.5-3.5, N=8 | 2.5-3.5, N=9 |
| 4.5-5.5, N=29 | 4.5-5.5, N=24 | 4.5-5.5, N=2 | 4.5-5.5, N=11 | 4.5-5.5, N=5 | 4.5-5.5, N=31 | 4.5-5.5, N=9 |
| 6.5-7.5, N=29 | 6.5-7.5, N=23 | 6.5-7.5, N=2 | 6.5-7.5, N=5 | 6.5-7.5, N=8 | 6.5-7.5, N=35 | 6.5-7.5, N=8 |
| 9.0-10.0, N=11 | 8.5-9.0, N=50/2" | 9.0-10.0, N=18 | 9.0-10.0, N=9 | 9.0-10.0, N=15 | 9.0-10.0, N=50/10" | 9.0-10.0, N=50/1" |
| 14.0-15.0, N=2 | 11.5-12.0, N=50/1" | 12.0-12.5, N=25/0" | 14.0-15.0, N=50/1" | | | |
| 18.5-19.0, N=50/4" | | | | | | |

| Sta. 157+85 60' Rt. of CL Construction | Sta. 158+95 60' Rt. of CL Construction | Sta. 160+20 10' Rt. of CL Construction | Sta. 161+85 45' Rt. of CL Construction | Sta. 162+95 60' Rt. of CL Construction | Sta. 164+05 75' Rt. of CL Construction | Sta. 165+50 60' Rt. of CL Construction | Sta. 166+64 60' Rt. of CL Construction |
|---|---|---|---|---|---|---|---|
| 0.5-1.5, N=16 | 0.5-1.5, N=3 | 0.5-1.5, N=8 | 0.5-1.5, N=5 | 0.5-1.5, N=4 | 0.5-1.5, N=5 | 0.5-1.5, N=7 | 0.5-1.5, N=4 |
| 2.5-3.5, N=25 | 2.5-3.5, N=12 | 2.5-3.5, N=26 | 2.5-3.5, N=5 | 2.5-3.5, N=7 | 2.5-3.5, N=6 | 2.5-3.5, N=6 | 2.5-3.5, N=16 |
| 4.5-5.5, N=27 | 4.5-5.5, N=42 | 4.0-5.0, N=50/3" | 4.5-5.5, N=9 | 4.5-5.5, N=5 | 4.5-5.5, N=5 | 4.5-5.5, N=5 | 4.5-5.5, N=30 |
| 6.5-7.5, N=2 | 6.0-6.5, N=50/2" | 5.5-6.0, N=25/0" | 6.5-7.5, N=15 | 6.5-7.5, N=0/WOH | 6.5-7.5, N=50/5" | 6.5-7.5, N=2 | 6.5-7.5, N=38 |
| 9.0-10.0, N=20 | 7.5-8.0, N=50/1" | | 9.0-10.0, N=14 | 9.0-10.0, N=14 | | 9.0-10.0, N=50/3" | 9.0-10.0, N=25/0" |
| 14.0-14.5, N=50/6" | | | 11.5-12.0, N=25/0" | | | | |
| 15.0-16.0, N=25/0" | | | | | | | |

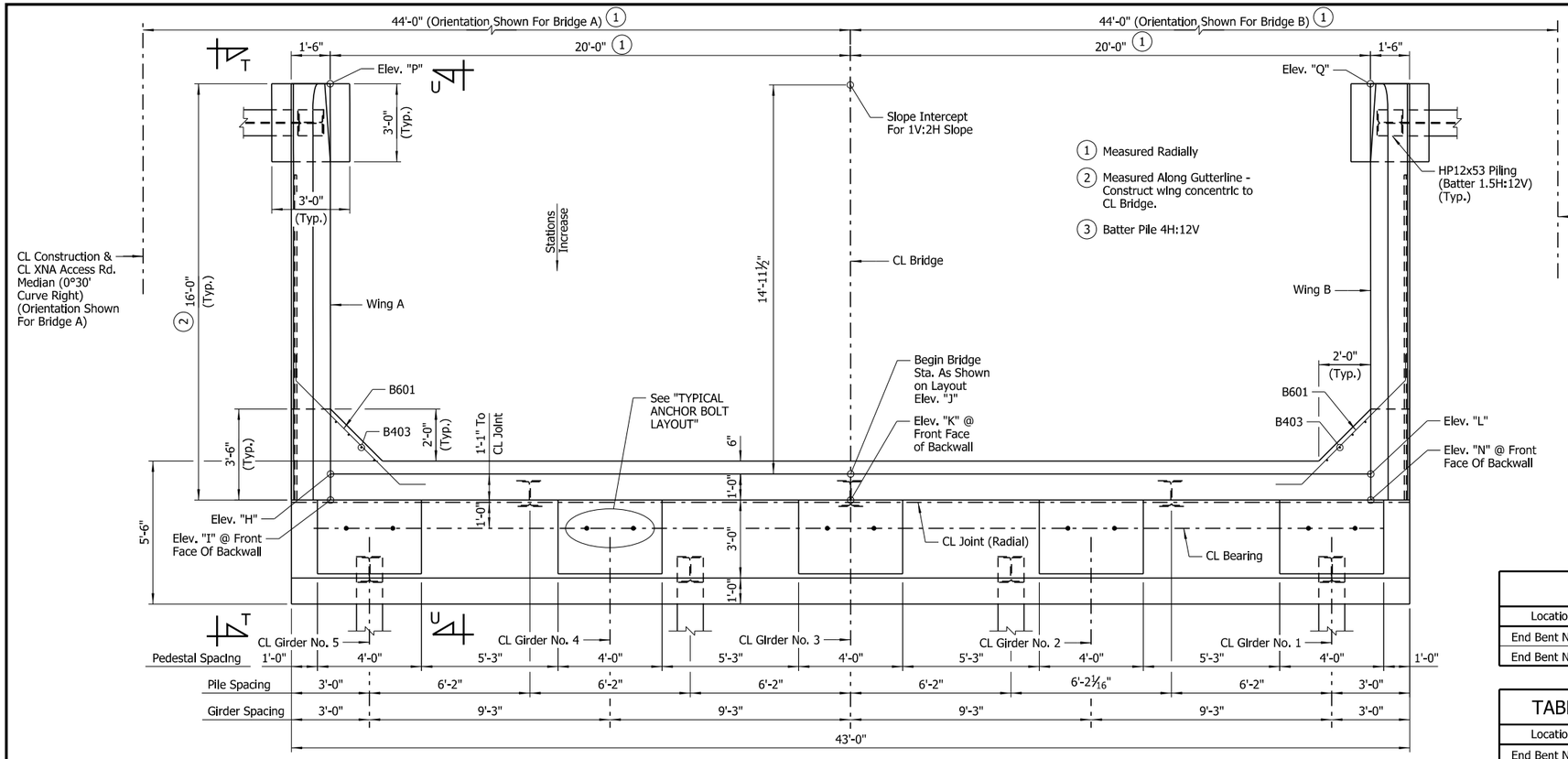
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 14498
ADAM B. HALL
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 5 OF 5
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER OSAGE CREEK
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CSW DATE: MAR. 2022 FILENAME: b090069m2_l5.dgn
CHECKED BY: ABH DATE: AUG. 2023 SCALE: 1" = 40'-0"
DESIGNED BY: CSW DATE: MAR. 2022
BRIDGE NO. A7657 & B7657 DRAWING NO. 66742

JESkinner 10/20/2023 2:11:16 PM
WORKSPACE: ARDOT Bridge (2019)
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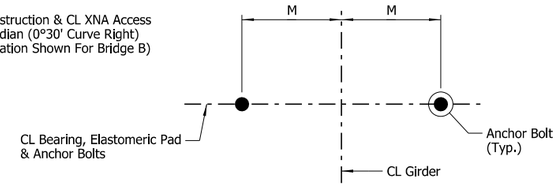
| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 295 | 583 |
| | | A7657 & B7657 | | END BENTS | | 66743 |




## PLAN - END BENT NOS. 1A & 1B

Scale: ⅜" = 1'-0"

NOTE:
For details of Elastomeric Bearings, anchor bolts and dimension M, see Dwg. No. 66750.

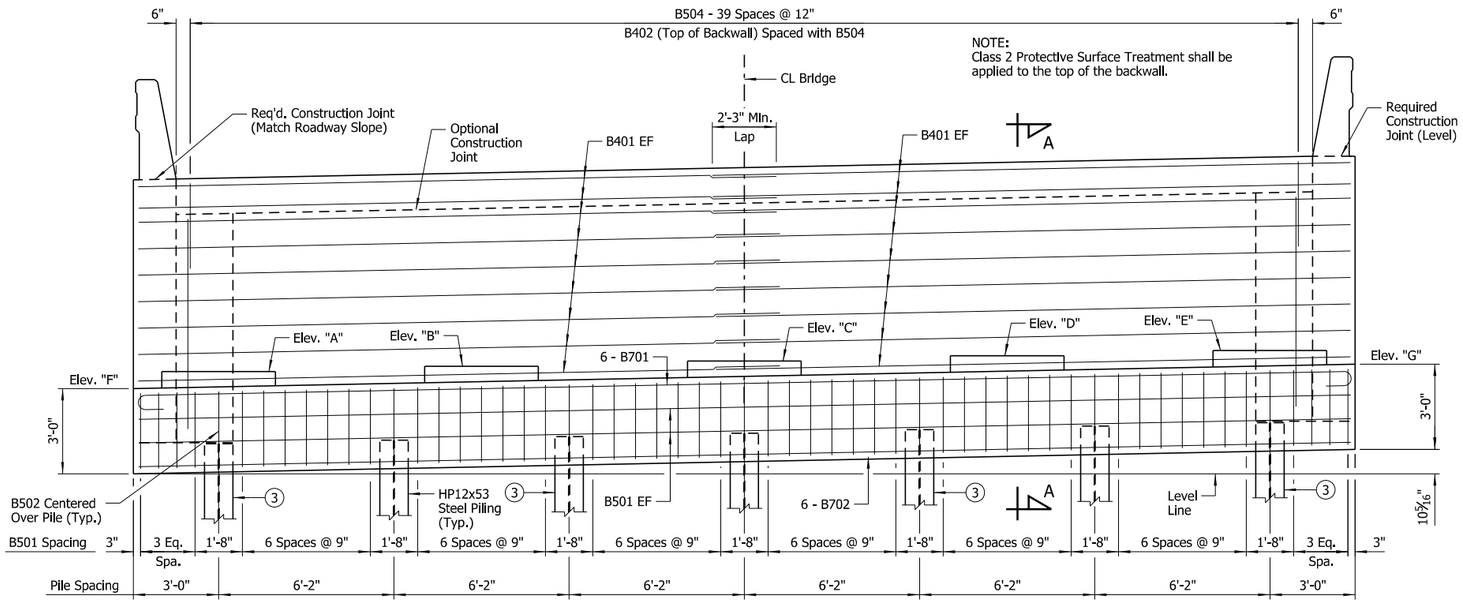



## TYPICAL ANCHOR BOLT LAYOUT

No Scale

| TABLE OF VARIABLES (END BENT NOS. 1A & 1B) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Location | Elev. "A" | Elev. "B" | Elev. "C" | Elev. "D" | Elev. "E" | Elev. "F" | Elev. "G" | Elev. "H" | Elev. "I" |
| End Bent No. 1A | 1108.65 | 1108.84 | 1109.02 | 1109.21 | 1109.39 | 1108.05 | 1108.91 | 1115.45 | 1115.43 |
| End Bent No. 1B | 1109.10 | 1109.29 | 1109.47 | 1109.66 | 1109.84 | 1108.50 | 1109.36 | 1115.90 | 1115.88 |

| TABLE OF VARIABLES (END BENT NOS. 1A & 1B) | | | | | | |
|---|---|---|---|---|---|---|
| Location | Elev. "J" | Elev. "K" | Elev. "L" | Elev. "N" | Elev. "P" | Elev. "Q" |
| End Bent No. 1A | 1115.85 | 1115.83 | 1116.25 | 1116.23 | 1115.76 | 1116.56 |
| End Bent No. 1B | 1116.30 | 1116.28 | 1116.70 | 1116.68 | 1116.23 | 1117.03 |




## ELEVATION - END BENT NOS. 1A & 1B

(Looking Back)
Scale: ⅜" = 1'-0"

## GENERAL NOTES

Structural steel in end bents shall be ASTM A709, Gr. 50W and shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)".

See Std. Dwg. No. 55006 for additional notes.

For additional information, see Layout.

NOTES:
CL Construction is on a 0°30'00" curve right.

All longitudinal lines are on curves concentric with CL Construction.

For "SECTION A-A", see Dwg. No. 66744.

For "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66746.

For "BAR LIST (PER BENT)" and "BAR BENDING DIAGRAMS", see Dwg. No. 66746.

## LEGEND

EF = Each Face

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE

Digitally Signed 10/20/2023
BRIDGE ENGINEER

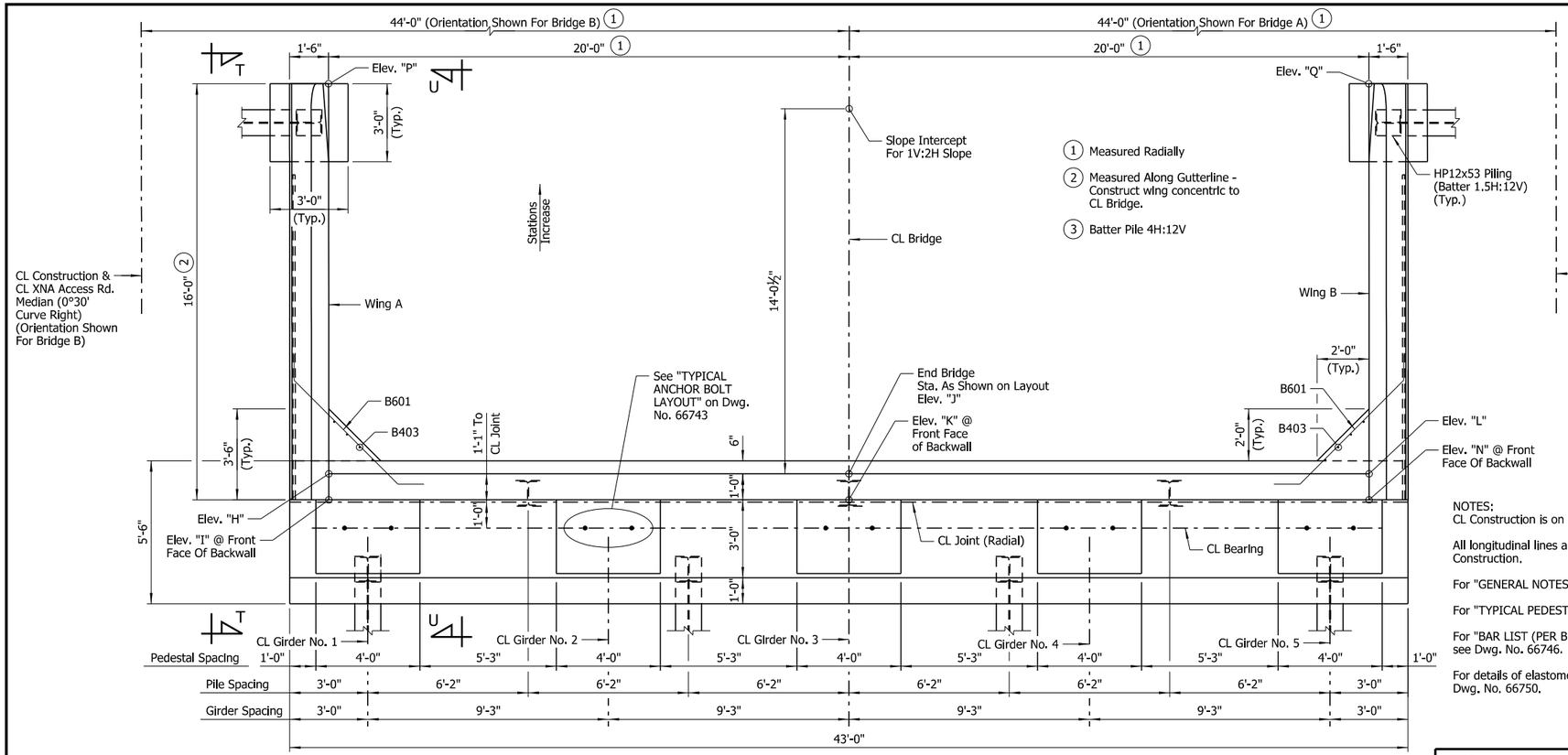
SHEET 1 OF 4
DETAILS OF END BENTS
OSAGE CREEK
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: CSW DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: WMM DATE: OCT. 2022
BRIDGE NO. A7657 & B7657 DRAWING NO. 66743

JESkinner 10/20/2023 2:11:18 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 296 | 583 |
| | | A7657 & B7657 | | END BENTS | | 66744 |




## PLAN - END BENT NOS. 9A & 9B

Scale: ⅜" = 1'-0"

NOTES:
CL Construction is on a 0°30'00" curve right.

All longitudinal lines are on curves concentric with CL Construction.

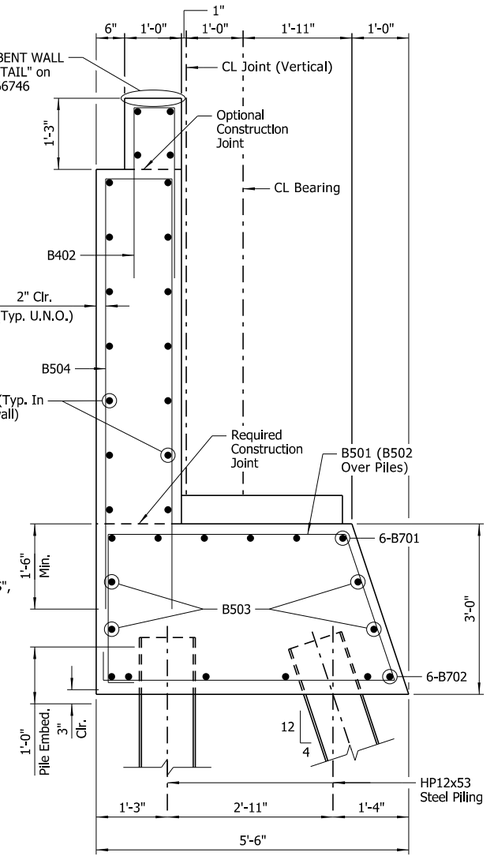
For "GENERAL NOTES", see Dwg. No. 66743.

For "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66746.

For "BAR LIST (PER BENT)" and "BAR BENDING DIAGRAMS", see Dwg. No. 66746.

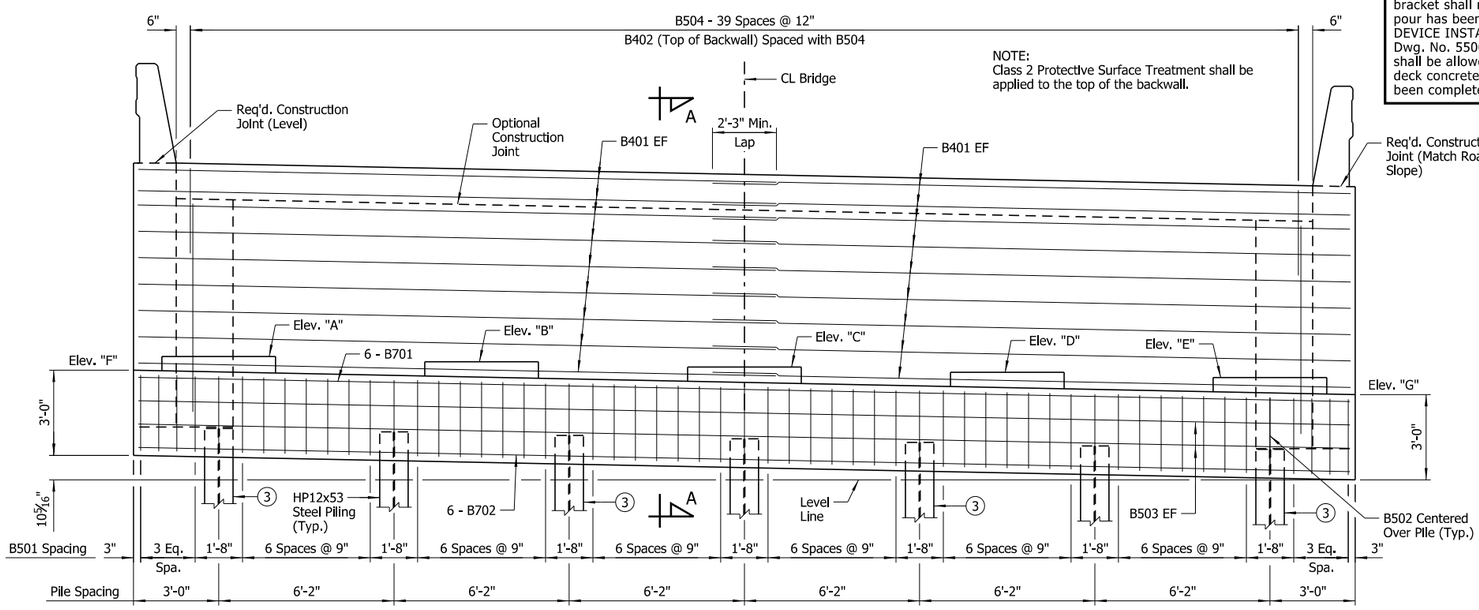
For details of elastomeric bearings and anchor bolts, see Dwg. No. 66750.

NOTE:
No portion of the backwall shall be poured before the girders are in place. The portion of the backwall above the optional construction joint at the paving bracket shall not be placed until the adjacent deck pour has been made. Refer to the "EXPANSION DEVICE INSTALLATION AT END BENTS" note on Std. Dwg. No. 55009. No heavy construction equipment shall be allowed within 10' of the backwall before the deck concrete placement for the adjacent span has been completed.




## SECTION A-A

Scale: ¾" = 1'-0"




## ELEVATION - END BENT NOS. 9A & 9B

(Looking Ahead)
Scale: ⅜" = 1'-0"

### TABLE OF VARIABLES (END BENT NOS. 9A & 9B)

| Location | Elev. "A" | Elev. "B" | Elev. "C" | Elev. "D" | Elev. "E" | Elev. "F" | Elev. "G" | Elev. "H" | Elev. "I" |
|---|---|---|---|---|---|---|---|---|---|
| End Bent No. 9A | 1099.85 | 1099.66 | 1099.48 | 1099.29 | 1099.11 | 1099.37 | 1098.51 | 1106.65 | 1106.65 |
| End Bent No. 9B | 1099.49 | 1099.31 | 1099.12 | 1098.94 | 1098.75 | 1099.01 | 1098.15 | 1106.29 | 1106.30 |

### TABLE OF VARIABLES (END BENT NOS. 9A & 9B)

| Location | Elev. "J" | Elev. "K" | Elev. "L" | Elev. "N" | Elev. "P" | Elev. "Q" |
|---|---|---|---|---|---|---|
| End Bent No. 9A | 1106.25 | 1106.25 | 1105.85 | 1105.85 | 1106.57 | 1105.77 |
| End Bent No. 9B | 1105.89 | 1105.90 | 1105.49 | 1105.50 | 1106.22 | 1105.42 |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE

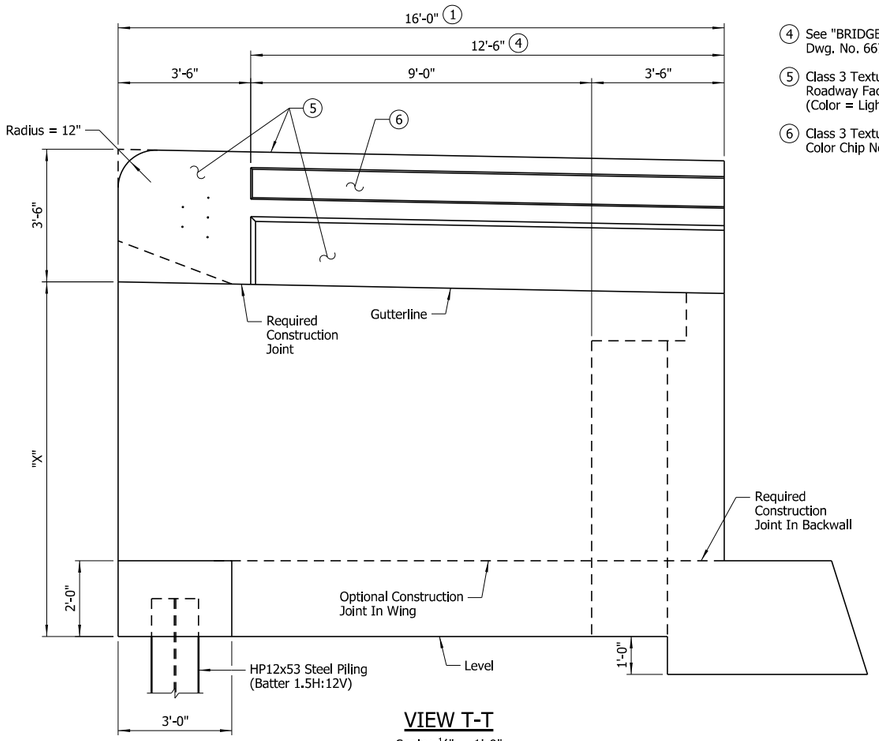
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 2 OF 4
DETAILS OF END BENTS
OSAGE CREEK
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CWT DATE: OCT. 2022 FILENAME: b090069m2_a2.dgn
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DESIGNED BY: WMM DATE: OCT. 2022
BRIDGE NO. A7657 & B7657 DRAWING NO. 66744

JESkinner 10/20/2023 2:11:19 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | A7657 & B7657 | | END BENTS | | 66745 |



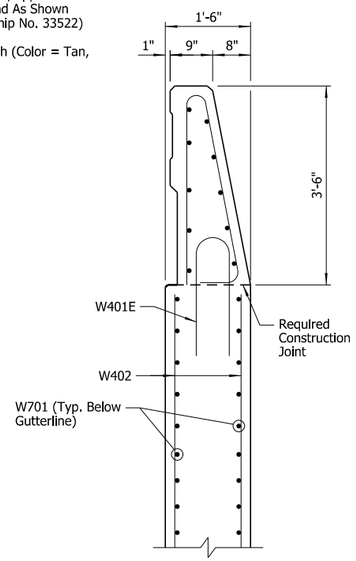

## VIEW T-T

Scale: ½" = 1'-0"

(4) See "BRIDGE RAIL AESTHETIC DETAIL" on Dwg. No. 66760 for additional information.

(5) Class 3 Textured Coating Finish, applied to Roadway Face of Wing Rail and As Shown (Color = Light Brown, Color Chip No. 33522)

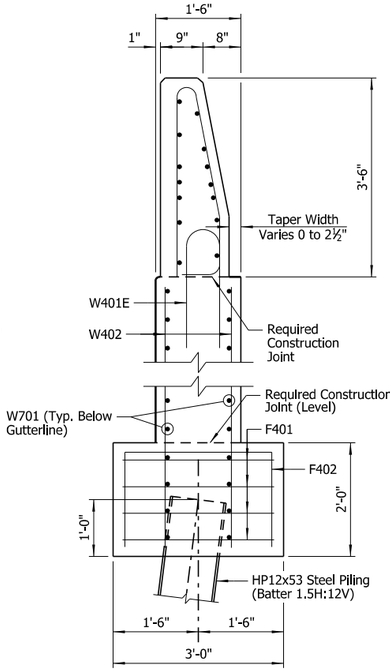
(6) Class 3 Textured Coating Finish (Color = Tan, Color Chip No. 30219)




## SECTION X-X

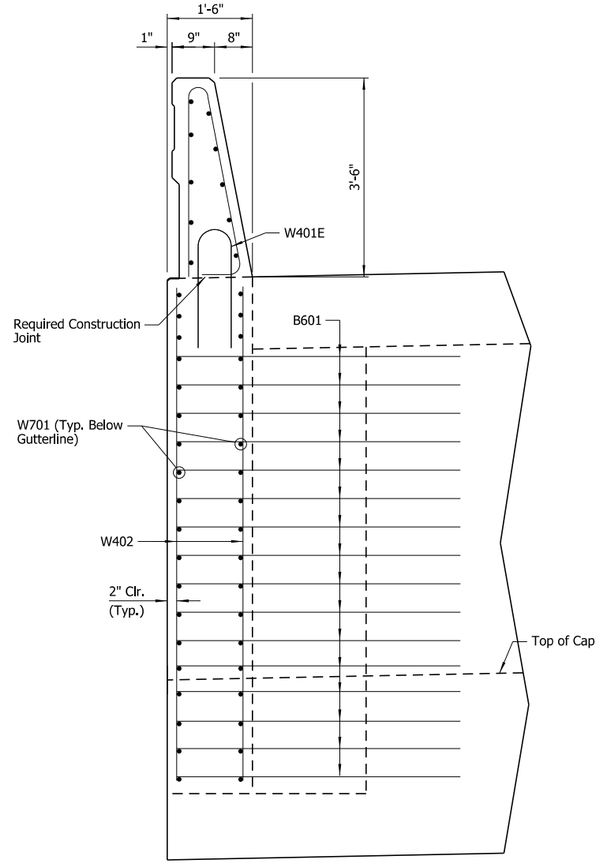
Scale: ¾" = 1'-0"

NOTE:
For details of rail enhancement, see "BRIDGE RAIL AESTHETIC DETAIL" on Dwg. No. 66760. For reinforcement details, rail terminus details, and additional details of rail, see Std. Dwg. No. 55071.



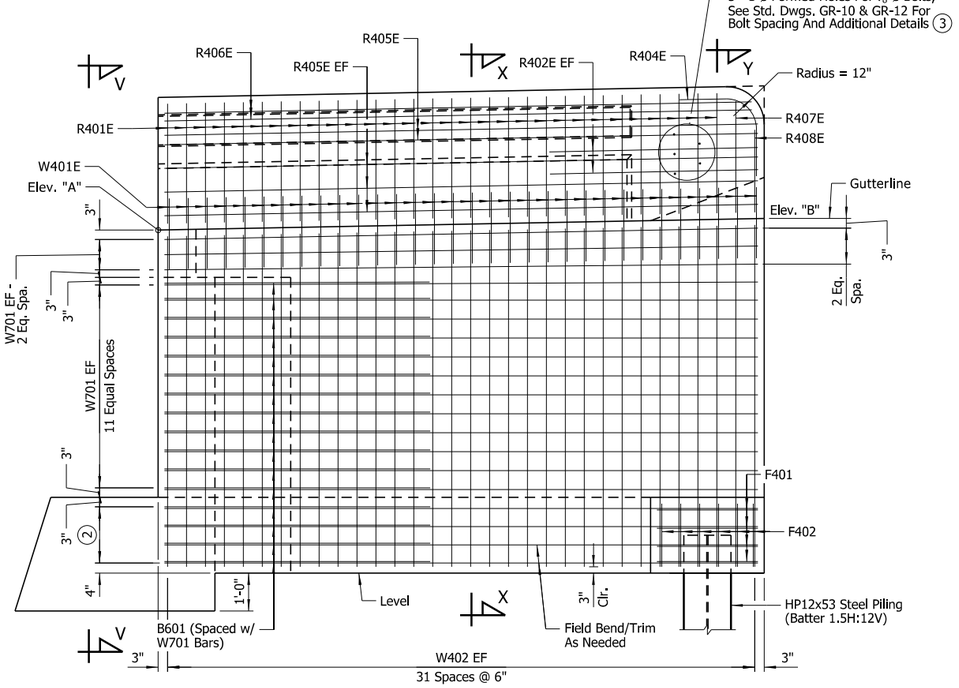

## SECTION Y-Y

Scale: ¾" = 1'-0"




## SECTION V-V

Scale: ¾" = 1'-0"




## SECTION U-U

Scale: ½" = 1'-0"

| TABLE OF VARIABLES | | | | |
|---|---|---|---|---|
| Bent No. | Location | Elev. "A" | Elev. "B" | "X" |
| 1A | Wing A | 1115.43 | 1115.76 | 9'-8½" |
| 1A | Wing B | 1116.23 | 1116.56 | 9'-7 13/16" |
| 1B | Wing A | 1115.88 | 1116.23 | 9'-8⅞" |
| 1B | Wing B | 1116.68 | 1117.03 | 9'-8" |
| 9A | Wing A | 1106.65 | 1106.57 | 9'-2⅜" |
| 9A | Wing B | 1105.85 | 1105.77 | 9'-3⅛" |
| 9B | Wing A | 1106.30 | 1106.22 | 9'-2½" |
| 9B | Wing B | 1105.50 | 1105.42 | 9'-3¼" |

(1) Measured Along Gutterline

(2) W701 EF - 3 Equal Spaces

(3) Required at all wings for proposed and future guardrail connections

## LEGEND

EF = Each Face

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 3 OF 4
DETAILS OF END BENTS
OSAGE CREEK
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JULY 2023 FILENAME: b090069m2_a3.dgn
CHECKED BY: CSW DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: WMM DATE: OCT. 2022
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JESkinner 10/20/2023 2:11:19 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | 6 | ARK. | 090069 | 298 | 583 |
| | | A7657 & B7657 | | END BENTS | | 66746 |

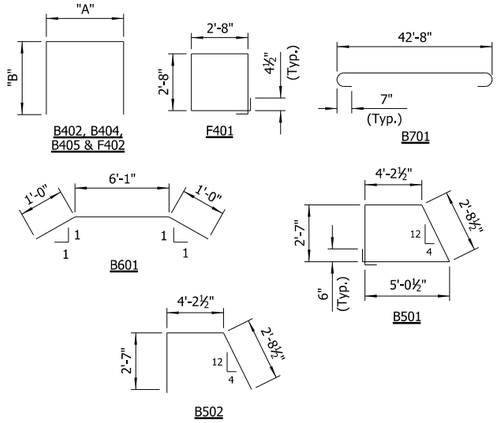
## BAR LIST (PER BENT)

| MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|
| B401 | 36 | 22'-6" | | | Str. |
| B402 | 40 | 5'-4" | 8" | 2'-5" | 2" |
| B403 | 8 | (3) | | | Str. |
| B404 | 30 | 7'-6" | 3'-8" | 2'-0" | 2" |
| B405 | 35 | 6'-4" | 2'-6" | 2'-0" | 2" |
| | | | | | |
| B501 | 50 | 15'-0½" | | | 2½" |
| B502 | 7 | 9'-3" | | | 2½" |
| B503 | 4 | 42'-8" | | | Str. |
| B504 | 40 | 15'-11½" | 1'-2" | 7'-6" | 2½" |
| | | | | | |
| B601 | 32 | 8'-1" | | | 4½" |
| | | | | | |
| B701 | 6 | 44'-4" | | | 5¼" |
| B702 | 6 | 42'-8" | | | Str. |
| | | | | | |
| F401 | 8 | 11'-0" | | | 2" |
| F402 | 12 | 5'-7" | 2'-7" | 1'-7" | 2" |
| | | | | | |
| R401E | 60 | 7'-6" | | | 3" |
| R402E | 8 | 5'-6" | | | Str. |
| R404E | 2 | 3'-8" | | | 8½" |
| R405E | 16 | 15'-8" | | | Str. |
| R406E | 4 | 15'-4" | | | Str. |
| R407E | 2 | 6'-8" | | | 3" |
| R408E | 2 | 5'-1" | | | 3" |
| | | | | | |
| W401E | 64 | 4'-7" | | | 6" |
| W402 | 128 | (4) | | | Str. |
| | | | | | |
| W701 | 76 | 15'-8" | | | Str. |

(3) Bent Nos. 1A & 1B - 8'-0"
Bent Nos. 9A & 9B - 7'-9"

(4) Bent Nos. 1A & 1B - 9'-3"
Bent Nos. 9A & 9B - 9'-0"

## BAR BENDING DIAGRAMS

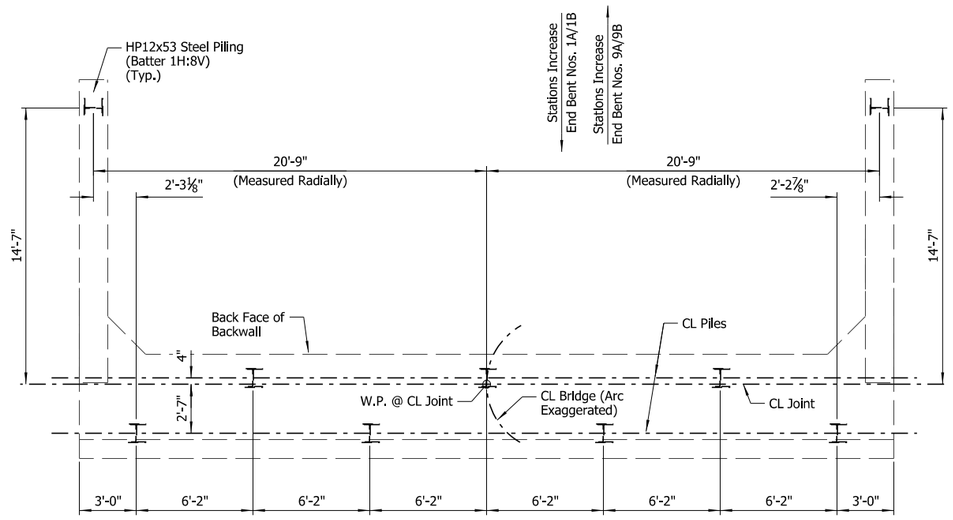



NOTES:
Dimensions of bars are out-to-out.

Number of bars shown is for one end bent only.

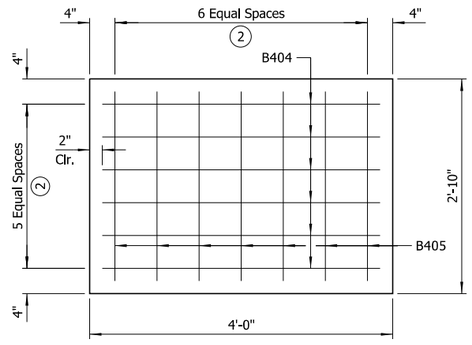
Bars designated with "E" suffix shall be epoxy coated.

See Std. Dwg. No. 55071 for Bar Bending Diagrams of R401E, R404E, R407E, R408E & W401E.

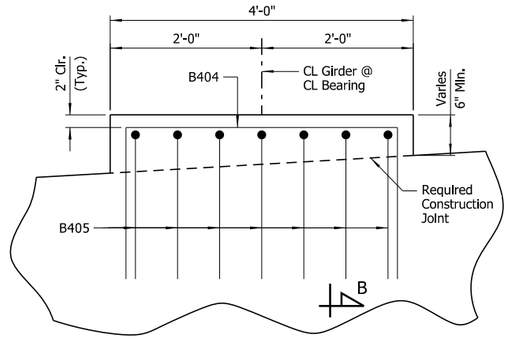



## FOUNDATION PLAN

(Shown for End Bent Nos. 9A/9B, End Bent Nos. 1A/1B Mirrored)
Scale: ¼" = 1'-0"

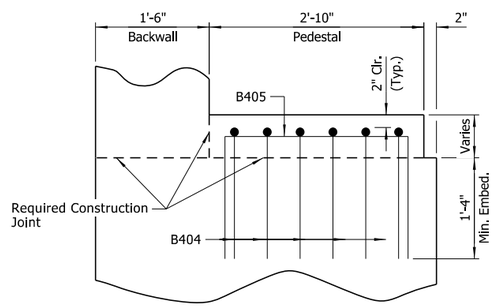



## PEDESTAL PLAN




## TYPICAL PEDESTAL DETAIL

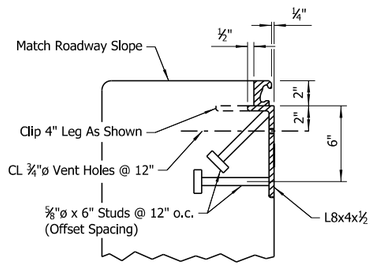
Scale: 1" = 1'-0"




## SECTION B-B

Scale: 1" = 1'-0"

(2) Adjust bar spacing as needed to avoid anchor bolts.



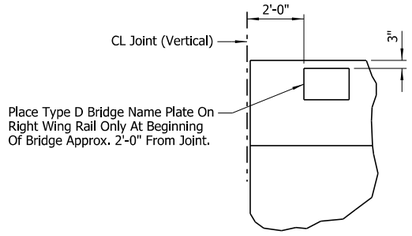

## END BENT WALL ARMOR DETAIL

No Scale

NOTES:
Transverse spacing between sloped anchor studs and vent holes shall be 6".

Concrete shall be hand packed under joint armor.

For additional joint details, see Std. Dwg. No. 55009.




## VIEW SHOWING LOCATION OF NAME PLATE

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE

Digitally Signed 10/20/2023
BRIDGE ENGINEER

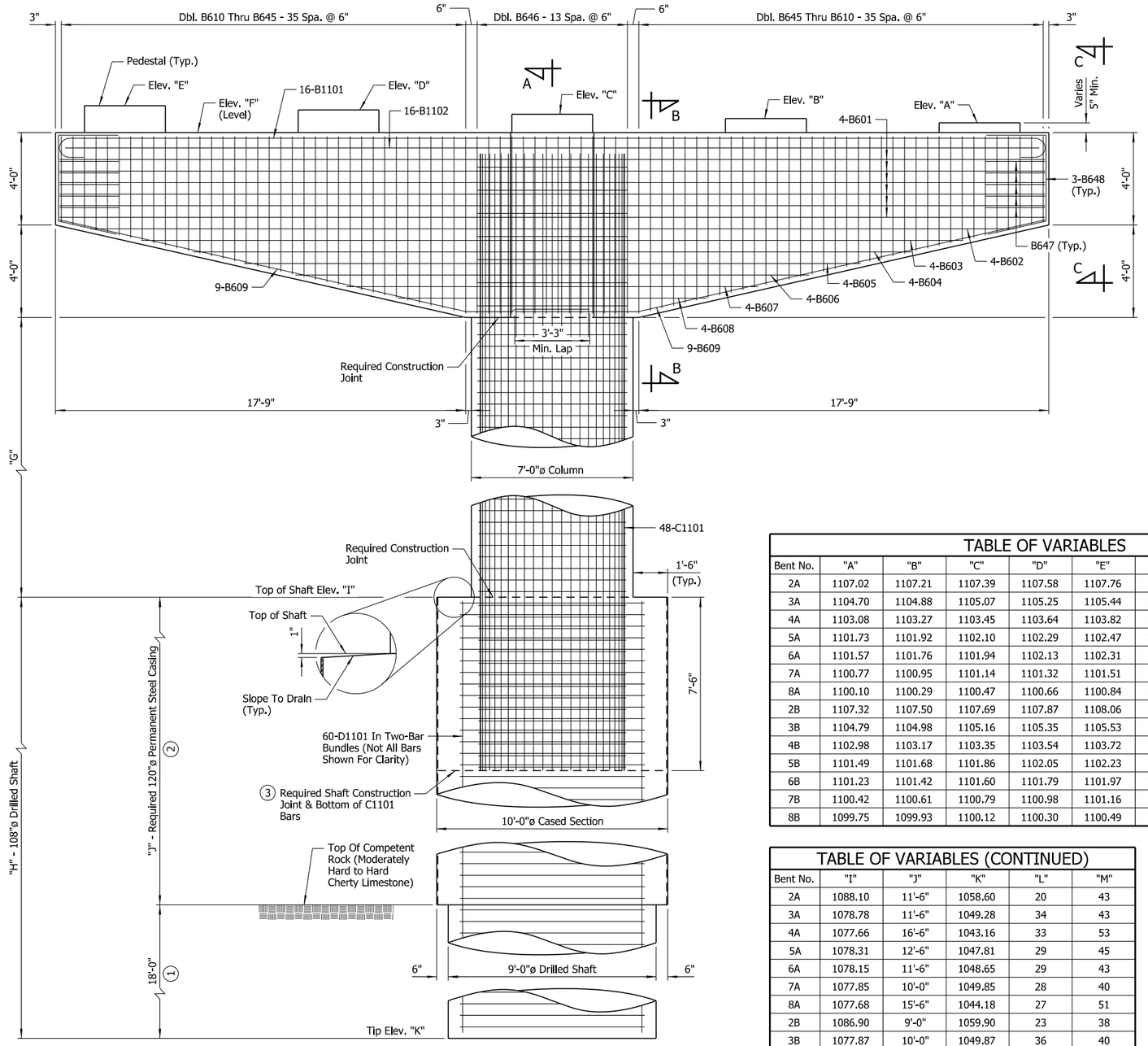
SHEET 4 OF 4
DETAILS OF END BENTS
OSAGE CREEK
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: CSW DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: WMM DATE: OCT. 2022
BRIDGE NO. A7657 & B7657 DRAWING NO. 66746

JESkinner 10/20/2023 2:11:20 PM
WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069x2_S204_AB.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 299 | 583 |
| | | A7657 & B7657 | INTERMEDIATE BENTS | | | 66747 |




A

ELEVATION

(Looking Ahead)
Scale: ⅜" = 1'-0"

NOTES:
For Standard General Notes, see Std. Dwg. No. 55006.

Concrete and reinforcing steel placed in drilled shafts will not be paid for directly but shall be considered subsidiary to the unit price bid for "DRILLED SHAFT (108" DIAMETER)" and "PERMANENT STEEL CASING (120" DIAMETER)".

Drilled shafts and permanent casing shall conform to Special Provision "DRILLED SHAFT FOUNDATIONS" and shall be paid for at the unit price bid for "DRILLED SHAFT (108" DIAMETER)" and "PERMANENT STEEL CASING (120" DIAMETER)".

For plan views and typical pedestal details, see Dwg. No. 66748.

For "SECTION B-B", "VIEW C-C", "SECTION D-D" thru "SECTION G-G", "BAR LIST (PER BENT)" and "BAR BENDING DIAGRAMS", see Dwg. No. 66749.

For additional information, see Layout.

LEGEND

EF = Each Face

TABLE OF VARIABLES

| Bent No. | "A" | "B" | "C" | "D" | "E" | "F" | "G" | "H" |
|---|---|---|---|---|---|---|---|---|
| 2A | 1107.02 | 1107.21 | 1107.39 | 1107.58 | 1107.76 | 1106.60 | 10'-6" | 29'-6" |
| 3A | 1104.70 | 1104.88 | 1105.07 | 1105.25 | 1105.44 | 1104.28 | 17'-6" | 29'-6" |
| 4A | 1103.08 | 1103.27 | 1103.45 | 1103.64 | 1103.82 | 1102.66 | 17'-0" | 34'-6" |
| 5A | 1101.73 | 1101.92 | 1102.10 | 1102.29 | 1102.47 | 1101.31 | 15'-0" | 30'-6" |
| 6A | 1101.57 | 1101.76 | 1101.94 | 1102.13 | 1102.31 | 1101.15 | 15'-0" | 29'-6" |
| 7A | 1100.77 | 1100.95 | 1101.14 | 1101.32 | 1101.51 | 1100.35 | 14'-6" | 28'-0" |
| 8A | 1100.10 | 1100.29 | 1100.47 | 1100.66 | 1100.84 | 1099.68 | 14'-0" | 33'-6" |
| 2B | 1107.32 | 1107.50 | 1107.69 | 1107.87 | 1108.06 | 1106.90 | 12'-0" | 27'-0" |
| 3B | 1104.79 | 1104.98 | 1105.16 | 1105.35 | 1105.53 | 1104.37 | 18'-6" | 28'-0" |
| 4B | 1102.98 | 1103.17 | 1103.35 | 1103.54 | 1103.72 | 1102.56 | 17'-0" | 30'-0" |
| 5B | 1101.49 | 1101.68 | 1101.86 | 1102.05 | 1102.23 | 1101.07 | 15'-6" | 34'-0" |
| 6B | 1101.23 | 1101.42 | 1101.60 | 1101.79 | 1101.97 | 1100.81 | 13'-0" | 27'-0" |
| 7B | 1100.42 | 1100.61 | 1100.79 | 1100.98 | 1101.16 | 1100.00 | 14'-0" | 28'-0" |
| 8B | 1099.75 | 1099.93 | 1100.12 | 1100.30 | 1100.49 | 1099.33 | 13'-6" | 34'-0" |

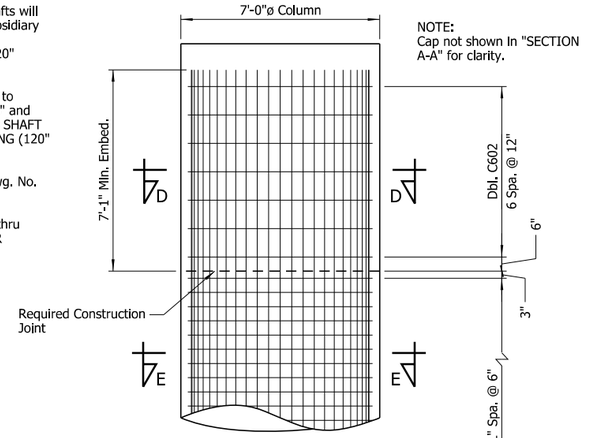
TABLE OF VARIABLES (CONTINUED)

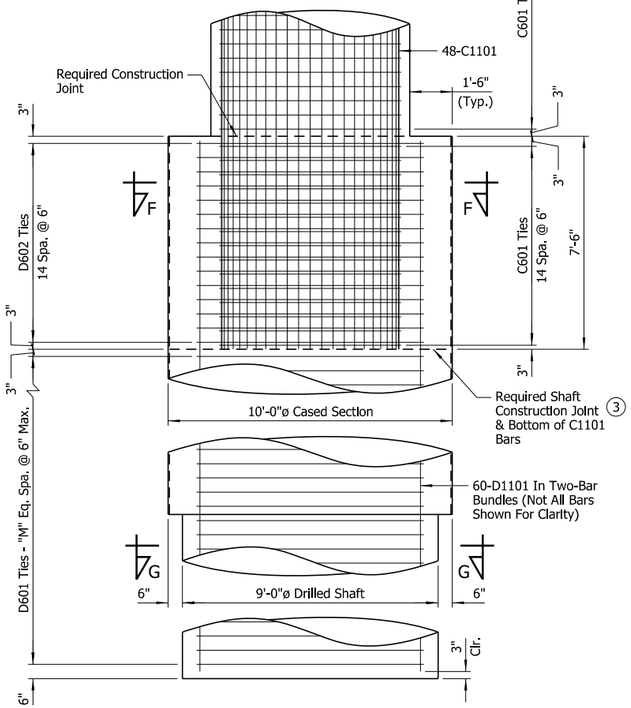
| Bent No. | "I" | "J" | "K" | "L" | "M" |
|---|---|---|---|---|---|
| 2A | 1088.10 | 11'-6" | 1058.60 | 20 | 43 |
| 3A | 1078.78 | 11'-6" | 1049.28 | 34 | 43 |
| 4A | 1077.66 | 16'-6" | 1043.16 | 33 | 53 |
| 5A | 1078.31 | 12'-6" | 1047.81 | 29 | 45 |
| 6A | 1078.15 | 11'-6" | 1048.65 | 29 | 43 |
| 7A | 1077.85 | 10'-0" | 1049.85 | 28 | 40 |
| 8A | 1077.68 | 15'-6" | 1044.18 | 27 | 51 |
| 2B | 1086.90 | 9'-0" | 1059.90 | 23 | 38 |
| 3B | 1077.87 | 10'-0" | 1049.87 | 36 | 40 |
| 4B | 1077.56 | 12'-0" | 1047.56 | 33 | 44 |
| 5B | 1077.57 | 16'-0" | 1043.57 | 30 | 52 |
| 6B | 1079.81 | 9'-0" | 1052.81 | 25 | 38 |
| 7B | 1078.00 | 10'-0" | 1050.00 | 27 | 40 |
| 8B | 1077.83 | 16'-0" | 1043.83 | 26 | 52 |

1 Minimum penetration into competent rock below permanent casing

2 Length of permanent casing shown is for estimating quantities only. Actual lengths are to be determined in the field. See Special Provision "DRILLED SHAFT FOUNDATIONS". Permanent casing shall not have a length less than 9'-0". Permanent casing shall not extend below top of competent rock without approval from the Engineer.

3 Remove sediment, laitance and weak concrete to sound concrete prior to setting column reinforcement. For additional information, see Special Provision "DRILLED SHAFT FOUNDATIONS".




SECTION A-A

Scale: ⅜" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL

Digitally Signed 10/20/2023
BRIDGE ENGINEER

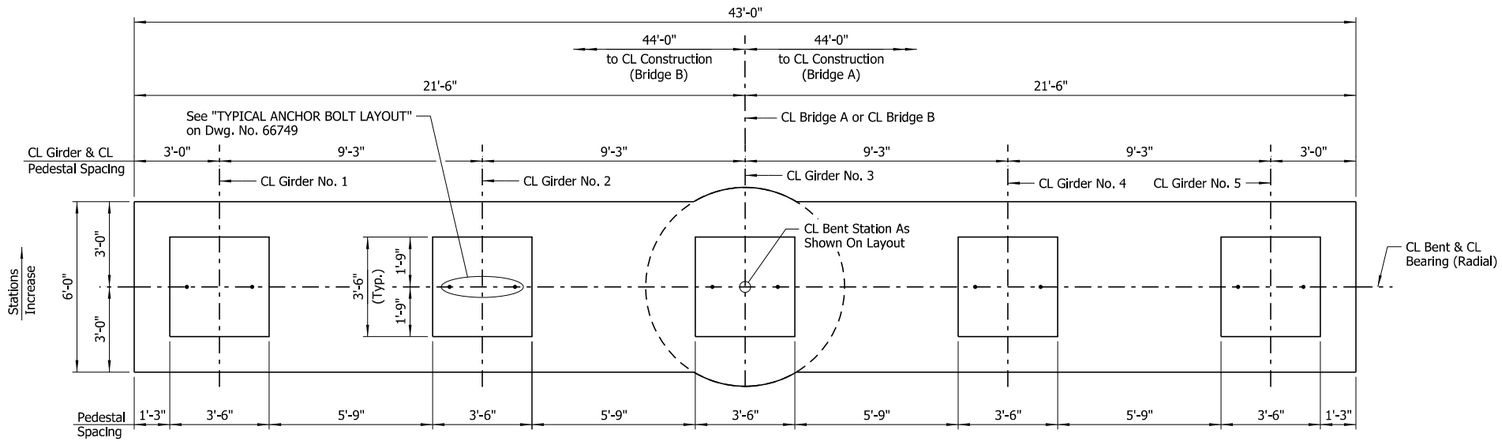
SHEET 1 OF 3
DETAILS OF INTERMEDIATE BENTS
OSAGE CREEK
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: JEH DATE: JULY 2023
BRIDGE NO. A7657 & B7657 DRAWING NO. 66747

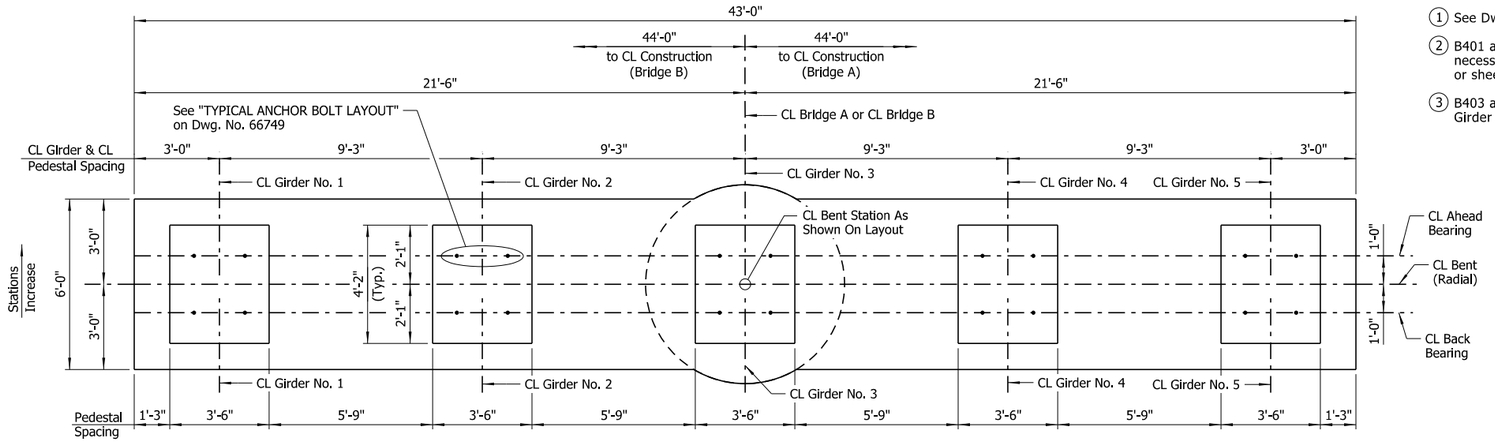
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WORKSPACE: ARDOT Bridge (2019)
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| | | A7657 & B7657 | INTERMEDIATE BENTS | | | 66748 |



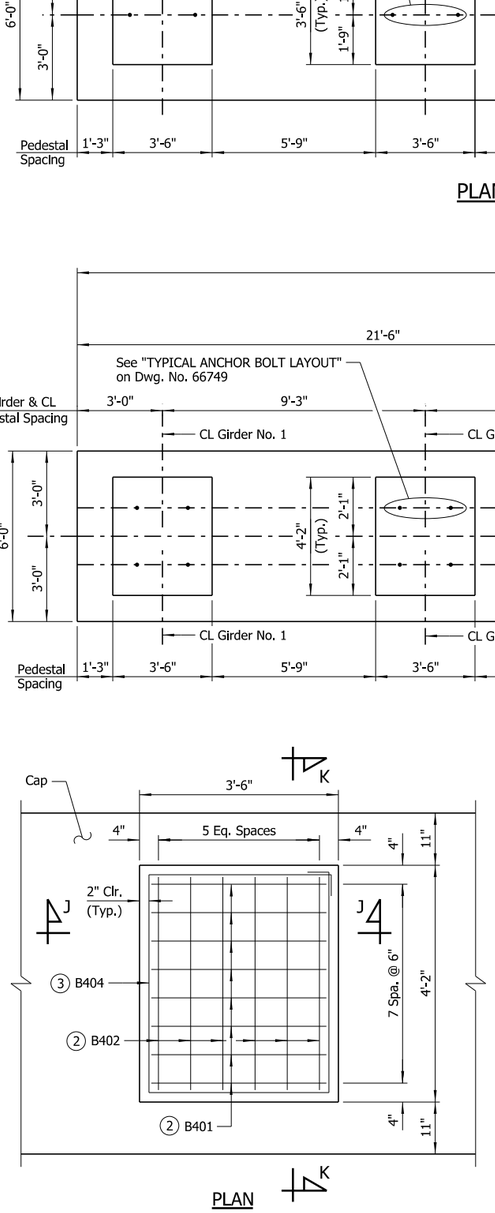

PLAN - BENTS NOS. 2A-4A, 6A-8A, 2B-4B & 6B-8B

Scale: ⅜" = 1'-0"

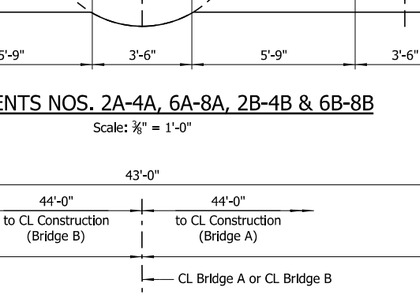



PLAN - BENT NOS. 5A & 5B

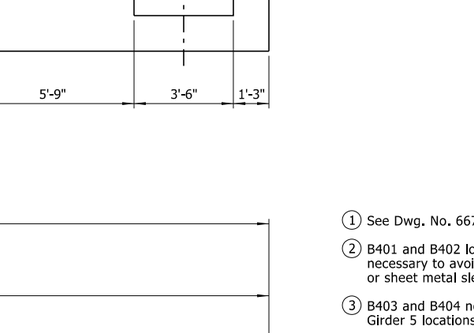
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PLAN




SECTION J-J

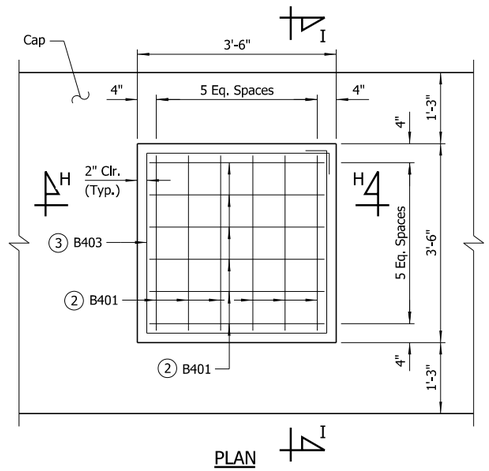



NOTE:
Cap reinforcement not shown for clarity.

SECTION K-K

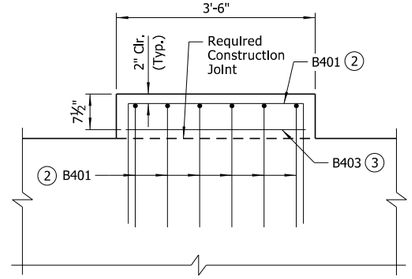
PEDESTAL DETAILS - BENT NOS. 5A & 5B

Scale: ¾" = 1'-0"

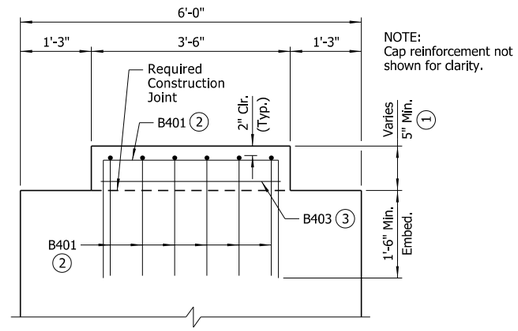



PLAN

1. See Dwg. No. 66747 for pedestal elevations.
2. B401 and B402 locations may be adjusted as necessary to avoid interference with anchor bolts or sheet metal sleeves.
3. B403 and B404 not required at Girder 4 and Girder 5 locations.




SECTION H-H




NOTE:
Cap reinforcement not shown for clarity.

SECTION I-I

PEDESTAL DETAILS - BENT NOS. 2A-4A, 6A-8A, 2B-4B & 6B-8B

Scale: ¾" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL

Digitally Signed 10/20/2023

BRIDGE ENGINEER

SHEET 2 OF 3
DETAILS OF INTERMEDIATE BENTS
OSAGE CREEK

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

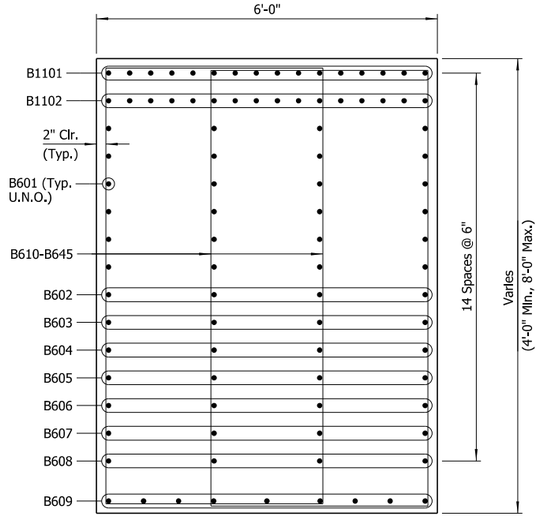
LITTLE ROCK, ARK.

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DESIGNED BY: JEH DATE: JUNE 2023

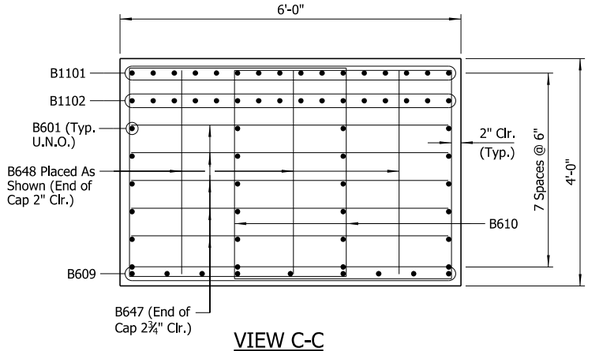
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | A7657 & B7657 | INTERMEDIATE BENTS | | | 66749 |

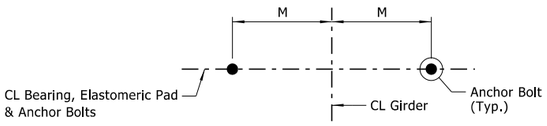



## SECTION B-B
Scale: ¾" = 1'-0"



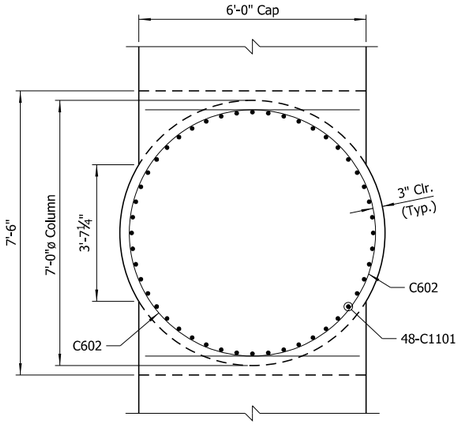

## VIEW C-C
Scale: ¾" = 1'-0"

## LEGEND
U.N.O. = Unless Noted Otherwise




## TYPICAL ANCHOR BOLT LAYOUT
No Scale

NOTE:
For details of elastomeric bearings, dimension M and anchor bolts, see Dwg. Nos. 66750 and 66751.

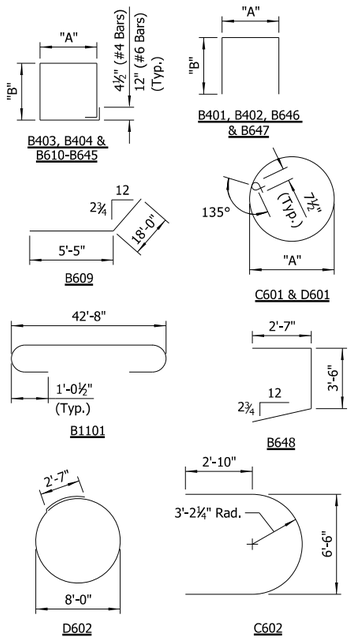



## SECTION D-D
Scale: ½" = 1'-0"

## BAR LIST (PER BENT)

| | MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|---|
| | B401 | "N" | 7'-11" | 3'-1" | 2'-6" | 2" |
| | B402 | "O" | 8'-7" | 3'-9" | 2'-6" | 2" |
| | B403 | "P" | 13'-0" | 3'-2" | 3'-2" | 2" |
| | B404 | "Q" | 14'-4" | 3'-2" | 3'-10" | 2" |
| | | | | | | |
| | B601 | 24 | 42'-8" | | | Str. |
| | B602 To B608 | 4 Each | 40'-0" To 13'-4" | | | Str. |
| | B609 | 18 | 23'-5" | | | 4½" |
| | B610 To B645 | 4 Each | 16'-5" To 24'-4" | 3'-11" | 3'-8½" To 7'-8" | 4½" |
| | B646 | 28 | 18'-11" | 3'-11" | 7'-8" | 4½" |
| | B647 | 10 | 10'-5" | 5'-6½" | 2'-7" | 4½" |
| | B648 | 6 | 8'-4" | | | 4½" |
| | | | | | | |
| | B1101 | 16 | 45'-8" | | | 11¼" |
| | B1102 | 16 | 42'-2" | | | Str. |
| | | | | | | |
| | C601 | "R" | 22'-0" | 6'-6" | | 4½" |
| | C602 | 14 | 15'-10" | | | 4½" |
| | | | | | | |
| | C1101 | 48 | "S" | | | Str. |
| | | | | | | |
| (1) | D601 | "T" | 26'-9" | 8'-0" | | 4½" |
| (1) | D602 | 15 | 27'-6" | | | 4½" |
| | | | | | | |
| (1) | D1101 | 60 | "U" | | | Str. |

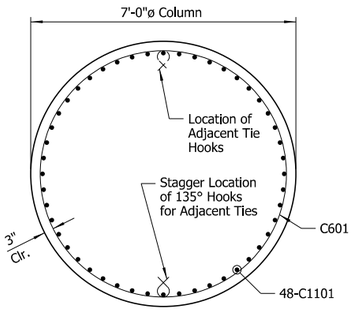
## BAR BENDING DIAGRAMS



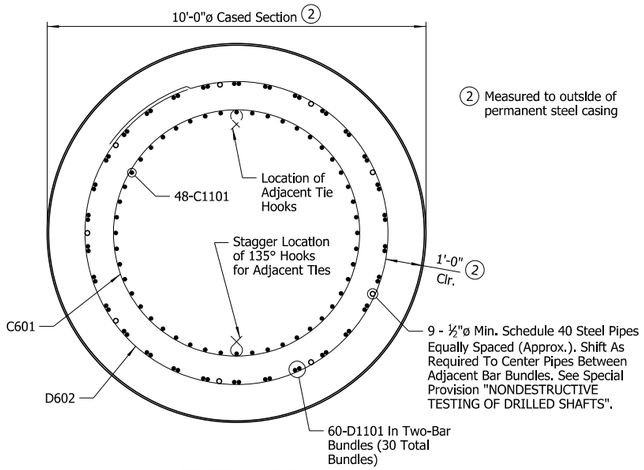

NOTES:
Dimensions of bars are out-to-out.

Number of bars shown is for a single bent.

(1) Non-pay item. Subsidiary to the pay item "DRILLED SHAFT (102" DIAMETER)".

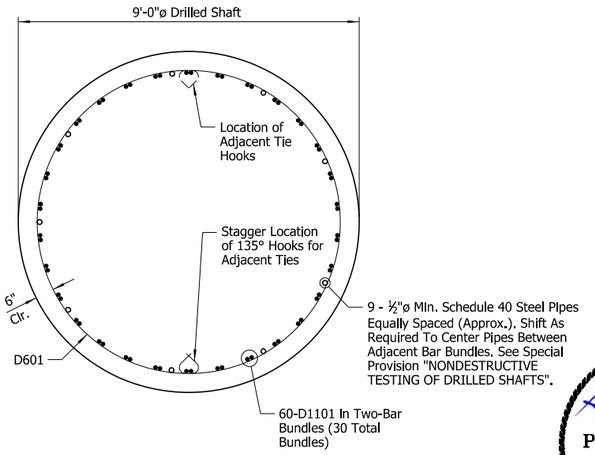



## SECTION E-E
Scale: ½" = 1'-0"




(2) Measured to outside of permanent steel casing

## SECTION F-F
Scale: ½" = 1'-0"




## SECTION G-G
Scale: ½" = 1'-0"

## TABLE OF VARIABLES

| Bent No. | "N" | "O" | "P" | "Q" | "R" | "S" | "T" | "U" |
|---|---|---|---|---|---|---|---|---|
| 2A | 60 | 0 | 3 | 0 | 36 | 25'-1" | 44 | 29'-0" |
| 3A | 60 | 0 | 3 | 0 | 50 | 32'-1" | 44 | 29'-0" |
| 4A | 60 | 0 | 3 | 0 | 49 | 31'-7" | 54 | 34'-0" |
| 5A | 40 | 30 | 0 | 3 | 45 | 29'-7" | 46 | 30'-0" |
| 6A | 60 | 0 | 3 | 0 | 45 | 29'-7" | 44 | 29'-0" |
| 7A | 60 | 0 | 3 | 0 | 44 | 29'-1" | 41 | 27'-6" |
| 8A | 60 | 0 | 3 | 0 | 43 | 28'-7" | 52 | 33'-0" |
| 2B | 60 | 0 | 3 | 0 | 39 | 26'-7" | 39 | 26'-6" |
| 3B | 60 | 0 | 3 | 0 | 52 | 33'-1" | 41 | 27'-6" |
| 4B | 60 | 0 | 3 | 0 | 49 | 31'-7" | 45 | 29'-6" |
| 5B | 40 | 30 | 0 | 3 | 46 | 30'-1" | 53 | 33'-6" |
| 6B | 60 | 0 | 3 | 0 | 41 | 27'-7" | 39 | 26'-6" |
| 7B | 60 | 0 | 3 | 0 | 43 | 28'-7" | 41 | 27'-6" |
| 8B | 60 | 0 | 3 | 0 | 42 | 28'-1" | 53 | 33'-6" |

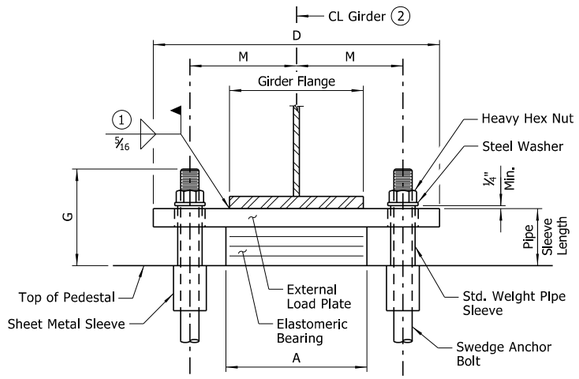
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 3 OF 3
DETAILS OF INTERMEDIATE BENTS
OSAGE CREEK
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: JEH DATE: JULY 2023
BRIDGE NO. A7657 & B7657 DRAWING NO. 66749

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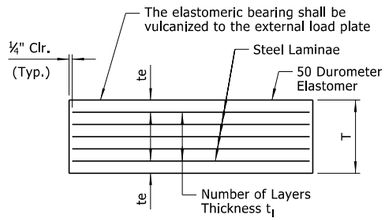
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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 302 | 583 |
| | | A7657 & B7657 | ELASTOMERIC BEARINGS | | | 66750 |




FRONT VIEW - AT BENT NOS. 1, 5 & 9

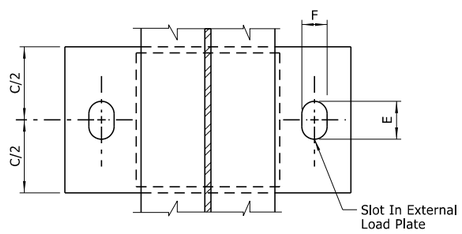
(1) Care shall be taken to ensure that the external load plate is in full and complete contact with the girder flange before welding begins. Unless otherwise approved by the Engineer, welding of the external load plate at expansion bearings to the girder will be allowed only when: 1) the approximate average air temperature during the 24 hour period immediately preceding welding is between 40°F and 80°F; and 2) the slots in the external load plate are positioned to center on the anchor bolts; and 3) no horizontal deformation of the elastomeric pad is evident. If welding at other temperatures is required, the Engineer will provide adjustment data.

(2) CL Elastomeric Pad shall be aligned with CL Girder.



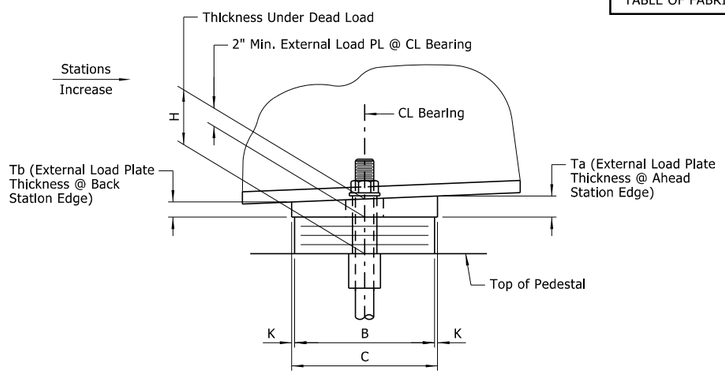

$t_e$ = Thickness of elastomer cover on top and bottom of pad
$t_i$ = Thickness of elastomer between steel laminae
N = Number of elastomer layers of thickness $t_i$

ELASTOMERIC BEARING

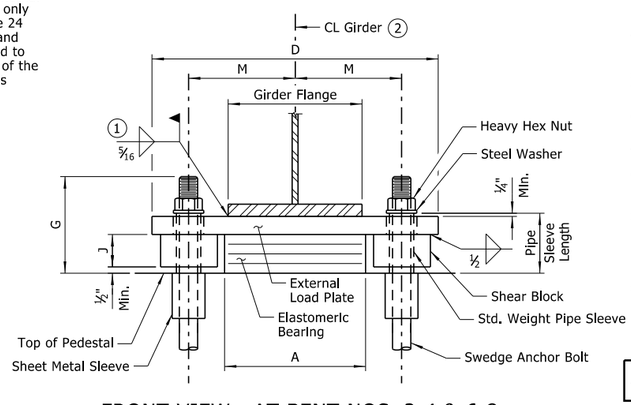



PLAN VIEW - AT BENT NOS. 1, 5 & 9

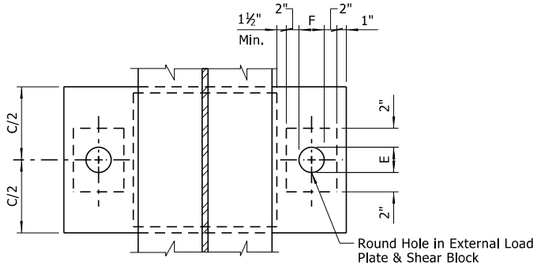
The direction of the bevel of the external load plate may not be accurately depicted with respect to Ta and Tb values shown in "TABLE OF FABRICATOR VARIABLES" on Dwg. No. 66751.



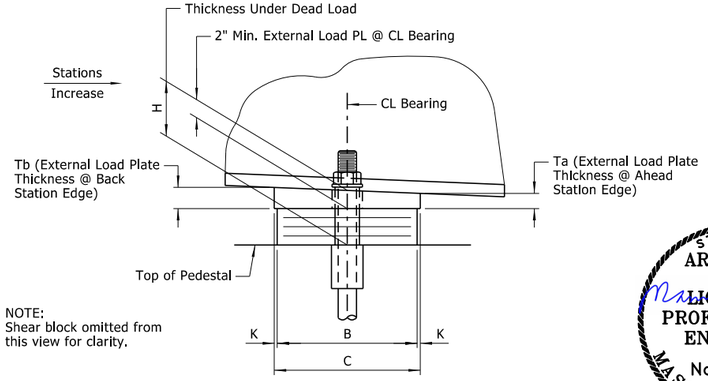

SIDE VIEW - AT BENT NOS. 1, 5 & 9




FRONT VIEW - AT BENT NOS. 2-4 & 6-8




PLAN VIEW - AT BENT NOS. 2-4 & 6-8




NOTE:
Shear block omitted from this view for clarity.

SIDE VIEW - AT BENT NOS. 2-4 & 6-8

## GENERAL NOTES

Elastomeric bearings shall conform to Section 808 and shall be paid for at the unit price bid for "ELASTOMERIC BEARINGS."

External load plates and shear blocks shall conform to ASTM A709, Grade 50W. Pipe sleeves shall be ASTM A500, Grade B, and shall be galvanized to conform to AASHTO M 232, Class C or ASTM B695, Class 50.

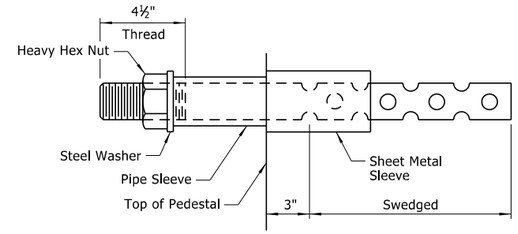
External load plates and shear blocks shall be completely fabricated (including bevel, bolt holes and all shop welding) and shall be cleaned before vulcanizing to the elastomeric bearing. The surfaces in contact with the elastomeric bearing shall be cleaned in accordance with Subsection 808.03. Other surfaces shall be blast cleaned in accordance with Subsection 807.84(b) for painted steel and 807.84(e) for unpainted Grade 50W steel.

Anchor bolts, washers and nuts shall conform to Subsection 807.07. The anchor bolt grade of steel shall be as specified in the "TABLE OF FABRICATOR VARIABLES" on Dwg, No. 66751. Indentations shall be circular with rounded bottoms and staggered as shown in the details.

Pipe sleeves, anchor bolts, washers and nuts shall be paid for at the unit price bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)". External load plates and shear blocks will not be measured or paid for separately but will be considered subsidiary to the unit price bid for "ELASTOMERIC BEARINGS".

Bearings shall be seated in accordance with Subsection 808.08. This work and materials are considered subsidiary to the item "ELASTOMERIC BEARINGS" and will not be paid for directly.

Prior to erection of the girders, the Contractor shall verify the orientation of the bearings with respect to Ta and Tb .




ANCHOR BOLT DETAIL

NOTES:
Anchor bolts may be cast in place or drilled and grouted into place. If anchor bolts are to be cast in place, the galvanized sheet metal sleeves will not be required.

If anchor bolts are to be drilled and grouted in place, the galvanized sheet metal sleeves shall be cast in place as shown. Sleeves shall be dry packed with styrofoam, urethane foam or approved equal prior to pouring of concrete. After pouring of the cap and prior to erection of structural steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the concrete. Bolts placed in drilled holes shall be accurately set and fixed using a QPL-approved epoxy or non-shrink grout that completely fills the holes. Galvanized Sheet Metal Sleeves shall meet the requirements of ASTM A653, CS Type B or approved equivalent, be of minimum 16 gage thickness, and be galvanized according to ASTM B695, Class 50. Sheet Metal Sleeves will not be paid for directly, but will be considered subsidiary to the item "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)".

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SHEET 1 OF 2
DETAILS OF ELASTOMERIC BEARINGS
OSAGE CREEK
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: MAR. 2023 FILENAME: b090069m2_e1.dgn
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DESIGNED BY: RAK DATE: MAR. 2023
BRIDGE NO. A7657 & B7657 DRAWING NO. 66750

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 303 | 583 |
| | | A7657 & B7657 | ELASTOMERIC BEARINGS | | | 66751 |

# TABLE OF FABRICATOR VARIABLES

| Bridge No. | Location | | Bearing Type | No. Of Bearings Each Bent | ① Maximum Design Load (Kips) | Elastomeric Pad | | | | | | | External Load Plate | | | | | | | | | Anchor Bolt | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bent No. | Girder No. | | | | G | H | A | B | N | $t_i$ | $t_e$ | No. & Thickness Of Steel Laminae | T | C | D | E | F | J | K | M | $T_a$ | $T_b$ | Anchor Bolt (Dia. x L) | Anchor Bolt Grade | Pipe Sleeve Size (Dia. x L) | Sheet Metal Sleeve Size (Dia. x L) | Steel Washer Size (O.D.) |
| A7657 | 1 | All | Exp. | 5 | 140 | 13⅜" | 10⅜" | 16" | 12" | 13 | ½" | ¼" | 14 @ 12 Ga. | 8 7/16" | 13" | 28" | 7¾" | 3⅛" | - | ½" | 10¾" | 1.87" | 2.13" | 2¼" x 41" | 55 | 2½" x 10⅜" | 4" x 14" | 4" |
| | 2 | All | Fixed | 5 | 393 | 7⅜" | 4⅜" | 18" | 14" | 3 | ½" | ¼" | 4 @ 12 Ga. | 2 7/16" | 15" | 36¼" | 2⅝" | 2⅝" | 1⅞" | ½" | 13 13/16" | 1.87" | 2.13" | 1¾" x 32" | 55 | 2" x 4⅝" | 4" x 25" | 3⅜" |
| | 3 | All | Fixed | 5 | 411 | 7 15/16" | 4 15/16" | 18" | 14" | 4 | ½" | ¼" | 5 @ 12 Ga. | 3" | 15" | 36¼" | 2⅝" | 2⅝" | 2 7/16" | ½" | 13 13/16" | 1.90" | 2.10" | 1¾" x 33" | 55 | 2" x 5 3/16" | 4" x 25" | 3⅜" |
| | 4 | All | Fixed | 5 | 393 | 7⅜" | 4⅜" | 18" | 14" | 3 | ½" | ¼" | 4 @ 12 Ga. | 2 7/16" | 15" | 36¼" | 2⅝" | 2⅝" | 1⅞" | ½" | 13 13/16" | 1.93" | 2.07" | 1¾" x 32" | 55 | 2" x 4⅝" | 4" x 25" | 3⅜" |
| | 5 Back | All | Exp. | 5 | 140 | 14 1/16" | 10 9/16" | 16" | 12" | 13 | ½" | ¼" | 14 @ 12 Ga. | 8 7/16" | 13" | 28" | 7¾" | 3⅛" | - | ½" | 10¾" | 2.12" | 2.20" | 2¼" x 44" | 55 | 2½" x 10 13/16" | 4" x 25" | 4" |
| | 5 Ahead | All | Exp. | 5 | 140 | 13⅜" | 10⅜" | 16" | 12" | 13 | ½" | ¼" | 14 @ 12 Ga. | 8 7/16" | 13" | 28" | 7¾" | 3⅛" | - | ½" | 10¾" | 1.96" | 2.04" | 2¼" x 44" | 55 | 2½" x 10⅜" | 4" x 25" | 4" |
| | 6 | All | Fixed | 5 | 393 | 7⅜" | 4⅜" | 18" | 14" | 3 | ½" | ¼" | 4 @ 12 Ga. | 2 7/16" | 15" | 36¼" | 2⅝" | 2⅝" | 1⅞" | ½" | 13 13/16" | 1.96" | 2.04" | 1¾" x 32" | 55 | 2" x 4⅝" | 4" x 25" | 3⅜" |
| | 7 | All | Fixed | 5 | 411 | 7 15/16" | 4 15/16" | 18" | 14" | 4 | ½" | ¼" | 5 @ 12 Ga. | 3" | 15" | 36¼" | 2⅝" | 2⅝" | 2 7/16" | ½" | 13 13/16" | 1.96" | 2.04" | 1¾" x 33" | 55 | 2" x 5 3/16" | 4" x 25" | 3⅜" |
| | 8 | All | Fixed | 5 | 393 | 7⅜" | 4⅜" | 18" | 14" | 3 | ½" | ¼" | 4 @ 12 Ga. | 2 7/16" | 15" | 36¼" | 2⅝" | 2⅝" | 1⅞" | ½" | 13 13/16" | 1.96" | 2.04" | 1¾" x 32" | 55 | 2" x 4⅝" | 4" x 25" | 3⅜" |
| | 9 | All | Exp. | 5 | 140 | 13⅜" | 10⅜" | 16" | 12" | 13 | ½" | ¼" | 14 @ 12 Ga. | 8 7/16" | 13" | 28" | 7¾" | 3⅛" | - | ½" | 10¾" | 1.97" | 2.03" | 2¼" x 41" | 55 | 2½" x 10⅜" | 4" x 14" | 4" |
| B7657 | 1 | All | Exp. | 5 | 140 | 13⅜" | 10⅜" | 16" | 12" | 13 | ½" | ¼" | 14 @ 12 Ga. | 8 7/16" | 13" | 28" | 7¾" | 3⅛" | - | ½" | 10¾" | 1.86" | 2.14" | 2¼" x 41" | 55 | 2½" x 10⅜" | 4" x 14" | 4" |
| | 2 | All | Fixed | 5 | 393 | 7⅜" | 4⅜" | 18" | 14" | 3 | ½" | ¼" | 4 @ 12 Ga. | 2 7/16" | 15" | 36¼" | 2⅝" | 2⅝" | 1⅞" | ½" | 13 13/16" | 1.86" | 2.14" | 1¾" x 32" | 55 | 2" x 4⅝" | 4" x 25" | 3⅜" |
| | 3 | All | Fixed | 5 | 411 | 7 15/16" | 4 15/16" | 18" | 14" | 4 | ½" | ¼" | 5 @ 12 Ga. | 3" | 15" | 36¼" | 2⅝" | 2⅝" | 2 7/16" | ½" | 13 13/16" | 1.89" | 2.11" | 1¾" x 33" | 55 | 2" x 5 3/16" | 4" x 25" | 3⅜" |
| | 4 | All | Fixed | 5 | 393 | 7⅜" | 4⅜" | 18" | 14" | 3 | ½" | ¼" | 4 @ 12 Ga. | 2 7/16" | 15" | 36¼" | 2⅝" | 2⅝" | 1⅞" | ½" | 13 13/16" | 1.92" | 2.08" | 1¾" x 32" | 55 | 2" x 4⅝" | 4" x 25" | 3⅜" |
| | 5 Back | All | Exp. | 5 | 140 | 14 1/16" | 10 9/16" | 16" | 12" | 13 | ½" | ¼" | 14 @ 12 Ga. | 8 7/16" | 13" | 28" | 7¾" | 3⅛" | - | ½" | 10¾" | 2.14" | 2.24" | 2¼" x 44" | 55 | 2½" x 10 13/16" | 4" x 25" | 4" |
| | 5 Ahead | All | Exp. | 5 | 140 | 13⅜" | 10⅜" | 16" | 12" | 13 | ½" | ¼" | 14 @ 12 Ga. | 8 7/16" | 13" | 28" | 7¾" | 3⅛" | - | ½" | 10¾" | 1.95" | 2.05" | 2¼" x 44" | 55 | 2½" x 10⅜" | 4" x 25" | 4" |
| | 6 | All | Fixed | 5 | 393 | 7⅜" | 4⅜" | 18" | 14" | 3 | ½" | ¼" | 4 @ 12 Ga. | 2 7/16" | 15" | 36¼" | 2⅝" | 2⅝" | 1⅞" | ½" | 13 13/16" | 1.96" | 2.04" | 1¾" x 32" | 55 | 2" x 4⅝" | 4" x 25" | 3⅜" |
| | 7 | All | Fixed | 5 | 411 | 7 15/16" | 4 15/16" | 18" | 14" | 4 | ½" | ¼" | 5 @ 12 Ga. | 3" | 15" | 36¼" | 2⅝" | 2⅝" | 2 7/16" | ½" | 13 13/16" | 1.96" | 2.04" | 1¾" x 33" | 55 | 2" x 5 3/16" | 4" x 25" | 3⅜" |
| | 8 | All | Fixed | 5 | 393 | 7⅜" | 4⅜" | 18" | 14" | 3 | ½" | ¼" | 4 @ 12 Ga. | 2 7/16" | 15" | 36¼" | 2⅝" | 2⅝" | 1⅞" | ½" | 13 13/16" | 1.96" | 2.04" | 1¾" x 32" | 55 | 2" x 4⅝" | 4" x 25" | 3⅜" |
| | 9 | All | Exp. | 5 | 140 | 13⅜" | 10⅜" | 16" | 12" | 13 | ½" | ¼" | 14 @ 12 Ga. | 8 7/16" | 13" | 28" | 7¾" | 3⅛" | - | ½" | 10¾" | 1.97" | 2.03" | 2¼" x 41" | 55 | 2½" x 10⅜" | 4" x 14" | 4" |

① Maximum Design Load (Kips) = LRFD Service I Limit State

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MASON R. ATKINSON

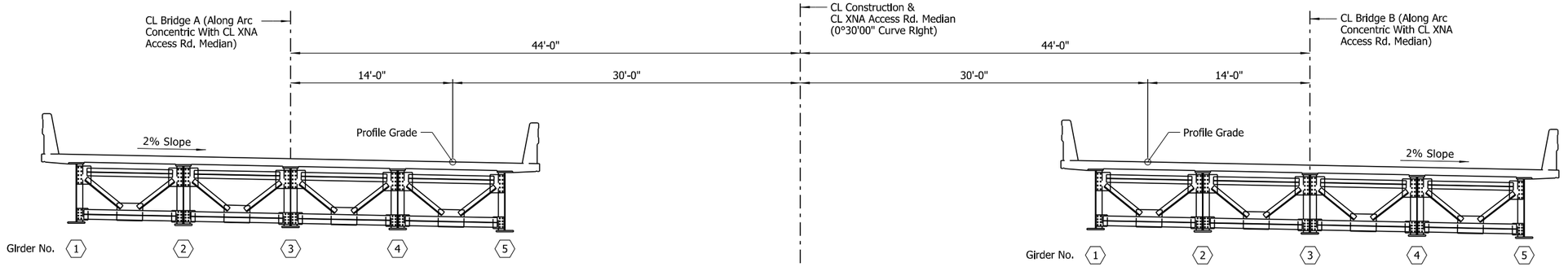
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BRIDGE ENGINEER

SHEET 2 OF 2
DETAILS OF ELASTOMERIC BEARINGS
OSAGE CREEK
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: RAK DATE: MAR. 2023

BRIDGE NO. A7657 & B7657 DRAWING NO. 66751

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 304 | 583 |
| | | A7657 & B7657 | | 510'-0" UNIT | | 66752 |




## TYPICAL BRIDGE SECTION

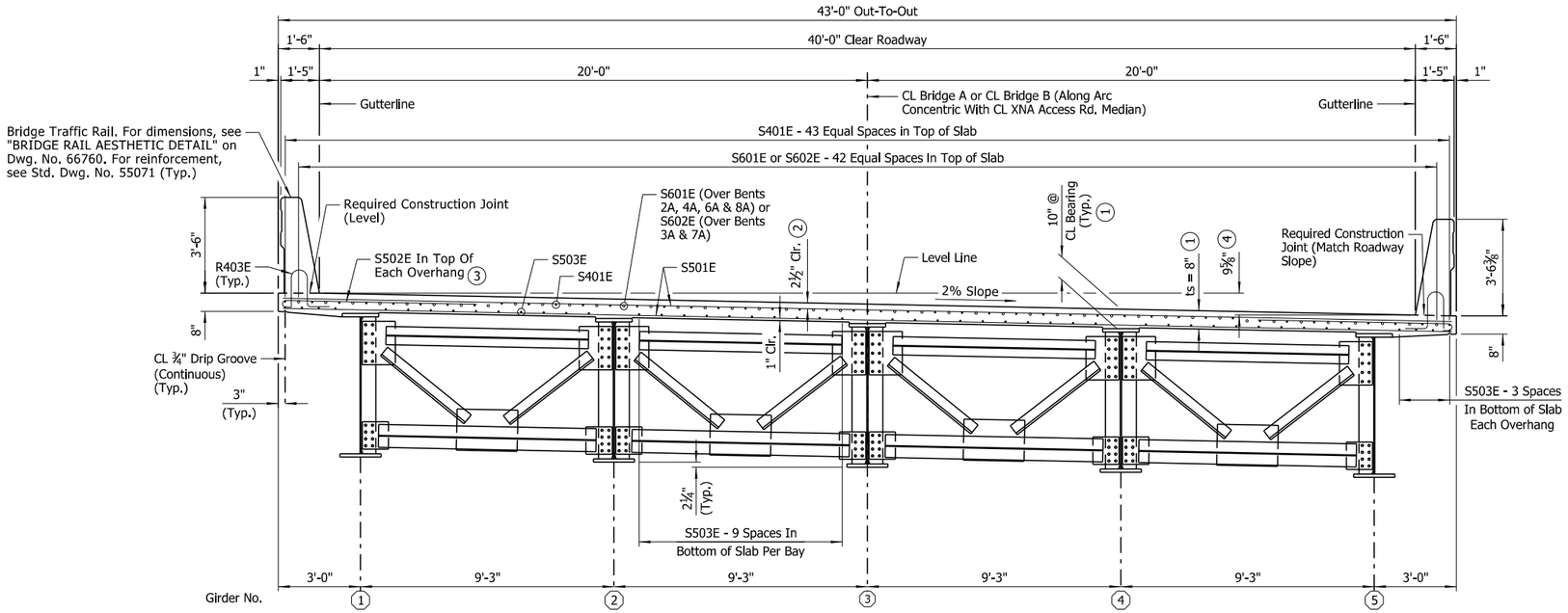
(Looking Ahead)
Scale: $\frac{3}{16}$" = 1'-0"

SLAB REINFORCING:

Transverse: S501E @ 6" O.C. In Top & Bottom
S502E @ 6" O.C. In Top Of Overhangs
(Bundled w/ S501E)

Longitudinal: S401E In Top (Placed as Shown)
S503E In Bottom (Placed as Shown)
S601E In Top (Placed as Shown Over Bents 2A, 4A, 6A, 8A, 2B, 4B, 6B & 8B) (5)
S602E In Top (Placed as Shown Over Bents 3A, 7A, 3B & 7B) (5)

NOTE:
All horizontal dimensions shown are measured along a line radial to CL Construction.




## TYPICAL ROADWAY SECTION

(Looking Ahead)
Scale: $\frac{3}{8}$" = 1'-0"

(1) See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Std. Dwg. No. 55007.

(2) TOLERANCE:
Minus = ¼"
Plus = Amount of slab thickening used to meet slab thickness tolerance. See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Std. Dwg. No. 55007.

(3) Bundle with S501E bars in top. Rotate as needed to avoid interference with bottom mat of deck reinforcement.

(4) Measured Gutterline to Gutterline

(5) See "PART REINFORCING PLAN & SLAB POURING SEQUENCE" on Dwg. Nos. 66759 & 66760.

NOTES:
For Standard General Notes and details, see Std. Dwg. Nos. 55006 and 55007.

Class 2 Protective Surface Treatment shall be applied to the roadway surface.

Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in Special Provision "TEXTURED COATING FINISH" and in accordance with Subsection 802.19(b)(3). Textured Coating Finish shall not be applied on surfaces where Class 2 Protective Surface Treatment is applied.

Bar positions and clearances from the forms shall be maintained by means of stays, ties, hangers or other approved devices per Subsection 804.06. Placement of slab bolsters or hi-chairs with full-length lower runners directly on removable deck forms will not be allowed.

For "BAR LIST" and "BAR BENDING DIAGRAMS", see Dwg. No. 66759.

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# SHEET 1 OF 10
# DETAILS OF 510'-0" CONTINUOUS PLATE GIRDER UNIT OSAGE CREEK

ROUTE SEC.

## ARKANSAS STATE HIGHWAY COMMISSION

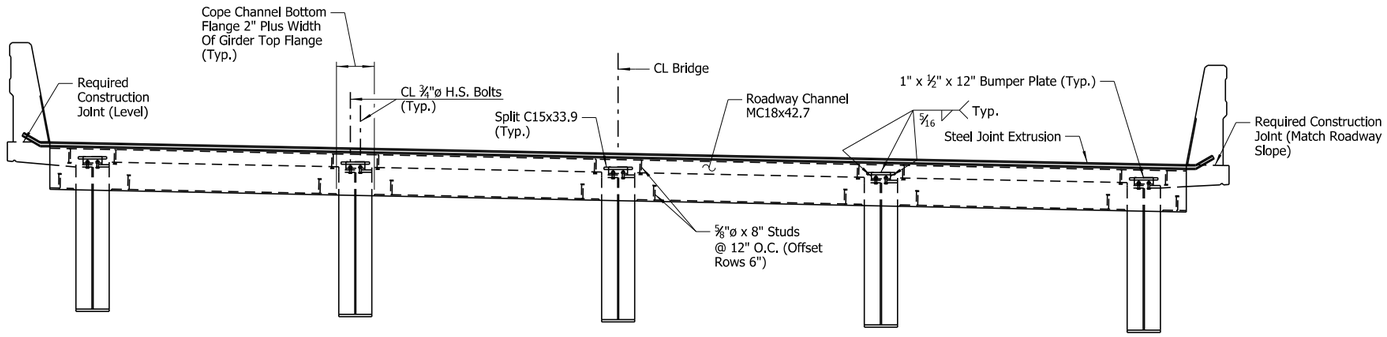
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BRIDGE NO. A7657 & B7657 DRAWING NO. 66752

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| | | A7657 & B7657 | | 510'-0" UNIT | | 66753 |

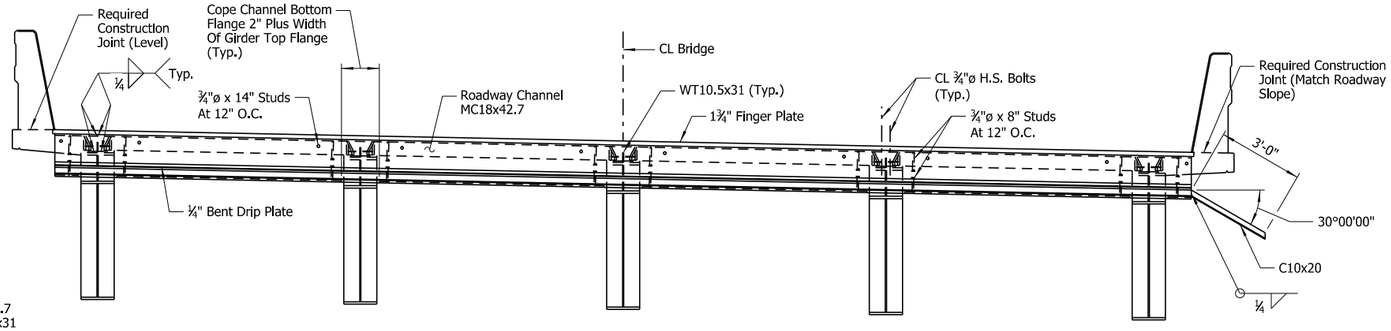



NOTE:
For additional details of strip seal joints, see Std. Dwg. No. 55009.

## TYPICAL SECTION THRU STRIP SEAL JOINT AT BENT NOS. 1 AND 9

(Shown At Bent No. 1, Looking Ahead;
End Bent No. 9 Similar)
Scale: ⅜" = 1'-0"

EXPANSION DEVICE:
Rdwy. Channel: MC18x42.7
Conn. Channels: Split C15x33.9
Detail device 1/8" high and provide ¼" shims using 2 - 1/16" and 1 - ⅛" plates.

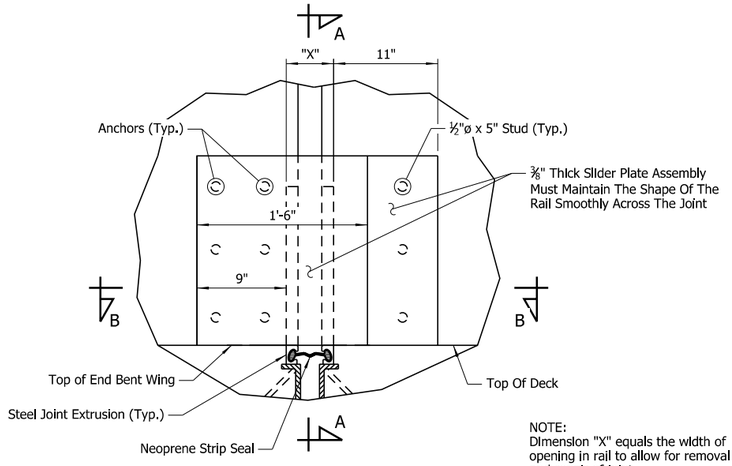



EXPANSION DEVICE:
Rdwy. Channel: MC18x42.7
Conn. Members: WT10.5x31
Finger Joint - 5" Movement
Detail device ⅛" high and provide ¼" shims using 2 - 1/16" and 1 - ⅛" plates.

## TYPICAL SECTION THRU FINGER JOINT AT BENT NO. 5

(Looking Ahead)
Scale: ⅜" = 1'-0"

NOTE:
For details of finger joints, see Dwg. No. 66761.

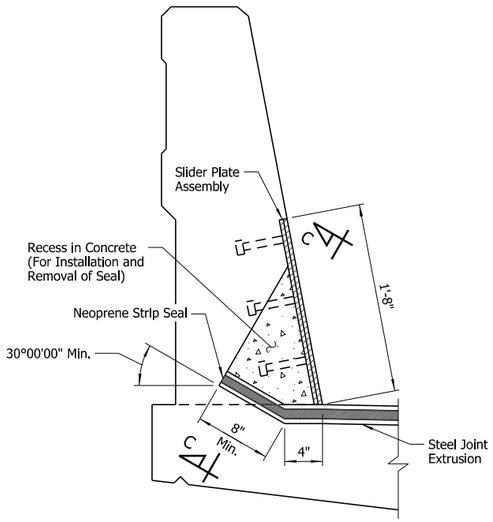



NOTE:
Dimension "X" equals the width of opening in rail to allow for removal and repair of joint.

## DETAIL OF BRIDGE RAIL SLIDER PLATES

Scale: 1½" = 1'-0"

NOTE:
For "SECTION THRU JOINT AT END BENT", "CHANNEL CONNECTION DETAIL", "DETAIL OF STRIP SEAL JOINT", "DETAILS FOR BLOCKING EXPANSION JOINT DEVICE" and "GENERAL NOTES FOR NEOPRENE STRIP SEAL JOINTS", see Std. Dwg. No. 55009.

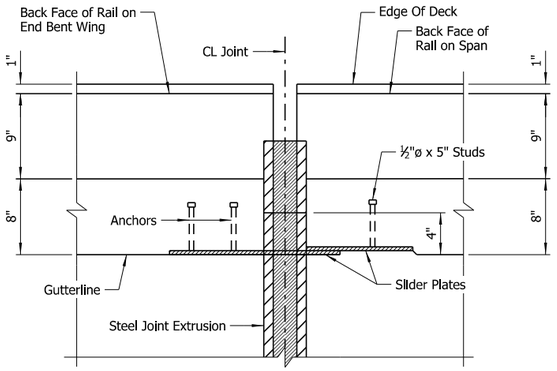



## SECTION A-A

Scale: 1½" = 1'-0"

NOTE:
For "SECTION C-C", see Std. Dwg. No. 55009.

NOTE:
Details of joint turn-up in bridge rail are general and show basic design controls only. See Section 809.

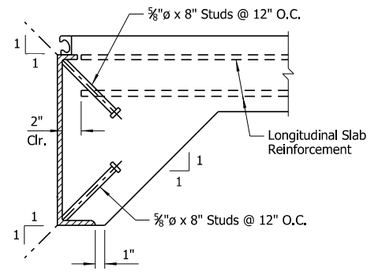



## SECTION B-B

Scale: 1½" = 1'-0"

NOTES:
The method of attachment of the slider plate assembly shall allow for removal to provide for future replacement of the neoprene seal. Anchors shall not be paid for directly but shall be considered subsidiary to "ARMORED JOINT WITH NEOPRENE STRIP SEAL".

Method of installation and frabrication shall be determined by the Manufacturer.




## DETAIL OF ANCHORS AND PLACEMENT OF LONGITUDINAL REINFORCEMENT

(Bent Nos. 1 and 9)
No Scale

NOTE:
As an alternate to ⅝"ø studs, ½"ø x 8" studs spaced @ 8" O.C. may be used at Bent Nos. 1 and 9. Use weight of ⅝"ø stud as basis of measurement of Structural Steel in anchors.

## STRIP SEAL JOINT DATA

| Bent Nos. | Movement Rating | "A" Width Perpendicular To Joint At 24 Hour Average Temperature (1) Of: | | | "B" Width Perpendicular To Joint At 24 Hour Average Temperature (1) Of: | | | "C" Width Perpendicular To Joint At 24 Hour Average Temperature Of 60°F |
|---|---|---|---|---|---|---|---|---|
| | | 40°F | 60°F | 80°F | 40°F | 60°F | 80°F | |
| 1 & 9 | 4" | 2⅜" | 2" | 1⅝" | 2⅞" | 2½" | 2⅛" | 2½"± |

(1) The temperature used to set the joint opening shall be the approximate average air temperature during the 24 hour period immediately before the bolts are tightened. The Engineer shall establish the temperature. Interpolation of the table may be necessary. Installation is limited to 40°F min. and 80°F max. The temperature limitations of the lubricant-adhesive Manufacturer shall be observed.

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# SHEET 2 OF 10
# DETAILS OF 510'-0" CONTINUOUS PLATE GIRDER UNIT OSAGE CREEK

ROUTE SEC.

## ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: FEB. 2023 FILENAME: b090069m2_s2.dgn
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BRIDGE NO. A7657 & B7657 DRAWING NO. 66753

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 306 | 583 |
| | | A7657 & B7657 | | 510'-0" UNIT | | 66754 |

(1) Measured along CL Bridge A or CL Bridge B

(2) Measured along CL Girder

(3) Drip plate welded to the outer side of the bottom flange of the exterior girders. Locate drip plates 5'-0" from CL Bearing at locations shown. See "BOTTOM FLANGE DRIP PLATE" on Std. Dwg. No. 55007 for additional details. Stop drip plate weld 1" from face of web.

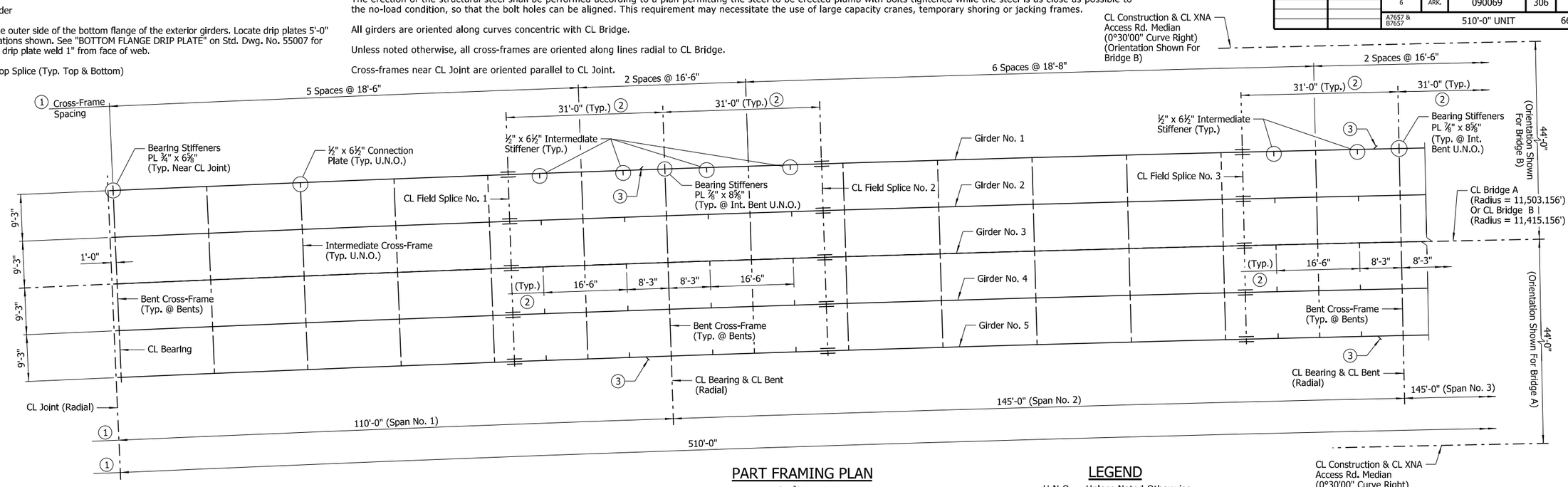
(4) CL Required Flange Shop Splice (Typ. Top & Bottom)

NOTES:
The erection of the structural steel shall be performed according to a plan permitting the steel to be erected plumb with bolts tightened while the steel is as close as possible to the no-load condition, so that the bolt holes can be aligned. This requirement may necessitate the use of large capacity cranes, temporary shoring or jacking frames.

All girders are oriented along curves concentric with CL Bridge.

Unless noted otherwise, all cross-frames are oriented along lines radial to CL Bridge.

Cross-frames near CL Joint are oriented parallel to CL Joint.

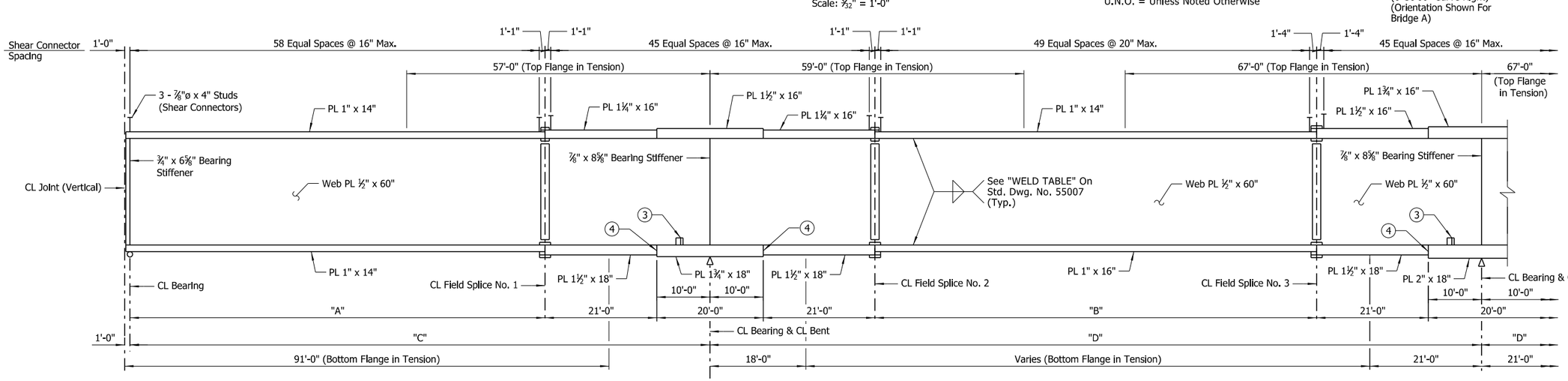



## PART FRAMING PLAN

Scale: $\frac{3}{32}$" = 1'-0"

## LEGEND

U.N.O. = Unless Noted Otherwise




## PART GIRDER ELEVATION

(Dimensions Measured Along CL Girder)
No Scale

NOTES:
For "GENERAL NOTES", see Std. Dwg. No. 55006.

All structural steel shall be ASTM A709, Gr. 50W unless noted otherwise and shall be paid for at the unit price per pound bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)".

Bolted field splices shown may be eliminated or shop welded splices may be substituted with approval of the Engineer. Payment will be made on the basis of the Plan Quantities.

The Contractor shall ensure that girders are stable thoughout the erection process. The Contractor will be responsible for providing temporary bracing or stiffening devices to accommodate handling stresses in individual members or segments of the structure during erection.

For "DETAILS OF WELDED SPLICES FOR PLATE GIRDERS", "SCREED RAIL SUPPORT FOR PLATE GIRDERS" and "SHEAR CONNECTOR DETAIL", see Std. Dwg. No. 55007.

For cross-frame details, stiffener and connection plate details, see Dwg. No. 66756.

For painting of girders, see "GENERAL NOTES" on Dwg. No. 66739.

For details of field splices, see Dwg. No. 66757.

## TABLE OF VARIABLES

| BRIDGE NOS. | GIRDER NOS. | "A" | "B" | "C" | "D" |
|---|---|---|---|---|---|
| A7657 & B7657 | 1 | 78'-2⅛" | 83'-2$^{13}/_{16}$" | 109'-2⅛" | 145'-2$^{13}/_{16}$" |
| | 2 | 78'-1$^{1}/_{16}$" | 83'-1⅜" | 109'-1$^{1}/_{16}$" | 145'-1⅜" |
| | 3 | 78'-0" | 83'-0" | 109'-0" | 145'-0" |
| | 4 | 77'-10$^{15}/_{16}$" | 82'-10⅝" | 108'-10$^{15}/_{16}$" | 144'-10⅝" |
| | 5 | 77'-9⅞" | 82'-9$^{3}/_{16}$" | 108'-9⅞" | 144'-9$^{3}/_{16}$" |

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LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL
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BRIDGE ENGINEER

# SHEET 3 OF 10
# DETAILS OF 510'-0" CONTINUOUS PLATE GIRDER UNIT OSAGE CREEK

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: CWT DATE: FEB. 2023 FILENAME: b090069m2_s3.dgn
CHECKED BY: ABH DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: DEC. 2022

BRIDGE NO. A7657 & B7657 DRAWING NO. 66754

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 307 | 583 |
| | | A7657 & B7657 | | 510'-0" UNIT | | 66755 |

(1) Measured along CL Bridge A or CL Bridge B.

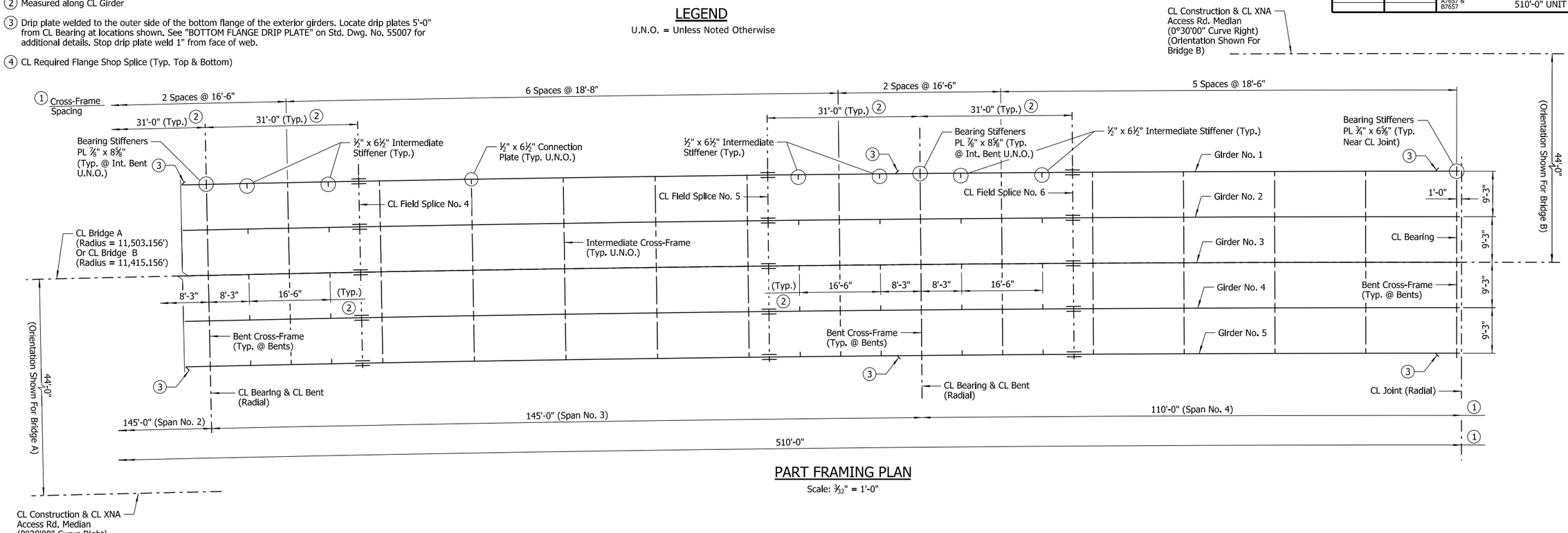
(2) Measured along CL Girder

(3) Drip plate welded to the outer side of the bottom flange of the exterior girders. Locate drip plates 5'-0" from CL Bearing at locations shown. See "BOTTOM FLANGE DRIP PLATE" on Std. Dwg. No. 55007 for additional details. Stop drip plate weld 1" from face of web.

(4) CL Required Flange Shop Splice (Typ. Top & Bottom)

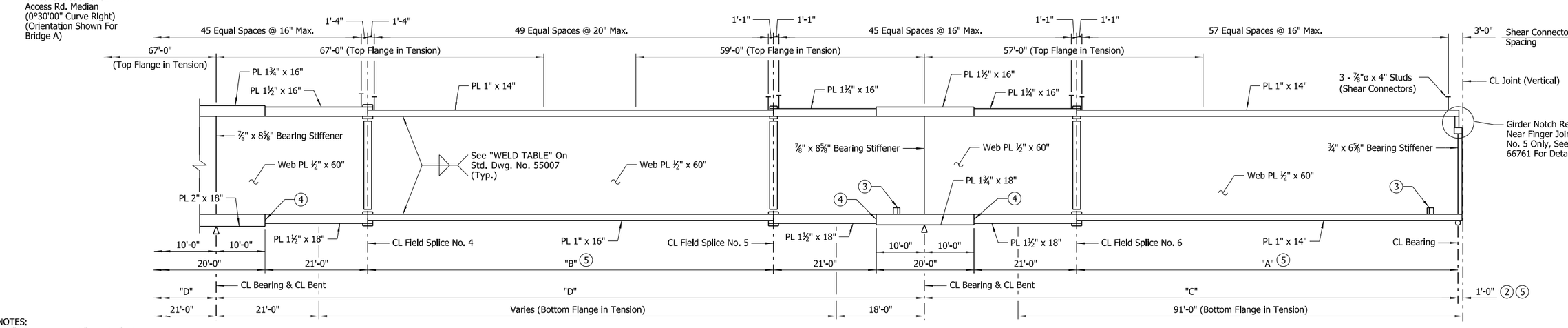
## LEGEND

U.N.O. = Unless Noted Otherwise




## PART FRAMING PLAN

Scale: 3/32" = 1'-0"




## PART GIRDER ELEVATION

(Dimensions Measured Along CL Girder)
No Scale

(5) For "TABLE OF VARIABLES", see Dwg. No. 66754.

NOTES:
For "GENERAL NOTES", see Std. Dwg. No. 55006.

All structural steel shall be ASTM A709, Gr. 50W unless noted otherwise and shall be paid for at the unit price per pound bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)".

Bolted field splices shown may be eliminated or shop welded splices may be substituted with approval of the Engineer. Payment will be made on the basis of the Plan Quantities.

The Contractor shall ensure that girders are stable thoughout the erection process. The Contractor will be responsible for providing temporary bracing or stiffening devices to accommodate handling stresses in individual members or segments of the structure during erection.

For "DETAILS OF WELDED SPLICES FOR PLATE GIRDERS", "SCREED RAIL SUPPORT FOR PLATE GIRDERS" and "SHEAR CONNECTOR DETAIL", see Std. Dwg. No. 55007.

For cross-frame details, stiffener and connection plate details, see Dwg. No. 66756.

For painting of girders, see "GENERAL NOTES" on Dwg. No. 66739.

For details of field splices, see Dwg. No. 66757.

NOTES:
The erection of the structural steel shall be performed according to a plan permitting the steel to be erected plumb with bolts tightened while the steel is as close as possible to the no-load condition, so that the bolt holes can be aligned. This requirement may necessitate the use of large capacity cranes, temporary shoring or jacking frames.

All girders are oriented along curves concentric with CL Bridge.

Unless noted otherwise, all cross-frames are oriented along lines radial to CL Bridge.

Cross-frames near CL Joint are oriented parallel to CL Joint.

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LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL

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BRIDGE ENGINEER

# SHEET 4 OF 10
# DETAILS OF 510'-0" CONTINUOUS PLATE GIRDER UNIT OSAGE CREEK

ROUTE SEC.

## ARKANSAS STATE HIGHWAY COMMISSION

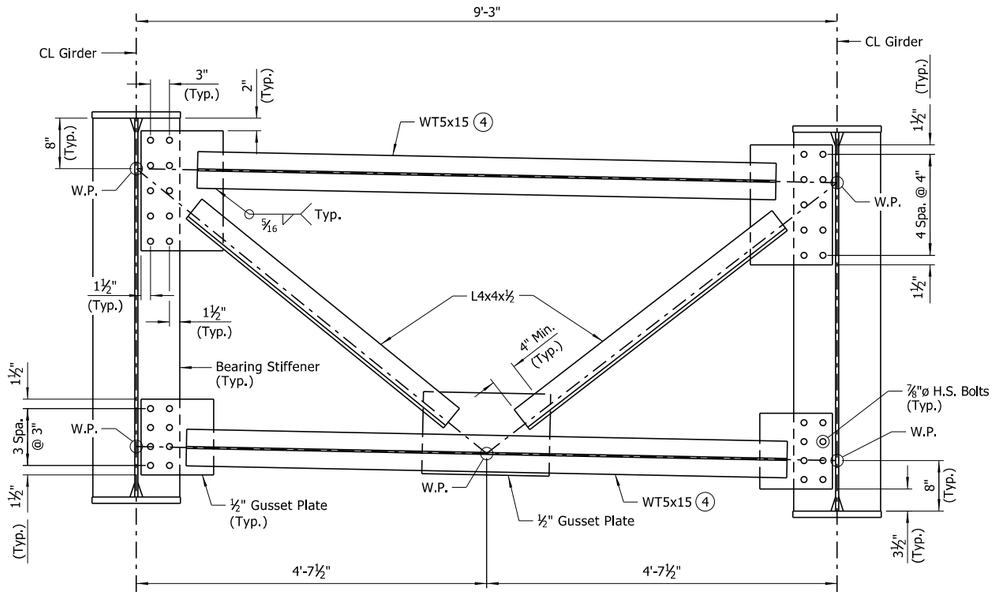
LITTLE ROCK, ARK.

DRAWN BY: CWT DATE: FEB. 2023 FILENAME: b090069m2_s4.dgn
CHECKED BY: ABH DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: DEC. 2022

BRIDGE NO. A7657 & B7657 DRAWING NO. 66755

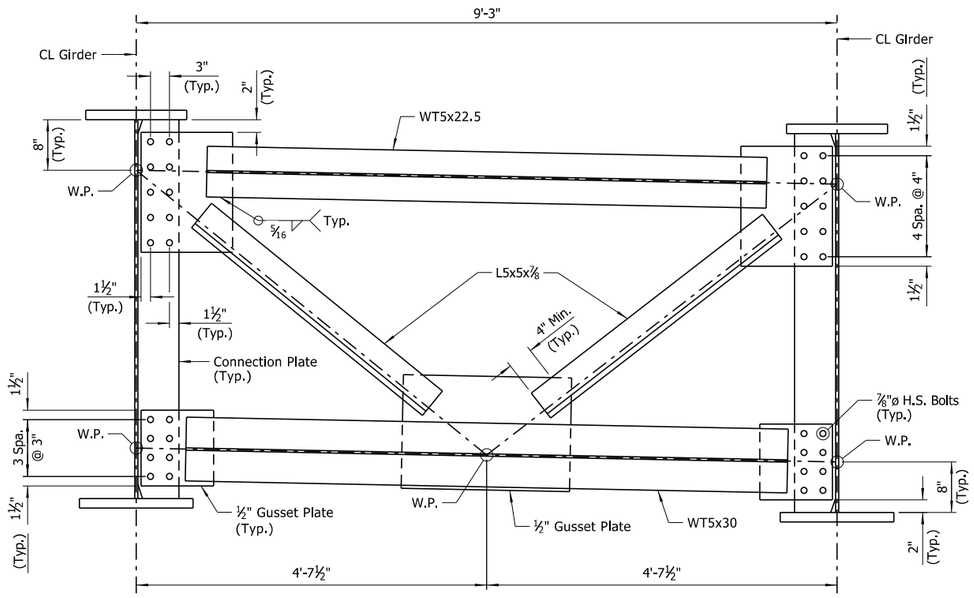
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WORKSPACE: ARDOT Bridge (2019)
L:\2017\1717600 - XNA Access - NEPA\Drawings\b090069x2_S404_SF.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 308 | 583 |
| | | A7657 & B7657 | | 510'-0" UNIT | | 66756 |




## BENT CROSS-FRAME DETAIL

Scale: 1" = 1'-0"

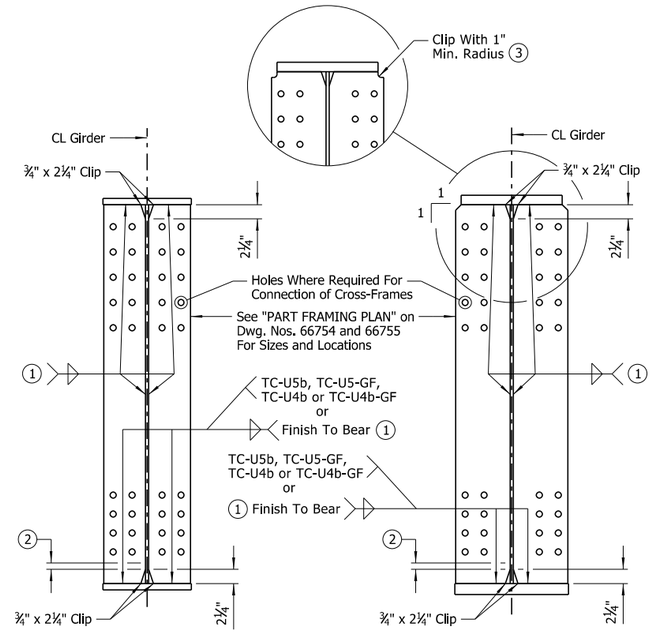



## INTERMEDIATE CROSS-FRAME DETAIL

Scale: 1" = 1'-0"

NOTES:
All field connections shall be bolted with ⅞"ø H.S. bolts using $^{15}/_{16}$"ø open holes.

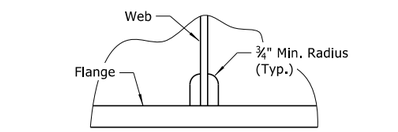
Bearing Stiffeners shall be fabricated to be vertical in their final positions.




BENTS 1, 5 & 9 BENTS 2-4 & 6-8

## BEARING STIFFENER DETAIL

Scale: 1" = 1'-0"




Height and width of clip shall be as noted in other details.

## ALTERNATE CLIP DETAIL

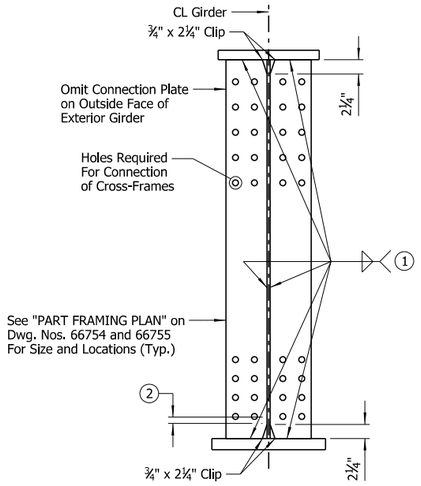
(For Bearing Stiffeners, Intermediate Transverse Stiffeners and Cross-frame Connection Plates)
No Scale

① See "WELD TABLE" on Std. Dwg. No. 55007 for minimum weld size.

② Stop weld ¼" to 1" from end of clip (Typ.)

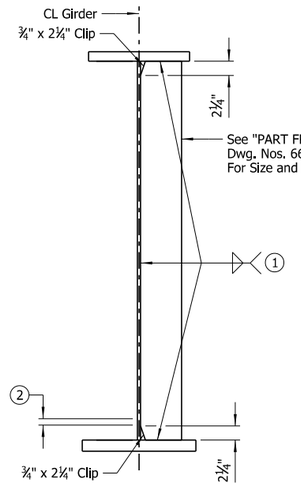
③ If permanent deck forms are used, the Fabricator shall clip the plate as necessary to accommodate the deck form supports.

④ Bent cross-frames shall be fabricated such that the horizontal stems of the WT chord members point away from CL Joint.




## CONNECTION PLATE DETAIL

Scale: 1" = 1'-0"




## INTERMEDIATE TRANSVERSE STIFFENER DETAIL

Scale: 1" = 1'-0"

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No.14498
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SHEET 5 OF 10
DETAILS OF 510'-0" CONTINUOUS PLATE GIRDER UNIT
OSAGE CREEK
ROUTE SEC.

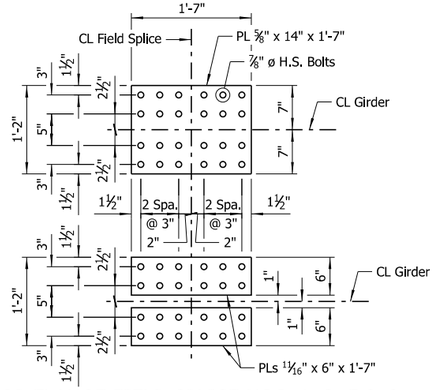
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CWT DATE: FEB. 2023 FILENAME: b090069m2_s5.dgn
CHECKED BY: ABH DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: DEC. 2022

BRIDGE NO. A7657 & B7657 DRAWING NO. 66756

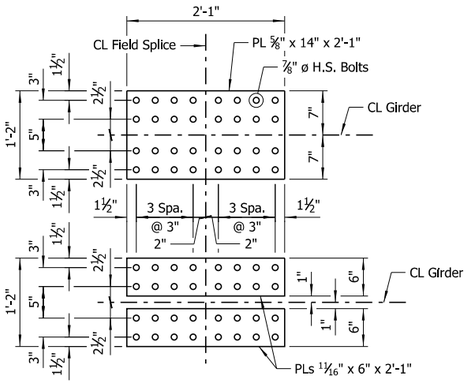
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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 309 | 583 |
| | | A7657 & B7657 | | 510'-0" UNIT | | 66757 |




## TOP FLANGE FIELD SPLICE NOS. 1, 2, 5 & 6

Scale: 1" = 1'-0"

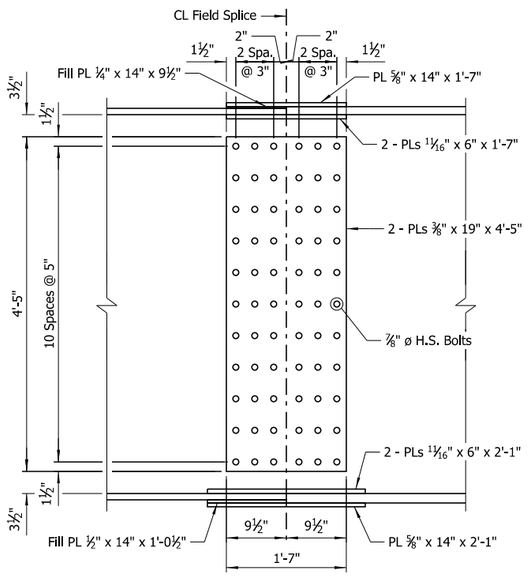



## TOP FLANGE FIELD SPLICE NOS. 3 & 4

Scale: 1" = 1'-0"

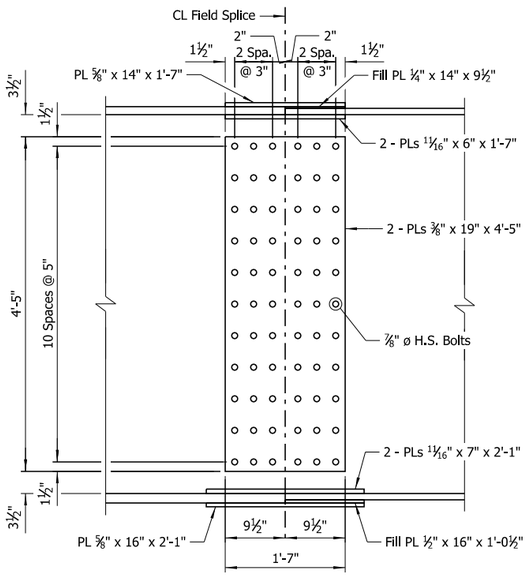
NOTES:
All field splice bolts shall be ⅞"ø high strength bolts.

All holes for field splice bolts shall be 15/16"ø.



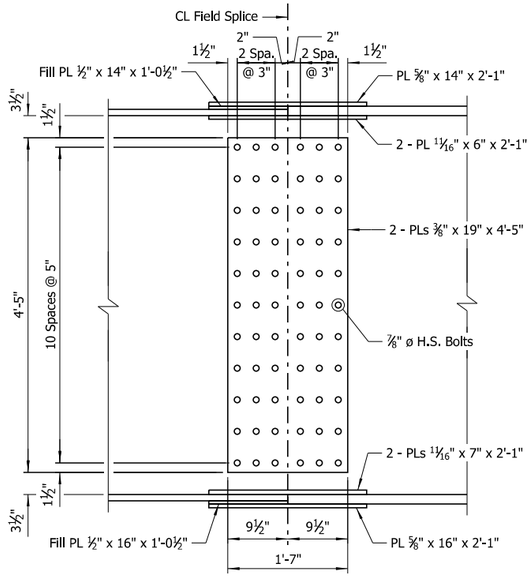

## ELEVATION OF FIELD SPLICE NOS. 1 & 6

Scale: 1" = 1'-0"



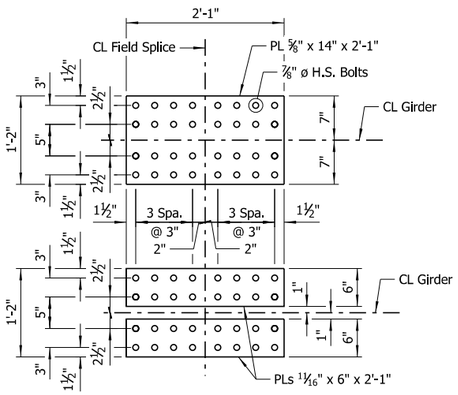

## ELEVATION OF FIELD SPLICE NOS. 2 & 5

Scale: 1" = 1'-0"



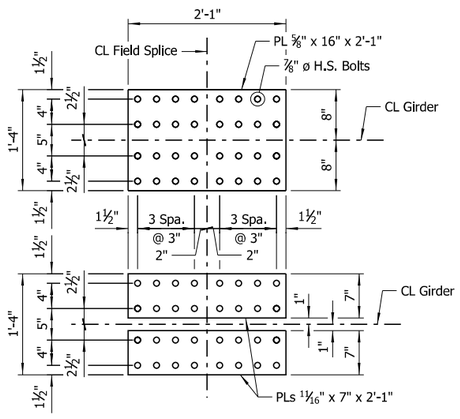

## ELEVATION OF FIELD SPLICE NOS. 3 & 4

Scale: 1" = 1'-0"




## BOTTOM FLANGE FIELD SPLICE NOS. 1 & 6

Scale: 1" = 1'-0"




## BOTTOM FLANGE FIELD SPLICE NOS. 2-5

Scale: 1" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL

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BRIDGE ENGINEER

SHEET 6 OF 10
DETAILS OF 510'-0" CONTINUOUS PLATE GIRDER UNIT
OSAGE CREEK
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CWT DATE: FEB. 2023 FILENAME: b090069m2_s6.dgn
CHECKED BY: ABH DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: DEC. 2022

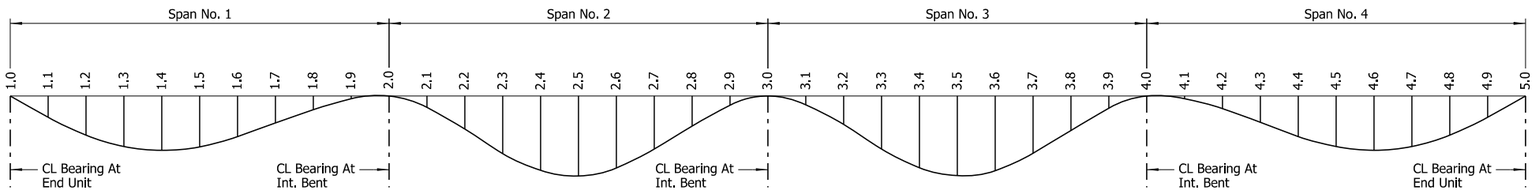
BRIDGE NO. A7657 & B7657 DRAWING NO. 66757

JESkinner 10/20/2023 2:11:30 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 310 | 583 |
| | | A7657 & B7657 | | 510'-0" UNIT | | 66758 |

## TABLE OF DEAD LOAD DEFLECTIONS (INCHES)

| | Point Of Deflection | Girders 1-5 | | |
|---|---|---|---|---|
| | | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail |
| SPAN NO. 1 | 1.0 | 0.000 | 0.000 | 0.000 |
| | 1.1 | 0.101 | 0.513 | 0.565 |
| | 1.2 | 0.183 | 0.933 | 1.027 |
| | 1.3 | 0.235 | 1.203 | 1.325 |
| | 1.4 | 0.254 | 1.301 | 1.434 |
| | 1.5 | 0.235 | 1.213 | 1.338 |
| | 1.6 | 0.187 | 0.972 | 1.072 |
| | 1.7 | 0.121 | 0.645 | 0.712 |
| | 1.8 | 0.058 | 0.324 | 0.358 |
| | 1.9 | 0.008 | 0.063 | 0.070 |
| SPAN NO. 2 | 2.0 | 0.000 | 0.000 | 0.000 |
| | 2.1 | 0.065 | 0.275 | 0.305 |
| | 2.2 | 0.177 | 0.783 | 0.866 |
| | 2.3 | 0.308 | 1.372 | 1.515 |
| | 2.4 | 0.388 | 1.776 | 1.961 |
| | 2.5 | 0.414 | 1.907 | 2.107 |
| | 2.6 | 0.372 | 1.720 | 1.901 |
| | 2.7 | 0.274 | 1.266 | 1.401 |
| | 2.8 | 0.154 | 0.712 | 0.789 |
| | 2.9 | 0.048 | 0.220 | 0.244 |
| SPAN NO. 3 | 3.0 | 0.000 | 0.000 | 0.000 |
| | 3.1 | 0.048 | 0.220 | 0.244 |
| | 3.2 | 0.154 | 0.712 | 0.789 |
| | 3.3 | 0.274 | 1.266 | 1.401 |
| | 3.4 | 0.372 | 1.720 | 1.901 |
| | 3.5 | 0.414 | 1.907 | 2.107 |
| | 3.6 | 0.388 | 1.776 | 1.961 |
| | 3.7 | 0.308 | 1.372 | 1.515 |
| | 3.8 | 0.177 | 0.783 | 0.866 |
| | 3.9 | 0.065 | 0.275 | 0.305 |
| SPAN NO. 4 | 4.0 | 0.000 | 0.000 | 0.000 |
| | 4.1 | 0.008 | 0.063 | 0.070 |
| | 4.2 | 0.058 | 0.324 | 0.358 |
| | 4.3 | 0.121 | 0.645 | 0.712 |
| | 4.4 | 0.187 | 0.972 | 1.072 |
| | 4.5 | 0.235 | 1.213 | 1.338 |
| | 4.6 | 0.254 | 1.301 | 1.434 |
| | 4.7 | 0.235 | 1.203 | 1.325 |
| | 4.8 | 0.183 | 0.933 | 1.027 |
| | 4.9 | 0.101 | 0.513 | 0.565 |
| | 5.0 | 0.000 | 0.000 | 0.000 |




DEAD LOAD DEFLECTION DIAGRAM

No Scale

NOTES:
Camber for dead load deflection plus vertical curve +/- ¼" tolerance. Deflections shown are along CL Girder from the plane perpendicular to the web extending from CL Bearing to CL Bearing. Vertical curve corrections are not included. Negative sign (-) indicates point above chord.

Dead load deflections shown include an assumed loading of 18 psf to account for stay-in-place metal deck forms.

Revision to the deflection tables may be necessary upon review of the Contractor's submitted forming details.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL
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BRIDGE ENGINEER

SHEET 7 OF 10
DETAILS OF 510'-0" CONTINUOUS PLATE GIRDER UNIT
OSAGE CREEK
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CWT DATE: FEB. 2023 FILENAME: b090069m2_s7.dgn
CHECKED BY: ABH DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: DEC. 2022
BRIDGE NO. A7657 & B7657 DRAWING NO. 66758

JESkinner 10/20/2023 2:11:31 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 311 | 583 |
| | | A7657 & B7657 | | 510'-0" UNIT | | 66759 |

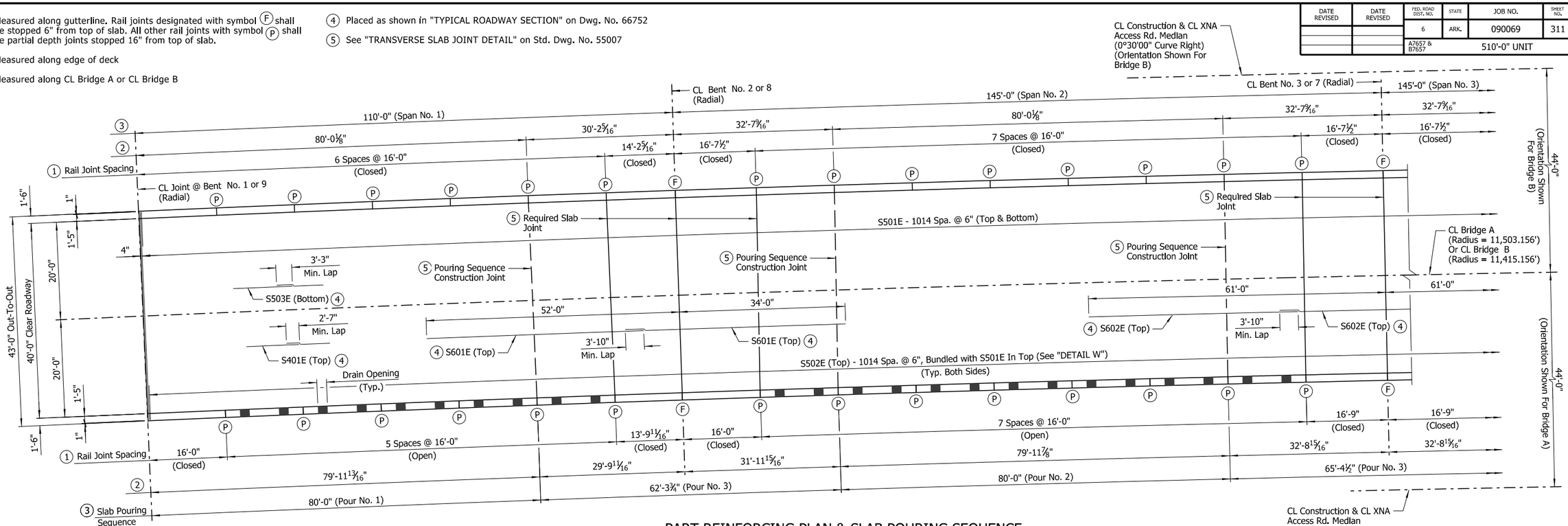
(1) Measured along gutterline. Rail joints designated with symbol (F) shall be stopped 6" from top of slab. All other rail joints with symbol (P) shall be partial depth joints stopped 16" from top of slab.

(2) Measured along edge of deck

(3) Measured along CL Bridge A or CL Bridge B

(4) Placed as shown in "TYPICAL ROADWAY SECTION" on Dwg. No. 66752

(5) See "TRANSVERSE SLAB JOINT DETAIL" on Std. Dwg. No. 55007



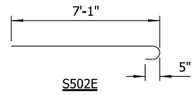

## PART REINFORCING PLAN & SLAB POURING SEQUENCE

(Back Station Unit Shown; Forward Station Unit Symmetric About CL Joint @ Bent No. 5)
Scale: 3/32" = 1'-0"

## BAR LIST

| MARK | NO. REQ'D | LENGTH | P.D. |
|---|---|---|---|
| R400E | 192 | 6'-3" | 3" |
| R401E | 1998 | 7'-6" | 3" |
| R402E | 224 | 5'-6" | Str. |
| R403E | 1998 | 3'-8" | 3", 6" |
| R409E | 20 | 13'-5" | Str. |
| R410E | 20 | 13'-10" | Str. |
| R411E | 540 | 15'-8" | Str. |
| R412E | 40 | 16'-3" | Str. |
| R413E | 20 | 16'-5" | Str. |
| | | | |
| S401E | 616 | 38'-11" | Str. |
| | | | |
| S501E | 2032 | 42'-8" | Str. |
| S502E | 2034 | 7'-8" | 2½" |
| S503E | 432 | 59'-8" | Str. |
| S504E | 8 | 8'-1" | Str. |
| S505E | 4 | 2'-3" | Str. |
| | | | |
| S601E | 172 | 44'-11" | Str. |
| S602E | 129 | 43'-3" | Str. |

## BAR BENDING DIAGRAMS

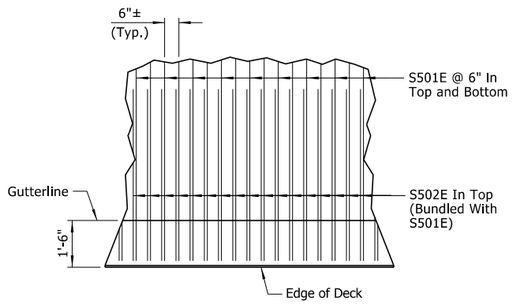



NOTES:
Dimensions of bars are out-to-out.

Bar designations ending with "E" indicate epoxy coated bars.

For bar bending diagrams of R400E, R401E and R403E, see Std. Dwg. No. 55071.

Number of bars shown is for one 510' unit.




## DETAIL W

No Scale

NOTES:
Pours with the same number may be placed simultaneously or separately. All Pours (1) must be placed before Pours (2) can be placed. All Pours (2) must be placed before Pours (3) can be placed. 48 hours shall elapse between the end of a pour and the start of the next pour. 72 hours shall elapse between adjacent pours.

Concrete in bridge superstructure shall be placed, consolidated and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

A minimum of 72 hours shall elapse between the completion of the entire deck slab and the start of a railing pour. Any railing pours made before the entire slab unit has been placed must be approved by the Engineer. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence shown.

Required slab joints and pouring sequence joints shall align with rail joints at gutterline, unless noted otherwise.

For "GENERAL NOTES", see Std. Dwg. No. 55006.

Unless noted otherwise, spacing shown for all transverse reinforcing is measured along CL Bridge A or CL Bridge B. All transverse reinforcing shall be placed on lines radial to CL Bridge A or CL Bridge B.

All longitudinal lines and longitudinal slab reinforcing shall be placed along curves concentric with CL Bridge A or CL Bridge B.

For Concrete Bridge Rail details, see Std. Dwg. No. 55071.

## TABLE OF VARIABLES

| Closed Rail Panels | | | Open Rail Panels | | | | | |
|---|---|---|---|---|---|---|---|---|
| Panel Length | A | R4XXE | Panel Length | B | C | D | E | R4XXE |
| 13'-9¹¹⁄₁₆" | 27 | 09 | 16'-0" | 8 | 3'-0" | 11 | 6'-0" | 11 |
| 14'-2⅝" | 28 | 10 | | | | | | |
| 16'-0" | 31 | 11 | | | | | | |
| 16'-7½" | 33 | 12 | | | | | | |
| 16'-9" | 33 | 13 | | | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 14498
ADAM B. HALL

Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 8 OF 10
# DETAILS OF 510'-0" CONTINUOUS PLATE GIRDER UNIT OSAGE CREEK

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

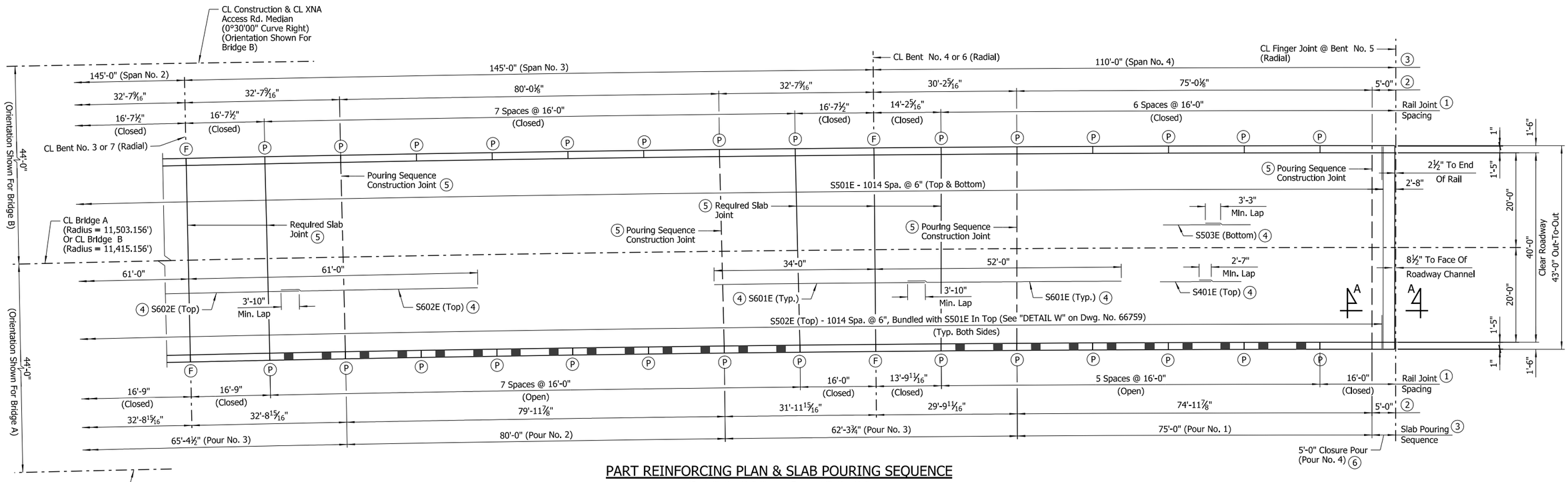
LITTLE ROCK, ARK.

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CHECKED BY: ABH DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: DEC. 2022

BRIDGE NO. A7657 & B7657 DRAWING NO. 66759

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WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069x2_S408_S8.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 312 | 583 |
| | | A7657 & B7657 | | 510'-0" UNIT | | 66760 |




## PART REINFORCING PLAN & SLAB POURING SEQUENCE

(Back Station Unit Shown; Forward Station Unit Symmetric About CL Joint @ Bent No. 5)
Scale: 3/32" = 1'-0"

1. Measured along gutterline. Rail joints designated with symbol (F) shall be stopped 6" from top of slab. All other rail joints with symbol (P) shall be partial depth joints stopped 16" from top of slab.
2. Measured along edge of deck
3. Measured along CL Bridge A or CL Bridge B
4. Placed as shown in "TYPICAL ROADWAY SECTION" on Dwg. No. 66752
5. See "TRANSVERSE SLAB JOINT DETAIL" on Std. Dwg. No. 55007
6. After all incremental pours on both units adjacent to Finger Joint are complete, closure pours on each side of Finger Joint shall be poured simultaneously. A minimum of 48 hours shall elapse between the last incremental pour and the closure pours.

NOTES:
Pours with the same number may be placed simultaneously or separately. All Pours (1) must be placed before Pours (2) can be placed. All Pours (2) must be placed before Pours (3) can be placed. 48 hours shall elapse between the end of a pour and the start of the next pour. 72 hours shall elapse between adjacent pours.

Concrete in bridge superstructure shall be placed, consolidated and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

A minimum of 72 hours shall elapse between the completion of the entire deck slab and the start of a railing pour. Any railing pours made before the entire slab unit has been placed must be approved by the Engineer. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence shown.

Required slab joints and pouring sequence joints shall align with rail joints at gutterline, unless noted otherwise.

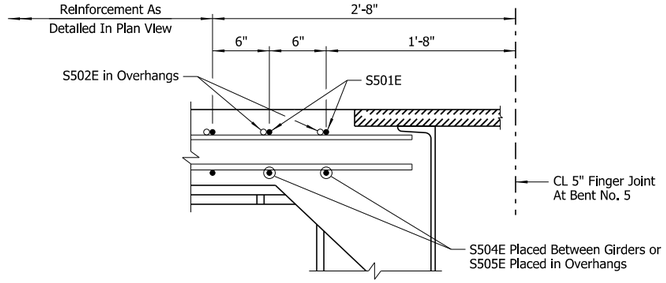
For "GENERAL NOTES", see Std. Dwg. No. 55006.

Unless noted otherwise, spacing shown for all transverse reinforcing is measured along CL Bridge A or CL Bridge B. All transverse reinforcing shall be placed on lines radial to CL Bridge A or CL Bridge B.

All longitudinal lines and longitudinal slab reinforcing shall be placed along curves concentric with CL Bridge A or CL Bridge B.

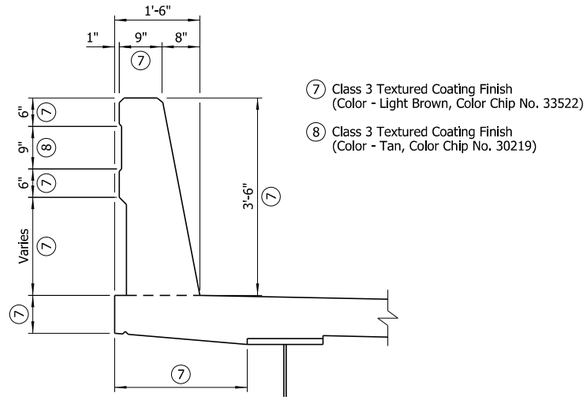
For Concrete Bridge Rail details, see Std. Dwg. No. 55071.

For rail panel "TABLE OF VARIABLES", "BAR LIST" and "BAR BENDING DIAGRAMS", see Dwg. No. 66759.




## SECTION A-A

Scale: 1½" = 1'-0"




## BRIDGE RAIL AESTHETIC DETAIL

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL

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SHEET 9 OF 10
DETAILS OF 510'-0" CONTINUOUS PLATE GIRDER UNIT
OSAGE CREEK
ROUTE SEC.

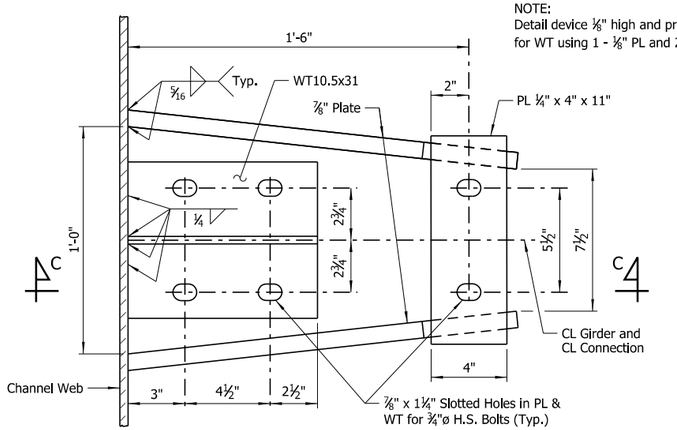
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: RAK DATE: DEC. 2022

BRIDGE NO. A7657 & B7657 DRAWING NO. 66760

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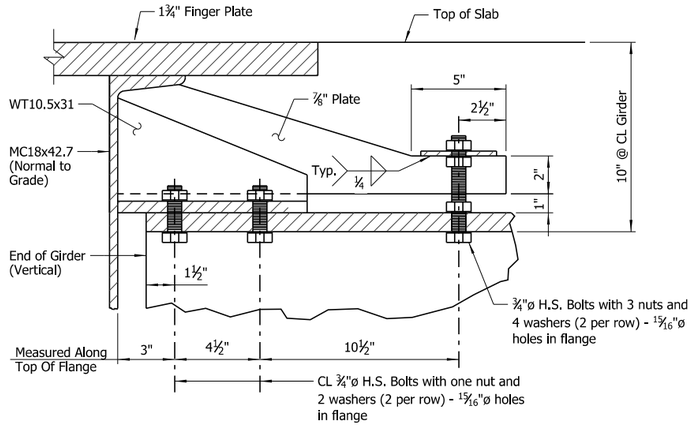
| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 313 | 583 |
| | | A7657 & B7657 | | 510'-0" UNIT | | 66761 |




NOTE:
Detail device ⅛" high and provide ¼" shims for WT using 1 - ⅛" PL and 2 - 1/16" PL's.

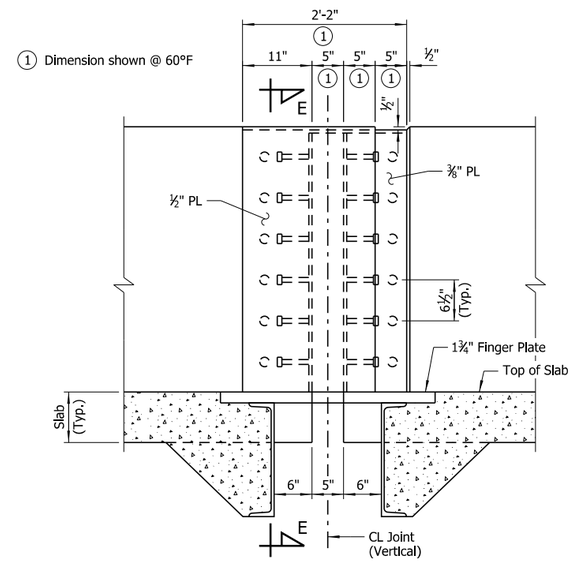
## PLAN OF CONNECTION TO GIRDER

Scale: 3" = 1'-0"



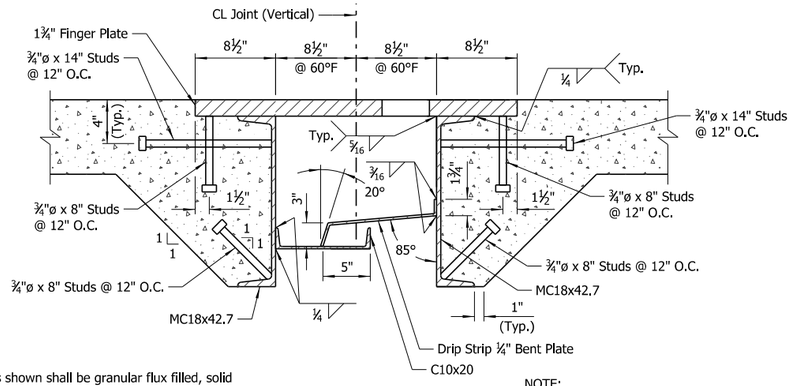

## SECTION C-C

Scale: 3" = 1'-0"




## SECTION D-D

Scale: 1" = 1'-0"



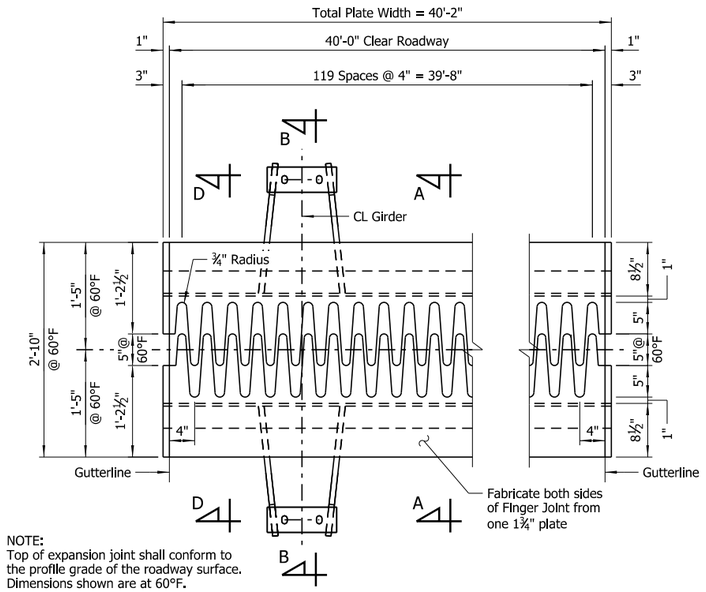

NOTES:
¾"ø studs shown shall be granular flux filled, solid fluxed, or equal, and automatically end welded to the channel in accordance with recommendations of the Manufacturer.

Concrete shall be hand packed under the joint armor.

## SECTION A-A

Scale: 1½" = 1'-0"

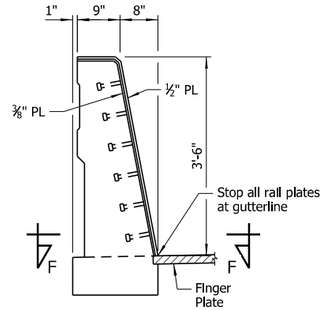
NOTE:
Drip Strip Bent Plate and C10x20 shall be located on the expansion device to provide maximum slope for runoff.




NOTE:
Top of expansion joint shall conform to the profile grade of the roadway surface. Dimensions shown are at 60°F.

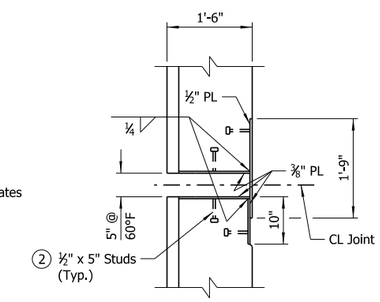
## EXPANSION PLATE DETAIL

Scale: 1" = 1'-0"




## SECTION E-E

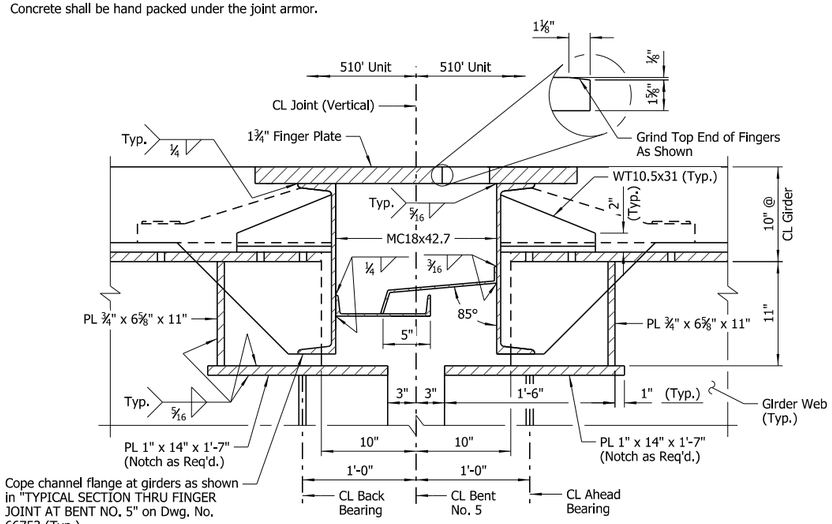
Scale: ¾" = 1'-0"




## SECTION F-F

Scale: ¾" = 1'-0"

② The ½"ø studs shall be granular flux filled, solid fluxed, or equal, and automatically end welded to the plates in accordance with the recommendations of the Manufacturer.




## SECTION B-B

Scale: 1½" = 1'-0"

NOTE:
Dimensions shown are at 60°F.

| Joint Width At 24 Hour Average Temperature ② Of: | | | |
|---|---|---|---|
| Bent No. | 40°F | 60°F | 80°F |
| 5 | 5⅞" | 5" | 4⅛" |

② The temperature used to set the joint opening shall be the approximate average air temperature during the 24 hour period immediately before the bolts are tightened. The Engineer shall establish the temperature. Interpolation of the table may be necessary.

NOTE:
Before joint closure pours are made, joint shall be set and adjusted for grade.

NOTE:
All structural steel In Finger joints, except rail slider plates, shall be ASTM A709, Gr. 50W. Rail slider plates shall be ASTM A709, Gr. 36, 50 or 50W. Surfaces of the rail slider plates which will not be in contact with the concrete shall be cleaned and painted In accordance with section 638. Only one coat is required and shall be applied in the Fabricator's shop. All structural steel shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)", except as noted, which price shall include painting.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL

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BRIDGE ENGINEER

# SHEET 10 OF 10
# DETAILS OF 510'-0" CONTINUOUS PLATE GIRDER UNIT
# OSAGE CREEK

ROUTE SEC.

## ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

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CHECKED BY: ABH DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: DEC. 2022

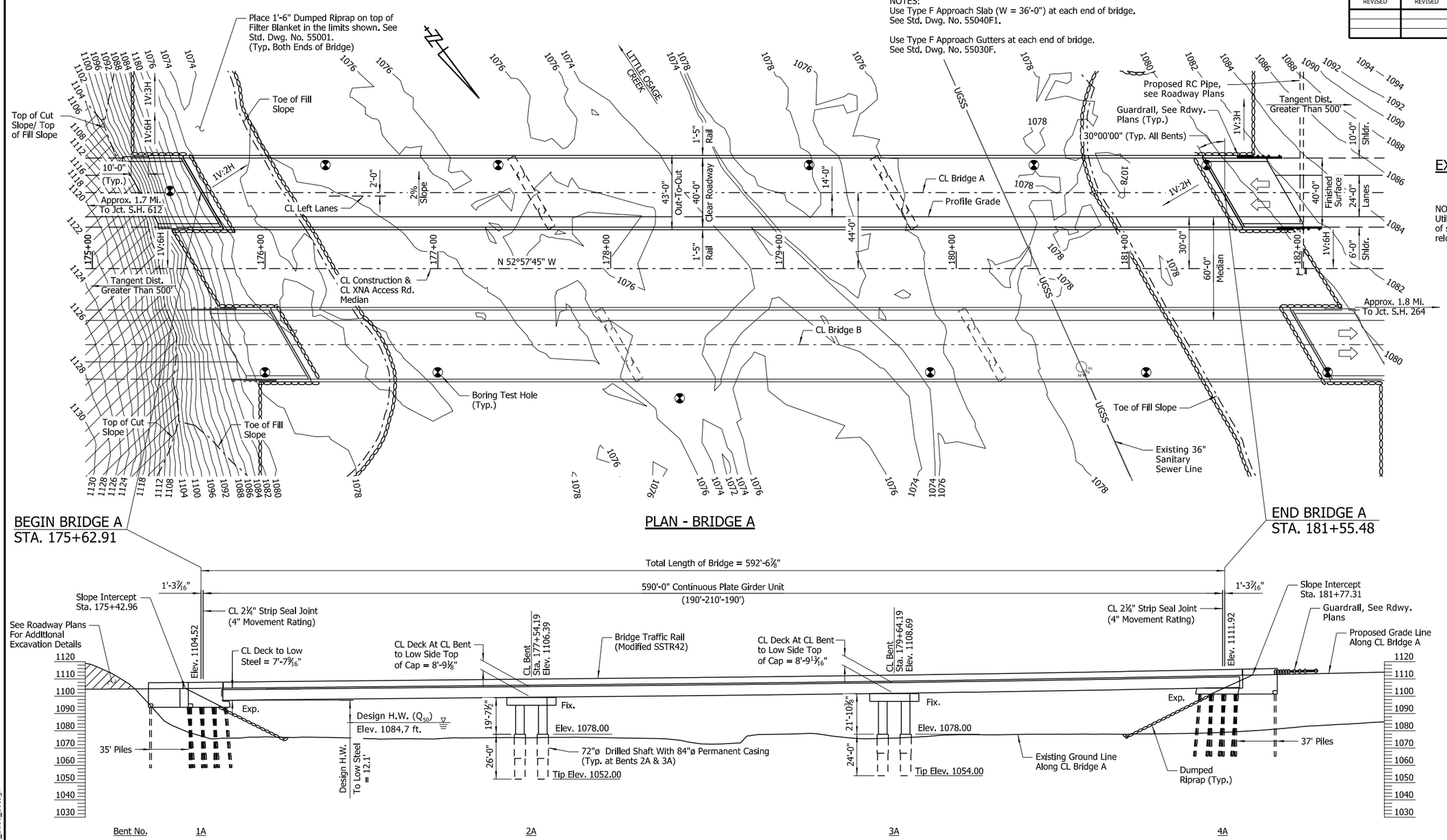
BRIDGE NO. A7657 & B7657 DRAWING NO. 66761

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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 314 | 583 |
| | | A7658 | | LAYOUT | | 66762 |

NOTES:
Use Type F Approach Slab (W = 36'-0") at each end of bridge.
See Std. Dwg. No. 55040F1.

Use Type F Approach Gutters at each end of bridge.
See Std. Dwg. No. 55030F.




## PLAN - BRIDGE A

BEGIN BRIDGE A
STA. 175+62.91

END BRIDGE A
STA. 181+55.48




## ELEVATION - BRIDGE A

-0.51% +0.99% +5.00%

PVI Sta. 174+00.00
Elev. 1103.16
V.C. = 400'

PVI Sta. 184+50.00
Elev. 1113.56
V.C. = 1200'

## VERTICAL CURVE DATA

XNA Access Rd.
(Profile Grade 14' Right of CL Bridge A)

## EXISTING UTILITIES LEGEND

UGSS = Underground Sanitary Sewer

NOTE:
Utilities shown are based on locations at time of survey and do not reflect any potential utility relocations prior to construction.

NOTES:
Stations shown are along CL Construction. Elevations shown are actual top of deck elevations at CL Bridge A. Any vertical dimension referenced to CL Deck is based on actual top of deck elevation at CL Bridge A.

For "PROJECT GENERAL NOTES", see Dwg. No. 66717.

For "ELEVATION OF SOIL BORINGS - BRIDGE A", "BORING LEGEND" & "N-VALUES", see Dwg. No. 66764.

For "LOCATION SKETCH", see Dwg. No. 66765.

For "GENERAL NOTES" and "HYDRAULIC DATA", see Dwg. No. 66766.

FOR R/W DATA, SEE ROADWAY PLANS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 1 OF 5
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER LITTLE OSAGE CREEK
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

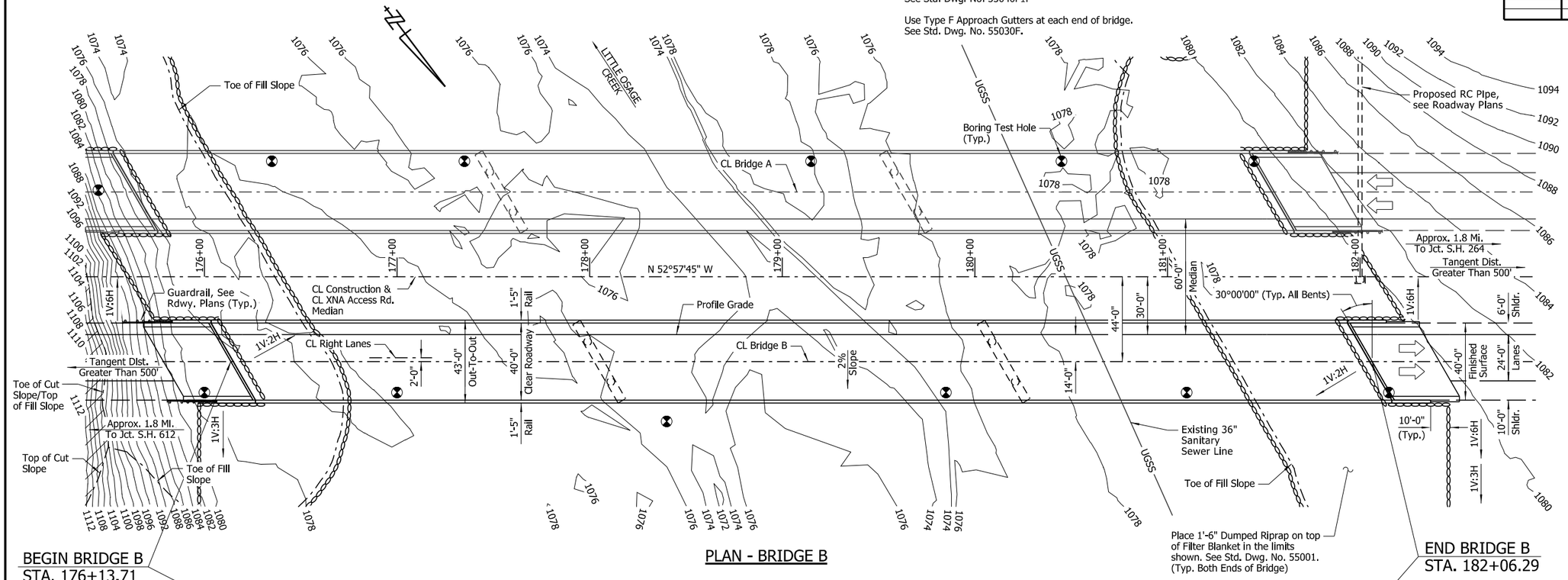
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BRIDGE NO. A7658 DRAWING NO. 66762

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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 315 | 583 |
| | | B7658 | | LAYOUT | | 66763 |

NOTES:
Use Type F Approach Slabs (W = 36'-0") at each end of bridge.
See Std. Dwg. No. 55040F1.

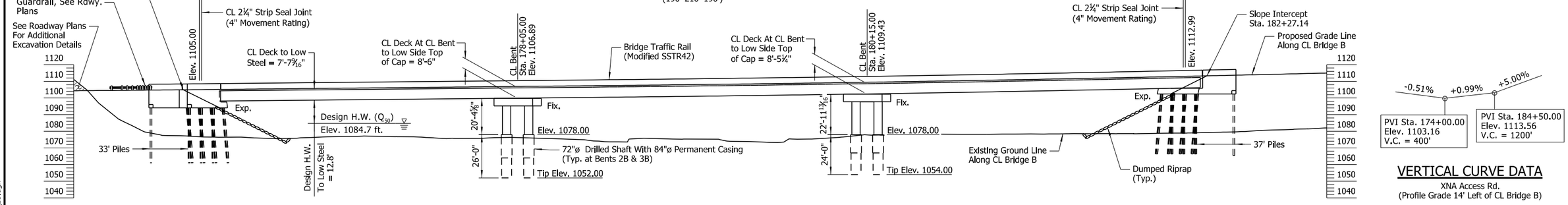
Use Type F Approach Gutters at each end of bridge.
See Std. Dwg. No. 55030F.




BEGIN BRIDGE B
STA. 176+13.71

END BRIDGE B
STA. 182+06.29

PLAN - BRIDGE B




Bent No. 1B 2B 3B 4B

ELEVATION - BRIDGE B




VERTICAL CURVE DATA
XNA Access Rd.
(Profile Grade 14' Left of CL Bridge B)

## EXISTING UTILITIES LEGEND

UGSS = Underground Sanitary Sewer

NOTE:
Utilities shown are based on locations at time of survey and do not reflect any potential utility relocations prior to construction.

NOTES:
Stations shown are along CL Construction. Elevations shown are actual top of deck elevations at CL Bridge B. Any vertical dimension referenced to CL Deck is based on actual top of deck elevation at CL Bridge B.

For "PROJECT GENERAL NOTES", see Dwg. No. 66717.

For "ELEVATION OF SOIL BORINGS - BRIDGE B", "BORING LEGEND" & "N-VALUES", see Dwg. No. 66764.

For "LOCATION SKETCH", see Dwg. No. 66765.

For "GENERAL NOTES" and "HYDRAULIC DATA", see Dwg. No. 66766.

FOR R/W DATA, SEE ROADWAY PLANS

176+00 177+00 178+00 179+00 180+00 181+00 182+00

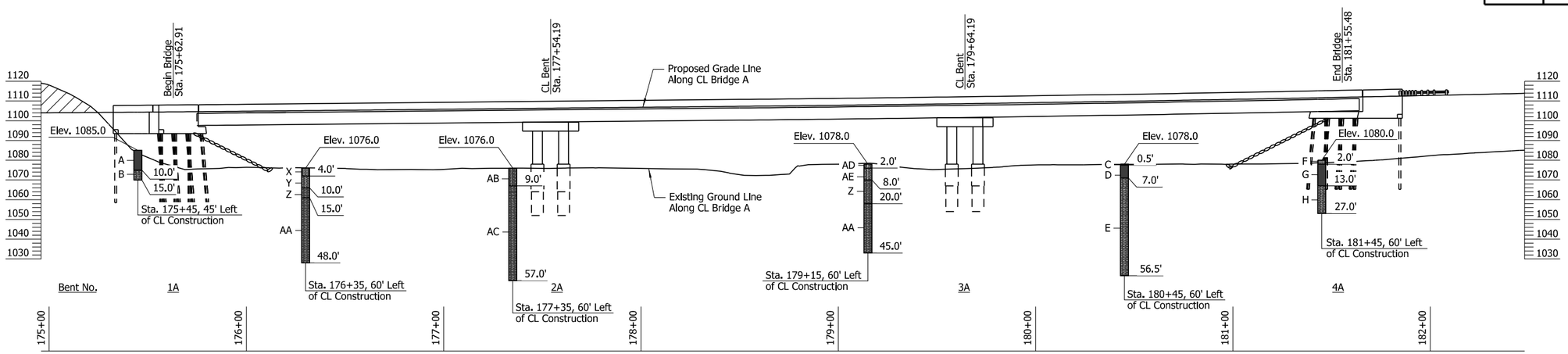
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 2 OF 5
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER LITTLE OSAGE CREEK
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

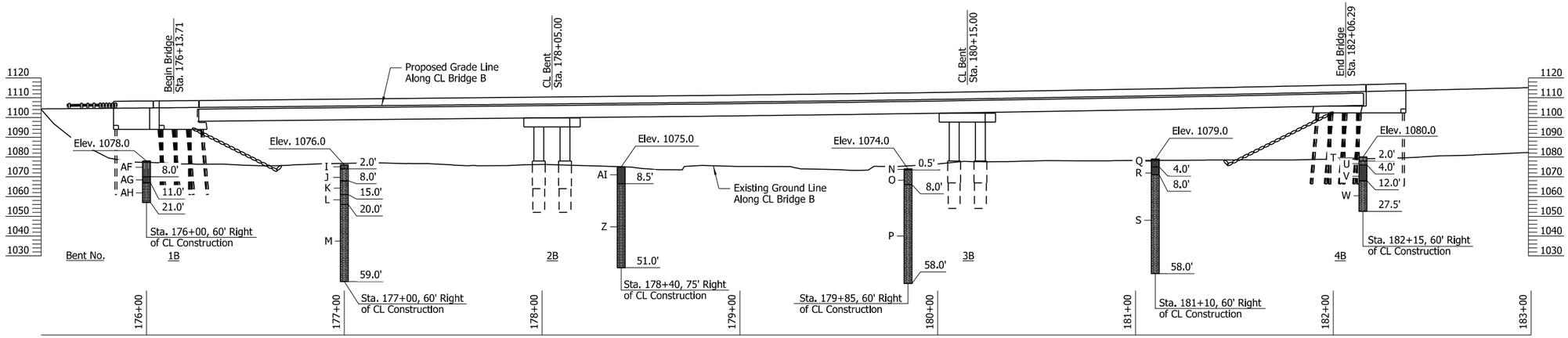
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 316 | 583 |
| | | A7658 & B7658 | | LAYOUT | | 66764 |




## ELEVATION OF SOIL BORINGS - BRIDGE A




## ELEVATION OF SOIL BORINGS - BRIDGE B

## BORING LEGEND

A - Very soft brown fine sandy clay, silty
B - Moderately hard to hard gray and tan cherty limestone, slightly weathered
C - Stiff brown silty clay
D - Stiff to very stiff reddish brown and brown fine sandy clay
E - Moderately hard to hard gray and tan cherty limestone, flat bedded
F - Firm brown clayey silt
G - Stiff to very stiff reddish brown fine sandy clay
H - Moderately hard to hard gray cherty limestone
I - Very loose brown fine sandy silt
J - Soft brown silty clay
K - Moderately hard gray and tan highly weathered cherty limestone
L - Moderately hard to hard gray and tan cherty limestone, slightly weathered
M - Moderately hard to hard gray and tan cherty limestone
N - Soft clayey silt
O - Stiff to very stiff light tan and light gray silty clay
P - Moderately hard to hard light gray w/ gray cherty limestone, flat bedded
Q - Stiff to very stiff reddish brown fine sandy clay
R - Stiff to very stiff brown fine sandy clay
S - Moderately hard to hard gray and tan cherty limestone
T - Very soft to soft brown clayey silt
U - Stiff to very stiff reddish brown silty clay
V - Stiff to very stiff reddish brown fine sandy clay
W - Moderately hard to hard gray cherty limestone
X - Very soft brown clayey silt
Y - Firm brown silty clay
Z - Moderately hard gray and light gray weathered cherty limestone

AA - Moderately hard to hard gray and light gray cherty limestone
AB - Very soft dark brown clayey silt
AC - Low hardness light gray weathered cherty limestone
AD - Medium dense brown silt, slightly clayey
AE - Stiff reddish brown silty clay
AF - Very soft to soft brown clayey silt
AG - Very loose to loose tan sandy fine to coarse chert gravel
AH - Moderately hard light gray and gray cherty limestone
AI - Medium dense brown and tan fine to coarse gravel

## N-VALUES

| Sta. 175+45<br>45' Lt. of CL Construction | Sta. 176+35<br>60' Lt. of CL Construction | Sta. 177+35<br>60' Lt. of CL Construction | Sta. 179+15<br>60' Lt. of CL Construction | Sta. 180+45<br>60' Lt. of CL Construction | Sta. 181+45<br>60' Lt. of CL Construction |
|---|---|---|---|---|---|
| 0.5-1.5, N=1<br>2.5-3.5, N=2<br>4.5-5.5, N=5<br>6.5-7.5, N=7<br>9.0-10.0, N=50/8" | 0.5-1.5, N=3<br>2.5-3.5, N=0/WOH<br>4.5-5.5, N=8<br>6.5-7.5, N=10<br>9.0-10.0, N=50/5" | 0.5-1.5, N=2<br>2.5-3.5, N=5<br>4.5-5.5, N=9<br>6.5-7.5, N=14<br>9.0-10.0, N=44 | 0.5-1.5, N=14<br>2.5-3.5, N=18<br>4.5-5.5, N=50/4<br>6.5-7.5, N=17 | 0.5-1.5, N=23<br>2.5-3.5, N=50/6"<br>4.5-5.5, N=50/2"<br>6.5-7.0, N=50/1" | 0.5-1.5, N=9<br>2.5-3.5, N=40<br>4.5-5.5, N=24<br>6.5-7.5, N=29<br>9.0-10.0, N=50/7" |

| Sta. 176+00<br>60' Rt. of CL Construction | Sta. 177+00<br>60' Rt. of CL Construction | Sta. 178+40<br>75' Rt. of CL Construction | Sta. 179+85<br>60' Rt. of CL Construction | Sta. 181+10<br>60' Rt. of CL Construction | Sta. 182+15<br>60' Rt. of CL Construction |
|---|---|---|---|---|---|
| 0.5-1.5, N=4<br>2.5-3.5, N=2<br>4.5-5.5, N=6<br>6.5-7.5, N=14<br>9.0-10.0, N=4 | 0.5-1.5, N=2<br>2.5-3.5, N=6<br>4.5-5.5, N=23<br>6.5-7.5, N=26<br>9.0-10.0, N=50/4"<br>14.0-15.0, N=25/0" | 2.5-3.5, N=13<br>4.5-5.5, N=2<br>6.5-7.5, N=10<br>8.5-9.0, N=50/1" | 0.5-1.5, N=50/6"<br>2.5-3.5, N=50/6"<br>4.5-5.5, N=50/3"<br>6.5-7.5, N=25/0" | 0.5-1.5, N=28<br>2.5-3.5, N=34<br>4.5-5.5, N=50/3"<br>6.5-7.5, N=50/1" | 0.5-1.5, N=4<br>2.5-3.5, N=32<br>4.5-5.5, N=45<br>6.5-7.5, N=50/6"<br>9.0-10.0, N=25/0" |

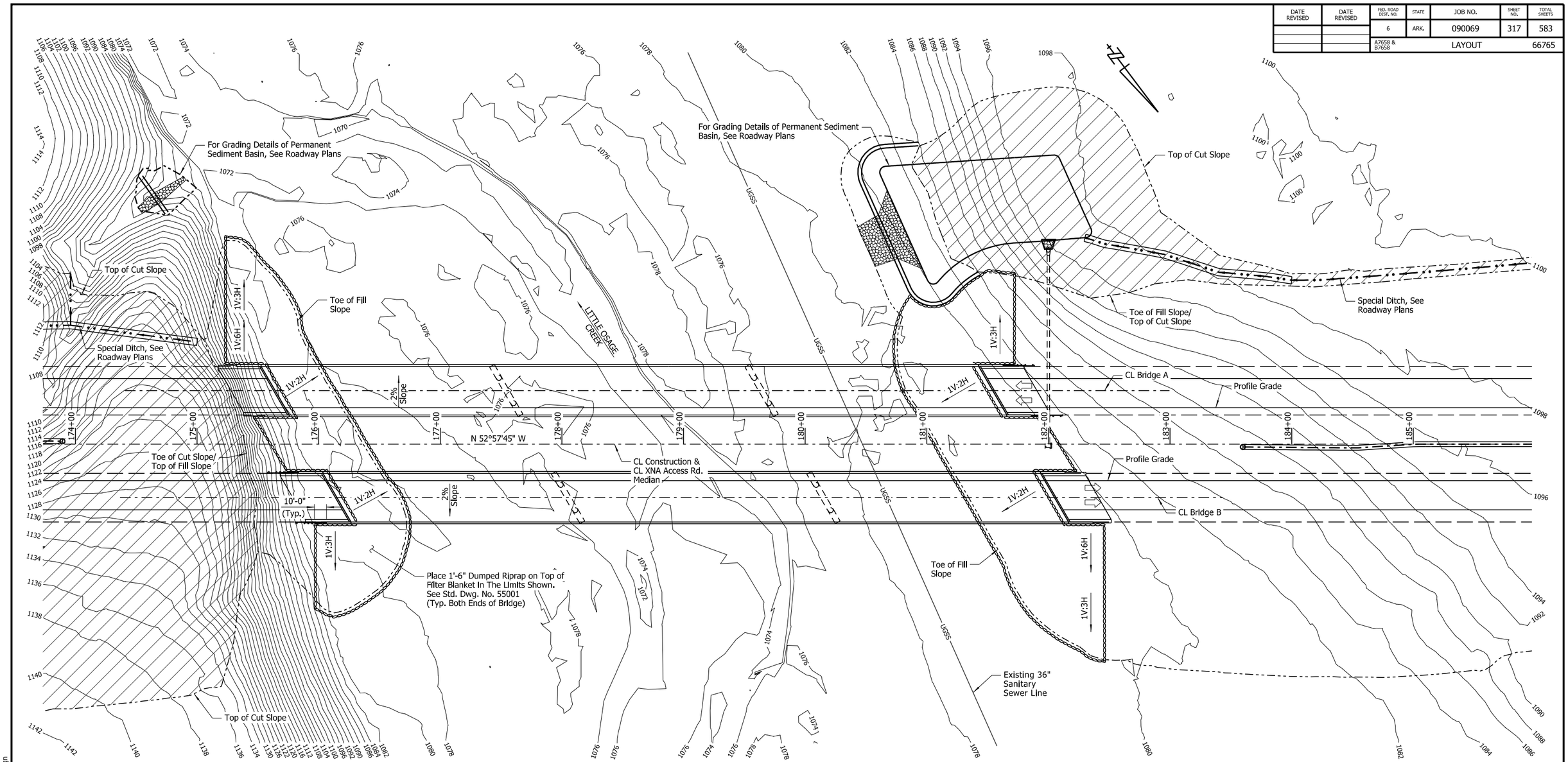
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 3 OF 5
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER LITTLE OSAGE CREEK
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CSW DATE: MAR. 2022 FILENAME: b090069m3_l3.dgn
CHECKED BY: JES DATE: AUG. 2023 SCALE: 1" = 30'-0"
DESIGNED BY: CSW DATE: MAR. 2022
BRIDGE NO. A7658 & B7658 DRAWING NO. 66764

JESkinner 10/20/2023 2:11:44 PM
WORKSPACE: ARDOT Bridge (2019)
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| | | 6 | ARK. | 090069 | 317 | 583 |
| | | A7658 & B7658 | | LAYOUT | | 66765 |




LOCATION SKETCH

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WORKSPACE: ARDOT Bridge (2019)
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STATE OF ARKANSAS
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JOEL E. SKINNER

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BRIDGE ENGINEER

SHEET 4 OF 5
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER LITTLE OSAGE CREEK
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: AUG. 2022 FILENAME: b090069m3_l4.dgn
CHECKED BY: CSW DATE: AUG. 2023 SCALE: 1" = 40'-0"
DESIGNED BY: BWD DATE: AUG. 2022

BRIDGE NO. A7658 & B7658 DRAWING NO. 66765

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 318 | 583 |
| | | A7658 & B7658 | | LAYOUT | | 66766 |

## GENERAL NOTES

SEISMIC ZONE: 1 S : 0.05g SITE CLASS: B

SEISMIC OPERATIONAL CLASSIFICATION: Essential

STEEL PILING: All piling shall be HP12x53 (Grade 50) and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 96 tons per pile and into the material designated as moderately hard to hard slightly weathered cherty limestone or moderately hard to hard cherty limestone on the boring legend. Minimum penetration shall be 10' below natural ground for all piles. Piling in end bents shall be driven after embankment to bottom of cap is in place. Lengths of piling shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with Section 805. The Contractor shall use approved steel H-Pile driving points on all piles.

DRILLED SHAFTS: Drilled shafts at Bents 2A, 2B, 3A & 3B shall be constructed in accordance with Special Provision "DRILLED SHAFT FOUNDATIONS". Drilled shafts shall be socketed into material designated as moderately hard to hard gray and tan cherty limestone on the boring legend and to the minimum rock penetrations and tip elevations shown in the plans. No adjustment to plan tip elevations shall be made without prior approval from the Engineer.

NONDESTRUCTIVE TESTING: Crosshole Sonic Logging (CSL) and Thermal Integrity Profiling (TIP) shall be performed on each drilled shaft. Testing shall be performed in accordance with Special Provision "NONDESTRUCTIVE TESTING OF DRILLED SHAFTS".

PAINTING: The following weathering steel surfaces shall be painted as specified in Subsection 807.75:

- All steel surfaces within 10 feet of bridge deck expansion joints, including diaphragms, cross-frames, connection bolts and bearings.
- All steel surfaces exposed to the outside face of the bridge, including outside faces & bottom of the exposed exterior girders, splice plates and bolts, stiffeners, drip plates and bearings.

ASTM F3125, Grade A325 Type 3 bolts shall be used within these painted zones and shall be painted. Galvanized members, the expansion device, and surfaces in contact with concrete shall not be painted. The color of paint shall be Red Brown equal or close to Fed. Std. 595 B, Color Chip No. 30108 and as approved by the Engineer. The finish system may be applied in the shop. Any damage to the paint system occurring during transport or installation shall be corrected according to the manufacturer's recommendations at no cost to the Department.

| DETAIL DRAWINGS: | DRAWING NO(S).: |
|---|---|
| End Bents | 66767-66771 |
| Intermediate Bents | 66772-66775 |
| Elastomeric Bearings | 66776 |
| 590'-0" Continuous Plate Girder Unit | 66777-66785 |
| Dumped Riprap | 55001 |
| General Notes For Steel Bridge Structures | 55006 |
| Details for Steel Bridge Structures | 55007 |
| Neoprene Strip Seal Joint | 55009 & 66778 |
| Steel H-Piling | 55020 |
| Type F Approach Gutters | 55030F |
| Type F Approach Slabs | 55040F1 |
| Bridge Traffic Rail | 66785 & 55071 |

## HYDRAULIC DATA

| FLOOD DESCRIPTION | FREQUENCY | DISCHARGE | (1) NATURAL WATER SURFACE ELEVATION | WATER SURFACE ELEVATION WITH BACKWATER |
|---|---|---|---|---|
| | YEARS | CFS | FEET | FEET |
| DESIGN | 50 | 12,350 | 1084.5 | 1084.7 |
| BASE | 100 | 14,515 | 1085.2 | 1085.5 |
| EXTREME | 500 | 20,140 | 1086.9 | 1087.3 |
| OVERTOPPING | N/A | N/A | N/A | N/A |

(1) Unconstricted water surface without structure or roadway approaches

Proposed Bridge A Low Steel Elev. = 1096.83 (Sta. 175+55.24)

Proposed Bridge B Low Steel Elev. = 1097.51 (Sta. 176+27.41)

Drainage Area = 46.2 square miles
Historical High Water Elev. = N/A

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER

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BRIDGE ENGINEER

SHEET 5 OF 5
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER LITTLE OSAGE CREEK
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY

ROUTE NEW SEC.NEW

ARKANSAS STATE HIGHWAY COMMISSION

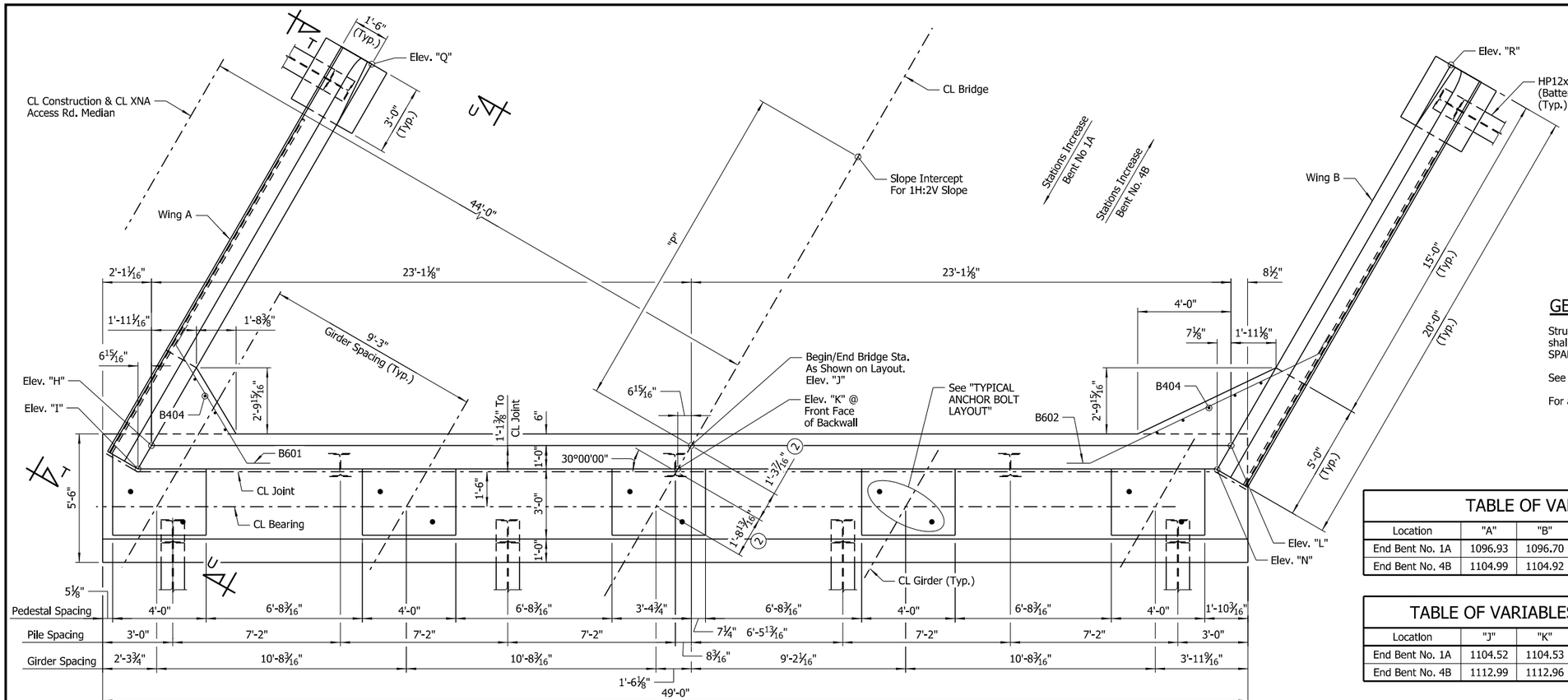
LITTLE ROCK, ARK.

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CHECKED BY: CSW DATE: AUG. 2023 SCALE: No Scale
DESIGNED BY: BWD DATE: FEB. 2023

BRIDGE NO. A7658 & B7658 DRAWING NO. 66766

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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 319 | 583 |
| | | A7658 & B7658 | | END BENTS | | 66767 |




## PLAN - END BENT NOS. 1A AND 4B

Scale: ⅜" = 1'-0"

NOTE:
Class 2 Protective Surface Treatment shall be applied to the top of the backwall.

## GENERAL NOTES

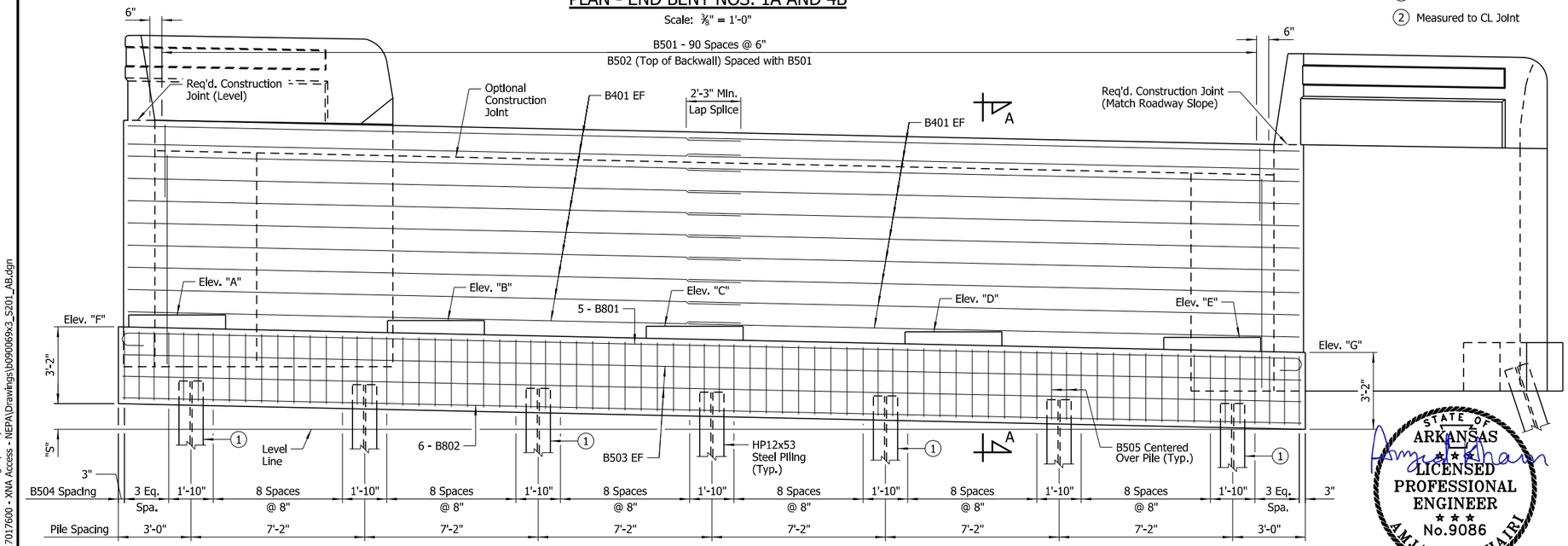
Structural steel in end bents shall be ASTM A709, Gr. 50W and shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)".

See Std. Dwg. No. 55006 for additional notes.

For additional information, see Layout.

| TABLE OF VARIABLES (END BENT NOS. 1A AND 4B) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Location | "A" | "B" | "C" | "D" | "E" | "F" | "G" | "H" | "I" |
| End Bent No. 1A | 1096.93 | 1096.70 | 1096.47 | 1096.24 | 1096.01 | 1096.40 | 1095.34 | 1105.02 | 1105.03 |
| End Bent No. 4B | 1104.99 | 1104.92 | 1104.85 | 1104.78 | 1104.71 | 1104.44 | 1104.14 | 1113.14 | 1113.11 |

| TABLE OF VARIABLES (END BENT NOS. 1A AND 4B) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Location | "J" | "K" | "L" | "N" | "P" | "Q" | "R" | "S" |
| End Bent No. 1A | 1104.52 | 1104.53 | 1104.02 | 1104.03 | 19'-11⁷⁄₁₆" | 1104.86 | 1103.88 | 1'-0¾" |
| End Bent No. 4B | 1112.99 | 1112.96 | 1112.84 | 1112.82 | 20'-10⅛" | 1113.55 | 1113.27 | 3⅝" |




## ELEVATION - END BENT NOS. 1A AND 4B

(Bent No. 1A, Looking Back; Bent No. 4B, Looking Ahead)
Scale: ⅜" = 1'-0"

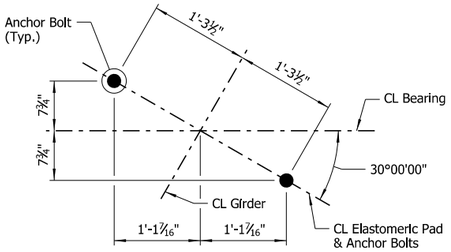
① Batter Pile 4H:12V
② Measured to CL Joint

NOTES:
For "SECTION A-A" & "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66770.

For "BAR LIST" and "BAR BENDING DIAGRAMS", see Dwg. No. 66771.

For "VIEW T-T" and "SECTION U-U", see Dwg. No. 66769.

For details of elastomeric bearings, anchor bolts, and dimension M, see Dwg. No. 66776.




## TYPICAL ANCHOR BOLT LAYOUT

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.9086
AMJAD EL-KHAIRI
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BRIDGE ENGINEER

SHEET 1 OF 5
DETAILS OF END BENTS
LITTLE OSAGE CREEK
ROUTE SEC.

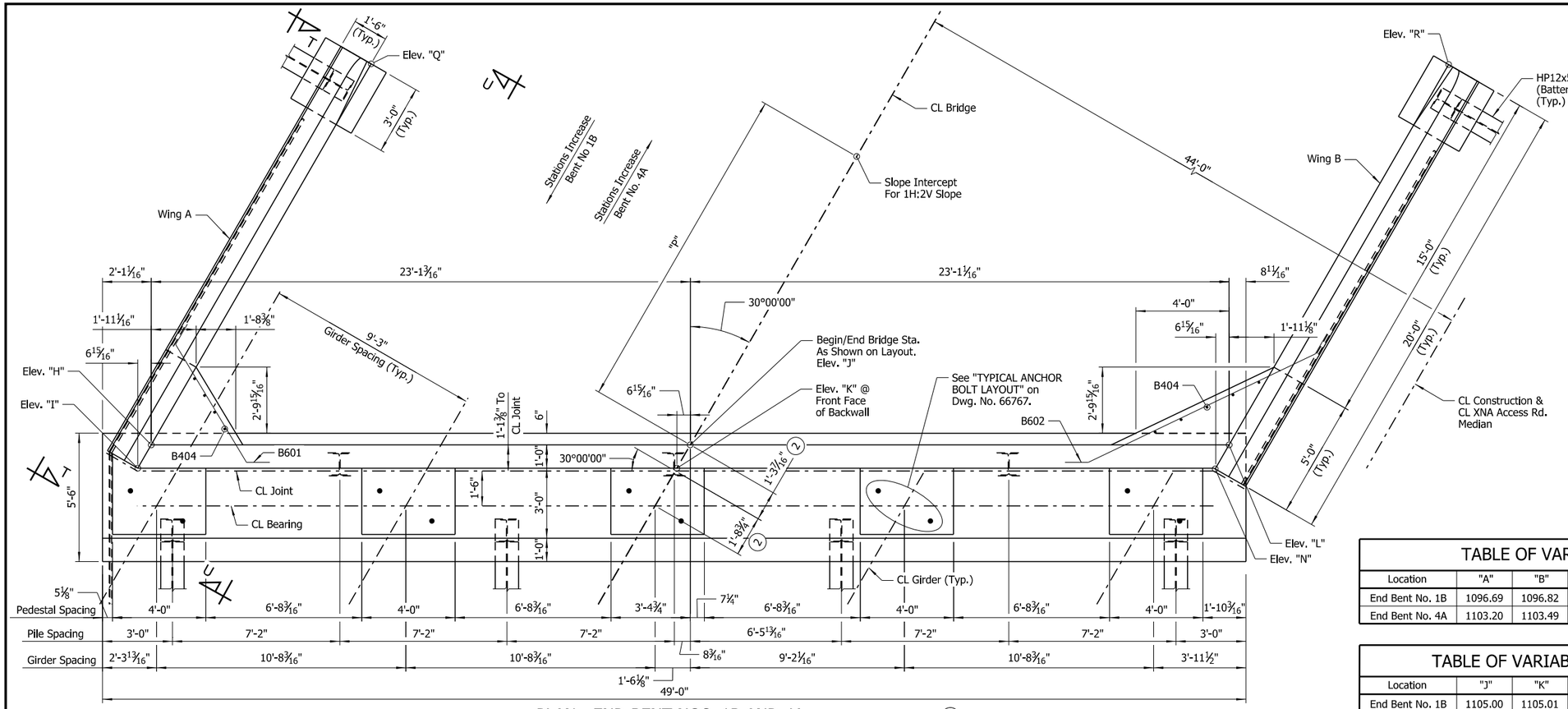
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: AJK DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: WMM DATE: OCT. 2022

BRIDGE NO. A7658 & B7658 DRAWING NO. 66767

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 320 | 583 |
| | | A7658 & B7658 | | END BENTS | | 66768 |




## PLAN - END BENT NOS. 1B AND 4A

Scale: 3/8" = 1'-0"

(1) Batter Pile 4H:12V

(2) Measured to CL Joint

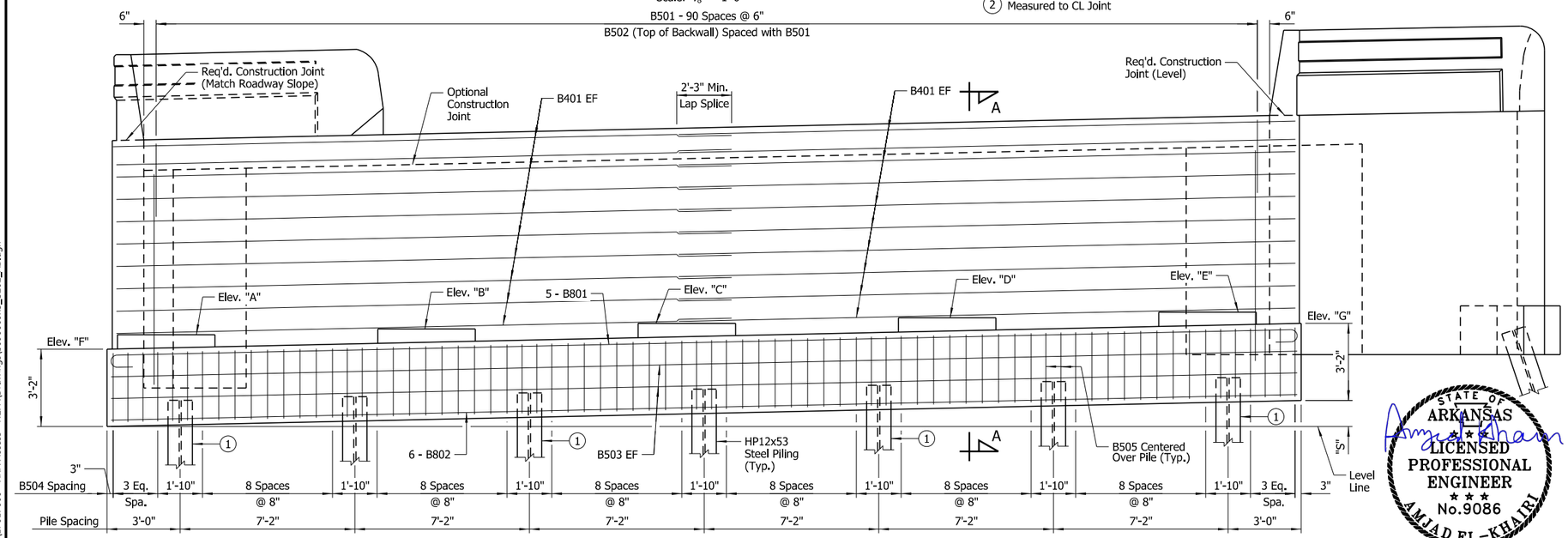
NOTE:
Class 2 Protective Surface Treatment shall be applied to the top of the backwall.

## TABLE OF VARIABLES (END BENT NOS. 1B AND 4A)

| Location | "A" | "B" | "C" | "D" | "E" | "F" | "G" | "H" | "I" |
|---|---|---|---|---|---|---|---|---|---|
| End Bent No. 1B | 1096.69 | 1096.82 | 1096.95 | 1097.08 | 1097.22 | 1096.10 | 1096.69 | 1104.71 | 1104.72 |
| End Bent No. 4A | 1103.20 | 1103.49 | 1103.79 | 1104.08 | 1104.37 | 1102.54 | 1103.89 | 1111.29 | 1111.27 |

## TABLE OF VARIABLES (END BENT NOS. 1B AND 4A)

| Location | "J" | "K" | "L" | "N" | "P" | "Q" | "R" | "S" |
|---|---|---|---|---|---|---|---|---|
| End Bent No. 1B | 1105.00 | 1105.01 | 1105.28 | 1105.29 | 19'-5 1/16" | 1104.52 | 1105.10 | 7 1/16" |
| End Bent No. 4A | 1111.92 | 1111.90 | 1112.56 | 1112.53 | 21'-9 15/16" | 1111.67 | 1112.95 | 1'-4 3/16" |




## ELEVATION - END BENT NOS. 1B AND 4A

(Bent No. 1B, Looking Back; Bent No. 4A, Looking Ahead)

Scale: 3/8" = 1'-0"

NOTES:
For "SECTION A-A" & "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66770.

For "BAR LIST" and "BAR BENDING DIAGRAMS", see Dwg. No. 66771.

For "VIEW T-T" and "SECTION U-U", see Dwg. No. 66769.

For "GENERAL NOTES" & "TYPICAL ANCHOR BOLT LAYOUT", See Dwg. No. 66767.

STATE OF ARKANSAS
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AMJAD EL-KHAIRI

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BRIDGE ENGINEER

SHEET 2 OF 5
DETAILS OF END BENTS
LITTLE OSAGE CREEK

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

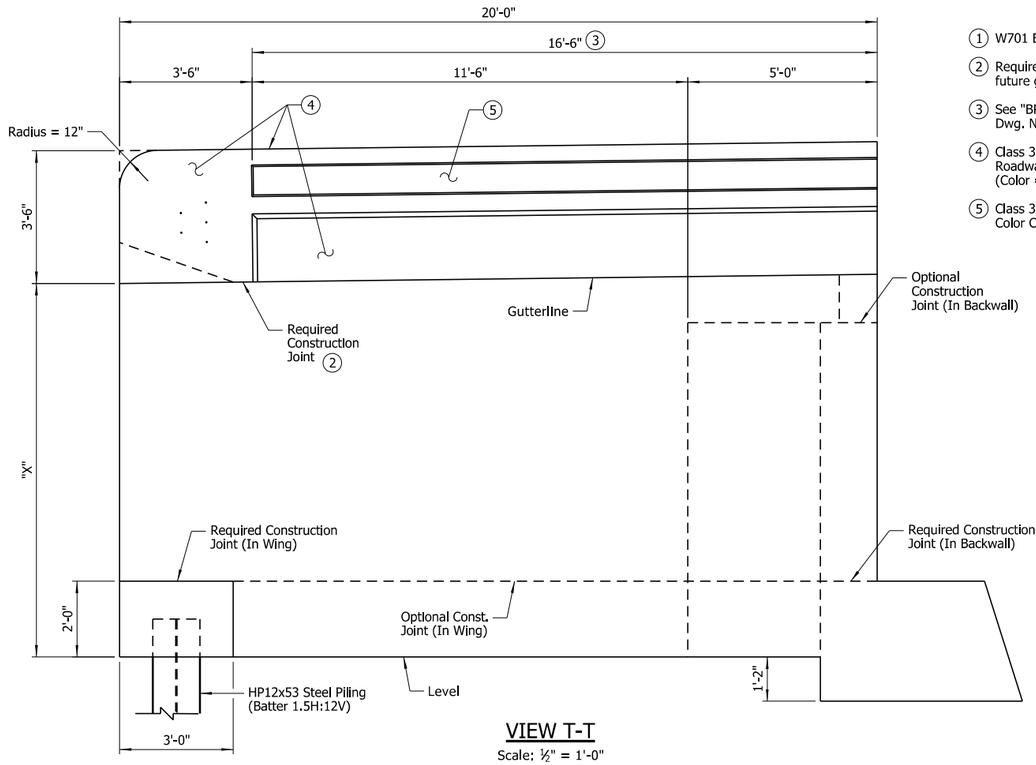
LITTLE ROCK, ARK.

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DESIGNED BY: WMM DATE: OCT. 2022

BRIDGE NO. A7658 & B7658 DRAWING NO. 66768

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 321 | 583 |
| | | A7658 & B7658 | | END BENTS | | 66769 |




## VIEW T-T

Scale: ½" = 1'-0"

1. W701 EF - 3 Equal Spaces
2. Required at all wings for proposed and future guardrail connections
3. See "BRIDGE RAIL AESTHETIC DETAIL" on Dwg. No. 66785 for additional information.
4. Class 3 Textured Coating Finish, applied to Roadway Face of Wing Rail and As Shown (Color = Light Brown, Color Chip No. 33522)
5. Class 3 Textured Coating Finish (Color = Tan, Color Chip No. 30219)

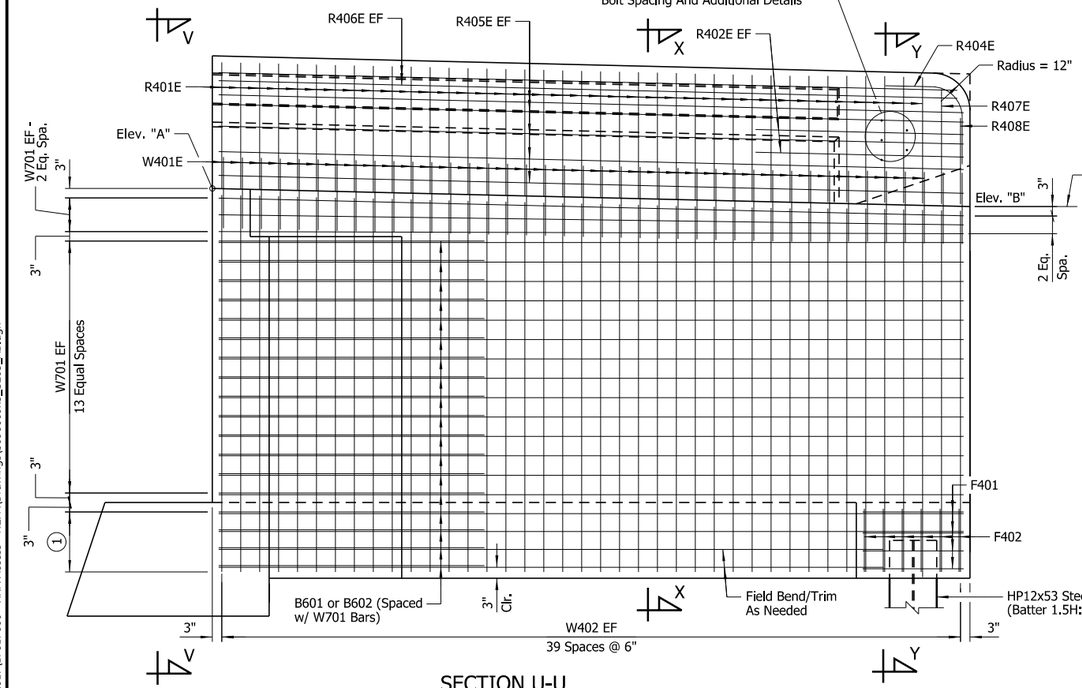
## TABLE OF WINGWALL VARIABLES

| Bent No. | Location | Elev. "A" | Elev. "B" | "X" |
|---|---|---|---|---|
| 1A | Wing A | 1105.03 | 1104.86 | 10'-5½" |
| 1A | Wing B | 1104.03 | 1103.87 | 10'-6⅜" |
| 1B | Wing A | 1104.72 | 1104.52 | 10'-5" |
| 1B | Wing B | 1105.29 | 1105.10 | 10'-5" |
| 4A | Wing A | 1111.27 | 1111.67 | 11'-1½" |
| 4A | Wing B | 1112.53 | 1112.95 | 11'-0¾" |
| 4B | Wing A | 1113.11 | 1113.55 | 11'-1⅜" |
| 4B | Wing B | 1112.82 | 1113.26 | 11'-1⅜" |

## LEGEND

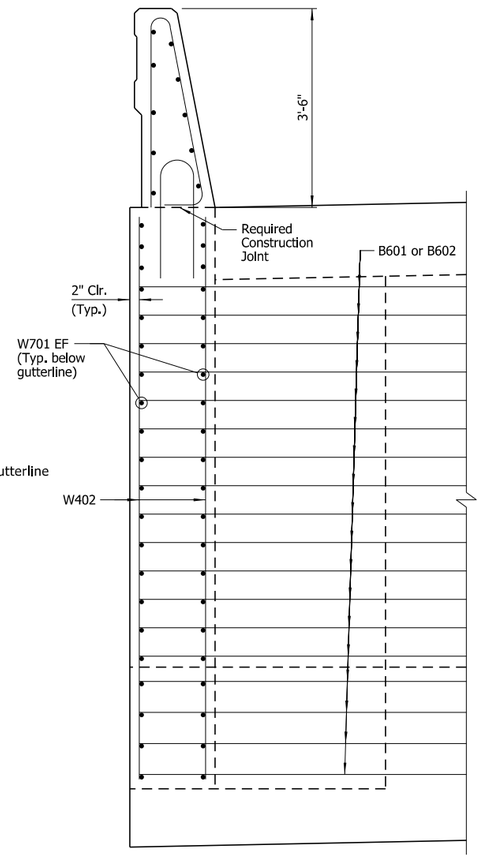
U.N.O. = Unless Noted Otherwise
EF = Each Face
NF = Near Face
FF = Far Face

NOTE:
For details of rail enhancement, see "BRIDGE RAIL AESTHETIC DETAIL" on Dwg. No. 66785. For reinforcement details, rail terminus details, and additional details of rail, see Std. Dwg. No. 55071.



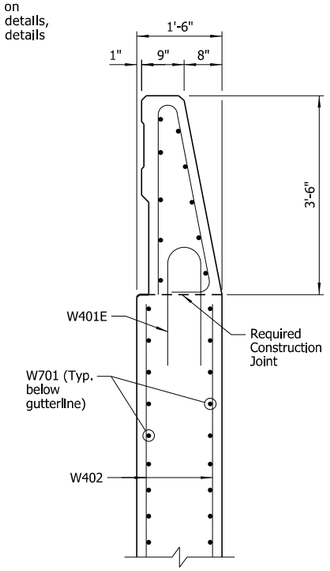

## SECTION U-U

Scale: ½" = 1'-0"



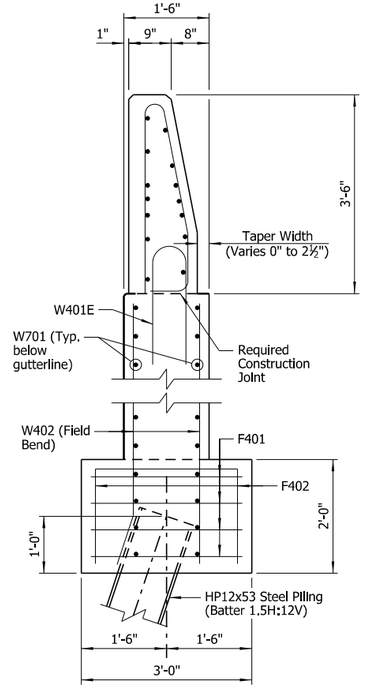

## VIEW V-V

Scale: ¾" = 1'-0"




## SECTION X-X

Scale: ¾" = 1'-0"




## SECTION Y-Y

Scale: ¾" = 1'-0"

STATE OF ARKANSAS
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Digitally Signed 10/20/2023
BRIDGE ENGINEER

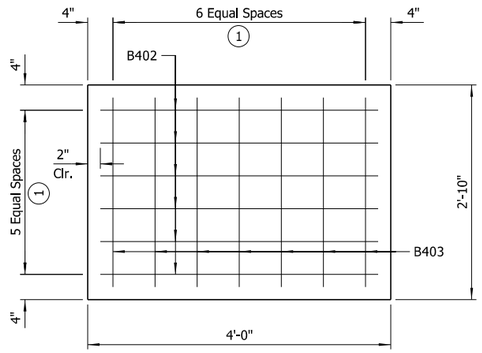
SHEET 3 OF 5
DETAILS OF END BENTS
LITTLE OSAGE CREEK
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: WMM DATE: OCT. 2022
BRIDGE NO. A7658 & B7658 DRAWING NO. 66769

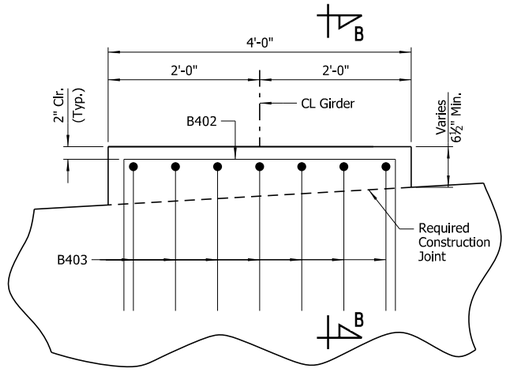
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 322 | 583 |
| | | A7658 & B7658 | | END BENTS | | 66770 |

(1) Adjust bar spacing as needed to avoid anchor bolts.

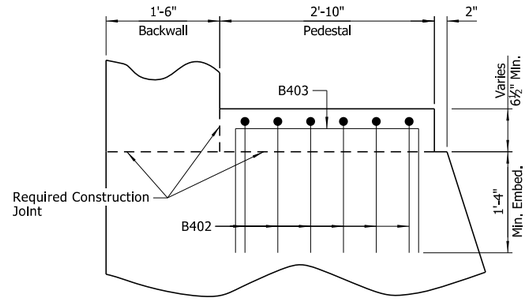



PEDESTAL PLAN



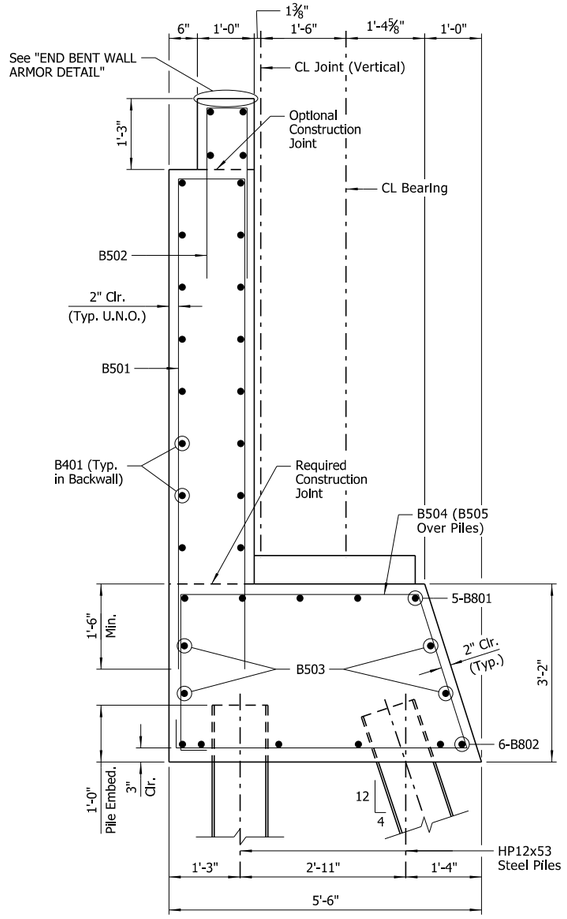

TYPICAL PEDESTAL DETAIL

Scale: 1" = 1'-0"



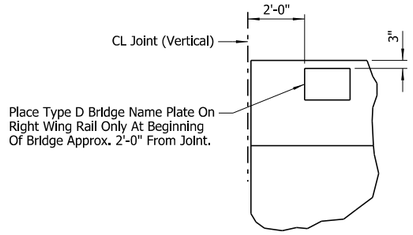

SECTION B-B

Scale: 1" = 1'-0"




SECTION A-A

Scale: ¾" = 1'-0"

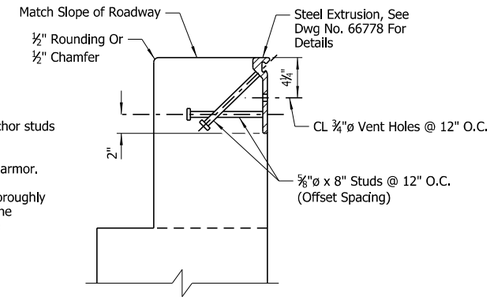



VIEW SHOWING LOCATION OF NAME PLATE

No Scale

NOTE:
No portion of the backwall shall be poured before the girders are in place. The portion of the backwall above the optional construction joint at the paving bracket shall not be placed until the adjacent deck pour has been made. Refer to the "EXPANSION DEVICE INSTALLATION AT END BENTS" note on Std. Dwg. 55009. No heavy construction equipment shall be allowed within 10' of the backwall before the deck concrete placement for the adjacent span has been completed unless MSE strap reinforcing has been designed to accommodate these loads, see "END BENT STRAP DETAIL", on this Dwg.

NOTE:
For bar lists and bar bending diagrams, see Dwg. No. 66771.




END BENT WALL ARMOR DETAIL

No Scale

NOTES:
Transverse spacing between horizontal anchor studs and vent holes shall be 6".

Concrete shall be hand packed under joint armor.

Special care shall taken to properly and thoroughly consolidate the concrete in the vicinity of the expansion joint device in the backwall, see Subsection 802.09(a)(3).

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.9086
AMJAD EL-KHAIRI

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BRIDGE ENGINEER

SHEET 4 OF 5
DETAILS OF END BENTS
LITTLE OSAGE CREEK

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

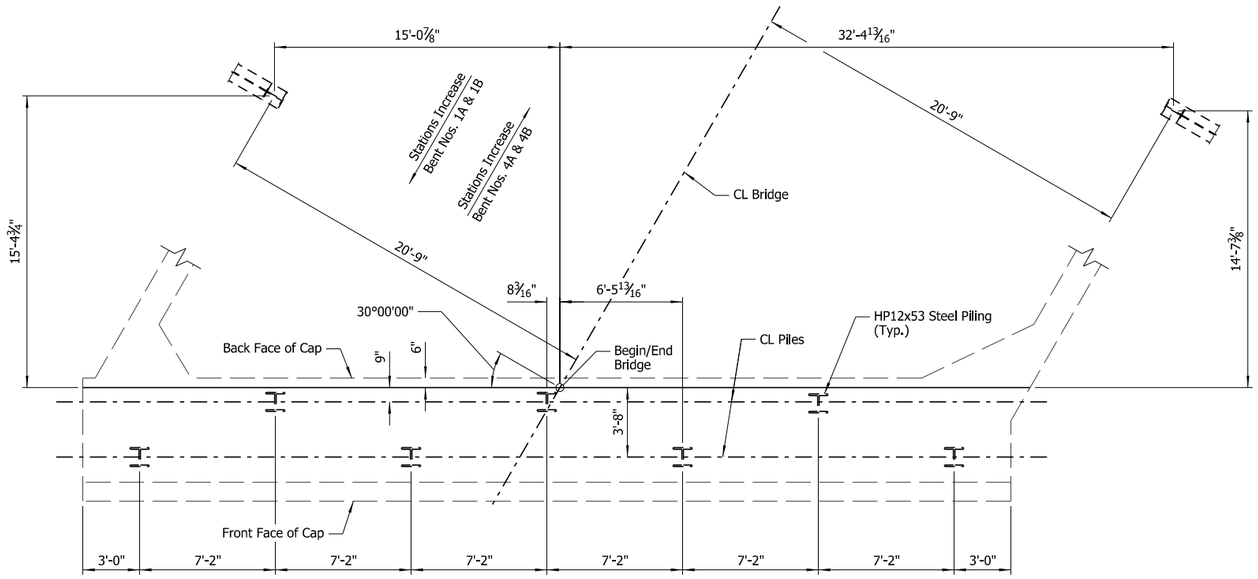
LITTLE ROCK, ARK.

DRAWN BY: CWT DATE: OCT. 2022 FILENAME: b090069m3_a4.dgn
CHECKED BY: AJK DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: WMM DATE: OCT. 2022

BRIDGE NO. A7658 & B7658 DRAWING NO. 66770

JESkinner 10/20/2023 2:11:59 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 323 | 583 |
| | | A7658 & B7658 | | END BENTS | | 66771 |




## FOUNDATION PLAN - END BENTS

Scale: ¼" = 1'-0"

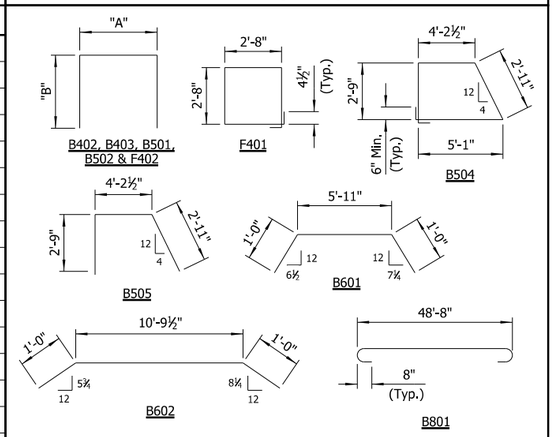
## BAR LIST (PER BENT)

| MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|
| B401 | 40 | 25'-6" | | | Str. |
| B402 | 30 | 6'-11" | 3'-7" | 1'-9" | 2" |
| B403 | 35 | 5'-9" | 2'-6" | 1'-9" | 2" |
| B404 | 9 | (1) | | | Str. |
| | | | | | |
| B501 | 91 | 18'-9" | 1'-3" | 8'-10" | 2½" |
| B502 | 91 | 6'-7" | 9" | 3'-0" | 2½" |
| B503 | 4 | 48'-8" | | | Str. |
| B504 | 62 | 15'-5½" | | | 2½" |
| B505 | 14 | 9'-8" | | | 2½" |
| | | | | | |
| B601 | 18 | 7'-11" | | | 4½" |
| B602 | 18 | 12'-9½" | | | 4½" |
| | | | | | |
| B801 | 5 | 50'-6" | | | Str. |
| B802 | 6 | 48'-8" | | | Str. |
| | | | | | |
| F401 | 8 | 11'-0" | | | 2" |
| F402 | 12 | 5'-10" | 2'-8" | 1'-7" | 2" |
| | | | | | |
| R401E | 76 | 7'-6" | | | 3" |
| R402E | 8 | 5'-6" | | | Str. |
| R404E | 2 | 3'-8" | | | 8½" |
| R405E | 16 | 19'-8" | | | Str. |
| R406E | 4 | 19'-4" | | | Str. |
| R407E | 2 | 6'-8" | | | 3" |
| R408E | 2 | 5'-1" | | | 3" |
| | | | | | |
| W401E | 76 | 4'-7" | | | 6" |
| W402 | 160 | (2) | | | Str. |
| | | | | | |
| W701 | 84 | 19'-8" | | | Str. |

(1) Bent Nos. 1A & 1B - 9'-0"
Bent Nos. 4A & 4B - 9'-4"

(2) Bent Nos. 1A & 1B - 10'-3"
Bent Nos. 4A & 4B - 10'-7"

## BAR BENDING DIAGRAMS




NOTES:
Dimensions of bars are out-to-out.

Number of bars is for one end bent only.

Bars designated with "E" suffix shall be epoxy coated.

See Std. Dwg. No. 55071 for Bar Bending Diagrams of R401E, R404E, R407E, R408E, and W401E.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.9086
AMJAD EL-KHAIRI

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SHEET 5 OF 5
DETAILS OF END BENTS
LITTLE OSAGE CREEK
ROUTE SEC.

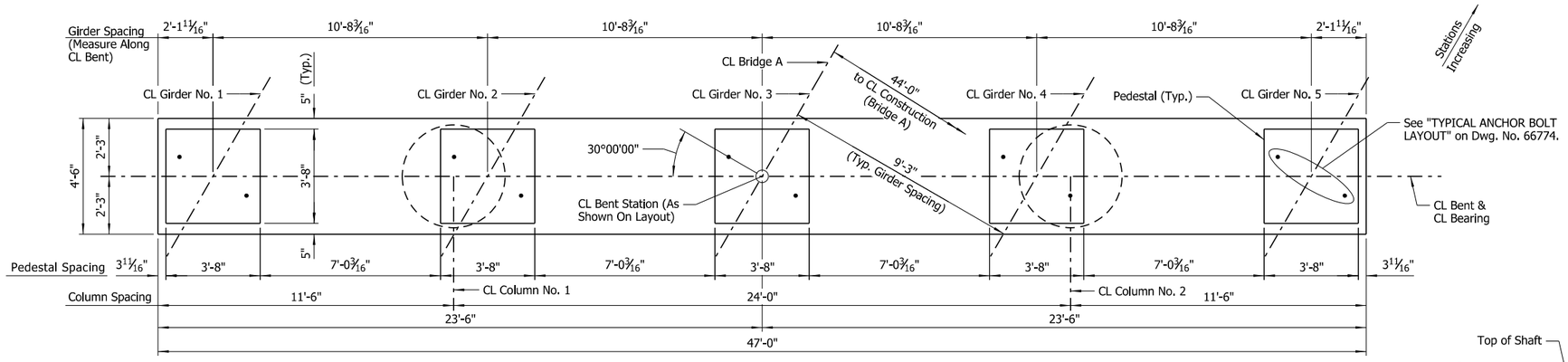
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CWT DATE: OCT. 2022 FILENAME: b090069m3_a5.dgn
CHECKED BY: AJK DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: WMM DATE: OCT. 2022

BRIDGE NO. A7658 & B7658 DRAWING NO. 66771

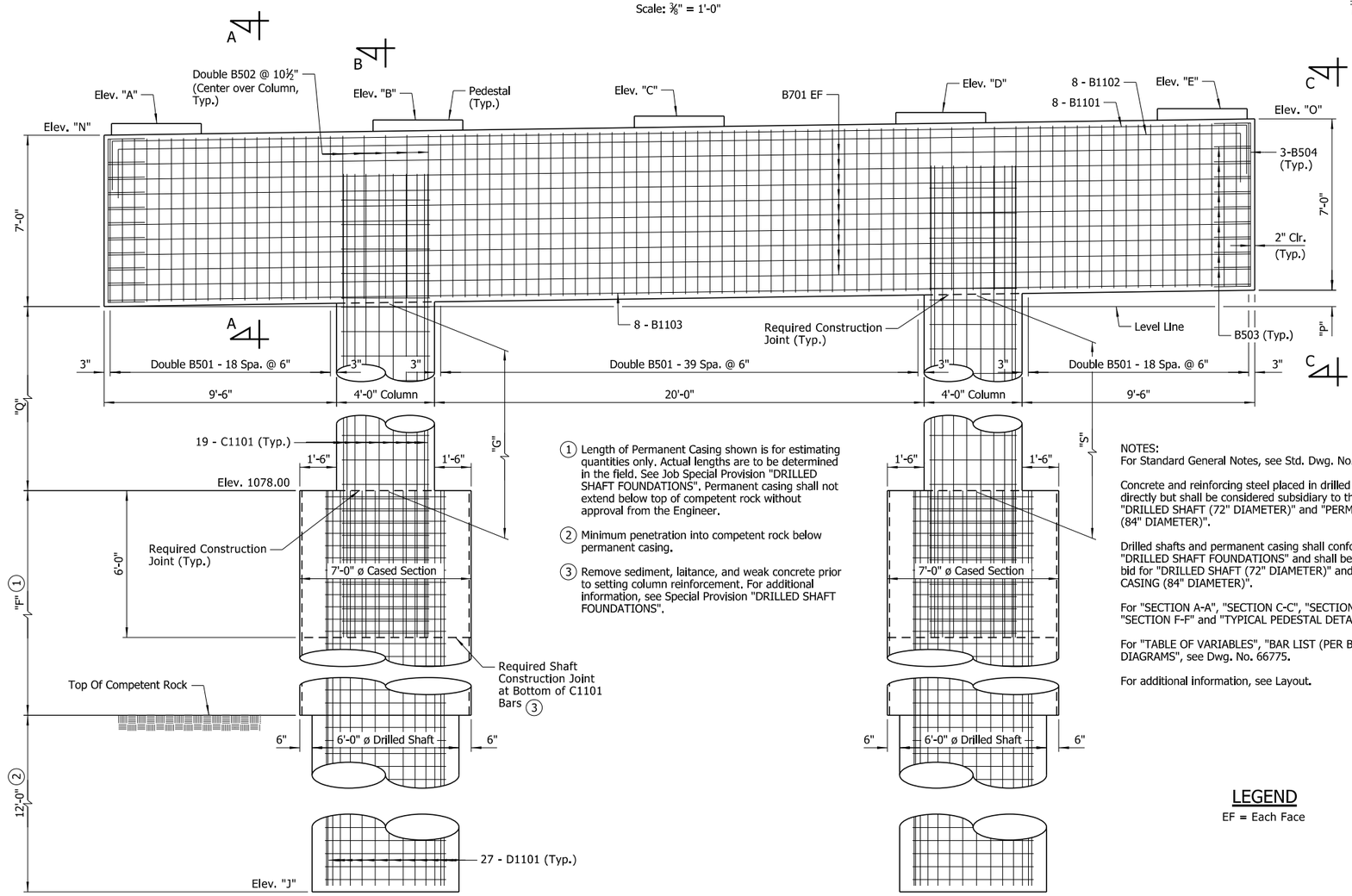
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 324 | 583 |
| | | A7658 & B7658 | INTERMEDIATE BENTS | | | 66772 |




## PLAN - BENT NOS. 2A & 3A

Scale: ⅜" = 1'-0"




## ELEVATION - BENT NOS. 2A & 3A

(Looking Ahead)
Scale: ⅜" = 1'-0"

(1) Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined in the field. See Job Special Provision "DRILLED SHAFT FOUNDATIONS". Permanent casing shall not extend below top of competent rock without approval from the Engineer.

(2) Minimum penetration into competent rock below permanent casing.

(3) Remove sediment, laitance, and weak concrete prior to setting column reinforcement. For additional information, see Special Provision "DRILLED SHAFT FOUNDATIONS".

NOTES:
For Standard General Notes, see Std. Dwg. No. 55006.

Concrete and reinforcing steel placed in drilled shafts will not be paid for directly but shall be considered subsidiary to the unit price bid for "DRILLED SHAFT (72" DIAMETER)" and "PERMANENT STEEL CASING (84" DIAMETER)".

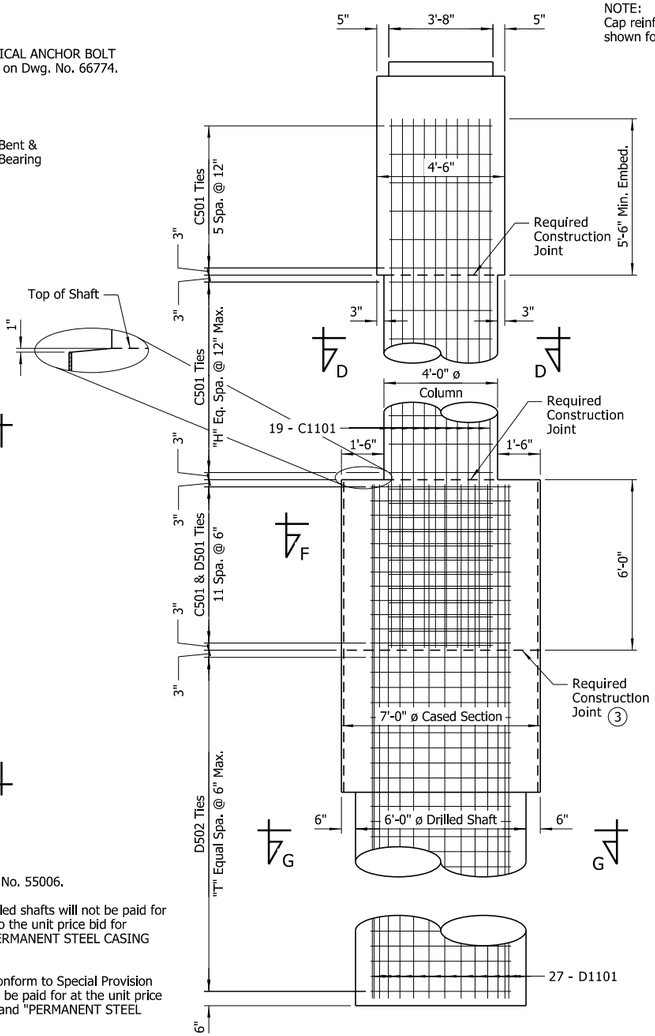
Drilled shafts and permanent casing shall conform to Special Provision "DRILLED SHAFT FOUNDATIONS" and shall be paid for at the unit price bid for "DRILLED SHAFT (72" DIAMETER)" and "PERMANENT STEEL CASING (84" DIAMETER)".

For "SECTION A-A", "SECTION C-C", "SECTION D-D", "SECTION G-G", "SECTION F-F" and "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66774.

For "TABLE OF VARIABLES", "BAR LIST (PER BENT)" and "BAR BENDING DIAGRAMS", see Dwg. No. 66775.

For additional information, see Layout.

NOTE:
Cap reinforcement not shown for clarity.




## SECTION B-B

Scale: ⅜" = 1'-0"

## LEGEND

EF = Each Face

STATE OF ARKANSAS
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No.9086
AMJAD EL-KHAIRI
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BRIDGE ENGINEER

# SHEET 1 OF 4
# DETAILS OF INTERMEDIATE BENTS
# LITTLE OSAGE CREEK

ROUTE SEC.

## ARKANSAS STATE HIGHWAY COMMISSION

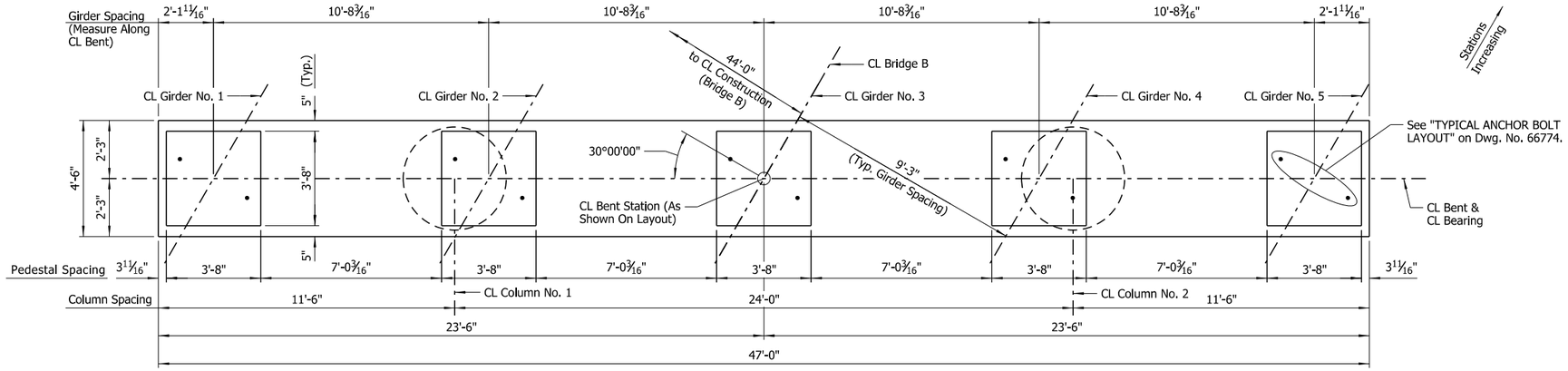
LITTLE ROCK, ARK.

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| CHECKED BY: | AJK | DATE: | JULY 2023 | SCALE: | As Shown |
| DESIGNED BY: | BWD | DATE: | JULY 2023 | | |

BRIDGE NO. A7658 & B7658 DRAWING NO. 66772

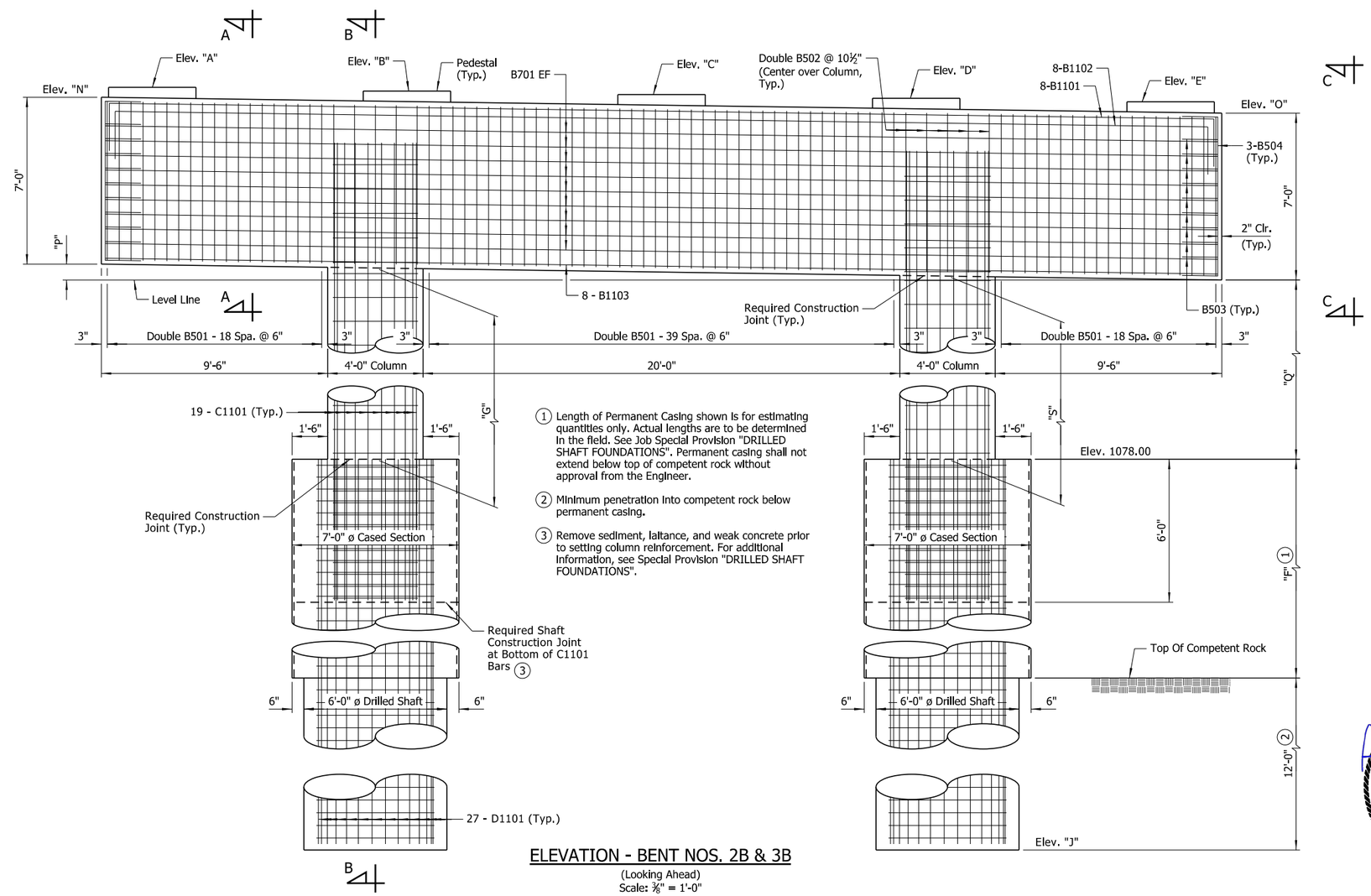
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 325 | 583 |
| | | A7658 & B7658 | INTERMEDIATE BENTS | | | 66773 |




## PLAN - BENT NOS. 2B & 3B

Scale: 3/8" = 1'-0"




1. Length of Permanent Casing shown is for estimating quantities only. Actual lengths are to be determined in the field. See Job Special Provision "DRILLED SHAFT FOUNDATIONS". Permanent casing shall not extend below top of competent rock without approval from the Engineer.
2. Minimum penetration into competent rock below permanent casing.
3. Remove sediment, laitance, and weak concrete prior to setting column reinforcement. For additional information, see Special Provision "DRILLED SHAFT FOUNDATIONS".

## ELEVATION - BENT NOS. 2B & 3B

(Looking Ahead)
Scale: 3/8" = 1'-0"

NOTES:
For Standard General Notes, see Std. Dwg. No. 55006.

Concrete and reinforcing steel placed in drilled shafts will not be paid for directly but shall be considered subsidiary to the unit price bid for "DRILLED SHAFT (72" DIAMETER)" and "PERMANENT STEEL CASING (84" DIAMETER)".

Drilled shafts and permanent casing shall conform to Special Provision "DRILLED SHAFT FOUNDATIONS" and shall be paid for at the unit price bid for "DRILLED SHAFT (72" DIAMETER)" and "PERMANENT STEEL CASING (84" DIAMETER)".

For "SECTION A-A", "SECTION C-C", "SECTION D-D", "SECTION G-G", "SECTION F-F" and "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66774.

For "TABLE OF VARIABLES", "BAR LIST (PER BENT)" and "BAR BENDING DIAGRAMS", see Dwg. No. 66775.

For "SECTION B-B", see Dwg. No. 66772.

For additional information, see Layout.

## LEGEND

EF = Each Face

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.9086
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BRIDGE ENGINEER

# SHEET 2 OF 4
# DETAILS OF INTERMEDIATE BENTS
# LITTLE OSAGE CREEK

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: AJK DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: BWD DATE: JULY 2023

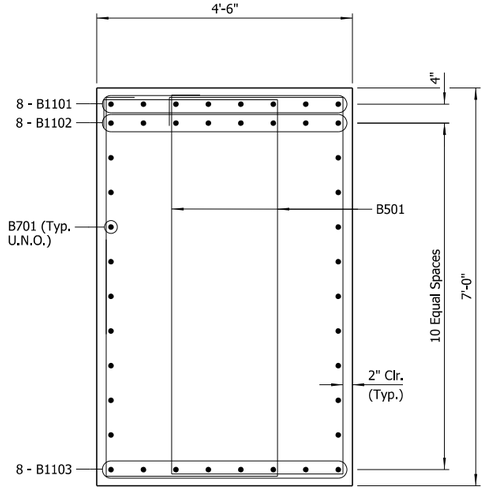
BRIDGE NO. A7658 & B7658 DRAWING NO. 66773

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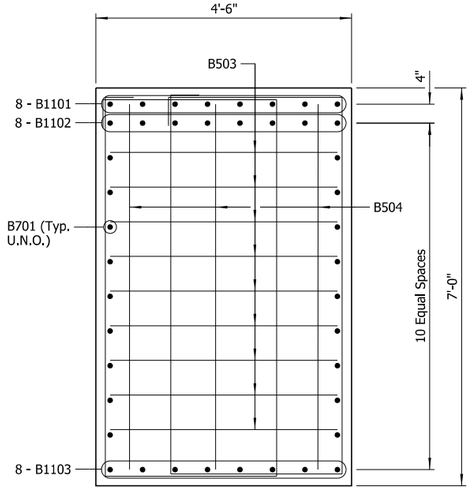
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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 326 | 583 |
| | | A7658 & B7658 | INTERMEDIATE BENTS | | | 66774 |

(1) See Dwg. Nos. 66772 and 66773 for pedestal elevations.

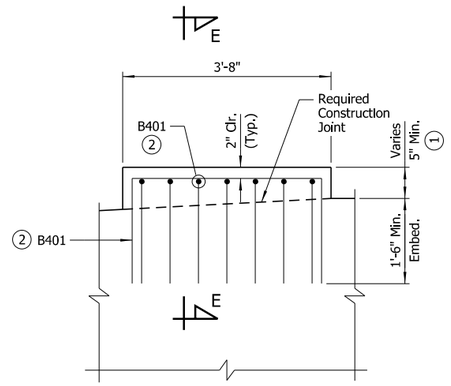
(2) B401 locations may be adjusted as necessary to avoid interference with anchor bolts or sheet metal sleeves.



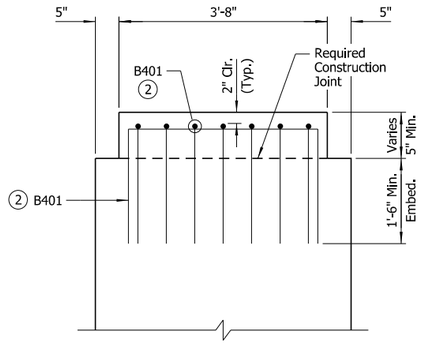

## SECTION A-A
Scale: ¾"= 1'-0"



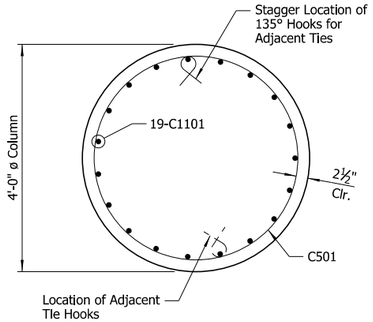

## SECTION C-C
Scale: ¾"= 1'-0"



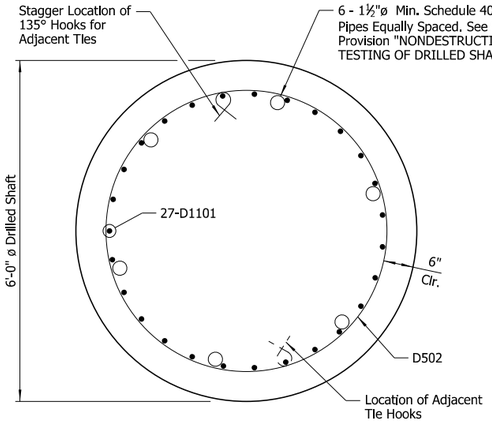

## TYPICAL PEDESTAL DETAIL
Scale: ¾"= 1'-0"



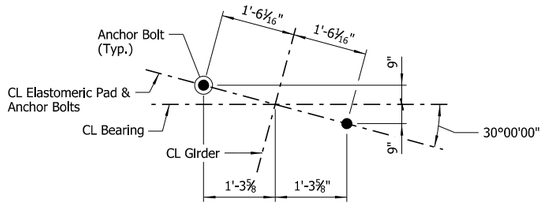

## SECTION E-E
Scale: ¾"= 1'-0"




## SECTION D-D
Scale: ¾"= 1'-0"



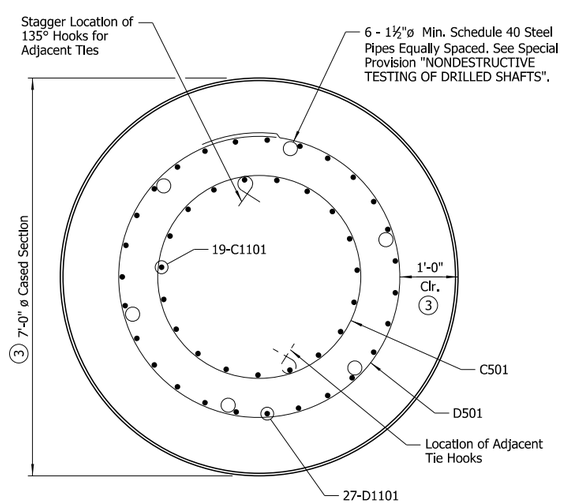

## SECTION G-G
Scale: ¾"= 1'-0"




## TYPICAL ANCHOR BOLT LAYOUT
No Scale

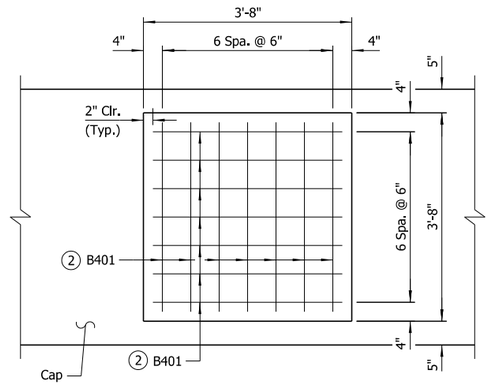
NOTE:
For details of elastomeric bearings and anchor bolts, see Dwg. No. 66776.

## LEGEND
U.N.O. = Unless Noted Otherwise




## SECTION F-F
Scale: ¾"= 1'-0"

(3) Measured to outside permanent steel casing




## PLAN OF PEDESTAL
Scale: ¾" = 1'-0"

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SHEET 3 OF 4
DETAILS OF INTERMEDIATE BENTS
LITTLE OSAGE CREEK
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JEH DATE: JULY 2023 FILENAME: b090069m3_b3.dgn
CHECKED BY: AJK DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: BWD DATE: JULY 2023

BRIDGE NO. A7658 & B7658 DRAWING NO. 66774

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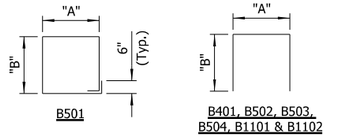
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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 327 | 583 |
| | | A7658 & B7658 | INTERMEDIATE BENTS | | | 66775 |

## BAR LIST (PER BENT)

| | MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|---|
| | B401 | 70 | 7'-0" | 3'-4" | 1'-11" | 2" |
| | | | | | | |
| | B501 | 156 | 19'-6" | 2'-10" | 6'-8" | 2½" |
| | B502 | 10 | 17'-3½" | 4'-2" | 6'-8" | 2½" |
| | B503 | 18 | 8'-0" | 4'-2" | 2'-0" | 2½" |
| | B504 | 6 | 10'-5" | 6'-6¾" | 2'-0" | 2½" |
| | | | | | | |
| | B701 | 18 | 46'-8' | | | Str. |
| | | | | | | |
| | B1101 | 8 | 49'-8" | 46'-4" | 2'-0" | 11¼" |
| | B1102 | 8 | 49'-2" | 45'-10" | 2'-0" | 11¼" |
| | B1103 | 8 | 46'-8" | | | Str. |
| | | | | | | |
| | C501 | "K" | 12'-9" | 3'-7" | | 3¾" |
| | | | | | | |
| | C1101 | 38 | "L" | | | Str. |
| | | | | | | |
| (1) | D501 | 24 | 17'-10" | | | 3¾" |
| (1) | D502 | "I" | 17'-2" | 5'-0" | | 3¾" |
| | | | | | | |
| (1) | D1101 | 54 | "M" | | | Str. |

(1) No direct payment for bars in drilled shafts, see Special Provision "DRILLED SHAFT FOUNDATIONS".

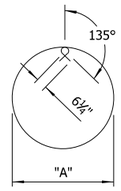
## BAR BENDING DIAGRAMS



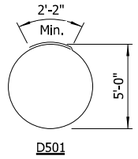

B501




B401, B502, B503, B504, B1101 & B1102




C501 & D502




D501

NOTES:
Dimensions of bars are out-to-out.

Number of bars shown is for a single bent.

## TABLE OF VARIABLES

| BENT NO. | Elev. "A" | Elev. "B" | Elev. "C" | Elev. "D" | Elev. "E" | "F" | "G" | "H" | "I" | Elev. "J" | "K" | "L" | "M" | Elev. "N" | Elev. "O" | "P" | "Q" | "S" | "T" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2A | 1098.17 | 1098.41 | 1098.65 | 1098.89 | 1099.12 | 14'-0" | 12'-10⅝" | 13 | 80 | 1052.00 | 64 | 24'-11" | 25'-7" | 1097.63 | 1098.67 | 1'-0⅜" | 12'-7½" | 13'-5" | 39 |
| 3A | 1100.43 | 1100.69 | 1100.95 | 1101.21 | 1101.47 | 12'-0" | 15'-1¾" | 16 | 72 | 1054.00 | 70 | 27'-5" | 23'-7" | 1099.87 | 1101.01 | 1'-1¾" | 14'-10⅜" | 15'-8¾" | 35 |
| 2B | 1099.42 | 1099.28 | 1099.15 | 1099.02 | 1098.89 | 14'-0" | 13'-9 13/16" | 14 | 80 | 1052.00 | 66 | 25'-4" | 25'-7" | 1098.96 | 1098.39 | 6⅞" | 13'-4⅝" | 13'-6 5/16" | 39 |
| 3B | 1101.89 | 1101.79 | 1101.69 | 1101.58 | 1101.48 | 12'-0" | 16'-3 13/16" | 16 | 72 | 1054.00 | 70 | 27'-10" | 23'-7" | 1101.43 | 1100.99 | 5¼" | 15'-11 13/16" | 16'-1⅛" | 35 |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.9086
AMJAD EL-KHAIRI

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 4 OF 4
DETAILS OF INTERMEDIATE BENTS
LITTLE OSAGE CREEK
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JEH DATE: JULY 2023 FILENAME: b090069m3_b4.dgn
CHECKED BY: AJK DATE: AUG. 2023 SCALE: No Scale
DESIGNED BY: BWD DATE: JULY 2023

BRIDGE NO. A7658 & B7658 DRAWING NO. 66775

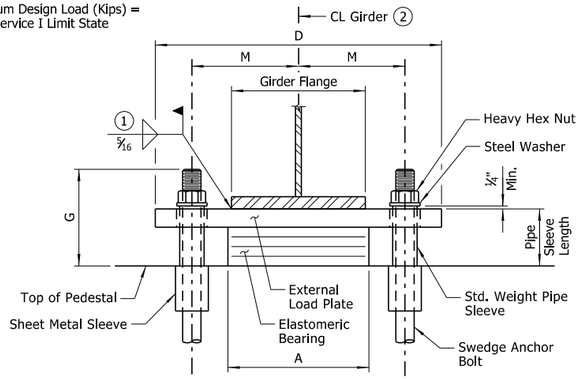
JESkinner 10/20/2023 2:12:14 PM
WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069x2_S214_BL.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 328 | 583 |
| | | A7658 & B7658 | ELASTOMERIC BEARINGS | | | 66776 |

# TABLE OF FABRICATOR VARIABLES

| Bridge No. | Location | | Bearing Type | No. Of Bearings Each Bent | ③ Maximum Design Load (Kips) | Elastomeric Pad | | | | | | | External Load Plate | | | | | | | | | Anchor Bolt | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bent No. | Girder No. | | | | G | H | A | B | N | $t_i$ | $t_e$ | No. & Thickness Of Steel Laminae | T | C | D | E | F | J | K | M | $T_a$ | $T_b$ | Anchor Bolt (Dia. x L) | Grade | Pipe Sleeve Size (Dia. x L) | Sheet Metal Sleeve Size (Dia. x L) | Steel Washer Size (O.D.) |
| A7658 | 1 | All | Exp. | 5 | 233 | 14 1/16" | 9 13/16" | 24" | 12" | 12 | 1/2" | 1/4" | 13 @ 12 Ga. | 7 7/8" | 13" | 38" | 8 1/2" | 3 3/4" | - | 1/2" | 15 1/2" | 2.06" | 1.94" | 2 3/4" x 46" | 55 | 3" x 10 1/16" | 5" x 14" | 5" |
| | 2 | All | Fixed | 5 | 638 | 8 3/16" | 4 15/16" | 26" | 20" | 4 | 1/2" | 1/4" | 5 @ 12 Ga. | 3" | 21" | 45 1/4" | 3 1/8" | 3 1/8" | 2 7/16" | 1/2" | 18 1/16" | 2.10" | 1.90" | 2" x 32" | 55 | 2 1/2" x 5 3/16" | 4" x 14" | 3 3/4" |
| | 3 | All | Fixed | 5 | 638 | 8 3/16" | 4 15/16" | 26" | 20" | 4 | 1/2" | 1/4" | 5 @ 12 Ga. | 3" | 21" | 45 1/4" | 3 1/8" | 3 1/8" | 2 7/16" | 1/2" | 18 1/16" | 2.14" | 1.86" | 2" x 32" | 55 | 2 1/2" x 5 3/16" | 4" x 14" | 3 3/4" |
| | 4 | All | Exp. | 5 | 233 | 14 1/16" | 9 13/16" | 24" | 12" | 12 | 1/2" | 1/4" | 13 @ 12 Ga. | 7 7/8" | 13" | 38" | 8 1/2" | 3 3/4" | - | 1/2" | 15 1/2" | 2.13" | 1.87" | 2 3/4" x 46" | 55 | 3" x 10 1/16" | 5" x 14" | 5" |
| B7658 | 1 | All | Exp. | 5 | 233 | 14 1/16" | 9 13/16" | 24" | 12" | 12 | 1/2" | 1/4" | 13 @ 12 Ga. | 7 7/8" | 13" | 38" | 8 1/2" | 3 3/4" | - | 1/2" | 15 1/2" | 2.06" | 1.94" | 2 3/4" x 46" | 55 | 3" x 10 1/16" | 5" x 14" | 5" |
| | 2 | All | Fixed | 5 | 638 | 8 3/16" | 4 15/16" | 26" | 20" | 4 | 1/2" | 1/4" | 5 @ 12 Ga. | 3" | 21" | 45 1/4" | 3 1/8" | 3 1/8" | 2 7/16" | 1/2" | 18 1/16" | 2.10" | 1.90" | 2" x 32" | 55 | 2 1/2" x 5 3/16" | 4" x 14" | 3 3/4" |
| | 3 | All | Fixed | 5 | 638 | 8 3/16" | 4 15/16" | 26" | 20" | 4 | 1/2" | 1/4" | 5 @ 12 Ga. | 3" | 21" | 45 1/4" | 3 1/8" | 3 1/8" | 2 7/16" | 1/2" | 18 1/16" | 2.16" | 1.84" | 2" x 32" | 55 | 2 1/2" x 5 3/16" | 4" x 14" | 3 3/4" |
| | 4 | All | Exp. | 5 | 233 | 14 1/16" | 9 13/16" | 24" | 12" | 12 | 1/2" | 1/4" | 13 @ 12 Ga. | 7 7/8" | 13" | 38" | 8 1/2" | 3 3/4" | - | 1/2" | 15 1/2" | 2.14" | 1.86" | 2 3/4" x 46" | 55 | 3" x 10 1/16" | 5" x 14" | 5" |

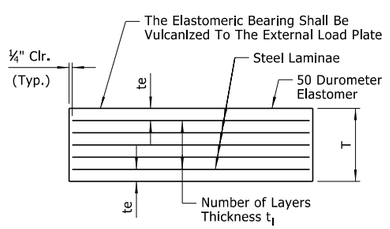
③ Maximum Design Load (Kips) = LRFD Service I Limit State




FRONT VIEW - AT BENT NOS. 1 & 4

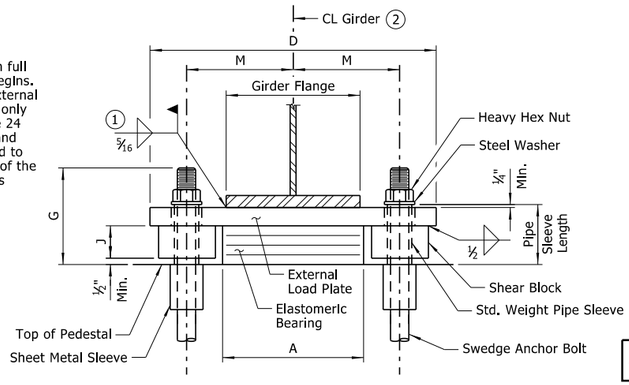
① Care shall be taken to ensure that the external load plate is in full and complete contact with the girder flange before welding begins. Unless otherwise approved by the Engineer, welding of the external load plate at expansion bearings to the girder will be allowed only when: 1) the approximate average air temperature during the 24 hour period immediately preceding welding is between 40°F and 80°F; and 2) the slots in the external load plate are positioned to center on the anchor bolts; and 3) no horizontal deformation of the elastomeric pad is evident. If welding at other temperatures is required, the Engineer will provide adjustment data.

② CL Elastomeric Pad shall be aligned with CL Girder.



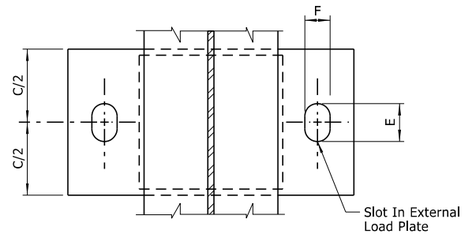

$t_e$ = Thickness of elastomer cover on top and bottom of pad
$t_i$ = Thickness of elastomer between steel laminae
N = Number of elastomer layers of thickness $t_i$

ELASTOMERIC BEARING



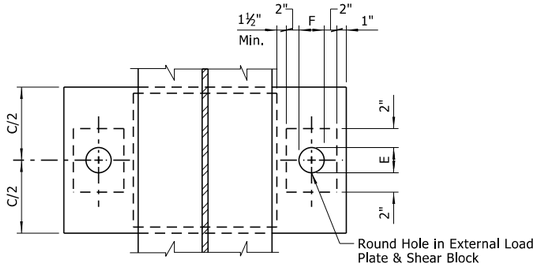

FRONT VIEW - AT BENT NOS. 2 & 3

Prior to erection of the girders, the Contractor shall verify the orientation of the bearings with respect to Ta and Tb .

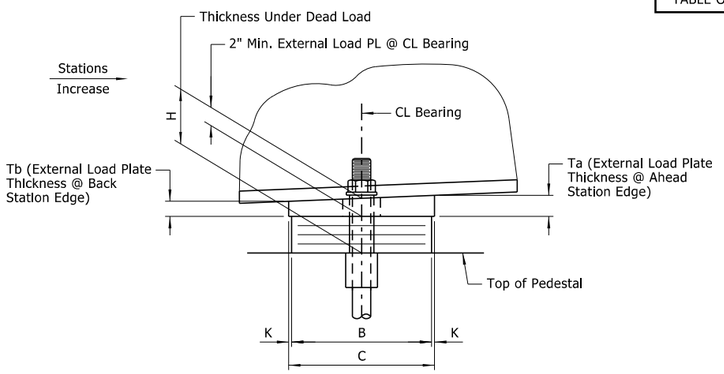



PLAN VIEW - AT BENT NOS. 1 & 4

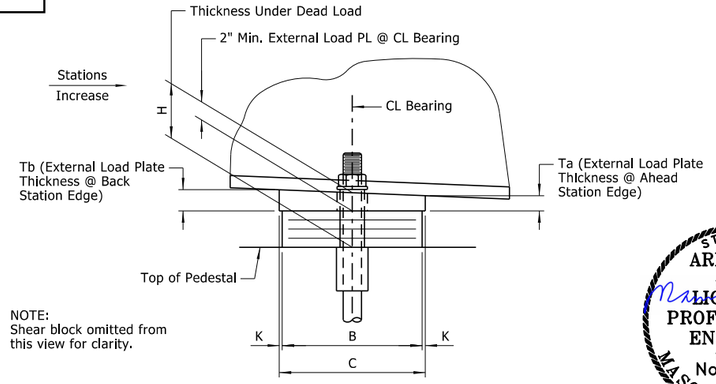
The direction of the bevel of the external load plate may not be accurately depicted with respect to Ta and Tb values shown in "TABLE OF FABRICATOR VARIABLES".




PLAN VIEW - AT BENT NOS. 2 & 3

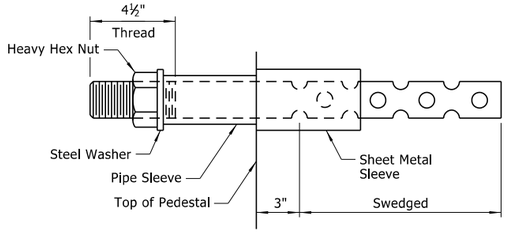



SIDE VIEW - AT BENT NOS. 1 & 4




NOTE:
Shear block omitted from this view for clarity.

SIDE VIEW - AT BENT NOS. 2 & 3




ANCHOR BOLT DETAIL

NOTES:
Anchor bolts may be cast in place or drilled and grouted into place. If anchor bolts are to be cast in place, the galvanized sheet metal sleeves will not be required.

If anchor bolts are to be drilled and grouted in place, the galvanized sheet metal sleeves shall be cast in place as shown. Sleeves shall be dry packed with styrofoam, urethane foam or approved equal prior to pouring of concrete. After pouring of the cap and prior to erection of structural steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the concrete. Bolts placed in drilled holes shall be accurately set and fixed using a QPL-approved epoxy or non-shrink grout that completely fills the holes. Galvanized Sheet Metal Sleeves shall meet the requirements of ASTM A653, CS Type B or approved equivalent, be of minimum 16 gage thickness, and be galvanized according to ASTM B695, Class 50. Sheet Metal Sleeves will not be paid for directly, but will be considered subsidiary to the item "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)".

## GENERAL NOTES

Elastomeric bearings shall conform to Section 808 and shall be paid for at the unit price bid for "ELASTOMERIC BEARINGS."

External load plates and shear blocks shall conform to ASTM A709, Grade 50W. Pipe sleeves shall be ASTM A500, Grade B, and shall be galvanized to conform to AASHTO M 232, Class C or ASTM B695, Class 50.

External load plates and shear blocks shall be completely fabricated (including bevel, bolt holes and all shop welding) and shall be cleaned before vulcanizing to the elastomeric bearing. The surfaces in contact with the elastomeric bearing shall be cleaned in accordance with Subsection 808.03. Other surfaces shall be blast cleaned in accordance with Subsection 807.84(b) for painted steel and Subsection 807.84(e) for unpainted Grade 50W steel.

Anchor bolts, washers and nuts shall conform to Subsection 807.07. The anchor bolt grade of steel shall be as specified in the "TABLE OF FABRICATOR VARIABLES". Indentations shall be circular with rounded bottoms and staggered as shown in the details.

Pipe sleeves, anchor bolts, washers and nuts shall be paid for at the unit price bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)". External load plates and shear blocks will not be measured or paid for separately but will be considered subsidiary to the unit price bid for "ELASTOMERIC BEARINGS".

Bearings shall be seated in accordance with Subsection 808.08. This work and materials are considered subsidiary to the item "ELASTOMERIC BEARINGS" and will not be paid for directly.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13418
MASON R. ATKINSON
Digitally Signed 10/20/2023
BRIDGE ENGINEER

# DETAILS OF ELASTOMERIC BEARINGS
# LITTLE OSAGE CREEK

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

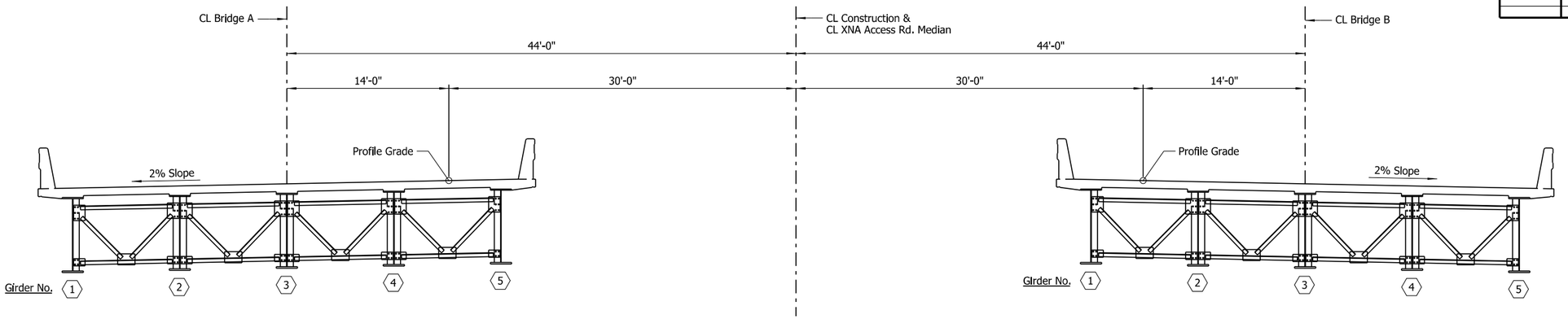
LITTLE ROCK, ARK.

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CHECKED BY: MRA DATE: JULY 2023 SCALE: No Scale
DESIGNED BY: RAK DATE: JAN. 2023

BRIDGE NO. A7658 & B7658 DRAWING NO. 66776

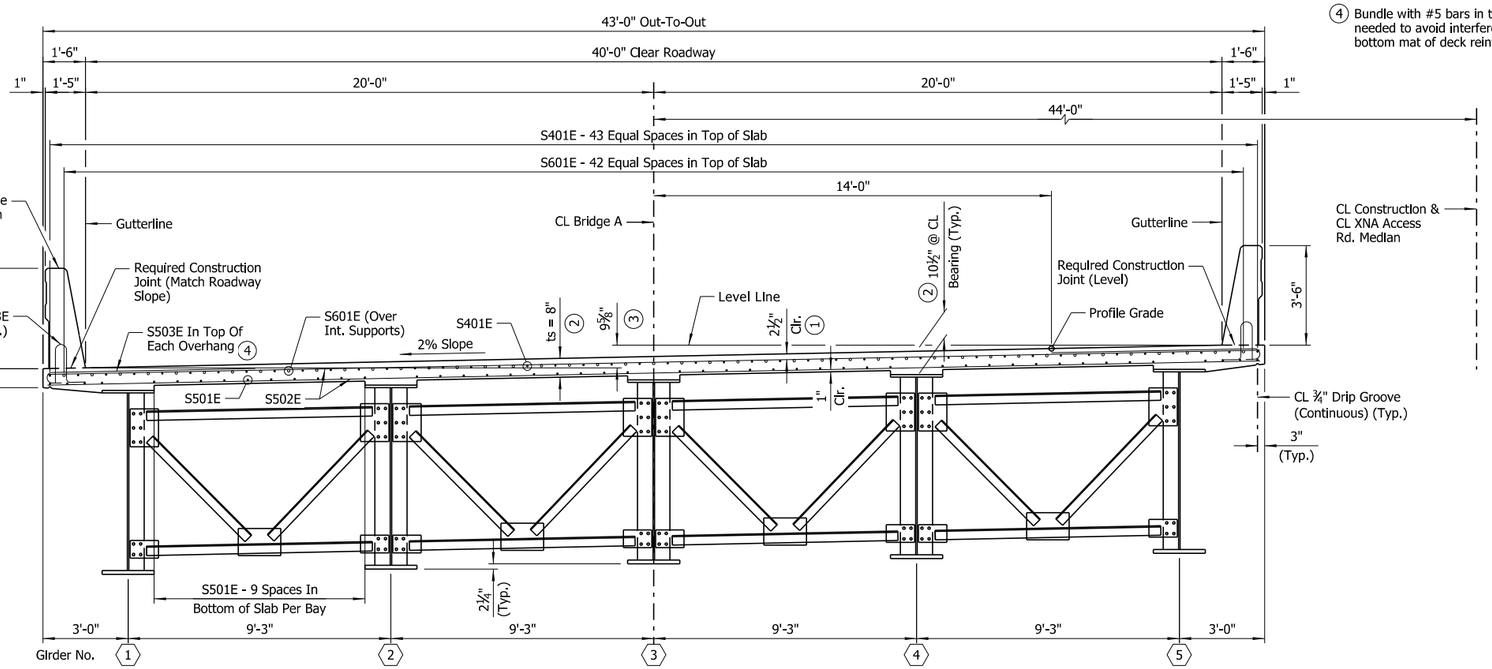
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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 329 | 583 |
| | | A7658 & B7658 | | 590'-0" UNIT | | 66777 |




## TYPICAL BRIDGE SECTION

(Looking Ahead)
Scale: 3/16" = 1'-0"




## TYPICAL ROADWAY SECTION

(Looking Ahead)
(Bridge A Shown, Bridge B Similar)
Scale: 3/8" = 1'-0"

SLAB REINFORCING:

Transverse: S502E @ 6" O.C. In Top and Bottom
S503E @ 6" O.C. In Top of Overhangs
(Bundled with #5 Bars)

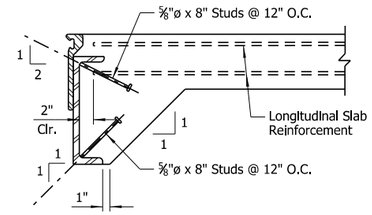
Longitudinal: S401E In Top (Placed as Shown)
S501E In Bottom (Placed as Shown)
S601E In Top (Placed as Shown over Int. Supports, see "REINFORCING PLAN & SLAB POURING SEQUENCE" on Dwg. No. 66784 for additional information)

(1) TOLERANCE:
Minus = ¼"
Plus = Amount of slab thickening used to meet slab thickness tolerance - See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Std. Dwg. No. 55007.

(2) See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Std. Dwg. No. 55007. Haunch dimension may vary within the following limits to maintain the grade and slab thickness tolerance; Minimum occurs when top flange contacts bottom reinforcing steel; Maximum - top flange thickness plus 2½". No increase in concrete and structural steel quantities will be made to maintain tolerances.

(3) Measured gutterline to gutterline.

(4) Bundle with #5 bars in top. Rotate as needed to avoid interference with bottom mat of deck reinforcement.




## DETAIL OF ANCHORS AND PLACEMENT OF LONGITUDINAL REINFORCEMENT

No Scale

NOTE:
As an alternate to ⅝"ø studs, ½"ø x 8" studs spaced @ 8" O.C. may be used. Use weight of ⅝"ø stud as basis of measurement of Structural Steel in anchors.

NOTES:
For Standard General Notes and details, see Std. Dwg. Nos. 55006 & 55007.

Class 2 Protective Surface Treatment shall be applied to the roadway surface.

Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in Special Provision "TEXTURED COATING FINISH" and in accordance with Subsection 802.19(b)(3). Textured Coating Finish shall not be applied on surfaces where Class 2 Protective Surface Treatment is applied.

Bar positions and clearances from the forms shall be maintained by means of stays, ties, hangers, or other approved devices per Subsection 804.06. Placement of slab bolsters or high-chairs with full-length lower runners directly on removable deck forms will not be allowed.

For "BAR LIST" and "BAR BENDING DIAGRAMS", see Dwg. No. 66785.

For details of neoprene strip seal joints, see Dwg. No. 66778 and Std. Dwg. No. 55009.

The profile of the Roadway Channel shall be established based on the vertical curve in conjunction with the skew.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 1 OF 9
# DETAILS OF 590'-0" CONTINUOUS PLATE GIRDER UNIT LITTLE OSAGE CREEK

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

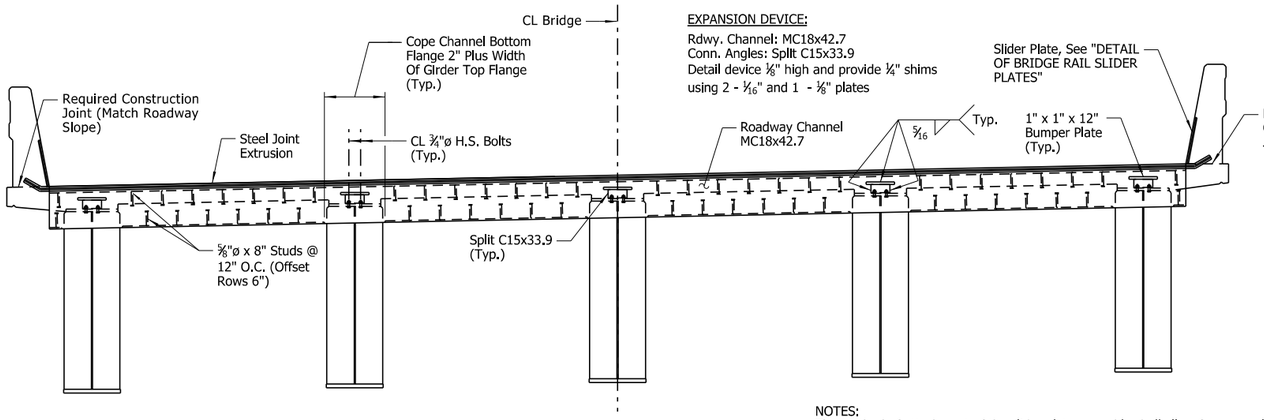
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: DEC. 2022 FILENAME: b090069m3_s1.dgn
CHECKED BY: CSW DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: DEC. 2022

BRIDGE NO. A7658 & B7658 DRAWING NO. 66777

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 330 | 583 |
| | | A7658 & B7658 | | 590'-0" UNIT | | 66778 |




EXPANSION DEVICE:
Rdwy. Channel: MC18x42.7
Conn. Angles: Split C15x33.9
Detail device ⅛" high and provide ¼" shims using 2 - 1/16" and 1 - ⅛" plates

## TYPICAL SECTION THRU JOINT

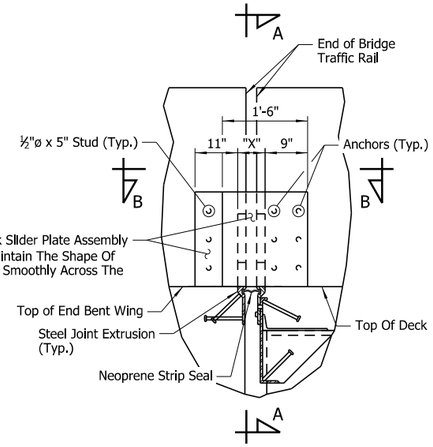
(Shown At End Bent No. 1A, Looking Ahead; Other End Bents Similar)
No Scale

NOTES:
The method of attachment of the slider plate assembly shall allow for removal to provide for future replacement of the neoprene seal. Anchors shall not be paid for directly but shall be considered subsidiary to "ARMORED JOINT WITH NEOPRENE STRIP SEAL".

Method of installation and frabrication shall be determined by the Manufacturer.

Dimension "X" equals the width of opening in rail to allow for removal and repair of joint.

For "GENERAL NOTES FOR NEOPRENE STRIP SEAL JOINTS", "CHANNEL CONNECTION DETAILS" & "EXPANSION DEVICE INSTALLATION AT END BENTS", See Std. Dwg. No. 55009.




## DETAIL OF BRIDGE RAIL SLIDER PLATES

Scale: ¾" = 1'-0"

## GENERAL NOTES

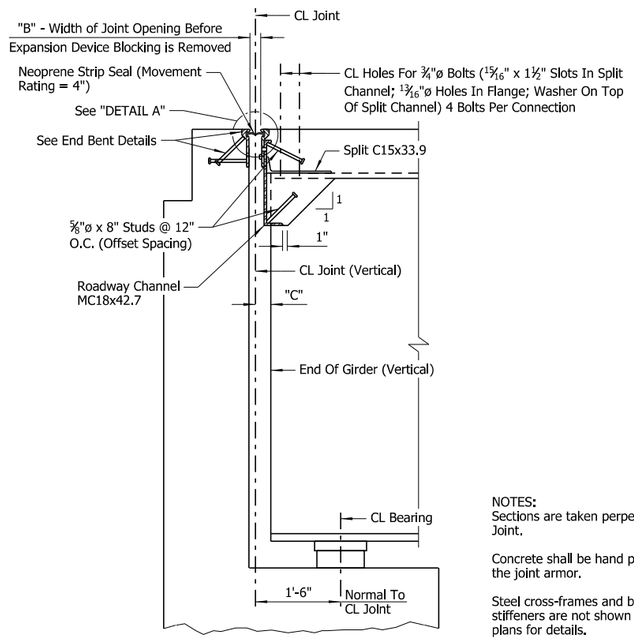
The steel extrusion material (DS Brown SSPA or approved equal), neoprene strip seal material (DS Brown L2-400 or approved equal) and installation shall be in accordance with Section 809.

Unless noted otherwise, all structural steel shall be ASTM A709, Gr. 50W, and all exposed surfaces shall be cleaned in accordance with Subsection 807.84(e).

All structural steel, except for the steel extrusion for the strip seal, shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)". The steel extrusion and neoprene strip seal shall be paid for in accordance with Section 809.

Details of the proposed slider plate assembly shall be submitted to and approved by the Engineer prior to fabrication of any structural steel at the expansion device.

Rail slider plates and structural steel completely embedded in concrete shall conform to ASTM A709, Gr. 36, 50 or 50W steel and shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)". The surfaces of the slider plates which will not be in contact with the concrete shall be cleaned and painted in accordance with Section 638, or as directed by the Engineer. Painting shall not be paid for directly but will be considered subsidiary to "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)".



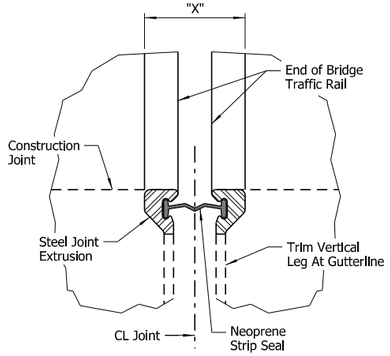

NOTES:
Sections are taken perpendicular to CL Joint.

Concrete shall be hand packed under the joint armor.

Steel cross-frames and bearing stiffeners are not shown for clarity. See plans for details.

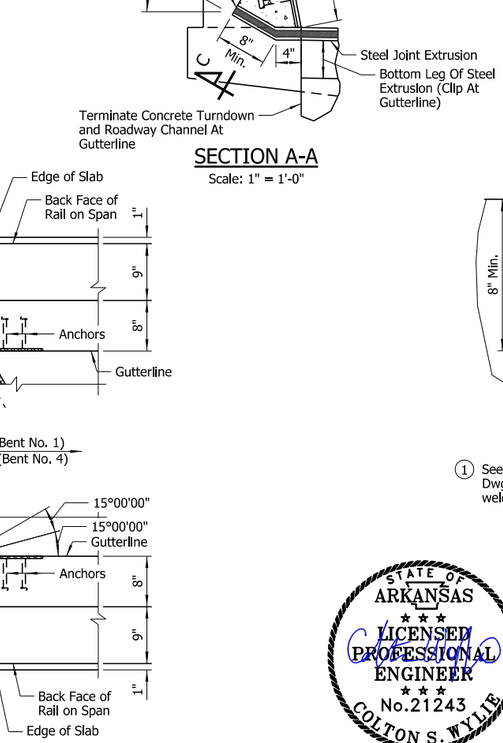
## SECTION THRU JOINT AT END BENTS

Scale: ¾" = 1'-0"



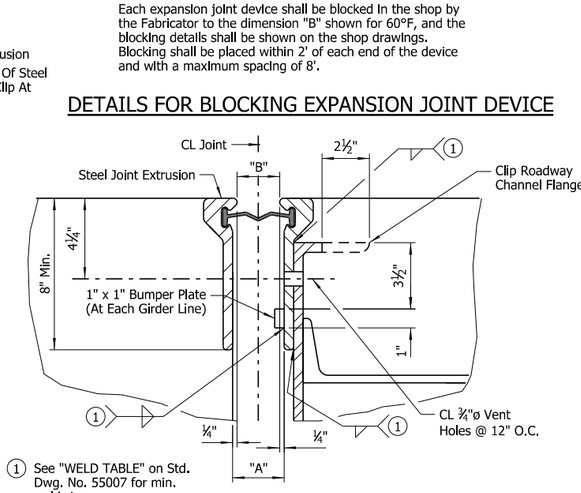

## SECTION C-C

Scale: 3" = 1'-0"



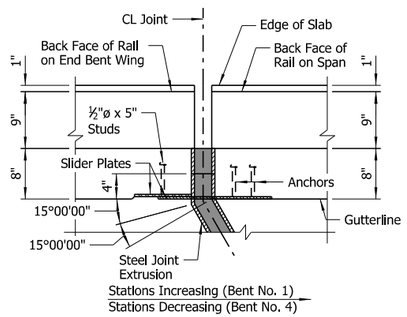

## SECTION A-A

Scale: 1" = 1'-0"




NOTE:
Each expansion joint device shall be blocked in the shop by the Fabricator to the dimension "B" shown for 60°F, and the blocking details shall be shown on the shop drawings. Blocking shall be placed within 2' of each end of the device and with a maximum spacing of 8'.

## DETAILS FOR BLOCKING EXPANSION JOINT DEVICE

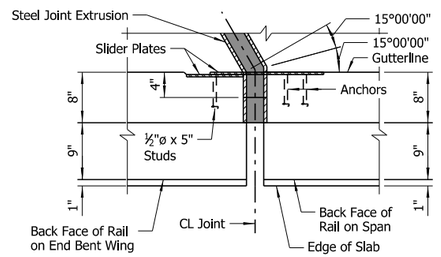






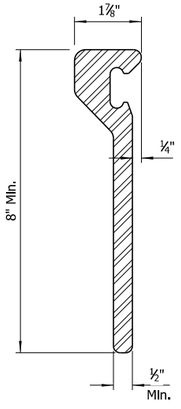
## DETAIL A

Scale: 3" = 1'-0"




## SECTION B-B

Scale: 1" = 1'-0"




## STEEL EXTRUSION DETAIL

No Scale

### TABLE OF STRIP SEAL JOINT DATA

| Bent Nos. | Movement Rating | "A" Width Perpendicular To Joint At 24 Hour Average Temperature (2) Of: | | | "B" Width Perpendicular To Joint At 24 Hour Average Temperature (2) Of: | | | "C" Width Perpendicular To Joint At 24 Hour Average Temperature Of 60°F: |
|---|---|---|---|---|---|---|---|---|
| | | 40°F | 60°F | 80°F | 40°F | 60°F | 80°F | |
| 1 | 4" | 3¼" | 2¾" | 2¼" | 2¾" | 2¼" | 1¾" | 3¼"± |
| 4 | 4" | 3 3/16" | 2¾" | 2 5/16" | 2 1/16" | 2¼" | 1 13/16" | 3¼"± |

(2) The temperature used to set the joint opening shall be the approximate average air temperature during the 24-hour period immediately before the bolts are tightened. The Engineer shall establish the temperature. Interpolation of the table may be necessary. Installation is limited to 40°F min. and 80°F max. The temperature limitations of the lubricant-adhesive Manufacturer shall be observed.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 2 OF 9
# DETAILS OF 590'-0" CONTINUOUS PLATE GIRDER UNIT LITTLE OSAGE CREEK

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: DEC. 2022 FILENAME: b090069m5_s2.dgn
CHECKED BY: CSW DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: DEC. 2022

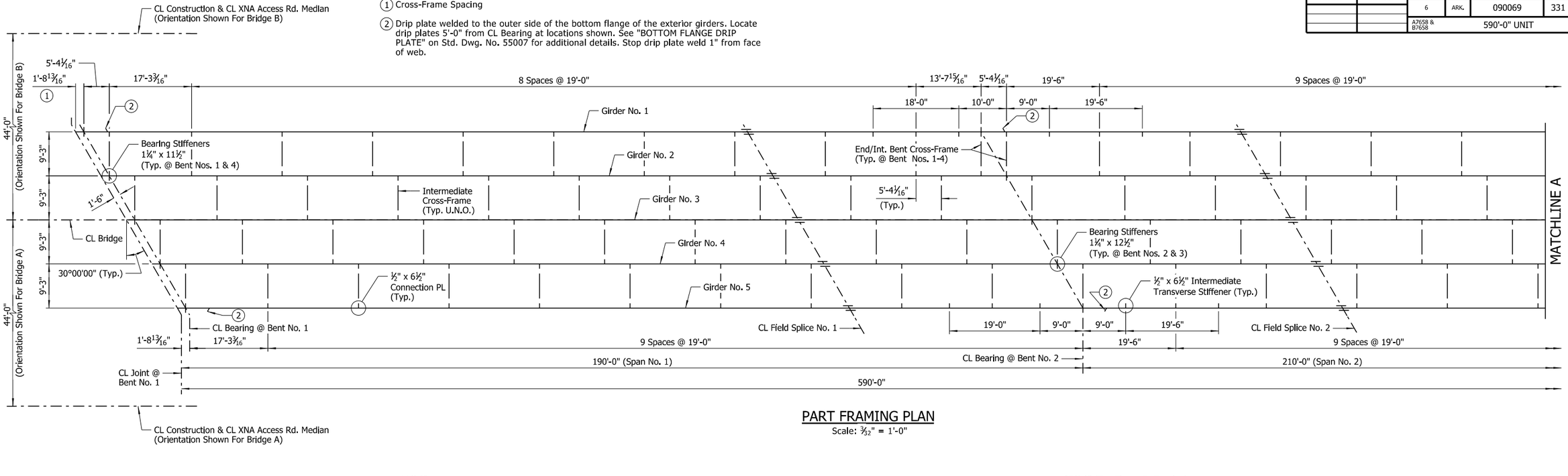
BRIDGE NO. A7658 & B7658 DRAWING NO. 66778

JESkinner 10/20/2023 2:12:17 PM
WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069x3_S402_SX.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 331 | 583 |
| | | A7658 & B7658 | | 590'-0" UNIT | | 66779 |

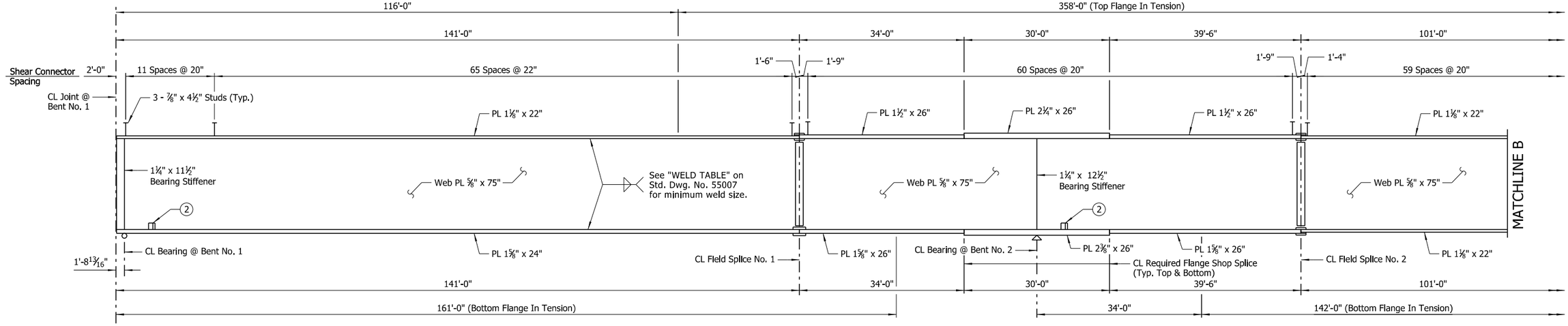
(1) Cross-Frame Spacing

(2) Drip plate welded to the outer side of the bottom flange of the exterior girders. Locate drip plates 5'-0" from CL Bearing at locations shown. See "BOTTOM FLANGE DRIP PLATE" on Std. Dwg. No. 55007 for additional details. Stop drip plate weld 1" from face of web.




## PART FRAMING PLAN

Scale: 3/32" = 1'-0"




## PART GIRDER ELEVATION

No Scale

NOTES:
For Standard General Notes, see Std. Dwg. No. 55006. For Standard Details, see Std. Dwg. No. 55007.

All structural steel shall be ASTM A709, Gr. 50W unless noted otherwise and shall be paid for at the unit price per pound bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)".

Bolted Field Splices shown may be eliminated or shop welded splices may be substituted with approval of the Engineer. Payment will be made on the basis of the Plan Quantities.

The Contractor shall ensure that beams are stable thoughout the erection process. The Contractor will be responsible for providing temporary bracing or stiffening devices to accommodate handling stresses in individual members or segments of the structure during erection.

For "DETAILS OF WELDED SPLICES FOR PLATE GIRDERS" and "SHEAR CONNECTOR DETAIL," see Std. Dwg. No. 55007.

For painting of girders, see "GENERAL NOTES" on Dwg. No. 66766.

NOTES:
For cross-frame details, stiffener and connection plate details, see Dwg. No. 66781.

For details of field splices, see Dwg. No. 66782.

## LEGEND

U.N.O. = Unless Noted Otherwise

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE

Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 3 OF 9
# DETAILS OF 590'-0" CONTINUOUS PLATE GIRDER UNIT
# LITTLE OSAGE CREEK

ROUTE SEC.

## ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

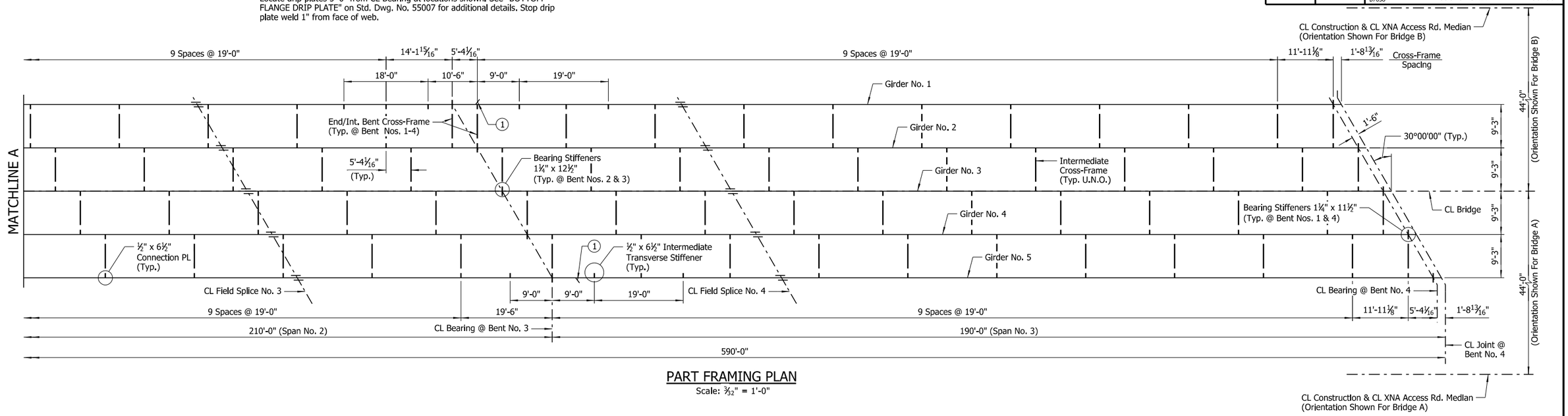
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DESIGNED BY: RAK DATE: DEC. 2022

BRIDGE NO. A7658 & B7658 DRAWING NO. 66779

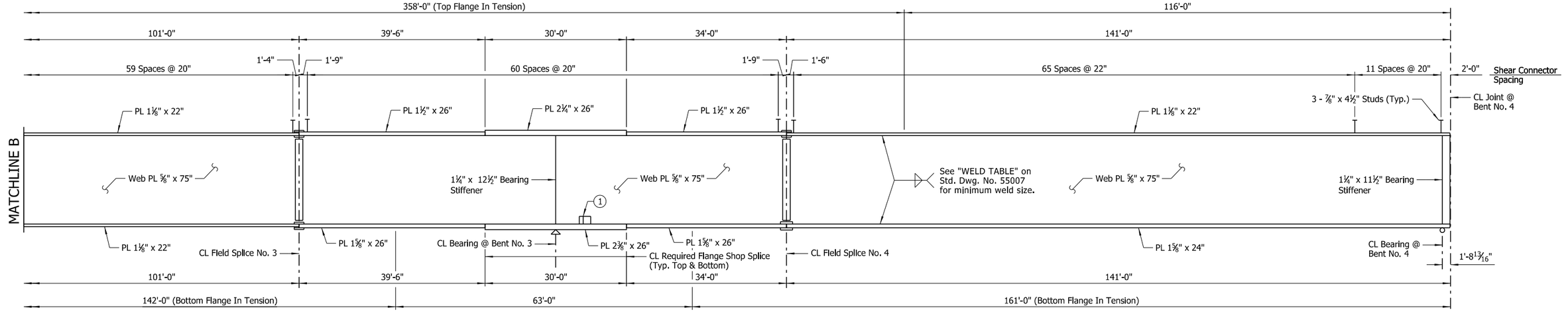
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 332 | 583 |
| | | A7658 & B7658 | | 590'-0" UNIT | | 66780 |

(1) Drip plate welded to the outer side of the bottom flange of the exterior girders. Locate drip plates 5'-0" from CL Bearing at locations shown. See "BOTTOM FLANGE DRIP PLATE" on Std. Dwg. No. 55007 for additional details. Stop drip plate weld 1" from face of web.




## PART FRAMING PLAN
Scale: 3/32" = 1'-0"




## PART GIRDER ELEVATION
No Scale

NOTES:
For Standard General Notes, see Std. Dwg. No. 55006. For Standard Details, see Std. Dwg. No. 55007.

All structural steel shall be ASTM A709, Gr. 50W unless noted otherwise and shall be paid for at the unit price per pound bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)".

Bolted Field Splices shown may be eliminated or shop welded splices may be substituted with approval of the Engineer. Payment will be made on the basis of the Plan Quantities.

The Contractor shall ensure that beams are stable thoughout the erection process. The Contractor will be responsible for providing temporary bracing or stiffening devices to accommodate handling stresses in individual members or segments of the structure during erection.

For "DETAILS OF WELDED SPLICES FOR PLATE GIRDERS" and "SHEAR CONNECTOR DETAIL," see Std. Dwg. No. 55007.

For painting of girders, see "GENERAL NOTES" on Dwg. No. 66766.

NOTES:
For cross-frame details, stiffener and connection plate details, see Dwg. No. 66781.

For details of field splices, see Dwg. No. 66782.

## LEGEND
U.N.O. = Unless Noted Otherwise

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
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BRIDGE ENGINEER

# SHEET 4 OF 9
# DETAILS OF 590'-0" CONTINUOUS PLATE GIRDER UNIT LITTLE OSAGE CREEK

ROUTE SEC.

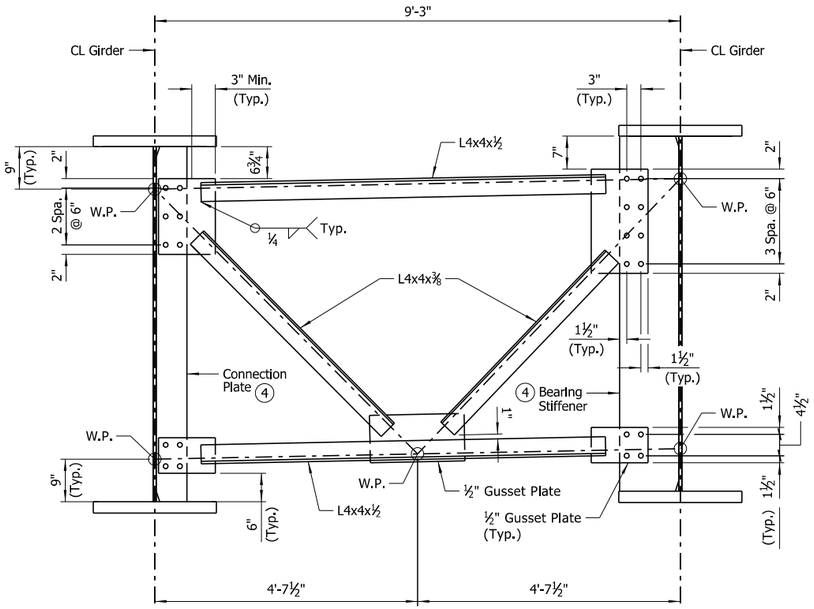
## ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: RAK DATE: DEC. 2022

BRIDGE NO. A7658 & B7658 DRAWING NO. 66780

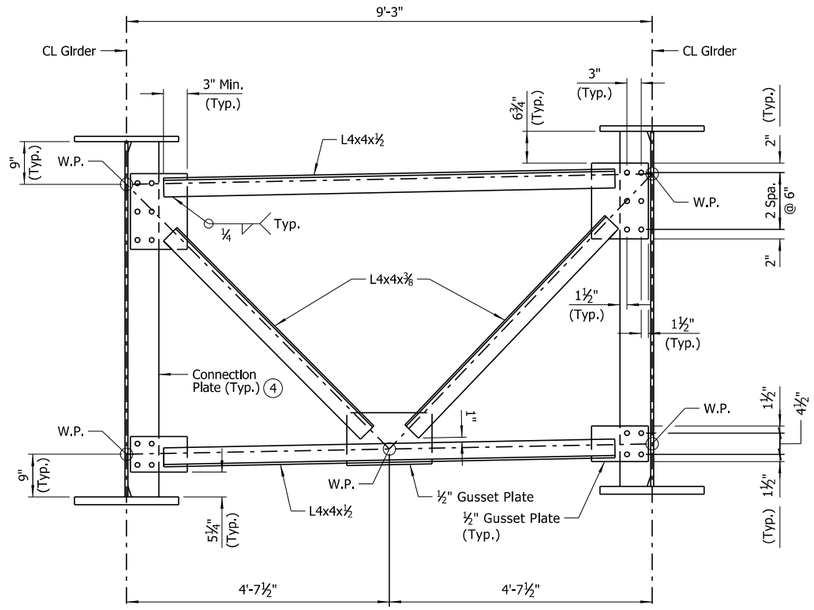
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 333 | 583 |
| | | A7658 & B7658 | | 590'-0" UNIT | | 66781 |




END/INT. BENT CROSS-FRAME DETAIL

Scale: ¾" = 1'-0"




INTERMEDIATE CROSS-FRAME DETAIL

Scale: ¾" = 1'-0"

(1) See "WELD TABLE" on Std. Dwg. No. 55007 for minimum weld size.

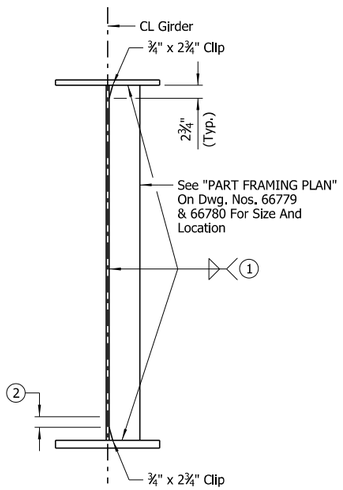
(2) Stop weld ¼" to 1" from end of clip (Typ.)

(3) If permanent deck forms are used, the fabricator shall clip the plate as necessary to accommodate the deck form supports.

(4) See "PART FRAMING PLAN", on Dwg. Nos. 66779 & 66780.

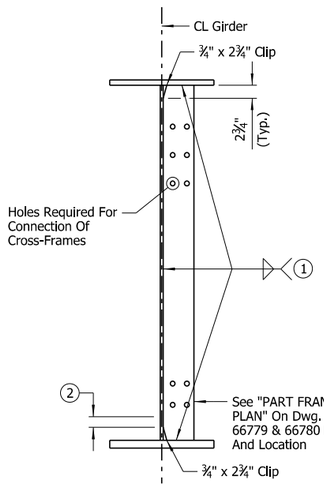
NOTES:
All field connections shall be bolted with ⅞"ø H.S. bolts using $^{15}/_{16}$"ø open holes.

Bearing Stiffeners shall be fabricated to be vertical in their final positions.



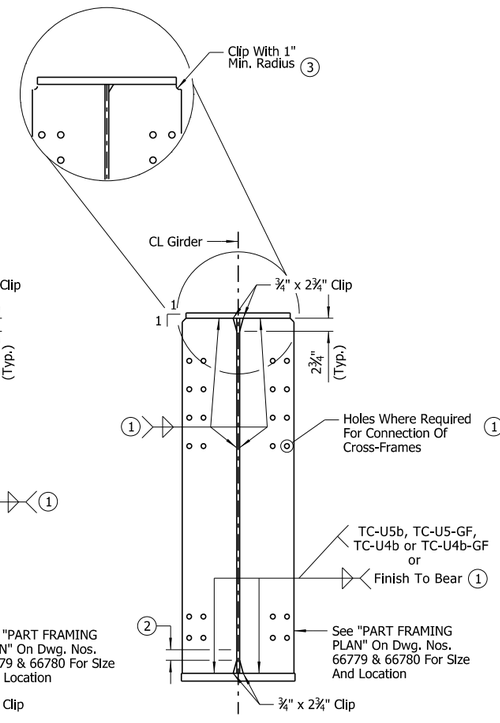

INTERMEDIATE TRANSVERSE STIFFENER DETAIL

Scale: ¾" = 1'-0"

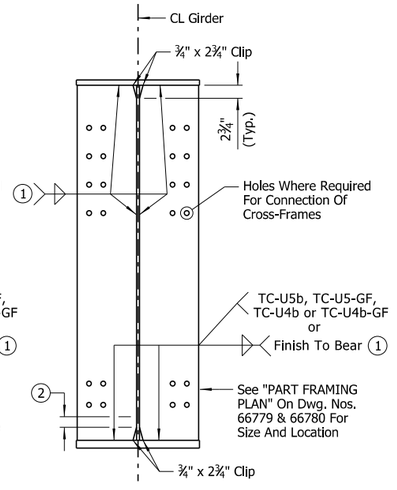



CONNECTION PLATE DETAIL

Scale: ¾" = 1'-0"



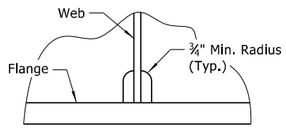

BENT NOS. 1 & 4




BENT NOS. 2 & 3

BEARING STIFFENER DETAIL

Scale: ¾" = 1'-0"




Height and width of clip shall be as noted in other details.

ALTERNATE CLIP DETAIL

(For Bearing Stiffeners, Intermediate Transverse Stiffeners and Cross-frame Connection Plates)
No Scale

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BRIDGE ENGINEER

SHEET 5 OF 9
DETAILS OF 590'-0" CONTINUOUS PLATE GIRDER UNIT
LITTLE OSAGE CREEK
ROUTE SEC.

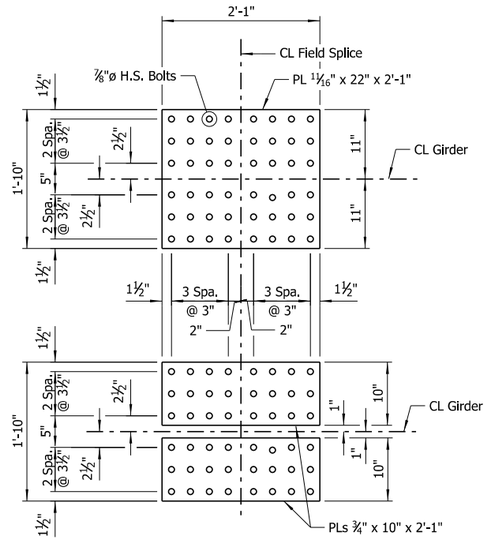
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: CSW DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: DEC. 2022

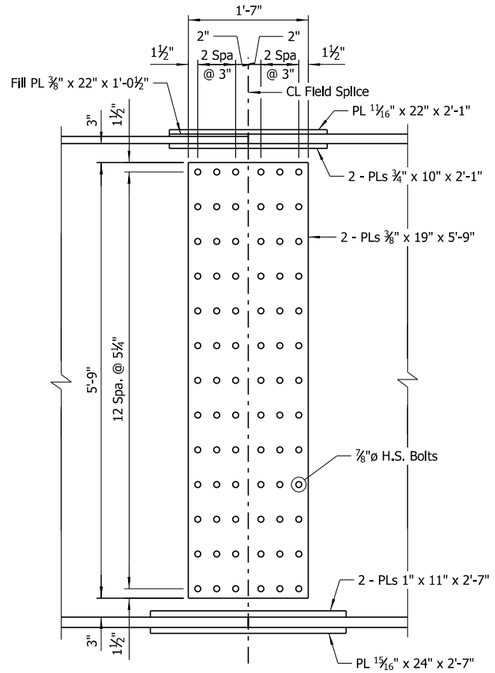
BRIDGE NO. A7658 & B7658 DRAWING NO. 66781

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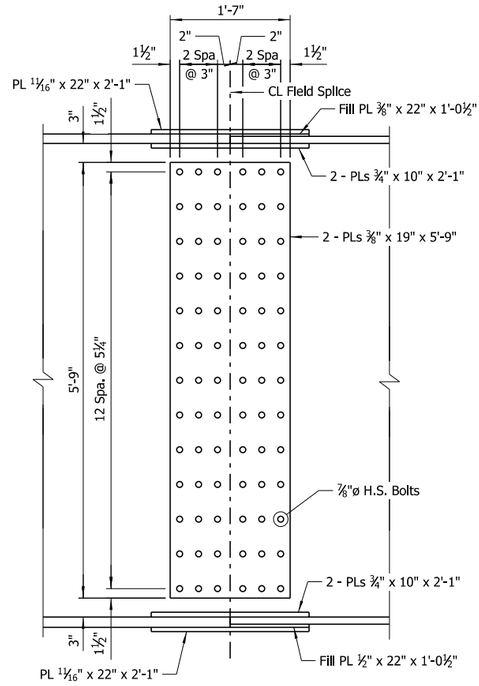
| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 334 | 583 |
| | | A7658 & B7658 | | 590'-0" UNIT | | 66782 |




TOP FLANGE SPLICE NOS. 1-4
BOTTOM FLANGE SPLICE NOS. 2 & 3
Scale: 1" = 1'-0"

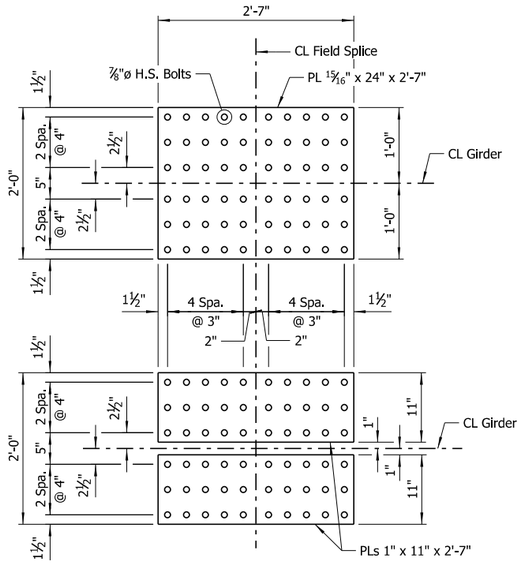



ELEVATION OF FIELD SPLICE NOS. 1 & 4
Scale: 1" = 1'-0"




ELEVATION OF FIELD SPLICE NOS. 2 & 3
Scale: 1" = 1'-0"

NOTES:
All holes for field splice bolts shall be 15/16"ø.




BOTTOM FLANGE SPLICE NOS. 1 & 4
Scale: 1" = 1'-0"

STATE OF ARKANSAS
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BRIDGE ENGINEER

SHEET 6 OF 9
DETAILS OF 590'-0" CONTINUOUS
PLATE GIRDER UNIT
LITTLE OSAGE CREEK
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

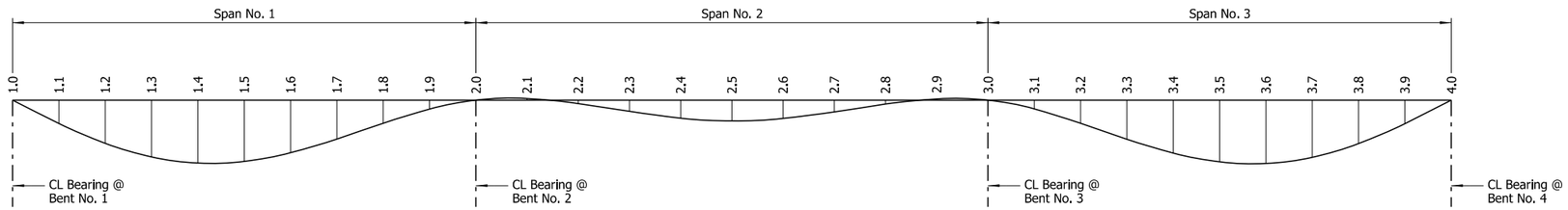
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BRIDGE NO. A7658 & B7658 DRAWING NO. 66782

JESkinner 10/20/2023 2:12:21 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 335 | 583 |
| | | A7658 & B7658 | | 590'-0" UNIT | | 66783 |

## TABLE OF DEAD LOAD DEFLECTIONS (INCHES)

| | Point Of Deflection | Exterior Girder | | | Interior Girder | | |
|---|---|---|---|---|---|---|---|
| | | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail |
| SPAN NO. 1 | 1.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 1.1 | 0.590 | 1.889 | 2.080 | 0.605 | 2.110 | 2.298 |
| | 1.2 | 1.093 | 3.495 | 3.847 | 1.120 | 3.900 | 4.246 |
| | 1.3 | 1.446 | 4.614 | 5.078 | 1.480 | 5.138 | 5.593 |
| | 1.4 | 1.613 | 5.128 | 5.641 | 1.647 | 5.697 | 6.200 |
| | 1.5 | 1.581 | 5.006 | 5.504 | 1.613 | 5.550 | 6.038 |
| | 1.6 | 1.372 | 4.312 | 4.738 | 1.397 | 4.767 | 5.184 |
| | 1.7 | 1.028 | 3.199 | 3.511 | 1.045 | 3.522 | 3.827 |
| | 1.8 | 0.625 | 1.914 | 2.095 | 0.632 | 2.090 | 2.266 |
| | 1.9 | 0.255 | 0.759 | 0.825 | 0.254 | 0.810 | 0.872 |
| SPAN NO. 2 | 2.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 2.1 | -0.084 | -0.181 | -0.173 | -0.084 | -0.177 | -0.169 |
| | 2.2 | -0.004 | 0.182 | 0.258 | -0.002 | 0.255 | 0.328 |
| | 2.3 | 0.147 | 0.777 | 0.942 | 0.152 | 0.945 | 1.103 |
| | 2.4 | 0.282 | 1.292 | 1.528 | 0.292 | 1.546 | 1.774 |
| | 2.5 | 0.335 | 1.495 | 1.759 | 0.349 | 1.786 | 2.041 |
| | 2.6 | 0.286 | 1.308 | 1.547 | 0.298 | 1.571 | 1.801 |
| | 2.7 | 0.156 | 0.809 | 0.978 | 0.164 | 0.990 | 1.152 |
| | 2.8 | 0.007 | 0.221 | 0.302 | 0.011 | 0.306 | 0.384 |
| | 2.9 | -0.073 | -0.144 | -0.132 | -0.073 | -0.136 | -0.125 |
| SPAN NO. 3 | 3.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 3.1 | 0.244 | 0.723 | 0.785 | 0.249 | 0.793 | 0.854 |
| | 3.2 | 0.614 | 1.876 | 2.053 | 0.635 | 2.098 | 2.274 |
| | 3.3 | 1.020 | 3.167 | 3.476 | 1.052 | 3.548 | 3.854 |
| | 3.4 | 1.365 | 4.286 | 4.710 | 1.407 | 4.803 | 5.221 |
| | 3.5 | 1.577 | 4.988 | 5.486 | 1.625 | 5.590 | 6.079 |
| | 3.6 | 1.610 | 5.117 | 5.630 | 1.658 | 5.736 | 6.241 |
| | 3.7 | 1.447 | 4.614 | 5.079 | 1.489 | 5.171 | 5.628 |
| | 3.8 | 1.096 | 3.503 | 3.856 | 1.127 | 3.924 | 4.272 |
| | 3.9 | 0.594 | 1.901 | 2.093 | 0.609 | 2.124 | 2.313 |
| | 4.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |




DEAD LOAD DEFLECTION DIAGRAM

No Scale

NOTES:
Camber for dead load deflection plus vertical curve +/- ¼" tolerance. Deflections shown are along CL Girder from the plane perpendicular to the web extending from CL Bearing to CL Bearing. Vertical curve corrections are not included. Negative sign (-) indicates point above chord.

Dead load deflections shown include an assumed loading of 18 psf to account for stay-in-place metal deck forms.

Revision to the deflection tables may be necessary upon review of the Contractor's submitted forming details.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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COLTON S. WYLIE

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SHEET 7 OF 9
DETAILS OF 590'-0" CONTINUOUS PLATE GIRDER UNIT
LITTLE OSAGE CREEK
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: DEC. 2022 FILENAME: b090069m3_s7.dgn
CHECKED BY: CSW DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: DEC. 2022

BRIDGE NO. A7658 & B7658 DRAWING NO. 66783

JESkinner 10/20/2023 2:12:22 PM
WORKSPACE: ARDOT Bridge (2019)
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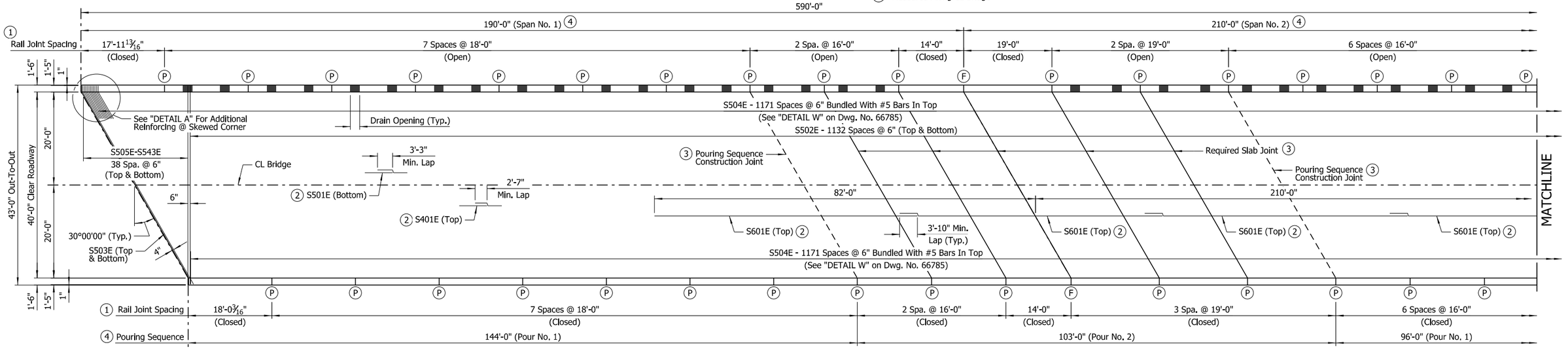
| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | 6 | ARK. | 090069 | 336 | 583 |
| | | A7658 & B7658 | | 590'-0" UNIT | | 66784 |

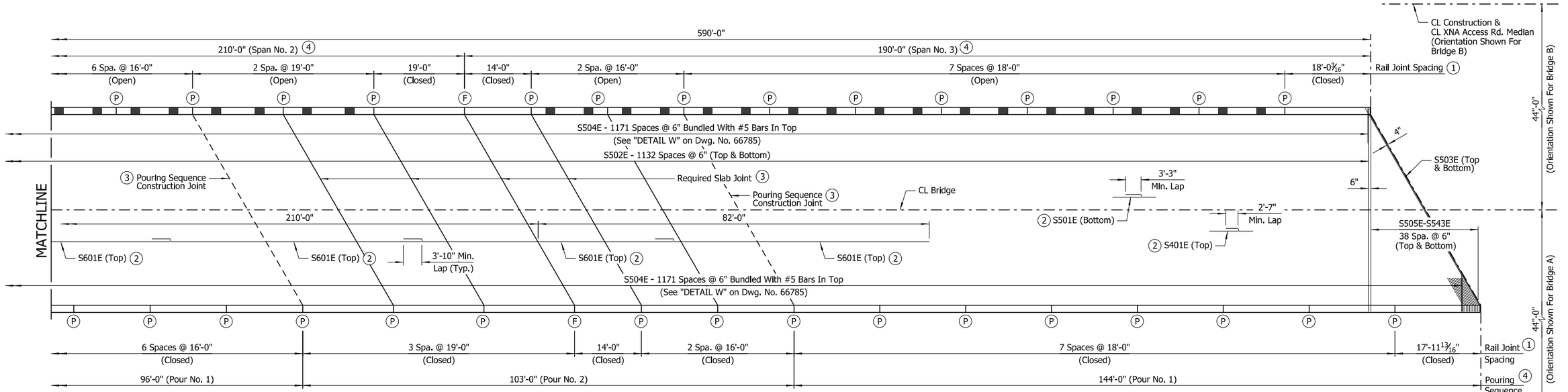
(1) Measured along inside face of rail. Rail open panels are shown for Bridge A; Rail open panels are mirrored across CL Bridge for Bridge B. Rail joints designated with symbol (F) shall be stopped 6" from top of slab. All other rail joints with symbol (P) shall be partial-depth joints stopped 16" from top of slab.

(2) Place as shown in "TYPICAL ROADWAY SECTION" on Dwg. No. 66777

(3) See "TRANSVERSE SLAB JOINT DETAIL" on Std. Dwg. No. 55007

(4) Measured Along CL Bridge




## REINFORCING PLAN & SLAB POURING SEQUENCE

Scale: 3/32" = 1'-0"

NOTES:
Pours with the same number may be placed simultaneously or separately. All Pour(s) (1) must be placed before Pour(s) (2) can be placed. 48 hours shall elapse between the end of a pour and the start of the next pour. A minimum of 72 hours shall elapse between adjacent pours.

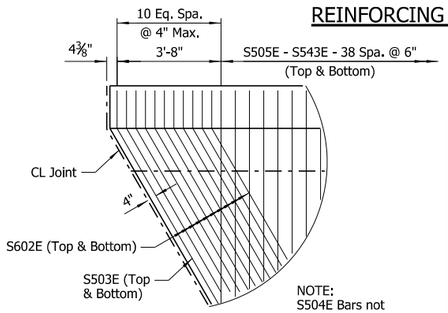
Concrete in bridge superstructure shall be placed, consolidated and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

A minimum of 72 hours shall elapse between the completion of the entire deck slab and the start of a railing pour. Any railing pours made before the entire slab unit has been placed must be approved by the Engineer. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence shown.

Required slab joints and pouring sequence joints shall align with rail joints as shown.

For "GENERAL NOTES", see Std. Dwg. No. 55006.

For Concrete Bridge Rail details, see Dwg. No. 66785 & Std. Dwg. No. 55071




## DETAIL A

Scale: 3/8" = 1'-0"

## TABLE OF VARIABLES

| Closed Rail Panels | | | Open Rail Panels | | | | | |
|---|---|---|---|---|---|---|---|---|
| Panel Length | A | R4XXE | Panel Length | B | C | D | E | R4XXE |
| 14'-0" | 27 | 09 | 16'-0" | 8 | 3'-0" | 11 | 6'-0" | 10 |
| 16'-0" | 31 | 10 | 18'-0" | 11 | 4'-0" | 11 | 6'-0" | 11 |
| 17'-11 13/16" | 35 | 11 | 19'-0" | 11 | 4'-0" | 13 | 7'-0" | 12 |
| 18'-0" | 35 | 11 | | | | | | |
| 18'-0 3/16" | 36 | 11 | | | | | | |
| 19'-0" | 37 | 12 | | | | | | |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 8 OF 9
# DETAILS OF 590'-0" CONTINUOUS PLATE GIRDER UNIT LITTLE OSAGE CREEK

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: DEC. 2022 FILENAME: b090069m3_s8.dgn
CHECKED BY: CSW DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: DEC. 2022

BRIDGE NO. A7658 & B7658 DRAWING NO. 66784

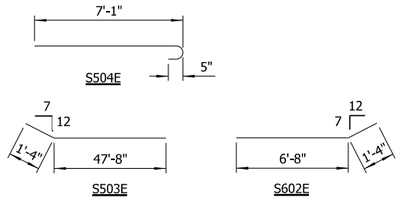
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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 337 | 583 |
| | | A7658 & B7658 | | 590'-0" UNIT | | 66785 |

## BAR LIST

| MARK | NO. REQ'D | LENGTH | P.D. |
|---|---|---|---|
| R400E | 224 | 6'-3" | 3" |
| R401E | 2342 | 7'-6" | 3" |
| R402E | 248 | 5'-6" | Str. |
| R403E | 2342 | 3'-8" | 3", 6" |
| R409E | 40 | 13'-8" | Str. |
| R410E | 200 | 15'-8" | Str. |
| R411E | 320 | 17'-7½" | Str. |
| R412E | 120 | 18'-8" | Str. |
| | | | |
| S401E | 704 | 39'-4" | Str. |
| | | | |
| S501E | 506 | 56'-7" | Str. |
| S502E | 2266 | 42'-8" | Str. |
| S503E | 4 | 49'-0" | 2½" |
| S504E | 2344 | 7'-8" | 3¾" |
| S505E To S543E | 4 Each | 7'-9" To 40'-8" | Str. |
| | | | |
| S601E | 301 | 56'-9" | Str. |
| S602E | 36 | 8'-0" | 3¾" |

## BAR BENDING DIAGRAMS

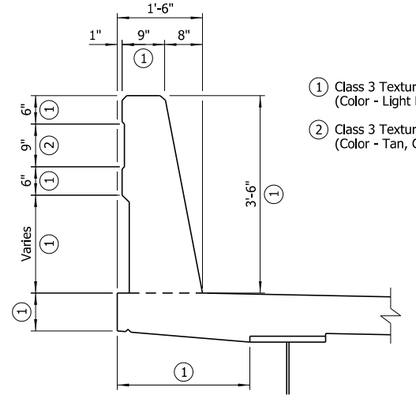



NOTES:
Dimensions of bars are out-to-out.

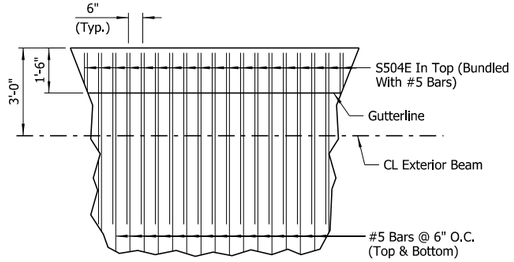
Bar designations ending with "E" indicate epoxy coated bars.

For bar bending diagrams of R400E, R401E & R403E, see Std. Dwg. No. 55071.

The first bar designation number indicates the reinforcing bar size.




BRIDGE RAIL AESTHETIC DETAIL
No Scale




DETAIL W
No Scale

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WORKSPACE: ARDOT Bridge (2019)
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STATE OF ARKANSAS
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No.21243
COLTON S. WYLIE

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BRIDGE ENGINEER

SHEET 9 OF 9
DETAILS OF 590'-0" CONTINUOUS
PLATE GIRDER UNIT
LITTLE OSAGE CREEK

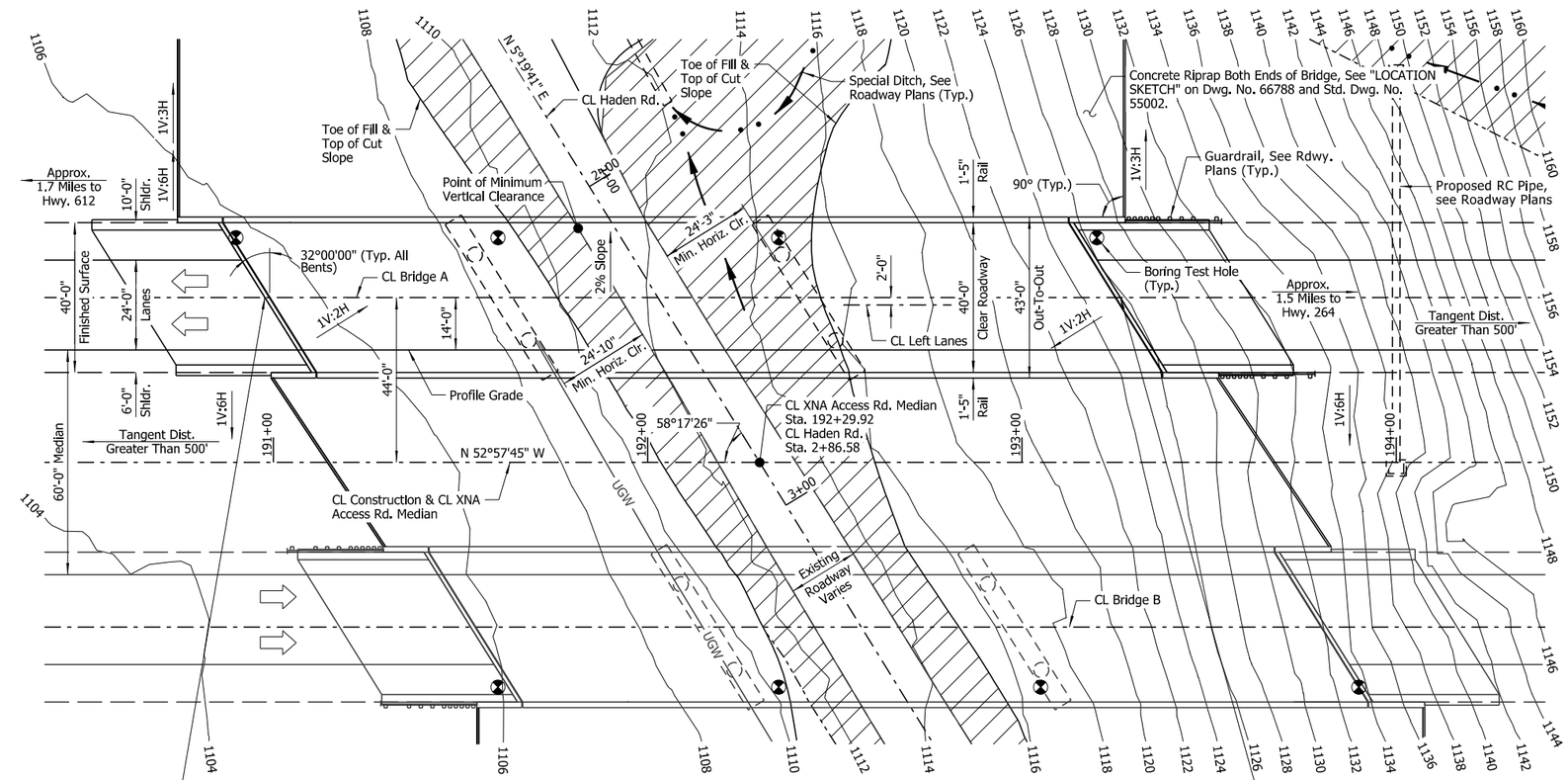
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

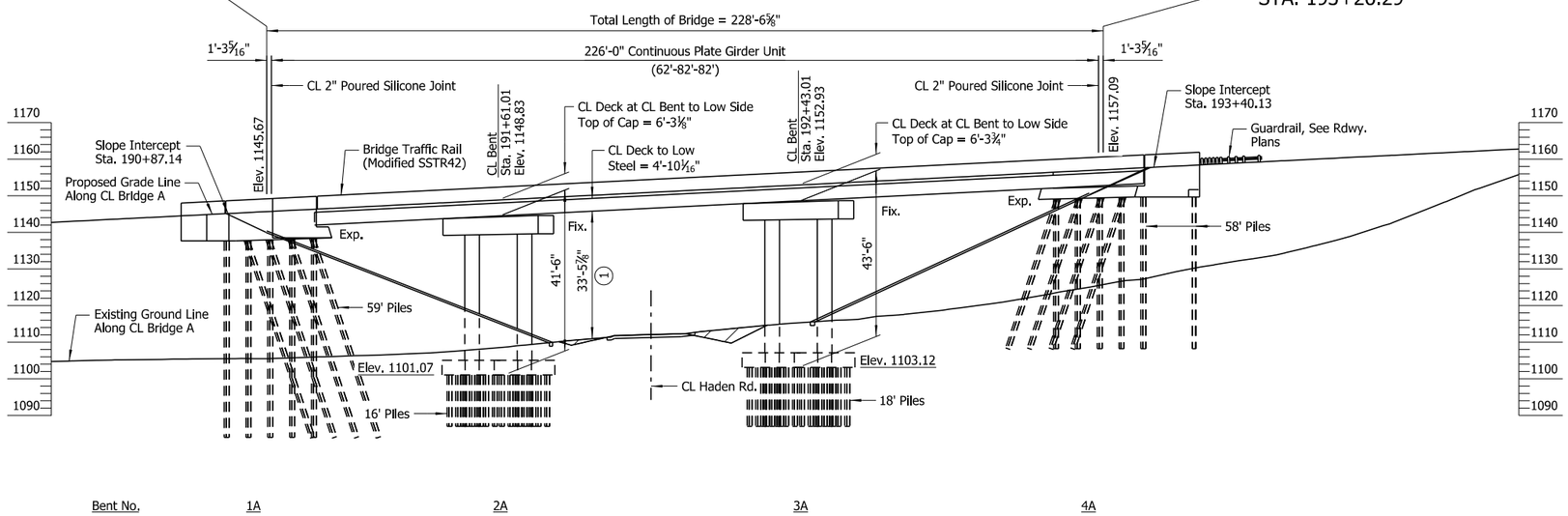
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DESIGNED BY: RAK DATE: DEC. 2022

BRIDGE NO. A7658 & B7658 DRAWING NO. 66785

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 338 | 583 |
| | | A7659 | | LAYOUT | | 66786 |




## PLAN - BRIDGE A




## ELEVATION - BRIDGE A

| Bent No. | 1A | 2A | 3A | 4A |
|---|---|---|---|---|

FOR R/W DATA, SEE ROADWAY PLANS

191+00 192+00 193+00 194+00

NOTE:
Stations shown are along CL Construction. Elevations shown are actual top of deck elevations at CL Bridge A. Any vertical dimension referenced to CL Deck is based on actual top of deck elevation at CL Bridge A.

NOTES:
Use Type F Approach Slabs (W = 36'-0") at each end of bridge. See Std. Dwg. No. 55040F1.

Use Type F Approach Gutters at each end of bridge. See Std. Dwg. No. 55030F.

## EXISTING UTILITIES LEGEND

UGW = Underground Water Utility

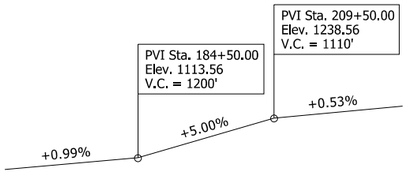
NOTE:
Utilities shown are based on locations at time of survey and do not reflect any potential utility relocations prior to construction.

NOTES:
For "PROJECT GENERAL NOTES", see Dwg. No. 66717.

For "LOCATION SKETCH" and "GENERAL NOTES", see Dwg. No. 66788.

For "ELEVATION OF SOIL BORINGS - BRIDGE A", "BORING LEGEND" and "N-VALUES", see Dwg. No. 66789.

(1) Point of Minimum Vertical Clearance




## VERTICAL CURVE DATA

XNA Access Rd.
(Profile Grade 14' Right of CL Bridge A)

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE

Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 1 OF 4
# LAYOUT OF BRIDGES
# XNA ACCESS RD. OVER HADEN RD.
# NORTHWEST ARKANSAS
# NATIONAL AIRPORT ACCESS (F)
# BENTON COUNTY

ROUTE NEW SEC.NEW

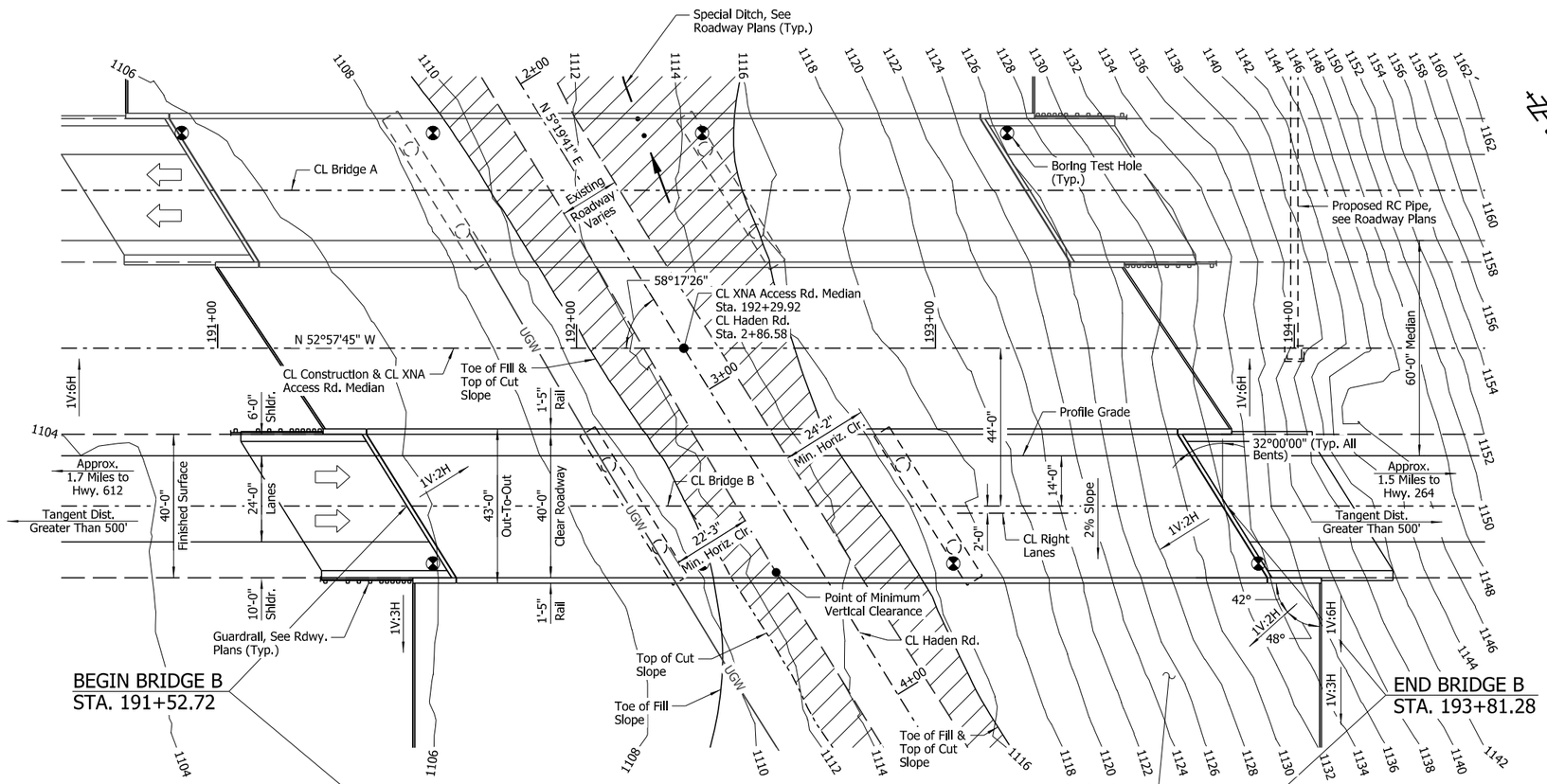
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LITTLE ROCK, ARK.

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DESIGNED BY: MRA DATE: AUG. 2021
BRIDGE NO. A7659 DRAWING NO. 66786

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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 339 | 583 |
| | | B7659 | | LAYOUT | | 66787 |




NOTE:
Stations shown are along CL Construction. Elevations shown are actual top of deck elevations at CL Bridge B. Any vertical dimension referenced to CL Deck is based on actual top of deck elevation at CL Bridge B.

NOTES:
Use Type F Approach Slabs (W = 36'-0") at each end of bridge. See Std. Dwg. No. 55040F1.

Use Type F Approach Gutters at each end of bridge. See Std. Dwg. No. 55030F.

## EXISTING UTILITIES LEGEND

UGW = Underground Water Utility

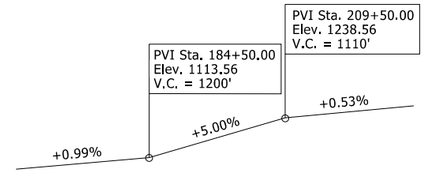
NOTE:
Utilities shown are based on locations at time of survey and do not reflect any potential utility relocations prior to construction.

NOTES:
For "PROJECT GENERAL NOTES", see Dwg. No. 66717.

For "LOCATION SKETCH" and "GENERAL NOTES", see Dwg. No. 66788.

For "ELEVATION OF SOIL BORINGS - BRIDGE B", "BORING LEGEND" and "N-VALUES", see Dwg. No. 66789.

(1) Point of Minimum Vertical Clearance




## VERTICAL CURVE DATA

XNA Access Rd.
(Profile Grade 14' Left of CL Bridge B)

FOR R/W DATA, SEE ROADWAY PLANS

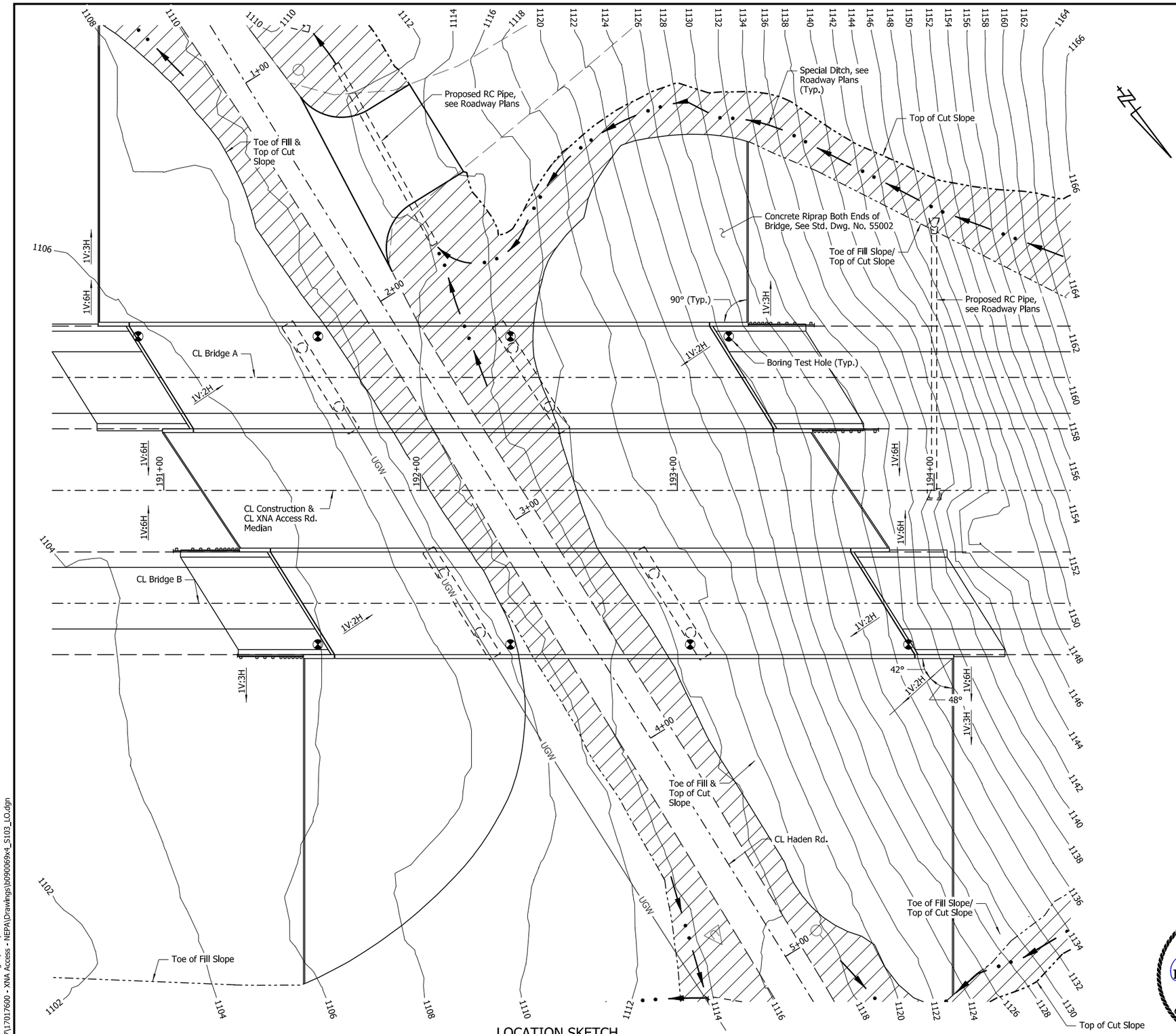
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 2 OF 4
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER HADEN RD.
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: MRA DATE: AUG. 2021
BRIDGE NO. B7659 DRAWING NO. 66787

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 340 | 583 |
| | | A7659 & B7659 | | LAYOUT | | 66788 |




LOCATION SKETCH

## GENERAL NOTES

SEISMIC ZONE: 1 $S_{DI}$: 0.09g SITE CLASS: C

SEISMIC OPERATIONAL CLASSIFICATION: Essential

STEEL PILING: All piling shall be HP 12x53 (Grade 50) and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 96 tons per pile and into the material designated as moderately hard to hard cherty limestone on the boring legend. Minimum penetration shall be 10' below natural ground for all piles in Bents 1A, 1B, 4A & 4B, and 12' below bottom of footing for all piles in Bents 2A, 2B, 3A & 4B. Piling in end bents shall be driven after embankment to bottom of cap is in place. Lengths shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with Section 805. The Contractor shall use approved steel H-Pile driving points on all piles.

WAITING PERIOD: Piling at End Bent Nos. 1A, 4A, 1B and 4B shall be driven no sooner than 45 days after embankment construction is completed to the final roadway section. Pile driving shall not begin until approval is given by the Engineer.

PILE FOOTINGS: The top of the footings at Bents 2A, 2B, 3A & 4B shall be set a minimum of 2' below natural or finished ground or at the elevations shown on the plans, whichever is lower. Foundations for footings shall be prepared in accordance with Subsection 801.04. Foundation piles shall not be driven until after the excavation to bottom of footing is complete. Excavations shall be backfilled and compacted to the level of the existing or finished ground in accordance with Subsection 801.08.

PAINTING: All Grade 50 structural steel, except galvanized members and surfaces in contact with concrete, shall be painted as specified in Subsection 807.75. The color of paint shall be Red Brown and shall match Federal Standard 595B, Color Chip No. 30108.

| DETAIL DRAWINGS: | DRAWING NO(S). |
|---|---|
| End Bents | 66790-66795 |
| Intermediate Bents | 66796-66797 |
| Elastomeric Bearings | 66798 |
| 226'-0" Continuous Plate Girder Unit | 66799-66805 |
| Concrete Riprap | 55002 |
| General Notes For Steel Bridge Structures | 55006 |
| Details for Steel Bridge Structures | 55007 |
| Poured Silicone Joints | 55008 |
| Steel H-Piling | 55020 |
| Type F Approach Gutters | 55030F |
| Type F Approach Slabs | 55040F1 |
| Bridge Traffic Rail | 66805 & 55071 |

## EXISTING UTILITIES LEGEND

UGW = Underground Water Utility

NOTE:
Utilities shown are based on locations at time of survey and do not reflect any potential utility relocations prior to construction.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE

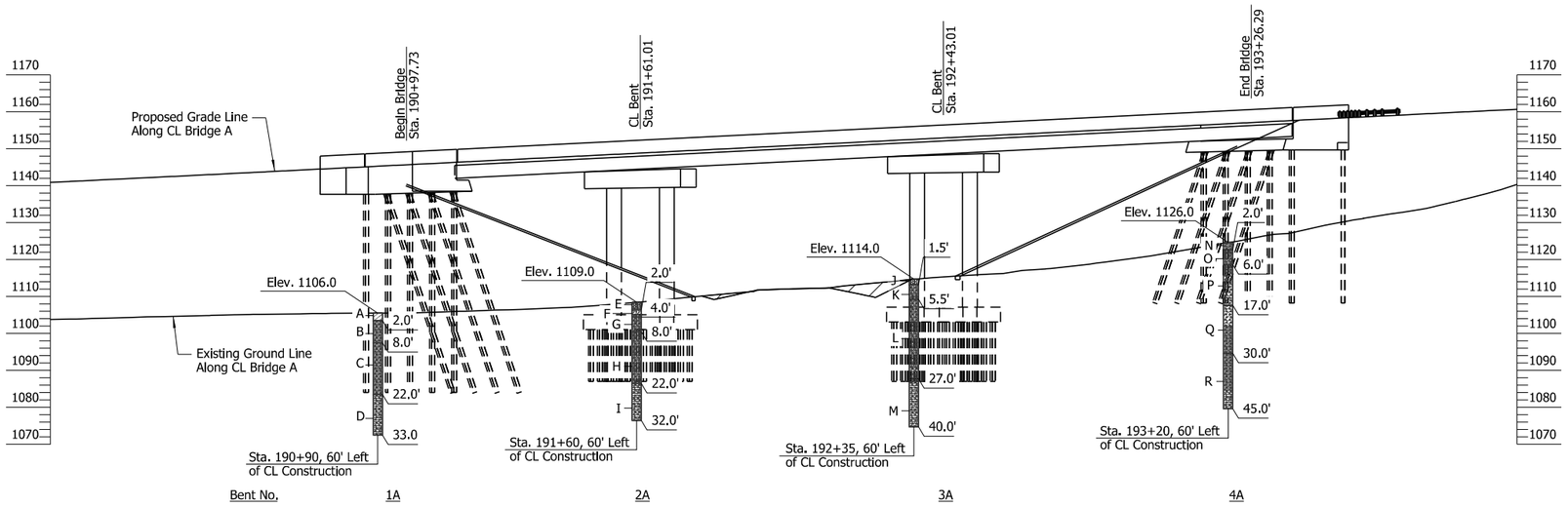
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BRIDGE ENGINEER

SHEET 3 OF 4
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER HADEN RD.
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

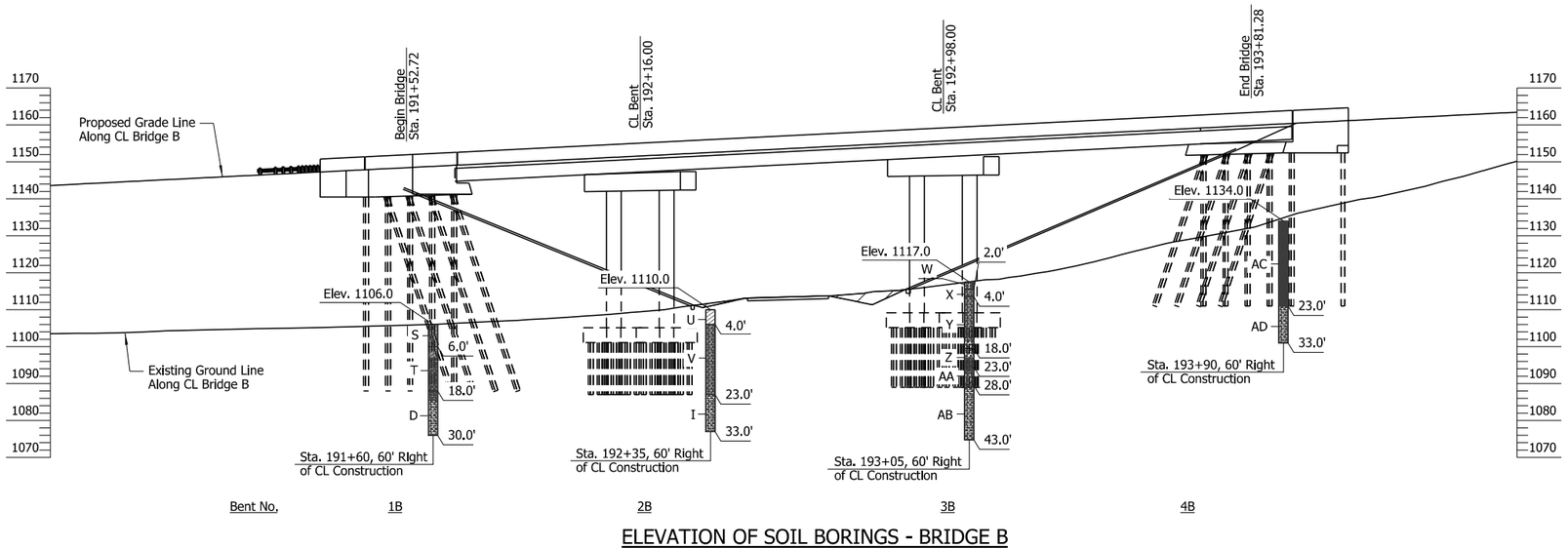
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DESIGNED BY: MRA DATE: AUG. 2021
BRIDGE NO. A7659 & B7659 DRAWING NO. 66788

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 341 | 583 |
| | | A7659 & B7659 | | LAYOUT | | 66789 |




## ELEVATION OF SOIL BORINGS - BRIDGE A




## ELEVATION OF SOIL BORINGS - BRIDGE B

## BORING LEGEND

A - Very soft to soft brown and reddish brown clay
B - Soft brown, reddish brown and gray silty clay
C - Firm to stiff tan and brown silty clay
D - Moderately hard to hard light gray cherty limestone
E - Very soft brown clayey silt
F - Very soft to soft tan and reddish tan clay
G - Firm tan, gray and reddish tan silty clay
H - Stiff reddish brown silty clay
I - Moderately hard to hard gray cherty limestone
J - Soft dark brown clayey silt
K - Stiff tan and gray silty clay
L - Very stiff reddish brown silty clay
M - Hard light gray cherty limestone
N - Stiff brown silty clay
O - Stiff light brown silty clay
P - Stiff reddish brown clay
Q - Stiff to very stiff tan and light gray silty clay
R - Moderately hard to hard light gray w/ gray cherty limestone
S - Stiff gray, reddish tan and red silty clay
T - Stiff brown, tan and reddish brown silty clay
U - Firm light brown clay
V - Stiff tan, reddish brown and gray silty clay
W - Soft grayish brown clayey silt
X - Firm tan, gray and reddish brown silty clay
Y - Very stiff brown and reddish brown silty clay
Z - Firm to stiff reddish brown clay, moist
AA - Very stiff reddish brown fine sandy clay
AB - Hard light gray w/ gray cherty limestone
AC - Stiff reddish brown and brown fine sandy clay
AD - Moderately hard to hard gray w/ tan cherty limestone

## N-VALUES

| Sta. 190+90 60' Lt. of CL Construction | Sta. 191+60 60' Lt. of CL Construction | Sta. 192+35 60' Lt. of CL Construction | Sta. 193+20 60' Lt. of CL Construction |
|---|---|---|---|
| 0.5-1.5, N=4 | 0.5-1.5, N=3 | 0.5-1.5, N=6 | 0.5-1.5, N=14 |
| 2.5-3.5, N=5 | 2.5-3.5, N=4 | 2.5-3.5, N=13 | 2.5-3.5, N=21 |
| 4.5-5.5, N=11 | 4.5-5.5, N=8 | 4.5-5.5, N=45 | 4.5-5.5, N=27 |
| 6.5-7.5, N=27 | 6.5-7.5, N=8 | 6.5-7.5, N=43 | 6.5-7.5, N=23 |
| 9.0-10.0, N=10 | 9.0-10.0, N=20 | 9.0-10.0, N=24 | 9.0-10.0, N=21 |
| 14.0-15.0, N=41 | 14.0-15.0, N=21 | 14.0-15.0, N=22 | 14.0-15.0, N=50/4" |
| 19.0-20.0, N=13 | 19.0-20.0, N=50/6" | 19.0-20.0, N=22 | 19.0-20.0, N=27 |
| | | 24.0-25.0, N=38 | 24.0-25.0, N=5 |
| | | 26.0-27.0, N=25/0" | 29.0-30.0, N=25/0" |

| Sta. 191+60 60' Rt. of CL Construction | Sta. 192+35 60' Rt. of CL Construction | Sta. 193+05 60' Rt. of CL Construction | Sta. 193+90 60' Rt. of CL Construction |
|---|---|---|---|
| 0.5-1.5, N=13 | 0.5-1.5, N=9 | 0.5-1.5, N=6 | 0.5-1.5, N=21 |
| 2.5-3.5, N=26 | 2.5-3.5, N=10 | 2.5-3.5, N=7 | 2.5-3.5, N=29 |
| 4.5-5.5, N=17 | 4.5-5.5, N=12 | 4.5-5.5, N=44 | 4.5-5.5, N=50/6" |
| 6.5-7.5, N=16 | 6.5-7.5, N=29 | 6.5-7.5, N=50/7" | 6.5-7.5, N=50/6" |
| 9.0-10.0, N=23 | 9.0-10.0, N=27 | 9.0-10.0, N=50/10" | 9.0-10.0, N=8 |
| 14.0-15.0, N=50/7" | 14.0-15.0, N=11 | 14.0-15.0, N=39 | 14.0-15.0, N=50/5" |
| 19.0-20.0, N=50/1" | 19.0-20.0, N=25/0" | 19.0-20.0, N=10 | 19.0-20.0, N=5 |
| | | 24.0-25.0, N=50/7" | 22.0-23.0, N=50/3" |

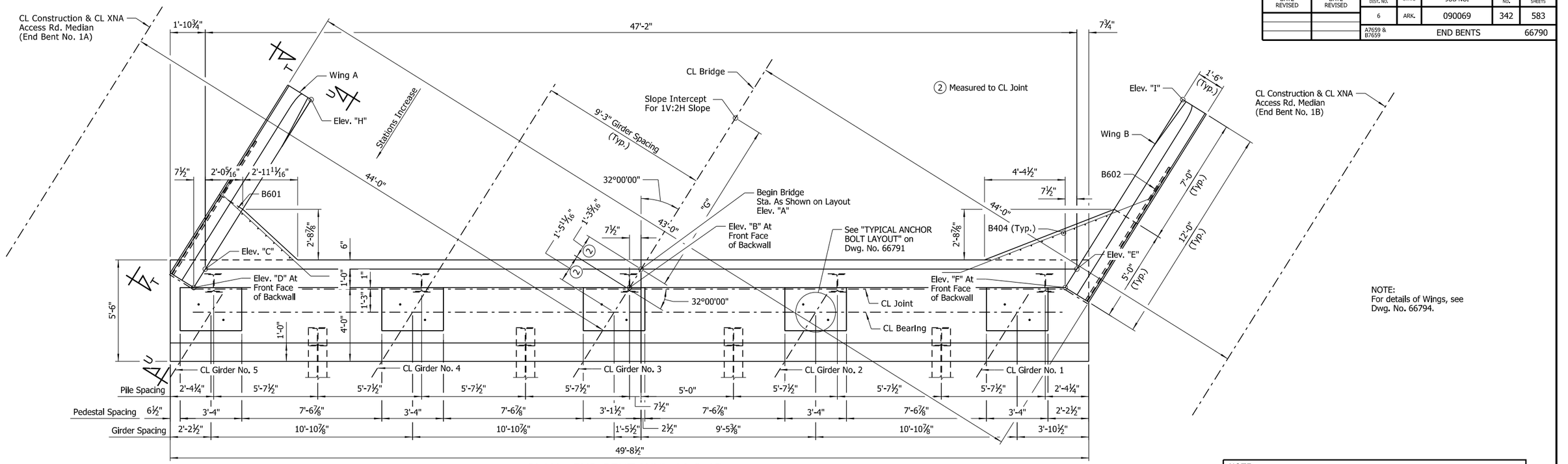
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 4 OF 4
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER HADEN RD.
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: MRA DATE: AUG. 2021
BRIDGE NO. A7659 & B7659 DRAWING NO. 66789

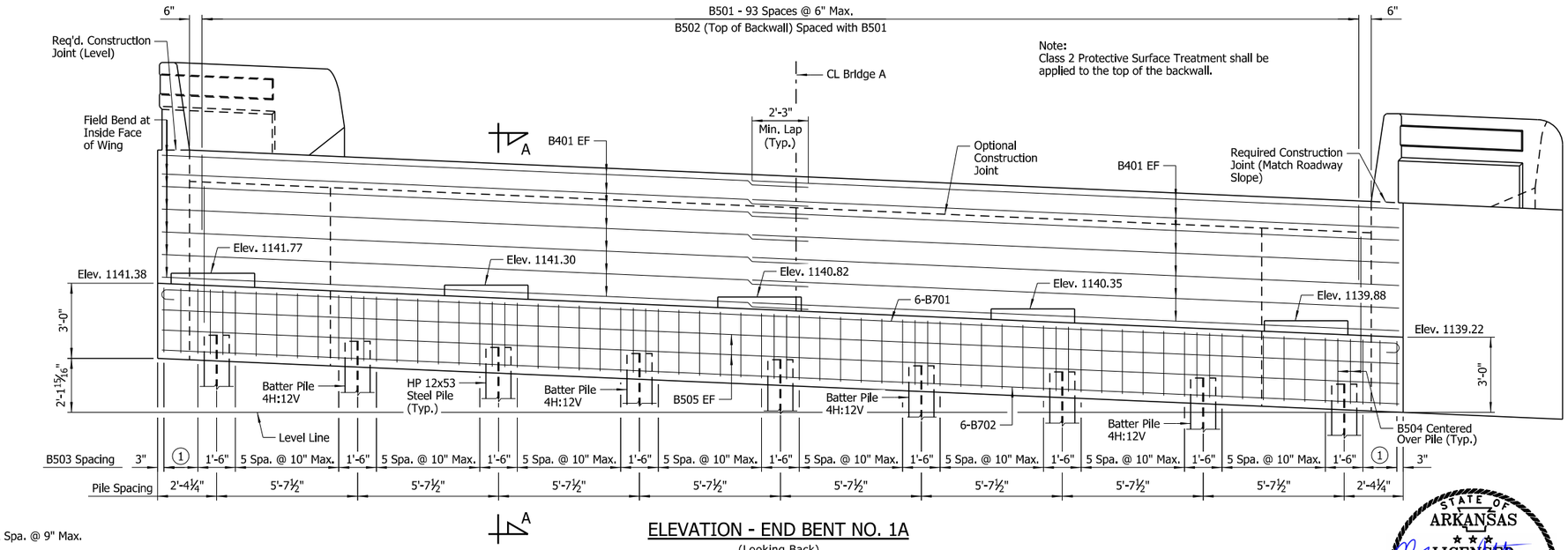
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 342 | 583 |
| | | A7659 & B7659 | | END BENTS | | 66790 |




## PLAN - END BENT NOS. 1A & 1B

Scale: ⅜" = 1'-0"




1 2 Spa. @ 9" Max.

## ELEVATION - END BENT NO. 1A

(Looking Back)
Scale: ⅜" = 1'-0"

## TABLE OF VARIABLES (END BENT NOS. 1A AND 1B)

| Location | Elev. "A" | Elev. "B" | Elev. "C" | Elev. "D" | Elev. "E" | Elev. "F" | "G" | Elev. "H" | Elev. "I" |
|---|---|---|---|---|---|---|---|---|---|
| End Bent No. 1A | 1145.67 | 1145.73 | 1146.69 | 1146.75 | 1144.64 | 1144.70 | 10'-7⅛" | 1146.15 | 1144.10 |
| End Bent No. 1B | 1148.42 | 1148.48 | 1148.64 | 1148.70 | 1148.19 | 1148.25 | 10'-7" | 1148.10 | 1147.65 |

## LEGEND

EF = Each Face

NOTE:
No portion of the backwall shall be poured before the girders are in place. The portion of the backwall above the optional construction joint at the paving bracket shall not be placed until the adjacent deck pour has been made. Refer to the "EXPANSION DEVICE INSTALLATION AT END BENTS" note on Std. Dwg. No. 55008.

No heavy construction equipment shall be allowed within 10' of the backwall until the deck concrete placement for the adjacent span has been completed.

NOTE:
For details of Wings, see Dwg. No. 66794.

## GENERAL NOTES

Structural steel in end bents shall be ASTM A709, Gr. 50 and shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in Special Provision "TEXTURED COATING FINISH" and in accordance with Subsection 802.19(b)(3).

See Standard Drawing No. 55006 for additional notes.

For additional information, see Layout.

NOTES:
For "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66793.

For "BAR LIST (PER BENT)" and "BAR BENDING DIAGRAMS", see Dwg. No. 66794.

For "SECTION A-A" see Dwg. No. 66791.

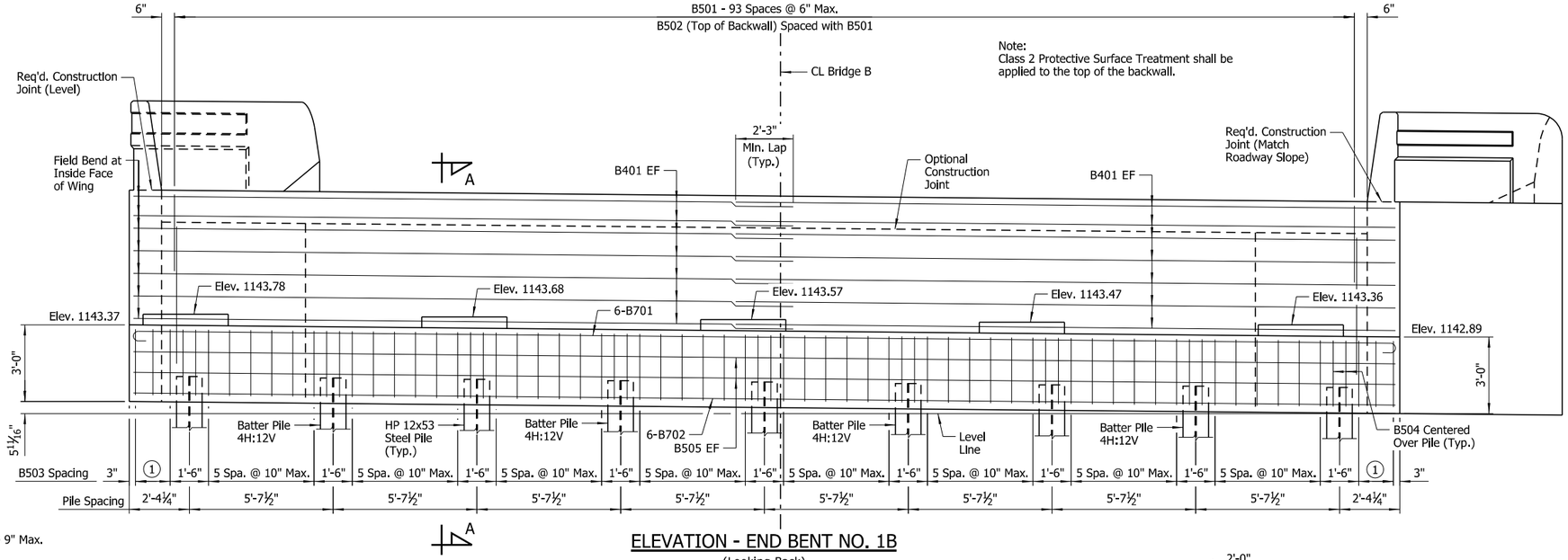
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13418
MASON R. ATKINSON
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 1 OF 6
DETAILS OF END BENTS
XNA ACCESS RD. OVER HADEN RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: DEC. 2022 FILENAME: b090069m6_a1.dgn
CHECKED BY: MRA DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: DEC. 2022
BRIDGE NO. A7659 & B7659 DRAWING NO. 66790

JESkinner 10/20/2023 2:12:33 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 343 | 583 |
| | | A7659 & B7659 | | END BENTS | | 66791 |




(1) 2 Spa. @ 9" Max.

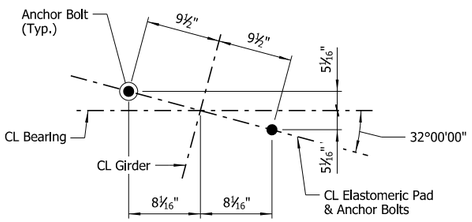
## ELEVATION - END BENT NO. 1B

(Looking Back)
Scale: ⅜" = 1'-0"

NOTES:
For "GENERAL NOTES", see Dwg. No. 66790.

For "TYPICAL PEDESTAL DETAILS", see Dwg. No. 66793.

For "BAR LIST (PER BENT)" and "BAR BENDING DIAGRAMS", see Dwg. No. 66794.



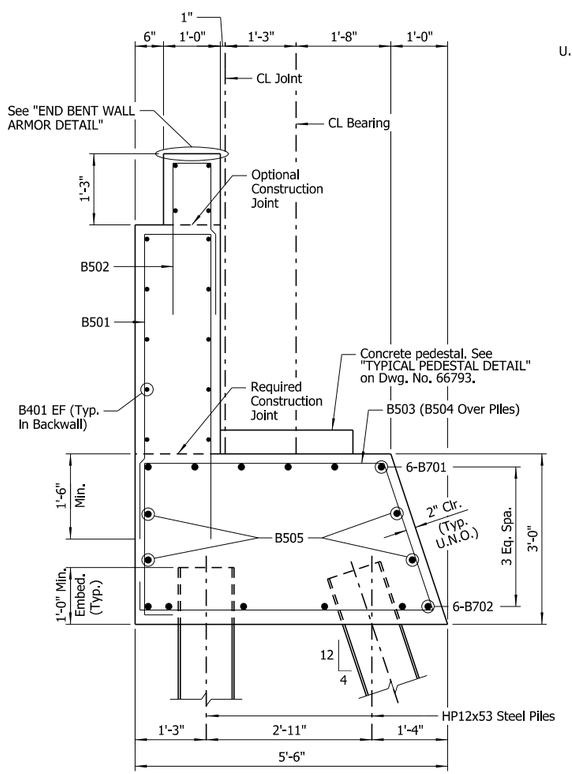

## TYPICAL ANCHOR BOLT LAYOUT

No Scale

NOTE:
For details of elastomeric bearings and anchor bolts, see Dwg. No. 66798.

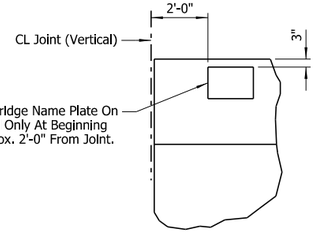
## LEGEND

EF = Each Face
U.N.O. = Unless Noted Otherwise



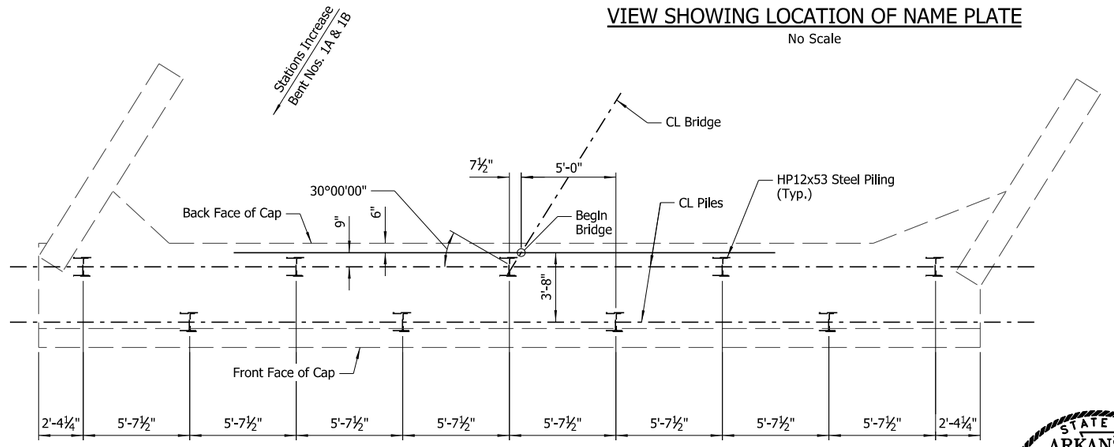

## SECTION A-A

Scale: ¾" = 1'-0"



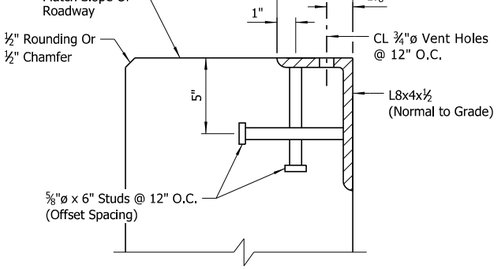

## VIEW SHOWING LOCATION OF NAME PLATE

No Scale




## FOUNDATION PLAN - END BENT NOS. 1A & 1B

Scale: ¼" = 1'-0"




## END BENT WALL ARMOR DETAIL

No Scale

NOTES:
Transverse spacing between vertical anchor studs and vent holes shall be 6".

Concrete shall be hand packed under joint armor.

Special care shall taken to properly and thoroughly consolidate the concrete in the vicinity of the expansion joint device in the backwall, see Section 802.09(a)(3).

The profile of the end bent wall armor shall be established based on the vertical curve in conjunction with the skew angle as shown on the layout.

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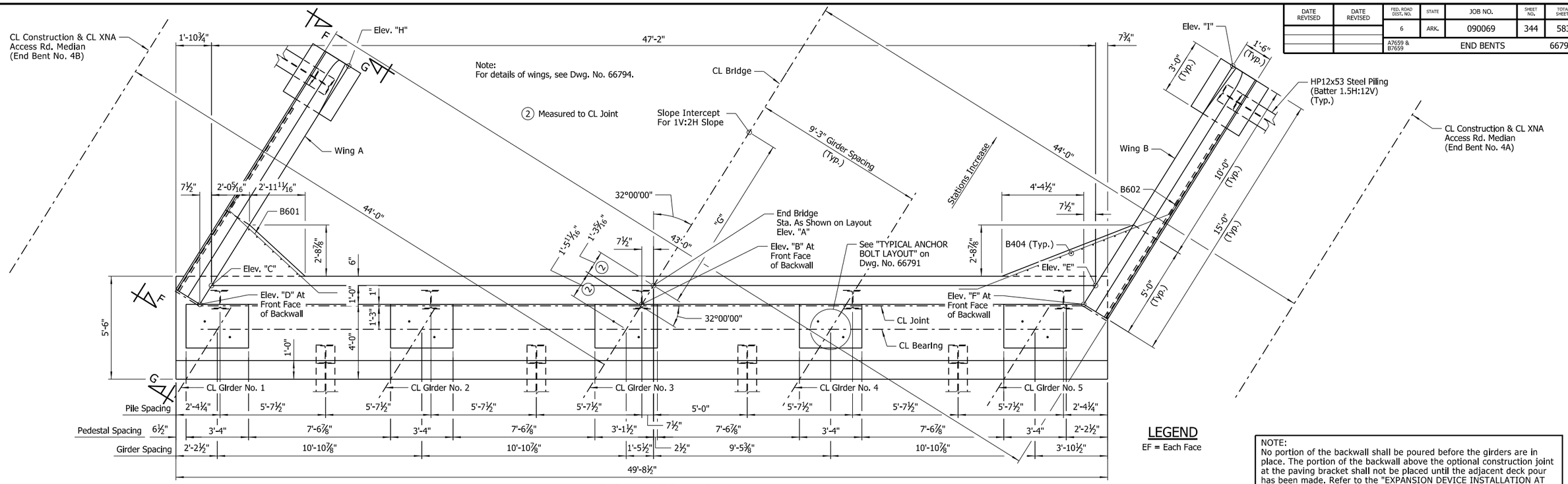
SHEET 2 OF 6
DETAILS OF END BENTS
XNA ACCESS RD. OVER HADEN RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

| | | | | | |
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BRIDGE NO. A7659 & B7659 DRAWING NO. 66791

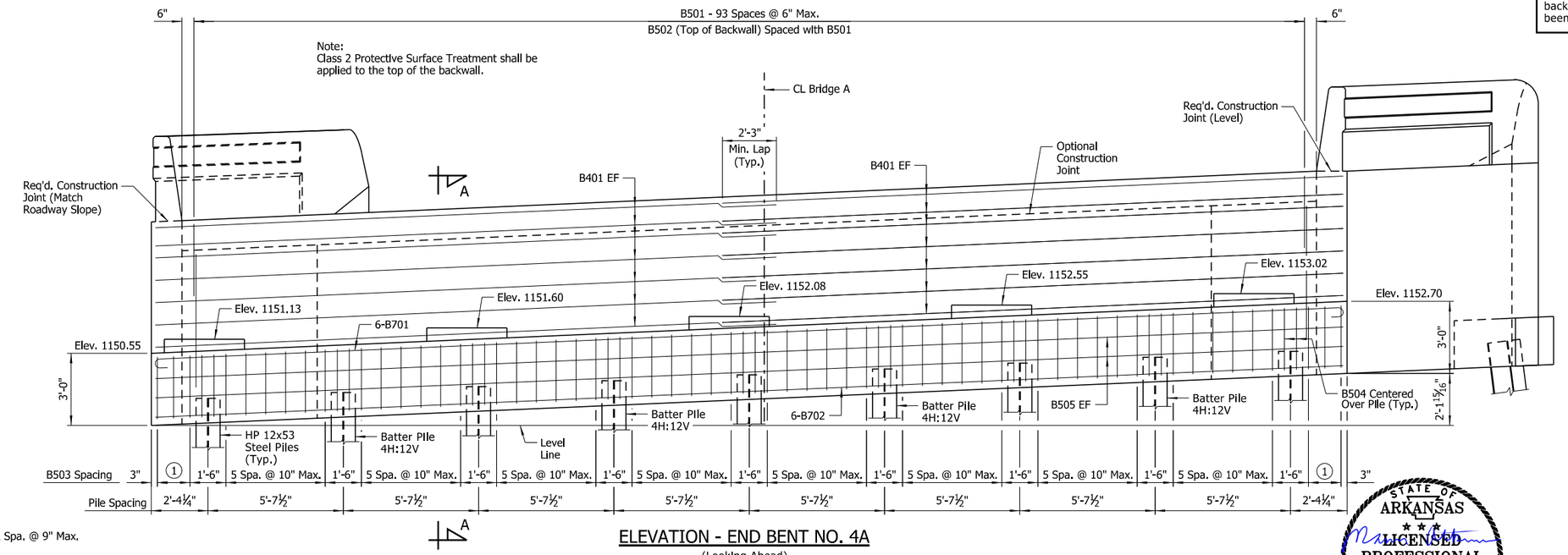
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| | | A7659 & B7659 | | END BENTS | | 66792 |




## PLAN - END BENT NOS. 4A & 4B

Scale: ⅜" = 1'-0"




## ELEVATION - END BENT NO. 4A

(Looking Ahead)
Scale: ⅜" = 1'-0"

### TABLE OF VARIABLES (END BENT NOS. 4A AND 4B)

| Location | Elev. "A" | Elev. "B" | Elev. "C" | Elev. "D" | Elev. "E" | Elev. "F" | "G" | Elev. "H" | Elev. "I" |
|---|---|---|---|---|---|---|---|---|---|
| End Bent No. 4A | 1157.09 | 1157.04 | 1156.07 | 1156.01 | 1158.12 | 1158.06 | 13'-10 1/16" | 1156.76 | 1158.81 |
| End Bent No. 4B | 1159.84 | 1159.78 | 1159.62 | 1159.56 | 1160.07 | 1160.01 | 13'-10 1/16" | 1160.31 | 1160.76 |

### LEGEND

EF = Each Face

NOTE:
No portion of the backwall shall be poured before the girders are in place. The portion of the backwall above the optional construction joint at the paving bracket shall not be placed until the adjacent deck pour has been made. Refer to the "EXPANSION DEVICE INSTALLATION AT END BENTS" note on Std. Dwg. No. 55008.

No heavy construction equipment shall be allowed within 10' of the backwall until the deck concrete placement for the adjacent span has been completed.

NOTES:
For "GENERAL NOTES", see Dwg. No. 66790.

For "BAR LIST (PER BENT)" and "BAR BENDING DIAGRAMS", see Dwg. No. 66794.

For "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66793.

For "VIEW F-F" and "SECTION G-G", see Dwg. No. 66795.

For "SECTION A-A", see Dwg. No. 66791.

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.13418 MASON R. ATKINSON

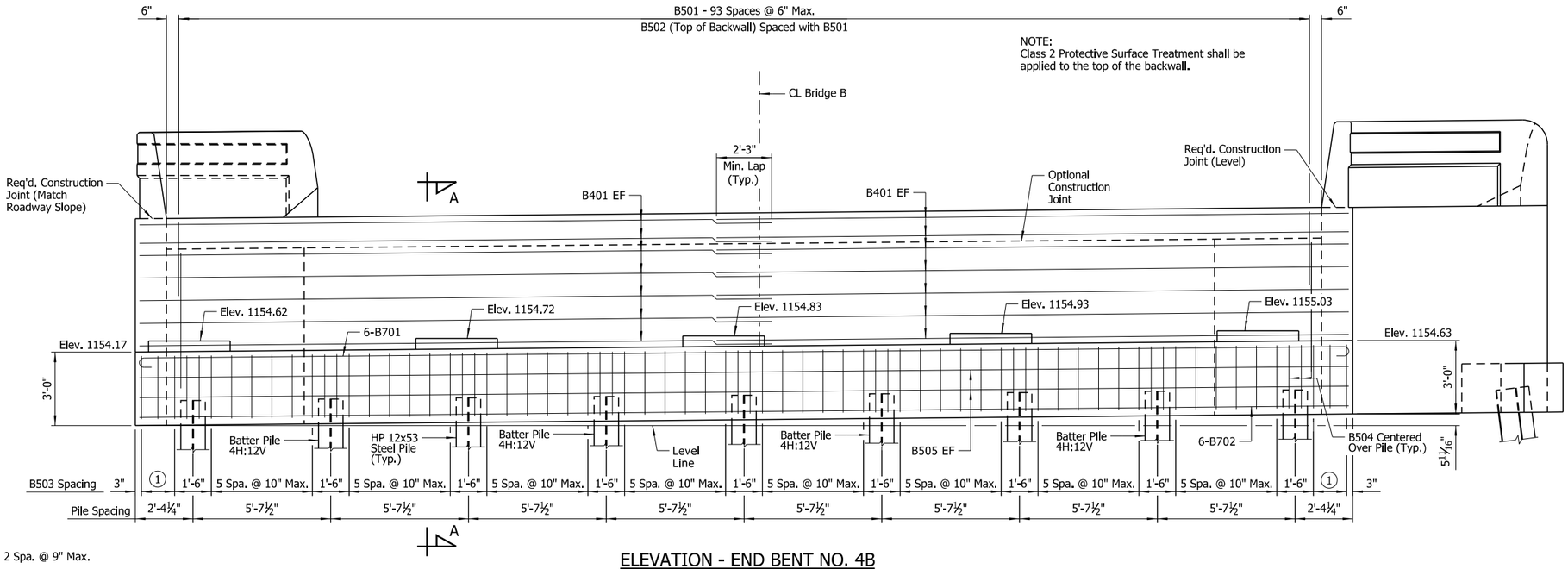
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 3 OF 6
DETAILS OF END BENTS
XNA ACCESS RD. OVER HADEN RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: RAK DATE: DEC. 2022
BRIDGE NO. A7659 & B7659 DRAWING NO. 66792

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WORKSPACE: ARDOT Bridge (2019)
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|---|---|---|---|---|---|---|
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| | | A7659 & B7659 | | END BENTS | | 66793 |




1 2 Spa. @ 9" Max.

## LEGEND

EF = Each Face

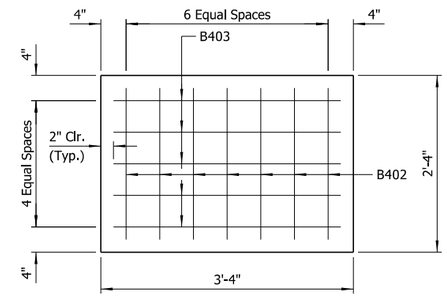
## ELEVATION - END BENT NO. 4B

(Looking Ahead)
Scale: ⅜" = 1'-0"

NOTES:
For "GENERAL NOTES", see Dwg. No. 66790.

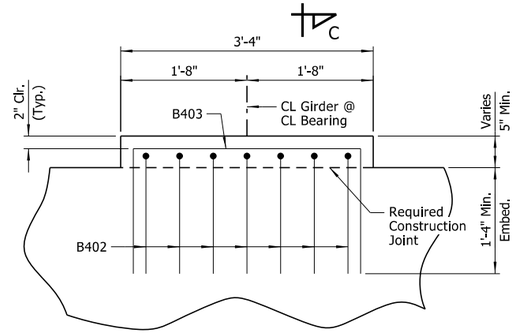
For "BAR LIST (PER BENT)" and "BAR BENDING DIAGRAMS", see Dwg. No. 66794.

For "SECTION A-A", see Dwg. No. 66791.



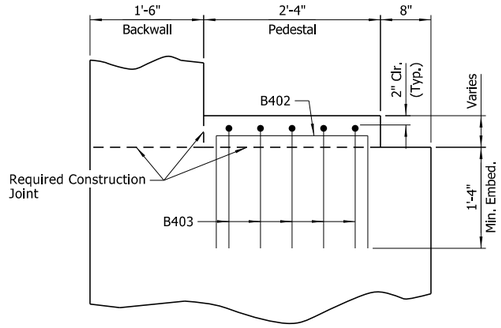

## PEDESTAL PLAN

Scale: 1" = 1'-0"



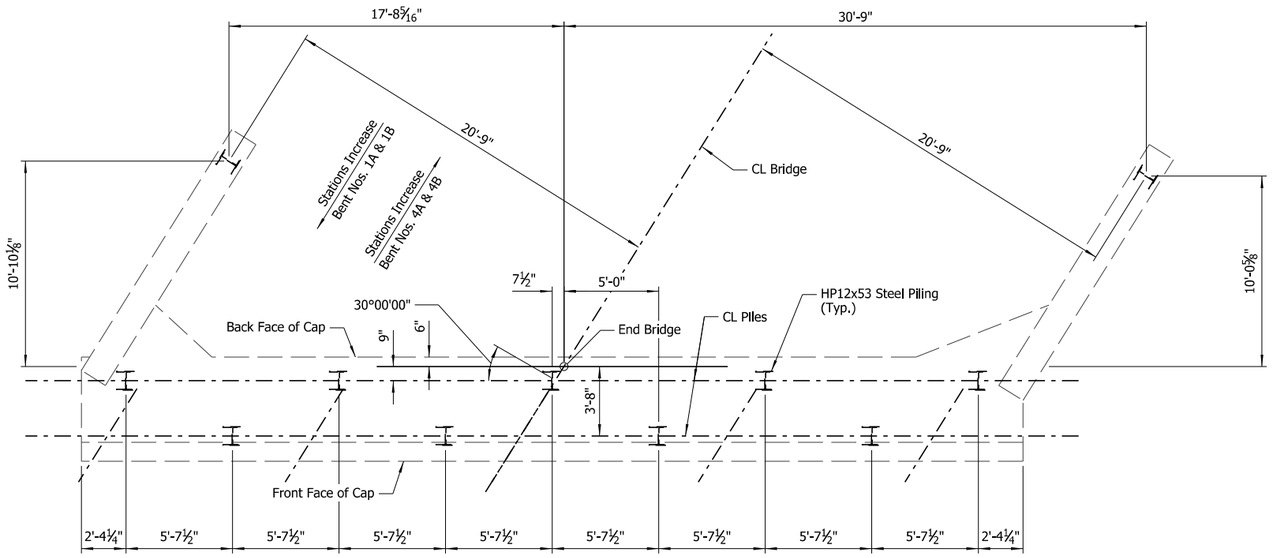

## TYPICAL PEDESTAL DETAIL

Scale: 1" = 1'-0"




## SECTION C-C

Scale: 1" = 1'-0"




## FOUNDATION PLAN - END BENT NOS. 4A & 4B

Scale: ¼" = 1'-0"

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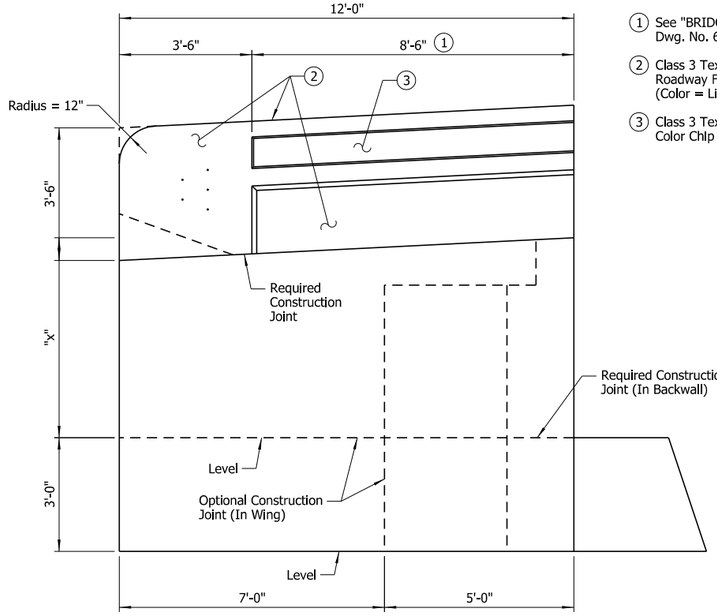
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BRIDGE ENGINEER

SHEET 4 OF 6
DETAILS OF END BENTS
XNA ACCESS RD. OVER HADEN RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: MRA DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: DEC. 2022
BRIDGE NO. A7659 & B7659 DRAWING NO. 66793

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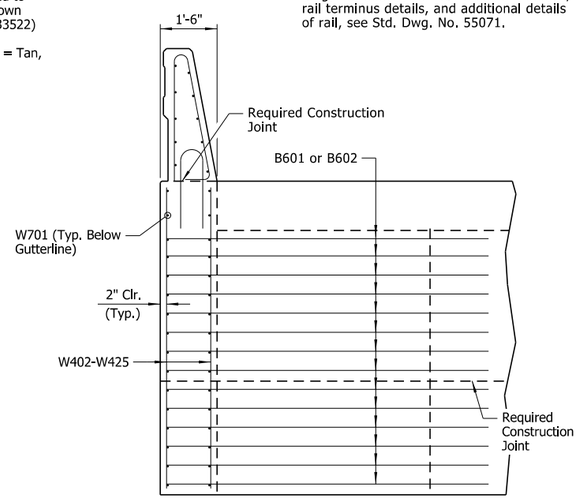
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| | | A7659 & B7659 | | END BENTS | | 66794 |



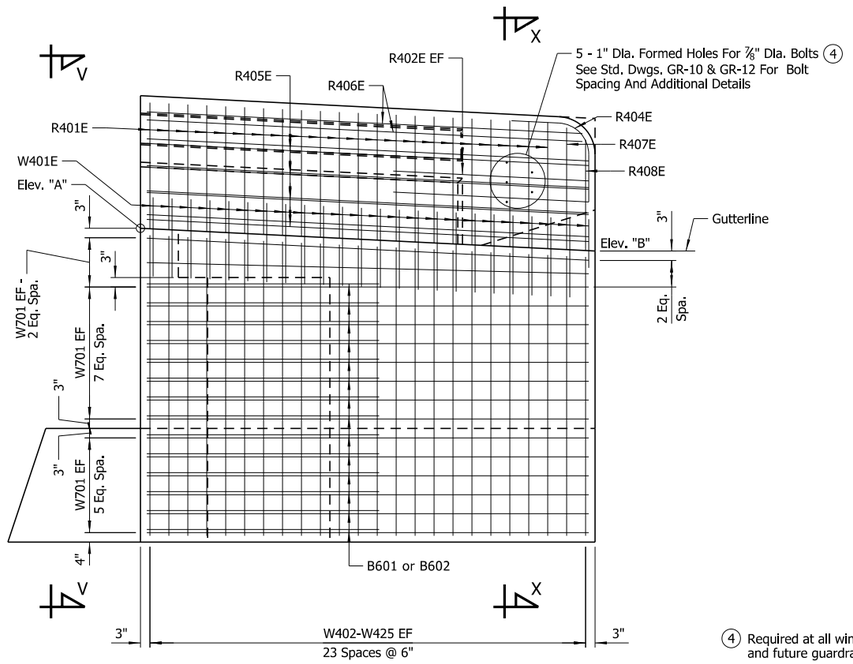

VIEW T-T
Scale: ½" = 1'-0"

1. See "BRIDGE RAIL AESTHETIC DETAIL" on Dwg. No. 66805 for additional information.
2. Class 3 Textured Coating Finish, applied to Roadway Face of Wing Rail and As Shown (Color = Light Brown, Color Chip No. 33522)
3. Class 3 Textured Coating Finish (Color = Tan, Color Chip No. 30219)

NOTE:
For details of rail enhancement, see "BRIDGE RAIL AESTHETIC DETAIL" on Dwg. No. 66805. For reinforcement details, rail terminus details, and additional details of rail, see Std. Dwg. No. 55071.

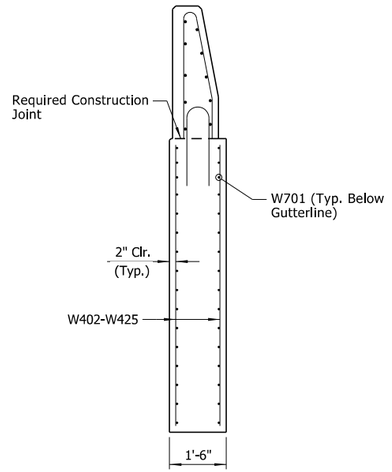



SECTION V-V
Scale: ½" = 1'-0"




SECTION U-U
Scale: ½" = 1'-0"

4 Required at all wings for proposed and future guardrail connections



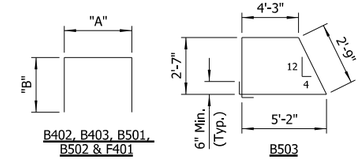

SECTION X-X
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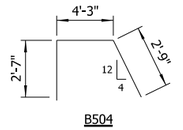
| TABLE OF VARIABLES | | | | |
|---|---|---|---|---|
| BENT NO. | LOCATION | "X" | ELEV. "A" | ELEV. "B" |
| 1A | WING A | 4'-9¼" | 1146.75 | 1146.15 |
| 1A | WING B | 4'-10⁹⁄₁₆" | 1144.70 | 1144.10 |
| 1B | WING A | 4'-8¾" | 1148.70 | 1148.10 |
| 1B | WING B | 4'-9⅛" | 1148.25 | 1147.65 |

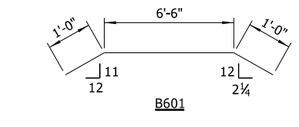
## BAR LIST (PER BENT)

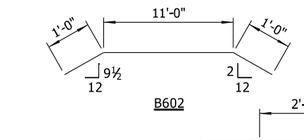
| | MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|---|
| COMMON BARS | B401 | 28 | 25'-10" | | | Str. |
| | B402 | 35 | 4'-10" | 2'-0" | 1'-6" | 2" |
| | B403 | 25 | 6'-2" | 3'-0" | 1'-8" | 2" |
| | B404 | 18 | 6'-10" | | | Str. |
| | | | | | | |
| | B501 | 94 | 12'-4" | 1'-2" | 5'-8" | 2½" |
| | B502 | 94 | 6'-5" | 8" | 3'-0" | 2½" |
| | B503 | 54 | 15'-3" | | | 2½" |
| | B504 | 18 | 9'-4" | | | 2½" |
| | B505 | 4 | 49'-5" | | | Str. |
| | | | | | | |
| | B601 | 14 | 8'-6" | | | 4½" |
| | B602 | 14 | 13'-0" | | | 4½" |
| | | | | | | |
| | B701 | 6 | 51'-1" | | | 5¼" |
| | B702 | 6 | 49'-5" | | | Str. |
| | | | | | | |
| | R402E | 8 | 5'-6" | | | Str. |
| | R404E | 2 | 3'-8" | | | 8½" |
| | R407E | 2 | 6'-8" | | | 3" |
| | R408E | 2 | 5'-1" | | | 3" |
| BENT NOS. 1A & 1B | R401E | 44 | 7'-6" | | | 3" |
| | R405E | 16 | 11'-8" | | | Str. |
| | R406E | 4 | 11'-6" | | | Str. |
| | | | | | | |
| | W401E | 48 | 4'-7" | | | 6" |
| | W402 to W425 | 4 Ea. | 7'-11" to 7'-4" | | | Str. |
| | W701 | 64 | 11'-8" | | | Str. |
| BENT NOS. 4A & 4B | F401 | 8 | 11'-0" | | | 2" |
| | F402 | 12 | 5'-7" | 2'-7" | 1'-7" | 2" |
| | | | | | | |
| | R401E | 56 | 7'-6" | | | 3" |
| | R405E | 16 | 14'-8" | | | Str. |
| | R406E | 4 | 14'-6" | | | Str. |
| | | | | | | |
| | W401E | 60 | 4'-7" | | | 6" |
| | W402 to W431 | 4 Ea. | 8'-0" to 8'-9" | | | Str. |
| | W701 | 68 | 14'-8" | | | Str. |

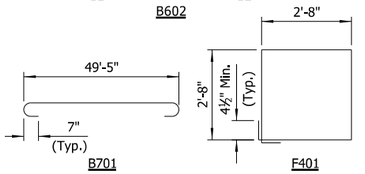
## BAR BENDING DIAGRAMS




NOTES:
Dimensions of bars are out-to-out.

Number of bars shown is for one end bent only.

Bars designated with "E" suffix shall be epoxy coated.

See Std. Dwg. No. 55071 for Bar Bending Diagrams of R401E, R404E, R407E, R408E and W401E.

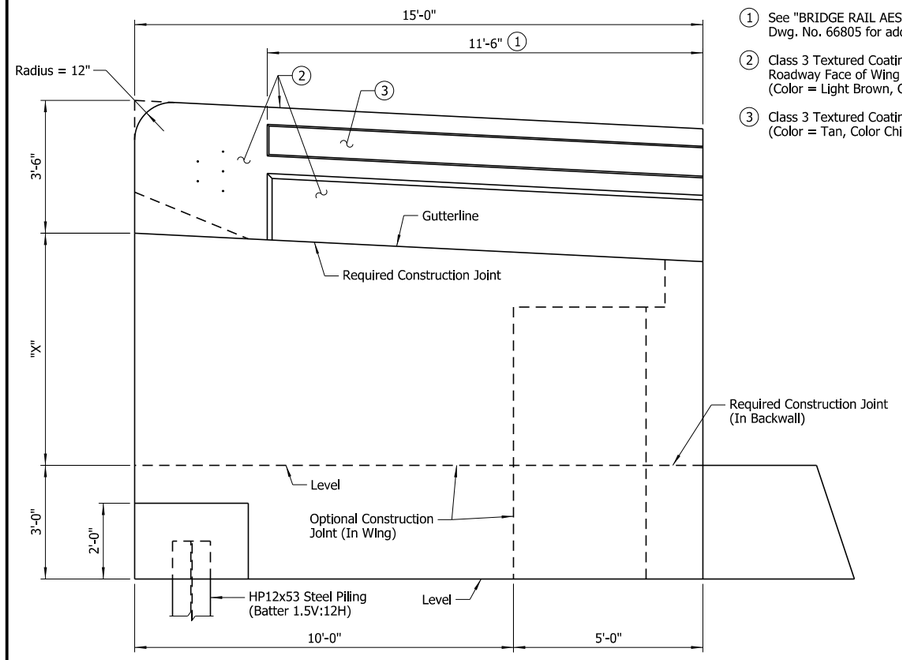
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13418
MASON R. ATKINSON
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 5 OF 6
DETAILS OF END BENTS
XNA ACCESS RD. OVER HADEN RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: DEC. 2022 FILENAME: b090069m4_a5.dgn
CHECKED BY: MRA DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: DEC. 2022
BRIDGE NO. A7659 & B7659 DRAWING NO. 66794

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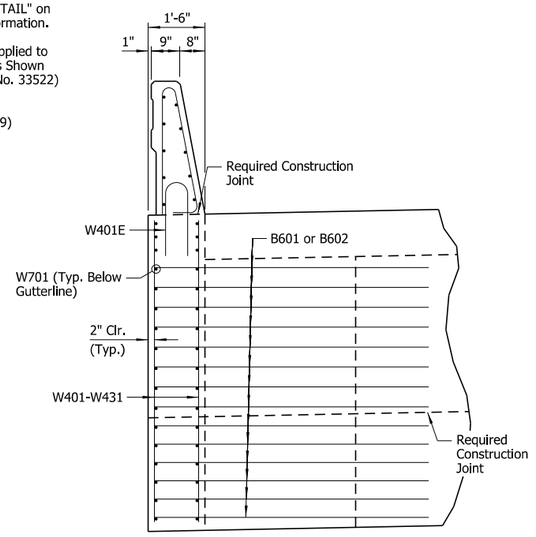
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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 347 | 583 |
| | | A7659 & B7659 | | END BENTS | | 66795 |




## VIEW F-F

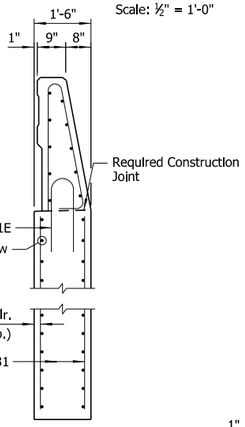
Scale: ½" = 1'-0"

1. See "BRIDGE RAIL AESTHETIC DETAIL" on Dwg. No. 66805 for additional information.
2. Class 3 Textured Coating Finish, applied to Roadway Face of Wing Rail and As Shown (Color = Light Brown, Color Chip No. 33522)
3. Class 3 Textured Coating Finish (Color = Tan, Color Chip No. 30219)



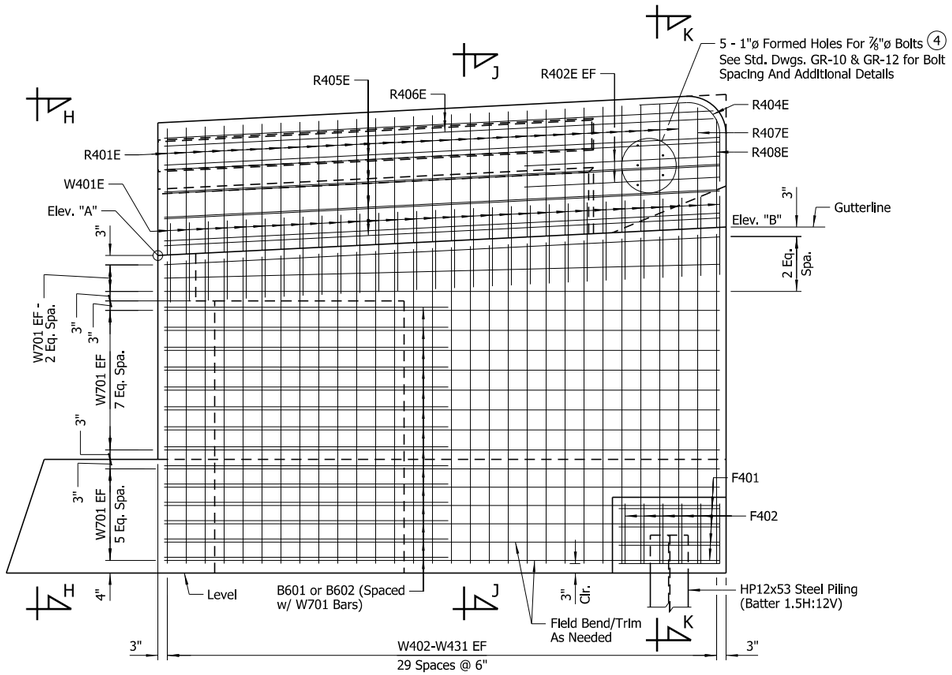

## SECTION H-H

Scale: ½" = 1'-0"




## SECTION J-J

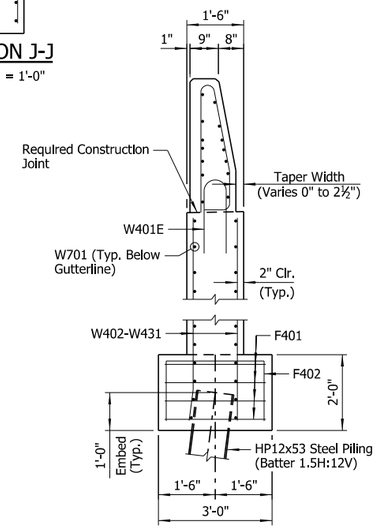
Scale: ½" = 1'-0"




## SECTION G-G

Scale: ½" = 1'-0"

4. Required at all wings for proposed and future guardrail connections




## SECTION K-K

Scale: ½" = 1'-0"

| TABLE OF VARIABLES | | | | |
|---|---|---|---|---|
| BENT NO. | LOCATION | "X" | ELEV. "A" | ELEV. "B" |
| 4A | WING A | 6'-2½" | 1156.01 | 1156.76 |
| 4A | WING B | 6'-1⁵⁄₁₆" | 1158.06 | 1158.81 |
| 4B | WING A | 6'-1¹¹⁄₁₆" | 1159.56 | 1160.31 |
| 4B | WING B | 6'-1⁹⁄₁₆" | 1160.01 | 1160.76 |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.13418
MASON R. ATKINSON

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 6 OF 6
DETAILS OF END BENTS
XNA ACCESS RD. OVER HADEN RD.

ROUTE SEC.

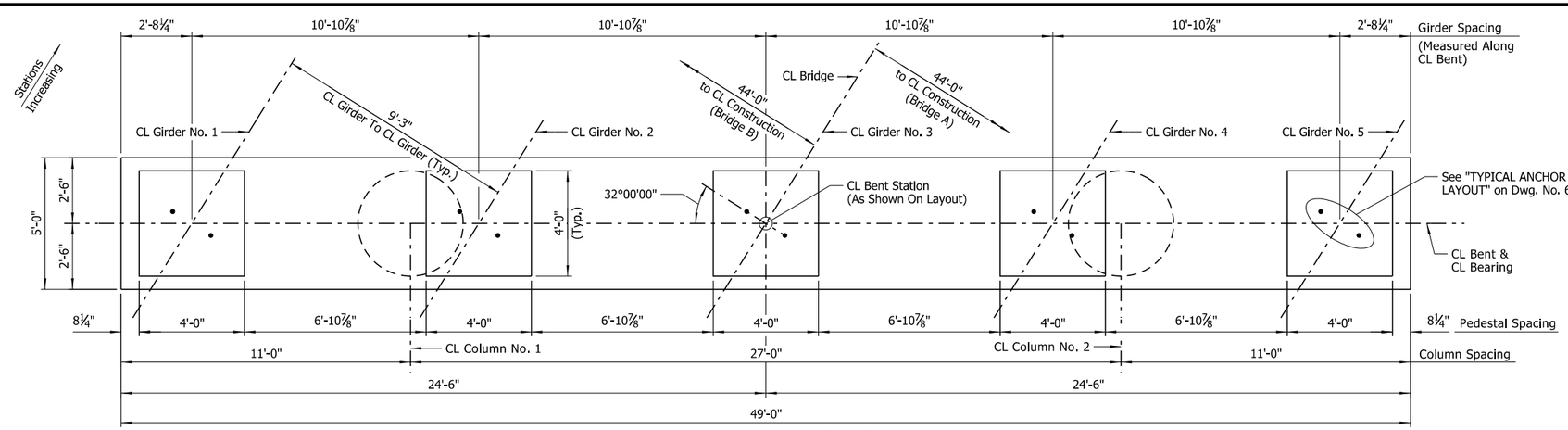
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: DEC. 2022 FILENAME: b090069m4_a6.dgn
CHECKED BY: MRA DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: DEC. 2022

BRIDGE NO. A7659 & B7659 DRAWING NO. 66795

JESkinner 10/20/2023 2:12:41 PM
WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069x4_S206_A6.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 348 | 583 |
| | | A7659 & B7659 | | INTERMEDIATE BENTS | | 66796 |

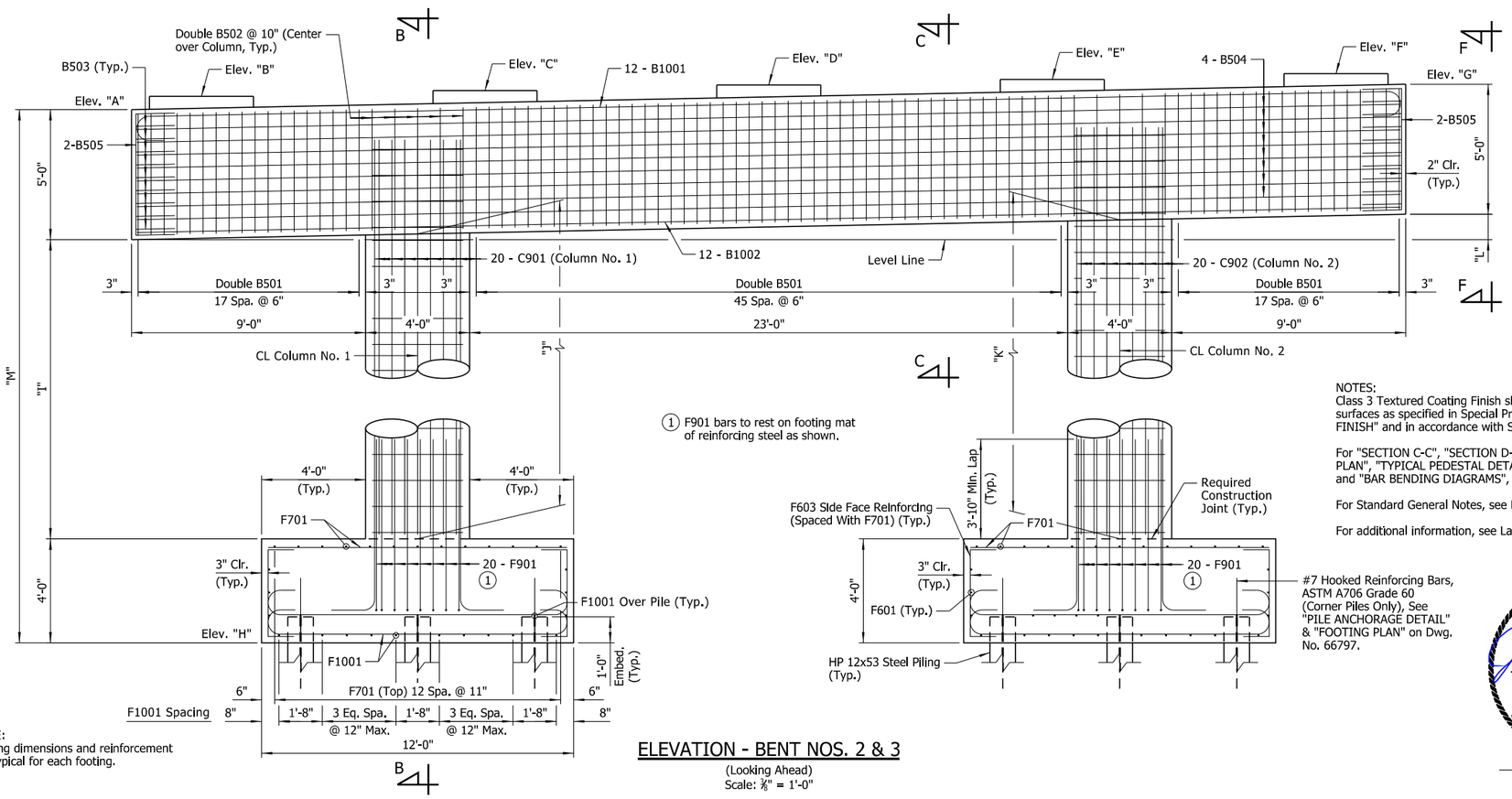



## PLAN - BENT NOS. 2 & 3

Scale: ⅜" = 1'-0"

### TABLE OF VARIABLES

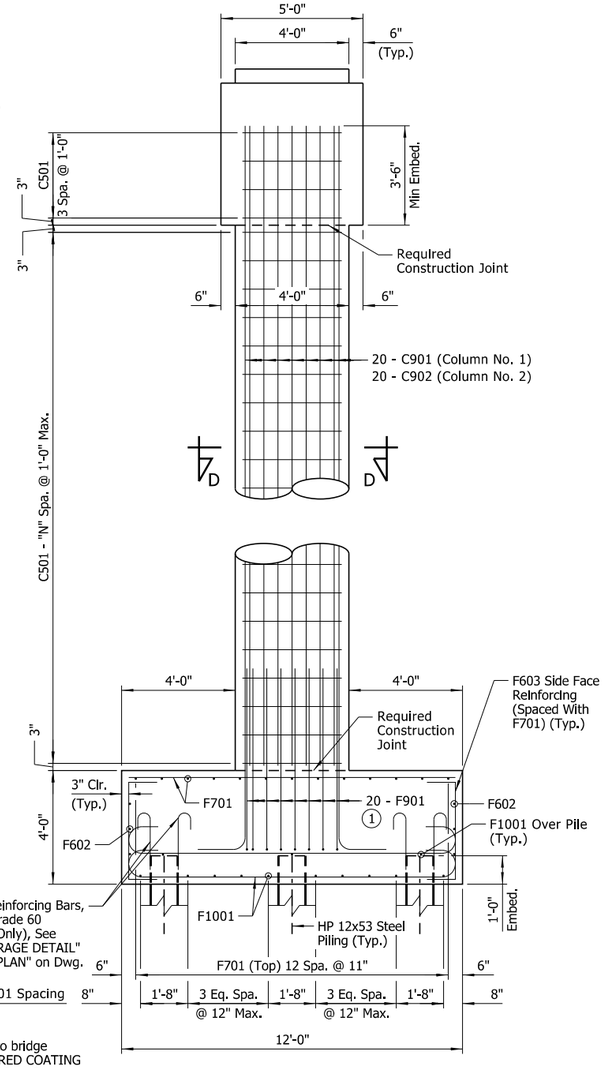
| BENT NO. | Elev. "A" | Elev. "B" | Elev. "C" | Elev. "D" | Elev. "E" | Elev. "F" | Elev. "G" | Elev. "H" | "I" | "J" | "K" | "L" | "M" | "N" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2A | 1142.47 | 1143.10 | 1143.58 | 1144.05 | 1144.53 | 1145.00 | 1144.61 | 1100.97 | 32'-6" | 32'-11¾" | 34'-1 15/16" | 2'-1 11/16" | 41'-6" | 34 |
| 3A | 1146.51 | 1147.15 | 1147.63 | 1148.10 | 1148.57 | 1149.05 | 1148.65 | 1103.01 | 34'-6" | 34'-11¾" | 36'-1 15/16" | 2'-1 11/16" | 43'-6" | 36 |
| 2B | 1146.08 | 1146.59 | 1146.70 | 1146.80 | 1146.90 | 1147.01 | 1146.55 | 1101.08 | 36'-0" | 36'-1¼" | 36'-4⅜" | 5⅝" | 45'-0" | 36 |
| 3B | 1150.13 | 1150.64 | 1150.74 | 1150.85 | 1150.95 | 1151.06 | 1150.60 | 1105.13 | 36'-0" | 36'-1¼" | 36'-4⅜" | 5⅝" | 45'-0" | 36 |




NOTE:
Footing dimensions and reinforcement are typical for each footing.

## ELEVATION - BENT NOS. 2 & 3

(Looking Ahead)
Scale: ⅜" = 1'-0"




## SECTION B-B

Scale: ⅜" = 1'-0"

NOTES:
Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in Special Provision "TEXTURED COATING FINISH" and in accordance with Subsection 802.19(b)(3).

For "SECTION C-C", "SECTION D-D", "VIEW F-F", "FOOTING PLAN", "TYPICAL PEDESTAL DETAIL", "BAR LIST (PER BENT)" and "BAR BENDING DIAGRAMS", see Dwg. No. 66797.

For Standard General Notes, see Dwg. No. 55006.

For additional information, see Layout.

STATE OF ARKANSAS
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JOEL E. SKINNER
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BRIDGE ENGINEER

# SHEET 1 OF 2
# DETAILS OF INTERMEDIATE BENTS
# XNA ACCESS RD. OVER HADEN RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

| | | | | | |
|---|---|---|---|---|---|
| DRAWN BY: | SJV | DATE: | MAY 2023 | FILENAME: | b090069m4_b1.dgn |
| CHECKED BY: | RLW | DATE: | JULY 2023 | SCALE: | As Shown |
| DESIGNED BY: | SJV | DATE: | MAY 2023 | | |

BRIDGE NO. A7659 & B7659 DRAWING NO. 66796

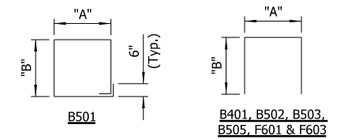
JESkinner 10/20/2023 2:12:42 PM
WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069x4_S211_BE.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 349 | 583 |
| | | A7659 & B7659 | | INTERMEDIATE BENTS | | 66797 |

## BAR LIST (PER BENT)

| MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|
| B401 | 80 | 7'-6" | 3'-8" | 2'-0" | 2" |
| | | | | | |
| B501 | 164 | 16'-6" | 3'-4" | 4'-8" | 2½" |
| B502 | 20 | 12'-6" | 3'-4" | 4'-8" | 2½" |
| B503 | 18 | 7'-4" | 4'-6" | 1'-6" | 2½" |
| B504 | 32 | 48'-6" | | | Str. |
| B505 | 4 | 7'-4" | 4'-6" | 1'-6" | 2½" |
| | | | | | |
| B1001 | 12 | 51'-4" | 48'-6" | 11½" | 10" |
| B1002 | 12 | 48'-6" | | | Str. |
| | | | | | |
| C501 | "C" | 12'-4" | | | 3¾" |
| | | | | | |
| C901 | 20 | "D" | | | Str. |
| C902 | 20 | "E" | | | Str. |
| | | | | | |
| F601 | 12 | 15'-1" | 11'-4" | 2'-0" | 4½" |
| F602 | 12 | 11'-4" | | | Str. |
| F603 | 104 | 5'-2" | 3'-5" | 1'-0" | 4½" |
| | | | | | |
| F701 | 52 | 11'-6" | | | Str. |
| | | | | | |
| F901 | 40 | 8'-1" | 6'-8" | 1'-8" | 9" |
| | | | | | |
| F1001 | 52 | 14'-2" | 11'-4" | 11½" | 10" |

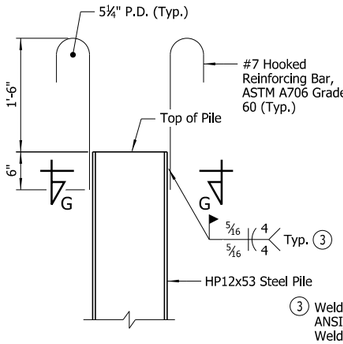
## BAR BENDING DIAGRAMS




NOTES:
Dimensions of bars are out-to-out.

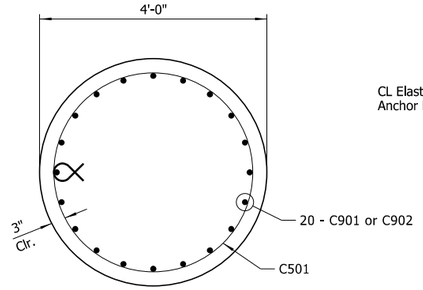
Number of bars shown is for a single bent.

NOTE:
#7 Hooked Reinforcing Bars (ASTM A706) Grade 60 are subsidiary to "STEEL PILING (HP12x53)" (including welding).

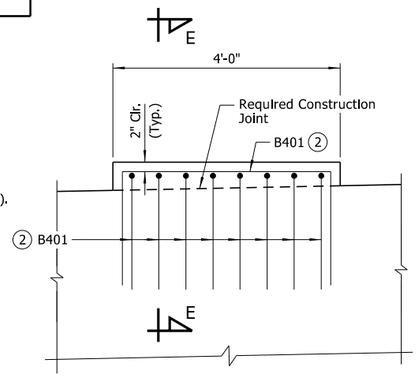



(3) Welding shall comply with ANSI/AWS D1.4 Structural Welding Code-Reinforcing Steel and applicable portions of ANSI/AWS D1.5 Bridge Welding Code.

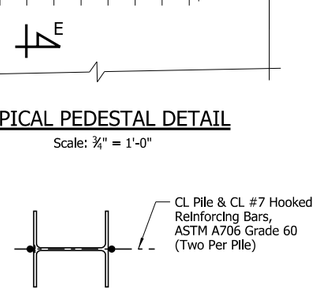
PILE ANCHORAGE DETAIL
No Scale



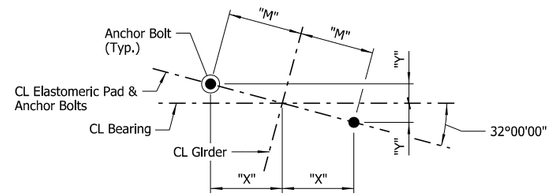

SECTION D-D
Scale: ¾" = 1'-0"




TYPICAL PEDESTAL DETAIL
Scale: ¾" = 1'-0"




SECTION G-G
No Scale




TYPICAL ANCHOR BOLT LAYOUT
No Scale

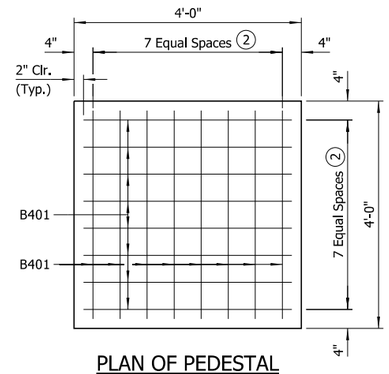
NOTE:
For details of elastomeric bearings and anchor bolts, see Dwg. No. 66798.

## TABLE OF ANCHOR BOLT VARIABLES

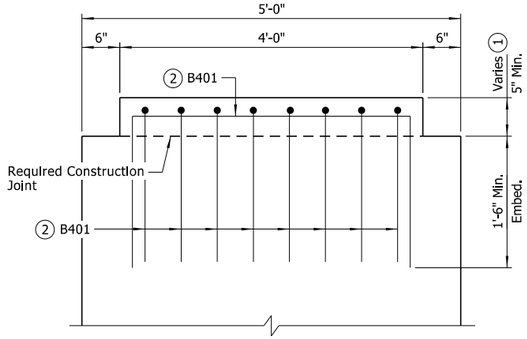
| BENT NO. | "M" | "X" | "Y" |
|---|---|---|---|
| 2A | 10" | 8½" | 5 5/16" |
| 3A | 10¼" | 8 1/16" | 5 7/16" |
| 2B | 10" | 8½" | 5 5/16" |
| 3B | 10¼" | 8 1/16" | 5 7/16" |

(1) See Dwg. No. 66796 for pedestal elevations.

(2) B401 locations may be adjusted as necessary to avoid interference with anchor bolts or sheet metal sleeves.




PLAN OF PEDESTAL
Scale: ¾" = 1'-0"

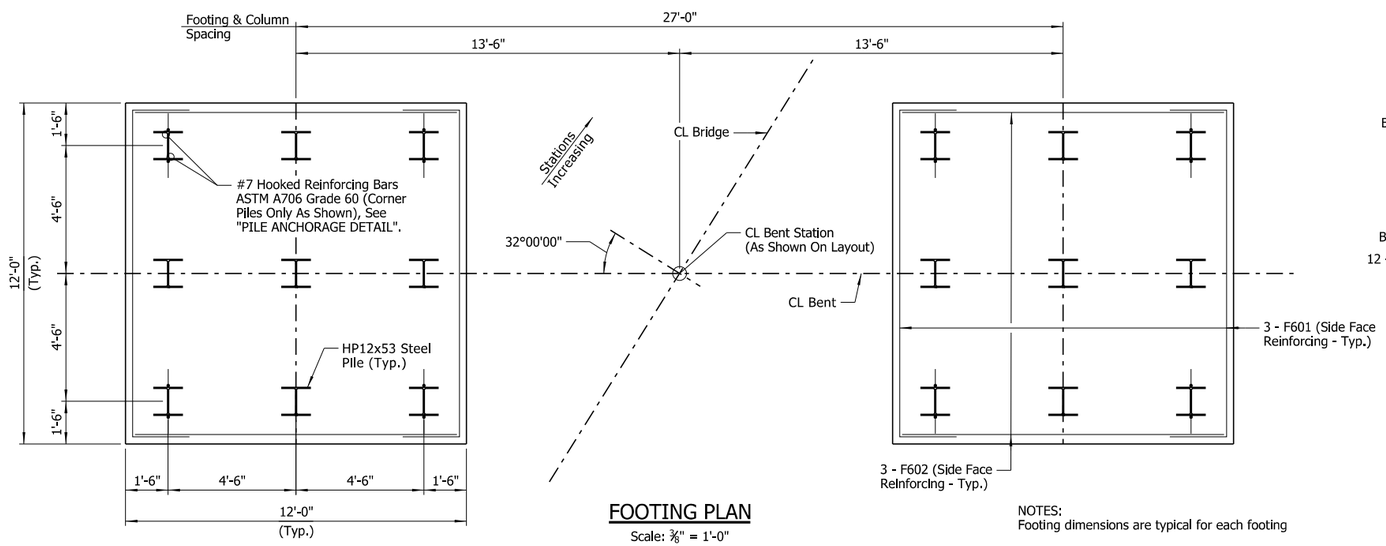



NOTE:
Cap reinforcement not shown for clarity.

SECTION E-E
Scale: 1" = 1'-0"

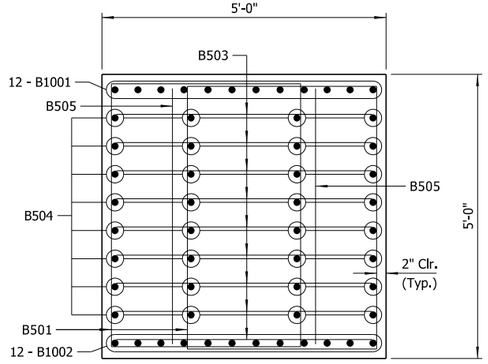
## TABLE OF VARIABLES

| BENT NO. | "C" | "D" | "E" |
|---|---|---|---|
| 2A | 78 | 36'-5" | 37'-7" |
| 3A | 82 | 38'-5" | 39'-7" |
| 2B | 82 | 39'-7" | 39'-10" |
| 3B | 82 | 39'-7" | 39'-10" |

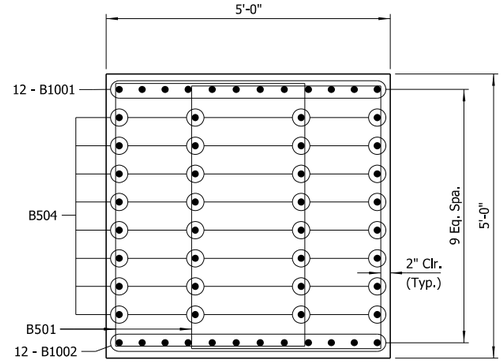



FOOTING PLAN
Scale: ⅜" = 1'-0"

NOTES:
Footing dimensions are typical for each footing




VIEW F-F
Scale: ¾" = 1'-0"




SECTION C-C
Scale: ¾" = 1'-0"

STATE OF ARKANSAS
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JOEL E. SKINNER
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# SHEET 2 OF 2
# DETAILS OF INTERMEDIATE BENTS
# XNA ACCESS RD. OVER HADEN RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: SJV DATE: MAY 2023 FILENAME: b090069m4_b2.dgn
CHECKED BY: RLW DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: SJV DATE: MAY 2023

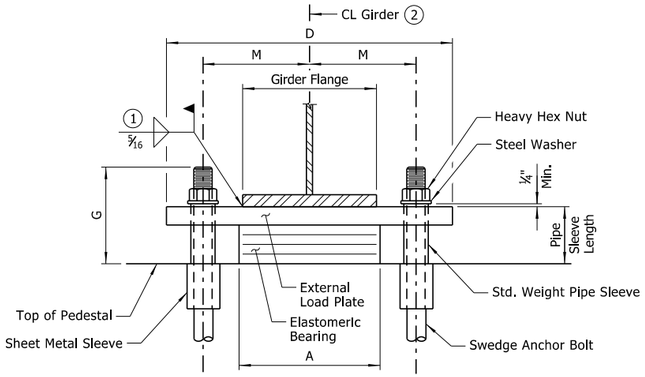
BRIDGE NO. A7659 & B7659 DRAWING NO. 66797

JESkinner 10/20/2023 2:12:43 PM
WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069x4_S212_BE.dgn

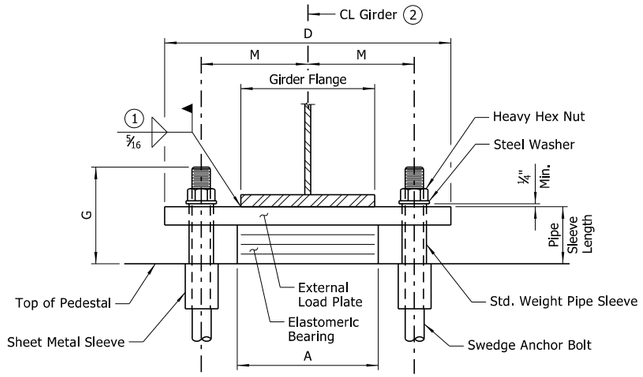
| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 350 | 583 |
| | | A7659 & B7659 | ELASTOMERIC BEARINGS | | | 66798 |

## TABLE OF FABRICATOR VARIABLES

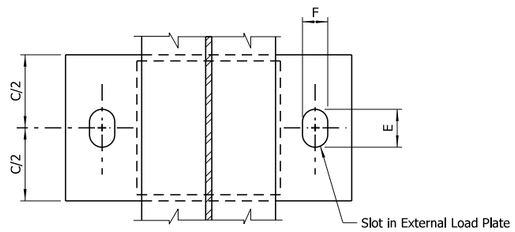
| Bridge No. | Location | | Bearing Type | No. Of Bearings Each Bent | ③ Maximum Design Load (Kips) | G | H | Elastomeric Pad | | | | | | | External Load Plate | | | | | | | | Anchor Bolt | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bent No. | Girder No. | | | | | | A | B | N | $t_i$ | $t_e$ | No. & Thickness Of Steel Laminae | T | C | D | E | F | K | M | $T_a$ | $T_b$ | Anchor Bolt (Dia. x L) | Anchor Bolt Grade | Pipe Sleeve Size (Dia. x L) | Sheet Metal Sleeve Size (Dia. x L) | Steel Washer Size (O.D.) |
| A7659 & B7659 | 1 | All | Exp. | 5 | 108 | 9½" | 6¾" | 14" | 10" | 7 | ½" | ¼" | 8 @ 12 Ga. | 4 13/16" | 11" | 24½" | 4¾" | 2¼" | ½" | 9½" | 2.28" | 1.72" | 1½" x 28" | 55 | 1½" x 7" | 3" x 13" | 3" |
| | 2 | All | Fixed | 5 | 241 | 7⅞" | 4⅜" | 14" | 13" | 3 | ½" | ¼" | 4 @ 12 Ga. | 2 7/16" | 14" | 26½" | 3⅛" | 3⅛" | ½" | 10" | 2.35" | 1.65" | 2¼" x 35" | 55 | 2½" x 4⅝" | 4" x 13" | 4" |
| | 3 | All | Fixed | 5 | 288 | 7⅞" | 4⅜" | 15" | 14" | 3 | ½" | ¼" | 4 @ 12 Ga. | 2 7/16" | 15" | 27" | 3⅛" | 3⅛" | ½" | 10¼" | 2.38" | 1.62" | 2¼" x 35" | 55 | 2½" x 4⅝" | 4" x 13" | 4" |
| | 4 | All | Exp. | 5 | 123 | 8 5/16" | 5 3/16" | 14" | 10" | 5 | ½" | ¼" | 6 @ 12 Ga. | 3⅝" | 11" | 24½" | 4¾" | 2¼" | ½" | 9½" | 2.28" | 1.72" | 1½" x 27" | 55 | 1½" x 5 13/16" | 3" x 13" | 3" |



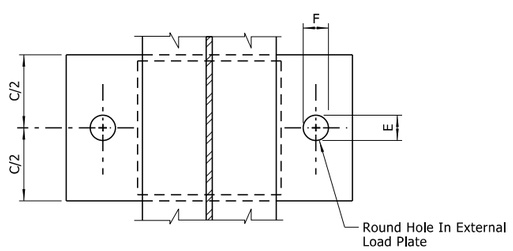

FRONT VIEW - AT BENT NOS. 1 & 4




FRONT VIEW - AT BENT NOS. 2 & 3

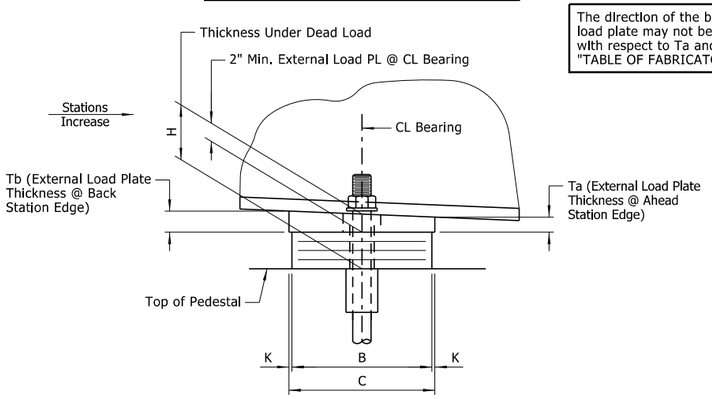



PLAN VIEW - AT BENT NOS. 1 & 4

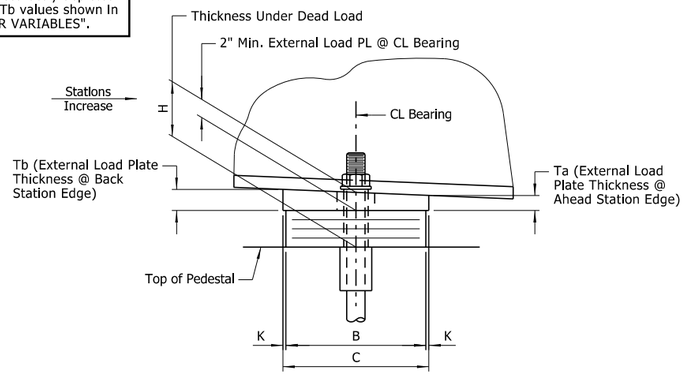



PLAN VIEW - AT BENT NOS. 2 & 3

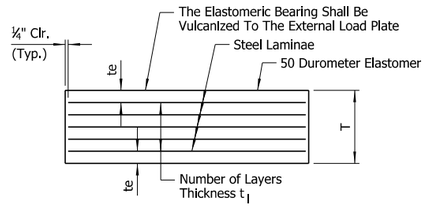
The direction of the bevel of the external load plate may not be accurately depicted with respect to Ta and Tb values shown in "TABLE OF FABRICATOR VARIABLES".




SIDE VIEW - AT BENT NOS. 1 & 4




SIDE VIEW - AT BENT NOS. 2 & 3




$t_e$ = Thickness Of Elastomer Cover On Top And Bottom Of Pad
$t_i$ = Thickness Of Elastomer Between Steel Laminae
N = Number Of Elastomer Layers Of Thickness $t_i$

## ELASTOMERIC BEARING

① Care shall be taken to ensure that the external load plate is in full and complete contact with the girder flange before welding begins. Unless otherwise approved by the Engineer, welding of the external load plate at expansion bearings to the girder will be allowed only when: 1) the approximate average air temperature during the 24 hour period immediately preceding welding is between 40°F and 80°F; and 2) the slots in the external load plate are positioned to center on the anchor bolts; and 3) no horizontal deformation of the elastomeric pad is evident. If welding at other temperatures is required, the Engineer will provide adjustment data.

② CL elastomeric pad shall be aligned with CL girder.

③ Maximum Design Load (Kips) = LRFD Service I Limit State

## GENERAL NOTES

Elastomeric bearings shall conform to Section 808 and shall be paid for at the unit price bid for "ELASTOMERIC BEARINGS".

External load plates shall conform to ASTM A709, Grade 50. Pipe sleeves shall be ASTM A500, Grade B, and shall be galvanized to conform to AASHTO M 232, Class C or ASTM B695, Class 50.

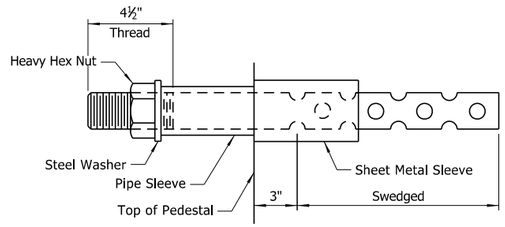
External load plates shall be completely fabricated (including bevel, bolt holes and all shop welding) and shall be cleaned before vulcanizing to the elastomeric bearing. The surfaces in contact with the elastomeric bearing shall be cleaned in accordance with Subsection 808.03. Other surfaces shall be blast cleaned in accordance with Subsection 807.84(b) for painted steel.

Anchor bolts, washers and nuts shall conform to Subsection 807.07. The anchor bolt grade of steel shall be as specified in the "TABLE OF FABRICATOR VARIABLES". Indentations shall be circular with rounded bottoms and staggered as shown in the details.

Pipe sleeves, anchor bolts, washers and nuts shall be paid for at the unit price bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)". External load plates will not be measured or paid for separately but will be considered subsidiary to the unit price bid for "ELASTOMERIC BEARINGS".

Bearings shall be seated in accordance with Subsection 808.08. This work and materials are considered subsidiary to the item "ELASTOMERIC BEARINGS" and will not be paid for directly.

Prior to erection of the girders, the Contractor shall verify the orientation of the bearings with respect to Ta and Tb.




## ANCHOR BOLT DETAIL

NOTES:
Anchor bolts may be cast in place or drilled and grouted into place. If anchor bolts are to be cast in place, the galvanized sheet metal sleeves will not be required.

If anchor bolts are to be drilled and grouted in place, the galvanized sheet metal sleeves shall be cast in place as shown. Sleeves shall be dry packed with styrofoam, urethane foam or approved equal prior to pouring of concrete. After pouring of the cap and prior to erection of structural steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the concrete. Bolts placed in drilled holes shall be accurately set and fixed using a QPL-approved epoxy or non-shrink grout that completely fills the holes. Galvanized sheet metal sleeves shall meet the requirements of ASTM A653, CS Type B or approved equivalent, be of minimum 16 gage thickness, and be galvanized according to ASTM B695, Class 50. Sheet metal sleeves will not be paid for directly but will be considered subsidiary to the item "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

STATE OF ARKANSAS
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MASON R. ATKINSON

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# DETAILS OF ELASTOMERIC BEARINGS XNA ACCESS RD. OVER HADEN RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

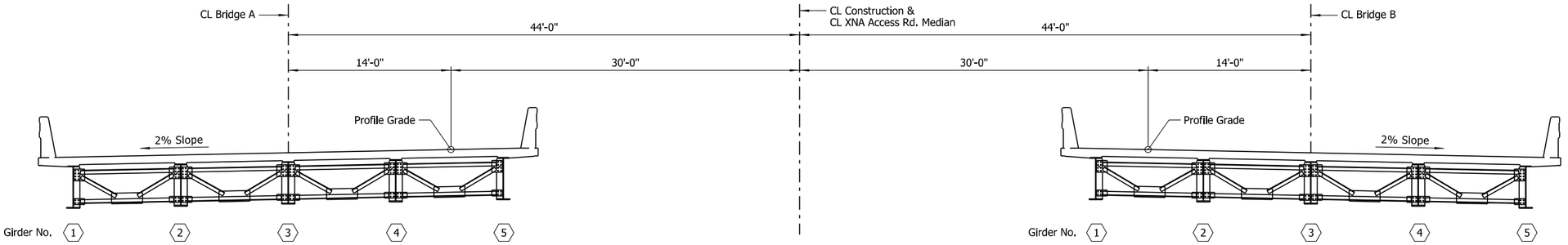
LITTLE ROCK, ARK.

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CHECKED BY: MRA DATE: JULY 2023 SCALE: No Scale
DESIGNED BY: RAK DATE: FEB. 2022

BRIDGE NO. A7659 & B7659 DRAWING NO. 66798

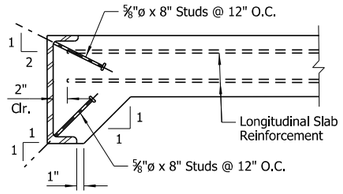
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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 351 | 583 |
| | | A7659 & B7659 | | 226'-0" UNIT | | 66799 |




## TYPICAL BRIDGE SECTION

(Looking Ahead)
Scale: 3/16" = 1'-0"




## DETAIL OF ANCHORS AND PLACEMENT OF LONGITUDINAL REINFORCEMENT

No Scale

NOTE:
As an alternate to 5/8"ø studs, 1/2"ø x 8" studs spaced @ 8" O.C. may be used. Use weight of 5/8"ø stud as basis of measurement of Structural Steel in anchors.

### TABLE OF SILICONE JOINT DATA

| Bent No. | "A" Width Perpendicular To Joint At 24 Hour Average Temperature (1) Of: | | | "B" Perpendicular To Joint At 60°F | Bumper Plate Size |
|---|---|---|---|---|---|
| | 40°F | 60°F | 80°F | | |
| 1 | 2 3/16" | 2" | 1 13/16" | 2 1/4"± | 1" x 1" x 12" |
| 4 | 2 1/4" | 2" | 1 3/4" | 2 1/4"± | 1" x 1" x 12" |

(1) The temperature used to set the joint opening shall be the approximate average air temperature during the 24-hour period immediately before the bolts are tightened. The Engineer shall establish the temperature. Interpolation of the table may be necessary.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER

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BRIDGE ENGINEER

SHEET 1 OF 7
DETAILS OF 226'-0" CONTINUOUS PLATE GIRDER UNIT
XNA ACCESS RD. OVER HADEN RD.

ROUTE SEC.

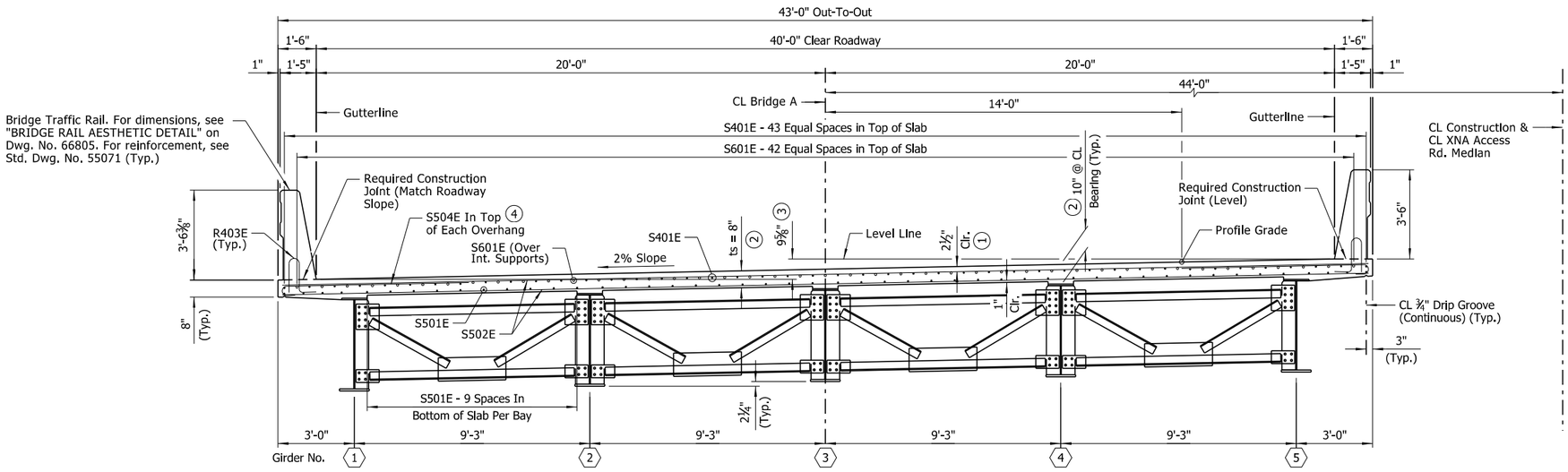
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: RAK DATE: JULY 2023

BRIDGE NO. A7659 & B7659 DRAWING NO. 66799

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | A7659 & B7659 | | 226'-0" UNIT | | 66800 |



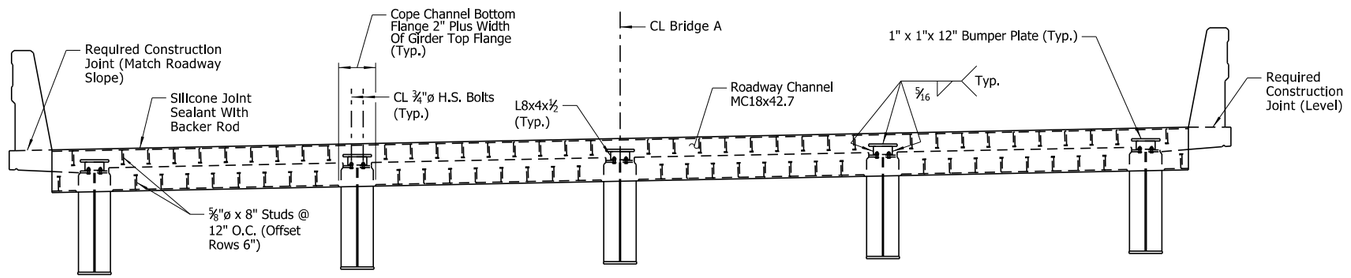

## TYPICAL ROADWAY SECTION

(Looking Ahead)
(Bridge A Shown, Bridge B Similar)
Scale: ⅜" = 1'-0"

SLAB REINFORCING:

Transverse: S502E @ 6" O.C. in Top and Bottom
S504E @ 6" O.C. in Top of Overhangs (Bundled w/ #5 Bars)

Longitudinal: S401E in Top (Placed as Shown)
S501E in Bottom (Placed as Shown)
S601E in Top (Placed as Shown over Int. Supports, see "REINFORCING PLAN & SLAB POURING SEQUENCE" on Dwg. No. 66805 for additional information)




## TYPICAL SECTION THRU JOINT

(Shown At End Bent No. 1A,
Looking Ahead; Other End Bents Similar)
No Scale

EXPANSION DEVICE:

Rdwy. Channel: MC18x42.7
Conn. Angles: L8x4x½
Detail device ½" high and provide ¼" shims using 2 - 1/16" and 1 - ⅛" plates

(1) TOLERANCE:
Minus = ¼"
Plus = Amount of slab thickening used to meet slab thickness tolerance - See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Std. Dwg. No. 55007.

(2) See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Std. Dwg. No. 55007.

(3) Measured Gutterline to Gutterline

(4) Bundle with #5 bars in top. Rotate as needed to avoid interference with bottom mat of deck reinforcement.

NOTES:
For Standard General Notes and details, see Std. Dwg. Nos. 55006 & 55007.

Class 2 Protective Surface Treatment shall be applied to the roadway surface.

Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in Special Provision "TEXTURED COATING FINISH" and in accordance with Subsection 802.19(b)(3). Textured Coating Finish shall not be applied on surfaces where Class 2 Protective Surface Treatment is applied.

Bar positions and clearances from the forms shall be maintained by means of stays, ties, hangers, or other approved devices per Subsection 804.06. Placement of slab bolsters or high-chairs with full-length lower runners directly
on removable deck forms will not be allowed.

For "BAR LIST" and "BAR BENDING DIAGRAMS", see Dwg. No. 66805.

For additional details of poured silicone joints, see Std. Dwg. No. 55008.

The profile of the Roadway Channel shall be established based on the vertical curve in conjuction with the skew.

All structural steel shall be ASTM A709, Gr. 50 unless noted otherwise and all structural steel shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS. (A709, GR. 50)".

STATE OF ARKANSAS
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JOEL E. SKINNER
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BRIDGE ENGINEER

SHEET 2 OF 7
DETAILS OF 226'-0" CONTINUOUS PLATE GIRDER UNIT
XNA ACCESS RD. OVER HADEN RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

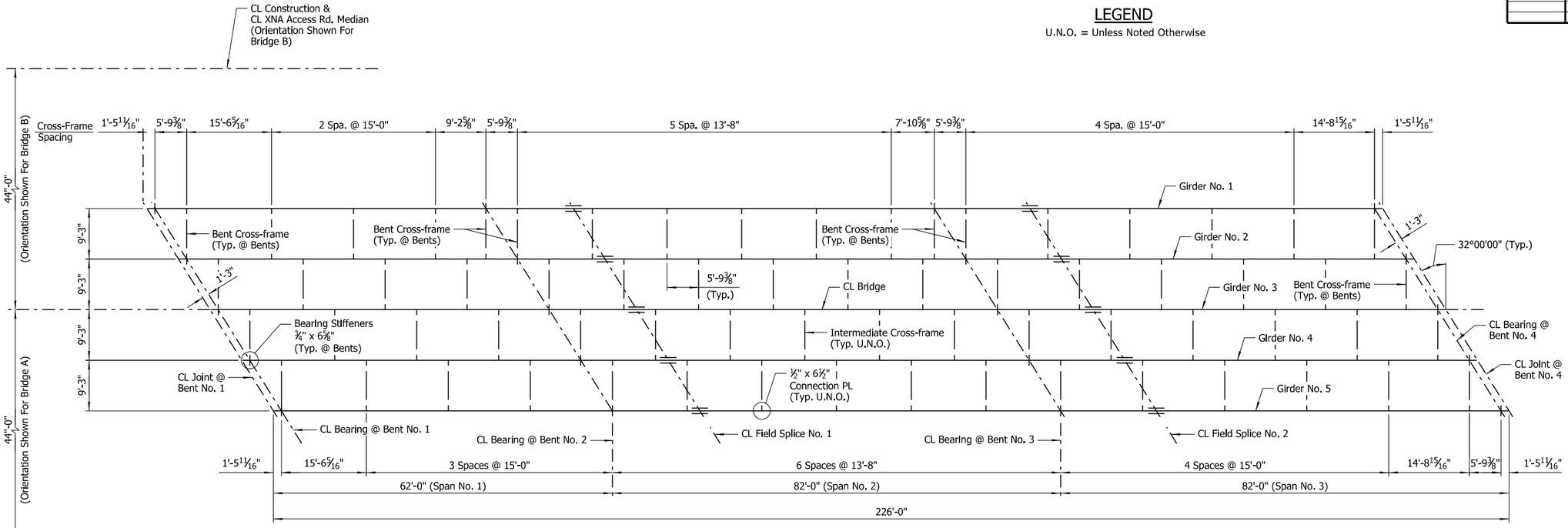
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DESIGNED BY: RAK DATE: NOV. 2022
BRIDGE NO. A7659 & B7659 DRAWING NO. 66800

JESkinner 10/20/2023 2:12:45 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 353 | 583 |
| | | A7659 & B7659 | | 226'-0" UNIT | | 66801 |

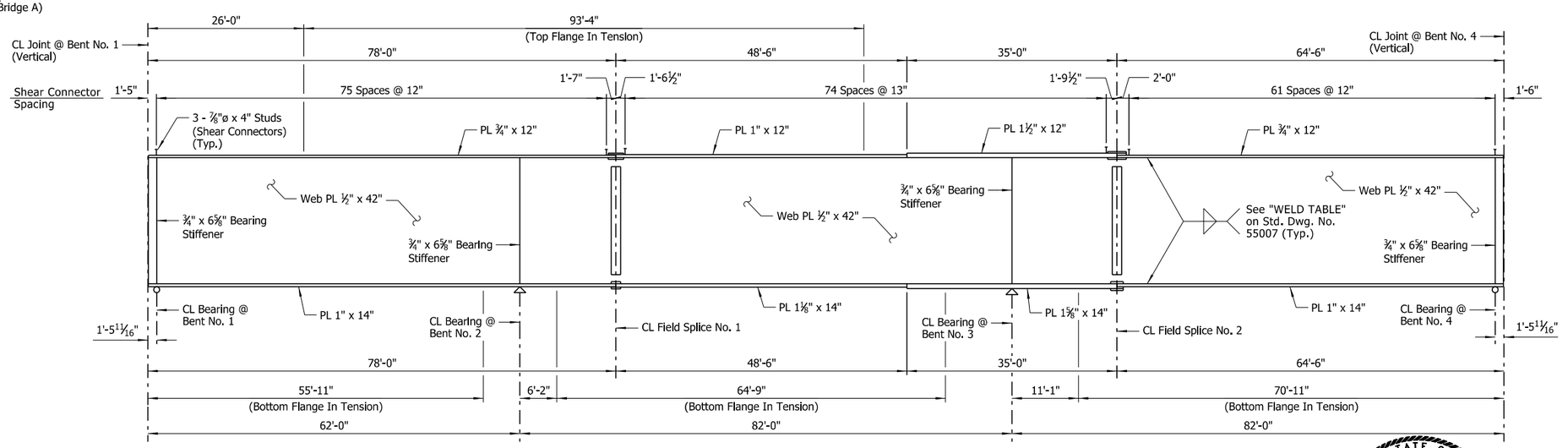
## LEGEND

U.N.O. = Unless Noted Otherwise




## FRAMING PLAN

Scale: 3/32" = 1'-0"




## TYPICAL GIRDER ELEVATION

No Scale

NOTES:
For Standard General Notes, see Std. Dwg. No. 55006. For Standard Details, see Std. Dwg. No. 55007.

All structural steel shall be ASTM A709, Gr. 50 unless noted otherwise and shall be paid for at the unit price per pound bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

Bolted Field Splices shown may be eliminated or shop welded splices may be substituted with approval of the Engineer. Payment will be made on the basis of the Plan Quantities.

For "DETAILS OF WELDED SPLICES FOR PLATE GIRDERS" and "SHEAR CONNECTOR DETAIL," see Std. Dwg. No. 55007.

For cross-frame details, stiffener and connection plate details, see Dwg. No. 66802.

For details of field splices, see Dwg. No. 66803.

The Contractor shall ensure that girders are stable throughout the erection process. The Contractor will be responsible for providing temporary bracing or stiffening devices to accommodate handling stresses in individual members or segments of the structure during erection.

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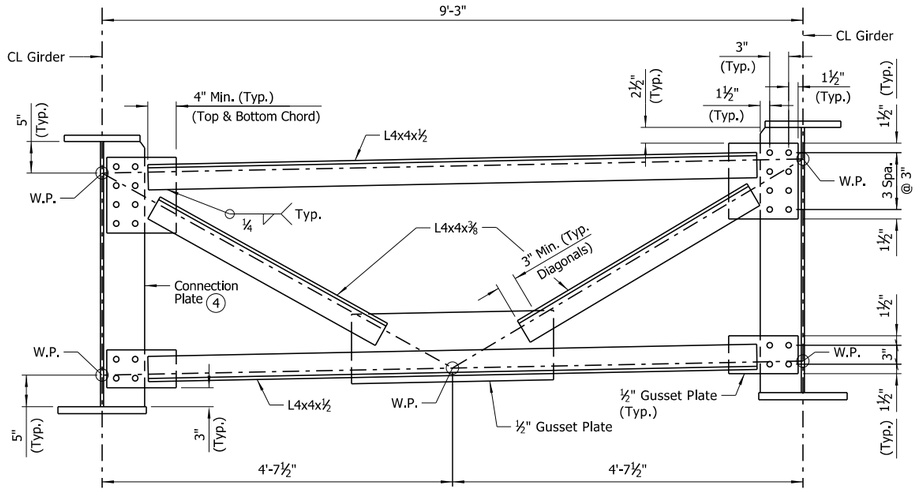
SHEET 3 OF 7
DETAILS OF 226'-0" CONTINUOUS PLATE GIRDER UNIT
XNA ACCESS RD. OVER HADEN RD.
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: NOV. 2022 FILENAME: b090069m4_s3.dgn
CHECKED BY: JES DATE: JUNE 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: NOV. 2022
BRIDGE NO. A7659 & B7659 DRAWING NO. 66801

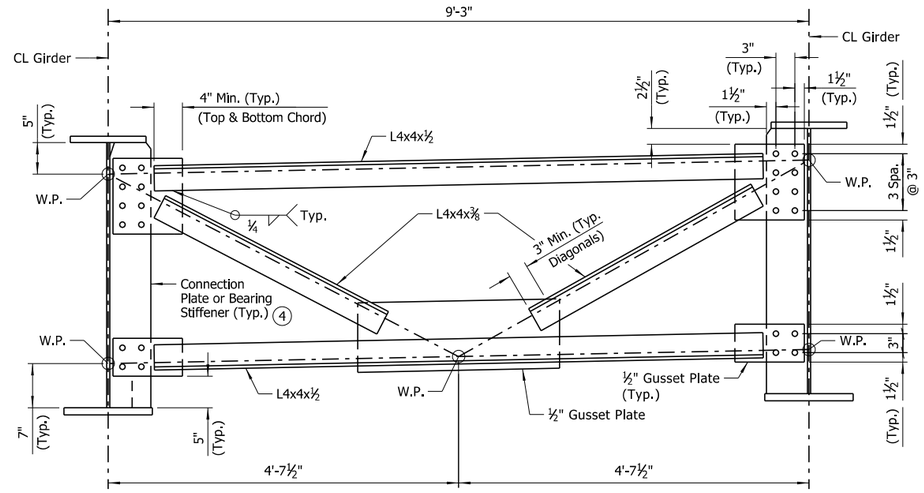
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 354 | 583 |
| | | A7659 & B7659 | | 226'-0" UNIT | | 66802 |




## INTERMEDIATE CROSS-FRAME DETAIL

Scale: 1" = 1'-0"




## BENT CROSS-FRAME DETAIL

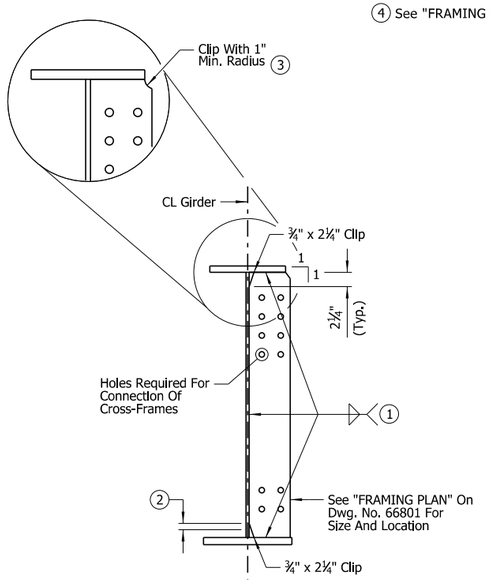
Scale: 1" = 1'-0"

(1) See "WELD TABLE" on Std. Dwg. No. 55007 for minimum weld size.

(2) Stop weld ¼" to 1" from end of clip (Typ.)

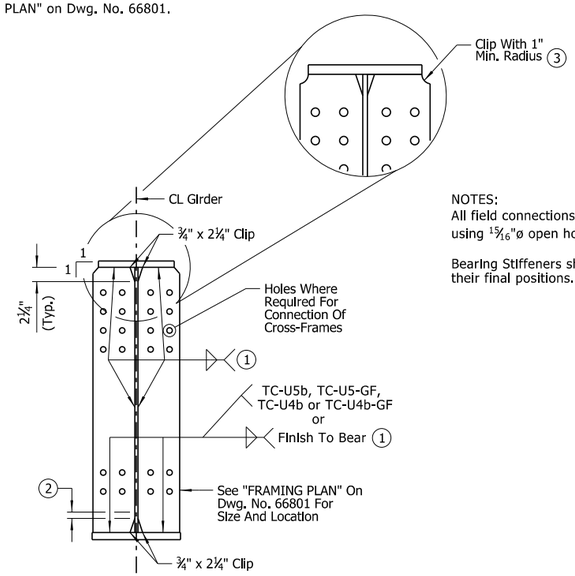
(3) If permanent deck forms are used, the Fabricator shall clip the plate as necessary to accommodate the deck form supports.

(4) See "FRAMING PLAN" on Dwg. No. 66801.




## CONNECTION PLATE DETAIL

Scale: 1" = 1'-0"

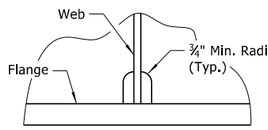



## BEARING STIFFENER DETAIL

Scale: 1" = 1'-0"

NOTES:
All field connections shall be bolted with ⅞"ø H.S. bolts using $^{15}/_{16}$"ø open holes.

Bearing Stiffeners shall be fabricated to be vertical In their final positions.




Height and width of clip shall be as noted in other details.

## ALTERNATE CLIP DETAIL

(For Bearing Stiffeners and Cross-frame Connection Plates)
No Scale

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SHEET 4 OF 7
DETAILS OF 226'-0" CONTINUOUS PLATE GIRDER UNIT
XNA ACCESS RD. OVER HADEN RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

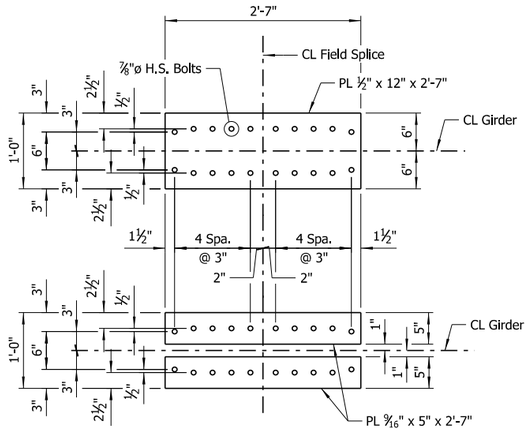
LITTLE ROCK, ARK.

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CHECKED BY: JES DATE: JUNE 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: NOV. 2022

BRIDGE NO. A7659 & B7659 DRAWING NO. 66802

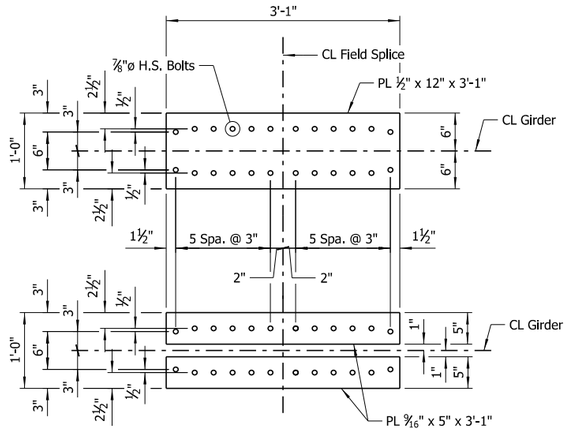
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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 355 | 583 |
| | | A7659 & B7659 | | 226'-0" UNIT | | 66803 |



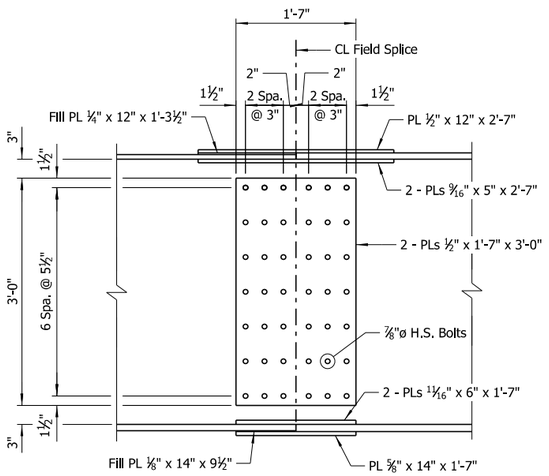

TOP FLANGE FIELD SPLICE NO. 1

Scale: 1" = 1'-0"



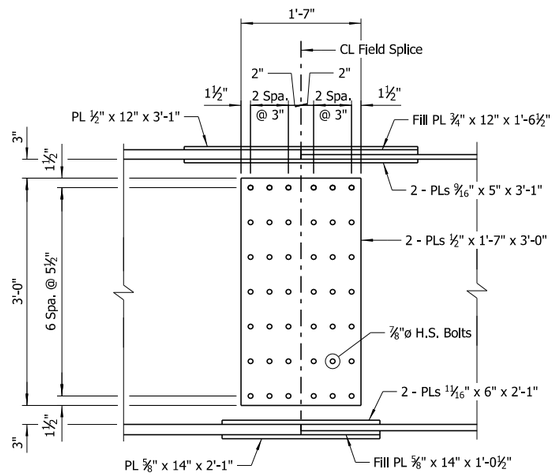

TOP FLANGE FIELD SPLICE NO. 2

Scale: 1" = 1'-0"



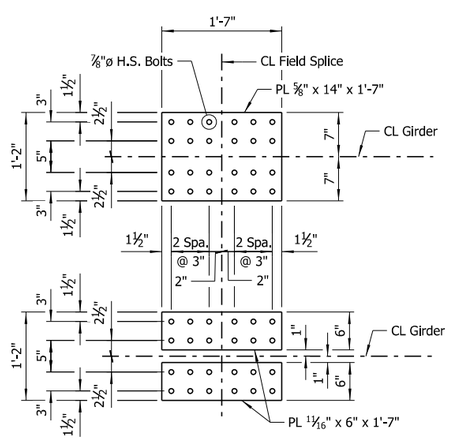

ELEVATION OF FIELD SPLICE NO. 1

Scale: 1" = 1'-0"



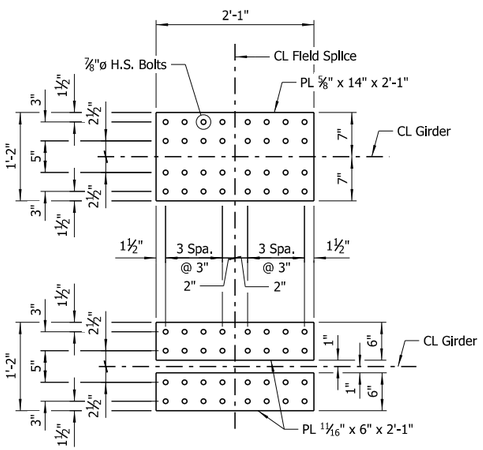

ELEVATION OF FIELD SPLICE NO. 2

Scale: 1" = 1'-0"




BOTTOM FLANGE FIELD SPLICE NO. 1

Scale: 1" = 1'-0"




BOTTOM FLANGE FIELD SPLICE NO. 2

Scale: 1" = 1'-0"

NOTES:
All holes for field splice bolts shall be 15/16"ø.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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SHEET 5 OF 7
DETAILS OF 226'-0" CONTINUOUS PLATE GIRDER UNIT
XNA ACCESS RD. OVER HADEN RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: NOV. 2022 FILENAME: b090069m4_s5.dgn
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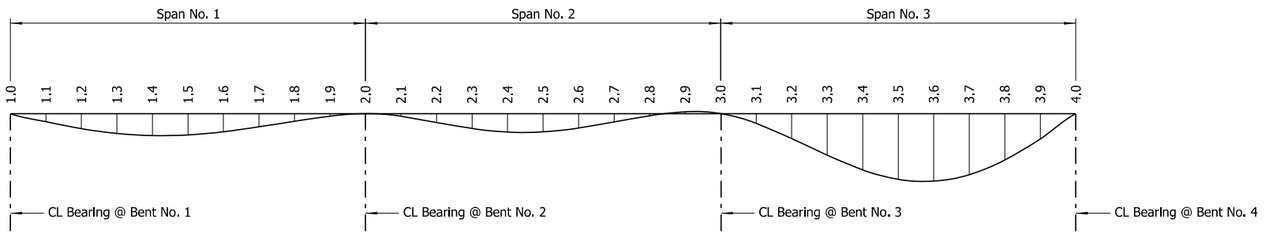
BRIDGE NO. A7659 & B7659 DRAWING NO. 66803

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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 356 | 583 |
| | | A7659 & B7659 | | 226'-0" UNIT | | 66804 |

## TABLE OF DEAD LOAD DEFLECTIONS (INCHES)

| | Point Of Deflection | Exterior Girder | | | Interior Girder | | |
|---|---|---|---|---|---|---|---|
| | | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail |
| SPAN NO. 1 | 1.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 1.1 | 0.021 | 0.132 | 0.145 | 0.023 | 0.160 | 0.171 |
| | 1.2 | 0.038 | 0.244 | 0.268 | 0.042 | 0.296 | 0.317 |
| | 1.3 | 0.050 | 0.321 | 0.353 | 0.055 | 0.390 | 0.417 |
| | 1.4 | 0.055 | 0.356 | 0.390 | 0.061 | 0.432 | 0.462 |
| | 1.5 | 0.052 | 0.344 | 0.377 | 0.058 | 0.420 | 0.448 |
| | 1.6 | 0.044 | 0.294 | 0.323 | 0.049 | 0.358 | 0.383 |
| | 1.7 | 0.031 | 0.214 | 0.235 | 0.035 | 0.261 | 0.278 |
| | 1.8 | 0.017 | 0.125 | 0.137 | 0.019 | 0.150 | 0.160 |
| | 1.9 | 0.004 | 0.040 | 0.044 | 0.005 | 0.050 | 0.053 |
| SPAN NO. 2 | 2.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 2.1 | 0.011 | 0.040 | 0.049 | 0.012 | 0.049 | 0.055 |
| | 2.2 | 0.032 | 0.137 | 0.157 | 0.035 | 0.171 | 0.188 |
| | 2.3 | 0.052 | 0.238 | 0.269 | 0.057 | 0.287 | 0.314 |
| | 2.4 | 0.064 | 0.295 | 0.334 | 0.070 | 0.355 | 0.389 |
| | 2.5 | 0.064 | 0.291 | 0.330 | 0.070 | 0.350 | 0.384 |
| | 2.6 | 0.054 | 0.231 | 0.264 | 0.058 | 0.277 | 0.305 |
| | 2.7 | 0.035 | 0.134 | 0.156 | 0.037 | 0.158 | 0.175 |
| | 2.8 | 0.014 | 0.031 | 0.041 | 0.014 | 0.036 | 0.043 |
| | 2.9 | -0.002 | -0.032 | -0.032 | -0.002 | -0.038 | -0.039 |
| SPAN NO. 3 | 3.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 3.1 | 0.025 | 0.160 | 0.176 | 0.027 | 0.192 | 0.206 |
| | 3.2 | 0.064 | 0.406 | 0.446 | 0.071 | 0.489 | 0.527 |
| | 3.3 | 0.109 | 0.674 | 0.742 | 0.119 | 0.813 | 0.875 |
| | 3.4 | 0.147 | 0.910 | 1.001 | 0.163 | 1.103 | 1.188 |
| | 3.5 | 0.174 | 1.070 | 1.176 | 0.191 | 1.288 | 1.386 |
| | 3.6 | 0.180 | 1.100 | 1.208 | 0.197 | 1.324 | 1.425 |
| | 3.7 | 0.163 | 0.994 | 1.092 | 0.179 | 1.197 | 1.288 |
| | 3.8 | 0.124 | 0.755 | 0.830 | 0.136 | 0.910 | 0.979 |
| | 3.9 | 0.068 | 0.410 | 0.451 | 0.074 | 0.495 | 0.533 |
| | 4.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |




DEAD LOAD DEFLECTION DIAGRAM

No Scale

NOTES:
Camber for dead load deflection plus vertical curve +/- ¼" tolerance. Deflections shown are along CL Girder from the plane perpendicular to the web extending from CL Bearing to CL Bearing. Vertical curve corrections are not included. Negative sign (-) indicates point above chord.

Dead load deflections shown include an assumed loading of 18 psf to account for stay-in-place metal deck forms.

Revision to the deflection tables may be necessary upon review of the Contractor's submitted forming details.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 6 OF 7
DETAILS OF 226'-0" CONTINUOUS PLATE GIRDER UNIT
XNA ACCESS RD. OVER HADEN RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

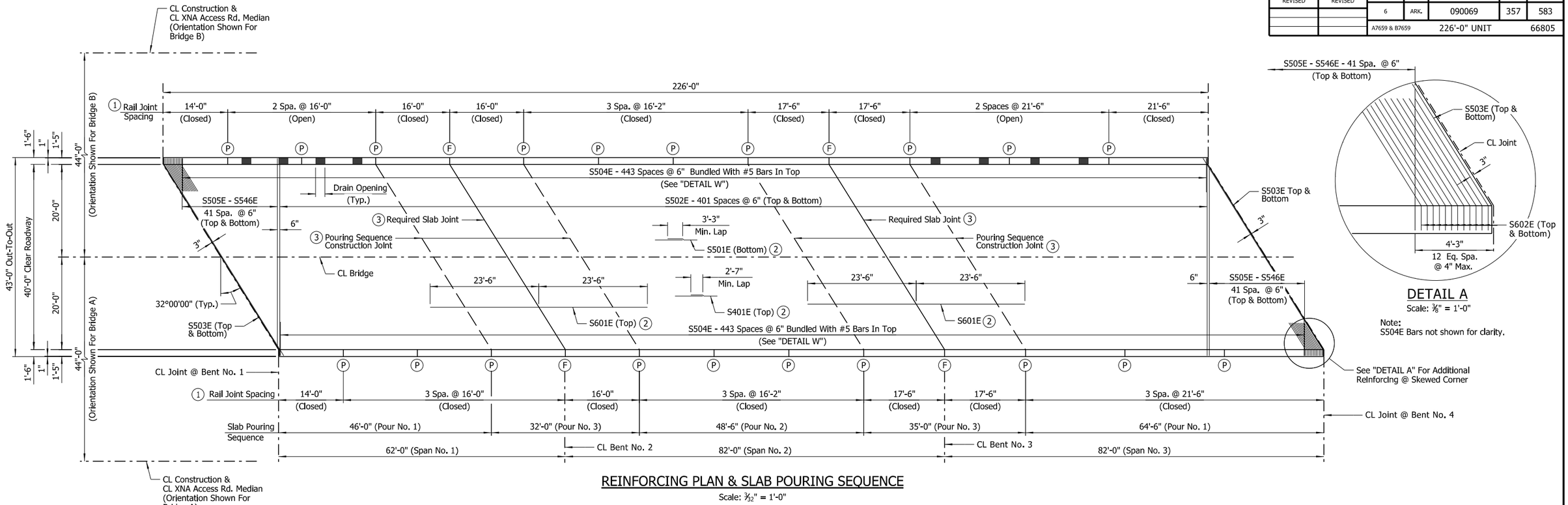
LITTLE ROCK, ARK.

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CHECKED BY: JES DATE: JUNE 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: NOV. 2022

BRIDGE NO. A7659 & B7659 DRAWING NO. 66804

JESkinner 10/20/2023 2:12:49 PM
WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069x4_S406_SD.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 357 | 583 |
| | | A7659 & B7659 | | 226'-0" UNIT | | 66805 |




## REINFORCING PLAN & SLAB POURING SEQUENCE

Scale: 3/32" = 1'-0"




## DETAIL A

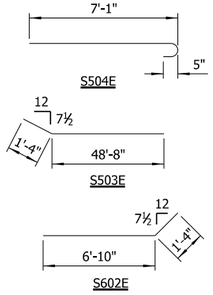
Scale: 3/8" = 1'-0"

Note:
S504E Bars not shown for clarity.

## BAR LIST

| MARK | NO. REQ'D | LENGTH | P.D. |
|---|---|---|---|
| R400E | 32 | 6'-3" | 3" |
| R401E | 904 | 7'-6" | 3" |
| R402E | 80 | 5'-6" | Str. |
| R403E | 904 | 3'-8" | 3",6" |
| R409E | 20 | 13'-8" | Str. |
| R410E | 80 | 15'-8" | Str. |
| R411E | 60 | 15'-10" | Str. |
| R412E | 40 | 17'-2" | Str. |
| R413E | 60 | 21'-2" | Str. |
| | | | |
| S401E | 264 | 39'-10" | Str. |
| | | | |
| S501E | 192 | 58'-10" | Str. |
| S502E | 804 | 42'-8" | Str. |
| S503E | 4 | 50'-0" | 3¾" |
| S504E | 888 | 7'-8" | 3¾" |
| S505E To S546E | 4 Each | 7'-8" To 40'-5" | Str. |
| | | | |
| S601E | 86 | 47'-0" | Str. |
| S602E | 44 | 8'-2" | 4½" |

## BAR BENDING DIAGRAMS




NOTES:
Dimensions of bars are out-to-out.

Bar designations ending with "E" indicate epoxy coated bars.

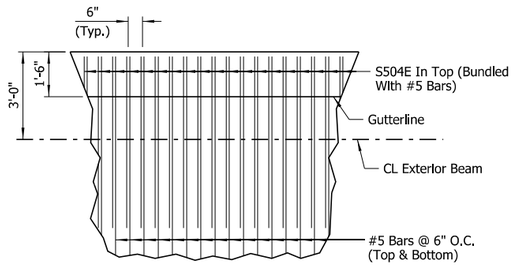
For bar bending diagrams of R400E, R401E & R403E, see Std. Dwg. No. 55071.

The first bar designation number indicates the reinforcing bar size.

Number of bars shown are for one 226' unit.

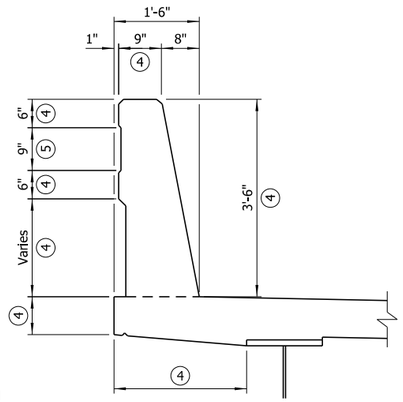
## TABLE OF VARIABLES

| Closed Rail Panels | | | Open Rail Panels | | | | | |
|---|---|---|---|---|---|---|---|---|
| Panel Length | A | R4XXE | Panel Length | B | C | D | E | R4XXE |
| 14'-0" | 27 | 09 | 16'-0" | 8 | 3'-0" | 11 | 6'-0" | 10 |
| 16'-0" | 31 | 10 | 21'-6" | 12 | 4'-6" | 16 | 8'-6" | 13 |
| 16'-2" | 32 | 11 | | | | | | |
| 17'-6" | 34 | 12 | | | | | | |
| 21'-6" | 42 | 13 | | | | | | |




## DETAIL W

No Scale




4 Class 3 Textured Coating Finish (Color - Light Brown, Color Chip No. 33522)

5 Class 3 Textured Coating Finish (Color - Tan, Color Chip No. 30219)

## BRIDGE RAIL AESTHETIC DETAIL

No Scale

1 Measured along inside face of rail. Rail open panels are shown for Bridge A; Rail open panels are mirrored across CL Bridge for Bridge B. Rail joints designated with symbol (F) shall be stopped 6" from top of slab. All other rail joints with symbol (P) shall be partial-depth joints stopped 16" from top of slab.

2 Place as shown in "TYPICAL ROADWAY SECTION" on Dwg. No. 66800

3 See "TRANSVERSE SLAB JOINT DETAIL" on Std. Dwg. No. 55007

NOTES:
Pours with the same number may be placed simultaneously or separately. All Pour(s) (1) must be placed before Pour (2) can be placed. All Pour (2) must be placed before Pour(s) 3 can be placed. A minimum of 48 hours shall elapse between the end of a pour and the start of the next pour. A minimum of 72 hours shall elapse between adjacent pours.

Concrete in bridge superstructure shall be placed, consolidated and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

A minimum of 72 hours shall elapse between the completion of the entire deck slab and the start of a railing pour. Any railing pours made before the entire slab unit has been placed must be approved by the Engineer. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence shown.

Required slab joints and pouring sequence joints shall align with rail joints as shown.

For "GENERAL NOTES", see Std. Dwg. No. 55006.

For Concrete Bridge Rail details, see Std. Dwg. No. 55071.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER
Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 7 OF 7
# DETAILS OF 226'-0" CONTINUOUS PLATE GIRDER UNIT XNA ACCESS RD. OVER HADEN RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

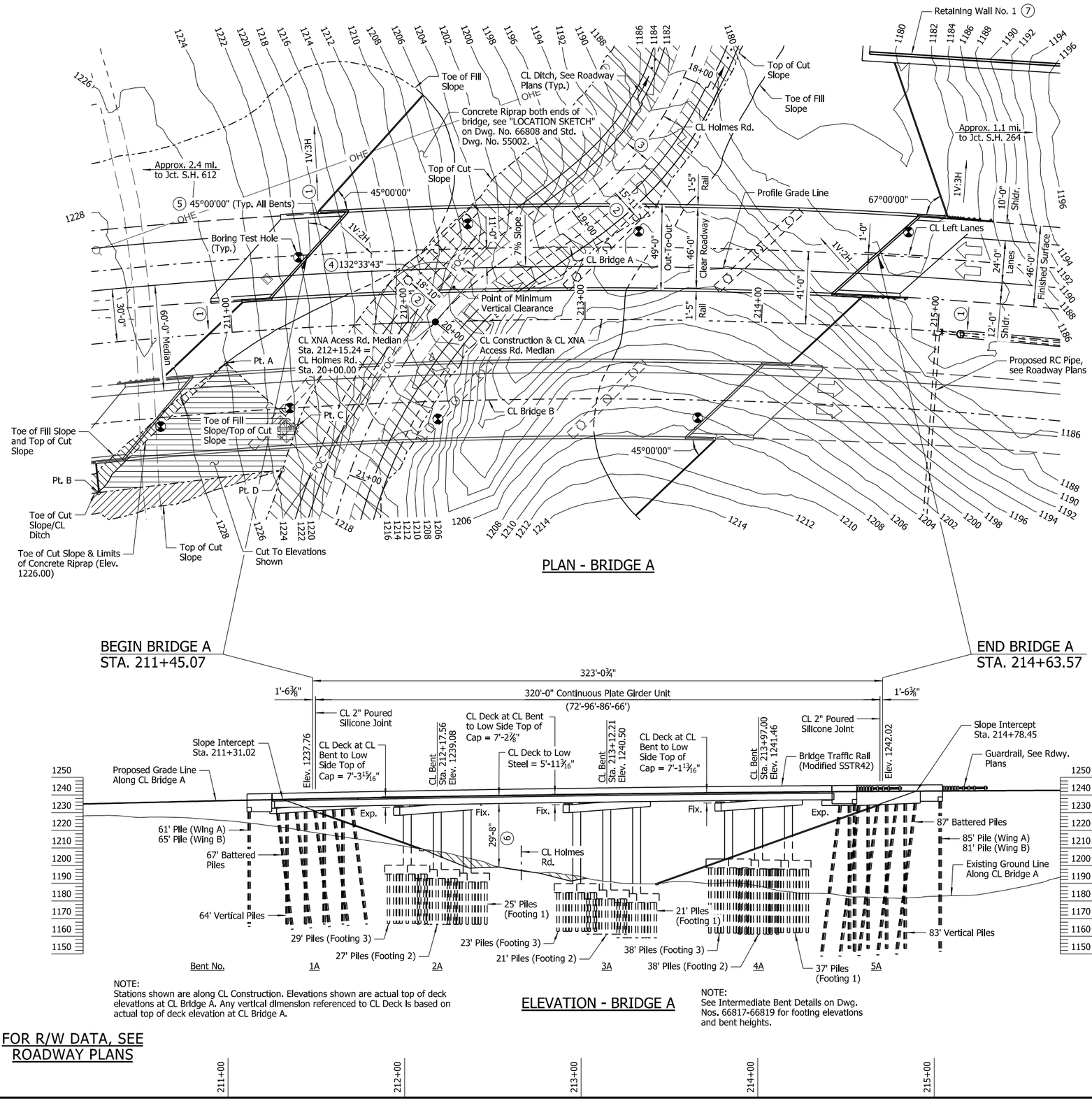
LITTLE ROCK, ARK.

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CHECKED BY: JES DATE: JUNE 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: NOV. 2022

BRIDGE NO. A7659 & B7659 DRAWING NO. 66805

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 358 | 583 |
| | | A7660 | | LAYOUT | | 66806 |




PLAN - BRIDGE A




ELEVATION - BRIDGE A

NOTE:
Stations shown are along CL Construction. Elevations shown are actual top of deck elevations at CL Bridge A. Any vertical dimension referenced to CL Deck is based on actual top of deck elevation at CL Bridge A.

NOTE:
See Intermediate Bent Details on Dwg. Nos. 66817-66819 for footing elevations and bent heights.

FOR R/W DATA, SEE ROADWAY PLANS

| GRADING CONTROL POINTS | | | |
|---|---|---|---|
| Point | Station | Offset Rt. | Elev. |
| A | 210+95.28 | 17.12' | 1226.00 |
| B | 210+15.53 | 84.00' | 1226.00 |
| C | 211+33.51 | 55.52' | 1221.82 |
| D | 211+23.40 | 79.71' | 1223.39 |

NOTES:
Use Type F Approach Slab (W = 42'-0") at each end of bridge. See Std. Dwg. No. 55040F1.

Use Type F Approach Gutters at each end of bridge. See Std. Dwg. No. 55030F.

## EXISTING UTILITIES LEGEND

FOC = Fiber Optic Cable
OHE = Overhead Electric

NOTE:
Utilities shown are based on locations at time of survey and do not reflect any potential utility relocations prior to construction.

## HORIZONTAL CURVE DATA

XNA Access Rd. Median
PI = 224+12.04
Δ = 55°35'22" Rt.
D = 2°00'00"
T = 1510.09'
L = 2779.47'
e = 0.07 Ft./Ft.
R = 2864.79'

NOTES:
For "PROJECT GENERAL NOTES", see Dwg. No. 66717.

For "LOCATION SKETCH" and "GENERAL NOTES", see Dwg. No. 66808.

For "ELEVATION OF SOIL BORINGS - BRIDGE A", "BORING LEGEND" and "N-VALUES", see Dwg. No. 66809.

CL Construction is on a 2°00'00" curve right. CL Girders and the longitudinal lines of the bridge and approach slabs and gutters shall be constructed on curves concentric with CL Construction.

(1) 1V:6H

(2) Minimum Horizontal Clearance

(3) Existing gravel roadway width varies

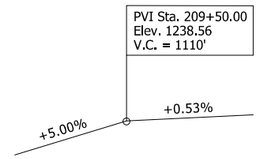
(4) Angle measured at point of intersection between line tangent to CL XNA Access Rd. Median and line tangent to CL Holmes Rd.

(5) For Bents 1A & 5A:
Measured from CL Joint to a line radial to CL Bridge A at CL Joint.

For Bents 2A-4A:
Measured from CL Bent to a line radial to CL Bridge A at CL Bent.

(6) Point of Minimum Vertical Clearance

(7) For Retaining Wall Details, see Dwg. Nos. 66853, 66854, 66857 & 66859.




## VERTICAL CURVE DATA

XNA Access Rd.
(Profile Grade 11' Right of CL Bridge A)

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL

Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 1 OF 4
# LAYOUT OF BRIDGES
# XNA ACCESS RD. OVER HOLMES RD.
# NORTHWEST ARKANSAS
# NATIONAL AIRPORT ACCESS (F)
# BENTON COUNTY

ROUTE NEW SEC. NEW

## ARKANSAS STATE HIGHWAY COMMISSION

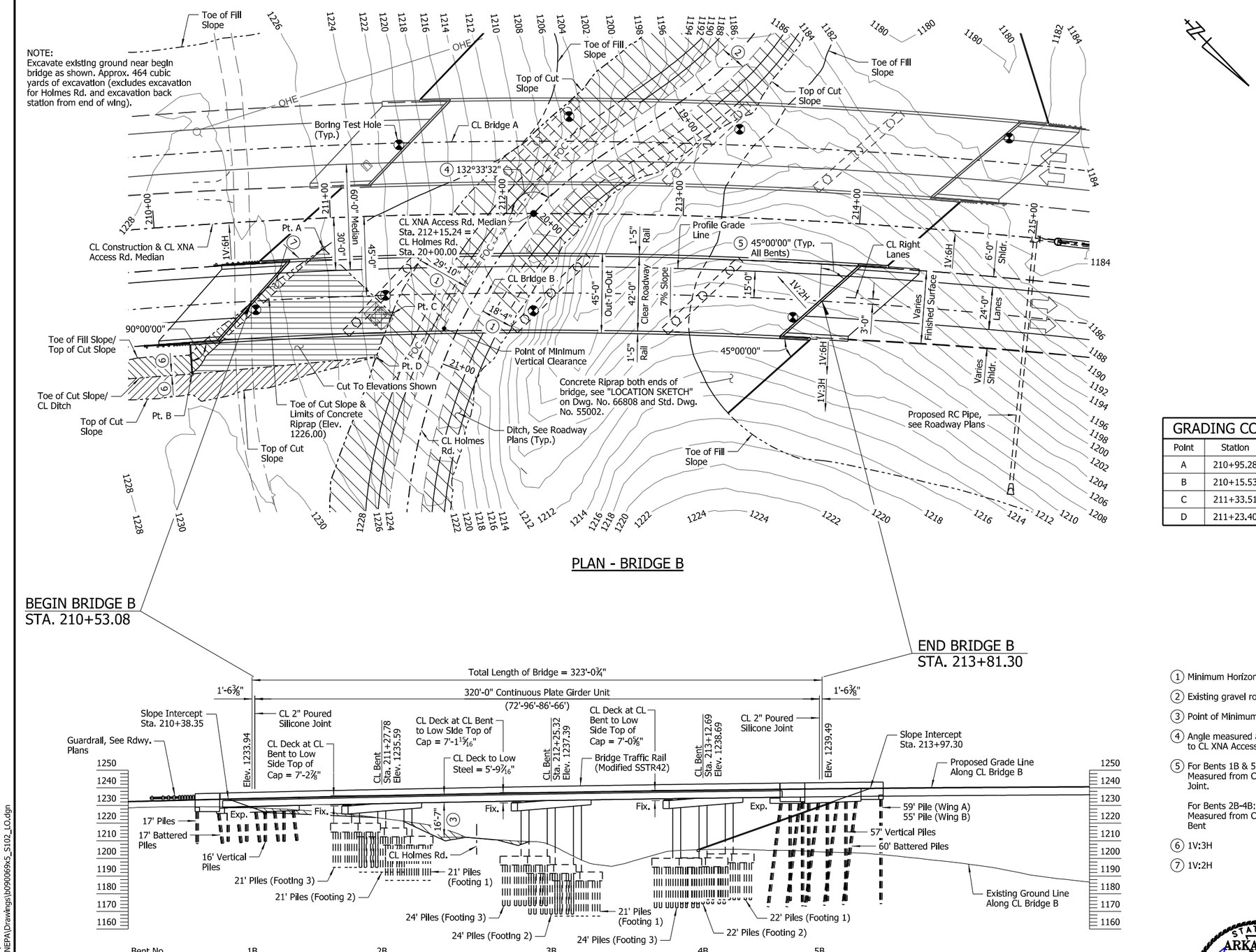
LITTLE ROCK, ARK.

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CHECKED BY: ABH DATE: AUG. 2023 SCALE: 1" = 30'-0"
DESIGNED BY: CSW DATE: AUG. 2021

BRIDGE NO. A7660 DRAWING NO. 66806

JESkinner 10/20/2023 2:12:56 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 359 | 583 |
| | | B7660 | | LAYOUT | | 66807 |




## PLAN - BRIDGE B

BEGIN BRIDGE B
STA. 210+53.08

END BRIDGE B
STA. 213+81.30




## ELEVATION - BRIDGE B

NOTE:
Stations shown are along CL Construction. Elevations shown are actual top of deck elevations at CL Bridge B. Any vertical dimension referenced to CL Deck is based on actual top of deck elevation at CL Bridge B.

NOTE:
See Intermediate Bent Details on Dwg. Nos. 66820-66822 for footing elevations and bent heights.

FOR R/W DATA, SEE ROADWAY PLANS

NOTES:
Use Type F Approach Slab (W = 38'-0") at each end of bridge. See Std. Dwg. No. 55040F1.

Use Type F Approach Gutters at each end of bridge. See Std. Dwg. No. 55030F.

## EXISTING UTILITIES LEGEND

FOC = Fiber Optic Cable
OHE = Overhead Electric

## HORIZONTAL CURVE DATA

XNA Access Rd. Median
PI = 224+12.04
Δ = 55°35'22" Rt.
D = 2°00'00"
T = 1510.09'
L = 2779.47'
e = 0.07 Ft./Ft.
R = 2864.79'

## GRADING CONTROL POINTS

| Point | Station | Offset Rt. | Elev. |
|---|---|---|---|
| A | 210+95.28 | 17.12' | 1226.00 |
| B | 210+15.53 | 84.00' | 1226.00 |
| C | 211+33.51 | 55.52' | 1221.82 |
| D | 211+23.40 | 79.71' | 1223.39 |

NOTES:
For "PROJECT GENERAL NOTES", see Dwg. No. 66717.

For "LOCATION SKETCH" and "GENERAL NOTES", see Dwg. No. 66808.

For "ELEVATION OF SOIL BORINGS - BRIDGE B", "BORING LEGEND" and "N-VALUES", see Dwg. No. 66809.

CL Construction is on a 2°00'00" curve right. CL Girders and the longitudinal lines of the bridge and approach slabs and gutters shall be constructed on curves concentric with CL Construction.

1. Minimum Horizontal Clearance
2. Existing gravel roadway width varies
3. Point of Minimum Vertical Clearance
4. Angle measured at point of intersection between lines tangent to CL XNA Access Rd. Median and CL Holmes Rd.
5. For Bents 1B & 5B:
   Measured from CL Joint to a line radial to CL Bridge B at CL Joint.
   For Bents 2B-4B:
   Measured from CL Bent to a line radial to CL Bridge B at CL Bent
6. 1V:3H
7. 1V:2H

PVI Sta. 209+50.00
Elev. 1238.56
V.C. = 1110'
+5.00%
+0.53%

## VERTICAL CURVE DATA

XNA Access Rd.
(Profile Grade 15' Left of CL Bridge B)

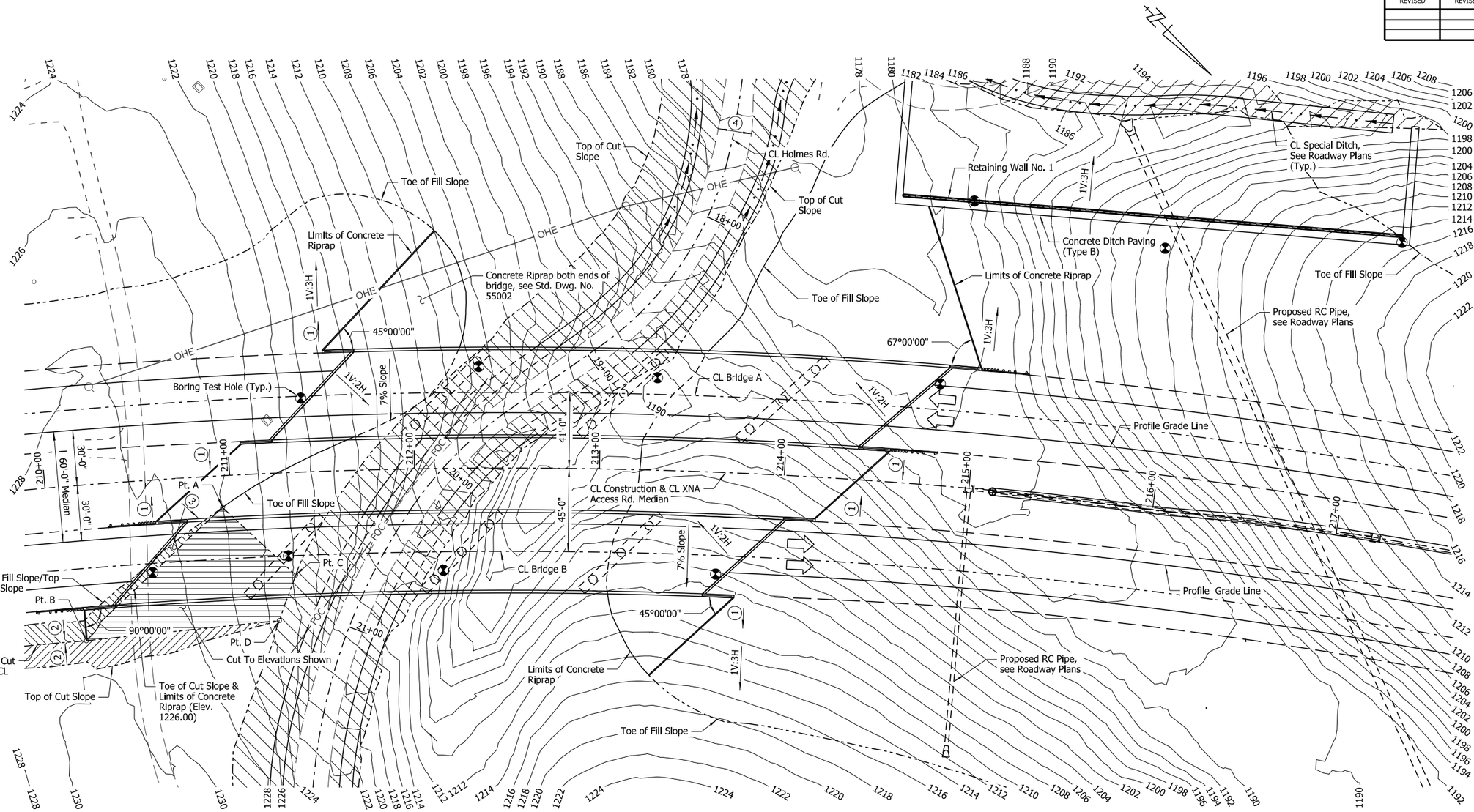
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 2 OF 4
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER HOLMES RD.
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: CSW DATE: AUG. 2021
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 360 | 583 |
| | | A7660 & B7660 | | LAYOUT | | 66808 |




## LOCATION SKETCH

## HORIZONTAL CURVE DATA

XNA Access Rd. Median
PI = 224+12.04
Δ = 55°35'22" Rt.
D = 2°00'00"
T = 1510.09'
L = 2779.47'
e = 0.07 Ft./Ft.
R = 2864.79'

(1) 1V:6H
(2) 1V:3H
(3) 1V:2H
(4) Existing gravel roadway width varies

## GRADING CONTROL POINTS

| Point | Station | Offset Rt. | Elev. |
|---|---|---|---|
| A | 210+95.28 | 17.12' | 1226.00 |
| B | 210+15.53 | 84.00' | 1226.00 |
| C | 211+33.51 | 55.52' | 1221.82 |
| D | 211+23.40 | 79.71' | 1223.39 |

## GENERAL NOTES

SEISMIC ZONE: 1 $S_{D1}$: 0.09g SITE CLASS: C

SEISMIC OPERATIONAL CLASSIFICATION: Essential

STEEL PILING: Piling at end bents shall be HP 12x53 (Grade 50) and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 96 tons per pile and into the material designated as Moderately Hard Cherty Limestone on the boring legend. Piling at intermediate bents shall be HP14x73 (Grade 50) and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 134 tons per pile and into the material designated as Moderately Hard Cherty Limestone on the boring legend. Minimum penetration shall be 10' below bottom of cap or natural ground (whichever is lower) for all piles at end bents and 20' below bottom of footing for all piles at intermediate bents. Piling in end bents shall be driven after embankment to bottom of cap is in place and after any specified waiting period (see note). Lengths of piling shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with Section 805. Actual pile lengths are to be determined in the field. The Contractor shall use approved steel H-Pile driving points on all piles.

WAITING PERIOD: Piling at End Bent Nos. 5A and 5B shall be driven no sooner than 45 days after embankment construction is completed to the final roadway section. Pile driving shall not begin until approval is given by the Engineer.

PREBORING: Preboring is required for all piles at Bents 3A, 1B, 2B & 3B (Footings 1 & 2 only). The depth of preboring shall be to a depth sufficient to provide the specified minimum penetration and to a minimum 5' depth into material designated as Moderately Hard Cherty Limestone on the boring legend, whichever is lower. The actual size and depth of preboring shall be determined in the field by the Engineer. The Contractor shall be responsible for keeping the prebored hole free of debris prior to driving the pile and backfilling which may require the use of temporary casing or other approved methods. After driving is completed, the prebored hole shall be backfilled with Class S Concrete to the top of the rock and the remaining length backfilled in accordance with Subsection 805.08(a). Any related cost for backfilling and temporary casing will not be paid for directly, but shall be considered subsidiary to the item "PREBORING".

PILE FOOTINGS: The top of the footings at all intermediate bents shall be set a minimum of 2' below natural or finished ground or at the elevations shown on the plans, whichever is lower. Foundations for footings shall be prepared in accordance with Subsection 801.04. Foundation piles shall not be driven until after the excavation to bottom of footing is complete. Excavations shall be backfilled and compacted to the level of the existing or finished ground in accordance with Subsection 801.08.

PAINTING: All Grade 50 structural steel, except galvanized members and surfaces in contact with concrete, shall be painted as specified in Subsection 807.75. The color of paint shall be Red Brown and shall match Federal Standard 595B, Color Chip No. 30108.

| DETAIL DRAWINGS: | DRAWING NO(S).: |
|---|---|
| End Bents | 66810-66816 |
| Intermediate Bents (Bridge A) | 66817-66819 |
| Intermediate Bents (Bridge B) | 66820-66822 |
| Elastomeric Bearings | 66823 |
| 320'-0" Continuous Plate Girder Unit (Bridge A) | 66824-66831 |
| 320'-0" Continuous Plate Girder Unit (Bridge B) | 66832-66839 |
| Concrete Riprap | 55002 |
| General Notes For Steel Bridge Structures | 55006 |
| Details for Steel Bridge Structures | 55007 |
| Poured Silicone Joint | 55008 |
| Steel H-Piling | 55020 |
| Type F Approach Gutters | 55030F |
| Type F Approach Slabs | 55040F1 |
| Bridge Traffic Rail | 66830, 66839 & 55071 |

## EXISTING UTILITIES LEGEND

FOC = Fiber Optic Cable
OHE = Overhead Electric

NOTE:
Utilities shown are based on locations at time of survey and do not reflect any potential utility relocations prior to construction.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL
Digitally Signed 10/20/2023
BRIDGE ENGINEER

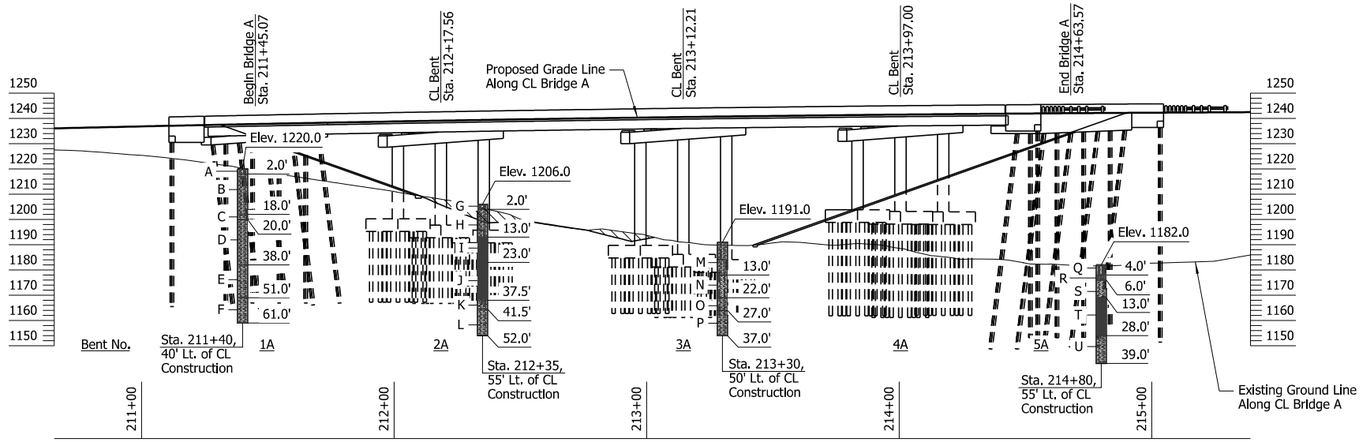
SHEET 3 OF 4
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER HOLMES RD.
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CSW DATE: AUG. 2021 FILENAME: b090069m5_l3.dgn
CHECKED BY: ABH DATE: AUG. 2023 SCALE: 1" = 30'-0"
DESIGNED BY: CSW DATE: AUG. 2021

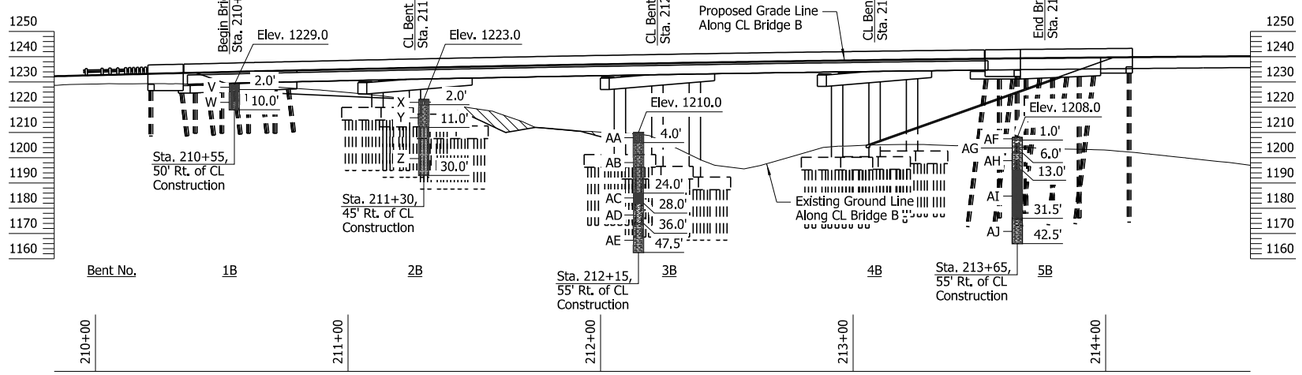
BRIDGE NO. A7660 & B7660 DRAWING NO. 66808

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L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069x5_S103_LO.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 361 | 583 |
| | | A7660 & B7660 | | LAYOUT | | 66809 |




ELEVATION OF SOIL BORINGS - BRIDGE A




ELEVATION OF SOIL BORINGS - BRIDGE B

## N-VALUES

| Sta. 211+40<br>40' Lt. of CL Construction | Sta. 212+35<br>55' Lt. of CL Construction | Sta. 213+30<br>50' Lt. of CL Construction | Sta. 214+80<br>55' Lt. of CL Construction |
|---|---|---|---|
| 0.5-1.5, N=32 | 0.5-1.5, N=18 | 0.5-1.5, N=67 | 0.5-1.5, N=13 |
| 2.5-3.5, N=66 | 2.5-3.5, N=9 | 2.5-3.5, N=69 | 2.5-3.5, N=11 |
| 4.5-5.5, N=50/2" | 4.5-5.5, N=50 | 4.5-5.5, N=46 | 4.5-5.5, N=14 |
| 6.5-7.5, N=50/6" | 6.5-7.5, N=27 | 6.5-7.5, N=34 | 6.5-7.5, N=23 |
| 9.0-10.0, N=80 | 9.0-10.0, N=27 | 9.0-10.0, N=39 | 9.0-10.0, N=17 |
| 14.0-15.0, N=43 | 14.0-15.0, N=21 | 14.0-15.0, N=47 | 14.0-15.0, N=32 |
| 19.0-20.0, N=64 | 19.0-20.0, N=16 | 19.0-20.0, N=37 | 19.0-20.0, N=17 |
| 24.0-25.0, N=28 | 24.0-25.0, N=12 | | 24.0-25.0, N=4 |
| 29.0-30.0, N=19 | 29.0-30.0, N=14 | | |
| 34.0-35.0, N=19 | 34.0-35.0, N=34 | | |
| 39.0-40.0, N=9 | | | |
| 44.0-45.0, N=11 | | | |
| 49.0-50.0, N=11 | | | |

| Sta. 210+55<br>50' Rt. of CL Construction | Sta. 211+30<br>45' Rt. of CL Construction | Sta. 212+15<br>55' Rt. of CL Construction | Sta. 213+65<br>55' Rt. of CL Construction |
|---|---|---|---|
| 0.5-1.5, N=27 | 0.5-1.5, N=8 | 0.5-1.5, N=13 | 0.5-1.5, N=20 |
| 2.5-3.5, N=48 | 2.5-3.5, N=50/7" | 2.5-3.5, N=10 | 2.5-3.5, N=28 |
| 4.5-5.5, N=50/3" | 4.5-5.5, N=50/10" | 4.5-5.5, N=10 | 4.5-5.5, N=60 |
| 6.5-7.5, N=50/1" | 6.0-6.5, N=25/0" | 6.5-7.5, N=41 | 6.5-7.5, N=35 |
| 9.0-10.0, N=50/4" | | 9.0-10.0, N=50/5" | 9.0-10.0, N=16 |
| | | 14.0-15.0, N=31 | 14.0-15.0, N=50 |
| | | 19.0-20.0, N=31 | 19.0-20.0, N=19 |
| | | 24.0-25.0, N=17 | 24.0-25.0, N=17 |
| | | 29.0-30.0, N=51 | 29.0-30.0, N=50/5" |

## BORING LEGEND

A - Very stiff light brown clayey silt w/ chert nodules and fragments, dry
B - Very stiff red silty clay
C - Low hardness light yellowish red and very light gray highly weathered cherty limestone w/ red silty clay seams
D - Stiff to very stiff red silty clay w/ chert nodules and fragments
E - Very soft light gray and light yellowish red highly weathered cherty limestone, fractured w/ red silty clay seams
F - Moderately hard to hard gray cherty limestone
G - Stiff brown and yellowish tan clayey silt w/ numerous chert nodules and fragments
H - Firm reddish brown and light gray silty clay w/ numerous chert nodules and fragments
I - Stiff reddish brown and light gray fine to medium sandy clay w/ numerous chert fragments and nodules
J - Stiff light gray and yellowish red fine to coarse sandy clay w/ weathered limestone seams and layers
K - Moderately hard gray weathered cherty limestone
L - Moderately hard to hard light gray and gray cherty limestone
M - Very stiff yellowish red silty clay w/ numerous chert nodules and fragments
N - Low hardness yellowish red highly weathered chert w/ silty clay pockets and seams
O - Moderately hard light gray weathered cherty limestone
P - Hard light gray cherty limestone
Q - Stiff brown and tan clayey silt w/ organics and numerous chert nodules and fragments
R - Medium dense brown fine to medium sand w/ fine limestone gravel and numerous chert nodules and fragments
S - Medium dense reddish brown sandy fine to coarse chert fragments w/ red silty clay seams
T - Stiff to very stiff yellowish red fine to coarse sandy clay w/ numerous chert nodules and fragments
U - Moderately hard gray slightly weathered cherty limestone
V - Stiff to very stiff light brown clayey silt w/ chert nodules and fragments and occasional organics
W - Very stiff yellowish red and red silty clay w/ numerous chert nodules and fragments
X - Firm tan and brown clayey silt w/ numerous chert fragments
Y - Stiff reddish brown and tan silty clay w/ chert fragments and discontinuous chert seams and layers
Z - Moderately hard light yellowish tan weathered limestone, highly fractured w/ chert inclusions, seams, and layers and close soil-filled fractures
AA - Medium dense brown fine sandy silt w/ organics and numerous chert and limestone fragments (topsoil)
AB - Firm to stiff red silty clay w/ numerous chert nodules and fragments
AC - Stiff yellowish red fine to coarse sandy clay w/ numerous chert nodules and fragments (completely weathered cherty limestone)
AD - Low hardness very light tan and reddish tan highly weathered chert w/ limestone fragments and silty clay pockets and seams
AE - Moderately hard to hard gray cherty limestone, fractured
AF - Stiff dark brown silty clay w/ chert nodules and fragments
AG - Stiff to very stiff red clay w/ numerous chert nodules and fragments
AH - Medium dense to dense reddish brown and light gray clayey fine to coarse sand w/ numerous chert nodules and fragments
AI - Stiff to very stiff reddish brown and light gray fine to medium sandy clay w/ numerous chert nodules and fragments
AJ - Moderately hard to hard gray cherty limestone

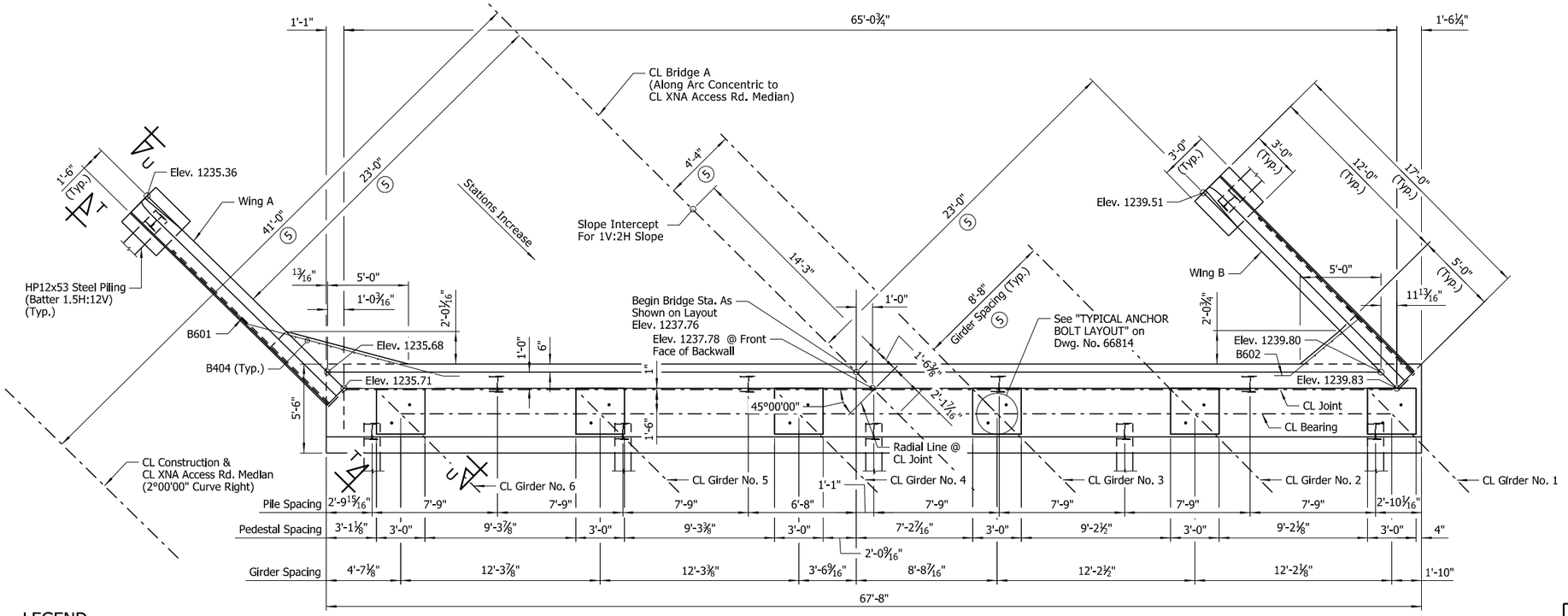
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 14498
ADAM B. HALL
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 4 OF 4
LAYOUT OF BRIDGES
XNA ACCESS RD. OVER HOLMES RD.
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CSW DATE: AUG. 2021 FILENAME: b090069m5_l4.dgn
CHECKED BY: ABH DATE: AUG. 2022 SCALE: 1" = 30'-0"
DESIGNED BY: CSW DATE: AUG. 2021
BRIDGE NO. A7660 & B7660 DRAWING NO. 66809

JESkinner 10/20/2023 2:13:00 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
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| | | A7660 & B7660 | | END BENTS | | 66810 |

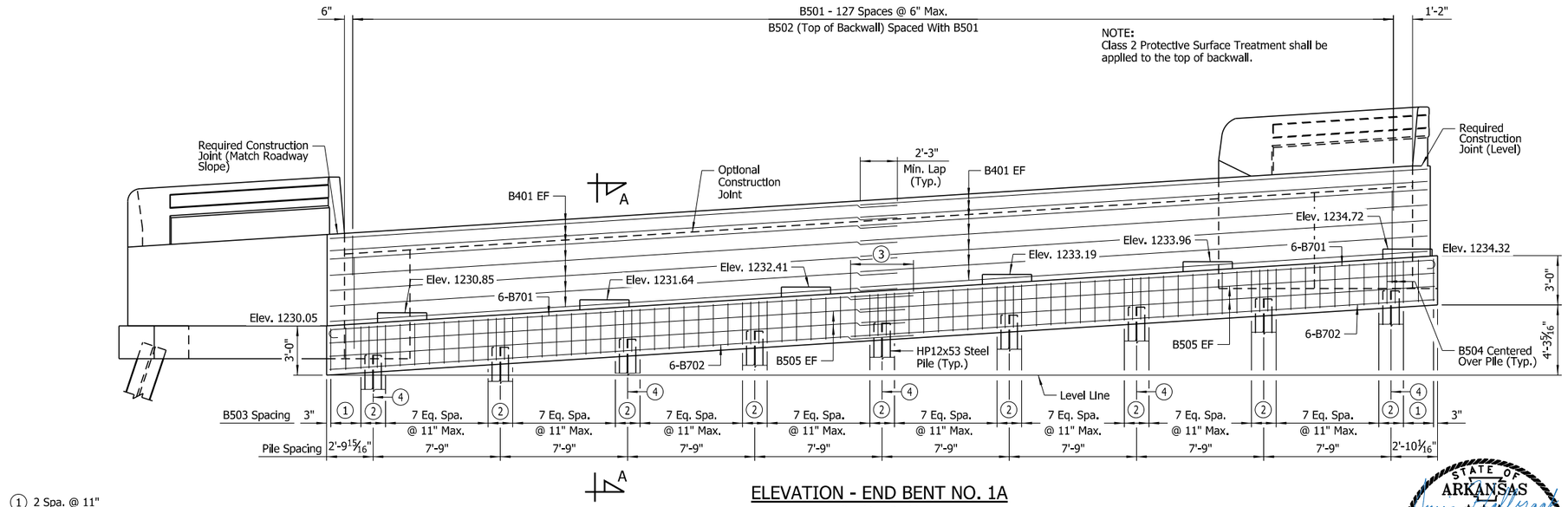



## PLAN - END BENT NO. 1A

Scale: ¼" = 1'-0"

### LEGEND

EF = Each Face




## ELEVATION - END BENT NO. 1A

(Looking Back)
Scale: ¼" = 1'-0"

1. 2 Spa. @ 11"
2. 1'-6"
3. 2'-9" Min. Lap For #5 Bars
   3'-10" Min. Lap For #7 Bars
4. Batter Pile 4H:12V
5. Measured Radially

NOTES:
No portion of the backwall shall be poured until the girders are in place. The portion of the backwall above the optional construction joint at the paving bracket shall not be placed until the adjacent deck pour has been made. See Std. Dwg. No. 55008, "EXPANSION DEVICE INSTALLATION AT END BENTS", for additional information.

No heavy construction equipment shall be allowed within 10' of the backwall before the deck concrete placement for the adjacent span has been completed.

## GENERAL NOTES

Structural steel in end bents shall be ASTM A709, Gr. 50 and shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in Special Provision "TEXTURED COATING FINISH" and in accordance with Subsection 802.19(b)(3).

See Std. Dwg. No. 55006 for additional notes.

For additional information, see Layout.

CL Construction is on a 2°00'00" curve right.

All longitudinal lines are on curves concentric with CL Construction.

NOTES:
For "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66814.

For "BAR LIST - BENT NOS. 1A & 5A" and "BAR BENDING DIAGRAMS", see Dwg. No. 66816.

For "SECTION A-A", see Dwg. No. 66814.

For "VIEW T-T" and "SECTION U-U", see Dwg. No. 66815.

STATE OF ARKANSAS
Jessica L. Halbrook
LICENSED PROFESSIONAL ENGINEER
No.18030
JESSICA L. HALBROOK
Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 1 OF 7
# DETAILS OF END BENTS
# XNA ACCESS RD. OVER HOLMES RD.

ROUTE SEC.

## ARKANSAS STATE HIGHWAY COMMISSION

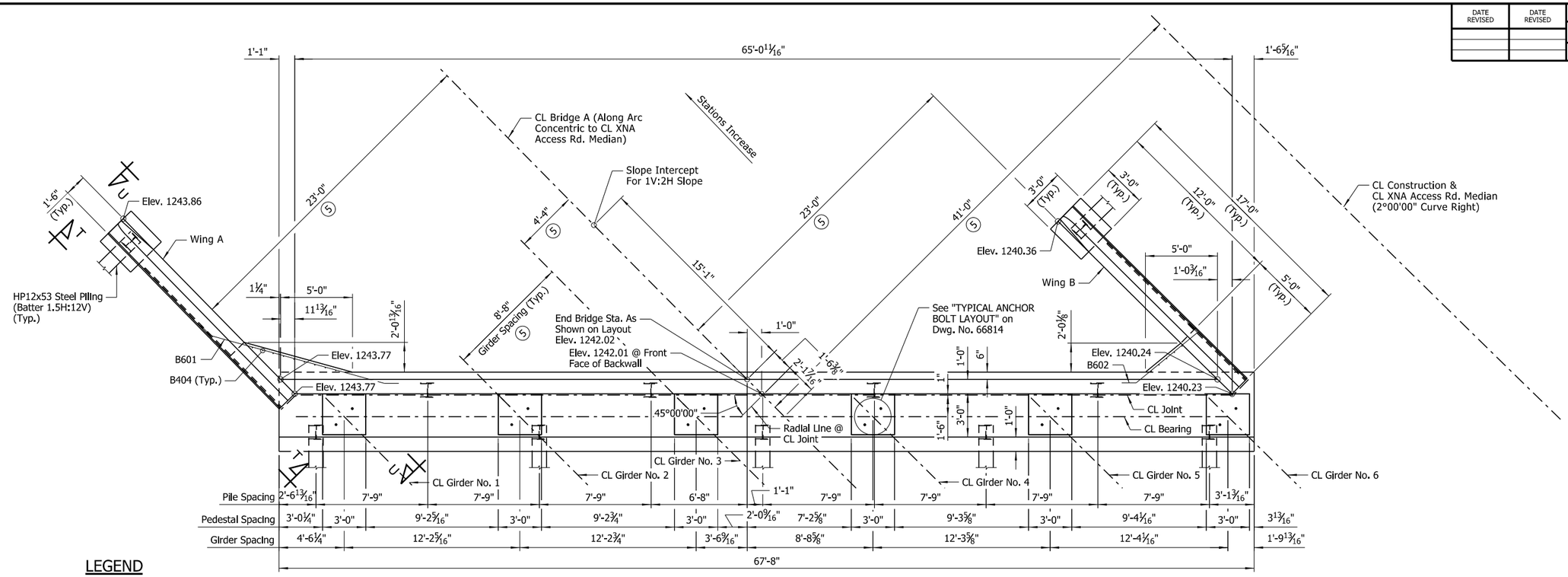
LITTLE ROCK, ARK.

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DESIGNED BY: RAK DATE: JAN. 2023

BRIDGE NO. A7660 & B7660 DRAWING NO. 66810

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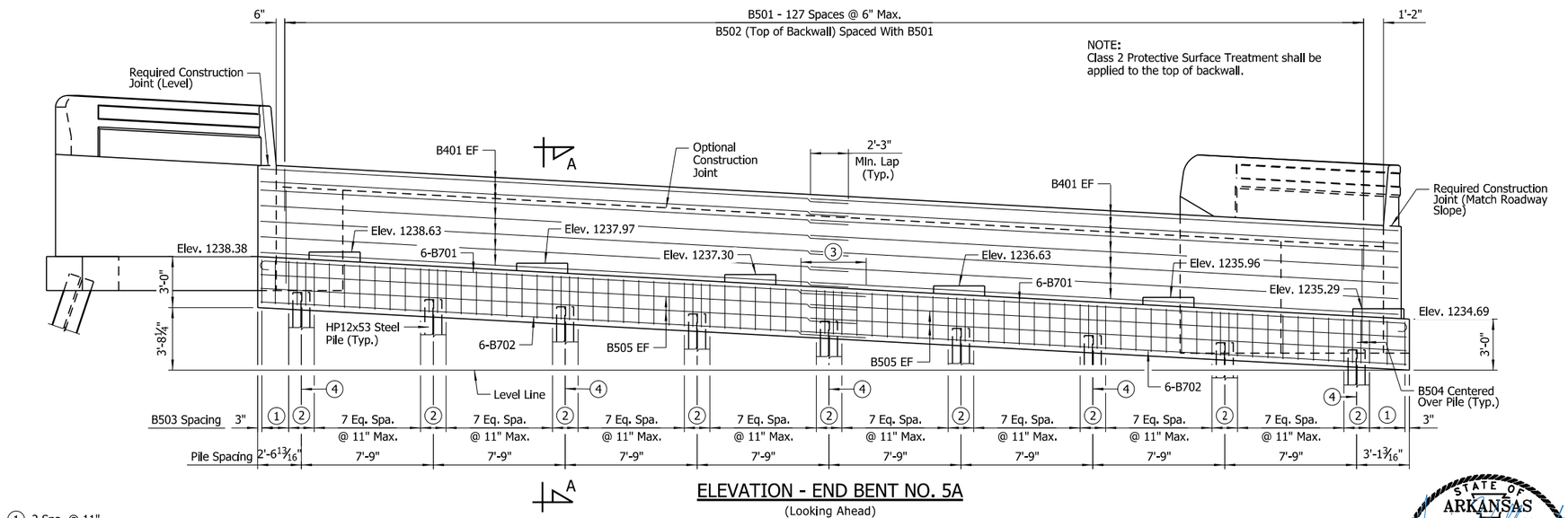



## LEGEND

EF = Each Face

## PLAN - END BENT NO. 5A

Scale: ¼" = 1'-0"




## ELEVATION - END BENT NO. 5A

(Looking Ahead)
Scale: ¼" = 1'-0"

1. 2 Spa. @ 11"
2. 1'-6"
3. 2'-9" Min. Lap For #5 Bars
   3'-10" Min. Lap For #7 Bars
4. Batter Pile 4H:12V
5. Measured Radially

NOTES:
For "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66814.

For "BAR LIST - BENT NOS. 1A & 5A" and "BAR BENDING DIAGRAMS", see Dwg. No. 66816.

For "SECTION A-A", see Dwg. No. 66814.

For "GENERAL NOTES", see Dwg. No. 66810.

For "VIEW T-T" and "SECTION U-U", see Dwg. No. 66815.

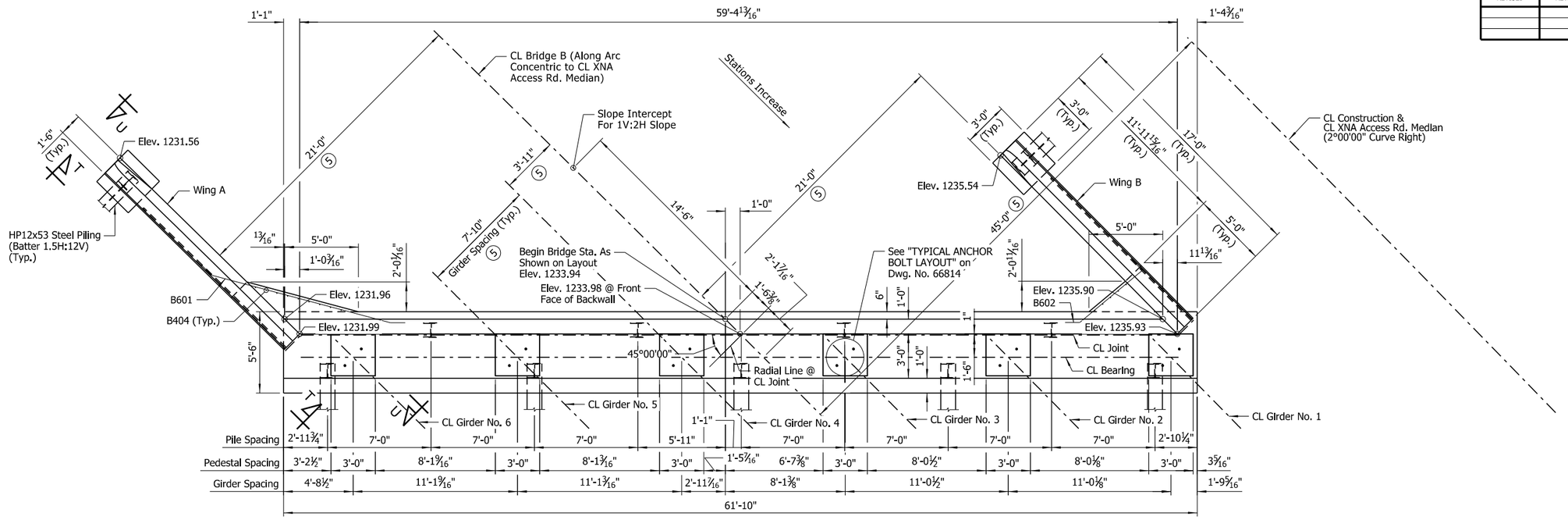
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18030
JESSICA L. HALBROOK
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 2 OF 7
DETAILS OF END BENTS
XNA ACCESS RD. OVER HOLMES RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: RAK DATE: JAN. 2023
BRIDGE NO. A7660 & B7660 DRAWING NO. 66811

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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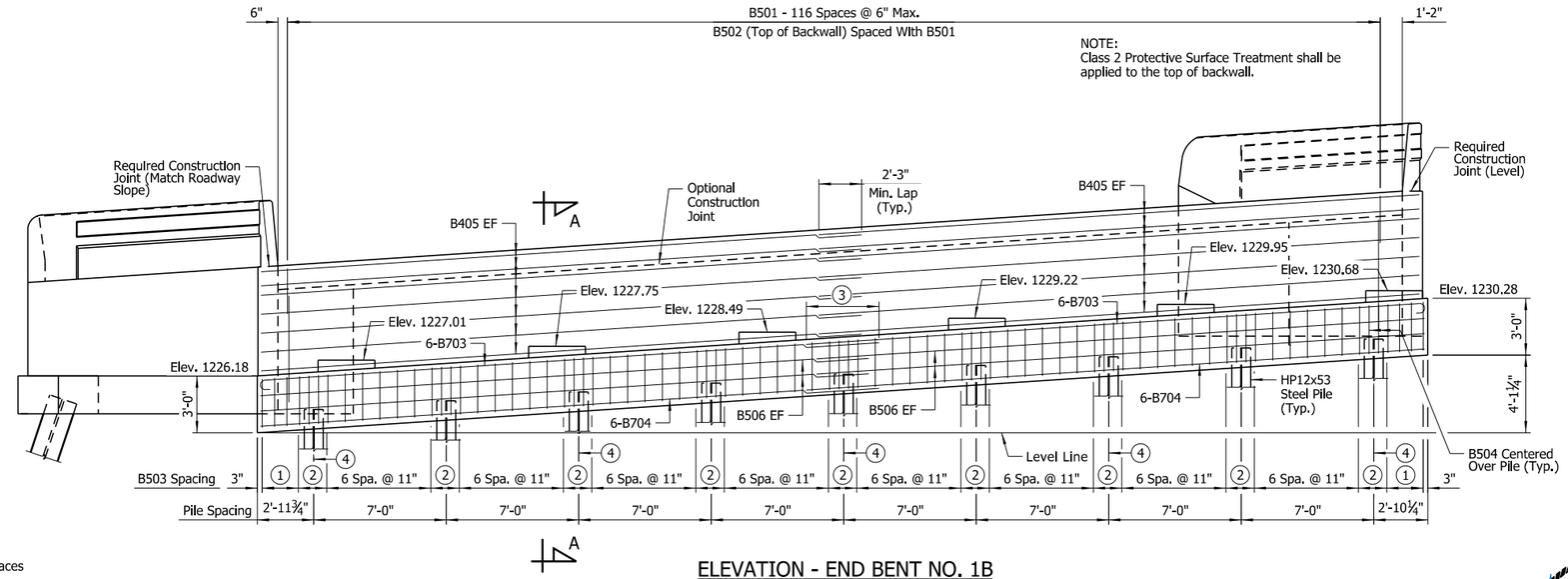



## LEGEND

EF = Each Face

## PLAN - END BENT NO. 1B

Scale: ¼" = 1'-0"




(1) 3 Eq. Spaces
(2) 1'-6"
(3) 2'-9" Min. Lap For #5 Bars
3'-10" Min. Lap For #7 Bars
(4) Batter Pile 4H:12V
(5) Measured Radially

## ELEVATION - END BENT NO. 1B

(Looking Back)
Scale: ¼" = 1'-0"

NOTES:
For "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66814.

For "BAR LIST - BENT NOS. 1B & 5B" and "BAR BENDING DIAGRAMS", see Dwg. No. 66816.

For "SECTION A-A", see Dwg. No. 66814.

For "GENERAL NOTES", see Dwg. No. 66810.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18030
JESSICA L. HALBROOK
Digitally Signed 10/20/2023
BRIDGE ENGINEER

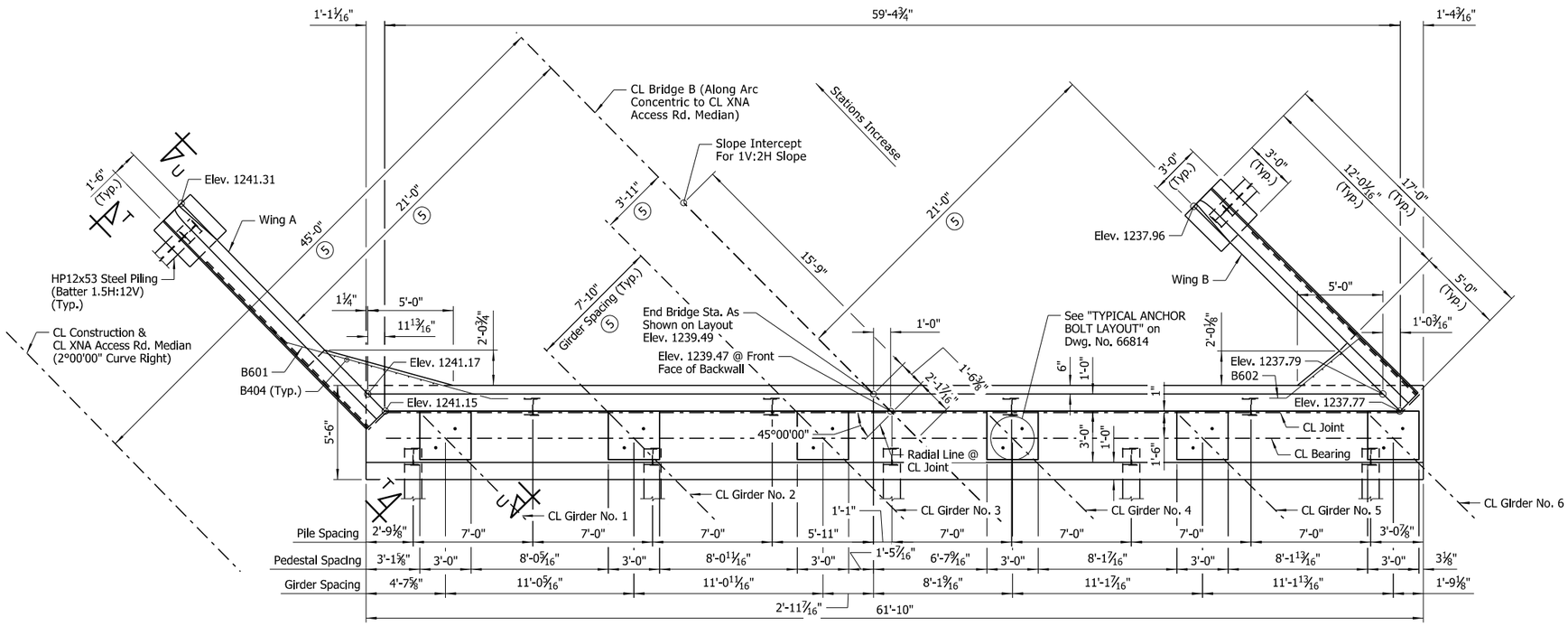
SHEET 3 OF 7
DETAILS OF END BENTS
XNA ACCESS RD. OVER HOLMES RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: FEB. 2023 FILENAME: b090069b5_a3.dgn
CHECKED BY: JLH DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: FEB. 2023

BRIDGE NO. A7660 & B7660 DRAWING NO. 66812

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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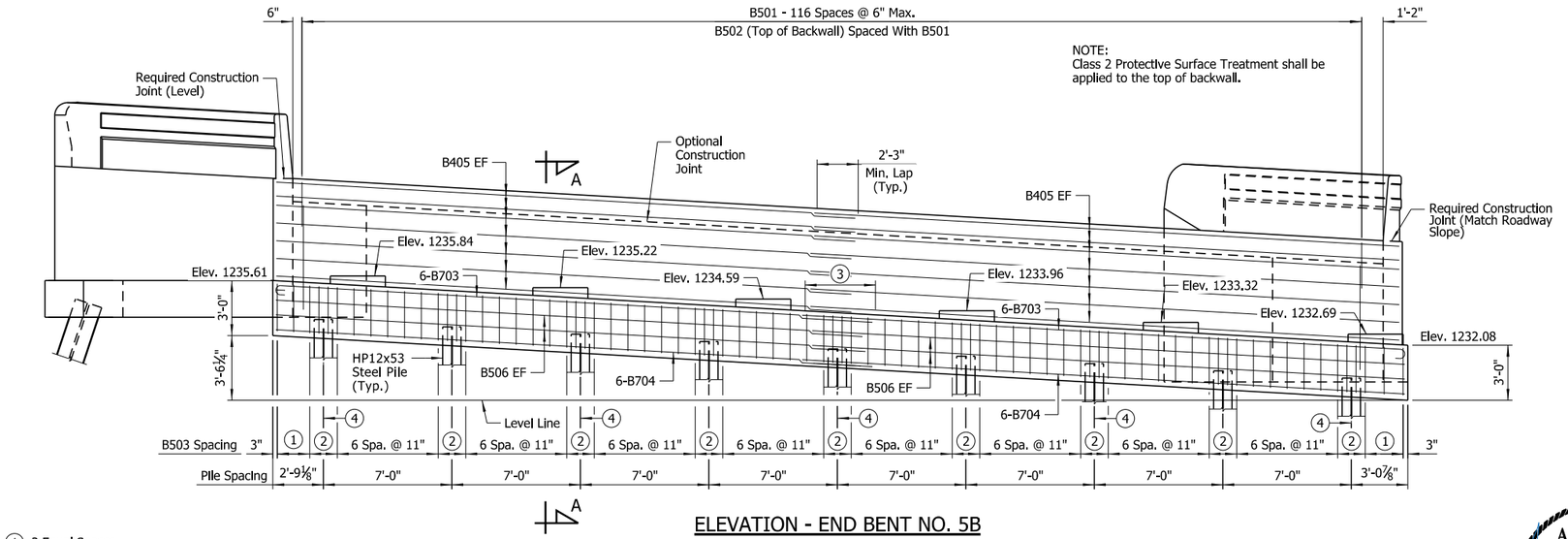



## PLAN - END BENT NO. 5B

Scale: 1/4" = 1'-0"

### LEGEND

EF = Each Face




## ELEVATION - END BENT NO. 5B

(Looking Forward)
Scale: 1/4" = 1'-0"

1. 3 Equal Spaces
2. 1'-6"
3. 2'-9" Min. Lap For #5 Bars
   3'-10" Min. Lap For #7 Bars
4. Batter Pile 4H:12V
5. Measured Radially

NOTES:
For "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66814.

For "BAR LIST - BENT NOS. 1B & 5B" and "BAR BENDING DIAGRAMS", see Dwg. No. 66816.

For "SECTION A-A", see Dwg. No. 66814.

For "GENERAL NOTES", see Dwg. No. 66810.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18030
JESSICA L. HALBROOK
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BRIDGE ENGINEER

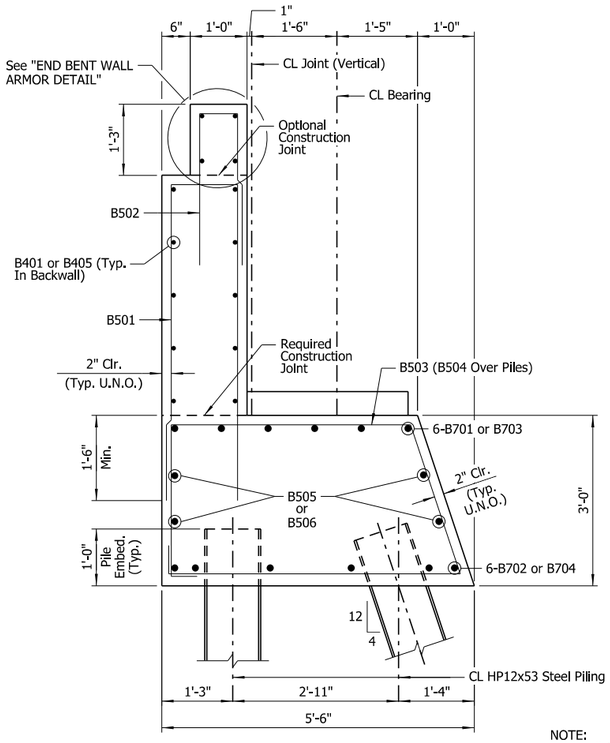
SHEET 4 OF 7
DETAILS OF END BENTS
XNA ACCESS RD. OVER HOLMES RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: FEB. 2023 FILENAME: b090069b5_a4.dgn
CHECKED BY: JLH DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: FEB. 2023

BRIDGE NO. A7660 & B7660 DRAWING NO. 66813

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | A7660 & B7660 | | END BENTS | | 66814 |



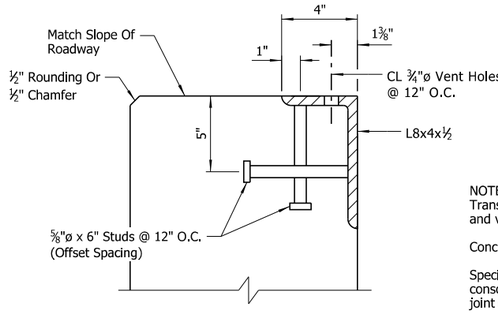

## SECTION A-A

Scale: ¾" = 1'-0"

NOTE:
For bar lists and bar bending diagrams, see Dwg. No. 66816.

### TABLE OF ANCHOR BOLT VARIABLES

| Bent No. | Girder No. | "S" | "T" | "U" |
|---|---|---|---|---|
| 1A | 1 | 44°32'11" | 6¾" | 6 1/16" |
| 1A | 2 | 44°42'14" | 6¾" | 6 1/16" |
| 1A | 3 | 44°52'23" | 6¾" | 6 1/16" |
| 1A | 4 | 45°02'37" | 6 1/16" | 6¾" |
| 1A | 5 | 45°12'57" | 6 1/16" | 6¾" |
| 1A | 6 | 45°23'23" | 6 1/16" | 6¾" |
| 5A | 1 | 44°37'07" | 6¾" | 6 1/16" |
| 5A | 2 | 44°47'13" | 6¾" | 6 1/16" |
| 5A | 3 | 44°57'23" | 6¾" | 6 1/16" |
| 5A | 4 | 45°07'39" | 6 1/16" | 6¾" |
| 5A | 5 | 45°18'01" | 6 1/16" | 6¾" |
| 5A | 6 | 45°28'28" | 6 1/16" | 6¾" |
| 1B | 1 | 44°33'49" | 6¾" | 6 1/16" |
| 1B | 2 | 44°43'12" | 6¾" | 6 1/16" |
| 1B | 3 | 44°52'39" | 6¾" | 6 1/16" |
| 1B | 4 | 45°02'12" | 6 1/16" | 6¾" |
| 1B | 5 | 45°11'48" | 6 1/16" | 6¾" |
| 1B | 6 | 45°21'30" | 6 1/16" | 6¾" |
| 5B | 1 | 44°38'55" | 6¾" | 6 1/16" |
| 5B | 2 | 44°48'20" | 6¾" | 6 1/16" |
| 5B | 3 | 44°57'49" | 6¾" | 6 1/16" |
| 5B | 4 | 45°07'23" | 6 1/16" | 6¾" |
| 5B | 5 | 45°17'01" | 6 1/16" | 6¾" |
| 5B | 6 | 45°26'45" | 6 1/16" | 6¾" |




## END BENT WALL ARMOR DETAIL

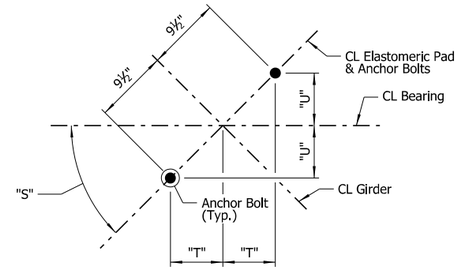
No Scale

NOTES:
Transverse spacing between vertical anchor studs and vent holes shall be 6".

Concrete shall be hand packed under joint armor.

Special care shall be taken to properly and thoroughly consolidate the concrete in the vicinity of the expansion joint device in the backwall, see Section 802.09(a)(3).

The profile of the end bent wall armor shall be established based on the vertical curve in conjunction with the skew angle as shown on the layout.



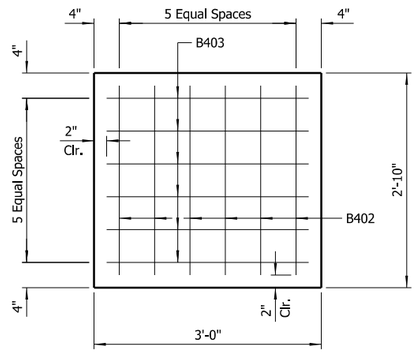

## TYPICAL ANCHOR BOLT LAYOUT

No Scale

NOTE:
For details of elastomeric bearings and anchor bolts, see Dwg. No. 66823.

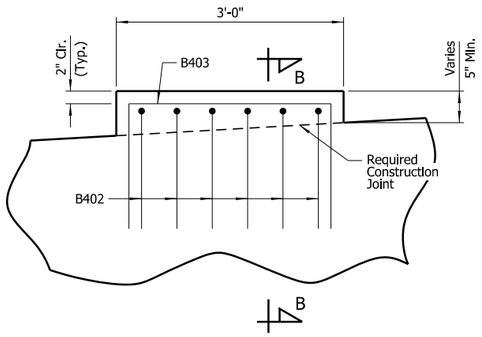
## LEGEND

U.N.O. = Unless Noted Otherwise



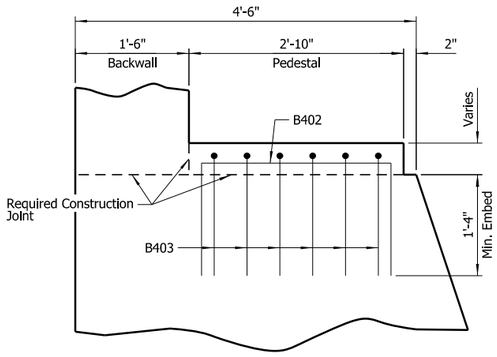

## PEDESTAL PLAN

Scale: 1" = 1'-0"




## TYPICAL PEDESTAL DETAIL

Scale: 1" = 1'-0"




## SECTION B-B

Scale: 1" = 1'-0"

STATE OF ARKANSAS
Jessica L. Halbrook
LICENSED PROFESSIONAL ENGINEER
No.18030
JESSICA L. HALBROOK

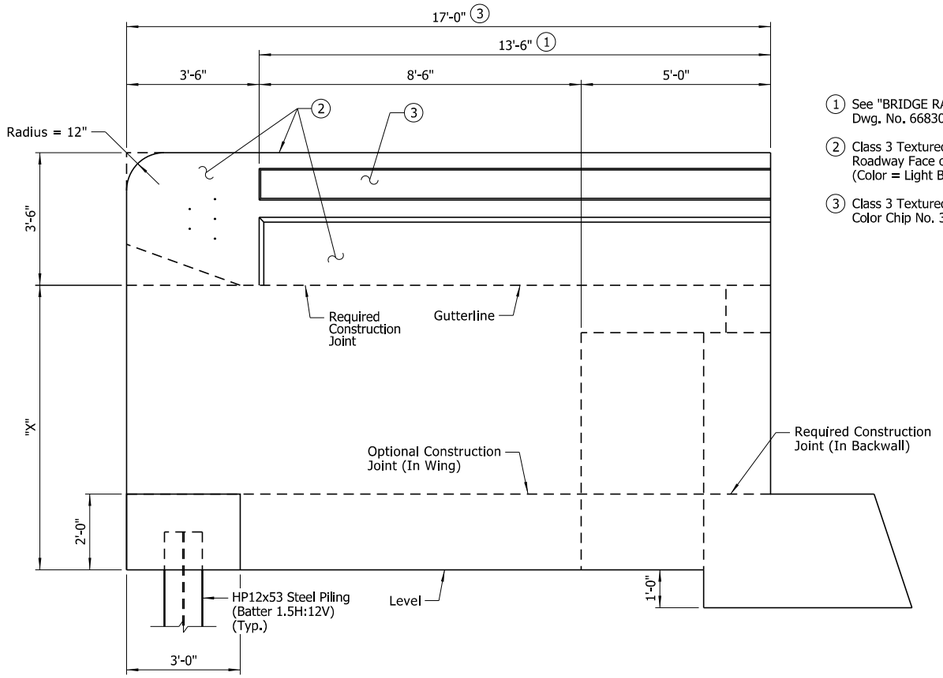
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 5 OF 7
DETAILS OF END BENTS
XNA ACCESS RD. OVER HOLMES RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: FEB. 2023 FILENAME: b090069m5_a5.dgn
CHECKED BY: JLH DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: FEB. 2023
BRIDGE NO. A7660 & B7660 DRAWING NO. 66814

JESkinner 10/20/2023 2:13:07 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 367 | 583 |
| | | A7660 & B7660 | | END BENTS | | 66815 |




(1) See "BRIDGE RAIL AESTHETIC DETAIL" on Dwg. No. 66830 for additional information.

(2) Class 3 Textured Coating Finish, applied to Roadway Face of Wing Rail and As Shown (Color = Light Brown, Color Chip No. 33522)

(3) Class 3 Textured Coating Finish (Color = Tan, Color Chip No. 30219)

| TABLE OF VARIABLES | | | | |
|---|---|---|---|---|
| Bent No. | Location | "X" | Elev. "A" | Elev. "B" |
| 1A | Wing A | 7'-8" | 1235.71 | 1235.36 |
| 1A | Wing B | 7'-6" | 1239.83 | 1239.51 |
| 5A | Wing A | 7'-4¾" | 1243.77 | 1243.86 |
| 5A | Wing B | 7'-6⅜" | 1240.23 | 1240.36 |
| 1B | Wing A | 7'-9¾" | 1231.99 | 1231.56 |
| 1B | Wing B | 7'-7⅞" | 1235.93 | 1235.54 |
| 5B | WIng A | 7'-6⅝" | 1241.15 | 1241.31 |
| 5B | Wing B | 7'-8¼" | 1237.77 | 1237.96 |

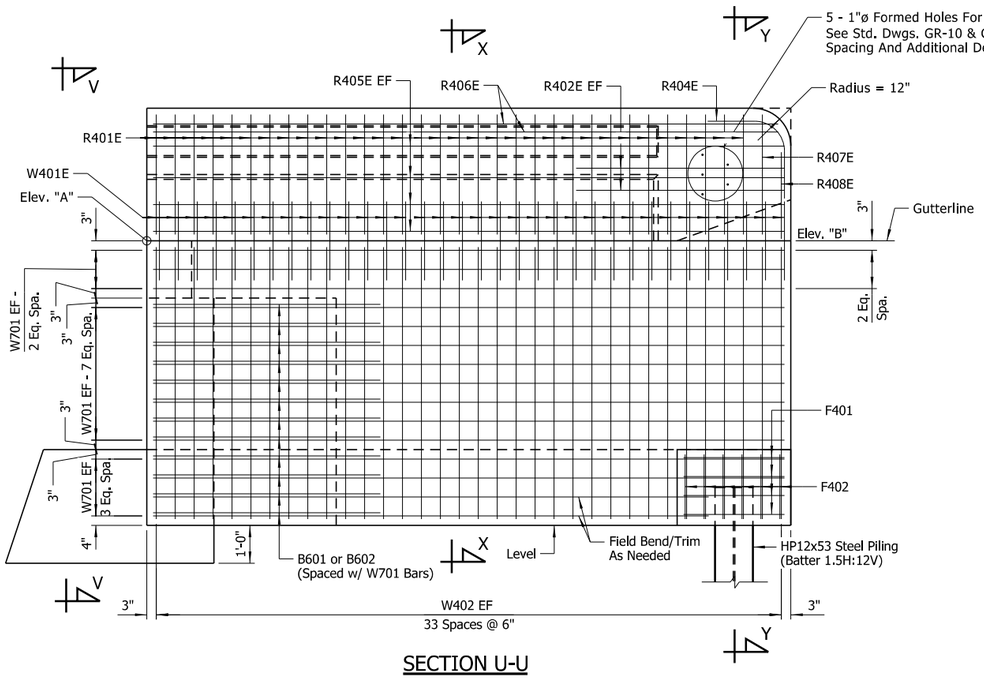
LEGEND

EF = Each Face

(4) Required at all wings for proposed and future guardrail connections

## VIEW T-T

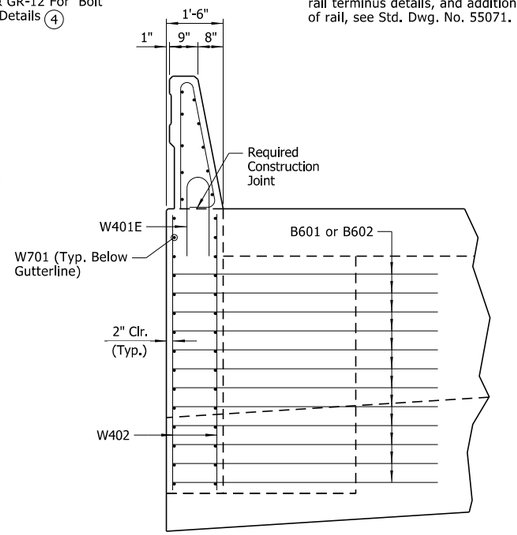
Scale: ½" = 1'-0"




## SECTION U-U

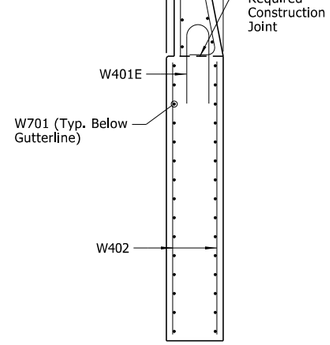
Scale: ½" = 1'-0"

NOTE:
For details of rail enhancement, see "BRIDGE RAIL AESTHETIC DETAIL" on Dwg. No. 66830. For reinforcement details, rail terminus details, and additional details of rail, see Std. Dwg. No. 55071.



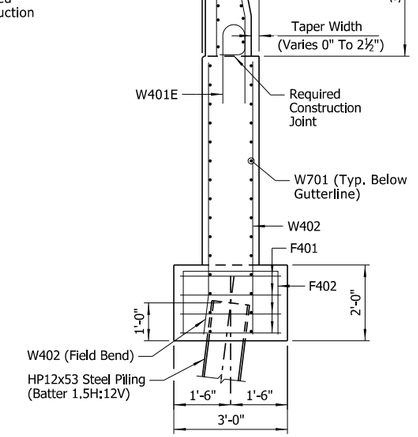

## VIEW V-V

Scale: ½" = 1'-0"




## SECTION X-X

Scale: ½" = 1'-0"




## SECTION Y-Y

Scale: ½" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.18030
JESSICA L. HALBROOK
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 6 OF 7
DETAILS OF END BENTS
XNA ACCESS RD. OVER HOLMES RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: FEB. 2023 FILENAME: b090069m5_a6.dgn
CHECKED BY: JLH DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: FEB. 2023
BRIDGE NO. A7660 & B7660 DRAWING NO. 66815

W701EF
JESkinner 10/20/2023 2:13:08 PM
WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069x5_S206_AB.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 368 | 583 |
| | | A7660 & B7660 | | END BENTS | | 66816 |

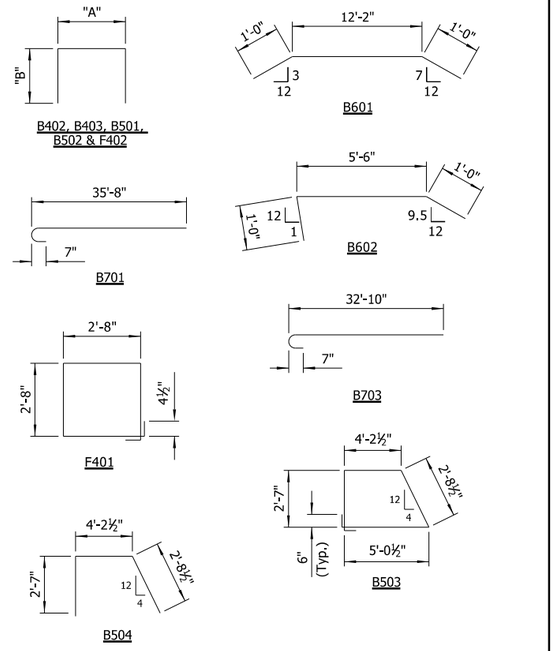
## BAR LIST - BENT NOS. 1A & 5A

| MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|
| B401 | 28 | 34'-8" | | | Str. |
| B402 | 36 | 5'-10" | 2'-6" | 1'-9" | 2" |
| B403 | 36 | 6'-0" | 2'-8" | 1'-9" | 2" |
| B404 | 14 | 5'-11" | | | Str. |
| | | | | | |
| B501 | 128 | 12'-1" | 1'-2" | 5'-7" | 2½" |
| B502 | 128 | 5'-7" | 8" | 2'-7" | 2½" |
| B503 | 70 | 15'-0½" | | | 2½" |
| B504 | 18 | 9'-3" | | | 2½" |
| B505 | 8 | 35'-0" | | | Str. |
| | | | | | |
| B601 | 12 | 14'-2" | | | 4½" |
| B602 | 12 | 7'-6" | | | 4½" |
| | | | | | |
| B701 | 6 | 36'-6" | | | 5¼" |
| B702 | 6 | 35'-8" | | | Str. |
| | | | | | |
| F401 | 8 | 11'-0" | | | 2" |
| F402 | 12 | 5'-7" | 2'-7" | 1'-7" | 2" |
| | | | | | |
| R401E | 64 | 7'-6" | | | 3" |
| R402E | 8 | 5'-6" | | | Str. |
| R404E | 2 | 3'-8" | | | 8½" |
| R405E | 16 | 16'-8" | | | Str. |
| R406E | 4 | 16'-6" | | | Str. |
| R407E | 2 | 6'-8" | | | 3" |
| R408E | 2 | 5'-1" | | | 3" |
| | | | | | |
| W401E | 68 | 4'-7" | | | 6" |
| W402 | 136 | "L" | | | Str. |
| | | | | | |
| W701 | 60 | 16'-8" | | | Str. |

## BAR LIST - BENT NOS. 1B & 5B

| MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|
| B402 | 36 | 5'-10" | 2'-6" | 1'-9" | 2" |
| B403 | 36 | 6'-0" | 2'-8" | 1'-9" | 2" |
| B404 | 14 | 5'-11" | | | Str. |
| B405 | 28 | 32'-0" | | | Str. |
| | | | | | |
| B501 | 117 | 12'-1" | 1'-2" | 5'-7" | 2½" |
| B502 | 117 | 5'-7" | 8" | 2'-7" | 2½" |
| B503 | 64 | 15'-0½" | | | 2½" |
| B504 | 18 | 9'-3" | | | 2½" |
| B506 | 8 | 32'-3" | | | Str. |
| | | | | | |
| B601 | 12 | 14'-2" | | | 4½" |
| B602 | 12 | 7'-6" | | | 4½" |
| | | | | | |
| B703 | 6 | 33'-8" | | | 5¼" |
| B704 | 6 | 32'-10" | | | Str. |
| | | | | | |
| F401 | 8 | 11'-0" | | | 2" |
| F402 | 12 | 5'-7" | 2'-7" | 1'-7" | 2" |
| | | | | | |
| R401E | 64 | 7'-6" | | | 3" |
| R402E | 8 | 5'-6" | | | Str. |
| R404E | 2 | 3'-8" | | | 8½" |
| R405E | 16 | 16'-8" | | | Str. |
| R406E | 4 | 16'-6" | | | Str. |
| R407E | 2 | 6'-8" | | | 3" |
| R408E | 2 | 5'-1" | | | 3" |
| | | | | | |
| W401E | 68 | 4'-7" | | | 6" |
| W402 | 136 | "L" | | | Str. |
| | | | | | |
| W701 | 60 | 16'-8" | | | Str. |

## BAR BENDING DIAGRAMS

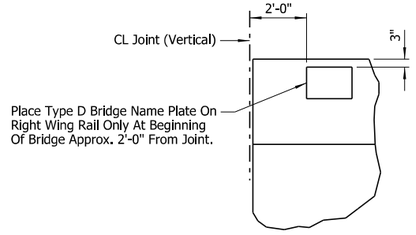



NOTES:
Dimensions of bars are out-to-out.

Number of bars shown is for one end bent only.

Bars designated with "E" suffix shall be epoxy coated.

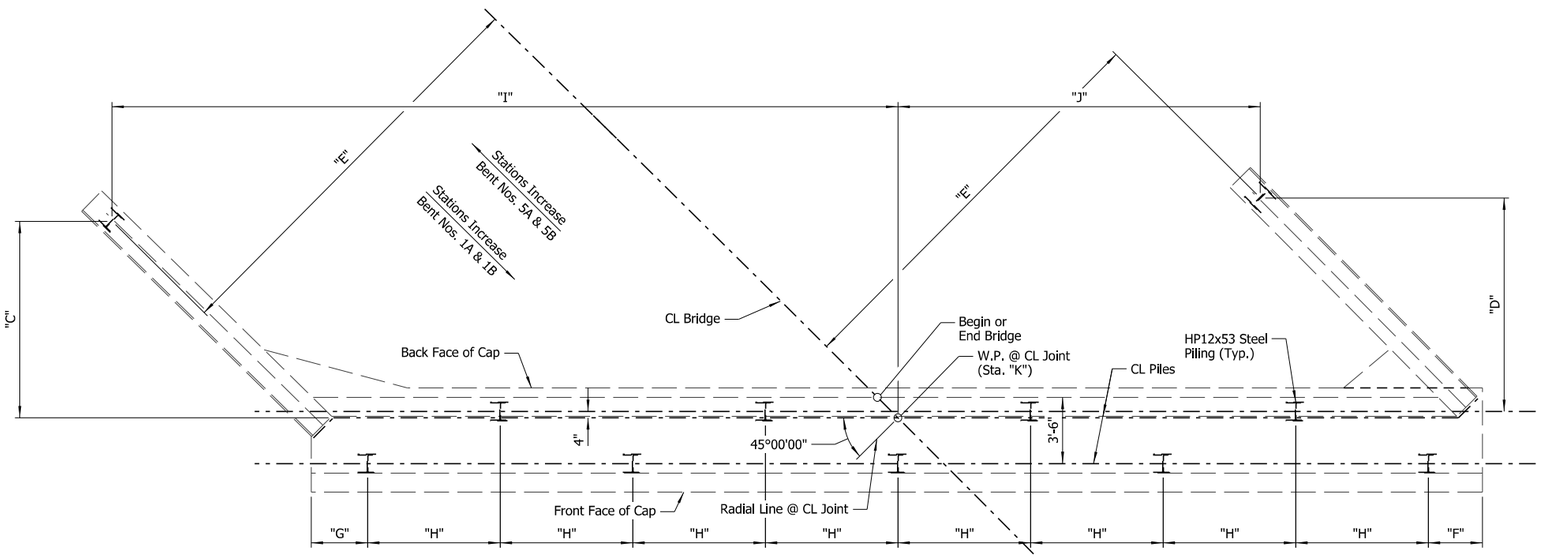
See Std. Dwg. No. 55071 for Bar Bending Diagrams of R401E, R404E, R407E, R408E and W401E.




VIEW SHOWING LOCATION OF NAME PLATE
No Scale

## TABLE OF VARIABLES

| Bent No. | "C" | "D" | "E" | "F" | "G" | "H" | "I" | "J" | Sta. "K" | "L" |
|---|---|---|---|---|---|---|---|---|---|---|
| 1A | 10'-4 11/16" | 11'-7½" | 23'-9" | 2'-10 1/16" | 2'-9 15/16" | 7'-9" | 44'-4⅞" | 21'-11⅜" | 211+46.58 | 7'-1" |
| 5A | 10'-7⅜" | 11'-6 5/16" | 23'-9" | 3'-1 3/16" | 2'-6 13/16" | 7'-9" | 43'-10¼" | 22'-1 1/16" | 214+62.06 | 7'-3" |
| 1B | 10'-4¾" | 11'-7 1/16" | 21'-9" | 2'-10¼" | 2'-11¾" | 7'-0" | 41'-5 15/16" | 19'-1 9/16" | 210+54.64 | 7'-2" |
| 5B | 10'-7⅜" | 11'-6⅜" | 21'-9" | 3'-0⅞" | 2'-9⅛" | 7'-0" | 41'-0 9/16" | 19'-2 15/16" | 213+79.74 | 7'-5" |




FOUNDATION PLAN - END BENTS
No Scale

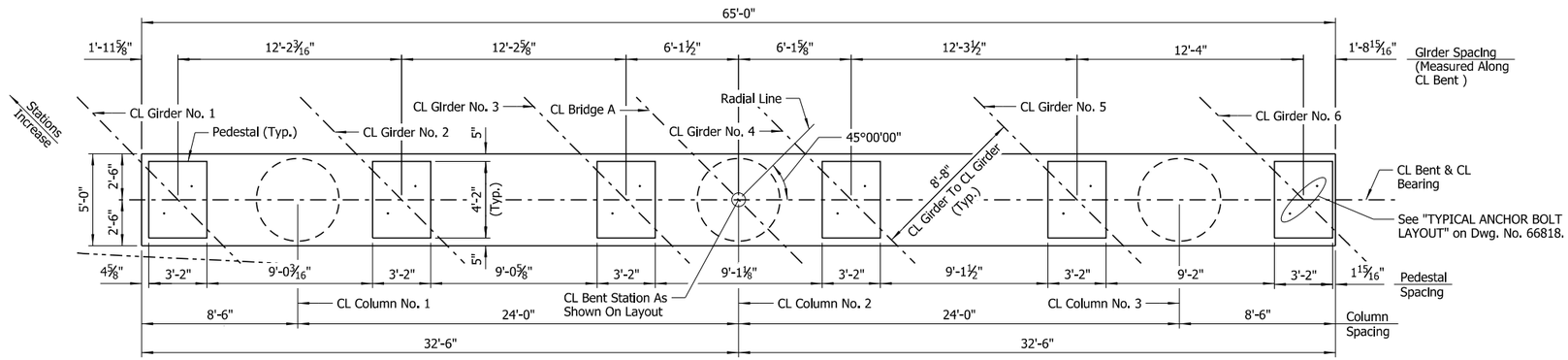
STATE OF ARKANSAS
Jessica L. Halbrook
LICENSED PROFESSIONAL ENGINEER
No.18030
JESSICA L. HALBROOK
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 7 OF 7
DETAILS OF END BENTS
XNA ACCESS RD. OVER HOLMES RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: FEB. 2023 FILENAME: b090069m5_a7.dgn
CHECKED BY: JLH DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: RAK DATE: FEB. 2023
BRIDGE NO. A7660 & B7660 DRAWING NO. 66816

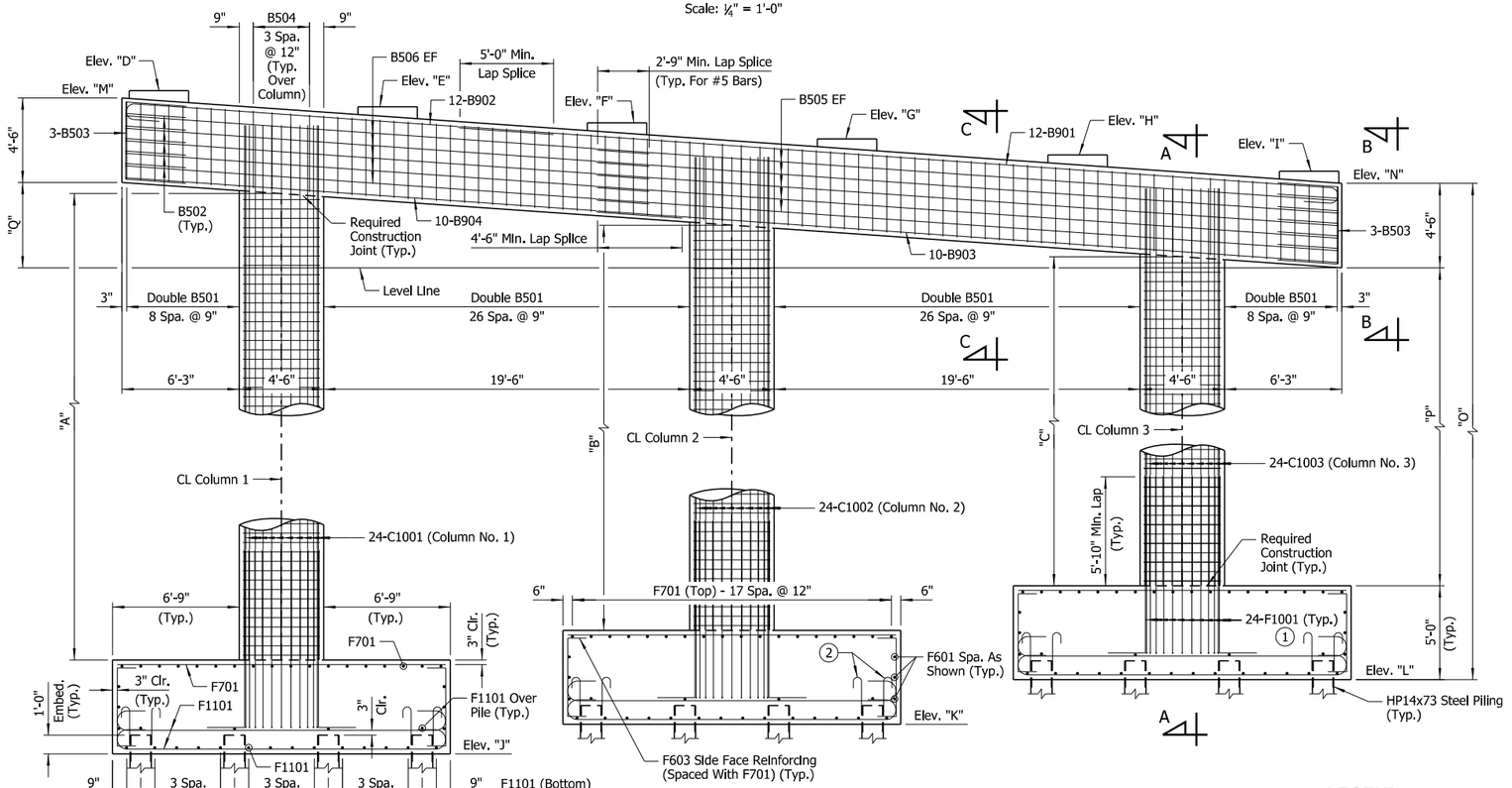
JESkinner 10/20/2023 2:13:09 PM
WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069m5_S207_AB.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 369 | 583 |
| | | A7660 | | INTERMEDIATE BENTS | | 66817 |




## PLAN - BENT NOS. 2A-4A

Scale: ¼" = 1'-0"




## ELEVATION - BENT NOS. 2A-4A

(Looking Ahead)
No Scale

NOTE:
Reinforcing and pile spacing shown is typical for each footing.

## TABLE OF VARIABLES

| Bent No. | "A" | "B" | "C" | "D" | "E" | "F" | "G" | "H" | "I" | "J" | "K" | "L" | "M" | "N" | "O" | "P" | "Q" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2A | 35'-0" | 32'-0" | 28'-0" | 1236.13 | 1235.39 | 1234.64 | 1233.89 | 1233.13 | 1232.37 | 1190.72 | 1192.24 | 1194.77 | 1235.74 | 1231.75 | 36'-11¾" | 27'-5¾" | 3'-11⅞" |
| 3A | 48'-0" | 44'-6" | 39'-6" | 1237.46 | 1236.75 | 1236.04 | 1235.32 | 1234.60 | 1233.87 | 1179.08 | 1181.17 | 1184.76 | 1237.07 | 1233.26 | 48'-6" | 39'-0" | 3'-9¾" |
| 4A | 30'-0" | 28'-6" | 26'-6" | 1238.37 | 1237.68 | 1237.00 | 1236.31 | 1235.62 | 1234.92 | 1197.99 | 1198.14 | 1198.79 | 1237.97 | 1234.31 | 35'-6¼" | 26'-0¼" | 3'-7¹⁵⁄16" |

NOTES:
Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in Special Provision "TEXTURED COATING FINISH" and in accordance with Subsection 802.19(b)(3).

For Standard General Notes, see Dwg. No. 55006.

For additional Information, see Layout.

For "VIEW B-B", "SECTION C-C", "SECTION D-D" and "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66818.

For "FOOTING PLAN", "BAR LIST (PER BENT)" and "BAR BENDING DETAILS", see Dwg. No. 66819.

## TABLE OF VARIABLES

| Bent No. | Column No. | "R" |
|---|---|---|
| 2A | 1 | 69 |
| | 2 | 63 |
| | 3 | 55 |
| 3A | 1 | 95 |
| | 2 | 88 |
| | 3 | 78 |
| 4A | 1 | 59 |
| | 2 | 56 |
| | 3 | 52 |

(1) F1001 bars to rest on upper footing mat of reinforcing steel as shown

(2) #7 Hooked Reinforcing Bars, ASTM A706 Grade 60 (Corner Piles Only), See "PILE ANCHORAGE DETAIL" & "FOOTING PLAN" on Dwg. No. 66819.

(3) Rotate hook of F603 bars as required to avoid interference with piling.

## LEGEND

EF = Each Face




NOTE:
Cap reinforcement not shown for clarity.

## SECTION A-A

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL
Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 1 OF 3
# DETAILS OF INTERMEDIATE BENTS
# BRIDGE A
# XNA ACCESS RD. OVER HOLMES RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

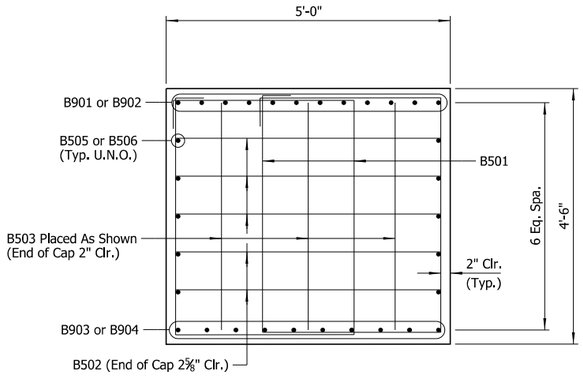
LITTLE ROCK, ARK.

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CHECKED BY: ABH DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: JEH DATE: JULY. 2023

BRIDGE NO. A7660 DRAWING NO. 66817

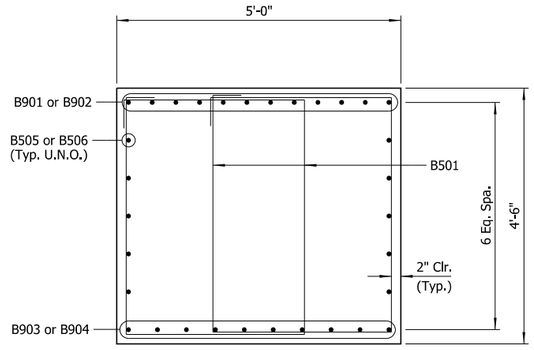
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 370 | 583 |
| | | A7660 | | INTERMEDIATE BENTS | | 66818 |



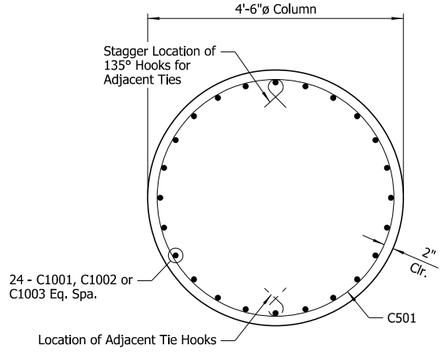

VIEW B-B

Scale: ¾" = 1'-0"



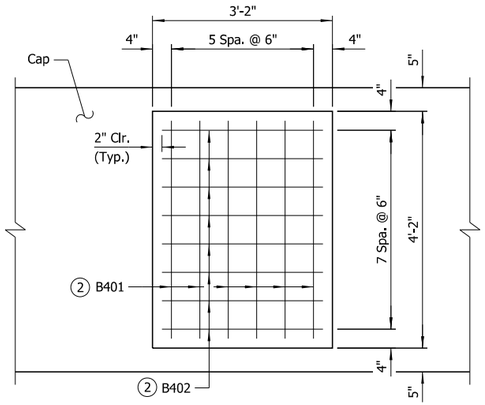

SECTION C-C

Scale: ¾" = 1'-0"



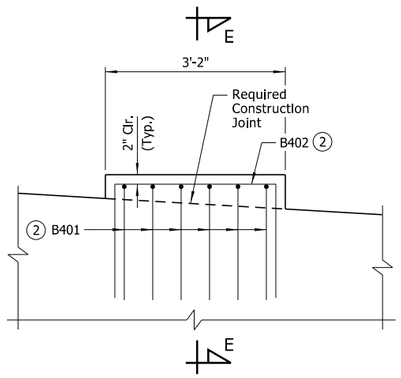

SECTION D-D

Scale: ¾" = 1'-0"




PLAN OF PEDESTAL

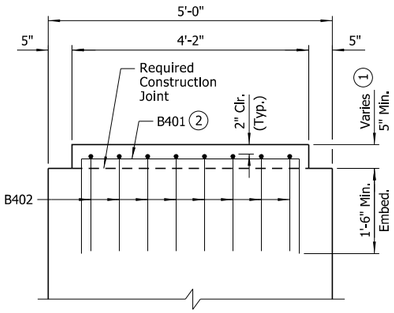
Scale: ¾" = 1'-0"




TYPICAL PEDESTAL DETAIL

(Looking Ahead)

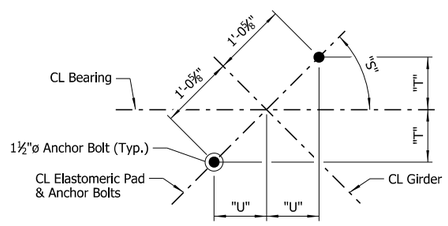
Scale: ¾" = 1'-0"




NOTE:
Cap reinforcement not shown for clarity.

SECTION E-E

Scale: ¾" = 1'-0"




TYPICAL ANCHOR BOLT LAYOUT

No Scale

NOTE:
For details of elastomeric bearings and anchor bolts, see Dwg. No. 66823.

TABLE OF ANCHOR BOLT VARIABLES

| Girder No. | "S" | "T" | "U" |
|---|---|---|---|
| 1 | 44°34'39" | 8⅞" | 9" |
| 2 | 44°44'43" | 8⅞" | 8 15/16" |
| 3 | 44°54'53" | 8 15/16" | 8 15/16" |
| 4 | 45°05'08" | 8 15/16" | 8⅞" |
| 5 | 45°15'29" | 8 15/16" | 8⅞" |
| 6 | 45°25'55" | 9" | 8⅞" |

LEGEND

U.N.O. = Unless Noted Otherwise

(1) See Dwg. No. 66817 for pedestal elevations.

(2) B401 and B402 locations may be adjusted as necessary to avoid interference with anchor bolts or sheet metal sleeves.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL

Digitally Signed 10/20/2023

BRIDGE ENGINEER

SHEET 2 OF 3
DETAILS OF INTERMEDIATE BENTS
BRIDGE A
XNA ACCESS RD. OVER HOLMES RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: AUG. 2023 FILENAME: b090069a5_b2.dgn
CHECKED BY: ABH DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: JEH DATE: AUG. 2023

BRIDGE NO. A7660 DRAWING NO. 66818

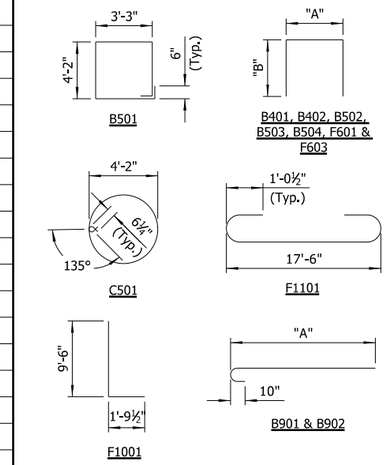
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WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069a5_S212_BE.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 371 | 583 |
| | | A7660 | | INTERMEDIATE BENTS | | 66819 |

## BAR LIST (PER BENT)

| MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|
| B401 | 36 | 7'-8" | 3'-10" | 2'-0" | 2" |
| B402 | 48 | 6'-8" | 2'-10" | 2'-0" | 2" |
| | | | | | |
| B501 | 144 | 15'-4" | | | 2½" |
| B502 | 10 | 9'-4" | 4'-6½" | 2'-6" | 2½" |
| B503 | 6 | 8'-10" | 4'-0½" | 2'-6" | 2½" |
| B504 | 12 | 12'-9" | 4'-8" | 4'-2" | 2½" |
| B505 | 10 | 39'-5" | | | Str. |
| B506 | 10 | 28'-1" | | | Str. |
| | | | | | |
| B901 | 12 | 48'-2" | 46'-11" | | 9" |
| B902 | 12 | 24'-1" | 22'-10" | | 9" |
| B903 | 10 | 39'-5" | | | Str. |
| B904 | 10 | 29'-10" | | | Str. |
| | | | | | |
| C501 | "C" | 14'-6" | | | 3¾" |
| | | | | | |
| C1001 | 24 | "D" | | | Str. |
| C1002 | 24 | "E" | | | Str. |
| C1003 | 24 | "F" | | | Str. |
| | | | | | |
| F601 | 18 | 21'-0" | 17'-4" | 2'-0" | 4½" |
| F602 | 18 | 17'-6" | | | Str. |
| F603 | 216 | 5'-9" | 4'-1" | 1'-0" | 4½" |
| | | | | | |
| F701 | 108 | 17'-6" | | | Str. |
| | | | | | |
| F1001 | 72 | 11'-0" | | | 10" |
| | | | | | |
| F1101 | 111 | 20'-6" | | | 11¼" |

## BAR BENDING DIAGRAMS

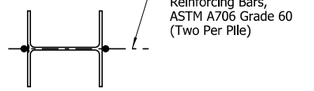



NOTES:
Dimensions of bars are out-to-out.

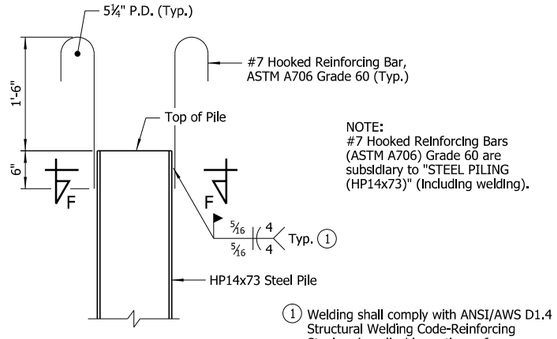
Number of bars shown is for a single bent.

## TABLE OF VARIABLES

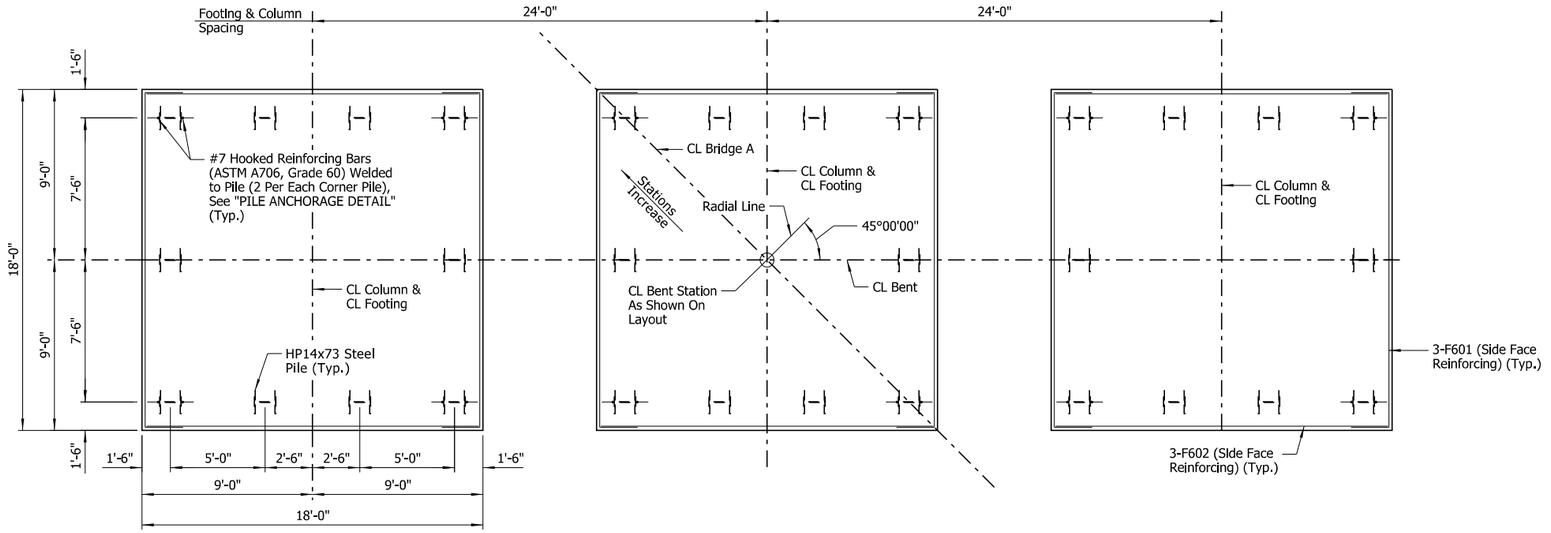
| Bent No. | "C" | "D" | "E" | "F" |
|---|---|---|---|---|
| 2A | 202 | 38'-8" | 35'-8" | 31'-8" |
| 3A | 276 | 51'-8" | 48'-2" | 43'-2" |
| 4A | 182 | 33'-8" | 32'-2" | 30'-2" |




SECTION F-F
No Scale




PILE ANCHORAGE DETAIL
No Scale




FOOTING PLAN
Scale: ¼" = 1'-0"

NOTE:
Footing dimensions and reinforcement are typical for each footing.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 3 OF 3
DETAILS OF INTERMEDIATE BENTS
BRIDGE A
XNA ACCESS RD. OVER HOLMES RD.

ROUTE SEC.

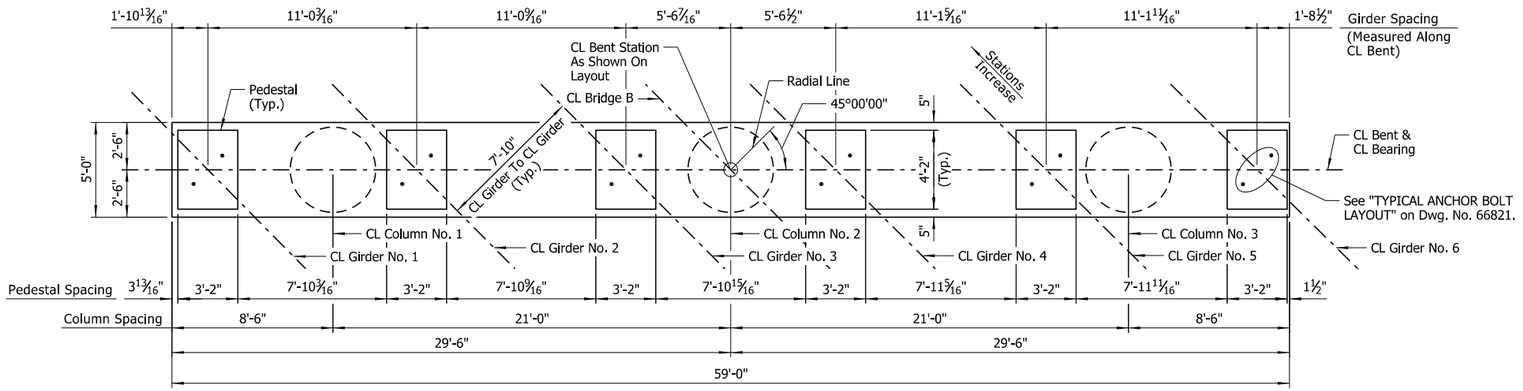
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JULY 2023 FILENAME: b090069a5_b3.dgn
CHECKED BY: ABH DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: JEH DATE: JULY 2023

BRIDGE NO. A7660 DRAWING NO. 66819

JESkinner 10/20/2023 2:13:13 PM
WORKSPACE: ARDOT Bridge (2019)
L:\2017\1701700 - XNA Access - NEPA\Drawings\b090069x5_S213_BE.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 372 | 583 |
| | | B7660 | | INTERMEDIATE BENTS | | 66820 |




## PLAN - BENT NOS. 2B-4B

Scale: 1/4" = 1'-0

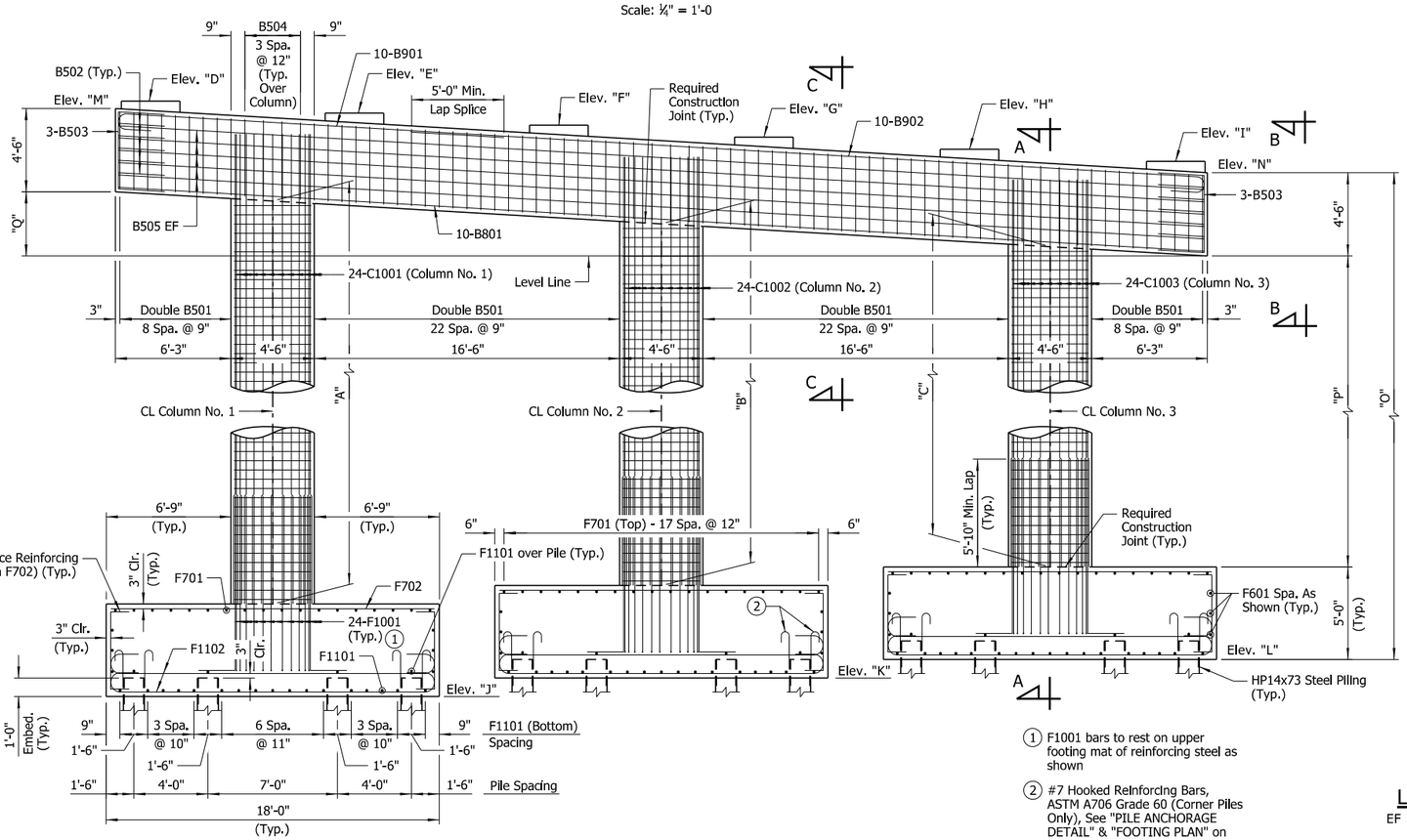
NOTES:
For Standard General Notes, see Std. Dwg. No. 55006.

For additional Information, see Layout.

For "VIEW B-B", "SECTION C-C", "SECTION D-D" and "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66821.

For "FOOTING PLAN", "BAR LIST (PER BENT)" and "BAR BENDING DIAGRAMS", see Dwg. No. 66822.

| TABLE OF VARIABLES | | |
|---|---|---|
| Bent No. | Column No. | "R" |
| 2B | 1 | 28 |
| | 2 | 16 |
| | 3 | 8 |
| 3B | 1 | 72 |
| | 2 | 61 |
| | 3 | 49 |
| 4B | 1 | 59 |
| | 2 | 56 |
| | 3 | 49 |




## ELEVATION - BENT NOS. 2B-4B

No Scale

NOTE:
Reinforcing and pile spacing shown is typical for each footing.

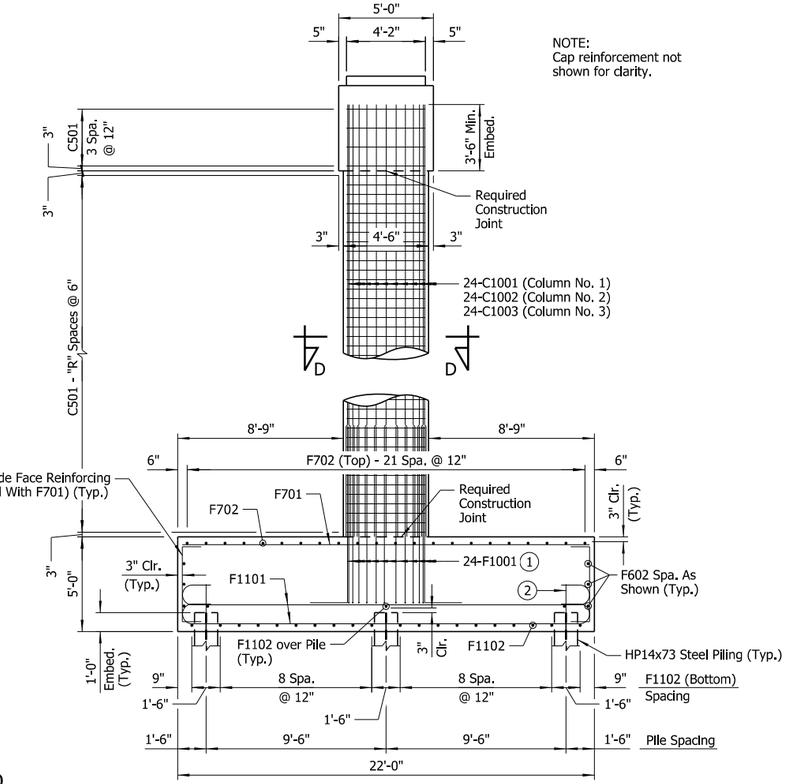
(1) F1001 bars to rest on upper footing mat of reinforcing steel as shown

(2) #7 Hooked Reinforcing Bars, ASTM A706 Grade 60 (Corner Piles Only), See "PILE ANCHORAGE DETAIL" & "FOOTING PLAN" on Dwg. No. 66822.

(3) Rotate hook of F603 bars as required to avoid interference with piling.

## LEGEND

EF = Each Face




NOTE:
Cap reinforcement not shown for clarity.

## SECTION A-A

No Scale

| TABLE OF VARIABLES | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bent No. | "A" | "B" | "C" | "D" | "E" | "F" | "G" | "H" | "I" | "J" | "K" | "L" | "M" | "N" | "O" | "P" | "Q" |
| 2B | 14'-6" | 8'-6" | 4'-6" | 1232.53 | 1231.83 | 1231.12 | 1230.41 | 1229.69 | 1228.98 | 1207.59 | 1212.25 | 1214.90 | 1232.14 | 1228.35 | 13'-5 3/8" | 3'-11 3/8" | 3'-9 1/2" |
| 3B | 36'-6" | 31'-0" | 25'-0" | 1234.25 | 1233.58 | 1232.90 | 1232.22 | 1231.54 | 1230.85 | 1187.34 | 1191.55 | 1196.25 | 1233.86 | 1230.23 | 33'-11 1/4" | 24'-5 3/4" | 3'-7 9/16" |
| 4B | 30'-0" | 28'-6" | 25'-0" | 1235.51 | 1234.86 | 1234.21 | 1233.56 | 1232.91 | 1232.25 | 1195.11 | 1195.38 | 1197.64 | 1235.11 | 1231.64 | 34'-0" | 24'-6" | 3'-5 5/8" |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL
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BRIDGE ENGINEER

# SHEET 1 OF 3
# DETAILS OF INTERMEDIATE BENTS
# BRIDGE B
# XNA ACCESS RD. OVER HOLMES RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

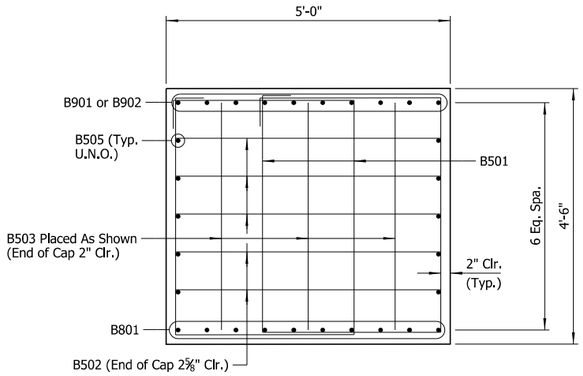
LITTLE ROCK, ARK.

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CHECKED BY: ABH DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: MJS DATE: AUG. 2023

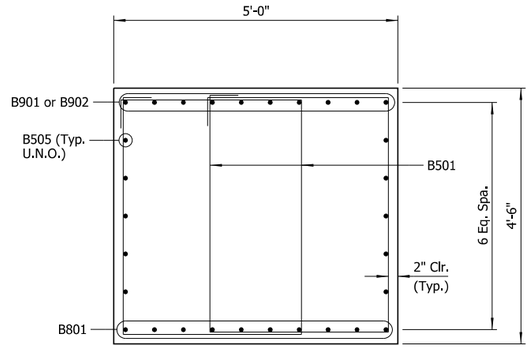
BRIDGE NO. B7660 DRAWING NO. 66820

JESkinner 10/20/2023 2:13:14 PM
WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069x5_S214_BE.dgn

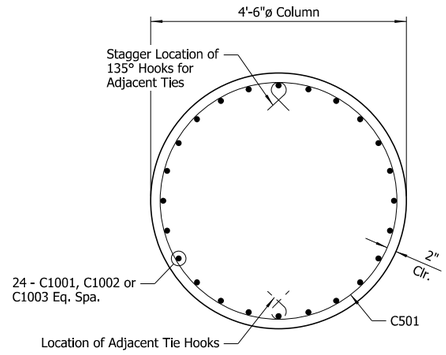
| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 373 | 583 |
| | | B7660 | | INTERMEDIATE BENTS | | 66821 |



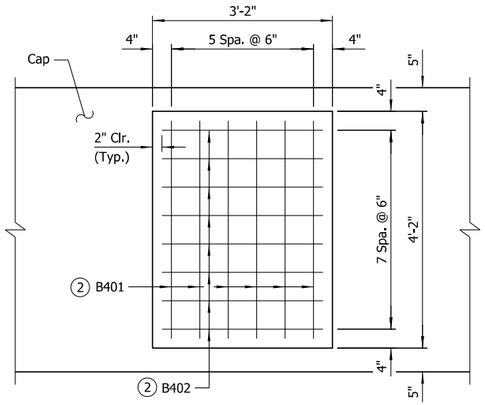

## VIEW B-B
Scale: ¾" = 1'-0"



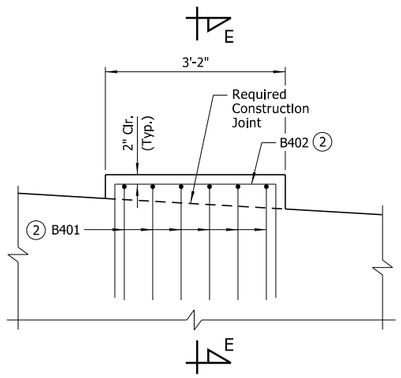

## SECTION C-C
Scale: ¾" = 1'-0"



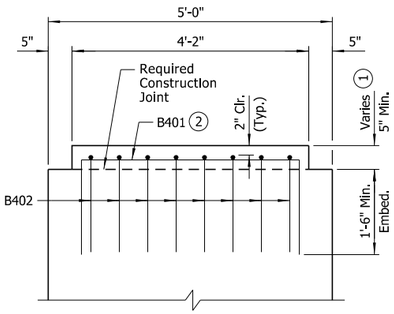

## SECTION D-D
Scale: ¾" = 1'-0"




## PLAN OF PEDESTAL
Scale: ¾" = 1'-0"

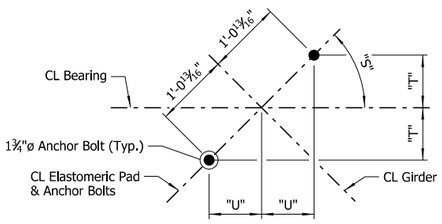



## TYPICAL PEDESTAL DETAIL
(Looking Ahead)
Scale: ¾" = 1'-0"




NOTE:
Cap reinforcement not shown for clarity.

## SECTION E-E
Scale: ¾" = 1'-0"




## TYPICAL ANCHOR BOLT LAYOUT
No Scale

NOTE:
For details of elastomeric bearings and anchor bolts, see Dwg. No. 66823.

| TABLE OF ANCHOR BOLT VARIABLES | | | |
|---|---|---|---|
| Girder No. | "S" | "T" | "U" |
| 1 | 44°36'22" | 9" | 9⅛" |
| 2 | 44°45'46" | 9" | 9⅛" |
| 3 | 44°55'14" | 9 1/16" | 9 1/16" |
| 4 | 45°04'47" | 9 1/16" | 9 1/16" |
| 5 | 45°14'25" | 9⅛" | 9" |
| 6 | 45°24'08" | 9⅛" | 9" |

## LEGEND
U.N.O. = Unless Noted Otherwise

(1) See Dwg. No. 66820 for pedestal elevations.

(2) B401 and B402 locations may be adjusted as necessary to avoid interference with anchor bolts or sheet metal sleeves.

STATE OF ARKANSAS
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No.14498
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SHEET 2 OF 3
DETAILS OF INTERMEDIATE BENTS
BRIDGE B
XNA ACCESS RD. OVER HOLMES RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: AUG. 2023 FILENAME: b090069b5_b2.dgn
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DESIGNED BY: MJS DATE: AUG. 2023
BRIDGE NO. B7660 DRAWING NO. 66821

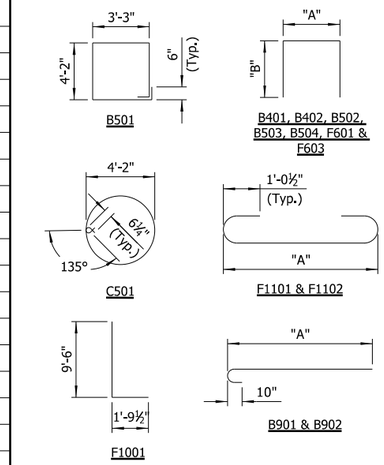
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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 374 | 583 |
| | | B7660 | | INTERMEDIATE BENTS | | 66822 |

## BAR LIST (PER BENT)

| MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|
| B401 | 36 | 7'-8" | 3'-10" | 2'-0" | 2" |
| B402 | 48 | 6'-8" | 2'-10" | 2'-0" | 2" |
| | | | | | |
| B501 | 128 | 15'-4" | | | 2½" |
| B502 | 10 | 9'-4" | 4'-6½" | 2'-6" | 2½" |
| B503 | 6 | 8'-10" | 4'-0½" | 2'-6" | 2½" |
| B504 | 12 | 12'-9" | 4'-8" | 4'-2" | 2½" |
| B505 | 10 | 58'-8" | | | Str. |
| | | | | | |
| B801 | 10 | 58'-8" | | | Str. |
| | | | | | |
| B901 | 10 | 22'-7" | 21'-4" | | 9" |
| B902 | 10 | 43'-7" | 42'-4" | | 9" |
| | | | | | |
| C501 | "C" | 14'-6" | | | 3¾" |
| | | | | | |
| C1001 | 24 | "D" | | | Str. |
| C1002 | 24 | "E" | | | Str. |
| C1003 | 24 | "F" | | | Str. |
| | | | | | |
| F601 | 18 | 25'-0" | 21'-4" | 2'-0" | 4½" |
| F602 | 18 | 17'-6" | | | Str. |
| F603 | 240 | 5'-9" | 4'-1" | 1'-0" | 4½" |
| | | | | | |
| F701 | 54 | 21'-6" | | | Str. |
| F702 | 66 | 17'-6" | | | Str. |
| | | | | | |
| F1001 | 72 | 11'-0" | | | 10" |
| | | | | | |
| F1101 | 63 | 24'-6" | 21'-6" | | 11¼" |
| F1102 | 69 | 20'-6" | 17'-6" | | 11¼" |

## BAR BENDING DIAGRAMS

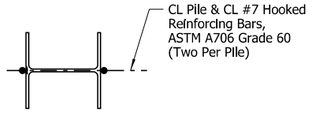



NOTES:
Dimensions of bars are out-to-out.

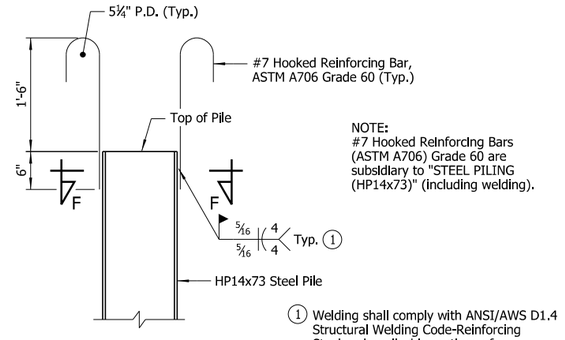
Number of bars shown is for a single bent.

## TABLE OF VARIABLES

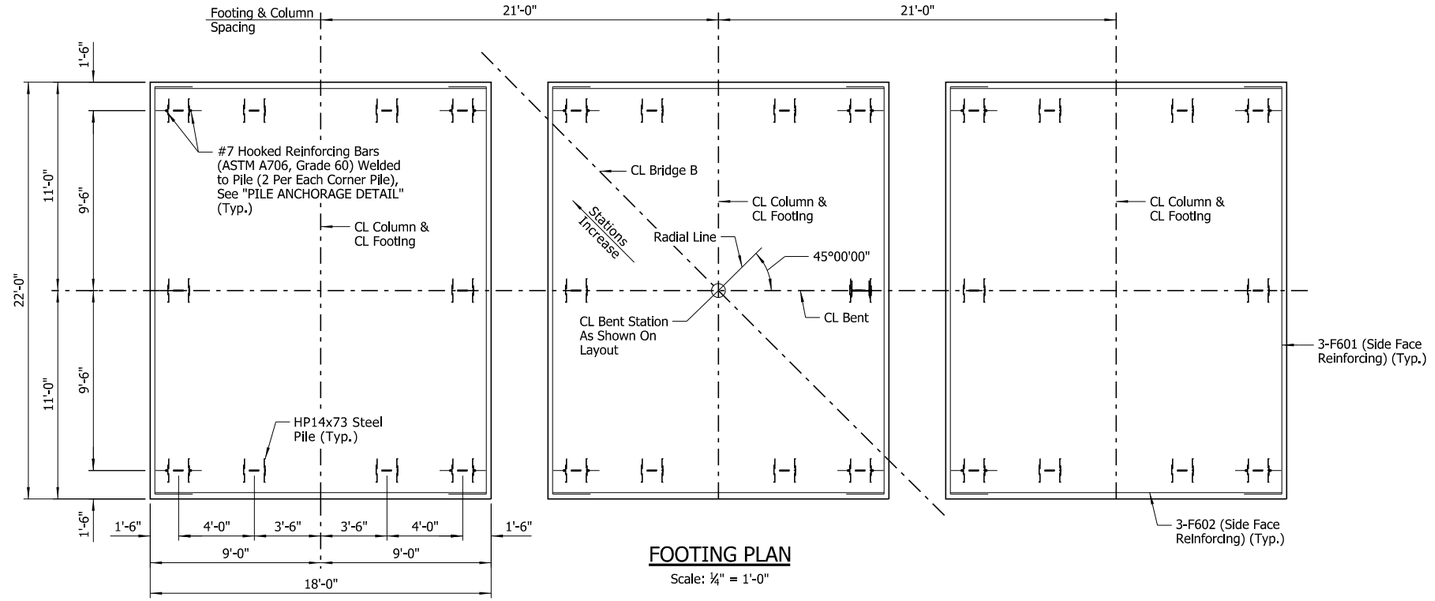
| Bent No. | "C" | "D" | "E" | "F" |
|---|---|---|---|---|
| 2B | 67 | 18'-2" | 12'-2" | 8'-2" |
| 3B | 197 | 40'-2" | 34'-8" | 28'-8" |
| 4B | 179 | 33'-8" | 32'-2" | 28'-8" |




SECTION F-F
No Scale




PILE ANCHORAGE DETAIL
No Scale




FOOTING PLAN
Scale: ¼" = 1'-0"

NOTE:
Footing dimensions and reinforcement are typical for each footing.

STATE OF ARKANSAS
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SHEET 3 OF 3
DETAILS OF INTERMEDIATE BENTS
BRIDGE B
XNA ACCESS RD. OVER HOLMES RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: AUG. 2023 FILENAME: b090069b5_b3.dgn
CHECKED BY: ABH DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: MJS DATE: AUG. 2023
BRIDGE NO. B7660 DRAWING NO. 66822

JESkinner 10/20/2023 2:13:18 PM
WORKSPACE: ARDOT Bridge (2019)
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# TABLE OF FABRICATOR VARIABLES

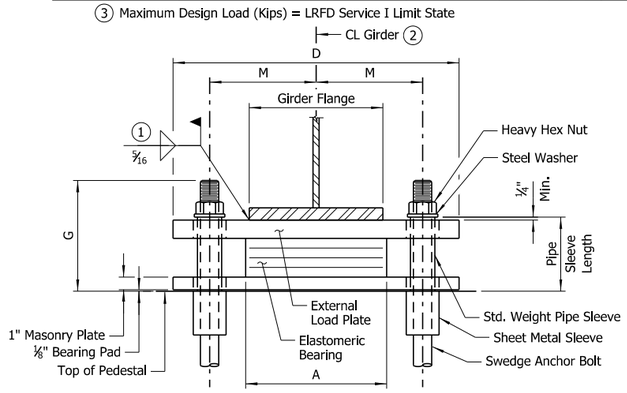
| Bridge No. | Location | | Bearing Type | No. Of Bearings Each Bent | ③ Maximum Design Load (Kips) | Elastomeric Pad | | | | | | | External Load Plate | | | | | | | | Anchor Bolt | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bent No. | Girder No. | | | | G | H | A | B | N | $t_i$ | $t_e$ | No. & Thickness Of Steel Laminae | T | C | D | E | F | J | K | M | $T_a$ | $T_b$ | Anchor Bolt (Dia. x L) | Grade | Pipe Sleeve Size (Dia. x L) | Sheet Metal Sleeve Size (Dia. x L) | Steel Washer Size (O.D.) |
| A7660 | 1 | All | Exp. | 6 | 115 | 10 5/16" | 7 5/16" | 14" | 10" | 6 | ½" | ¼" | 7 @ 12 Ga. | 4¼" | 11" | 25" | 5¾" | 2⅝" | - | ½" | 9½" | 2.11" | 1.89" | 1¾" x 32" | 55 | 2" x 7 9/16" | 4" x 12" | 3⅜" |
| | 2 | All | Fixed | 6 | 285 | 7⅛" | 4⅜" | 16" | 14" | 3 | ½" | ¼" | 4 @ 12 Ga. | 2 7/16" | 15" | 33½" | 2¼" | 2¼" | 1⅞" | ½" | 12⅝" | 2.13" | 1.87" | 1½" x 26" | 55 | 1½" x 4⅝" | 3" x 12" | 3" |
| | 3 | All | Fixed | 6 | 285 | 7⅛" | 4⅜" | 16" | 14" | 3 | ½" | ¼" | 4 @ 12 Ga. | 2 7/16" | 15" | 33½" | 2¼" | 2¼" | 1⅞" | ½" | 12⅝" | 2.10" | 1.90" | 1½" x 26" | 55 | 1½" x 4⅝" | 3" x 12" | 3" |
| | 4 | All | Fixed | 6 | 254 | 7⅛" | 4⅜" | 16" | 14" | 3 | ½" | ¼" | 4 @ 12 Ga. | 2 7/16" | 15" | 33½" | 2¼" | 2¼" | 1⅞" | ½" | 12⅝" | 2.07" | 1.93" | 1½" x 26" | 55 | 1½" x 4⅝" | 3" x 12" | 3" |
| | 5 | All | Exp. | 6 | 112 | 10 5/16" | 7 5/16" | 14" | 10" | 6 | ½" | ¼" | 7 @ 12 Ga. | 4¼" | 11" | 25" | 5¾" | 2⅝" | - | ½" | 9½" | 2.04" | 1.96" | 1¾" x 32" | 55 | 2" x 7 9/16" | 4" x 12" | 3⅜" |
| B7660 | 1 | All | Exp. | 6 | 105 | 12⅛" | 9⅛" | 14" | 12" | 9 | ½" | ¼" | 10 @ 12 Ga. | 6 1/16" | 13" | 25" | 4¾" | 2⅝" | - | ½" | 9½" | 2.15" | 1.85" | 1¾" x 34" | 55 | 2" x 9⅜" | 4" x 12" | 3⅜" |
| | 2 | All | Fixed | 6 | 259 | 7⅜" | 4⅜" | 16" | 12" | 3 | ½" | ¼" | 4 @ 12 Ga. | 2 7/16" | 13" | 34¼" | 2⅝" | 2⅝" | 1⅞" | ½" | 12 13/16" | 2.13" | 1.87" | 1¾" x 29" | 55 | 2" x 4⅝" | 4" x 12" | 3⅜" |
| | 3 | All | Fixed | 6 | 263 | 7⅜" | 4⅜" | 16" | 12" | 3 | ½" | ¼" | 4 @ 12 Ga. | 2 7/16" | 13" | 34¼" | 2⅝" | 2⅝" | 1⅞" | ½" | 12 13/16" | 2.11" | 1.89" | 1¾" x 29" | 55 | 2" x 4⅝" | 4" x 12" | 3⅜" |
| | 4 | All | Fixed | 6 | 233 | 7⅜" | 4⅜" | 16" | 12" | 3 | ½" | ¼" | 4 @ 12 Ga. | 2 7/16" | 13" | 34¼" | 2⅝" | 2⅝" | 1⅞" | ½" | 12 13/16" | 2.08" | 1.92" | 1¾" x 29" | 55 | 2" x 4⅝" | 4" x 12" | 3⅜" |
| | 5 | All | Exp. | 6 | 102 | 12⅛" | 9⅛" | 14" | 12" | 9 | ½" | ¼" | 10 @ 12 Ga. | 6 1/16" | 13" | 25" | 6½" | 2⅝" | - | ½" | 9½" | 2.07" | 1.93" | 1¾" x 34" | 55 | 2" x 9⅜" | 4" x 12" | 3⅜" |

③ Maximum Design Load (Kips) = LRFD Service I Limit State

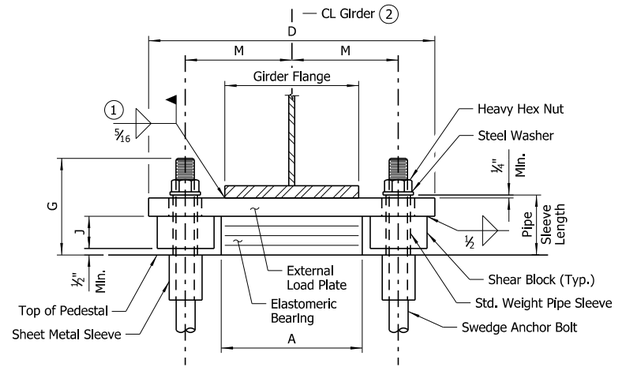
| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 375 | 583 |
| | | A7660 & B7660 | ELASTOMERIC BEARINGS | | | 66823 |

① Care shall be taken to ensure that the external load plate is in full and complete contact with the girder flange before welding begins. Unless otherwise approved by the Engineer, welding of the external load plate at expansion bearings to the girder will be allowed only when: 1) the approximate average air temperature during the 24 hour period immediately preceding welding is between 40°F and 80°F; and 2) the slots in the external load plate are positioned to center on the anchor bolts; and 3) no horizontal deformation of the elastomeric pad is evident. If welding at other temperatures is required, the Engineer will provide adjustment data.

② Centerline elastomeric pad shall be allgned with centerline girder.



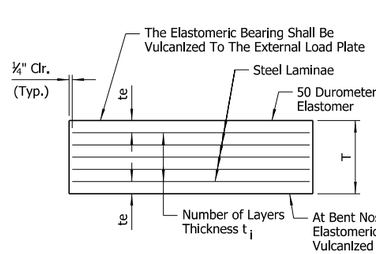

FRONT VIEW - AT BENT NOS. 1 & 5




FRONT VIEW - AT BENT NOS. 2, 3 & 4



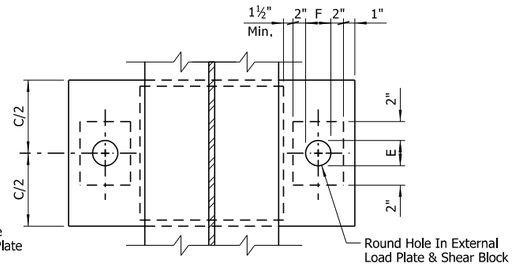

PLAN VIEW - AT BENT NOS. 1 & 5




$t_e$ = Thickness Of Elastomer Cover On Top And Bottom Of Pad
$t_i$ = Thickness Of Elastomer Between Steel Laminae
N = Number Of Elastomer Layers Of Thickness $t_i$

## ELASTOMERIC BEARING

Prior to erection of the girders, the Contractor shall verify the orientation of the bearings with respect to Ta and Tb.




PLAN VIEW - AT BENT NOS. 2, 3 & 4




SIDE VIEW - AT BENT NOS. 1 & 5

The direction of the bevel of the external load plate may not be accurately depicted with respect to Ta and Tb values shown in "TABLE OF FABRICATOR VARIABLES".




SIDE VIEW - AT BENT NOS. 2, 3 & 4

## GENERAL NOTES

Elastomeric bearings shall conform to Section 808 and shall be paid for at the unit price bid for "ELASTOMERIC BEARINGS."

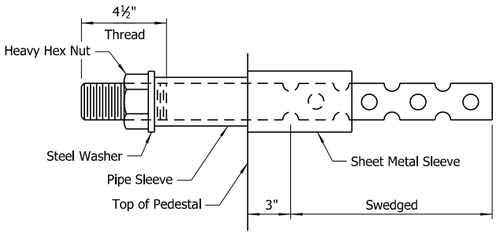
External load plates, shear blocks and masonry plates shall conform to ASTM A709, Grade 50. Pipe sleeves shall be ASTM A500, Grade B, and shall be galvanized to conform to AASHTO M 232, Class C or ASTM B695, Class 50.

External load plates, shear blocks and masonry plates shall be completely fabricated (including bevel, bolt holes and all shop welding) and shall be cleaned before vulcanizing to the elastomeric bearing. The surfaces in contact with the elastomeric bearing shall be cleaned in accordance with Subsection 808.03. Other surfaces shall be blast cleaned in accordance with Subsection 807.84(b) for painted steel.

Anchor bolts, washers and nuts shall conform to Subsection 807.07. The anchor bolt grade of steel shall be as specified in the "TABLE OF FABRICATOR VARIABLES". Indentations shall be circular with rounded bottoms and staggered as shown in the details.

Pipe sleeves, anchor bolts, washers and nuts shall be paid for at the unit price bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)". External load plates, shear blocks and masonry plates will not be measured or paid for separately but will be considered subsidiary to the unit price bid for "ELASTOMERIC BEARINGS".

Bearings with masonry plates shall be seated in accordance with Subsection 807.66. Bearings without masonry plates shall be seated in accordance with Subsection 808.08. This work and materials are considered subsidiary to the item "ELASTOMERIC BEARINGS" and will not be paid for directly.




## ANCHOR BOLT DETAIL

NOTES:
Anchor bolts may be cast in place or drilled and grouted into place. If anchor bolts are to be cast in place, the galvanized sheet metal sleeves will not be required.

If anchor bolts are to be drilled and grouted in place, the galvanized sheet metal sleeves shall be cast in place as shown. Sleeves shall be dry packed with styrofoam, urethane foam or approved equal prior to pouring of concrete. After pouring of the cap and prior to erection of structural steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the concrete. Bolts placed in drilled holes shall be accurately set and fixed using a QPL-approved epoxy or non-shrink grout that completely fills the holes. Galvanized sheet metal sleeves shall meet the requirements of ASTM A653, CS Type B or approved equivalent, be of minimum 16 gage thickness, and be galvanized according to ASTM B695, Class 50. Sheet metal sleeves will not be paid for directly but will be considered subsidiary to the item "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

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LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE

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BRIDGE ENGINEER

# DETAILS OF ELASTOMERIC BEARINGS XNA ACCESS RD. OVER HOLMES RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

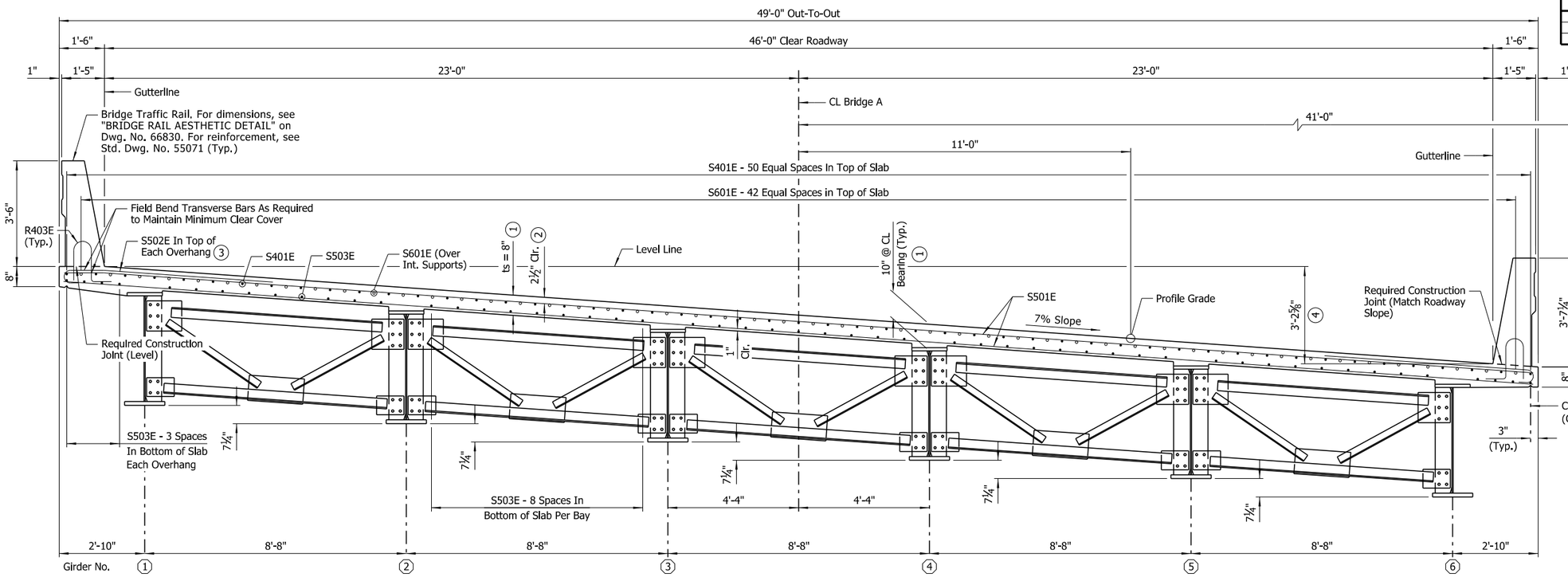
LITTLE ROCK, ARK.

DRAWN BY: CSW DATE: JULY 2023 FILENAME: b090069m5_e1.dgn
CHECKED BY: ABH DATE: JULY 2023 SCALE: No Scale
DESIGNED BY: CSW DATE: JULY 2023

BRIDGE NO. A7660 & B7660 DRAWING NO. 66823

JESkinner 10/20/2023 2:13:19 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 376 | 583 |
| | | A7660 | | 320'-0" UNIT | | 66824 |




NOTE:
All horizontal dimensions shown are measured along a line radial to CL Construction.

## TYPICAL ROADWAY SECTION

(Looking Ahead)
Scale: ½" = 1'-0"

(1) See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Std. Dwg. No. 55007.

(2) TOLERANCE:
Minus = ¼"
Plus = Amount of slab thickening used to meet slab thickness tolerance. See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Std. Dwg. No. 55007.

(3) Bundle with S501E bars In top. Rotate as needed to avoid interference with bottom mat of deck reinforcement.

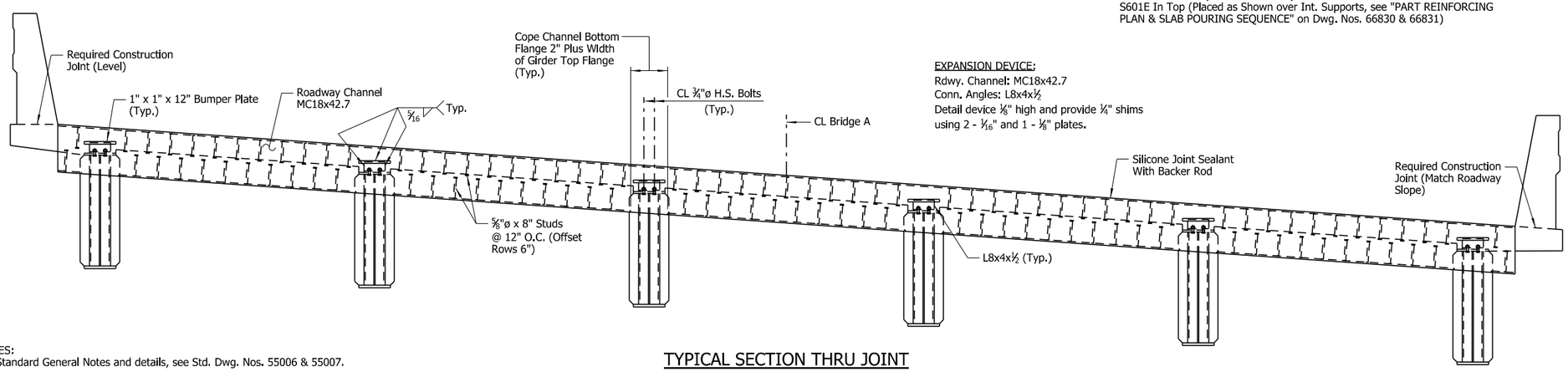
(4) Measured Gutterline to Gutterline

NOTE:
All structural steel shall be ASTM A709, Gr. 50 unless noted otherwise, and all structural steel shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

SLAB REINFORCING:

Transverse: S501E @ 6" O.C. In Top & Bottom
S502E @ 6" O.C. In Top of Overhangs (Bundled w/ #5 Bars)

Longitudinal: S401E In Top (Placed as Shown)
S503E In Bottom (Placed As Shown)
S601E In Top (Placed as Shown over Int. Supports, see "PART REINFORCING PLAN & SLAB POURING SEQUENCE" on Dwg. Nos. 66830 & 66831)



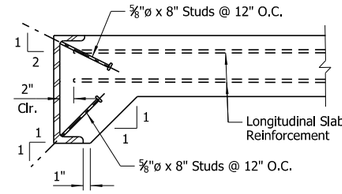

EXPANSION DEVICE:
Rdwy. Channel: MC18x42.7
Conn. Angles: L8x4x½
Detail device ⅛" high and provide ¼" shims using 2 - 1/16" and 1 - ⅛" plates.

## TYPICAL SECTION THRU JOINT

(Shown At End Bent No. 1, Looking Ahead; End Bent No. 5 Similar)
No Scale

| TABLE OF SILICONE JOINT DATA | | | | | |
|---|---|---|---|---|---|
| Bent No. | "A" Width Perpendicular To Joint At 24 Hour Average Temperature (5) Of: | | | "B" Perpendicular To Joint At 60°F | Bumper Plate Size |
| | 40°F | 60°F | 80°F | | |
| 1 | 2 3/16" | 2" | 1 13/16" | 2¼"± | 1" x 1" x 12" |
| 5 | 2⅛" | 2" | 1⅞" | 2¼"± | 1" x 1" x 12" |

(5) The temperature used to set the joint opening shall be the approximate average air temperature during the 24-hour period immediately before the bolts are tightened. The Engineer shall establish the temperature. Interpolation of the table may be necessary.




## DETAIL OF ANCHORS AND PLACEMENT OF LONGITUDINAL REINFORCEMENT

No Scale

NOTE:
As an alternate to ⅝"ø studs, ½"ø x 8" studs spaced @ 8" O.C. may be used. Use weight of ⅝"ø stud as basis of measurement of Structural Steel in anchors.

NOTES:
For Standard General Notes and details, see Std. Dwg. Nos. 55006 & 55007.

Class 2 Protective Surface Treatment shall be applied to the roadway surface.

Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in Special Provision "TEXTURED COATING FINISH" and in accordance with Subsection 802.19(b)(3). Textured Coating Finish shall not be applied on surfaces where Class 2 Protective Surface Treatment is applied.

Bar positions and clearances from the forms shall be maintained by means of stays, ties, hangers, or other approved devices per Subsection 804.06. Placement of slab bolsters or high-chairs with full-length lower runners directly on removable deck forms will not be allowed.

For "BAR LIST" and "BAR BENDING DIAGRAMS", see Dwg. No. 66831.

For additional details of poured silicone joints, see Std. Dwg. No. 55008.

The profile of the Roadway Channel shall be established based on the vertical curve in conjunction with the skew.

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# SHEET 1 OF 8
# DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE A XNA ACCESS RD. OVER HOLMES RD.

ROUTE SEC.

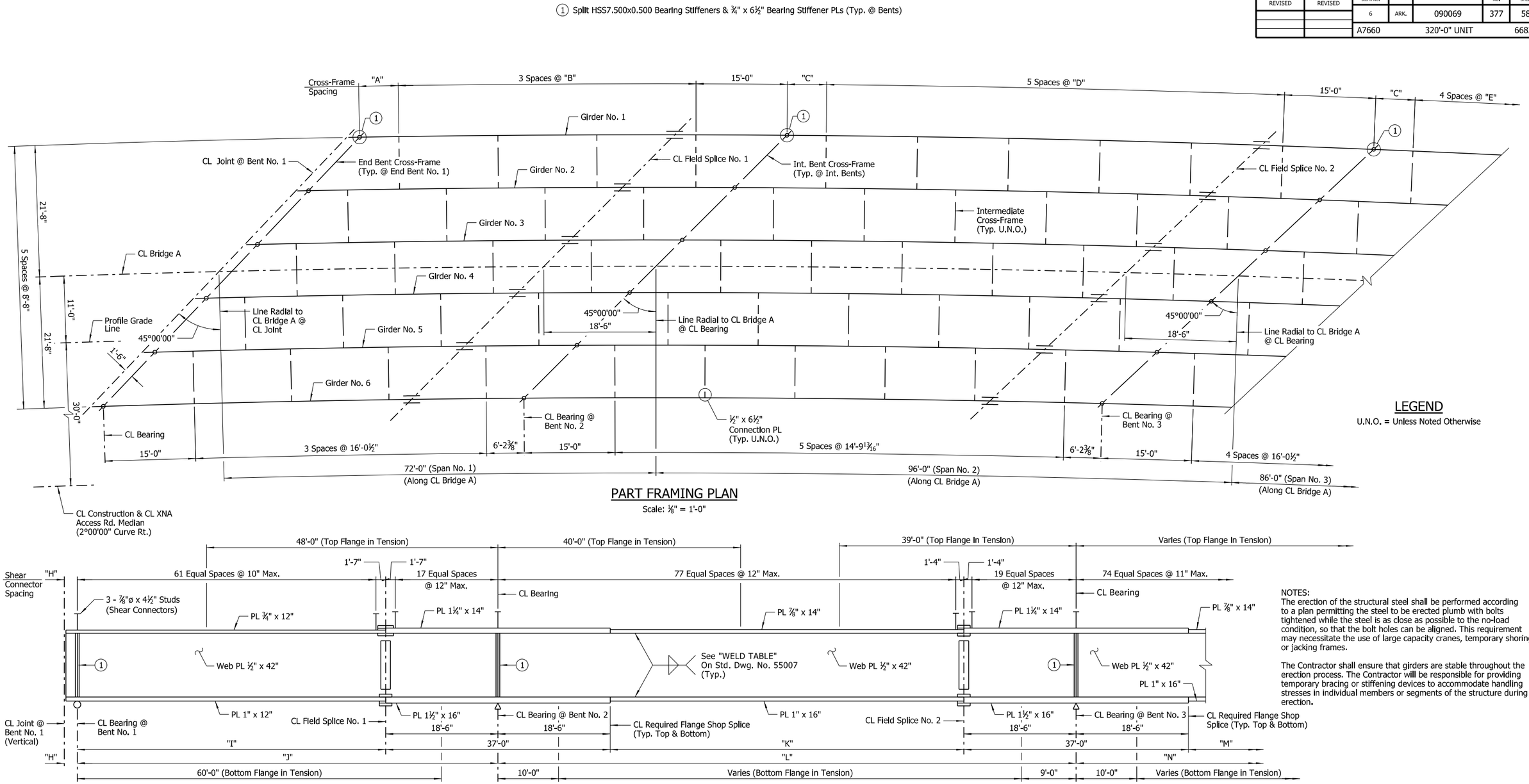
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

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CHECKED BY: ABH DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: CSW DATE: JAN. 2023
BRIDGE NO. A7660 DRAWING NO. 66824

JESkinner 10/20/2023 2:13:20 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 377 | 583 |
| | | A7660 | | 320'-0" UNIT | | 66825 |




PART FRAMING PLAN

Scale: ⅛" = 1'-0"




PART GIRDER ELEVATION

(Dimensions Measured Along CL Girder)
No Scale

NOTES:
The erection of the structural steel shall be performed according to a plan permitting the steel to be erected plumb with bolts tightened while the steel is as close as possible to the no-load condition, so that the bolt holes can be aligned. This requirement may necessitate the use of large capacity cranes, temporary shoring or jacking frames.

The Contractor shall ensure that girders are stable throughout the erection process. The Contractor will be responsible for providing temporary bracing or stiffening devices to accommodate handling stresses in individual members or segments of the structure during erection.

## TABLE OF VARIABLES

| GIRDER NO. | "A" | "B" | "C" | "D" | "E" | "H" | "I" | "J" | "K" | "L" | "M" | "N" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6'-5¾" | 16'-3 13⁄16" | 6'-5⅝" | 15'-0⅝" | 16'-3½" | 2'-1¼" | 51'-11 3⁄16" | 70'-5 3⁄16" | 59'-8 9⁄16" | 96'-8 9⁄16" | 50'-7 11⁄16" | 86'-7 1⁄16" |
| 2 | 6'-5⅝" | 16'-3⅛" | 6'-5" | 15'-0 1⁄16" | 16'-2⅞" | 2'-1 5⁄16" | 51'-8½" | 70'-2½" | 59'-5⅛" | 96'-5⅛" | 50'-4⅝" | 86'-4⅝" |
| 3 | 6'-4 9⁄16" | 16'-2 7⁄16" | 6'-4⅜" | 14'-11 7⁄16" | 16'-2 9⁄16" | 2'-1 7⁄16" | 51'-5⅞" | 69'-11⅞" | 59'-1 11⁄16" | 96'-1 11⁄16" | 50'-1 9⁄16" | 86'-1 9⁄16" |
| 4 | 6'-3 15⁄16" | 16'-1¾" | 6'-3¾" | 14'-10⅞" | 16'-1 11⁄16" | 2'-1½" | 51'-3¼" | 69'-9¼" | 58'-10 5⁄16" | 95'-10 5⁄16" | 49'-10 7⁄16" | 85'-10 7⁄16" |
| 5 | 6'-3¼" | 16'-1⅛" | 6'-3⅛" | 14'-10⅜" | 16'-1 1⁄16" | 2'-1 5⁄16" | 51'-0 9⁄16" | 69'-6 9⁄16" | 58'-6⅞" | 95'-6⅞" | 49'-7⅜" | 85'-7⅜" |
| 6 | - | - | - | - | - | 2'-1⅜" | 50'-9 15⁄16" | 69'-3 15⁄16" | 58'-3 7⁄16" | 95'-3 7⁄16" | 49'-4 1⁄16" | 85'-4 7⁄16" |

NOTES:
All girders are oriented along curves concentric with CL Bridge A.

All intermediate cross-frames are oriented along lines radial to CL Bridge A. End Bent cross-frames are oriented parallel to CL Joint. Intermediate Bent cross-frames are oriented parallel to and along CL Bearing.

All structural steel shall be ASTM A709, Gr. 50 unless noted otherwise and shall be paid for at the unit price per pound bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

Bolted field splices shown may be eliminated or shop welded splices may be substituted with approval of the Engineer. Payment will be made on the basis of the Plan Quantities.

For "DETAILS OF WELDED SPLICES FOR PLATE GIRDERS" and "SHEAR CONNECTOR DETAIL", see Std. Dwg. No. 55007.

For cross-frame details, stiffener and connection plate details, see Dwg. No. 66827.

For details of field splices, see Dwg. No. 66828.

For "GENERAL NOTES", see Std. Dwg. No. 55006.

STATE OF ARKANSAS
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BRIDGE ENGINEER

# SHEET 2 OF 8
# DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE A XNA ACCESS RD. OVER HOLMES RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

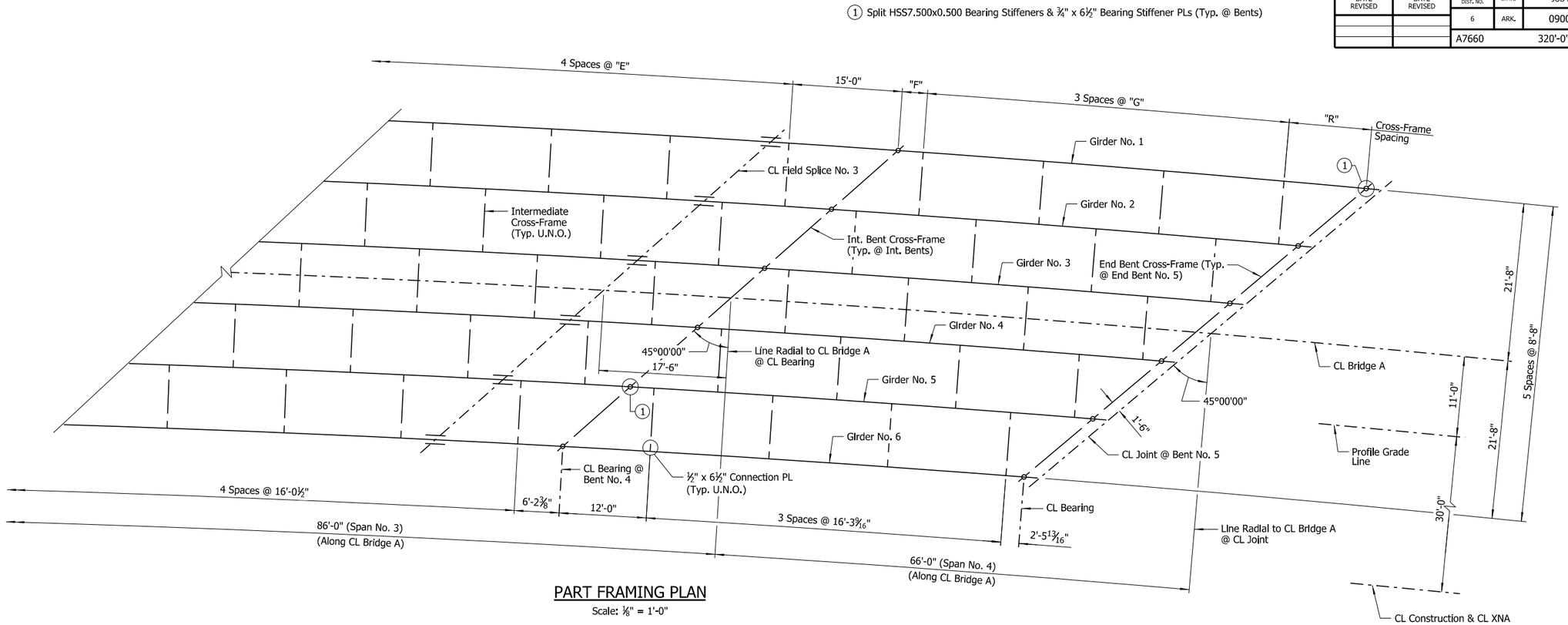
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DESIGNED BY: CSW DATE: FEB. 2023

BRIDGE NO. A7660 DRAWING NO. 66825

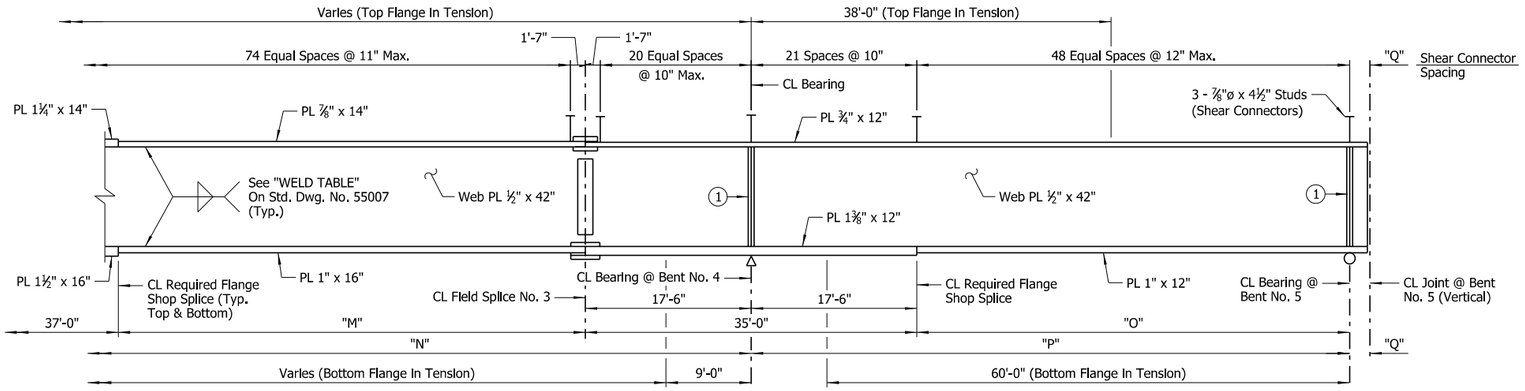
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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 378 | 583 |
| | | A7660 | | 320'-0" UNIT | | 66826 |




## PART FRAMING PLAN

Scale: ⅛" = 1'-0"




## PART GIRDER ELEVATION

(Dimensions Measured Along CL Girder)
No Scale

| TABLE OF VARIABLES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| GIRDER NO. | "E" | "F" | "G" | "M" | "N" | "O" | "P" | "Q" | "R" |
| 1 | 16'-3½" | 3'-5½" | 16'-6½" | 50'-7 1⁄16" | 86'-7 1⁄16" | 46'-10⅝" | 64'-4⅝" | 2'-1¼" | 11'-3 3⁄16" |
| 2 | 16'-2⅞" | 3'-4⅞" | 16'-5 15⁄16" | 50'-4⅝" | 86'-4⅝" | 46'-8 3⁄16" | 64'-2 3⁄16" | 2'-1⅜" | 11'-3 3⁄16" |
| 3 | 16'-2 5⁄16" | 3'-4¼" | 16'-5 5⁄16" | 50'-1⅜" | 86'-1⅜" | 46'-5¾" | 63'-11¾" | 2'-1 7⁄16" | 11'-3½" |
| 4 | 16'-1 1⁄16" | 3'-3⅝" | 16'-4¾" | 49'-10 7⁄16" | 85'-10 7⁄16" | 46'-3 5⁄16" | 63'-9 5⁄16" | 2'-1½" | 11'-3½" |
| 5 | 16'-1⅛" | 3'-3" | 16'-4⅛" | 49'-7⅜" | 85'-7⅜" | 46'-0⅞" | 63'-6⅞" | 2'-1 9⁄16" | 11'-3½" |
| 6 | - | - | - | 49'-4 5⁄16" | 85'-4 5⁄16" | 45'-10 7⁄16" | 63'-4 7⁄16" | 2'-1 11⁄16" | - |

## LEGEND

U.N.O. = Unless Noted Otherwise

NOTES:
The erection of the structural steel shall be performed according to a plan permitting the steel to be erected plumb with bolts tightened while the steel is as close as possible to the no-load condition, so that the bolt holes can be aligned. This requirement may necessitate the use of large capacity cranes, temporary shoring or jacking frames.

The Contractor shall ensure that girders are stable throughout the erection process. The Contractor will be responsible for providing temporary bracing or stiffening devices to accommodate handling stresses in individual members or segments of the structure during erection.

NOTES:
All girders are oriented along curves concentric with CL Bridge A.

All intermediate cross-frames are oriented along lines radial to CL Bridge A. End Bent cross-frames are oriented parallel to CL Joint. Intermediate Bent cross-frames are oriented parallel to and along CL Bearing.

All structural steel shall be ASTM A709, Gr. 50 unless noted otherwise and shall be paid for at the unit price per pound bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

Bolted field splices shown may be eliminated or shop welded splices may be substituted with approval of the Engineer. Payment will be made on the basis of the Plan Quantities.

For "DETAILS OF WELDED SPLICES FOR PLATE GIRDERS" and "SHEAR CONNECTOR DETAIL", see Std. Dwg. No. 55007.

For cross-frame details, stiffener and connection plate details, see Dwg. No. 66827.

For details of field splices, see Dwg. No. 66828.

For "GENERAL NOTES", see Std. Dwg. No. 55006.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

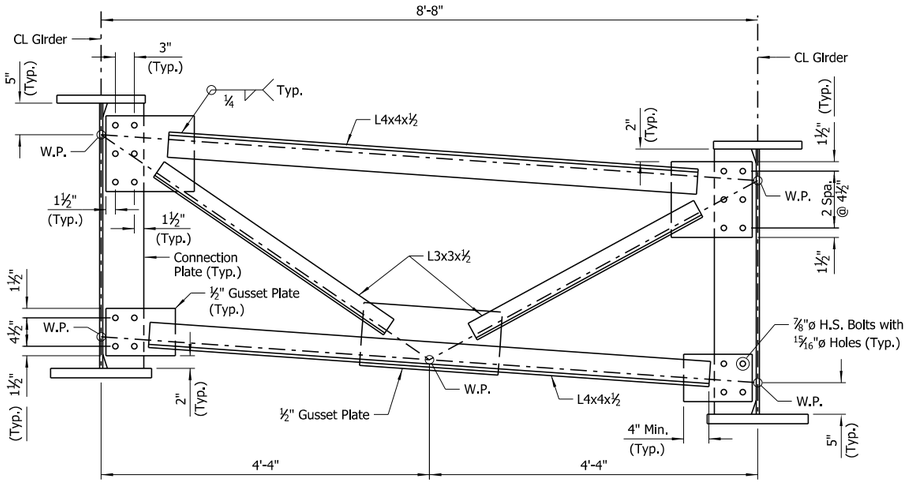
SHEET 3 OF 8
DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT
BRIDGE A
XNA ACCESS RD. OVER HOLMES RD.
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: FEB. 2023 FILENAME: b090069a5_s3.dgn
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DESIGNED BY: CSW DATE: FEB. 2023
BRIDGE NO. A7660 DRAWING NO. 66826

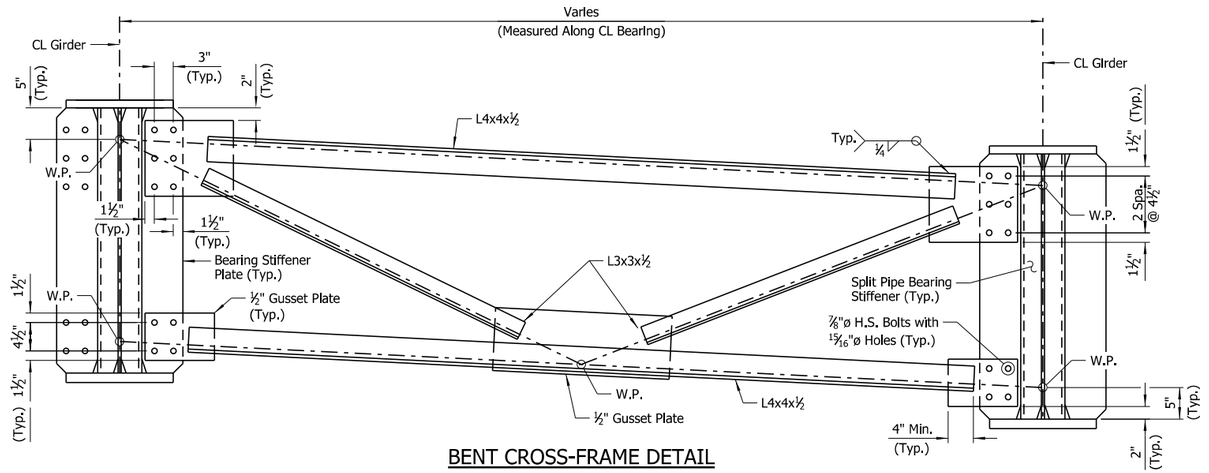
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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 379 | 583 |
| | | A7660 | | 320'-0" UNIT | | 66827 |




## INTERMEDIATE CROSS-FRAME DETAIL

Scale: 1" = 1'-0"




## BENT CROSS-FRAME DETAIL

No Scale

① See "WELD TABLE" on Std. Dwg. No. 55007 for minimum weld size.

② Stop Weld ¼" to 1" from end of clip (Typ.)

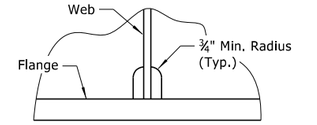
③ If permanent deck forms are used, the Fabricator shall clip the plate as necessary to accommodate the deck form supports.

④ See "PART FRAMING PLAN" on Dwg. Nos. 66825 & 66826 for sizes and locations.

NOTES:
Split Pipe Bearing Stiffeners shall conform to ASTM A500, Gr. B (Fy = 42,000 psi) and shall be paid for at the unit price per pound bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

Split Pipe Bearing Stiffeners are considered main load carrying members and shall meet the Longitudinal Charpy V-Notch Test Specified in Subsection 807.05. This work and material will not be paid for directly but shall be considered subsidiary to the Item "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

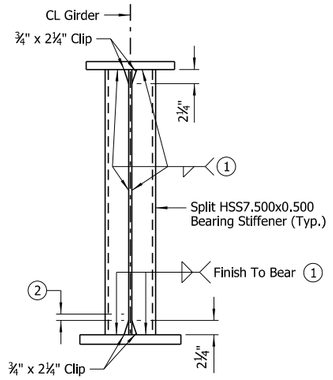
Split Pipe Bearing Stiffeners and Bearing Stiffener Plates shall be fabricated to be vertical in their final positions.




Height and width of clip shall be as noted in other details.

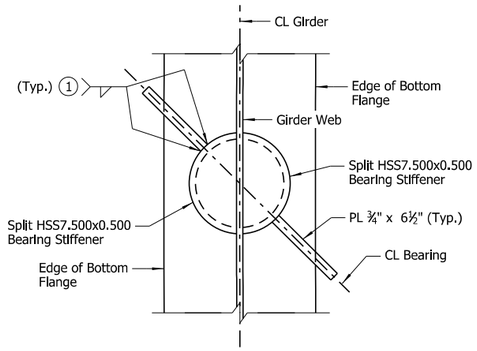
## ALTERNATE CLIP DETAIL

(For Bearing Stiffeners & Cross-Frame Connection Plates)
No Scale



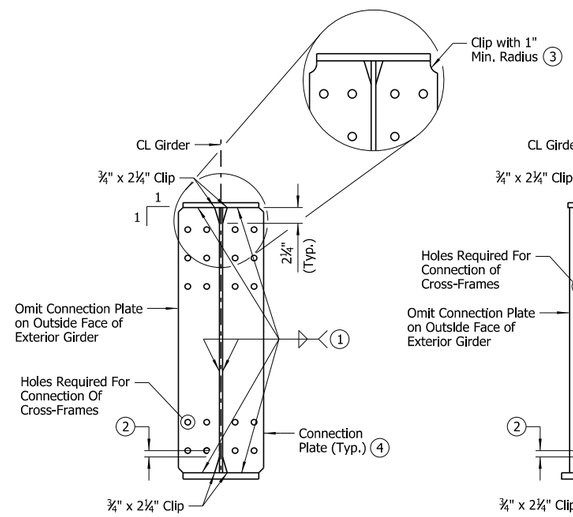

## SPLIT PIPE BEARING STIFFENER DETAIL

Scale: 1" = 1'-0"

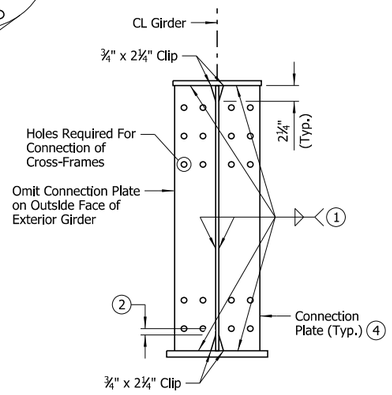



## SECTION X-X

No Scale



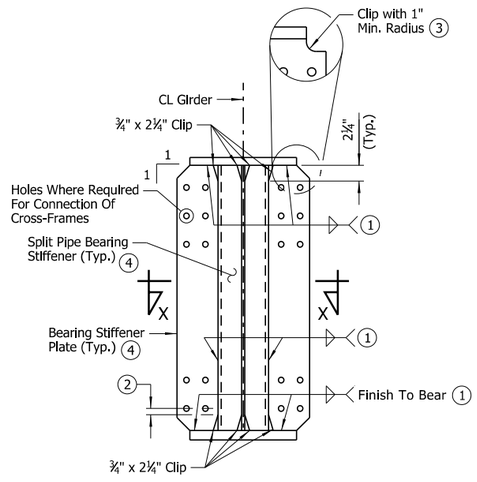

## GIRDER WITH 12" WIDE TOP FLANGE AND 12" WIDE BOTTOM FLANGE




## GIRDER WITH 14" WIDE TOP FLANGE AND 16" WIDE BOTTOM FLANGE

## INTERMEDIATE CROSS-FRAME CONNECTION PLATE DETAIL

Scale: 1" = 1'-0"




## BEARING SIFFENER PLATE DETAIL

(Shown Normal to CL Bearing)
No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE

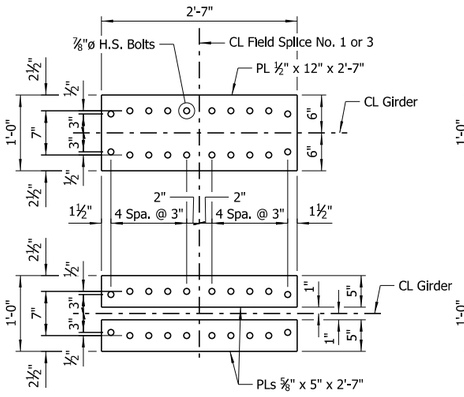
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 4 OF 8
DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT
BRIDGE A
XNA ACCESS RD. OVER HOLMES RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

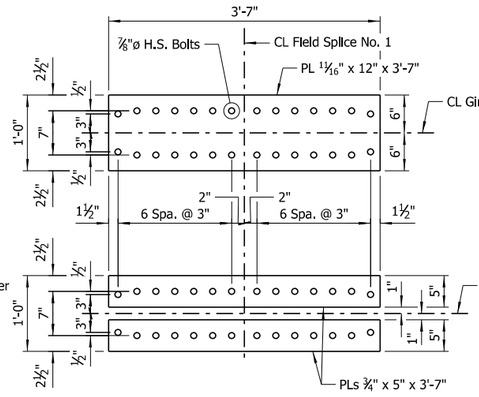
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DESIGNED BY: CSW DATE: FEB. 2023
BRIDGE NO. A7660 DRAWING NO. 66827

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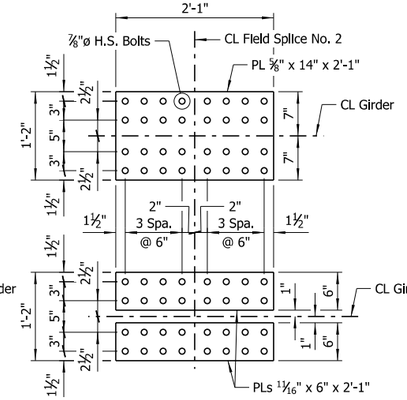
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| | | A7660 | | 320'-0" UNIT | | 66828 |



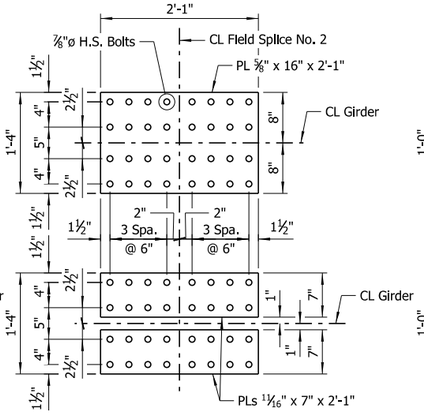

TOP FLANGE SPLICE NOS. 1 & 3
Scale: 1" = 1'-0"



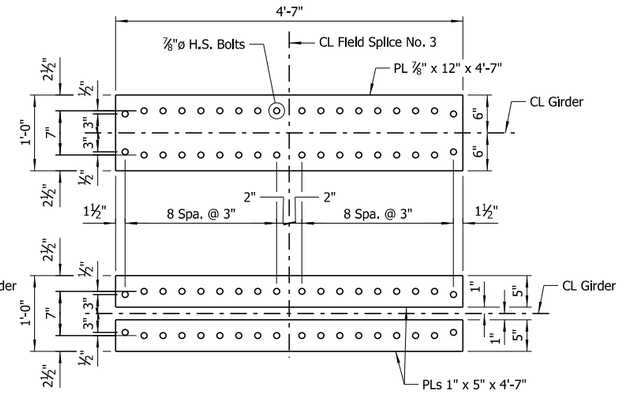

BOTTOM FLANGE SPLICE NO. 1
Scale: 1" = 1'-0"



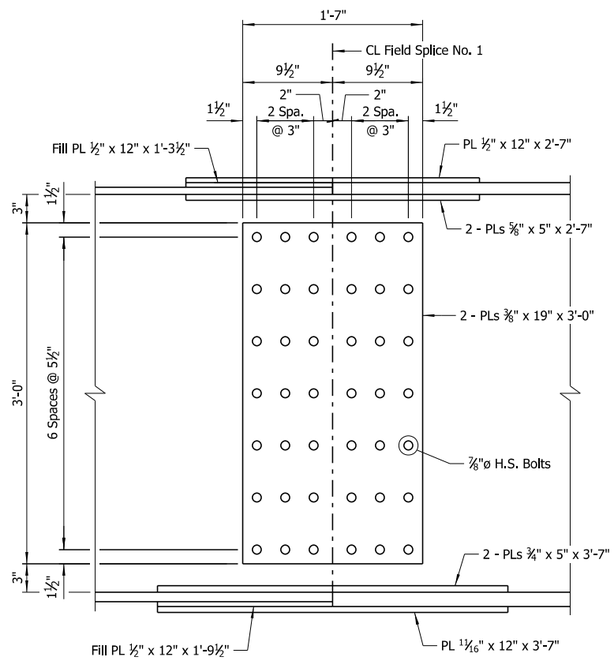

TOP FLANGE SPLICE NO. 2
Scale: 1" = 1'-0"



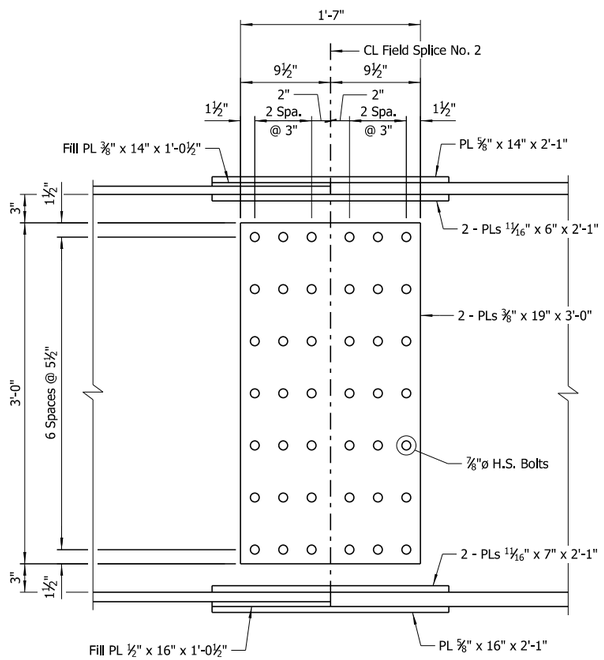

BOTTOM FLANGE SPLICE NO. 2
Scale: 1" = 1'-0"



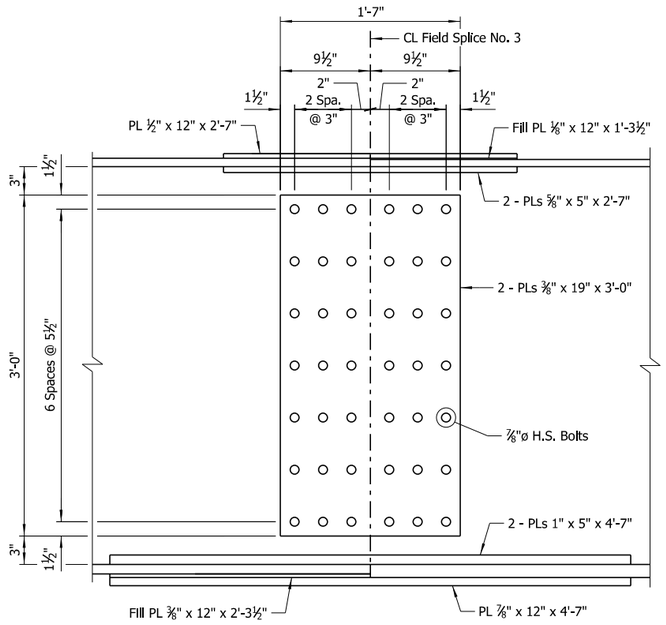

BOTTOM FLANGE SPLICE NO. 3
Scale: 1" = 1'-0"




ELEVATION OF FIELD SPLICE NO. 1
Scale: 1½" = 1'-0"




ELEVATION OF FIELD SPLICE NO. 2
Scale: 1½" = 1'-0"




ELEVATION OF FIELD SPLICE NO. 3
Scale: 1½" = 1'-0"

NOTES:
All field splice bolts shall be ⅞"ø high strength bolts.

All holes for field splice bolts shall be 15/16"ø.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 5 OF 8
DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT
BRIDGE A
XNA ACCESS RD. OVER HOLMES RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: CSW DATE: FEB. 2023
BRIDGE NO. A7660 DRAWING NO. 66828

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WORKSPACE: ARDOT Bridge (2019)
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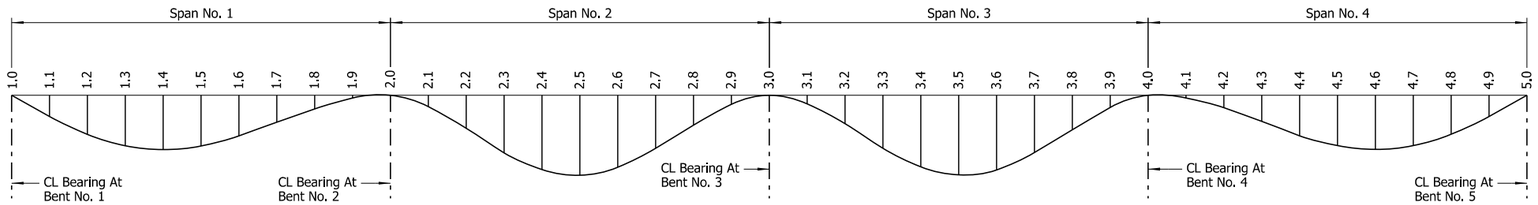
## TABLE OF DEAD LOAD DEFLECTIONS (INCHES)

| | Point Of Deflection | Girder 1 | | | Girder 2 | | | Girder 3 | | | Girder 4 | | | Girder 5 | | | Girder 6 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail |
| SPAN NO. 1 | 1.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 1.1 | 0.029 | 0.175 | 0.190 | 0.030 | 0.196 | 0.209 | 0.030 | 0.196 | 0.219 | 0.029 | 0.192 | 0.205 | 0.029 | 0.189 | 0.202 | 0.026 | 0.159 | 0.174 |
| | 1.2 | 0.052 | 0.317 | 0.344 | 0.054 | 0.355 | 0.379 | 0.054 | 0.355 | 0.378 | 0.053 | 0.348 | 0.371 | 0.052 | 0.343 | 0.368 | 0.047 | 0.287 | 0.315 |
| | 1.3 | 0.066 | 0.404 | 0.439 | 0.069 | 0.455 | 0.485 | 0.069 | 0.455 | 0.485 | 0.068 | 0.446 | 0.476 | 0.067 | 0.440 | 0.472 | 0.061 | 0.370 | 0.407 |
| | 1.4 | 0.070 | 0.430 | 0.467 | 0.073 | 0.483 | 0.515 | 0.073 | 0.483 | 0.515 | 0.071 | 0.471 | 0.503 | 0.070 | 0.465 | 0.499 | 0.064 | 0.392 | 0.433 |
| | 1.5 | 0.062 | 0.388 | 0.421 | 0.065 | 0.437 | 0.467 | 0.065 | 0.437 | 0.467 | 0.063 | 0.426 | 0.456 | 0.062 | 0.420 | 0.452 | 0.057 | 0.356 | 0.395 |
| | 1.6 | 0.046 | 0.298 | 0.324 | 0.049 | 0.336 | 0.359 | 0.049 | 0.336 | 0.359 | 0.047 | 0.326 | 0.350 | 0.047 | 0.322 | 0.347 | 0.043 | 0.274 | 0.305 |
| | 1.7 | 0.026 | 0.178 | 0.193 | 0.028 | 0.203 | 0.217 | 0.028 | 0.203 | 0.218 | 0.027 | 0.196 | 0.211 | 0.026 | 0.193 | 0.209 | 0.026 | 0.170 | 0.191 |
| | 1.8 | 0.008 | 0.068 | 0.074 | 0.009 | 0.079 | 0.085 | 0.009 | 0.079 | 0.085 | 0.008 | 0.074 | 0.081 | 0.008 | 0.073 | 0.081 | 0.009 | 0.068 | 0.079 |
| | 1.9 | -0.002 | -0.001 | -0.001 | -0.002 | 0.001 | 0.001 | -0.002 | 0.001 | 0.002 | -0.002 | 0.000 | 0.001 | -0.002 | 0.000 | 0.001 | -0.001 | 0.004 | 0.006 |
| SPAN NO. 2 | 2.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 2.1 | 0.029 | 0.145 | 0.160 | 0.032 | 0.169 | 0.182 | 0.032 | 0.168 | 0.180 | 0.031 | 0.167 | 0.178 | 0.031 | 0.165 | 0.176 | 0.028 | 0.137 | 0.149 |
| | 2.2 | 0.079 | 0.401 | 0.441 | 0.083 | 0.458 | 0.492 | 0.083 | 0.456 | 0.488 | 0.082 | 0.452 | 0.483 | 0.082 | 0.447 | 0.478 | 0.071 | 0.361 | 0.392 |
| | 2.3 | 0.131 | 0.682 | 0.748 | 0.136 | 0.759 | 0.815 | 0.135 | 0.756 | 0.808 | 0.134 | 0.749 | 0.800 | 0.133 | 0.740 | 0.791 | 0.117 | 0.605 | 0.658 |
| | 2.4 | 0.167 | 0.875 | 0.957 | 0.174 | 0.981 | 1.052 | 0.173 | 0.978 | 1.045 | 0.171 | 0.967 | 1.032 | 0.170 | 0.955 | 1.021 | 0.150 | 0.788 | 0.859 |
| | 2.5 | 0.178 | 0.943 | 1.029 | 0.187 | 1.061 | 1.137 | 0.186 | 1.058 | 1.130 | 0.184 | 1.045 | 1.116 | 0.182 | 1.033 | 1.105 | 0.162 | 0.854 | 0.932 |
| | 2.6 | 0.164 | 0.874 | 0.952 | 0.172 | 0.981 | 1.051 | 0.171 | 0.979 | 1.045 | 0.169 | 0.966 | 1.031 | 0.168 | 0.956 | 1.023 | 0.149 | 0.791 | 0.865 |
| | 2.7 | 0.127 | 0.680 | 0.740 | 0.133 | 0.761 | 0.815 | 0.132 | 0.759 | 0.811 | 0.130 | 0.748 | 0.799 | 0.130 | 0.742 | 0.794 | 0.115 | 0.614 | 0.673 |
| | 2.8 | 0.078 | 0.422 | 0.458 | 0.080 | 0.460 | 0.493 | 0.079 | 0.459 | 0.490 | 0.078 | 0.452 | 0.483 | 0.078 | 0.449 | 0.481 | 0.070 | 0.374 | 0.410 |
| | 2.9 | 0.028 | 0.153 | 0.166 | 0.030 | 0.175 | 0.187 | 0.030 | 0.175 | 0.187 | 0.030 | 0.173 | 0.185 | 0.029 | 0.171 | 0.183 | 0.027 | 0.148 | 0.163 |
| SPAN NO. 3 | 3.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 3.1 | 0.003 | 0.007 | 0.010 | 0.003 | 0.011 | 0.013 | 0.003 | 0.010 | 0.012 | 0.003 | 0.010 | 0.012 | 0.003 | 0.010 | 0.012 | 0.004 | 0.014 | 0.016 |
| | 3.2 | 0.024 | 0.111 | 0.127 | 0.025 | 0.130 | 0.142 | 0.025 | 0.128 | 0.139 | 0.025 | 0.127 | 0.138 | 0.024 | 0.124 | 0.135 | 0.023 | 0.109 | 0.121 |
| | 3.3 | 0.050 | 0.242 | 0.271 | 0.053 | 0.284 | 0.307 | 0.053 | 0.281 | 0.303 | 0.052 | 0.278 | 0.299 | 0.052 | 0.274 | 0.296 | 0.049 | 0.238 | 0.253 |
| | 3.4 | 0.074 | 0.362 | 0.402 | 0.078 | 0.419 | 0.452 | 0.077 | 0.413 | 0.444 | 0.076 | 0.410 | 0.492 | 0.075 | 0.404 | 0.435 | 0.070 | 0.345 | 0.380 |
| | 3.5 | 0.085 | 0.419 | 0.463 | 0.090 | 0.485 | 0.573 | 0.089 | 0.536 | 0.573 | 0.088 | 0.533 | 0.570 | 0.087 | 0.469 | 0.505 | 0.081 | 0.401 | 0.442 |
| | 3.6 | 0.082 | 0.402 | 0.443 | 0.086 | 0.518 | 0.554 | 0.085 | 0.518 | 0.554 | 0.085 | 0.515 | 0.551 | 0.084 | 0.450 | 0.485 | 0.078 | 0.385 | 0.426 |
| | 3.7 | 0.065 | 0.314 | 0.345 | 0.068 | 0.364 | 0.444 | 0.068 | 0.415 | 0.444 | 0.067 | 0.412 | 0.441 | 0.066 | 0.352 | 0.380 | 0.062 | 0.303 | 0.336 |
| | 3.8 | 0.040 | 0.188 | 0.207 | 0.041 | 0.213 | 0.230 | 0.041 | 0.211 | 0.227 | 0.041 | 0.211 | 0.227 | 0.040 | 0.207 | 0.224 | 0.037 | 0.176 | 0.197 |
| | 3.9 | 0.014 | 0.060 | 0.066 | 0.015 | 0.071 | 0.077 | 0.015 | 0.071 | 0.077 | 0.015 | 0.071 | 0.077 | 0.014 | 0.069 | 0.075 | 0.014 | 0.062 | 0.070 |
| SPAN NO. 4 | 4.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 4.1 | 0.004 | 0.031 | 0.034 | 0.004 | 0.036 | 0.038 | 0.004 | 0.036 | 0.038 | 0.004 | 0.035 | 0.037 | 0.004 | 0.034 | 0.035 | 0.004 | 0.029 | 0.031 |
| | 4.2 | 0.017 | 0.114 | 0.126 | 0.019 | 0.131 | 0.140 | 0.019 | 0.130 | 0.138 | 0.018 | 0.127 | 0.135 | 0.018 | 0.125 | 0.132 | 0.015 | 0.101 | 0.108 |
| | 4.3 | 0.034 | 0.213 | 0.235 | 0.037 | 0.245 | 0.262 | 0.036 | 0.243 | 0.258 | 0.036 | 0.239 | 0.254 | 0.035 | 0.236 | 0.250 | 0.030 | 0.191 | 0.205 |
| | 4.4 | 0.050 | 0.307 | 0.337 | 0.053 | 0.348 | 0.372 | 0.053 | 0.346 | 0.368 | 0.052 | 0.340 | 0.361 | 0.051 | 0.335 | 0.404 | 0.045 | 0.274 | 0.295 |
| | 4.5 | 0.061 | 0.370 | 0.458 | 0.065 | 0.474 | 0.505 | 0.065 | 0.421 | 0.499 | 0.064 | 0.414 | 0.491 | 0.063 | 0.462 | 0.489 | 0.055 | 0.335 | 0.362 |
| | 4.6 | 0.065 | 0.389 | 0.477 | 0.069 | 0.444 | 0.527 | 0.069 | 0.442 | 0.470 | 0.068 | 0.435 | 0.462 | 0.067 | 0.482 | 0.511 | 0.059 | 0.354 | 0.383 |
| | 4.7 | 0.060 | 0.357 | 0.390 | 0.064 | 0.408 | 0.436 | 0.063 | 0.405 | 0.431 | 0.062 | 0.398 | 0.423 | 0.062 | 0.394 | 0.419 | 0.054 | 0.324 | 0.361 |
| | 4.8 | 0.046 | 0.274 | 0.299 | 0.049 | 0.313 | 0.334 | 0.049 | 0.311 | 0.331 | 0.048 | 0.306 | 0.325 | 0.048 | 0.303 | 0.322 | 0.042 | 0.250 | 0.271 |
| | 4.9 | 0.025 | 0.149 | 0.162 | 0.027 | 0.173 | 0.185 | 0.027 | 0.172 | 0.183 | 0.027 | 0.170 | 0.181 | 0.026 | 0.167 | 0.178 | 0.023 | 0.136 | 0.147 |
| | 5.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

NOTES:
Camber for dead load deflection plus vertical curve +/- ¼" tolerance. Deflections shown are along CL Girder from the plane perpendicular to the web extending from CL Bearing to CL Bearing. Vertical curve corrections are not included. Negative sign (-) indicates point above chord.

Dead load deflections shown include an assumed loading of 18 psf to account for stay-in-place metal deck forms.

Revision to the deflection tables may be necessary upon review of the Contractor's submitted forming details.




DEAD LOAD DEFLECTION DIAGRAM
No Scale

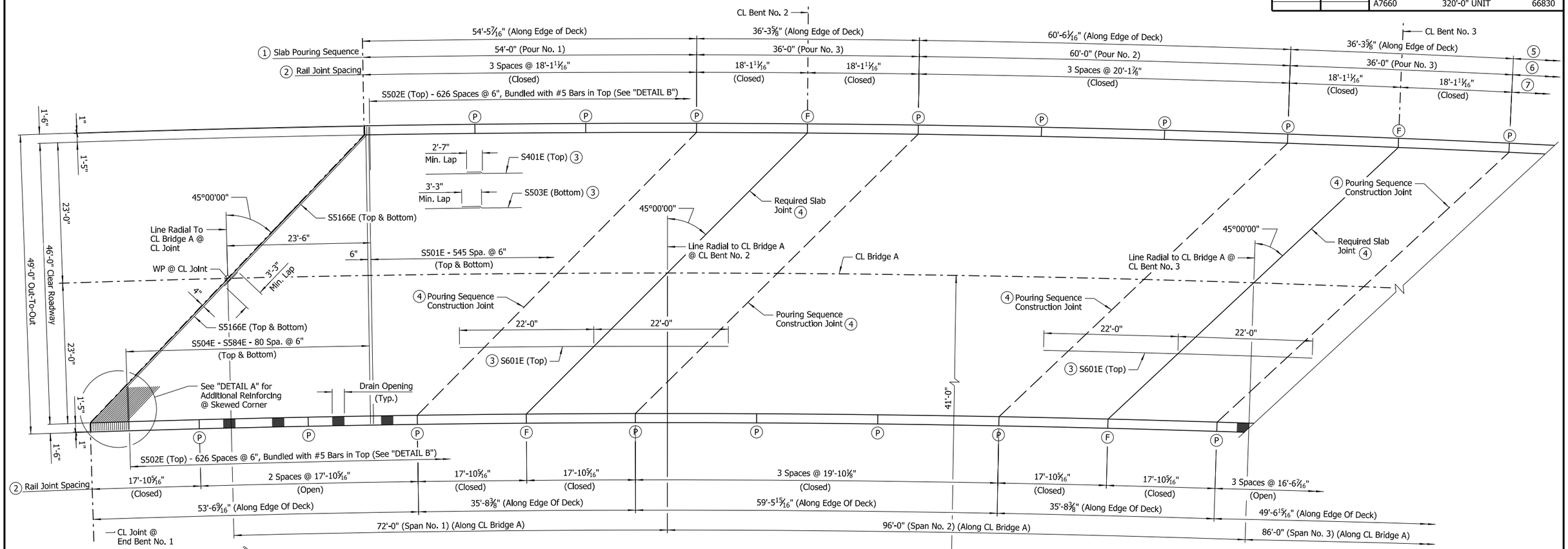
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 6 OF 8
DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE A
XNA ACCESS RD. OVER HOLMES RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: FEB. 2023 FILENAME: b090069a5_s6.dgn
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DESIGNED BY: CSW DATE: FEB. 2023
BRIDGE NO. A7660 DRAWING NO. 66829

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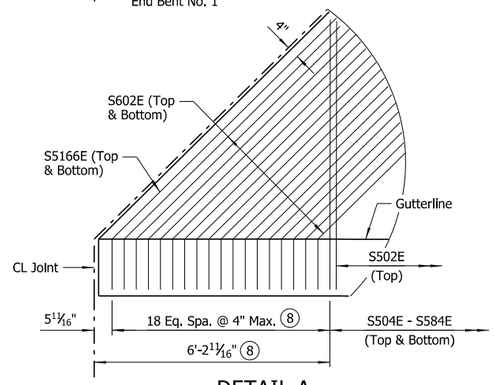
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## PART REINFORCING PLAN & SLAB POURING SEQUENCE

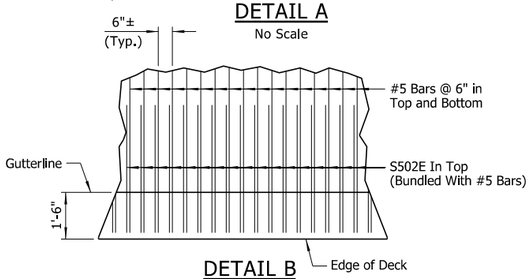
Scale: 1/8" = 1'-0"

CL Construction & CL XNA Access Rd. Median (2°00'00" Curve Rt.)




DETAIL A

No Scale



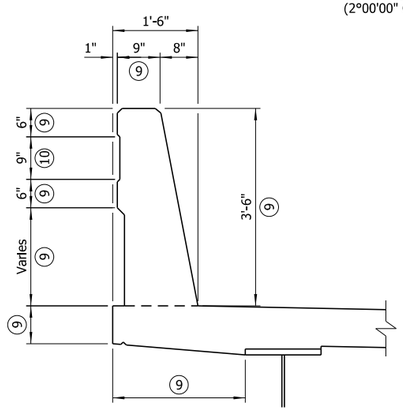

DETAIL B

No Scale

1. Measured Along CL Bridge A
2. Measured along inside face of rail. Rail joints designated with symbol (F) shall be stopped 6" from top of slab. All other rail joints with symbol (P) shall be partial-depth joints stopped 16" from top of slab.
3. Placed as shown in "TYPICAL ROADWAY SECTION" on Dwg. No. 66824
4. See "TRANSVERSE SLAB JOINT DETAIL" on Std. Dwg. No. 55007.
5. 50'-5 1/16" (Along Edge of Deck)
6. 50'-0" (Pour No. 2)
7. 3 Spaces @ 16'-9 9/16" (Closed)
8. Measured along edge of deck

## TABLE OF VARIABLES

| Closed Rail Panels | | | Open Rail Panels | | | | | |
|---|---|---|---|---|---|---|---|---|
| Panel Length | A | R4XXE | Panel Length | B | C | D | E | R4XXE |
| 14'-6 9/16" | 29 | 09 | 16'-6 7/16" | 9 | 3'-3 1/4" | 11 | 6'-0" | 11 |
| 16'-1 1/2" | 32 | 10 | 17'-10 5/16" | 11 | 3'-11 3/16" | 11 | 6'-0" | 13 |
| 16'-9 9/16" | 33 | 12 | | | | | | |
| 17'-10 5/16" | 35 | 13 | | | | | | |
| 18'-1 1/16" | 36 | 14 | | | | | | |
| 19'-10 1/8" | 39 | 15 | | | | | | |
| 20'-1 7/8" | 40 | 16 | | | | | | |




9. Class 3 Textured Coating Finish (Color - Light Brown, Color Chip No. 33522)
10. Class 3 Textured Coating Finish (Color - Tan, Color Chip No. 30219)

## BRIDGE RAIL AESTHETIC DETAIL

No Scale

NOTES:
Pours with the same number may be placed simultaneously or separately. All Pours (1) must be placed before Pours (2) can be placed. All Pours (2) must be placed before Pours (3) can be placed. 48 hours shall elapse between the end of a pour and the start of the next pour. 72 hours shall elapse between adjacent pours.

Concrete in bridge superstructure shall be placed, consolidated and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

A minimum of 72 hours shall elapse between the completion of the entire deck slab and the start of a railing pour. Any railing pours made before the entire slab unit has been placed must be approved by the Engineer. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence shown.

Required slab joints and pouring sequence joints shall align with rail joints as shown.

For "GENERAL NOTES", see Std. Dwg. No. 55006.

For "BAR LIST" and "BAR BENDING DIAGRAMS", see Dwg. No. 66831.

Unless noted otherwise, spacing shown for all transverse reinforcing is measured along CL Bridge A. All transverse reinforcing shall be placed on lines radial to CL Bridge A.

All longitudinal lines and longitudinal slab reinforcing shall be placed along curves concentric with CL Bridge A.

For Concrete Bridge Rail details, See Std. Dwg. No. 55071.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE

Digitally Signed 10/20/2023

BRIDGE ENGINEER

SHEET 7 OF 8
DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT
BRIDGE A
XNA ACCESS RD. OVER HOLMES RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

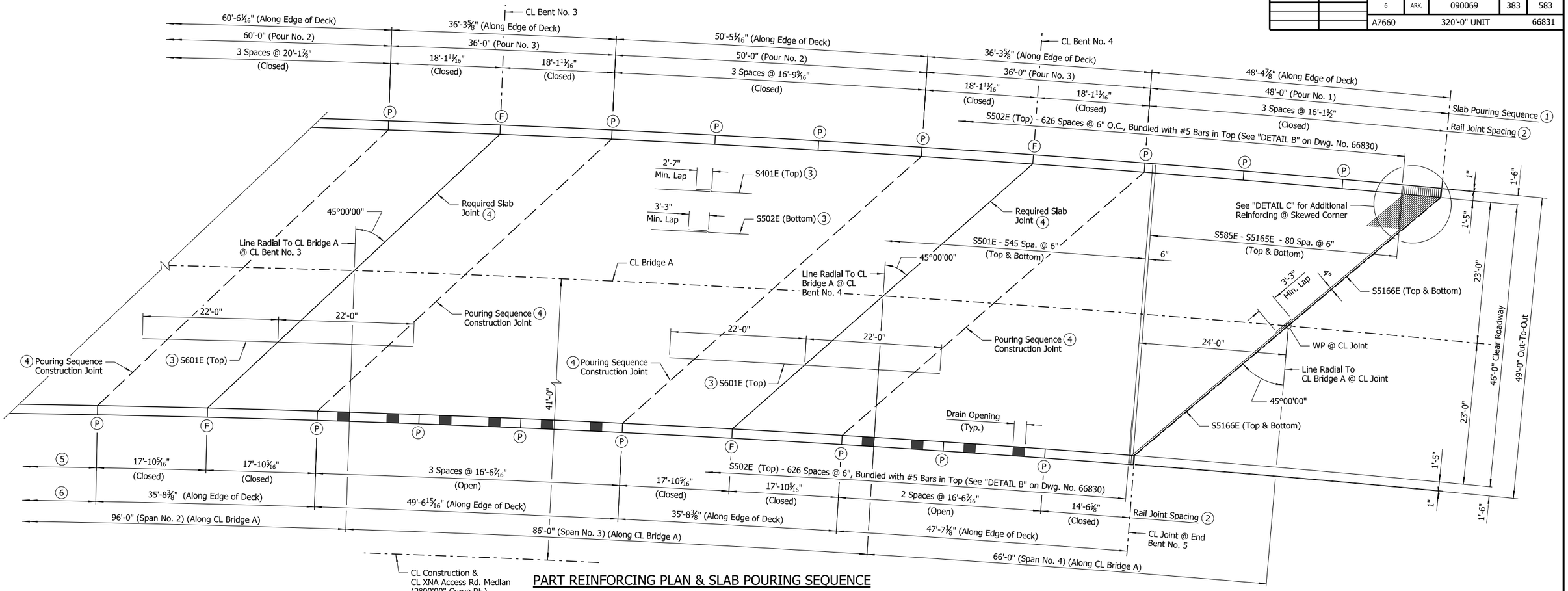
LITTLE ROCK, ARK.

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CHECKED BY: ABH DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: CSW DATE: FEB. 2023

BRIDGE NO. A7660 DRAWING NO. 66830

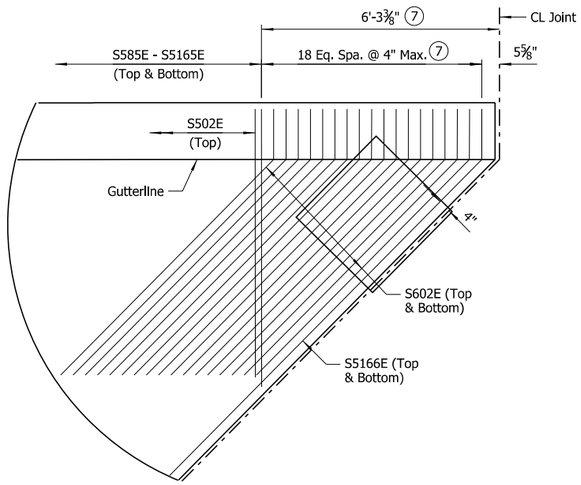
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 383 | 583 |
| | | A7660 | | 320'-0" UNIT | | 66831 |




## PART REINFORCING PLAN & SLAB POURING SEQUENCE

Scale: 1/8" = 1'-0"



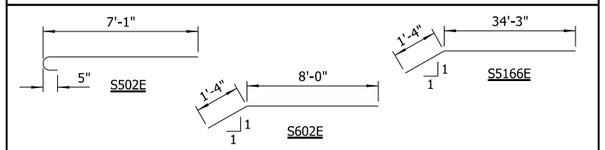

## DETAIL C

No Scale

## BAR LIST

| MARK | NO. REQ'D | LENGTH | P.D. | MARK | NO. REQ'D | LENGTH | P.D. |
|---|---|---|---|---|---|---|---|
| S401E | 459 | 38'-2" | Str. | R400E | 56 | 6'-3" | 3" |
| | | | | R401E | 1291 | 7'-6" | 3" |
| S501E | 1092 | 48'-8" | Str. | R402E | 112 | 5'-6" | Str. |
| S502E | 1254 | 7'-8" | 3" | R403E | 1291 | 3'-8" | 3", 6" |
| S503E | 318 | 56'-6" | Str. | R409E | 10 | 14'-2" | Str. |
| S504E To S584E | 2 Ea. | 7'-1" To 47'-3" | Str. | R410E | 30 | 15'-9" | Str. |
| | | | | R411E | 50 | 16'-2" | Str. |
| S585E To S5165E | 2 Ea. | 47'-3" To 7'-4" | Str. | R412E | 30 | 16'-5" | Str. |
| | | | | R413E | 90 | 17'-6" | Str. |
| S5166E | 8 | 35'-7" | 3¾" | R414E | 90 | 17'-9" | Str. |
| | | | | R415E | 30 | 19'-6" | Str. |
| S601E | 150 | 44'-0" | Str. | R416E | 30 | 19'-9" | Str. |
| S602E | 68 | 9'-4" | 4½" | | | | |

## BAR BENDING DIAGRAMS




NOTES:
Dimensions of bars are out-to-out.

Bar designations ending with "E" indicate epoxy coated bars.

For bar bending diagrams of R400E, R401E & R403E, see Std. Dwg. No. 55071.

NOTES:
Pours with the same number may be placed simultaneously or separately. All Pours (1) must be placed before Pours (2) can be placed. All Pours (2) must be placed before Pours (3) can be placed. 48 hours shall elapse between the end of a pour and the start of the next pour. 72 hours shall elapse between adjacent pours.

Concrete in bridge superstructure shall be placed, consolidated and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

A minimum of 72 hours shall elapse between the completion of the entire deck slab and the start of a railing pour. Any railing pours made before the entire slab unit has been placed must be approved by the Engineer. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence shown.

Required slab joints and pouring sequence joints shall align with rail joints as shown.

For "GENERAL NOTES", see Std. Dwg. No. 55006.

Unless noted otherwise, spacing shown for all transverse reinforcing is measured along CL Bridge A. All transverse reinforcing shall be placed on lines radial to CL Bridge A.

All longitudinal lines and longitudinal slab reinforcing shall be placed along curves concentric with CL Bridge A.

For Concrete Bridge Rail details, See Std. Dwg. No. 55071.

For rail panel "TABLE OF VARIABLES", see Dwg. No. 66830.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE

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BRIDGE ENGINEER

(1) Measured Along CL Bridge A

(2) Measured along inside face of rail. Rail joints designated with symbol (F) shall be stopped 6" from top of slab. All other rail joints with symbol (P) shall be partial-depth joints stopped 16" from top of slab.

(3) Placed as shown in "TYPICAL ROADWAY SECTION" on Dwg. No. 66824

(4) See "TRANSVERSE SLAB JOINT DETAIL" on Std. Dwg. No. 55007.

(5) 3 Spaces @ 19'-10⅛" (Closed)

(6) 59'-5 15/16" (Along Edge of Deck)

(7) Measured Along Edge of Deck

# SHEET 8 OF 8
# DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE A
# XNA ACCESS RD. OVER HOLMES RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

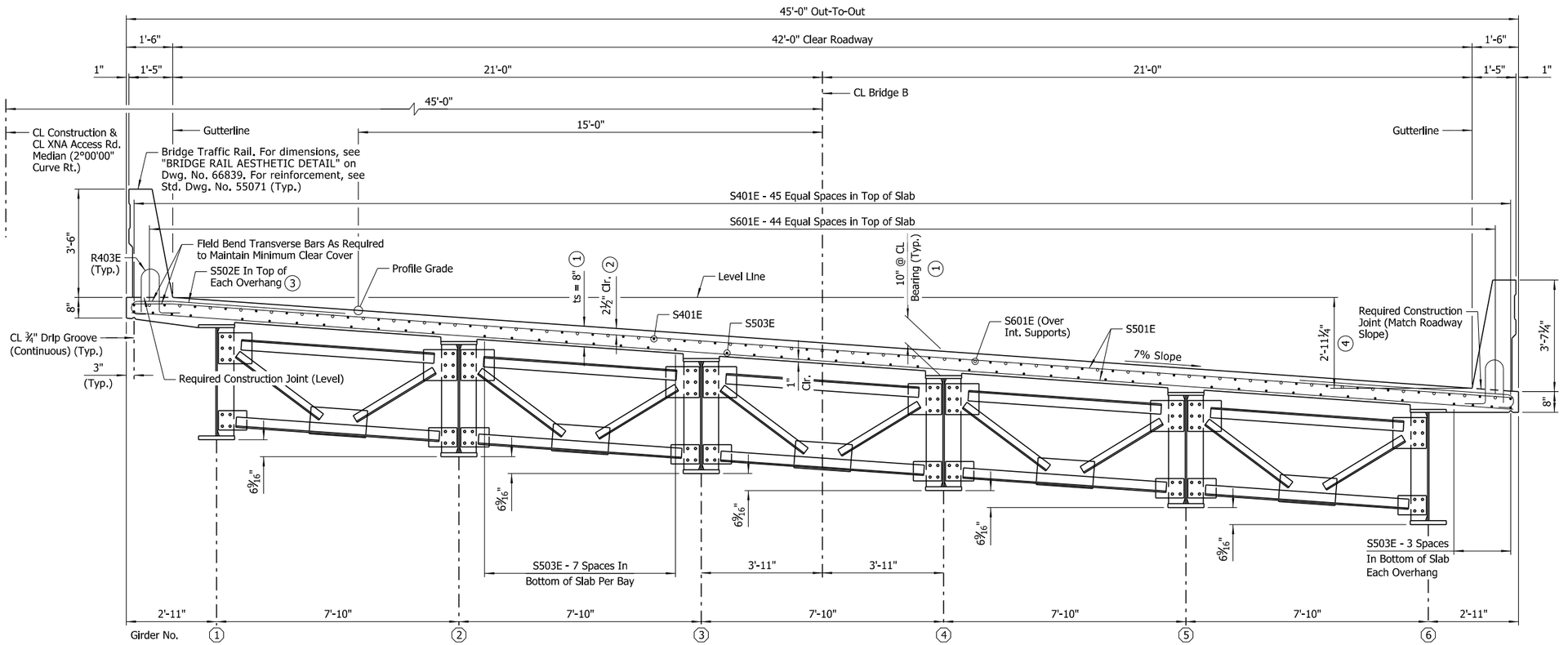
LITTLE ROCK, ARK.

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DESIGNED BY: CSW DATE: FEB. 2023

BRIDGE NO. A7660 DRAWING NO. 66831

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 384 | 583 |
| | | B7660 | | 320'-0" UNIT | | 66832 |



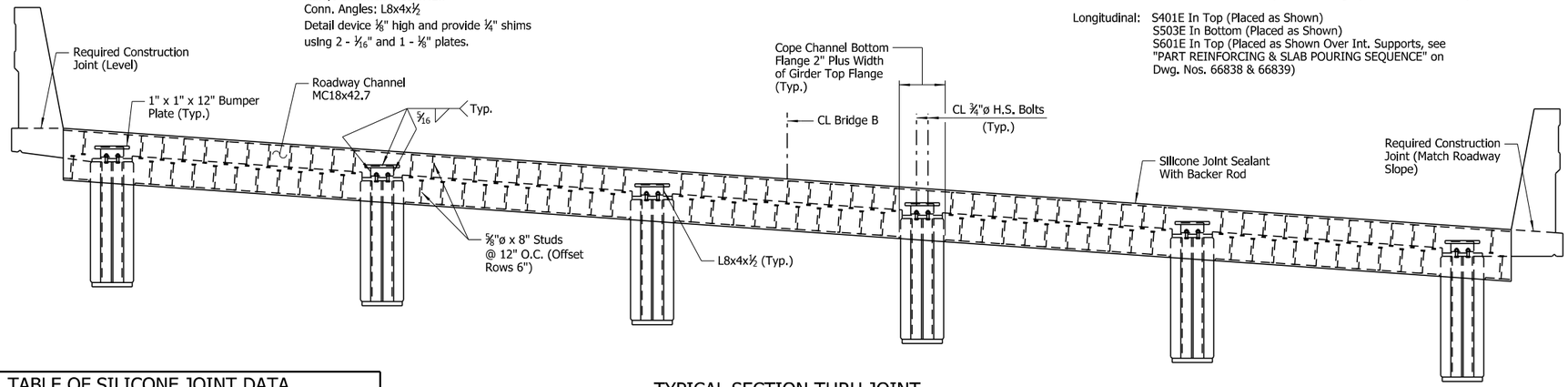

## TYPICAL ROADWAY SECTION

(Looking Ahead)
Scale: ½" = 1'-0"

**EXPANSION DEVICE:**
Rdwy. Channel: MC18x42.7
Conn. Angles: L8x4x½
Detail device ⅛" high and provide ¼" shims using 2 - 1⁄16" and 1 - ⅛" plates.

**SLAB REINFORCING:**
Transverse: S501E @ 6" O.C. In Top & Bottom
S502E @ 6" O.C. In Top of Overhangs (Bundled w/ #5 Bars)

Longitudinal: S401E In Top (Placed as Shown)
S503E In Bottom (Placed as Shown)
S601E In Top (Placed as Shown Over Int. Supports, see "PART REINFORCING & SLAB POURING SEQUENCE" on Dwg. Nos. 66838 & 66839)




## TYPICAL SECTION THRU JOINT

(Shown at End Bent No. 1, Looking Ahead; End Bent No. 5 Similar)
No Scale

| TABLE OF SILICONE JOINT DATA | | | | | |
|---|---|---|---|---|---|
| Bent No. | "A" Width Perpendicular To Joint At 24 Hour Average Temperature (5) Of: | | | "B" Perpendicular To Joint At 60°F | Bumper Plate Size |
| | 40°F | 60°F | 80°F | | |
| 1 | 2⅛" | 2" | 1⅞" | 2¼"± | 1" x 1" x 12" |
| 5 | 2¼" | 2" | 1¾" | 2¼"± | 1" x 1" x 12" |

(5) The temperature used to set the joint opening shall be the approximate average air temperature during the 24-hour period immediately before the bolts are tightened. The Engineer shall establish the temperature. Interpolation of the table may be necessary.

(1) See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Std. Dwg. No. 55007.

(2) TOLERANCE:
Minus = ¼"
Plus = Amount of slab thickening used to meet slab thickness tolerance. See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Std. Dwg. No. 55007.

(3) Bundled with #5 bars in top. Rotate as needed to avoid interference with bottom mat of deck reinforcement.

(4) Measured Gutterline to Gutterline

NOTES:
For Standard General Notes and details, see Std. Dwg. Nos. 55006 & 55007.

All horizontal dimensions shown are measured along a line radial to CL Construction.

All structural steel shall be ASTM A709, Gr. 50 unless noted otherwise, and all structural steel shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

Class 2 Protective Surface Treatment shall be applied to the roadway surface.

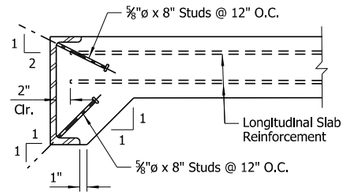
Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in Special Provision "TEXTURED COATING FINISH" and in accordance with Subsection 802.19(b)(3). Textured Coating Finish shall not be applied on surfaces where Class 2 Protective Surface Treatment is applied.

Bar positions and clearances from the forms shall be maintained by means of stays, ties, hangers or other approved devices per Subsection 804.06. Placement of slab bolsters or hi-chairs with full-length lower runners directly on removable deck forms will not be allowed.

For "BAR LIST" and "BAR BENDING DIAGRAMS", see Dwg. No. 66839.

For additional details of poured silicone joints, see Std. Dwg. No. 55008.

The profile of the Roadway Channel shall be established based on the vertical curve in conjunction with the skew.




## DETAIL OF ANCHORS AND PLACEMENT OF LONGITUDINAL REINFORCEMENT

No Scale

NOTE:
As an alternate to ⅝"ø studs, ½"ø x 8" studs spaced @ 8" O.C. may be used. Use weight of ⅝"ø stud as basis of measurement of Structural Steel in anchors.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
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BRIDGE ENGINEER

# SHEET 1 OF 8
# DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE B
# XNA ACCESS RD. OVER HOLMES RD.

ROUTE SEC.

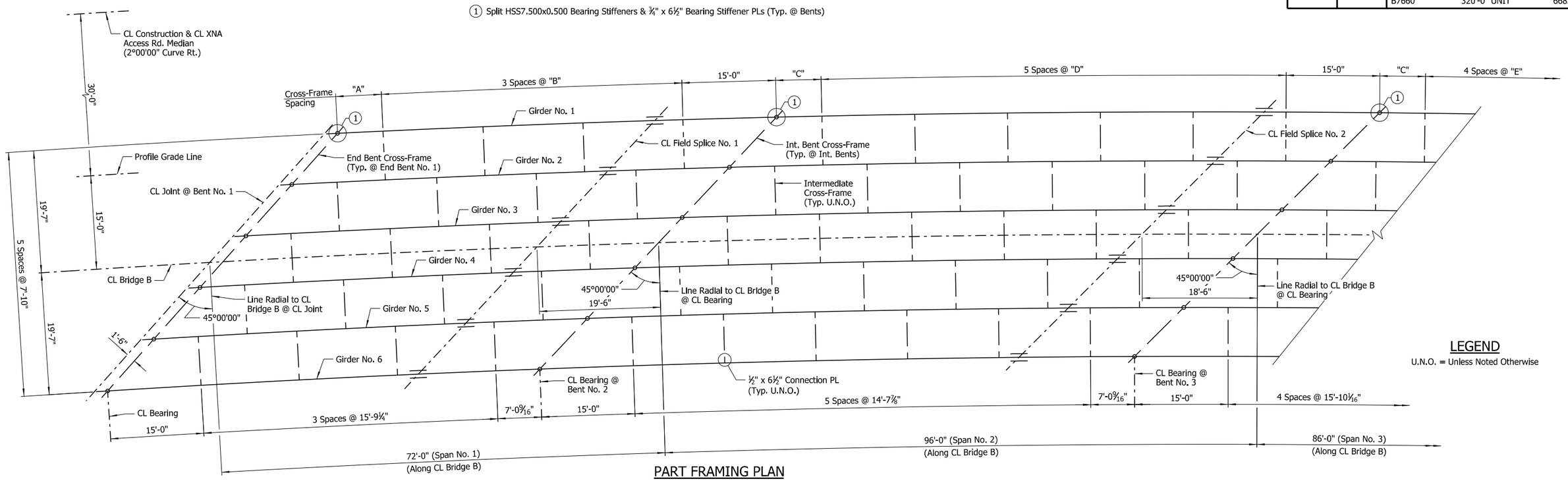
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: CSW DATE: OCT. 2022

BRIDGE NO. B7660 DRAWING NO. 66832

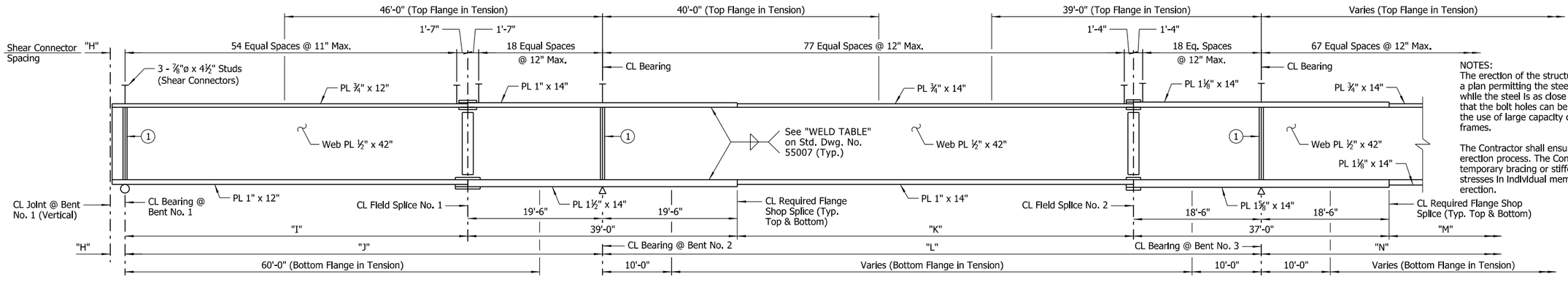
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 385 | 583 |
| | | B7660 | | 320'-0" UNIT | | 66833 |




## PART FRAMING PLAN

Scale: ⅛" = 1'-0"




## PART GIRDER ELEVATION

(Dimensions Measured Along CL Girder)
No Scale

## LEGEND

U.N.O. = Unless Noted Otherwise

## TABLE OF VARIABLES

| GIRDER NO. | "A" | "B" | "C" | "D" | "E" | "H" | "I" | "J" | "K" | "L" | "M" | "N" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7'-3⅜16" | 16'-0⅜" | 7'-3⅜" | 14'-10½" | 16'-0¹⁵⁄₁₆" | 2'-1¼" | 50'-10¾" | 70'-4¾" | 58'-8" | 96'-8" | 49'-7⅜16" | 86'-7⅜16" |
| 2 | 7'-3" | 15'-11¼" | 7'-2⅜" | 14'-10" | 16'-0⅜" | 2'-1⁵⁄₁₆" | 50'-8¼" | 70'-2¼" | 58'-4¹³⁄₁₆" | 96'-4¹³⁄₁₆" | 49'-4⅝16" | 86'-4⅝16" |
| 3 | 7'-2½" | 15'-11⅛16" | 7'-2⅜" | 14'-9⅝16" | 15'-11¾" | 2'-1⅞16" | 50'-5¹³⁄₁₆" | 69'-11¹³⁄₁₆" | 58'-1⅜" | 96'-1⅜" | 49'-1⅞16" | 86'-1⅞16" |
| 4 | 7'-2" | 15'-10⅞16" | 7'-1⅞" | 14'-8¹⁵⁄₁₆" | 15'-11⅜16" | 2'-1½" | 50'-3⅝16" | 69'-9⁵⁄₁₆" | 57'-10⅜" | 95'-10⅜" | 48'-10⅝16" | 85'-10⅝16" |
| 5 | 7'-1⅞16" | 15'-9¹³⁄₁₆" | 7'-1⁵⁄₁₆" | 14'-8⅜" | 15'-10⅝" | 2'-1⅜16" | 50'-0⅞" | 69'-6⅞" | 57'-7⅜" | 95'-7⅜16" | 48'-7¹⁄₁₆" | 85'-7¹⁄₁₆" |
| 6 | - | - | - | - | - | 2'-1⅝" | 49'-10⅜" | 69'-4⅜" | 57'-4" | 95'-4" | 48'-4¹³⁄₁₆" | 85'-4¹³⁄₁₆" |

NOTES:
All girders are oriented along curves concentric with CL Bridge B.

All intermediate cross-frames are oriented along lines radial to CL Bridge B. End bent cross-frames are oriented parallel to CL Joint. Intermediate Bent cross-frames are oriented parallel to and along CL Bearing.

All structural steel shall be ASTM A709, Gr. 50 unless noted otherwise and shall be paid for at the unit price per pound bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

Bolted field splices shown may be eliminated or shop welded splices may be substituted with approval of the Engineer. Payment will be made on the basis of the Plan Quantities.

For "DETAILS OF WELDED SPLICES FOR PLATE GIRDERS" and "SHEAR CONNECTOR DETAIL", see Std. Dwg. No. 55007.

For cross-frame details, stiffener and connection plate details, see Dwg. No. 66835.

For details of field splices, see Dwg. No. 66836.

For "GENERAL NOTES", see Std. Dwg. No. 55006.

NOTES:
The erection of the structural steel shall be performed according to a plan permitting the steel to be erected plumb with bolts tightened while the steel is as close as possible to the no-load condition, so that the bolt holes can be aligned. This requirement may necessitate the use of large capacity cranes, temporary shoring or jacking frames.

The Contractor shall ensure that girders are stable throughout the erection process. The Contractor will be responsible for providing temporary bracing or stiffening devices to accommodate handling stresses in individual members or segments of the structure during erection.

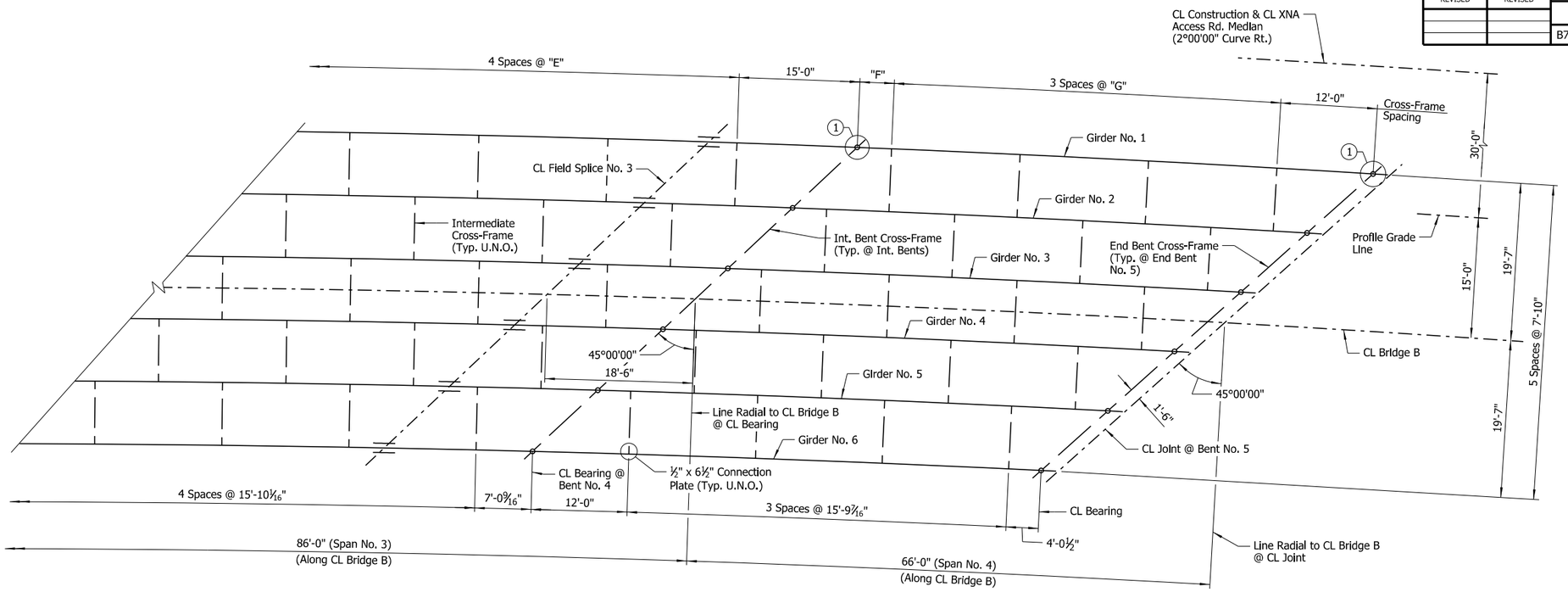
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 2 OF 8
DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT
BRIDGE B
XNA ACCESS RD. OVER HOLMES RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: CSW DATE: OCT. 2022
BRIDGE NO. B7660 DRAWING NO. 66833

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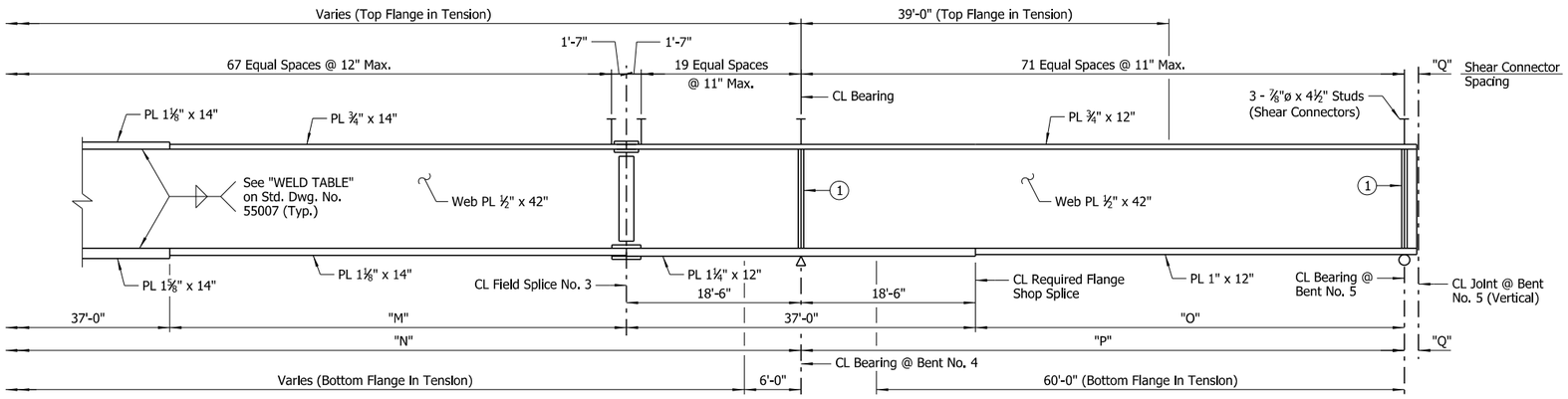
| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 386 | 583 |
| | | B7660 | | 320'-0" UNIT | | 66834 |




(1) Split HSS7.500x0.500 Bearing Stiffeners & ¾" x 6½" Bearing Stiffener PLs (Typ. @ Bents)

## PART FRAMING PLAN

Scale: ⅛" = 1'-0"




## PART GIRDER ELEVATION

(Dimensions Measured Along CL Girder)
No Scale

### TABLE OF VARIABLES

| GIRDER NO. | "E" | "F" | "G" | "M" | "N" | "O" | "P" | "Q" |
|---|---|---|---|---|---|---|---|---|
| 1 | 16'-0 15/16" | 4'-3 5/16" | 16'-0 5/16" | 49'-7 3/16" | 86'-7 3/16" | 45'-10 3/16" | 64'-4 3/16" | 2'-1 5/16" |
| 2 | 16'-0 3/8" | 4'-2 13/16" | 15'-11 1/16" | 49'-4 5/16" | 86'-4 5/16" | 45'-7 15/16" | 64'-1 15/16" | 2'-1 3/8" |
| 3 | 15'-11 1/4" | 4'-2 1/4" | 15'-11 1/8" | 49'-1 7/16" | 86'-1 7/16" | 45'-5 1/16" | 63'-11 1/16" | 2'-1 7/16" |
| 4 | 15'-11 3/16" | 4'-1 3/4" | 15'-10 9/16" | 48'-10 9/16" | 85'-10 9/16" | 45'-3 3/8" | 63'-9 3/8" | 2'-1 1/2" |
| 5 | 15'-10 7/8" | 4'-1 5/16" | 15'-10" | 48'-7 1/16" | 85'-7 1/16" | 45'-1 1/8" | 63'-7 1/8" | 2'-1 5/16" |
| 6 | - | - | - | 48'-4 1/16" | 85'-4 1/16" | 44'-10 7/8" | 63'-4 7/8" | 2'-1 5/8" |

NOTES:
All girders are oriented along curves concentric with CL Bridge B.

All intermediate cross-frames are oriented along lines radial to CL Bridge B. End Bent cross-frames are oriented parallel to CL Joint. Intermediate Bent cross-frames are oriented parallel to and along CL Bearing.

All structural steel shall be ASTM A709, Gr. 50 unless noted otherwise and shall be paid for at the unit price per pound bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

Bolted field splices shown may be eliminated or shop welded splices may be substituted with approval of the Engineer. Payment will be made on the basis of the Plan Quantities.

For "DETAILS OF WELDED SPLICES FOR PLATE GIRDERS" and "SHEAR CONNECTOR DETAIL", see Std. Dwg. No. 55007.

For cross-frame details, stiffener and connection plate details, see Dwg. No. 66835.

For details of field splices, see Dwg. No. 66836.

For "GENERAL NOTES", see Std. Dwg. No. 55006.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

## LEGEND

U.N.O. = Unless Noted Otherwise

NOTES:
The erection of the structural steel shall be performed according to a plan permitting the steel to be erected plumb with bolts tightened while the steel is as close as possible to the no-load condition, so that the bolt holes can be aligned. This requirement may necessitate the use of large capacity cranes, temporary shoring or jacking frames.

The Contractor shall ensure that girders are stable throughout the erection process. The Contractor will be responsible for providing temporary bracing or stiffening devices to accommodate handling stresses in individual members or segments of the structure during erection.

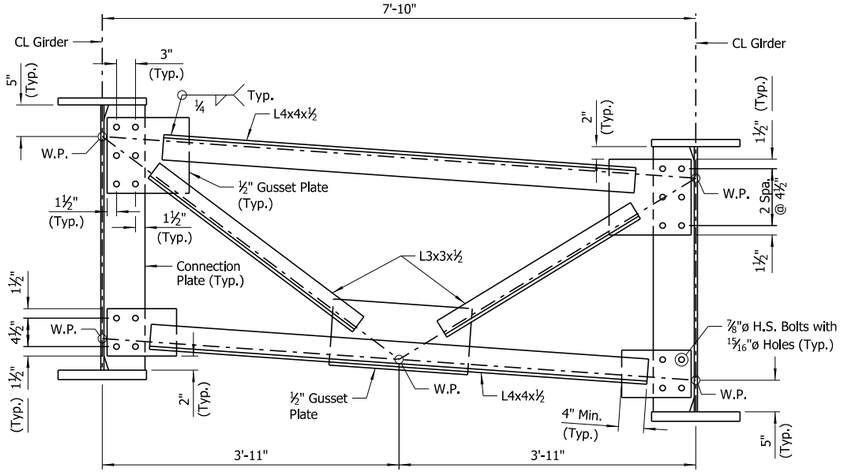
SHEET 3 OF 8
DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT
BRIDGE B
XNA ACCESS RD. OVER HOLMES RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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BRIDGE NO. B7660 DRAWING NO. 66834

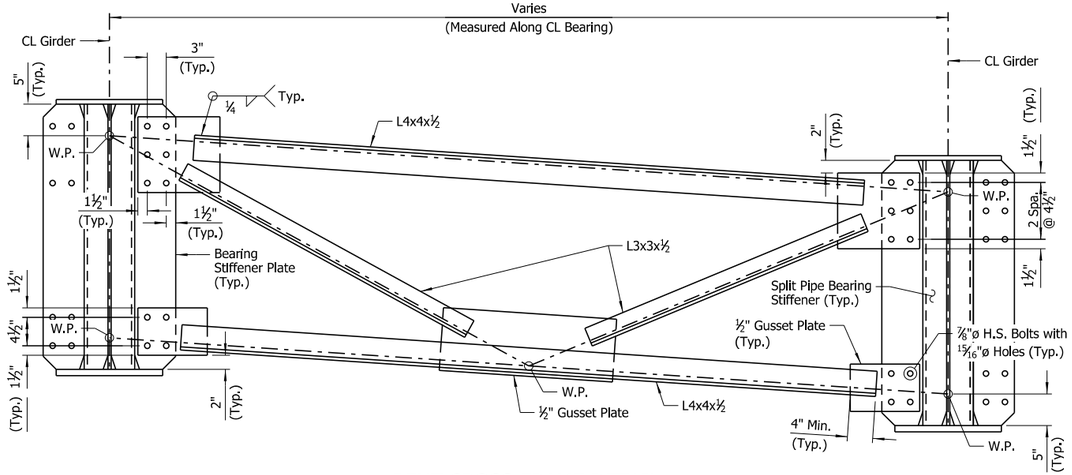
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 387 | 583 |
| | | B7660 | | 320'-0" UNIT | | 66835 |




## INTERMEDIATE CROSS-FRAME DETAIL

Scale: 1" = 1'-0"




## BENT CROSS-FRAME DETAIL

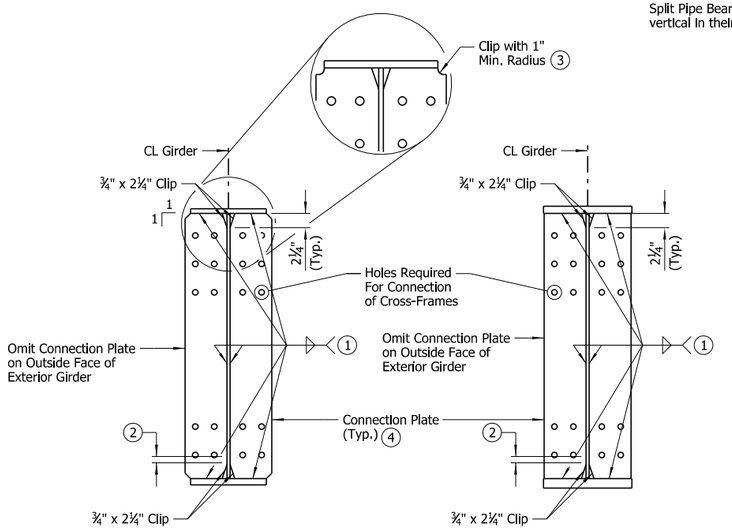
(Shown Normal to CL Bearing)
No Scale

1. See "WELD TABLE" on Std. Dwg. No. 55007 for minimum weld size.
2. Stop Weld ¼" to 1" from end of clip (Typ.)
3. If permanent deck forms are used, the Fabricator shall clip the plate as necessary to accommodate the deck form supports.
4. See "PART FRAMING PLAN" on Dwg. Nos. 66833 and 66834 for sizes and locations.

NOTES:
Split Pipe Bearing Stiffeners shall conform to ASTM A500, Gr. B (Fy = 42,000 psi) and shall be paid for at the unit price per pound bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

Split Pipe Bearing Stiffeners are considered main load carrying members and shall meet the Longitudinal Charpy V-Notch Test Specified in Subsection 807.05. This work and material will not be paid for directly but shall be considered subsidiary to the item "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

Split Pipe Bearing Stiffeners and Bearing Stiffener Plates shall be fabricated to be vertical in their final positions.

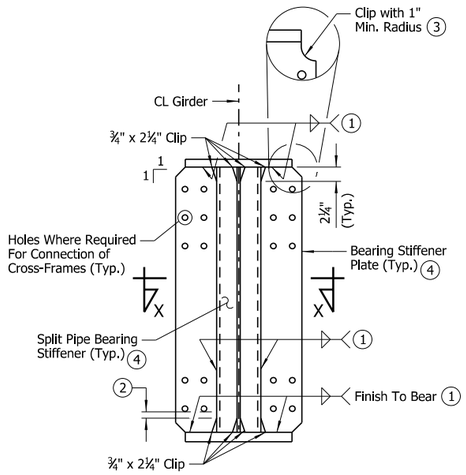



## GIRDER WITH 12" WIDE TOP FLANGE AND 12" WIDE BOTTOM FLANGE

## GIRDER WITH 14" WIDE TOP FLANGE AND 14" WIDE BOTTOM FLANGE

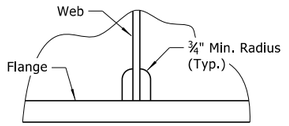
## INTERMEDIATE CROSS-FRAME CONNECTION PLATE DETAIL

Scale: 1" = 1'-0"




## BEARING STIFFENER PLATE DETAIL

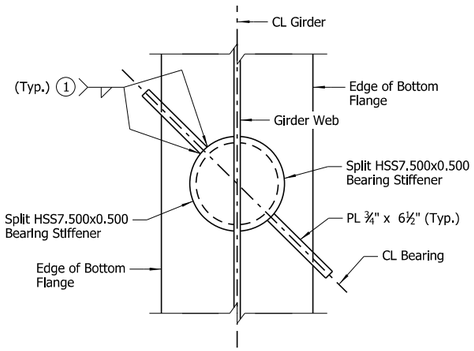
(Shown Normal to CL Bearing)
No Scale




Height and width of clip shall be as noted in other details.

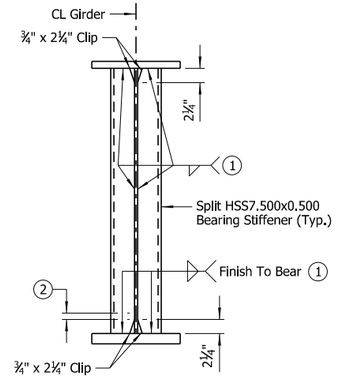
## ALTERNATE CLIP DETAIL

(For Bearing Stiffeners & Cross-Frame Connection Plates)
No Scale




## SECTION X-X

No Scale




## SPLIT PIPE BEARING STIFFENER DETAIL

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 4 OF 8
DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT
BRIDGE B
XNA ACCESS RD. OVER HOLMES RD.

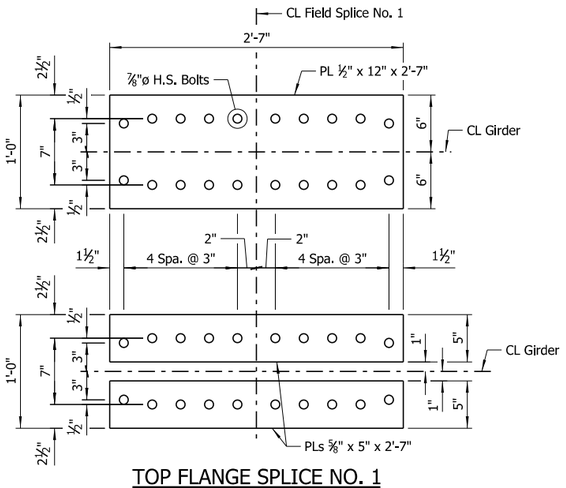
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: CSW DATE: NOV. 2022
BRIDGE NO. B7660 DRAWING NO. 66835

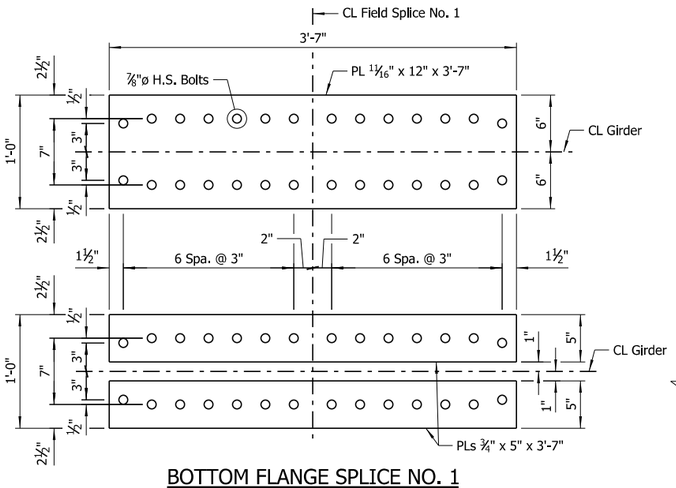
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 388 | 583 |
| | | B7660 | | 320'-0" UNIT | | 66836 |



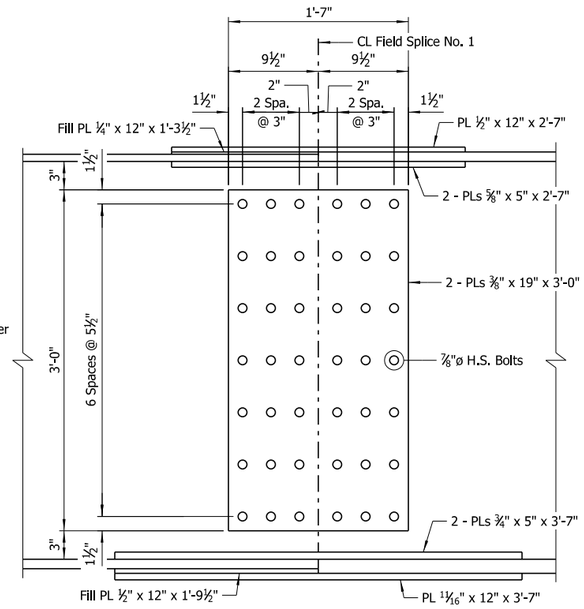

TOP FLANGE SPLICE NO. 1

Scale: 1½" = 1'-0"




BOTTOM FLANGE SPLICE NO. 1

Scale: 1½" = 1'-0"

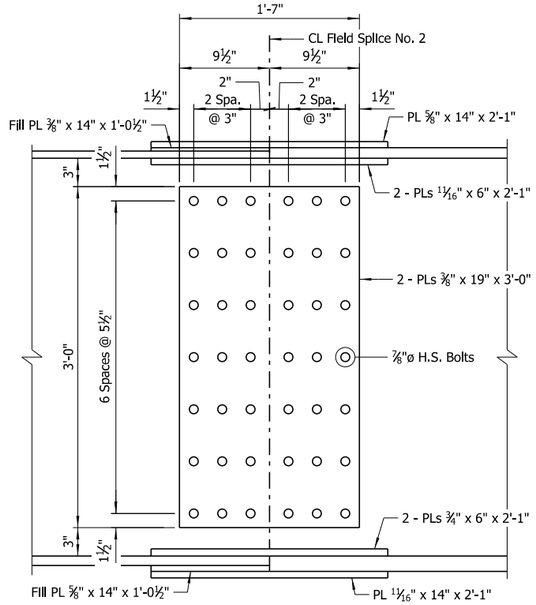



ELEVATION OF FIELD SPLICE NO. 1

Scale: 1½" = 1'-0"

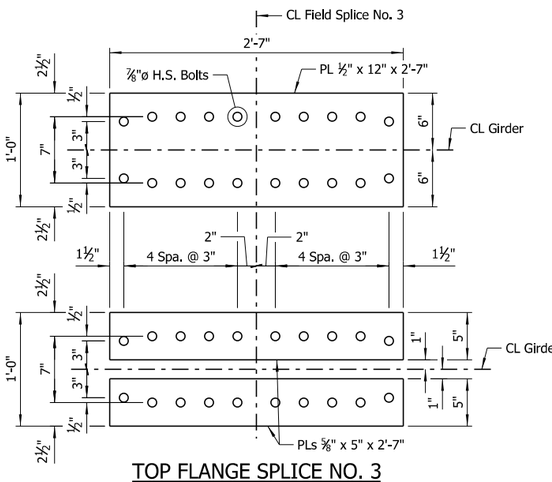
NOTES:
All field splice bolts shall be ⅞"ø high strength bolts.

All holes for field splice bolts shall be 1 15/16"ø.



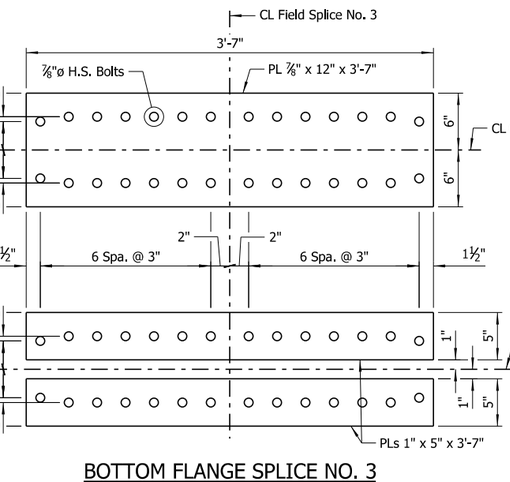

ELEVATION OF FIELD SPLICE NO. 2

Scale: 1½" = 1'-0"



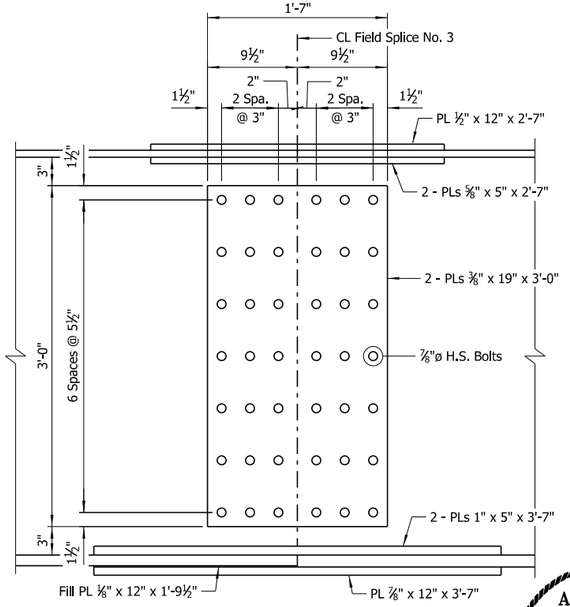

TOP FLANGE SPLICE NO. 2

Scale: 1½" = 1'-0"




BOTTOM FLANGE SPLICE NO. 2

Scale: 1½" = 1'-0"




ELEVATION OF FIELD SPLICE NO. 3

Scale: 1½" = 1'-0"




TOP FLANGE SPLICE NO. 3

Scale: 1½" = 1'-0"




BOTTOM FLANGE SPLICE NO. 3

Scale: 1½" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE

Digitally Signed 10/20/2023

BRIDGE ENGINEER

SHEET 5 OF 8
DETAILS OF 320'-0" CONTINUOUS
PLATE GIRDER UNIT
BRIDGE B
XNA ACCESS RD. OVER HOLMES RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

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CHECKED BY: ABH DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: CSW DATE: NOV. 2022

BRIDGE NO. B7660 DRAWING NO. 66836

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JESkinner
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | B7660 | | 320'-0" UNIT | | 66837 |

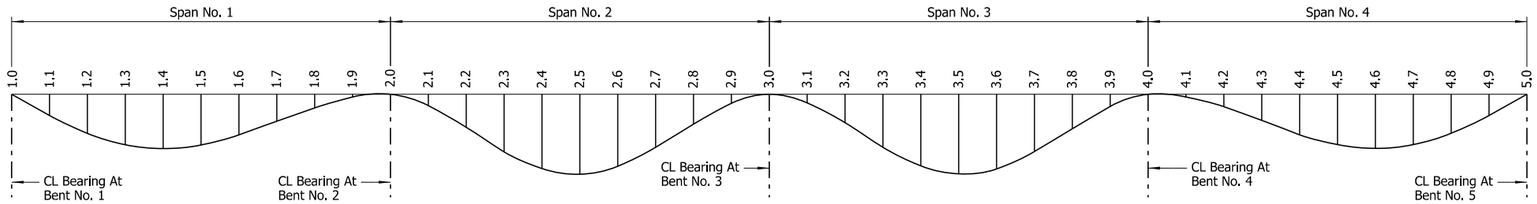
## TABLE OF DEAD LOAD DEFLECTIONS (INCHES)

| | Point Of Deflection | Girder 1 | | | Girder 2 | | | Girder 3 | | | Girder 4 | | | Girder 5 | | | Girder 6 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail | Structural Steel | Structural Steel + Slab | Structural Steel + Slab + Rail |
| SPAN NO. 1 | 1.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 1.1 | 0.029 | 0.169 | 0.184 | 0.031 | 0.185 | 0.199 | 0.031 | 0.185 | 0.199 | 0.030 | 0.180 | 0.194 | 0.030 | 0.180 | 0.194 | 0.027 | 0.154 | 0.170 |
| | 1.2 | 0.053 | 0.308 | 0.336 | 0.056 | 0.335 | 0.360 | 0.056 | 0.335 | 0.360 | 0.054 | 0.325 | 0.350 | 0.054 | 0.325 | 0.351 | 0.049 | 0.279 | 0.309 |
| | 1.3 | 0.067 | 0.391 | 0.427 | 0.071 | 0.430 | 0.462 | 0.071 | 0.429 | 0.461 | 0.069 | 0.416 | 0.448 | 0.069 | 0.417 | 0.451 | 0.063 | 0.360 | 0.399 |
| | 1.4 | 0.071 | 0.414 | 0.452 | 0.076 | 0.458 | 0.492 | 0.076 | 0.457 | 0.491 | 0.073 | 0.442 | 0.476 | 0.073 | 0.444 | 0.480 | 0.067 | 0.383 | 0.426 |
| | 1.5 | 0.064 | 0.376 | 0.410 | 0.068 | 0.416 | 0.447 | 0.068 | 0.416 | 0.447 | 0.066 | 0.401 | 0.433 | 0.066 | 0.404 | 0.438 | 0.061 | 0.350 | 0.391 |
| | 1.6 | 0.048 | 0.287 | 0.313 | 0.052 | 0.322 | 0.347 | 0.052 | 0.321 | 0.346 | 0.050 | 0.308 | 0.333 | 0.050 | 0.311 | 0.338 | 0.046 | 0.269 | 0.302 |
| | 1.7 | 0.027 | 0.168 | 0.183 | 0.031 | 0.197 | 0.212 | 0.031 | 0.196 | 0.212 | 0.029 | 0.186 | 0.202 | 0.030 | 0.189 | 0.207 | 0.028 | 0.167 | 0.190 |
| | 1.8 | 0.009 | 0.061 | 0.067 | 0.011 | 0.075 | 0.081 | 0.010 | 0.073 | 0.080 | 0.010 | 0.063 | 0.076 | 0.010 | 0.071 | 0.079 | 0.010 | 0.064 | 0.075 |
| | 1.9 | -0.003 | -0.008 | -0.008 | -0.002 | -0.004 | -0.004 | -0.002 | -0.004 | -0.004 | -0.002 | -0.006 | -0.005 | -0.002 | -0.005 | -0.004 | -0.001 | -0.001 | 0.001 |
| SPAN NO. 2 | 2.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 2.1 | 0.033 | 0.169 | 0.186 | 0.034 | 0.181 | 0.195 | 0.034 | 0.181 | 0.194 | 0.034 | 0.182 | 0.195 | 0.034 | 0.179 | 0.192 | 0.030 | 0.151 | 0.164 |
| | 2.2 | 0.084 | 0.443 | 0.486 | 0.088 | 0.480 | 0.518 | 0.089 | 0.483 | 0.518 | 0.088 | 0.480 | 0.514 | 0.087 | 0.474 | 0.508 | 0.076 | 0.392 | 0.426 |
| | 2.3 | 0.139 | 0.742 | 0.813 | 0.144 | 0.790 | 0.851 | 0.144 | 0.792 | 0.850 | 0.143 | 0.786 | 0.842 | 0.142 | 0.778 | 0.834 | 0.125 | 0.650 | 0.708 |
| | 2.4 | 0.177 | 0.949 | 1.038 | 0.183 | 1.013 | 1.091 | 0.183 | 1.016 | 1.090 | 0.181 | 1.007 | 1.079 | 0.180 | 0.997 | 1.070 | 0.160 | 0.843 | 0.920 |
| | 2.5 | 0.189 | 1.019 | 1.113 | 0.195 | 1.089 | 1.173 | 0.196 | 1.095 | 1.175 | 0.194 | 1.084 | 1.162 | 0.193 | 1.073 | 1.153 | 0.172 | 0.910 | 0.995 |
| | 2.6 | 0.173 | 0.942 | 1.027 | 0.179 | 1.004 | 1.081 | 0.180 | 1.009 | 1.082 | 0.178 | 0.998 | 1.070 | 0.177 | 0.988 | 1.062 | 0.158 | 0.842 | 0.923 |
| | 2.7 | 0.134 | 0.731 | 0.798 | 0.138 | 0.776 | 0.835 | 0.138 | 0.779 | 0.836 | 0.137 | 0.771 | 0.827 | 0.136 | 0.763 | 0.821 | 0.122 | 0.652 | 0.716 |
| | 2.8 | 0.083 | 0.455 | 0.494 | 0.083 | 0.469 | 0.505 | 0.083 | 0.471 | 0.505 | 0.082 | 0.465 | 0.499 | 0.082 | 0.461 | 0.496 | 0.074 | 0.399 | 0.439 |
| | 2.9 | 0.030 | 0.167 | 0.181 | 0.031 | 0.177 | 0.190 | 0.031 | 0.178 | 0.191 | 0.031 | 0.176 | 0.189 | 0.031 | 0.175 | 0.188 | 0.029 | 0.156 | 0.172 |
| SPAN NO. 3 | 3.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 3.1 | 0.002 | 0.005 | 0.009 | 0.003 | 0.012 | 0.015 | 0.003 | 0.011 | 0.013 | 0.003 | 0.010 | 0.012 | 0.003 | 0.011 | 0.013 | 0.003 | 0.011 | 0.014 |
| | 3.2 | 0.024 | 0.114 | 0.132 | 0.026 | 0.133 | 0.147 | 0.025 | 0.130 | 0.143 | 0.025 | 0.127 | 0.139 | 0.025 | 0.128 | 0.140 | 0.022 | 0.110 | 0.123 |
| | 3.3 | 0.050 | 0.251 | 0.283 | 0.054 | 0.290 | 0.317 | 0.054 | 0.287 | 0.312 | 0.053 | 0.281 | 0.306 | 0.052 | 0.280 | 0.305 | 0.048 | 0.245 | 0.272 |
| | 3.4 | 0.074 | 0.378 | 0.422 | 0.079 | 0.426 | 0.463 | 0.078 | 0.422 | 0.457 | 0.077 | 0.413 | 0.448 | 0.077 | 0.413 | 0.449 | 0.069 | 0.356 | 0.395 |
| | 3.5 | 0.085 | 0.438 | 0.487 | 0.092 | 0.496 | 0.538 | 0.091 | 0.492 | 0.532 | 0.089 | 0.480 | 0.520 | 0.089 | 0.481 | 0.522 | 0.080 | 0.412 | 0.457 |
| | 3.6 | 0.082 | 0.422 | 0.468 | 0.088 | 0.476 | 0.516 | 0.088 | 0.474 | 0.513 | 0.086 | 0.462 | 0.501 | 0.086 | 0.463 | 0.503 | 0.078 | 0.402 | 0.447 |
| | 3.7 | 0.064 | 0.331 | 0.366 | 0.070 | 0.375 | 0.407 | 0.070 | 0.374 | 0.405 | 0.068 | 0.364 | 0.395 | 0.068 | 0.365 | 0.397 | 0.062 | 0.318 | 0.355 |
| | 3.8 | 0.040 | 0.199 | 0.220 | 0.042 | 0.223 | 0.242 | 0.042 | 0.223 | 0.242 | 0.041 | 0.216 | 0.235 | 0.041 | 0.218 | 0.238 | 0.037 | 0.188 | 0.211 |
| | 3.9 | 0.013 | 0.063 | 0.070 | 0.015 | 0.076 | 0.083 | 0.015 | 0.076 | 0.083 | 0.014 | 0.073 | 0.080 | 0.015 | 0.075 | 0.083 | 0.013 | 0.066 | 0.075 |
| SPAN NO. 4 | 4.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 4.1 | 0.004 | 0.028 | 0.031 | 0.004 | 0.029 | 0.031 | 0.004 | 0.028 | 0.030 | 0.004 | 0.030 | 0.032 | 0.004 | 0.027 | 0.028 | 0.004 | 0.023 | 0.024 |
| | 4.2 | 0.017 | 0.106 | 0.118 | 0.018 | 0.113 | 0.122 | 0.017 | 0.110 | 0.118 | 0.017 | 0.112 | 0.119 | 0.017 | 0.107 | 0.114 | 0.016 | 0.089 | 0.095 |
| | 4.3 | 0.033 | 0.200 | 0.222 | 0.035 | 0.216 | 0.233 | 0.034 | 0.211 | 0.227 | 0.034 | 0.213 | 0.228 | 0.033 | 0.205 | 0.219 | 0.031 | 0.173 | 0.187 |
| | 4.4 | 0.049 | 0.291 | 0.372 | 0.051 | 0.366 | 0.393 | 0.050 | 0.359 | 0.384 | 0.050 | 0.359 | 0.383 | 0.049 | 0.349 | 0.372 | 0.045 | 0.249 | 0.320 |
| | 4.5 | 0.060 | 0.404 | 0.444 | 0.063 | 0.440 | 0.472 | 0.062 | 0.432 | 0.462 | 0.062 | 0.432 | 0.461 | 0.060 | 0.420 | 0.448 | 0.055 | 0.358 | 0.387 |
| | 4.6 | 0.063 | 0.421 | 0.462 | 0.066 | 0.459 | 0.493 | 0.065 | 0.450 | 0.481 | 0.065 | 0.450 | 0.480 | 0.063 | 0.438 | 0.468 | 0.059 | 0.327 | 0.405 |
| | 4.7 | 0.058 | 0.340 | 0.374 | 0.061 | 0.370 | 0.450 | 0.060 | 0.363 | 0.440 | 0.060 | 0.363 | 0.434 | 0.059 | 0.353 | 0.378 | 0.054 | 0.301 | 0.328 |
| | 4.8 | 0.045 | 0.262 | 0.288 | 0.047 | 0.284 | 0.306 | 0.046 | 0.279 | 0.300 | 0.046 | 0.279 | 0.299 | 0.045 | 0.271 | 0.291 | 0.042 | 0.232 | 0.253 |
| | 4.9 | 0.024 | 0.142 | 0.156 | 0.026 | 0.157 | 0.169 | 0.026 | 0.154 | 0.165 | 0.026 | 0.154 | 0.165 | 0.025 | 0.150 | 0.161 | 0.023 | 0.128 | 0.139 |
| | 5.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

NOTES:
Camber for dead load deflection plus vertical curve +/- ¼" tolerance. Deflections shown are along CL Girder from the plane perpendicular to the web extending from CL Bearing to CL Bearing. Vertical curve corrections are not included. Negative sign (-) indicates point above chord.

Dead load deflections shown include an assumed loading of 18 psf to account for stay-in-place metal deck forms.

Revision to the deflection tables may be necessary upon review of the Contractor's submitted forming details.




DEAD LOAD DEFLECTION DIAGRAM
No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 6 OF 8
DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT
BRIDGE B
XNA ACCESS RD. OVER HOLMES RD.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CSW DATE: NOV. 2022 FILENAME: b090069b5_s14.dgn
CHECKED BY: ABH DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: CSW DATE: NOV. 2022
BRIDGE NO. B7660 DRAWING NO. 66837

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WORKSPACE: ARDOT Bridge (2019)
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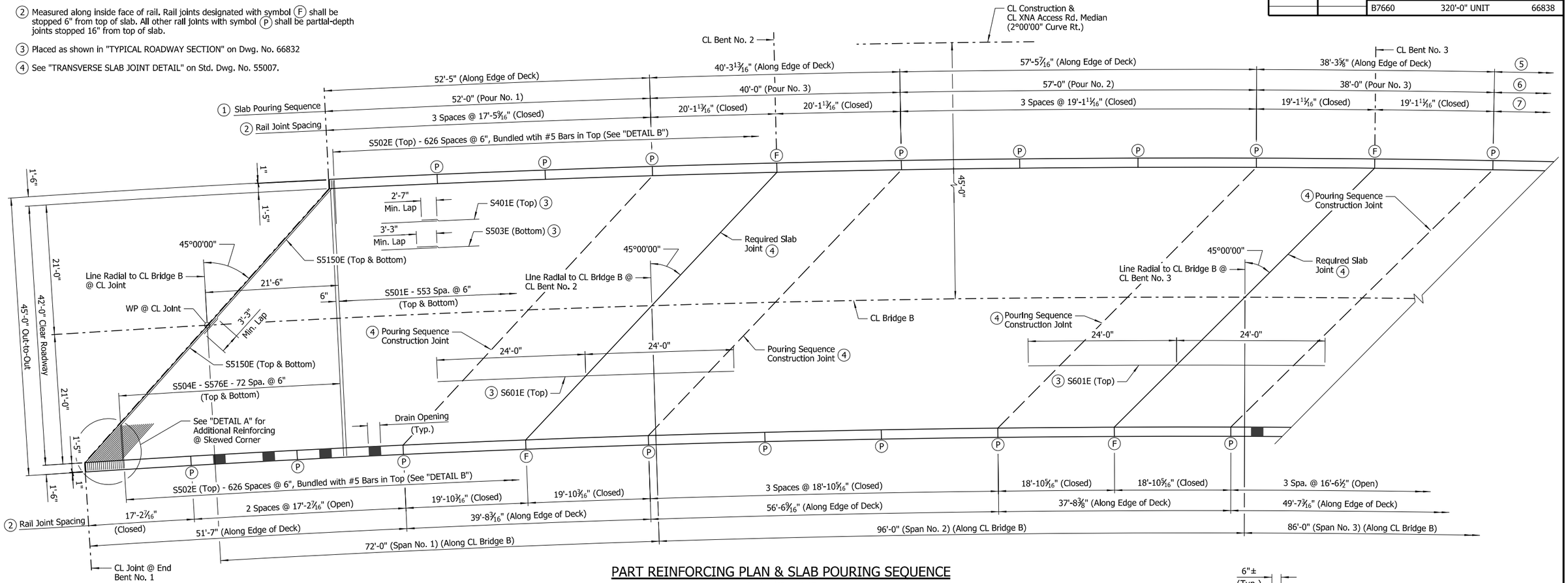
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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 390 | 583 |
| | | B7660 | | 320'-0" UNIT | | 66838 |

(1) Measured Along CL Bridge B

(2) Measured along inside face of rail. Rail joints designated with symbol (F) shall be stopped 6" from top of slab. All other rail joints with symbol (P) shall be partial-depth joints stopped 16" from top of slab.

(3) Placed as shown in "TYPICAL ROADWAY SECTION" on Dwg. No. 66832

(4) See "TRANSVERSE SLAB JOINT DETAIL" on Std. Dwg. No. 55007.




## PART REINFORCING PLAN & SLAB POURING SEQUENCE

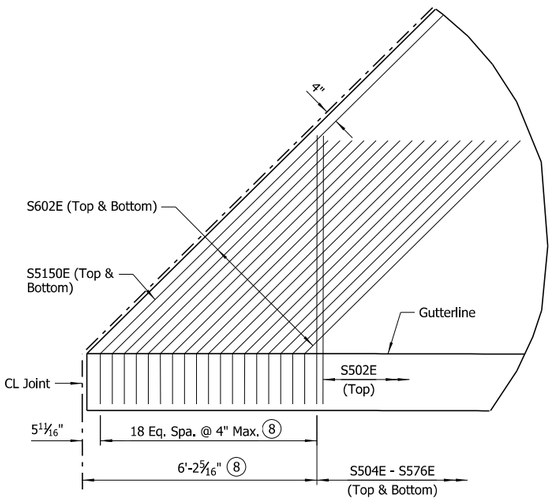
Scale: 1/8" = 1'-0"

(5) 50'-4 3/16" (Along Edge of Deck)

(6) 50'-0" (Pour 2)

(7) 3 Spaces @ 16'-9 1/2" (Closed)

(8) Measured Along Edge of Deck




## DETAIL A

No Scale

## TABLE OF VARIABLES

| Closed Rail Panels | | | Open Rail Panels | | | | | |
|---|---|---|---|---|---|---|---|---|
| Panel Length | A | R4XXE | Panel Length | B | C | D | E | R4XXE |
| 16'-2 9/16" | 32 | 09 | 16'-2 9/16" | 8 | 3'-1 3/16" | 11 | 6'-0" | 09 |
| 16'-5 7/16" | 32 | 10 | 16'-6 1/2" | 9 | 3'-3 1/4" | 11 | 6'-0" | 11 |
| 16'-9 1/2" | 33 | 12 | 17'-2 7/16" | 10 | 3'-7 1/4" | 11 | 6'-0" | 15 |
| 16'-10 1/2" | 33 | 13 | | | | | | |
| 17'-1 1/2" | 34 | 14 | | | | | | |
| 17'-2 7/16" | 34 | 15 | | | | | | |
| 17'-5 7/16" | 34 | 16 | | | | | | |
| 18'-10 7/16" | 37 | 17 | | | | | | |
| 19'-1 11/16" | 38 | 18 | | | | | | |
| 19'-10 7/16" | 39 | 19 | | | | | | |
| 20'-1 13/16" | 40 | 20 | | | | | | |

NOTES:
Pours with the same number may be placed simultaneously or separately. All Pours (1) must be placed before Pours (2) can be placed. All Pours (2) must be placed before Pours (3) can be placed. 48 hours shall elapse between the end of a pour and the start of the next pour. 72 hours shall elapse between adjacent pours.

Concrete in bridge superstructure shall be placed, consolidated and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

A minimum of 72 hours shall elapse between the completion of the entire deck slab and the start of a railing pour. Any railing pours made before the entire slab unit has been placed must be approved by the Engineer. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence shown.

Required slab joints and pouring sequence joints shall align with rail joints as shown.

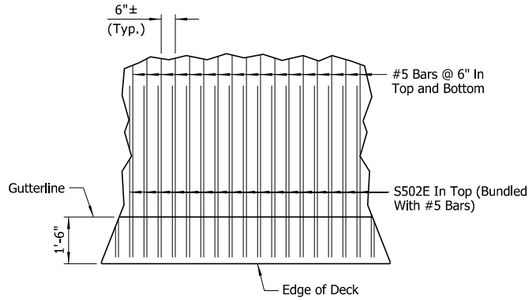
For "GENERAL NOTES", see Std. Dwg. No. 55006.

For "BAR LIST" and "BAR BENDING DIAGRAMS", see Dwg. No. 66839.

Unless noted otherwise, spacing shown for all transverse reinforcing is measured along CL Bridge B. All transverse reinforcing shall be placed on lines radial to CL Bridge B.

All longitudinal lines and longitudinal slab reinforcing shall be placed along curves concentric with CL Bridge B.

For Concrete Bridge Rail details, See Std. Dwg. No. 55071.




## DETAIL B

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE

Digitally Signed 10/20/2023

BRIDGE ENGINEER

# SHEET 7 OF 8
# DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT BRIDGE B
# XNA ACCESS RD. OVER HOLMES RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

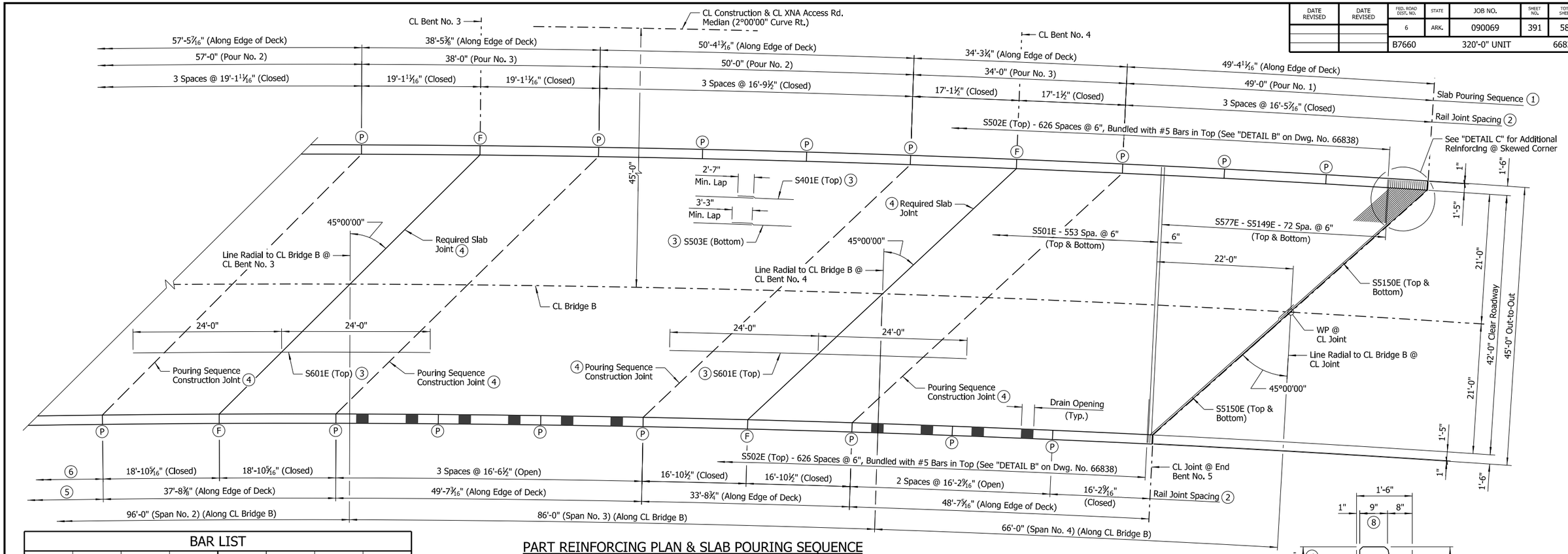
LITTLE ROCK, ARK.

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CHECKED BY: ABH DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: CSW DATE: OCT. 2022

BRIDGE NO. B7660 DRAWING NO. 66838

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 391 | 583 |
| | | B7660 | | 320'-0" UNIT | | 66839 |

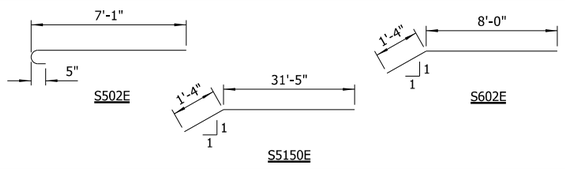



## PART REINFORCING PLAN & SLAB POURING SEQUENCE

Scale: 1/8" = 1'-0"

| BAR LIST | | | | | | | |
|---|---|---|---|---|---|---|---|
| MARK | NO. REQ'D | LENGTH | P.D. | MARK | NO. REQ'D | LENGTH | P.D. |
| S401E | 414 | 38'-2" | Str. | R401E | 1283 | 7'-6" | 3" |
| | | | | R402E | 112 | 5'-6" | Str. |
| S501E | 1108 | 44'-8" | Str. | R403E | 1283 | 3'-8" | 3", 6" |
| S502E | 1254 | 7'-8" | 3 3/4" | R409E | 30 | 15'-10" | Str. |
| S503E | 288 | 56'-6" | Str. | R410E | 30 | 16'-1" | Str. |
| S504E To S576E | 2 Ea. | 7'-1" To 43'-2" | Str. | R411E | 30 | 16'-2" | Str. |
| | | | | R412E | 30 | 16'-5" | Str. |
| S577E To S5149E | 2 Ea. | 43'-3" To 7'-5" | Str. | R413E | 20 | 16'-6" | Str. |
| | | | | R414E | 20 | 16'-9" | Str. |
| S5150E | 8 | 32'-9" | 3 3/4" | R415E | 30 | 16'-10" | Str. |
| | | | | R416E | 30 | 17'-1" | Str. |
| S601E | 135 | 48'-0" | Str. | R417E | 50 | 18'-6" | Str. |
| S602E | 68 | 9'-4" | 4 1/2" | R418E | 50 | 18'-9" | Str. |
| | | | | R419E | 20 | 19'-6" | Str. |
| R400E | 56 | 6'-3" | 3" | R420E | 20 | 19'-9" | Str. |

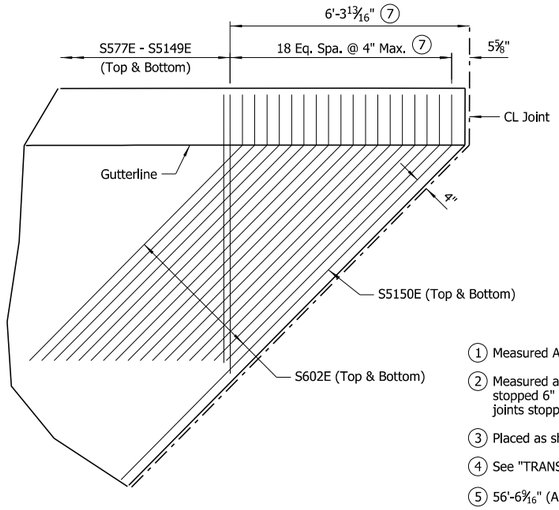
### BAR BENDING DIAGRAMS




NOTES:
Dimensions of bars are out-to-out.

Bar designations ending with "E" indicate epoxy coated bars.

For bar bending diagrams of R400E, R401E and R403E, see Std. Dwg. No. 55071.




## DETAIL C

No Scale

NOTES:
Pours with the same number may be placed simultaneously or separately. All Pours (1) must be placed before Pours (2) can be placed. All Pours (2) must be placed before Pours (3) can be placed. 48 hours shall elapse between the end of a pour and the start of the next pour. 72 hours shall elapse between adjacent pours.

Concrete in bridge superstructure shall be placed, consolidated and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

A minimum of 72 hours shall elapse between the completion of the entire deck slab and the start of a railing pour. Any railing pours made before the entire slab unit has been placed must be approved by the Engineer. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence shown.

Required slab joints and pouring sequence joints shall align with rail joints as shown.

For "GENERAL NOTES", see Std. Dwg. No. 55006.

Unless noted otherwise, spacing shown for all transverse reinforcing is measured along CL Bridge B. All transverse reinforcing shall be placed on lines radial to CL Bridge B.

All longitudinal lines and longitudinal slab reinforcing shall be placed along curves concentric with CL Bridge B.

For Concrete Bridge Rail details, See Std. Dwg. No. 55071.

For rail panel "TABLE OF VARIABLES", see Dwg. No. 66838.

(1) Measured Along CL Bridge B

(2) Measured along inside face of rail. Rail joints designated with symbol (F) shall be stopped 6" from top of slab. All other rail joints with symbol (P) shall be partial-depth joints stopped 16" from top of slab.

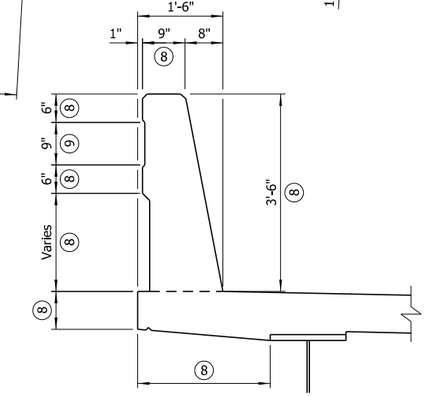
(3) Placed as shown in "TYPICAL ROADWAY SECTION" on Dwg. No. 66832

(4) See "TRANSVERSE SLAB JOINT DETAIL" on Std. Dwg. No. 55007.

(5) 56'-6 9/16" (Along Edge of Deck)

(6) 3 Spaces @ 18'-10 5/16" (Closed)

(7) Measured Along Edge of Deck




(8) Class 3 Textured Coating Finish (Color - Light Brown, Color Chip No. 33522)

(9) Class 3 Textured Coating Finish (Color - Tan, Color Chip No. 30219)

## BRIDGE RAIL AESTHETIC DETAIL

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 8 OF 8
# DETAILS OF 320'-0" CONTINUOUS PLATE GIRDER UNIT
# BRIDGE B
# XNA ACCESS RD. OVER HOLMES RD.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

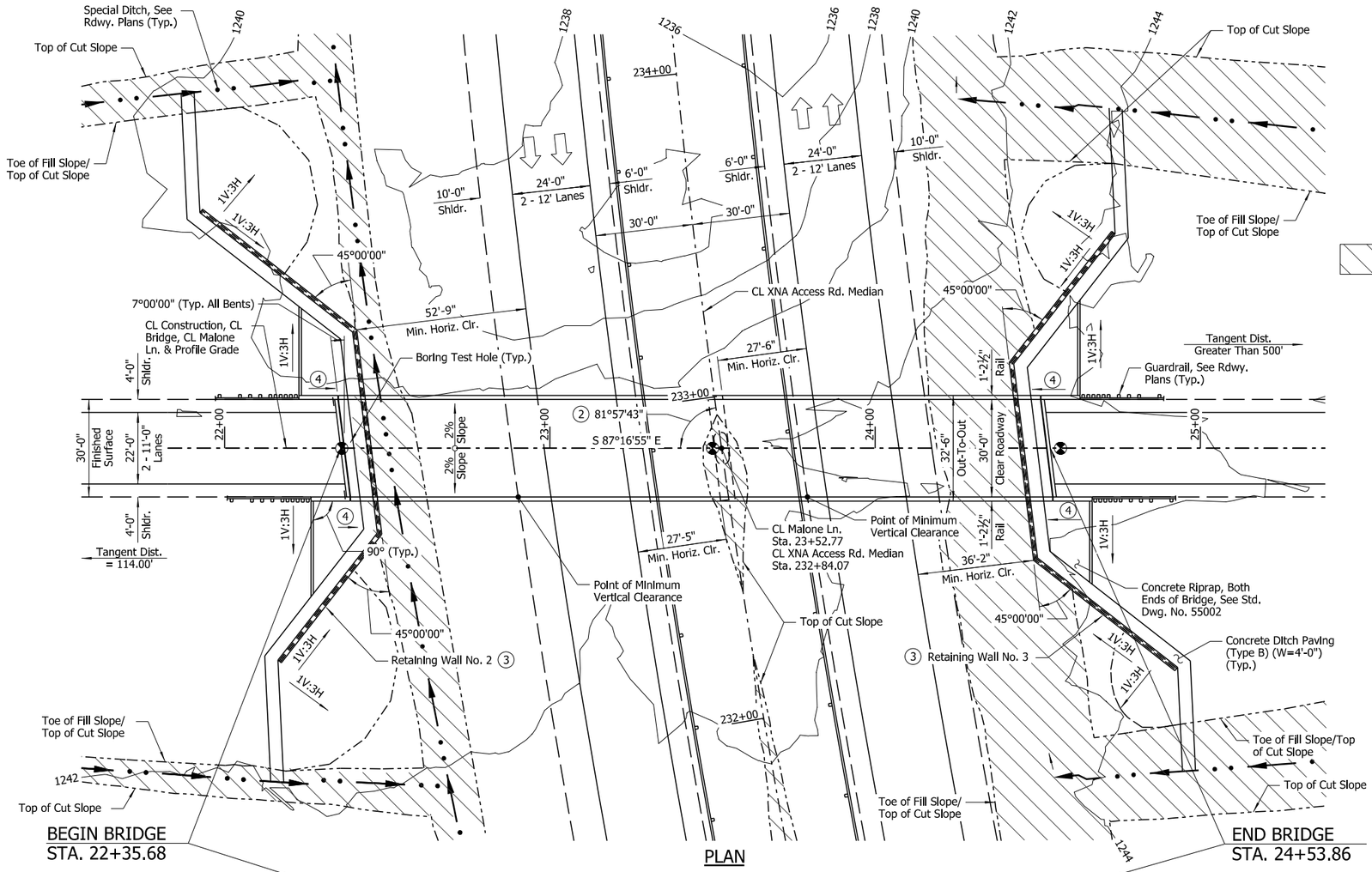
LITTLE ROCK, ARK.

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CHECKED BY: ABH DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: CSW DATE: OCT. 2022

BRIDGE NO. B7660 DRAWING NO. 66839

JESkinner 10/20/2023 2:13:39 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 392 | 583 |
| | | 07661 | | LAYOUT | | 66840 |




Cut Slope

PVI Sta. 23+00.00
Elev. 1276.47
V.C. = 590'
+5.00%
-4.59%

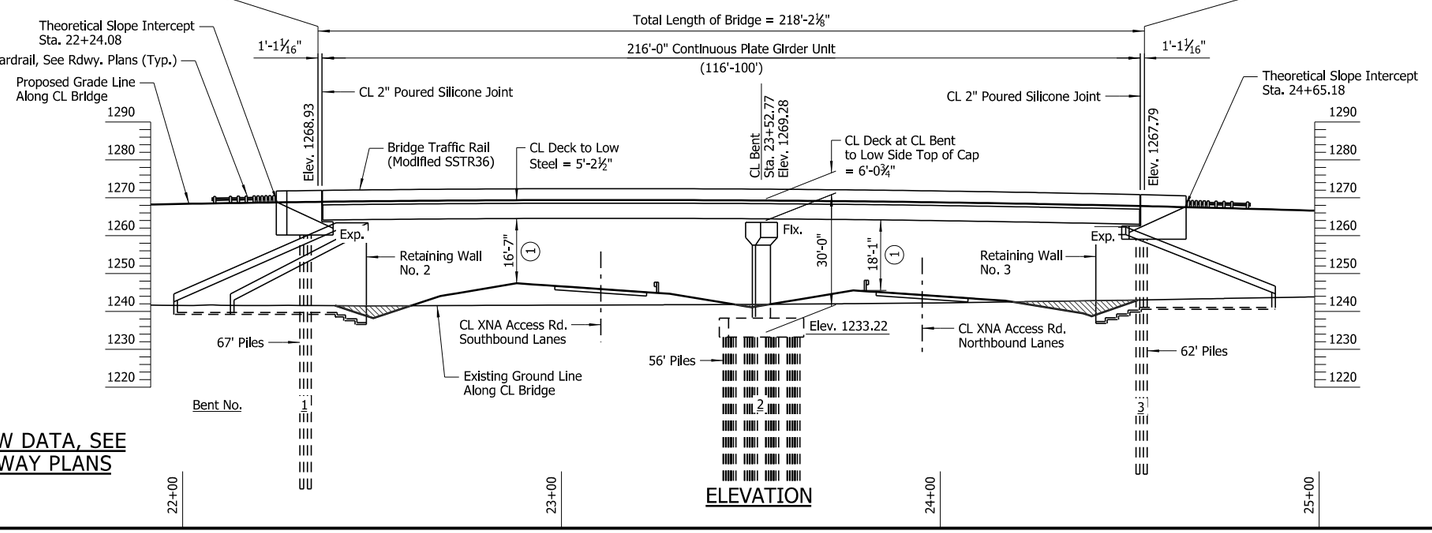
## VERTICAL CURVE DATA

Malone Ln.
(Theoretical Grade Along CL Construction)

NOTES:
For "PROJECT GENERAL NOTES", see Dwg. No. 66717.

For "ELEVATION OF SOIL BORINGS", "N-VALUES", "BORING LEGEND", and "GENERAL NOTES", see Dwg. No. 66841.

Use Type F Approach Gutters at each end of bridge. See Std. Dwg. No. 55030F.




FOR R/W DATA, SEE ROADWAY PLANS

(1) Point of Minimum Vertical Clearance

(2) Angle measured between a line tangent to CL XNA Access Rd. Median at Sta. 232+84.07 and CL Malone Ln.

(3) For details of Retaining Wall Nos. 2 & 3, see Dwg. Nos. 66855-66859.

(4) 1V:2H Or Flatter

NOTE:
Stations shown are along CL Construction. Elevations shown are theoretical working point elevations at CL Bridge. Any vertical dimension referenced to CL Deck is based on theoretical working point elevation at CL Bridge. See "ROUNDING DETAIL" on Standard Drawing No. 55007 for additional information.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 1 OF 2
# LAYOUT OF BRIDGE
# MALONE LN. OVER XNA ACCESS RD.
# NORTHWEST ARKANSAS
# NATIONAL AIRPORT ACCESS (F)
# BENTON COUNTY

ROUTE NEW SEC. NEW

## ARKANSAS STATE HIGHWAY COMMISSION

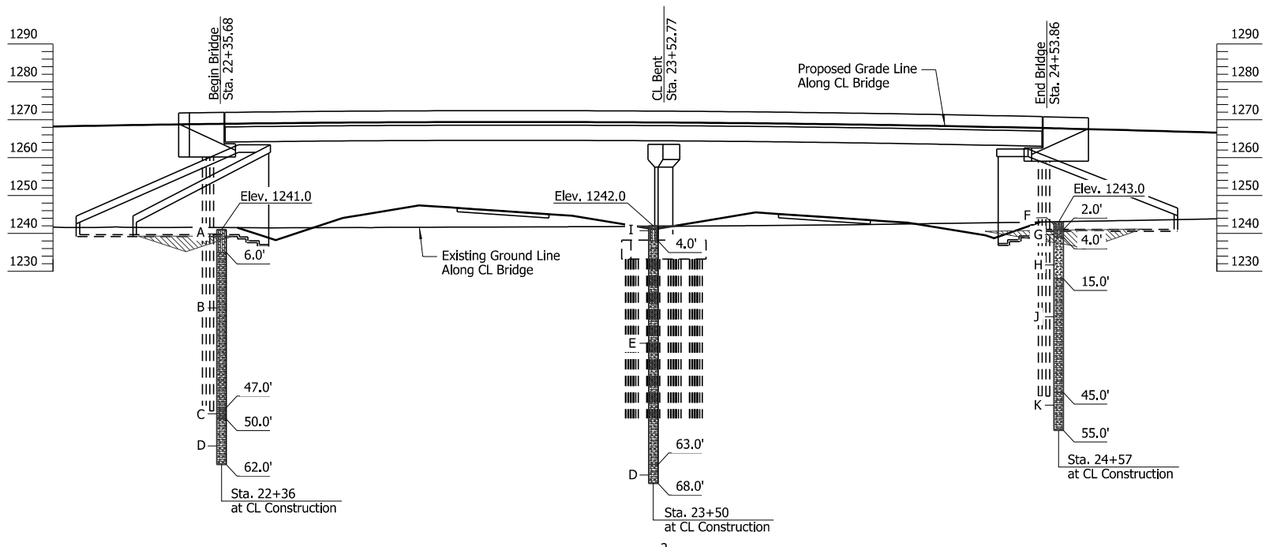
LITTLE ROCK, ARK.

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CHECKED BY: CSW DATE: AUG. 2023 SCALE: 1" = 20"-0"
DESIGNED BY: MAS DATE: JULY 2022

BRIDGE NO. 07661 DRAWING NO. 66840

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 393 | 583 |
| | | 07661 | | LAYOUT | | 66841 |




## ELEVATION OF SOIL BORINGS

## BORING LEGEND

A - Medium dense reddish brown silt
B - Moderately hard very light gray weathered cherty limestone
C - Moderately hard gray and tan weathered cherty limestone
D - Moderately hard gray cherty limestone
E - Low hardness very light gray weathered cherty limestone
F - Firm brown and tan clayey silt
G - Stiff to very stiff reddish brown silty clay
H - Stiff to very stiff reddish brown clay
I - Medium dense brown silt
J - Moderately hard reddish brown and light gray weathered cherty limestone
K - Modrately hard light gray and gray slightly weathered cherty limestone

## N-VALUES

| Sta. 22+36 at CL Construction | Sta. 23+50 at CL Construction | Sta. 24+57 at CL Construction |
|---|---|---|
| 0.5-1.5, N=17 | 0.5-1.5, N=23 | 0.5-1.5, N=8 |
| 2.5-3.5, N=15 | 2.5-3.5, N=24 | 2.5-3.5, N=50/4" |
| 4.5-5.5, N=26 | 4.5-5.5, N=45 | 4.5-5.5, N=50/7" |
| 6.5-7.5, N=50/5" | 6.5-7.5, N=50/8" | 6.5-7.5, N=50/5" |
| 9.0-10.0, N=50/5" | 9.0-10.0, N=50/3" | 9.0-10.0, N=25/0" |
| 14.0-15.0, N=50/3" | 14.0-15.0, N=25/0" | 14.0-15.0, N=25/0" |
| 19.0-20.0, N=25/0" | 19.0-20.0, N=25/0" | 24.0-25.0, N=25/0" |
| 24.0-25.0, N=25/0" | 24.0-25.0, N=25/0" | 29.0-30.0, N=25/0" |
| 29.0-30.0, N=25/0" | 29.0-30.0, N=25/0" | 34.0-35.0, N=25/0" |
| 34.0-35.0, N=25/0" | 34.0-35.0, N=25/0" | 39.0-40.0, N=25/0" |
| 39.0-40.0, N=25/0" | 39.0-40.0, N=25/0" | 44.0-45.0, N=25/0" |
| 44.0-45.0, N=25/0" | 44.0-45.0, N=25/0" | |
| 49.0-50.0, N=25/0" | 49.0-50.0, N=25/0" | |
| | 54.0-55.0, N=25/0" | |
| | 59.0-60.0, N=25/0" | |

## GENERAL NOTES

SEISMIC ZONE: 1 $S_{D1}$: 0.09g SITE CLASS: C

SEISMIC OPERATIONAL CLASSIFICATION: Essential

STEEL PILING: All piling in Bents 1 & 3 shall be HP12x53 (Grade 50) and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 96 tons per pile and into the material designated as moderately hard slightly weathered cherty limestone and cherty limestone on the boring legend. All piling in Bent 2 shall be HP14x73 (Grade 50) and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 133 tons per pile and into the material designated as moderately hard slightly weathered cherty limestone and cherty limestone on the boring legend. Minimum penetration shall be 10' below leveling pad for all piles in Bents 1 and 3 and 27' below bottom of footing for all piles in Bent 2. Piling in end bents shall be driven after embankment to bottom of cap is in place. Lengths shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with Section 805. The Contractor shall use approved steel H-Pile driving points on all piles.

PREBORING: Preboring is required for all piling in Bents 1 thru 3. Preboring shall be to a minimum 3' depth into material designated as moderately hard slightly weathered cherty limestone and cherty limestone on the boring legend. The actual size and depth of preboring shall be determined in the field by the Engineer. The Contractor shall be responsible for keeping the prebored holes free of debris prior to driving the pile and backfilling which may require the use of temporary casing or other approved methods. After driving is completed, the prebored hole shall be backfilled with Class S Concrete. Any related cost for backfilling and temporary casing will not be paid for directly, but shall be considered subsidiary to the item "PREBORING".

PILE FOOTINGS: The top of the footing at Bent 2 shall be set a minimum of 2' below natural or finished ground or at the elevations shown on the plans, whichever is lower. Foundations for footings shall be prepared in accordance with Subsection 801.04. Foundation piles shall not be driven until after the excavation to bottom of footing is complete. Excavations shall be backfilled and compacted to the level of the existing or finished ground in accordance with Subsection 801.08.

PILE CASINGS: Pile casings are required for piling within MSE walls at end bents. Casings shall be installed prior to or during the embankment construction and shall extend from top of leveling pad or bottom of any required undercut, whichever is lower, to bottom of cap. Pile casing material shall be of sufficient strength to retain its original form free from harmful distortions after compaction of the fill material surrounding it. The minimum inside diameter of the casing shall be at least 24". Piles shall be driven through the open casings after embankment to bottom of cap is in place. After driving is complete, the pile casings shall be filled with Class S Concrete, an approved non-shrink grout, mixture used for Portland Cement Concrete Pavement, or other approved material in a single continuous operation to completely fill voids. Pile casings and concrete will not be paid for directly but shall be considered subsidiary to the item "STEEL PILING (HP12x53)".

PAINTING: All Grade 50 structural steel, except galvanized members and surfaces in contact with concrete, shall be painted as specified in Subsection 807.75. The color of paint shall be Red Brown and shall match Federal Standard 595B, Color Chip No. 30108.

| DETAIL DRAWINGS: | DRAWING NO(S).: |
|---|---|
| End Bents | 66842-66844 |
| Intermediate Bent | 66845-66846 |
| Elastomeric Bearings | 66847 |
| 216'-0" Continuous Plate Girder Unit | 66848-66852 |
| Concrete Riprap | 55002 |
| General Notes For Steel Bridge Structures | 55006 |
| Details for Steel Bridge Structures | 55007 |
| Poured Silicone Joints | 55008 |
| Steel H-Piling | 55020 |
| Type F Approach Gutters | 55030F |
| Bridge Traffic Rail | 66852 & 55070 |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

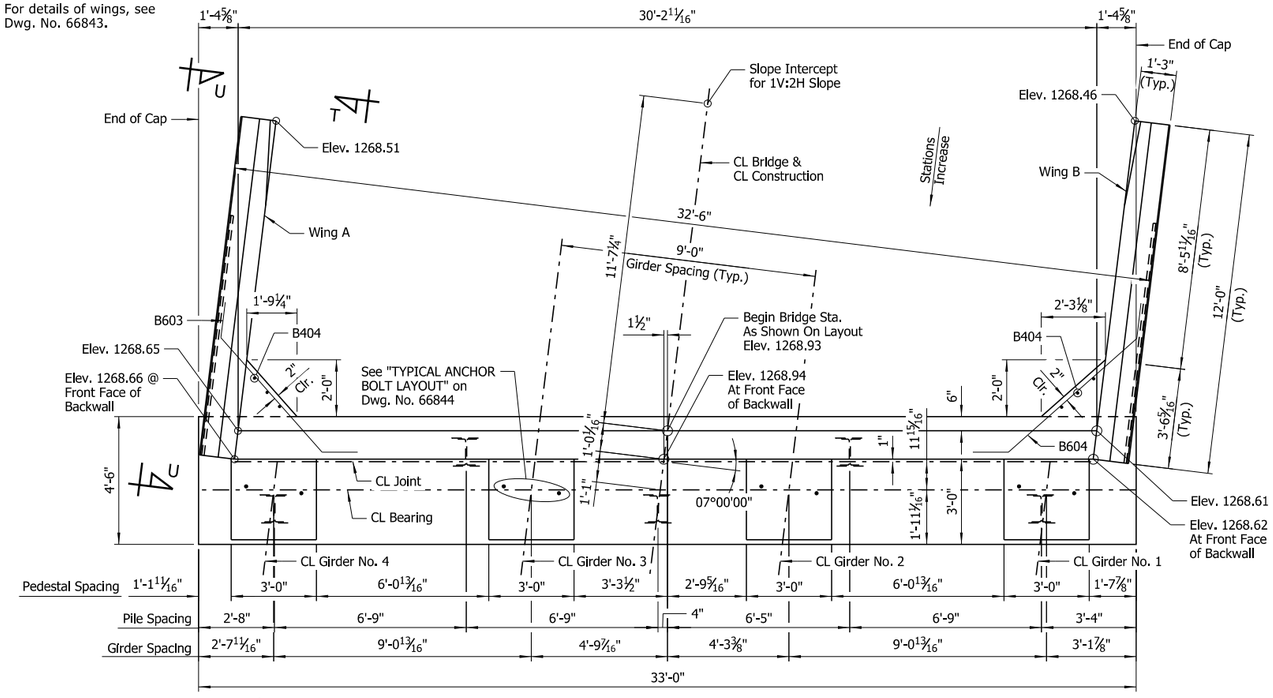
SHEET 2 OF 2
LAYOUT OF BRIDGE
MALONE LN. OVER XNA ACCESS RD.
NORTHWEST ARKANSAS
NATIONAL AIRPORT ACCESS (F)
BENTON COUNTY
ROUTE NEW SEC.NEW
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JULY 2022 FILENAME: b090069x6_l2.dgn
CHECKED BY: CSW DATE: AUG. 2023 SCALE: 1" = 20"-0"
DESIGNED BY: MAS DATE: JULY 2022
BRIDGE NO. 07661 DRAWING NO. 66841

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WORKSPACE: ARDOT Bridge (2019)
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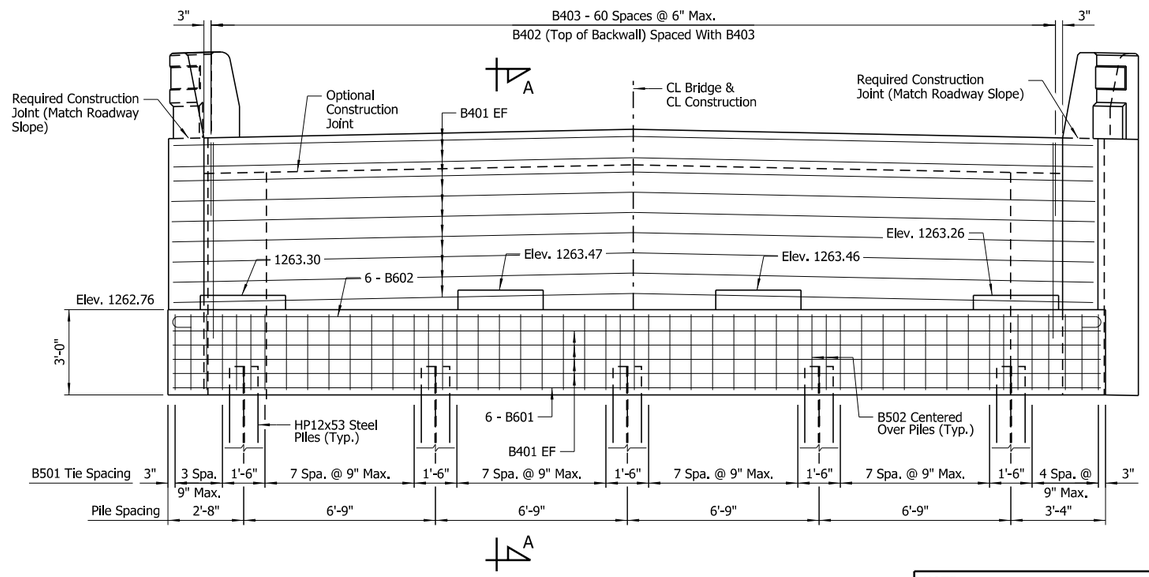
| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 394 | 583 |
| | | 07661 | | END BENTS | | 66842 |

NOTE:
For details of wings, see Dwg. No. 66843.




PLAN - END BENT NO. 1

Scale: ⅜" = 1'-0"




ELEVATION - END BENT NO. 1

(Looking Back)

Scale: ⅜" = 1'-0"

## GENERAL NOTES

For Standard General Notes, see Std. Dwg. No. 55006.

All piles shall be HP12x53 (ASTM A709, Gr. 50).

Structural steel in end bents shall be ASTM A709, Gr. 50 and shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

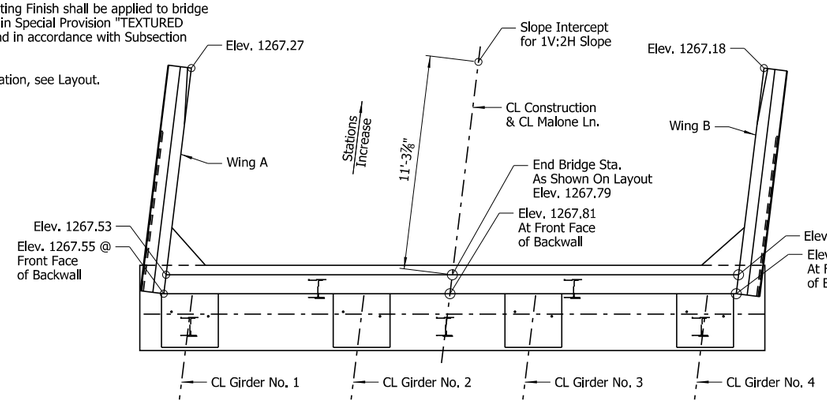
Class 2 Protective Surface Treatment shall be applied to the top of the backwall.

Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in Special Provision "TEXTURED COATING FINISH" and in accordance with Subsection 802.19(b)(3).

For additional information, see Layout.

NOTES:
For "SECTION T-T", "VIEW U-U" and "TYPICAL PEDESTAL DETAIL", see Dwg. No. 66843.

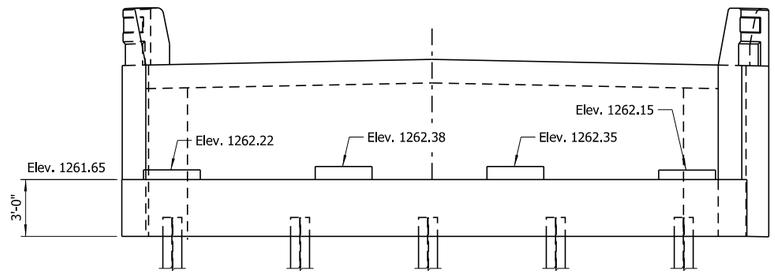
For "SECTION A-A", bar lists and bar bending diagrams, see Dwg. No. 66844.




NOTE:
Dimensions and details at End Bent No. 3 are the same at End Bent No. 1 except as shown

PLAN - END BENT NO. 3

Scale: ¼" = 1'-0"




ELEVATION - END BENT NO. 3

(Looking Ahead)

Scale: ¼" = 1'-0"

## LEGEND

EF = Each Face

NOTE:
No portion of the backwall shall be poured before girders are in place. The portion of the backwall above the optional construction joint at the paving bracket shall not be placed until the adjacent deck pour has been made. Refer to the "EXPANSION DEVICE INSTALLATION AT END BENTS" note on Std. Dwg. No. 55008.

No heavy construction equipment shall be allowed within 10' of the backwall until the deck concrete placement for the adjacent span has been completed unless MSE strap reinforcing has been designed to accommodate these loads. See "END BENT STRAP DETAIL" on Dwg. No. 66844.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.9086
AMJAD EL-KHAIRI

Digitally Signed 10/20/2023

BRIDGE ENGINEER

SHEET 1 OF 3
DETAILS OF END BENTS
MALONE LN.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

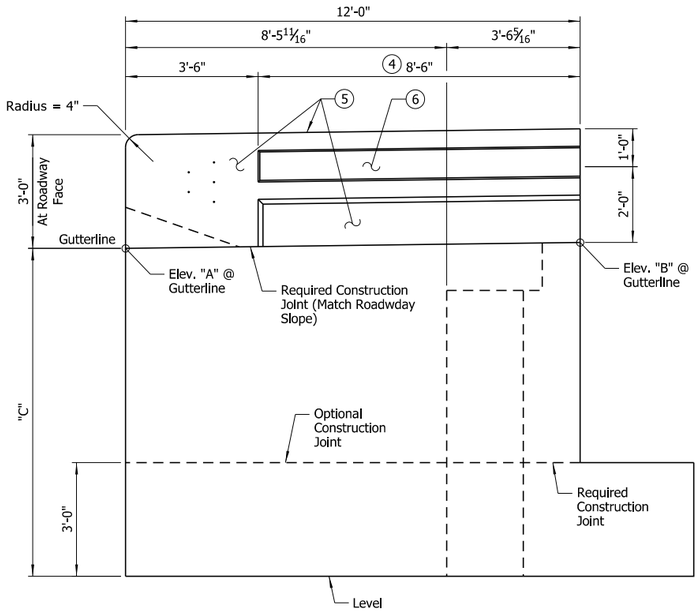
LITTLE ROCK, ARK.

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CHECKED BY: AJK DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: MJS DATE: MAR. 2023

BRIDGE NO. 07661 DRAWING NO. 66842

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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 395 | 583 |
| | | 07661 | | END BENTS | | 66843 |




## VIEW U-U

Scale: ½" = 1'-0"

4 See "BRIDGE RAIL AESTHETIC DETAIL" on Dwg. No. 66852 for additional information.

5 Class 3 Textured Coating Finish, applied to Roadway Face of Wing Rail and As Shown (Color = Light Brown, Color Chip No. 33522)

6 Class 3 Textured Coating Finish (Color = Tan, Color Chip No. 30219)

## LEGEND

U.N.O. = Unless Noted Otherwise
EF = Each Face

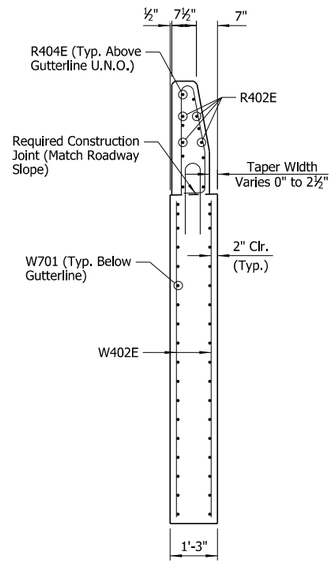
NOTE:
For details of rail enhancement, see "BRIDGE RAIL AESTHETIC DETAIL" on Dwg. No. 66852. For reinforcement details, rail terminus details, and additional details of rail, see Std. Dwg. No. 55070.

| TABLE OF VARIABLES | | | | |
|---|---|---|---|---|
| Bent No. | Location | Elev. "A" | Elev. "B" | Dim. "C" |
| 1 | Wing A | 1268.51 | 1268.66 | 8'-9" |
| 1 | Wing B | 1268.46 | 1268.62 | 8'-8⅜" |
| 3 | Wing A | 1267.27 | 1267.55 | 8'-7 7/16" |
| 3 | Wing B | 1267.18 | 1267.47 | 8'-6⅜" |

1 W701 EF - 5 Equal Spaces

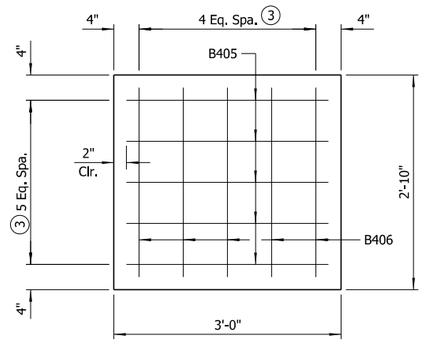
2 Place inside R401E bars positioned with 2" end cover as shown

3 Adjust bar spacing as needed to avoid anchor bolt



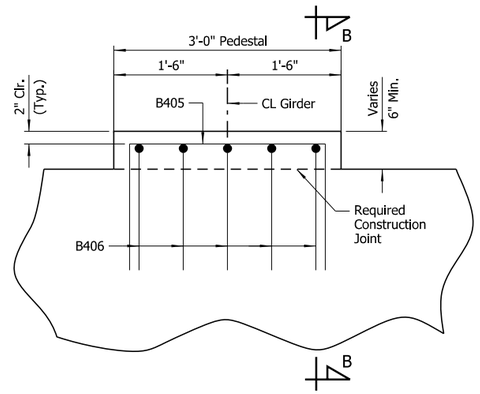

## SECTION Y-Y

Scale: ½" = 1'-0"



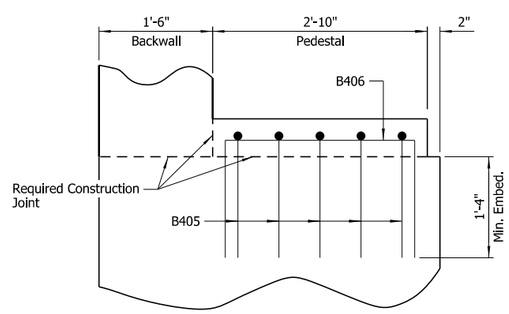

## PEDESTAL PLAN

Scale: 1" = 1'-0"



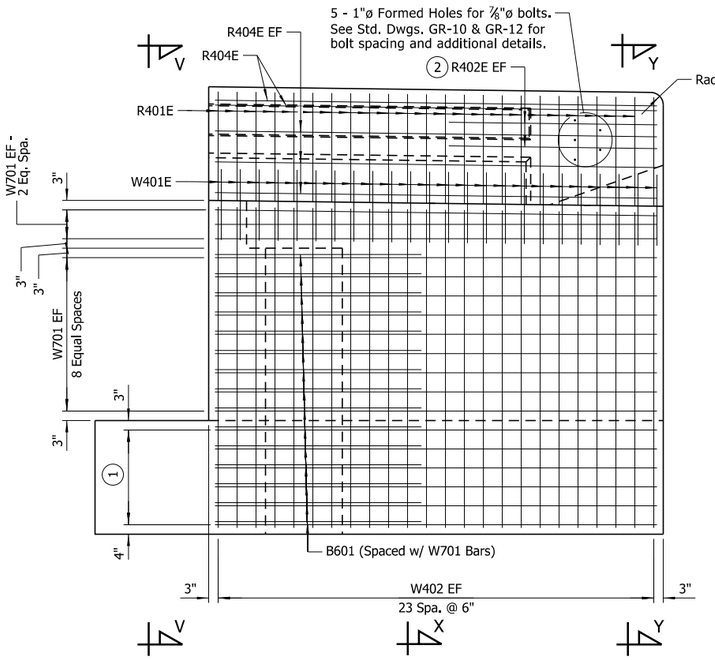

## TYPICAL PEDESTAL DETAIL

Scale: 1" = 1'-0"



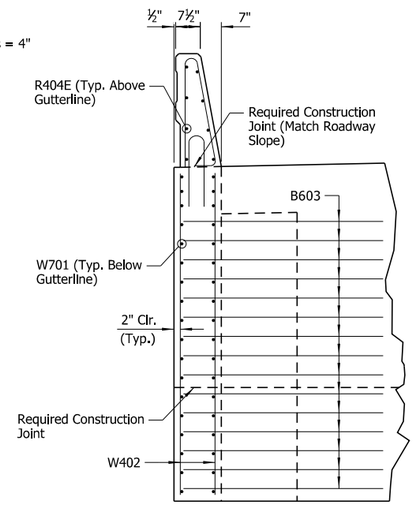

## SECTION B-B

Scale: 1" = 1'-0"



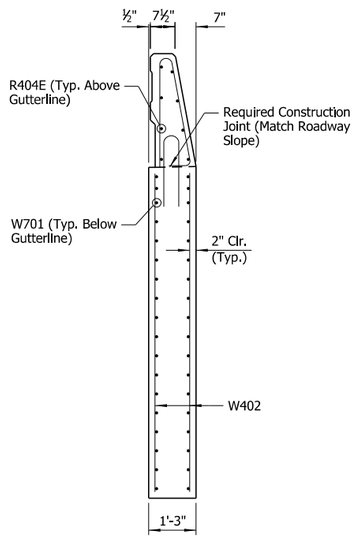

## SECTION T-T

Scale: ½" = 1'-0"




## VIEW V-V

Scale: ½" = 1'-0"




## SECTION X-X

Scale: ½" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.9086
AMJAD EL-KHAIRI

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 2 OF 3
DETAILS OF END BENTS
MALONE LN.
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: APR. 2023 FILENAME: b090069x6_a2.dgn
CHECKED BY: AJK DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: MJS DATE: MAR. 2023
BRIDGE NO. 07661 DRAWING NO. 66843

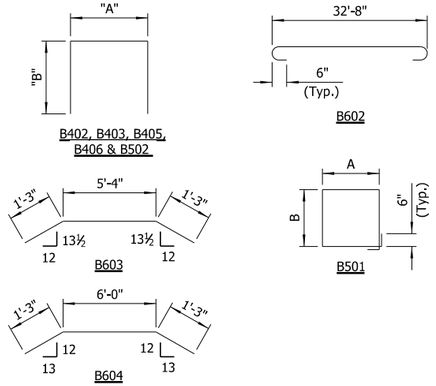
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WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 396 | 583 |
| | | 07661 | | END BENTS | | 66844 |

## BAR LIST (PER BENT)

| MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|
| B401 | 32 | 32'-8" | | | Str. |
| B402 | 61 | 5'-4" | 8" | 2'-5" | 2" |
| B403 | 61 | 13'-2" | 1'-2" | 6'-1" | 2" |
| B404 | 6 | 7'-0" | | | Str. |
| B405 | 20 | 5'-10" | 2'-8" | 1'-8" | 2" |
| B406 | 20 | 5'-6" | 2'-6" | 1'-7" | 2" |
| | | | | | |
| B501 | 41 | 14'-0" | 4'-2" | 2'-7" | 2½" |
| B502 | 10 | 9'-2" | 4'-2" | 2'-7" | 2½" |
| | | | | | |
| B601 | 6 | 32'-8" | | | Str. |
| B602 | 6 | 34'-0" | | | 5¼" |
| B603 | 15 | 7'-10" | | | 4½" |
| B604 | 15 | 8'-6" | | | 4½" |
| | | | | | |
| R401E | 48 | 6'-4" | | | 2½", 3" |
| R402E | 8 | 5'-6" | | | Str. |
| R404E | 16 | 11'-8" | | | Str. |
| | | | | | |
| W401E | 48 | 3'-11" | | | 3¾" |
| W402 | 96 | 8'-2" | | | Str. |
| | | | | | |
| W701 | 72 | 11'-8" | | | Str. |

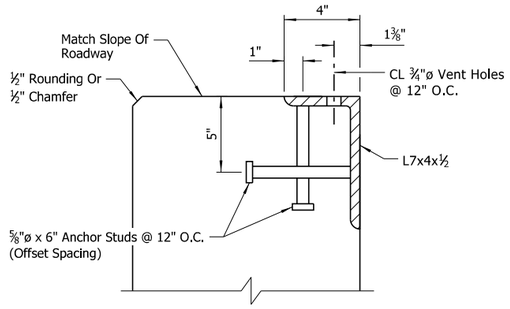
## BAR BENDING DIAGRAMS




NOTE:
Dimensions of bars are out-to-out.

Bars designated with "E" suffix shall be epoxy coated.

See Std. Dwg. No. 55070 for Bar Bending Diagrams of R401E & W401E.




## END BENT WALL ARMOR DETAIL

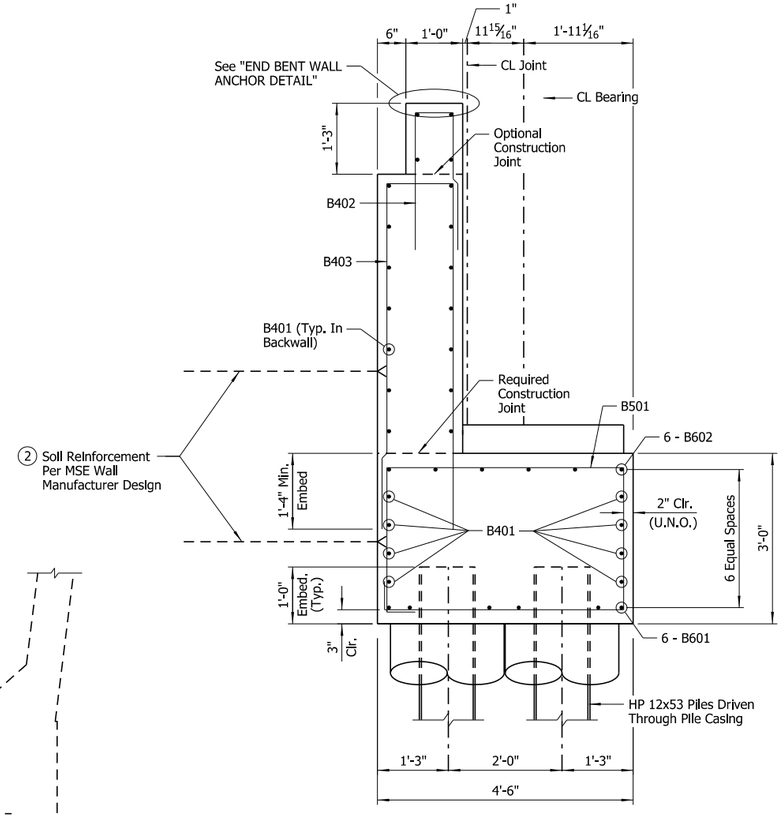
No Scale

NOTES:
Transverse spacing between vertical anchor studs and vent holes shall be 6".

Concrete shall be hand packed under joint armor.

Special care shall taken to properly and thoroughly consolidate the concrete in the vicinity of the expansion joint device in the backwall, see Subsection 802.09(a)(3).

The profile of the end bent wall armor shall be established based on the vertical curve in conjunction with the skew angle as shown on the layout.

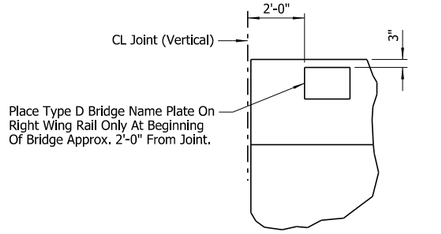



## SECTION A-A

Scale: ¾" = 1'-0"

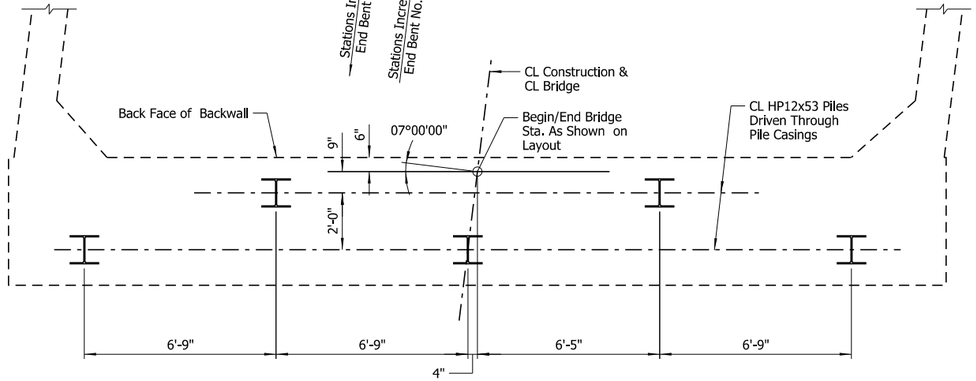
## LEGEND

U.N.O. = Unless Noted Otherwise




## VIEW SHOWING LOCATION OF NAME PLATE

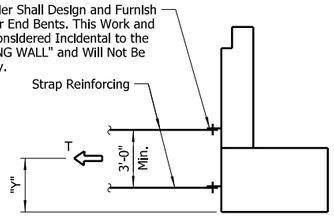
No Scale




## FOUNDATION PLAN

Scale: ⅜" = 1'-0"

MSE Wall Supplier Shall Design and Furnish Attachments For End Bents. This Work and Materials Are Considered Incidental to the Item "RETAINING WALL" and Will Not Be Paid For Directly.




## END BENT STRAP DETAIL

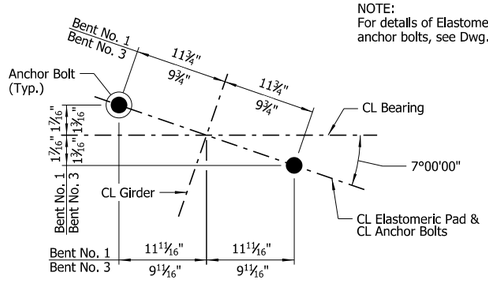
No Scale

T = Resultant Force required to be resisted by strap reinforcing.

Y = Centroid of strap reinforcing.

| LIMIT STATE | (1) T | "y" |
|---|---|---|
| | Kips/Ft | Ft |
| Service | 4.4 | 3.3 |
| Strength | 6.7 | 3.5 |

(1) The provided loads do not include any additional loadings due to heavy construction equipment such as cranes. If the Contractor anticipates bringing heavy construction equipment within 10' of the backwall, they shall coordinate with the MSE wall supplier to design strap reinforcing for the anticipated loadings. Tolerable horizontal backwall movement for all loading combinations is ½" at the Service Limit State. Design computations shall accompany the wall design submittal for review by the Engineer. See Special Provision "RETAINING WALLS" for additional information.




## TYPICAL ANCHOR BOLT LAYOUT

No Scale

NOTE:
For details of Elastomeric Bearings and anchor bolts, see Dwg. No. 66847.

(2) Soil reinforcement shall be attached to the back of the end bents. Type, size and spacing of soil reinforcement shall be designed by the Contractor. The design details and computations shall accompany the wall design submittal for review by the Engineer. Cost shall be subsidiary to the item "RETAINING WALL". See "END BENT STRAP DETAIL" for additional information.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.9086
AMJAD EL-KHAIRI

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 3 OF 3
DETAILS OF END BENTS
MALONE LN.

ROUTE SEC.

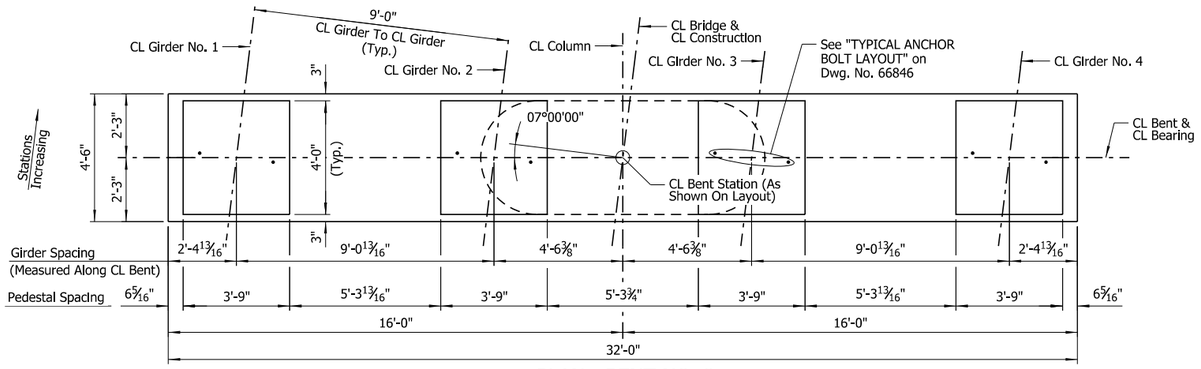
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

| | | | | | |
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| CHECKED BY: | AJK | DATE: | JULY 2023 | SCALE: | As Shown |
| DESIGNED BY: | MJS | DATE: | APR. 2023 | | |

BRIDGE NO. 07661 DRAWING NO. 66844

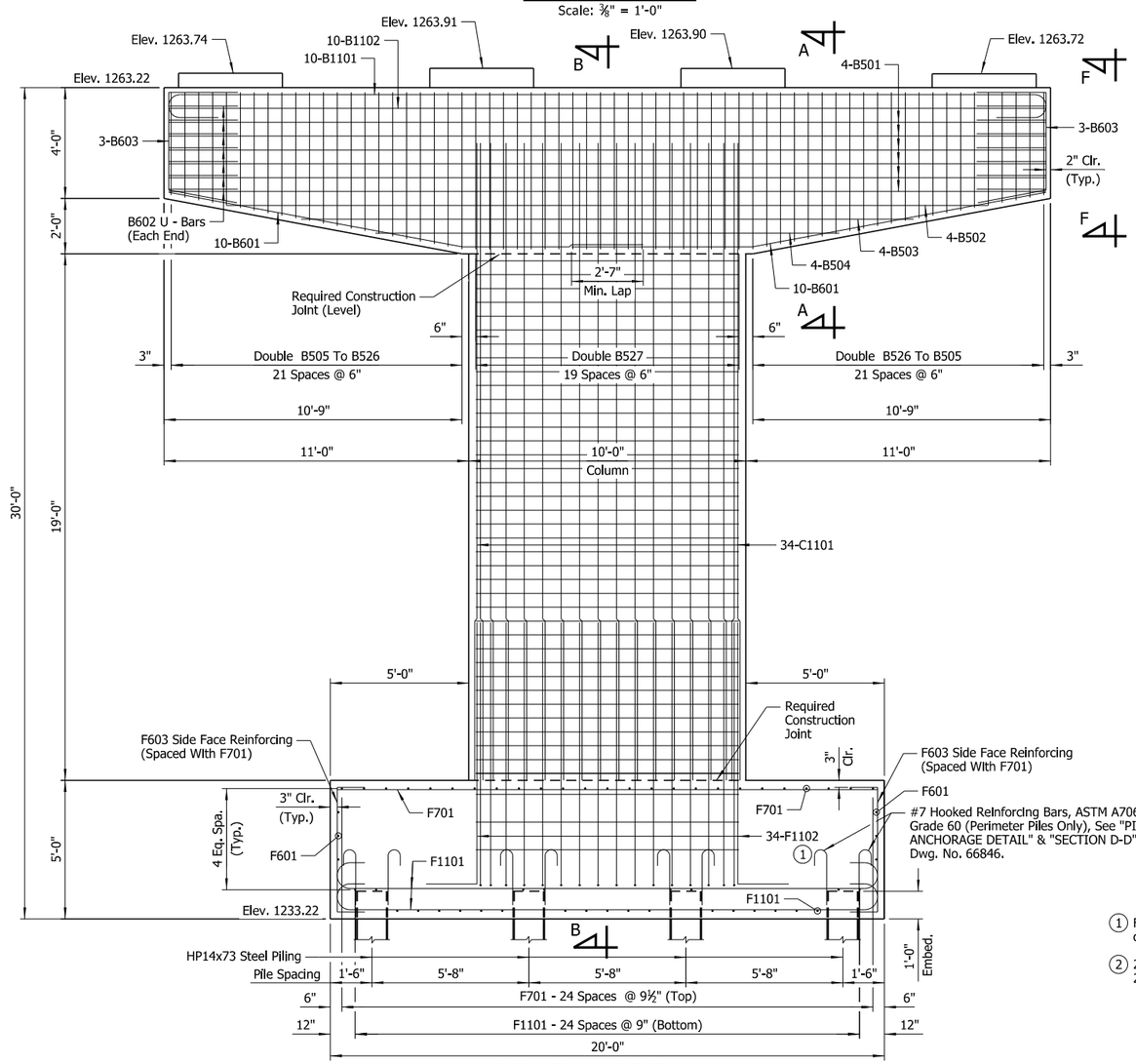
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
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| | | 07661 | | INT. BENT | | 66845 |



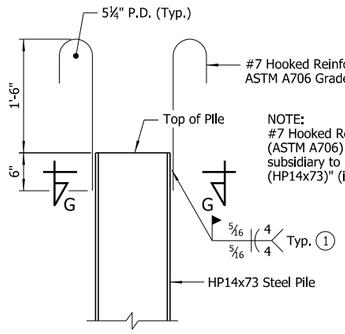

## PLAN - BENT NO. 2

Scale: ⅜" = 1'-0"




## ELEVATION - BENT NO. 2

(Looking Ahead)
Scale: ⅜" = 1'-0"




## PILE ANCHORAGE DETAIL

No Scale




## SECTION G-G

No Scale

NOTE:
#7 Hooked Reinforcing Bars (ASTM A706) Grade 60 are subsidiary to "STEEL PILING (HP14x73)" (including welding).

1 Welding shall comply with ANSI/AWS D1.4 Structural Welding Code-Reinforcing Steel and applicable portions of ANSI/AWS D1.5 Bridge Welding Code.

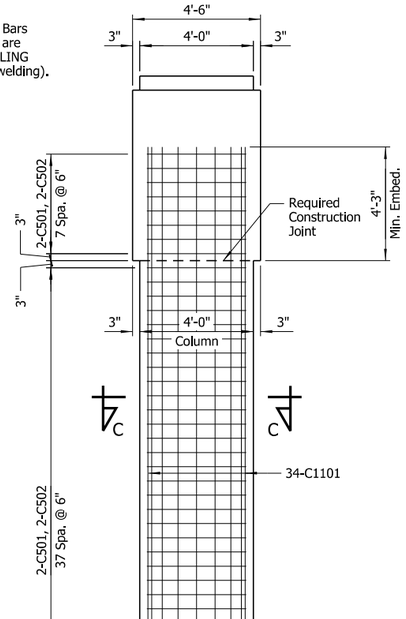
NOTES:
For Standard General Notes, see Std. Dwg. No. 55006.

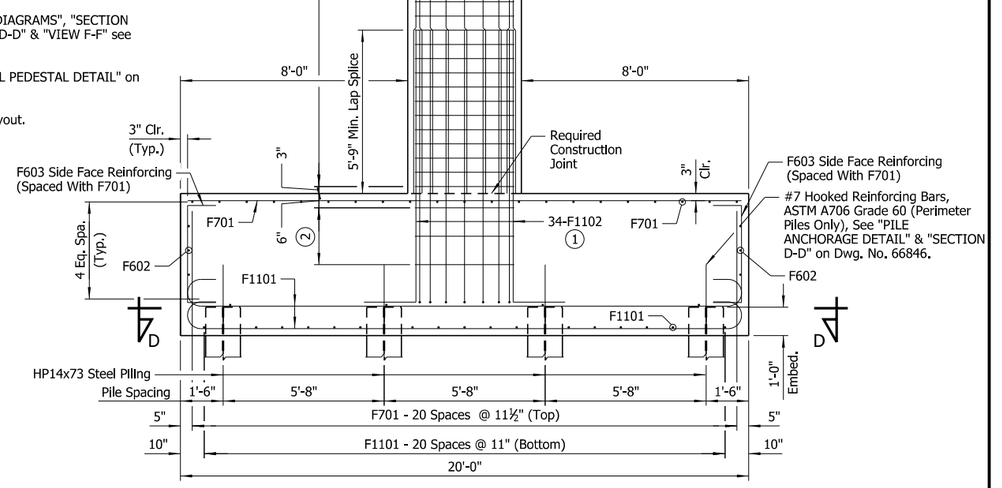
Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in Special Provision "TEXTURED COATING FINISH" and in accordance with Subsection 802.19(b)(3).

For "BAR LIST", "BAR BENDING DIAGRAMS", "SECTION A-A", "SECTION C-C", "SECTION D-D" & "VIEW F-F" see Dwg. No. 66846.

For pedestal details, see "TYPICAL PEDESTAL DETAIL" on Dwg. No. 66846.

For additional information, see layout.




## SECTION B-B

Scale: ⅜" = 1'-0"

1 F1102 bars to rest on footing mat of reinforcing steel as shown.

2 2-C501, 2-C502 2 Spa. @ 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER

Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 1 OF 2
# DETAILS OF INTERMEDIATE BENT
# MALONE LN.

ROUTE SEC.

## ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

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CHECKED BY: RLW DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: MJS DATE: MAY 2023

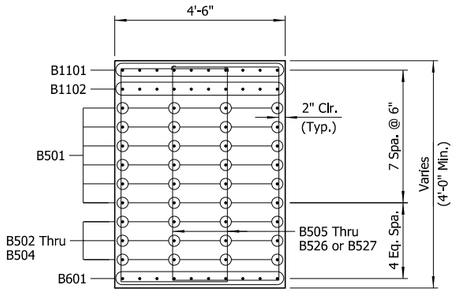
BRIDGE NO. 07661 DRAWING NO. 66845

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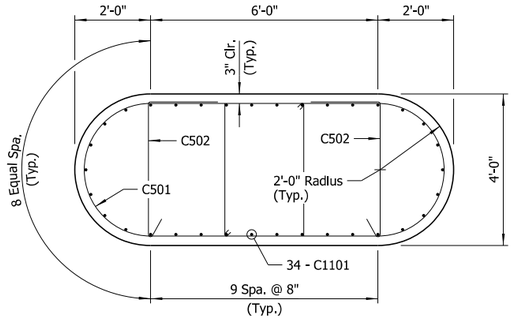
| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 398 | 583 |
| | | 07661 | | INT. BENT | | 66846 |

NOTES:
For Standard General Notes, see Std. Dwg. No. 55006

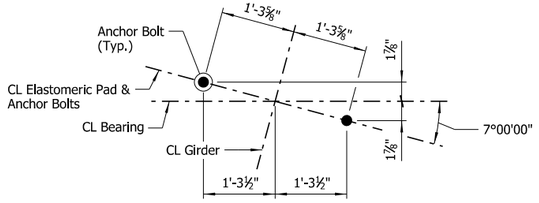
For additional information, see Layout.




## SECTION A-A
Scale: ½" = 1'-0"

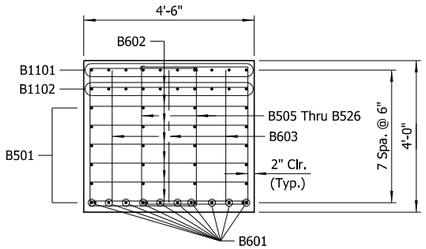



## SECTION C-C
Scale: ½" = 1'-0"

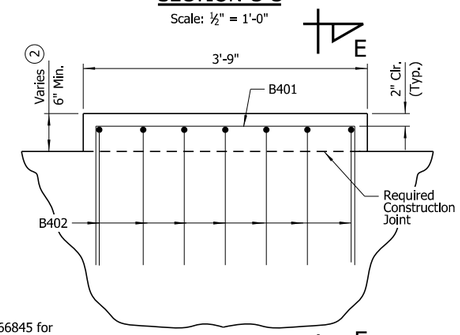



## TYPICAL ANCHOR BOLT LAYOUT
No Scale

NOTE:
For details of elastomeric bearings and anchor bolts, see Dwg. No. 66847.

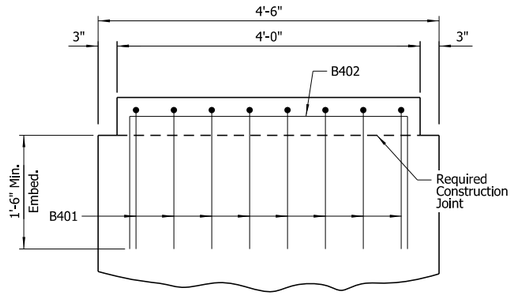



## VIEW F-F
Scale: ½" = 1'-0"

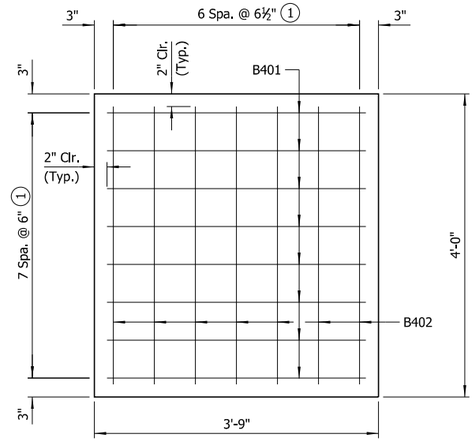



② See Dwg. No. 66845 for pedestal elevations

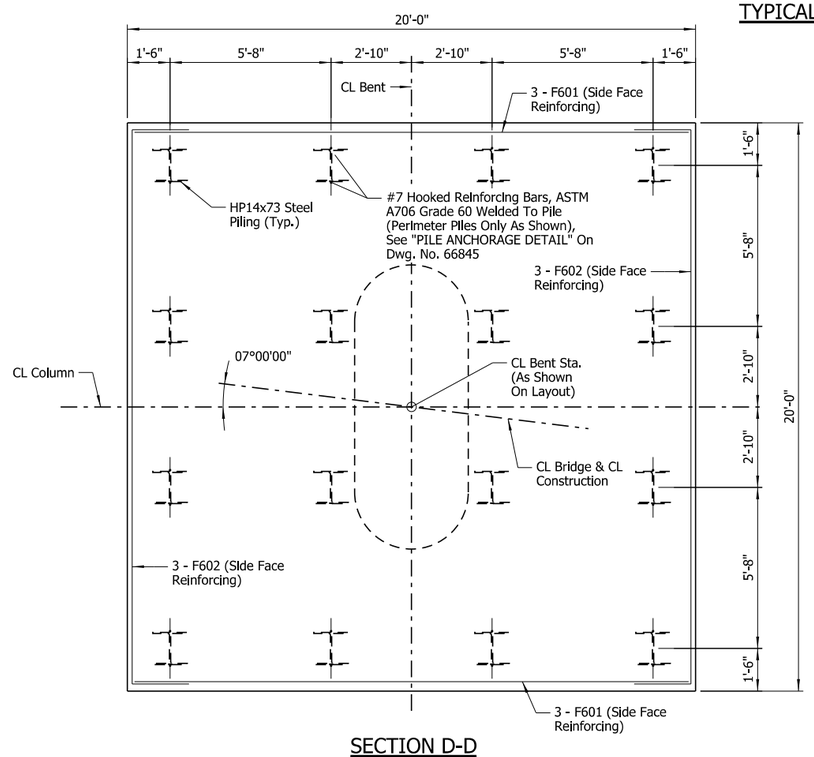
## TYPICAL PEDESTAL DETAIL
Scale: 1" = 1'-0"




## SECTION E-E
Scale: 1" = 1'-0"




## PEDESTAL PLAN
Scale: 1" = 1'-0"

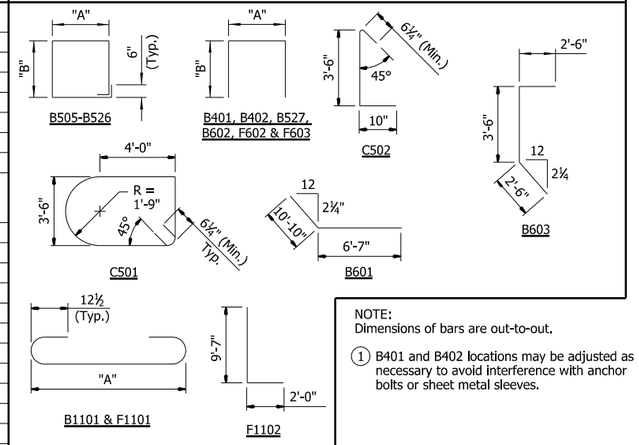



## SECTION D-D
Scale: ⅜" = 1'-0"

## BAR LIST

| MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|
| B401 | 32 | 6'-11" | 3'-5" | 1'-10" | 2" |
| B402 | 28 | 7'-2" | 3'-8" | 1'-10" | 2" |
| | | | | | |
| B501 | 24 | 31'-8" | | | Str. |
| B502 | 4 | 27'-6" | | | Str. |
| B503 | 4 | 22'-1" | | | Str. |
| B504 | 4 | 16'-9" | | | Str. |
| B505 To B526 | 4 Each | 13'-6" To 17'-6" | 2'-10" | 3'-8" To 5'-8" | 2½" |
| B527 | 40 | 14'-0" | 2'-10" | 5'-8" | 2½" |
| | | | | | |
| B601 | 20 | 17'-5" | | | 4½" |
| B602 | 14 | 8'-9" | 4'-0½" | 2'-6" | 4½" |
| B603 | 6 | 8'-2" | | | 4½" |
| | | | | | |
| B1101 | 10 | 34'-8" | 31-8" | | 11¼" |
| B1102 | 10 | 31'-8" | | | Str. |
| | | | | | |
| C501 | 98 | 17'-8" | | | 3¾" |
| C502 | 98 | 4'-8" | | | 3¾" |
| | | | | | |
| C1101 | 34 | 23'-3" | | | Str. |
| | | | | | |
| F601 | 6 | 19'-6" | | | Str. |
| F602 | 6 | 23'-3" | 19'-6" | 2'-0" | 4½" |
| F603 | 92 | 7'-1" | 3'-5" | 2'-0" | 4½" |
| | | | | | |
| F701 | 46 | 19'-6" | | | Str. |
| | | | | | |
| F1101 | 46 | 22'-6" | 19'-6" | | 11¼" |
| F1102 | 34 | 11'-3" | | | 11¼" |

## BAR BENDING DIAGRAMS




NOTE:
Dimensions of bars are out-to-out.

① B401 and B402 locations may be adjusted as necessary to avoid interference with anchor bolts or sheet metal sleeves.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.16458
JOEL E. SKINNER

Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 2 OF 2
# DETAILS OF INTERMEDIATE BENT
# MALONE LN.

ROUTE SEC.

## ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: RLW DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: MJS DATE: MAY 2023

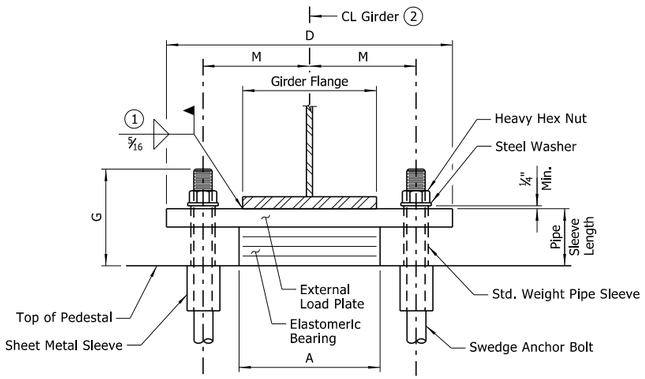
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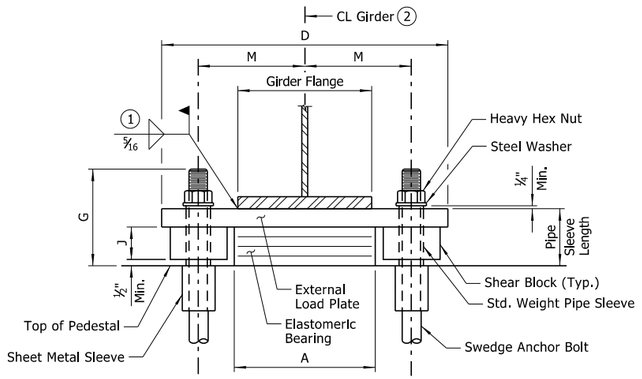
| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 399 | 583 |
| | | 07661 | | ELASTOMERIC BEARINGS | | 66847 |

## TABLE OF FABRICATOR VARIABLES

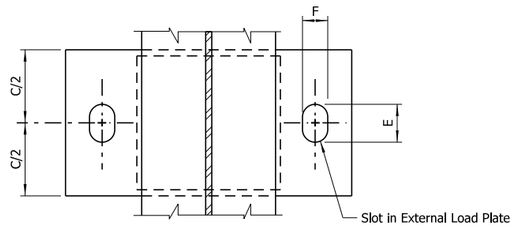
| Location | | | | | | | Elastomeric Pad | | | | | | | External Load Plate | | | | | | | | | Anchor Bolt | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bent No. | Girder No. | Bearing Type | No. Of Bearings Each Bent | ③ Maximum Design Load (Kips) | G | H | A | B | N | $t_i$ | $t_e$ | No. & Thickness Of Steel Laminae | T | C | D | E | F | J | K | M | $T_a$ | $T_b$ | Anchor Bolt (Dia. x L) | Anchor Bolt Grade | Pipe Sleeve Size (Dia. x L) | Sheet Metal Sleeve Size (Dia. x L) | Steel Washer Size (O.D.) |
| 1 | All | Exp. | 4 | 159 | 8 9/16" | 5 5/16" | 18" | 12" | 5 | ½" | ¼" | 6 @ 12 Ga. | 3⅜" | 13" | 29½" | 4½" | 2⅝" | - | ½" | 11¾" | 2.08" | 1.92" | 1¾" x 30" | 55 | 2" x 5 13/16" | 4" x 13" | 3⅜" |
| 2 | All | Fixed | 4 | 407 | 6½" | 3¾" | 22" | 16" | 2 | ½" | ¼" | 3 @ 12 Ga. | 1 1/16" | 17" | 39½" | 2¼" | 2¼" | 1¼" | ½" | 15⅝" | 1.94" | 2.06" | 1½" x 28" | 55 | 1½" x 4" | 3" x 24" | 3" |
| 3 | All | Exp. | 4 | 136 | 8 9/16" | 5 5/16" | 14" | 12" | 5 | ½" | ¼" | 6 @ 12 Ga. | 3⅜" | 13" | 25½" | 4¼" | 2⅝" | - | ½" | 9¾" | 1.85" | 2.15" | 1¾" x 30" | 55 | 2" x 5 13/16" | 4" x 13" | 3⅜" |



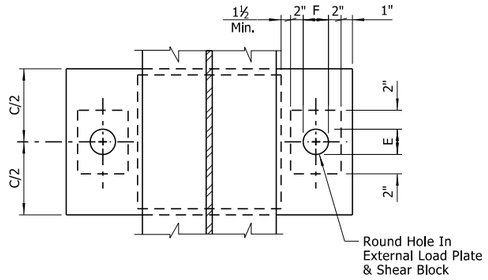

FRONT VIEW - AT BENT NOS. 1 & 3




FRONT VIEW - AT BENT NO. 2

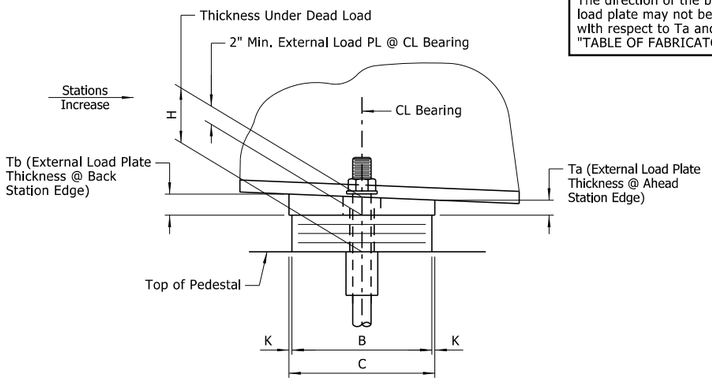



PLAN VIEW - AT BENT NOS. 1 & 3

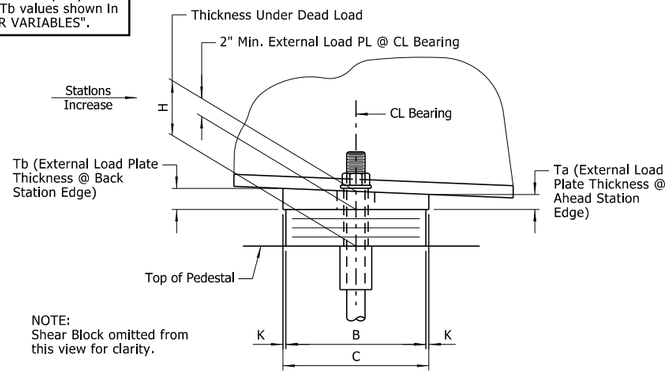



PLAN VIEW - AT BENT NO. 2

The direction of the bevel of the external load plate may not be accurately depicted with respect to Ta and Tb values shown in "TABLE OF FABRICATOR VARIABLES".

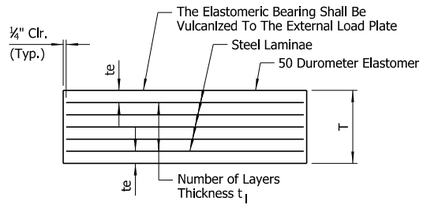



SIDE VIEW - AT BENT NOS. 1 & 3




NOTE:
Shear Block omitted from this view for clarity.

SIDE VIEW - AT BENT NO. 2




$t_e$ = Thickness Of Elastomer Cover On Top And Bottom Of Pad
$t_i$ = Thickness Of Elastomer Between Steel Laminae
N = Number Of Elastomer Layers Of Thickness $t_i$

## ELASTOMERIC BEARING

① Care shall be taken to ensure that the external load plate is in full and complete contact with the girder flange before welding begins. Unless otherwise approved by the Engineer, welding of the external load plate at expansion bearings to the girder will be allowed only when: 1) the approximate average air temperature during the 24 hour period immediately preceding welding is between 40°F and 80°F; and 2) the slots in the external load plate are positioned to center on the anchor bolts; and 3) no horizontal deformation of the elastomeric pad is evident. If welding at other temperatures is required, the Engineer will provide adjustment data.

② CL elastomeric pad shall be aligned with CL girder.

③ Maximum Design Load (Kips) = LRFD Service I Limit State

## GENERAL NOTES

Elastomeric bearings shall conform to Section 808 and shall be paid for at the unit price bid for "ELASTOMERIC BEARINGS".

External load plates and shear blocks shall conform to ASTM A709, Grade 50. Pipe sleeves shall be ASTM A500, Grade B, and shall be galvanized to conform to AASHTO M 232, Class C or ASTM B695, Class 50.

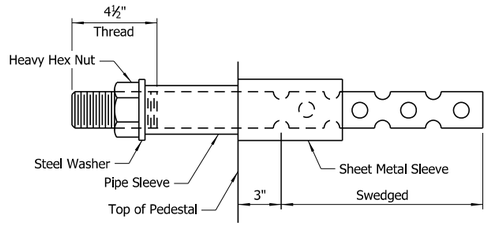
External load plates and shear blocks shall be completely fabricated (including bevel, bolt holes and all shop welding) and shall be cleaned before vulcanizing to the elastomeric bearing. The surfaces in contact with the elastomeric bearing shall be cleaned in accordance with Subsection 808.03. Other surfaces shall be blast cleaned in accordance with Subsection 807.84(b) for painted steel.

Anchor bolts, washers and nuts shall conform to Subsection 807.07. The anchor bolt grade of steel shall be as specified in the "TABLE OF FABRICATOR VARIABLES". Indentations shall be circular with rounded bottoms and staggered as shown in the details.

Pipe sleeves, anchor bolts, washers and nuts shall be paid for at the unit price bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)". External load plates and shear blocks will not be measured or paid for separately but will be considered subsidiary to the unit price bid for "ELASTOMERIC BEARINGS".

Bearings shall be seated in accordance with Subsection 808.08. This work and materials are considered subsidiary to the item "ELASTOMERIC BEARINGS" and will not be paid for directly.

Prior to erection of the girders, the Contractor shall verify the orientation of the bearings with respect to Ta and Tb.




## ANCHOR BOLT DETAIL

NOTES:
Anchor bolts may be cast in place or drilled and grouted into place. If anchor bolts are to be cast in place, the galvanized sheet metal sleeves will not be required.

If anchor bolts are to be drilled and grouted in place, the galvanized sheet metal sleeves shall be cast in place as shown. Sleeves shall be dry packed with styrofoam, urethane foam or approved equal prior to pouring of concrete. After pouring of the cap and prior to erection of structural steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the concrete. Bolts placed in drilled holes shall be accurately set and fixed using a QPL-approved epoxy or non-shrink grout that completely fills the holes. Galvanized sheet metal sleeves shall meet the requirements of ASTM A653, CS Type B or approved equivalent, be of minimum 16 gage thickness, and be galvanized according to ASTM B695, Class 50. Sheet metal sleeves will not be paid for directly but will be considered subsidiary to the item "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.9086
AMJAD EL-KHAIRI

Digitally Signed 10/20/2023
BRIDGE ENGINEER

# DETAILS OF ELASTOMERIC BEARINGS MALONE LN.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

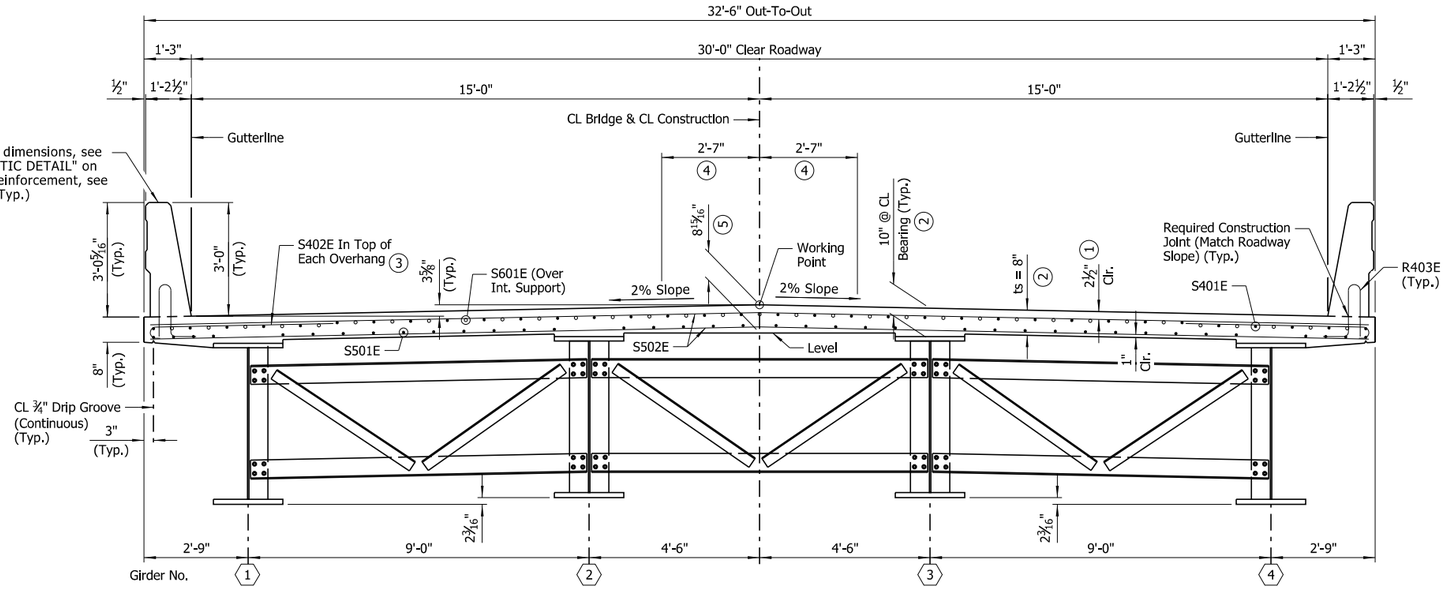
LITTLE ROCK, ARK.

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CHECKED BY: AJK DATE: JULY 2023 SCALE: No Scale
DESIGNED BY: MJS DATE: JAN. 2023

BRIDGE NO. 07661 DRAWING NO. 66847

JESkinner 10/20/2023 2:13:55 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | 07661 | | 216'-0" UNIT | | 66848 |



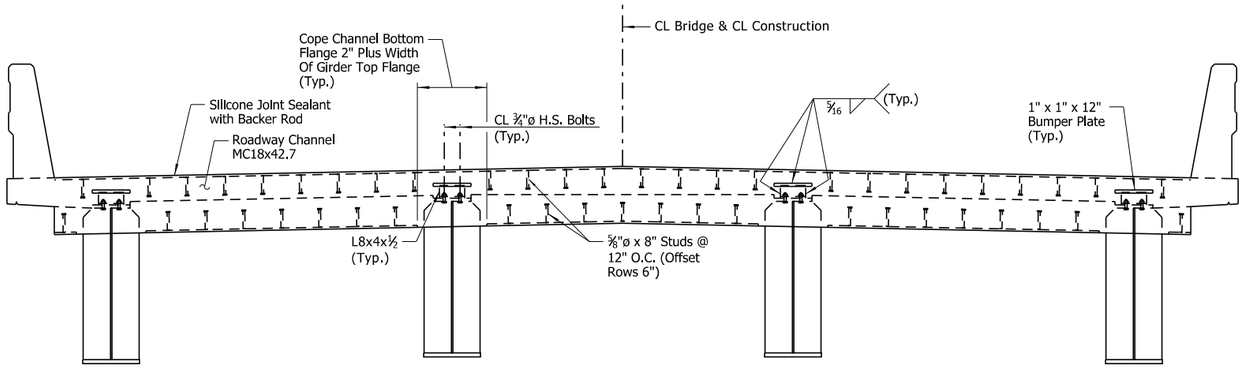

## TYPICAL ROADWAY SECTION

(Looking Ahead)
Scale: ½" = 1'-0"

SLAB REINFORCING:

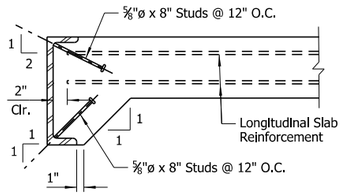
Transverse: S502E @ 6" O.C. In Top and Bottom
S402E @ 6" O.C. in Top of Overhangs (Bundled with #5 Bars)

Longitudinal: S401E In Top (Placed as Shown)
S501E in Bottom (Placed as Shown)
S601E In Top (Placed as Shown over Int. Support, see "REINFORCING PLAN & SLAB POURING SEQUENCE on Dwg. No. 66852 for additional information)




## TYPICAL SECTION THRU JOINT

(Shown At End Bent 1, Looking Ahead; End Bent 3 Similar)
No Scale




## DETAIL OF ANCHORS AND PLACEMENT OF LONGITUDINAL REINFORCEMENT

No Scale

NOTE:
As an alternate to ⅝"ø studs, ½"ø x 8" studs spaced @ 8" O.C. may be used. Use weight of ⅝"ø stud as basis of measurement of Structural Steel in anchors.

| TABLE OF SILICONE JOINT DATA | | | | | |
|---|---|---|---|---|---|
| Bent No. | "A" Width Perpendicular To Joint At 24 Hour Average Temperature (8) Of: | | | "B" Perpendicular To Joint At 60°F | Bumper Plate Size |
| | 40°F | 60°F | 80°F | | |
| 1 & 3 | 2 3/16" | 2" | 1 13/16" | 2¼"± | 1" x 1" x 12" |

(8) The temperature used to set the joint opening shall be the approximate average air temperature during the 24-hour period immediately before the bolts are tightened. The Engineer shall establish the temperature. Interpolation of the table may be necessary.

(1) TOLERANCE:
Minus = ¼"
Plus = Amount of slab thickening used to meet slab thickness tolerance - See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Std. Dwg. No. 55007.

(2) See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE" on Std. Dwg. No. 55007.

(3) Bundle with #5 bars in top. Rotate as needed to avoid interference with bottom mat of deck reinforcement.

(4) See "ROUNDING DETAIL" on Std. Dwg. No. 55007

(5) Measured to working point - see "ROUNDING DETAIL", on Std. Dwg. No. 55007.

NOTES:
For Standard General Notes and details, see Std. Dwg. Nos. 55006 & 55007.

Class 2 Protective Surface Treatment shall be applied to the roadway surface.

Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in Special Provision "TEXTURED COATING FINISH" and in accordance with Subsection 802.19(b)(3). Textured Coating Finish shall not be applied on surfaces where Class 2 Protective Surface Treatment is applied.

Bar positions and clearances from the forms shall be maintained by means of stays, ties, hangers or other approved devices sufficient in size and number to prevent displacement during construction, per Subsection 804.06. Placement of slab bolsters or hi-chairs with full-length lower runners directly on removable deck forms will not be allowed.

For "BAR LIST" and "BAR BENDING DIAGRAMS", see Dwg. No. 66852

For additional details of poured silicone joints, see Std. Dwg. No. 55008.

For "SCREED RAIL SUPPORT FOR PLATE GIRDERS", see Std. Dwg. No. 55007.

The profile of the Roadway Channel shall be established based on the vertical curve in conjunction with the skew.

EXPANSION DEVICE:
Rdwy. Channel: MC18x42.7
Conn. Angles: L8x4x½
Detail device ⅛" high and provide ¼" shims using 2 - 1/16" and 1 - ⅛" plates

STATE OF ARKANSAS
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COLTON S. WYLIE

Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 1 OF 5
# DETAILS OF 216'-0" CONTINUOUS PLATE GIRDER UNIT MALONE LN.

ROUTE SEC.

## ARKANSAS STATE HIGHWAY COMMISSION

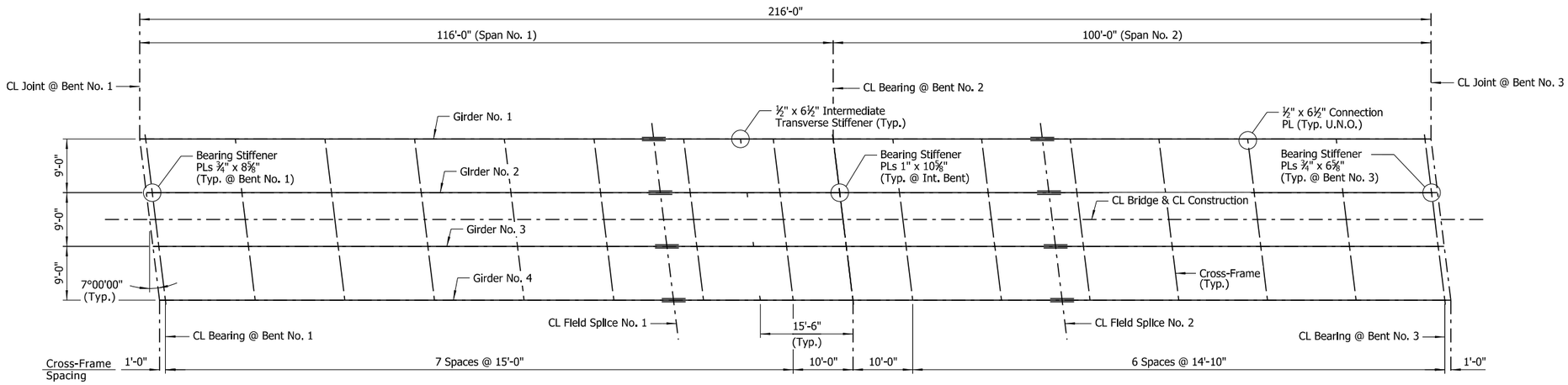
LITTLE ROCK, ARK.

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CHECKED BY: CSW DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: MJS DATE: APR. 2023

BRIDGE NO. 07661 DRAWING NO. 66848

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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | 07661 | | 216'-0" UNIT | | 66849 |

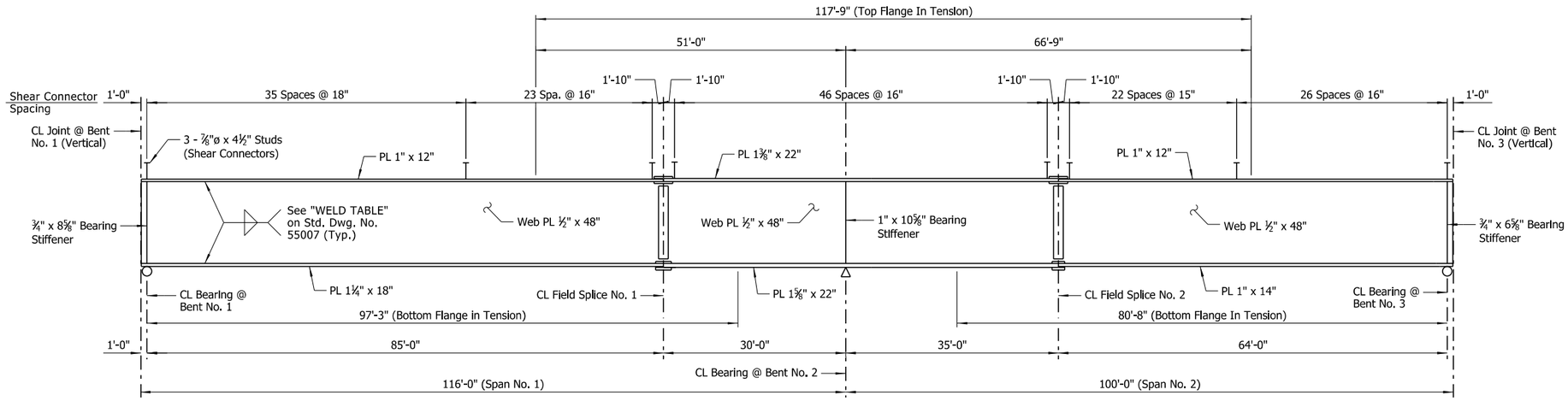



## FRAMING PLAN

Scale: 3/32" = 1'-0"

## LEGEND

U.N.O. = Unless Noted Otherwise




## TYPICAL GIRDER ELEVATION

No Scale

NOTES:
For "GENERAL NOTES", see Std. Dwg. No. 55006.

All structural steel shall be ASTM A709, Gr. 50 unless noted otherwise and shall be paid for at the unit price per pound bid for "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50)".

Bolted Field Splices shown may be eliminated or shop welded splices may be substituted with approval of the Engineer. Payment will be made on the basis of the Plan Quantities.

For "DETAILS OF WELDED SPLICES FOR PLATE GIRDERS", "SHEAR CONNECTOR DETAIL" and "SCREED RAIL SUPPORT FOR PLATE GIRDERS", see Std. Dwg. No. 55007.

The Contractor shall ensure that girders are stable throughout the erection process. The Contractor will be responsible for providing temporary bracing or stiffening devices to accommodate handling stresses in individual members or segments of the structure during erection.

For field splice details, see Dwg. No. 66850.

For cross-frame, stiffener and connection plate details, see Dwg. No. 66851.

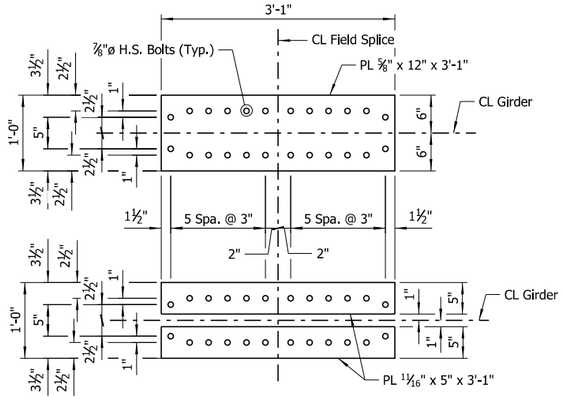
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 2 OF 5
DETAILS OF 216'-0" CONTINUOUS PLATE GIRDER UNIT
MALONE LN.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MHH DATE: OCT. 2022 FILENAME: b090069x6_s2.dgn
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DESIGNED BY: MJS DATE: APR. 2023
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| | | 07661 | | 216'-0" UNIT | | 66850 |



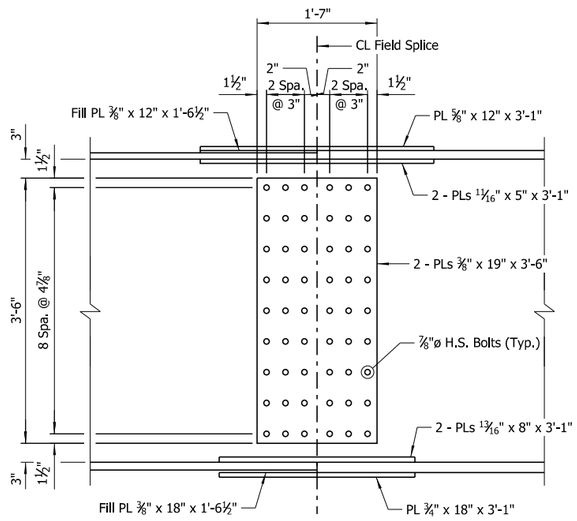

## TOP FLANGE FIELD SPLICE NOS. 1 & 2

Scale: 1" = 1'-0"

NOTES:
All Field splice bolts shall be ⅞"ø high strength bolts.

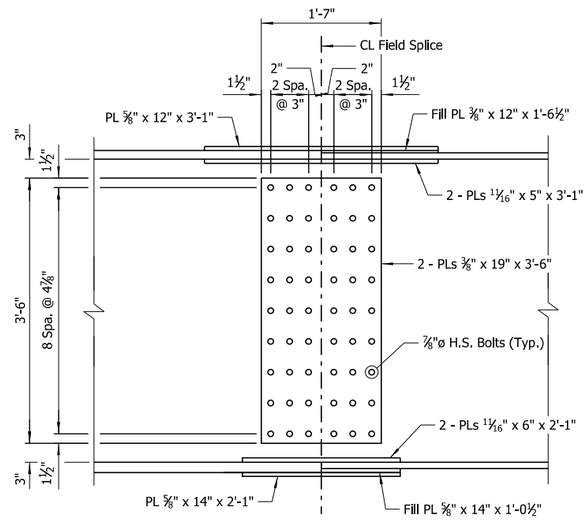
All holes for field splice bolts shall be $^{15}/_{16}$"ø

All field splice plates shall be ASTM A709, Gr. 50.



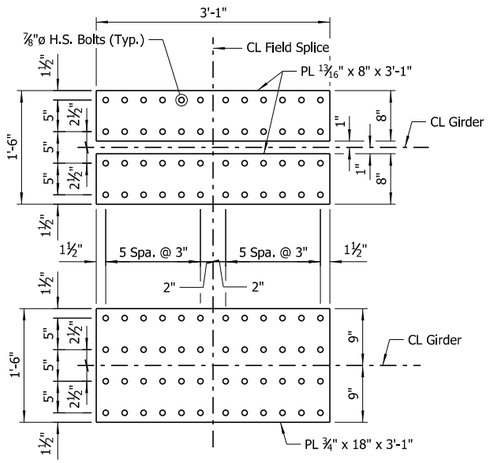

## ELEVATION OF FIELD SPLICE NO. 1

Scale: 1" = 1'-0"



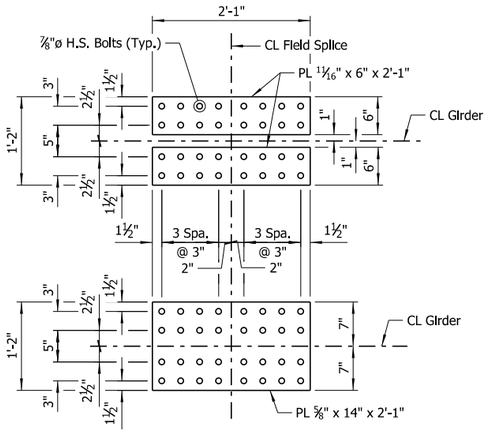

## ELEVATION OF FIELD SPLICE NO. 2

Scale: 1" = 1'-0"




## BOTTOM FLANGE FIELD SPLICE NO. 1

Scale: 1" = 1'-0"

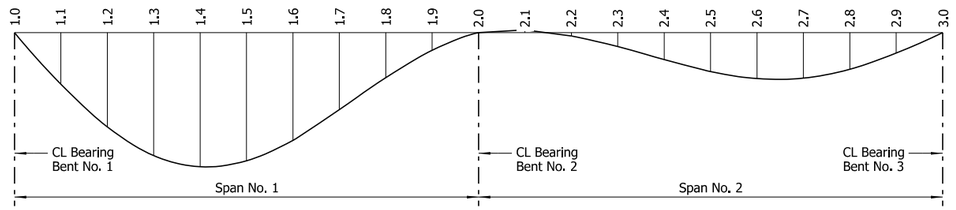



## BOTTOM FLANGE FIELD SPLICE NO. 2

Scale: 1" = 1'-0"

### TABLE OF DEAD LOAD DEFLECTIONS (INCHES)

| | Point Of Deflection | Exterior Girders: Structural Steel | Exterior Girders: Structural Steel + Slab | Exterior Girders: Structural Steel + Slab + Rail | Interior Girders: Structural Steel | Interior Girders: Structural Steel + Slab | Interior Girders: Structural Steel + Slab + Rail |
|---|---|---|---|---|---|---|---|
| Span No. 1 | 1.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | 1.1 | 0.191 | 0.885 | 0.973 | 0.209 | 1.084 | 1.166 |
| | 1.2 | 0.352 | 1.629 | 1.791 | 0.386 | 1.997 | 2.149 |
| | 1.3 | 0.463 | 2.135 | 2.349 | 0.507 | 2.616 | 2.816 |
| | 1.4 | 0.511 | 2.349 | 2.585 | 0.559 | 2.877 | 3.098 |
| | 1.5 | 0.495 | 2.264 | 2.493 | 0.542 | 2.773 | 2.988 |
| | 1.6 | 0.423 | 1.919 | 2.115 | 0.462 | 2.349 | 2.533 |
| | 1.7 | 0.311 | 1.396 | 1.540 | 0.340 | 1.709 | 1.844 |
| | 1.8 | 0.186 | 0.822 | 0.907 | 0.202 | 1.004 | 1.084 |
| | 1.9 | 0.073 | 0.316 | 0.348 | 0.079 | 0.385 | 0.415 |
| | 2.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Span No. 2 | 2.1 | -0.012 | -0.040 | -0.042 | -0.013 | -0.048 | -0.050 |
| | 2.2 | 0.011 | 0.084 | 0.098 | 0.012 | 0.104 | 0.118 |
| | 2.3 | 0.051 | 0.295 | 0.334 | 0.058 | 0.365 | 0.403 |
| | 2.4 | 0.098 | 0.537 | 0.604 | 0.109 | 0.663 | 0.727 |
| | 2.5 | 0.138 | 0.747 | 0.836 | 0.154 | 0.922 | 1.007 |
| | 2.6 | 0.160 | 0.860 | 0.960 | 0.178 | 1.061 | 1.156 |
| | 2.7 | 0.156 | 0.836 | 0.931 | 0.173 | 1.031 | 1.121 |
| | 2.8 | 0.124 | 0.666 | 0.741 | 0.138 | 0.822 | 0.893 |
| | 2.9 | 0.069 | 0.371 | 0.413 | 0.077 | 0.458 | 0.497 |
| | 3.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |




## DEAD LOAD DEFLECTION DIAGRAM

No Scale

NOTES:
Camber for dead load deflection plus vertical curve +/- ¼" tolerance. Deflections shown are along CL Girder from a chord from CL Bearing to CL Bearing. Negative sign (-) indicates a point above chord. Vertical curve corrections are not included.

Dead load deflections shown include an assumed loading of 18 psf to account for stay-in-place metal deck forms.

Revision to the deflection tables may be necessary upon review of the Contractor's submitted forming details.

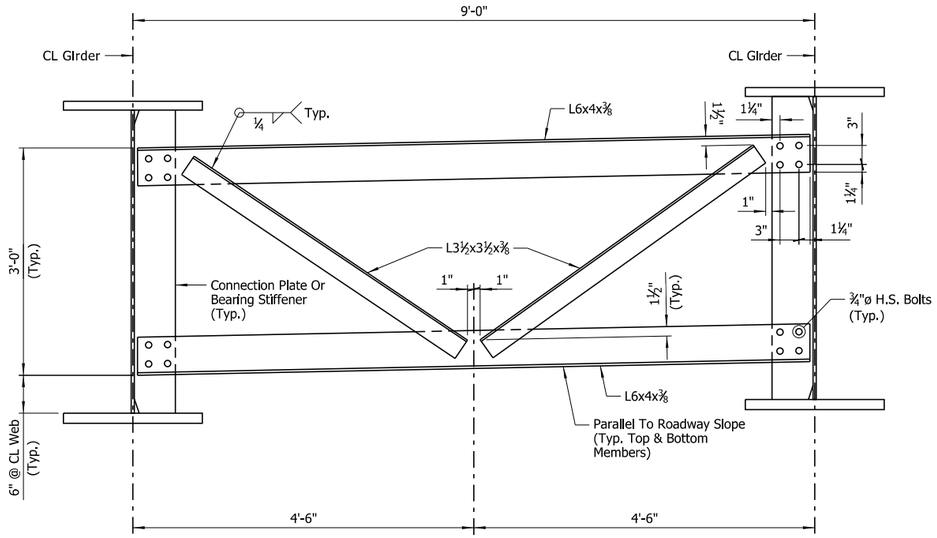
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 3 OF 5
DETAILS OF 216'-0" CONTINUOUS PLATE GIRDER UNIT
MALONE LN.
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JAN. 2023 FILENAME: b090069x6_s3.dgn
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DESIGNED BY: MJS DATE: JAN. 2023
BRIDGE NO. 07661 DRAWING NO. 66850

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WORKSPACE: ARDOT Bridge (2019)
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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 403 | 583 |
| | | 07661 | | 216'-0" UNIT | | 66851 |




## CROSS-FRAME DETAIL

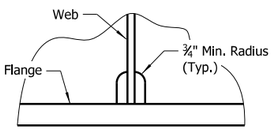
Scale: 1" = 1'-0"

NOTE:
Cross-frames at end bents shall be fabricated such that the horizontal legs of L6x4x⅜ chord members point away from CL Joint.

(1) See "WELD TABLE" on Std. Dwg. No. 55007 for minimum weld size.

(2) Stop weld ¼" to 1" from end of clip (Typ.)

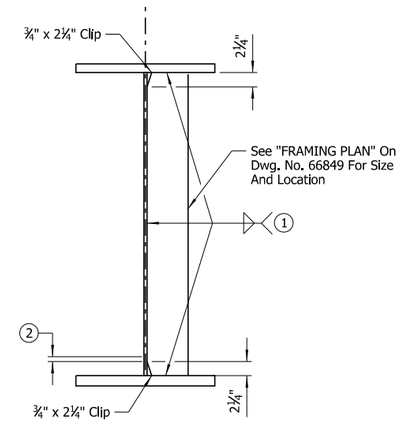
(3) If permanent deck forms are used, the fabricator shall clip the plate as necessary to accommodate the deck form supports.




Height and width of clip shall be as noted in other details.

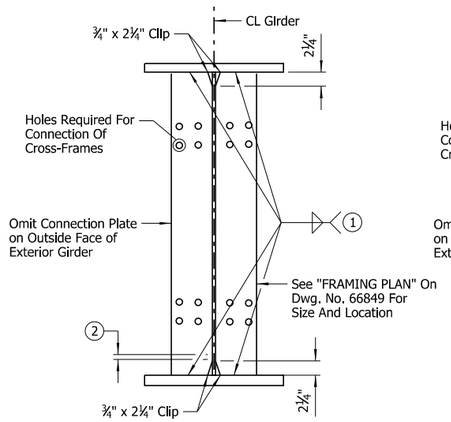
## ALTERNATE CLIP DETAIL

(For Bearing Stiffeners, Intermediate Transverse Stiffeners and Cross-frame Connection Plates)
No Scale

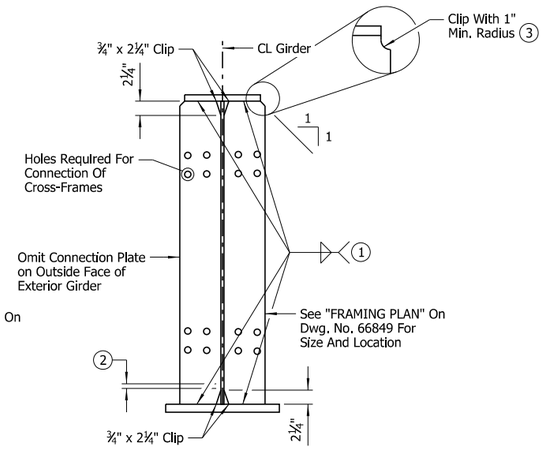



## INTERMEDIATE TRANSVERSE STIFFENER DETAIL

Scale: 1" = 1'-0"



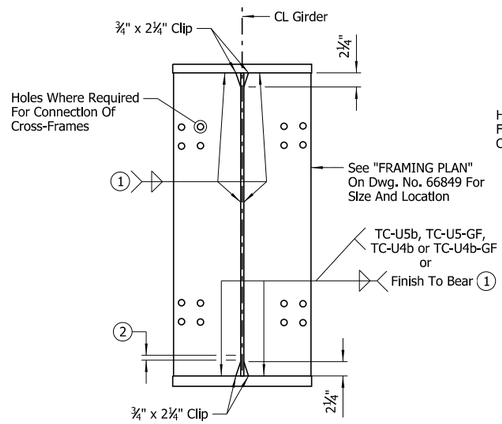

## GIRDER WITH 22" TOP FLANGE



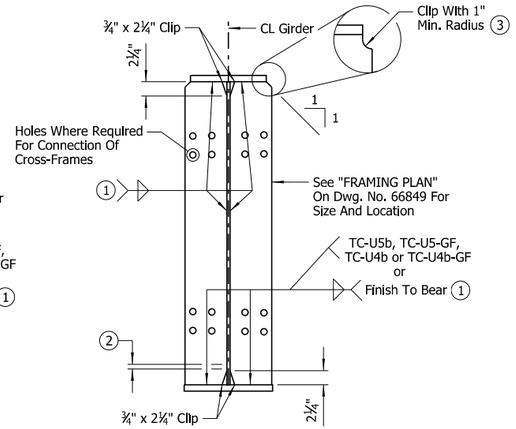

## GIRDER WITH 12" TOP FLANGE

## CONNECTION PLATE DETAIL

Scale: 1" = 1'-0"




## BENT 2




## BENT 1 & 3

NOTES:
Bearing Stiffeners shall be fabricated to be vertical in their final positions.

Bearing Stiffeners are to be placed on both sides of all girder webs at bent locations.

Omit holes on outside bearing stiffeners on exterior girders.

## BEARING STIFFENER DETAIL

Scale: 1" = 1'-0"

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# SHEET 4 OF 5
# DETAILS OF 216'-0" CONTINUOUS PLATE GIRDER UNIT MALONE LN.

ROUTE SEC.

## ARKANSAS STATE HIGHWAY COMMISSION

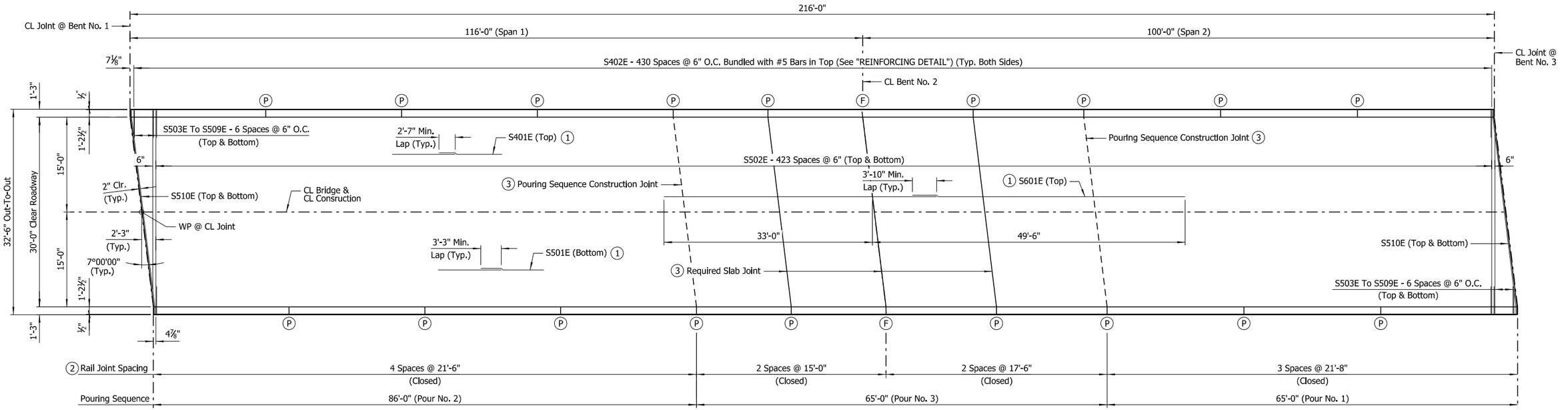
LITTLE ROCK, ARK.

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CHECKED BY: CSW DATE: JULY 2023 SCALE: As Shown
DESIGNED BY: MJS DATE: JAN. 2023

BRIDGE NO. 07661 DRAWING NO. 66851

JESkinner 10/20/2023 2:14:00 PM
WORKSPACE: ARDOT Bridge (2019)
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 404 | 583 |
| | | 07661 | | 216'-0" UNIT | | 66852 |




## REINFORCING PLAN & SLAB POURING SEQUENCE

Scale: ⅛" = 1'-0"

NOTES:
Pour (1) must be placed before Pour (2) can be placed. Pour (2) must be placed before Pour (3) can be placed. 48 hours shall elapse between the end of a pour and the start of the next pour. 72 hours shall elapse between adjacent pours.

Concrete in bridge superstructure shall be placed, consolidated and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

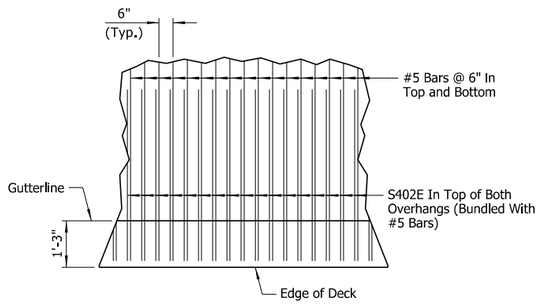
A minimum of 72 hours shall elapse between the completion of the entire deck slab and the start of a railing pour. Any railing pours made before the entire slab unit has been placed must be approved by the Engineer.

No deviations from the pouring sequence shown will be allowed.

Required slab joints and pouring sequence joints shall align with rail joints at gutterline.

For "STANDARD GENERAL NOTES", see Std. Dwg. No. 55006.

For Concrete Bridge Rail details, see Std. Dwg. No. 55070.



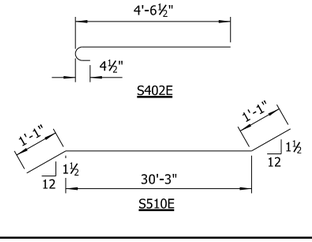

## REINFORCING DETAIL

No Scale

### BAR LIST

| MARK | NO. REQ'D | LENGTH | P.D. |
|---|---|---|---|
| S401E | 204 | 38'-1" | Str. |
| S402E | 862 | 5'-0½" | 3" |
| | | | |
| S501E | 152 | 56'-4" | Str. |
| S502E | 848 | 32'-2" | Str. |
| S503E To S509E | 4 Each | 3'-10" To 28'-3½" | Str. |
| S510E | 4 | 32'-5" | 3¾" |
| | | | |
| S601E | 66 | 43'-2" | Str. |
| | | | |
| R401E | 868 | 6'-4" | 2½", 3" |
| R402E | 72 | 5'-6" | Str. |
| R403E | 868 | 3'-6" | 3", 3¾" |
| R404E | 32 | 14'-8" | Str. |
| R405E | 32 | 17'-2" | Str. |
| R406E | 64 | 21'-2" | Str. |
| R407E | 48 | 21'-4" | Str. |

### BAR BENDING DIAGRAMS




NOTES:
Dimensions of bars are out-to-out.

Bar designations ending with "E" indicate epoxy coated bars.

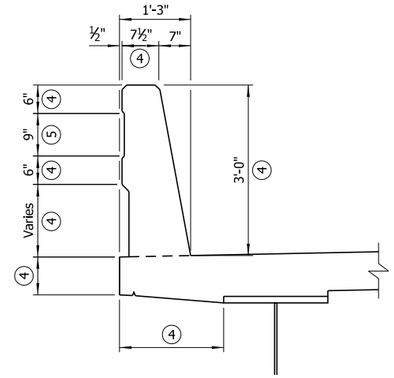
For bar bending diagrams of R401E & R403E, see Std. Dwg. No. 55070

The first bar designation number indicates the reinforcing bar size.

1. Place as shown in "TYPICAL ROADWAY SECTION" on Dwg. No. 66848.
2. Rail joints designated with symbol (F) shall be stopped 6" from top of slab. All other rail joints with symbol (P) shall be partial-depth joints stopped 16" from top of slab.
3. See "TRANSVERSE SLAB JOINT DETAIL" on Std. Dwg. No. 55007

### TABLE OF VARIABLES

| Closed Rail Panels | | |
|---|---|---|
| Panel Length | A | R4XXE |
| 15'-0" | 29 | 04 |
| 17'-6" | 34 | 05 |
| 21'-6" | 42 | 06 |
| 21'-8" | 43 | 07 |




4 Class 3 Textured Coating Finish
(Color - Light Brown, Color Chip No. 33522)

5 Class 3 Textured Coating Finish
(Color - Tan, Color Chip No. 30219)

## BRIDGE RAIL AESTHETIC DETAIL

No Scale

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SHEET 5 OF 5
DETAILS OF 216'-0" CONTINUOUS
PLATE GIRDER UNIT
MALONE LN.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

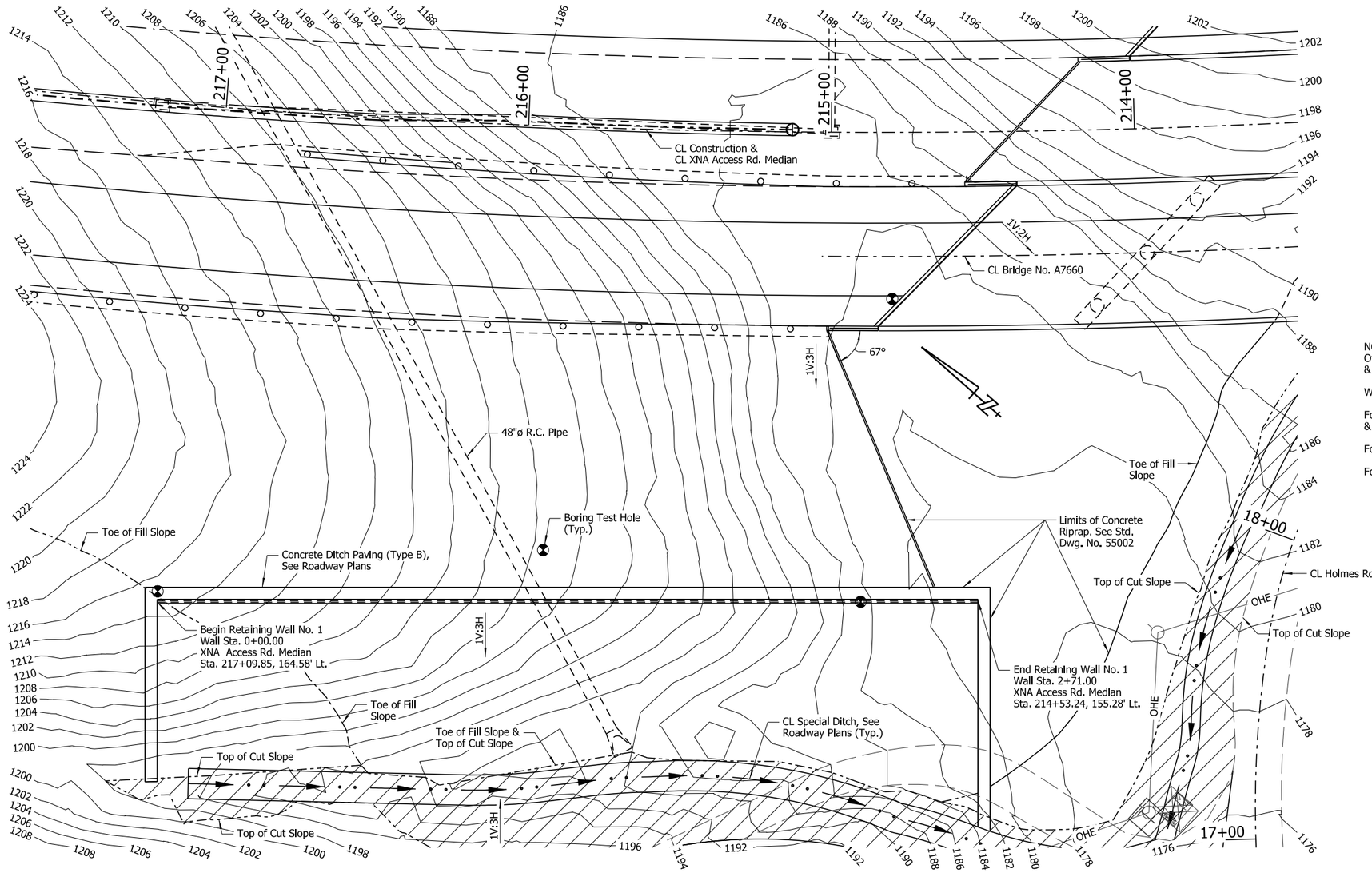
LITTLE ROCK, ARK.

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DESIGNED BY: MJS DATE: OCT. 2022

BRIDGE NO. 07661 DRAWING NO. 66852

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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 405 | 583 |
| | | A7660 | | RETAINING WALLS | | 66853 |




PLAN - RETAINING WALL NO. 1

Scale: 1" = 20'-0"

NOTES:
Offset dimensions for Retaining Wall No. 1 are measured from CL Construction & CL XNA Access Rd. Median to outside vertical face of retaining wall.

Wall stationing shown is taken along outside vertical face of retaining wall.

For "ELEVATION - RETAINING WALL NO. 1", "BORING LEGEND", "N-VALUES" & "RETAINING WALL NO. 1 DESIGN PARAMETERS", see Dwg. No. 66854.

For retaining wall sections and additional details, see Dwg. No. 66857.

For "GENERAL NOTES" and "TABLE OF QUANTITIES", see Dwg. No. 66859.

## EXISTING UTILITIES LEGEND

OHE = Overhead Electric

NOTE:
Utilities shown are based on locations at time of survey and do not reflect any potential utility relocations prior to construction.

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SHEET 1 OF 4
DETAILS OF RETAINING WALLS

ROUTE SEC.

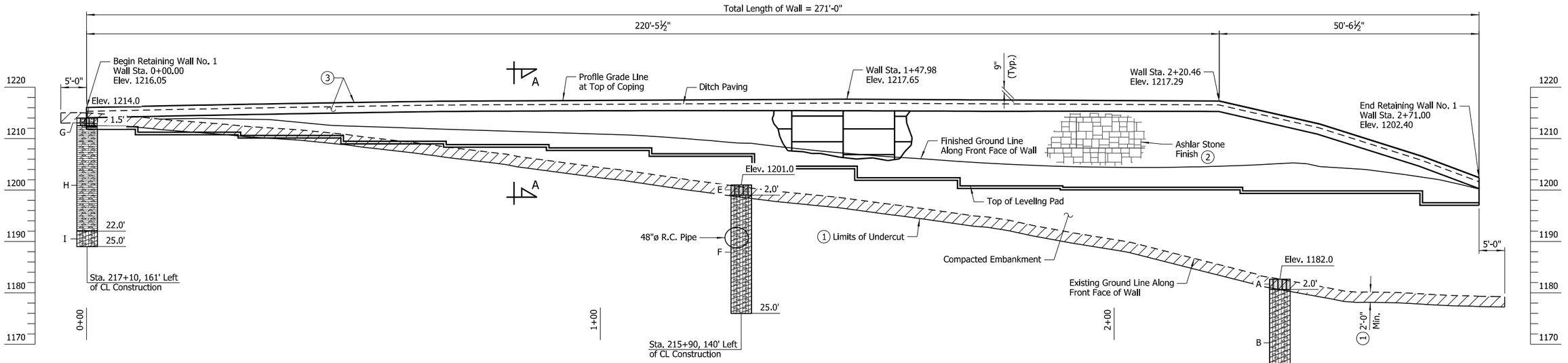
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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| DESIGNED BY: | CSW | DATE: | MAY 2023 | | |

BRIDGE NO. A7660 DRAWING NO. 66853

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|---|---|---|---|---|---|---|
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| | | A7660 | | RETAINING WALLS | | 66854 |




## ELEVATION - RETAINING WALL NO. 1

(Looking At Front Face of Wall)
Scale: 1/16" = 1'-0"

(1) Undercut shall extend a minimum of 2'-0" into existing ground for the entire length of Retaining Wall No. 1, plus 5'-0" at each end. Undercuts should extend to the stiff to very stiff reddish brown silty clay or the low hardness pale red highly weathered limestone. For more details of the limits of undercut, see "UNDERCUT DETAIL - RETAINING WALL NO. 1" on Dwg. No. 66857.

(2) Class 3 Textured Coating Finish (Color = Tan, Color Chip No. 30219)

(3) Class 3 Textured Coating Finish (Color = Light Brown, Color Chip No. 33522)

## N-VALUES

| Sta. 214+90<br>155' Lt. of CL Construction | Sta. 215+90<br>140' Lt. of CL Construction | Sta. 217+10<br>161' Lt. of CL Construction |
|---|---|---|
| 0.5-1.5, N=14 | 0.5-1.5, N=10 | 0.5-1.5, N=14 |
| 2.5-3.5, N=15 | 2.5-3.5, N=12 | 2.5-3.5, N=25 |
| 4.5-5.5, N=50/5" | 4.5-5.5, N=33 | 5.0-5.5, N=50/3" |
| 6.5-7.5, N=45 | 6.5-7.0, N=50/4" | 7.0-7.5, N=50/4" |
| 9.0-10.0, N=19 | 9.0-10.0, N=33 | 9.0-10.0, N=46 |
| 14.0-15.0, N=24 | 14.0-15.0, N=21 | 14.5-15.0, N=50/2" |
| 19.0-20.0, N=4 | 19.0-20.0, N=50/5" | 19.0-20.0, N=30 |
| 24.0-25.0, N=3 | 24.0-25.0, N=10 | 24.0-25.0, N=25 |

## BORING LEGEND

A - Medium dense brown fine sandy silt w/ chert nodules and fragments
B - Stiff reddish brown silty clay w/ numerous chert fragments and nodules
C - Very soft reddish tan and yellowish brown silty clay, calcareous w/ chert nodules (completely weathered chert limestone)
D - Moderately hard gray and light gray cherty limestone
E - Loose to medium dense brown fine sandy silt w/ chert nodules and fragments and trace organics
F - Stiff to very stiff reddish brown silty clay w/ numerous chert nodules and fragments
G - Medium dense light brown silt w/ chert and limestone fragments
H - Low hardness pale red highly weathered limestone w/ chert nodules and fragments and discontinuous chert seams
I - Very stiff reddish brown silty clay w/ numerous chert nodules and fragments

## RETAINING WALL NO. 1 ELEVATIONS

| Wall Sta. | Finished Ground Elev. | Existing Ground Elev. | Max. Top of Levelling Pad Elev. | Profile Grade at Top of Coping Elev. |
|---|---|---|---|---|
| 0+00.00 | - | 1214.95 | 1212.28 | 1216.05 |
| 0+20.00 | 1213.90 | 1213.32 | 1211.23 | 1216.45 |
| 0+40.00 | 1213.27 | 1211.77 | 1210.60 | 1216.81 |
| 0+60.00 | 1212.14 | 1209.63 | 1209.47 | 1217.13 |
| 0+80.00 | 1211.50 | 1207.16 | 1208.83 | 1217.32 |
| 1+00.00 | 1210.86 | 1204.37 | 1208.19 | 1217.42 |
| 1+20.00 | 1209.71 | 1201.61 | 1207.04 | 1217.51 |
| 1+40.00 | 1207.87 | 1199.19 | 1204.62 | 1217.61 |
| 1+47.98 | 1207.11 | 1198.35 | 1202.37 | 1217.65 |
| 1+60.00 | 1206.21 | 1196.76 | 1202.37 | 1217.59 |
| 1+80.00 | 1204.97 | 1194.01 | 1200.80 | 1217.49 |
| 2+00.00 | 1204.40 | 1190.36 | 1200.45 | 1217.39 |
| 2+20.46 | 1204.60 | 1185.56 | 1200.73 | 1217.29 |
| 2+40.00 | 1204.54 | 1181.25 | 1201.87 | 1212.81 |
| 2+60.00 | 1202.49 | 1179.78 | 1199.82 | 1206.51 |
| 2+71.00 | 1200.19 | 1179.31 | 1197.52 | 1202.40 |

NOTES:
Wall stationing shown is taken along outside vertical face of Retaining Wall.

Wall elevations shown are measured along Profile Grade Line at top of coping.

For "SECTION A-A", see Dwg. No. 66857.

For "GENERAL NOTES" and "TABLE OF QUANTITIES", see Dwg. No. 66859.

## RETAINING WALL NO. 1 DESIGN PARAMETERS

| Factored Bearing Resistance (KSF) | Minimum Strap Length (FT) |
|---|---|
| 6.5 (4) | Greater of 0.7H and 8 |

NOTE:
"H" shall be measured from the top of leveling pad elevation to the finished surface.

(4) Based on undercut and backfill requirements as shown in the plans

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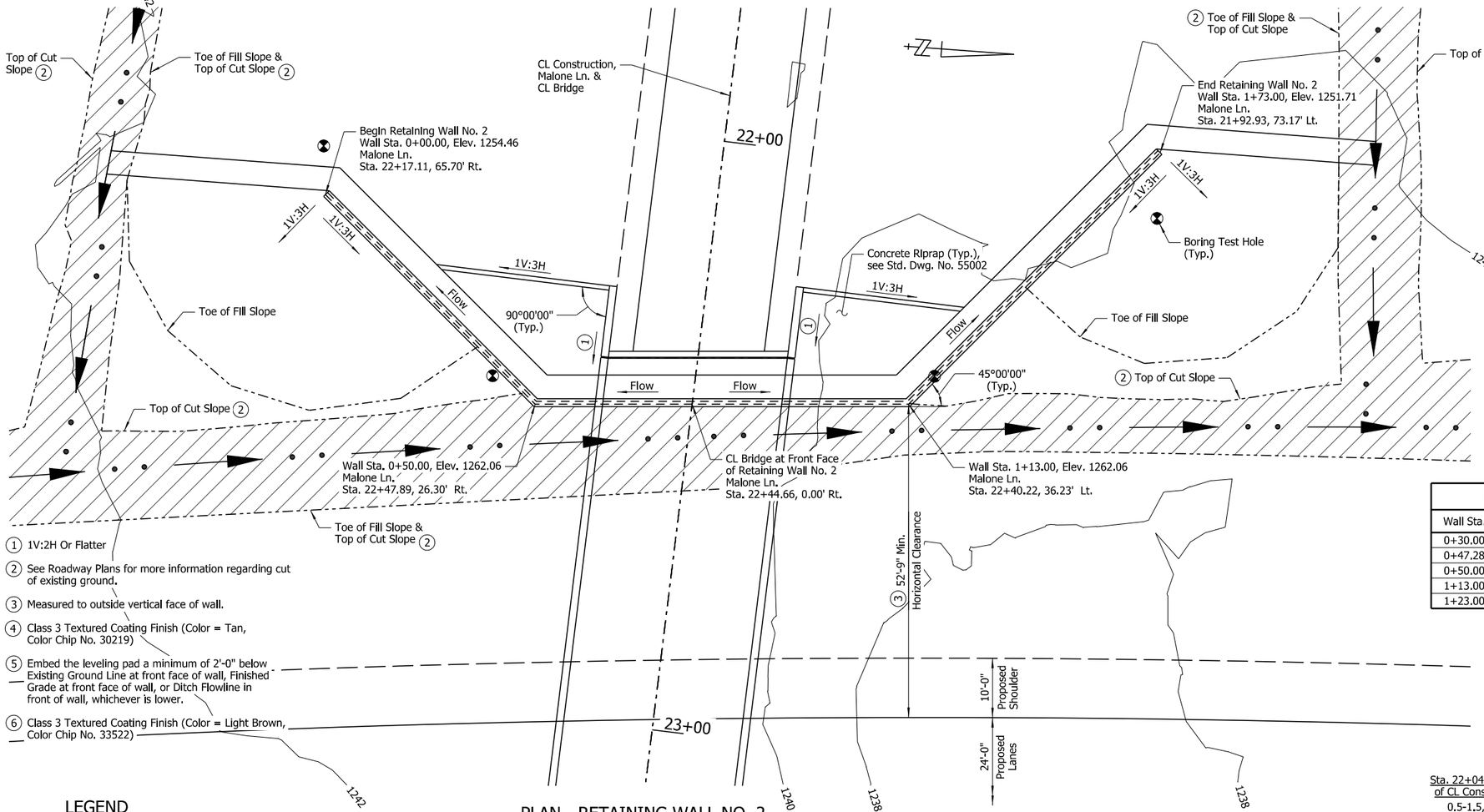
SHEET 2 OF 4
DETAILS OF RETAINING WALLS
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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BRIDGE NO. A7660 DRAWING NO. 66854

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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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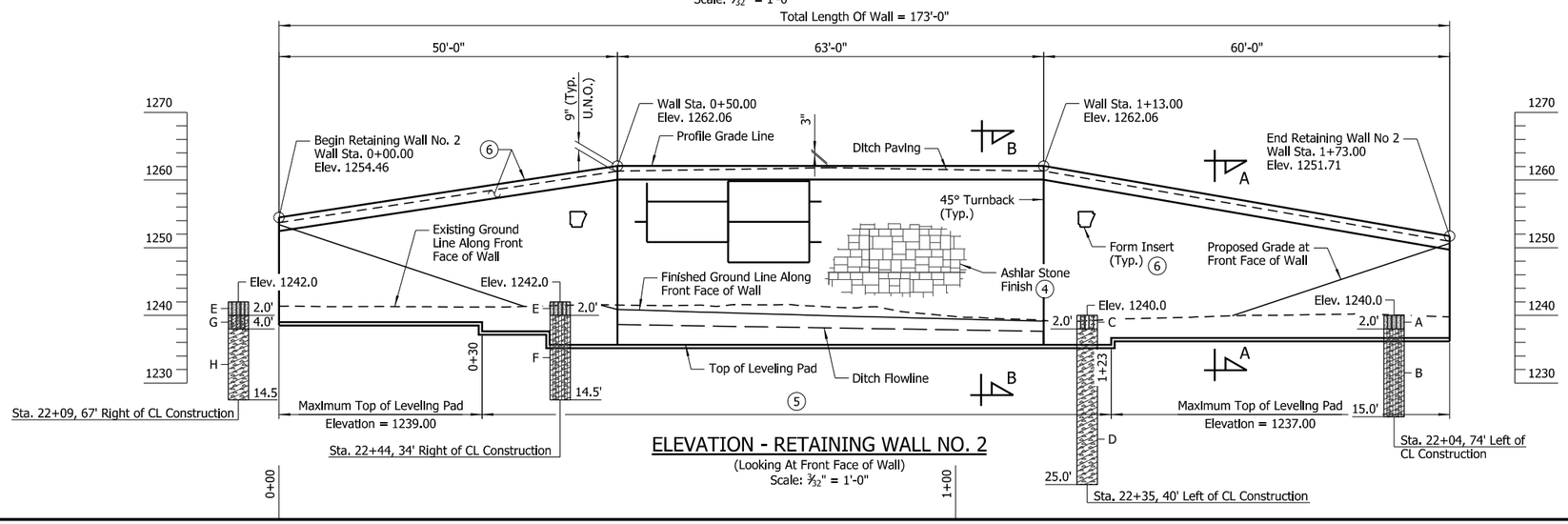

## PLAN - RETAINING WALL NO. 2

Scale: 3/32" = 1'-0"

1. 1V:2H Or Flatter
2. See Roadway Plans for more information regarding cut of existing ground.
3. Measured to outside vertical face of wall.
4. Class 3 Textured Coating Finish (Color = Tan, Color Chip No. 30219)
5. Embed the leveling pad a minimum of 2'-0" below Existing Ground Line at front face of wall, Finished Grade at front face of wall, or Ditch Flowline in front of wall, whichever is lower.
6. Class 3 Textured Coating Finish (Color = Light Brown, Color Chip No. 33522)

## LEGEND

U.N.O. = Unless Noted Otherwise




## ELEVATION - RETAINING WALL NO. 2

(Looking At Front Face of Wall)
Scale: 3/32" = 1'-0"

NOTES:
Offset dimensions for Retaining Wall No. 2 are measured from CL Construction & CL Malone Ln. to outside vertical face of Retaining Wall.

Wall stationing shown is taken along outside vertical face of Retaining Wall.

Wall Elevations shown are measured along Profile Grade Line at top of coping.

For "SECTION A-A" and "SECTION B-B", see Dwg. No. 66857.

For FORM INSERT DETAILS, see Dwg. No. 66858.

For "GENERAL NOTES" and "TABLE OF QUANTITIES", see Dwg. No. 66859

For additional soil boring information, see Bridge Layout.

## RETAINING WALL NO. 2 DESIGN PARAMETERS

| Factored Bearing Resistance (KSF) | Minimum Strap Length (FT) |
|---|---|
| 10.4 | Greater of 0.7H or 8 |

NOTE:
"H" shall be measured from the top of leveling pad elevation to the finished surface.

## RETAINING WALL NO. 2 ELEVATIONS

| Wall Sta. | Finished Grade Elev. | Ditch Flowline Elev. | Existing Ground Elev. |
|---|---|---|---|
| 0+30.00 | - | - | 1241.23 |
| 0+47.28 | 1241.56 | - | 1241.56 |
| 0+50.00 | 1240.86 | 1238.63 | 1241.52 |
| 1+13.00 | 1239.15 | 1237.64 | 1239.24 |
| 1+23.00 | - | - | 1239.40 |

## N-VALUES

| Sta. 22+04, 74' Left of CL Construction | Sta. 22+35, 40' Left of CL Construction | Sta. 22+44, 34' Right of CL Construction | Sta. 22+09, 67' Right of CL Construction |
|---|---|---|---|
| 0.5-1.5, N=4<br>2.5-3.5, N=32<br>4.5-5.5, N=50/7"<br>6.5-7.5, N=50/3"<br>9.0-10.0, N=50/4"<br>14.5-15.0, N=25/0" | 0.5-1.5, N=12<br>2.5-3.5, N=19<br>4.5-5.5, N=50/6"<br>6.5-7.5, N=50/4"<br>9.0-10.0, N=50/6"<br>14.0-15.0, N=50/4"<br>19.0-20.0, N=50/3"<br>24.0-25.0, N=25/0" | 0.5-1.5, N=3<br>2.5-3.5, N=31<br>4.5-5.5, N=50/7"<br>6.5-7.5, N=50/5"<br>9.5-10.0, N=25/0"<br>14.0-14.5, N=25/0" | 0.5-1.5, N=4<br>2.5-3.5, N=50"<br>4.5-5.5, N=50/9"<br>6.5-7.5, N=50/4"<br>9.0-10.0, N=50/6"<br>14.0-14.5, N=25/0" |

## BORING LEGEND

A - Loose brown and tan fine sandy silt, slightly clayey
B - Stiff to very stiff reddish brown clay w/ chert nodules and fragments
C - Medium dense dark brown silt w/ chert nodules and trace organics
D - Stiff red and reddish brown clay w/ chert nodules and fragments
E - Loose tan fine sandy silt w/ chert nodules
F - Stiff to very stiff tan and gray silty clay w/ numerous chert nodules and fragments
G - Very stiff tan and gray clayey silt w/ chert nodules and fragments
H - Stiff to very stiff reddish brown and gray clay w/ chert nodules and fragments and discontinuous chert seams and layers

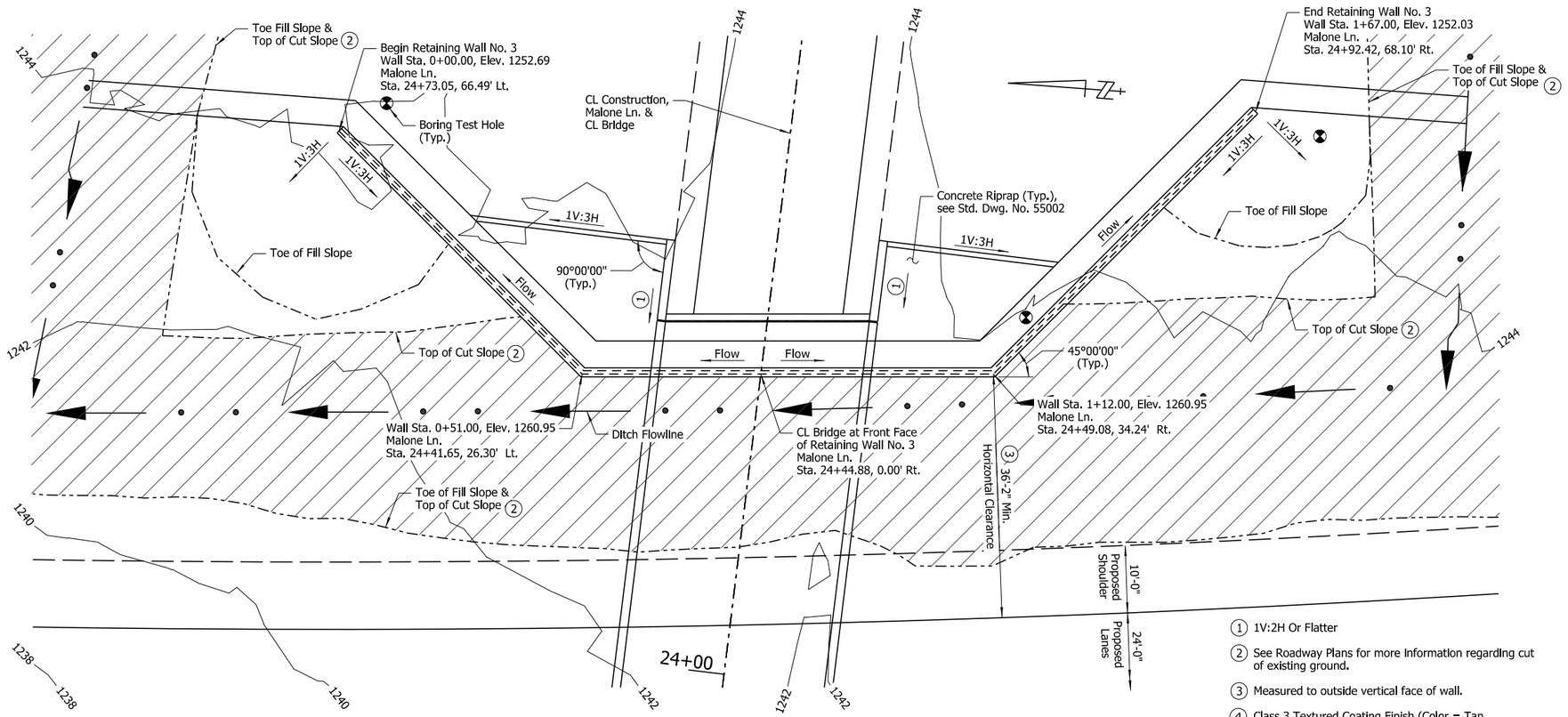
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 3 OF 4
DETAILS OF RETAINING WALLS
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: HEW DATE: JUNE 2023 FILENAME: b090069_rw3.dgn
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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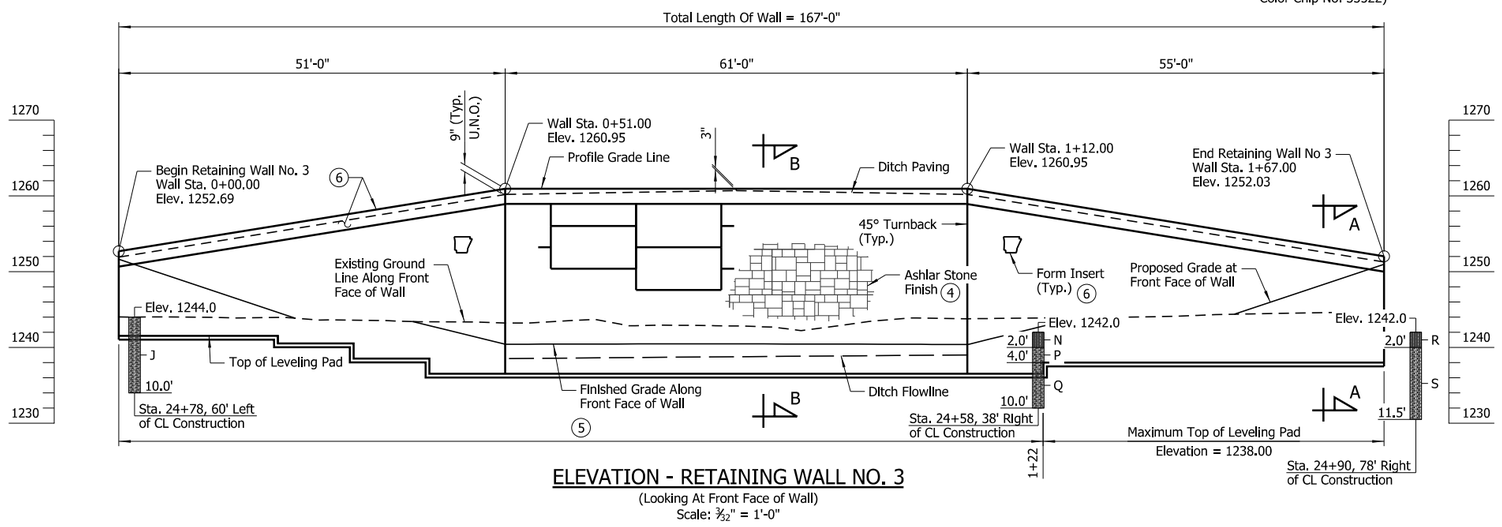

## PLAN - RETAINING WALL NO. 3

Scale: 3/32" = 1'-0"

## LEGEND

U.N.O. = Unless Noted Otherwise

1. 1V:2H Or Flatter
2. See Roadway Plans for more Information regarding cut of existing ground.
3. Measured to outside vertical face of wall.
4. Class 3 Textured Coating Finish (Color = Tan, Color Chip No. 30219)
5. Embed the levelling pad a minimum of 2'-0" below Existing Ground Line at front face of wall, Finished Grade at front face of wall, or Ditch Flowline in front of wall, whichever is lower.
6. Class 3 Textured Coating Finish (Color = Light Brown, Color Chip No. 33522)




## ELEVATION - RETAINING WALL NO. 3

(Looking At Front Face of Wall)
Scale: 3/32" = 1'-0"

NOTES:
Offset dimensions for Retaining Wall No. 3 are measured from CL Construction & CL Malone Ln. to outside vertical face of Retaining Wall.

Wall stationing shown is taken along outside vertical face of Retaining Wall.

Wall Elevations shown are measured along Profile Grade Line at top of coping.

For "SECTION A-A" and "SECTION B-B", see Dwg. No. 66857.

For FORM INSERT DETAILS, see Dwg. No. 66858.

For "GENERAL NOTES" and "TABLE OF QUANTITIES", see Dwg. No. 66859

For additional soil boring information, see Bridge Layout.

## RETAINING WALL NO. 3 DESIGN PARAMETERS

| Factored Bearing Resistance (KSF) | MInimum Strap Length (FT) |
|---|---|
| 10.4 | Greater of 0.7H or 8 |

NOTE:
"H" shall be measured from the top of levelIng pad elevation to the finished surface.

## RETAINING WALL NO. 3 ELEVATIONS

| Wall Sta. | Finished Grade Elev. | Ditch Flowline Elev. | Existing Ground Elev. |
|---|---|---|---|
| 0+00.00 | - | - | 1244.02 |
| 0+38.77 | 1243.41 | - | 1243.41 |
| 0+51.00 | 1240.42 | 1238.53 | 1243.22 |
| 1+12.00 | 1240.38 | 1239.01 | 1243.78 |
| 1+22.00 | 1242.82 | - | 1243.90 |

## N-VALUES

| Sta. 24+78, 60' Left of CL Construction | Sta. 24+58, 38' Right of CL Construction | Sta. 24+90, 78' Right of CL Construction |
|---|---|---|
| 0.5-1.5, N=31 | 0.5-1.5, N=5 | 0.5-1.5, N=4 |
| 2.5-3.5, N=50/7" | 2.5-3.5, N=27 | 2.5-3.5, N=48 |
| 4.5-5.5, N=50/6" | 4.5-5.5, N=50/11" | 4.5-5.5, N=50/3" |
| 6.5-7.0, N=50/3" | 6.5-7.5, N=50/7" | 6.5-7.5, N=50/7" |
| 9.0-9.5, N=25/0" | 8.5-9.0, N=50/4" | 9.0-10.0, N=50/5" |
| | 9.5-10.0, N=25/0" | 11.0-11.5, N=25/0" |

## BORING LEGEND

J - Stiff to very stiff reddish brown clay w/ chert nodules and fragments
K - Loose brown fine sandy silt w/ chert nodules and trace organics
L - Soft reddish tan silty clay w/ chert nodules
M - Very stiff reddish brown silty clay w/ numerous chert nodules and fragments and discontinuous chert seams and layers
N - Loose tan fine sandy silt, slightly clayey w/ chert nodules
P- Stiff to very stiff tan silty clay w/ chert nodules and fragments
Q - Very stiff reddish brown and tan silty clay w/ numerous chert nodules and fragments and discontinuous chert seams and layers
R - Loose tan silt, slightly sandy w/ chert nodules
S - Stiff to very stiff reddish brown and tan silty clay w/ chert nodules and fragments

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LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE

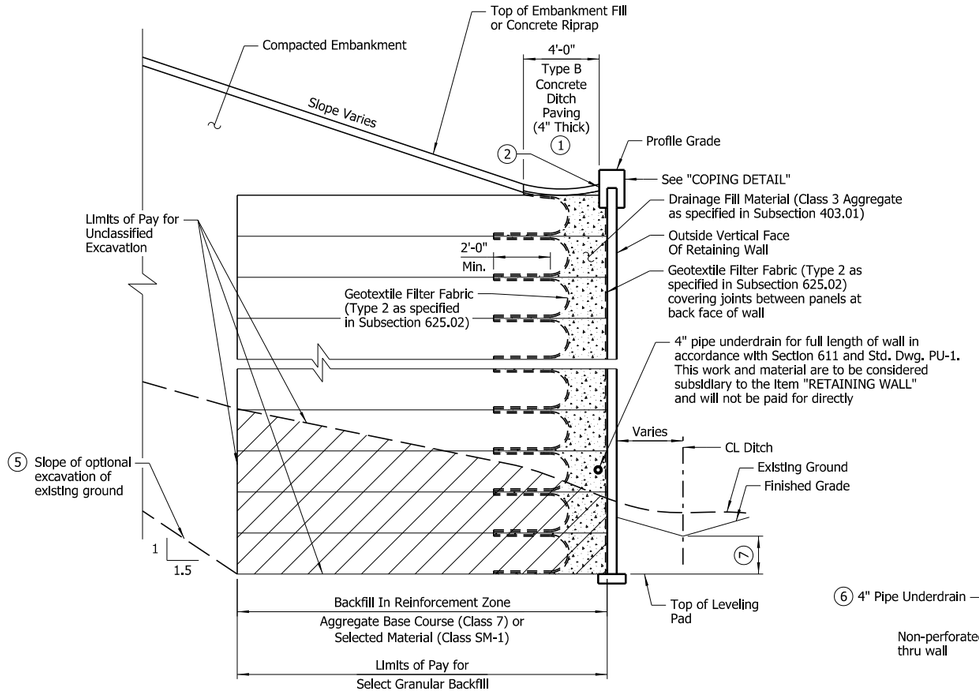
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 4 OF 4
DETAILS OF RETAINING WALLS
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: KWY DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: CSW DATE: JUNE 2023
BRIDGE NO. 07661 DRAWING NO. 66856

JESkinner 10/20/2023 2:14:10 PM
WORKSPACE: ARDOT Bridge (2019)
L:\2017\17017600 - XNA Access - NEPA\Drawings\b090069x9_S104_RW.dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 409 | 583 |
| | | SEE TABLE | | RETAINING WALLS | | 66857 |

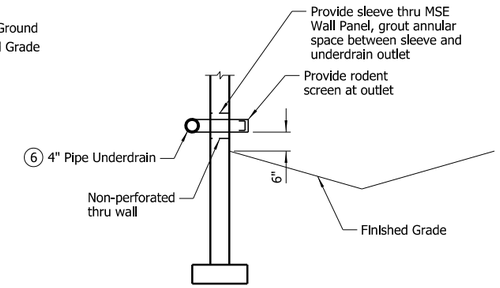



## SECTION A-A (BACKFILL METHOD A)

No Scale

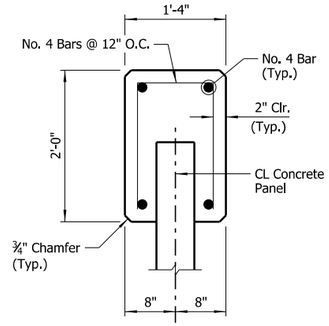
## BRIDGE NUMBERS

| BRIDGE NUMBERS | WALL NUMBERS |
|---|---|
| A7660 | 1 |
| 07661 | 2 & 3 |




## OUTLET DETAIL

No Scale

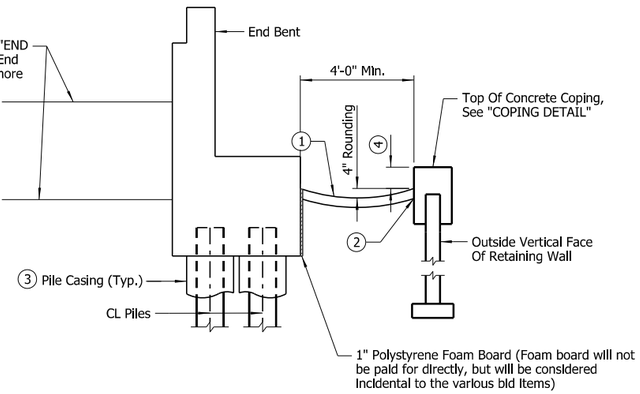



## COPING DETAIL

No Scale

NOTES:
Reinforcing steel and Class S(AE) concrete for coping shall not be paid for directly, but will be considered subsidiary to the item "RETAINING WALL."

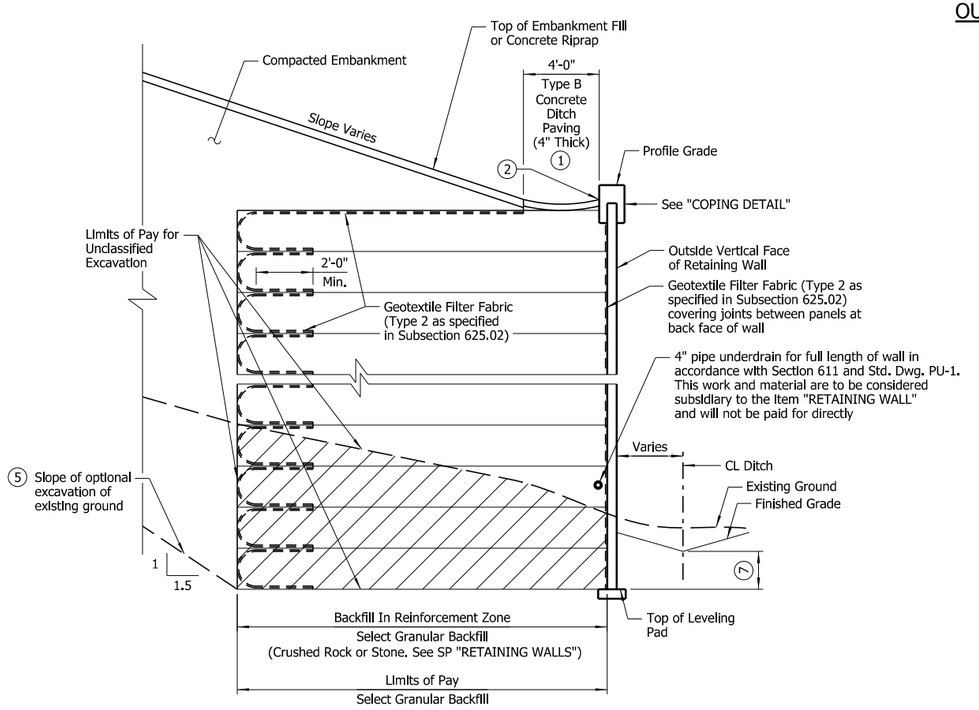
Precast coping may be substituted for cast-in-place coping shown.




## SECTION B-B

No Scale

NOTE:
Details not shown of Filter Fabric, Drainage Fill, and Backfill are similar to "SECTION A-A"




## SECTION A-A (BACKFILL METHOD B)

No Scale

1. The 4'-0" concrete ditch paving shall be constructed without the 3" weep holes. See Std. Dwg. CDP-1 For ditch paving details.
2. ½" Preformed Joint Filler (AASHTO M 153, Type 1) per Subsection 501.02(h)(1). Seal with ½" x 1" Type 3 or 4 Joint Sealer per Subsection 501.02(h)(2).
3. Casings shall be placed after excavation to top of leveling pad is completed. For locations of casings, see End Bent Detail drawings.
4. Varies, See WALL ELEVATION VIEWS.
5. The Contractor shall have the option of using a cut slope or shoring to maintain stability of the cut. Any excavation beyond the limits of the reinforcement zone or any shoring used will not be paid for directly, but shall be considered incidental to the item "RETAINING WALL". See SP "RETAINING WALLS" for additional information.
6. Pipe underdrain shall extend to daylight towards CL Ditch.
7. See WALL ELEVATION VIEWS for embedment requirements.




## TYPICAL UNDERCUT DETAIL - RETAINING WALL NO. 1

No Scale

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No.21243
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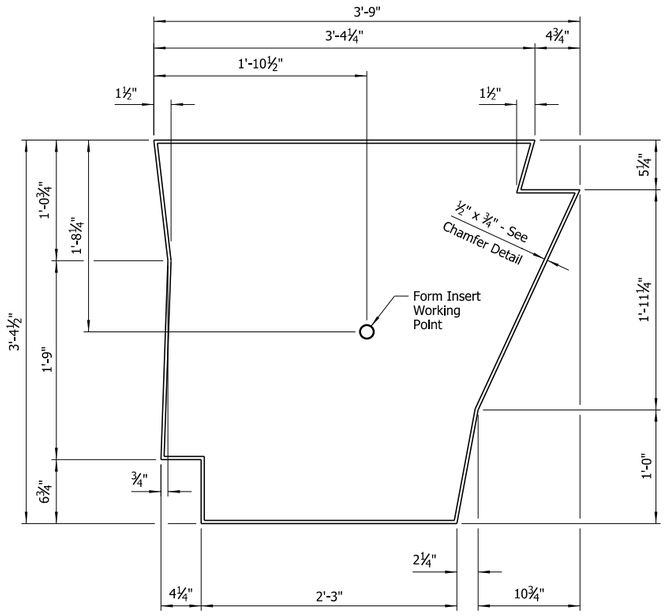
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 1 OF 3
COMMON DETAILS OF RETAINING WALLS
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: CSW DATE: MAY 2023
BRIDGE NO. SEE TABLE DRAWING NO. 66857

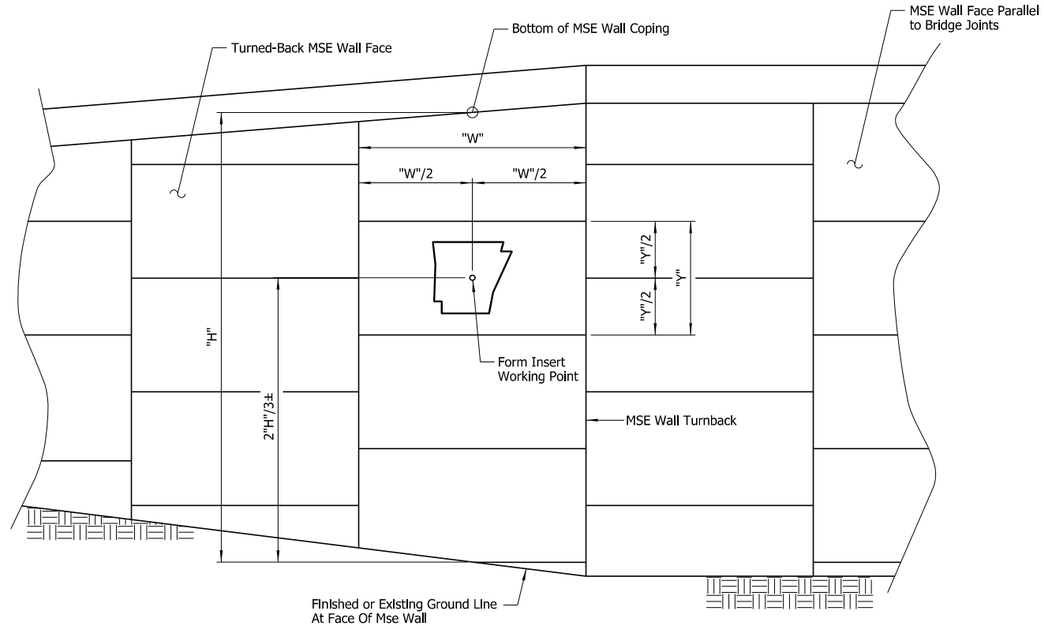
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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
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| | | SEE TABLE | | RETAINING WALLS | | 66858 |



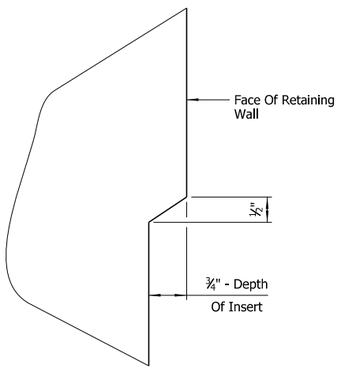

## FORM INSERT DETAILS ON MSE WALLS

No Scale



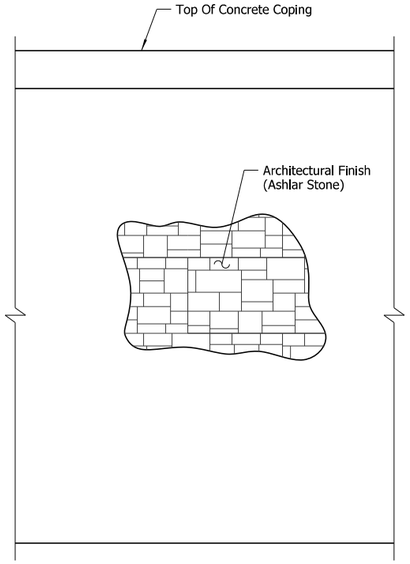

## PLACEMENT AT MSE WALLS

No Scale




## CHAMFER DETAIL

No Scale




## ARCHITECTURAL FINISH DETAIL

No Scale

NOTES:
Fabricate form insert as a one piece unit, without the use of splices, joints or glue.

Wash and clean multi-use form inserts before each use.

All work and materials for inserts shall be included in the unit price bid for the item "RETAINING WALL".

Damaged or worn form inserts shall be replaced at the Contractor's expense.

The form insert shall be approved by the Engineer before its use.

Recessed image (including chamfers) of State of Arkansas insert shall be given a Class 3 textured coating finish as specified in Special Provision "TEXTURED COATING FINISH".

## BRIDGE NUMBERS

| BRIDGE NUMBERS | WALL NUMBERS |
|---|---|
| A7660 | 1 |
| 07661 | 2 & 3 |

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LICENSED PROFESSIONAL ENGINEER
No.21243
COLTON S. WYLIE

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BRIDGE ENGINEER

SHEET 2 OF 3
COMMON DETAILS OF RETAINING WALLS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CSW DATE: MAY 2023 FILENAME: b090069_rw6.dgn
CHECKED BY: KWY DATE: AUG. 2023 SCALE: As Shown
DESIGNED BY: CSW DATE: MAY 2023

BRIDGE NO. SEE TABLE DRAWING NO. 66858

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| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 411 | 583 |
| | | SEE TABLE | | RETAINING WALLS | | 66859 |

GENERAL NOTES:

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications (2017, 8th Edition)

SEISMIC ZONE: 1 $S_{D1}$= 0.09g Site Class = C (Wall No. 1)

SEISMIC ZONE: 1 $S_{D1}$= 0.09g Site Class = C (Wall Nos. 2 & 3)

4" Pipe underdrains shall be used for the full length of wall. Underdrain outlet shall penetrate front face of Retaining Wall to drain.

Elevations are approximate. Wall dimensions may vary depending on wall design selected.

Reinforcement placement and details for retaining walls may be affected by end bent construction and proposed roadway drainage structures. See End Bent Dwg. Nos. 66842-66844 for pile locations, cap details and wingwall details. See Roadway Plans for locations and details of drainage structures.

For ditch paving, see Std. Dwg. CDP-1.

See Special Provision "RETAINING WALLS" for additional information.

Boring logs may be obtained from the Construction Contract Development Section of the Program Management Division.

Preformed joint filler, joint sealer, polystyrene foam board, and pipe underdrains will not be paid for directly, but will be considered subsidiary to the item "RETAINING WALL".

An Architectural Finish (Ashlar Stone or approved equivalent) shall be applied to the face of the retaining walls. See Special Provision "RETAINING WALLS".

A Class 3 Textured Coating Finish shall be applied to the exposed surfaces of the Aslar Stone Finish, Retaining Wall Coping and form inserts as specified in Special Provision "TEXTURED COATING FINISH" and in accordance with Subsection 802.19(b)(3).

## TABLE OF QUANTITIES

(FOR INFORMATION ONLY)

| ITEM NO. | 210 | 605 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 | SP JOB 090069 |
|---|---|---|---|---|---|---|
| ITEM / UNIT | UNCLASSIFIED EXCAVATION | CONCRETE DITCH PAVING (TYPE B) | SELECT GRANULAR BACKFILL | RETAINING WALL | TEXTURED COATING FINISH | AGGREGATE BASE COURSE (CLASS 7) (2) |
| | CU. YD. | SQ. YD. | CU. YD. | SQ. FT. | SQ. YD. | CU. YD. |
| Wall No. 1 | (1) 537 | 121 | 1,004 | 2,963 | 305 | 491 |
| Wall No. 2 | 491 | 77 | 2,509 | 3,900 | 368 | 0 |
| Wall No. 3 | 622 | 75 | 2,046 | 3,391 | 323 | 0 |

(1) Includes quantity for undercut areas

(2) Estimated quantity for backfill of undercut area

## BRIDGE NUMBERS

| BRIDGE NUMBERS | WALL NUMBERS |
|---|---|
| A7660 | 1 |
| 07661 | 2 & 3 |

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No.21243
COLTON S. WYLIE

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BRIDGE ENGINEER

SHEET 3 OF 3
COMMON DETAILS OF RETAINING WALLS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

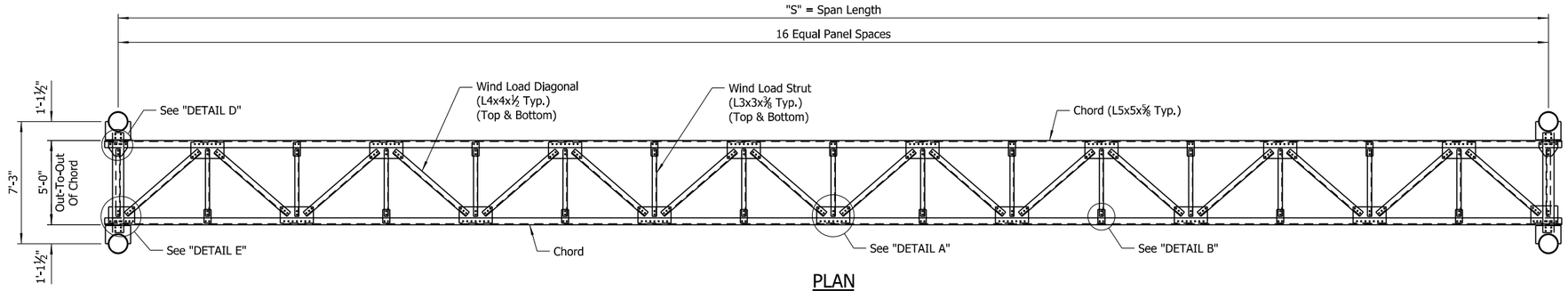
LITTLE ROCK, ARK.

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BRIDGE NO. SEE TABLE DRAWING NO. 66859

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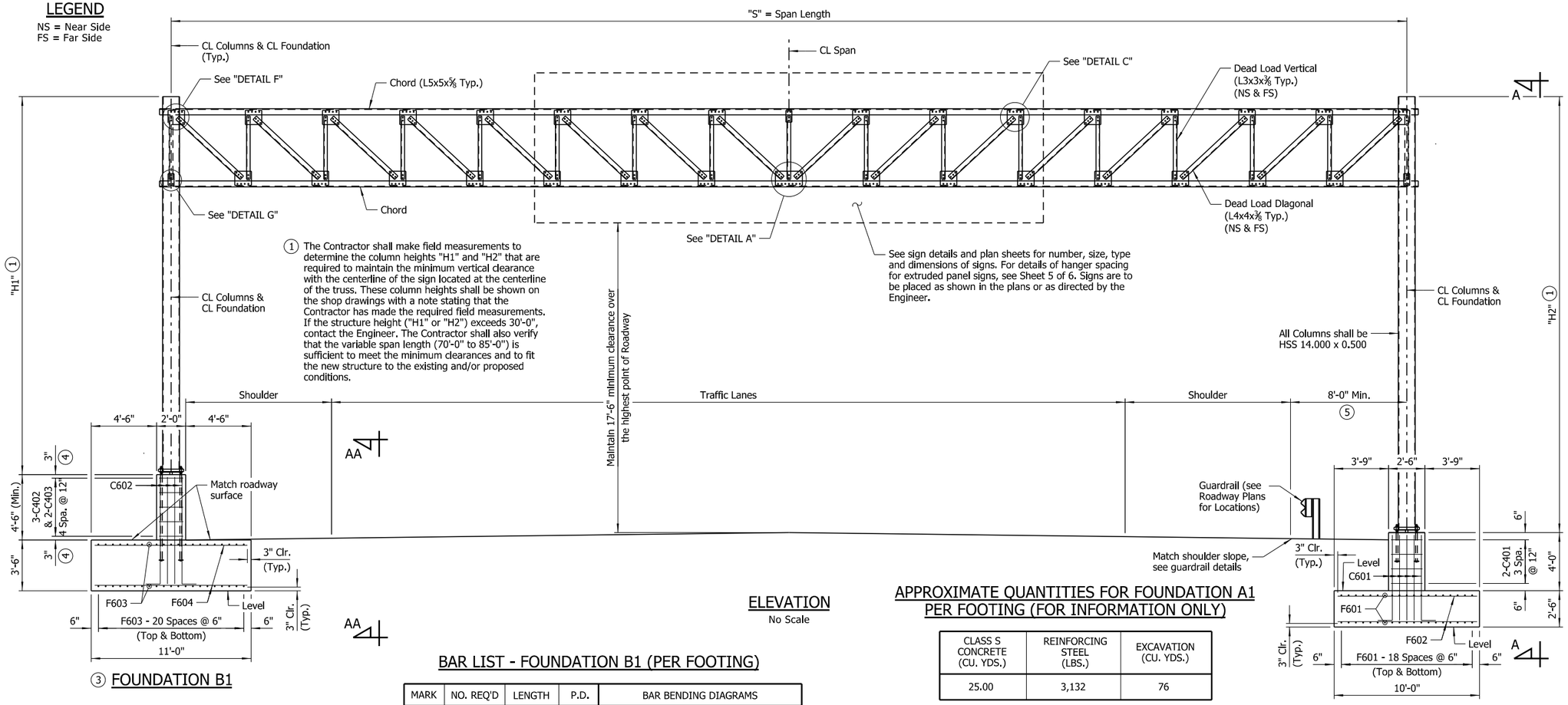
| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 412 | 583 |
| | | SEE TABLE - OH SIGN STR. (70'-85') - 66860 | | | | |




## PLAN
No Scale

| STRUCTURE NO. | SPAN LENGTH "S" | FOUNDATION TYPE | |
|---|---|---|---|
| | | MEDIAN | OUTSIDE SHLDR. |
| OH-XNA-04-01 | 75'-0" | A1 or A2 | A1 or A2 |

## LEGEND
NS = Near Side
FS = Far Side




## ③ FOUNDATION B1

## ELEVATION
No Scale

## ② FOUNDATION A1

(1) The Contractor shall make field measurements to determine the column heights "H1" and "H2" that are required to maintain the minimum vertical clearance with the centerline of the sign located at the centerline of the truss. These column heights shall be shown on the shop drawings with a note stating that the Contractor has made the required field measurements. If the structure height ("H1" or "H2") exceeds 30'-0", contact the Engineer. The Contractor shall also verify that the variable span length (70'-0" to 85'-0") is sufficient to meet the minimum clearances and to fit the new structure to the existing and/or proposed conditions.

(2) Foundation A1 allowed only when foundation is outside clear zone or is protected by guardrail or barrier. For alternate drilled shaft foundation (Foundation A2), see Sheet 6 of 6.

(3) Foundation B1 is required when the foundation is located in a median, within the clear zone, and is not protected by guardrail or barrier. Foundation B1 requires adjacent Roadway Median Barrier to transition to match the ends of the pedestal. For alternate drilled shaft foundation (Foundation B2), see Sheet 6 of 6.

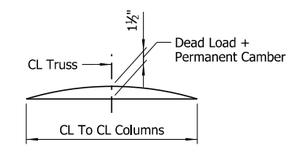
(4) Minor adjustments are allowed to maintain C402 and C403 12" spacing for foundations located in longitudinal grades.

(5) Minimum dimension when guardrail is present. See Sign Placement Sheets for actual dimension for each structure.

NOTES:
For "VIEW A-A", see Sheet 2 of 6.

For "DETAIL A" thru "DETAIL G", see Sheet 3 of 6.

For "VIEW AA-AA", see Sheet 4 of 6.



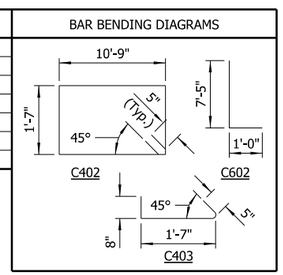

## TRUSS CAMBER DIAGRAM
No Scale

## APPROXIMATE QUANTITIES FOR FOUNDATION B1 PER FOOTING (FOR INFORMATION ONLY)

| CLASS S CONCRETE (CU. YDS.) | REINFORCING STEEL (LBS.) | EXCAVATION (CU. YDS.) |
|---|---|---|
| 43.98 | 4,649 | 51 |

## BAR LIST - FOUNDATION B1 (PER FOOTING)

| MARK | NO. REQ'D | LENGTH | P.D. | BAR BENDING DIAGRAMS |
|---|---|---|---|---|
| C402 | 15 | 25'-2" | 3" | |
| C403 | 10 | 2'-7" | 3" | |
| | | | | |
| C602 | 104 | 8'-3" | 4½" | |
| | | | | |
| F603 | 42 | 24'-6" | Str. | |
| F604 | 98 | 10'-6" | Str. | |



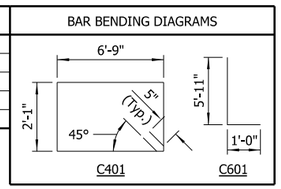

NOTE:
Dimensions of bars are out-to-out.

## APPROXIMATE QUANTITIES FOR FOUNDATION A1 PER FOOTING (FOR INFORMATION ONLY)

| CLASS S CONCRETE (CU. YDS.) | REINFORCING STEEL (LBS.) | EXCAVATION (CU. YDS.) |
|---|---|---|
| 25.00 | 3,132 | 76 |

## BAR LIST - FOUNDATION A1 (PER FOOTING)

| MARK | NO. REQ'D | LENGTH | P.D. | BAR BENDING DIAGRAMS |
|---|---|---|---|---|
| C401 | 8 | 18'-2" | 3" | |
| C601 | 46 | 6'-9" | 4½" | |
| | | | | |
| F601 | 38 | 22'-6" | Str. | |
| F602 | 90 | 9'-6" | Str. | |




NOTE:
Dimensions of bars are out-to-out.

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LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL
Digitally Signed 10/20/2023
BRIDGE ENGINEER

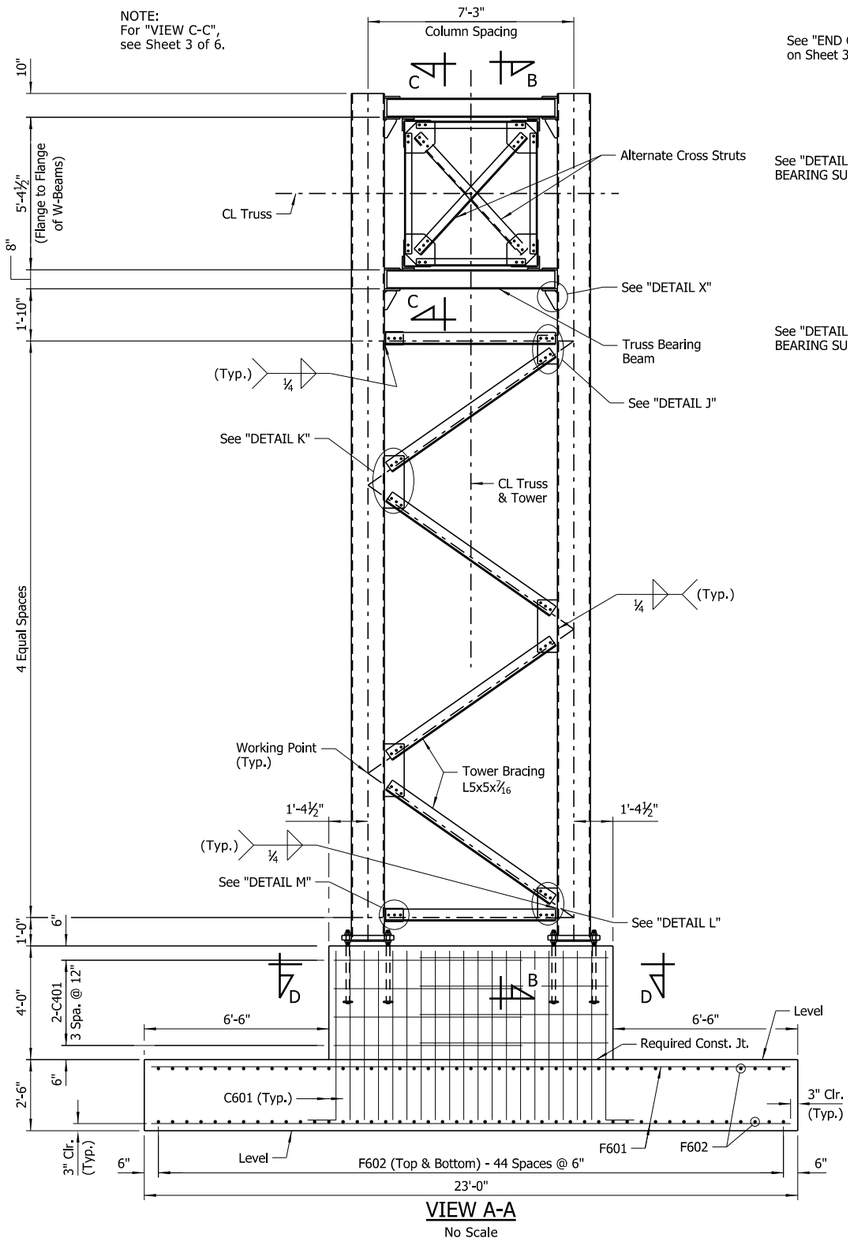
SHEET 1 OF 6
DETAILS OF 70' TO 85'
STEEL OVERHEAD SIGN STRUCTURE
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CWT DATE: NOV. 2022 FILENAME: b090069_oh1.dgn
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DESIGNED BY: JME DATE: NOV. 2022
STR. NO. SEE TABLE DRAWING NO. 66860

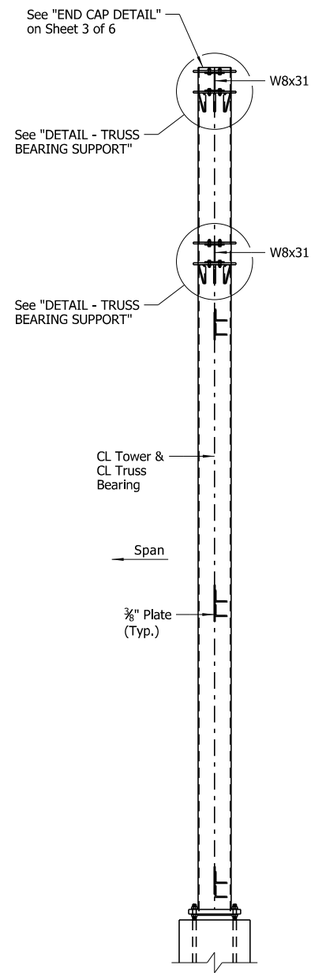
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
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| | | SEE TABLE - OH SIGN STR. (70'-85') - 66861 | | | | |

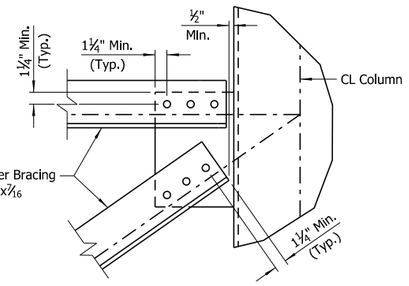
NOTE:
For "VIEW C-C", see Sheet 3 of 6.




## VIEW A-A
No Scale

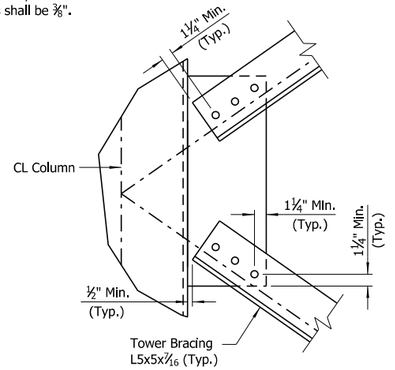



## VIEW B-B
No Scale

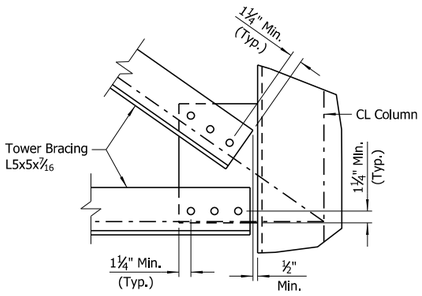



## DETAIL J
No Scale

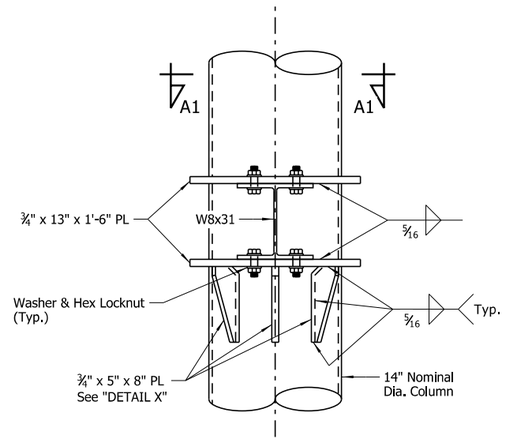
NOTE:
Unless otherwise noted, thickness of all Gusset Plates shall be ⅜".



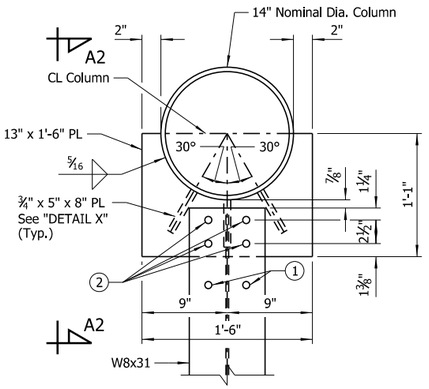

## DETAIL K
No Scale



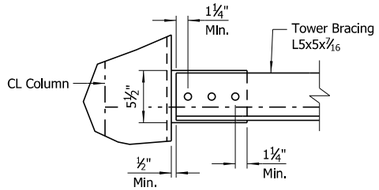

## DETAIL L
No Scale



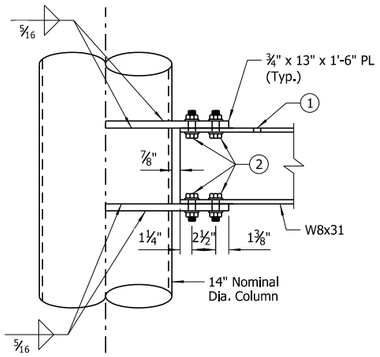

## DETAIL - TRUSS BEARING SUPPORT
Scale: 1½" = 1'-0"



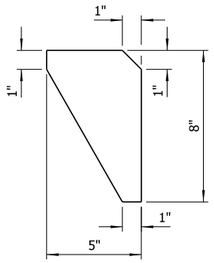

## VIEW A1-A1
Scale: 1½" = 1'-0"



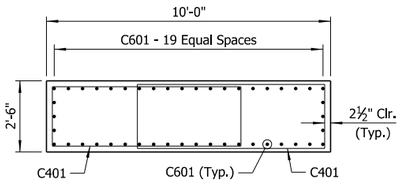

## DETAIL M
No Scale




## VIEW A2-A2
Scale: 1½" = 1'-0"
(¾" x 5" x 8" Plate not shown for clarity)




## DETAIL X
Scale: 3" = 1'-0"




## SECTION D-D
Scale: ⅜" = 1'-0"

1. Bolts shall be ¾"ø. Provide 13/16" x 2" slotted hole in gusset plate and chord angle. Use plate washer on gusset plate side. Provide 13/16"ø holes in ¾" shim plate and top or bottom beam flanges as required.
2. Bolts shall be ¾"ø. Provide 13/16"ø holes at top and bottom beam flanges and connection plates.

STATE OF ARKANSAS
ADAM B. HALL
LICENSED PROFESSIONAL ENGINEER
No.14498
Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 2 OF 6
# DETAILS OF 70' TO 85'
# STEEL OVERHEAD SIGN STRUCTURE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

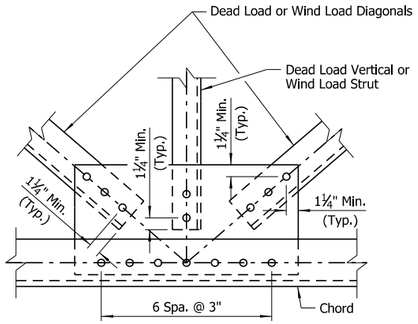
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| CHECKED BY: | ABH | DATE: | JAN. 2023 | SCALE: | As Shown |
| DESIGNED BY: | JME | DATE: | NOV. 2022 | | |

STR. NO. SEE TABLE DRAWING NO. 66861

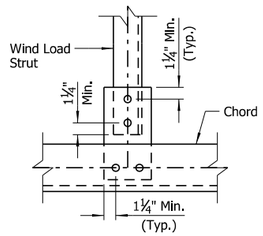

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 414 | 583 |
| | | SEE TABLE - OH SIGN STR. (70'-85') - 66862 | | | | |

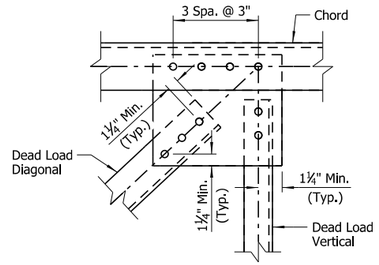
NOTE:
Unless otherwise noted, thickness of all Gusset Plates shall be ⅜".



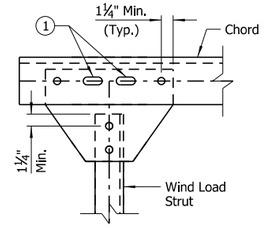

DETAIL A
No Scale



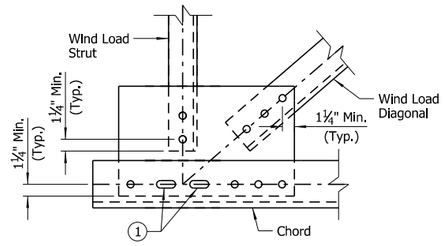

DETAIL B
No Scale



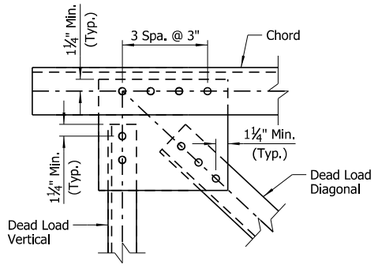

DETAIL C
No Scale



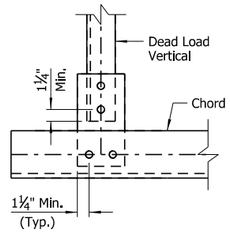

DETAIL D
No Scale




DETAIL E
No Scale



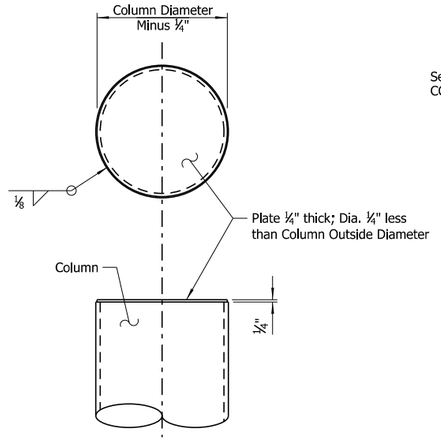

DETAIL F
No Scale



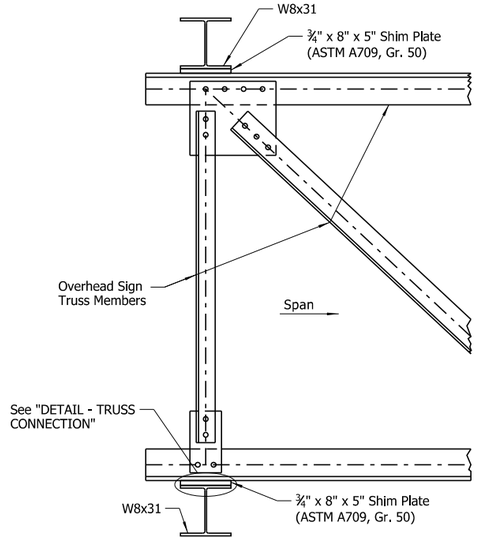

DETAIL G
No Scale

(1) Bolts shall be ¾"ø. Provide $^{13}/_{16}$" x 2" slotted holes in gusset plate and chord angle. Clearance between end of slot and adjacent bolt hole shall be no less than 1½". Provide $^{13}/_{16}$"ø holes in ¾" shim plate and top or bottom beam flanges as required. Use plate washer on gusset plate side.

(2) Bolts shall be ¾"ø. Provide $^{13}/_{16}$"ø holes at top and bottom beam flanges and connection plates.



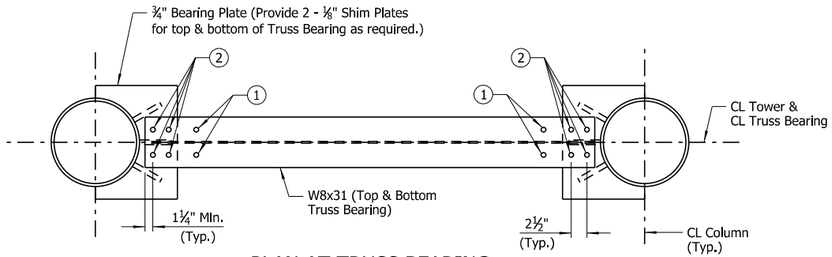

END CAP DETAIL
Scale: 1½" = 1'-0"



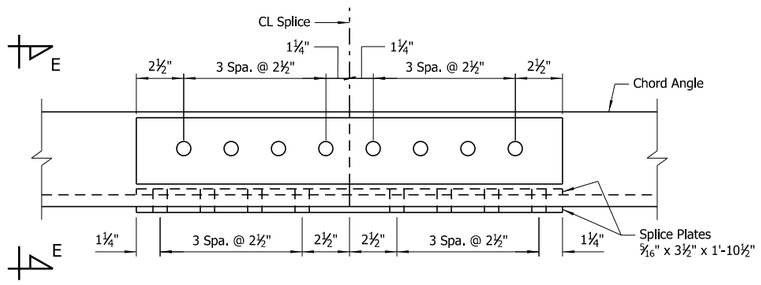

VIEW C-C
No Scale




DETAIL - TRUSS CONNECTION
No Scale

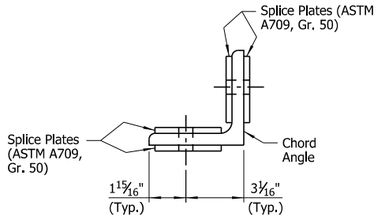



PLAN AT TRUSS BEARING
Scale: 1" = 1'-0"




CHORD SPLICE
Scale: 3" = 1'-0"

NOTE:
Chord angles may be spliced in convenient lengths for galvanizing and sign placement.




VIEW E-E
Scale: 3" = 1'-0"

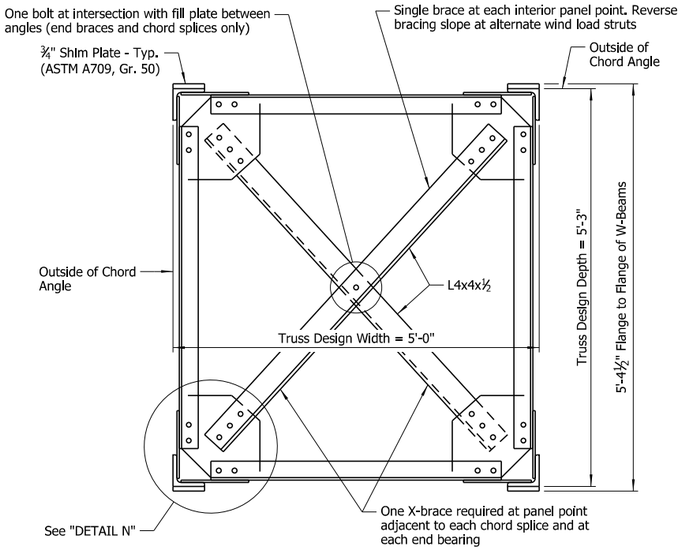
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 3 OF 6
DETAILS OF 70' TO 85'
STEEL OVERHEAD SIGN STRUCTURE
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CWT DATE: NOV. 2022 FILENAME: b090069_oh3.dgn
CHECKED BY: ABH DATE: JAN. 2023 SCALE: As Shown
DESIGNED BY: JME DATE: NOV. 2022
STR. NO. SEE TABLE DRAWING NO. 66862

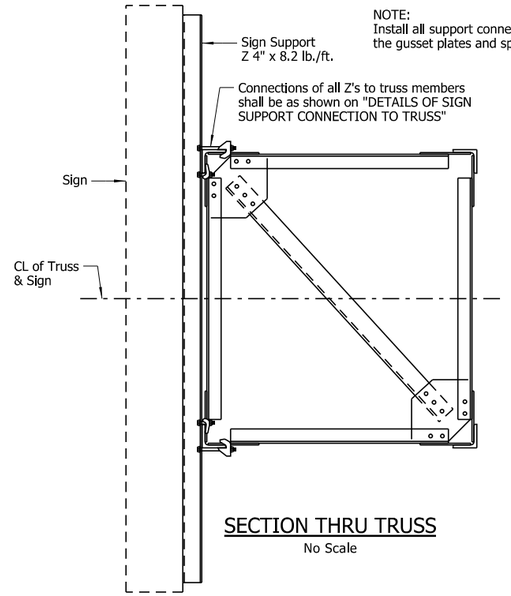
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REVISED DATES

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 415 | 583 |
| | | SEE TABLE - OH SIGN STR. (70'-85') - 66863 | | | | |




## TRUSS SECTION

Scale: 1" = 1'-0"

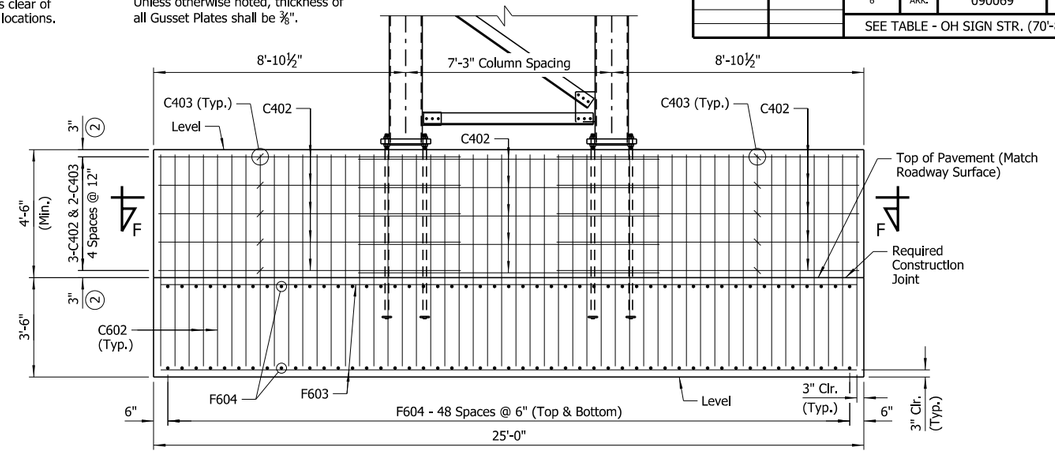



NOTE:
Install all support connectors clear of the gusset plates and splice locations.

## SECTION THRU TRUSS

No Scale

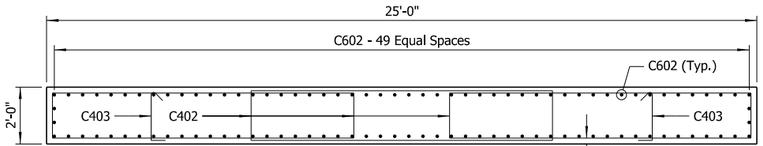
NOTE:
Unless otherwise noted, thickness of all Gusset Plates shall be ⅜".




## VIEW AA-AA

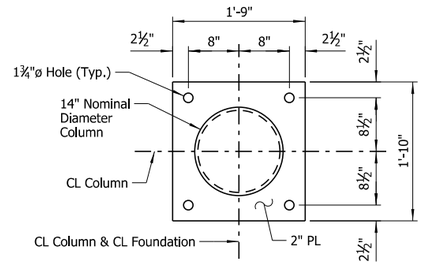
(Foundation B1)
Scale: ⅜" = 1'-0"

② Minor adjustments are allowed to maintain C402 and C403 12" spacing for foundations located in longitudinal grades.



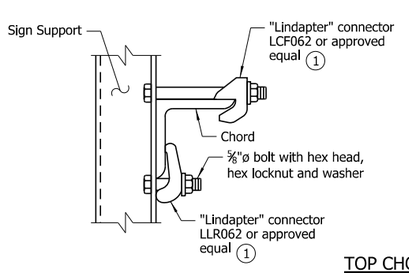

## SECTION F-F

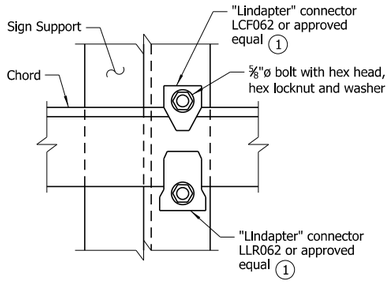
Scale: ⅜" = 1'-0"



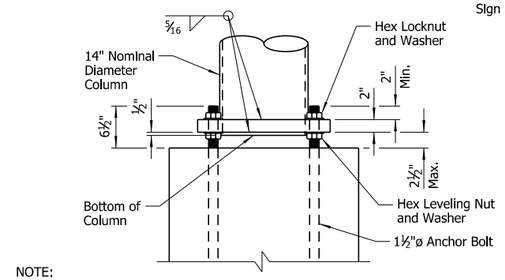

## PLAN - COLUMN BASE

Scale: 1" = 1'-0"

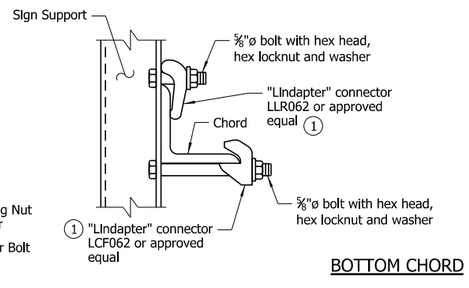


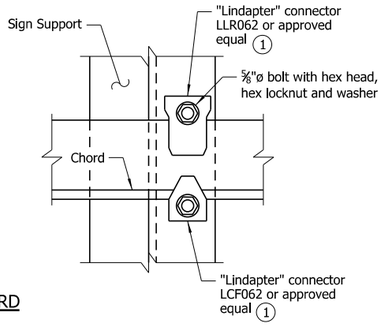




## TOP CHORD




NOTE:
Diameter of hole in base plate to be ⅛" larger than column diameter.



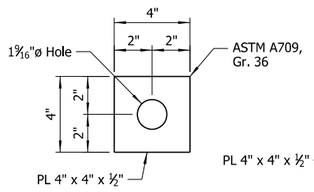

## BOTTOM CHORD

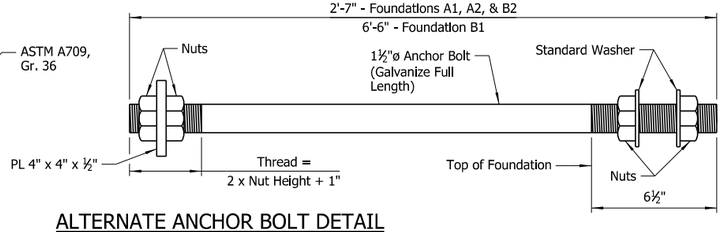
## DETAILS OF SIGN SUPPORT CONNECTION TO TRUSS

No Scale

## ELEVATION - COLUMN BASE

Scale: 1" = 1'-0"



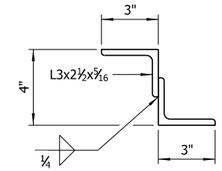




## ALTERNATE ANCHOR BOLT DETAIL

No Scale

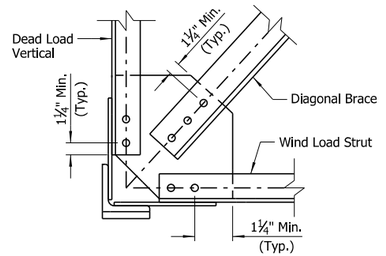
① All "Lindapter" connectors or approved equal shall be installed according to Manufacturer's recommendations. All connectors, bolts, nuts and washers shall be galvanized.

NOTE:
Anchor bolts shall comply with AASHTO M 314, Grade 55 with Supplementary Requirement S1, and shall be galvanized according to Subsection 807.07. Nuts for bolts shall be as specified in Subsection 807.07.



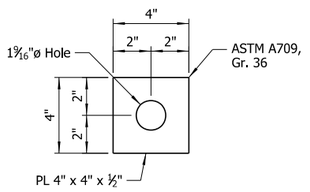

NOTE:
Structural Z Support may be fabricated from angles as shown.

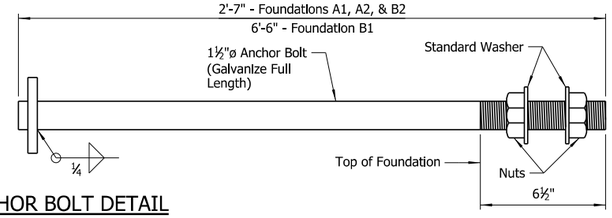
## DETAILS OF ALTERNATE Z SUPPORT




## DETAIL N

Scale: 1½" = 1'-0"




## ANCHOR BOLT DETAIL

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 14498
ADAM B. HALL
Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 4 OF 6
# DETAILS OF 70' TO 85'
# STEEL OVERHEAD SIGN STRUCTURE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

| | | | | | |
|---|---|---|---|---|---|
| DRAWN BY: | CWT | DATE: | NOV. 2022 | FILENAME: | b090069_oh4.dgn |
| CHECKED BY: | ABH | DATE: | JAN. 2023 | SCALE: | As Shown |
| DESIGNED BY: | JME | DATE: | NOV. 2022 | | |

STR. NO. SEE TABLE DRAWING NO. 66863

JESdriver
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LT-1 (STD.) - Title Accessr - HDR\PSI\cwalls\job090069s05_SIGN_OH (70'-85').dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 416 | 583 |
| | | SEE TABLE - OH SIGN STR. (70'-85') - 66864 | | | | |

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 2014 Edition, with applicable Supplemental Specifications and Special Provisions. Section and Subsection refer to the Specifications unless otherwise noted in the plans.

DESIGN SPECIFICATIONS: AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, First Edition, 2015 with current interim revisions

Basic Wind Speed = 120 mph
Fatigue Category: I

This structure is approved for a maximum sign area equal to 75% of the span length times a sign height of 15 feet. This structure is approved for a maximum sign weight (total of all signs) of 5,520 lbs. Use of additional sign area or a heavier sign must be approved by the Engineer. If the structure height ("H1" or "H2") exceeds 30'-0", contact the Engineer.

FOUNDATION MATERIALS AND STRENGTHS:
Class S Concrete f'c = 3,500 psi
Reinforcing Steel (Gr. 60, AASHTO M 31 or M 322, Type A) fy = 60,000 psi

Spread footings for the structure have been designed assuming a factored bearing resistance of 2.0 ksf. Contractor shall be responsible for evaluating and verifying that the foundation soils are adequate to achieve the assumed factored bearing capacity, utilizing SPT (Standard Penetration Test), CPT (Cone Penetration Test), DCP (Dynamic Cone Penetration) test, or other suitable means, prior to or after footing excavation, whichever is appropriate. If the foundation soils are verified to be adequate, then the footing shall be constructed in accordance with the planned dimensions. Otherwise, the Design Engineer shall be contacted. Costs for foundation soil evaluation and verification shall be included in the item "STEEL OVERHEAD SIGN STRUCTURE".

Structural steel sign support members shall comply with the following specifications:

| | |
|---|---|
| Angles: | ASTM A709, Gr. 36 (Fy = 36,000 psi) |
| Plate, W-Section: | ASTM A709, Gr. 50 (Fy = 50,000 psi) |
| (1) Pipe: | ASTM A139, Gr. C, straight-seam welded (Fy = 42,000 psi),<br>ASTM A500, Gr. B (Fy = 42,000 psi),<br>ASTM A501, Gr. B (Fy = 50,000 psi) |
| Z-Shapes: | ASTM A709, Grade 36 (Fy = 36,000 psi) |
| Shim Plates: | ASTM A1011, SS, Grade 36, Type 2, or Grade 40 |
| Bolts: | ASTM F3125, Grade A325, Type 1 |
| Locknuts - Approved Type: | ASTM A563, Grade DH or AASHTO M 292, Grade 2H |
| Washers: | ASTM F436 |
| Nuts: | ASTM A563, Grade DH or AASHTO M 292, Grade 2H |

The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and to fit the new structure to the existing and/or proposed conditions.

Drawings show general features of design only. Shop drawings shall be made in accordance with Subsection 807.04, submitted, and approval secured before fabrication is begun.

Requests for substitution of structural steel shapes shown with shapes of greater size must be submitted by the Contractor to the Engineer for approval. Steels of equal or greater strengths will be accepted only when shown on the approved shop drawings. Shapes and materials shown in the plans will be the basis of payment and no additional compensation will be made for any adjustments due to substitutions.

All steel shall be galvanized according to Subsection 807.19. Steel completely encased in concrete may not be galvanized. Galvanized coating damaged during transport, handling or erection shall be field repaired in accordance with Subsection 807.88.

All main load carrying tension members greater than ½" in thickness shall conform to the requirements of the Longitudinal Charpy V-Notch test specified for Zone 1 minimum service temperature. This work and materials shall be paid for in accordance with Special Provision "STEEL SIGN STRUCTURES".

Field splices shall be located in order to avoid sign panel connections. There shall be a maximum of two field splices, and they shall be spaced a minimum of 15 feet apart.

Truss field sections shall be shop assembled. Entire truss shall be fully assembled and lifted into place as one unit on to tower supports. All truss member connections shall be bolted connections.

All welding that is to be done during fabrication of structural steel, including temporary welds, shall be detailed on the shop drawings and submitted for approval. If additional welds are required, whether temporary or permanent, a formal request with detailed drawings shall be submitted to the Engineer for approval. All welding shall conform to Subsection 807.26 except welding of tubular sections shall conform to AWS D1.1 Structural Welding Code.

No circumferential butt welds will be allowed in any pipe sections.

All fillet welds of critical members shall be tested according to AWS D1.1 Structural Welding Code - Steel using the magnetic particle method. Critical welds shall include: column to base plate and truss bottom support to column.

Connections shall be bolted with high-strength bolts. Unless otherwise noted, bolts shall be ¾" diameter and open holes shall be $^{13}/_{16}$" diameter. Bolt spacing shall be 2½" for ¾" diameter bolts unless otherwise noted. Bolts shall be placed with heads on the outside face of all members.

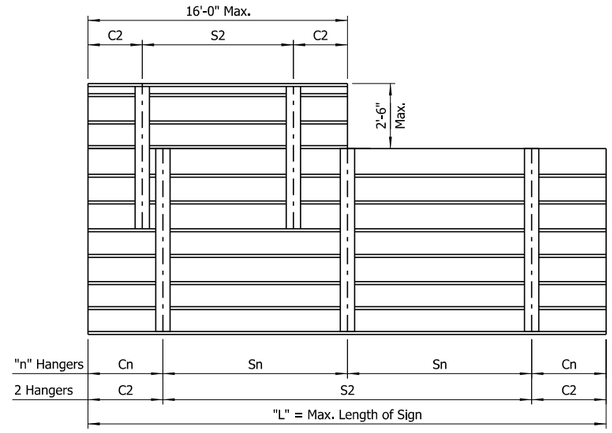
All truss frame bolts shall comply with ASTM F3125, Grade A325, Type 1, galvanized according to Subsection 807.06. Nuts and washers for ASTM F3125, Grade A325, Type 1 bolts shall be furnished and galvanized in accordance with Subsection 807.06.

Locknuts shall be equipped with nylon locking inserts or other approved type locking system. Locknuts shall be installed according to Manufacturer's recommendations.

Anchor bolts shall comply with AASHTO M 314, Grade 55, including Supplementary Requirement S1, and shall be galvanized according to Subsection 807.07. Nuts and washers for anchor bolts shall be furnished and galvanized in accordance with Subsection 807.07. Anchor bolts shall be pretensioned in accordance with Special Provision "STEEL SIGN STRUCTURES."

Shoring may be required to protect existing shoulders or other elements during excavation. Any shoring required shall not be paid for directly, but shall be considered incidental to the item "STEEL OVERHEAD SIGN STRUCTURE." The excavations for the footings shall be backfilled before the structure is attached to the foundations.

For location of each 70' to 85' overhead sign structure to be used, refer to Sign Plans.




NOTE:
See sign details and plan sheets for number, size and dimensions of signs.

## HANGER SPACING DETAILS FOR EXTRUDED PANEL SIGNS

No Scale

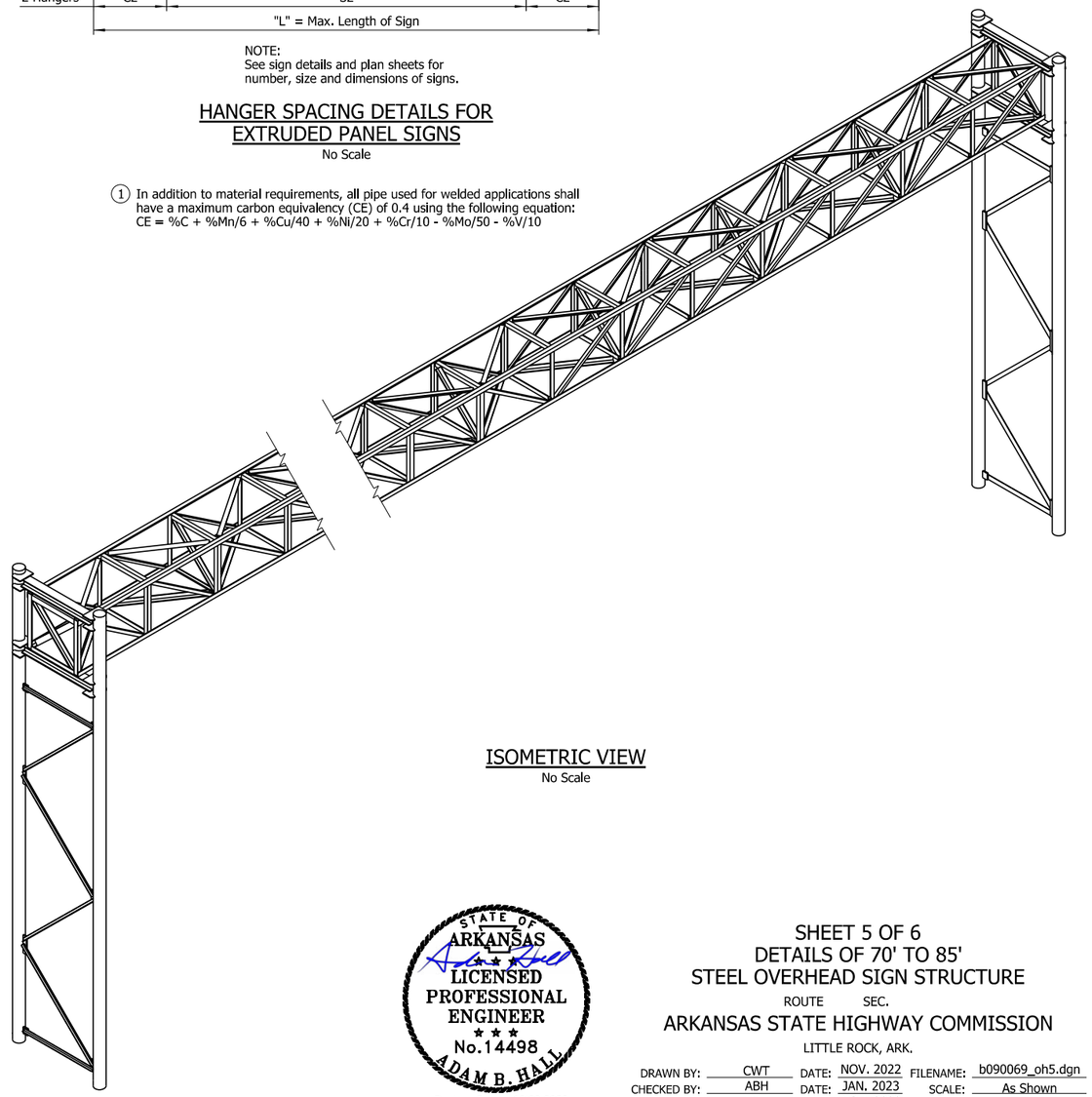
## HANGER VARIABLES

(For Extruded Panel Signs)

| Max. Length of Sign = "L" | "n" Hangers | Cantilever Length "Cn" | Hanger Spacing "Sn" |
|---|---|---|---|
| 15'-0" | 2 Hangers | 0.21 x "L" | 0.58 x "L" |
| 30'-0" | 3 Hangers | 0.145 x "L" | 0.355 x "L" |
| 45'-0" | 4 Hangers | 0.107 x "L" | 0.262 x "L" |

NOTE:
Hanger spacing and cantilever length shall be rounded to the nearest inch.

(1) In addition to material requirements, all pipe used for welded applications shall have a maximum carbon equivalency (CE) of 0.4 using the following equation:
CE = %C + %Mn/6 + %Cu/40 + %Ni/20 + %Cr/10 - %Mo/50 - %V/10



## ISOMETRIC VIEW

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 5 OF 6
DETAILS OF 70' TO 85'
STEEL OVERHEAD SIGN STRUCTURE

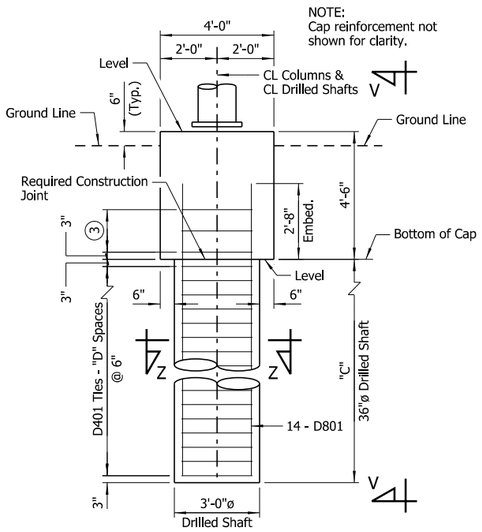
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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DESIGNED BY: JME DATE: NOV. 2022
STR. NO. SEE TABLE DRAWING NO. 66864

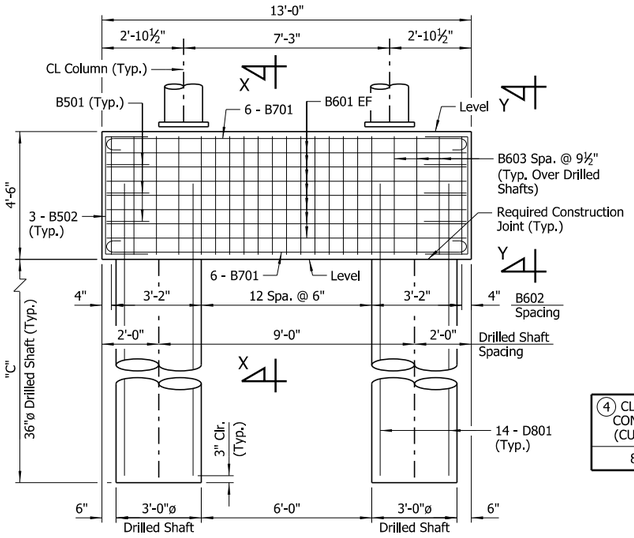
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WORKSHAPE: ARDOT Bridge (2019)
USER NAME = JESS Access - ASH Access - ASH
REVISED DATE:
10/20/2023 2:14:17 PM
J:\Bridge\Projects\090069\SGS_SIGN_OH (70'-85').dgn

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 417 | 583 |
| | | SEE TABLE - OH SIGN STR. (70'-85') - 66865 | | | | |




## ELEVATION - FOUNDATION A2 (1)

Scale: ⅜" = 1'-0"




## VIEW V-V

Scale: ⅜" = 1'-0"

1. Foundation A2 allowed only when foundation is outside clear zone or is protected by guardrail or barrier.
2. Foundation B2 is required when the foundation is located in a median, within the clear zone, and is not protected by guardrail or barrier. Foundation B2 requires adjacent Roadway Median Barrier to transition to match the ends of the cap. See Roadway Plans for additional information.
3. C401 Ties - 2 Spaces @ 9"

## APPROX. QUANTITIES FOR FOUNDATION A2 (FOR INFORMATION ONLY)

| (4) CLASS S CONCRETE (CU. YDS.) | (5) REINFORCING STEEL (LBS.) | EXCAVATION (CU. YDS.) | DRILLED SHAFT (36" DIA.) (LIN. FT.) | CROSSHOLE SONIC LOGGING (36" DIA.) (EACH) |
|---|---|---|---|---|
| 8.67 | 1,221 | 17 | "G" | 1 |

## APPROX. QUANTITIES FOR FOUNDATION B2 (FOR INFORMATION ONLY)

| (4) CLASS S CONCRETE (CU. YDS.) | (5) REINFORCING STEEL (LBS.) | DRILLED SHAFT (36" DIA.) (LIN. FT.) | CROSSHOLE SONIC LOGGING (36" DIA.) (EACH) |
|---|---|---|---|
| 8.67 | 1,221 | "G" | 1 |

4. Does not include Class S Concrete for Drilled Shafts
5. Does not include D401 and D801 Bars in Drilled Shafts

## DRILLED SHAFT NOTES (FOUNDATIONS A2 & B2)

Drilled shafts shall conform to Special Provision "DRILLED SHAFT FOUNDATIONS FOR STEEL SIGN STRUCTURES". Drilled shafts will not be paid for directly but shall be considered subsidiary to the unit price bid for "STEEL OVERHEAD SIGN STRUCTURE". Temporary casing may be required. Unless approved by the Engineer, permanent steel casing shall not be used.

Crosshole Sonic Logging (CSL) shall be performed on one drilled shaft at each foundation and as directed by the Engineer. Testing shall be performed in accordance with Special Provision "NONDESTRUCTIVE TESTING OF DRILLED SHAFTS FOR STEEL SIGN STRUCTURES".

Concrete and reinforcing steel placed in drilled shafts will not be paid for directly but shall be considered subsidiary to the unit price bid for "STEEL OVERHEAD SIGN STRUCTURE". No additional payment shall be made for spacers, additional splices or bracing needed for assembly, shipping, handling or erecting.

Concrete in drilled shafts shall be Class "S" as modified by Special Provision "DRILLED SHAFT FOUNDATIONS FOR STEEL SIGN STRUCTURES".

Drilled shaft lengths shall be determined based on the results of exploratory borings, which shall be performed by the Contractor prior to shaft excavation.

If competent rock is not encountered in the exploratory boring, the Standard Penetration Test (SPT) blow count corrected by the hammer efficiency, N60, shall be used to determine shaft lengths. See "TABLE OF VARIABLES".

If competent rock is encountered in the exploratory boring within 25'-0" of planned top of drilled shaft, the shafts shall be founded a minimum of 3'-0" into rock and have a minimum length of 25'-0".

If competent rock is encountered in the exploratory boring below 25'-0" from planned top of drilled shaft, the shafts shall be founded a minimum of 3'-0" into rock or to the depth based on the SPT N60 value and associated shaft length in the "TABLE OF VARIABLES", whichever is shallower.

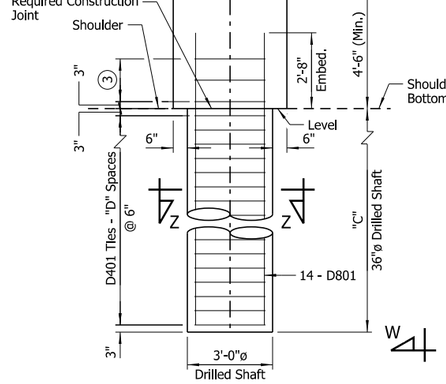
Testing results shall be submitted to the Engineer for review. Final drilled shaft lengths shall be approved by the Engineer prior to construction.

The cost of performing exploratory borings and in-situ strength testing shall be included in the item "STEEL OVERHEAD SIGN STRUCTURE".

## TABLE OF VARIABLES (7)

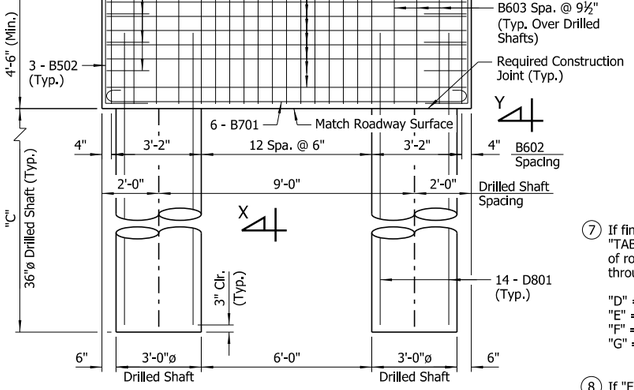
| SPT N60 (6) (blows/ft.) | Min. Depth of Exploratory Boring | Drilled Shaft Length, "C" | "D" | "E" | "F" (8) | "G" |
|---|---|---|---|---|---|---|
| <5 | - | Contact Engineer | - | - | - | - |
| 5 To 7 | 83'-0" | 77'-0" | 153 | 308 | 79'-5" | 154'-0" |
| 7 To 9 | 70'-0" | 64'-0" | 127 | 256 | 66'-5" | 128'-0" |
| 9 To 11 | 52'-0" | 46'-0" | 91 | 184 | 48'-5" | 92'-0" |
| 11 To 13 | 41'-0" | 35'-0" | 69 | 140 | 37'-5" | 70'-0" |
| >13 | 34'-0" | 28'-0" | 55 | 112 | 30'-5" | 56'-0" |

6. Tabulated SPT N60 values are raw SPT N values corrected by SPT hammer efficiency and represent average values along the plan shaft penetration. If the SPT N60 values in the foundation soils within 2 shaft diameters below the plan tip elevation are less than the average SPT N60 values along the plan shaft penetration, the Engineer shall be contacted.




## ELEVATION - FOUNDATION B2 (2)

Scale: ⅜" = 1'-0"




## VIEW W-W

Scale: ⅜" = 1'-0"

7. If final drilled shaft length is not shown in "TABLE OF VARIABLES" due to the presence of rock or other factors, variables "D" through "G" shall be determined as follows:

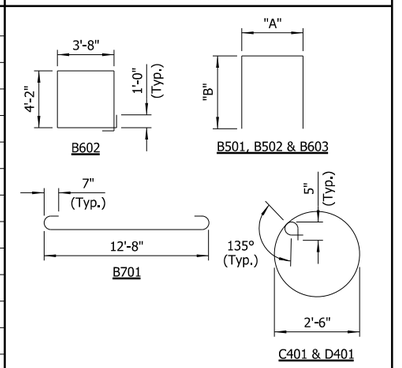
   "D" = (Shaft Length in Ft. - 0.5) / 0.5
   "E" = Shaft Length in Ft. x 4
   "F" = Shaft Length + 2'-5"
   "G" = Shaft Length x 2

8. If "F" exceeds 60'-0", a lap splice is required for each D801 bar at the midpoint of the drilled shaft. Min. lap splice length for D801 bar = 3'-6". Length shown in table does not include the additional length required for a lap splice.

## BAR LIST - FOUNDATION A2 OR B2

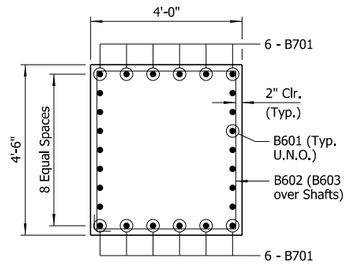
| MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|
| B501 | 6 | 6'-4" | 3'-6" | 1'-6" | 2½" |
| B502 | 6 | 6'-10" | 4'-0" | 1'-6" | 2½" |
| | | | | | |
| B601 | 14 | 12'-8" | | | Str. |
| B602 | 15 | 16'-10" | | | 4½" |
| B603 | 6 | 11'-8" | 3'-8" | 4'-2" | 4½" |
| | | | | | |
| B701 | 12 | 14'-4" | | | 5¼" |
| | | | | | |
| C401 | 6 | 8'-11" | | | 3" |
| | | | | | |
| D401 | "E" | 8'-11" | | | 3" |
| D801 | 28 | "F" | | | Str. |

## BAR BENDING DIAGRAMS



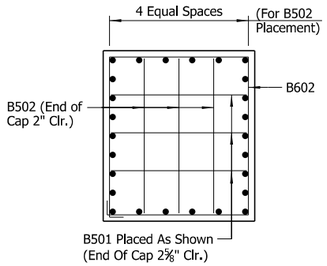

NOTES:
Dimensions of bars are out-to-out.

Number of bars shown Is for one Foundation A2 or one Foundation B2.



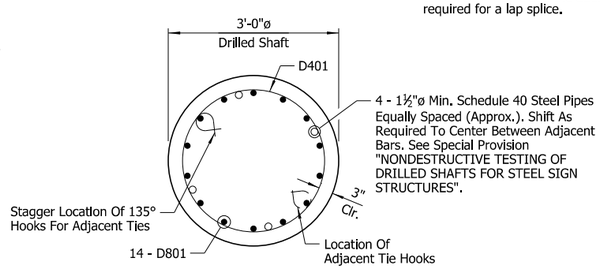

## SECTION X-X

Scale: ½" = 1'-0"




## VIEW Y-Y

Scale: ½" = 1'-0"




## SECTION Z-Z

Scale: ¾" = 1'-0"

## LEGEND

U.N.O. = Unless Noted Otherwise
EF = Each Face

STATE OF ARKANSAS
ADAM B. HALL
LICENSED PROFESSIONAL ENGINEER
No. 14498
Digitally Signed 10/20/2023
BRIDGE ENGINEER

# SHEET 6 OF 6
# DETAILS OF 70' TO 85'
# STEEL OVERHEAD SIGN STRUCTURE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

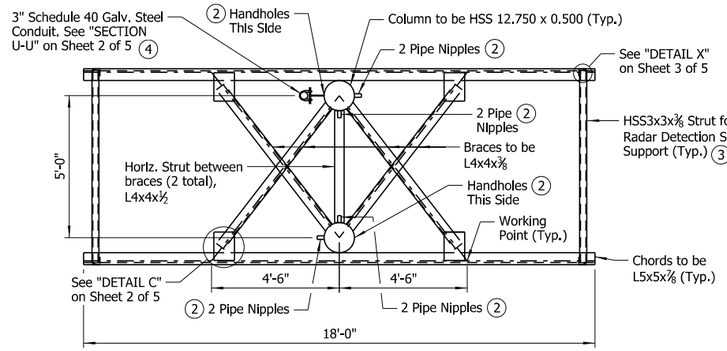
LITTLE ROCK, ARK.

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CHECKED BY: ABH DATE: JAN. 2023 SCALE: As Shown
DESIGNED BY: JME DATE: JAN. 2023

STR. NO. SEE TABLE DRAWING NO. 66865


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REVISED DATE

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| | | SEE TABLE - TEE MOUNT SIGN STR. - 66866 | | | | |

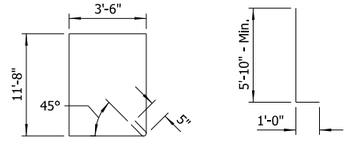



## PLAN

Scale: ⅜" = 1'-0"

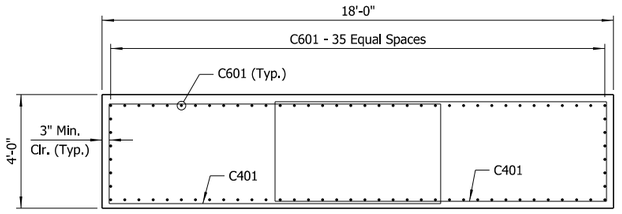
| BAR LIST - FOUNDATION A1 | | | |
|---|---|---|---|
| MARK | NO. REQ'D | LENGTH | P.D. |
| C401 | 10 | 30'-10" | 2" |
| | | | |
| C601 | 84 | 6'-8" | 4½" |
| | | | |
| F601 | 38 | 17'-6" | Str. |
| F602 | 70 | 9'-6" | Str. |

BAR BENDING DIAGRAMS




NOTES:
Dimensions of bars are out-to-out.

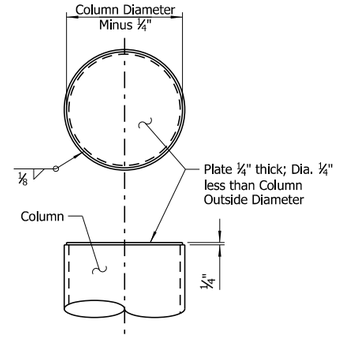
Number of bars shown is for one Foundation A1.




## SECTION B-B

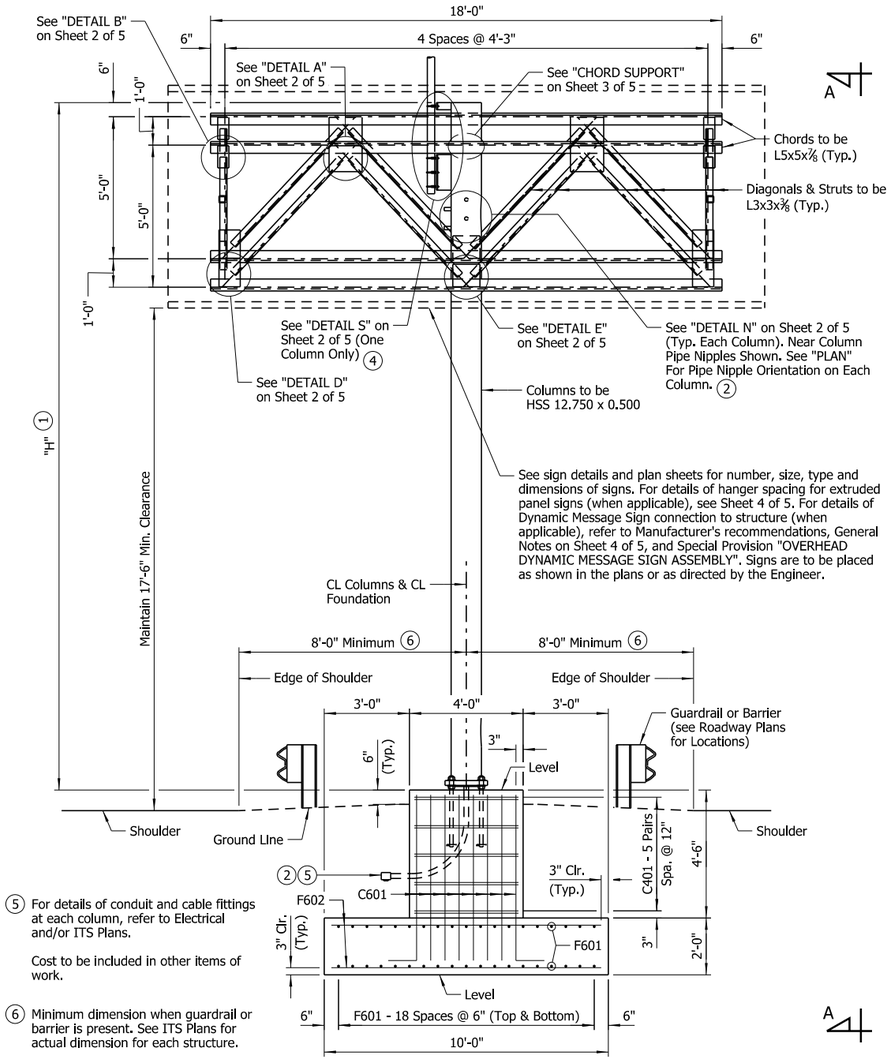
Scale: ⅜" = 1'-0"

| STRUCTURE NO. | FOUNDATION TYPE |
|---|---|
| TM-XNA-04-01 | A1 or A2 |



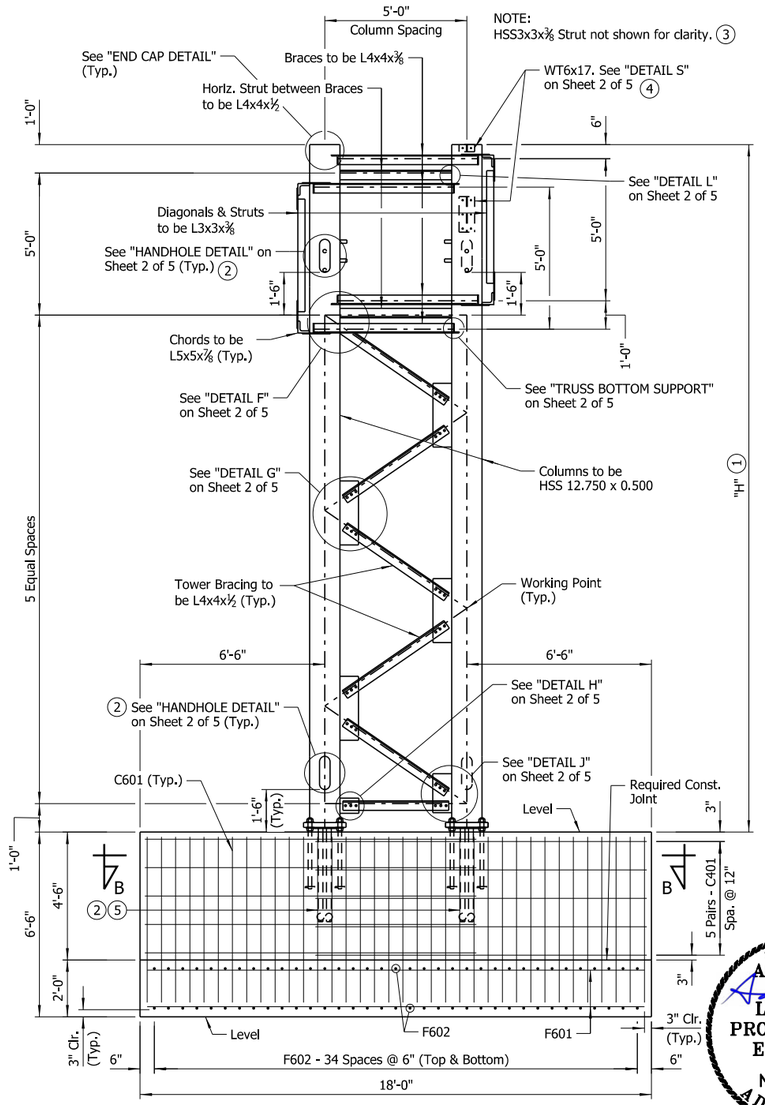

## END CAP DETAIL

Scale: 1½" = 1'-0"




## ELEVATION - FOUNDATION A1 (7)

No Scale




## VIEW A-A

No Scale

(1) The Contractor shall make field measurements to determine the column height ("H") that is required to maintain the minimum vertical clearance. The column height shall be shown on the shop drawings with a note stating that the Contractor has made the required field measurements. If the structure height ("H") exceeds 30'-0", contact the Engineer.

(2) Conduit, Handholes and Pipe Nipples only required when Dyanmic Message Signs are to be attached to the structure or as directed by the Engineer. Pipe Nipples shall be fitted with standard plugs until conduit is installed.

(3) HSS3x3x⅜ Strut only required when Radar Detection Sensor is to be attached to the structure or as directed by the Engineer. See ITS Plans.

(4) 3" Conduit and conduit support steel only required when necessary to support ITS equipment or as directed by the Engineer. See ITS Plans.

(5) For details of conduit and cable fittings at each column, refer to Electrical and/or ITS Plans.

Cost to be included in other items of work.

(6) Minimum dimension when guardrail or barrier is present. See ITS Plans for actual dimension for each structure.

(7) Foundation A1 allowed only when foundation is outside clear zone or is protected by guardrail or barrier. For other foundation types and associated restrictions, see Sheets 4 and 5 of 5.

## APPROX. QUANTITIES FOR FOUNDATION A1 (FOR INFORMATION ONLY)

| CLASS S CONCRETE (CU. YDS.) | REINFORCING STEEL (LBS.) | EXCAVATION (CU. YDS.) |
|---|---|---|
| 25.33 | 3,045 | 61 |

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 1 OF 5
DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE

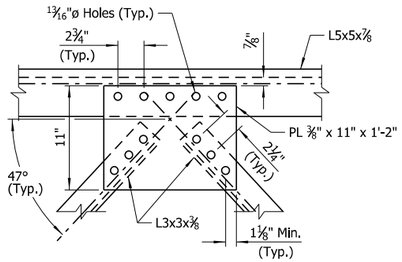
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

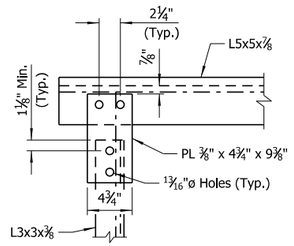
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STR. NO. SEE TABLE DRAWING NO. 66866


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REVISED DATE:

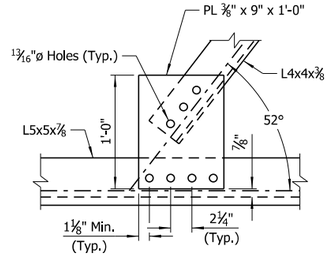
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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 419 | 583 |
| | | SEE TABLE - TEE MOUNT SIGN STR. - 66867 | | | | |



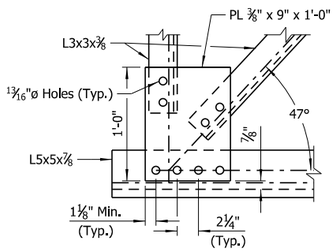

DETAIL A
Scale: 1½" = 1'-0"



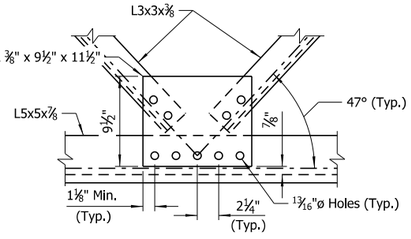

DETAIL B
Scale: 1½" = 1'-0"



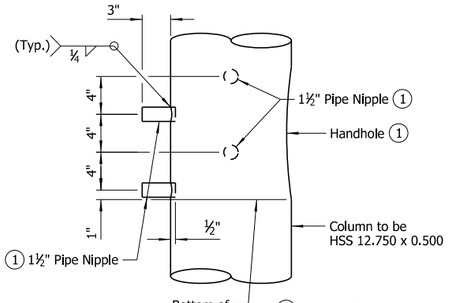

DETAIL C
Scale: 1½" = 1'-0"




DETAIL D
Scale: 1½" = 1'-0"




DETAIL E
Scale: 1½" = 1'-0"




DETAIL N (2)
Scale: 1½" = 1'-0"

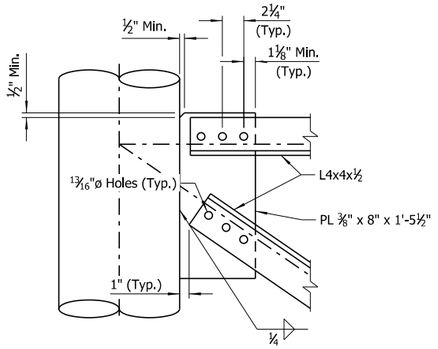
(1) See details on Sheet 1 of 5 for location and orientation of handholes and pipe nipples.

(2) Handholes and pipe nipples only required when Dyanmic Message Signs are to be attached to the structure or as directed by the Engineer. Pipe nipples shall be fitted with standard plugs until conduit is installed.

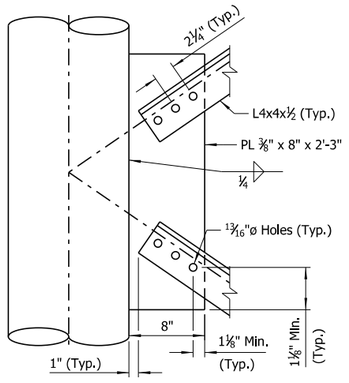
NOTE:
Provide handhole covers with chain, waterproof grommet, and tamperproof screws.

Handhole covers shall be galvanized and meet the requirements of ASTM A36 at a minimum.

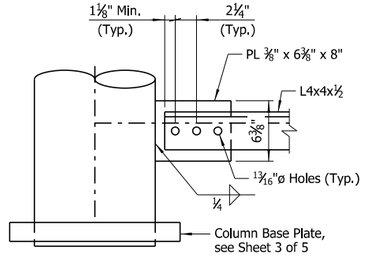
Tamperproof screws shall be galvanized and meet the requirements of ANSI/ASME B18.6.3.



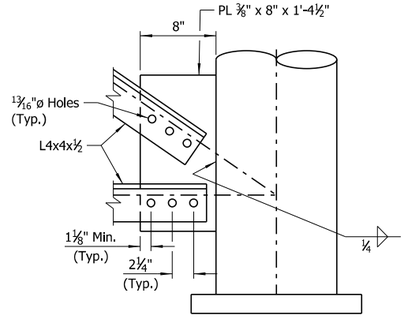

DETAIL F
Scale: 1½" = 1'-0"



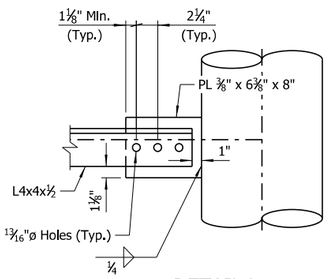

DETAIL G
Scale: 1½" = 1'-0"



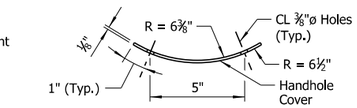

DETAIL H
Scale: 1½" = 1'-0"



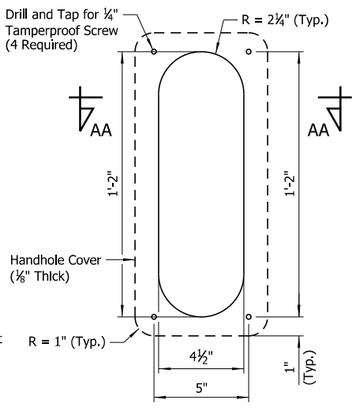

DETAIL J
Scale: 1½" = 1'-0"



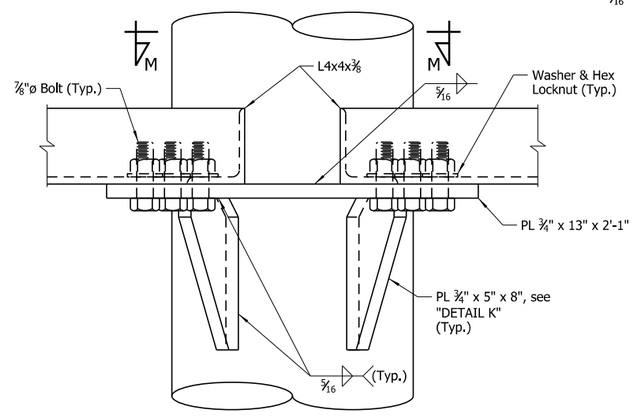

DETAIL L
Scale: 1½" = 1'-0"



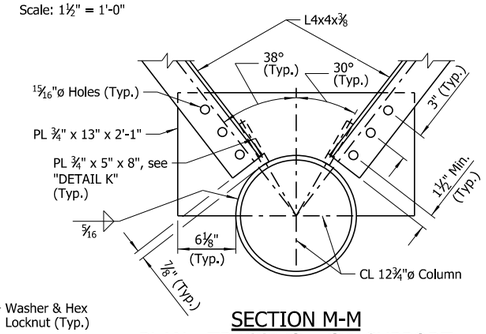

SECTION AA-AA
Scale: 3" = 1'-0"



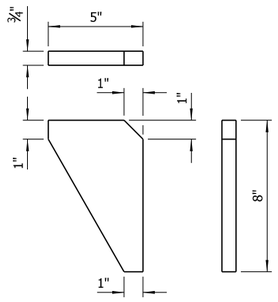

HANDHOLE DETAIL (1) (2)
Scale: 3" = 1'-0"



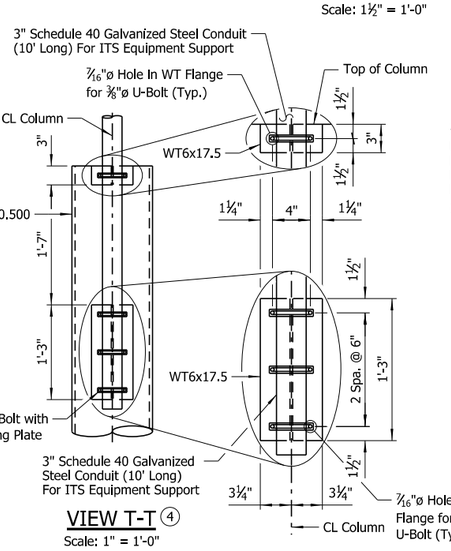

ELEVATION - TRUSS BOTTOM SUPPORT
(Bottom Connection shown, Top Connection similar)
Scale: 3" = 1'-0"



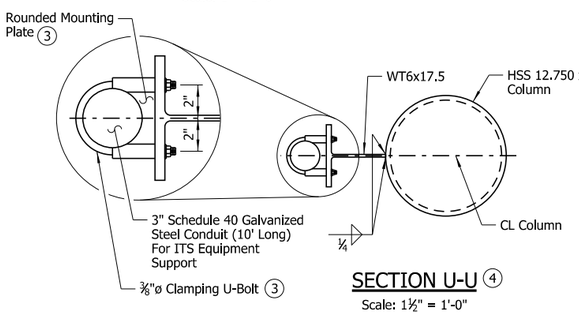

SECTION M-M
PLAN - TRUSS BOTTOM SUPPORT
Scale: 1½" = 1'-0"



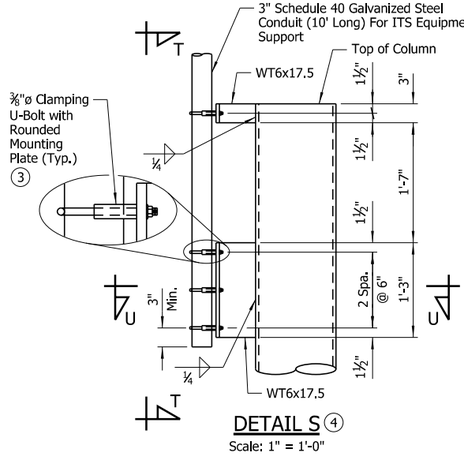

DETAIL K
Scale: 3" = 1'-0"




VIEW T-T (4)
Scale: 1" = 1'-0"




SECTION U-U (4)
Scale: 1½" = 1'-0"




DETAIL S (4)
Scale: 1" = 1'-0"

(3) Clamping U-Bolt with Rounded Mounting Plate Assembly product shall be included in shop drawings for approval. Assembly shall be galvanized and shall meet the requirements of ASTM A36 at a minimum. Install per Manufacturer's instructions.

(4) 3" Conduit and conduit support steel only required when necessary to support ITS equipment or as directed by the Engineer. See ITS Plans.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL
Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 2 OF 5
DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE

ROUTE SEC.

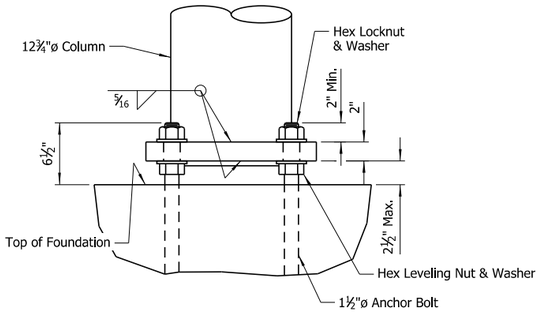
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

| | | | | | |
|---|---|---|---|---|---|
| DRAWN BY: | CSW | DATE: | SEP. 2022 | FILENAME: | b090069_tm2.dgn |
| CHECKED BY: | ABH | DATE: | SEP. 2022 | SCALE: | As Shown |
| DESIGNED BY: | CSW | DATE: | SEP. 2022 | | |

STR. NO. SEE TABLE DRAWING NO. 66867

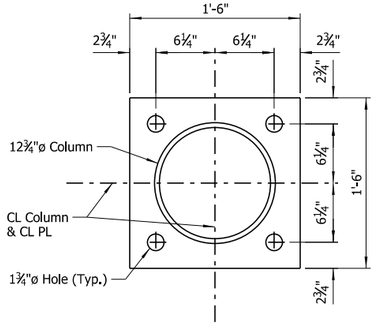
JEShriner 10/20/2023 2:14:53 PM
WORKSPACE: ASDOT Bridge (2019)
L:\2019\2019 Projects\...\Add-Ons\...\TEDTM2Standards\dgn\b090069SS_S302_TM.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 420 | 583 |
| | | SEE TABLE - TEE MOUNT SIGN STR. - 66868 | | | | |



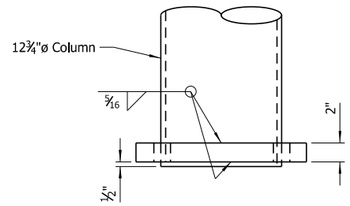

## ELEVATION - COLUMN BASE

Scale: 1½" = 1'-0"




## PLAN - COLUMN BASE

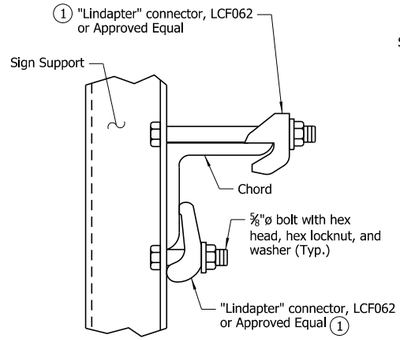
Scale: 1½" = 1'-0"

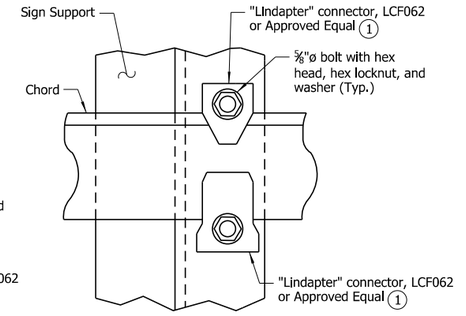



NOTE:
Diameter of hole in base plate to be ⅛" larger than column diameter.

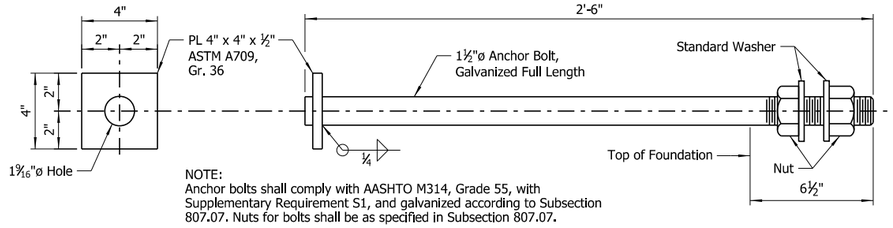
## DETAIL OF COLUMN CONNECTION TO BASE PLATE

Scale: 1½" = 1'-0"



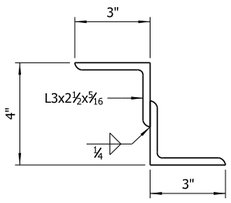

## TOP CHORD




NOTE:
Anchor bolts shall comply with AASHTO M314, Grade 55, with Supplementary Requirement S1, and galvanized according to Subsection 807.07. Nuts for bolts shall be as specified in Subsection 807.07.

## ANCHOR BOLT DETAIL

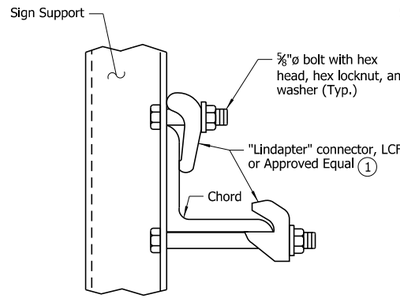
Scale: 3" = 1'-0"

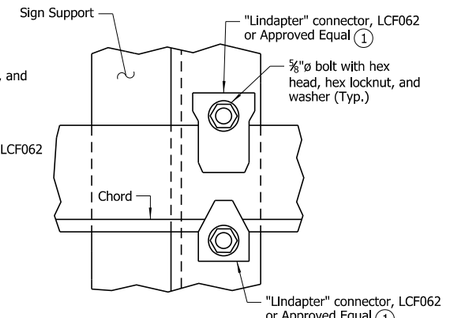



NOTE:
Structural Z support may be fabricated from angles as shown.

## DETAILS OF ALTERNATE Z SUPPORT

No Scale



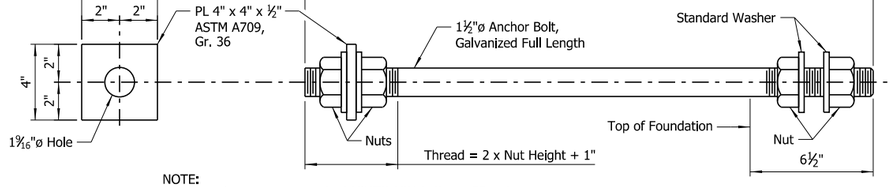

## BOTTOM CHORD

(1) All "Lindapter" connectors or approved equal shall be installed according to Manufacturer's recommendations. All connectors, bolts, nuts and washers shall be galvanized.

NOTE:
Install all support connectors clear of the gusset plates.

## DETAILS OF SIGN SUPPORT CONNECTION TO TRUSS

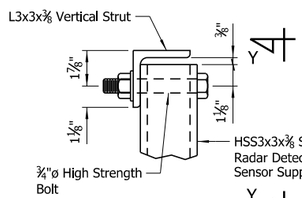
No Scale




NOTE:
Anchor bolts shall comply with AASHTO M314, Grade 55, with Supplementary Requirement S1, and galvanized according to Subsection 807.07. Nuts for bolts shall be as specified in Subsection 807.07.

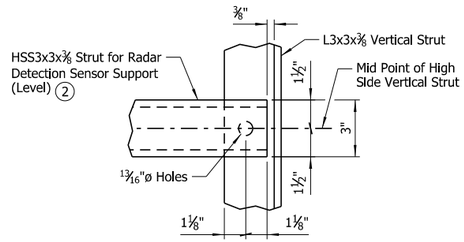
## ALTERNATE ANCHOR BOLT DETAIL

Scale: 3" = 1'-0"




## DETAIL X

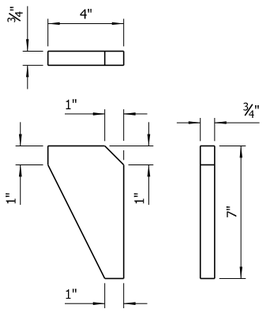
Scale: 3" = 1'-0"




## VIEW Y-Y

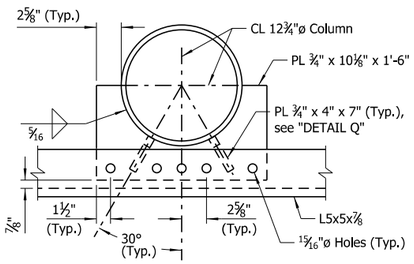
Scale: 3" = 1'-0"

(2) HSS3x3x⅜ Strut only required when Radar Detection Sensor Is to be attached to the structure or as directed by the Engineer. See ITS Plans.



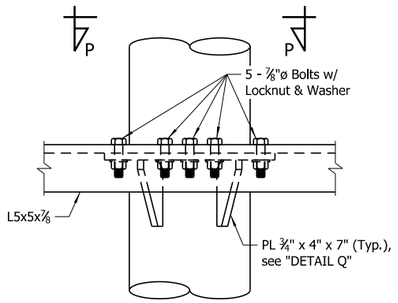

## DETAIL Q

Scale: 3" = 1'-0"




## SECTION P-P
## PLAN - CHORD SUPPORT

(Top Chord Shown, Bottom Chord Similar)
Scale: 1½" = 1'-0"




## ELEVATION - CHORD SUPPORT

(Top Chord Shown, Bottom Chord Similar)
Scale: 1½" = 1'-0"

STATE OF ARKANSAS
ADAM B. HALL
LICENSED PROFESSIONAL ENGINEER
No.14498

Digitally Signed 10/20/2023
BRIDGE ENGINEER

SHEET 3 OF 5
DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

| | | | | | |
|---|---|---|---|---|---|
| DRAWN BY: | CSW | DATE: | SEP. 2022 | FILENAME: | b090069_tm3.dgn |
| CHECKED BY: | ABH | DATE: | SEP. 2022 | SCALE: | As Shown |
| DESIGNED BY: | CSW | DATE: | SEP. 2022 | | |

STR. NO. SEE TABLE DRAWING NO. 66868

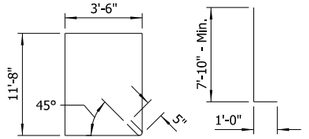

JEShriner 10/20/2023 2:14:51 PM
WORKSPACE: ARDOT Bridge (2019)
LOCATION: C:\Projects\090069 - Hot Access - Hot#3\Drawings\b090069GS_D302_ST4.dgn
REVISED DATE

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 421 | 583 |
| | | SEE TABLE - TEE MOUNT SIGN STR. - 66869 | | | | |

## BAR LIST - FOUNDATION B1

| MARK | NO. REQ'D | LENGTH | P.D. |
|---|---|---|---|
| C401 | 10 | 30'-10" | 2" |
| | | | |
| C601 | 84 | 8'-8" | 4½" |
| | | | |
| F601 | 38 | 17'-6" | Str. |
| F602 | 70 | 9'-6" | Str. |

## BAR BENDING DIAGRAMS




## APPROX. QUANTITIES FOR FOUNDATION B1 (FOR INFORMATION ONLY)

| Class S Concrete (Cu. Yds.) | Reinforcing Steel (Lbs.) | Excavation (Cu. Yds.) |
|---|---|---|
| 38.67 | 3,300 | 41 |

NOTES:
Dimensions of bars are out-to-out.

Number of bars shown is for one Foundation B1.

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 2014 Edition, with applicable Supplemental Specifications and Special Provisions. Section and Subsection refer to the Specifications unless otherwise noted in the plans.

DESIGN SPECIFICATIONS: AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, First Edition, 2015 with current interim revisions

Basic Wind Speed = 120 mph
Fatigue Category: I

This structure is approved for 250 square feet of sign area and a maximum sign weight (total of all signs) of 6000 lbs. Use of additional sign area or a heavier sign must be approved by the Engineer. If the structure height ("H") exceeds 30'-0", contact the Engineer.

FOUNDATION MATERIALS AND STRENGTHS:
Class S Concrete — f'c = 3,500 psi
Reinforcing Steel (Gr. 60, AASHTO M 31 or M 322, Type A) — fy = 60,000 psi

Spread footings for the structure have been designed assuming a factored bearing resistance of 2.0 ksf. Contractor shall be responsible for evaluating and verifying that the foundation soils are adequate to achieve the assumed factored bearing capacity, utilizing SPT (Standard Penetration Test), CPT (Cone Penetration Test), DCP (Dynamic Cone Penetration) test, or other suitable means, prior to or after footing excavation, whichever is appropriate. If the foundation soils are verified to be adequate, then the footing shall be constructed in accordance with the planned dimensions. Otherwise, the Design Engineer shall be contacted. Costs for foundation soil evaluation and verification shall be included in the item "STEEL TEE MOUNT SIGN STRUCTURE".

Structural steel sign support members shall comply with the following specifications:

| | |
|---|---|
| Angles: | ASTM A709, Gr. 36 (Fy = 36,000 psi) |
| Plate, W-Section: | ASTM A709, Gr. 50 (Fy = 50,000 psi) |
| (1) Pipe: | ASTM A139, Gr. C, straight-seam welded (Fy = 42,000 psi), ASTM A500, Gr. B (Fy = 42,000 psi), ASTM A501, Gr. B (Fy = 50,000 psi) |
| Z-Shapes: | ASTM A709, Grade 36 (Fy = 36,000 psi) |
| Shim Plates: | ASTM A1011, SS, Grade 36, Type 2, or Grade 40 |
| Square HSS Tubing: | ASTM A500, Gr. B (Fy = 46,000 psi), ASTM A501, Gr. B (Fy = 50,000 psi), ASTM A709, Gr. 36 (Fy = 36,000 psi) |
| Bolts: | ASTM F3125, Grade A325, Type 1 |
| Locknuts - Approved Type: | ASTM A563, Grade DH or AASHTO M 292, Grade 2H |
| Washers: | ASTM F436 |
| Nuts: | ASTM A563, Grade DH or AASHTO M 292, Grade 2H |

(1) In addition to material requirements, all pipe used for welded applications shall have a maximum carbon equivalency (CE) of 0.4 using the following equation:

CE = %C + %Mn/6 + %Cu/40 + %Ni/20 + %Cr/10 - %Mo/50 - %V/10

The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and to fit the new structure to the existing conditions.

Drawings show general features of design only. Shop drawings shall be made in accordance with Subsection 807.04, submitted, and approval secured before fabrication is begun.

Requests for substitution of structural steel shapes shown with shapes of greater size must be submitted by the Contractor to the Engineer for approval. Steels of equal or greater strengths will be accepted only when shown on the approved shop drawings. Shapes and materials shown in the plans will be the basis of payment and no additional compensation will be made for any adjustments due to substitutions.

All steel shall be galvanized according to Subsection 807.19. Steel completely encased in concrete may not be galvanized. Galvanized coating damaged during transport, handling or erection shall be field repaired in accordance with Subsection 807.88.

All main load carrying tension members greater than ½" in thickness shall conform to the requirements of the Longitudinal Charpy V-Notch test specified for Zone 1 minimum service temperature. This work and materials shall be paid for in accordance with Special Provision "STEEL SIGN STRUCTURES."

Truss field sections shall be shop assembled. Entire truss shall be fully assembled and lifted into place as one unit on to tower supports. All truss member connections shall be bolted connections.

All welding that is to be done during fabrication of structural steel, including temporary welds, shall be detailed on the shop drawings and submitted for approval. If additional welds are required, whether temporary or permanent, a formal request with detailed drawings shall be submitted to the Engineer for approval. All welding shall conform to Subsection 807.26 except welding of tubular sections shall conform to AWS D1.1 Structural Welding Code.

No circumferential butt welds will be allowed in any pipe sections.

All fillet welds of critical members shall be tested according to AWS D1.1 Structural Welding Code - Steel using the magnetic particle method. Critical welds shall include: column to base plate and truss bottom support to column.

Connections shall be bolted with high-strength bolts. Unless otherwise noted, bolts shall be ¾" diameter and open holes shall be $^{13}/_{16}$" diameter. Bolt spacing shall be 2¼" for ¾" diameter bolts unless otherwise noted. Bolts shall be placed with heads on the outside face of all members.

All truss frame bolts shall comply with ASTM F3125, Grade A325, Type 1, galvanized according to Subsection 807.06. Nuts and washers for ASTM F3125, Grade A325, Type 1 bolts shall be furnished and galvanized in accordance with Subsection 807.06.

Locknuts shall be equipped with nylon locking inserts or other approved type locking system. Locknuts shall be installed according to Manufacturer's recommendations.

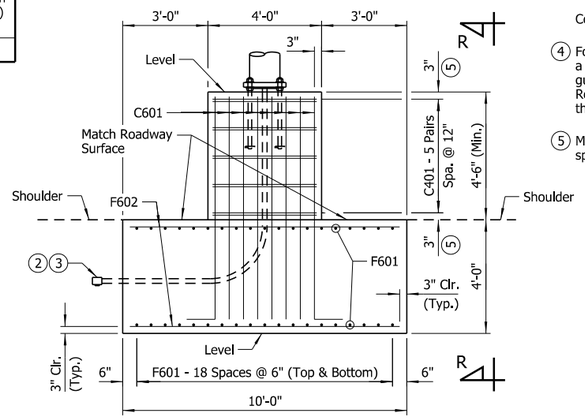
Anchor bolts shall comply with AASHTO M 314, Grade 55, including Supplementary Requirement S1, and shall be galvanized according to Subsection 807.07. Nuts and washers for anchor bolts shall be furnished and galvanized in accordance with Subsection 807.07. Anchor bolts shall be pretensioned in accordance with Special Provision "STEEL SIGN STRUCTURES."

Shoring may be required to protect existing shoulders or other elements during excavation. Any shoring required shall not be paid for directly, but shall be considered incidental to the item "STEEL TEE MOUNT SIGN STRUCTURE." The excavations for the footings shall be backfilled before the structure is attached to the foundations.

DYNAMIC MESSAGE SIGN (WHEN APPLICABLE): The Dynamic Message Sign (DMS) supplier shall be responsible for the attachment method and materials used to attach the DMS and its accessories to the structure. The method of attachment shall not facilitate any corrosion of the structure.

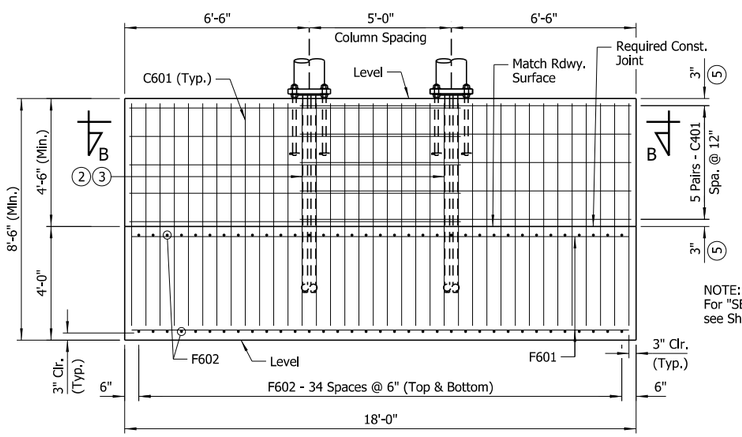
For additional information regarding the DMS, see Special Provision "OVERHEAD DYNAMIC MESSAGE SIGN ASSEMBLY."

For location of each tee mount sign structure and associated foundation type to be used, refer to ITS and/or Sign Plans.




## ELEVATION - FOUNDATION B1 (4)

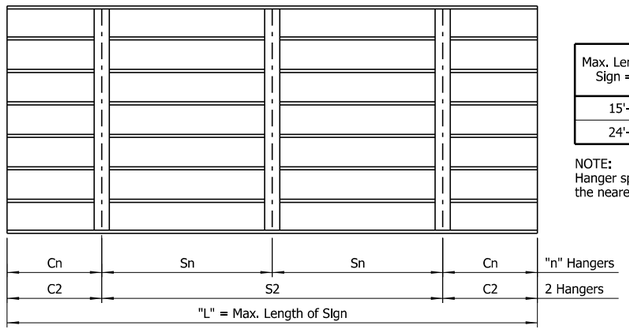
Scale: ⅜" = 1'-0"




NOTE:
For "SECTION B-B", see Sheet 1 of 5.

## VIEW R-R

Scale: ⅜" = 1'-0"




NOTE:
See sign details and plan sheets for number, size and dimensions of signs.

## HANGER SPACING DETAILS FOR EXTRUDED PANEL SIGNS

No Scale

## HANGER VARIABLES

(For Extruded Panel Signs)

| Max. Length of Sign = "L" | "n" Hangers | Cantilever Length "Cn" | Hanger Spacing "Sn" |
|---|---|---|---|
| 15'-0" | 2 Hangers | 0.21 x "L" | 0.58 x "L" |
| 24'-0" | 3 Hangers | 0.145 x "L" | 0.355 x "L" |

NOTE:
Hanger spacing and cantilever length shall be rounded to the nearest inch.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.14498
ADAM B. HALL

Digitally Signed 10/20/2023
BRIDGE ENGINEER

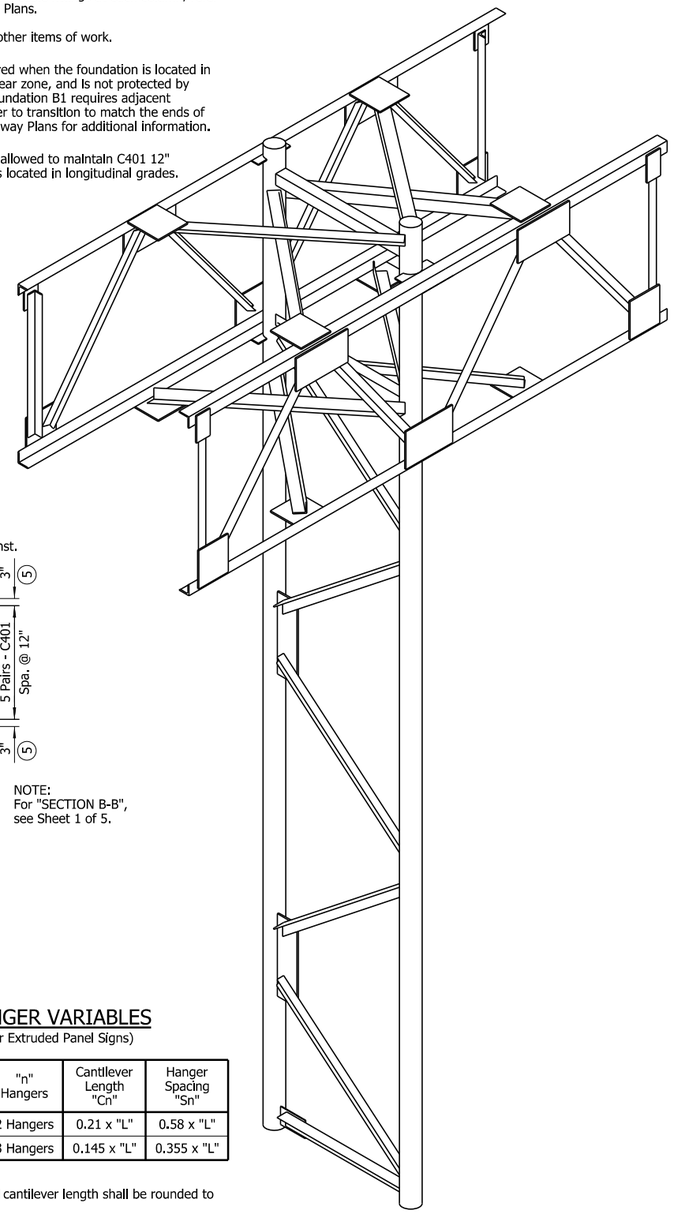
(2) Conduit only required when Dyanmic Message Signs are to be attached to the structure or as directed by the Engineer.

(3) For details of conduit and cable fittings at each column, refer to Electrical and/or ITS Plans.

Cost to be included in other items of work.

(4) Foundation B1 is required when the foundation is located in a median, within the clear zone, and is not protected by guardrail or barrier. Foundation B1 requires adjacent Roadway Median Barrier to transition to match the ends of the pedestal. See Roadway Plans for additional information.

(5) Minor adjustments are allowed to maintain C401 12" spacing for foundations located in longitudinal grades.



## ISOMETRIC VIEW

No Scale

SHEET 4 OF 5
DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE

ROUTE SEC.

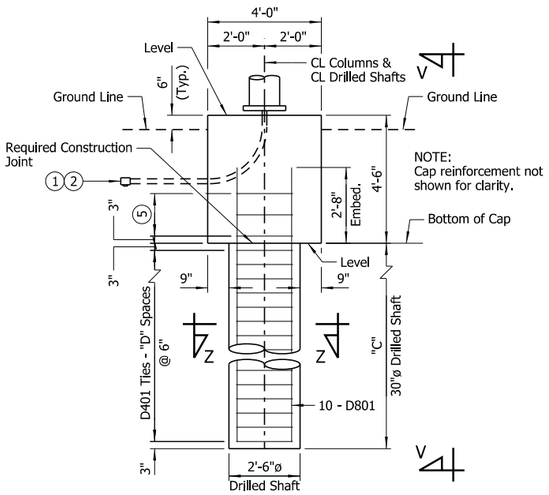
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: CSW DATE: SEP. 2022 FILENAME: b090069_tm4.dgn
CHECKED BY: ABH DATE: SEP. 2022 SCALE: As Shown
DESIGNED BY: CSW DATE: SEP. 2022

STR. NO. SEE TABLE DRAWING NO. 66869

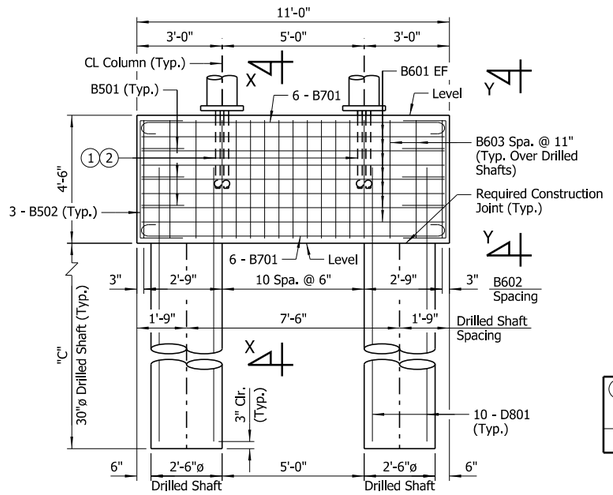

JESNiver
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REVISED DATE
12/20/2023 2:14:53 PM

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 422 | 583 |
| | | SEE TABLE - TEE MOUNT SIGN STR. - 66870 | | | | |



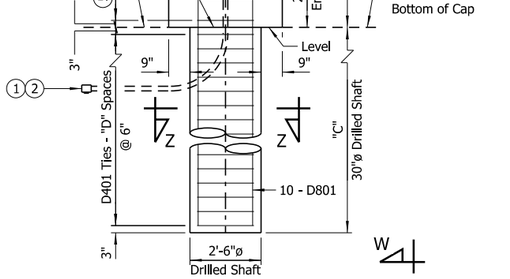

## ELEVATION - FOUNDATION A2 (3)

Scale: ⅜" = 1'-0"



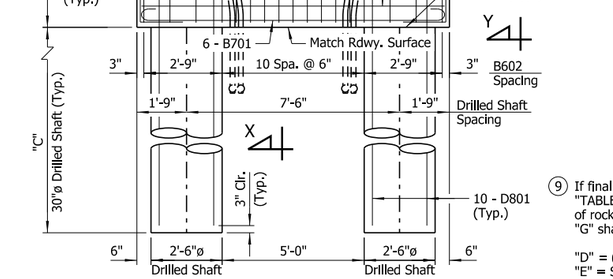

## VIEW V-V

Scale: ⅜" = 1'-0"



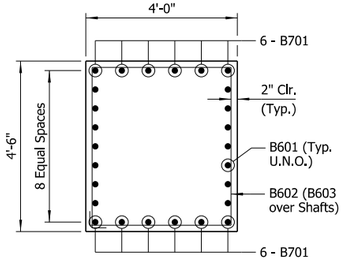

## ELEVATION - FOUNDATION B2 (4)

Scale: ⅜" = 1'-0"



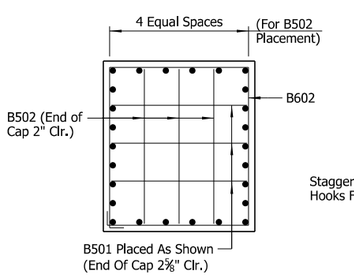

## VIEW W-W

Scale: ⅜" = 1'-0"



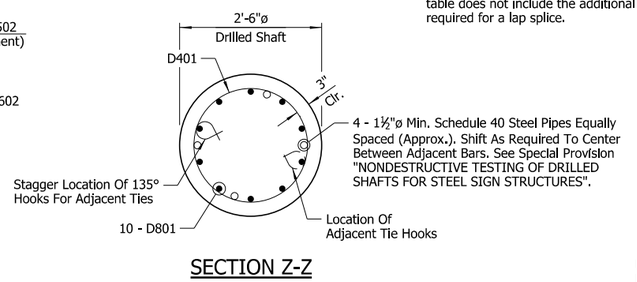

## SECTION X-X

Scale: ½" = 1'-0"




## VIEW Y-Y

Scale: ½" = 1'-0"




## SECTION Z-Z

Scale: ¾" = 1'-0"

1. Conduit only required when Dyanmic Message Signs are to be attached to the structure or as directed by the Engineer.
2. For details of conduit and cable fittings at each column, refer to Electrical and/or ITS Plans.

   Cost to be included in other Items of work.
3. Foundation A2 allowed only when foundation is outside clear zone or is protected by guardrail or barrier.
4. Foundation B2 is required when the foundation is located in a median, within the clear zone, and is not protected by guardrail or barrier. Foundation B2 requires adjacent Roadway Median Barrier to transition to match the ends of the cap. See Roadway Plans for additional information.
5. C401 Ties - 2 Spaces @ 9"

## APPROX. QUANTITIES FOR FOUNDATION A2 (FOR INFORMATION ONLY)

| (6) CLASS S CONCRETE (CU. YDS.) | (7) REINFORCING STEEL (LBS.) | EXCAVATION (CU. YDS.) | DRILLED SHAFT (30" DIA.) (LIN. FT.) | CROSSHOLE SONIC LOGGING (30" DIA.) (EACH) |
|---|---|---|---|---|
| 7.33 | 1,037 | 15 | "G" | 1 |

## APPROX. QUANTITIES FOR FOUNDATION B2 (FOR INFORMATION ONLY)

| (6) CLASS S CONCRETE (CU. YDS.) | (7) REINFORCING STEEL (LBS.) | DRILLED SHAFT (30" DIA.) (LIN. FT.) | CROSSHOLE SONIC LOGGING (30" DIA.) (EACH) |
|---|---|---|---|
| 7.33 | 1,037 | "G" | 1 |

6. Does not include Class S Concrete for Drilled Shafts
7. Does not include D401 and D801 Bars in Drilled Shafts
8. Tabulated SPT N60 values are raw SPT N values corrected by SPT hammer efficiency and represent average values along the plan shaft penetration. If the SPT N60 values in the foundation soils within 2 shaft diameters below the plan tip elevation are less than the average SPT N60 values along the plan shaft penetration, the Engineer shall be contacted.
9. If final drilled shaft length is not shown in "TABLE OF VARIABLES" due to the presence of rock or other factors, variables "D" through "G" shall be determined as follows:

   "D" = (Shaft Length in Ft. - 0.5) / 0.5
   "E" = Shaft Length in Ft. x 4
   "F" = Shaft Length + 2'-5"
   "G" = Shaft Length x 2
10. If "F" exceeds 60'-0", a lap splice is required for each D801 bar at the midpoint of the drilled shaft. Min. lap splice length for D801 bar = 3'-6". Length shown in table does not include the additional length required for a lap splice.

## DRILLED SHAFT NOTES (FOUNDATIONS A2 & B2)

Drilled shafts shall conform to Special Provision "DRILLED SHAFT FOUNDATIONS FOR STEEL SIGN STRUCTURES". Drilled shafts will not be paid for directly but shall be considered subsidiary to the unit price bid for "STEEL TEE MOUNT SIGN STRUCTURE". Temporary casing may be required. Unless approved by the Engineer, permanent steel casing shall not be used.

Crosshole Sonic Logging (CSL) shall be performed on one drilled shaft at each foundation and as directed by the Engineer. Testing shall be performed in accordance with Special Provision "NONDESTRUCTIVE TESTING OF DRILLED SHAFTS FOR STEEL SIGN STRUCTURES".

Concrete and reinforcing steel placed in drilled shafts will not be paid for directly but shall be considered subsidiary to the unit price bid for "STEEL TEE MOUNT SIGN STRUCTURE". No additional payment shall be made for spacers, additional splices or bracing needed for assembly, shipping, handling or erecting.

Concrete in drilled shafts shall be Class "S" as modified by Special Provision "DRILLED SHAFT FOUNDATIONS FOR STEEL SIGN STRUCTURES".

Drilled shaft lengths shall be determined based on the results of exploratory borings, which shall be performed by the Contractor prior to shaft excavation.

If competent rock is not encountered in the exploratory boring, the Standard Penetration Test (SPT) blow count corrected by the hammer efficiency, N60, shall be used to determine shaft lengths. See "TABLE OF VARIABLES".

If competent rock is encountered in the exploratory boring within 25'-0" of planned top of drilled shaft, the shafts shall be founded a minimum of 3'-0" into rock and have a minimum length of 25'-0".

If competent rock is encountered in the exploratory boring below 25'-0" from planned top of drilled shaft, the shafts shall be founded a minimum of 3'-0" into rock or to the depth based on the SPT N60 value and associated shaft length in the "TABLE OF VARIABLES", whichever is shallower.

Testing results shall be submitted to the Engineer for review. Final drilled shaft lengths shall be approved by the Engineer prior to construction.

The cost of performing exploratory borings and in-situ strength testing shall be included in the item "STEEL TEE MOUNT SIGN STRUCTURE".

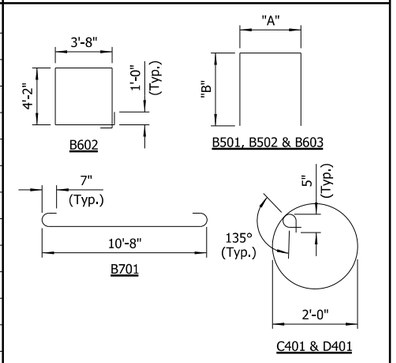
## TABLE OF VARIABLES (9)

| SPT N60 (8) (blows/ft.) | Min. Depth of Exploratory Boring | Drilled Shaft Length, "C" | "D" | "E" | "F" (10) | "G" |
|---|---|---|---|---|---|---|
| <5 | - | Contact Engineer | - | - | - | - |
| 5 To 7 | 72'-0" | 67'-0" | 133 | 268 | 69'-5" | 134'-0" |
| 7 To 9 | 60'-0" | 55'-0" | 109 | 220 | 57'-5" | 110'-0" |
| 9 To 11 | 45'-0" | 40'-0" | 79 | 160 | 42'-5" | 80'-0" |
| 11 To 13 | 36'-0" | 31'-0" | 61 | 124 | 33'-5" | 62'-0" |
| >13 | 30'-0" | 25'-0" | 49 | 100 | 27'-5" | 50'-0" |

## BAR LIST - FOUNDATION A2 OR B2

| MARK | NO. REQ'D | LENGTH | "A" | "B" | P.D. |
|---|---|---|---|---|---|
| B501 | 6 | 6'-4" | 3'-6" | 1'-6" | 2½" |
| B502 | 6 | 6'-10" | 4'-0" | 1'-6" | 2½" |
| | | | | | |
| B601 | 14 | 10'-8" | | | Str. |
| B602 | 13 | 16'-10" | | | 4½" |
| B603 | 4 | 11'-8" | 3'-8" | 4'-2" | 4½" |
| | | | | | |
| B701 | 12 | 12'-4" | | | 5¼" |
| | | | | | |
| C401 | 6 | 7'-4" | | | 3" |
| | | | | | |
| D401 | "E" | 7'-4" | | | 3" |
| D801 | 20 | "F" | | | Str. |

## BAR BENDING DIAGRAMS




NOTES:
Dimensions of bars are out-to-out.

Number of bars shown is for one Foundation A2 or one Foundation B2.

## LEGEND

U.N.O. = Unless Noted Otherwise
EF = Each Face

STATE OF ARKANSAS
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SHEET 5 OF 5
DETAILS OF STEEL TEE MOUNT SIGN STRUCTURE

ROUTE SEC.

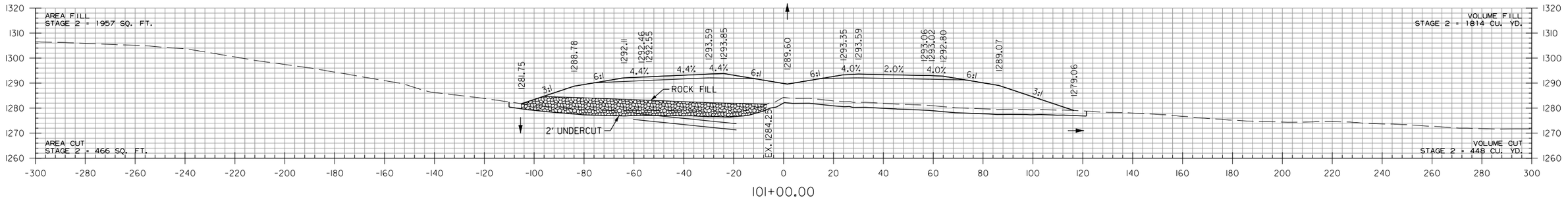
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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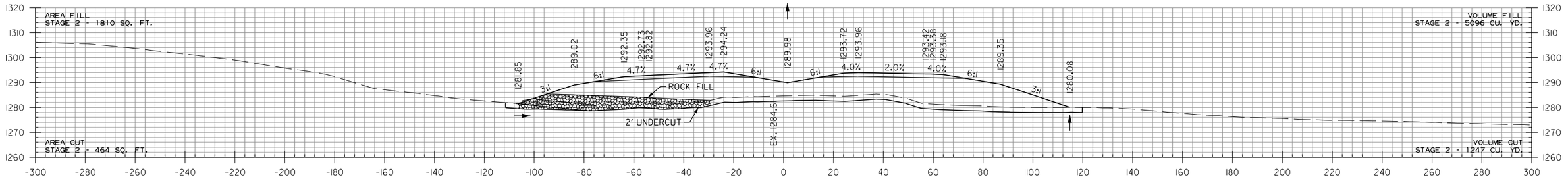

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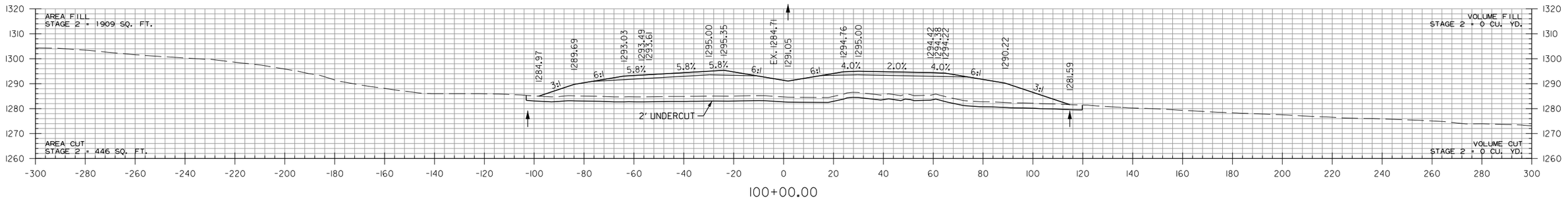
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101+00.00




100+74.00




100+00.00

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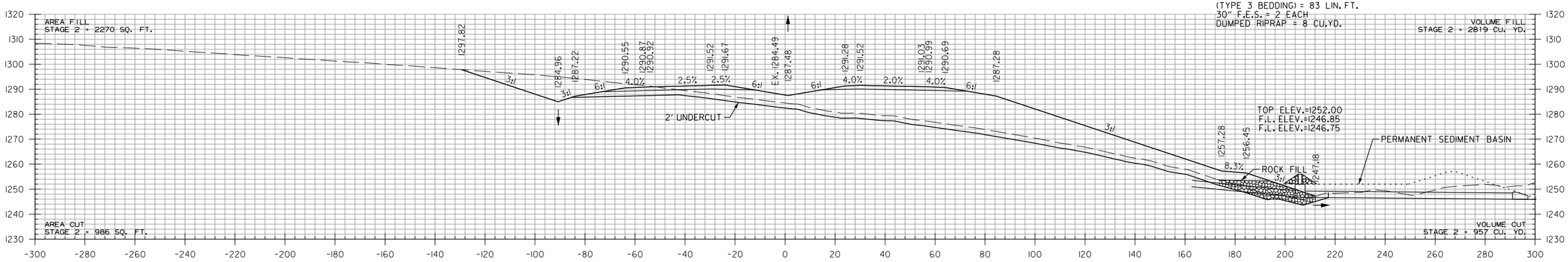
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REVISED DATE:

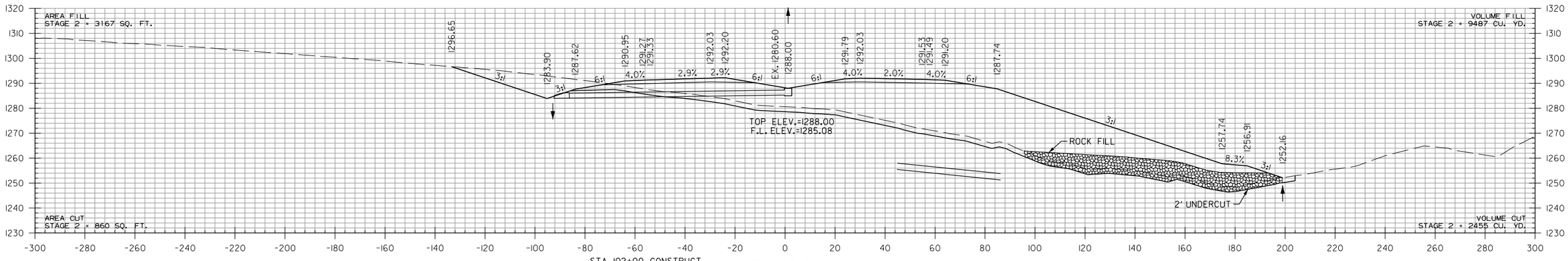
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| | | CROSS SECTIONS | | | | |

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DROP INLET 206' RT. H=5'-3"
WITH 30" x 338' PIPE INLET
FROM F.E.S. AT STA. 100+70 LT.
Q50 = 21 CFS DA = 3.7 ACRES
AND 30" x 83' PIPE OUTLET
TO F.E.S. AT STA. 102+60 RT.
26°RT. FWD. SKEW
TYPE RM DROP INLET = 4'X4'
W/ MODIFIED TOP AND
4 LIN. FT. 18" PERFORATED
RISER PIPE
30" R.C. PIPE (CLASS V)
(TYPE 3 BEDDING) = 338 LIN. FT.
30" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 83 LIN. FT.
30" F.E.S. = 2 EACH
DUMPED RIPRAP = 8 CU.YD.




102+28.00




102+00.00

STA. 102+00 CONSTRUCT
DROP INLET 12' RT. H=2'-11"
WITH 24" x 86' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 86 LIN. FT.
24" F.E.S. = 1 EACH

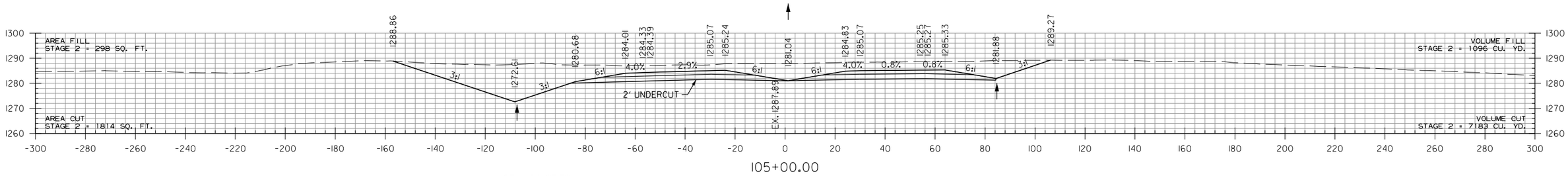
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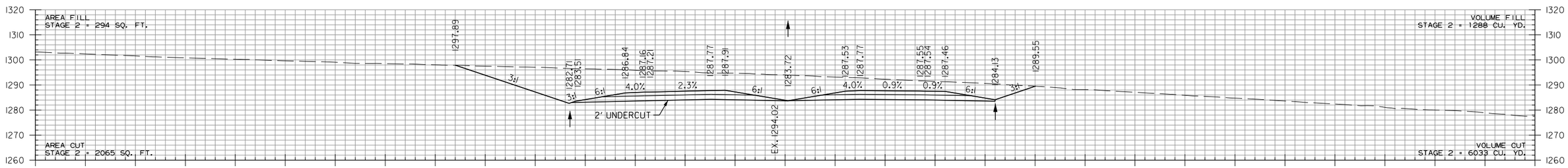
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105+00.00

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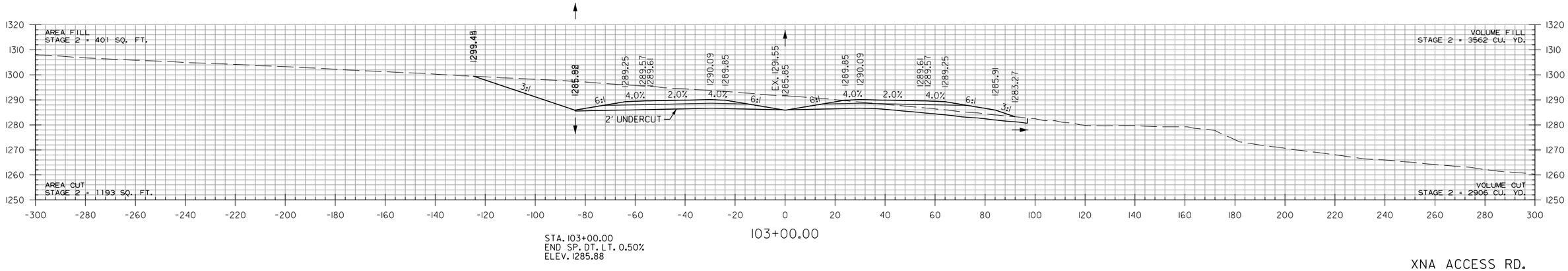
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ELEV. 1280.67




104+00.00

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ELEV. 1284.16

STA. 103+33.77 BEGIN SUPERELEVATION




103+00.00

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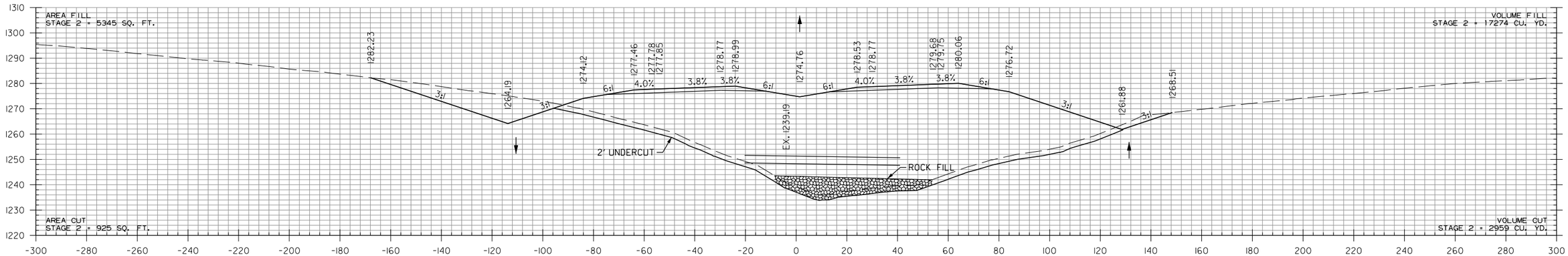
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| | | CROSS SECTIONS | | | | |

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ELEV. 1265.87

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ELEV. 1258.32



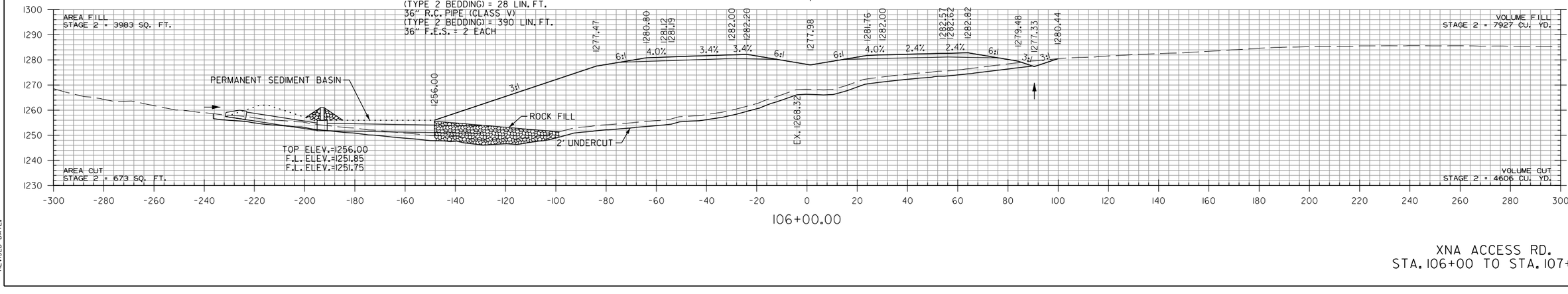

107+00.00

STA. 105+97 CONSTRUCT
DROP INLET 193' LT. H=4'-3"
WITH 36" x 28' PIPE INLET
FROM F.E.S. AT STA. 105+82 LT.
Q50 = 37 CFS DA = 6.7 ACRES
AND 36" x 390' PIPE OUTLET
TO F.E.S. AT 107+71 RT.
26°RT. FWD. SKEW
TYPE RM DROP INLET = 4'X4'
W/ MODIFIED TOP AND
5 LIN. FT. 18" PERFORATED
RISER PIPE
36" R.C. PIPE (CLASS III)
(TYPE 2 BEDDING) = 28 LIN. FT.
36" R.C. PIPE (CLASS V)
(TYPE 2 BEDDING) = 390 LIN. FT.
36" F.E.S. = 2 EACH

STA. 106+65.00
END SP. DT. LT. 13.94%
BEGIN SP. DT. LT. 6.68%
ELEV. 1261.85

STA. 106+23.00
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ELEV. 1256.00

STA. 106+83.77 MAX. SUPERELEVATION (0.038'/')



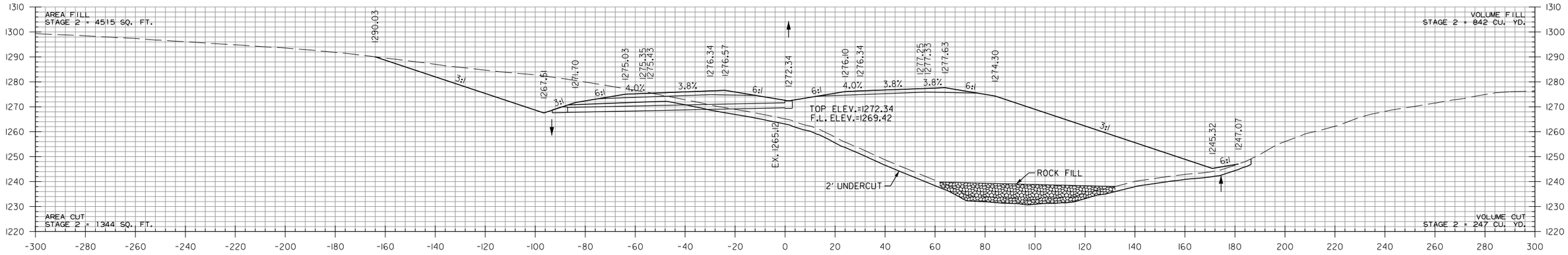

106+00.00

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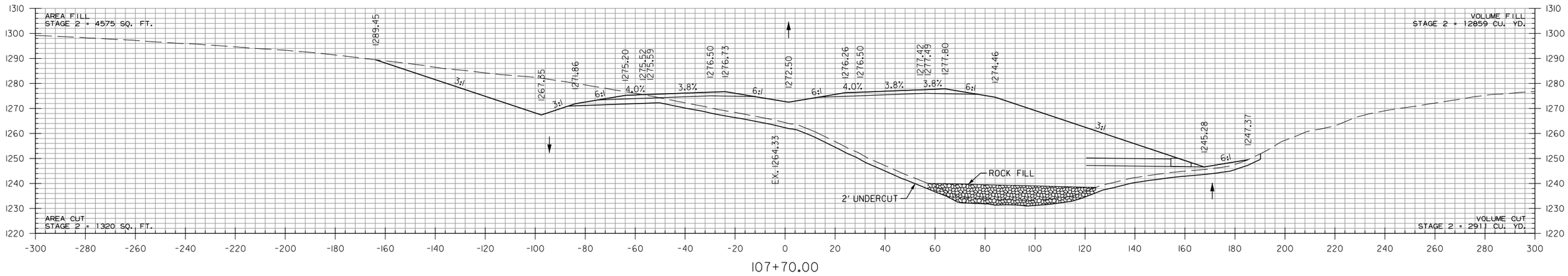
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ELEV. 1267.84




107+75.00

STA. 107+75 CONSTRUCT
DROP INLET 1' RT. H=2'-11"
WITH 24" x 87' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 85 LIN. FT.
24" F.E.S. = 1 EACH

STA. 107+75.00
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BEGIN SP. DT. RT. -6.40%
ELEV. 1245.32



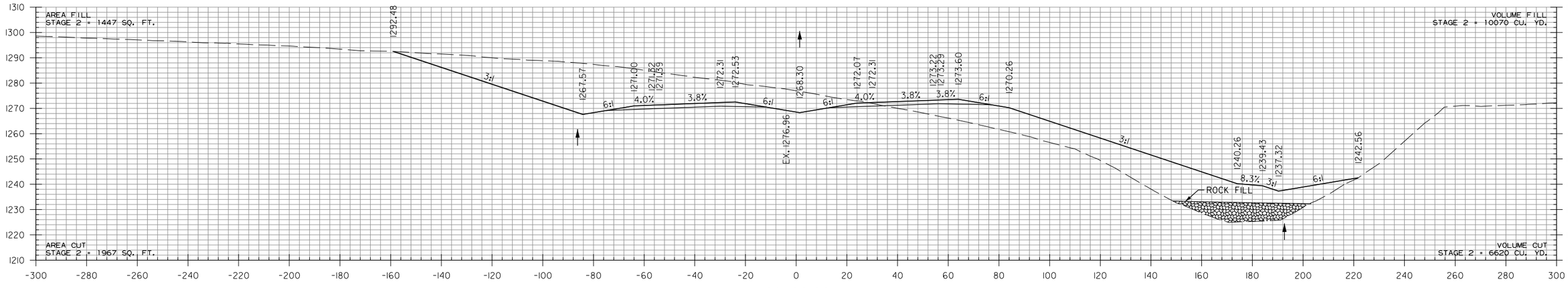

107+70.00

XNA ACCESS RD.
STA. 107+70 TO STA. 107+75

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REVISED DATE:

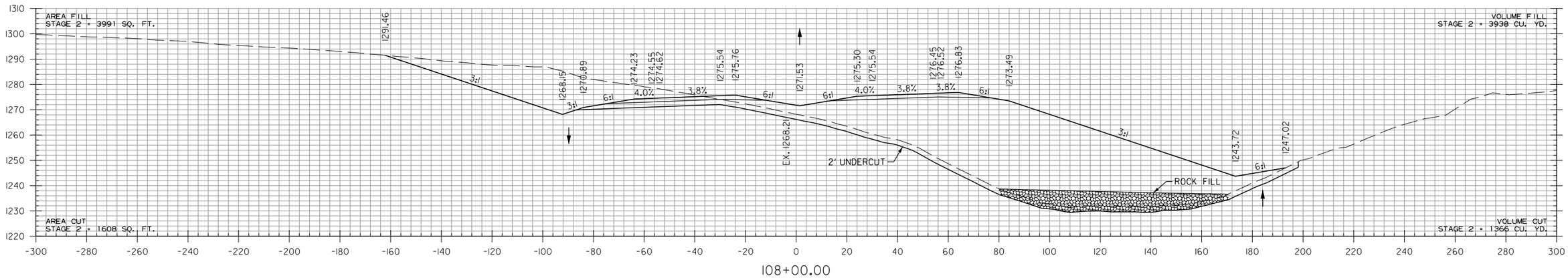
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 428 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 109+22.00
END SP. DT. RT. -6.40%
BEGIN SP. DT. RT. -18.79%
ELEV. 1235.91




109+00.00

STA. 108+50.00
END SP. DT. LT. 2.08%
ELEV. 1269.19



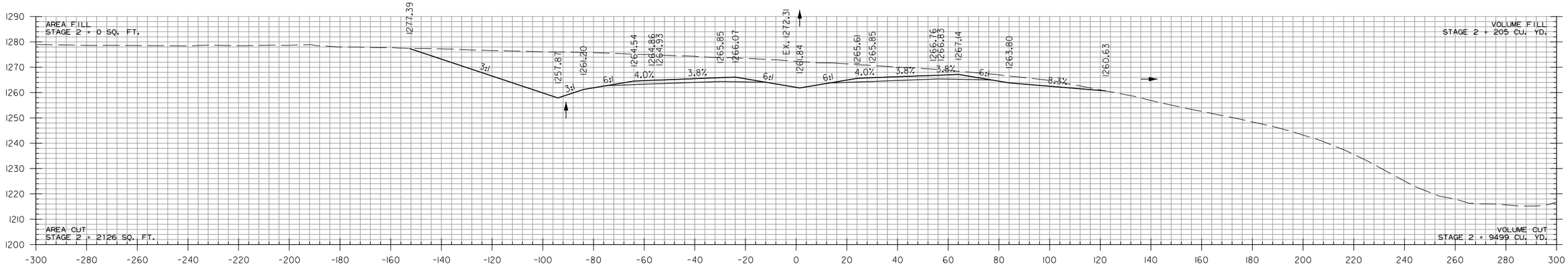

108+00.00

XNA ACCESS RD.
STA. 108+00 TO STA. 109+00

aewierick 10/20/2023 12:56:12 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 429 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 111+50.00
END SP. DT. LT. -11.22%
BEGIN SP. DT. LT. -22.11%
ELEV. 1252.26

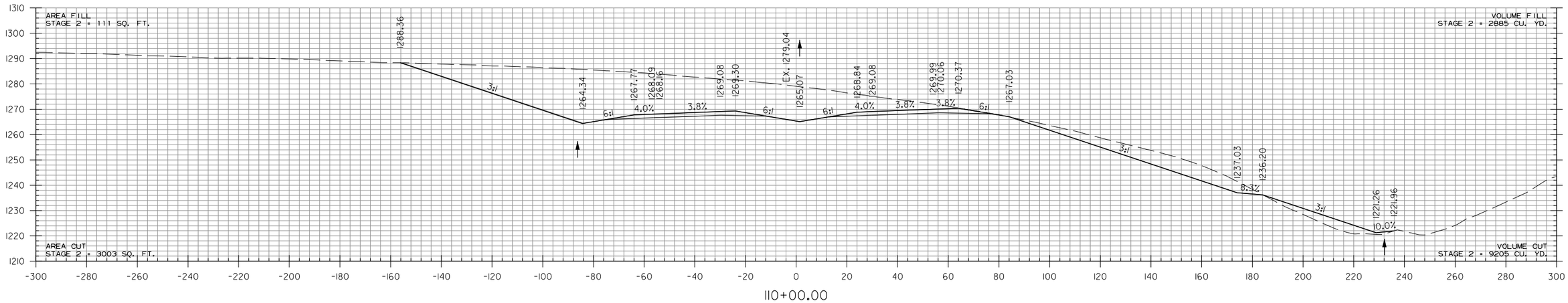



111+00.00

STA. 110+90.00
END SP. DT. LT. -7.32%
BEGIN SP. DT. LT. -11.22%
ELEV. 1258.99

STA. 110+30.00
BEGIN SP. DT. LT. -7.32%
ELEV. 1263.38

STA. 110+05.00
END SP. DT. RT. -18.79%
ELEV. 1220.32




110+00.00

XNA ACCESS RD.
STA. 110+00 TO STA. 111+00

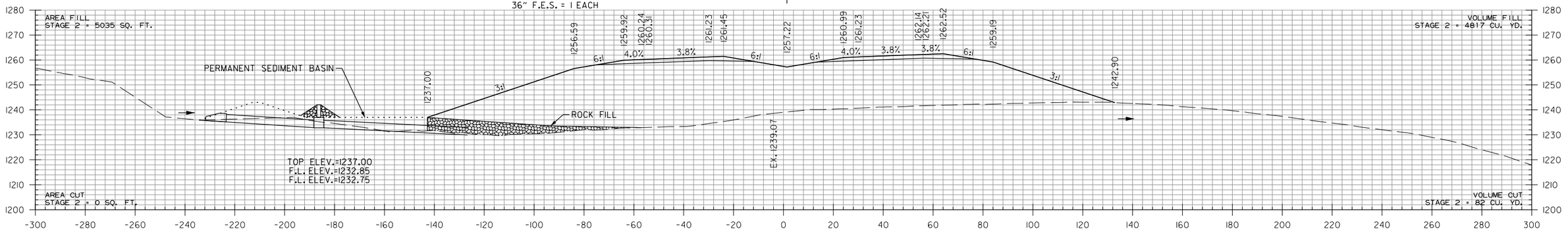

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 430 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 112+85.00
END SP. DT. LT. 11.67%
BEGIN SP. DT. LT. 7.22%
ELEV. 1240.50

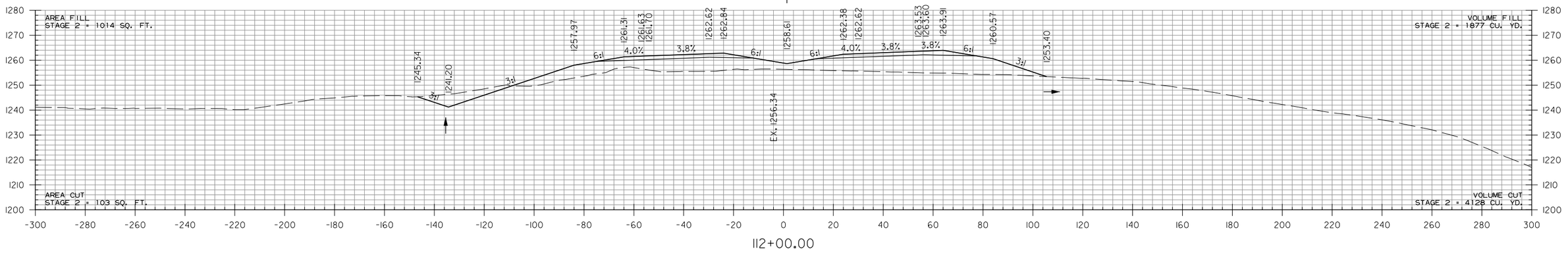
STA. 112+55.00
BEGIN SP. DT. LT. 11.67%
ELEV. 1237.00

STA. 112+27 CONSTRUCT
DROP INLET 185' LT. H=4'-2"
WITH 36" x 35' PIPE INLET
FROM F.E.S. AT STA. 112+19 LT.
Q50 = 42 CFS DA = 7.7 ACRES
AND 36" x 366' PIPE OUTLET
TO DROP INLET AT 112+98 RT.
11°RT. FWD. SKEW
TYPE RM DROP INLET = 4'X4'
W/ MODIFIED TOP AND
5 LIN. FT. 18" PERFORATED
RISER PIPE
36" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 35 LIN. FT.
36" R.C. PIPE (CLASS V)
(TYPE 2 BEDDING) = 366 LIN. FT.
36" F.E.S. = 1 EACH




112+43.00

STA. 112+19.00
END SP. DT. LT. -22.11%
ELEV. 1237.00

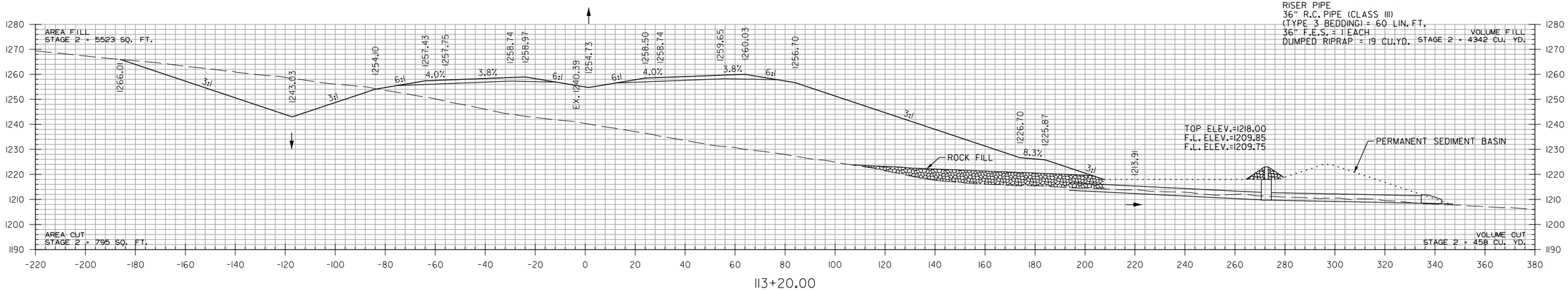



112+00.00

XNA ACCESS RD.
STA. 112+00 TO STA. 112+43


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WORKSPACE: AHTD
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REVISED DATE:

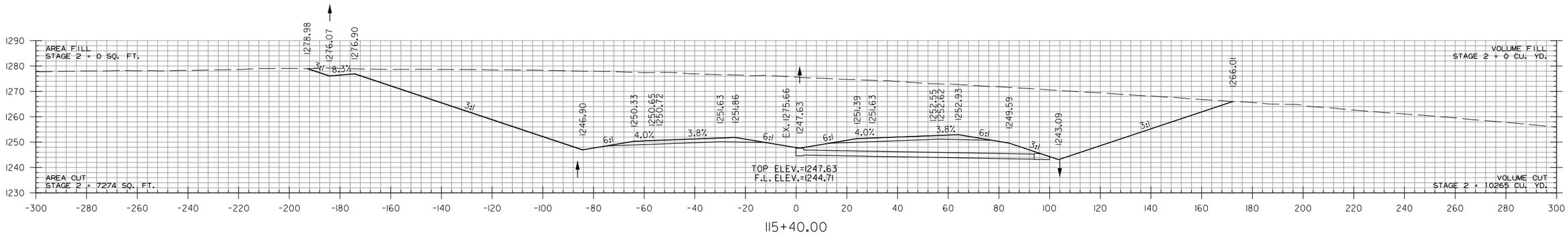
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 431 | 583 |
| | | CROSS SECTIONS | | | | |




XNA ACCESS RD.
STA. 113+00 TO STA. 113+20


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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 432 | 583 |
| | | CROSS SECTIONS | | | | |

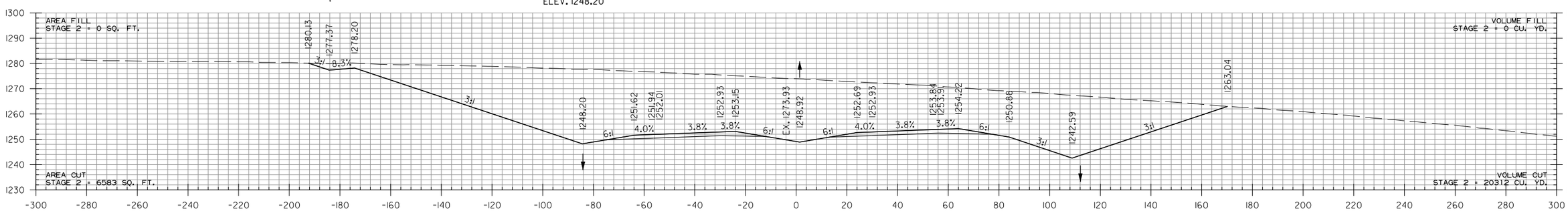



115+40.00

STA. 115+40 CONSTRUCT
DROP INLET 1' RT. H=2'-11"
WITH 24" x 91' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 91 LIN. FT.
24" F.E.S. = 1 EACH

STA. 115+05.00
END SP. DT. RT. 5.73%
BEGIN SP. DT. RT. 0.59%
ELEV. 1242.88

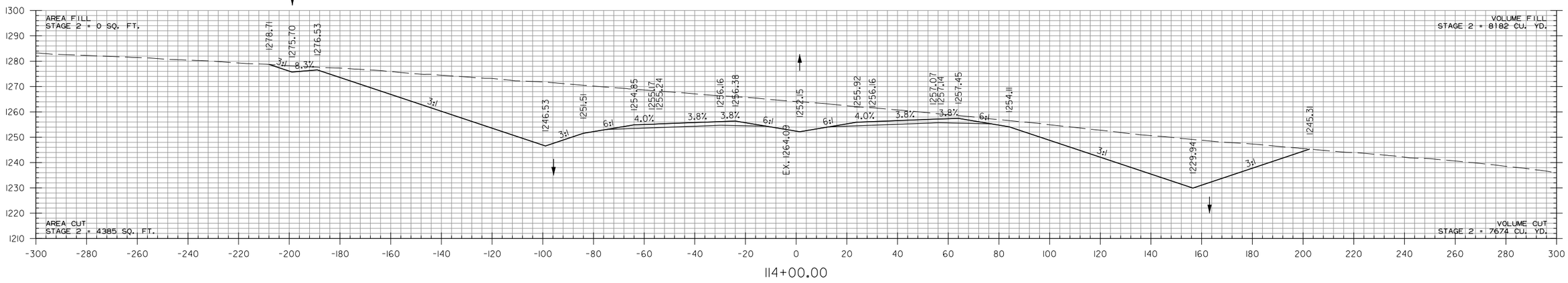
STA. 115+00.00
END SP. DT. LT. 1.58%
ELEV. 1248.20




115+00.00

STA. 114+05.00
END SP. DT. LT. 3.27%
BEGIN SP. DT. LT. 1.58%
ELEV. 1246.70

STA. 114+50.00
END SP. DT. RT. 21.79%
BEGIN SP. DT. RT. 5.73%
ELEV. 1239.73



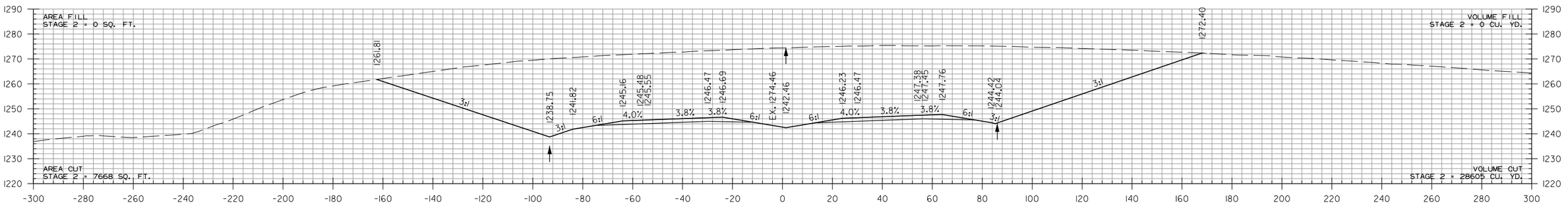

114+00.00

XNA ACCESS RD.
STA. 114+00 TO STA. 115+40

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 433 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 117+50.00
END SP. DT. LT. -10.99%
BEGIN SP. DT. LT. -23.89%
ELEV. 1233.25

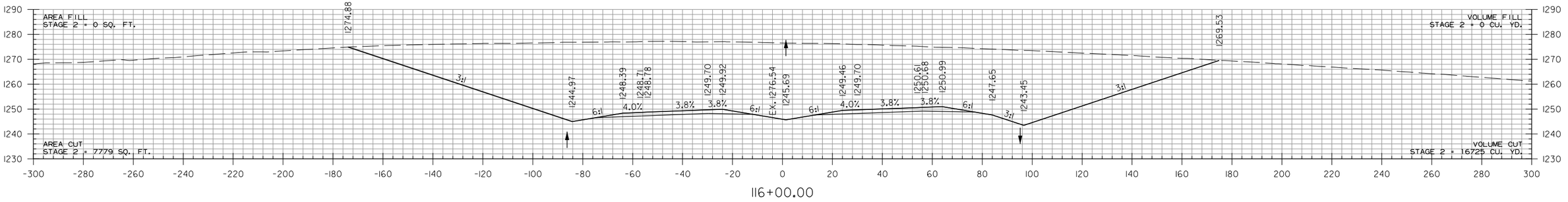



117+00.00

STA. 116+90.00
END SP. DT. LT. -6.93%
BEGIN SP. DT. LT. -10.99%
ELEV. 1239.84

STA. 117+00.00
END SP. DT. RT. 0.59%
ELEV. 1244.04

STA. 116+30.00
BEGIN SP. DT. LT. -6.93%
ELEV. 1244.00

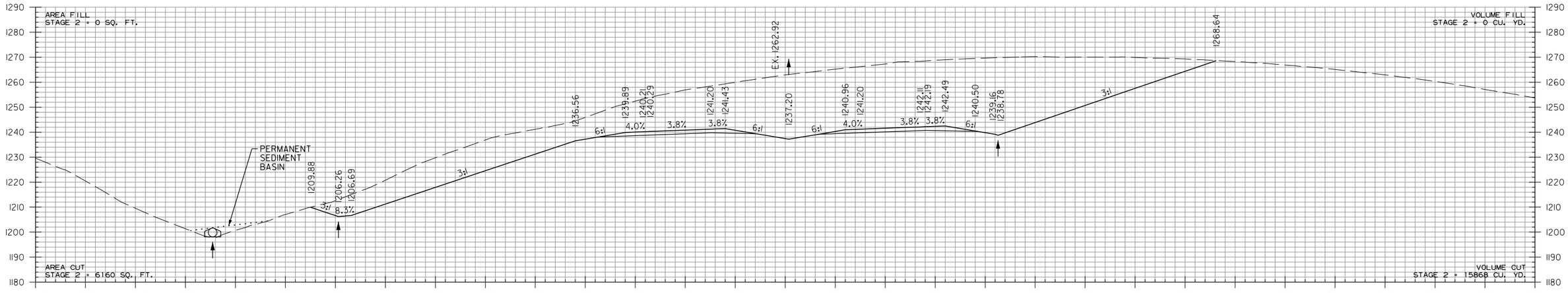



116+00.00

XNA ACCESS RD.
STA. 116+00 TO STA. 117+00

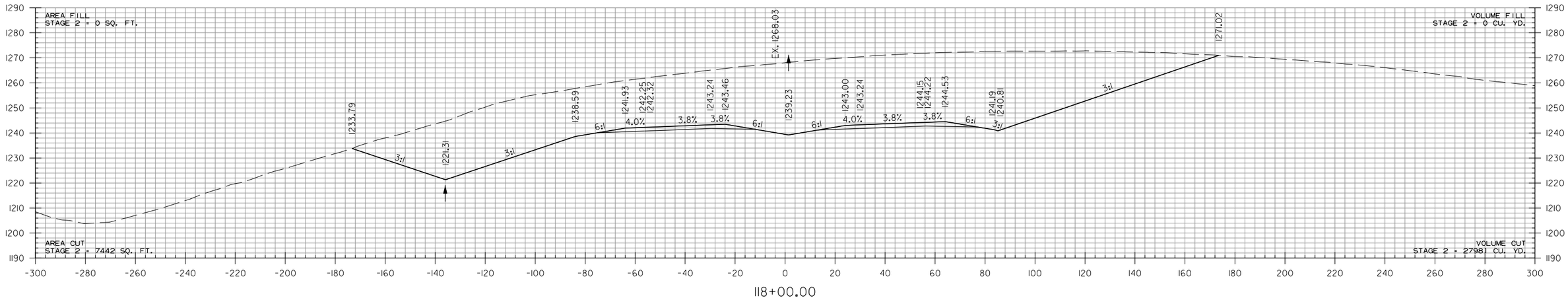
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 434 | 583 |
| | | CROSS SECTIONS | | | | |




118+63.00

STA. 118+75.00
END SP. DT. LT. -23.89%
ELEV. 1202.00

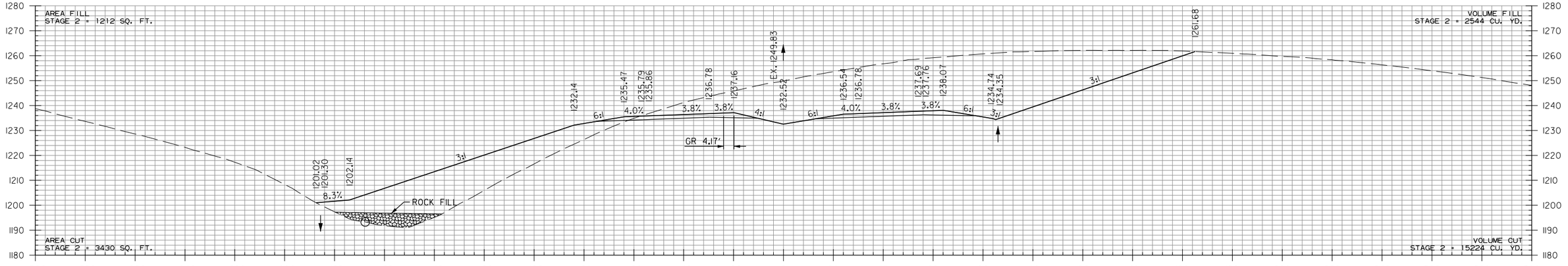



118+00.00

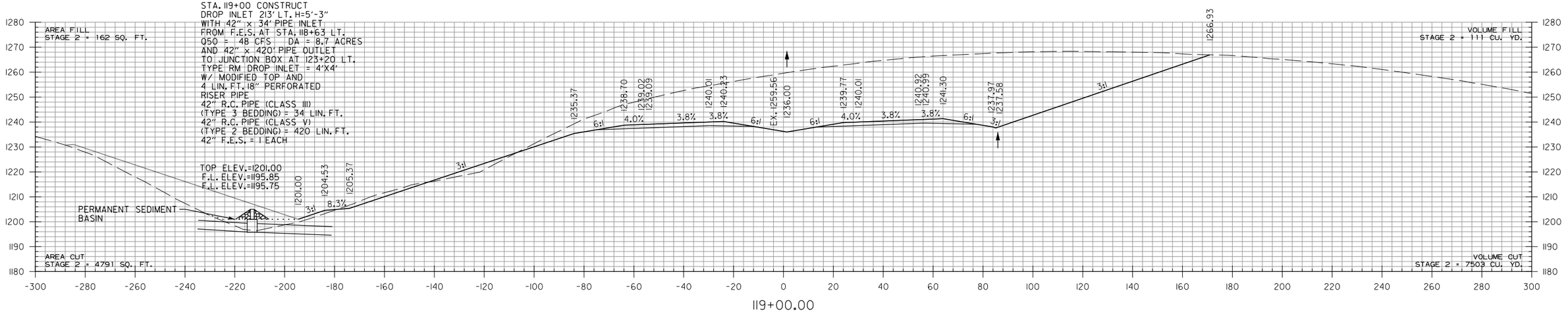
XNA ACCESS RD.
STA. 118+00 TO STA. 118+63


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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 435 | 583 |
| | | CROSS SECTIONS | | | | |




120+00.00



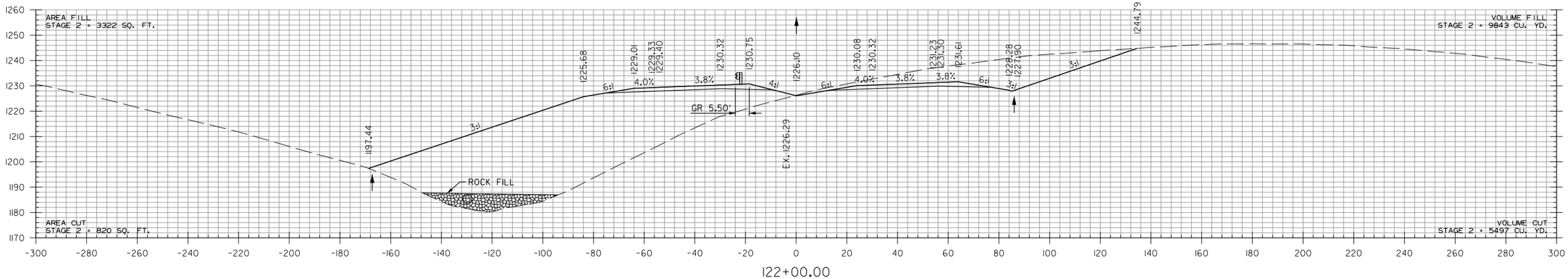

119+00.00

XNA ACCESS RD.
STA. 119+00 TO STA. 120+00

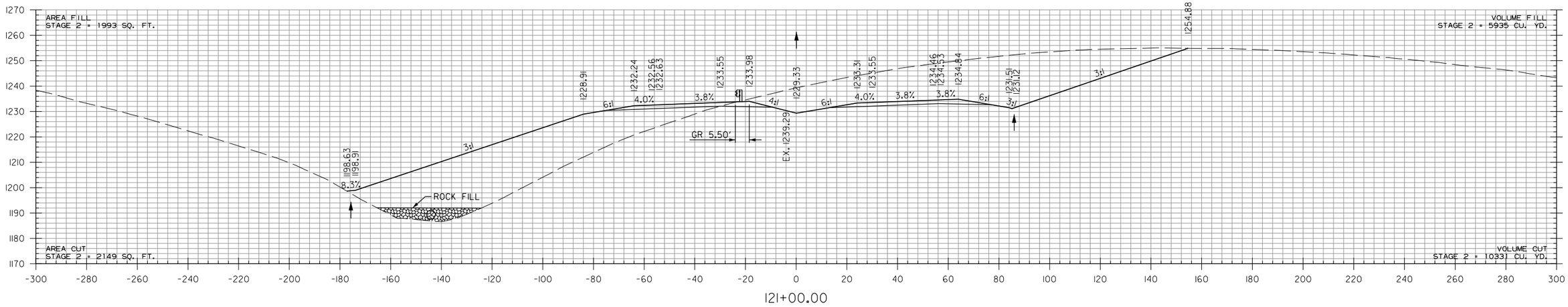

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 436 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 122+90.00
BEGIN SP. DT. RT. -10.88%
ELEV. 1224.99




122+00.00




121+00.00

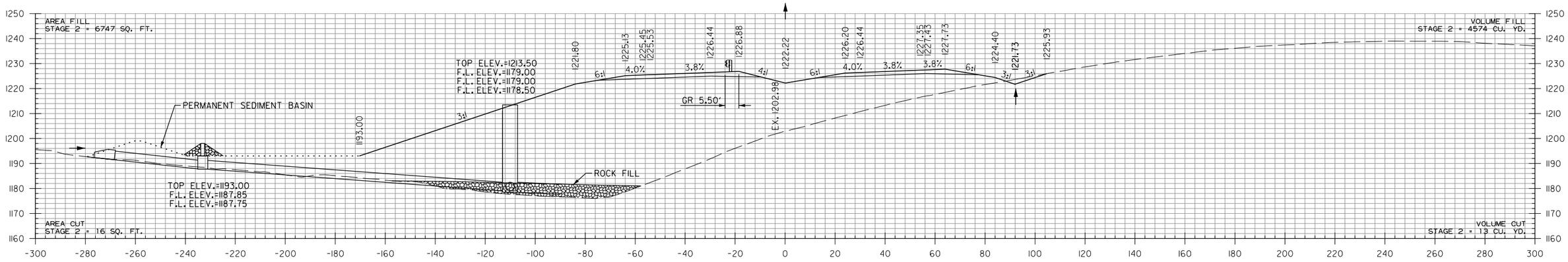
XNA ACCESS RD.
STA. 121+00 TO STA. 122+00

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 437 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 123+42.55 MAX. SUPERELEVATION (0.038'/')

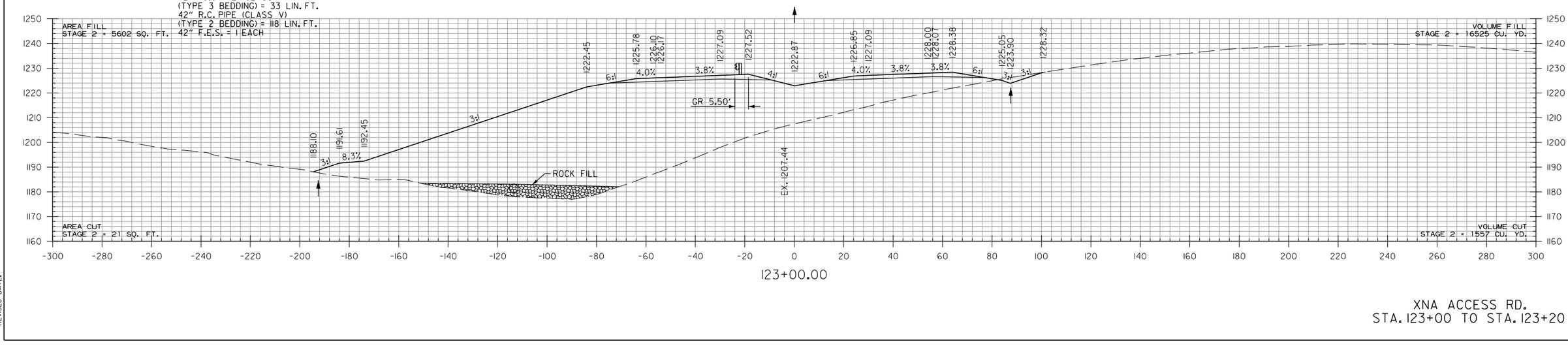
STA. 123+42.00
BEGIN SP. DT. LT. 10.46%
ELEV. 1193.00




123+20.00

STA. 123+20 CONSTRUCT
DROP INLET 233' LT. H=5'-3"
WITH 42" x 33' PIPE INLET
FROM F.E.S. AT STA. 123+20 LT.
Q50 = 51 CFS DA = 9.4 ACRES
AND 42" x 118' PIPE OUTLET
TO DROP INLET AT 123+20 RT.
TYPE RM DROP INLET = 4'X4'
W/ MODIFIED TOP AND
5 LIN. FT. 18" PERFORATED
RISER PIPE
42" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 33 LIN. FT.
42" R.C. PIPE (CLASS V)
(TYPE 2 BEDDING) = 118 LIN. FT.
42" F.E.S. = 1 EACH

STA. 123+20 CONSTRUCT
JUNCTION BOX 110' LT. H=35'-0"
WITH 48" x 499' PIPE OUTLET
TO JUNCTION BOX AT STA. 127+57 RT.
Q50 = 99 CFS DA = 18 ACRES
TYPE ST JUNCTION BOX = 6'X6'
48" R.C. PIPE (CLASS V)
(TYPE 1 BEDDING) = 499 LIN. FT.



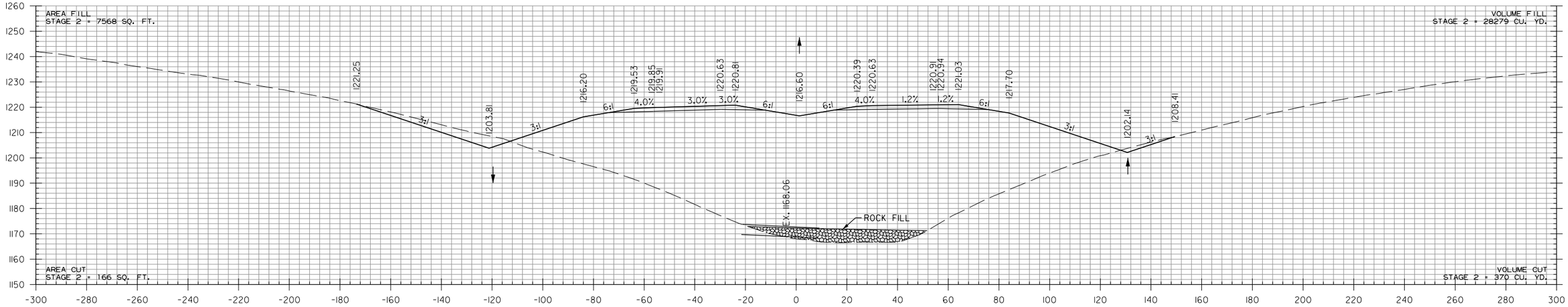

123+00.00

XNA ACCESS RD.
STA. 123+00 TO STA. 123+20

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 438 | 583 |
| | | CROSS SECTIONS | | | | |

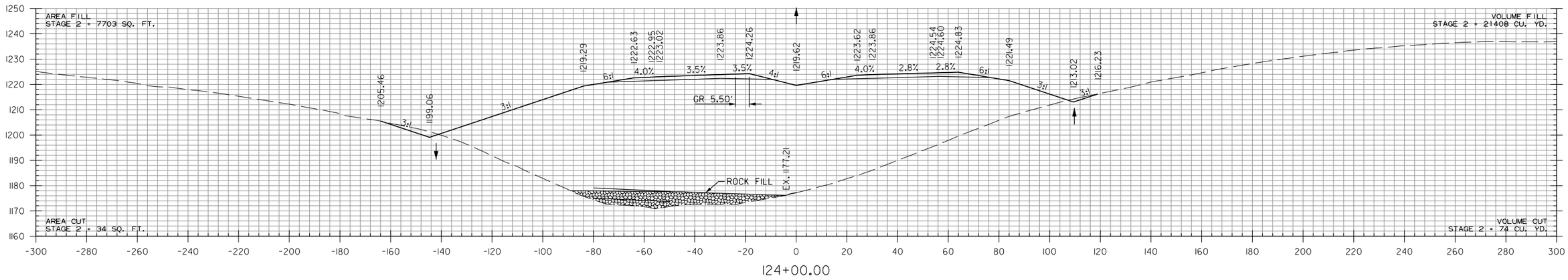
STA. 125+20.00
END SP. DT. LT. 2.93%
BEGIN SP. DT. LT. 0.51%
ELEV. 1204.39




125+00.00

STA. 124+60.00
END SP. DT. LT. 5.95%
BEGIN SP. DT. LT. 2.93%
ELEV. 1202.63

STA. 124+00.00
END SP. DT. LT. 10.46%
BEGIN SP. DT. LT. 5.95%
ELEV. 1199.06




124+00.00

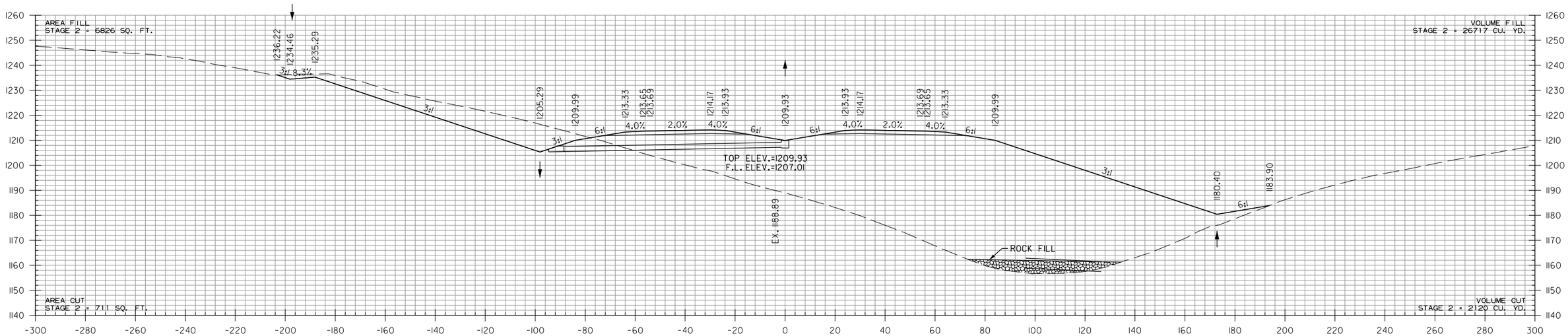
XNA ACCESS RD.
STA. 124+00 TO STA. 125+00

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 439 | 583 |
| | | CROSS SECTIONS | | | | |

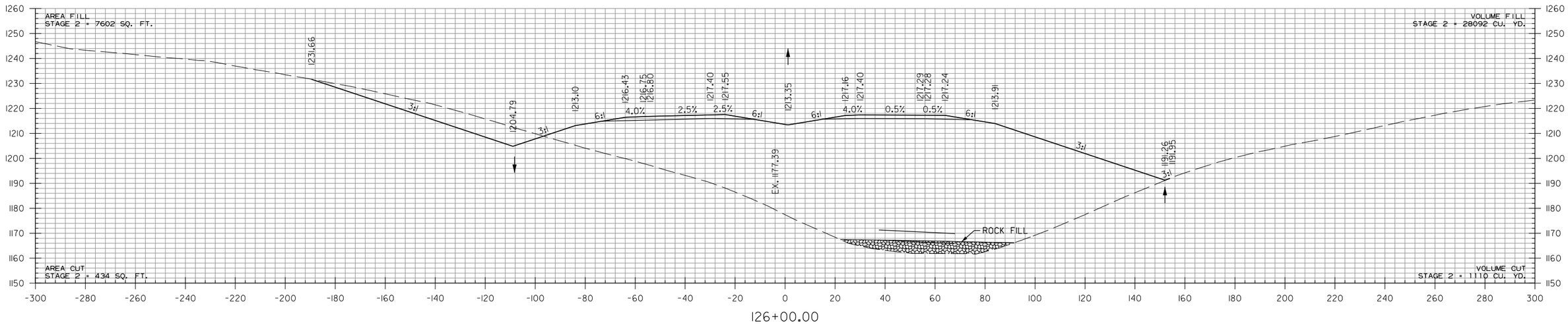
STA. 127+00 CONSTRUCT
MEDIAN DROP INLET H=2'-11"
WITH 24" x 87' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 87 LIN. FT.
24" F.E.S. = 1 EACH

STA. 127+04.00
END SP. DT. RT. -10.88%
BEGIN SP. DT. RT. -13.43%
ELEV. 1179.95




127+00.00

STA. 126+92.55 END SUPERELEVATION

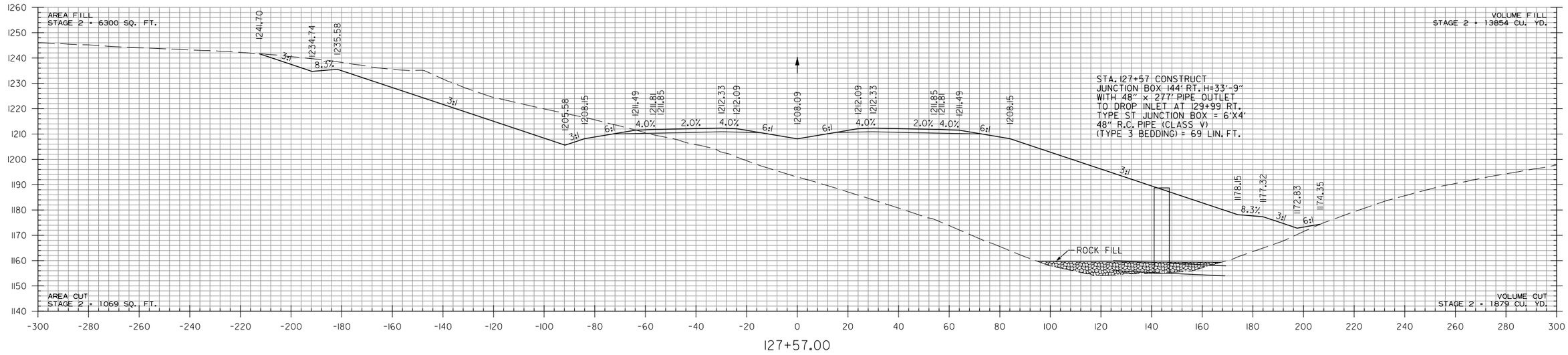



126+00.00

XNA ACCESS RD.
STA. 126+00 TO STA. 127+00

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 440 | 583 |
| | | CROSS SECTIONS | | | | |

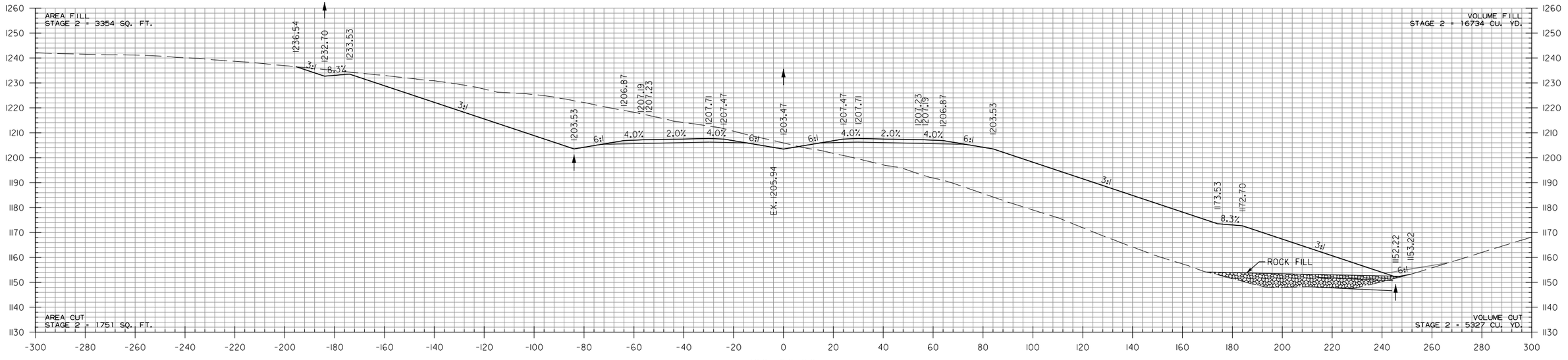



XNA ACCESS RD.
STA. 127+57 TO STA. 127+57

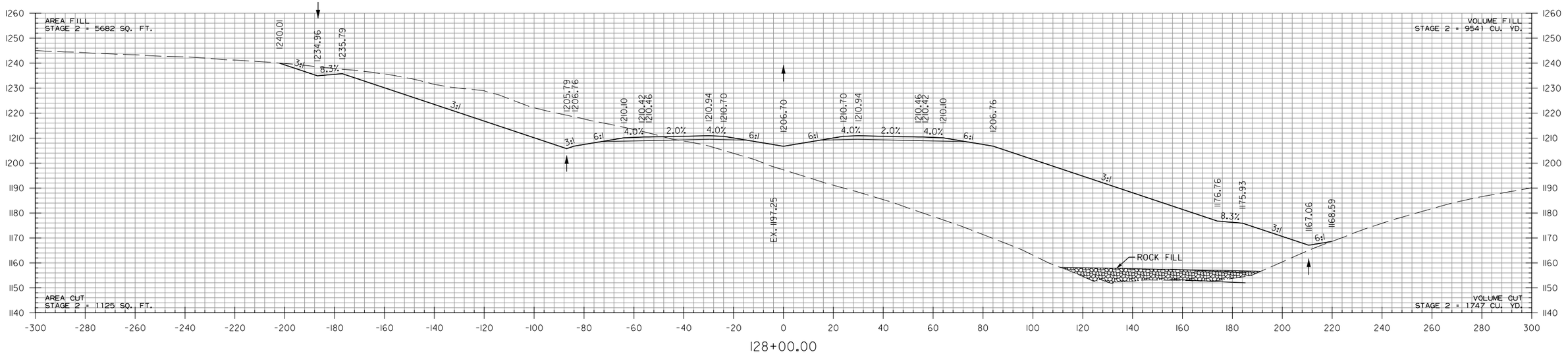

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 441 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 129+12.17
END SP. DT. RT. -13.43%
ELEV. 1152.00



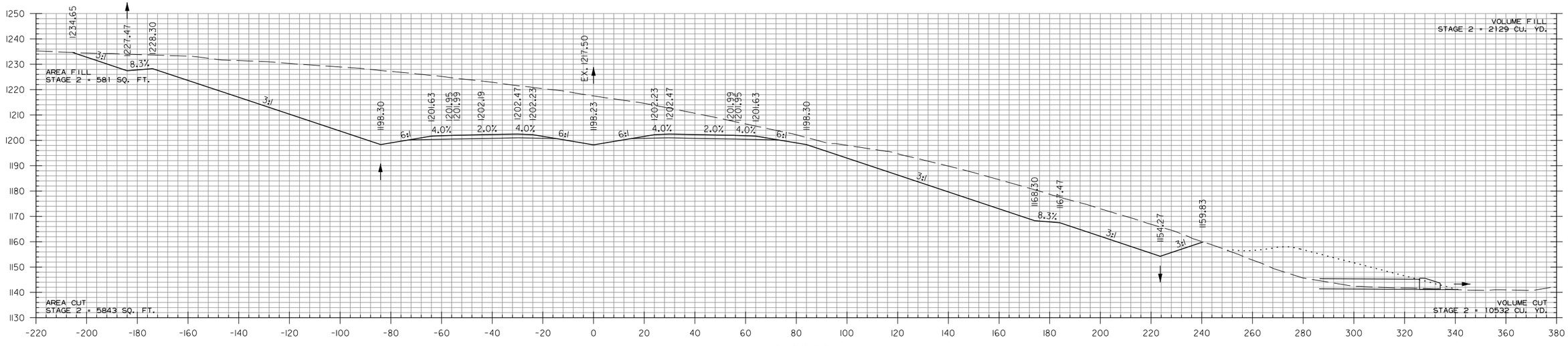

STA. 128+25.00
END SP. DT. LT. 0.51%
ELEV. 1205.96




XNA ACCESS RD.
STA. 128+00 TO STA. 129+00

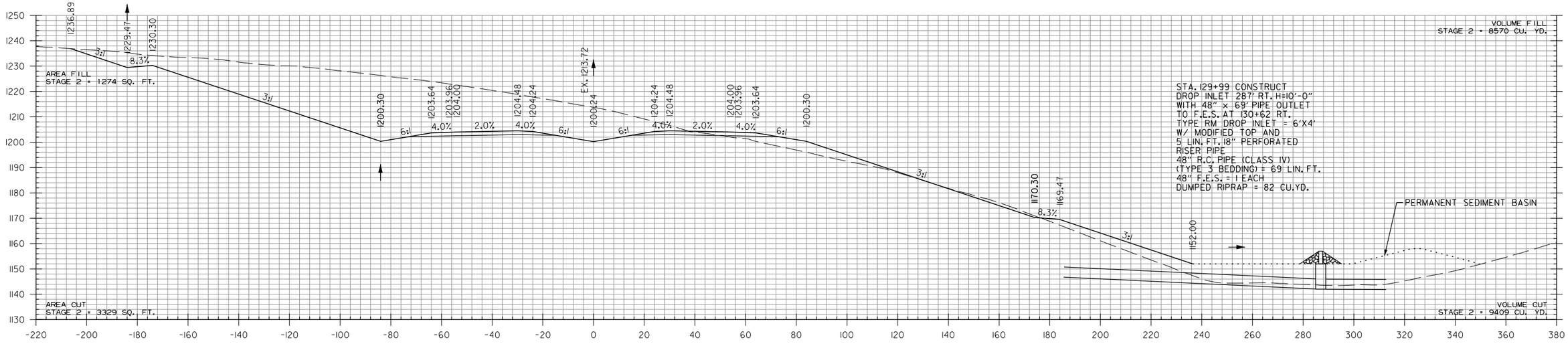
dewierclark 10/20/2023 12:56:14 PM
WORKSPACE: AHTD
L:\2017\170176\600 - XNA Access - NEPA\Drawings\r090069_CX_XNA ACCESS RD..01.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 442 | 583 |
| | | CROSS SECTIONS | | | | |




130+62.00

STA. 130+42.00
BEGIN SP. DT. RT. 11.34%
ELEV. 1152.00

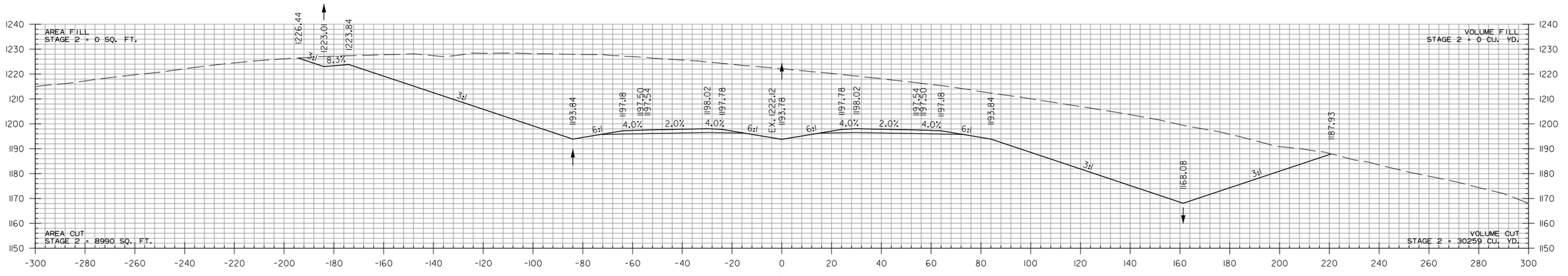


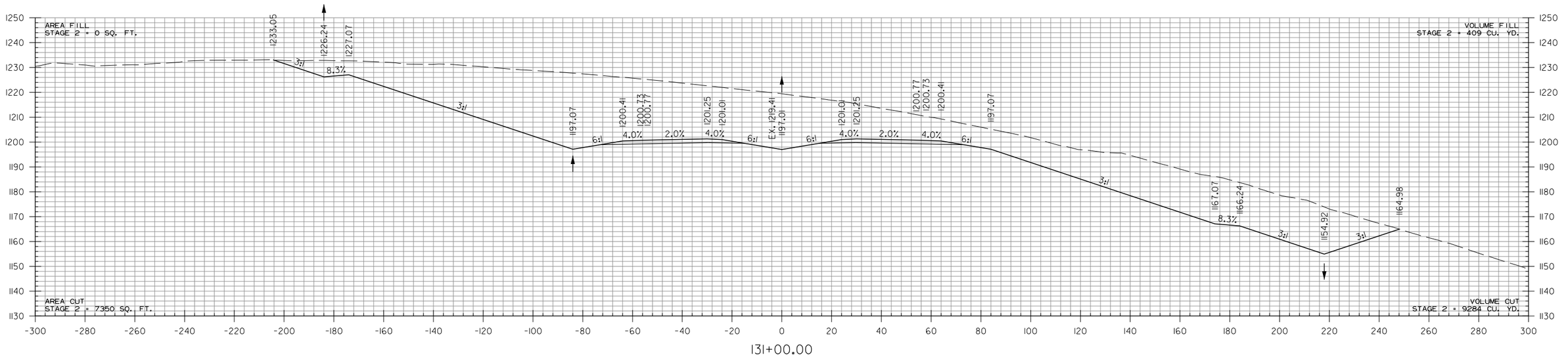

130+00.00

XNA ACCESS RD.
STA. 130+00 TO STA. 130+62


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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 443 | 583 |
| | | CROSS SECTIONS | | | | |



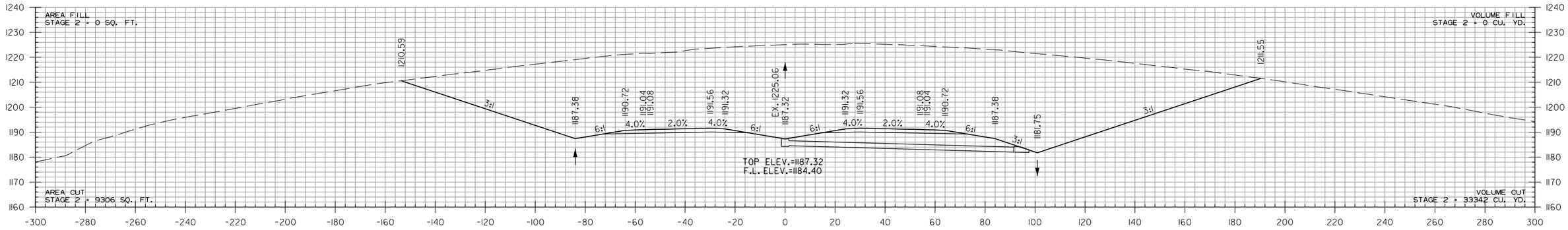




XNA ACCESS RD.
STA. 131+00 TO STA. 132+00


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REVISED DATE:

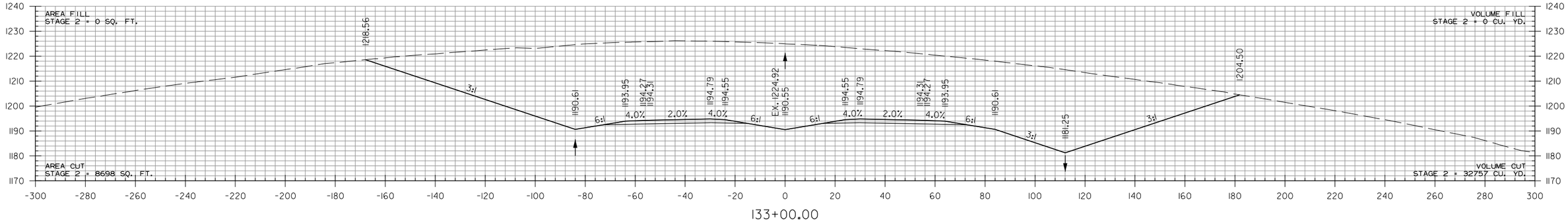
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 444 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 134+00 CONSTRUCT
MEDIAN DROP INLET H=2'-11"
WITH 24" x 90' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 90 LIN. FT.
24" F.E.S. = 1 EACH




134+00.00

STA. 133+00.00
END SP. DT. RT. 11.34%
BEGIN SP. DT. RT. 0.50%
ELEV. 1181.25

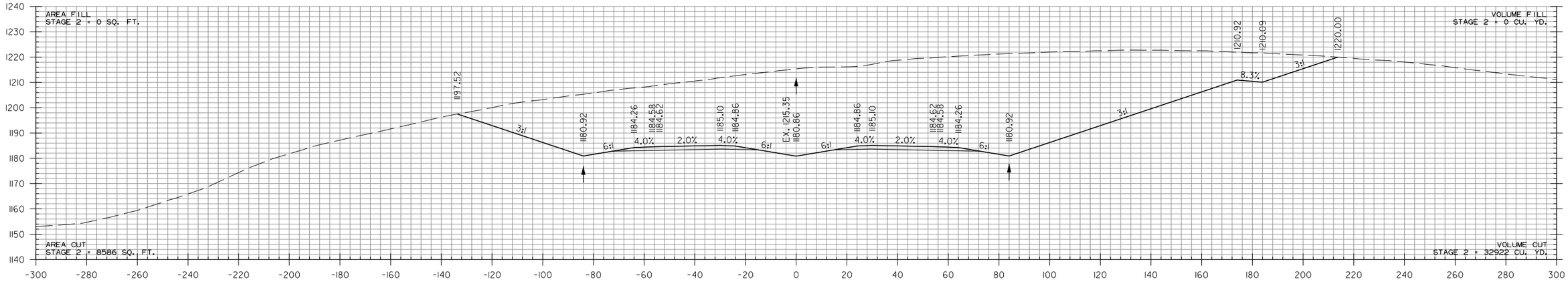



133+00.00

XNA ACCESS RD.
STA. 133+00 TO STA. 134+00

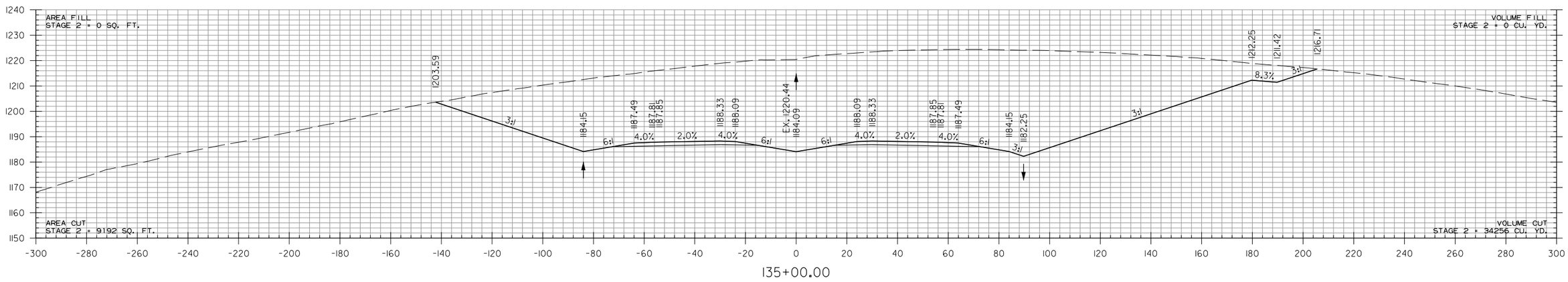

aewierciak 10/20/2023 12:56:14 PM
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 445 | 583 |
| | | CROSS SECTIONS | | | | |




136+00.00

STA. 135+50.00
END SP. DT. RT. 0.50%
ELEV. 1182.50

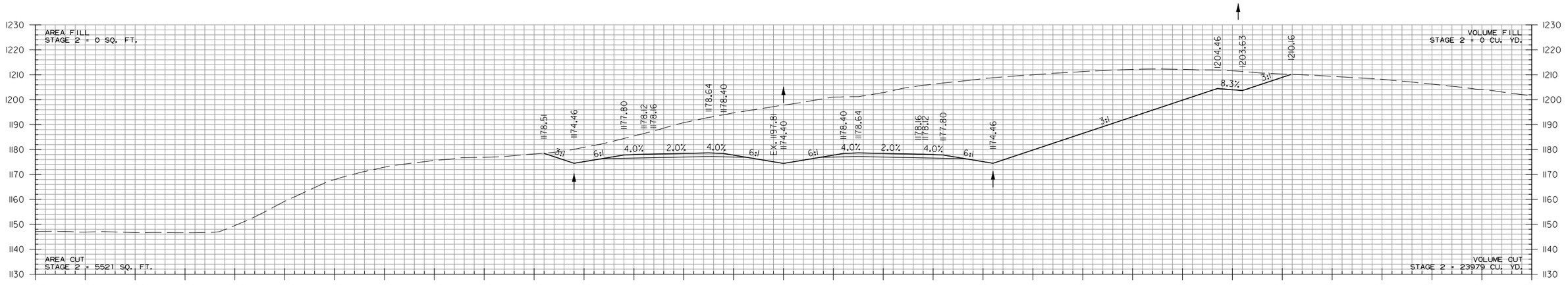



135+00.00

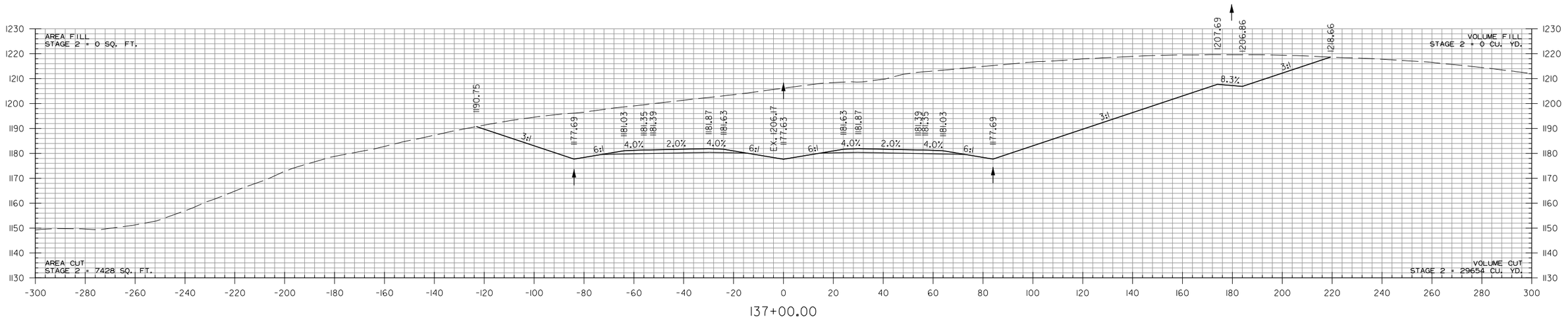
XNA ACCESS RD.
STA. 135+00 TO STA. 136+00

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 446 | 583 |
| | | CROSS SECTIONS | | | | |




138+00.00



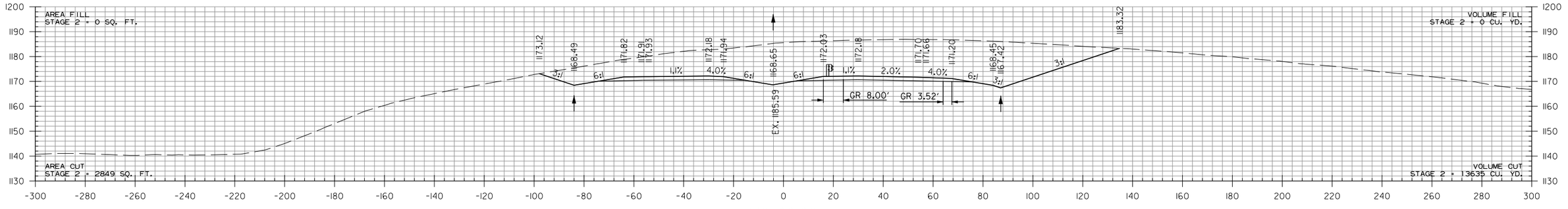

137+00.00

XNA ACCESS RD.
STA. 137+00 TO STA. 138+00


aewierciak 10/20/2023 12:56:14 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 447 | 583 |
| | | CROSS SECTIONS | | | | |

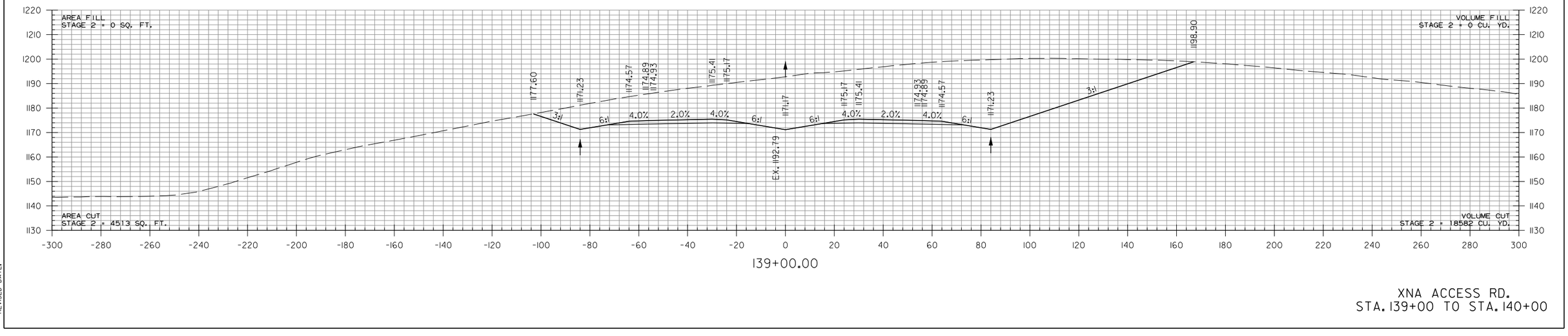
STA. 140+20.00
BEGIN SP. DT. LT. -7.57%
ELEV. 1167.92




140+00.00

STA. 139+16.95 BEGIN SUPERELEVATION

STA. 139+75.00
BEGIN SP. DT. RT. -5.42%
ELEV. 1168.77

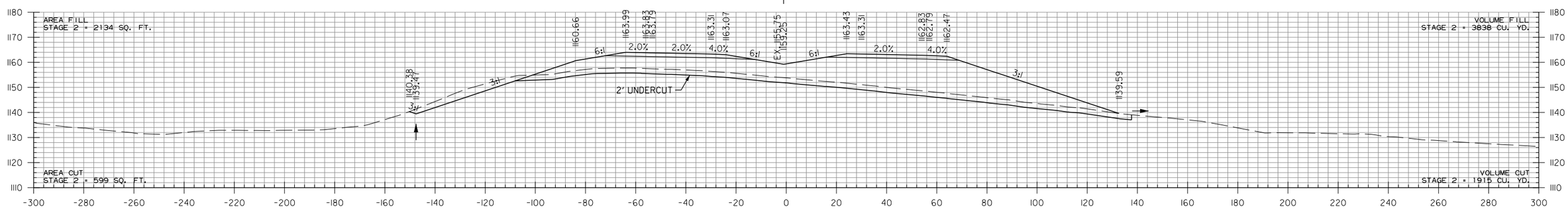



139+00.00

XNA ACCESS RD.
STA. 139+00 TO STA. 140+00

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 448 | 583 |
| | | CROSS SECTIONS | | | | |



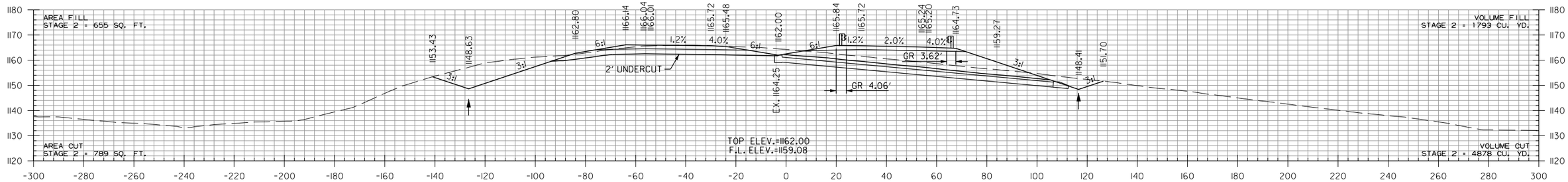

142+74.51

STA. 142+74.51 BEGIN BRIDGE RT.

STA. 142+66.95 MAX. SUPERELEVATION (0.020'/') R.C.

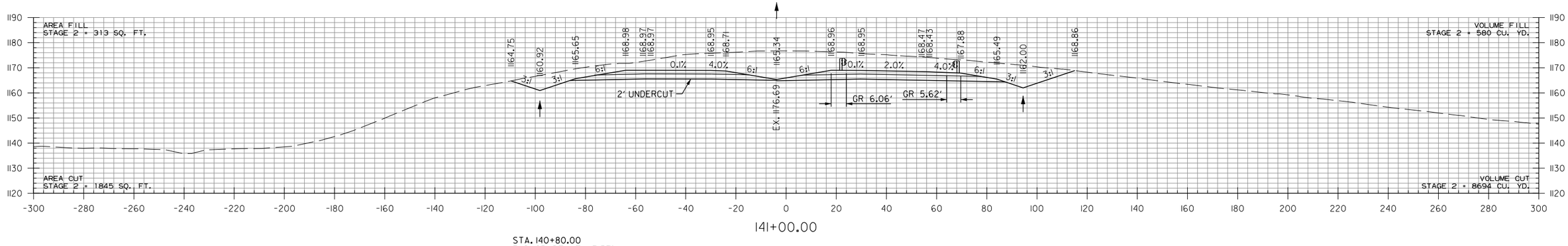
STA. 142+00 CONSTRUCT
DROP INLET 0.9' LT. H=2'-11"
WITH 24" x 108' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 108 LIN. FT.
24" F.E.S. = 1 EACH

STA. 142+49.01
END SP. DT. RT. -13.59%
ELEV. 1141.75




142+00.00

STA. 141+00.00
END SP. DT. RT. -5.42%
BEGIN SP. DT. RT. -13.59%
ELEV. 1162.00




141+00.00

STA. 140+80.00
END SP. DT. LT. -7.57%
BEGIN SP. DT. LT. -12.29%
ELEV. 1163.38

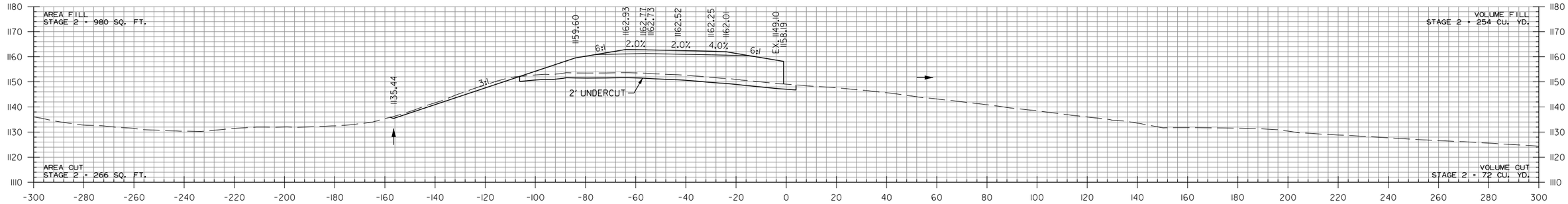
XNA ACCESS RD.
STA. 141+00 TO STA. 142+74.51


aewierciak 10/20/2023 12:56:14 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 449 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 144+05.00
END SP. DT. LT. -5.05%
ELEV. 1129.22

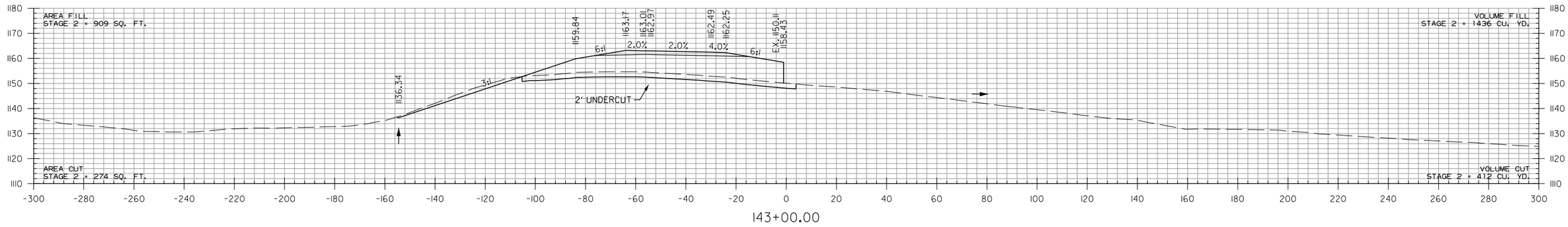
STA. 143+25.00
END SP. DT. LT. -12.29%
BEGIN SP. DT. LT. -5.05%
ELEV. 1133.26




143+07.25

STA. 143+07.25 BEGIN BRIDGE LT.

STA. 143+07.25 END TOE OF SLOPE RT.

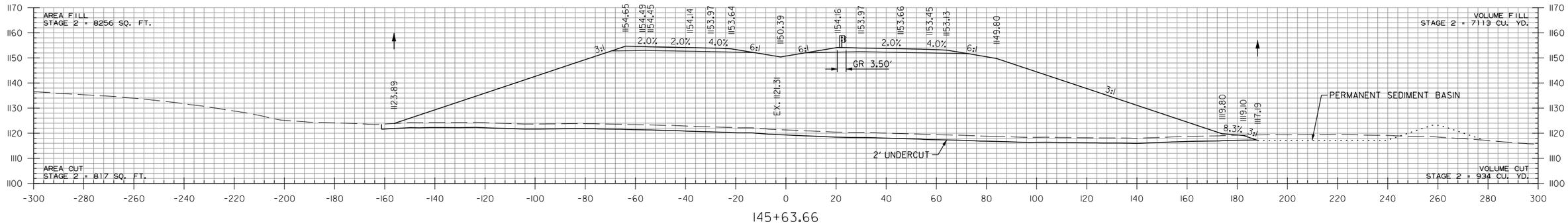



143+00.00

XNA ACCESS RD.
STA. 143+00 TO STA. 143+07.25

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WORKSPACE: AHTD
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REVISED DATE:

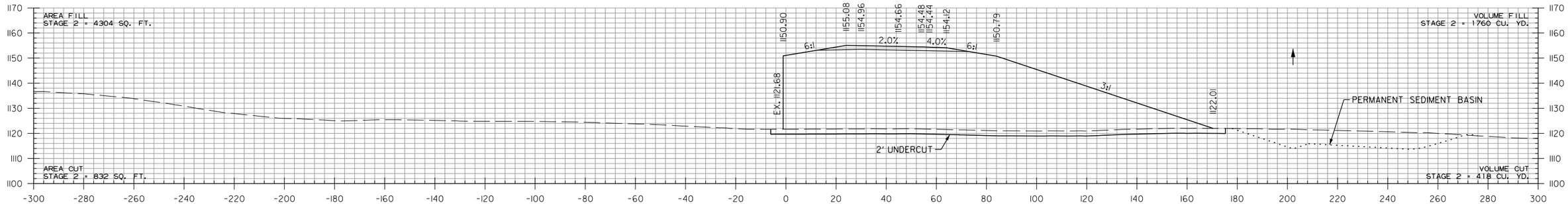
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 450 | 583 |
| | | CROSS SECTIONS | | | | |




145+63.66

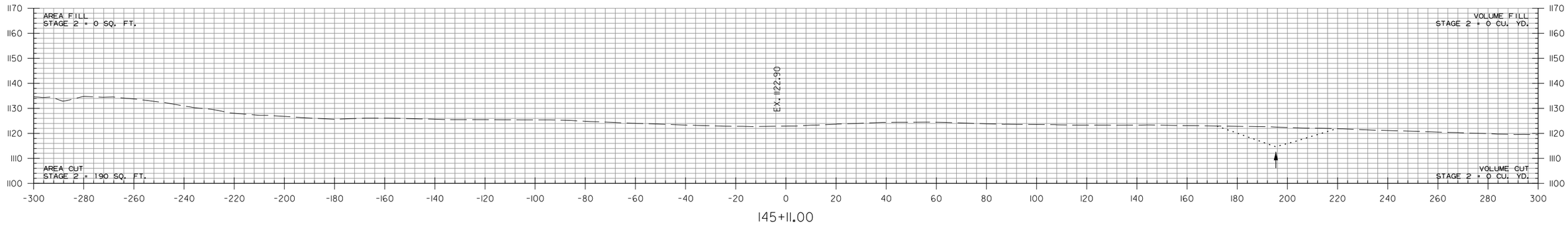
STA. 145+63.66 END BRIDGE LT.

STA. 145+63.27
BEGIN SP. DT. RT. -4.40%
ELEV. 1117.20




145+33.08

STA. 145+33.08 END BRIDGE RT.



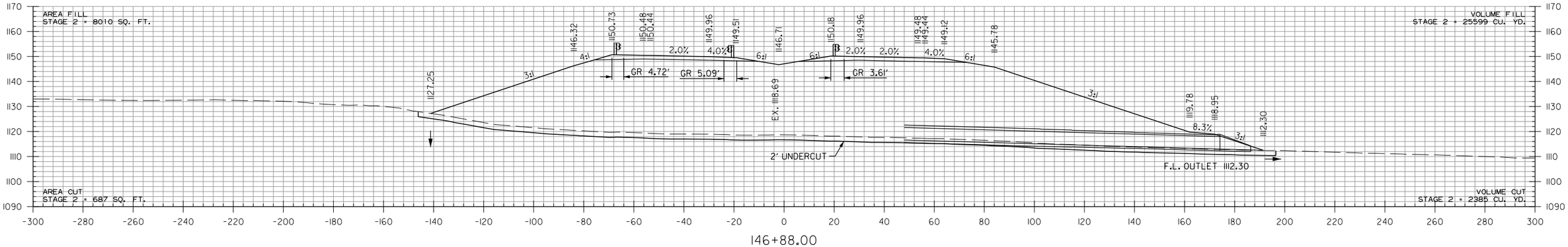

145+11.00

STA. 145+11.00 BEGIN TOE OF SLOPE

XNA ACCESS RD.
STA. 145+11 TO STA. 145+63.66

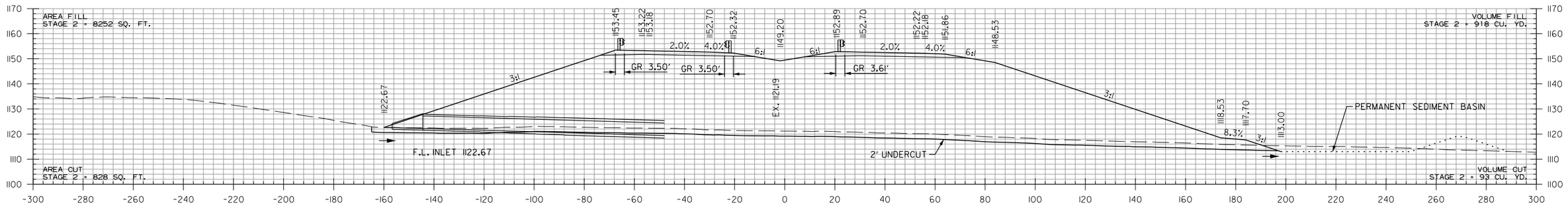

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 451 | 583 |
| | | CROSS SECTIONS | | | | |



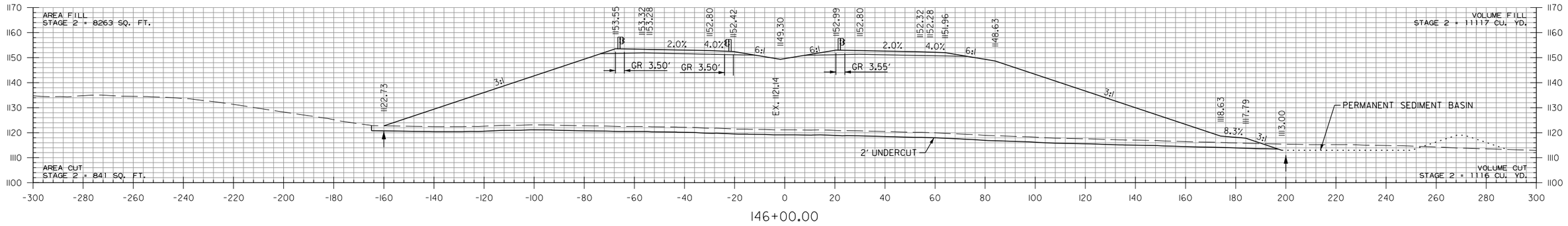

146+88.00

STA. 146+40 CONSTRUCT
8' x 5' x 303' R.C. BOX CULVERT
15° RT. FWD. SKEW
WITH 3:1 WINGS LT. AND RT.
Q50 = 185 CFS DA = 89 ACRES




146+03.00

STA. 146+00.00
END SP. DT. RT. -4.40%
ELEV. 1115.58



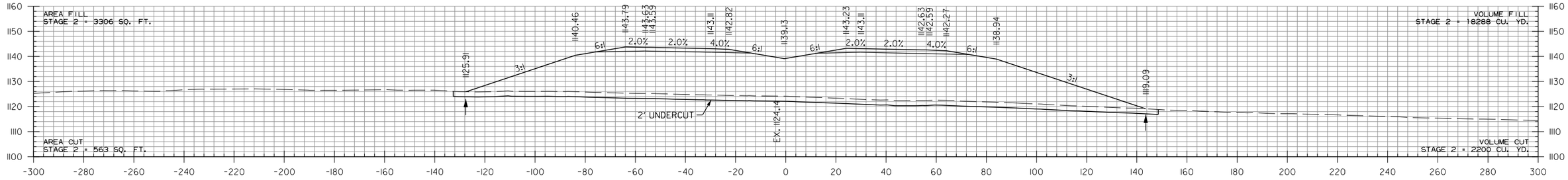

146+00.00

XNA ACCESS RD.
STA. 146+00 TO STA. 146+88

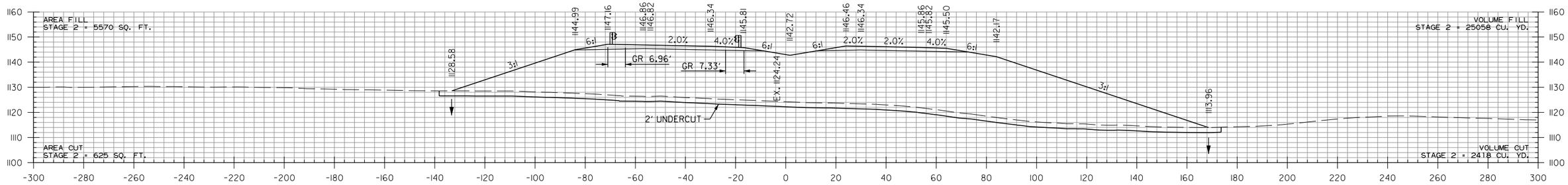

aewerdak 10/20/2023 12:56:16 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 452 | 583 |
| | | CROSS SECTIONS | | | | |

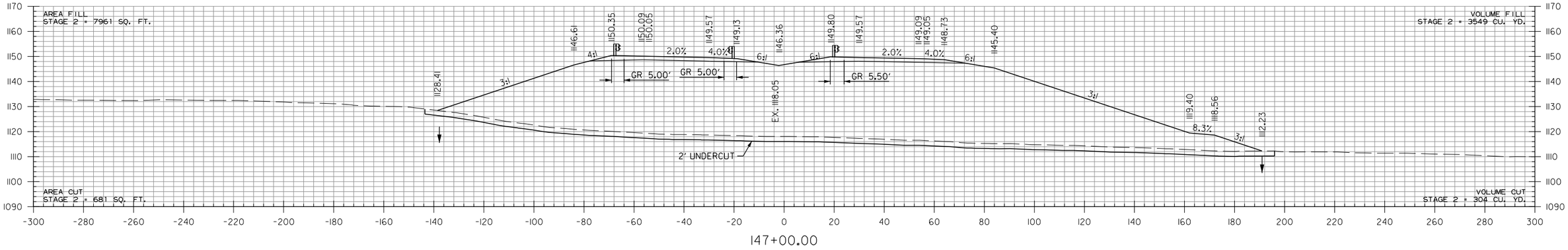
STA. 149+10.00
BEGIN SP. DT. RT. -2.03%
ELEV. 1118.65




149+00.00




148+00.00

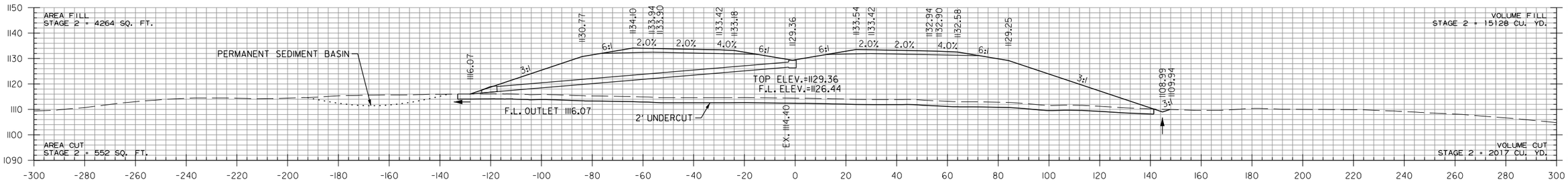



147+00.00

XNA ACCESS RD.
STA. 147+00 TO STA. 149+00

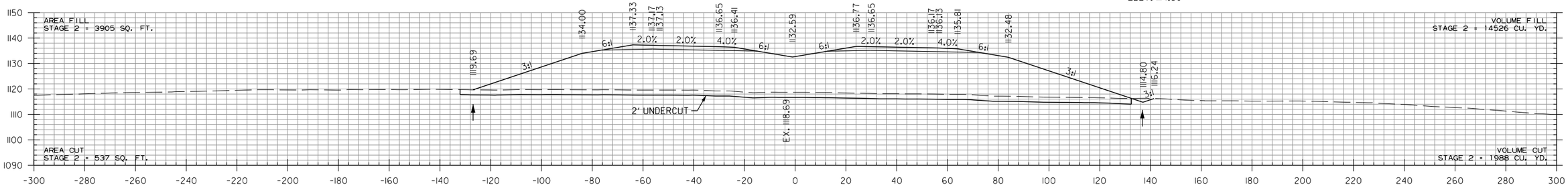

aewerdak 10/20/2023 12:56:16 PM
WORKSPACE: AHTD
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REVISED DATE:

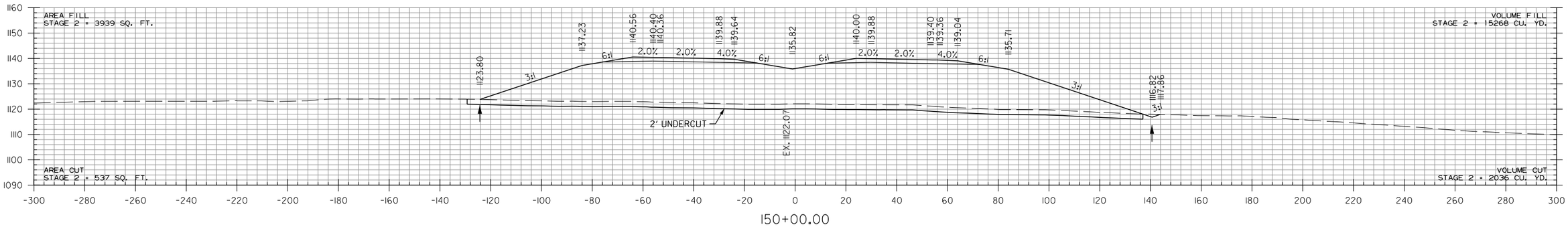
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 453 | 583 |
| | | CROSS SECTIONS | | | | |




STA. 152+00 CONSTRUCT
DROP INLET 1.1' LT. H=2'-11"
WITH 24" x 115' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 115 LIN. FT.
24" F.E.S. = 1 EACH

STA. 151+00.00
END SP. DT. RT. -2.03%
BEGIN SP. DT. RT. -5.81%
ELEV. 1114.80

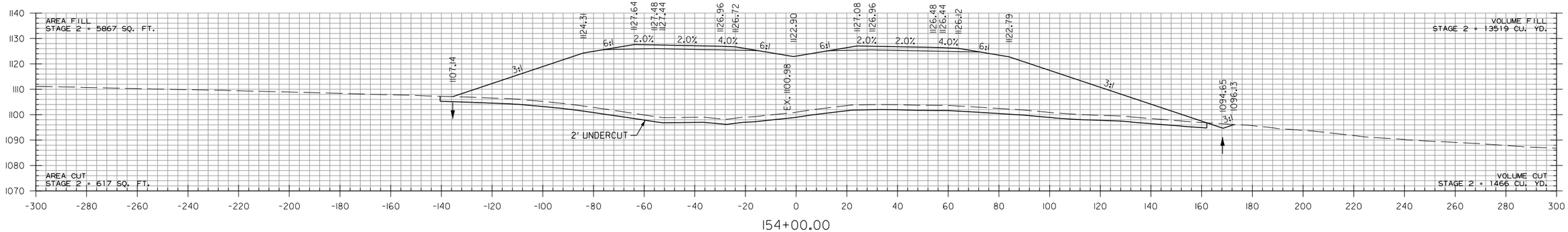



XNA ACCESS RD.
STA. 150+00 TO STA. 152+00

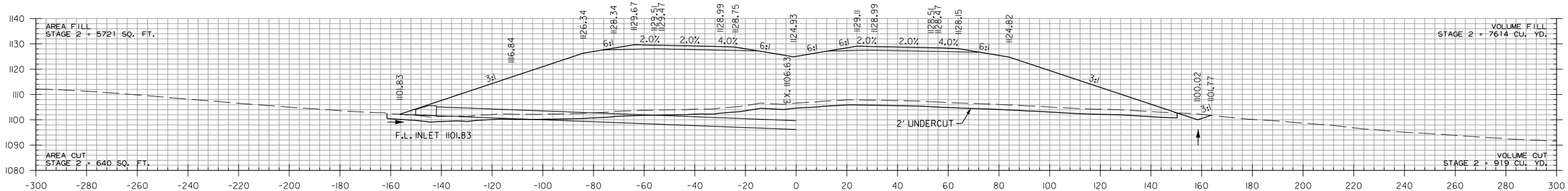

aewierciak 10/20/2023 12:56:16 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 454 | 583 |
| | | CROSS SECTIONS | | | | |



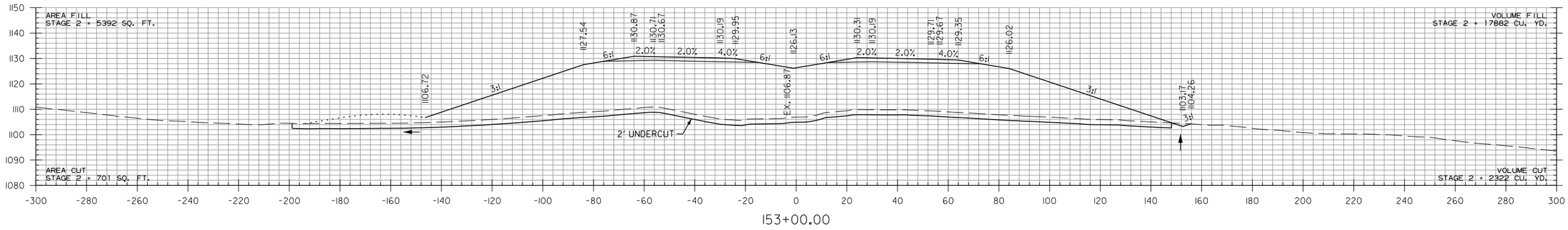

154+00.00

STA. 154+60 CONSTRUCT
42" X 423' R.C. PIPE CULVERT
40° RT. FWD. SKEW
(CLASS V) (TYPE 3 BEDDING)
WITH FES RT.
Q50 = 53 CFS DA = 9.6 ACRES




153+37.00

STA. 153+00.00
END SP. DT. RT. -5.81%
BEGIN SP. DT. RT. -8.52%
ELEV. 1103.17

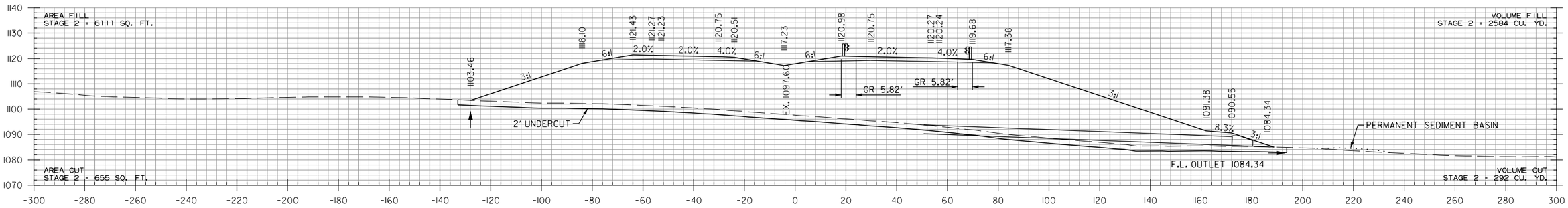



153+00.00

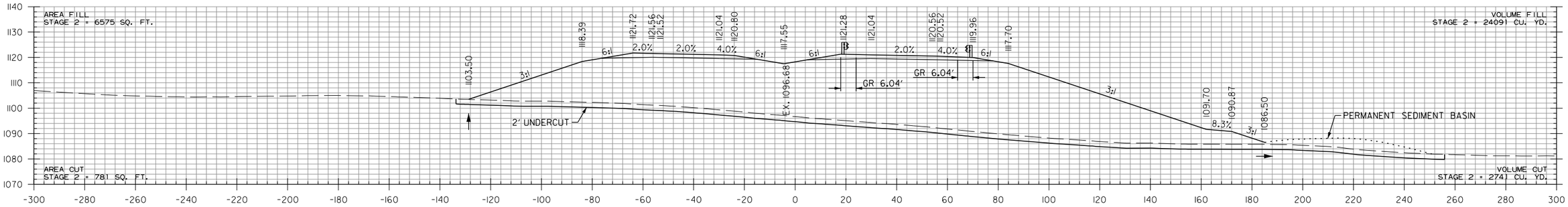
XNA ACCESS RD.
STA. 153+00 TO STA. 154+00


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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 455 | 583 |
| | | CROSS SECTIONS | | | | |

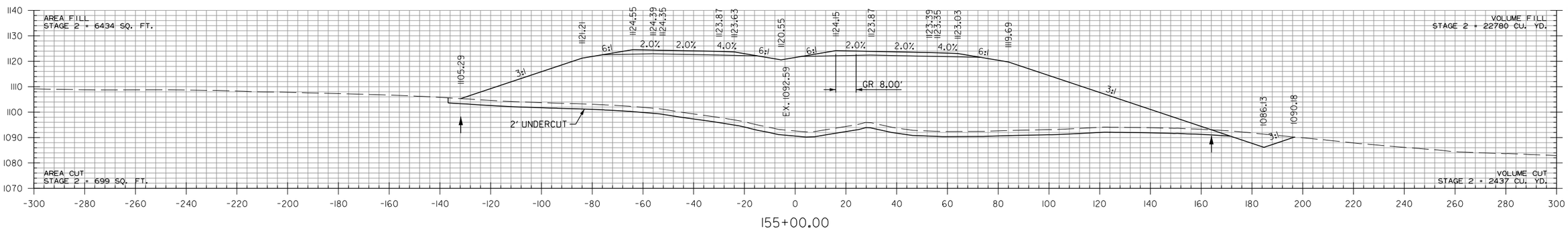



156+11.00




156+00.00

STA. 155+25.00
END SP. DT. RT. -8.52%
ELEV. 1084.00

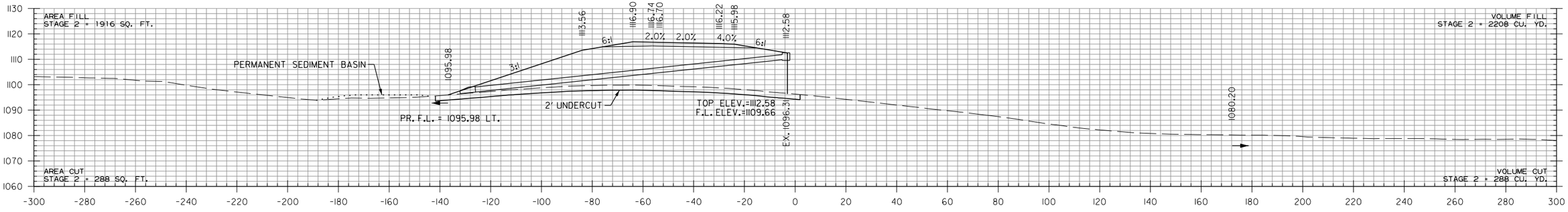



155+00.00

XNA ACCESS RD.
STA. 155+00 TO STA. 156+11

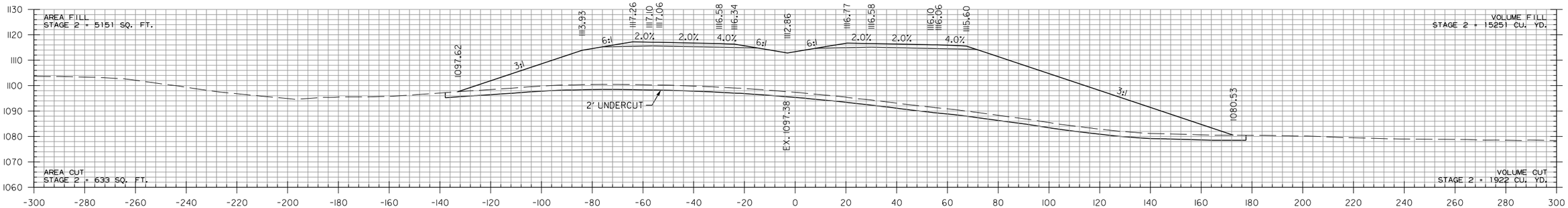

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 456 | 583 |
| | | CROSS SECTIONS | | | | |




158+00.00

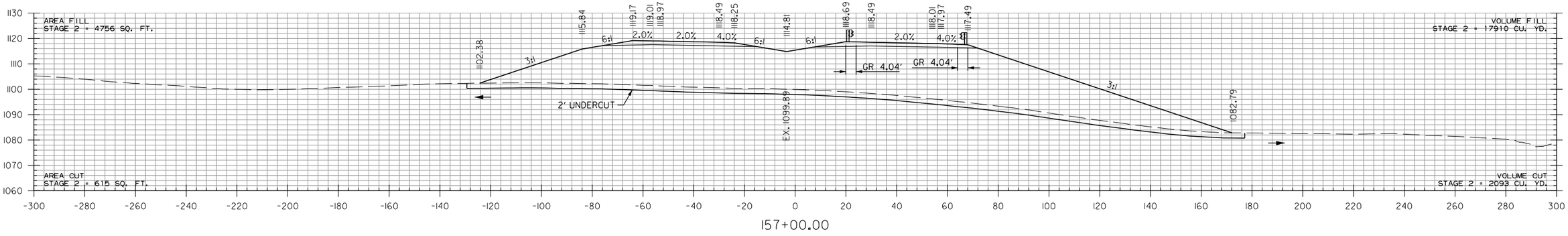
STA. 158+00 CONSTRUCT
DROP INLET 3.6' LT. H=2'-11"
WITH 24" x 121' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 121 LIN. FT.
24" F.E.S. = 1 EACH




157+83.13

STA. 157+83.13 BEGIN BRIDGE RT.

STA. 157+83 TO STA. 157+83

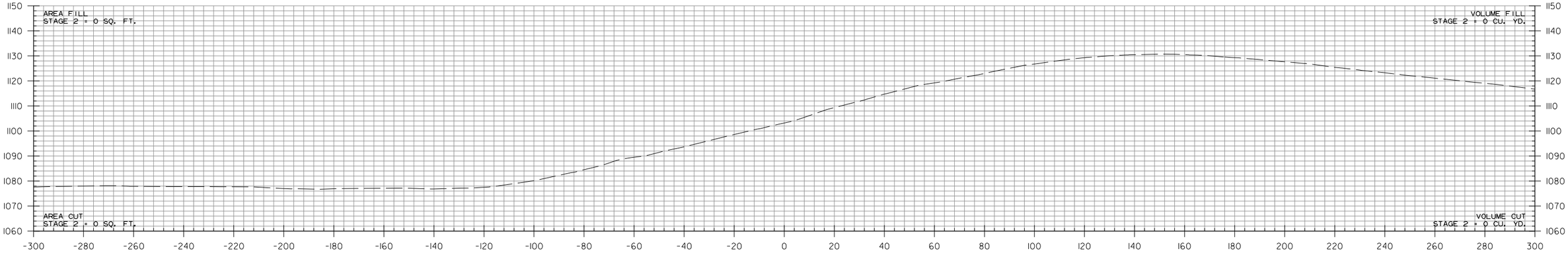



157+00.00

XNA ACCESS RD.
STA. 157+00 TO STA. 158+00

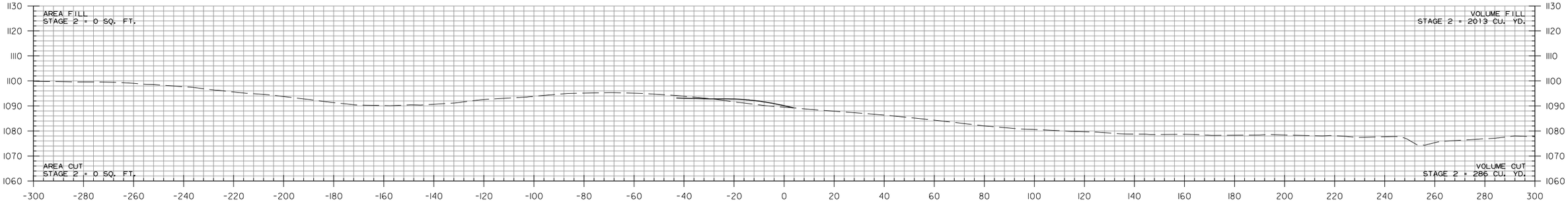
oewierciak 10/20/2023 12:56:16 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 457 | 583 |
| | | CROSS SECTIONS | | | | |



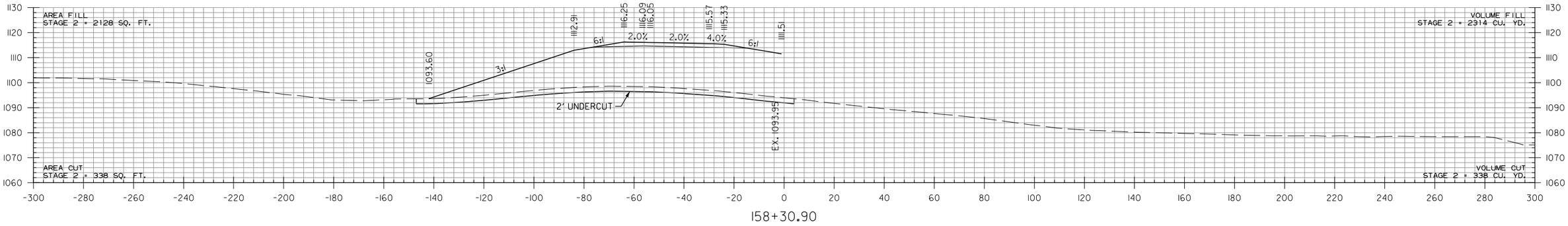

167+81.00

STA. 167+81.00 BEGIN TOE OF SLOPE




158+82.00

STA. 158+82.00 END TOE OF SLOPE



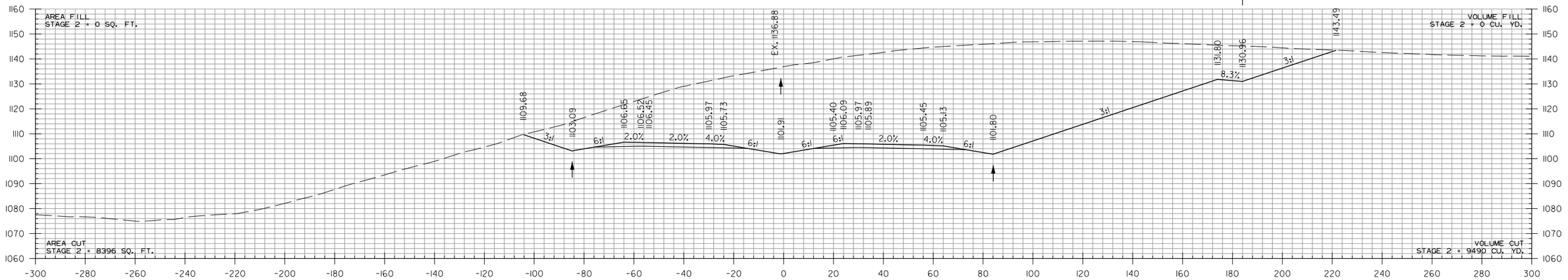

158+30.90

STA. 158+30.90 BEGIN BRIDGE LT.

XNA ACCESS RD.
STA. 158+30.90 TO STA. 167+81

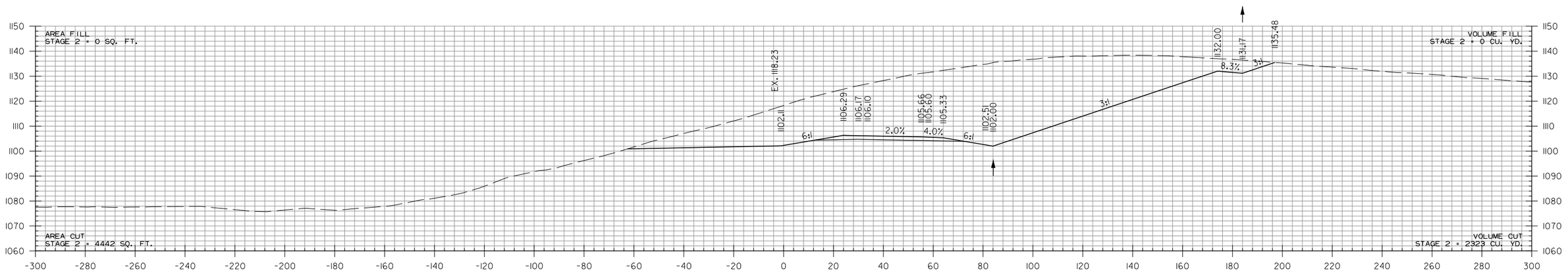
aewierciak 10/20/2023 12:56:16 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 458 | 583 |
| | | CROSS SECTIONS | | | | |




168+49.16

STA. 168+49.16 END BRIDGE LT.




168+09.23

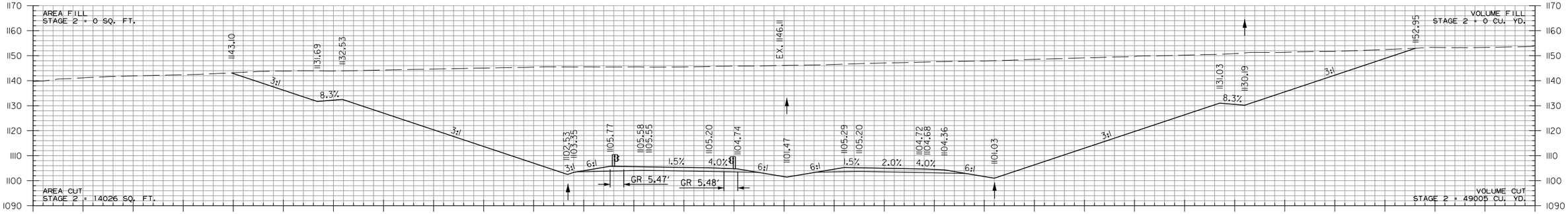
STA. 168+09.23 END BRIDGE RT.

XNA ACCESS RD.
STA. 168+09.23 TO STA. 168+49.16

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REVISED DATE:

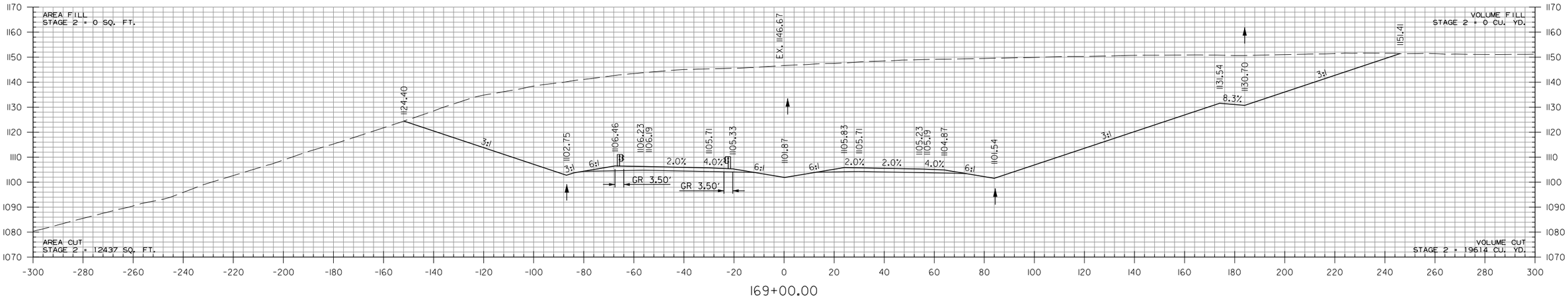
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 459 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 170+00.00
BEGIN SP. DT. LT. -2.72%
ELEV. 1102.53




170+00.00

STA. 169+52.34 MAX. SUPERELEVATION (0.020'/') R.C.

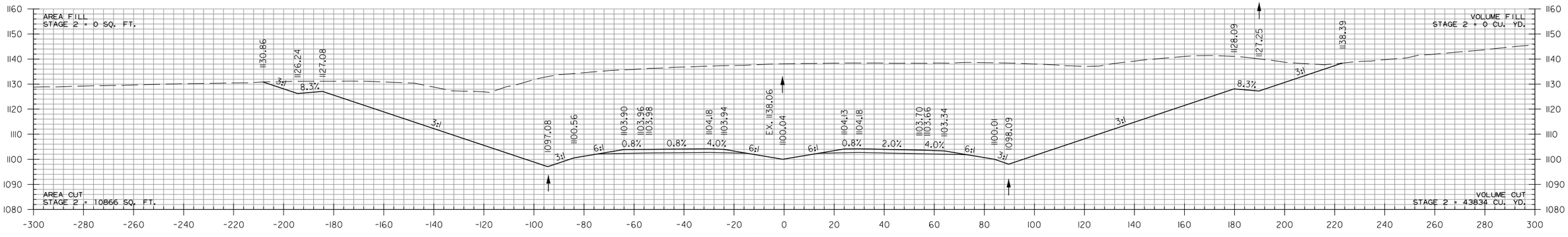



169+00.00

XNA ACCESS RD.
STA. 169+00 TO STA. 170+00

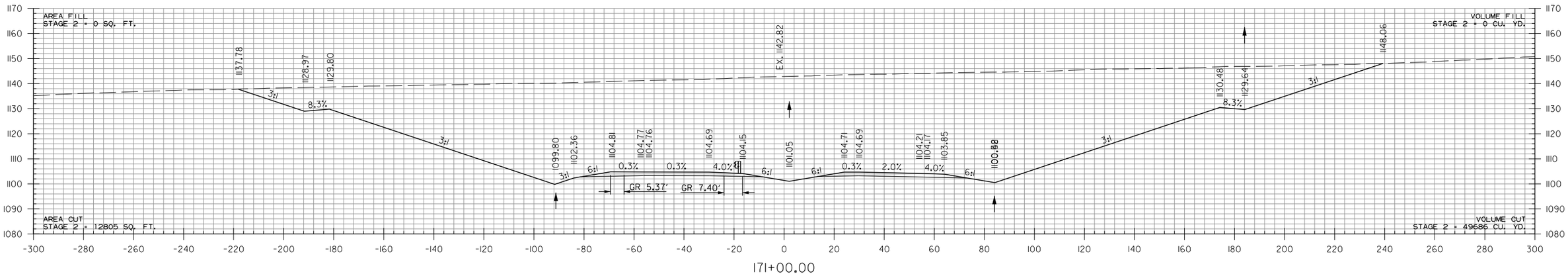

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 460 | 583 |
| | | CROSS SECTIONS | | | | |




172+00.00

STA. 171+00.00
BEGIN SP. DT. RT. -2.39%
ELEV. 1100.48



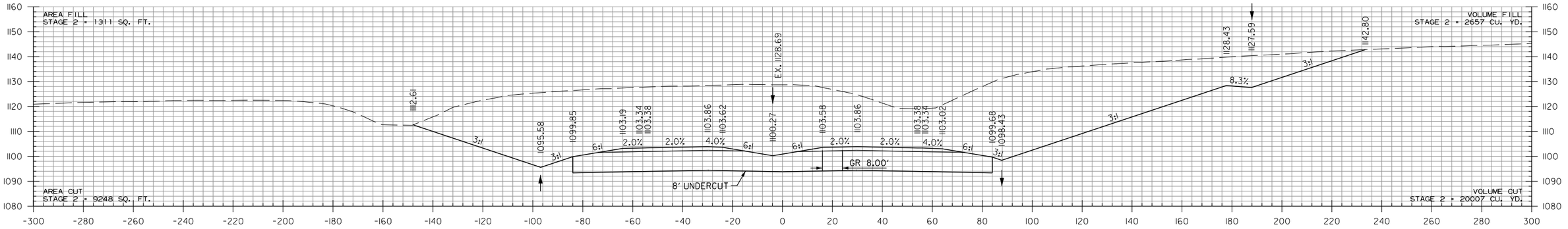

171+00.00

XNA ACCESS RD.
STA. 171+00 TO STA. 172+00


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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 461 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 173+02.34 END SUPERELEVATION

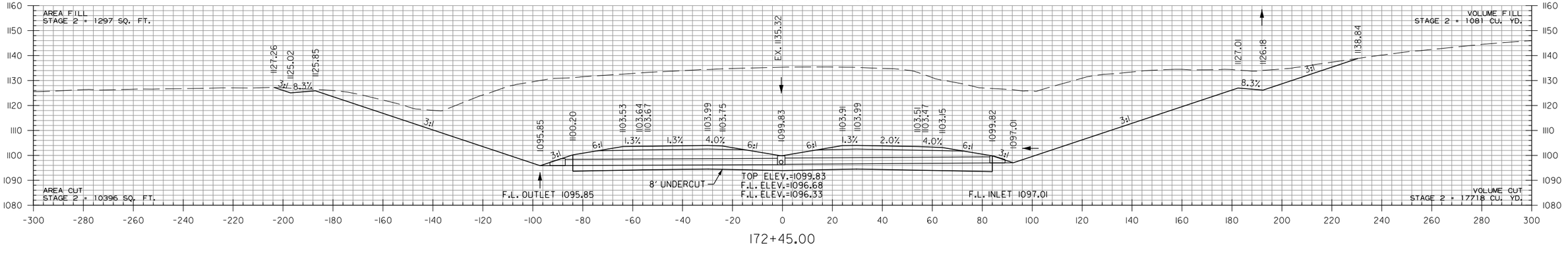



173+00.00

STA. 172+45 CONSTRUCT
DROP INLET 0.5' LT. H=3'-6"
WITH 30" x 82' PIPE INLET
FROM F.E.S. RT. AND
WITH 30" x 85' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
30" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 167 LIN. FT.
30" F.E.S. = 2 EACH
Q50 = 29 CFS DA = 5.3 ACRES

STA. 172+45.00
END SP. DT. LT. -2.72%
BEGIN SP. DT. LT. -0.50%
ELEV. 1095.85

STA. 172+45.00
END SP. DT. RT. -2.39%
BEGIN SP. DT. RT. 2.57%
ELEV. 1097.01



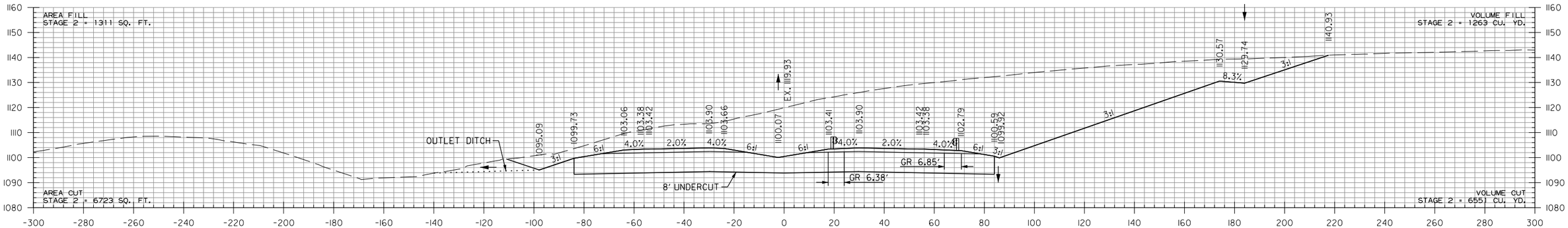

172+45.00

XNA ACCESS RD.
STA. 172+45 TO STA. 173+00

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 462 | 583 |
| | | CROSS SECTIONS | | | | |

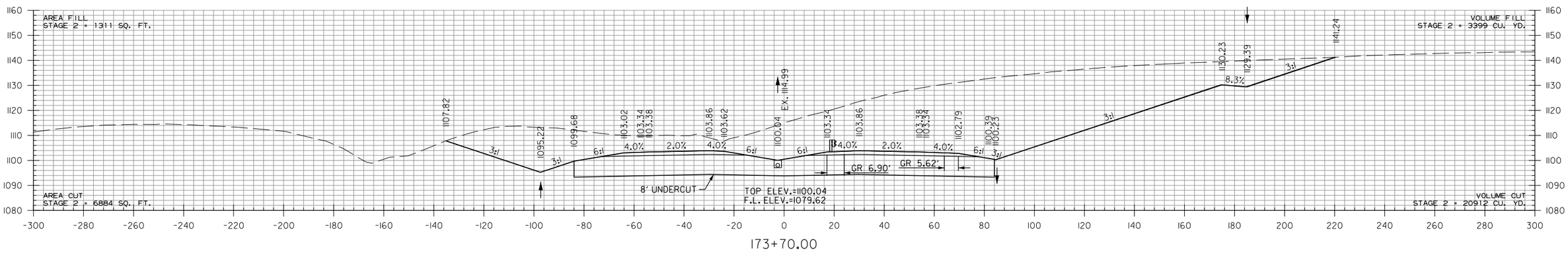
STA. 173+96.00
END SP. DT. LT. -0.50%
BEGIN SP. DT. LT. 4.84%
ELEV. 1095.09




173+96.00

STA. 173+70 CONSTRUCT
DROP INLET 2.5' LT. H=2'-5"
WITH 18" x 121' PIPE OUTLET
DROP INLET AT STA. 172+45
TYPE RM DROP INLET = 4'X3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 121 LIN. FT.
18" F.E.S. = 1 EACH

STA. 173+75.00
END SP. DT. RT. 2.57%
ELEV. 1100.36



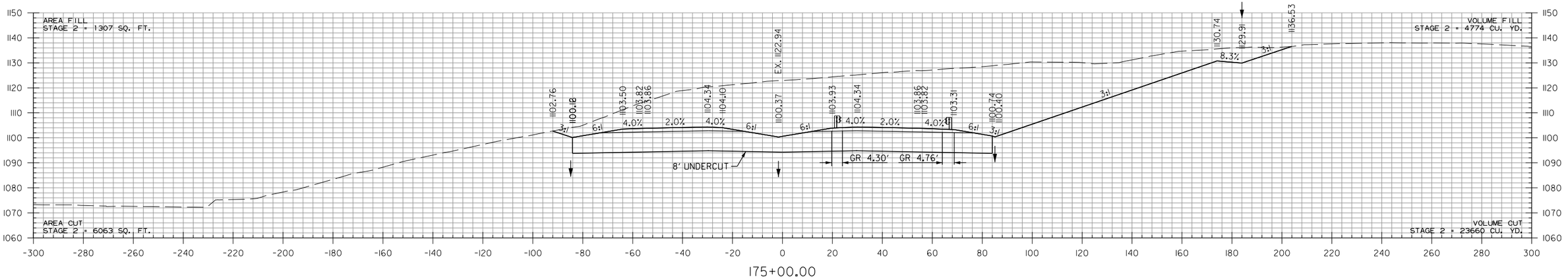

173+70.00

XNA ACCESS RD.
STA. 173+70 TO STA. 173+96

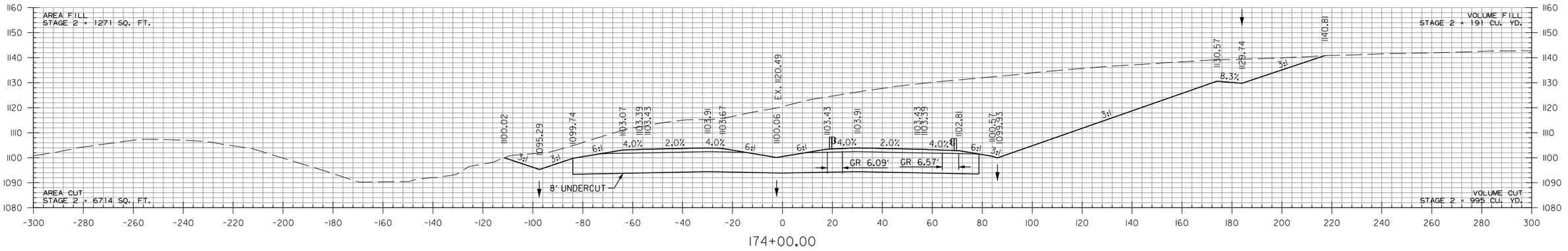

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 463 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 175+00.00
END SP. DT. LT. 4.84%
ELEV. 1100.12




175+00.00

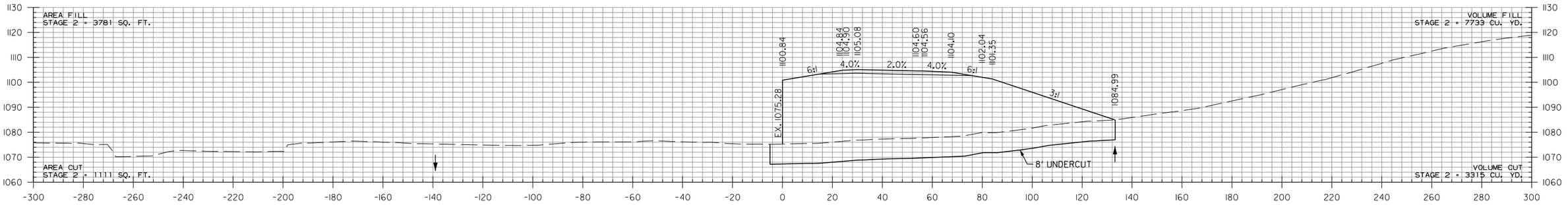



174+00.00

XNA ACCESS RD.
STA. 174+00 TO STA. 175+00

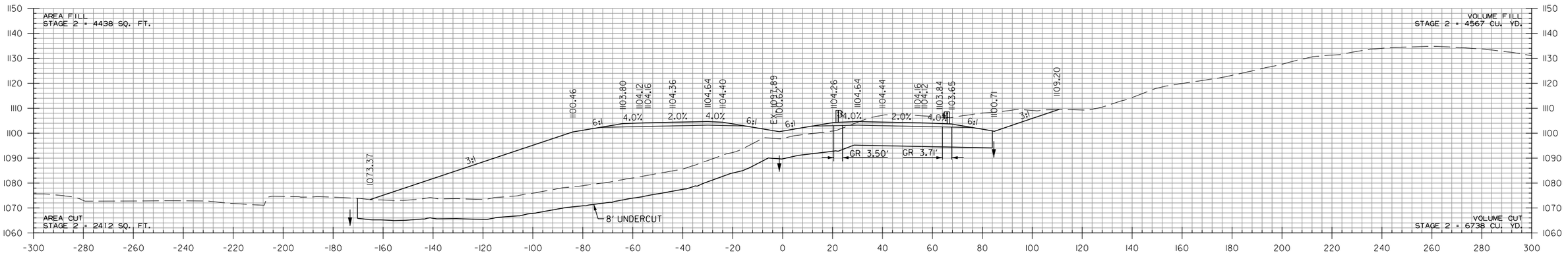
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 464 | 583 |
| | | CROSS SECTIONS | | | | |




175+93.74

STA. 175+93.74 BEGIN BRIDGE RT.




175+42.93

STA. 175+42.93 BEGIN BRIDGE LT.

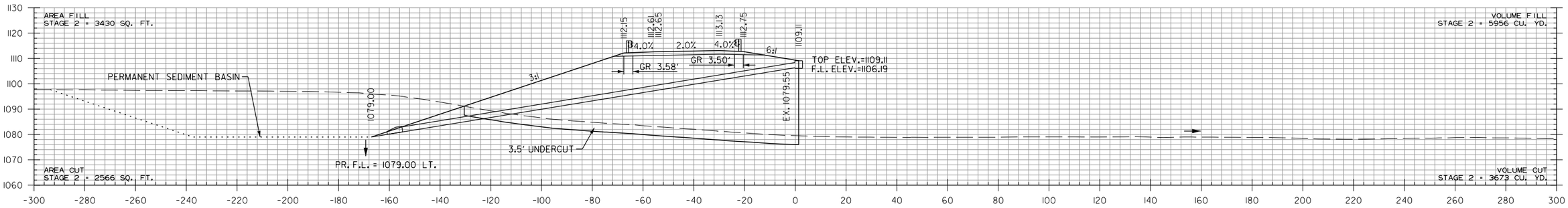
XNA ACCESS RD.
STA. 175+42.93 TO STA. 176+36

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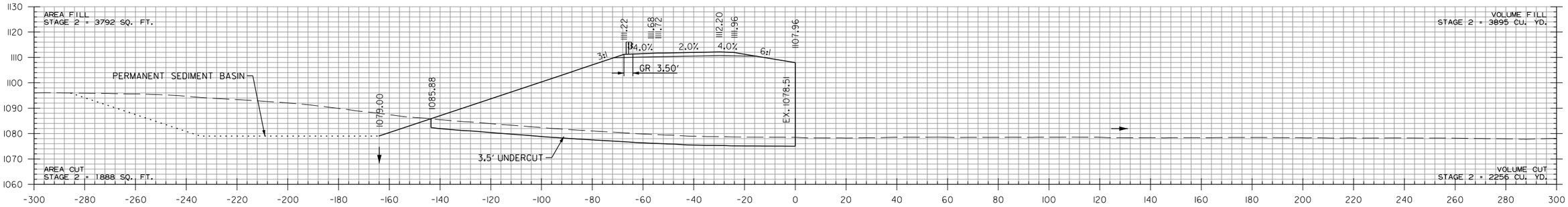
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 465 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 182+00 CONSTRUCT
DROP INLET 1.3' RT. H=2'-11"
WITH 24" x 155' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 155 LIN. FT.
24" F.E.S. = 1 EACH

STA. 182+00.00
BEGIN SP. DT. LT. 0.00%
ELEV. 1079.00

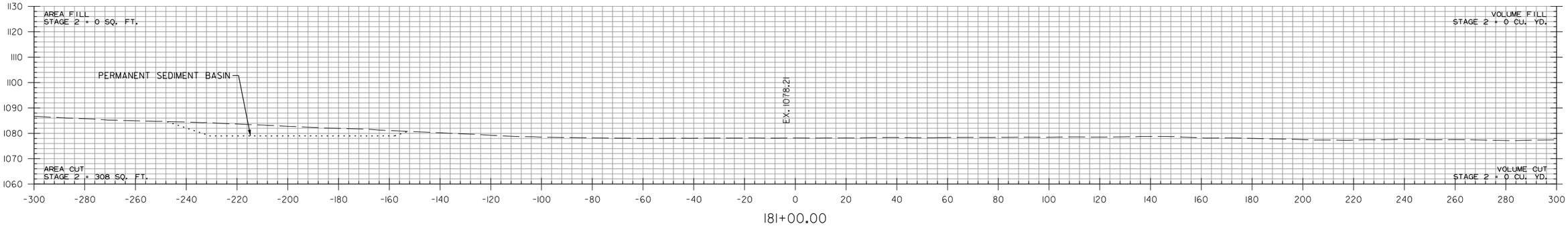



182+00.00




181+55.47

STA. 181+55.47 END BRIDGE LT.




181+00.00

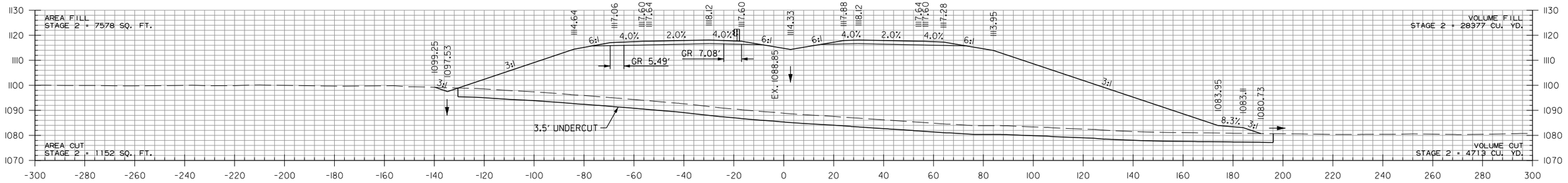
STA. 181+00.00 BEGIN TOE OF SLOPE

XNA ACCESS RD.
STA. 181+00 TO STA. 182+00

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REVISED DATE:

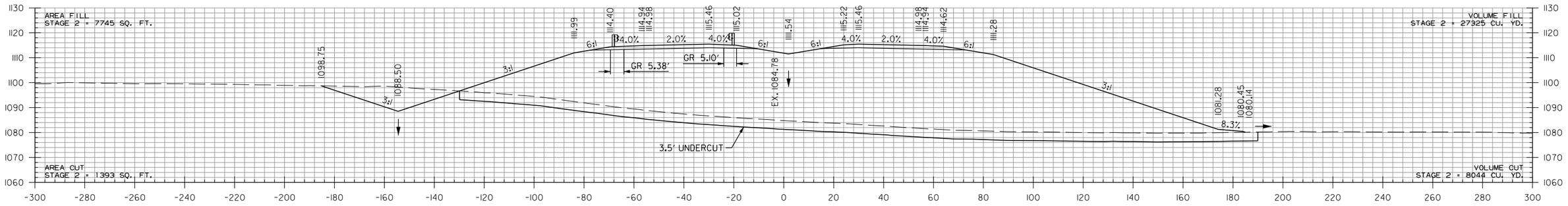
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 466 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 184+00.00
END SP. DT. LT. 5.88%
BEGIN SP. DT. LT. 0.50%
ELEV. 1097.53



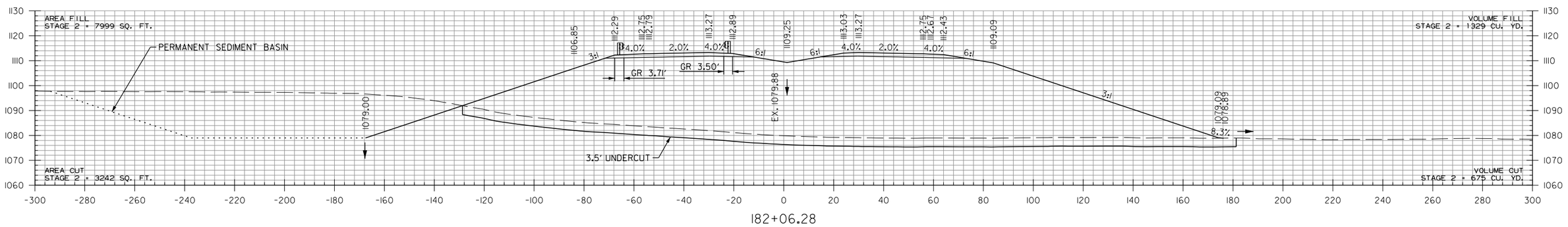

184+00.00

STA. 183+40.00
END SP. DT. LT. 13.76%
BEGIN SP. DT. LT. 5.88%
ELEV. 1094.00




183+00.00

STA. 182+31.00
END SP. DT. LT. 0.00%
BEGIN SP. DT. LT. 13.76%
ELEV. 1079.00



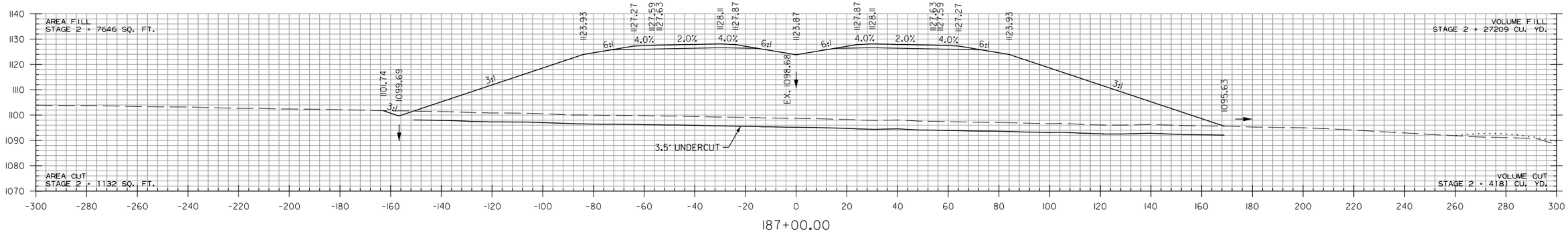

182+06.28

STA. 182+06.28 END BRIDGE RT.

XNA ACCESS RD.
STA. 182+06 TO STA. 184+00

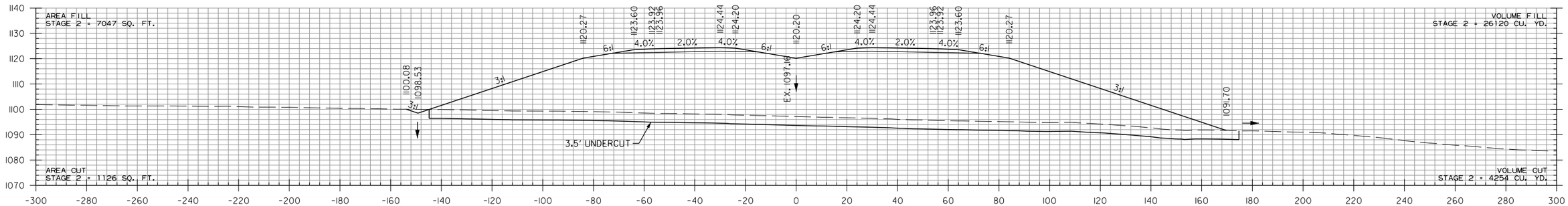

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 467 | 583 |
| | | CROSS SECTIONS | | | | |

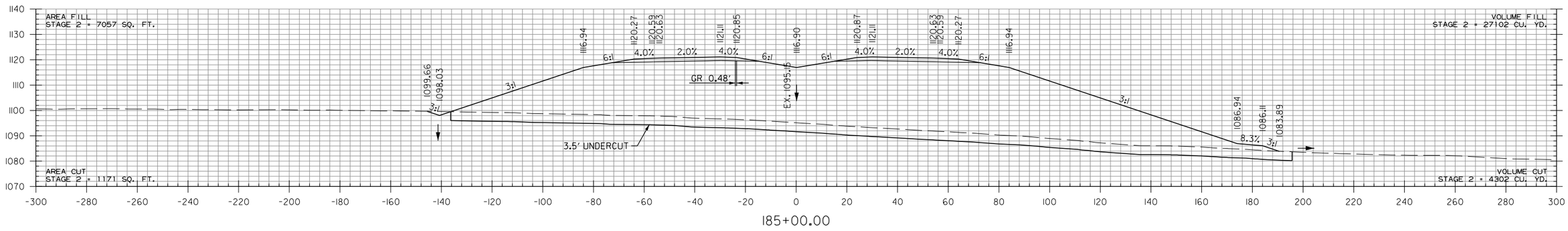



187+00.00

STA. 186+00.00
END SP. DT. LT. 0.50%
BEGIN SP. DT. LT. 1.16%
ELEV. 1098.53




186+00.00



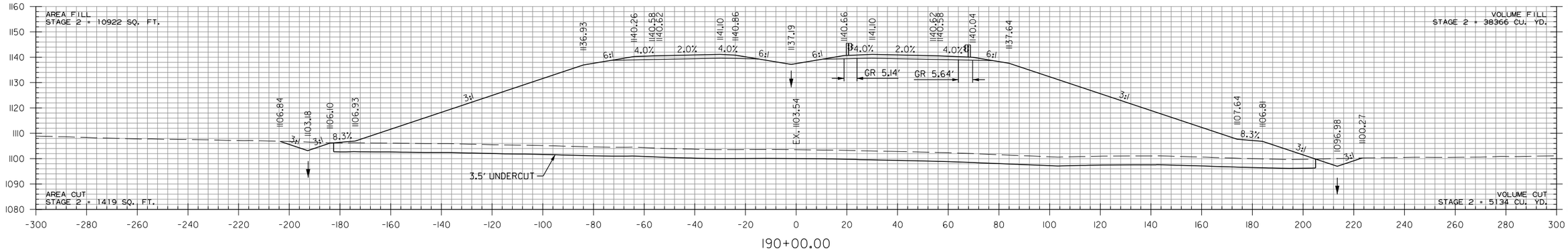

185+00.00

XNA ACCESS RD.
STA. 185+00 TO STA. 187+00

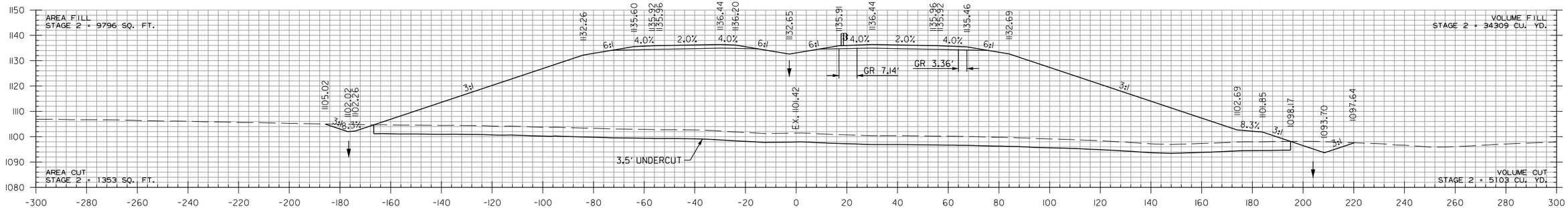
aewierciak 10/20/2023 12:56:20 PM
WORKSPACE: AHTD
L:\20\7\0\0\600 - XNA Access - NEPA\Drawings\r090069_CX_XNA ACCESS RD..04.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 468 | 583 |
| | | CROSS SECTIONS | | | | |

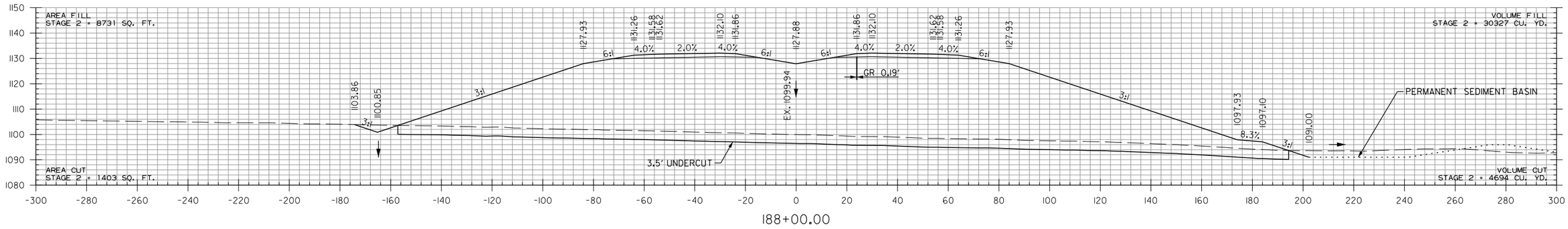
STA. 190+70.00
END SP. DT. LT. 1.16%
ELEV. 1104.00




STA. 189+75.00
END SP. DT. RT. 3.07%
BEGIN SP. DT. RT. 3.94%
ELEV. 1096.00



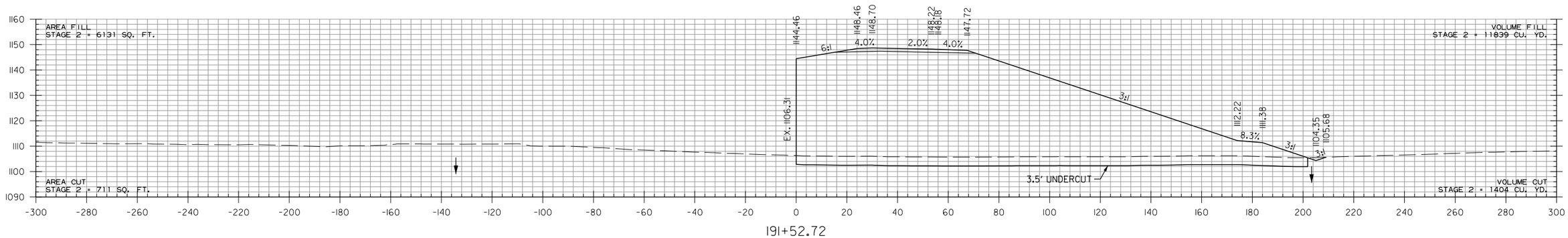

STA. 188+12.00
BEGIN SP. DT. RT. 3.07%
ELEV. 1091.00




XNA ACCESS RD.
STA. 188+00 TO STA. 190+00


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WORKSPACE: AHTD
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REVISED DATE:

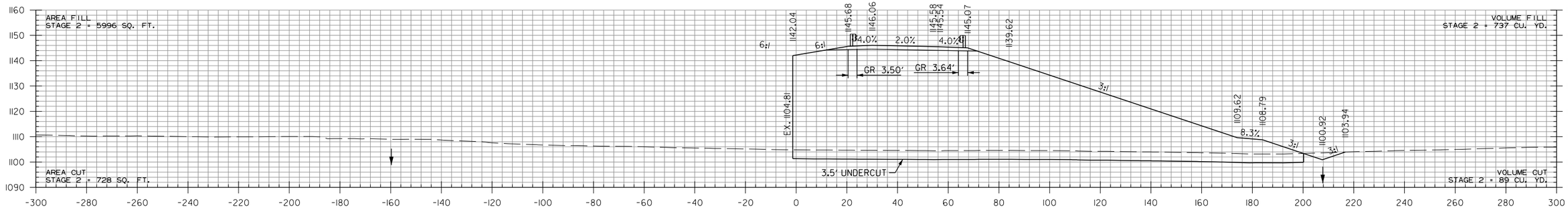
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 469 | 583 |
| | | CROSS SECTIONS | | | | |



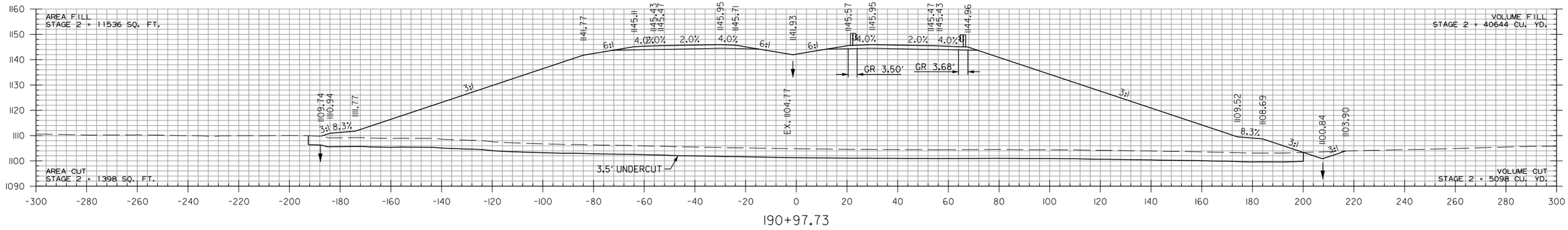

191+52.72

STA. 191+52.72 BEGIN BRIDGE RT.

STA. 191+50.00
END SP. DT. RT. 3.94%
ELEV. 1102.89




191+00.00



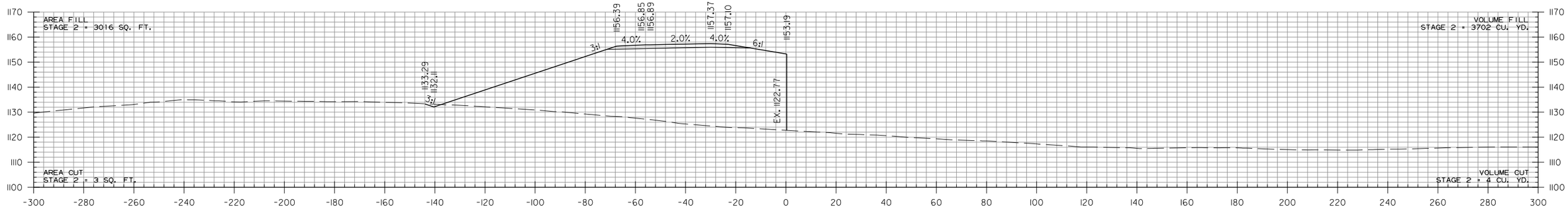

190+97.73

STA. 190+97.73 BEGIN BRIDGE LT.

XNA ACCESS RD.
STA. 190+97.73 TO STA. 191+52.72

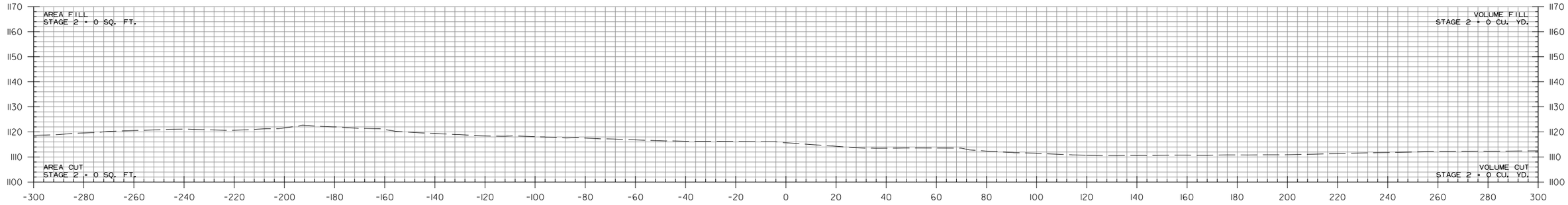
aewierciak 10/20/2023 12:56:20 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 470 | 583 |
| | | CROSS SECTIONS | | | | |



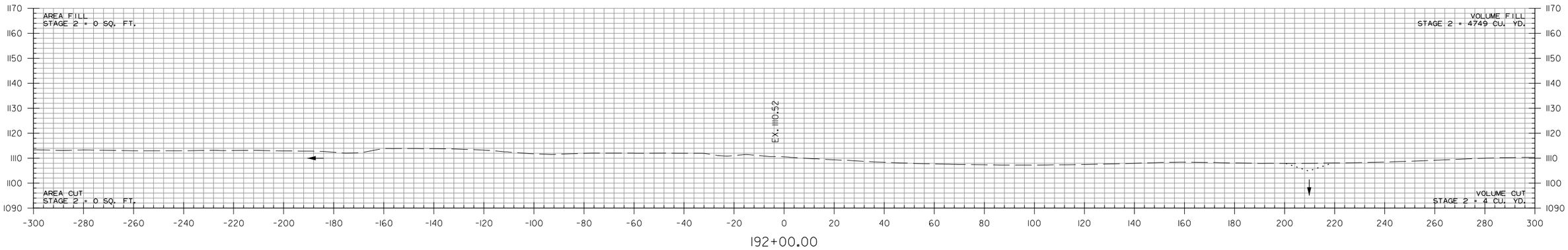

193+26.29

STA. 193+26.29 END BRIDGE LT.




192+60.00

STA. 192+60.00 BEGIN TOE OF SLOPE




192+00.00

STA. 192+00.00 END TOE OF SLOPE

XNA ACCESS RD.
STA. 192+00 TO STA. 193+26.29


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WORKSPACE: AHTD
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REVISED DATE:

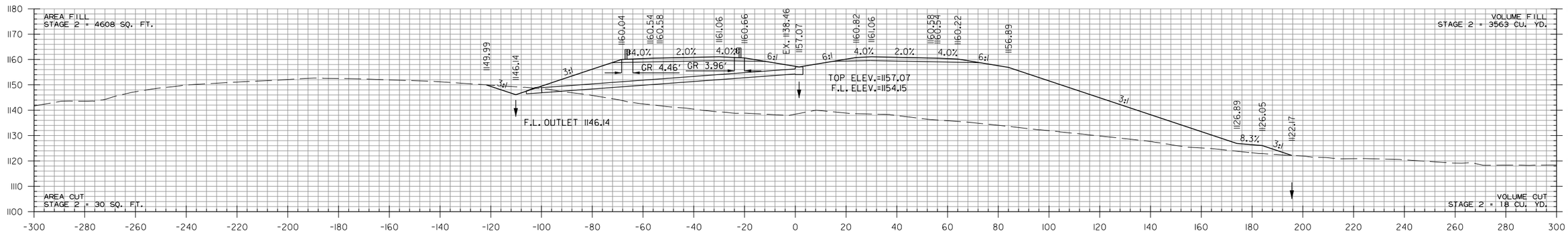
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 471 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 194+50.00
END SP. DT. LT. 22.74%
BEGIN SP. DT. LT. 9.25%
ELEV. 1157.51

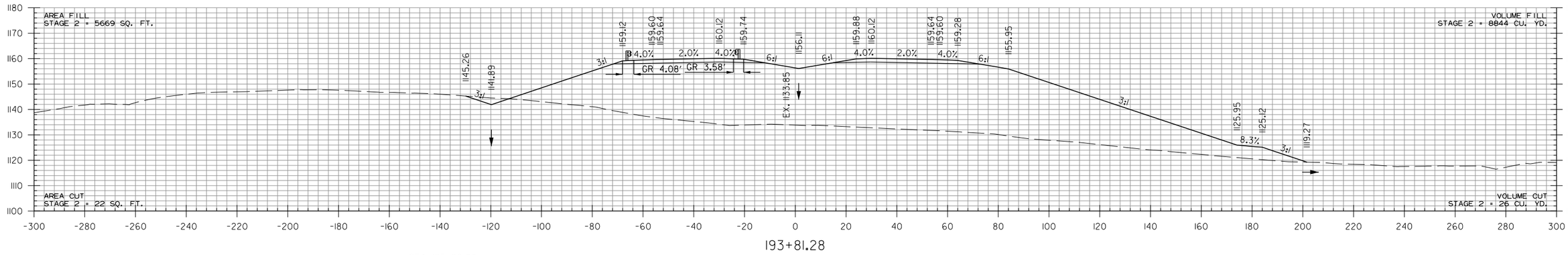
STA. 194+00 CONSTRUCT
DROP INLET 1.5' RT. H=2'-11"
WITH 24" x 100' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 100 LIN. FT.
24" F.E.S. = 1 EACH

STA. 194+34.96
END SP. DT. RT. 16.68%
BEGIN SP. DT. RT. 25.00%
ELEV. 1126.00

STA. 194+10.79
BEGIN SP. DT. RT. 16.68%
ELEV. 1121.97




194+00.00




193+81.28

STA. 193+29.00
BEGIN SP. DT. LT. 22.74%
ELEV. 1130.00

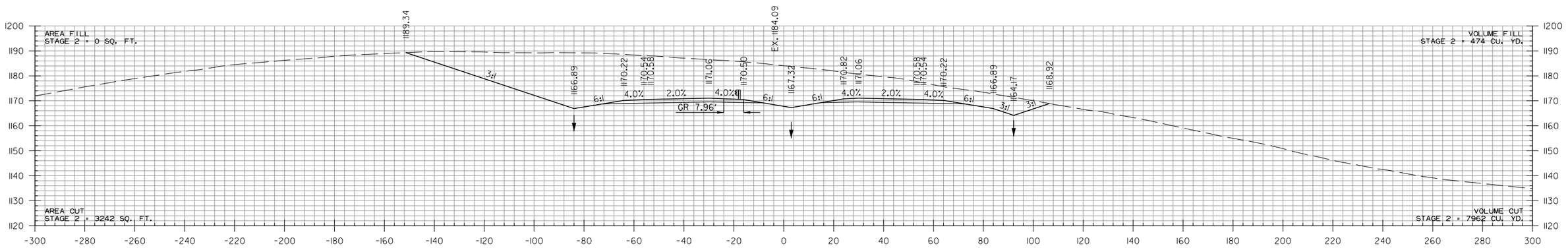
STA. 193+81.28 END BRIDGE RT.

XNA ACCESS RD.
STA. 193+81.28 TO STA. 194+00

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 472 | 583 |
| | | CROSS SECTIONS | | | | |

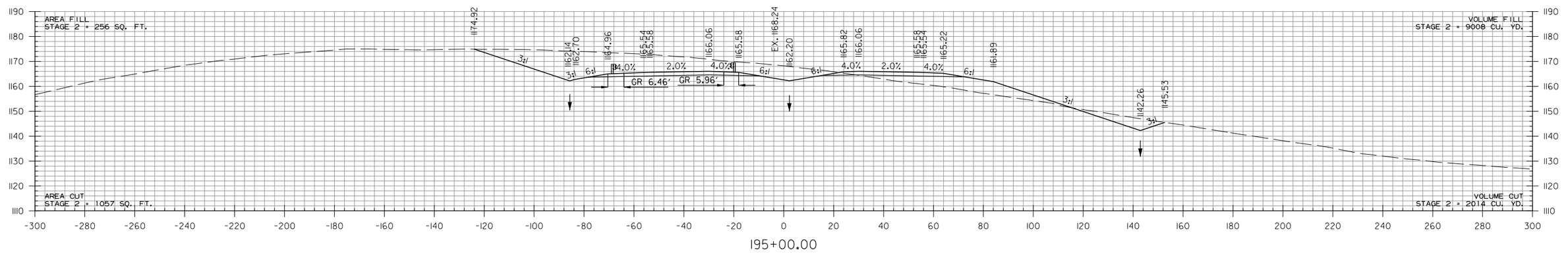
STA. 196+35.00
END SP. DT. RT. 12.64%
ELEV. 1168.60




196+00.00

STA. 195+10.00
END SP. DT. LT. 9.25%
ELEV. 1163.06

STA. 195+75.00
END SP. DT. RT. 25.00%
BEGIN SP. DT. RT. 12.64%
ELEV. 1161.01

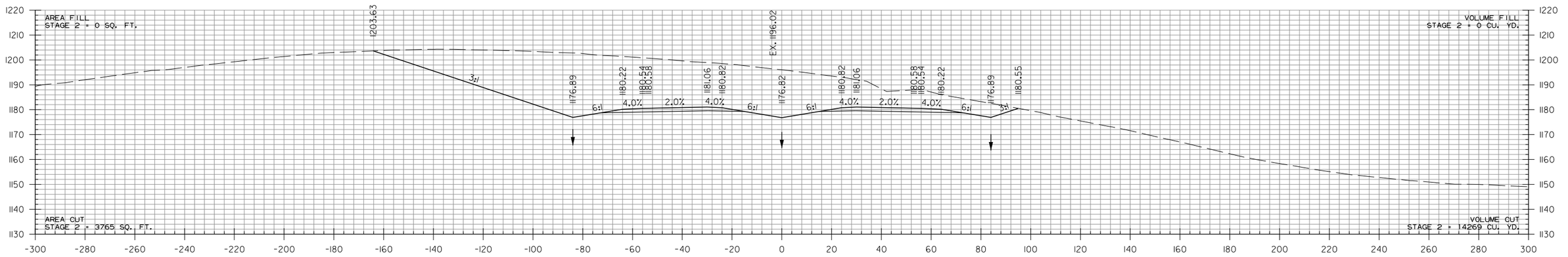



195+00.00

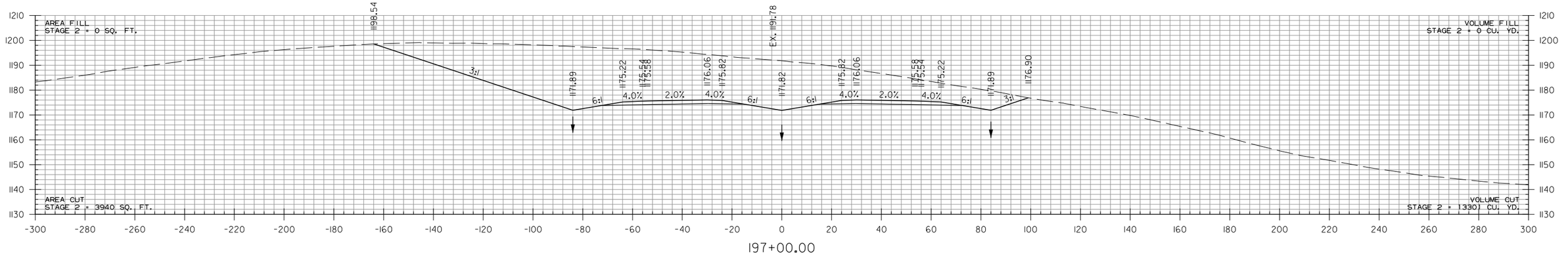
XNA ACCESS RD.
STA. 195+00 TO STA. 196+00

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 473 | 583 |
| | | CROSS SECTIONS | | | | |




198+00.00

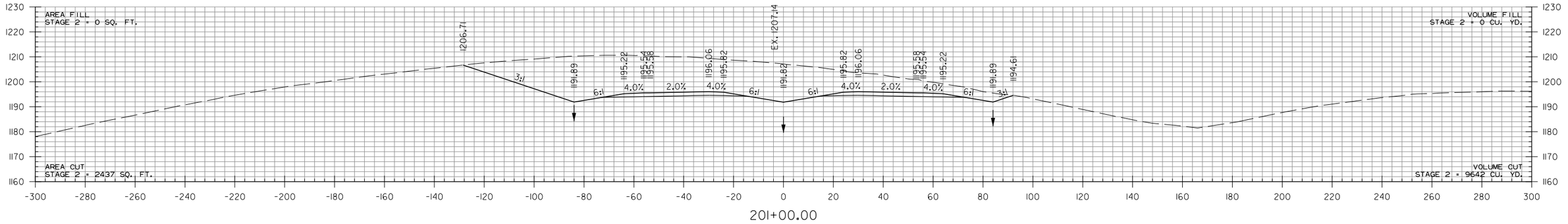



197+00.00

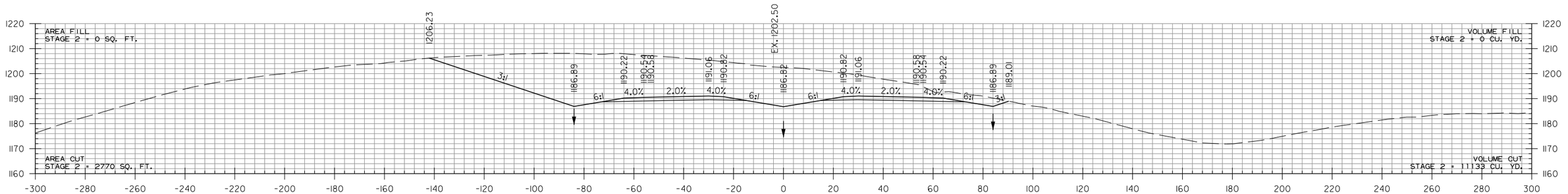
XNA ACCESS RD.
STA. 197+00 TO STA. 198+00


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WORKSPACE: AHTD
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REVISED DATE:

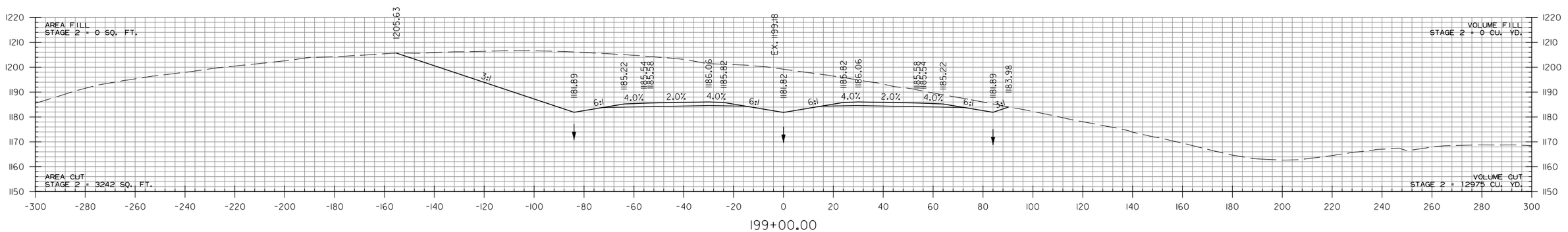
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 474 | 583 |
| | | CROSS SECTIONS | | | | |




201+00.00




200+00.00



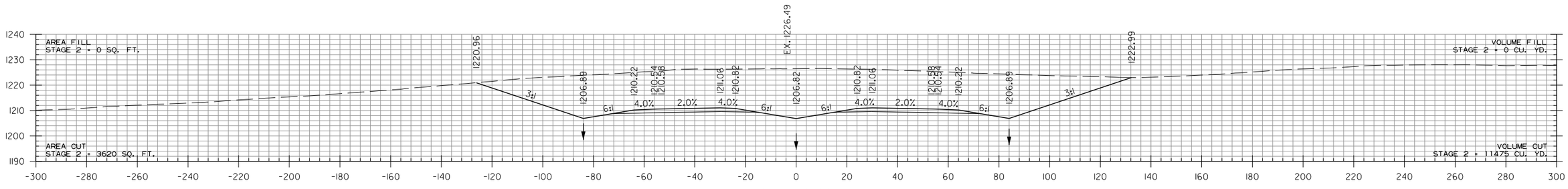

199+00.00

XNA ACCESS RD.
STA. 199+00 TO STA. 201+00

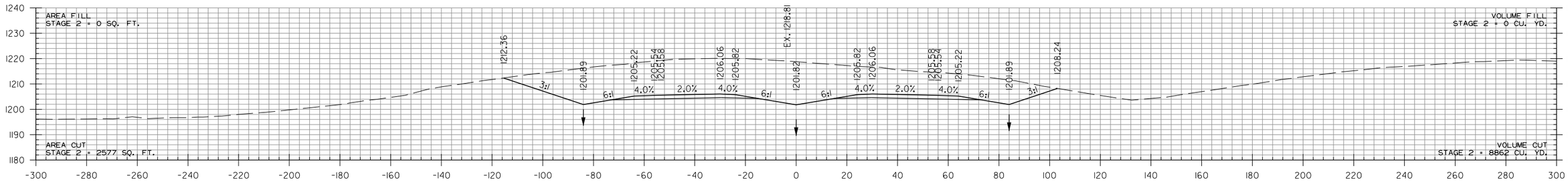
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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 475 | 583 |
| | | CROSS SECTIONS | | | | |

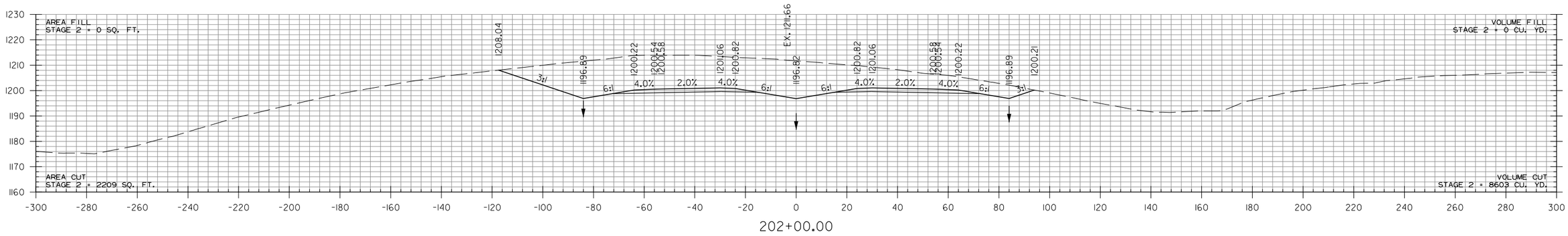
STA. 204+50.00
BEGIN SP. DT. RT. -0.50%
ELEV. 1209.26




204+00.00




203+00.00




202+00.00

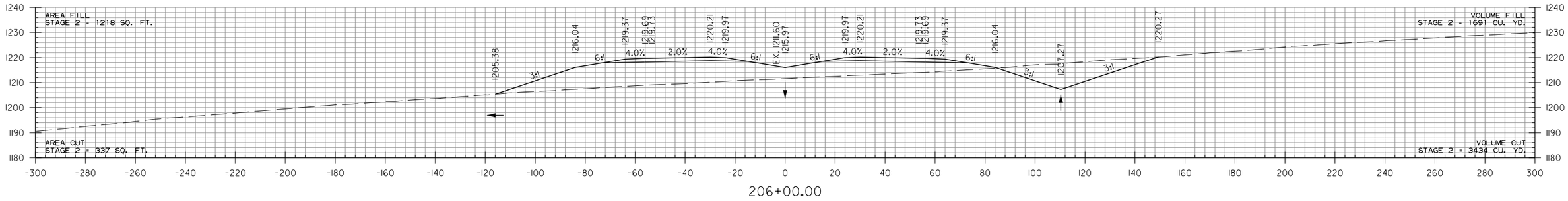
XNA ACCESS RD.
STA. 202+00 TO STA. 204+00


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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 476 | 583 |
| | | CROSS SECTIONS | | | | |

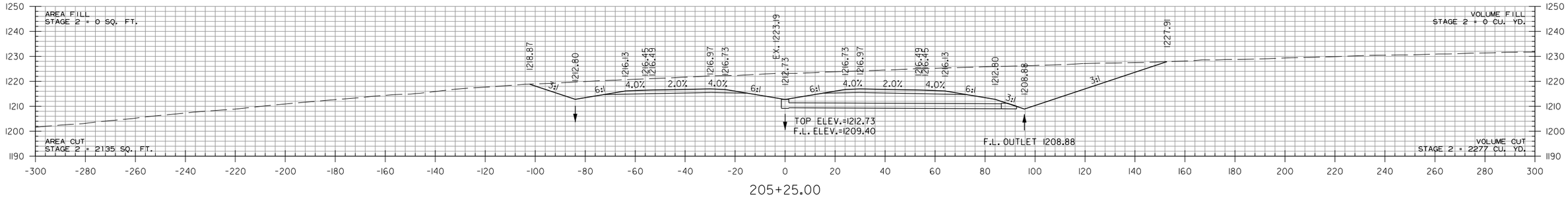
STA. 206+75.00
END SP. DT. RT. -5.55%
BEGIN SP. DT. RT. -20.81%
ELEV. 1203.44

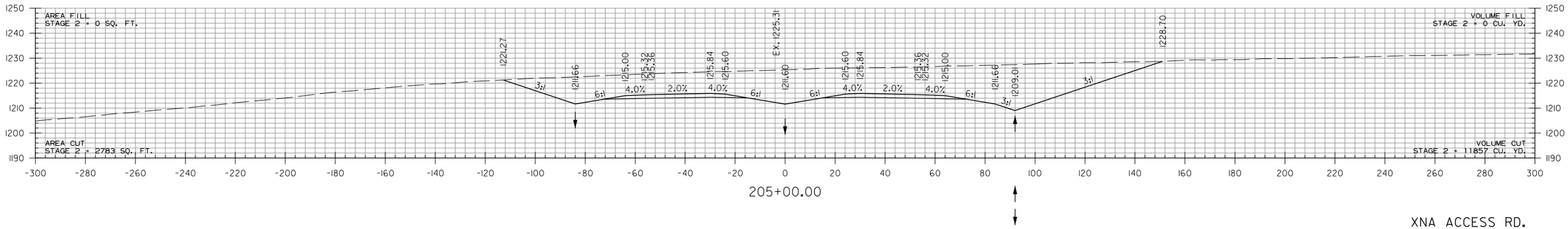
STA. 206+15.00
END SP. DT. RT. -3.27%
BEGIN SP. DT. RT. -5.55%
ELEV. 1208.73




STA. 205+25 CONSTRUCT
MEDIAN DROP INLET H=3'-4"
WITH 24" x 85' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 85 LIN. FT.
24" F.E.S. = 1 EACH

STA. 205+55.00
END SP. DT. RT. -0.50%
BEGIN SP. DT. RT. -3.27%
ELEV. 1208.73



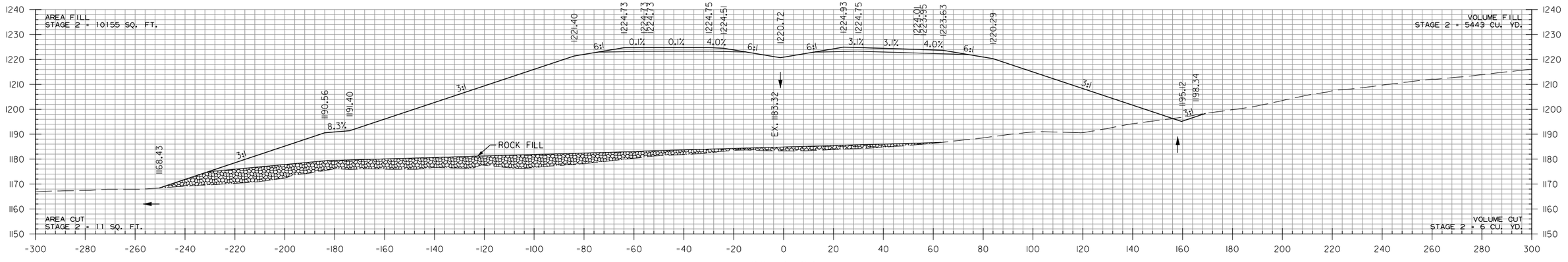

XNA ACCESS RD.
STA. 205+00 TO STA. 206+00

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 477 | 583 |
| | | CROSS SECTIONS | | | | |

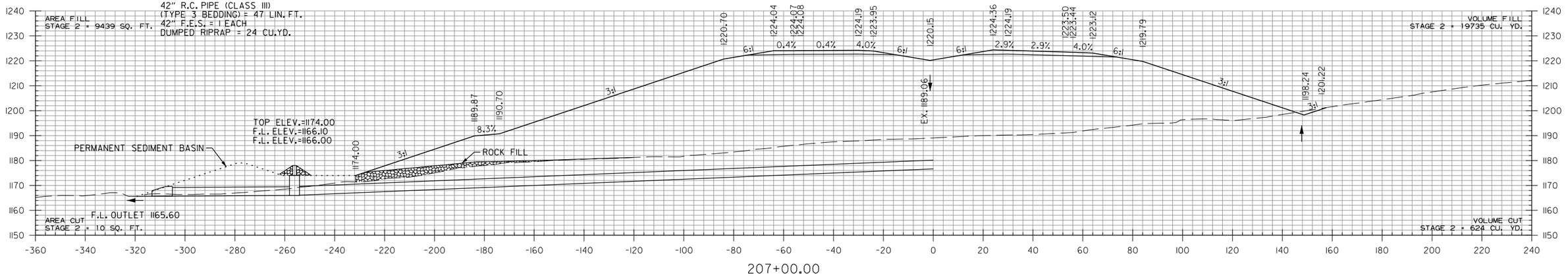
STA. 207+44.00
END SP. DT. RT. -5.44%
ELEV. 1192.00

STA. 207+25.00
END SP. DT. RT. -20.81%
BEGIN SP. DT. RT. -5.44%
ELEV. 1193.03




207+15.00

STA. 206+98 CONSTRUCT
DROP INLET 256' LT. H=8'-0"
WITH 42" x 47' PIPE OUTLET
TO F.E.S. AT 206+87 LT.
TYPE RM DROP INLET = 4'X5'
W/MODIFIED TOP AND
4 LIN. FT. 18" PERFORATED
RISER PIPE
42" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 47 LIN. FT.
42" F.E.S. = 1 EACH
DUMPED RIPRAP = 24 CU.YD.




207+00.00

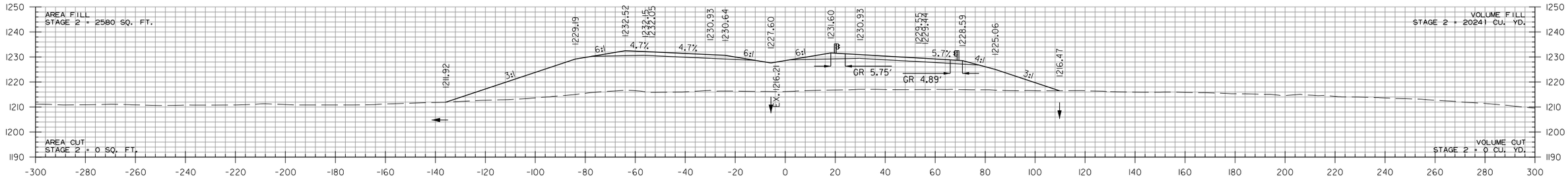
STA. 206+39.45 BEGIN SUPERELEVATION

XNA ACCESS RD.
STA. 207+00 TO STA. 207+15

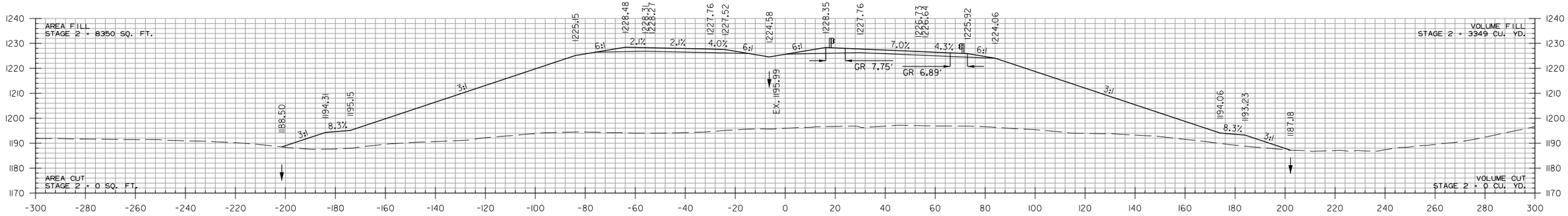
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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 478 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 209+89.45 MAX. SUPERELEVATION (0.070'/')

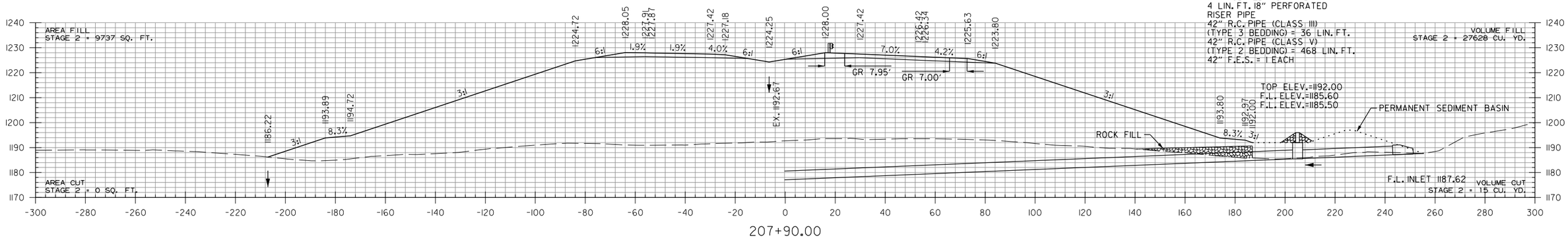



209+00.00




208+00.00

STA. 207+96 CONSTRUCT
DROP INLET 205' RT. H=6'-6"
WITH 42" x 36' PIPE INLET
FROM F.E.S. AT STA. 208+04 RT.
Q50 = 53 CFS DA = 9.6 ACRES
DUMPED RIPRAP = 24 CU.YD.
AND 42" x 468' PIPE OUTLET
TO DROP INLET AT 206+98 LT.
12°RT. FWD. SKEW
TYPE RM DROP INLET = 4'X5'
W/ MODIFIED TOP AND
4 LIN. FT. 18" PERFORATED
RISER PIPE
42" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 36 LIN. FT.
42" R.C. PIPE (CLASS V)
(TYPE 2 BEDDING) = 468 LIN. FT.
42" F.E.S. = 1 EACH

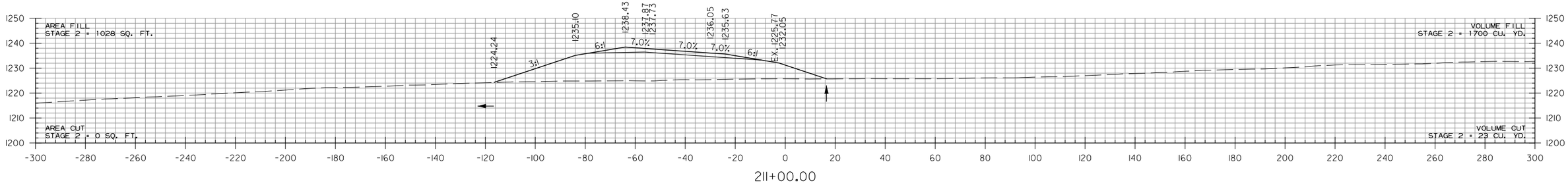



207+90.00

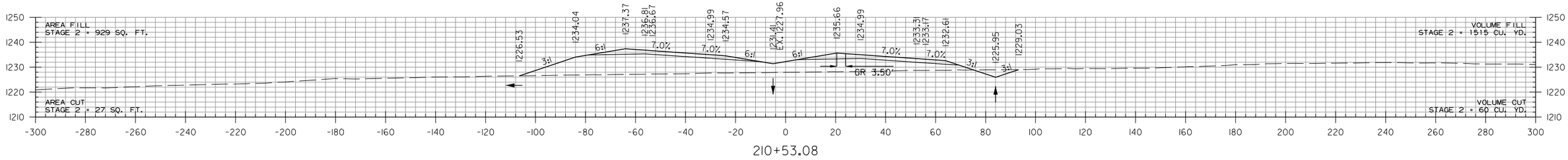
XNA ACCESS RD.
STA. 207+90 TO STA. 209+00

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 479 | 583 |
| | | CROSS SECTIONS | | | | |

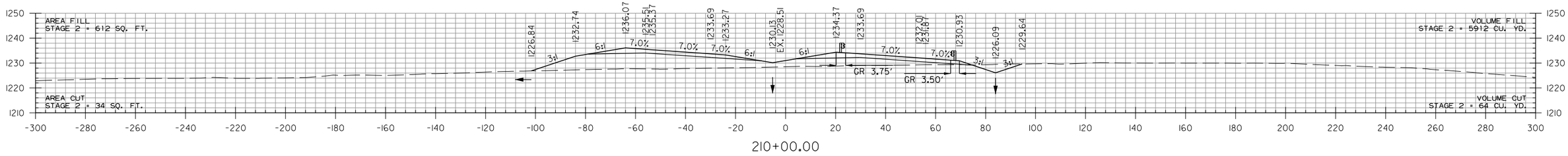



211+00.00




210+53.08

STA. 210+53.08 BEGIN BRIDGE RT.

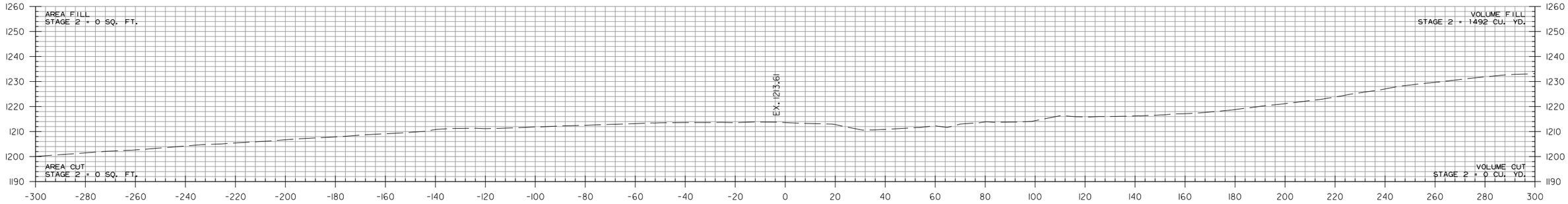



210+00.00

XNA ACCESS RD.
STA. 210+00 TO STA. 211+00

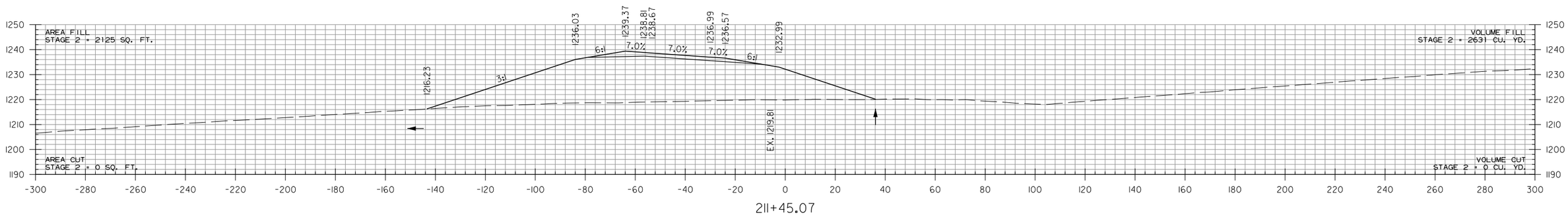

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 480 | 583 |
| | | CROSS SECTIONS | | | | |




211+83.00

STA. 211+83.00 END TOE OF SLOPE



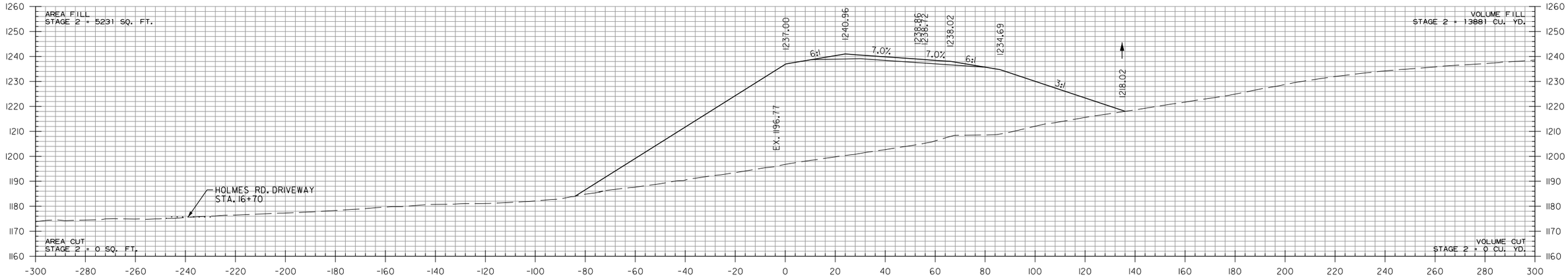

211+45.07

STA. 211+45.07 BEGIN BRIDGE LT.

XNA ACCESS RD.
STA. 211+45.07 TO STA. 211+83

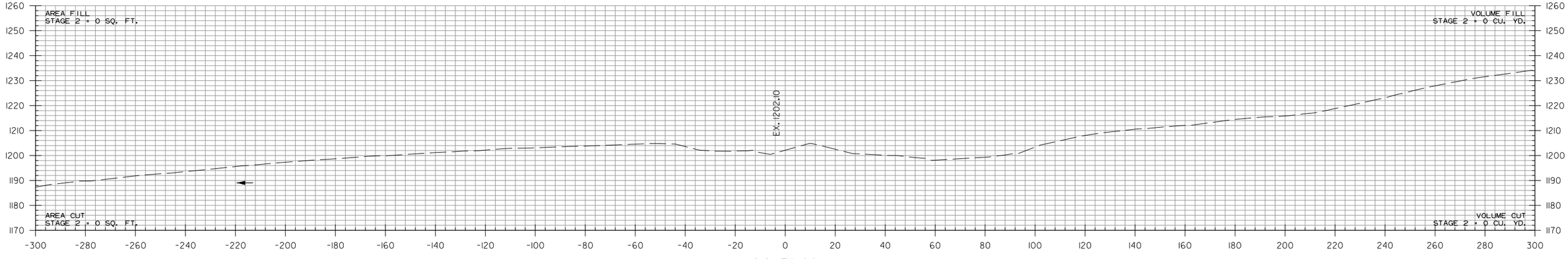

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 481 | 583 |
| | | CROSS SECTIONS | | | | |




213+81.30

STA. 213+81.30 END BRIDGE RT.



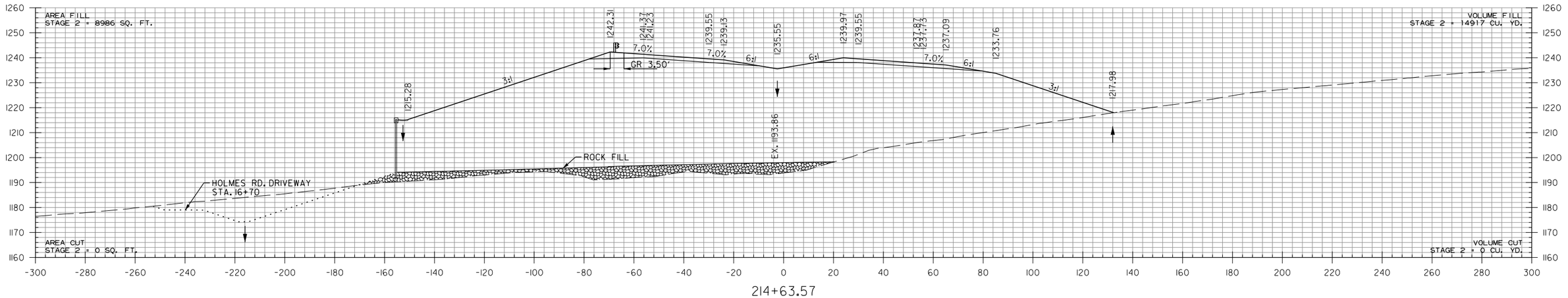

212+38.00

STA. 212+38.00 BEGIN TOE OF SLOPE

XNA ACCESS RD.
STA. 212+38 TO STA. 213+81.30

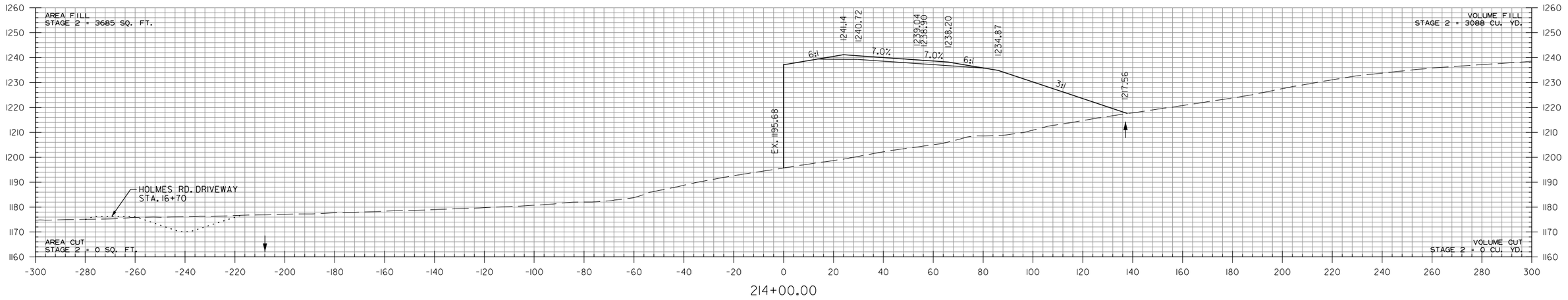

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 482 | 583 |
| | | CROSS SECTIONS | | | | |




214+63.57

STA. 214+63.57 END BRIDGE LT.




214+00.00

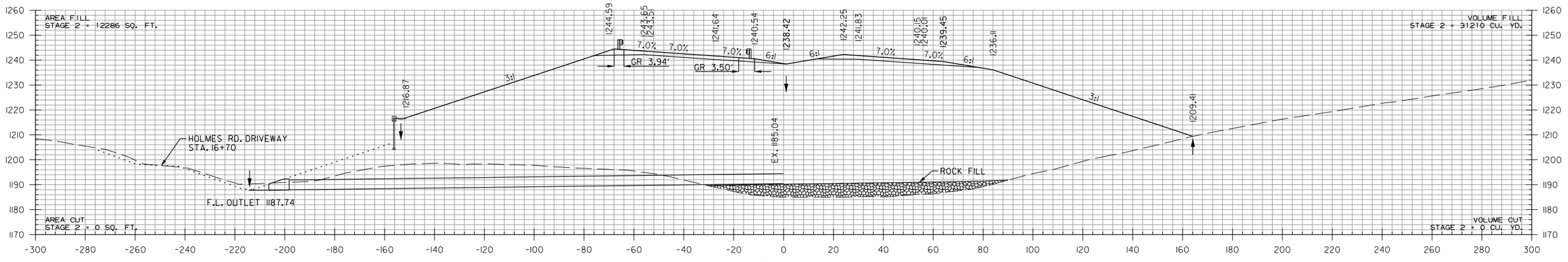
XNA ACCESS RD.
STA. 213+83 TO STA. 214+00


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WORKSPACE: AHTD
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REVISED DATE:

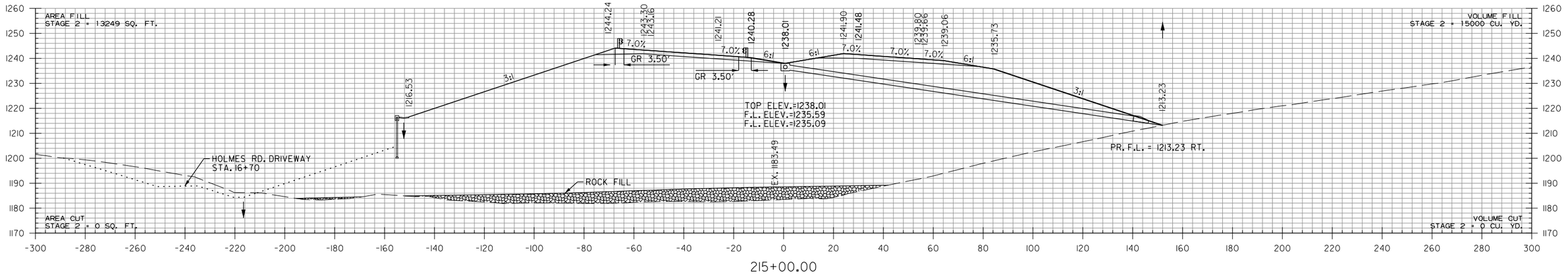
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 483 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 218+46 CONSTRUCT
DROP INLET 223' RT. H=10'-6"
WITH 48" x 46' PIPE INLET
FROM F.E.S. AT STA. 218+78 RT.
Q50 = 81 CFS DA = 30 ACRES
AND 48" x 503' PIPE OUTLET
TO F.E.S. AT STA. 215+66 LT.
TYPE RM DROP INLET = 4'X5'
48" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 46 LIN. FT.
48" R.C. PIPE (CLASS V)
(TYPE 1 BEDDING) = 503 LIN. FT.
48" F.E.S. = 2 EACH

STA. 215+70.00
END SP. DT. LT. 0.52%
BEGIN SP. DT. LT. -0.50%
ELEV. 1216.65




STA. 215+00 CONSTRUCT
MEDIAN DROP INLET H=2'-11"
WITH 24" x 138' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 138 LIN. FT.
24" F.E.S. = 1 EACH

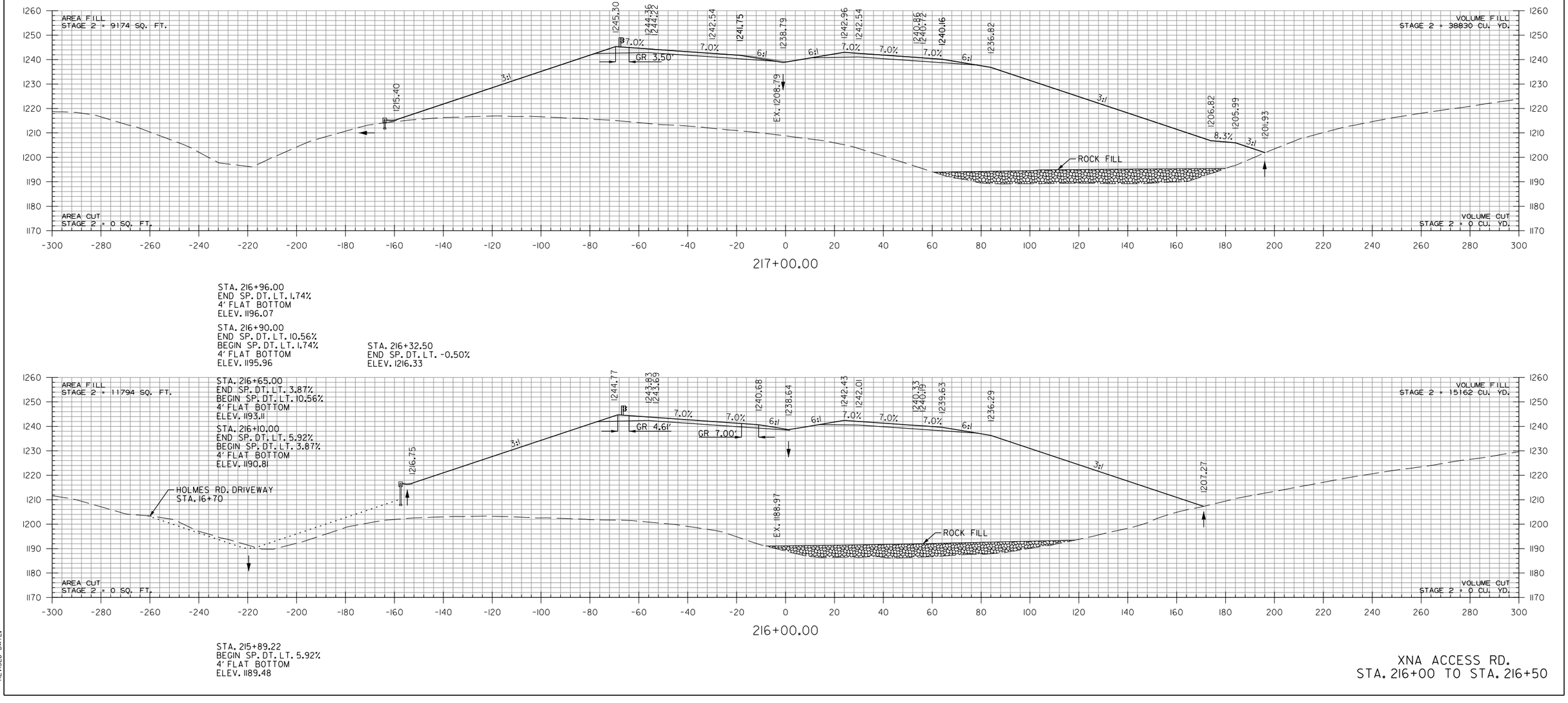



STA. 214+90.00
BEGIN SP. DT. LT. 0.52%
ELEV. 1216.23

XNA ACCESS RD.
STA. 215+00 TO STA. 215+66

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WORKSPACE: AHTD
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REVISED DATE:

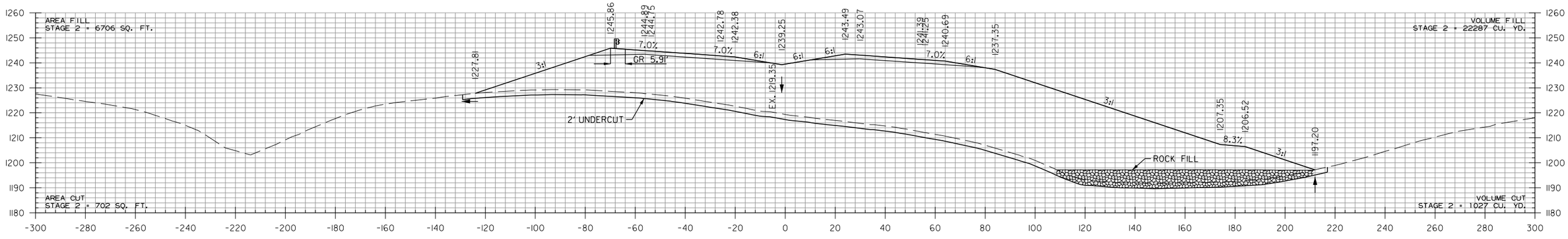
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 484 | 583 |
| | | CROSS SECTIONS | | | | |




XNA ACCESS RD.
STA. 216+00 TO STA. 216+50

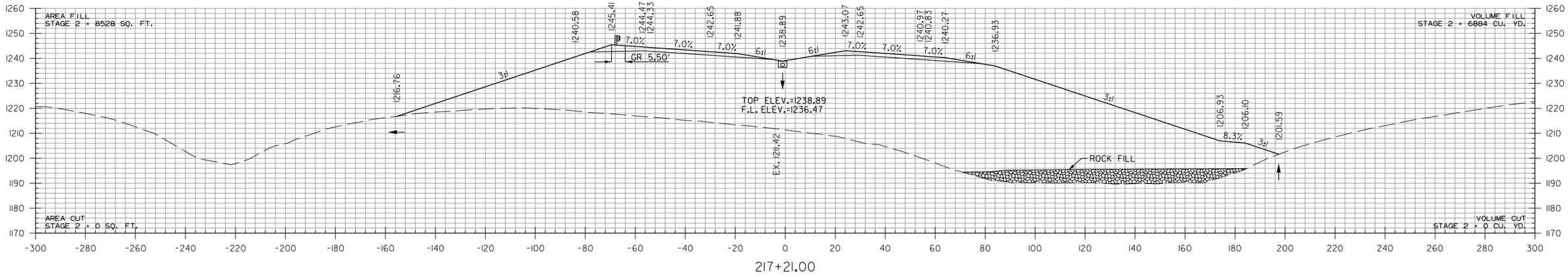
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 485 | 583 |
| | | CROSS SECTIONS | | | | |




218+00.00

STA. 217+21 CONSTRUCT
MEDIAN DROP INLET H=2'-5"
WITH 18" x 217' PIPE OUTLET
TO DROP INLET AT STA. 215+00
TYPE RM DROP INLET = 4'X3'
18" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 217 LIN. FT.

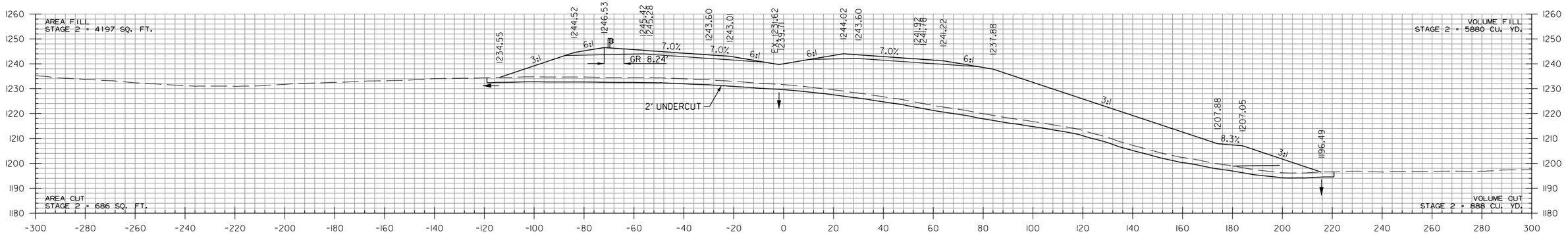



217+21.00

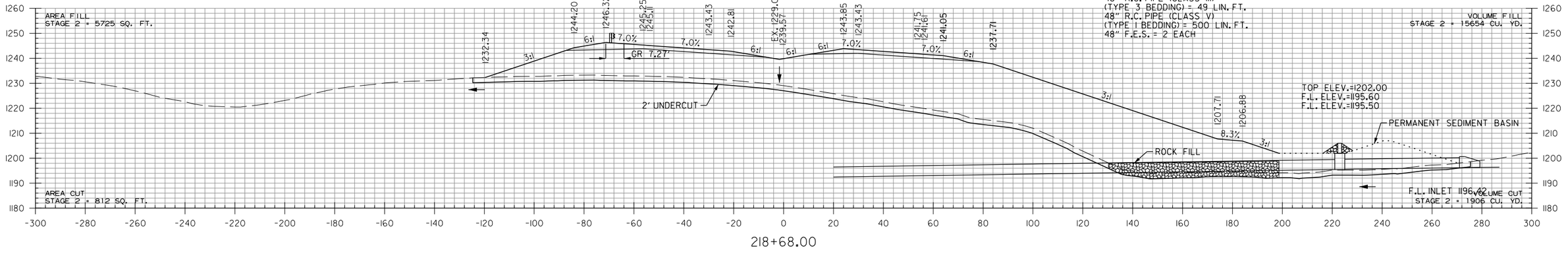
XNA ACCESS RD.
STA. 217+21 TO STA. 218+00


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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 486 | 583 |
| | | CROSS SECTIONS | | | | |




STA. 218+44 CONSTRUCT
DROP INLET 221' RT. H=6'-6"
WITH 48" x 49' PIPE INLET
FROM F.E.S. AT STA. 218+78 RT.
Q50 = 81 CFS DA = 30 ACRES
AND 48" x 500' PIPE OUTLET
TO F.E.S. AT STA. 215+66 LT.
33°RT. FWD. SKEW
TYPE RM DROP INLET = 4'X5'
W/ MODIFIED TOP AND
4 LIN. FT. 18" PERFORATED
RISER PIPE
48" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 49 LIN. FT.
48" R.C. PIPE (CLASS V)
(TYPE I BEDDING) = 500 LIN. FT.
48" F.E.S. = 2 EACH

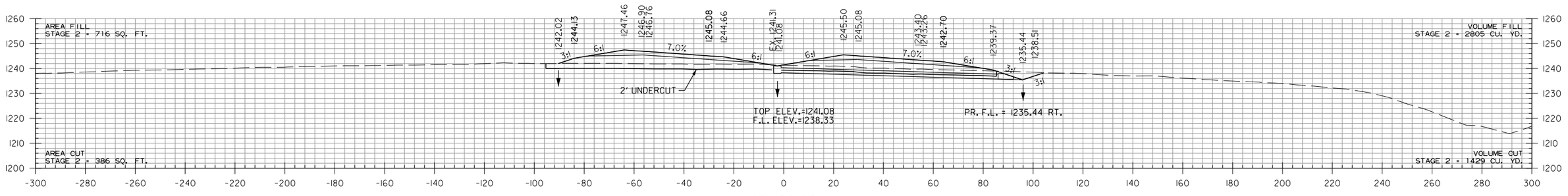



XNA ACCESS RD.
STA. 218+68 TO STA. 219+00

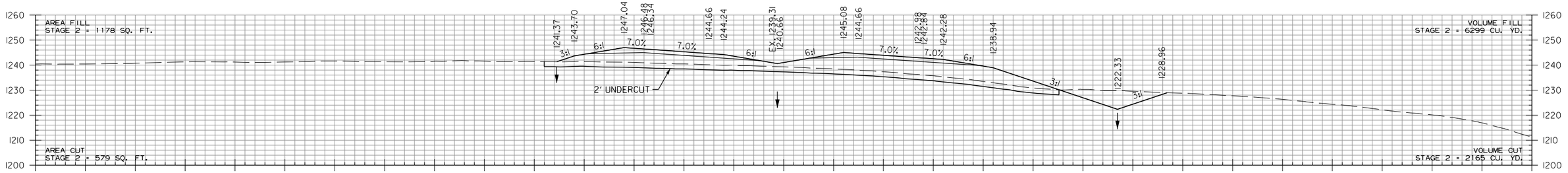
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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 487 | 583 |
| | | CROSS SECTIONS | | | | |

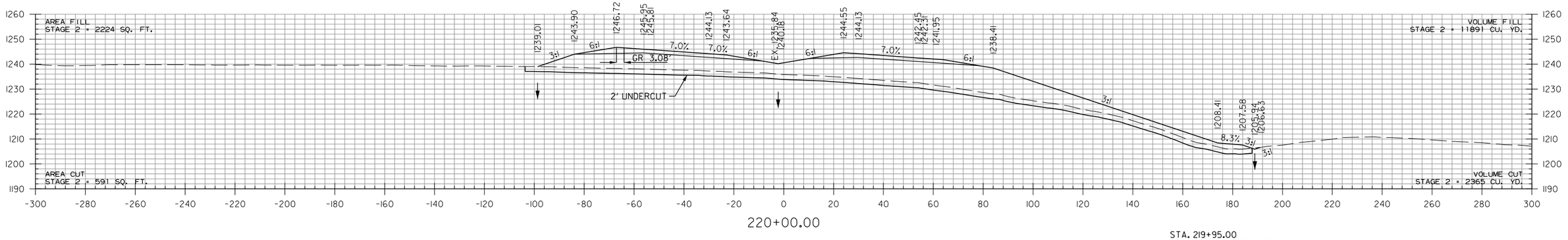
STA. 221+80 CONSTRUCT
DROP INLET 3' LT. H=2'-11"
WITH 24" x 87' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 87 LIN. FT.
24" F.E.S. = 1 EACH




221+80.00




221+00.00



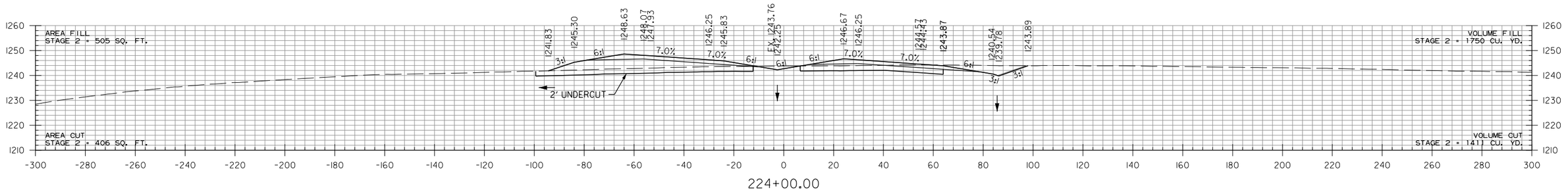

220+00.00

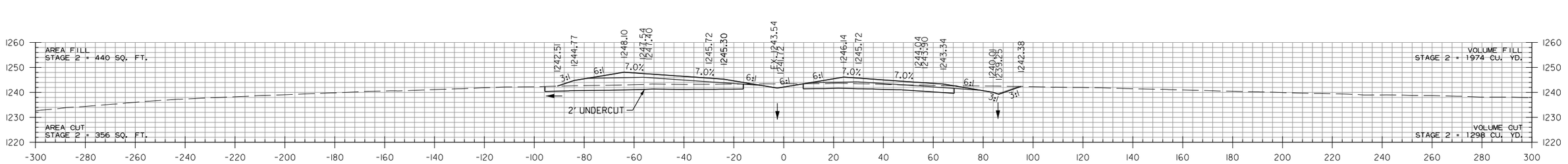
STA. 219+95.00
BEGIN SP. DT. RT. 16.39%
ELEV. 1205.12

# XNA ACCESS RD.
# STA. 220+00 TO STA. 221+80

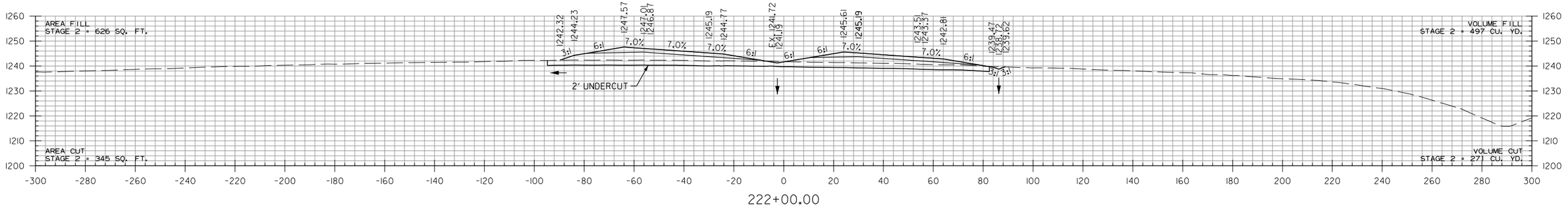

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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 488 | 583 |
| | | CROSS SECTIONS | | | | |



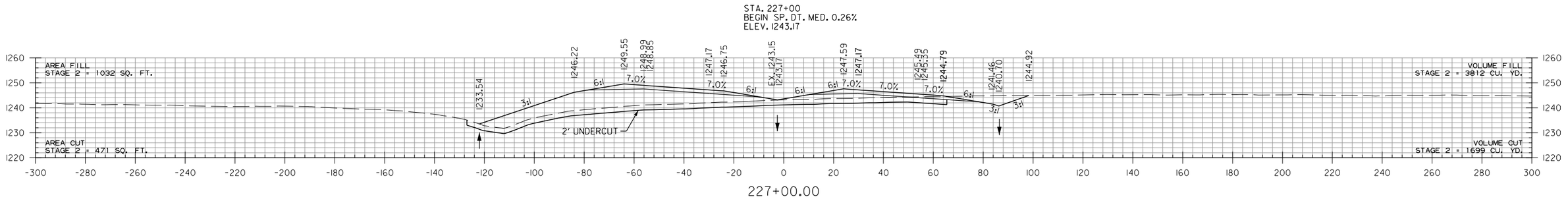

STA. 222+00.00
END SP. DT. RT. 16.39%
ELEV. 1238.72

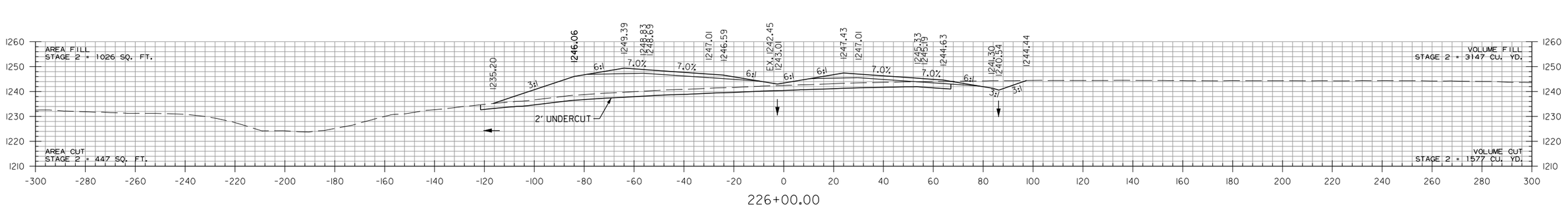


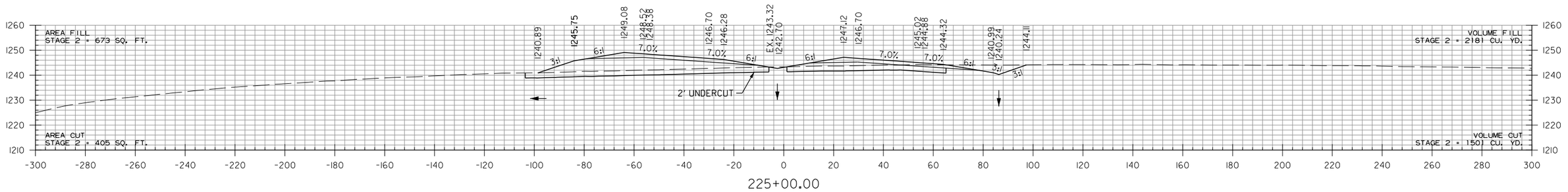

XNA ACCESS RD.
STA. 222+00 TO STA. 224+00


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|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 489 | 583 |
| | | CROSS SECTIONS | | | | |



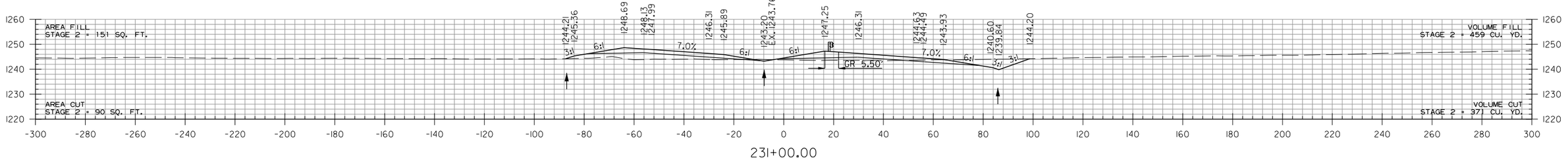



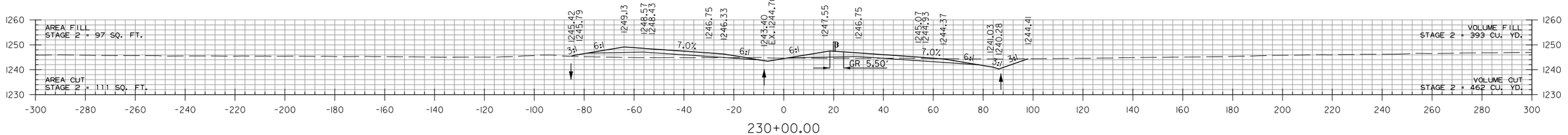

XNA ACCESS RD.
STA. 225+00 TO STA. 227+00


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| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 490 | 583 |
| | | CROSS SECTIONS | | | | |

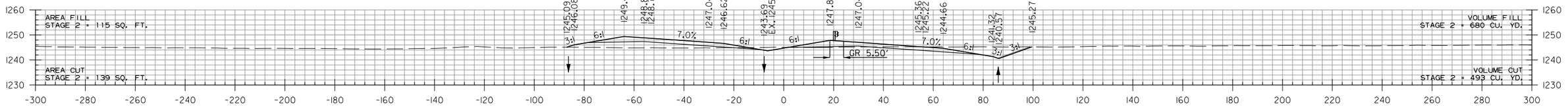



231+00.00

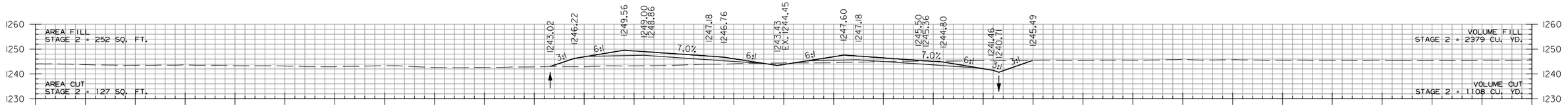



230+00.00

STA. 229+10
END SP. DT. MED. 0.26%
ELEV. 1243.71




229+00.00



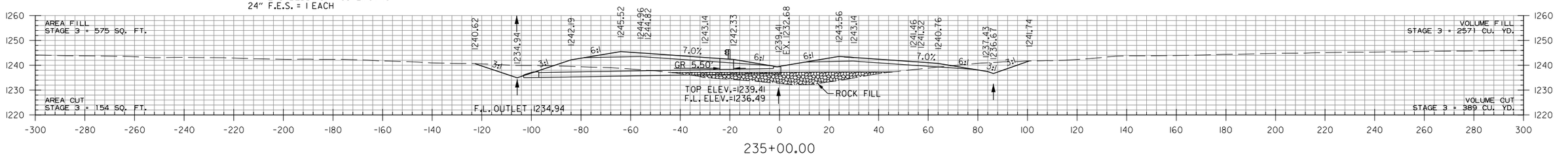

228+00.00

XNA ACCESS RD.
STA. 228+00 TO STA. 231+00


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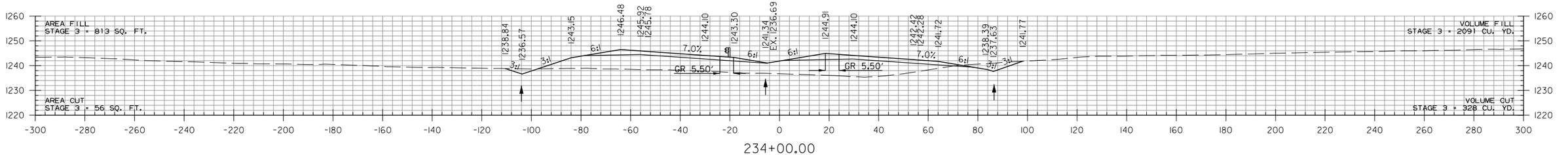
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 491 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 235+00 CONSTRUCT
DROP INLET 2.5' LT. H=2'-11"
WITH 24" x 93' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 93 LIN. FT.
24" F.E.S. = 1 EACH



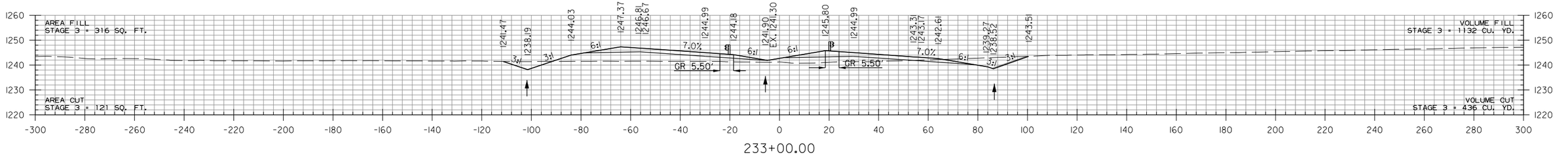

235+00.00

STA. 235+00.00
END SP. DT. LT. -1.45%
BEGIN SP. DT. LT. -2.02%
ELEV. 1234.94



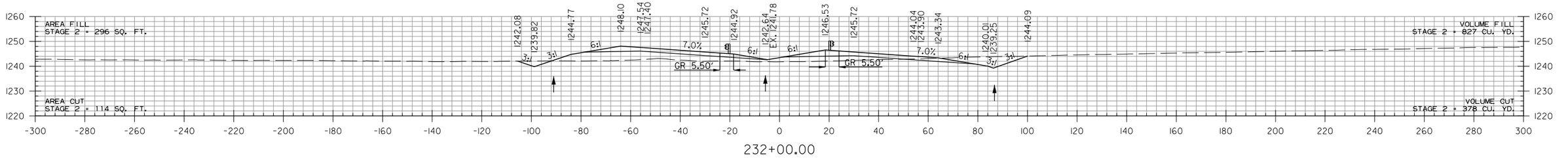

234+00.00

STA. 233+00.00
END SP. DT. LT. -4.40%
BEGIN SP. DT. LT. -1.45%
ELEV. 1237.85




233+00.00

STA. 232+25.00
BEGIN SP. DT. LT. -4.40%
ELEV. 1241.15




232+00.00

XNA ACCESS RD.
STA. 232+00 TO STA. 235+00

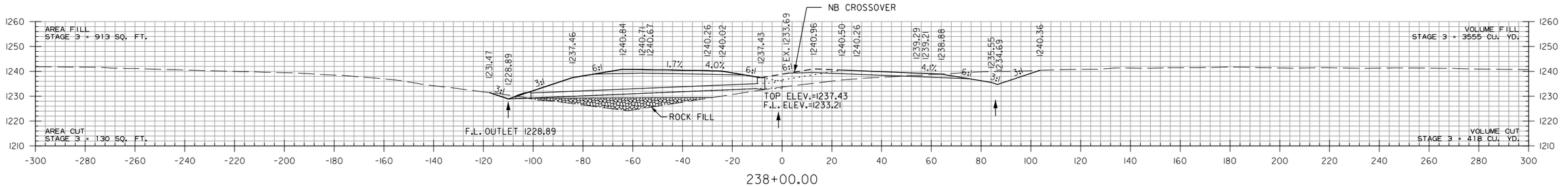

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REVISED DATE:

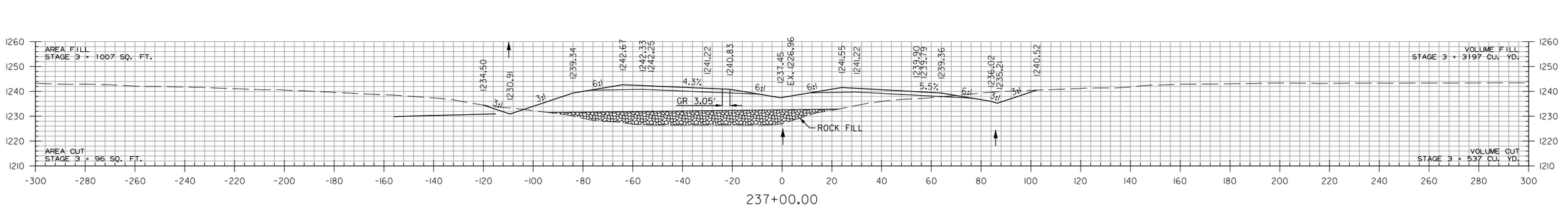
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 492 | 583 |
| | | CROSS SECTIONS | | | | |

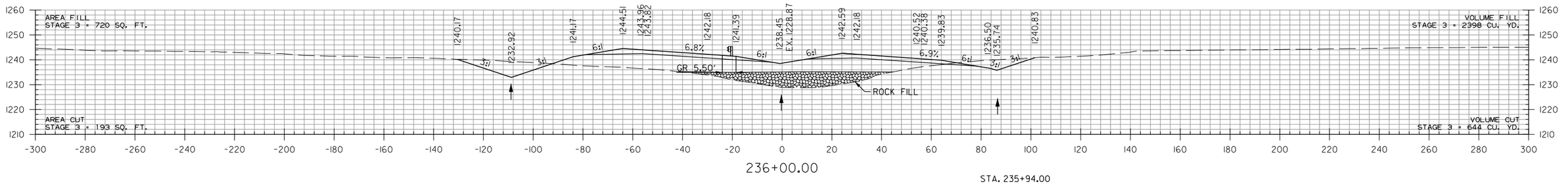
STA. 238+00.00
END SP. DT. LT. -2.02%
BEGIN SP. DT. LT. -4.99%
ELEV. 1228.89

STA. 238+00 CONSTRUCT
DROP INLET 8.5' LT. H=4'-5"
WITH 24" x 91' PIPE OUTLET
TO F.E.S. LT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 91 LIN. FT.
24" F.E.S. = 1 EACH

STA. 238+26.48
END SP. DT. RT. -0.52%
ELEV. 1234.55



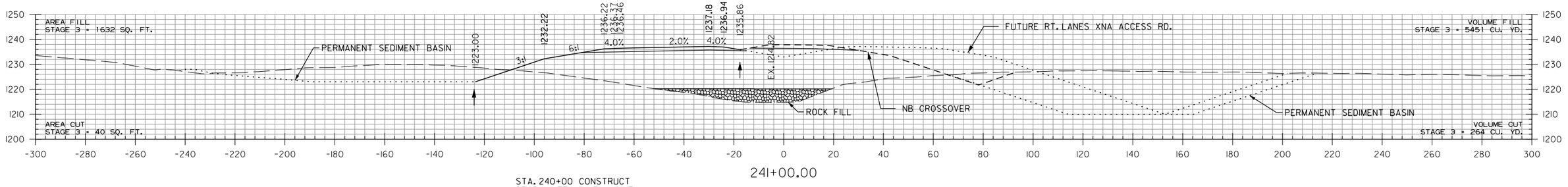

STA. 235+93.92 MAX. SUPERELEVATION (0.070'/')

STA. 235+94.00
BEGIN SP. DT. RT. -0.52%
ELEV. 1235.77

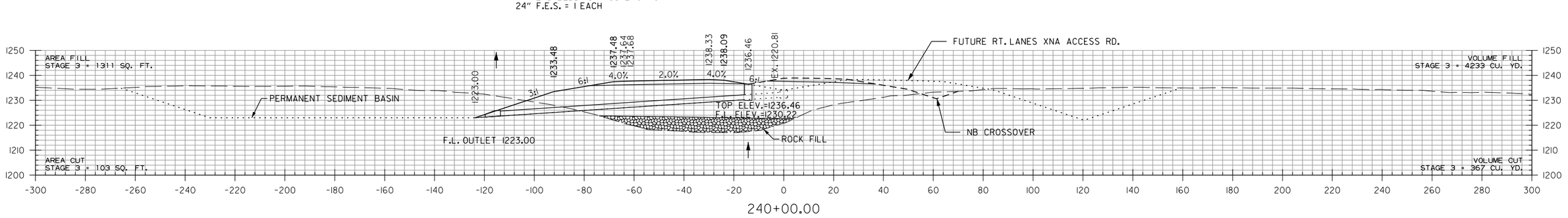
# XNA ACCESS RD.
# STA. 236+00 TO STA. 238+00


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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 493 | 583 |
| | | CROSS SECTIONS | | | | |

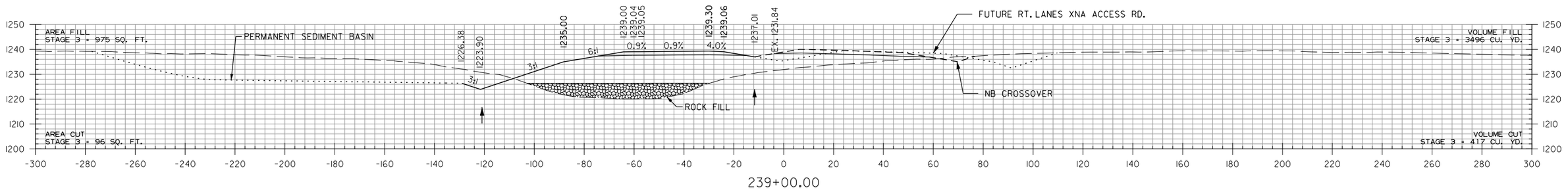



STA. 240+00 CONSTRUCT
DROP INLET 14' LT. H=6'-3"
WITH 24" x 98' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 4'X3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 98 LIN. FT.
24" F.E.S. = 1 EACH




STA. 239+18.00
END SP. DT. LT. -4.99%
ELEV. 1223.00

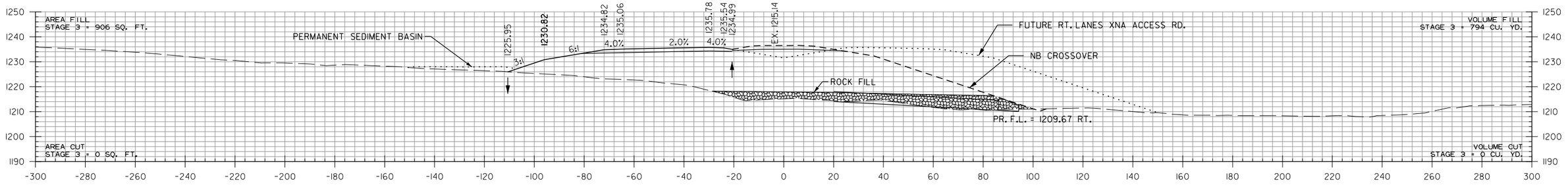
STA. 239+43.92 END SUPERELEVATION




XNA ACCESS RD.
STA. 239+00 TO STA. 241+00


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REVISED DATE:

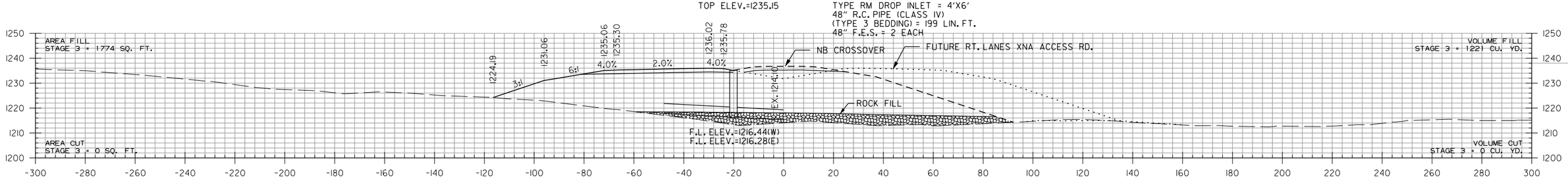
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 494 | 583 |
| | | CROSS SECTIONS | | | | |



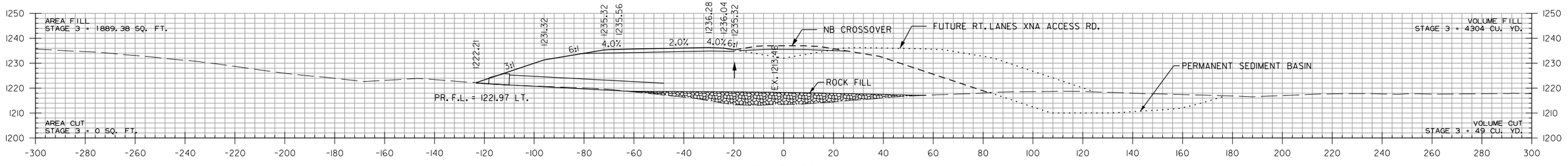

242+00.00

XNA 241+84 LT.
TOP ELEV.=1235.15

STA. 241+84 CONSTRUCT
DROP INLET 20' LT. H=18'-10"
WITH 48" x 91' PIPE INLET
FROM F.E.S. AT STA. 241+66 LT.
Q50 = 88 CFS DA = 39 ACRES
DUMPED RIPRAP = 52 CU.YD.
AND 48" x 108' PIPE OUTLET
TO F.E.S. AT STA. 241+84 RT.
11°RT. FWD. SKEW
TYPE RM DROP INLET = 4'X6'
48" R.C. PIPE (CLASS IV)
(TYPE 3 BEDDING) = 199 LIN. FT.
48" F.E.S. = 2 EACH




241+84.00

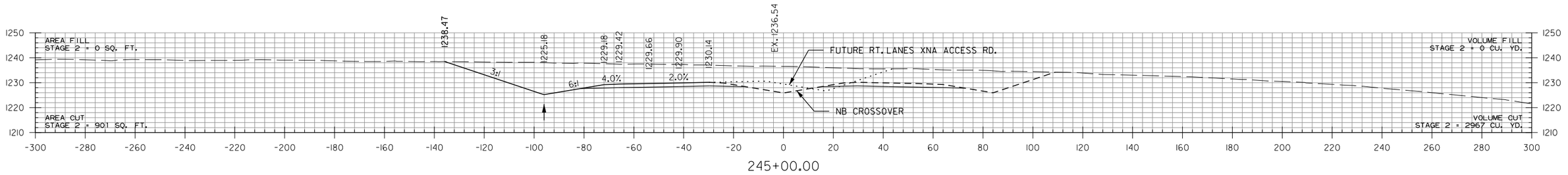



241+66.00

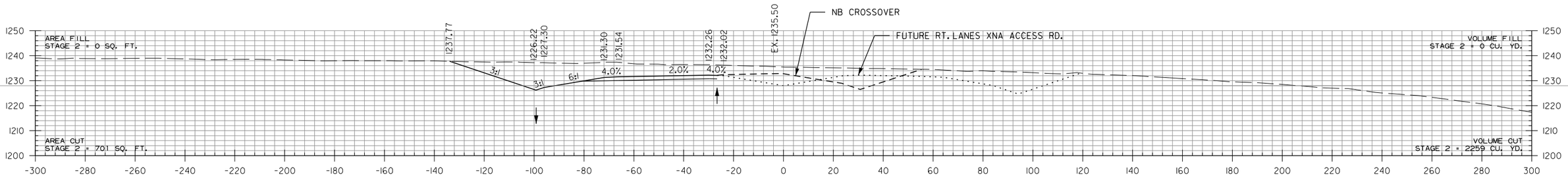
XNA ACCESS RD.
STA. 241+66 TO STA. 242+00

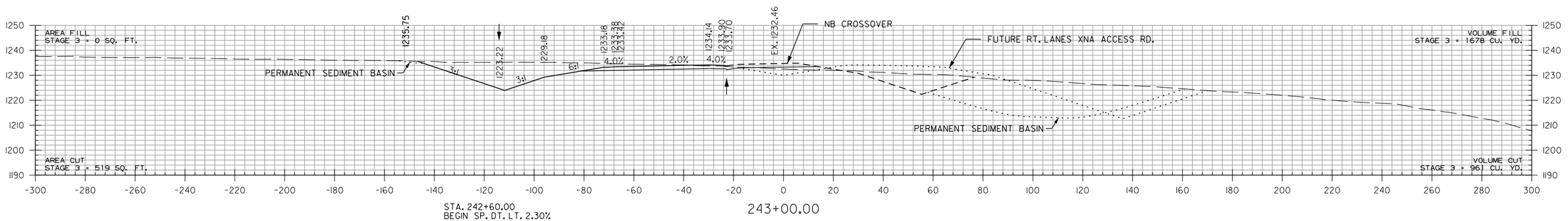

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 495 | 583 |
| | | CROSS SECTIONS | | | | |




STA. 244+25.00
END SP. DT. LT. 2.30%
ELEV. 1226.80



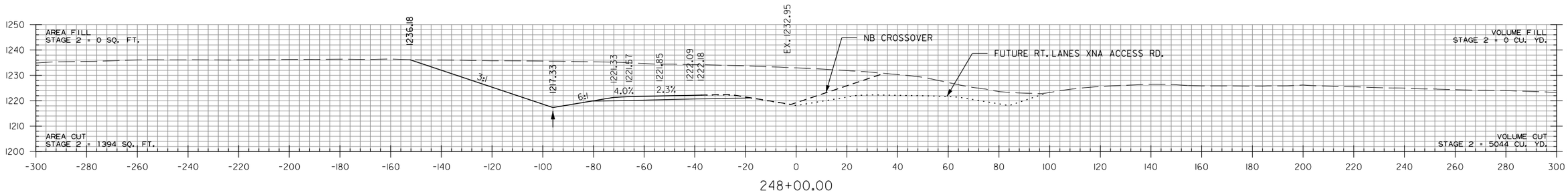




STA. 242+60.00
BEGIN SP. DT. LT. 2.30%
ELEV. 1223.00

XNA ACCESS RD.
STA. 243+00 TO STA. 245+00

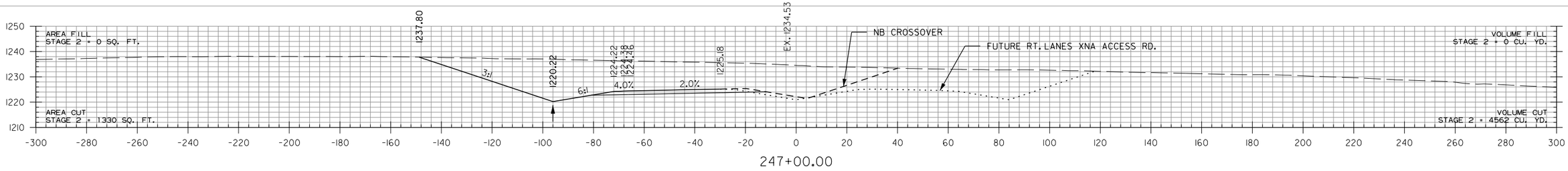
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 496 | 583 |
| | | CROSS SECTIONS | | | | |

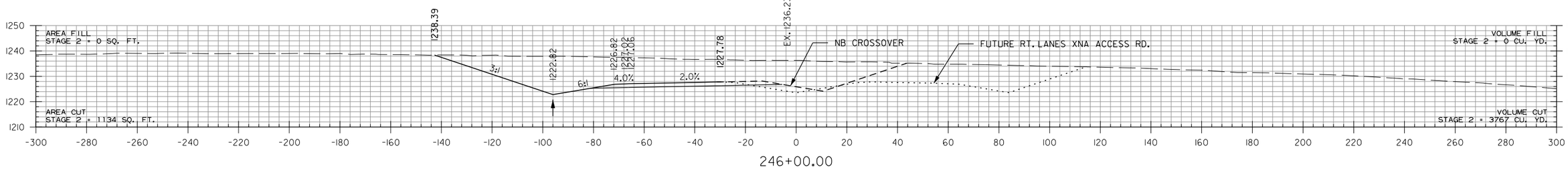



248+00.00

HWY. 264 RAMP 4 STA. 247+82.38 BEGIN SUPERELEVATION




247+00.00



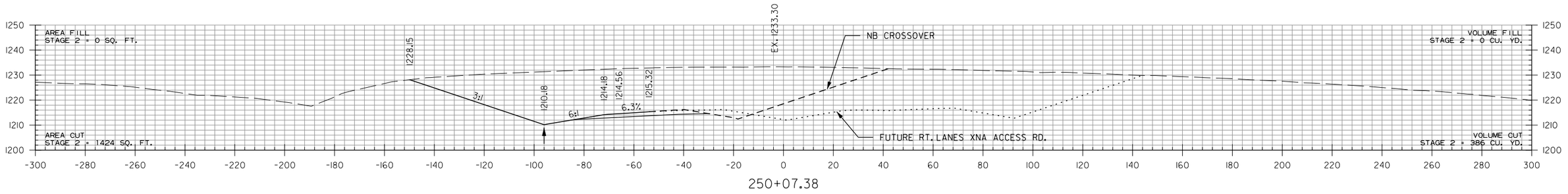

246+00.00

XNA ACCESS RD.
STA. 246+00 TO STA. 248+00

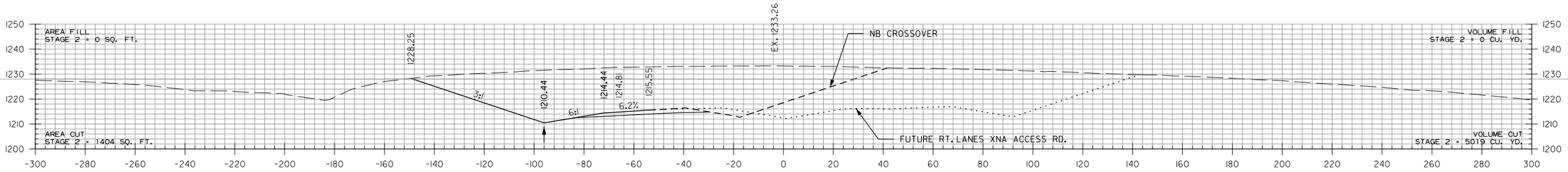

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 497 | 583 |
| | | CROSS SECTIONS | | | | |

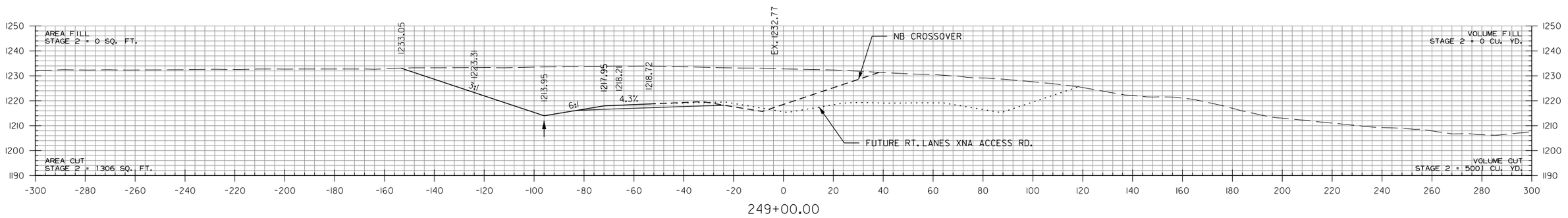
HWY. 264 RAMP 4 STA. 250+82.38 MAX. SUPERELEVATION (0.078'/')




250+07.38




250+00.00

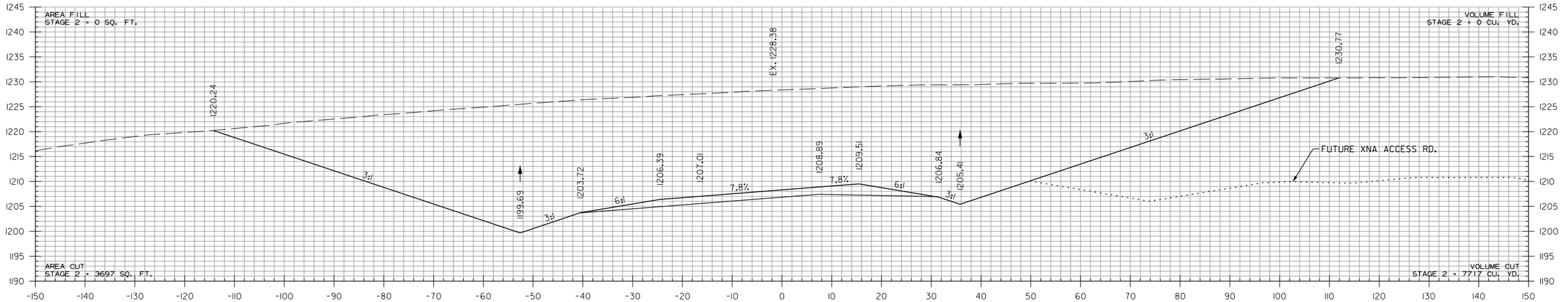



249+00.00

XNA ACCESS RD.
STA. 249+00 TO STA. 250+07.38

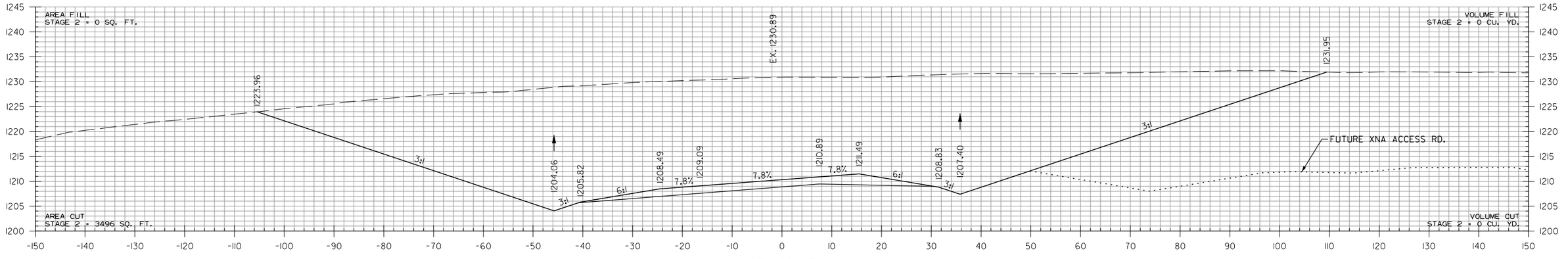

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 498 | 583 |
| | | CROSS SECTIONS | | | | |




252+00.00

STA. 251+50.00
BEGIN SP. DT. LT. -8.48%
ELEV. 1203.93




251+42.07

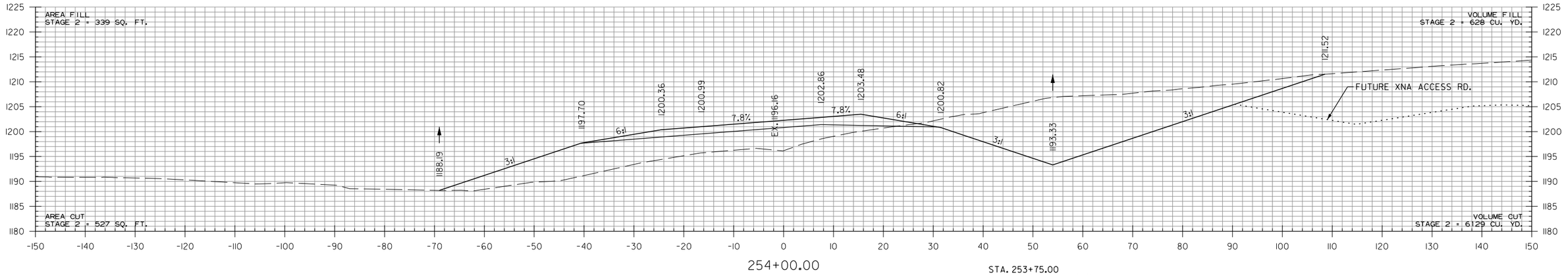
STA. 250+82.38 MAX. SUPERELEVATION (0.078'/')

STA. 247+82.38 BEGIN SUPERELEVATION

HWY. 264 RAMP 4
STA. 251+42.07 TO STA. 252+00

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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 499 | 583 |
| | | CROSS SECTIONS | | | | |

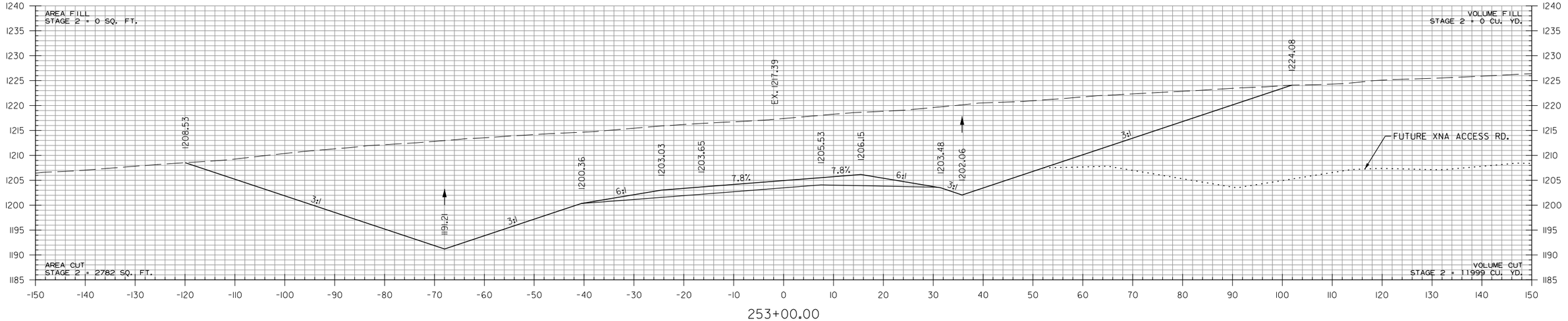



254+00.00

STA. 253+75.00
END SP. DT. RT. -5.97%
BEGIN SP. DT. RT. -18.78%
ELEV. 1198.03

STA. 253+26.00
END SP. DT. LT. -8.48%
ELEV. 1189.00

STA. 253+15.00
BEGIN SP. DT. RT. -5.97%
ELEV. 1201.60

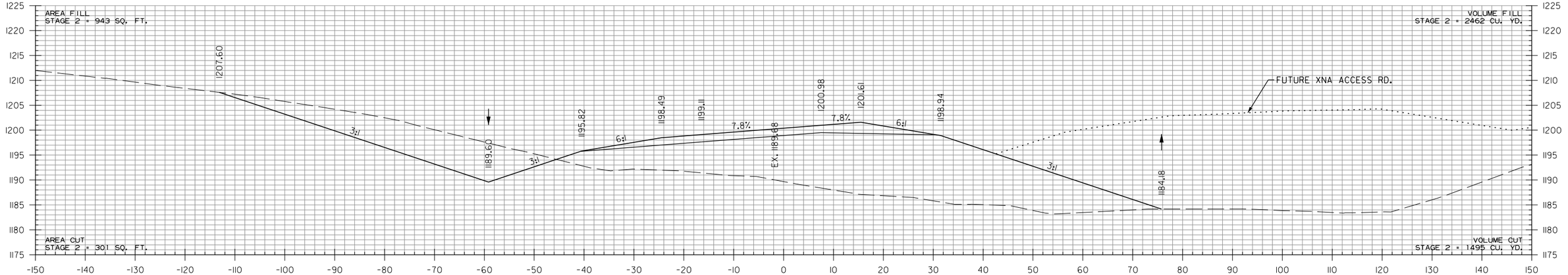



253+00.00

HWY. 264 RAMP 4
STA. 253+00 TO STA. 254+00


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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 500 | 583 |
| | | CROSS SECTIONS | | | | |

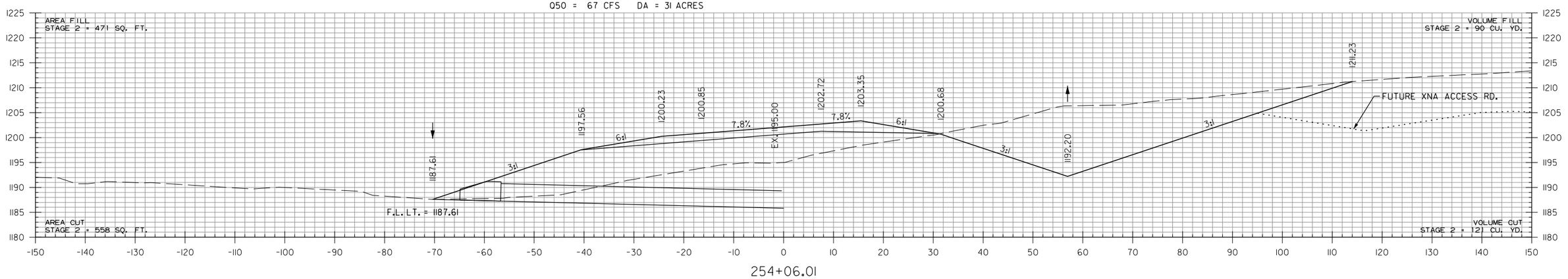



STA. 254+85.00
BEGIN SP. DT. LT. 2.66%
ELEV. 1189.00

255+00.00

STA. 254+55.00
END SP. DT. RT. -18.78%
ELEV. 1183.00

STA. 254+67 CONSTRUCT
42" X 167' R.C. PIPE CULVERT
49° RT. FWD. SKEW
(CLASS V) (TYPE 3 BEDDING)
WITH FES LT. AND RT.
Q50 = 67 CFS DA = 31 ACRES



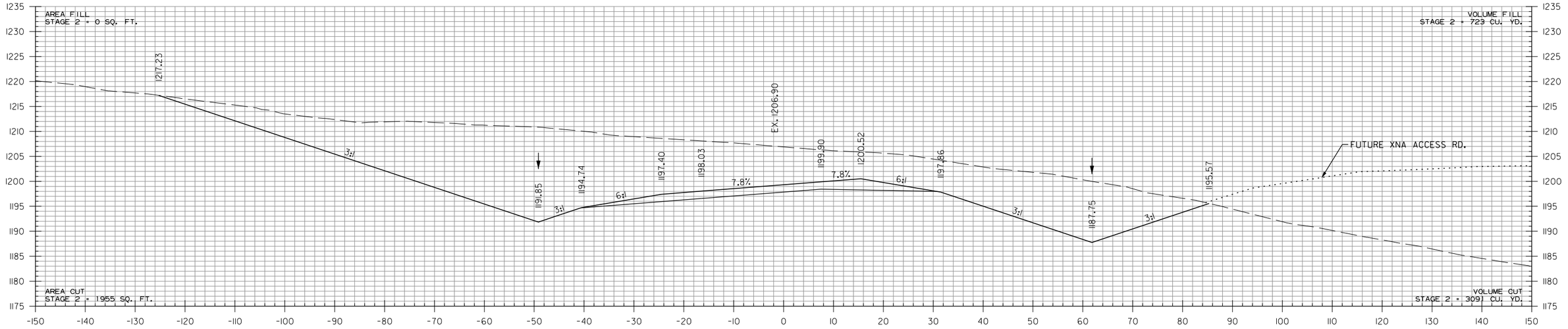

254+06.01

HWY. 264 RAMP 4
STA. 254+06 TO STA. 255+00

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 501 | 583 |
| | | CROSS SECTIONS | | | | |

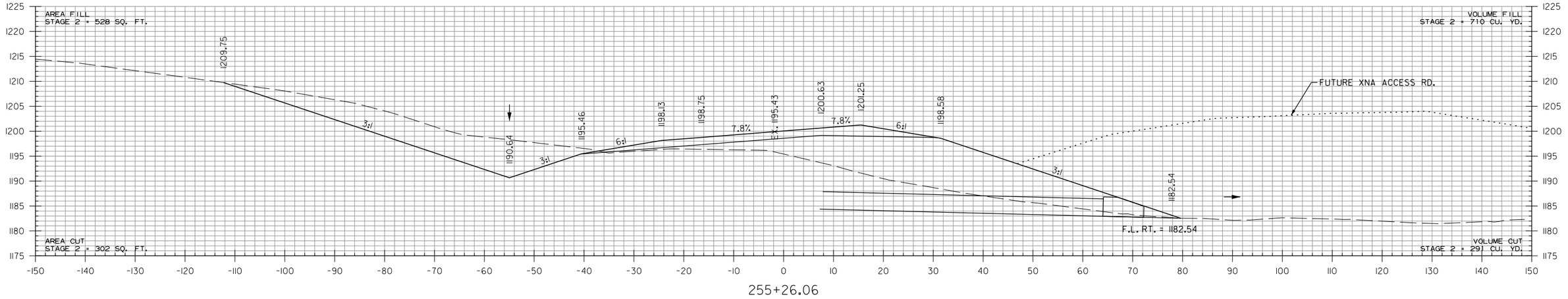
STA. 256+25.00
END SP. DT. RT. 25.00%
BEGIN SP. DT. RT. 2.93%
ELEV. 1194.00




256+00.00

STA. 255+50
END SP. DT. LT. 2.66%
BEGIN SP. DT. LT. 0.50%
ELEV. 1191.60

STA. 255+50.00
BEGIN SP. DT. RT. 25.00%
ELEV. 1183.58



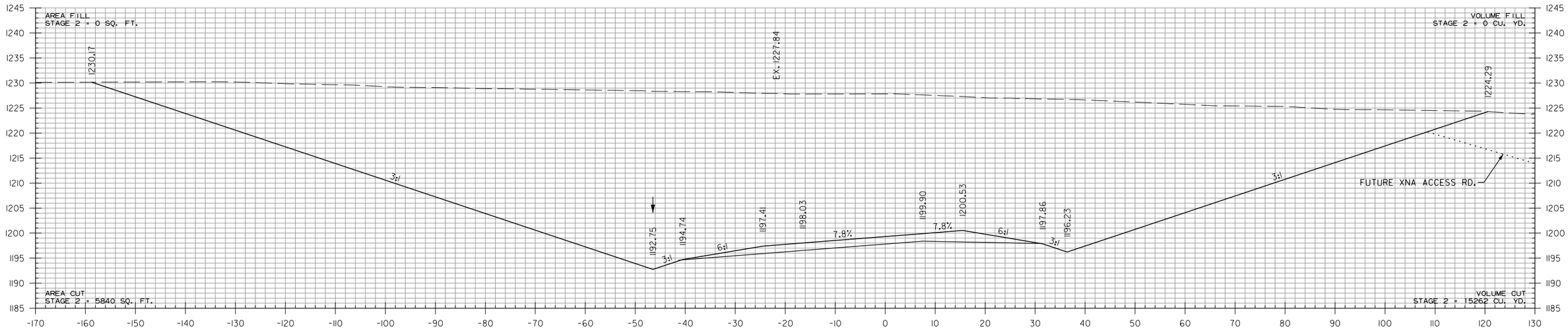

255+26.06

HWY. 264 RAMP 4
STA. 255+26.06 TO STA. 256+00

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 502 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 260+78.94 END SUPERELEVATION

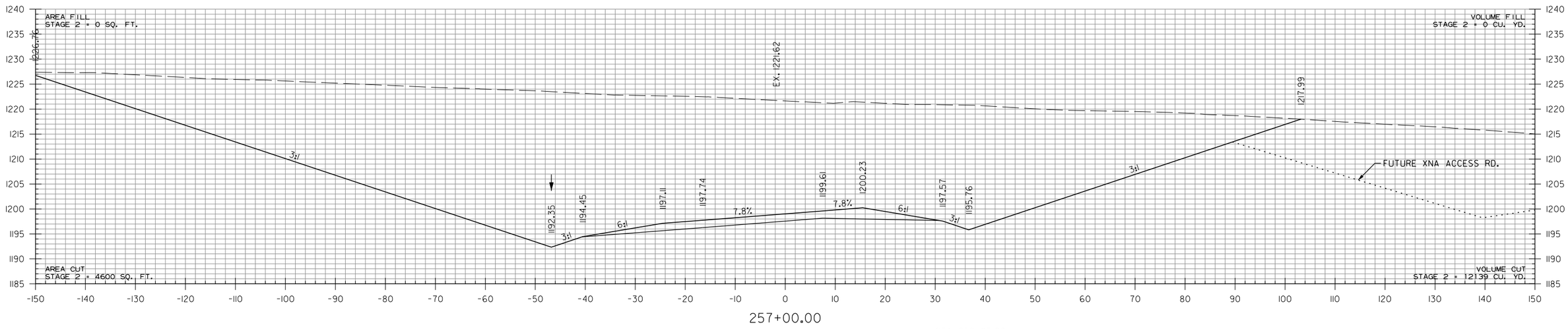



257+78.94

STA. 257+78.94
END SP. DT. LT. 0.50%
ELEV. 1192.75

STA. 257+78.94 MAX. SUPERELEVATION (0.078'/')

STA. 257+78.94
END SP. DT. RT. 0.50%
ELEV. 1196.23



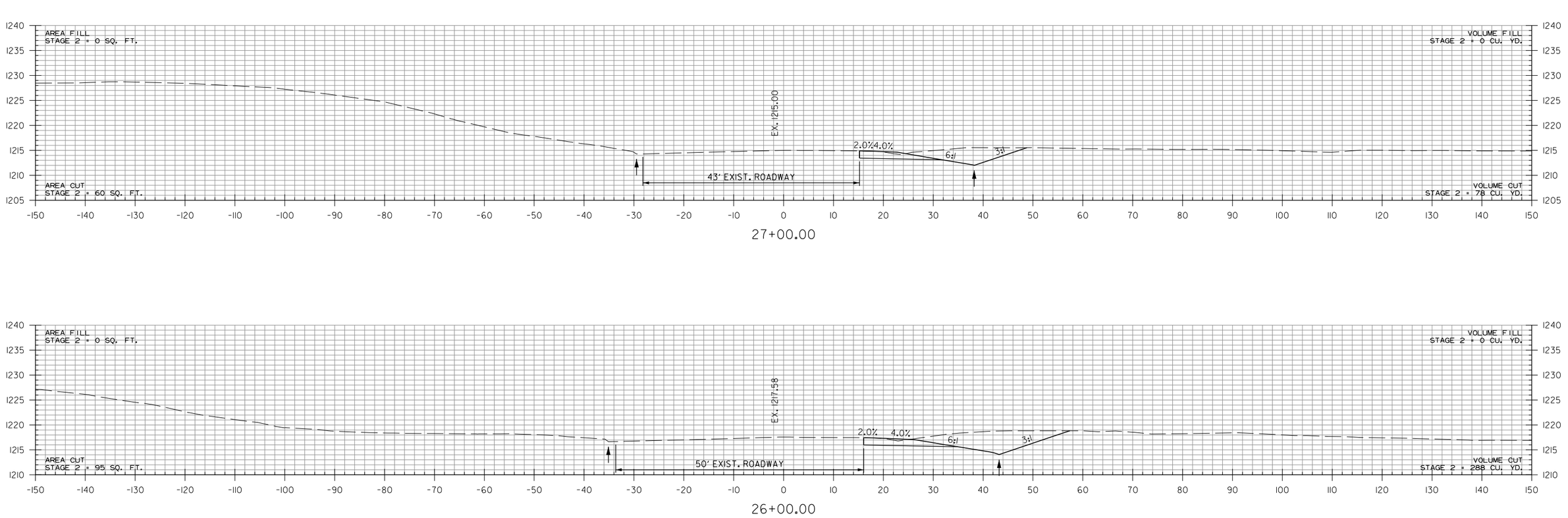

257+00.00

STA. 256+85.00
END SP. DT. RT. 2.93%
BEGIN SP. DT. RT. 0.50%
ELEV. 1195.76

HWY. 264 RAMP 4
STA. 257+00 TO STA. 257+78.94


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REVISED DATE:

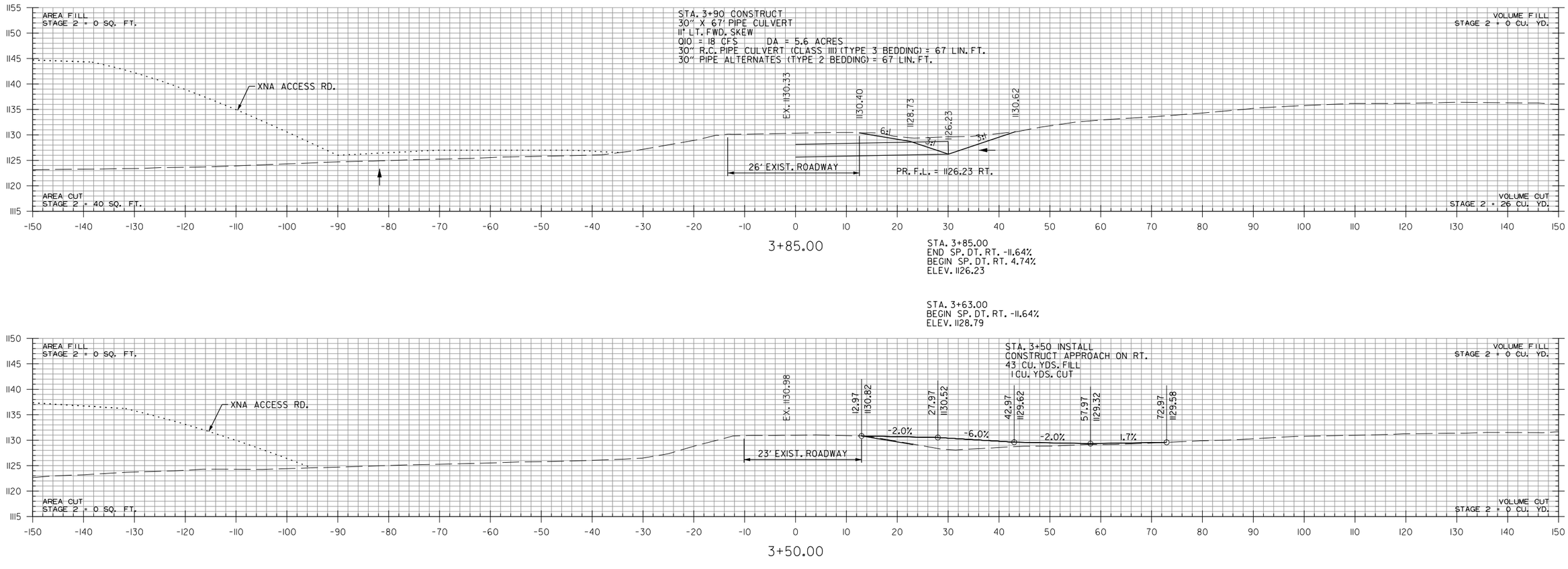
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 503 | 583 |
| | | CROSS SECTIONS | | | | |




HWY. 264
STA. 26+00 TO STA. 27+00

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REVISED DATE:

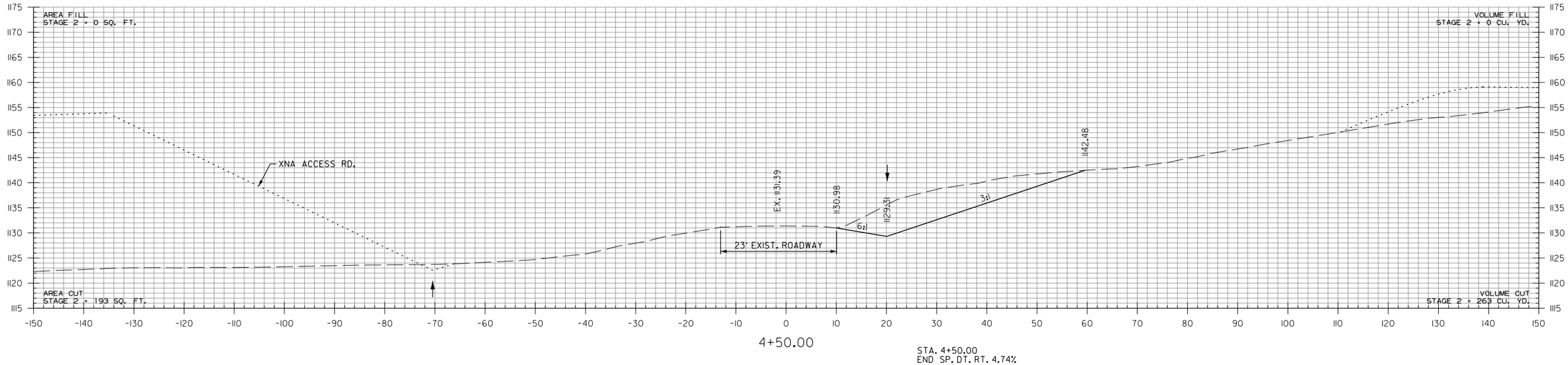
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 504 | 583 |
| | | CROSS SECTIONS | | | | |




WAGER DR.
STA. 3+00 TO STA. 3+85

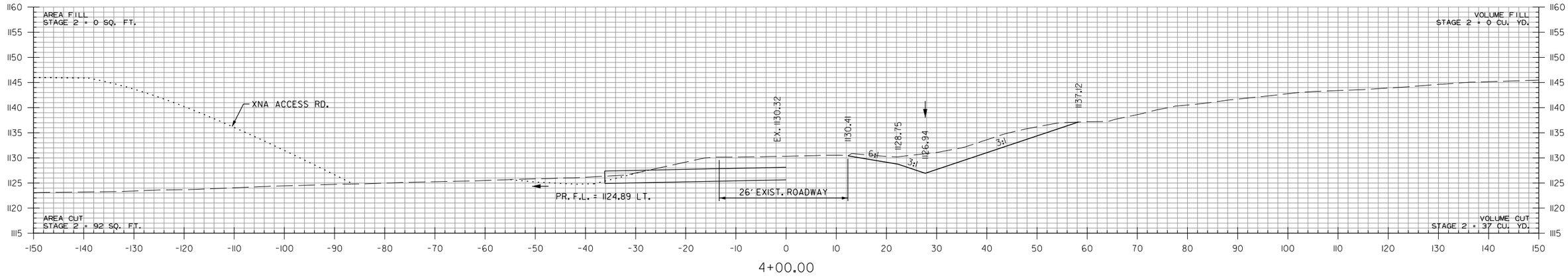
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 505 | 583 |
| | | CROSS SECTIONS | | | | |




4+50.00

STA. 4+50.00
END SP. DT. RT. 4.74%
ELEV. 1129.31

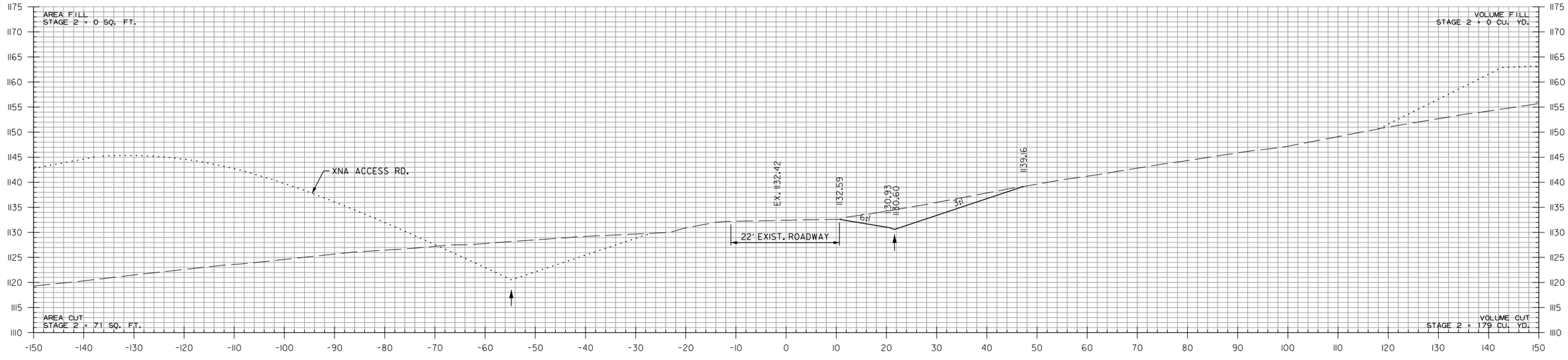



4+00.00

WAGER DR.
STA. 4+00 TO STA. 4+50

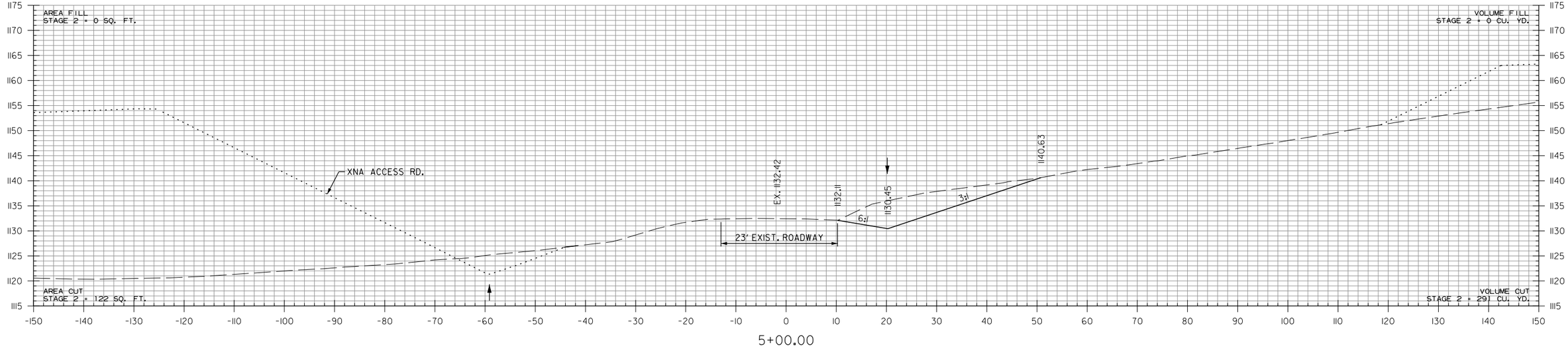
aewierciak 10/20/2023 12:56:30 PM
WORKSPACE: AHTD
L:\20\TN\170\7600 - XNA Access - NEPA\Drawings\r090069_CX_WAGER DR.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 506 | 583 |
| | | CROSS SECTIONS | | | | |




5+50.00

STA. 5+40.00
BEGIN SP. DT. RT. -3.86%
ELEV. 1130.99

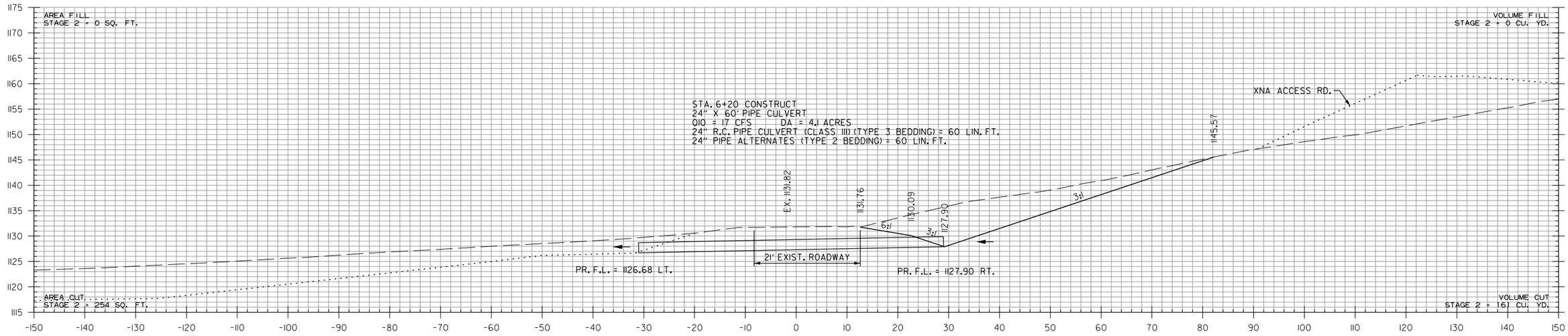



5+00.00

WAGER DR.
STA. 5+00 TO STA. 5+50

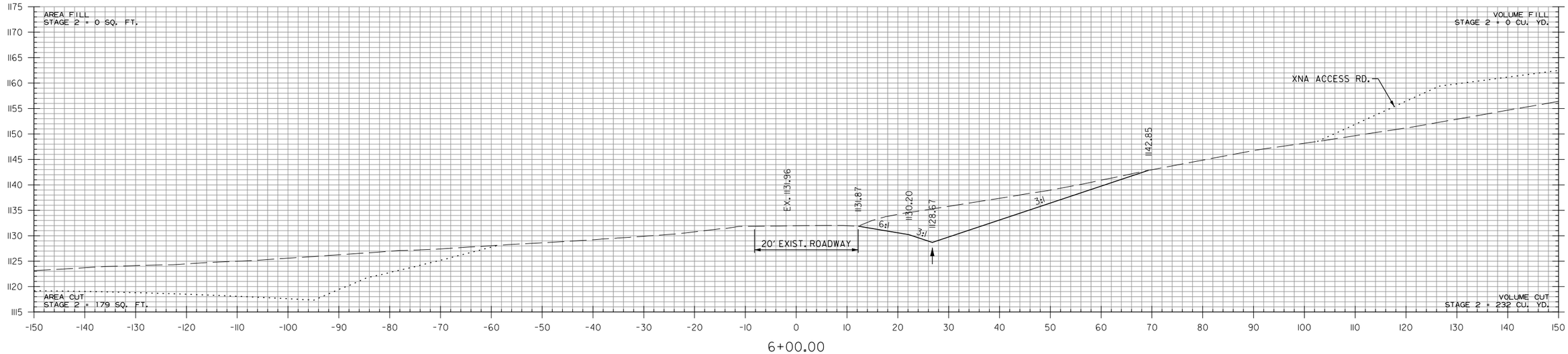
oewierclak 10/20/2023 12:56:30 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 507 | 583 |
| | | CROSS SECTIONS | | | | |




6+20.00

STA. 6+20.00
END SP. DT. RT. -3.86%
BEGIN SP. DT. RT. 3.80%
ELEV. 1127.90

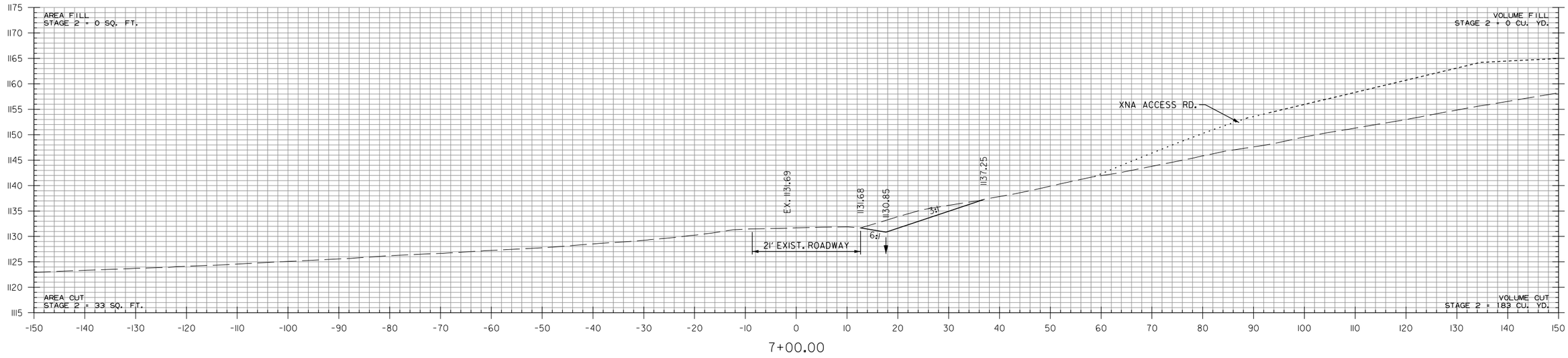



6+00.00

WAGER DR.
STA. 6+00 TO STA. 6+20

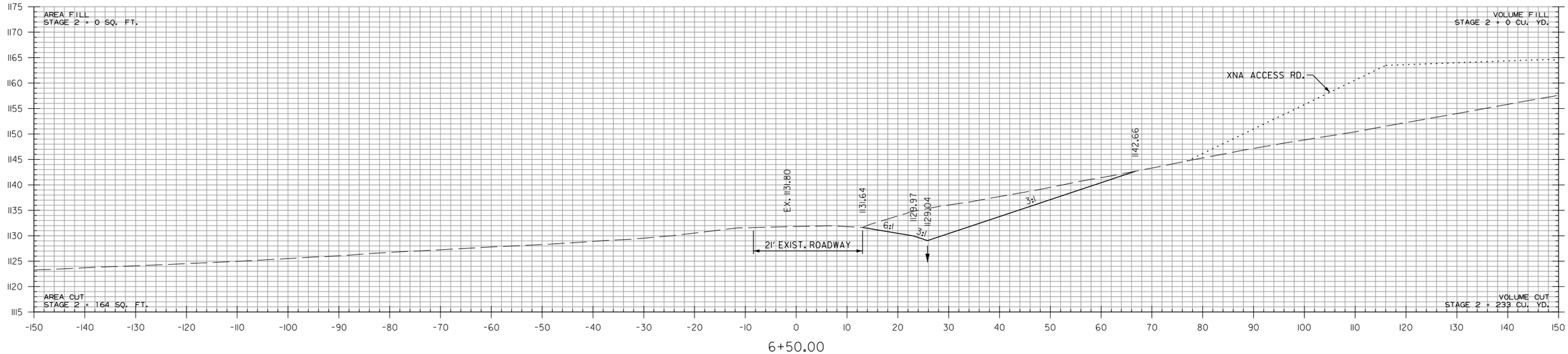
oewierclak 10/20/2023 12:56:30 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 508 | 583 |
| | | CROSS SECTIONS | | | | |




7+00.00

STA. 6+75.00
END SP. DT. RT. 3.80%
ELEV. 1129.99

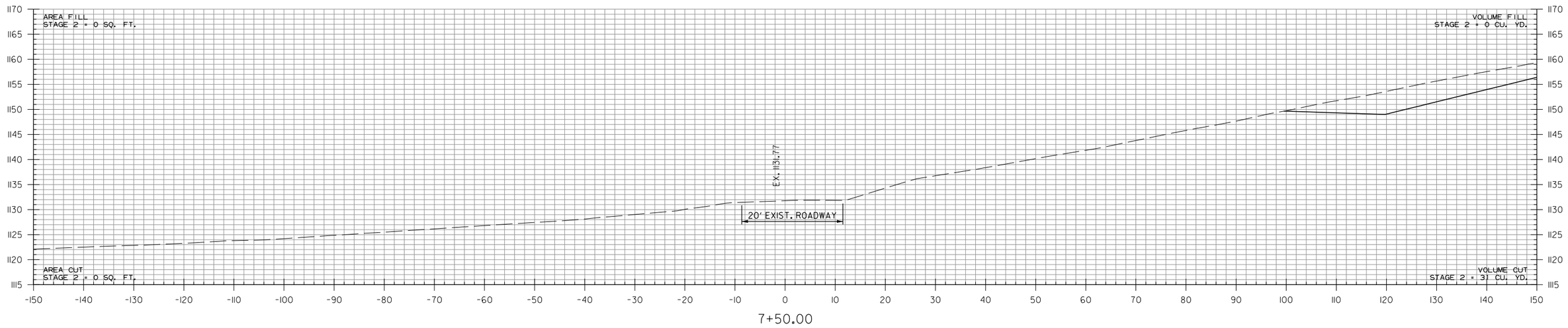



6+50.00

WAGER DR.
STA. 6+50 TO STA. 7+00

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WORKSPACE: AHTD
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REVISED DATE:

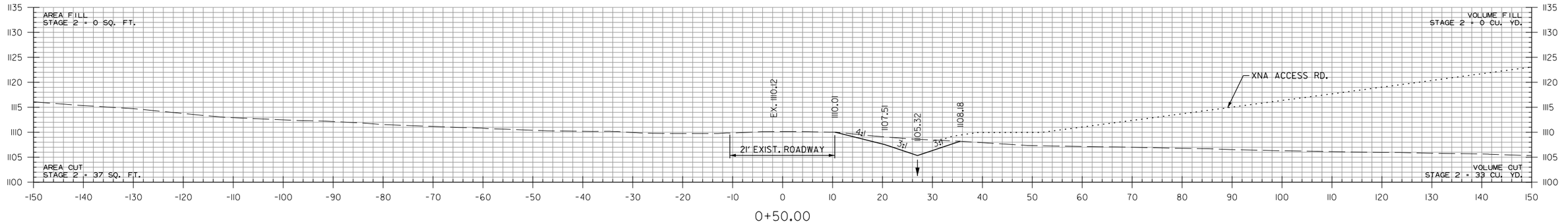
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 509 | 583 |
| | | CROSS SECTIONS | | | | |



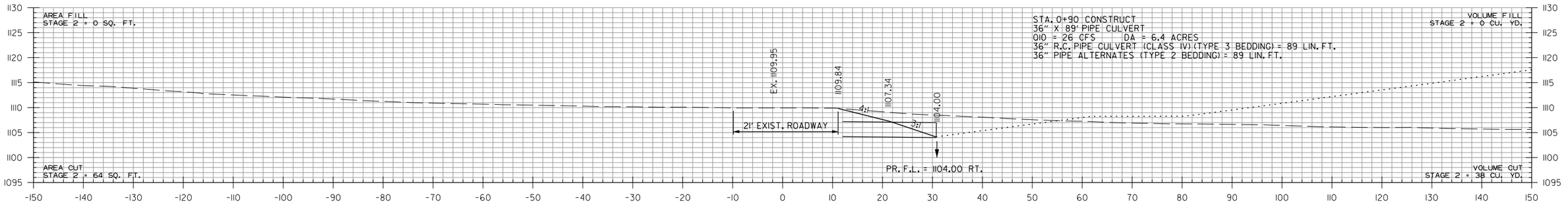

WAGER DR.
STA. 7+50 TO STA. 7+50


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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 510 | 583 |
| | | CROSS SECTIONS | | | | |



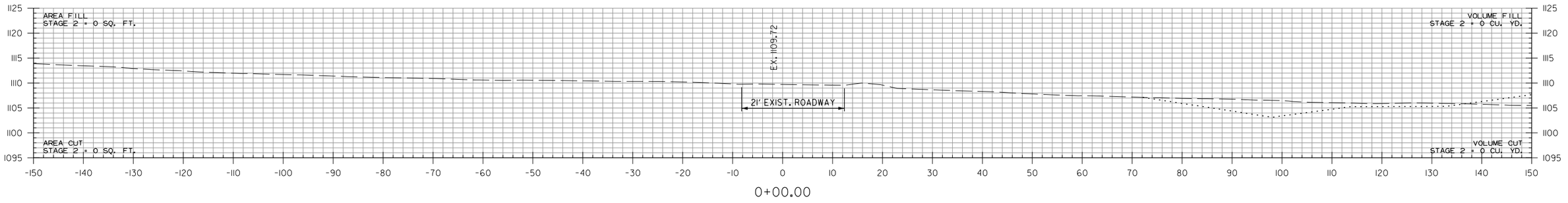

0+50.00




0+32.24

STA. 0+10.00
BEGIN SP. DT. RT. -14.50%
ELEV. 1107.13

STA. 0+31.60
END SP. DT. RT. -14.50%
BEGIN SP. DT. RT. 7.19%
ELEV. 1104.00

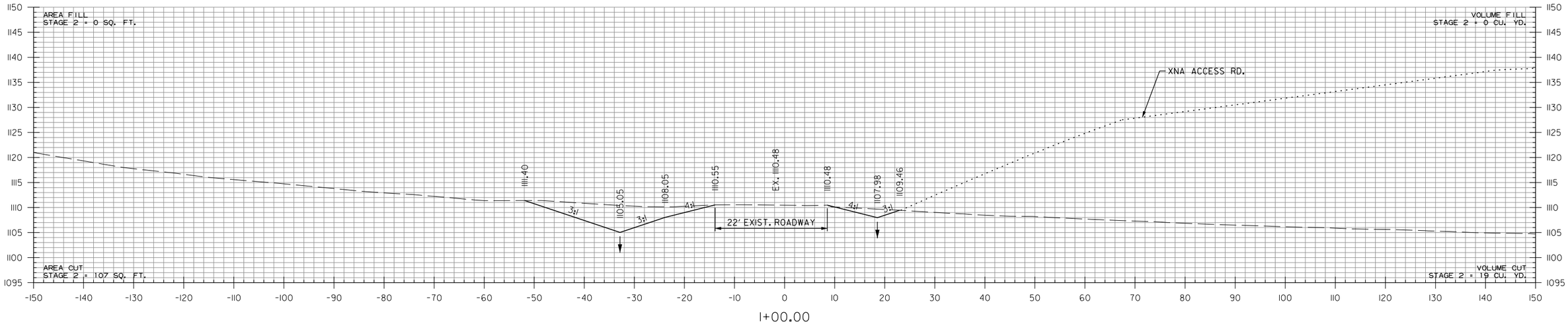



0+00.00

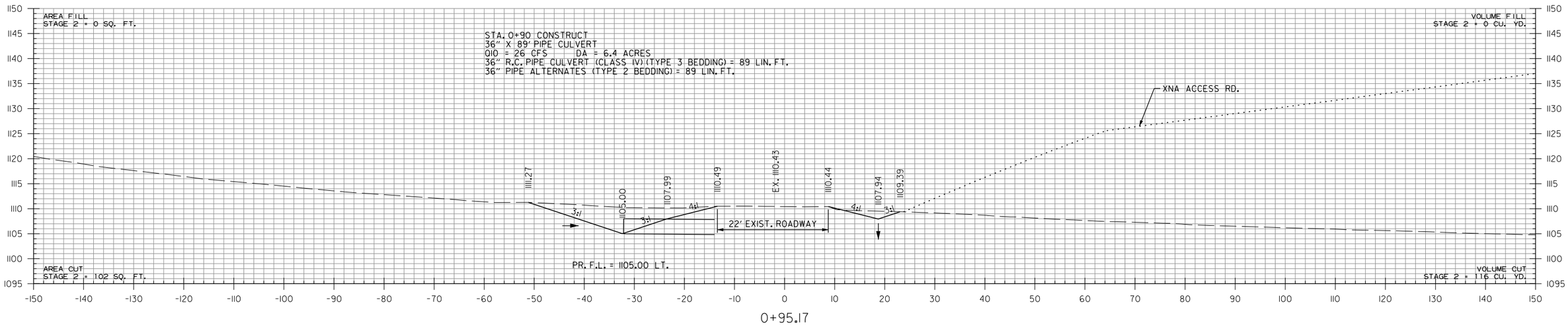
HADEN RD.
STA. 0+00 TO STA. 0+50

aewierciak 10/20/2023 12:56:31 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 511 | 583 |
| | | CROSS SECTIONS | | | | |




1+00.00




0+95.17

STA. 0+94.70
END SP. DT. LT. -13.95%
BEGIN SP. DT. LT. 1.00%
ELEV. 1105.00

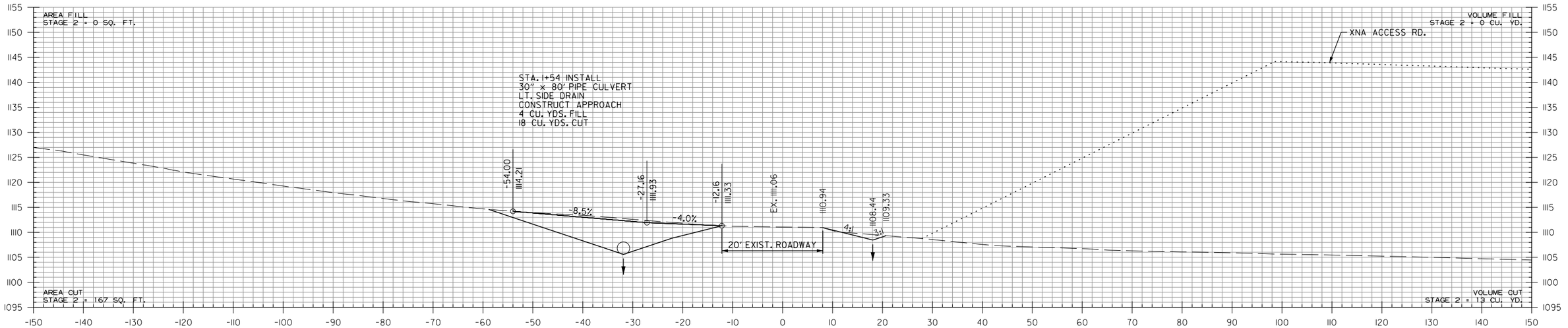
STA. 0+75.00
BEGIN SP. DT. LT. -13.95%
ELEV. 1107.75

STA. 0+85.00
END SP. DT. RT. 7.19%
ELEV. 1107.84

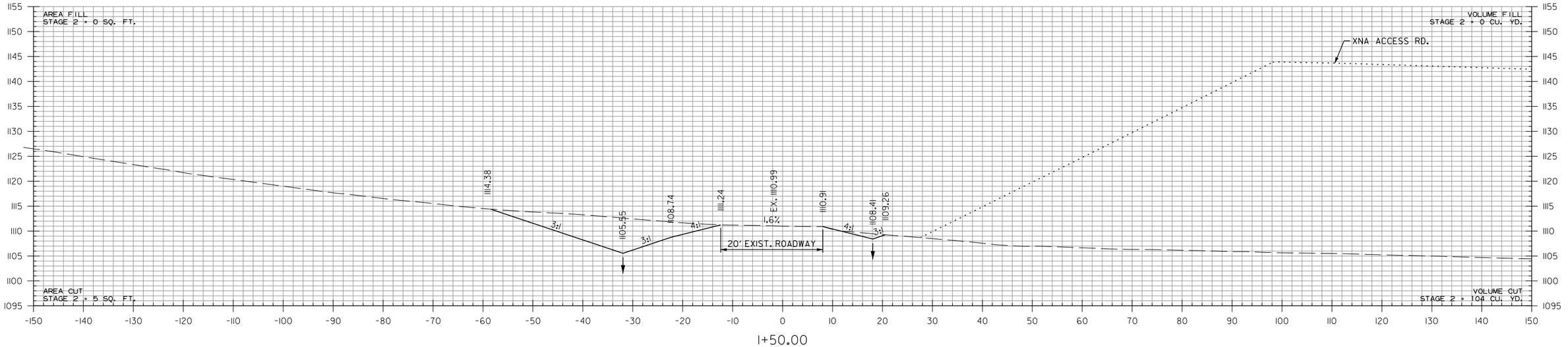
HADEN RD.
STA. 0+95.17 TO STA. 1+00

aewierciak 10/20/2023 12:56:31 PM
WORKSPACE: AHTD
L:\2017\170760 - XNA Access - NEPA\Drawings\r090069_CX_HADEN RD.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 512 | 583 |
| | | CROSS SECTIONS | | | | |




I+54.00

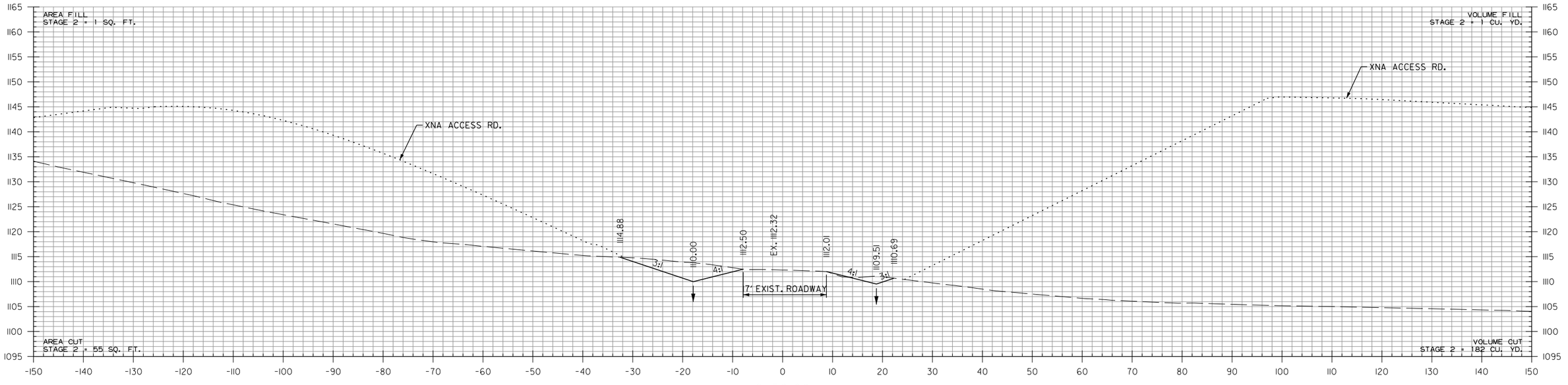



I+50.00

HADEN RD.
STA. I+50 TO STA. I+54

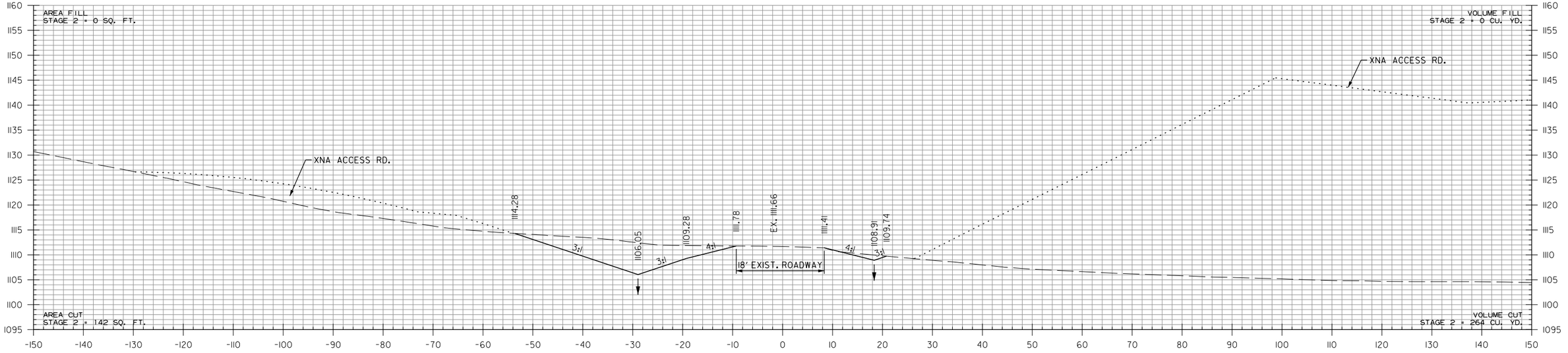
oewierciak 10/20/2023 12:56:31 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 513 | 583 |
| | | CROSS SECTIONS | | | | |




2+50.00

STA. 2+50.00
END SP. DT. LT. 7.88%
ELEV. 1110.00



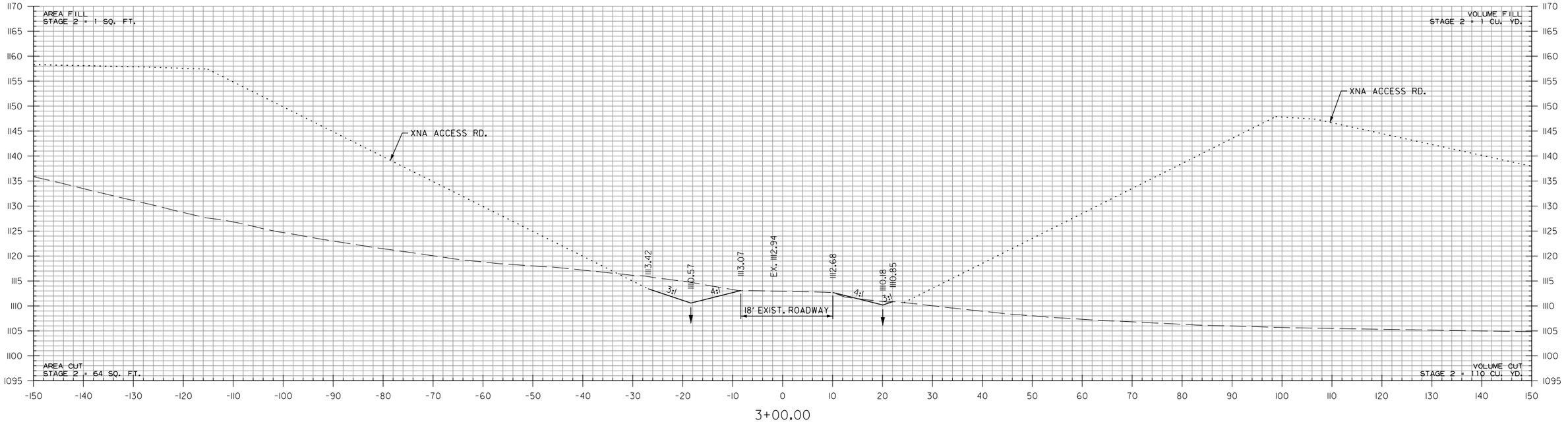

2+00.00

STA. 2+00.00
END SP. DT. LT. 1.00%
BEGIN SP. DT. LT. 7.88%
ELEV. 1106.05

HADEN RD.
STA. 2+00 TO STA. 2+50

aewierciak 10/20/2023 12:56:31 PM
WORKSPACE: AHTD
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REVISED DATE:

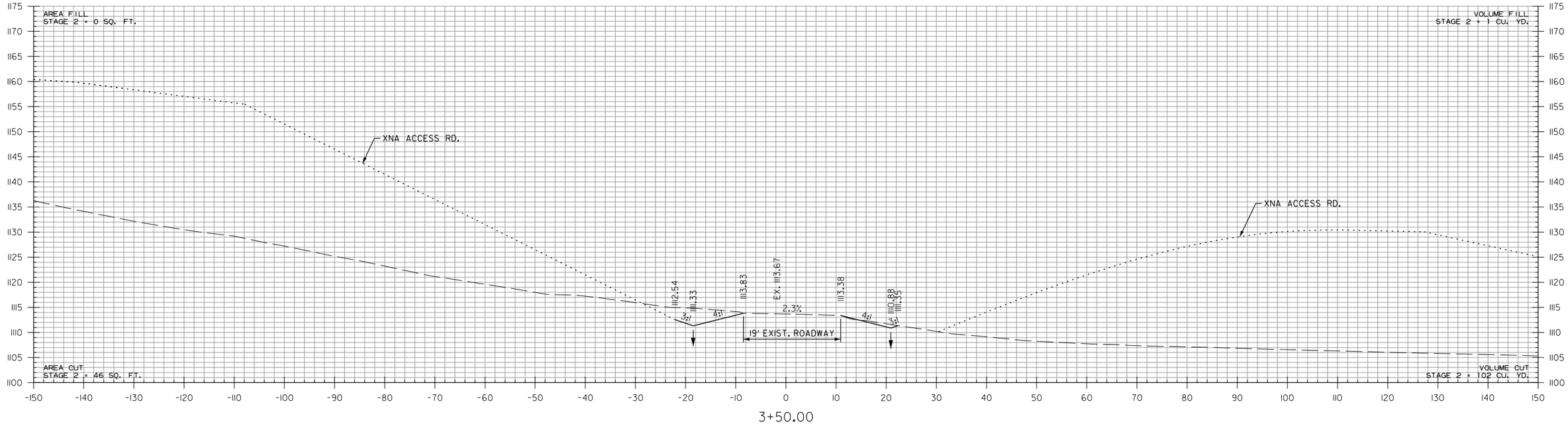
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 514 | 583 |
| | | CROSS SECTIONS | | | | |




HADEN RD.
STA. 3+00 TO STA. 3+00


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WORKSPACE: AHTD
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REVISED DATE:

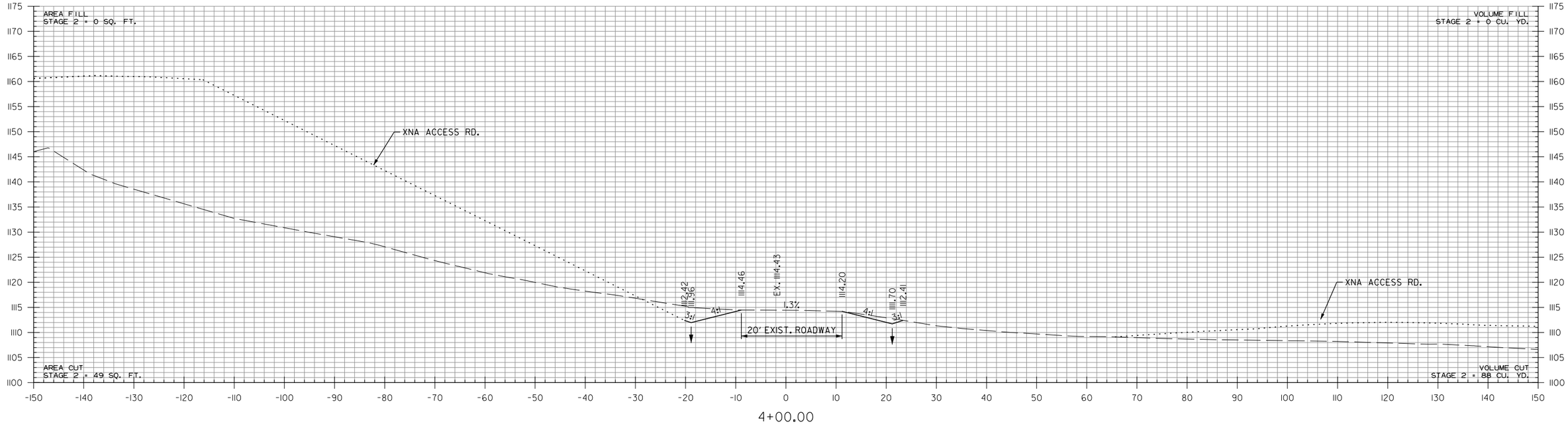
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 515 | 583 |
| | | CROSS SECTIONS | | | | |




HADEN RD.
STA. 3+50 TO STA. 3+50


aewierciak 10/20/2023 12:56:31 PM
WORKSPACE: AHTD
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REVISED DATE:

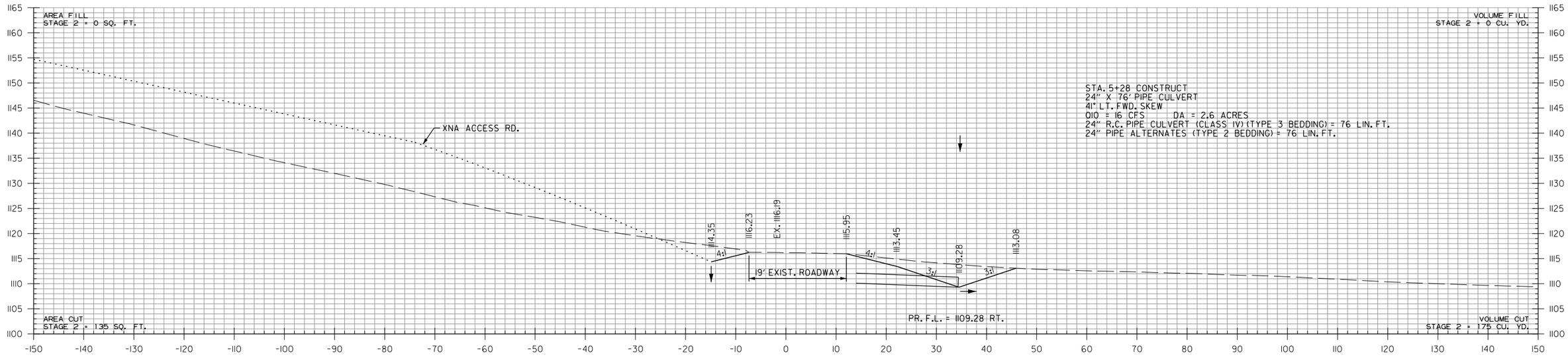
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 516 | 583 |
| | | CROSS SECTIONS | | | | |

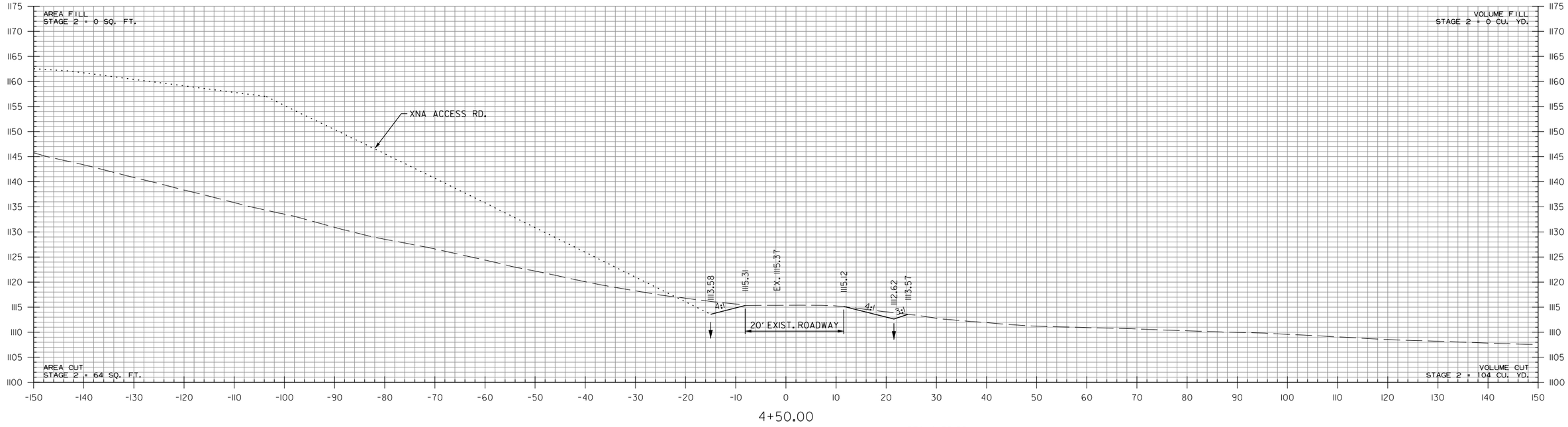



HADEN RD.
STA. 4+00 TO STA. 4+00


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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 517 | 583 |
| | | CROSS SECTIONS | | | | |

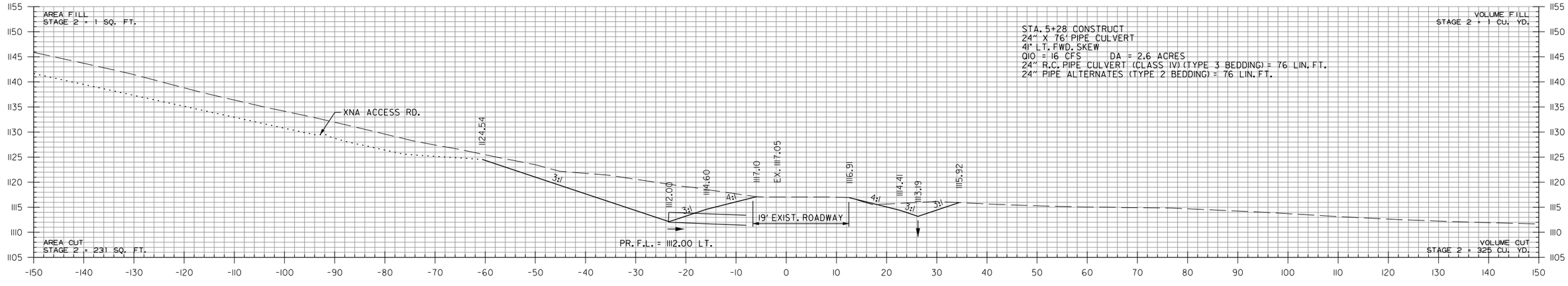



HADEN RD.
STA. 4+50 TO STA. 4+97.71


dewierclark 10/20/2023 12:56:31 PM
WORKSPACE: AHTD
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REVISED DATE:

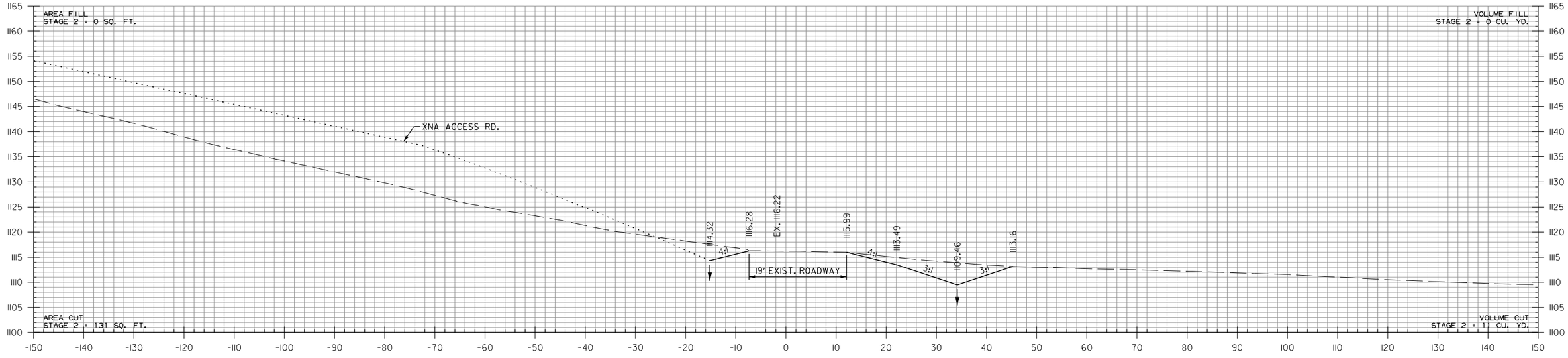
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 518 | 583 |
| | | CROSS SECTIONS | | | | |




5+48.50

STA. 5+35.70
END SP. DT. LT. -8.49%
BEGIN SP. DT. LT. 8.84%
ELEV. 1112.00

STA. 5+12.00
BEGIN SP. DT. LT. -8.49%
ELEV. 1114.01

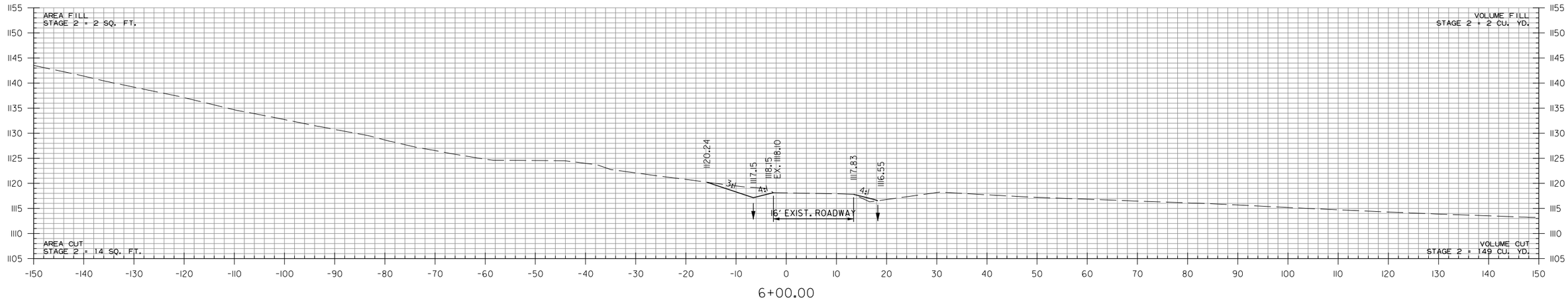



5+00.00

HADEN RD.
STA. 5+00 TO STA. 5+48.50

aewierciak 10/20/2023 12:56:32 PM
WORKSPACE: AHTD
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REVISED DATE:

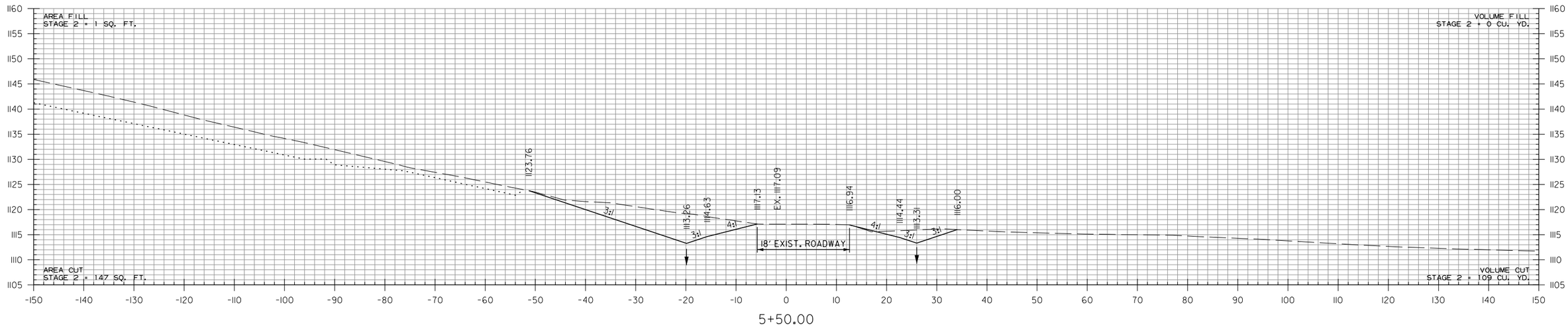
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 519 | 583 |
| | | CROSS SECTIONS | | | | |




6+00.00

STA. 5+70.00
END SP. DT. LT. 8.84%
ELEV. 1115.03

STA. 5+70.00
END SP. DT. RT. 7.69%
ELEV. 1114.85

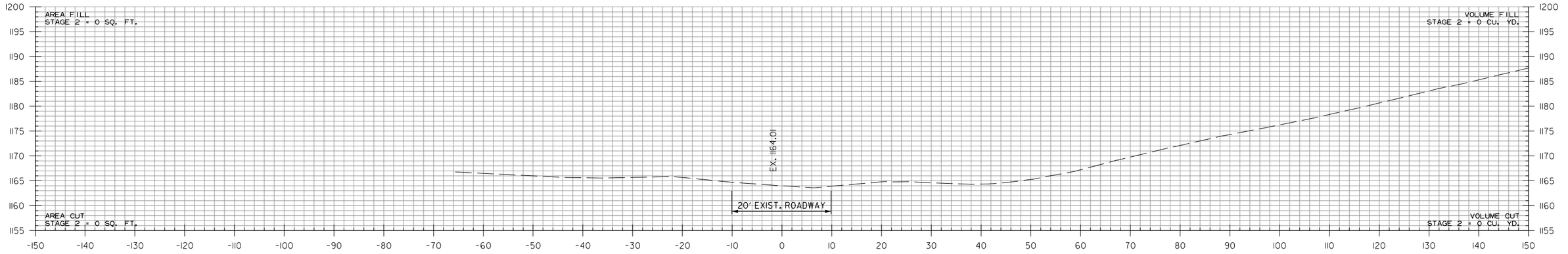



5+50.00

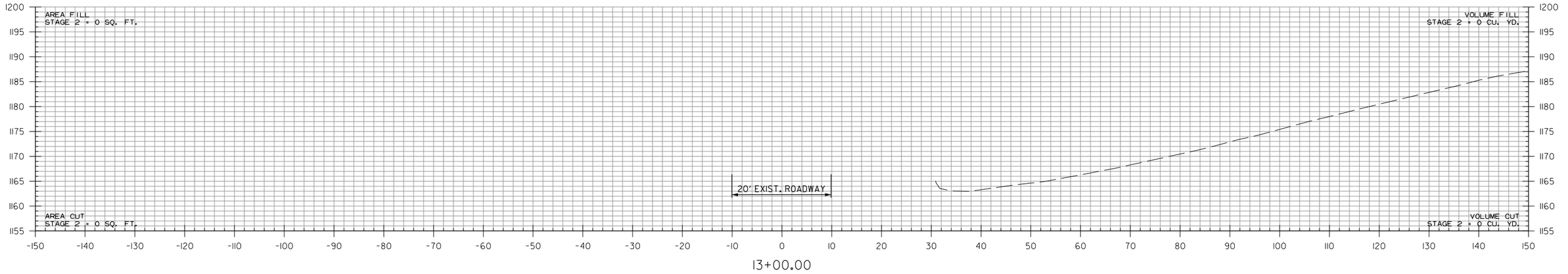
HADEN RD.
STA. 5+50 TO STA. 6+00


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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 520 | 583 |
| | | CROSS SECTIONS | | | | |




13+50.00

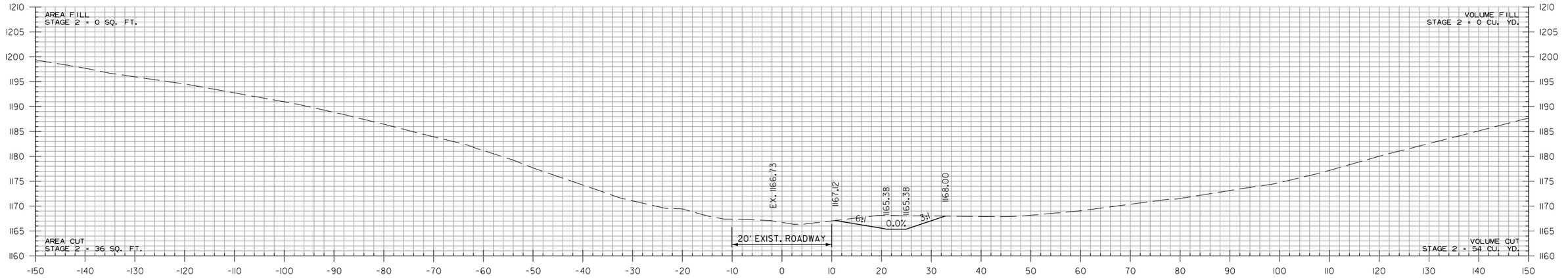



13+00.00

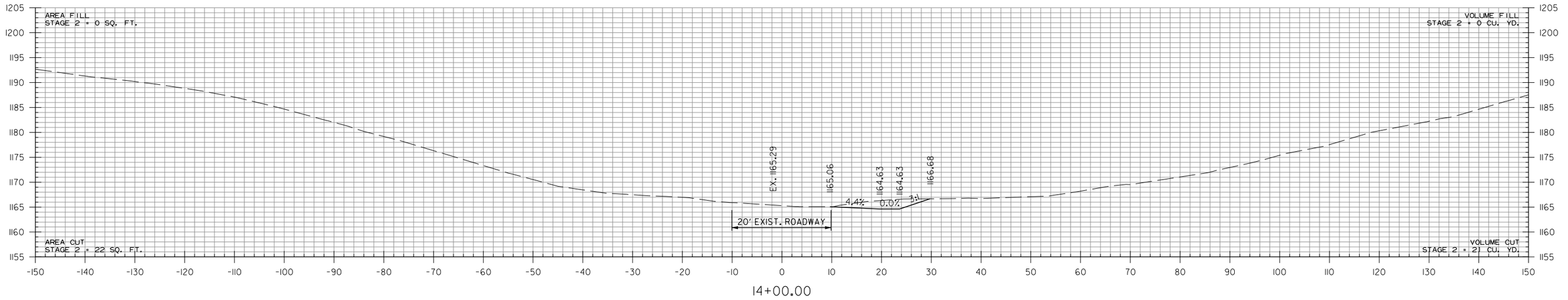
HOLMES RD.
STA. 13+00 TO STA. 13+50

oewiercjak 10/20/2023 12:56:32 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 521 | 583 |
| | | CROSS SECTIONS | | | | |




14+50.00



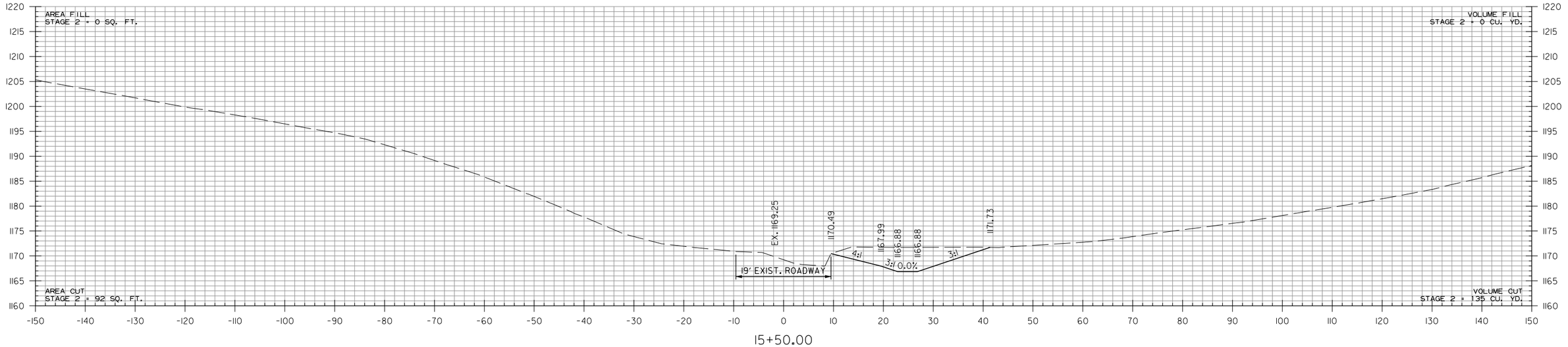

14+00.00

STA. 13+75.00
BEGIN SP. DT. RT. 1.50%
ELEV. 1164.25

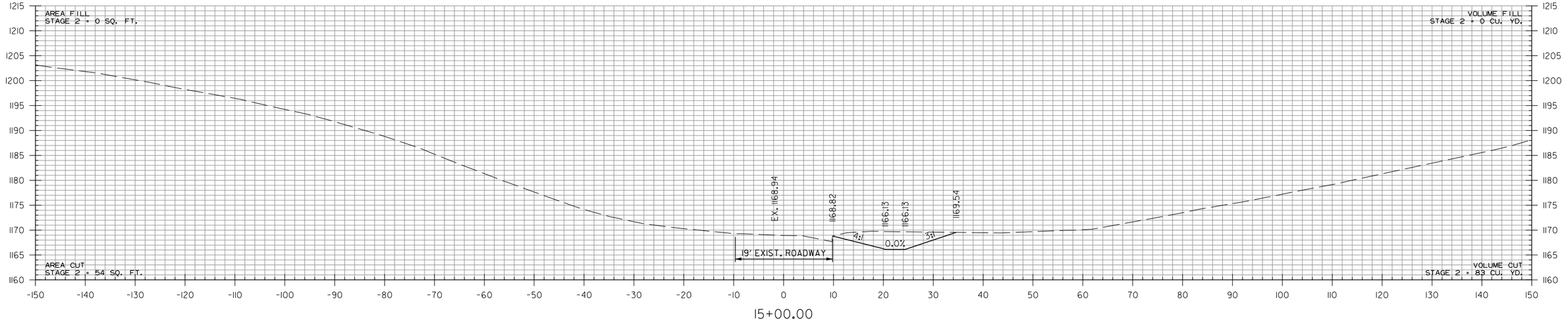
HOLMES RD.
STA. 14+00 TO STA. 14+50

oewiercjak 10/20/2023 12:56:32 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 522 | 583 |
| | | CROSS SECTIONS | | | | |




15+50.00

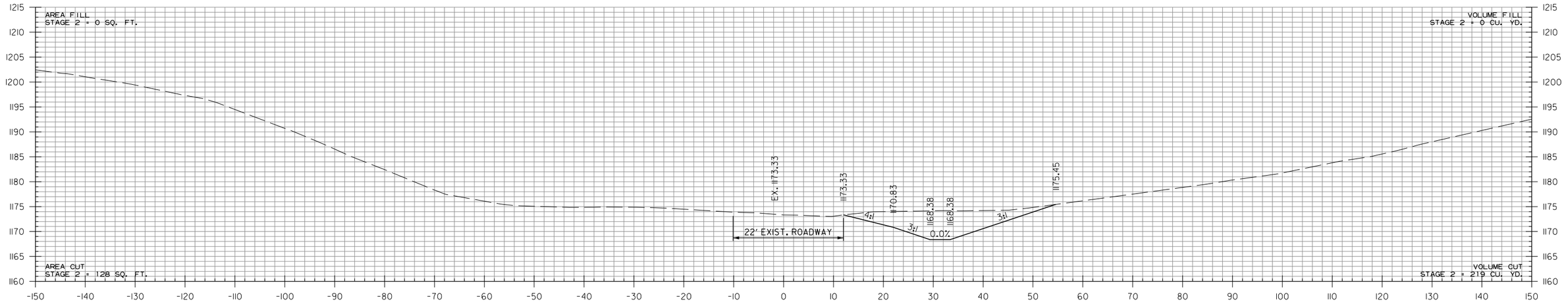



15+00.00

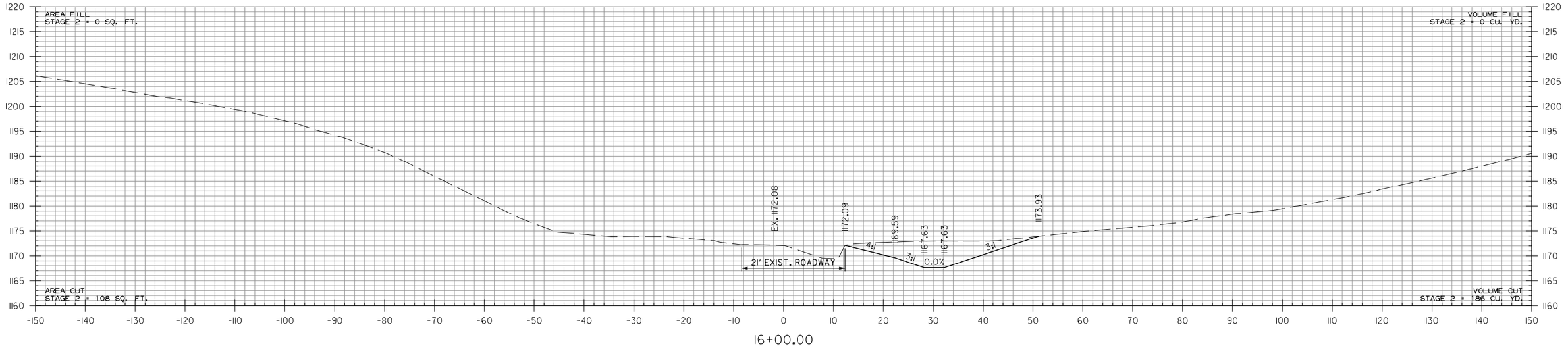
HOLMES RD.
STA. 15+00 TO STA. 15+50


aewierciak 10/20/2023 12:56:32 PM
WORKSPACE: AHTD
L:\2017\170\7600 - XNA Access - NEPA\Drawings\r090069_CX_HOLMES RD.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 523 | 583 |
| | | CROSS SECTIONS | | | | |




16+50.00

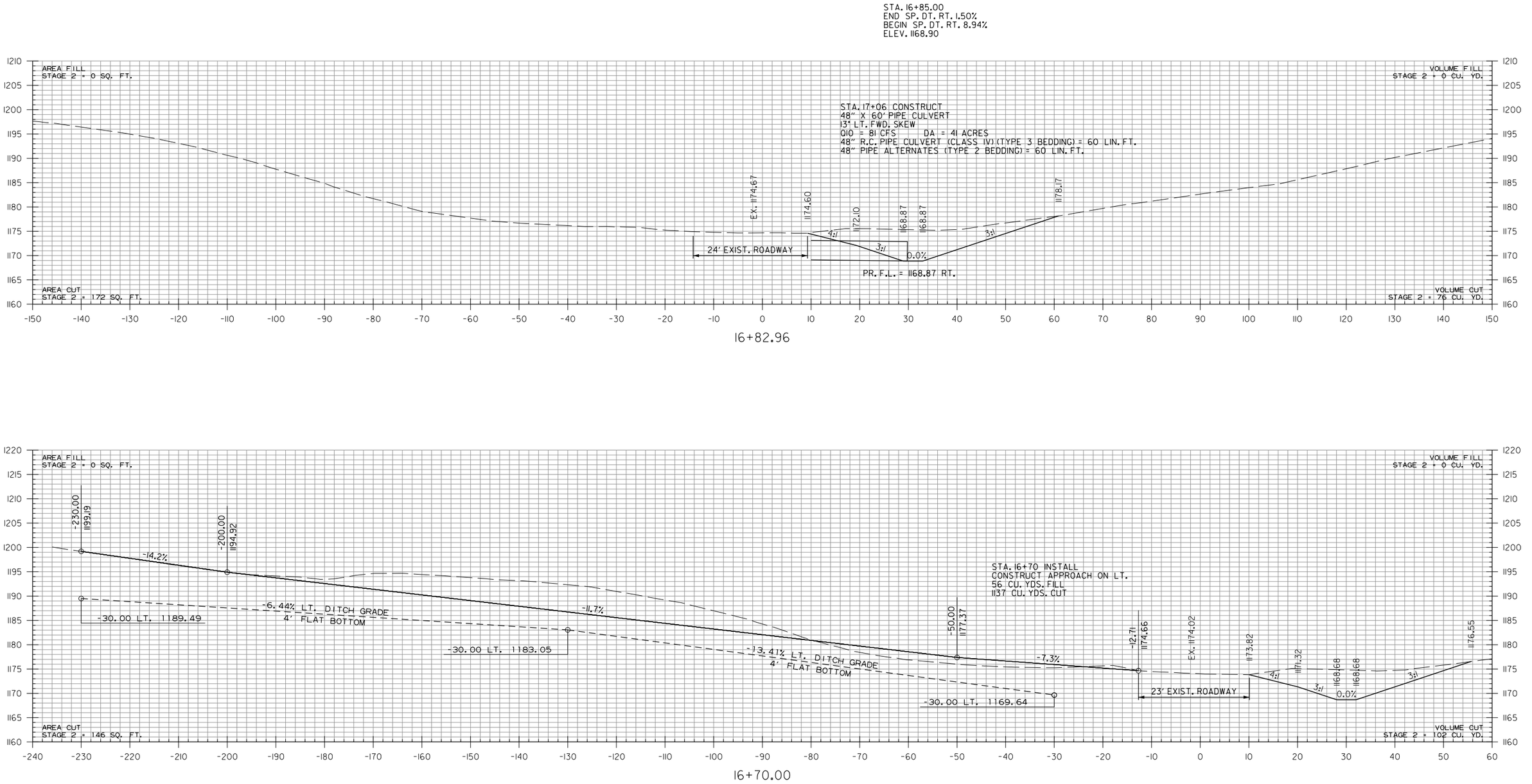



16+00.00

HOLMES RD.
STA. 16+00 TO STA. 16+50


oewierciak 10/20/2023 12:56:32 PM
WORKSPACE: AHTD
L:\2017\1701600 - XNA Access - NEPA\Drawings\r-090069-CX_HOLMES RD.dgn
REVISED DATE:

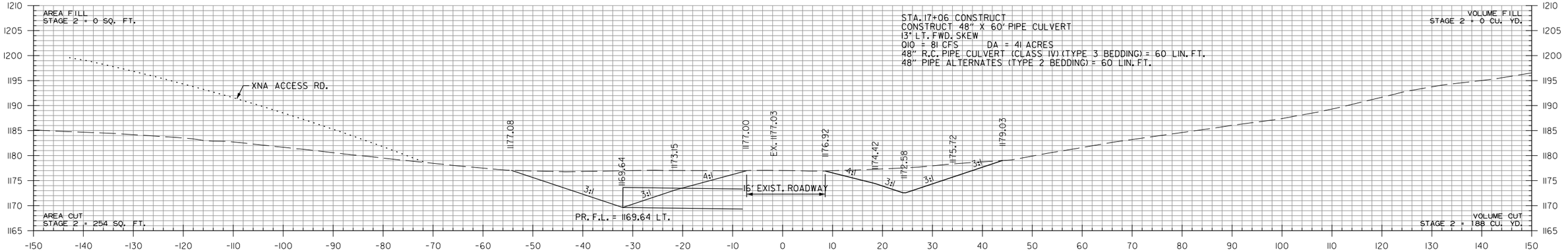
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 524 | 583 |
| | | CROSS SECTIONS | | | | |




HOLMES RD.
STA. 16+70 TO STA. 16+82.96

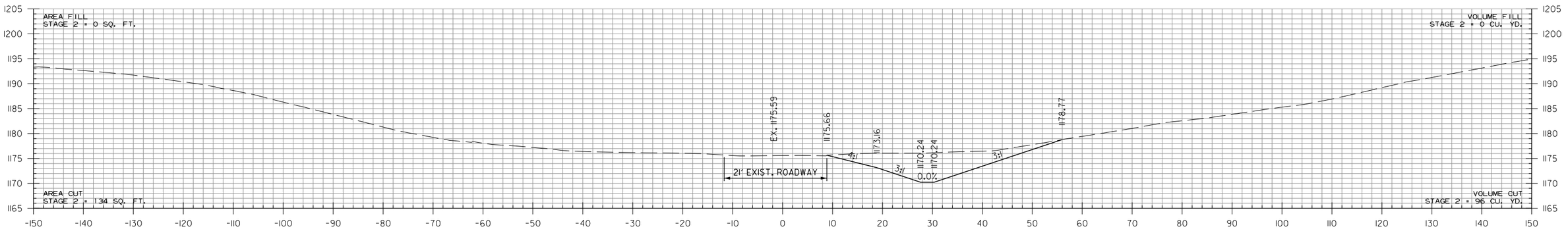

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 525 | 583 |
| | | CROSS SECTIONS | | | | |




17+26.18

STA. 17+06 CONSTRUCT
CONSTRUCT 48" X 60' PIPE CULVERT
13° LT. FWD. SKEW
Q10 = 81 CFS DA = 41 ACRES
48" R.C. PIPE CULVERT (CLASS IV) (TYPE 3 BEDDING) = 60 LIN. FT.
48" PIPE ALTERNATES (TYPE 2 BEDDING) = 60 LIN. FT.



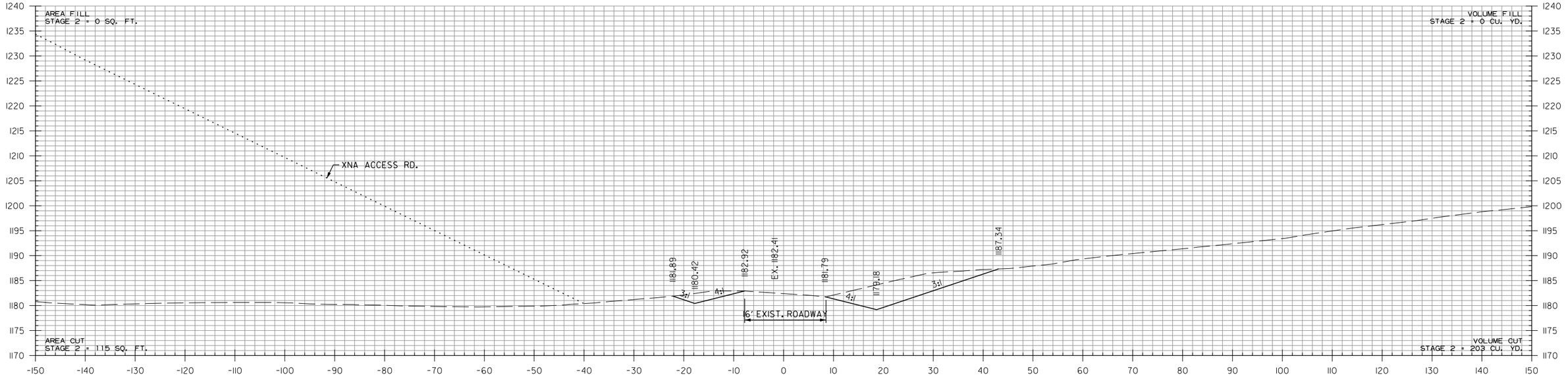

17+00.00

STA. 16+98.00
BEGIN SP. DT. LT. 10.57%
ELEV. 1168.90

HOLMES RD.
STA. 17+00 TO STA. 17+26.18

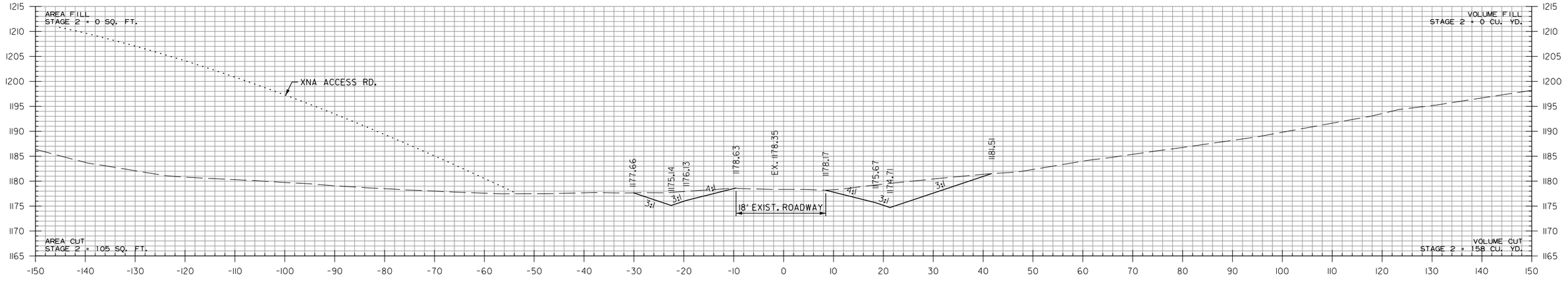
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 526 | 583 |
| | | CROSS SECTIONS | | | | |




18+00.00

STA. 18+00.00
END SP. DT. LT. 10.57%
ELEV. 1180.42

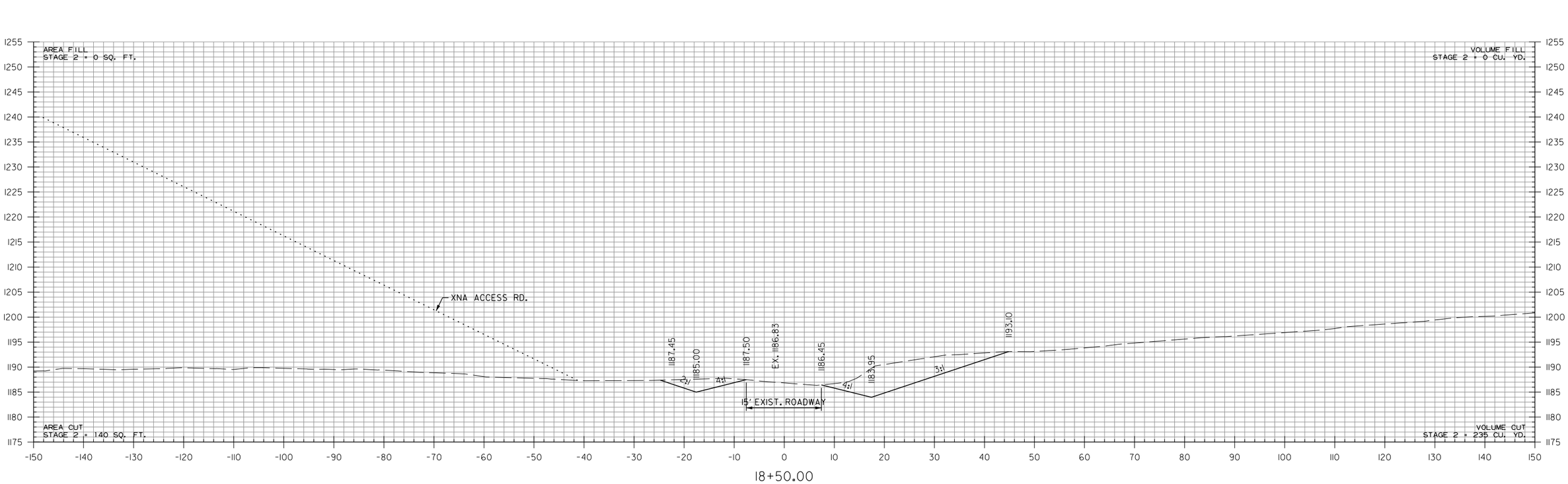



17+50.00

HOLMES RD.
STA. 17+50 TO STA. 18+00

aewierciak 10/20/2023 12:56:32 PM
WORKSPACE: AHTD
L:\20\T\170\T600 - XNA Access - NEPA\Drawings\r090069_CX_HOLMES RD.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 527 | 583 |
| | | CROSS SECTIONS | | | | |

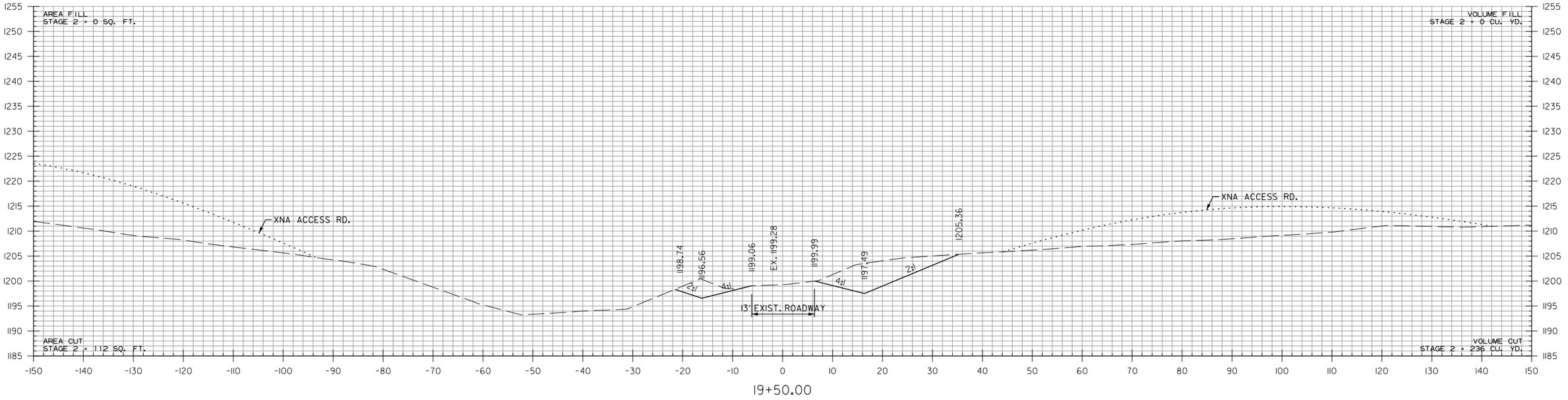


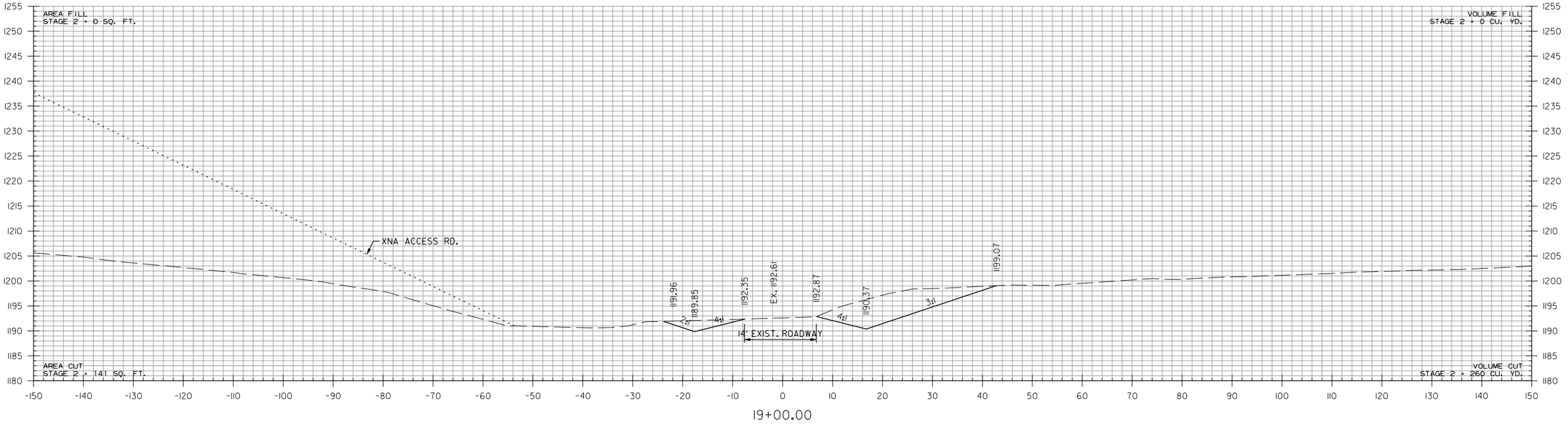

STA. 18+25.00
END SP. DT. RT. 8.94%
ELEV. 1181.41

HOLMES RD.
STA. 18+50 TO STA. 18+50


gewierclak 10/20/2023 12:56:33 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 528 | 583 |
| | | CROSS SECTIONS | | | | |

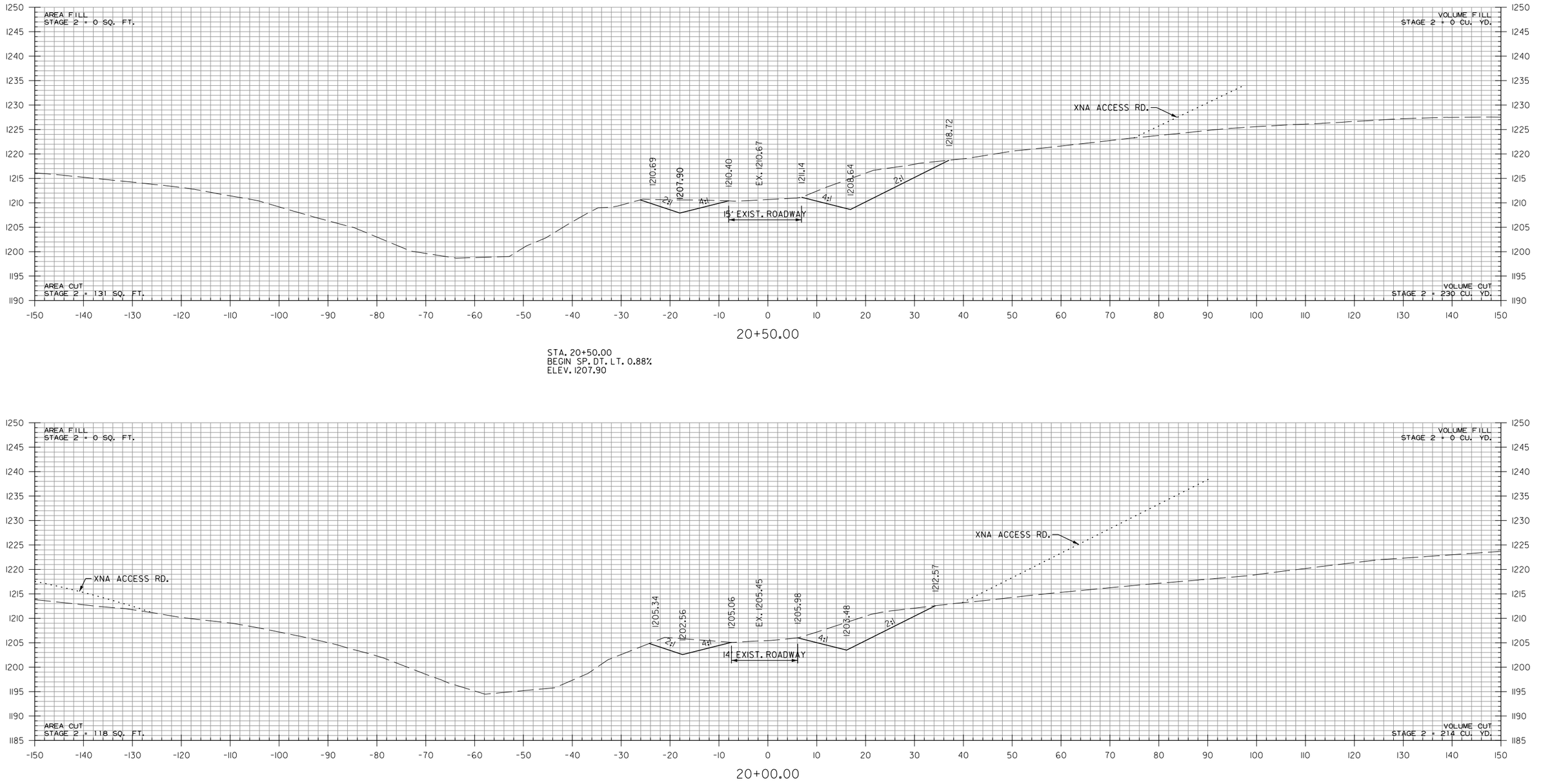



HOLMES RD.
STA. 19+00 TO STA. 19+50


dewierclak 10/20/2023 12:56:33 PM
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REVISED DATE:

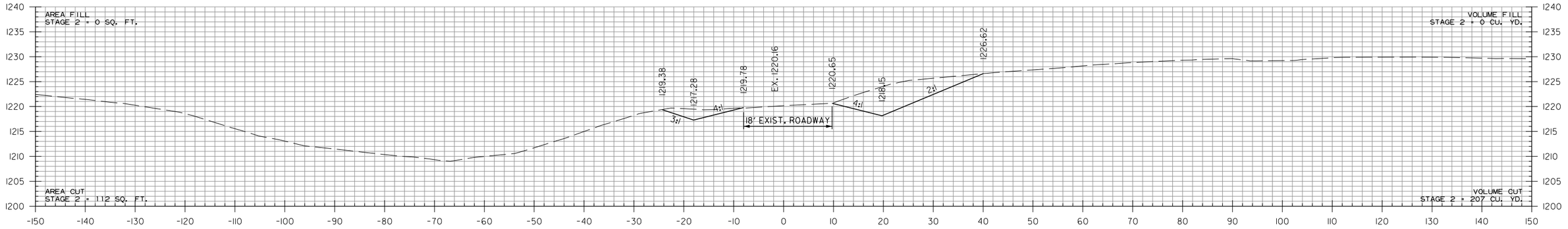
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 529 | 583 |
| | | CROSS SECTIONS | | | | |




HOLMES RD.
STA. 20+00 TO STA. 20+50

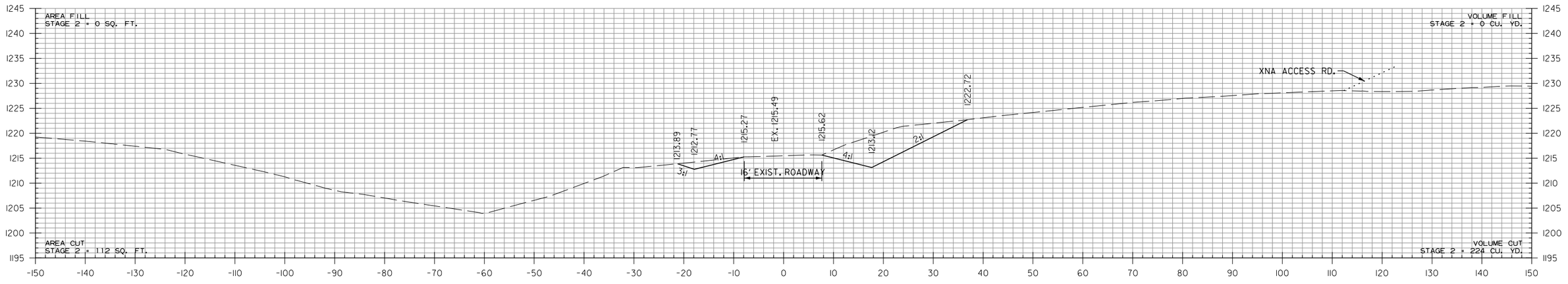

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 530 | 583 |
| | | CROSS SECTIONS | | | | |




21+50.00

STA. 21+50.00
END SP. DT. LT. 0.88%
BEGIN SP. DT. LT. 13.11%
ELEV. 1208.78

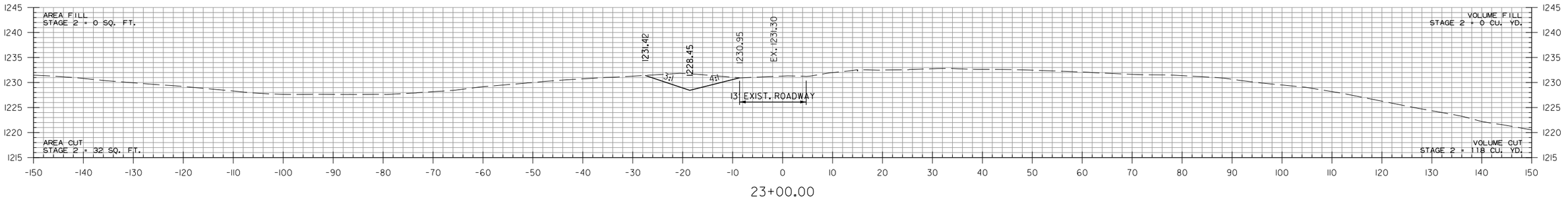



21+00.00

HOLMES RD.
STA. 21+00 TO STA. 21+50

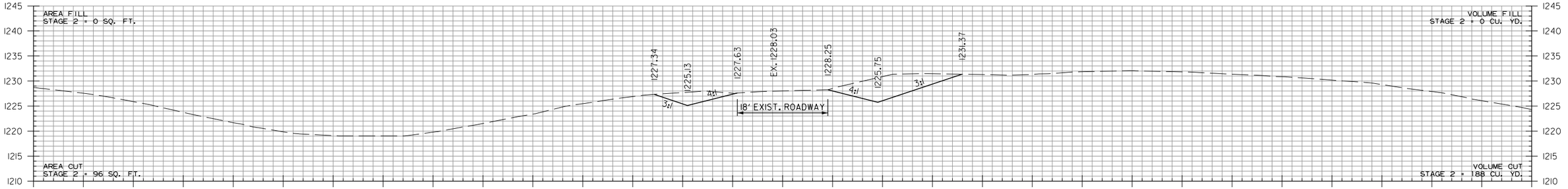
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WORKSPACE: AHTD
L:\20\7\0\7\600 - XNA Access - NEPA\Drawings\r090069_CX_HOLMES RD.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 531 | 583 |
| | | CROSS SECTIONS | | | | |

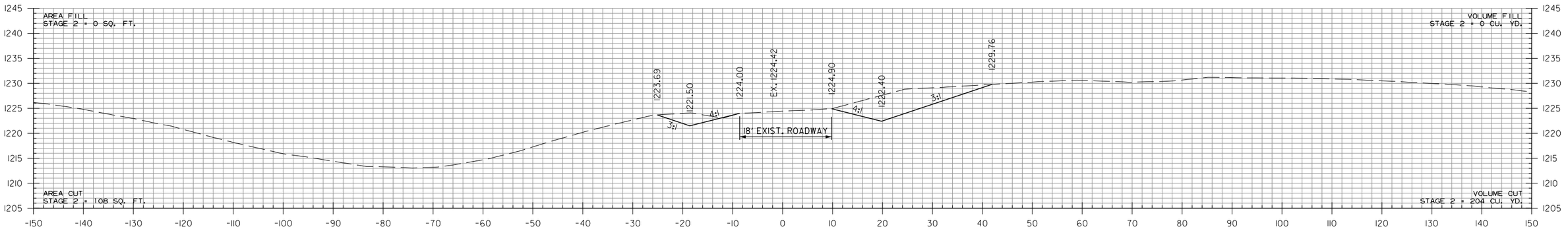



23+00.00

STA. 23+00.00
BEGIN SP. DT. LT. 13.11%
ELEV. 1228.45




22+50.00

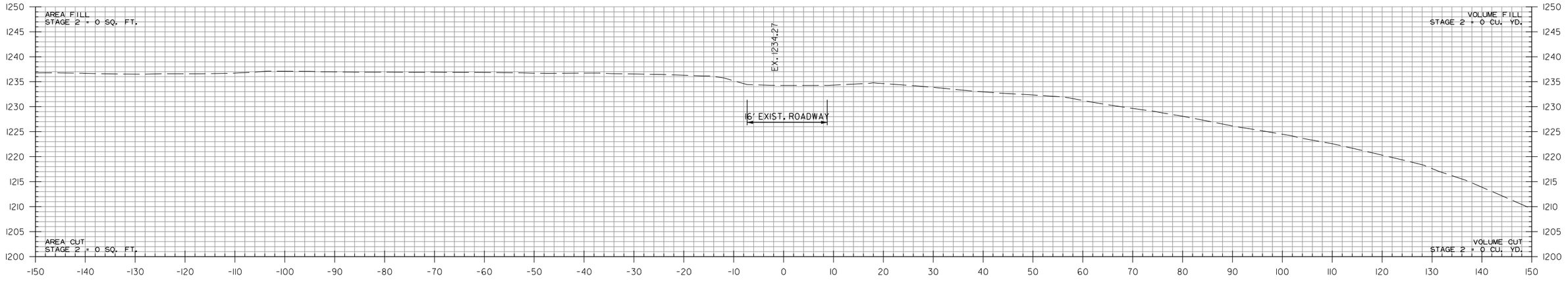



22+00.00

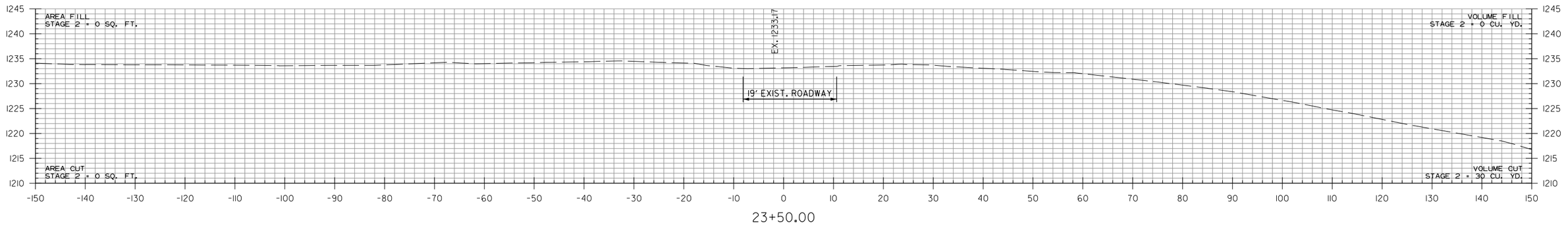
HOLMES RD.
STA. 22+00 TO STA. 23+00

oewierciak 10/20/2023 12:56:33 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 532 | 583 |
| | | CROSS SECTIONS | | | | |




24+00.00

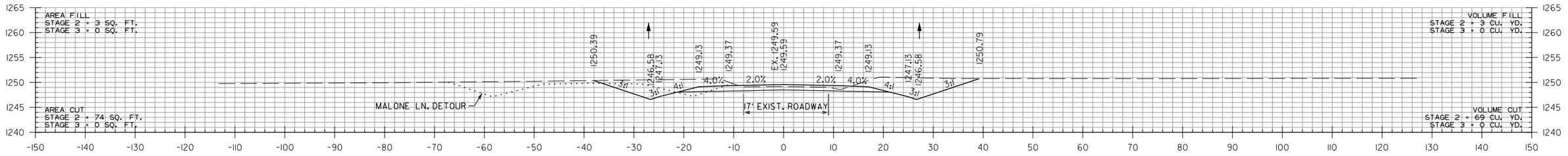



23+50.00

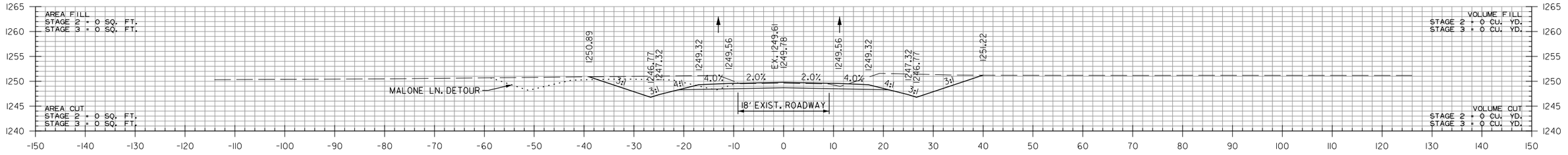
HOLMES RD.
STA. 23+50 TO STA. 24+00

aewierciak 10/20/2023 12:56:33 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 533 | 583 |
| | | CROSS SECTIONS | | | | |

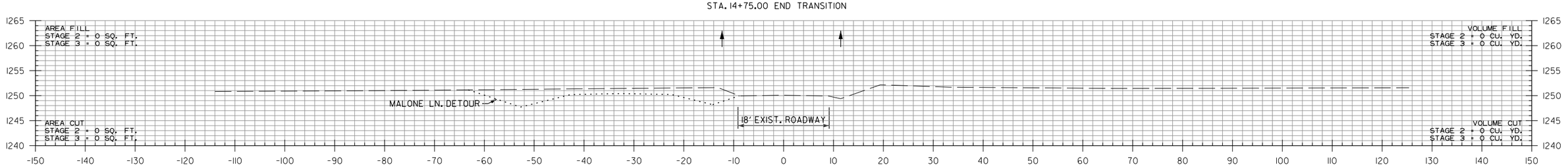



15+00.00

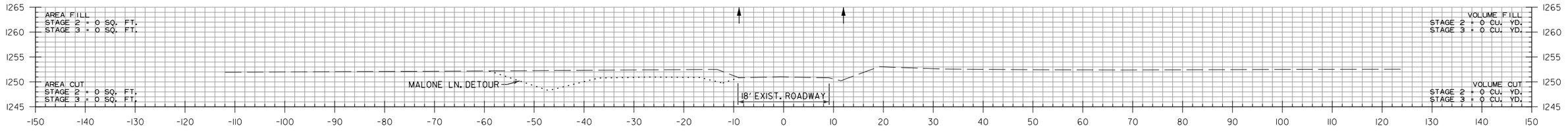



14+75.00

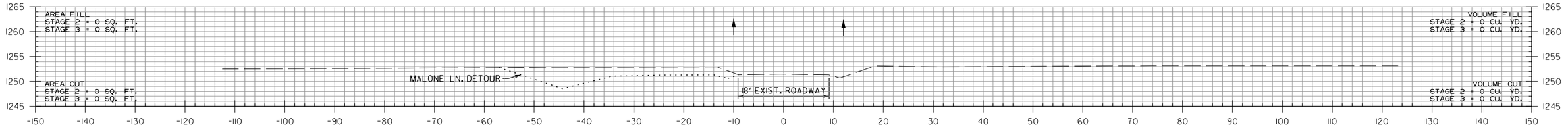
STA. 14+75.00 END TRANSITION




14+50.00




14+00.00



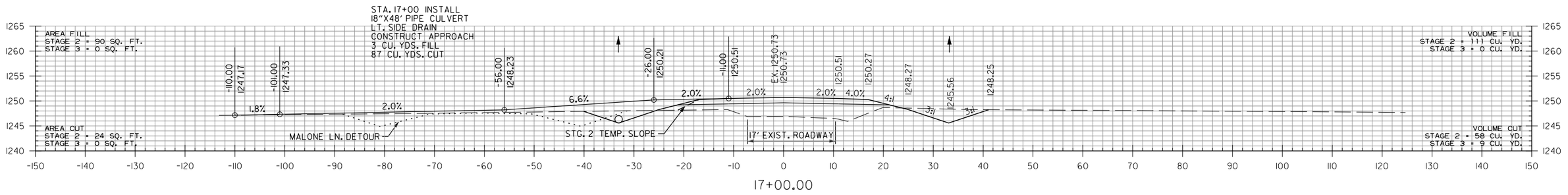

13+75.00

STA. 13+75.00 BEGIN TRANSITION

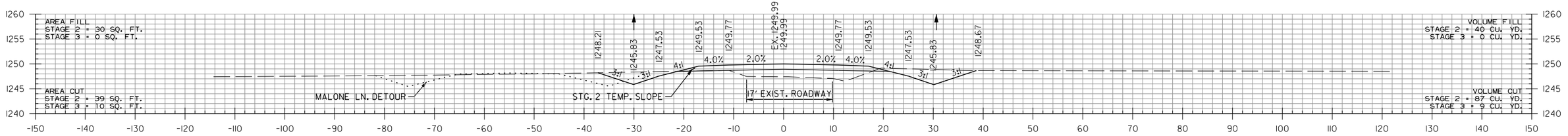
MALONE LN.
STA. 13+75 TO STA. 15+00

aewierciak 10/20/2023 12:56:35 PM
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REVISED DATE:

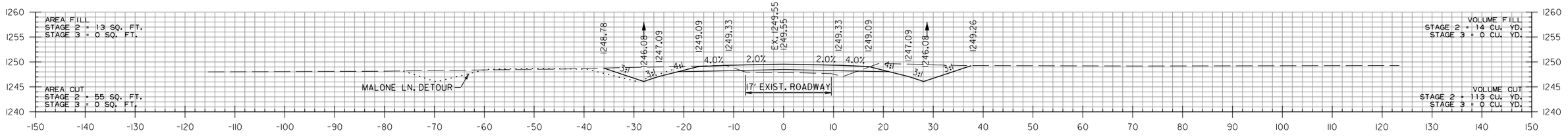
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 534 | 583 |
| | | CROSS SECTIONS | | | | |




17+00.00



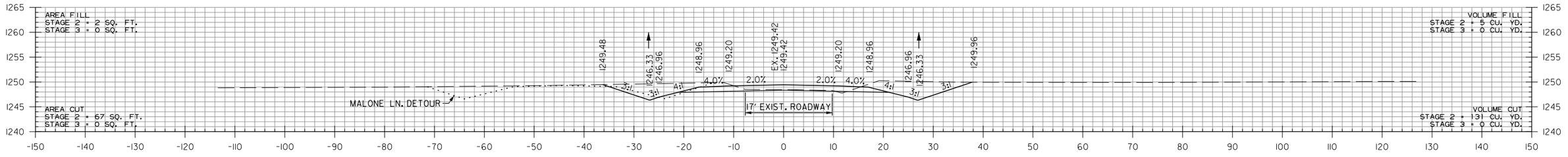

16+50.00




16+00.00

STA. 15+25.00
BEGIN SP. DT. LT. -0.50%
ELEV. 1246.46

STA. 15+25.00
BEGIN SP. DT. RT. -0.50%
ELEV. 1246.45

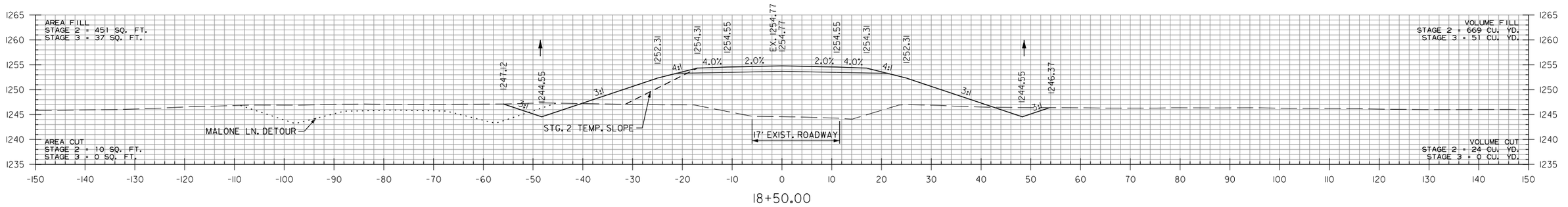



15+50.00

MALONE LN.
STA. 15+50 TO STA. 17+00


dewierclak 10/20/2023 12:56:35 PM
WORKSPACE: AHTD
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REVISED DATE:

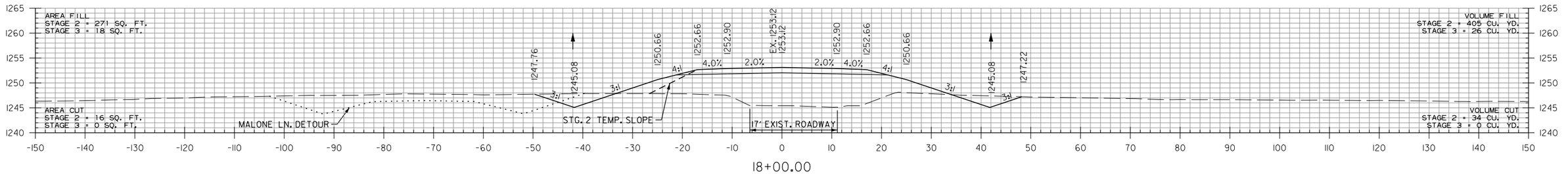
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 535 | 583 |
| | | CROSS SECTIONS | | | | |



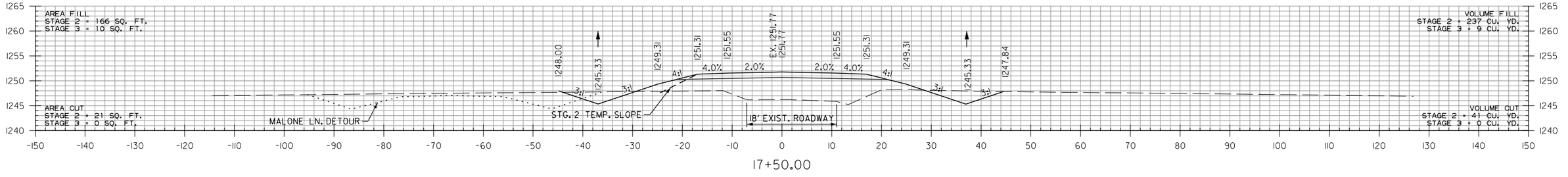

18+50.00

STA. 18+25
END SP. DT. LT. -0.50%
BEGIN SP. DT. LT. -1.62%
ELEV. 1244.96

STA. 18+25.00
END SP. DT. RT. -0.50%
BEGIN SP. DT. RT. -1.62%
ELEV. 1244.95




18+00.00

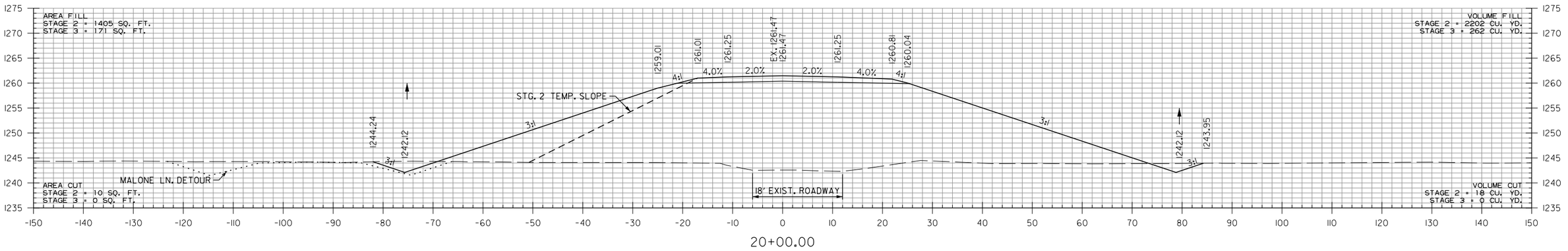



17+50.00

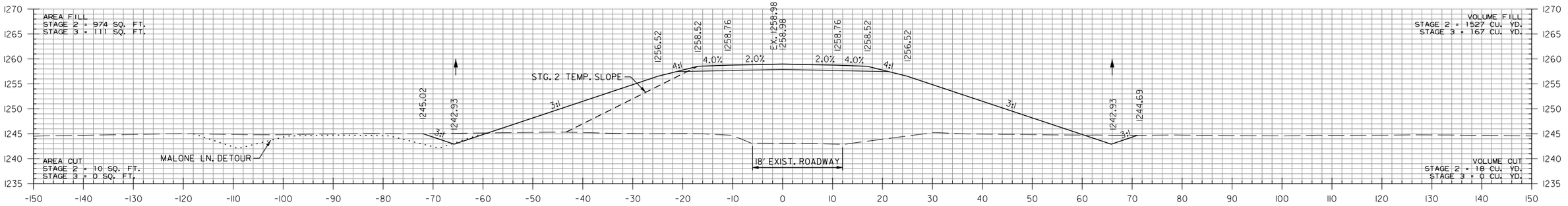
MALONE LN.
STA. 17+50 TO STA. 18+50


dewierclak 10/20/2023 12:56:35 PM
WORKSPACE: AHTD
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REVISED DATE:

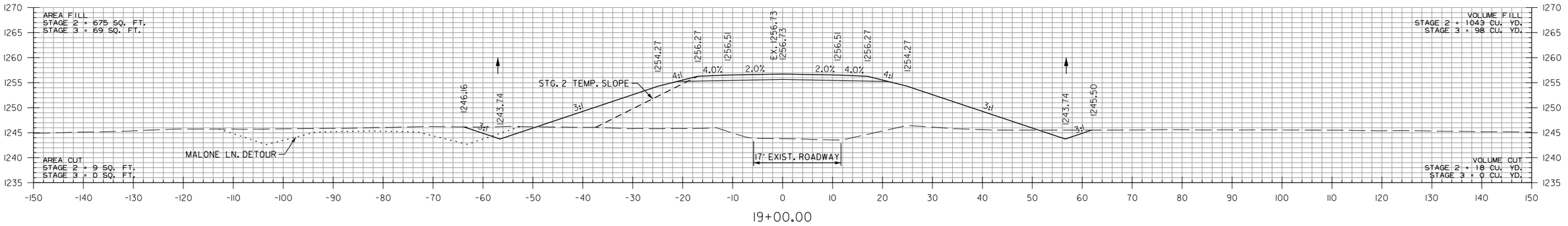
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 536 | 583 |
| | | CROSS SECTIONS | | | | |




20+00.00




19+50.00

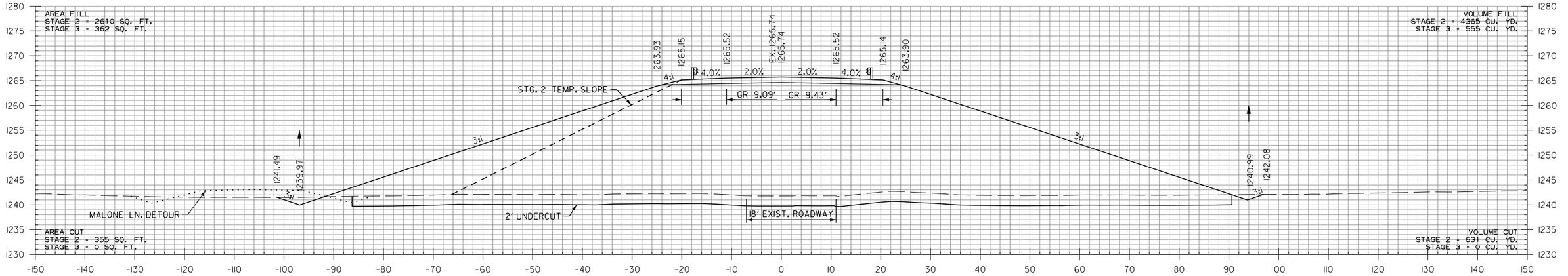



19+00.00

MALONE LN.
STA. 19+00 TO STA. 20+00


dewierclark 10/20/2023 12:56:35 PM
WORKSPACE: AHTD
L:\2017\170T600 - XNA Access - NEPA\Drawings\r090069_CX_MALONE LN.dgn
REVISED DATE:

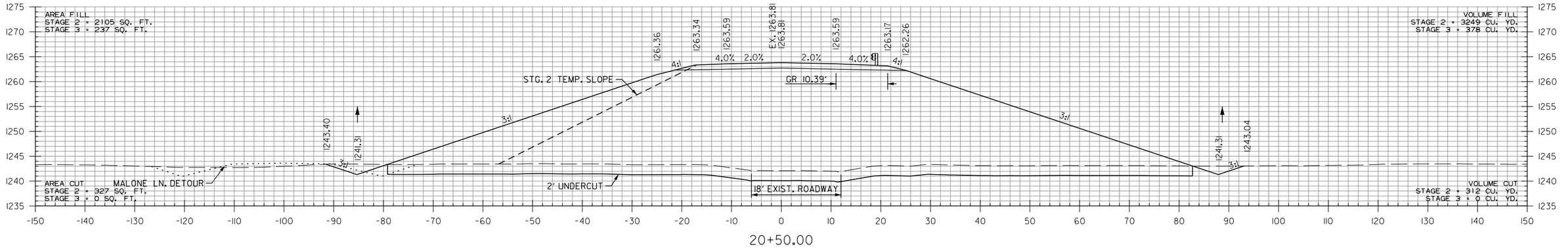
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 537 | 583 |
| | | CROSS SECTIONS | | | | |




21+00.00

STA. 20+50.00
END SP. DT. LT. -1.62%
BEGIN SP. DT. LT. -2.67%
ELEV. 1241.31

STA. 20+50.00
END SP. DT. RT. -1.62%
BEGIN SP. DT. RT. -0.64%
ELEV. 1241.31

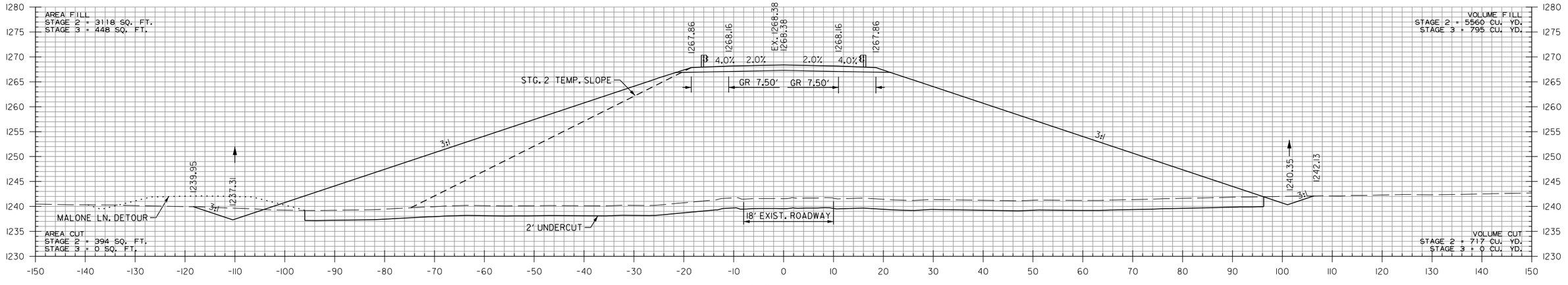



20+50.00

MALONE LN.
STA. 20+50 TO STA. 21+00


oewierciak 10/20/2023 12:56:35 PM
WORKSPACE: AHTD
L:\20\T\T01T600 - XNA Access. - NEPA\Drawings\r090069_CX_MALONE LN.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 538 | 583 |
| | | CROSS SECTIONS | | | | |

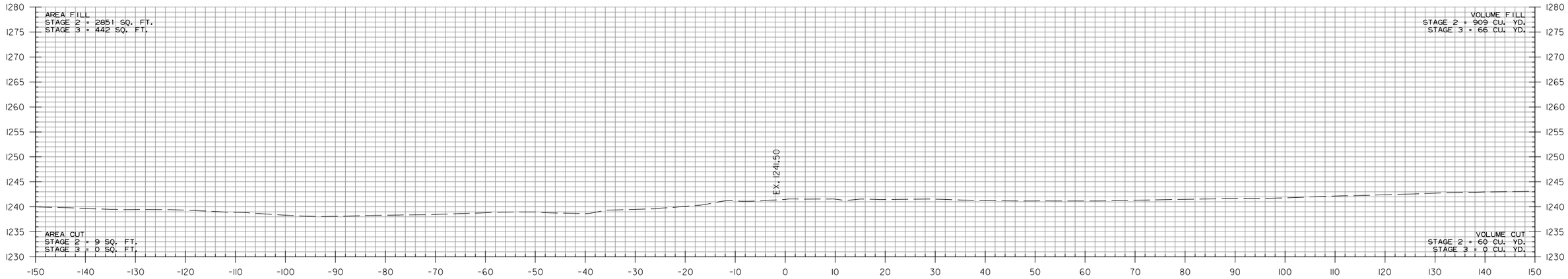



MALONE LN.
STA. 21+50 TO STA. 22+00


dewierclark 10/20/2023 12:56:35 PM
WORKSPACE: AHTD
L:\2017\17017600 - XNA Access - NEPA\Drawings\r090069_CX_MALONE LN.dgn
REVISED DATE:

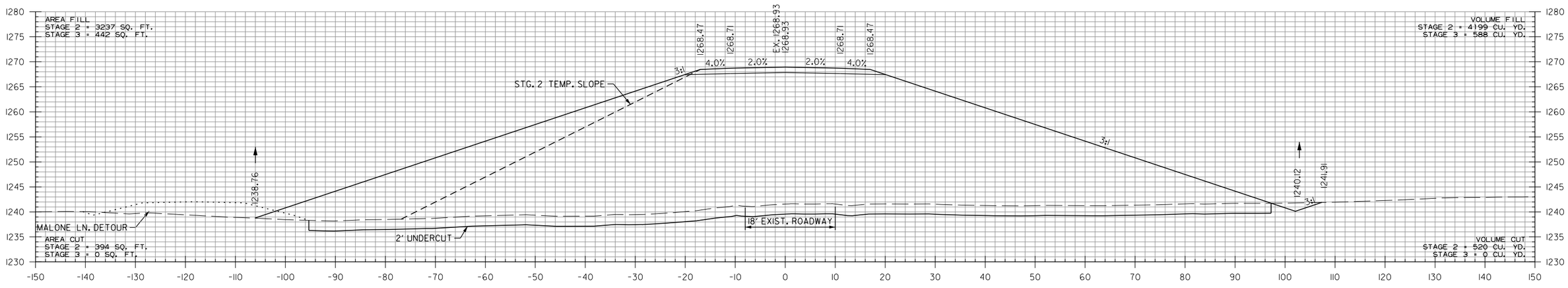
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 539 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 22+70.00
END SP. DT. RT. -0.64%
ELEV. 1239.90




22+43.74
STA. 22+43.74 BRIDGE ABUTMENT RETAINING WALL

STA. 22+34.00
END SP. DT. LT. -2.67%
ELEV. 1236.40

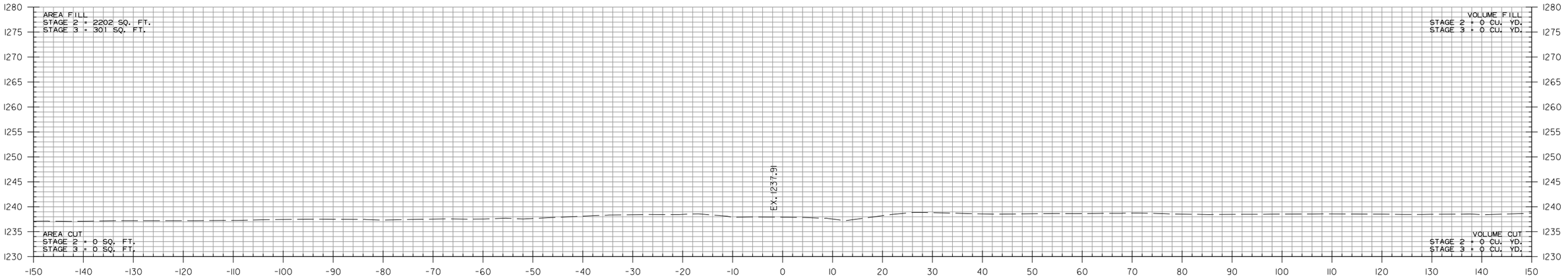



22+35.68
STA. 22+35.68 BEGIN BRIDGE

MALONE LN.
STA. 22+35.68 TO STA. 22+43.74

aewierciak 10/20/2023 12:56:36 PM
WORKSPACE: AHTD
L:\20\TV\070\600 - XNA Access - NEPA\Drawings\r090069_CX_MALONE LN.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 540 | 583 |
| | | CROSS SECTIONS | | | | |




24+45.80

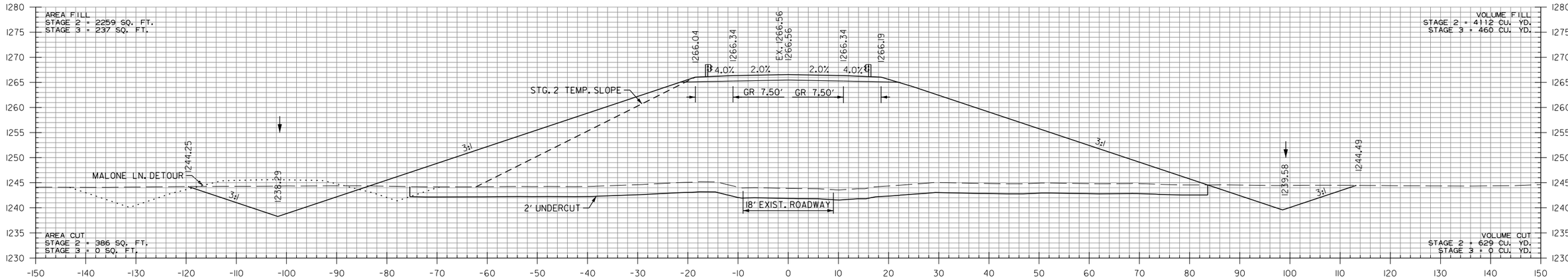
STA. 24+45.80 BRIDGE ABUTMENT RETAINING WALL

STA. 24+26.00
BEGIN SP. DT. LT. 0.71%
ELEV. 1237.77

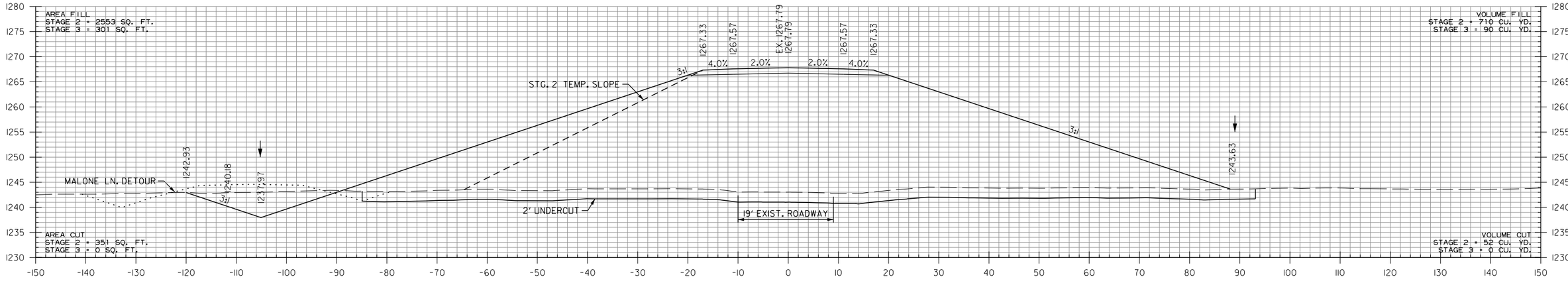
MALONE LN.
STA. 24+45.80


aewierciak 10/20/2023 12:56:36 PM
WORKSPACE: AHTD
L:\2017\170176\600 - XNA Access - NEPA\Drawings\r090069_CX_MALONE LN.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 541 | 583 |
| | | CROSS SECTIONS | | | | |




25+00.00



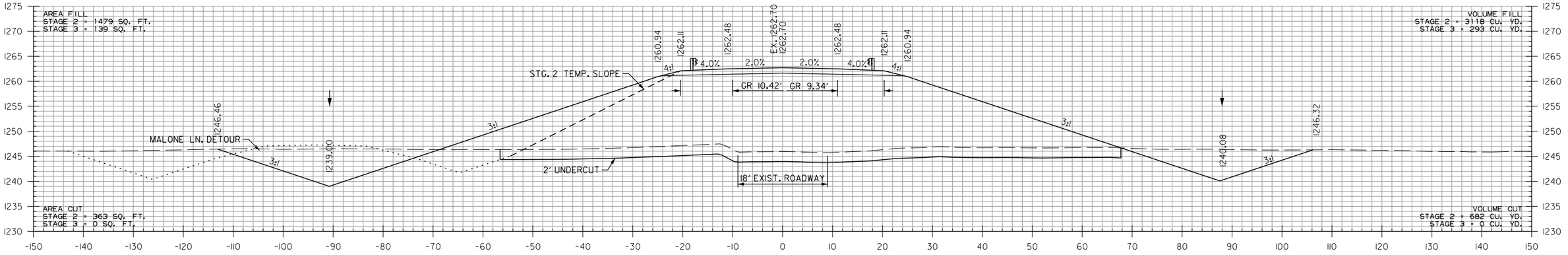

24+53.86

STA. 24+53.86 END BRIDGE

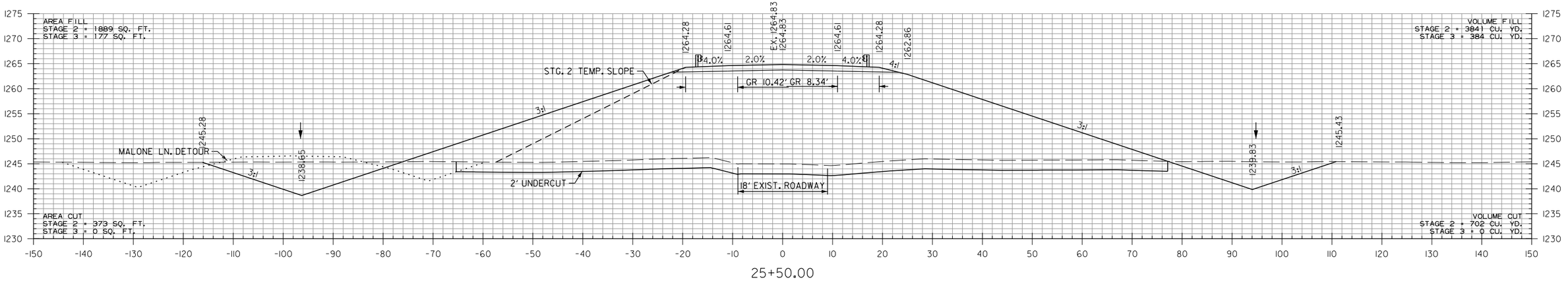
MALONE LN.
STA. 24+53.86 TO STA. 25+00

aewierciak 10/20/2023 12:56:36 PM
WORKSPACE: AHTD
L:\20\TV\70\f600 - XNA Access - NEPA\Drawings\r090069_CX_MALONE LN.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 542 | 583 |
| | | CROSS SECTIONS | | | | |




26+00.00

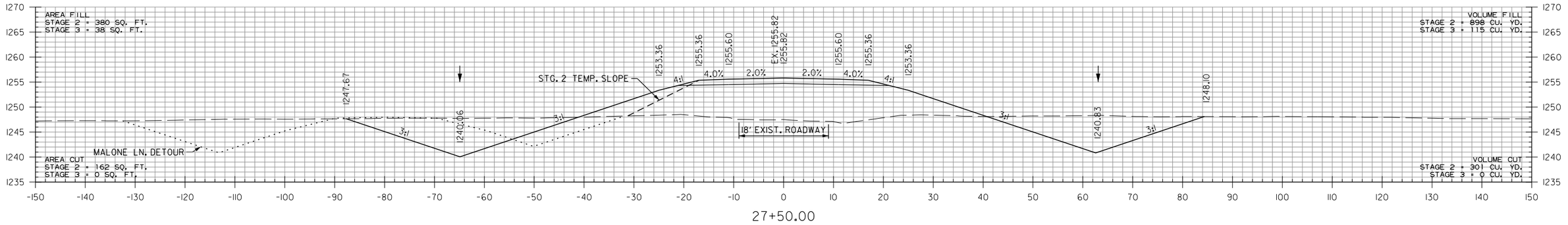



25+50.00

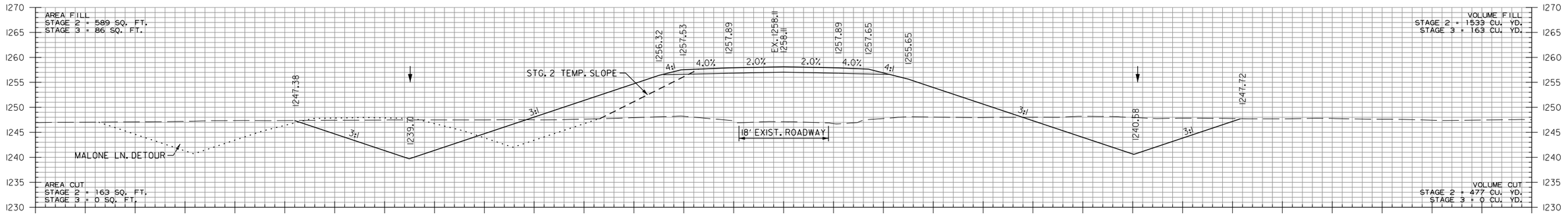
MALONE LN.
STA. 25+50 TO STA. 26+00


aewierciak 10/20/2023 12:56:36 PM
WORKSPACE: AHTD
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REVISED DATE:

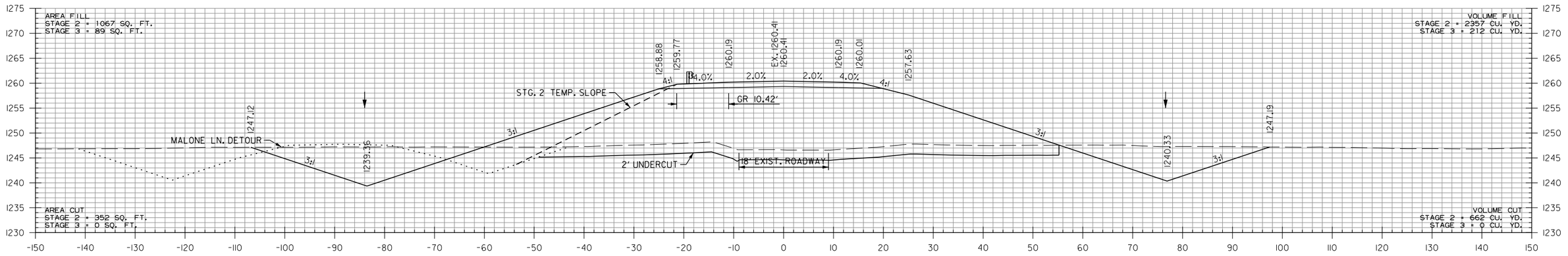
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 543 | 583 |
| | | CROSS SECTIONS | | | | |




27+50.00




27+00.00

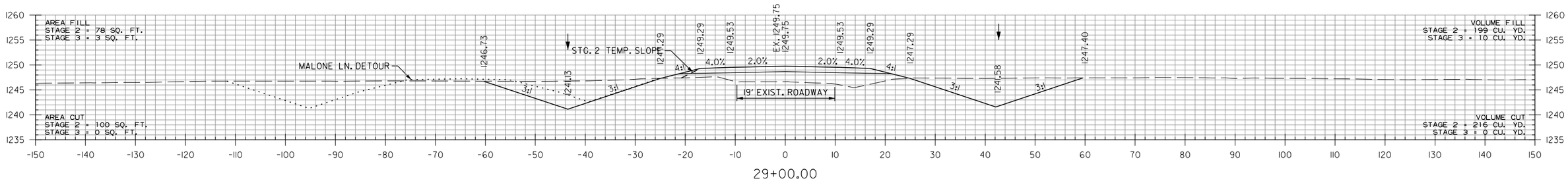



26+50.00

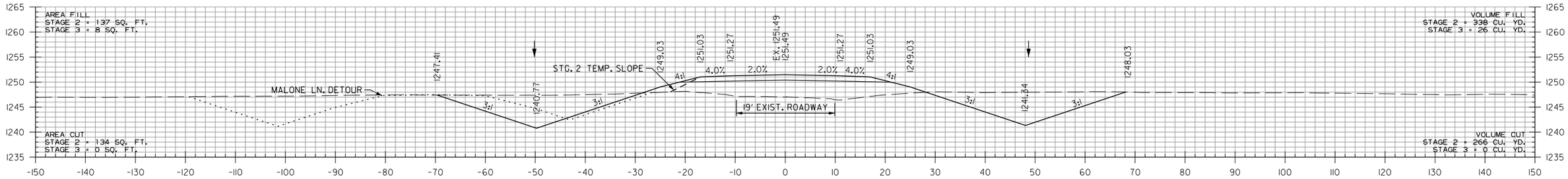
MALONE LN.
STA. 26+50 TO STA. 27+50


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WORKSPACE: AHTD
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REVISED DATE:

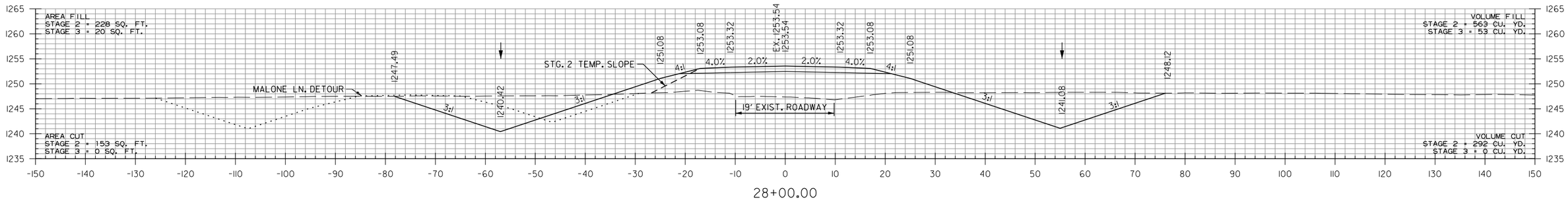
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 544 | 583 |
| | | CROSS SECTIONS | | | | |




29+00.00




28+50.00

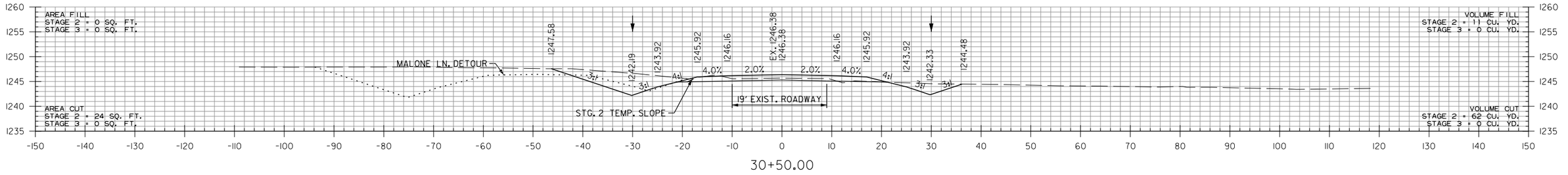



28+00.00

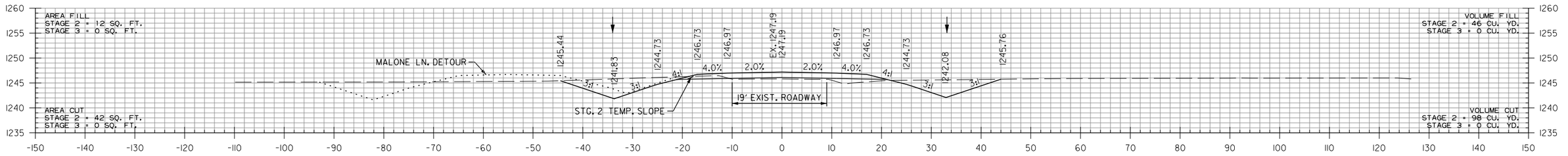
MALONE LN.
STA. 28+00 TO STA. 29+00


dewierclak 10/20/2023 12:56:36 PM
WORKSPACE: AHTD
L:\2017\170T600 - XNA Access - NEPA\Drawings\r090069_CX_MALONE LN.dgn
REVISED DATE:

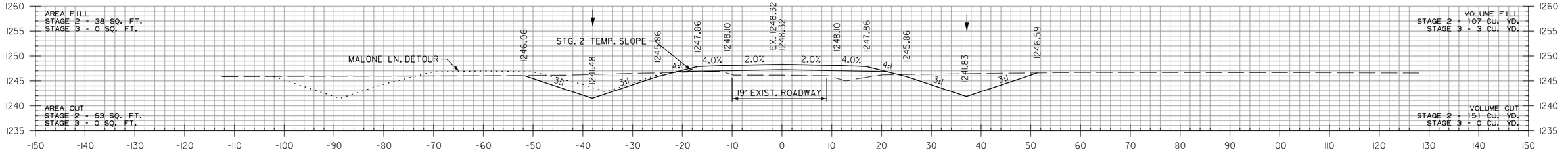
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 545 | 583 |
| | | CROSS SECTIONS | | | | |




30+50.00




30+00.00

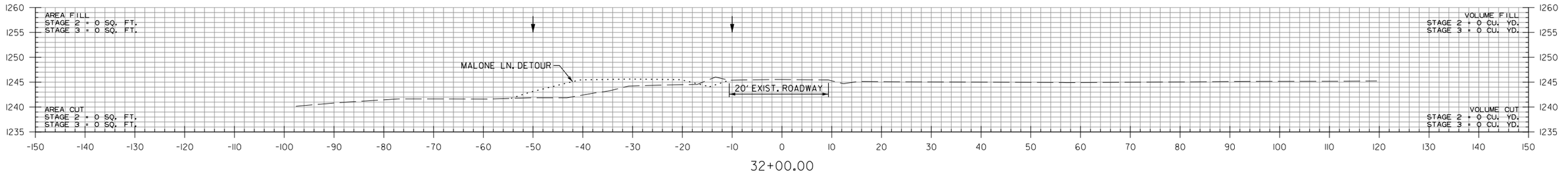



29+50.00

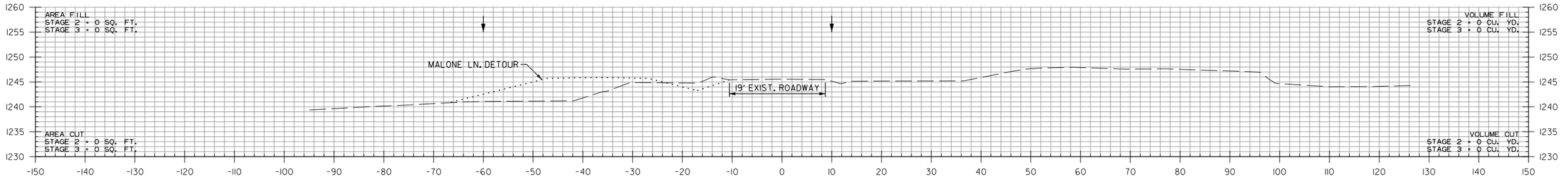
MALONE LN.
STA. 29+50 TO STA. 30+50


dewierclak 10/20/2023 12:56:36 PM
WORKSPACE: AHTD
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REVISED DATE:

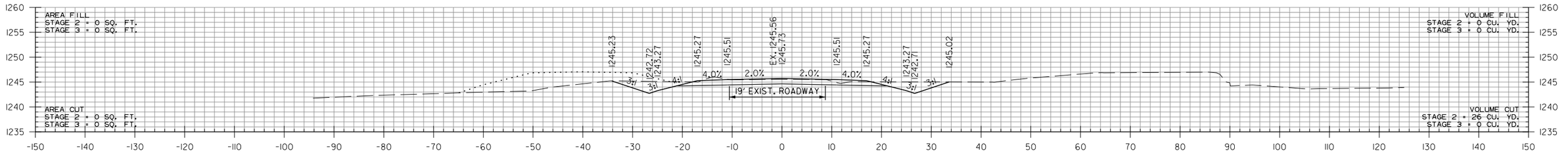
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 546 | 583 |
| | | CROSS SECTIONS | | | | |




32+00.00




31+50.00

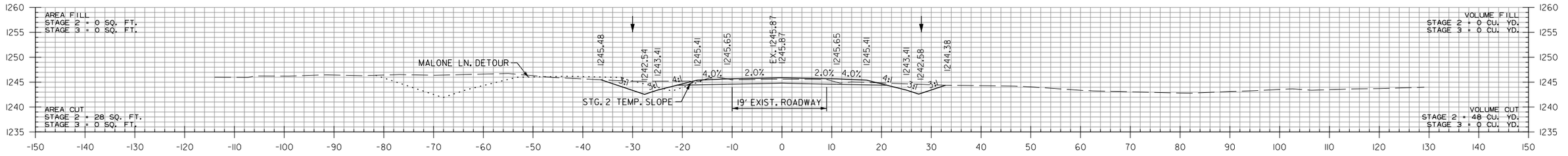



31+25.00

STA. 31+25.00 BEGIN TRANSITION

STA. 31+25.00
END SP. DT. LT. 0.71%
ELEV. 1242.72

STA. 31+25.00
END SP. DT. RT. 0.50%
ELEV. 1242.71

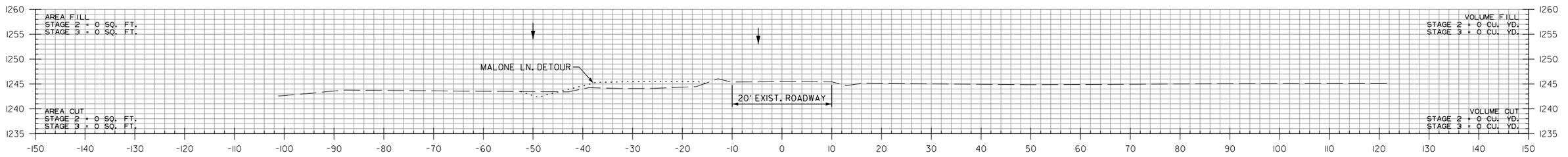



31+00.00

MALONE LN.
STA. 31+00 TO STA. 32+00


dewierclak 10/20/2023 12:56:36 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 547 | 583 |
| | | CROSS SECTIONS | | | | |



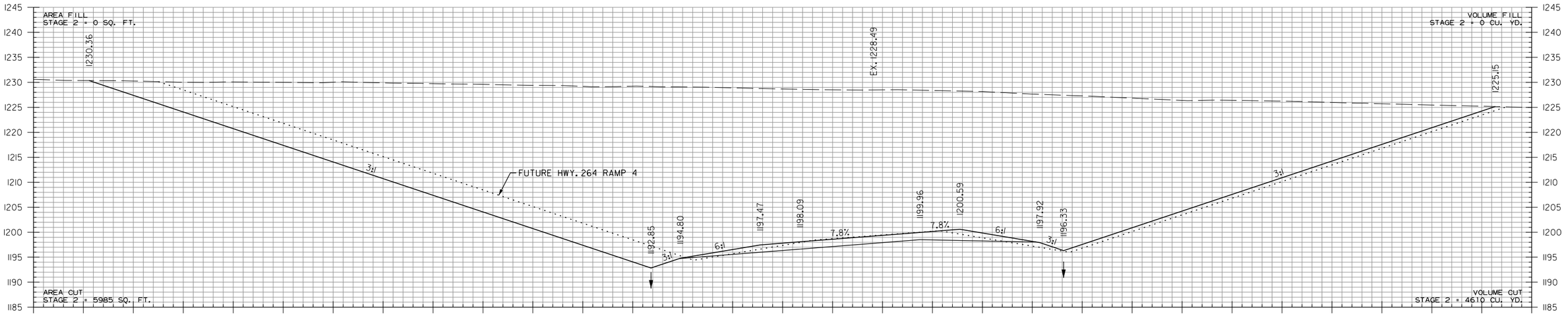

32+25.00

STA. 32+25.00 END TRANSITION

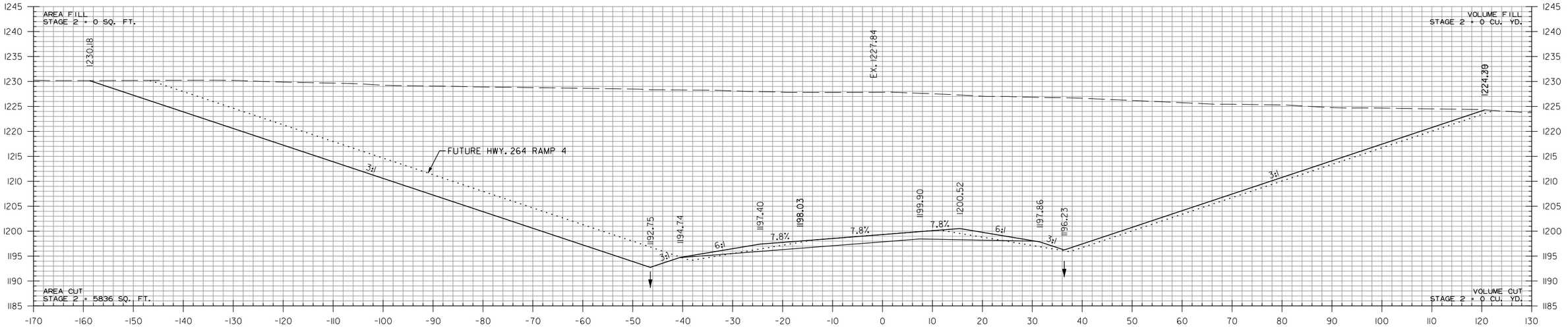
MALONE LN.
STA. 32+25 TO STA. 32+25


aewierciak 10/20/2023 12:56:37 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 548 | 583 |
| | | CROSS SECTIONS | | | | |




258+00.00




257+78.94

STA. 257+78.94
BEGIN SP. DT. LT. 0.50%
ELEV. 1192.75

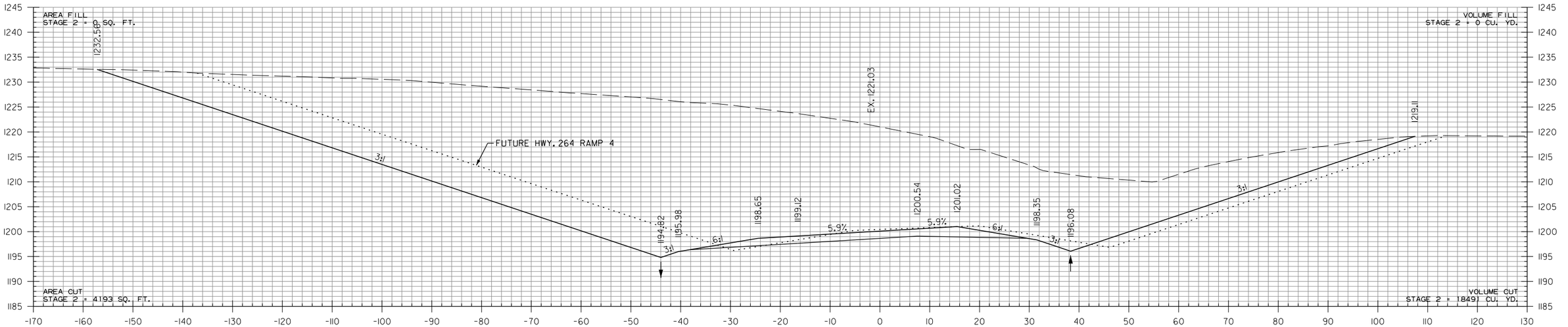
STA. 257+78.94 MATCH HWY. 264 RAMP 4 (0.078'/')

STA. 257+78.94
BEGIN SP. DT. RT. 0.50%
ELEV. 1196.23

AIRPORT BLVD. CURVE EXTENSION
STA. 257+78.94 TO STA. 258+00


oewierclak 10/20/2023 12:56:37 PM
WORKSPACE: AHTD
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REVISED DATE:

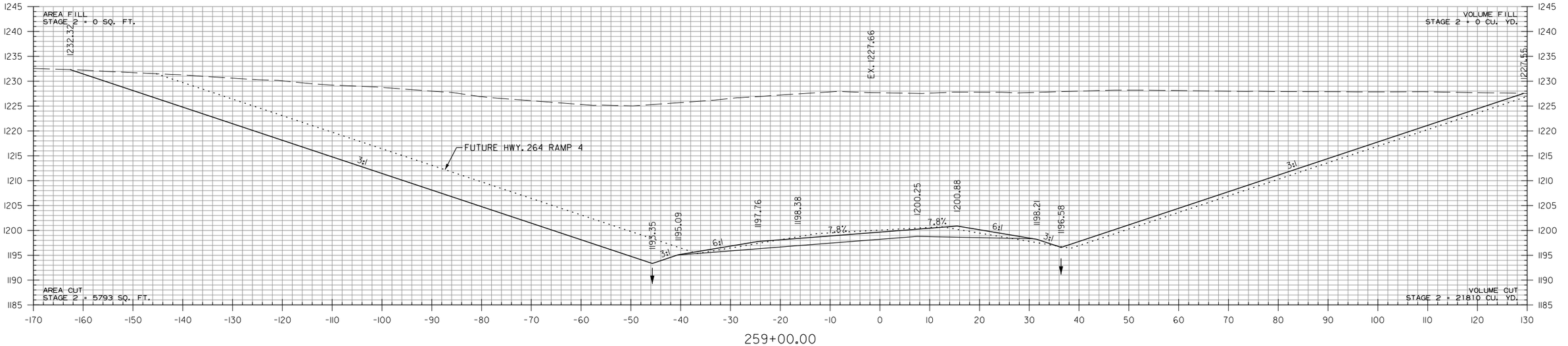
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 549 | 583 |
| | | CROSS SECTIONS | | | | |




260+00.00

STA. 259+40.00
END SP. DT. LT. 0.50%
ELEV. 1193.55

STA. 259+39.78 MAX. SUPERELEVATION (0.078'/')




259+00.00

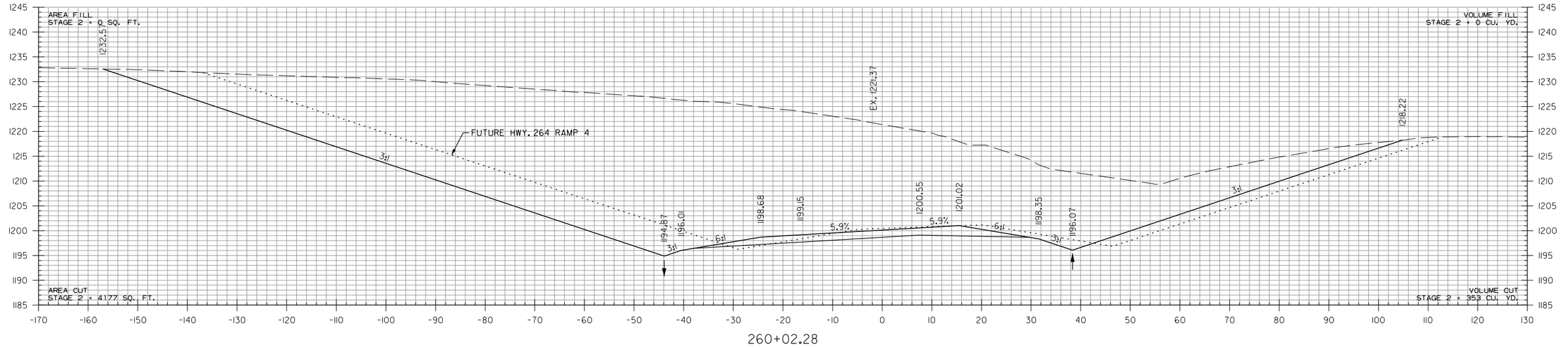
STA. 258+75.00
END SP. DT. RT. 0.50%
BEGIN SP. DT. RT. -0.50%
ELEV. 1196.71

# AIRPORT BLVD. CURVE EXTENSION
# STA. 259+00 TO STA. 260+00


cewiercIak 10/20/2023 12:56:37 PM
WORKSPACE: AHTD
L:\2017\170\7600 - XNA Access - NEPA\Drawings\r-090069_CX_AIRPORT BLVD CURVE EXTENSION.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 550 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 261+89.78 END SUPERELEVATION



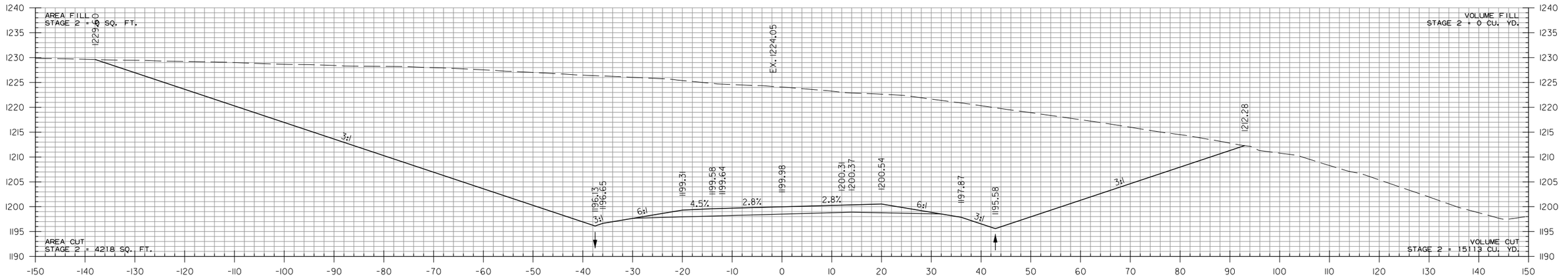

260+02.28

STA. 260+02.28
END SP. DT. RT. 0.50%
ELEV. 1196.07

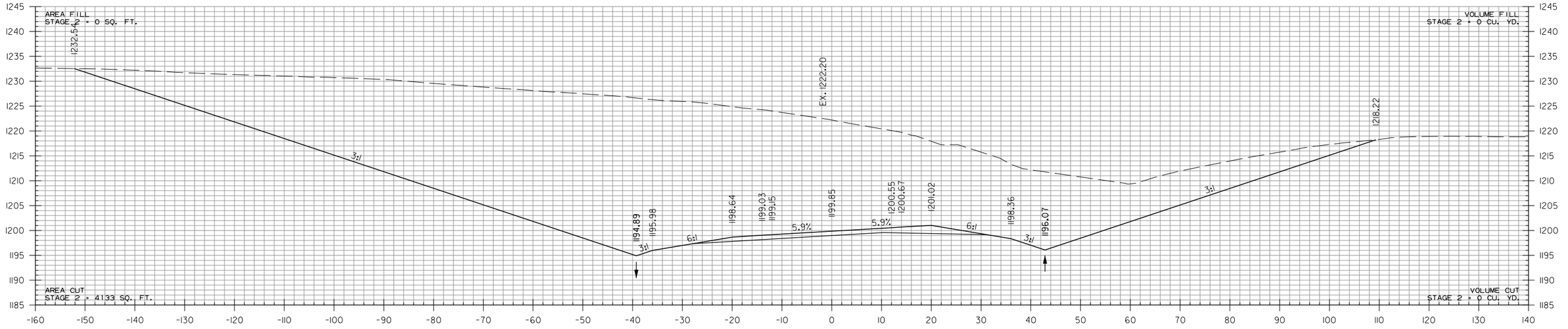
AIRPORT BLVD. CURVE EXTENSION
STA. 260+02.28 TO STA. 260+02.28


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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 551 | 583 |
| | | CROSS SECTIONS | | | | |




261+00.00




260+02.28

STA. 259+39.78 MAX. SUPERELEVATION (0.078'/')

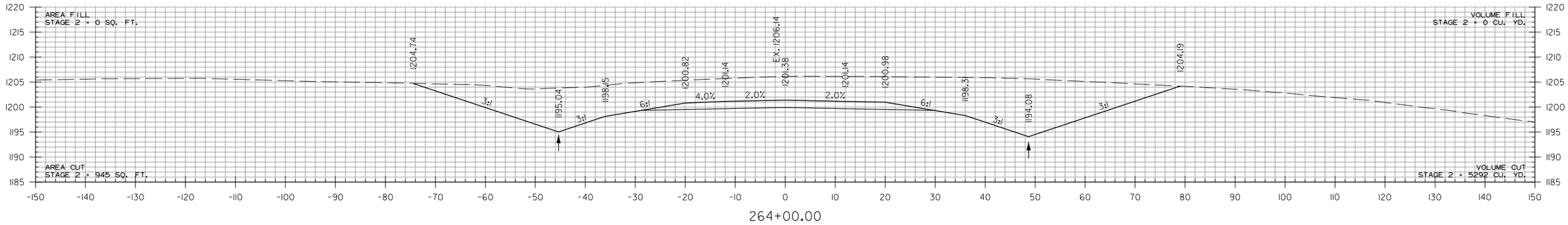
STA. 260+02.28
BEGIN SP. DT. RT. -0.50%
ELEV. 1196.07

AIRPORT BLVD.
STA. 260+02.28 TO STA. 261+00


cewierciak 10/20/2023 12:56:37 PM
WORKSPACE: AHTD
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REVISED DATE:

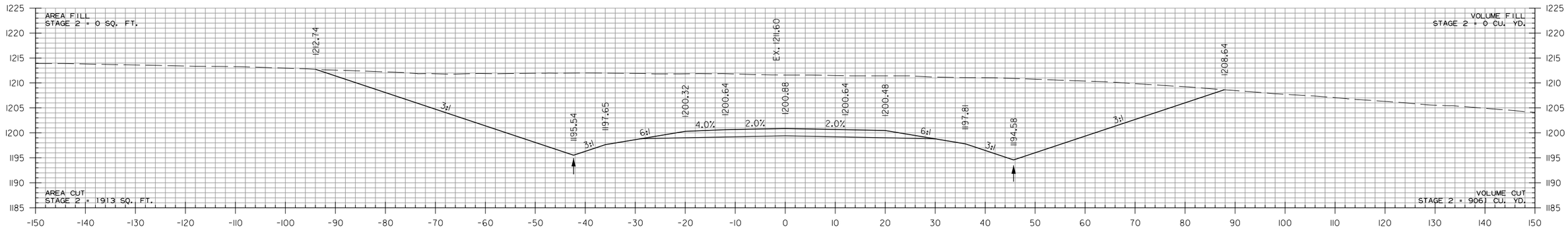
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 552 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 264+10.00
END SP. DT. RT. -0.50%
BEGIN SP. DT. RT. -2.94%
ELEV. 1194.03

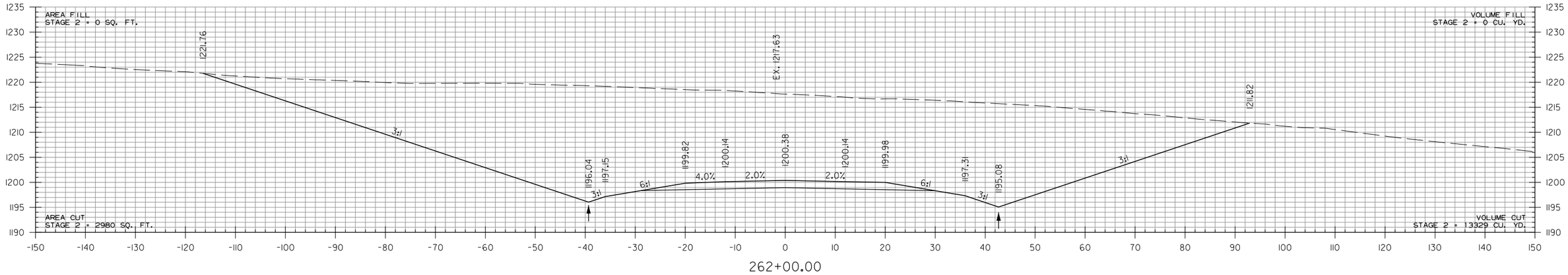



264+00.00

STA. 264+00.00
END SP. DT. LT. -0.50%
BEGIN SP. DT. LT. -2.99%
ELEV. 1195.04




263+00.00




262+00.00

STA. 261+25.00
BEGIN SP. DT. LT. -0.50%
ELEV. 1196.42

STA. 261+89.78 END SUPERELEVATION

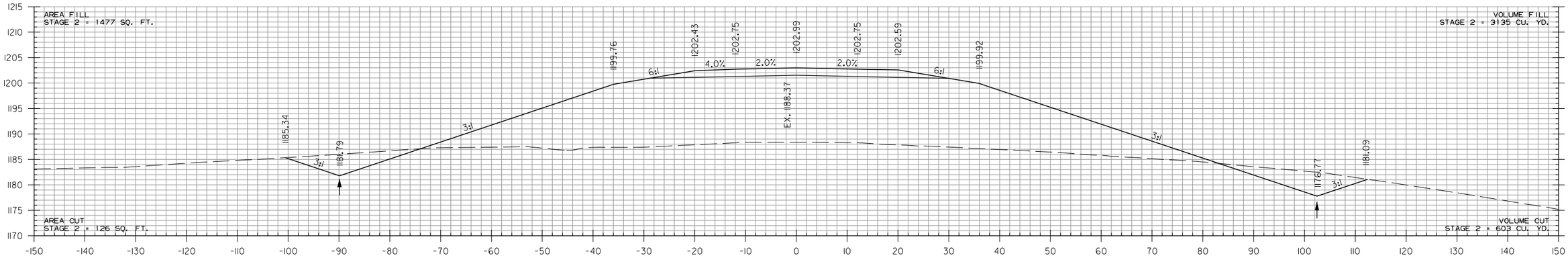
AIRPORT BLVD.
STA. 262+00 TO STA. 264+00

aewiercick 10/20/2023 12:56:37 PM
WORKSPACE: AHTD
L:\20\17\01\f600 - XNA Access - NEPA\Drawings\r090069_CX_AIRPORT BLVD.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 553 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 266+69.00
END SP. DT. LT. -9.84%
ELEV. 1175.00

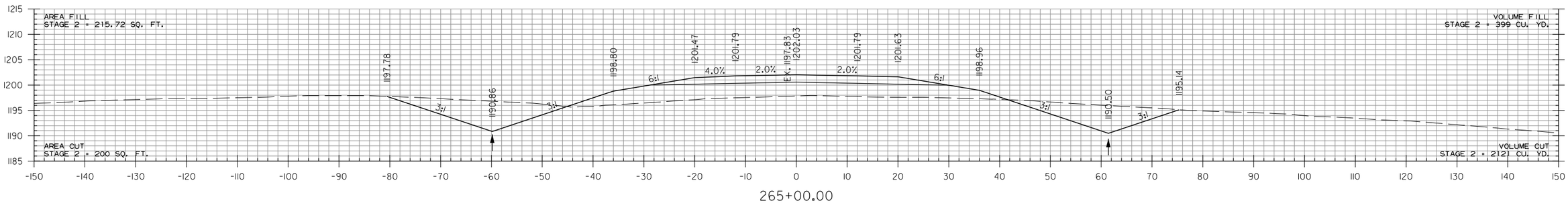
STA. 266+56.00
END SP. DT. RT. -15.66%
ELEV. 1169.00




266+00.00

STA. 265+20.00
END SP. DT. LT. -5.97%
BEGIN SP. DT. LT. -9.84%
ELEV. 1189.67

STA. 265+30.00
END SP. DT. RT. -5.89%
BEGIN SP. DT. RT. -15.66%
ELEV. 1188.73




265+00.00

STA. 264+60.00
END SP. DT. LT. -2.99%
BEGIN SP. DT. LT. -5.97%
ELEV. 1193.25

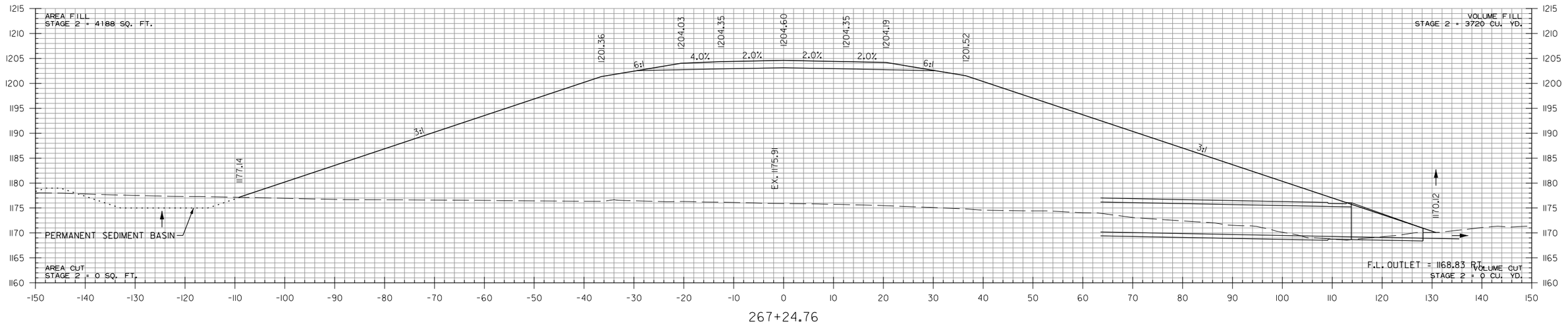
STA. 264+70.00
END SP. DT. RT. -2.94%
BEGIN SP. DT. RT. -5.89%
ELEV. 1192.26

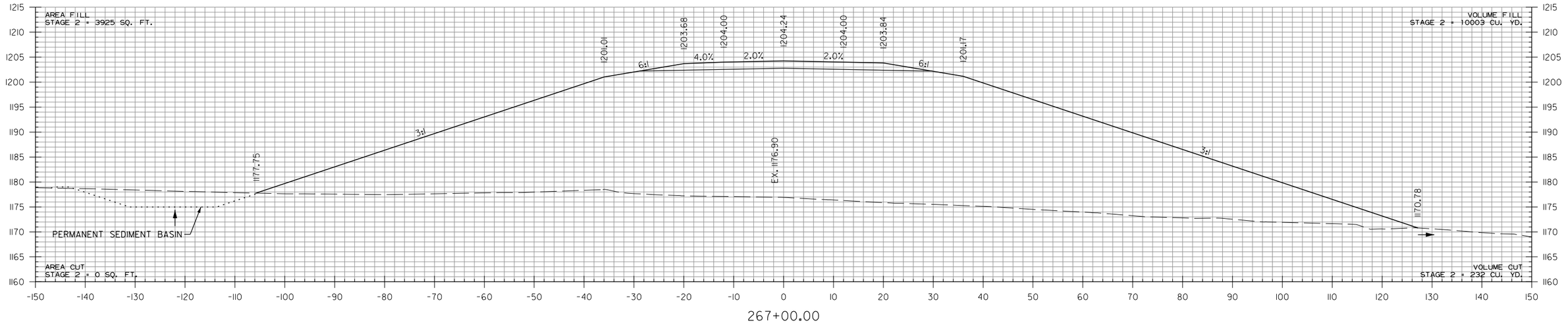
AIRPORT BLVD.
STA. 265+00 TO STA. 266+00

aewlerclark 10/20/2023 12:56:37 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 554 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 267+73 CONSTRUCT
6' x 6' x 240' R.C. BOX CULVERT
23° LT. FWD. SKEW
WITH 3:1 WINGS LT. AND RT.
Q50 = 262 CFS DA = 141 ACRES

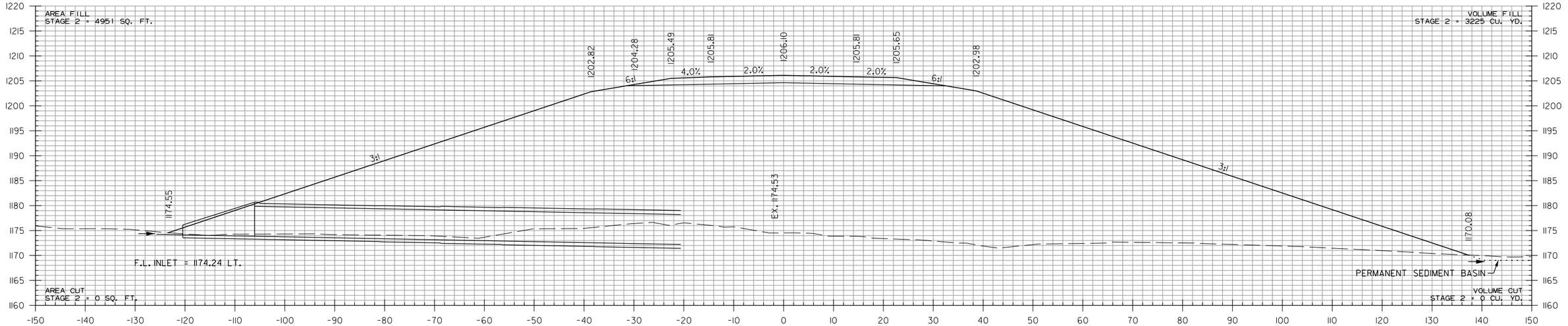


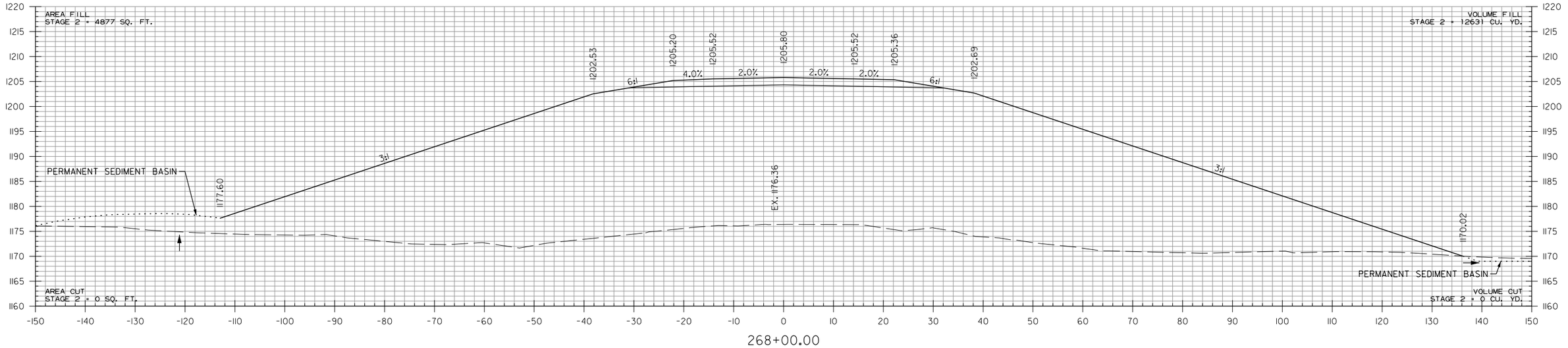

AIRPORT BLVD.
STA. 267+00 TO STA. 267+24.76


aewierciak 10/20/2023 12:56:37 PM
WORKSPACE: AHTD
L:\2017\170700 - XNA Access - NEPA\Drawings\r090069_CX_AIRPORT BLVD.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 555 | 583 |
| | | CROSS SECTIONS | | | | |




268+17.72



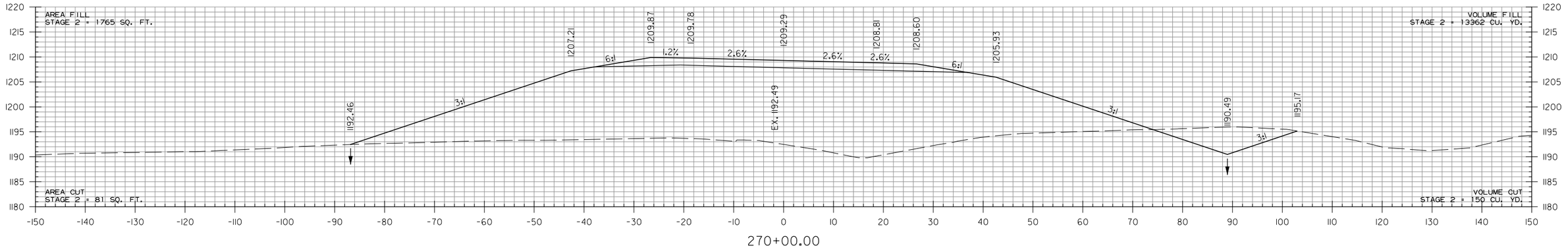

268+00.00

AIRPORT BLVD.
STA. 268+00 TO STA. 268+17.72

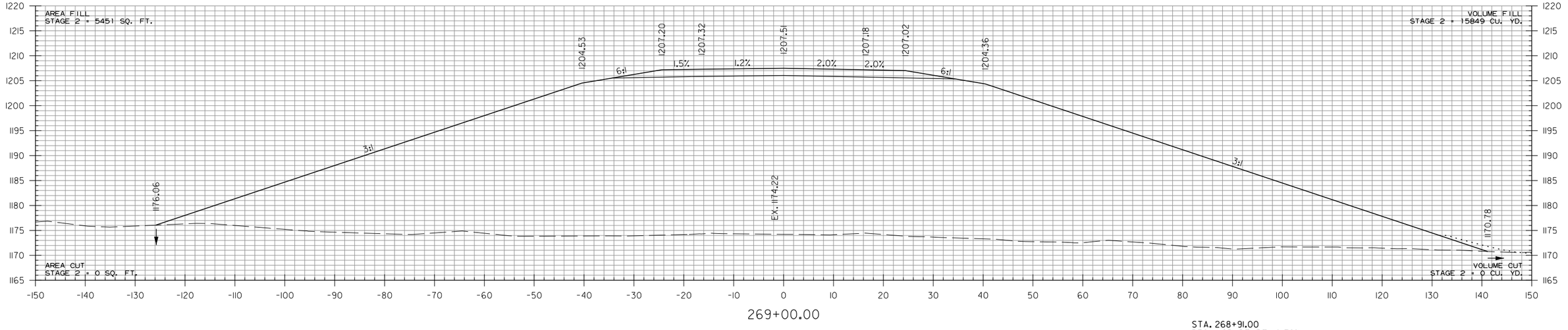
oewiercIak 10/20/2023 12:56:38 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 556 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 270+00.00
END SP. DT. RT. 19.72%
BEGIN SP. DT. RT. 15.29%
ELEV. 1190.49




270+00.00




269+00.00

STA. 268+81.34 BEGIN SUPERELEVATION

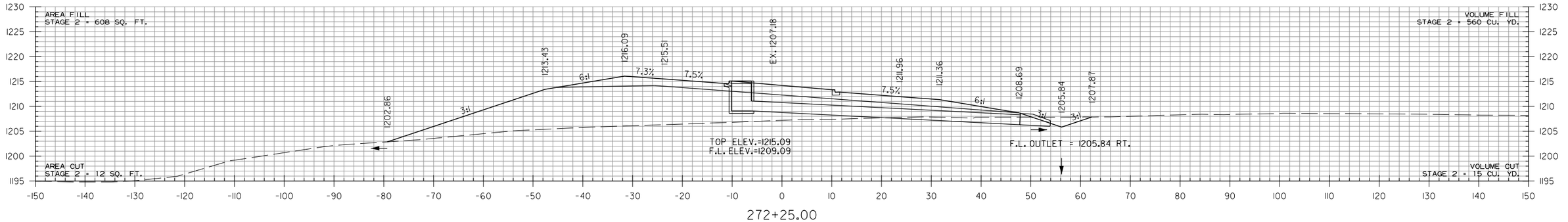
STA. 268+91.00
BEGIN SP. DT. RT. 19.72%
ELEV. 1169.00

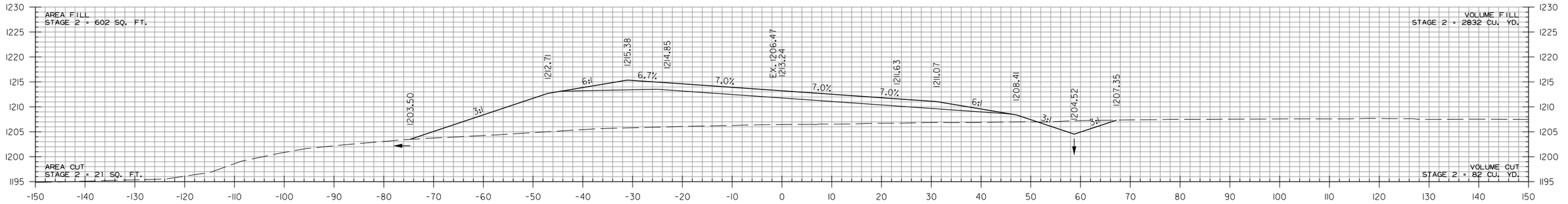
# AIRPORT BLVD.
# STA. 269+00 TO STA. 270+00

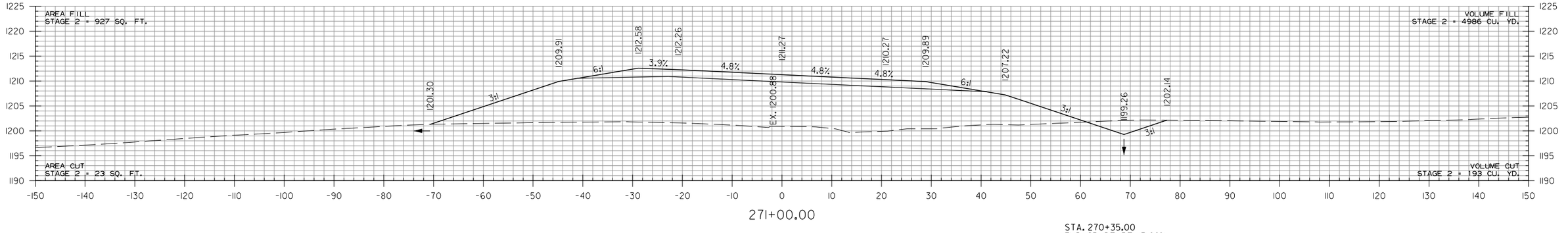

aewierciak 10/20/2023 12:56:38 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 557 | 583 |
| | | CROSS SECTIONS | | | | |

STA. 272+25 CONSTRUCT
DROP INLET LT. H=6'-0"
WITH 4' EXT. AND
24"x54' PIPE OUTLET
TO F.E.S. RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'x3'
24" R.C. PIPE (CLASS III)
(TYPE 3 BEDDING) = 54 LIN. FT.



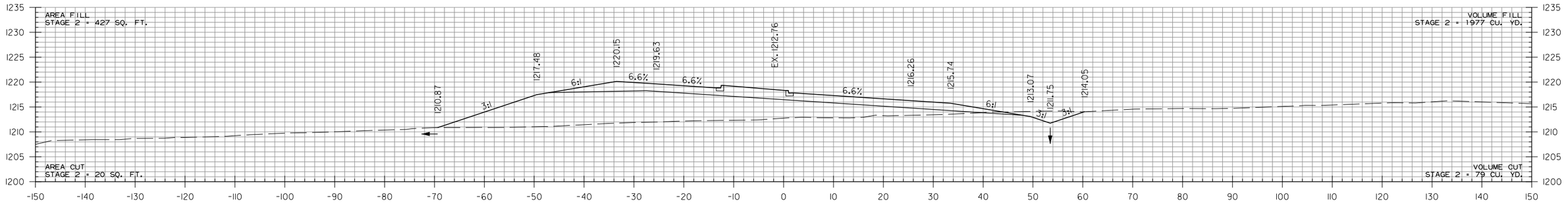




STA. 270+35.00
END SP. DT. RT. 15.29%
BEGIN SP. DT. RT. 5.26%
ELEV. 1195.84

AIRPORT BLVD.
STA. 271+00 TO STA. 272+25

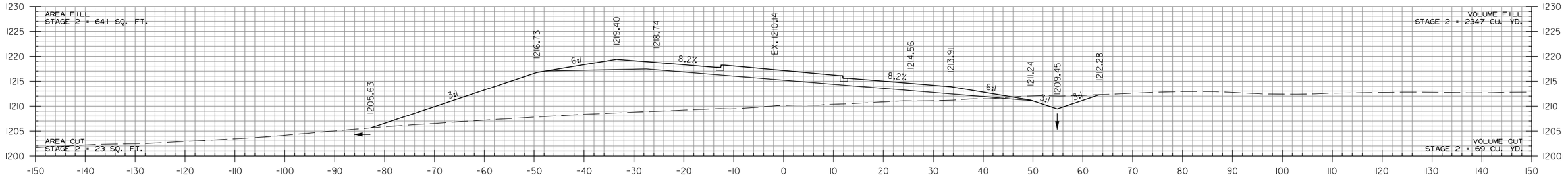

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WORKSPACE: AHTD
L:\2017\170\7600 - XNA Access - NEPA\Drawings\r-090069_CX_AIRPORT BLVD.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 558 | 583 |
| | | CROSS SECTIONS | | | | |

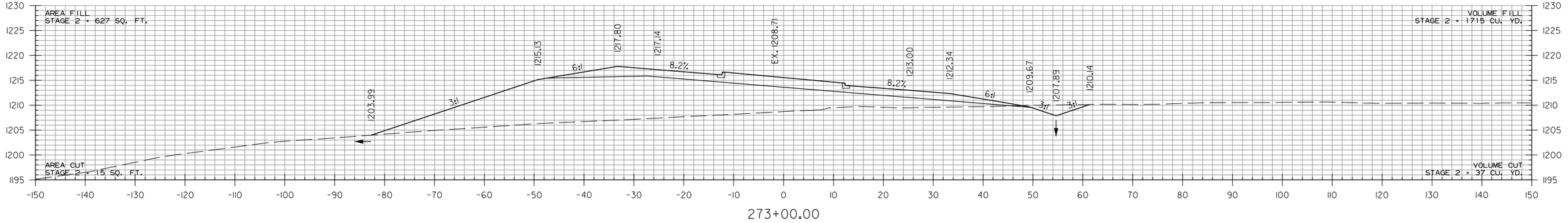



275+00.00

STA. 274+26.84 MAX. SUPERELEVATION (0.082'/')




274+00.00




273+00.00

STA. 272+56.34 MAX. SUPERELEVATION (0.082'/')

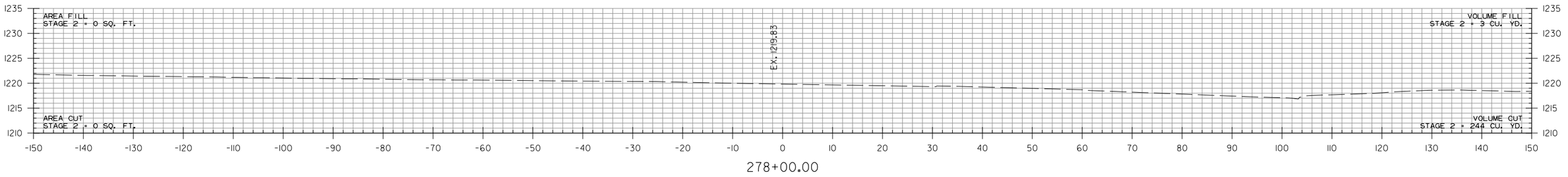
STA. 272+50.00
END SP. DT. RT. 5.26%
BEGIN SP. DT. RT. 1.47%
ELEV. 1207.15

STA. 272+84.64
END SP. DT. RT. 1.47%
ELEV. 1207.66

# AIRPORT BLVD.
# STA. 273+00 TO STA. 275+00

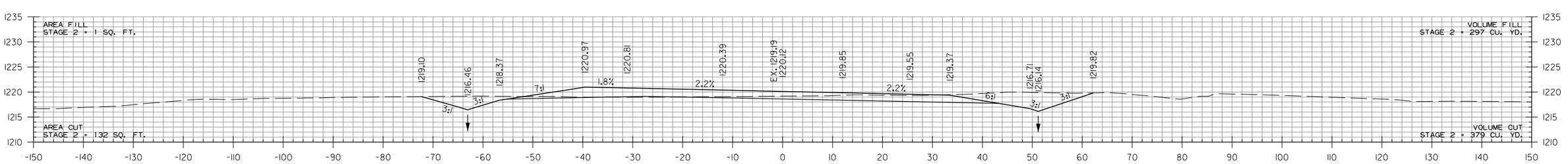
aewierciak 10/20/2023 12:56:38 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 559 | 583 |
| | | CROSS SECTIONS | | | | |

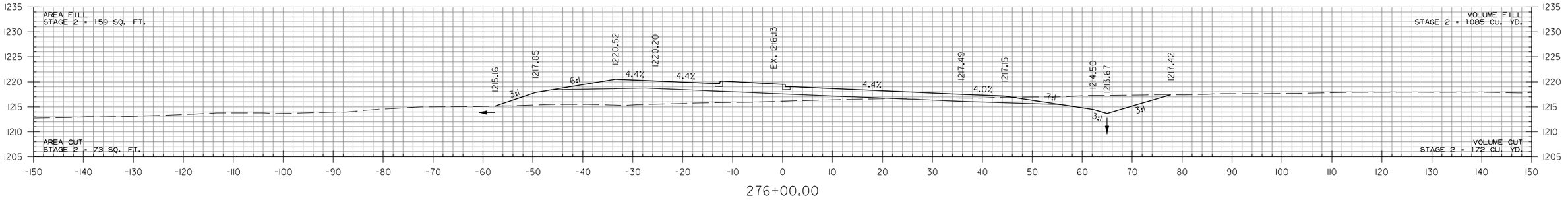



278+00.00

STA. 277+37.88 END SUPERELEVATION (0.008'/', MATCH HWY. 264)




277+00.00

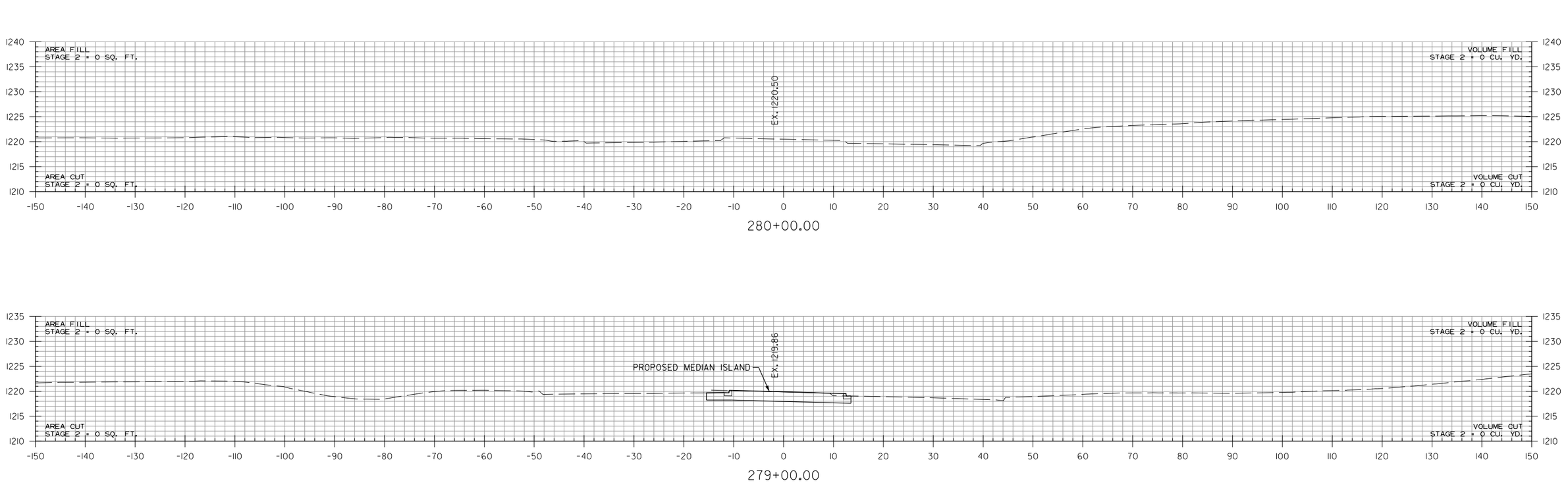



276+00.00

AIRPORT BLVD.
STA. 276+00 TO STA. 278+00


dewierclak 10/20/2023 12:56:38 PM
WORKSPACE: AHTD
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REVISED DATE:

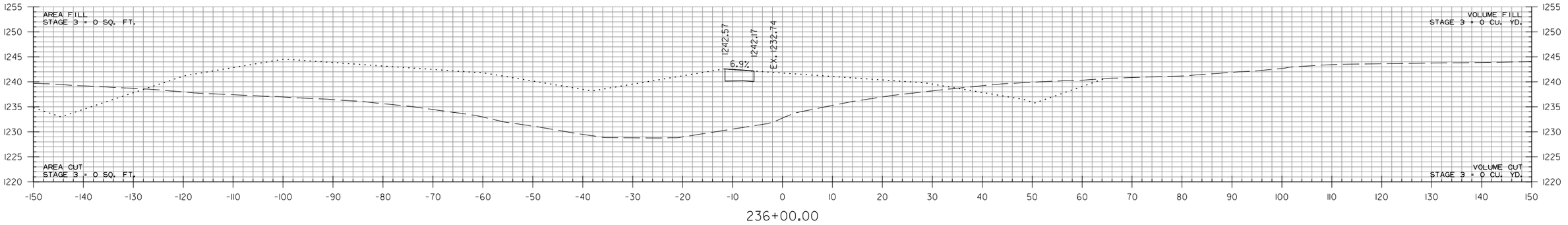
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 560 | 583 |
| | | CROSS SECTIONS | | | | |



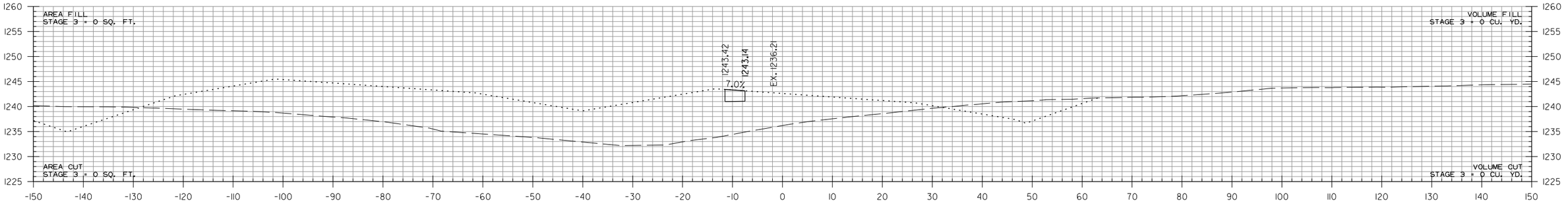

AIRPORT BLVD.
STA. 279+00 TO STA. 280+00


dewierclak 10/20/2023 12:56:38 PM
WORKSPACE: AHTD
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REVISED DATE:

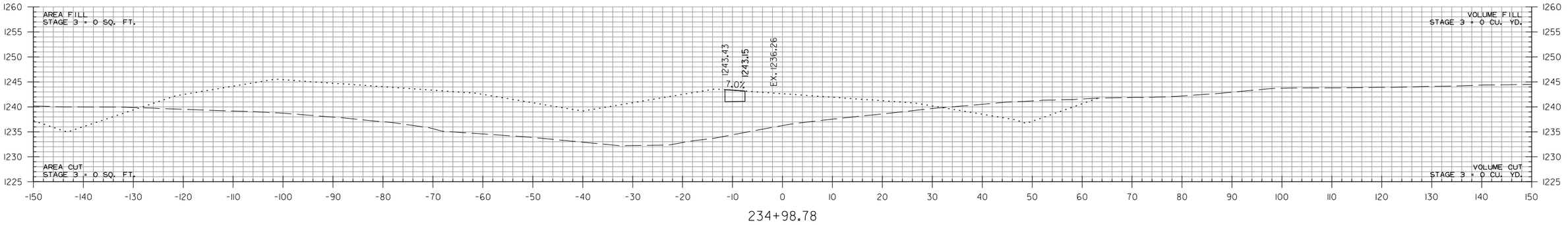
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 561 | 583 |
| | | CROSS SECTIONS | | | | |




236+00.00




235+00.00

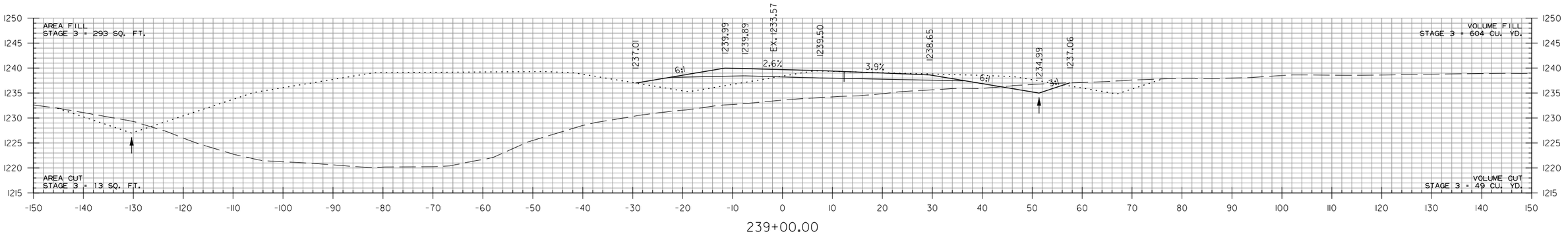


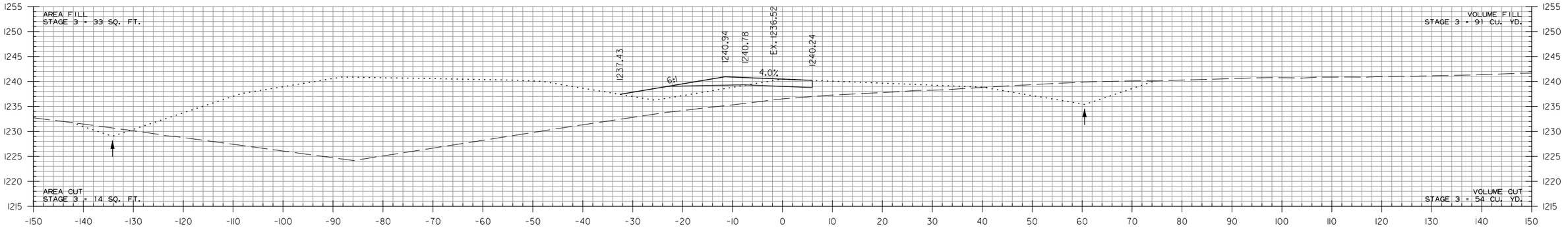

234+98.78

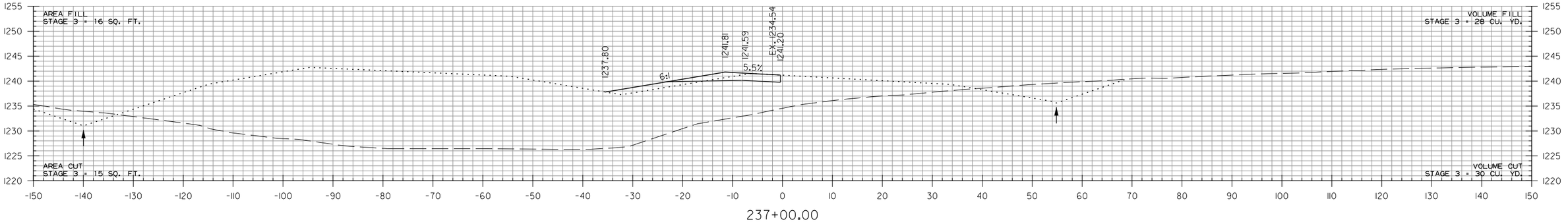
NB CROSSOVER
STA. 234+98.78 TO STA. 236+00

oewiercjak 10/20/2023 12:56:38 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 562 | 583 |
| | | CROSS SECTIONS | | | | |



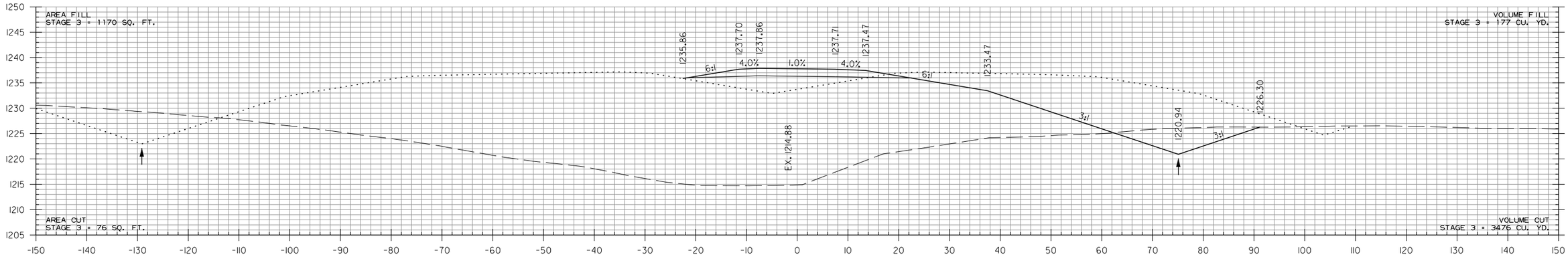




NB CROSSOVER
STA. 237+00 TO STA. 239+00

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WORKSPACE: AHTD
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REVISED DATE:

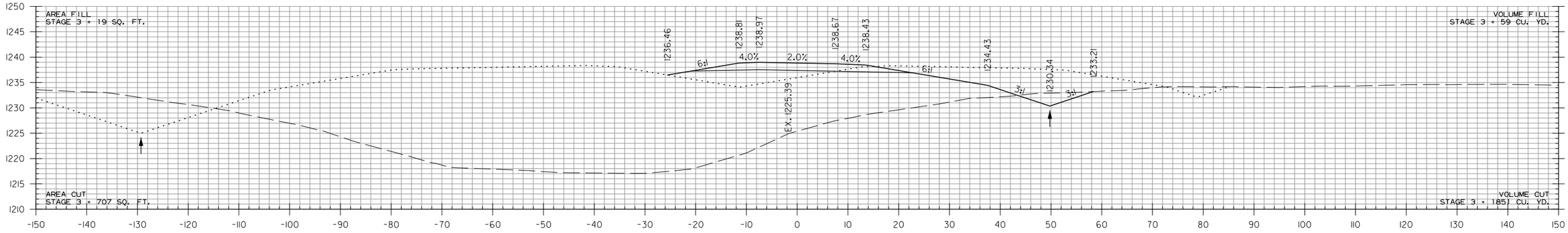
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 563 | 583 |
| | | CROSS SECTIONS | | | | |




241+00.00

STA. 240+27.55 BEGIN SUPERELEVATION

STA. 240+50.00
END SP. DT. RT. -6.05%
BEGIN SP. DT. RT. -12.77%
ELEV. 1227.32



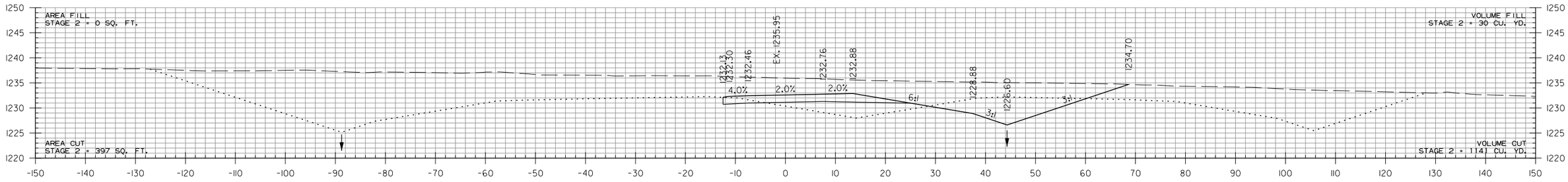

240+00.00

STA. 239+25.00
BEGIN SP. DT. RT. -6.05%
ELEV. 1234.88

NB CROSSOVER
STA. 240+00 TO STA. 241+00


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WORKSPACE: AHTD
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REVISED DATE:

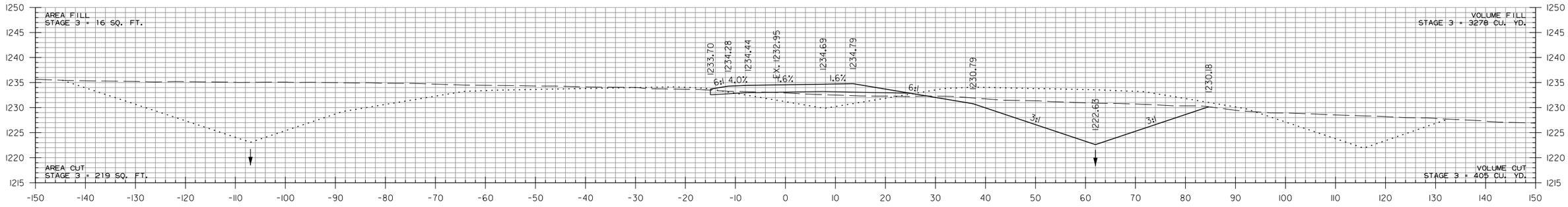
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 564 | 583 |
| | | CROSS SECTIONS | | | | |




244+00.00

STA. 243+27.55 MAX. SUPERELEVATION (0.020'/') R.C.

STA. 243+50.00
END SP. DT. RT. 5.30%
BEGIN SP. DT. RT. 2.65%
ELEV. 1225.28

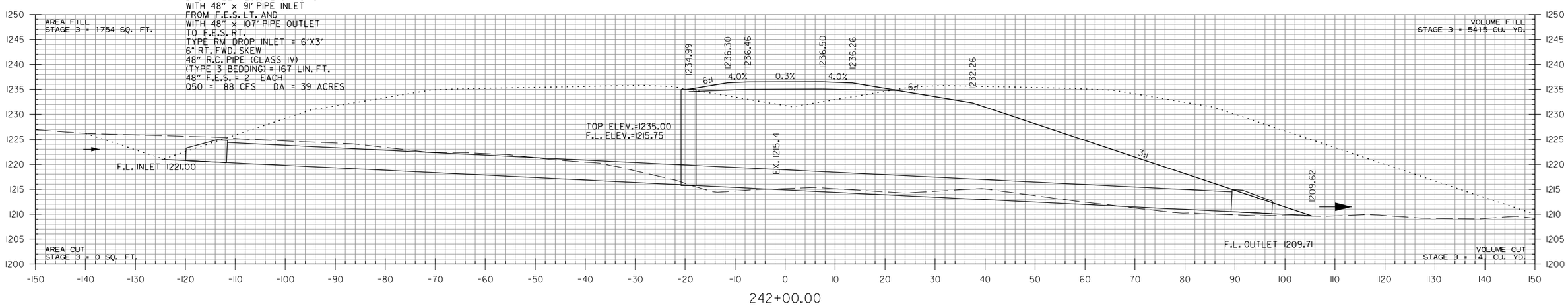



243+00.00

STA. 242+30.00
BEGIN SP. DT. RT. 17.89%
ELEV. 1211.36

STA. 242+90.00
END SP. DT. RT. 17.89%
BEGIN SP. DT. RT. 5.30%
ELEV. 1222.10

STA. 241+98 CONSTRUCT
DROP INLET 20.6' LT. H=19'-3"
WITH 48" x 91' PIPE INLET
FROM F.E.S. LT. AND
WITH 48" x 107' PIPE OUTLET
TO F.E.S. RT.
TYPE RM DROP INLET = 6'X3'
6° RT. FWD. SKEW
48" R.C. PIPE (CLASS IV)
(TYPE 3 BEDDING) = 167 LIN. FT.
48" F.E.S. = 2 EACH
Q50 = 88 CFS DA = 39 ACRES




242+00.00

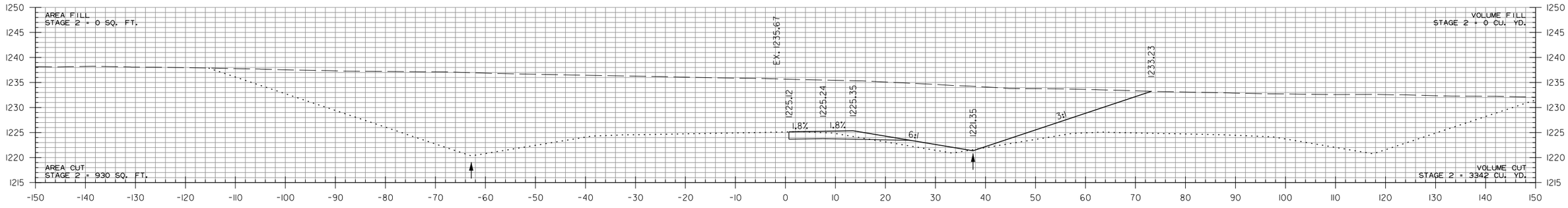
STA. 241+70.00
END SP. DT. RT. -12.77%
BEGIN SP. DT. RT. -7.95%
ELEV. 1212.00

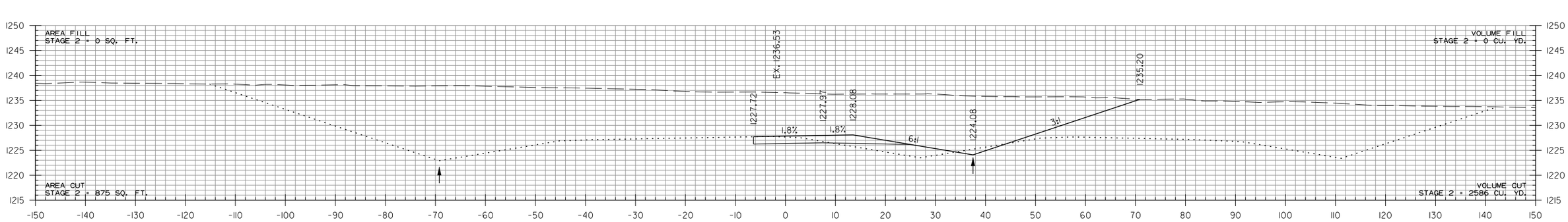
STA. 242+00.00
END SP. DT. RT. -7.95%
ELEV. 1209.62

NB CROSSOVER
STA. 242+00 TO STA. 244+00

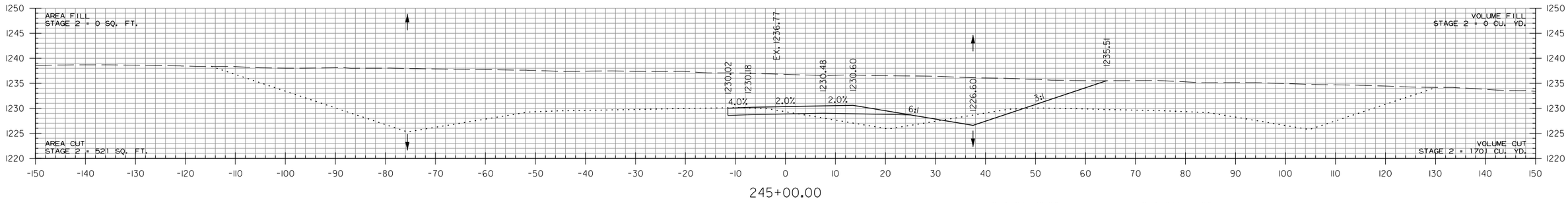
aewlerclark 10/20/2023 12:56:39 PM
WORKSPACE: AHTD
L:\2017\17017600 - XNA Access - NEPA\Drawings\r090069_CX_NB CROSSOVER.dgn
REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 565 | 583 |
| | | CROSS SECTIONS | | | | |




STA. 245+30.96 MATCH PR. SUPERELEVATION (0.020'/') R.C.



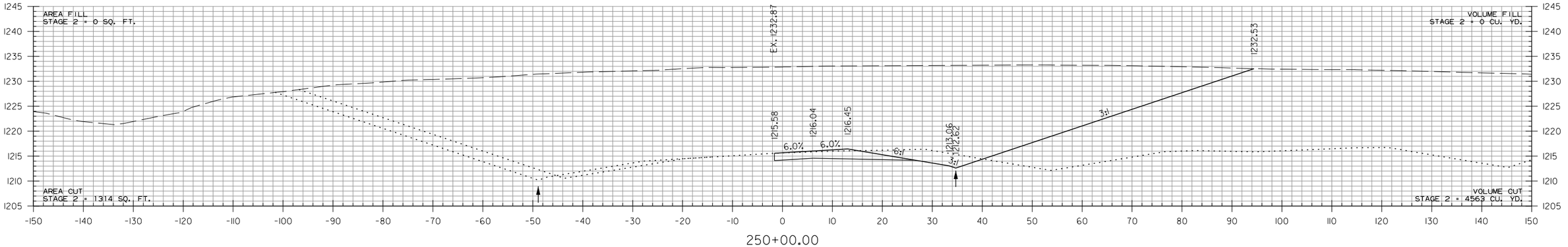

STA. 244+10.00
END SP. DT. RT. 2.65%
BEGIN SP. DT. RT. 0.50%
ELEV. 1226.87

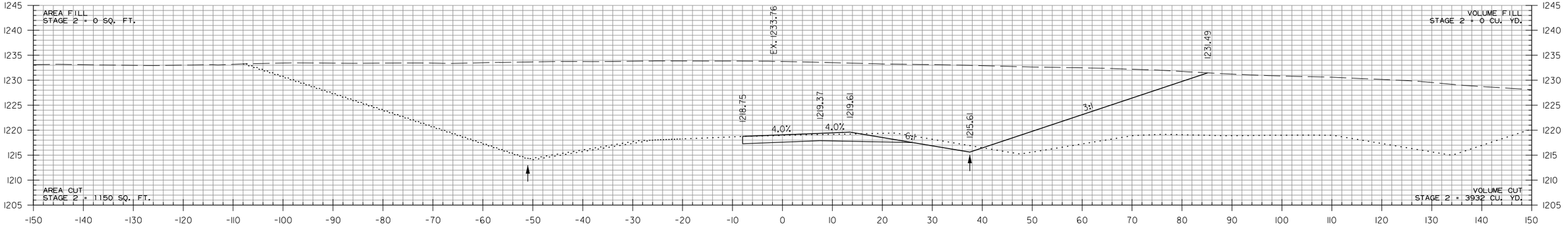
STA. 244+75.00
END SP. DT. RT. 0.50%
ELEV. 1227.20

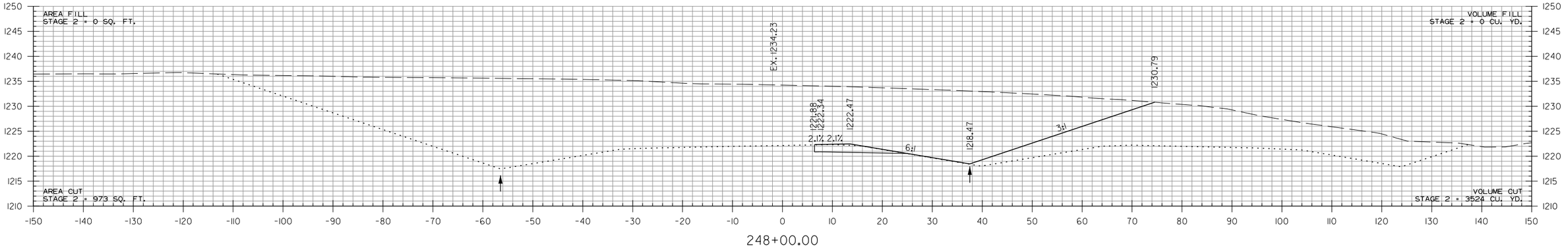
# NB CROSSOVER
# STA. 245+00 TO STA. 247+00


aewierciak 10/20/2023 12:56:39 PM
WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 566 | 583 |
| | | CROSS SECTIONS | | | | |



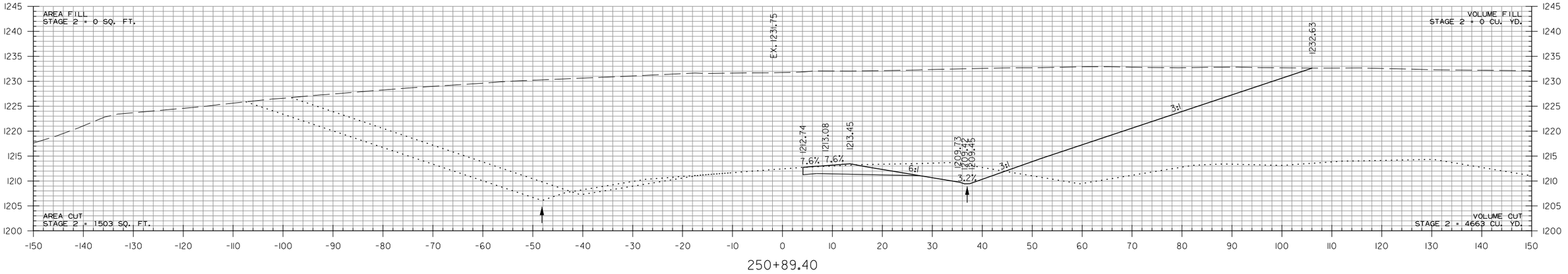




NB CROSSOVER
STA. 248+00 TO STA. 250+00


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REVISED DATE:

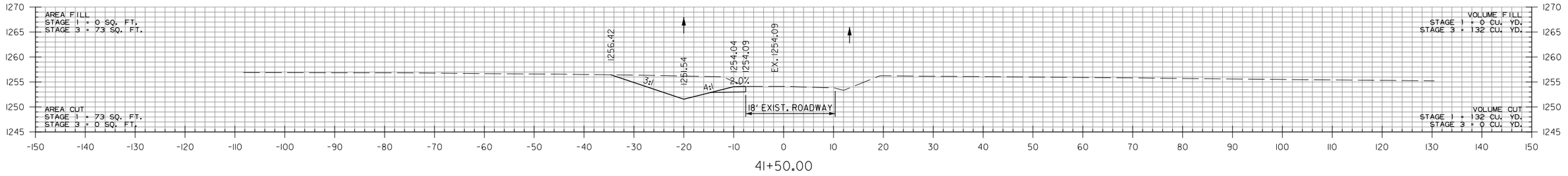
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 567 | 583 |
| | | CROSS SECTIONS | | | | |



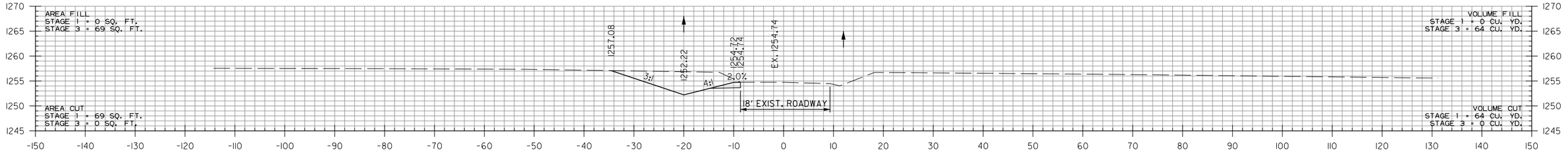

NB CROSSOVER
STA. 250+89.40 TO STA. 250+89.40


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WORKSPACE: AHTD
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REVISED DATE:

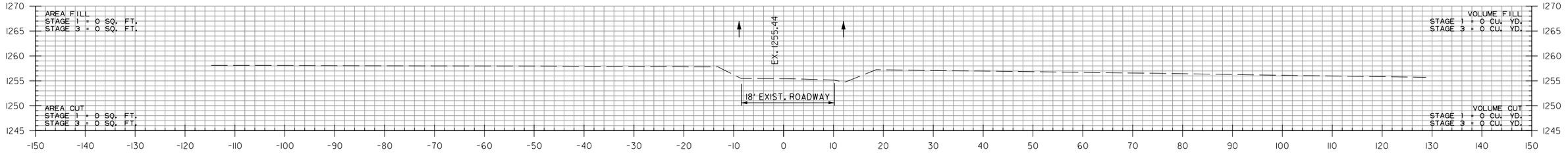
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 568 | 583 |
| | | CROSS SECTIONS | | | | |




41+50.00




41+00.00

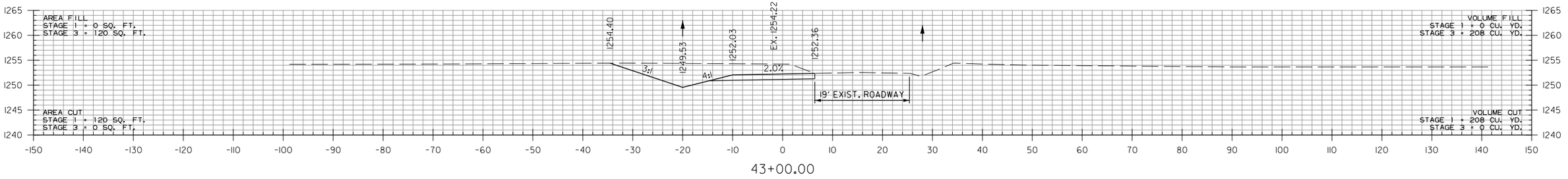



40+50.00

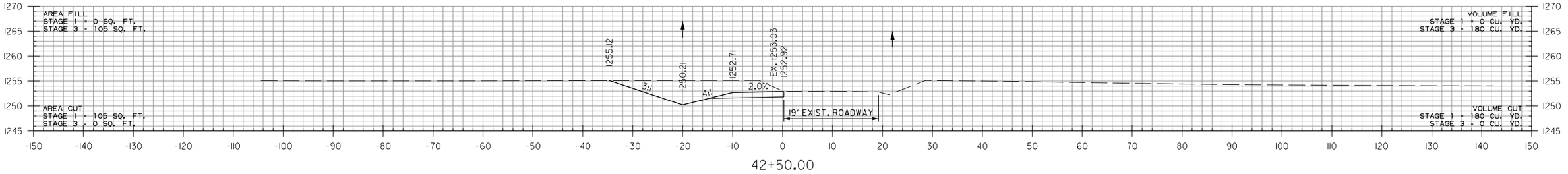
MALONE LN. DETOUR
STA. 40+00 TO STA. 41+50


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WORKSPACE: AHTD
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REVISED DATE:

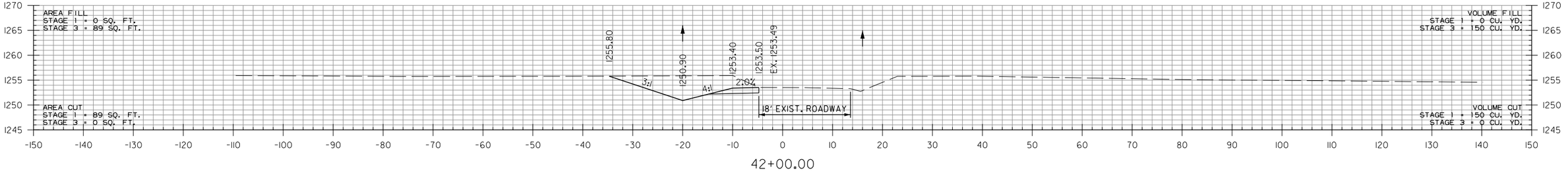
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 569 | 583 |
| | | CROSS SECTIONS | | | | |




43+00.00




42+50.00

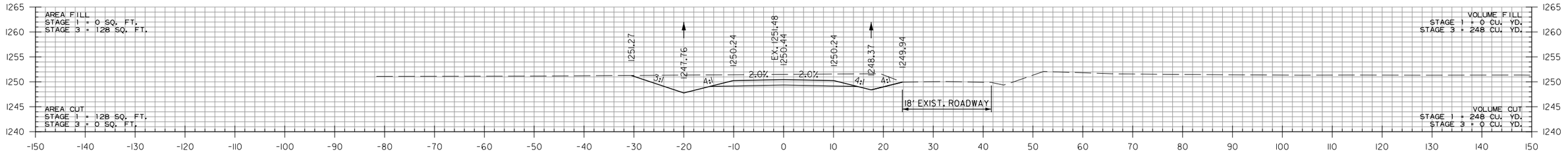



42+00.00

MALONE LN. DETOUR
STA. 42+00 TO STA. 43+00

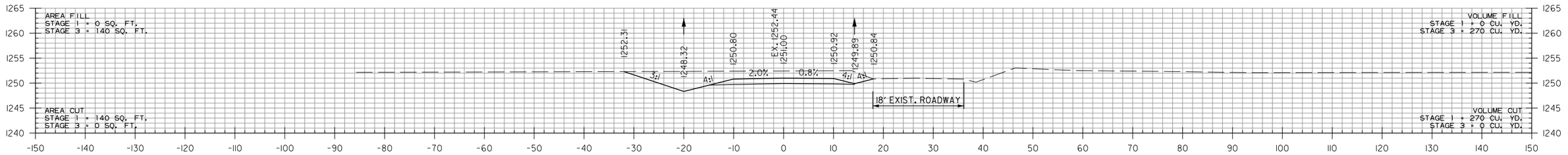

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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 570 | 583 |
| | | CROSS SECTIONS | | | | |

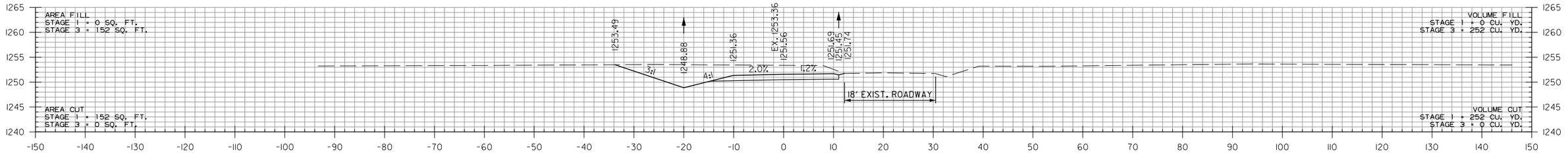



44+50.00

STA. 44+30.63 END SUPERELEVATION RT. LANE (N.C.)




44+00.00



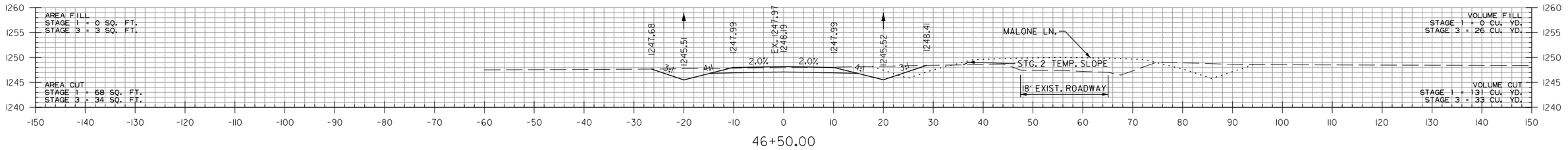

43+50.00

STA. 43+30.63 BEGIN SUPERELEVATION RT. LANE (R.C.)

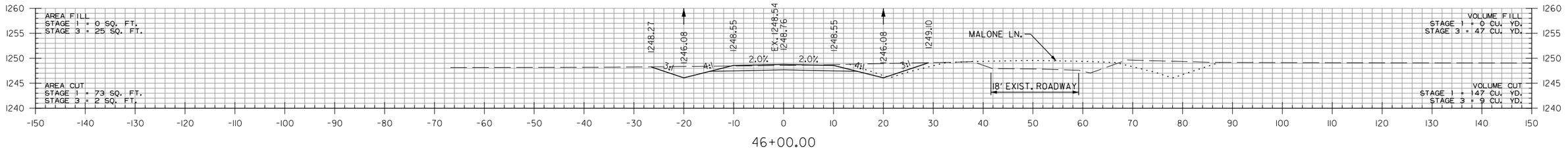
MALONE LN. DETOUR
STA. 43+50 TO STA. 44+50


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REVISED DATE:

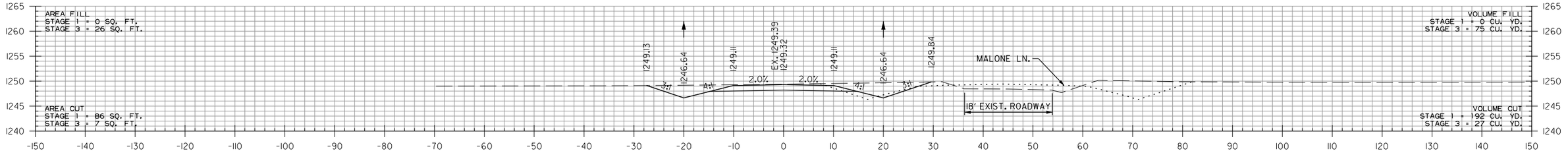
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 571 | 583 |
| | | CROSS SECTIONS | | | | |



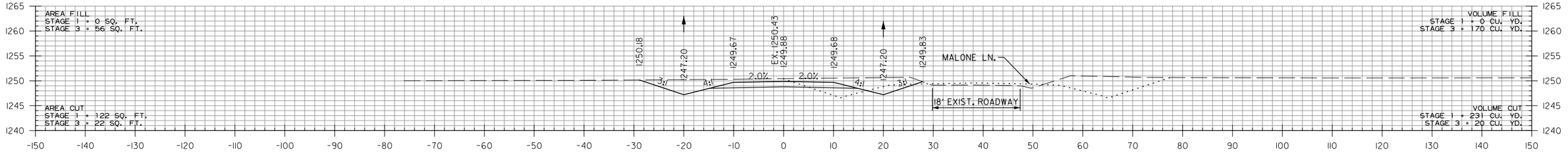

46+50.00




46+00.00




45+50.00

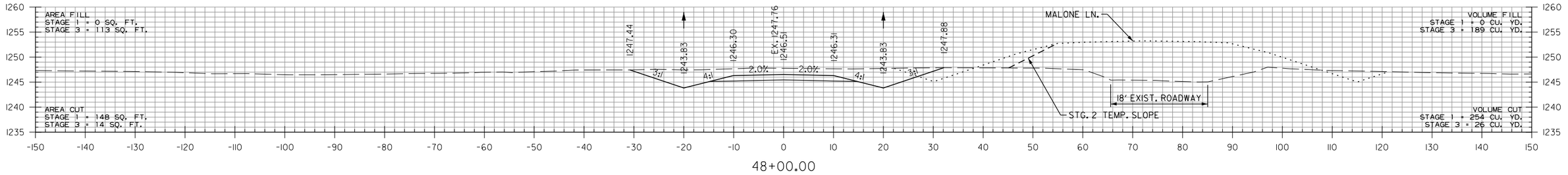



45+00.00

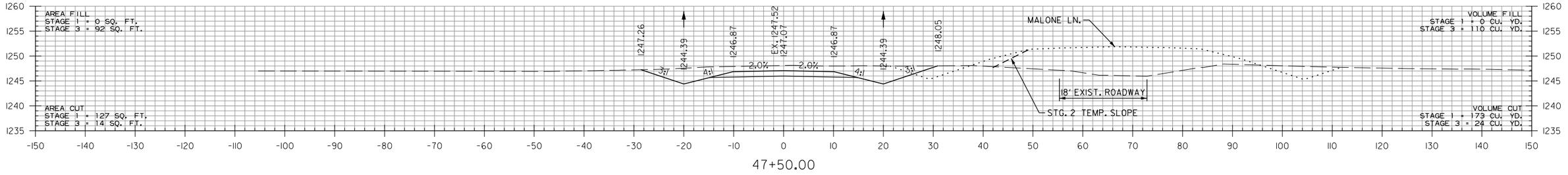
MALONE LN. DETOUR
STA. 45+00 TO STA. 46+50


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WORKSPACE: AHTD
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REVISED DATE:

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 572 | 583 |
| | | CROSS SECTIONS | | | | |



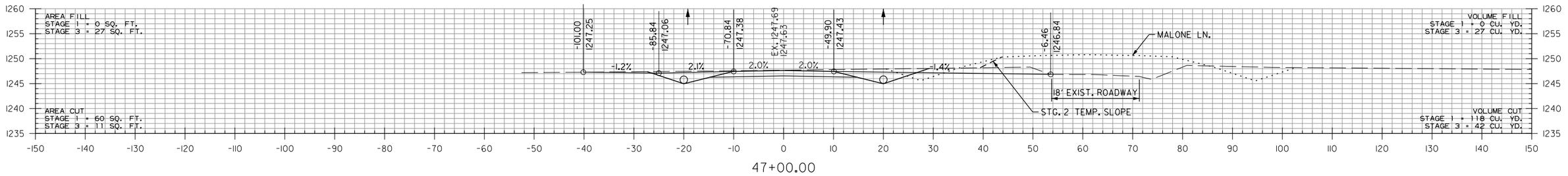

48+00.00




47+50.00

STA. 47+03 INSTALL
18"X40' PIPE CULVERT
LT. SIDE DRAIN
CONSTRUCT APPROACH
0 CU. YDS. FILL
10 CU. YDS. CUT

STA. 47+03 INSTALL
18"X48' PIPE CULVERT
RT. SIDE DRAIN
CONSTRUCT APPROACH
0 CU. YDS. FILL
28 CU. YDS. CUT

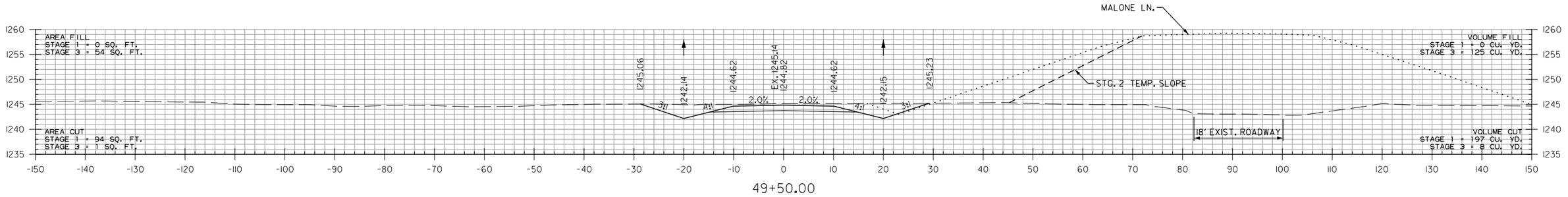



47+00.00

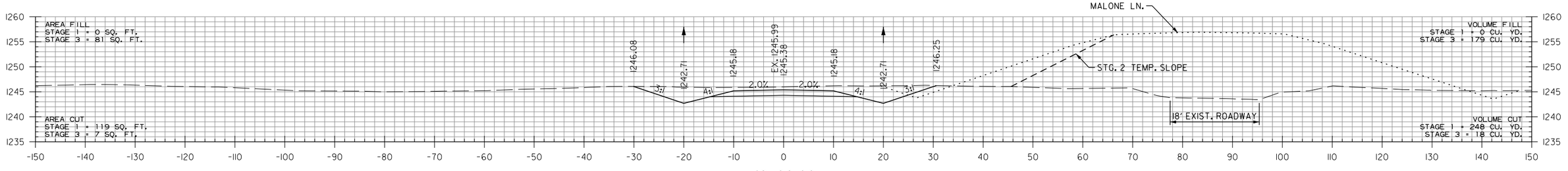
MALONE LN. DETOUR
STA. 47+00 TO STA. 48+00


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WORKSPACE: AHTD
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REVISED DATE:

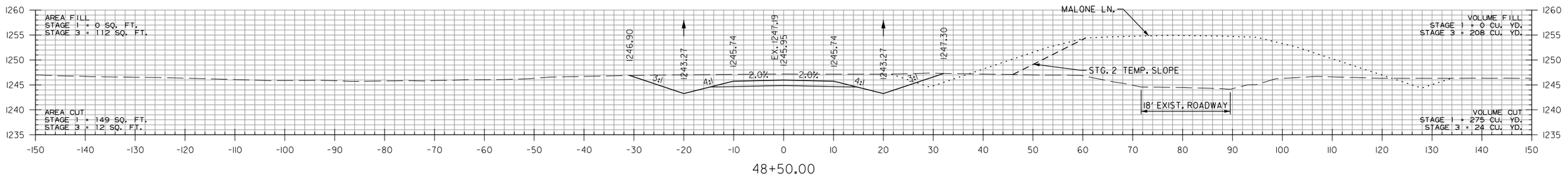
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 573 | 583 |
| | | CROSS SECTIONS | | | | |




49+50.00




49+00.00

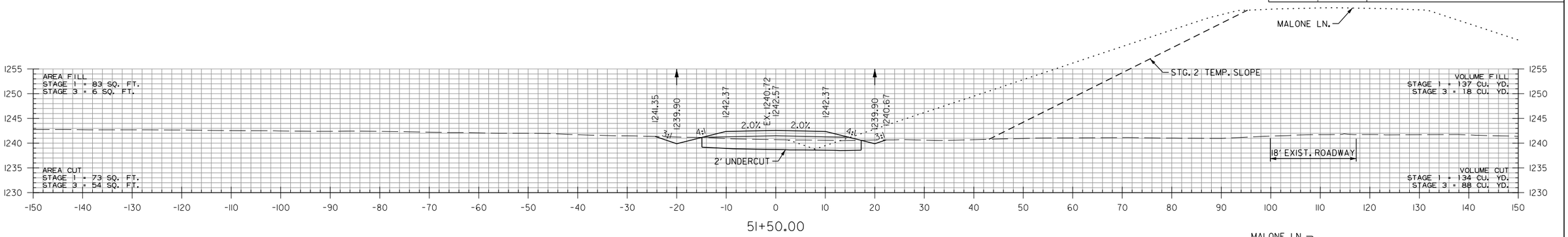



48+50.00

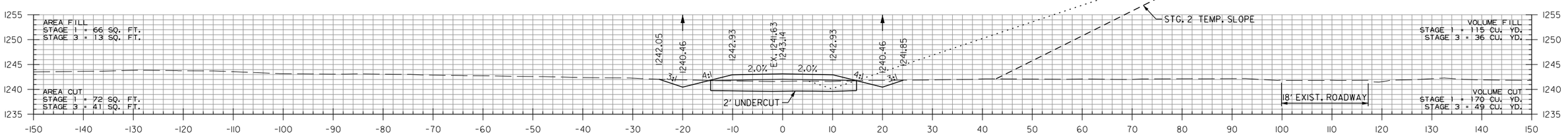
MALONE LN. DETOUR
STA. 48+50 TO STA. 49+50


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REVISED DATE:

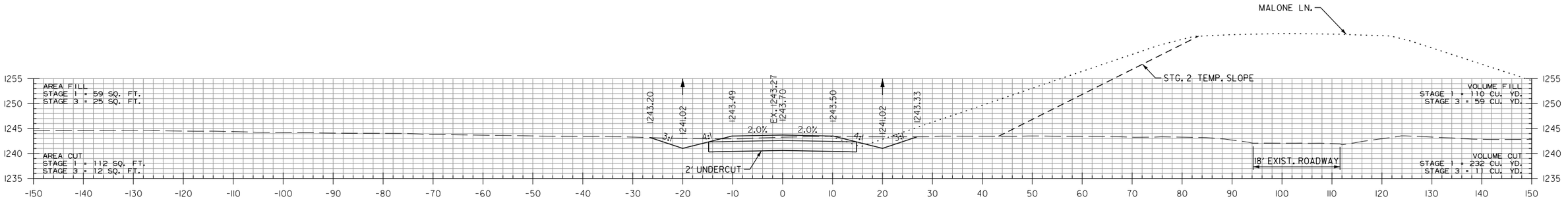
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 574 | 583 |
| | | CROSS SECTIONS | | | | |



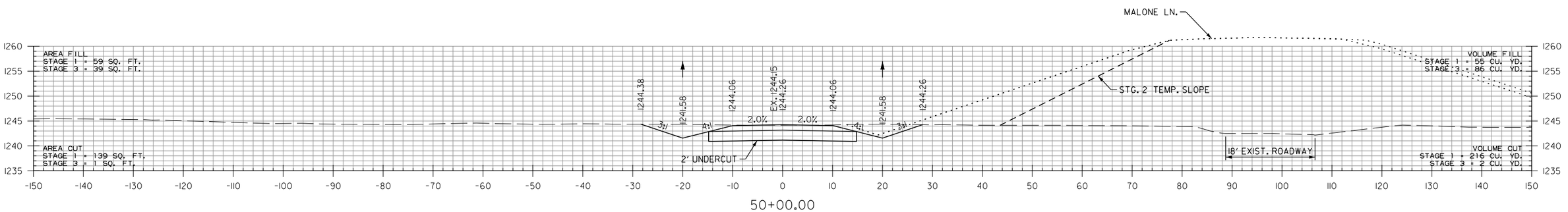

51+50.00




51+00.00




50+50.00

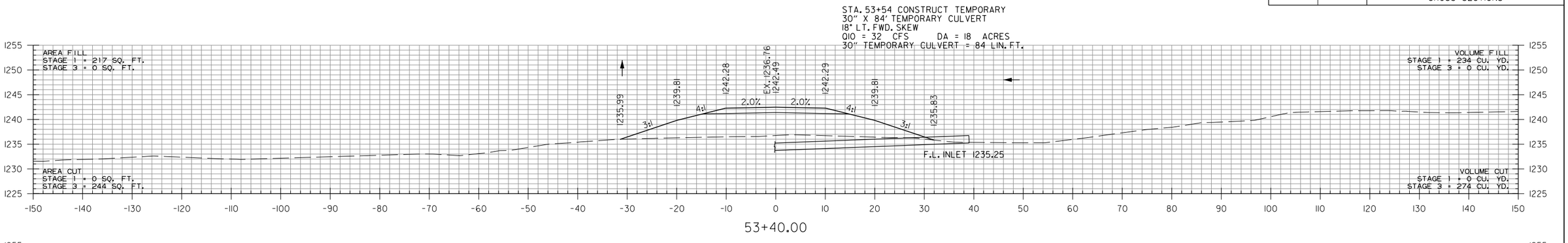



50+00.00

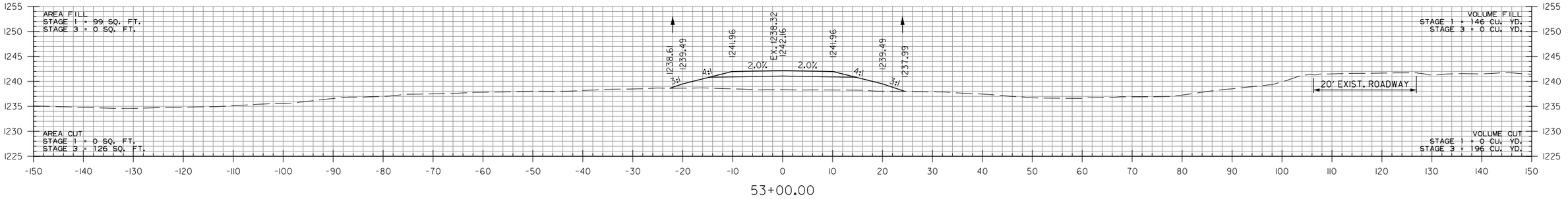
MALONE LN. DETOUR
STA. 50+00 TO STA. 51+50


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REVISED DATE:

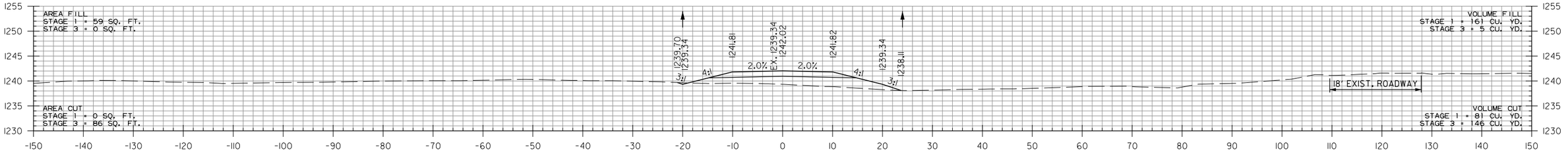
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 575 | 583 |
| | | CROSS SECTIONS | | | | |



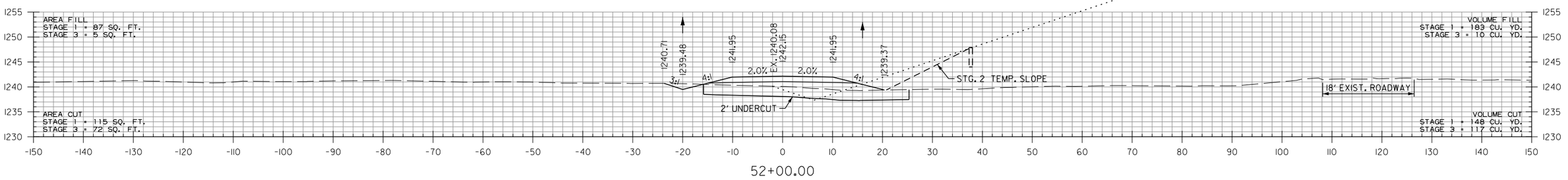

53+40.00




53+00.00




52+50.00

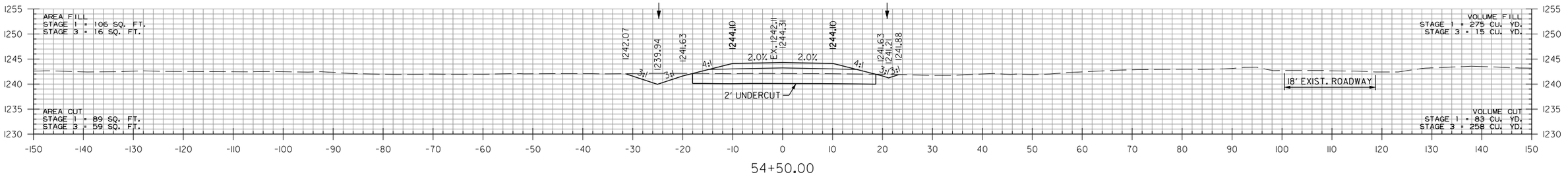



52+00.00

MALONE LN. DETOUR
STA. 52+00 TO STA. 53+00


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REVISED DATE:

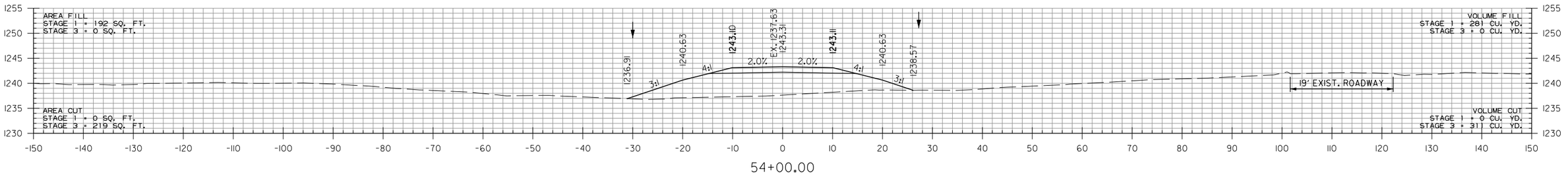
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 576 | 583 |
| | | CROSS SECTIONS | | | | |



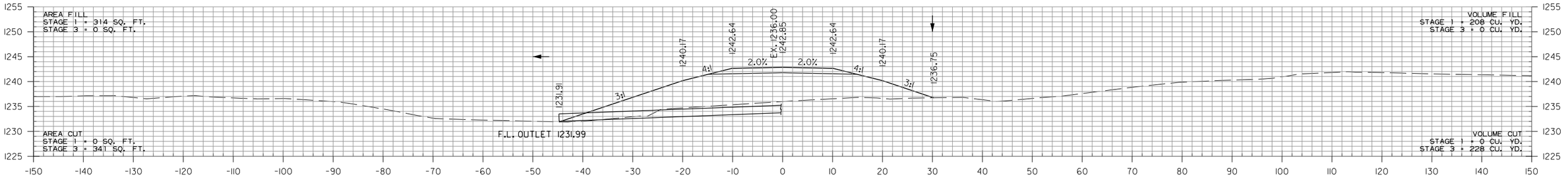

54+50.00

STA. 54+14.00
BEGIN SP. DT. LT. 0.30%
ELEV. 1239.33

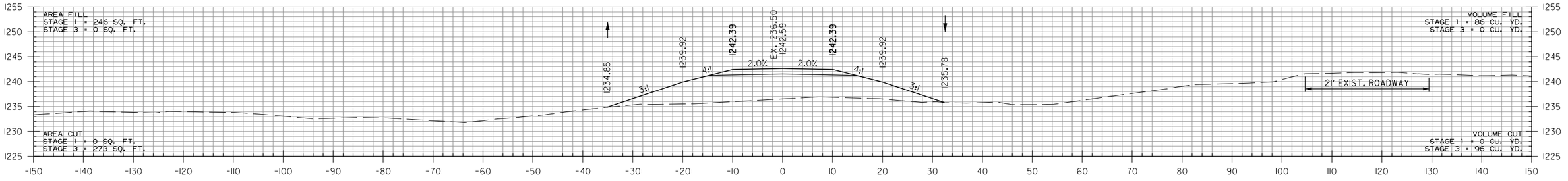
STA. 54+33.00
BEGIN SP. DT. RT. 0.30%
ELEV. 1241.16




54+00.00




53+70.00

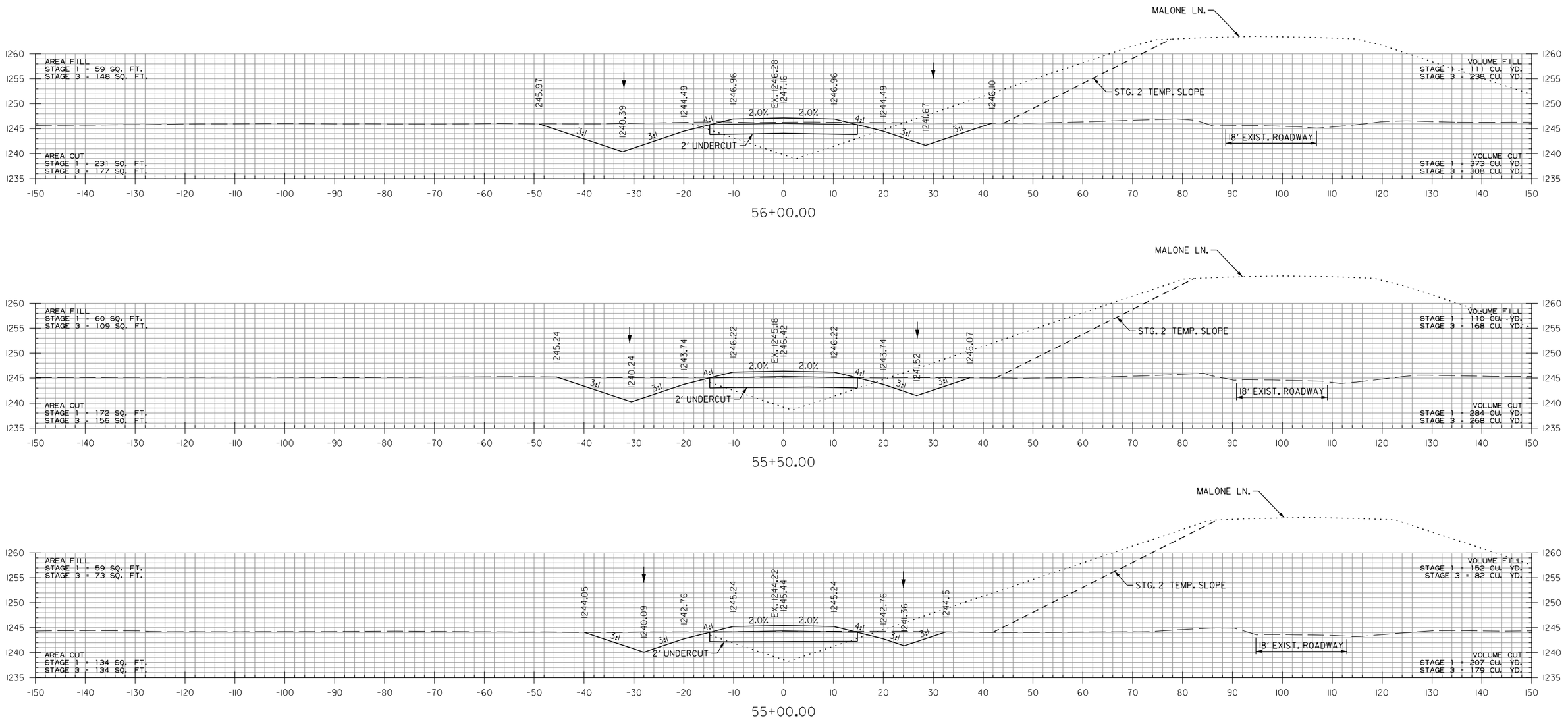



53+50.00

MALONE LN. DETOUR
STA. 53+50 TO STA. 54+50

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WORKSPACE: AHTD
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REVISED DATE:

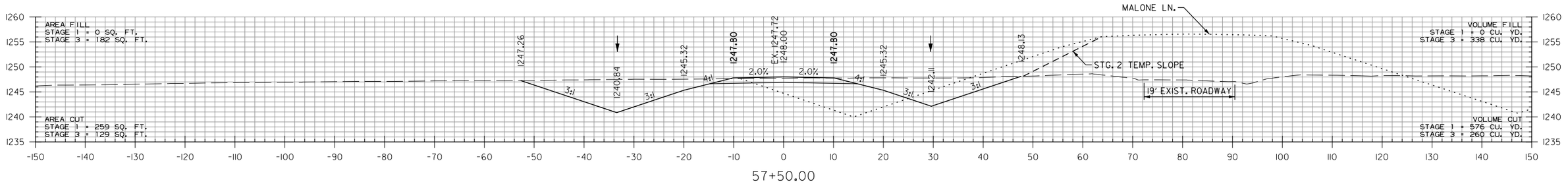
| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | 090069 | 577 | 583 |
| | | CROSS SECTIONS | | | | |



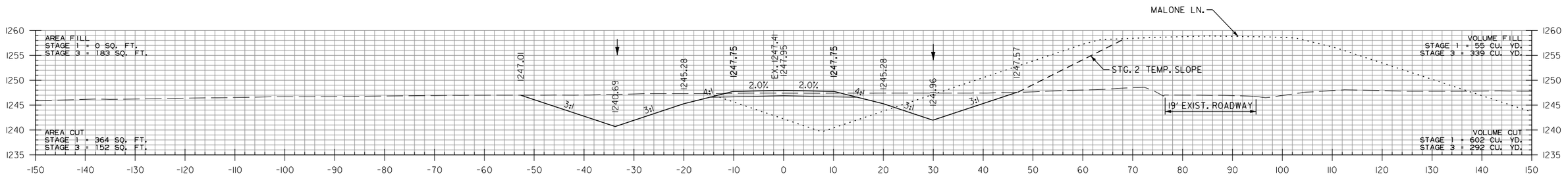

MALONE LN. DETOUR
STA. 55+00 TO STA. 56+00


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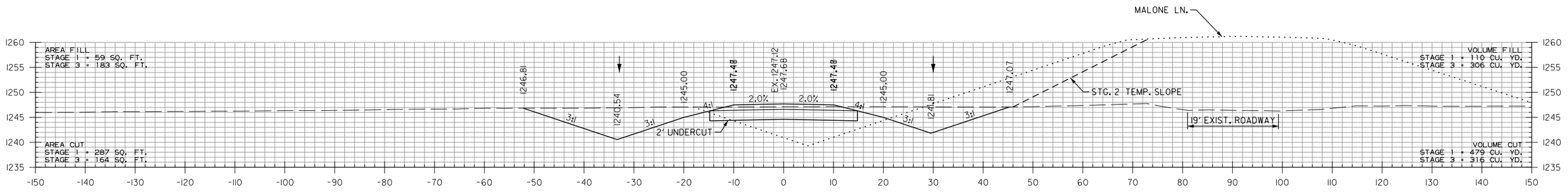
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57+50.00




57+00.00

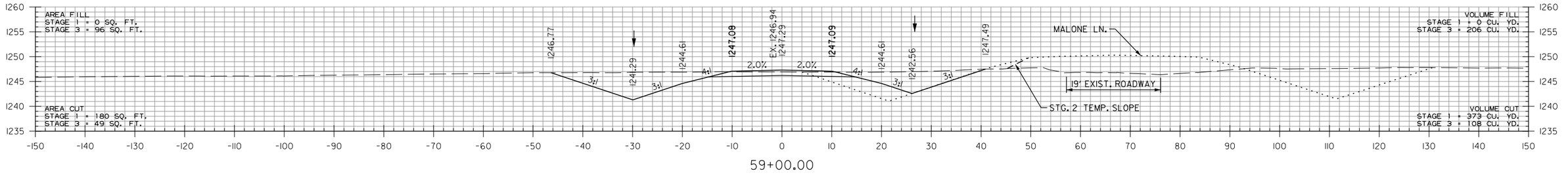



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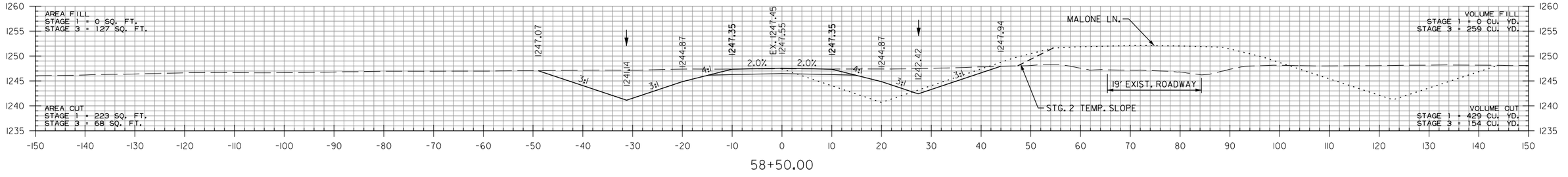
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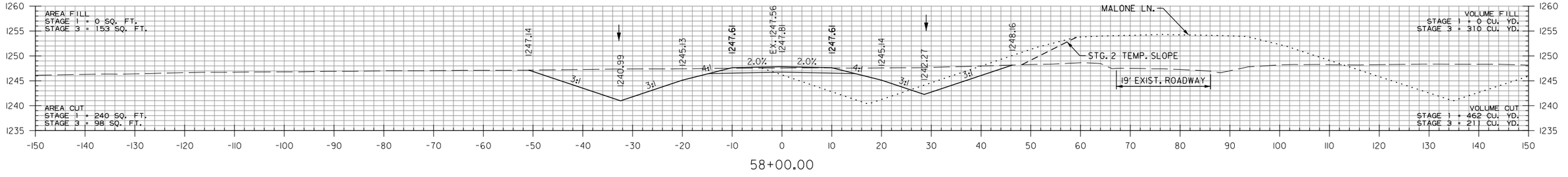
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59+00.00




58+50.00

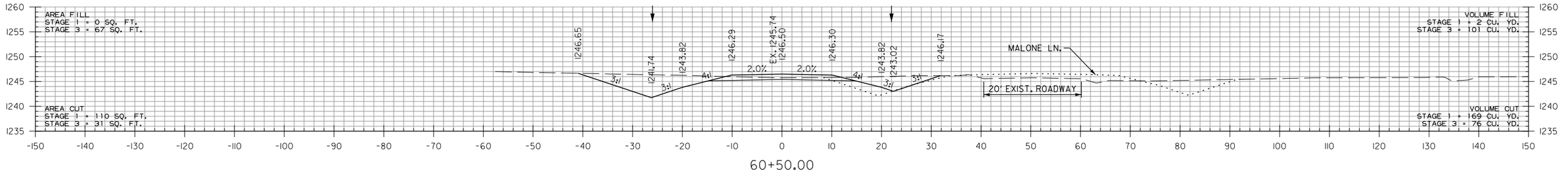



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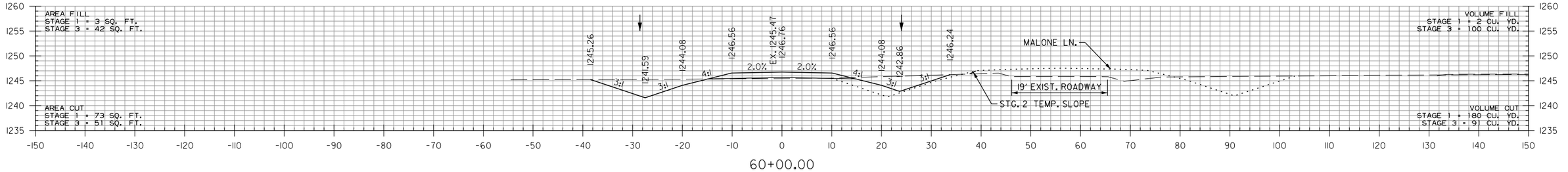
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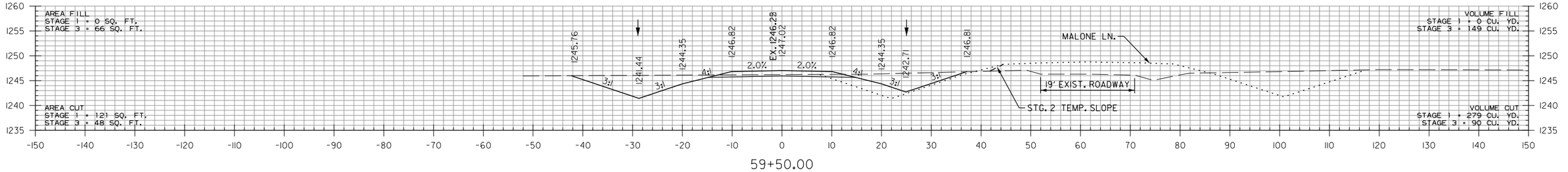
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60+50.00




60+00.00

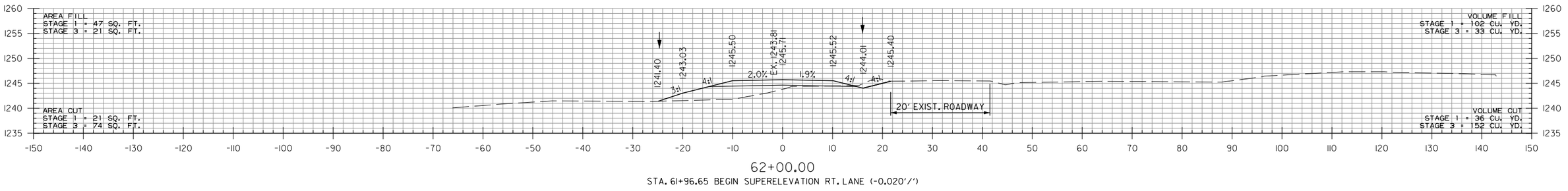



59+50.00

MALONE LN. DETOUR
STA. 59+50 TO STA. 60+50

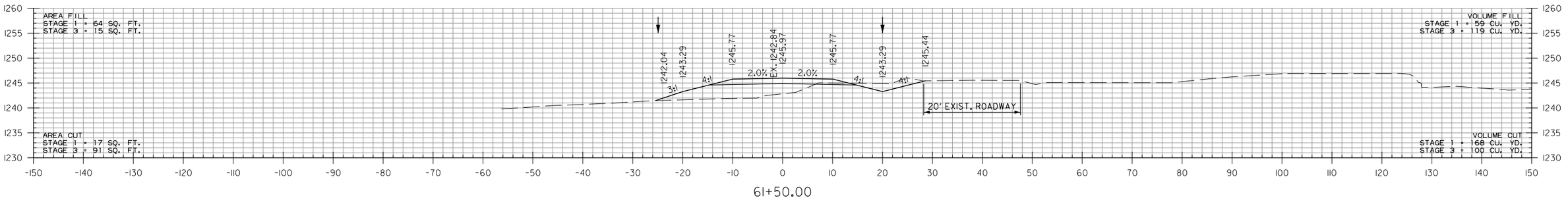

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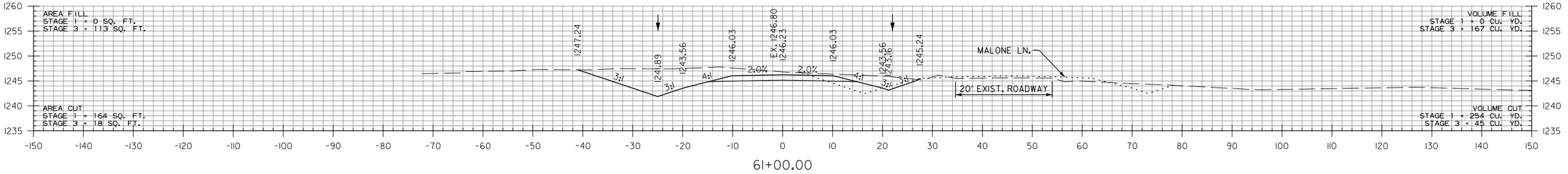

62+00.00

STA. 61+96.65 BEGIN SUPERELEVATION RT. LANE (-0.020'/')




61+50.00

STA. 61+45.00
END SP. DT. RT. 0.30%
ELEV. 1243.30

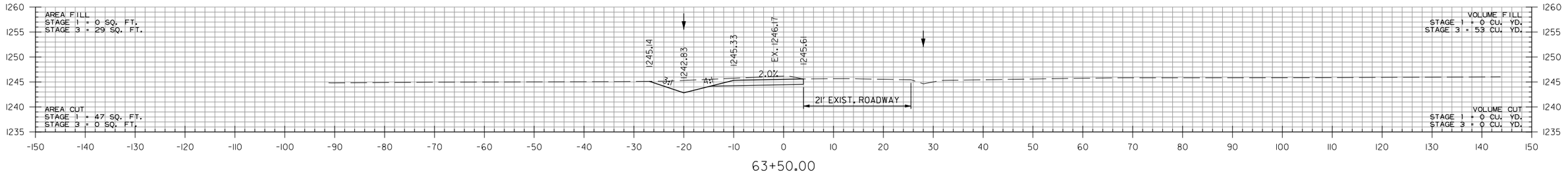



61+00.00

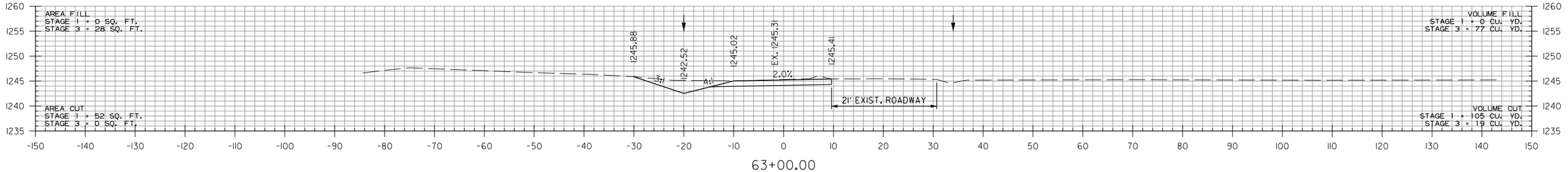
MALONE LN. DETOUR
STA. 61+00 TO STA. 62+00


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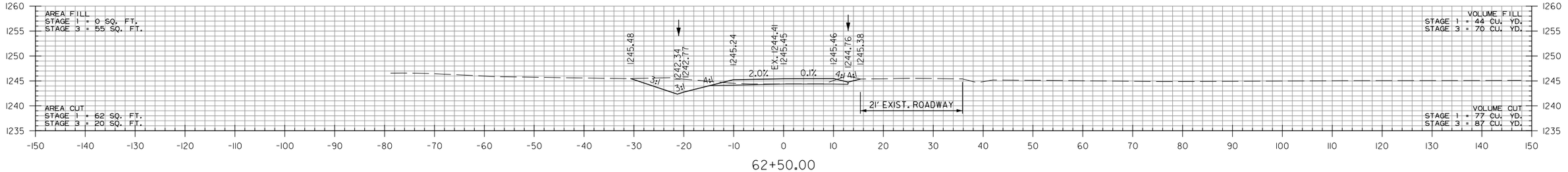

63+50.00




63+00.00

STA. 62+96.65 END SUPERELEVATION RT. LANE (0.020'/')

STA. 62+96.65
END SP. DT. LT. 0.30%
ELEV. 1242.48

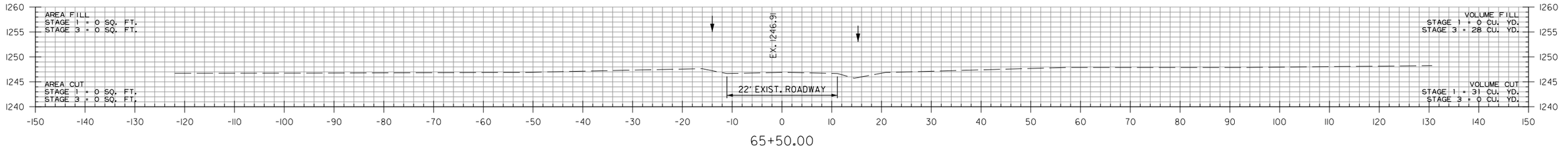



62+50.00

MALONE LN. DETOUR
STA. 62+50 TO STA. 63+50


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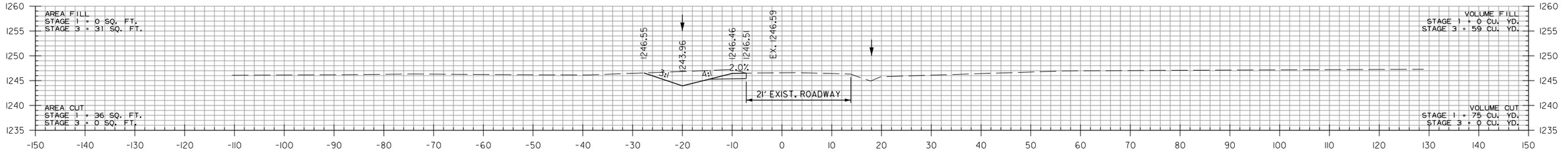
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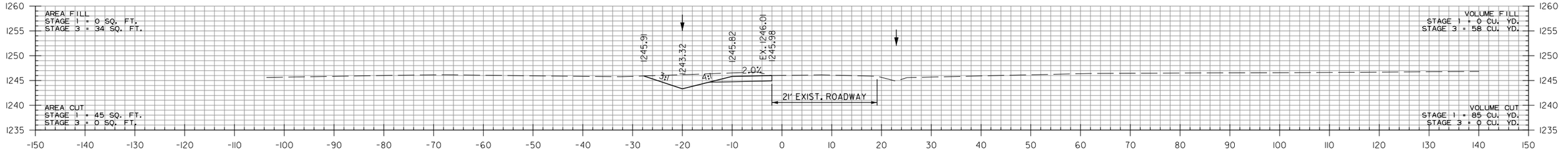

65+50.00




65+00.00




64+50.00



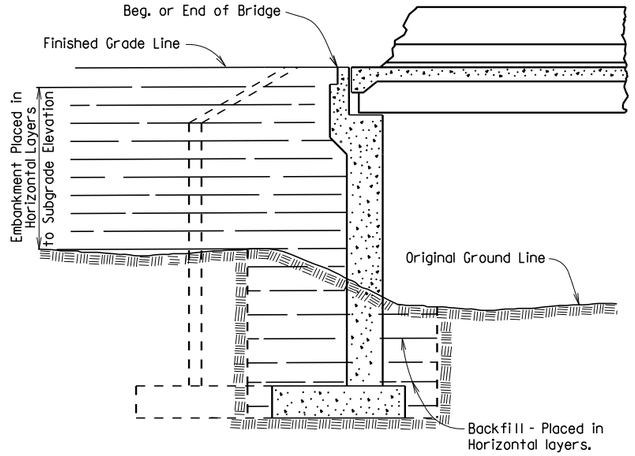

64+00.00

MALONE LN. DETOUR
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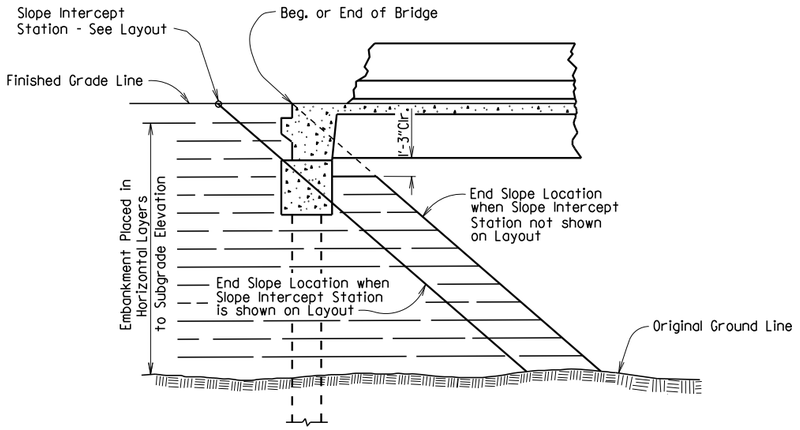

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| | | | | JOB NO. | | | | |

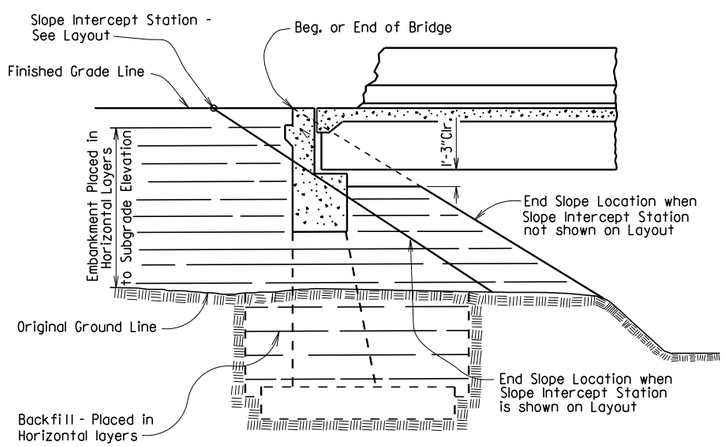
1 EMBANKMENT & BACKFILL 55000



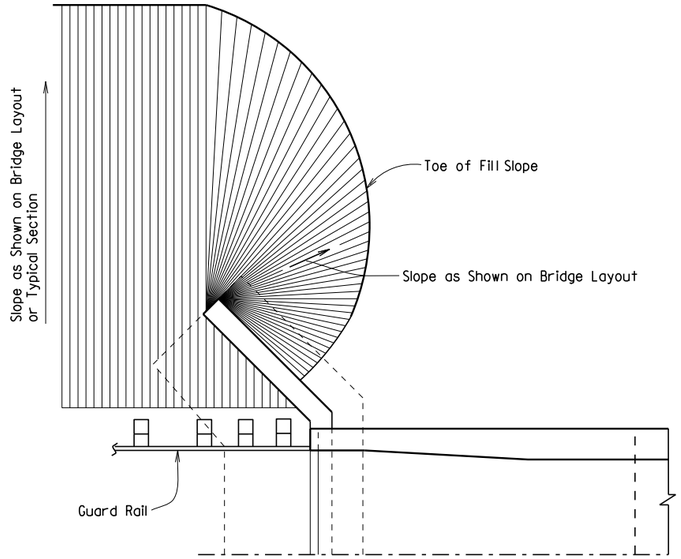

EMBANKMENT CONSTRUCTION AND FOOTING BACKFILL AT VERTICAL WALL ABUTMENTS



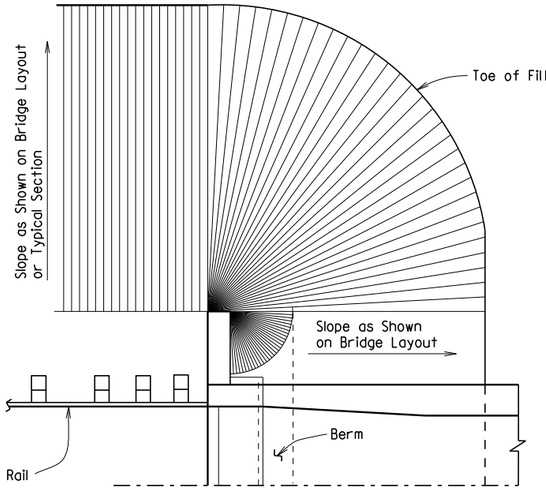

EMBANKMENT CONSTRUCTION AT SPILL-THROUGH PILE END BENTS



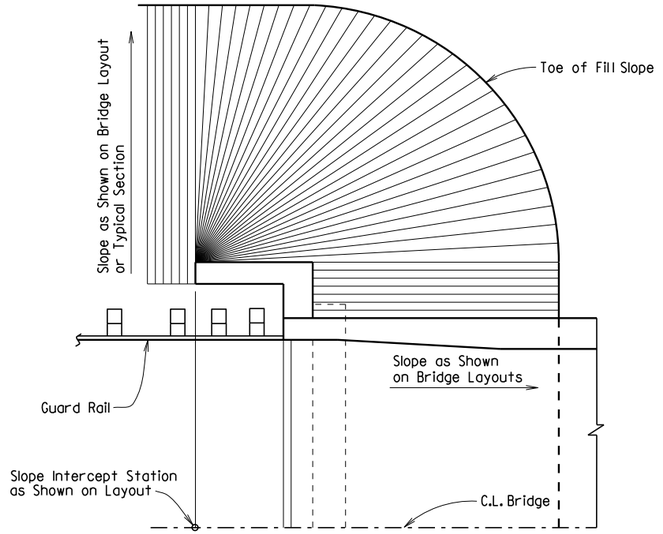

EMBANKMENT CONSTRUCTION AND FOOTING BACKFILL AT SPILL-THROUGH END BENTS



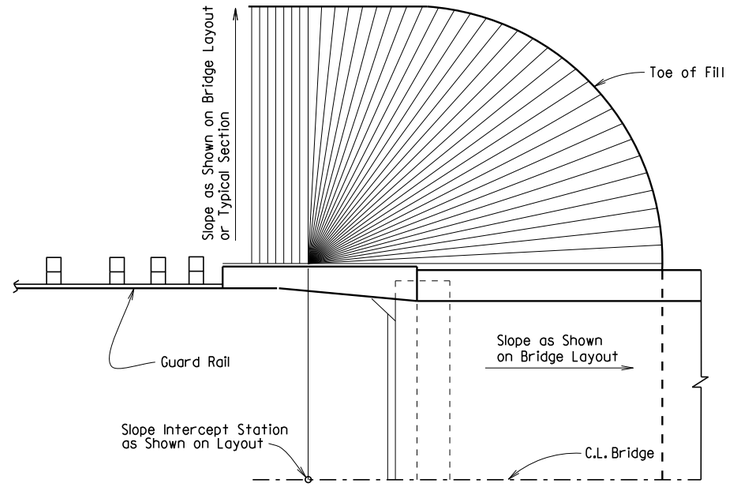

VERTICAL WALL ABUTMENTS




SPILL-THROUGH END BENTS WITH STUB WING




SPILL-THROUGH END BENTS WITH TURNBACK WING




SPILL-THROUGH END BENTS WITH TRANSITION WING

METHOD OF DETERMINING FILL SLOPE LOCATION AT BRIDGE ENDS

GENERAL NOTES

The Bridge End Embankment shall be defined as a section of embankment, not less than 20 feet long adjacent to the bridge end, together with the side slopes and slopes under the bridge end including around the end of wingwalls. Embankment adjacent to structures shall be constructed in 6 inch horizontal layers (loose measure) and compacted by the use of mechanical equipment to the satisfaction of the Engineer. Refer to Subsections 210.09, 210.10 and 801.08 for construction requirements.

# STANDARD DETAILS FOR EMBANKMENT CONSTRUCTION AND BACKFILL AT BRIDGE ENDS

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 2-27-2014 FILENAME: b55000.dgn

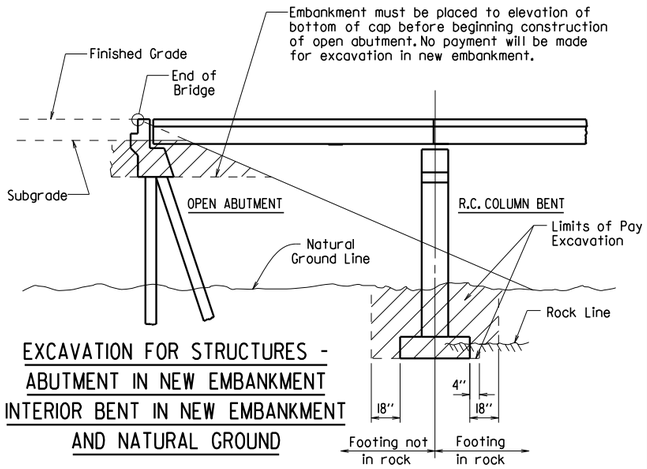
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DESIGNED BY: STD. DATE: -

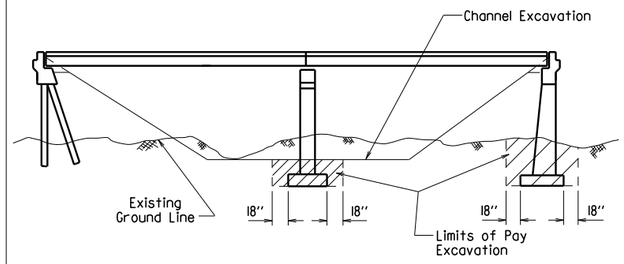
DRAWING NO. 55000

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| | | | | JOB NO. | | | | |

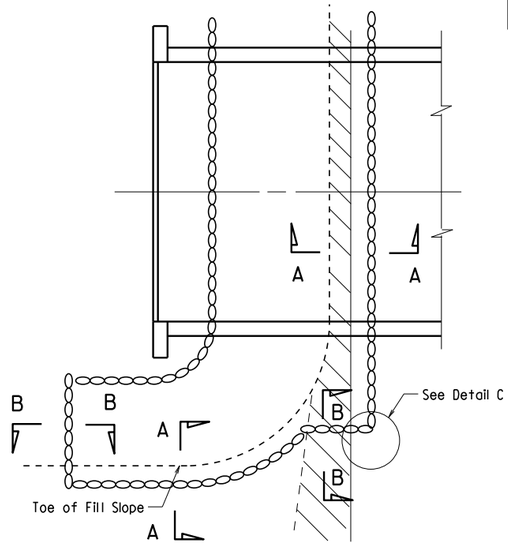
1 RIPRAP & EXCAV. 55001



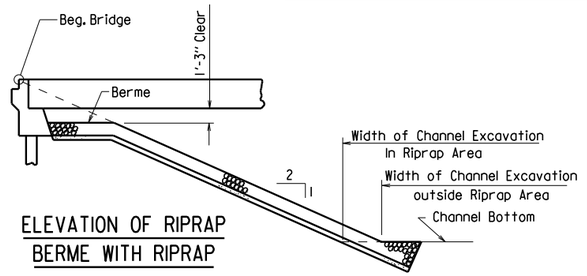

EXCAVATION FOR STRUCTURES - ABUTMENT IN NEW EMBANKMENT INTERIOR BENT IN NEW EMBANKMENT AND NATURAL GROUND



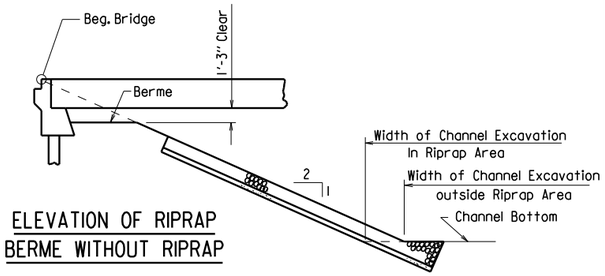

EXCAVATION FOR STRUCTURES - BRIDGE LOCATION WITH DESIGNATED CHANNEL CHANGE



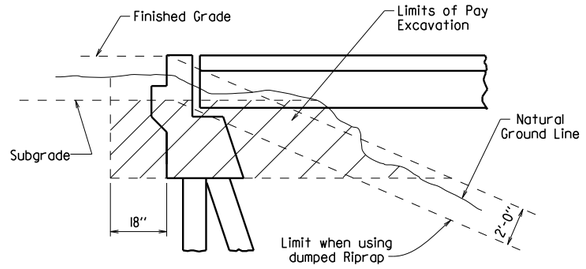

PLAN OF DUMPED RIPRAP



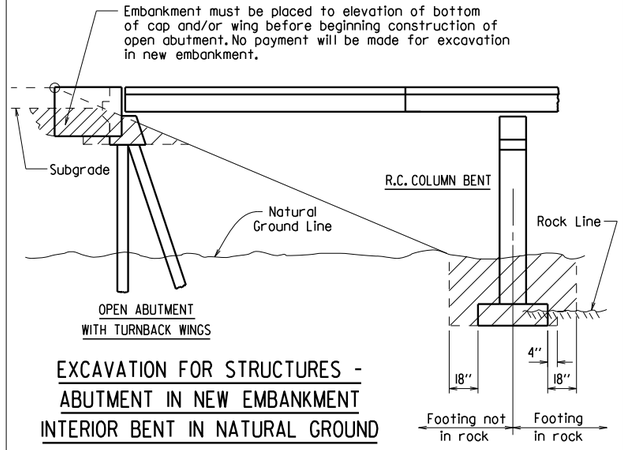

ELEVATION OF RIPRAP BERME WITH RIPRAP



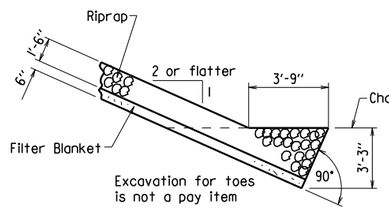

ELEVATION OF RIPRAP BERME WITHOUT RIPRAP




EXCAVATION FOR STRUCTURES - ABUTMENT IN NATURAL GROUND

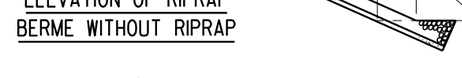



EXCAVATION FOR STRUCTURES - ABUTMENT IN NEW EMBANKMENT INTERIOR BENT IN NATURAL GROUND

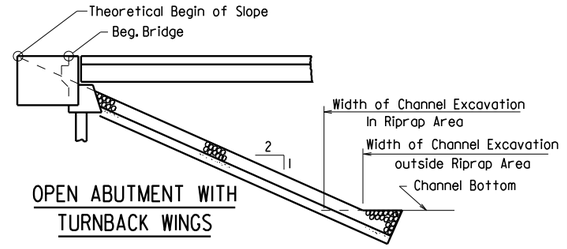



SECTION A-A

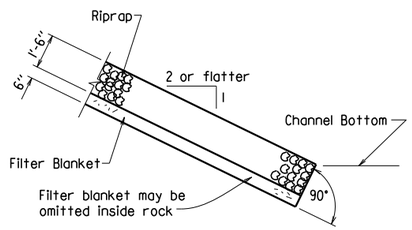
(Toe Excavation in Soil)




SECTION B-B




OPEN ABUTMENT WITH TURNBACK WINGS



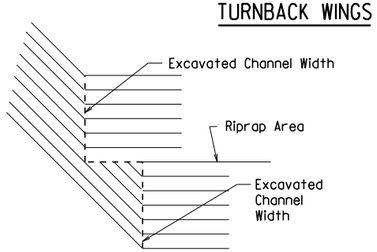

SECTION A-A

(Toe Excavation in Rock)

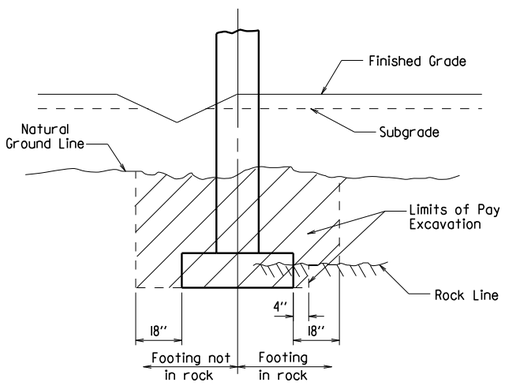
Note : Use this type of toe when rock is encountered which is in a stable condition.

Note : In lieu of an aggregate filter blanket, a synthetic fiber geotextile fabric complying with the requirements of Subsection 816.02(e) may be used.

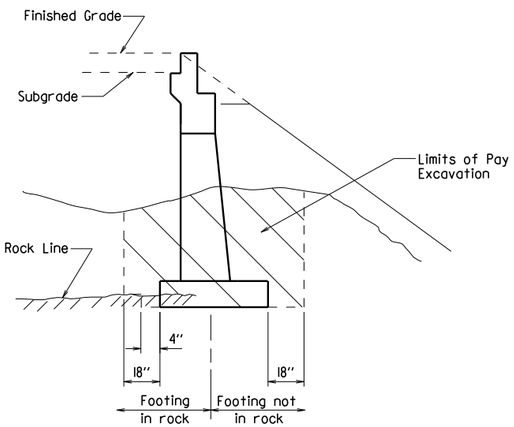
Note : Details for computing excavation for structures are included for information as to how plan quantities were calculated and for use when adjusting quantities when changing footing elevation.




DETAIL C




EXCAVATION FOR STRUCTURES - BENT IN ROADWAY FILL SECTION AND NATURAL GROUND




EXCAVATION FOR STRUCTURES - ABUTMENT IN NATURAL GROUND AND NEW EMBANKMENT

# STANDARD DETAILS FOR DUMPED RIPRAP AND FILTER BLANKET AND COMPUTING EXCAVATION FOR STRUCTURES

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 2-27-2014 FILENAME: b5500l.dgn

CHECKED BY: BEF DATE: 2-27-2014 SCALE: NO SCALE

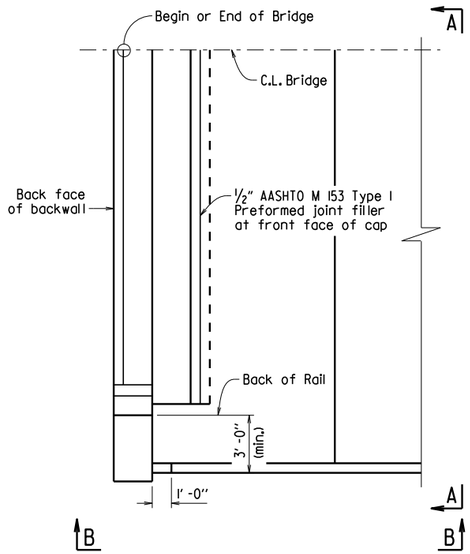
DESIGNED BY: STD. DATE:

DRAWING NO. 55001

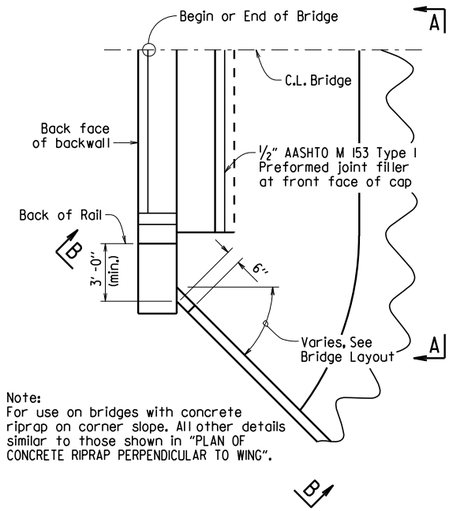
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|---|---|---|---|---|---|---|---|---|
| | | | | 6 | ARK. | | | |
| | | | | JOB NO. | | | | |

① CONCRETE RIPRAP 55002

Note:
Sloped surfaces of concrete riprap to be marked off into blocks (construction joints optional) with an approved grooving tool, spacing the grooved lines about 5' apart.



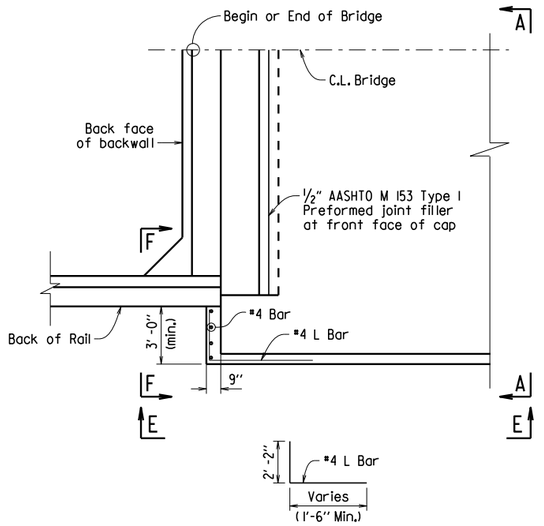

PLAN OF CONCRETE RIPRAP
PERPENDICULAR TO WING
¼" = 1'-0"



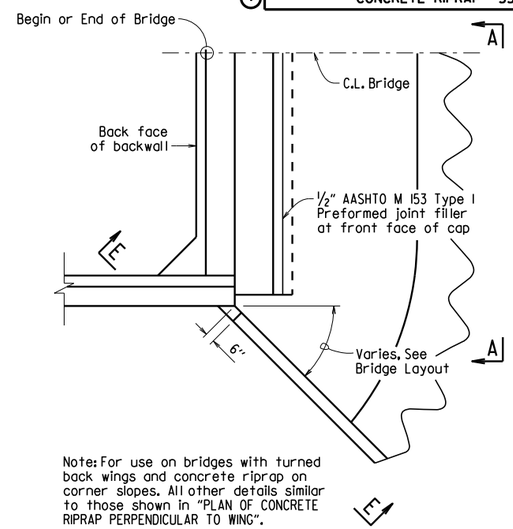

Note:
For use on bridges with concrete riprap on corner slope. All other details similar to those shown in "PLAN OF CONCRETE RIPRAP PERPENDICULAR TO WING".

PLAN OF CONCRETE RIPRAP
AT ANGLE TO WING
¼" = 1'-0"

Note:
For use on bridges with turned back wings. All other details similar to those shown in "PLAN OF CONCRETE RIPRAP PERPENDICULAR TO WING".



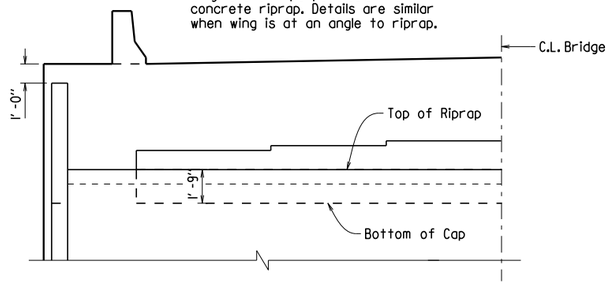

PLAN OF CONCRETE RIPRAP
PERPENDICULAR TO TURNED BACK WING
¼" = 1'-0"




Note: For use on bridges with turned back wings and concrete riprap on corner slopes. All other details similar to those shown in "PLAN OF CONCRETE RIPRAP PERPENDICULAR TO WING".

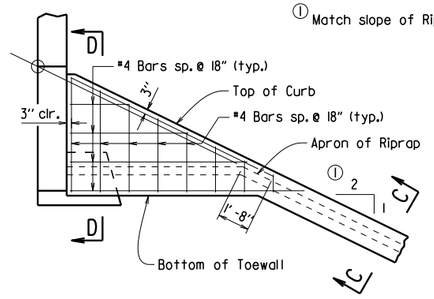
PLAN OF CONCRETE RIPRAP
AT ANGLE FROM TURNED BACK WING
¼" = 1'-0"

Note:
Wing is shown perpendicular to concrete riprap. Details are similar when wing is at an angle to riprap.

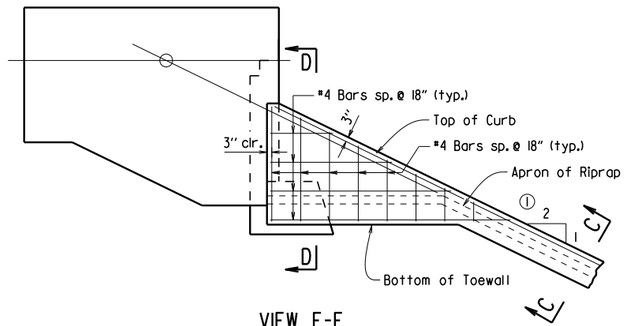



VIEW A-A
¼" = 1'-0"

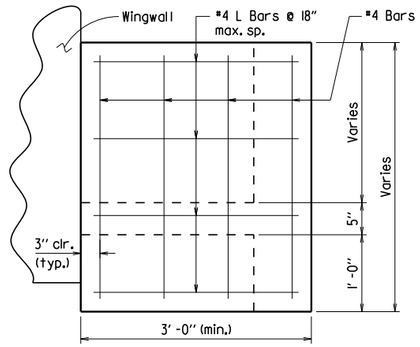
① Match slope of Riprap Apron.



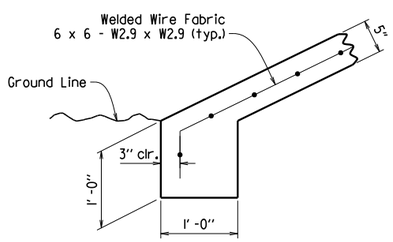

VIEW B-B
¼" = 1'-0"



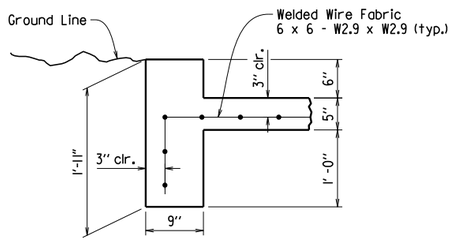

VIEW E-E
¼" = 1'-0"



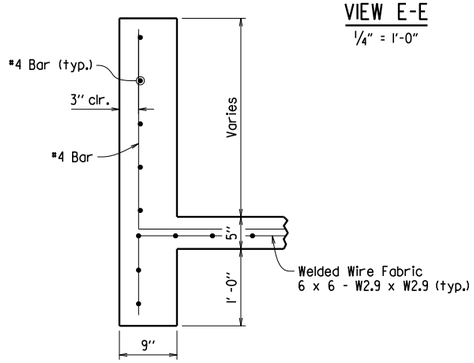

VIEW F-F
1" = 1'-0"




TOE OF CONCRETE RIPRAP
1" = 1'-0"




SECTION C-C
1" = 1'-0"




SECTION D-D
1" = 1'-0"

GENERAL NOTES

All concrete shall be Class A with a minimum compressive strength, f'c = 2,100 psi.

Welded wire fabric shall conform to AASHTO M55 or M221.

# STANDARD DETAILS FOR CONCRETE RIPRAP

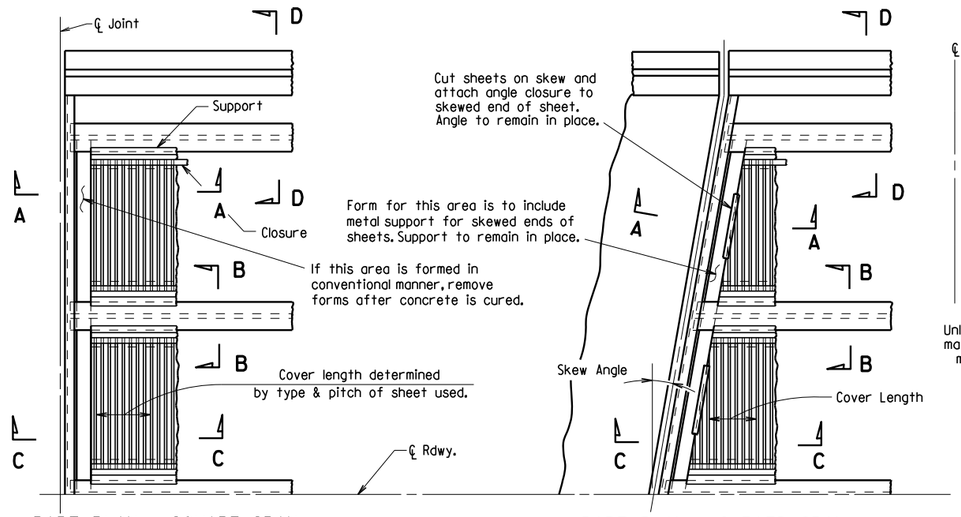
## ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: ACP DATE: 2/27/2014 FILENAME: b55002.dgn
CHECKED BY: BEF DATE: 2/27/2014 SCALE: AS SHOWN
DESIGNED BY: Std. DATE: ---

DRAWING NO. 55002

| DATE REVISED | DATE FILMED | DATE REVISED | DATE FILMED | FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|---|---|
| 3/24/16 | | | | 6 | ARK. | | | |
| | | | | JOB NO. | | | | |
| | | | | ① | BRIDGE DECK FORMS | | 55005 | |



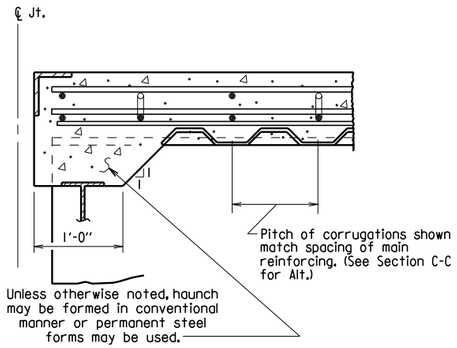

## PART PLAN - SQUARE SPAN

3/8" = 1'-0"



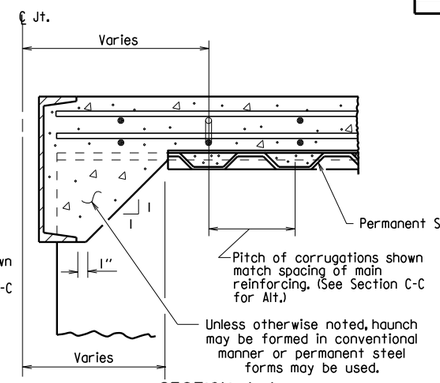

## PART PLAN - SKEWED SPAN

3/8" = 1'-0"



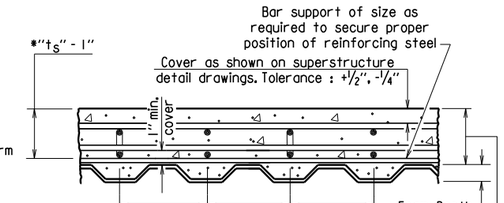

## SECTION A-A

N.T.S.
(Angle at end of span)



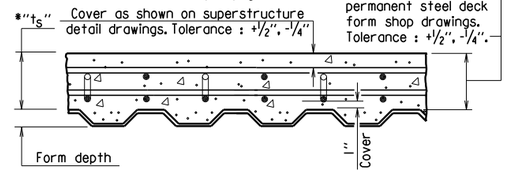

## SECTION A-A

N.T.S.
(Channel at end of span)



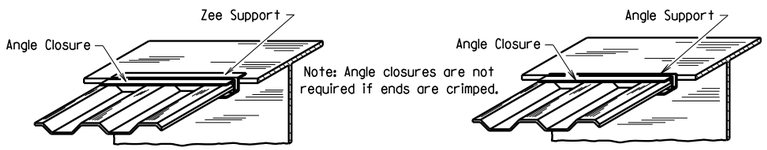

## SECTION C-C

1" = 1'-0"




## SECTION C-C - ALTERNATE

1" = 1'-0"
(Applicable when corrugations do not match spacing of main reinforcement)




## SKETCH OF PERMISSIBLE SUPPORTS

N.T.S.

*$t_s$ = slab thickness as shown on superstructure detail drawings.

GENERAL NOTES

Permanent steel deck forms may be used at the Contractor's option and shall be at no additional cost to the Department. Such use may result in changes to the dead load deflection of the girder. Any cost for adjustments due to a change in the dead load deflection will be borne by the Contractor. Payment for deck concrete and structural steel will not be increased due to use of permanent steel deck forms.

Permanent steel deck forms shall conform to Subsection 802.14(b). Detailed plans, including detailed calculations and manufacturer's technical brochure, shall be submitted to and approved by the Engineer before work of forming the bridge deck is started.

Welding of form supports to the tension flange of steel girders will be permitted only in areas where shear connectors are used. When welding is not allowed, the method of fastening Z or ∠ supports to the flange must be approved by the Engineer.

Form sheets shall be fastened to supporting members and to each other with galvanized metal screws sufficient in size and number to provide a secure attachment. Alternate methods of attachment must be approved by the Engineer.

When the pitch of form corrugations match the reinforcing spacing, transversely align form sheets across the bridge to maintain the correct orientation of continuous reinforcing bars in the corrugations.

Bar support rods, when used, shall be sized and spaced to adequately support the bottom reinforcing mat at the required position.

High chairs shall be sized to support the top mat of reinforcing at the proper position. High chairs shall be placed at locations shown on the detail drawings.

Specifications: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 Edition), with applicable Supplemental Specifications and Special Provisions.




## SECTION B-B

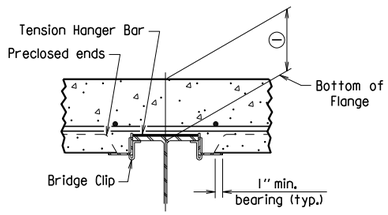
1" = 1'-0"
(Showing permissible support for tension flange where shear connectors are used, and for all compression flanges)

③ ⚠ Minimum weld: 1/8" x 1" @ 18". More weld may be required; maximum length per weld = 1 1/2" (typ.)



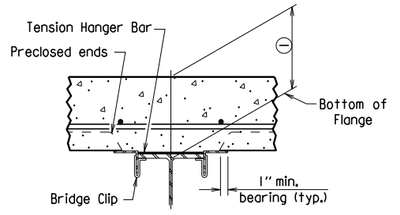

## SECTION B-B

1" = 1'-0"
(Showing permissible support for tension flange where shear connectors are used and for all compression flanges)



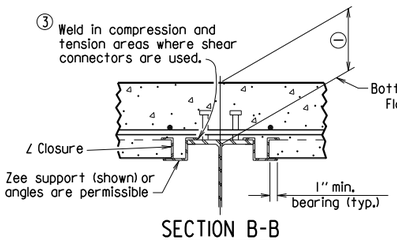

## SECTION B-B

1" = 1'-0"
(Showing permissible support for tension flange where shear connectors are not used)



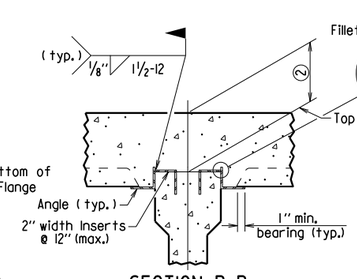

## SECTION B-B

1" = 1'-0"
(Showing permissible support for tension flange where shear connectors are not used)



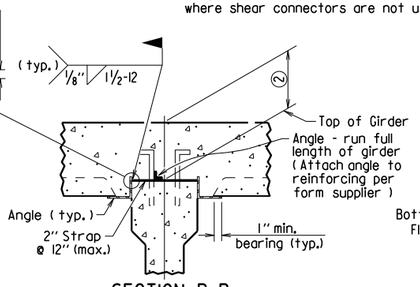

## SECTION B-B

1" = 1'-0"
(Showing ∠ Closure)



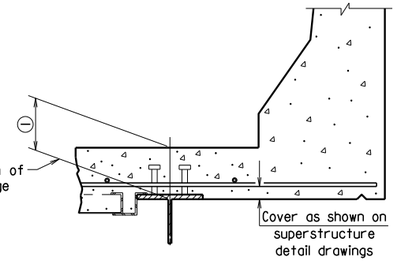

## SECTION B-B (FOR CONCRETE GIRDERS)

1" = 1'-0"
(Showing support by Insert cast in girder)




## SECTION B-B (FOR CONCRETE GIRDERS)

1" = 1'-0"
(Showing support by Strap)




## SECTION D-D

1" = 1'-0"
Note: Only Bottom Reinforcing is shown.

① Distance from top of slab to bottom of top flange as measured at centerline girder and as shown on superstructure detail drawings. This dimension may vary within the following limits to maintain the grade and slab thickness tolerances : Minimum - occurs when either the top flange or the support angle leg contacts the bottom reinforcing steel; Maximum = $t_S$ + 1 3/4" + flange thickness. See Section C-C for slab thickness tolerance between adjacent girder flanges.

② Distance from top of slab to top of girder as measured at centerline girder and as shown on superstructure detail drawings. This dimension may vary within the following limits to maintain the grade and slab thickness tolerances : Minimum - occurs when either the top of girder or the support angle leg contacts the bottom reinforcing steel; Maximum - value shown on the superstructure detail drawings when removable forms are used. See Section C-C for slab thickness tolerance between adjacent girder flanges.

⚠ Revised weld dimension by KWY, Ck'd. by BEF, 3/24/16.

# STANDARD DETAILS FOR PERMANENT STEEL BRIDGE DECK FORMS FOR STEEL & CONCRETE GIRDER SPANS

## ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

| | | | | | |
|---|---|---|---|---|---|
| DRAWN BY: | KDH | DATE: | 2-27-2014 | FILENAME: | b55005.dgn |
| CHECKED BY: | BEF | DATE: | 2-27-2014 | SCALE: | NONE |
| DESIGNED BY: | STD. | DATE: | — | | |

DRAWING NO. 55005

| DATE REVISED | DATE FILMED | DATE REVISED | DATE FILMED | FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|---|---|
| | | | | 6 | ARK. | | | |
| | | | | JOB NO. | | | | |
| | | | | ① | | GENERAL NOTES | | 55006 |

# GENERAL NOTES

These GENERAL NOTES are applicable unless otherwise shown in the Plan Details, Special Provisions, or Supplemental Specifications.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 Edition) with applicable Supplemental Specifications and Special Provisions. Section and Subsection refer to the Standard Specifications.

DESIGN SPECIFICATIONS: See Bridge Layout(s).

## SUPERSTRUCTURE NOTES:

### MATERIALS AND STRENGTHS:

| | | |
|---|---|---|
| Class S(AE) Concrete | f'c = | 4,000 psi |
| Reinforcing Steel (Gr. 60, AASHTO M 31 or M 322, Type A) | fy = | 60,000 psi |
| Structural Steel (AASHTO M 270, Gr. 36) | Fy = | 36,000 psi |
| Structural Steel (AASHTO M 270, Gr. 50) | Fy = | 50,000 psi |
| Structural Steel (AASHTO M 270, Gr. 50W) | Fy = | 50,000 psi |
| Structural Steel (AASHTO M 270, Gr. HPS70W) | Fy = | 70,000 psi |

See Plan Details for Grade(s) of Structural Steel required.

### CONCRETE:

All concrete shall be Class S(AE) with a minimum 28 day compressive strength f'c = 4,000 psi. Concrete shall be poured in the dry and all exposed corners shall be chamfered ¾" unless otherwise noted.

The superstructure details shown are for use when removable deck forming is used and are the basis for measurement of Class S(AE) Concrete. See Standard Drawing No. 55005 for allowable modifications and for tolerances when Permanent Steel Bridge Deck Forms are used.

Use of a longitudinal screed is not permitted on any span of a bridge deck with horizontal curvature.

The concrete deck (roadway surface) shall be given a tine finish in accordance with Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish. Sidewalks shall receive a broomed finish as specified for final finishing in Subsection 802.19 for Class 6 Broomed Finish. Movement of the finishing machine across new concrete shall be on planks placed on the surface and shall be prohibited for 72 hours after finishing the pour. Sufficient concrete must be placed ahead of the strike-off to fully load the beam or girder. When permitted, the use of a longitudinal strike-off will require that a vertical camber adjustment be made in the strike-off to account for the future dead load deflection due to any railings, median barrier, and sidewalks.

### REINFORCING STEEL:

All reinforcing steel shall be Grade 60 conforming to AASHTO M 31 or M 322, Type A, with mill test reports and shall be epoxy coated. The reinforcing steel is to be accurately located in the forms and firmly held in place by steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly, but will be considered subsidiary to the item "Epoxy Coated Reinforcing Steel (Grade 60)".

### STRUCTURAL STEEL (COMMON TO W-BEAMS AND PLATE GIRDERS):

Structural steel shall be AASHTO M 270 with grade and payment as specified in the plans. Grade 50W steel shall not be painted and all exposed surfaces shall be cleaned in accordance with Subsection 807.84(e). Grade 36 and Grade 50 steel shall be painted unless otherwise noted and all exposed surfaces shall be cleaned in accordance with Subsection 807.84. Structural steel completely embedded in concrete may be AASHTO M 270, Gr. 36, Gr. 50 or Gr. 50W unless otherwise noted.

Drawings show general features of design only. Shop drawings shall be made in accordance with the specifications, submitted and approval secured before fabrication is begun.

Requests for substitution of structural steel shapes shown with shapes of greater size must be submitted by the Contractor to the Engineer for approval. Steels of equal or greater strengths will be accepted only when shown on the approved shop drawings. Payment will be based on the basis of shapes and materials shown in the plans, and no additional compensation will be made for any adjustments due to substitutions.

All welding that is to be done during fabrication of structural steel, including temporary welds, shall be detailed on the shop drawings and submitted for approval. If additional welds are required, whether permanent or temporary, a formal request with detailed drawings shall be submitted to the Engineer for approval; however, additional welds used for attaching falsework support devices or screed rail supports to the structural steel that do not exceed the limitations of Subsection 802.13 will not require approval prior to construction. All welding shall conform to Subsection 807.26.

Unless otherwise noted, field connections shall be bolted with ¾" ø high-strength bolts using 13/16 " ø open holes. Holes for ¾" ø high-strength bolts may be 15/16 " ø if a washer is supplied for use under both the nut and head of the bolt. The use of oversized holes will not be allowed on main members unless otherwise noted. Bolts shall be placed with heads on the outside face of the exterior beam or girder webs and on the bottom of the beam or girder flanges.

All stud shear connectors shall be granular flux filled, solid fluxed, or equal and shall be automatically end welded in accordance with recommendations of the Manufacturer.

When painting is required, all structural steel except galvanized steel and steel completely encased in concrete shall be painted in accordance with Subsection 807.75. The color of paint shall be as specified in the plans.

### STRUCTURAL STEEL (W-BEAMS):

All beams and field splice plates, and all diaphragms and connection plates attached to horizontally curved beams are considered main load carrying members and shall meet the Longitudinal Charpy V-Notch Test specified in Subsection 807.05. This work and material will not be paid for directly, but shall be considered subsidiary to the item "Structural Steel in Beam Spans (M 270, Gr. ___ )".

All beams in continuous units and simple spans with field splices shall be blocked in their true position in the shop in groups as specified in Subsection 807.54(b)(2) with the webs horizontal. The camber, length of sections, distance between bearings, and openings of joints shall be measured and this information shall become part of the permanent records. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram.

All beams in simple spans without field splices shall be blocked in their true position with webs horizontal. The camber, distance between bearings, and openings of joints shall be measured and this information shall become part of the permanent records.

Flange field splice plates shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses.

All beam dimensions are based on a temperature of 60 degrees F. A tolerance of ¼" +/- is allowed for camber.

Bent plate diaphragms for horizontally curved beams shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses. Bent plate diaphragms for straight beams may be cut and fabricated in accordance with Subsection 807.35 or as required for horizontally curved beams.

Unless otherwise noted, diaphragms shall be installed as beams are erected. All bolts in diaphragms and field splices shall be installed and tightened in accordance with Subsection 807.71 prior to pouring the concrete deck.

### STRUCTURAL STEEL (PLATE GIRDERS):

All references to cross-frames shall include "X" or "K" types.

All girder web and flange plates, all field splice plates, and all diaphragms, cross-frames and connection plates attached to horizontally curved girders are considered main load carrying members and shall meet the Longitudinal Charpy V-Notch Test specified in Subsection 807.05. This work and material will not be paid for directly, but shall be considered subsidiary to the item "Structural Steel in Plate Girder Spans (M 270, Gr. ___ )".

All girders in continuous units and simple spans with field splices shall be assembled in the shop as specified in Subsection 807.54(b)(2) and blocked in their true position with webs horizontal. The camber, length of sections, distance between bearings, and openings of joints shall be measured and this information shall become part of the permanent records. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram.

All girders in simple spans without field splices shall be blocked in their true position with webs horizontal. The camber, distance between bearings, and openings of joints shall be measured and this information shall become part of the permanent records.

Web and flange plates for main members and flange splice plates for main members shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses.

Girder webs may be made by shop splicing with minimum lengths of 25 feet for sections. Flange plates longer than 50 feet may be made by shop splicing with minimum lengths of 25 feet for sections. No additional payment will be made for shop welded splices.

All girder dimensions are based on a temperature of 60 degrees F. A tolerance of ¼" +/- is allowed for camber.

Groove welds in web and flange plates shall be Quality Control (Q.C.) tested by nondestructive testing, as required in Subsection 807.23(b). Fillet welds at flange to web plate connections shall be Q.C. tested by the magnetic particle method. All Q.C. testing shall be considered subsidiary to the item "Structural Steel in Plate Girder Spans (M 270, Gr. ___)".

Bent plate diaphragms for horizontally curved girders shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses. Bent plate diaphragms for straight girders may be cut and fabricated in accordance with Subsection 807.35 or as required for horizontally curved girders.

Unless otherwise noted, cross-frames and diaphragms shall be installed as girders are erected. All bolts in cross-frames, diaphragms, and field splices shall be installed and tightened in accordance with Subsection 807.71 prior to pouring the concrete deck.

## SUBSTRUCTURE NOTES:

### CONCRETE:

Unless otherwise noted, concrete in caps, columns and footings (except seal footings) shall be Class "S" with a minimum 28 day compressive strength f'c = 3,500 psi and shall be poured in the dry. Seal Concrete for footings shall have a minimum 28 day compressive strength f'c = 2,100 psi.

Concrete in drilled shafts shall be Class "S" as modified by Job SP "Drilled Shaft Foundations".

All exposed corners shall be chamfered ¾" unless otherwise noted.

### REINFORCING STEEL:

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

Top reinforcing bars in cap shall be properly placed to avoid interference with anchor bolts or sheet metal sleeves.

### STRUCTURAL STEEL:

Structural steel in end bents shall be AASHTO M 270 with grade and payment as specified in the plans.

FOR ADDITIONAL INFORMATION AND NOTES, SEE LAYOUT(S) AND PLAN DETAILS.

FOR ADDITIONAL INFORMATION AND NOTES, SEE LAYOUT(S) AND PLAN DETAILS.

STANDARD GENERAL NOTES
FOR STEEL BRIDGE STRUCTURES

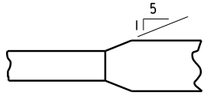
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: A.M.S. DATE: 9-2-2015 FILENAME: b55006.dgn
CHECKED BY: B.E.F. DATE: 9-2-2015 SCALE: NO SCALE
DESIGNED BY: STD. DATE:

DRAWING NO. 55006

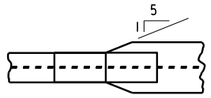
PRINT DATE: 11/7/2019

| DATE REVISED | DATE FILMED | DATE REVISED | DATE FILMED | FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
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| | | | | JOB NO. | | | | |
| | | | | ① | STEEL BRIDGE STRUCTURES 55007 | | | |

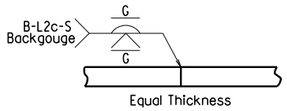



Plan-Unequal Width ( Flg.)

FLANGE SPLICE

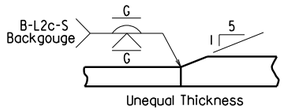



## FLANGE SPLICE AT UNEQUAL BOTTOM FLANGE WIDTHS




Equal Thickness

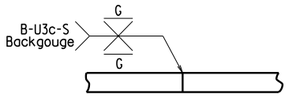
WEB & FLANGE SPLICE




Unequal Thickness

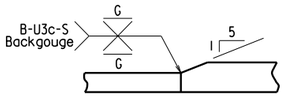
FLANGE SPLICE

(Use when Base Metal Thickness is Equal to or Less than 2")




Equal Thickness

WEB & FLANGE SPLICE

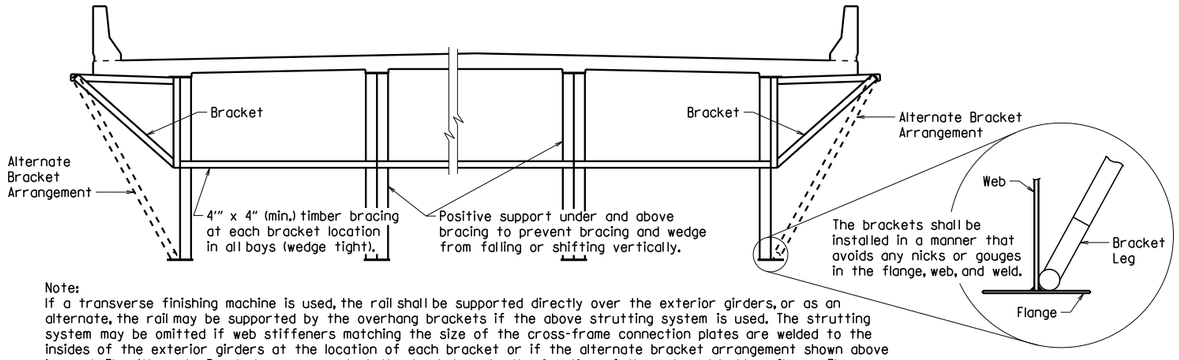



Unequal Thickness

FLANGE SPLICE

(Use when Base Metal Thickness is Greater than 2")

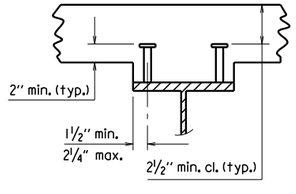
## DETAILS OF WELDED SPLICES FOR PLATE GIRDERS



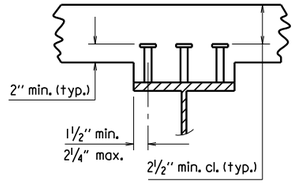

Note:
If a transverse finishing machine is used, the rail shall be supported directly over the exterior girders, or as an alternate, the rail may be supported by the overhang brackets if the above strutting system is used. The strutting system may be omitted if web stiffeners matching the size of the cross-frame connection plates are welded to the insides of the exterior girders at the location of each bracket or if the alternate bracket arrangement shown above is used. The Alternate Bracket arrangement shall extend down to the junction of the web and bottom flange. The stiffener shall conform to the details for cross frame connection plates shown on the plans. No direct payment will be made for brackets, timber bracing, supports, or welded stiffeners. Payment shall be subsidiary to "Structural Steel in Plate Girder Spans (___)".

## SCREED RAIL SUPPORT FOR PLATE GIRDERS

(USE WHEN WEB DEPTHS ARE 48" OR GREATER)



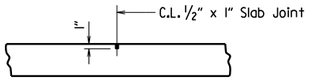

2 STUDS PER ROW




3 STUDS PER ROW

Stud Shear Connectors shall be automatically end welded to the beam or girder flange in accordance with the recommendations of the Manufacturer. See plan details for number and size.

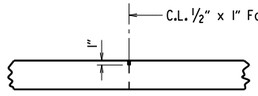
## SHEAR CONNECTOR DETAIL




Use Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod filler will not be required. Joint Sealer shall be measured and paid for as Class S(AE) Concrete-Bridge. Slab Joints shall extend to the outside edge of the deck slab and shall align with open joints at the front face of the parapet. Slab joints shall be installed before the parapet railing is poured. If slab joints are to be sawed, they shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the slab. Slab joints shall be placed at all pouring sequence construction joints and required slab joint locations. The joint sealer shall extend across the deck from gutterline to gutterline.

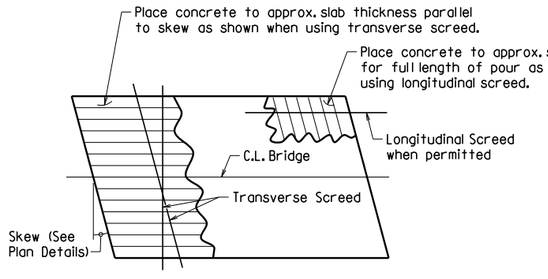
ADDITIONAL NOTES IF SIDEWALKS OR RAISED MEDIANS ARE REQUIRED:
Slab Joints shall be installed before the sidewalk or raised median is poured. After installation of the joint in the sidewalk or raised median and prior to pouring the parapet rail, the joint sealer shall be placed extending across the deck slab from gutterline to gutterline and acrosss the top of the sidwalk or raised median to the edge of the slab. No joint sealer shall be placed on the deck slab under the sidewalk or raised median.

## TRANSVERSE SLAB JOINT DETAIL



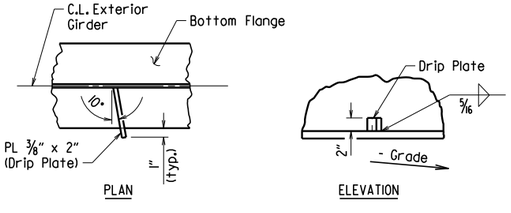

Use ½" x 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod filler will not be required. Joint sealer shall be measured and paid for as Class S(AE) Concrete-Bridge. This joint shall be formed. Seal color shall be gray or other color similar to concrete.

## LONGITUDINAL CONSTRUCTION JOINT




Note: At the Contractor's option, the transverse screed may be placed parallel to the skew or perpendicular to C. L. Bridge.

## CONCRETE PLACEMENT PROCEDURE FOR BRIDGES WITH SKEW




PLAN

ELEVATION

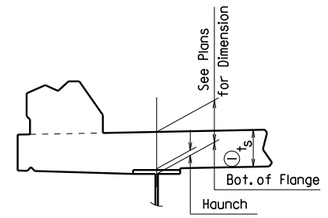
Drip Plate to be welded to the outer side of the bottom flange of the exterior girders.

Locate drip plate 5'-0" from C.L. Bearing on high side of each Bent, unless otherwise noted in the plans.

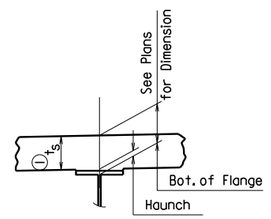
## BOTTOM FLANGE DRIP PLATE

(USE WHEN WEB DEPTHS ARE 54" OR GREATER AND UNIT OR SPAN IS NOT IN LEVEL GRADE)

$t_s$ = slab thickness. See "Typical Roadway Section" in the plans.




EXTERIOR BEAM OR GIRDER




INTERIOR BEAM OR GIRDER

① Tolerance when removable deck forming is used is + ½", - ¼". Haunch forming is required and shall be adjusted to maintain slab thickness tolerance.

NOTES:
Haunch dimension may vary within the following limits to maintain the grade and slab thickness tolerance: Minimum occurs when top flange contacts bottom reinforcing steel; Maximum = top flange thickness plus 1¾" unless otherwise noted in the plans. No increase in concrete and structural steel quantities will be made to maintain tolerances.

Tolerances shown are applicable only when removable deck forming is used. See Std. Dwg. No. 55005 for tolerances when permanent steel deck forms are used. Payment for concrete shall be based on removable deck forming.

## ADJUSTMENT FOR SLAB THICKNESS TOLERANCE




NOTE: Working Point matches Theoretical Roadway Grade.

## ROUNDING DETAIL

BRIDGES IN NORMAL CROWN

## WELD TABLE

| Material Thickness of Thicker Part Joined ( Inches ) | Minimum Size of Fillet Weld ( Inches ) | Single Pass Weld Must Be Used |
|---|---|---|
| To ¾" Inclusive | ¼" | |
| Over ¾" | ⅝" | |

NOTE: When a fillet weld size, as shown on the plans, is larger than the minimum, the first pass shall be that specified for minimum size of fillet weld.

**SECTION AND SUBSECTION REFER TO THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2014 EDITION).**

**THESE DETAILS ARE APPLICABLE UNLESS OTHERWISE SHOWN IN THE PLAN DETAILS, SPECIAL PROVISIONS, OR SUPPLEMENTAL SPECIFICATIONS.**

# STANDARD DETAILS FOR STEEL BRIDGE STRUCTURES

## ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

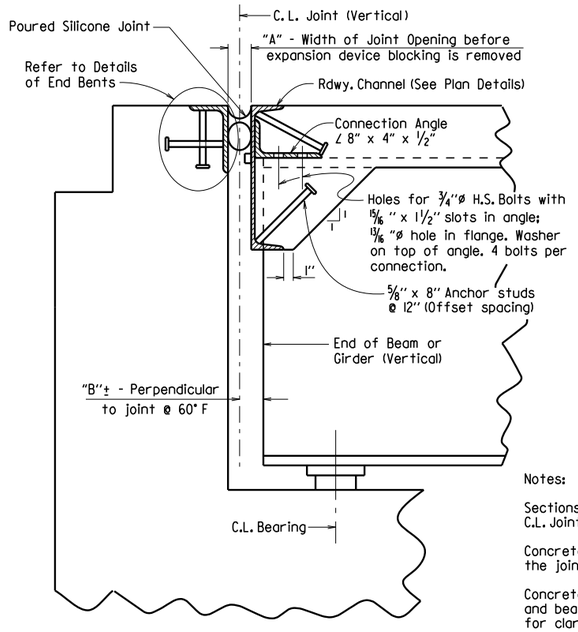
DRAWN BY: JYP DATE: 2/11/2016 FILENAME: b55007.dgn

CHECKED BY: AMS DATE: 2/11/2016 SCALE: No Scale

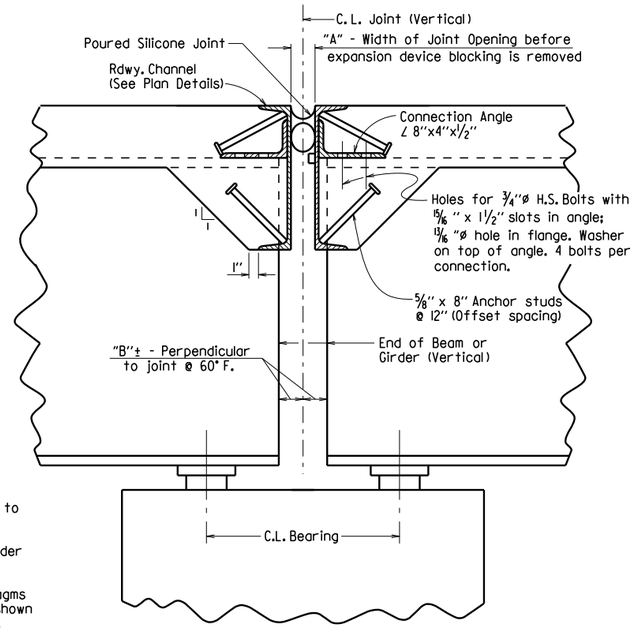
DESIGNED BY: STD. DATE: —

DRAWING NO. 55007

| DATE REVISED | DATE FILMED | DATE REVISED | DATE FILMED | FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|---|---|
| | | | | 6 | ARK. | | | |
| | | | | JOB NO. | | | | |
| | | | | ① | POURED SILICONE JOINT | | | 55008 |




## SECTION THRU JOINT AT END BENT



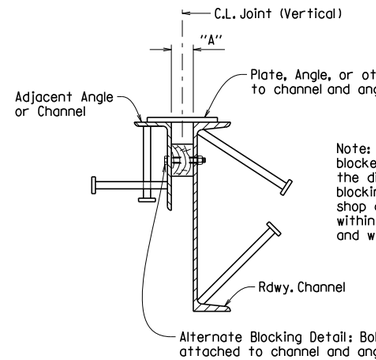

## SECTION THRU JOINT AT INTERMEDIATE BENT

Notes:

Sections are taken perpendicular to C.L. Joint.

Concrete shall be hand packed under the joint armor.

Concrete diaphragms, steel diaphragms and bearing stiffeners are not shown for clarity. See plans for details.




Note: Each expansion joint device shall be blocked in the Shop by the Fabricator to the dimension "A" shown for 60° F and the blocking details shall be shown on the shop drawings. Blocking shall be placed within 2 feet of each end of the device and with a maximum spacing of 8 feet.

## DETAILS FOR BLOCKING EXPANSION JOINT DEVICE

EXPANSION DEVICE INSTALLATION AT END BENTS:

The Contractor may elect to install the expansion device using one of the following two alternatives:

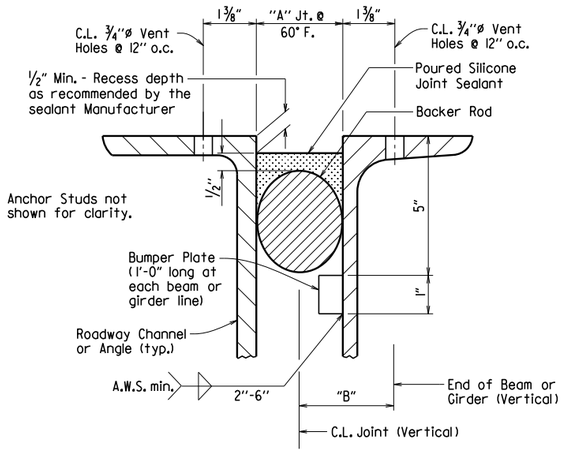
1) The concrete span pour adjacent to joint shall be placed before the end bent backwall is placed. After the end bent backwall forms are in place and the beams or girders erected, the blocked expansion device shall be installed and adjusted for grade. All connection bolts shall be fully tightened prior to placing the deck concrete adjacent to the bent. Immediately prior to pouring the backwall concrete, the blocking shall be removed, and the opening adjusted for temperature and grade.

2) The backwall shall be poured to the optional construction joint after beams or girders are erected. The blocked expansion device shall be installed and adjusted for grade. All connection bolts shall be fully tightened prior to placing the deck concrete adjacent to the bent. Immediately prior to pouring the remainder of the backwall concrete, the blocking shall be removed and the opening adjusted for temperature and grade.

EXPANSION DEVICE INSTALLATION AT INTERMEDIATE BENTS:

After all beams or girders on each side of the joint are erected the blocked expansion device shall be installed and adjusted for grade. Deck concrete shall be placed for the entire unit or span on one side of the joint before deck concrete on the other side is placed. Connection bolts for the first side to have deck concrete placed shall be completely bolted. Bolts on the other side shall be loosely installed so that thermal and rotational movements will not be restricted during concrete placement on the first side.

Connection bolts on the second side shall remain loose until the concrete pour adjacent to the joint is to be placed. Immediately prior to pouring the span concrete on the second side, the blocking shall be removed, the joint adjusted for temperature and grade, and the connection bolts tightened.



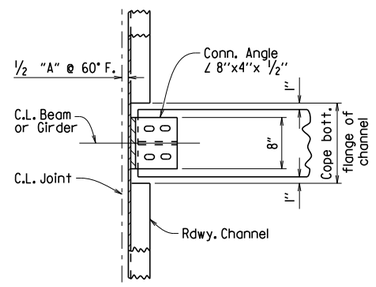

## DETAIL OF POURED SILICONE JOINT

Silicone joint material and installation shall conform to Section 809. The temperature limitations recommended by the sealant Manufacturer shall be observed. The sealant shall be installed only when the average 24 hour air temperature is between 40° and 80° F.

Use an appropriately sized backer rod at the depth shown in the Manufacturer's literature based on the joint width at the time of sealing. Unless otherwise noted, do not install more backer rod than can be sealed in the same day.

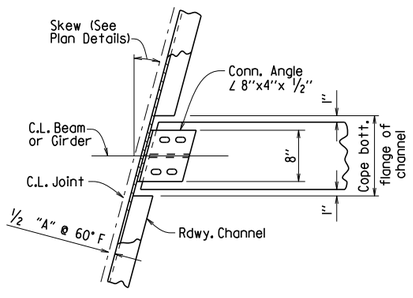
The Contractor shall verify separation of the backer rod from the joint material after the joint material has set.

When bridge deck is constructed in stages, backer rods shall be extended beyond length of poured joint in initial construction stage so that the two pieces can be properly spliced together prior to installing sealant in subsequent stages. Manufacturer's recommendations shall be followed to prevent sealant from "running out of joint" during stage construction.



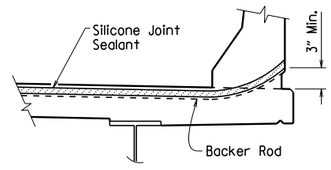

## CHANNEL CONNECTION DETAIL

BENTS WITHOUT SKEW

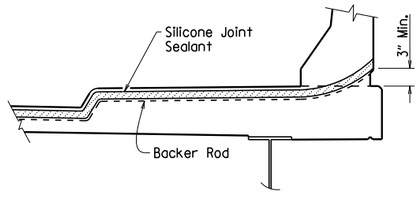



## CHANNEL CONNECTION DETAIL

BENTS WITH SKEW




## JOINT SEAL PLACEMENT AT RAIL




## JOINT SEAL PLACEMENT AT SIDEWALK

SECTION AND SUBSECTION REFER TO THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2014 EDITION).

THESE DETAILS ARE APPLICABLE UNLESS OTHERWISE SHOWN IN THE PLAN DETAILS, SPECIAL PROVISIONS, OR SUPPLEMENTAL SPECIFICATIONS. SEE "TABLE OF SILICONE JOINT DATA" IN PLAN DETAILS FOR VARIABLES "A" AND "B", AND BUMPER PLATE SIZE.

# STANDARD DETAILS FOR POURED SILICONE JOINTS

## ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: A.C.P. DATE: 2/11/2016 FILENAME: b55008.dgn

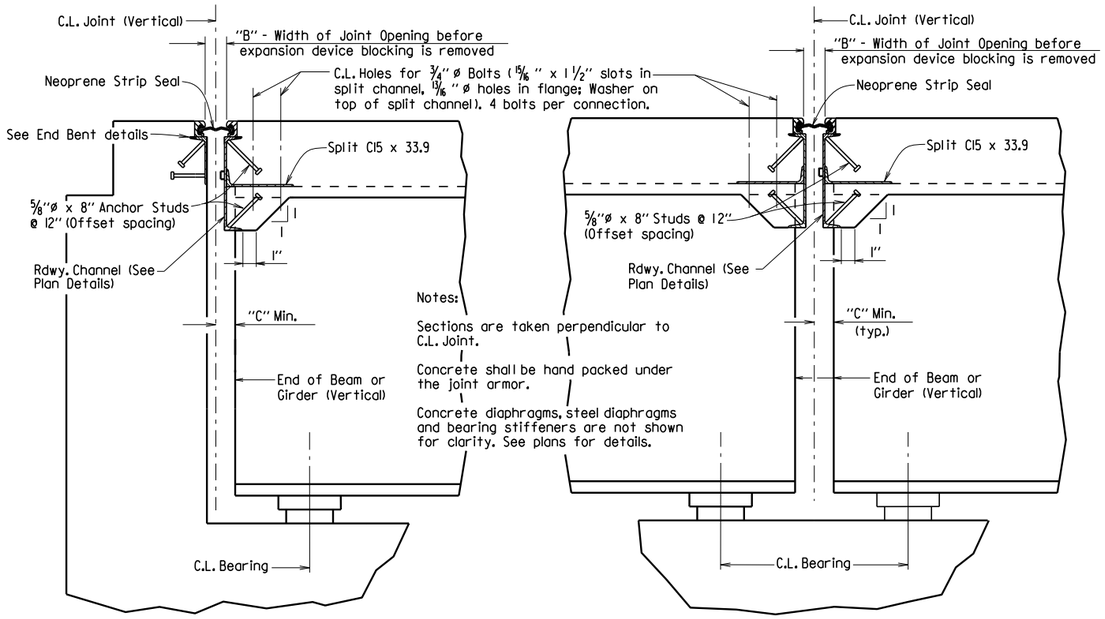
CHECKED BY: A.M.S. DATE: 2/11/2016 SCALE: No Scale

DESIGNED BY: STD. DATE: —

DRAWING NO. 55008

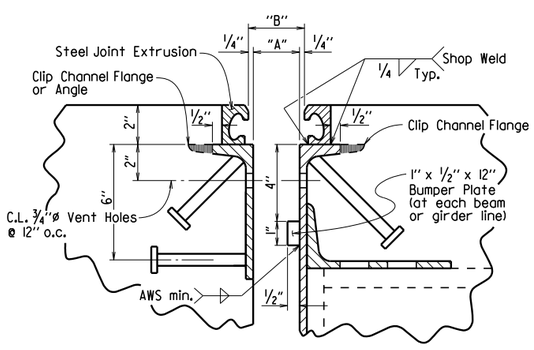
| DATE REVISED | DATE FILMED | DATE REVISED | DATE FILMED | FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|---|---|
| | | | | 6 | ARK. | | | |
| | | | | JOB NO. | | | | |

1 STRIP SEAL JOINT 55009



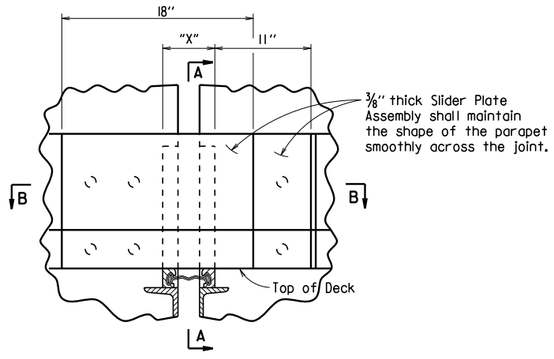

## SECTION THRU JOINT AT END BENT

## SECTION THRU JOINT AT INTERMEDIATE BENT



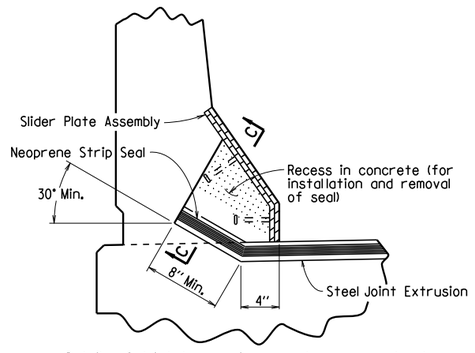

## DETAIL OF STRIP SEAL JOINT

Detail shown at End Bent,
Details similar at Intermediate Bent



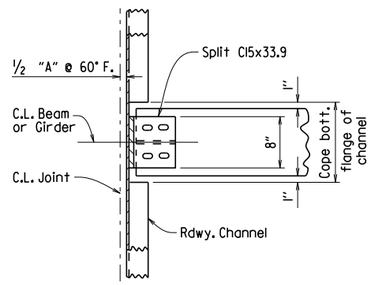

Dimension "X" equals the width of opening in parapet to allow for removal or repair of joint.

## DETAIL OF PARAPET SLIDER PLATES



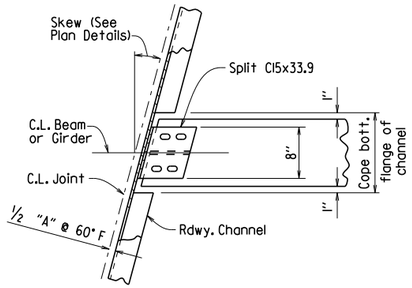

Details of Joint turn-up in parapet are general and show basic design controls only. See plan details for joint installation at sidewalks.

## SECTION A-A



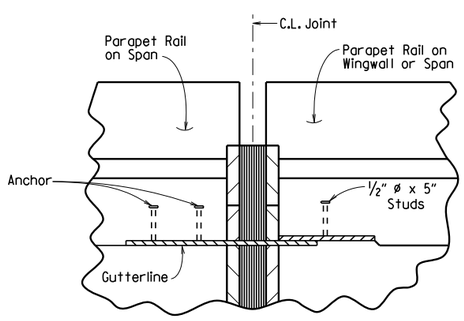

## CHANNEL CONNECTION DETAIL

BENTS WITHOUT SKEW




## CHANNEL CONNECTION DETAIL

BENTS WITH SKEW

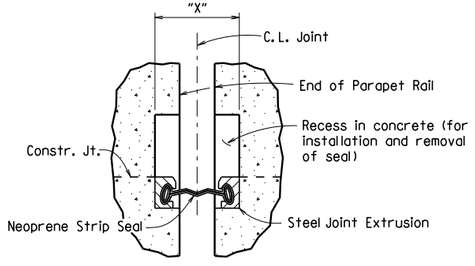



The method of attachment of the slider plate assembly shall allow for removal to provide for future replacement of the neoprene seal. Anchors shall not be paid for directly, but shall be considered subsidiary to the item "Armored Joint with Neoprene Strip Seal".

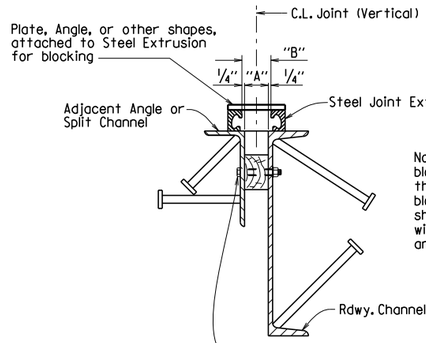
Method of installation and fabrication shall be determined by the Manufacturer.

## SECTION B-B

BENTS WITHOUT SKEW SHOWN




## SECTION C-C




Note: Each expansion joint device shall be blocked in the Shop by the Fabricator to the dimension "A" shown for 60° F and the blocking details shall be shown on the shop drawings. Blocking shall be placed within 2 feet of each end of the device and with a maximum spacing of 8 feet.

## DETAILS FOR BLOCKING EXPANSION JOINT DEVICE

EXPANSION DEVICE INSTALLATION AT END BENTS:

The Contractor may elect to install the expansion device using one of the following two alternatives:

1) The concrete span pour adjacent to joint shall be placed before the end bent backwall is placed. After the end bent backwall forms are in place and the beams or girders erected, the blocked expansion device shall be installed and adjusted for grade. All connection bolts shall be fully tightened prior to placing the deck concrete adjacent to the bent. Immediately prior to pouring the backwall concrete, the blocking shall be removed, and the opening adjusted for temperature and grade.

2) The backwall shall be poured to the optional construction joint after beams or girders are erected. The blocked expansion device shall be installed and adjusted for grade. All connection bolts shall be fully tightened prior to placing the deck concrete adjacent to the bent. Immediately prior to pouring the remainder of the backwall concrete, the blocking shall be removed and the opening adjusted for temperature and grade.

EXPANSION DEVICE INSTALLATION AT INTERMEDIATE BENTS:

After all beams or girders on each side of the joint are erected the blocked expansion device shall be installed and adjusted for grade. Deck concrete shall be placed for the entire unit or span on one side of the joint before deck concrete on the other side is placed. Connection bolts for the first side to have deck concrete placed shall be completely bolted. Bolts on the other side shall be loosely installed so that thermal and rotational movements will not be restricted during concrete placement on the first side.

Connection bolts on the second side shall remain loose until the concrete pour adjacent to the joint is to be placed. Immediately prior to pouring the span concrete on the second side, the blocking shall be removed, the joint adjusted for temperature and grade, and the connection bolts tightened.

GENERAL NOTES FOR NEOPRENE STRIP SEAL JOINTS:

The steel extrusion and neoprene strip seal material and installation shall be in accordance with Section 809.

The expansion device shall provide for the movement rating(s) shown in the "TABLE OF STRIP SEAL JOINT DATA" in the plan details. The expansion joint shall be capable of sealing the deck surface and parapet area to prevent moisture and other contaminants from descending through the joint.

Details of proposed slider plate assembly shall be submitted to the Engineer for approval prior to the fabrication of any structural steel at the expansion device.

All structural steel shall conform to AASHTO M 270, Grade 50W and all exposed surfaces shall be cleaned in accordance with Subsection 807.84(e). The parapet slider plates and structural steel completely embedded in concrete shall conform to AASHTO M 270, Grade 36, 50 or 50W steel. Unless otherwise noted in the plans, all exposed surfaces of the parapet slider plates shall be cleaned and painted in accordance with Section 638. Painting shall not be paid for directly and structural steel completely embedded in concrete need not be painted. Payment for structural steel shall be as specified in the plans.

**SECTION AND SUBSECTION REFER TO THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2014 EDITION).**

**THESE DETAILS ARE APPLICABLE UNLESS OTHERWISE SHOWN IN THE PLAN DETAILS, SPECIAL PROVISIONS, OR SUPPLEMENTAL SPECIFICATIONS. SEE "TABLE OF STRIP SEAL JOINT DATA" IN PLAN DETAILS FOR VARIABLES "A", "B", AND "C".**

# STANDARD DETAILS FOR NEOPRENE STRIP SEAL JOINTS

## ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

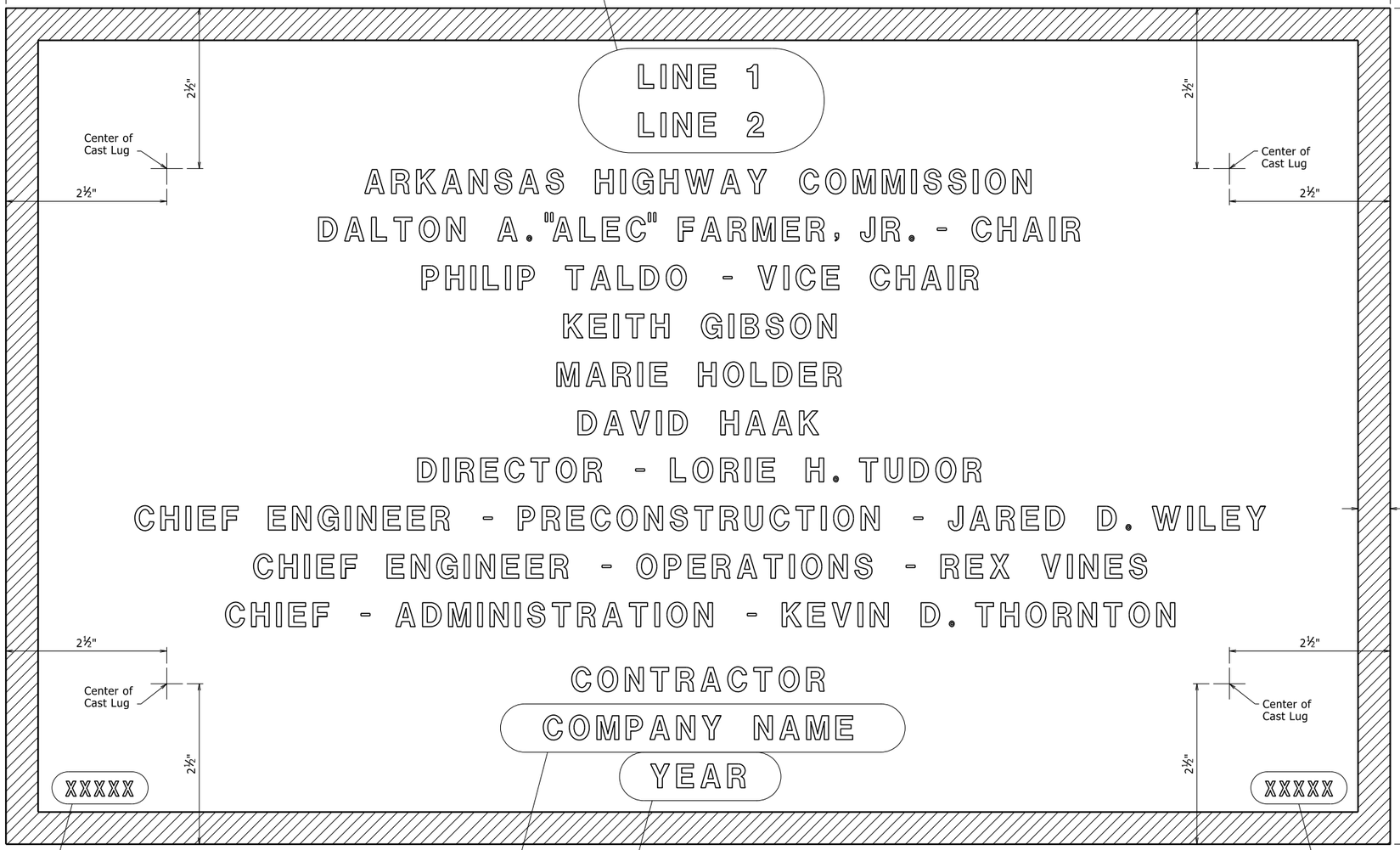
DRAWN BY: L.J.B. DATE: 2/11/2016 FILENAME: b55009.dgn
CHECKED BY: A.M.S. DATE: 2/11/2016 SCALE: No Scale
DESIGNED BY: STD. DATE: —

DRAWING NO. 55009

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| 4-14-23 | | 6 | ARK. | | | |
| | | TYPE D NAME PLATE - 55010 | | | | |

The name of the bridge as shown on the plans shall be placed on Lines 1 & 2 using ⅛" raised letters and numerals ⅜" high.

| | Example 1 | Example 2 | Example 3 | Example 4 |
|---|---|---|---|---|
| Line 1 | RED RIVER | SOUTHERN RAILROAD | SALINE RIVER | HIGHWAY 5 |
| Line 2 | RELIEF | OVERPASS | RELIEF | |



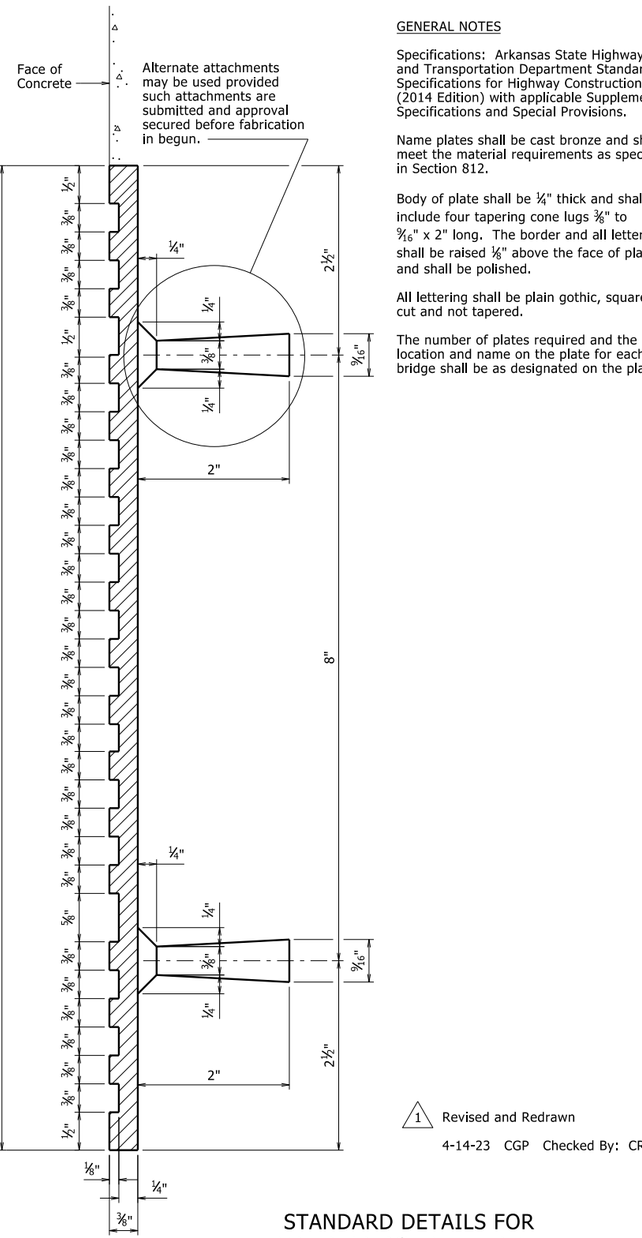

Place the design live loading here using ⅛" raised letters and numerals ¼" high. Examples: HS20, HL-93

Place the Year in which Contract was awarded here using ⅛" raised numerals ⅜" high. Example: 2001

Place the name of the company awarded the construction contract here using ⅛" raised letters and numerals ⅜" high. Example: ABCD CONSTRUCTION, INC.

Place the Bridge number here using ⅛" raised letters and numerals ¼" high. Examples: A1234, 05432

TYPICAL BRIDGE NAME PLATE




GENERAL NOTES

Specifications: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, (2014 Edition) with applicable Supplemental Specifications and Special Provisions.

Name plates shall be cast bronze and shall meet the material requirements as specified in Section 812.

Body of plate shall be ¼" thick and shall include four tapering cone lugs ⅜" to 9/16" x 2" long. The border and all lettering shall be raised ⅛" above the face of plate and shall be polished.

All lettering shall be plain gothic, square cut and not tapered.

The number of plates required and the location and name on the plate for each bridge shall be as designated on the plans.

1 Revised and Redrawn
4-14-23 CGP Checked By: CRE

STANDARD DETAILS FOR
TYPE D BRIDGE NAME PLATE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 2-27-2014 FILENAME: b55010.dgn
CHECKED BY: BEF DATE: 2-27-2014 SCALE: NO SCALE
DESIGNED BY: STD. DATE:

DRAWING NO. 55010

PRINT DATE: 4/20/2023

| DATE REVISED | DATE FILMED | DATE REVISED | DATE FILMED | FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|---|---|
| 3/24/16 | | | | 6 | ARK. | | | |
| | | | | JOB NO. | | | | |
| | | | | ① | | STEEL H-PILES | | 55020 |

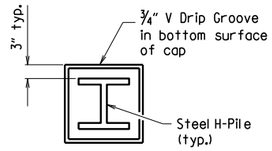
## GENERAL NOTES FOR STEEL H-PILES:

Steel H-Piles shall conform to AASHTO M 270, Grade 36 or greater.

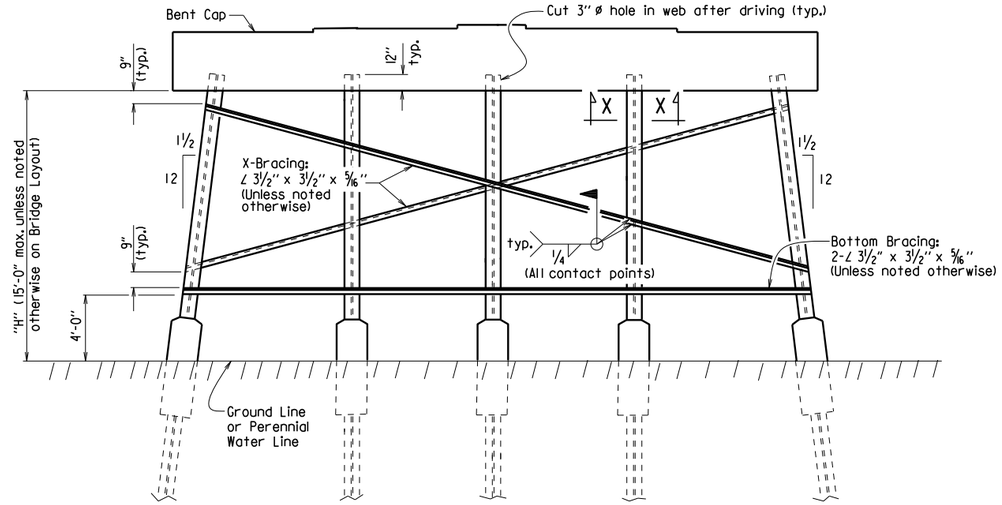
See Bridge Layout and Bent Details for pile size, estimated length, spacing, pile anchorage (if required) and for driving information.

Steel H-Piles that extend above the ground and are not protected by pile encasement shall be painted in accordance with Subsection 805.02.

Brackets, lugs, cap plates, pile tips, driving points, pile painting, splicing and welding shall not be paid for directly, but shall be considered subsidiary to the item "Steel Piling".




VIEW X-X




Notes:
All bracing shall be cut and welded in the field. Each brace shall be furnished in one piece. Payment shall be made under Item 807.

Unless noted otherwise, omit X-Bracing when "H" is less than 8 feet.

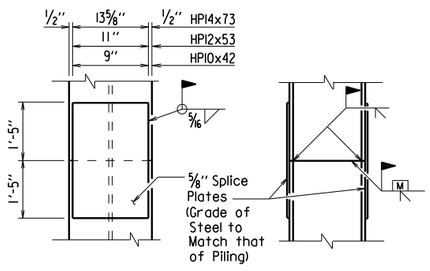
Omit X-Bracing and Bottom Bracing when "H" is 5 feet or less.

When required on the Bridge Layout sheet, pile encasements shall be constructed. See Notes and Details for H-Pile Encasements.

Omit all bracing (and V-groove in cap) when pile encasement is extended to bottom of bent cap.

## TYPICAL DETAILS OF H-PILE TRESTLE INTERMEDIATE BENT

(Shown with Partial Height Encasement)



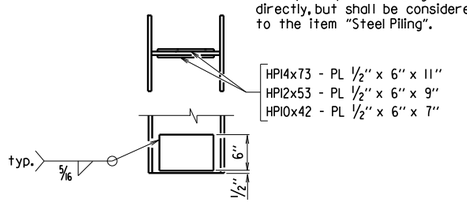

The Contractor may for his own convenience and at his own expense provide as many as three splices per pile. Minimum spacing between splices shall be 5 feet.

## TYPICAL SPLICE DETAILS

⚠ H-pile splicers manufactured by Associated Pile and Fitting Corporation, LB Foster Piling, Skyline Steel or equivalent may be used in lieu of the "Typical Splice Details" shown. H-pile splicers shall match the same grade of steel specified for the piling and shall be welded to the pile with a 5/16" fillet weld around the entire perimeter of the splice. Flanges shall be welded with a complete penetration groove weld complying with AASHTO/AWS Joint Designation B-U4a or B-U4b. All welding shall conform to Subsection 807.26 of the AHTD Standard Specifcations for Highway Construction (2014 Edition).

Notes:
Steel pile tip reinforcing not required when approved H-Pile driving points are used.

Steel pile tip reinforcing shall not be paid for directly, but shall be considered subsidiary to the item "Steel Piling".




## REINFORCING DETAIL FOR STEEL H-PILE TIP

## GENERAL NOTES FOR H-PILE ENCASEMENTS:

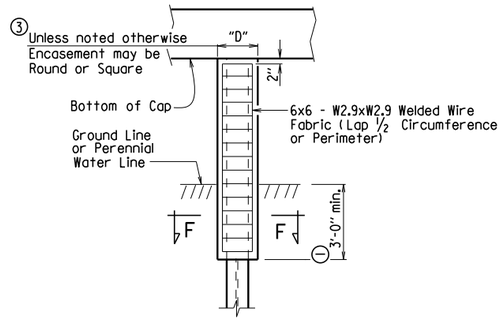
⚠ See Bridge Layout for additional notes, any pile encasement restrictions and required location of pile encasements.

All concrete shall be Class S with a minimum 28-day compressive strength, f'c = 3,500 psi. If concrete cannot be placed in the dry, Seal Concrete may be used from top to bottom of encasement.

Reinforcing steel shall be Grade 60 conforming to AASHTO M 31 or M 322, Type A.

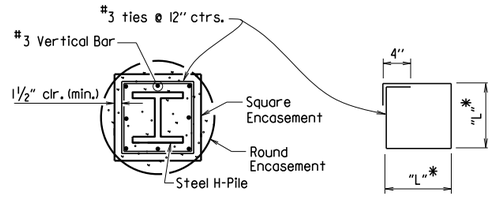
Welded Wire Fabric shall conform to AASHTO M 55 or M 221. Galvanized Corrugated Steel Pipe shall conform to AASHTO M 36 and M 218.

Concrete, welded wire fabric or reinforcing steel and galvanized pipe shall not be paid for directly, but shall be considered subsidiary to the item "Pile Encasement".




## PILE ENCASEMENT DETAIL FOR STEEL H-PILES

④ (Shown with Encasement to Bottom of Cap)

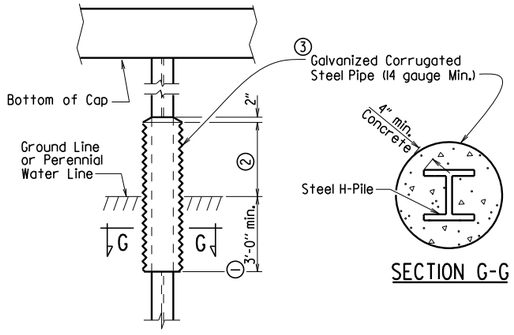



SECTION F-F

*Measured out-to-out of bar.

## TABLE OF VARIABLES FOR PILE ENCASEMENT

| Pile Size | "D" Square Encsmt. | "D" Round Encsmt. | "L"* |
|---|---|---|---|
| HPI0x42 | 1'-7" | 2'-0" | 1'-4" |
| HPI2x53 | 1'-8" | 2'-2" | 1'-5" |
| HPI4x73 | 1'-11" | 2'-6" | 1'-8" |




SECTION G-G

① Unless otherwise noted on Bridge Layout.

② 3'-0" minimum or as shown on Bridge Layout.

③ Encasement dimensions shall be sized to maintain a minimum concrete cover of 4" from the H-Pile. Reinforcement shall be sized to provide a minimum concrete cover of 1½" and a minimum clearance of 1¼" from the pile.

④ Alternate pile encasement, when not extended to bottom of cap, shall have 2" concrete taper for water runoff as shown in the Partial Height Encasement detail.

## ALTERNATE PILE ENCASEMENT DETAIL FOR STEEL H-PILES

(Shown with Partial Height Encasement)

⚠ Added alternate method of splicing H-piles and revised pile encasement note.
3/24/2016 AMS

This document was originally issued and sealed by Charles R. Ellis, PE No. 9235, on March 24, 2016. This copy is not a signed and sealed document.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS

BRIDGE ENGINEER

# STANDARD DETAILS FOR STEEL H-PILES AND PILE ENCASEMENTS

## ARKANSAS STATE HIGHWAY COMMISSION

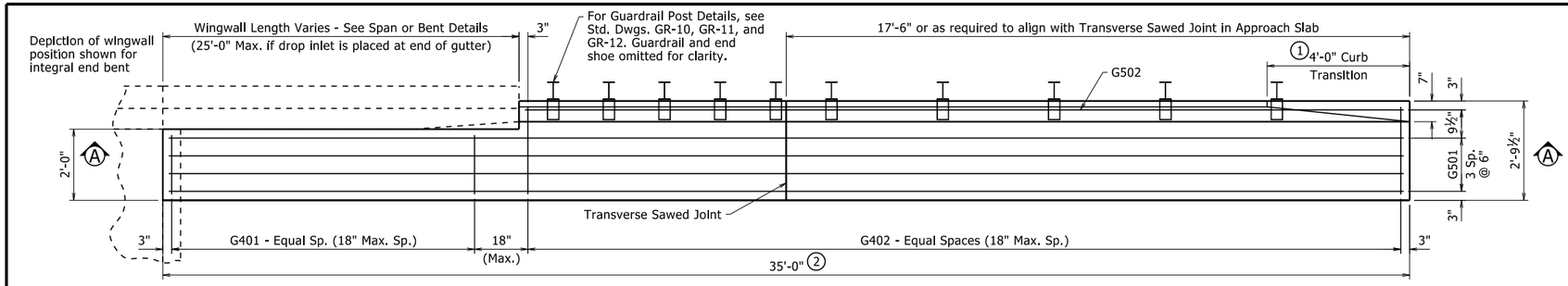
LITTLE ROCK, ARK.

DRAWN BY: A.M.S. DATE: 2/27/2014 FILENAME: b55020.dgn
CHECKED BY: B.E.F. DATE: 2/27/2014 SCALE: NO SCALE
DESIGNED BY: STD. DATE: —

DRAWING NO. 55020

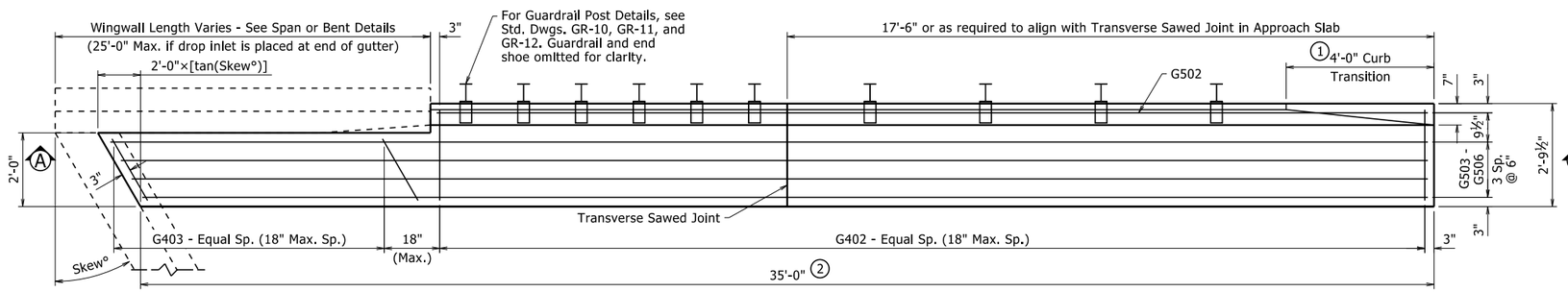
| DATE REVISED | DATE FILMED | DATE REVISED | DATE FILMED | FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|---|---|
| | | | | 6 | ARK. | | | |
| | | | | JOB NO. | | | | |

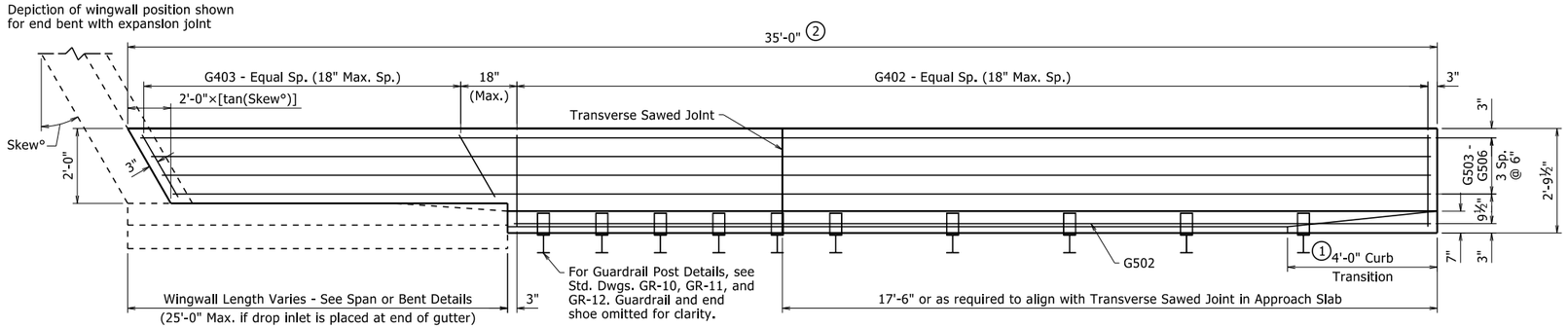
(1) Type F Approach Gutters - 55030F




## HALF PLAN OF APPROACH GUTTERS FOR SQUARE END BENT

½" = 1'-0"




## PLAN OF SKEWED APPROACH GUTTERS FOR SKEWED END BENT

½" = 1'-0"

## QUANTITIES FOR ONE APPROACH GUTTER

(For Information Only)

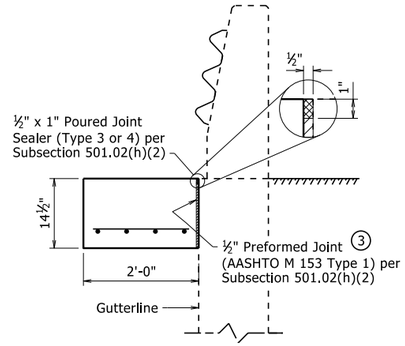
| Reinforcing Steel (Lbs.) | Concrete (Cu. Yds.) |
|---|---|
| 210 | 4.20 |

Quantities are based on one gutter for a square, integral end bent and a wingwall length of 10'-0"

## BAR LIST FOR ONE APPROACH GUTTER

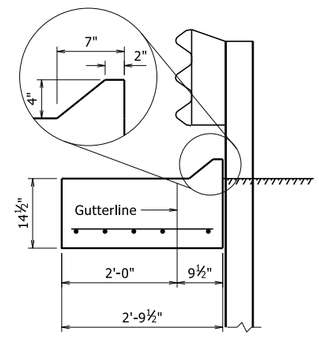
| | Mark | No. Req'd. | Length |
|---|---|---|---|
| Square End Bent | G401 | (4) | 1'-8" |
| | G402 | (4) | 2'-5½" |
| | G501 | 4 | 34'-8" |
| | G502 | 1 | (4) |
| | | | |
| Skewed End Bent | G402 | (4) | 2'-5½" |
| | G403 | (4) | (4) |
| | G502 | 1 | (4) |
| | G503 - G506 | 1 ea. | (4) |

(4) Varies with Skew and/or Wingwall Length



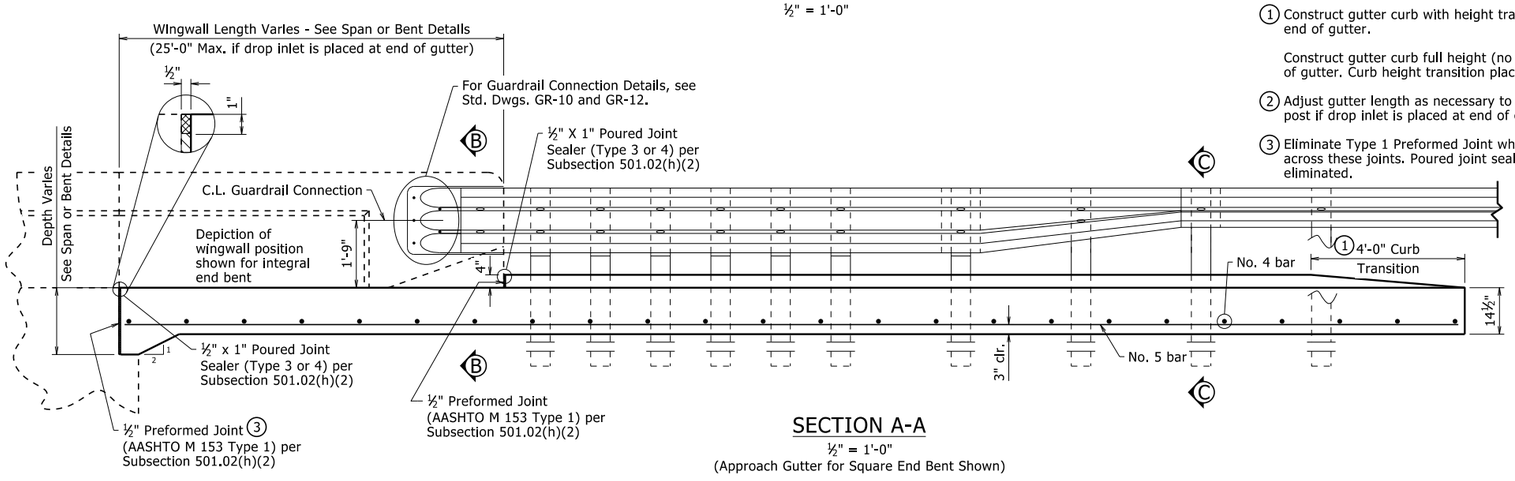

## SECTION B-B

¾" = 1'-0"




## SECTION C-C

¾" = 1'-0"




## SECTION A-A

½" = 1'-0"

(Approach Gutter for Square End Bent Shown)

(1) Construct gutter curb with height transition as shown if drop inlet is not placed at end of gutter.

Construct gutter curb full height (no height transition) if drop inlet is placed at end of gutter. Curb height transition placed on drop inlet.

(2) Adjust gutter length as necessary to avoid outlet pipe interference with guardrail post if drop inlet is placed at end of gutter.

(3) Eliminate Type 1 Preformed Joint when bridge details show reinforcing dowels across these joints. Poured joint sealer is required, however, backer rod shall be eliminated.

## GENERAL NOTES

All concrete shall be Class S(AE) with a minimum 28 day compressive strength f'c = 4,000 psi and shall be poured in the dry.

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

Approach Gutters will be measured and paid for in accordance with Section 504.

All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Bridge. Adjustment to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Bridge.

Scales shown are for 22"x34" drawings. When using 11"x17" drawings, reduce scale by one half.

# STANDARD DETAILS FOR TYPE F APPROACH GUTTERS

## ARKANSAS STATE HIGHWAY COMMISSION

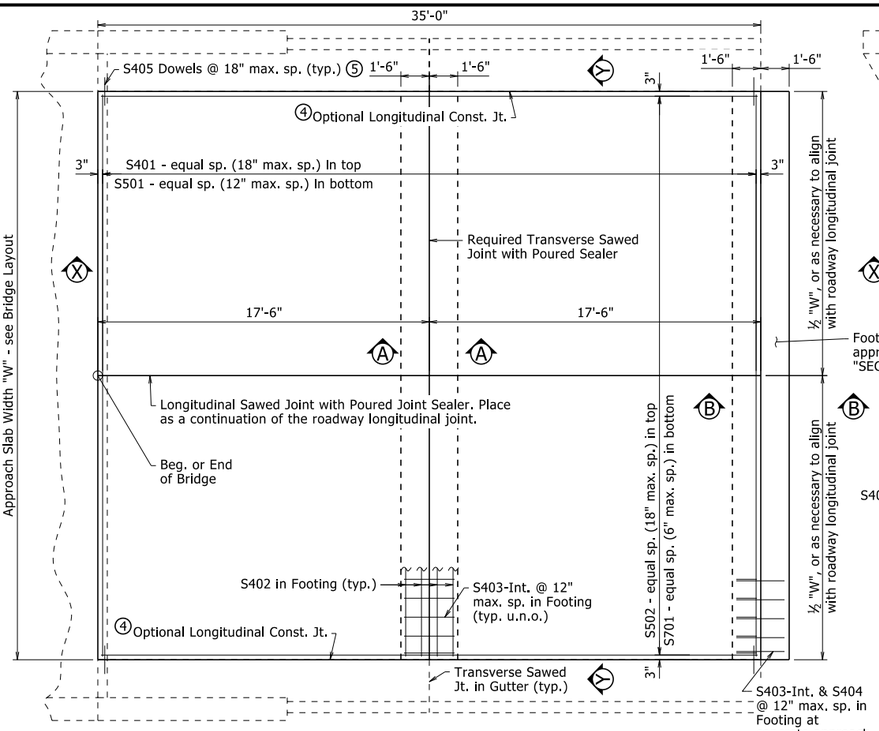
LITTLE ROCK, ARK.

| | | | | | |
|---|---|---|---|---|---|
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| CHECKED BY: | LJB | DATE: | 4-8-2021 | SCALE: | AS NOTED |
| DESIGNED BY: | STD | DATE: | - | | |

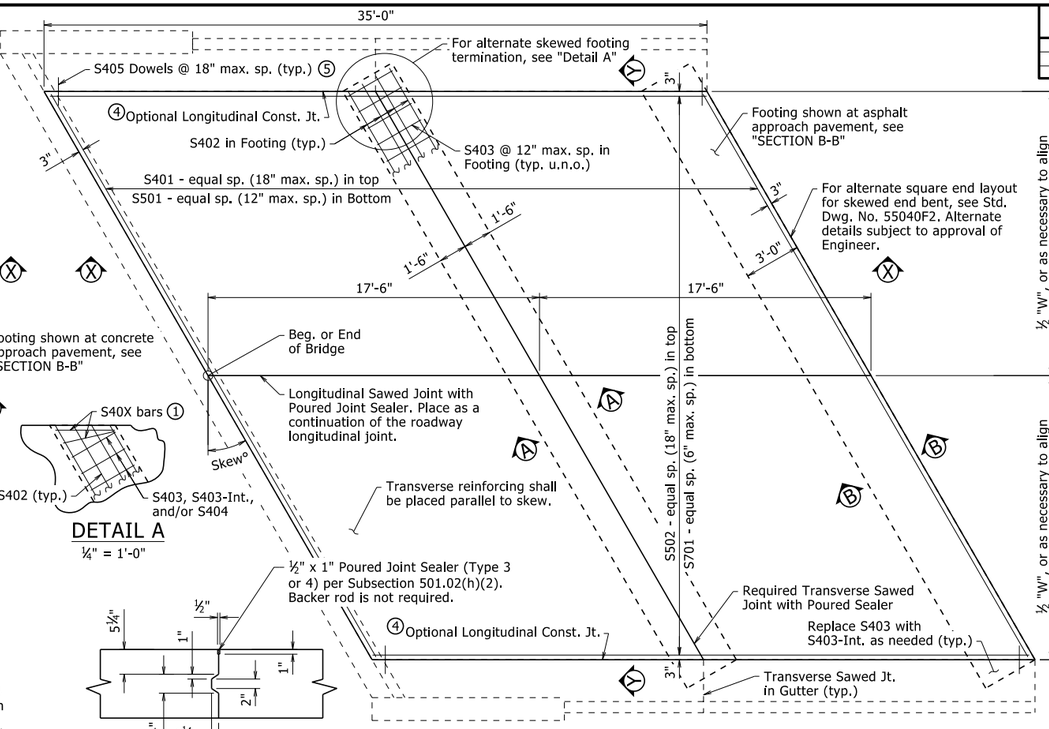
DRAWING NO. 55030F

PRINT DATE: 4/9/2021

| DATE REVISED | DATE REVISED | FED. RD. DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | | | |
| | | Type F Approach Slab - 55040F1 | | | | |

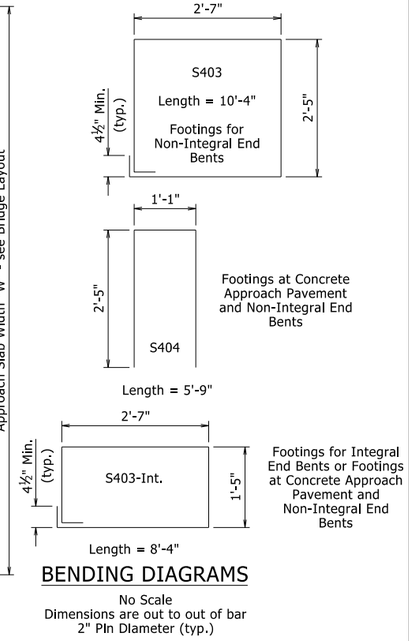



## PLAN - APPROACH SLAB AT SQUARE END BENT




## LONGITUDINAL CONSTRUCTION JOINT

½" = 1'-0"

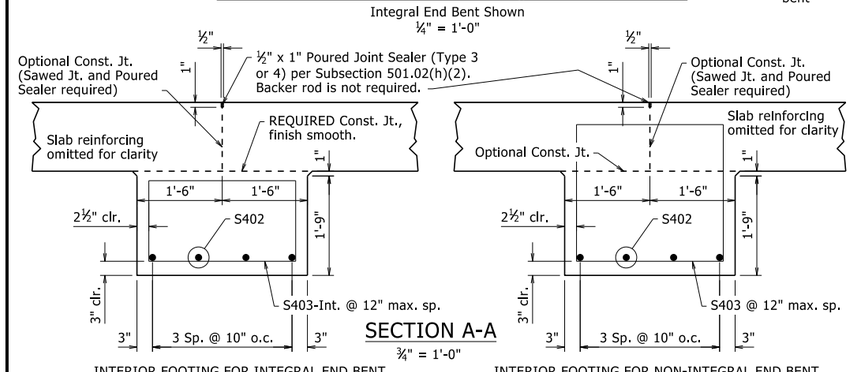



## BENDING DIAGRAMS

No Scale
Dimensions are out to out of bar
2" PIn Diameter (typ.)

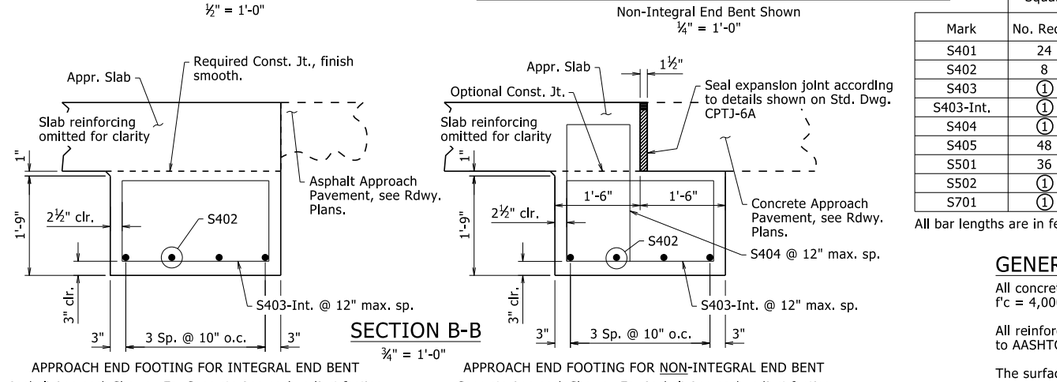
## PLAN - APPROACH SLAB AT SKEWED END BENT

Non-Integral End Bent Shown
¼" = 1'-0"




INTERIOR FOOTING FOR INTEGRAL END BENT

INTERIOR FOOTING FOR NON-INTEGRAL END BENT




APPROACH END FOOTING FOR INTEGRAL END BENT

Asphalt Approach Shown. For Concrete Approach, adjust footing location by 1'-6" to add paving notch and include expansion joint.

APPROACH END FOOTING FOR NON-INTEGRAL END BENT

Concrete Approach Shown. For Asphalt Approach, adjust footing location by 1'-6", omit expansion joint, and replace bars S403-Int. & S404 with S403.

## BAR LIST - PER APPROACH SLAB

| | Square End Bent | | Skewed End Bent | |
|---|---|---|---|---|
| Mark | No. Req'd. | Length | No. Req'd. | Length |
| S401 | 24 | "W" - 0.33' | 24 | ("W" - 0.33') / cos (Skew°) |
| S402 | 8 | "W" - 0.33' | 8 | "W"/cos(Skew°) + 3.0'×tan(Skew°) - 0.33' |
| S403 | ① | ② | ① | ② |
| S403-Int. | ① | ② | ① | ② |
| S404 | ① | ② | ① | ② |
| S405 | 48 | 1'-6" | 48 | 1'-6" |
| S501 | 36 | "W" - 0.33' | 36 | ("W" - 0.33') / cos (Skew°) |
| S502 | ① | 34'-8" | ① | 34'-8" |
| S701 | ① | 34'-8" | ① | 34'-8" |

All bar lengths are in feet.

① Varies with Approach Slab Type, Width and/or Skew.
② See "BENDING DIAGRAMS"

## GENERAL NOTES

All concrete shall be Class S(AE) with a minimum 28 day compressive strength f'c = 4,000 psi and shall be poured in the dry.

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

The surface finish for Approach Slabs shall match that used on the bridge deck.

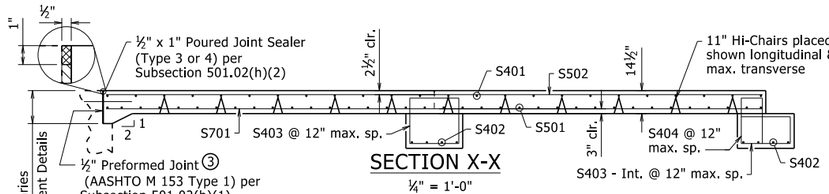
All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Bridge. Adjustment to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Bridge.

See Plans for actual Approach Slab Width, "W", end bent or span details, and approach pavement. Units of "W" are in Feet.

Approach Slabs will be measured and paid for in accordance with Section 504.

Scales shown are for full size 22"x34" drawings. When using 11"x17" drawings, reduce scale by one half.

For Table of Quantities, see "SCHEDULE OF BRIDGE QUANTITIES".




Approach Slab for Square Non-Integral End Bent at Concrete Approach Shown

## MINIMUM BAR LAP LENGTH

| | |
|---|---|
| #4 | 1'-8" |
| #5 | 2'-0" |
| #7 | 2'-10" |

③ Eliminate Type 1 Preformed Joint when bridge details show reinforcing dowels across these joints. Poured joint sealer is required, however, backer rod shall be eliminated.

④ When construction joint is eliminated, place 1" Sawed Joint with ½" x 1" Poured Joint Sealer (Type 3 or 4) per Subsection 501.02(h)(2). Backer rod is not required.

⑤ Eliminate dowels when approach slab is adjacent to curb and gutter, or as directed by the Engineer.

The document was originally issued and sealed by Charles R. Ellis, PE No. 9235, on September 7, 2023. This copy is not a signed and sealed document.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS

BRIDGE ENGINEER

## STANDARD DETAILS FOR TYPE F APPROACH SLAB

**ARKANSAS STATE HIGHWAY COMMISSION**

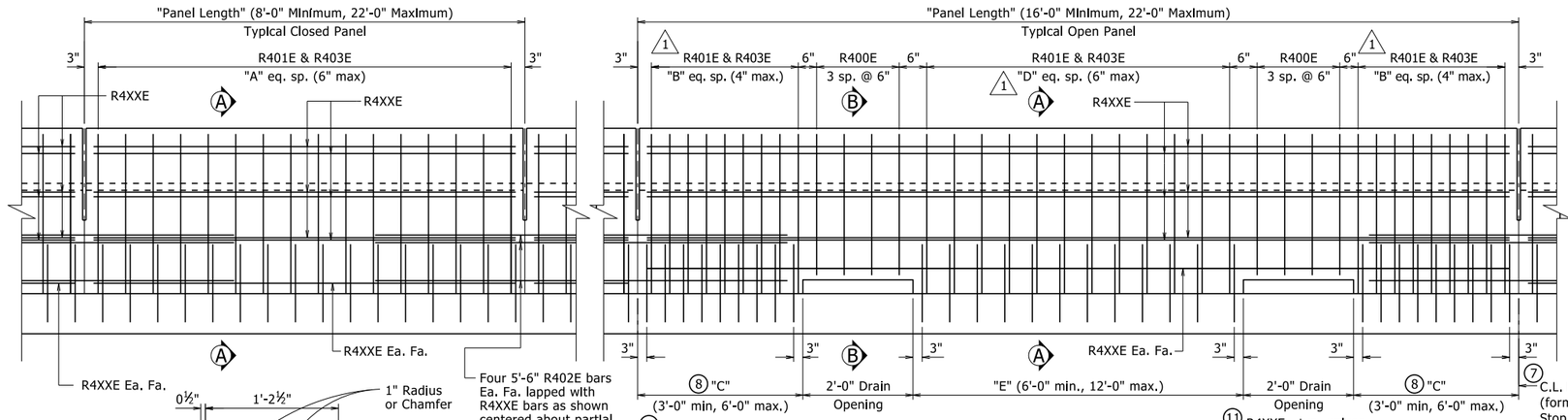
LITTLE ROCK, ARK.

| | | | | | |
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| CHECKED BY: | JYP | DATE: | 05/15/2023 | SCALE: | AS NOTED |
| DESIGNED BY: | STD. | DATE: | - | | |

DRAWING NO. 55040F1

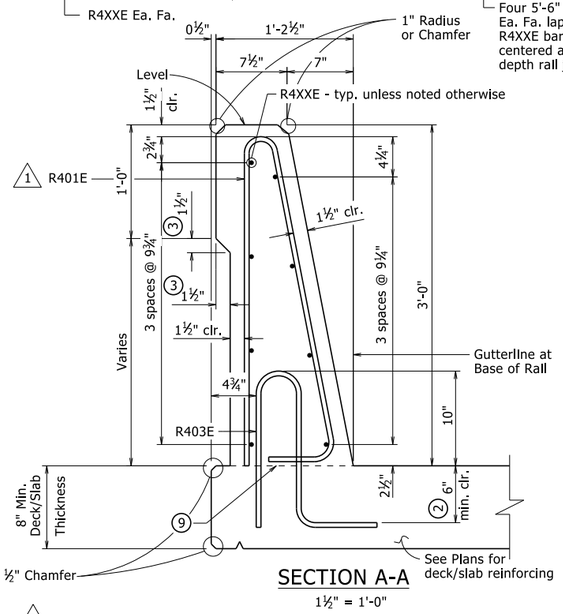
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|---|---|---|---|---|---|---|---|---|
| 09/27/2022 | | | | 6 | ARK. | | | |
| | | | | JOB NO. | | | | |

TYPE SSTR36 - 55070



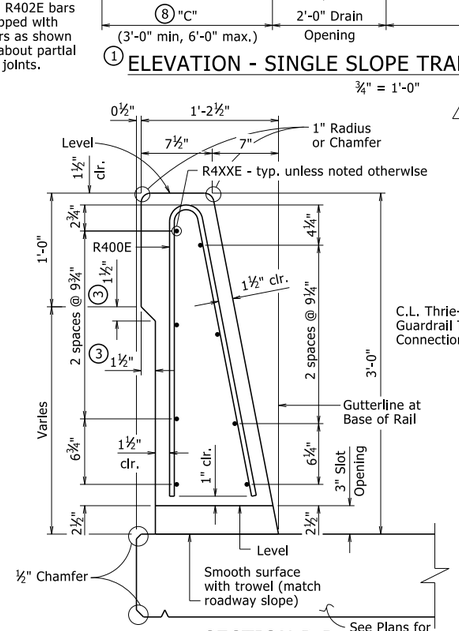

## ① ELEVATION - SINGLE SLOPE TRAFFIC RAIL

¾" = 1'-0"



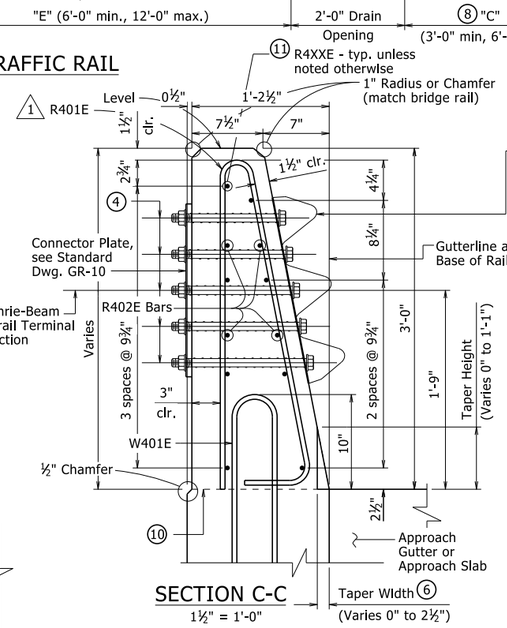

## SECTION A-A

1½" = 1'-0"



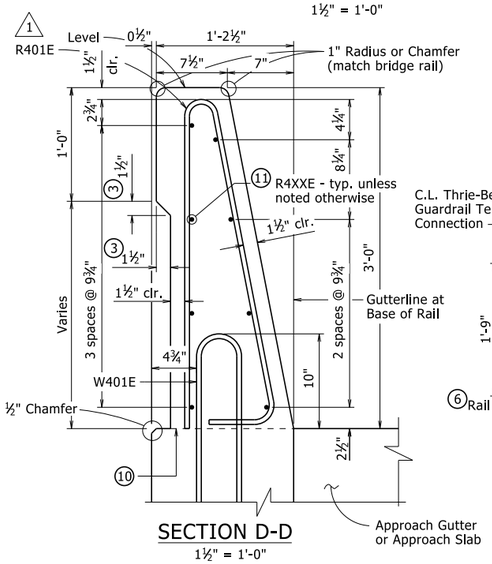

## SECTION B-B

1½" = 1'-0"



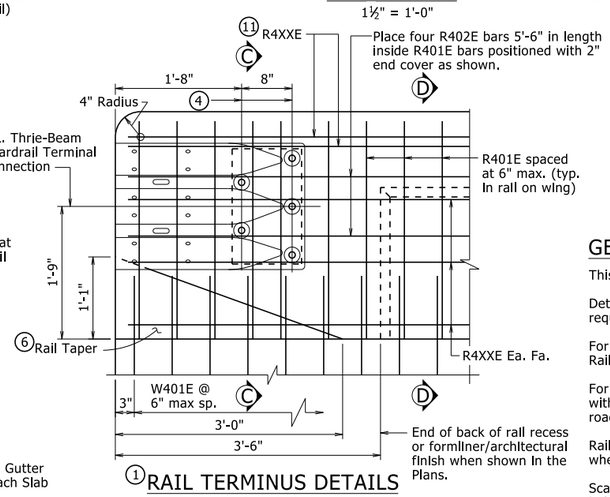

## SECTION C-C

1½" = 1'-0"




## SECTION D-D

1½" = 1'-0"




## ① RAIL TERMINUS DETAILS

1" = 1'-0"

⑦ C.L. Full-Depth Rail Joint (formed width ¼" to 1" max). Stop 6" from top of deck/slab or sidewalk. Place at all intermediate bents locations where rail is continuous.

⑦ C.L. Partial-Depth Rail Joint (formed width ¼" to 1" max). Stop 16" from top of deck/slab or sidewalk. Place at all remaining locations other than at intermediate bents.

① All measurements shown are along gutterline at base of rail.

② Minimum embedment into deck/slab.

③ Eliminate recess when formliner with architectural finish is used. See Plans for additional information.

④ C.L. 1" ø formed holes for ⅞" ø bolts. See Standard Drawings GR-10 and GR-12 for additional information.

⑤ Only applicable for bridges with rail cast directly on bridge deck/slab surface. Increase height as necessary for sidewalks, see Plans for additional information.

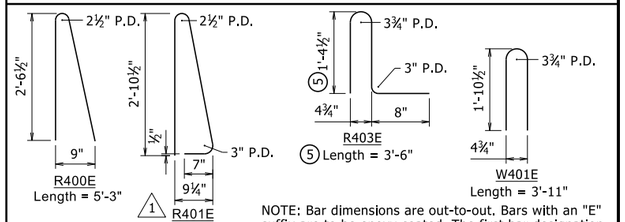
⑥ Field bend front leg of R401E bar as required to maintain minimum 1½" front face clearance within limits of taper.

⑦ When optional slip forming is used: to control cracking, all rail joints must be V-grooved around the perimeter of the rail prior to concrete set and sawing. Depth of V-groove shall be ½". Sawing of the joints shall be done as soon as practical to a width of ¼", and must be controlled so it will follow the V-Groove.

⑧ End posts shall be the same length within a panel.

Bolt Special End Shoe to face of rail as shown. Tapered washers are not required between the head of the bolts and the sloped face of the rail. Tighten the five terminal connection bolts in a well distributed pattern to prevent damage or distortion of the thrie-beam connection. Cut bolts off after installation so as to extend no more than ¾" beyond nut. Paint ends of cut-off bolts with zinc-rich paint. This work and material will not be paid for directly but shall be considered subsidiary to associated contract items.

### BENDING DIAGRAM




NOTE: Bar dimensions are out-to-out. Bars with an "E" suffix are to be epoxy coated. The first bar designation number indicates the reinforcing bar size.

⑨ Required Construction Joint. Level where water flows away from rail, match roadway slope where water flows toward rail.

⑩ Top of Abutment Wing & Required Construction Joint (match bridge deck/slab construction joint slope). See Plans for Wing reinforcing.

⑪ These bars will not be included in the "Table of Variables". See Plans for details.

## TABLE OF VARIABLES

| Closed Rail Panels | | | Open Rail Panels | | | | | |
|---|---|---|---|---|---|---|---|---|
| Panel Length | A | R4XXE | Panel Length | B | C | D | E | R4XXE |
| | | | | | | | | |

See Plans for table with values.

## GENERAL NOTES

This rail has been successfully evaluated by full-scale crash test to meet MASH TL-4 criteria.

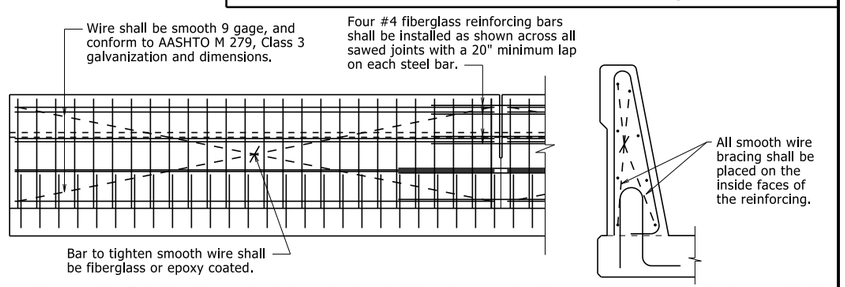
Details shown are general for bridges without sidewalks. See Plans for additional details and requirements specific to bridges with sidewalks.

For Table of Variables, Rail Bar List, locations of Full and Partial Depth Rail Joints, and Wing & Rail Bar Lists, see Plans.

For location of drain openings, see Plans. Drain openings shown are not applicable for bridges with sidewalks. Drain openings will not be allowed over Railroad Right of Way, travelled roadways, and protected waterways.

Rail Terminus details, including Rail Taper, are not applicable for bridges with sidewalks or when bridge railing is continuous with roadway railing.

Scales shown are for 22"x34" drawings. When using 11"x17" drawings, reduce scale by one half.




The extruded rail shall conform to the horizontal and vertical lines shown on the plans or as directed by the Engineer and shall present a smooth, uniform appearance and texture. Unless otherwise noted, exposed surfaces may be given a light brush finish or a Class 3, Textured Coating Finish in place of Class 2, Rubbed Finish.

All panels shall be braced as required to prevent racking.

Slip forming will not be allowed on bridges where formliner with architectural treatment is used unless approval from the Engineer is obtained.

## DETAILS OF OPTIONAL SLIP FORMING OF BRIDGE TRAFFIC RAIL

No Scale

△1 Modified bending diagram and spacing for R401E bar.

By: CGP, Checked by: CMW 09/27/2022

This document was originally issued and sealed by Charles R. Ellis, PE No. 9235, on November 5, 2020. This copy is not a signed and sealed document.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS

BRIDGE ENGINEER

THESE DETAILS ARE APPLICABLE UNLESS OTHERWISE SHOWN IN THE PLAN DETAILS, SPECIAL PROVISIONS, OR SUPPLEMENTAL SPECIFICATIONS.

# STANDARD DETAILS FOR BRIDGE TRAFFIC RAIL TYPE SSTR36

## ARKANSAS STATE HIGHWAY COMMISSION

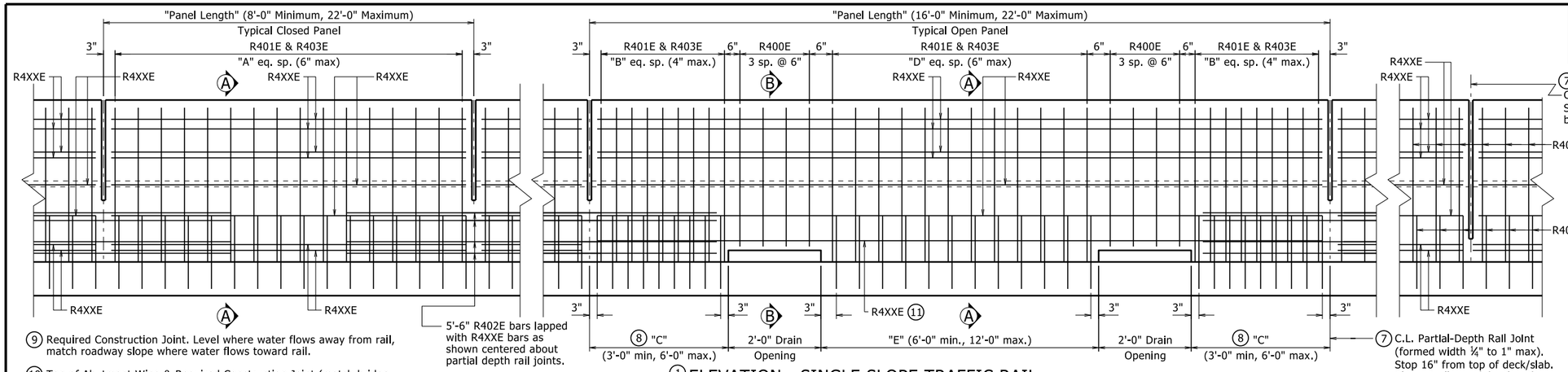
LITTLE ROCK, ARK.

DRAWN BY: KWY DATE: 11/5/2020
CHECKED BY: LJB DATE: 11/5/2020
DESIGNED BY: STD. DATE: -----
FILENAME: b55070.dgn
SCALE: As Noted

DRAWING NO. 55070

PRINT DATE: 10/6/2022

| DATE REVISED | DATE REVISED | FED. ROAD DIST. NO. | STATE | JOB NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| | | 6 | ARK. | | | |
| | | TYPE SSTR42 - 55071 | | | | |




1 ELEVATION - SINGLE SLOPE TRAFFIC RAIL

9 Required Construction Joint. Level where water flows away from rail, match roadway slope where water flows toward rail.

10 Top of Abutment Wing & Required Construction Joint (match bridge deck/slab construction joint slope). See Plans for Wing reinforcing.

11 These bars shall be raised up over drain opening as shown in "SECTION B-B".

1 All measurements shown are along gutterline at base of rail.

2 Minimum embedment into deck/slab.

3 Eliminate recess when formliner with architectural finish is used. See Plans for additional information.

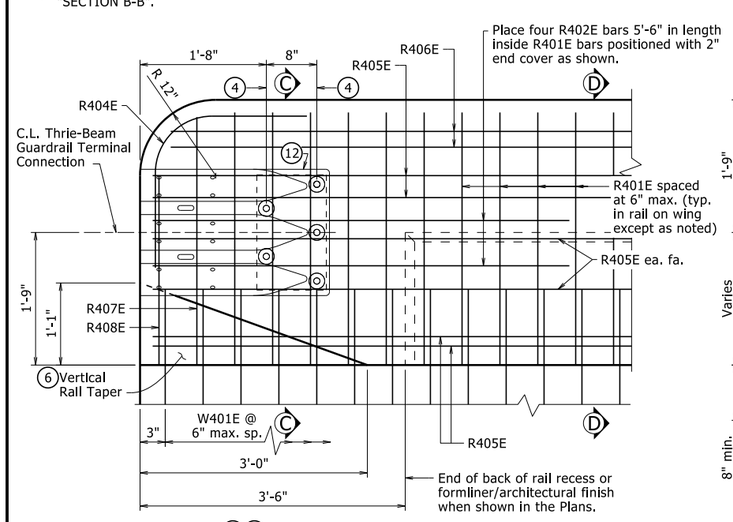
4 C.L. 1" ø formed holes for ⅞" ø bolts. See Standard Drawings GR-10 and GR-12 for additional information.

5 These bars will not be included in the "TABLE OF VARIABLES", see plans for additional information.

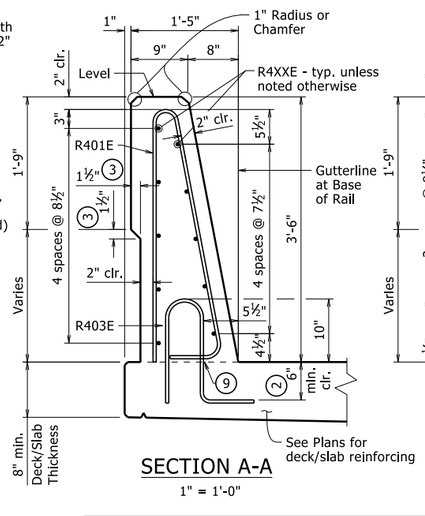
6 Field bend front leg of R401E bar as required to maintain minimum 1½" front face clearance within limits of taper.

7 When optional slip forming is used: to control cracking, all rail joints must be V-grooved around the perimeter of the rail prior to concrete set and sawing. Depth of V-groove shall be ½". Sawing of the joints shall be done as soon as practical to a width of ¼", and must be controlled so it will follow the V-Groove.

8 End posts shall be the same length within a panel.

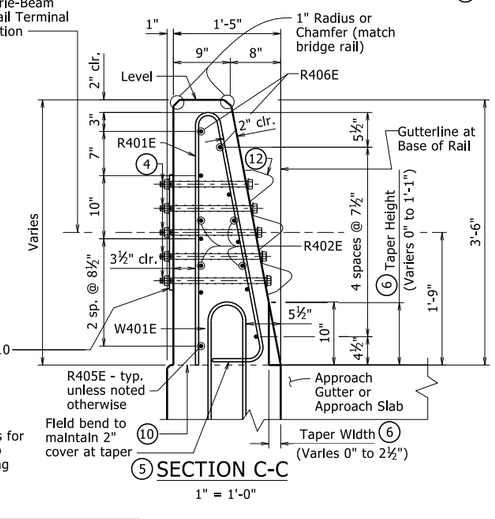



1 5 RAIL TERMINUS DETAIL
1" = 1'-0"

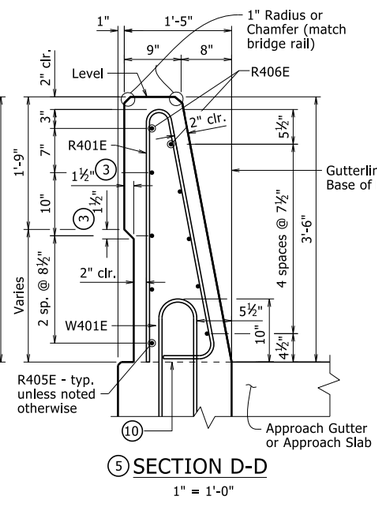



SECTION A-A
1" = 1'-0"

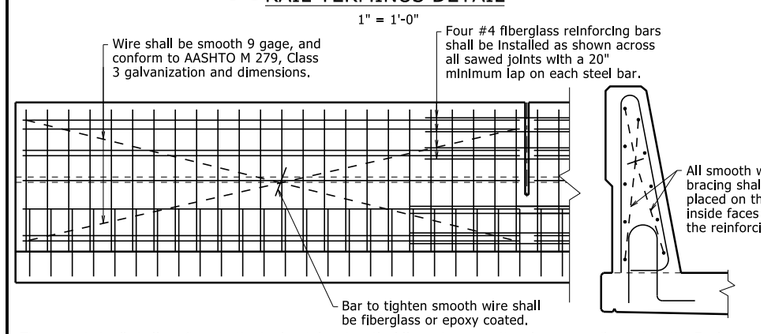
SECTION B-B
1" = 1'-0"



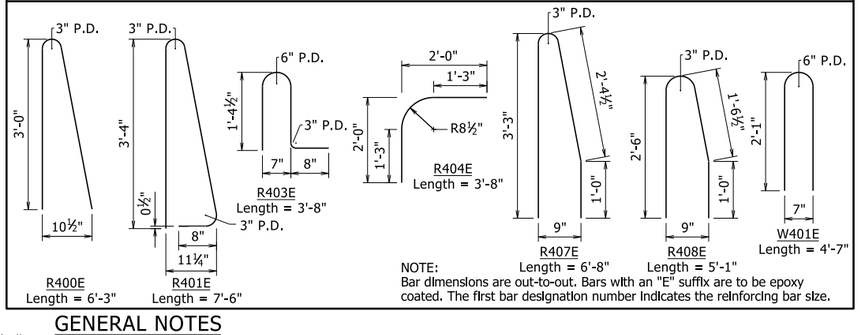

5 SECTION C-C
1" = 1'-0"




5 SECTION D-D
1" = 1'-0"




BENDING DIAGRAM




12 Bolt Special End Shoe to face of rail as shown. Tapered washers are not required between the head of the bolts and the sloped face of the rail. Tighten the five terminal connection bolts in a well distributed pattern to prevent damage or distortion of the thrie-beam connection. Cut bolts off after installation so as to extend no more than ⅜" beyond nut. Paint ends of cut-off bolts with zinc-rich paint. This work and material will not be paid for directly but shall be considered subsidiary to associated contract items.

## TABLE OF VARIABLES

| Closed Rail Panels | | | Open Rail Panels | | | | | |
|---|---|---|---|---|---|---|---|---|
| Panel Length | A | R4XXE | Panel Length | B | C | D | E | R4XXE |
| | | | | | | | | |

See Plans for table with values.

This document was originally issued and sealed by Charles R. Ellis, PE No. 9235, on July 06, 2022. This copy is not a signed and sealed document.

THESE DETAILS ARE APPLICABLE UNLESS OTHERWISE SHOWN IN THE PLAN DETAILS, SPECIAL PROVISIONS, OR SUPPLEMENTAL SPECIFICATIONS.

## GENERAL NOTES

The extruded rail shall conform to the horizontal and vertical lines shown on the plans or as directed by the Engineer and shall present a smooth, uniform appearance and texture. Unless otherwise noted, exposed surfaces may be given a light brush finish or a Class 3, Textured Coating Finish in place of Class 2, Rubbed Finish.

All panels shall be braced as required to prevent racking.

Slip forming will not be allowed on bridges where formliner with architectural treatment is used unless approval from the Engineer is obtained.

## DETAILS OF OPTIONAL SLIP FORMING OF BRIDGE TRAFFIC RAIL

No Scale

This rail has been evaluated and accepted to be of equal strength to railings with similar geometry, which have been evaluated by full-scale crash test to meet MASH TL-4 criteria.

For Table of Variables, Rail Bar List, locations of Full and Partial Depth Rail Joints, and Wing & Rail Bar Lists, see Plans.

For location of drain openings, see Plans. Drain openings will not be allowed over Railroad Right of Way, travelled roadways, and protected waterways.

Rail Terminus details, including Rail Taper, are not applicable when bridge railing is continuous with roadway railing.

Scales shown are for full size 22"x34" drawings. When using 11"x17" drawings, reduce scale by one half.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS
BRIDGE ENGINEER

# STANDARD DETAILS FOR BRIDGE TRAFFIC RAIL TYPE SSTR42

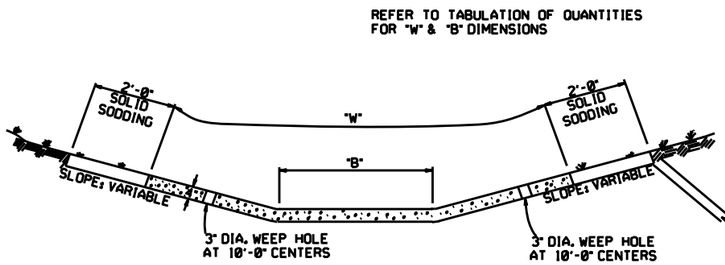
## ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: CGP DATE: 06/30/2022 FILENAME: b55071.dgn
CHECKED BY: CMW DATE: 07/01/2022 SCALE: AS NOTED
DESIGNED BY: STD. DATE: -

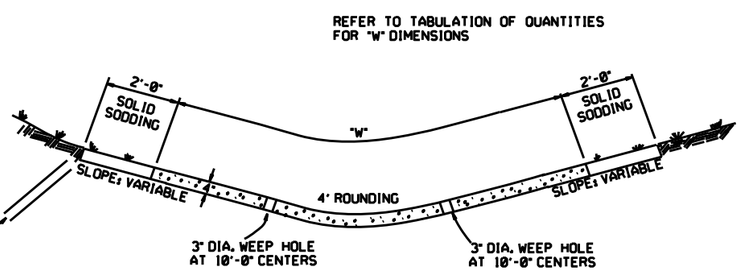
DRAWING NO. 55071

PRINT DATE: 10/7/2022




TYPE A

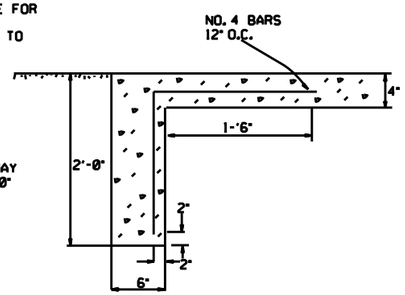
EXCAVATE TO NEAT LINES TO CONSTRUCT DITCH PAVING AND SOLID SODDING.



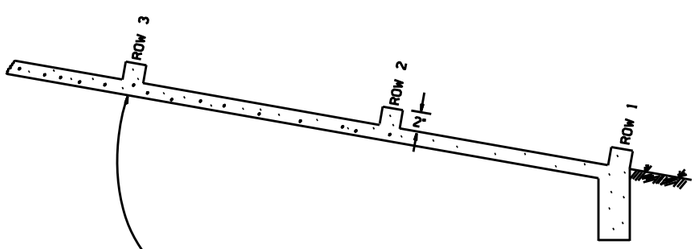

TYPE B

THE STEEL AND ADDITIONAL CONCRETE FOR THE WALLS SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR "CONCRETE DITCH PAVING."

TOE WALL DEPTH MAY BE ALTERED TO 1'-0" WHEN DIRECTED BY THE ENGINEER IN ROCK EXCAVATION

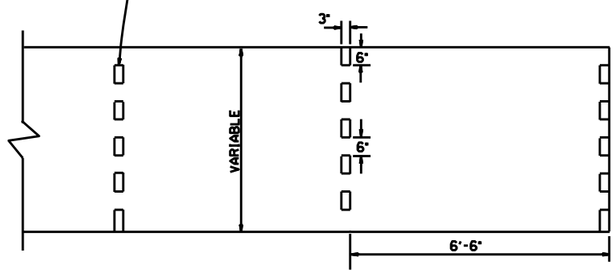



TOE WALL DETAIL FOR CONCRETE DITCH PAVING




NUMBER OF ELEMENTS PER ROW VARIES WITH WIDTH OF PAVING SPECIFIED

ENERGY DISSIPATORS TO BE USED FOR THE ENTIRE LENGTH OF DITCH WHEN SLOPE OF DITCH PAVING EXCEEDS 7%. THE DISSIPATORS WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR CONCRETE DITCH PAVING.




ENERGY DISSIPATORS
(NO SCALE)

GENERAL NOTES:

THE FULL WIDTH OF EACH SECTION SHALL BE POURED MONOLITHICALLY.

TOE WALLS TO BE CONSTRUCTED FULL WIDTH AT EACH END OF DITCH PAVING, AND POURED MONOLITHICALLY.

SOLID SOD ALONG DITCH PAVING TO BE PLACED WITHIN 14 DAYS OF DITCH PAVING CONSTRUCTION.

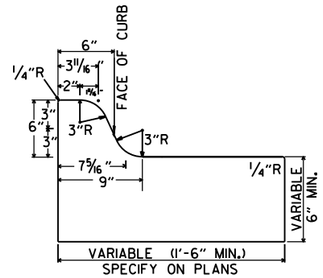
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45° INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

| DATE | REVISION | DATE FILM'D |
|---|---|---|
| 12-8-16 | CORRECTED ENERGY DISSIPATOR DRAWING AND NOTE | |
| 11-17-10 | ADDED GENERAL NOTE | |
| 6-2-94 | ADDED GENERAL NOTE ABOUT SOLID SODDING | |
| 11-30-8 | ELIMINATED MIN. ROWS OF ELEMENTS | 111-30-89 |
| 7-15-88 | REVISED DISSIPATOR NOTE | 653-7-15-88 |
| 4-3-87 | REVISED ENERGY DISSIPATOR | 671-4-3-87 |
| 1-9-87 | MODIFIED NOTE ON ENERGY DISS. | 532-1-9-87 |
| 11-3-86 | ADDED NOTE TO ENERGY DISS. | 599-12-1-86 |
| 11-1-84 | ENERGY DISSIPATOR DETAILS ADDED | 508-11-1-84 |
| 11-1-84 | EXCAVATION DETAILS ADDED TYPED A & B | |
| 10-2-72 | REVISED AND REDRAWN | 508-10-2-72 |

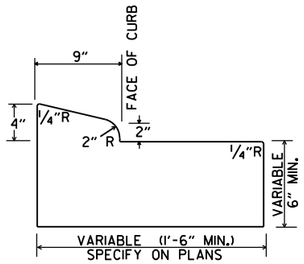
ARKANSAS STATE HIGHWAY COMMISSION

# CONCRETE DITCH PAVING

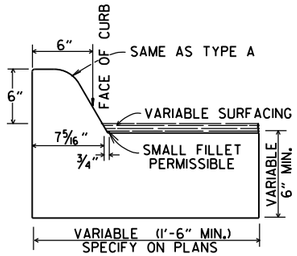
STANDARD DRAWING CDP-1



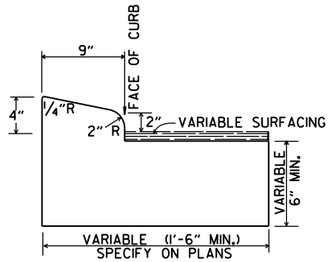

TYPE A



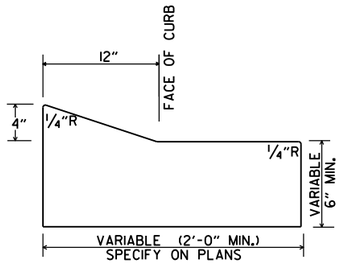

TYPE B-1



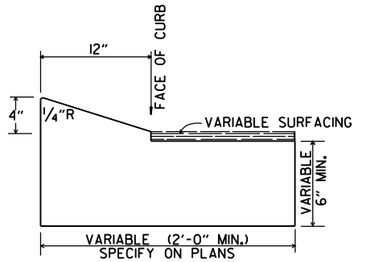

TYPE C




TYPE B-2

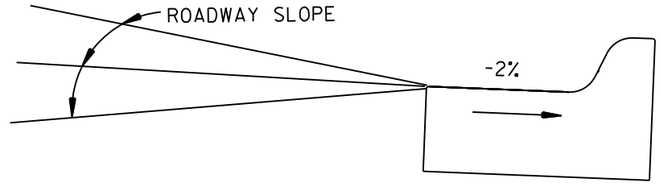



TYPE E-1



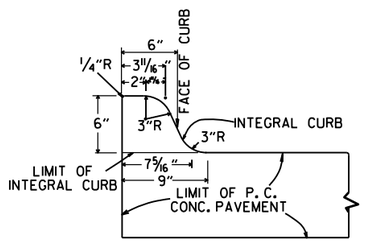

TYPE E-2

# CONCRETE COMBINATION CURB AND GUTTER

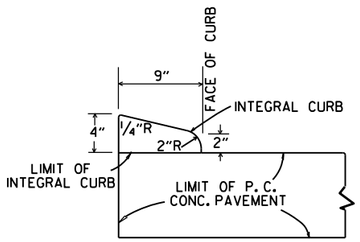



## DETAIL OF GUTTER SLOPE

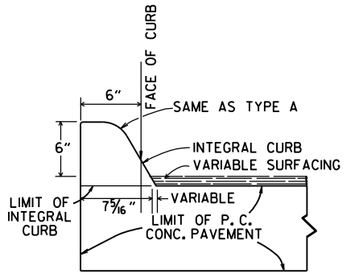
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.




TYPE A

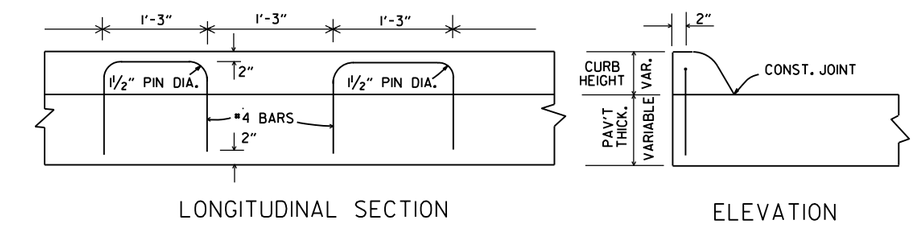



TYPE B




TYPE C

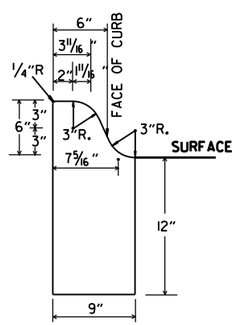
## INTEGRAL CURB



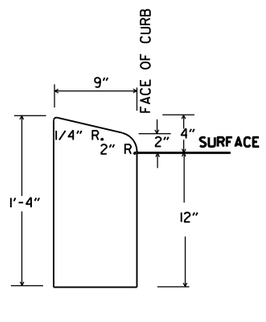

LONGITUDINAL SECTION

ELEVATION

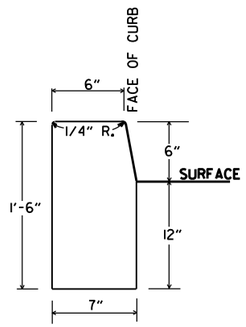
## ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



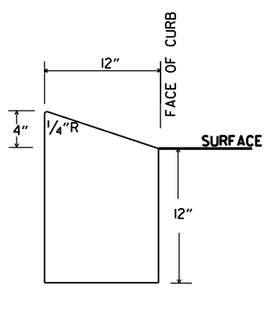

TYPE A




TYPE B

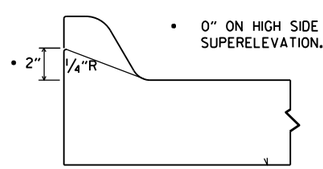



TYPE D




TYPE E

## CONCRETE CURB




NOTE: USE MODIFIED CURB AS SPECIFIED ON STD. DR-1. COMPENSATION FOR MODIFIED CURB WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE TYPE OF CURB OR CURB AND GUTTER SPECIFIED.

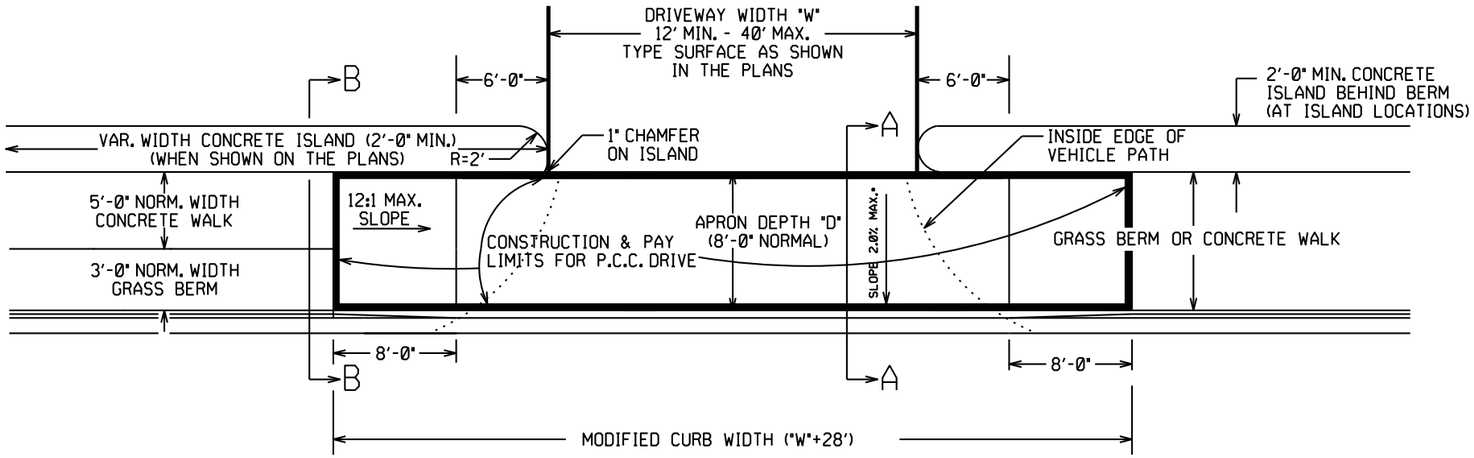
## DETAILS OF MODIFIED CURB

| DATE | REVISION | DATE FILMED |
|---|---|---|
| 11-29-07 | REVISED GUTTER SLOPE & MODIFIED CURB DETAILS | |
| 11-10-05 | ADDED DETAILS OF TYPE E CURBS | |
| 11-16-01 | REVISED CONCRETE CURB TYPE B | |
| 11-18-98 | REVISED MODIFIED CURB | |
| 6-2-94 | ADDED NOTE TO SPECIAL MODIFIED CURB | |
| 8-5-93 | CORRECTED GUTTER SLOPE | 8-5-93 |
| 10-1-92 | ADDED DETAILS OF GUTTER SLOPE | 10-1-92 |
| 5-24-90 | ADDED DETAILS OF MODIFIED CURB | 5-24-90 |
| 11-30-89 | VARIBLE DEPTH TYPE A & B I | 11-30-89 |
| 7-15-88 | REVISED MODIFIED CURB | 630-7-15-88 |
| 11-1-73 | REVISED MODIFIED CURB | 500-11-1-73 |
| 10-2-72 | REVISED AND REDRAWN | 512-10-2-72 |

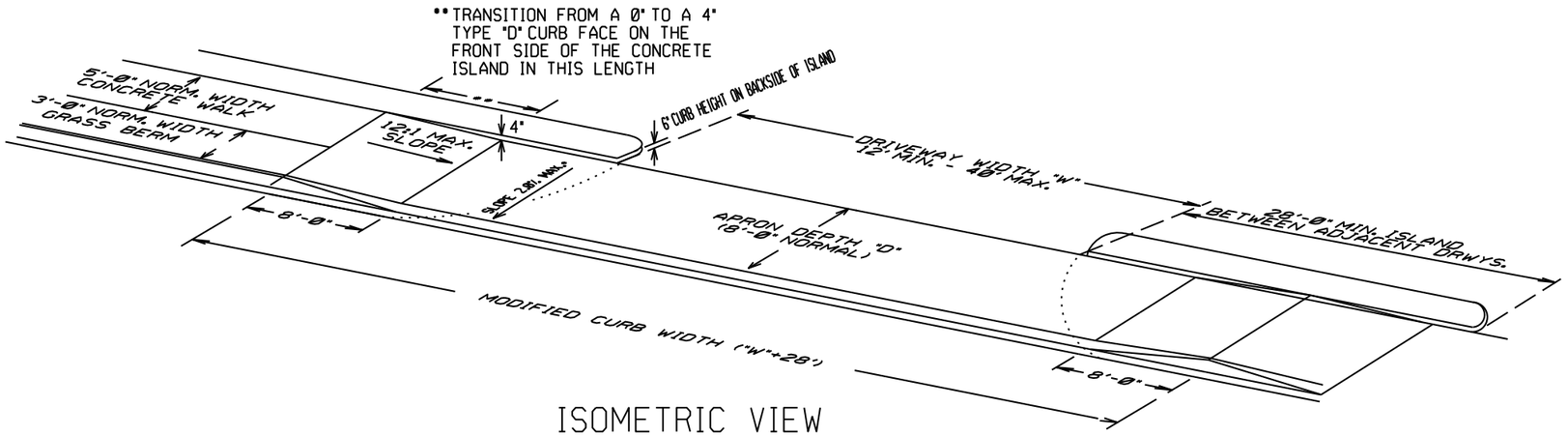
ARKANSAS STATE HIGHWAY COMMISSION

# CURBING DETAILS

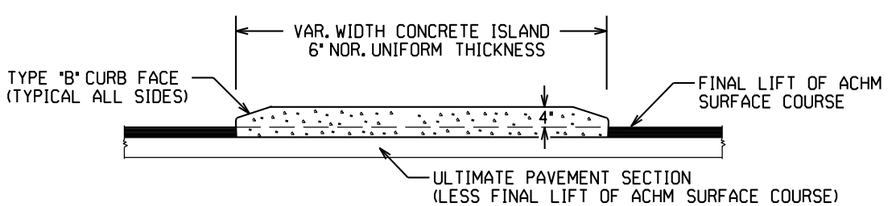
STANDARD DRAWING CG-1




PLAN VIEW




ISOMETRIC VIEW

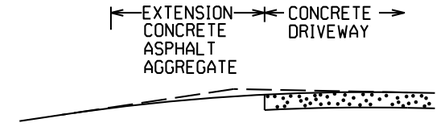



CURBED ISLANDS FOR CHANNELIZATION

CONCRETE ISLAND NOTES:

1. REFER TO PLANS FOR TYPE OF CURB FACE TO BE USED. NO DIRECT PAYMENT WILL BE MADE FOR THE CURB FACES SHOWN ON THE ISLAND DETAILS. PAYMENT FOR THE CURB FACE WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE ITEM "CONCRETE ISLAND".

2. TRANSVERSE EXPANSION JOINTS, NOT LESS THAN 1/2" WIDE, SHALL BE PLACED AT MINIMUM INTERVAL OF 45'. TRANSVERSE JOINT SHALL BE CONSTRUCTED USING A JOINT FILLER COMPLYING WITH AASHTO M213.




EXTENSION TYPICAL SECTIONS

1: CONCRETE - 6" P.C. CONCRETE DRIVEWAY

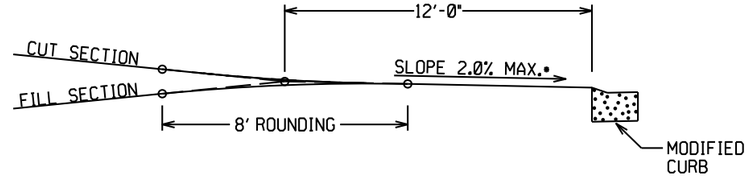
2: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
4" ACHM BINDER COURSE (1") OR
4" ACHM BASE COURSE (1-1/2")

3: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
7" AGGREGATE BASE COURSE

4: AGGREGATE - 6" AGGREGATE BASE COURSE

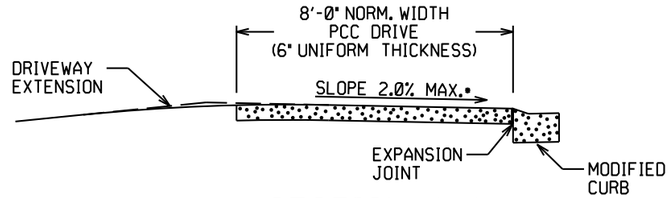
THE TYPE OF EXTENSION SHALL BE AS SHOWN IN THE PLANS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, SUBSTITUTE A LOWER NUMBERED TYPE OF EXTENSION IN LIEU OF THE TYPE SPECIFIED IN THE PLANS, BUT AT NO ADDITIONAL COST TO THE DEPARTMENT.

DRIVEWAY EXTENSION DETAILS

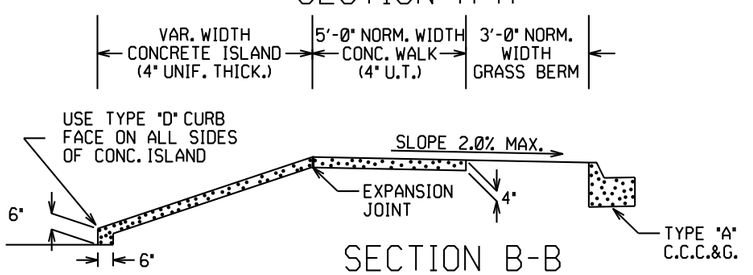



DRIVEWAY VERTICAL ALIGNMENT DETAILS

• NOTE: DRIVEWAYS MAY NOT BE SLOPED AWAY FROM THE ROADWAY UNLESS APPROVED BY THE ENGINEER.




SECTION A-A




SECTION B-B

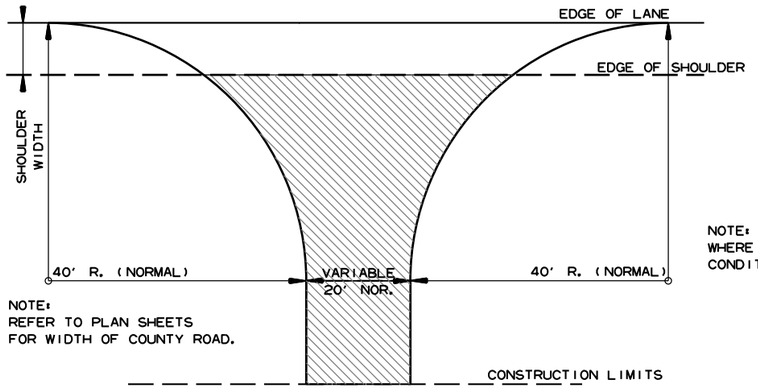
CURBED ISLAND BEHIND WALK

| DATE REV | DATE FILMED | DESCRIPTION |
|---|---|---|
| 5-19-22 | | REVISED ISLAND NOTES |
| 11-07-19 | | REVISED WALK DETAILS |
| 2-27-14 | | REVISED PLAN & ISOMETRIC VIEW |
| 11-29-07 | | ADDED CHANNELIZATION ISLAND WITH TYPE C CURB FACE & REVISED DRIVEWAY SLOPE NOTE & VERTICAL ALIGNMENT DETAIL |
| 11-10-05 | | REV. APRON SLOPE & DEPTH OF AGG. BASE. |
| 8-22-02 | | ADDED ISLAND DETAILS & NOTES |
| 3-30-00 | | REV. MOD. CURB WIDTH & TRANS. NOTE |
| 11-19-98 | | REVISED NOTES |
| 11-18-98 | | REDRAWN AND REISSUED |

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DRIVEWAYS & ISLANDS

STANDARD DRAWING DR-1

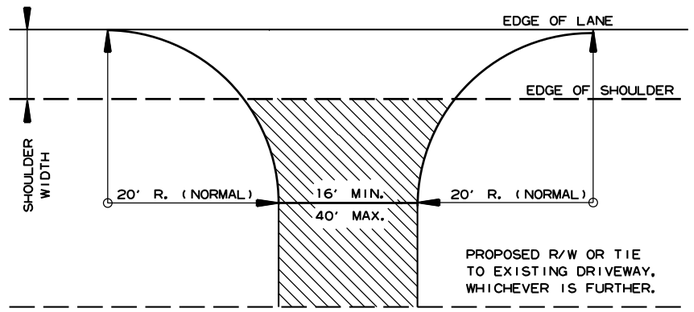



NOTE:
REFER TO PLAN SHEETS
FOR WIDTH OF COUNTY ROAD.

NOTE: TURNOUTS SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

ACHM SURFACE COURSE (1/2")
(220 LBS. PER SQ. YD.) AND
AGGREGATE BASE COURSE (CLASS 7)
7" COMP. DEPTH, UNLESS OTHERWISE
SPECIFIED IN PLANS.

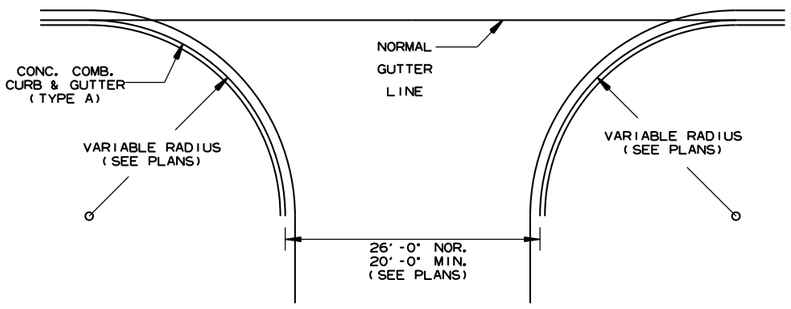
## DETAIL FOR COUNTY ROAD TURNOUTS OPEN SHOULDER SECTION




NOTE: TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

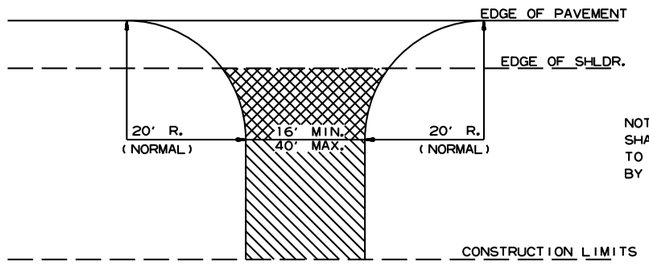
ACHM SURFACE COURSE (1/2")
(220 LBS. PER SQ. YD.) AND
AGGREGATE BASE COURSE (CLASS 7)
7" COMP. DEPTH IF ASPHALT OR
GRAVEL DRIVE EXISTING; OR 6"
CONCRETE IF CONCRETE DRIVE
EXISTING.

## DETAIL FOR DRIVEWAY TURNOUTS OPEN SHOULDER SECTION (ARTERIALS)




NOTE:
PAVEMENT STRUCTURE FOR STATE HIGHWAYS, CITY STREETS,
& COUNTY ROADS TO BE SAME AS MAIN LANES.

## DETAIL OF TURNOUTS, ASPHALT STREETS, COUNTY ROADS & STATE HIGHWAYS CURB & GUTTER SECTION




NOTE: TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

ASPHALT CONCRETE HOT MIX SURFACE
COURSE (220 LBS. PER SQ. YD.)
AGGREGATE BASE COURSE (CLASS 7)
7" COMP. DEPTH IF ASPHALT DRIVE EXIST OR
6" CONCRETE IF CONCRETE DRIVE EXIST.

AGGREGATE BASE COURSE (CLASS 7)
9" COMP. DEPTH OR CONFORM
TO EXISTING DRIVEWAY

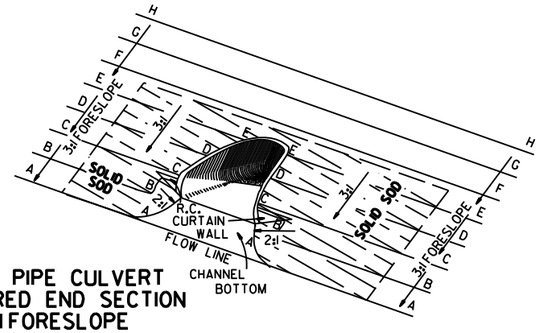
## DETAIL FOR DRIVEWAY TURNOUTS (COLLECTORS)

| DATE REV | DATE FILMED | DESCRIPTION |
|---|---|---|
| 5-19-22 | | ISSUED |

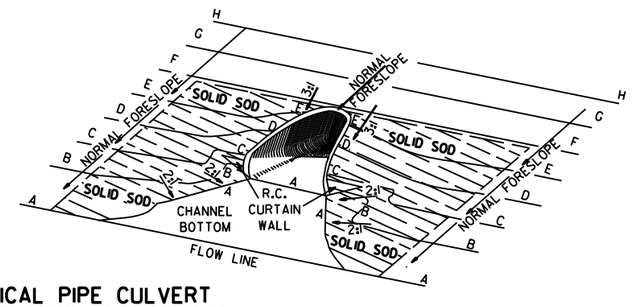
ARKANSAS STATE HIGHWAY COMMISSION

# DETAILS OF DRIVEWAYS & STREET TURNOUTS

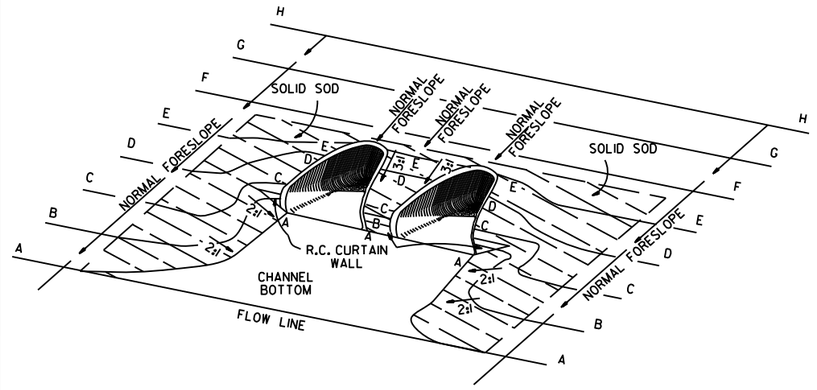
STANDARD DRAWING DR-2



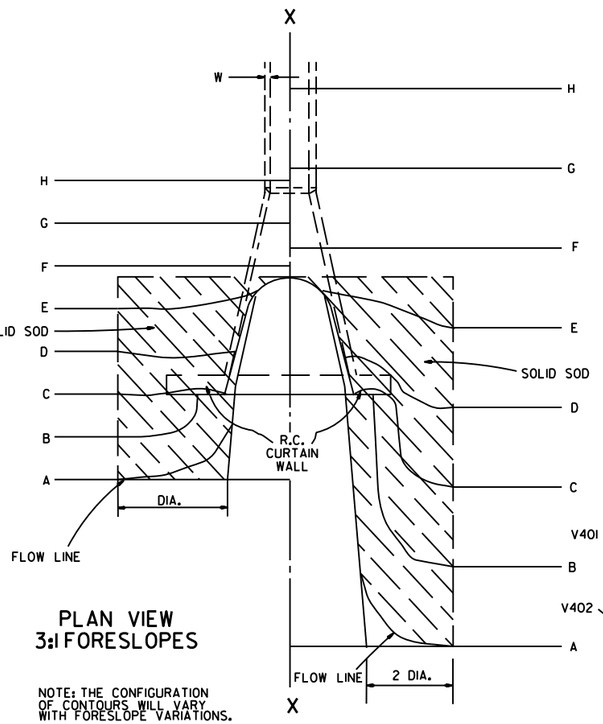

TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& 3:1 FORESLOPE




TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& FLATTENED ADJACENT SLOPES




TYPICAL MULTIPLE PIPE CULVERT
WITH FLARED END SECTIONS
& FLATTENED ADJACENT SLOPES




PLAN VIEW
3:1 FORESLOPES

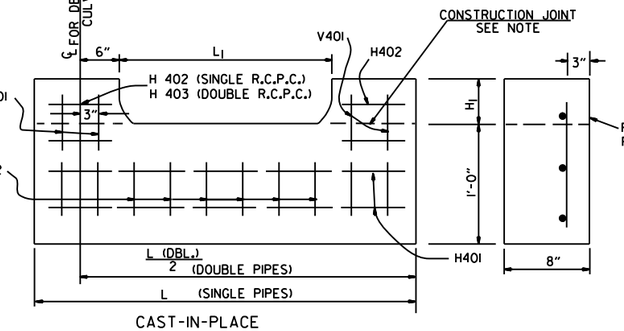
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES

## R.C. CURTAIN WALL
## DIMENSIONS & QUANTITIES

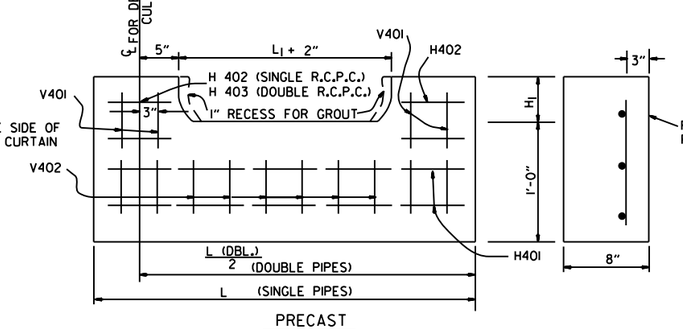
| PIPE DIA. | $H_1$ | $L_1$ | L | L (DBL.) / 2 | SINGLE R.C.P.C. CONC. | SINGLE R.C.P.C. REINF. STEEL | DOUBLE R.C.P.C. CONC. | DOUBLE R.C.P.C. REINF. STEEL |
|---|---|---|---|---|---|---|---|---|
| | | | | | CU. YDS. | LBS. | CU. YDS. | LBS. |
| 18" | 1'-11½" | 3'-5" | 8'-0" | 6'-3" | 0.31 | 27.7 | 0.45 | 39.5 |
| 24" | 1'-0½" | 4'-6" | 9'-6" | 7'-6" | 0.37 | 33.4 | 0.53 | 48.0 |
| 30" | 1'-3½" | 5'-7" | 11'-0" | 9'-0" | 0.45 | 39.0 | 0.67 | 59.0 |
| 36" | 1'-7" | 6'-8" | 13'-0" | 10'-6" | 0.58 | 52.6 | 0.83 | 73.9 |
| 42" | 2'-1½" | 7'-3" | 15'-6" | 12'-0" | 0.82 | 77.1 | 1.10 | 100.7 |
| 48" | 2'-5" | 7'-10" | 17'-0" | 13'-0" | 0.98 | 94.9 | 1.27 | 120.4 |
| 54" | 2'-9½" | 8'-5" | 18'-6" | 14'-0" | 1.16 | 115.8 | 1.47 | 143.7 |
| 60" | 3'-4" | 9'-0" | 20'-6" | 15'-6" | 1.47 | 149.7 | 1.84 | 180.3 |
| 72" | 4'-5" | 10'-2" | 25'-6" | 18'-6" | 2.31 | 232.6 | 2.73 | 271.0 |

NOTE: QUANTITIES SHOWN ARE FOR ONE (1) CURTAIN WALL.




CAST-IN-PLACE

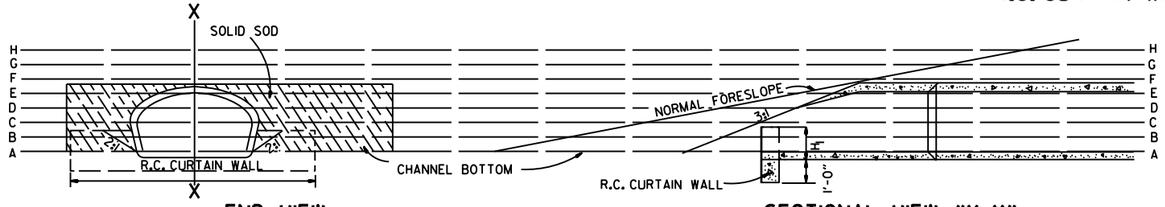
NOTE: THE PORTION OF THE R.C. CURTAIN WALL BENEATH THE FLARED END SECTION (LOWER 1'-0") SHALL BE PLACED MONOLITHICALLY. THE FLARED END SECTION SHALL THEN BE SET IN PLACE & THE REMAINING PORTIONS OF THE R.C. CURTAIN WALL PLACED.




PRECAST

NOTE: THE PRECAST CURTAIN WALL WILL BE SET AND BACKFILLED WITH COMPACTED MATERIAL. THE FLARED END SECTION SHALL THEN BE SET IN PLACE AND THE 1" RECESS FILLED WITH GROUT. WHERE "L" EXCEEDS 11' THE CURTAIN WALL MAY BE CAST IN TWO (2) OR MORE SECTIONS. THE METHOD OF JOINING THE SECTIONS FOR INSTALLATION SHALL BE APPROVED BY THE ENGINEER.

R.C. CURTAIN WALL DETAILS




END VIEW




SECTIONAL VIEW "X-X"

## REINFORCING STEEL SCHEDULE

| PIPE DIA. | SINGLE R.C. PIPE CULVERT H401 L | H401 NO. | H402 L | H402 NO. | V401 L | V401 NO. | V402 L | V402 NO. | DOUBLE R.C. PIPE CULVERT H401 L | H401 NO. | H402 L | H402 NO. | H403 L | H403 NO. | V401 L | V401 NO. | V402 L | V402 NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18" | 7'-8" | 2 | 1'-11½" | 4 | 1'-7½" | 8 | 8" | 8 | 12'-2" | 2 | 1'-11½" | 4 | 8" | 2 | 1'-7½" | 10 | 8" | 14 |
| 24" | 9'-2" | 2 | 2'-2" | 4 | 1'-8½" | 10 | 8" | 9 | 14'-8" | 2 | 2'-2" | 4 | 8" | 2 | 1'-8½" | 12 | 8" | 18 |
| 30" | 10'-8" | 2 | 2'-4½" | 4 | 1'-11½" | 10 | 8" | 12 | 17'-8" | 2 | 2'-4½" | 4 | 8" | 2 | 1'-11½" | 14 | 8" | 22 |
| 36" | 12'-8" | 2 | 2'-10" | 6 | 2'-3" | 12 | 8" | 14 | 20'-8" | 2 | 2'-10" | 6 | 8" | 3 | 2'-3" | 14 | 8" | 28 |
| 42" | 15'-2" | 2 | 3'-9½" | 8 | 2'-9½" | 16 | 8" | 15 | 23'-8" | 2 | 3'-9½" | 8 | 8" | 4 | 2'-9½" | 18 | 8" | 30 |
| 48" | 16'-8" | 2 | 4'-3" | 10 | 3'-1" | 18 | 8" | 16 | 25'-8" | 2 | 4'-3" | 10 | 8" | 5 | 3'-1" | 20 | 8" | 32 |
| 54" | 18'-2" | 2 | 4'-8½" | 12 | 3'-5½" | 20 | 8" | 17 | 27'-8" | 2 | 4'-9" | 12 | 8" | 6 | 3'-5½" | 22 | 8" | 34 |
| 60" | 20'-2" | 2 | 5'-5" | 14 | 4'-0" | 24 | 8" | 18 | 30'-8" | 2 | 5'-5" | 14 | 8" | 7 | 4'-0" | 26 | 8" | 36 |
| 72" | 25'-2" | 2 | 7'-4" | 18 | 5'-1" | 30 | 8" | 20 | 36'-8" | 2 | 7'-4" | 18 | 8" | 9 | 5'-1" | 33 | 8" | 40 |

ALL REINFORCING STEEL #4 BARS @ 6" O.C.

## SOLID SODDING

| PIPE DIA. | SINGLE R.C.P.C. 3:1 | 4:1 | 6:1 | DOUBLE R.C.P.C. 3:1 | 4:1 | 6:1 |
|---|---|---|---|---|---|---|
| | SQ. YDS. | | | SQ. YDS. | | |
| 18" | 5 | 7 | 12 | 6 | 8 | 13 |
| 24" | 8 | 12 | 19 | 9 | 13 | 20 |
| 30" | 13 | 18 | 29 | 14 | 19 | 30 |
| 36" | 17 | 26 | 41 | 18 | 28 | 43 |
| 42" | 23 | 35 | 55 | 25 | 37 | 57 |
| 48" | 29 | 46 | 68 | 31 | 48 | 70 |
| 54" | 35 | 57 | 85 | 37 | 59 | 87 |
| 60" | 45 | 62 | 104 | 48 | 65 | 107 |
| 72" | 64 | 92 | 156 | 67 | 95 | 159 |

NOTE: QUANTITIES SHOWN ABOVE ARE FOR ONE (1) END OF F.E.S.

GENERAL NOTES

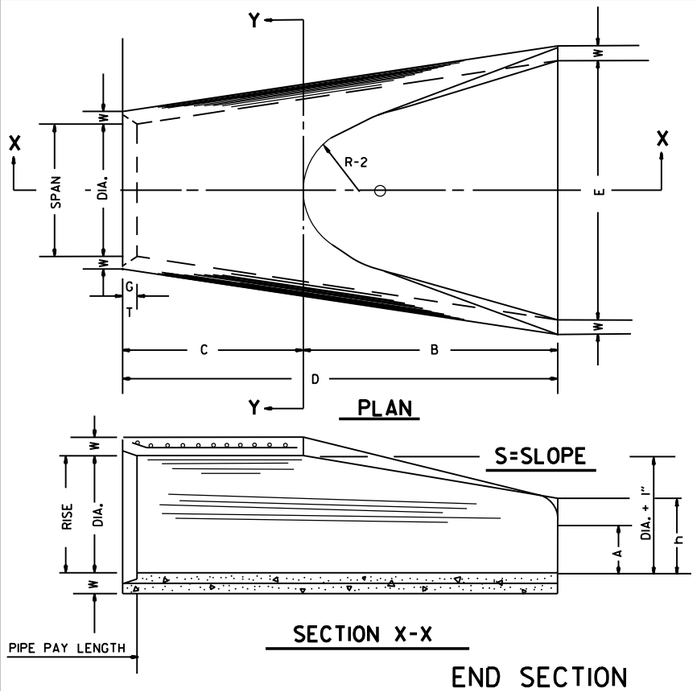
1. A CAST-IN-PLACE OR PRECAST CURTAIN WALL MAY BE USED. PAYMENT FOR THE CURTAIN WALL SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT PRICE BID EACH FOR FLARED END SECTIONS OF THE SEVERAL SIZES, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS INCLUDING REINFORCING STEEL AND CONCRETE: FOR FORMS, MIXING AND PLACING; FOR EXCAVATION AND BACKFILL, AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
2. ALL EXPOSED EDGES SHALL BE CHAMFERED ¾".
3. CONCRETE FOR CURTAIN WALL SHALL MEET THE REQUIREMENTS FOR CLASS A OR S CONCRETE AS PROVIDED IN SECTION 802 OF THE STANDARD SPECIFICATIONS OR FOR PAVING CONCRETE AS PROVIDED IN SECTION 501 OF THE STANDARD SPECIFICATIONS.
4. WELDED WIRE MESH 3 x 3 W10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.

| DATE | REVISION | FILMED |
|---|---|---|
| 10-18-96 | ADDED NOTE TO SOLID SODDING | |
| 10-12-95 | CORRECTED SPELLING | |
| 11- 3-94 | ADDED GENERAL NOTE NO. 4 | |
| 8-15-91 | REV. CURTAIN WALL QUANT. STEEL SCH. & SOLID SOD QUANT. | |
| 3-2-81 | ALLOW PRECAST IN 2 OR MORE PIECES CHAMFER EDGES | |
| 5-15-80 | ADDED PRECAST WALL & GENERAL NOTES | |
| 10-2-72 | REVISED AND REDRAWN | |

ARKANSAS STATE HIGHWAY COMMISSION

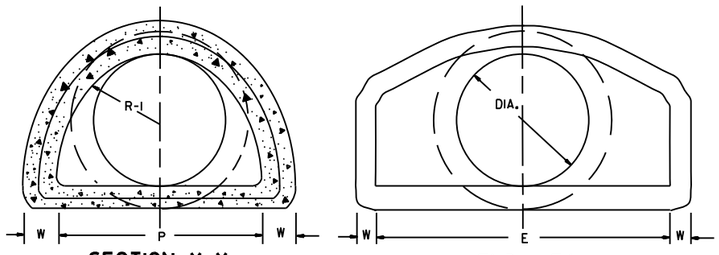
# FLARED END SECTION

STANDARD DRAWING FES-1




## TABLE OF DIMENSIONS

| DIA. | WALL | A | B | C | D | E | S | DIA. + 1" | P | R-1 | R-2 | G-T | WT. | h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18" | 2½" | 9" | 2'-3" | 3'-10" | 6'-1" | 3'-0" | 3:1 | 19" | 29" | 15½" | 12" | 2" | 1000 | 1'-0½" |
| 24" | 3" | 9½" | 3'-7½" | 2'-6" | 6'-1½" | 4'-0" | 3:1 | 25" | 33 3/16" | 16 15/16" | 14" | 2½" | 1600 | 1'-1½" |
| 30" | 3½" | 1'-0" | 4'-6" | 1'-7 3/4" | 6'-1 3/4" | 5'-0" | 3:1 | 31" | 37" | 18½" | 15" | 3¼" | 1940 | 1'-4 5/8" |
| 36" | 4" | 1'-3" | 5'-3" | 2'-10 3/4" | 8'-1 3/4" | 6'-0" | 3:1 | 37" | 47 13/16" | 24 5/16" | 20" | 3½" | 4100 | 1'-8" |
| 42" | 4½" | 1'-9" | 5'-3" | 2'-11" | 8'-2" | 6'-6" | 3:1 | 43" | 53⅞" | 27½" | 22" | 3½" | 5380 | 2'-2½" |
| 48" | 5" | 2'-0" | 6'-0" | 2'-2" | 8'-2" | 7'-0" | 3:1 | 49" | 56½" | 28½" | 22" | 3½" | 6550 | 2'-6" |
| 54" | 5½" | 2'-4" | 6'-6" | 1'-10" | 8'-4" | 7'-6" | 3:1 | 55" | 65½" | 33⅛" | 24" | 4" | 8750 | 2'-10½" |
| 60" | 6" | 2'-10" | 6'-6" | 1'-10" | 8'-4" | 8'-0" | 3:1 | 61" | 72½" | 36 11/16" | 24" | 4" | 9270 | 3'-5" |
| 72" | 7" | 3'-10" | 6'-6" | 1'-10" | 8'-4" | 9'-0" | 3:1 | 73" | 77 13/16" | 38 15/16" | 24" | 5" | 13250 | 4'-6" |

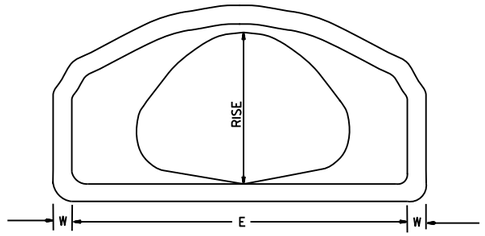



NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

## ARCH PIPE

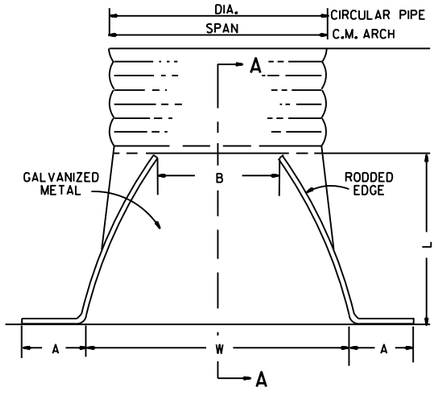
| EQUIV. DIA. | • SPAN AASHTO M 206 | • SPAN AHD NOMINAL | • RISE AASHTO M 206 | • RISE AHD NOMINAL | W | A | B | C | D | E | P | R2 | G-T | S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | INCHES | | | | | | | | | | | | | |
| 15 | 18 | 18 | 11 | 11 | 2" | 4" | 2'-0" | 4'-0" | 6'-0" | 3'-0" | 29" | 12" | 1½" | 2½:1 |
| 18 | 22 | 22 | 13½ | 14 | 2½" | 5" | 2'-0" | 4'-1" | 6'-1" | 3'-6" | 32⅛" | 13" | 2½" | 2½:1 |
| 21 | 26 | 26 | 15½ | 16 | 2¾" | 7" | 2'-3" | 3'-10" | 6'-1" | 4'-0" | 34⅛" | 14" | 2½" | 2½:1 |
| 24 | 28½ | 29 | 18 | 18 | 3" | 9" | 2'-3" | 3'-10" | 6'-1" | 5'-0" | 36 11/16" | 15" | 2½" | 2½:1 |
| 30 | 36¼ | 36 | 22½ | 23 | 3½" | 10" | 3'-1" | 3'-0½" | 6'-1½" | 6'-0" | 47 11/16" | 20" | 3" | 2½:1 |
| 36 | 43¾ | 44 | 26⅜ | 27 | 4" | 10½" | 4'-0" | 2'-11½" | 6'-1½" | 6'-6" | 54 5/16" | 22" | 3½" | 2½:1 |
| 42 | 51⅛ | 51 | 31 5/16 | 31 | 4½" | 11½" | 4'-7" | 1-10¼" | 6'-5¼" | 7'-2" | 59½" | 23" | 3¾" | 2½:1 |
| 48 | 58½ | 59 | 36 | 36 | 5" | 1'-3" | 5'-3" | 2'-10¾" | 8'-1¾" | 7'-10" | 70 5/16" | 24" | 4¼" | 2½:1 |
| 54 | 65 | 65 | 40 | 40 | 5½" | 1'-7" | 5'-3" | 2'-11" | 8'-2" | 8'-6" | 72 1/16" | 24" | 4¾" | 2¼:1 |
| 60 | 73 | 73 | 45 | 45 | 6" | 1'-10" | 5'-6" | 2'-8" | 8'-2" | 9'-0" | 77 1/16" | 24" | 5" | 2¼:1 |

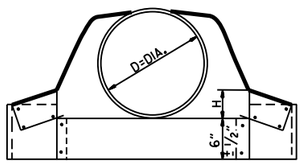
• THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PER CENT FROM THE VALUES SPECIFIED BY AASHTO M 206.



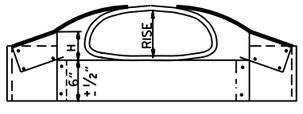

END VIEW
CONCRETE ARCH PIPE

# END SECTION FOR REINFORCED CONCRETE PIPE CULVERTS




CIRCULAR PIPE




C.M. ARCH PIPE

## CIRCULAR PIPE

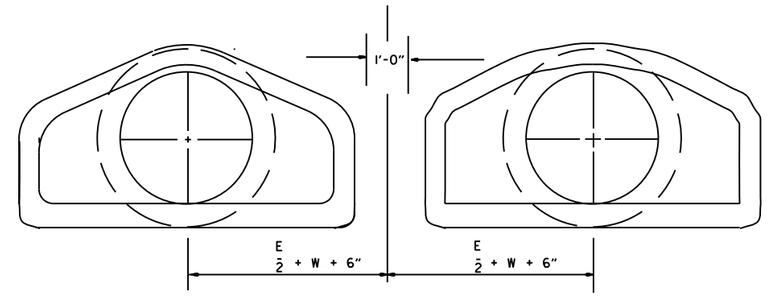
| D. DIA. | GAUGE | A 1" ± | B. MAX. | H 1" ± | L 1½" ± | W 2" ± | S |
|---|---|---|---|---|---|---|---|
| | | INCHES | | | | | |
| 12 | 16 | 6 | 6 | 6 | 21 | 24 | 2½:1 |
| 15 | 16 | 7 | 8 | 6 | 26 | 30 | 2½:1 |
| 18 | 16 | 8 | 10 | 6 | 31 | 36 | 2½:1 |
| 21 | 16 | 9 | 12 | 6 | 36 | 42 | 2½:1 |
| 24 | 16 | 10 | 13 | 6 | 41 | 48 | 2½:1 |
| 30 | 14 | 12 | 16 | 8 | 51 | 60 | 2½:1 |
| 36 | 14 | 14 | 19 | 9 | 60 | 72 | 2½:1 |
| 42 | 12 | 16 | 22 | 11 | 69 | 84 | 2½:1 |
| 48 | 12 | 18 | 27 | 12 | 78 | 90 | 2½:1 |
| 54 | 12 | 18 | 30 | 12 | 84 | 102 | 2:1 |
| 60 | 12 | 18 | 33 | 12 | 87 | 114 | 1¾:1 |
| 66 | 12 | 18 | 36 | 12 | 87 | 120 | 1½:1 |
| 72 | 12 | 18 | 39 | 12 | 87 | 126 | 1 1/3:1 |

## C.M. ARCH PIPE

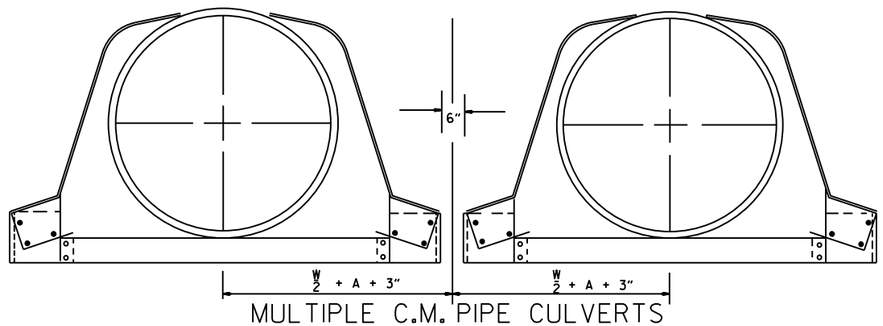
| EQUIV. DIA. | SPAN | RISE | A 1" ± | B MAX. | H 1" ± | L 1½" ± | W 2" ± | S | GAUGE |
|---|---|---|---|---|---|---|---|---|---|
| | INCHES | | | | | | | | |
| 15" | 17 | 13 | 7 | 9 | 6 | 19 | 30 | 2½:1 | 16 |
| 18" | 21 | 15 | 7 | 10 | 6 | 23 | 36 | 2½:1 | 16 |
| 21" | 24 | 18 | 8 | 12 | 6 | 28 | 42 | 2½:1 | 16 |
| 24" | 28 | 20 | 9 | 14 | 6 | 32 | 48 | 2½:1 | 16 |
| 30" | 35 | 24 | 10 | 16 | 6 | 39 | 60 | 2½:1 | 14 |
| 36" | 42 | 29 | 12 | 18 | 8 | 46 | 75 | 2½:1 | 14 |
| 42" | 49 | 33 | 13 | 21 | 9 | 53 | 85 | 2½:1 | 12 |
| 48" | 57 | 38 | 18 | 26 | 12 | 63 | 90 | 2½:1 | 12 |
| 54" | 64 | 43 | 18 | 30 | 12 | 70 | 102 | 2¼:1 | 12 |
| 60" | 71 | 47 | 18 | 33 | 12 | 77 | 114 | 2¼:1 | 12 |

NOTE: ALTERNATE CONNECTIONS TO THE PIPE CULVERTS, IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICES, MAY BE MADE SUBJECT TO THE APPROVAL OF THE ENGINEER.

# END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS




MULTIPLE R.C. PIPE CULVERTS



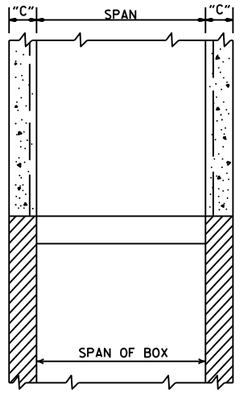

MULTIPLE C.M. PIPE CULVERTS

| DATE | REVISION | FILMED |
|---|---|---|
| 10-18-96 | REVISED ASTM REF. TO AASHTO | |
| 5-15-80 | REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S. | 664-5-15-80 |
| 7-14-78 | C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES | 752-7-14-78 |
| 8-22-75 | ADDED MULTIPLE PIPE CULVERTS | 517-8-22-75 |
| 12-5-74 | REMOVED NOTE RE REINF. FOR R.C. F.E.S. | 500-12-5-74 |
| 5-24-73 | CMP END SECTION, SHOW PIPE PAY LENGTH | 627-5-24-73 |
| 10-2-72 | REVISED AND REDRAWN | 760-10-2-72 |

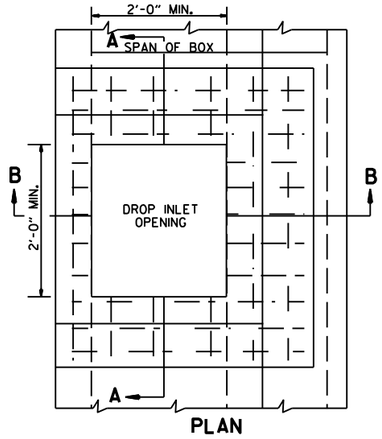
ARKANSAS STATE HIGHWAY COMMISSION

FLARED END SECTION

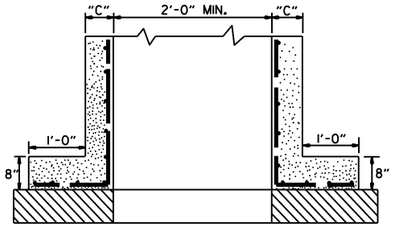
STANDARD DRAWING FES-2



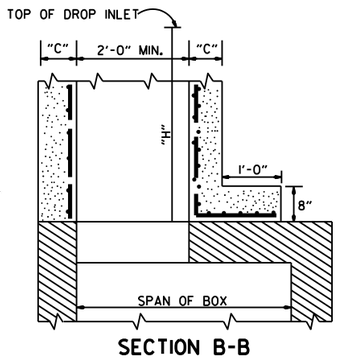

SECTION B-B




PLAN

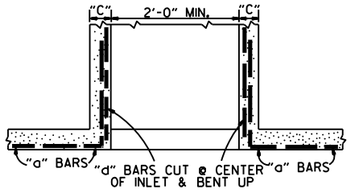



SECTION A-A

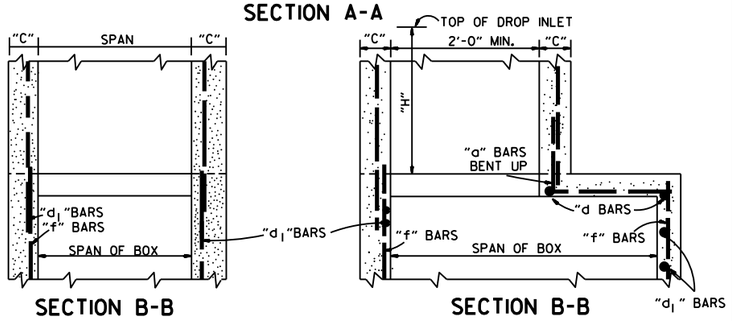



SECTION B-B

## METHOD OF CONSTRUCTING DROP INLET ON EXISTING R.C. BOX CULVERT



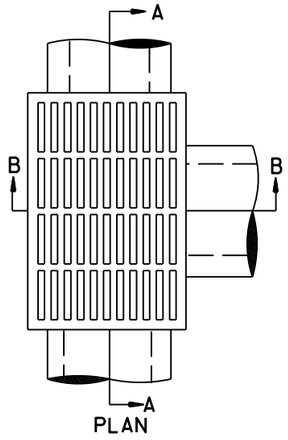

SECTION A-A



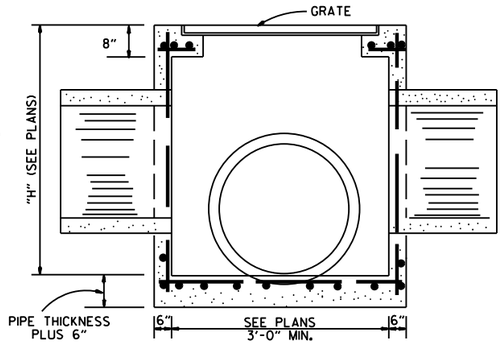

SECTION B-B SECTION B-B

## METHOD OF CONSTRUCTING DROP INLET ON NEW R.C. BOX CULVERT

NOTE: "C" DIMENSIONS AND REINFORCING BAR SIZES, SHALL CONFORM TO THOSE SHOWN ON STANDARD DRAWING FOR DROP INLET.

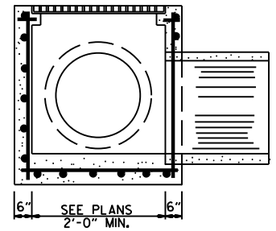



PLAN



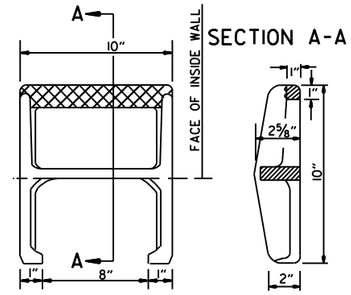

SECTION A-A

NOTE: REINF. BARS TO BE #4 BARS ON 6" CTRS. WITH 1½" MIN. COVER. THIS TYPE DROP INLET TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.




SECTION B-B

## DROP INLET (TYPE E)

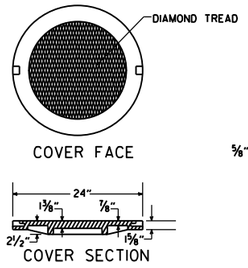



APPROX. WEIGHT = 11 LBS. (CAST IRON)

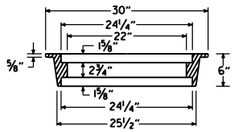
PLAN

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

## DETAIL OF STEP FOR DROP INLET



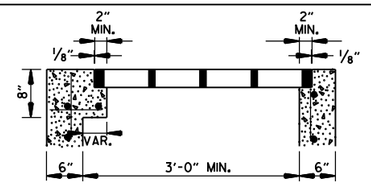

COVER SECTION



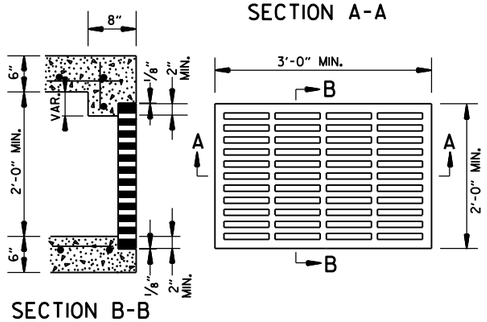

RING SECTION

APPROXIMATE TOTAL WEIGHT = 333 LBS.

## HEAVY DUTY RING & COVER



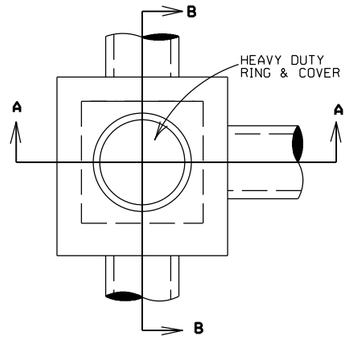

SECTION A-A



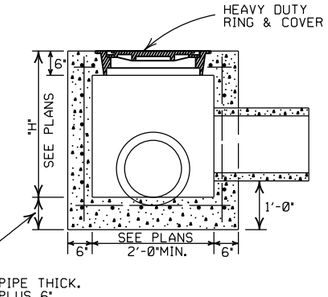

SECTION B-B

APPROXIMATE MINIMUM WATERWAY OPENING = 260 SQ. IN.

## GRATE FOR TYPE E DROP INLET

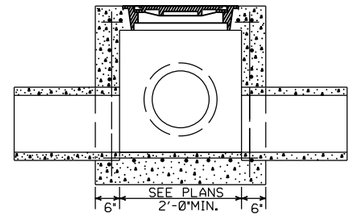



PLAN



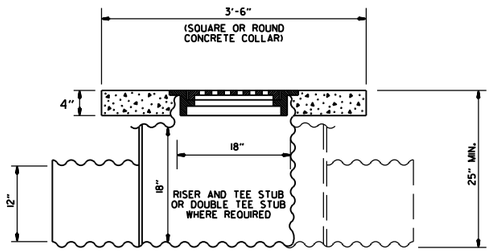

SECTION A-A

NOTE: REINF. BARS TO BE #4 BARS ON 6" CTRS. WITH 1½" MIN. COVER. THIS TYPE JUNCTION BOX TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.

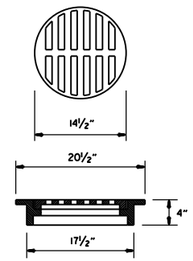



SECTION B-B

## JUNCTION BOX (TYPE E)




NOTE: CONCRETE COLLAR TO BE CAST IN PLACE. 12" PIPE CULVERTS TO BE MEASURED AND PAID FOR AS " 12" SIDE DRAIN ".




USE NEENAH R-5901-C OR EQUIVALENT BICYCLE SAFE FRAME AND GRATE

## DETAIL OF YARD DRAIN

GENERAL NOTES:

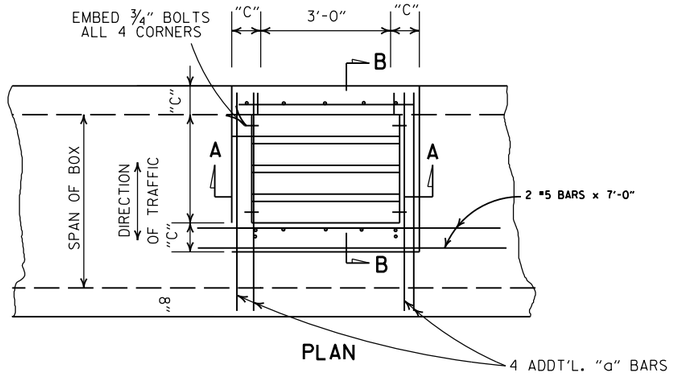
1. ALL EXPOSED CORNERS SHALL BE ¾" CHAMFERED.
2. STEPS SHALL BE INSTALLED ON 16" CENTERS ON ALL INLETS 4'-0" HIGH OR OVER, OR AS APPROVED BY THE ENGINEER.
3. EXPANSION JOINT MATERIAL SHALL BE ¾" PREFORMED FIBER.
4. GRATE OR GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105 CLASS 35B. GRATE MAY BE USED WITHOUT FRAME.
5. GRATE AND FRAME SHALL NOT BE PAINTED.
6. GRATE SHALL BE BICYCLE SAFE.
7. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
8. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
9. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
10. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

| DATE REV. | REVISION | DATE FILMED |
|---|---|---|
| 11-16-01 | ADDED NOTE 10 | |
| 1-12-00 | REVISED HEAVY DUTY RING & COVER | |
| 7-02-98 | CHANGED GRATE DETAIL, DELETED DI(TYPE D), REPLACED RING & COVER W/HEAVY DUTY RING & COVER, ADDED JUNCTION BOX (TYPE E) | |
| 6-26-97 | ADDED DIMENSION TO TYPE IV-A | |
| 10-18-96 | ADDED DETAIL OF YARD DRAIN | |
| 8-15-91 | DELETE TYPE IV GRATE | |
| 7-15-88 | REVISED STEP DETAIL | |
| 5-20-83 | REVISED DETAILS OF GRATES (TYPE IV & IV-A) | |
| 2-4-83 | ADDED GENERAL NOTE NO. 4 | |
| 3-2-81 | ADDED TYPE IV-A GRATE | |
| 5-22-74 | DELETED INLET (TYPE F) & GRATE (TYPE III) | |
| 10-2-72 | REVISED AND REDRAWN | |

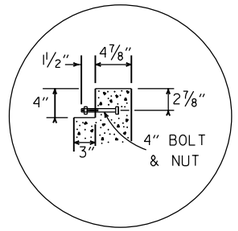
ARKANSAS STATE HIGHWAY COMMISSION

# DETAILS OF DROP INLETS & JUNCTION BOXES

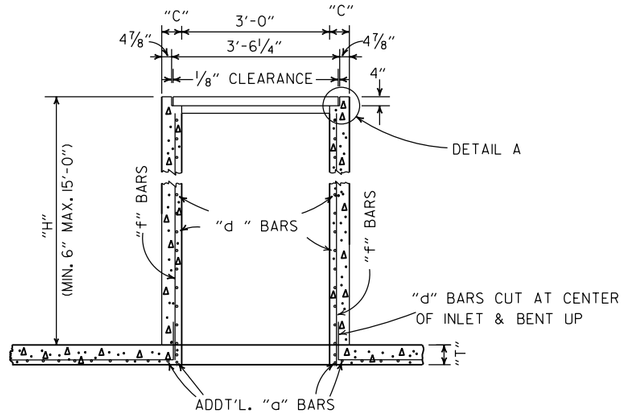
STANDARD DRAWING FPC-9



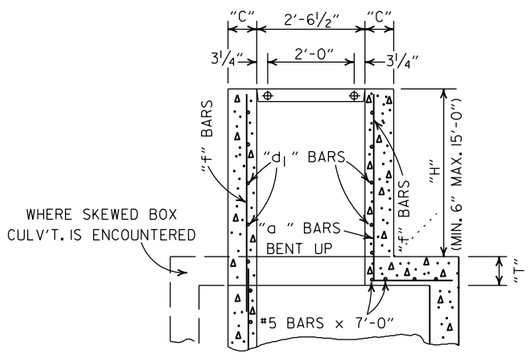

PLAN




DETAIL A




SECTION A-A

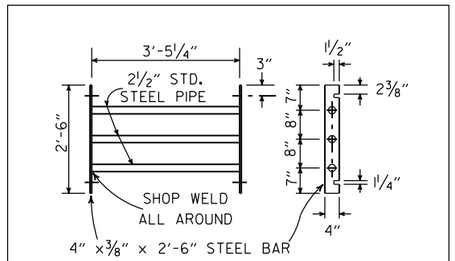



SECTION B-B

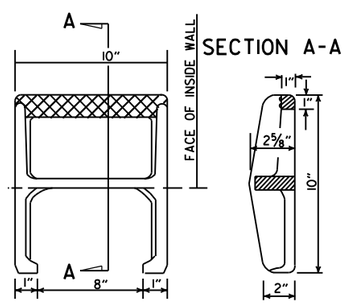
NOTE: ADDT'L.REINF. STEEL TO BE INCLUDED IN UNIT PRICE BID PER TYPE "TM" D.I.

DIMENSIONS & REINF. BARS FOR D.I. TO BE THE SAME AS THOSE SHOWN ON APPLICABLE STD. BARREL DRAWING FOR R.C. BOX CULVERTS.

## DROP INLET TYPE "TM"
## FOR REINFORCED CONC. BOX CULVERTS




GRATE DETAIL




APPROX. WEIGHT = 11 LBS. (CAST IRON)

PLAN

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

## DETAIL OF STEP FOR DROP INLET

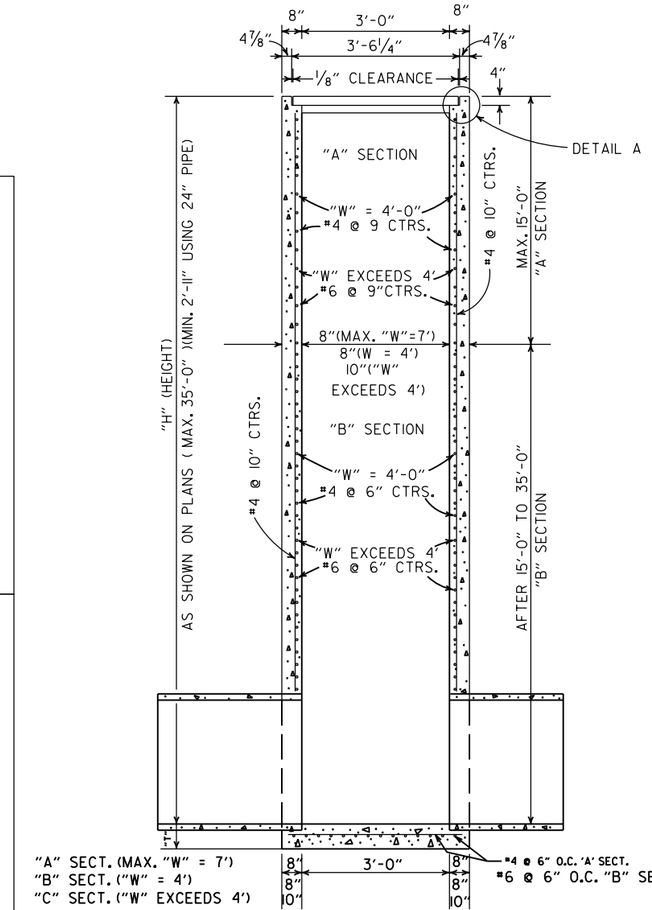
GENERAL NOTES:

1. STEEL PIPE FOR GRATES AND BOLTS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 807. BOLTS SHALL CONFORM TO ONE OF THE FOLLOWING: ASTM A193, GRADE B8 CLASS 1 OR 2, ASTM A307 OR AASHTO M 164.
2. STEEL PIPE FOR GRATES SHALL BE "STANDARD WEIGHT" PIPE CONFORMING TO ASTM A53 NATIONAL STANDARD PIPE.
3. BOLTS, NUTS, WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 232 OR AASHTO M 298, CLASS 40 OR 50.
4. ALL EXPOSED CORNERS TO HAVE ¾" CHAMFER.
5. ALL #4 AND #5 REINFORCING BARS TO HAVE 1½" COVER. LARGER SIZES TO HAVE 2" COVER.
6. THE COMPLETE PIPE GRATE SHALL BE PAINTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

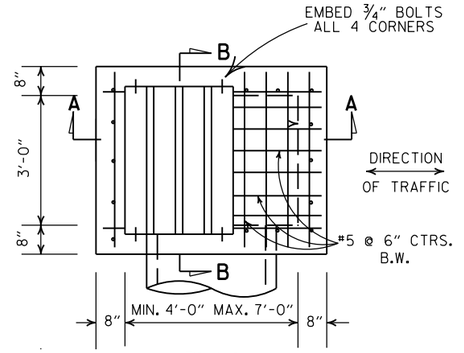
## TABLE OF "W" DIMENSIONS

| I.D. PIPE | SKEW OF CROSS DRAIN | | |
|---|---|---|---|
| | STRAIGHT | 30° | 45° |
| | "W" | "W" | "W" |
| 24" | 4'-0" | 4'-0" | 4'-0" |
| 30" | 4'-0" | 4'-0" | 4'-5" |
| 36" | 4'-0" | 4'-3" | 5'-3" |
| 42" | 4'-3" | 4'-11" | 6'-1" |
| 48" | 4'-10" | 5'-7" | 6'-11" |

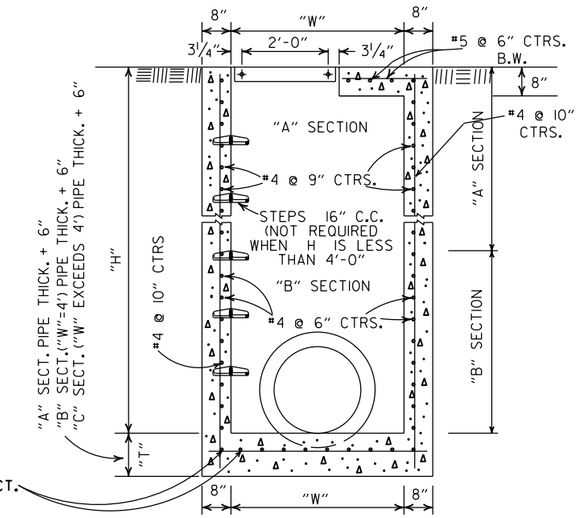
NOTE: DIMENSIONS SHOWN ABOVE ARE FOR PIPES INTERSECTING DROP INLET ON ONE SIDE ONLY. FOR SKEWED PIPES INTERSECTING BOTH SIDES OF DROP INLET, "W" WILL NEED TO BE INCREASED OR AXIS OF INTERSECTING PIPES WILL NEED TO BE SHIFTED.




SECTION B-B




PLAN




SECTION A-A

## DROP INLET( TYPE RM )

| REVISED | | DATE FILMED |
|---|---|---|
| 8-22-02 | ADDED & REVISED DIMENSION TO SECTION A-A | |
| 1-12-00 | CORRECTED DIMENSION ON SECTION B-B | |
| 11-06-97 | ADDED DIMENSION TO SECTION A-A | |
| 10-18-96 | REVISED ASTM REF. TO AASHTO AND ADDED NOTE TO TABLE OF "W" DIMENSIONS | |
| 10-1-92 | ADDED DIRECTION OF TRAFFIC | 10-1-92 |
| 8-15-91 | ADDED NOTE ABOUT PAINTING OF GRATE | 8-15-91 |
| 11-30-89 | ALTERED DETAIL A | 11-30-89 |
| 7-15-88 | REVISED STEP DETAIL,TM & RM D.I. & GRATE DETAIL | 719-7-15-88 |
| 10-2-72 | REVISED AND REDRAWN | 542-10-2-72 |

ARKANSAS STATE HIGHWAY COMMISSION

# DETAILS OF DROP INLETS

STANDARD DRAWING FPC-9D

## 4'-0" LENGTH DROP INLET

| PIPE SIZE | MIN. WIDTH | HEIGHT 5'-0" CLASS A CONC. CU. YDS. | HEIGHT 5'-0" REINF. STEEL POUNDS | PLUS OR MINUS PER LIN. FT. OF HEIGHT CLASS A CONC. CU. YDS. | PLUS OR MINUS PER LIN. FT. OF HEIGHT REINF. STEEL POUNDS |
|---|---|---|---|---|---|
| 18" | 2'-6" | 1.77 | 156 | 0.28 | 22 |
| 24" | 2'-6" | 1.79 | 156 | 0.28 | 22 |
| 30" | 3'-2" | 2.39 | 205 | 0.30 | 26 |
| 36" | 3'-8" | 2.63 | 236 | 0.32 | 28 |
| 42" | 4'-4" | 2.95 | 250 | 0.34 | 30 |
| 48" | 4'-10" | 3.21 | 265 | 0.36 | 32 |

NOTE: QUANTITIES ARE APPROXIMATE AND ARE SHOWN FOR BIDDER INFORMATION ONLY.

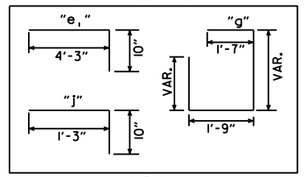
## DROP INLET EXTENSION

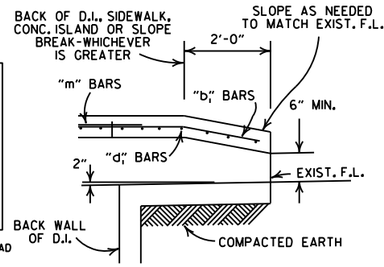
| 4'-0" CLASS A CONC. CU. YDS. | 4'-0" REINF. STEEL POUNDS | 8'-0" CLASS A CONC. CU. YDS. | 8'-0" REINF. STEEL POUNDS |
|---|---|---|---|
| 0.58 | 38 | 0.87 | 72 |
| | | | |
| | | | |
| DEDUCT FROM QUANTITY COMPUTED FOR EACH EXTENSION ADDED. | | | |
| 0.04 | 3 | | |
| | | | |

**DEDUCT FROM QUANTITY COMPUTED FOR EACH PIPE ENTERING INLET**

| INSIDE DIA. PIPE | CLASS A CONC. | REINF. STEEL |
|---|---|---|
| INCHES | CU. YDS. | POUNDS |
| 18 | 0.05 | 2 |
| 24 | 0.09 | 3 |
| 30 | 0.13 | 4 |
| 42 | 0.24 | 8 |

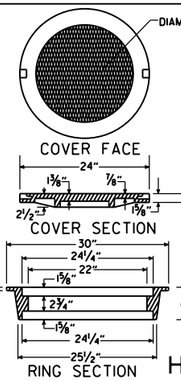
## BAR DIAMETER




## BACK OPENING

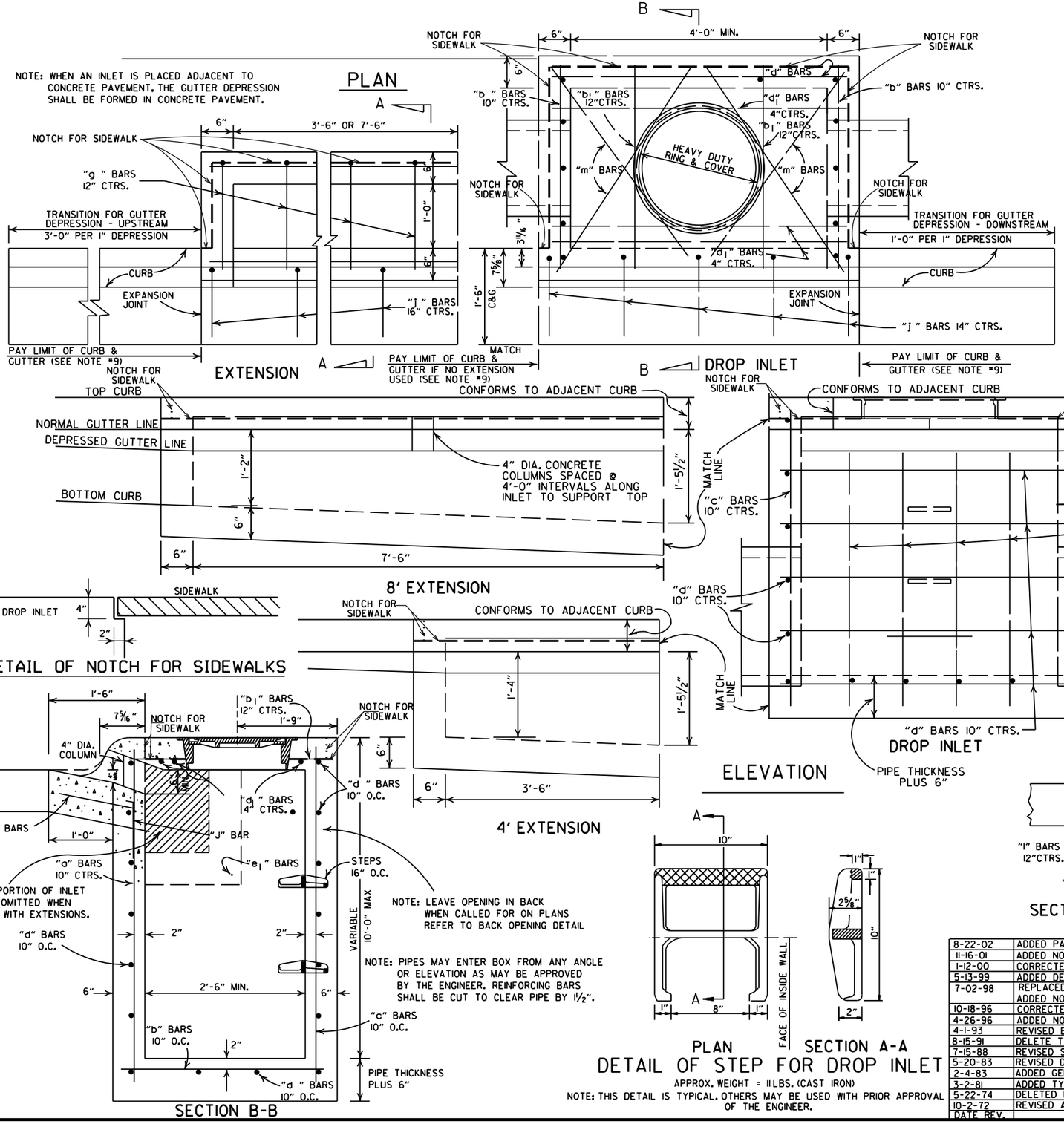
WHEN OPENING IN BACK IS CALLED FOR ON PLANS EXTEND OPENING AS SHOWN IN DETAIL. PAYMENT TO BE INCLUDED IN PRICE BID FOR DROP INLET (TYPE C).




APPROXIMATE TOTAL WEIGHT = 333 LBS.

## HEAVY DUTY RING & COVER

GENERAL NOTES:
1. ALL EXPOSED CORNERS TO HAVE ¾" CHAMFER.
2. STEPS SHALL BE INSTALLED IN ALL INLETS 4'-0" HIGH AND OVER OF AS APPROVED BY THE ENGINEER.
3. ALL REINF. BARS SHALL BE #4 AND HAVE 1½" COVER.
4. DROP INLETS AND EXTENSION ON CURVED SECTIONS SHALL CONFORM TO THE CURVATURE OF THE CURB.
5. THIS DROP INLET MAY BE CONSTRUCTED ON NEW OR EXISTING R.C. BOX CULVERT AS SHOWN ON F.P.C.-9.
6. WHEN PLANS CALL FOR DROP INLET OVER 10'-0" HIGH, FLOOR AND WALLS SHALL BE CONSTRUCTED AS SHOWN FOR TYPE "RM" DROP INLET (FPC-9D).
7. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
8. DURING CONSTRUCTION OF THE ROADWAY THE CONTRACTOR SHALL MAINTAIN DRAINAGE INTO OR AROUND THE DROP INLET AS APPROVED BY THE ENGINEER.
9. PAYMENT FOR CURB AND/OR CURB AND GUTTER WITHIN THE LIMITS OF DROP INLETS AND DROP INLET EXTENSIONS SHALL BE CONSIDERED INCLUDED IN PAYMENT MADE FOR DROP INLETS AND/OR DROP INLET EXTENSIONS.
10. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
11. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
12. 4"×2" NOTCH SHALL BE FORMED IN ALL DROP INLETS TO SUPPORT SIDEWALK CONSTRUCTION. REFER TO DETAIL OF NOTCH FOR SIDEWALKS.
13. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.



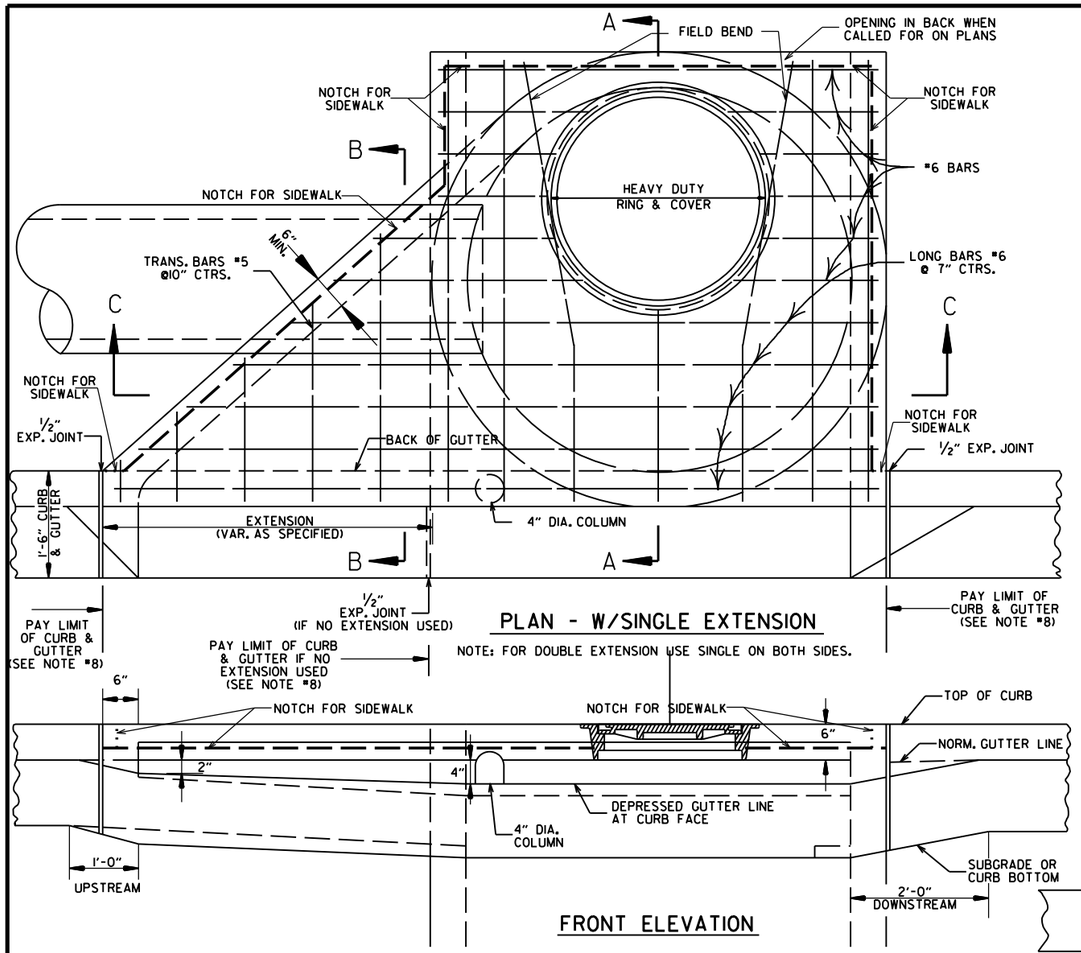

| DATE REV. | REVISION | DATE FILMED |
|---|---|---|
| 8-22-02 | ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B | |
| 11-16-01 | ADDED NOTE 13; REVISED SECTION B-B | |
| 1-12-00 | CORRECTED DIMENSION ON SECTION B-B & REVISED RING & COVER | |
| 5-13-99 | ADDED DETAIL OF NOTCH FOR SIDEWALKS | |
| 7-02-98 | REPLACED RING & COVER W/HEAVY DUTY RING & COVER ADDED NOTES 9,10,&11 | |
| 10-18-96 | CORRECTED SPELLING | |
| 4-26-96 | ADDED NOTE 8 & REVISED (4')(8') EXTENSION TITLES | 10-18-96 |
| 4-1-93 | REVISED BACK OPENING & NOTE | |
| 8-15-91 | DELETE TYPE IV GRATE | |
| 7-15-88 | REVISED STEP DETAIL | |
| 5-20-83 | REVISED DETAILS OF GRATES (TYPE IV & IV-A) | |
| 2-4-83 | ADDED GENERAL NOTE NO. 4 | |
| 3-2-81 | ADDED TYPE IV-A GRATE | |
| 5-22-74 | DELETED INLET (TYPE F) & GRATE (TYPE III) | |
| 10-2-72 | REVISED AND REDRAWN | |

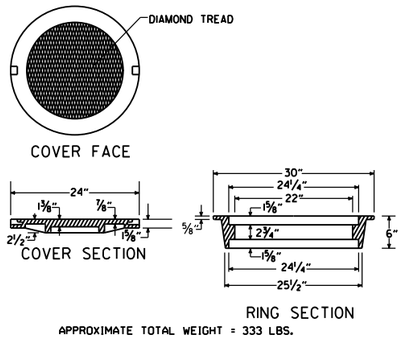
ARKANSAS STATE HIGHWAY COMMISSION

# DETAILS OF DROP INLETS

# (TYPE C)

STANDARD DRAWING FPC-9E

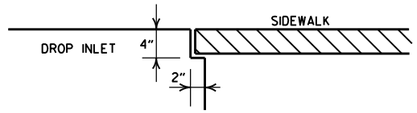


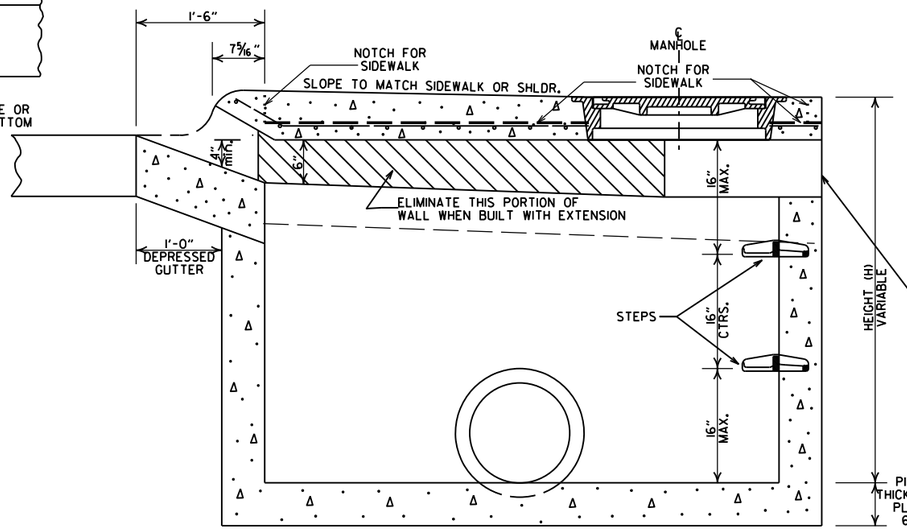

APPROXIMATE TOTAL WEIGHT = 333 LBS.

## HEAVY DUTY RING & COVER

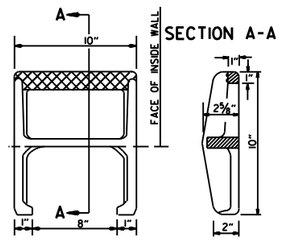
1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.




## DETAIL OF NOTCH FOR SIDEWALKS




SECTION A-A



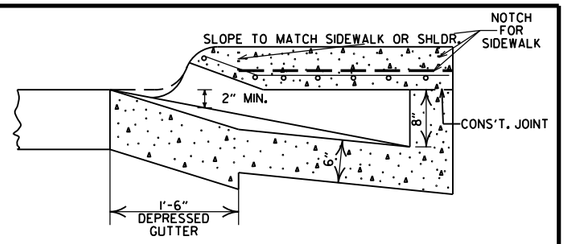

SECTION A-A

APPROX. WEIGHT = 11LBS. (CAST IRON)

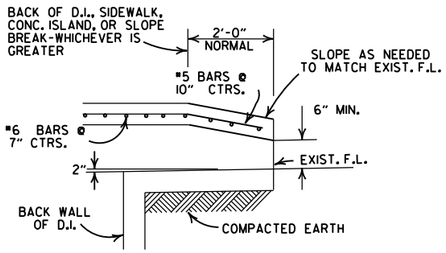
## PLAN

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

## DETAIL OF STEP FOR DROP INLET




SECTION B-B




## BACK OPENING

WHEN OPENING IN BACK IS CALLED FOR ON PLANS EXTEND OPENING AS SHOWN IN DETAIL. PAYMENT TO BE INCLUDED IN PRICE BID FOR DROP INLET (TYPE MO).

GENERAL NOTES:

1. ALL EXPOSED CORNERS TO HAVE ¾" CHAMFER.
2. STEPS SHALL BE INSTALLED IN ALL INLETS 4'-0" HIGH AND OVER OR AS DIRECTED BY THE ENGINEER.
3. ALL REINFORCING BARS SHALL BE GRADE 60 AND HAVE MIN. 1½" COVER.
4. DROP INLETS AND EXTENSION ON CURVED SECTIONS SHALL CONFORM TO THE CURVATURE OF THE CURB.
5. 4" DIA. COLUMNS SPACED AT MAX. 4'-0" INTERVALS SHALL BE INSTALLED ALONG INLET AND EXTENSION TO SUPPORT TOP.
6. BASE AND INLET WALLS SHALL BE CAST MONOLITHICALLY.
7. THE THROAT SHALL BE CAST INTEGRALLY WITH THE GUTTER.
8. PAYMENT FOR CURB AND/OR CURB AND GUTTER WITHIN THE LIMITS OF DROP INLETS AND DROP INLET EXTENSIONS SHALL BE CONSIDERED INCLUDED IN PAYMENT MADE FOR DROP INLETS AND/OR DROP INLET EXTENSIONS.
9. PIPES MAY ENTER DROP INLET FROM ANY ANGLE OR ELEVATION AS MAY BE APPROVED BY THE ENGINEER.
10. APPROPRIATE SIZE TYPE C DROP INLETS MAY BE SUBSTITUTED FOR TYPE MO DROP INLETS AS APPROVED BY THE ENGINEER. PAYMENT TO BE AS DROP INLET (TYPE MO).
11. DURING CONSTRUCTION OF THE ROADWAY THE CONTRACTOR SHALL MAINTAIN DRAINAGE INTO OR AROUND THE DROP INLET AS APPROVED BY THE ENGINEER.
12. 4"x2" NOTCH SHALL BE FORMED IN ALL DROP INLETS TO SUPPORT SIDEWALK CONSTRUCTION. REFER TO DETAIL OF NOTCH FOR SIDEWALKS.
13. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

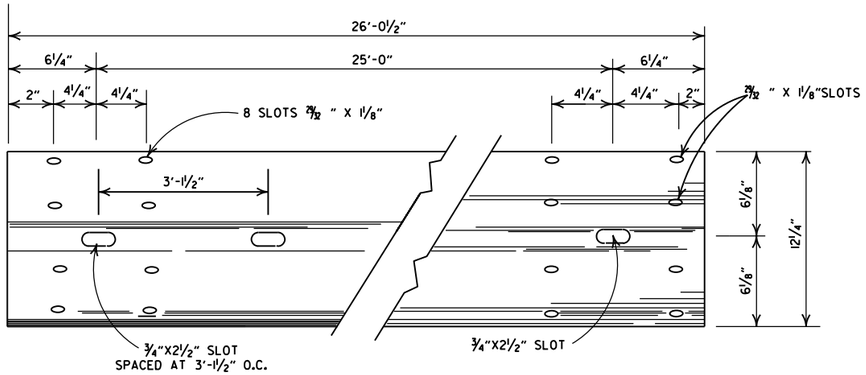
| DIA. OF D.I. | DIA. OF OUTLET PIPE | MINIMUM WALL THICKNESS | |
|---|---|---|---|
| | | CAST IN PLACE | PRECAST |
| 4' I.D. | 12" THRU 27" | 6" | 5" |
| 5' I.D. | 30" THRU 42" | 8" | 6" |
| 6' I.D. | 48" THRU 54" | 8" | 7" |

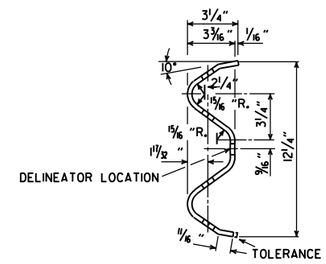
| DATE | REVISIONS | DATE FILMED |
|---|---|---|
| 8-22-02 | ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B | |
| 11-16-01 | ADDED NOTE 13 | |
| 1-12-00 | REVISED HEAVY DUTY RING & COVER | |
| 5-13-99 | ADDED NOTCH DETAIL FOR SIDEWALKS | |
| 7-02-98 | REP. NOTE 8, REM. PLAN DET., REV. PICTURE FOR NEW RING & COVER, ADDED HEAVY DUTY RING & COVER AND DETAIL OF STEP FOR DROP INLET | |
| 4-26-96 | ADDED NOTE 11, ADJ. OPENING DIMENSION | |
| 10-12-95 | CORRECTED #6 BAR SPACING | |
| 7-20-95 | CORRECTED DIAMETER OF D.I. IN BOX | |
| 2-2-95 | TYPE C TO MO (OPEN BACK DETAIL) | |
| 11-3-94 | REVISED GENERAL NOTES | 11-3-94 |
| 4-1-93 | REV. BACK OPEN. DETAIL & NOTE | 4-1-93 |
| 8-16-91 | REVISED NOTES 11,12 & ADDED BK.OPEN DETAIL | 8-15-91 |
| 11-30-89 | ADDED NOTE NO. 12 | 11-30-89 |
| 5-23-89 | ADDED NOTE & MINIMUM WALL THICKNESS | 513-5-23-89 |
| 7-15-88 | ADDED EXTEND NOTE TO SECTION A-A | 629-7-15-88 |
| 1-14-87 | MODIFIED WALL THICKNESS | 783-1-14-87 |
| 6-12-87 | ISSUED | 4-6-12-87 |

ARKANSAS STATE HIGHWAY COMMISSION

# DETAILS OF DROP INLET (TYPE MO)

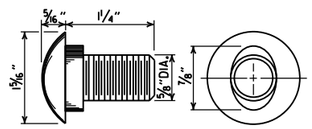
STANDARD DRAWING FPC-9M



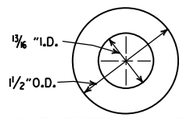




## DETAILS OF W-BEAM GUARDRAIL

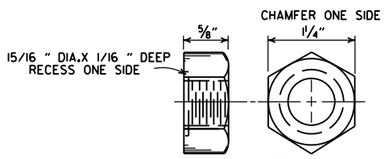
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



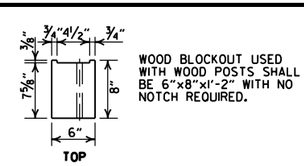

## SPLICE BOLT
## POST BOLT - SAME EXCEPT LENGTH




## CUT STEEL WASHER

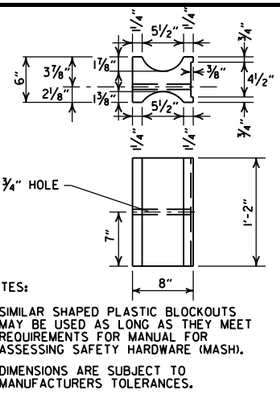



## NUT




WOOD BLOCKOUT USED WITH WOOD POSTS SHALL BE 6"x8"x1'-2" WITH NO NOTCH REQUIRED.

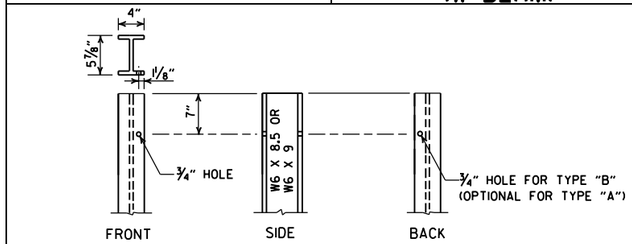
## WOOD BLOCKOUT (W-BEAM)



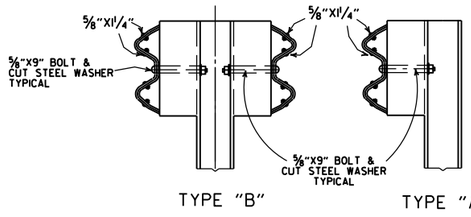

NOTES:

1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

## PLASTIC BLOCKOUT (W-BEAM)




## STEEL POST




## DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

-GENERAL NOTES-

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN ¾" BEYOND IT.

WHERE W-BEAM GUARDRAIL CONTINUES, THE INTERMEDIATE SECTIONS SHALL HAVE A POST SPACING OF 6'-3" UNLESS OTHERWISE NOTED.

W-BEAM GUARDRAIL REPRESENTING INTERMEDIATE SECTIONS WILL BE MEASURED ALONG THE ROADWAY FACE FROM CENTERLINE OF POST TO CENTERLINE OF POST.

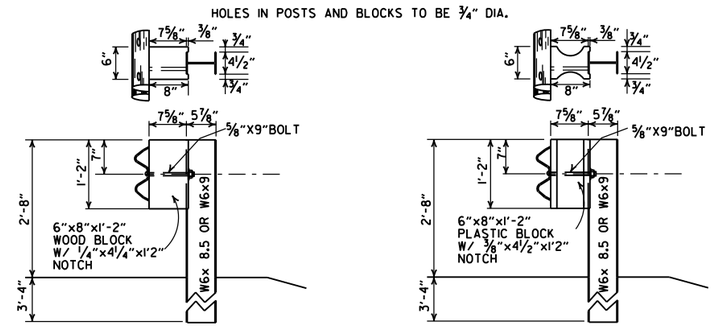
USE W-BEAM GUARDRAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB. FOR EXTENSIONS OR MODIFICATION OF EXISTING GUARDRAIL, W-BEAM GUARDRAIL COMPONENTS OF THE SAME TYPE AS THOSE EXISTING SHALL BE USED.

ANY BACKFILLING UNDER OR AROUND POST SHALL BE DAMP SAND THOROUGHLY TAMPED IN PLACE.

WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7 f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

CONTRACTOR SHALL HAVE THE OPTION OF USING WOOD BLOCKOUTS FOR W-BEAM GUARDRAIL OR PLASTIC BLOCKOUTS, AS LONG AS BLOCKOUT USED MEETS REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) FOR W-BEAM GUARDRAIL.

DELINEATORS SHALL BE MOUNTED AT 37.5' SPACING ON THE FRONT FACE OF THE GUARDRAIL. SPACING MAY BE REDUCED IN CURVES, AS DIRECTED BY THE ENGINEER. COLOR SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR DELINEATORS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID PER LIN. FT. FOR GUARDRAIL.




WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

## DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)




POSTS AND BLOCKS TO BE ROUGH SAWN 6"X8" WITH A TOLERANCE OF + OR - ¼".

WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

## DETAILS OF WOOD LINE POST CONNECTIONS (W-BEAM)

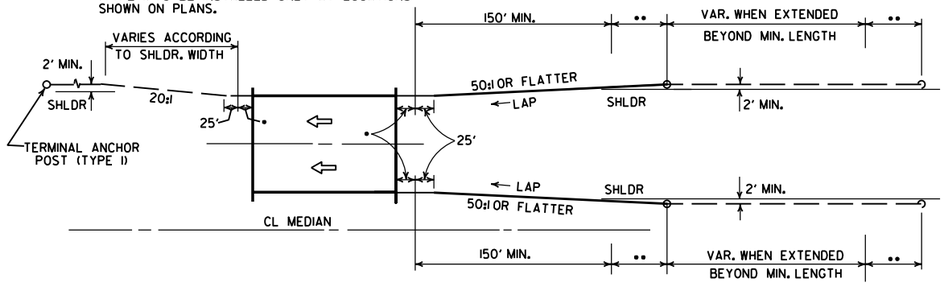
| DATE | REVISION | FILMED |
|---|---|---|
| 05-19-22 | REVISED GENERAL NOTES, ADDED DELINEATOR LOCATION. | |
| 11-07-19 | RENUMBERED AND RENAMED | |
| 11-16-17 | REVISED GENERAL NOTES AND RAISED GUARDRAIL HEIGHT 3" | |
| 07-14-10 | RAISED HEIGHT OF GUARDRAIL 1" | |
| 10-15-09 | ADDED REFERENCE TO MASH | |
| 04-10-03 | REVISED GENERAL NOTES | |
| 08-22-02 | REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & STEEL POST | |
| 11-16-01 | REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS | |
| 03-30-00 | REMOVED GUARDRAIL AT BRIDGE ENDS | |
| 01-12-00 | ADDED PLASTIC BLOCKOUT | |
| 08-12-98 | REV. BLOCKOUTS TO WOOD, DELETED CONC. POST & REV. GENERAL NOTE, DELETED DET. OF GUARDRAIL REPLACE. BEHIND CURB & DET. OF POST PLACE. IN SOLID ROCK, & ADDED DETAILS OF STEEL LINE POST CONN. REMOVED BACK-UP PLATE, REVISED HOLES IN STEEL POLES | |
| 04-03-97 | REMOVED "LAP IN DIRECTION OF TRAFFIC" NOTE & PLACED ARROWS ON WASHERS | |
| 10-18-96 | REVISED WOOD POST NOTE | |
| 06-02-94 | ADDED ALT. STEEL POST SIZE | |
| 08-05-93 | REVISED STEEL POST SIZE | 8-5-93 |
| 10-01-92 | REDRAWN & REVISED | 10-1-92 |
| 08-15-91 | REVISED WASHER NOTE | 8-15-91 |
| 08-02-90 | REV. GEN. NOTE & DEPTH OF ANC. POST IN ROCK | 8-2-90 |
| 07-15-88 | REVISED SECTION 3 & GENERAL NOTES | |
| 03-04-88 | REV. ANCHOR POST, ELEV. NOTES & POST IN ROCK | 780-3-4-88 |
| 10-30-87 | REVISED WOOD LINE POST DETAIL | 546-10-30-87 |
| 10-09-87 | REDRAWN & REVISED | 802-10-9-87 |

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GUARDRAIL DETAILS

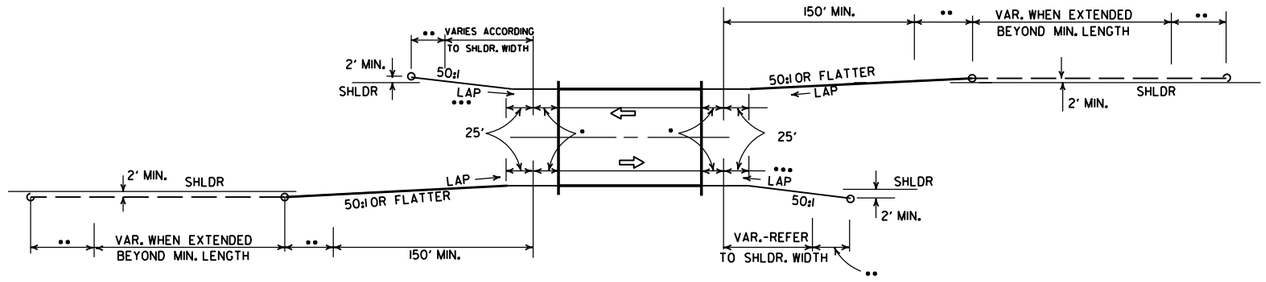
STANDARD DRAWING GR-6

NOTE: GUARDRAIL WITH GUARDRAIL TERMINAL (TYPE 1) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.




ONE-WAY TRAFFIC

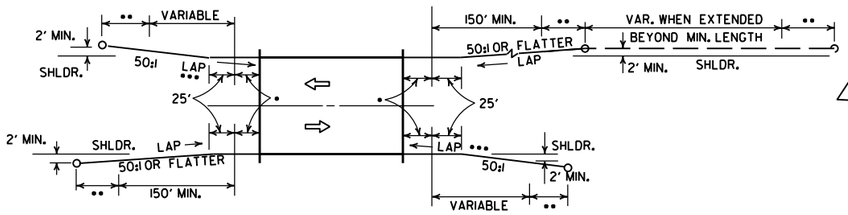
••• LAP OF GUARDRAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200'. CHANGE TO LAP IN DIRECTION OF TRAVEL.




TWO-WAY TRAFFIC

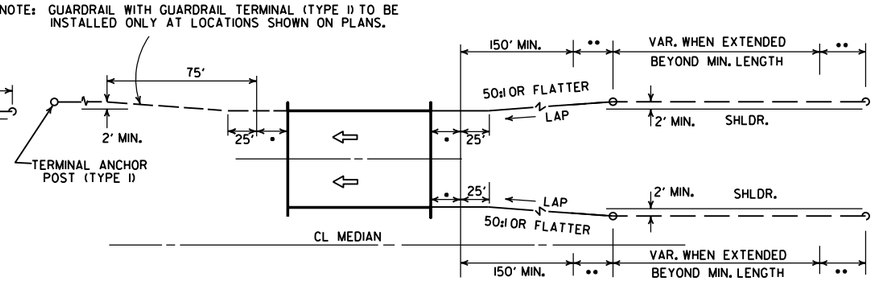
## METHODS OF INSTALLATION OF GUARDRAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARDRAIL TERMINAL (TYPE 2)

••• LAP OF GUARDRAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200'. CHANGE TO LAP IN DIRECTION OF TRAVEL.




TWO-WAY TRAFFIC

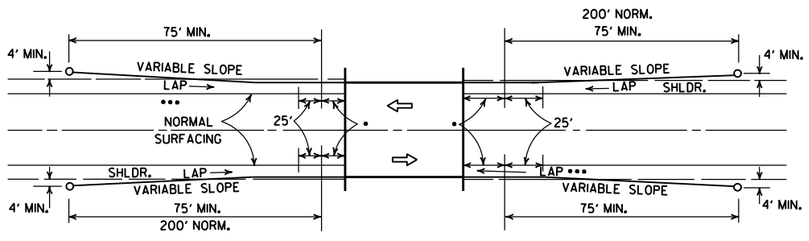
NOTE: GUARDRAIL WITH GUARDRAIL TERMINAL (TYPE 1) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.




ONE-WAY TRAFFIC

## METHOD OF INSTALLATION OF GUARDRAIL AT FULL SHOULDER WIDTH BRIDGES USING GUARDRAIL TERMINAL (TYPE 2)

••• LAP OF GUARDRAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200'. CHANGE TO LAP IN DIRECTION OF TRAVEL.




## METHOD OF INSTALLATION OF GUARDRAIL USING GUARDRAIL TERMINAL (TYPE 1) (FULL SHOULDER WIDTH OR LESS BRIDGES)

LEGEND

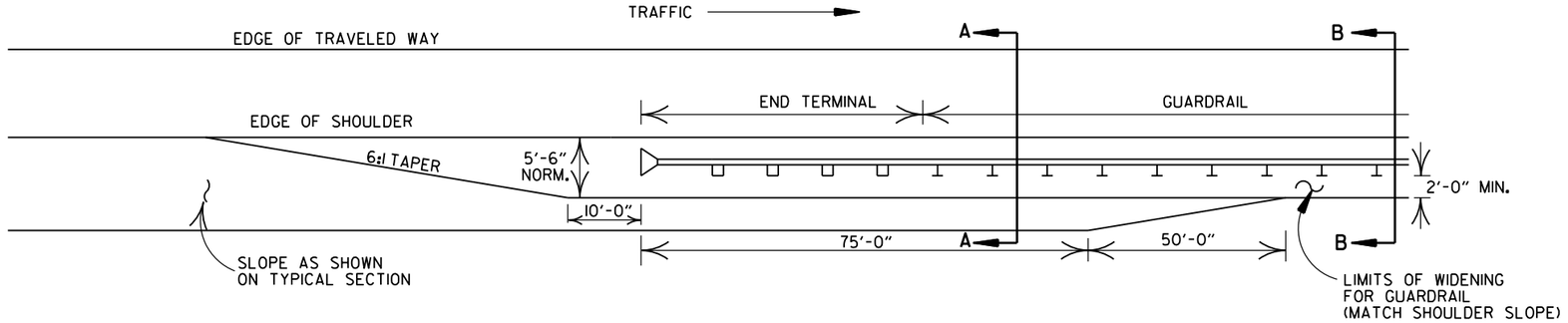
- • THRIE BEAM GUARDRAIL TERMINAL
- •• GUARDRAIL TERMINAL (TYPE 2)

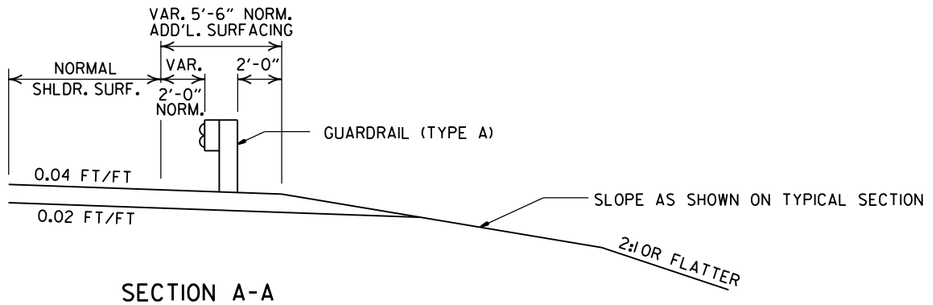
| DATE | REVISION | DATE FILM |
|---|---|---|
| | | |
| | | |
| | | |
| 11-07-19 | RENUMBERED AND RENAMED | |
| 4-17-08 | REVISED LAYOUTS | |
| 11-10-05 | REMOVED GUARDRAIL NOTES AND DETAILS | |
| 11-16-01 | DELETED NOTE-METHOD OF INSTALLATION OF GUARDRAIL USING GUARDRAIL TERM. (TY. 1) | |
| 1-12-00 | ADDED CONSTRUCTION NOTE | 1-12-00 |
| 6-26-97 | REVISED LAYOUT | |
| 10-1-92 | REDRAWN & REVISED | 10-1-92 |
| | ADDED NOTE | |
| 10-9-87 | REDRAWN & REVISED | |

ARKANSAS STATE HIGHWAY COMMISSION

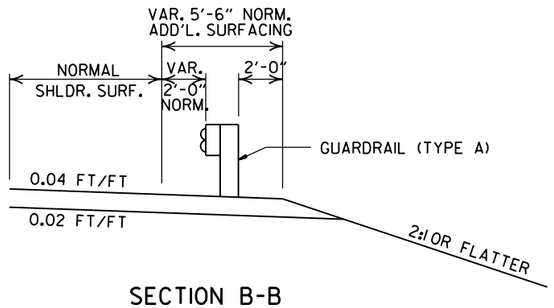
# GUARDRAIL DETAILS

STANDARD DRAWING GR-8



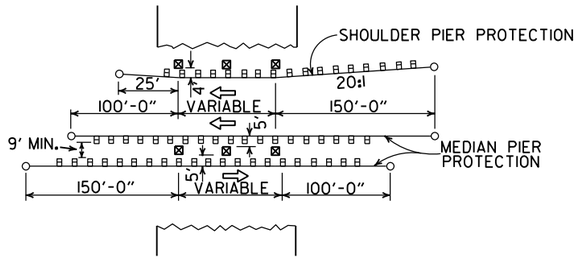




SECTION A-A



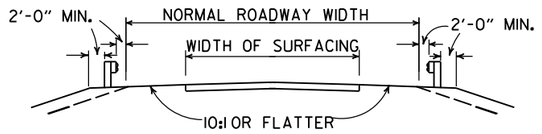

SECTION B-B

## DETAILS OF WIDENING FOR GUARDRAIL

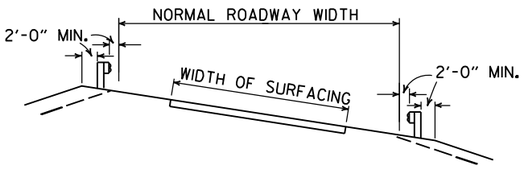



## METHOD OF INSTALLATION OF GUARDRAIL AT FIXED OBSTACLE

NOTE: NORMAL SECTION TO BE WIDENED APPROX. 5'-6" EACH SIDE TO SUPPORT GUARDRAIL.




SECTION ON TANGENT




SECTION ON CURVE

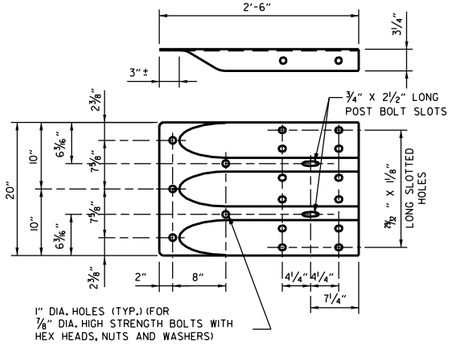
## DETAILS SHOWING POSITION OF GUARDRAIL ON HIGHWAY

| DATE | REVISION | DATE FILM |
|---|---|---|
| 11-07-19 | RENUMBERED AND RENAMED | |
| 4-17-08 | MINOR REVISION | |
| 11-10-05 | DRAWN | |

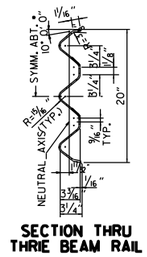
ARKANSAS STATE HIGHWAY COMMISSION

# GUARDRAIL DETAILS

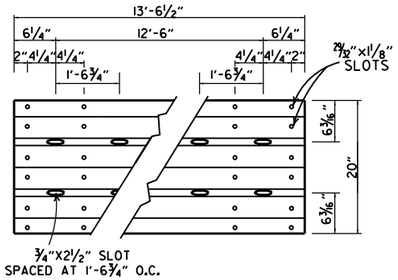
STANDARD DRAWING GR-9



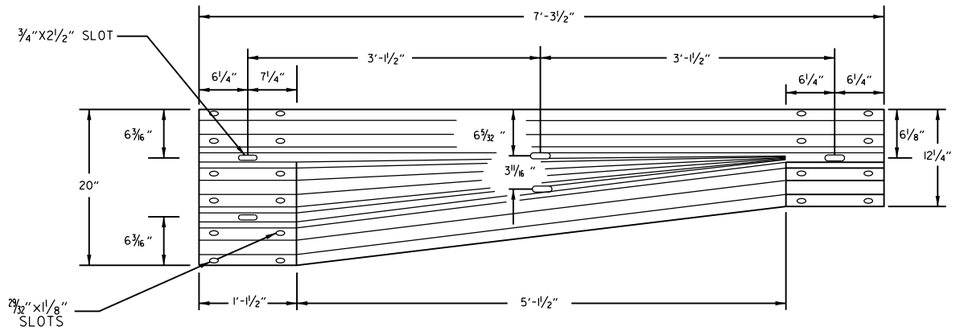

## SPECIAL END SHOE



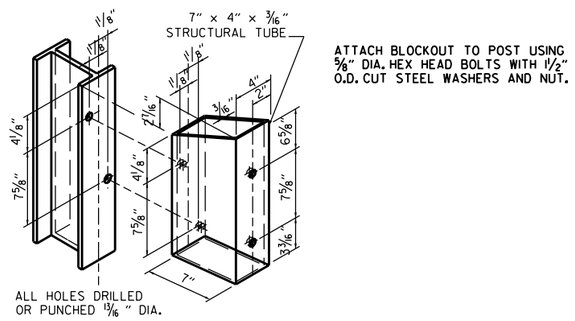

SECTION THRU THRIE BEAM RAIL



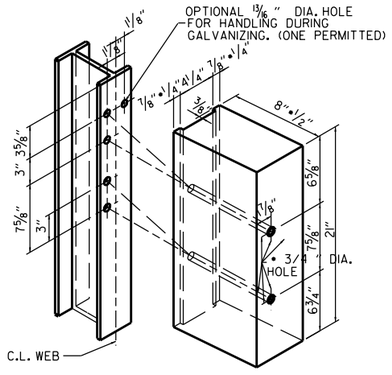

## THRIE BEAM RAIL




## TRANSITION SECTION



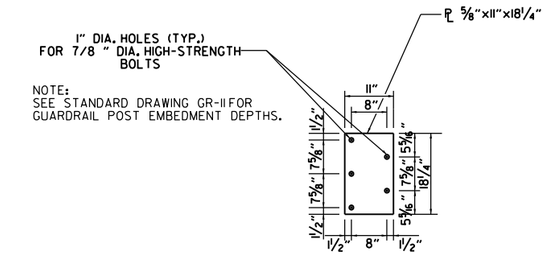

## STRUCTURAL STEEL TUBING BLOCKOUT DETAIL




ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED

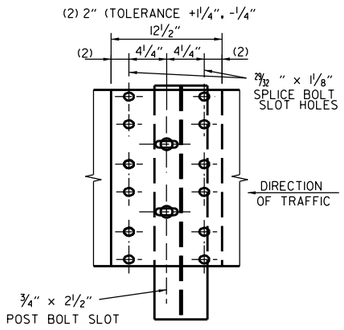
## HOLE PUNCHING DETAIL FOR STEEL POST & WOOD OR PLASTIC BLOCKOUTS

NOTE: BLOCKS SHALL BE THE SAME TYPE THROUGHOUT THE PROJECT LIMITS.




## CONNECTOR PLATE

CONNECTOR PLATE SHALL BE AASHTO M270, GR. 36 AND SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO SUBSECTION 807.19 OF THE STANDARD SPECIFICATIONS. CONNECTOR PLATE TO BE BOLTED TO SPECIAL END SHOE USING ⅞" DIA. HIGH STRENGTH BOLTS, WITH THE HEADS PLACED ON THE TRAFFIC FACE. WASHERS SHALL BE USED UNDER THE HEAD AND NUT. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AND SHALL CONFORM TO SUBSECTION 807.06.




## THRIE BEAM RAIL SPLICE AT POST

GENERAL NOTES:

THE THRIE BEAM RAIL, SPECIAL END SHOE, AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE 12 GAGE. ZINC COATING SHALL BE TYPE 1.

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3"4" BEYOND IT.

ALL LAP SPLICES, INCLUDING SPECIAL END SHOES, SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWINGS GR-8 & GR-13.

REFER TO STD. DRWG. GR-11 FOR POST DETAILS.

USE THRIE BEAM GUARDRAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.

THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.

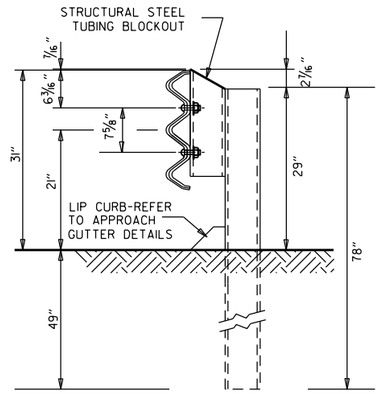
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7 f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

| DATE | REVISION | FILMED |
|---|---|---|
| 11-07-19 | RENAMED AND REVISED REFERENCES | |
| 11-16-17 | REVISED TRANSITION SECTION, GUARD RAIL HEIGHT, AND GENERAL NOTES; MOVED THRIE BEAM GUARD RAIL CONNECTIONS AT BRIDGES ENDS TO STD. DRWG. GR-12 | |
| 07-14-10 | RAISED HEIGHT OF W-BEAM 1" | |
| 11-29-07 | ADDED PLASTIC BLOCKOUTS | |
| 11-10-05 | ADDED NOTE FOR ATTACHING STEEL BLOCKOUT | |
| 11-18-04 | REVISED GENERAL NOTES | |
| 10-9-03 | REVISED GENERAL NOTES | |
| 04-10-03 | REVISED GENERAL NOTES | |
| 08-22-02 | REVISED NOTE (2) | |
| 06-29-00 | MOVED DIMENSION LINES | |
| 05-18-00 | ADDED NOTE | |
| 03-30-00 | DRAWN & ISSUED | |

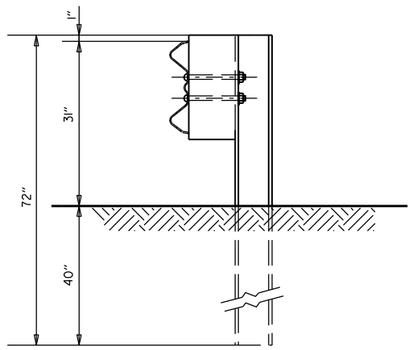
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

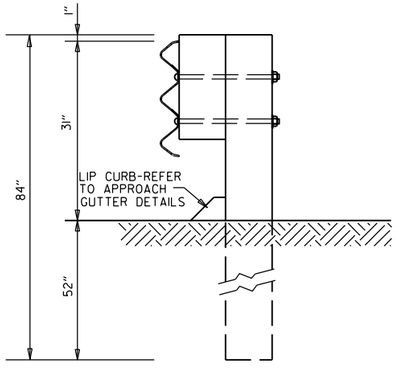
STANDARD DRAWING GR-10



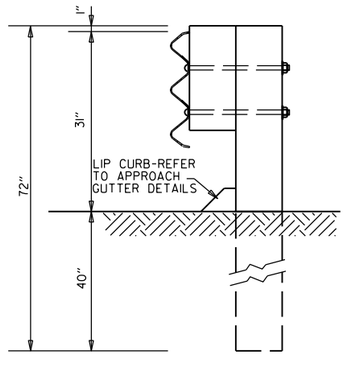

THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7



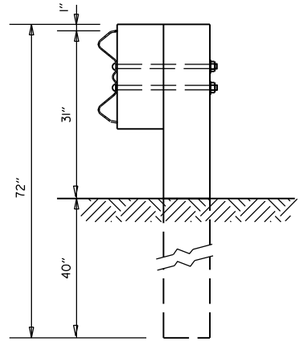

W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8




THRIE BEAM RAIL
WITH WOOD OR PLASTIC
BLOCKOUTS & WOOD POSTS
POSTS 1-6




THRIE BEAM RAIL
WITH WOOD OR PLASTIC
BLOCKOUT & WOOD POST
POST 7




W-BEAM TO THRIE BEAM
TRANSITION RAIL WITH WOOD OR
PLASTIC BLOCKOUT & WOOD POST
POST 8

GENERAL NOTES:

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

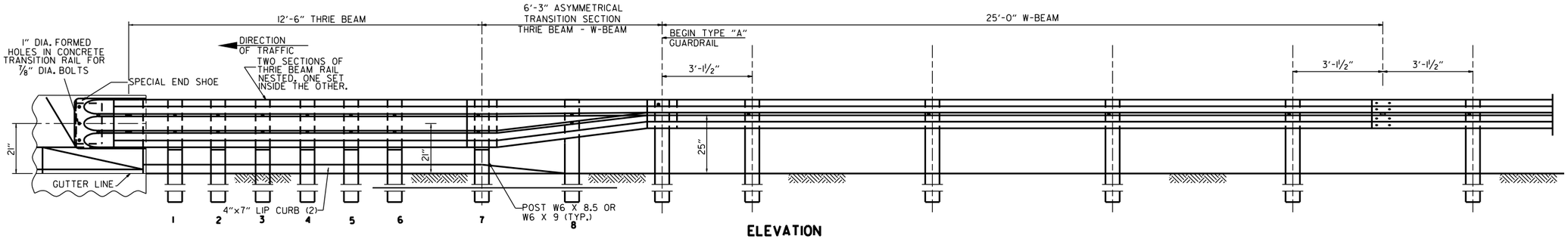
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1STRUCTURAL OR BETTER 9.7f (1400 f) OR NO.1 1350 f SOUTHERN PINE.

| DATE | REVISION | FILMED |
|---|---|---|
| | | |
| | | |
| | | |
| 11-07-19 | RENAMED | |
| 11-16-17 | REVISED GUARDRAIL HEIGHT, CHANGED STD. DWG. NUMBER FROM GR-10A TO GR-11 | |
| 07-14-10 | REVISED POST 8 DIMENSIONS | |
| 11-29-07 | ADDED PLASTIC BLOCKOUTS | |
| 08-22-02 | REVISED LIP CURB NOTE | |
| 03-30-00 | DRAWN & ISSUED | |

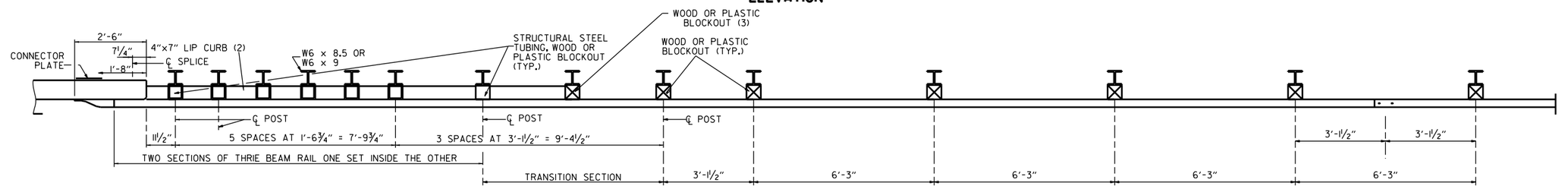
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

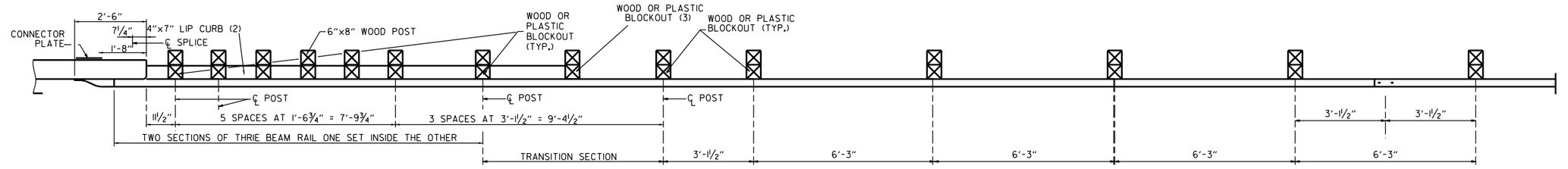
STANDARD DRAWING GR-11




**ELEVATION**




**PLAN**




**PLAN**

(1) VERIFY BOLT SPACING FROM RAIL TRANSITION PRODUCER.
(2) REFER TO APPROACH GUTTER DETAILS.
(3) LENGTH OF BLOCKOUT ON POST 8 TO BE MODIFIED TO FIT RAIL WIDTH.

# THRIE BEAM GUARDRAIL CONNECTION AT BRIDGE ENDS

GENERAL NOTES:

THE THRIE BEAM RAIL, SPECIAL END SHOE, AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE 12 GAGE. ZINC COATING SHALL BE TYPE I.

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3/4" BEYOND IT.

ALL LAP SPLICES, INCLUDING SPECIAL END SHOES, SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWINGS GR-8 & GR-13.

REFER TO STD. DRWG. GR-11 FOR POST DETAILS.

USE THRIE BEAM GUARDRAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.

THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.

POSTS SHALL NOT BE PLACED AT SPLICE LOCATIONS ALONG W-BEAM RAILS.

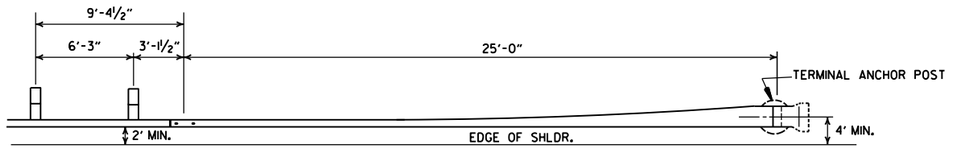
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

| DATE | REVISION | FILMED |
|---|---|---|
| 05-14-20 | REVISED NOTES | |
| 11-07-19 | RENAMED & REVISED REFERENCES | |
| 11-16-17 | RE-DRAWN FROM STD. DWG. GR-10 & ISSUED | |

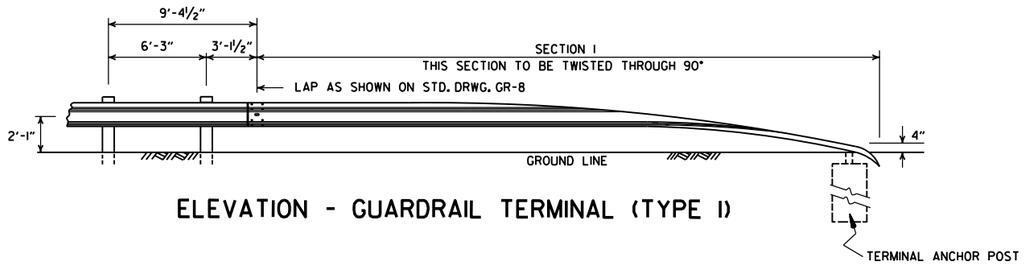
ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

STANDARD DRAWING GR-12

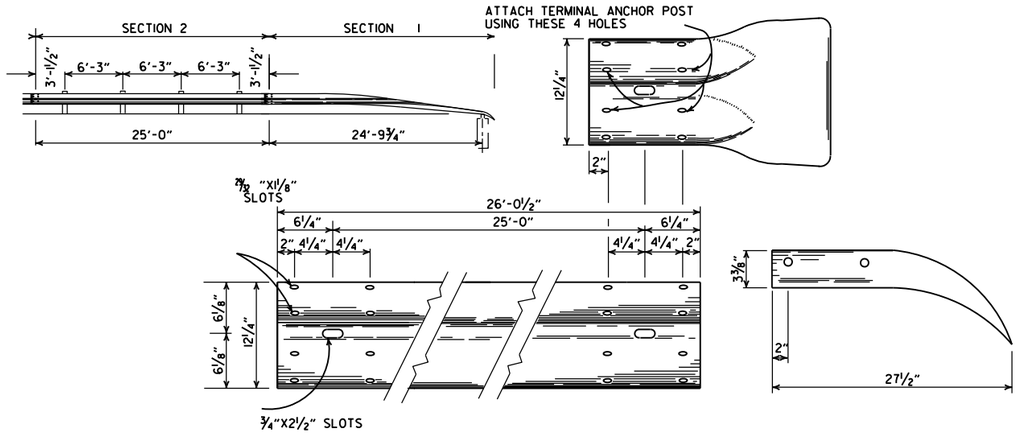



PLAN - GUARDRAIL TERMINAL (TYPE I)



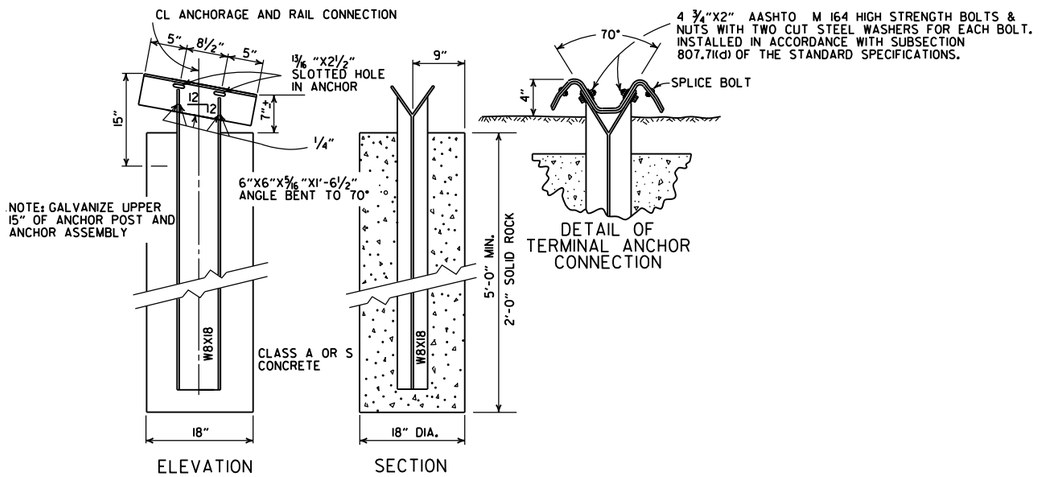

ELEVATION - GUARDRAIL TERMINAL (TYPE I)

NOTE:
SECTIONS I AND 2 OF GUARDRAIL TERMINAL SHALL BE PAID FOR AT THE PRICE BID PER LINEAR FOOT OF THE TYPE OF GUARDRAIL SPECIFIED.




SECTION I

TERMINAL SECTION




NOTE: RAIL MEMBERS MAY BE BOLTED TO ANGLE AT TERMINAL ANCHOR AND THE TWO ASSEMBLIES POSITIONED TO PROPER ALIGNMENT PRIOR TO PLACING CONCRETE AROUND 8 WF 17 POST IF CONTRACTOR SO DESIRES.

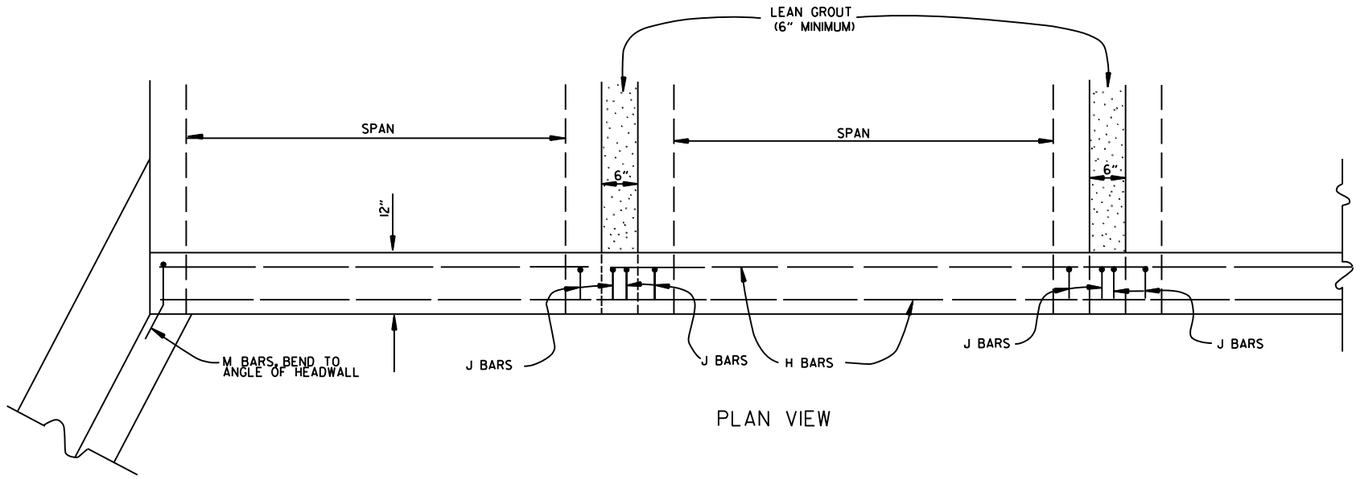
DETAIL OF TERMINAL ANCHOR POST (TYPE I)

| DATE | REVISION | FILMED |
|---|---|---|
| 11-07-19 | RENAMED & REVISED REFERENCE. | |
| 11-16-17 | REVISED GUARDRAIL HEIGHT AND LOCATION OF POSTS | |
| 07-14-10 | RAISED HEIGHT OF GUARDRAIL 1" | |
| 06-26-97 | REVISED LAP NOTE | |
| 10-18-96 | REVISED ASTM REF. TO AASHTO | |
| 11-03-94 | DIMENSION TERMINAL DETAIL | |
| 11-11-92 | ADDED NOTE FOR PAYMENT | 11-11-92 |
| 10-01-92 | DRAWN & ISSUED | 10-1-92 |

ARKANSAS STATE HIGHWAY COMMISSION

GUARDRAIL DETAILS

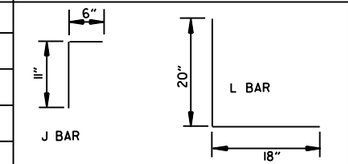
STANDARD DRAWING GRT-1




PLAN VIEW

## BAR LIST

| BAR | NO. | SIZE | LENGTH | BAR BENDING DIAGRAM |
|---|---|---|---|---|
| H | 2 | #4 | • | |
| I | • | #4 | • | |
| J | • | #4 | 1'-5" | |
| L | • | #4 | 3'-2" | |
| M | • | #4 | 1'-8" | |




• NOTE: LENGTH AND NUMBER OF BARS VARIES WITH SIZE OF CULVERT

### GENERAL NOTES

WINGS, CURTAIN WALLS AND APRONS SHALL BE TIED TO THE PRECAST CULVERT SECTION BY CASTING BARS IN CULVERT END SECTIONS AS SHOWN OR BY DOWELING AND GROUTING. J BARS AND M BARS SHALL BE EMBEDDED A MINIMUM OF 10" IN PRECAST BOX.

WINGS, FOOTINGS, APRONS AND CURTAIN WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE WING DRAWING. STEEL AND CONCRETE QUANTITIES WILL BE ADJUSTED TO FIT THE IN-PLACE WIDTH & HEIGHT OF THE PRECAST CONCRETE BOX CULVERTS.

ALL EXPOSED CORNERS TO HAVE ¾" CHAMFERS.

WINGWALLS AND FOOTINGS MAY BE ADJUSTED IN THE FIELD AS DIRECTED BY THE ENGINEER.

ALL CONCRETE, REINFORCING STEEL, LEAN GROUT, MEMBRANE WATERPROOFING, DRAINAGE FILL MATERIAL, GEOTEXTILE FILTER FABRIC, LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR INSTALLING PRECAST BOX CULVERTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR THE ITEMS AS SPECIFIED IN SECTION 607 OF THE STANDARD SPECIFICATIONS.

LEAN GROUT SHALL CONSIST OF A SAND CEMENT MIXTURE MEETING THE FOLLOWING REQUIREMENTS:
PORTLAND CEMENT SHALL BE TYPE I AND SHALL MEET THE REQUIREMENTS OF AASHTO M 85.
SAND SHALL MEET THE REQUIREMENTS OF FINE AGGREGATE AS SPECIFIED IN SECTION 802.02 OF THE STANDARD SPECIFICATIONS.
THE SAND CEMENT MIXTURE SHALL CONSIST OF NOT LESS THAN 1.5 SACKS OF PORTLAND CEMENT PER TON OF MATERIAL MIXTURE.
THE MIXTURE SHALL CONTAIN SUFFICIENT WATER TO HYDRATE THE CEMENTS. THE SAND CEMENT MIXTURE SHALL BE PLACED IN MAXIMUM 8 INCH THICK LIFTS, LOOSE MEASURE, AND THOROUGHLY RODDED AND TAMPED AROUND BOX TO THOROUGHLY FILL ALL VOIDS.

MEMBRANE WATERPROOFING CONFORMING TO THE REQUIREMENTS OF SECTION 815 OF THE STANDARD SPECIFICATIONS SHALL BE APPLIED TO ALL BOX CULVERT JOINTS.

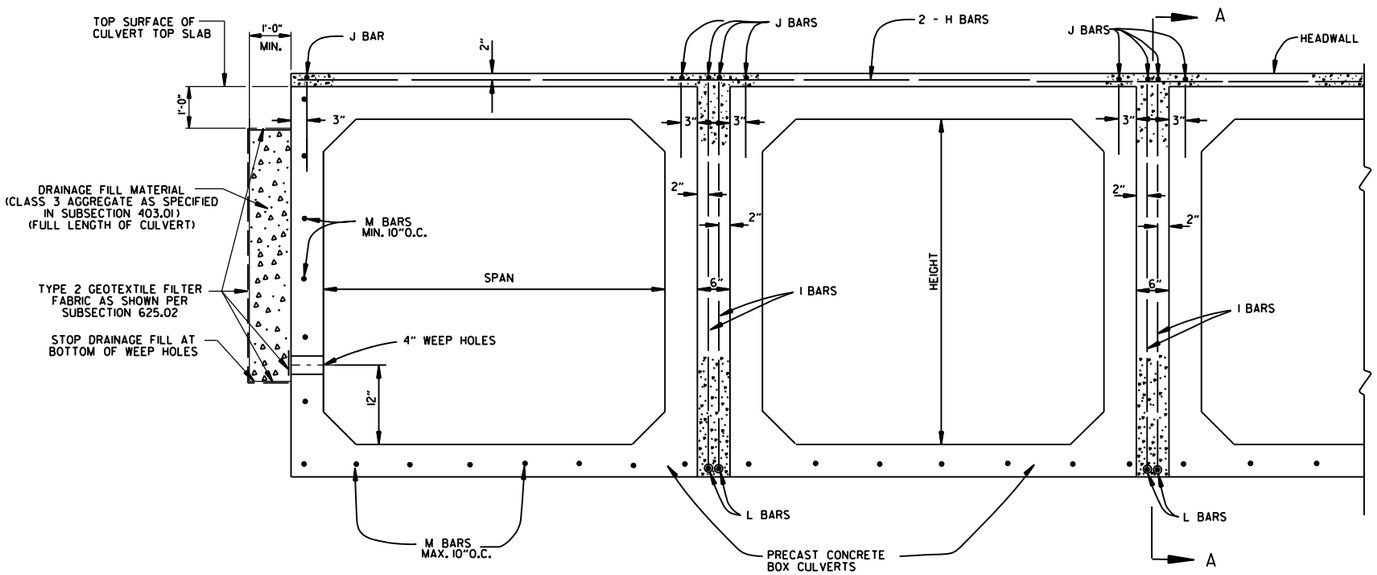
THE MEMBRANE WATERPROOFING WILL BE REQUIRED ON THE TOP EXTERNAL JOINT AND SHALL EXTEND 1 FOOT DOWN THE SIDES OF THE CULVERT.

IN OUTER BARRELS, ONE WEEP HOLE IS REQUIRED IN EXTERIOR WALLS OF EACH PRECAST CULVERT SECTION. WEEP HOLES SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" IN THE ASSEMBLED CULVERT AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE BOTTOM SLAB.

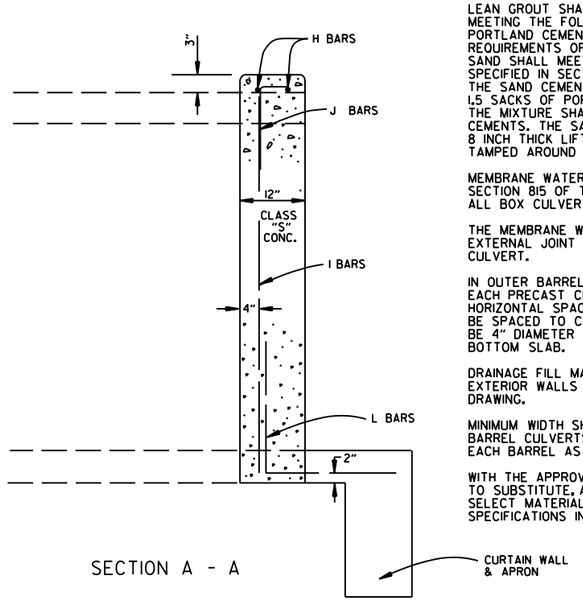
DRAINAGE FILL MATERIAL WITH GEOTEXTILE FABRIC IS REQUIRED AT THE EXTERIOR WALLS OF THE ASSEMBLED CULVERT, SEE DETAILS ON THIS DRAWING.

MINIMUM WIDTH SHALL BE 12" (6" ON EACH SIDE OF JOINT). ON MULTIPLE BARREL CULVERTS, MEMBRANE WATERPROOFING SHALL BE APPLIED TO EACH BARREL AS DESCRIBED ABOVE.

WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR WILL BE ALLOWED TO SUBSTITUTE, AT NO ADDITIONAL COST TO THE DEPARTMENT, FLOWABLE SELECT MATERIAL CONFORMING TO SECTION 206 OF THE STANDARD SPECIFICATIONS IN LIEU OF LEAN GROUT.




END VIEW




SECTION A - A

| DATE | REVISION | DATE FILMED |
|---|---|---|
| 1-28-15 | REVISED GEOTEXTILE FABRIC PLACEMENT | |
| 12-15-11 | ADDED NOTE & DTLS FOR WEEP HOLE AND DRAINAGE FILL | |
| 10-15-09 | ADDED GENERAL NOTE | |
| 11-10-05 | REVISED SPACING OF "M" BARS | |
| 4-10-03 | REVISED GENERAL NOTES | |
| 10-18-96 | CORRECTED AASHTO REF. | |
| 10-1-92 | ADDED NOTE FOR MEMBRANE WATERPROOFING | |
| 8-15-91 | ADDED NOTE FOR LEAN GROUT | |
| 11- 8-90 | REVISED FOR 1991 SPECS | |
| 11-30-89 | ISSUED; JABE | |

ARKANSAS STATE HIGHWAY COMMISSION

# PRECAST CONCRETE BOX CULVERTS

STANDARD DRAWING PBC-1

## REINFORCED CONCRETE ARCH PIPE DIMENSIONS

| EQUIV. DIA. | SPAN | | RISE | |
|---|---|---|---|---|
| | AASHTO M 206 | ARDOT NOMINAL | AASHTO M 206 | ARDOT NOMINAL |
| INCHES | INCHES | | | |
| 15 | 18 | 18 | 11 | 11 |
| 18 | 22 | 22 | 13½ | 14 |
| 21 | 26 | 26 | 15½ | 16 |
| 24 | 28½ | 29 | 18 | 18 |
| 30 | 36¼ | 36 | 22½ | 23 |
| 36 | 43⅜ | 44 | 26⅝ | 27 |
| 42 | 51⅛ | 51 | 31⅜ | 31 |
| 48 | 58½ | 59 | 36 | 36 |
| 54 | 65 | 65 | 40 | 40 |
| 60 | 73 | 73 | 45 | 45 |
| 72 | 88 | 88 | 54 | 54 |
| 84 | 102 | 102 | 62 | 62 |
| 90 | 115 | 115 | 72 | 72 |
| 96 | 122 | 122 | 77½ | 77 |
| 108 | 138 | 138 | 87⅛ | 87 |
| 120 | 154 | 154 | 96⅞ | 97 |
| 132 | 168¾ | 169 | 106½ | 107 |

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M206.

## REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE DIMENSIONS

| EQUIV. DIA. | AASHTO M 207 | |
|---|---|---|
| | SPAN | RISE |
| INCHES | INCHES | |
| 18 | 23 | 14 |
| 24 | 30 | 19 |
| 27 | 34 | 22 |
| 30 | 38 | 24 |
| 33 | 42 | 27 |
| 36 | 45 | 29 |
| 39 | 49 | 32 |
| 42 | 53 | 34 |
| 48 | 60 | 38 |
| 54 | 68 | 43 |
| 60 | 76 | 48 |
| 66 | 83 | 53 |
| 72 | 91 | 58 |
| 78 | 98 | 63 |
| 84 | 106 | 68 |

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M207.

## CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE MIDDLE OF THE PIPE.
5. COMPLETE BACKFILL ACCORDING TO SUBSECTION 606.03.(f)(1).

**NOTE: HAUNCH AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF CONCRETE PIPE.**

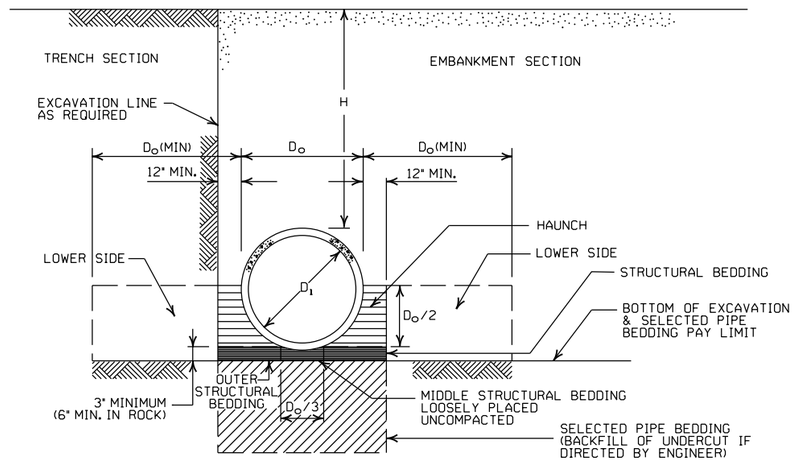
## - LEGEND -

$D_1$ = NORMAL INSIDE DIAMETER OF PIPE
$D_O$ = OUTSIDE DIAMETER OF PIPE
H = FILL COVER HEIGHT OVER PIPE (FEET)
MIN. = MINIMUM
= UNDISTURBED SOIL

| INSTALLATION TYPE | MATERIAL REQUIREMENTS FOR HAUNCH AND STRUCTURAL BEDDING |
|---|---|
| TYPE 1 | AGGREGATE BASE COURSE (CLASS 5 OR CLASS 7) |
| TYPE 2 | SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL* |
| TYPE 3** | AASHTO CLASSIFICATION A-1 THRU A-6 SOIL OR TYPE 1 OR 2 INSTALLATION MATERIAL |

* SM-3 WILL NOT BE ALLOWED.

** MATERIALS SHALL NOT INCLUDE ORGANIC MATERIALS OR STONES LARGER THAN 3 INCHES.




## EMBANKMENT AND TRENCH INSTALLATIONS

1. MATERIAL IN THE HAUNCH AND OUTER STRUCTURAL BEDDING SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. FOR TRENCHES WITH WALLS OF NATURAL SOIL, THE DENSITY OF THE SOIL IN THE LOWER SIDE ZONE SHALL BE AS FIRM AS THE 95% DENSITY REQUIRED FOR THE HAUNCH. IF THE EXISTING SOIL DOES NOT MEET THIS CRITERIA, IT SHALL BE REMOVED AND RECOMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OF MATERIAL USED.
3. FOR EMBANKMENTS, THE MATERIAL IN THE LOWER SIDE ZONE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

## GENERAL NOTES

1. CONCRETE PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. CONCRETE PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. ALL PIPE SHALL CONFORM TO SECTION 606. CIRCULAR R.C. PIPE CULVERTS SHALL CONFORM TO AASHTO M170, R.C. ARCH PIPE CULVERTS SHALL CONFORM TO AASHTO M206 AND HORIZONTAL ELLIPTICAL PIPE CULVERTS SHALL CONFORM TO AASHTO M207.
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. NOT MORE THAN ONE LIFTING HOLE MAY BE PROVIDED IN CONCRETE PIPE TO FACILITATE HANDLING. HOLE MAY BE CAST IN PLACE, CUT INTO THE FRESH CONCRETE AFTER FORMS ARE REMOVED, OR DRILLED. THE HOLE SHALL NOT BE MORE THAN TWO INCHES IN DIAMETER OR TWO INCHES SQUARE. CUTTING OR DISPLACEMENT OF REINFORCEMENT WILL NOT BE PERMITTED. SPALLED AREAS AROUND THE HOLE SHALL BE REPAIRED IN A WORKMANLIKE MANNER. LIFTING HOLE SHALL BE FILLED WITH MORTAR, CONCRETE, OR OTHER METHOD AS APPROVED BY THE ENGINEER.
9. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
10. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS THE HAUNCH), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

## MINIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

| | CLASS OF PIPE | | | |
|---|---|---|---|---|
| | CLASS III | | CLASS IV | CLASS V |
| INSTALLATION TYPE | TYPE 1 OR 2 | TYPE 3 | ALL | ALL |
| PIPE ID (IN.) | FEET | | | |
| 12-15 | 2 | 2.5 | 2 | 1 |
| 18-24 | 2.5 | 3 | 2 | 1 |
| 27-33 | 3 | 4 | 2 | 1 |
| 36-42 | 3.5 | 5 | 2 | 1 |
| 48 | 4.5 | 5.5 | 2 | 1 |
| 54-60 | 5 | 7 | 2 | 1 |
| 66-78 | 6 | 8 | 2 | 1 |
| 84-108 | 7.5 | 8 | 2 | 1 |

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

## MAXIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

| INSTALLATION TYPE | CLASS OF PIPE | | |
|---|---|---|---|
| | CLASS III | CLASS IV | CLASS V |
| | FEET | | |
| TYPE 1 | 21 | 32 | 50 |
| TYPE 2 | 16 | 25 | 39 |
| TYPE 3 | 12 | 20 | 30 |

NOTE: IF FILL HEIGHT EXCEEDS 50 FEET, A SPECIAL DESIGN CONCRETE PIPE WILL BE REQUIRED USING TYPE 1 INSTALLATION.

## MINIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

| INSTALLATION TYPE | CLASS OF PIPE | |
|---|---|---|
| | CLASS III | CLASS IV |
| | FEET | |
| TYPE 2 OR TYPE 3 | 2.5 | 1.5 |

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

## MAXIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

| INSTALLATION TYPE | CLASS OF PIPE | |
|---|---|---|
| | CLASS III | CLASS IV |
| | FEET | |
| TYPE 2 | 13 | 21 |
| TYPE 3 | 10 | 16 |

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

| DATE | REVISION | DATE FILMED |
|---|---|---|
| 2-27-14 | REVISED GENERAL NOTE 1. | |
| 12-15-11 | REVISED FOR LRFD DESIGN SPECIFICATIONS | |
| 5-18-00 | REVISED TYPE 3 BEDDING & ADDED NOTE | |
| 3-30-00 | REVISED INSTALLATIONS | |
| 11-06-97 | ISSUED | |

ARKANSAS STATE HIGHWAY COMMISSION

# CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

## CORRUGATED STEEL PIPE (ROUND)

| PIPE DIAMETER (INCHES) | ① MINUMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET) | MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET) | | | | |
|---|---|---|---|---|---|---|
| | | METAL THICKNESS (INCHES) | | | | |
| | | 0.064 | 0.079 | 0.109 | 0.138 | 0.168 |
| 2⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM | | | | | | |
| 12 | 1 | 84 | 91 | | | |
| 15 | 1 | 67 | 73 | | | |
| 18 | 1 | 56 | 61 | | | |
| 24 | 1 | 42 | 46 | 59 | | |
| 30 | 2 | 34 | 36 | 47 | | |
| 36 | 2 | | 30 | 39 | 41 | |
| 42 | 2 | | 43 | 67 | 70 | 73 |
| 48 | 2 | | 37 | 58 | 61 | 64 |
| ② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, BOLTED, OR HELICAL LOCK-SEAM | | | | | | |
| 36 | 1 | 48 | 60 | 88 | 111 | 118 |
| 42 | 1 | 41 | 51 | 72 | 90 | 102 |
| 48 | 1 | 36 | 45 | 64 | 77 | 85 |
| 54 | 2 | 32 | 40 | 59 | 71 | 79 |
| 60 | 2 | 29 | 36 | 53 | 64 | 71 |
| 66 | 2 | 26 | 33 | 47 | 58 | 64 |
| 72 | 2 | 24 | 30 | 44 | 53 | 59 |
| 78 | 2 | | 28 | 41 | 49 | 54 |
| 84 | 2 | | 26 | 38 | 45 | 51 |
| 90 | 2 | | 24 | 35 | 43 | 45 |
| 96 | 2 | | 22 | 33 | 40 | 44 |
| 102 | 2 | | | 31 | 38 | 42 |
| 108 | 2 | | | 30 | 35 | 39 |
| 114 | 2 | | | 28 | 34 | 37 |
| 120 | 2 | | | 27 | 32 | 35 |

## CORRUGATED ALUMINUM PIPE (ROUND)

| PIPE DIAMETER (INCHES) | ① MINUMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET) | MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET) | | | | |
|---|---|---|---|---|---|---|
| | | METAL THICKNESS IN INCHES | | | | |
| | | 0.060 | 0.075 | 0.105 | 0.135 | 0.164 |
| | | 2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM | | | | |
| 12 | 1 | 45 | 45 | | | |
| 18 | 2 | 30 | 30 | 52 | | |
| 24 | 2 | 22 | 22 | 39 | 41 | |
| 30 | 2 | | 18 | 31 | 32 | 34 |
| 36 | 2.5 | | 15 | 26 | 27 | 28 |
| 42 | 2 | | | 43 | 43 | 44 |
| 48 | 2 | | | 40 | 41 | 43 |
| 54 | 2 | | | 35 | 37 | 38 |
| 60 | 2 | | | | 33 | 34 |
| 66 | 2 | | | | | 31 |
| 72 | 2 | | | | | 29 |

## CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. COMPLETE STRUCTURAL BACKFILL OPERATION BY WORKING FROM SIDE TO SIDE OF THE PIPE. THE SIDE TO SIDE STRUCTURAL BACKFILL DIFFERENTIAL SHALL NOT EXCEED 24 INCHES OR 1/3 THE SIZE OF THE PIPE, WHICHEVER IS LESS.

NOTE: STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF METAL PIPE.

| INSTALLATION TYPE | MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING |
|---|---|
| TYPE 1 | AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7) |
| TYPE 2 | SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL ③ |

③ SM-3 WILL NOT BE ALLOWED.

## EQUIVALENT METAL THICKNESSES AND GAUGES

| METAL THICKNESS IN INCHES | | | GAUGE NUMBER |
|---|---|---|---|
| STEEL | | | |
| ZINC COATED | UNCOATED | ALUMINUM | |
| 0.064 | 0.0598 | 0.060 | 16 |
| 0.079 | 0.0747 | 0.075 | 14 |
| 0.109 | 0.1046 | 0.105 | 12 |
| 0.138 | 0.1345 | 0.135 | 10 |
| 0.168 | 0.1644 | 0.164 | 8 |

## CORRUGATED METAL PIPE ARCHES

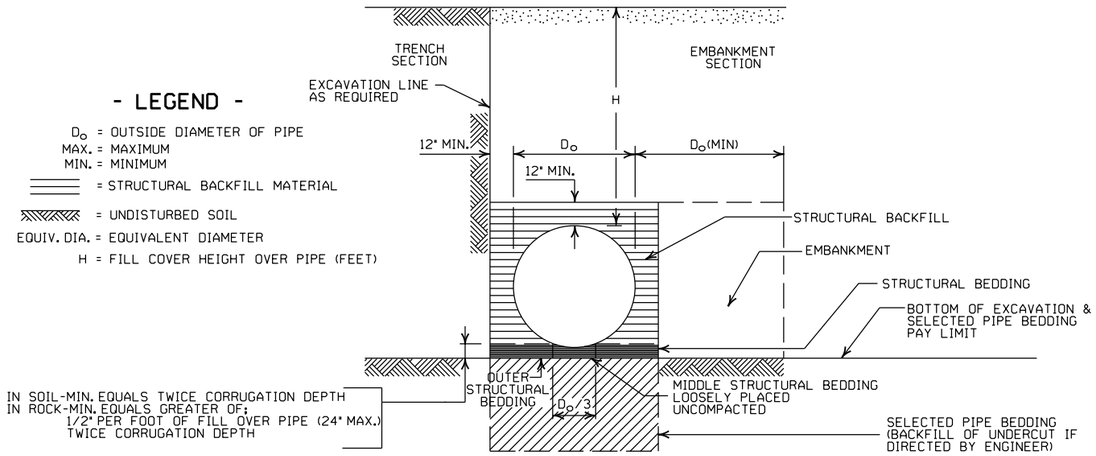
| EQUIV. DIA. (INCHES) | PIPE DIMENSION SPAN X RISE (INCHES) | MINUMUM CORNER RADIUS (INCHES) | STEEL | | | | ALUMINUM | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | MIN. THICKNESS REQUIRED INCHES | ① MIN. HEIGHT OF FILL, "H" (FT.) | MAX. HEIGHT OF FILL, "H" (FT.) | | MIN. THICKNESS REQUIRED INCHES | ① MIN. HEIGHT OF FILL, "H" (FT.) | MAX. HEIGHT OF FILL, "H" (FT.) | |
| | | | | INSTALLATION | INSTALLATION | | | INSTALLATION | INSTALLATION | |
| | | | | TYPE 1 | TYPE 1 | | | TYPE 1 | TYPE 1 | |
| | | | 2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM | | | | 2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM | | | |
| 15 | 17x13 | 3 | 0.064 | 2 | 15 | | 0.060 | 2 | 15 | |
| 18 | 21x15 | 3 | 0.064 | 2 | 15 | | 0.060 | 2 | 15 | |
| 21 | 24x18 | 3 | 0.064 | 2.25 | 15 | | 0.060 | 2.25 | 15 | |
| 24 | 28x20 | 3 | 0.064 | 2.5 | 15 | | 0.075 | 2.5 | 15 | |
| 30 | 35x24 | 3 | 0.079 | 3 | 12 | | 0.075 | 3 | 12 | |
| 36 | 42x29 | 3½ | 0.079 | 3 | 12 | | 0.105 | 3 | 12 | |
| 42 | 49x33 | 4 | 0.079 | 3 | 12 | | 0.105 | 3 | 12 | |
| 48 | 57x38 | 5 | 0.109 | 3 | 13 | | 0.135 | 3 | 13 | |
| 54 | 64x43 | 6 | 0.109 | 3 | 14 | | 0.135 | 3 | 14 | |
| 60 | 71x47 | 7 | 0.138 | 3 | 15 | | 0.164 | 3 | 15 | |
| 66 | 77x52 | 8 | 0.168 | 3 | 15 | | | | | |
| 72 | 83x57 | 9 | 0.168 | 3 | 15 | | | | | |
| | | | ② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM | | | | | | | |
| | | | | INSTALLATION | | INSTALLATION | | | | |
| | | | | TYPE 2 | TYPE 1 | TYPE 2 | TYPE 1 | | | |
| 36 | 40x31 | 5 | 0.079 | 3 | 2 | 12 | 15 | | | |
| 42 | 46x36 | 6 | 0.079 | 3 | 2 | 13 | 15 | | | |
| 48 | 53x41 | 7 | 0.079 | 3 | 2 | 13 | 15 | | | |
| 54 | 60x46 | 8 | 0.079 | 3 | 2 | 13 | 15 | | | |
| 60 | 66x51 | 9 | 0.079 | 3 | 2 | 13 | 15 | | | |
| 66 | 73x55 | 12 | 0.079 | 3 | 2 | 15 | 15 | | | |
| 72 | 81x59 | 14 | 0.079 | 3 | 2 | 15 | 15 | | | |
| 78 | 87x63 | 14 | 0.079 | 3 | 2 | 15 | 15 | | | |
| 84 | 95x67 | 16 | 0.109 | 3 | 2 | 15 | 15 | | | |
| 90 | 103x71 | 16 | 0.109 | 3 | 2 | 15 | 15 | | | |
| 96 | 112x75 | 18 | 0.109 | 3 | 2 | 15 | 15 | | | |
| 102 | 117x79 | 18 | 0.109 | 3 | 2 | 15 | 15 | | | |
| 108 | 128x83 | 18 | 0.138 | 3 | 2 | 15 | 15 | | | |

① FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

② WHERE THE STANDARD 2 2/3"x ½" CORRUGATION AND GAUGE IS SPECIFIED FOR A GIVEN DIAMETER, A PIPE OF THE SAME DIAMETER WITH A 3" x 1" OR 5" x 1" CORRUGATION MAY BE SUBSTITUTED, PROVIDING IT IS GAUGED FOR A FILL HEIGHT CONDITION EQUAL TO OR GREATER THAN THE MAXIMUM FILL HEIGHT CONDITION FOR THE SPECIFIED GAUGE AND CORRUGATION.

- LEGEND -

$D_o$ = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM
= STRUCTURAL BACKFILL MATERIAL
= UNDISTURBED SOIL
EQUIV. DIA. = EQUIVALENT DIAMETER
H = FILL COVER HEIGHT OVER PIPE (FEET)




## EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE (ROUND).
3. INSTALALTION TYPE 1 SHALL BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 2⅔" X ½" CORRUGATION.
4. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 3" X 1" OR 5" X 1" CORRUGATION.

## GENERAL NOTES

1. METAL PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. METAL PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. METAL PIPE CULVERT MATERIALS AND INSTALLATIONS SHALL CONFORM TO SECTION 606 AND JOB SPECIAL PROVISION "METAL PIPE".
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
9. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

| DATE | REVISION | DATE FILMED |
|---|---|---|
| 2-27-14 | REVISED GENERAL NOTE 1. | |
| 12-15-11 | REVISED FOR LRFD DESIGN SPECS | |
| 3-30-00 | REVISED INSTALLATIONS | |
| 11-06-97 | ISSUED | |

ARKANSAS STATE HIGHWAY COMMISSION

# METAL PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCM-1

| INSTALLATION TYPE | •• MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING |
|---|---|
| TYPE 2 | •SELECTED MATERIALS (CLASS SM-1, SM-2 OR SM-4) |

• AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7) MAY BE USED IN LIEU OF SELECTED MATERIAL.

SM3 WILL NOT BE ALLOWED.

•• STRUCTURAL BEDDING MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 1INCH. STRUCTURAL BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, STONES LARGER THAN 1.50 INCH IN GREATEST DIMENSION, OR FROZEN LUMPS.

STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF HDPE PIPE.

## MULTIPLE INSTALLATION OF HIGH DENSITY POLYETHYLENE PIPES

| PIPE DIAMETER | CLEAR DISTANCE BETWEEN PIPES |
|---|---|
| 18" | 1'-6" |
| 24" | 2'-0" |
| 30" | 2'-6" |
| 36" | 3'-0" |
| 42" | 3'-6" |
| 48" | 4'-0" |

## MINIMUM TRENCH WIDTH BASED ON FILL HEIGHT "H"

| PIPE DIAMETER | TRENCH WIDTH (FEET) | |
|---|---|---|
| | "H" < 10'-0" | "H" >OR= 10'-0" |
| 18" | 4'-6" | 4'-6" |
| 24" | 5'-0" | 6'-0" |
| 30" | 5'-6" | 7'-6" |
| 36" | 6'-0" | 9'-0" |
| 42" | 7'-0" | 10'-6" |
| 48" | 8'-0" | 12'-0" |

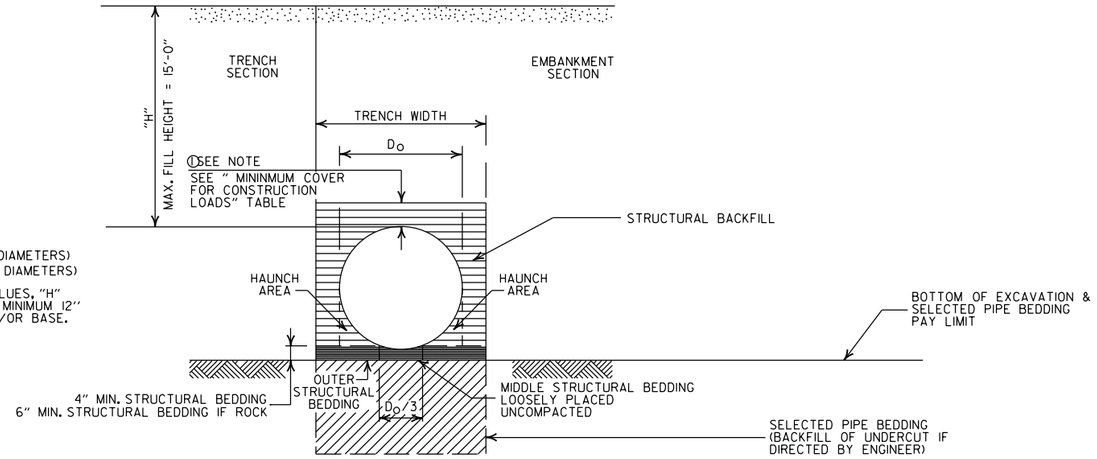
①NOTE:
18" MIN. (18" - 30" DIAMETERS)
24" MIN. (36" - 48" DIAMETERS)

MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

## MINIMUM COVER FOR CONSTRUCTION LOADS

| PIPE DIAMETER | ② MIN. COVER (FEET) FOR INDICATED CONSTRUCTION LOADS | | | |
|---|---|---|---|---|
| | 18.0-50.0 (KIPS) | 50.0-75.0 (KIPS) | 75.0-110.0 (KIPS) | 110.0-175.0 (KIPS) |
| 36" OR LESS | 2'-0" | 2'-6" | 3'-0" | 3'-0" |
| 42" OR GREATER | 3'-0" | 3'-0" | 3'-6" | 4'-0" |

②MINIMUM COVER SHALL BE MEASURED FROM TOP OF PIPE TO TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE. THE SURFACE SHALL BE MAINTAINED.




## TYPE 2 EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

## CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8". THE LAYERS SHALL BE BROUGHT UP EVENLY AND SIMULTANEOUSLY TO THE ELEVATION OF THE MINIMUM COVER.
5. PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, WEIGHTING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.

## GENERAL NOTES

1. PIPE SHALL CONFORM TO AASHTO M294, TYPE S. INSTALLATION SHALL CONFORM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICIATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).
2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT HAUNCHING AND OTHER BACKFILL MATERIAL.
4. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
5. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
6. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."
7. FOR PIPE TYPES THAT ARE NOT SMOOTH ON THE OUTSIDE (CORRUGATED OR PROFILE WALLS), BACKFILL GRADATIONS SHOULD BE SELECTED THAT WILL PERMIT THE FILLING OF THE CORRUGATION OR PROFILE VALLEY.
8. HIGH DENSITY POLYETHYLENE PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR HDPE PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN AASHTO SECTION 26.4.2.4 AND 30.4.2 "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

## - LEGEND -

H = FILL HEIGHT (FT.)
D = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM

= STRUCTURAL BACKFILL MATERIAL

= UNDISTURBED SOIL

| DATE | REVISION | DATE FILMED |
|---|---|---|
| 2-27-14 | REVISED GENERAL NOTE 1. | |
| 12-15-11 | REVISED GENERAL NOTES & MINIMUM COVER NOTE | |
| 11-17-10 | ISSUED | |

ARKANSAS STATE HIGHWAY COMMISSION

# PLASTIC PIPE CULVERT (HIGH DENSITY POLYETHYLENE)

STANDARD DRAWING PCP-1

| INSTALLATION TYPE | •• MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING |
|---|---|
| TYPE 2 | •SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) |

• AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7) MAY BE USED IN LIEU OF SELECTED MATERIAL.

SM3 WILL NOT BE ALLOWED.

•• STRUCTURAL BEDDING MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 1INCH. STRUCTURAL BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, STONES LARGER THAN 1.50 INCH IN GREATEST DIMENSION, OR FROZEN LUMPS.

STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF PVC PIPE.

## MINIMUM TRENCH WIDTH BASED ON FILL HEIGHT "H"

| PIPE DIAMETER | TRENCH WIDTH (FEET) | |
|---|---|---|
| | "H" < 10'-0" | "H" >OR= 10'-0" |
| 18" | 4'-6" | 4'-6" |
| 24" | 5'-0" | 6'-0" |
| 30" | 5'-6" | 7'-6" |
| 36" | 6'-0" | 9'-0" |

## MULTIPLE INSTALLATION OF PVC PIPES

| PIPE DIAMETER | CLEAR DISTANCE BETWEEN PIPES |
|---|---|
| 18" | 1'-6" |
| 24" | 2'-0" |
| 30" | 2'-6" |
| 36" | 3'-0" |

## MAXIMUM FILL HEIGHT BASED ON STRUCTURAL BACKFILL

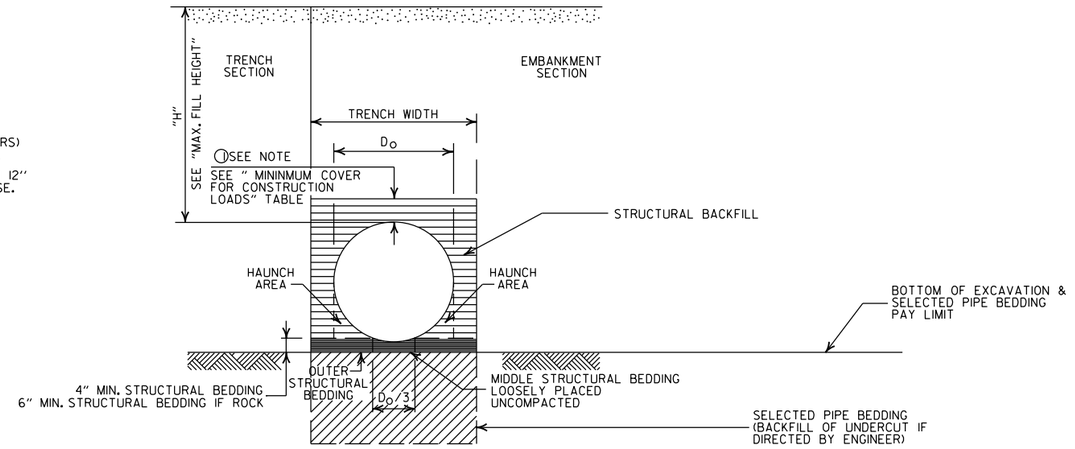
| PIPE DIAMETER | "H" |
|---|---|
| 18" | 45'-0" |
| 24" | 45'-0" |
| 30" | 40'-0" |
| 36" | 40'-0" |

① NOTE:
12" MIN. (18" - 36" DIAMETERS)
MINIMUM COVER VALUE, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

## MINIMUM COVER FOR CONSTRUCTION LOADS

| PIPE DIAMETER | ② MIN. COVER (FEET) FOR INDICATED CONSTRUCTION LOADS | | | |
|---|---|---|---|---|
| | 18.0-50.0 (KIPS) | 50.0-75.0 (KIPS) | 75.0-110.0 (KIPS) | 110.0-175.0 (KIPS) |
| 18" THRU 36" | 2'-0" | 2'-6" | 3'-0" | 3'-0" |

②MINIMUM COVER SHALL BE MEASURED FROM TOP OF PIPE TO TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE. THE SURFACE SHALL BE MAINTAINED.




## TYPE 2 EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

## CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8". THE LAYERS SHALL BE BROUGHT UP EVENLY AND SIMULTANEOUSLY TO THE ELEVATION OF THE MINIMUM COVER.
5. PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, WEIGHTING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.

## GENERAL NOTES

1. PIPE SHALL CONFORM TO ASTM F949, CELL CLASS 12454. INSTALLATION SHALL CONFORM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).
2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT HAUNCHING AND OTHER BACKFILL MATERIAL.
4. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
5. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
6. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."
7. FOR PIPE TYPES THAT ARE NOT SMOOTH ON THE OUTSIDE (CORRUGATED OR PROFILE WALLS), BACKFILL GRADATIONS SHOULD BE SELECTED THAT WILL PERMIT THE FILLING OF THE CORRUGATION OR PROFILE VALLEY.
8. PVC PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR PVC PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN AASHTO SECTION 26.4.2.4 AND 30.4.2 "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

## - LEGEND -

H = FILL HEIGHT (FT.)
$D_O$ = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM

= STRUCTURAL BACKFILL MATERIAL
= UNDISTURBED SOIL

| DATE | REVISION | DATE FILMED |
|---|---|---|
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| 2-27-14 | REVISED GENERAL NOTE 1. | |
| 12-15-11 | REV GENERAL NOTES & MINIMUM COVER NOTE; DELETED SM3 MATERIAL | |
| 11-17-10 | ISSUED | |

ARKANSAS STATE HIGHWAY COMMISSION

# PLASTIC PIPE CULVERT (PVC F949)

STANDARD DRAWING PCP-2

| INSTALLATION TYPE | **MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING |
|---|---|
| TYPE 1 | AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7) |
| TYPE 2 | *SELECTED MATERIALS (CLASS SM-1, SM-2 OR SM-4) OR TYPE 1 INSTALLATION MATERIAL |

*SM3 WILL NOT BE ALLOWED.

** STRUCTURAL BEDDING MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 1INCH. STRUCTURAL BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, STONES LARGER THAN 1.50 INCH IN GREATEST DIMENSION, OR FROZEN LUMPS.

STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF POLYPROPYLENE PIPE.

## MULTIPLE INSTALLATION OF POLYPROPYLENE PIPES

| PIPE DIAMETER | CLEAR DISTANCE BETWEEN PIPES |
|---|---|
| 18" | 1'-6" |
| 24" | 2'-0" |
| 30" | 2'-6" |
| 36" | 3'-0" |
| 42" | 3'-6" |
| 48" | 4'-0" |
| 60" | 5'-0" |

## MINIMUM TRENCH WIDTH BASED ON FILL HEIGHT "H"

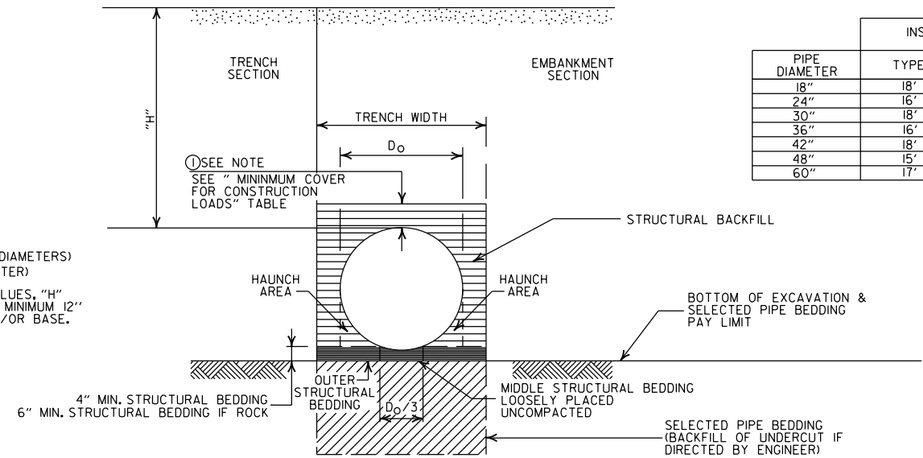
| PIPE DIAMETER | TRENCH WIDTH (FEET) | |
|---|---|---|
| | "H" < 10'-0" | "H" >OR= 10'-0" |
| 18" | 4'-6" | 4'-6" |
| 24" | 5'-0" | 6'-0" |
| 30" | 5'-6" | 7'-6" |
| 36" | 6'-0" | 9'-0" |
| 42" | 7'-0" | 10'-6" |
| 48" | 8'-0" | 12'-0" |
| 60" | 10'-0" | 15'-0" |

①NOTE:
12" MIN. (18" - 42" DIAMETERS)
24" MIN. (60" DIAMETER)

MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

## MAXIMUM HEIGHT OF FILL "H"

| PIPE DIAMETER | INSTALLATION TYPE | |
|---|---|---|
| | TYPE 1 | TYPE 2 |
| 18" | 18' | 14' |
| 24" | 16' | 12' |
| 30" | 18' | 14' |
| 36" | 16' | 12' |
| 42" | 18' | 13' |
| 48" | 15' | 11' |
| 60" | 17' | 12' |




## MINIMUM COVER FOR CONSTRUCTION LOADS

| PIPE DIAMETER | ② MIN. COVER (FEET) FOR INDICATED CONSTRUCTION LOADS | | | |
|---|---|---|---|---|
| | 18.0-50.0 (KIPS) | 50.0-75.0 (KIPS) | 75.0-110.0 (KIPS) | 110.0-150.0 (KIPS) |
| 36" OR LESS | 2'-0" | 2'-6" | 3'-0" | 3'-0" |
| 42" OR GREATER | 3'-0" | 3'-0" | 3'-6" | 4'-0" |

②MINIMUM COVER SHALL BE MEASURED FROM TOP OF PIPE TO TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE. THE SURFACE SHALL BE MAINTAINED.

## EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

## CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8". THE LAYERS SHALL BE BROUGHT UP EVENLY AND SIMULTANEOUSLY TO THE ELEVATION OF THE MINIMUM COVER.
5. PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, WEIGHTING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.

## GENERAL NOTES

1. PIPE SHALL CONFORM TO AASHTO M330, TYPE S, INSTALLATION SHALL CONFORM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICIATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).
2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SIXTH EDITION (2012) WITH 2013 INTERIMS.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT HAUNCHING AND OTHER BACKFILL MATERIAL.
4. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
5. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
6. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."
7. FOR PIPE TYPES THAT ARE NOT SMOOTH ON THE OUTSIDE (CORRUGATED OR PROFILE WALLS), BACKFILL GRADATIONS SHOULD BE SELECTED THAT WILL PERMIT THE FILLING OF THE CORRUGATION OR PROFILE VALLEY.
8. POLYPROPYLENE PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR POLYPROPYLENE PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN SECTION 26.4.2.4 AND 30.4.2 OF THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS 3RD EDITION (2010) WITH 2012 INTERIMS. JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

## - LEGEND -

H = FILL HEIGHT (FT.)
$D_O$ = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM

= STRUCTURAL BACKFILL MATERIAL

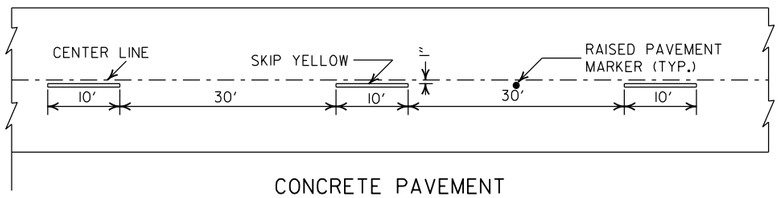
= UNDISTURBED SOIL

| DATE | REVISION | DATE FILMED |
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| 02-27-20 | REVISED | |
| 11-07-19 | ISSUED | |

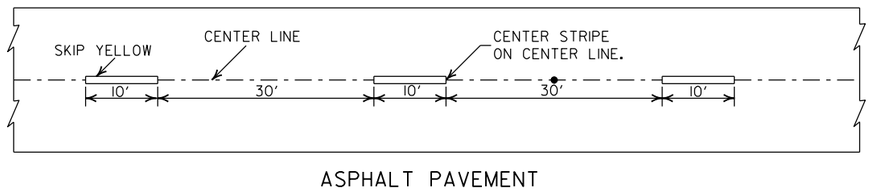
ARKANSAS STATE HIGHWAY COMMISSION

# PLASTIC PIPE CULVERT (POLYPROPYLENE)

STANDARD DRAWING PCP-3

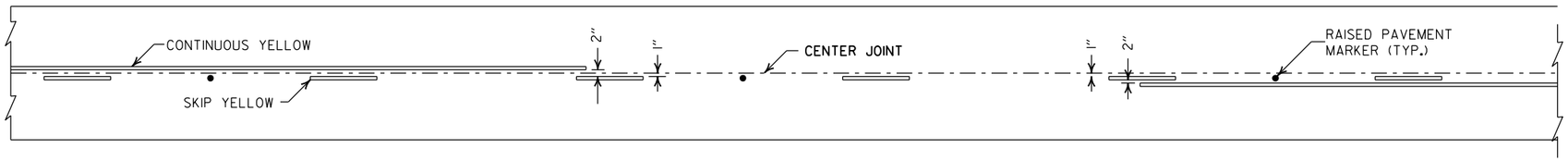



CONCRETE PAVEMENT

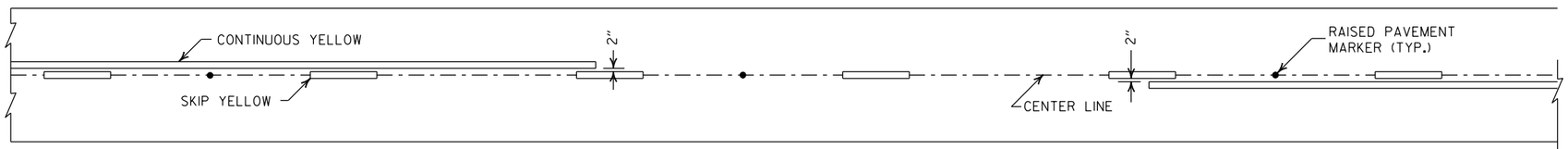



ASPHALT PAVEMENT

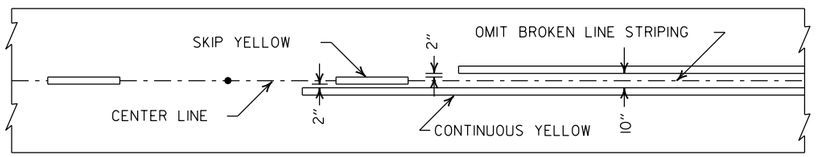
## BROKEN LINE STRIPING



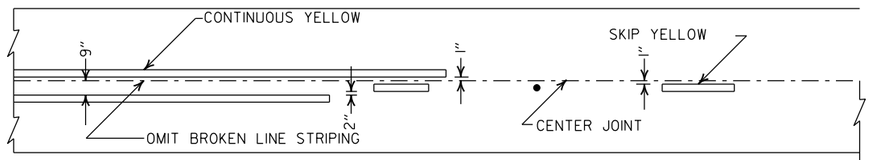

## SOLID LINE STRIPING ON CONCRETE PAVEMENT




## SOLID LINE STRIPING ON ASPHALT PAVEMENT

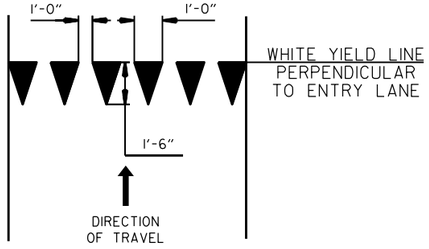



ASPHALT PAVEMENT

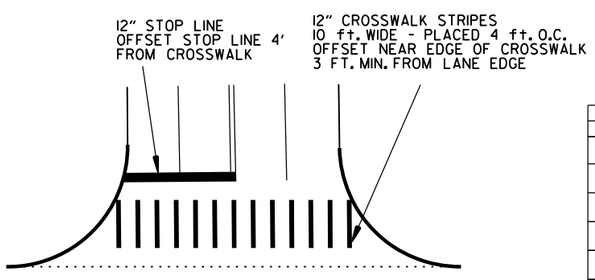



CONCRETE PAVEMENT

## STRIPING AT ADJACENT NO PASSING LANES

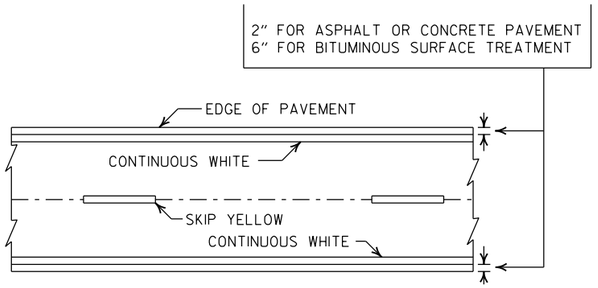



## YIELD LINE DETAIL




## CROSSWALK AND STOP LINE DETAILS

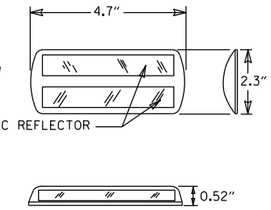
NOTES:
1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE WIDTHS.
2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
3. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLANS.




## PAVEMENT EDGE LINE MARKING

NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.

TYPE II
RED/CLEAR OR
YELLOW/YELLOW




NOTE:
DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE ARDOT QUALIFIED PRODUCTS LIST.

## DETAIL OF STANDARD RAISED PAVEMENT MARKERS

| DATE | REVISION | FILMED |
|---|---|---|
| 2-27-20 | REVISED STOP LINE DETAILS | |
| 6-1-17 | ADDED YIELD LINE DETAIL | |
| 5-12-16 | REVISED LINE WIDTHS, SPACING, & NOTES | |
| 9-12-13 | REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS | |
| 11-17-10 | REVISED GENERAL NOTES & REMOVED PLOWABLE PVMT MRKRS | |
| 11-18-04 | REVISED NOTE 2 & GENERAL NOTES | |
| 8-22-02 | ADDED CROSSWALK & STOPBAR DTLS. | |
| 7-02-98 | ADDED DETAILS OF STD. RAISED PAV'T. MARKERS | |
| 4-26-96 | REV. NOTES 3&4; ADDED R.P.M. | |
| 9-30-80 | DRAWN | 1-9-30-80 |

ARKANSAS STATE HIGHWAY COMMISSION

# PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

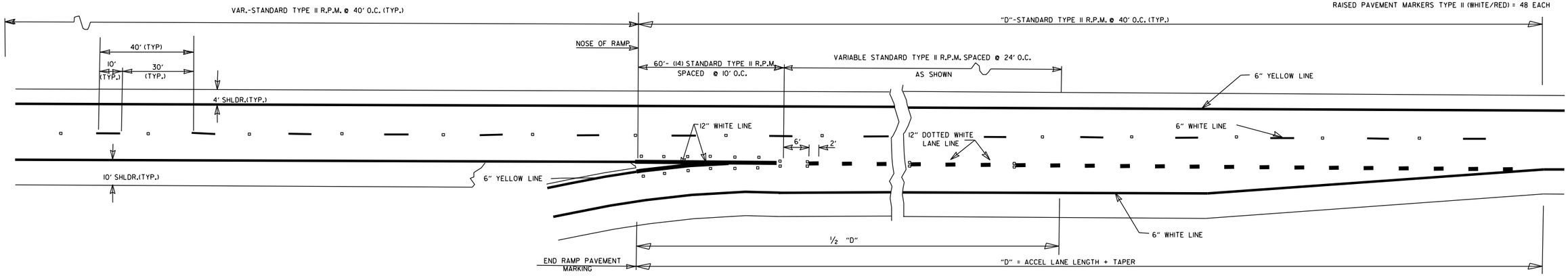
PAVEMENT MARKING QUANTITIES
(BASED ON 700' ACCEL. LANE + 300' TAPER)

ENTRANCE RAMP

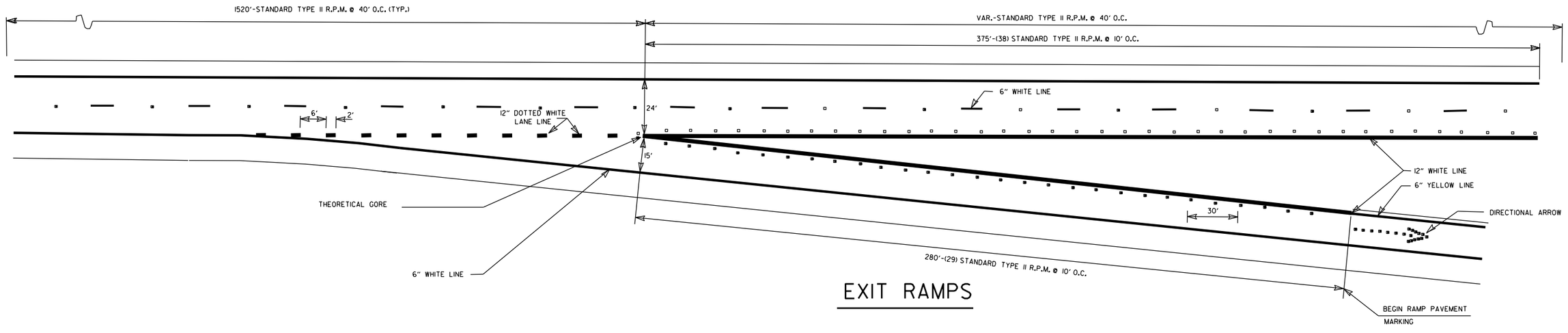
12" WHITE = 370 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

EXIT RAMP

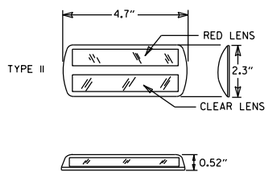
6" WHITE = 280 LIN. FT.
12" WHITE = 815 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH




## ENTRANCE RAMPS

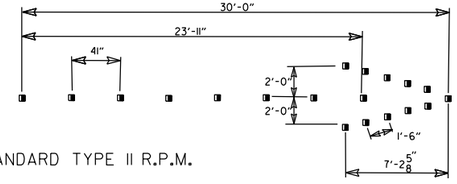



## EXIT RAMPS




DETAIL OF
STANDARD
RAISED PAVEMENT MARKERS

NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.




(19) STANDARD TYPE II R.P.M.

DIRECTIONAL ARROWS

GENERAL NOTES:

THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND PAVEMENT MARKERS SHALL BE DETERMINED BY THE ENGINEER.

THIS DRAWING SHOULD BE USED IN CONJUNCTION WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION.

NOTE:
DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE ARDOT QUALIFIED PRODUCTS LIST.

| DATE | REVISION | FILMED |
|---|---|---|
| 05-14-20 | REMOVED CROSSHATCH MARKINGS ON EXIT RAMPS | |
| 11-07-19 | REVISED DOTTED PAV'T MARKINGS; ADDED CROSSHATCH MARKINGS ON EXIT RAMPS | |
| 12-8-16 | REVISED RAISED PAV'T MARKERS FOR 80' SPACING; REVISED WIDTH OF STRIPING | |
| 9-12-13 | REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS | |
| 7-26-12 | REVISED RPM NOTATION | |
| 12-15-11 | REVISED RPMs ACCORDING TO LATEST POLICY | |
| 11-17-10 | REMOVED PLOWABLE PAVEMENT MARKERS | |
| 6-3-10 | REVISED PER 2009 MUTCD | |
| 11-18-04 | REVISED NOTES | |
| 8-22-02 | ADDED & REVISED NOTES; REV. ENTRANCE & EXIT RAMPS | |
| 5-18-00 | REMOVED HASHMARKS | |
| 7-02-98 | CHANGED TYPES TO ROMAN NUMERALS | |
| 4-26-96 | ADDED DIMENSIONS & QUANTITIES; REVISED LANE WIDTH ON EXIT RAMP | |
| 2-2-95 | PLACED IN USE | 2-2-95 |

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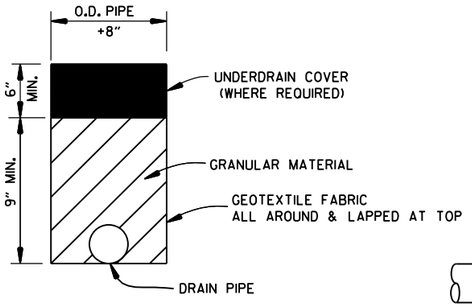
# PAVEMENT MARKING DETAILS ON ACCESS CONTROLLED ROADWAYS

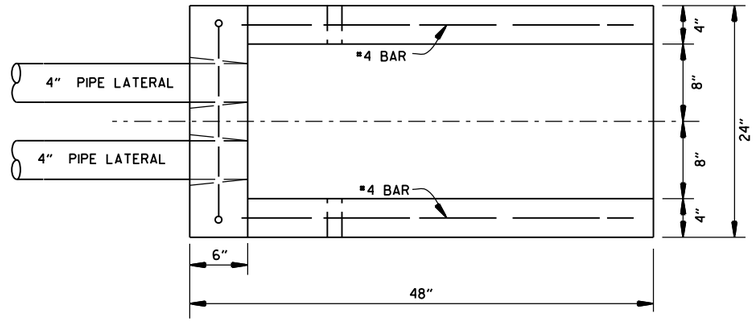
STANDARD DRAWING PM-2

NOTE:

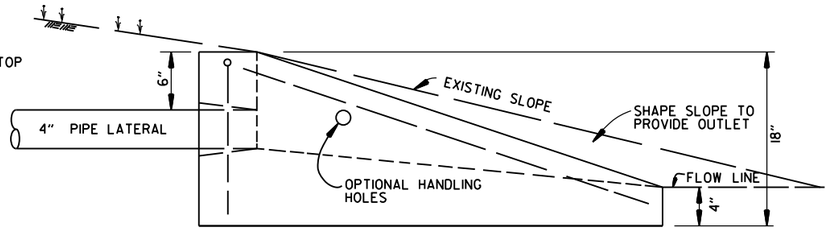
1. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.

2. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.

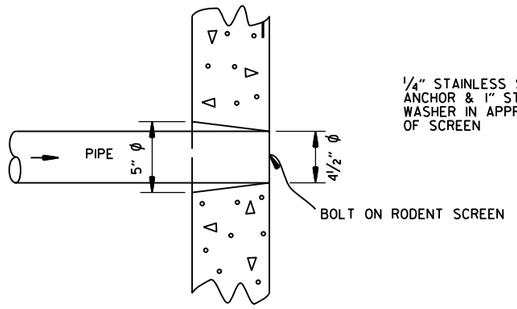


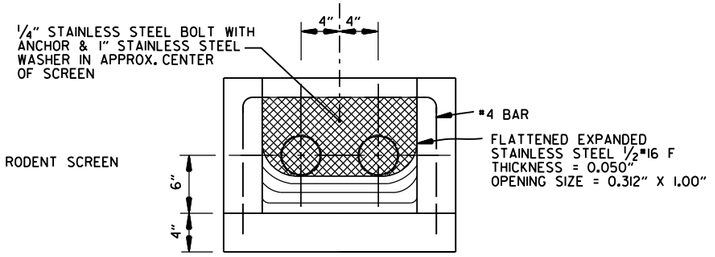

PLAN VIEW



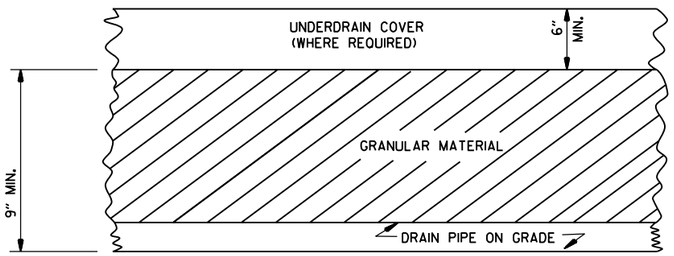

SIDE VIEW




DETAIL OF HOLE
FOR 4" PIPE




FRONT VIEW
(DETAIL OF RODENT SCREEN)




DETAILS OF PIPE UNDERDRAIN

## NOTES FOR PIPE UNDERDRAINS

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 625 FOR TYPE 1. PAYMENT FOR GEOTEXTILE FABRIC AND GRANULAR FILTER MATERIAL SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR "4" PIPE UNDERDRAINS" IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

2. 4" NON-PERFORATED SCHEDULE 40 PVC PIPE LATERALS WITH OUTLET PROTECTORS SHALL BE INSTALLED AS SHOWN HEREON. LATERALS WILL BE MEASURED AND PAID FOR AS "4" PIPE UNDERDRAINS." UNDERDRAIN OUTLET PROTECTORS WILL BE MEASURED AND PAID FOR BY THE UNIT IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

3. EXISTING 4" PIPE UNDERDRAINS MAY BE CONNECTED TO PROPOSED DROP INLETS OR EXTENDED WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS."

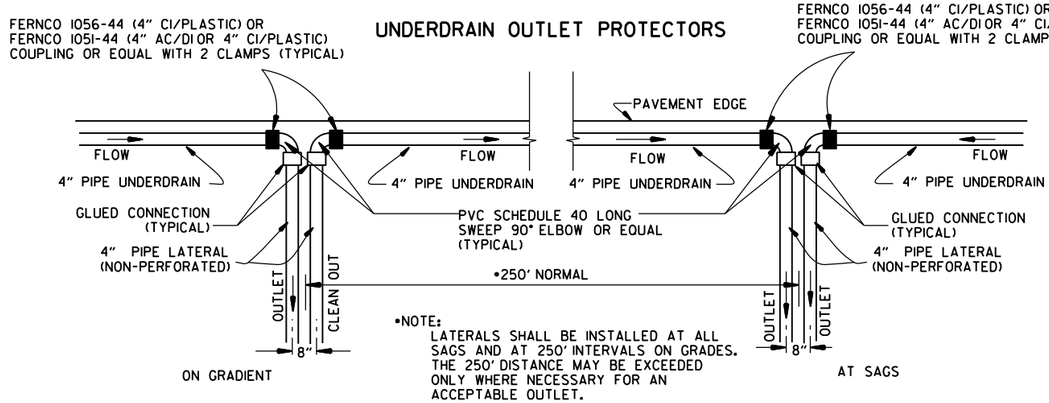
4. THE LOCATION OF ALL LATERALS SHALL BE MARKED WITH 4" X 12" PERMANENT PAVEMENT MARKING TAPE (TYPE III WHITE) AT THE OUTSIDE EDGE OF THE SHOULDER, PLACED TRANSVERSE TO TRAFFIC. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

5. PAYMENT FOR THE RODENT SCREEN SHALL BE INCLUDED IN THE PRICE BID PER EACH FOR "UNDERDRAIN OUTLET PROTECTORS."

6. ANY EXISTING UNDERDRAINS THAT INTERFERE WITH INSTALLATION OF THE NEW UNDERDRAIN SYSTEM SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS. EXISTING UNDERDRAIN OUTLET PROTECTORS SHALL BE REMOVED UNDER THE ITEM "REMOVAL AND DISPOSAL OF UNDERDRAIN OUTLET PROTECTORS."

7. AT LOCATIONS WHERE A SINGLE LATERAL IS USED THE CONTRACTOR SHALL HAVE THE FOLLOWING OPTIONS: 1. INSTALL OUTLET PROTECTOR AS SHOWN ON STANDARD DRAWING PU-1 AND GROUT THE UNUSED HOLE OR 2. INSTALL AN OUTLET PROTECTOR WITH A SINGLE HOLE.

## UNDERDRAIN OUTLET PROTECTORS




DETAIL OF PIPE UNDERDRAIN LATERALS
WHEN PLACED ALONG PAVEMENT EDGE

NOTE: PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE.

| DATE | REVISION | DATE FILMED |
|---|---|---|
| 12-8-16 | ADDED NOTES FOR PIPE UNDERDRAINS, REVISED RODENT SCREEN DETAIL AND NOTES, REMOVED NOTE 1 FOR GRANULAR MATERIAL, ADDED NOTE FOR GEOTEXTILE FABRIC | |
| 4-10-03 | REVISED NOTE 3 | |
| 1-12-00 | REVISED DETAIL OF UNDERDRAIN LATERALS | |
| 11-18-98 | REVISED NOTE | |
| 10-18-96 | REVISED MIN. DEPTH & GEOTEXTILE FABRIC | |
| 4-26-96 | ADDED LATERAL NOTE; 5½" TO 5" | |
| 11-22-95 | REVISED LATERALS | |
| 7-20-95 | REVISED LATERALS & ADDED NOTE | |
| 11- 3-94 | REVISED FOR DUAL LATERALS | 11- 3-94 |
| 10- 1-92 | SUBSTITUTED GEOTEXTILE | 10- 1-92 |
| 8-15-91 | ADDED POLYEDTHYLENE PIPE | 8-15-91 |
| 11- 8-90 | DELETED ALTERNATE NOTE | 11- 8-90 |
| 1-25-90 | ADDED 4" SNAP ADAPTER | 1-25-90 |
| 11-30-89 | DEL. (SUBGRADE); ADDED (WHERE REQUIRED) | 11-30-89 |
| 7-15-88 | ISSUED P.L.M. | 647-7-15-88 |

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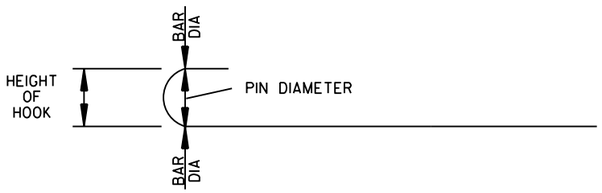
# DETAILS OF PIPE UNDERDRAIN

STANDARD DRAWING PU-1

STEEL FABRICATION: REINFORCING STEEL FABRICATION SHALL CONFORM TO THE DIMENSIONS LISTED IN THE TABLE BELOW:

| BAR SIZE | PIN DIAMETER | HOOK EXTENSION "K" |
|---|---|---|
| 3 | 2¼" | 4" |
| 4 | 3 " | 4½" |
| 5 | 3¾" | 5" |
| 6 | 4½" | 6" |
| 7 | 5¼" | 7" |
| 8 | 6" | 8" |

IF THE OVERALL HEIGHT OF THE HOOK (SEE DIAGRAM BELOW) FOR A "b", "b1", "b2" or "b3" BENT BAR IS GREATER THAN THE CORRESPONDING TOP OR BOTTOM SLAB THICKNESS, LESS 2¾ INCHES, EACH BENT BAR SHALL BE REPLACED WITH ONE HOOKED BAR AND ONE STRAIGHT BAR, USING LENGTHS AS SHOWN IN THE TABLE BELOW. THE TWO BARS SHALL BE THE SAME DIAMETER AS, AND PLACED AT THE SAME SPACING AS, THE "b", "b1", "b2" OR "b3" BENT BARS THEY REPLACE.




NOTE: DIMENSIONS OF BARS ARE MEASURED OUT TO OUT OF BARS.

OVERALL HEIGHT OF HOOKED BAR DIAGRAM

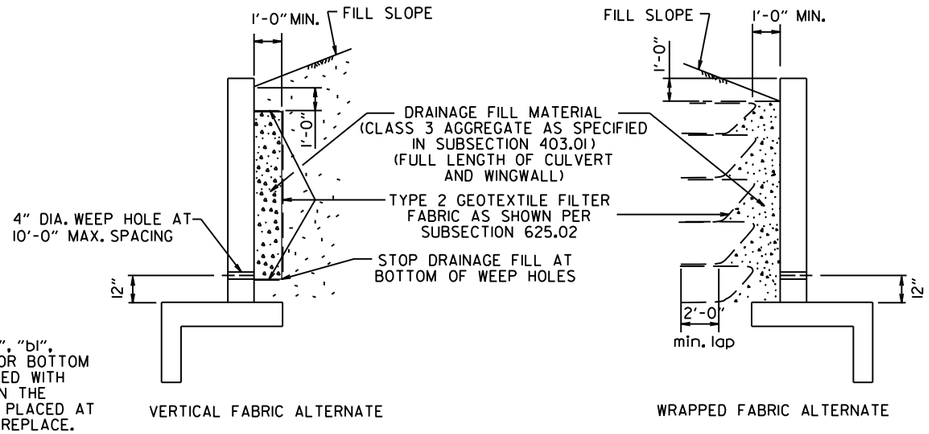
THE HOOKED BARS SHALL BE PLACED IN THE BOTTOM OF THE TOP SLAB AND THE TOP OF THE BOTTOM SLAB. THE STRAIGHT BARS SHALL BE PLACED IN THE TOP OF THE TOP SLAB AND THE BOTTOM OF THE BOTTOM SLAB. SEE TABLE BELOW FOR LENGTHS OF REPLACEMENT HOOKED AND STRAIGHT BARS.

FOR SKEWED CULVERTS, THE REPLACEMENT STRAIGHT BAR MAY HAVE TO BE CUT IN FIELD TO FIT.

REPLACEMENT BAR LENGTHS TABLE

| BAR SIZE: "b", "b1", "b2" OR "b3" | LENGTH OF HOOKED BAR | LENGTH OF STRAIGHT BAR |
|---|---|---|
| #4 | L + 1' - 0" | SEE "c" BAR LENGTH |
| #5 | L + 1' - 2" | SEE "c" BAR LENGTH |
| #6 | L + 1' - 4" | SEE "c" BAR LENGTH |
| #7 | L + 1' - 8" | SEE "c" BAR LENGTH |
| #8 | L + 1' - 10" | SEE "c" BAR LENGTH |
| #9 | L + 2' - 6" | SEE "c" BAR LENGTH |

L = "OW" - 3 INCHES




WINGWALL & CULVERT DRAINAGE DETAIL

REINFORCED CONCRETE BOX CULVERT GENERAL NOTES

CONCRETE SHALL BE CLASS S WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3500 PSI.

REINFORCING STEEL SHALL BE AASHTO M 31 OR M 53, GRADE 60.

CONSTRUCTION AND MATERIALS FOR WINGWALL & CULVERT DRAINAGE, INCLUDING WEEP HOLES AND GRANULAR MATERIAL, SHALL BE SUBSIDIARY TO THE BID ITEM, "CLASS S CONCRETE".

MEMBRANE WATERPROOFING SHALL CONFORM TO THE REQUIREMENTS OF SECTION 815 OF THE STANDARD SPECIFICATIONS.

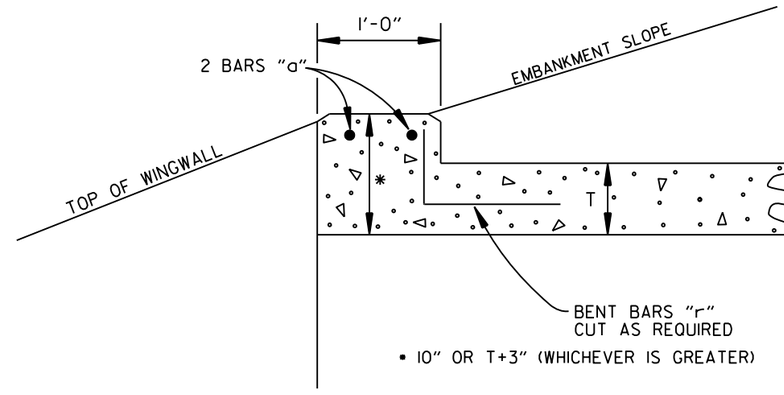
MEMBRANE WATERPROOFING SHALL BE APPLIED TO ALL CONSTRUCTION JOINTS IN THE TOP SLAB AND THE SIDEWALLS OF R.C. BOX CULVERTS AS DIRECTED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THIS ITEM, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS BID FOR THE R.C. BOX CULVERT.

REINFORCING STEEL TOLERANCES: THE TOLERANCES FOR REINFORCING STEEL SHALL MEET THOSE LISTED IN "MANUAL OF STANDARD PRACTICE" PUBLISHED BY CONCRETE REINFORCING STEEL INSTITUTE (CRSI) EXCEPT THAT THE TOLERANCE FOR TRUSS BARS SUCH AS FIGURE 3 ON PAGE 7-4 OF THE CRSI MANUAL SHALL BE MINUS ZERO TO PLUS ½ INCH.

WEEP HOLES IN BOX CULVERT WALLS SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE BOTTOM SLAB.

WEEP HOLES IN WINGWALLS SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THERE SHALL BE A MINIMUM OF TWO (2) WEEP HOLES IN EACH WINGWALL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE WINGWALL FOOTING.

THE REQUIREMENTS SHOWN ON THIS DRAWING SHALL SUPERCEDE THE CORRESPONDING REQUIREMENTS ON ALL REINFORCED CONCRETE BOX CULVERT STANDARD DRAWINGS.




NOTE: FOR ALL SKEWED R.C. BOX CULVERTS THE LENGTH "K" OF THE MODIFIED HEADWALL SHALL BE EQUAL TO THE ROADWAY LENGTH "RL". THE ENDS OF THE HEADWALL SHALL BE CONSTRUCTED PARALLEL TO THE SKEW ANGLE OF THE BOX CULVERT.

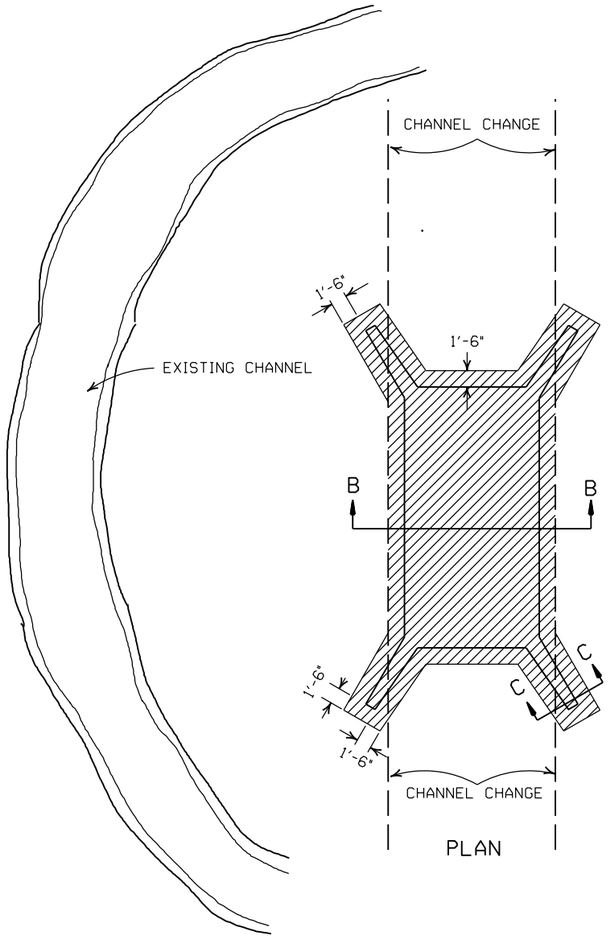
R.C. BOX CULVERT HEADWALL MODIFICATIONS

| DATE | REVISION | DATE FILMED |
|---|---|---|
| 7/26/12 | REV. DRAINAGE FILL MATERIAL & DETAIL | |
| 12/15/11 | REQUIRE WEEP HOLES IN BOX CULVERT WALLS | |
| 5-25-06 | REV. GEN. NOTES AND DETAILS FOR WEEP HOLES; BAR DIAGRAM | |
| 11-16-01 | ADDED WINGWALL DRAINAGE DETAIL/EDITED GEN. NOTES | |
| 10-18-96 | REV. ASTM REF. TO AASHTO & ADDED BAR DIAGRAM | |
| 10-12-95 | MOVED SOLID SODDING DETAIL TO RCB-2 | |
| 6-2-94 | ADDED SOLID SODDING PLAN DETAIL | |
| 8-5-93 | REVISED PIN DIAMETER TO SPECS. | |
| 8-15-91 | DRAWN AND ISSUED | |

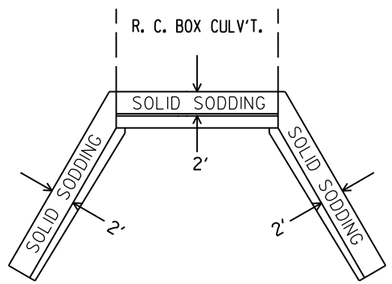
ARKANSAS STATE HIGHWAY COMMISSION

REINFORCED CONCRETE BOX CULVERT DETAILS

STANDARD DRAWING RCB-1



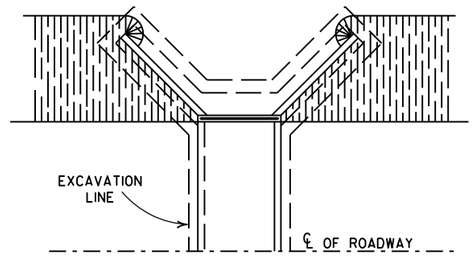

PLAN



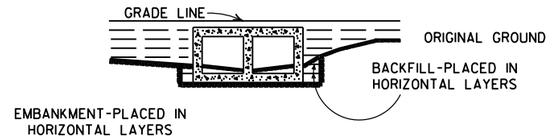

PLAN

PARTIAL SECTION SHOWING SOLID SODDING AT HEADWALLS AND WING WALLS

NOTE: LENGTH MEASURED ALONG THE CENTER OF 2' STRIP OF SOLID SODDING.

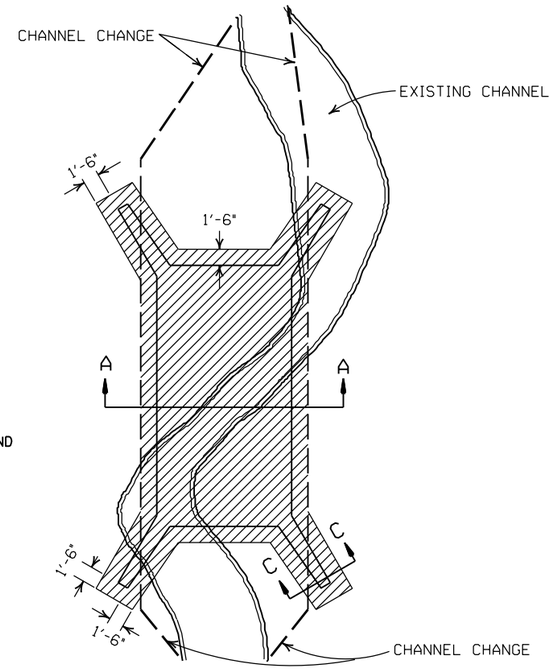



PLAN

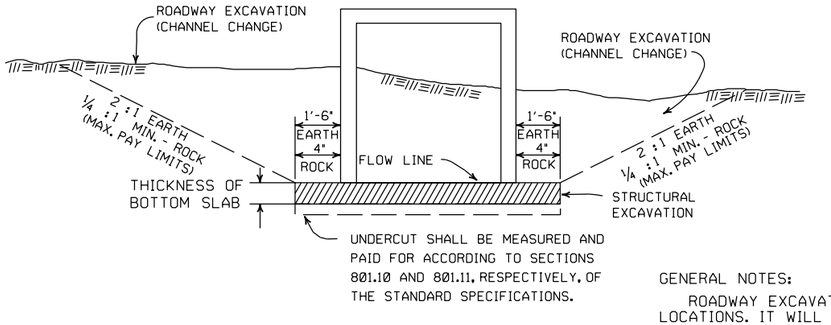



LONGITUDINAL SECTION

# BACKFILL DETAILS FOR BOX CULVERT

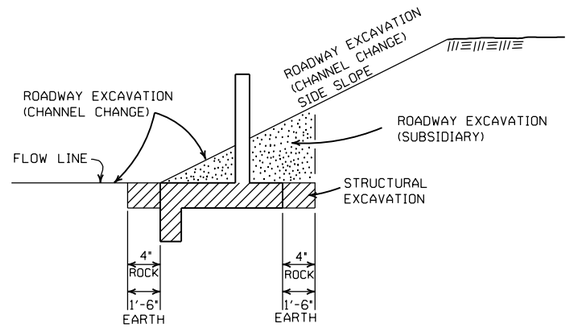



PLAN

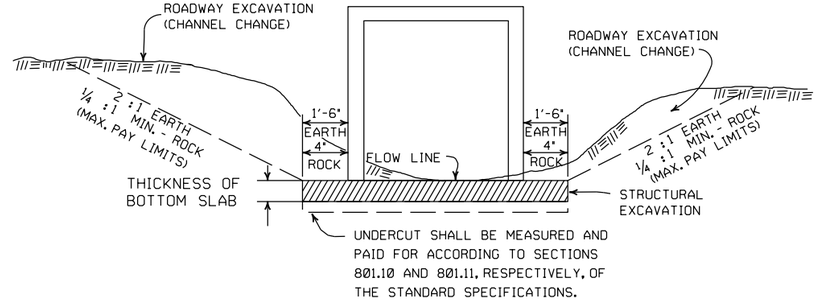



SECTION B-B

# DETAILS FOR NEW CHANNELS




SECTION C-C




SECTION A-A

# DETAILS THROUGH EXISTING CHANNELS

GENERAL NOTES:

ROADWAY EXCAVATION (CHANNEL CHANGE) WILL BE PAID FOR AT R.C. BOX CULVERT LOCATIONS. IT WILL BE PAID TO THE LIMITS ACTUALLY CUT AND WILL BE CONFINED TO THAT PORTION OF THE INDICATED AREA THAT IS ABOVE THE FLOW LINE. ROADWAY EXCAVATION (CHANNEL CHANGE) SHALL BE MEASURED BY CROSS SECTIONS AND VOLUMES COMPUTED BY AVERAGE END AREA METHOD. ALL CHANNEL CHANGES SHALL BE BROUGHT TO GRADE PRIOR TO MAKING ANY EXCAVATION FOR STRUCTURES.

EXCAVATION FOR STRUCTURES WILL BE PAID FOR AT ALL R.C. BOX CULVERT LOCATIONS. IT WILL BE PAID TO THE LIMITS SHOWN AND SHALL BE CONFINED TO THAT PORTION OF THE INDICATED AREA THAT IS BELOW THE CHANNEL FLOW LINE.

ROADWAY EXCAVATION SHOWN IN SECTION C-C ABOVE AS SUBSIDIARY WILL NOT BE MEASURED OR PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION.

| DATE | REVISION | FILMED |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| 11-20-03 | REVISED SECTION A-A NOTE | |
| 8-22-02 | REVISED SECTION B-B NOTE | |
| 10-12-95 | COMBINED 1891B AND 1888A | |
| 1-4-83 | REVISED GENERAL NOTES | 674-1-4-83 |
| | AND ADDED MAXIMUM PAY | |
| | LIMIT NOTES. | |
| 2-2-76 | EXCAV. PAY LIMITS | 917-2-2-76 |
| 10-2-72 | REVISED AND REDRAWN | 564-10-16-72 |

ARKANSAS STATE HIGHWAY COMMISSION

# EXCAVATION PAY LIMITS, BACKFILL, & SOLID SODDING FOR BOX CULVERTS

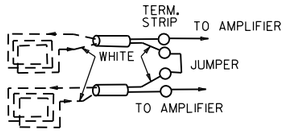
STANDARD DRAWING RCB-2

# LOOP DETECTOR INSTALLATION AND TESTING

NOTES:

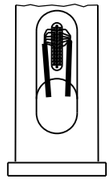
1. LOOPS WITH A PERIMETER GREATER THAN 40' SHALL HAVE TWO TURNS. LOOPS WITH A PERIMETER LESS THAN OR EQUAL TO 40' SHALL HAVE THREE TURNS, UNLESS OTHERWISE NOTED ON THE PLANS. QUADRUPOLE LOOPS SHALL BE TWO TURNS IN A (2-4-2 CONFIGURATION), UNLESS OTHERWISE NOTED ON THE PLANS.
2. LOOP AND FEEDER WIRE SHALL BE CONTINUOUS WITHOUT SPLICES EXCEPT AT THE LOOP/FEEDER WIRE SPLICE AS SHOWN. SPLICES SHALL BE ROSIN SOLDERED AND WATERPROOFED WITH AN ACCEPTED SPLICE KIT. A DRIAN WIRE SHALL BE GROUNDED IN THE CABINET AND INSULATED AT THE LOOP TO FEEDER WIRE SPLICE.
3. THE LOOP TO FEEDER WIRE SPLICE, THE FEEDER WIRE JACKET AND LOOP WIRE JACKET IN DUCT SHALL BE COMPLETELY SEALED AND WATERPROOFED.
4. THE CONTRACTOR MAY MAKE CONNECTIONS TO THE SIGNAL CABLE AND LOOP TO FEEDER WIRE CONNECTION AT THE TERMINAL STRIPS MOUNTED TO POLE INSIDE THE HAND HOLD COVER AS SHOWN IN DETAIL. HANDHOLE TERMINALS MUST BE EASILY ACCESSIBLE, BUT PROTECTED AGAINST ACCIDENTAL CONTACT. THE CONNECTION OF POWER CARRYING CIRCUITS MUST BE SEPERATED FROM LOOP OR LOGIC CIRCUITS. ALL CONNECTIONS TO TERMINAL STRIPS SHALL UTILIZE SPADE LUGS OR AS APPROVED BY THE ENGINEER.
5. EACH LOOP SHALL HAVE A SEPERATE "FEEDER WIRE" UNLESS OTHERWISE NOTED ON THE PLANS. ALL FEEDER WIRES SHALL BE LABELED AS TO LOOP NUMBER AS DESIGNATED ON THE PLANS.
6. ALL LOOP WIRE ENTERING CONCRETE PULL BOXES SHALL BE ENCLOSED IN CONDUIT. EACH LOOP WIRE SHALL ENTER CONCRETE PULL BOX OR POLE BASE THROUGH A SEPARATE PIECE OF ONE (1.25") INCH CONDUIT.
7. LOOP WIRE FROM LOOP TO CONDUIT IS NOT TWISTED. LOOP WIRE IN THE CONDUIT MUST BE TWISTED TWO TO FIVE TURNS PER FOOT.
8. "30-DAY PERFORMANCE TEST SHALL NOT COMMENCE UNTIL ALL LOOPS ARE TESTED BY THE CONTRACTOR, THEN APPROVED AND ACCEPTED BY THE ENGINEER, AND THE TESTING RECORDS HAVE BEEN SUBMITTED TO THE ENGINEER. THE WARRENTY PERIOD FOR LOOPS SHALL NOT COMMENCE UNTIL TESTED BY THE CONTRACTOR AND ACCEPTED BY THE ENGINEER. THE CONTRACTOR SHALL PERFORM TEST AND PROVIDE A RECORD TO THE ENGINEER AS LISTED IN THE LOOP DETECTOR TESTING PROCEDURE.
9. UNLESS OTHERWISE APPROVED BY THE ENGINEER, BACKER ROD SHALL BE INSTALLED IN SHORT SECTIONS SPACED NO MORE THAN 18" APART AND WEDGED INTO THE SLOT TO THE CABLE IN PLACE. CABLE SHALL BE TOTALLY ENCAPSULATED IN SEALER.
10. "HOT POUR" SEALER SHALL NOT ALLOW WITH 705-LOOP WIRING IN DUCT.
11. WHERE UNDERGROUND SPLICES OF SIGNAL CABLE ARE REQUIRED. CONNECTIONS SHALL BE SOLDERED AND COMPLETELY WATERPROOFED TO THE SATISIFACTION OF THE ENGINEER. WATERPROOFING SHALL EXTEND A MININUM OF TWO (2") INCHES PAST THE SIGNAL CABLE JACKET AND SHALL COMPLETELY COVER ALL INDIVIDUAL CONDUCTORS OF THE SIGNAL CABLE. WATERPROOFING DOES NOT APPLY TO CONNECTIONS MADE IN POLE BASES.
12. THE CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE. ONLY ONE NEUTRAL IS REQUIRED FOR PEDESTRIAN SIGNALS. A SEPERATE 5C (TYPICAL) IS PROVIDED FOR PEDESTRIAN PUSH BUTTONS.
13. TRAFFIC CONTROLLER CABINET LAYOUT SHALL BE SUCH THAT IT IS NOT NECESSARY TO SHUT DOWN POWER TO REMOVE LOAD SWITCHES IN ORDER TO EASILY TEST OR MODIFY DETECTOR INPUTS TO THE CONTROLLER. THE CONTROLLER CABINET SHALL BE WIRED SUCH THAT THE POWER TO LOAD SWITCHES CANNOT BACKFEED TO THE LOAD SWITCH POWER BUSS DURING FLASH OPERATION.

## SERIES CONNECTED LOOPS

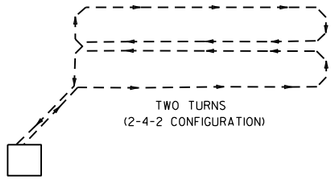



WIND LOOPS COUNTERCLOCKWISE; TAG WIRE EXITING SLOT AND TIE TO WHITE LEAD OF FEEDER WIRE; WHEN LOOPS ARE TIED TO SAME VEHICLE DETECTOR, SERIES CONNECT IN CABINET AS SHOWN.

## HANDHOLE TERMINAL

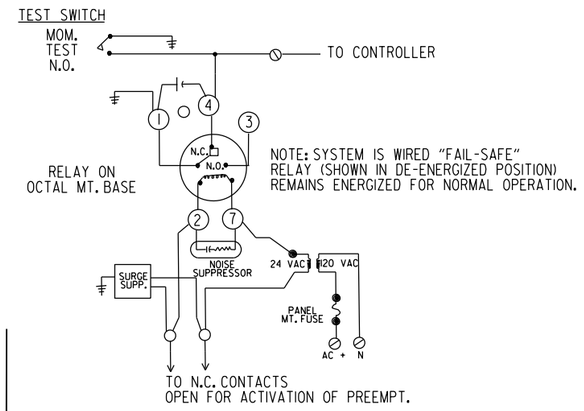


## QUADRUPOLE LOOP



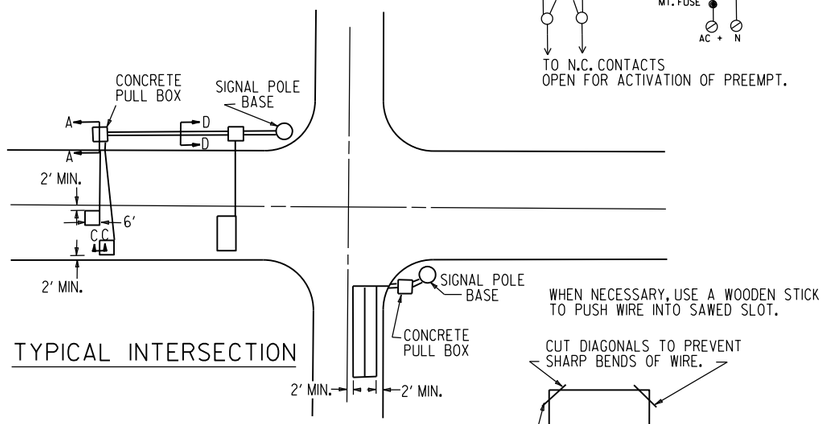
TWO TURNS
(2-4-2 CONFIGURATION)

## TRAFFIC SIGNAL PRE-EMPTION INTERFACE WIRING DIAGRAM




NOTE: SYSTEM IS WIRED "FAIL-SAFE" RELAY (SHOWN IN DE-ENERGIZED POSITION) REMAINS ENERGIZED FOR NORMAL OPERATION.

## TYPICAL INTERSECTION




WHEN NECESSARY, USE A WOODEN STICK TO PUSH WIRE INTO SAWED SLOT.

CUT DIAGONALS TO PREVENT SHARP BENDS OF WIRE.

SLOT CUT BY SAW SHOWING OVERLAP TO PROVIDE FULL DEPTH AT CORNERS.

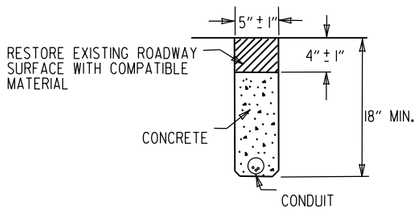
## TYPICAL PROCEDURE FOR DETECTOR LOOP TESTING

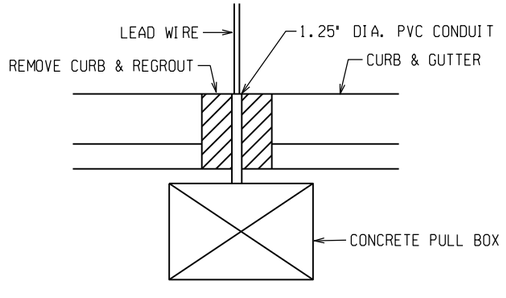
1. DISCONNECT AND TEST CONTINUITY (< 10 OHMS) IF CONTINUITY IS BAD, GO TO TEST 3.
2. TEST INSULATION (@ 500 VOLT TEST > 10 MEG-OHM)

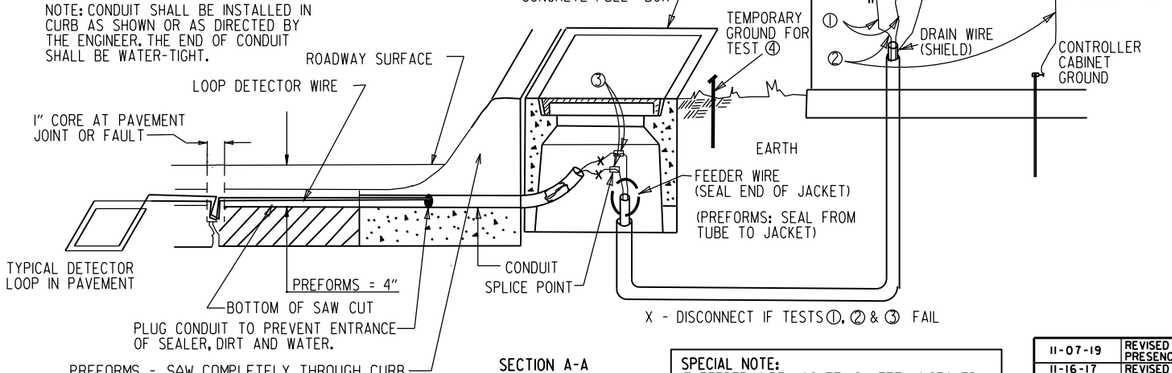
   IF TESTS 1& 2 ARE GOOD, NO FURTHER TESTING IS NECESSARY. RECORDED RESULTS CONSIST OF TESTS 1& 2 FROM CONTROL CABINET WITH FEEDER WIRE CONNECTED TO LOOP.
3. OPEN SPACE (DO NOT BREAK CONNECTION) REPEAT TEST 1& 2 IF TEST 3 IS BAD, GO TO TEST 4.
4. BREAK SPLICE, INSTALL JUMPER IN CABINET, REPEAT TESTS 1& 2 SEPARATELY FOR FEEDER AND FOR LOOP.

FAILURES TYPICALLY RESULT FROM BROKEN WIRE IN PAVEMENT, FAULTY INSULATION OF LOOP OR FEEDER WIRE, OR POORLY INSULATED SPLICE CONNECTION.

## TRENCHING DETAIL
(FOR SAW CUT TRENCH IN ROADWAY)



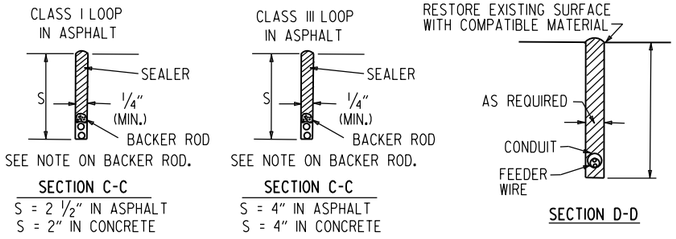




## SECTION A-A

1'-6" CONCRETE COMBINATION CURB AND GUTTER

SPECIAL NOTE:
IF FEEDER WIRE JACKET IS LEFT UNSEALED AND WATER IS ALLOWED TO ENTER JACKET, CONTRACTOR WILL BE REQUIRED TO REPLACE FEEDER WIRE AT NO COST TO DEPARTMENT.

## TYPICAL SECTIONS FOR PULSE AND PRESENCE LOOP DETECTORS



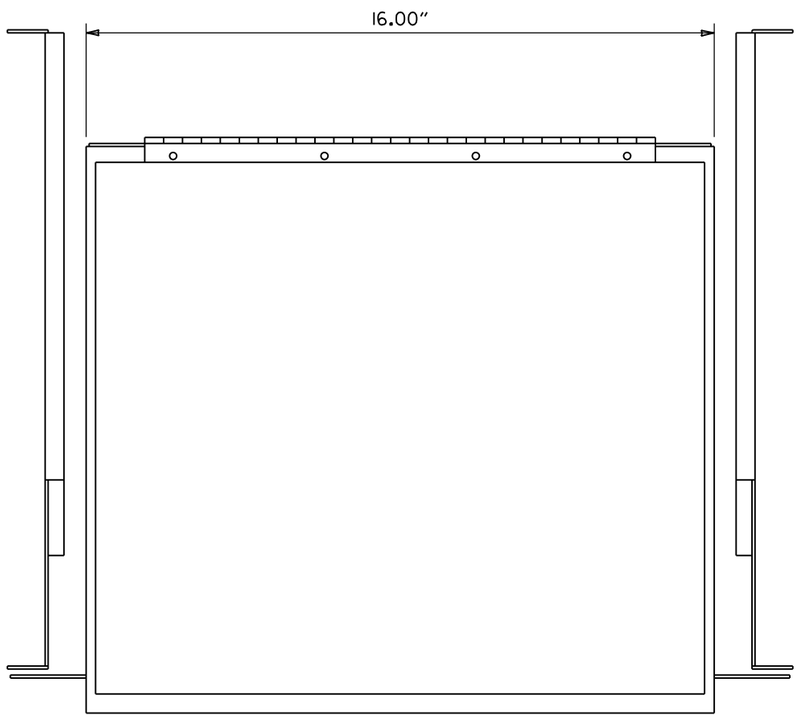

| DATE | REVISION | FILMED |
|---|---|---|
| 11-07-19 | REVISED NOTE 6 & TYPICAL FOR PRESENCE LOOP DETECTORS | |
| 11-16-17 | REVISED NOTES | |
| 09-12-13 | ISSUED AS STANDARD DRAWING | |
| 05-17-01 | REVISED | |
| 04-11-01 | REVISED | |
| 02-04-00 | REVISED PRE-EMPTION TEST SWITCH | |
| 11-18-98 | REVISED NOTES | |
| 11-21-95 | ISSUED | |

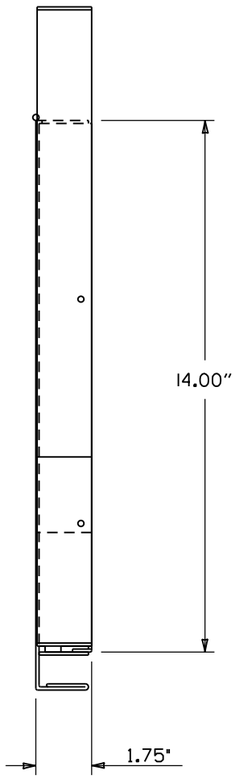
ARKANSAS STATE HIGHWAY COMMISSION

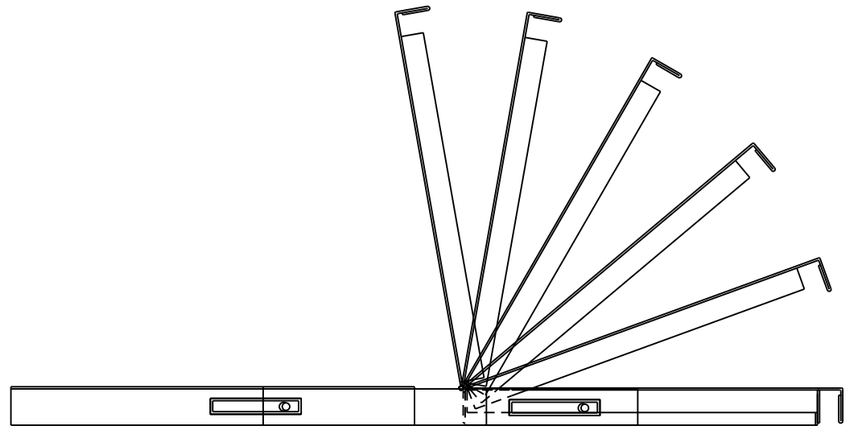
LOOP DETECTOR INSTALLATION

STANDARD DRAWING SD-4

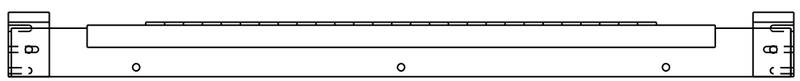
## DRAWER PLAN VIEW



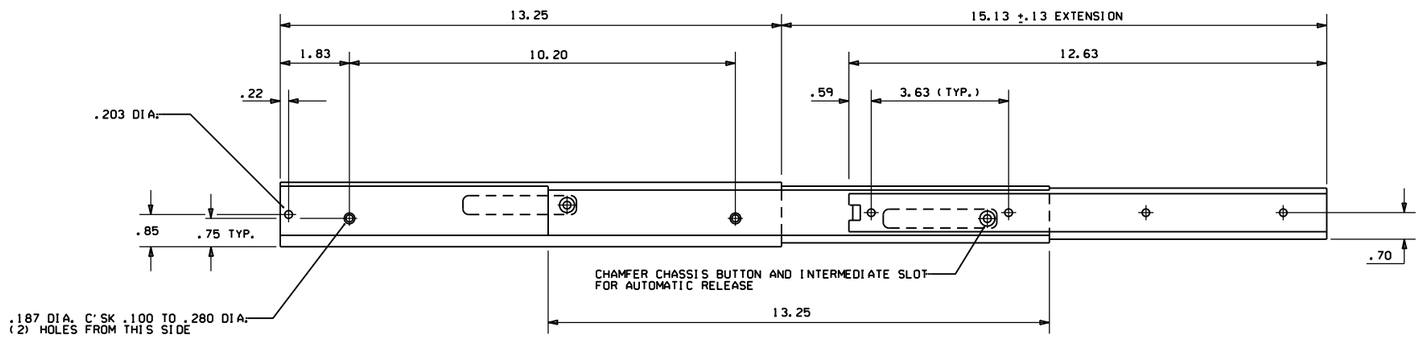



NOTES:
1. RIGHT HAND SLIDE SHOWN, LEFT SLIDE OPPOSITE.
2. GENERAL DEVICES (CC3002-99-0102) OR EQUAL AND CONTAINS (1) RIGHT HAND SLIDE ASSEMBLY, (1) LEFT HAND SLIDE ASSEMBLY.
3. ALL HARDWARE NECESSARY TO FASTEN SLIDE ASSEMBLY TO UNDERSIDE OF CONTROLLER SHELF SHALL BE INCLUDED.



FRONT VIEW




RIGHT SIDE ASSEMBLY

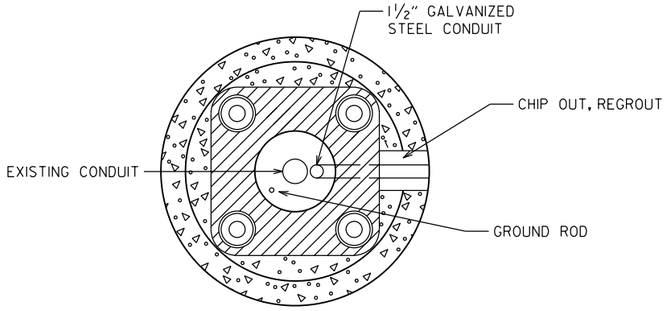
| DATE | REVISION | DATE FILM |
|---|---|---|
| | | |
| | | |
| | | |
| 9-12-13 | ISSUED AS STANDARD DRAWING | |
| 6-15-05 | ISSUED | |

ARKANSAS STATE HIGHWAY COMMISSION

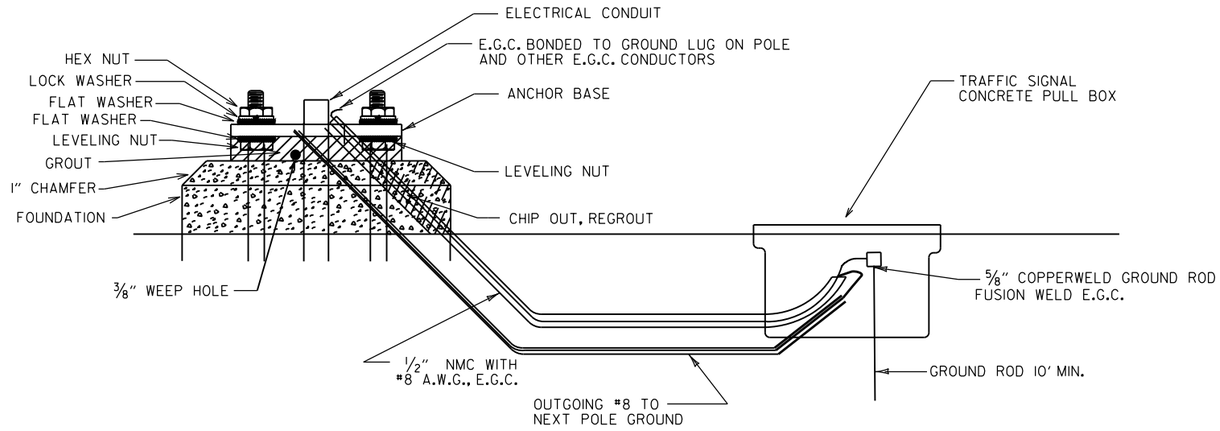
# CONTROLLER CABINET UTILITY DRAWER

STANDARD DRAWING SD-5

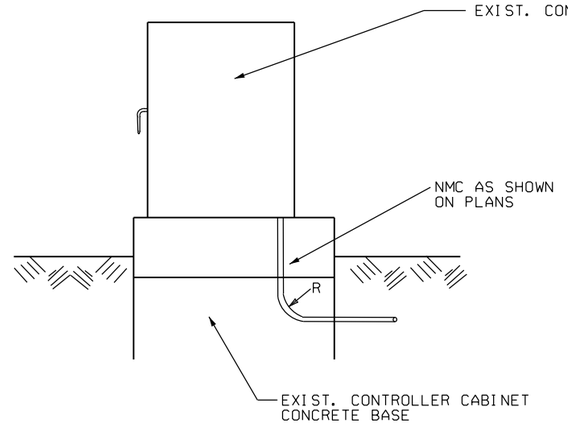
## CONDUIT ENTRY TO EXISTING POLE BASE



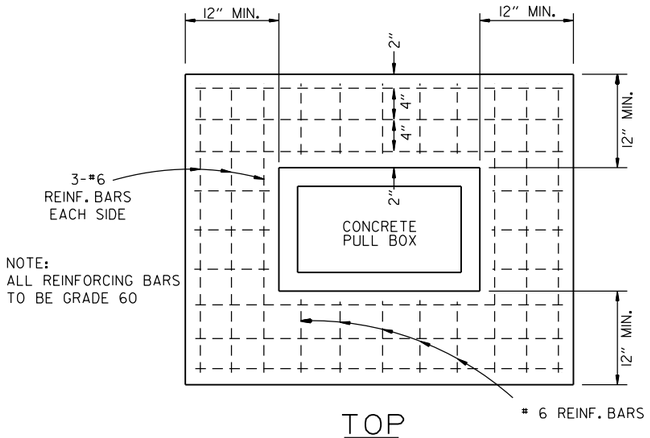

## ANCHOR BASE



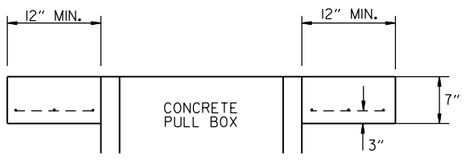

## CONDUIT ENTRY TO EXISTING CONTROLLER CABINET




NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.

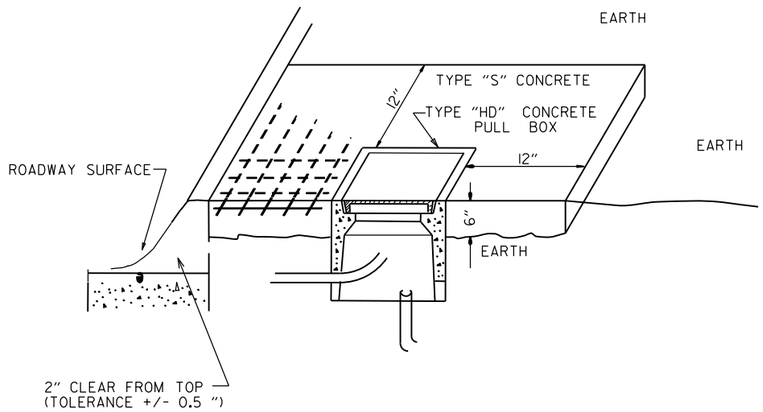



TOP




ELEVATION

## TYPE "HD" CONCRETE PULL BOX DETAIL




NOTE:
ALL TYPE 1 AND TYPE 2 HD CONCRETE PULL BOXES ARE INSTALLED WITH AN APRON OF CONCRETE 12" WIDE AND 7" IN DEPTH. ALL PAYMENT SHALL BE INCLUDED IN THE PRICE OF THE TYPE HD CONCRETE PULL BOX. THE CONCRETE PULL BOX SHALL BE INSTALLED FLUSH TO SURROUNDING GRADE UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER. THE CONCRETE SHALL BE CLASS "S". THREE #6 REINFORCING BARS IN THE APRON ON ALL SIDES OF THE CONCRETE PULL BOX IS REQUIRED IN CONCRETE.

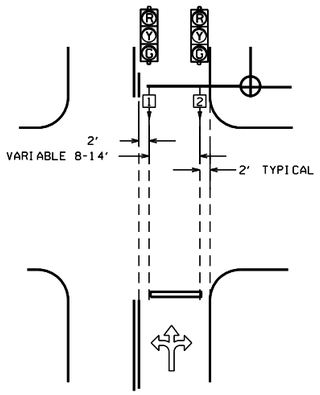
| DATE | REVISION | FILMED |
|---|---|---|
| 11-16-17 | REVISED NOTES | |
| 09-02-15 | REVISED PULL BOX DEPTH | |
| 09-12-13 | ISSUED AS STANDARD DRAWING | |
| 05-21-09 | REVISED GROUNDING | |
| 07-31-08 | ADDED & REVISED CONDUIT ENTRY | |
| 06-23-04 | REVISED CLEARANCE AT CURB ENTRY | |
| 01-04-02 | ADDED REINFORCING TO BOX APRON | |
| 07-02-01 | REVISED | |
| 12-27-99 | REVISED NOTES | |
| 11-18-98 | ISSUED | |

ARKANSAS STATE HIGHWAY COMMISSION

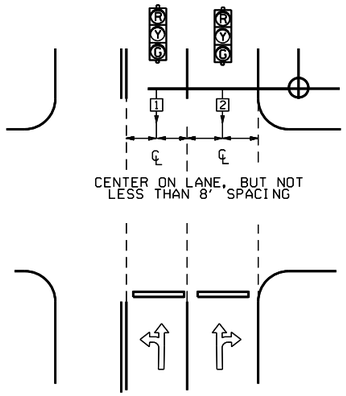
# HEAVY DUTY PULL BOX

STANDARD DRAWING SD-6

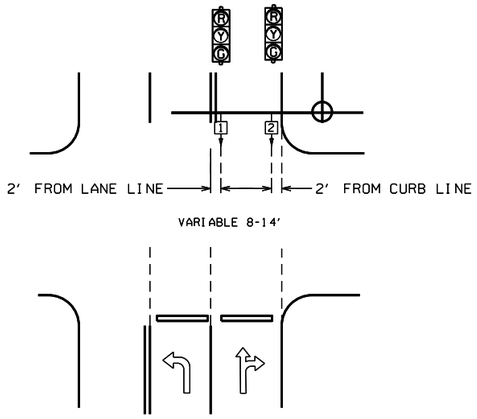
( A)



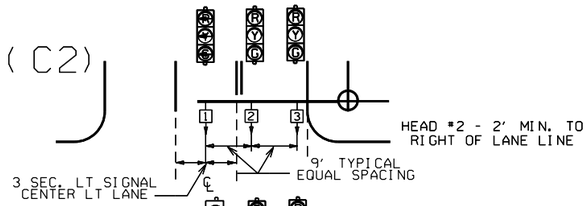

( B)



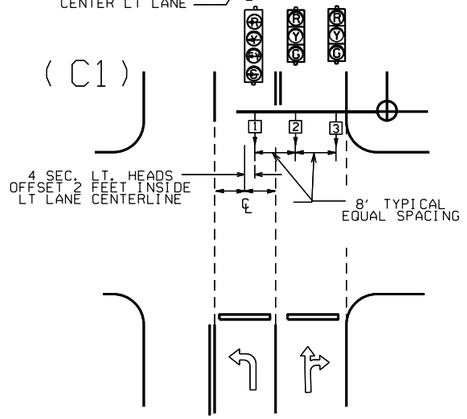

( C)



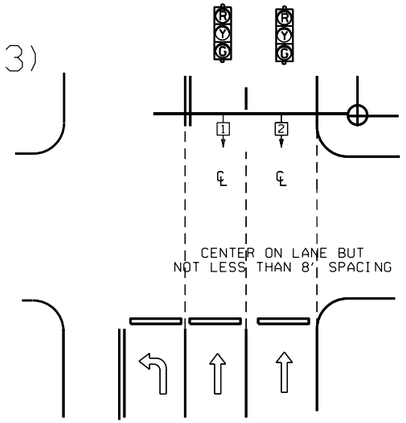

( C2)



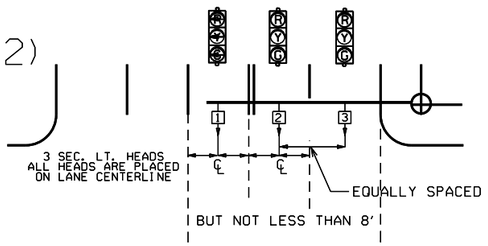

( C1 )



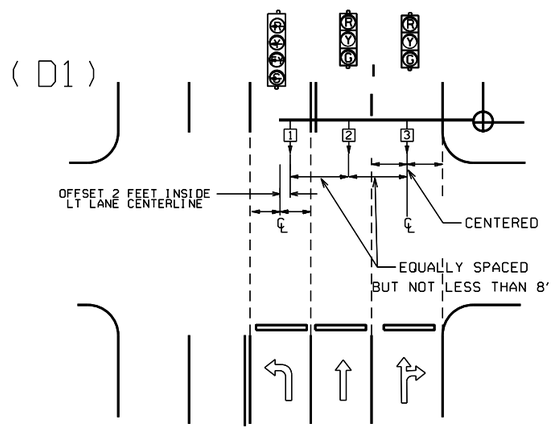

( C3)




( D2)

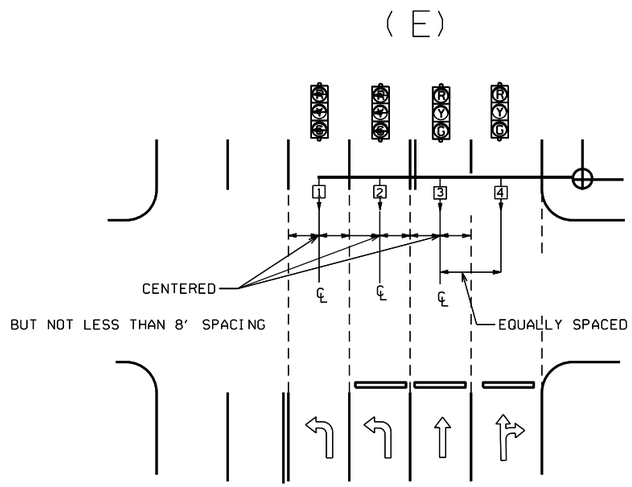



( D1 )




NOTE: WHERE LEFT TURN HEAD (HEAD 1 ON D1 AND D2) IS NOT CALLED FOR ON PLANS, MAST ARM LENGTH MAY STILL BE ALLOWED FOR FUTURE INSTALLATION. HEADS FOR THROUGH MOVEMENTS SHALL STILL BE ALIGNED WITH THROUGH LANES AS SHOWN ON DETAILS.

( E)




℄ = CENTER OF LANE FROM APPROACH SIDE

GENERAL NOTES:

1. FOUR SECTION "PROTECTED/PERMISSIVE" LEFT TURN HEADS SHOULD BE PLACED A MINIMUM OF TWO (2') FEET TO THE RIGHT OF THE CENTERLINE OF THE APPROACHING LEFT TURN LANE.

2. THREE SECTION "PROTECTED" LEFT TURN HEADS SHOULD BE PLACED ON THE CENTERLINE OF THE APPROACHING LEFT TURN LANE.

3. WHEN IT IS NECESSARY TO PLACE POLES OTHER THAN AS SHOWN ON PLAN SHEET(S) RESULTING IN MAST ARM EXTENDING MORE THAN TWO FEET PAST (TO THE LEFT OF) THE CENTERLINE OF THE APPROACHING LEFT TURN LANE, MAST ARM SHALL BE CUT TO APPROPRIATE LENGTH AS DETERMINED BY THE ENGINEER, AND A NEW END CAP PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THIS PRIOR TO INSTALLING THE MAST ARM IF ADDITIONAL COMPENSATION IS REQUIRED.

4. SIGNAL HEAD SPACING SHALL, IN NO CASE, BE LESS THAN EIGHT (8') FEET BETWEEN HEADS ON CENTER, MEASURED HORIZONTALLY PERPENDICULAR TO THE APPROACH.

5. ALL SIGNAL HEADS SHOWN ON THIS DETAIL SHEET SHALL BE LOCATED ACCORDING TO THE DIMENSIONS SHOWN IN RELATION TO THE APPROACH SIDE OF THE INTERSECTION.

6. MAXIMUM MOUNTING HEIGHT OF SIGNAL FACES LOCATED BETWEEN 40 FEET AND 53 FEET FROM STOP BAR SHALL BE IN ACCORDANCE WITH FIGURE 4D-5 OF 2009 MUTCD.

| | | |
|---|---|---|
| 12-8-16 | REVISED NOTE 6 | |
| 9-12-13 | ISSUED AS STANDARD DRAWING | |
| 3-11-10 | 2009 MUTCD | |
| 12-9-99 | ISSUED | |
| DATE | REVISION | DATE FILM |

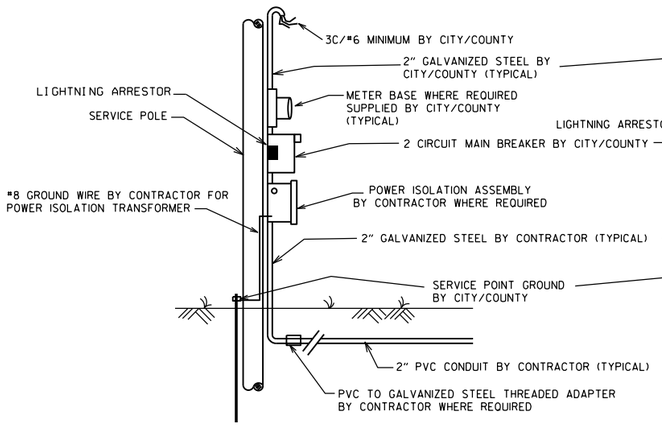
ARKANSAS STATE HIGHWAY COMMISSION

# SIGNAL HEAD PLACEMENT

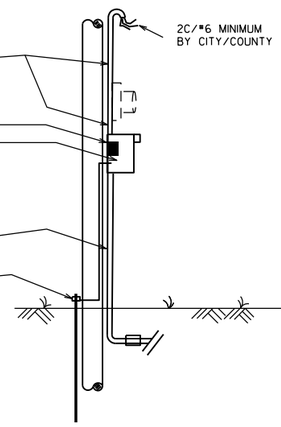
STANDARD DRAWING SD-8

# MAIN BREAKER NOT NEAR CONTROLLER CABINET SECONDARY REQUIRED

WITH POWER ISOLATION ASSEMBLY




WITHOUT POWER ISOLATION ASSEMBLY




NOTES TO CONTRACTOR AND AGENCY RESPONSIBLE FOR MAINTENANCE OF THE INTERSECTION (CITY/COUNTY):

ELECTRICAL SERVICE TYPICALLY FALLS INTO TWO CATEGORIES:
MAIN BREAKER NEAR CONTROLLER CABINET; AND MAIN BREAKER NOT NEAR CONTROLLER CABINET. THE CONTRACTOR'S AND THE CITY'S/COUNTY'S RESPONSIBILITY VARIES ACCORDINGLY AS INDICATED ON THESE DETAILS.

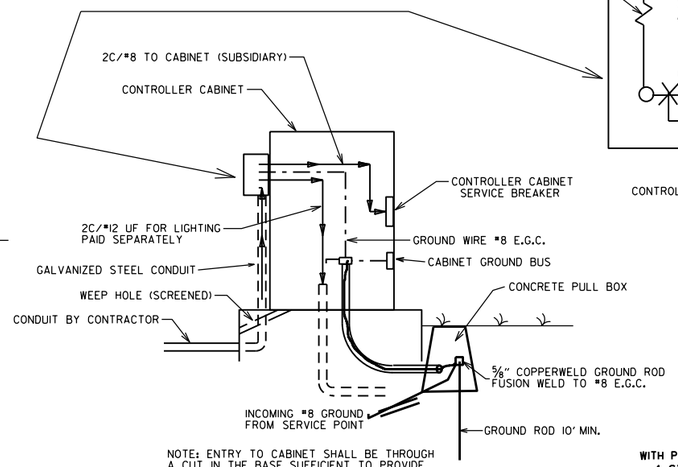
ALL SITUATIONS:
ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE WITH EXTERNAL RAINTIGHT BREAKER (MAIN BREAKER) AT A MUTUALLY ACCEPTABLE POINT WITHIN THE RIGHT-OF-WAY. SERVICE POINT INCLUDES GALVANIZED STEEL CONDUIT TO A POINT 18" BELOW GROUND LINE, TWO CIRCUIT MAIN BREAKER, LIGHTNING ARRESTOR, POWER ISOLATION ASSEMBLY WHERE REQUIRED, METER LOOP IF REQUIRED BY LOCAL UTILITY COMPANY, ELECTRICAL CONDUCTORS AND WEATHERHEAD. WHERE STREET LIGHTING IS INCLUDED AS PART OF SIGNAL INSTALLATION STREET LIGHTING CIRCUIT (2C/#12 A.W.G. UF RATED, TYPICAL) SHALL BE KEPT SEPARATE FROM THE CIRCUIT SERVING TRAFFIC SIGNAL. SERVICE WIRE AND WIRING FROM THE CONTROLLER TO MAIN BREAKER IS PROVIDED BY THE CONTRACTOR AS A PART OF THIS CONTRACT. WIRE AND WIRING FROM MAIN BREAKER, AND CONNECTION TO THE UTILITY IS THE RESPONSIBILITY OF THE CITY/COUNTY.

MAIN BREAKER NOT NEAR CONTROLLER CABINET:
THE MAIN BREAKER ASSEMBLY, GALVANIZED STEEL CONDUIT. WEATHERHEAD AND WIRE ABOVE MAIN BREAKER AND CONNECTION TO THE UTILITY SHALL BE PROVIDED BY CITY/COUNTY. CONTRACTOR SHALL PROVIDE AS PART OF CONTRACT SECONDARY BREAKER, CONDUIT, WIRE AND WIRING TO THE MAIN BREAKER.

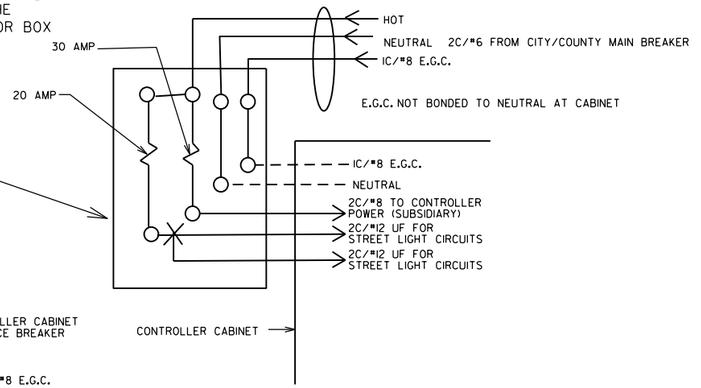
MAIN BREAKER NEAR CONTROLLER CABINET:
ALL COMPONENTS OF THE SERVICE POINT WITH THE EXCEPTION OF THE WIRE AND WIRING ABOVE THE MAIN BREAKER IS FURNISHED AND INSTALLED BY THE CONTRACTOR. WIRING FROM MAIN BREAKER INCLUDING CONNECTION TO THE UTILITY, IS THE RESPONSIBILITY OF THE CITY/COUNTY. IF METER LOOP IS REQUIRED, METER BASE AND HARDWARE IS PROVIDED BY THE CITY/COUNTY AND INSTALLED BY THE CONTRACTOR.

GROUND ROD - A 10' X 5/8" GROUND ROD SHALL BE INSTALLED IN THE CONCRETE PULL BOX FOR EACH POLE AND THE CONTROLLER. PAYMENT FOR THE GROUND ROD AND 1/2" NMC SHALL BE INCLUDED IN ITEM 701. THE CONCRETE PULL BOX AND CONDUCTOR BOX SHALL BE PAID FOR SEPARATELY.

SECONDARY BREAKER BY CONTRACTOR (SUBSIDIARY)



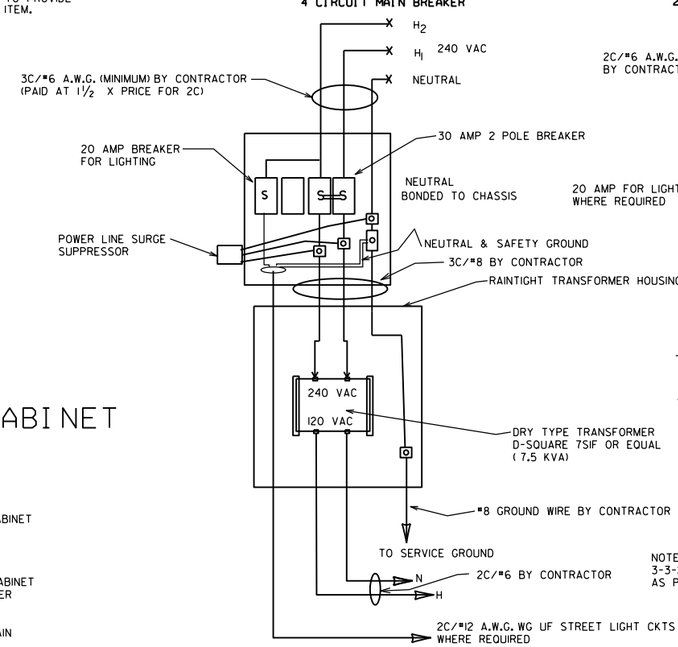

NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.



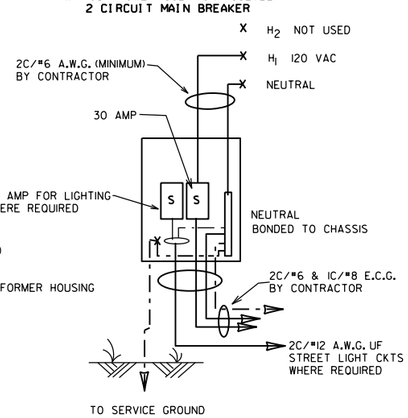

## MAIN BREAKER WIRING (TYPICAL)

SERVICE GROUND IS TYPICALLY TIED TO NEUTRAL AT THE MAIN BREAKER. AS SUCH, CONTROLLER GROUND IS NOT TIED TO NEUTRAL AT SECONDARY BREAKER OR IN CONTROLLER CABINET.

WITH POWER ISOLATION ASSEMBLY
4 CIRCUIT MAIN BREAKER

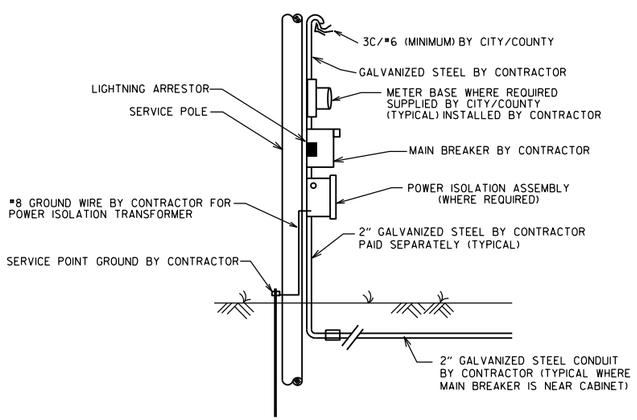


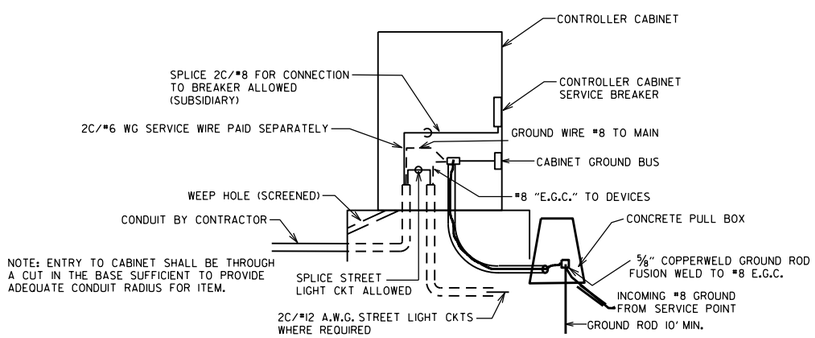

WITHOUT POWER ISOLATION ASSEMBLY
2 CIRCUIT MAIN BREAKER




NOTE: ELECTRICAL GROUND CONDUCTOR (E.C.G.) ADDED 3-3-2003, CONSISTING OF A IC/#8 A.W.G. CU GREEN WIRE AS PER NATIONAL ELECT. CODES.

# MAIN BREAKER NEAR CONTROLLER CABINET SECONDARY NOT REQUIRED




NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.

| DATE | REVISION | FILMED |
|---|---|---|
| 11-07-19 | REVISED | |
| 11-16-17 | REVISED NOTES | |
| 09-12-13 | ISSUED AS STANDARD DRAWING | |
| 04-18-13 | ADDED LIGHTNING ARRESTOR | |
| 05-21-09 | REVISED GROUNDING | |
| 07-31-08 | REVISED GROUNDING | |
| 03-03-03 | ADDED EGC NOTE | |
| 09-26-01 | REVISED | |
| 12-27-99 | REVISED | |
| 07-28-99 | REVISED | |
| 02-05-99 | ISSUED | |

ARKANSAS STATE HIGHWAY COMMISSION

SERVICE POINT

STANDARD DRAWING SD-9

NOTES:
PEDESTRIAN AND TRAFFIC SIGNAL HEAD SIGNS:
EACH ITEM "TRAFFIC SIGNAL HEAD (4 SEC., 1-WAY)" SHALL INCLUDE A SPECIAL SIGN AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD UNLESS REMOVED WITHIN THE SIGNAL PLAN NOTES.

EACH ITEM "TRAFFIC SIGNAL HEAD (3 SEC., 1-WAY)" TO BE USED AS A LEFT TURN INDICATION ONLY SHALL INCLUDE A SIGN (R10-10) AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD.

EACH PEDESTRIAN PUSHBUTTON SHALL HAVE ONE R10-3E SIGN ATTACHED TO THE POLE ABOVE THE BUTTON. ALL SIGNS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 723 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

ALL SIGN BLANKS SHALL BE CONSTRUCTED OF ALUMINUM ALLOY (ASTM DESIGNATION B-209. ALLOY 5052-H38) WITH THICKNESS OF 0.100 INCH.

GENERAL NOTES:
1. MAST ARM POLES SHALL BE MOUNTED A MINIMUM OF FOUR (4') FEET BEHIND CURB OR SHOULDER.

2. OCTAGONAL POLES AND ARMS MEETING THE REQUIREMENTS OF THE PLANS SPECIFICATIONS CAN BE INSTALLED IN LIEU OF ROUND. ALL POLES AND ARMS IN A JOB MUST BE THE SAME SHAPE.

3. MINIMUM STRUCTURAL REQUIREMENTS:
DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION (2001) WITH 2003 AND 2006 INTERIMS.

USE FATIGUE CATEGORY I FOR ALL STRUCTURES ON ROUTES WHERE THE SPEED LIMIT IS 65 MPH AND GREATER AT THE STRUCTURE LOCATION AND ON ROUTES WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH WITH AN MAST ARM OF 60' OR LONGER.

USE FATIGUE CATEGORY II FOR ALL STRUCTURES ON ROUTES WHERE THE SPEED LIMIT IS LESS THAN 65 MPH AND GREATER THAN 45 MPH WITH MAST ARMS LESS THAN 60' AND ON ROUTES WHERE THE SPEED LIMITS OF 45 MPH AND LESS WITH AN MAST ARM OF 60' OR LONGER.

USE FATIGUE CATEGORY III FOR ALL STRUCTURES WHERE THE SPEED LIMIT IS 45 MPH AND LESS AND MAST ARMS LESS THAN 60'.

CONSTRUCTION SPECIFICATIONS:
STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION) WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

BASE WIND SPEED: 90 MPH.

STEEL MEMBERS CONSIDERED MAIN LOAD CARRYING MEMBERS WITH A THICKNESS GREATER THAN ½" SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH TEST SPECIFIED IN SUBSECTION 807.05 OF THE STANDARD SPECIFICATIONS.

DEAD LOAD: AS A MINIMUM, DESIGN SHALL BE BASED ON THE FIXED ATTACHMENTS SHOWN BELOW OR AS MODIFIED IN THE PLANS.

ALL SIGNAL HEADS TO BE ONE WAY, TWELVE (12") INCH AND HAVE FIVE (5") INCH BACK PLATES:

SIGNAL HEADS AT THE END OF MAST ARM - ONE 4 SEC., 85 LB., 14.5 SQ. FT., ONE SIGN MOUNTED 3 FEET FROM SIGNAL HEAD (2'-0" X 2'-6"; 20 LB.) REMAINING SIGNAL HEADS SPACED AT 8 FT. (3 SEC., 56 LB., 8.3 SQ. FT.):
DESIGN TO ACCOMMODATE:
2 SIGNAL HEADS FOR MAST ARMS 10 FT. TO 16 FT.
3 SIGNAL HEADS FOR MAST ARMS 18 FT. TO 24 FT.
4 SIGNAL HEADS FOR MAST ARMS OVER 26 FT.

STREET NAME SIGN - 72" X 18", 36 LB., MOUNTED SUCH THAT OUTSIDE EDGE IS NOT GREATER THAT 12 FT. FROM POLE. DEPENDING UPON POSITION OF SIGNAL HEAD ADJACENT TO POLE, SIGN MAY OVERLAP POLE SHAFT.
ROADWAY LUMINAIRES (WHERE REQUIRED ON PLAN SHEET) - VARIABLE ARM LENGTH (MAX. WT. 75 LB., 3.3 SQ. FT.)
PEDESTRIAN SIGNALS - TWO 1 SEC., 12 INCH MOUNTED 8 FT. FROM BASE OF POLE. POST MOUNTED 3 SEC. SIGNAL HEAD AT 10 FT. ON SIDE OF POLE.

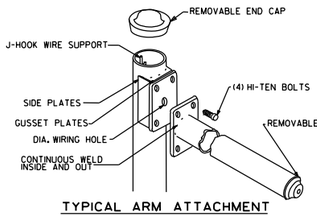
4. POLE/MAST ARM CAP - POLE AND MAST ARM CAPS SHALL BE PROVIDED, FABRICATED OF EITHER STEEL OR CAST ALUMINUM.

5. HAND HOLE - HAND HOLES SHALL BE 4 IN. X 6 IN. FOR STANDARD, AND 3 IN. X 5 IN. FOR PED POLES. MINIMUM PLACED APPROXIMATELY 12 INCHES FROM BASE, AND SHALL BE FIXED WITH A BOLT DOWN COVER. A VACCUM FORMED ABS COVER IS AN ACCEPTABLE ALTERNATE TO STEEL. POLES GREATER THAN 21FT. IN HEIGHT (FOR ROADWAY LUMINAIRE ATTACHMENT) SHALL INCLUDED A HAND HOLE WITHIN 12 INCHES OF MAST ARM(S) ATTACHMENT(S).

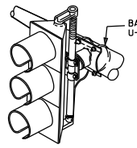
6. POLE/MAST ARM TAPER SLOPE - AVERAGE TAPER OF SIGNAL MAST ARMS AND POLE SHAFT SHALL BE 0.125 TO 0.15 INCHES PER FOOT.

MAST ARM CENTERLINE ANGLE AT ATTACHMENT POINT WITH POLE SHALL MAINTAIN NOT LESS THAN 0.5 DEGREES OR MORE THAN 4 DEGREES POSITIVE SLOPE WITH A LINE PERPENDICULAR TO THE POLE CENTERLINE. THE MAST ARM SHALL MAINTAIN A POSITIVE SLOPE AFTER IT IS PLACED UNDER LOAD.

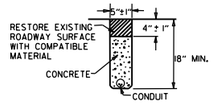
7. NUT COVERS - EACH POLE SHALL INCLUDE A BOLT DOWN NUT COVER FOR EACH ANCHOR BOLT.



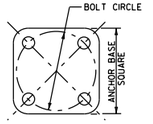

TYPICAL ARM ATTACHMENT



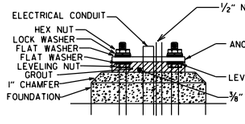

NOTE: THE SIGNAL SHALL BE CONNECTED TO THE MAST ARM BY BRACKETING AS DIRECTED BY THE ENGINEER.

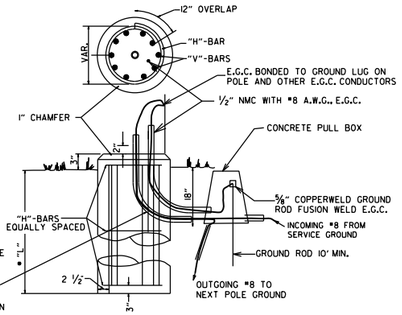



TRENCHING DETAIL
(FOR SAW CUT TRENCH IN ROADWAY)




ANCHOR BASE



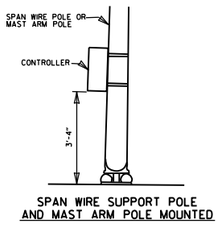

THE SWEEPING "L" IN THE FOUNDATION SHALL BE THE SAME SIZE AS THE CONDUIT FROM THE FOUNDATION TO THE PULL BOX AS SHOWN ON THE PLANS.

THE GROUND ROD SHALL BE FUSION WELDED TO A 1C/#8 A.W.G. SOLID COPPER GROUND WIRE. ATTACHMENT TO THE PRIMARY GROUND MAY BE BY AN APPROVED CLAMP. THE GROUND ROD IS TO BE LOCATED IN THE CONCRETE PULL BOX.

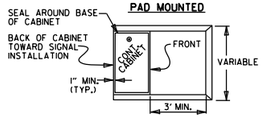
## TYPICAL FOUNDATION DETAILS

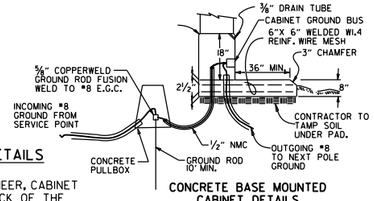
POLE FOUNDATION MINIMUM DIMENSIONS AND STEEL REINFORCING. ALL REINFORCING STEEL SHALL BE GRADE 40 MIN.

| ARM LENGTH | FOUNDATION DIAMETER | DEPTH "L"* | STEEL | | |
|---|---|---|---|---|---|
| | | | VERTICAL | HORIZONTAL | O.C. |
| PED | 30" | 7'-0" | 12-#7 (6'-6") | 10-#4 | 8.44" |
| 2' TO 12' | 30" | 10'-6" | 12-#7 (10'-0") | 15-#4 | 8.42" |
| OVER 12' TO 20' | 30" | 11'-6" | 12-#7 (11'-0") | 16-#4 | 8.66" |
| OVER 20' TO 35' | 36" | 12'-6" | 13-#8 (12'-0") | 17-#4 | 8.88" |
| OVER 35' TO 50' | 36" | 13'-6" | 13-#8 (13'-0") | 19-#4 | 8.56" |
| OVER 50' TO 72' | 42" | 14'-6" | 18-#8 (14'-0") | 20-#4 | 8.74" |
| TWINS TO 20' | 30" | 16'-0" | 12-#6 (15'-6") | 22-#4 | 8.76" |
| TWINS OVER 20' TO 44' | 36" | 16'-0" | 13-#8 (15'-6") | 22-#4 | 8.76" |
| TWINS OVER 44' TO 50' | 42" | 16'-0" | 18-#8 (15'-6") | 22-#4 | 8.76" |
| TWINS OVER 50' TO 72' | 42" | 16'-6" | 18-#8 (16'-0") | 23-#4 | 8.64" |




SPAN WIRE SUPPORT POLE AND MAST ARM POLE MOUNTED




CONCRETE BASE MOUNTED CABINET DETAILS

## CONTROLLER CABINET MOUNTING DETAILS

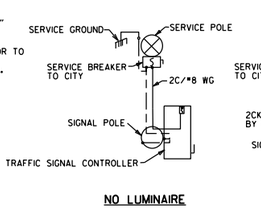
NOTE:
UNLESS OTHERWISE DIRECTED BY THE ENGINEER, CABINET ORIENTATION SHALL BE SUCH THAT THE BACK OF THE CABINET IS PARALLEL TO THE STREET AND POSITIONED TO ALLOW VISIBILITY OF THE SIGNAL DISPLAY WHILE OBSERVING THE CONTROLLER FRONT PANEL.

8. GROUND ROD - A 10' X ⅝" GROUND ROD SHALL BE INSTALLED IN THE CONCRETE PULL BOX FOR EACH POLE AND THE CONTROLLER. PAYMENT FOR THE GROUND ROD AND ½" NMC SHALL BE INCLUDED IN ITEM 714 FOR SIGNAL POLES AND ITEM 701 FOR THE CONTROLLER. THE CONCRETE PULL BOX AND CONDUCTOR BOX SHALL BE PAID SEPERATELY.

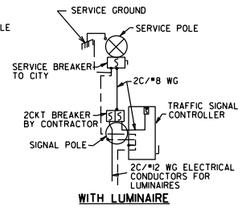
9. POLE BASE/FOUNDATION - ANCHOR BOLTS SHALL INCLUDE AS A MINIMUM, ONE LEVELING NUT, TWO FLAT WASHERS, ONE LOCK WASHER, AND ONE HEX NUT. PERIMETER OF ANCHOR BASE SHALL BE GROUTED WITH A ¼" WEEP HOLE. ALL CONCRETE SHALL BE CLASS "S" OR GREATER.

10. CONCRETE - ALL CONCRETE FOR CONTROLLER CABINET AND POLE FOUNDATIONS SHALL BE CLASS "S" OR GREATER.

11. PEDESTRIAN PHASES - PEDESTRIAN MOVEMENTS SHALL BE PUSH BUTTON ACTUATED AND CONCURRENTLY TIMED, UNLESS OTHERWISE INDICATED ON THE PLAN SHEET(S). FURNISHING AND INSTALLING PEDESTRIAN PUSH SWITCH SHALL BE CONSIDERED SUBSIDIARY TO THE ITEM 707 PEDESTRIAN SIGNAL HEAD.




NO LUMINAIRE




WITH LUMINAIRE

SERVICE DISCONNECT
NOTE: ELECTRICAL GROUND CONDUCTOR IS BONDED TO ALL METAL ENCLOSURES

* WHEN THE GROUND ELEVATION AT THE POLE IS LOWER THAN THE ROADWAY ELEVATION, THE LENGTH OF FOUNDATION ABOVE THE GROUND MAY BE INCREASED TO PROVIDE THE REQUIRED SIGNAL HEAD CLEARANCE ABOVE THE ROADWAY. WHEN THE REQUIRED LENGTH OF FOUNDATION ABOVE THE GROUND IS 18" OR LESS, NO INCREASE IN DEPTH "L" WILL BE REQUIRED. WHEN THE REQUIRED LENGTH OF FOUNDATION ABOVE THE GROUND IS 5'-6" OR LESS, INCREASE DEPTH "L" BY 1'-0". FOR LENGTHS GREATER THAN 5'-6", DEPTH "L" SHALL BE ADJUSTED AS DIRECTED BY THE ENGINEER. LONGITUDINAL REINFORCING, AS SHOWN IN THE TABLE, SHALL BE PROVIDED FOR THE LENGTH OF THE EXTENDED SHAFT AND #4 TIES SHALL BE PROVIDED AT A SPACING NOT TO EXCEED 9" ON CENTERS. PAYMENT WILL BE IN ACCORDANCE WITH SECTION 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS.

** IN LIEU OF DESIGNING THE STRUCTURE TO RESIST PERIODIC GALLOPING, A VIBRATORY MITIGATION DEVICE MAY BE PROVIDED BY THE POLE MANUFACTURER. THE VIBRATORY MITIGATION DEVICE SHALL BE AN ANTI-GALLOPING PANEL CONSISTING OF A 60" X 16" X 0.125" SIGN BLANK MOUNTED NEAR THE END OF THE MAST ARM NOT TO EXCEED ONE QUARTER OF THE LENGTH OF THE MAST ARM FROM THE END OF THE MAST ARM WITH THE LONG AXIS OF THE PANEL COLLINEAR WITH THE LONG AXIS OF THE MAST ARM. THE PANEL SHOULD BE MOUNTED AT SUCH THE HEIGHT AS TO PROVIDE AT LEAST 6" CLEAR FROM THE TOP OF ANY SIGNAL ASSEMBLY OF SIGN PANEL LOCATED ON THE MAST ARM WITHIN THE LENGTH OF THE ANTI-GALLOPING PANEL.

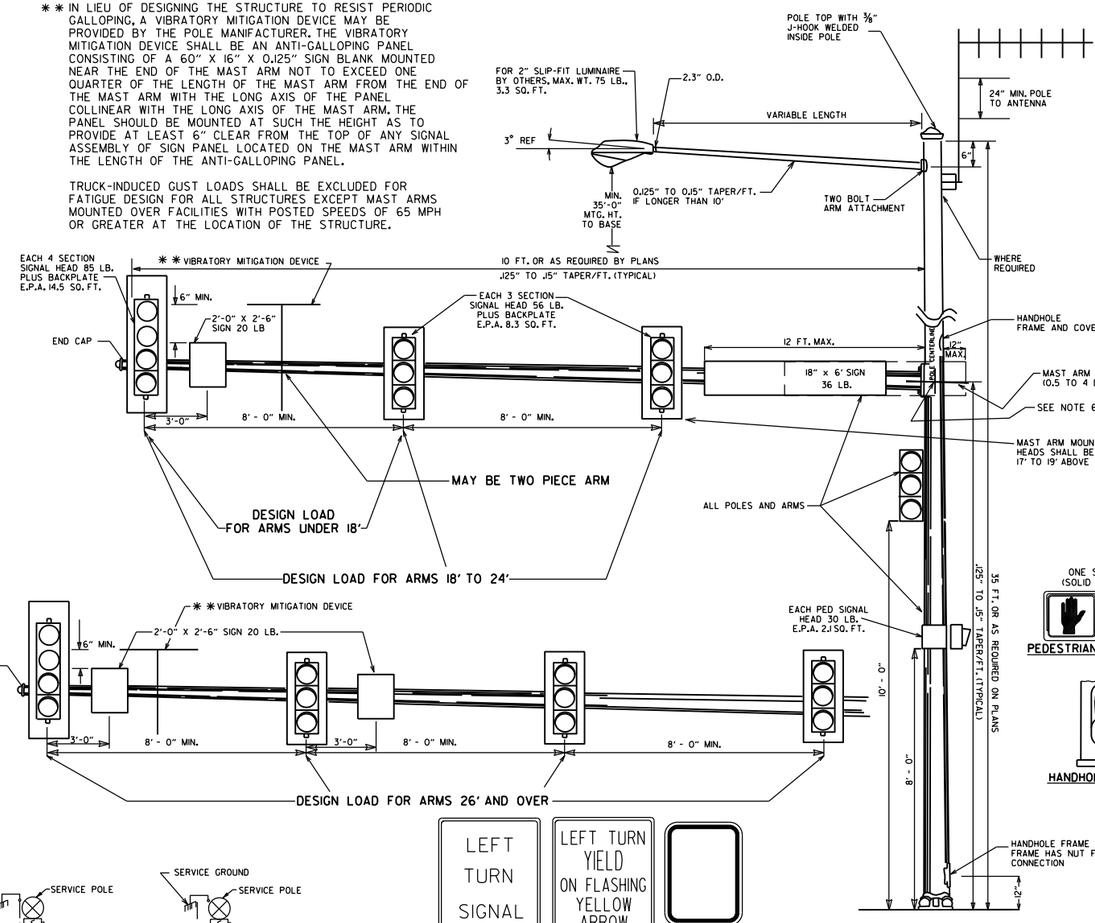
TRUCK-INDUCED GUST LOADS SHALL BE EXCLUDED FOR FATIGUE DESIGN FOR ALL STRUCTURES EXCEPT MAST ARMS MOUNTED OVER FACILITIES WITH POSTED SPEEDS OF 65 MPH OR GREATER AT THE LOCATION OF THE STRUCTURE.

SIGNAL OPERATION NOTES:

FLASHING OPERATION - PRIOR TO NORMAL OPERATION, SIGNAL SHALL BE FLASHED FOR A PERIOD OF 3 TO 5 WORK DAYS OR AS DIRECTED BY THE ENGINEER. SIGNAL SHALL BE PLACED IN OPERATION ONLY ON A REGULAR WORK DAY, EXCEPT FRIDAY.

THE CONTRACTOR MAY BE REQUIRED TO ALTER THE FLASHING DISPLAY DURING THE TEMPORARY FLASH PERIOD. AT THE TIME THE INTERSECTION IS PLACED IN PERMANENT OPERATION, THE FLASH SEQUENCE SHALL THEN BE RETURNED TO THAT INDICATED ON THE PLAN SHEETS. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THESE ALTERATION IN FLASH SEQUENCE.

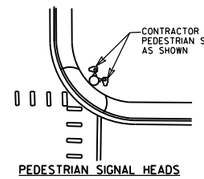
**SPECIAL NOTE: 90 MPH WIND ZONE DESIGN, SEE NOTE 3. MINIMUM STRUCTURAL REQUIREMENTS.**



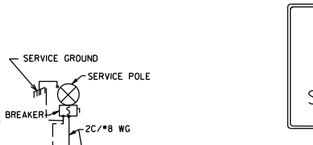

PEDESTRIAN SIGNAL HEAD

HANDHOLE TERMINAL

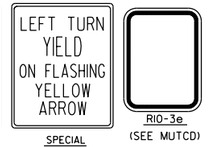
HANDHOLE FRAME AND COVER, FRAME HAS NUT FOR GROUND CONNECTION




PEDESTRIAN SIGNAL HEADS




R10-10




SPECIAL



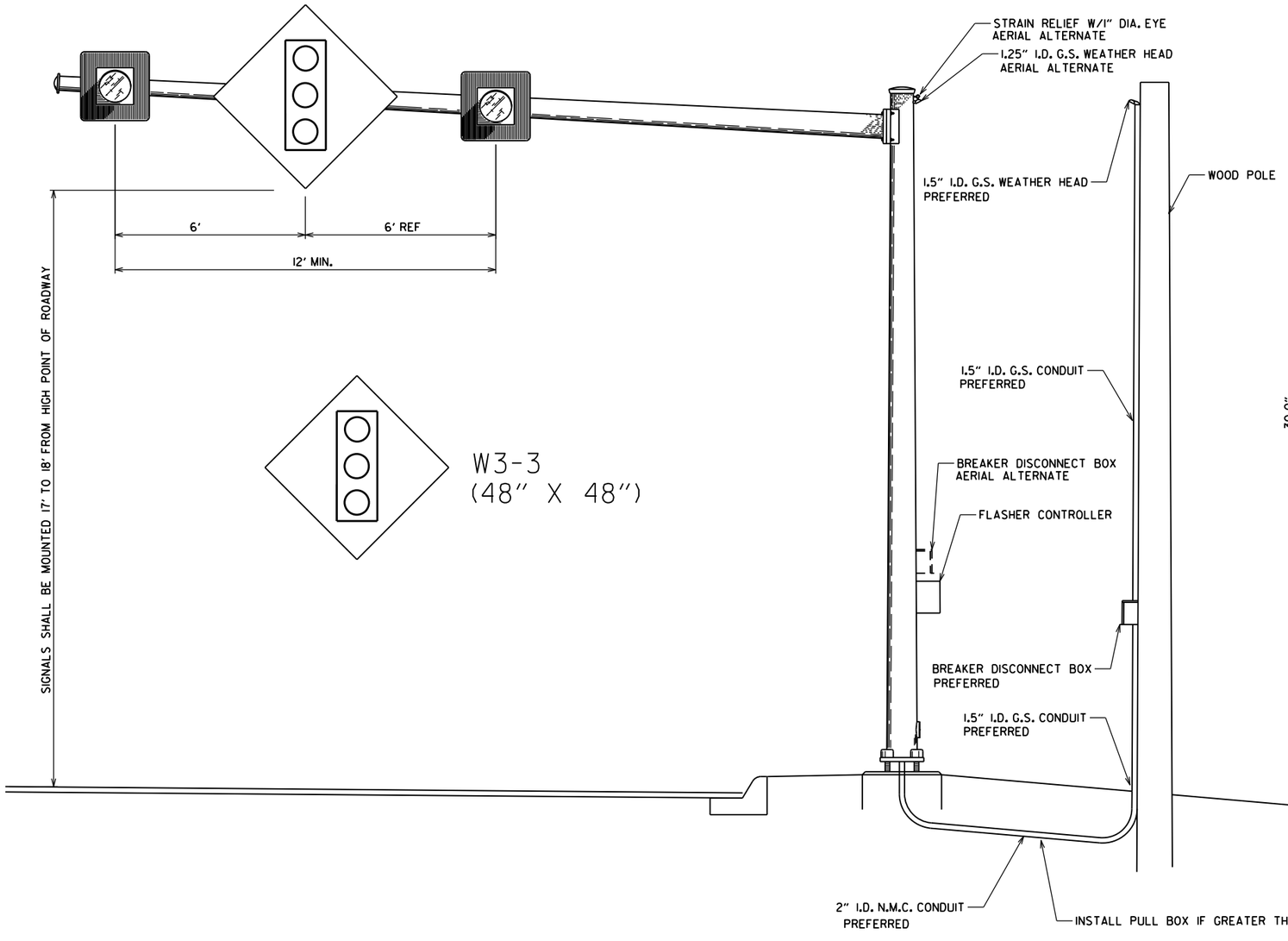
R10-3e
(SEE MUTCD)

| DATE | REVISION | FILMED |
|---|---|---|
| 11-16-17 | REVISED NOTES, ADDED PEDESTRIAN SIGNAL HEAD DETAIL, ADDED HANDHOLE TERMINAL DETAIL, ADDED TRENCHING DETAIL | |
| 02-27-14 | REVISED NOTES. | |
| 09-12-13 | ISSUED AS STANDARD DRAWING | |
| 12-08-16 | REVISED NOTES | |
| 02-27-14 | REVISED NOTES | |
| 09-12-13 | ISSUED AS STANDARD DRAWING | |
| 07-21-11 | REVISED VMD, SIGNAL HEADS | |
| 05-21-09 | REVISED GROUNDING | |
| 07-31-08 | REVISED GROUNDING | |
| 04-25-08 | ADDED VIBRATORY MITIGATION DEVICE & NOTES | |
| 04-18-08 | REVISED AASHTO NOTES | |
| 04-17-08 | REVISED TO 2001 AASHTO STANDARDS | |
| 10-12-04 | REVISED CABINET ORIENTATION | |
| 06-23-04 | REVISED | |
| 05-11-04 | REV. NOTE 3/AASHTO REQUIREMENTS | |
| 06-11-01 | REV. NOTES & POLE MAST ARM SLOPE | |
| 04-11-01 | REVISED POLE TAPERS | |
| 04-25-00 | REV. NOTES & SIGNAL HEAD PLACEMENT | |
| 11-22-99 | REVISED FOUNDATION DETAILS | |
| 11-17-98 | REVISED DETAILS AND NOTES | |
| 11-21-95 | ISSUED | |

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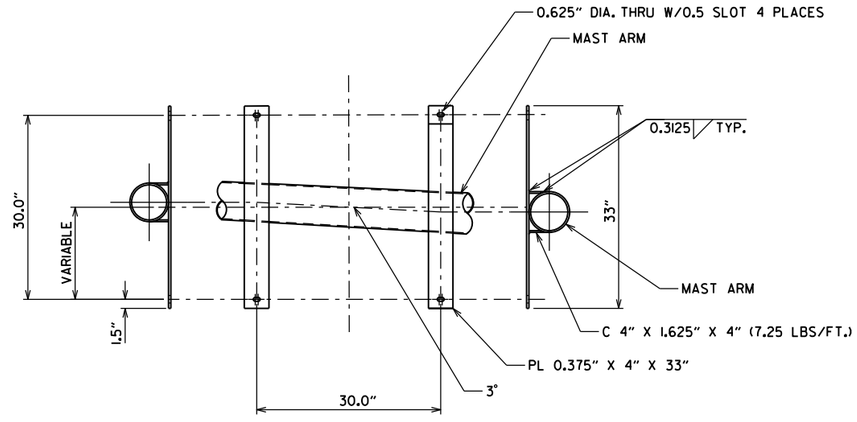
# STEEL POLE WITH MAST ARM

STANDARD DRAWING SD-11




## NOTES

1. THE SIGN MOUNTING BRACKET SHALL BE SUBSIDIARY TO THE PAY ITEM - TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION.
2. MAST ARM, POLE, HARDWARE, AND MOUNTING BRACKET SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 714.
3. A COMMERCIALLY MANUFACTURED MOUNTING PLATE OR BRACKET MAY BE SUBMITTED FOR APPROVAL IN LIEU OF THE MOUNTING PLATE SHOWN.
4. EACH SIGNAL HEAD SHALL HAVE A SEPARATE 5 CONDUCTOR SIGNAL CABLE.




## MOUNTING BRACKET

N.T.S.

## OVERHEAD SIGN MOUNTING DETAILS

N.T.S.

| DATE | REVISION | DATE FILM |
|---|---|---|
| 9-12-13 | ISSUED AS STANDARD DRAWING | |
| 4-17-08 | MINOR REVISIONS | |
| 6-21-06 | REVISED | |
| 4-14-03 | REVISED | |
| 7-14-95 | ISSUED | |

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**OVERHEAD SIGN DETAILS**
**(OVERHEAD SIGN MOUNTED ON STEEL POLE WITH MAST ARM)**

STANDARD DRAWING SD-16

# SUPERELEVATION TABLE FOR ONE - WAY TRAFFIC

| DEGREE OF CURVE | 30 MPH | | | 35 MPH | | | 40 MPH | | | 45 MPH | | | 50 MPH | | | 55 MPH | | | 60 MPH | | | 65 MPH | | | 70 MPH | | | 75 MPH | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | e | Ls (FT) | | e | Ls (FT) | | e | Ls (FT) | | e | Ls (FT) | | e | Ls (FT) | | e | Ls (FT) | | e | Ls (FT) | | e | Ls (FT) | | e | Ls (FT) | | e | Ls (FT) | |
| | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE |
| 0° 15' | NC | | | NC | | | NC | | | NC | | | NC | | | NC | | | NC | | | NC | | | NC | | | NC | | |
| 0° 30' | NC | | | NC | | | NC | | | NC | | | NC | | | NC | | | RC | 115 | | RC | 115 | | RC | 115 | | 0.022 | 121 | |
| 0° 45' | NC | | | NC | | | NC | | | NC | | | RC | 115 | | RC | 115 | | 0.024 | 127 | | 0.026 | 132 | | 0.030 | 144 | | 0.032 | 150 | |
| 1° 00' | NC | | | NC | | | NC | | | RC | 108 | | 0.022 | 121 | | 0.026 | 132 | | 0.030 | 144 | | 0.034 | 156 | | 0.038 | 167 | | 0.042 | 179 | 350 |
| 1° 15' | NC | | | NC | | | RC | 101 | | 0.022 | 114 | | 0.028 | 138 | | 0.032 | 150 | | 0.038 | 167 | | 0.042 | 179 | | 0.046 | 190 | 350 | 0.052 | 208 | |
| 1° 30' | NC | | | RC | 94 | | 0.022 | 106 | | 0.028 | 130 | | 0.032 | 150 | | 0.038 | 167 | | 0.044 | 185 | | 0.050 | 202 | 350 | 0.056 | 218 | | 0.062 | 236 | |
| 1° 45' | RC | 86 | | RC | 94 | | 0.026 | 116 | | 0.030 | 136 | | 0.036 | 161 | | 0.044 | 185 | | 0.050 | 202 | 350 | 0.056 | 218 | | 0.064 | 242 | | 0.070 | 259 | |
| 2° 00' | RC | 86 | | 0.024 | 103 | | 0.028 | 121 | | 0.034 | 146 | | 0.042 | 179 | | 0.048 | 196 | | 0.056 | 218 | | 0.064 | 242 | | 0.070 | 259 | | 0.080 | 288 | 400 |
| 2° 15' | RC | 86 | | 0.026 | 108 | | 0.032 | 131 | | 0.038 | 157 | | 0.046 | 190 | | 0.054 | 214 | | 0.062 | 236 | | 0.070 | 259 | | 0.078 | 282 | 400 | 0.088 | 311 | |
| 2° 30' | 0.022 | 90 | | 0.028 | 113 | | 0.034 | 136 | | 0.042 | 168 | | 0.050 | 202 | | 0.058 | 224 | 350 | 0.068 | 253 | | 0.076 | 276 | | 0.086 | 305 | | 0.096 | 334 | 450 |
| 2° 45' | 0.024 | 95 | | 0.030 | 118 | | 0.038 | 146 | | 0.046 | 179 | | 0.054 | 214 | | 0.064 | 242 | | 0.072 | 265 | | 0.082 | 294 | | 0.092 | 323 | | 0.100 | 346 | |
| 3° 00' | 0.026 | 100 | | 0.034 | 126 | | 0.040 | 151 | | 0.050 | 190 | 300 | 0.058 | 224 | | 0.068 | 253 | | 0.078 | 282 | | 0.088 | 311 | | 0.098 | 340 | 450 | D MAX = 2° 45' | | |
| 3° 15' | 0.028 | 103 | | 0.036 | 131 | | 0.044 | 161 | | 0.052 | 194 | | 0.062 | 236 | | 0.072 | 265 | | 0.082 | 294 | | 0.092 | 323 | | 0.100 | 346 | | | | |
| 3° 30' | 0.030 | 108 | | 0.038 | 136 | | 0.046 | 167 | 250 | 0.056 | 205 | | 0.066 | 247 | | 0.076 | 276 | | 0.086 | 305 | | 0.096 | 334 | | D MAX = 3° 30' | | | | | |
| 3° 45' | 0.032 | 112 | | 0.040 | 140 | | 0.050 | 176 | | 0.058 | 211 | | 0.070 | 259 | | 0.080 | 288 | | 0.090 | 317 | | 0.098 | 340 | | | | | | | |
| 4° 00' | 0.034 | 116 | | 0.042 | 145 | 250 | 0.052 | 181 | | 0.062 | 222 | | 0.072 | 265 | | 0.084 | 300 | | 0.094 | 329 | 400 | 0.100 | 346 | | | | | | | |
| 4° 15' | 0.036 | 120 | | 0.044 | 150 | | 0.054 | 186 | | 0.064 | 227 | | 0.076 | 276 | | 0.086 | 305 | | 0.096 | 334 | | D MAX = 4° 15' | | | | | | | | |
| 4° 30' | 0.036 | 120 | | 0.046 | 155 | | 0.056 | 192 | | 0.068 | 238 | | 0.078 | 282 | | 0.090 | 317 | 400 | 0.098 | 340 | | | | | | | | | | |
| 4° 45' | 0.038 | 125 | | 0.048 | 160 | | 0.060 | 202 | | 0.070 | 244 | | 0.082 | 294 | | 0.092 | 323 | | 0.100 | 346 | | | | | | | | | | |
| 5° 00' | 0.040 | 130 | | 0.050 | 164 | | 0.062 | 206 | | 0.072 | 248 | | 0.084 | 300 | | 0.094 | 329 | | D MAX = 5° 15' | | | | | | | | | | |
| 5° 30' | 0.044 | 138 | | 0.054 | 173 | | 0.066 | 217 | | 0.078 | 265 | | 0.088 | 311 | | 0.098 | 340 | | | | | | | | | | | | |
| 6° 00' | 0.046 | 143 | 250 | 0.058 | 182 | | 0.070 | 227 | | 0.082 | 276 | | 0.092 | 323 | | 0.100 | 346 | | | | | | | | | | | | |
| 6° 30' | 0.050 | 151 | | 0.062 | 192 | | 0.074 | 238 | | 0.086 | 287 | | 0.096 | 334 | 350 | D MAX = 6° 30' | | | | | | | | | | | | | |
| 7° 00' | 0.052 | 156 | | 0.064 | 197 | | 0.078 | 247 | | 0.090 | 298 | | 0.098 | 340 | | | | | | | | | | | | | | | |
| 7° 30' | 0.054 | 160 | | 0.068 | 206 | | 0.080 | 252 | | 0.092 | 302 | 350 | 0.100 | 346 | | | | | | | | | | | | | | | |
| 8° 00' | 0.058 | 168 | | 0.070 | 211 | | 0.084 | 263 | | 0.094 | 308 | | D MAX = 8° 25' | | | | | | | | | | | | | | | | |
| 8° 30' | 0.060 | 173 | | 0.072 | 215 | | 0.086 | 268 | 300 | 0.096 | 313 | | | | | | | | | | | | | | | | | | |
| 9° 00' | 0.062 | 178 | | 0.076 | 224 | | 0.088 | 272 | | 0.098 | 319 | | | | | | | | | | | | | | | | | | |
| 9° 30' | 0.064 | 181 | | 0.078 | 229 | | 0.092 | 282 | | 0.100 | 324 | | | | | | | | | | | | | | | | | | |
| 10° 00' | 0.066 | 186 | | 0.080 | 234 | | 0.094 | 288 | | D MAX = 10° 30' | | | | | | | | | | | | | | | | | | | |
| 11° 00' | 0.070 | 194 | | 0.084 | 244 | | 0.096 | 293 | | | | | | | | | | | | | | | | | | | | | |
| 12° 00' | 0.074 | 203 | | 0.088 | 253 | 300 | 0.098 | 298 | | | | | | | | | | | | | | | | | | | | | |
| 13° 00' | 0.076 | 208 | | 0.090 | 258 | | 0.100 | 302 | 350 | | | | | | | | | | | | | | | | | | | | |
| 14° 00' | 0.080 | 216 | | 0.094 | 266 | | D MAX = 13° 45' | | | | | | | | | | | | | | | | | | | | | | |
| 15° 00' | 0.082 | 221 | | 0.096 | 271 | | | | | | | | | | | | | | | | | | | | | | | | |
| 16° 00' | 0.086 | 229 | | 0.098 | 276 | | | | | | | | | | | | | | | | | | | | | | | | |
| 17° 00' | 0.088 | 233 | | 0.100 | 281 | | | | | | | | | | | | | | | | | | | | | | | | |
| 18° 00' | 0.090 | 238 | | D MAX = 19° 30' | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19° 00' | 0.092 | 242 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20° 00' | 0.094 | 246 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21° 00' | 0.096 | 251 | 300 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22° 00' | 0.096 | 251 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23° 00' | 0.098 | 254 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24° 00' | 0.098 | 254 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25° 00' | 0.100 | 259 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D MAX = 28° 30' | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

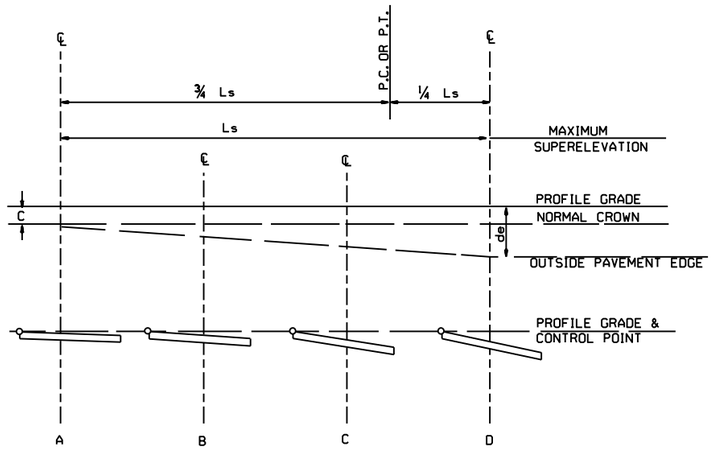
GENERAL NOTES

1. ON PAVEMENT WITH ONE-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE PROFILE GRADE POINT.
2. SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED OR SUBTRACTED FROM THE POINT OF CONTROL.
3. LENGTHS FOR Ls MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
4. MINIMUM Ls VALUES MAY BE USED FOR RAMPS; DESIRABLE VALUES SHALL APPLY TO MAIN LANES.
5. DIVIDED PAVEMENTS WIDER THAN 4 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLOWS:

6 LANE DIVIDED---------+20%
8 LANE DIVIDED---------+50%

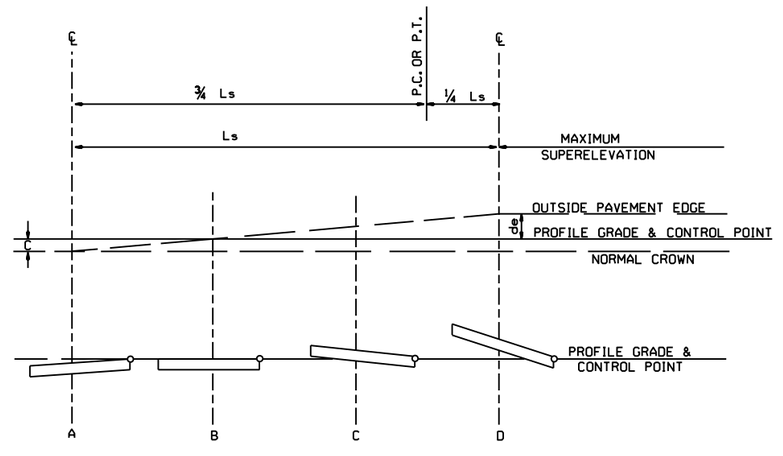
ABBREVIATIONS

NC - NORMAL CROWN
RC - REVERSE CROWN, SUPERELEVATION AT NORMAL CROWN SLOPE
S - SUPERELEVATION
L - DISTANCE FROM BEGINNING OF SUPERELEVATION TRANSITION TO ANY POINT (FT.)
d - WIDTH OF PAVEMENT
e - MAXIMUM RATE OF SUPERELEVATION (FT. PER FT.)
Ls - LENGTH OF SUPERELEVATION TRANSITION (FT.)
C - NORMAL CROWN (FT.)




ONE-WAY TRAFFIC
INSIDE LANE

SUPERELEVATION FORMULA = $S = -\frac{L(de-C)}{Ls} - C$




ONE-WAY TRAFFIC
OUTSIDE LANE

SUPERELEVATION FORMULA = $S = +\frac{L(de+C)}{Ls} - C$

| DATE | REVISION | DATE FILLMED |
|---|---|---|
| 11-07-19 | REVISED SUPERELEVATION TABLE | |
| 01-09-87 | ISSUED | 578-1-15-87 |

ARKANSAS STATE HIGHWAY COMMISSION

# TABLES AND METHOD OF SUPERELEVATION FOR ONE-WAY TRAFFIC

STANDARD DRAWING SE-1

## SUPERELEVATION TABLE FOR TWO - WAY TRAFFIC

| DEGREE OF CURVE | 30 MPH | | | 35 MPH | | | 40 MPH | | | 45 MPH | | | 50 MPH | | | 55 MPH | | | 60 MPH | | | 65 MPH | | | 70 MPH | | | 75 MPH | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | e | Ls (FT) | | e | Ls (FT) | | e | Ls (FT) | | e | Ls (FT) | | e | Ls (FT) | | e | Ls (FT) | | e | Ls (FT) | | e | Ls (FT) | | e | Ls (FT) | | e | Ls (FT) | |
| | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE | | MINIMUM | DESIRABLE |
| 0° 15' | NC | | | NC | | | NC | | | NC | | | NC | | | NC | | | NC | | | NC | | | NC | | | NC | | |
| 0° 30' | NC | | | NC | | | NC | | | NC | | | NC | | | NC | | | RC | 96 | | RC | 96 | | RC | 96 | | 0.022 | 101 | |
| 0° 45' | NC | | | NC | | | NC | | | NC | | | RC | 96 | | RC | 96 | | 0.024 | 106 | | 0.026 | 110 | | 0.030 | 120 | | 0.032 | 125 | |
| 1° 00' | NC | | | NC | | | NC | | | RC | 90 | | 0.022 | 101 | | 0.026 | 110 | | 0.030 | 120 | | 0.034 | 130 | | 0.038 | 139 | 300 | 0.042 | 149 | 300 |
| 1° 15' | NC | | | NC | | | RC | 84 | | 0.022 | 95 | | 0.028 | 115 | | 0.032 | 125 | | 0.038 | 139 | | 0.042 | 149 | | 0.046 | 158 | | 0.052 | 173 | |
| 1° 30' | NC | | | RC | 78 | | 0.022 | 88 | | 0.028 | 108 | | 0.032 | 125 | | 0.038 | 139 | | 0.044 | 154 | | 0.050 | 168 | 300 | 0.056 | 182 | | 0.062 | 197 | |
| 1° 45' | RC | 72 | | RC | 78 | | 0.026 | 97 | | 0.030 | 113 | | 0.036 | 134 | | 0.044 | 154 | | 0.050 | 168 | 300 | 0.056 | 182 | | 0.064 | 202 | | 0.070 | 216 | |
| 2° 00' | RC | 72 | | 0.024 | 86 | | 0.028 | 101 | | 0.034 | 122 | | 0.042 | 149 | | 0.048 | 163 | | 0.056 | 182 | | 0.064 | 202 | | 0.070 | 216 | | 0.080 | 240 | |
| 2° 15' | RC | 72 | | 0.026 | 90 | | 0.032 | 109 | | 0.038 | 131 | | 0.046 | 158 | | 0.054 | 178 | 300 | 0.062 | 197 | | 0.070 | 216 | | 0.078 | 235 | 350 | 0.088 | 259 | 350 |
| 2° 30' | 0.022 | 75 | | 0.028 | 94 | | 0.034 | 113 | | 0.042 | 140 | | 0.050 | 168 | | 0.058 | 187 | | 0.068 | 211 | | 0.076 | 230 | | 0.086 | 254 | | 0.096 | 278 | |
| 2° 45' | 0.024 | 79 | | 0.030 | 98 | | 0.038 | 122 | | 0.046 | 149 | 200 | 0.054 | 178 | | 0.064 | 202 | | 0.072 | 221 | | 0.082 | 245 | | 0.092 | 269 | | 0.100 | 288 | 400 |
| 3° 00' | 0.026 | 83 | | 0.034 | 105 | | 0.040 | 126 | | 0.050 | 158 | | 0.058 | 187 | 250 | 0.068 | 211 | | 0.078 | 235 | | 0.088 | 259 | | 0.098 | 283 | 400 | D MAX = 2° 45' | | |
| 3° 15' | 0.028 | 86 | | 0.036 | 109 | | 0.044 | 134 | | 0.052 | 162 | | 0.062 | 197 | | 0.072 | 221 | | 0.082 | 245 | | 0.092 | 269 | | 0.100 | 288 | | | | |
| 3° 30' | 0.030 | 90 | | 0.038 | 113 | | 0.046 | 139 | 200 | 0.056 | 171 | | 0.066 | 206 | | 0.076 | 230 | | 0.086 | 254 | | 0.096 | 278 | 350 | D MAX = 3° 30' | | | | | |
| 3° 45' | 0.032 | 93 | | 0.040 | 117 | | 0.050 | 147 | | 0.058 | 176 | | 0.070 | 216 | | 0.080 | 240 | | 0.090 | 264 | | 0.098 | 283 | | | | | | | |
| 4° 00' | 0.034 | 97 | | 0.042 | 121 | 200 | 0.052 | 151 | | 0.062 | 185 | | 0.072 | 221 | | 0.084 | 250 | | 0.094 | 274 | 350 | 0.100 | 288 | | | | | | | |
| 4° 15' | 0.036 | 100 | | 0.044 | 125 | | 0.054 | 155 | | 0.064 | 189 | | 0.076 | 230 | | 0.086 | 254 | 350 | 0.096 | 278 | | D MAX = 4° 15' | | | | | | | | |
| 4° 30' | 0.036 | 100 | | 0.046 | 129 | | 0.056 | 160 | | 0.068 | 198 | | 0.078 | 235 | | 0.090 | 264 | | 0.098 | 283 | | | | | | | | | | |
| 4° 45' | 0.038 | 104 | 200 | 0.048 | 133 | | 0.060 | 168 | | 0.070 | 203 | | 0.082 | 245 | | 0.092 | 269 | | 0.100 | 288 | | | | | | | | | | |
| 5° 00' | 0.040 | 108 | | 0.050 | 137 | | 0.062 | 172 | | 0.072 | 207 | | 0.084 | 250 | | 0.094 | 274 | | D MAX = 5° 15' | | | | | | | | | | |
| 5° 30' | 0.044 | 115 | | 0.054 | 144 | | 0.066 | 181 | | 0.078 | 221 | 250 | 0.088 | 259 | | 0.098 | 283 | | | | | | | | | | | | |
| 6° 00' | 0.046 | 119 | | 0.058 | 152 | | 0.070 | 189 | | 0.082 | 230 | | 0.092 | 269 | | 0.100 | 288 | | | | | | | | | | | | |
| 6° 30' | 0.050 | 126 | | 0.062 | 160 | | 0.074 | 198 | | 0.086 | 239 | | 0.096 | 278 | 300 | D MAX = 6° 30' | | | | | | | | | | | | | |
| 7° 00' | 0.052 | 130 | | 0.064 | 164 | | 0.078 | 206 | | 0.090 | 248 | | 0.098 | 283 | | | | | | | | | | | | | | | |
| 7° 30' | 0.054 | 133 | | 0.068 | 172 | | 0.080 | 210 | | 0.092 | 252 | | 0.100 | 288 | | | | | | | | | | | | | | | |
| 8° 00' | 0.058 | 140 | | 0.070 | 176 | | 0.084 | 219 | | 0.094 | 257 | 300 | D MAX = 8° 25' | | | | | | | | | | | | | | | | |
| 8° 30' | 0.060 | 144 | | 0.072 | 179 | | 0.086 | 223 | 250 | 0.096 | 261 | | | | | | | | | | | | | | | | | | |
| 9° 00' | 0.062 | 148 | | 0.076 | 187 | | 0.088 | 227 | | 0.098 | 266 | | | | | | | | | | | | | | | | | | |
| 9° 30' | 0.064 | 151 | | 0.078 | 191 | | 0.092 | 235 | | 0.100 | 270 | | | | | | | | | | | | | | | | | | |
| 10° 00' | 0.066 | 155 | | 0.080 | 195 | | 0.094 | 240 | | D MAX = 10° 30' | | | | | | | | | | | | | | | | | | | |
| 11° 00' | 0.070 | 162 | | 0.084 | 203 | | 0.096 | 244 | | | | | | | | | | | | | | | | | | | | | |
| 12° 00' | 0.074 | 169 | | 0.088 | 211 | 250 | 0.098 | 248 | | | | | | | | | | | | | | | | | | | | | |
| 13° 00' | 0.076 | 173 | | 0.090 | 215 | | 0.100 | 252 | 300 | D MAX = 13° 45' | | | | | | | | | | | | | | | | | | | |
| 14° 00' | 0.080 | 180 | | 0.094 | 222 | | | | | | | | | | | | | | | | | | | | | | | | |
| 15° 00' | 0.082 | 184 | | 0.096 | 226 | | | | | | | | | | | | | | | | | | | | | | | | |
| 16° 00' | 0.086 | 191 | | 0.098 | 230 | | | | | | | | | | | | | | | | | | | | | | | | |
| 17° 00' | 0.088 | 194 | | 0.100 | 234 | | | | | | | | | | | | | | | | | | | | | | | | |
| 18° 00' | 0.090 | 198 | 250 | D MAX = 19° 30' | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19° 00' | 0.092 | 202 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20° 00' | 0.094 | 205 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21° 00' | 0.096 | 209 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22° 00' | 0.096 | 209 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23° 00' | 0.098 | 212 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24° 00' | 0.098 | 212 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25° 00' | 0.100 | 216 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D MAX = 28° 30' | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ABBREVIATIONS

NC - NORMAL CROWN
RC - REVERSE CROWN, SUPERELEVATION AT NORMAL CROWN SLOPE
e - RATE OF SUPERELEVATION (FT. PER FT.)
Ls - LENGTH OF SUPERELEVATION TRANSITION (FT.)
L - DISTANCE FROM BEGINNING OF SUPERELEVATION TRANSITION TO ANY POINT (FT.)
d - WIDTH OF PAVEMENT (FT.) OR WIDTH OF SUBGRADE (FT.)
C - NORMAL CROWN (FT.)

GENERAL NOTES

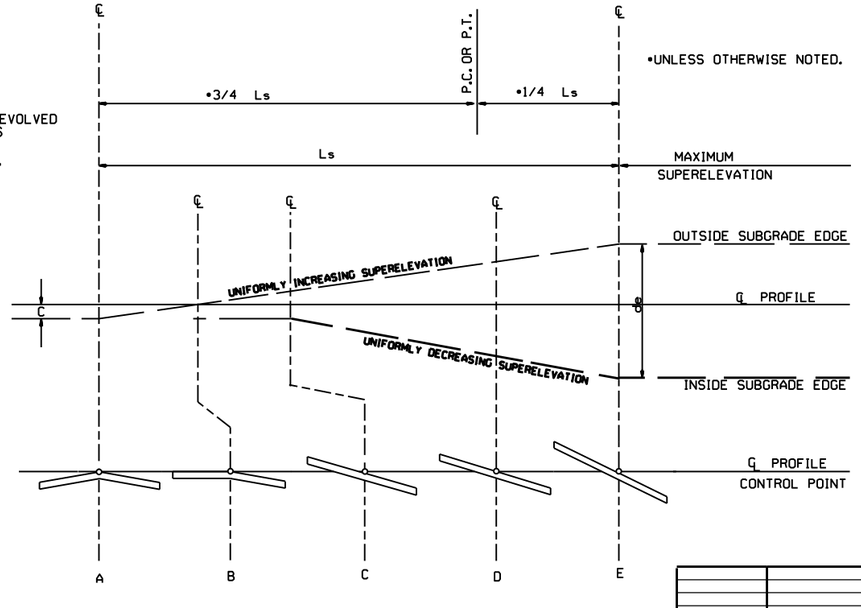
1. ON PAVEMENT WITH TWO-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE INSIDE PAVEMENT EDGE UNLESS OTHERWISE NOTED ON THE PLANS
2. SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED TO OR SUBTRACTED FROM THE POINT OF CONTROL.
3. LENGTHS FOR L MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
4. PAVEMENTS WIDER THAN 2 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLLOWS:

3 LANE UNDIVIDED - - - - - +20%
4 LANE UNDIVIDED - - - - - +50%
5 LANE UNDIVIDED - - - - - +80%
6 LANE UNDIVIDED - - - - - +100%

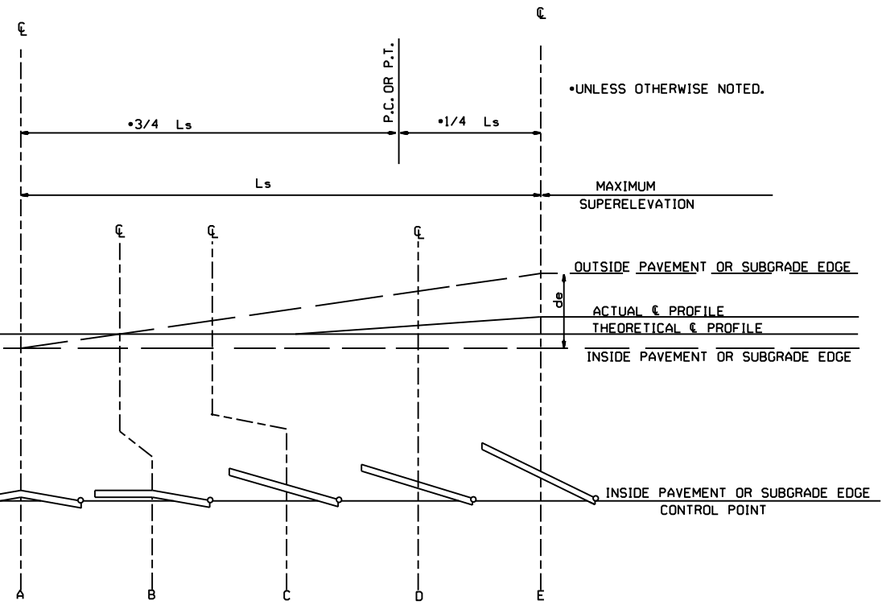
NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

RATE OF SUPERELEVATION SHALL BE COMPUTED ON STRAIGHT LINE METHOD USING APPLICABLE Ls.

SUPERELEVATION FORMULA = $\frac{Lde}{Ls}$




STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND CENTER LINE




STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND INNER SUBGRADE POINT OR INNER PAVEMENT EDGE

NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

| DATE | REVISION | DATE FILLMED |
|---|---|---|
| 11-07-19 | REVISED SUPERELEVATION TABLE | |
| 10-18-96 | ADDED FORMULA | |
| 01-09-87 | ISSUED | 534-1-9-87 |

ARKANSAS STATE HIGHWAY COMMISSION

# TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC

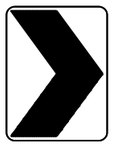
STANDARD DRAWING SE-2




R1-1
30"X30"



W1-3
30"X30"
(LT. OR RT.)



W1-8
18"X24"



W2-5
30"X30"



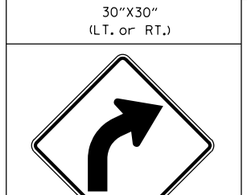
W3-1
36"X36"



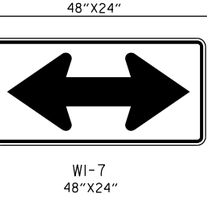

W5-1
36"X36"



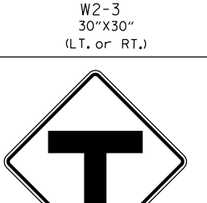
M6-3
21"X15"



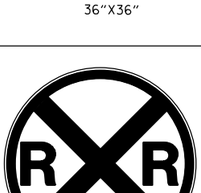

R1-2
36"X36"X36"



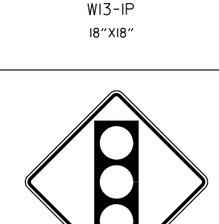
W1-4
30"X30"
(LT. or RT.)



W2-1
30"X30"



S1-1
36"X36"



W3-2
36"X36"

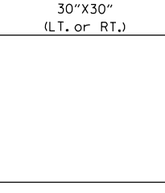



County
Route Marker
M1-6
24"X24"

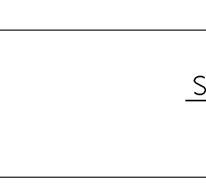
NOTE: REFLECTORIZED YELLOW LEGEND (COUNTY NAME, ROUTE LETTER & NUMBER) & BORDER ON A BLUE BACKGROUND.



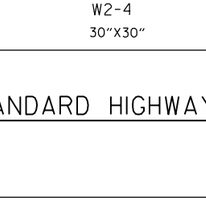
M6-4
21"X15"



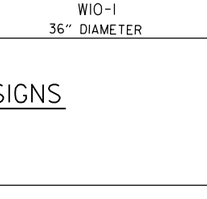

R2-1
24"X30"



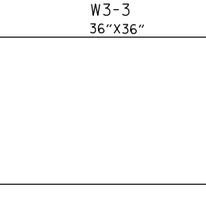
W1-5
30"X30"
(LT. or RT.)



W2-2
30"X30"



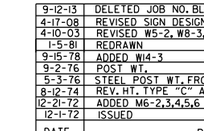

W5-2
36"X36"




W8-3
36"X36"




R1-3P
18"X6"



M6-5
21"X15"



W1-1
30"X30"
(LT. or RT.)



W1-6
48"X24"



W1-7
48"X24"



W2-3
30"X30"
(LT. or RT.)




W5-3
36"X36"




W13-1P
18"X18"



M6-1
21"X15"

NOTE: ALL M6 SIGNS TO BE MADE WITH REFLECTORIZED YELLOW ARROW & BORDER WITH BLUE BACKGROUND.



M6-6
21"X15"



W1-2
30"X30"
(LT. or RT.)



W2-4
30"X30"




W10-1
36" DIAMETER



W3-3
36"X36"



M6-2
21"X15"




S4-3P
24"X8"



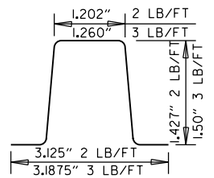

S4-2P
24"X10"



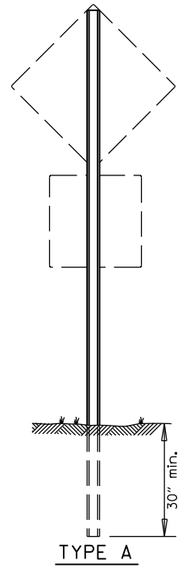

OM-3
12"X36"
(LT. or RT.)

MINIMUM DIMENSIONS SHOWN

SUPPORT SECTION




(U-CHANNEL)
STANDARD SUPPORT
ASSEMBLIES




TYPE A

NOTE: LENGTH OF SIGN POSTS SHALL BE DETERMINED SO AS TO PROVIDE FOR MINIMUM VERTICAL CLEARANCES AS CALLED FOR IN THE SPECIFICATIONS PLUS A MINIMUM VERTICAL PENETRATION OF 30" IN THE SOIL.



TYPE B



TYPE C

MINIMUM WEIGHT

TYPE A & B = 3 LBS./FT.
TYPE C = 2 LBS./FT.

# STANDARD HIGHWAY SIGNS

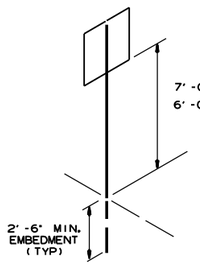
| DATE | REVISION | DATE FILMED |
|---|---|---|
| 9-12-13 | DELETED JOB NO. BLOCK; REVISED RI-3 TO RI-3P | |
| 4-17-08 | REVISED SIGN DESIGNATION - W3-1 & W3-2 | |
| 4-10-03 | REVISED W5-2, W8-3, OM-3; ADDED WI-8 | |
| 1-5-81 | REDRAWN | 960-1-15-81 |
| 9-15-78 | ADDED WI4-3 | 877-9-15-78 |
| 9-2-76 | POST WT. | 623-9-3-76 |
| 5-3-76 | STEEL POST WT. FROM 2"-3"; ADDED S4-2 & S4-3 | 504-5-3-76 |
| 8-12-74 | REV. HT. TYPE "C" ASSEMBLY | 500-8-21-74 |
| 12-21-72 | ADDED M6-2,3,4,5,6 | 500-12-21-72 |
| 12-1-72 | ISSUED | 562-12-1-72 |

# SUPPORT ASSEMBLIES

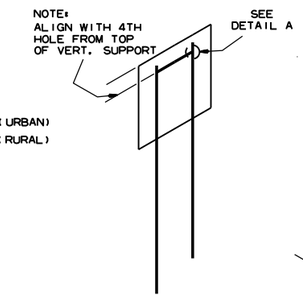
ARKANSAS STATE HIGHWAY COMMISSION

## STANDARD HIGHWAY SIGNS AND SUPPORT ASSEMBLIES

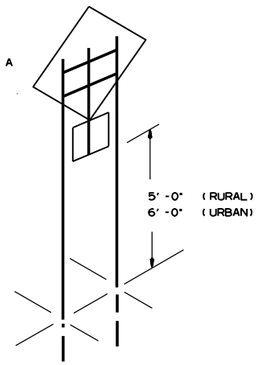
STANDARD DRAWING SHS-1



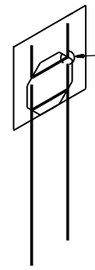

U-1



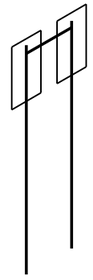

U-2



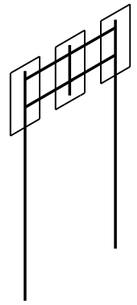

U-2 (A)



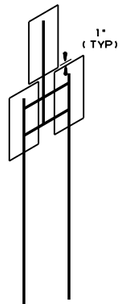

U-2 (B)



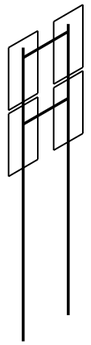
U-2 (1)



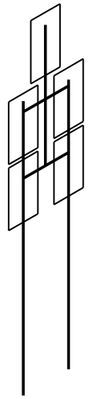
U-2 (2)



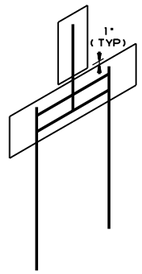

U-2 (3)



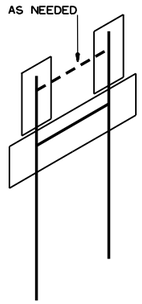
U-2 (4)



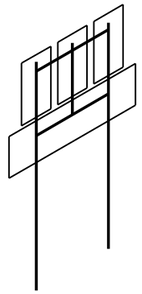
U-2 (5)



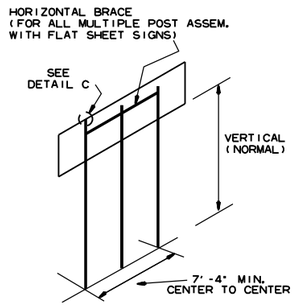

U-2 (6)



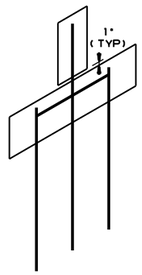

U-2 (7)



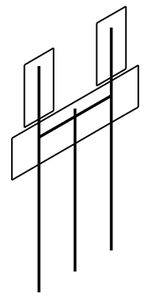
U-2 (8)



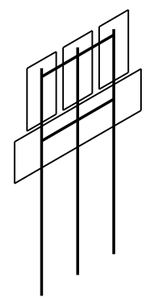

U-3



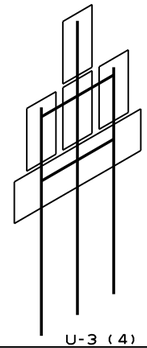

U-3 (1)



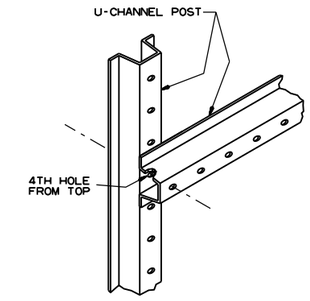
U-3 (2)



U-3 (3)

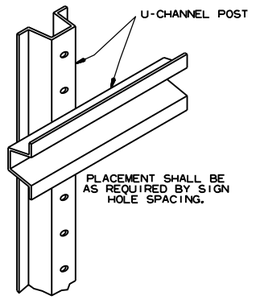


U-3 (4)



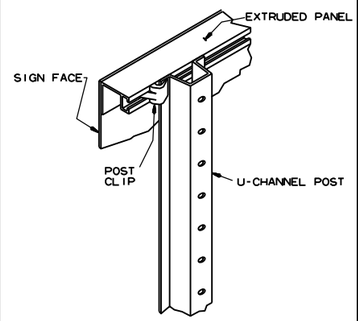

DETAIL A

SHOWING HORIZONTAL BRACE



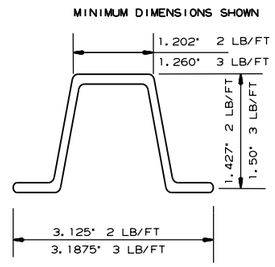

DETAIL B

SHOWING BACK-TO-BACK INSTALLATION



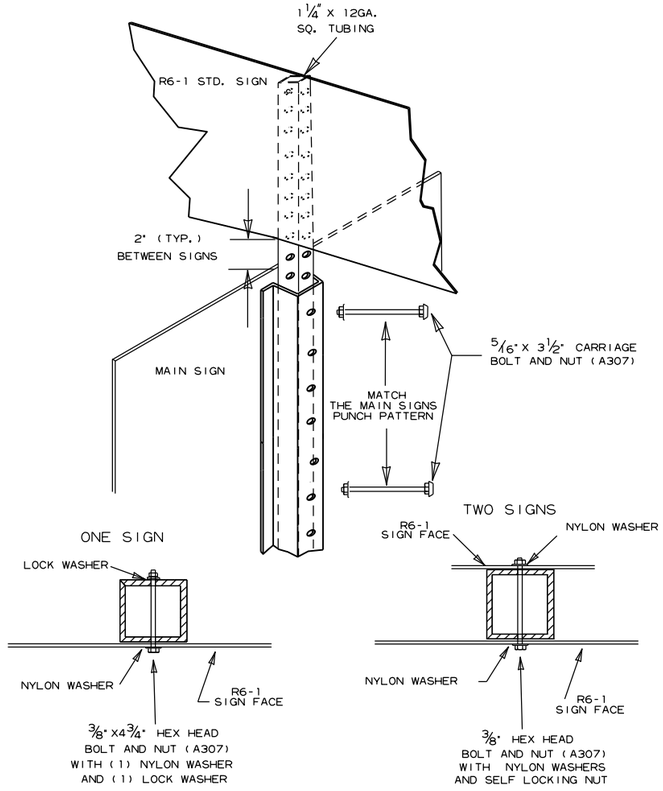

DETAIL C

SHOWING GUIDE SIGN MOUNTING WITH EXTRUDED PANELS



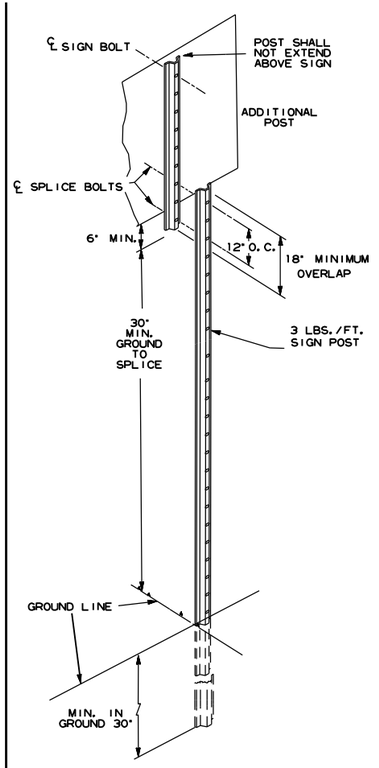

DETAIL C

U-CHANNEL POST




DETAIL E

R6-1 EXTENSION FOR U-CHANNEL POST




DETAIL F

DETAIL OF SPLICES

NOTES:

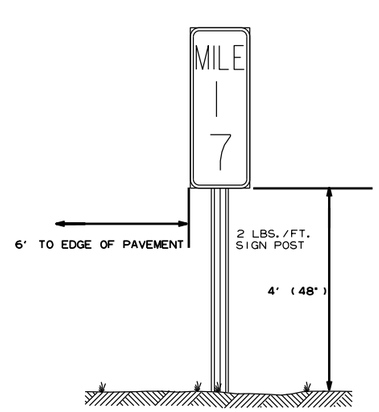
SIGNS AT LEAST 8' IN LENGTH MAY BE INSTALLED ON THREE 3 LB. POST. IN NO CASE SHALL THERE BE MORE THAN TWO 3 LB. POSTS WITHIN A 7' PATH.

SPLICES NECESSARY TO ATTAIN PROPER MOUNTING HEIGHT SHALL BE AS SHOWN IN DETAIL ( F ).

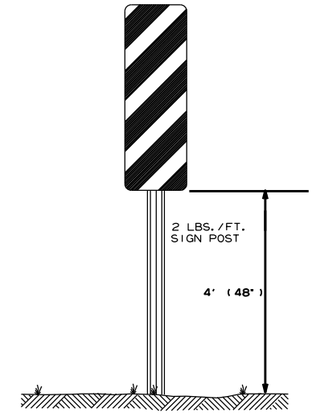
NORMAL INSTALLATIONS WILL REQUIRE 5/16" DIA. CARRIAGE BOLTS TO MOUNT SIGNS TO POST AND TO ASSEMBLE THE VARIOUS POST SUPPORTS.

ALL SIGN POSTS SHALL BE PLUMB.

THE POST FOR "TYPE U" SUPPORTS SHALL BE HOT DIP GALVANIZED.




TYPICAL MILE MARKER INSTALLATION




TYPICAL OM-3 INSTALLATION AT EDGE OF OBSTRUCTION

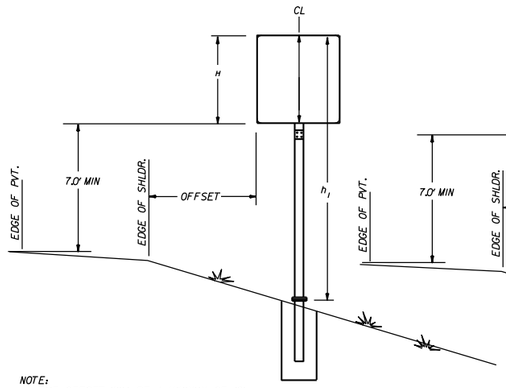
| DATE | REVISION | FILMED |
|---|---|---|
| 7-25-19 | REVISED CARRIAGE BOLT WITH MATERIAL REQUIREMENT | |
| 2-27-14 | REVISED NOTES. | |
| 9-12-13 | REVISED U-2(3), U-2(6), U-3(1), DETAIL D; ADDED DETAILS E & F; ADDED TYPICAL MARKERS | |
| 10-9-03 | REMOVED ROUND POST & REVISED SPACING | |
| 10-12-95 | MOVED UPPER SPLICE | |
| 6-8-95 | REVISED SPLICE DETAIL | 6-8-95 |
| 2-2-95 | REDRAWN | 2-2-95 |

ARKANSAS STATE HIGHWAY COMMISSION

# U-CHANNEL POST ASSEMBLIES

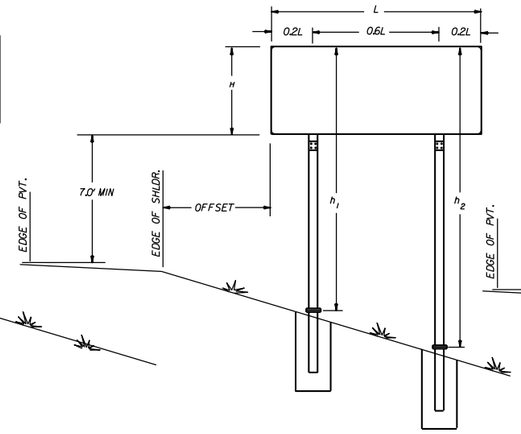
STANDARD DRAWING SHS-2

| POST SIZE | BASE CONNECTION DATA | | | | | | | | | | | FUSE PLATE DATA | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | BOLT SIZE | BOLT TORQUE (INCH/LBS) | A | B | C | D | E | $t_1$ | $t_2$ | W | R | F | G | | J | K | M | $d_1$ | $d_2$ | $t_3$ | BOLT SIZE | WT.OF EACH FUSE PLATE LBS. |
| W 6X9 | | | | | | | | | | | | | | | | | | | | | | |
| W 6X12 | 5/8" x 2 3/4" | 450"-680" | 5" | 2" | 1 1/4" | 2 3/4" | 1 1/8" | 3/4" | 1/2" | 1/4" | 11/32" | 4 1/4" | 2" | | 4" | 2 1/4" | 1" | 9/16" | 3/4" | 1/4" | 1/2" x 1 1/2" | 1.01 |
| W 6X15 | | | | | | | | | | | | 5" | 2 1/2" | | 6" | 3 1/2" | 1 1/2" | 11/16" | 1 1/4" | 3/8" | 5/8" x 2 1/4" | 2.51 |
| W 8X18 | | | | | | | | | | | | 5" | 2 1/2" | | 5 1/4" | 2 3/4" | 1 1/4" | 13/16" | 1 11/16" | 3/8" | 3/4" x 2 1/4" | 2.26 |
| W 8X21 | | | | | | | | | | | | 5 1/2" | 2 1/2" | | 5 1/4" | 2 3/4" | 1 1/4" | 13/16" | 1" | 1/2" | 3/4" x 2 1/4" | 3.35 |
| W 10X22 | 3/4" x 3 1/2" | 750"-1050" | 6" | 2 1/4" | 1 3/8" | 3 1/2" | 1 1/4" | 1" | 3/4" | 5/16" | 11/32" | 6" | 3" | | 5 3/4" | 2 3/4" | 1 3/8" | 1 3/16" | 1 1/8" | 1/2" | 3/4" x 2 1/4" | 4.03 |
| W 10X26 | | | | | | | | | | | | | | | | | | | | | | |
| W 12X26 | | | | | | | | | | | | 6" | 3" | | 6 1/2" | 3 1/2" | 1 5/8" | 1 3/16" | 1 15/16" | 1/2" | 3/4" x 2 1/4" | 4.47 |

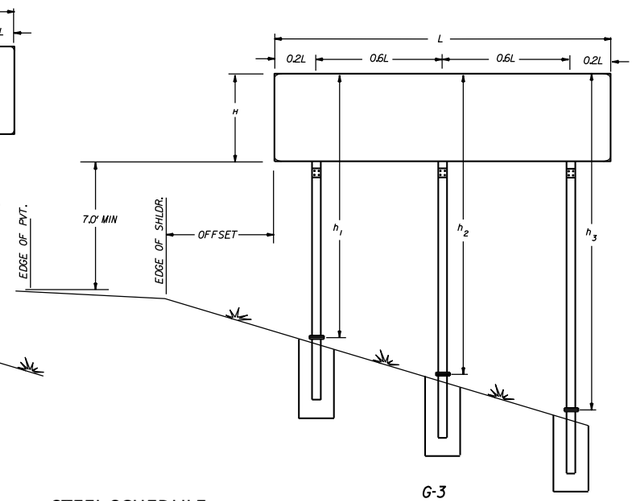



NOTE:
THE OFFSET WILL BE A MINIMUM OF 10' FROM THE EDGE OF PAVED SURFACE OR AS DIRECTED BY THE ENGINEER

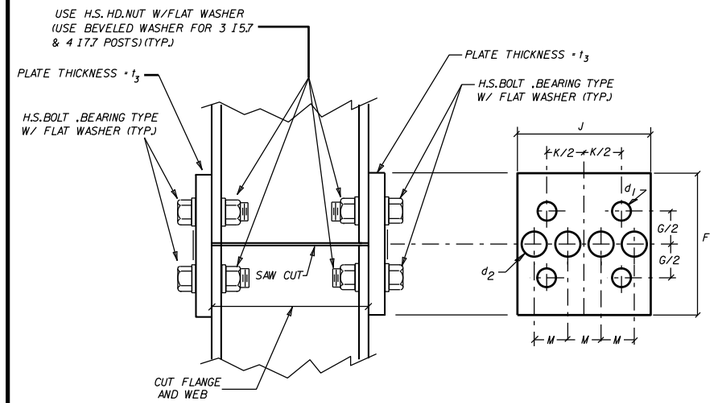
G-1




G-2

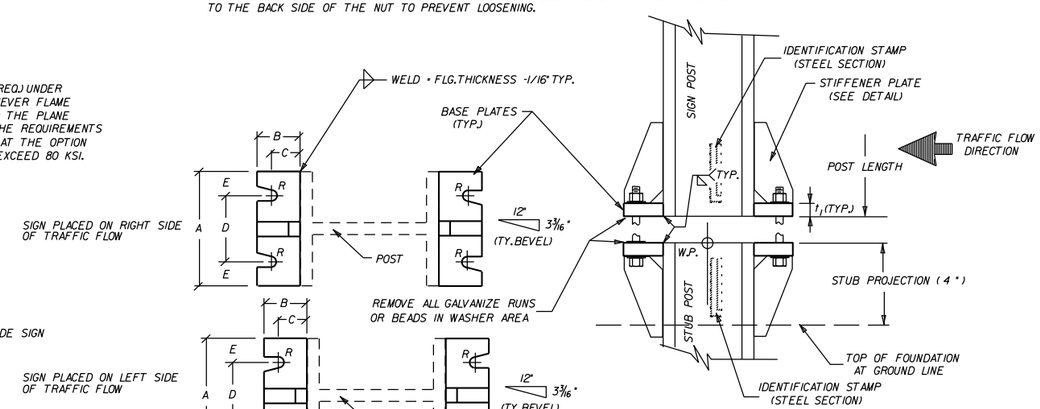



G-3

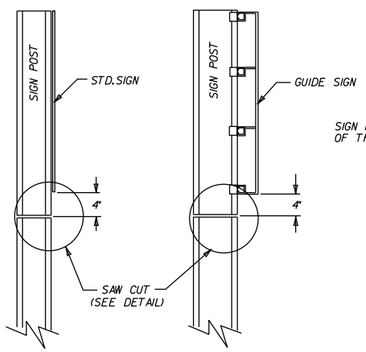



NOTE: USE H.S.HEX HEAD BOLTS,HEX HEAD NUTS AND BEVEL OR FLAT WASHERS (WHERE REQ.) UNDER NUTS. ALL HOLES SHALL BE DRILLED.ALL PLATE CUTS SHALL PREFERABLY BE SAW CUTS,HOWEVER FLAME CUTTING WILL BE PERMITTED PROVIDED ALL EDGES ARE GROUND. METAL PROJECTING BEYOND THE PLANE OF THE PLATE FACE WILL NOT BE PERMITTED. STEEL FUSE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM-A36,ASTM-A441,ASTM-572 GRADE 50,OR ASTM-A588 MAY BE SUBSTITUTED FOR A36 AT THE OPTION OF THE FABRICATOR. STEEL USED SHALL HAVE AN ULTIMATE TENSILE STRENGTH NOT TO EXCEED 80 KSI.

NOTE: SECTIONS SHOWN ARE FOR INSTALLATION ON THE RIGHT SHOULDER AND IN THE GORE. BOLT HOLES IN BASE PLATE ARE SLOTTED AND BEVELED AS SHOWN. USE H.S.BOLTS WITH HEX HD.,HEX NUT AND THREE FLAT WASHERS FOR EACH BOLT.SEE TABLE FOR BOLT DIA. AND TORQUE.
NOTE: ASSEMBLE SIGN POST TO STUB POST USING THE BOLTS SPEC.IN THE TABLE AND AS SHOWN IN THE ELEVATION DETAILS. THERE SHALL BE THREE FLAT WASHERS ON EACH BOLT LOCATED AS SHOWN IN THE ELEVATIONS. USE A SHIM TO PLUMB THE SIGN POST. THEN TIGHTEN THE BOLTS USING A 12" TO 15" WRENCH UNTIL THE WASHERS AND SHIMS ARE SEATED AND THE BOLT THREADS ARE CLEAR ,THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE (SEE TABLE). THE BURR THREADS ADJACENT TO THE BACK SIDE OF THE NUT TO PREVENT LOOSENING.



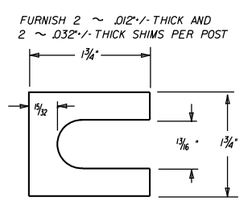

NOTE: BOLT HOLES,USED IN THE MOUNTING OF STANDARD SIGNS SHALL BE LOCATED IN THE FLANGE ADJACENT TO THE NEAR EDGE OF PAVEMENT FOR SINGLE POST ASSEMBLIES AND IN THE OUTSIDE FLANGES FOR MULTIPLE POST ASSEMBLIES.



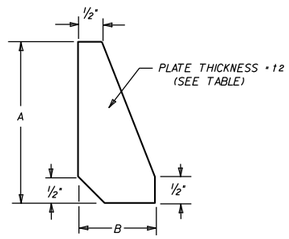

NOTE: POST SHALL BE SAW CUT AFTER GALVANIZING AND THE CUT SURFACE TREATED. AFTER PLATE IS INSTALLED AND ALL BOLTS FULLY TIGHTENED. REPAIR OF CUT SURFACES AFTER GALVANIZING SHALL BE IN ACCORDANCE WITH ASTM A123.

STANDARD SIGNS GUIDE SIGNS

FUSE PLATE DETAILS




SHIM DETAIL




STIFFENER PLATE DETAIL

GENERAL NOTES

TIGHTEN THE HIGH STRENGTH BOLTS IN THE BASE CONNECTION ONLY TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.

BASE PLATES AND STIFFENER PLATES SHALL BE OF THE SAME MATERIAL AS THE PRIMARY SUPPORT POSTS WHICH THEY ARE WELDED.

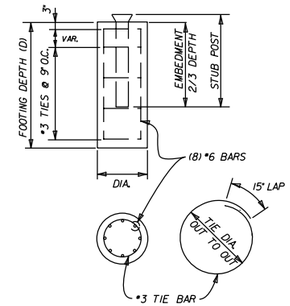
REFER TO THE PLANS FOR FOOTING DIMENSIONS.

EACH STUB POST AND SIGN POST SHALL HAVE A PERMANENT IDENTIFYING STAMP WHICH SPECIFIES THE STEEL SECTION USED. IF THE CONTRACTOR ELECTS TO SHIP THE STUB POST SEPARATE FROM THE SIGN POST A MATCH MARK SYSTEM WILL BE REQUIRED.

## STEEL SCHEDULE

| FOOTING DIAMETER | #3 TIE BARS | | |
|---|---|---|---|
| | DIAMETER | BAR LENGTH | POUNDS |
| INCHES | INCHES | FEET | |
| 18 | 12 | 4.39 | 1.65 |
| 24 | 18 | 5.96 | 2.24 |
| 30 | 24 | 7.53 | 2.83 |
| 36 | 30 | 9.1 | 3.42 |

| FOOTINIG DEPTH | #6 STRAIGHT BARS | | |
|---|---|---|---|
| | BAR LENGTH | NUMBER REQ'D. | POUNDS |
| FEET | FEET | | |
| 2.50 | 2.00 | 8 | 24.03 |
| 3.00 | 2.50 | 8 | 30.04 |
| 3.50 | 3.00 | 8 | 36.05 |
| 4.00 | 3.50 | 8 | 42.06 |
| 4.50 | 4.00 | 8 | 48.06 |
| 5.00 | 4.50 | 8 | 54.07 |
| 5.50 | 5.00 | 8 | 60.08 |
| 6.00 | 5.50 | 8 | 66.09 |
| 6.50 | 6.00 | 8 | 72.10 |
| 7.00 | 6.50 | 8 | 78.10 |
| 7.50 | 7.00 | 8 | 84.11 |
| 8.00 | 7.50 | 8 | 90.12 |




## FOOTING QUANTITIES

| FOOTING DEPTH | NUMBER TIE BARS REQ'D | 18" DIAMETER | | 24" DIAMETER | | 30" DIAMETER | | 36" DIAMETER | |
|---|---|---|---|---|---|---|---|---|---|
| | | CLASS S CONCRETE | REINF STEEL | CLASS S CONCRETE | REINF STEEL | CLASS S CONCRETE | REINF STEEL | CLASS S CONCRETE | REINF STEEL |
| FEET | | CU. YD. | (GRADE 60) | CU. YD. | (GRADE 60) | CU. YD. | (GRADE 60) | CU. YD. | (GRADE 60) |
| 2.50 | 4 | 0.16 | 31 | | | | | | |
| 3.00 | 4 | 0.20 | 37 | | | | | | |
| 3.50 | 5 | 0.23 | 44 | | | | | | |
| 4.00 | 6 | 0.26 | 52 | 0.47 | 56 | | | | |
| 4.50 | 6 | 0.29 | 58 | 0.52 | 62 | | | | |
| 5.00 | 7 | 0.33 | 66 | 0.58 | 70 | 0.91 | 74 | | |
| 5.50 | 8 | | | 0.64 | 78 | 1.00 | 83 | | |
| 6.00 | 8 | | | 0.70 | 84 | 1.09 | 89 | 1.57 | 93 |
| 6.50 | 9 | | | | | 1.18 | 98 | 1.70 | 103 |
| 7.00 | 10 | | | | | 1.27 | 106 | 1.83 | 112 |
| 7.50 | 10 | | | | | | | 1.96 | 118 |
| 8.00 | 11 | | | | | | | 2.09 | 128 |

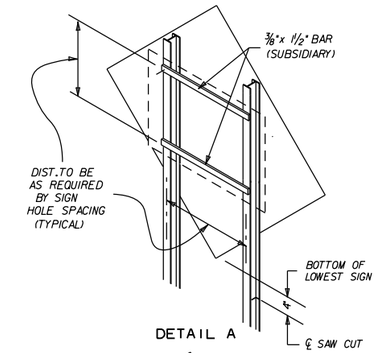
## SIGN POST AND STUB POST

| DATE | REVISION | FILMED |
|---|---|---|
| 5-19-22 | REVISED FUSE PLATE DETIALS' NOTE. | |
| 9-12-13 | ISSUED | |

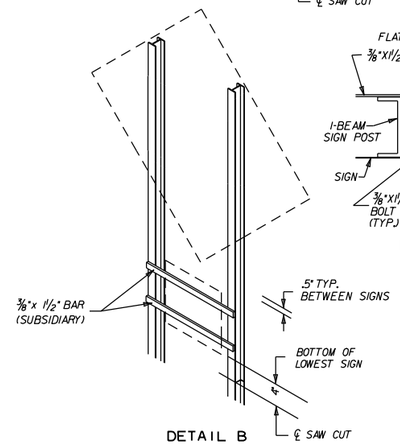
ARKANSAS STATE HIGHWAY COMMISSION

DETAIL OF BREAKAWAY SIGN SUPPORTS FOR GUIDE SIGNS

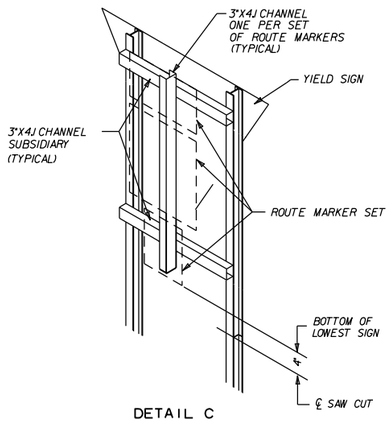
STANDARD DRAWING SHS-3



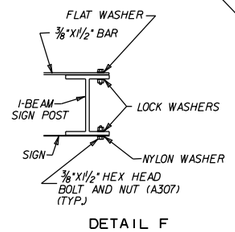

DETAIL A



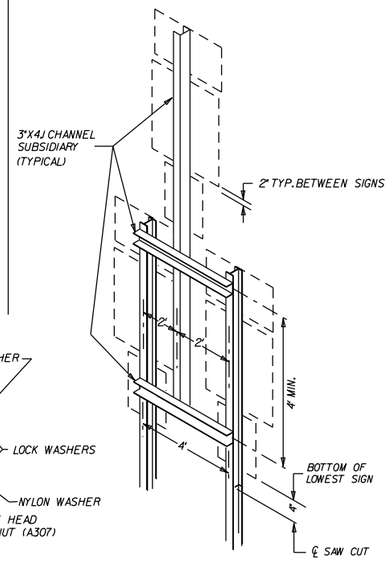

DETAIL B



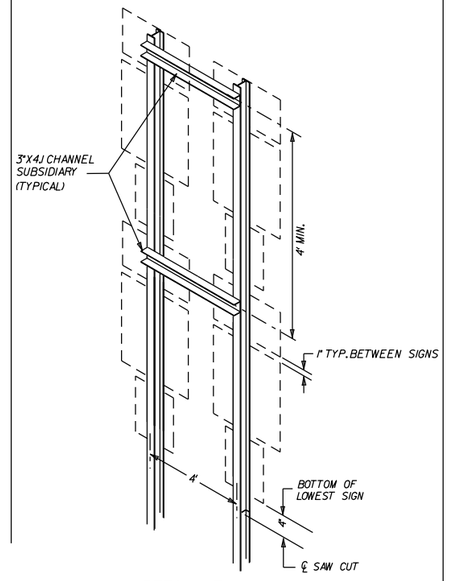

DETAIL C




DETAIL F




DETAIL D




DETAIL E

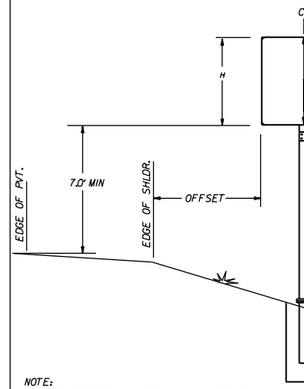
NOTE

ALL ADDITIONAL MOUNTING HARDWARE, BOLTS, NUTS, CHANNELS AND BAR STRAPS REQUIRED TO MOUNT SECONDARY SIGNS WILL BE CONSIDERED TO BE SUPPLEMENTAL TO THE MAIN SIGN SUPPORT SPECIFIED. PAYMENT WILL BE CONSIDERED SUBSIDIARY TO THE MAIN SUPPORT.

THE GALVANIZED STEEL CHANNEL AND BAR SUPPORTS MAY BE ASTM A-36.

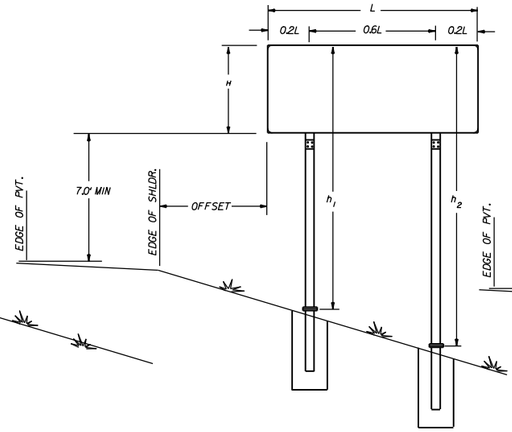
REFER TO THE P.C. RUTLEDGE FORMULA ON PAGE 58 OF THE AASHTO PUBLICATION "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

ALL BOLT HOLES SHALL BE 1/8" DIA. UNLESS OTHERWISE SHOWN.

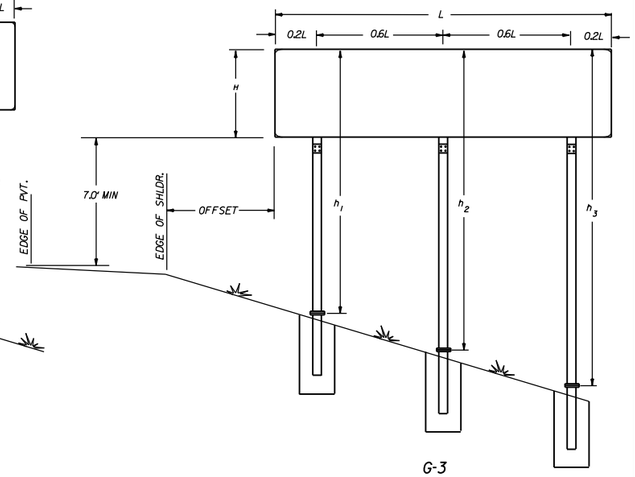



G-1

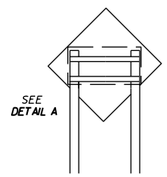
NOTE:
THE OFFSET WILL BE A MINUTE OF 10' FROM THE EDGE OF PAVED SURFACE OR AS DIRECTED BY THE ENGINEER.



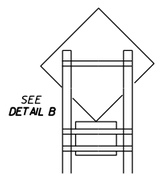

G-2



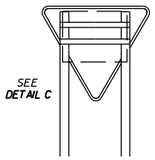

G-3



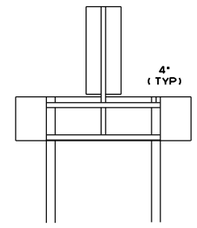

G2-1



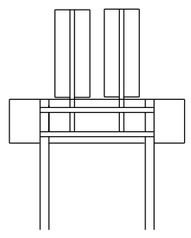

G2-2



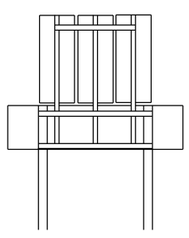

G2-3



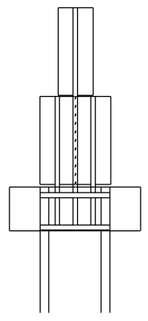

G2-4



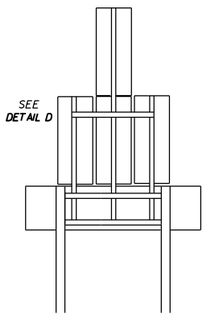
G2-5



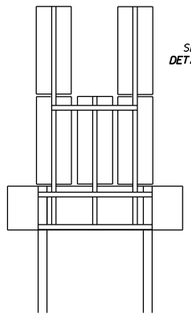
G2-6



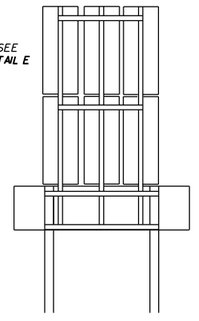
G2-7




G2-8



G2-9



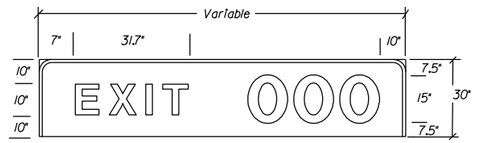

G2-10

| | | | |
|---|---|---|---|
| | | | ARKANSAS STATE HIGHWAY COMMISSION |
| | | | DETAIL OF BREAKAWAY SIGN SUPPORTS FOR STANDARD SIGNS |
| 9-12-13 | ISSUED | | STANDARD DRAWING SHS-4 |
| DATE | REVISION | FILMED | |



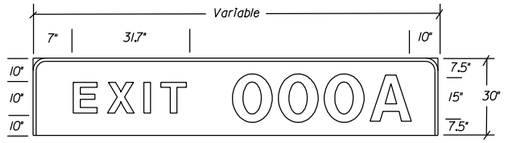

TYPICAL DETAIL

TYPE A




EXIT WITH 1 DIGIT 84"X30"=17.50 SF
EXIT WITH 2 DIGITS 96"X30"=20.0 SF
EXIT WITH 3 DIGITS 114"X30"=23.57 SF

TYPE B



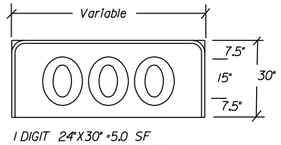

EXIT WITH 1 DIGIT PLUS "A"OR"B" 96"X30"=20.0 SF
EXIT WITH 2 DIGITS PLUS "A"OR"B" 114"X30"=23.57 SF
EXIT WITH 3 DIGITS PLUS "A"OR"B" 126"X30"=26.25 SF

TYPE C



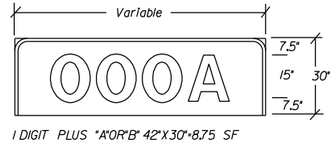

EXITS WITH 1 DIGIT PLUS "A"&"B" 132"X30"=27.50 SF
EXITS WITH 2 DIGITS PLUS "A"&"B" 150"X30"=31.25 SF
EXITS WITH 3 DIGITS PLUS "A"&"B" 168"X30"=35.00 SF

TYPE D




1 DIGIT 24"X30" =5.0 SF
2 DIGITS 42"X30" =8.75 SF
3 DIGITS 60"X30" =12.50 SF

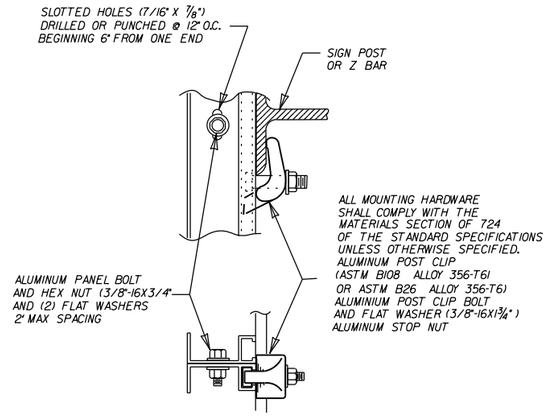
TYPE E

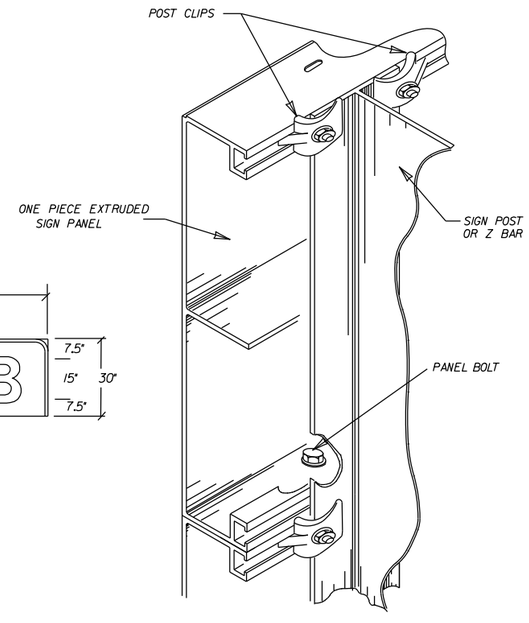



1 DIGIT PLUS "A"OR"B" 42"X30"=8.75 SF
2 DIGITS PLUS "A"OR"B" 60"X30"=12.50 SF
3 DIGITS PLUS "A"OR"B" 78"X30"=16.25 SF

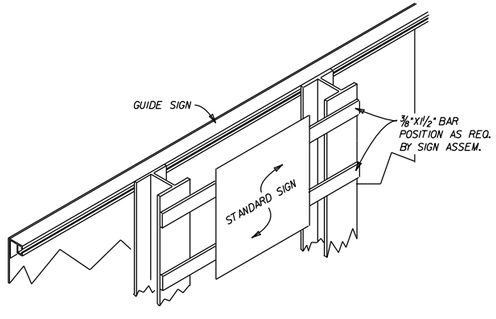
## EXIT PANEL DETAILS

NOTE: EXIT NUMBER PANELS SHALL HAVE WHITE LEGENDS AND BORDERS. THE BACK GROUND COLOR WILL BE AS USE SPECIFIES. SHEETING TYPE WILL BE THE SAME AS THE GUIDE SIGN WHICH THE EXIT PANEL IS ATTACHED OR AS SPECIFIED IN THE PLANS. PAYMENT FOR ALL POST CLIPS, BOLTS, AND ANGLES SHALL BE SUBSIDIARY TO THE ITEM "EXIT NUMBER PANEL".

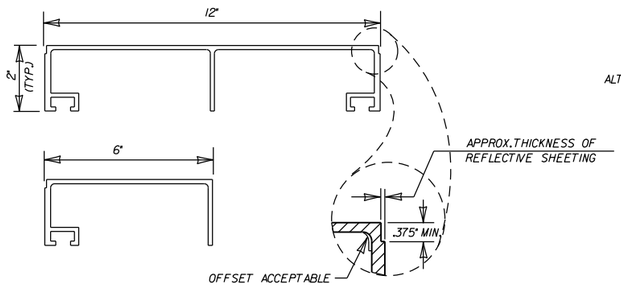


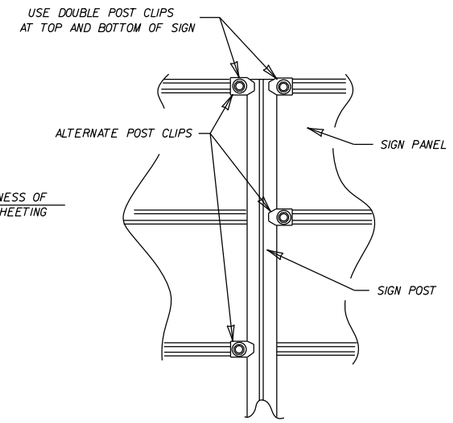

MOUNTING HARDWARE



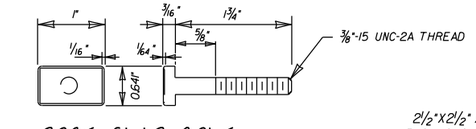

SECONDARY SIGN INSTALLATION ON BACKSIDE OF GUIDE SIGN



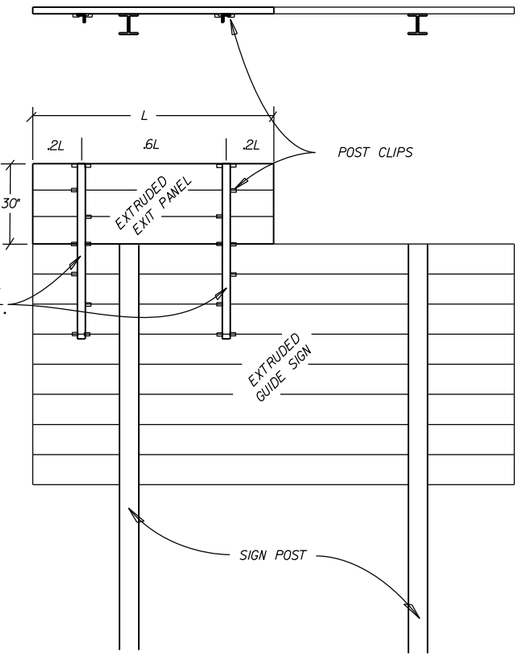

ONE PIECE EXTRUDED SIGN PANELS



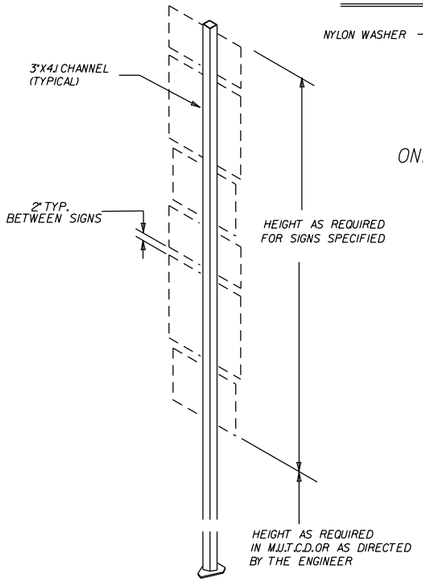

POST CLIP PLACEMENT

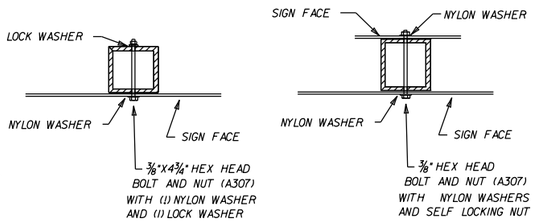



POST CLIP BOLT



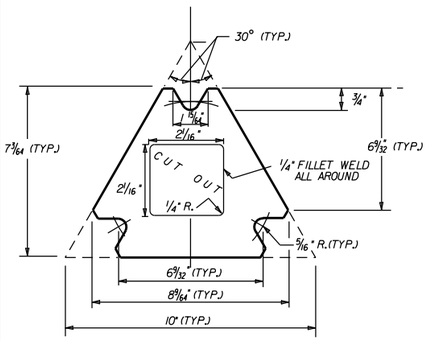

| | | | |
|---|---|---|---|
| | | | ARKANSAS STATE HIGHWAY COMMISSION |
| | | | DETAILS OF GUIDE SIGN PANELS |
| 9-12-13 | ISSUED | | STANDARD DRAWING SHS-5 |
| DATE | REVISION | FILMED | |



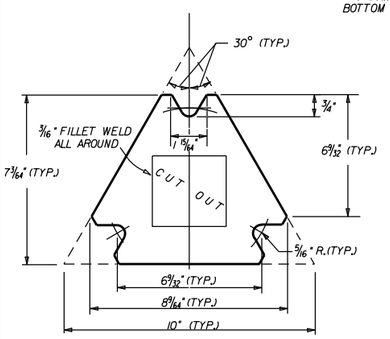




CHANNEL SHALL BE FULL LENGTH OF RECTANGULAR AND SQUARE SIGNS AND SHALL EXTEND 1½" BEYOND BOLT HOLES ON DIAMOND OR IRREGULAR SHAPED SIGNS.

## MOUNTING HARDWARE




## TOP PLATE



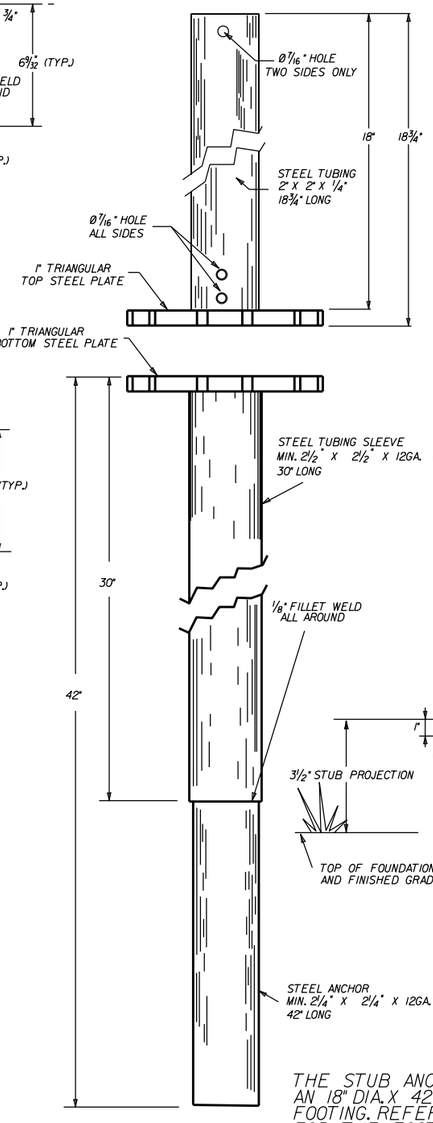

## BOTTOM PLATE

GENERAL NOTES:

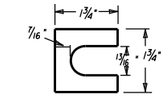
THE TOP PLATE OF TRIANGULAR SLIP BASES SHALL HAVE THE SAME EXTERIOR DIMENSIONS AS THE BOTTOM PLATE.

INSIDE DIAMETER OF THE SIGN POST SHALL BE CUT THROUGH THE CENTER OF THE TOP PLATE WITH THE HOLE EDGE BEVELED AS SHOWN. THE BEVEL END SHALL BE TANGENT TO THE BOLT HOLE . ANY MISALIGNMENT SHALL BE REMOVED BY GRINDING . FACE OF BEVEL SHALL BE FINISHED TO A MINIMUM SMOOTHNESS OF 1•500 .

OTHER MASH COMPLIANT BREAKAWAY SIGN SUPPORTS THAT HAVE THE SAME TOP PLATE DIMENSIONS AND SUPPORT 2¼" X 2¼" SQUARE TUBE SIGN POSTS MAY BE SUBSTITUTED AS APPROVED BY THE ENGINEER.

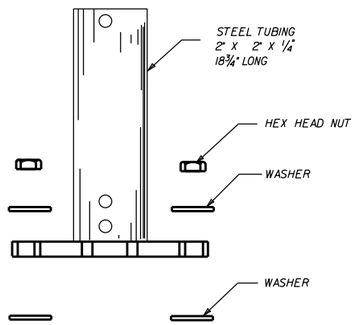


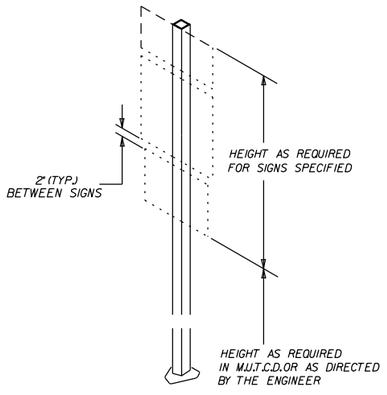

THE STUB ANCHOR SHALL BE SET IN AN 18" DIA. X 42" DEEP CONCRETE FOOTING. REFER TO STD.DRWG.SHS-3 FOR THE FOOTING DETAILS.




FURNISH (2) .012" THICK AND (2) .032" THICK SHIMS PER POST

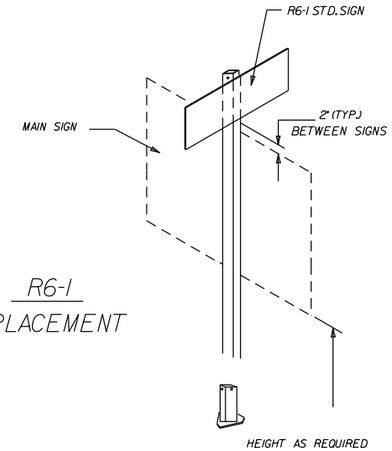
## SHIM DETAIL



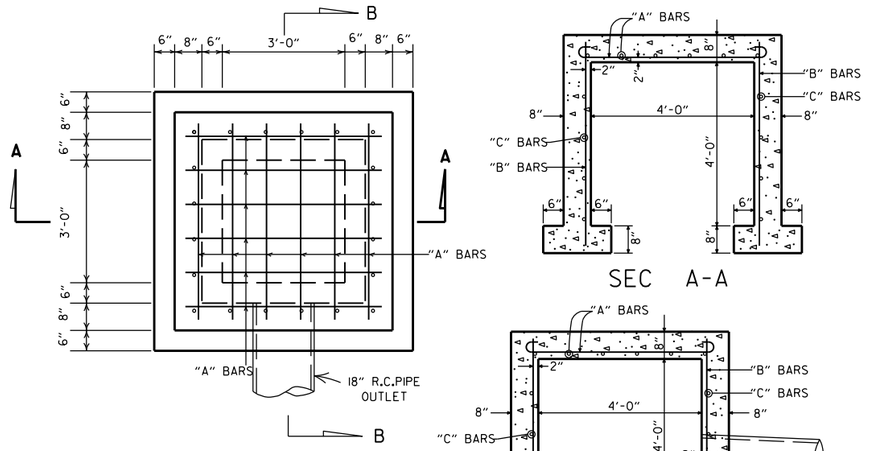

## TYPE-I

BASIS OF ESTIMATE
APPROX. 100 lbs STEEL




## R6-1 PLACEMENT

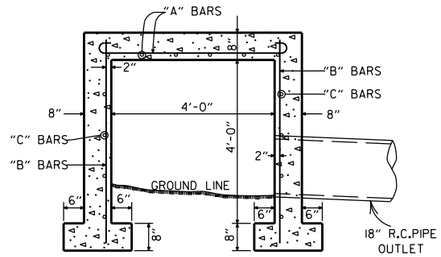
| | | | |
|---|---|---|---|
| | | | ARKANSAS STATE HIGHWAY COMMISSION |
| | | | DETAIL OF OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS |
| 9-12-13 | ISSUED | | STANDARD DRAWING SHS-7 |
| DATE | REVISION | FILMED | |







SEC A-A



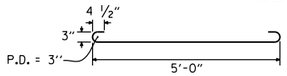

SEC B-B

NOTE: MAX FILL HEIGHT ABOVE TOP OF BOX = 13'-0".

STEEL SCHEDULE

| BARS | NUMBER | LENGTH | SPACING |
|---|---|---|---|
| "A" | 12 | 6'-0" | 10" |
| "B" | 20 | 5'-0" | 10 ½" |
| "C" | 16 | 5'-0" | 12" |

ALL STEEL TO BE #4 BARS




"A" BARS

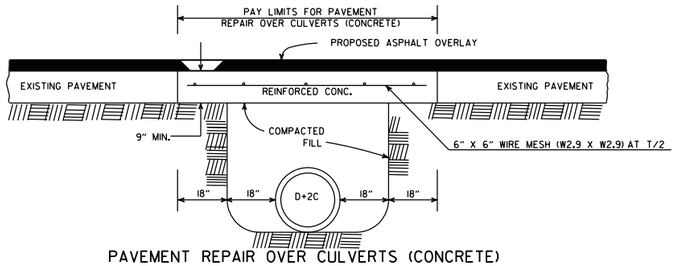
QUANTITIES

CONCRETE 3.31 CU. YDS.
REINFORCING STEEL 168 LB.

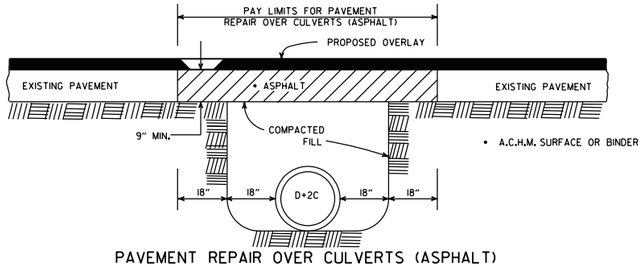
GENERAL NOTE:

THE PAY ITEMS FOR REINFORCED CONCRETE SPRING BOXES SHALL BE FOR THE QUANTITIES OF CONCRETE OF THE CLASS SPECIFIED, REINFORCING STEEL, EXCAVATION FOR STRUCTURES AND 18" R.C. PIPE CULVERT.

## REINFORCED CONCRETE SPRING BOX



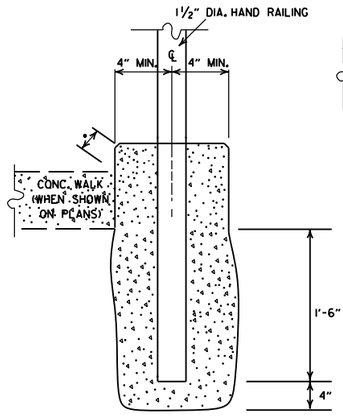

PAVEMENT REPAIR OVER CULVERTS (CONCRETE)



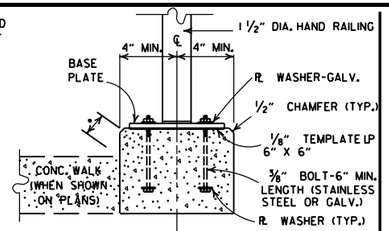

PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

## DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS

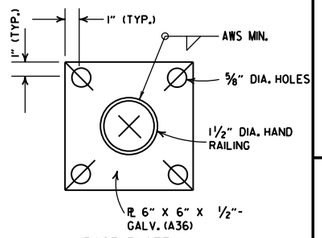
• A 2" MIN. HIGH CURB IS REQUIRED WHEN CONCRETE WALK IS ADJACENT TO THE HAND RAILING. PAYMENT FOR CURB SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR CONCRETE WALKS.




DETAIL OF HAND RAILING SET IN CONCRETE

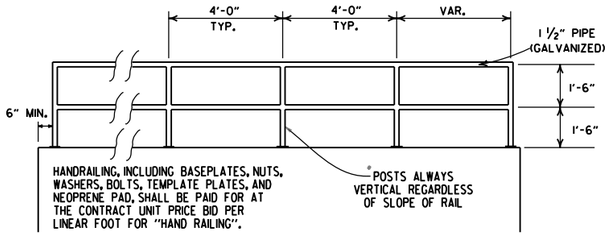



POST CONNECTION TO WALL

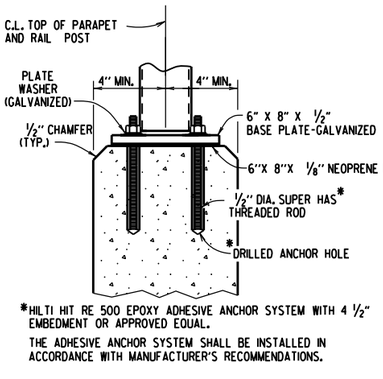



BASE PLATE

## POST CONNECTION DETAILS



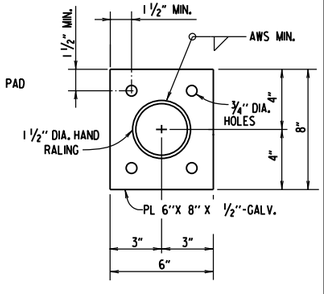

HAND RAILING SHALL CONFORM TO SECTION 633.




*HILTI HIT RE 500 EPOXY ADHESIVE ANCHOR SYSTEM WITH 4 ½" EMBEDMENT OR APPROVED EQUAL.

THE ADHESIVE ANCHOR SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

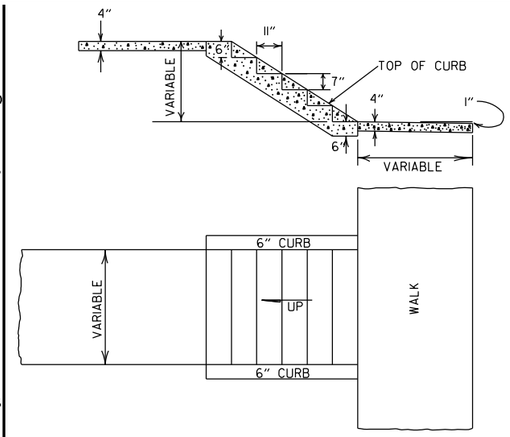
POST CONNECTION TO WALL




BASE PLATE

DETAILS OF ALTERNATE POST ANCHOR SYSTEM (EPOXY ADHESIVE ANCHORS)

## HAND RAILING DETAILS




GENERAL NOTES

1. RISE AND TREAD DIMENSIONS OF STEPS MAY BE VARIED AS DIRECTED BY THE ENGINEER, HOWEVER, TREAD WIDTHS SHALL BE 11" MIN. ALL STEPS IN A FLIGHT SHALL HAVE CONSISTENT TREAD & RISER DIMENSIONS.
2. 1" TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45' INTERVALS.

## DETAILS OF CONCRETE STEPS & WALKS

| DATE | REVISION | DATE FILMED |
|---|---|---|
| 10-25-18 | REVISED DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS | |
| 9-12-13 | REVISED REINFORCED CONCRETE SPRING BOX | |
| 7-26-12 | REMOVED RETAINING WALL DETAILS & REVISED HAND RAILING DETAILS | |
| 4-17-08 | REV. JOINT & FOOTING STEP DETAILS | |
| 11-29-07 | REVISED RETAINING WALL DRAINAGE | |
| 5-25-06 | REVISED PVMT REPAIR OVER CULVERTS (CONC); REVISED REINFORCED CONC SPRING BOX | |
| 10-9-03 | REVISED PIPE RAILING DETAILS TO HAND RAILING DETAILS | |
| 4-10-03 | REVISED RETAINING WALL DRAWING | |
| 8-22-02 | ADDED HAND RAILING DETAIL | |
| 11-16-01 | REVISED PVMT REPAIR OVER CULVERTS (CONC); CORRECTED SPELLING IN GENERAL NOTES | |
| 11-18-98 | ADDED GENERAL NOTES TO CONCRETE STEPS & WALKS | |
| 7-02-98 | ENLARGED PIPE | |
| 4-03-97 | ADDED NOTE TO STEEL BAR SCHED. | |
| 10-18-96 | CORRECTED SPELLING | |
| 4-26-94 | ADD WEEP HOLE;REV. JOINT SPACING IN RET. WALL | |
| 6-2-94 | CHANGED CONST. TO CONTRACTION JOINT | |
| 10-1-92 | CHANGED MESH FABRIC TO WIRE MESH | 10-1-92 |
| 8-15-91 | DELETED HDWL MODIFICATION DETAIL | 8-15-91 |
| 11-8-90 | DELETED COLD MIX FROM CULV'T. REPAIR | 11-8-90 |
| 11-30-89 | REV. RETAINING WALL STEEL SCHEDULE | 11-30-89 |
| 11-17-88 | V. BARS BEHIND ARROW | 665-11-17-88 |
| 7-15-88 | REV. PAVEMENT REPAIR ADDED HDWL. MODS, DEL. PIPE UNDERDRAINS | 649-7-15-88 |
| 11-1-84 | REV. TRENCH FOR PIPE UNDERDRAIN | 510-11-1-84 |
| 1-4-83 | ELIMINATED CONC. CLASS & ADDED CHAMFER NOTE | 682-1-4-83 |
| 3-2-81 | SPELLING OF "UNDERDRAIN" | 721-3-2-81 |
| 4-20-79 | REV. UNDERDRAIN DET& PAVEMENT REPAIR | 674-4-20-79 |
| 2-2-76 | 12"MIN. GRAN. MAT'L. OVER PIPE | 919-2-2-76 |
| 4-10-75 | REM. SPECS. FOR GRAN. MAT'L. | 568-4-10-75-853 |
| 5-22-74 | GRANULAR MAT'L. TO BE SB-3 | 567-5-22-74-740 |
| 10-2-72 | REVISED AND REDRAWN | 564-10-16-72 |

ARKANSAS STATE HIGHWAY COMMISSION

# DETAILS OF SPECIAL ITEMS

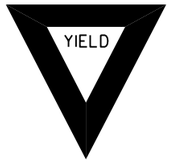
STANDARD DRAWING SI - 1

R1-1




STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2




STD. 36"X36"X36"
EXPWY. 48"X48"X48"
FWY. 60"X60"X60"

R2-1




STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

W3-5




STD. 36"X36"
EXPWY. 48"X48"
FWY. 48"X48"

W3-5a




STD. 36"X36"
EXPWY. 48"X48"
FWY. 48"X48"

R4-1




STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-2




STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R5-1



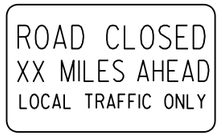

STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

R11-2




48"X30"

R11-3A




60"X30"

R11-4




60"X30"

W21-5a




STD. 36"X36"
FWY. 48"X48"

W1-1



STD. 36"X36"
FWY. 48"X48"

W1-2



STD. 36"X36"
FWY. 48"X48"

W1-3



STD. 48"X48"

W1-4



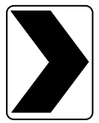
STD. 48"X48"

W1-6



STD. 48"X24"
SPECIAL 60"X30"

W1-8



STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

W3-1



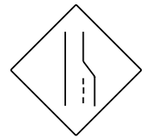
STD. 36"X36"
SPECIAL 48"X48"

W3-2



STD. 36"X36"
SPECIAL 48"X48"

W4-2



STD. 36"X36"
FWY. 48"X48"

W5-1




STD. 36"X36"
SPECIAL 48"X48"

W6-3



EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7




EXPWY. 36"X36"
FWY. 48"X48"

W9-2




STD. 36"X36"
FWY. 48"X48"

W13-1




STD. 24"X24"

W20-1




STD. 48"X48"

W20-2




STD. 48"X48"

W20-3




STD. 48"X48"

W20-4




STD. 48"X48"

W20-5




STD. 48"X48"

W20-7a




STD. 36"X36"
FWY. 48"X48"

W21-2




STD. 30"X30"
SPECIAL 36"X36"

W21-5




STD. 30"X30"
SPECIAL 36"X36"

W24-1



STD. 36"X36"

W1-4b



STD. 48"X48"

R56-1




STD. 18"X18"

W8-11




STD. 36"X36"
FWY. 48"X48"

W8-9



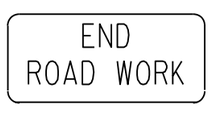

STD. 36"X36"
FWY. 48"X48"

G20-1



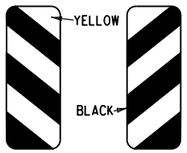

60"X24"

G20-2




48"X24"

OM-3L OM-3R




12"X36"

M4-9



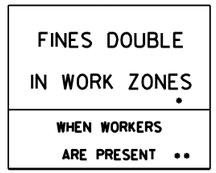

STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10




48"X18"

R55-1




36"X60"

• USE 6" C LETTERS
•• USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

| | |
|---|---|
| 500 FT | ½ MILE |
| 1000 FT | ¾ MILE |
| 1500 FT | 1 MILE AHEAD |

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.
2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.
3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.
- 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.
- 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.
6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.
7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.
8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.
10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

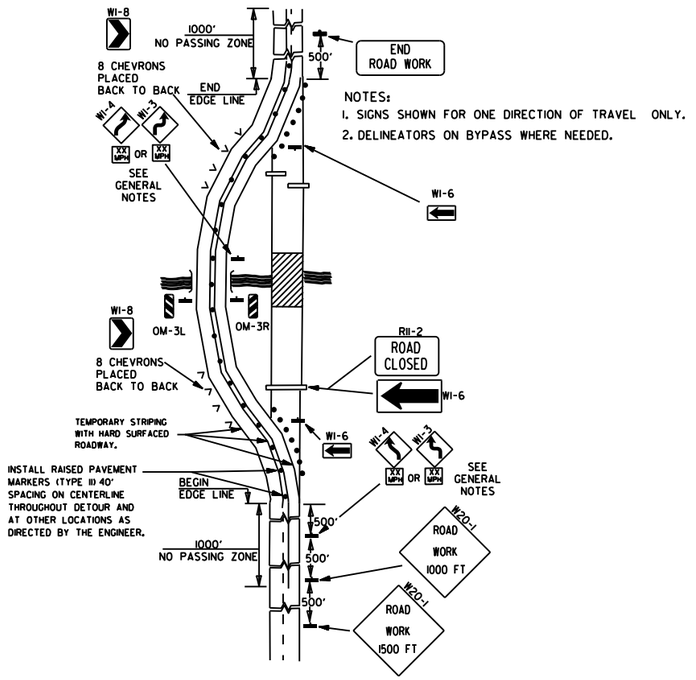
- NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

| DATE | REVISION | FILMED |
|---|---|---|
| 11-07-19 | REVISED FOR MASH | |
| 4-13-17 | DELETED RSP-1 & ADDED W21-5a | |
| 9-2-15 | REVISED REDUCED SPEED LIMIT AHEAD SIGNS<br>REVISED ROAD WORK NEXT XX MILES | |
| 12-15-11 | REVISED W24-1 | |
| 11-17-10 | DELETED W8-9a & ADDED W8-9 | |
| 10-15-09 | ADDED REFERENCE TO MASH & ADDED SIGN W24-1 | |
| 4-17-08 | REVISED SIGN DESIGNATIONS | |
| 11-18-04 | REVISED NOTES | |
| 10-9-03 | REVISED NOTE 1 | |
| 11-16-01 | REVISED NOTE 7 | |
| 9-28-00 | REVISED NOTE | |
| 11-18-98 | ADDED NOTE | |
| 6-26-97 | REVISED NOTE 5 | |
| 4-03-97 | REVISED NOTE 5 | |
| 10-18-96 | ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7 | |
| 10-12-95 | ADDED R55-1 | |
| 6-8-95 | REVISED TO CORRECT SIGN ILLUSTRATIONS | 6-8-95 |
| 2-2-95 | REVISED PER PART VI, MUTCD SEPT. 3, 1993 | |
| 8-15-91 | DRAWN AND PLACED IN USE | |

ARKANSAS STATE HIGHWAY COMMISSION

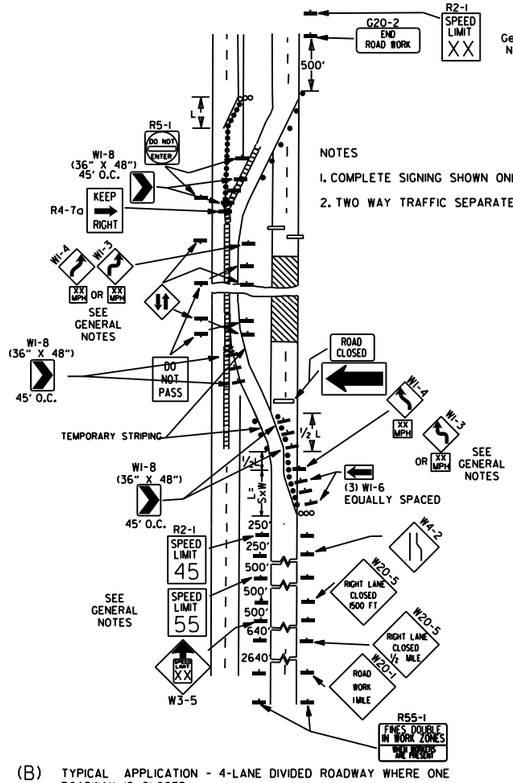
# STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



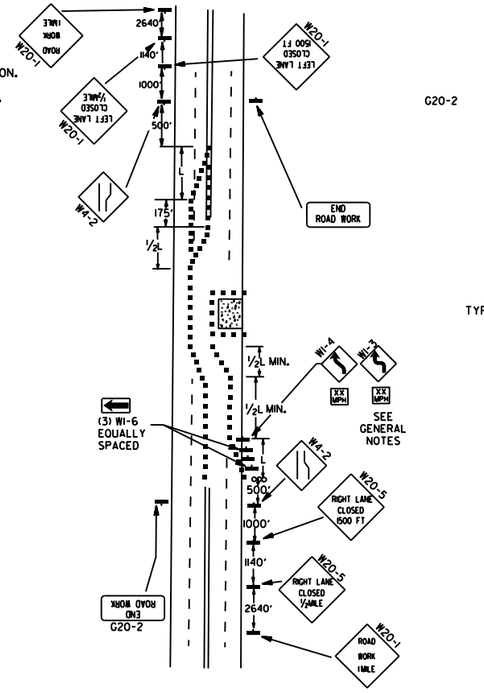

NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.

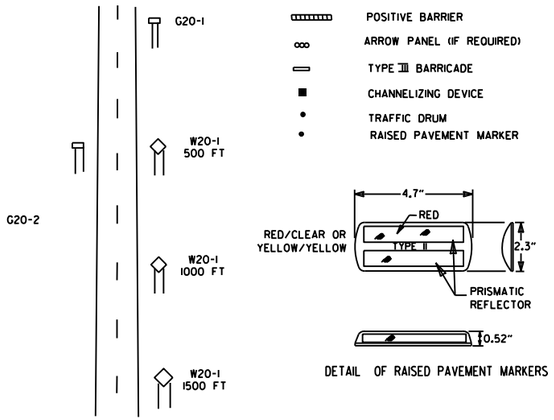



NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.




(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.




DETAIL OF RAISED PAVEMENT MARKERS

TYPICAL ADVANCE WARNING SIGN PLACEMENT

TAPER FORMULAE:

L=SXW FOR SPEEDS OF 45MPH OR MORE.

$L = \frac{WS^2}{60}$ FOR SPEEDS OF 40MPH OR LESS.

WHERE:

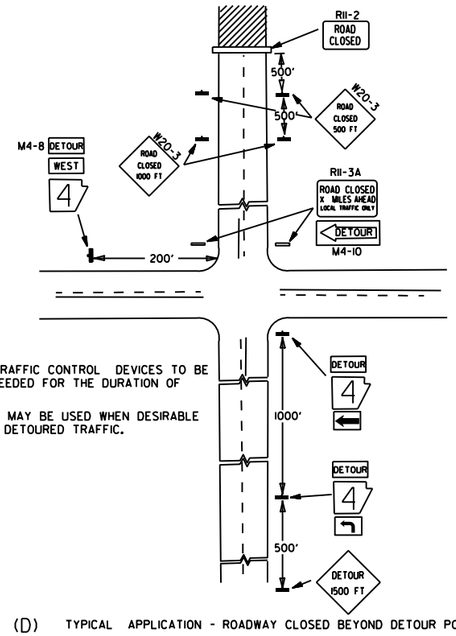
L= MINIMUM LENGTH OF TAPER.

S= NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.

W= WIDTH OF OFFSET.

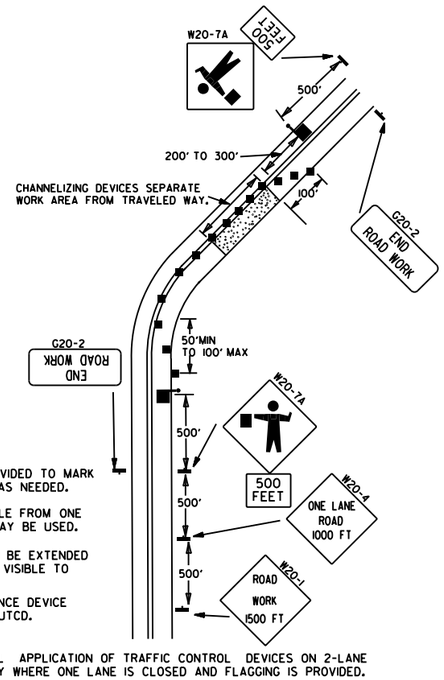
GENERAL NOTES:

1. THE MAINTENANCE DIVISION SHALL CONDUCT A BALL BANK STUDY TO DETERMINE THE ADVISORY SPEED LIMIT PRIOR TO OPENING TO TRAFFIC. THE ADVISORY SPEED WILL BE POSTED ON WI-3 OR WI-4 CURVE WARNING SIGNS. USE WI-4 WHEN SPEED IS GREATER THAN 30MPH AND WI-3 WHEN 30MPH OR LESS
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-145MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(45) SHALL BE OMITTED. ADDITIONAL R2-155MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE. PAYMENT FOR TRAFFIC DRUMS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.
8. DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE ARDOT QUALIFIED PRODUCTS LIST.
9. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).



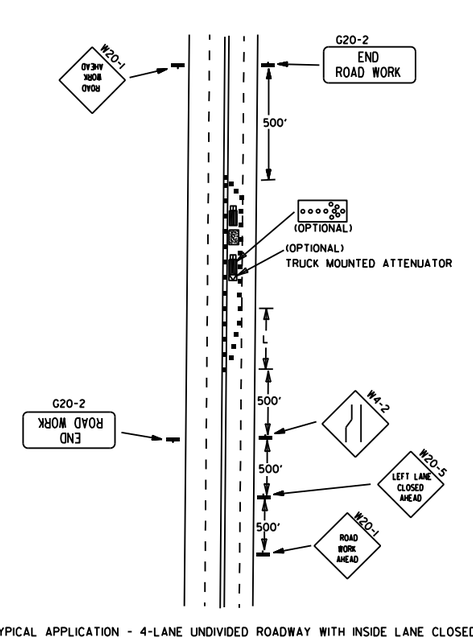

NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.




NOTES:
1. FLOOD LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
2. IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION, A SINGLE FLAGGER MAY BE USED.
3. CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
4. AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) OPTIONAL. REFER TO MUTCD.

(E) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.



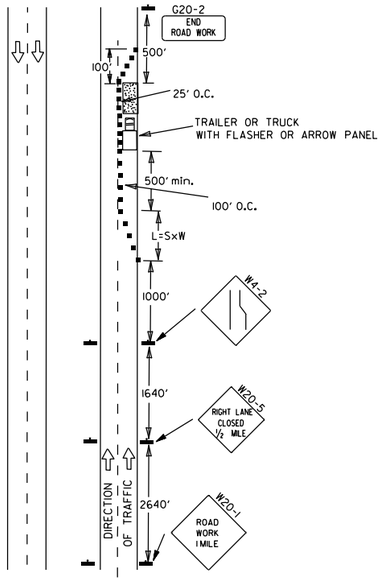

(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

| DATE | REVISION | FILMED |
|---|---|---|
| 05-20-21 | REVISED NOTE 7 | |
| 11-07-19 | REVISED NOTE 1, ADDED NOTE 9 | |
| 9-2-15 | REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5 | |
| 9-12-13 | REVISED DETAIL OF RAISED PAVEMENT MARKERS | |
| 3-11-10 | ADDED (AFAD) | |
| 11-20-08 | REVISED SIGN DESIGNATIONS | |
| 11-18-04 | ADDED GENERAL NOTE | |
| 10-18-96 | ADDED R55-1 | |
| 4-26-96 | CORRECTED (a) BEHIND G20-2 | |
| 6-8-95 | CORRECTED SIGN IDENT. ON W1-4A | 6-8-95 |
| 2-2-95 | REVISED PER PART VI, MUTCD, SEPT. 3, 1993 | |
| 8-15-91 | DRAWN AND PLACED IN USE | |

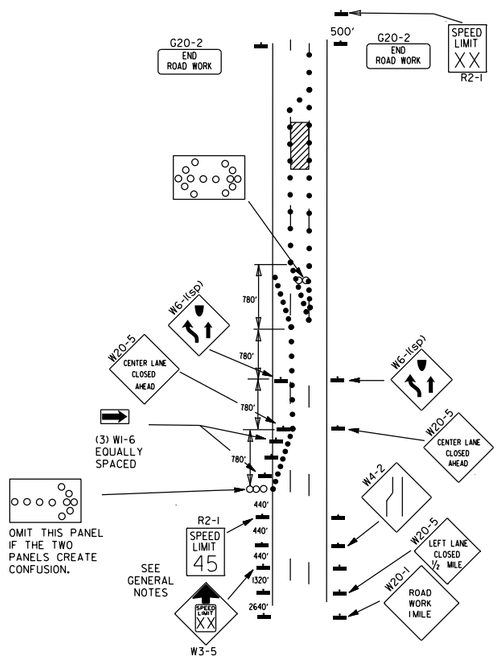
ARKANSAS STATE HIGHWAY COMMISSION

# STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-2




(A) TYPICAL APPLICATION - DAYTIME MAINTENANCE OPERATIONS OF SHORT DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.




(B) TYPICAL APPLICATION - 3-LANE ONEWAY ROADWAY WHERE CENTER LANE IS CLOSED.

KEY:

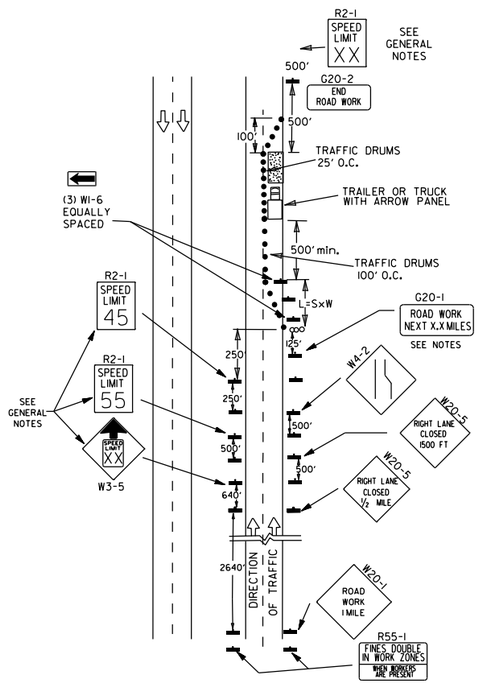
ARROW PANEL (IF REQUIRED)

■ CHANNELIZING DEVICE

● TRAFFIC DRUM

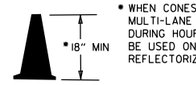
GENERAL NOTES:

1. A SPEED LIMIT REDUCTION MAY BE IMPLEMENTED ONLY WHEN DESIGNATED IN THE PLAN OR WHEN RECOMMENDED BY THE ROADWAY DESIGN DIVISION.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1 45MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(45) SHALL BE OMITTED. ADDITIONAL R2-1 55MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS, AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. THE G20-1 SIGN WILL BE REQUIRED ON JOBS OF OVER TWO MILES IN LENGTH. WHEN THE LANE CLOSURE IS NOT AT THE BEGINNING OF THE PROJECT, THE G20-1 SIGN SHALL BE ERECTED 125' IN ADVANCE OF THE JOB LIMIT. ADDITIONAL W20-1 (1 MILE) SIGNS ARE NOT REQUIRED IN ADVANCE OF LANE CLOSURES THAT BEGIN INSIDE THE PROJECT LIMITS.
8. FLAGGERS SHALL USE STOP/SLOW PADDLES FOR CONTROLLING TRAFFIC THROUGH WORK ZONES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
9. ALL PLASTIC DRUMS AND CONES SHALL MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
10. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE. PAYMENT FOR TRAFFIC DRUMS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR VARIOUS TRAILER MOUNTED DEVICES.
11. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).




(C) TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

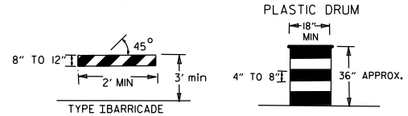
## CHANNELIZING DEVICES



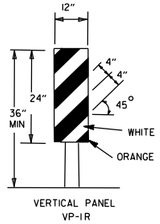

* WHEN CONES ARE USED ON FREEWAYS AND MULTI-LANE HIGHWAYS, THEY SHALL BE 28" MIN. DURING HOURS OF DARKNESS, 28" CONES SHALL BE USED ON ALL ROADWAYS, AND SHALL BE REFLECTORIZED IN ACCORDANCE WITH THE M.U.T.C.D.

CONES

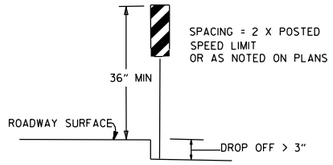
PLASTIC DRUM



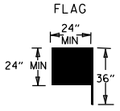

NOTE:
FOR ALL ROAD CLOSURES, THE TYPE III BARRICADES SHALL BE OF SUFFICIENT LENGTH TO EXTEND ACROSS ENTIRE ROADWAY.




VERTICAL PANEL PLACEMENT




FLAG




FLAG SHALL BE OF GOOD GRADE RED MATERIAL

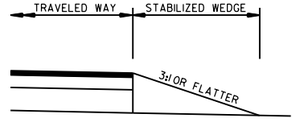
| TRAFFIC CONTROL DEVICES | | | |
|---|---|---|---|
| NON-INTERSTATE | | | |
| VERTICAL DIFFERENTIAL | LOCATION | TRAFFIC CONTROL | |
| | | ≤ 45 MPH | > 45 MPH |
| ≤ 1" | CENTERLINE | W8-11 | W8-11 |
| > 1" ≤ 3" | CENTERLINE | W8-11 AND CENTERLINE LANE STRIPING | W8-11 AND CENTERLINE LANE STRIPING |
| > 3" | CENTERLINE | STANDARD LANE CLOSURE[6] | STANDARD LANE CLOSURE[6] |
| ≤ 3" | EDGE OF TRAVELED LANE OR EDGE OF SHOULDER | W8-9 AND TRAFFIC DRUMS[1] | W8-9 AND TRAFFIC DRUMS[1] |
| > 3" ≤ 6" | EDGE OF TRAVELED LANE OR EDGE OF SHOULDER | W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS[1] | W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS[1] |
| > 6" ≤ 18" | EDGE OF TRAVELED LANE OR EDGE OF SHOULDER | W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS[1] | W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS[2] |
| > 18" ≤ 24" | EDGE OF TRAVELED LANE OR EDGE OF SHOULDER | W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS[1] | A STABILIZED WEDGE, W8-17, EDGE LINE STRIPING AND TRAFFIC DRUMS[3] |
| > 24" | EDGE OF TRAVELED LANE OR EDGE OF SHOULDER | PRECAST CONCRETE BARRIER[4] & EDGE LINES | PRECAST CONCRETE BARRIER[4] & EDGE LINES |

| INTERSTATE | | |
|---|---|---|
| VERTICAL DIFFERENTIAL | LOCATION | TRAFFIC CONTROL |
| ≤ 3" | CENTERLINE | W8-11 AND LANE STRIPING |
| ≤ 3" | EDGE OF TRAVELED LANE OR EDGE OF SHOULDER | W8-9, EDGE LINE STRIPING, AND TRAFFIC DRUMS[2] |
| > 3" ≤ 6" | EDGE OF TRAVELED LANE OR EDGE OF SHOULDER | W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS[2] |
| > 6" | EDGE OF TRAVELED LANE OR EDGE OF SHOULDER | PRECAST CONCRETE BARRIER & EDGE LINES |

| INTERSTATE AND NON-INTERSTATE | | |
|---|---|---|
| FORESLOPE | HEIGHT | TRAFFIC CONTROL |
| 1:1 | > 2 FT | PRECAST CONCRETE BARRIER |
| 2:1 | ≤ 5 FT | TRAFFIC DRUMS |
| 2:1 | > 5 FT | PRECAST CONCRETE BARRIER |
| Flatter than 2:1 | N/A | TRAFFIC DRUMS |

GENERAL NOTES:

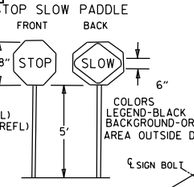
1. WHEN THE SHOULDER AREA IS USED AS PART OF THE TRAVELED LANE AND THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, THEN VERTICAL PANELS SHALL BE USED.
2. WHEN THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, A STABILIZED WEDGE SHALL BE USED.
3. PRECAST CONCRETE BARRIER WALL CAN BE USED IN LIEU OF A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS, IF AND WHERE DIRECTED BY THE ENGINEER.
4. A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS CAN BE USED IN LIEU OF PRECAST CONCRETE BARRIER WALL, IF AND WHERE DIRECTED BY THE ENGINEER.
5. W21-5, W21-5a, AND/OR W21-5b SIGNS SHALL BE USED WHERE THE ROADWAY IS UNOBSTRUCTED IF AND WHERE DIRECTED BY THE ENGINEER.
6. TIME LIMITATIONS MUST CONFORM TO SECTION 603 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION).

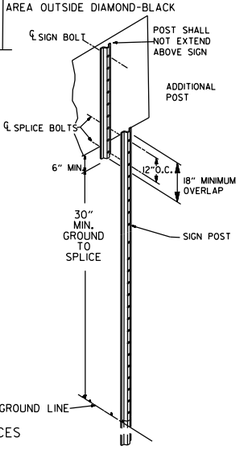



STABILIZED WEDGE

NOTE:
MATERIALS FOR THE STABILIZED WEDGE SHALL MEET THE REQUIREMENTS PROVIDED IN SECTION 603.02 OF THE STANDARD SPECIFICATIONS.

STOP SLOW PADDLE

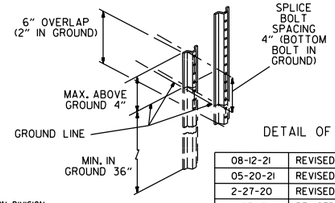


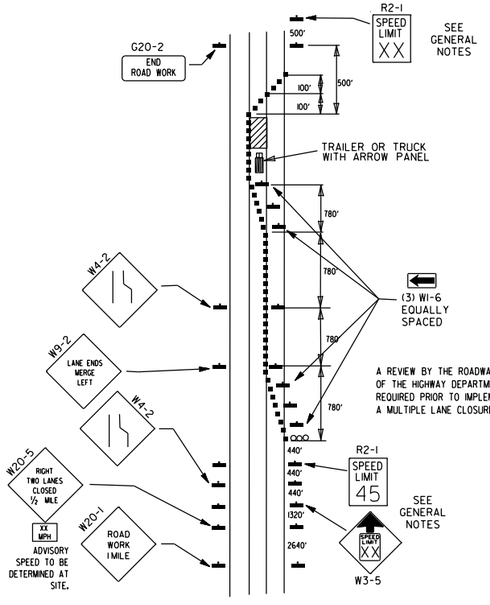

NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-21)

NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.

SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.




DETAIL OF SPLICES




A REVIEW BY THE ROADWAY DESIGN DIVISION OF THE HIGHWAY DEPARTMENT WILL BE REQUIRED PRIOR TO IMPLEMENTING A MULTIPLE LANE CLOSURE.

(D) TYPICAL APPLICATION - CLOSING MULTIPLE LANES OF A MULTILANE HIGHWAY.

| DATE | REVISION | FILMED |
|---|---|---|
| 08-12-21 | REVISED TRAFFIC CONTROL DEVICES AND NOTES | |
| 05-20-21 | REVISED NOTE 10 | |
| 2-27-20 | REVISED TRAFFIC CONTROL DEVICES DETAILS | |
| 11-07-19 | REVISED NOTE 9, ADDED NOTE 11 | |
| 7-25-19 | REVISED TRAFFIC CONTROL DEVICES DETAILS | |
| 9-2-15 | REVISED NOTE 2 & REPLACED R2-5A WITH W3-5 | |
| 10-15-09 | ADDED REFERENCE TO MASH | |
| 11-20-08 | REVISED SIGN DESIGNATIONS | |
| 11-18-04 | ADDED NOTE | |
| 10-1-98 | ADDED NOTE | |
| 4-03-97 | ADDED (SP) TO W6-1& REVISED TRAFFIC CONTROL DEVICES NOTE | |
| 10-18-96 | ADDED R55-1 | |
| 10-12-95 | MOVED UPPER SPLICE | |
| 6-8-95 | REVISED SPLICE DETAIL, TEXT | 6-8-95 |
| 2-2-95 | REVISED PER PART VI, MUTCD, SEPT. 3, 1993 | |
| 8-15-91 | DRAWN AND PLACED IN USE | |

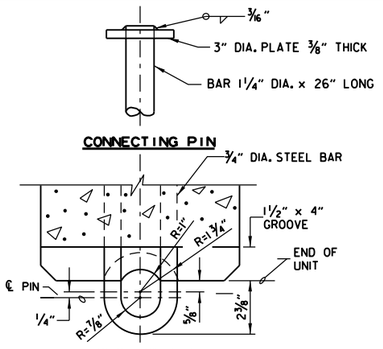
ARKANSAS STATE HIGHWAY COMMISSION

# STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-3

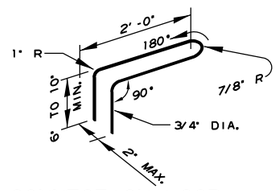
## REINFORCING BAR TABLE PER BARRIER UNIT

| MARK | LOCATION | BAR SIZE | (NO. BARS) | SKETCH |
|---|---|---|---|---|
| H-1 | HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS | #5 | (6) | 19'-3" |
| H-2 | CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY | #5 | (6) | 6'-6" |
| H-3 | TIED ABOVE H-1 BARS TO SUPPORT H-2, TIED TO V-1 | #4 | (2) | 1'-6" |
| S-1 | OVER LIFT HOLES | #4 | (2) | 2'-5", LIFTING HOLE, 90°, 3 3/8" R |
| S-2 | HORIZ. AROUND SLOTS BETWEEN V-1'S @ DRAIN SLOTS | #4 | (2) | 1 1/2" R, SLOTS, 7", 1'-6", 1" MIN. CLEAR TO BAR; 5'-1" BAR W/(4) 1 1/2" R BENDS & MIN. 1'-0" OVERLAP |
| V-1 | VERTICAL IN BARRIER(3) EACH END & (2) AT EACH DRAIN SLOTS | #5 | (16) | TOTAL LENGTH 4'-9"; 2 3/16" R; 12°; 1 1/2"; 9"; 2'-1 3/8"; 4 3/8" |

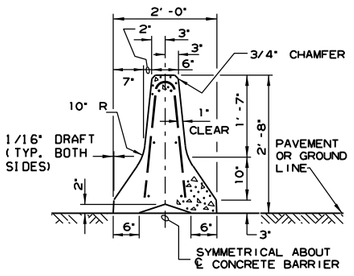



SECTION E-E

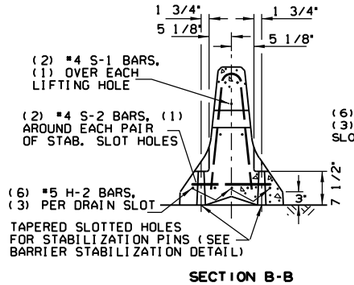
CONNECTION DETAILS



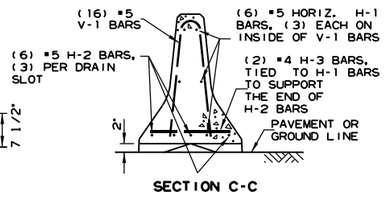

CONNECTION LOOP



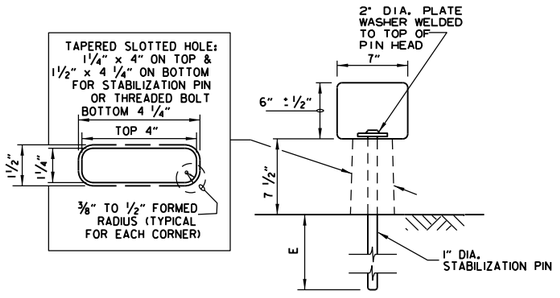

SECTION A-A




SECTION B-B



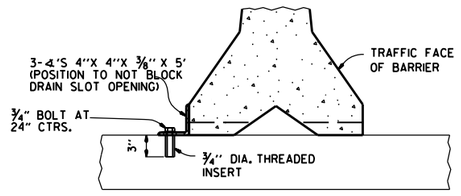

SECTION C-C




BARRIER STABILIZATION DETAIL

ROADWAY SECTION

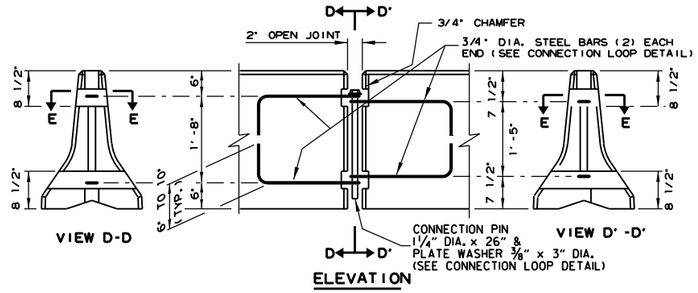
(E) 4" - CONCRETE PAVEMENT
8" - ASPHALT PAVEMENT
12" - SHOULDER AREAS



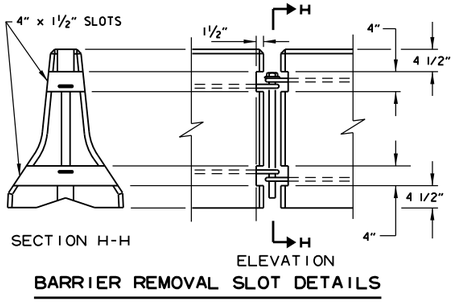

NOTE: " THREADED INSERTS SHALL BE CAST IN PLACE FOR ALL NEW BRIDGE DECKS AND DRILLED AND GROUTED FOR EXISTING BRIDGE DECKS. INSERTS SHALL HAVE A MINIMUM ULTIMATE LOAD CAPACITY OF 8000 LBS. IN TENSION. AFTER REMOVAL OF BARRIER, BOLTS, AND ANGLES, THE INSERTS SHALL BE FILLED WITH APPROVED NON-SHRINK EPOXY.

BARRIER STABILIZATION DETAIL

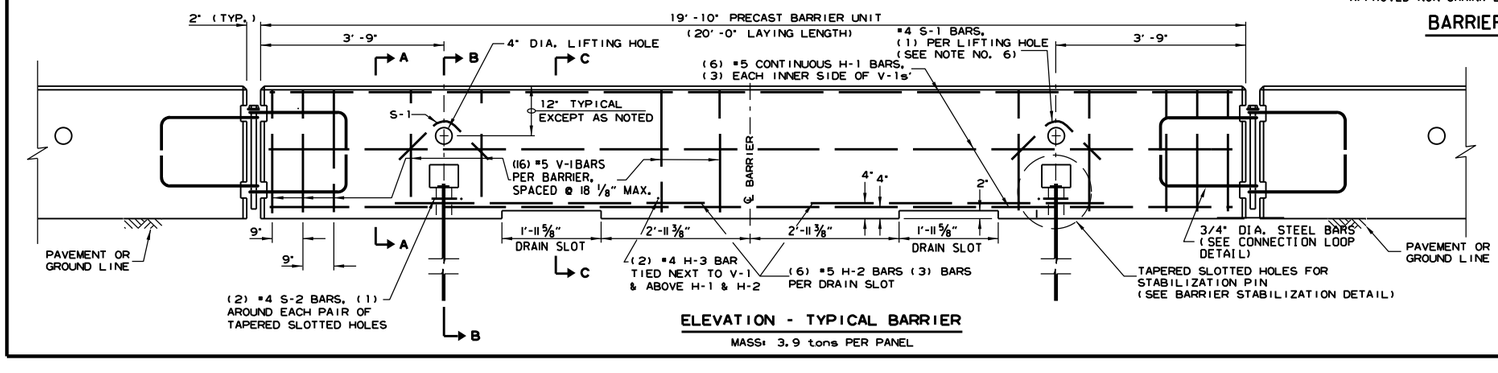
BRIDGE DECKS




ELEVATION




BARRIER REMOVAL SLOT DETAILS




ELEVATION - TYPICAL BARRIER

MASS: 3.9 tons PER PANEL

### GENERAL NOTES

(1) THE CONTRACTOR SHALL FURNISH THE PRECAST CONCRETE BARRIER UNITS AND SHALL BE RESPONSIBLE FOR THE MANUFACTURE, SHIPMENT, STORAGE, PLACEMENT AND REMOVAL. AT THE COMPLETION OF THE PROJECT, THE PRECAST UNITS WILL REMAIN THE PROPERTY OF THE CONTRACTOR.

(2) MATERIALS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
CONCRETE: 2500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
REINFORCING STEEL: AASHTO M 31 OR M 53, GRADE 60
STRUCTURAL STEEL: AASHTO-M270 GRADE 36 SHALL BE USED FOR THE CONNECTION PIN, CONNECTION LOOPS, AND STABILIZATION PINS. A ONE PIECE PIN WITH A 3" ROUNDED TOP MAY BE USED IN PLACE OF THE DETAILED CONNECTION PIN.
DELINEATORS: DELINEATORS SHALL BE MOUNTED AT 10' SPACING ON TOP OF PRECAST BARRIER.

IN APPLICATIONS WHERE BARRIER WALL IS WITHIN 6 FEET OF A TRAFFIC LANE, ADDITIONAL DELINEATORS SHALL BE PLACED ON THE BARRIER AT 10' SPACING APPROXIMATELY ONE (1) FOOT FROM THE TOP OF THE BARRIER. DELINEATORS SHALL BE ON THE ARDOT QUALIFIED PRODUCTS LIST FOR CONSTRUCTION CONCRETE BARRIER MARKERS.
DELINEATOR COLOR SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
PAYMENT FOR DELINEATORS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID PER LIN. FT. FOR "FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER". THE CONTRACTOR SHALL CERTIFY TO THE ENGINEER THAT THE MATERIAL AND THE DESIGN USED IN THE PRECAST BARRIER UNITS MEETS THE REQUIREMENTS AS SHOWN ON THIS STANDARD DRAWING.

(3) OTHER PRECAST CONCRETE BARRIERS THAT HAVE BEEN CRASH TESTED AND APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION TO MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) WILL BE ACCEPTED IN LIEU OF THE BARRIER SHOWN. DRAIN SLOTS SHALL BE PROVIDED AS NEEDED OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH A CERTIFICATION OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) COMPLIANCE FOR ANY OTHER TYPES OF PRECAST BARRIER TO BE USED. THE CERTIFICATION SHALL STATE THAT THE PRECAST CONCRETE BARRIER MEETS THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH). MIXING OF SHAPES WILL NOT BE ALLOWED IN A CONTINUOUS LINE OF UNITS.

(4) DOWEL HOLES IN PAVEMENT OR BRIDGE SLABS THAT ARE TO REMAIN IN PLACE SHALL BE FILLED. HOLES IN CONCRETE PAVEMENT AND BRIDGE SLABS SHALL BE FILLED WITH AN APPROVED NON-SHRINK EPOXY GROUT. HOLES IN ASPHALT PAVEMENT SHALL BE FILLED WITH AN APPROVED ASPHALT JOINT FILLER. PAYMENT FOR DRILLING AND FILLING HOLES TO BE INCLUDED IN THE PRICE FOR VARIOUS BARRIER ITEMS.

(5) ATTACH UNITS TO ROADWAY SURFACE WITH STABILIZATION PINS AND TO DECK SLABS USING BOLTS WHEN REQUIRED.

(6) A 4" WHITE PVC SLEEVE MAY BE USED TO FORM THE LIFTING HOLE AND IF USED THE SLEEVE IS TO BE LEFT IN PLACE.

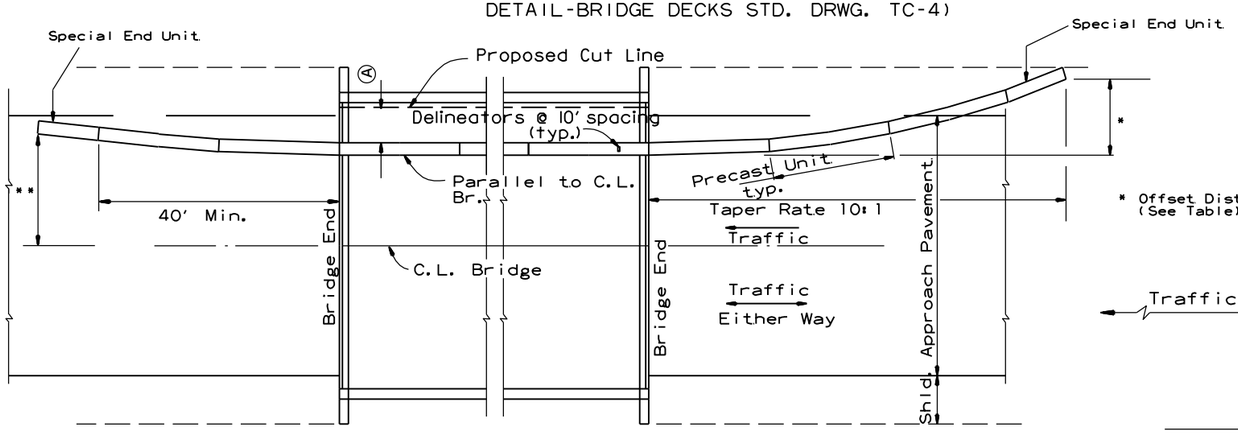
| DATE | REVISION | FILMED |
|---|---|---|
| 11-07-19 | REVISED NOTE 3 | |
| 2-27-14 | REVISED BARRIER STABILIZATION DETAIL | |
| 10-15-09 | ADDED REFERENCE TO WASH | |
| 8-5-09 | REV. NOTE 3 CONCERNING DRAIN SLOTS | |
| 11-29-07 | REVISED NOTE 3 | |
| 5-25-06 | DELETED GENERAL NOTE 7 | |
| 11-18-04 | REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS | |
| 4-10-03 | REVISED GENERAL NOTE 2 | |
| 8-22-02 | ISSUED NEW DRAWING | |

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

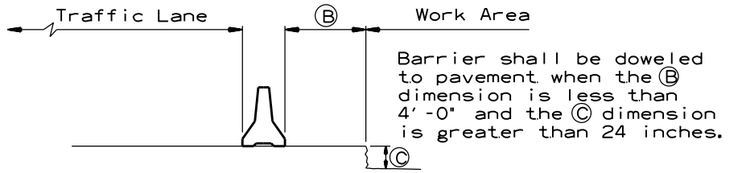
Ⓐ 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)




* Offset Distance (See Table)

## BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

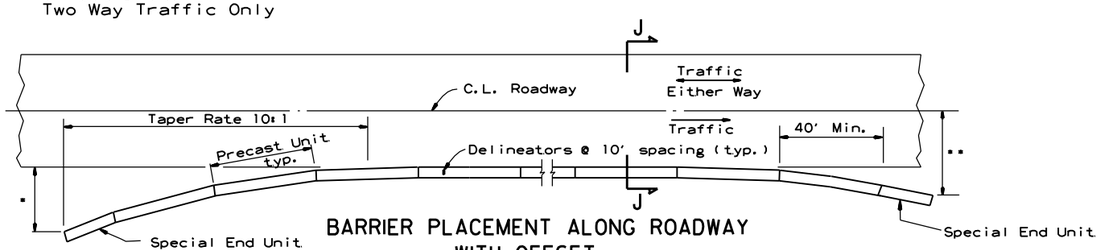



Barrier shall be doweled to pavement when the Ⓑ dimension is less than 4'-0" and the Ⓒ dimension is greater than 24 inches.

## SECTION J-J

No Scale

** Offset Distance for Two Way Traffic Only




## BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

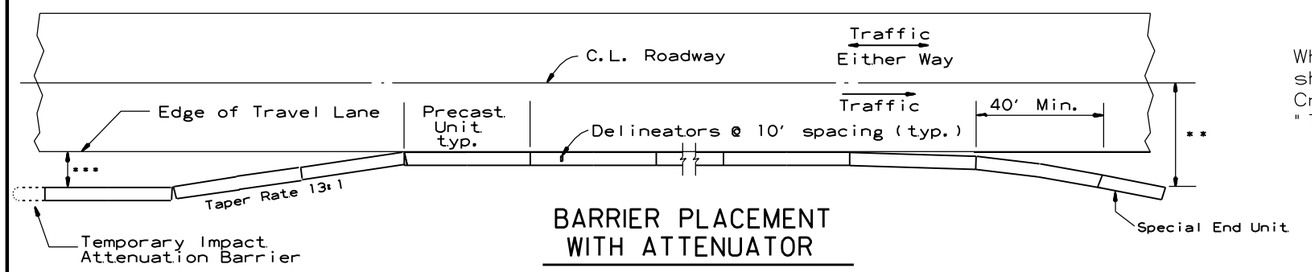
* Offset Distance (See Table)

** Offset Distance For Two Way Traffic Only

Offset Distance Table

| Speed (MPH) | Offset Distance (FT.) |
|---|---|
| ≤ 45 | 12 |
| > 45 | 18 |

If offset distance is not attainable, then see "Barrier Placement With Attenuator" Detail shown below.

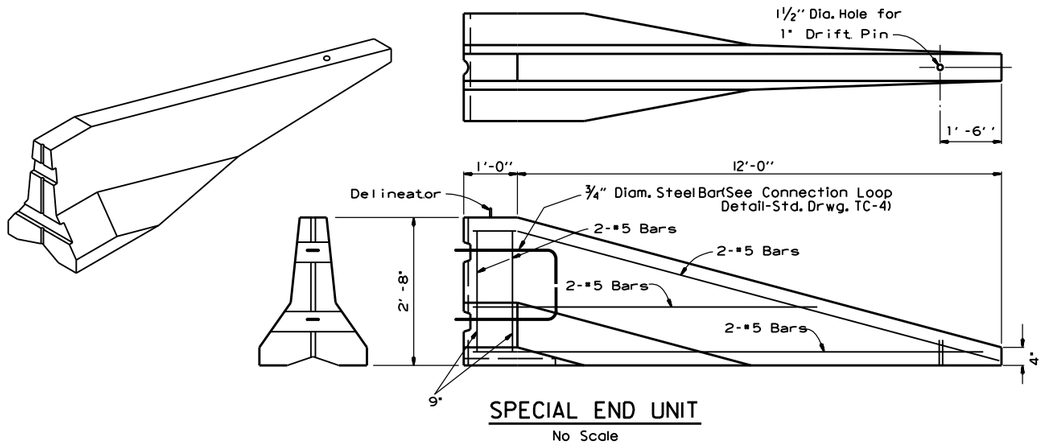



## BARRIER PLACEMENT WITH ATTENUATOR

No Scale

** Offset Distance For Two Way Traffic Only

*** Min. 3'-0" From Edge of Travel Lane to Nearest Edge of Attenuator




## SPECIAL END UNIT

No Scale

### General Notes

When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with a Manual For Assessing Safety Hardware (MASH) approved Crash Cushion. Payment for Crash Cushions shall be made under the item of "Temporary Impact Attenuation Barrier."

| DATE | REVISION | FILMED |
|---|---|---|
| 11-07-19 | REVISED NOTE | |
| 10-15-09 | ADDED REFERENCE TO MASH | |
| 5-25-06 | REVISED BARRIER PLACEMENT | |
| 8-22-02 | ISSUED NEW DRAWING | |

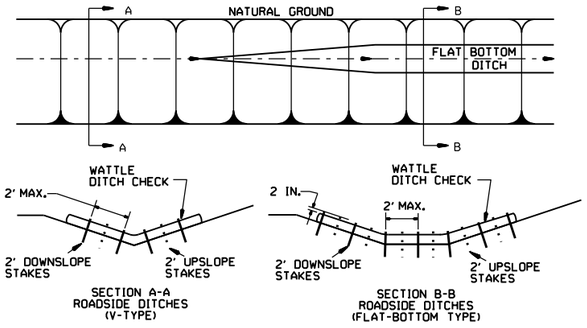
**ARKANSAS STATE HIGHWAY COMMISSION**

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

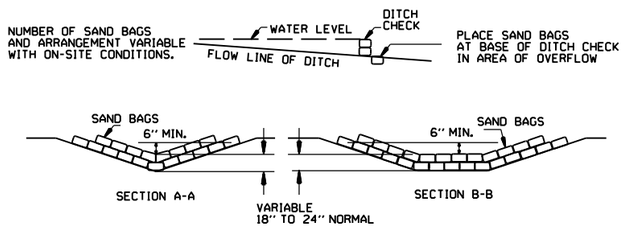
STANDARD DRAWING TC-5

GENERAL NOTES

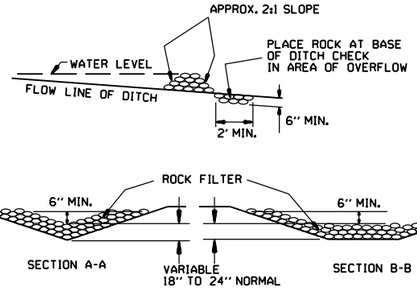
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.




## WATTLE DITCH CHECK (E-1)




## SAND BAG DITCH CHECK (E-5)

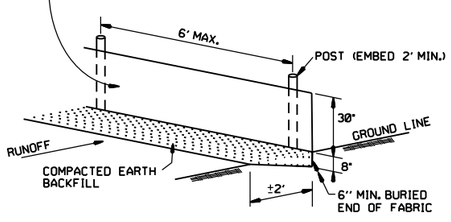



## ROCK DITCH CHECK (E-6)

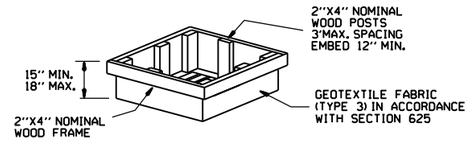
GENERAL NOTES

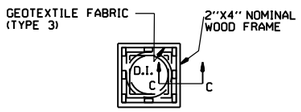
GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625

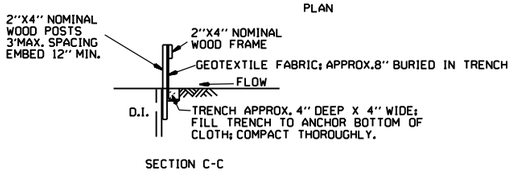
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



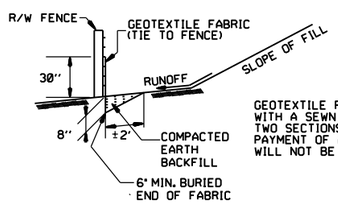

## SILT FENCE (E-11)



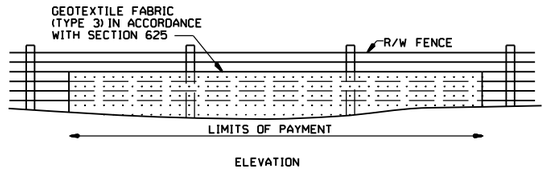




## DROP INLET SILT FENCE (E-7)




GENERAL NOTES

GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



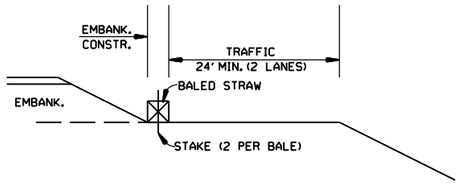

## SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

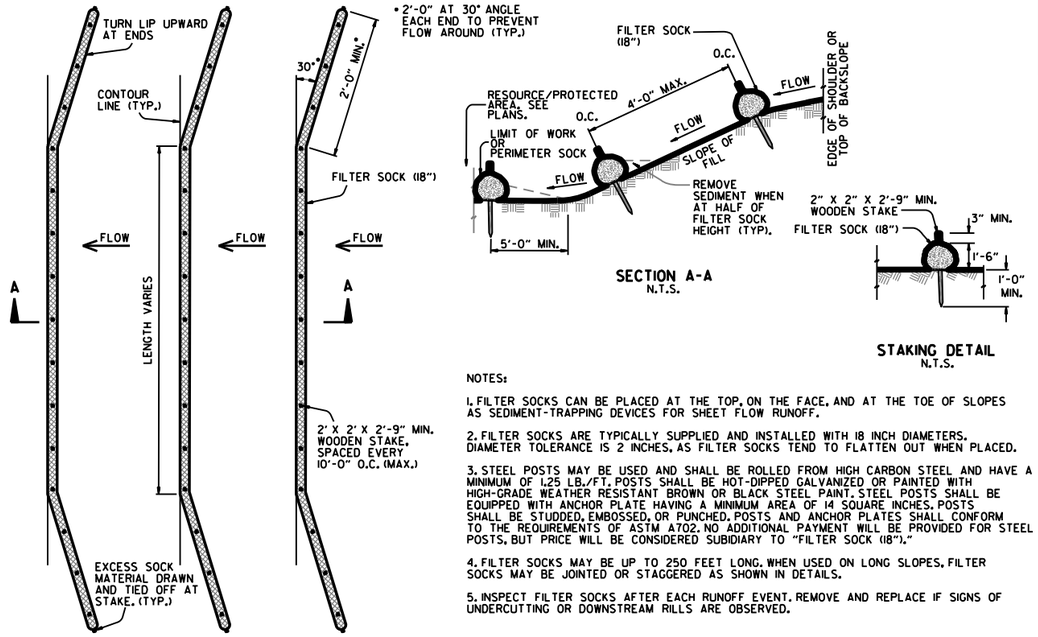
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.




## BALED STRAW FILTER BARRIER (E-2)




NOTES:

1. FILTER SOCKS CAN BE PLACED AT THE TOP, ON THE FACE, AND AT THE TOE OF SLOPES AS SEDIMENT-TRAPPING DEVICES FOR SHEET FLOW RUNOFF.

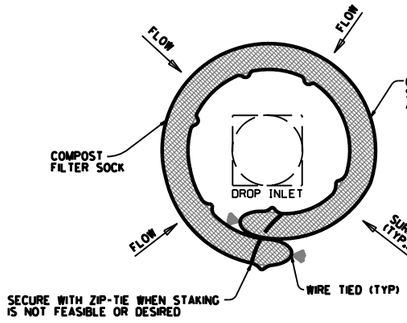
2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.

3. STEEL POSTS MAY BE USED AND SHALL BE ROLLED FROM HIGH CARBON STEEL AND HAVE A MINIMUM OF 1.25 LB./FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH-GRADE WEATHER RESISTANT BROWN OR BLACK STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR STEEL POSTS, BUT PRICE WILL BE CONSIDERED SUBIDIARY TO "FILTER SOCK (18")."

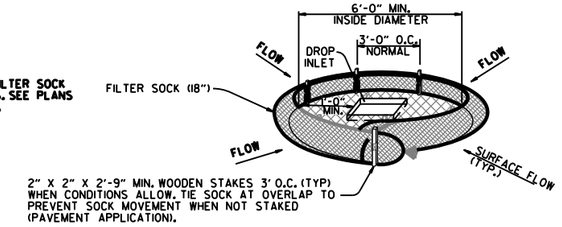
4. FILTER SOCKS MAY BE UP TO 250 FEET LONG. WHEN USED ON LONG SLOPES, FILTER SOCKS MAY BE JOINTED OR STAGGERED AS SHOWN IN DETAILS.

5. INSPECT FILTER SOCKS AFTER EACH RUNOFF EVENT. REMOVE AND REPLACE IF SIGNS OF UNDERCUTTING OR DOWNSTREAM RILLS ARE OBSERVED.

## FILTER SOCK ALONG SLOPE (E-3)




## DROP INLET PLAN VIEW
N.T.S.




## DROP INLET PERSPECTIVE VIEW
N.T.S.

NOTES:

1. OVERLAP ENDS OF SOCK (1' MIN. 3' MAX.).

2. USE 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

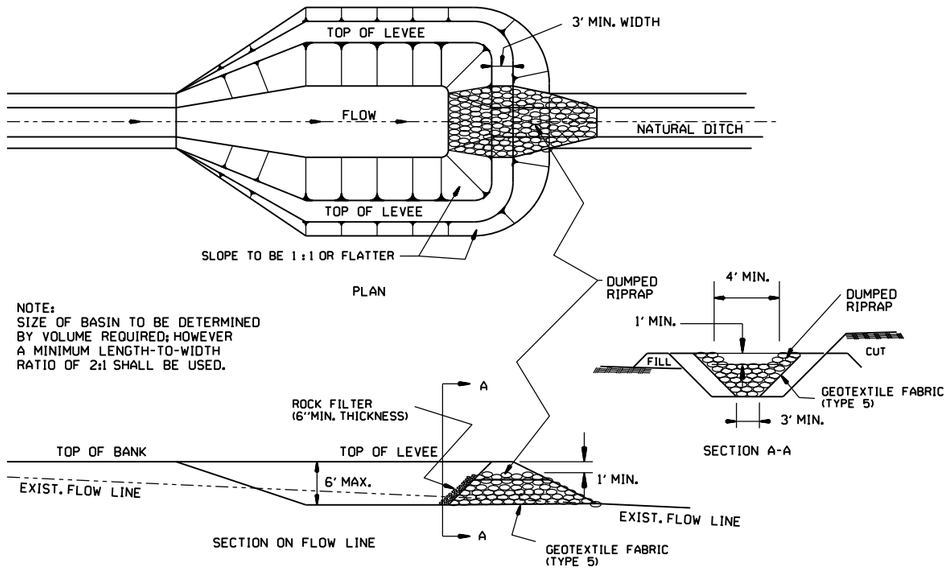
## COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)

| DATE | REVISION | FILMED |
|---|---|---|
| 11-16-17 | ADDED FILTER SOCK E-3 AND E-13 | |
| 12-15-11 | DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK | |
| 11-18-98 | ADDED NOTES | |
| 07-02-98 | ADDED BALED STRAW FILTER BARRIER (E-2) | |
| 07-20-95 | REVISED SILT FENCE E-4 AND E-11 | 7-20-95 |
| 07-15-94 | REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC | |
| 06-02-94 | REVISED E-1,4,7 & 11; DELETED E-2 & 3 | 6-2-94 |
| 04-01-93 | REDRAWN | |
| 10-01-92 | REDRAWN | |
| 08-02-76 | ISSUED R.D.M. | 298-7-28-76 |

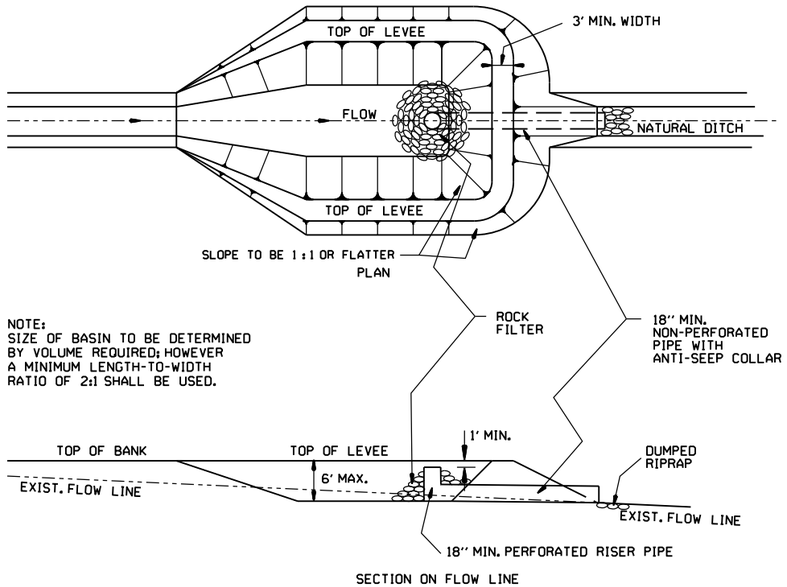
ARKANSAS STATE HIGHWAY COMMISSION

# TEMPORARY EROSION CONTROL DEVICES

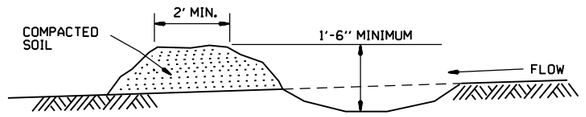
STANDARD DRAWING TEC-1



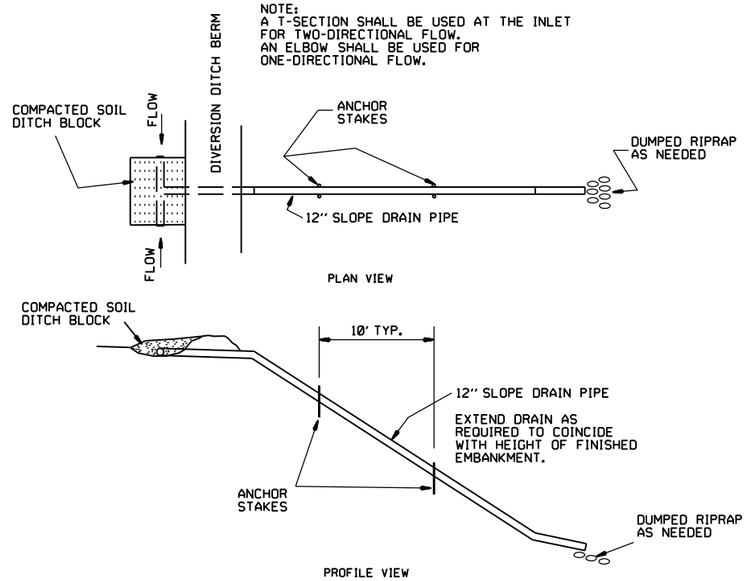

SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



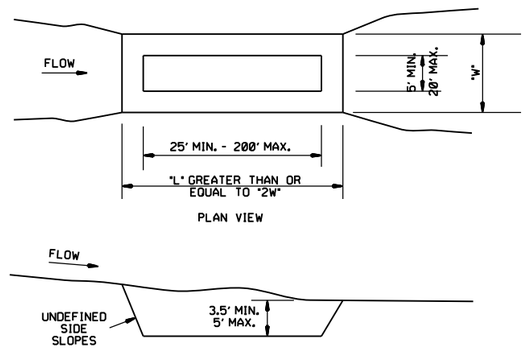

SEDIMENT BASIN WITH PIPE OUTLET (E-10)




DIVERSION DITCH (E-8)




SLOPE DRAIN (E-12)




SEDIMENT BASIN (E-14)

| DATE | REVISION | FILMED |
|---|---|---|
| 6-2-94 | Revised E-8 & E-12; Added E-14 & Deleted E-13 | |
| 4-1-93 | ISSUED | |

ARKANSAS STATE HIGHWAY COMMISSION

# TEMPORARY EROSION CONTROL DEVICES

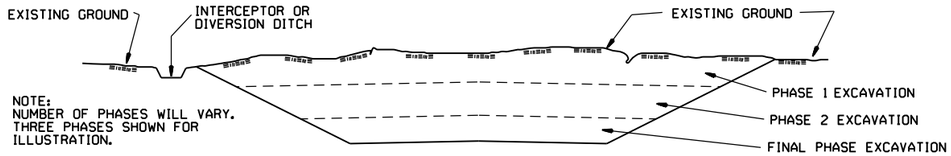
STANDARD DRAWING TEC-2

# CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES , DIVERSION DITCHES, SEDIMENT BASINS, ETC.)
2. PERFORM CLEARING AND GRUBBING OPERATION.

# EXCAVATION



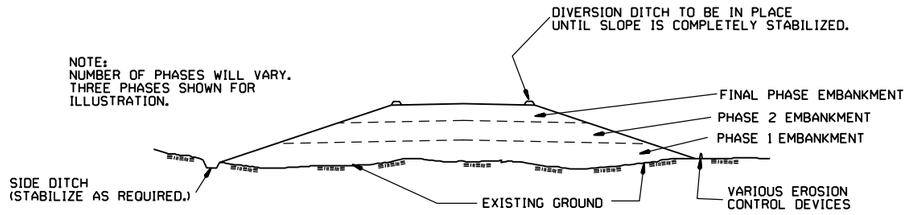

GENERAL NOTE

ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.
2. PERFORM PHASE 1 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
3. PERFORM PHASE 2 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
4. PERFORM FINAL PHASE OF EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING. STABILIZE DITCHES. CONSTRUCT DITCH CHECKS, DIVERSION DITCHES, SEDIMENT BASINS, OR OTHER EROSION CONTROL DEVICES AS REQUIRED.

# EMBANKMENT




GENERAL NOTE

ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

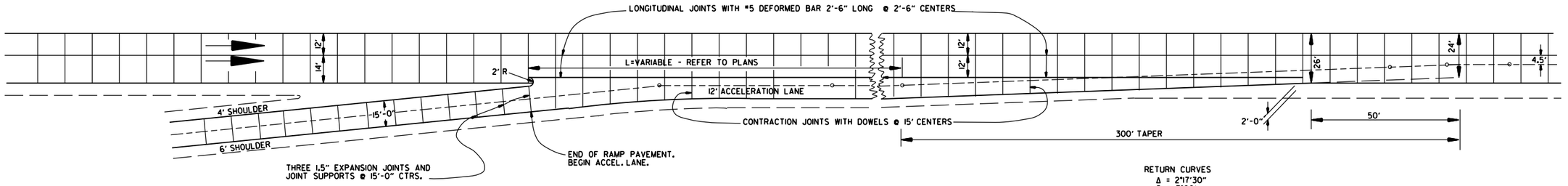
1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PLACE DIVERSION DITCHES AND SLOPE DRAINS AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

| | | |
|---|---|---|
| 11-03-94 | CORRECTED SPELLING | |
| 6-2-94 | Drawn & Issued | 6-2-94 |
| DATE | REVISION | FILMED |

ARKANSAS STATE HIGHWAY COMMISSION

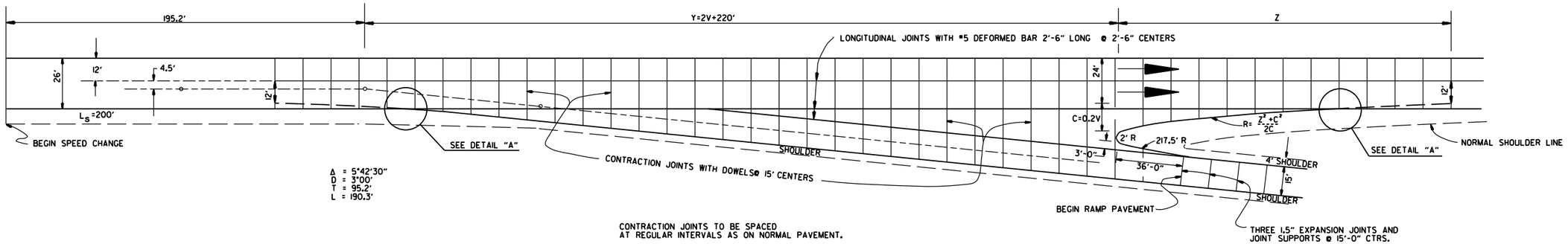
# TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-3




## ENTRANCE RAMP

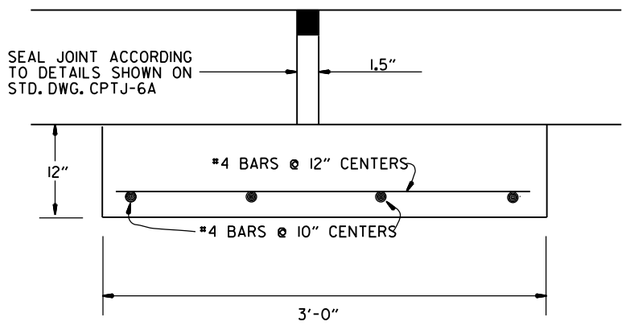
RETURN CURVES
Δ = 2°17'30"
D = 3°00'
T = 38.2'
L = 76.4'




Δ = 5°42'30"
D = 3°00'
T = 95.2'
L = 190.3'

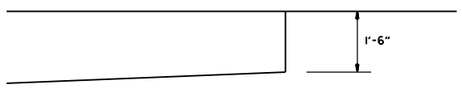
CONTRACTION JOINTS TO BE SPACED
AT REGULAR INTERVALS AS ON NORMAL PAVEMENT.

## EXIT RAMP




## DETAIL OF EXPANSION JOINT & JOINT SUPPORT

NOTE: THE EXPANSION JOINTS SHALL BE MEASURED AND PAID FOR AS P.C.C. PAVEMENT (RAMP THICKNESS).
THE JOINT SUPPORT MAY BE CONSTRUCTED WITH CLASS "A", "S", OR PAVING CONCRETE. PAYMENT FOR THE JOINT SUPPORT SHALL BE FOR THE CONTRACT UNIT PRICE BID FOR THE CLASS OF CONCRETE USED. ALL OTHER WORK AND MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE JOINT SUPPORT SHALL BE SUBSIDIARY TO THE ABOVE ITEMS.




## DETAIL "A"

## EXIT RAMP

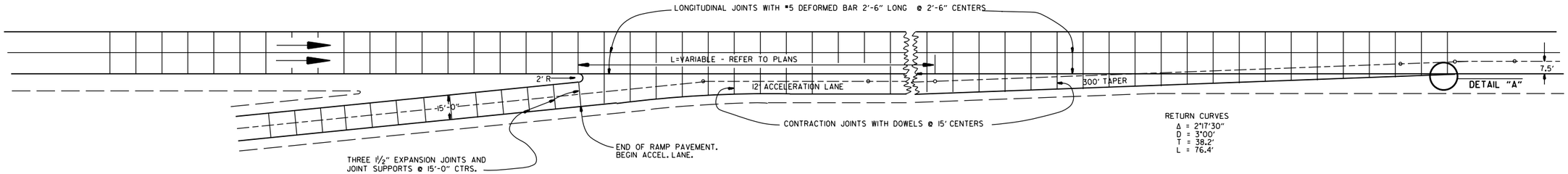
| DESIGN SPEED V | X Y | NOSE OFFSET C | LENGTH NOSE TAPER Z | RETURN RADIUS R |
|---|---|---|---|---|
| 40 | 300.0 | 8.0 | 96.0 | 580.0 |
| 50 | 320.0 | 10.0 | 120.0 | 725.0 |
| 60 | 340.0 | 12.0 | 168.0 | 1182.0 |
| 70 | 360.0 | 14.0 | 210.0 | 1582.0 |
| | | | | |

| DATE | REVISION | DATE FILM'D |
|---|---|---|
| 1-12-00 | REDRAWN & REISSUED | |

ARKANSAS STATE HIGHWAY COMMISSION

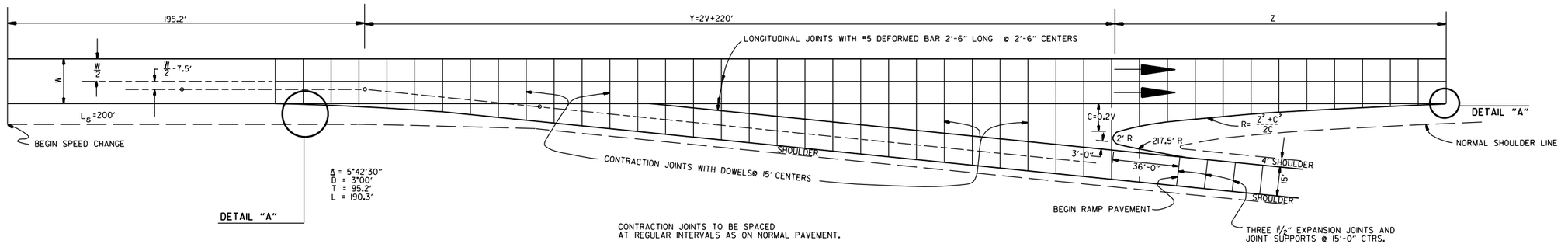
# DETAILS OF STANDARD TURNOUT FOR ENTRANCE & EXIT RAMPS

STANDARD DRAWING TR-1




# ENTRANCE RAMP

NOTE: JOINT SPACING ON THE MAIN LANES SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO THESE JOINT LAYOUTS. THE MAIN LANE JOINT SPACING MAY BE REDUCED TO A 12' MINIMUM.

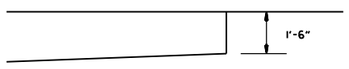



CONTRACTION JOINTS TO BE SPACED AT REGULAR INTERVALS AS ON NORMAL PAVEMENT.

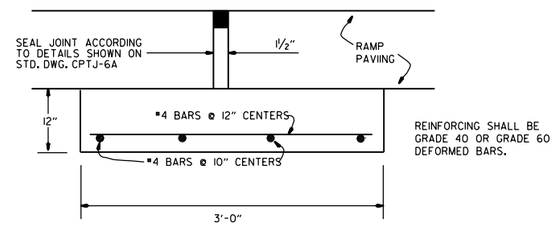
# EXIT RAMP

## EXIT RAMP

| DESIGN SPEED V | X Y | NOSE OFFSET C | LENGTH NOSE TAPER Z | RETURN RADIUS R | ADDITIONAL SURFACING SQ. YDS. |
|---|---|---|---|---|---|
| 40 | 300.0 | 8.0 | 96.0 | 580.0 | 602.43 |
| 50 | 320.0 | 10.0 | 120.0 | 725.0 | 687.29 |
| 60 | 340.0 | 12.0 | 168.0 | 1182.0 | 790.55 |
| 70 | 360.0 | 14.0 | 210.0 | 1582.0 | 902.27 |




## DETAIL "A"




## DETAIL OF EXPANSION JOINT & JOINT SUPPORT

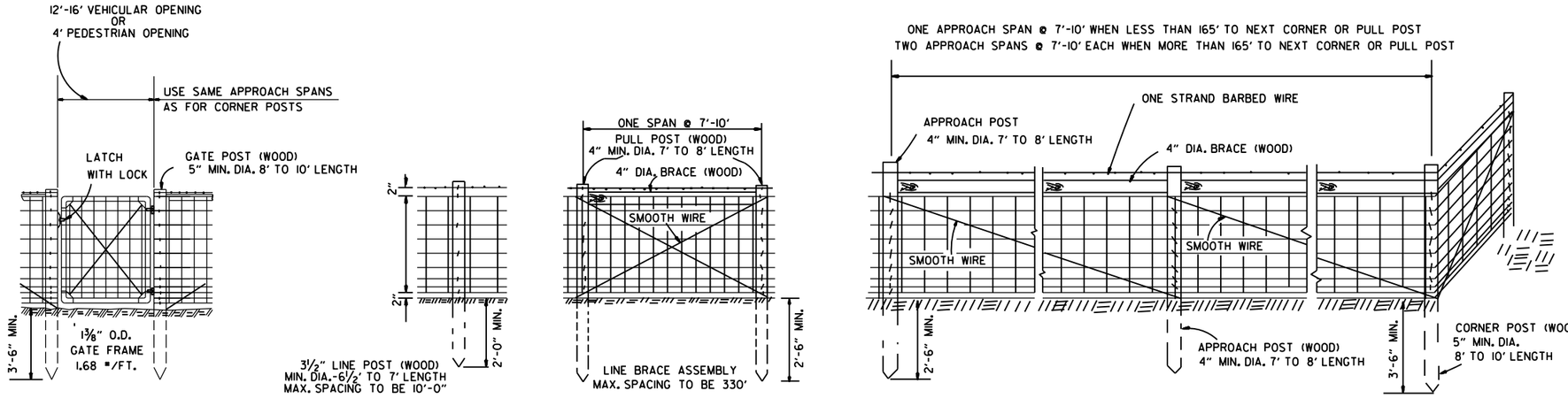
NOTE: THE EXPANSION JOINTS SHALL BE MEASURED AND PAID FOR AS P.C.C. PAVEMENT (RAMP THICKNESS). WHEN RAMP PAVING IS ASPHALT, EXPANSION JOINT IS NOT REQUIRED.
THE JOINT SUPPORT MAY BE CONSTRUCTED WITH CLASS "A", "S", OR PAVING CONCRETE. PAYMENT FOR THE JOINT SUPPORT SHALL BE FOR THE CONTRACT UNIT PRICE BID FOR THE CLASS OF CONCRETE USED. ALL OTHER WORK AND MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE JOINT SUPPORT SHALL BE INCLUDED IN THE PRICE BID FOR THE ABOVE ITEMS.

| DATE | REVISION | DATE FILM'D |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| 8-22-02 | DELETED NOTE | |
| 11-16-01 | CORRECTED SPELLING ON ENTRANCE RAMP NOTE | |
| 5-13-99 | ADDED, EDITED AND DELETED NOTES | |
| 11-03-94 | ADDED NOTE RE: REINF. BARS | |
| 10-1-92 | ADDED DETAIL A & OTHER MINOR CHANGES | 10-1-92 |
| 1-25-90 | REVISED EXPANSION JOINT | 1-25-90 |
| 7-15-88 | CONFORM'D TO 1988 SPECIFICATIONS | 65C-7-15-88 |
| 3-2-81 | ISSUED | 511-10-2-72 |

ARKANSAS STATE HIGHWAY COMMISSION

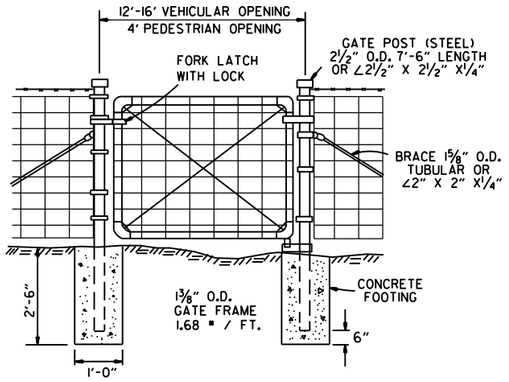
# DETAILS OF STANDARD TURNOUT FOR ENTRANCE & EXIT RAMPS (NON-REINFORCED)

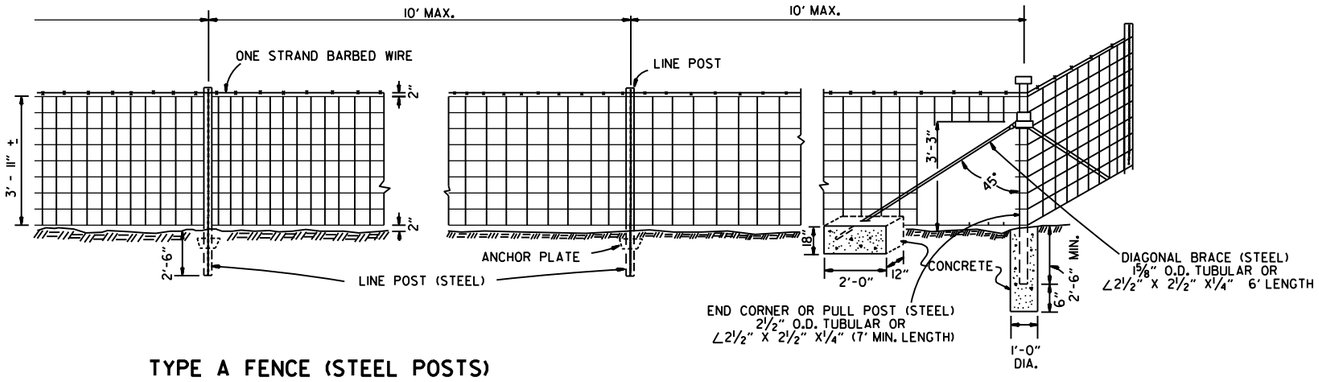
STANDARD DRAWING TR-1A



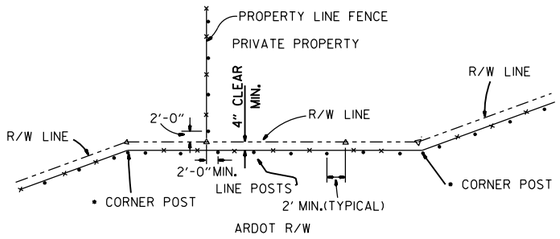

NOTE: STAPLE AT LEAST TOP, BOTTOM AND ALTERNATE WIRES OF WOVEN FABRIC FOR WOOD LINE POSTS.

## TYPE A FENCE (WOOD POSTS)



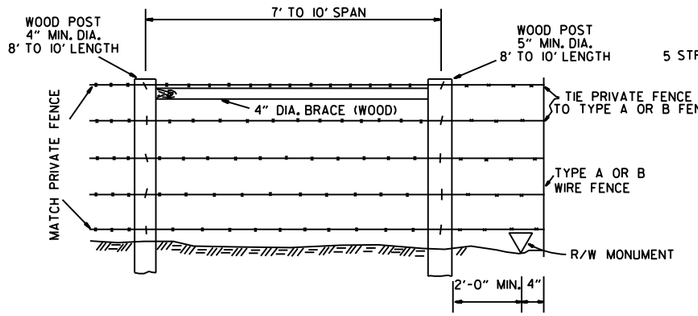

## TYPE A FENCE (STEEL POSTS)




•NOTE: RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED BY FENCE CONSTRUCTION. CORNER POSTS SHALL BE CONSTRUCTED 2' FROM THE RIGHT-OF-WAY MONUMENT OR AS DIRECTED BY THE ENGINEER.

△ - R/W MONUMENTS
• - FENCE POSTS

## RIGHT-OF-WAY FENCE LOCATION



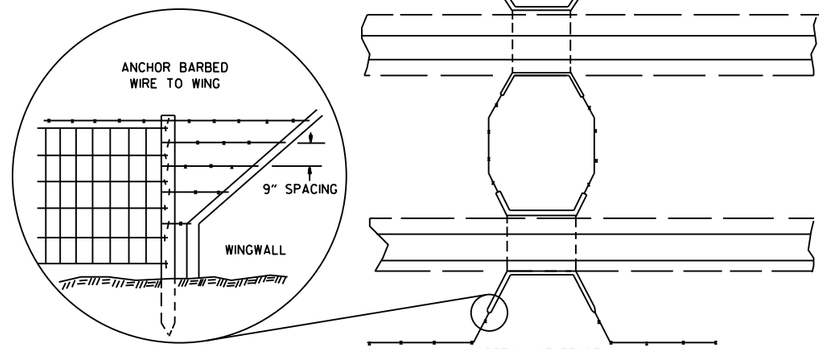

WHERE EXISTING PRIVATE FENCE CONSISTS OF STEEL POSTS, USE END POST ASSEMBLY AS SHOWN WITH TYPE A FENCE OR OTHER END POST ASSEMBLY AS APPROVED BY THE ENGINEER.

## PRIVATE FENCE TERMINAL INSTALLATION




SPACING AND SIZE OF POSTS FOR TYPE B FENCE SHALL BE THE SAME AS TYPE A FENCE.

## TYPE B FENCE




DETAIL OF FENCE CONSTRUCTION AT LARGE CULVERTS (5' IN HEIGHT AND OVER)

GENERAL NOTES:

STEEL LINE POSTS SHALL BE GALVANIZED, 7 FT. IN LENGTH.

TUBULAR END, CORNER, PULL, OR DIAGONAL BRACES MUST CONFORM TO THE DIMENSIONS AND WEIGHTS SPECIFIED ON STANDARD DRAWING WF-3 (CHAIN LINK).

THE CONTRACTOR SHALL FURNISH AT LEAST 25% OF WOOD LINE POSTS OF 7' LENGTHS IN ORDER TO PROVIDE SUFFICIENT SET IN SOFT GROUND OR SMALL DEPRESSIONS.

GATE HINGES AND LATCHES WITH LOCKS TO BE OF A TYPE APPROVED BY THE ENGINEER. DRIVEWAY GATES, EITHER SINGLE 12' OR 16' OR DOUBLE 6' TO 8' OPENINGS OF THE SAME TYPE AS THE PEDESTRIAN GATE, SHALL BE INSTALLED ON THE RIGHT SIDE OF EACH THROUGH LANE ROAD AT LARGE CULVERTS OR BRIDGE CROSS FENCE FOR USE BY MAINTENANCE EQUIPMENT. LOCATION OF GATES TO BE SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER.

AT STREAM CROSSINGS THE FENCE SHALL NOT BE CONSTRUCTED ACROSS LARGE STREAMS. WHERE CLEARANCE IS SUFFICIENT FROM THE TOP OF BANK TO THE BRIDGE STRUCTURE, A CROSS CONNECTION SHALL BE CONSTRUCTED BETWEEN THE FENCE ON EACH SIDE OF THE ROAD. WHERE THE CLEARANCE IS NOT SUFFIEICNT, THE FENCE SHALL BE TERMINATED WITH CROSS CONNECTIONS AND END POSTS ADJACENT TO THE BRIDGE ABUTMENTS OR CULVERT WINGWALLS.

SPLICE FOR WOVEN WIRE BETWEEN PULL POST SHALL BE BY THE "WESTERN UNION METHOD" AS DESCRIBED AS FOLLOWS: THE VERTICAL WIRES FOR EACH END OF THE FENCE FABRIC SHALL BE PLACED SIDE BY SIDE AND THE PROJECTING HORIZONTAL WIRES SHALL BE WRAPPED A MINIMUM OF 4 TIMES AROUND THE HORIZONTAL WIRES OF THE FIRST WEB.

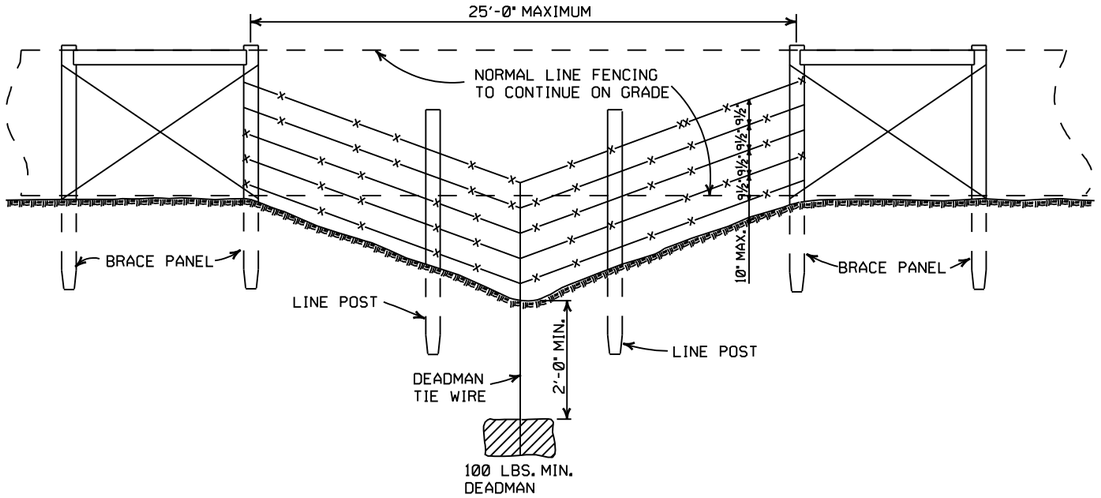
SPLICE FOR BARBED WIRE BETWEEN PULL POST ASSEMBLY SHALL BE BY THE "EYE METHOD": AS DESCRIBED AS FOLLOWS: THE ENDS OF THE BARBED WIRE SHALL BE BENT TO FORM A LOOP. THE LOOPS SHALL BE CONNECTED. AFTER THE LOOPS ARE CONNECTED THE ENDS OF THE WIRE SHALL BE WRAPPED AROUND THE PROJECTING WIRE A MINIMUM OF 4 TIMES FOR EACH WIRE LOOP.

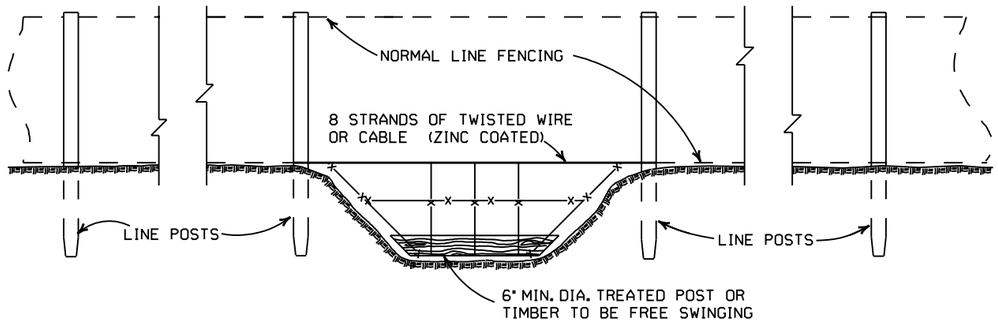
| DATE | REVISION | DATE FILMED |
|---|---|---|
| 8-22-02 | REVISED GENERAL NOTES | |
| 10-18-96 | REVISED ASTM REF. TO AASHTO | |
| 11-22-95 | REVISED R-O-W LOCATION DETAIL | |
| 6-2-94 | ADDED CORNER POST NOTE | 6-2-94 |
| 8-5-93 | REVISED R-O-W LOCATION DETAIL | 8-5-93 |
| 10-1-92 | ADDED STAPLE NOTE | |
| 8-2-90 | REV'D PULL POST LENGTH | |
| 11-30-89 | DELETED CLASS CONC. | |
| 7-15-88 | ADDED SPLICE NOTES | |
| 7-15-88 | ADDED HEIGHT DIMENSION | |
| 4-3-87 | REVISED VARIOUS NOTES | |
| | AND GENERAL NOTES | |
| 11-1-84 | MAX. POST SPACING | |
| 1-4-83 | MIN. DIA. LINE POST | |
| 10-2-72 | REVISED & REDRAWN | |

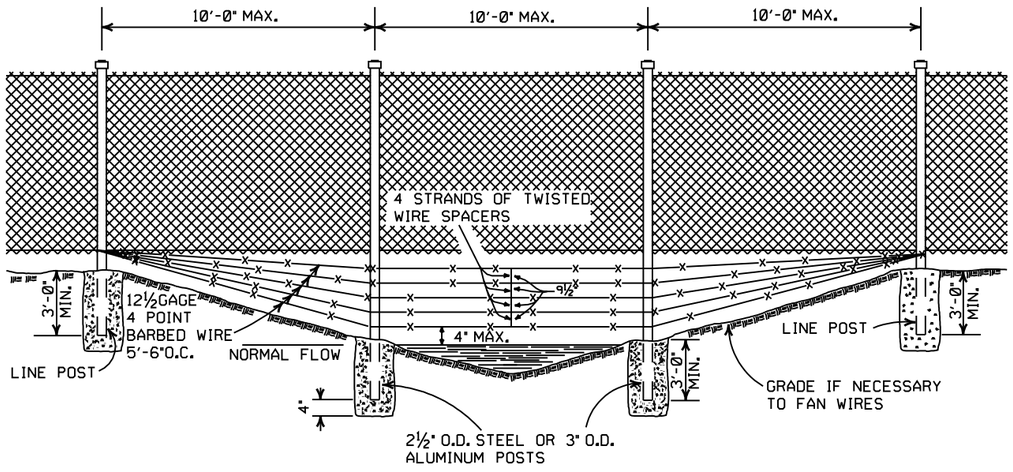
ARKANSAS STATE HIGHWAY COMMISSION

WIRE FENCE
TYPE A AND B

STANDARD DRAWING WF-1




GENERAL NOTES:

THESE INSTALLATIONS TO BE USED WHERE NORMAL FENCING INSTALLATION WOULD CAUSE THE COLLECTING OF DRIFT IN THE CHANNEL OR THE DEPRESSION WILL NOT PERMIT NORMAL INSTALLATION. INSTALLATIONS WILL BE MADE ONLY WHERE DIRECTED BY THE ENGINEER.

WHEN A FENCE LINE APPROACHES A DITCH, GULLY OR DEPRESSION, THE LAST POST ON LEVEL GROUND SHALL BE PLACED CLOSE ENOUGH TO THE EDGE OF THE DROP OFF THAT THE FENCE MAY BE STRUNG TO THE POST IN THE DEPRESSION WITHOUT TOUCHING THE GROUND.

IN TERRAIN OF SUCH EXTREME IRREGULARITY THAT MINOR GRADING WILL NOT BE FEASIBLE, THE NORMAL FENCE SHALL CONTINUE ON GRADE AND THE GULLIES OR DEPRESSIONS TREATED BY AUXILIARY FENCES AS SHOWN.

PAYMENT FOR THE TYPE INSTALLATION USED WILL NOT BE MADE DIRECTLY BUT WILL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR WIRE FENCE OR CHAIN LINK FENCE.

| DATE | REVISION | FILMED |
|---|---|---|
| 4-20-79 | REVISED TOP RAIL & TENSION WIRE | 696-4-20-79 |
| 10-2-72 | REVISED AND REDRAWN | 529-10-2-72 |

ARKANSAS STATE HIGHWAY COMMISSION

# WIRE FENCE WATER GAPS

STANDARD DRAWING WF-2