"A FULLY CONTROLLED ACCESS FACILITY"

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

CONSTRUCTION PLANS

HWY. 62/102 INTCHNG. IMPVTS. & 8TH STREET WIDENING (BENTONVILLE) (S)

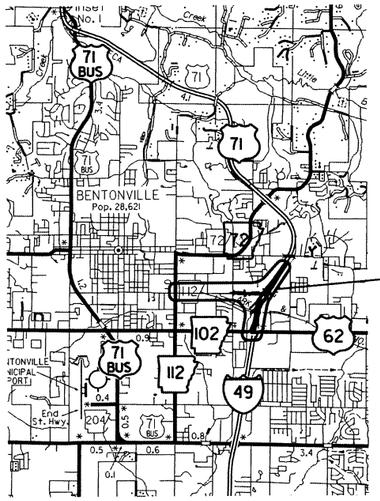
BENTON COUNTY

INTERSTATE 49 SECTION 29

FED. AID PROJ. HPP2-9036(20)

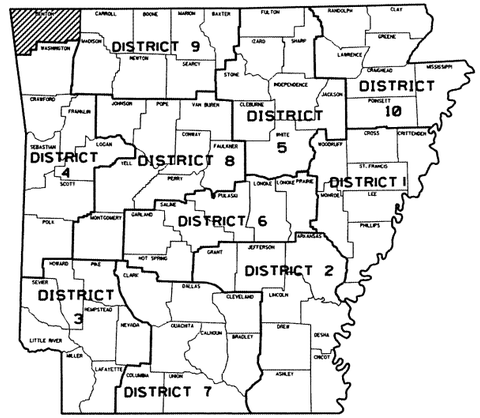
JOB 090376

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	1	555
				(2) HWY. 62/102 INTCHNG. IMPVTS. & 8TH STREET WIDENING (BENTONVILLE) (S)				



PROJECT LOCATION

VICINITY MAP



ARK. HWY. DIST. NO. 9

BRIDGE STRUCTURES

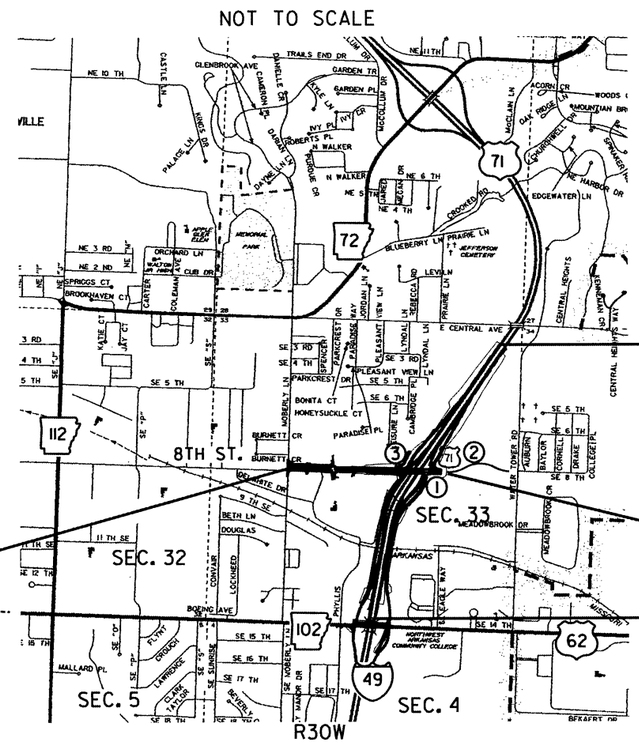
① BEGIN BRIDGE STA. 141+50.61 (8TH STREET)
BRIDGE NO. 07370
234'-0" CONT. COMP. PLATE GIRDER (117'-117')
70'-0" CLEAR ROADWAY
236'-7" TOTAL LENGTH
END BRIDGE STA. 143+87.19

STRUCTURES OVER 20'-0" SPAN

② BEGIN UNDERPASS STA. 1059+57.16
BRIDGE NO. 07368 (RAMP 2 UNDERPASS)
184'-1⅜" C.I.P. REINF. CONC. UNDERPASS
27'-0" CLEAR ROADWAY
END UNDERPASS STA. 1061+41.27

③ BEGIN UNDERPASS STA. 1056+43.55
BRIDGE NO. 07369 (RAMP 3 UNDERPASS)
303'-6⅝" C.I.P. REINF. CONC. UNDERPASS
25'-0" CLEAR ROADWAY
END UNDERPASS STA. 1059+47.10

NOT TO SCALE



STA. 120+24.03
BEGIN 8TH STREET

STA. 1086+03.40
END JOB 090376
LOG MILE 1.02

STA. 147+00.00
END 8TH STREET

STA. 1032+47.37
BEGIN JOB 090376
LOG MILE 0.01

· DESIGN TRAFFIC DATA ·

8TH ST.

DESIGN YEAR	2036
2016 ADT	19,400
2036 ADT	30,000
2036 DHV	3,300
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	6%
DESIGN SPEED	40 MPH

I-49

DESIGN YEAR	2036
2016 ADT	49,000
2036 ADT	77,000
2036 DHV	8,470
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	11%
DESIGN SPEED	70 MPH

LOCATION	LATITUDE	LONGITUDE
BEGIN PROJECT	36°21' 24"	94°10' 41"
MID-POINT OF PROJECT	36°21' 49"	94°10' 31"
END PROJECT	36°22' 10"	94°10' 14"

LENGTH COMPUTED ALONG ℄ OF 8TH STREET

GROSS LENGTH OF PROJECT	2675.97	FEET	0.507	MILES
NET LENGTH OF ROADWAY	2439.39	FEET	0.462	MILES
NET LENGTH OF BRIDGES	236.58	FEET	0.045	MILES
NET LENGTH OF PROJECT	2675.97	FEET	0.507	MILES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
8/31/16

BURNS & McDONNELL ENGINEERING CO. INC.
No. 17
CERTIFICATE OF AUTHORIZATION
ARKANSAS

P.E. JOB 090218

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	2	555

(2) INDEX OF SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

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GOVERNING SPECIFICATIONS

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

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ERRATA_____	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273___	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
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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 - TRAINING PROGRAM - JOB 090376
FHWA-1273___	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273___	SUPPLEMENT - WAGE RATE DETERMINATION
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400-1_____	TACK COATS
410-1_____	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
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JOB 090376__	CARGO PREFERENCE ACT REQUIREMENTS
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JOB 090376__	COORDINATION OF WORK
JOB 090376__	DIRECT TENSION INDICATORS FOR HIGH STRENGTH BOLT ASSEMBLIES
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JOB 090376__	ELECTRICAL CONDUCTORS-IN-CONDUIT
JOB 090376__	EMERGENCY BATTERY BACKUP SYSTEM INSTALLATION
JOB 090376__	EXTENSION FOR PIPE CULVERTS
JOB 090376__	FLEXIBLE BEGINNING OF WORK
JOB 090376__	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 090376__	GRAVITY BLOCK RETAINING WALL
JOB 090376__	HIGH PERFORMANCE PAVEMENT MARKING
JOB 090376__	IP VIDEO DETECTION SYSTEM
JOB 090376__	LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
JOB 090376__	LED LUMINAIRE ASSEMBLY (BUG U0 TYPE)
JOB 090376__	LED TRAFFIC SIGNAL HEAD
JOB 090376__	LED TUNNEL LIGHTING ASSEMBLY
JOB 090376__	LIGHT POLE FOUNDATION
JOB 090376__	LIGHTING CONTROLLER ASSEMBLY
JOB 090376__	MAINTENANCE OF TRAFFIC
JOB 090376__	MANDATORY ELECTRONIC CONTRACT
JOB 090376__	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 090376__	NESTING SITES OF MIGRATORY BIRDS
JOB 090376__	OFF-SITE RESTRAINING CONDITIONS FOR INDIANA AND NORTHERN LONG-EARED BATS
JOB 090376__	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORT
JOB 090376__	PARTNERING REQUIREMENTS
JOB 090376__	PERCENT WITHIN LIMITS/PAVEMENT SMOOTHNESS
JOB 090376__	PROSECUTION AND PROGRESS - CALENDAR DAY CONTRACT WITH CPM
JOB 090376__	RELOCATION OF TRAFFIC SIGNAL HEAD
JOB 090376__	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT
JOB 090376__	RETAINING WALLS
JOB 090376__	ROADWAY ILLUMINATION POLE
JOB 090376__	SEQUENCE OF CONSTRUCTION
JOB 090376__	SERVICE POINT ASSEMBLY (TRAFFIC CONTROL DEVICES)
JOB 090376__	SERVICE POINT ASSEMBLY (UNDERGROUND SECONDARY SERVICE, ROADWAY LIGHTING)
JOB 090376__	SHORING
JOB 090376__	SHORING FOR CULVERTS
JOB 090376__	SIGN PANEL MATERIALS AND FABRICATION
JOB 090376__	SITE USE (A+C METHOD) - CALENDAR DAY CONTRACT
JOB 090376__	SPECIAL SAFETY REQUIREMENTS FOR BRIDGES
JOB 090376__	SPECIAL SAFETY REQUIREMENTS FOR OVERHEAD SIGNS
JOB 090376__	STEEL SIGN STRUCTURES
JOB 090376__	STORM WATER POLLUTION PREVENTION PLAN
JOB 090376__	STREET NAME SIGN (MAST ARM MOUNTED)
JOB 090376__	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 090376__	SUBMISSION OF CONTRACTOR MATERIALS TEST RESULTS
JOB 090376__	SYSTEM LOCAL CONTROLLER (FIBER)
JOB 090376__	TEXTURED COATING FINISH
JOB 090376__	TRAFFIC CABINET COMMUNICATIONS
JOB 090376__	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB 090376__	TRAFFIC SIGNAL CONTROLLER (MODIFICATION)
JOB 090376__	UTILITY ADJUSTMENTS
JOB 090376__	VALUE ENGINEERING
JOB 090376__	WARM MIX ASPHALT
JOB 090376__	WIC FIBER ENCLOSURE

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
10/17/16

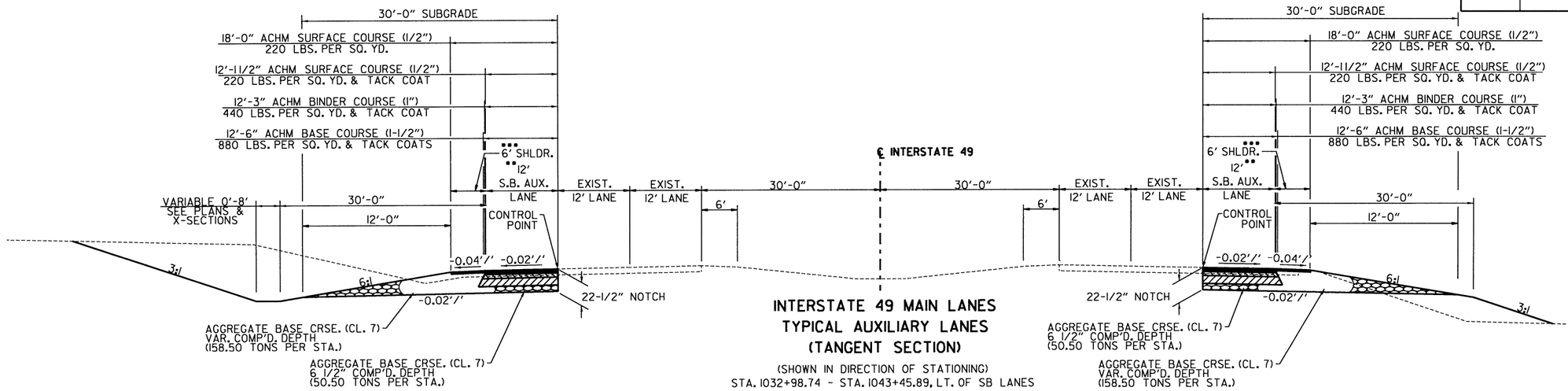
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
9/12/2016		10/17/2016		6	ARK.			
9/27/2016				JOB NO.		090376	3	555
10/6/2016				(2)	GOV. SPECS. & GENERAL NOTES			

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 INSURE 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. THIS PROJECT IS COVERED UNDER A SECTION 404 NATIONWIDE 14 PERMIT. REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS, EDITION OF 2014, FOR PERMIT REQUIREMENTS.
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.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	4	555

(2) TYPICAL SECTIONS OF IMPROVEMENT

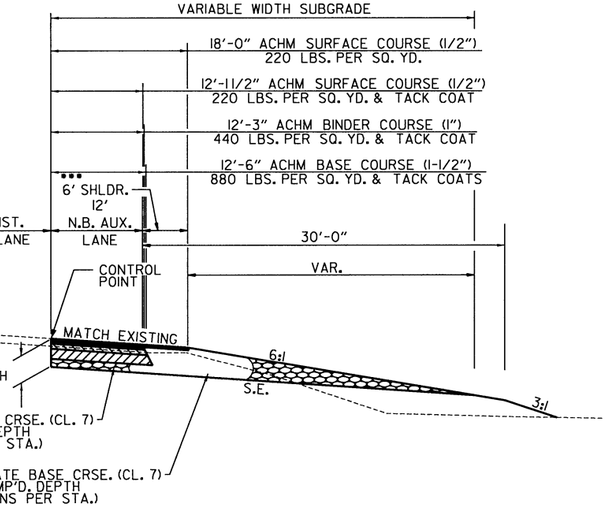


INTERSTATE 49 MAIN LANES
TYPICAL AUXILIARY LANES
(TANGENT SECTION)

(SHOWN IN DIRECTION OF STATIONING)
STA. 1032+98.74 - STA. 1043+45.89, LT. OF SB LANES
STA. 1032+98.90 - STA. 1043+60.38, RT. OF NB LANES
STA. 1045+94.95 - STA. 1045+98.74, LT. OF SB LANES
STA. 1065+56.78 - STA. 1070+32.32, LT. OF SB LANES
STA. 1066+17.56 - STA. 1073+57.66, RT. OF NB LANES
STA. 1076+63.40 - STA. 1086+02.52, LT. OF SB LANES
STA. 1079+31.16 - STA. 1086+95.99, RT. OF NB LANES

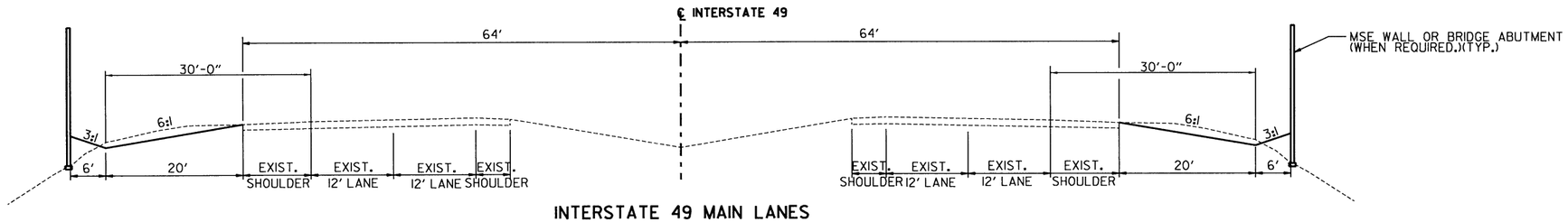
••• SHOULDERS TRANSITION FROM 6' TO 10' AS INDICATED ON THE PLANS.

•• AUXILIARY LANES TRANSITION FROM 0' TO 12' IN 300' AS INDICATED ON THE PLANS.



INTERSTATE 49 MAIN LANES
TYPICAL AUXILIARY LANES
(SUPERELEVATED SECTION)

(SHOWN IN DIRECTION OF STATIONING)
STA. 1046+09.57 - STA. 1046+98.90, RT. OF NB LANES



INTERSTATE 49 MAIN LANES
TYPICAL SECTION

(SHOWN IN DIRECTION OF STATIONING)
STA. 1054+00.00 - STA. 1059+45.75, LT. OF SB LANES
STA. 1057+40.00 - STA. 1060+89.92, RT. OF NB LANES

NOTES:

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TYPICAL SECTIONS OF IMPROVEMENT

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	5	555

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

NOTES:

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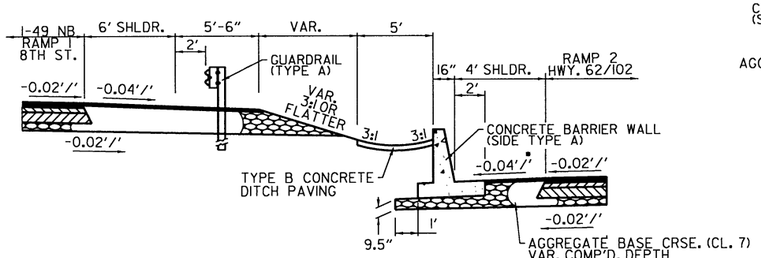
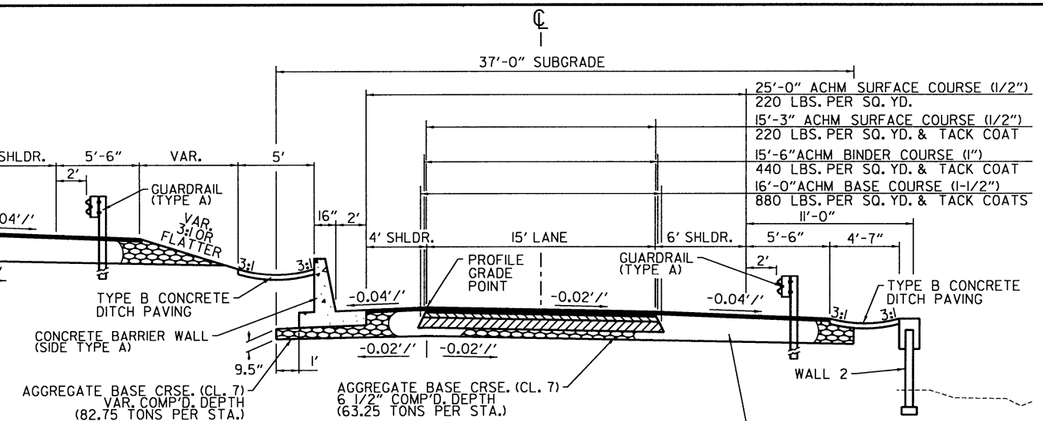
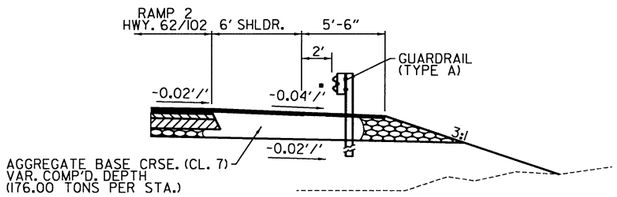


DETAIL
LT. OF RAMP 2 HWY. 62/102
STA. 1040+50.00 - STA. 1052+15.00

Not To Scale

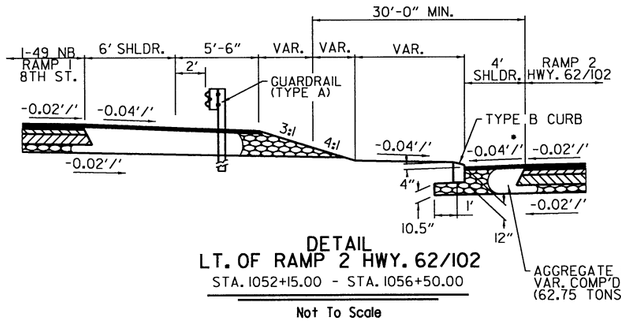


RAMP 2 HIGHWAY 62/102 INTERCHANGE 1 - 15' LANE
(TANGENT SECTION)
(SHOWN IN DIRECTION OF STATIONING)
STA. 1043+77.55 - STA. 1045+87.40



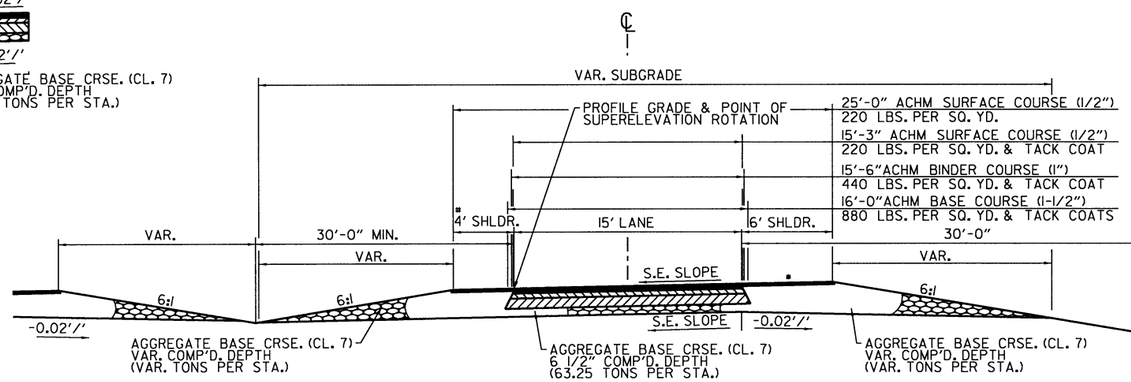
DETAIL
RT. OF RAMP 2 HWY. 62/102
STA. 1039+00.00 - STA. 1040+60.00
STA. 1052+50.00 - STA. 1055+50.00

Not To Scale



DETAIL
LT. OF RAMP 2 HWY. 62/102
STA. 1052+15.00 - STA. 1056+50.00

Not To Scale

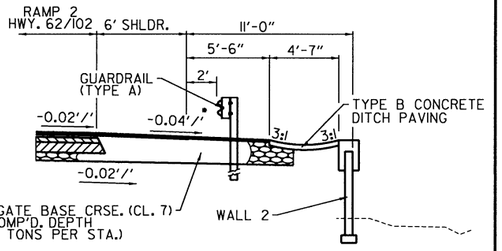


RAMP 2 HIGHWAY 62/102 INTERCHANGE 1 - 15' LANE
(SUPERELEVATED SECTION)

*TRANSITION SHOULDER WIDTH FROM 4' TO 6' BETWEEN STA. 1058+43.65 AND STA. 1059+47.95

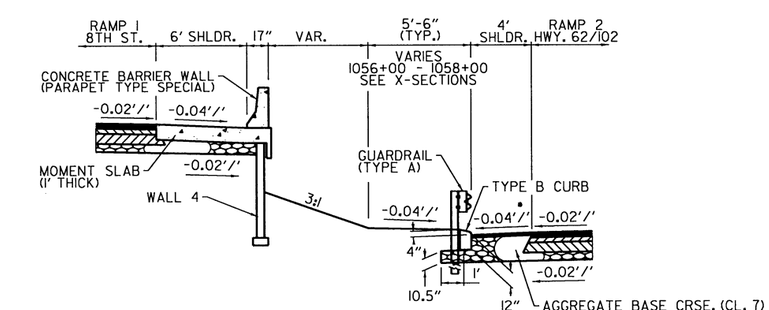
(SHOWN IN DIRECTION OF STATIONING)
STA. 1036+00.00 - STA. 1036+95.72 S.E. LT.
STA. 1036+95.72 - STA. 1043+77.55 S.E. RT.
STA. 1045+87.40 - STA. 1054+25.43 S.E. RT.
STA. 1054+25.43 - STA. 1059+47.95 S.E. LT.
STA. 1061+41.28 - STA. 1064+78.16 S.E. RT.

•ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATED TRANSITIONS (Ls), ALGEBRAIC DIFFERENCE BETWEEN PAVEMENT SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 0.08 FT./FT.



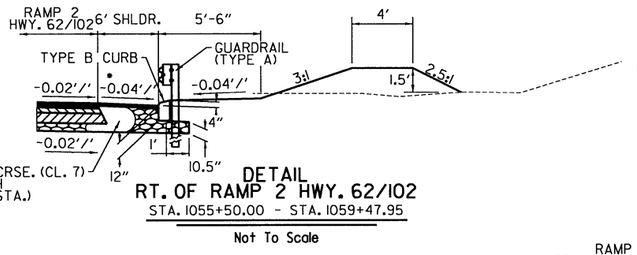
DETAIL
RT. OF RAMP 2 HWY. 62/102
STA. 1040+60.00 - STA. 1050+00.00
STA. 1052+25.00 - STA. 1052+50.00

Not To Scale



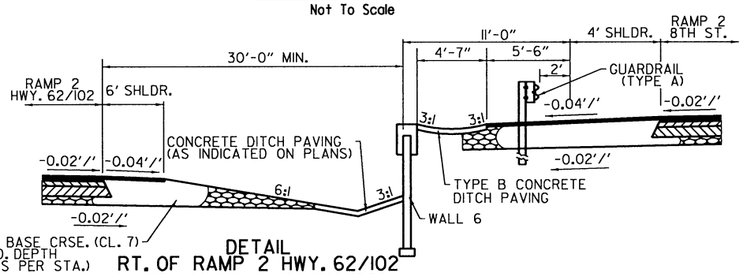
DETAIL
LT. OF RAMP 2 HWY. 62/102
STA. 1056+50.00 - STA. 1059+47.95

Not To Scale



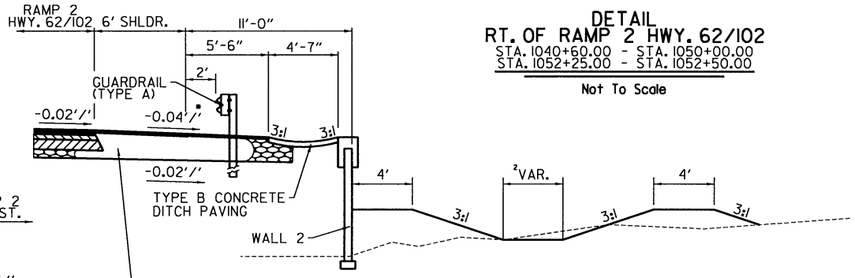
DETAIL
RT. OF RAMP 2 HWY. 62/102
STA. 1055+50.00 - STA. 1059+47.95

Not To Scale



DETAIL
RT. OF RAMP 2 HWY. 62/102
STA. 1061+41.28 - STA. 1066+17.56

Not To Scale



²SEE SPECIAL DITCH PROFILES AND CROSS SECTIONS FOR ADDITIONAL DETAILS

DETAIL
RT. OF RAMP 2 HWY. 62/102
STA. 1050+00.00 - STA. 1052+25.00

Not To Scale

TYPICAL SECTIONS OF IMPROVEMENT

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	6	555

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

NOTES:

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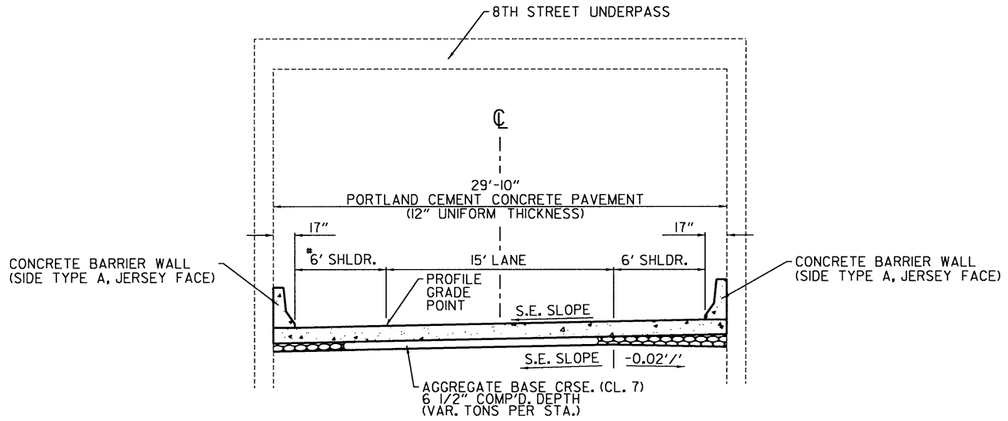

RAMP 2 HIGHWAY 62/102 INTERCHANGE I - 15' LANE
(SUPERELEVATED SECTION)

(SHOWN IN DIRECTION OF STATIONING)
STA. 1059+47.95 - STA. 1060+59.82 S.E. LT.
STA. 1060+59.82 - STA. 1061+41.28 S.E. RT.

*
TRANSITION SHOULDER WIDTH FROM 4' TO 6'
BETWEEN STA. 1058+43.65 AND STA. 1059+47.95.

TRANSITION SHOULDER WIDTH FROM 6' TO 4'
BETWEEN STA. 1061+41.28 AND STA. 1061+85.00.

TYPICAL SECTIONS OF IMPROVEMENT

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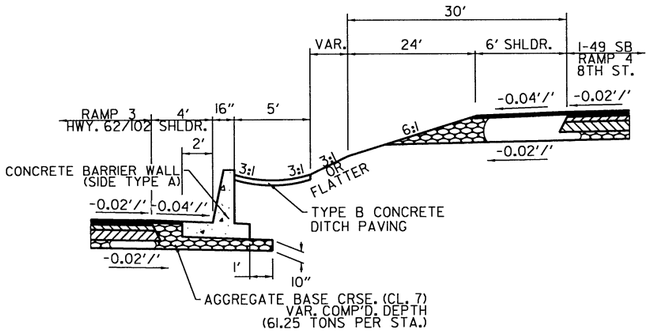
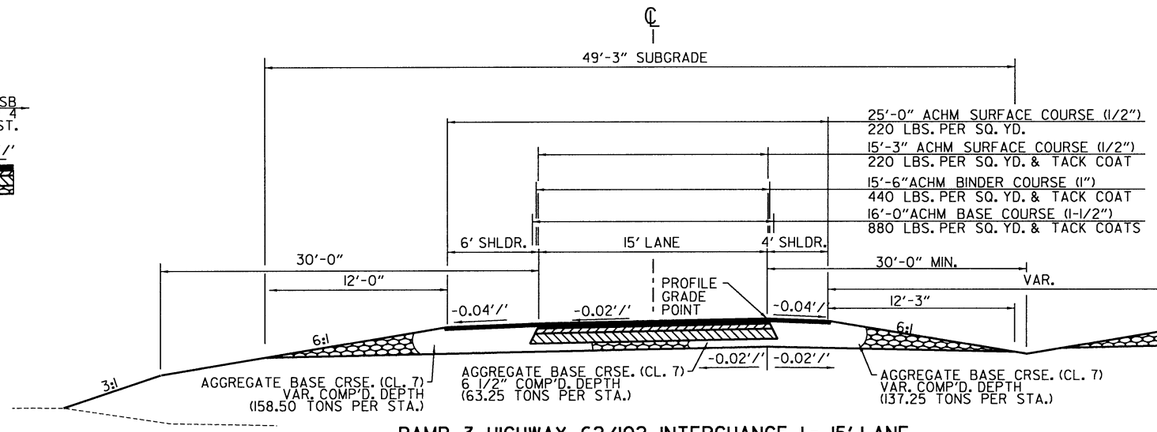
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	7	555

(2) TYPICAL SECTIONS OF IMPROVEMENT



DETAIL
RT. OF RAMP 3 HWY. 62/102
STA. 1037+50.00 - STA. 1040+19.65
Not To Scale



RAMP 3 HIGHWAY 62/102 INTERCHANGE 1- 15' LANE
(TANGENT SECTION)

(SHOWN IN DIRECTION OF STATIONING)
STA. 1040+74.30 - STA. 1048+67.77
STA. 1059+56.31 - STA. 1061+47.32

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 15192 DAVID A. HURT 7/6/16

NOTES:

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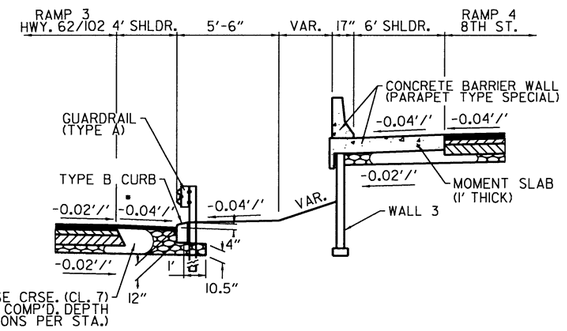
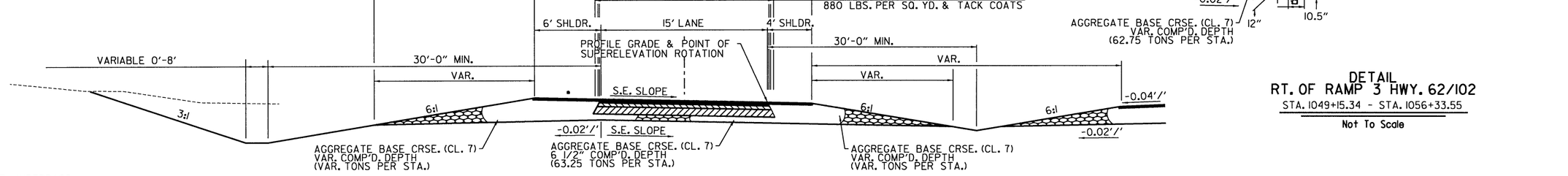
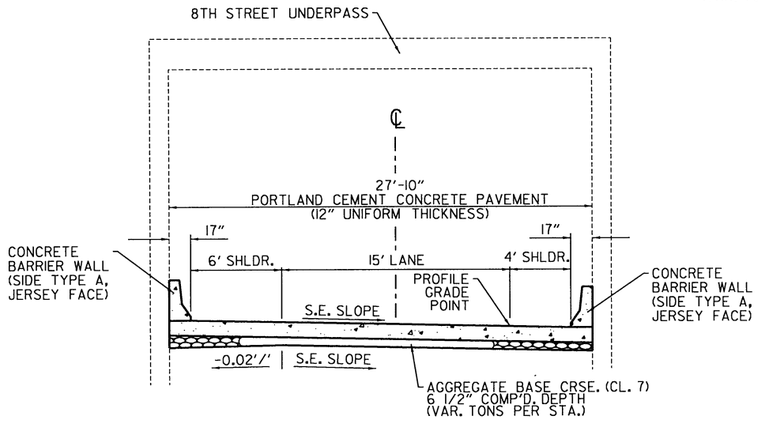


DETAIL
RT. OF RAMP 3 HWY. 62/102
STA. 1049+15.34 - STA. 1056+33.55
Not To Scale



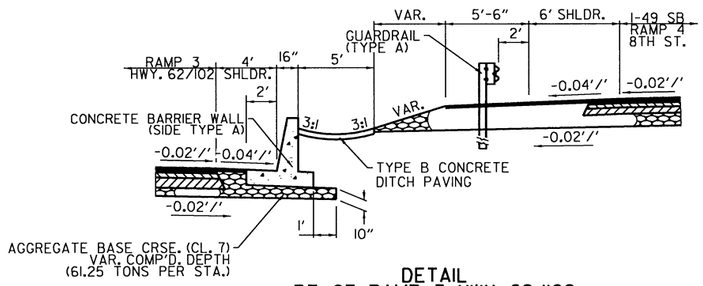
RAMP 3 HIGHWAY 62/102 INTERCHANGE 1- 15' LANE
(SUPERELEVATED SECTION)

(SHOWN IN DIRECTION OF STATIONING)
STA. 1034+01.36 - STA. 1040+74.30 S.E. LT.
STA. 1048+67.77 - STA. 1056+33.00 S.E. RT.
STA. 1061+47.32 - STA. 1062+52.32 S.E. LT.

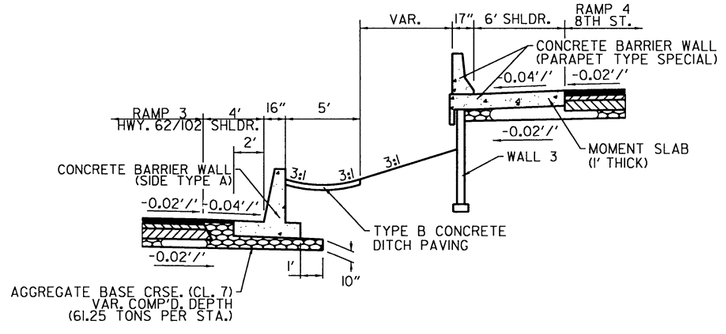


RAMP 3 HIGHWAY 62/102 INTERCHANGE 1- 15' LANE
(SUPERELEVATED SECTION)

(SHOWN IN DIRECTION OF STATIONING)
STA. 1056+33.55 - STA. 1058+12.25 S.E. RT.
STA. 1058+12.51 - STA. 1059+56.31 NORMAL CROWN



DETAIL
RT. OF RAMP 3 HWY. 62/102
STA. 1040+19.65 - STA. 1045+13.40
Not To Scale

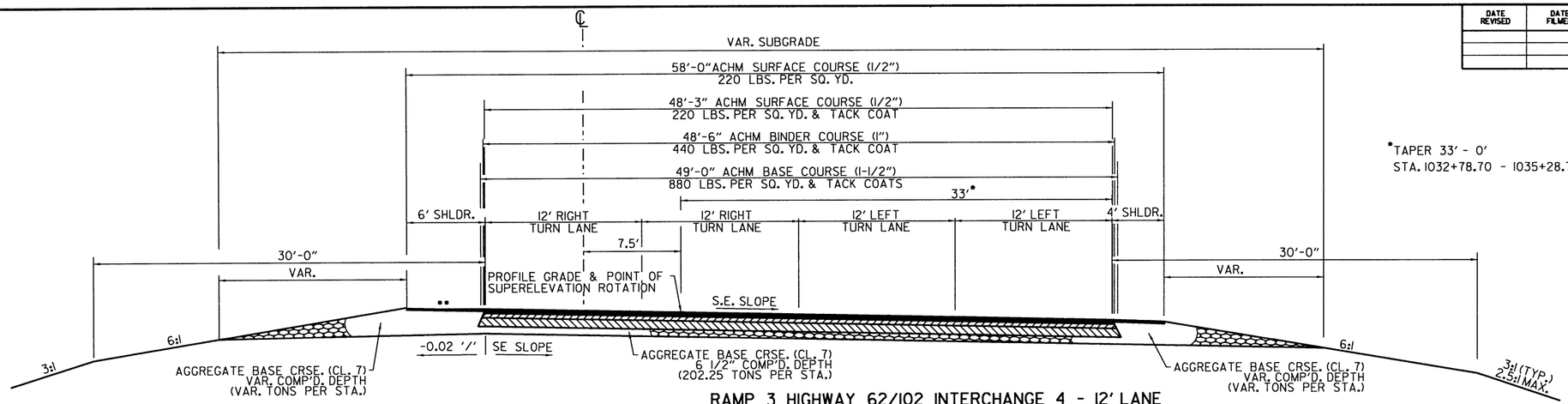


DETAIL
RT. OF RAMP 3 HWY. 62/102
STA. 1045+13.40 - STA. 1049+15.34
Not To Scale

TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	8	555

(2) TYPICAL SECTIONS OF IMPROVEMENT



•TAPER 33' - 0'
STA. 1032+78.70 - 1035+28.70

NOTES:

1. 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.
2. 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.
3. THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

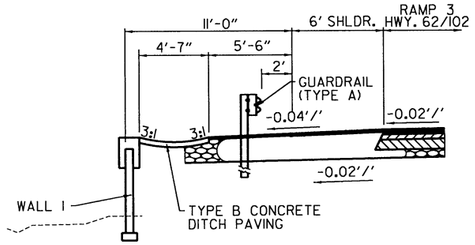
••ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATED TRANSITIONS (Ls), ALGEBRAIC DIFFERENCE BETWEEN PAVEMENT SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 0.08 FT./FT.

RAMP 3 HIGHWAY 62/102 INTERCHANGE 4 - 12' LANE (SUPERELEVATED SECTION)

(SHOWN IN DIRECTION OF STATIONING)
STA. 1030+82.74 - STA. 1032+78.70

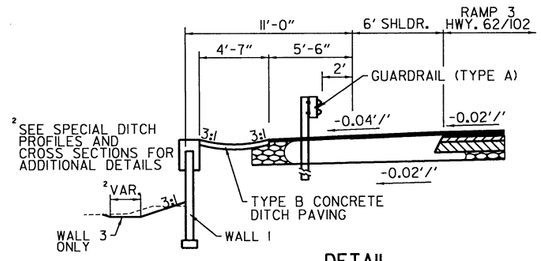
Not To Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16



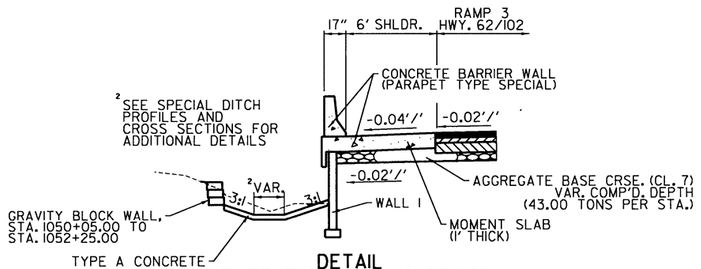
DETAIL
LT. OF RAMP 3 HWY. 62/102
STA. 1038+15.00 - STA. 1044+78.67

Not To Scale



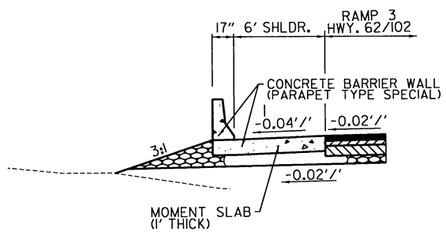
DETAIL
LT. OF RAMP 3 HWY. 62/102
STA. 1044+78.67 - STA. 1048+84.73

Not To Scale



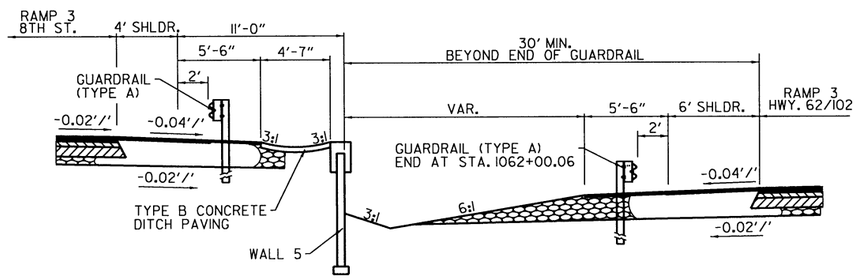
DETAIL
LT. OF RAMP 3 HWY. 62/102
STA. 1048+84.73 - STA. 1053+65.00

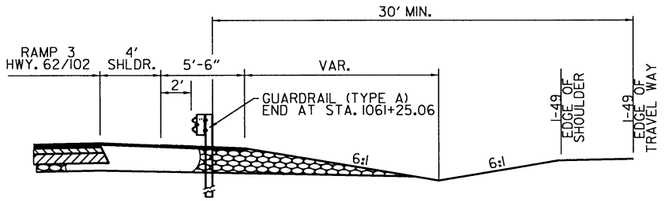
Not To Scale



DETAIL
LT. OF RAMP 3 HWY. 62/102
STA. 1053+65.00 - STA. 1056+33.55

Not To Scale





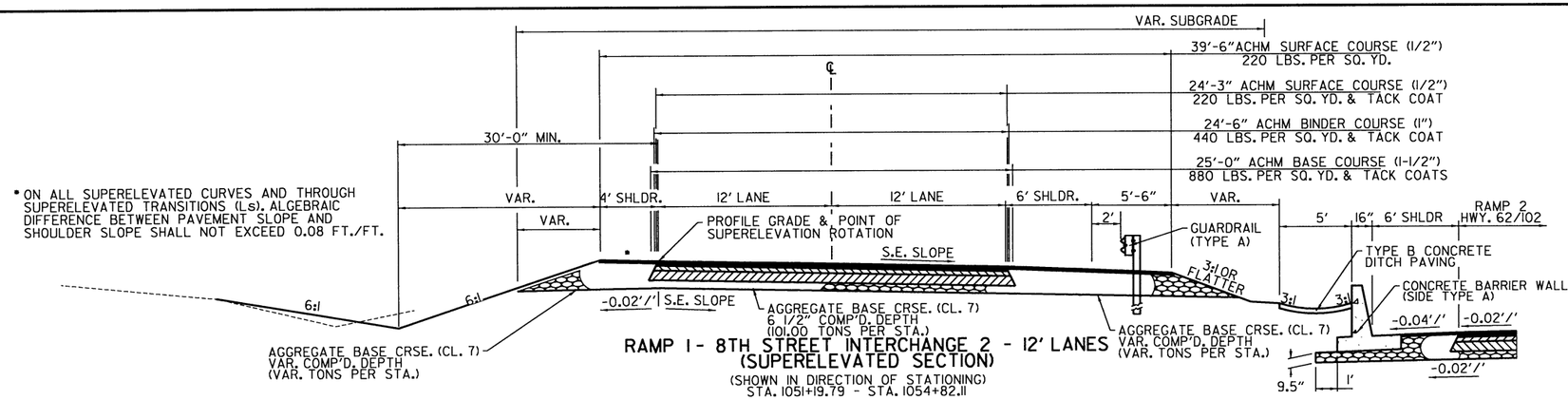
DETAIL
LT. OF & RT. OF RAMP 3 HWY. 62/102
STA. 1059+56.31 - STA. 1062+52.32

Not To Scale

TYPICAL SECTIONS OF IMPROVEMENT

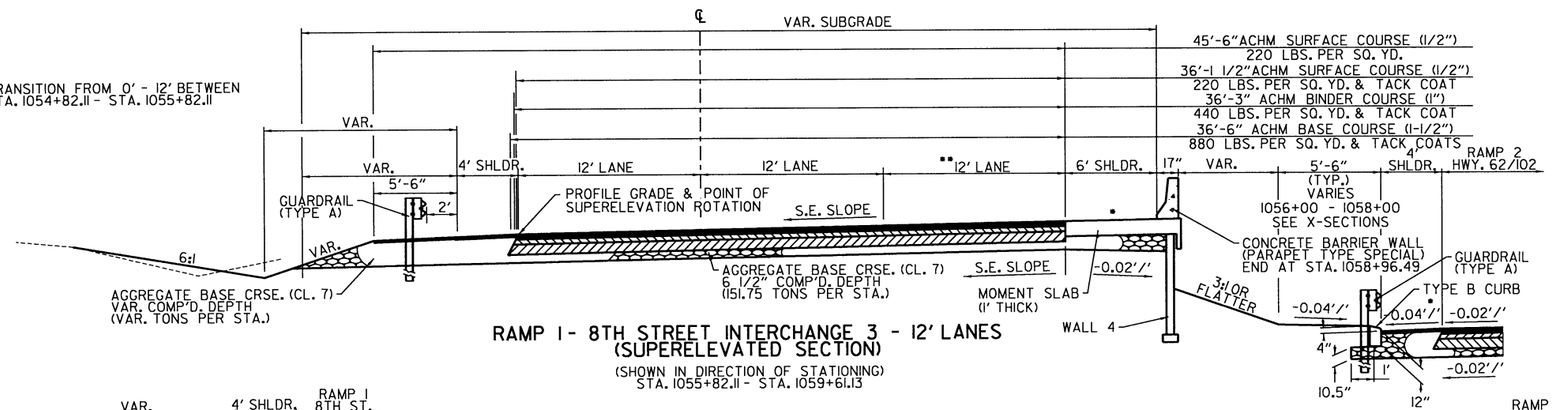
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	9	555

(2) TYPICAL SECTIONS OF IMPROVEMENT



* ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATED TRANSITIONS (Ls), ALGEBRAIC DIFFERENCE BETWEEN PAVEMENT SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 0.08 FT./FT.

RAMP 1- 8TH STREET INTERCHANGE 2 - 12' LANES
(SUPERELEVATED SECTION)
(SHOWN IN DIRECTION OF STATIONING)
STA. 1051+19.79 - STA. 1054+82.11



** TRANSITION FROM 0' - 12' BETWEEN STA. 1054+82.11 - STA. 1055+82.11

RAMP 1- 8TH STREET INTERCHANGE 3 - 12' LANES
(SUPERELEVATED SECTION)
(SHOWN IN DIRECTION OF STATIONING)
STA. 1055+82.11 - STA. 1059+61.13

NOTES:

1. 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.
2. 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.
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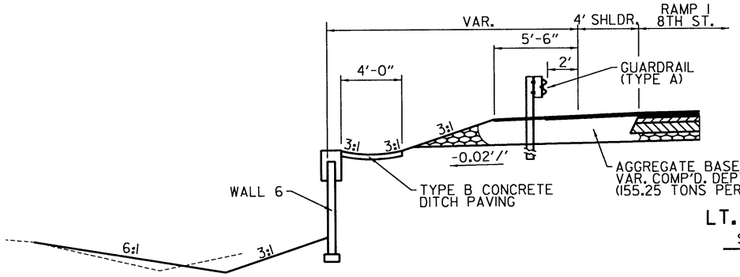
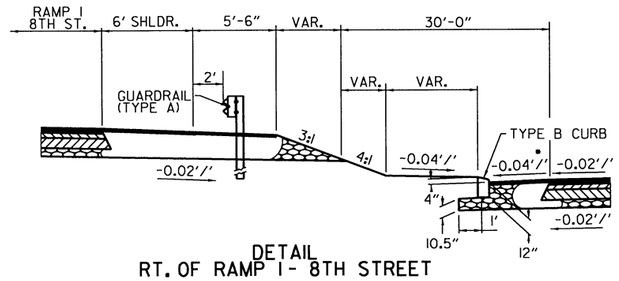
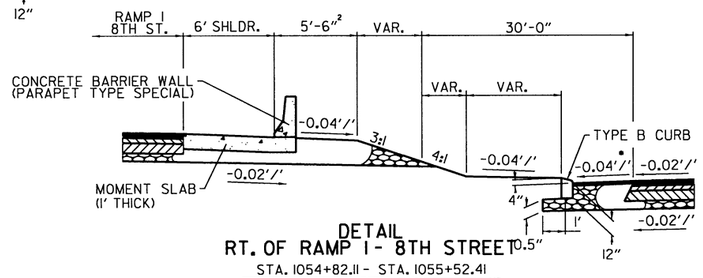
[2] TRANSITION FROM 5'-6" - 17" BETWEEN STA. 1054+95.00 - STA. 1055+28.00



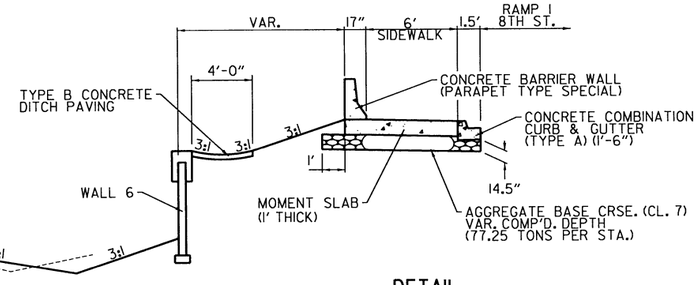
DETAIL
LT. OF RAMP 1- 8TH STREET
STA. 1057+02.31 - STA. 1059+11.79
Not To Scale



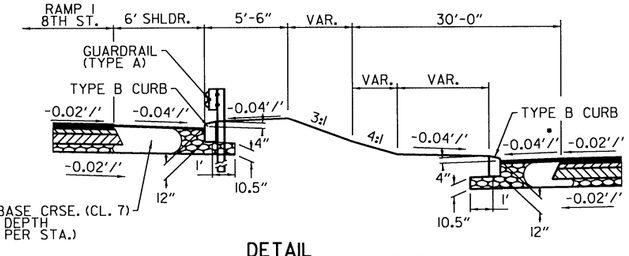
DETAIL
RT. OF RAMP 1- 8TH STREET
STA. 1052+02.34 - STA. 1052+92.36
Not To Scale



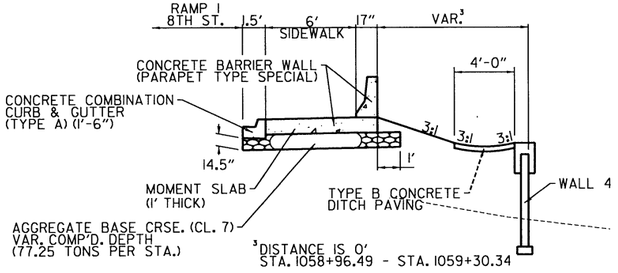
DETAIL
RT. OF RAMP 1- 8TH STREET
STA. 1054+82.11 - STA. 1055+52.41
Not To Scale



DETAIL
LT. OF RAMP 1- 8TH STREET
STA. 1059+11.79 - STA. 1059+61.13
Not To Scale



DETAIL
RT. OF RAMP 1- 8TH STREET
STA. 1052+92.36 - STA. 1054+82.11
Not To Scale



[3] DISTANCE IS 0' STA. 1058+96.49 - STA. 1059+30.34

DETAIL
RT. OF RAMP 1- 8TH STREET
STA. 1058+96.49 - STA. 1059+34.51
Not To Scale

TYPICAL SECTIONS OF IMPROVEMENT

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	10	555

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HURT
7/6/16

NOTES:

1. 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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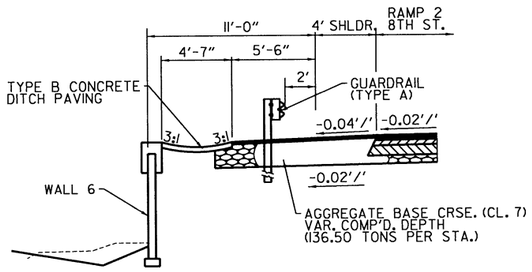
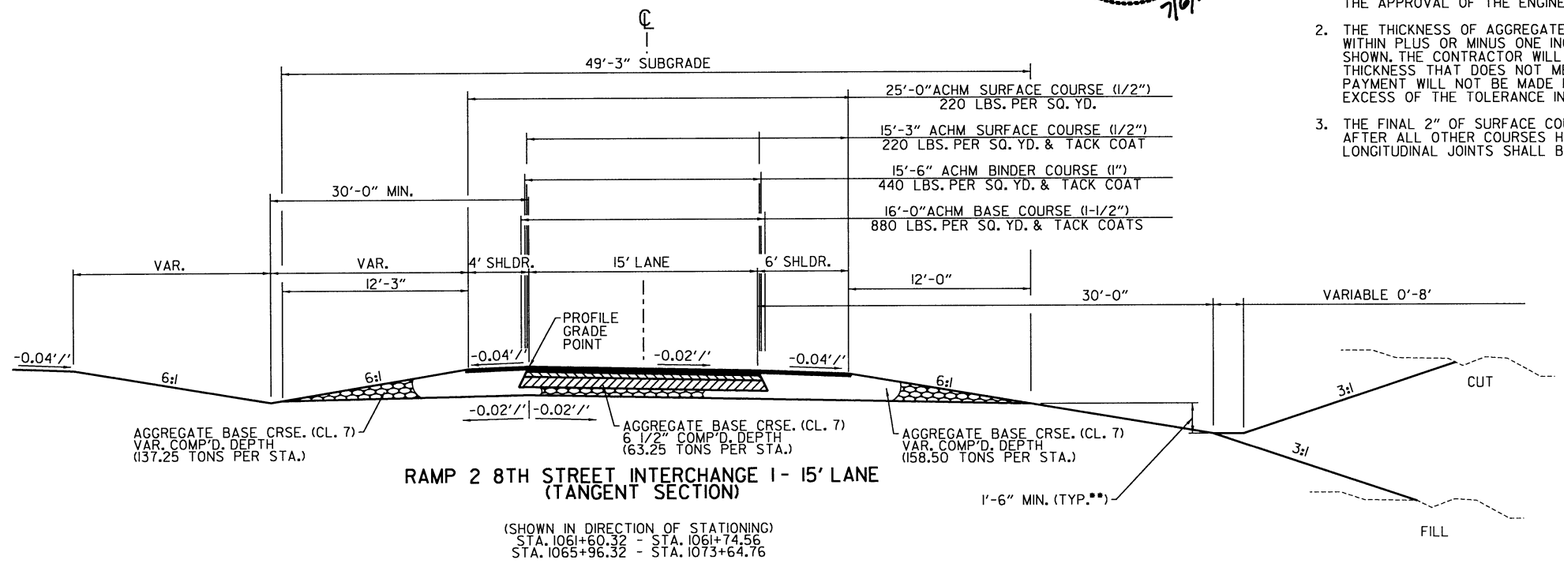


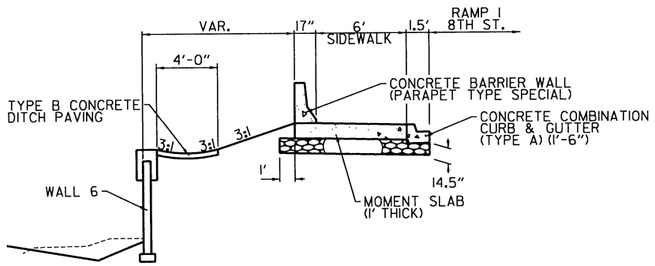
TRANSITION FROM 3:1 - 4:1 BETWEEN
STA. 1069+05.00 - STA. 1069+30.00

DETAIL
LT. OF RAMP 2 8TH STREET
STA. 1061+60.32 - STA. 1069+30.00
Not To Scale

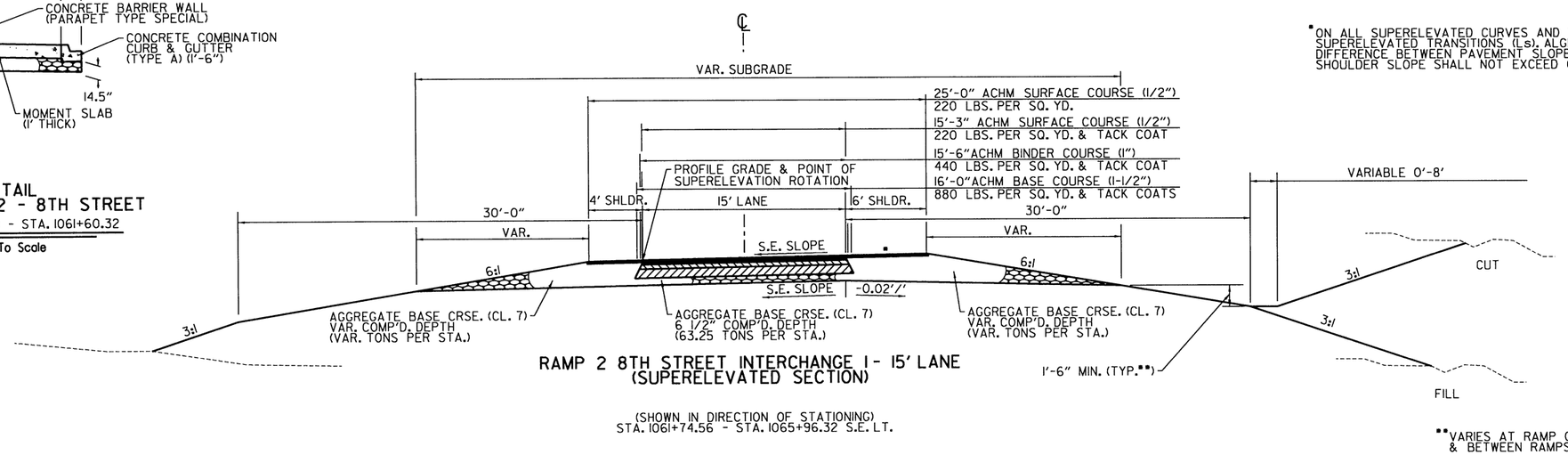


RAMP 2 8TH STREET INTERCHANGE 1- 15' LANE
(TANGENT SECTION)

(SHOWN IN DIRECTION OF STATIONING)
STA. 1061+60.32 - STA. 1061+74.56
STA. 1065+96.32 - STA. 1073+64.76



DETAIL
LT. OF RAMP 2 - 8TH STREET
STA. 1061+20.70 - STA. 1061+60.32
Not To Scale



RAMP 2 8TH STREET INTERCHANGE 1- 15' LANE
(SUPERELEVATED SECTION)

(SHOWN IN DIRECTION OF STATIONING)
STA. 1061+74.56 - STA. 1065+96.32 S.E. LT.

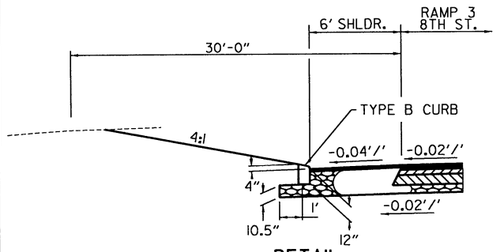
•ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATED TRANSITIONS (Ls), ALGEBRAIC DIFFERENCE BETWEEN PAVEMENT SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 0.08 FT./FT.

••VARIES AT RAMP GORES & BETWEEN RAMPS

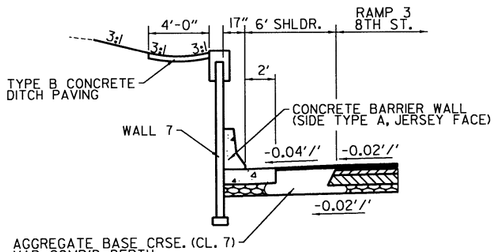
TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	11	555

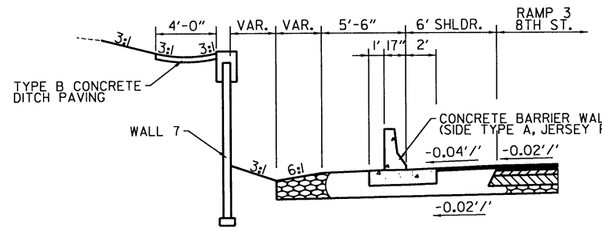
(2) TYPICAL SECTIONS OF IMPROVEMENT



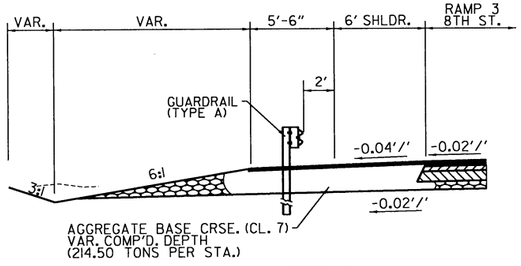
DETAIL
LT. OF RAMP 3 8TH STREET
STA. 1065+00.00 - STA. 1067+00.00
Not To Scale



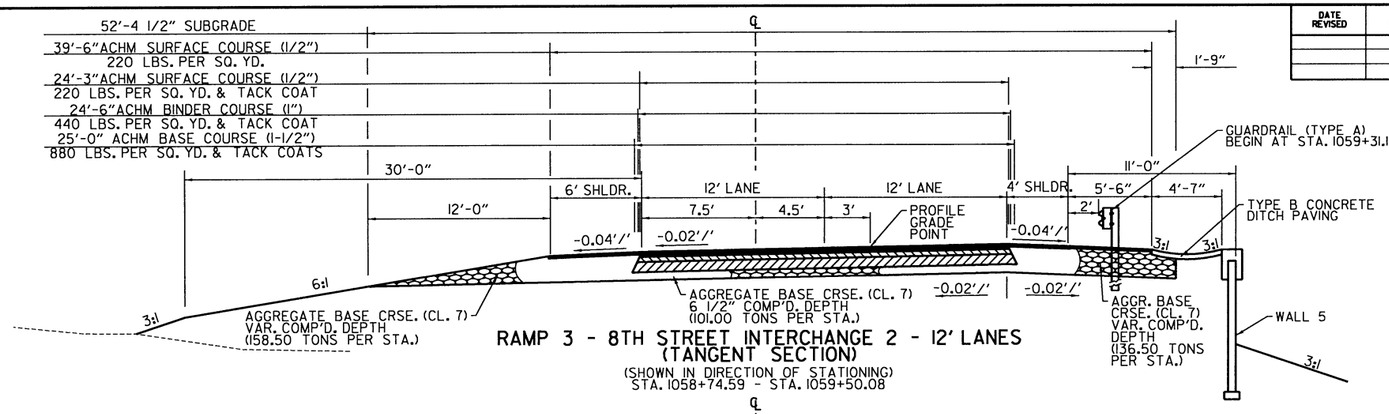
DETAIL
LT. OF RAMP 3 8TH STREET
STA. 1067+00.00 - STA. 1072+00.00
Not To Scale



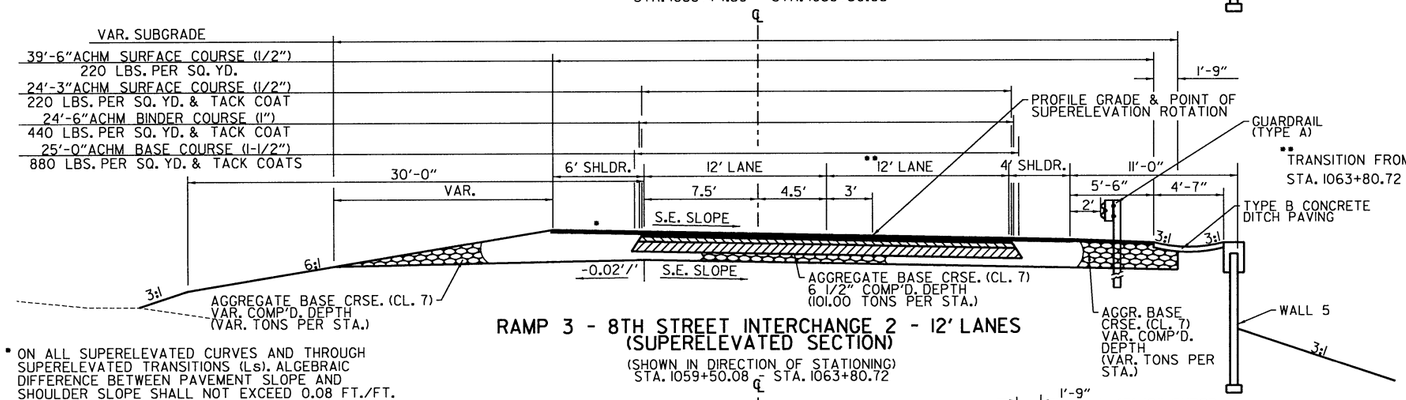
DETAIL
LT. OF RAMP 3 8TH STREET
STA. 1072+00.00 - STA. 1072+33.59
Not To Scale



DETAIL
LT. OF RAMP 3 8TH STREET
STA. 1072+33.59 - STA. 1074+02.33
Not To Scale

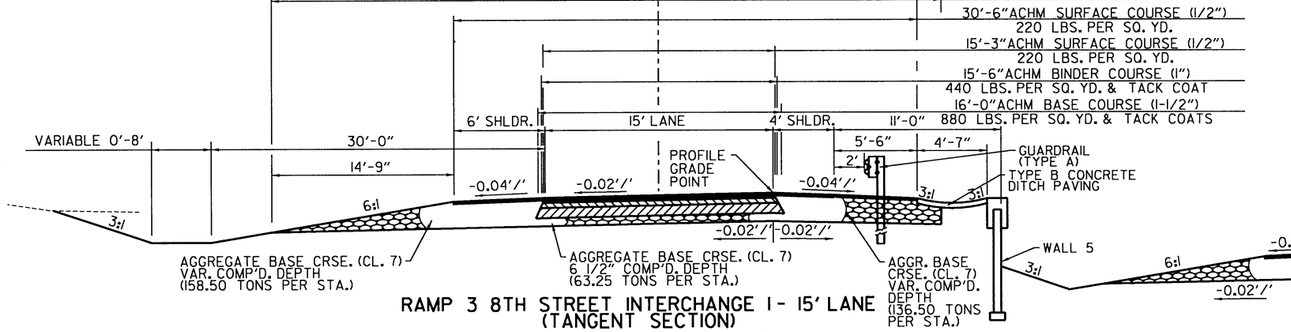


RAMP 3 - 8TH STREET INTERCHANGE 2 - 12' LANES
(TANGENT SECTION)
(SHOWN IN DIRECTION OF STATIONING)
STA. 1058+74.59 - STA. 1059+50.08

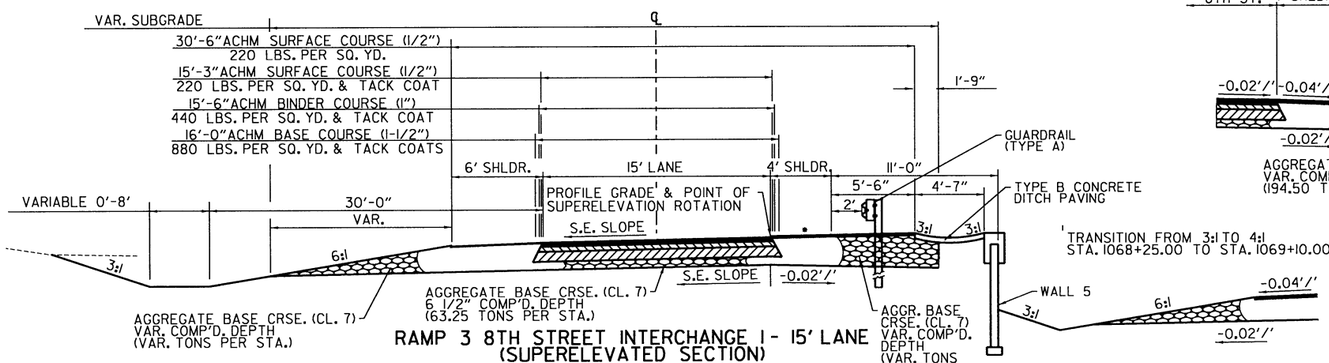


RAMP 3 - 8TH STREET INTERCHANGE 2 - 12' LANES
(SUPERELEVATED SECTION)
(SHOWN IN DIRECTION OF STATIONING)
STA. 1059+50.08 - STA. 1063+80.72

• ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATED TRANSITIONS (Ls). ALGEBRAIC DIFFERENCE BETWEEN PAVEMENT SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 0.08 FT./FT.

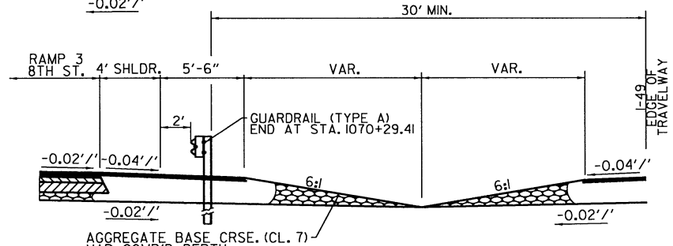


RAMP 3 8TH STREET INTERCHANGE 1 - 15' LANE
(TANGENT SECTION)
(SHOWN IN DIRECTION OF STATIONING)
STA. 1069+08.59 - STA. 1072+57.29



RAMP 3 8TH STREET INTERCHANGE 1 - 15' LANE
(SUPERELEVATED SECTION)
(SHOWN IN DIRECTION OF STATIONING)
STA. 1064+80.72 - STA. 1069+08.59

' TRANSITION FROM 3:1 TO 4:1 STA. 1068+25.00 TO STA. 1069+10.00



DETAIL
RT. OF RAMP 3 8TH STREET
STA. 1069+10.00 - STA. 1072+00.20
Not To Scale

• ON ALL SUPERELEVATED CURVES AND THROUGH SUPERELEVATED TRANSITIONS (Ls). ALGEBRAIC DIFFERENCE BETWEEN PAVEMENT SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 0.08 FT./FT.

NOTES:

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2. 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.
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STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

TYPICAL SECTIONS OF IMPROVEMENT

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	12	555

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

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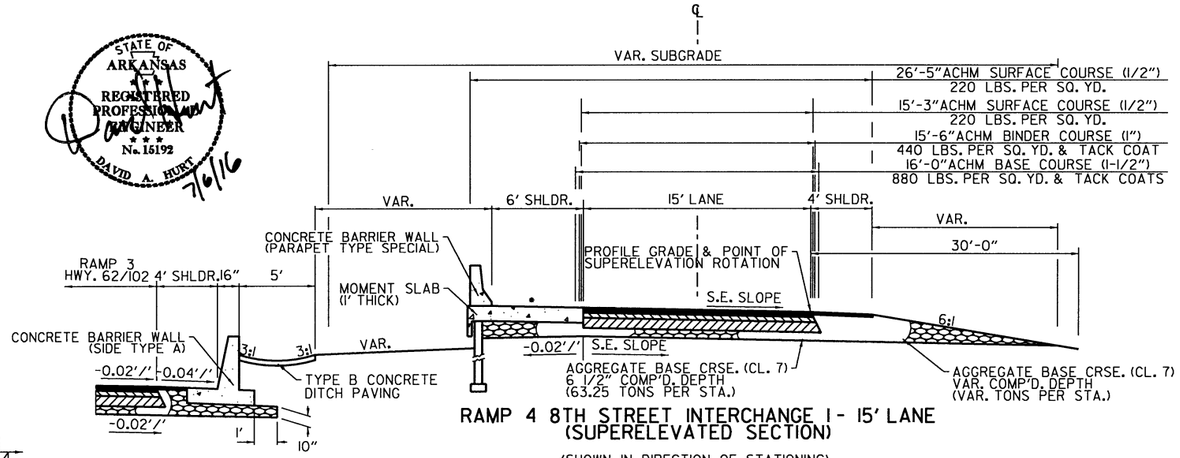
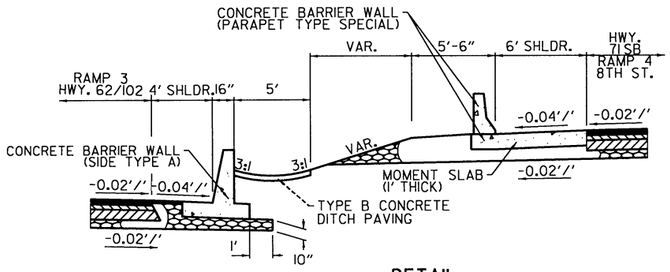
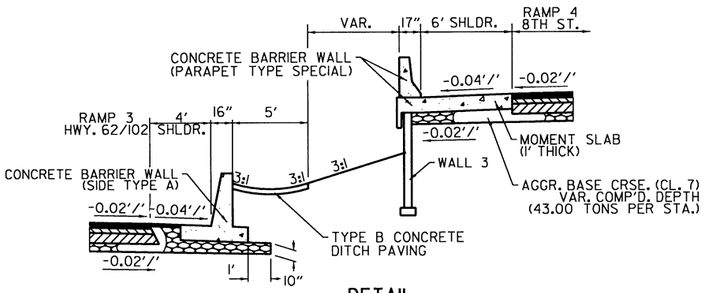


RAMP 4 8TH STREET INTERCHANGE 1 - 15' LANE
(SUPERELEVATED SECTION)

(SHOWN IN DIRECTION OF STATIONING)
STA. 1047+60.07 - STA. 1049+53.62 SE RT.

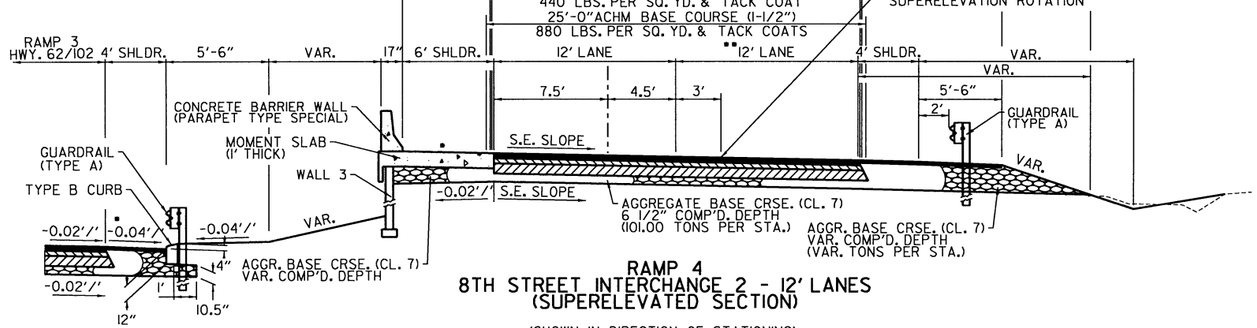


DETAIL
LT. OF RAMP 4 8TH ST.
STA. 1045+98.74 - STA. 1047+31.47
Not To Scale



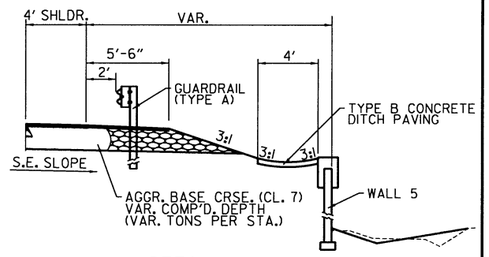
DETAIL
LT. OF RAMP 4 8TH ST.
STA. 1047+31.47 - STA. 1049+98.60
Not To Scale

** TRANSITION FROM 3' TO 12' BETWEEN STA. 1049+53.62 - STA. 1051+95.20



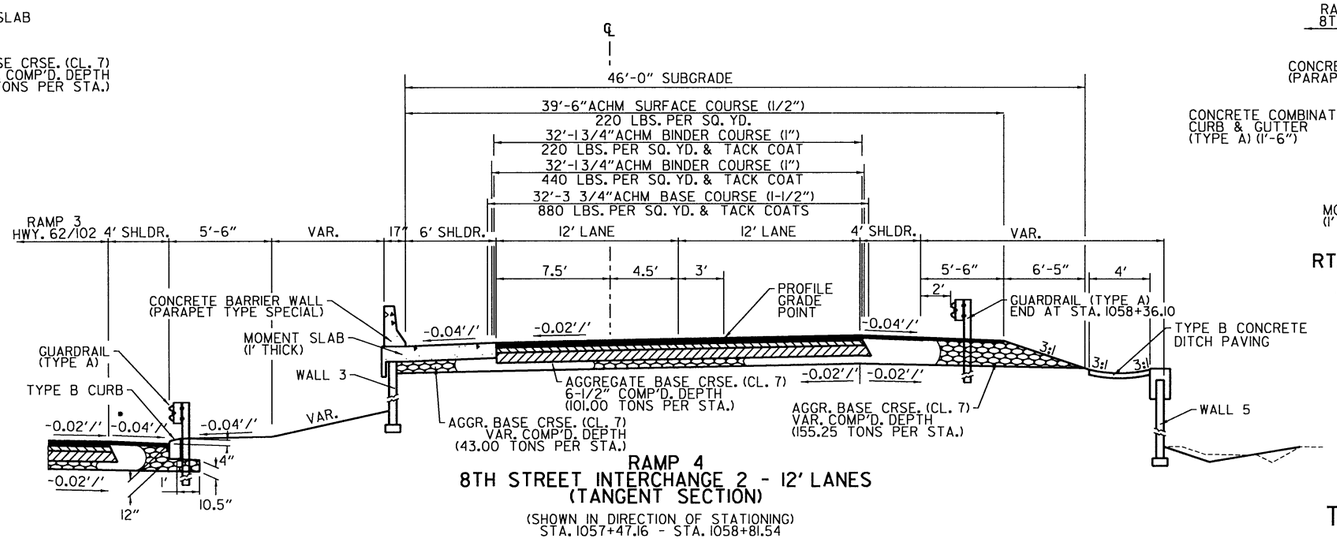
RAMP 4
8TH STREET INTERCHANGE 2 - 12' LANES
(SUPERELEVATED SECTION)

(SHOWN IN DIRECTION OF STATIONING)
STA. 1049+53.62 - STA. 1057+47.16



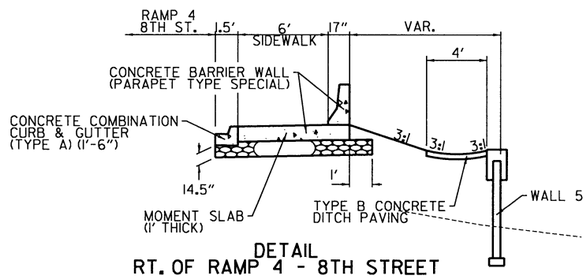
DETAIL
RT. OF RAMP 4 8TH ST.
STA. 1054+40.08 - STA. 1057+47.16
Not To Scale

DETAIL
LT. OF RAMP 4 8TH ST.
STA. 1047+31.47 - STA. 1049+98.60
Not To Scale



RAMP 4
8TH STREET INTERCHANGE 2 - 12' LANES
(TANGENT SECTION)

(SHOWN IN DIRECTION OF STATIONING)
STA. 1057+47.16 - STA. 1058+81.54



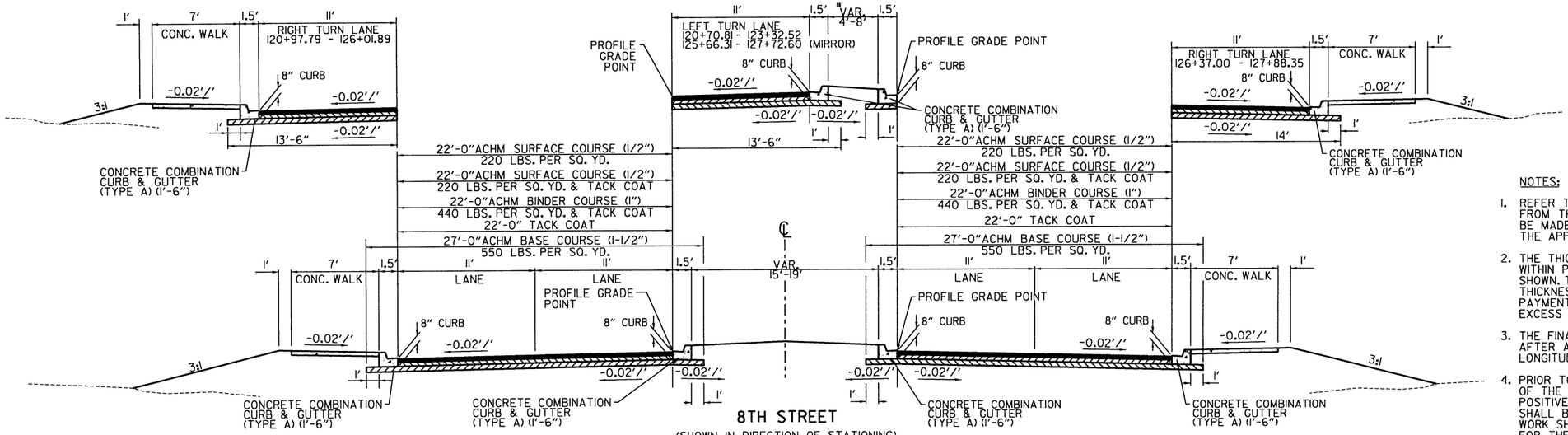
DETAIL
RT. OF RAMP 4 - 8TH STREET
STA. 1058+36.10 - STA. 1058+81.02
Not To Scale

TYPICAL SECTIONS OF IMPROVEMENT

c:\bmcd_llb\pw\dhurt\trn\dms19574\010_TYPICAL_07_090218.DGN

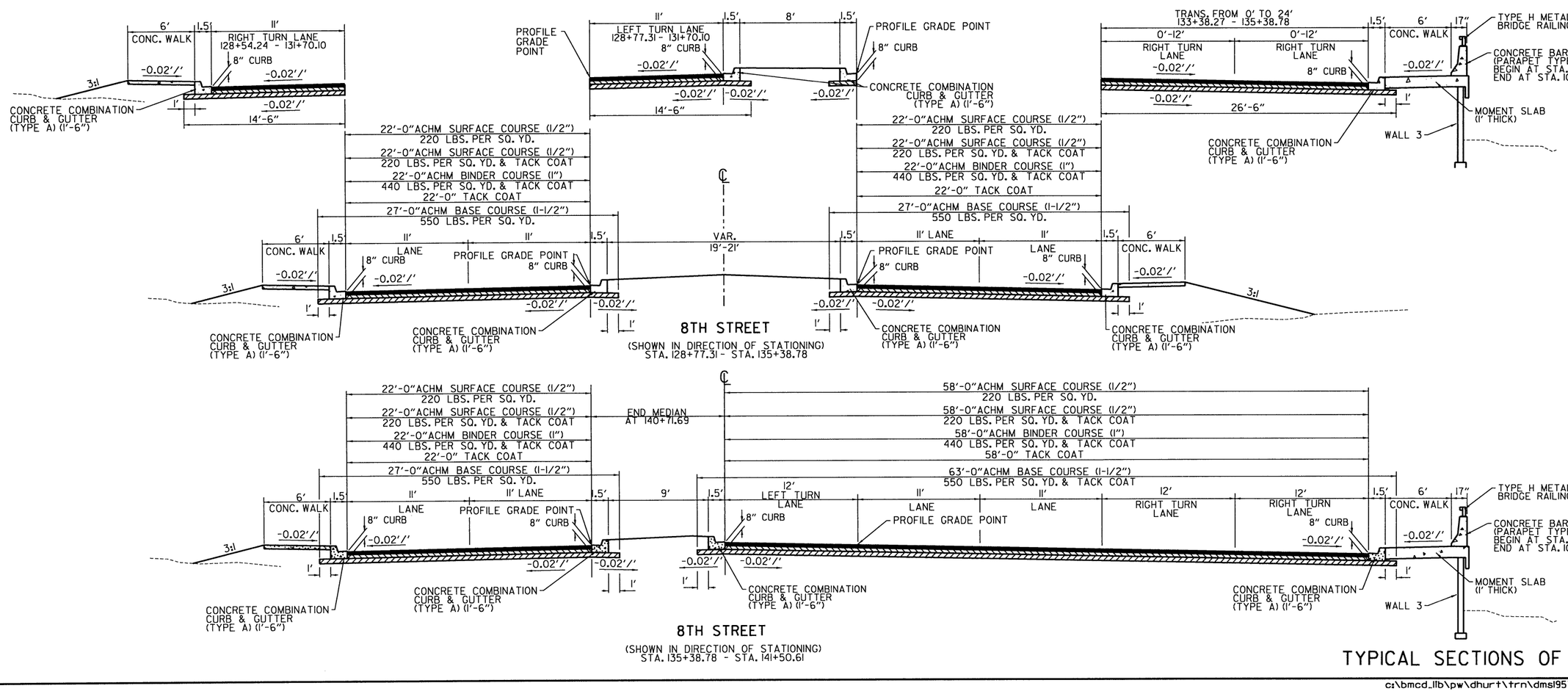
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	13	555

(2) TYPICAL SECTIONS OF IMPROVEMENT



NOTES:

1. 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.
2. 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.
3. THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.
4. 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.



TYPICAL SECTIONS OF IMPROVEMENT

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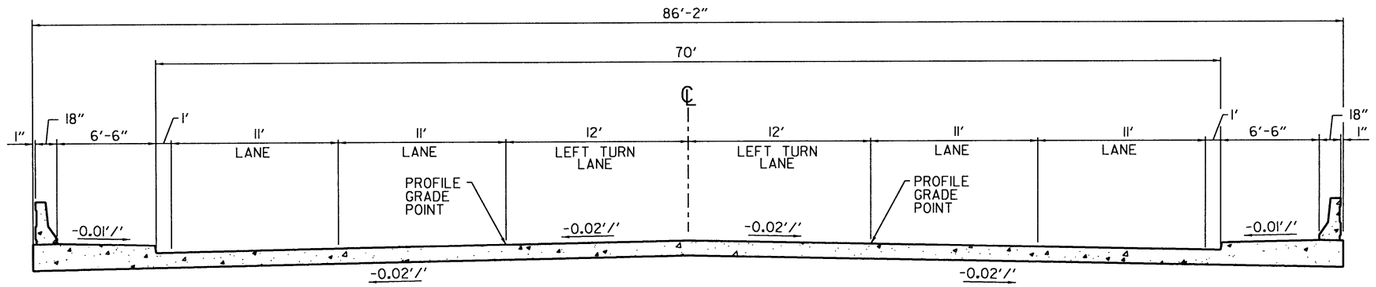
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	14	555

(2) TYPICAL SECTIONS OF IMPROVEMENT



8TH STREET
(FOR INFORMATION ONLY)
(THROUGH BRIDGE)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

NOTES:

1. 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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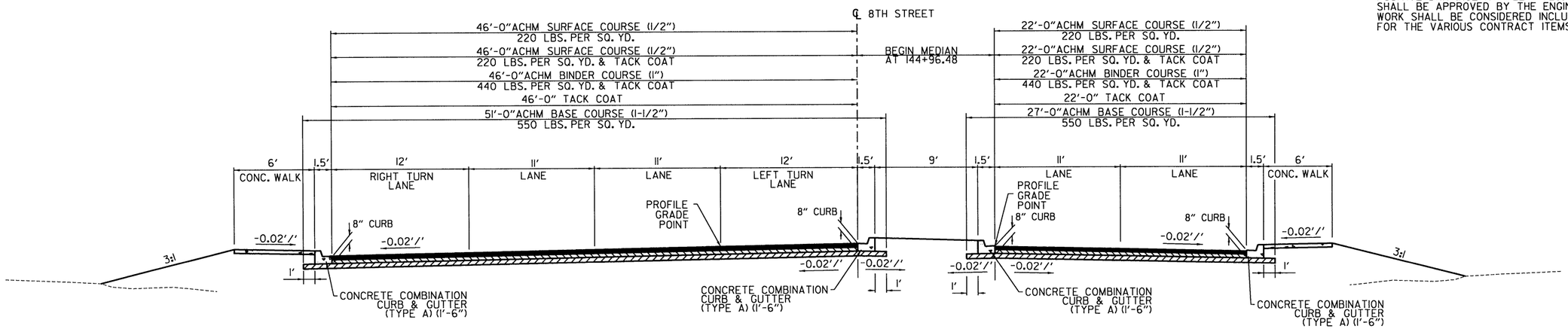

8TH STREET

(SHOWN IN DIRECTION OF STATIONING)
STA. 143+87.19 - STA. 147+00.00

TYPICAL SECTIONS OF IMPROVEMENT

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	15	555

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

NOTES:

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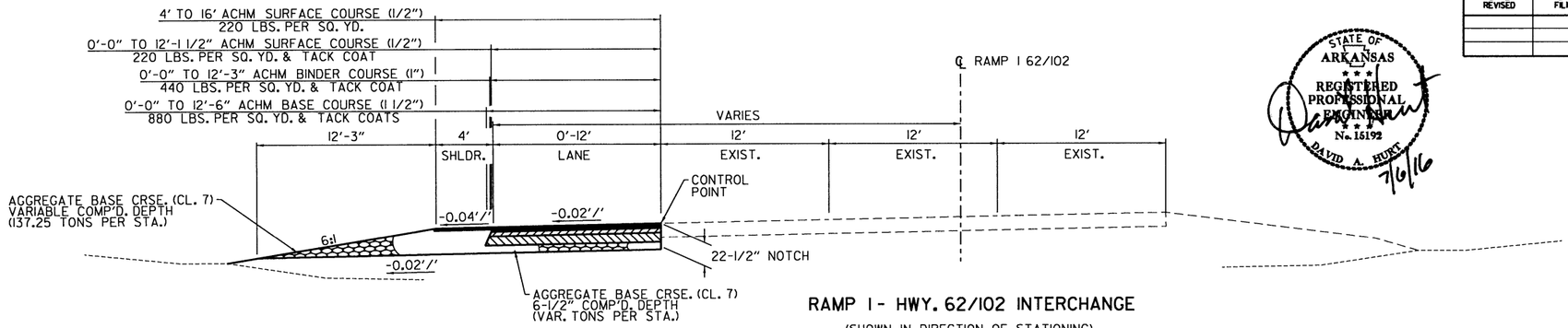
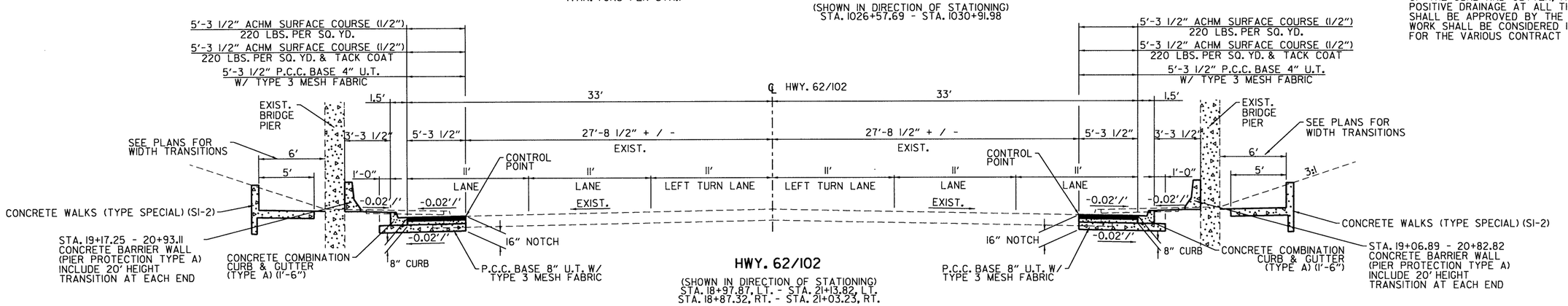


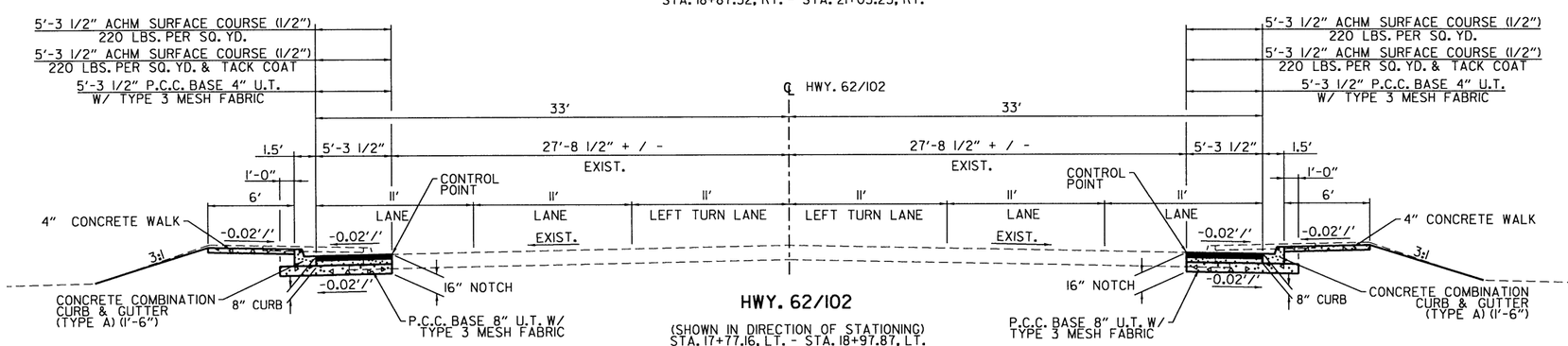
RAMP I - HWY. 62/102 INTERCHANGE

(SHOWN IN DIRECTION OF STATIONING)
STA. 1026+57.69 - STA. 1030+91.98



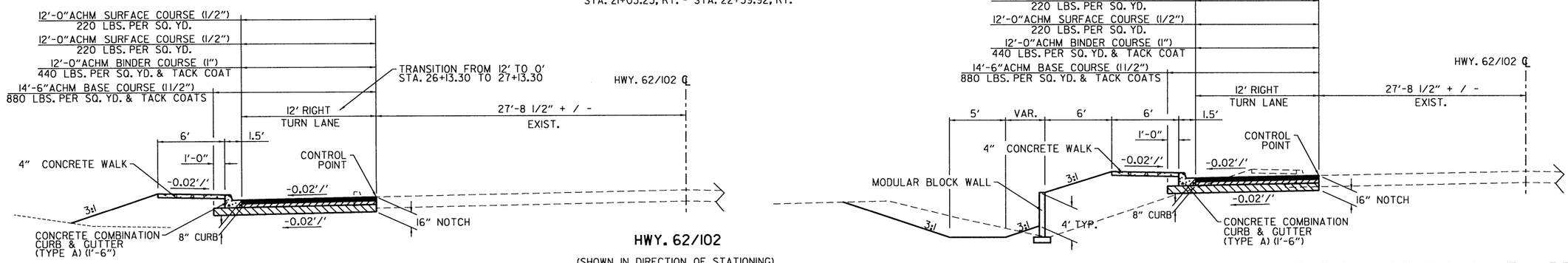
HWY. 62/102

(SHOWN IN DIRECTION OF STATIONING)
STA. 18+97.87, LT. - STA. 21+13.82, LT.
STA. 18+87.32, RT. - STA. 21+03.23, RT.



HWY. 62/102

(SHOWN IN DIRECTION OF STATIONING)
STA. 17+77.16, LT. - STA. 18+97.87, LT.
STA. 17+50.03, RT. - STA. 18+87.32, RT.
STA. 21+13.82, LT. - STA. 22+61.63, LT.
STA. 21+03.23, RT. - STA. 22+39.92, RT.



HWY. 62/102

(SHOWN IN DIRECTION OF STATIONING)
STA. 24+13.30 - STA. 26+13.30

TYPICAL SECTIONS OF IMPROVEMENT

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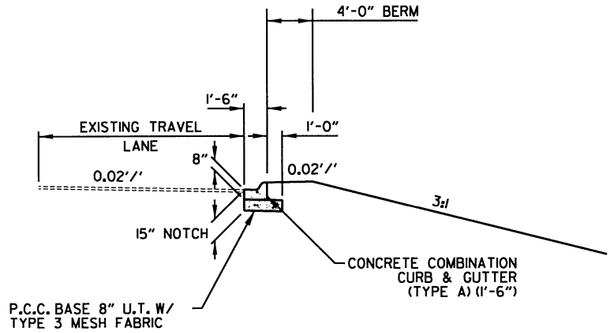
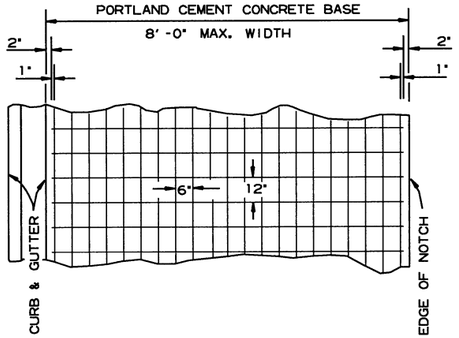
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	16	555

(2) SPECIAL DETAILS



P. C. C. BASE DETAIL RT.

COORDINATE TABLE			
PT.	STA.	OFFSET	℄
1	1061+06.65	LT. 125.90'	RAMP 3 (8TH. ST.)
2	1061+61.28	LT. 79.35'	RAMP 3 (8TH. ST.)

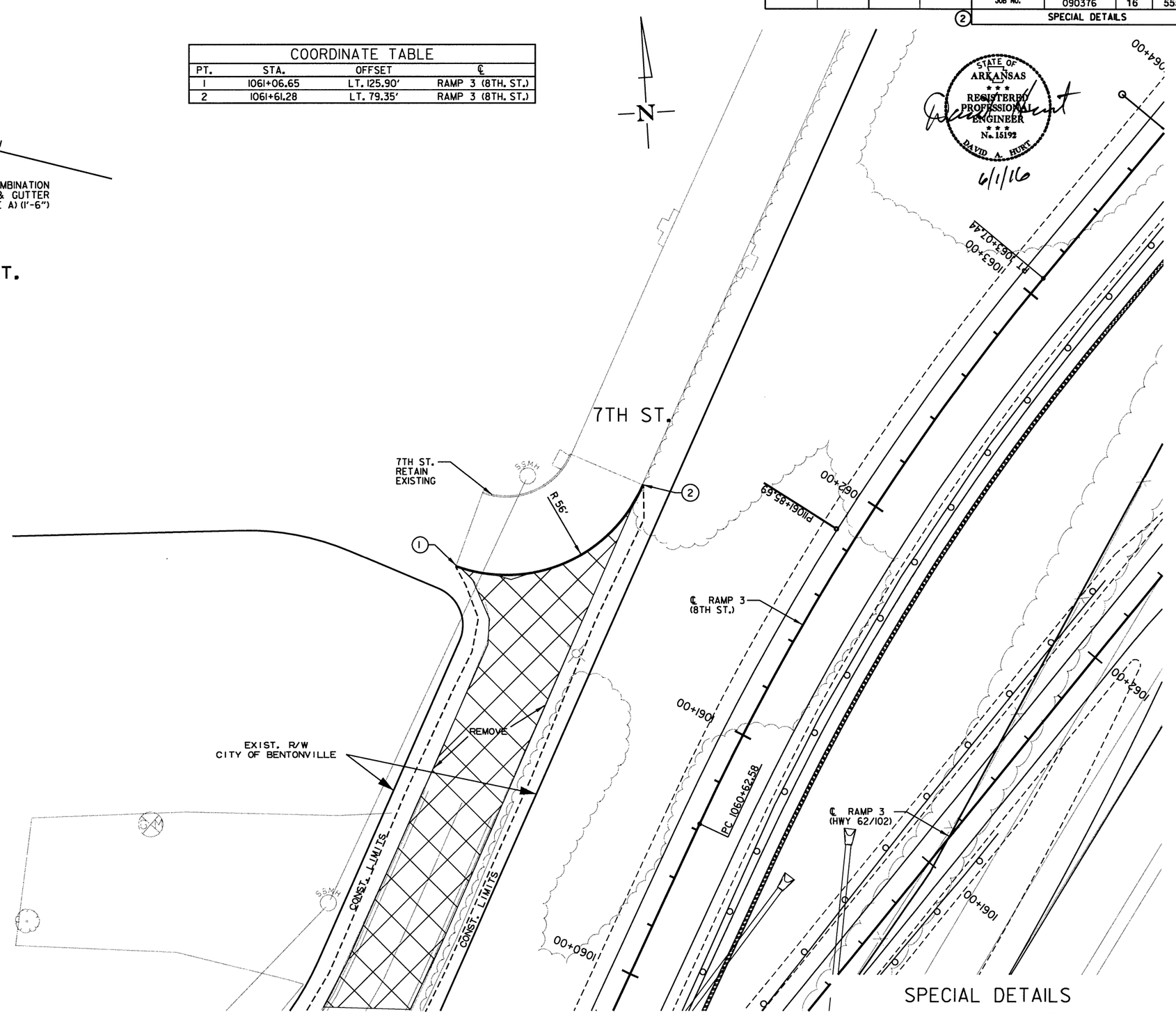


6" X 12" MESH FABRIC (TYPE 3) (W5.5 X W2.9) = 4.26 LBS./SQ.YD.

NOTES:

1. LAP MESH FABRIC MIN. 12" LONGITUDINALLY AND MIN. 6" TRANSVERSELY.
2. MESH FABRIC IS NOT REQUIRED WHEN WIDTH OF PORTLAND CEMENT CONCRETE BASE IS LESS THAN 12".
3. MESH FABRIC (TYPE 3) WILL NOT BE PAID FOR DIRECTLY, BUT FULL COMPENSATION THEREFORE WILL BE CONSIDERED INCLUDED IN THE CONTRACT PRICE BID PER SQ. YD. FOR PORTLAND CEMENT CONCRETE BASE (8" U.T.)
4. MESH INSTALLED AT A DEPTH OF T/2 (4").

DETAIL OF REINFORCING STEEL FOR PAVEMENT (MESH FABRIC TYPE 3)



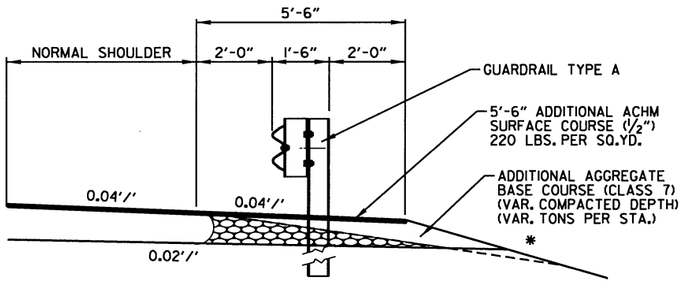
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

SPECIAL DETAILS 7TH STREET MODIFICATIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	17	555

(2) SPECIAL DETAILS

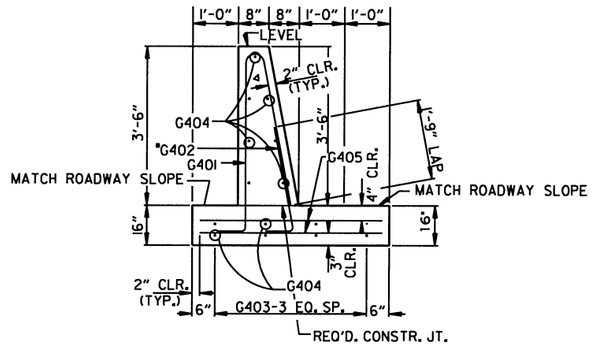
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



* NOTE: REFER TO STD. DWG. GR-9A AND CROSS SECTIONS FOR SLOPE REQUIREMENTS BEHIND GUARDRAIL.

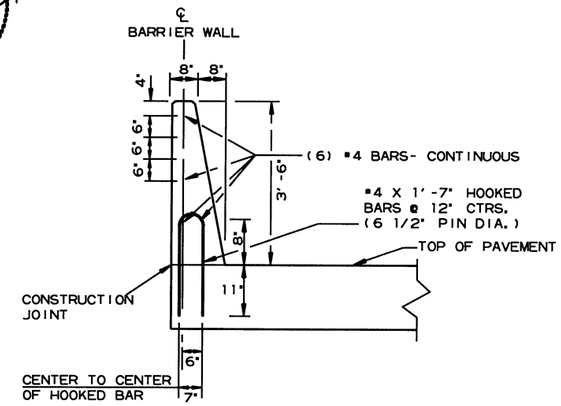
WIDENING FOR GUARDRAIL

(FOR INFORMATION ONLY. FOLLOW DETAILS INCLUDED ON TYPICAL SECTIONS AND GUARDRAIL LAYOUT SHEETS)

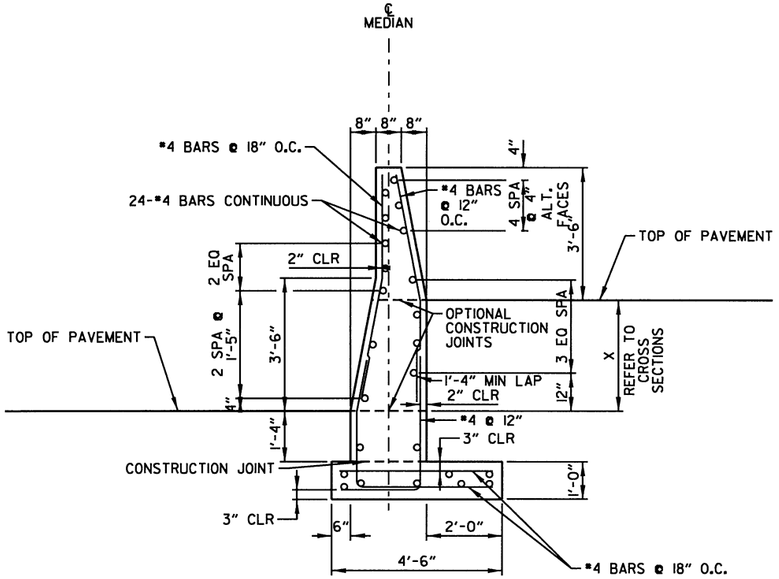


CONCRETE BARRIER WALL (SIDE TYPE A)

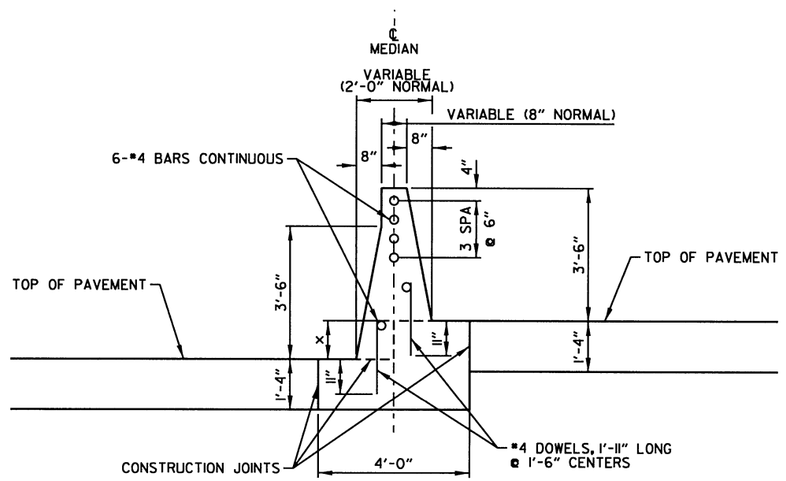
* OMIT G402 BARS IN LOCATIONS OF DROP INLETS. OMIT G401, G402, & G403 BARS IN LOCATIONS OF DRAINAGE OPENINGS.



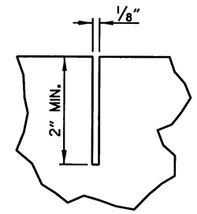
CONCRETE BARRIER WALL (SIDE TYPE A) (ON CONCRETE PAVEMENT)



CONCRETE BARRIER WALL (MEDIAN TYPE C) X= 0'-0" TO 5'-0" MAX.



CONCRETE BARRIER WALL (MEDIAN TYPE B) X= 0'-0" TO 1'-0" MAX.



CONTRACTION JOINT DETAIL

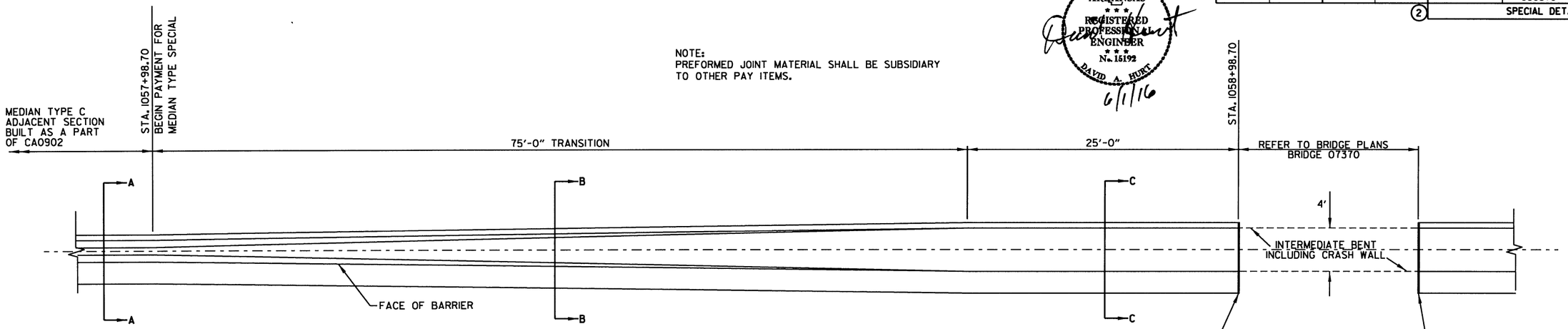
GENERAL NOTES FOR CONCRETE BARRIER WALLS

1. ALL BARRIER WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 631 OF THE STANDARD SPECIFICATIONS, 2014 EDITION.
2. CONTRACTION JOINTS REQUIRED @ 30'-0" MAXIMUM SPACING IS REQUIRED FOR MEDIAN TYPE C.
3. ALL CONTRACTION JOINTS TO BE FORMED IN FRESH CONCRETE ON TOP AND IN SIDES OF BARRIER WALL.
4. ALL EXPOSED EDGES OF CONCRETE BARRIER WALL SHALL HAVE 3/4" CHAMFER.
5. THE DESIGN OF BARRIER WALL MEDIAN TYPE C IS BASED ON A MINIMUM FOUNDATION BEARING CAPACITY OF ONE TON PER SQUARE FOOT. UNSTABLE FOUNDATION MATERIAL SHALL BE REMOVED AND REPLACED TO PROVIDE A FIRM FOUNDATION.
6. SPACING BETWEEN EXPANSION JOINTS SHALL NOT EXCEED 120 FT. FOR BARRIER TYPE C MEDIAN. EXPANSION JOINTS SHALL BE FORMED USING 1" PREFORMED JOINT FILLER. CONTINUOUS REINFORCEMENT SHALL BE CUT 2" CLEAR OF EXPANSION JOINTS.
7. DRAINAGE OPENING TO BE CONSTRUCTED AS DIRECTED BY THE ENGINEER.

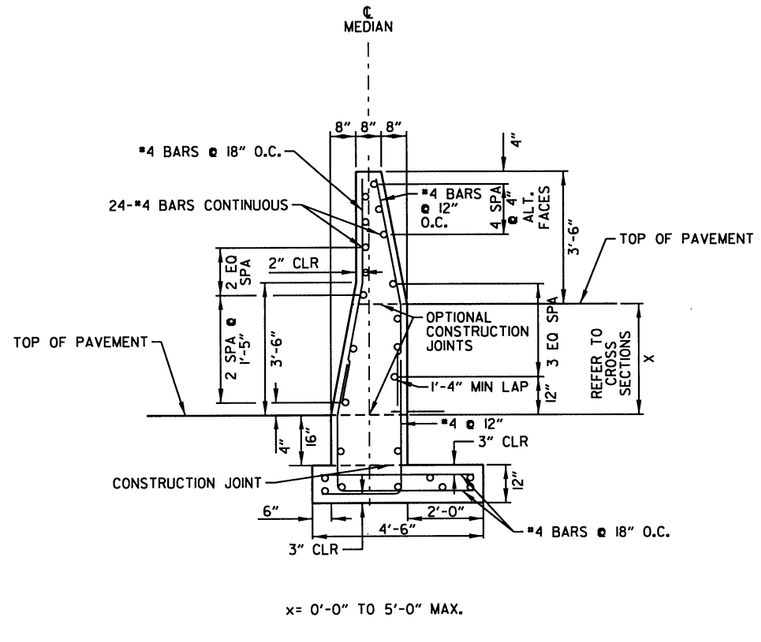
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	18	555
				(2)		SPECIAL DETAILS		

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

NOTE:
PREFORMED JOINT MATERIAL SHALL BE SUBSIDIARY TO OTHER PAY ITEMS.

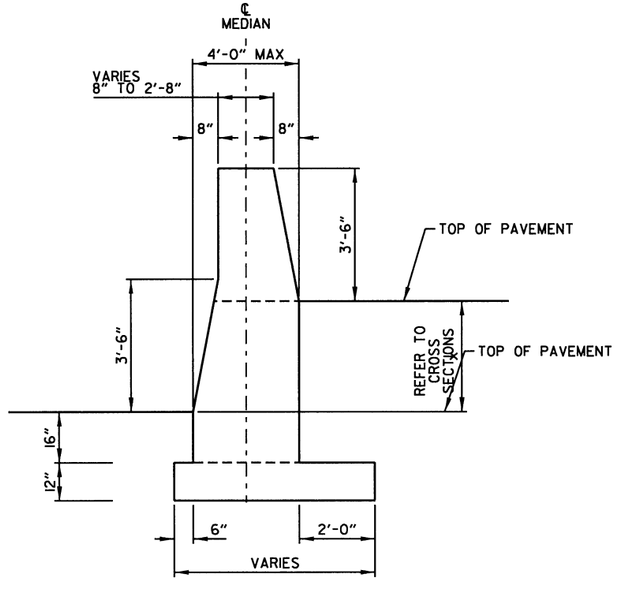


CONCRETE BARRIER WALL
(SOUTH OF BRIDGE 07370)



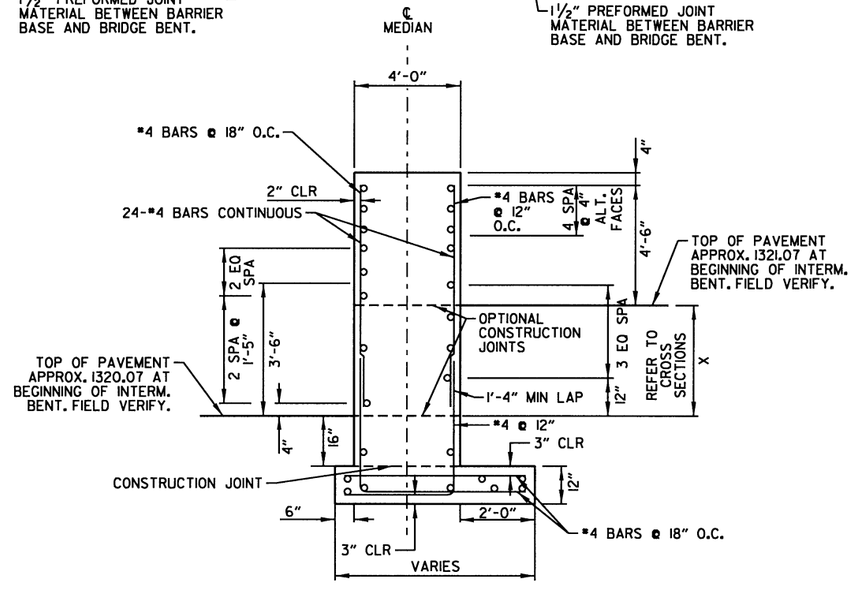
x= 0'-0" TO 5'-0" MAX.

SECTION A-A



x= 0'-0" TO 5'-0" MAX.
SAME REINFORCEMENT AS SECTION A-A

SECTION B-B

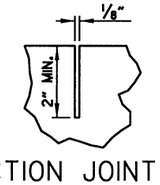


x= 0'-0" TO 5'-0" MAX.

SECTION C-C

GENERAL NOTES FOR CONCRETE BARRIER WALLS

1. ALL BARRIER WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 631 OF THE STANDARD SPECIFICATIONS, 2014 EDITION.
2. CONTRACTION JOINTS REQUIRED @ 30'-0" MAXIMUM SPACING FOR MEDIAN TYPE C.
3. ALL CONTRACTION JOINTS TO BE FORMED IN FRESH CONCRETE ON TOP AND IN SIDES OF BARRIER WALL.
4. ALL EXPOSED EDGES OF CONCRETE BARRIER WALL SHALL HAVE A ¾" CHAMFER.
5. THE DESIGN OF BARRIER WALL MEDIAN TYPE C IS BASED ON A MINIMUM FOUNDATION BEARING CAPACITY OF ONE TON PER SQUARE FOOT. UNSTABLE FOUNDATION MATERIAL SHALL BE REMOVED AND REPLACED TO PROVIDE A FIRM FOUNDATION.
6. SPACING BETWEEN EXPANSION JOINTS SHALL NOT EXCEED 120 FT. FOR BARRIER MEDIAN TYPE C. EXPANSION JOINTS SHALL BE FORMED USING 1" PREFORMED JOINT FILLER. CONTINUOUS REINFORCEMENT SHALL BE CUT 2" CLEAR OF EXPANSION JOINTS.
7. DRAINAGE OPENINGS TO BE CONSTRUCTED AS DIRECTED BY THE ENGINEER.
8. REMOVAL AND REPLACEMENT OF EXISTING PAVEMENT AND ANY EXCAVATION REQUIRED FOR INSTALLATION OF CONCRETE BARRIER IS CONSIDERED SUBSIDIARY AND NO DIRECT PAYMENT WILL BE MADE.



CONTRACTION JOINT DETAIL

CONCRETE BARRIER WALL (MEDIAN TYPE C) TRANSITION AT BRIDGE 07370

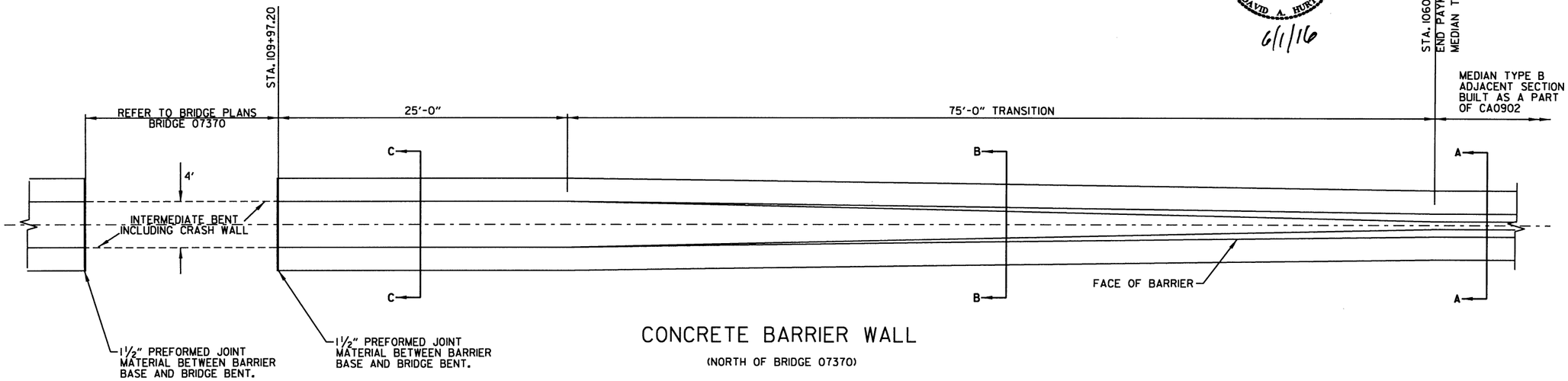
SPECIAL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	19	555

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

NOTE:
PREFORMED JOINT MATERIAL SHALL BE SUBSIDIARY TO OTHER PAY ITEMS.

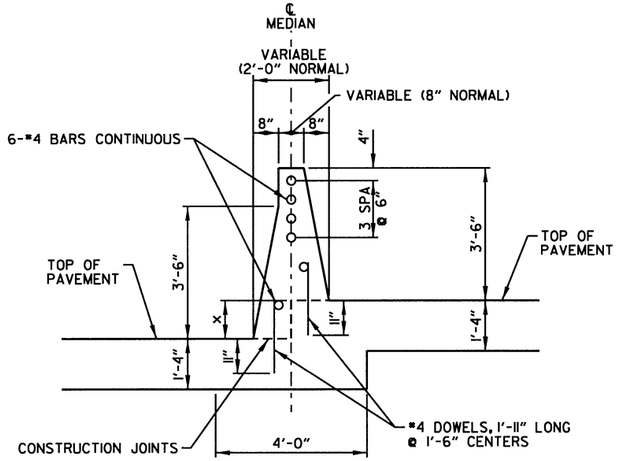


CONCRETE BARRIER WALL

(NORTH OF BRIDGE 07370)

GENERAL NOTES FOR CONCRETE BARRIER WALLS

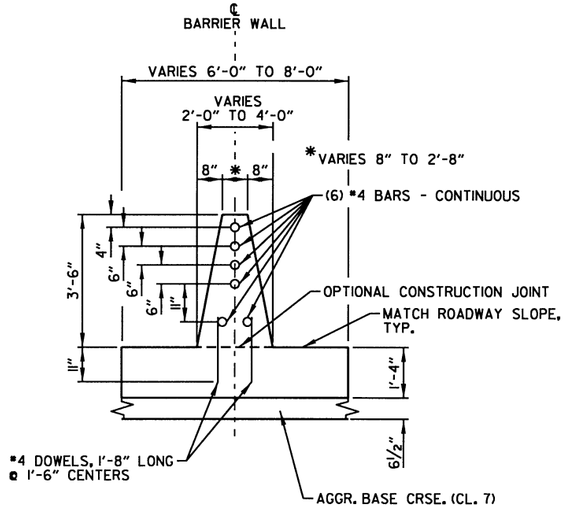
1. ALL BARRIER WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 631 OF THE STANDARD SPECIFICATIONS, 2014 EDITION.
2. CONTRACTION JOINTS REQUIRED @ 15'-0" MAXIMUM SPACING FOR BARRIER SECTION AA & BB. A 30'-0" MAXIMUM SPACING IS REQUIRED FOR BARRIER SECTION CC. CONTRACTION JOINTS ARE NOT PERMITTED AT THE DOWEL BAR LOCATIONS.
3. ALL CONTRACTION JOINTS TO BE FORMED IN FRESH CONCRETE ON TOP AND IN SIDES OF BARRIER WALL.
4. DOWEL BARS FOR BARRIER SECTION AA & BB WILL NOT BE REQUIRED IF BARRIER AND MINIMUM 8' WIDE BASE ARE CAST AS A COMPLETE UNIT.
5. ALL EXPOSED EDGES OF CONCRETE BARRIER WALL SHALL HAVE A ¾" CHAMFER.
6. SPACING BETWEEN EXPANSION JOINTS SHALL NOT EXCEED 400 FT. FOR BARRIER. EXPANSION JOINTS SHALL BE FORMED USING 1" PREFORMED JOINT FILLER. CONTINUOUS REINFORCEMENT SHALL BE CUT 2" CLEAR OF EXPANSION JOINTS.
7. MAINTAIN 3" CLEARANCE ON ALL FOOTING REINFORCEMENT AND 2" CLEARANCE ON ALL OTHER REINFORCEMENT.
8. DRAINAGE OPENINGS TO BE CONSTRUCTED AS DIRECTED BY THE ENGINEER.
9. REMOVAL AND REPLACEMENT OF EXISTING PAVEMENT AND ANY EXCAVATION FOR INSTALLATION OF CONCRETE BARRIER IS CONSIDERED SUBSIDIARY AND NO DIRECT PAYMENT WILL BE MADE.



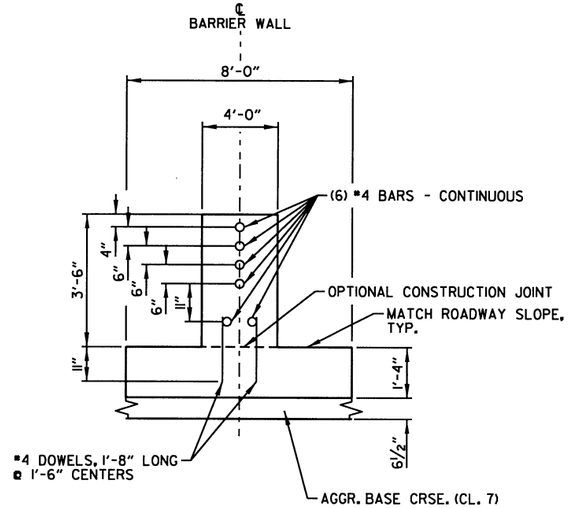
CONCRETE BARRIER WALL (MEDIAN TYPE B)

X= 0'-0" TO 1'-0" MAX.

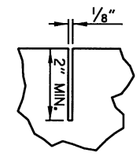
SECTION A-A



SECTION B-B



SECTION C-C



CONTRACTION JOINT DETAIL

CONCRETE BARRIER WALL (MEDIAN TYPE B) TRANSITION AT BRIDGE 07370

SPECIAL DETAILS

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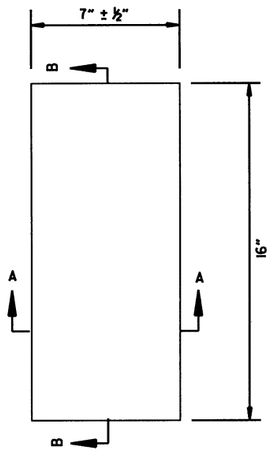
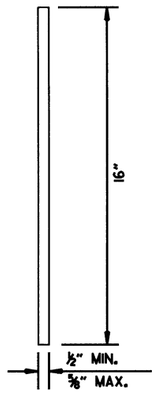
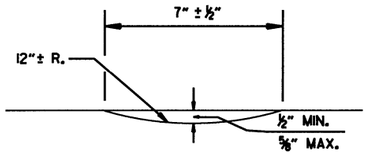
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	20	555
				(2)	SPECIAL DETAILS			



PLAN



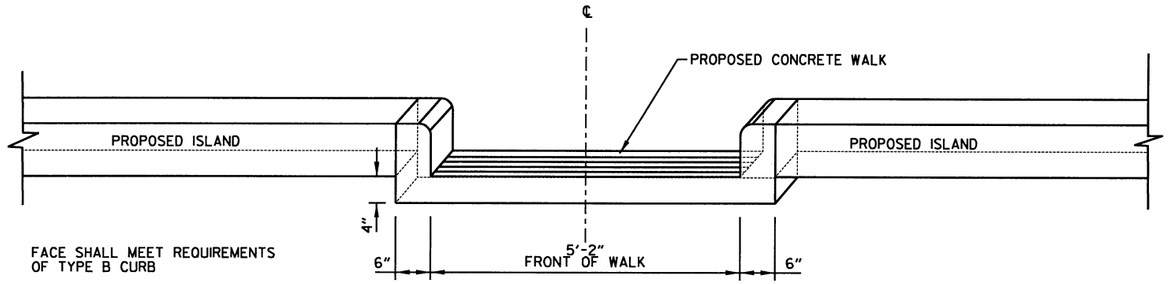
SECTION B-B



SECTION A-A

DETAILS OF RUMBLE STRIPS

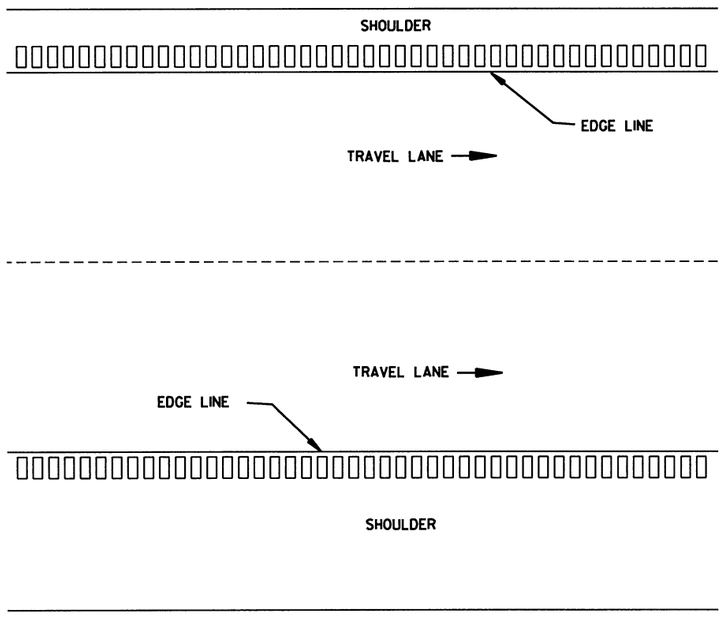
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

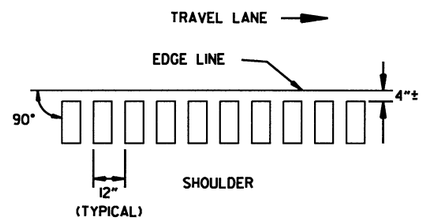


FACE SHALL MEET REQUIREMENTS OF TYPE B CURB

NOTE:
CONCRETE WALK THROUGH ISLAND SHALL BE POURED MONOLITHICALLY. ALL MATERIALS REQUIRED TO CONSTRUCT CONCRETE WALK THRU ISLAND SHALL BE INCLUDED IN THE PRICE BID FOR CONCRETE ISLAND.

CONCRETE WALK THROUGH ISLAND



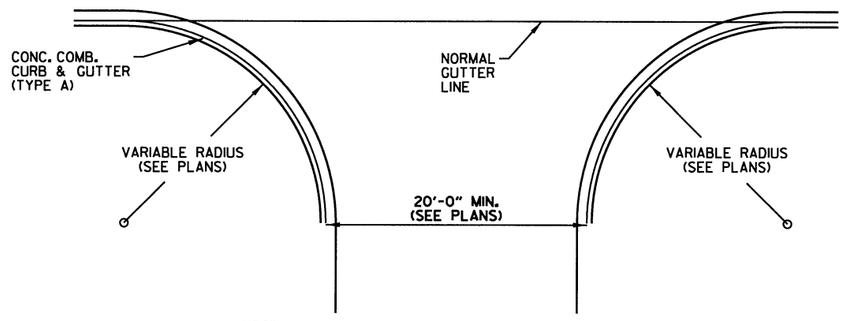


LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER

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.



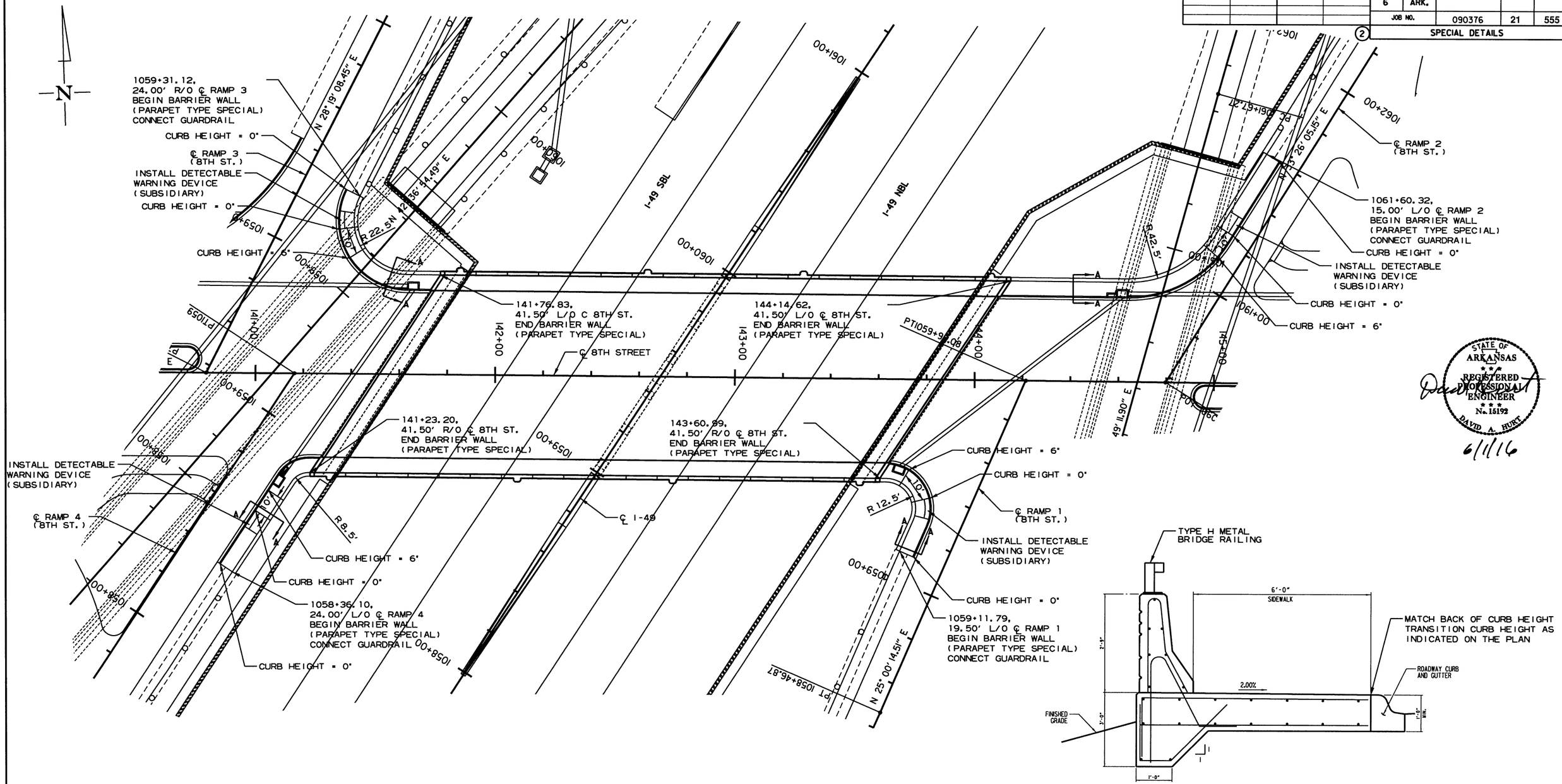
NOTE:
PAVEMENT STRUCTURE FOR STATE HIGHWAYS, CITY STREETS, & COUNTY ROADS TO BE SAME AS MAIN LANES.

DETAIL OF TURNOUTS, ASPHALT STREETS, COUNTY ROADS, & STATE HIGHWAYS CURB & GUTTER SECTION

SPECIAL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	21	555

(2) SPECIAL DETAILS



NOTES:

WHEELCHAIR RAMPS, INCLUDING DETECTABLE WARNING DEVICES CONSTRUCTED WITHIN THE LIMITS OF CONCRETE BARRIER WALL (PARAPET TYPE SPECIAL), WILL NOT BE PAID FOR SEPARATELY AND WILL BE SUBSIDIARY TO CONCRETE BARRIER WALL (PARAPET TYPE SPECIAL).

CONCRETE BARRIER WALL (PARAPET TYPE SPECIAL) SIDEWALK SECTION (NEAR BRIDGE ENDS) TYPICAL SECTION A-A

NOT TO SCALE

SEE OTHER DRAWINGS FOR ADDITIONAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HUNT
6/11/16

SPECIAL DETAILS

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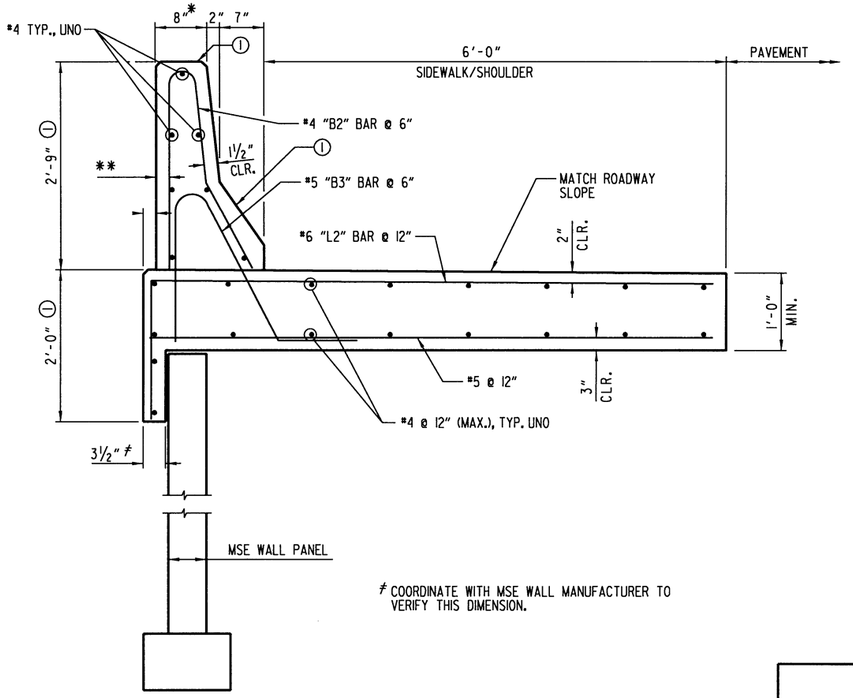
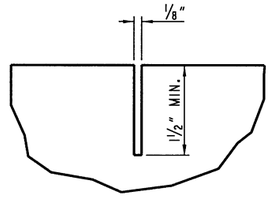
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	22	555
				①		SPECIAL DETAILS		



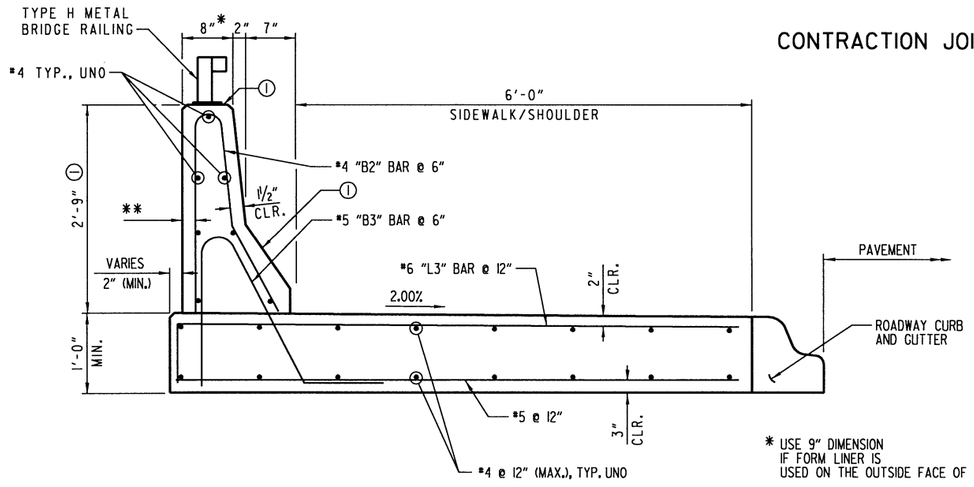
≠ COORDINATE WITH MSE WALL MANUFACTURER TO VERIFY THIS DIMENSION.

SECTION - BARRIER OVER MSE WALL

SCALE: 1" = 1'-0"



CONTRACTION JOINT DETAIL



SECTION - BARRIER WITH CURB AWAY FROM BRIDGE ENDS

SCALE: 1" = 1'-0"

* USE 9" DIMENSION IF FORM LINER IS USED ON THE OUTSIDE FACE OF BARRIER.

** 1½" CLR., USE 3½" CLR. IF FORM LINER IS USED ON THE OUTSIDE FACE OF BARRIER.

① CLASS 3 TEXTURED COATING FINISH (COLOR = GRAY, COLOR CHIP NO. 37150).

② "ASHLAR STONE" PATTERN

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT 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.

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SIXTH EDITION (2012) WITH CURRENT INTERIM SPECIFICATIONS.

CONCRETE: CONCRETE SHALL BE POURED IN THE DRY AND ALL EXPOSED CORNERS TO BE CHAMFERED ¾". ALL CONCRETE SHALL BE CLASS S WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH F'C = 3,500 PSI. A CLASS 2 SURFACE FINISH SHALL BE USED ON ALL SURFACES OF THE CONCRETE UNLESS OTHERWISE NOTED.

REINFORCING STEEL: ALL REINFORCING STEEL SHALL CONFORM TO AASHTO M31 OR M322 TYPE A, GRADE 60.

WATERPROOF MEMBRANE (TYPE C), WATERSTOPS, PREFORMED JOINTS, WEEP HOLES AND GEOTEXTILE FABRIC SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED SUBSIDIARY TO CONCRETE BARRIER WALL (PARAPET TYPE SPECIAL) PER LINEAR FOOT.

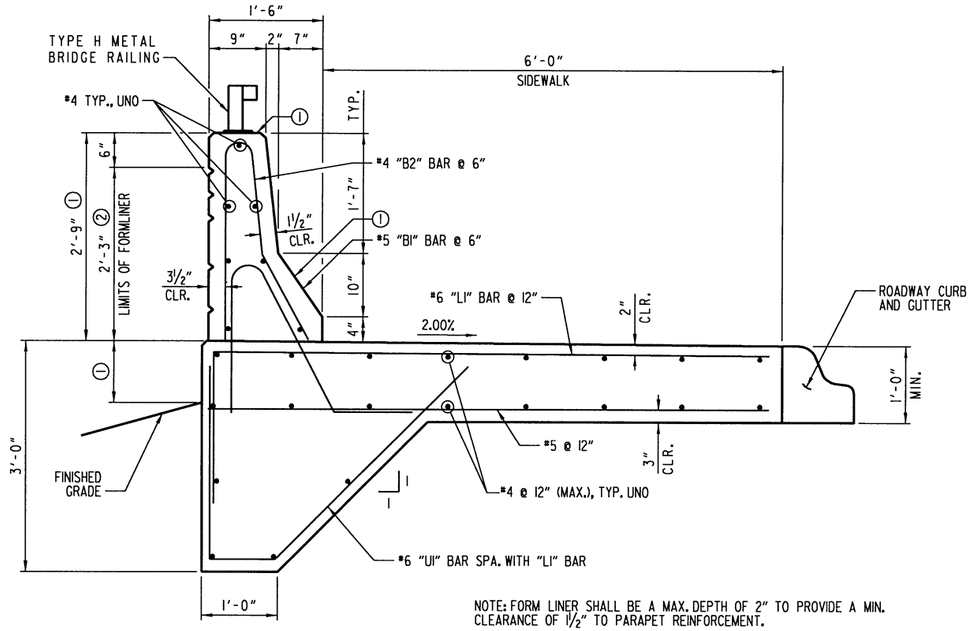
CONSTRUCTION JOINT SHALL BE SPACED AT 60'-0" MAXIMUM SPACING. HORIZONTAL REINFORCING SHALL STOP 2" FROM THE CENTERLINE OF CONSTRUCTION JOINTS.

CONTRACTION JOINT SHALL BE SPACED AT 15'-0" MAXIMUM SPACING IN THE TOP AND SIDES AND SHALL BE POURED IN FRESH CONCRETE. HORIZONTAL REINFORCING SHALL BE CONTINUOUS THROUGH CONTRACTION JOINTS.

MAINTAIN TOP OF SIDEWALK DETAILS TO SLOPE WITH ADA RAMPS AS SHOWN IN ROADWAY PLANS. MAINTAIN MINIMUM THICKNESS AS SHOWN.

FOR ADDITIONAL INFORMATION, SEE "SPECIAL DETAILS SIDEWALK BARRIER SECTIONS 2", "SPECIAL DETAILS SIDEWALK BARRIER SECTIONS 3" AND "SPECIAL DETAILS SIDEWALK BARRIER SECTIONS 4".

ALL EXCAVATION, CONCRETE AND REINFORCEMENT FOR MOMENT SLAB SPECIAL DETAILS INCLUDED IN THE COST OF CONCRETE BARRIER WALL (PARAPET TYPE SPECIAL) PER LINEAR FOOT.



NOTE: FORM LINER SHALL BE A MAX. DEPTH OF 2" TO PROVIDE A MIN. CLEARANCE OF 1½" TO PARAPET REINFORCEMENT.

SECTION - BARRIER AND SIDEWALK (NEAR BRIDGE ENDS) - TYPICAL

SCALE: 1" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

SPECIAL DETAILS
SIDEWALK BARRIER SECTIONS 1

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.		090376	23	555
				①	SPECIAL DETAILS			

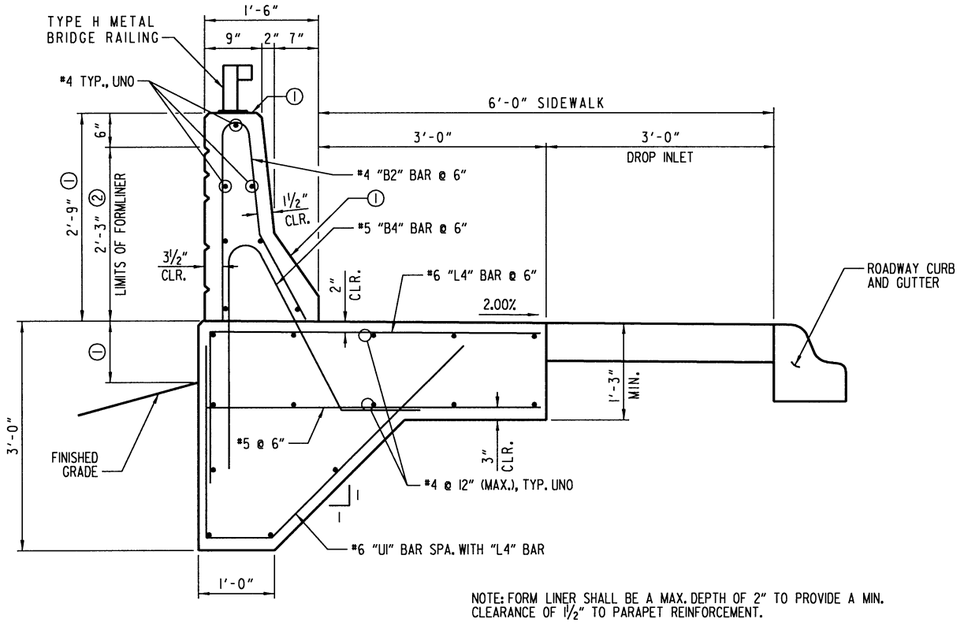
GENERAL NOTES

FOR ADDITIONAL INFORMATION, SEE "SPECIAL DETAILS SIDEWALK BARRIER SECTIONS 1", "SPECIAL DETAILS SIDEWALK BARRIER SECTIONS 3" AND "SPECIAL DETAILS SIDEWALK BARRIER SECTIONS 4".

ALL EXCAVATION, CONCRETE AND REINFORCEMENT FOR MOMENT SLAB SPECIAL DETAILS INCLUDED IN THE COST OF CONCRETE BARRIER WALL (PARAPET TYPE SPECIAL) PER LINEAR FOOT.

EXTEND LONGITUDINAL REINFORCEMENT SHOWN IN SECTIONS OVER DROP INLETS 3'-0" MIN. INTO ADJACENT TYPICAL SECTIONS OF MOMENT SLAB. FIELD BEND BARS AS NECESSARY TO FIT THROUGH TRANSITION.

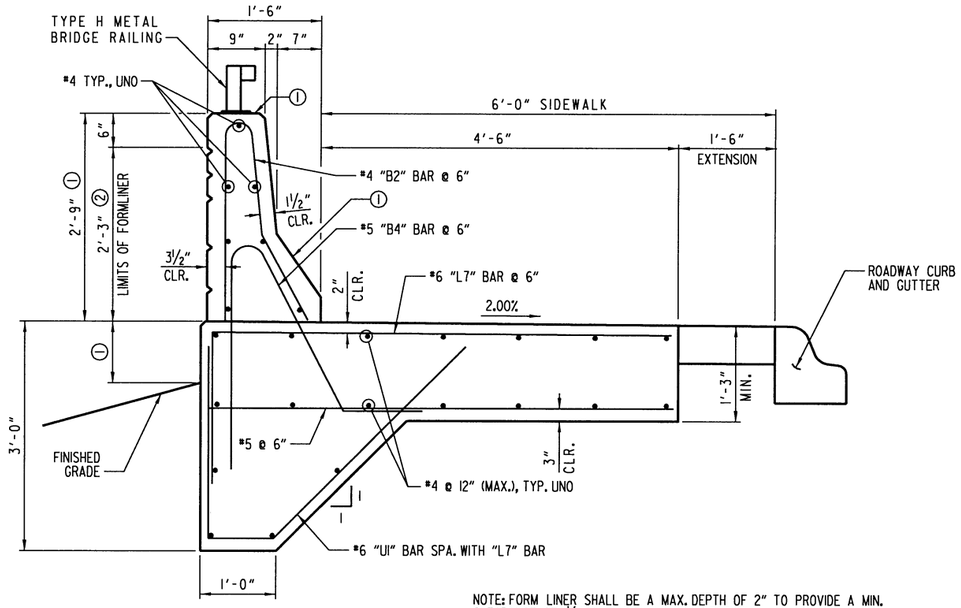
HORIZONTAL REINFORCEMENT IN TYPICAL SECTIONS OF MOMENT SLAB SHALL BE SPACED AT 6" CENTERS OVER 3'-0" EACH SIDE BEYOND SECTIONS OVER DROP INLETS.



NOTE: FORM LINER SHALL BE A MAX. DEPTH OF 2" TO PROVIDE A MIN. CLEARANCE OF 1½" TO PARAPET REINFORCEMENT.

SECTION - BARRIER AND SIDEWALK (NEAR BRIDGE ENDS) THRU DROP INLET (TYPE C)

SCALE: 1" = 1'-0"



NOTE: FORM LINER SHALL BE A MAX. DEPTH OF 2" TO PROVIDE A MIN. CLEARANCE OF 1½" TO PARAPET REINFORCEMENT.

SECTION - BARRIER AND SIDEWALK (NEAR BRIDGE ENDS) THRU EXTENSION (TYPE C)

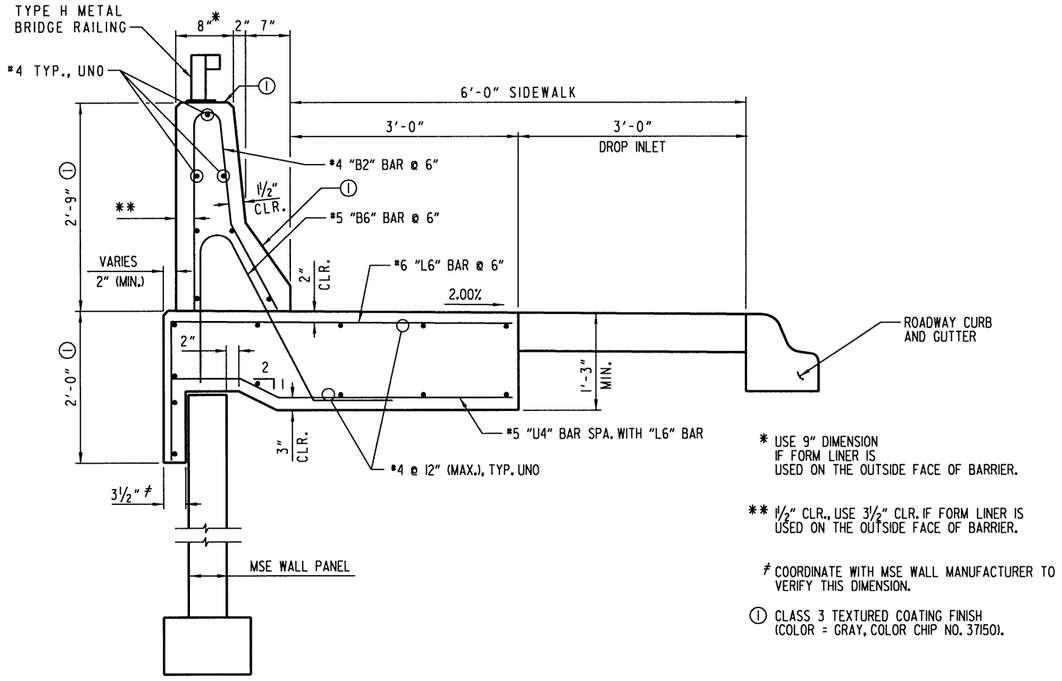
SCALE: 1" = 1'-0"

① CLASS 3 TEXTURED COATING FINISH (COLOR = GRAY, COLOR CHIP NO. 37150).

② "ASHLAR STONE" PATTERN

SPECIAL DETAILS
SIDEWALK BARRIER SECTIONS 2

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.		090376	24	555
				①		SPECIAL DETAILS		



* USE 9" DIMENSION IF FORM LINER IS USED ON THE OUTSIDE FACE OF BARRIER.

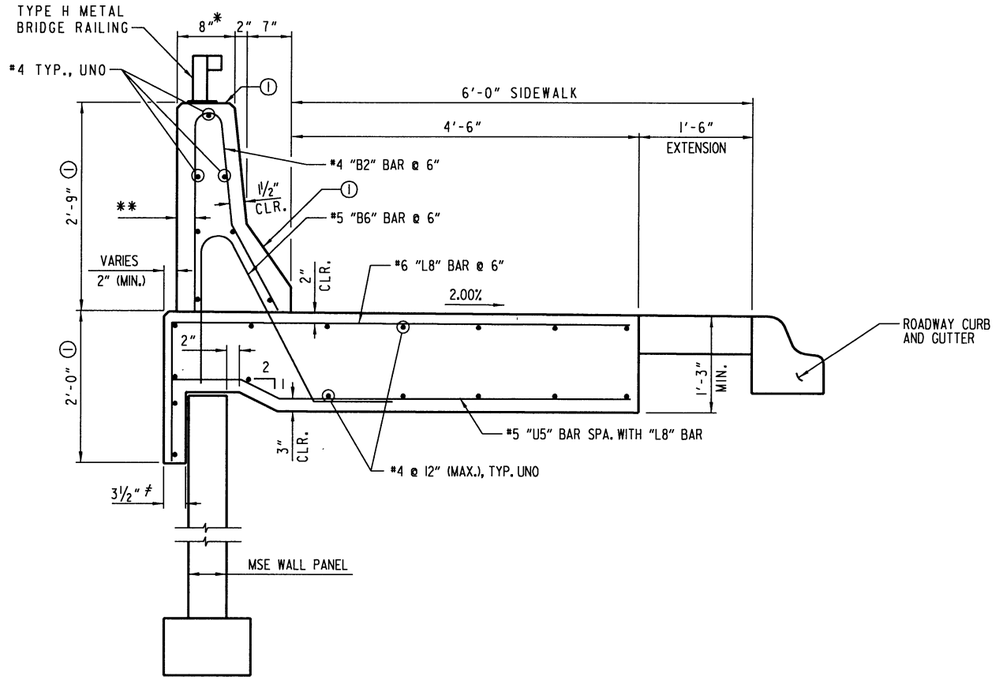
** 1½" CLR., USE 3½" CLR. IF FORM LINER IS USED ON THE OUTSIDE FACE OF BARRIER.

≠ COORDINATE WITH MSE WALL MANUFACTURER TO VERIFY THIS DIMENSION.

① CLASS 3 TEXTURED COATING FINISH (COLOR = GRAY, COLOR CHIP NO. 37150).

SECTION - BARRIER OVER MSE WALL
THRU DROP INLET (TYPE C)

SCALE: 1" = 1'-0"



SECTION - BARRIER OVER MSE WALL
THRU EXTENSION (TYPE C)

SCALE: 1" = 1'-0"

GENERAL NOTES

FOR ADDITIONAL INFORMATION, SEE "SPECIAL DETAILS SIDEWALK BARRIER SECTIONS 1", "SPECIAL DETAILS SIDEWALK BARRIER SECTIONS 2" AND "SPECIAL DETAILS SIDEWALK BARRIER SECTIONS 4".

ALL EXCAVATION, CONCRETE AND REINFORCEMENT FOR MOMENT SLAB SPECIAL DETAILS INCLUDED IN THE COST OF CONCRETE BARRIER WALL (PARAPET TYPE SPECIAL) PER LINEAR FOOT.

EXTEND LONGITUDINAL REINFORCEMENT SHOWN IN SECTIONS OVER DROP INLETS 3'-0" MIN. INTO ADJACENT TYPICAL SECTIONS OF MOMENT SLAB. FIELD BEND BARS AS NECESSARY TO FIT THROUGH TRANSITION.

HORIZONTAL REINFORCEMENT IN TYPICAL SECTIONS OF MOMENT SLAB SHALL BE SPACED AT 6" CENTERS OVER 3'-0" EACH SIDE BEYOND SECTIONS OVER DROP INLETS.

6/1/16

SPECIAL DETAILS
SIDEWALK BARRIER SECTION 3

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.		090376	25	555
				①		SPECIAL DETAILS		

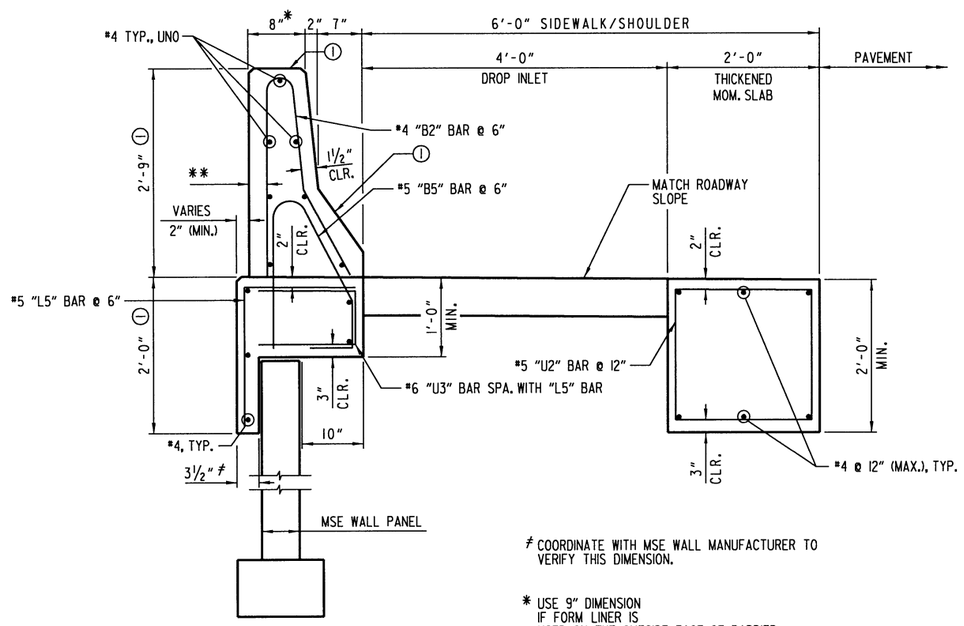
GENERAL NOTES

FOR ADDITIONAL INFORMATION, SEE "SPECIAL DETAILS SIDEWALK BARRIER SECTIONS 1", "SPECIAL DETAILS SIDEWALK BARRIER SECTIONS 2" AND "SPECIAL DETAILS SIDEWALK BARRIER SECTIONS 3".

ALL EXCAVATION, CONCRETE AND REINFORCEMENT FOR MOMENT SLAB SPECIAL DETAILS INCLUDED IN THE COST OF CONCRETE BARRIER WALL (PARAPET TYPE SPECIAL) PER LINEAR FOOT.

EXTEND LONGITUDINAL REINFORCEMENT SHOWN IN SECTIONS OVER DROP INLETS 3'-0" MIN. INTO ADJACENT TYPICAL SECTIONS OF MOMENT SLAB. FIELD BEND BARS AS NECESSARY TO FIT THROUGH TRANSITION.

HORIZONTAL REINFORCEMENT IN TYPICAL SECTIONS OF MOMENT SLAB SHALL BE SPACED AT 6" CENTERS OVER 3'-0" EACH SIDE BEYOND SECTIONS OVER DROP INLETS.



≠ COORDINATE WITH MSE WALL MANUFACTURER TO VERIFY THIS DIMENSION.

* USE 9" DIMENSION IF FORM LINER IS USED ON THE OUTSIDE FACE OF BARRIER.

** 1½" CLR., USE 3½" CLR. IF FORM LINER IS USED ON THE OUTSIDE FACE OF BARRIER.

SECTION - BARRIER OVER MSE WALL - THRU DROP INLET (TYPE ST)

SCALE: 1" = 1'-0"

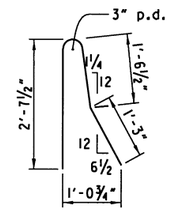
① CLASS 3 TEXTURED COATING FINISH (COLOR = GRAY, COLOR CHIP NO. 37150).

BAR LIST - FOR INFORMATION ONLY ≠≠

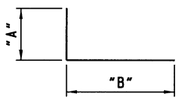
MARK	LENGTH	"A"	"B"	PIN. DIA.
#5 "B1"	6'-2"	1'-11"	2'-10"	3¾"
#4 "B2"	5'-6"			3"
#5 "B3"	5'-2"	1'-11"	1'-10"	3¾"
#5 "B4"	6'-5"	2'-2"	2'-10"	3¾"
#5 "B5"	5'-10"			3¾"
#5 "B6"	5'-5"	2'-2"	1'-10"	3¾"
#6 "L1"	9'-0"	2'-0"	7'-2"	4½"
#6 "L2"	8'-7"	1'-7"	7'-2"	4½"
#6 "L3"	7'-7"	7"	7'-2"	4½"
#6 "L4"	6'-0"	2'-0"	4'-2"	4½"
#6 "L5"	2'-9"	1'-7"	1'-4"	4½"
#6 "L6"	5'-9"	1'-7"	4'-4"	4½"
#6 "L7"	7'-6"	2'-0"	5'-8"	4½"
#6 "L8"	7'-3"	1'-7"	5'-10"	4½"
#6 "U1"	6'-9"			4½"
#5 "U2"	7'-4"			3¾"
#6 "U3"	2'-10"			4½"
#5 "U4"	4'-1"	2'-10"		3¾"
#5 "U5"	5'-7"	4'-4"		3¾"

BENDING DIAGRAM

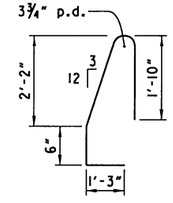
Dimensions are out to out of bars.



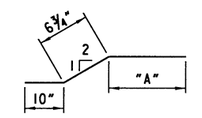
#4 "B2" BAR



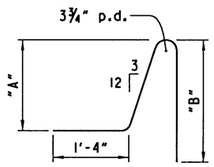
#6 "L1" THRU "L8"



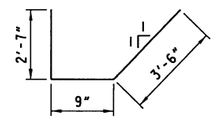
#5 "B5"



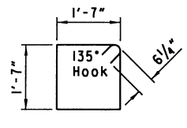
#5 "U4" & "U5"



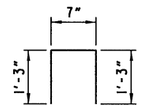
#5 "B1", "B3", "B4", "B6"



#6 "U1"



#5 "U2"



#6 "U3"

≠≠ Bending Diagrams are for information only. Contractor shall field verify the bar dimensions.

SPECIAL DETAILS
SIDEWALK BARRIER SECTION 4

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	26	555

(2) SPECIAL DETAILS

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REGISTERED PROFESSIONAL ENGINEER
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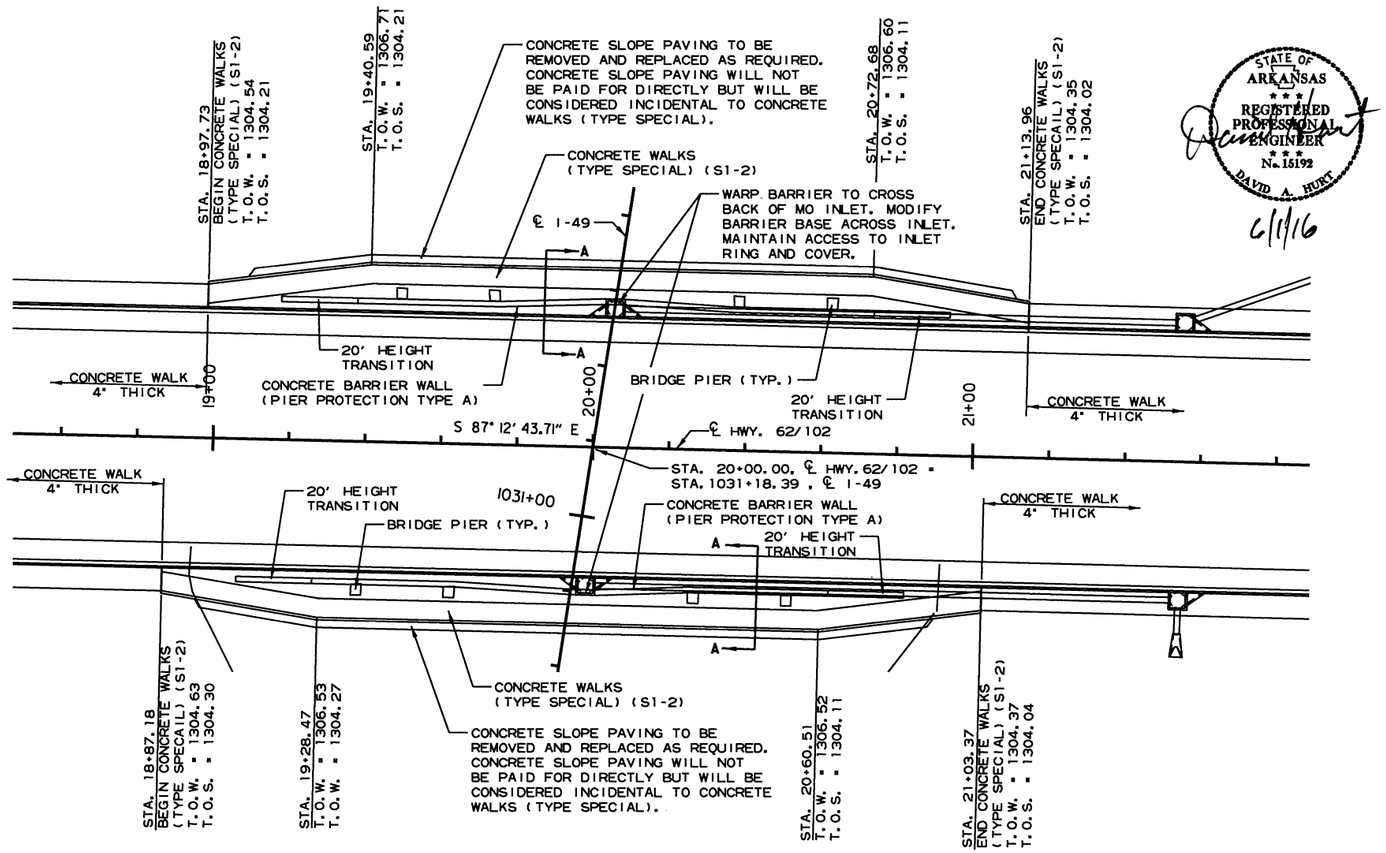
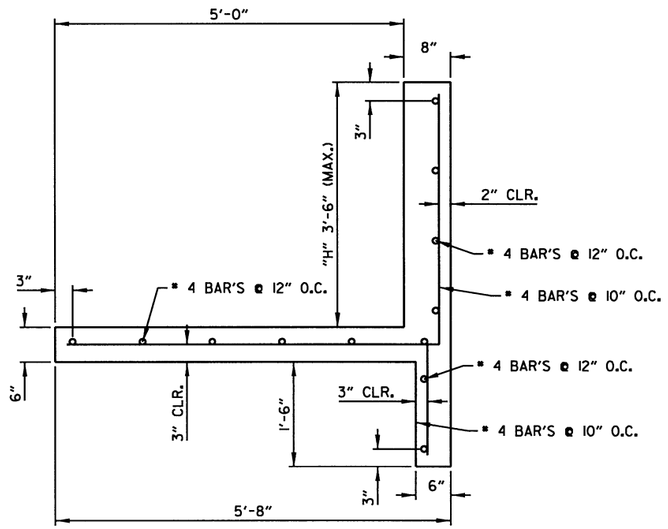
6/1/16

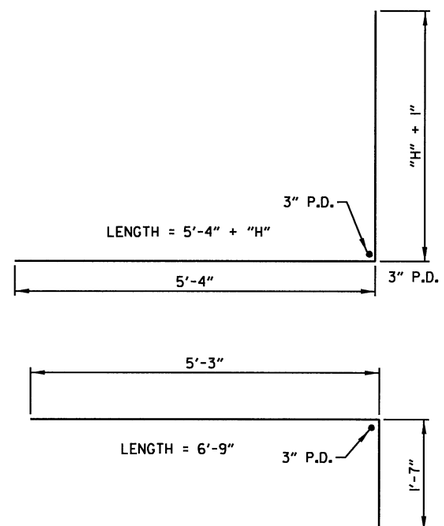


N

NOT TO SCALE

T.O.W. = TOP OF WALL
T.O.S. = TOP OF SIDEWALK





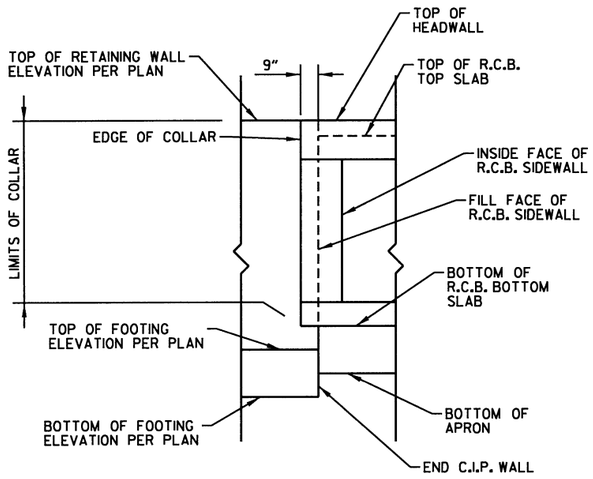
CONCRETE WALK (TYPE SPECIAL) DETAILS
MAX HEIGHT 3'-6"
SECTION A-A

HWY. 102/62
STA. 18+97.87, LT. - STA. 21+07.02, LT.
STA. 18+94.13 RT. - STA. 20+96.17, RT.

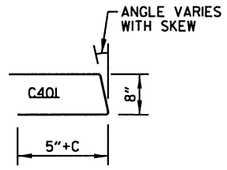
SPECIAL DETAILS

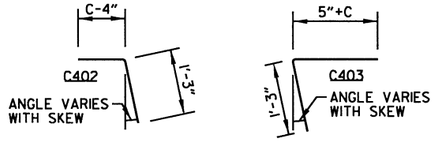
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	27	555

(2) SPECIAL DETAILS

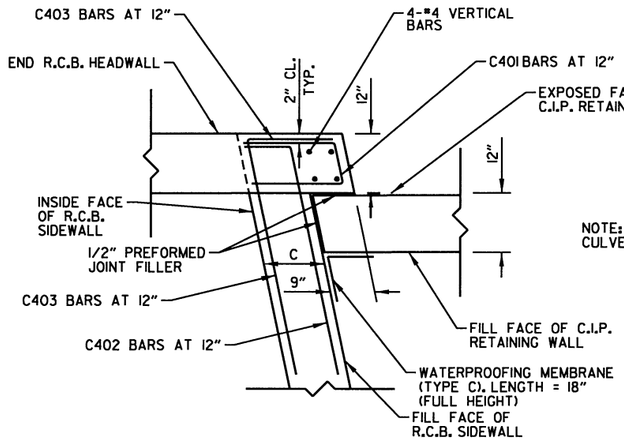


ELEVATION - COLLAR
SPECIAL DETAIL





BAR DIAGRAMS - COLLAR
SPECIAL DETAIL



SECTION - COLLAR
SPECIAL DETAIL

NOTE:
ADDITIONAL CONCRETE AND REINFORCEMENT FOR COLLAR INCIDENTAL TO THE COST OF CULVERT EXTENSIONS.

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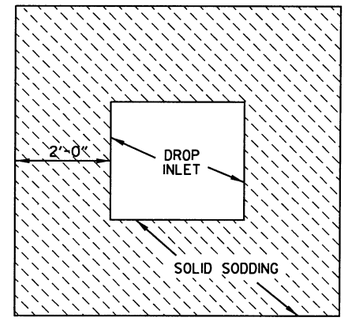
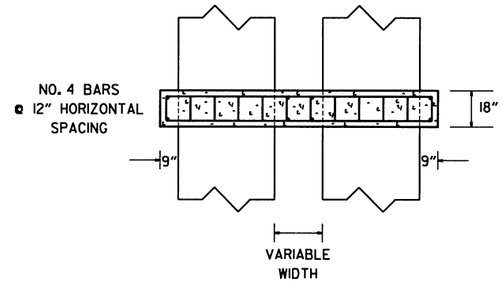
NOTE:
CULVERT REINFORCING NOT SHOWN.

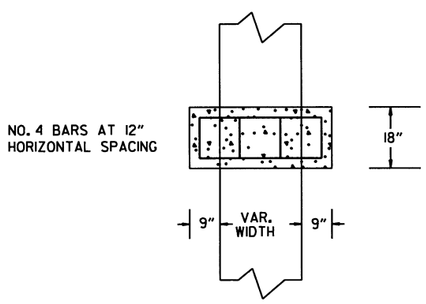


DETAIL FOR SOLID SODDING
AROUND DROP INLETS



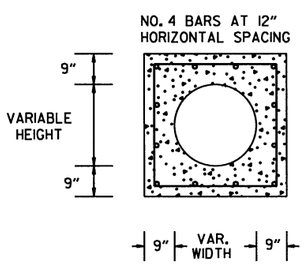
TOP VIEW

NOTE: PIPE COLLAR TO BE UTILIZED AS APPROVED BY THE ENGINEER.

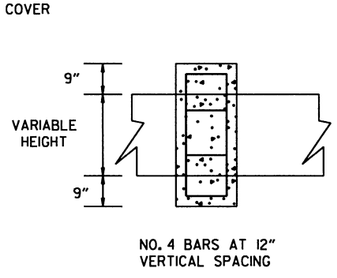


TOP VIEW

MIN 3" COVER



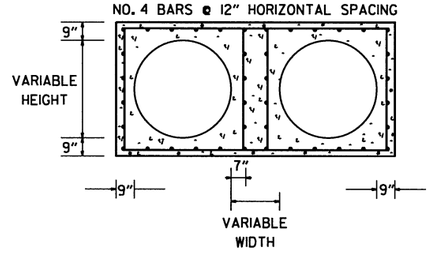
FRONT VIEW



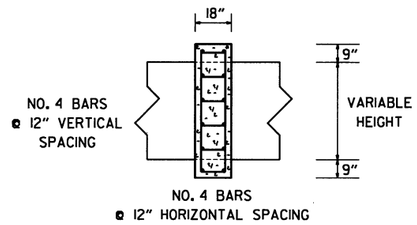
SIDE VIEW

PIPE EXTENSION
REINFORCED CONCRETE COLLAR DETAIL

MIN. 3" COVER



FRONT VIEW



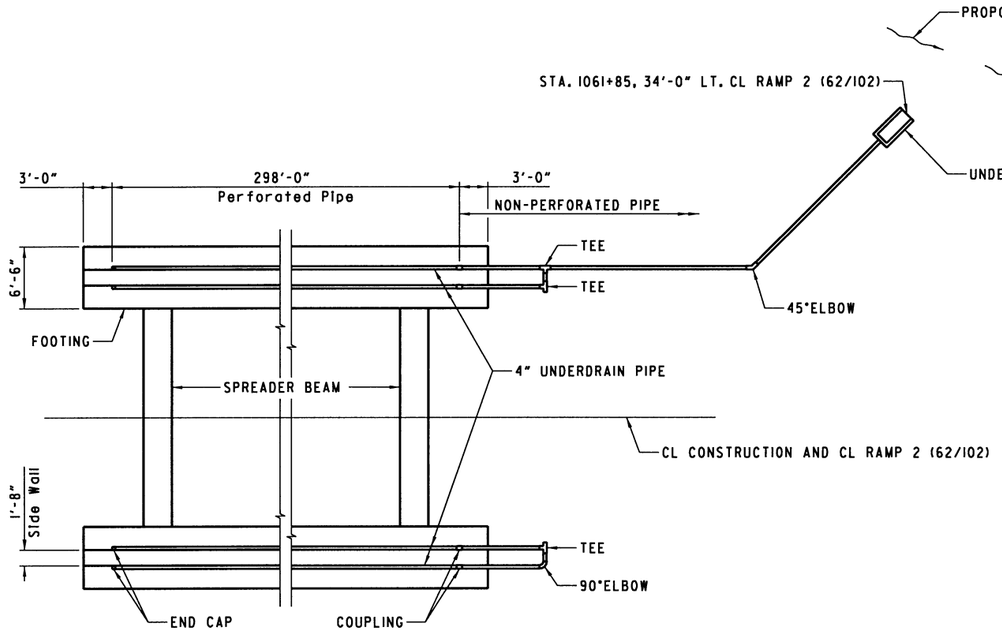
SIDE VIEW

PIPE EXTENSION
REINFORCED CONCRETE COLLAR DETAIL

SPECIAL DETAILS

c:\bmcd_11b\pw\dhurt\trn\dms20426\090376_149_SD_10.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	28	555
				(2)	SPECIAL DETAILS			



PLAN - UNDERDRAIN SYSTEM - RAMP 2

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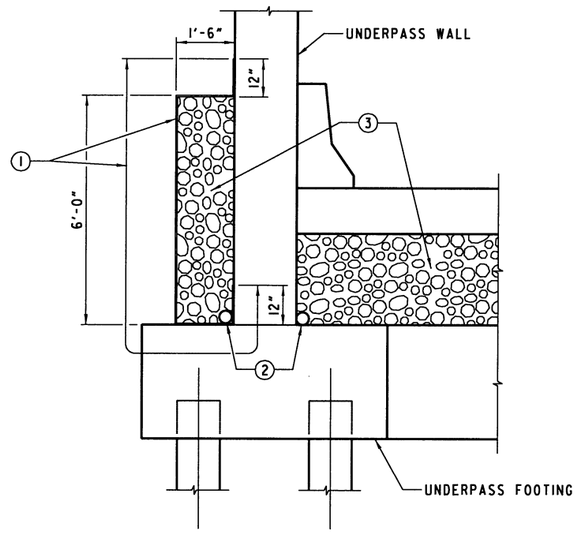
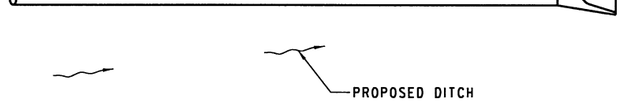
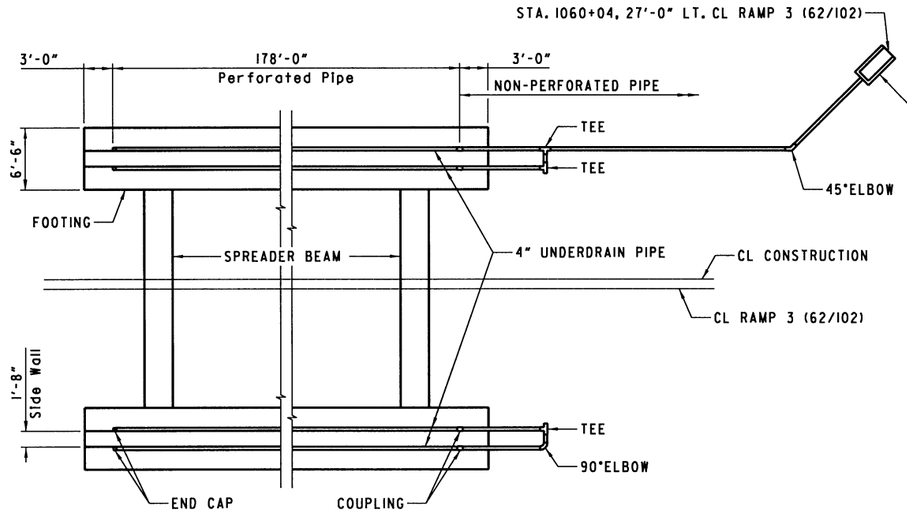


UNDERPASS UNDERDRAIN DETAIL





PLAN - UNDERDRAIN SYSTEM - RAMP 3

1. GEOTEXTILE FILTER FABRIC (TYPE 2) AS SPECIFIED IN SECTION 625.
2. 4" PIPE UNDERDRAIN FOR FULL LENGTH OF THE UNDERPASS. UNDERDRAIN SHALL CONFORM TO SECTION 611 AND STANDARD DRAWING PU-1. THIS WORK AND MATERIALS ARE TO BE CONSIDERED SUBSIDIARY TO OTHER ITEMS AND WILL NOT BE PAID FOR DIRECTLY. SEE ROADWAY PLANS FOR DETAILS NOT SHOWN.
3. AGGREGATE BASE COURSE (CLASS 7).

NOTES:

SEE BRIDGE DRAWINGS FOR DETAILS OF RAMP UNDERPASS CONSTRUCTION.

SEE STANDARD DRAWING PU-1 AND SECTION 611 OF THE STANDARD SPECIFICATIONS FOR:

- MATERIAL REQUIREMENTS
- COUPLING AND FITTING INFORMATION
- RODENT SCREEN DETAILS
- UNDERDRAIN OUTLET PROTECTOR DETAILS

THE UNDERDRAIN PIPE SHALL BE PLACED AS SHOWN ON THE TOP OF FOOTING.

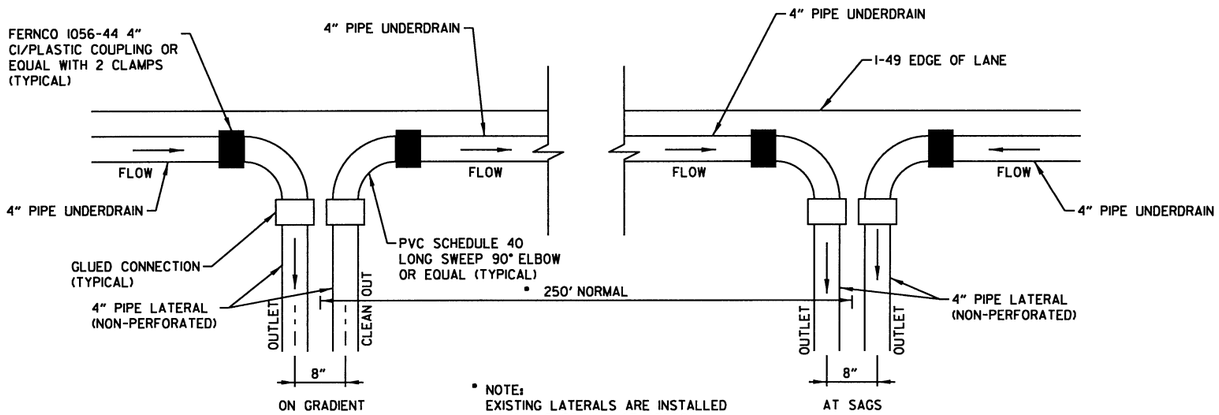
FROM THE END OF THE FOOTING, SLOPE THE UNDERDRAIN PIPE 1% MINIMUM TO UNDERDRAIN OUTLET PROTECTORS.

NO DIRECT PAYMENT FOR THE UNDERDRAIN PIPE SYSTEM SHALL BE MADE. CONSTRUCTION OF THE UNDERDRAIN SYSTEM SHALL BE CONSIDERED SUBSIDIARY TO THE CONSTRUCTION OF THE RAMP UNDERPASSES.

SPECIAL DETAILS
UNDERDRAINAGE AT RAMP UNDERPASSES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	29	555

(2) SPECIAL DETAILS



• NOTE:
EXISTING LATERALS ARE INSTALLED AT ALL SAGS AND AT APPROX. 250' INTERVALS ON GRADES.

NOTE:
PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE.

PLAN DETAIL OF EXISTING PIPE UNDERDRAIN LATERAL TO BE RETAINED AND EXTENDED

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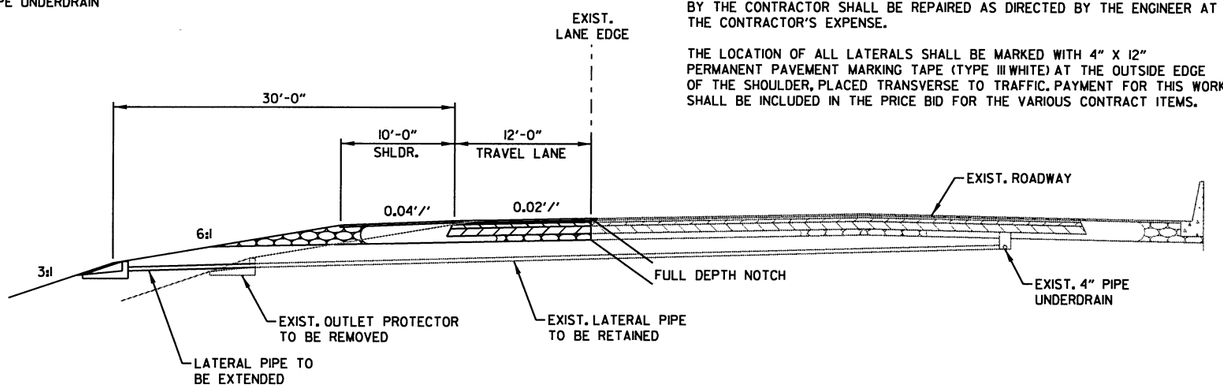
NOTES:

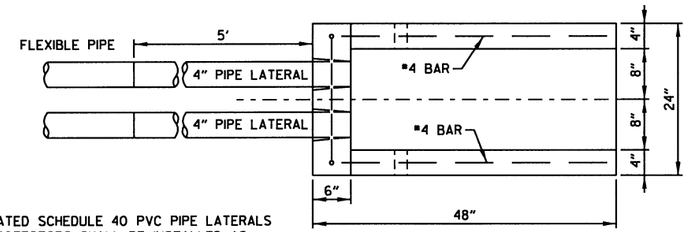
EXISTING 4" PIPE UNDERDRAIN LATERALS SHALL BE EXTENDED WHERE SHOWN ON THE PLANS OR WHERE DIRECTED BY THE ENGINEER. EXISTING OUTLET PROTECTORS SHOULD BE REMOVED AND RECONSTRUCTED. PAYMENT SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR 4" PIPE UNDERDRAINS.

ANY PIPE UNDERDRAIN OR LATERAL TO REMAIN IN PLACE THAT IS DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

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.

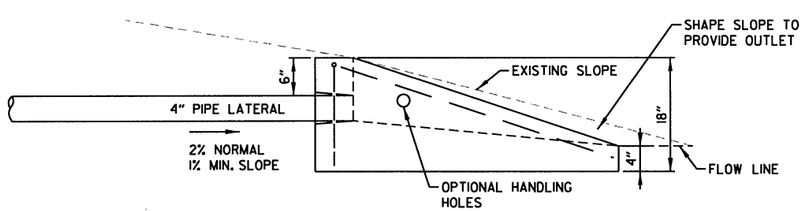


TYPICAL SECTION OF EXISTING PIPE UNDERDRAINS TO BE RETAINED AND EXTENDED

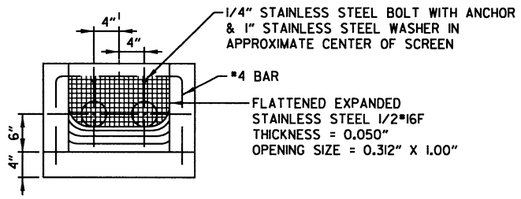


PLAN VIEW

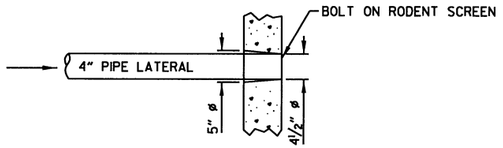
4" NON-PERFORATED SCHEDULE 40 PVC PIPE LATERALS WITH OUTLET PROTECTORS SHALL BE INSTALLED AS SHOWN HERE ON OR AS ON STD. DWG. PU-1. LATERALS WILL BE MEASURED AND PAID FOR AS "4" PIPE UNDERDRAINS." UNDERDRAIN OUTLET PROTECTORS WILL BE MEASURED AND PAID FOR BY THE UNIT IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.



SIDE VIEW



FRONT VIEW



DETAIL OF HOLE FOR 4" PIPE

UNDERDRAIN OUTLET PROTECTORS

SPECIAL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	30	555

(2) INTERSECTION DETAILS HWY. 62/102 & RAMPS 3/4

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6/1/16

N

0 20' 40'

℄ HWY. 62/102 STA. 17+00.00 =
℄ RAMP 3 STA. 1029+79.54
Δ = 75° 00' 00"

℄ RAMP 3 (62/102)

PC 1031+38.84

1030+82.74
15.00 LT

1030+78.71
42.00 RT

16+15.30
29.44 LT

100'R

N 17° 47' 16.29" E

75'R

17+67.70
R 10' 41.27 LT

17+77.16
34.50 LT

4 @ 12' LANES

ONLY

1033+00

STA. 1032+47.37
BEGIN JOB 090376

1032+00

12.05'

6'

25'

3 @ 11' LANES

S 87° 12' 43.71" E

1031+00

R 10' BY OTHERS

℄ HWY. 62/102

ADA RAMP
(BY OTHERS)

N 2° 47' 16.29" E

℄ I-49 STA. 1031+18.39 =
℄ HWY. 62/102 STA. 20+00.00
Δ = 82° 32' 30"

EXIST. BR. 5679 A (UIP)

1030+00

PT 1029+79.86

℄ RAMP 4 (62/102)

℄ HWY. 62/102 STA. 17+00.00 =
℄ RAMP 4 STA. 1031+14.14
Δ = 90° 00' 00"

POINT	EOP ELEV.
1	1305.67
2	1305.91
3	1306.14
4	1306.38
5	1306.61
6	1304.17
7	1304.38
8	1304.91
9	1305.44

I-49 SBL

I-49 NBL

INTERSECTION DETAILS
HWY. 62/102 AND RAMPS 3/4

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	31	555

(2) INTERSECTION DETAILS HWY. 62/102 & RAMPS 1/2

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
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6/1/16

POINT	EOP ELEV.
1	1304.00
2	1304.20
3	1305.26
4	1305.76
5	1306.27
6	1306.78
7	1305.81
8	1305.24
9	1305.16
10	1305.26
11	1306.20
12	1304.94
13	1304.52
14	1304.09
15	1303.87

1033+00
1032+98.90
1032+54.44
1032+00
1031+00
1030+00
I-49 SBL
I-49 NBL
℄ INTERSTATE 49
10'
STA. 1032+47.37
BEGIN JOB 090376
BRIDGE APPROACH SLAB (UIP)
12.05'
6'
℄ RAMP 2 (62/102)
1033+07.62
9.00' LT.
PC 1033+21.70
1033+00
1032+90.79
14.51' RT.
R 250'
N 2° 47' 16.29" E
22+70.83
40.56' LT.
22+61.63
34.50' LT.
1032+27.68
11.00' RT.
R 10'
R 2'
100'R
PC 23+25.64
CONSTRUCT CONCRETE ISLAND
(TYPE A CURB FACE)
GRAVITY BLOCK RETAINING WALL
24+00
PT 24+13.15
POT 24+18.36
℄ HWY. 62/102 STA. 23+00.00 =
℄ RAMP 2 STA. 1031+68.67
Δ = 90° 00' 00"
24+13.29
41.16' LT.
28'
8'
2'R
1032+00
R 23+73.61
23+11.00
34.70 LT
23+36.26
34.70 LT
23+00
24+00
25+00
ONLY
S 87° 12' 43.71" E
20+00
21+00
22+00
3 @ 11' LANES
℄ HWY. 62/102
1031+00
25'
22+39.92
34.50 RT
R 10'
22+49.38
41.27 RT
R 75'
1030+91.98
25.50 LT
1031+00
℄ I-49 STA. 1031+18.39 =
℄ HWY. 62/102 STA. 20+00.00
Δ = 82° 32' 30"
EXIST. BR. 5979 B (UIP)
℄ HWY. 62/102 STA. 23+00.00 =
℄ RAMP 1 STA. 1031+86.72
Δ = 75° 00' 00"
℄ RAMP 1 (62/102)
PT 1030+21.69
N 17° 47' 16.29" E
4 @ 12' LANES

INTERSECTION DETAILS HWY. 62/102 AND RAMPS 1/2

c:\bmcd_llb\pw\dhurt\trn\dms20426\41_INTERSECTION_DETAILS_02_090218_120.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	32	555

(2) INTERS. DETAILS 8TH ST. & SE MOBERLY LN.

POINT	EOP ELEV.
1	1321.20
2	1320.69
3	1320.17
4	1319.65
5	1319.13
6	1318.91
7	1318.66
8	1318.40
9	1318.14
10	1317.88
11	1321.35
12	1321.60
13	1321.85
14	1323.34
15	1322.72
16	1322.33
17	1321.42
18	1321.20
19	1320.98
20	1320.65
21	1320.50
22	1320.91
23	1321.11
24	1321.34
25	1321.86
26	1322.38

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

N

0 20' 40'

8TH STREET

SE MOBERLY LN.

SE MOBERLY LN.

STA. 120+24.03
BEGIN CONSTRUCTION
8TH ST.

℄ 8TH ST. STA. 123+60.00 =
℄ DGTC ACCESS STA. 10+00.00
Δ = 71° 25'55"

℄ 8TH ST. STA. 123+39.85 =
℄ DGTC ACCESS STA. 10+00.00
Δ = 70° 45'18"

℄ 8TH ST

S 87° 30' 40.26" E

3 @ 11' LANES

1 @ 11' TURN LANE

2 @ 11' LANES

ONLY

MATCH EXIST.

PT120+07.99

120+24.25 154.21 LT
MATCH EXIST. 120+25.81 154.11 LT
120+72.10 123.94 LT
MATCH EXIST. 120+98.91 97.48 LT
121+10.52 97.61 LT
121+13.05 95.14 LT
121+13.79 74.72 LT
120+97.79 43.50 LT
120+37.30 104.40 LT
120+70.81 5.50 RT
120+97.23 32.50 RT
120+36.73 92.83 RT
120+36.71 102.94 RT
120+23.53 152.79 RT
120+25.07 152.80 RT
MATCH EXIST.
123+63.67 98.60 LT
MATCH EXIST.
123+58.28 98.47 LT
123+74.85 83.44 LT
123+55.84 95.94 LT
124+02.69 87.80 LT
124+16.25 97.68 LT
124+19.04 95.18 LT
123+56.06 75.06 LT
124+19.06 75.12 LT
123+67.27 60.88 LT
123+99.10 77.12 LT
123+43.10 43.50 LT
124+23.27 43.50 LT
123+32.61 3.50 RT
124+32.61 7.50 LT
123+19.32 32.50 RT
124+00.88 32.50 RT
123+43.40 49.59 RT
123+76.81 66.41 RT
123+83.67 86.07 RT
123+59.12 94.64 RT
MATCH EXIST.

R 60.5' R 26.5' R 2.5' R 2' R 25.5' R 11.5' R 14.5'

8' 50' 11.59 11.34 7'

INTERSECTION DETAILS
8TH ST. AND SE MOBERLY LN.

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POINT	EOP ELEV.
1	1326.06
2	1325.78
3	1325.49
4	1324.87
5	1325.44
6	1325.80
7	1326.15
8	1326.22
9	1325.87
10	1325.51
11	1324.29
12	1321.10
13	1325.45
14	1325.74
15	1326.02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	33	555

(2) INTERSECTION DETAILS 8TH ST. & DGTC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

℄ 8TH ST. STA. 128+21.30 =
℄ DGTC ENTRANCE STA. 9+69.26
Δ = 80° 09' 53"

PC 129+25.14

129+00

10+00

128+00

127+00

S 87° 30' 40.26" E

S 7° 20' 47.34" E

S 16° 36' 20.00" W

S 2° 11' 50.40" W

1 @ 11' TURN LANE ONLY

2 @ 11' LANES

3 @ 12' LANES

MATCH EXIST.

℄ ENTRANCE

℄ 8TH ST.

R 25'

R 15.5'

R 4'

R 2.5'

PC 10+93.26

PI 11+35.68

PT 11+76.87

PT 12+09.78

PT 7+01.71

PC 7+62.37

PT 8+29.00

PI 7+95.17

128+21.11 246.28 LT	128+06.27 246.20 LT	128+09.59 181.65 LT	128+03.78 243.66 LT
128+01.74 96.93 LT	127+87.17 82.67 LT	127+71.94 95.52 LT	127+66.14 95.54 LT
127+63.64 93.04 LT	127+63.59 75.09 LT	127+90.58 62.91 LT	127+65.82 34.50 LT
127+27.77 52.02 LT	126+59.08 52.02 LT	126+59.08 88.50 LT	126+52.08 88.50 LT
126+52.08 52.02 LT	128+70.74 51.50 LT	128+54.24 45.50 LT	128+45.80 72.49 LT
128+29.60 66.23 LT	128+29.02 69.58 LT	128+75.31 5.50 RT	127+74.60 5.50 LT
128+91.68 40.50 RT	128+76.77 34.50 RT	128+67.75 55.21 RT	128+51.82 57.97 RT
128+59.91 108.58 RT	128+52.14 63.77 RT	129+12.33 121.84 RT	128+93.32 132.85 RT
128+78.41 128.84 RT	128+54.90 126.15 RT	128+28.44 130.73 RT	128+24.28 95.54 RT
128+17.70 96.36 RT	128+12.99 66.23 RT	128+12.68 64.76 RT	127+96.49 67.56 RT
127+88.35 45.50 RT	127+75.11 52.50 RT	126+59.08 52.50 RT	126+59.08 77.91 RT
126+52.08 77.91 RT	126+52.08 52.50 RT	126+36.53 52.50 RT	

INTERSECTION DETAILS
8TH ST. AND
DAVID GLASS TECHNOLOGY CENTER (DGTC)

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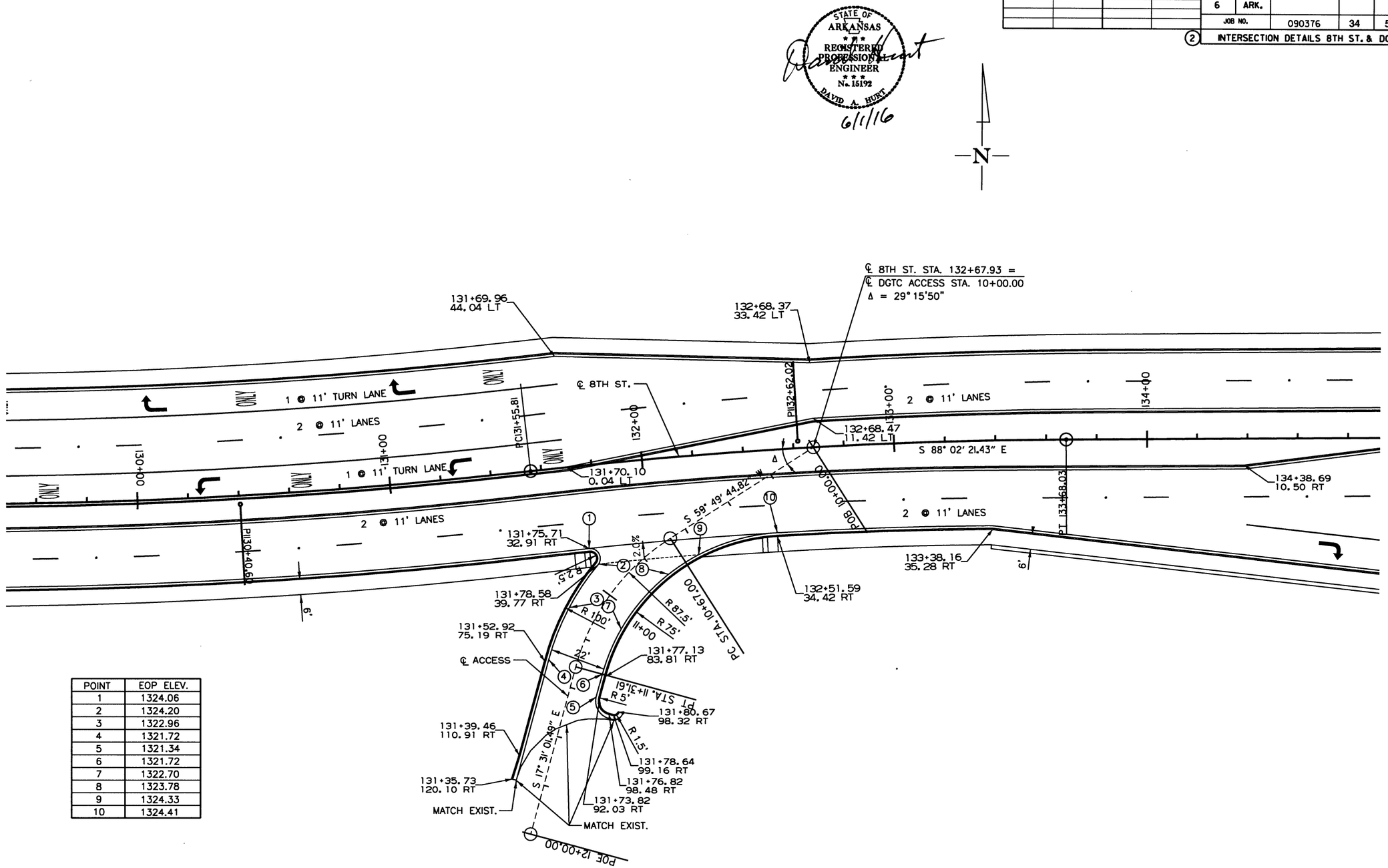
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	34	555
				(2)	INTERSECTION DETAILS 8TH ST. & DGTC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



POINT	EOP ELEV.
1	1324.06
2	1324.20
3	1322.96
4	1321.72
5	1321.34
6	1321.72
7	1322.70
8	1323.78
9	1324.33
10	1324.41

INTERSECTION DETAILS
8TH ST. AND
DAVID GLASS TECHNOLOGY CENTER (DGTC)

c:\bmcd_llb\pw\dhurt\trn\dms20426\43_INTERSECTION_DETAILS_04B_090218_120.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	35	555

(2) INTERSECTION DETAILS 8TH ST. & RAMPS 3/4

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HURT
6/1/16

N

℄ 8TH ST. STA. 141+07.00 =
℄ RAMP 3 (HWY. 62/102) STA. 1058+55.21
Δ = 49° 20' 44.08"

℄ 8TH ST. STA. 140+79.47 =
℄ RAMP 3 STA. 1058+36.65
Δ = 63° 38' 30.12"

℄ 8TH ST.

℄ RAMP 3 (8TH ST.)

℄ RAMP 4 (8TH ST.)

℄ RAMP 3 (62/102)

℄ I-49

1059+41.93
9.00 LT

1059+31.12
18.00 RT

139+99.35
35.50 LT

140+49.20
45.47 LT

140+71.69
6.00 LT

140+83.90
40.00 RT

141+22.68
35.50 RT

141+63.08
35.50 LT

139+96.26
40.00 RT

138+36.26
59.50 RT

139+46.65
70.72 RT

139+46.09
76.74 RT

139+93.38
112.23 RT

139+87.68
114.12 RT

1057+90.76
5.50 LT

1057+22.71
18.75 LT

1057+04.46
21.41 LT

141+10.51
42.13 RT

1058+36.10
18.00 RT

POT 1059+19.55

PT1058+36.65

PT1059+19.55

PT 1056+09.75

PT 1058+46.87

S 88° 02' 21.43" E

N 28° 19' 08.45" E

N 42° 36' 54.49" E

N 34° 49' 53.29" E

N 25° 00' E

0.020'/'

1'

7.5'

10'

6" CURB HEIGHT

0" CURB HEIGHT

CONCRETE BARRIER WALL (PARAPET TYPE SPECIAL)

CONSTRUCT CONCRETE ISLAND (TYPE A CURB FACE)

1 @ 12' TURN LANE

2 @ 11' LANES

2 @ 12' TURN LANES

1 @ 12' TURN LANE

1 @ 12' TURN LANE

2 @ 11' LANES

ONLY

I-49 SBL

I-49 NBL

POINT	EOP ELEV.
1	1339.22
2	1340.30
3	1341.38
4	1341.35
5	1340.91
6	1340.52
7	1342.97
8	1343.46
9	1343.31
10	1342.49
11	1343.24
12	1343.79
13	1344.69

INTERSECTION DETAILS
8TH ST. AND RAMPS 3/4

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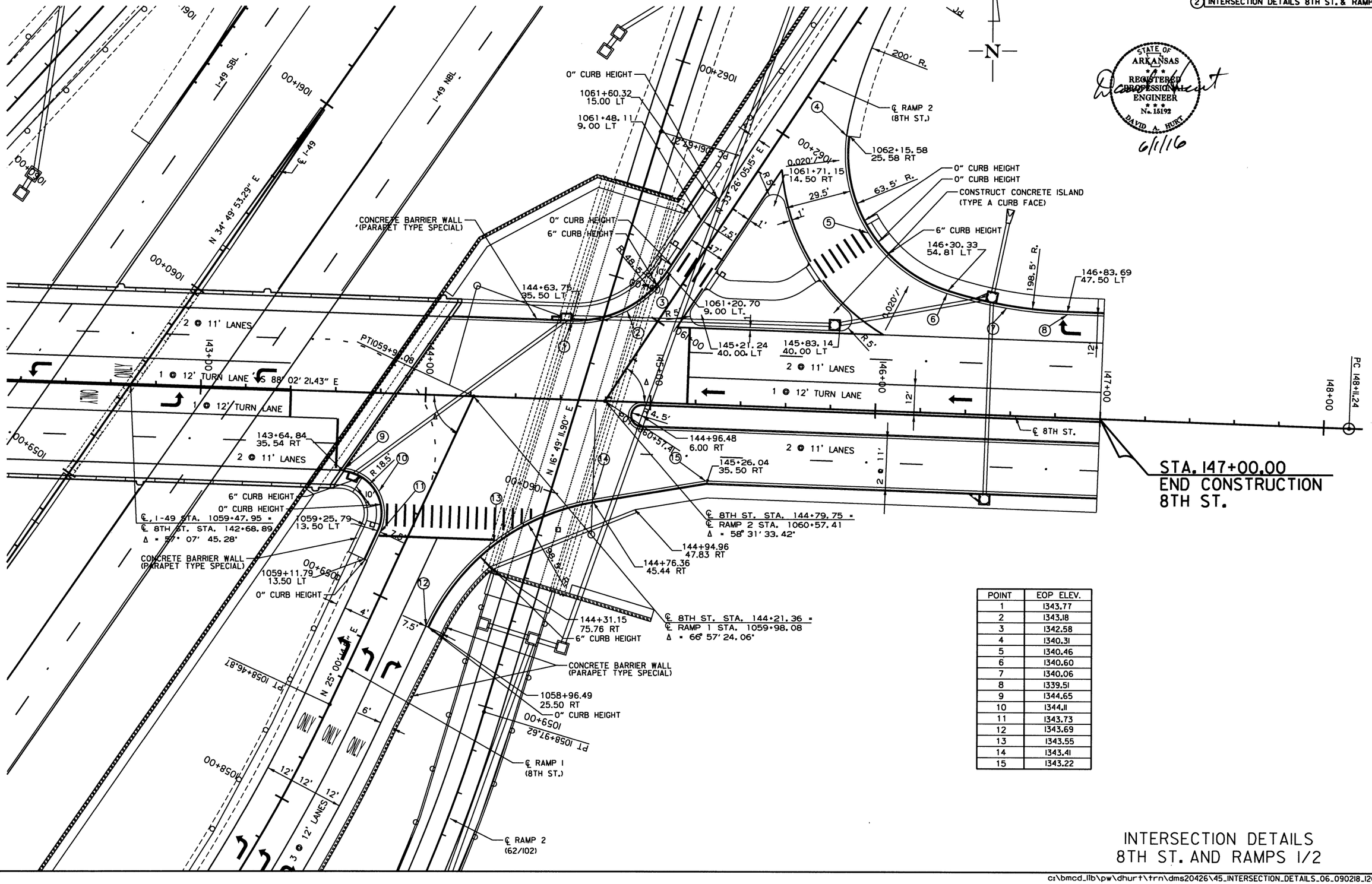
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	36	555

(2) INTERSECTION DETAILS 8TH ST. & RAMPS 1/2

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



STA. 147+00.00
END CONSTRUCTION
8TH ST.

POINT	EOP ELEV.
1	1343.77
2	1343.18
3	1342.58
4	1340.31
5	1340.46
6	1340.60
7	1340.06
8	1339.51
9	1344.65
10	1344.11
11	1343.73
12	1343.69
13	1343.55
14	1343.41
15	1343.22

INTERSECTION DETAILS
8TH ST. AND RAMPS 1/2

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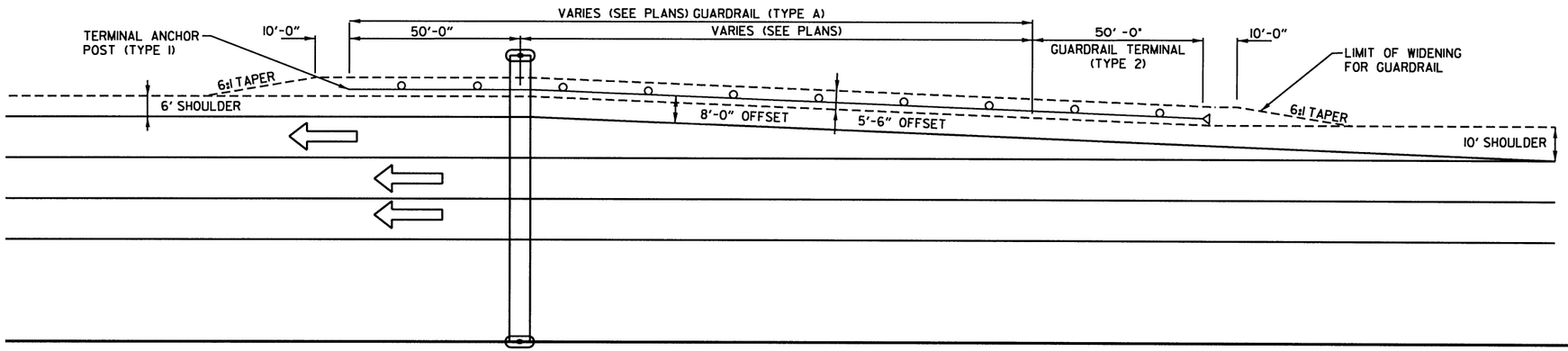
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	37	555
				2	SPECIAL DETAILS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT

6/1/16



TYPICAL LAYOUT OF GUARDRAIL AT FIXED OBJECT

SPECIAL DETAILS
TYPICAL GUARDRAIL WIDENING (SIGN)

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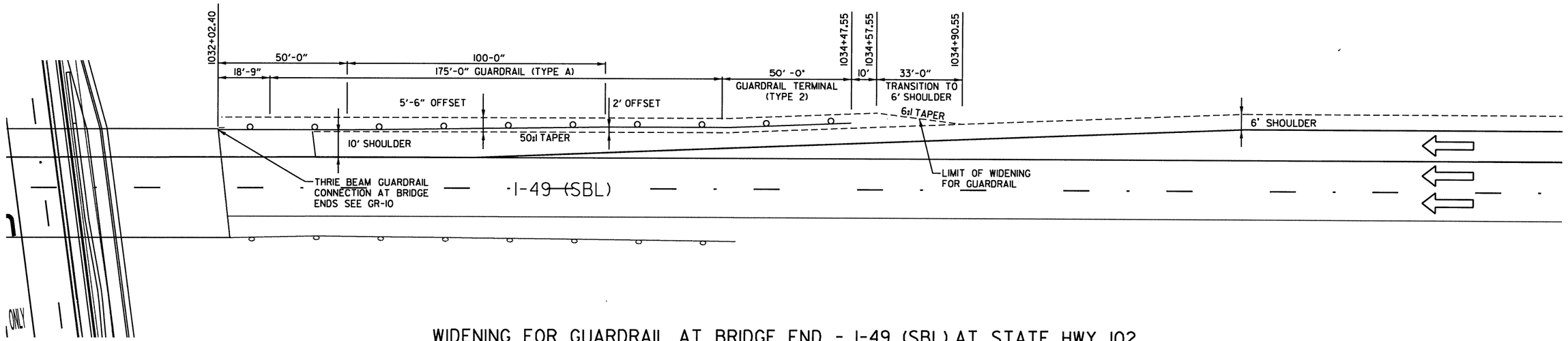
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	38	555
				(2)	SPECIAL DETAILS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



WIDENING FOR GUARDRAIL AT BRIDGE END - I-49 (SBL) AT STATE HWY. 102

SPECIAL DETAILS
GUARDRAIL LAYOUT

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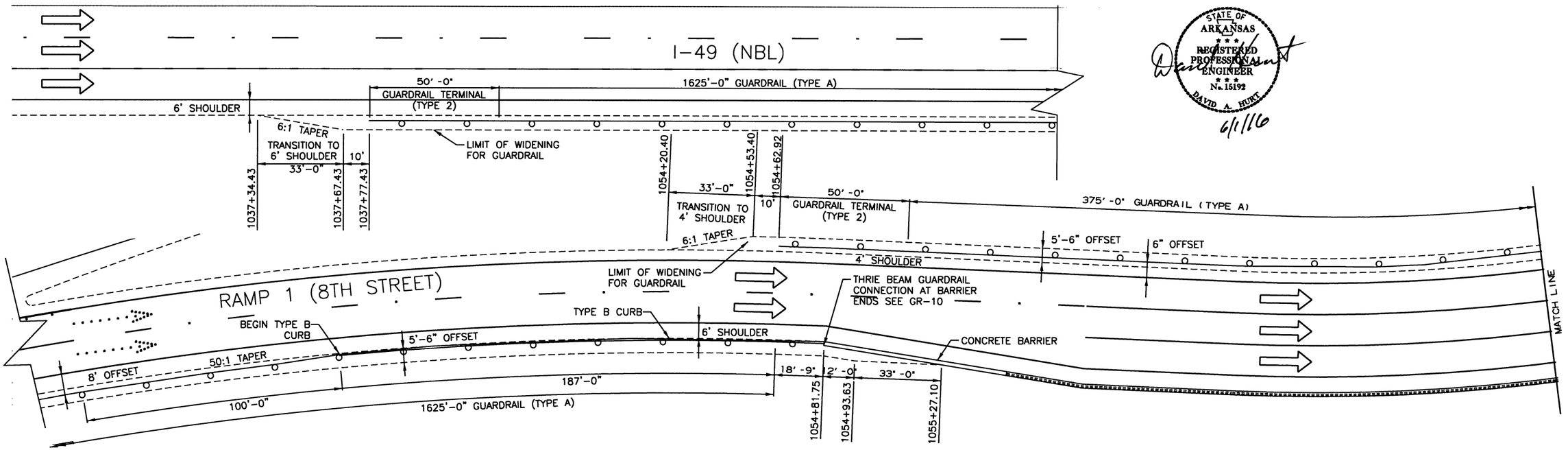
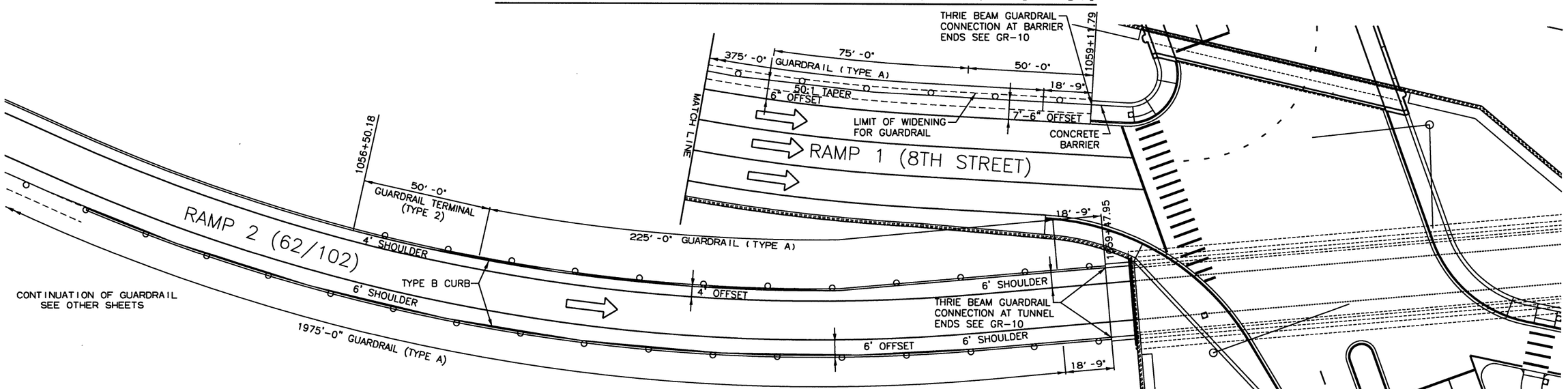
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	39	555

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



WIDENING FOR GUARDRAIL - AT ENTRANCE OF RAMP 18TH ST.



WIDENING FOR GUARDRAIL - AT ENTRANCE OF RAMP 18TH ST.
& ENTRANCE OF UNDERPASS RAMP 2 (62/102)

SPECIAL DETAILS
GUARDRAIL LAYOUT

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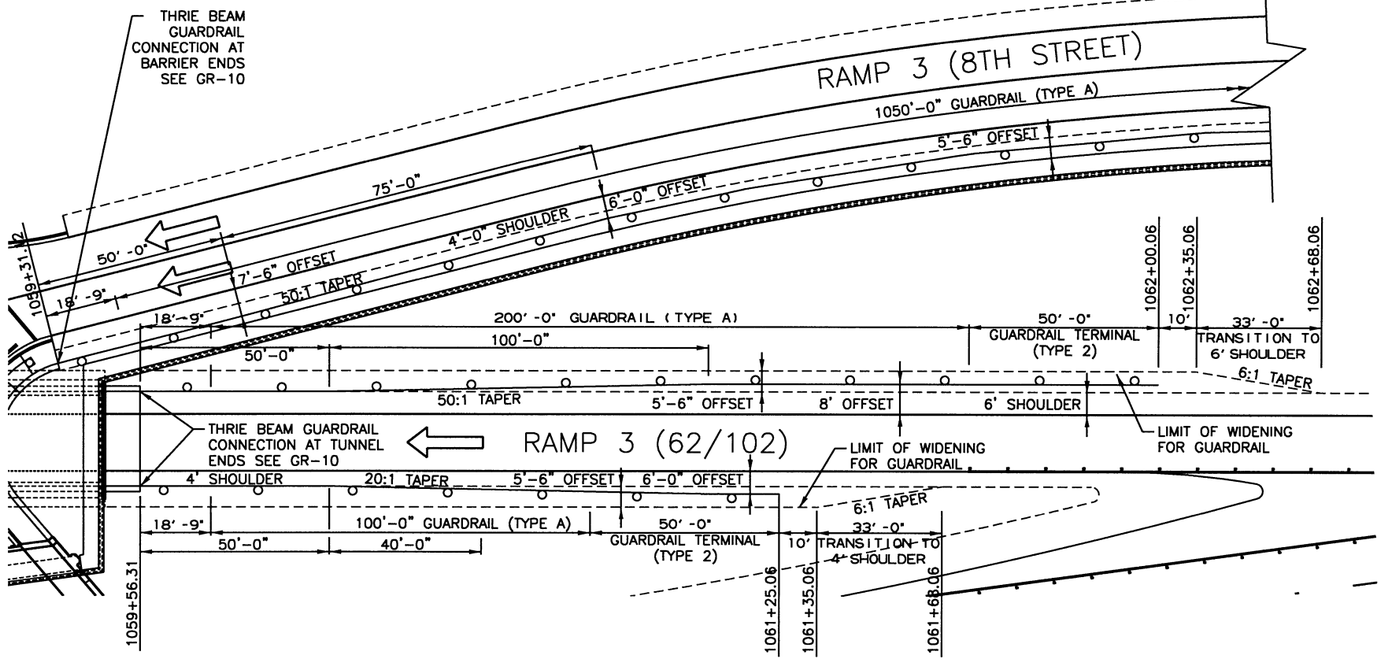
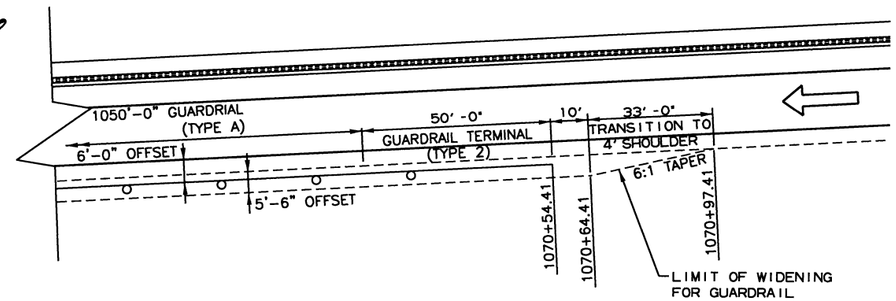
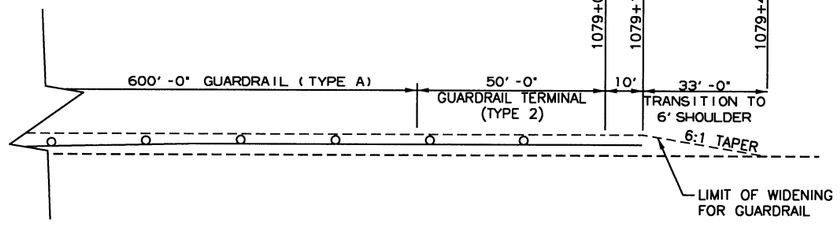
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	40	555

(2) SPECIAL DETAILS

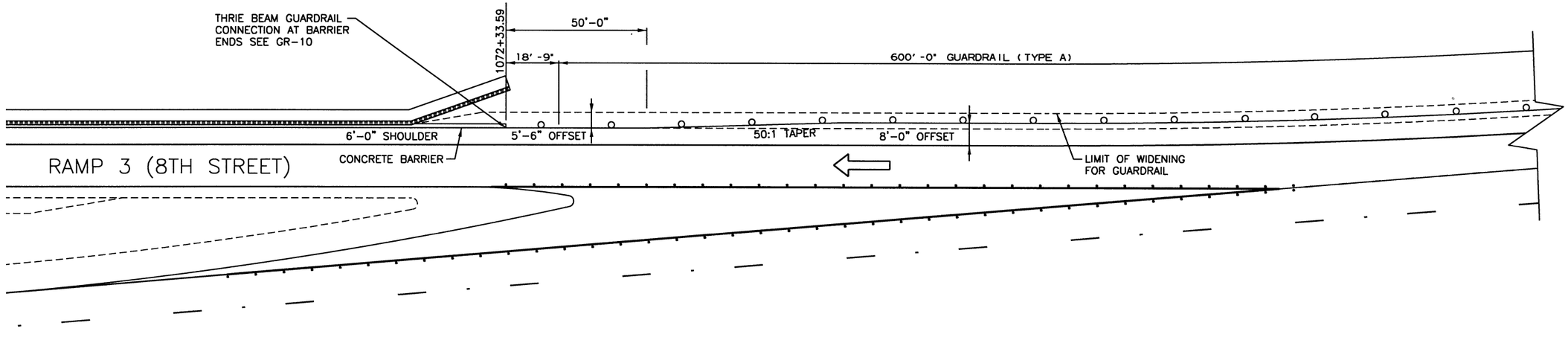
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16







WIDENING FOR GUARDRAIL - AT UNDERPASS RAMP 3 (62/102) & EXIT OF RAMP 3 (8TH STREET)



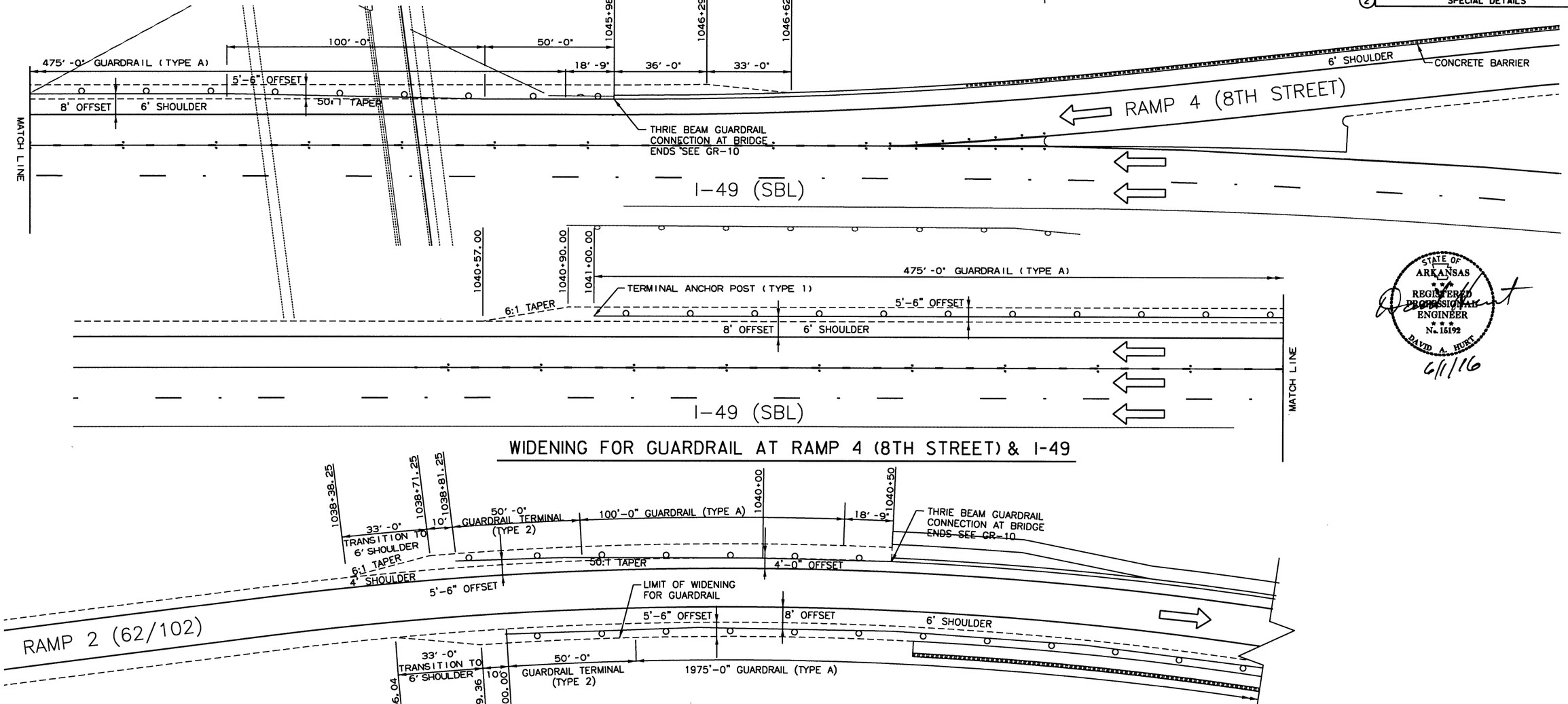
WIDENING FOR GUARDRAIL AT ENTRANCE OF RAMP 3 (8TH STREET)

SPECIAL DETAILS
GUARDRAIL LAYOUT

c:\bmcd_llb\pw\dhurt\trn\dms21644\XXX_GR_SS_04_090218_120.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	41	555

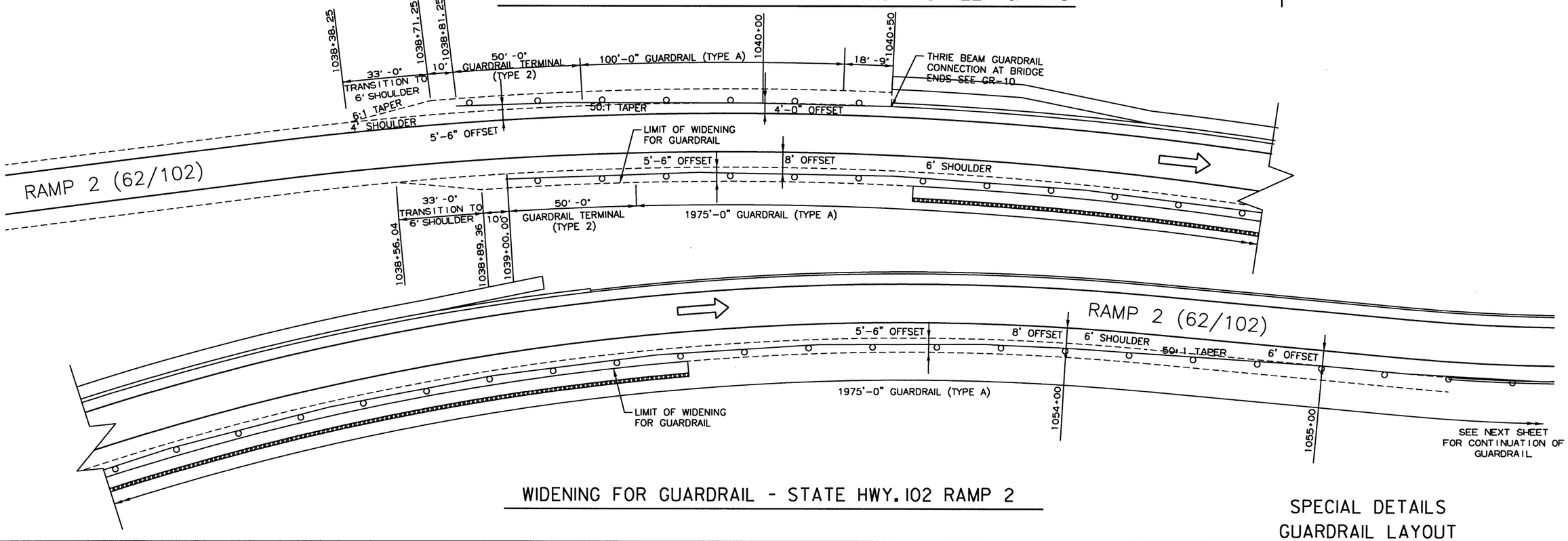
(2) SPECIAL DETAILS



STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 16192 DAVID A. HURT

6/1/16

WIDENING FOR GUARDRAIL AT RAMP 4 (8TH STREET) & I-49



WIDENING FOR GUARDRAIL - STATE HWY. 102 RAMP 2

SPECIAL DETAILS
GUARDRAIL LAYOUT

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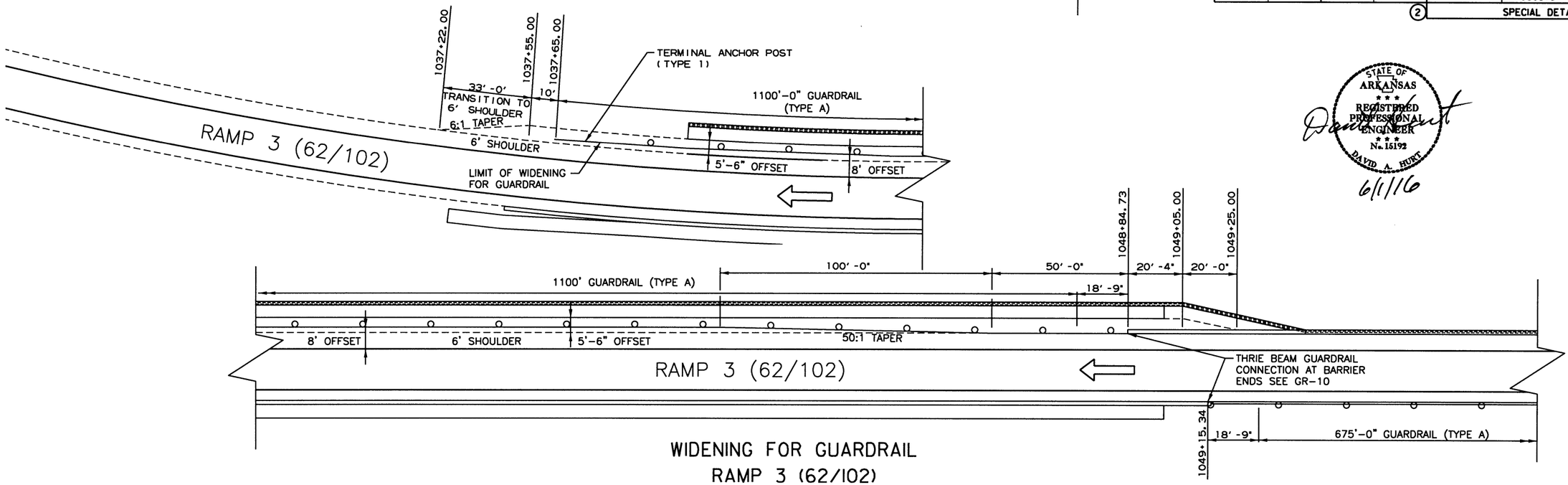
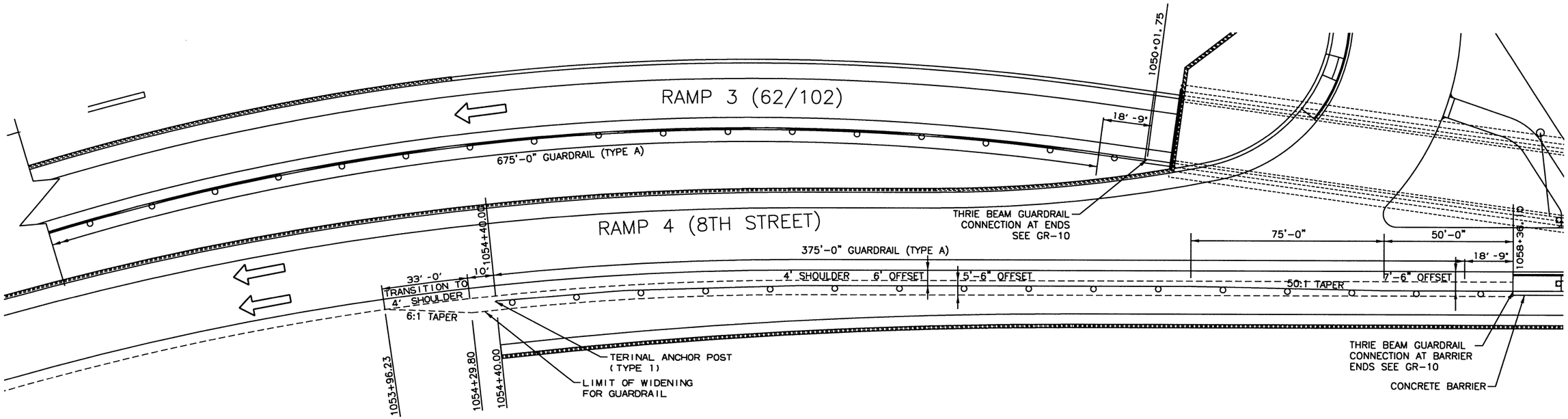
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	42	555
				(2)	SPECIAL DETAILS			



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HURT
6/1/16

WIDENING FOR GUARDRAIL RAMP 3 (62/102)



WIDENING FOR GUARDRAIL AT ENTRANCE OF RAMP 4 (8TH STREET) & RAMP 3 (62/102)

SPECIAL DETAILS
GUARDRAIL LAYOUT

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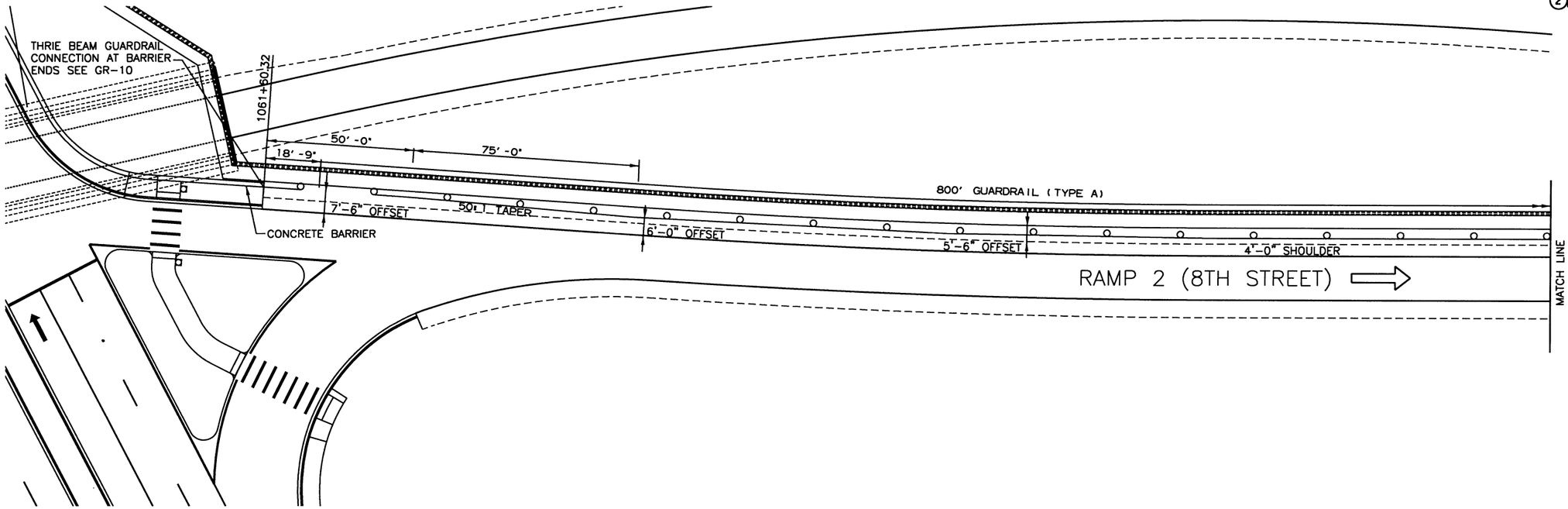
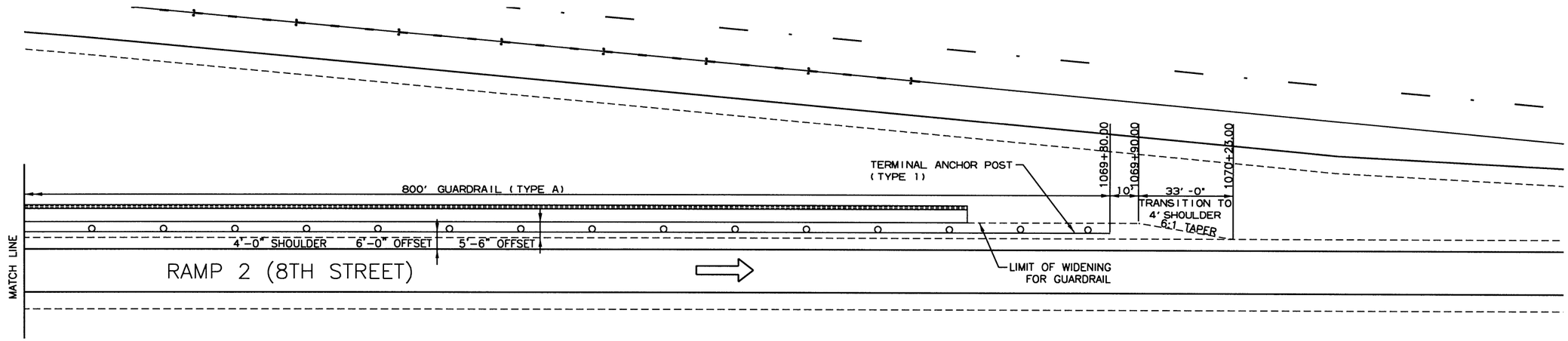
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	43	555
				(2)	SPECIAL DETAILS			



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



WIDENING FOR GUARDRAIL AT ENTRANCE OF RAMP 2 (8TH STREET)

SPECIAL DETAILS
GUARDRAIL LAYOUT

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REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-4 / E-11 — SILT FENCE
- E-5 — SAND BAG DITCH CHECKS
- E-6 — ROCK DITCH CHECKS
- E-7 — DROP INLET SILT FENCE
- E-8 — DIVERSION DITCH
- E-12 — PIPE SLOPE DRAIN
- E-14 • XX CU.YD. — SEDIMENT BASIN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	44	555

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

STA. 1032+47.37
BEGIN JOB 090376
SEE STAGE 2 DRAWING
FOR LOCATION

NOSE
℄ I-49 STA. 1047+60.51, 57.84' LT. =
℄ RAMP 4 (8TH ST.) STA. 1047+60.07, 7.50' RT.

NOSE
℄ I-49 STA. 1051+32.31, 74.80' RT. =
℄ RAMP 1 (8TH ST.) STA. 1051+19.79, 12.00' LT.

STAGE 1
TEMPORARY EROSION CONTROL DETAILS

c:\bmcd_llb\pw\dhurt\trn\dms20439\50_EC_STAGE 1PLAN_01_090218_150.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	45	555

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

STA. 140+79.47 ℄ 8TH ST. =
STA. 1058+36.65 ℄ RAMP 3 (8TH ST.)
Δ = 63° 38' 30.12"

STA. 141+07.00 ℄ 8TH ST.
STA. 1058+55.21 L RAMP 3 (HWY. 62/102)
Δ = 49° 20' 44.08"

STA. 141+16.30 ℄ 8TH ST. =
STA. 1059+19.55 ℄ RAMP 4 (8TH ST.)
Δ = 57° 07' 45.28"

NOSE
℄ I-49 STA. 1062+52.32, 74.79' LT. =
℄ RAMP 3 (HWY. 62/102)
STA. 1062+52.12, 7.50' RT.

NOSE
℄ I-49 STA. 1064+77.66, 57.81' RT. =
℄ RAMP 2 (HWY. 62/102)
STA. 1064+78.16, 7.50' LT.

STA. 1059+47.95 ℄ I-49 =
STA. 142+68.89 ℄ 8TH ST.
Δ = 57° 07' 45.28"

STA. 144+21.36 ℄ 8TH ST. =
STA. 1059+98.08 ℄ RAMP 1 (8TH ST.)
Δ = 66° 57' 24.06"

STA. 144+68.04 ℄ 8TH ST. =
STA. 1060+42.54 ℄ RAMP 2 (62/102)
Δ = 75° 08' 26.67"

STA. 144+79.75 ℄ 8TH ST. =
STA. 1060.57.41 ℄ RAMP 2 (8TH ST.)
Δ = 58° 31' 33.42"

CONST. LIMITS
℄ 8TH STREET
PROP. R/W & C/A
EXIST. ROW
℄ RAMP 3 (62/102)
℄ RAMP 4 (8TH STREET)
℄ RAMP 3 (8TH STREET)
℄ RAMP 1 (8TH STREET)
℄ RAMP 2 (62/102)
℄ RAMP 2 (8TH STREET)
℄ INTERSTATE 49
I-49 SBL
I-49 NBL
SE 7TH ST.
E-14 - 1320 CU.YD.
E-14 - 7200 CU.YD.
PARKED PARKING
PI 1052+40.00
PT 1055+59.66
PC 1056+09.75
PT 1056+39.38
PI 1057+19.47
PC 1057+68.87
PT 1058+46.87
PI 1059+11.22
PC 1060+62.59
PI 1061+56.59
PT 1063+97.44
PC 1062+97.32
PI 1063+94.29
PT 1065+66.78
PI 1064+27.25
PC 1065+30.72
PI 1066+44.69
PT 1066+17.56
PC 1148+11.24
PI 1054+82.47
PT 1054+31.92
PC 1055+33.25
PI 1062+87.06
PT 1064+85.82
PI 1063+85.48
PI 1061+96.27
+15.00 255.00
+45.00 215.00
+40.00 200.00
+30.00 90.00
+35.00 275.00
+79.35 260.88
+58.64 271.30
+05.00 185.00
+15.00 230.00
+70.00 290.00
+25.00 125.00
+00.00 90.00
+40.00 255.00
+00.00 205.00
1055+00
1060+00
1065+00
140+00
S 88° 02' 21.43" E
N 28° 19' 08.45" E
N 34° 49' 53.29" E
N 41° 36' 54.49" E
N 43° 00' 30.90" E
N 41° 34' 28.87" E
N 25° 00' 14.50" E
N 46° 49' 00" E
N 45° 58' 10.47" E
N 33° 26' 05.15" E
N 29° 29' 58.64" E
1063+94.29
1053+47.42
1055+00
1060+00
1065+00
140+00

LEGEND

E-4 E-11	SILT FENCE
E-5	SAND BAG DITCH CHECKS
E-6	ROCK DITCH CHECKS
E-7	DROP INLET SILT FENCE
E-8	DIVERSION DITCH
E-12	PIPE SLOPE DRAIN
E-14 - XX CU.YD.	SEDIMENT BASIN

REVISIONS

DATE OF REVISION	REVISION

STAGE I
TEMPORARY EROSION CONTROL DETAILS

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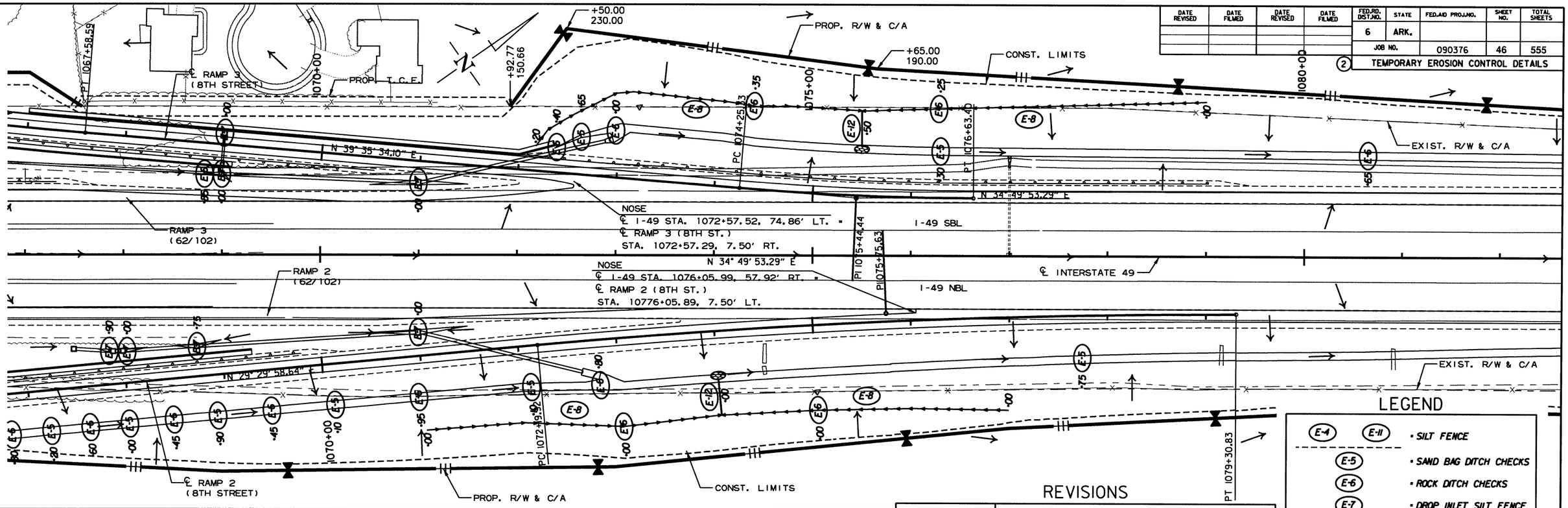
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	46	555

(2) TEMPORARY EROSION CONTROL DETAILS



REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-4 / E-11 · SILT FENCE
- E-5 · SAND BAG DITCH CHECKS
- E-6 · ROCK DITCH CHECKS
- E-7 · DROP INLET SILT FENCE
- E-8 · DIVERSION DITCH
- E-12 · PIPE SLOPE DRAIN
- E-14 · XX CU.YD. · SEDIMENT BASIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

STAGE I
TEMPORARY EROSION CONTROL DETAILS

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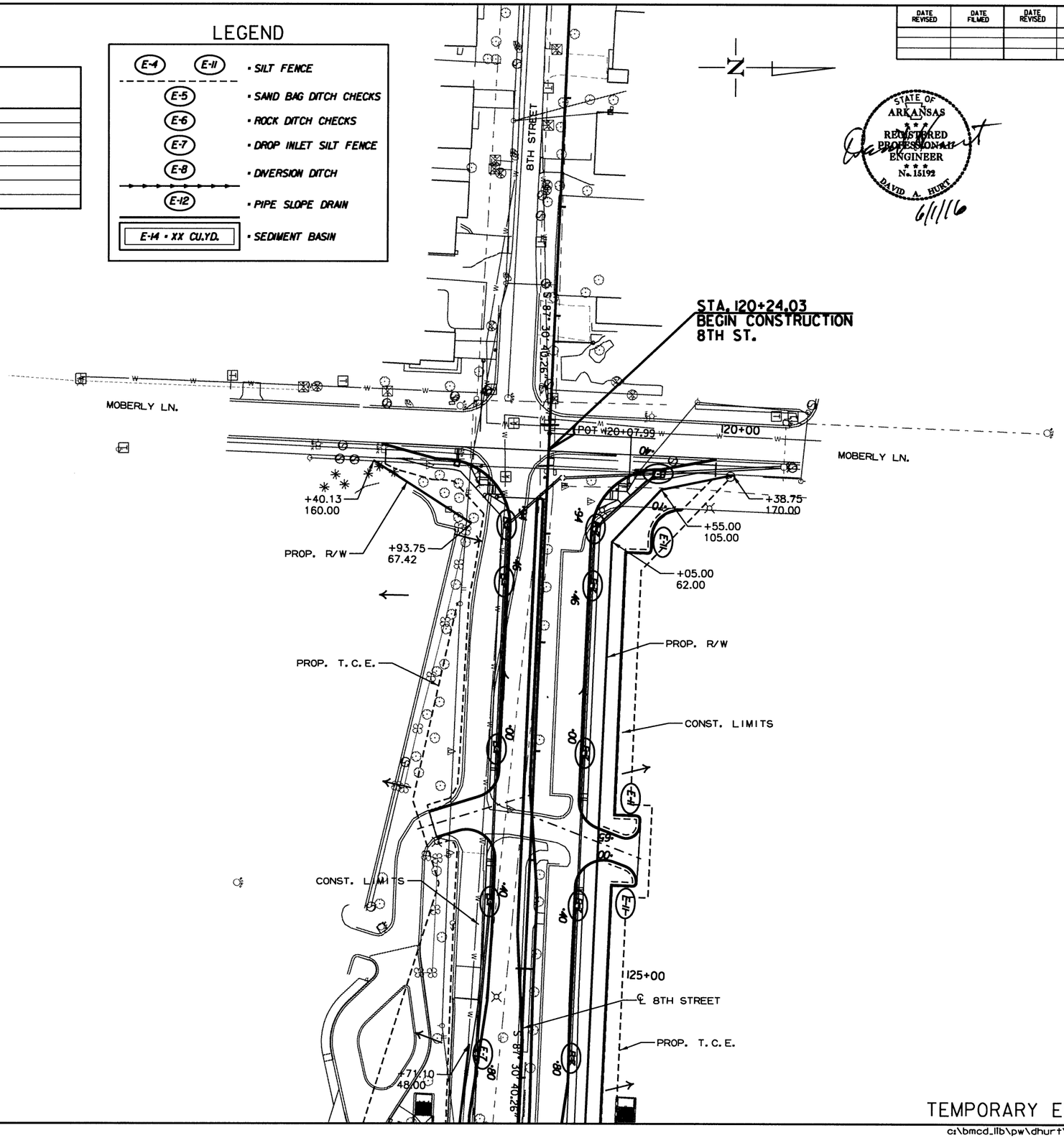
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	47	555
				(2)	TEMPORARY EROSION CONTROL DETAILS			

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-4 / E-11 — SILT FENCE
- E-5 — SAND BAG DITCH CHECKS
- E-6 — ROCK DITCH CHECKS
- E-7 — DROP INLET SILT FENCE
- E-8 — DIVERSION DITCH
- E-12 — PIPE SLOPE DRAIN
- E-14 • XX CU.YD. — SEDIMENT BASIN



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

STAGE I
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	48	555

(2) TEMPORARY EROSION CONTROL DETAILS

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-4) (E-11) · SILT FENCE
- (E-5) · SAND BAG DITCH CHECKS
- (E-6) · ROCK DITCH CHECKS
- (E-7) · DROP INLET SILT FENCE
- (E-8) · DIVERSION DITCH
- (E-12) · PIPE SLOPE DRAIN
- E-14 · XX CU.YD. · SEDIMENT BASIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 18192
DAVID A. HURT
6/11/16

N

PROP. T. C. E.
POT 7+01.71
PC 7+62.37
PI 7+96.77
PT 8+29.00
STA. 128+21.29 ℄ 8TH ST. =
STA. 9+69.26 00 ℄ ENTRANCE
Δ = 80° 00' 00.00"
CONST. LIMITS
℄ 8TH STREET
PROP. R/W
PRC 131+55.81
PI 132+62.02
PC 129+25.14
+45.00 62.00
+45.06 80.00
+35.00 65.00
130+00
135+00
+50.00 105.00
S 87° 30' 40.26" E
S 88° 02' 21.43" E
CONST. LIMITS
10+00
+40.00 50.00
PC 10+93.29
PROP. R/W
+40.00 60.00
PROP. T. C. E.
PI 11+35.88
℄ 8TH ENTRANCE
PT 11+76.87
POT 12+09.78
PROP. T. C. E.
+10.00 75.00
+00.00 80.00
+30.00 95.00
CONST. LIMITS
PROP. R/W & C/A
+00.00 85.00
+40.00 200.00
105+00
105+50
℄ RAMP 3 (62/102)
℄ INTERSTATE 49
PROP. R/W & C/A
℄ RAMP 4 (8TH STREET)
PAVED PARKING
I-49 SBL
I-49 NBL
PT 105+11.22
STA. 141+16.30 L 8TH ST. =
STA. 1059+19.55 L RAMP 4 (8TH ST.)
Δ = 57° 07' 45.28"
STA. 141+07.00 ℄ 8TH ST. =
STA. 1058+55.21 ℄ RAMP 3 (HWY. 62/102)
Δ = 49° 20' 44.08"
STA. 140+79.47 ℄ 8TH ST. =
STA. 1058+36.68 ℄ RAMP 3 (8TH ST.)
Δ = 63° 38' 30.12"
℄ RAMP 3 (8TH STREET)
E-14 · 4320 CU.YD.
140+00
+35.00 275.00
N 28° 19' 1
N 34° 49' 53.29"
PT 105+59.86

STAGE I
TEMPORARY EROSION CONTROL DETAILS

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REVISIONS

DATE OF REVISION	REVISION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	49	555

(2) TEMPORARY EROSION CONTROL DETAILS

LEGEND

- E-4 / E-11 · SILT FENCE
- E-5 · SAND BAG DITCH CHECKS
- E-6 · ROCK DITCH CHECKS
- E-7 · DROP INLET SILT FENCE
- E-8 · DIVERSION DITCH
- E-12 · PIPE SLOPE DRAIN
- E-14 · XX CU.YD. · SEDIMENT BASIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

STA. 1031+14.14 ℄ RAMP 4 = STA. 17+00.00 ℄ HWY. 62/102
Δ = 90° 00' 00"

STA. 1029+79.54 ℄ RAMP 3 = STA. 17+00.00 ℄ HWY. 62/102
Δ = 75° 00' 00"

STA. 1031+18.39 ℄ I-49 = STA. 20+00.00 ℄ HWY. 62/102
Δ = 82° 32' 30"

STA. 1031+86.72 ℄ RAMP 1 = STA. 29+00.00 ℄ HWY. 62/102
Δ = 75° 00' 00"

STA. 1031+68.67 ℄ RAMP 2 = STA. 23+00.00 ℄ HWY. 62/102
Δ = 90° 00' 00"

STA. 1032+47.37
BEGIN JOB 090376

EXIST. R/W & C/A

CONST. LIMITS

℄ RAMP 4 (62/102)

℄ RAMP 3 (62/102)

℄ RAMP 1 (62/102)

℄ RAMP 2 (62/102)

℄ HWY. 62/102

℄ INTERSTATE 49

I-49 SBL

I-49 NBL

E-14 · 4680 CU.YD.

E-14 · 12240 CU.YD.

E-14 · 12600 CU.YD.

E-14 · 7200 CU.YD.

E-14 · 4540 CU.YD.

PC 1028+35.05

PI 1029+15.86

PT 1029+68.03

PI 1032+45.41

PT 1033+51.36

PC 1034+51.36

PT 1039+05.55

PC 1040+00

PT 1038+80.38

PC 1033+21.70

PI 1034+64.33

PC 1038+08.80

PT 1036+06.43

PT 1026+57.15

PC 1027+41.69

PI 1028+82.40

PT 1030+21.89

N 2° 41' 16.29" E

N 17° 47' 16.29" E

N 28° 24' 49.59" E

N 11° 45' 13.71" W

N 10° 14' 46.29" E

N 31° 47' 16.29" E

N 5° 45' 13.71" W

S 87° 12' 43.71" E

1030+00

1035+00

1040+00

25+00

STAGE 2
TEMPORARY EROSION CONTROL DETAILS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	50	555

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HURT
6/11/16

NOSE
℄ I-49 STA. 1047+60.51, 57.84' LT. =
℄ RAMP 4 (8TH ST.)
STA. 1047+60.07, 7.50' RT.

NOSE
℄ I-49 STA. 1051+32.31, 74.80' RT. =
℄ RAMP 1 (8TH ST.) STA. 1051+19.79, 12.00' LT.

LEGEND

- E-4 E-11 • SILT FENCE
- E-5 • SAND BAG DITCH CHECKS
- E-6 • ROCK DITCH CHECKS
- E-7 • DROP INLET SILT FENCE
- E-8 • DIVERSION DITCH
- E-12 • PIPE SLOPE DRAIN
- E-14 • XX CU.YD. • SEDIMENT BASIN

REVISIONS

DATE OF REVISION	REVISION

STAGE 2
TEMPORARY EROSION CONTROL DETAILS

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STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	51	555

(2) TEMPORARY EROSION CONTROL DETAILS

STA. 1029+79.54 ℄ RAMP 3 =
STA. 17+00.00 ℄ HWY. 62/102
Δ = 75° 00' 00"

STA. 1031+14.14 ℄ RAMP 4 =
STA. 17+00.00 ℄ HWY. 62/102
Δ = 90° 00' 00"

STA. 1031+18.39 ℄ I-49 =
STA. 20+00.00 ℄ HWY. 62/102
Δ = 82° 32' 30"

STA. 1031+86.72 ℄ RAMP 1 =
STA. 23+00.00 ℄ HWY. 62/102
Δ = 75° 00' 00"

STA. 1031+68.67 ℄ RAMP 2 =
STA. 23+00.00 ℄ HWY. 62/102
Δ = 90° 00' 00"

STA. 1032+47.37
BEGIN JOB 090376

℄ RAMP 4 (62/102)
℄ RAMP 3 (62/102)
℄ RAMP 1 (62/102)
℄ RAMP 2 (62/102)
℄ HWY. 62/102
℄ INTERSTATE 49
I-49 SBL
I-49 NBL
CONST. LIMITS
EXIST. R/W & C/A
TRAFFIC LIGHT
E-14 • 10800 CU.YD.
E-14 • 4680 CU.YD.
E-14 • 12240 CU.YD.
E-14 • 10800 CU.YD.
E-14 • 12600 CU.YD.
E-14 • 7200 CU.YD.
PI 1028+35.23
PT 1029+79.86
PC 1026+89.03
PT 1025+17.26
PI 1023+00.00
PC 1023+40.49
PI 1024+99.84
PT 1026+57.15
PC 1027+41.69
PI 1028+82.40
PT 1030+21.69
POT 1031+68.67
PC 1033+21.70
PI 1034+64.33
PT 1036+06.43
PI 1031+38.84
PT 1032+45.4
PC 1034+51.36
PT 1033+51.36
N 2° 47' 16.29" E
N 17° 47' 16.29" E
N 15° 57' 16.29" E
N 31° 47' 16.29" E
N 10° 14' 46.29" E
N 1° 45' 13.71" W
S 87° 12' 43.71" E
N 28° 24' 49.59" E
N 5° 45' 13.71" W
1025+00
1030+00
1035+00
20+00
25+00

LEGEND

E-4 E-11	• SILT FENCE
E-5	• SAND BAG DITCH CHECKS
E-6	• ROCK DITCH CHECKS
E-7	• DROP INLET SILT FENCE
E-8	• DIVERSION DITCH
E-12	• PIPE SLOPE DRAIN
E-14 • XX CU.YD.	• SEDIMENT BASIN

REVISIONS

DATE OF REVISION	REVISION

STAGE 3
TEMPORARY EROSION CONTROL DETAILS

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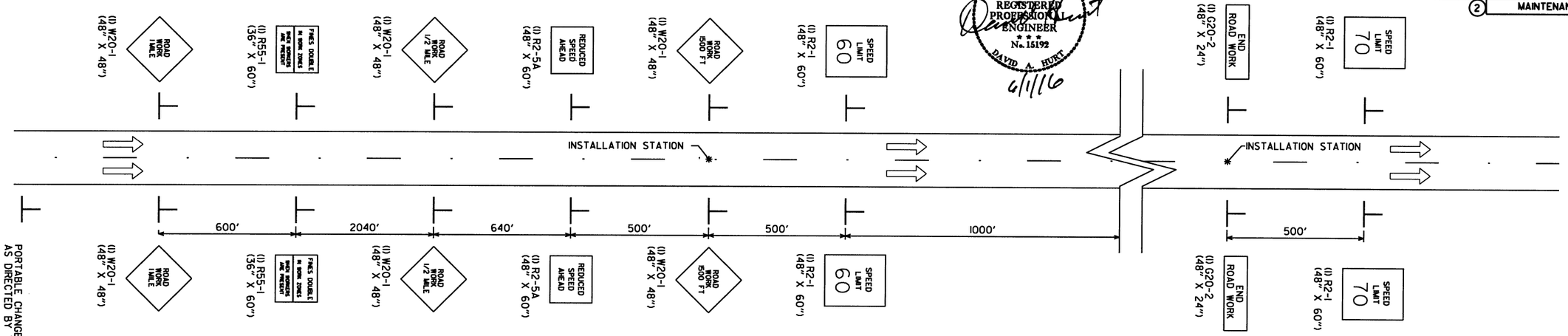
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	52	555

(2) MAINTENANCE OF TRAFFIC DETAILS

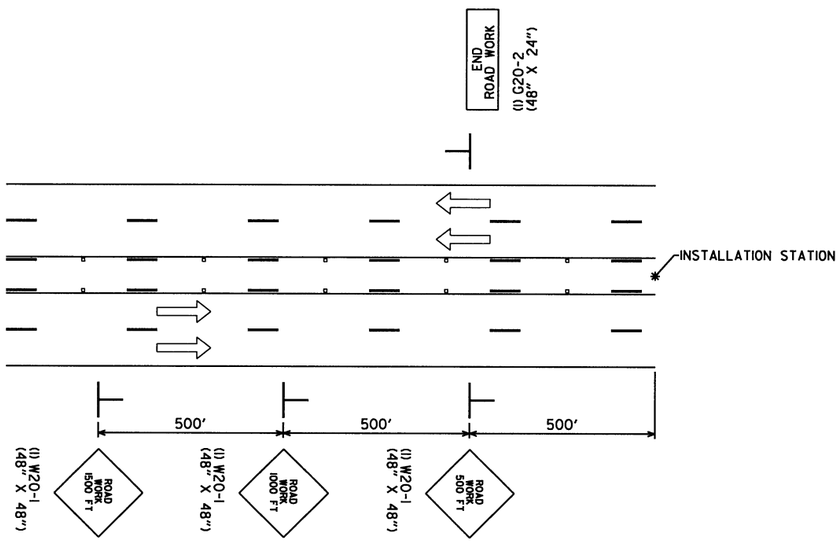
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



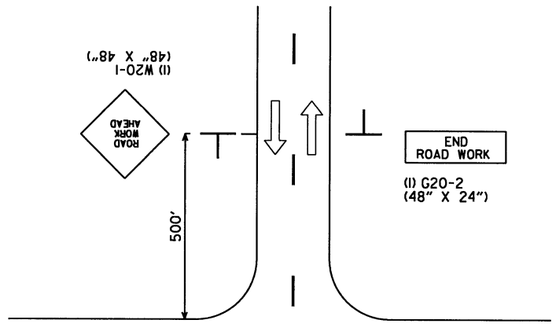
PORTABLE CHANGEABLE MESSAGE SIGN AS DIRECTED BY THE ENGINEER

ADVANCE WARNING SIGNS
(STAGE I AND 2)
I-49 NBL - STA. 1013+00.00
I-49 SBL - STA. 1104+50.00

END ROAD WORK SIGNS
(STAGE I AND 2)
I-49 NBL - STA. 1093+50.00
I-49 SBL - STA. 1023+50.00



DETAIL OF HWY. 62/102
(ALL STAGES)
HWY. 62/102 - EB STA. 9+00.00 AND WB 29+00.00



DETAIL OF SIDE ROADS
(ALL STAGES)

CONSTRUCTION SEQUENCE

STAGE 1:
INSTALL ADVANCE WARNING SIGNS AS SHOWN IN THE ADVANCE WARNING DETAIL AND STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKING AND PRECAST CONCRETE BARRIERS AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT 8TH STREET & RAMPS 1, 2, 3, AND 4 FOR 8TH STREET.
CONSTRUCT RAMP 3 FOR HWY. 62/102 FROM STA. 1041+00 TO STA. 1065+56.78.
CONSTRUCT RAMP 2 FOR HWY. 62/102 FROM STA. 1042+00 TO 1066+06.54.

STAGE 2:
INSTALL DETOUR SIGNS AND ADVANCE WARNING SIGNS AS SHOWN IN THE ADVANCE WARNING DETAIL AND THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

RELOCATE THE PRECAST CONCRETE BARRIERS AND REMOVE CONFLICTING CONSTRUCTION PAVEMENT MARKINGS. INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT AUX. LANES ALONG I-49.
CONSTRUCT REMAINING SECTION OF RAMPS 2 AND 3 HWY. 62/102 AND TIE INTO EXISTING.
CONSTRUCT NORTHERN SECTION OF HWY. 62/102.
CONSTRUCT WB RIGHT TURN LANE ON HWY. 62/102 ONTO RAMP 2 HWY. 62/102.
CONSTRUCT OVERHEAD SIGNING STRUCTURES.

STAGE 3:
REMOVE I-49 ADVANCE WARNING SIGNS, PRECAST CONCRETE BARRIERS, CONFLICTING CONSTRUCTION PAVEMENT MARKINGS, AND THE DETOUR SIGNS. RETAIN ADVANCE WARNING SIGNS INSTALLED ON HWY. 62/102 DURING STAGE 2. INSTALL ADVANCE WARNING SIGNS AS SHOWN IN STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.

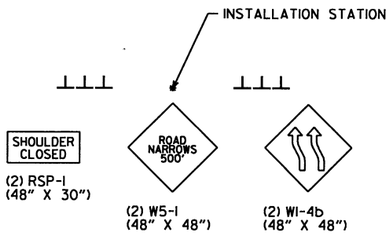
CONSTRUCT SOUTHERN SECTION OF HWY. 62/102.
CONSTRUCT WIDENING ON RAMP 1 (62/102).

ADVANCE WARNING MAINTENANCE OF TRAFFIC DETAILS

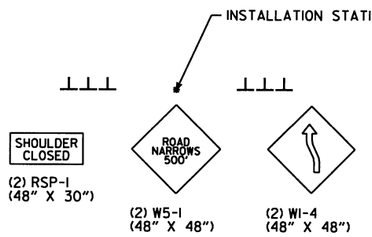
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	53	555

(2) MAINTENANCE OF TRAFFIC DETAILS

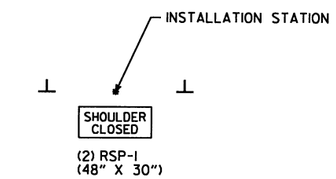
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



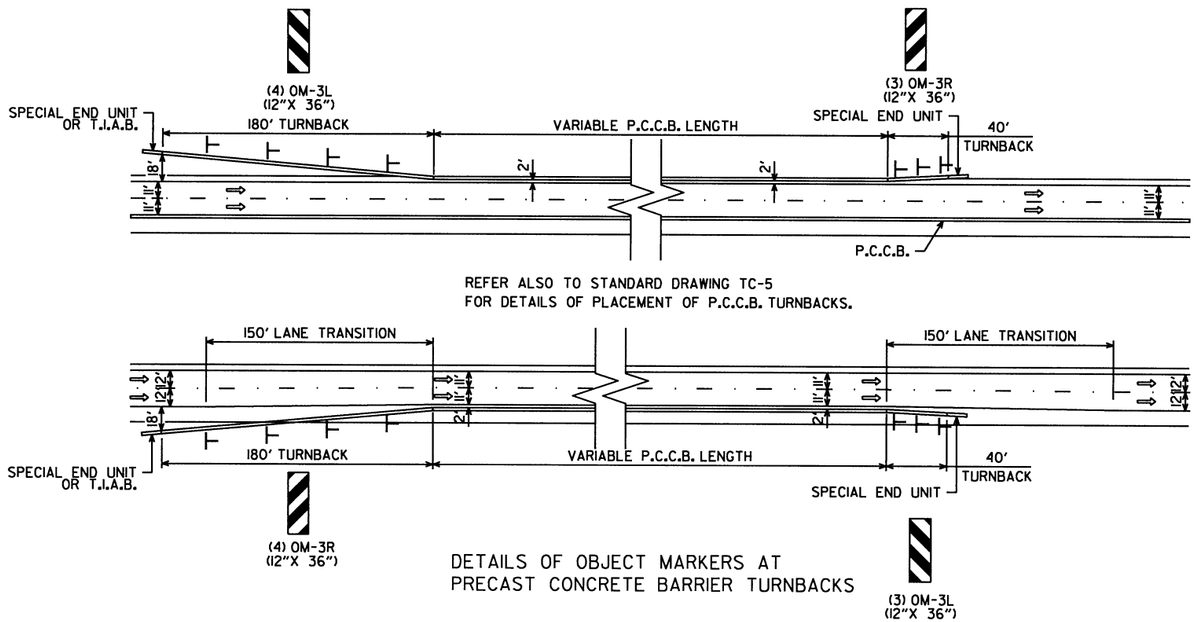
ADVANCE WARNING SIGNS
I-49 NBL - STA. 1036+70.00
I-49 SBL - STA. 1093+40.00



ADVANCE WARNING SIGNS
RAMP 2 (62/102) - STA. 1036+50.00



ADVANCE WARNING SIGNS
I-49 NBL - STA. 1051+00.00
I-49 SBL - STA. 1068+00.00



DETAILS OF OBJECT MARKERS AT
PRECAST CONCRETE BARRIER TURNBACKS

SEQUENCE OF TRAFFIC NOTES

STAGE 1:
INSTALL ADVANCE WARNING SIGNS AS SHOWN IN THE ADVANCE WARNING DETAIL AND STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKING AND PRECAST CONCRETE BARRIERS AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT 8TH STREET & RAMPS 1, 2, 3, AND 4 FOR 8TH STREET.
CONSTRUCT RAMP 3 FOR HWY. 62/102 FROM STA. 1041+00 TO STA. 1065+56.78.
CONSTRUCT RAMP 2 FOR HWY. 62/102 FROM STA. 1042+00 TO 1066+06.54.

STAGE 1
MAINTENANCE OF TRAFFIC DETAILS

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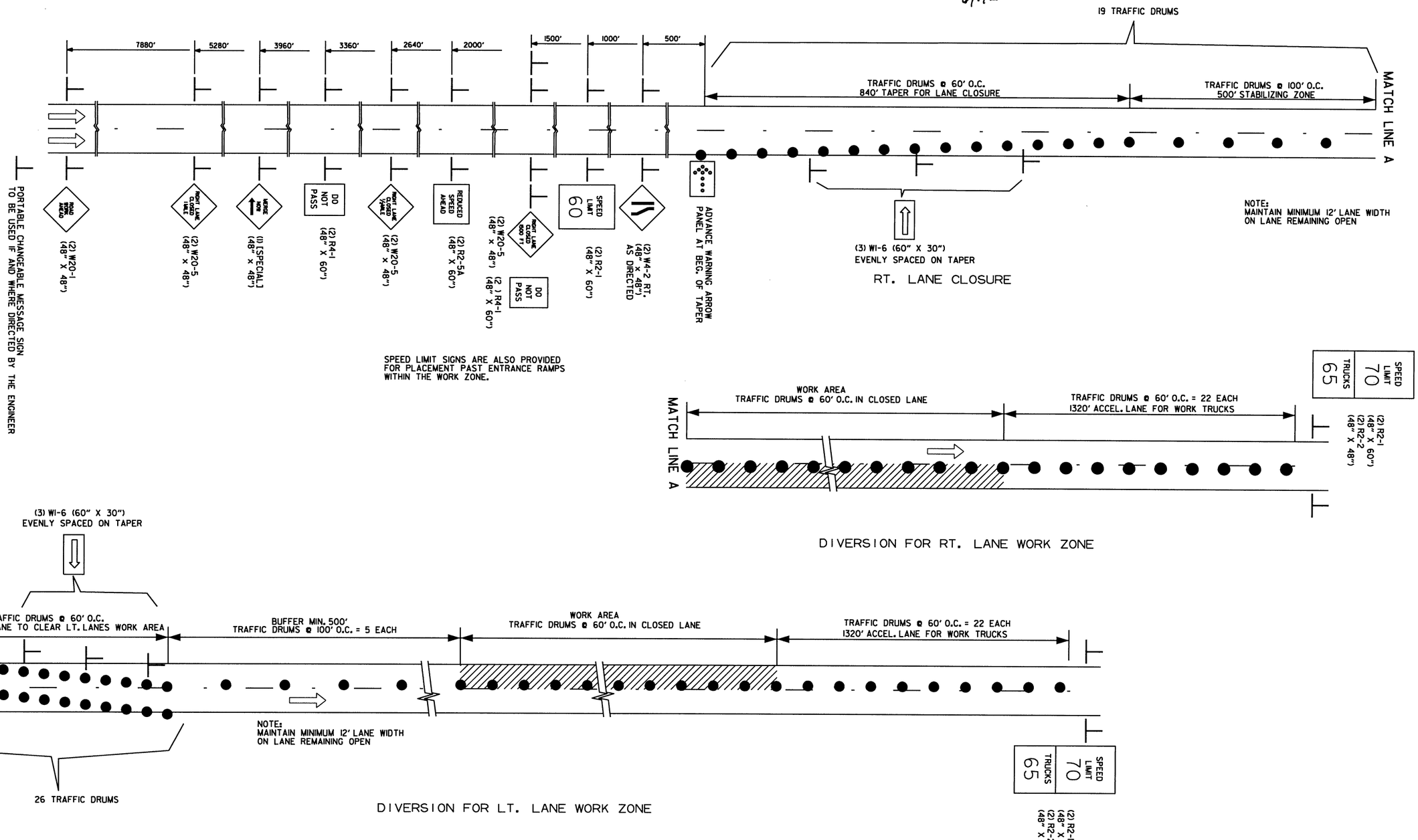
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	54	555

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/11/18



DIVERSION FOR RT. LANE WORK ZONE

DIVERSION FOR LT. LANE WORK ZONE

LANE CLOSURE
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	55	555

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HURT
6/1/16

2'-0" STAGE I CONSTRUCTION | STAGE I 11'-0" LANE | STAGE I 11'-0" LANE | 2'-0" | 6' SHLDR. | 12'-0" S.B. AUX. LANE | EXIST. 12' LANE | EXIST. 12' LANE | 6' | 30'-0" | ℄ INTERSTATE 49 | 30'-0" | 6' | EXIST. 12' LANE | EXIST. 12' LANE | 12'-0" S.B. AUX. LANE | 6' SHLDR. | 12'-0" | 2'-0" STAGE I CONSTRUCTION

2.5:1 | 6:1 | -0.04'/ -0.02'/ | -0.02'/ | 24'-0" EXIST. PAVEMENT | -0.02'/ -0.04'/ | -0.02'/ | 6:1 | 3:1

INTERSTATE 49 MAIN LINE
STAGE I TYPICAL

*PLACED FROM STATION 1058+00 TO STATION 1061+00

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (I-49 NB)
STA. 1042+00 TO STA. 1053+00 = 442 LIN. FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (I-49 SB)
STA. 1043+00 TO 1053+00 = 253 LIN. FT.

REMOVAL OF PERMANENT PAVEMENT MARKINGS
STAGE 1 = 3,797 LIN. FT.

NOSE
℄ I-49 STA. 1047+60.51, 57.84' LT. =
℄ RAMP 4 (8TH ST.) STA. 1047+60.07, 7.50' RT.

STA. 1032+47.37
BEGIN JOB 090376
SEE STAGE 2 DRAWING
FOR LOCATION

1040+00 | 1045+00 | 1050+00 | SIGN | BILLBOARD 2-SIDED | EXIST. R/W | CONST. LIMITS | ℄ RAMP 4 (8TH STREET) | PROP. R.O.W & C.A. | ℄ RAMP 3 (62/102) | PAVED PARKING

PT 1039+05.05 | EX. RAMP 3 (62/102) | 4" SKIP WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING | PC 1050+70.27 | PI 1052+59.28

N 10° 14' 46.29" E | PT 1048+05.97 | N 4° 01' 45.43" E

53' P.C.C.B. TAPER | 150' LANE TAPER | PC 1045+98.74 | 4706' P.C.C.B. INCLUDES (2) SPECIAL END UNITS | PI 1052+01.87

I-49 SBL | 12:12 | 11:11

℄ INTERSTATE 49 | N 10° 14' 46.29" E | PI 1047+02.45 | PC 1049+43.62

EX. RAMP 2 (62/102) | 150' LANE TAPER | PC 1047+91.71

I-49 NBL | 12:12 | 3 TRAFFIC DRUMS @ 60' O.C. | PI 1040+01.11 | N 10° 14' 46.29" E | PI 1051+00.56

100' SHLD. TRANS. | PC 1046+98.90 | PI 1051+18.11

193' P.C.C.B. TAPER | N 10° 14' 46.29" E | PI 1042+08.80 | PC 1044+82.40

PC 1038+08.80 | 5 TRAFFIC DRUMS @ 25' O.C. | CONST. LIMITS | 4786' P.C.C.B. INCLUDES (2) SPECIAL END UNITS

EXIST. R/W | 4" WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING

ROAD CLOSED | (1) RII-2 (48" X 30") | ℄ RAMP 2 (62/102) | ℄ RAMP 1 (8TH STREET)

8' BARR. TYP. III RT. | 8' BARR. TYP. III LT. | NOSE
℄ I-49 STA. 1051+32.31, 74.80' RT. =
℄ RAMP 1 (8TH ST.) STA. 1051+19.79, 12.00' LT.

PROP. R.O.W & C.A. | PI 1054+31.92

LEGEND

- WORK AREA
- TRAFFIC FLOW
- TRAFFIC DRUM
- TYPE III BARRICADE

SEQUENCE OF TRAFFIC NOTES

STAGE 1:
INSTALL ADVANCE WARNING SIGNS AS SHOWN IN THE ADVANCE WARNING DETAIL AND STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKING AND PRECAST CONCRETE BARRIERS AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT 8TH STREET & RAMPS 1, 2, 3, AND 4 FOR 8TH STREET.
CONSTRUCT RAMP 3 FOR HWY. 62/102 FROM STA. 1041+00 TO STA. 1065+56.78.
CONSTRUCT RAMP 2 FOR HWY. 62/102 FROM STA. 1042+00 TO 1066+06.54.

STAGE I
MAINTENANCE OF TRAFFIC DETAILS
STA. 1038+00.00 TO STA. 1054+00.00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	56	555

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/17/16

LEGEND

- WORK AREA
- PAVEMENT REMOVAL
- TRAFFIC FLOW
- TRAFFIC DRUM
- TYPE III BARRICADE

℄ 8TH STREET

STA. 140+79.47 ℄ 8TH ST. =
STA. 1058+36.65 ℄ RAMP 3 (8TH ST.)
Δ = 63° 38' 30.12"

(2) RII-2 (48" X 30")
8' BARR. HRT. TYP.
8' BARR. TYP.
TYP. III LT.
ROAD CLOSED
8TH ST.

STA. 141+16.30 ℄ 8TH ST. =
STA. 1059+19.55 ℄ RAMP 4 (8TH ST.)
Δ = 57° 07' 45.28"

PROP. R.O.W. & C.A.
CONST. LIMITS
℄ RAMP 3 (62/102)
℄ RAMP 4 (8TH STREET)
℄ RAMP 3 (8TH STREET)
PROP. R.O.W. & C.A.
CONST. LIMITS
NOSE
℄ I-49 STA. 1062+52.32, 74.79' LT. =
℄ RAMP 3 (HWY. 62/102) STA. 1062+52.12, 7.50' RT.

1053+47.42
1055+00
1056+09.75
PC 1060+66.59
PI 1061+65.91
PT 1063+97.44
1065+00
PC 1065+30.72
PT 1067+58.59
S 88° 02' 24.43" E
140+00
1060+00
N 28° 19' 08.45" E
N 43° 00' 30.96" E
EX+ST. R/W

STA. 1059+47.95 ℄ I-49 =
STA. 142+68.89 ℄ 8TH ST.
Δ = 57° 07' 45.28"

4 TRAFFIC DRUMS @ 25' O.C.
PC 1062+97.32
℄ RAMP 3 (62/102)
PI 1066+44.69
PT 1065+56.78
N 34° 49' 53.29" E
N 34° 49' 53.29" E
N 12° 36' 54.49" E

PT 1035+59.66
53' P.C.C.B. TAPER
546' P.C.C.B. INCLUDES (2) SPECIAL END UNITS
PI 1064+27.25
4706' P.C.C.B. INCLUDES (2) SPECIAL END UNITS
I-49 SBL
193' P.C.C.B. TAPER
546' P.C.C.B. INCLUDES (2) SPECIAL END UNITS
4 TRAFFIC DRUMS @ 60' O.C.
4" SKIP WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING
100' SHLD. TRANS.
PT 1063+94.29
4786' P.C.C.B. INCLUDES (2) SPECIAL END UNITS
℄ INTERSTATE 49
4" WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING
N 34° 49' 53.29" E
193' P.C.C.B. TAPER
I-49 NBL
53' P.C.C.B. TAPER
PT 1066+17.56
PT 1061+11.22
3 TRAFFIC DRUMS @ 60'-0" O.C.
5 TRAFFIC DRUMS @ 25' O.C.
NOSE
℄ I-49 STA. 1064+77.66, 57.81' RT. =
℄ RAMP 2 (HWY. 62/102)
STA. 1064+78.16, 7.50' LT.
EXIST. R/W
℄ RAMP 1 (8TH STREET)
℄ RAMP 2 (62/102)
145+00
N 41° 34' 26.87" E
N 16° 49' 11.30" E
N 29° 29' 58.64" E
N 33° 26' 05.15" E
N 45° 58' 10.47" E
PC 1062+87.06
PI 1063+85.48
PT 1064+83.82
PC 1056+39.74
PI 1057+19.47
PI 1058+46.87
PT 1058+91.62
PC 1054+31.92
PI 1054+82.47
PC 1055+33.25
PI 1057+44.04
℄ RAMP 2 (8TH STREET)
CONST. LIMITS
PROP. R.O.W. & C.A.
CONST. LIMITS
PROP. R.O.W. & C.A.
PC 1062+57.27
℄ 8TH STREET
PC 1068+11.24

STA. 144+21.36 ℄ 8TH ST. =
STA. 1059+98.08 ℄ RAMP 1 (8TH ST.)
Δ = 66° 57' 24.06"

STA. 144+79.75 ℄ 8TH ST. =
STA. 1060+57.41 ℄ RAMP 2 (8TH ST.)
Δ = 58° 31' 33.42"

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (I-49 SB)
STA. 1053+00 TO 1068+00 = 377 LIN. FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (I-49 NB)
STA. 1053+00 TO 1068+00 = 373 LIN. FT.

SEQUENCE OF TRAFFIC NOTES

STAGE 1:
INSTALL ADVANCE WARNING SIGNS AS SHOWN IN THE ADVANCE WARNING DETAIL AND STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKING AND PRECAST CONCRETE BARRIERS AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT 8TH STREET & RAMPS 1, 2, 3, AND 4 FOR 8TH STREET.
CONSTRUCT RAMP 3 FOR HWY. 62/102 FROM STA. 1041+00 TO STA. 1065+56.78.
CONSTRUCT RAMP 2 FOR HWY. 62/102 FROM STA. 1042+00 TO 1066+06.54.

STAGE 1
MAINTENANCE OF TRAFFIC DETAILS
STA. 1054+00.00 TO STA. 1068+00.00

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				6	ARK.			
				JOB NO.		090376	57	555

(2) MAINTENANCE OF TRAFFIC DETAILS

NOSE
℄ I-49 STA. 1072+57.52, 74.86' LT. =
℄ RAMP 3 (8TH ST.) STA. 1072+57.29, 7.50' RT.

℄ RAMP 3 (8TH STREET)

RAMP 3 (62/102)

N 39° 35' 34.10" E

1070+00

1075+00

1080+00

PROP. R.O.W. & C.A.

CONST. LIMITS

EXIST. R/W

PC 1074+25.33

PT 1076+63.40

N 34° 49' 53.29" E

I-49 SBL

4706' P.C.C.B.
INCLUDES (2) SPECIAL END UNITS

4° SKIP WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING

℄ INTERSTATE 49
N 34° 49' 53.29" E

PI 1075+44.44

PI 1075+75.63

I-49 NBL

4786' P.C.C.B.
INCLUDES (2) SPECIAL END UNITS

4° WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING

N 29° 29' 58.64" E

RAMP 2 (62/102)

℄ RAMP 2 (8TH STREET)

EXIST. R/W

PC 1072+19.92

PC 1074+42.12

PT 1077+08.83

NOSE
℄ I-49 STA. 1076+05.99, 57.92' RT. =
℄ RAMP 2 (8TH ST.) STA. 1076+05.89, 7.50' LT.

PT 1079+30.83

CONST. LIMITS

PROP. R.O.W. & C.A.

1085+00

1090+00

RAMP 3 (8TH STREET)

PROP. R.O.W. & C.A.

CONST. LIMITS

193'
P.C.C.B. TAPER

4706' P.C.C.B.
INCLUDES (2) SPECIAL END UNITS

150'
LANE TAPER

100'
SHLD. TRANS.

PC 1088+85.27

I-49 SBL

4° SKIP WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING

4 TRAFFIC DRUMS @ 60' O.C.

4 TRAFFIC DRUMS @ 25' O.C.

N 34° 49' 53.29" E

4° WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING

I-49 NBL

53'
P.C.C.B. TAPER

STA. 1086+03.40
END JOB 090376

150'
LANE TAPER

4786' P.C.C.B.
INCLUDES (2) SPECIAL END UNITS

RAMP 2 (8TH STREET)

EXIST. R/W

CONST. LIMITS

PROP. R.O.W. & C.A.

EXIST. R/W

℄ INTERSTATE 49

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HURT
6/1/16

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (I-49 NB)
STA. 1068+00 TO STA. 1088+50 = 550 LIN. FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (I-49 SB)
STA. 1068+00 TO STA. 1088+00 = 500 LIN. FT.

LEGEND

- WORK AREA
- TRAFFIC FLOW
- TRAFFIC DRUM
- TYPE III BARRICADE

SEQUENCE OF TRAFFIC NOTES

STAGE 1:
INSTALL ADVANCE WARNING SIGNS AS SHOWN IN THE ADVANCE WARNING DETAIL AND STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKING AND PRECAST CONCRETE BARRIERS AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT 8TH STREET & RAMPS 1, 2, 3, AND 4 FOR 8TH STREET.
CONSTRUCT RAMP 3 FOR HWY. 62/102 FROM STA. 1041+00 TO STA. 1065+56.78.
CONSTRUCT RAMP 2 FOR HWY. 62/102 FROM STA. 1042+00 TO 1066+06.54.

STAGE 1
MAINTENANCE OF TRAFFIC DETAILS
STA. 1068+00.00 TO STA. 1098+00.00

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CONSTRUCTION PAVEMENT MARKINGS (MOBERLY LN.) = 1,597 LIN. FT.

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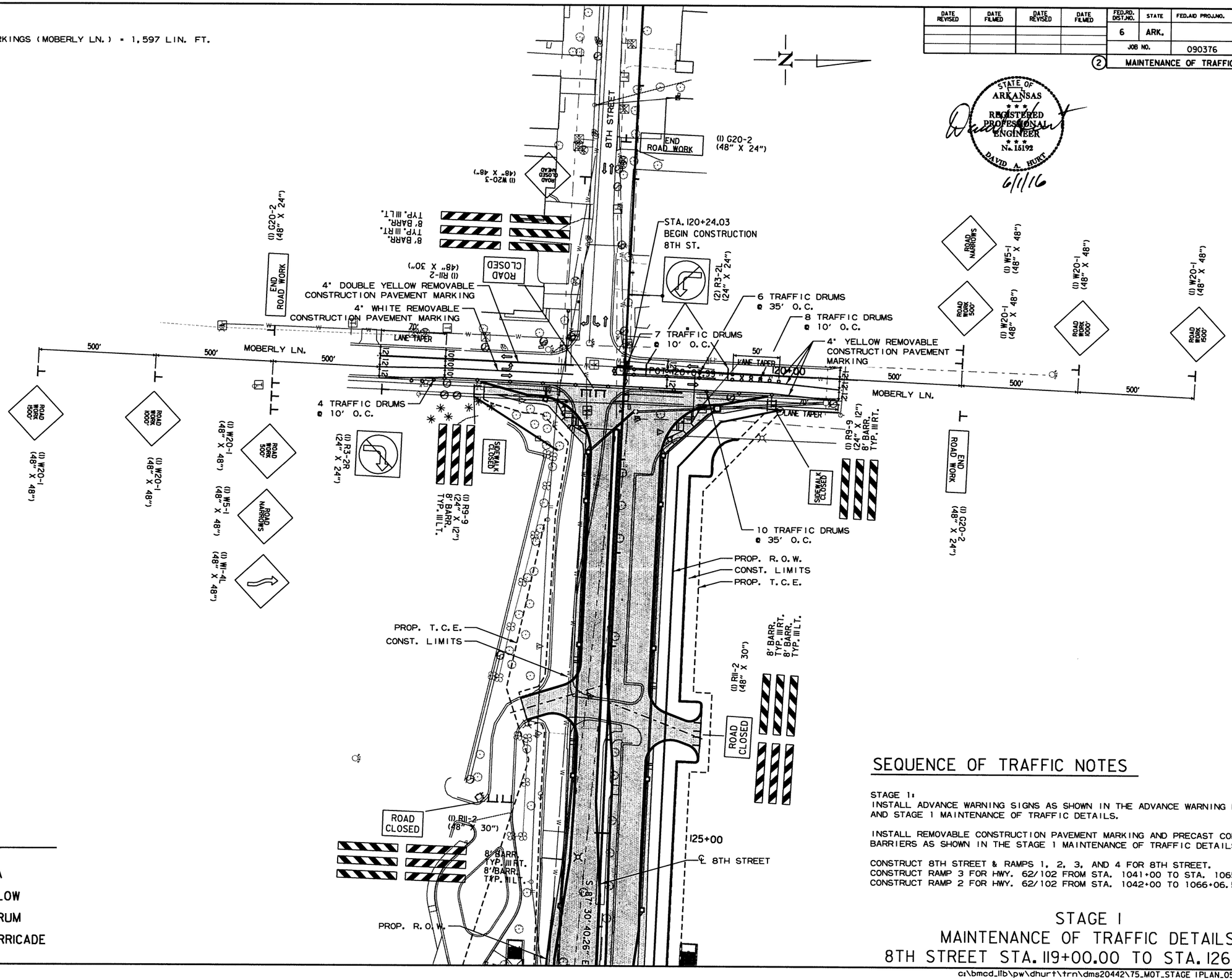
				6	ARK.			
				JOB NO.		090376	58	555

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



LEGEND

- WORK AREA
- TRAFFIC FLOW
- TRAFFIC DRUM
- TYPE III BARRICADE

SEQUENCE OF TRAFFIC NOTES

STAGE 1:
INSTALL ADVANCE WARNING SIGNS AS SHOWN IN THE ADVANCE WARNING DETAIL AND STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKING AND PRECAST CONCRETE BARRIERS AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT 8TH STREET & RAMPS 1, 2, 3, AND 4 FOR 8TH STREET.
CONSTRUCT RAMP 3 FOR HWY. 62/102 FROM STA. 1041+00 TO STA. 1065+56.78.
CONSTRUCT RAMP 2 FOR HWY. 62/102 FROM STA. 1042+00 TO 1066+06.54.

STAGE 1
MAINTENANCE OF TRAFFIC DETAILS
8TH STREET STA. 119+00.00 TO STA. 126+00.00

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				6	ARK.			
				JOB NO.		090376	59	555

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

N

℄ ENTRANCE
POT 7+01.71
PC 7+62.37
PI 7+95.77
PT 8+29.00
8' BARR. TYP. III RT.
8' BARR. TYP. III LT.
(1) RII-2 (48" X 30")
ROAD CLOSED
PROP. R.O.W.
PROP. TCE
PROP. T.C.E.
S 87° 30' 40.26" E
10+00
20' T.C.E.
PC 10+93.76
PI 11+35.88
PT 11+76.87
POT 12+09.78
STA. 128+21.29 ℄ 8TH ST. =
STA. 9+69.26.00 ℄ ENTRANCE
Δ = 80° 00' 00.00"
PC 129+25.14
130+00
℄ 8TH STREET
PRC 131+55.81
PI 132+62.02
END PROP. R.O.W. & C.A.
PI 133+98.03
(1) RII-2 (48" X 30")
8' BARR. TYP. III RT.
8' BARR. TYP. III LT.
ROAD CLOSED
END PROP. R.O.W. & C.A.
STA. 141+16.30 ℄ 8TH ST. =
STA. 1059+19.55 ℄ RAMP 4 (8TH ST.)
Δ = 57° 07' 45.28"
STA. 140+79.47 ℄ 8TH ST. =
STA. 1058+36.65 ℄ RAMP 3 (8TH ST.)
Δ = 63° 38' 30.12"
135+00
PROP. R.O.W. & C.A.
CONST. LIMITS
℄ RAMP 3 (8TH STREET)
140+00
(2) RII-2 (48" X 30")
8' BARR. TYP. III RT.
8' BARR. TYP. III LT.
ROAD CLOSED
1060+00
1060+29.09
S 88° 02' 21.43" E
CONST. LIMITS
PROP. R.O.W. & C.A.
1055+00
1055+59.15
℄ RAMP 3 (62/102)
℄ RAMP 4 (8TH STREET)
℄ INTERSTATE 49
1053+91.42
1054+39.86
PAVED PARKING
N 28° 19' 08" E
N 42° 16' 54.49" E
N 34° 49' 53.29" E
I-49 SBL
I-49 NBL
1086+11.22

LEGEND

- WORK AREA
- TRAFFIC FLOW
- TRAFFIC DRUM
- TYPE III BARRICADE

SEQUENCE OF TRAFFIC NOTES

STAGE 1:
INSTALL ADVANCE WARNING SIGNS AS SHOWN IN THE ADVANCE WARNING DETAIL AND STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKING AND PRECAST CONCRETE BARRIERS AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT 8TH STREET & RAMPS 1, 2, 3, AND 4 FOR 8TH STREET.
CONSTRUCT RAMP 3 FOR HWY. 62/102 FROM STA. 1041+00 TO STA. 1065+56.78.
CONSTRUCT RAMP 2 FOR HWY. 62/102 FROM STA. 1042+00 TO 1066+06.54.

STAGE 1
MAINTENANCE OF TRAFFIC DETAILS
8TH STREET STA. 126+00.00 TO STA. 141+00.00

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				6	ARK.			
				JOB NO.		090376	60	555

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

SEE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS FOR ADVANCE WARNING SIGNS (INTERSECTION OF MOBERLY LN. AND HWY. 62/102)

SEE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS FOR ADVANCE WARNING SIGNS (INTERSECTION OF MOBERLY LN. AND 8TH STREET)

STA. 1032+47.37
BEGIN JOB 090576

ROAD CLOSED
(1) RII-2 (48" X 30")
8' BARR. TYP. IIIRT.
8' BARR. TYP. IIILT.

SEE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS FOR ADVANCE WARNING SIGNS - (RAMP 3 OF 8TH STREET)

SEE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS FOR ADVANCE WARNING SIGNS - (HWY. 62/102 WB)

DETOUR
ROAD CLOSED
(2) RII-2 (48" X 30")
(2) M4-9L (30" X 24")
8' BARR. TYP. IIIRT.
8' BARR. TYP. IIILT.

SEE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS FOR ADVANCE WARNING SIGNS - (I-49 SBL)

STA. 1086+03.40
END JOB 090576

SEQUENCE OF TRAFFIC NOTES

STAGE 2:
INSTALL DETOUR SIGNS AND ADVANCE WARNING SIGNS AS SHOWN IN THE ADVANCE WARNING DETAIL AND THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

RELOCATE THE PRECAST CONCRETE BARRIERS AND REMOVE CONFLICTING CONSTRUCTION PAVEMENT MARKINGS. INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT AUX. LANES ALONG I-49.
CONSTRUCT REMAINING SECTION OF RAMPS 2 AND 3 HWY. 62/102 AND TIE INTO EXISTING.
CONSTRUCT NORTHERN SECTION OF HWY. 62/102.

STAGE 2
DETOUR MAP
MAINTENANCE OF TRAFFIC DETAILS

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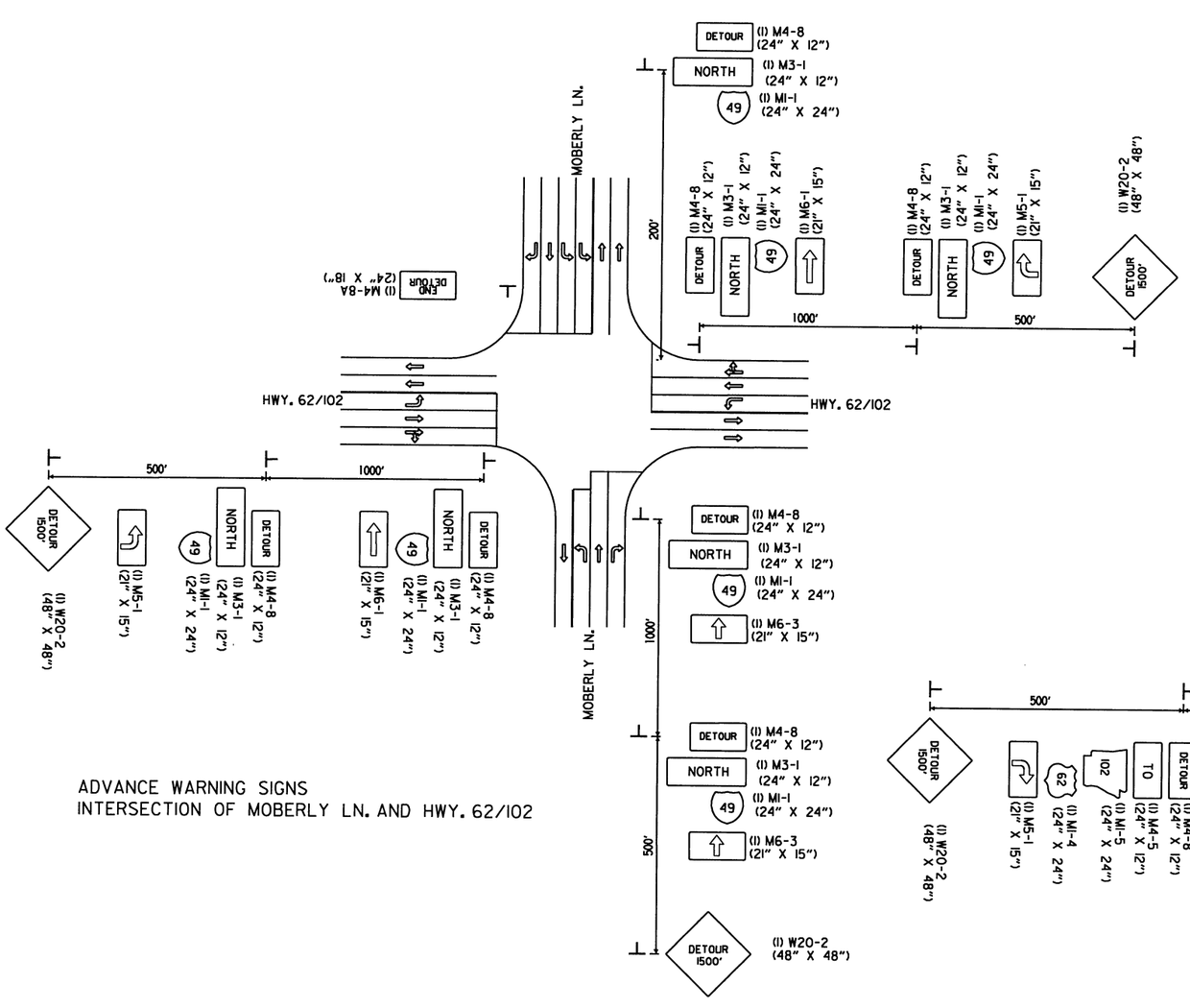
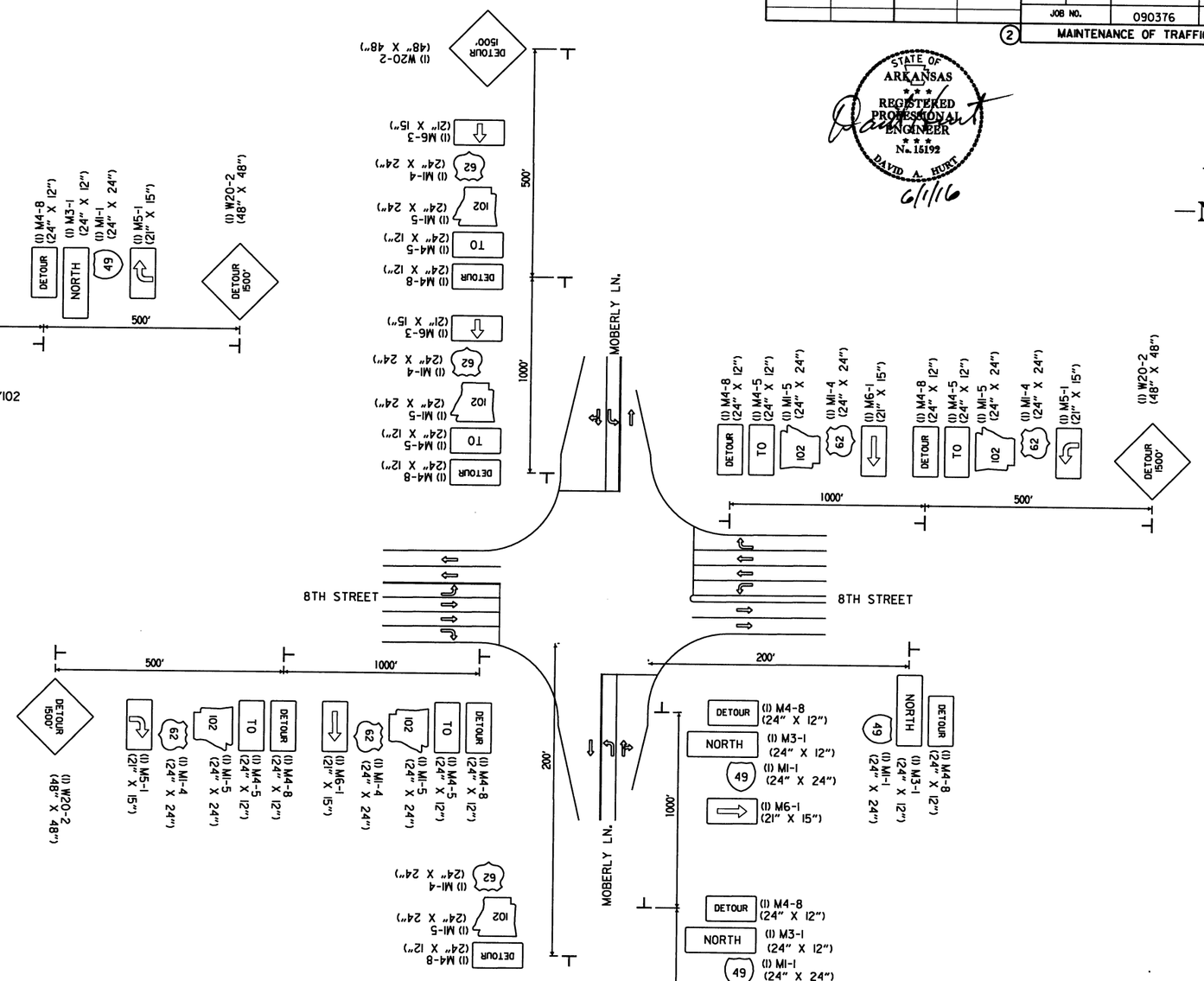
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	61	555

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



ADVANCE WARNING SIGNS
INTERSECTION OF MOBERLY LN. AND HWY. 62/102



ADVANCE WARNING SIGNS
INTERSECTION OF MOBERLY LN. AND 8TH STREET

SEQUENCE OF TRAFFIC NOTES

STAGE 2:
INSTALL DETOUR SIGNS AND ADVANCE WARNING SIGNS AS SHOWN IN THE ADVANCE WARNING DETAIL AND THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

RELOCATE THE PRECAST CONCRETE BARRIERS AND REMOVE CONFLICTING CONSTRUCTION PAVEMENT MARKINGS. INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT AUX. LANES ALONG I-49.
CONSTRUCT REMAINING SECTION OF RAMPS 2 AND 3 HWY. 62/102 AND TIE INTO EXISTING.
CONSTRUCT NORTHERN SECTION OF HWY. 62/102.

STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

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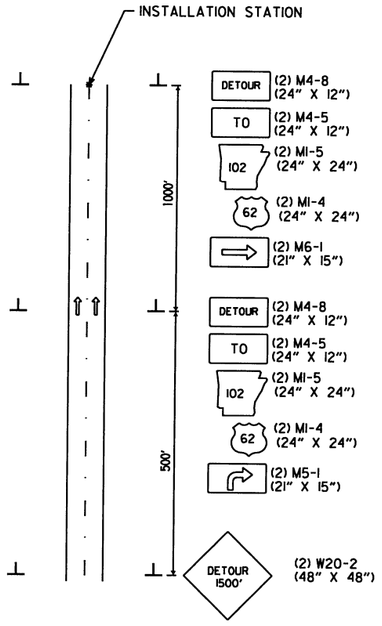
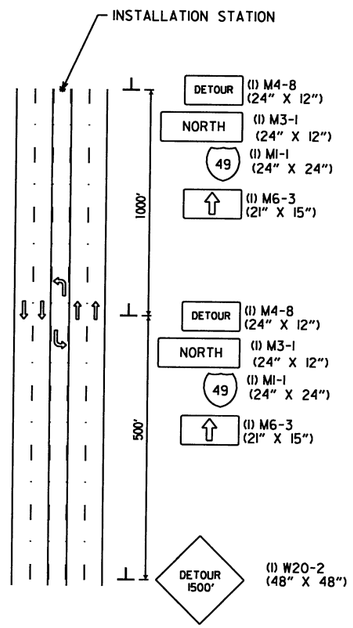
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	62	555

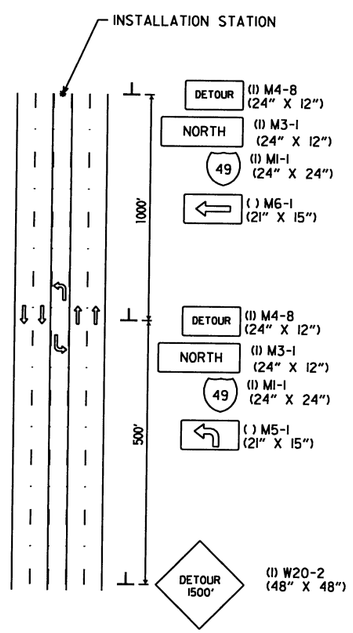
(2) MAINTENANCE OF TRAFFIC DETAILS



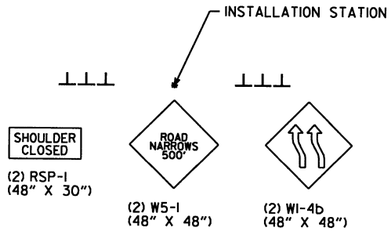
ADVANCE WARNING SIGNS
I-49 SBL - STA. 1076+00.00
RAMP 3 (8TH STREET) - STA. 1059+42.00



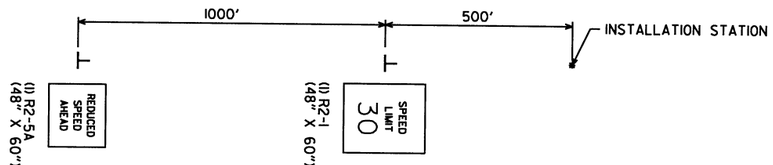
ADVANCE WARNING SIGNS
HWY. 62/102 WB- STA. 28+00.00



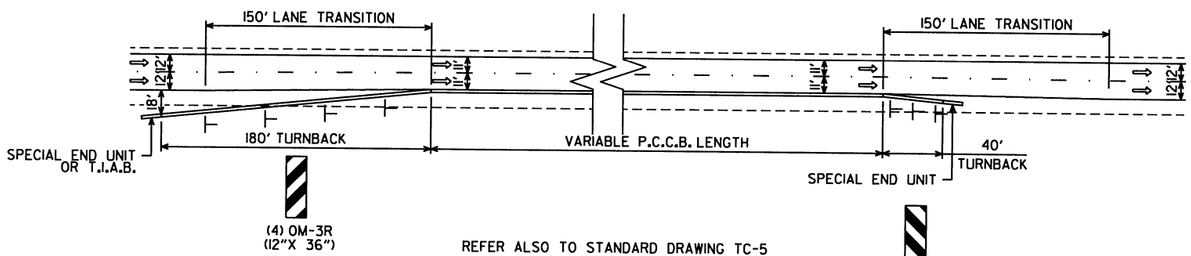
ADVANCE WARNING SIGNS
HWY. 62/102 EB - WEST OF MOBERLY LN.



ADVANCE WARNING SIGNS
I-49 NBL - STA. 1024+00.00
I-49 SBL - STA. 1049+75.00



ADVANCE WARNING SIGNS
(STAGE 2 AND 3)
HWY. 62/102 - STA. 9+00.00 AND 29+00.00



REFER ALSO TO STANDARD DRAWING TC-5
FOR DETAILS OF PLACEMENT OF P.C.C.B. TURNBACKS.

DETAILS OF OBJECT MARKERS AT
PRECAST CONCRETE BARRIER TURNBACKS

SEQUENCE OF TRAFFIC NOTES

STAGE 2:
INSTALL DETOUR SIGNS AND ADVANCE WARNING SIGNS AS SHOWN IN THE ADVANCE WARNING DETAIL AND THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

RELOCATE THE PRECAST CONCRETE BARRIERS AND REMOVE CONFLICTING CONSTRUCTION PAVEMENT MARKINGS. INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT AUX. LANES ALONG I-49.
CONSTRUCT REMAINING SECTION OF RAMPS 2 AND 3 HWY. 62/102 AND TIE INTO EXISTING.
CONSTRUCT NORTHERN SECTION OF HWY. 62/102.
CONSTRUCT WB RIGHT TURN LANE ON HWY. 62/102 ONTO RAMP 2 HWY. 62/102.

STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	63	555

MAINTENANCE OF TRAFFIC DETAILS (2)

LEGEND

- WORK AREA
- PAVEMENT REMOVAL
- TRAFFIC FLOW
- TRAFFIC DRUM
- TYPE III BARRICADE

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

SEQUENCE OF TRAFFIC NOTES

STAGE 2:
INSTALL DETOUR SIGNS AND ADVANCE WARNING SIGNS AS SHOWN IN THE ADVANCE WARNING DETAIL AND THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

RELOCATE THE PRECAST CONCRETE BARRIERS AND REMOVE CONFLICTING CONSTRUCTION PAVEMENT MARKINGS. INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT AUX. LANES ALONG I-49.
CONSTRUCT REMAINING SECTION OF RAMPS 2 AND 3 HWY. 62/102 AND TIE INTO EXISTING.
CONSTRUCT NORTHERN SECTION OF HWY. 62/102.
CONSTRUCT WB RIGHT TURN LANE ON HWY. 62/102 ONTO RAMP 2 HWY. 62/102.

℄ HWY. 62/102
EXIST. R/W
ROAD CLOSED
SIGN
(1) RII-2 (48" X 30")
8' BARR. TYP. IRT. 8' BARR. TYP. IILT.
PC 1031+38.84
PI 1032+45.41
℄ RAMP 3 (62/102)
PARKING
N 17° 47' 16.29" E
PT 1033+51.36
PC 1034+41.36
N 38° 37' 49.59" E
EXIST. R/W
CONST. LIMITS
1040+00
SIGN
℄ EX. RAMP 3 (62/102)
PT 1039+05.58
N 10° 14' 46.29" E
1035+00
1030+00
PI 1028+33.03
PT 1029+79.86
PC 1026+89.03
N 2° 47' 16.29" E
℄ RAMP 4 (62/102)
N 11° 45' 13.71" W
STA. 1031+14.14 ℄ RAMP 4 (62/102) =
STA. 17+00.00 ℄ HWY. 62/102
Δ = 90° 00' 00.00"
STA. 1029+79.54 ℄ RAMP 3 (62/102) =
STA. 17+00.00 ℄ HWY. 62/102
Δ = 75° 00' 00.00"
5 - 10.75' LANES
STA. 1031+18.39 ℄ I-49 =
STA. 20+00.00 ℄ HWY. 102/62
Δ = 82° 32' 30.00"
STA. 1032+47.37
BEGIN JOB 090376
4" WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING
150' LANE TAPER
52' P.C.C.B. TAPER
S 87° 12' 43.71" E
1666' P.C.C.B.
INCLUDES (2) SPECIAL END UNITS
PI 1038+80.38
I-49 SBL
℄ INTERSTATE 49
4" WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING
N 10° 14' 46.29" E
5 TRAFFIC DRUMS @ 25' O.C.
5 TRAFFIC DRUMS @ 25' O.C.
12'-12'
4" YELLOW REMOVABLE CONSTRUCTION PAVEMENT MARKING
I-49 NBL
PI 1040+10.41
100' SHLD. TRANS.
150' LANE TAPER
193' P.C.C.B. TAPER
1786' P.C.C.B.
INCLUDES (2) SPECIAL END UNITS
4" SKIP WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING
4" WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING
(1) R3-2L (24" X 24")
N 31° 47' 16.29" E
STA. 1030+86.72 ℄ RAMP 1 (62/102) =
STA. 23+00.00 ℄ HWY. 62/102
Δ = 75° 00' 00.00"
STA. 1031+68.67 ℄ RAMP 2 (62/102) =
STA. 23+00.00 ℄ HWY. 62/102
Δ = 90° 00' 00.00"
℄ EX. RAMP 2 (62/102)
N 5° 45' 13.71" W
PC 1038+08.80
CONST. LIMITS
PT 1026+57.15
PC 1027+41.69
PI 1028+82.40
PT 1030+21.69
℄ RAMP 1 (62/102)
EXIST. R/W
PC 1033+21.70
PI 1034+64.33
℄ RAMP 2 (62/102)
PT 1036+06.43
ROAD CLOSED
DETOUR
ROAD CLOSED
EXIST. R/W
(1) RII-2 (48" X 30")
8' BARR. TYP. IIIRT. 8' BARR. TYP. IIILT.
(2) M4-9L (30" X 24")
(2) RII-2 (48" X 30")
(1) R3-2R (24" X 24")
8' BARR. TYP. IIIRT. 8' BARR. TYP. IIILT.
25+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (I-49 SB)
STA. 1028+60 TO 1041+00 = 1700 LIN. FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (I-49 NB)
STA. 1029+50 TO 1041+00 = 1474 LIN. FT.

REMOVAL OF PERMANENT PAVEMENT MARKINGS
STAGE 2 = 4,240 LIN. FT.

2 - 10.75' LANES

STAGE 2
MAINTENANCE OF TRAFFIC DETAILS
STA. 1026+00.00 TO STA. 1041+00.00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	64	555

(2) MAINTENANCE OF TRAFFIC DETAILS

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (I-49 SB)
STA. 1041+00 TO STA. 1047+25 = 940 LIN. FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (I-49 NB)
STA. 1041+00 TO STA. 1045+50 = 563 LIN. FT.

STATE OF ARKANSAS
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No. 15192
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1045+00 1050+00 1055+00

BILLBOARD 2-SIDED

EXIST. R/W

NOSE
℄ I-49 STA. 1047+60.51, 57.84' LT. =
℄ RAMP 4 (8TH ST.) STA. 1047+60.07, 7.50' RT.

8" WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING

4" WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING

℄ RAMP 3 (62/102)

CONST. LIMITS
PROP. R.O.W. & C.A.

PAVED PARKING

PC 1050+70.27

PI 1052+59.28

PI 1053+87.42

N 10° 14' 46.29" E

1653' P.C.C.B. INCLUDES (1) SPECIAL END UNITS

300' TRANSITION

20' P.C.C.B. TAPER WITH T.I.A.B.

PT 1048+05.97

N 4° 01' 45.43" E

PC 1045+98.74

180' ACCEL. LANE

5 TRAFFIC DRUMS @ 25' O.C.

3 TRAFFIC DRUMS @ 50' O.C.

PC 1049+43.62

℄ RAMP 4 (8TH STREET)

8" DOTTED WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING

150' LANE TAPER

N 10° 14' 46.29" E

PI 1047+02.45

PC 1047+91.71

I-49 SBL

PI 1052+07.48

℄ INTERSTATE 49

50' LANE TAPER

N 10° 14' 46.29" E

I-49 NBL

PI 1051+00.56

PI 1051+18.11

PC 1046+98.90

N 10° 14' 46.29" E

PT 1055+59.56

N 34° 49' 53.29" E

PT 1042+08.80

4" SKIP WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING

PC 1047+82.40

1786' P.C.C.B. INCLUDES (2) SPECTAL END UNITS

℄ RAMP 2 (62/102)

EXIST. R/W

NOSE
℄ I-49 STA. 1051+32.31, 74.80' RT. =
℄ RAMP 1 (8TH ST.) STA. 1051+19.79, 12.00' LT.

℄ RAMP 1 (8TH STREET)

PT 1056+11.22

CONST. LIMITS
PROP. R.O.W. & C.A.

N 41° 34' 28.81" E

N 45° 58' 16.47" E

PT 1054+31.92

PT 1054+82.14

PT 1055+33.25

PC 1056+59.74

PI 1057+19.47

APPROX LT. = 36°
LG. = 94'

LEGEND

- WORK AREA
- PAVEMENT REMOVAL
- TRAFFIC FLOW
- TRAFFIC DRUM
- TYPE III BARRICADE

SEQUENCE OF TRAFFIC NOTES

STAGE 2:
INSTALL DETOUR SIGNS AND ADVANCE WARNING SIGNS AS SHOWN IN THE ADVANCE WARNING DETAIL AND THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

RELOCATE THE PRECAST CONCRETE BARRIERS AND REMOVE CONFLICTING CONSTRUCTION PAVEMENT MARKINGS. INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT AUX. LANES ALONG I-49.
CONSTRUCT REMAINING SECTION OF RAMPS 2 AND 3 HWY. 62/102 AND TIE INTO EXISTING.
CONSTRUCT NORTHERN SECTION OF HWY. 62/102.
CONSTRUCT WB RIGHT TURN LANE ON HWY. 62/102 ONTO RAMP 2 HWY. 62/102.

STAGE 2
MAINTENANCE OF TRAFFIC DETAILS
STA. 1041+00.00 TO STA. 1056+00.00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	65	555

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

DETOUR
(1) M4-8 (24" X 12")
(1) MI-5 (MODIFIED) (24" X 24")
(1) MI-4 (24" X 24")
102
62

STA. 140+79.47 ℄ 8TH ST. =
STA. 1058+36.65 ℄ RAMP 3 (8TH ST.)
Δ = 63° 38' 30.12"

STA. 141+16.30 ℄ 8TH ST. =
STA. 1059+19.55 ℄ RAMP 4 (8TH ST.)
Δ = 57° 07' 45.28"

(1) RII-2 (48" X 30")
8' BARR. TYP. IIIRT.
8' BARR. TYP. IIILT.
ROAD CLOSED
CONST. LIMITS
PROP. R.O.W. & C.A.
EXIST. R/W
℄ RAMP 3 (8TH STREET)
℄ RAMP 3 (62/102)
℄ RAMP 2 (62/102)
℄ RAMP 1 (8TH STREET)
℄ RAMP 2 (8TH STREET)
℄ 8TH ST.
℄ INTERSTATE 49
16 TRAFFIC DRUMS @ 60' O.C.
SIGN

S 88° 02' 24.43" E
N 28° 19' 08.45" E
N 42° 36' 54.49" E
N 34° 49' 53.29" E
N 39° 35' 34.10" E
N 33° 26' 05.15" E
N 29° 29' 58.64" E

PC 1060+62.50
PI 1061+56.59
PT 1063+97.44
PC 1065+30.72
PT 1067+58.59
PC 1062+97.32
PI 1064+27.25
PI 1066+44.69
PT 1065+56.78
PI 1063+84.29
PT 1066+17.56
PC 1062+87.06
PI 1063+85.48
PT 1064+33.82
PC 1072+19.92
PI 1057+19.47
PT 1058+46.87
PT 1058+97.62
PC 1148+11.24

NOSE
℄ I-49 STA. 1062+52.32, 74.79' LT. =
℄ RAMP 3 (HWY. 62/102) STA. 1062+52.12, 7.50' RT.

NOSE
℄ I-49 STA. 1064+77.66, 57.81' RT. =
℄ RAMP 2 (HWY. 62/102) STA. 1064+78.16, 7.50' LT.

NOSE
℄ I-49 STA. 1072+57.52, 74.86' LT. =
℄ RAMP 3 (8TH ST.) STA. 1072+57.29, 7.50' RT.

STA. 1059+47.95 ℄ I-49 =
STA. 142+68.89 ℄ 8TH ST.
Δ = 57° 07' 45.28"

STA. 144+21.36 ℄ 8TH ST. =
STA. 1059+98.08 ℄ RAMP 1 (8TH ST.)
Δ = 66° 57' 24.06"

STA. 144+79.75 ℄ 8TH ST. =
STA. 1060+57.41 ℄ RAMP 2 (8TH ST.)
Δ = 58° 31' 33.42"

(1) RII-2 (48" X 30") TO REMAIN
8' BARR. TYP. IIIRT.
8' BARR. TYP. IIILT.
ROAD CLOSED

I-49 SBL
I-49 NBL

LEGEND

- WORK AREA
- PAVEMENT REMOVAL
- TRAFFIC FLOW
- TRAFFIC DRUM
- TYPE III BARRICADE

SEQUENCE OF TRAFFIC NOTES

STAGE 2:
INSTALL DETOUR SIGNS AND ADVANCE WARNING SIGNS AS SHOWN IN THE ADVANCE WARNING DETAIL AND THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

RELOCATE THE PRECAST CONCRETE BARRIERS AND REMOVE CONFLICTING CONSTRUCTION PAVEMENT MARKINGS. INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT AUX. LANES ALONG I-49.
CONSTRUCT REMAINING SECTION OF RAMPS 2 AND 3 HWY. 62/102 AND TIE INTO EXISTING.
CONSTRUCT NORTHERN SECTION OF HWY. 62/102.
CONSTRUCT WB RIGHT TURN LANE ON HWY. 62/102 ONTO RAMP 2 HWY. 62/102.

STAGE 2
MAINTENANCE OF TRAFFIC DETAILS
STA. 1041+00.00 TO STA. 1056+00.00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	66	555

(2) MAINTENANCE OF TRAFFIC DETAILS

LEGEND

- WORK AREA
- PAVEMENT REMOVAL
- TRAFFIC FLOW
- TRAFFIC DRUM
- TYPE III BARRICADE

SEQUENCE OF TRAFFIC NOTES

STAGE 2:
INSTALL DETOUR SIGNS AND ADVANCE WARNING SIGNS AS SHOWN IN THE ADVANCE WARNING DETAIL AND THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

RELOCATE THE PRECAST CONCRETE BARRIERS AND REMOVE CONFLICTING CONSTRUCTION PAVEMENT MARKINGS. INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT AUX. LANES ALONG I-49.
CONSTRUCT REMAINING SECTION OF RAMPS 2 AND 3 HWY. 62/102 AND TIE INTO EXISTING.
CONSTRUCT NORTHERN SECTION OF HWY. 62/102.
CONSTRUCT WB RIGHT TURN LANE ON HWY. 62/102 ONTO RAMP 2 HWY. 62/102.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (HWY. 62/102)
STA. 17+60 TO STA. 28+00 = 4844 LIN. FT.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
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6/1/16

PAVED PARKING
EXIST. R/W
CONST. LIMITS
STA. 1029+79.54 ℄ RAMP 3 (62/102) =
STA. 17+00.00 ℄ HWY. 62/102
Δ = 75° 00' 00.00"
PC 1034+51.36
PT 1033+51.36
PI 1032+85.41
N 28° 24' 49.59" E
℄ RAMP 3 (62/102)
2 @ 11'
1035+00
1030+00
1025+00
1020+00
1015+00
SIGN
I-49 SBL
I-49 NBL
N 17° 47' 16.29" E
PC 1033+36.84
ROAD CLOSED
(1) R11-2 (48" X 30")
8' BARR. TYP. III RT.
8' BARR. TYP. III LT.
420' LANE TAPER
5 - 10.75' LANES
S 87° 12' 43.71" E
℄ HWY. 62/102
EXIST. R/W
PT 1029+79.86
STA. 1031+14.14 ℄ RAMP 4 (62/102) =
STA. 17+00.00 ℄ HWY. 62/102
Δ = 90° 00' 00.00"
PI 1028+35.23
℄ RAMP 4 (62/102)
4" DOUBLE YELLOW REMOVABLE CONSTRUCTION PAVEMENT MARKING
4" SKIP WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING
STA. 1031+18.39 ℄ I-49 =
STA. 20+00.00 ℄ HWY. 62/102
Δ = 82° 32' 30.00"
℄ INTERSTATE 49
N 10° 14' 46.29" E
2 @ 12'
STA. 1031+68.67 ℄ RAMP 2 (62/102) =
STA. 23+00.00 ℄ HWY. 62/102
Δ = 90° 00' 00.00"
4" YELLOW REMOVABLE CONSTRUCTION PAVEMENT MARKING
38 TRAFFIC DRUMS @ 30' O.C.
(1) R3-2L (24" X 24")
PC 1033+21.70
PI 1034+64.33
PT 1036+06.43
EXIST. R/W
℄ EX. RAMP 2 (62/102)
ROAD CLOSED
DETOUR
(2) M4-9L (30" X 24")
(2) R11-2 (48" X 30")
(1) R11-2 (48" X 30")
8' BARR. TYP. III RT.
8' BARR. TYP. III LT.
(2) R3-2R (24" X 24")
2 - 10.75' LANES
50' LANE TAPER
2 - 12.00' LANES
STA. 1031+86.72 ℄ RAMP 1 (62/102) =
STA. 23+00.00 ℄ HWY. 62/102
Δ = 75° 00' 00.00"
PI 1030+69.72
EXIST. R/W
℄ RAMP 1 (62/102)
PI 1028+82.40
4" YELLOW REMOVABLE CONSTRUCTION PAVEMENT MARKING
4" SKIP WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING
4" DOUBLE YELLOW REMOVABLE CONSTRUCTION PAVEMENT MARKING
30+00
N

STAGE 2
MAINTENANCE OF TRAFFIC DETAILS
STA. 30+00.00 TO STA. 15+00.00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	67	555

(2) MAINTENANCE OF TRAFFIC DETAILS

LEGEND

- WORK AREA
- PAVEMENT REMOVAL
- TRAFFIC FLOW
- TRAFFIC DRUM
- TYPE III BARRICADE

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (RAMP 1 HWY. 62/102)
STA. 1026+40 TO STA. 1031+40 = 1522 LIN. FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (HWY. 62/102)
STA. 17+30 TO STA. 22+26 = 1748 LIN. FT.

REMOVAL OF PERMANENT PAVEMENT MARKINGS
STAGE 3 = 1,650 LIN. FT.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEERS
No. 15192
DAVID A. HURT
6/1/16

CONCRETE PARKING
PAVED PARKING
CANOPY
PHILLIPS 66
McDONALD'S
B
VACANT
C
HANK'S FURNITURE
PARKING
DROP INLET
SIGN
TRAFFIC LIGHT
BILLBOARD
PAVED DRAIN
EXIST. R/W
CONST. LIMITS
℄ RAMP 4 (62/102)
℄ RAMP 3 (62/102)
℄ RAMP 1 (62/102)
℄ RAMP 2 (62/102)
℄ HWY. 62/102
℄ INTERSTATE 49
1-49 SBL
1-49 NBL
5 - 11.5' LANES
3 - 10.75' LANES
12' 12'
15'
1025+00
1030+00
1035+00
15+00
20+00
PI 1028+33.23
PT 1029+79.86
PC 1026+89.05
PT 1025+17.26
PC 1025+00.00
PI 1025+00.00
PI 1024+89.84
PC 1023+40.49
PT 1033+51.36
PC 1034+54.36
PI 1032+45.41
PC 1031+38.84
PT 1036+06.43
PI 1034+64.33
PC 1033+21.70
PT 1030+82.69
PC 1027+41.69
PT 1026+57.15
POT 1031+68.67
N 2° 47' 16.29" E
N 17° 47' 16.29" E
N 28° 24' 49.59" E
N 5° 45' 13.71" W
N 10° 14' 46.29" E
N 15° 57' 16.29" E
N 31° 47' 16.29" E
STA. 1029+79.54 ℄ RAMP 3 (62/102) =
STA. 17+00.00 ℄ HWY. 62/102
Δ = 75° 00' 00.00"
STA. 1031+14.14 ℄ RAMP 4 (62/102) =
STA. 17+00.00 ℄ HWY. 62/102
Δ = 90° 00' 00.00"
STA. 1031+18.39 ℄ I-49 =
STA. 20+00.00 ℄ HWY. 62/102
Δ = 82° 32' 30.00"
STA. 1031+86.72 ℄ RAMP 1 (62/102) =
STA. 23+00.00 ℄ HWY. 62/102
Δ = 75° 00' 00.00"
STA. 1031+68.67 ℄ RAMP 2 (62/102) =
STA. 23+00.00 ℄ HWY. 62/102
Δ = 90° 00' 00.00"
STA. 1032+47.37 SIGN
BEGIN JOB 090376
(2) G20-2 (48" X 24")
(2) W20-1 (48" X 48")
ROAD WORK AHEAD
END ROAD WORK
4" DOUBLE YELLOW REMOVABLE CONSTRUCTION PAVEMENT MARKING
4" WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING
4" YELLOW REMOVABLE CONSTRUCTION PAVEMENT MARKING
4" SKIP YELLOW REMOVABLE CONSTRUCTION PAVEMENT MARKING
4" SKIP WHITE REMOVABLE CONSTRUCTION PAVEMENT MARKING
4" DOUBLE YELLOW REMOVABLE CONSTRUCTION PAVEMENT MARKING
41 TRAFFIC DRUMS @ 30' O.C.

SEQUENCE OF TRAFFIC NOTES

STAGE 3:
REMOVE I-49 ADVANCE WARNING SIGNS, PRECAST CONCRETE BARRIERS, CONFLICTING CONSTRUCTION PAVEMENT MARKINGS, AND THE DETOUR SIGNS. RETAIN ADVANCE WARNING SIGNS INSTALLED ON HWY. 62/102 DURING STAGE 2. INSTALL ADVANCE WARNING SIGNS AS SHOWN IN STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.

CONSTRUCT SOUTHERN SECTION OF HWY. 62/102.
CONSTRUCT WIDENING ON RAMP 1 (62/102).

STAGE 3
MAINTENANCE OF TRAFFIC DETAILS
STA. 1022+00.00 TO STA. 1037+00.00

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8TH ST. PERMANENT PAVEMENT MARKING DETAIL QUANTITIES

THERMOPLASTIC PAVEMENT MARKING WHITE (4") = 4,953 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING YELLOW (4") = 413 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE (8") = 672 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE (12") = 1,322 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING (WORDS) = 27 EACH
THERMOPLASTIC PAVEMENT MARKING (ARROW) = 33 EACH
REFLECTORIZED PAINT PAVEMENT MARKING WHITE (8") = 466 LIN. FT.
HIGH PERFORMANCE CONTRAST PAVEMENT MARKING WHITE (4") = 572 LIN. FT.
HIGH PERFORMANCE CONTRAST PAVEMENT MARKING YELLOW (4") = 327 LIN. FT.
RAISED PAVEMENT MARKERS (TYPE II)(WHITE/RED) (80' O.C.) = 58 EACH

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	68	555

(2) PERMANENT PAVEMENT MARKING DETAILS

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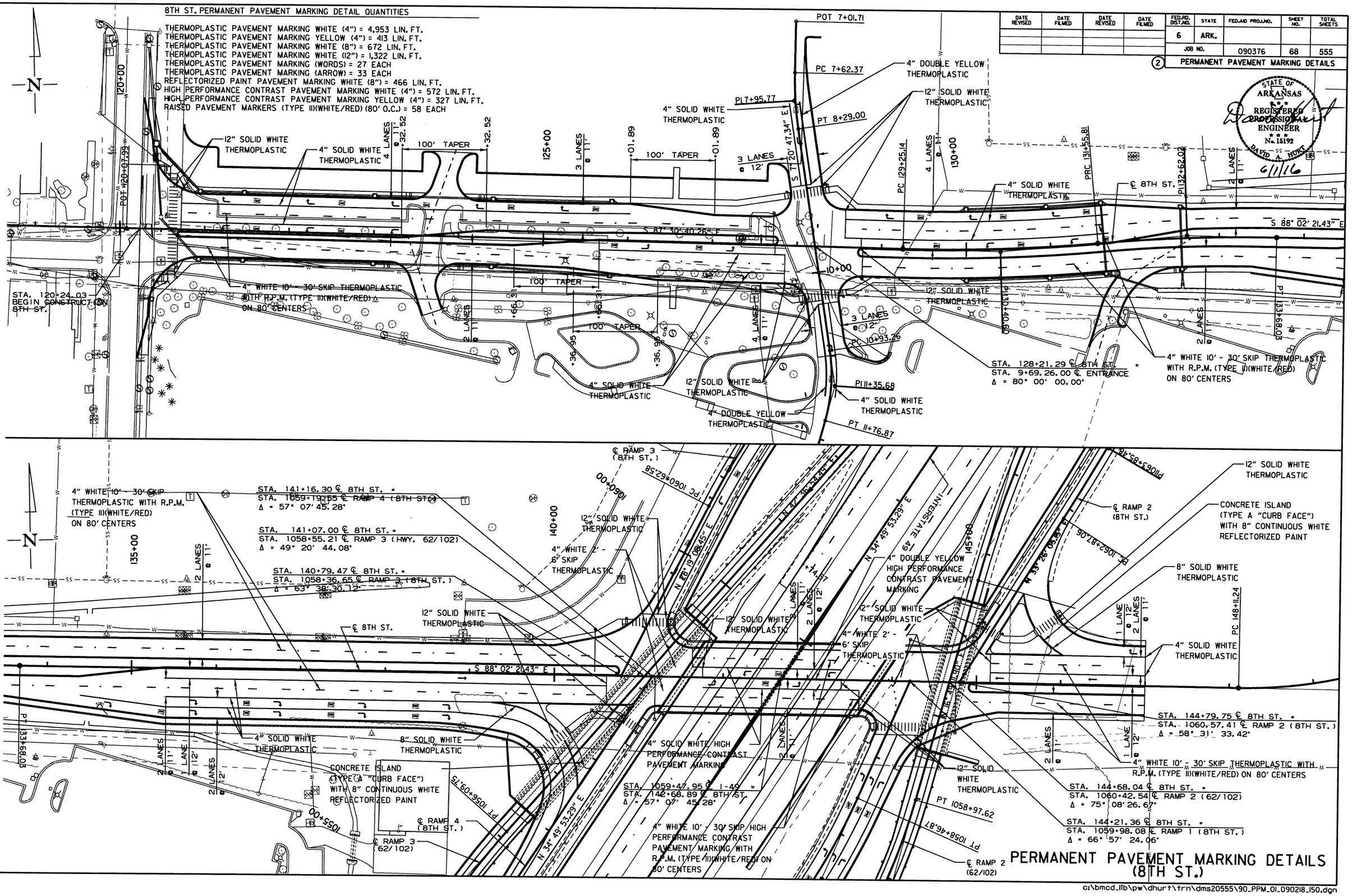
No. 15192
DAVID A. HURST
6/11/16



PERMANENT PAVEMENT MARKING DETAILS (8TH ST.)

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	69	555

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HURT
6/1/16

SEE FOLLOWING SHEET FOR PERMANENT PAVEMENT MARKING QUANTITIES FOR HWY. 62/102 RAMP 2 & 3 AND INTERSTATE 49.

STA. 1032+47.37
BEGIN JOB 090376

STA. 17+40.48
BEGIN CONSTRUCTION
HWY. 102

STA. 1029+79.54 ℄ RAMP 3 =
STA. 17+00.00 ℄ HWY. 62/102
Δ = 75° 00' 00"

STA. 1031+14.14 ℄ RAMP 4 =
STA. 17+00.00 ℄ HWY. 62/102
Δ = 90° 00' 00"

STA. 1031+18.39 ℄ I-49 =
STA. 20+00.00 ℄ HWY. 62/102
Δ = 82° 32' 30"

STA. 1031+68.67 ℄ RAMP 2 =
STA. 23+00.00 ℄ HWY. 62/102
Δ = 90° 00' 00"

STA. 1031+86.72 ℄ RAMP 1 =
STA. 23+00.00 ℄ HWY. 62/102
Δ = 75° 00' 00"

STA. 26+24.52
END CONSTR.
HWY. 102

CONCRETE ISLAND INSET

INTERSECTION PAVEMENT MARKINGS DETIAL

HWY. 62/102 PERMANENT PAVEMENT MARKING DETAIL QUANTITIES

THERMOPLASTIC PAVEMENT MARKING WHITE (4") = 1,697 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING YELLOW (4") = 2,273 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE (8") = 128 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING YELLOW (8") = 120 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING WHITE (12") = 956 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING (WORD "ONLY") 8 EACH
THERMOPLASTIC PAVEMENT MARKING (ARROW) = 11 EACH
REFLECTORIZED PAINT PAVEMENT MARKING WHITE (8") = 86 LIN. FT.
RAISED PAVEMENT MARKERS (TYPE II) (RED/WHITE) = 23 EACH
RAISED PAVEMENT MARKERS (TYPE II) (YELLOW/YELLOW) = 7 EACH

HWY. 62/102 RAMP 1 PERMANENT PAVEMENT MARKING DETAIL QUANTITIES

HIGH PERFORMANCE PAVEMENT MARKING WHITE (4") = 1,189 LIN. FT.
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4") = 429 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING (ARROW) = 8 EACH
THERMOPLASTIC PAVEMENT MARKING (WORD "ONLY") = 8 EACH

PERMANENT PAVEMENT MARKING DETAILS (HIGHWAY 62/102)

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	70	555
				(2) PERMANENT PAVEMENT MARKING DETAILS				

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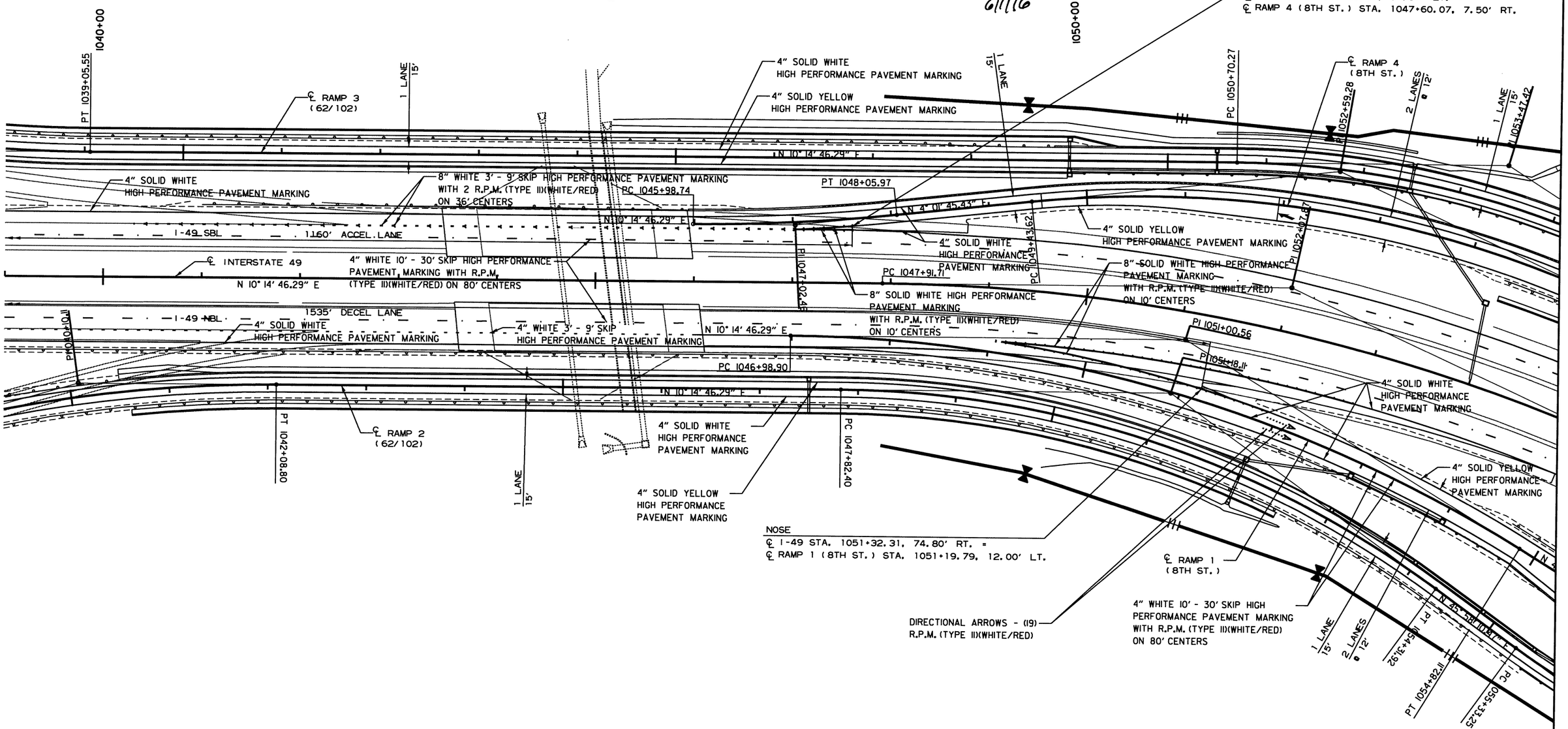
HWY. 62/102 RAMP 3 PERMANENT PAVEMENT MARKING DETAIL QUANTITIES

HIGH PERFORMANCE PAVEMENT MARKING WHITE (4") = 4,525 LIN. FT.
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4") = 3,090 LIN. FT.
RAISED PAVEMENT MARKERS (TYPE II) (RED/WHITE) = 19 EA. (ARROW)
THERMOPLASTIC PAVEMENT MARKING (ARROW) = 10 EA.
THERMOPLASTIC PAVEMENT MARKING (WORD "ONLY") = 10 EA.



HWY. 62/102 RAMP 2 PERMANENT PAVEMENT MARKING DETAIL QUANTITIES

HIGH PERFORMANCE PAVEMENT MARKING WHITE (4") = 2,874 LIN. FT.
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4") = 2,883 LIN. FT.

INTERSTATE 49 PERMANENT PAVEMENT MARKING DETAIL QUANTITIES

HIGH PERFORMANCE PAVEMENT MARKING WHITE (4") = 16,007 LIN. FT.
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4") = 600 LIN. FT.
HIGH PERFORMANCE PAVEMENT MARKING WHITE (8") = 2,727 LIN. FT.
RAISED PAVEMENT MARKERS (TYPE II) (RED/WHITE) ON 10' CENTERS = 251 EA.
RAISED PAVEMENT MARKERS (TYPE II) (RED/WHITE) ON 36' CENTERS = 86 EA.
RAISED PAVEMENT MARKERS (TYPE II) (RED/WHITE) ON 80' CENTERS = 152 EA.

PERMANENT PAVEMENT MARKING DETAILS (INTERSTATE 49 & RAMPS)

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				6	ARK.			
				JOB NO.		090376	71	555

(2) PERMANENT PAVEMENT MARKING DETAILS

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STA. 140+79.47 ℄ 8TH ST. =
STA. 1058+36.65 ℄ RAMP 3 (8TH ST.)
Δ = 63° 38' 30.12"

STA. 141+07.00 ℄ 8TH ST.
STA. 1058+55.21 ℄ RAMP 3 (HWY. 62/102)
Δ = 49° 20' 44.08"

STA. 141+16.30 ℄ 8TH ST. =
STA. 1059+19.55 ℄ RAMP 4 (8TH ST.)
Δ = 57° 07' 45.28"

8TH ST. RAMP 4 PERMANENT PAVEMENT MARKING DETAIL QUANTITIES

HIGH PERFORMANCE PAVEMENT MARKING WHITE (4") = 1,201 LIN. FT.
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4") = 1,080 LIN. FT.
THERMOPLASTIC PAVEMENT MARKING (LANE REDUCTION ARROWS) = 2 EA.
RAISED PAVEMENT MARKERS (TYPE II) (RED/WHITE) ON 80' CENTERS = 2 EA.

8TH ST. RAMP 1 PERMANENT PAVEMENT MARKING DETAIL QUANTITIES

HIGH PERFORMANCE PAVEMENT MARKING WHITE (4") = 1,509 LIN. FT.
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4") = 719 LIN. FT.
RAISED PAVEMENT MARKERS (TYPE II) (RED/WHITE) ON 80' CENTERS = 5 EA.
RAISED PAVEMENT MARKERS (TYPE II) (RED/WHITE) (DIRECTIONAL ARROWS) = 38 EA.
THERMOPLASTIC PAVEMENT MARKING (ARROW) = 9 EA.
THERMOPLASTIC PAVEMENT MARKING (WORD "ONLY") = 9 EA.

8TH ST. RAMP 3 PERMANENT PAVEMENT MARKING DETAIL QUANTITIES

HIGH PERFORMANCE PAVEMENT MARKING WHITE (4") = 1,746 LIN. FT.
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4") = 1,294 LIN. FT.
RAISED PAVEMENT MARKERS (TYPE II) (RED/WHITE) (DIRECTIONAL ARROW) = 19 EA.
THERMOPLASTIC PAVEMENT MARKING (ARROW) = 8 EA.
THERMOPLASTIC PAVEMENT MARKING (WORD "ONLY") = 8 EA.

8TH ST. RAMP 2 PERMANENT PAVEMENT MARKING DETAIL QUANTITIES

HIGH PERFORMANCE PAVEMENT MARKING WHITE (4") = 1,394 LIN. FT.
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4") = 1,446 LIN. FT.

PERMANENT PAVEMENT MARKING DETAILS (INTERSTATE 49 & RAMPS)

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				6	ARK.			
				JOB NO.		090376	72	555

(2) PERMANENT PAVEMENT MARKING DETAILS

NOSE
℄ I-49 STA. 1072+57.52, 74.86' LT.
℄ RAMP 3 (8TH ST.) STA. 1072+57.29, 7.50' RT.

1070+00 | 1075+00 | 1080+00 | 1085+00 | 1090+00

1 LANE 15'

4" SOLID WHITE HIGH PERFORMANCE PAVEMENT MARKING
4" SOLID YELLOW HIGH PERFORMANCE PAVEMENT MARKING

N 39° 35' 34.10" E

PC 1074+25.33

℄ RAMP 3 (8TH ST.)

PT 1076+63.40

1 LANE 12'

+03.40

4" SOLID WHITE HIGH PERFORMANCE PAVEMENT MARKING

N 34° 49' 53.29" E

300' TAPER

+32.32

4" SOLID WHITE HIGH PERFORMANCE PAVEMENT MARKING

8" SOLID WHITE HIGH PERFORMANCE PAVEMENT MARKING WITH R.P.M. (TYPE II)(WHITE/RED) ON 10' CENTERS

I-49 SBL

1045' DECEL. LANE

300' TAPER

℄ INTERSTATE 49

4" WHITE 3' - 9' SKIP HIGH PERFORMANCE PAVEMENT MARKING

+57.66

4" SOLID WHITE HIGH PERFORMANCE PAVEMENT MARKING

580' ACCEL LANE

300' TAPER

+67.66

8" SOLID WHITE WITH R.P.M. (TYPE II)(WHITE/RED) ON 10' CENTERS

N 34° 49' 53.29" E

PI 1075+44.44

PI 1075+75.63

+05.99

I-49 NBL

8" WHITE 3' - 9' SKIP HIGH PERFORMANCE PAVEMENT MARKING WITH R.P.M. (TYPE II)(WHITE/RED) ON 36' CENTERS

790' ACCEL. LANE

+95.99

300' TAPER

N 34° 49' 53.29" E

N 29° 29' 58.64" E

N 29° 29' 58.64" E

℄ RAMP 2 (8TH ST.)

4" SOLID WHITE HIGH PERFORMANCE PAVEMENT MARKING

+98.83

4" SOLID YELLOW HIGH PERFORMANCE PAVEMENT MARKING

1 LANE 15'

PC 1072+19.92

PC 1074+42.24

1 LANE 12'

NOSE
℄ I-49 STA. 1076+05.99, 57.92' RT.
℄ RAMP 2 (8TH ST.) STA. 1076+05.89, 7.50' LT.

PT 1079+30.83

1095+00

STA. 1086+03.40
END JOB 090376

1085+00

4" SOLID WHITE HIGH PERFORMANCE PAVEMENT MARKING

+03.40

300' TAPER

I-49 SBL

PC 1088+85.27

℄ INTERSTATE 49

N 34° 49' 53.29" E

+95.99

300' TAPER

I-49 NBL

4" SOLID WHITE HIGH PERFORMANCE PAVEMENT MARKING

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PERMANENT PAVEMENT MARKING DETAILS (INTERSTATE 49 & RAMPS)

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	73	555

(2) SOIL LOG

SOIL LOG (BOX 1 OF 2)

BORING	STATION	LOCATION	REFERENCE BASELINE	NORTHING	EASTING	ELEVATION	DEPTH FEET	LIQUID LIMIT	PLASTICITY INDEX	AASHTO CLASSIFICATION	COLOR
BW-101	1037+96.07	-124.92	I-49	744181	670960	1333.3	13 to 15	45	25	A-7-6(12)	BR/RD/YL
BW-101	1037+96.07	-124.92	I-49	744181	670960	1333.3	15 to 16.5	72	47	A-7-6(26)	BR/RD/YL
BW-102	1038+86.57	-192.09	I-49	744282	670910	1311.8	5 to 7	40	20	A-6(12)	RD/YL
BW-102	1038+86.57	-192.09	I-49	744282	670910	1311.8	13.5 to 15	NP	NP	A-1-b(0)	BR/RD/YL
BW-103	1039+69.39	-99.34	I-49	744347	671016	1338.6	23.5 to 25	42	25	A-7-6(18)	BR/RD
BW-104	1040+56.50	-185.21	I-49	744448	670947	1312.1	2 to 3.5	47	27	A-7-6(23)	BR/GR/RD
BW-104	1040+56.50	-185.21	I-49	744448	670947	1312.1	8.5 to 10	64	37	A-7-6(27)	RD
BW-104	1040+56.50	-185.21	I-49	744448	670947	1312.1	20.5 to 22	NP	NP	A-6(3)	BR
BW-105	1041+39.77	-179.94	I-49	744529	670967	1312.7	5 to 7	37	16	A-6(13)	BR/GR/RD
BW-105	1041+39.77	-179.94	I-49	744529	670967	1312.7	7 to 8.5	34	13	A-6(3)	GR
BW-105	1041+39.77	-179.94	I-49	744529	670967	1312.7	13.5 to 15	NP	NP	A-2-4(0)	BR/GR
BW-105	1041+39.77	-179.94	I-49	744529	670967	1312.7	23.5 to 25	42	15	A-7-6(8)	BR
BW-106	1042+19.89	-79.59	I-49	744590	671080	1341.7	13 to 15	49	27	A-7-6(20)	BR/RD
BW-106	1042+19.89	-79.59	I-49	744590	671080	1341.7	33.5 to 35	32	13	A-6(11)	BR/RD
BW-201	1039+75.59	126.15	I-49	744313	671239	1337.1	8.5 to 10	71	48	A-7-6(12)	BR/RD
BW-202	1040+75.95	214.71	I-49	744396	671344	1306.7	2 to 3.5	35	17	A-2-6(1)	BR/GR
BW-202	1040+75.95	214.71	I-49	744396	671344	1306.7	8.5 to 10	79	39	A-7-5(11)	BR/RD
BW-202	1040+75.95	214.71	I-49	744396	671344	1306.7	18.5 to 20	53	14	A-2-7(1)	BR
BW-203	1041+48.96	84.65	I-49	744491	671229	1340.5	18.5 to 20	53	30	A-7-6(180	BR/GR/RD
BW-204	1042+40.57	85.37	I-49	744581	671246	1339.9	8.5 to 10	50	28	A-7-6(6)	BR/RD
BW-204	1042+40.57	85.37	I-49	744581	671246	1339.9	33.5 to 35	24	5	A-4(2)	BR/GR
BW-205	1043+35.62	195.21	I-49	744655	671371	1308.6	0.5 to 2	39	20	A-6(7)	BR/YL
BW-205	1043+35.62	195.21	I-49	744655	671371	1308.6	5 to 6.5	75	41	A-7-5(18)	BR/GR/RD
BW-205	1043+35.62	195.21	I-49	744655	671371	1308.6	13.5 to 15	55	18	A-2-7(1)	BR
BW-301	1045+78.92	-83.51	I-49	744944	671140	1342.2	8.5 to 10	62	39	A-7-6(10)	BR/GR/RD
BW-301	1045+78.92	-83.51	I-49	744944	671140	1342.2	33.5 to 35	36	15	A-6(13)	BR
BW-302	1046+54.24	-178.42	I-49	745035	671060	1314.7	0.50 to 2	31	11	A-6(9)	BR/YL
BW-302	1046+54.24	-178.42	I-49	745035	671060	1314.7	5 to 8	34	16	A-6(14)	GR/RD/YL
BW-302	1046+54.24	-178.42	I-49	745035	671060	1314.7	13.5 to 15	83	53	A-7-5(22)	BR/RD/YL
BW-303	1047+50.03	-171.35	I-49	745128	671084	1316.0	5 to 6.5	41	24	A-7-6(16)	BR
BW-304	1048+38.81	-164.37	I-49	745218	671108	1315.4	2 to 3.5	37	17	A-6 14)	BR
BW-305	1049+29.32	-157.29	I-49	745312	671137	1315.0	2 to 3.5	35	18	A-6 (20)	BR/YL
BW-305	1049+29.32	-157.29	I-49	745312	671137	1315.0	5 to 6.5	41	22	A-7-6(6)	BR/GR/YL
BW-305	1049+29.32	-157.29	I-49	745312	671137	1315.0	13.5 to 14.5	45	28	A-7-6(36)	GR,RD/YL
BW-305	1049+29.32	-157.29	I-49	745312	671137	1315.0	14.5 to 16	78	49	A-7-6(20)	BR/GR/YL
BW-307	1051+05.94	-155.11	I-49	745494	671195	1315.0	2 to 3.5	40	23	A-6(20)	BR
BW-307	1051+05.94	-155.11	I-49	745494	671195	1315.0	5 to 6.5	35	17	A-6(15)	BR/YL
BW-307	1051+05.94	-155.11	I-49	745494	671195	1315.0	13.5 to 15	56	35	A-7-6(11)	BR/RD/YL
BW-308	1051+88.46	-204.61	I-49	745596	671181	1322.0	0.5 to 2	29	11	A-6(8)	BR
BW-308	1051+88.46	-204.61	I-49	745596	671181	1322.0	5 to 6.5	34	18	A-6(16)	BR/YL
BW-309	1052+79.58	-208.19	I-49	745690	671218	1323.0	8.5 to 10	35	17	A-6(14)	BR
BW-401	1045+89.37	199.14	I-49	744904	671420	1311.8	8.5 to 10	71	34	A-7-5(23)	BR/GR/RD
BW-401	1045+89.37	199.14	I-49	744904	671420	1311.8	18.5 to 20	54	35	A-2-7(5)	BR/RD/YL
BW-402	1046+86.06	188.77	I-49	745001	671427	1312.5	0.5 to 2	28	11	A-6(8)	BR
BW-402	1046+86.06	188.77	I-49	745001	671427	1312.5	13.5 to 15	72	35	A-7-6(26)	BR/RD/YL
BW-403	1047+66.48	178.30	I-49	745082	671431	1313.2	5 to 6.5	41	22	A-7-6(20)	BR/RD
BW-404	1048+45.42	176.44	I-49	745155	671443	1314.5	2 to 3.5	28	10	A-4(8)	BR/RD
BW-405	1049+30.94	174.74	I-49	745231	671459	1314.3	3.5 to 5.5	35	17	A-6(15)	BR/YL
BW-405	1049+30.94	174.74	I-49	745231	671459	1314.3	8.5 to 10	67	36	A-2-7(5)	BR/GR/RD/YL
BW-406	1050+26.13	172.00	I-49	745315	671480	1315.2	2 to 4	37	18	A-6(16)	RD/YL
BW-406	1050+26.13	172.00	I-49	745315	671480	1315.2	5.5 to 7	37	16	A-6(10)	RD/YL
BW-406	1050+26.13	172.00	I-49	745315	671480	1315.2	18.5 to 20	59	18	A-7-5(18)	RD
BW-407	1051+15.93	164.45	I-49	745395	671499	1315.8	0.5 to 2	38	19	A-6(18)	BR/YL
BW-407	1051+15.93	164.45	I-49	745395	671499	1315.8	13.5 to 14.8	NP	NP	A-1-a(0)	BR/GR/RD
BW-408	1052+00.06	194.92	I-49	745455	671555	1317.8	2 to 3.5	42	17	A-7-6(17)	BR/RD
BW-408	1052+00.06	194.92	I-49	745455	671555	1317.8	5 to 7	44	26	A-7-6(24)	BR/RD
BW-409	1052+93.27	196.14	I-49	745531	671590	1317.8	2 to 4	36	14	A-6(14)	BR/YL
BW-409	1052+93.27	196.14	I-49	745531	671590	1317.8	13.5 to 15	67	46	A-7-6(27)	BR/RD
BW-501	1049+51.09	-84.79	I-49	745316	671213	1338.3	5 to 6.5	NP	NP	A-1-a(0)	GR
BW-501	1049+51.09	-84.79	I-49	745316	671213	1338.3	18.5 to 20	39	21	A-6(14)	BR/RD/YL
BW-502	1050+29.25	-83.50	I-49	745394	671237	1337.3	5 to 6	61	30	A-7-5(10)	BR/GR/RD
BW-502	1050+29.25	-83.50	I-49	745394	671237	1337.3	13.5 to 15	NP	NP	A-4(0)	BR/GR/RD
BW-502	1050+29.25	-83.50	I-49	745394	671237	1337.3	28.5 to 30	39	21	A-6(3)	BR/RD/YL
BW-503	1052+19.69	-153.83	I-49	745608	671241	1315.0	2 to 3.5	30	13	A-6(10)	BR/YL
BW-503	1052+19.69	-153.83	I-49	745608	671241	1315.0	5 to 6.5	39	19	A-6(15)	BR/YL
BW-503	1052+19.69	-153.83	I-49	745608	671241	1315.0	18.5 to 20	101	69	A-2-7(9)	BR/GR/RD
BW-503	1052+19.69	-153.83	I-49	745608	671241	1315.0	28.5 to 30	49	19	A-7-5(5)	RD/YL
BW-504	1052+68.97	-140.10	I-49	745651	671275	1315.0	0.5 to 2	43	25	A-7-6(21)	BR/YL
BW-504	1052+68.97	-140.10	I-49	745651	671275	1315.0	23.5 to 25	46	24	A-7-6(14)	BR/RD
BW-505	1053+48.50	-149.18	I-49	745732	671304	1315.7	2 to 3.5	52	24	A-7-6(25)	BR/YL
BW-505	1053+48.50	-149.18	I-49	745732	671304	1315.7	5 to 6.5	44	27	A-7-6(22)	BR/GR/YL
BW-505	1053+48.50	-149.18	I-49	745732	671304	1315.7	8.5 to 10	35	15	A-6(7)	BR/YL
BW-506	1054+28.96	-168.61	I-49	745818	671328	1316.6	0.5 to 2	45	28	A-7-6(25)	BR/GR/RD
BW-506	1054+28.96	-168.61	I-49	745818	671328	1316.6	23.5 to 25	41	12	A-7-6(4)	BR/RD
BW-507	1054+79.54	-157.68	I-49	745860	671365	1316.0	5 to 6.5	35	18	A-6(16)	BR/RD/YL
BW-508	1055+63.63	-162.99	I-49	745940	671409	1317.6	2 to 3.5	39	24	A-6(21)	BR/RD/YL
BW-509	1056+40.71	-142.05	I-49	745995	671472	1318.0	0.5 to 2	27	8	A-4(6)	BR
BW-509	1056+40.71	-142.05	I-49	745995	671472	1318.0	28.5 to 30	48	9	A-5(2)	BR
BW-510	138+99.04	100.77	8TH STREET	746078	671391	1319.7	2 to 3.5	47	29	A-7-6(28)	BR/YL
BW-511	138+09.04	43.82	8TH STREET	746138	671303	1322.2	2 to 3.5	37	18	A-6(15)	BR/YL
BW-511	138+09.04	43.82	8TH STREET	746138	671303	1322.2	5 to 7	46	23	A-7-6(22)	BR/RD/YL
BW-511	138+09.04	43.82	8TH STREET	746138	671303	1322.2	8.5 to 10	48	26	A-7-6(24)	BR/RD/YL
BW-511	138+09.04	43.82	8TH STREET	746138	671303	1322.2	23.5 to 25	58	34	A-2-7(1)	BR/RD
BW-511	138+09.04	43.82	8TH STREET	746138	671303	1322.2	33.5 to 35	NP	NP	A-1-b(0)	BR/RD
BW-512	137+36.91	41.29	8TH STREET	746143	671231	1323.1	0.5 to 2	30	13	A-6(0)	BR
BW-512	137+36.91	41.29	8TH STREET	746143	671231	1323.1	8 to 9	52	30	A-7-6(21)	BR/GR/RD
BW-512	137+36.91	41.29	8TH STREET	746143	671231	1323.1	18.5 to 20	61	34	A-2-7(4)	BR/GR
BW-512	137+36.91	41.29	8TH STREET	746143	671231	1323.1	28.5 to 30	48	10	A-5(11)	BR/RD
BW-513	136+33.13	107.88	8TH STREET	746080	671125	1319.0	2 to 3.5	42	23	A-7-6(21)	BR/YL
BW-514	135+52.02	47.61	8TH STREET	746143	671046	1322.7	0.5 to 2	26	9	A-4(6)	BR/YL
BW-515	133+98.67	39.86	8TH STREET	746156	670893	1319.1	2 to 3.5	36	18	A-6(17)	BR
BW-515	133+98.67	39.86	8TH STREET	746156	670893	1319.1	5 to 6.5	22	4	A-4(1)	BR
BW-601	1055+07.00	177.97	I-49	745709	671666	1318.7	5 to 7	33	17	A-6(14)	BR/YL
BW-601	1055+07.00	177.97	I-49	745709	671666	1318.7	13.5 to 15	NP	NP	A-4(0)	BR/RD/YL

SOIL LOG (BOX 2 OF 2)

BORING	STATION	LOCATION	REFERENCE BASELINE	NORTHING	EASTING	ELEVATION	DEPTH FEET	LIQUID LIMIT	PLASTICITY INDEX	AASHTO CLASSIFICATION	COLOR
BW-602	1056+01.26	180.76	I-49	745779	671715	1319.8	2 to 3.5	31	12	A-6(10)	BR/YL
BW-602	1056+01.26	180.76	I-49	745779	671715	1319.8	18.5 to 20	57	33	A-7-6(25)	BR/RD/YL
BW-603	1056+88.72	179.06	I-49	745851	671763	1321.0	5 to 6.5	39	20	A-6(16)	BR/YL
BW-603	1056+88.72	179.06	I-49	745851	671763	1321.0	13.5 to 14.5	80	48	A-7-5(49)	BR/RD
BW-603	1056+88.72	179.06	I-49	745851	671763	1321.0	23.5 to 25	68	41	A-2-7(5)	BR
BW-604	1057+76.70	209.21	I-49	745906	671838	1320.8	0.5 to 2	29	11	A-6(9)	BR
BW-604	1057+76.70	209.21	I-49	745906	671838	1320.8	5 to 6.5	40	21	A-6(20)	BR/YL
BW-604	1057+76.70	209.21	I-49	745906	671838	1320.8	28.5 to 30	NP	NP	A-2-4(0)	BR
BW-605	1058+64.50	188.32	I-49	745990	671871	1322.0	2 to 3.5	38	20	A-6(19)	BR
BW-605	1058+64.50	188.32	I-49	745990	671871	1322.0	8.5 to 10	63	35	A-7-6(8)	BR/RD/YL
BW-605	1058+64.50	188.32	I-49	745990	671871	1322.0	18.5 to 20	50	27	A-2-7(0)	BR/RD/YL
BW-606	1059+46.91	161.44	I-49	746073	671896	1322.6	5 to 6.5	37	17	A-6(16)	BR/RD
BW-606	1059+46.91	161.44	I-49	746073	671896	1322.6	13.5 to 15	65	33	A-7-5(37)	BR/RD/YL
BW-606	1059+46.91	161.44	I-49	746073	671896	1322.6	23.5 to 25	60	37	A-7-6(15)	BR/RD/YL
BW-607	1060+54.17	212.28	I-49	746132	671999	1324.0	8.5 to 10	52	27	A-7-6(26)	BR/RD
BW-607	1060+54.17	212.28	I-49	746132	671999	1324.0	33.5 to 35	41	15	A-7-6(10)	BR
BW-701	1054+03.96	-141.06	I-49	745781	671339	1315.9	2 to 3.5	67	46	A-7-6(48)	BR/GR
BW-701	1054+03.96	-141.06	I-49	745781	671339	1315.9	23.5 to 25	65	34	A-7-6(22)	GR/RD/YL
BW-702	1054+79.60	-85.48	I-49	745823	671427	1328.1	0.5 to 2	46	29	A-7-6(23)	BR/RD
BW-702	1054+79.60	-85.48	I-49	745823	671427	1328.1	3.5 to 5	48	28	A-7-6(15)	GR/RD/YL
BW-702	1054+79.60	-85.48	I-49	745823	671427	1328.1	13.5 to 15	57	35	A-7-6(32)	RD/YL
BW-703	1055+58.14	-75.38	I-49	745887	671479	1327.1	13.5 to 15	35	17	A-6(15)	GR
BW-703	1055+58.14	-75.38	I-49	745887	671479	1327.1	33.5 to 35	46	16	A-2-7(1)	RD/YL
BW-704	1057+15.38	-97.76	I-49	746031	671551	1320.1	2 to 3.5	33	16	A-6(14)	BR/YL
BW-704	1057+15.38	-97.76	I-49	746031	671551	1320.1	3.5 to 5	35	16	A-6(14)	BR/YL
BW-704	1057+15.38	-97.76	I-49	746031	671551	1320.1	18.5 to 20	53	29	A-7-6(18)	BR/GR/RD
BW-705	1058+10.11	-77.18	I-49	746097	671622	1320.4	5 to 6.5	38	21	A-6(18)	
BW-705	1058+10.11	-77.18	I-49	746097	671622	1320.4	13.5 to 15	57	33	A-7-6(11)	
BW-706	1059+42.02	-83.69	I-49	746209	671692	1316.6	5 to 6.5	42	24	A-7-6(15)	BR/RD/YL
BW-706	1059+42.02	-83.69	I-49	746209	671692	1316.6	28.5 to 30	NP	NP	A-4(0)	BR
BW-707	1060+59.76	-175.36	I-49	746358	671684	1320.4	2 to 3.5	29	12	A-6(9)	BR/YL
BW-707	1060+59.76	-175.36	I-49	746358	671684	1320.4	5 to 6.5	38	19	A-6(18)	BR/YL
BW-707	1060+59.76	-175.36	I-49	746358	671684	1320.4	6.5 to 8	48	27	A-7-6(25)	BR/YL
BW-708	1061+43.21	-163.99	I-49	746420	671741	1320.8	2 to 3.5	NP	NP	A-4(0)	BR/YL
BW-708	1061+43.21	-163.99	I-49	746420	671741	1320.8	3.5 to 5	26	7	A-4(5)	BR/YL
BW-708	1061+43.21	-163.99	I-49	746420	671741	1320.8	8.5 to 10	50	19	A-2-7(1)	GR/RD/YL
BW-708	1061+43.21	-163.99	I-49	746420	671741	1320.8	18.5 to 20	80	47	A-7-5(45)	BR/GR/RD
BW-709	1062+23.84	-140.91	I-49	746473	671806	1320.9	2 to 3.5	28	11	A-6(8)	BR/YL
BW-709	1062+23.84	-140.91	I-49	746473	671806	1320.9	3.5 to 5	NP	NP	A-4(0)	BR
BW-709	1062+23.84	-140.91	I-49	746473	671806	1320.9	8.5 to 10	NP	NP	A-4(0)	GR/RD/YL
BW-709	1062+23.84	-140.91	I-49	746473	671806	1320.9	18.5 to 19.9	78	43	A-7-5(31)	BR/RD/YL
BW-710	1063+12.56	-170.97	I-49	746563	671832	1319.8	2 to 3.5	34	18	A-6(14)	BR/RD/YL
BW-710	1063+12.56	-170.97	I-49	746563	671832	1319.8	5 to 7	26	6	A-4(5)	BR
BW-710	1063+12.56	-170.97	I-49	746563	671832	1319.8	8.5 to 10	59	37	A-7-6(39)	BR
BW-711	1063+91.94	-140.93	I-49	746611	671902	1320.9	0.5 to 2	30	14	A-6(11)	BR/RD/YL
BW-711	1063+91.94	-140.93	I-49	746611	671902	1320.9	5 to 6.5	23	5	A-4(3)	BR/YL
BW-711	1063+91.94	-140.93	I-49	746611	671902	1320.9	13.5 to 15	NP	NP	A-4(0)	BR/GR/RD
BW-712	1065+10.80	-78.66	I-49	746673	672021	1306.0	2 to 3.5	NP	NP	A-1-a(0)	GR
BW-712	1065+10.80	-78.66	I-49	746673	672021	1306.0	8.5 to 10	NP	NP	A-1-a(0)	BR/GR
BW-713	1065+61.33	-160.11	I-49	746761	671983	1322.2	2 to 3.5	23	6	A-4(3)	BR/YL
BW-713	1065+61.33	-160.11	I-49	746761	671983	1322.2	8.5 to 10	50	26	A-7-6(27)	BR/RD
BW-713	1065+61.33	-160.11	I-49	746761	671983	1322.2	18.5 to 20	49	27	A-2-7(2)	BR/GR/RD
BW-713	1065+61.33	-160.11	I-49	746761	671983	1322.2	28.5 to 30	NP	NP	A-1-a(0)	BR/GR/RD
BW-714	1066+76.95	-79.75	I-49	746810	672115	1303.7	5 to 6.5	36	20	A-6(12)	BR/RD
BW-714	1066+76.95	-79.75	I-49	746810	672115	1303.7	13.5 to 15	100	70	A-7-5(47)	BR/GR/RD
BW-715	1067+59.68	-76.41	I-49	746876	672165	1303.0	2 to 3.5	65	33	A-7-5(40)	BR/RD
BW-716	1067+59.28	-138.26	I-49	746911	672114	1323.5	5 to 6.5	37	18	A-6(16)	BR/RD/YL
BW-716	1067+59.28	-138.26	I-49	746911	672114	1323.5	13.5 to 15	45	25	A-7-6(25)	RD/YL
BW-717	1068+38.34	-138.45	I-49	746976	672159	1324.4	13.5 to 15	31	12	A-2-6(0)	BR/GR
BW-717	1068+38.34	-138.45	I-49	746976	672159	1324.4	23.5 to 25	87	57	A-7-5(55)	BR/RD
BW-718	1069+23.11	-74.39	I-49	747009	672260	1302.0	0.5 to 2	74	46	A-2-7(5)	GR
BW-718	1069+23.11	-74.39	I-49	747009	672260	1302.0	13.5 to 15	102	71	A-7-5(45)	BR/GR/RD
BW-801	1058+01.63	82.22	I-49	745999	671748	1318.8	0.5 to 2	37	19	A-6(18)	BR/RD/YL
BW-801	1058+01.63	82.22	I-49	745999	671748	1318.8	5 to 6	47	27	A-7-6(26)	BR/GR/RD/YL
BW-801	1058+01.63	82.22	I-49	745999	671748	1318.8	8.5 to 10	50	25	A-7-6(19)	RD
BW-802	1058+95.11	81.74	I-49	746076	671801	1317.0	2 to 3.5	44	23	A-7-6(22)	BR/GR/RD/YL
BW-802	1058+95.11	81.74	I-49	746076	671801	1317.0	5 to 6	49	29	A-7-6(24)	BR/RD
BW-802	1058+95.11	81.74	I-49	746076	671801	1317.0	13.5 to 15	NP	NP	A-1-b(0)	GR/RED/YL
BW-803	1059+80.77	120.81	I-49	746124	671882	1322.1	5 to 6	52	32	A-7-6(28)	BR/RD/YL
BW-803	1059+80.77	120.81	I-49	746124	671882	1322.1	8.5 to 10	NP	NP	A-2-4(0)	BR/GR/RD
BW-803	1059+80.77	120.81	I-49	746124	671882	1322.1	28.5 to 30	83	53	A-7-5(23)	BR/RD
BW-804	1060+68.78	82.72	I-49	746218	671901	1313.5	2 to 3.5	70	37	A-7-5(17)	BR/RD
BW-804	1060+68.78	82.72	I-49	746218	671901	1313.5	8.5 to 10	61	37	A-7-6(36)	BR/RD/YL
BW-805	1061+48.70	125.79	I-49	746259	671982	1320.3	0.5 to 2	28	9	A-4(7)	BR
BW-805	1061+48.70	125.79	I-49	746259	671982	1320.3	13.5 to 15	81	60	A-7-6(26)	BR/GR/RD/YL
BW-806	1062+14.66	150.55	I-49	746299	672040	1318.8	2 to 3.5	43	26	A-7-6(23)	BR
BW-806	1062+14.66	150.55	I-49	746299	672040	1318.8	5 to 6.5	45	27	A-7-6(26)	BR/RD
BW-807	1063+04.65	169.57	I-49	746362	672107	1317.6	2 to 3.5	39	20	A-6(18)	BR
BW-807	1063+04.65	169.57	I-49	746362	672107	1317.6	5 to 6.5	38	17	A-6(16)	BR
BW-807	1063+04.65	169.57	I-49	746362	672107	1317.6	13.5 to 15	93	57	A-7-5(59)	RD/YL
BW-808	1063+89.12	135.15	I-49	746451	672127	1317.3	5 to 6.5	46	24	A-7-6(22)	BR/GR/YL
BW-808	1063+89.12	135.15	I-49	746451	672127	1317.3	18.5 to 20	NP	NP	A-1-b(0)	GR/RD/YL
BW-809	1064+50.23	138.92	I-49	746499	672165	1317.1	5 to 7	52	31	A-7-6(32)	GR
BW-809	1064+50.23	138.92	I-49	746499	672165	1317.1	13.5 to 15	35	NP	A-4(0)	BR/RD/YL
BW-810	1065+46.31	143.94	I-49	746575	672224	1317.6					
BW-811	1066+61.91	84.22	I-49	746704	672241	1303.4	13.5 to 15	61	38	A-7-6(22)	BR/GR/RD/YL
BW-812	1067+51.21	82.99	I-49	746778	672291	1302.0	2 to 3.5	81	46	A-7-5(49)	BR/RD
BW-813	1068+41.80	146.66	I-49	746816	672395	1319.3	8.5 to 10	41	21	A-7-6(21)	RD/YL
BW-814	1069+28.74	82.51	I-49	746924	672392	1300.7	8.5 to 10	NP	NP	A-1-b(0)	GR/RD/YL
BW-901	1069+45.91	-141.42	I-49	747066	672218	1325.2	5 to 6.5	53	32	A-7-6(33)	BR/RD
BW-901	1069+45.91	-141.42	I-49	747066	672218	1325.2	18.5 to 20	78	40	A-7-5(50)	BR/RD/YL
BW-902	1070+35.19	-74.40	I-49	747101	672324	1301.0	2 to 3.5	NP	NP	A-4(0)	GR
BW-903	1071+25.31	-76.20	I-49	747176	672374	1300.5	0.5 to 2	28	9	A-4(7)	BR
BW-904	1072+16.10	-141.81	I-49	747288	672372	1324.1	2 to 3.5	33	15	A-6(12)	BR
BW-904	1072+16.10	-141.81	I-49	747288	672372	1324.1	18.5 to 20	36	16	A-6(6)	BR/GR/RD/YL

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

BR Brown
GR Gray
RD Red
YL Yellow

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

SOIL LOG

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	74	555
				(2)	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	STAGE 3	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		ADVANCE WARNING ARROW PANEL	PORTABLE CHANGEABLE MESSAGE SIGN	TRAFFIC DRUMS	BARRICADES (TYPE III)		FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONCRETE BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER	TEMP. IMPACT ATTEN.BARR. (REPAIR)
							NO.	SQ. FT.				RIGHT	LEFT				
			LIN. FT. - EACH						DAYS	WEEKS	EACH	LIN. FT.				EACH	
W20-1	ROAD WORK 1500 FT.	48"x48"	8	2	2	8	8	128.0									
W20-1	ROAD WORK 1000 FT.	48"x48"	4	2	2	4	4	64.0									
W20-1	ROAD WORK 500 FT.	48"x48"	4	2	2	4	4	64.0									
W20-1	ROAD WORK AHEAD	48"x48"	2	2	2	2	2	32.0									
W20-1	RAOD WORK 1/2 MILE	48"x48"	4	4	5	5	5	80.0									
W20-1	ROAD WORK 1 MILE	48"x48"	4	4	5	5	5	80.0									
W20-2	DETOUR 1500'	48"x48"		13		13	13	208.0									
W20-5	RIGHT LANE CLOSED 1 MILE	48"x48"	2	2	2	2	2	32.0									
W20-5	RIGHT LANE CLOSED 1/2 MILE	48"x48"	2	2	2	2	2	32.0									
W20-5	RIGHT LANE CLOSED 1500'	48"x48"	2	2	2	2	2	32.0									
SPECAIL	MERGE NOW	48"x48"	1	1	1	1	1	16.0									
G20-2	END ROAD WORK	48"x24"	9	6	7	9	9	72.0									
M1-1	INTERSTATE ROUTE MARKER (49)	24"x24"		14		14	14	56.0									
M1-4	U.S. ROUTE	24"x24"		16		16	16	64.0									
M1-5	(MODIFIED) STATE ROUTE	24"x24"		16		16	16	64.0									
M3-1	NORTH	24"x12"		14		14	14	28.0									
M4-5	TO	24"x12"		14		14	14	28.0									
M4-8	DETOUR	24"x12"		30		30	30	60.0									
M4-8A	END DETOUR	24"x18"		1		1	1	3.0									
M4-9L	DETOUR	24"x12"		2		2	2	4.0									
M5-1	TURN ARROW	21"x15"		14		14	14	30.6									
M6-1	ARROW	21"x15"		14		14	14	30.6									
M6-3	ARROW	21"x15"		6		6	6	13.1									
R2-1	SPEED LIMIT 30	24"x24"		2	2	2	2	8.0									
R2-1	SPEED LIMIT 60	24"x24"	6	6	2	6	6	24.0									
R2-1	SPEED LIMIT 70	24"x24"	6	6	2	6	6	24.0									
R2-5A	REDUCE SPEED AHEAD	48"x60"	6	8	4	8	8	160.0									
R3-2R	NO TURN	24"x24"	1	1		1	1	4.0									
R3-2L	NO TURN	24"x24"	2	1		2	2	8.0									
R4-1	DO NOT PASS	48"x60"	4	4	4	4	4	80.0									
RSP-1	SHOULDER CLOSED	48"x30"	10	4		10	10	100.0									
R9-9	SIDEWALK CLOSED	24"x12"	2			2	2	4.0									
R11-2	ROAD CLOSED	48"x30"	9	6		9	9	90.0									
R55-1	FINES DOUBLE	36"x60"	4	4		4	4	60.0									
OM-3L	OBJECT MARKER	12"x36"	7	6	6	7	7	21.0									
OM-3R	OBJECT MARKER	12"x36"	7	8	8	8	8	24.0									
W1-4AL	REVERSE CURVE LT.	48"x48"	1			1	1	16.0									
W1-4B	DOUBLE REVERSE CURVE LT.	48"x48"		4		4	4	64.0									
W1-6	SHARP CURVE TO RIGHT/LEFT	60"x30"	3	3	3	3	3	37.5									
W4-2	LANE REDUCTION - RIGHT LANE ENDS	48"x48"	2	2	2	2	2	32.0									
W5-1	ROAD NARROWS	48"x48"	2	4		4	4	64.0									
	ADVANCE WARNING ARROW PANEL		1	1	1	1			270								
	PORTABLE CHANGEABLE MESSAGE SIGN		1	1	1	1				38							
	TRAFFIC DRUMS		67	71	41	71					71						
	TYPE III BARRICADE-RT. (8')		10	6		10						10					
	TYPE III BARRICADE-LT. (8')		10	6		10							10				
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		10584			10584								10584			
	RELOCATING PRECAST CONCRETE BARRIER			3452		3452									3452		
	TEMPORARY IMPACT ATTENUATION BARRIER			1		1										1	
	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)			1		1											1
TOTALS:								2041.8	270	38	71	10	10	10584	3452	1	1

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	75	555
				(2)	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

RETAINING WALLS

STATION	STATION	LOCATION	WALL NAME	MSE RETAINING WALL	GRAVITY BLOCK RETAINING WALL	TEXTURED COATING FINISH	*ADDITIONAL UNCLASSIFIED EXCAVATION	SELECT GRANULAR BACKFILL	*ADDITIONAL COMPACTED EMBANKMENT	*REDUCED COMPACTED EMBANKMENT
				SQ. FT.	SQ. FT.	SQ. YDS.	CU.YDS.	CU. YDS.	CU. YDS.	CU. YDS.
1038+16.65	1053+70.58	L/O HWY. 62/102 RAMP 3	WALL 1	18739.0		1461.0	2485.3	5055.4		2570.1
1040+62.55	1053+39.00	R/O HWY. 62/102 RAMP 2	WALL 2	15301.5		1166.0	1506.9	3779.2	12.8	2285.5
133+37.55	139+46.78	R/O 8TH STREET	WALL 3A	9663.9		944.0	672.8	3794.7		3121.8
1047+32.04	1058+17.44	L/O 8TH ST. RAMP 4	WALL 3B	17968.7		2433.0	868.6	7463.1		6594.5
1055+50.00	1060+13.48	R/O 8TH ST. RAMP 1	WALL 4	8518.7		753.0	946.7	5827.4		3688.8
1054+00.00	1060+05.82	R/O 8TH ST. RAMP 4	WALL 5A	10536.6		899.0	682.0	5296.9		4614.9
1059+41.15	1069+03.67	R/O 8TH ST. RAMP 3	WALL 5B	17022.7		1435.0	4699.0	8973.7	48.1	4322.8
1057+40.00	1061+86.41	L/O 8TH ST. RAMP 1	WALL 6A	9147.3		833.0	1738.5	5835.1		4096.6
1061+49.77	1069+28.45	L/O 8TH ST. RAMP 2	WALL 6B	15269.5		1303.0	3705.1	7811.9	70.6	4177.3
1067+00.00	1072+36.89	L/O 8TH ST. RAMP 3	WALL 7	9054.0		789.0	4107.5	3960.4	385.5	172.3
1050+00.00	1052+31.44	L/O HWY. 62/102 RAMP 3	MB WALL 11		1017.0		151.0			
23+25.64	24+18.36	L/O HWY. 62/102	MB WALL 12		515.1		76.0			
TOTALS:				131221.9	1532.1	12016.0	21639.4	57797.8	517.0	35644.6

* SEE EARTHWORK SCHEDULE OF QUANTITIES.

CONCRETE BARRIER WALL

STATION	STATION	LOCATION	SIDE TYPE A	SIDE TYPE A, JERSEY FACE	PIER PROTECTION TYPE A	PARAPET TYPE SPECIAL	MEDIAN TYPE SPECIAL	TEXTURED COATING FINISH	ARCHITECTURAL FINISH	METAL BRIDGE RAILING (TYPE H)	REMARKS
			LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	SQ. YDS.	SQ. FT.	LIN. FT.	
1040+50.00	1052+15.00	L/O HWY. 62/102 RAMP 2	1171.0								
1059+47.95	1061+41.27	L/O HWY. 62/102 RAMP 2		193.0							CONCRETE PAVEMENT
1059+47.95	1061+61.48	R/O HWY. 62/102 RAMP 2		214.0							CONCRETE PAVEMENT
1037+50.00	1049+15.34	R/O HWY. 62/102 RAMP 3	1166.6								
1048+84.73	1053+65.00	L/O HWY. 62/102 RAMP 3				484.4		376.8	1089.9		
1053+65.00	1056+33.55	L/O HWY. 62/102 RAMP 3				272.0		211.6	612.0		
1056+33.55	1059+56.31	L/O HWY. 62/102 RAMP 3		322.8							CONCRETE PAVEMENT
1056+33.55	1059+56.31	R/O HWY. 62/102 RAMP 3		322.8							CONCRETE PAVEMENT
1054+81.75	1055+52.41	R/O 8TH STREET RAMP 1		71.2							
1055+52.41	1059+32.20	R/O 8TH STREET RAMP 1				387.5		301.4	871.9	36.7	
1059+32.20	1059+82.87	R/O 8TH STREET RAMP 1		69.7						69.7	
1067+00.00	1072+3.59	L/O 8TH STREET RAMP 3		533.4							
1045+98.74	1047+31.47	L/O 8TH STREET RAMP 4		131.8							
1047+31.47	1057+53.89	L/O 8TH STREET RAMP 4				1037.0		806.6	2333.3		
133+37.70	139+87.68	R/O 8TH STREET				668.5		519.9	1504.1	668.5	
140+91.17	141+22.68	R/O 8TH STREET				53.4		41.5	120.2	53.4	
141+42.91	141+76.82	L/O 8TH STREET				59.4		46.2	133.7	59.4	
143+60.98	143+69.64	R/O 8TH STREET				41.3		32.1	92.9	41.3	
144+14.61	145+20.69	L/O 8TH STREET				132.2		102.8	297.5	132.2	
1057+98.70	1058+98.70	C.L. I-49					100.0				
1059+97.20	1060+97.20	C.L. I-49					100.0				
19+17.00	20+93.00	L/O HWY. 62/102			176.0						
19+06.89	20+82.82	R/O HWY. 62/102			176.0						
TOTALS:			2337.6	1858.7	352.0	3135.7	200.0	2438.9	7055.5	1061.2	

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	STAGE 1	STAGE 2	STAGE 3	END OF JOB	REMOVAL OF PERMANENT PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS (WORDS)	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS (ARROWS)	REMOVAL OF PERMANENT PAVEMENT MARKINGS (WORDS)	REMOVAL OF PERMANENT PAVEMENT MARKINGS (ARROWS)	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (WORDS)	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (ARROWS)	RAISED PAVEMENT MARKERS		THERMOPLASTIC PAVEMENT MARKING							REFLECTORIZED PAINT PAVEMENT MARKING	HIGH PERFORMANCE CONTRAST PAVEMENT MARKING		HIGH PERFORMANCE PAVEMENT MARKING		
														TYPE II (WHITE)	TYPE II (YEL/YEL)	4" WHITE	4" YELLOW	8" WHITE	8" YELLOW	12" WHITE	WORDS	ARROWS	8" WHITE	4" WHITE	4" YELLOW	4" WHITE	4" YELLOW	8" WHITE
	LIN. FT. - EACH				LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH		LIN. FT.				EACH			LIN. FT.	LIN. FT.		LIN. FT.		
REMOVAL OF PERMANENT PAVEMENT MARKINGS	3797	4240	1650		9687																						
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	13336	9705	3271			26312																					
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS		13336	9705	3271			26312																				
*REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS (WORDS)				10				10																			
*REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS (ARROWS)				10					10																		
*REMOVAL OF PERMANENT PAVEMENT MARKINGS (WORDS)				10						10																	
*REMOVAL OF PERMANENT PAVEMENT MARKINGS (ARROWS)				10							10																
*REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (WORDS)				10								10															
*REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (ARROWS)				10									10														
RAISED PAVEMENT MARKERS TYPE II (WHITE)				653										653													
RAISED PAVEMENT MARKERS TYPE II (YEL/YEL)				7											7												
THERMOPLASTIC PAVEMENT MARKING WHITE (4")				6650												6650											
THERMOPLASTIC PAVEMENT MARKING YELLOW (4")				2686													2686										
THERMOPLASTIC PAVEMENT MARKING WHITE (8")				800														800									
THERMOPLASTIC PAVEMENT MARKING YELLOW (8")				120															120								
THERMOPLASTIC PAVEMENT MARKING WHITE (12")				2278																2278							
THERMOPLASTIC PAVEMENT MARKING (WORDS)				70																	70						
THERMOPLASTIC PAVEMENT MARKING (ARROWS)				81																		81					
REFLECTORIZED PAINT PAVEMENT MARKING WHITE (8")				552																			552				
HIGH PERFORMANCE CONTRAST PAVEMENT MARKING WHITE (4")				691																				691			
HIGH PERFORMANCE CONTRAST PAVEMENT MARKING YELLOW (4")				327																					327		
HIGH PERFORMANCE PAVEMENT MARKING WHITE (4")				30327																						30327	
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4")				11541																							11541
HIGH PERFORMANCE PAVEMENT MARKING WHITE (8")				2727																							
TOTALS:					9687	26312	26312	10	10	10	10	10	10	653	7	6650	2686	800	120	2278	70	81	552	691	327	30327	11541	2727

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
*QUANTITIES ESTIMATED. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

QUANTITIES

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	76	555
				(2)	QUANTITIES			

CLEARING AND GRUBBING

STATION	STATION	LOCATION	CLEARING	GRUBBING
			STATION	
1055+00	1061+50	RAMP 2 (62/102)	7	7
1036+65	1056+45	RAMP 3 (62/102)	20	20
1059+40	1072+00	RAMP 3 (8TH ST.)	13	13
124+00	133+00	8TH ST.	9	9
133+00	141+50	8TH ST.	9	
145+50	148+00	8TH ST.	3	
TOTALS:			61	49

REMOVAL AND DISPOSAL OF FENCE & GATES

STATION	STATION	LOCATION	FENCE	GATES
			LIN. FT.	EACH
1047+92	1085+00	R/O I-49	3649	
1047+92	1067+58	L/O I-49	2043	
1060+88	1061+83	R/O I-49	535	1
1071+93	1086+50	L/O I-49	1458	
TOTALS:			7685	1

STATE OF ARKANSAS
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REMOVAL AND DISPOSAL OF ITEMS

STATION	STATION	LOCATION	CURB AND GUTTER	CONCRETE PAVEMENT	CONCRETE ISLANDS	CONCRETE DRIVEWAYS	WALKS	CONCRETE HEADWALLS & WINGWALLS	GUARDRAIL	SIGNS	PLANTERS
			LIN. FT.	SQ. YD.	SQ. YD.	SQ. YD.	SQ. YD.	EACH	LIN. FT.	EACH	EACH
120+23	123+56	8TH STREET CL	913								
123+81	127+85.72	8TH STREET LT	973								
123+81	127+85.72	8TH STREET RT	482								
128+00	128+50	8TH STREET CL	430								
128+85	129+00	8TH STREET RT			11						
121+00	125+00	8TH STREET LT									5
124+00	128+00	8TH STREET LT									10
125+63	128+15	8TH STREET RT									13
128+00	128+50	8TH STREET CL									4
120+40	120+45	8TH STREET LT					37				
120+40	120+45	8TH STREET RT					101				
125+10	125+15	8TH STREET RT					37				
123+90	127+20	8TH STREET RT					656				
125+00	125+30	8TH STREET RT				71					
127+88	128+10	8TH STREET CL				173					
120+25	123+50	8TH STREET RT	357								
123+85	124+05	8TH STREET LT					40				
123+39	123+57	8TH STREET RT		16							
138+94	140+91	8TH STREET LT	342								
138+87	141+61	8TH STREET LT	429								
1045+88	1047+90	I-49 LT							201		
147+74	145+76	I-49 LT							199		
123+77	123+96	I-49 RT		19							
16+15	17+10	HWY. 62/102 LT.	123								
17+32	22+84	HWY. 62/102 LT.	581	182			136				
23+28	27+25	HWY. 62/102 LT.	414		18		137				
17+16	22+70	HWY. 62/102 RT.	587	178			132				
16+34		HWY. 62/102 LT.									
17+35		HWY. 62/102 RT.									
22+69		HWY. 62/102 LT.									
23+81		HWY. 62/102 RT.									
17+02		HWY. 62/102 LT.			2						
24+00		HWY. 62/102 LT.						1			
ENTIRE	PROJECT									70	
TOTALS:			5631	395	31	244	1276	1	400	70	32

REMOVAL AND DISPOSAL OF CULVERTS AND DROP INLETS

STATION	DESCRIPTION	PIPE CULVERTS	DROP INLETS
		EACH	EACH
132+83	8TH STREET LT.	2	1
132+89	8TH STREET LT.	1	1
134+35	8TH STREET LT.	1	1
134+63	8TH STREET RT.	1	1
18+38	HWY. 102 LT. & RT.	2	2
20+05	HWY. 102 LT. & RT.	2	2
21+55	HWY. 102 LT. & RT.	2	2
24+00	HWY. 102 LT.		1
TOTALS:		11	11

NOTE: QUANTITIES SHOWN ABOVE SHALL INCLUDE REMOVAL & DISPOSAL OF ALL HEADWALLS AND FLARED END SECTIONS IF APPLICABLE.

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL											
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	TEMPORARY SEEDING	MULCH COVER	WATER	SAND BAG DITCH CHECKS	ROCK DITCH CHECKS	DROP INLET SILT FENCE	SILT FENCE	DIVERSION DITCH	SLOPE DRAIN (E-12) PIPE FOR SLOPE DRAINS	SLOPE DRAIN (E-12) DUMPED RIPRAP	SEDIMENT BASIN (E-14)	OBLITERATION OF SEDIMENT BASIN	*SEDIMENT REMOVAL & DISPOSAL
											(E-5)	(E-6)	(E-7)	(E-11)	(E-8)					
			ACRE	TON	ACRE	M.GAL.	ACRE	ACRE	ACRE	M.GAL.	BAG	CU.YD.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	CU.YD.	CU.YD.	CU.YD.	CU. YD.
ENTIRE	PROJECT	CLEARING AND GRUBBING																		
ENTIRE	PROJECT	STAGE 1	19.14	38.28	19.14	1952.3	19.14	25.30	25.30	516.1	946	111	1344	4409	2444	131	31	28300	28300	28593
ENTIRE	PROJECT	STAGE 2	5.91	11.82	5.91	602.8	5.91	5.91	5.91	120.6	308	48	60	107				36720	36720	36756
ENTIRE	PROJECT	STAGE 3	0.25	0.50	0.25	25.5	0.25	0.25	0.25	5.1	66	3	60					21600	21600	21606
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			5.06	10.12	5.06	516.1	5.06	6.29	6.29	128.4	132	16	146	452	244	13	3	8662	8662	8696
TOTALS:			30.36	60.72	30.36	3096.7	30.36	37.75	37.75	770.2	1452	178	1610	4968	2688	144	34	95282	95282	95651

BASIS OF ESTIMATE:
LIME.....2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING
WATER.....20.4 M.G. / ACRE OF TEMPORARY SEEDING
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING
SAND BAG DITCH CHECKS.....22 BAGS / LOCATION
ROCK DITCH CHECKS.....3 CU.YD./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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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/17/2016				6	ARK.			
				JOB NO.		090376	77	555
				(2)		QUANTITIES		

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	
ENTIRE	PROJECT	STAGE 1 - I-49 NBL	24894	1710
ENTIRE	PROJECT	STAGE 2 - I-49 NBL	2209	1750
ENTIRE	PROJECT	STAGE 1 - I-49 SBL	41331	1015
ENTIRE	PROJECT	STAGE 2 - I-49 SBL	8981	788
ENTIRE	PROJECT	STAGE 1 - RAMP 2 (62/102)	12937	7942
ENTIRE	PROJECT	STAGE 2 - RAMP 2 (62/102)	4343	311
ENTIRE	PROJECT	STAGE 1 - RAMP 3 (62/102)	12460	7609
ENTIRE	PROJECT	STAGE 2 - RAMP 3 (62/102)	7333	1039
ENTIRE	PROJECT	STAGE 1 - RAMP 1 (8TH STREET)	447	34563
ENTIRE	PROJECT	STAGE 1 - RAMP 2 (8TH STREET)	39255	23739
ENTIRE	PROJECT	STAGE 1 - RAMP 3 (8TH STREET)	6070	25249
ENTIRE	PROJECT	STAGE 1 - RAMP 4 (8TH STREET)	314	29391
ENTIRE	PROJECT	STAGE 1 - 8TH STREET	4835	72097
ENTIRE	PROJECT	STAGE 2 - HIGHWAY 62/102	787	201
ENTIRE	PROJECT	STAGE 3 - HIGHWAY 62/102	296	34
ENTIRE	PROJECT	STAGE 3 - RAMP 1 (62/102)	194	814
123+60.00		STAGE 1 DGTC ENT. L/O 8TH STREET	72	24
123+39.85		STAGE 1 DGTC ENT. R/O 8TH STREET	69	10
128+21.30		STAGE 1 DGTC ENT. L/O 8TH STREET	126	30
128+21.30		STAGE 1 DGTC ENT. R/O 8TH STREET	190	73
132+67.93		STAGE 1 DGTC ENT. R/O 8TH STREET	314	19
#ADDITIONAL FOR MSE WALL INSTALLATION			21639	
#ADDITIONAL FOR MSE WALL INSTALLATION				517
#REDUCTION FOR SELECT GRANULAR BACKFILL				-35645
ENTIRE	PROJECT	TO BE USED IF AND WHERE	5000	5000
		DIRECTED BY THE ENGINEER		
TOTALS:			192076	178258

QUANTITIES ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
SEE MSE WALL SCHEDULE OF QUANTITIES.

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.
1037+30.00	1039+00.00	RAMP 3 (62/102) RT.	170.00	5.00		0.00	94.44	37.78	0.48
1038+15.00	1049+00.00	RAMP 3 (62/102) LT.	1085.00	4.58		0.00	552.14		0.00
1039+00.00	1049+00.00	RAMP 3 (62/102) RT.	1000.00	5.00		0.00	555.56	222.22	2.80
1044+35.00	1050+00.00	RAMP 3 (62/102) LT.	565.00	14.00	8.00	878.89	0.00	251.11	3.16
1050+00.00	1054+00.00	RAMP 3 (62/102) LT.	400.00	14.90	8.00	662.22	0.00	177.78	2.24
1040+50.00	1052+00.00	RAMP 2 (62/102) LT.	1150.00	5.00		0.00	638.89	255.56	3.22
1040+60.00	1052+50.00	RAMP 2 (62/102) RT.	1190.00	4.58		0.00	605.58		0.00
1054+00.00	1058+34.00	I-49 LT.	434.00	4.00		0.00	192.89	96.44	1.22
1059+40.49	1059+49.07	I-49 LT.	51.60	4.00		0.00	22.93	11.47	0.14
1057+40.00	1059+57.34	I-49 RT.	217.34	4.00		0.00	96.60	48.30	0.61
1060+61.89	1061+53.52	I-49 RT.	123.40	4.00		0.00	54.84	27.42	0.35
1063+00.00	1068+17.56	RAMP 2 (62/102) RT.	317.56	6.00		0.00	211.71	141.14	1.78
1061+00.00	1065+56.78	RAMP 3 (62/102) LT.	456.78	6.00	0.00	0.00	304.52	203.01	2.56
1066+17.56	1068+00.00	I-49 NB RT.	182.44	6.00	0.00	0.00	121.63	81.08	1.02
1065+56.78	1069+00.00	I-49 SB LT.	343.22	6.00	0.00	0.00	228.81	152.54	1.92
1066+00.00	1079+30.83	RAMP 2 (8TH ST.) RT.	1330.83	14.00	8.00	2370.18	0.00	591.48	7.45
1061+49.77	1069+30.00	RAMP 2 (8TH ST.) LT.	780.23	4.58		0.00	397.05		0.00
1073+00.00	1076+63.40	RAMP 3 (8TH ST.) LT.	363.40	14.00	8.00	565.29	0.00	161.51	2.04
1059+41.15	1069+10.00	RAMP 3 (8TH ST.) RT.	968.85	4.58		0.00	493.04		0.00
1067+00.00	1072+35.00	RAMP 3 (8TH ST.) LT.	535.00	4.00		0.00	237.78	118.89	1.50
1076+63.40	1088+03.40	I-49 SB LT.	940.00	14.00	8.00	1462.22	0.00	417.78	5.26
1079+30.83	1086+95.99	I-49 NB RT.	765.16	14.00	8.00	1190.25	0.00	340.07	4.28
132+24.50	135+90.00	8TH STREET RT.	365.50	11.00	5.00	446.72	0.00	162.44	2.05
144+67.10	145+03.96	8TH STREET RT.	38.10	4.00		0.00	16.93	8.47	0.11
146+58.85	146+83.00	8TH STREET LT.	32.00	4.00		0.00	14.22	14.22	0.18
			0.00		0.00	0.00	0.00	0.00	0.00
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			0.00		0.00	0.00	140.00	500.00	6.30
						0.00	0.00	0.00	0.00
TOTALS:						7275.77	4979.56	4020.71	50.67

BASIS OF ESTIMATE: * NOTE: QUANTITIES ESTIMATED.
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING.

CONCRETE CURB AND CONCRETE COMBINATION CURB AND GUTTER

STATION	STATION	LOCATION	TYPE A (1'- 6") CURB & GUTTER	TYPE B (9") CURB
			LIN. FT.	LIN. FT.
16+15	17+12	HWY. 62/102 LT.	131	
17+42	22+53	HWY. 62/102 RT.	557	
17+64	22+91	HWY. 62/102 LT.	654	
23+41	27+25	HWY. 62/102 LT.	392	
120+69	127+77	8TH ST. MEDIAN	1421	
128+73	140+78	8TH ST. MEDIAN	2416	
144+92	147+00	8TH ST. MEDIAN	421	
120+25	141+27	8TH ST. RT	2597	
120+26	141+73	8TH ST. LT	3312	
143+65	147+00	8TH ST. RT	427	
144+11	147+00	8TH ST. LT	301	
140+90	141+62	8TH ST. LT (7TH STREET INTERSECTION)	85	
1052+15	1059+48	HWY. 62/102 RAMP 2 LT.		729
1055+50	1059+48	HWY. 62/102 RAMP 2 RT.		405
1049+15	1056+34	HWY. 62/102 RAMP 3 RT.		711
1047+92	1049+82	8TH ST. RAMP 1 RT.		187
1065+00	1067+00	8TH ST. RAMP 3 LT.		200
TOTALS:			12714	2232

GUARDRAIL

STATION	STATION	LOCATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
			LIN. FT.	EACH		
1032+02.40	1034+47.55	I-49 LT.	175	1	0	
1037+77.43	1046+98.90	I-49 RT.	872		1	
1038+81.25	1040+50.00	RAMP 2 (62/102) LT.	100	1	1	
1039+00.00	1059+47.95	RAMP 2 (62/102) RT.	1975	1	1	
1041+00.00	1045+93.75	I-49 LT.	475	1	0	1
1048+98.90	1054+82.11	RAMP 1 (8TH ST.) RT.	785	1		
1037+65.00	1048+84.73	RAMP 3 (62/102) LT.	1100	1		1
1049+15.34	1056+33.55	RAMP 3 (62/102) RT.	675	2		
1054+62.92	1059+11.79	RAMP 1 (8TH ST.) LT.	375	1	1	
1054+40.00	1058+36.10	RAMP 4 (8TH ST.) RT.	375	1		1
1056+50.18	1059+47.95	RAMP 2 (62/102) LT.	225	1	1	
1059+58.31	1062+25.06	RAMP 3 (62/102) LT.	200	1	1	
1059+58.31	1061+25.06	RAMP 3 (62/102) RT.	100	1	1	
1065+08.77	1067+31.77	I-49 LT.	175		1	1
1061+60.32	1069+80.00	RAMP 2 (8TH ST.) LT.	800	1	0	1
1059+31.12	1070+54.41	RAMP 3 (8TH ST.) RT.	1050	1	1	
1072+33.59	1079+02.34	RAMP 3 (8TH ST.) LT. / I-49 LT.	600	1	1	
TOTALS:			10037	16	10	5

CONCRETE WALKS

STATION	STATION	LOCATION	WIDTH	CONCRETE WALKS	CONCRETE WALKS (TYPE SPECIAL)
			LIN. FT.	SQ.YD.	SQ. YD.
120+30.31	120+46.90	L/O 8TH STREET	8	59	
120+29.57	120+46.47	R/O 8TH STREET	8	64	
120+84.63	123+37.10	L/O 8TH STREET	7	196	
120+83.70	123+13.32	R/O 8TH STREET	7	178	
124+29.27	127+85.07	L/O 8TH STREET	7	277	
124+06.88	128+05.88	R/O 8TH STREET	7	315	
127+91.07	128+16.53	R/O 8TH STREET	10	105	
128+35.01	140+49.20	L/O 8TH STREET	6	816	
128+58.49	131+71.25	R/O 8TH STREET	6	215	
132+52.39	133+38.16	R/O 8TH STREET	6	56	
146+03.33	147+00.00	L/O 8TH STREET	6	86	
144+93.79	147+00.00	R/O 8TH STREET	6	137	
17+56.03	18+87.32	R/O HWY. 62/102	6	88	
17+83.18	18+97.87	L/O HWY. 62/102	6	76	
18+87.32	21+03.23	R/O HWY. 62/102	5		120
18+97.87	21+13.82	L/O HWY. 62/102	5		120
21+03.23	22+33.92	R/O HWY. 62/102	6	87	
21+13.82	22+55.63	L/O HWY. 62/102	6	95	
23+54.95	27+24.46	L/O HWY. 62/102	6	247	
TOTALS:				3077	240

CONCRETE ISLAND

STATION	LOCATION	CURB FACE TYPE	CONCRETE ISLAND SQ.YD.
139+96.26	R/O 8TH STREET	A	419
145+21.24	L/O 8TH STREET	A	259
23+11.00	L/O HWY. 62/102	A	51
TOTAL:			729

WHEELCHAIR RAMPS

STATION	LOCATION	TYPE 1	TYPE 3	TYPE 6
		SQ.YD.		
120+58.03	L/O 8TH STREET	85		
120+58.03	R/O 8TH STREET	83		
123+40.10	L/O 8TH STREET		14	
124+28.27	L/O 8TH STREET		14	
123+18.32	R/O 8TH STREET		14	
124+03.88	R/O 8TH STREET		14	
127+86.92	L/O 8TH STREET		5	
128+33.15	L/O 8TH STREET		5	
128+07.73	R/O 8TH STREET		5	
128+58.68	R/O 8TH STREET		6	
131+71.25	R/O 8TH STREET		5	
132+52.39	R/O 8TH STREET		13	
1058+98.91	L/O 8TH STREET RAMP 3	44		
1059+33.95	R/O 8TH STREET RAMP 1	78		
145+95.51	L/O 8TH STREET			12
16+46.85	L/O HWY. 62/102		9	
17+80.18	L/O HWY. 62/102		8	
22+38.92	R/O HWY. 62/102		8	
22+55.63	L/O HWY. 62/102		8	
23+47.69	R/O HWY. 62/102		6	
23+46.90	L/O HWY. 62/102			12
TOTALS:		290	134	24

4" PIPE UNDERDRAIN

STATION	STATION	LOCATIONS	4" PIPE UNDERDRAINS	UNDERDRAIN OUTLET PROTECTORS
			LIN. FT.	EACH
			0	
			0	
			0	
			0	
			0	
			0	
* ENTIRE PROJECT TO BE USED IF AND			500	10
WHERE DIRECTED BY THE ENGINEER				
TOTALS:			500	10

* NOTE: QUANTITIES ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

UNDERDRAINS SHALL BE STUBBED INTO THE PROPOSED DROP INLET IF AND WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR THIS TO BE INCLUDED IN THE UNIT PRICE BID FOR 4" PIPE UNDERDRAIN.

FENCING

STATION	STATION	LOCATION	WIRE FENCE (TYPE C)
			LIN. FT.
1047+91.59	1085+00.00	I-49 RT.	3895
1047+91.53	133+00.00	I-49 LT.	1651
133+00.00	1067+58.10	I-49 LT.	1590
1071+92.77	1088+50.00	I-49 LT.	1505
TOTAL:			8641

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	78	555
				(2)		QUANTITIES		

STRUCTURES

STATION	DESCRIPTION	REINFORCED CONCRETE PIPE CULVERT (CLASS III) 18"	(CLASS III) 24"	(CLASS III) 36"	(CLASS IV) 24"	(CLASS V) 18"	(CLASS V) 24"	PIPE CULVERT STORM DRAIN ALTERNATES 1 & 2 18"	FLARED END SECTIONS FOR R.C. PIPE CULVERTS 18"	24"	36"	SAFETY END SECTIONS FOR R.C. PIPE CULVERTS (CLASS I) 24"	36"	DROP INLETS TYPE E	MO	C	RM	ST	EXT. 4'	8'	JUNCT. BOXES (TYPE ST)	SPAN	HEIGHT	LENGTH	CLASS S CONCRETE-ROADWAY	REINF. STEEL-ROADWAY (GRADE 60)	SOLID SODDING	WATER	DUMPED RIPRAP	STD. DWG. NOS.
		LIN. FT.						LIN. FT.	EACH					EACH							EACH	LIN. FT.			CU.YD.	POUND	SQ.YD.	M.GAL.	CU. YD.	
120+39.50	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT					13								1																
120+40.40	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT TO EXIST.		111											1																FPC-9M, FPC-9E, PCC-1
120+48.27	8TH ST. CONST. J.B. ON RT. W/PIPE CULVERT	82																			1									FPC-9M, FPC-PE, PCC-1
120+93.69	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT	64												1					1											FPC-9S, PCC-1
120+93.69	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT							71						1					1											FPC-9M, FPC-9E, PCC-1
121+48.00	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT							48						1						1										FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
121+48.00	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT							48						1						1										FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
123+00.00	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT							150						1						1										FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
123+00.00	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT							150						1						1										FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
124+40.00	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT							139						1						1										FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
124+40.00	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT							136						1						1										FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
125+80.00	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT							136						1						1										FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
125+80.00	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT							136						1						1										FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
130+00.00	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT							95						1						1										FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
130+00.00	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT							91						1						1										FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
130+97.00	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT							63						1						1										FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
130+97.00	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT							61						1						1										FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
131+63.12	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT W/FES RT.	64							1					1					1										FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
131+63.12	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT	81												1					1							5	0.1		FPC-9M, FPC-9E, PCC-1, FES-1
132+55.00	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT W/FES RT.	12							1					1					1										FPC-9M, FPC-9E, PCC-1
132+55.00	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT	72												1					1							5	0.1		FPC-9M, FPC-9E, PCC-1, FES-1
134+50.00	8TH ST. CONST. PIPE CULVERT W/FES LT.			15						1																				FPC-9M, FPC-9E, PCC-1
134+50.00	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT W/FES RT.			8						1					1				1							17	0.2		PCC-1, FES-1
134+50.00	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT			85										1					1							17	0.2		FPC-9M, FPC-9E, PCC-1, FES-1
136+50.00	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT	96													1					1										FPC-9M, FPC-9E, PCC-1
136+50.00	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT							196							1					1										FPC-9M, FPC-9E, PCC-1
138+50.00	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT	96													1				1											FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
138+50.00	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT							196							1				1											FPC-9M, FPC-9E, PCC-1
139+86.70	8TH ST. CONST. D.I. ON RT. BEHIND CURB	85												1																FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
139+96.70	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT	72													1															FPC-9, PCC-1
139+96.90	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT							165							1															FPC-9M, FPC-9E, PCC-1
141+10.75	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT	96														1			1											FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
141+65.58	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT	165														1														FPC-9M, FPC-9E, PCC-1
143+68.77	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT	116														1														FPC-9M, FPC-9E, PCC-1
144+61.25	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT	116														1			1											FPC-9M, FPC-9E, PCC-1
145+80.64	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT	68													1															FPC-9M, FPC-9E, PCC-1
146+50.00	8TH ST. CONST. D.I. ON RT. W/PIPE CULVERT	86													1				1											FPC-9M, FPC-9E, PCC-1
146+50.00	8TH ST. CONST. D.I. ON LT. W/PIPE CULVERT W/FES LT.	32							1						1				1											FPC-9M, FPC-9E, PCC-1
1047+50.00	RAMP 2 (62/102) CONST. D.I. ON LT. W/PIPE CULVERT		33															1								5	0.1	5.0		FPC-9M, FPC-9E, PCC-1, FES-1
1052+00.00	RAMP 2 (62/102) CONST. D.I. IN MEDIAN W/PIPE CULVERT W/FES RT.		40							1						1														FPC-9S, PCC-1
1053+00.00	RAMP 2 (62/102) CONST. D.I. ON LT. W/PIPE CULVERT		97															1								8	0.1			FPC-9D, PCC-1, FES-1
1054+00.00	RAMP 2 (62/102) CONST. D.I. ON LT. W/PIPE CULVERT		82															1												FPC-9S, PCC-1
1054+85.00	RAMP 2 (62/102) CONST. D.I. ON LT. W/PIPE CULVERT		62															1												FPC-9S, PCC-1
1055+50.00	RAMP 2 (62/102) CONST. D.I. ON LT. W/PIPE CULVERT		96															1												FPC-9S, PCC-1
1056+50.00	RAMP 2 (62/102) CONST. D.I. ON LT. W/PIPE CULVERT		18															1												FPC-9S, PCC-1
1056+50.00	RAMP 2 (62/102) CONST. D.I. ON RT. W/PIPE CULVERT		150															1												FPC-9S, PCC-1
1058+00.00	RAMP 2 (62/102) CONST. D.I. ON LT. W/PIPE CULVERT		18															1												FPC-9S, PCC-1
1058+00.00	RAMP 2 (62/102) CONST. D.I. ON RT. W/PIPE CULVERT		134															1												FPC-9S, PCC-1
1059+35.00	RAMP 2 (62/102) CONST. D.I. ON LT. W/PIPE CULVERT		19															1												FPC-9S, PCC-1
1059+35.00	RAMP 2 (62/102) CONST. D.I. ON RT. W/PIPE CULVERT		10															1												FPC-9S, PCC-1
1059+35.00	RAMP 2 (62/102) CONST. J.B. ON RT. W/PIPE CULVERT W/ FES							312			1										1									FPC-9S, PCC-1
1049+00.00	RAMP 3 (62/102) CONST. D.I. ON LT. W/PIPE CULVERT		29												1											19	0.2			FPC-9S, PCC-1, FES-1
1049+00.00	RAMP 3 (62/102) CONST. D.I. IN MEDIAN RT. W/PIPE CULVERT		2													1														FPC-9, PCC-1
1049+00.00	RAMP 3 (62/102) CONST. D.I. ON RT. W/PIPE CULVERT		147															1												FPC-9D, PCC-1
1050+50.00	RAMP 3 (62/102) CONST. D.I. ON LT. W/PIPE CULVERT		19															1												FPC-9S, PCC-1
1050+50.00	RAMP 3 (62/102) CONST. D.I. ON RT. W/PIPE CULVERT		195															1												FPC-9S, PCC-1
1052+50.00	RAMP 3 (62/102) CONST. D.I. ON RT. W/PIPE CULVERT W/ FES LT.				24					1								1												FPC-9S, PCC-1
1055+00.00	RAMP 3 (62/102) CONST. D.I. ON RT. W/PIPE CULVERT		134															1								13	0.2			FPC-9S, PCC-1, FES-1
1056+38.00	RAMP 3 (62/102) CONST. D.I. ON RT. W/PIPE CULVERT		19															1												FPC-9S, PCC-1
1056+38.00	RAMP 3 (62/102) CONST. D.I. ON LT. W/PIPE CULVERT		5															1												FPC-9S, PCC-1
1056+38.00	RAMP 3 (62/102) CONST. J.B. ON LT. W/PIPE CULVERT W/FES							461		1											1									FPC-9S, PCC-1
1053+90.00	I-49 ST D.I. IN PLACE W/PIPE CULVERT LT.		77																							19	0.2			FPC-9S, PCC-1, FES-1
1053+90.00	I-49 CONST. D.I. ON LT. W/PIPE CULVERT							136										1												FPC-9D, PCC-1
1059+90.00	I-49 CONST. D.I. ON LT. W/PIPE CULVERT		6															1												FPC-9S, PCC-1
1060+00.00	I-49 CONST. D.I. ON LT. W/PIPE CULVERT W/FES		111							1								1												FPC-9S, PCC-1
1064+90.00	I-49 CONST. D.I. ON LT. W/PIPE CULVERT		7															1								19	0.2			FPC-9S, PCC-1, FES-1
1065+00.00	I-49 EXTEND EXISTING CULVERT ON LT.	49																												FPC-9S, PCC-1
1065+00.00	I-49 CONST. D.I. ON LT. W/PIPE CULVERT			397														1												PCC-1
1069+00.00	I-49 CONST. D.I. ON LT. W/PIPE CULVERT			197														1												FPC-9S, PCC-1
1071+00.00	I-49 CONST. D.I. ON LT. W/PIPE CULVERT W/FES			195						1								1												FPC-9S, PCC-1
1077+00.00	I-49 LT. EXTEND EXISTING CULVERT ON LT.	43							1																	41	0.5			FPC-9S, PCC-1, FES-1
1061+90.00	I-49 CONST. D.I. ON RT. W/PIPE CULVERT		6															1								5	0.1			PCC-1, FES-1
1062+00.00	I-49 CONST. D.I. ON RT. W/PIPE CULVERT W/FES		97									1						1												FPC-9S, PCC-1
1067+50.00	I-49 CONST. D.I. ON RT. W/PIPE CULVERT			36														1								19	0.2			FPC-9S, PCC-1, FES-1
1067+90.00	I-49 CONST. D.I. ON RT. W/PIPE CULVERT			6														1												FPC-9S, PCC-1
1068+00.00	I-49 CONST. D.I. ON RT. W/PIPE CULVERT			72														1												FPC-9S, PCC-1
1068+75.00	I-49 CONST. D.I. ON RT. W/PIPE CULVERT			221														1												FPC-9S, PCC-1
1071+00.00	I-49 CONST. D.I. ON RT. W/PIPE CULVERT W/FES			171								1						1												FPC-9S, PCC-1
1052+94.39	RAMP 1 (8TH ST.) CONST. D.I. ON RT. W/PIPE CULVERT		105															1								41	0.5			FPC-9S, PCC-1, FES-1
1054+00.00	RAMP 1 (8TH ST.) CONST. D.I. ON RT. W/PIPE CULVERT		102															1												FPC-9S, PCC-1
1069+00.00	RAMP 3 (8TH ST.) CONST. D.I. ON LT. W/PIPE CULVERT		29															1												FPC-9S, PCC-1
1069+00.00	RAMP 3 (8TH ST.) CONST. D.I. ON RT. W/PIPE CULVERT		7															1												FPC-9S, PCC-1
18+39.30	HWY. 102 EXTEND EXISTING CULVERT LT. CONST. D.I. LT W/FES	5							1						1				1											FPC-9S, PCC-1
18+38.72	HWY. 102 EXTEND EXISTING CULVERT RT. CONST. D.I. RT. W/FES	10							1						1				1							5	0.1			FPC-9M, FPC-9E, PCC-1, FES-1
18+38.00	HWY. 102 TIE EXISTING CULVERT TO NEW STRUCTURES LT. & RT.	10													1				1							5	0.1			FPC-9M, FPC-9E, PCC-1, FES-1
20+05.00	HWY. 102 CONST. D.I. ON LT. W/PIPE CULVERT							146												1										PCC-1
19+99.00	HWY. 102 CONST. D.I. ON RT. W/PIPE CULVERT							452							1					1										FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
21+55.00	HWY. 102 CONST. D.I. ON LT. W/PIPE CULVERT W/FES	61							1						1				1											FPC-9M, FPC-9E, PCC-1, PCP-1, PCP-2
21+55.00	HWY. 102 CONST. D.I. ON RT. W/PIPE CULVERT W/FES	10							1						1				1							7	0.1			FPC-9M, FPC-9E, PCC-1, FES-1
24+00.00	HWY. 102 CONST. D.I. ON LT. CONNECT TO EXISTING R.C. BOX															1			1							5	0.1			FPC-9M, FPC-9E, PCC-1, FES-1
24+00.00	HWY. 102 EXTEND EXISTING DBL. 5'X3' R.C. BOX LT.																													FPC-9E
1032+43.00	RAMP 2 (62/102) EXTEND EXISTING CULVERT RT.		2																		5	3	8	5.37	987					RCB-1, RCB-2, RCB-3
1032+37.00	RAMP 2 (62/102) EXTEND EXISTING CULVERT RT.		8																											PCC-1
																														PCC-1
TOTALS:		1591	1977	1403	24	13	909	2476	8	4	3	2	1	2	34	8	2	36	26	9	3				5.37	987	255	3.3	5.0	

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.

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING CU.YD.
ENTIRE PROJECT TO BE USED IF	
AND WHERE DIRECTED BY THE	100
ENGINEER	
TOTAL:	100

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

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	79	555

(2) QUANTITIES

BASE AND SURFACING (BOX 1 OF 3)

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")									P.C.C.P. (12" UNIFORM THICKNESS)	
				TON / STATION	TON	AVG. WID.	SQ.YD.	GALLONS / SQ.YD.	GALLON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 70-22	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 70-22	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	TOTAL PG 76-22	AVG. WID.	SQ.YD.
			FEET			FEET				FEET			TON	TON	FEET			TON	TON	FEET			TON	FEET			TON	TON	FEET	
MAIN LANES																														
1032+98.74	1035+98.74	L/O SB LANES (TRANS.)	300.00	VARIES	551.25	24.69	823.00	0.05	41.15	6.25	208.33	880		91.67	6.13	204.33	440		44.95	6.06	202.00	220	22.22	12.00	400.00	220	44.00	66.22			
1035+98.74	1043+45.89	L/O SB LANES	747.15	209.00	1561.54	49.38	4099.36	0.05	204.97	12.50	1037.71	880		456.59	12.25	1016.95	440		223.73	12.13	1006.99	220	110.77	18.00	1494.30	220	164.37	275.14			
1045+94.95	1045+98.74	L/O SB LANES	3.79	209.00	7.92	49.38	20.79	0.05	1.04	12.50	5.26	880		2.31	12.25	5.16	440		1.14	12.13	5.11	220	0.56	18.00	7.58	220	0.83	1.39			
1045+98.74	1048+75.60	L/O SB LANES (VARIES)	276.86	VARIES	189.63	VARIES	1023.60	0.05	51.18	VARIES	255.90	880		112.60	VARIES	255.90	440		56.30	VARIES	255.90	220	28.15	VARIES	330.43	220	36.35	64.50			
1060+40.43	1065+56.78	L/O SB LANES (VARIES)	516.35	VARIES	793.23	VARIES	3241.51	0.05	162.08	VARIES	819.34	880		360.51	VARIES	805.00	440		177.10	VARIES	797.83	220	87.76	VARIES	1216.94	220	133.86	221.62			
1065+56.78	1067+31.78	L/O SB LANES	175.00	209.00	365.75	49.38	960.17	0.05	48.01	12.50	243.06	880		106.95	12.25	238.19	440		52.40	12.13	235.86	220	25.94	18.00	350.00	220	38.50	64.44			
1067+31.78	1070+31.78	L/O SB LANES (TRANS.)	300.00	VARIES	551.25	24.69	823.00	0.05	41.15	6.25	208.33	880		91.67	6.13	204.33	440		44.95	6.06	202.00	220	22.22	12.00	400.00	220	44.00	66.22			
1070+45.64	1076+63.40	L/O SB LANES (VARIES)	617.76	VARIES	1382.38	VARIES	4313.89	0.05	215.69	VARIES	1089.20	880		479.25	VARIES	1072.04	440		235.85	VARIES	1063.45	220	116.98	VARIES	1546.40	220	170.10	287.08			
1076+63.40	1083+03.40	L/O SB LANES	640.00	209.00	1337.60	49.38	3511.47	0.05	175.57	12.50	888.89	880		391.11	12.25	871.11	440		191.64	12.13	862.58	220	94.88	18.00	1280.00	220	140.80	235.68			
1083+03.40	1086+03.40	L/O SB LANES (TRANS.)	300.00	VARIES	551.25	24.69	823.00	0.05	41.15	6.25	208.33	880		91.67	6.13	204.33	440		44.95	6.06	202.00	220	22.22	12.00	400.00	220	44.00	66.22			
1032+98.90	1035+98.90	R/O NB LANES (TRANS.)	300.00	VARIES	551.25	24.69	823.00	0.05	41.15	6.25	208.33	880		91.67	6.13	204.33	440		44.95	6.06	202.00	220	22.22	12.00	400.00	220	44.00	66.22			
1035+98.90	1043+60.38	R/O NB LANES	761.48	209.00	1591.49	49.38	4177.99	0.05	208.90	12.50	1057.61	880		465.35	12.25	1036.46	440		228.02	12.13	1026.31	220	112.89	18.00	1522.96	220	167.53	280.42			
1046+09.57	1046+98.90	R/O NB LANES	89.33	209.00	186.70	49.38	490.12	0.05	24.51	12.50	124.07	880		54.59	12.25	121.59	440		26.75	12.13	120.40	220	13.24	18.00	178.66	220	19.65	32.89			
1046+98.90	1055+16.52	R/O NB LANES (VARIES)	817.62	VARIES	1539.63	VARIES	2636.51	0.05	131.83	VARIES	666.99	880		293.46	VARIES	654.41	440		143.97	VARIES	648.12	220	71.29	VARIES	1210.53	220	133.16	204.45			
1066+17.56	1070+57.66	R/O NB LANES	440.10	209.00	919.81	49.38	2414.68	0.05	120.73	12.50	611.25	880		268.95	12.25	599.03	440		131.79	12.13	593.16	220	65.25	18.00	880.20	220	96.82	162.07			
1070+57.66	1073+57.66	R/O NB LANES (TRANS.)	300.00	VARIES	551.25	24.69	823.00	0.05	41.15	6.25	208.33	880		91.67	6.13	204.33	440		44.95	6.06	202.00	220	22.22	12.00	400.00	220	44.00	66.22			
1073+57.66	1079+31.16	R/O NB LANES (VARIES)	573.50	VARIES	1105.04	VARIES	2114.85	0.05	105.74	VARIES	534.35	880		235.11	VARIES	525.33	440		115.57	VARIES	520.82	220	57.29	VARIES	909.15	220	100.01	157.30			
1079+31.16	1083+95.99	R/O NB LANES	464.83	209.00	971.49	49.38	2550.37	0.05	127.52	12.50	645.60	880		284.06	12.25	632.69	440		139.19	12.13	626.49	220	68.91	18.00	929.66	220	102.26	171.17			
1083+95.99	1086+95.99	R/O NB LANES (TRANS.)	300.00	VARIES	551.25	24.69	823.00	0.05	41.15	6.25	208.33	880		91.67	6.13	204.33	440		44.95	6.06	202.00	220	22.22	12.00	400.00	220	44.00	66.22			
HWY. 62/102 RAMPS																														
1026+57.69	1030+91.98	RAMP 1 (VARIES)	434.29	VARIES	486.69	VARIES	6412.83	0.05	320.64	VARIES	2899.17	880		1275.63	VARIES	310.22	440		68.25	VARIES	304.27	220	33.47	VARIES	488.63	220	53.75	87.22			
1030+91.98	1031+54.83	RAMP 1 (VARIES)	62.85	VARIES	53.88	VARIES	540.64	0.05	27.03	VARIES	142.11	880		62.53	VARIES	128.21	440		28.21	VARIES	128.21	220	14.10	VARIES	128.21	220	14.10	28.20			
1032+07.94	1033+07.62	RAMP 2 (VARIES)	99.68	VARIES	71.81	VARIES	757.27	0.05	37.86	VARIES	203.43	880		89.51	VARIES	165.92	440		36.50	VARIES	184.49	220	20.29	VARIES	184.49	220	20.29	40.58			
1036+00.00	1059+47.95	RAMP 2 (LANE ONLY)	2347.95	63.25	1485.08	62.75	16370.43	0.05	818.52	16.00	4174.13	880		1836.62	15.50	4043.69	440		889.61	15.25	3978.47	220	437.63	15.00	3913.25	220	430.46	868.09			
1061+41.28	1064+78.16	RAMP 2 (LANE ONLY)	336.88	63.25	213.08	62.75	2348.80	0.05	117.44	16.00	598.90	880		263.52	15.50	580.18	440		127.64	15.25	570.82	220	62.79	15.00	561.47	220	61.76	124.55			
1036+00.00	1040+50.00	RAMP 2 (LT. SHLDR.)	450.00	137.25	617.63																			4.00	200.00	220	22.00	22.00			
1040+50.00	1052+15.00	RAMP 2 (LT. SHLDR.)	1165.00	82.75	964.04																			4.00	517.78	220	56.96	56.96			
1052+15.00	1056+50.00	RAMP 2 (LT. SHLDR.)	435.00	62.75	272.96																			4.00	193.33	220	21.27	21.27			
1056+50.00	1059+47.95	RAMP 2 (LT. SHLDR.)	297.95	62.75	186.96																			4.00	132.42	220	14.57	14.57			
1061+41.28	1064+78.16	RAMP 2 (LT. SHLDR.)	336.88	137.25	462.37																			4.00	149.72	220	16.47	16.47			
1036+00.00	1039+00.00	RAMP 2 (RT. SHLDR.)	300.00	158.50	475.50																			6.00	200.00	220	22.00	22.00			
1039+00.00	1040+60.00	RAMP 2 (RT. SHLDR.)	160.00	176.00	281.60																			11.50	204.44	220	22.49	22.49			
1040+60.00	1050+00.00	RAMP 2 (RT. SHLDR.)	940.00	159.75	1501.65																			11.50	1201.11	220	132.12	132.12			
1050+00.00	1052+25.00	RAMP 2 (RT. SHLDR.)	225.00	159.75	359.44																			11.50	287.50	220	31.63	31.63			
1052+25.00	1052+50.00	RAMP 2 (RT. SHLDR.)	25.00	159.75	39.94																			11.50	31.94	220	3.51	3.51			
1052+50.00	1055+50.00	RAMP 2 (RT. SHLDR.)	300.00	176.00	528.00																			11.50	383.33	220	42.17	42.17			
1055+50.00	1059+47.95	RAMP 2 (RT. SHLDR.)	397.95	87.25	347.21																			6.00	265.30	220	29.18	29.18			
1059+47.95	1061+41.28	RAMP 2 (VARIES)	193.33	125.78	243.17																								29.83	640.78
1061+41.28	1064+78.16	RAMP 2 (RT. SHLDR.)	336.88	158.50	533.95																			6.00	224.59	220	24.70	24.70			
1030+08.22	1030+82.74	RAMP 3 (VARIES)	74.52	VARIES	239.80	VARIES	2462.01	0.05	123.10	VARIES	632.43	880		278.27	VARIES	592.83	440		130.42	VARIES	604.32	220	66.48	VARIES	606.15	220	66.68	133.16			
1030+82.74	1032+78.70	RAMP 3 (LANES ONLY)	195.96	202.25	396.33	194.75	4240.36	0.05	212.02	49.00	1066.89	880		469.43	48.50	1056.01	440		232.32	48.25	1050.56	220	115.56	48.00	1045.12	220	114.96	230.52			
1032+78.70	1035+28.70	RAMP 3 (LANES ONLY) (TRANS.)	250.00	132.75	331.88	128.75	3576.39	0.05	178.82	32.50	902.78	880		397.22	32.00	888.89	440		195.56	31.75	881.94	220	97.01	31.50	875.00	220	96.25	193.26			
1035+28.70	1056+33.55	RAMP 3 (LANE ONLY)	2104.85	63.25	1331.32	62.75	14675.48	0.05	733.77	16.00	3741.96	880		1646.46	15.50	3625.02	440		797.50	15.25	3566.55	220	392.32	15.00	3508.08	220	385.89	778.21			
1056+33.55	1059+56.31	RAMP 3 (VARIES)	322.76	117.35	378.76																								27.83	998.05
1059+56.31	1062+52.32	RAMP 3 (LANE ONLY)	296.01	63.25	187.23	62.75	2063.85	0.05	103.19	16.00	526.24	880		231.55	15.50	509.80	440		112.16	15.25	501.57	220	55.17	15.00	493.35	220	54.27	109.44			
1030+82.74	1037+65.00	RAMP 3 (LT. SHLDR.)	682.26	158.50	1081.38																			6.00	454.84	220	50.03	50.03			
1037+65.00	1048+84.73	RAMP 3 (LT. SHLDR.)	1119.73	159.75	1788.77																			11.50	1430.77	220	157.38	157.38			
1048+84.73	1053+65.00	RAMP 3 (LT. SHLDR.)	480.27	43.00	206.52																										
1053+65.00	1056+33.55	RAMP 3 (LT. SHLDR.)	268.55	83.25	223.57																										
1059+56.31	1062+52.32	RAMP 3 (LT. SHLDR.)	296.01	158.50	469.18																										
1030+82.74	1037+60.00	RAMP 3 (RT. SHLDR.)	667.26	137.25	915.81																			11.50	378.24	220	41.61	41.61			
1037+50.00	1049+15.34	RAMP 3 (RT. SHLDR.)	1165.34	61.25	713.77																			4.00	296.56	220	32.62	32.62			
1049+15.34	1056+33.55	RAMP 3 (RT. SHLDR.)	718.21	62.75	450.68																			2.00	258.96	220	28.49	28.49			
1059+56.31	1062+52.32	RAMP 3 (RT. SHLDR.)	296.01	137.25	406.27																			4.00	319.20	220	35.11	35.11			
																								9.50	312.46	220	34.37	34.37			
8TH STREET RAMPS																														
1051+19.79	1054+82.11	RAMP 1 (LANE ONLY)	362.32	101.00	365.94	98.75	3975.46	0.05	198.77	25.00	1006.44	880		442.83	24.50	986.32	440		216.99	24.25	976.25	220	107.39	24.00	966.19	220	106.28	213.67			
1054+82.11	1055+82.11	RAMP 1 (LANE ONLY) (TRANS.)	100.00	126.38	126.38	122.07	1356.33	0.05	67.82	30.75	341.67	880		150.33	30.38	337.56	440		74.26	30.19	335.44	220	36.90	30.00	333.33	220	36.67	73.57			
1055+82.11	1058+96.49	RAMP 1 (LANE ONLY)	314.38	151.75	477.07	145.38	5078.28	0.05	253.91	36.50	1274.99	880		561.00	36.25	1266.25	440		278.58	36.13	1262.06	220	138.83	36.00	1257.52	220	138.33	277.16			
1058+96.49	1069+61.08	RAMP 1 (VARIES)	64.59	VARIES	210.08	VARIES	1884.53	0.05	94.23	VARIES	498.71	880		219.43	VARIES	443.66	440		97.61	VARIES	443.45	220	48.78	VARIES	450.03	220	49.50	98.28			
1051+19.79	1055+82.11	RAMP 1 (LT. SHLDR.)	462.32	137.25	634.53																			4.00	205.48	220	22.60	22.60			
1055+82.11	1058+96.49	RAMP 1 (LT. SHLDR.)	314.38	155.25	488.07																			9.50	331.85	220	36.50	36.50			
1051+19.79	1052+92.36	RAMP 1 (RT. SHLDR.)	172.57	176.00	303.72																			11.50	220.51	220	24.26	24.26			
1052+92.36	1054+82.11	RAMP 1 (RT. SHLDR.)	189.75	87.25	165.56																			6.00	126.50	220	13.92	13.92			
1054+82.11	1055+52.41	RAMP 1 (RT. SHLDR.)	70.30	133.25	93.67																										
1055+52.41	1058+96.49	RAMP 1 (RT. SHLDR.)	344.08	43.00	147.95																										
1061+11.34	1062+94.19	RAMP 2 (VARIES)	182.85	VARIES	752.82	VARIES	3587.87	0.05	179.39	VARIES	928.15	880		408.39	VARIES	867.28	440		190.80	VARIES	864.29	220	95.07	VARIES	800.17	220	88.02	183.09			
1062+94.19	1076+05.89	RAMP 2 (LANE ONLY)	1311.70	63.25	829.65	62.75	9145.46	0.05	457.27	16.00	2331.91	880		1026.04	15.50	2269.04	440		496.99	15.25	2222.60	220	244.49	15.00	2186.17	220	240.48	484.97			
1062+94.19	1069+80.00	RAMP 2 (LT. SHLDR.)	685.81	136.50	936.13																			9.50	723.91	220	79.63	79.63			
1069+80.00	1076+05.89	RAMP 2 (LT. SHLDR.)	625.89	137.25	859.03																			4.00	278.17	220	30.60	30.60			
1062+94.19	1076+05.89	RAMP 2 (RT. SHLDR.)	1311.70	158.50	2079.04																			6.00	874.47	220	96.19	96.19			
1058+74.59	1059+41.92	RAMP 3 (VARIES)	67.33	VARIES	175.68	VARIES	1585.23	0.05	79.26	VARIES	424.20	880		186.65	VARIES	368.49	440		81.07	VARIES	368.34	220	40.52	VARIES	372.99	220	41.03	81.55			
1059+41.92	1063+80.72	RAMP 3 (LANES ONLY)	438.80	101.00	443.19	98.75	4814.61	0.05	240.73	25.00	1218.89	880		536.31	24.50	1194.51	440		262.79	24.25	1182.32	220	130.06	24.00	1170.13	220	128.71	258.77			
1063+80.72	1064+80.72	RAMP 3 (LANES ONLY) (TRANS.)	100.00	82.13	82.13	80.75	897.22	0.05	44.86	20.50	227.78	880		100.22	20.00	222.22	440		48.89	19.75	219.44	220	24.14	19.50	216.67	220	23.83	47.97			
1064+80.72	1072+57.29	RAMP 3 (LANE ONLY)	776.57	63.25	491.18	62.75	5414.42	0.05	270.72	16.00	1380.57	880		607.45	15.50	1337.43	440		294.23	15.25	1315.85	220	144.74	15.00	1294.28	220	142.37	287.11			
1059+41.92	1065+00.00	RAMP 3 (LT. SHLDR.)	558.08	158.50	884.56																			15.00	372.05	220	40.93	40.93			
1065+00.00	1067+00.00	RAMP 3 (LT. SHLDR.)	200.00	87.25	174.50																			6.00	133.33	220	14.67	14.67			
1067+00.00	1072+00.00	RAMP 3 (LT. SHLDR.)	500.00	73.00	365.00																			4.00	222.22	220	24.44	24.44			
1072+00.00	1072+33.59	RAMP 3 (LT. SHLDR.)	33.59	143.75	48.29																			4.00	14.93	220	1.64	1.64			
1072+33.59	1072+57.29	RAMP 3 (LT. SHLDR.)	23.70	214.50	50.84																			11.50	30.28	220	3.33	3.33			
1059+41.92	1069+10.00	RAMP 3 (RT. SHLDR.)	968.08	136.50	1321.43																			9.50	1021.86	220	112.40	112.40			
1069+10.00	1070+54.41	RAMP 3 (RT. SHLDR.)	144.41	194.50	280.88																			9.50	152.43	220	16.77	16.77			
1070+54.41	1072+57.29	RAMP 3 (RT. SHLDR.)	202.88	137.25	278.45																			4.00	90.17	220	9.92	9.92			
1047+60.07	1049+53.62	RAMP 4 (LANE ONLY)	193.55	63.25	122.42	62.75	1349.47	0.05	67.47	16.00	344.09	880		151.40	15.50	333.34	440		73.33	15.25	327.96	220	36.08	15.00	322.58	220	35.48	71.56			
1049+53.62	1051+95.20	RAMP 4 (LANES ONLY) (TRANS.)	241.58	82.13	198.41	80.75	2167.51	0.05	108.38	20.50	550.27	880		242.12	20.00	536.84	440		118.10	19.75	530.13	220	58.31	19.50	523.42	220	57.58	115.89			
1051+95.20	1056+12.02	RAMP 4 (LANES ONLY)	416.82	101.00	420.99	98.75	4573.44	0.05	228.67	25.00	1157.83	880		509.45	24.50	1134.68	440		249.63	24.25	1123.10	220	123.54	24.00	1111.52	220	122.27	245.81			
1056+12.02	1058+50.50	RAMP 4 (VARIES)	238.48	VARIES	1037.93	VARIES	5502.54	0.05	275.13	VARIES	1407.69	880		619.38	VARIES	1345.14	440		295.93	VARIES	1342.02	220	147.62	VARIES	1240.33	220	136.44	284.06			
1045+98.74	1047+31.47	RAMP 4 (LT. SHLDR.)	132.73	109.75	145.67																										
1047+31.47	1049+98.60	RAMP 4 (LT. SHLDR.)	267.13	43.00	114.87																										
1049+98.60	1056+12.02	RAMP 4 (LT. SHLDR.)	613.42	43.00	263.77																										
1047+60.07	1049+53.62	RAMP 4 (RT. SHLDR.)	193.55	137.25	265.65																										
1049+53.62	1056+12.02	RAMP 4 (RT. SHLDR.)	658.40	155.25	1022.17																			4.00	86.02	220	9.46	9.46			
																								9.50	694.98	220	76.45	76.45			
TOTALS BOX 1					50636.54		142177.52		7106.86		37438.79			16473.09		33817.87			7439.91		33482.05		3683.00		51713.01		5688.43	9371.43			1638.83

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.4% MIN. AGGR.....5.6% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.3% MIN. AGGR.....4.7% ASPHALT BINDER
ACHM BASE COURSE (1 1/2").....95.7% MIN. AGGR.....4.3% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		090376	80	555

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

BASE AND SURFACING (BOX 2 OF 3)

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")									P.C.C.P. (12" UNIFORM THICKNESS)	
				TON / STATION	TON	AVG. WID.	SQ.YD.	GALLONS / SQ.YD.	GALLON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 70-22	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 70-22	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	TOTAL PG 76-22	AVG. WID.	SQ.YD.
			FEET			FEET				FEET			TON	TON	FEET			TON	TON	FEET			TON	FEET			TON	TON	FEET	
ADDITIONAL FOR SUPERELEVATION																													
1036+00.00	1038+65.05	RAMP 2 (HWY. 62/102) (TRANS.)	265.05	21.75	57.65																								
1038+65.05	1041+52.55	RAMP 2 (HWY. 62/102) (0.072/') (RT.)	287.50	43.50	125.06																								
1041+52.55	1043+77.55	RAMP 2 (HWY. 62/102) (TRANS.)	225.00	21.75	48.94																								
1045+87.40	1048+47.40	RAMP 2 (HWY. 62/102) (TRANS.)	260.00	11.38	29.59																								
1048+47.40	1051+65.43	RAMP 2 (HWY. 62/102) (0.088/') (RT.)	318.03	22.75	72.35																								
1051+65.43	1054+25.43	RAMP 2 (HWY. 62/102) (TRANS.)	260.00	11.38	29.59																								
1064+25.43	1067+15.43	RAMP 2 (HWY. 62/102) (TRANS.)	290.00	7.13	20.68																								
1057+15.43	1057+69.82	RAMP 2 (HWY. 62/102) (0.100/') (LT.)	54.39	14.25	7.75																								
1057+69.82	1060+59.82	RAMP 2 (HWY. 62/102) (TRANS.)	290.00	7.13	20.68																								
1060+59.82	1062+84.82	RAMP 2 (HWY. 62/102) (TRANS.)	225.00	39.63	89.17																								
1062+84.82	1065+15.08	RAMP 2 (HWY. 62/102) (0.072/') (RT.)	230.26	79.25	182.48																								
1065+15.08	1067+40.08	RAMP 2 (HWY. 62/102) (TRANS.)	225.00	39.63	89.17																								
1030+75.48	1032+25.48	RAMP 3 (HWY. 62/102) (TRANS.)	150.00	11.75	17.63																								
1032+25.48	1032+51.36	RAMP 3 (HWY. 62/102) (0.040/') (RT.)	25.88	23.50	6.08																								
1032+51.36	1034+01.36	RAMP 3 (HWY. 62/102) (TRANS.)	150.00	11.75	17.63																								
1034+01.36	1036+26.36	RAMP 3 (HWY. 62/102) (TRANS.)	225.00	34.00	76.50																								
1036+26.36	1038+49.30	RAMP 3 (HWY. 62/102) (0.072/') (LT.)	222.94	68.00	151.60																								
1038+49.30	1040+74.30	RAMP 3 (HWY. 62/102) (TRANS.)	225.00	34.00	76.50																								
1048+67.77	1051+37.77	RAMP 3 (HWY. 62/102) (TRANS.)	270.00	5.75	15.53																								
1051+37.77	1055+42.25	RAMP 3 (HWY. 62/102) (0.092/') (RT.)	404.48	11.50	46.52																								
1055+42.25	1058+12.25	RAMP 3 (HWY. 62/102) (TRANS.)	270.00	5.75	15.53																								
1061+47.32	1063+47.32	RAMP 3 (HWY. 62/102) (TRANS.)	200.00	26.63	53.26																								
1063+47.32	1065+06.78	RAMP 3 (HWY. 62/102) (0.057/') (LT.)	159.46	53.25	84.91																								
1065+06.78	1067+06.78	RAMP 3 (HWY. 62/102) (TRANS.)	200.00	26.63	53.26																								
1046+98.90	1048+28.90	RAMP 1 (8TH STREET) (TRANS.)	130.00	21.75	28.28																								
1048+28.90	1053+51.68	RAMP 1 (8TH STREET) (0.072/') (RT.)	522.78	43.50	227.41																								
1053+51.68	1055+76.68	RAMP 1 (8TH STREET) (TRANS.)	225.00	21.75	48.94																								
1055+76.68	1057+26.68	RAMP 1 (8TH STREET) (TRANS.)	150.00	11.88	17.82																								
1057+26.68	1058+08.96	RAMP 1 (8TH STREET) (0.058/') (LT.)	82.28	23.75	19.54																								
1058+08.96	1059+58.96	RAMP 1 (8TH STREET) (TRANS.)	150.00	11.88	17.82																								
1061+74.56	1063+24.56	RAMP 2 (8TH STREET) (TRANS.)	150.00	11.50	17.25																								
1063+24.56	1064+46.32	RAMP 2 (8TH STREET) (0.058/') (LT.)	121.76	23.00	28.00																								
1064+46.32	1065+96.32	RAMP 2 (8TH STREET) (TRANS.)	150.00	11.50	17.25																								
1059+50.08	1061+00.08	RAMP 3 (8TH STREET) (TRANS.)	150.00	7.13	10.70																								
1061+00.08	1062+69.94	RAMP 3 (8TH STREET) (0.046/') (RT.)	169.86	14.25	24.21																								
1062+69.94	1064+19.94	RAMP 3 (8TH STREET) (TRANS.)	150.00	7.13	10.70																								
1064+19.94	1066+19.94	RAMP 3 (8TH STREET) (TRANS.)	200.00	2.25	4.50																								
1066+19.94	1067+08.59	RAMP 3 (8TH STREET) (0.031/') (LT.)	88.65	4.50	3.99																								
1067+08.59	1069+08.59	RAMP 3 (8TH STREET) (TRANS.)	200.00	2.25	4.50																								
1072+75.33	1074+75.33	RAMP 3 (8TH STREET) (TRANS.)	200.00	14.50	29.00																								
1074+75.33	1076+13.40	RAMP 3 (8TH STREET) (0.040/') (LT.)	138.07	29.00	40.04																								
1076+13.40	1078+13.40	RAMP 3 (8TH STREET) (TRANS.)	200.00	14.50	29.00																								
1045+98.74	1047+05.59	RAMP 4 (8TH STREET) (TRANS.)	106.85	8.38	8.95																								
1047+05.59	1047+61.90	RAMP 4 (8TH STREET) (0.034/') (LT.)	56.31	16.75	9.43																								
1047+61.90	1050+11.90	RAMP 4 (8TH STREET) (TRANS.)	250.00	25.13	62.83																								
1050+11.90	1054+97.16	RAMP 4 (8TH STREET) (0.083/') (RT.)	485.26	33.50	162.56																								
1054+97.16	1057+47.16	RAMP 4 (8TH STREET) (TRANS.)	250.00	16.75	41.88																								
ADDITIONAL FOR GUARDRAIL																													
1032+03.84	1033+22.55	L/O SB LANES	118.71	17.50	20.77																								
1033+22.55	1033+72.55	L/O SB LANES (SLOPE TRANS.)	50.00	36.75	18.38																							5.50	72.55
1033+72.55	1034+57.55	L/O SB LANES	85.00	56.00	47.60																							5.50	30.56
1034+57.55	1034+90.55	L/O SB LANES (WIDTH TRANS.)	33.00	28.00	9.24																							5.50	51.94
1037+34.43	1037+67.43	R/O SB LANES (WIDTH TRANS.)	33.00	28.00	9.24																							2.75	10.08
1037+67.43	1038+52.43	R/O SB LANES	85.00	56.00	47.60																							2.75	10.08
1038+52.43	1039+02.43	R/O SB LANES (SLOPE TRANS.)	50.00	36.75	18.38																							5.50	51.94
1039+02.43	1046+98.90	R/O SB LANES	796.47	17.50	139.38																							5.50	30.56
1040+57.00	1040+90.00	L/O SB LANES (WIDTH TRANS.)	33.00	28.00	9.24																							5.50	486.73
1040+90.00	1041+75.00	L/O SB LANES	85.00	56.00	47.60																							2.75	10.08
1041+75.00	1042+25.00	L/O SB LANES (SLOPE TRANS.)	50.00	36.75	18.38																							5.50	51.94
1042+25.00	1045+93.75	L/O SB LANES	368.75	17.50	64.53																							5.50	30.56
1064+63.77	1064+96.77	L/O SB LANES (WIDTH TRANS.)	33.00	25.00	8.25																							5.50	225.35
1064+96.77	1067+41.77	L/O SB LANES	245.00	56.00	137.20																							2.75	10.08
1067+41.77	1067+74.77	L/O SB LANES (WIDTH TRANS.)	33.00	28.00	9.24																							5.50	149.72
																												2.75	10.08
1076+63.40	1079+12.34	L/O SB LANES	248.94	56.00	139.41																								
1079+12.34	1079+45.34	L/O SB LANES (WIDTH TRANS.)	33.00	28.00	9.24																							5.50	152.13
1038+38.25	1038+71.25	L/O RAMP 2 (HWY. 62/102) (WIDTH TRANS.)	33.00	28.63	9.45																							2.75	10.08
1038+71.25	1039+56.25	L/O RAMP 2 (HWY. 62/102)	85.00	57.25	48.66																							2.75	10.08
1039+56.25	1040+06.25	L/O RAMP 2 (HWY. 62/102) (SLOPE TRANS.)	50.00	37.63	18.82																							5.50	51.94
1040+06.25	1040+50.00	L/O RAMP 2 (HWY. 62/102)	43.75	18.00	7.88																							5.50	30.56
1038+57.00	1038+90.00	R/O RAMP 2 (HWY. 62/102) (TRANS.)	33.00	28.00	9.24																							5.50	26.74
1038+90.00	1039+00.00	R/O RAMP 2 (HWY. 62/102)	10.00	56.00	5.60																							2.75	10.08
1037+22.00	1037+55.00	L/O RAMP 3 (HWY. 62/102) (WIDTH TRANS.)	33.00	28.00	9.24																							5.50	6.11
1037+55.00	1037+65.00	L/O RAMP 3 (HWY. 62/102)	10.00	56.00	5.60																							2.75	10.08
1059+56.31	1061+00.06	L/O RAMP 3 (HWY. 62/102)	143.75	17.50	25.16																							5.50	6.11
1061+00.06	1061+50.06	L/O RAMP 3 (HWY. 62/102) (SLOPE TRANS.)	50.00	36.75	18.38																							5.50	87.85
1061+50.06	1062+35.06	L/O RAMP 3 (HWY. 62/102)	85.00	56.00	47.60																							5.50	30.56
1062+35.06	1062+68.06	L/O RAMP 3 (HWY. 62/102) (WIDTH TRANS.)	33.00	28.00	9.24																							5.50	51.94
1059+56.31	1060+00.06	R/O RAMP 3 (HWY. 62/102)	43.75	18.00	7.88																							2.75	10.08
1060+00.06	1060+50.06	R/O RAMP 3 (HWY. 62/102) (SLOPE TRANS.)	50.00	37.63	18.82																							5.50	26.74
1060+50.06	1061+35.06	R/O RAMP 3 (HWY. 62/102)	85.00	57.25	48.66																							5.50	30.56
1061+35.06	1061+68.06	R/O RAMP 3 (HWY. 62/102) (WIDTH TRANS.)	33.00	28.63	9.45																							5.50	51.94
1054+19.92	1054+52.92	L/O RAMP 1 (8TH STREET) (WIDTH TRANS.)	33.00	28.63	9.45																							2.75	10.08
1054+52.92	1055+37.92	L/O RAMP 1 (8TH STREET)	85.00	57.25	48.66																							2.75	10.08
1055+37.92	1055+82.11	L/O RAMP 1 (8TH STREET) (SLOPE TRANS.)	44.19	39.91	17.64																							5.50	51.94
1069+80.00	1069+90.00	L/O RAMP 2 (8TH STREET)	10.00	18.00	1.80																							5.50	27.01
1069+90.00	1070+23.00	L/O RAMP 2 (8TH STREET) (WIDTH TRANS.)	33.00	9.00	2.97																							5.50	6.11
1070+54.41	1070+64.41	R/O RAMP 3 (8TH STREET)	10.00	57.25	5.73																							2.75	10.08
1070+64.41	1070+97.41	R/O RAMP 3 (8TH STREET) (WIDTH TRANS.)	33.00	28.63	9.45																							5.50	6.11
1053+97.00	1054+30.00	R/O RAMP 4 (8TH STREET) (WIDTH TRANS.)	33.00	28.63	9.45																							2.75	10.08
1054+30.00	1054+40.08	R/O RAMP 4 (8TH STREET)	10.08	57.25	5.77																							2.75	10.08
																												5.50	6.16
8TH STREET																													
120+24.03	120+97.79	8TH STREET (VARIES)	73.76			VARIES	2985.68	0.05	149.28	VARIES	1049.45	550	288.60		VARIES	984.88	440	216.67		VARIES	1015.92	220	111.75	VARIES	1015.92	220	111.75	223.50		
120+97.79	128+77.02	8TH STREET	779.23			137.00	11861.61	0.05	593.08	54.00	4675.38	550	1285.73		44.00	3809.57	440	838.11		44.00	3809.57	220	419.05	44.00	3809.57	220	419.05	838.10		
128+77.02	141+50.61	8TH STREET	1273.59			137.00	19386.87	0.05	969.34	54.00	7641.54	550	2101.42		44.00	6226.44	440	1369.82		44.00	6226.44	220	684.91	44.00	6226.44	220	684.91	1369.82		
143+87.19	147+00.00	8TH STREET	312.81			137.00	4761.66	0.05	238.08	54.00	1876.86	550	516.14		44.00	1529.29	440	336.44		44.00	1529.29	220	168.22	44.00	1529.29	220	168.22	336.44		
TOTALS BOX 2					**3416.94**		**36995.82**		**1949.78**		**15243.23**		**4191.89**			**12550.18**		**2761.04**			**12581.22**		**1383.93**		**14564.78**		**1602.09**	**2986.02**		

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.4% MIN. AGGR.....5.6% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.3% MIN. AGGR.....4.7% ASPHALT BINDER
ACHM BASE COURSE (1 1/2").....95.7% MIN. AGGR.....4.3% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

QUANTITIES

c:\bmcd_llb\pw\dhurt\trn\dms35939\ROADWAY_QUANTITIES.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	81	555

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

BASE AND SURFACING (BOX 3 OF 3)

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")									P.C.C.P. (12" UNIFORM THICKNESS)	
				TON / STATION	TON	AVG. WID.	SQ.YD.	GALLONS / SQ.YD.	GALLON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 70-22	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 70-22	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	TOTAL PG 76-22	AVG. WID.	SQ.YD.
			FEET			FEET				FEET			TON	TON	FEET			TON	TON	FEET			TON	FEET			TON	TON	FEET	
8TH STREET - ADDITIONAL FOR TURN LANES																													
120+97.79	126+01.89	L/O 8TH STREET - RT. TURN LANE	504.10			33.00	1848.37	0.05	92.42	11.00	616.12	550	169.43		11.00	616.12	440	135.55		11.00	616.12	220	67.77	11.00	616.12	220	67.77	135.54		
126+01.89	127+01.89	L/O 8TH STREET - RT. TURN LANE (TRANS.)	100.00			16.50	183.33	0.05	9.17	5.50	61.11	550	16.81		5.50	61.11	440	13.44		5.50	61.11	220	6.72	5.50	61.11	220	6.72	13.44		
120+97.79	123+32.52	L/O 8TH STREET - LT. TURN LANE	234.73			33.00	860.68	0.05	43.03	11.00	286.89	550	78.89		11.00	286.89	440	63.12		11.00	286.89	220	31.56	11.00	286.89	220	31.56	63.12		
123+32.52	124+32.52	L/O 8TH STREET - LT. TURN LANE (TRANS.)	100.00			16.50	183.33	0.05	9.17	5.50	61.11	550	16.81		5.50	61.11	440	13.44		5.50	61.11	220	6.72	5.50	61.11	220	6.72	13.44		
124+66.31	125+66.31	R/O 8TH STREET - LT. TURN LANE (TRANS.)	100.00			16.50	183.33	0.05	9.17	5.50	61.11	550	16.81		5.50	61.11	440	13.44		5.50	61.11	220	6.72	5.50	61.11	220	6.72	13.44		
125+66.31	127+74.60	R/O 8TH STREET - LT. TURN LANE	208.29			33.00	763.73	0.05	38.19	11.00	254.58	550	70.01		11.00	254.58	440	56.01		11.00	254.58	220	28.00	11.00	254.58	220	28.00	56.00		
125+37.00	126+37.00	R/O 8TH STREET - RT. TURN LANE (TRANS.)	100.00			16.50	183.33	0.05	9.17	5.50	61.11	550	16.81		5.50	61.11	440	13.44		5.50	61.11	220	6.72	5.50	61.11	220	6.72	13.44		
126+37.00	127+87.59	R/O 8TH STREET - RT. TURN LANE	150.59			33.00	552.16	0.05	27.61	11.00	184.05	550	50.61		11.00	184.05	440	40.49		11.00	184.05	220	20.25	11.00	184.05	220	20.25	40.50		
127+74.60	128+75.31	8TH STREET (INTERSECTION WITH ENTRANCE)	100.71			51.00	570.69	0.05	28.53	15.00	167.85	550	46.16		18.00	201.42	440	44.31		18.00	201.42	220	22.16	18.00	201.42	220	22.16	44.32		
128+55.00	131+68.92	L/O 8TH STREET - RT. TURN LANE	313.92			33.00	1151.04	0.05	57.55	11.00	383.68	550	105.51		11.00	383.68	440	84.41		11.00	383.68	220	42.20	11.00	383.68	220	42.20	84.40		
131+68.92	132+68.92	L/O 8TH STREET - RT. TURN LANE (TRANS.)	100.00			16.50	183.33	0.05	9.17	5.50	61.11	550	16.81		5.50	61.11	440	13.44		5.50	61.11	220	6.72	5.50	61.11	220	6.72	13.44		
128+75.31	131+69.51	L/O 8TH STREET - LT. TURN LANE	294.20			33.00	1078.73	0.05	53.94	11.00	359.58	550	98.88		11.00	359.58	440	79.11		11.00	359.58	220	39.55	11.00	359.58	220	39.55	79.10		
131+69.51	132+69.51	L/O 8TH STREET - LT. TURN LANE (TRANS.)	100.00			16.50	183.33	0.05	9.17	5.50	61.11	550	16.81		5.50	61.11	440	13.44		5.50	61.11	220	6.72	5.50	61.11	220	6.72	13.44		
133+38.78	135+38.78	R/O 8TH STREET - DBL. RT. TURN LANE (TRANS.)	200.00			36.00	800.00	0.05	40.00	12.00	266.67	550	73.33		12.00	266.67	440	58.67		12.00	266.67	220	29.33	12.00	266.67	220	29.33	58.66		
135+38.78	138+36.26	R/O 8TH STREET - DBL. RT. TURN LANE	297.48			72.00	2379.84	0.05	118.99	24.00	793.28	550	218.15		24.00	793.28	440	174.52		24.00	793.28	220	87.26	24.00	793.28	220	87.26	174.52		
138+36.26	141+22.68	R/O 8TH STREET - DBL. RT. TURN LANE (VARIES)	286.42			VARIES	2163.60	0.05	108.18	VARIES	651.02	550	179.03		VARIES	721.20	440	158.66		VARIES	721.20	220	79.33	VARIES	500.00	220	55.00	134.33		
134+38.78	135+38.78	R/O 8TH STREET - LT. TURN LANE (TRANS.)	100.00			18.00	200.00	0.05	10.00	6.00	66.67	550	18.33		6.00	66.67	440	14.67		6.00	66.67	220	7.33	6.00	66.67	220	7.33	14.66		
135+38.78	140+71.69	R/O 8TH STREET - LT. TURN LANE	532.91			36.00	2131.64	0.05	106.58	12.00	710.55	550	195.40		12.00	710.55	440	156.32		12.00	710.55	220	78.16	12.00	710.55	220	78.16	156.32		
140+71.69	141+50.61	8TH STREET (INTERSECTION WITH RAMP 4)	78.92			69.00	605.05	0.05	30.25	21.00	184.15	550	50.64		24.00	210.45	440	46.30		24.00	210.45	220	23.15	24.00	210.45	220	23.15	46.30		
143+87.19	144+96.48	8TH STREET (INTERSECTION WITH RAMP 1)	109.29			69.00	837.89	0.05	41.89	21.00	255.01	550	70.13		24.00	291.44	440	64.12		24.00	291.44	220	32.06	24.00	291.44	220	32.06	64.12		
144+96.48	147+00.00	L/O 8TH STREET - LT. TURN LANE	203.52			36.00	814.08	0.05	40.70	12.00	271.36	550	74.62		12.00	271.36	440	59.70		12.00	271.36	220	29.85	12.00	271.36	220	29.85	59.70		
144+63.75	146+83.69	L/O 8TH STREET - RT. TURN LANE (VARIES)	219.94			VARIES	790.77	0.05	39.54	VARIES	205.41	550	56.49		VARIES	263.59	440	57.99		VARIES	263.59	220	28.99	VARIES	178.60	220	19.65	48.64		
146+83.69	147+00.00	L/O 8TH STREET - RT. TURN LANE	16.31			36.00	65.24	0.05	3.26	12.00	21.75	550	5.98		12.00	21.75	440	4.79		12.00	21.75	220	2.39	12.00	21.75	220	2.39	4.78		
HWY. 62/102																													
17+40.48	17+50.03	HWY. 62/102 RT.	9.55			VARIES	7.61	0.05	0.38											VARIES	7.61	220	0.84	VARIES	7.61	220	0.84	1.68		
17+50.03	22+39.92	HWY. 62/102 RT.	489.89			5.29	287.95	0.05	14.40											5.29	287.95	220	31.67	5.29	287.95	220	31.67	63.34		
22+39.92	22+47.32	HWY. 62/102 RT.	7.40			VARIES	5.06	0.05	0.25											VARIES	5.06	220	0.56	VARIES	5.06	220	0.56	1.12		
17+69.76	17+77.16	HWY. 62/102 LT.	7.40			VARIES	5.06	0.05	0.25											VARIES	5.06	220	0.56	VARIES	5.06	220	0.56	1.12		
17+77.16	22+61.63	HWY. 62/102 LT.	484.47			5.29	284.76	0.05	14.24											5.29	284.76	220	31.32	5.29	284.76	220	31.32	62.64		
22+61.63	22+69.04	HWY. 62/102 LT.	7.41			VARIES	5.06	0.05	0.25											VARIES	5.06	220	0.56	VARIES	5.06	220	0.56	1.12		
22+69.04	24+13.30	HWY. 62/102 LT. (VARIES)	144.26			VARIES	260.97	0.05	13.06	VARIES	87.60	880	38.54		VARIES	86.99	440	19.14		VARIES	86.99	220	9.57	VARIES	86.99	220	9.57	19.14		
24+13.30	26+13.30	HWY. 62/102 LT. (RIGHT TURN LANE)	200.00			36.00	800.00	0.05	40.00	14.50	322.22	880	141.78		12.00	266.67	440	58.67		12.00	266.67	220	29.33	12.00	266.67	220	29.33	58.66		
26+13.30	26+46.66	HWY. 62/102 LT. (TRANS.)	33.36			32.50	111.21	0.05	5.56	12.50	46.33	880	20.39		10.00	37.07	440	8.16		10.00	37.07	220	4.08	10.00	37.07	220	4.08	8.16		
26+46.66	27+13.30	HWY. 62/102 LT. (TRANS.)	66.64			4.00	29.62	0.05	1.48											4.00	29.62	220	3.26	4.00	29.62	220	3.26	6.52		
8TH STREET DRIVES																													
123+60.00	123+60.00	8TH ST. DRIVE RT.				VARIES	615.03	0.05	30.75	VARIES	246.52	550	67.79		VARIES	205.01	440	45.10		VARIES	205.01	220	22.55	VARIES	205.01	220	22.55	45.10		
123+60.00	123+60.00	8TH ST. DRIVE LT.				VARIES	594.19	0.05	29.71	VARIES	232.73	550	64.00		VARIES	195.61	440	43.03		VARIES	202.97	220	22.33	VARIES	202.97	220	22.33	44.66		
128+21.29	128+21.29	8TH ST. DRIVE LT.				VARIES	1379.28	0.05	68.96	VARIES	511.25	550	140.59		VARIES	450.45	440	99.10		VARIES	478.38	220	52.62	VARIES	478.38	220	52.62	105.24		
128+21.29	128+21.29	8TH ST. DRIVE RT.				VARIES	1413.65	0.05	70.68	VARIES	519.27	550	142.80		VARIES	461.06	440	101.43		VARIES	491.53	220	54.07	VARIES	491.53	220	54.07	108.14		
132+67.93	132+67.93	8TH ST. DRIVE RT.				VARIES	676.37	0.05	33.82	VARIES	276.86	550	76.14		VARIES	222.71	440	49.00		VARIES	230.95	220	25.40	VARIES	230.95	220	25.40	50.80		
TOTALS BOX 3							25189.31		1259.46		8288.06		2354.48			8195.51		1803.01			8894.63		978.38		8588.44		944.71	1923.09		
TOTALS BOX 1					50636.54		142177.52		7106.86		37438.79			16473.09		33817.87			7439.91		33482.05		3683.00		51713.01		5688.43	9371.43		1638.83
TOTALS BOX 2					3416.94		38995.82		1949.78		15243.23		4191.89			12550.18		2761.04			12581.22		1383.93		14564.78		1602.09	2986.02		
TOTALS:					54053.48		206362.65		10318.10		60970.08		6546.37	16473.09		54563.56		4564.05	7439.91		54957.90		6045.31		74866.23		8235.23	14280.54		1638.83

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.4% MIN. AGGR.....5.6% ASPHALT BINDER
ACHM BINDER COURSE (1").....95.3% MIN. AGGR.....4.7% ASPHALT BINDER
ACHM BASE COURSE (1 1/2").....95.7% MIN. AGGR.....4.3% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

PORTLAND CEMENT CONCRETE BASE

STATION	STATION	LOCATION	LENGTH	PORTLAND CEMENT CONCRETE BASE		PORTLAND CEMENT CONCRETE BASE	
				AVG. WID.	4" U.T.	AVG. WID.	8" U.T.
			FEET	FEET	SQ. YD.	FEET	SQ. YD.
120+23.53	120+33.99	8TH ST. RT.	10.46	VARIES	15.69	VARIES	25.41
120+24.25	120+34.45	8TH ST. LT.	10.20	VARIES	15.35	VARIES	24.83
120+71.10	123+63.64	PARKING LOT L/O 8TH ST.	292.54			2.50	97.42
123+60.00	123+60.00	8TH ST. DRIVE LT.		VARIES	7.36	VARIES	13.82
124+16.42	127+71.95	PARKING LOT L/O 8TH ST.	355.53			2.50	110.02
128+21.29	128+21.29	8TH ST. DRIVE LT.		VARIES	27.93	VARIES	57.08
128+21.29	128+21.29	8TH ST. DRIVE RT.		VARIES	30.48	VARIES	61.61
132+67.93	132+67.93	8TH ST. DRIVE RT.		VARIES	8.24	VARIES	17.54
16+15.28	16+54.55	HWY. 62/102 LT.	39.27	VARIES	12.06	VARIES	23.26
17+40.48	17+50.03	HWY. 62/102 RT.	9.55	VARIES	7.61	VARIES	10.70
17+50.03	22+39.92	HWY. 62/102 RT.	489.89	5.29	287.95	7.79	424.03
22+39.92	22+47.32	HWY. 62/102 RT.	7.40	VARIES	5.06	VARIES	7.37
17+69.76	17+77.16	HWY. 62/102 LT.	7.40	VARIES	5.06	VARIES	7.37
17+77.16	22+61.63	HWY. 62/102 LT.	484.47	5.29	284.76	7.79	419.34
22+61.63	22+69.04	HWY. 62/102 LT.	7.41	VARIES	5.06	VARIES	7.37
26+46.66	27+13.30	HWY. 62/102 LT. (TRANS.)	66.64	4.00	29.62	6.50	48.13
1032+44.69	1033+07.62	HWY. 62/102 RAMP 2 LT.	62.93	VARIES	18.53	VARIES	36.20
TOTALS:					760.76		1391.50

RUMBLE STRIPS IN ASPHALT SHOULDERS

STATION	STATION	LOCATION	RUMBLE STRIPS IN ASPHALT SHOULDERS
			LIN.FT.
1032+54	1043+43	I-49 NB RT.	1089
1046+13	1046+99	I-49 NB RT.	86
1066+18	1073+65	I-49 NB RT.	747
1077+09	1086+96	I-49 NB RT.	987
1032+40	1043+43	I-49 SB LT.	1103
1065+57	1070+46	I-49 SB LT.	489
1076+63	1086+03	I-49 SB LT.	940
TOTAL:			5441

QUANTITIES

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.		090376	82	555
				(1) 07368, 07369, 07370		QUANTITIES		57857

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. 090376

BRIDGE NO.	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NO.	801	802	802	803	804	804	805	805	806
			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) (2)	STEEL PILING (HP14X73) (1) (2)	METAL BRIDGE RAILING (TYPE H)
			UNIT	CU. YD.	CU. YD.	CU. YD.	SQ. YD.	LB.	LB.	LIN. FT.	LIN. FT.	LIN. FT.
07368	RAMP 2 UNDERPASS	RAMP 2 UNDERPASS		1,279	332.60	924.80	1,369.0	269,500			1,848	
		TOTALS FOR BRIDGE NO. 07368		1,279	332.60	924.80	1,369.0	269,500			1,848	
07369	RAMP 3 UNDERPASS	RAMP 3 UNDERPASS		1,771	530.50	1,478.80	2,212.0	388,450			3,672	
		TOTALS FOR BRIDGE NO. 07369		1,771	530.50	1,478.80	2,212.0	388,450			3,672	
07370	8TH STREET	BENT 1			109.60		12.5	14,085		1,196		
		BENT 2		349	361.20			59,240		1,350		
		BENT 3			110.10		12.5	14,085		1,127		
		234'-0" CONTINUOUS COMPOSITE PLATE GIRDER UNIT				657.20	2,197.0		155,080			468
		TOTALS FOR BRIDGE NO. 07370		349	580.90	657.20	2,222.0	87,410	155,080	3,673		468
TOTALS FOR JOB NO. 090376				3,399	1,444.00	3,060.80	5,803.0	745,360	155,080	3,673	5,520	468

BRIDGE NO.	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NO.	SP & 807	807	808	809	812	816	SP JOB 090376	SP JOB 090376
			ITEM	STRUCTURAL STEEL IN PLATE GIRDER SPANS (M 270, GRADE 50)	PAINTING STRUCTURAL STEEL	ELASTOMERIC BEARINGS	SILICONE JOINT SEALANT	BRIDGE NAME PLATE (TYPE D)	CONCRETE RIPRAP	ARCHITECTURAL FINISH	TEXTURED COATING FINISH
			UNIT	LB.	TON	CU. IN.	LIN. FT.	EACH	CU. YD.	SQ. FT.	SQ. YD.
07368	RAMP 2 UNDERPASS	RAMP 2 UNDERPASS						1			43
		TOTALS FOR BRIDGE NO. 07368						1			43
07369	RAMP 3 UNDERPASS	RAMP 3 UNDERPASS						1			42
		TOTALS FOR BRIDGE NO. 07369						1			42
07370	8TH STREET	BENT 1		1,745	0.9	6,480			5	8	3
		BENT 2				9,240				672	480
		BENT 3		1,745	0.9	6,480			5	8	3
		234'-0" CONTINUOUS COMPOSITE PLATE GIRDER UNIT		622,150	311.1		208	1		1,095	576
		TOTALS FOR BRIDGE NO. 07370		625,640	312.9	22,200	208	1	10	1,783	1,062
TOTALS FOR JOB NO. 090376				625,640	312.9	22,200	208	3	10	1,783	1,147

(1) These steel piles shall be Grade 50 and are required to have special driving points which will not be paid for directly but shall be considered subsidiary to the items "Steel Piling (HP12x53)" or "Steel Piling (HP14x73)".

(2) The quantities shown for steel piling are for estimating and bidding purposes only. Actual quantities will be determined in the field.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
10-27-2015
BRIDGE ENGINEER

SCHEDULE OF BRIDGE QUANTITIES
HWY. 62/102 INTCHNG. IMPVTS. &
8TH STREET WIDENING (BENTONVILLE) (S)
BENTON COUNTY
ROUTE I-49 SEC. 29
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JJR DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376_ql.dgn
SCALE: NO SCALE

BRIDGE NO. 07368, 07369, 07370 DRAWING NO. 57857

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
9/12/2016		10/17/2016		6	ARK.			
9/27/2016		10/27/2016		JOB NO.		090376	83	555
10/6/2016				(2) SUMMARY OF QUANTITIES AND REVISIONS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
10/27/16

SUMMARY OF QUANTITIES (BOX 1 OF 3)

ITEM NUMBER	ITEM	QUANTITY	UNIT
201	CLEARING	61	STATION
201	GRUBBING	49	STATION
202	REMOVAL AND DISPOSAL OF CURB AND GUTTER	5831	LIN. FT.
202	REMOVAL AND DISPOSAL OF FENCE	7685	LIN. FT.
202	REMOVAL AND DISPOSAL OF GATES	1	EACH
202	REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT	395	SQ. YD.
202	REMOVAL AND DISPOSAL OF CONCRETE ISLANDS	31	SQ. YD.
202	REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS	244	SQ. YD.
202	REMOVAL AND DISPOSAL OF WALKS	1278	SQ. YD.
202	REMOVAL AND DISPOSAL OF DROP INLETS	11	EACH
202	REMOVAL AND DISPOSAL OF PIPE CULVERTS	11	EACH
202	REMOVAL AND DISPOSAL OF CONCRETE HEADWALLS AND WINGWALLS	1	EACH
202	REMOVAL AND DISPOSAL OF GUARDRAIL	400	LIN. FT.
202	REMOVAL AND DISPOSAL OF SIGNS	70	EACH
202	REMOVAL AND DISPOSAL OF PLANTERS	32	EACH
SP & 210	UNCLASSIFIED EXCAVATION	192076	CU. YD.
SP & 210	COMPACTED EMBANKMENT	178258	CU. YD.
SP	SELECT GRANULAR BACKFILL	57798	CU. YD.
SS & 303	AGGREGATE BASE COURSE (CLASS 7)	54053	TON
309	PORTLAND CEMENT CONCRETE BASE (4" UNIFORM THICKNESS)	761	SQ. YD.
309	PORTLAND CEMENT CONCRETE BASE (8" UNIFORM THICKNESS)	1392	SQ. YD.
SS & 401	TACK COAT	10318	GAL.
SP & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")	22030	TON
SP & 405	ASPHALT BINDER (PG 70-22) IN ACHM BASE COURSE (1 1/2")	281	TON
SP & 405	ASPHALT BINDER (PG 76-22) IN ACHM BASE COURSE (1 1/2")	708	TON
SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")	11440	TON
SP, SS, & 406	ASPHALT BINDER (PG 70-22) IN ACHM BINDER COURSE (1")	215	TON
SP, SS, & 406	ASPHALT BINDER (PG 76-22) IN ACHM BINDER COURSE (1")	350	TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	13481	TON
SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1/2")	800	TON
501	PORTLAND CEMENT CONCRETE PAVEMENT (12" UNIFORM THICKNESS)	1639	SQ. YD.
601	MOBILIZATION	1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE	1	EACH
602	FURNISHING FIELD LABORATORY	1	EACH
SP & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
603	TRAFFIC CONTROL SUPERVISOR	1.00	LUMP SUM
SS & 604	SIGNS	2042	SQ. FT.
SS & 604	BARRICADES	20	LIN. FT.
SS & 604	TRAFFIC DRUMS	71	EACH
604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	10584	LIN. FT.
604	RELOCATING PRECAST CONCRETE BARRIER	3452	LIN. FT.
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	28312	LIN. FT.
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	28312	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	9887	LIN. FT.
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS (WORDS)	10	EACH
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS (ARROWS)	10	EACH
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS (WORDS)	10	EACH
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS (ARROWS)	10	EACH
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (WORDS)	10	EACH
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (ARROWS)	10	EACH
604	ADVANCE WARNING ARROW PANEL	270	DAY
SP & 604	PORTABLE CHANGEABLE MESSAGE SIGN	38	WEEK
605	CONCRETE DITCH PAVING (TYPE A)	7276	SQ. YD.
605	CONCRETE DITCH PAVING (TYPE B)	4980	SQ. YD.
606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	1591	LIN. FT.
* 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III) (ALTERNATE NO. 1)	2476	LIN. FT.
* 606	18" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 2)	2476	LIN. FT.
606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS V)	13	LIN. FT.
606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	1977	LIN. FT.
606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV)	24	LIN. FT.
606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS V)	909	LIN. FT.
606	36" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	1403	LIN. FT.
606	18" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	8	EACH
606	24" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	4	EACH
606	36" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	3	EACH
606	24" SAFETY END SECTIONS FOR CROSS DRAIN PIPE CULVERTS (CLASS 1)	2	EACH
606	36" SAFETY END SECTIONS FOR CROSS DRAIN PIPE CULVERTS (CLASS 1)	1	EACH
606	SELECTED PIPE BEDDING	100	CU. YD.
609	DROP INLETS (TYPE C)	8	EACH
609	DROP INLETS (TYPE E)	2	EACH
609	DROP INLETS (TYPE MO)	34	EACH
609	DROP INLETS (TYPE RM)	2	EACH
609	DROP INLETS (TYPE ST)	36	EACH
609	JUNCTION BOXES (TYPE ST)	3	EACH
609	DROP INLET EXTENSIONS (4')	28	EACH
609	DROP INLET EXTENSIONS (8')	9	EACH
611	UNDERDRAIN OUTLET PROTECTORS	10	EACH
611	4" PIPE UNDERDRAINS	500	LIN. FT.
617	GUARDRAIL (TYPE A)	10037	LIN. FT.
617	GUARDRAIL TERMINAL (TYPE 2)	10	EACH
617	TERMINAL ANCHOR POSTS (TYPE 1)	5	EACH
617	THRIE BEAM GUARDRAIL TERMINAL	16	EACH
619	WIRE FENCE (TYPE C)	8641	LIN. FT.
620	LIME	61	TON
620	SEEDING	30.36	ACRE
SS & 620	MULCH COVER	68.11	ACRE
620	WATER	3920.9	M.GAL.
621	TEMPORARY SEEDING	37.75	ACRE
621	SILT FENCE	4968	LIN. FT.
621	SAND BAG DITCH CHECKS	1452	BAG
621	DIVERSION DITCH	2688	LIN. FT.
621	DROP INLET SILT FENCE	1610	LIN. FT.
621	SEDIMENT BASIN	95282	CU. YD.
621	OBLITERATION OF SEDIMENT BASIN	95282	CU. YD.
621	SEDIMENT REMOVAL AND DISPOSAL	95651	CU. YD.
621	PIPE FOR SLOPE DRAINS	144	LIN. FT.
621	ROCK DITCH CHECKS	178	CU. YD.
623	SECOND SEEDING APPLICATION	30.36	ACRE
624	SOLID SODDING	4278	SQ. YD.
631	CONCRETE BARRIER WALL (MEDIAN TYPE SPECIAL)	200	LIN. FT.
631	CONCRETE BARRIER WALL (PIER PROTECTION TYPE A)	352	LIN. FT.
631	CONCRETE BARRIER WALL (PARAPET TYPE SPECIAL)	3136	LIN. FT.
SP & 631	CONCRETE BARRIER WALL (SIDE TYPE A)	4196	LIN. FT.
632	CONCRETE ISLAND	729	SQ. YD.
633	CONCRETE WALKS	3077	SQ. YD.
633	CONCRETE WALKS (TYPE SPECIAL)	240	SQ. YD.
634	CONCRETE CURB (TYPE B)	2232	LIN. FT.
634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1' 6")	12714	LIN. FT.
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
641	WHEELCHAIR RAMPS (TYPE 1)	290	SQ. YD.
641	WHEELCHAIR RAMPS (TYPE 3)	134	SQ. YD.

* DENOTES ALTERNATE BID ITEMS.

SUMMARY OF QUANTITIES (BOX 2 OF 3)

641	WHEELCHAIR RAMPS (TYPE 6)		24	SQ. YD.
642	RUMBLE STRIPS IN ASPHALT SHOULDERS		5441	LIN. FT.
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2 (8 PHASES)		1	EACH
SP & 701	SYSTEM LOCAL CONTROLLER-FIBER (8 PHASES)		2	EACH
SP	TRAFFIC SIGNAL CONTROLLER (MODIFICATION)		2	EACH
SP	E-NET CABLE (EXTERIOR CAT 5)		4322	LIN. FT.
SP & 701	TRAFFIC CABINET COMMUNICATIONS		2	EACH
SP	BATTERY BACKUP SYSTEM		3	EACH
SP	WIC FIBER ENCLOSURE		2	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)		43	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)		2	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (5 SECTION, 1 WAY)		2	EACH
SP	RELOCATION OF TRAFFIC SIGNAL HEAD		2	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED		18	EACH
708	TRAFFIC SIGNAL CABLE (5C/12 A.W.G.)		8614	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/12 A.W.G.)		133	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12C/12 A.W.G.)		51	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/12 A.W.G.)		1840	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/0000 A.W.G., E.G.C.)		72	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)		2142	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)		626	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/8 A.W.G., E.G.C.)		359	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/2 A.W.G.)		1245	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)		123	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/8 A.W.G.)		2034	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/2 A.W.G., E.G.C.)		1511	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES		2462	LIN. FT.
SP	COMMUNICATIONS CABLE, OVERHEAD (6 PAIR, 22 A.W.G.)		1742	LIN. FT.
SP	COMMUNICATION CABLE, FIBER (6 CHANNEL)		400	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")		30	LIN. FT.
710	NON-METALLIC CONDUIT (1")		64	LIN. FT.
710	NON-METALLIC CONDUIT (2")		5169	LIN. FT.
710	NON-METALLIC CONDUIT (3")		1447	LIN. FT.
711	CONCRETE PULL BOX (TYPE 2)		13	EACH
711	CONCRETE PULL BOX (TYPE 1 HD)		5	EACH
711	CONCRETE PULL BOX (TYPE 2 HD)		17	EACH
SP	ROADWAY ILLUMINATION POLE (HOLOPHANE WADSWORTH, BRIDGE MOUNTED PEDESTAL, 12')		8	EACH
SP	LIGHT POLE FOUNDATION		5	EACH
SP	LIGHTING CONTROLLER ASSEMBLY		1	EACH
SP	LED TUNNEL LIGHTING ASSEMBLY		116	EACH
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (28')		2	EACH
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (32')		1	EACH
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (38')		3	EACH
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (40')		1	EACH
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (45')		2	EACH
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (50')		1	EACH
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (56')		1	EACH
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (20' - 20')		1	EACH
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (46' - 40')		1	EACH
SP	LED LUMINAIRE ASSEMBLY		13	EACH
715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION		14	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)		3	EACH
SP	SERVICE POINT ASSEMBLY (UNDERGROUND SECONDARY SERVICE, ROADWAY LIGHTING)		1	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT		1.00	LUMP SUM
718	REFLECTORIZED PAINT PAVEMENT MARKING WHITE (8")		552	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (4")		6650	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (8")		800	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (12")		2278	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (4")		2686	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (8")		120	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING (WORDS)		70	EACH
719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)		81	EACH
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)	30327	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)	30327	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (8")	(ALTERNATE NO. 1)	2727	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE WHITE (8")	(ALTERNATE NO. 2)	2727	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	(ALTERNATE NO. 1)	11541	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE YELLOW (4")	(ALTERNATE NO. 2)	11541	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)	691	LIN. FT.
* SP	HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)	691	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING YELLOW (4")	(ALTERNATE NO. 1)	327	LIN. FT.
* SP	HIGH PERFORMANCE CONTRAST MARKING TAPE YELLOW (4")	(ALTERNATE NO. 2)	327	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)		660	EACH
SP	STEEL OVERHEAD SIGN STRUCTURE (OH-049-04-13)		1	EACH
SP	STEEL CANTILEVER SIGN STRUCTURE (CL-049-04-14)		1	EACH
724	OVERHEAD SIGN STRUCTURE (OH-R1-04-01)		1	EACH
724	OVERHEAD SIGN STRUCTURE (OH-R1-04-02)		1	EACH
724	OVERHEAD SIGN STRUCTURE (OH-R3-04-01)		1	EACH
724	OVERHEAD SIGN STRUCTURE (OH-R3-04-02)		1	EACH
SP & 725	GUIDE SIGN-ROADSIDE MOUNTED (DEMOUNTABLE LEGEND)		674	SQ. FT.
SP & 725	GUIDE SIGN-OVERHEAD MOUNTED (DEMOUNTABLE LEGEND)		850	SQ. FT.
SP & 726	STANDARD SIGN		1418	SQ. FT.
SP	18" STREET NAME SIGN		5	EACH
727	EXIT NUMBER PANEL (TYPE A)		144	SQ. FT.
729	CHANNEL POST SIGN SUPPORT (TYPE U-1)		11	EACH
SP & 729	CHANNEL POST SIGN SUPPORT (TYPE U-2(A))		4	EACH
SP & 729	CHANNEL POST SIGN SUPPORT (TYPE U2-4)		4	EACH
SP & 729	CHANNEL POST SIGN SUPPORT (TYPE U2-5)		3	EACH
SP & 729	CHANNEL POST SIGN SUPPORT (TYPE U2-7)		4	EACH
730	BREAKAWAY SIGN SUPPORT (TYPE G-2)		8290	POUND
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G-1)		15	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-1)		19	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-3)		5	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-7)		2	EACH
731	TEMPORARY IMPACT ATTENUATION BARRIER		1	EACH
731	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)		1	EACH
733	VIDEO DETECTOR RELOCATION		1	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)		2	EACH
SP & 733	VEHICLE DETECTOR RACK (16 CHANNEL)		3	EACH
SP & 733	VIDEO DETECTOR (IP)		28	EACH
733	VIDEO MONITOR (CLR)		3	EACH
SP & 733	VIDEO PROCESSOR, EDGE CARD IP (2 CAMERA)		14	EACH
SP	MSE RETAINING WALL		131222	SQ. FT.
SP	GRAVITY BLOCK RETAINING WALL		1532	SQ. FT.
802	CLASS S CONCRETE-ROADWAY		5.37	CU. YD.
SP	ARCHITECTURAL FINISH		7056	SQ. FT.
SP	TEXTURED COATING FINISH		14455	SQ. YD.
804	REINFORCING STEEL-ROADWAY (GRADE 60)		987	POUND
806	METAL BRIDGE RAILING (TYPE H)		1061	LIN. FT.
816	DUMPED RIPRAP		39	CU. YD.

* DENOTES ALTERNATE BID ITEMS.

SUMMARY OF QUANTITIES (BOX 3 OF 3)

	STRUCTURES OVER 20' SPAN		
636	BRIDGE CONSTRUCTION CONTROL	1.00	LUMP SUM
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-BRIDGE	3399	CU. YD.
802	CLASS S CONCRETE-BRIDGE	1444.00	CU. YD.
802	CLASS S(AE) CONCRETE-BRIDGE	3060.80	CU. YD.
803	CLASS 2 PROTECTIVE SURFACE TREATMENT	5803 0.	SQ. YD.
804	REINFORCING STEEL-BRIDGE (GRADE 60)	745360	POUND
804	EPOXY COATED REINFORCING STEEL (GRADE 60)	155080	POUND
805	STEEL PILING (HP 12X53)	3673	LIN. FT.
805	STEEL PILING (HP 14X73)	5520	LIN. FT.
806	METAL BRIDGE RAILING (TYPE H)	468	LIN. FT.
SP & 807	STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270-GR50)	625840	POUND
807	PAINTING STRUCTURAL STEEL	312.9	TON
808	ELASTOMERIC BEARINGS	22200	CU. IN.
809	SILICONE JOINT SEALANT	208	LIN. FT.
812	BRIDGE NAME PLATE (TYPE D)	3	EACH
816	CONCRETE RIPRAP	10	CU. YD.
SP	ARCHITECTURAL FINISH	1783	SQ. FT.
SP	TEXTURED COATING FINISH	1147	SQ. YD.

REVISIONS

DATE	REVISION	SHEET NUMBER
9/12/2016	ADDED SS 102-2 ISSUANCE OF PROPOSALS	3, 83
9/12/2016	REVISED "BIDDING REQUIREMENTS AND CONDITIONS" SP	3, 83
9/27/2016	REVISED "EMERGENCY BATTERY BACKUP INSTALLATION" SP	3, 83
9/27/2016	REVISED "SYSTEM LOCAL CONTROLLER (FIBER)" SP	3, 83
9/27/2016	ADDED AN ADDITIONAL 3" NON-METALLIC CONDUIT	83, 136, 143, 144, 145
9/27/2016	MODIFIED 5-SECTION SIGNAL HEAD TO BE VERTICAL	83,143, 144, 145
10/6/2016	ADDED SP "COMPACTED EMBANKMENT SPECIAL", REVISED SP "RETAINING WALLS", REVISED DETAILS FOR MSE TYPICAL WALL SECTIONS.	3, 83, 130
10/17/2016	MODIFIED SIGNAL POLE QUANTITIES, REVISED DETAILS FOR MSE TYPICAL WALL SECTIONS, ADDED "ASSESSMENT OF WORKING DAYS - MAINTENANCE OF TRAFFIC" SP, AND REMOVED 'PLAN QUANTITY"	3, 77, 83, 130, 136, 141, 150
	EARTHWORK NOTE.	
10/27/2016	ADDED FINISHED GRADE ELEVATION TABLES TO WALL PROFILES. REVISED "UTILITY ADJUSTMENTS" SP	83, 112-129

SUMMARY OF QUANTITIES AND REVISIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	84	555

(2) SURVEY CONTROL DETAILS

SURVEY CONTROL COORDINATES AND BENCHMARKS

Project Name: s090236
Date: 3/25/2008
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	740870.8377	670559.9594	1286.29	CTL	5/8" REBAR AND CAP STAMPED T-1
2	741651.0590	670698.8953	1289.52	CTL	5/8" REBAR AND CAP STAMPED T-2
3	742782.2510	670906.5353	1305.64	CTL	5/8" REBAR AND CAP STAMPED T-3
4	743436.7893	671214.6621	1304.51	CTL	5/8" REBAR AND CAP STAMPED T-4
5	743586.3390	670627.9621	1305.99	CTL	5/8" REBAR AND CAP STAMPED T-5
6	744294.7053	671031.2596	1338.09	CTL	5/8" REBAR AND CAP STAMPED T-6
7	745117.6777	671177.3740	1341.70	CTL	5/8" REBAR AND CAP STAMPED T-7
8	745843.0707	671459.4750	1329.46	CTL	5/8" REBAR AND CAP STAMPED T-8
9	743439.4636	672825.5127	1313.22	CTL	5/8" REBAR AND CAP STAMPED T-9
10	743479.7543	672020.7745	1312.67	CTL	5/8" REBAR AND CAP STAMPED T-10
11	743517.5621	669777.5227	1311.50	CTL	5/8" REBAR AND CAP STAMPED T-11
12	743625.8862	669045.4356	1316.37	CTL	5/8" REBAR AND CAP STAMPED T-12
13	746149.0834	670354.0033	1327.10	CTL	5/8" REBAR AND CAP STAMPED T-13
14	746170.5029	669545.2228	1321.68	CTL	5/8" REBAR AND CAP STAMPED T-14
15	750700.2767	673776.2601	1275.45	CTL	5/8" REBAR AND CAP STAMPED T-15
16	751452.1449	673326.1384	1276.68	CTL	5/8" REBAR AND CAP STAMPED T-16
17	752145.5176	672662.5893	1291.13	CTL	5/8" REBAR AND CAP STAMPED T-17
18	753018.5580	672387.5263	1297.57	CTL	5/8" REBAR AND CAP STAMPED T-18
19	752270.5373	671596.4940	1298.52	CTL	5/8" REBAR AND CAP STAMPED T-19
20	753236.0409	671260.9238	1283.76	CTL	5/8" REBAR AND CAP STAMPED T-20
21	753996.6736	670485.3266	1276.37	CTL	5/8" REBAR AND CAP STAMPED T-21
22	753278.8706	673790.0796	1286.32	CTL	5/8" REBAR AND CAP STAMPED T-22
23	753360.0543	672792.2669	1282.06	CTL	5/8" REBAR AND CAP STAMPED T-23
24	751726.1170	671092.8076	1292.72	CTL	5/8" REBAR AND CAP
25	750992.8192	670874.6444	1304.17	CTL	5/8" REBAR AND CAP STAMPED T-25
26	752488.0369	672056.3369	1290.80	CTL	5/8" REBAR AND CAP STAMPED T-26
100	736025.4967	669232.0663	1305.45	GPS	AHTD GPS STAMPED 040009
101	738350.0781	670047.7216	1301.92	GPS	AHTD GPS STAMPED 040009A
102	752766.3310	672068.3635	1310.14	GPS	AHTD GPS STAMPED 040044
103	754320.1559	670106.1451	1272.43	GPS	AHTD GPS STAMPED 040044A
900	742609.8274	690287.8678	1360.48	BM	NGS STD TABLET R26 1932
901	742646.0825	687999.2594	1343.87	BM	SQUARE CUT IN SE CORNERCATCH BASIN
902	742737.4969	685188.2204	1324.23	BM	SQUARE CUT CENTER HDWL
903	742892.5597	682674.2441	1326.49	BM	SQUARE CUT IN CENTER BACK CATCH BASIN
904	743017.7644	679976.8160	1307.11	BM	SQUARE CUT IN BACK CATCH BASIN
905	743149.1560	677383.1485	1306.26	BM	SQUARE CUT IN CATCH BASIN
906	743349.3593	674658.2763	1314.21	BM	SQUARE CUT IN BACK CATCH BASIN
907	743414.9767	673313.1577	1311.11	BM	SQUARE CUT IN BACK OF CATCH BASIN
908	743464.7101	672294.6315	1313.30	BM	SQUARE CUT IN BACK OF CATCH BASIN
909	743519.1746	671116.1626	1303.99	BM	SQUARE CUT IN CATCH BASIN
910	743404.0280	671014.3766	1323.31	BM	AHTD DISK SE CORNERBRIDGE BR5979B
911	743572.4121	670020.0581	1309.55	BM	SQUARE CUT IN CATCH BASIN
912	743625.5227	669069.2067	1316.39	BM	RBRIDGE & CAP T-12 N SIDE HWY 102
913	735672.8280	669287.1806	1308.04	BM	AHTD DISK SE CORNERBRIDGE 5977
914	738351.7951	670032.3645	1302.71	BM	SQUARE CUT IN BRIDGE BR#9978 OLIVE ST
915	740620.9975	670440.5814	1281.36	BM	SQUARE CUT DROP INLET CENTER OF 1540
916	741604.7256	670621.7243	1286.21	BM	SQUARE CUT IN DROP INLET IN MEDIAN
917	742589.7448	670800.0630	1297.59	BM	SQUARE CUT DROP INLET IN MEDIAN 1540
918	744733.6098	671113.7249	1344.48	BM	SQUARE CUT SW CORNER BRIDGE
919	745713.2487	671458.8924	1326.47	BM	SQUARE CUT IN DROP INLET 1540
920	747604.1989	672763.5236	1294.54	BM	SQUARE CUT IN DROP INLET CENTER 1540
921	750364.0633	673803.1359	1272.91	BM	SQUARE CUT IN DROP INLET 1540
922	751126.9340	673489.3598	1267.57	BM	SQUARE CUT IN DROP INLET CENTER 1540
923	751868.5723	672803.6762	1283.66	BM	SQUARE CUT IN DROP INLET CENTER 1540
924	752535.7633	671915.9041	1314.08	BM	AHTD CAP SW CORNERBR#5982
925	753458.1128	671146.1424	1279.13	BM	SQUARE CUT IN DROP INLET IN MEDIAN
926	754151.5497	670421.6085	1272.42	BM	CUT SQUARE IN DROP INLET IN MEDIAN
927	753233.5561	673807.5230	1287.03	BM	SQUARE CUT IN SHOULDERN OF C\L
928	753313.0778	673085.0164	1272.47	BM	SQUARE CUT IN E END OF HEADWALL
929	751809.3718	671056.6420	1289.10	BM	CPS CP NORTH 72&MCCOLLUM
930	751069.6276	670953.7887	1303.05	BM	SQUARE CUT CORNER BLUE BERRY LN.
933	746134.8215	670366.7991	1328.55	BM	RR SPIKE IN CP
934	746164.8762	669542.5398	1322.33	BM	SQUARE CUT BASE OF SIGNAL POLE

*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 0.9999709446 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 090236GI.CTL
HORIZONTAL DATUM: NAD 83 (1997)
VERTICAL DATUM: NAVD 88

REFERENCE POINTS (1500 SERIES) ARE TO BE USED TO ESTABLISH SHOULDER 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: 040009 - 040009A/040044 - 040044A
CONVERGENCE ANGLE: -1 16 07.71349 LEFT AT PN: 13 (LT: 36.214902963 LG: 94.104966547)
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

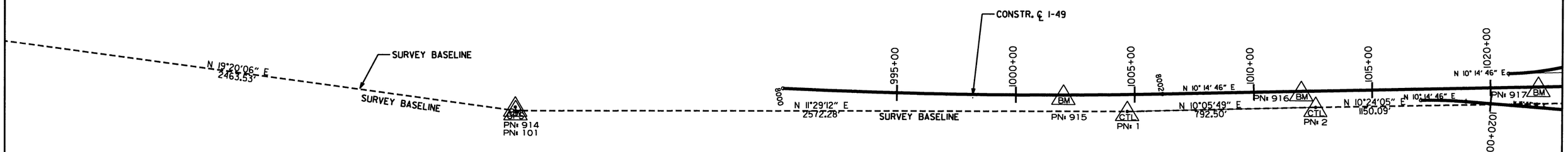
BEARINGS ARE GRID BASED ON GPS

0 200' 400'

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

NOTE:
SEE OTHER SURVEY CONTROL DETAIL SHEETS FOR ADDITIONAL SURVEY CONTROL POINT AND ALIGNMENT CONTROL POINT INFORMATION.

SEE "INTERCHANGE LAYOUT" SHEET FOR HORIZONTAL CURVE INFORMATION.



SURVEY CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	85	555

SURVEY CONTROL DETAILS

BEARINGS ARE GRID BASED ON GPS

0 100' 200'

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

PN# 11
BM
PN# 911
10+00.00
SURVEY BASELINE
8016
N 58°12'25" E
1475.06'
HWY. 62/102
S 85°22'35" W
855.22'
15+00
STA. 1029+79.54 ℄ RAMP 3 =
STA. 17+00.00 ℄ HWY. 62/102
Δ = 75°00'00"
STA. 1031+14.14 ℄ RAMP 4 =
STA. 17+00.00 ℄ HWY. 62/102
Δ = 90°00'00"
STA. 17+40.48
BEGIN CONSTRUCTION
HWY. 62/102
PN# 5
C.T.
8040
PC 1031+38.84
PI 1032+45.41
8043
PT 1033+51.36
8044
PC 1034+51.36
1035+00
1030+00
N 28° 24' 50" E
N 2° 47' 16" E
N 75°41'59" W
605.46'
20+00
8018
STA. 1032+47.37
BEGIN JOB 090376
PT 1029+79.86
1030+00
N 2° 47' 16" E
8039
PI 1028+35.23
PC 1026+89.03
8037
N 11° 45' 14" W
PC 1025+17.26
8036
PT 1025+00.00
RAMP 4 (62/102)
N 10° 14' 46" E
1025+00
PI 1024+89.84
PN# 917
BM
N 15° 57' 16" E
PC 1020+17.26
8035
PI 1025+00.00
1020+00
PI 1018+00.02
8011
PT 1018+95.08
PC 1017+04.80
8009
1020+00
PN# 3
C.T.
8012
PC 1023+40.49
1025+00
PT 1026+57.15
8017
PC 1027+41.69
8015
PI 1028+82.40
1030+00
PT 1030+21.69
8017
RAMP 1 (62/102)
N 17° 47' 16" E
PN# 4
C.T.
8019
PC 1033+21.10
N 31° 47' 16" E
SURVEY BASELINE
N 57°57'14" E
1314.55'
8042
8038
PN# 10
C.T.
S 86°56'57" W
801.26'
BKT 30+00.00
30+00
PN# 910
BM
PN# 909
BM
S 81° 12' 43" E
25+00
N 5° 45' 14" W
8021
PC 1038+08.80
PT 1036+06.43
1035+00
PI 1034+64.33
STA. 1031+18.39 ℄ I-49 =
STA. 20+00.00 ℄ HWY. 62/102
Δ = 82°32'30"
STA. 1031+86.72 ℄ RAMP 1 =
STA. 23+00.00 ℄ HWY. 62/102
Δ = 75°00'00"
STA. 1031+68.67 ℄ RAMP 2 =
STA. 23+00.00 ℄ HWY. 62/102
Δ = 90°00'00"
STA. 26+24.52
END CONSTRUCTION
HWY. 62/102

NOSE
℄ I-49 STA. 1047+60.51, 57.84' LT. =
℄ RAMP 4 (8TH ST.) STA. 1047+60.07, 7.50' RT.

RAMP 3 (62/102)
PT 1039+05.55
8046
1040+00
N 10°04'04" E
835.84'
PN# 918
BM
N 10° 14' 46" E
1045+00
PC 1046+98.90
8023
PC 1047+82.40
8025
PC 1047+91.71
PT 1048+05.97
PC 1045+98.24
PN# 7
C.T.
8008
8009
8007
N 10° 14' 46" E
1040+00
PI 1040+10.11
8024
PT 1042+08.80
1040+00
N 10° 14' 46" E
NOSE
℄ I-49 STA. 1051+32.31, 74.80' RT. =
℄ RAMP 1 (8TH ST.) STA. 1051+19.79, 12.00' LT.
PC 10'
PI 1051+00.57
PI 1051+18.11
N 21°15'03" E
778.32'
AL 4 01 45 01
PC 1050+00
RAMP 2 (62/102)

NOTE:
SEE OTHER SURVEY CONTROL DETAIL SHEETS FOR ADDITIONAL SURVEY CONTROL POINT AND ALIGNMENT CONTROL POINT INFORMATION.

SEE "INTERCHANGE LAYOUT" SHEET FOR HORIZONTAL CURVE INFORMATION.

SURVEY CONTROL DETAILS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	86	555

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HURT
6/1/16

BEARINGS ARE GRID BASED ON GPS

0 100' 200'

8TH STREET

RAMP 4 (8TH ST.)

RAMP 3 (62/102)

RAMP 2 (62/102)

RAMP 1(8TH ST.)

RAMP 3 (8TH ST.)

RAMP 2 (8TH ST.)

CONSTR. ℄ I-49

SB I-49

NB I-49

PC 1050+70.27

PI 1052+59.28

PI 1053+47.42

PT 1055+59.66

PT 1056+09.75

PI 1052+77.68

PI 1051+00.58

PI 1051+78.11

PC 1054+82.11

PT 1054+31.92

PT 1055+33.25

PC 1056+39.74

PI 1057+44.04

PI 1057+19.47

PT 1056+11.22

PT 1058+46.87

PT 1058+97.62

PC 1061+67.27

PC 1062+87.06

PI 1063+85.48

PT 1064+83.82

PT 1066+17.56

PC 1060+62.58

PI 1063+85.69

PC 1062+97.32

PT 1063+01.44

PI 1063+99.29

PC 1065+30.72

PT 1065+56.78

PT 1067+58.59

PI 1064+27.27

PI 1066+99.01

PC 1072+19.92

PC 1074+25.33

PI 1075+44.44

PT 1076+63.40

PI 1075+75.63

PI 1079+30.83

PT 1079+30.83

PC 148+11.24

PRC 151+16.91

PI 1149+68.26

PI 1154+26.84

PRC 156+79.98

N 74°31'37" W 1147.04'

S 88° 02' 43" E

N 21°15'03" E 778.32'

N 34° 49' 53" E

N 41° 34' 29" E

N 45° 56' 10" E

N 25° 00' 15" E

N 16° 49' 13" E

N 33° 26' 05" E

N 28° 19' 08" E

N 42° 36' 54" E

N 43° 00' 39" E

N 34° 49' 53.29" E

N 39° 35' 34" E

N 29° 29' 59" E

1050+00

1055+00

1060+00

1065+00

1070+00

1075+00

1080+00

1085+00

140+00

145+00

150+00

155+00

PN:8

PN:919

PN:29

PN:920

BM

CTL

8029 8047 8049 8055 8056 8057 8058 8059 8060 8061 8063 8072 8073 8074 8075 8076 8077 8078 8080 8081 8083 8097

STA. 1058+36.65 ℄ RAMP 3 (8TH ST.) =
STA. 140+79.47 ℄ 8TH ST.
Δ = 63° 38'30.12"

STA. 1058+55.21 ℄ RAMP 3 (62/102) =
STA. 141+07.00 ℄ 8TH ST.
Δ = 49° 20'44.08"

STA. 1059+19.55 ℄ RAMP 4 (8TH ST.) =
STA. 141+16.30 ℄ 8TH ST.
Δ = 57° 07'45.28"

STA. 1059+47.95 ℄ I-49 =
STA. 142+68.89 ℄ 8TH ST.
Δ = 57° 07'45.28"

NOSE
℄ I-49 STA. 1062+52.32, 74.79' LT. =
℄ RAMP 3 (HWY. 62/102) STA. 1062+52.12, 7.50' RT.

NOSE
℄ I-49 STA. 1064+77.66, 57.81' RT. =
℄ RAMP 2 (HWY. 62/102) STA. 1064+78.16, 7.50' LT.

NOSE
℄ I-49 STA. 1072+57.52, 74.86' LT. =
℄ RAMP 3 (8TH ST.) STA. 1072+57.29, 7.50' RT.

NOSE
℄ I-49 STA. 1076+05.99, 57.92' RT. =
℄ RAMP 2 (8TH ST.) STA. 1076+05.89, 7.50' LT.

STA. 1059+98.08 ℄ RAMP 1(8TH ST.) =
STA. 144+21.36 ℄ 8TH ST.
Δ = 66° 57'24.06"

STA. 1060+42.54 ℄ RAMP 2 (62/102) =
STA. 144+68.04 ℄ 8TH ST.
Δ = 75° 08' 26.67"

STA. 1060+57.41 ℄ RAMP 2 (8TH ST.) =
STA. 144+79.75 ℄ 8TH ST.
Δ = 58° 31'33.42"

STA. 1079+30.83 ℄ RAMP 2 (8TH ST.) BK. =
STA. 1079+31.16, 58.50' ℄ I-49 AH.

STA. 147+00.00
END CONSTRUCTION
8TH STREET

STA. 1086+03.40
END JOB 090376

NOTE:
SEE OTHER SURVEY CONTROL DETAIL SHEETS FOR ADDITIONAL SURVEY CONTROL POINT AND ALIGNMENT CONTROL POINT INFORMATION.

SEE "INTERCHANGE LAYOUT" SHEET FOR HORIZONTAL CURVE INFORMATION.

SURVEY CONTROL DETAILS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	87	555

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

NOTE:
SEE OTHER SURVEY CONTROL DETAIL SHEETS FOR ADDITIONAL SURVEY CONTROL POINT AND ALIGNMENT CONTROL POINT INFORMATION.

SEE INTERCHANGE LAYOUT SHEET FOR HORIZONTAL CURVE INFORMATION.

N

BEARINGS ARE GRID BASED ON GPS

0 200' 400'

8TH ST.

HORIZONTAL ALIGNMENT NAME: 8TH CL ALL

POINT NO.	TYPE	STATION	NORTHING	EASTING
8084	POB	80+56.73	746384.4328	665557.0567
8085	PC	88+92.40	746345.7743	666391.8387
	PI	89+47.90	746343.2070	666447.2761
8086	CC		748343.6332	666484.3589
8087	PT	90+03.37	746343.7179	666502.7706
8088	PC	92+58.34	746346.0652	666757.7351
	PI	93+11.00	746346.5499	666810.3891
8089	CC		744346.1500	666776.1469
8090	PT	93+63.63	746344.2634	666862.9956
8091	PI	120+07.99	746229.4335	669504.8646
8092	PC	129+25.14	746189.6069	670421.1490
	PI	130+40.60	746184.5932	670536.4987
8093	CC		748187.7203	670507.9978
8094	PRC	131+55.81	746192.8866	670651.6590
	PI	132+62.02	746200.5160	670757.5978
8095	CC		744198.0529	670795.3203
8096	PT	133+68.03	746196.8820	670863.7487
8097	PC	148+11.24	746147.5038	672306.1116

I-49

HORIZONTAL ALIGNMENT NAME: 7ICL

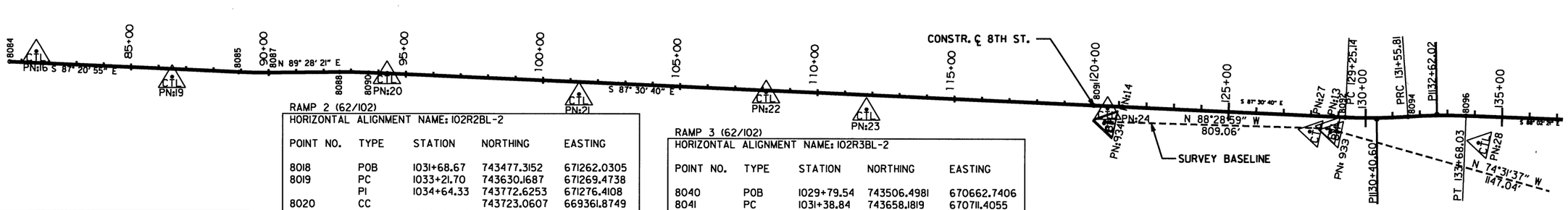
POINT NO.	TYPE	STATION	NORTHING	EASTING
8000	PC	990+20.31	739470.3440	670178.9244
	PI	998+19.13	740244.6269	670375.4046
8001	CC		745107.3777	647964.6753
8002	PT	1006+17.31	741030.7110	670517.4978
8108		1031+18.39	743491.9067	670962.3856
8003	PC	1047+91.71	745138.5370	671260.0318
	PI	1052+07.87	745548.0599	671334.0575
8004	CC		744798.8148	673139.4337
8005	PT	1056+11.22	745889.6586	671571.7531
8107		1059+47.95	746166.0597	671764.0822
8006	PC	1088+85.27	748577.1158	673441.7745
	PI	1108+43.39	750184.4104	674560.1831
8007	CC		749886.1285	671560.5578
8008	PT	1121+26.09	751539.9789	673147.1482

COORDINATES

PT NO.	EAST	NORTH	ELEV.	FEATURE
14	664038.5207	746430.0065	1296.88	5/8"REBAR/AHTD 2"ALUM CAP
15	664998.7927	746393.2103	1292.62	5/8"REBAR/AHTD 2"ALUM CAP
16	665654.0096	746422.4574	1307.14	5/8"REBAR/AHTD 2"ALUM CAP
17	665542.4901	746824.9844	1298.35	5/8"REBAR/AHTD 2"ALUM CAP
18	665645.2541	747636.9631	1303.06	5/8"REBAR/AHTD 2"ALUM CAP
19	666148.8769	746328.6216	1316.17	5/8"REBAR/AHTD 2"ALUM CAP
20	666930.7139	746343.0281	1317.01	5/8"REBAR/AHTD 2"ALUM CAP
21	667629.5347	746266.4655	1314.74	5/8"REBAR/AHTD 2"ALUM CAP
22	668310.9312	746275.1921	1308.97	5/8"REBAR/AHTD 2"ALUM CAP
23	668676.4741	746212.8148	1310.49	5/8"REBAR/AHTD 2"ALUM CAP
24	669555.0413	746218.5536	1320.84	5/8"REBAR/AHTD 2"ALUM CAP
25	669586.8168	747029.6787	1310.07	5/8"REBAR/AHTD 2"ALUM CAP

CTL PN:17

CTL PN:25



RAMP 1 (62/102)

HORIZONTAL ALIGNMENT NAME: 102R1BL

POINT NO.	TYPE	STATION	NORTHING	EASTING
8009	PC	1017+04.80	742092.5852	670756.6966
	PI	1018+00.02	742186.2844	670773.6338
8010	CC		741752.8630	672636.0985
8011	PT	1018+95.08	742277.8343	670799.8067
8012	PC	1023+40.49	742706.0871	670922.2384
	PI	1024+99.84	742859.2977	670966.0393
8013	CC		742391.1043	672024.0135
8014	PT	1026+57.15	742994.7448	671049.9803
8015	PC	1027+41.69	743066.6047	671094.5142
	PI	1028+82.40	743186.2009	671168.6320
8016	CC		743670.2451	670120.4810
8017	PT	1030+21.69	743320.1753	671211.6151
8018	POE	1031+86.72	743477.3152	671262.0305

RAMP 1 (8TH ST.)

HORIZONTAL ALIGNMENT NAME: 8THR1BL

POINT NO.	TYPE	STATION	NORTHING	EASTING
8053	PC	1046+98.90	745037.6081	671296.6629
	PI	1051+00.56	745432.8662	671368.1101
8054	CC		744782.8164	672706.2144
8055	PT	1054+82.11	745733.3473	671634.6524
8056	PC	1056+39.74	745851.2684	671739.2545
	PI	1057+44.04	745929.2902	671808.4639
8057	CC		746326.5338	671203.4736
8058	PT	1058+46.87	746023.8101	671852.5474
8059	POE	1059+98.08	746160.8432	671916.4587

RAMP 2 (62/102)

HORIZONTAL ALIGNMENT NAME: 102R2BL-2

POINT NO.	TYPE	STATION	NORTHING	EASTING
8018	POB	1031+68.67	743477.3152	671262.0305
8019	PC	1033+21.70	743630.1687	671269.4738
	PI	1034+64.33	743772.6253	671276.4108
8020	CC		743723.0607	669361.8749
8021	PT	1036+06.42	743914.5321	671262.1121
8022	PC	1038+08.80	744115.8880	671241.8231
	PI	1040+10.11	744316.1837	671221.6409
8023	CC		744259.4916	672667.0010
8024	PT	1042+08.80	744514.2832	671257.4495
8025	PC	1047+82.40	745078.7386	671359.4810
	PI	1051+18.11	745409.0893	671419.1954
8026	CC		744893.4356	672384.6092
8027	PT	1054+31.92	745642.4173	671660.5570
8028	PC	1055+33.24	745712.8431	671733.4076
	PI	1057+19.46	745842.2729	671867.2937
8029	CC		746227.7680	671235.6218
8030	PT	1058+97.61	746020.5253	671921.1791
8031	PC	1061+67.27	746278.6448	671999.2082
	PI	1063+94.29	746495.9490	672064.8989
8032	CC		745864.1592	673370.3230
8033	PT	1066+17.56	746682.2921	672194.5625

RAMP 2 (8TH ST.)

HORIZONTAL ALIGNMENT NAME: 8THR2BLR

POINT NO.	TYPE	STATION	NORTHING	EASTING
8060	POB	1060+57.41	746158.8454	671974.8152
8061	PC	1062+87.06	746350.4921	672101.3498
	PI	1063+85.48	746432.6226	672155.5764
8062	CC		747928.9541	669710.6441
8063	PT	1064+83.82	746518.2809	672204.0388
8064	PC	1072+19.92	747158.9538	672566.5085
	PI	1075+75.63	747468.5519	672741.6680
8065	CC		743397.1586	679215.5609
8066	PT	1079+30.83	747760.5340	672944.8388

RAMP 3 (62/102)

HORIZONTAL ALIGNMENT NAME: 102R3BL-2

POINT NO.	TYPE	STATION	NORTHING	EASTING
8040	POB	1029+79.54	743506.4981	670662.7406
8041	PC	1031+38.84	743658.1819	670711.4055
	PI	1032+45.41	743759.6523	670743.9604
8042	CC		743308.1121	671802.5396
8043	PT	1033+51.36	743853.3796	670794.6677
8044	PC	1034+51.36	743941.3324	670842.2509
	PI	1036+80.38	744142.7605	670951.2252
8045	CC		744622.9168	669582.4109
8046	PT	1039+05.55	744368.1251	670991.9623
8047	PC	1050+70.27	745514.2675	671199.1400
	PI	1053+47.42	745786.9997	671248.4393
8048	CC		745344.4064	672138.8410
8049	PT	1056+09.75	745990.9610	671436.0908
8050	PC	1062+97.32	746496.9595	671901.6270
	PI	1064+27.25	746592.5756	671989.5971
8051	CC		747790.0686	670496.1266
8052	PT	1065+56.78	746699.2248	672063.8072

RAMP 3 (8TH ST.)

HORIZONTAL ALIGNMENT NAME: 8THR3BL

POINT NO.	TYPE	STATION	NORTHING	EASTING
8074	POB	1058+36.65	746172.5408	671574.7682
8075	PC	1060+62.58	746371.4298	671681.9441
	PI	1061+85.69	746479.8033	671740.3436
8076	CC		745918.4299	672522.5878
8077	PT	1063+07.44	746569.8221	671824.3193
8078	PC	1065+30.72	746733.0905	671976.6270
	PI	1066+44.69	746816.4261	672054.3682
8079	CC		749338.6591	669183.5530
8080	PT	1067+58.59	746904.2485	672127.0026
8081	PC	1074+25.33	747418.0350	672551.9351
	PI	1075+44.43	747509.8141	672627.8420
8082	CC		749243.8430	670344.3479
8083	PT	1076+63.40	747607.5772	672695.8687

RAMP 4 (62/102)

HORIZONTAL ALIGNMENT NAME: 102R4BL

POINT NO.	TYPE	STATION	NORTHING	EASTING
8034	PC	1020+77.26	742477.7850	670719.6240
	PI	1023+00.00	742696.9762	670759.2452
8035	CC		742681.6183	669591.9829
8036	PT	1025+17.26	742915.0491	670713.8709
8037	PC	1026+89.03	743083.2133	670678.8810
	PI	1028+35.23	743226.3501	670649.0986
8038	CC		743316.6441	671800.7690
8039	PT	1029+79.86	743372.3793	670656.2096
8040	POE	1031+14.14	743506.4981	670662.7406

RAMP 4 (8TH ST.)

HORIZONTAL ALIGNMENT NAME: 8THR4BL

POINT NO.	TYPE	STATION	NORTHING	EASTING
8067	PC	1045+98.74	744959.0520	671168.1399
	PI	1047+02.46	745061.1149	671186.5889
8068	CC		745298.7742	669288.7381
8069	PT	1048+05.97	745164.5754	671193.8767
8070	PC	1049+43.62	745301.8859	671203.5489
	PI	1052+59.28	745616.7669	671225.7293
8071	CC		745221.3666	672346.6321
8072	PT	1055+59.66	745875.8729	671406.0238
8073	POE	1059+19.55	746171.2806	671611.5782

SURVEY CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	88	555

(2) PLAN STA. 1025+00.00 TO 1040+00.00

NOTES:
SEE "DRAINAGE NOTES" SHEETS FOR DRAINAGE STRUCTURE CALL OUT NOTES.

SEE "INTERCHANGE LAYOUT" SHEET FOR RAMP GEOMETRY.

	STA.	STA.	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
URE I-49 SBL LT.	1032+02.40	1034+47.55	175 LIN. FT.	1 EACH	1 EACH
I-49 NBL RT.	1037+77.43	1046+98.90	871.5 LIN. FT.	1 EACH	
RAMP 2 (62/102) LT.	1038+81.25	1040+50.00	100 LIN. FT.	1 EACH	1 EACH

STA. 1029+79.54 ℄ RAMP 3 = STA. 17+00.00 ℄ HWY. 62/102, Δ = 75° 00' 00"

STA. 1031+14.14 ℄ RAMP 4 = STA. 17+00.00 ℄ HWY. 62/102, Δ = 90° 00' 00"

PHILLIPS 66 McDONALD'S

PAVED PARKING

+89.64 426.68

+50.12 354.75

+99.95 339.83

EXIST. R/W & CONTROL OF ACCESS

EXIST. DRAIN DITCH

+50.23 329.71

PT 1028+39.03

PC 1026+89.03

PT 1029+79.86

PC 1030+38.84

PI 1032+45.41

PI 1033+51.36

PC 1034+51.36

+49.93 309.85

+49.85 274.92

1037+50.00 BEGIN CONCRETE BARRIER WALL (SIDE TYPE A)

℄ RAMP 3 (62/102)

STA. 1038+15.00 ℄ RAMP 3 (102/62) 24.50' LT. = STA. 1038+16.55 BEG. WALL 1

+99.95 225.00

CONST. LIMITS

WALL 1

PT 1039+05.55

1040+00

1025+00

N 11° 45' 13.71" W

℄ HWY. 62/102

℄ RAMP 4 (62/102)

1030+00

EXIST. DRAIN DITCH

N 17° 47' 16.29" E

N 2° 47' 16.29" E

N 28° 24' 49.59" E

1032+78.70

1035+00

BRIDGE APPROACH SLAB (UIP)

250' TAPER

200'

1035+38.70 TO EXIST. R/W

1032+40.39

1032+98.74

1035+98.74

PT 1036+80.38

300' TAPER

1000' ACCEL. LANE

STA. 1032+47.37
BEGIN JOB 090376

EXIST. BR. 5979 A (UIP)

STA. 1030+27.51 TO STA. 1032+04.86 IN PLACE
176'-0" X 40'-0"
BRIDGE CONSISTING OF CONT. COMP. W-BEAM UNIT (45',79',52')
RETAIN

I-49 SBL

20+00

N 10° 14' 46.29" E

℄ INTERSTATE 49

EXIST. MEDIAN

STA. 1030+38.86 TO STA. 1032+16.19 IN PLACE
176'-0" X 40'-0"
BRIDGE CONSISTING OF CONT. COMP. W-BEAM UNIT (45',79',52')
RETAIN

I-49 NBL

300' TAPER

1100' DECEL. LANE

PI 1024+99.84

℄ RAMP 1 (62/102)

STA. 1031+18.39 ℄ I-49 = STA. 20+00.00 ℄ HWY. 62/102, Δ = 82° 32' 30"

EXIST. BR. 5979 B (UIP)

EXIST. DRAIN. DITCH

CONST. LIMITS

PT 1026+57.15

PC 1027+41.69

PI 1028+82.40

N 31° 47' 16.29" E

N 17° 47' 16.29" E

1032+54.44

PAVED DRAIN

1033+98.90

BRIDGE APPROACH SLAB (UIP)

CONSTRUCT CONCRETE ISLAND (TYPE A CURB)

EXIST. DRAIN. DITCH

STA. 1036+00.00 BEGIN RAMP 2 CONSTRUCTION

1035+98.90

℄ RAMP 2 (62/102)

N 5° 45' 13.71" W

PC 1036+08.80

PAVED DRAIN

PT 1036+06.43

CONST. LIMITS

EXIST. R/W & CONTROL OF ACCESS

+50.13 325.34

+50.15 345.44

EXIST. DRAIN. DITCH

STA. 1031+86.72 ℄ RAMP = STA. 23+00.00 ℄ HWY. 62/102, Δ = 75° 00' 00"

PT 1030+21.89

+00.35 360.58

PC 1033+21.70

EXIST. DRAIN. DITCH

PI 1034+64.32

MB WALL 12

STA. 1031+68.67 ℄ RAMP 2 = STA. 23+00.00 ℄ HWY. 62/102, Δ = 90° 00' 00"

+58.37 353.22

+76.15 409.27

VACANT GAS STATION

+49.49 393.22

25+00

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

REMOVAL & DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	GUARDRAIL (TYPE A)
1032+02.85	1034+01.54	LT.	199 LIN. FT.

CONCRETE DITCH PAVING (TYPE B)

	STA.	STA.	SIDE	"W"	SQ. YDS.
RAMP 3 (62/102)	1037+30	1039+00	RT.	5'	94.4

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

PLAN MAIN LINE & RAMPS
STA. 1025+00.00 TO STA. 1040+00.00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	89	555

(2) PROF. AUX. LANES 1025+00.00 - 1040+00.00

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HURT
6/1/16

STA. 1032+40.30
BEGIN CONSTRUCTION
MATCH EXIST. GRADE
APPROX. ELEV. 1327.52

EXIST. GROUND LINE
S.B. AUX. LANE

PROFILE S.B. AUX. LANE
STA. 1032+40.30 TO STA. 1040+00.00

STA. 1032+54.44
BEGIN CONSTRUCTION
MATCH EXIST. GRADE
APPROX. ELEV. 1327.97

EXIST. GROUND LINE
N.B. AUX. LANE

PROFILE N.B. AUX. LANE
STA. 1032+54.44 TO STA. 1040+00.00

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

1370 1360 1350 1340 1330 1320 1310 1300 1290 1280 1270 1260

1030+00 1031+00 1032+00 1033+00 1034+00 1035+00 1036+00 1037+00 1038+00 1039+00 1040+00

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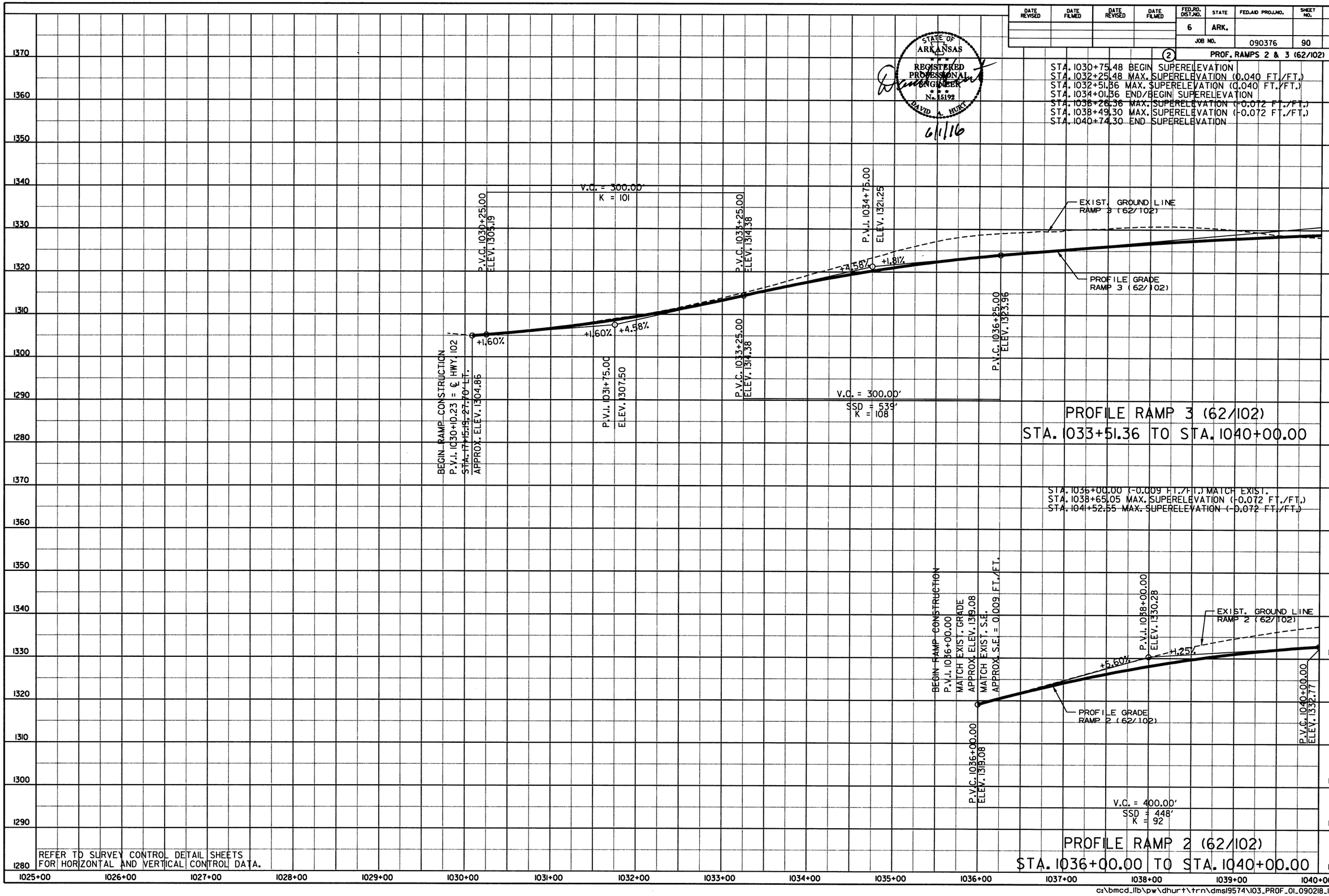
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	90	555

(2) PROF. RAMPS 2 & 3 (62/102)

STA. 1030+75.48 BEGIN SUPERELEVATION
STA. 1032+25.48 MAX. SUPERELEVATION (0.040 FT./FT.)
STA. 1032+51.36 MAX. SUPERELEVATION (0.040 FT./FT.)
STA. 1034+01.36 END/BEGIN SUPERELEVATION
STA. 1036+26.36 MAX. SUPERELEVATION (-0.072 FT./FT.)
STA. 1038+49.30 MAX. SUPERELEVATION (-0.072 FT./FT.)
STA. 1040+74.30 END SUPERELEVATION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	91	555
				(2)	PLAN STA. 1040+00.00 TO 1054+00.00			

CONCRETE DITCH PAVING (TYPE A)

	STA.	STA.	SIDE	"B"	"W"	SQ. YDS.
RAMP 3 (62/102)	1044+35	1050+00	LT.	8'	14'	878.9
RAMP 3 (62/102)	1050+00	1054+00	LT.	6'	14.9'	662.2

CONCRETE DITCH PAVING (TYPE B)

	STA.	STA.	SIDE	"W"	SQ. YDS.
RAMP 3 (62/102)	1038+15	1049+00	LT.	4'-7"	552.1
RAMP 3 (62/102)	1039+00	1049+00	RT.	5'	555.6
RAMP 2 (62/102)	1040+50	1052+00	LT.	5'	638.9
RAMP 2 (62/102)	1040+60	1052+50	RT.	4'-7"	605.6

NOTES:
SEE "DRAINAGE NOTES" SHEETS FOR DRAINAGE STRUCTURE CALL OUT NOTES.

SEE "INTERCHANGE LAYOUT" SHEET FOR RAMP GEOMETRY.

STATE OF ARKANSAS
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No. 15192
DAVID A. HURT
6/1/16

STA. 1043+82.34 TO STA. 1045+59.36 IN PLACE
177'-0" X 48'-0"
BRIDGE CONSISTING OF CONT. COMP. W-BEAM UNIT (56',65',56')
REMOVED IN JOB CA0902

VALUE PLACE HOTEL
3S/F
BILLBOARD RAISED
EXIST. R/W & CONTROL OF ACCESS
CONST. LIMITS
SIGN
+99.90
199.95
PT 1039+05.55
1040+00.00
WALL 1
CONST. LIMITS
℄ RAMP 3 (62/102)
CONC. BARRIER WALL (SIDE TYPE A)
℄ INTERSTATE 49
N 10° 14' 46.29" E
EXIST. MEDIAN
I-49 SBL
I-49 NBL
1040+50.00 BEGIN CONCRETE BARRIER WALL (SIDE TYPE A)
WALL 2
PT 1042+08.80
℄ RAMP 2 (62/102)
CONST. LIMITS
PAVED DRAIN
DRAIN
+50.16
215.32
STA. 1040+60.00 ℄ RAMP 2 (62/102) WALL 2
24.50' RIGHT =
STA. 1040+62.55
EXIST. R/W & CONTROL OF ACCESS
STA. 1044+66.31 - IN PLACE
48"x322' R.C. PIPE CULVERT
WITH 7°30' 21" RT. FWD. SKEW
BUILT AS PART OF PROJECT CA0902
RETAIN
STA. 1043+95.29 TO STA. 1045+72.19 IN PLACE
177'-0" X 48'-0"
BRIDGE CONSISTING OF CONT. COMP. W-BEAM UNIT (56',65',56')
REMOVED IN JOB CA0902
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.
1045+00
STA. 1047+31.47 ℄ RAMP 4 (8TH ST.), 14.61' LEFT = STA. 1047+32.04 WALL 3B
8' FBD
PRIVATE DRIVE (DAVID GLASS TECHNOLOGY CENTER)
WALL 1
TRAIL
A & M RAILROAD
N 10° 14' 46.29" E
PC 1045+98.71
PT 1048+05.97
N 4° 01' 45.43" E
PAVED SHOULDER
PC 1046+98.90
PC 1047+02.45
PC 1047+91.71
PC 1049+43.62
PI 1049+43.62
PC 1047+82.40
1047+91.53, 190.07 LT.
BEGIN PROPOSED R/W & CONTROL OF ACCESS
NOSE
℄ I-49 STA. 1047+60.51, 57.84' LT. =
℄ RAMP 4 (8TH ST.) STA. 1047+60.07, 7.50' RT.
STA. 1049+05.00 ℄ RAMP 3 (62/102), 24.50' LEFT = STA. 1049+05.00 WALL 1
STA. 1049+50.00 ℄ RAMP 3 (62/102), 14.16' LEFT = STA. 1049+49.51 WALL 1
1050+00.00
+80.00
190.00
PROP. R/W & C.A
CONCRETE BARRIER WALL
GB WALL II
CONCRETE BARRIER WALL
PC 1050+70.27
PAVED PARKING
DROP INLET
+30.00
210.00
+60.00
225.00
1052+59.28
6' FBD
PAVED PARKING
PI 1053+47.42
STA. 1053+65.00, ℄ RAMP 3 (62/102), 14.16' LEFT = STA. 1053+70.58 WALL 1
AWD DRAIN
℄ RAMP 4 (8TH ST.)
1049+15.34 END CONC. BARRIER WALL (SIDE TYPE A)
PI 1052+95.20
PI 1052+07.87
WALL 3B
WALL 3A
STA. 1054+00.00 ℄ I-49, 90.00' LEFT = STA. 1054+00.00 WALL 3A
PI 1051+00.56
PI 1051+18.11
EXIST. MEDIAN
STA. 1047+00.00
INSTALL SIGN TRUSS
1047+91.59, 164.96 RT.
BEGIN PROPOSED R/W & CONTROL OF ACCESS
+50.00
185.00
NOSE
℄ I-49 STA. 1051+32.31, 74.80' RT. =
℄ RAMP 1 (8TH ST.) STA. 1051+19.79, 12.00' LT.
℄ RAMP 1 (8TH ST.)
4' FBD
1052+15.00 END CONC. BARRIER WALL (SIDE TYPE A)
+15.00
230.00
PROP. R/W & C.A
PT 1054+31.92
PT 1054+82.14
STA. 1052+50.00 ℄ RAMP 2 (62/102), 24.50' RIGHT = STA. 1052+39.00 WALL 2
STA. 1045+30.93 - IN PLACE
60"x317' R.C. PIPE CULVERT
WITH 7°30' 21" RT. FWD. SKEW
BUILT AS PART OF PROJECT CA0902
RETAIN
STA. 1045+20.37 - IN PLACE
12'x10'x288' R.C. PED. TUNNEL
WITH 7°30' 21" RT. FWD. SKEW
BUILT AS PART OF PROJECT CA0902
RETAIN

	STA.	STA.	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL	TERMINAL ANCHOR POSTS (TYPE 1)
RAMP 2 (62/102) RT.	1039+00.00	1059+47.95	1975 LIN. FT.	1 EACH	1 EACH	
I-49 SBL LT.	1041+00.00	1045+93.75	475 LIN. FT.		1 EACH	1 EACH
RAMP 1 (8TH ST.) RT.	1046+98.90	1054+82.11	764.5 LIN. FT.		1 EACH	
RAMP 3 (62/102) LT.	1037+65.00	1048+84.73	1100 LIN. FT.		1 EACH	1 EACH
RAMP 3 (62/102) RT.	1049+15.34	1056+33.55	675 LIN. FT.		2 EACH	

PLAN MAIN LINE & RAMPS
STA. 1040+00.00 TO STA. 1054+00.00

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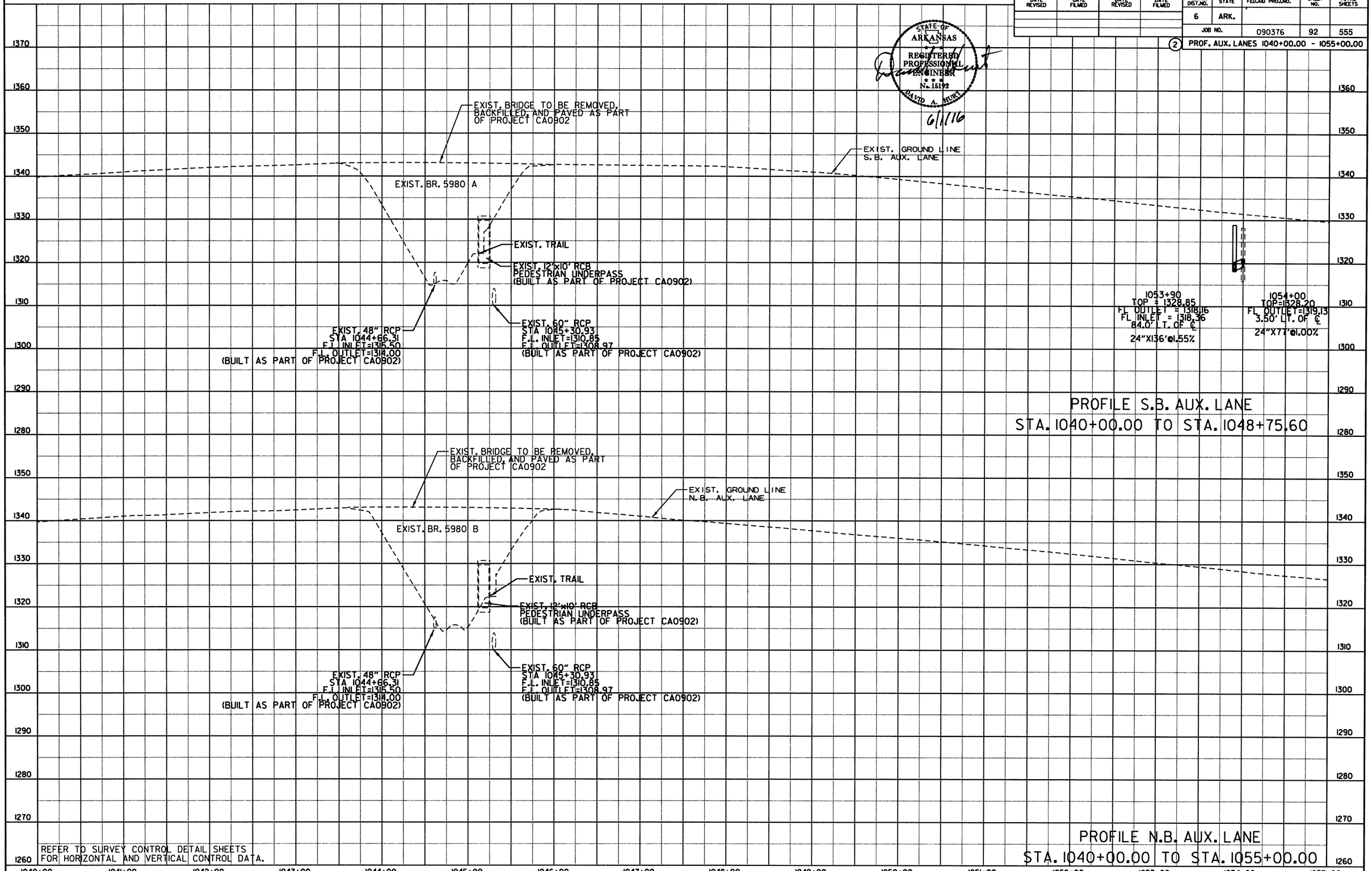
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	92	555

(2) PROF. AUX. LANES 1040+00.00 - 1055+00.00

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



PROFILE S.B. AUX. LANE
STA. 1040+00.00 TO STA. 1048+75.60

PROFILE N.B. AUX. LANE
STA. 1040+00.00 TO STA. 1055+00.00

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	93	555

PROF. RAMPS 2 & 3 (62/102)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/11/16

STA. 1048+67.77 BEGIN SUPERELEVATION
STA. 1051+37.77 MAX. SUPERELEVATION (0.092 FT./FT.)
STA. 1055+42.25 MAX. SUPERELEVATION (0.092 FT./FT.)
STA. 1058+12.25 END SUPERELEVATION

P.V.I. 1042+35.00
ELEV. 1335.00
+1.81%
-1.43%
PROFILE GRADE RAMP 3 (62/102)
EXIST. GROUND LINE RAMP 3 (62/102)
EXIST. 48" RCP
STA 1043+69.25
F.L. INLET=315.50
F.L. OUTLET=314.00
(BUILT AS PART OF PROJECT CA0902)
EXIST. 60" RCP
STA 1044+34.15
F.L. INLET=310.85
F.L. OUTLET=308.97
(BUILT AS PART OF PROJECT CA0902)
V.C. = 1,220.00'
K = 377
SSD = 901'
EXIST. TRAIL
EXIST. 12'x10' RCB
PEDESTRIAN UNDERPASS
(BUILT AS PART OF PROJECT CA0902)
LT. DITCH GRADE
0.30%
STA. 1045+00.00
ELEV. 1,333.60
P.V.C. 1048+45.00
ELEV. 1322.27
1049+00
TOP=1325.32
FL OUTLET=1318.56
FL INLET (W)=1319.06
FL INLET (E)=1319.48
10.00' RT. OF ℄
24" x29' @0.50%
1049+00
TOP=1324.46
FL OUTLET=1319.20
21.89' LT. OF ℄
24" x19' @1.00%
1050+50
TOP=1324.03
FL OUTLET=1318.05
12.00' LT. OF ℄
P.V.C. 1051+50.00
ELEV. 1321.91
V.C. = 400.00'
K = 519
24" x14Z' @0.50%
24" x19S' @0.62%
30" x24' @0.65%
-1.43%
-0.66%
0.12%
1052+50
TOP=1320.20
FL OUTLET=1316.05
FL INLET(S)=1316.15
FL INLET (E) = 1316.05
10.00' RT. OF ℄
1049+00
TOP=1326.26
FL OUTLET=1319.50
14.42' RT. OF ℄
24" x21' @1.00%
STA. 1053+00.00
ELEV. 1,316.00
P.V.I. 1053+50.00
ELEV. 1319.05
STA. 1053+65.00
ELEV. 1,316.08

PROFILE RAMP 3 (62/102)
STA. 1040+00.00 TO STA. 1054+00.00

STA. 1041+52.55 MAX. SUPERELEVATION (-0.072 FT./FT.)
STA. 1043+77.55 END SUPERELEVATION
STA. 1045+87.40 BEGIN SUPERELEVATION
STA. 1048+47.40 MAX. SUPERELEVATION (-0.088 FT./FT.)
STA. 1051+65.43 MAX. SUPERELEVATION (-0.088 FT./FT.)
STA. 1054+25.43 END/BEGIN SUPERELEVATION
STA. 1057+15.43 MAX. SUPERELEVATION (0.100 FT./FT.)

P.V.C. 1040+00.00
ELEV. 1332.77
P.V.C. 1040+00.00
ELEV. 1332.77
P.V.I. 1045+00.00
ELEV. 1339.00
+1.25%
-1.84%
PROFILE GRADE RAMP 2 (62/102)
1047+50
TOP=1333.36
FL OUTLET=1323.57
10.00' LT. OF ℄
24" x33' @2.00%
EXIST. 48" RCP
STA 1045+12.47
F.L. INLET=315.50
F.L. OUTLET=314.00
(BUILT AS PART OF PROJECT CA0902)
EXIST. TRAIL
EXIST. 12'x10' RCB
PEDESTRIAN UNDERPASS
(BUILT AS PART OF PROJECT CA0902)
EXIST. GROUND LINE RAMP 2 (62/102)
RT. DITCH GRADE
V.C. = 1,000.00'
K = 324
SSD = 836'
EXIST. 60" RCP
STA 1045+76.85
F.L. INLET=310.85
F.L. OUTLET=308.97
(BUILT AS PART OF PROJECT CA0902)
P.V.C. 1050+00.00
ELEV. 1329.80
0.30%
1.76%
2.46%
0.52%
1.66%
24" x40' @1.22%
1052+00
TOP=1326.54
FL OUTLET=1317.70
FL INLET=1318.62
17.29' LT. OF ℄
P.V.C. 1053+25.00
ELEV. 1323.81
24" x97' @2.00%
1053+00
TOP=1324.12
FL OUTLET=1318.94
0.00' LT. OF ℄
STA. 1050+00.00 ELEV. 1,314.62
STA. 1050+50.00 ELEV. 1,314.77
STA. 1051+00.00 ELEV. 1,315.64
STA. 1051+50.00 ELEV. 1316.88
STA. 1052+00.00 ELEV. 1,316.88
STA. 1052+50.00 ELEV. 1,317.14

PROFILE RAMP 2 (62/102)
STA. 1040+00.00 TO STA. 1054+00.00

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

1040+00 1041+00 1042+00 1043+00 1044+00 1045+00 1046+00 1047+00 1048+00 1049+00 1050+00 1051+00 1052+00 1053+00 1054+00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	94	555

(2) PROF. RAMPS 1 & 4 (8TH ST.)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 18192
DAVID A. HURST
6/1/16

BEGIN RAMP CONSTRUCTION
℄ HWY 71
STA. 1047+60.51, 57.84' LT. =
℄ RAMP 4 (8TH ST.)
STA. 1047+60.07, 7.50' RT. =
ELEV. 1342.20

P.V.I. 1048+06.90
ELEV. 1341.96

-0.51%

-0.92%

P.V.C. 1051+55.00
ELEV. 1338.77

V.C. = 600.00'
K = 216

PROFILE GRADE
RAMP 4 (8TH ST.)

P.V.C. 1057+55.00
ELEV. 1341.60

END RAMP CONSTRUCTION
P.V.I. 1058+83.92 = ℄ 8TH ST.,
STA. 141+03.26, 34.00' RT.
MATCH 8TH ST. EOP
ELEV. 1344.00

0.92%

+1.86%

P.V.I. 1054+55.00
ELEV. 1336.02

EXIST. GROUND LINE
RAMP 4 (8TH ST.)

STA. 1045+98.74 BEGIN SUPERELEVATION (-0.020 FT./FT.)
STA. 1047+05.59 MAX. SUPERELEVATION (-0.034 FT./FT.)
STA. 1047+61.90 SUPERELEVATION (-0.015 FT./FT.)
STA. 1050+11.90 MAX. SUPERELEVATION (0.083 FT./FT.)
STA. 1054+97.16 MAX. SUPERELEVATION (0.083 FT./FT.)
STA. 1057+47.16 END SUPERELEVATION (-0.020 FT./FT.)

PROFILE RAMP 4 (8TH ST.)
STA. 1045+98.74 TO STA. 1058+79.07

BEGIN RAMP CONSTRUCTION
℄ HWY 71
STA. 1051+32.81, 74.80' RT. =
℄ RAMP 1 (8TH ST.)
STA. 105+19.79, 12.00' LT. =
Elev. 1,332.97

P.V.C. 1051+40.00
Elev. 1,332.66

V.C. = 430.00'
K = 104

24" x 102' @ 1.00%

24" x 105' @ 4.00%
STA 1052+94.39
TOP = 1329.34
FL OUTLET = 1322.82
FL INLET = 1323.32
16' RT. ℄

STA 1054+00
TOP = 1330.34
FL OUTLET = 1324.34
16' RT. ℄

P.V.C. 1055+70.00
Elev. 1,335.16

P.V.I. 1058+50.00
ELEV. 1342.60

END RAMP CONSTRUCTION
P.V.I. 1059+56.03 = ℄ 8TH ST.,
STA. 143+93.86, 34.00' RT.
MATCH 8TH ST. EOP
ELEV. 1344.21

+2.66%

+1.52%

-1.50%

-8.06%

-2.82%

-1.50%

+2.66%

-4.32%

-1.84%

-2.08%

6.70%

PROFILE GRADE
RAMP 1 (8TH ST.)

LT. DITCH GRADE

P.V.C. 1057+50.00
ELEV. 1339.94

P.V.C. 1059+50.00
ELEV. 1344.12

V.C. = 200.00'
SSD = 684'
K = 176

STA. 1051+78.00
Elev. 1,331.52
STA. 1052+00.00
Elev. 1,330.85

STA. 1053+00.00
Elev. 1,328.03

STA. 1053+50.00
Elev. 1,325.87

P.V.I. 1053+55.00
Elev. 1,329.45

STA. 1053+87.00
Elev. 1,325.19

STA. 1054+77.00
Elev. 1,323.32
STA. 1055+00.00
Elev. 1,321.78

EXIST. GROUND LINE
RAMP 1 (8TH ST.)

STA. 1046+98.90 BEGIN SUPERELEVATION (-0.042 FT./FT.) MATCH EXIST.
STA. 1048+28.90 MAX. SUPERELEVATION (-0.072 FT./FT.)
STA. 1053+51.68 MAX. SUPERELEVATION (-0.072 FT./FT.)
STA. 1055+76.68 END/BEGIN SUPERELEVATION
STA. 1057+26.68 MAX. SUPERELEVATION (0.058 FT./FT.)
STA. 1058+08.96 MAX. SUPERELEVATION (0.058 FT./FT.)
STA. 1059+58.96 END SUPERELEVATION (-0.020 FT./FT.)

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL DATA.

PROFILE RAMP 1 (8TH ST.)
STA. 1046+98.90 TO STA. 1059+61.13

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NOTE:
SEE "DRAINAGE NOTES" SHEETS FOR DRAINAGE STRUCTURE CALL OUT NOTES.

SEE "INTERCHANGE LAYOUT" SHEET FOR RAMP GEOMETRY.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	95	555
				(2)	PLAN STA. 1054+00.00 TO 1068+00.00			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

STA. 139+45.24 ℄ 8TH ST., 77.70' RIGHT = STA. 139+46.78 WALL 3A = STA. 1058+17.43 WALL 3B

BRIDGE NO. 07369 (RAMP 3 UNDERPASS)
303'-6 5/8" C.I.P. REINF. CONC. UNDERPASS
25'-0" CLEAR ROADWAY
303'-6 5/8" TOTAL LENGTH

STA. 140+79.47 ℄ 8TH ST. = STA. 1058+36.65 ℄ RAMP 3 (8TH ST.)
Δ = 63° 38' 30.12"

STA. 141+07.00 ℄ 8TH ST.
STA. 1058+55.21 ℄ RAMP 3 (HWY. 62/102)
Δ = 49° 20' 44.68"

STA. 141+16.30 ℄ 8TH ST. = STA. 1059+19.55 ℄ RAMP 4 (8TH ST.)
Δ = 57° 07' 45.28"

CONCRETE DITCH PAVING (TYPE B)

	STA.	STA.	SIDE	"W"	SQ. YDS.
RAMP 2 (62/102)	1063+00.00	1066+17.56	RT.	6'	211.7
RAMP 3 (62/102)	1061+00.00	1065+56.78	LT.	6'	304.5
I-49 NB	1066+17.56	1068+00.00	RT.	6'	121.6
I-49 SB	1065+56.78	1069+00.00	LT.	6'	228.8
I-49 SB	1054+00	1058+34	LT.	4'	192.9
I-49 SB	1059+40.49	1059+49.07	LT.	4'	22.9
I-49 NB	1057+40	1059+57.34	RT.	4'	96.6
I-49 NB	1060+61.89	1061+53.52	RT.	4'	54.8

STA. 1053+65.00 ℄ RAMP 3 (62/102), 14.16' LT. = STA. 1053+70.58 WALL 1

STA. 1054+00.00 ℄ I-49, 90.00' LT. = STA. 1054+00.00 WALL 5A

CONCRETE BARRIER WALL
WALL 3A
CONST. LIMITS
PROP. R.O.W. & C.A.
AT&T POP (DND)
CONCRETE BARRIER WALL
℄ RAMP 4 (8TH ST.)
WALL 3B
℄ RAMP 3 (62/102)
EXIST. R/W & CONTROL OF ACCCESS
SEE WALL PLANS
WALL 5A
I-49 SBL
I-49 NBL
℄ INTERSTATE 49
BEGIN CONC. BARRIER WALL (MEDIAN TYPE SP-2)
WALL 6A
EXIST. MEDIAN
℄ RAMP 2 (62/102)
WALL 4
℄ RAMP 1 (8TH ST.)
PROP. R.O.W. & C.A.
℄ 8TH ST.
PROP. R.O.W. & C.A.
CONST. LIMITS
SEE 7TH ST.
LYNDAL LN.
EXIST. R/W
℄ RAMP 3 (8TH ST.)
WALL 5B
STA. 1065+56.78 INSTALL STGN TRUSS
EXIST. R/W & CONTROL OF ACCESS
CONCRETE BARRIER WALL
WALL 7
TCE
WALL 6B
8' FBD
℄ RAMP 2 (8TH ST.)
NOSE
℄ I-49 STA. 1062+52.32, 74.79' LT. = ℄ RAMP 3 (HWY. 62/102) STA. 1062+52.12, 7.50' RT.
NOSE
℄ I-49 STA. 1064+77.66, 57.81' RT. = ℄ RAMP 2 (HWY. 62/102) STA. 1064+78.16, 7.50' LT.
175' DECEL. LANE
300' TAPER
580' ACCEL. LANE
SIGN

STA. 1059+41.15 ℄ RAMP 3 (8TH ST.), 31.50' RT. = STA. 1060+05.82 WALL 5A = STA. 1059+41.15 WALL 5B

STA. 1059+47.95 ℄ I-49 = STA. 142+68.89 ℄ 8TH ST., Δ = 57° 07' 45.28"

STA. 141+50.60 ℄ 8TH ST. BEGIN BRIDGE

STA. 143+87.20 ℄ 8TH ST. END BRIDGE

END CONC. BARRIER WALL (MEDIAN TYPE SP-2)

STA. 1061+49.77 ℄ RAMP 2 (62/102) 22.50' LT. = STA. 1061+86.41 6A = STA. 1061+49.77 6B

STA. 1057+40.00 ℄ I-49, 90.00' RT. = STA. 1057+40.00 WALL 6A

STA. 1059+57.95 ℄ RAMP 2 (62/102), 16.05' LT. = STA. 1059+38.13 WALL 4

STA. 1059+57.95 ℄ RAMP 2 (62/102), 59.30' RIGHT = STA. 1060+13.48 WALL 4

STA. 1059+98.08 ℄ RAMP 1 (8TH ST.)
Δ = 66° 57' 24.06"

STA. 144+21.36 ℄ 8TH ST. = STA. 1059+98.08 ℄ RAMP 1 (8TH ST.)
Δ = 66° 57' 24.06"

STA. 144+68.04 ℄ 8TH ST. = STA. 1060+42.54 ℄ RAMP 2 (62/102)
Δ = 75° 08' 26.67"

STA. 144+79.75 ℄ 8TH ST. = STA. 1060.57.41 ℄ RAMP 2 (8TH ST.)
Δ = 58° 31' 33.42"

BRIDGE NO. 07370
234'-0" CONT. COMP. PLATE GIRDER (117'-117')
70'-0" CLEAR ROADWAY
32°52' 15" LT. FORWARD SKEW
236'-7" TOTAL LENGTH

BRIDGE NO. 07368 (RAMP 2 UNDERPASS)
184'-1 3/8" C.I.P. REINF. CONC. UNDERPASS
27'-0" CLEAR ROADWAY
184'-1 3/8" TOTAL LENGTH

	STA.	STA.	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL	TERMINAL ANCHOR POST (TYPE 1)
RAMP 1 (8TH ST.) LT.	1054+62.92	1059+11.79	375 LIN. FT.	1 EACH	1 EACH	
RAMP 4 (8TH ST.) RT.	1054+40.00	1058+36.10	375 LIN. FT.		1 EACH	1 EACH
RAMP 2 (62/102) LT.	1056+50.18	1059+47.95	225 LIN. FT.	1 EACH	1 EACH	
RAMP 3 (62/102) LT.	1059+56.31	1062+25.06	200 LIN. FT.	1 EACH	1 EACH	
RAMP 3 (62/102) RT.	1059+56.31	1061+25.06	100 LIN. FT.	1 EACH	1 EACH	
I-49 SBL LT.	1065+06.77	1067+31.77	175 LIN. FT.	1 EACH		1 EACH

FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
1047+91.59	1085+00.00	RT.	C	3895
1047+91.53	133+00.00	LT.	C	1651
133+00.00	1067+58.10	LT.	C	1590

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

PLAN MAIN LINE & RAMPS
STA. 1054+00.00 TO STA. 1068+00.00

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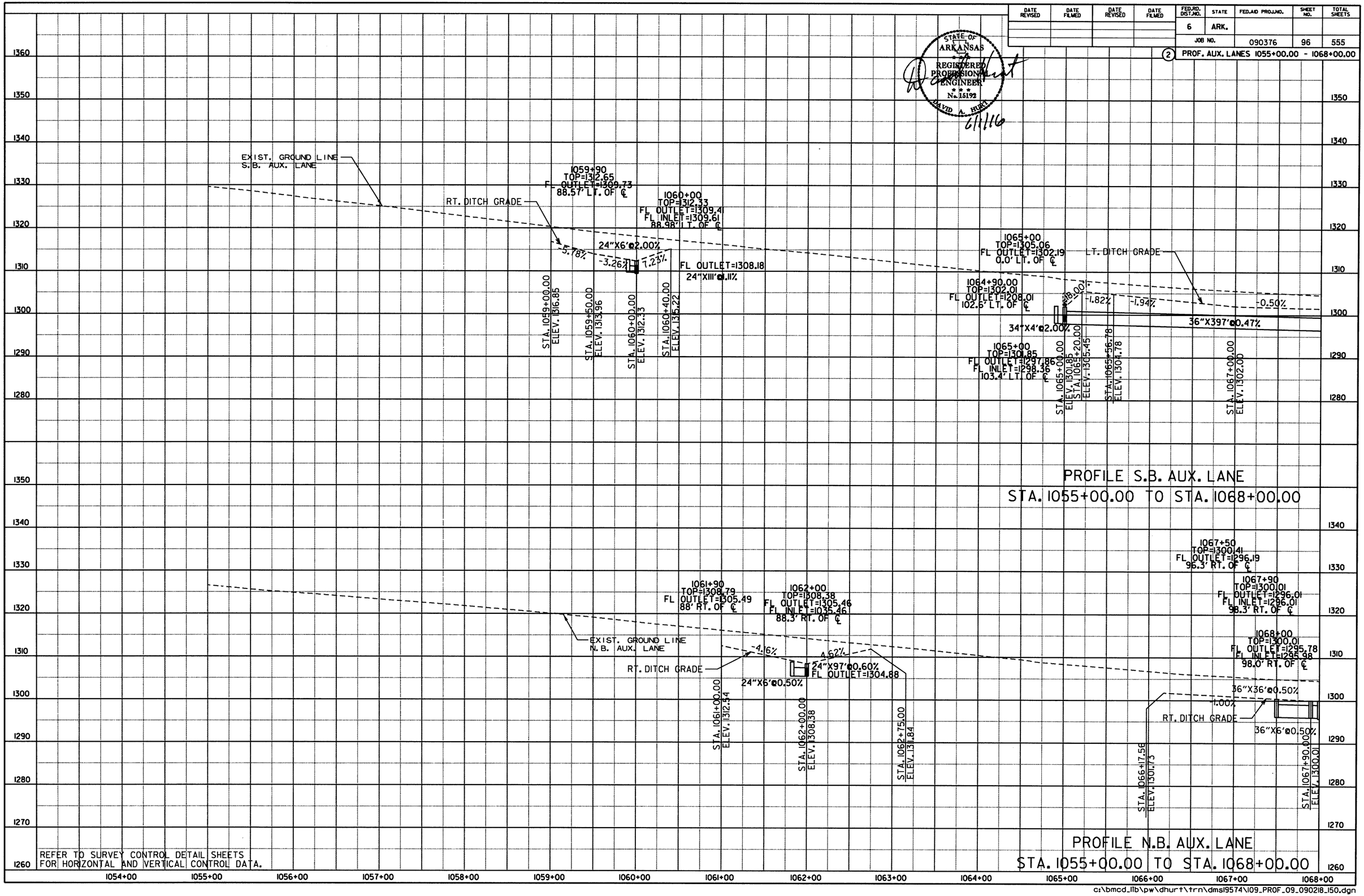
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	96	555

(2) PROF. AUX. LANES 1055+00.00 - 1068+00.00

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	97	555

(2) PROF. RAMPS 2 & 3 (62/102)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

STA. 1055+42.25 MAX. SUPERELEVATION (0.092 FT./FT.)
STA. 1058+12.25 END SUPERELEVATION

STA. 1061+47.32 BEGIN SUPERELEVATION
STA. 1063+47.32 MAX. SUPERELEVATION (-0.057 FT./FT.)
STA. 1065+06.78 MAX. SUPERELEVATION (-0.057 FT./FT.)
STA. 1067+06.78 END SUPERELEVATION

BRIDGE NO. 07369 (RAMP 3 UNDERPASS)
303'-6 5/8" C.I.P. REINF. CONC. UNDERPASS
25'-0" CLEAR ROADWAY
303'-6 5/8" TOTAL LENGTH

1320
24"x461'@0.46%
1056+38
TOP=1319.51
FL OUTLET=1310.34
FL INLET=1310.84
20.00' LT. OF ℄
FL OUTLET=1308.20
STA. 1058+55.21 ℄ 8TH ST.
P.V.C. 1055+50.00 ELEV. 1317.72
1320
24"x5'@0.40%
1056+38
TOP=1317.76
FL OUTLET=1310.86
FL INLET=1311.06
12.00' LT. OF ℄
EXIST. GROUND LINE RAMP 3 (62/102)
P.V.I. 1061+50.00 ELEV. 1313.75
END RAMP CONSTRUCTION ℄ I-49
STA. 1062+52.32, 74.79' LT. = ℄ RAMP 3 (HWY. 102/62)
STA. 1062+52.12, 7.50' RT.
ELEV. 1312.33
0.66% -1.39% -1.39%
24"x134'@0.50%
1055+00
TOP=1317.71
FL OUTLET=1312.33
10.00' RT. OF ℄
24"x19'@0.53%
1056+38
TOP=1316.93
FL OUTLET=1311.16
FL INLET=1311.66
10.00' RT. OF ℄
BEGIN UNDERPASS STA. 1056+43.55
PROFILE GRADE RAMP 3 (62/102)
-1.59%
-1.59%
18.00'
-1.82%
LT. DITCH GRADE
P.V.C. 1060+50.00 ELEV. 1314.41
STA. 1061+00.00 ELEV. 1,308.20
P.V.C. 1062+50.00 ELEV. 1312.36
V.C. = 200.00'
K = 277
SSD = 1578'
END UNDERPASS STA. 1059+47.10
STA. 1065+00.00 ELEV. 1,301.85
STA. 1065+20.00 ELEV. 1,305.45
STA. 1065+56.78 ELEV. 1,304.78

PROFILE RAMP 3 (62/102)
STA. 1054+00.00 TO STA. 1065+56.78

400.00' V.C.
K = 597
BRIDGE NO. 07368 (RAMP 2 UNDERPASS)
184'-1 3/8" C.I.P. REINF. CONC. UNDERPASS
27'-0" CLEAR ROADWAY
184'-1 3/8" TOTAL LENGTH
BEGIN UNDERPASS STA. 1059+57.16
STA. 1060+42.54 ℄ 8TH ST.
END UNDERPASS STA. 1061+41.27
1054+00
TOP=1322.32
FL OUTLET=1316.80
FL INLET=1317.00
10.00' LT. OF ℄
-1.84%
-1.17%
P.V.C. 1057+25.00 ELEV. 317.79
EXIST. GROUND LINE RAMP 2 (62/102)
PROFILE GRADE RAMP 2 (62/102)
P.V.I. 1063+73.13 ELEV. 1310.22
END RAMP CONSTRUCTION ℄ I-49
STA. 1064+77.66, 57.81' RT. = ℄ RAMP 2 (HWY. 102/62)
STA. 1064+78.16, 7.50' LT.
ELEV. 1308.65
24"x82'@1.50%
24"x62'@1.50%
1054+85
TOP=1320.92
FL INLET=1315.57
FL OUTLET=1315.37
10.00' LT. OF ℄
24"x96'@1.25%
1055+50
TOP=1319.92
FL OUTLET=1314.24
FL INLET=1314.44
10.00' LT. OF ℄
24"x19'@0.47%
1056+50
TOP=1318.4
FL OUTLET=1312.54
FL INLET=1313.04
10.00' LT. OF ℄
24"x18'@0.50%
1058+00
TOP=1316.56
FL OUTLET=1311.31
10.00' LT. OF ℄
24"x19'@0.48%
1059+35
TOP=1315.09
FL OUTLET=1309.91
11.00' LT. OF ℄
-1.17%
-1.49%
-3.92%
-0.90%
RT. DITCH GRADE
P.V.I. 1055+25.00 ELEV. 1320.13
24"x150'@0.90%
24"x134'@0.90%
1056+50
TOP=1319.87
FL OUTLET=1311.95
FL INLET=1312.45
11.50' RT. OF ℄
1058+00
TOP=1318.33
FL OUTLET=1310.40
FL INLET(S)=1310.60
FL INLET(W)=1311.22
11.50' RT. OF ℄
24"x10'@0.50%
1059+35
TOP=1315.80
FL OUTLET=1308.69
FL INLET(S)=1309.19
FL INLET(W)=1309.81
11.50' RT. OF ℄
STA. 1062+50.00 ELEV. 1,306.55
STA. 1063+00.00 ELEV. 1304.59
STA. 1066+17.56 ELEV. 1301.73
24"x312'@0.51%
FL OUTLET=1306.55
1059+35
TOP=1317.79
FL OUTLET=1308.14
FL INLET=1308.64
24.87' RT. OF ℄
STA. 1057+66.82 MAX. SUPERELEVATION (0.100 FT./FT.)
STA. 1060+56.82 END/BEGIN SUPERELEVATION
STA. 1062+84.82 MAX. SUPERELEVATION (-0.072 FT./FT.)
STA. 1065+15.08 MAX. SUPERELEVATION (-0.072 FT./FT.)
STA. 1067+40.08 END SUPERELEVATION

PROFILE RAMP 2 (62/102)
STA. 1054+00.00 TO STA. 1066+17.56

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

1360 1350 1340 1330 1320 1310 1300 1290 1280 1270 1260
1054+00 1055+00 1056+00 1057+00 1058+00 1059+00 1060+00 1061+00 1062+00 1063+00 1064+00 1065+00 1066+00 1067+00 1068+00 1069+00

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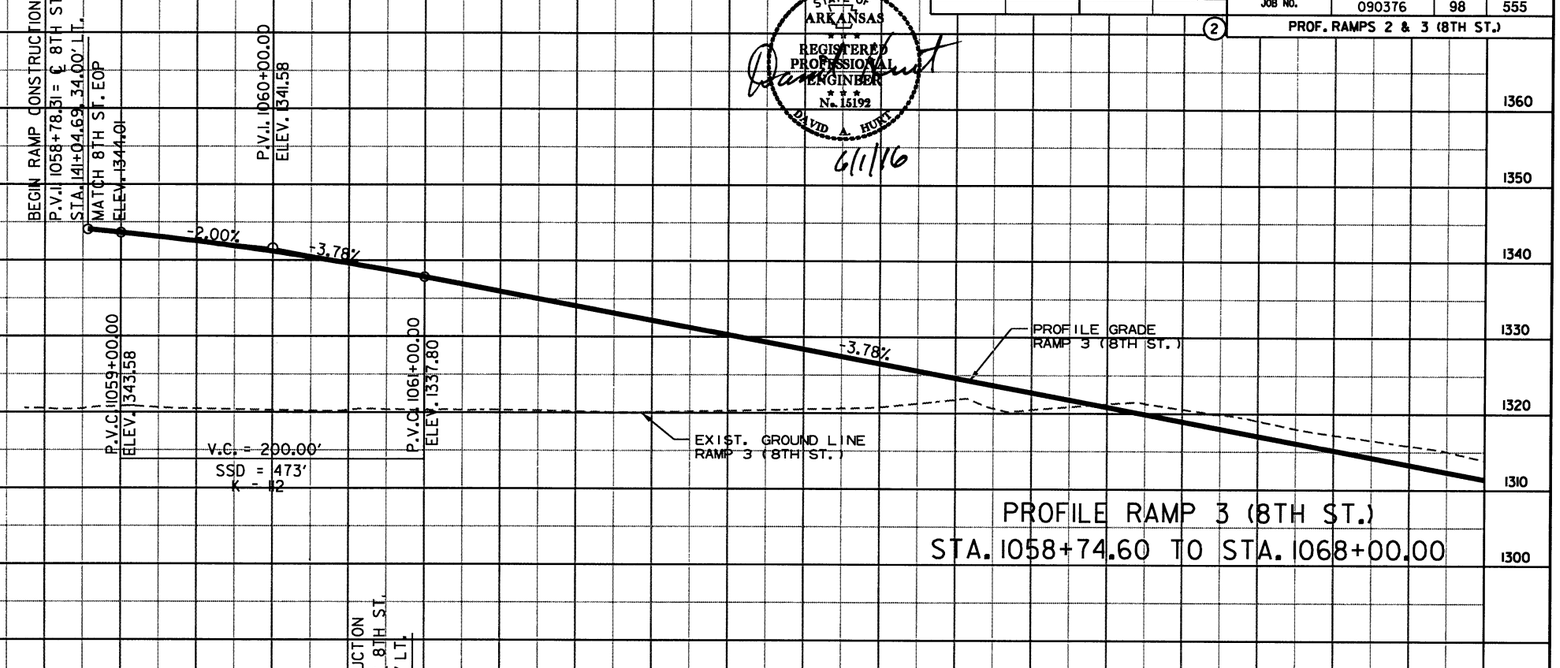
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	98	555

(2) PROF. RAMPS 2 & 3 (8TH ST.)

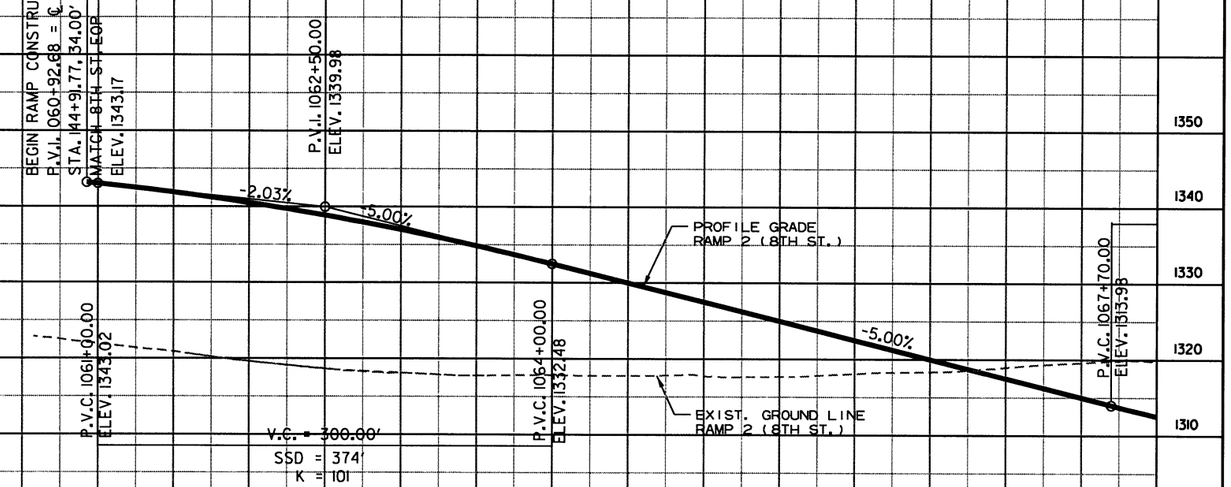
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

STA. 1059+50.08 BEGIN SUPERELEVATION
STA. 1061+00.08 MAX. SUPERELEVATION (0.046 FT./FT.)
STA. 1062+69.94 MAX. SUPERELEVATION (0.046 FT./FT.)
STA. 1064+19.94 END/BEGIN SUPERELEVATION
STA. 1066+19.94 MAX. SUPERELEVATION (-0.03 FT./FT.)
STA. 1067+08.59 MAX. SUPERELEVATION (-0.03 FT./FT.)
STA. 1069+08.59 END SUPERELEVATION



PROFILE RAMP 3 (8TH ST.)
STA. 1058+74.60 TO STA. 1068+00.00

STA. 1061+74.56 BEGIN SUPERELEVATION
STA. 1063+24.56 MAX. SUPERELEVATION (0.020 FT./FT.)
STA. 1064+46.32 MAX. SUPERELEVATION (0.020 FT./FT.)
STA. 1065+96.32 END SUPERELEVATION



PROFILE RAMP 2 (8TH ST.)
STA. 1060+97.27 TO STA. 1068+00.00

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL DATA.

1370 1360 1350 1340 1330 1320 1310 1300 1290 1280 1270 1260

1058+00 1059+00 1060+00 1061+00 1062+00 1063+00 1064+00 1065+00 1066+00 1067+00 1068+00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	99	555
				(2)	PLAN STA. 1068+00.00 TO 1083+00.00			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
1071+92.77	1086+50.00	LT.	C	1505

CONCRETE DITCH PAVING (TYPE A)

	STA.	STA.	SIDE	"B"	"W"	SQ. YDS.
RAMP 2 (8TH ST.)	1066+00.00	1079+30.83	RT.	8'	14'	2070.2
RAMP 3 (8TH ST.)	1073+00.00	1076+63.40	LT.	8'	14'	565.3
I-49 SB	1076+63.40	1086+03.40	LT.	8'	14'	1462.2
I-49 NB	1079+30.83	1086+95.99	RT.	8'	14'	1190.3

CONCRETE DITCH PAVING (TYPE B)

	STA.	STA.	SIDE	"W"	SQ. YDS.
RAMP 2 (8TH ST.)	1061+49.77	1069+30.00	LT.	4'-7"	397.1
RAMP 3 (8TH ST.)	1059+41.15	1069+10.00	RT.	4'-7"	493.0
RAMP 3 (8TH ST.)	1067+00	1072+35.00	LT.	4'	237.8

NOTES:
SEE "DRAINAGE NOTES" SHEETS FOR DRAINAGE STRUCTURE CALL OUT NOTES.

SEE "INTERCHANGE LAYOUT" SHEET FOR RAMP GEOMETRY

	STA.	STA.	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL	TERMINAL ANCHOR POST (TYPE 1)
RAMP 2 (8TH ST.) LT.	1061+60.32	1069+80.00	800 LIN. FT.		1 EACH	1 EACH
RAMP 3 (8TH ST.) RT.	1059+31.21	1070+54.41	1050 LIN. FT.	1 EACH	1 EACH	
RAMP 3 (8TH ST.) LT. / I-49 SBL LT.	1072+33.59	1079+02.34	600 LIN. FT.	1 EACH	1 EACH	

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

PLAN MAIN LINE & RAMPS
STA. 1068+00.00 TO STA. 1083+00.00

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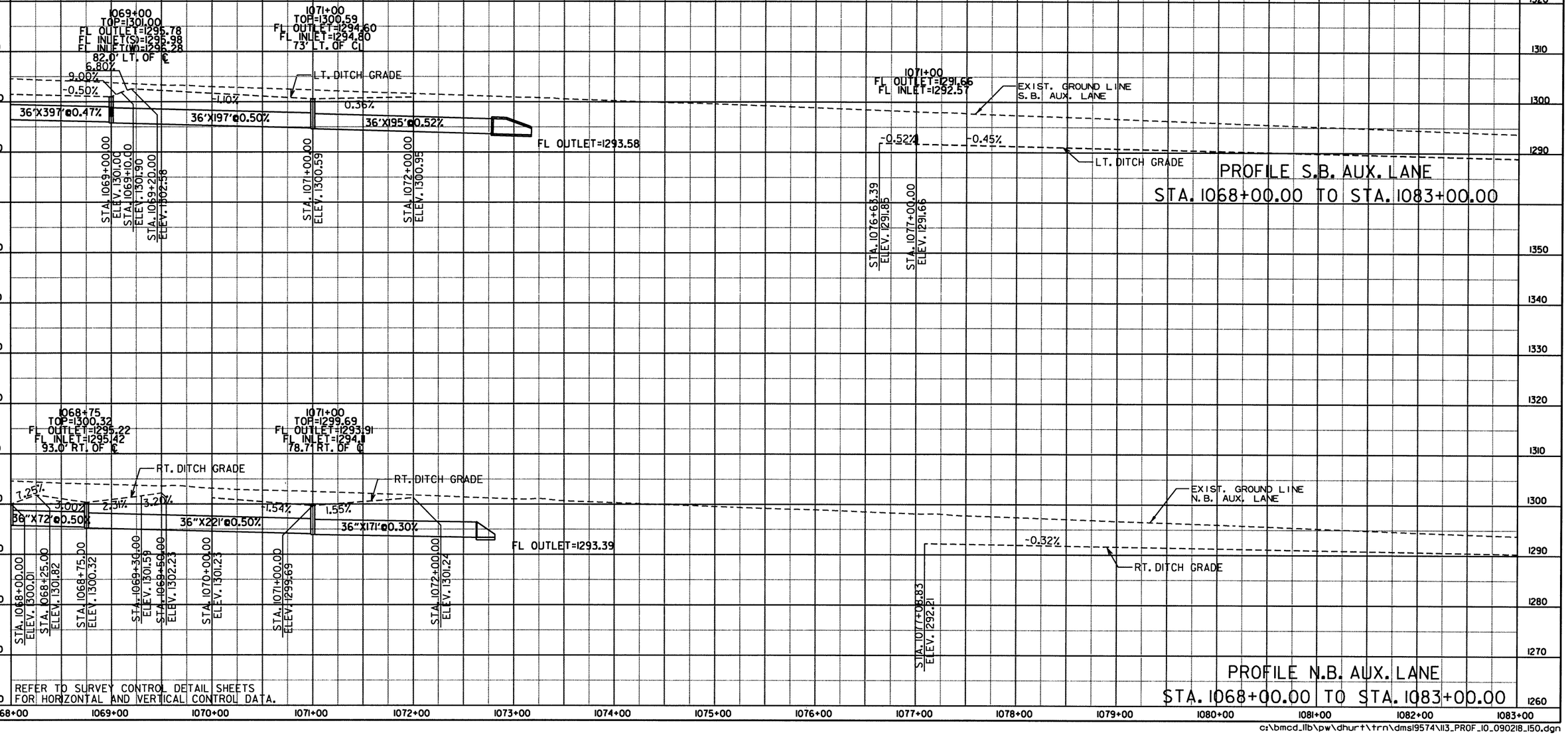
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	100	555

(2) PROF. AUX. LANES 1068+00.00 - 1083+00.00

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HURT
6/1/16



REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	101	555

(2) PROF. RAMPS 2 & 3 (8TH ST.)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

STA. 1072+75.33 BEGIN SUPERELEVATION
STA. 1074+75.33 MAX. SUPERELEVATION (-0.04 FT./FT.)
STA. 1076+13.40 MAX. SUPERELEVATION (-0.04 FT./FT.)
STA. 1078+13.40 END SUPERELEVATION

V.C. = 400.00'
K = 123

P.V.C. 1068+50.00
ELEV. 1309.46

STA 1069+00
TOP=1307.12
FL OUTLET=1297.12
12' LT. OF ℄

3.78%

0.52%

24"x29'@1.00%

STA 1069+00
TOP=1306.94
FL OUTLET=1296.35
FL INLET=1296.83
20' RT. OF ℄

24"x7'@1.00%

P.V.I. 1070+50.00
ELEV. 1301.90

EXIST. GROUND LINE
RAMP 3 (8TH ST.)

P.V.C. 1072+50.00
ELEV. 1300.87
END RAMP CONSTRUCTION
℄ -49
STA. 1072+57.52 74.86' LT. =
℄ RAMP 3 (8TH ST.)
STA. 1072+57.29 7.50' RT.
ELEV. 1300.83

PROFILE GRADE
RAMP 3 (8TH ST.)

-8.80%

-0.47%

LT. DITCH GRADE

STA. 1072+35.00
ELEV. 1299.28

STA. 1073+00.00
ELEV. 1293.56

STA. 1076+63.40
ELEV. 1291.85

PROFILE RAMP 3 (8TH ST.)
STA. 1068+00.00 TO STA. 1079+30.83

STA. 1072+19.92 NORMAL CROWN (-0.020 FT./FT.)
STA. 1079+30.83 NORMAL CROWN (-0.020 FT./FT.)

V.C. = 510.00'
K = 110

P.V.C. 1072+89.00
ELEV. 1300.27

END RAMP CONSTRUCTION
℄ -49
STA. 1076+06.99, 57.87' RT. =
℄ RAMP 2 (8TH ST.)
STA. 1076+05.86, 7.50' LT.
ELEV. 1299.02

EXIST. GROUND LINE
RAMP 2 (8TH ST.)

PROFILE GRADE
RAMP 2 (8TH ST.)

-5.00%

-0.38%

-3.04%

-0.38%

-0.30%

RT. DITCH GRADE

P.V.I. 1070+25.00
ELEV. 1301.23

STA. 1072+00.00
ELEV. 1296.32

STA. 1073+00.00
ELEV. 1293.28

STA. 1079+30.83
ELEV. 1291.39

PROFILE RAMP 2 (8TH ST.)
STA. 1068+00.00 TO STA. 1077+08.83

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

1350 1340 1330 1320 1310 1300 1290 1280 1270 1260

1068+00 1069+00 1070+00 1071+00 1072+00 1073+00 1074+00 1075+00 1076+00 1077+00 1078+00 1079+00 1080+00

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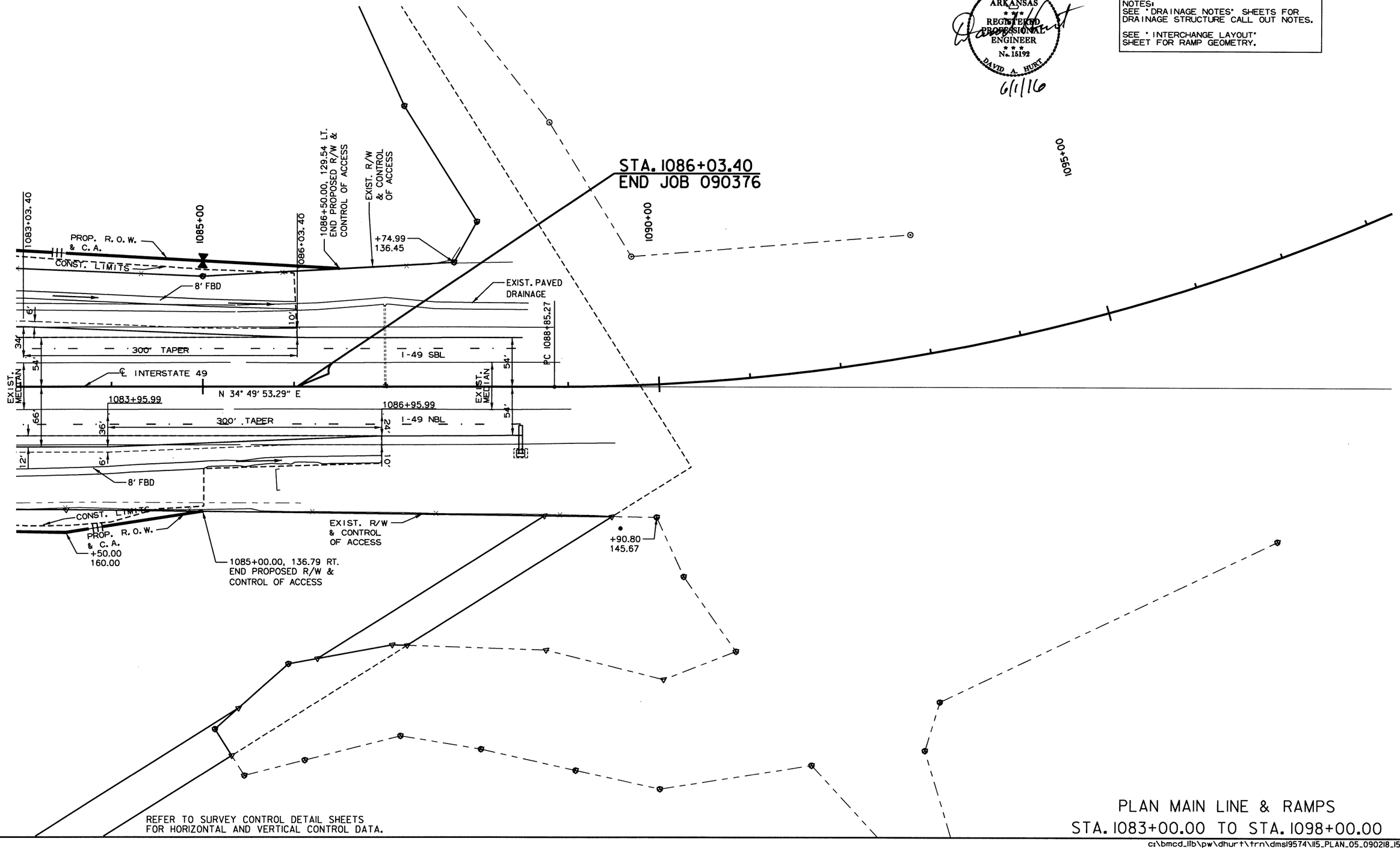
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	102	555
				(2)	PLAN STA. 1083+00.00 TO 1098+00.00			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

NOTES:
SEE "DRAINAGE NOTES" SHEETS FOR DRAINAGE STRUCTURE CALL OUT NOTES.

SEE "INTERCHANGE LAYOUT" SHEET FOR RAMP GEOMETRY.



REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

PLAN MAIN LINE & RAMPS
STA. 1083+00.00 TO STA. 1098+00.00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		090376	103	555

(2) PROF. AUX. LANES 1083+00.00 - 1090+00.00

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURST
6/1/16

1370 1360 1350 1340 1330 1320 1310 1300 1290 1280

STA. 1086+03.40
END CONSTRUCTION
MATCH EXIST. GRADE
APPROX. ELEV. 1291.55

-0.45%

EXIST. GROUND LINE
S. B. AUX. LANE

STA. 1086+03.40
ELEV. 1287.57

PROFILE S.B. AUX. LANE
STA. 1083+00.00 TO STA. 1086+03.40

1350 1340 1330 1320 1310 1300 1290 1280 1270 1260

STA. 1086+95.55
BEGIN CONSTRUCTION
MATCH EXIST. GRADE
APPROX. ELEV. 1291.49

-0.32%

-0.20%

EXIST. GROUND LINE
N. B. AUX. LANE

STA. 1085+98.83
ELEV. 1289.35

STA. 1086+95.99
ELEV. 1289.16

REFER TO SURVEY CONTROL DETAIL SHEETS
FOR HORIZONTAL AND VERTICAL CONTROL DATA.

PROFILE N.B. AUX. LANE
STA. 1083+00.00 TO STA. 1085+98.83

1083+00 1084+00 1085+00 1086+00 1087+00 1088+00 1089+00

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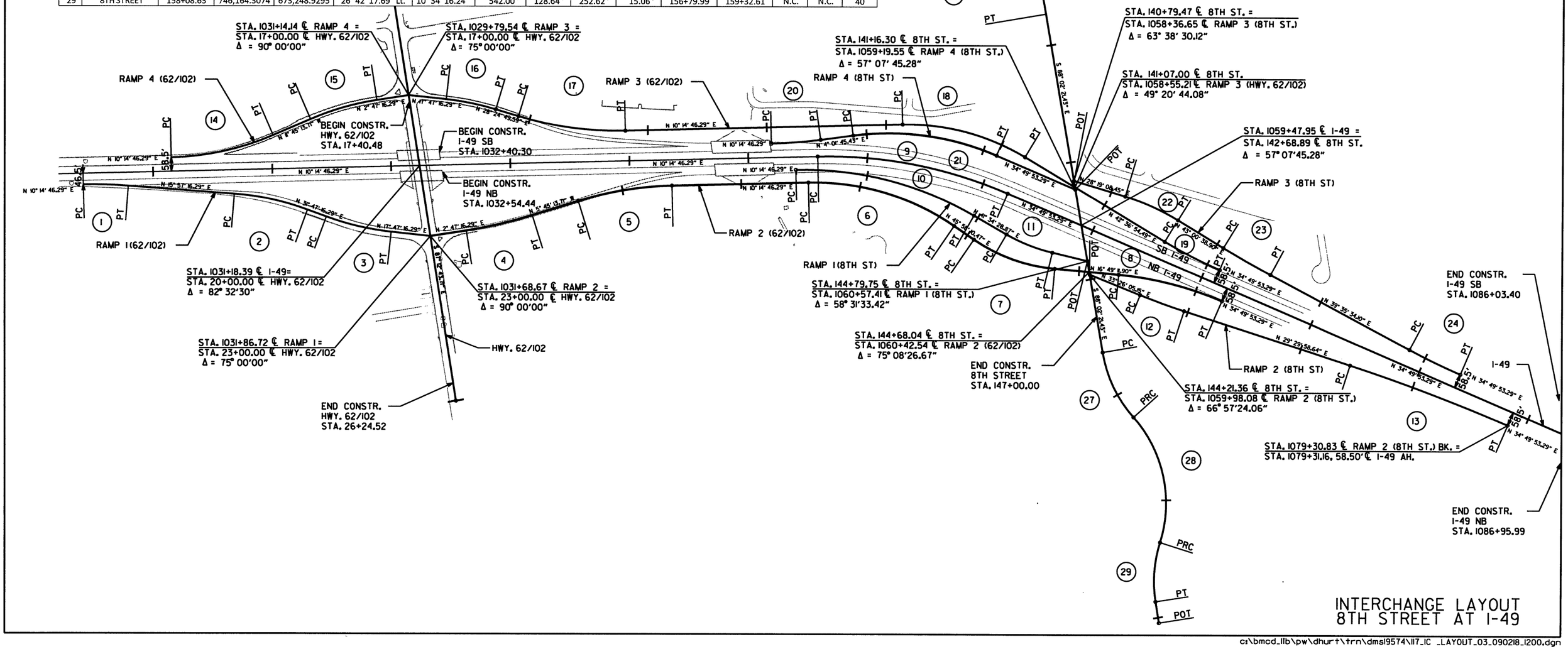
CURVE NO.	LOCATION	P.I. STA.	NORTHINGS	EASTINGS	Δ	D	R	T	L	E	P.C. STA.	P.T. STA.	e	LS	DESIGN SPEED
1	RAMP 1 (62/102)	1018+00.02	742,186.2844	670,773.6338	5° 42' 30.00" Rt.	3° 00' 00.00"	1,909.86 '	95.22 '	190.28 '	2.37 '	1017+04.80	1018+95.08	5.70%	200'	50
2	RAMP 1 (62/102)	1024+99.84	742,859.2977	670,966.0393	15° 50' 00.00" Rt.	5° 00' 00.00"	1,145.92 '	159.35 '	316.66 '	11.03 '	1023+40.49	1026+57.15	8.30%	250'	50
3	RAMP 1 (62/102)	1028+82.40	743,186.2009	671,168.6320	14° 00' 00.00" Lt.	5° 00' 00.00"	1,145.92 '	140.71 '	280.00 '	8.61 '	1027+41.69	1030+21.69	8.30%	250'	50
4	RAMP 2 (62/102)	1034+64.33	743,772.6253	671,276.4108	8° 32' 30.00" Lt.	3° 00' 00.00"	1,909.86 '	142.63 '	284.73 '	5.32 '	1033+21.70	1036+06.43	5.70%	200'	50
5	RAMP 2 (62/102)	1040+10.11	744,316.1837	671,221.6409	16° 00' 00.00" Rt.	4° 00' 00.00"	1,432.39 '	201.31 '	400.00 '	14.08 '	1038+08.80	1042+08.80	7.20%	225'	50
6	RAMP 2 (62/102)	1051+18.11	745,409.0893	671,419.1954	35° 43' 24.18" Rt.	5° 30' 00.00"	1,041.74 '	335.71 '	649.52 '	52.76 '	1047+82.40	1054+31.92	8.80%	260'	50
7	RAMP 2 (62/102)	1057+19.47	745,842.2729	671,867.2937	29° 08' 58.57" Lt.	8° 00' 00.00"	716.20 '	186.22 '	364.37 '	23.81 '	1055+33.25	1058+97.62	10.00%	290'	50
8	RAMP 2 (62/102)	1063+94.29	746,495.9490	672,064.8989	18° 00' 41.39" Rt.	4° 00' 00.00"	1,432.39 '	227.02 '	450.29 '	17.88 '	1061+67.27	1066+17.56	7.20%	225'	50
9	INTERSTATE 49	1052+07.87	745,548.0599	671,334.0575	24° 35' 07.00" Rt.	3° 00' 00.00"	1,909.86 '	416.16 '	819.51 '	44.81 '	1047+91.71	1056+11.22	7.70%	300'	60
10	RAMP 1 (8TH ST)	1051+00.56	745,432.8662	671,368.1101	31° 19' 42.58" Rt.	4° 00' 00.00"	1,432.39 '	401.66 '	783.21 '	55.25 '	1046+98.90	1054+82.11	7.20%	225'	50
11	RAMP 1 (8TH ST)	1057+44.04	745,929.2902	671,808.4639	16° 34' 14.36" Lt.	8° 00' 00.00"	716.20 '	104.30 '	207.13 '	7.55 '	1056+39.74	1058+46.87	5.80%	150'	30
12	RAMP 2 (8TH ST)	1063+85.48	746,432.6226	672,155.5764	3° 56' 06.51" Lt.	2° 00' 00.00"	2,864.79 '	98.42 '	196.76 '	1.69 '	1062+87.06	1064+83.82	2.00%	150'	30
13	RAMP 2 (8TH ST)	1075+75.63	747,468.5519	672,741.6680	5° 19' 54.65" Rt.	0° 45' 00.00"	7,639.44 '	355.71 '	710.91 '	8.28 '	1072+19.92	1079+30.83	2.00%	200'	50
14	RAMP 4 (62/102)	1023+00.00	742,696.9762	670,759.2452	22° 00' 00.00" Lt.	5° 00' 00.00"	1145.92 '	222.74 '	440.00 '	21.45 '	1020+77.26	1025+17.26	8.30%	250'	50
15	RAMP 4 (62/102)	1028+35.23	743,226.3501	670,649.0986	14° 32' 30.00" Rt.	5° 00' 00.00"	1145.92 '	146.20 '	290.83 '	9.29 '	1026+89.03	1029+79.86	8.30%	250'	50
16	RAMP 3 (62/102)	1032+45.41	743,759.6523	670,743.9604	10° 37' 33.30" Rt.	5° 00' 00.00"	1145.92 '	106.57 '	212.52 '	4.94 '	1031+38.84	1033+51.36	4.00%	150'	30
17	RAMP 3 (62/102)	1036+80.38	744,142.7605	670,951.2252	18° 10' 03.29" Lt.	4° 00' 00.00"	1,432.39 '	229.02 '	454.19 '	18.19 '	1034+51.36	1039+05.55	7.20%	225'	50
18	RAMP 3 (62/102)	1053+47.42	745,786.9997	671,248.4393	32° 22' 08.19" Rt.	6° 00' 00.00"	954.93 '	277.15 '	539.48 '	39.41 '	1050+70.27	1056+09.75	9.20%	270'	50
19	RAMP 3 (62/102)	1064+27.25	746,592.5756	671,989.5971	7° 47' 01.20" Lt.	3° 00' 00.00"	1,909.86 '	129.93 '	259.46 '	4.41 '	1062+97.32	1065+56.78	5.70%	200'	50
20	RAMP 4 (8TH ST)	1047+02.46	745,061.1149	671,186.5889	6° 13' 00.86" Lt.	3° 00' 00.00"	1,909.86 '	103.72 '	207.23 '	2.81 '	1045+98.74	1048+05.97	5.70%	200'	50
21	RAMP 4 (8TH ST)	1052+59.28	745,616.7669	671,225.7293	30° 48' 07.86" Rt.	5° 00' 00.00"	1,145.92 '	315.66 '	616.04 '	42.68 '	1049+43.62	1055+59.66	8.30%	250'	50
22	RAMP 3 (8TH ST)	1061+85.69	746,479.8033	671,740.3436	14° 41' 30.45" Rt.	6° 00' 00.00"	954.93 '	123.11 '	244.86 '	7.90 '	1060+62.58	1063+07.44	4.60%	150'	30
23	RAMP 3 (8TH ST)	1066+44.69	746,816.4261	672,054.3682	3° 25' 04.81" Lt.	1° 30' 00.00"	3,819.72 '	113.97 '	227.87 '	1.70 '	1065+30.72	1067+58.59	3.10%	200'	50
24	RAMP 3 (8TH ST)	1075+44.44	747,509.8141	672,627.8420	4° 45' 40.80" Lt.	2° 00' 00.00"	2,864.79 '	119.11 '	238.07 '	2.47 '	1074+25.33	1076+63.40	4.00%	200'	50
25	8TH STREET	130+40.60	746,184.5932	670,536.4987	6° 36' 28.64" Lt.	2° 51' 53.24"	2,000.00 '	115.46 '	230.67 '	3.33 '	129+25.14	131+55.81	N.C.	N.C.	40
26	8TH STREET	132+62.02	746,200.5160	670,757.5978	6° 04' 47.47" Rt.	2° 51' 53.24"	2,000.00 '	106.21 '	212.22 '	2.82 '	131+55.81	133+68.03	N.C.	N.C.	40
27	8TH STREET	149+68.26	746,142.1315	672,463.0371	32° 18' 45.38" Lt.	10° 34' 16.24"	542.00 '	157.02 '	305.67 '	22.29 '	148+11.24	151+16.91	N.C.	N.C.	40
28	8TH STREET	154+26.84	746,378.0836	672,865.9824	59° 31' 25.93" Rt.	10° 34' 16.24"	542.00 '	309.93 '	563.08 '	82.36 '	151+16.91	156+79.99	N.C.	N.C.	40
29	8TH STREET	158+08.63	746,164.3074	673,248.9295	26° 42' 17.69" Lt.	10° 34' 16.24"	542.00 '	128.64 '	252.62 '	15.06 '	156+79.99	159+32.61	N.C.	N.C.	40

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	104	555

(2) INTERCHANGE LAYOUT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

0 200' 400'



INTERCHANGE LAYOUT 8TH STREET AT I-49

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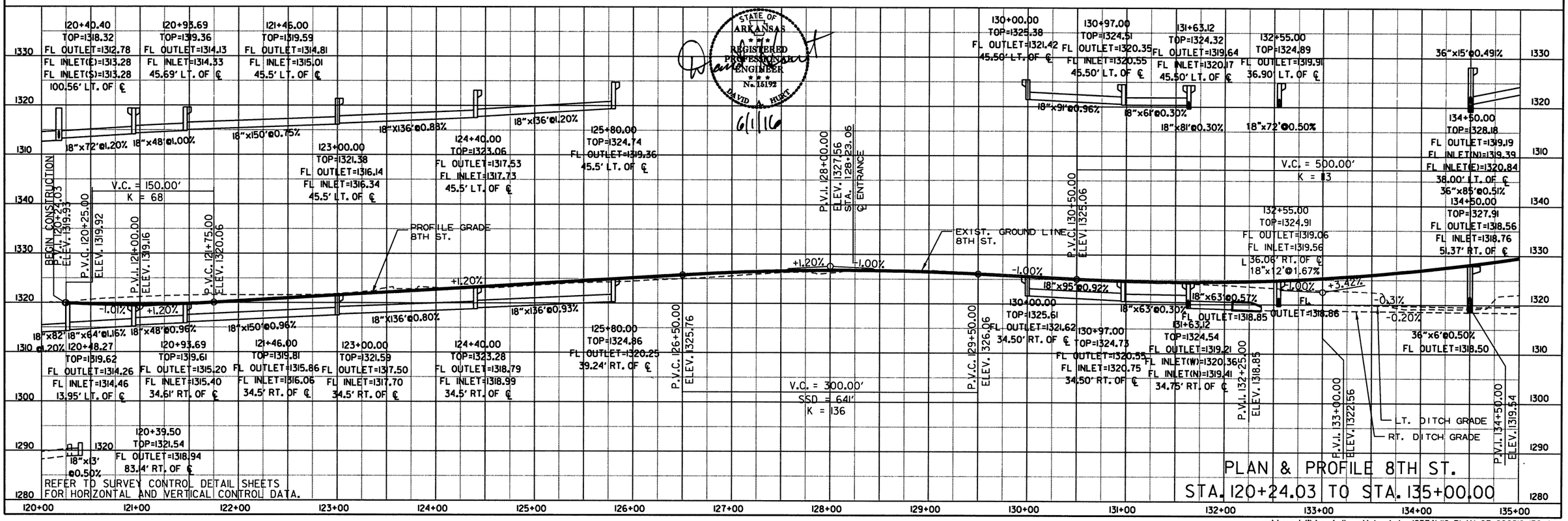
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	105	555
				(2)	PLAN & PROF. 120+24.03 - 135+00.00			

NOTES:
SEE "DRAINAGE NOTES" SHEETS FOR DRAINAGE STRUCTURE CALL OUT NOTES.
SEE "INTERCHANGE LAYOUT" SHEET FOR RAMP GEOMETRY.

CONNECT TO EXIST.
MOBERLY LANE
POT W 120+07.99
120+00
+38.75 170.00
STA. 120+58.03 CONSTRUCT TYPE 1 WHEELCHAIR RAMP = 85 SQ. YDS.
+55.00 105.00
+05.00 62.00
+30.00 90.00
TCE
CONST. LIMITS
PROP. R.O.W.
STA. 120+24.03 BEGIN CONSTRUCTION 8TH ST.
STA. 120+58.03 CONSTRUCT TYPE 1 WHEELCHAIR RAMP = 83 SQ. YDS.
STA. 123+16.32 CONSTRUCT TYPE 3 WHEELCHAIR RAMP = 14 SQ. YDS.
STA. 123+40.10 CONSTRUCT TYPE 3 WHEELCHAIR RAMP = 14 SQ. YDS.
STA. 124+26.27 CONSTRUCT TYPE 3 WHEELCHAIR RAMP = 14 SQ. YDS.
STA. 124+03.88 CONSTRUCT TYPE 3 WHEELCHAIR RAMP = 14 SQ. YDS.
STA. 128+21.29 ℄ 8TH ST. = STA. 9+69.26 ℄ ENTRANCE
Δ = 80° 00' 00.00"
+50.00 255.00
S 2° 11' 50.40" W
℄ ENTRANCE
PC 7+62.37
PI 7+95.77
PT 8+29.00
+45.13 255.00
STA. 128+33.15 CONSTRUCT TYPE 3 WHEELCHAIR RAMP = 5 SQ. YDS.
STA. 127+86.92 CONSTRUCT TYPE 3 WHEELCHAIR RAMP = 5 SQ. YDS.
END PROP. R.O.W. & C.A.
+45.06 80.00
PC 129+25.14
PRC 131+55.81
PT 132+62.01
PI 133+80.94
10' FBD
℄ 8TH ST.
+35.00 65.00
PROP. R.O.W.
CONST. LIMITS
S 87° 30' 40.26" E
S 88° 02' 21.43" E
+67.92
+93.75 67.42
+66.98 77.02
+40.13 160.00
+50.00 110.00
+25.00 82.50
PROPOSED DGTC PEDESTRIAN BRIDGE (PRIVATE - BY OTHERS)
S 7° 20' 47.34" E
+90.00 57.00
+60.00 57.00
+40.00 50.00
PC 10+93.26
PI 11+35.68
PT 11+76.87
S 16° 36' 20.00" W
STA. 128+07.73 CONSTRUCT TYPE 3 WHEELCHAIR RAMP = 5 SQ. YDS.
STA. 128+56.68 CONSTRUCT TYPE 3 WHEELCHAIR RAMP = 6 SQ. YDS.
+00.00 210.00
CONCRETE DITCH PAVING (TYPE A)

STA.	STA.	SIDE	"B"	"W"	SQ. YDS.
132+24.50	135+90.00	RT.	5'	11'	446.7

+40.00 60.00
+25.00 125.00
+10.00 75.00
+75.00 145.00
5' FBD
+00.00 75.00
+00.00 80.00
+00.00 95.00
STA. 133+37.55, ℄ 8TH ST., 42.38' RIGHT
STA. 133+37.55 WALL 3A
STA. 131+71.25 CONSTRUCT TYPE 3 WHEELCHAIR RAMP = 5 SQ. YDS.
STA. 132+52.39 CONSTRUCT TYPE 3 WHEELCHAIR RAMP = 13 SQ. YDS.
WALL 3A
S 88° 02' 21.43" E
53.47'
+67.92



PLAN & PROFILE 8TH ST.
STA. 120+24.03 TO STA. 135+00.00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	106	555
				(2)	PLAN & PROF. 135+00.00 - 150+00.00			

CONCRETE DITCH PAVING (TYPE B)

	STA.	STA.	SIDE	"W"	SQ. YDS.
8TH ST.	144+67.10	145+03.96	RT.	4'	16.9
8TH ST.	146+56.85	146+63.00	LT.	4'	14.2

STA. 141+16.30 ℄ 8TH ST. =
STA. 1059+19.55 ℄ RAMP 4 (8TH ST.)
Δ = 57° 07' 45.28"

STA. 141+07.00 ℄ 8TH ST. =
STA. 1058+55.21 ℄ RAMP 3 (HWY. 62/102)
Δ = 49° 20' 44.08"

STA. 140+79.47 ℄ 8TH ST. =
STA. 1058+36.65 ℄ RAMP 3 (8TH ST.)
Δ = 63° 38' 30.12"

STA. 1059+47.95 ℄ I-49 =
STA. 142+68.89 ℄ 8TH ST.
Δ = 57° 07' 45.28"
STA. 1058+96.91 CONSTRUCT
TYPE 1 WHEELCHAIR RAMP = 44 SQ. YDS.

STA. 145+95.51 CONSTRUCT
TYPE 6 WHEELCHAIR RAMP = 12 SQ. YDS.

* WHEELCHAIR RAMPS CONSTRUCTED WITHIN THE LIMITS OF CONCRETE BARRIER WALL (PARAPET TYPE SPECIAL) WILL NOT BE PAID FOR SEPARATELY AND WILL BE SUBSIDIARY TO CONCRETE BARRIER WALL (PARAPET TYPE SPECIAL). SEE OTHER DRAWINGS FOR DETAILS.

NOTES:
SEE "DRAINAGE NOTES" SHEETS FOR DRAINAGE STRUCTURE CALL OUT NOTES.

SEE "INTERCHANGE LAYOUT" SHEET FOR RAMP GEOMETRY.

STA. 1059+33.95 CONSTRUCT
TYPE 1 WHEELCHAIR RAMP =
78 SQ. YDS.

STA. 147+00.00
END CONSTRUCTION
8TH ST.

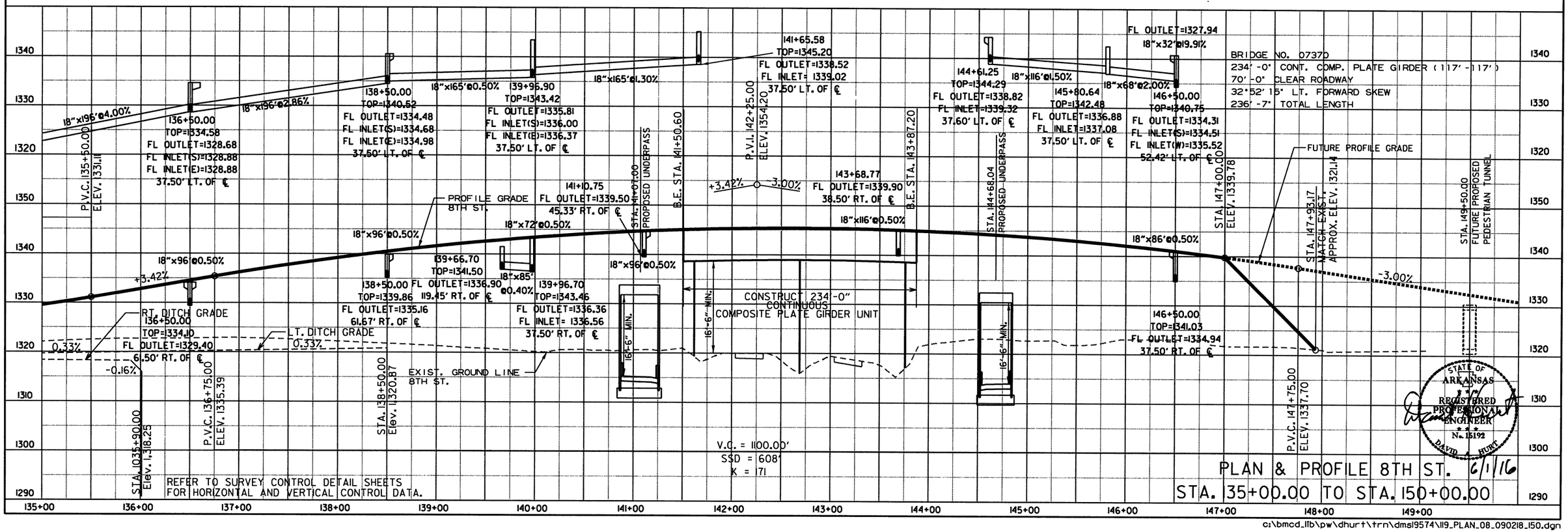
STA. 144+79.75 ℄ 8TH ST. =
STA. 1060+57.41 ℄ RAMP 2 (8TH ST.)
Δ = 58° 31' 33.42"
STA. 144+21.36 ℄ 8TH ST. =
STA. 1059+98.08 ℄ RAMP 1 (8TH ST.) =
Δ = 66° 57' 24.06"

BRIDGE NO. 07368 (RAMP 2 UNDERPASS)
184'-1 3/8" C.I.P. REINF. CONC. UNDERPASS
27'-0" CLEAR ROADWAY
184'-1 3/8" TOTAL LENGTH

BRIDGE NO. 07369 (RAMP 3 UNDERPASS)
303'-6 5/8" C.I.P. REINF. CONC. UNDERPASS
25'-0" CLEAR ROADWAY
303'-6 5/8" TOTAL LENGTH

PROP. R.O.W. & C.A.
CONST. LIMITS
EXIST. R/W
℄ 8TH ST.
10' FBD
℄ RAMP 3 (8TH ST.)
℄ RAMP 4 (8TH ST.)
℄ RAMP 1 (8TH ST.)
℄ RAMP 2 (8TH ST.)
℄ RAMP 2 (62/102)
℄ RAMP 3 (62/102)
℄ I-49
WALL 3A
WALL 3B
WALL 5A
WALL 6A
CONSTRUCT CONCRETE ISLAND (TYPE A CURB)
AT&T POP (DND)
EXIST. R/W & CONTROL OF ACCESS
I-49 SBL
I-49 NBL
BEGIN BRIDGE STA. 143+87.20 ℄ 8TH ST.
END BRIDGE
STA. 139+45.24 ℄ 8TH ST. 77.70' RT. =
STA. 139+96.78 WALL 3A =
STA. 1058+17.43 WALL 3B
PT 1058+46.87
PC 1061+67.27
PT 1058+9.62
PC 1148+11.24
PI 149+68.26
S 88° 02' 21.45" E
N 34° 49' 53.29" E
N 88° 02' 21.45" W
S 34° 49' 53.29" W
R 548
R 22.5
R 200'
R 63.5'
+50.00 105.00
+00.00 85.00
+30.00 90.00
+40.00 255.00
+00.00 90.00
+25.00 125.00
135+38.78
140+30.90 280.48
145+00.00
150+00.05

THIS AREA AREA APPROXIMATE BASED ON MAP PROVIDED BY WAL-MART (WMHO CURRENT, 20101028.VSD).



REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID HURT

PLAN & PROFILE 8TH ST. 6/1/16
STA. 35+00.00 TO STA. 150+00.00

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NOTE:
SEE "DRAINAGE NOTES" SHEETS FOR DRAINAGE STRUCTURE CALL OUT NOTES.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	107	555

(2) PLAN & PROF. (62/102) 13+00.00 - 28+00.00

STA. 16+46.85 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 9 SQ. YDS.

STA. 17+80.16 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 8 SQ. YDS.

STA. 22+55.63 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 8 SQ. YDS.

STA. 23+46.90 CONSTRUCT
TYPE 6 WHEELCHAIR RAMP= 12 SQ. YDS.

STA. 17+00.00 ℄ HWY. 62/102 =
STA. 1029+79.54 ℄ RAMP 3
Δ = 75° 00' 00.00"

PI 13+49.03
Δ = 90°00'00"

PHYLLIS ST.

PC 1031+38.84

+99.95
339.83

+39.23
456.37

EXIST. R/W & CONTROL OF ACCESS

℄ RAMP 3
(62/102)

EXIST.
BR. 5979 A (UIP)

CONST. LIMITS

EXIST.
BR. 5979 B (UIP)

MB WALL 12

℄ HWY. 62/102

℄ RAMP 2
(62/102)

PC 1033+21.70

STA. 23+00.00 ℄ HWY. 62/102 =
STA. 1031+68.67 ℄ RAMP 2
Δ = 90° 00' 00.00"

+49.49
393.22

STA. 26+24.52
END CONSTRUCTION
HWY. 62/102

+43.48
488.28

EXIST. R/W & CONTROL OF ACCESS

CONST. LIMITS

POE 28+00.00

S 87°13'12" E

N 47°16'29" E

+89.84
426.68

+50.12
354.75

PHYLLIS ST.

STA. 17+40.48
BEGIN CONSTRUCTION
HWY. 62/102

STA. 17+00.00 ℄ HWY. 62/102 =
STA. 1031+14.14 ℄ RAMP 4
Δ = 90° 00' 00.00"

℄ RAMP 4
(62/102)

EXIST. R/W & CONTROL OF ACCESS

I-49 SBL

I-49 NBL

N 10°14'46.29" E

STA. 1031+18.39 ℄ I-49 =
STA. 20+00.00 ℄ HWY. 62/102
Δ = 82° 32' 30.00"

℄ RAMP 1
(62/102)

STA. 22+36.92 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 8 SQ. YDS.

+00.35
360.58

+19.03
504.51

+76.15
409.27

EXIST. R/W & CONTROL OF ACCESS

STA. 23+00.00 ℄ HWY. 62/102 =
STA. 1031+86.72 ℄ RAMP 1
Δ = 75° 00' 00.00"

STA. 23+47.69 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP= 6 SQ. YDS.

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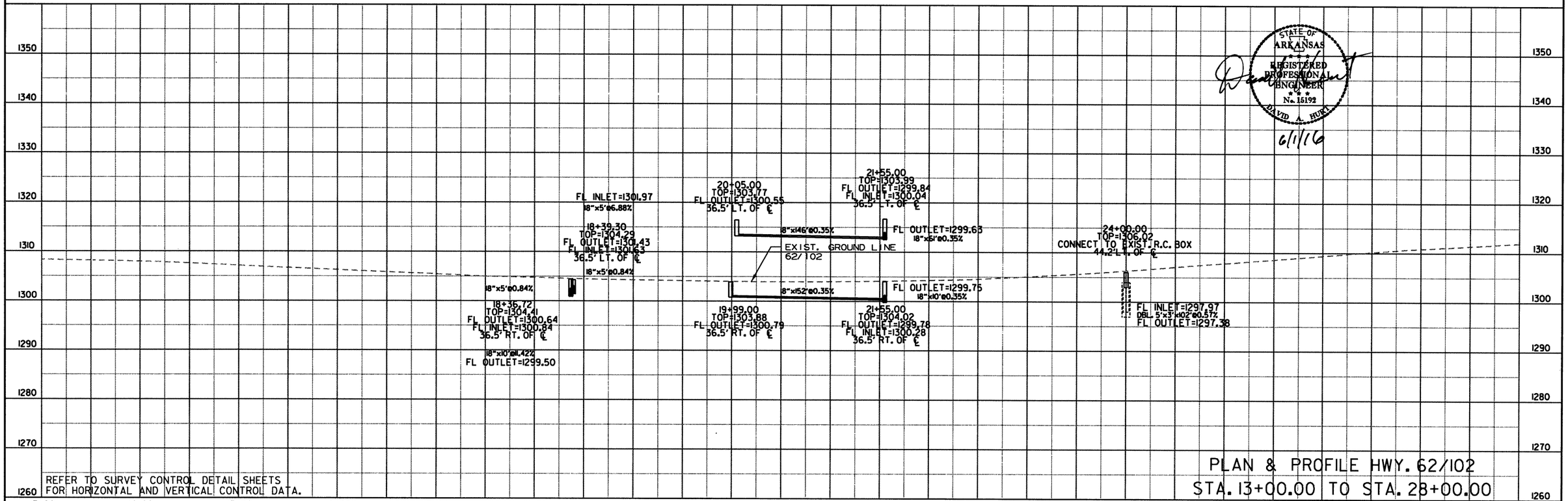
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

PLAN & PROFILE HWY. 62/102
STA. 13+00.00 TO STA. 28+00.00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	108	555

(2) DRAINAGE NOTES - 8TH STREET

STA. 120+40.40 CONSTRUCT
DROP INLET ON LT. H = 6'0"
24" x 111'
PIPE CULVERT TO EXIST. DROP INLET ON LT.
TYPE MO DROP INLET = 5' DIA.
TYPE C DROP INLET = 4'-0" x 3-8"
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 111 LIN. FT.
24" SLPPMCCS PIPE (TYPE 3 BEDDING) = 111 LIN. FT.

STA. 120+48.27 CONSTRUCT
JUNCTION BOX ON LT. H = 5'5"
18" x 82'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON LT.
TYPE ST JUNCTION BOX = 4' x 4'

STA. 120+93.69 CONSTRUCT
DROP INLET ON LT. H = 5'3"
WITH 8' EXTENSION AND 18" x 71'
PIPE CULVERT TO DROP INLET ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 3'-8"
18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 71 LIN. FT.
18" SLPPMCCS PIPE (TYPE 3 BEDDING) = 71 LIN. FT.

STA. 120+93.69 CONSTRUCT
DROP INLET ON RT. H = 4'5"
WITH 8' EXTENSION AND 18" x 64'
R.C. PIPE CULVERT (CLASS III) (TYPE 2 BEDDING)
TO JUNCTION BOX ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"

STA. 121+46.00 CONSTRUCT
DROP INLET ON LT. H = 4'10"
WITH 4' EXTENSION AND 18" x 48'
PIPE CULVERT TO DROP INLET ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 48 LIN. FT.
18" SLPPMCCS PIPE (TYPE 3 BEDDING) = 48 LIN. FT.

STA. 121+46.00 CONSTRUCT
DROP INLET ON RT. H = 4'0"
WITH 4' EXTENSION AND 18" x 48'
PIPE CULVERT TO DROP INLET ON RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 2 BEDDING) = 48 LIN. FT.
18" SLPPMCCS PIPE (TYPE 2 BEDDING) = 48 LIN. FT

STA. 123+00.00 CONSTRUCT
DROP INLET ON LT. H = 5'3"
WITH 4' EXTENSION AND 18" x 150'
PIPE CULVERT TO DROP INLET ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 150 LIN. FT.
18" SLPPMCCS PIPE (TYPE 3 BEDDING) = 150 LIN. FT.

STA. 123+00.00 CONSTRUCT
DROP INLET ON RT. H = 4'2"
WITH 4' EXTENSION AND 18" x 150'
PIPE CULVERT TO DROP INLET ON RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 2 BEDDING) = 150 LIN. FT.
18" SLPPMCCS PIPE (TYPE 2 BEDDING) = 150LIN. FT

STA. 124+40.00 CONSTRUCT
DROP INLET ON LT. H = 5'7"
WITH 4' EXTENSION AND 18" x 136'
PIPE CULVERT TO DROP INLET ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 136 LIN. FT.
18" SLPPMCCS PIPE (TYPE 3 BEDDING) = 136 LIN. FT.

STA. 124+40.00 CONSTRUCT
DROP INLET ON RT. H = 4'6"
WITH 4' EXTENSION AND 18" x 136'
PIPE CULVERT TO DROP INLET ON RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 2 BEDDING) = 136 LIN. FT.
18" SLPPMCCS PIPE (TYPE 2 BEDDING) = 136 LIN. FT

STA. 125+80.00 CONSTRUCT
DROP INLET ON LT. H = 5'5"
WITH 4' EXTENSION AND 18" x 136'
PIPE CULVERT TO DROP INLET ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 136 LIN. FT.
18" SLPPMCCS PIPE (TYPE 3 BEDDING) = 136 LIN. FT.

STA. 125+80.00 CONSTRUCT
DROP INLET ON RT. H = 4'8"
WITH 4' EXTENSION AND 18" x 136'
PIPE CULVERT TO DROP INLET ON RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 136 LIN. FT.
18" SLPPMCCS PIPE (TYPE 3 BEDDING) = 136 LIN. FT.

STA. 130+00.00 CONSTRUCT
DROP INLET ON LT. H = 4'0"
WITH 4' EXTENSION AND 18" x 91'
PIPE CULVERT TO DROP INLET ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 2 BEDDING) = 91 LIN. FT.
18" SLPPMCCS PIPE (TYPE 2 BEDDING) = 91 LIN. FT.

STA. 130+00.00 CONSTRUCT
DROP INLET ON LT. H = 4'0"
WITH 4' EXTENSION AND 18" x 91'
PIPE CULVERT TO DROP INLET ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 2 BEDDING) = 91 LIN. FT.
18" SLPPMCCS PIPE (TYPE 2 BEDDING) = 91 LIN. FT.

STA. 130+97.00 CONSTRUCT
DROP INLET ON LT. H = 4'3"
WITH 4' EXTENSION AND 18" x 61'
PIPE CULVERT TO DROP INLET ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 2 BEDDING) = 61 LIN. FT.
18" SLPPMCCS PIPE (TYPE 2 BEDDING) = 61 LIN. FT.

STA. 130+97.00 CONSTRUCT
DROP INLET ON RT. H = 4'3"
WITH 4' EXTENSION AND 18" x 63'
PIPE CULVERT TO DROP INLET ON RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 2 BEDDING) = 63 LIN. FT.
18" SLPPMCCS PIPE (TYPE 2 BEDDING) = 63 LIN. FT.

STA. 131+63.12 CONSTRUCT
DROP INLET ON LT. H = 4'9"
WITH 8' EXTENSION AND 18" x 81'
R.C. PIPE CULVERT (CLASS III) (TYPE 2 BEDDING)
TO DROP INLET ON RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"

STA. 131+63.12 CONSTRUCT
DROP INLET ON RT. H = 5'4"
WITH 8' EXTENSION AND 18" x 64'
R.C. PIPE CULVERT (CLASS III)(TYPE 3 BEDDING)
WITH FES.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"

STA. 132+55.00 CONSTRUCT
DROP INLET ON LT. H = 5'0"
WITH 4' EXTENSION AND 18" x 72'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"

STA. 132+55.00 CONSTRUCT
DROP INLET ON RT. H = 5'11"
WITH 4' EXTENSION AND 18" x 12'
R.C. PIPE CULVERT (CLASS III)(TYPE 3 BEDDING)
WITH FES.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"

STA. 134+50.00 CONSTRUCT
DROP INLET ON LT. H = 9'0"
WITH 4' EXTENSION AND 36" x 85'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON RT.
TYPE MO DROP INLET = 5' DIA.
TYPE C DROP INLET = 4'-0" x 3'-8"

STA. 134+50.00 CONSTRUCT
DROP INLET ON RT. H = 9'5"
WITH 8' EXTENSION AND 36" x 6'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
WITH FES.
TYPE C DROP INLET = 4'-0" x 2'-6"

STA. 136+50.00 CONSTRUCT
DROP INLET ON LT. H = 5'11"
WITH 8' EXTENSION AND 18" x 196'
PIPE CULVERT TO DROP INLET ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 196 LIN. FT.
18" SLPPMCCS PIPE (TYPE 3 BEDDING) = 196 LIN. FT.

STA. 136+50.00 CONSTRUCT
DROP INLET ON RT. H = 4'9"
WITH 8' EXTENSION AND 18" x 96'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON LT.
TYPE C DROP INLET = 4'-0" x 2'-6"

STA. 138+50.00 CONSTRUCT
DROP INLET ON LT. H = 6'1"
WITH 4' EXTENSION AND 18" x 196'
PIPE CULVERT TO DROP INLET ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 196 LIN. FT.
18" SLPPMCCS PIPE (TYPE 3 BEDDING) = 196 LIN. FT.

STA. 138+50.00 CONSTRUCT
DROP INLET ON RT. H = 4'9"
WITH 4' EXTENSION AND 18" x 96'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON LT.
TYPE C DROP INLET = 4'-0" x 2'-6"

STA. 139+96.90 CONSTRUCT
DROP INLET ON LT. H = 7'8"
18" x 165'
PIPE CULVERT TO DROP INLET ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 165 LIN. FT.
18" SLPPMCCS PIPE (TYPE 2 BEDDING) = 165 LIN. FT.

STA. 139+96.70 CONSTRUCT
DROP INLET ON RT. H = 7'2"
18" x 72'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"

STA. 139+66.70 CONSTRUCT
DROP INLET ON RT. H = 4'8"
18" x 85'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON RT.
TYPE E DROP INLET = 4' x 3'

STA. 141+65.58 CONSTRUCT
DROP INLET ON LT. H = 6'9"
18" x 165'
PIPE CULVERT TO TO DROP INLET ON LT.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 165 LIN. FT.

STA. 141+10.75 CONSTRUCT
DROP INLET ON RT. H = 5'4"
WITH 4' EXTENSION AND 18" x 96'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON LT.
TYPE C DROP INLET = 4'-0" x 2'-6"

STA. 143+68.77 CONSTRUCT
DROP INLET ON RT. H = 5'3"
18" x 116'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON LT.
TYPE C DROP INLET = 4'-0" x 2'-6"

STA. 144+61.25 CONSTRUCT
DROP INLET ON LT. H = 5'6"
WITH 4' EXTENSION AND 18" x 116'
PIPE CULVERT TO DROP INLET ON LT.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 116 LIN. FT.

STA. 145+80.64 CONSTRUCT
DROP INLET ON RT. H = 5'8"
18" x 68'
PIPE CULVERT TO DROP INLET ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 3'-8"
18" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 68 LIN. FT.

STA. 146+50.00 CONSTRUCT
DROP INLET ON RT. H = 6'2"
WITH 4' EXTENSION AND 18" x 86'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"

STA. 146+50.00 CONSTRUCT
DROP INLET ON LT. H = 6'6"
WITH 4' EXTENSION AND 18" x 32'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
WITH FES.
WITH DUMPED RIPRAP 5 CU. YDS.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"

MOBERLY LN. STRUCTURE MODIFICATION

STA. 120+28.58 IN PLACE
18" x 35.9' R.C. PIPE CULVERT
WITH DROP INLETS LT. & RT.
REMOVE DROP INLET RT. AND EXTEND R.C. PIPE 13' RT.
(CLASS V)(TYPE 3 BEDDING)

STA. 120+39.50 CONSTRUCT
DROP INLET ON RT. H = 2'8"
24" x 13'
R.C. PIPE CULVERT (CLASS V)(TYPE 3 BEDDING)
TO EXISITING PIPE
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

DRAINAGE NOTES - 8TH STREET

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	109	555

(2) DRAINAGE NOTES - RAMPS 2&3 (62/102)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

HWY. 102 RAMP 2 STRUCTURES

STA. 1047+50.00 CONSTRUCT
DROP INLET ON LT. H = 9'10"
24" x 33'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TYPE ST DROP INLET = 3' x 3'

STA. 1052+00.00 CONSTRUCT
TYPE RM DROP INLET IN MEDIAN 3' x 4' x 9'10"
WITH 24" x 40' R.C. PIPE OUTLET ON RT.
(CLASS III) (TYPE 3 BEDDING) WITH FES.

STA. 1053+00.00 CONSTRUCT
DROP INLET ON LT. H = 5'3"
24" x 97'
PIPE CULVERT TO DROP INLET ON LT.
TYPE ST DROP INLET = 3' x 3'
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 97 LIN. FT.

STA. 1054+00.00 CONSTRUCT
DROP INLET ON LT. H = 5'6"
24" x 82'
PIPE CULVERT TO DROP INLET ON LT.
TYPE ST DROP INLET = 3' x 3'
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 82 LIN. FT.

STA. 1054+85.00 CONSTRUCT
DROP INLET ON LT. H = 5'7"
24" x 62'
PIPE CULVERT TO DROP INLET ON LT.
TYPE ST DROP INLET = 3' x 3'
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 62 LIN. FT.

STA. 1055+50.00 CONSTRUCT
DROP INLET ON LT. H = 5'9"
24" x 96'
PIPE CULVERT TO DROP INLET ON LT.
TYPE ST DROP INLET = 3' x 3'.
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 96 LIN. FT.

STA. 1056+50.00 CONSTRUCT
DROP INLET ON LT. H =5'11"
24" x 18'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON RT.
TYPE ST DROP INLET = 3' x 3'

STA. 1056+50.00 CONSTRUCT
DROP INLET ON RT. H = 7'11"
24" x 150'
PIPE CULVERT TO DROP INLET ON RT.
TYPE ST DROP INLET = 4' x 4'
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 150 LIN. FT.

STA. 1058+00.00 CONSTRUCT
DROP INLET ON LT. H = 5'3"
24" x 18'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON RT.
TYPE ST DROP INLET = 3' x 3'

STA. 1058+00.00 CONSTRUCT
DROP INLET ON RT. H = 8'0"
24" x 134'
PIPE CULVERT TO DROP INLET ON RT.
TYPE ST DROP INLET = 4' x 4'
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 134 LIN. FT.

STA. 1059+35.00 CONSTRUCT
DROP INLET ON LT. H = 5'3"
24" x 19'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON RT.
TYPE ST DROP INLET = 4' x 4'

STA. 1059+35.00 CONSTRUCT
DROP INLET ON RT. H = 7'2"
24" x 10'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO JUNCTION BOX ON RT.
TYPE ST DROP INLET = 4' x 4'

STA. 1059+35.00 CONSTRUCT
JUNCTION BOX ON RT. H = 9'8"
24" x 312'
R.C. PIPE CULVERT (CLASS V) (TYPE 2 BEDDING)
WITH SAFETY END SECTION
TYPE ST JUNCTION BOX = 4' x 4'

HWY. 102 RAMP 3 STRUCTURES

STA. 1049+00.00 CONSTRUCT
DROP INLET ON LT. H = 5'3"
24" x 29'
R.C. PIPE CULVERT (CLASS III)(TYPE 3 BEDDING)
TO DROP INLET ON RT.
TYPE E DROP INLET = 3' x 4'

STA. 1049+00.00 CONSTRUCT
TYPE RM DROP INLET IN MEDIAN 3 'x 4' x 6'10"
WITH 24" x 2' R.C. PIPE OUTLET ON LT.
(CLASS III) (TYPE 3 BEDDING)

STA. 1049+00.00 CONSTRUCT
DROP INLET ON RT. H = 6'10"
24" x 147'
PIPE CULVERT TO DROP INLET ON RT.
TYPE ST DROP INLET = 3' x 3'
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 147 LIN. FT.

STA. 1050+50.00 CONSTRUCT
DROP INLET ON LT. H = 6'0"
24" x 19'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON RT.
TYPE ST DROP INLET = 3' x 3'

STA. 1050+50.00 CONSTRUCT
DROP INLET ON RT. H = 5'10"
24" x 195'
PIPE CULVERT TO DROP INLET ON RT.
TYPE ST DROP INLET = 3' x 3'
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 195 LIN. FT.

STA. 1052+50.00 CONSTRUCT
DROP INLET ON RT. H = 4'2"
30" x 24'
R.C. PIPE CULVERT (CLASS V) (TYPE 3 BEDDING)
WITH FES.
TYPE ST DROP INLET = 5' x 3'

STA. 1055+00.00 CONSTRUCT
DROP INLET ON RT. H =5'5"
24" x 134'
PIPE CULVERT TO DROP INLET ON RT.
TYPE ST DROP INLET = 3' x 3'
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 134 LIN. FT.

STA. 1056+38.00 CONSTRUCT
DROP INLET ON RT. H = 5'10"
24" x 19'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON LT.
TYPE ST DROP INLET = 3' x 3'

STA. 1056+38.00 CONSTRUCT
DROP INLET ON LT. H = 6'11"
24" x 5'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO JUNCTION BOX ON LT.
TYPE ST DROP INLET = 3' x 3'

STA. 1056+38.00 CONSTRUCT
JUNCTION BOX ON LT. H = 9'2"
24" x 461'
R.C. PIPE CULVERT (CLASS V) (TYPE 2 BEDDING)
WITH FES.
TYPE ST JUNCTION BOX = 4' x 4'

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				(2)	DRAINAGE NOTES - I-49			

STRUCTURES WEST OF I-49

STA. 1054+00.00 IN PLACE
TYPE ST DROP INLET, RETAIN
EXIST. 18" x 116' R.C. PIPE CULVERT,
PLUG AND ABANDON 18" R.C. PIPE
PIPE CULVERT TO DROP INLET ON LT.
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 77 LIN. FT.

STA. 1053+90.00 CONSTRUCT
DROP INLET ON LT. H= 10'9"
24" x 136'
R.C. PIPE CULVERT (CLASS V) (TYPE 3 BEDDING)
TO DROP INLET ON LT.
TYPE ST DROP INLET = 4' x 5'

STA. 1059+90.00 CONSTRUCT
DROP INLET ON LT. H = 2'11"
24" x 6'
PIPE CULVERT TO DROP INLET ON LT.
TYPE ST DROP INLET = 4' x 4'
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 6 LIN. FT.

STA. 1060+00.00 CONSTRUCT
DROP INLET ON LT. H = 2'11"
24" x 111'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
WITH FES
TYPE ST DROP INLET = 4' x 4'

STA. 1064+90.00 CONSTRUCT
DROP INLET ON LT. H = 4'0"
24" x 7'
PIPE CULVERT TO DROP INLET ON LT.
TYPE ST DROP INLET = 4' x 4'
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 7 LIN. FT.

STA. 1065+00.00 CONSTRUCT
DROP INLET ON LT. H= 4' 0"
36" x 397'
PIPE CULVERT TO DROP INLET ON LT.
TYPE ST DROP INLET = 4' x 4'
36" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 397 LIN. FT.

STA. 1065+00.00 IN PLACE
18" x 88' R.C. PIPE CULVERT
CUT PIPE 5.35' RT. OF ℄
EXTEND R.C. PIPE 49' LT.
R.C. PIPE CULVERT (CLASS III)(TYPE 3 BEDDING)
TO DROP INLET ON LT.
Q50=9.48 CFS D.A.= 1.58 ACRES
18" R.C. PIPE = 49 LIN.FT.
18" PIPE COLLAR = 1EA.

STA. 1069+00.00 CONSTRUCT
DROP INLET ON LT. H= 5' 3"
36" x 197'
PIPE CULVERT TO DROP INLET ON LT.
TYPE ST DROP INLET = 4' x 4'
36" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 197 LIN. FT.

STA. 1071+00.00 CONSTRUCT
DROP INLET ON LT. H= 6' 0"
36" x 195'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
WITH FES
TYPE ST DROP INLET = 4' x 5'

STA. 1071+00.00 CONSTRUCT
DROP INLET ON LT. H= 6' 0"
36" x 195'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
WITH FES
TYPE ST DROP INLET = 4' x 5'

STA. 1077+00.00 IN PLACE
18" x 87' R.C. PIPE CULVERT
CUT PIPE 54.00' LT. OF ℄
EXTEND R.C. PIPE 43' LT.
(CLASS III)(TYPE 3 BEDDING) WITH
FES LT.
Q50= 6.00 CFS D.A.= 1.43 ACRES
18" R.C. PIPE = 43 LIN.FT.
18" FES =1EA.

STRUCTURES EAST OF I-49

STA. 1061+90.00 CONSTRUCT
DROP INLET ON RT. H = 3'4"
24" x 6'
PIPE CULVERT TO DROP INLET ON RT.
TYPE ST DROP INLET = 4' x 4'
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 6 LIN. FT.

STA. 1062+00.00 CONSTRUCT
DROP INLET ON RT. H= 2' 11"
24" x 97'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
WITH SAFETY END SECTION
TYPE ST DROP INLET 4' x 4'

STA. 1067+50.00 CONSTRUCT
DROP INLET ON RT. H = 4'3"
36" x 36'
PIPE CULVERT TO DROP INLET ON RT.
TYPE ST DROP INLET = 4' x 4'
36" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 36 LIN. FT.

STA. 1067+90.00 CONSTRUCT
DROP INLET ON RT. H = 4'0"
36" x 6'
PIPE CULVERT TO DROP INLET ON RT.
TYPE ST DROP INLET = 4' x 4'
36" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 6 LIN. FT.

STA. 1068+00.00 CONSTRUCT
DROP INLET ON RT. H = 4'3"
36" x 72'
PIPE CULVERT TO DROP INLET ON RT.
TYPE ST DROP INLET = 4' x 4'
36" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 72 LIN. FT.

STA. 1068+75.00 CONSTRUCT
DROP INLET ON RT. H = 5'2"
36" x 221'
PIPE CULVERT TO DROP INLET ON RT.
TYPE ST DROP INLET = 4' x 4'
36" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 221 LIN. FT.

STA. 1071+00.00 CONSTRUCT
DROP INLET ON RT. H= 5' 10"
36" x 171'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
WITH SAFETY END SECTION
TYPE ST DROP INLET 4' x 5'

STRUCTURES ON 8TH ST. RAMP 1

STA. 1052+94.39 CONSTRUCT
DROP INLET ON RT. H= 6' 6"
24" x 105'
PIPE CULVERT TO DROP INLET ON RT.
TYPE ST DROP INLET = 4' x 4'
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 105 LIN. FT.

STA. 1054+00.00 CONSTRUCT
DROP INLET ON RT. H=6' 0"
24" X 102'
PIPE CULVERT TO DROP INLET ON RT.
TYPE ST DROP INLET = 4' x 4'
24" R.C. PIPE (CLASS III) (TYPE 3 BEDDING) = 102 LIN. FT.

STRUCTURES ON 8TH ST. RAMP 3

STA. 1069+00.00 CONSTRUCT
DROP INLET ON LT. H=10'0"
24" x 29'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON RT.
TYPE ST DROP INLET =4' x 4'

STA. 1069+00.00 CONSTRUCT
DROP INLET ON RT. H = 10'7"
24" x 7'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
TO DROP INLET ON RT.
TYPE ST DROP INLET = 3' x 3'

STRUCTURES ON I-49

STA. 1027+00.00 - IN PLACE
18" x 116' R.C. PIPE CULVERT
WITH FES LT. & RT.
RETAIN

STA. 1033+00.00 - IN PLACE
TYPE RM DROP INLET IN MEDIAN
WITH 18" x 118' R.C. PIPE OUTLET ON RT.
WITH FES
RETAIN

STA. 1043+46.00 - IN PLACE
TYPE ST DROP INLET ON LT.
WITH 12" x 89' R.C. PIPE OUTLET ON LT.
WITH FES
TO BE REMOVED BY OTHERS

STA. 1043+64.00 - IN PLACE
TYPE ST DROP INLET ON RT.
WITH 12" x 93' R.C. PIPE OUTLET ON RT.
WITH FES
TO BE REMOVED BY OTHERS

STA. 1044+90.00 - IN PLACE
36" x 300' R.C. PIPE CULVERT
WITH FES LT. & RT.
RETAIN

STA. 1045+19.00 - IN PLACE
12' x 10' x 300' R.C. BOX CULVERT
RETAIN

STA. 1045+30.00 - IN PLACE
48" x 317' R.C. PIPE CULVERT
WITH FES LT.
RETAIN

STA. 1045+90.00 - IN PLACE
TYPE ST DROP INLET ON LT.
WITH 12" x 88' R.C. PIPE OUTLET ON LT.
WITH FES
TO BE REMOVED BY OTHERS

STA. 1046+09.00 - IN PLACE
TYPE ST DROP INLET ON RT.
WITH 12" x 91' R.C. PIPE OUTLET ON RT.
WITH FES
TO BE REMOVED BY OTHERS

STA. 1054+00.00 IN PLACE
DROP INLET IN MEDIAN AND 18" x 116' R.C. PIPE CULVERT
DEMO STRUCTURE PLUG AND ABANDON 18" R.C. PIPE
Q50= 13.6 CFS D.A.= 2.01 ACRES
18" R.C. PIPE = 80 LIN. FT.

STATE OF ARKANSAS
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No. 18192
DAVID A. HURT
6/1/16

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				6	ARK.			
				JOB NO.		090376	111	555

(2) DRAINAGE NOTES - HWY. 102

STRUCTURES ALONG HWY. 102

STA. 18+38.00 IN PLACE
18" x 60' R.C. PIPE CULVERT
WITH DROP INLETS LT. & RT.
REMOVE DROP INLETS LT. & RT. AND EXTEND R.C. PIPE
5' LT. AND 5' RT.
(CLASS III)(TYPE 2 BEDDING)
Q50=17.59 CFS D.A.= 4.05 ACRES
18" R.C. PIPE= 10 LIN. FT.

STA. 18+36.72 CONSTRUCT
DROP INLET ON RT. H = 3' 10"
WITH 4' EXTENSION AND 18" x 10'
R.C. PIPE CULVERT (CLASS III) (TYPE 2 BEDDING)
WITH FES.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"

STA. 18+39.30 CONSTRUCT
DROP INLET ON LT. H= 2' 11"
WITH 4' EXTENSION AND 18" x 5'
R.C. PIPE CULVERT (CLASS III) (TYPE 2 BEDDING)
WITH FES.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"

STA. 20+05.00 CONSTRUCT
DROP INLET ON LT. H= 3' 3"
WITH 8 EXTENSION AND 18" x 146'
PIPE CULVERT TO DROP INLET ON LT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 2 BEDDING) = 146 LIN. FT.
18" SLPPMCCS PIPE (TYPE 2 BEDDING) = 146 LIN. FT.

STA. 19+99.00 CONSTRUCT
DROP INLET ON RT. H= 3' 1"
WITH 8' EXTENSION AND 18" x 152'
PIPE CULVERT TO DROP INLET ON RT.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" X 2'-6"
18" R.C. PIPE (CLASS III) (TYPE 2 BEDDING) = 152 LIN. FT.
18" SLPPMCCS PIPE (TYPE 2 BEDDING) = 152 LIN. FT.

STA. 20+05.00 REMOVE
TYPE MO DROP INLETS LT. & RT.
18" x 139' R.C. PIPE CULVERT LT. & 18" x 144' R.C. PIPE CULVERT RT.

STA. 21+55.00 CONSTRUCT
DROP INLET ON LT. H = 4' 2"
WITH 4' EXTENSION AND 18" x 61'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
WITH FES.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 3'-8"

STA. 21+55.00 CONSTRUCT
DROP INLET ON RT. H = 4' 3"
WITH 4' EXTENSION AND 18" x 10'
R.C. PIPE CULVERT (CLASS III) (TYPE 3 BEDDING)
WITH FES.
TYPE MO DROP INLET = 4' DIA.
TYPE C DROP INLET = 4'-0" x 2'-6"

STA. 21+55.00 REMOVE
TYPE MO DROP INLETS LT. & RT.
18" x 27' R.C. PIPE CULVERT LT. & 18" x 12' R.C. PIPE CULVERT RT.
WITH DROP INLETS LT. & RT.

STA. 24+00.00 IN PLACE
DBL. 5' x 3' x 95' R.C. BOX CULVERT
WITH DROP INLETS AND WINGWALLS LT. & RT.
REMOVE DROP INLET AND WINGWALL LT. AND EXTEND R.C. BOX 8' LT.
Q50 = 126 CFS D.A. = 218 ACRES

STA. 24+00.00 CONSTRUCT
DROP INLET ON LT. H = 5' 2"
WITH 4' EXTENSION
ON R.C. BOX CULVERT STA 24+00.00
TYPE C DROP INLET = 4' -0" X 2'-6".

STRUCTURES NEAR HWY. 102 RAMP 2 INTERCHANGE

STA. 1032+37.00 IN PLACE
24" x 87' R.C. PIPE CULVERT
WITH FES LT. & RT.
REMOVE FES RT. AND EXTEND R.C. PIPE
8' RT. (CLASS III)(TYPE 3 BEDDING)
Q50 = 12.90 CFS D.A. = 2.34
24" R.C. PIPE = 8 LIN. FT.

STA. 1032+43.00 IN PLACE
24" x 85' R.C. PIPE CULVERT
WITH FES LT. & RT.
REMOVE FES RT. AND EXTEND R.C. PIPE
2' RT. (CLASS III)(TYPE 3 BEDDING)
Q50 = 12.90 CFS D.A. = 2.34
24" R.C. PIPE = 3 LIN. FT.

STATE OF ARKANSAS
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DAVID A. HURT
6/1/16

DRAINAGE NOTES - HWY. 102

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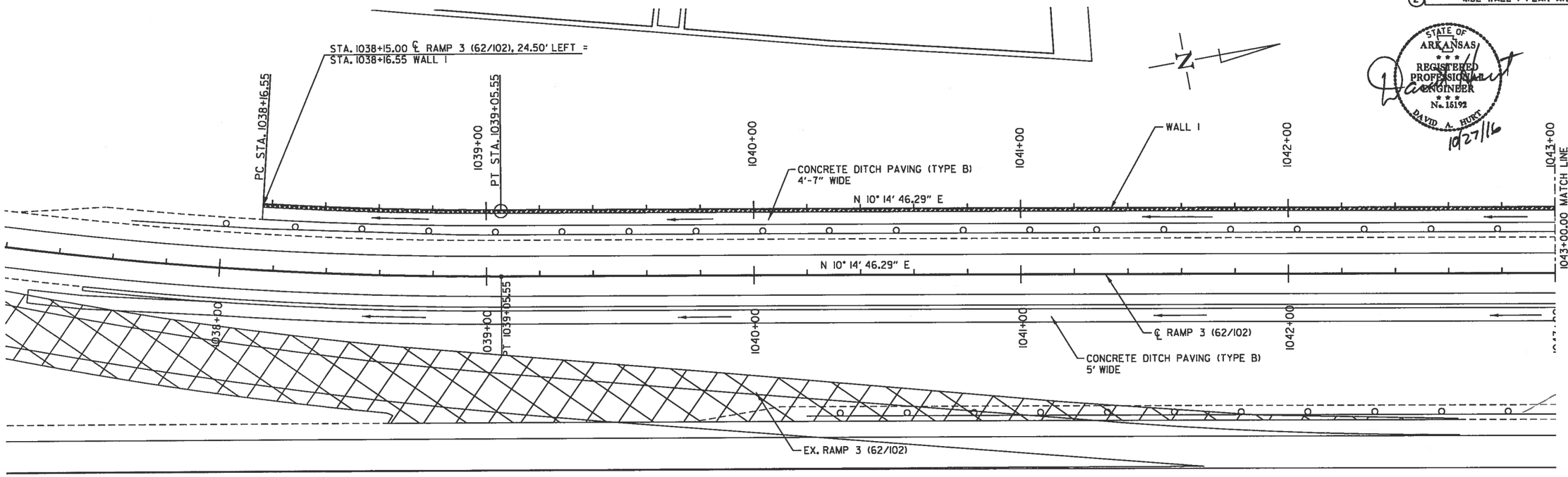
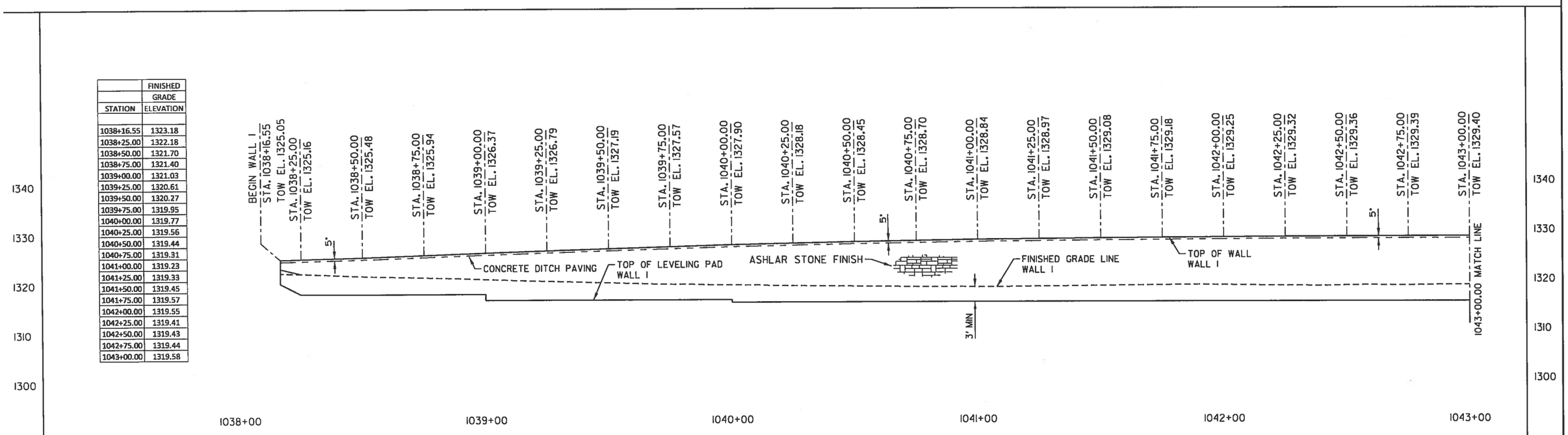
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/27/2016				6	ARK.			
				JOB NO.		090376	112	555
				(2)	MSE WALL 1 PLAN AND PROFILE			



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
10/27/16

STATION	FINISHED GRADE ELEVATION
1038+16.55	1323.18
1038+25.00	1322.18
1038+50.00	1321.70
1038+75.00	1321.40
1039+00.00	1321.03
1039+25.00	1320.61
1039+50.00	1320.27
1039+75.00	1319.95
1040+00.00	1319.77
1040+25.00	1319.56
1040+50.00	1319.44
1040+75.00	1319.31
1041+00.00	1319.23
1041+25.00	1319.33
1041+50.00	1319.45
1041+75.00	1319.57
1042+00.00	1319.55
1042+25.00	1319.41
1042+50.00	1319.43
1042+75.00	1319.44
1043+00.00	1319.58



(LOOKING AT BACK FACE OF MSE WALL)

MSE WALL 1 PLAN AND PROFILE
STA. 1036+50 TO STA. 1042+00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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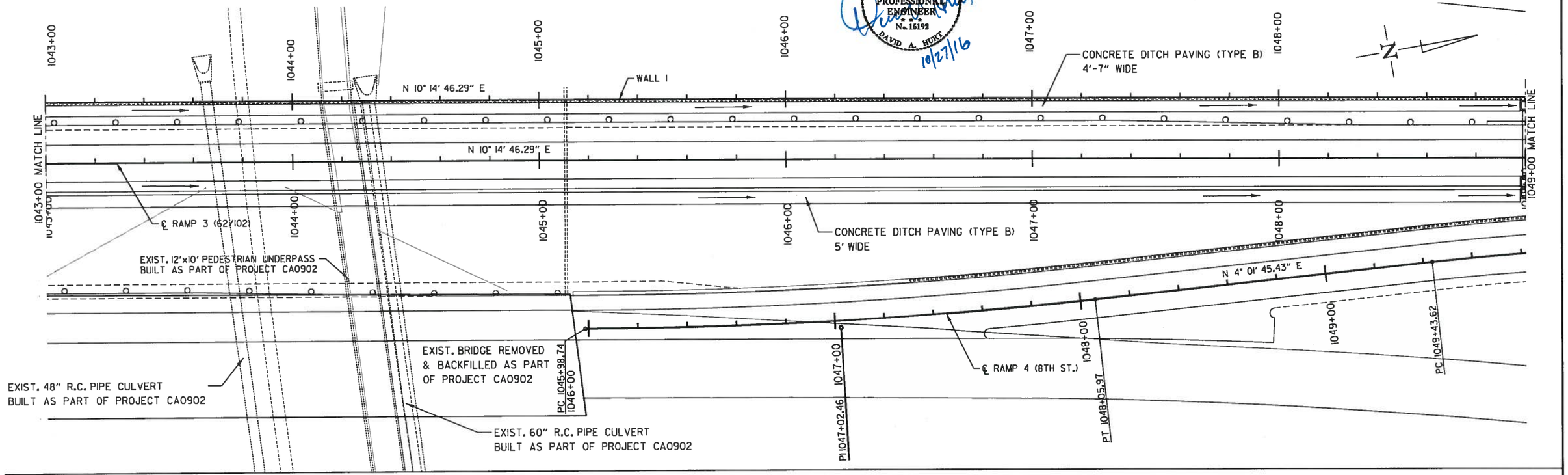
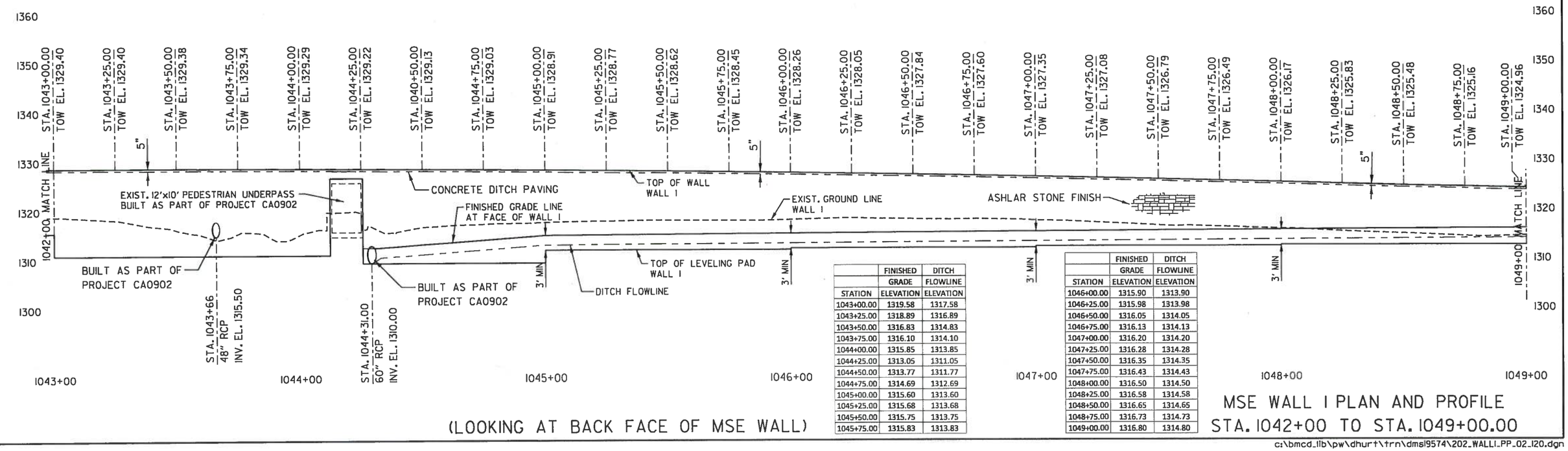
				JOB NO.		090376	113	555

(2) MSE WALL 1 PLAN AND PROFILE

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HURT
10/27/16





STATION	FINISHED GRADE ELEVATION	DITCH FLOWLINE ELEVATION
1043+00.00	1319.58	1317.58
1043+25.00	1318.89	1316.89
1043+50.00	1316.83	1314.83
1043+75.00	1316.10	1314.10
1044+00.00	1315.85	1313.85
1044+25.00	1313.05	1311.05
1044+50.00	1313.77	1311.77
1044+75.00	1314.69	1312.69
1045+00.00	1315.60	1313.60
1045+25.00	1315.68	1313.68
1045+50.00	1315.75	1313.75
1045+75.00	1315.83	1313.83

STATION	FINISHED GRADE ELEVATION	DITCH FLOWLINE ELEVATION
1046+00.00	1315.90	1313.90
1046+25.00	1315.98	1313.98
1046+50.00	1316.05	1314.05
1046+75.00	1316.13	1314.13
1047+00.00	1316.20	1314.20
1047+25.00	1316.28	1314.28
1047+50.00	1316.35	1314.35
1047+75.00	1316.43	1314.43
1048+00.00	1316.50	1314.50
1048+25.00	1316.58	1314.58
1048+50.00	1316.65	1314.65
1048+75.00	1316.73	1314.73
1049+00.00	1316.80	1314.80

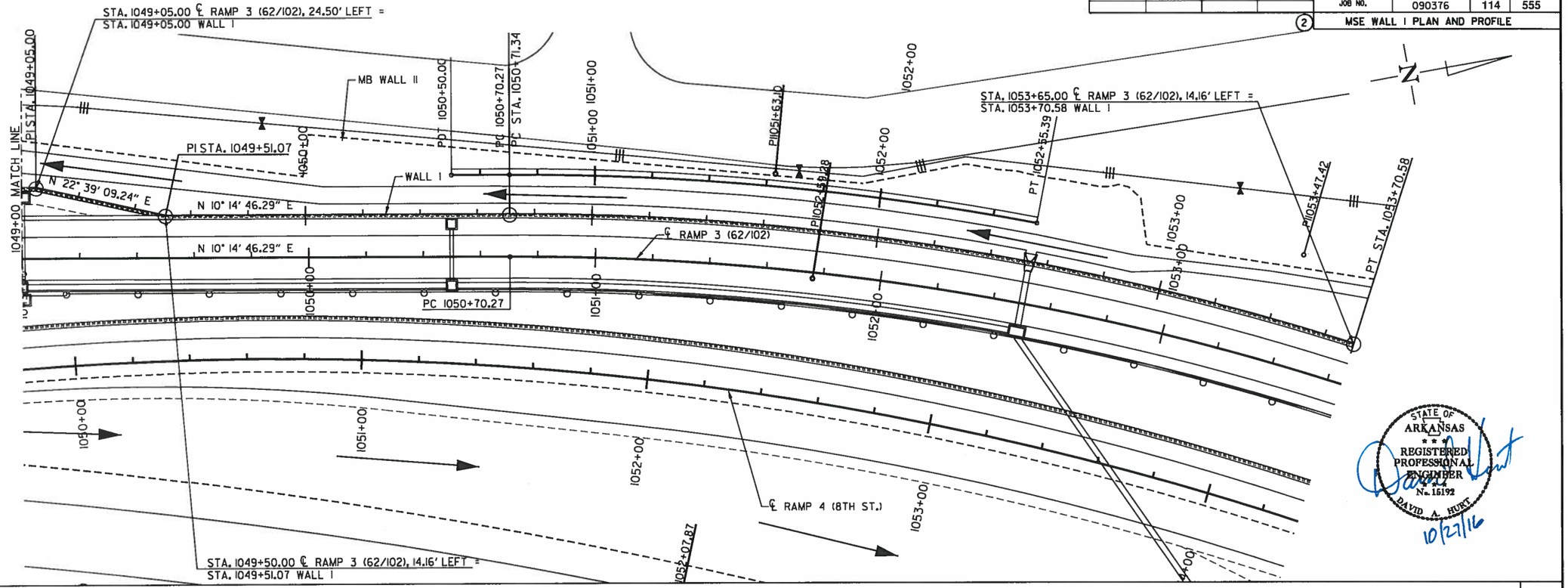
(LOOKING AT BACK FACE OF MSE WALL)

MSE WALL 1 PLAN AND PROFILE
STA. 1042+00 TO STA. 1049+00.00

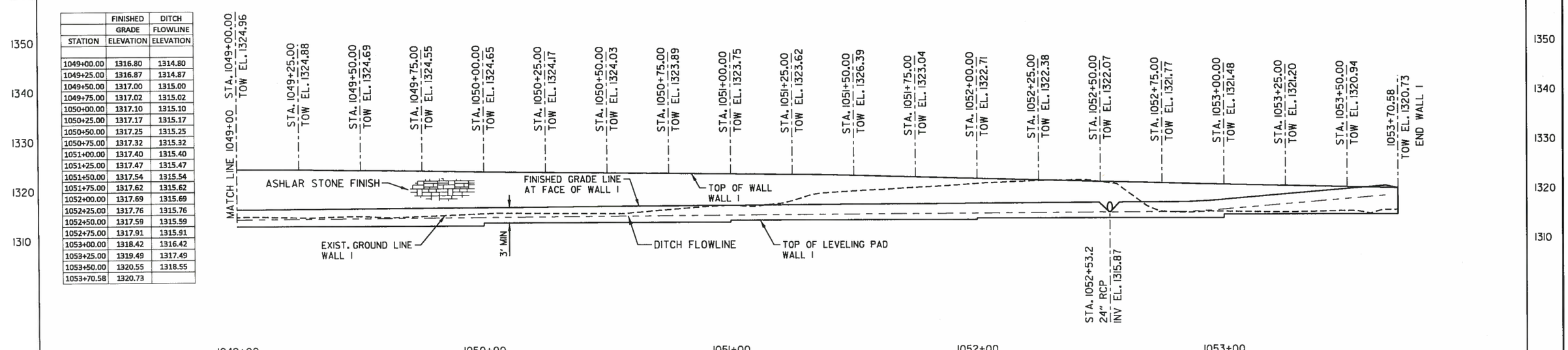
c:\bmcd_llb\pw\dhurt\trn\dms19574\202_WALL1_PP_02_120.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/27/2016				6	ARK.			
				JOB NO.		090376	114	555

(2) MSE WALL 1 PLAN AND PROFILE



STATION	FINISHED GRADE ELEVATION	DITCH FLOWLINE ELEVATION
1049+00.00	1316.80	1314.80
1049+25.00	1316.87	1314.87
1049+50.00	1317.00	1315.00
1049+75.00	1317.02	1315.02
1050+00.00	1317.10	1315.10
1050+25.00	1317.17	1315.17
1050+50.00	1317.25	1315.25
1050+75.00	1317.32	1315.32
1051+00.00	1317.40	1315.40
1051+25.00	1317.47	1315.47
1051+50.00	1317.54	1315.54
1051+75.00	1317.62	1315.62
1052+00.00	1317.69	1315.69
1052+25.00	1317.76	1315.76
1052+50.00	1317.59	1315.59
1052+75.00	1317.91	1315.91
1053+00.00	1318.42	1316.42
1053+25.00	1319.49	1317.49
1053+50.00	1320.55	1318.55
1053+70.58	1320.73	



(LOOKING AT BACK FACE OF MSE WALL)

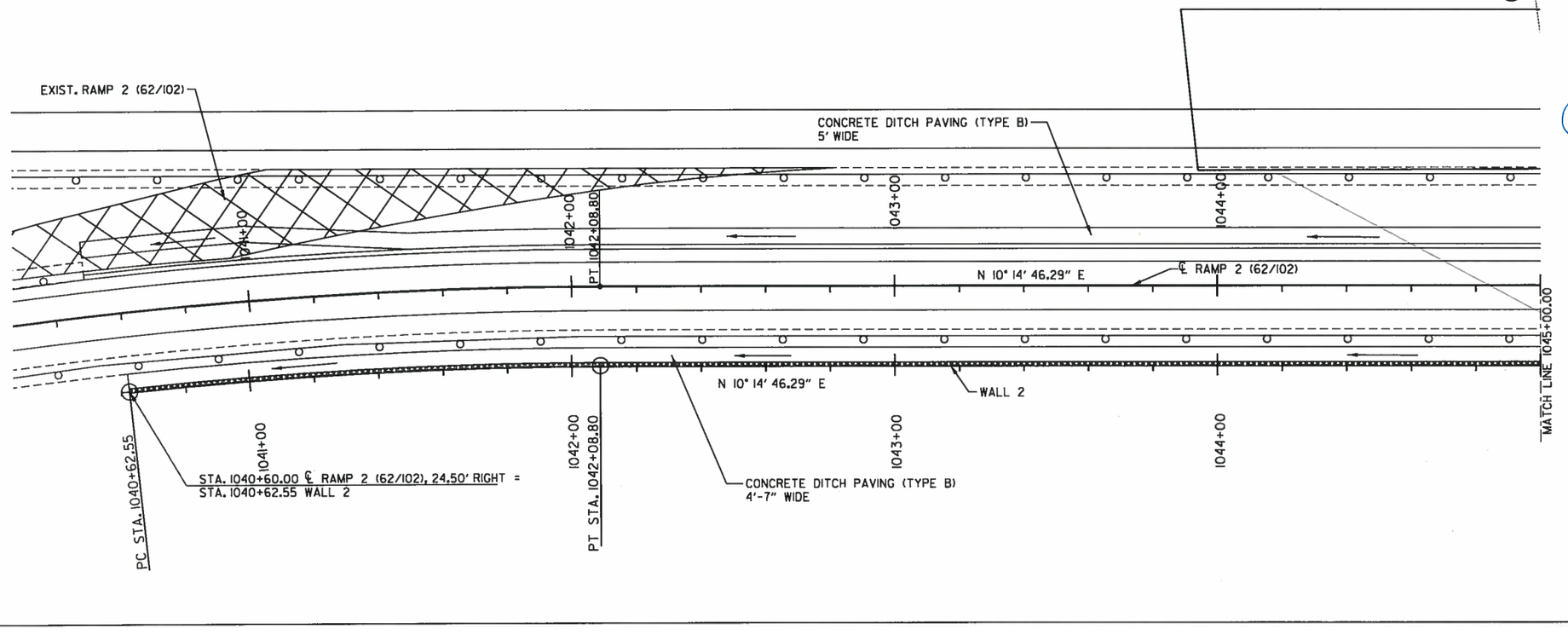
MSE WALL 1 PLAN AND PROFILE
STA. 1049+00.00 TO STA 1053+70.58

c:\bmcd_llb\pw\dhurt\trn\dmsi9574\203_WALL1_PP_03_120.dgn

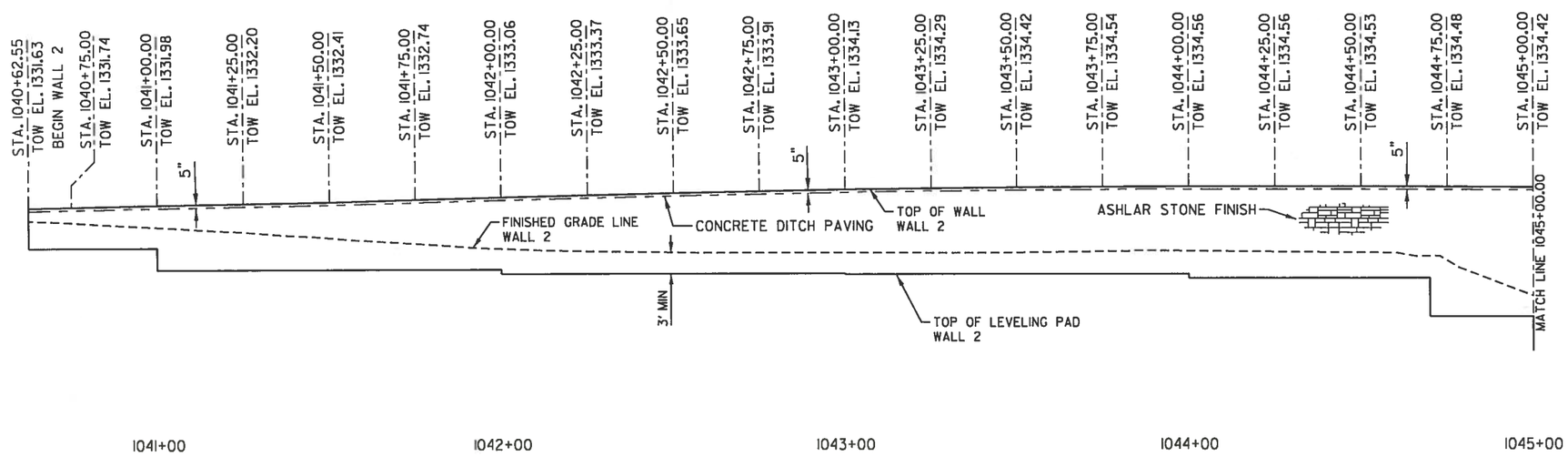
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/27/2016				6	ARK.			
				JOB NO.		090376	115	555

(2) MSE WALL 2 PLAN AND PROFILE

10/27/16



STATION	FINISHED GRADE ELEVATION
1040+62.55	1329.78
1040+75.00	1329.50
1041+00.00	1328.81
1041+25.00	1328.09
1041+50.00	1327.22
1041+75.00	1326.38
1042+00.00	1325.64
1042+25.00	1325.26
1042+50.00	1325.08
1042+75.00	1325.01
1043+00.00	1325.01
1043+25.00	1324.97
1043+50.00	1324.98
1043+75.00	1325.15
1044+00.00	1325.22
1044+25.00	1325.09
1044+50.00	1324.99
1044+75.00	1323.82
1045+00.00	1318.73

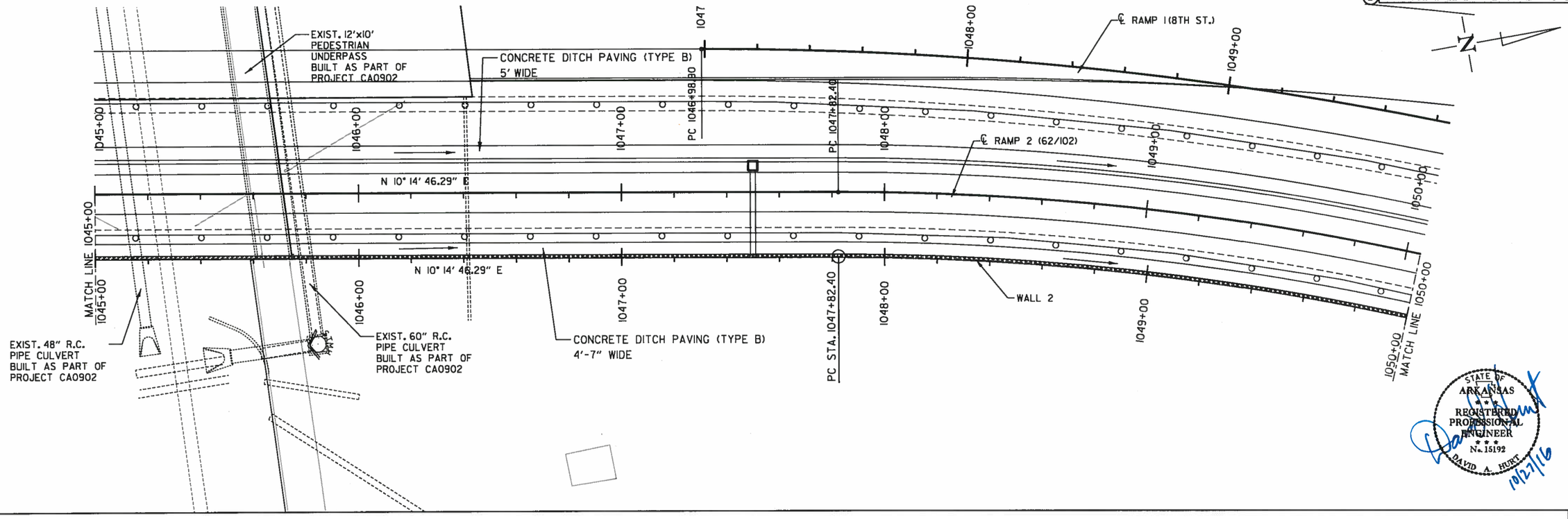


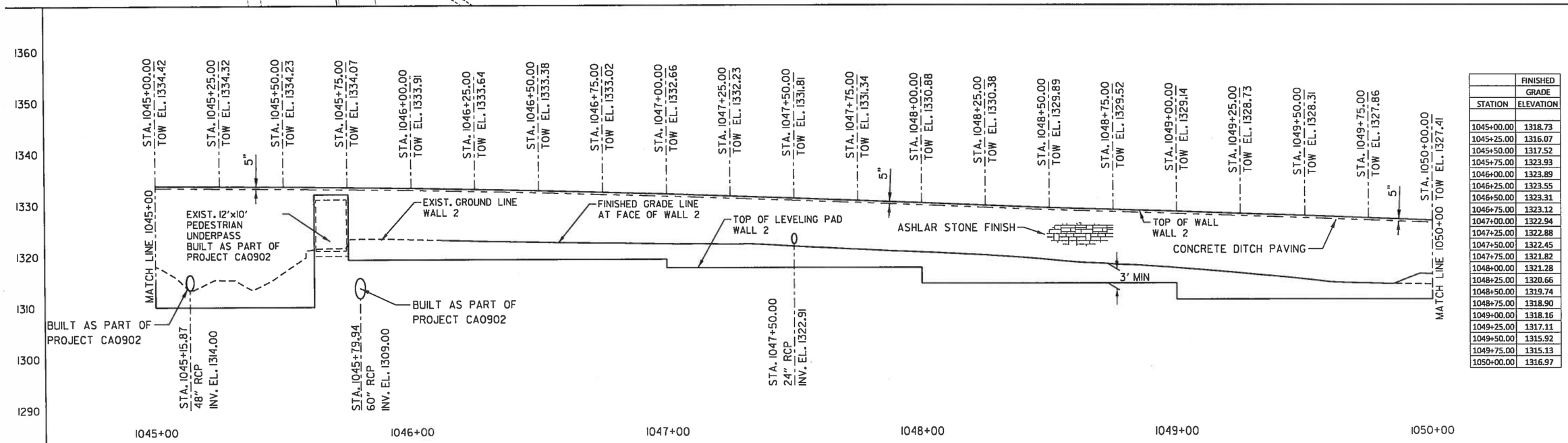
(LOOKING AT FRONT FACE OF MSE WALL)

MSE WALL 2 PLAN AND PROFILE
STA. 1062.55 TO STA. 1045+00.00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/27/2016				6	ARK.			
				JOB NO.		090376	116	555

(2) MSE WALL 2 PLAN AND PROFILE





STATION	FINISHED GRADE ELEVATION
1045+00.00	1318.73
1045+25.00	1316.07
1045+50.00	1317.52
1045+75.00	1323.93
1046+00.00	1323.89
1046+25.00	1323.55
1046+50.00	1323.31
1046+75.00	1323.12
1047+00.00	1322.94
1047+25.00	1322.88
1047+50.00	1322.45
1047+75.00	1321.82
1048+00.00	1321.28
1048+25.00	1320.66
1048+50.00	1319.74
1048+75.00	1318.90
1049+00.00	1318.16
1049+25.00	1317.11
1049+50.00	1315.92
1049+75.00	1315.13
1050+00.00	1316.97

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
10/27/16

(LOOKING AT FRONT FACE OF MSE WALL)

MSE WALL 2 PLAN AND PROFILE
STA. 1045+00.00 TO STA. 1050+00.00

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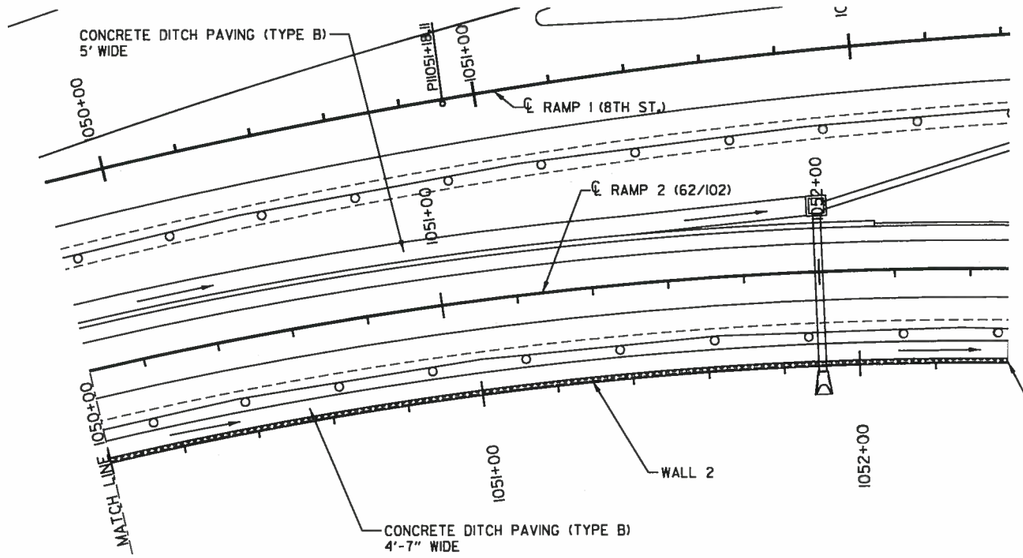
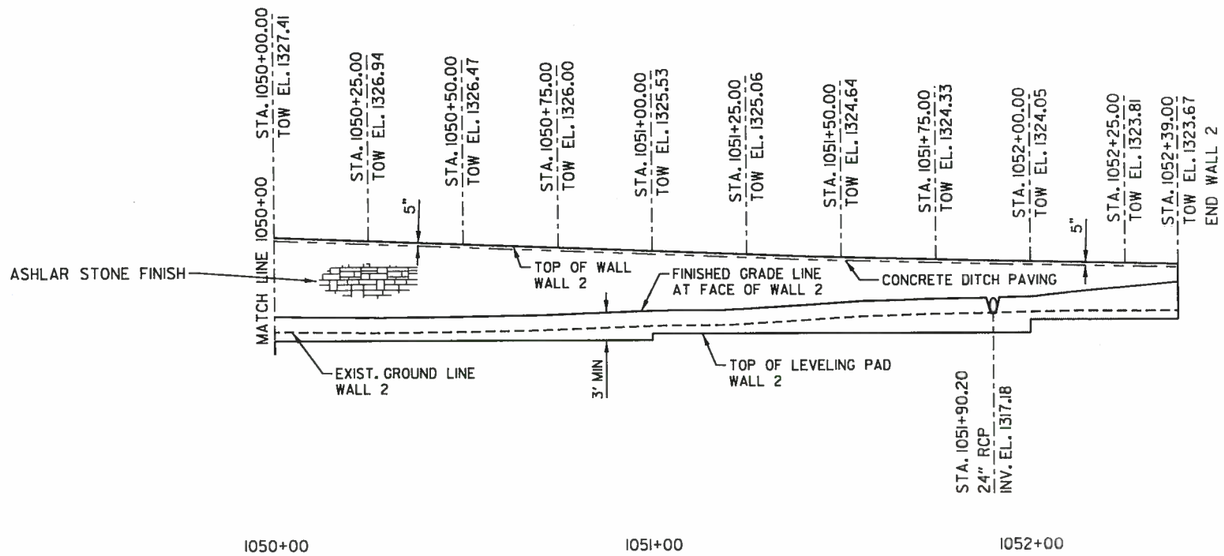
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/27/2016				6	ARK.			
				JOB NO.		090376	117	555

(2) MSE WALL 2 PLAN AND PROFILE



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
10/27/16



STATION	FINISHED GRADE ELEVATION
1050+00.00	1316.97
1050+25.00	1316.82
1050+50.00	1316.92
1050+75.00	1317.18
1051+00.00	1317.64
1051+25.00	1317.88
1051+50.00	1318.67
1051+75.00	1319.14
1052+00.00	1322.38
1052+25.00	1320.64
1052+39.00	1321.30

(LOOKING AT FRONT FACE OF MSE WALL)

MSE WALL 2 PLAN AND PROFILE
STA. 1050+00.00 TO STA. 1052+39.00

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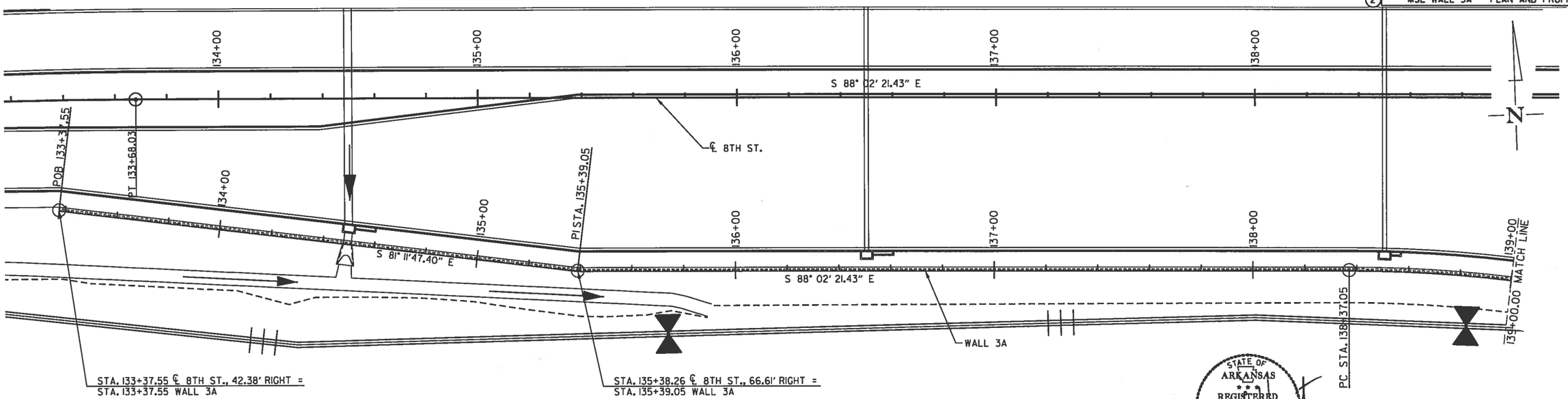
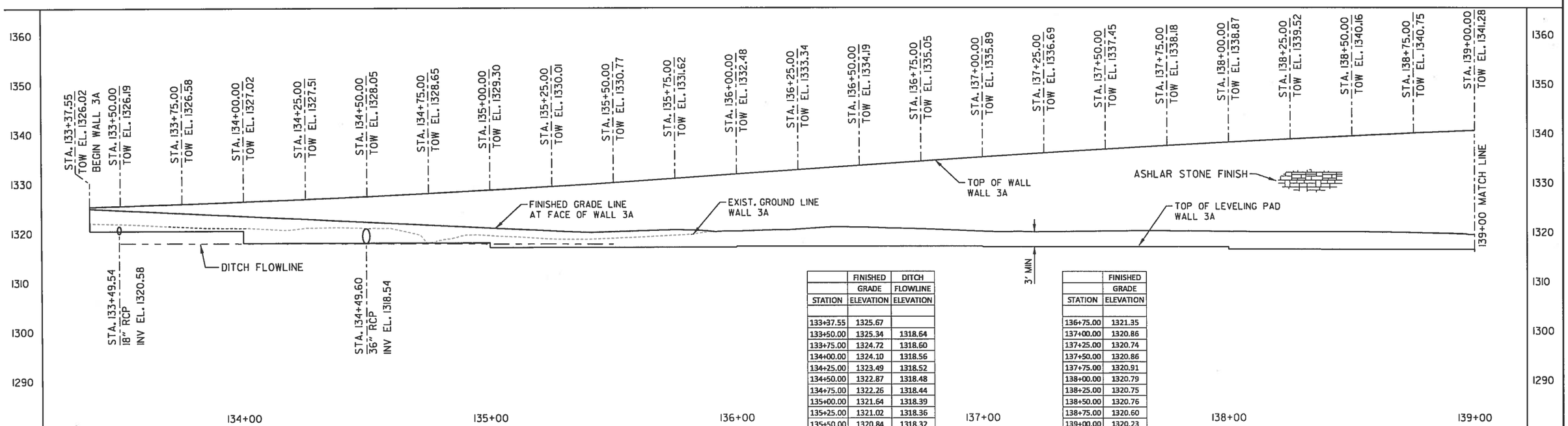
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/27/2016				6	ARK.			
				JOB NO.		090376	118	555

(2) MSE WALL 3A PLAN AND PROFILE



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
10/27/16



STATION	FINISHED GRADE ELEVATION	DITCH FLOWLINE ELEVATION
133+37.55	1325.67	
133+50.00	1325.34	1318.64
133+75.00	1324.72	1318.60
134+00.00	1324.10	1318.56
134+25.00	1323.49	1318.52
134+50.00	1322.87	1318.48
134+75.00	1322.26	1318.44
135+00.00	1321.64	1318.39
135+25.00	1321.02	1318.36
135+50.00	1320.84	1318.32
135+75.00	1321.22	
136+00.00	1320.94	
136+25.00	1321.30	
136+50.00	1321.68	

STATION	FINISHED GRADE ELEVATION
136+75.00	1321.35
137+00.00	1320.86
137+25.00	1320.74
137+50.00	1320.86
137+75.00	1320.91
138+00.00	1320.79
138+25.00	1320.75
138+50.00	1320.76
138+75.00	1320.60
139+00.00	1320.23

(LOOKING AT FRONT FACE OF MSE WALL)

MSE WALL 3A PLAN AND PROFILE
STA. 133+37.55 TO STA. 139+00.00

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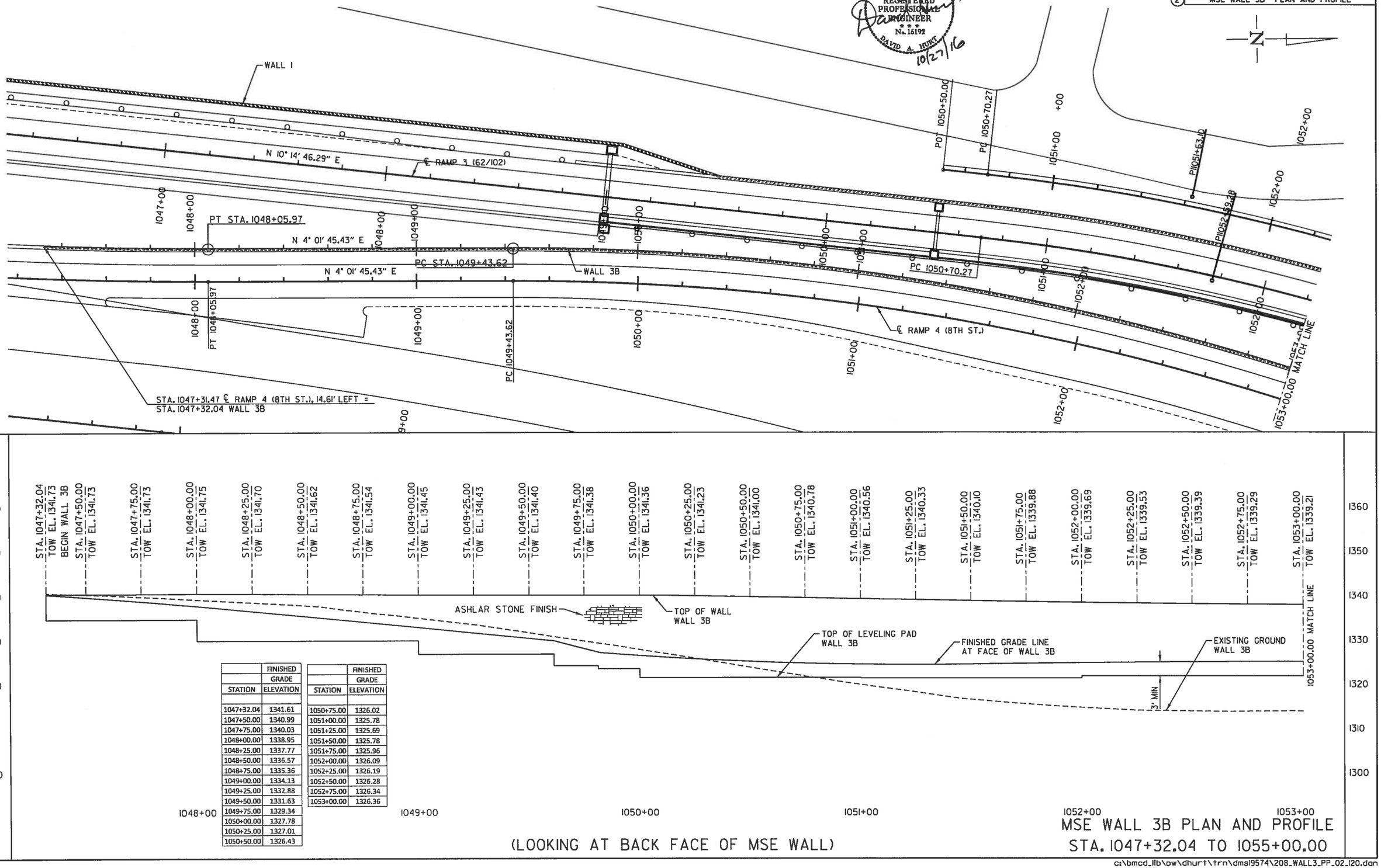
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
10/27/2016			

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		090376	119	555

(2) MSE WALL 3B PLAN AND PROFILE

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HURT
10/27/16



STATION	FINISHED GRADE ELEVATION
1047+32.04	1341.61
1047+50.00	1340.99
1047+75.00	1340.03
1048+00.00	1338.95
1048+25.00	1337.77
1048+50.00	1336.57
1048+75.00	1335.36
1049+00.00	1334.13
1049+25.00	1332.88
1049+50.00	1331.63
1049+75.00	1329.34
1050+00.00	1327.78
1050+25.00	1327.01
1050+50.00	1326.43

STATION	FINISHED GRADE ELEVATION
1050+75.00	1326.02
1051+00.00	1325.78
1051+25.00	1325.69
1051+50.00	1325.78
1051+75.00	1325.96
1052+00.00	1326.09
1052+25.00	1326.19
1052+50.00	1326.28
1052+75.00	1326.34
1053+00.00	1326.36

(LOOKING AT BACK FACE OF MSE WALL)

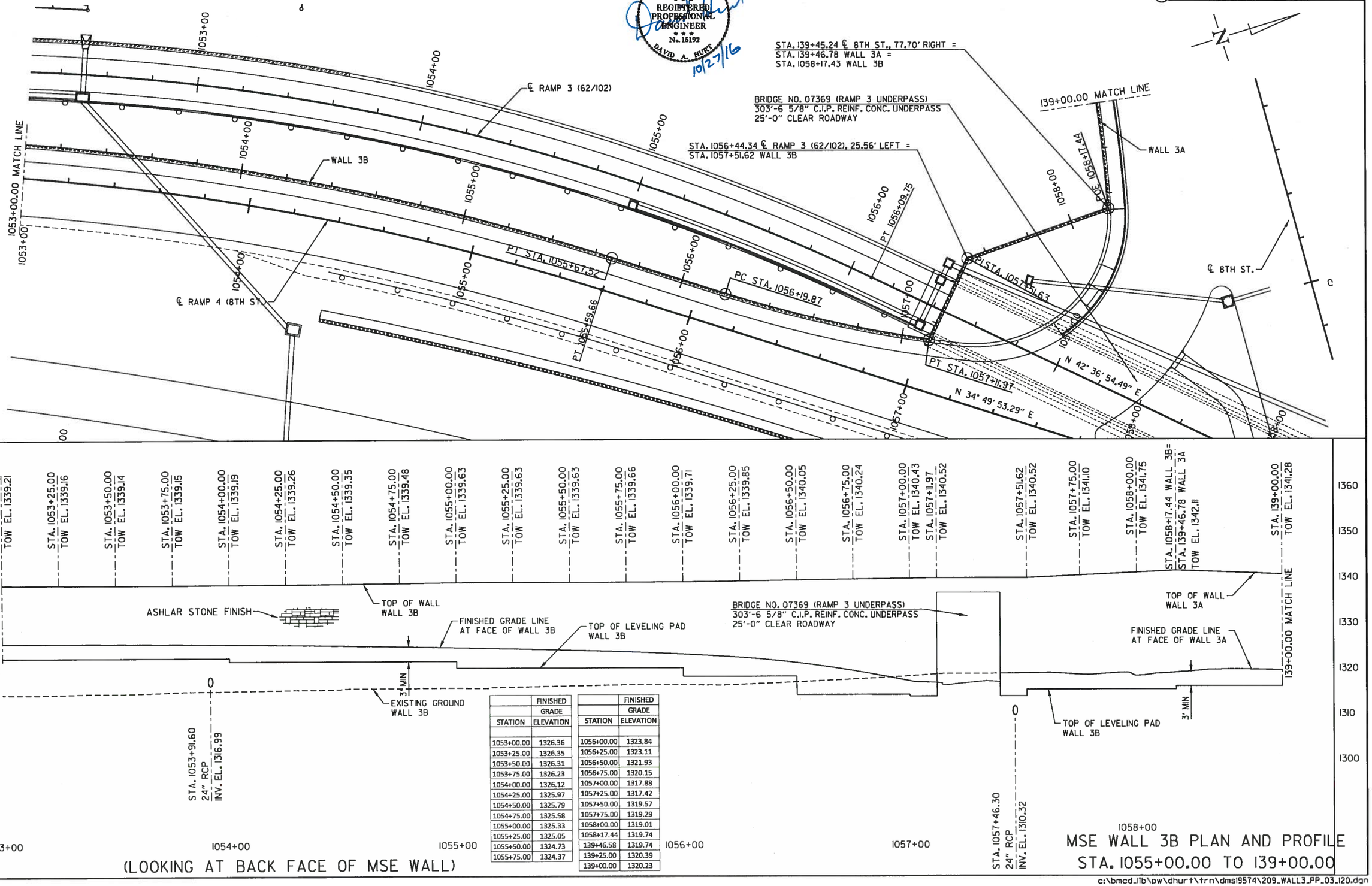
MSE WALL 3B PLAN AND PROFILE
STA. 1047+32.04 TO 1055+00.00

c:\bmcd_llb\pw\dhurt\trn\dms19574\208_WALL3_PP_02_120.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/27/2016				6	ARK.			
				JOB NO.		090376	120	555

(2) MSE WALL 3B PLAN AND PROFILE

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
10/27/16



STATION	FINISHED GRADE ELEVATION
1053+00.00	1326.36
1053+25.00	1326.35
1053+50.00	1326.31
1053+75.00	1326.23
1054+00.00	1326.12
1054+25.00	1325.97
1054+50.00	1325.79
1054+75.00	1325.58
1055+00.00	1325.33
1055+25.00	1325.05
1055+50.00	1324.73
1055+75.00	1324.37

STATION	FINISHED GRADE ELEVATION
1056+00.00	1323.84
1056+25.00	1323.11
1056+50.00	1321.93
1056+75.00	1320.15
1057+00.00	1317.88
1057+25.00	1317.42
1057+50.00	1319.57
1057+75.00	1319.29
1058+00.00	1319.01
1058+17.44	1319.74
139+46.58	1319.74
139+25.00	1320.39
139+00.00	1320.23

(LOOKING AT BACK FACE OF MSE WALL)

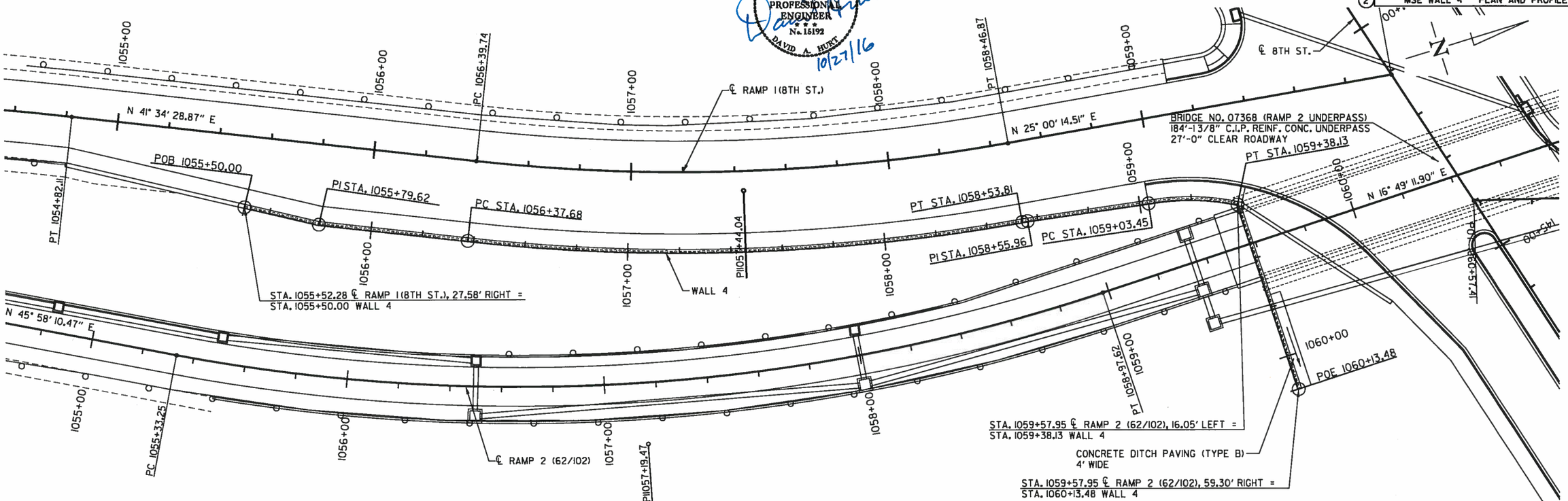
MSE WALL 3B PLAN AND PROFILE
STA. 1055+00.00 TO 139+00.00

c:\bmcd_llb\pw\dhurt\trn\dms19574\209_WALL3_PP_03_120.dgn

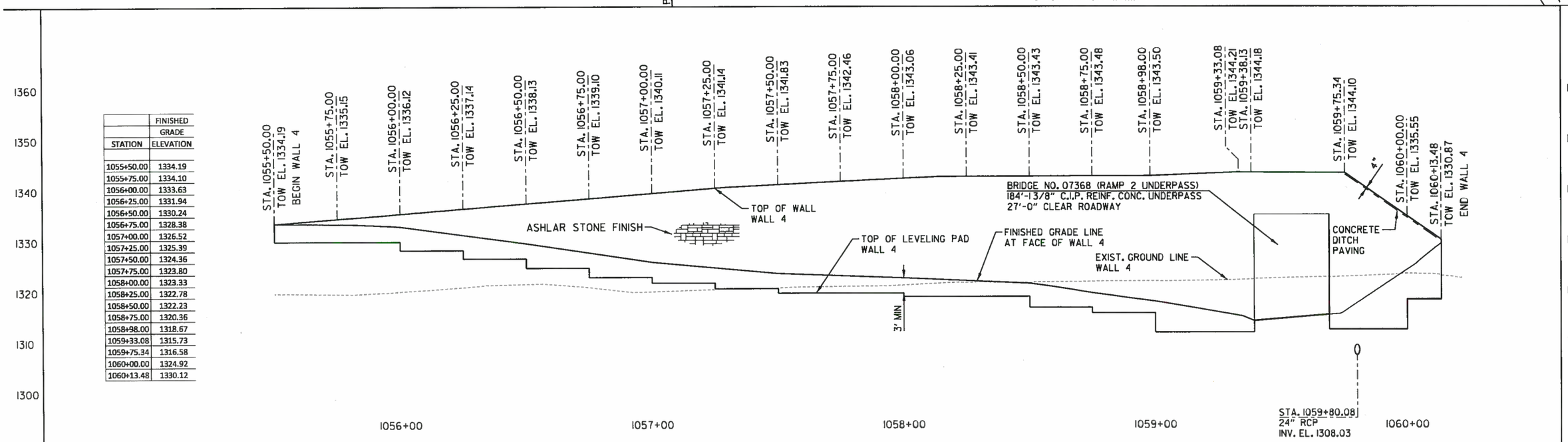
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/27/2016				6	ARK.			
				JOB NO.		090376	121	555

(2) MSE WALL 4 PLAN AND PROFILE

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
10/27/16



STATION	FINISHED GRADE ELEVATION
1055+50.00	1334.19
1055+75.00	1334.10
1056+00.00	1333.63
1056+25.00	1331.94
1056+50.00	1330.24
1056+75.00	1328.38
1057+00.00	1326.52
1057+25.00	1325.39
1057+50.00	1324.36
1057+75.00	1323.80
1058+00.00	1323.33
1058+25.00	1322.78
1058+50.00	1322.23
1058+75.00	1320.36
1058+98.00	1318.67
1059+33.08	1315.73
1059+75.34	1316.58
1060+00.00	1324.92
1060+13.48	1330.12



(LOOKING AT FRONT FACE OF MSE WALL)

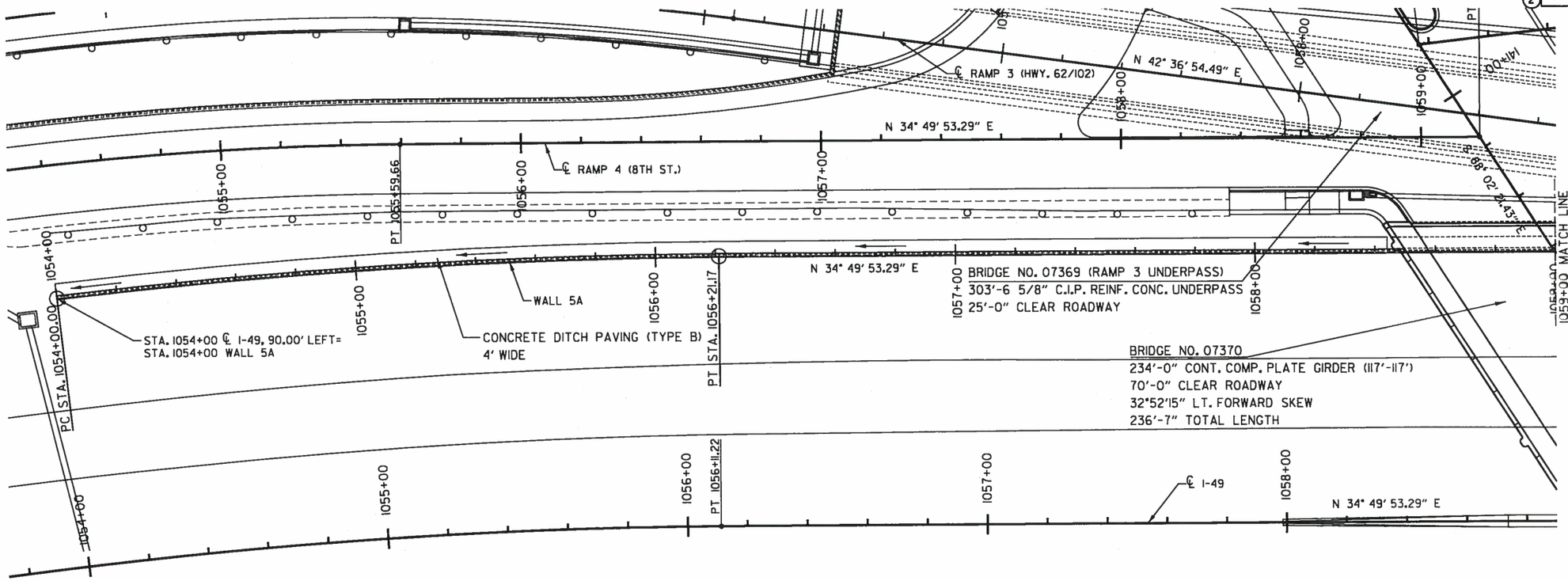
MSE WALL 4 PLAN AND PROFILE
STA. 1055+50.00 TO STA. 1060+13.48

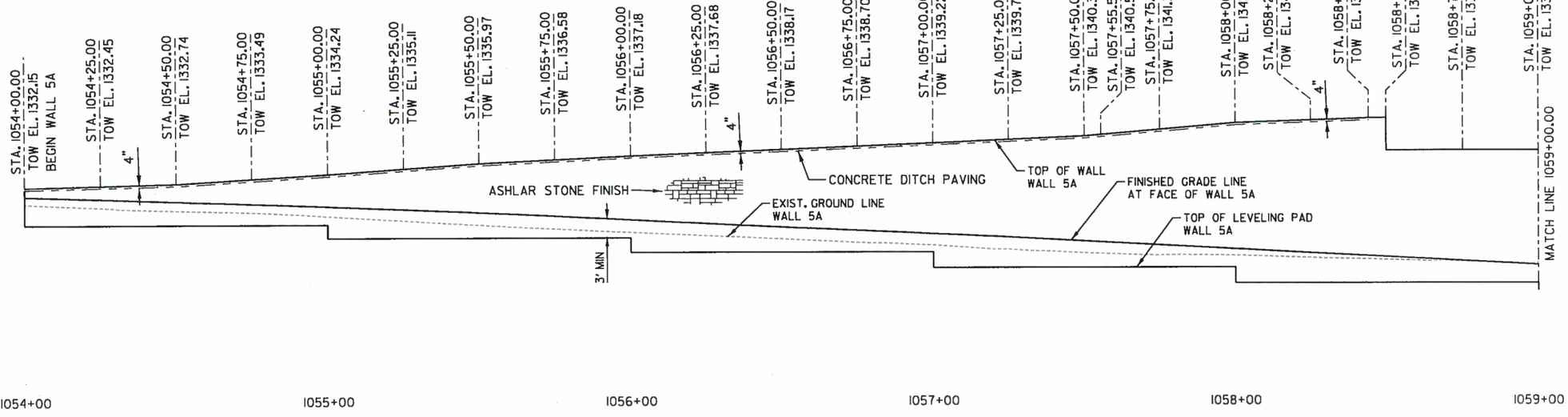
c:\bmcd_llb\pw\dhurt\trn\dms19574\2ll_WALL4_PP_01_120.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
10/27/2016			

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		090376	122	555

MSE WALL 5A PLAN AND PROFILE





STATION	FINISHED GRADE ELEVATION
1054+00.00	1330.67
1054+25.00	1330.25
1054+50.00	1329.81
1054+75.00	1329.40
1055+00.00	1328.94
1055+25.00	1328.43
1055+50.00	1327.91
1055+75.00	1327.32
1056+00.00	1326.69
1056+25.00	1326.04
1056+50.00	1325.45
1056+75.00	1324.87
1057+00.00	1324.30
1057+25.00	1323.73
1057+50.00	1323.06
1057+75.00	1322.39
1058+00.00	1321.72
1058+25.00	1321.06
1058+50.00	1320.40
1058+75.00	1319.73
1059+00.00	1319.10

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
10/27/16

(LOOKING AT FRONT FACE OF MSE WALL)

MSE WALL 5A PLAN AND PROFILE
STA. 1054+00.00 TO STA. 1059+00.00

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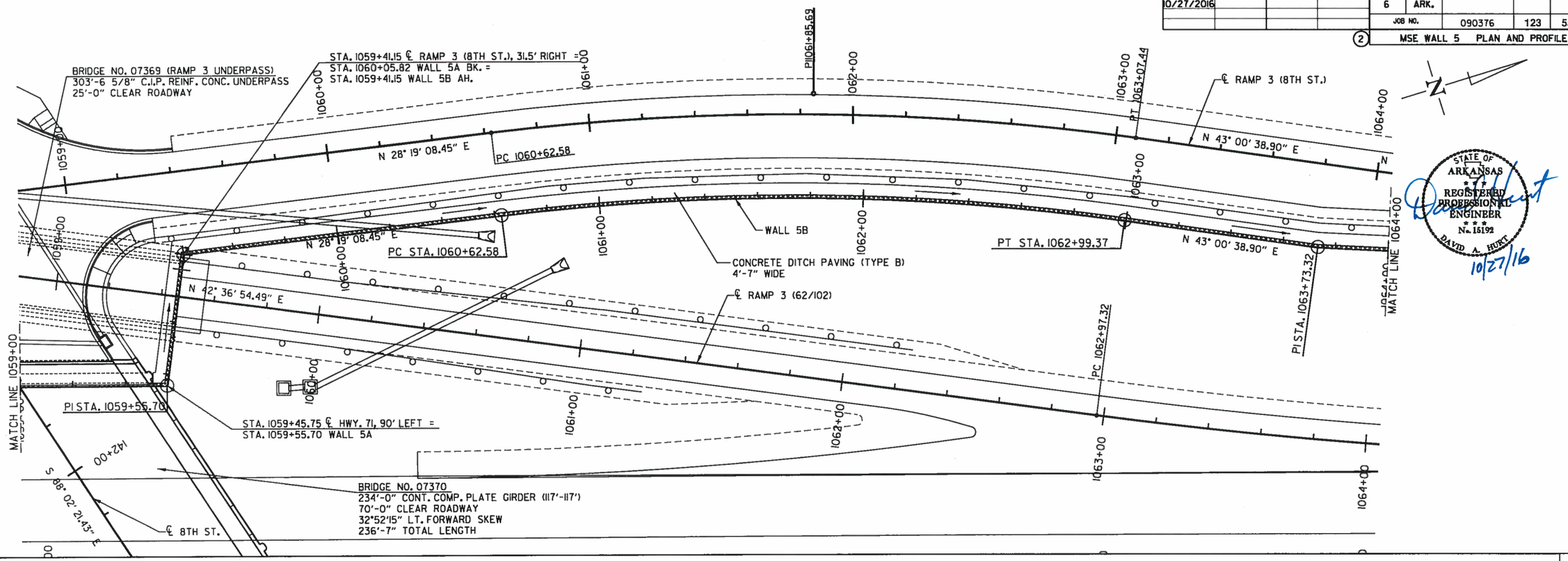
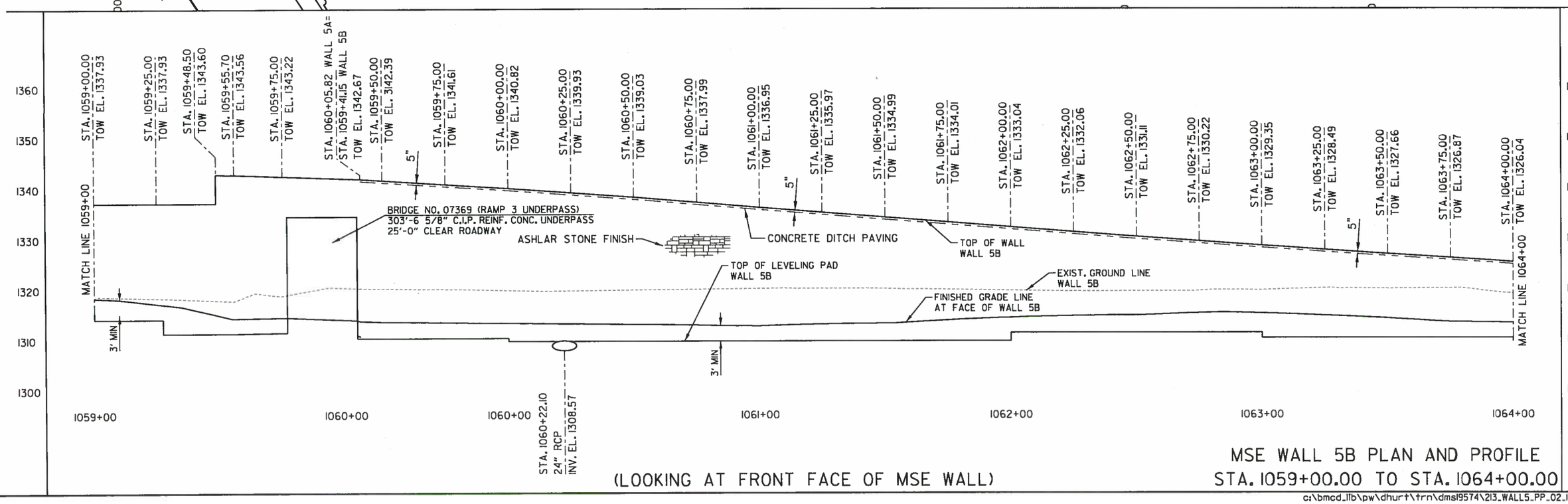
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/27/2016				6	ARK.			
				JOB NO.		090376	123	555

(2) MSE WALL 5 PLAN AND PROFILE

STATION	FINISHED GRADE ELEVATION
1059+00.00	1319.10
1059+25.00	1317.98
1059+50.00	1315.62
1059+75.00	1315.19
1060+05.82	1315.20
1059+41.15	1315.20
1059+50.00	1314.30
1059+75.00	1314.18
1060+00.00	1314.04
1060+25.00	1313.90
1060+50.00	1313.76
1060+75.00	1313.61
1061+00.00	1313.45
1061+25.00	1313.79
1061+50.00	1313.94
1061+75.00	1314.56
1062+00.00	1315.08
1062+25.00	1315.39
1062+50.00	1315.50
1062+75.00	1315.96
1063+00.00	1315.88
1063+25.00	1315.43
1063+50.00	1314.85
1063+75.00	1314.15
1064+00.00	1313.98





(LOOKING AT FRONT FACE OF MSE WALL)

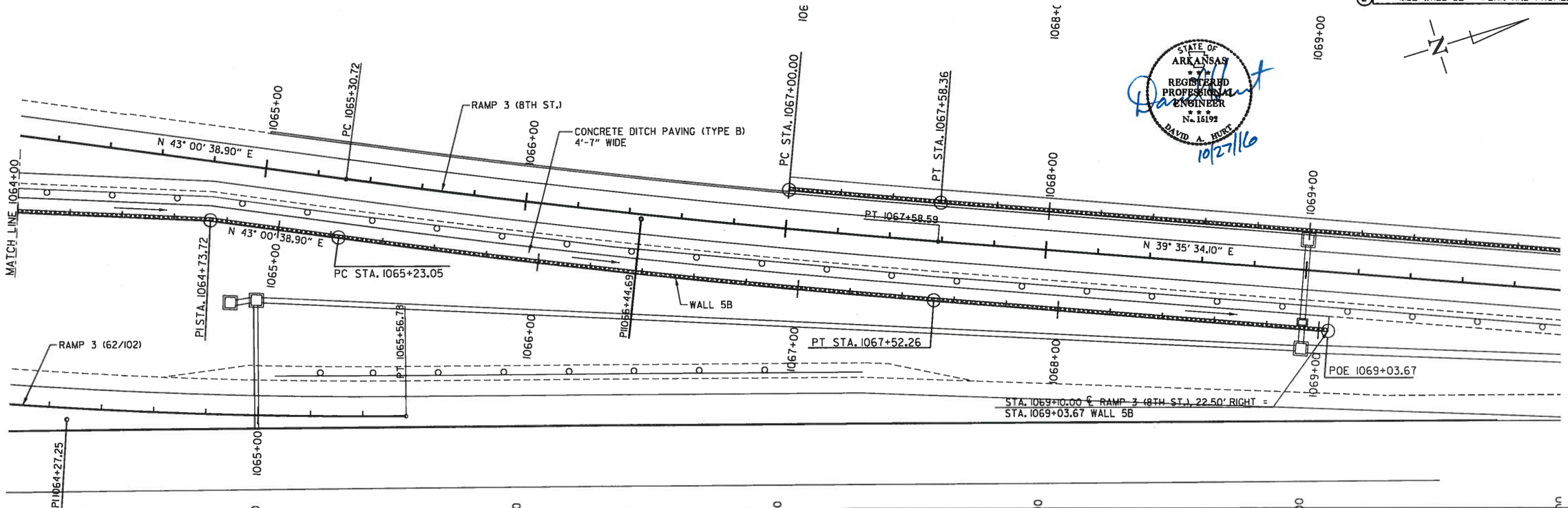
MSE WALL 5B PLAN AND PROFILE
STA. 1059+00.00 TO STA. 1064+00.00

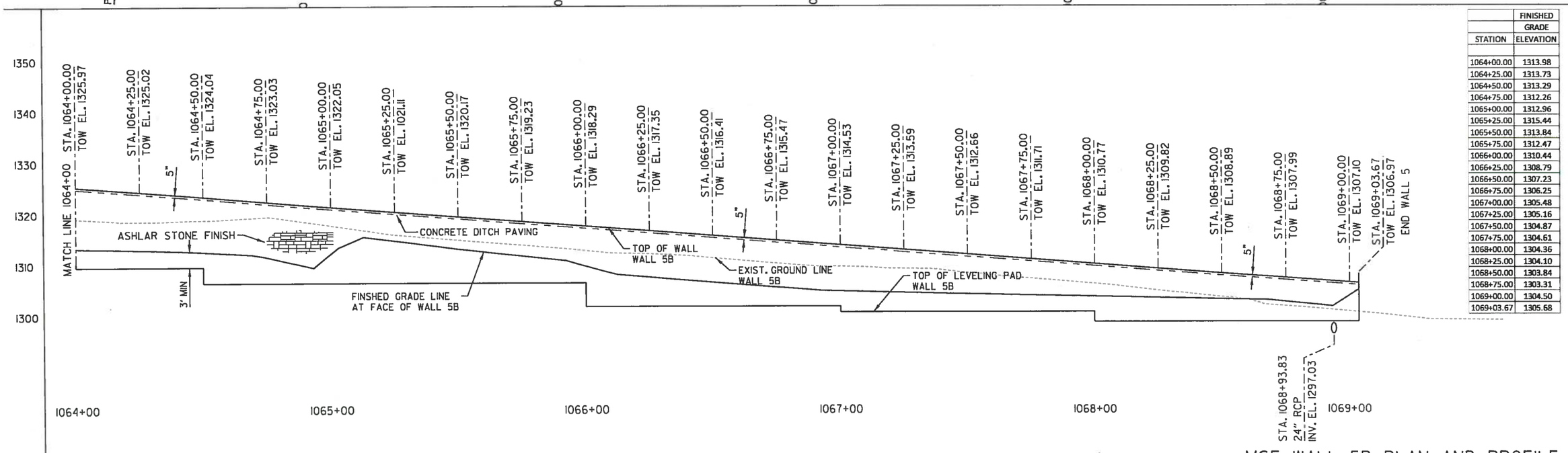
c:\bmcd_lib\pw\dhurt\trn\dms19574\213_WALL5_PP_02_120.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/27/2016				6	ARK.			
				JOB NO.		090376	124	555

(2) MSE WALL 5B PLAN AND PROFILE

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
10/27/16





STATION	FINISHED GRADE ELEVATION
1064+00.00	1313.98
1064+25.00	1313.73
1064+50.00	1313.29
1064+75.00	1312.26
1065+00.00	1312.96
1065+25.00	1315.44
1065+50.00	1313.84
1065+75.00	1312.47
1066+00.00	1310.44
1066+25.00	1308.79
1066+50.00	1307.23
1066+75.00	1306.25
1067+00.00	1305.48
1067+25.00	1305.16
1067+50.00	1304.87
1067+75.00	1304.61
1068+00.00	1304.36
1068+25.00	1304.10
1068+50.00	1303.84
1068+75.00	1303.31
1069+00.00	1304.50
1069+03.67	1305.68

(LOOKING AT FRONT FACE OF MSE WALL)

MSE WALL 5B PLAN AND PROFILE
STA. 1064+00.00 TO STA. 1069+03.67

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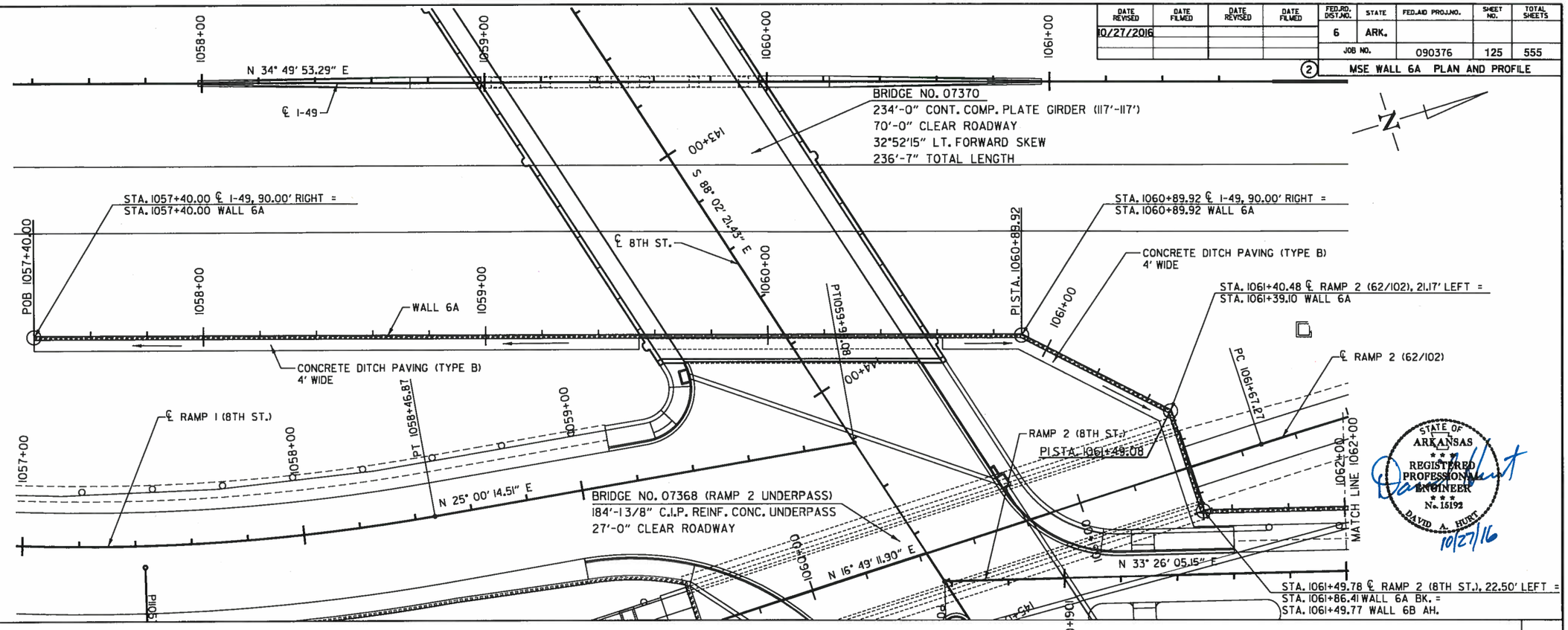
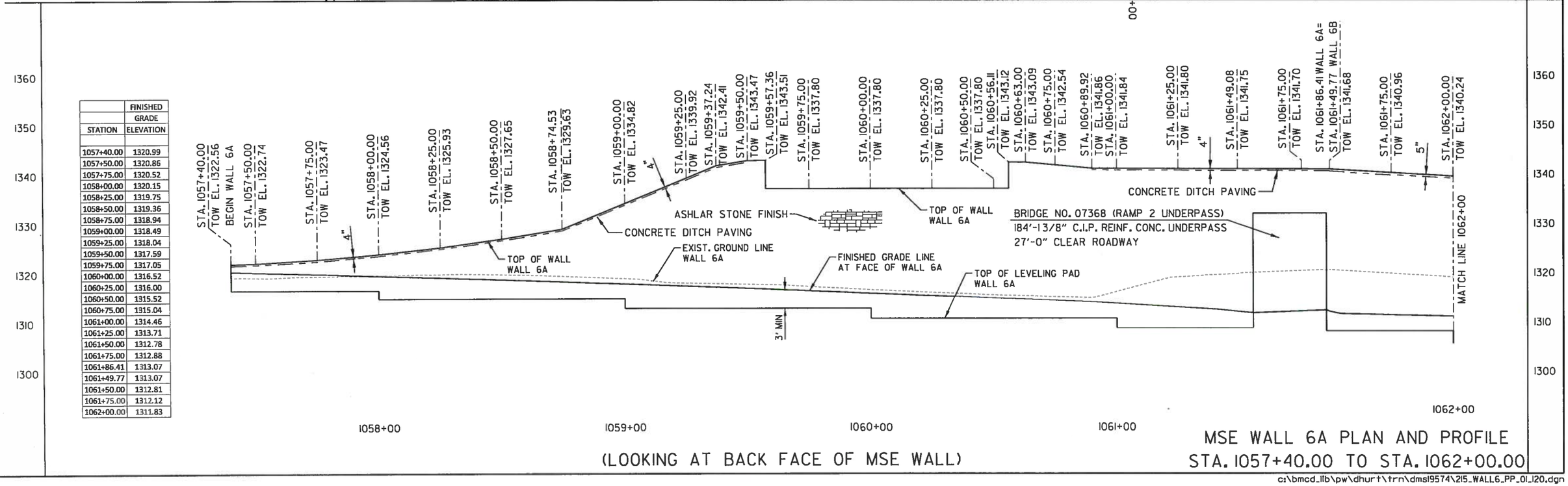
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/27/2016				6	ARK.			
				JOB NO.		090376	125	555

(2) MSE WALL 6A PLAN AND PROFILE



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
10/27/16

STATION	FINISHED GRADE ELEVATION
1057+40.00	1320.99
1057+50.00	1320.86
1057+75.00	1320.52
1058+00.00	1320.15
1058+25.00	1319.75
1058+50.00	1319.36
1058+75.00	1318.94
1059+00.00	1318.49
1059+25.00	1318.04
1059+50.00	1317.59
1059+75.00	1317.05
1060+00.00	1316.52
1060+25.00	1316.00
1060+50.00	1315.52
1060+75.00	1315.04
1061+00.00	1314.46
1061+25.00	1313.71
1061+50.00	1312.78
1061+75.00	1312.88
1061+86.41	1313.07
1061+49.77	1313.07
1061+50.00	1312.81
1061+75.00	1312.12
1062+00.00	1311.83



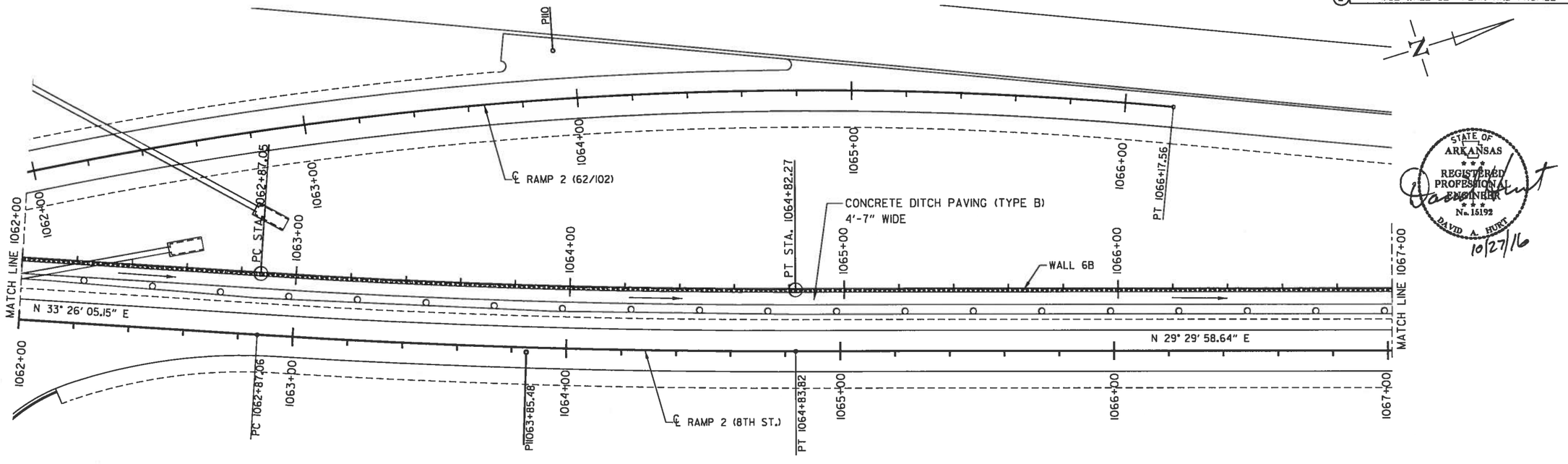
(LOOKING AT BACK FACE OF MSE WALL)

MSE WALL 6A PLAN AND PROFILE
STA. 1057+40.00 TO STA. 1062+00.00

c:\bmcd_llb\pw\dhurt\trn\dms19574\215_WALL6_PP_01_120.dgn

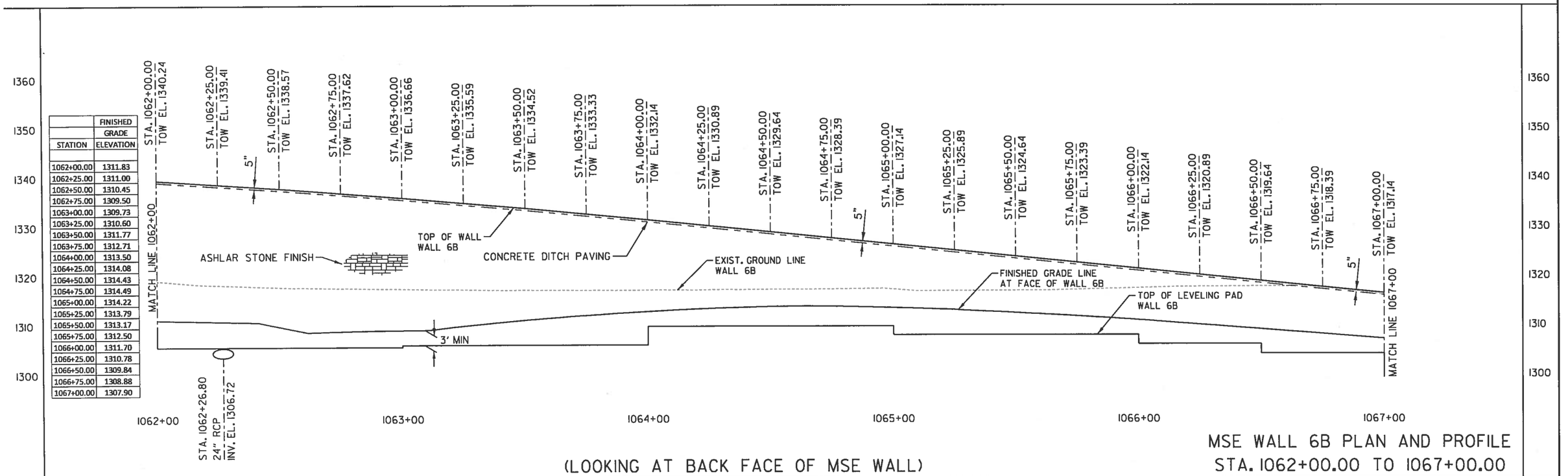
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/27/2016				6	ARK.			
				JOB NO.		090376	126	555

(2) MSE WALL 6B PLAN AND PROFILE



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
10/27/16

STATION	FINISHED GRADE ELEVATION
1062+00.00	1311.83
1062+25.00	1311.00
1062+50.00	1310.45
1062+75.00	1309.50
1063+00.00	1309.73
1063+25.00	1310.60
1063+50.00	1311.77
1063+75.00	1312.71
1064+00.00	1313.50
1064+25.00	1314.08
1064+50.00	1314.43
1064+75.00	1314.49
1065+00.00	1314.22
1065+25.00	1313.79
1065+50.00	1313.17
1065+75.00	1312.50
1066+00.00	1311.70
1066+25.00	1310.78
1066+50.00	1309.84
1066+75.00	1308.88
1067+00.00	1307.90

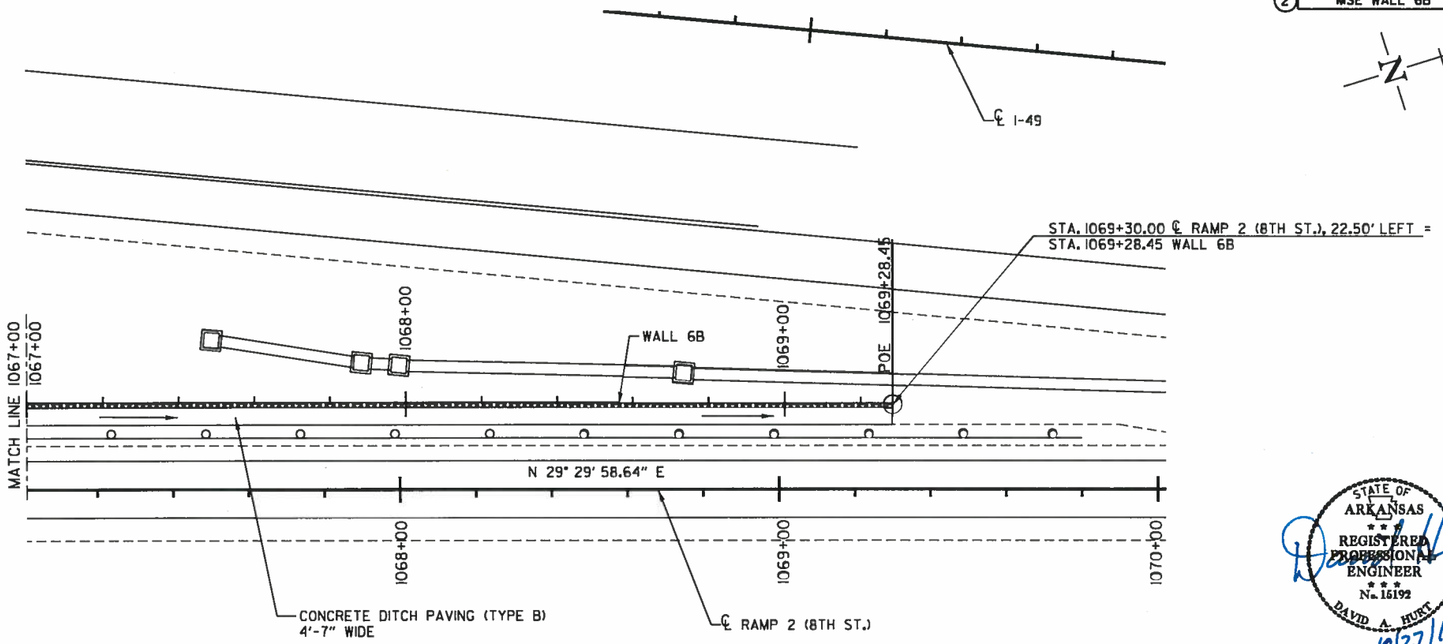


(LOOKING AT BACK FACE OF MSE WALL)

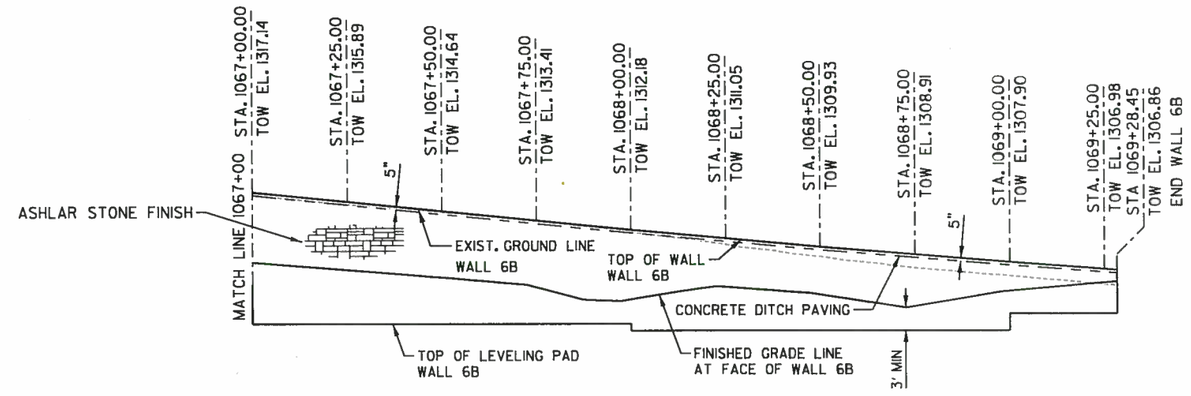
MSE WALL 6B PLAN AND PROFILE
STA. 1062+00.00 TO 1067+00.00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/27/2016				6	ARK.			
				JOB NO.		090376	127	555

(2) MSE WALL 6B PLAN AND PROFILE



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
10/27/16



(LOOKING AT BACK FACE OF MSE WALL)

STATION	FINISHED GRADE ELEVATION
1067+00.00	1307.90
1067+25.00	1306.90
1067+50.00	1305.88
1067+75.00	1304.60
1068+00.00	1302.99
1068+25.00	1304.63
1068+50.00	1303.62
1068+75.00	1302.08
1069+00.00	1304.09
1069+25.00	1305.19
1069+28.45	1305.35

MSE WALL 6B PLAN AND PROFILE
STA. 1067+00.00 TO STA. 1069+28.45

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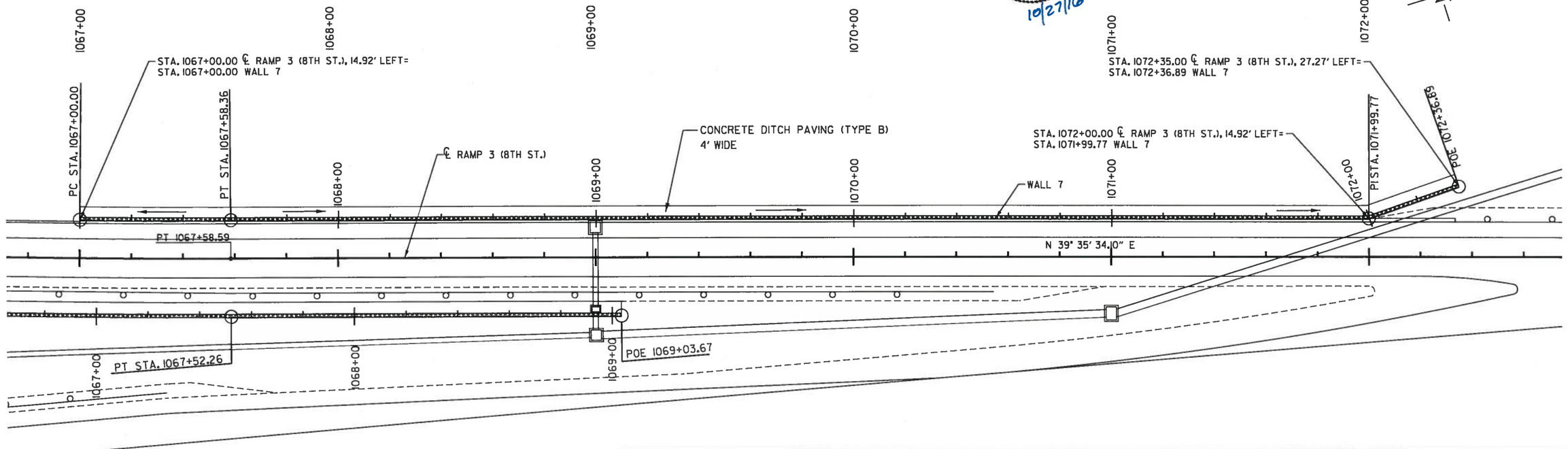
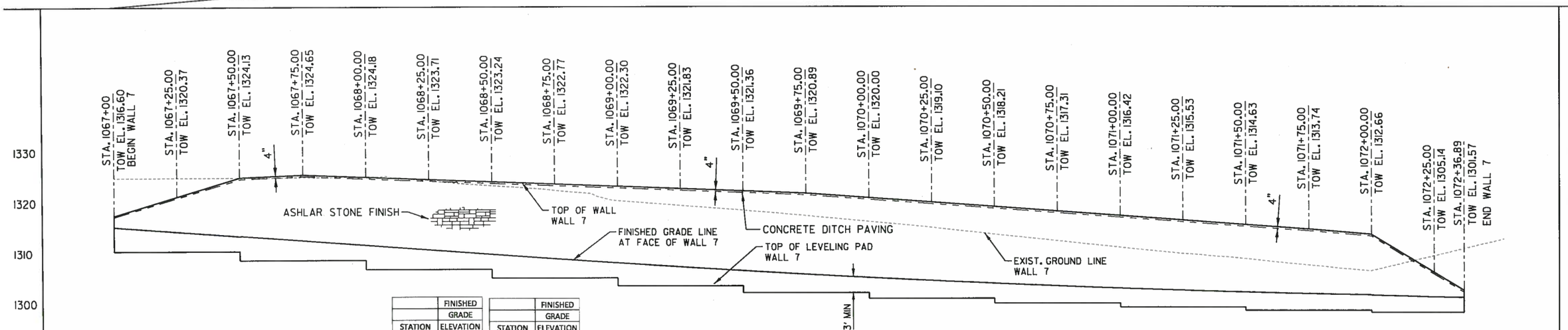
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/27/2016				6	ARK.			
				JOB NO.		090376	128	555

(2) MSE WALL 7 PLAN AND PROFILE

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
10/27/16





STATION	FINISHED GRADE ELEVATION
1067+00.00	1314.43
1067+25.00	1313.50
1067+50.00	1312.51
1067+75.00	1311.63
1068+00.00	1310.71
1068+25.00	1309.78
1068+50.00	1308.86
1068+75.00	1307.96
1069+00.00	1307.11
1069+25.00	1306.30
1069+50.00	1305.54
1069+75.00	1304.82

STATION	FINISHED GRADE ELEVATION
1070+00.00	1304.16
1070+25.00	1303.55
1070+50.00	1302.98
1070+75.00	1302.47
1071+00.00	1302.01
1071+25.00	1301.60
1071+50.00	1301.25
1071+75.00	1300.94
1072+00.00	1300.69
1072+25.00	1300.60
1072+36.89	1300.55

(LOOKING AT FRONT FACE OF MSE WALL)

MSE WALL 7 PLAN AND PROFILE
STA. 1067+00.00 TO STA. 1072+36.89

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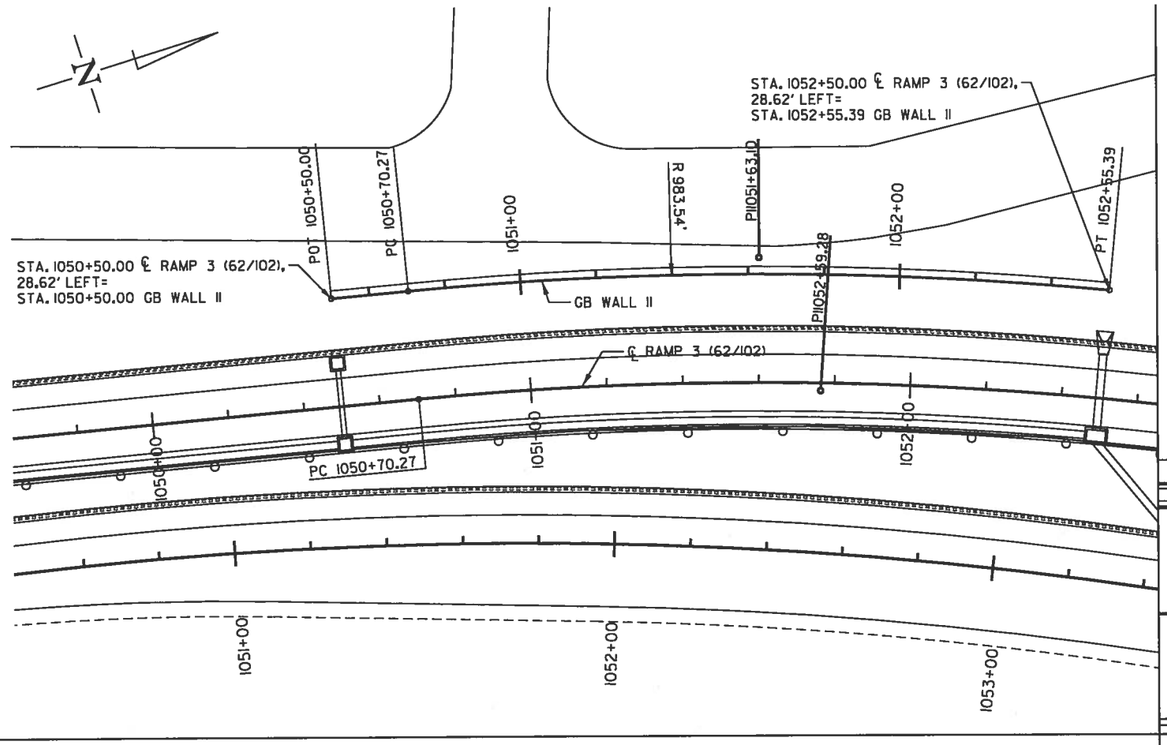
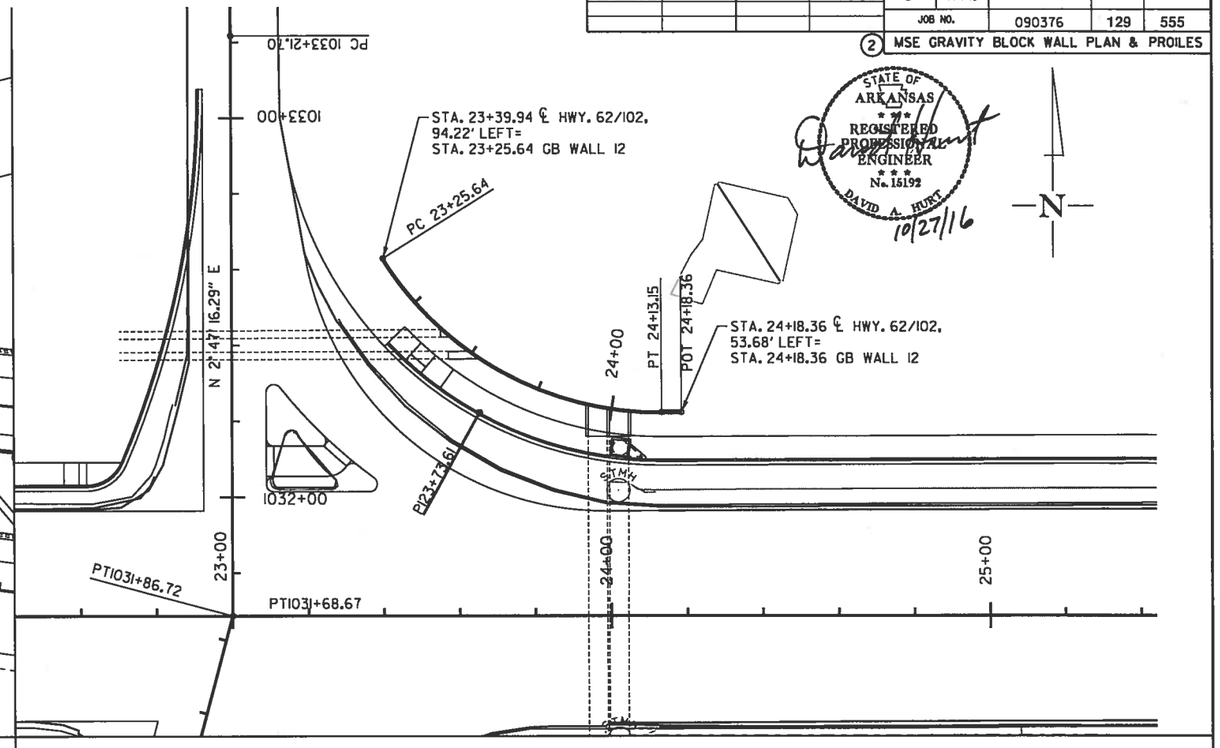
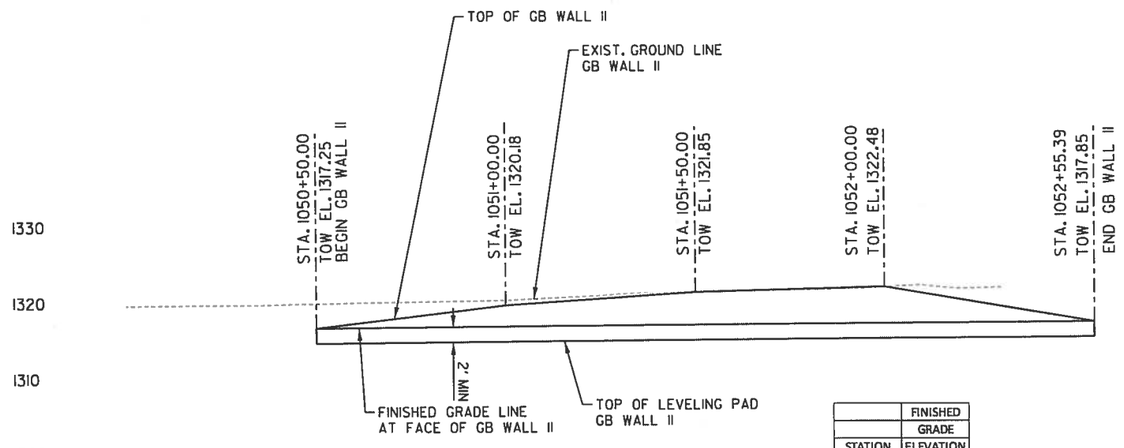
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/27/2016				6	ARK.			
				JOB NO.		090376	129	555

(2) MSE GRAVITY BLOCK WALL PLAN & PROILES



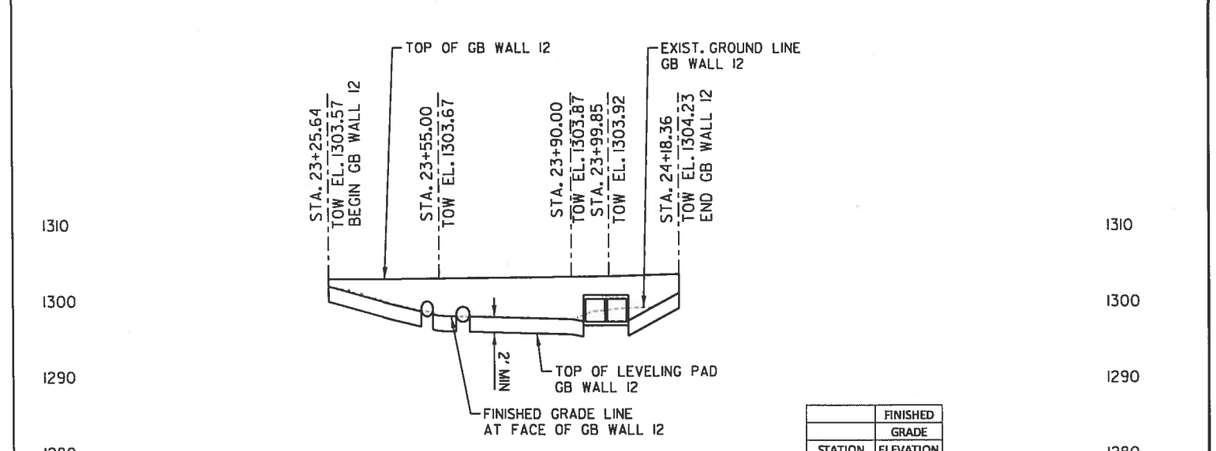


STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HURT
10/27/16



STATION	FINISHED GRADE ELEVATION
1050+50.00	1317.25
1051+00.00	1317.40
1051+50.00	1317.55
1052+00.00	1317.70
1052+55.39	1317.85

(LOOKING AT FRONT FACE OF GRAVITY BLOCK WALL)



STATION	FINISHED GRADE ELEVATION
23+25.64	1302.62
23+55.00	1298.77
23+90.00	1298.28
24+18.36	1301.77

(LOOKING AT BACK FACE OF GRAVITY BLOCK WALL)

MSE GRAVITY BLOCK WALL PLAN & PROFILES

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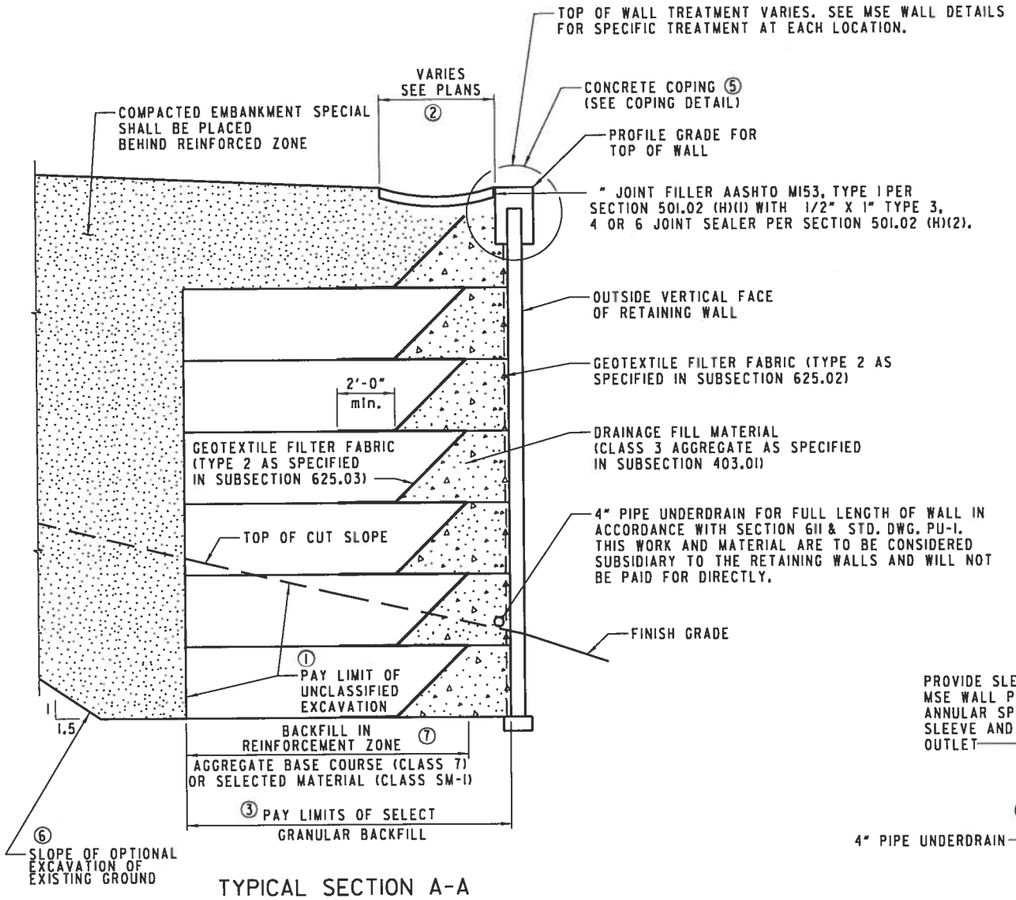
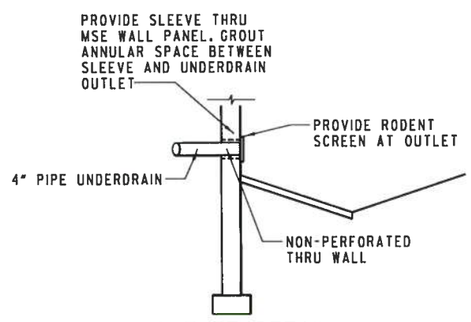
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/6/2016				6	ARK.			
10/17/2016				JOB NO.		090376	130	555

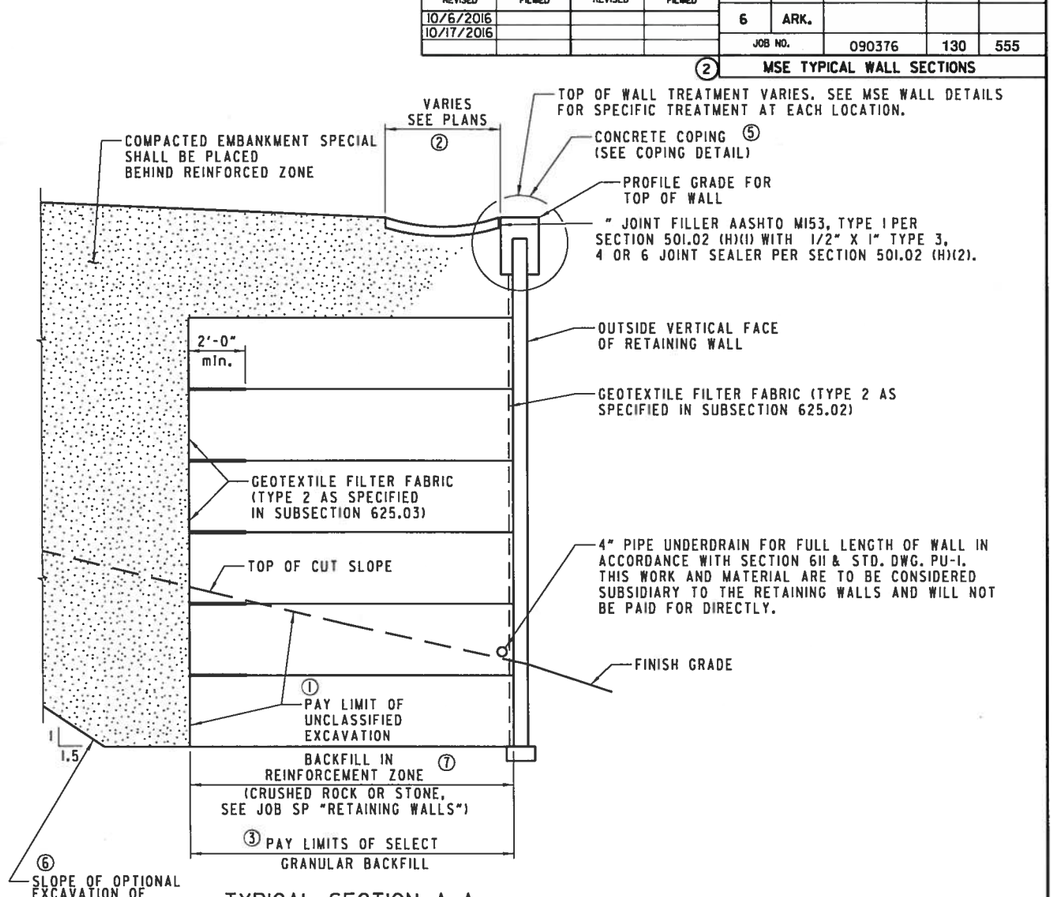
(2) MSE TYPICAL WALL SECTIONS



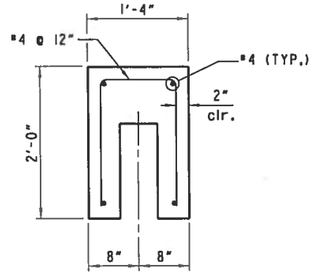
TYPICAL SECTION A-A
(BACKFILL METHOD A)
NOT TO SCALE



OUTLET DETAIL
NO SCALE



TYPICAL SECTION A-A
(BACKFILL METHOD B)
NOT TO SCALE



COPING DETAIL(5)
SCALE: 1"=1'-0"

(1) EXCAVATION REQUIRED FOR REINFORCING ZONE, LEVELING PAD AND PLACEMENT OF COMPACTED EMBANKMENT SPECIAL WILL BE PAID FOR UNDER THE PAY ITEM "UNCLASSIFIED EXCAVATION", SEE SPECIAL PROVISION "RETAINING WALLS".

NOTE:

ALL BACKFILL AND DRAINAGE FILL MATERIAL WITHIN THE REINFORCEMENT ZONE SHALL BE INCLUDED IN THE PRICE BID FOR "SELECT GRANULAR BACKFILL". SELECT MATERIAL REQUIRED BEHIND REINFORCED ZONE SHALL BE INCLUDED IN THE PRICE BID FOR "COMPACTED EMBANKMENT". SEE SPECIAL PROVISION "COMPACTED EMBANKMENT SPECIAL".

(2) VARIABLE WIDTH TYPE B CONCRETE DITCH PAVING, SEE ROADWAY PLANS. FOR DITCH PAVING, SEE STANDARD DWG. NO. CDP-1. WEEP HOLES SHALL BE ELIMINATED.

(3) A MINIMUM STRAP LENGTH OF 0.8 TIMES WALL HEIGHT MUST BE SUPPLIED TO OBTAIN GLOBAL STABILITY.

(4) MSE WALL FOUNDATIONS SHOULD BEAR ON THE STIFF TO VERY STIFF NATIVE CLAYS. IF SOFT AND/OR UNSUITABLE MATERIALS ARE ENCOUNTERED, THEY ARE TO BE REMOVED BY UNDERCUTTING TO THE LIMITS SHOWN OR AT THE DIRECTION OF THE ENGINEER. THE UNDERCUTTING, BACKFILL, AND PLACEMENT OF THE BACKFILL SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISION "RETAINING WALLS". THE BACKFILL MATERIAL SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION "COMPACTED EMBANKMENT SPECIAL".

(5) PRECAST CONCRETE COPING MAY SUBSTITUTE FOR THE CAST-IN-PLACE COPING SHOWN. REINFORCING STEEL AND CONCRETE FOR THE COPING SHALL NOT BE PAID FOR DIRECTLY AND CONSIDERED SUBSIDIARY TO RETAINING WALL ITEMS.

(6) THE CONTRACTOR HAS THE OPTION OF USING A CUT SLOPE OR SHORING TO MAINTAIN STABILITY OF THE CUT. ANY EXCAVATION BEYOND THAT REQUIRED FOR BACKFILL WITH SELECT GRANULAR BACKFILL OR ANY SHORING USED WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO THE ITEM "SELECT GRANULAR BACKFILL".

(7) FOR MSE WALLS PLACED IN FILL AREAS, COMPACTED EMBANKMENT BELOW THE REINFORCED ZONE AND THE LEVELING PAD SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION "COMPACTED EMBANKMENT SPECIAL". THE PROPERTIES OF THIS MATERIAL SHALL BE INCLUDED IN THE MSE WALL DESIGN.

NOTES:

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 5TH EDITION (2010) WITH CURRENT INTERIMS.

SEISMIC ZONE: 1 S_{D1} = 0.087 SITE CLASS: C

A FACTORED BEARING RESISTANCE OF 5,000 PSF IS RECOMMENDED FOR THE EXISTING FOUNDATION MATERIAL BASED ON AN ESTIMATED WIDTH OF THE REFINFORCED ZONE.

4" PIPE UNDERDRAIN SHALL MAINTAIN A MINIMUM SLOPE OF 1/8" PER FOOT TOWARD NEAREST OUTLET.

DETAILS ARE APPROXIMATE. WALL DIMENSIONS MAY VARY DEPENDING ON WALL DESIGN SELECTED.

SEE SP JOB NO. 090376 "RETAINING WALLS" FOR ADDITIONAL INFORMATION.

BORING LOGS, INCLUDING LABORATORY RESULTS, MAY BE OBTAINED FROM THE ENGINEER.

"ASHLAR STONE" PATTERN SHALL BE APPLIED TO ALL MSE WALL PANELS. THE APPLICATION OF THE PATTERN WILL NOT BE PAID FOR DIRECTLY AND WILL BE CONSIDERED INCIDENTAL TO THE ITEM "MSE RETAINING WALL".

CLASS 3 TEXTURED COATING FINISH SHALL BE APPLIED TO ALL EXPOSED SURFACES OF RETAINING WALLS IN ACCORDANCE WITH SUBSECTION 802.19. THE COLOR OF THE FINISH SHALL BE GRAY AND SHALL MATCH FEDERAL STANDARD 595B, COLOR CHIP NO. 37150. TEXTURED COATING FINISH OF EXPOSED SURFACES OF THE RETAINING WALLS SHALL BE APPLIED AFTER FINAL GROUND LINE OF THE CUT OR EMBANKMENT HAVE BEEN ESTABLISHED.

MSE TYPICAL WALL SECTIONS

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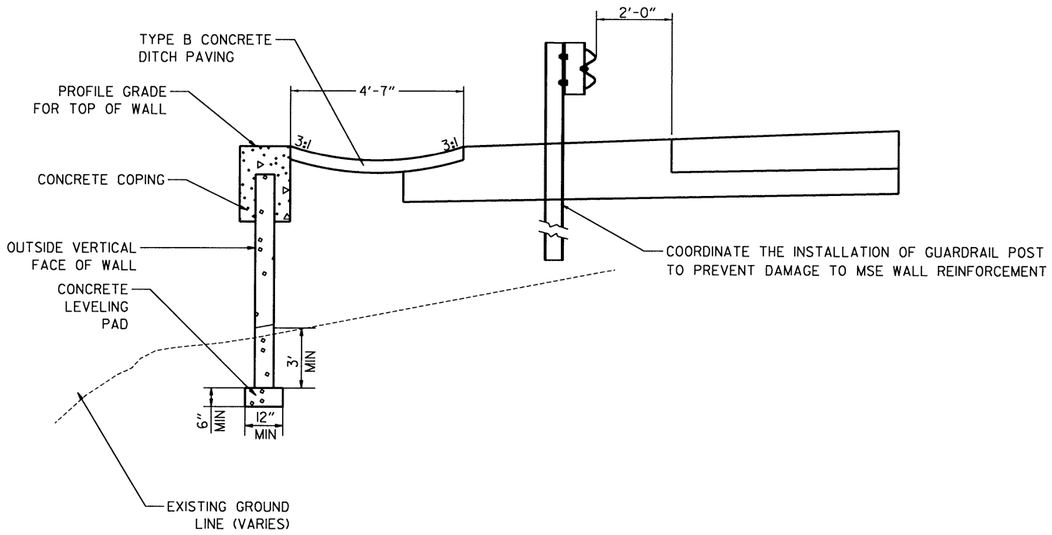
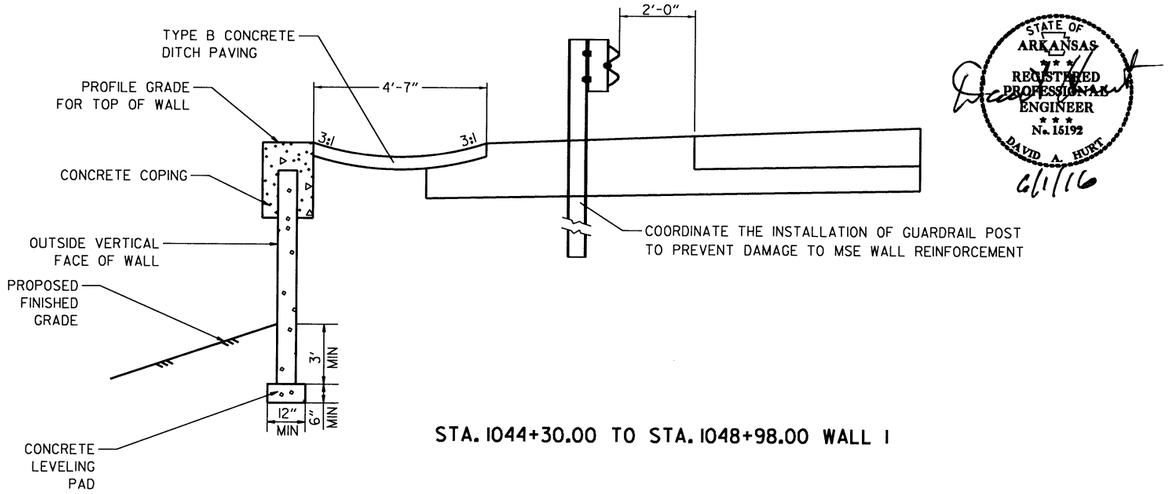
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	131	555
				(2)	MSE WALL DETAILS			

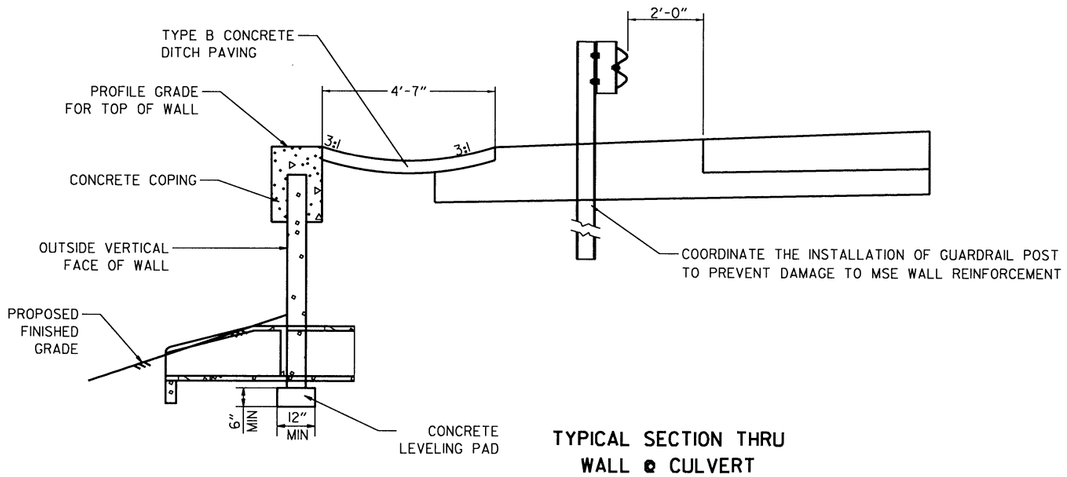


STA. 1038+16.55 TO STA. 1044+30.00 WALL 1



STA. 1044+30.00 TO STA. 1048+98.00 WALL 1

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HURT
6/1/16



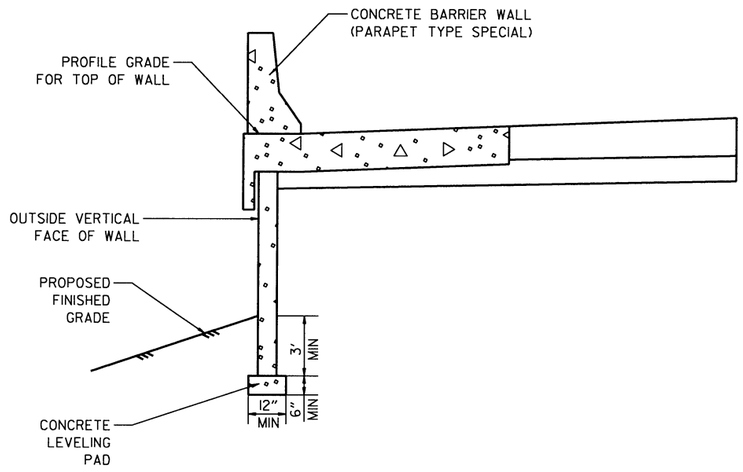
TYPICAL SECTION THRU WALL @ CULVERT

MSE WALL DETAILS
SHEET 1 OF 5

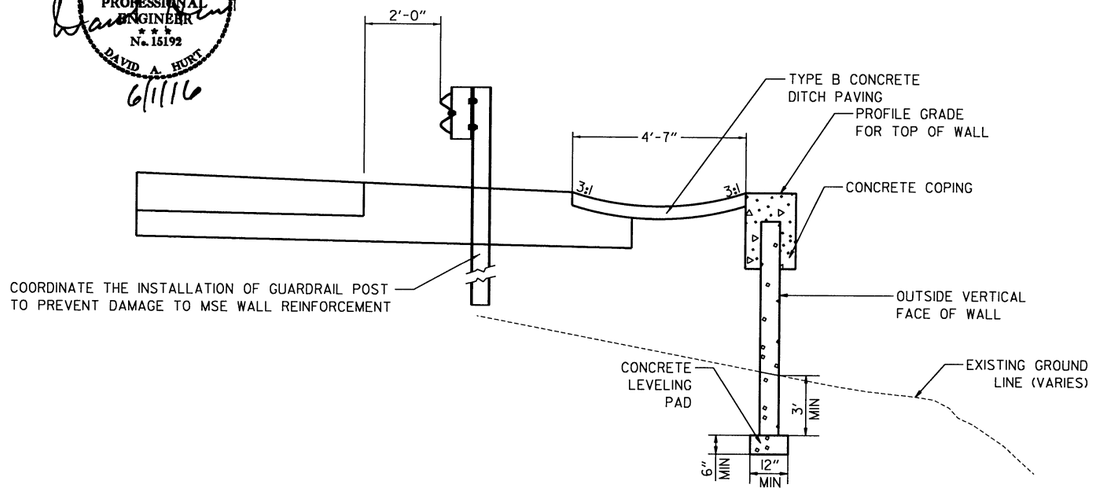
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	132	555

(2) MSE WALL DETAILS

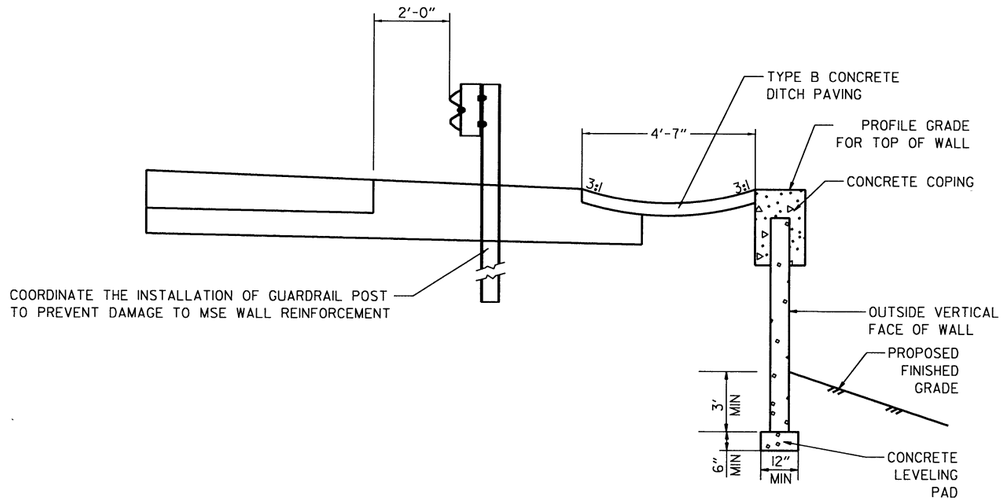
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



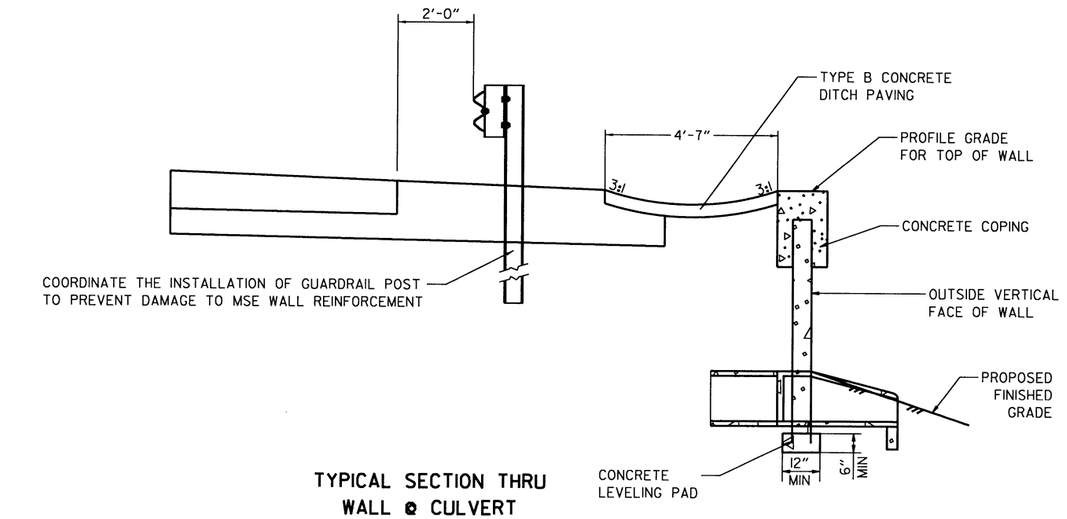
STA. 1049+51.07 TO STA. 1053+70.58 WALL 1



STA. 1040+62.55 TO STA. 1050+00.00 WALL 2



STA. 1050+00.00 TO STA. 1052+39.00 WALL 2



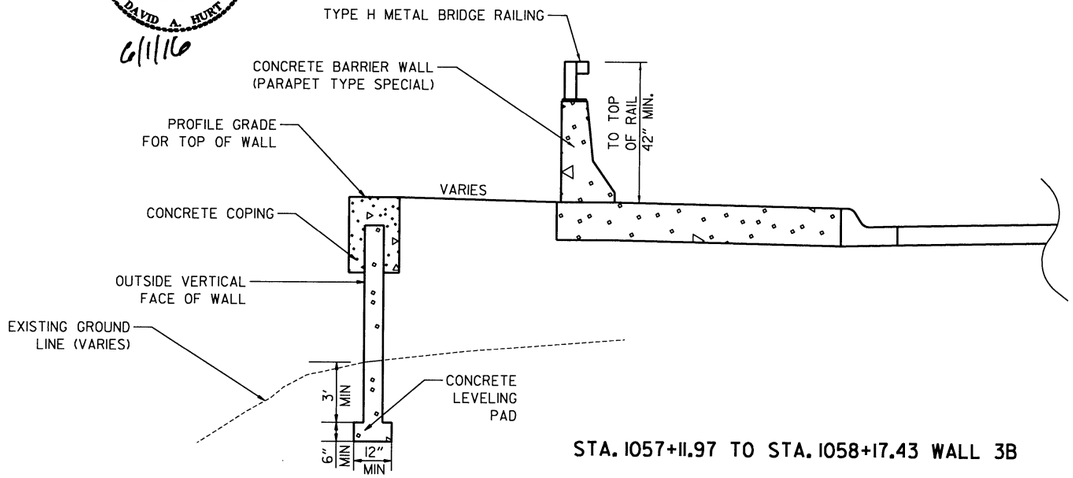
TYPICAL SECTION THRU
WALL @ CULVERT

MSE WALL DETAILS
SHEET 2 OF 5

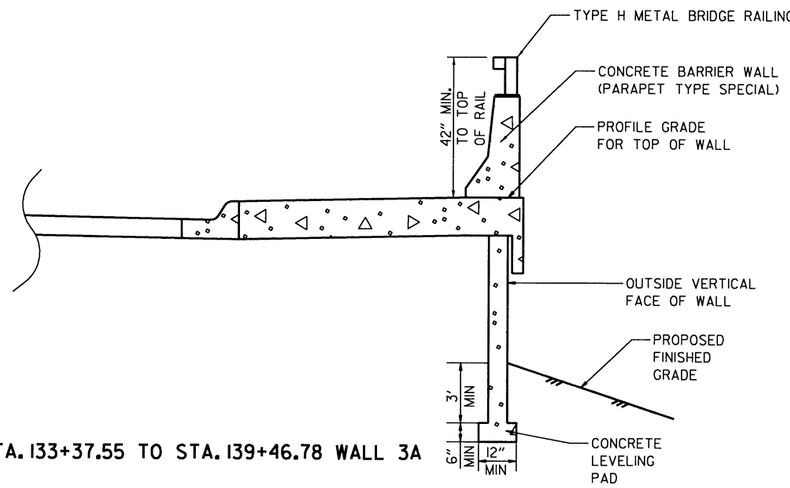
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	133	555

(2) MSE WALL DETAILS

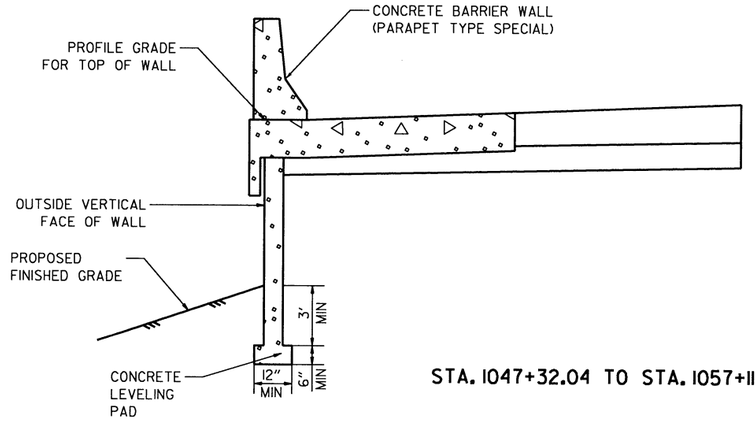
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HURT
6/11/16



STA. 1057+11.97 TO STA. 1058+17.43 WALL 3B



STA. 133+37.55 TO STA. 139+46.78 WALL 3A



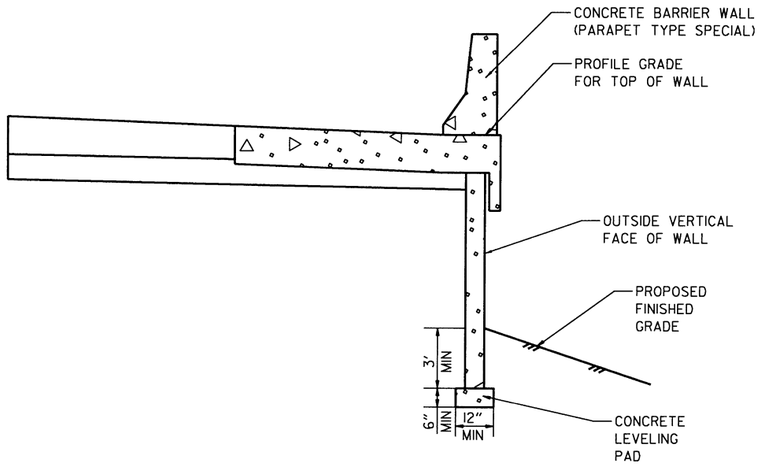
STA. 1047+32.04 TO STA. 1057+11.97 WALL 3B

MSE WALL DETAILS
SHEET 3 OF 5

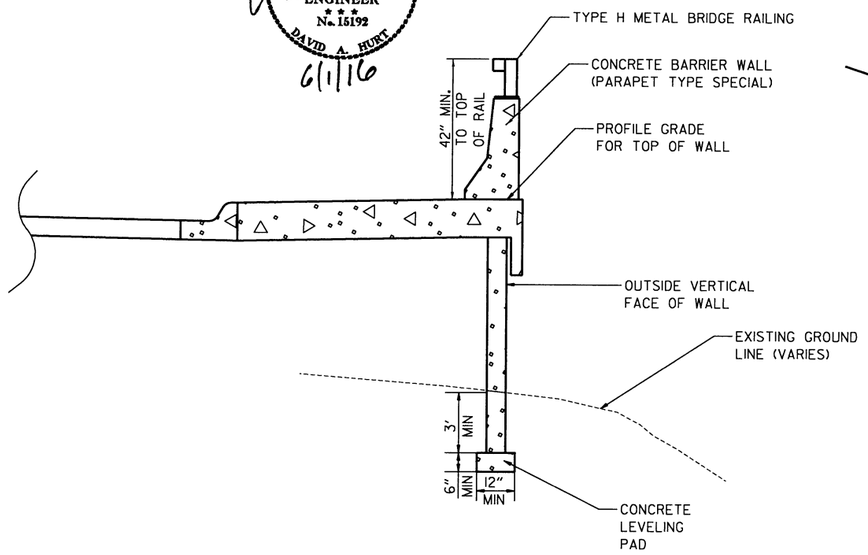
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	134	555

(2) MSE WALL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



STA. 1055+50.00 TO STA. 1059+03.45 WALL 4



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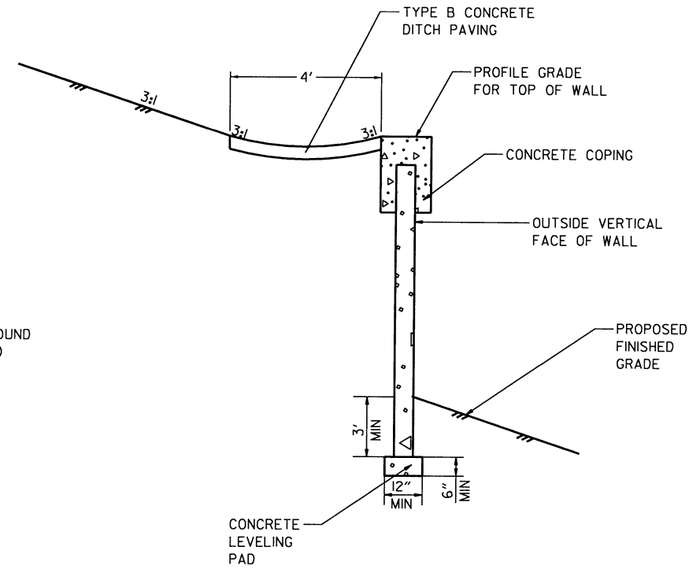

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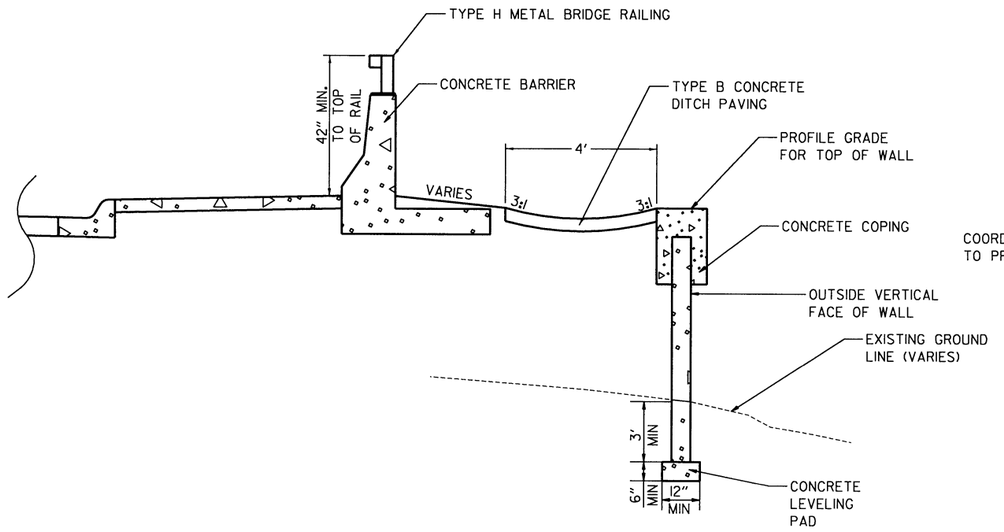

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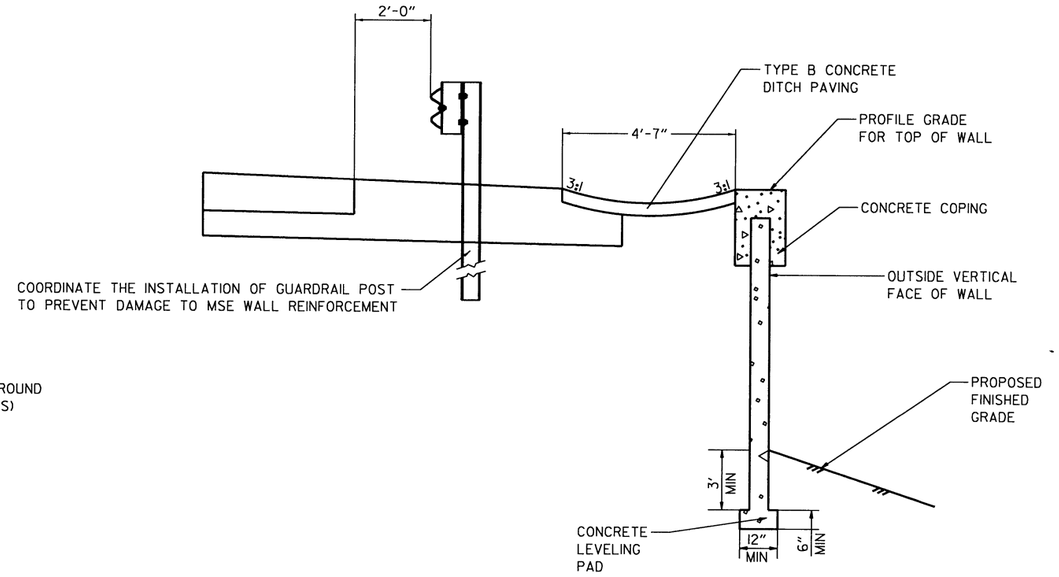


STA. 1059+41.15 TO STA. 1069+03.67 WALL 5B

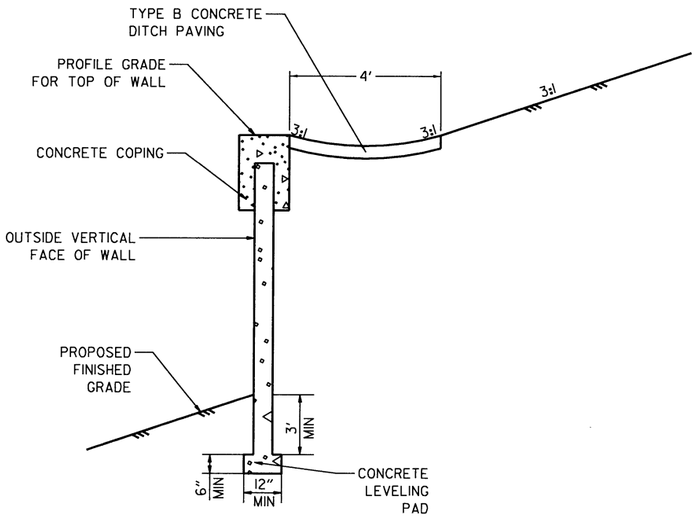
MSE WALL DETAILS
SHEET 4 OF 5

c:\bmcd_11b\pw\dhurt\trn\dms19574\233_WALL DETAIL_04_090218.DGN

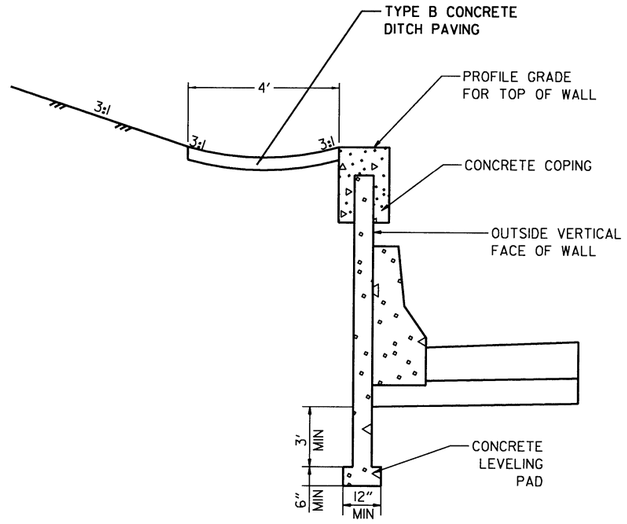
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	135	555

(2) MSE WALL DETAILS

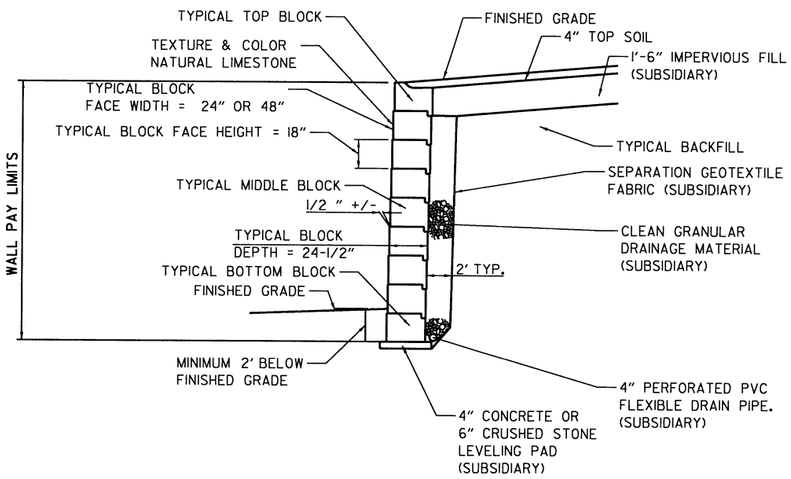
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



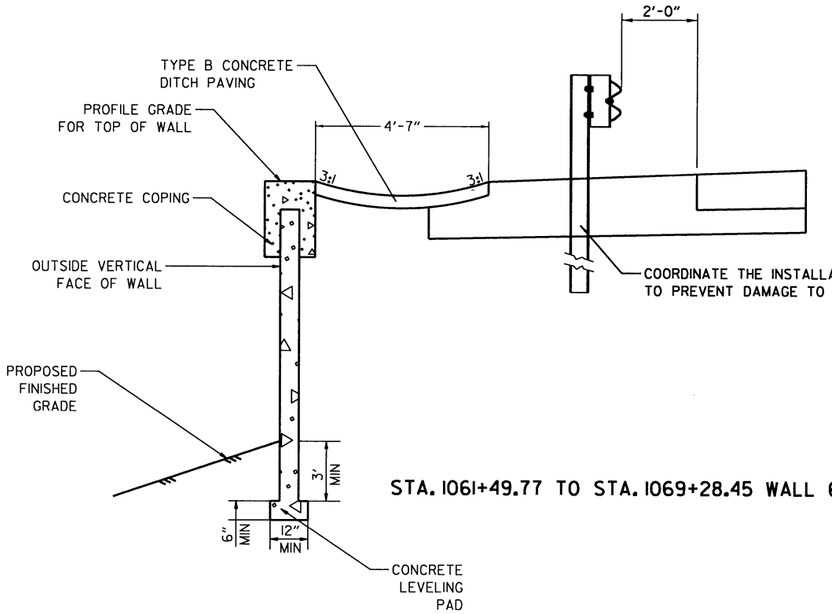
STA. 1057+40.00 TO STA. 1061+86.41 WALL 6A



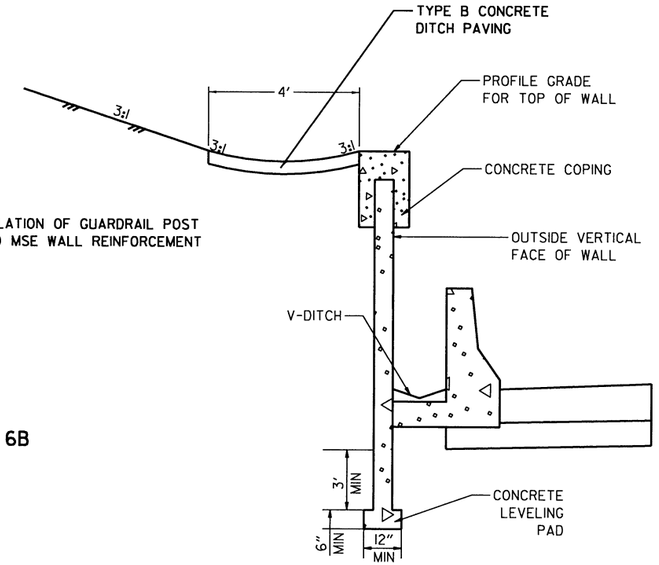
STA. 1067+00.00 TO STA. 1071+99.77 WALL 7



TYPICAL GRAVITY BLOCK (GB) RETAINING WALL SECTION
GB WALL 11 & GB WALL 12



STA. 1061+49.77 TO STA. 1069+28.45 WALL 6B



STA. 1071+99.77 TO STA. 1072+36.89 WALL 7

MSE WALL DETAILS
SHEET 5 OF 5

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
9/27/16				6	ARK.			
10/17/16				JOB NO.		090376	136	555

(2) SUMMARY OF TRAFFIC SIGNAL QUANTITIES & NOTES

TRAFFIC SIGNAL NOTES

1. PERFORM ELECTRICAL WORK IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (2014) NATIONAL ELECTRICAL CODE, NFPA 101 (2000) LIFE SAFETY CODE, STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.
2. EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (EGC) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST POLE. SOLIDLY BOND EGC 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.
3. ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY 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/F1F3 USE RATED, WITH GROUND TYPICAL), AND PERFORM WIRING TO TAP INTO THE CITY'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, ARE NEEDED WHERE STREET LIGHTING IS INCLUDED. AS PART OF THE SIGNAL INSTALLATION, STREET LIGHTING CIRCUIT (2C/#12 AWG UF RATED, TYPICAL) SHALL BE KEPT FROM THE CIRCUIT SERVING THE TRAFFIC SIGNAL CONTROL EQUIPMENT FROM LHE POINT OF TIE-IN AT THE SECONDARY BREAKER PROVIDED BY THE CONTRACTOR.
4. CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE.
5. TRAFFIC CONTROLLER CABINET AND LAYOUT SHALL BE SUCH THAT IT IS NOT NECESSARY TO SHUT DOWN POWER OR REMOVE LOAD SWITCHES IN ORDER TO EASILY TEST OR MODIFY DETECTOR INPUTS TO THE CONTROLLER.
6. CONTROLLER CABINET SHALL BE WIRED SUCH THAT DURING FLASH OPERATIONS POWER TO THE LOAD SWITCHES CANNOT BACKFEED TO LOAD SWITCH POWER BUSS.
7. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE ARKANSAS HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS AND DETAILS AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITIONS.
8. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY PUSHING OR BORING METHODS. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD AS SHOWN IN THE DETAILS MAY BE USED.
9. TRAFFIC SIGNAL POLES SHALL BE BLACK POWDER COAT OVER GALVANIZATION AND SHALL MEET CITY OF BENTONVILLE SPECIFICATIONS INCLUDING ANY REQUIRED DECORATIVE FEATURES. BACKPLATES SHALL BE SUPPLIED FOR ALL SIGNAL HEADS.
10. PAVEMENT MARKING SHOWN FOR REFERENCE ONLY. SEE PAVEMENT MARKING PLAN SHEETS.
11. 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 SPECIAL DETAILS). PAYMENT WILL BE INCLUDED IN SECTION 714, AHTD STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
12. ALL BOXES SHALL BE (TYPE 2) UNLESS OTHERWISE INDICATED. ALL CONDUIT SHALL BE 3" DIAMETER UNLESS SPECIFIED ON PLANS.
13. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT
14. LUMINAIRE ASSEMBLIES SHALL BE OF THE FULL CUTOFF TYPE.
15. 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. COMBINATION (COMB.) DETECTORS SHALL ALSO BE PROGRAMMED TO PROVIDE VEHICLE COUNT/OCCUPANCY DATA.
16. 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, 38 FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE LUMINAIRE ARM. WHERE THE POLE SCHEDULE INDICATES A TRAFFIC SIGNAL POLE WITIHOUT A LUMINAIRE ARM, A HEIGHT OF 21' SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE TRAFFIC SIGNAL MAST ARM. AN ADDITIONAL 6 FEET SHOULD BE USED DIRECTLY ABOVE "VIDEO DETECTOR" AT LOCATIONS SHOWN ON THE SIGNAL PLANS.
17. THE DESIRABLE MINIMUM DISTANCE FROM THE FACE OF ROADWAY CURB OR SHOULDER EDGE TO THE FACE OF NON-BREAKAWAY POLE OR OBSTRUCTION IS 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 OBSTRUCTION. TRAFFIC SIGNAL POLES OR ANY OTHER NON-BREAKAWAY OBSTRUCTION SHALL NOT BE INSTALLED WITHIN THE CLEAR ZONE.
18. 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 PLAN EMBEDMENT LENGTH IS KEYED INTO COMPETENT
19. 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 THE POLE COVER IS MISSING. PAYMENT FOR TERMINAL STRIPS SHALL BE INCLUDED IN ITEM 714-TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION.
20. CONTROLLER CABINET LAYOUT AND ORIENTATION SHALL CONFORM TO IMSA STANDARDS.
21. ONE VIDEO PROGRAMMING MODULE SHALL BE PROVIDED FOR AIMING AND SETUP OF DETECTORS IF THE VIDEO SYSTEM CANNOT BE ADJUSTED THROUGH HARDWARE AND SOFTWARE PROVIDED BY ITEMS WITHIN THE JOB.
22. TRAFFIC SIGNAL CONTRACTOR MUST NOTIFY RESIDENT ENGINEER OR ASSIGNED DEPARTMENT PROJECT INSPECTOR EACH DAY PRIOR TO SIGNAL RELATED WORK. NO WORK ON TRAFFIC SIGNALS WILL BE ALLOWED OR APPROVED WITIHOUT THIS PRIOR NOTIFICATION.
23. ALL STEEL POLES SHALL BE DESIGNED TO MEET THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITON (2001) WITH 2003 AND 2006 INTERIMS.
24. DOOR PANEL TEST PUSH BUTTONS SHALL ACTUATE INDICATED PHASES. DETECTORS ASSIGNMENTS AND/OR SIDE PANEL JUMPERS MAY REQUIRE MODIFICATION.
25. NEW TRAFFIC SIGNALS MUST BE OPERATIONAL PRIOR TO REMOVAL OF EXISTING SIGNALS.
26. TRAFFIC SIGNAL EQUIPMENT FROM THE INTERSECTION SHALL BE THE PROPERTY OF THE CITY OF BENTONVILLE. (SEE SPECIAL PROVISIONS)

SUMMARY OF TRAFFIC SIGNAL QUANTITIES

ITEM NO.	ITEM	HWY. 102 SB RAMP	HWY. 62 NB RAMP	8TH & DGTC	8TH RAMPS 3/4	8TH RAMPS 1/2	TOTAL	UNIT	
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2 (8 PHASES)	0	0	1	0	0	1	EACH	
SP & 701	SYSTEM LOCAL CONTROLLER - FIBER (8 PHASES)	0	0	0	1	1	2	EACH	
SP	TRAFFIC SIGNAL CONTROLLER (MODIFICATION)	1	1	0	0	0	2	EACH	
SP	E-NET CABLE (EXTERIOR CAT 5)	225	1137	1004	1159	797	4322	LIN. FT.	
SP & 701	TRAFFIC CABINET COMMUNICATIONS	0	0	0	1	1	2	EACH	
SP	BATTERY BACKUP SYSTEM	0	0	1	1	1	3	EACH	
SP	WIC FIBER ENCLOSURE	0	0	0	1	1	2	EACH	
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	4	8	13	9	9	43	EACH	
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	1	1	0	0	0	2	EACH	
SP & 706	TRAFFIC SIGNAL HEAD, LED, (5 SECTION, 1 WAY)	0	0	2	0	0	2	EACH	
SP	RELOCATION OF TRAFFIC SIGNAL HEAD	2	0	0	0	0	2	EACH	
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	2	4	4	4	4	18	EACH	
708	TRAFFIC SIGNAL CABLE (5C/12 A.W.G.)	665	1328	1307	1598	1716	6614	LIN. FT.	
708	TRAFFIC SIGNAL CABLE (7C/12 A.W.G.)	64	69	0	0	0	133	LIN. FT.	
708	TRAFFIC SIGNAL CABLE (12C/12 A.W.G.)	0	0	0	0	51	51	LIN. FT.	
708	TRAFFIC SIGNAL CABLE (20C/12 A.W.G.)	52	622	490	492	184	1840	LIN. FT.	
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	97	593	378	607	467	2142	LIN. FT.	
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	54	161	194	127	90	626	LIN. FT.	
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	0	0	41	41	41	123	LIN. FT.	
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	105	783	682	618	274	2462	LIN. FT.	
SP	COMMUNICATION CABLE, FIBER (6 CHANNEL)	0	0	0	245	155	400	LIN. FT.	
710	NON-METALLIC CONDUIT (2")	48	9	14	368	425	864	LIN. FT.	
710	NON-METALLIC CONDUIT (3")	30	80	450	336	476	1372	LIN. FT.	
711	CONCRETE PULL BOX (TYPE 2)	0	0	0	2	1	3	EACH	
711	CONCRETE PULL BOX (TYPE 1 HD)	0	0	0	2	3	5	EACH	
711	CONCRETE PULL BOX (TYPE 2 HD)	2	1	7	4	3	17	EACH	
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (26')	0	0	2	0	0	2	EACH	
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (32')	0	0	0	1	0	1	EACH	
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (36')	0	1	2	0	0	3	EACH	
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (40')	0	1	0	0	0	1	EACH	
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (45')	1	0	0	1	0	2	EACH	
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (50')	0	0	0	1	0	1	EACH	
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (56')	0	0	0	0	1	1	EACH	
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (20' - 20')	0	1	0	0	0	1	EACH	
714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (46' - 40')	0	0	0	0	1	1	EACH	
SP	LED LUMINAIRE ASSEMBLY	1	3	4	3	2	13	EACH	
715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	2	1	3	4	4	14	EACH	
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	0	0	1	1	1	3	EACH	
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.50	0.50	0.00	0.00	0.00	1.00	LUMP SUM	
SP	18" STREET NAME SIGN	0	1	2	1	1	5	EACH	
733	VIDEO DETECTOR RELOCATION	1	0	0	0	0	1	EACH	
SP & 733	*VIDEO DETECTOR (IP)	3	5	6	6	6	26	EACH	*
733	VIDEO MONITOR (CLR)	0	0	1	1	1	3	EACH	
SP & 733	*VIDEO PROCESSOR, EDGE CARD IP (2 CAMERA)	2	3	3	3	3	14	EACH	*
SP & 733	VEHICLE DETECTOR RACK (16 CHANNEL)	0	0	1	1	1	3	EACH	
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	0	0	0	1	1	2	EACH	

*ONE ADDITIONAL VIDEO DETECTOR AND ONE ADDITIONAL VIDEO PROCESSOR, EDGE CARD SHALL BE PROVIDED FOR FUTURE USE.

TYPICAL OVERHEAD STREET NAME MARKER MAST ARM MOUNTED

1.50" Radius, 0.75" Border, White on Green;
[8th] E Mod 2K; [Street] E Mod 2K;

STATE OF ARKANSAS
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No. 18192
DAVID A. HURT
10/17/16

1. REFLECTIVE SHEETING SHALL COMPLY WITH ASTM 4956 TYPE 8 OR TYPE 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. ALLUMINUM SIGN BLANK SHALL BE ALLOY 6061-T6 OR 5052-H38. THE ALUMINUM SIGN SHALL ALSO BE ANODIZED. 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 OF BENTONVILLE.
3. SEE STD. DETAIL SHEET FOR MORE INFORMATION FOR MOUNTING ON MAST ARM ASSEMBLY.
4. STREET NAME "8TH STREET" ON HWY. 102 RAMPS 1/2 POLE B, DTGC POLES A AND C, 8TH STREET RAMPS 3/4 POLE B, AND 8TH RAMPS 1/2 POLE A.

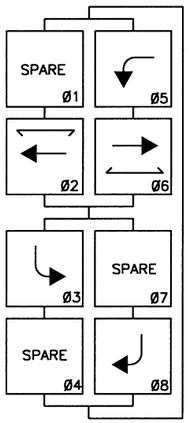
SUMMARY OF TRAFFIC SIGNAL QUANTITIES & NOTES

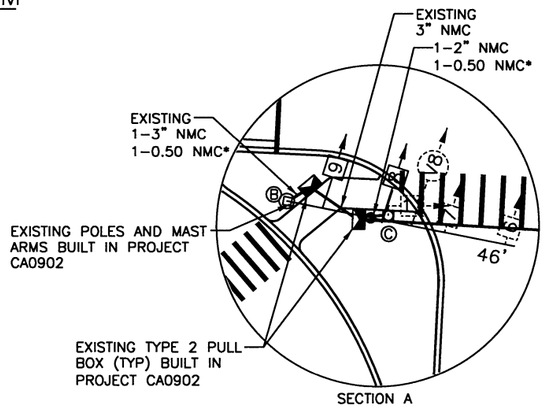
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	137	555

(2) SIGNAL PLAN HWY. 62/102 & RAMPS 3/4

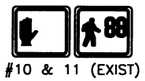
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

PHASING DIAGRAM





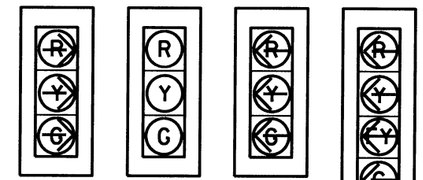
ONE SECTION SOLID SYMBOL



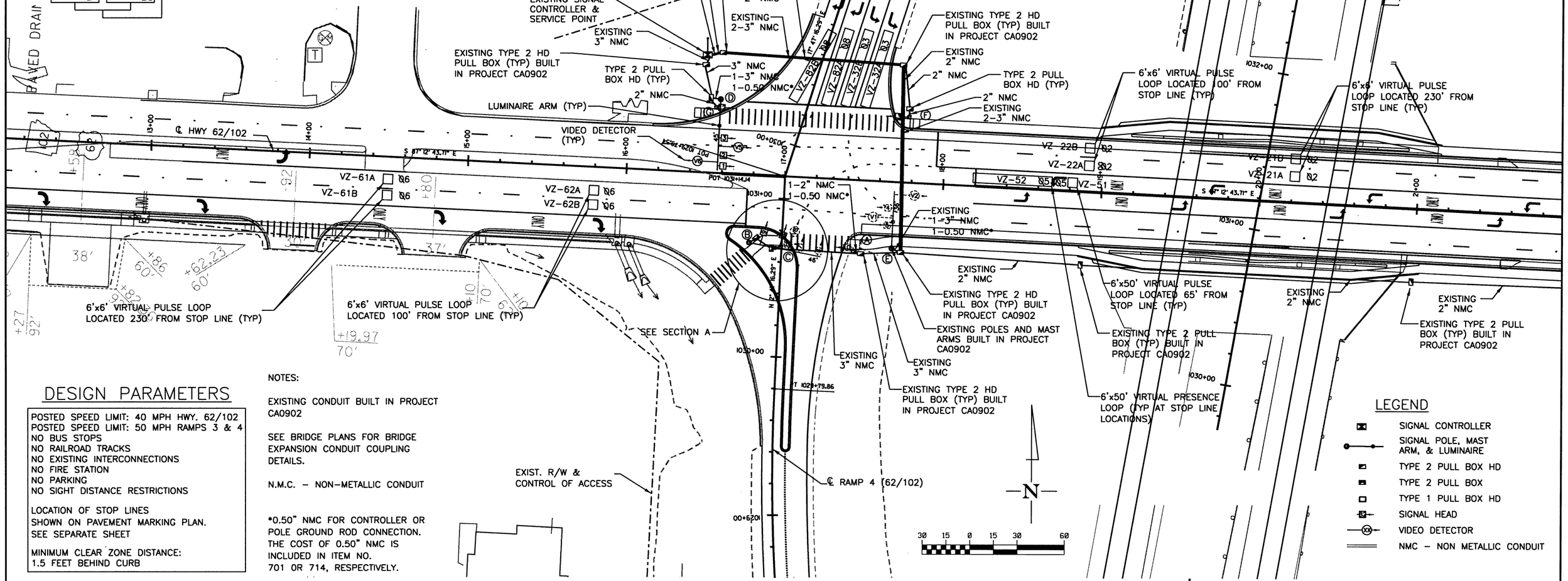
#10 & 11 (EXIST)
#12 & 13 (NEW)

LED SIGNAL FACES

12" LENSES



#8, 9 (NEW) #2, 3 (NEW) 4, 5 (EXIST) #6, 7 (EXIST) #1 (NEW)



DESIGN PARAMETERS

POSTED SPEED LIMIT: 40 MPH HWY. 62/102
POSTED SPEED LIMIT: 50 MPH RAMPS 3 & 4
NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON PAVEMENT MARKING PLAN. SEE SEPARATE SHEET

MINIMUM CLEAR ZONE DISTANCE: 1.5 FEET BEHIND CURB

NOTES:

EXISTING CONDUIT BUILT IN PROJECT CA0902

SEE BRIDGE PLANS FOR BRIDGE EXPANSION CONDUIT COUPLING DETAILS.

N.M.C. – NON–METALLIC CONDUIT

*0.50" NMC FOR CONTROLLER OR POLE GROUND ROD CONNECTION. THE COST OF 0.50" NMC IS INCLUDED IN ITEM NO. 701 OR 714, RESPECTIVELY.

LEGEND

- SIGNAL CONTROLLER
- SIGNAL POLE, MAST ARM, & LUMINAIRE
- TYPE 2 PULL BOX HD
- TYPE 2 PULL BOX
- TYPE 1 PULL BOX HD
- SIGNAL HEAD
- VIDEO DETECTOR
- NMC – NON METALLIC CONDUIT

SIGNAL PLAN
HWY. 62/102 AND RAMPS 3/4

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	138	555
				(2)	SIGNAL PLAN HWY. 62/102 & RAMPS 3/4			

LED SIGNAL FACES

12" LENSES

ONE SECTION SOLID SYMBOL

PHASING DIAGRAM

DESIGN PARAMETERS

POSTED SPEED LIMIT: 40 MPH HWY. 62/102
POSTED SPEED LIMIT: 50 MPH RAMPS 3 & 4
NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON PAVEMENT MARKING PLAN. SEE SEPARATE SHEET

MINIMUM CLEAR ZONE DISTANCE: 1.5 FEET BEHIND CURB

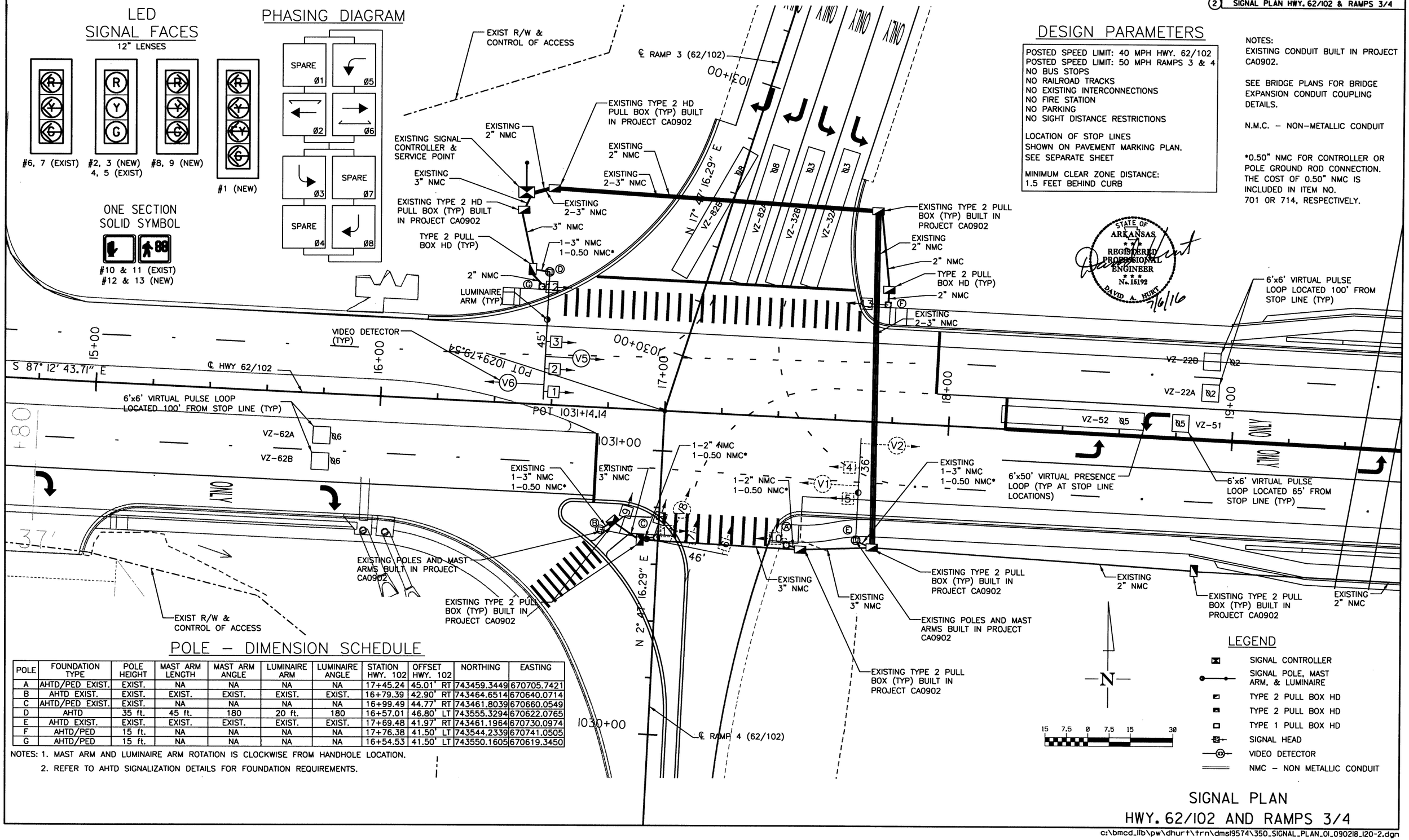
NOTES:
EXISTING CONDUIT BUILT IN PROJECT CA0902.

SEE BRIDGE PLANS FOR BRIDGE EXPANSION CONDUIT COUPLING DETAILS.

N.M.C. – NON–METALLIC CONDUIT

*0.50" NMC FOR CONTROLLER OR POLE GROUND ROD CONNECTION. THE COST OF 0.50" NMC IS INCLUDED IN ITEM NO. 701 OR 714, RESPECTIVELY.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 15192 DAVID A. HURT 7/6/16



POLE – DIMENSION SCHEDULE

POLE	FOUNDATION TYPE	POLE HEIGHT	MAST ARM LENGTH	MAST ARM ANGLE	LUMINAIRE ARM	LUMINAIRE ANGLE	STATION HWY. 102	OFFSET HWY. 102	NORTHING	EASTING
A	AHTD/PED EXIST.	EXIST.	NA	NA	NA	NA	17+45.24	45.01' RT	743459.3449	670705.7421
B	AHTD EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	16+79.39	42.90' RT	743464.6514	670640.0714
C	AHTD/PED EXIST.	EXIST.	NA	NA	NA	NA	16+99.49	44.77' RT	743461.8039	670660.0549
D	AHTD	35 ft.	45 ft.	180	20 ft.	180	16+57.01	46.80' LT	743555.3294	670622.0765
E	AHTD EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	EXIST.	17+69.48	41.97' RT	743461.1964	670730.0974
F	AHTD/PED	15 ft.	NA	NA	NA	NA	17+76.38	41.50' LT	743544.2339	670741.0505
G	AHTD/PED	15 ft.	NA	NA	NA	NA	16+54.53	41.50' LT	743550.1605	670619.3450

NOTES: 1. MAST ARM AND LUMINAIRE ARM ROTATION IS CLOCKWISE FROM HANDHOLE LOCATION.
2. REFER TO AHTD SIGNALIZATION DETAILS FOR FOUNDATION REQUIREMENTS.

LEGEND

- SIGNAL CONTROLLER
- SIGNAL POLE, MAST ARM, & LUMINAIRE
- TYPE 2 PULL BOX HD
- TYPE 2 PULL BOX HD
- TYPE 1 PULL BOX HD
- SIGNAL HEAD
- VIDEO DETECTOR
- NMC – NON METALLIC CONDUIT

SIGNAL PLAN
HWY. 62/102 AND RAMPS 3/4

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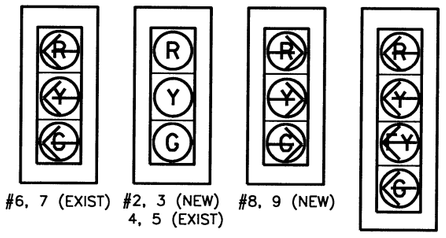
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	139	555
				(2)	WIRING PLAN 62/102 & RAMPS 3/4			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

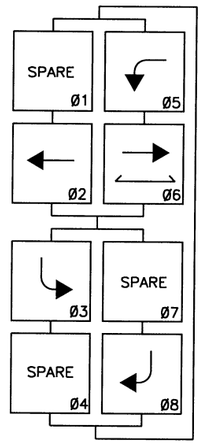
LED SIGNAL FACES
12" LENSES

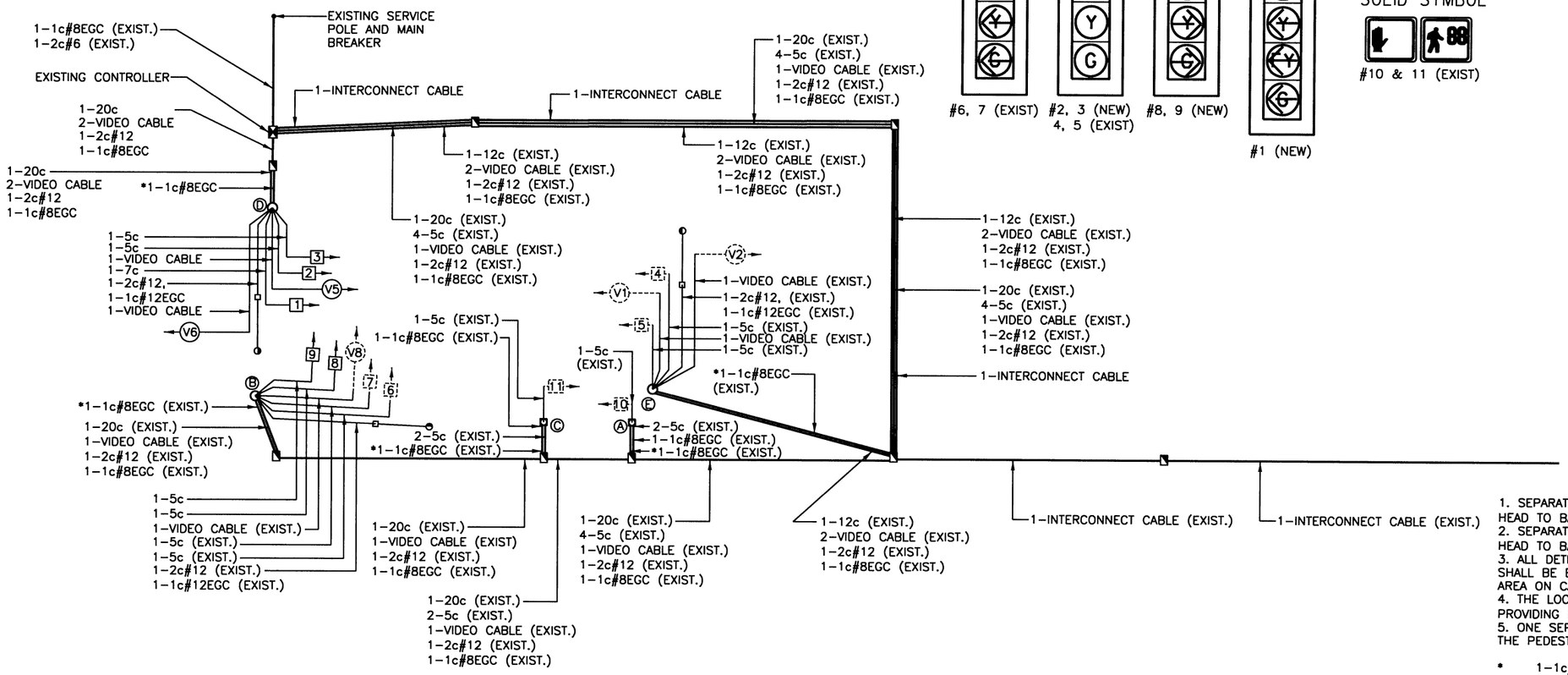


ONE SECTION SOLID SYMBOL

#10 & 11 (EXIST)

PHASING DIAGRAM





WIRING DIAGRAM

1. SEPARATE 5c/#14 AWG FROM EACH 3 SEC SIGNAL HEAD TO BASE OF POLE.
2. SEPARATE 7c/#14 AWG FROM EACH 4 SEC SIGNAL HEAD TO BASE OF POLE.
3. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA ON CABINET.
4. THE LOCAL GOV'T SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.
5. ONE SEPARATE 1-5c IS RUN TO EACH POLE FOR THE PEDESTRIAN PUSH BUTTON.

* 1-1c/#8 EGC SHOWN SEPARATELY FROM CONTROLLER OR POLE TO NEAREST PULL BOX IS INCLUDED IN ITEM NO. 701 OR 714, RESPECTIVELY.

DETECTOR I.D. NUMBER	DIRECTION & LOCATION	TYPE	DET. NUM	HARDWARE INPUTS CAB TRM. #	HARDWARE INPUTS AMP. CHN. #	HARDWARE INPUTS CON. INP. #	PROGRAM ASSIGNMENTS LOCAL PHS	PROGRAM ASSIGNMENTS LOCAL SYS DET.	PROGRAM ASSIGNMENTS MSTR SYS. DET.	COMMENT	TUBE LENGTHS
VZ-21A & 21B	WB FAR	LOCAL			5	V2	2			CAMERA V2	74"
VZ-22A & 22B	WB NEAR	COMB.			6	V10	2	2		CAMERA V5	23"
VZ-31A & 31B	SB LEFT FAR	COMB.			9	V11	3	3		CAMERA V3	23"
VZ-32A & 32B	SB LEFT NEAR	LOCAL			10	V3	3			CAMERA V3	23"
VZ-51	WB LEFT FAR	COMB.			7	V13	5	5		CAMERA V5	23"
VZ-52	WB LEFT NEAR	LOCAL			8	V5	5			CAMERA V5	23"
VZ-61A & 61B	EB FAR	LOCAL			3	V6	6			CAMERA V6	74"
VZ-62A & 62B	EB NEAR	COMB.			4	V14	6	6		CAMERA V1	23"
VZ-81A & 81B	SB RIGHT FAR	COMB.			11	V16	8	8		CAMERA V8	23"
VZ-82A & 82B	SB RIGHTNEAR	LOCAL			12	V8	8			CAMERA V8	23"
P6	HWY 102 E. LEG	PED.				P6	2			HYW. 62/102	

SPARE AMP. CHN. #: 1,2,13-16

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

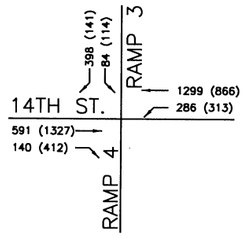
NOTE: "AMP CHN. #" REFERS TO THE DECTOR RACK OUTPUT POSITION.
THIS IS WIRED TO THE COTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9=SYSTEM DETECTOR 1, V10=SYSTEM DETECTOR 2

INTERVAL CHART

SIGNAL FACE	HWY. 62/102 / RAMP 3 & 4 2+5	CLR	2+6	CLR	3+8	CLR	FLASH SEQ.
1	~~G~~	*	~~FY~~	**	~~R~~	~~R~~	~~R~~
2 & 3	G	**	G	**	R	R	R
4 & 5	R	R	G	**	R	R	R
6 & 7	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	*	~~R~~
8 & 9	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	*	~~R~~
10	DW	DW	W	FDW	DW	DW	BLK
11	DW	DW	W	FDW	DW	DW	BLK

*DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE.
**DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE.
***DENOTES FLASHING YELLOW ARROW OR YELLOW ARRO DEPENDING ON NEXT PHASE.

TRAFFIC FLOW DIAGRAM



PROJECTED 2014 PEAK HOUR TRAFFIC VOLUMES

SIGNAL WIRING DIAGRAM
HWY. 62/102 AND RAMPS 3/4

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
	15	TBD		6	ARK.			
				JOB NO.		090376	140	555
				(2)	SIGNAL PLAN 62/102 & RAMPS 1/2			

PHASING DIAGRAM

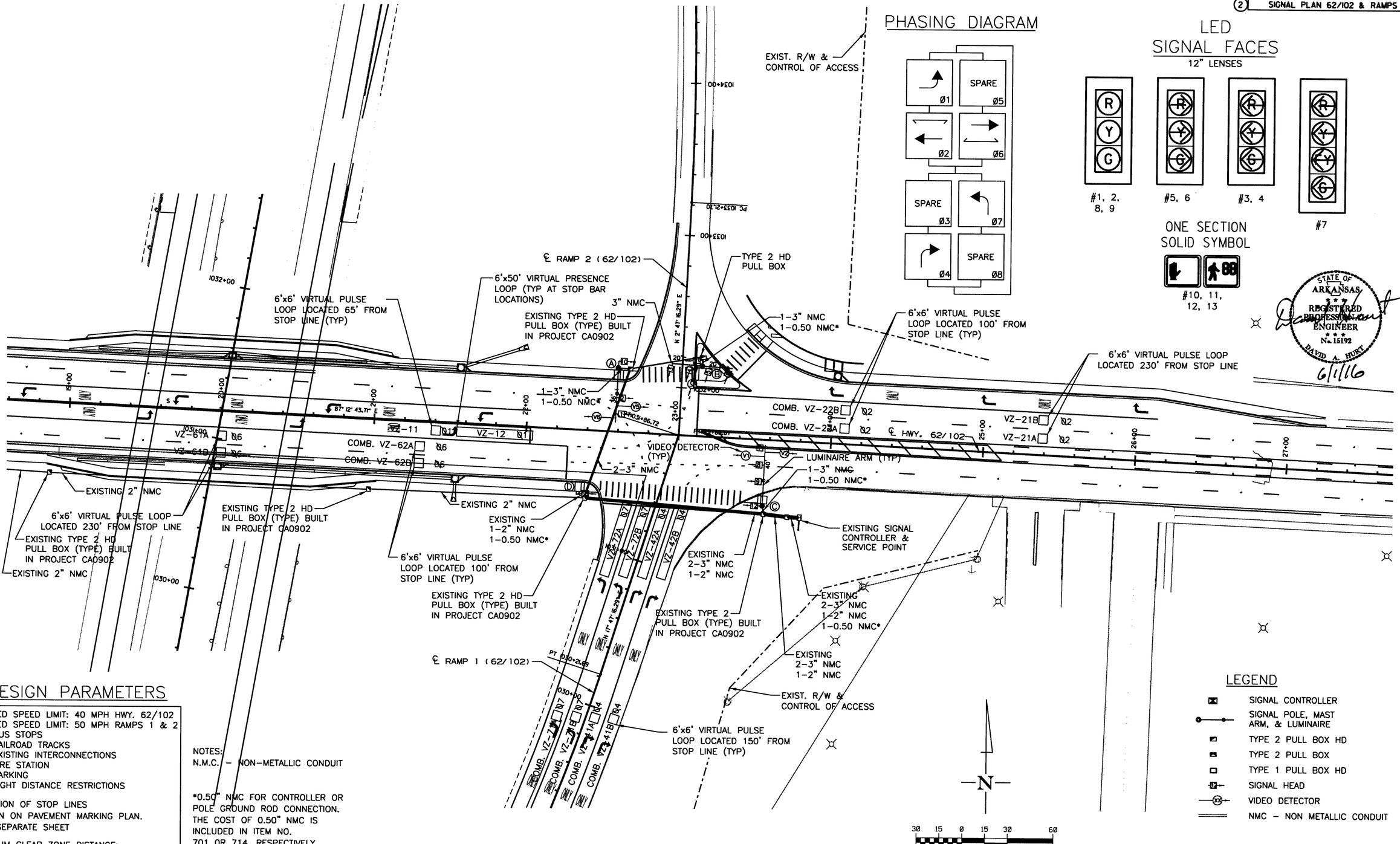
LED SIGNAL FACES

12" LENSES

#1, 2, 8, 9 | #5, 6 | #3, 4 | #7

ONE SECTION SOLID SYMBOL

#10, 11, 12, 13



DESIGN PARAMETERS

POSTED SPEED LIMIT: 40 MPH HWY. 62/102
POSTED SPEED LIMIT: 50 MPH RAMPS 1 & 2
NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON PAVEMENT MARKING PLAN. SEE SEPARATE SHEET

MINIMUM CLEAR ZONE DISTANCE: 1.5 FEET BEHIND CURB

NOTES:
N.M.C. – NON-METALLIC CONDUIT

*0.50" NMC FOR CONTROLLER OR POLE GROUND ROD CONNECTION. THE COST OF 0.50" NMC IS INCLUDED IN ITEM NO. 701 OR 714, RESPECTIVELY.

LEGEND

- SIGNAL CONTROLLER
- SIGNAL POLE, MAST ARM, & LUMINAIRE
- TYPE 2 PULL BOX HD
- TYPE 2 PULL BOX
- TYPE 1 PULL BOX HD
- SIGNAL HEAD
- VIDEO DETECTOR
- NMC – NON METALLIC CONDUIT

SIGNAL PLAN
HWY. 62/102 AND RAMPS 1/2

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/17/2016				6	ARK.			
				JOB NO.		090376	141	555
				(2) SIGNAL PLAN 62/102 & RAMPS 1/2				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
10/17/16

PHASING DIAGRAM

LED SIGNAL FACES
12" LENSES

#1, 2, 8, 9 | #5, 6 | #3, 4 | #7

ONE SECTION SOLID SYMBOL

#10, 11, 12, 13

DESIGN PARAMETERS

POSTED SPEED LIMIT: 40 MPH HWY. 62/102
POSTED SPEED LIMIT: 50 MPH RAMPS 1 & 2
NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON PAVEMENT MARKING PLAN. SEE SEPARATE SHEET

MINIMUM CLEAR ZONE DISTANCE: 1.5 FEET BEHIND CURB

NOTES:
N.M.C. – NON-METALLIC CONDUIT

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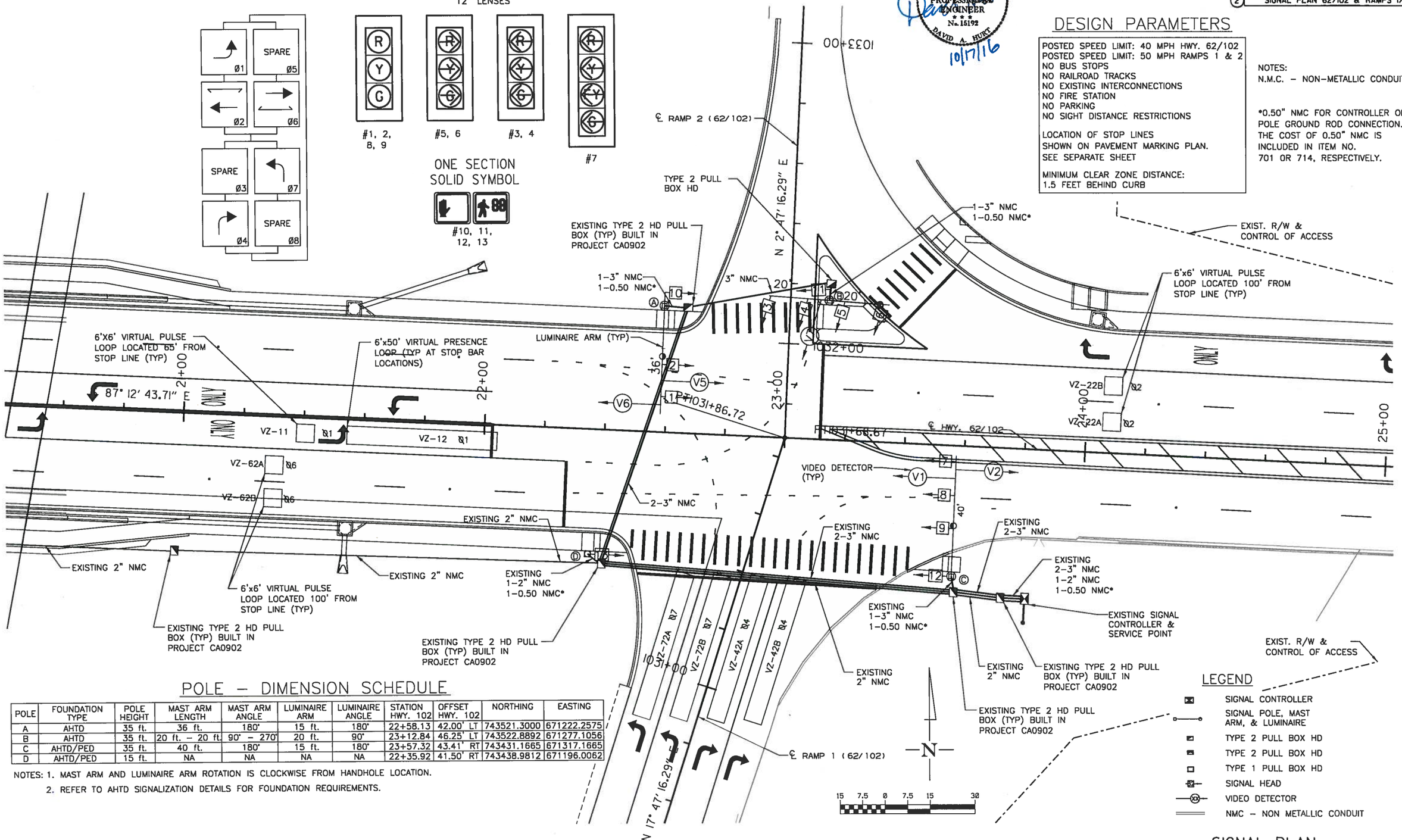

POLE – DIMENSION SCHEDULE

POLE	FOUNDATION TYPE	POLE HEIGHT	MAST ARM LENGTH	MAST ARM ANGLE	LUMINAIRE ARM	LUMINAIRE ANGLE	STATION HWY. 102	OFFSET HWY. 102	NORTHING	EASTING
A	AHTD	35 ft.	36 ft.	180°	15 ft.	180°	22+58.13	42.00' LT	743521.3000	671222.2575
B	AHTD	35 ft.	20 ft. – 20 ft.	90° – 270°	20 ft.	90°	23+12.84	46.25' LT	743522.8892	671277.1056
C	AHTD/PED	35 ft.	40 ft.	180°	15 ft.	180°	23+57.32	43.41' RT	743431.1665	671317.1665
D	AHTD/PED	15 ft.	NA	NA	NA	NA	22+35.92	41.50' RT	743438.9812	671196.0062

NOTES: 1. MAST ARM AND LUMINAIRE ARM ROTATION IS CLOCKWISE FROM HANDHOLE LOCATION.
2. REFER TO AHTD SIGNALIZATION DETAILS FOR FOUNDATION REQUIREMENTS.

LEGEND

- SIGNAL CONTROLLER
- SIGNAL POLE, MAST ARM, & LUMINAIRE
- TYPE 2 PULL BOX HD
- TYPE 2 PULL BOX HD
- TYPE 1 PULL BOX HD
- SIGNAL HEAD
- VIDEO DETECTOR
- NMC – NON METALLIC CONDUIT

SIGNAL PLAN
HWY. 62/102 AND RAMPS 1/2

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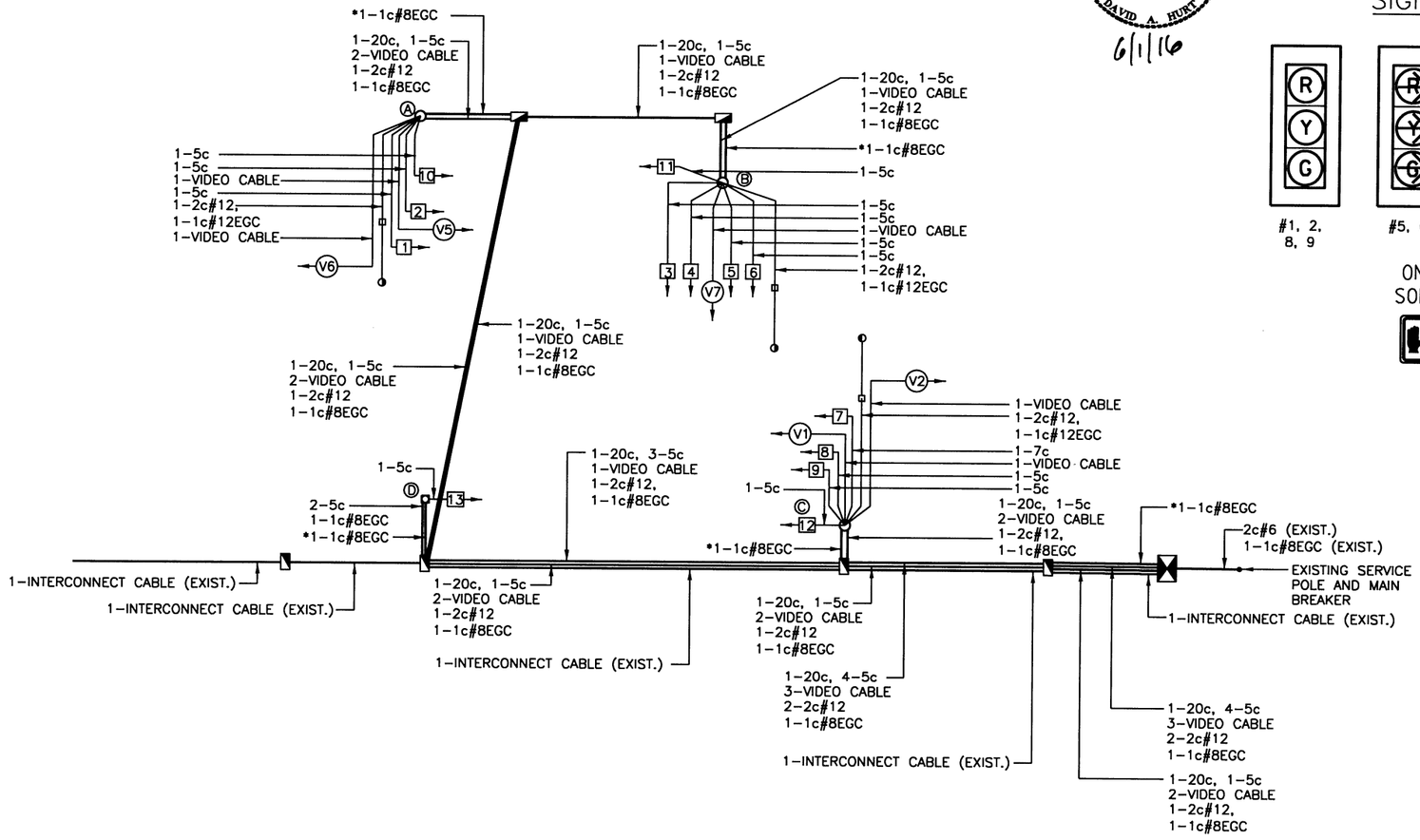
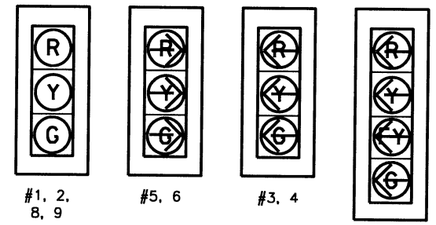
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
		116	TBD	6	ARK.			
				JOB NO.		090376	142	555
				(2)	WIRING PLAN 62/102 & RAMPS 1/2			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16



LED SIGNAL FACES

12" LENSES

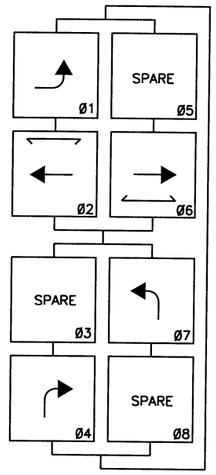


#1, 2, 8, 9 | #5, 6 | #3, 4 | #7

ONE SECTION SOLID SYMBOL

#10, 11, 12, 13

PHASING DIAGRAM



WIRING DIAGRAM

1. SEPARATE 5c/#14 AWG FROM EACH 3 SEC SIGNAL HEAD TO BASE OF POLE.
2. SEPARATE 7c/#14 AWG FROM EACH 4 SEC SIGNAL HEAD TO BASE OF POLE.
3. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA ON CABINET.
4. THE LOCAL GOV'T SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.
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* 1-1c/#8 EGC SHOWN SEPARATELY FROM CONTROLLER OR POLE TO NEAREST PULL BOX IS INCLUDED IN ITEM NO. 701 OR 714, RESPECTIVELY.

DETECTOR I.D. NUMBER	DIRECTION & LOCATION	TYPE	DET. NUM	HARDWARE INPUTS CAB TRM. #	HARDWARE INPUTS AMP. CHN. #	HARDWARE INPUTS CON. INP. #	PROGRAM ASSIGNMENTS LOCAL PHS	PROGRAM ASSIGNMENTS LOCAL SYS DET.	PROGRAM ASSIGNMENTS MSTR SYS. DET.	COMMENT	TUBE LENGTHS
VZ-11	EB LEFT FAR	COMB.			1	V9	1	1		CAMERA V1	23"
VZ-12	EB LEFT NEAR	LOCAL			2	V1	1			CAMERA V1	23"
VZ-21A & 21B	WB FAR	LOCAL			5	V2	2			CAMERA V2	23"
VZ-22A & 22B	WB NEAR	COMB.			6	V10	2	2		CAMERA V5	23"
VZ-41A & 41B	NB RIGHT FAR	COMB.			9	V12	4	4		CAMERA V7	74"
VZ-42A & 42B	NB RIGHT NEAR	LOCAL			10	V4	4			CAMERA V7	74"
VZ-61A & 61B	EB FAR	LOCAL			3	V6	6			CAMERA V6	74"
VZ-62A & 62B	EB NEAR	COMB.			4	V14	6	6		CAMERA V1	23"
VZ-71A & 71B	NB LEFT FAR	COMB.			11	V15	7	7		CAMERA V7	74"
VZ-72A & 72B	NB LEFT NEAR	LOCAL			12	V7	7			CAMERA V7	74"
P2	RAMP 2 N. LEG	PED.				P2	2				
P6	RAMP 1 S. LEG	PED.				P6	6				

SPARE: 7,8,13-16

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D - SYSTEM OR AUXILIARY INPUT
P - PEDESTRIAN INPUT

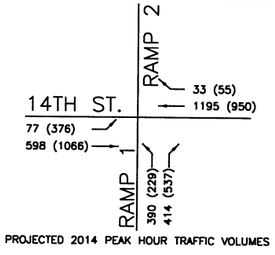
NOTE: "AMP CHN. #" REFERS TO THE DECTOR RACK OUTPUT POSITION.
THIS IS WIRED TO THE COTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9=SYSTEM DETECTOR 1, V10=SYSTEM DETECTOR 2

INTERVAL CHART

SIGNAL FACE	HWY. 62/102 / RAMP 1 & 2 1+6	CLR	2+6	CLR	4+7	CLR	FLASH SEQ.
1 & 2	R	R	G	**	R	R	R
3 & 4	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	*	~~R~~
5 & 6	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	*	~~R~~
7	~~G~~	*	FY	***	~~R~~	~~R~~	~~R~~
8 & 9	G	**	G	**	R	R	R
10	DW	DW	W	FDW	DW	DW	BLK
11	DW	DW	W	FDW	DW	DW	BLK
12	W	FDW	W	FDW	DW	DW	BLK
13	W	FDW	W	FDW	DW	DW	BLK

*DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE.
**DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE.
***DENOTES FLASHING YELLOW ARROW OR YELLOW ARRO DEPENDING ON NEXT PHASE.

TRAFFIC FLOW DIAGRAM



PROJECTED 2014 PEAK HOUR TRAFFIC VOLUMES

SIGNAL WIRING DIAGRAM
HWY. 62/102 AND RAMPS 1/2

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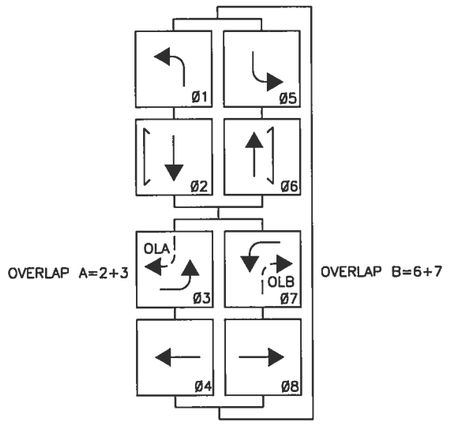
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
9/27/16				6	ARK.			
				JOB NO.		090376	143	555
				(2)	SIGNAL PLAN 8TH ST. & DGTC			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
9/27/16

PHASING DIAGRAM



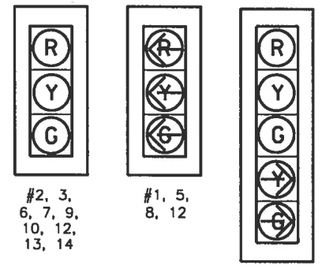
OVERLAP A=2+3

OVERLAP B=6+7

DASHED ARROWS INDICATE OVERLAP PHASE

LED SIGNAL FACES

12" LENSES



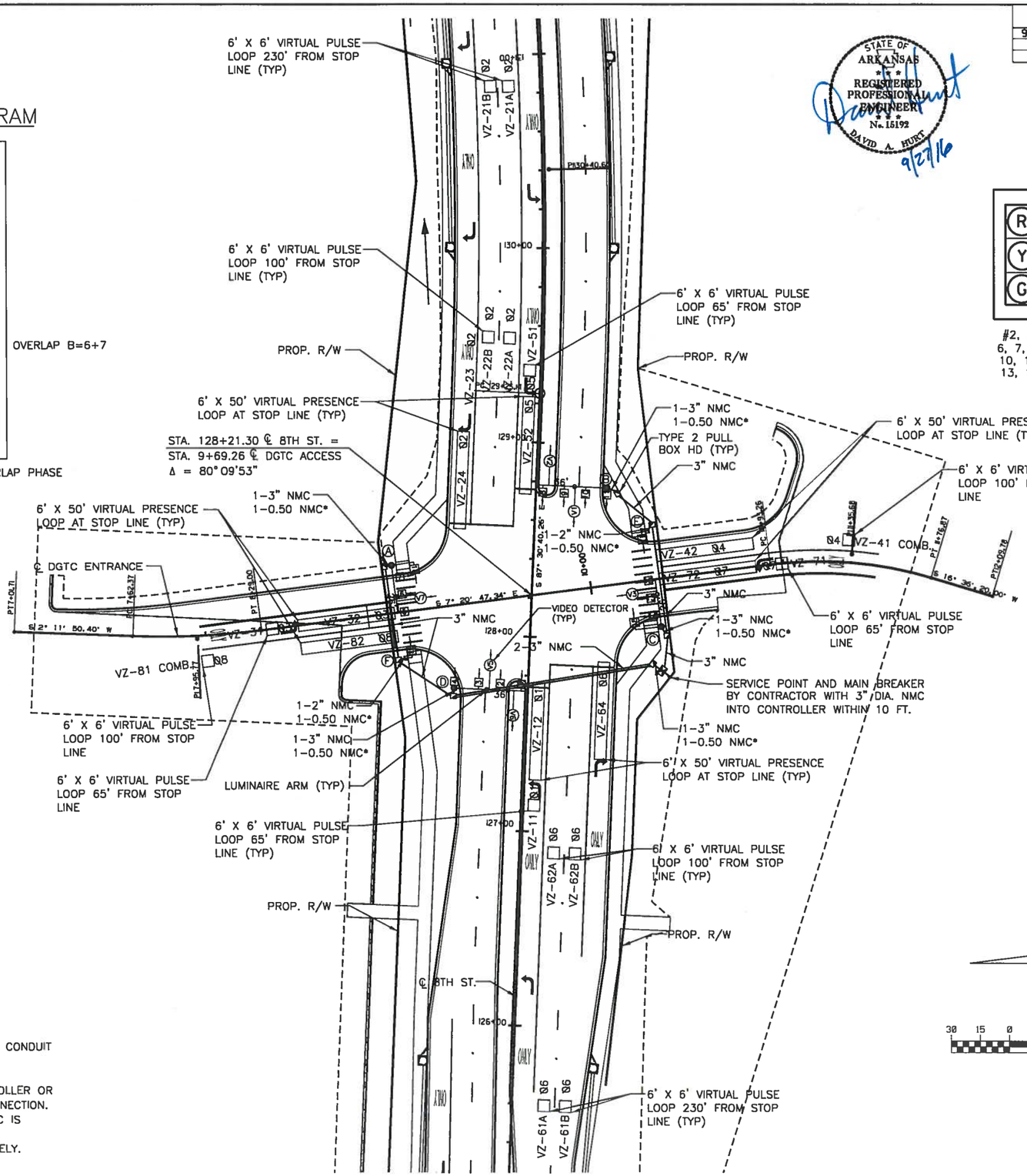
#2, 3, 6, 7, 9, 10, 12, 13, 14

#1, 5, 8, 12

#4, 11

ONE SECTION SOLID SYMBOL

#15, 16, 17, 18



DESIGN PARAMETERS

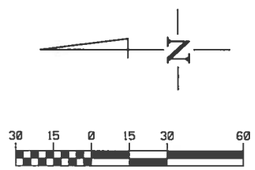
POSTED SPEED LIMIT: 40 MPH
NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON PAVEMENT MARKING PLAN. SEE SEPARATE SHEET

MINIMUM CLEAR ZONE DISTANCE: 1.5 FEET BEHIND CURB

NOTES:
N.M.C. – NON-METALLIC CONDUIT

*0.50" NMC FOR CONTROLLER OR POLE GROUND ROD CONNECTION. THE COST OF 0.50" NMC IS INCLUDED IN ITEM NO. 701 OR 714, RESPECTIVELY.



LEGEND

- SIGNAL CONTROLLER
- SIGNAL POLE, MAST ARM, & LUMINAIRE
- TYPE 2 PULL BOX HD
- TYPE 2 PULL BOX
- TYPE 1 PULL BOX HD
- SIGNAL HEAD
- VIDEO DETECTOR
- NMC – NON METALLIC CONDUIT

SIGNAL PLAN 8TH ST. & DAVID GLASS TECHNOLOGY CENTER (DGTC)

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
9/27/16				6	ARK.			
				JOB NO.		090376	144	555
				(2)	SIGNAL PLAN 8TH ST. & DGTC			

PHASING DIAGRAM

DASHED ARROWS INDICATE OVERLAP PHASE

LED SIGNAL FACES
12" LENSES

OVERLAP A=2+3

OVERLAP B=6+7

#2, 3, 6, 7, 9, 10, 12, 13, 14

#1, 5, 8, 12

#4, 11

ONE SECTION SOLID SYMBOL

#15, 16, 17, 18

DESIGN PARAMETERS

POSTED SPEED LIMIT: 40 MPH
NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

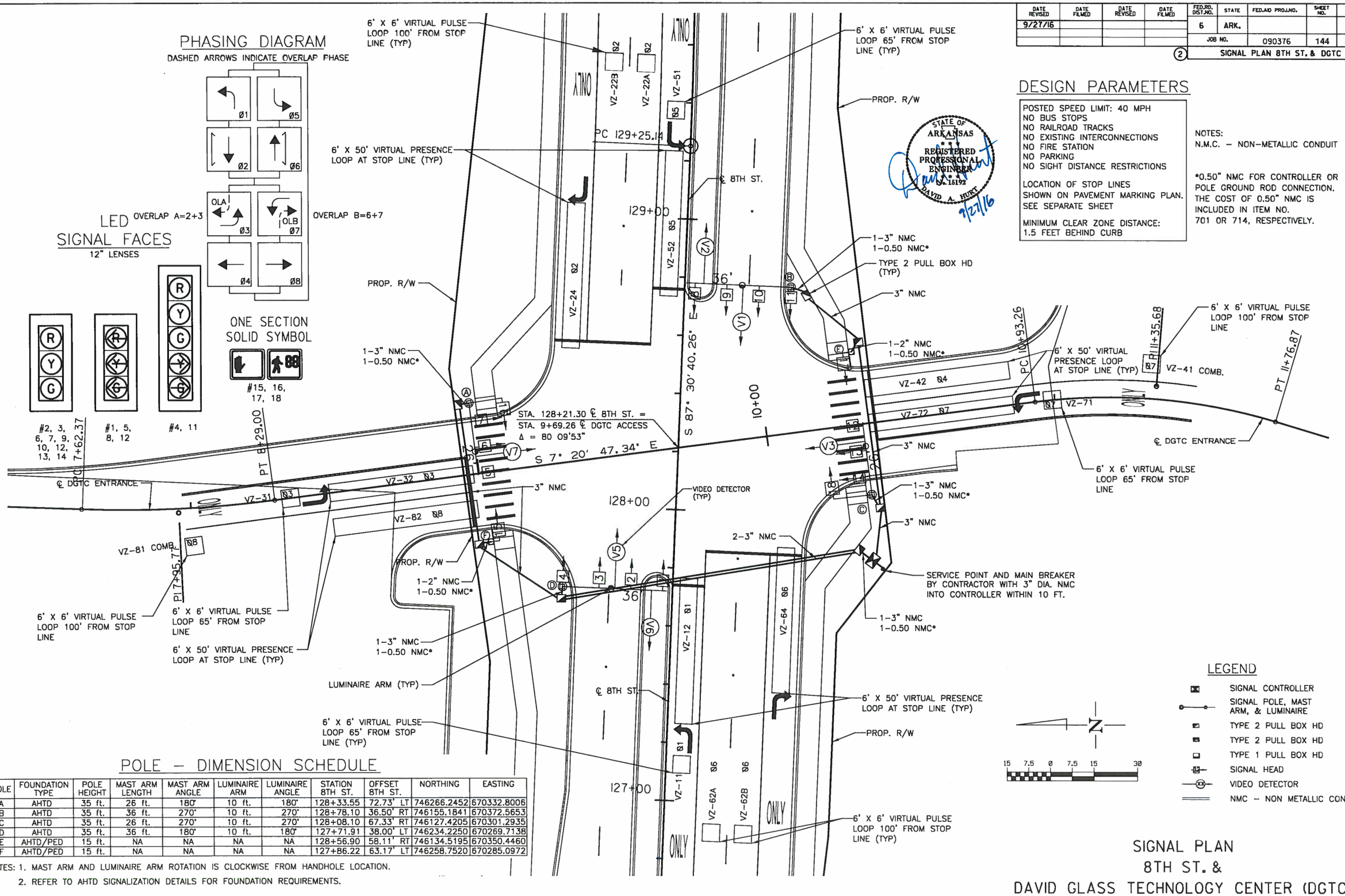
LOCATION OF STOP LINES SHOWN ON PAVEMENT MARKING PLAN. SEE SEPARATE SHEET

MINIMUM CLEAR ZONE DISTANCE: 1.5 FEET BEHIND CURB

NOTES:
N.M.C. – NON–METALLIC CONDUIT

*0.50" NMC FOR CONTROLLER OR POLE GROUND ROD CONNECTION. THE COST OF 0.50" NMC IS INCLUDED IN ITEM NO. 701 OR 714, RESPECTIVELY.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
NO. 15192
DAVID A. HURT
9/27/16



POLE – DIMENSION SCHEDULE

POLE	FOUNDATION TYPE	POLE HEIGHT	MAST ARM LENGTH	MAST ARM ANGLE	LUMINAIRE ARM	LUMINAIRE ANGLE	STATION 8TH ST.	OFFSET 8TH ST.	NORTHING	EASTING
A	AHTD	35 ft.	26 ft.	180°	10 ft.	180°	128+33.55	72.73' LT	746266.2452	670332.8006
B	AHTD	35 ft.	36 ft.	270°	10 ft.	270°	128+78.10	36.50' RT	746155.1841	670372.5653
C	AHTD	35 ft.	26 ft.	270°	10 ft.	270°	128+08.10	67.33' RT	746127.4205	670301.2935
D	AHTD	35 ft.	36 ft.	180°	10 ft.	180°	127+71.91	38.00' LT	746234.2250	670269.7138
E	AHTD/PED	15 ft.	NA	NA	NA	NA	128+56.90	58.11' RT	746134.5195	670350.4460
F	AHTD/PED	15 ft.	NA	NA	NA	NA	127+86.22	63.17' LT	746258.7520	670285.0972

NOTES: 1. MAST ARM AND LUMINAIRE ARM ROTATION IS CLOCKWISE FROM HANDHOLE LOCATION.
2. REFER TO AHTD SIGNALIZATION DETAILS FOR FOUNDATION REQUIREMENTS.

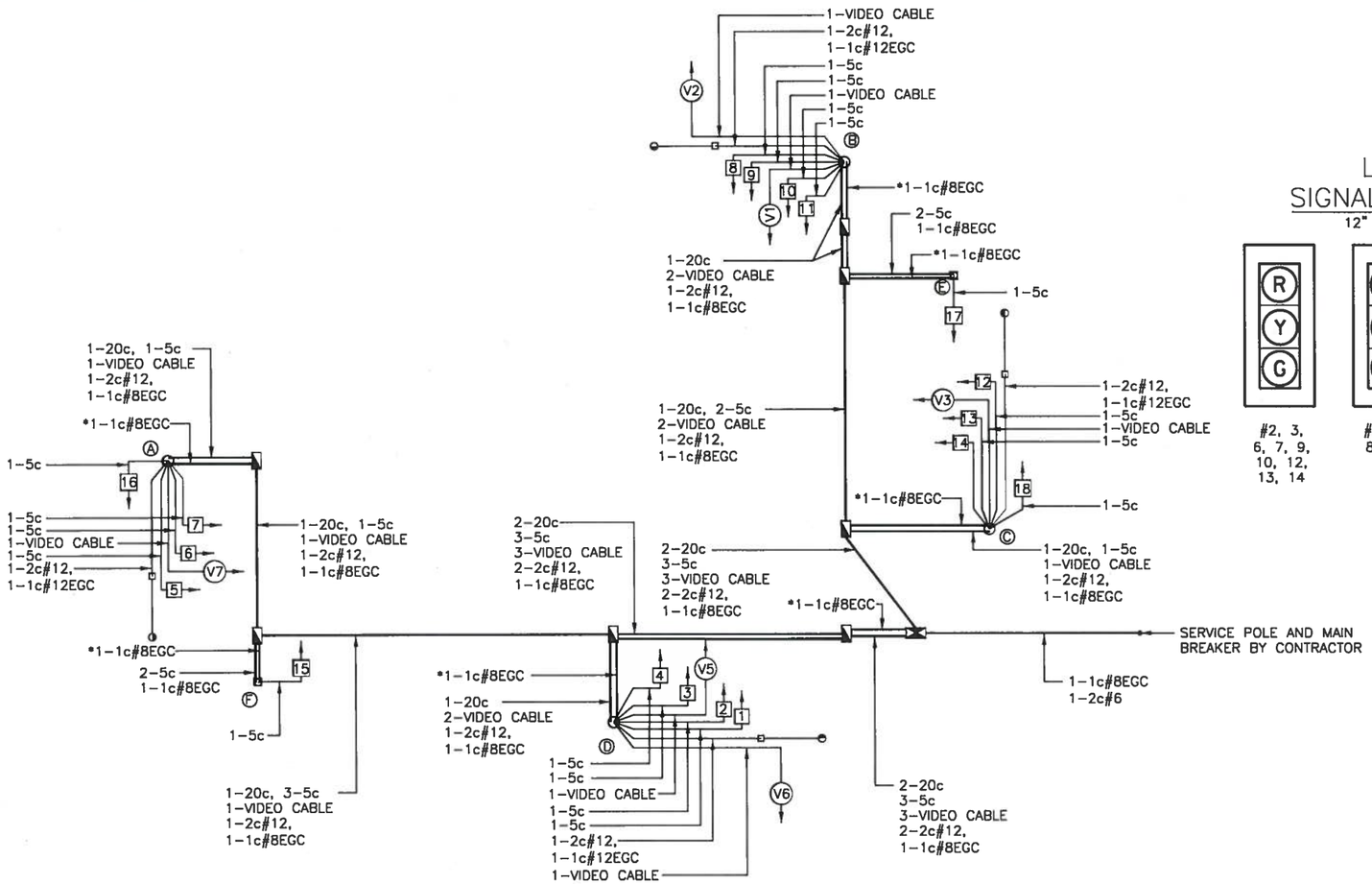
LEGEND

- SIGNAL CONTROLLER
- SIGNAL POLE, MAST ARM, & LUMINAIRE
- TYPE 2 PULL BOX HD
- TYPE 2 PULL BOX HD
- TYPE 1 PULL BOX HD
- SIGNAL HEAD
- VIDEO DETECTOR
- NMC – NON METALLIC CONDUIT

SIGNAL PLAN
8TH ST. &
DAVID GLASS TECHNOLOGY CENTER (DGTC)

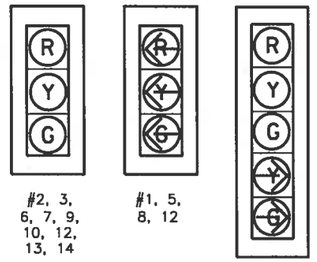
c:\bmcd_llb\pw\dhurt\trn\dms19574\353_SIGNAL_PLAN_04_090218_120-2.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
9/27/16				6	ARK.			
				JOB NO.		090376	145	555
				(2)	WIRING PLAN 8TH ST. & DGTC			



LED SIGNAL FACES

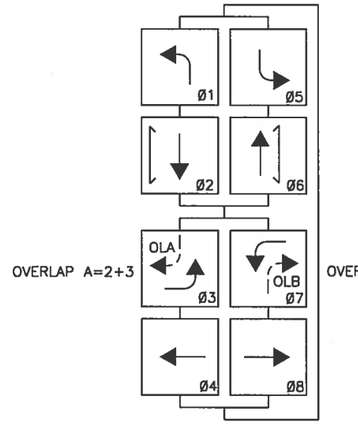
12" LENSES



ONE SECTION SOLID SYMBOL

#15, 16, 17, 18

PHASING DIAGRAM



DASHED ARROWS INDICATE OVERLAP PHASE

WIRING DIAGRAM

1. SEPARATE 5c/#14 AWG FROM EACH 3 SEC SIGNAL HEAD TO BASE OF POLE.
2. SEPARATE 7c/#14 AWG FROM EACH 4 SEC SIGNAL HEAD TO BASE OF POLE.
3. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA ON CABINET.
4. THE LOCAL GOV'T SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.
5. ONE SEPARATE 1-5c IS RUN TO EACH POLE FOR THE PEDESTRIAN PUSH BUTTON.

* 1-1c/#8 EGC SHOWN SEPARATELY FROM CONTROLLER OR POLE TO NEAREST PULL BOX IS INCLUDED IN ITEM NO. 701 OR 714, RESPECTIVELY.

DETECTOR I.D. NUMBER	DIRECTION & LOCATION	TYPE	DET. NUM	HARDWARE INPUTS CAB TRM. #	HARDWARE INPUTS AMP. CHN. #	HARDWARE INPUTS CON. INP. #	PROGRAM ASSIGNMENTS LOCAL PHS	PROGRAM ASSIGNMENTS LOCAL SYS DET.	PROGRAM ASSIGNMENTS MSTR SYS. DET.	COMMENT	TUBE LENGTHS
VZ-11	EB LEFT FAR	COMB.			1	V9	1	1		CAMERA V1	23"
VZ-12	EB LEFT NEAR	LOCAL			2	V1	1			CAMERA V1	23"
VZ-21A & 22A	WB FAR	COMB.			9	V2	2			CAMERA V2	74"
VZ-21B & 22B	WB NEAR	LOCAL			10	V10	2	2		CAMERA V5	23"
VZ-24	WB RIGHT NEAR	LOCAL			11	V17	2			CAMERA V5	23"
VZ-31	SB LEFT FAR	COMB.			17	V11	3	3		CAMERA V3	46"
VZ-32	SB LEFT NEAR	LOCAL			18	V3	3			CAMERA V3	46"
VZ-41	NB FAR	COMB.			21	V12	4			CAMERA V7	23"
VZ-42	NB NEAR	LOCAL			27	V4	4	4		CAMERA V7	23"
VZ-51	WB LEFT FAR	COMB.			12	V13	5	5		CAMERA V5	23"
VZ-52	WB LEFT NEAR	LOCAL			13	V5	5			CAMERA V5	23"
VZ-61A & 61B	EB FAR	LOCAL			3	V6	6			CAMERA V6	74"
VZ-62A & 62B	EB NEAR	COMB.			4	V14	6	6		CAMERA V1	23"
VZ-64	EB RIGHT NEAR	LOCAL			5	V18	6			CAMERA V1	23"
VZ-71	NB LEFT FAR	COMB.			23	V14	7	7		CAMERA V7	23"
VZ-72	NB LEFT NEAR	LOCAL			24	V7	7			CAMERA V7	23"
VZ-81	SB FAR	COMB.			19	V16	8	8		CAMERA V3	46"
VZ-82	SB NEAR	LOCAL			20	V8	8			CAMERA V3	46"
P2	N 8TH ST. LEG	PED.				P2	2				
P6	S 8TH ST. LEG	PED.				P6	6				

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

SPARE AMP. CHN. #: 6,7,8,14,15,16

NOTE: "AMP CHN. #" REFERS TO THE DECTOR RACK OUTPUT POSITION.
THIS IS WIRED TO THE COTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9=SYSTEM DETECTOR 1, V10=SYSTEM DETECTOR 2

INTERVAL CHART

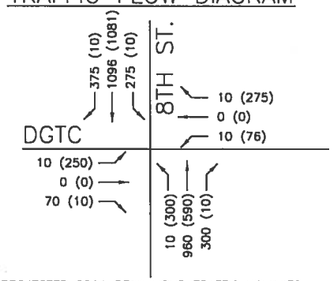
SIGNAL FACES	SW 8TH STREET / DGTC ENTRANCE 1+5	CLR	1+6	CLR	2+5	CLR	2+6	CLR	3+7	CLR	3+8	CLR	4+7	CLR	4+8	CLR	FLASH SEQ.
1	~~G~~	*	~~R~~	~~R~~	~~G~~	*	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
2 & 3	R	R	R	R	G	**	G	**	R	R	R	R	R	R	R	R	R
4	R	R	R	R	~~G~~	**	R	**	~~G~~	*	~~G~~	*	R	R	R	R	R
5	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	*	~~R~~	~~R~~	~~G~~	*	~~R~~	~~R~~	~~R~~
6 & 7	R	R	R	R	R	R	R	R	R	R	R	R	G	*	G	*	R
8	~~G~~	*	~~G~~	*	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
9 & 10	R	R	G	*	R	R	G	*	R	R	R	R	R	R	R	R	R
11	R	R	R	R	~~G~~	*	~~G~~	*	~~G~~	*	R	R	~~G~~	*	R	R	R
12	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	*	~~G~~	*	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
13 & 14	R	R	R	R	R	R	R	R	R	R	G	**	R	R	G	*	R
15	DW	DW	DW	DW	W	FDW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	BLK
16	DW	DW	DW	DW	W	FDW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	R
17	DW	DW	W	FDW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	BLK
18	DW	DW	W	FDW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	BLK

*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

TRAFFIC FLOW DIAGRAM



PROJECTED 2014 PEAK HOUR TRAFFIC VOLUMES

SIGNAL WIRING DIAGRAM
8TH ST. &
DAVID GLASS TECHNOLOGY CENTER (DGTC)

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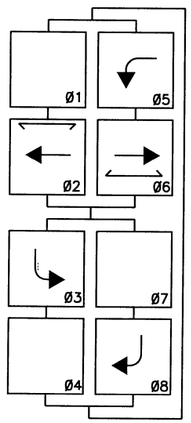
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	146	555
				(2)	SIGNAL PLAN 8TH ST. & RAMPS 3/4			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

PHASING DIAGRAM



LED SIGNAL FACES

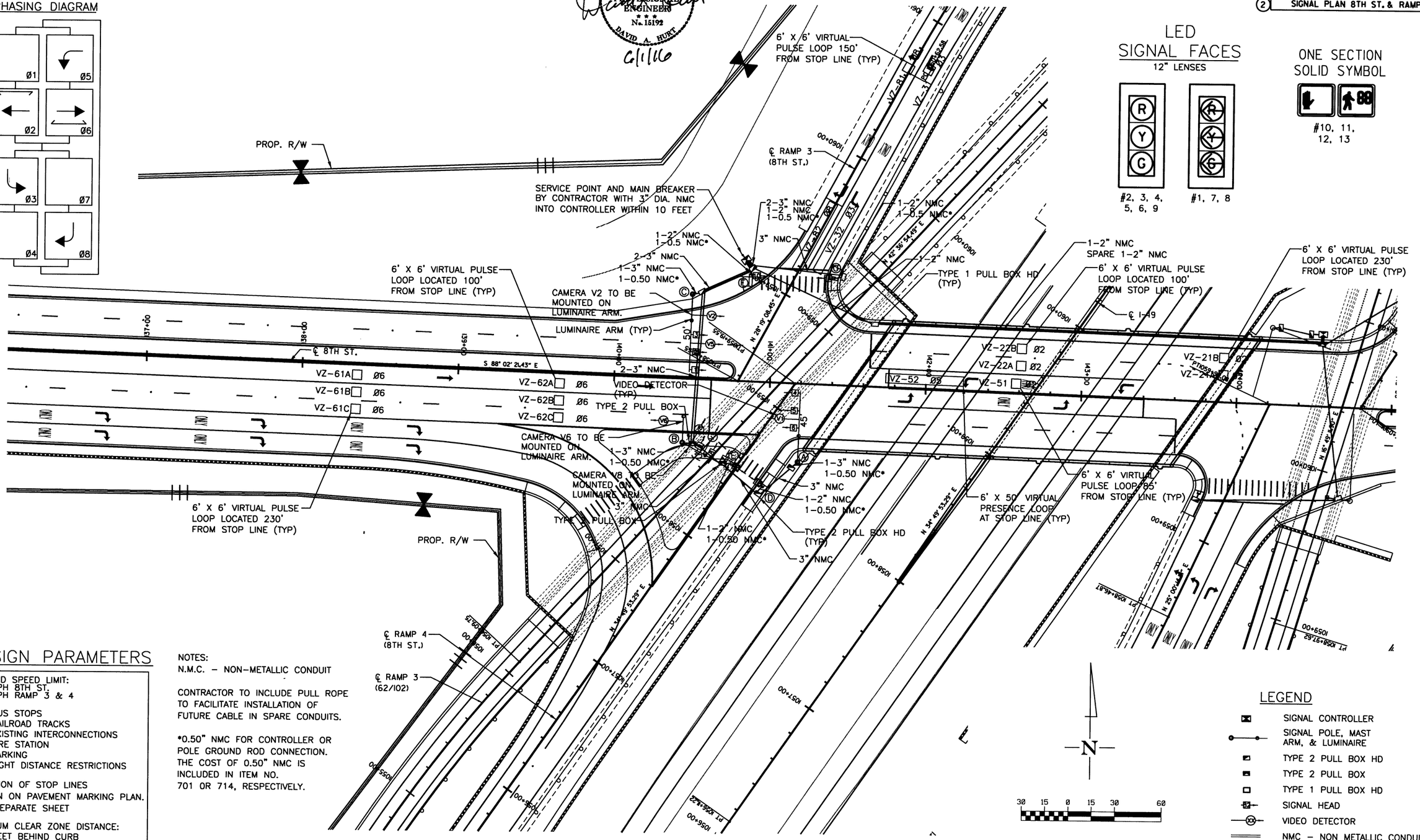
12" LENSES

#2, 3, 4, 5, 6, 9

#1, 7, 8

ONE SECTION SOLID SYMBOL

#10, 11, 12, 13


PROP. R/W
℄ RAMP 3 (8TH ST.)
SERVICE POINT AND MAIN BREAKER BY CONTRACTOR WITH 3" DIA. NMC INTO CONTROLLER WITHIN 10 FEET
6' X 6' VIRTUAL PULSE LOOP 150' FROM STOP LINE (TYP)
2-3" NMC
1-2" NMC
1-0.5 NMC*
3" NMC
1-2" NMC
1-0.5 NMC*
2-3" NMC
1-3" NMC
1-0.50 NMC*
6' X 6' VIRTUAL PULSE LOOP LOCATED 100' FROM STOP LINE (TYP)
CAMERA V2 TO BE MOUNTED ON LUMINAIRE ARM.
LUMINAIRE ARM (TYP)
℄ 8TH ST.
S 88° 02' 21.43" E
VZ-61A Ø6
VZ-61B Ø6
VZ-61C Ø6
VZ-62A Ø6
VZ-62B Ø6
VZ-62C Ø6
2-3" NMC
VIDEO DETECTOR (TYP)
TYPE 2 PULL BOX
CAMERA V6 TO BE MOUNTED ON LUMINAIRE ARM.
1-3" NMC
1-0.50 NMC*
CAMERA V8 TO BE MOUNTED ON LUMINAIRE ARM.
3" NMC
TYPE 2 PULL BOX
6' X 6' VIRTUAL PULSE LOOP LOCATED 230' FROM STOP LINE (TYP)
PROP. R/W
℄ RAMP 4 (8TH ST.)
℄ RAMP 3 (62/102)
1-2" NMC
1-0.5 NMC*
3" NMC
1-2" NMC
1-0.50 NMC*
TYPE 2 PULL BOX HD (TYP)
3" NMC
TYPE 1 PULL BOX HD (TYP)
1-2" NMC
SPARE 1-2" NMC
6' X 6' VIRTUAL PULSE LOOP LOCATED 100' FROM STOP LINE (TYP)
℄ I-49
VZ-22B Ø2
VZ-22A Ø2
VZ-52 Ø3
VZ-51 Ø3
VZ-21B Ø7
VZ-21A Ø7
6' X 6' VIRTUAL PULSE LOOP LOCATED 230' FROM STOP LINE (TYP)
6' X 50' VIRTUAL PRESENCE LOOP AT STOP LINE (TYP)
6' X 6' VIRTUAL PULSE LOOP 185' FROM STOP LINE (TYP)
ONLY
N 28° 19' 08.45" E
N 34° 49' 53.29" E
N 25° 00' 54.45" E
N 45° 49' 54.45" E
PT 1058+68.81
PT 1059+19.58
PT 1058+45.72
PT 1058+94.22
00+090'
00+650'
00+850'
00+950'
00+450'
00+550'
00+650'
00+750'
00+850'
00+950'
137+00
138+00
139+00
140+00
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174+00
175+00
176+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	147	555
				2	SIGNAL PLAN 8TH ST. & RAMPS 3/4			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

PHASING DIAGRAM

LED SIGNAL FACES
12" LENSES

#2, 3, 4, 5, 6, 9 — #1, 7, 8

ONE SECTION SOLID SYMBOL

#10, 11, 12, 13

DESIGN PARAMETERS

POSTED SPEED LIMIT:
40 MPH 8TH ST.
50 MPH RAMP 3 & 4

NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

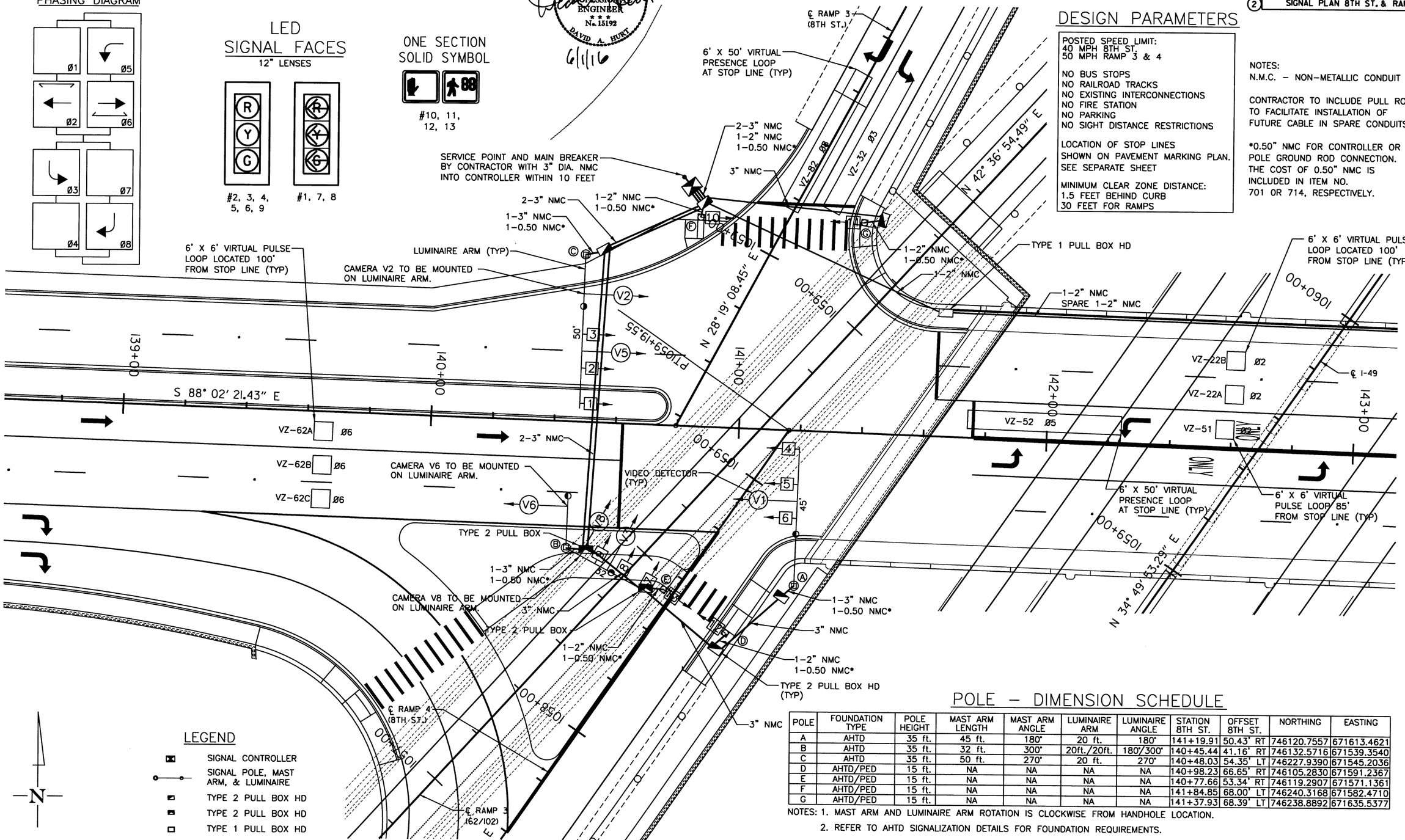
LOCATION OF STOP LINES SHOWN ON PAVEMENT MARKING PLAN. SEE SEPARATE SHEET

MINIMUM CLEAR ZONE DISTANCE:
1.5 FEET BEHIND CURB
30 FEET FOR RAMPS

NOTES:
N.M.C. – NON–METALLIC CONDUIT

CONTRACTOR TO INCLUDE PULL ROPE TO FACILITATE INSTALLATION OF FUTURE CABLE IN SPARE CONDUITS.

*0.50" NMC FOR CONTROLLER OR POLE GROUND ROD CONNECTION. THE COST OF 0.50" NMC IS INCLUDED IN ITEM NO. 701 OR 714, RESPECTIVELY.



POLE – DIMENSION SCHEDULE

POLE	FOUNDATION TYPE	POLE HEIGHT	MAST ARM LENGTH	MAST ARM ANGLE	LUMINAIRE ARM	LUMINAIRE ANGLE	STATION 8TH ST.	OFFSET 8TH ST.	NORTHING	EASTING
A	AHTD	35 ft.	45 ft.	180°	20 ft.	180°	141+19.91	50.43' RT	746120.7557	671613.4621
B	AHTD	35 ft.	32 ft.	300°	20ft./20ft.	180°/300°	140+45.44	41.16' RT	746132.5716	671539.3540
C	AHTD	35 ft.	50 ft.	270°	20 ft.	270°	140+48.03	54.35' LT	746227.9390	671545.2036
D	AHTD/PED	15 ft.	NA	NA	NA	NA	140+98.23	66.65' RT	746105.2830	671591.2367
E	AHTD/PED	15 ft.	NA	NA	NA	NA	140+77.66	53.34' RT	746119.2907	671571.1361
F	AHTD/PED	15 ft.	NA	NA	NA	NA	141+84.85	68.00' LT	746240.3168	671582.4710
G	AHTD/PED	15 ft.	NA	NA	NA	NA	141+37.93	68.39' LT	746238.8892	671635.5377

NOTES: 1. MAST ARM AND LUMINAIRE ARM ROTATION IS CLOCKWISE FROM HANDHOLE LOCATION.
2. REFER TO AHTD SIGNALIZATION DETAILS FOR FOUNDATION REQUIREMENTS.

LEGEND

- SIGNAL CONTROLLER
- SIGNAL POLE, MAST ARM, & LUMINAIRE
- TYPE 2 PULL BOX HD
- TYPE 2 PULL BOX HD
- TYPE 1 PULL BOX HD
- SIGNAL HEAD
- VIDEO DETECTOR
- NMC – NON METALLIC CONDUIT

N

15 7.5 0 7.5 15 30

SIGNAL PLAN
8TH ST. AND I-49 RAMPS 3/4

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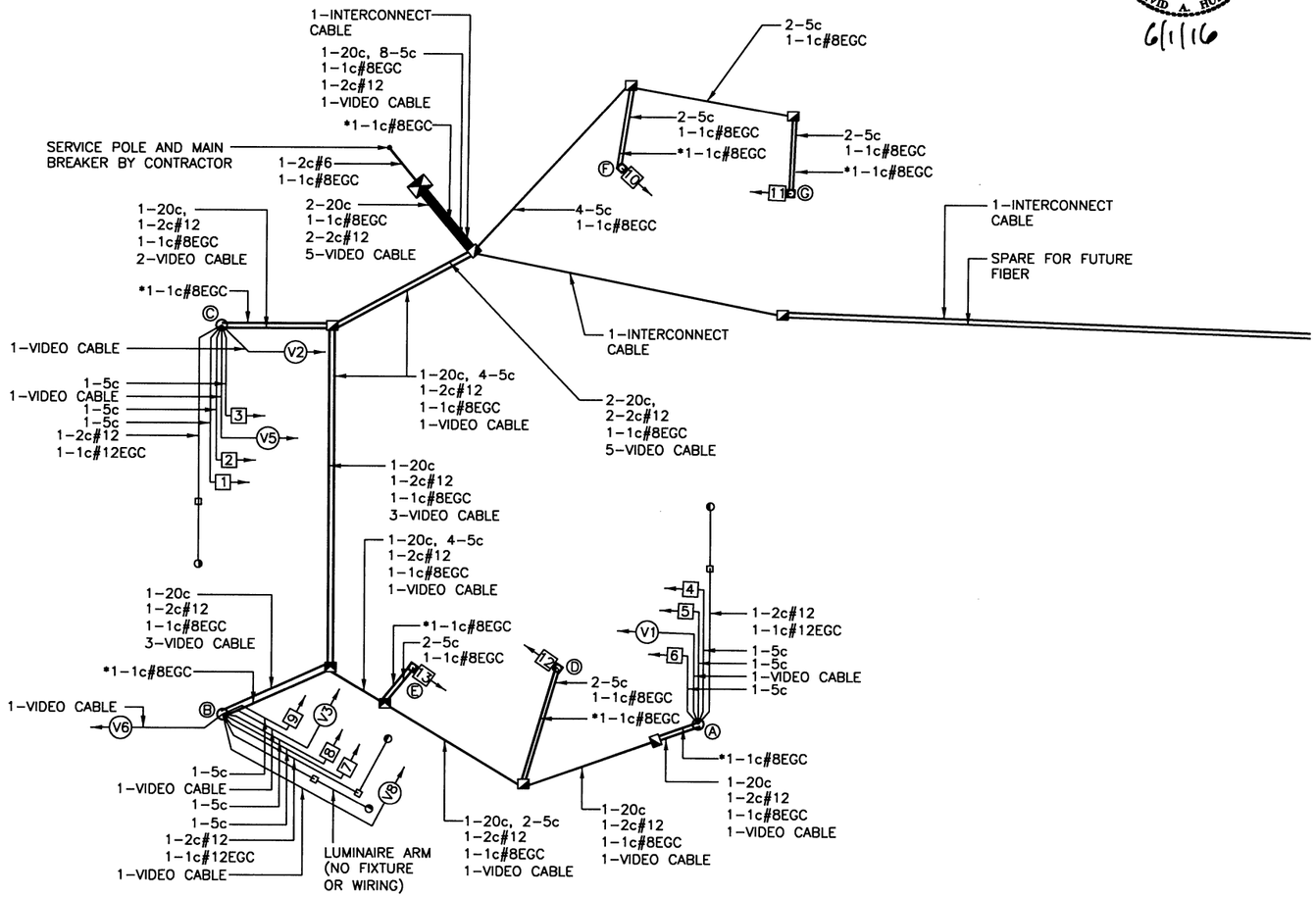
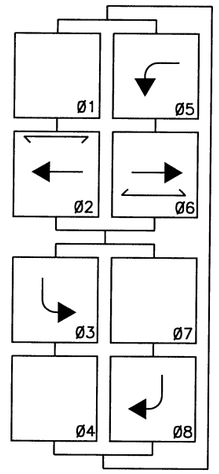
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	148	555
				(2)	SIGNAL PLAN 8TH ST. & RAMPS 3/4			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

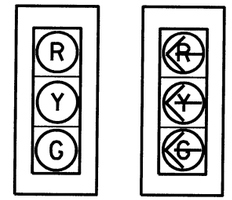


PHASING DIAGRAM



LED SIGNAL FACES

12" LENSES



#2, 3, 4, 5, 6, 9

#1, 7, 8

ONE SECTION SOLID SYMBOL

#10, 11, 12, 13

WIRING DIAGRAM

1. SEPARATE 5c/#14 AWG FROM EACH 3 SEC SIGNAL HEAD TO BASE OF POLE.
2. SEPARATE 7c/#14 AWG FROM EACH 4 SEC SIGNAL HEAD TO BASE OF POLE.
3. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA ON CABINET.
4. THE LOCAL GOV'T SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.
5. ONE SEPARATE 1–5c IS RUN TO EACH POLE FOR THE PEDESTRIAN PUSH BUTTON.

* 1–1c/#8 EGC SHOWN SEPARATELY FROM CONTROLLER OR POLE TO NEAREST PULL BOX IS INCLUDED IN ITEM NO. 701 OR 714, RESPECTIVELY.

DETECTOR I.D. NUMBER	DIRECTION & LOCATION	TYPE	DET. NUM	HARDWARE INPUTS CAB TRM. #	HARDWARE INPUTS AMP. CHN. #	HARDWARE INPUTS CON. INP. #	PROGRAM ASSIGNMENTS LOCAL PHS	PROGRAM ASSIGNMENTS LOCAL SYS DET.	PROGRAM ASSIGNMENTS MSTR SYS. DET.	COMMENT	TUBE LENGTHS
VZ–21A & 21B	WB FAR	LOCAL			5	V2	2			CAMERA V2	23"
VZ–22A & 22B	WB NEAR	COMB.			6	V10	2	2		CAMERA V5	23"
VZ–31	SB LEFT FAR	COMB.			9	V11	3	3		CAMERA V8	23"
VZ–32	SB LEFT NEAR	LOCAL			10	V3	3			CAMERA V3	23"
VZ–51	WB LEFT FAR	COMB.			7	V13	5	5		CAMERA V5	23"
VZ–52	WB LEFT NEAR	LOCAL			8	V5	5			CAMERA V6	23"
VZ–61A & 61B & 61C	EB FAR	LOCAL			3	V6	6			CAMERA V1	23"
VZ–62A & 62B & 62C	EB NEAR	COMB.			4	V14	6	6		CAMERA V8	23"
VZ–81	SB FAR	COMB.			11	V16	8	8		CAMERA V3	23"
VZ–82	SB NEAR	LOCAL			12	V8	8				
P2	N 8TH ST. LEG	PED.				P2	2				
P6	S 8TH ST. LEG	PED.				P6	6				

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D – SYSTEM OR AUXILIARY INPUT
P – PEDESTRIAN INPUT

SPARE AMP. CHN. #: 1,2,13–16

NOTE: "AMP CHN. #" REFERS TO THE DECTOR RACK OUTPUT POSITION.
THIS IS WIRED TO THE COTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9=SYSTEM DETECTOR 1, V10=SYSTEM DETECTOR 2

INTERVAL CHART

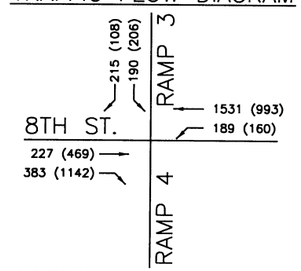
SIGNAL FACES	SW 8TH STREET / RAMP 3 & 4 2+5	CLR	2+6	CLR	3+8	CLR	FLASH SEQ.
1	~~G~~	*	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
2 & 3	G	**	G	**	R	R	R
4, 5 & 6	R	R	G	**	R	R	R
7 & 8	~~R~~	~~R~~	~~R~~	~~R~~	~~G~~	~~Y~~	~~R~~
9	R	R	R	R	G	**	R
10	W	FDW	W	FDW	DW	DW	BLK
11	W	FDW	W	FDW	DW	DW	BLK
12	DW	DW	W	FDW	DW	DW	BLK
13	DW	DW	W	FDW	DW	DW	BLK

**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*

TRAFFIC FLOW DIAGRAM



PROJECTED 2014 PEAK HOUR TRAFFIC VOLUMES

SIGNAL WIRING DIAGRAM
8TH ST. AND I-49 RAMPS 3/4

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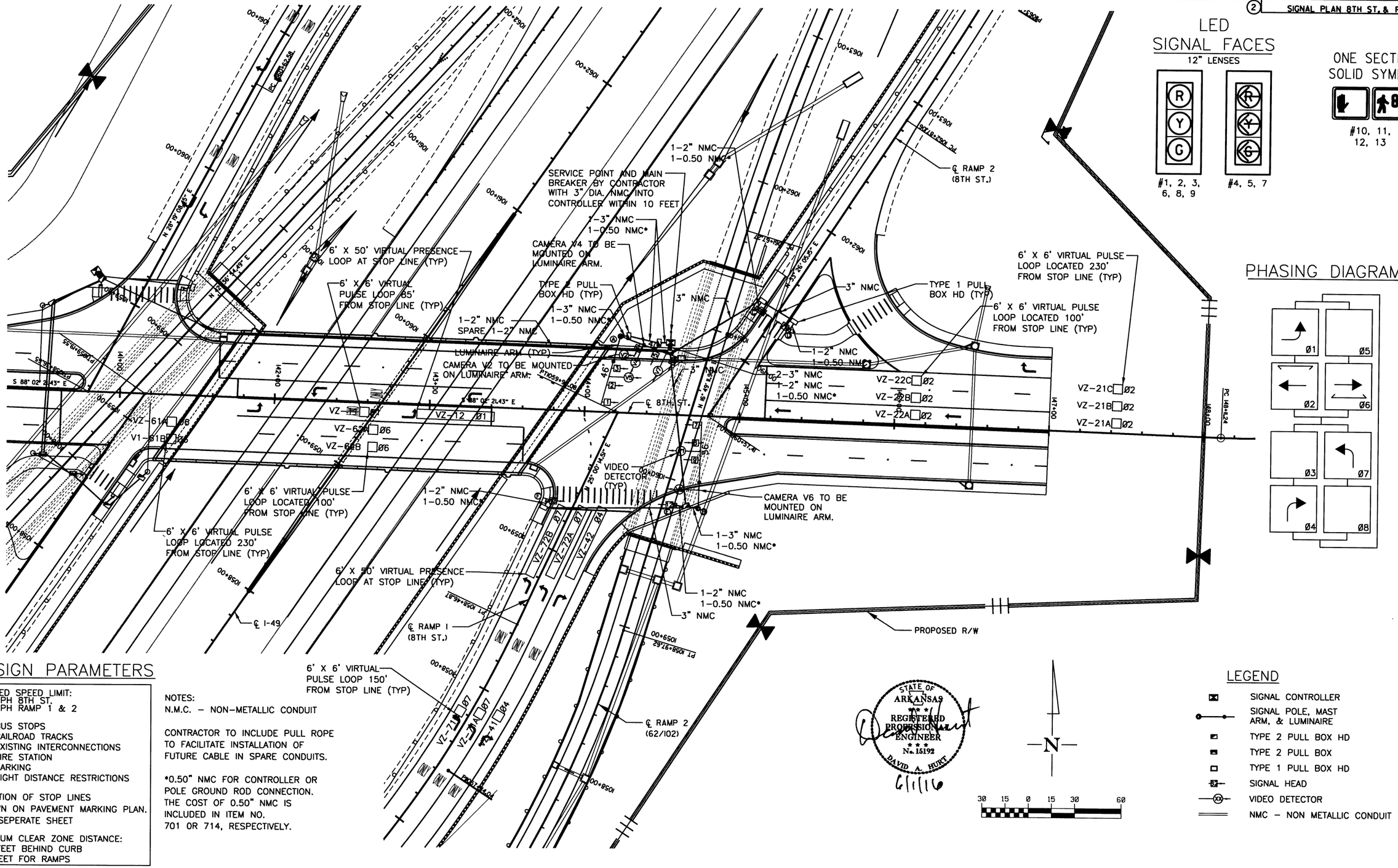
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	149	555
				(2)	SIGNAL PLAN 8TH ST. & RAMPS 1/2			



LED SIGNAL FACES

12" LENSES

#1, 2, 3, 6, 8, 9

#4, 5, 7

ONE SECTION SOLID SYMBOL

#10, 11, 12, 13

PHASING DIAGRAM

DESIGN PARAMETERS

POSTED SPEED LIMIT:
40 MPH 8TH ST.
50 MPH RAMP 1 & 2

NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP LINES SHOWN ON PAVEMENT MARKING PLAN. SEE SEPERATE SHEET

MINIMUM CLEAR ZONE DISTANCE:
1.5 FEET BEHIND CURB
30 FEET FOR RAMPS

NOTES:
N.M.C. – NON–METALLIC CONDUIT

CONTRACTOR TO INCLUDE PULL ROPE TO FACILITATE INSTALLATION OF FUTURE CABLE IN SPARE CONDUITS.

*0.50" NMC FOR CONTROLLER OR POLE GROUND ROD CONNECTION. THE COST OF 0.50" NMC IS INCLUDED IN ITEM NO. 701 OR 714, RESPECTIVELY.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

N

30 15 0 15 30 60

LEGEND

- SIGNAL CONTROLLER
- SIGNAL POLE, MAST ARM, & LUMINAIRE
- TYPE 2 PULL BOX HD
- TYPE 2 PULL BOX
- TYPE 1 PULL BOX HD
- SIGNAL HEAD
- VIDEO DETECTOR
- NMC – NON METALLIC CONDUIT

SIGNAL PLAN
8TH ST. AND I-49 RAMPS 1/2

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10/17/2016				6	ARK.			
				JOB NO.		090376	150	555
				(2)	SIGNAL PLAN 8TH ST. & RAMPS 1/2			

PHASING DIAGRAM

LED SIGNAL FACES

12" LENSES

#1, 2, 3, 6, 8, 9 | #4, 5, 7

ONE SECTION SOLID SYMBOL

#10, 11, 12, 13

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HURT
10/17/16

DESIGN PARAMETERS

POSTED SPEED LIMIT:
40 MPH 8TH ST.
50 MPH RAMP 1 & 2

NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

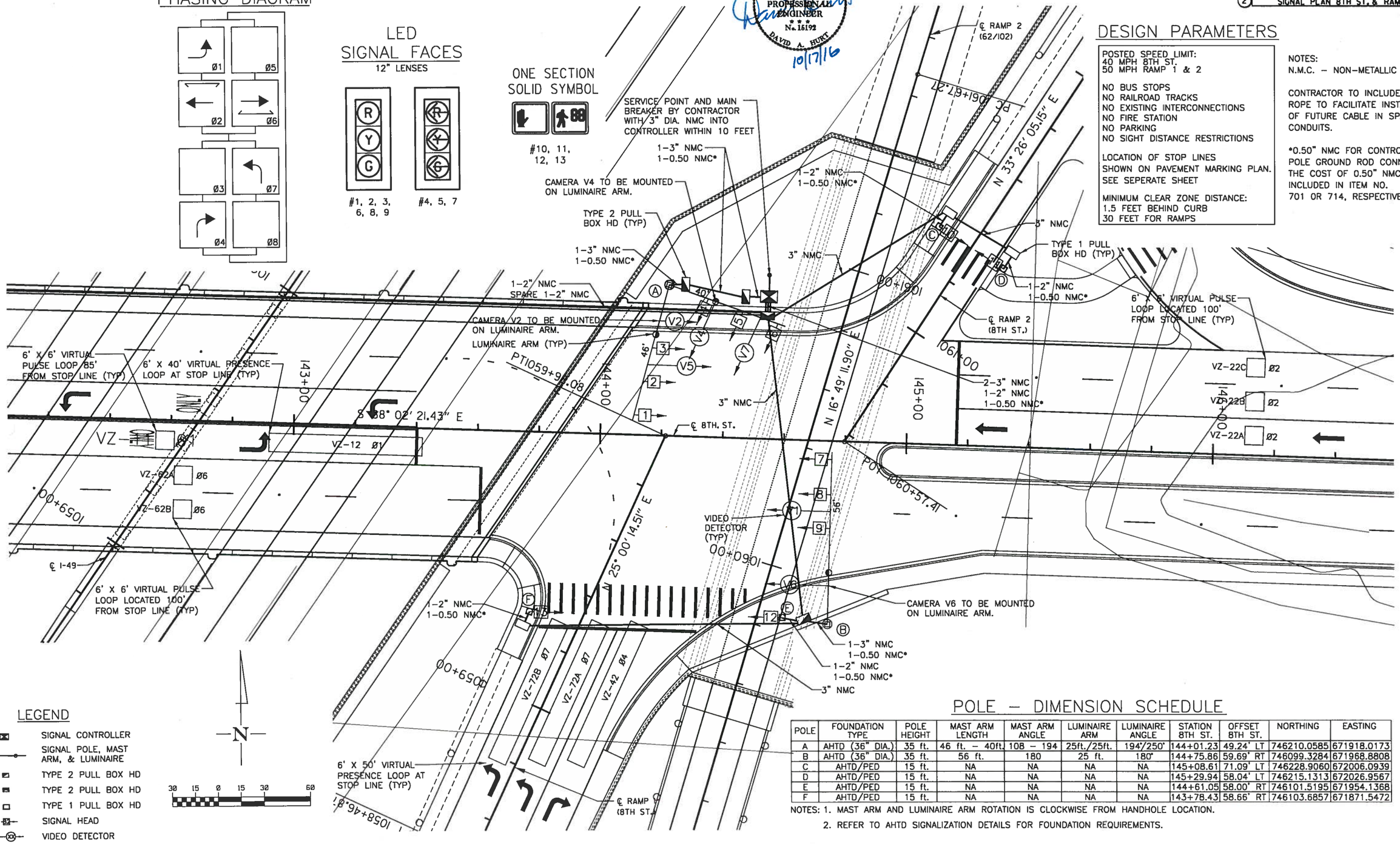
LOCATION OF STOP LINES SHOWN ON PAVEMENT MARKING PLAN. SEE SEPERATE SHEET

MINIMUM CLEAR ZONE DISTANCE:
1.5 FEET BEHIND CURB
30 FEET FOR RAMPS

NOTES:
N.M.C. – NON–METALLIC CONDUIT

CONTRACTOR TO INCLUDE PULL ROPE TO FACILITATE INSTALLATION OF FUTURE CABLE IN SPARE CONDUITS.

*0.50" NMC FOR CONTROLLER OR POLE GROUND ROD CONNECTION. THE COST OF 0.50" NMC IS INCLUDED IN ITEM NO. 701 OR 714, RESPECTIVELY.



LEGEND

- SIGNAL CONTROLLER
- SIGNAL POLE, MAST ARM, & LUMINAIRE
- TYPE 2 PULL BOX HD
- TYPE 2 PULL BOX HD
- TYPE 1 PULL BOX HD
- SIGNAL HEAD
- VIDEO DETECTOR
- NMC – NON METALLIC CONDUIT

POLE – DIMENSION SCHEDULE

POLE	FOUNDATION TYPE	POLE HEIGHT	MAST ARM LENGTH	MAST ARM ANGLE	LUMINAIRE ARM	LUMINAIRE ANGLE	STATION 8TH ST.	OFFSET 8TH ST.	NORTHING	EASTING
A	AHTD (36" DIA.)	35 ft.	46 ft. – 40ft.	108 – 194	25ft./25ft.	194°/250°	144+01.23	49.24' LT	746210.0585	671918.0173
B	AHTD (36" DIA.)	35 ft.	56 ft.	180	25 ft.	180°	144+75.86	59.69' RT	746099.3284	671968.8808
C	AHTD/PED	15 ft.	NA	NA	NA	NA	145+08.61	71.09' LT	746228.9060	672006.0939
D	AHTD/PED	15 ft.	NA	NA	NA	NA	145+29.94	58.04' LT	746215.1313	672026.9567
E	AHTD/PED	15 ft.	NA	NA	NA	NA	144+61.05	58.00' RT	746101.5195	671954.1368
F	AHTD/PED	15 ft.	NA	NA	NA	NA	143+78.43	58.66' RT	746103.6857	671871.5472

NOTES: 1. MAST ARM AND LUMINAIRE ARM ROTATION IS CLOCKWISE FROM HANDHOLE LOCATION.
2. REFER TO AHTD SIGNALIZATION DETAILS FOR FOUNDATION REQUIREMENTS.

SIGNAL PLAN
8TH ST. AND I-49 RAMPS 1/2

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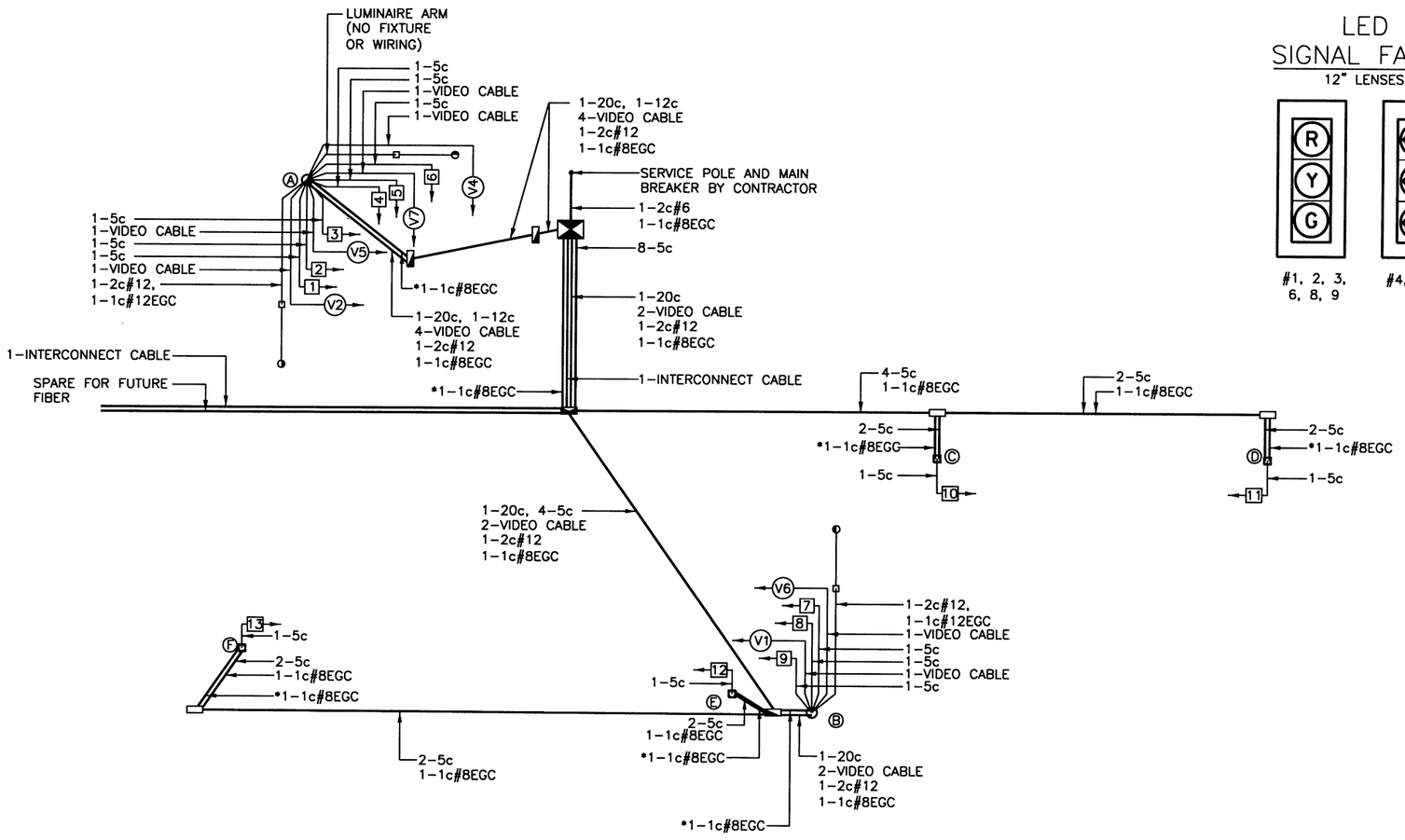
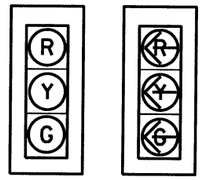
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	151	555
				(2)	WIRING PLAN 8TH ST. & RAMPS 1/2			



LED SIGNAL FACES

12" LENSES

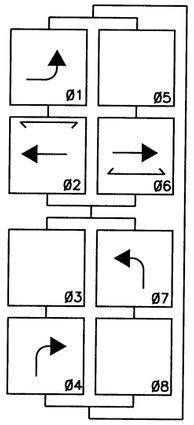


#1, 2, 3, 6, 8, 9 — #4, 5, 7

ONE SECTION SOLID SYMBOL

#10, 11, 12, 13

PHASING DIAGRAM



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
6/1/16

WIRING DIAGRAM

1. SEPARATE 5c/#14 AWG FROM EACH 3 SEC SIGNAL HEAD TO BASE OF POLE.
2. SEPARATE 7c/#14 AWG FROM EACH 4 SEC SIGNAL HEAD TO BASE OF POLE.
3. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA ON CABINET.
4. THE LOCAL GOV'T SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.
5. ONE SEPARATE 1-5c IS RUN TO EACH POLE FOR THE PEDESTRIAN PUSH BUTTON.

* 1-1c/#8 EGC SHOWN SEPARATELY FROM CONTROLLER OR POLE TO NEAREST PULL BOX IS INCLUDED IN ITEM NO. 701 OR 714, RESPECTIVELY.

DETECTOR I.D. NUMBER	DIRECTION & LOCATION	TYPE	DET. NUM	HARDWARE INPUTS CAB TRM. #	HARDWARE INPUTS AMP. CHN. #	HARDWARE INPUTS CON. INP. #	PROGRAM ASSIGNMENTS LOCAL PHS	PROGRAM ASSIGNMENTS LOCAL SYS DET.	PROGRAM ASSIGNMENTS MSTR SYS. DET.	COMMENT	TUBE LENGTHS
VZ-11	EB LEFT FAR	COMB.			1	V9	1	1		CAMERA V1	23"
VZ-12	EB LEFT NEAR	LOCAL			2	V1	1			CAMERA V1	23"
VZ-21A, 21B, & 21C	WB FAR	LOCAL			5	V2	2			CAMERA V2	23"
VZ-22A, 22B, & 22C	WB NEAR	COMB.			6	V10	2	2		CAMERA V5	23"
VZ-41	NB RIGHT FAR	COMB.			9	V12	4	4		CAMERA V4	23"
VZ-42	NB RIGHT NEAR	LOCAL			10	V4	4			CAMERA V7	23"
VZ-61A & 61B	EB FAR	LOCAL			3	V6	6			CAMERA V6	23"
VZ-62A & 62B	EB NEAR	COMB.			4	V14	6	6		CAMERA V1	23"
VZ-71A & 71B	NB LEFT FAR	COMB.			11	V15	7	7		CAMERA V4	23"
VZ-72A & 72B	NB LEFT NEAR	LOCAL			12	V7	7			CAMERA V7	23"
#10, 11	RAMP 2 N. LEG	PED.				P2	2				
#12, 13	RAMP 1 S. LEG	PED.				P6	6				

SPARE: 7,8,13-16

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE: "AMP CHN. #" REFERS TO THE DECTOR RACK OUTPUT POSITION.
THIS IS WIRED TO THE COTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
EXAMPLE: V9=SYSTEM DETECTOR 1, V10=SYSTEM DETECTOR 2

INTERVAL CHART

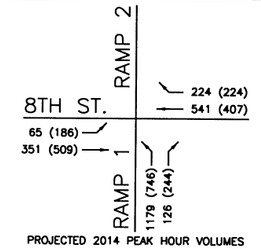
SIGNAL FACES	SW 8TH STREET / RAMP 1 & 2 1+6	CLR	2+6	CLR	4+7	CLR	FLASH SEQ.
1, 2 & 3	R	R	G	Y	R	R	R
4 & 5	R	R	R	R	G	Y	R
6	R	R	R	R	G	Y	R
7	~~G~~	~~Y~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
8 & 9	R	R	G	Y	R	R	R
10	DW	DW	W	FDW	DW	DW	BLK
11	DW	DW	W	FDW	DW	DW	BLK
12	W	FDW	W	FDW	DW	DW	BLK
13	W	FDW	W	FDW	DW	DW	BLK

*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

TRAFFIC FLOW DIAGRAM



PROJECTED 2014 PEAK HOUR VOLUMES

SIGNAL WIRING DIAGRAM
8TH ST. AND I-49 RAMPS 1/2

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NOTES

THE CONTRACTOR WILL VERIFY SIGN PLACEMENT AND MAKE ANY ADJUSTMENTS NECESSARY TO ALIGN SIGNS OVER INTENDED LANES.

ALL EXISTING GUIDE SIGNS SHALL BE MAINTAINED IN SUCH A MANNER THAT THE SIGNS ARE FULLY VISIBLE, INTACT, AND ERECT FOR THE DURATION OF THE PROJECT, AND SHALL BE REMOVED WHEN THEIR USE IS NO LONGER REQUIRED. REMOVAL AND DISPOSAL OF SIGNS, SUPPORTS, AND FOUNDATIONS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS IN THE CONTRACT.

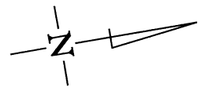
THE EXISTING SIGNS AND SUPPORTS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE EXISTING FOOTINGS SHALL BE REMOVED AND THE HOLES FILLED WITH A SUITABLE MATERIAL AND COMPACTED.

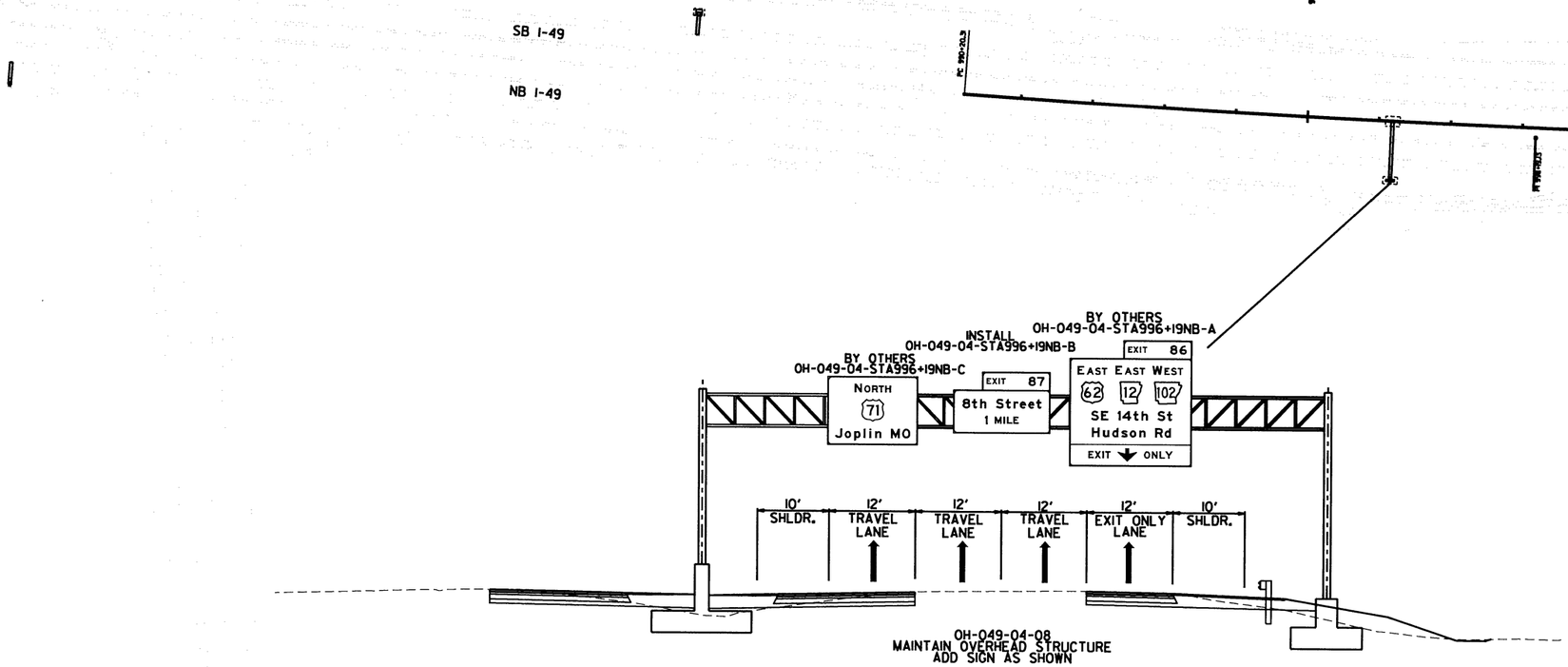
THE EXISTING SIGN STRUCTURES SHALL BE REMOVED 2.5 FEET BELOW NORMAL GRADE AND THE HOLES FILLED WITH A SUITABLE MATERIAL AND COMPACTED TO NORMAL GRADE.

THE EXISTING LOGOS WILL BE RELOCATED TO THE NEW LOGO SIGN BY THE CONTRACTOR. THE LOGO INSTALLATION SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS IN THE CONTRACT.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	152	555
				(2)	SIGN PLACEMENT SHEET			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16





SIGN PLACEMENT SHEET

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	153	555

2 SIGN PLACEMENT SHEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

INSTALL
(4)SS-RI-04-STAI029+08NB
(4)SS-R3-04-STAI032+79SB

26' SHLDR. | 4' | 12' TRAVEL LANE | 12' TRAVEL LANE | 12' TRAVEL LANE | 12' TRAVEL LANE | 6' SHLDR. | 24'

INSTALL
OH-R3-04-01

INSTALL
OH-RI-04-01

SB I-49

NB I-49

℄ RAMP 4 (62/102)

℄ RAMP 1 (62/102)

℄ RAMP 2 (62/102)

℄ RAMP 3 (62/102)

HWY. 102

HWY. 62/12

INSTALL SS-R3-04-STAI030+73SB

INSTALL SS-R3-04-STAI031+73SB

INSTALL SS-R3-04-STAI031+73SB

INSTALL SS-RI-04-STAI028+00NB

INSTALL SS-RI-04-STAI030+00NB

INSTALL SS-RI-04-STAI024+69NB

INSTALL LT-RI-04-STAI025+93NB

INSTALL LF-RI-04-STAI027+00NB

INSTALL LT-RI-04-STAI028+00NB

INSTALL SS-RI-04-STAI030+00NB

INSTALL SS-RI-04-STAI031+00NB

BY OTHERS
OH-049-04-STAI016+96NB-A

INSTALL
OH-049-04-STAI016+96NB-B

BY OTHERS
OH-049-04-STAI016+96NB-C

EXIT 87
NORTH (71) Joplin MO

EXIT 86
EAST EAST WEST
(62) (12) (102)
8th Street
½ MILE
SE 14th St
Hudson Rd
EXIT ONLY

10' SHLDR. | 12' TRAVEL LANE | 12' TRAVEL LANE | 12' TRAVEL LANE | 12' EXIT ONLY LANE | 10' SHLDR.

OH-049-04-10
MAINTAIN OVERHEAD STRUCTURE
ADD SIGN AS SHOWN

SIGN PLACEMENT SHEET

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	154	555

(2) SIGN PLACEMENT SHEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

INSTALL SS-R3-04-STAI063+80SB
INSTALL SS-R3-04-STAI063+80SB
ONLY
ONLY
12' TRAVEL LANE
12' TRAVEL LANE
6' SHLDR.
24'
INSTALL OH-R3-04-02
INSTALL SS-R3-04-STAI033+78SB
INSTALL LG-R3-04-STAI034+83SB
INSTALL LF-R3-04-STAI035+88SB
INSTALL LA-R3-04-STAI036+93SB
INSTALL SS-R3-04-STAI038+00SB
INSTALL SS-R3-04-STAI056+00SB
℄ RAMP 4 (8TH ST.)
℄ RAMP 3 (62/102)
℄ RAMP 3 (8TH ST.)
℄ 8TH ST.
EXIT 86 XX MPH
INSTALL EX-R3-04-STAI061+25SB
SB I-49
NB I-49
℄ RAMP 1 (8TH ST.)
INSTALL SS-R2-04-STAI059+36NB
SPEED LIMIT 45
℄ RAMP 2 (62/102)
℄ INTERSTATE 49
INSTALL SS-RI-04-STAI047+82NB
EXIT 87 XX MPH
INSTALL EX-RI-04-STAI052+40NB
INSTALL SS-RI-04-STAI053+57NB
INSTALL SS-RI-04-STAI055+83NB
INSTALL SS-RI-04-STAI055+83NB
INSTALL SS-RI-04-STAI055+83NB
℄ RAMP 2 (8TH ST.)
INSTALL OH-RI-04-STAI047+00NB-B
INSTALL OH-RI-04-STAI047+00NB-A
NORTH (71) Joplin MO
EXIT 87 8th Street EXIT ONLY
10' SHLDR. 12' TRAVEL LANE 12' TRAVEL LANE 12' TRAVEL LANE 12' EXIT ONLY LANE 6' SHLDR. 10'
INSTALL SS-RI-04-STAI047+00NB
EXIT XX MPH
INSTALL OH-R3-04-13
INSTALL OH-RI-04-02
8' SHLDR. 4' 12' TRAVEL LANE 12' TRAVEL LANE 12' TRAVEL LANE

SIGN PLACEMENT SHEET

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	155	555
				(2)	SIGN PLACEMENT SHEET			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

INSTALL
OH-049-04-STAI065+57SB

EXIT 86
EAST EAST WEST
62 12 102
SE 14th St
Hudson Rd

10' SHLDR. | 12' TRAVEL LANE | 12' TRAVEL LANE | 12' TRAVEL LANE | 12' TRAVEL LANE | 6' SHLDR.

9'-9"

EXIT XX MAX

INSTALL
SS-R3-04-STAI065+57SB

INSTALL
CL-049-04-14

BY OTHERS
OH-049-04-STAI076+63SB-B

EXIT 86
EAST EAST WEST
62 12 102
SE 14th St
Hudson Rd
1/4 MILE

INSTALL
OH-049-04-STAI076+63SB-A

EXIT 87
8th Street

10' SHLDR. | 12' TRAVEL LANE | 12' TRAVEL LANE | 12' TRAVEL LANE | 12' TRAVEL LANE | 10' SHLDR.

EXIT XX MAX

INSTALL
SS-R3-04-STAI076+63SB

INSTALL
SS-R3-04-STAI066+00SB

EXIT 87 XX MPH

INSTALL
EX-R3-04-STAI071+18SB

OH-R3-04-II
MAINTAIN OVERHEAD STRUCTURE
ADD SIGN AS SHOWN

℄ RAMP 3 (8TH ST.)

℄ INTERSTATE 49

SB I-49

℄ RAMP 3 (62/102)

NB I-49

℄ RAMP 2 (62/102)

℄ RAMP 2 (8TH ST.)

℄ E. BATTLEFIELD BLVD.

INSTALL
SS-049-04-STAI068+47NB

SIGN PLACEMENT SHEET

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	156	555

(2) SIGN PLACEMENT SHEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
5/6/16

BY OTHERS
OH-049-04-STA111+24SB-B

INSTALL
OH-049-04-STA111+24SB-A

EXIT 86
EAST 63 EAST 12 WEST 102
SE 14th St
Hudson Rd
1 1/4 MILES

EXIT 87
8th Street
1 MILE

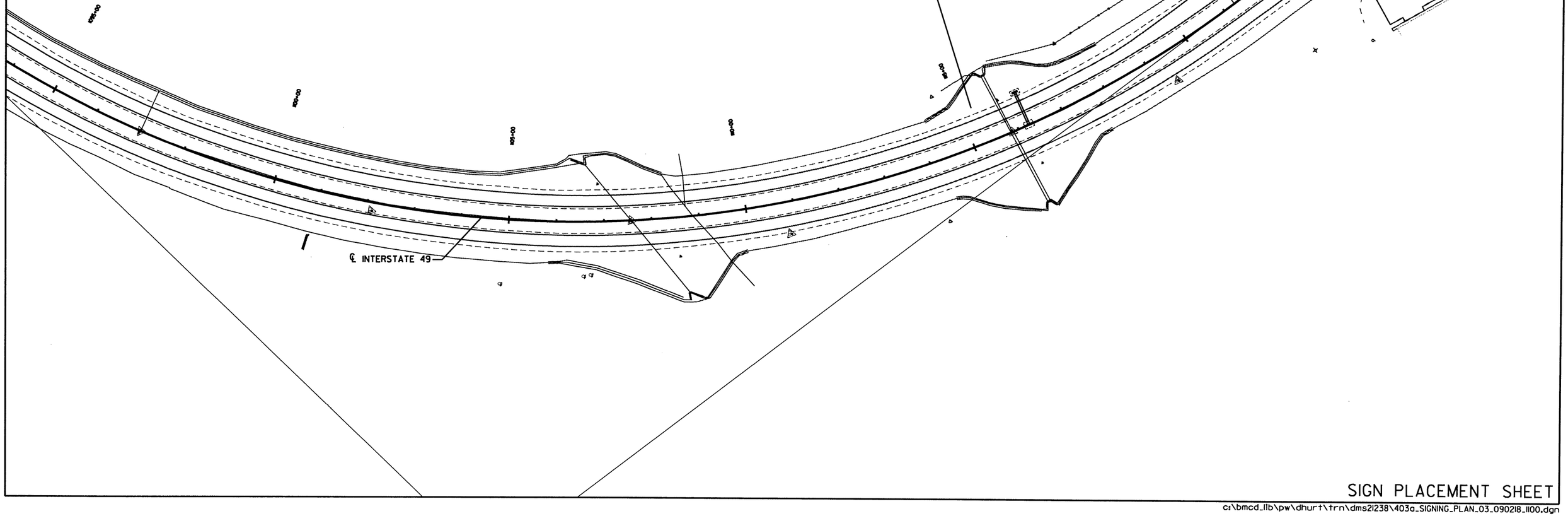
10' SHLDR. | 12' TRAVEL LANE | 12' TRAVEL LANE | 12' TRAVEL LANE | 10' SHLDR.

EXIT XX

INSTALL
SS-049-04-STA111+24SB

OH-049-04-13
MAINTAIN OVERHEAD STRUCTURE
ADD SIGN AS SHOWN

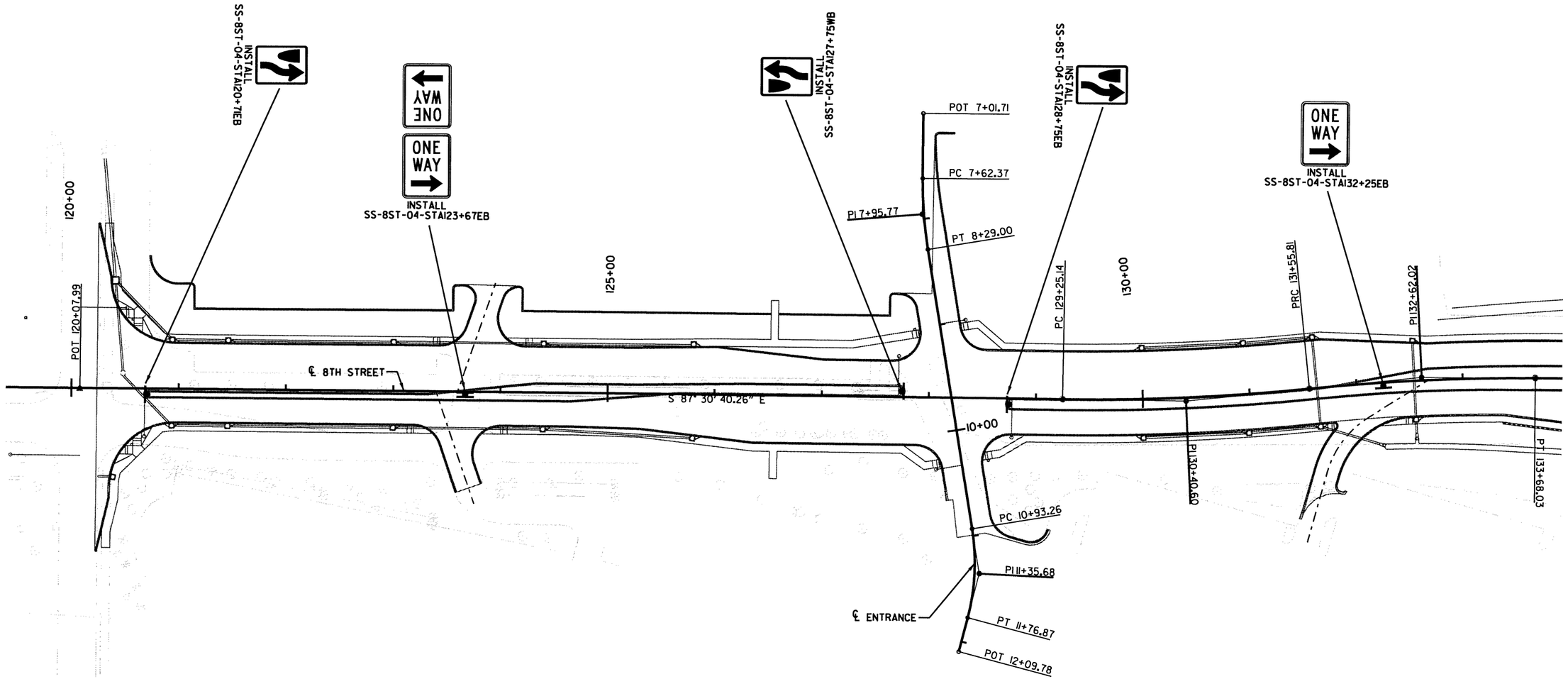
N



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	157	555
				(2)	SIGN PLACEMENT SHEET			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

N



SIGN PLACEMENT SHEET

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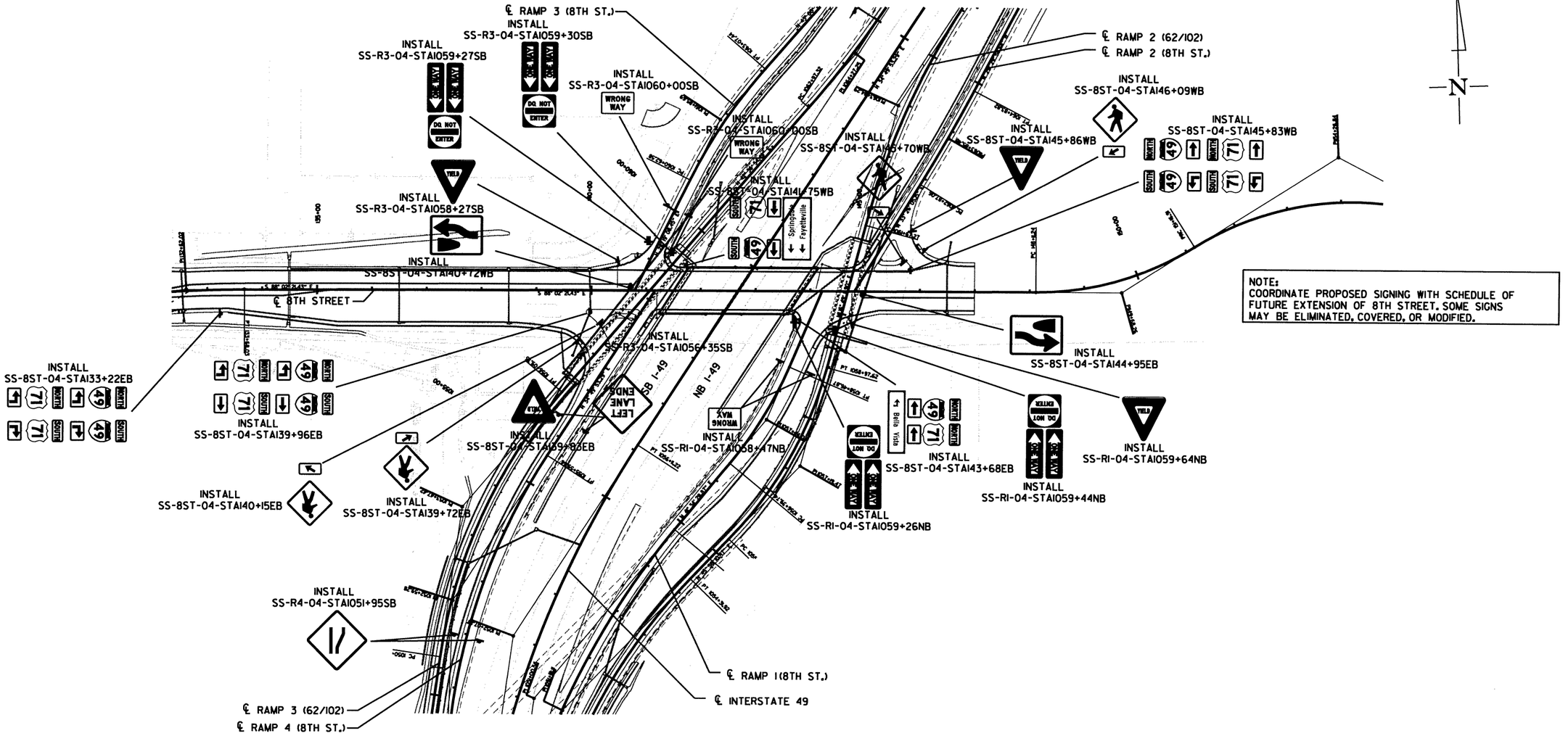
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	158	555
				(2) SIGN PLACEMENT SHEET				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16



NOTE:
COORDINATE PROPOSED SIGNING WITH SCHEDULE OF FUTURE EXTENSION OF 8TH STREET. SOME SIGNS MAY BE ELIMINATED, COVERED, OR MODIFIED.

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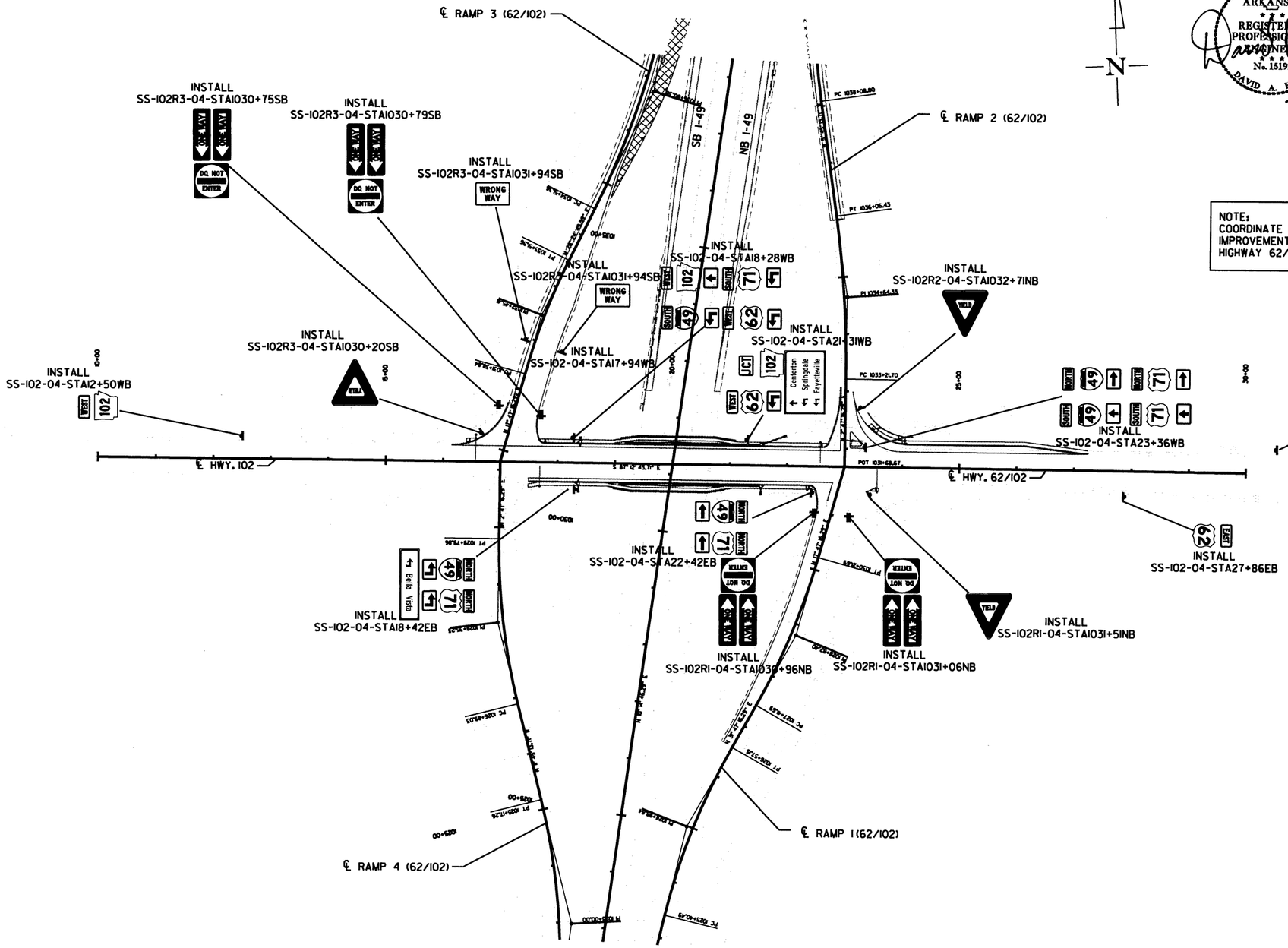
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	159	555
				(2)	SIGN PLACEMENT SHEET			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16



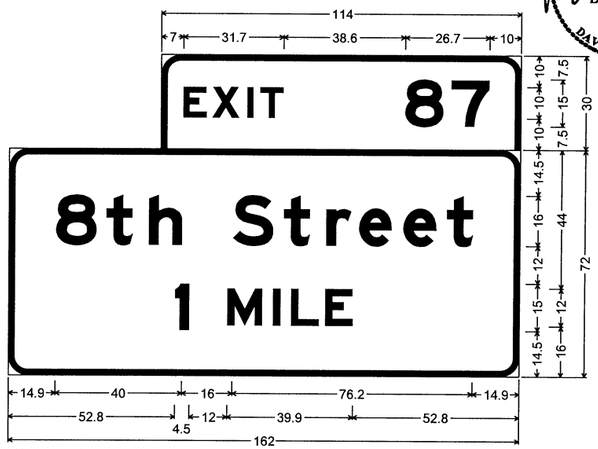
NOTE:
COORDINATE PROPOSED SIGNING WITH ADDITIONAL IMPROVEMENTS THAT MAY BE INCLUDED ALONG HIGHWAY 62/102.

SIGN PLACEMENT SHEET

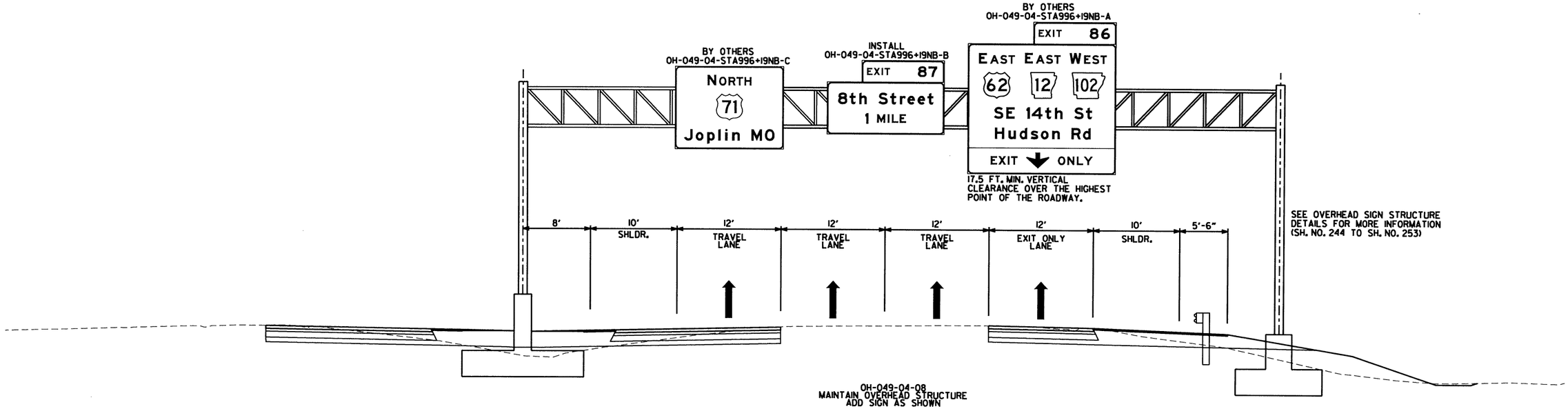
c:\bmcd_llb\pw\dhurt\trn\dms21238\407_SIGNING_PLAN_07_090218_1100.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	160	555
				(2)	SIGN LAYOUT SHEET			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16



0H-049-04-STA996+18NB-B;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] E Mod 2K specified length; [87] E Mod 2K;
6.0" Radius, 2.0" Border, White on Green;
[8th Street] E Mod 2K; [1] E Mod 2K; [MILE] E Mod 2K;

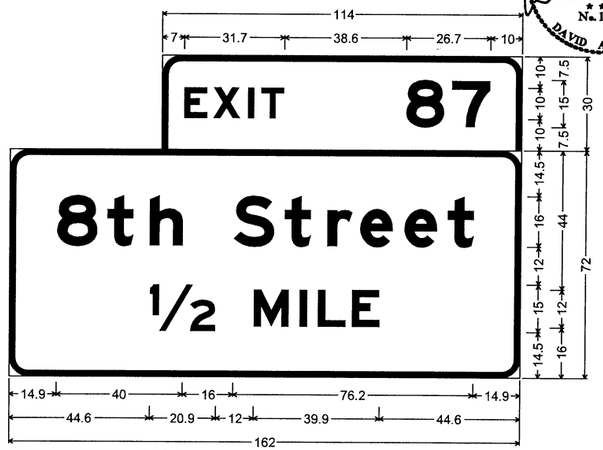


SIGN LAYOUT SHEET

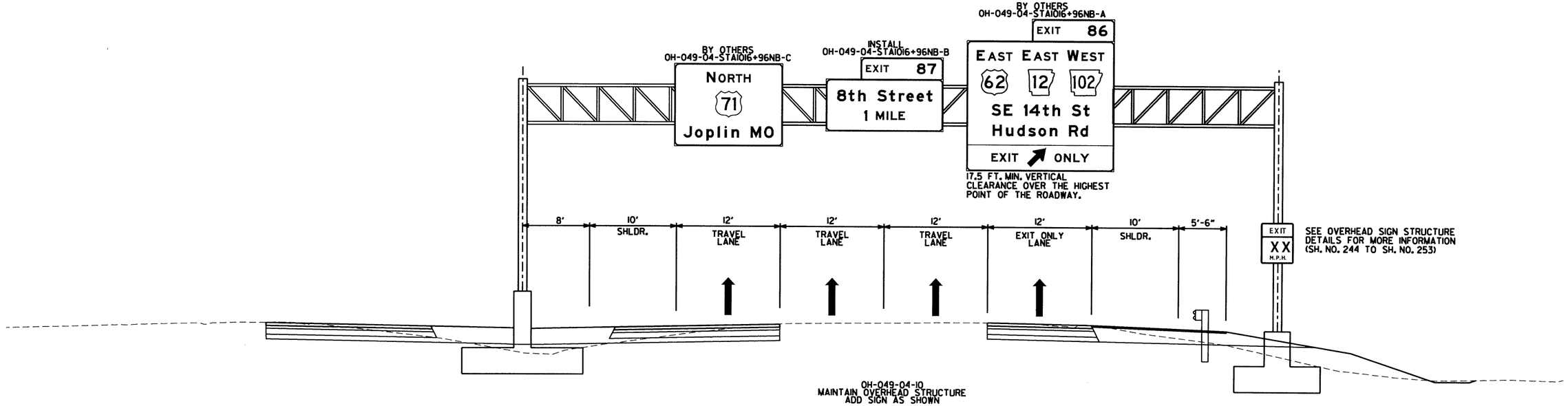
c:\bmcd_llb\pw\dhurt\trn\dms21238\410_SIGNING_PLAN_10_090218_ll00.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	161	555
				(2)	SIGN LAYOUT SHEET			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16



0H-049-04-STA1016+96NB-B;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] E Mod 2K specified length; [87] E Mod 2K;
6.0" Radius, 2.0" Border, White on Green;
[8th Street] E Mod 2K; [1/2] E Mod 2K; [MILE] E Mod 2K;

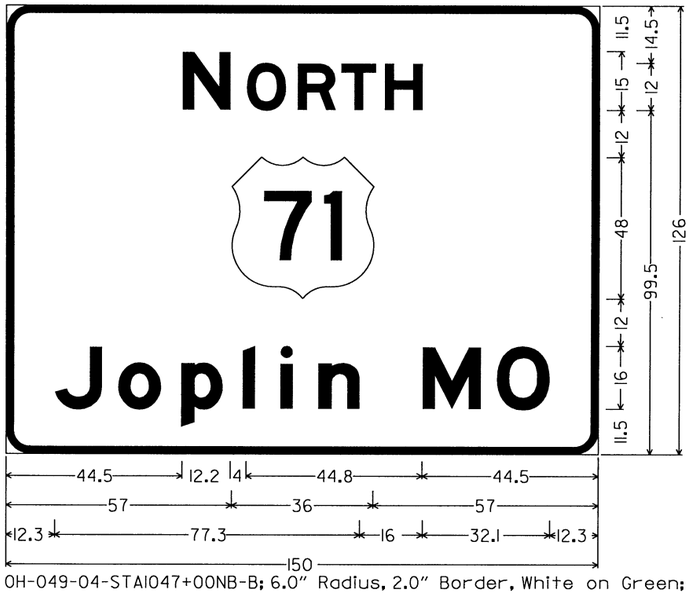


SIGN LAYOUT SHEET

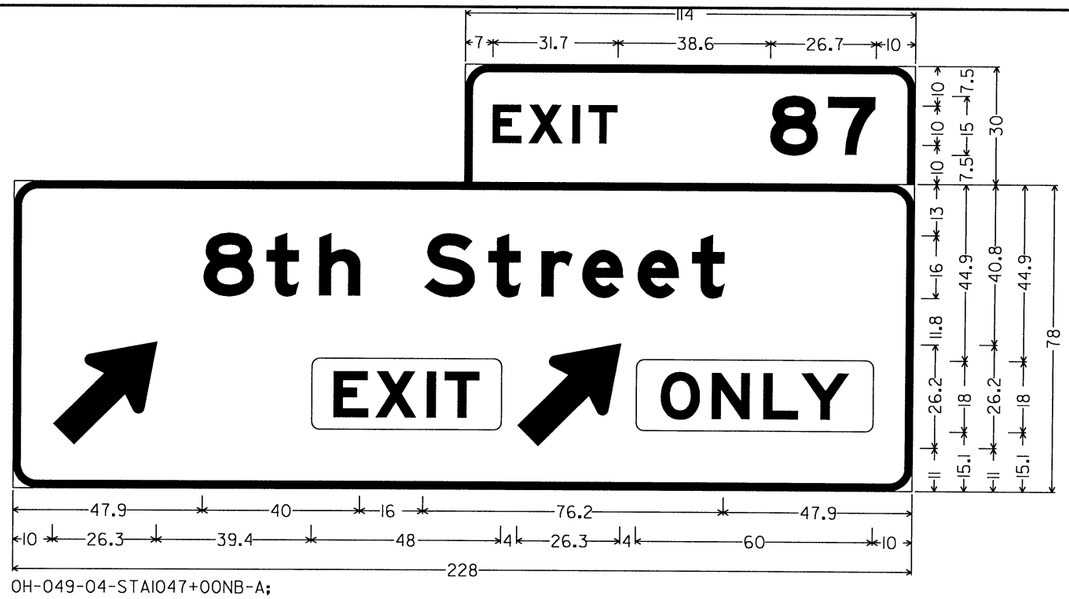
c:\bmcd_11b\pw\dhurt\trn\dms21238\413_SIGNING_PLAN_13_090218_1100.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	162	555

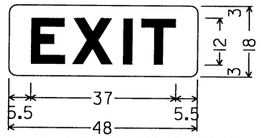
(2) SIGN LAYOUT SHEET



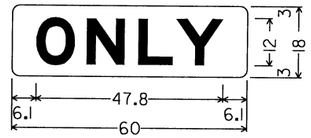
OH-049-04-STAI047+00NB-B; 6.0" Radius, 2.0" Border, White on Green;
[N] E Mod 2K; [ORTH] E Mod 2K; [Joplin MO] E Mod 2K;



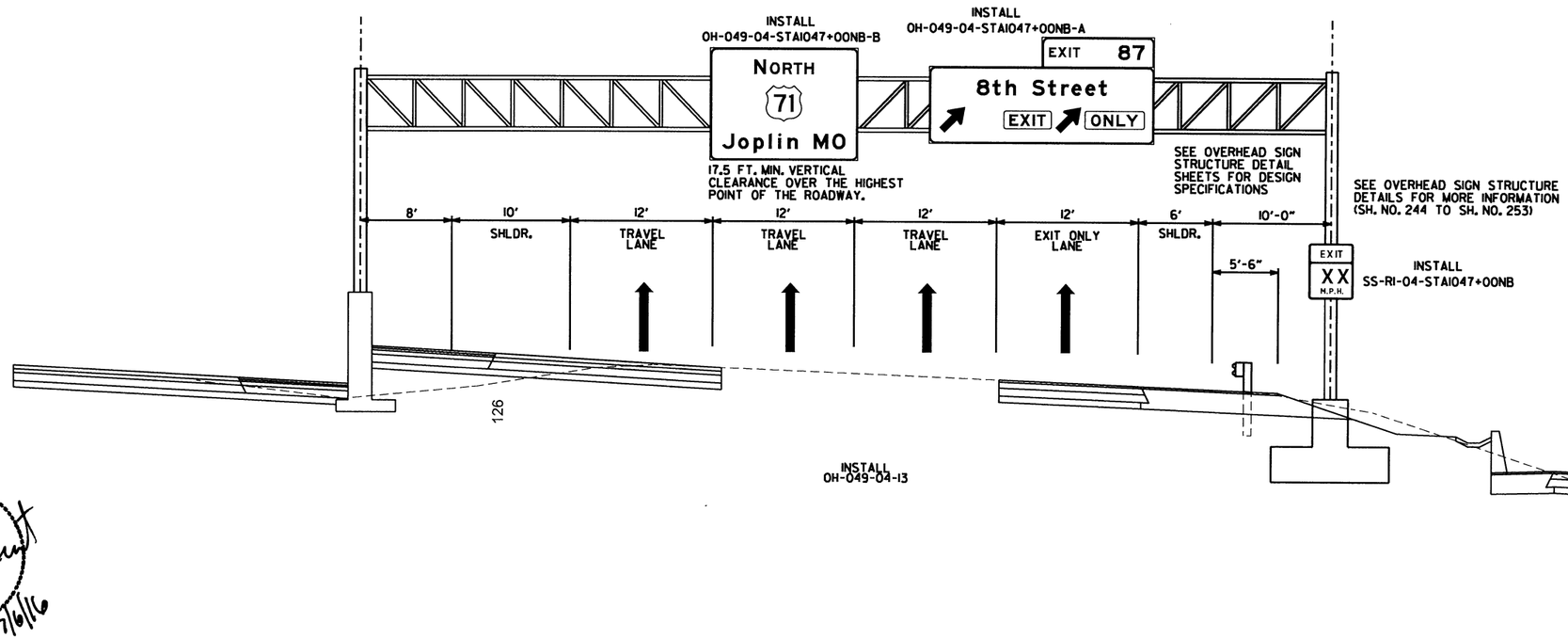
OH-049-04-STAI047+00NB-A;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] E Mod 2K specified length; [87] E Mod 2K;
6.0" Radius, 2.0" Border, White on Green;
[8th Street] E Mod 2K; Standard Arrow Custom 33.4" X 20.3" 45[; Rectangle Yellow;
Standard Arrow Custom 33.4" X 20.3" 45[; Rectangle Yellow;



OH-049-04-STAI047+00NB;
1.9" Radius, No border, White on Yellow;
[EXIT] Black E Mod 2K;



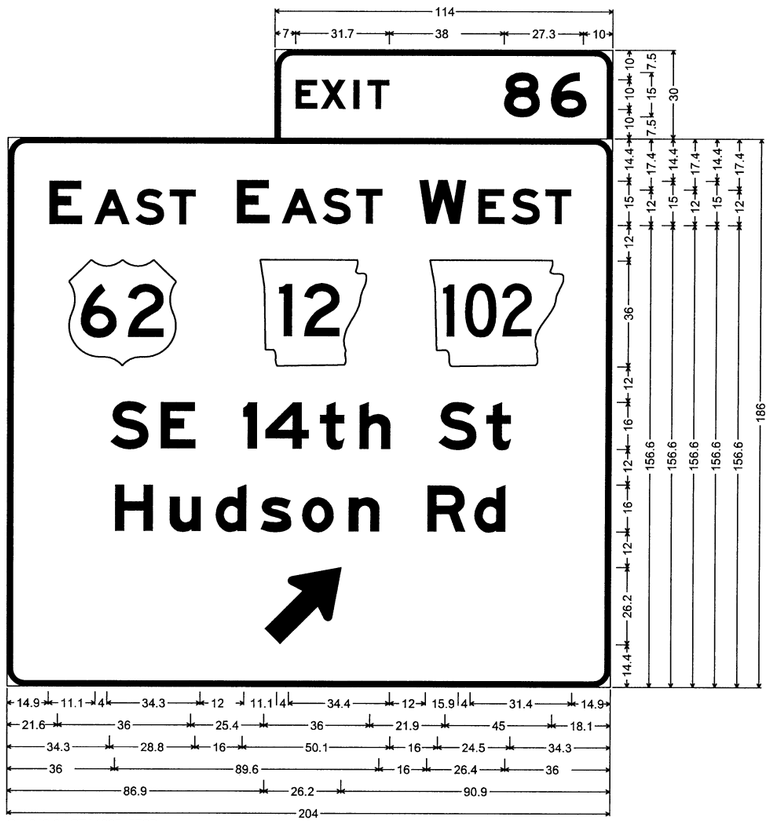
OH-049-04-STAI047+00NB;
1.9" Radius, No border, White on Yellow;
[ONLY] Black E Mod 2K;



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

SIGN LAYOUT SHEET

c:\bmcd_llb\pw\dhurt\trn\dms21238\414_SIGNING_PLAN_14_090218_1100.dgn



OH-049-04-STA1065+57SB;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] E Mod 2K specified length; [86] E Mod 2K;
6.0" Radius, 2.0" Border, White on Green;
[W] E Mod 2K; [EST] E Mod 2K; [E] E Mod 2K; [AST] E Mod 2K; [E] E Mod 2K;
[AST] E Mod 2K; [SE 14th St] E Mod 2K; [Hudson Rd] E Mod 2K;
Standard Arrow Custom 33.4" X 20.3" 45°;

STATE OF ARKANSAS
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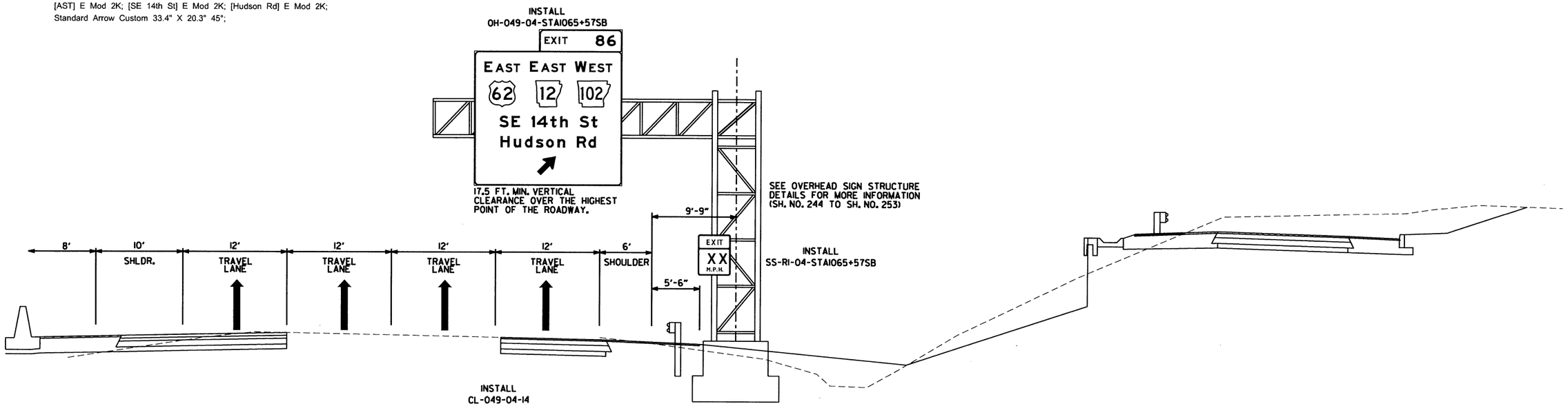
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	163	555

(2) SIGN LAYOUT SHEET



SIGN LAYOUT SHEET

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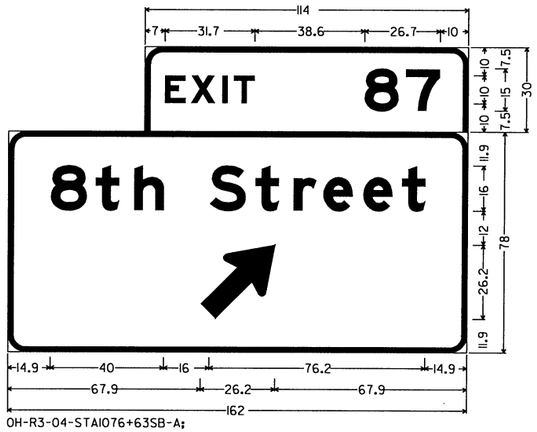
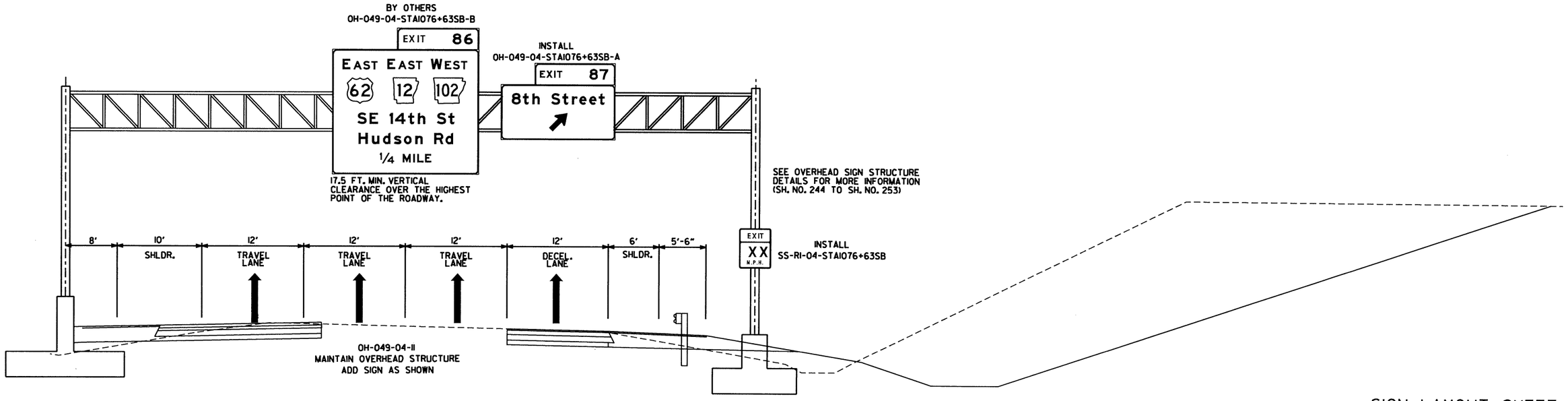
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	164	555
				(2)	SIGN LAYOUT SHEET			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16



OH-R3-04-STAI076+63SB-A;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] E Mod 2K specified length; [87] E Mod 2K;
6.0" Radius, 2.0" Border, White on Green;
[8th Street] E Mod 2K; Standard Arrow Custom 33.4" X 20.3" 45l;

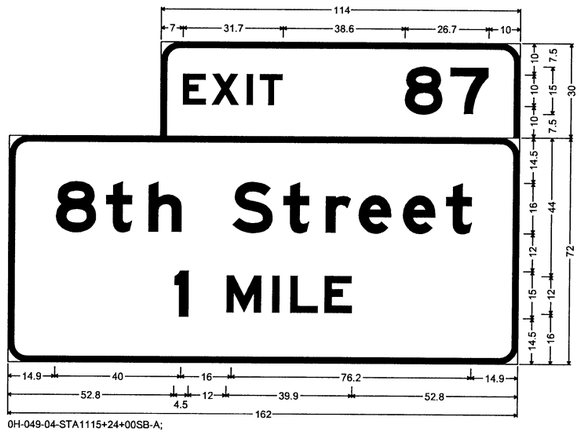


SIGN LAYOUT SHEET

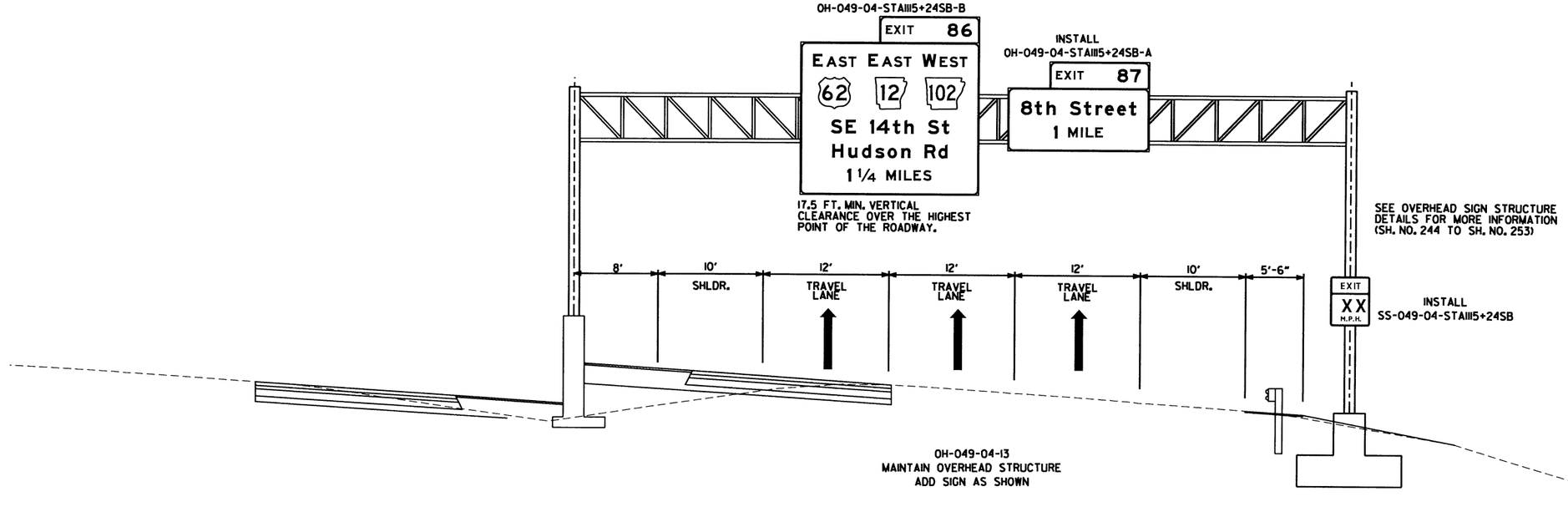
c:\bmcd_IIb\pw\dhurt\trn\dms21238\416_SIGNING_PLAN_16_090218_1100.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	165	555
				(2)	SIGN LAYOUT SHEET			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16



0H-049-04-STA1115+24+00SB-A;
6.0" Radius, 2.0" Border, White on Green;
[EXIT] E Mod 2K specified length; [87] E Mod 2K;
6.0" Radius, 2.0" Border, White on Green;
[8th Street] E Mod 2K; [1] E Mod 2K; [MILE] E Mod 2K;



SIGN LAYOUT SHEET

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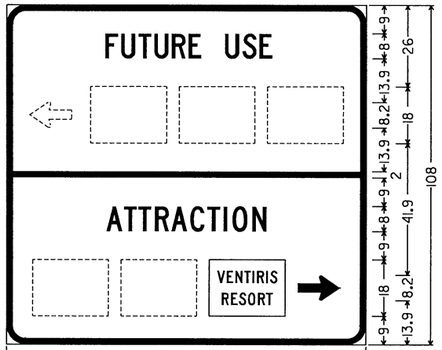
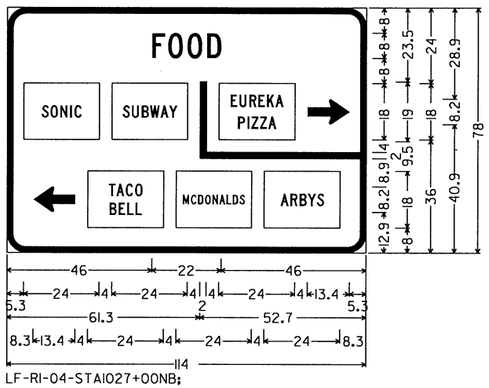
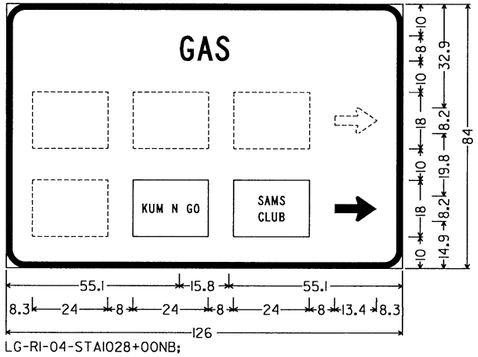


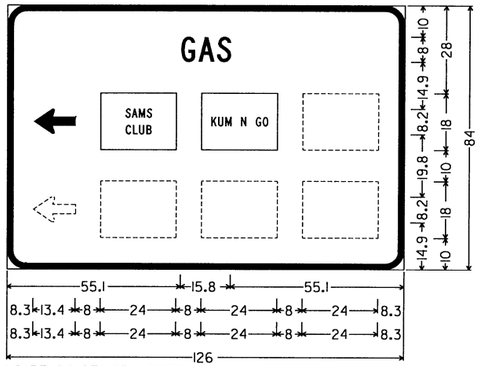
LA-RI-04-STA1025+93NB;
6.0" Radius, 2.0" Border, White on Blue;
[TBD] C 2K;
Standard Arrow Custom 13.4" X 8.1" 180[;
[ATTRACTION] C 2K;
Standard Arrow Custom 13.4" X 8.1" 0[;



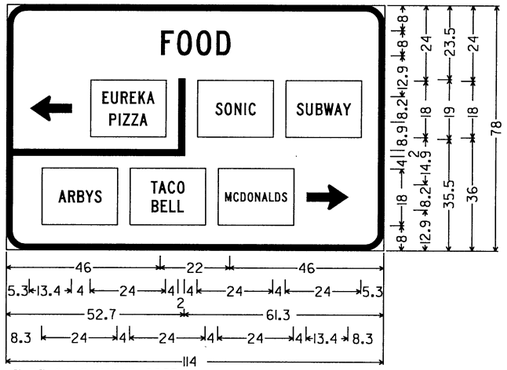
LF-RI-04-STA1027+00NB;
6.0" Radius, 2.0" Border, White on Blue;
[FOOD] C 2K;
Standard Arrow Custom 13.4" X 8.1" 0[;
Standard Arrow Custom 13.4" X 8.1" 180[;



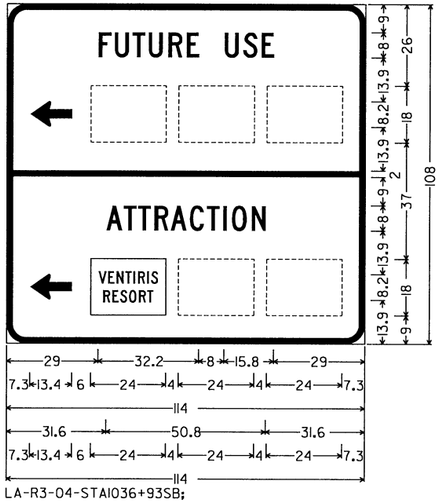
LG-RI-04-STA1028+00NB;
6.0" Radius, 2.0" Border, White on Blue;
[GAS] C 2K; Standard Arrow Custom 13.4" X 8.1" 0[;
Standard Arrow Custom 13.4" X 8.1" 0[;



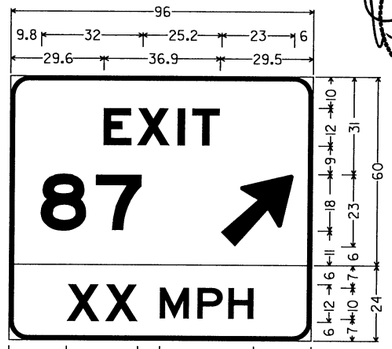
LG-R3-04-STA1034+83SB;
6.0" Radius, 2.0" Border, White on Blue;
[GAS] C 2K; Standard Arrow Custom 13.4" X 8.1" 180[;
Standard Arrow Custom 13.4" X 8.1" 180[;



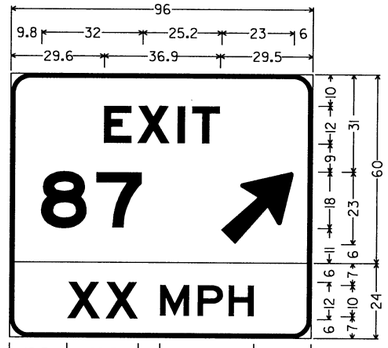
LF-R3-04-STA1035+88SB;
6.0" Radius, 2.0" Border, White on Blue;
[FOOD] C 2K; Standard Arrow Custom 13.4" X 8.1" 180[;
Standard Arrow Custom 13.4" X 8.1" 0[;



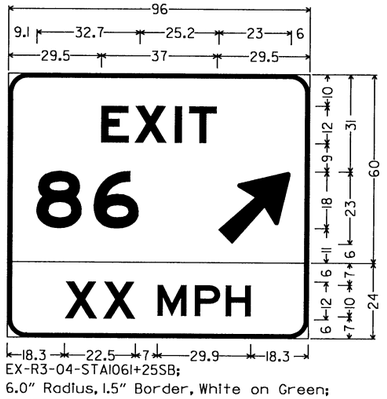
LA-R3-04-STA1036+93SB;
6.0" Radius, 2.0" Border, White on Blue;
[FUTURE USE] C 2K;
Standard Arrow Custom 13.4" X 8.1" 180[;
[ATTRACTION] C 2K;
Standard Arrow Custom 13.4" X 8.1" 180[;



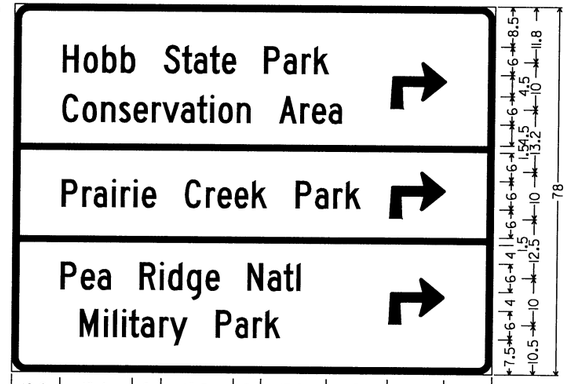
EX-049-04-STA1071+18SB;
6.0" Radius, 1.5" Border, White on Green;
[EXIT] E Mod 2K; [87] E Mod 2K;
Arrow Custom - 29.0" 45[;
6.0" Radius, 1.5" Border, Black on Yellow;
[XX] E 2K; [MPH] E 2K;



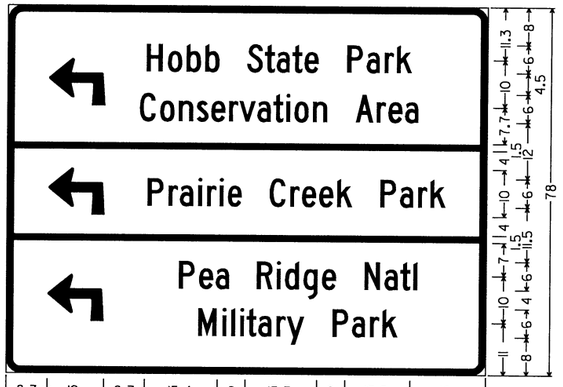
EX-049-04-STA1052+40NB;
6.0" Radius, 1.5" Border, White on Green;
[EXIT] E Mod 2K; [87] E Mod 2K;
Arrow Custom - 29.0" 45[;
6.0" Radius, 1.5" Border, Black on Yellow;
[XX] E 2K; [MPH] E 2K;



EX-R3-04-STA1061+25SB;
6.0" Radius, 1.5" Border, White on Green;
[EXIT] E Mod 2K; [86] E Mod 2K;
Arrow Custom - 29.0" 45[;
6.0" Radius, 1.5" Border, Black on Yellow;
[XX] E 2K; [MPH] E 2K;



SS-RI-04-STA1028+00NB; 3.0" Radius, 1.5" Border, White on Brown;
[Hobb State Park] C 2K; [Conservation Area] C 2K;
90 Deg Advanced Turn Arrow 12.0" X 10.0"; [Prairie Creek Park] C 2K;
90 Deg Advanced Turn Arrow 12.0" X 10.0"; [Pea Ridge Natl] C 2K;
[Military Park] C 2K; 90 Deg Advanced Turn Arrow 12.0" X 10.0";



SS-R3-04-STA1033+78; 3.0" Radius, 1.5" Border, White on Brown;
90 Deg Advanced Turn Arrow 12.0" X 10.0"; [Hobb State Park] C 2K;
[Conservation Area] C 2K; 90 Deg Advanced Turn Arrow 12.0" X 10.0";
[Prairie Creek Park] C 2K; 90 Deg Advanced Turn Arrow 12.0" X 10.0";
[Pea Ridge Natl] C 2K; [Military Park] C 2K;

STATE OF ARKANSAS
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DAVID A. HURT
7/6/16

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	166	555

(2) SIGN LAYOUT SHEET

SIGN LAYOUT SHEET

c:\bmcd_llb\pw\dhurt\trn\dms21238\4ll_SIGNING_PLAN_ll_090218_ll00.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	167	555
				(2)	SIGN LAYOUT SHEET			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
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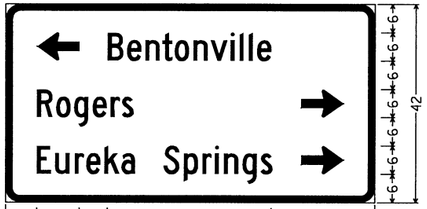
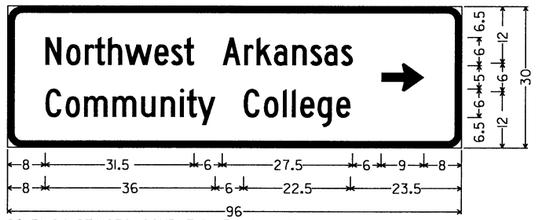
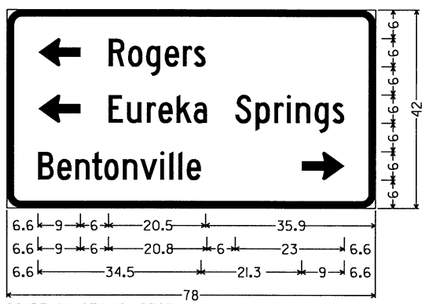
7/6/16



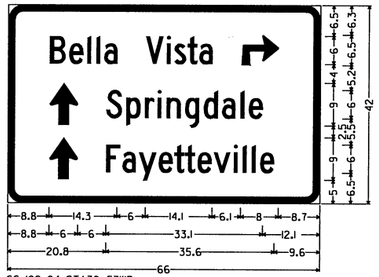
SS-RI-04-STAI030+00NB;
3.0" Radius, I.5" Border, White on Green;
Standard Arrow Custom 9.0" X 6.0" I80I;
[Bentonville] C 2K; [Rogers] C 2K;
Standard Arrow Custom 9.0" X 6.0" 0I;
[Eureka Springs] C 2K;
Standard Arrow Custom 9.0" X 6.0" 0I;



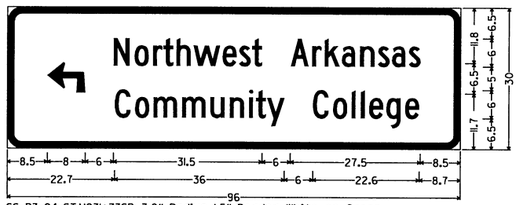
SS-RI-04-STAI030+00NB; 3.0" Radius, I.5" Border, White on Green;
[Northwest Arkansas] C 2K; [Community College] C 2K;
Standard Arrow Custom 9.0" X 6.0" 0I;



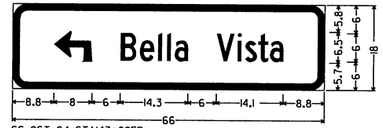
SS-R3-04-STAI03I+73SB;
3.0" Radius, I.5" Border, White on Green;
Standard Arrow Custom 9.0" X 6.0" I80I; [Rogers] C 2K;
Standard Arrow Custom 9.0" X 6.0" I80I;
[Eureka Springs] C 2K; [Bentonville] C 2K;
Standard Arrow Custom 9.0" X 6.0" 0I;



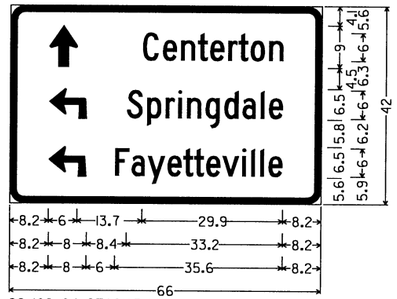
SS-I02-04-STA30+53WB;
3.0" Radius, I.5" Border, White on Green;
[Bella Vista] C 2K; 90 Deg Advanced Turn Arrow 8.0" X 6.5";
Standard Arrow Custom 0.0" X 6.0" 90; [Springdale] C 2K;
Standard Arrow Custom 0.0" X 6.0" 90; [Fayetteville] C 2K;



SS-R3-04-STAI03I+73SB; 3.0" Radius, I.5" Border, White on Green;
90 Deg Advanced Turn Arrow 8.0" X 6.5"; [Northwest Arkansas] C 2K;
[Community College] C 2K;

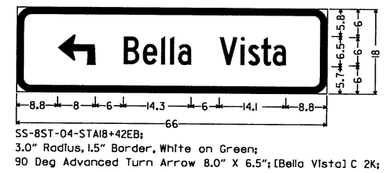


SS-8ST-04-STAI43+68EB;
3.0" Radius, I.5" Border, White on Green;
90 Deg Advanced Turn Arrow 8.0" X 6.5"; [Bella Vista] C 2K;



SS-I02-04-STA2I+3IWB;
3.0" Radius, I.5" Border, White on Green;
Standard Arrow Custom 0.0" X 6.0" 90;
[Centerton] C 2K;
90 Deg Advanced Turn Arrow 8.0" X 6.5";
[Springdale] C 2K;
90 Deg Advanced Turn Arrow 8.0" X 6.5";
[Fayetteville] C 2K;

SS-8ST-04-STAI4I+75WB;
3.0" Radius, I.5" Border, White on Green;
Standard Arrow Custom 9.0" X 6.0" I80I;
[Springdale] C 2K;
Standard Arrow Custom 9.0" X 6.0" I80I;
[Fayetteville] C 2K;



SS-8ST-04-STAI8+42EB;
3.0" Radius, I.5" Border, White on Green;
90 Deg Advanced Turn Arrow 8.0" X 6.5"; [Bella Vista] C 2K;

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	168	555

2 SIGN PLACEMENT SHEET

EAST M3-2 24"x12"
62 MI-4 24"x24"
M6-IR 21"x15"
M3-4 24"x12" WEST EAST M3-2 24"x12"
MI-5 30"x24" 102 12 MI-5 24"x24"
M6-IL 21"x15" M6-IR 21"x15"
INSTALL
SS-RI-04-STA103I+00NB

M3-2 24"x12" EAST
MI-4 24"x24" 62
M6-IL 21"x15"
M3-2 24"x12" EAST WEST M3-4 24"x12"
MI-5 24"x24" 12 102 MI-5 30"x24"
M6-IL 21"x15" M6-IR 21"x15"
INSTALL
SS-R3-04-STA1030+73SB

M(I)3-3 24"x12" SOUTH SOUTH M3-3 24"x12"
MI-1 24"x24" INTERSTATE 49 71 MI-4 24"x24"
M(I)6-IL 21"x15" M6-IL 21"x15"
Springdale
Fayetteville
DI-2 66"x30"
INSTALL
SS-8ST-04-STA141+75WB

M(I)3-1 24"x12" NORTH NORTH M3-1 24"x12"
MI-1 24"x24" INTERSTATE 49 71 MI-4 24"x24"
M(I)6-IL 21"x15" M6-IL 21"x15"
Bella Vista DI-1 66"x18"
INSTALL
SS-8ST-04-STA143+68EB

M(I)3-1 24"x12" NORTH NORTH M3-1 24"x12"
MI-1 24"x24" INTERSTATE 49 71 MI-4 24"x24"
M(I)5-IL 21"x15" M5-IL 21"x15"
Bella Vista DI-1 66"x18"
INSTALL
SS-102-04-STA18+42EB

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

M(I)3-3 24"x12" SOUTH NORTH M(I)3-1 24"x12"
MI-1 24"x24" INTERSTATE 49 INTERSTATE 49 MI-1 24"x24"
M(I)6-3 21"x15" M(I)6-IR 21"x15"
M3-3 24"x12" SOUTH NORTH M3-1 24"x12"
MI-4 24"x24" 71 71 MI-4 24"x24"
M6-3 21"x15" M6-IR 21"x15"
INSTALL
SS-102-04-STA23+36WB

M(I)3-1 24"x12" NORTH SOUTH M(I)3-3 24"x12"
MI-1 24"x24" INTERSTATE 49 INTERSTATE 49 MI-1 24"x24"
M(I)5-IL 21"x15" M(I)5-IR 21"x15"
M3-1 24"x12" NORTH SOUTH M3-3 24"x12"
MI-4 24"x24" 71 71 MI-4 24"x24"
M5-IL 21"x15" M5-IR 21"x15"
INSTALL
SS-8ST-04-STA133+22EB

M(I)3-3 24"x12" SOUTH WEST M3-4 24"x12"
MI-1 24"x24" INTERSTATE 49 102 MI-5 30"x24"
M(I)5-IL 21"x15" M6-3 21"x15"
M3-4 24"x12" WEST SOUTH M3-3 24"x12"
MI-4 24"x24" 62 71 MI-4 24"x24"
M5-IL 21"x15" M5-IL 21"x15"
INSTALL
SS-102-04-STA18+28WB

M(I)3-1 24"x12" NORTH NORTH M3-1 24"x12"
MI-1 24"x24" INTERSTATE 49 71 MI-4 24"x24"
M(I)6-IL 21"x15" M6-IL 21"x15"
INSTALL
SS-102-04-STA22+42EB

M3-4 24"x12" WEST
MI-4 24"x24" 62 JCT M2-1 21"x15"
M5-IL 21"x15" 102 MI-5 30"x24"
Centerton
Springdale
Fayetteville
DI-3 66"x42"
INSTALL
SS-102-04-STA21+31WB

M(I)3-1 24"x12" NORTH SOUTH M(I)3-3 24"x12"
MI-1 24"x24" INTERSTATE 49 INTERSTATE 49 MI-1 24"x24"
M(I)5-IL 21"x15" M(I)6-IR 21"x15"
M3-1 24"x12" NORTH SOUTH M3-3 24"x12"
MI-4 24"x24" 71 71 MI-4 24"x24"
M5-IL 21"x15" M6-IR 21"x15"
INSTALL
SS-8ST-04-STA139+96EB

M(I)3-3 24"x12" SOUTH NORTH M(I)3-1 24"x12"
MI-1 24"x24" INTERSTATE 49 INTERSTATE 49 MI-1 24"x24"
M(I)5-IL 21"x15" M(I)6-IR 21"x15"
M3-3 24"x12" SOUTH NORTH M3-1 24"x12"
MI-4 24"x24" 71 71 MI-4 24"x24"
M5-IL 21"x15" M6-IR 21"x15"
INSTALL
SS-8ST-04-STA145+83WB

EAST M3-2 24"x12"
62 MI-4 24"x24"
INSTALL
SS-102-04-STA27+86EB

WEST M3-4 24"x12"
102 MI-5 30"x24"
INSTALL
SS-102-04-STA12+50WB

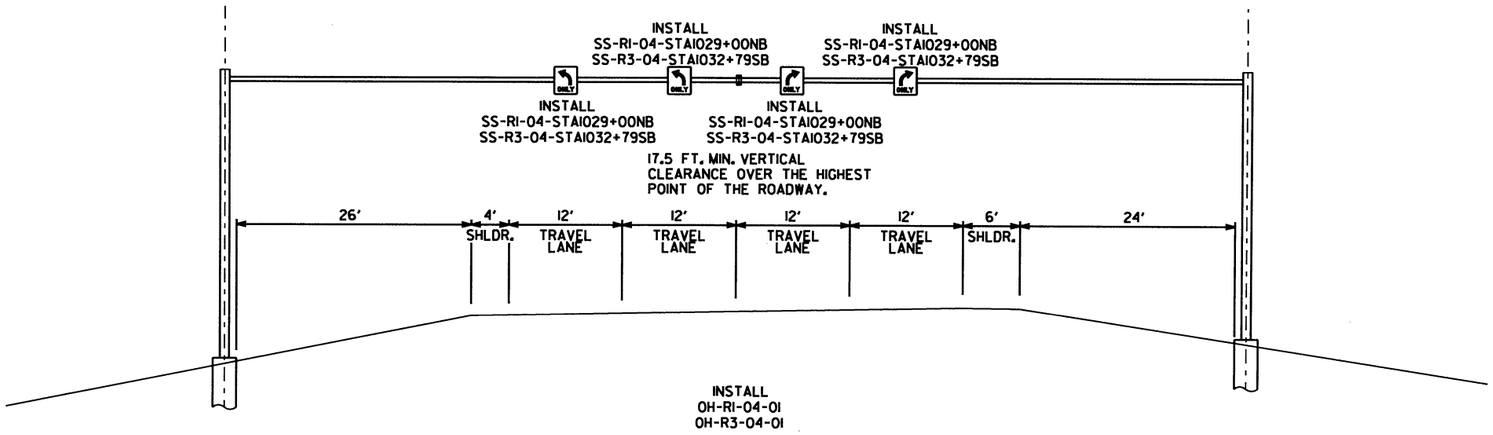
M(I)3-3 24"x12" SOUTH NORTH M(I)3-1 24"x12"
MI-1 24"x24" INTERSTATE 49 INTERSTATE 49 MI-1 24"x24"
M(I)6-3 21"x15" M(I)5-IR 21"x15"
M3-3 24"x12" SOUTH NORTH M3-1 24"x12"
MI-4 24"x24" 71 71 MI-4 24"x24"
M6-3 21"x15" M5-IR 21"x15"
Bella Vista
Springdale
Fayetteville
DI-3 66"x42"
INSTALL
SS-102-04-STA30+53WB

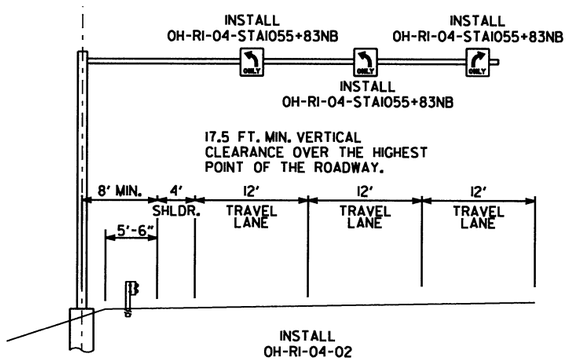
SIGN PLACEMENT SHEET

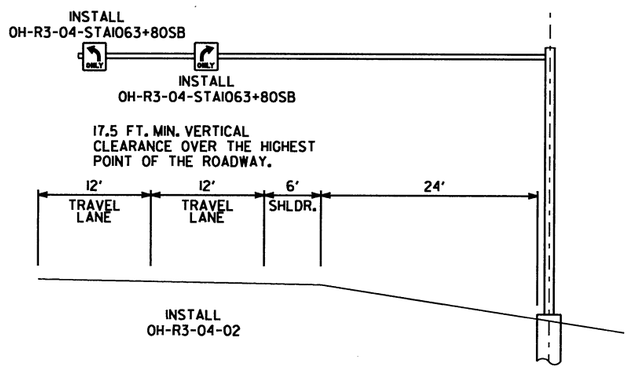
c:\bmcd_llb\pw\dhurt\trn\dms21238\408_SIGNING_PLAN_08_090218_1100.dgn

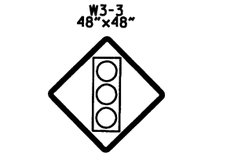
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	169	555

(2) SIGN LAYOUT SHEET









INSTALL
(2)SS-RI-04-STAI024+65NB
(2)SS-R3-04-STAI038+00SB
(2)SS-RI-04-STAI053+57NB
(2)SS-R3-04-STAI066+00SB

INSTALL
(2)SS-R3-04-STAI056+35SB

INSTALL
SS-8ST-04-STAI20+71EB
SS-8ST-04-STAI27+75WB
SS-8ST-04-STAI28+75EB
SS-8ST-04-STAI40+72WB
SS-8ST-04-STAI44+95EB

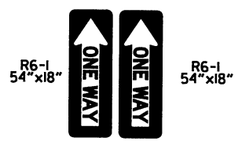
R6-2
30"x36"

INSTALL
(2)SS-8ST-04-STAI23+67EB
SS-8ST-04-STAI32+25EB

INSTALL
SS-R2-04-STAI039+36NB

INSTALL
SS-RI-04-STAI047+00NB
SS-R3-04-STAI065+57SB
SS-R3-04-STAI076+63SB
SS-R3-04-STAIII5+24SB

INSTALL
(2)SS-R3-04-STAI031+73SB
(2)SS-RI-04-STAI030+00NB
(2)SS-R3-04-STAI060+00SB
(2)SS-RI-04-STAI058+47NB
(2)SS-R3-04-STAI031+94SB



INSTALL
SS-R3-04-STAI059+27SB
SS-R3-04-STAI059+30SB
SS-RI-04-STAI059+26NB
SS-RI-04-STAI059+44NB
SS-R3-04-STAI030+75SB
SS-R3-04-STAI030+79SB
SS-RI-04-STAI030+96NB
SS-RI-04-STAI031+06NB

INSTALL
SS-R3-04-STAI058+27SB
SS-8ST-04-STAI39+83EB
SS-RI-04-STAI059+64NB
SS-8ST-04-STAI45+86WB
SS-RI-04-STAI031+5INB
SS-R2-04-STAI032+7INB
SS-R3-04-STAI030+20SB

INSTALL
SS-8ST-04-STAI40+15EB
SS-8ST-04-STAI45+70WB

INSTALL
SS-8ST-04-STAI39+72EB
SS-8ST-04-STAI46+09WB

INSTALL
SS-049-04-STAI068+47NB

INSTALL
SS-R3-04-STAI056+00SB

R3-5
30"x36"

INSTALL
SS-RI-04-STAI047+82NB

INSTALL
SS-R3-04-STAI05I+95SB
SS-R3-04-STAI05I+95SB

R3-5
30"x36"

SIGN LAYOUT SHEET

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	170	555
				(2)	SIGNING QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
8/1/16

STANDARD ROADSIDE SIGNS
SHEET ALUMINUM 0.100" THICKNESS
(5 SQ. FT. OR LESS)

SIGN NO.	SIZE OF SIGN IN.	UNIT AREA SQ. FT.	QUANTITY REQUIRED EA.	TOTAL SIGN AREA SQ. FT.	LEGEND/BACKGROUND
I-49					
MI-1 (I-49)	24 X 24	4.00	15	60	WHITE/BLUE
MI-4 (US-71)	24 X 24	4.00	15	60	BLACK/WHITE
MI-4 (US-62)	24 X 24	4.00	5	20	BLACK/WHITE
M2-1	21 X 15	2.19	1	2	WHITE/BLACK
M3-1	24 X 12	2.00	8	16	WHITE/BLACK
M(1)3-1	24 X 12	2.00	8	16	WHITE/BLUE
M3-2	24 X 12	2.00	5	10	WHITE/BLACK
M3-3	24 X 12	2.00	7	14	WHITE/BLACK
M(1)3-3	24 X 12	2.00	7	14	WHITE/BLUE
M3-4	24 X 12	2.00	6	12	WHITE/BLACK
MI-5 (AR 102)	30 X 24	5.00	5	25	WHITE/BLACK
MI-5 (AR 12)	24 X 24	4.00	2	8	WHITE/BLACK
M5-1L	21 X 15	2.19	7	15	WHITE/BLACK
M(1)5-1L	21 X 15	2.19	5	11	WHITE/BLUE
M5-1R	21 X 15	2.19	2	4	WHITE/BLACK
M(1)5-1R	21 X 15	2.19	2	4	WHITE/BLUE
M6-1L	21 X 15	2.19	6	13	WHITE/BLACK
M(1)6-1L	21 X 15	2.19	3	7	WHITE/BLUE
M6-1R	21 X 15	2.19	6	13	WHITE/BLACK
M(1)6-1R	21 X 15	2.19	3	7	WHITE/BLUE
M6-3	21 X 15	2.19	3	7	WHITE/BLACK
M(1)6-3	21 X 15	2.19	2	4	WHITE/BLUE
W16-7PL	24 X 12	2.00	2	4	BLACK/YELLOW
W16-7PR	24 X 12	2.00	2	4	BLACK/YELLOW
			TOTAL:	350	

STANDARD ROADSIDE SIGNS
SHEET ALUMINUM 0.125" THICKNESS
(GREATER THAN 5 SQ. FT.)

SIGN NO.	SIZE OF SIGN IN.	UNIT AREA SQ. FT.	QUANTITY REQUIRED EA.	TOTAL SIGN AREA SQ. FT.	LEGEND/BACKGROUND
I-49					
DI-1	66 X 18	8.25	2	17	WHITE/GREEN
DI-2	66 X 30	13.75	1	14	WHITE/GREEN
DI-2	96 X 30	20.00	2	40	WHITE/GREEN
DI-3	66 X 42	19.25	2	39	WHITE/GREEN
DI-3	78 X 42	22.75	2	46	WHITE/GREEN
RI-2	48 X 48	8.00	7	56	RED/WHITE
R2-1	36 X 48	12.00	1	12	BLACK/WHITE
R4-7	24 X 30	5.00	5	25	BLACK/YELLOW
R5-1a	42 X 30	8.75	10	88	BLACK/WHITE
R5-1	48 X 48	16.00	8	128	RED/WHITE
R6-1L	54 X 18	6.75	8	54	BLACK/WHITE
R6-1R	54 X 18	6.75	8	54	BLACK/WHITE
R6-2	30 X 36	7.50	3	23	BLACK/WHITE
W11-2	36 X 36	9.00	4	36	BLACK/YELLOW
W1-2L	36 X 36	9.00	1	9	BLACK/YELLOW
W1-2R	36 X 36	9.00	1	9	BLACK/YELLOW
W3-3	48 X 48	16.00	8	128	BLACK/YELLOW
W4-1L	48 X 48	16.00	1	16	BLACK/YELLOW
W4-1R	48 X 48	16.00	1	16	BLACK/YELLOW
W4-1	48 X 48	16.00	1	16	BLACK/YELLOW
W4-2	48 X 48	16.00	2	32	BLACK/YELLOW
W9-1	48 X 48	16.00	2	32	BLACK/YELLOW
			TOTAL:	890	

SIGN QUANTITIES
OVERHEAD MOUNTED

SIGN NO./ LOCATION	STRUCTURE TYPE	SIGN				EXIT NUMBER PANEL	
		STANDARD SIGN	GUIDE SIGN LENGTH	GUIDE SIGN HEIGHT			TYPE A
	OH	SQ. FT.	LIN. FT.		SQ. FT.	LEGEND	SQ. FT.
OH-RI-04-01	1	30					
OH-R3-04-01	1	30					
OH-RI-04-02	1	23					
OH-R3-04-02	1	15					
OH-049-04-08	OTHERS						
OH-049-04-STA996+19NB-B			13.5	6	81	87	24
OH-049-04-10	OTHERS						
OH-049-04-STA1016+96NB-B			13.5	6	81	87	24
OH-049-04-13	1	20					
OH-049-04-STA1047+00NB-A			19	6.5	124	87	24
OH-049-04-STA1047+00NB-B			12.5	10.5	131		
CL-049-04-14	1	20					
OH-049-04-STA1065+57SB			17	15.5	264	86	24
OH-049-04-11	OTHERS	20					
OH-049-04-STA1076+63SB-B			13.5	6.5	88	87	24
OH-049-04-13	OTHERS	20					
OH-049-04-STA1115+24SB-A			13.5	6	81	87	24
TOTAL:	6	178			850		144

NOTE: SEE ROADWAY PLANS FOR GUARDRAIL DETAILS.

SIGNING QUANTITIES
ROADSIDE MOUNTED I-BEAM SIGN SUPPORTS

SIGN NO./ LOCATION	STUCTURE TYPE	SIGN		BREAKAWAY SIGN SUPPORT									
	TYPE	GUIDE SIGN LENGTH	GUIDE SIGN HEIGHT		STEEL SECT. A-572		SIGN POST LENGTH H-1	SIGN POST LENGTH H-2	STUB POST H-1	STUB POST H-2	FOOTINGS DIA.	FOOTINGS DEPTH	FOOTINGS EMBED.	SIGN POST AND STUB
	G-2	LIN. FT.		SQ. FT.	BEAM	LBS.	LIN. FT.		LIN. FT.		LIN. FT.			LBS.
LA-RI-04-STA1025+93NB	I	9.50	9.00	86	W8	18	17.98	18.93	5.66	5.66	3	8	5.33	868
LF-RI-04-STA1027+00NB	I	9.50	6.50	62	W8	18	15.48	16.43	5.00	5.00	2.5	7	4.67	754
LG-RI-04-STA1028+00NB	I	10.50	7.00	74	W8	18	16.02	17.07	5.00	5.00	2.5	7	4.67	776
LG-R3-04-STA1034+83SB	I	10.50	7.00	74	W8	18	16.02	17.07	5.00	5.00	2.5	7	4.67	776
LF-R3-04-STA1035+88SB	I	9.50	6.50	62	W8	18	15.48	16.43	5.00	5.00	2.5	7	4.67	754
LA-R3-04-STA1036+93SB	I	9.50	9.00	86	W8	18	17.98	18.93	5.66	5.66	3	8	5.33	868
EX-RI-04-STA1052+40NB	I	8.00	5.00	40	W8	18	13.93	14.73	4.33	4.33	2	6	4.00	672
EX-R3-04-STA1071+18SB	I	8.00	5.00	40	W8	18	13.93	14.73	4.33	4.33	2	6	4.00	672
EX-R3-04-STA1061+25SB	I	8.00	5.00	40	W8	18	13.93	14.73	4.33	4.33	2	6	4.00	672
SS-RI-04-STA1028+00NB	I	8.50	6.50	55	W8	18	15.45	16.30	4.66	4.66	2.5	6.5	4.33	739
SS-R3-04-STA1033+78SB	I	8.50	6.50	55	W8	18	15.45	16.30	4.66	4.66	2.5	6.5	4.33	739
TOTAL:	11			674										8290

SIGNING QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	171	555
				(2)	SIGNING QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
8/1/16

SIGNING QUANTITIES
SQUARE TUBE POSTS

SIGN NO./ LOCATION	STANDARD ROADSIDE SIGNS TO BE MOUNTED	SQUARE TUBE POST ASSEMBLIES			
		G-1	G2-1	G2-3	G2-7
		EA.	EA.	EA.	EA.
SS-RI-04-STAI030+00NB	DI-3, R5-1a		1		
SS-RI-04-STAI030+00NB	DI-2, R5-1a		1		
SS-R3-04-STAI03I+73SB	DI-3, R5-1a		1		
SS-R3-04-STAI03I+73SB	DI-2, R5-1a		1		
SS-RI-04-STAI03I+00NB	(2)M3-2 ,MI-4, (2)M6-IR, M3-4, (2)MI-6AR, M6-IL				1
SS-R3-04-STAI030+73SB	(2)M3-2, MI-4, M6-IR, M3-4, (2)MI-6AR, (2)M6-IL				1
SS-RI-04-STAI024+65NB	W3-3		1		
SS-RI-04-STAI024+65NB	W3-3		1		
SS-R3-04-STAI038+00SB	W3-3		1		
SS-R3-04-STAI038+00SB	W3-3		1		
SS-RI-04-STAI053+57NB	W3-3		1		
SS-RI-04-STAI053+57NB	W3-3		1		
SS-R3-04-STAI066+00SB	W3-3		1		
SS-R3-04-STAI066+00SB	W3-3		1		
SS-R3-04-STAI05I+95SB	WI-2R		1		
SS-R3-04-STAI05I+95SB	WI-2R		1		
SS-R2-04-STAI039+36NB	R2-1	1			
SS-R3-04-STAI060+00SB	R5-1a	1			
SS-R3-04-STAI060+00SB	R5-1a	1			
SS-RI-04-STAI058+47NB	R5-1a	1			
SS-RI-04-STAI058+47NB	R5-1a	1			
SS-R3-04-STAI03I+94SB	R5-1a	1			
SS-R3-04-STAI03I+94SB	R5-1a	1			
SS-R3-04-STAI059+27SB	R5-1, (2)R6-1	1			
SS-R3-04-STAI059+30SB	R5-1, (2)R6-1	1			
SS-RI-04-STAI059+26NB	R5-1, (2)R6-1	1			
SS-RI-04-STAI059+44NB	R5-1, (2)R6-1	1			
SS-R3-04-STAI030+75SB	R5-1, (2)R6-1	1			
SS-R3-04-STAI030+79SB	R5-1, (2)R6-1	1			
SS-RI-04-STAI030+96NB	R5-1, (2)R6-1	1			
SS-RI-04-STAI03I+06NB	R5-1, (2)R6-1	1			
SS-R3-04-STAI058+27SB	RI-2			1	
SS-RI-04-STAI059+64NB	RI-2			1	
SS-RI-04-STAI03I+5INB	RI-2			1	
SS-R2-04-STAI032+7INB	RI-2			1	
SS-R3-04-STAI030+20SB	RI-2			1	
SS-049-04-STAI068+47NB	W4-1		1		
SS-R3-04-STAI056+00SB	WI-2L		1		
SS-RI-04-STAI047+82NB	WI-2R		1		
SS-R3-04-STAI056+35SB	W9-1		1		
SS-R3-04-STAI056+35SB	W9-1		1		
	TOTAL=	15	19	5	2

SIGNING QUANTITIES
U-CHANNEL POSTS

SIGN NO./ LOCATION	STANDARD ROADSIDE SIGNS TO BE MOUNTED	U-CHANNEL POST ASSEMBLIES				
		U-1	U-2 (A)	U2-4	U2-5	U2-7
		EA.	EA.	EA.	EA.	EA.
SS-8ST-04-STAI4I+75WB	DI-2, (2)M3-3, MI-1, MI-4, (2)M6-IL					1
SS-8ST-04-STAI43+68EB	DI-1, (2)M3-1, MI-4, MI-1, (2)M6-IL					1
SS-I02-04-STA2I+3IWB	DI-3, M3-4, MI-4, M2-1, M5-IL, MI-5					1
SS-I02-04-STA22+42EB	(2)M3-1, MI-4, MI-1, (2)M6-IL					1
SS-I02-04-STA23+36WB	(2)M3-3, (2)M3-1, (2)MI-1, (2)M6-3, (2)M6-IR, (2)MI-4			1		
SS-8ST-04-STAI33+22EB	(2)M3-3, (2)M3-1, (2)MI-1, (2)M5-IL, (2)M5-IR, (2)MI-4			1		
SS-I02-04-STAI8+28WB	(2)M3-3, MI-1, (3)M5-IL, (2)M3-4, MI-4, MI-5				1	
SS-8ST-04-STAI39+96EB	(2)M3-3, (2)M3-1, (2)MI-1, (2)M5-IL, (2)M6-IR, (2)MI-4			1		
SS-8ST-04-STAI45+83WB	(2)M3-3, (2)M3-1, (2)MI-1, (2)M5-IL, (2)M6-IR, (2)MI-4			1		
SS-I02-04-STAI2+50WB	M3-4, MI-5	1				
SS-I02-04-STA27+86EB	M3-2, MI-4	1				
SS-8ST-04-STAI20+7IEB	R4-7	1				
SS-8ST-04-STAI27+75WB	R4-7	1				
SS-8ST-04-STAI28+75EB	R4-7	1				
SS-8ST-04-STAI40+72WB	R4-7	1				
SS-8ST-04-STAI44+95EB	R4-7	1				
SS-8ST-04-STAI23+67EB	(2)R6-2	1				
SS-8ST-04-STAI32+25EB	R6-2	1				
SS-8ST-04-STAI39+83EB	RI-2	1				
SS-8ST-04-STAI45+86WB	RI-2	1				
SS-8ST-04-STAI40+I5EB	WII-2, WI6-7PR		1			
SS-8ST-04-STAI45+70WB	WII-2, WI6-7PR		1			
SS-8ST-04-STAI39+72EB	WII-2, WI6-7PL		1			
SS-8ST-04-STAI46+09WB	WII-2, WI6-7PL		1			
SS-I02-04-STA30+83WB	DI-3, (2)M3-3, (2)M3-1, (2)MI-1, (2)MI-4, (2)M6-3, (2)M5-IR				1	
SS-I02-04-STAI8+42EB	DI-1, (2)M3-1, MI-1, MI-4, (2)M5-IL				1	
	TOTAL=	11	4	4	3	4

SIGNING SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	TOTAL	UNIT
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G-1)	15	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-1)	19	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-3)	5	EACH
SP	OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS (TYPE G2-7)	2	EACH
724	OVERHEAD SIGN STRUCTURE (OH-RI-04-01)	1	EACH
724	OVERHEAD SIGN STRUCTURE (OH-RI-04-02)	1	EACH
724	OVERHEAD SIGN STRUCTURE (OH-R3-04-01)	1	EACH
724	OVERHEAD SIGN STRUCTURE (OH-R3-04-02)	1	EACH
SP	STEEL OVERHEAD SIGN STRUCTURE (OH-049-04-13)	1	EACH
SP	STEEL CANTILEVER SIGN STRUCTURE (CL-049-04-14)	1	EACH
SP & 725	GUIDE SIGN-ROADSIDE MOUNTED (DEMOUNTABLE LEGEND)	674	SQ. FT.
SP & 725	GUIDE SIGN-OVERHEAD MOUNTED (DEMOUNTABLE LEGEND)	850	SQ. FT.
SP & 726	STANDARD SIGN	1418	SQ. FT.
727	EXIT NUMBER PANEL (TYPE A)	144	SQ. FT.
729	CHANNEL POST SIGN SUPPORT (TYPE U-1)	11	EACH
SP & 729	CHANNEL POST SIGN SUPPORT (TYPE U-2(A))	4	EACH
SP & 729	CHANNEL POST SIGN SUPPORT (TYPE U2-4)	4	EACH
SP & 729	CHANNEL POST SIGN SUPPORT (TYPE U2-5)	3	EACH
SP & 729	CHANNEL POST SIGN SUPPORT (TYPE U2-7)	4	EACH
730	BREAKAWAY SIGN SUPPORT (TYPE G-2)	8290	POUND

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	172	555

(2) 8TH STREET LIGHTING DETAILS & QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURT
7/6/16

GENERAL NOTES

1) SEE BRIDGE LIGHTING PLANS FOR CONDUIT TRENCHING DETAIL. CONDUIT SHALL BE BORED WHEN CROSSING EXISTING ROADWAY.

2) ALL FOUNDATION LOCATIONS SHALL BE STAKED IN THE FIELD AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

3) PULL BOXES AND FOUNDATIONS ARE NOT SHOWN TO SCALE FOR CLARITY. CONDUIT ROUTING IS SCHEMATIC ON THIS PLAN.

4) ALL CONDUIT SHALL BE SCH40 PVC UNLESS OTHERWISE NOTED. ANY CONDUIT USED FOR DIRECTIONAL BORING SHALL BE LISTED AND LABELED FOR SUCH USE.

5) INTERMEDIATE PULL BOXES NOT SHOWN ON THE PLANS TO FACILITATE CONSTRUCTION METHODS MUST BE APPROVED BY THE ENGINEER. NO ADDITIONAL PAYMENT WILL BE MADE IF INSTALLED AT CONTRACTOR'S DISCRETION.

INSTALLATION NOTES

1) PRIOR TO CONSTRUCTION OF POLE FOUNDATIONS, COORDINATE WITH THE CITY OF BENTONVILLE FOR SPECIFIC REQUIREMENTS.

2) INSTALL ALL ITEMS NECESSARY IN FOUNDATION FOR FUTURE LIGHT INSTALLATION INCLUDING CONDUITS, GROUNDING REQUIREMENTS, LEVELING, BUTS, AND WASHERS.

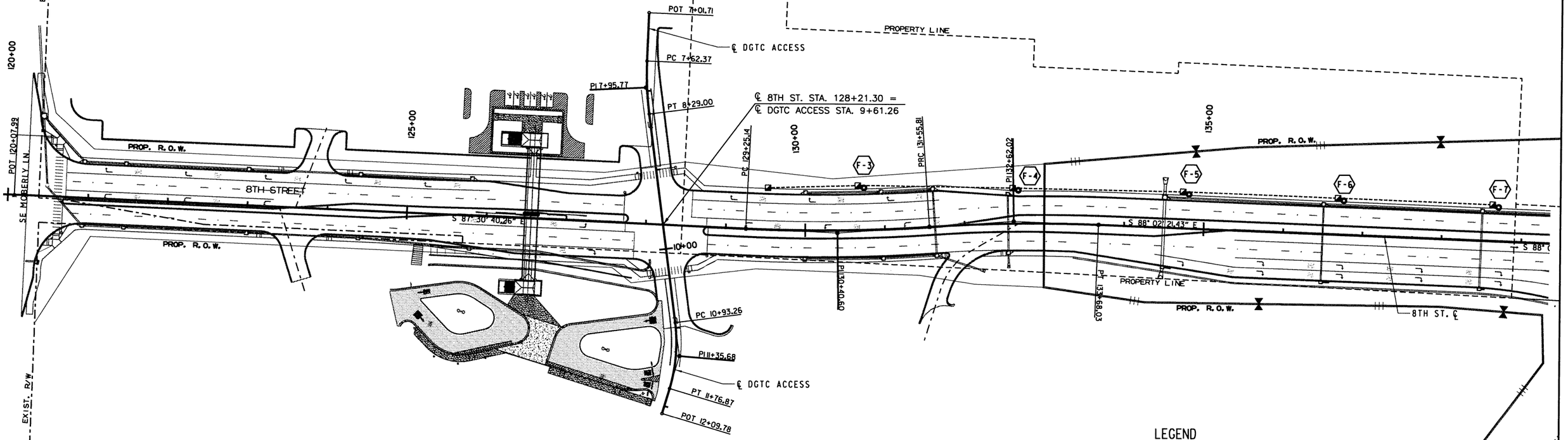
3) CAP ALL CONDUIT ENDS. INSTALL PULL ROPE THROUGH ALL CONDUITS.

4) INSTALL MARKER TAPE IN ACCORDANCE WITH THE NOTES AND DETAILS IN THE BRIDGE LIGHTING PLANS.

5) INSTALL 1- " AND 1-2" N.M.C. BETWEEN LIGHT POLE FOUNDATION AND ADJACENT PULL BOX FOR FUTURE CONDUCTORS AND GROUNDING. THIS WORK SHALL BE SUBSIDIARY TO THE INSTALLATION OF THE LIGHT POLE FOUNDATION.

N

0 60' 120'



LOCATION SUMMARY		
INFRASTRUCTURE	STATION (8TH STREET)	OFFSET
F-3	130+75	53' LT.
F-4	132+68	42' LT.
F-5	134+80	43' LT.
F-6	136+75	43' LT.
F-7	138+70	43' LT.

SUMMARY OF QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
710	NON-METALLIC CONDUIT (2")	900	LIN. FT.
711	CONCRETE PULL BOX (TYPE 2)	6	EACH
SP	LIGHT POLE FOUNDATION	5	EACH

LEGEND

- ------- 2" N.M.C. (SEE NOTE #5)
- ◪ TYPE 2 CONCRETE PULL BOX
- (X-X) FOUNDATION - #
- O POLE FOUNDATION

8TH STREET LIGHTING DETAILS & QUANTITIES

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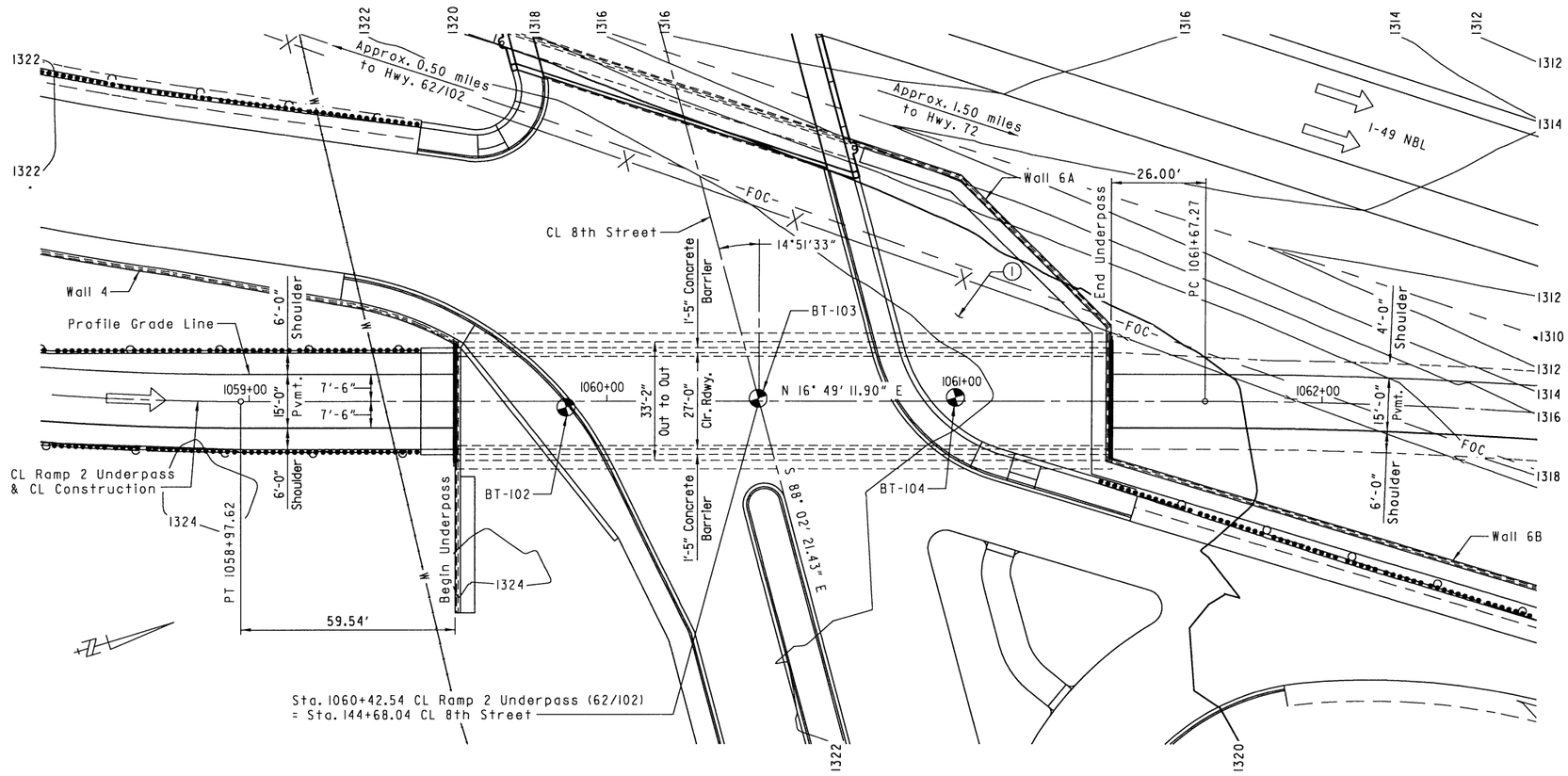
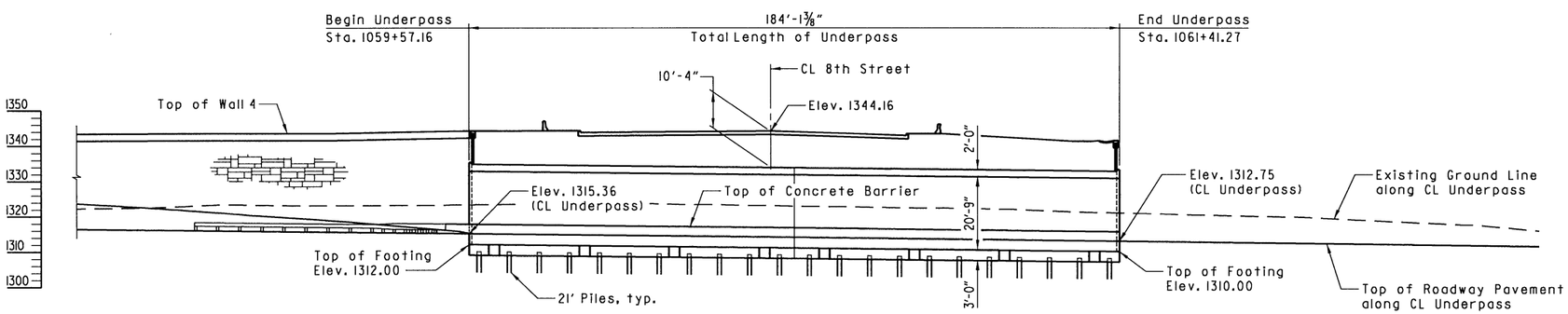
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	173	555
				① 07368		LAYOUT		57858



① Concrete Riprap, see Roadway Plans

PLAN



SECTION ALONG CL RAMP 2 UNDERPASS (62/102)

GENERAL NOTES:

BENCH MARK: BM 919 Square cut in drop inlet I-49, 3.36' Lt. of Sta. 1054+01.90, CL I-49, Elev. 1326.47.

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 refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications (Sixth Edition, 2012) with current interim specifications.

LIVE LOADING: HL-93 SEISMIC ZONE: I S_{DI} = 0.087 SITE CLASS: C

MATERIALS AND STRENGTHS:

Class S(AE) Concrete (Underpass walls & top slab)	f'c = 4,000	psi
Class S Concrete (Underpass footings)	f'c = 3,500	psi
Reinforcing Steel (Grade 60, AASHTO M31 or M322, Type A)	fy = 60,000	psi

BORING LOGS: Boring logs may be obtained from the Construction Contract Procurement Section of the Program Management Division.

TEXTURED COATING FINISH: Class 3 Textured Coating Finish shall conform to Subsection 802.19 except as noted. The finish shall be applied to entrance and exit of the underpass surfaces as shown in the plans. The color of the textured finish shall be gray and shall match Federal Standard 595B, Color Chip No. 37150. Textured Coating Finish shall not be applied on surfaces where Class 2 Protective Surface Treatment is applied.

CLASS 2 PROTECTIVE SURFACE TREATMENT: Class 2 Protective Surface Treatment shall be applied to the exposed surfaces of the underpass structure (inside face of walls and top slab) and to the face and top of the concrete barrier.

STEEL PILING: All piling 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 Cherty Limestone on the boring legend. Lengths of piling shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with the Standard Specifications. Actual lengths to be determined in the field. On all piles the Contractor shall use approved steel H-Pile driving points.

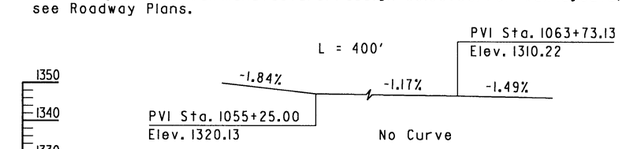
DETAIL DRAWINGS:	DRAWING NOS.
Underpass	57861 - 57867
Lighting	57868 - 57872

MAINTENANCE OF TRAFFIC: See Roadway Plans.

NOTES:

For R/W data, see Roadway Plans.

Wall elevations shown are approximate. Final dimensions may vary depending on the wall manufacturer/design selected. For wall layouts, see Roadway Plans.



VERTICAL CURVE DATA

Vertical Curve is along Profile Grade Line 7.50 feet left of CL Underpass

SHEET 1 OF 3
LAYOUT OF RAMP 2
UNDERPASS AT 8TH STREET
HWY. 62/102 INTCHNG. IMPVTS. &
8TH STREET WIDENING (BENTONVILLE) (S)
BENTON COUNTY
ROUTE I-49 SEC. 29
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEPHENSON
10.2.15
BRIDGE ENGINEER

DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376xl_LI.dgn
CHECKED BY: JDS DATE: 10/30/15 SCALE: 1" = 20'
DESIGNED BY: DMW DATE: 10/30/15

BRIDGE NO. 07368 DRAWING NO. 57858

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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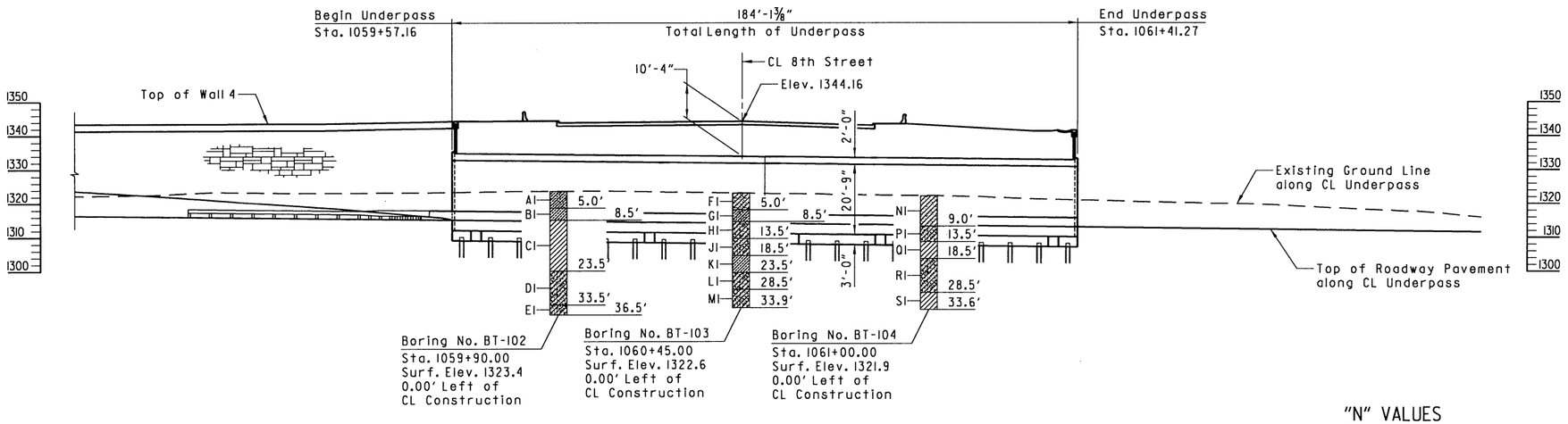
				JOB NO.		090376	174	555
				(1) 07368		LAYOUT		57859



SECTION ALONG CL RAMP 2 UNDERPASS (62/102)

BORING LEGEND

AI - Lean Clay with Silt, trace Sand, Dark Grayish-Brown to Yellowish-Brown Stiff
BI - Lean to Fat Clay, Yellowish-Red and Yellowish-Brown, Stiff to Very Stiff
CI - Fat Clay, Dark Reddish-Brown to Yellowish-Red, Stiff to Very Stiff
DI - Clayey Chert Gravel, Light Gray and Yellowish-Red, Very Dense (Medium Dense below 28 feet)
EI - Cherty Fat Clay, Yellowish-Brown and Pale Brown, Medium Stiff to Stiff (apparent Hard Limestone at 36 feet)
FI - FIII - Lean Clay, with Silt, trace Sand, Yellowish-Brown
GI - Fat Clay, with Sand, Yellowish-Brown to Grayish-Brown, Stiff
HI - Lean to Fat Clay, with Chert Gravel, Yellowish-Brown, Very Stiff
JI - Lean to Fat Clay, with Chert Gravel and Lean Clay Pockets, Dark Reddish-Brown and Yellowish-Brown, Very Stiff to Hard
KI - Fat Clay, trace Chert Gravel, Dark Reddish-Brown to Yellowish-Red, Stiff
LI - Clayey Chert Gravel, Yellowish-Red and Light Gray, Medium Dense
MI - Clayey Chert Gravel, Light Gray and Yellowish-Brown, loose (apparent Limestone at 39.9 feet)
NI - Lean Clay, with Silt, trace Sand, Dark Yellowish-Brown to Yellowish-Brown, Stiff
PI - Fat Clay, with Chert Gravel, Dark Reddish-Brown, Very Stiff
QI - Cherty Fat Clay, Yellowish-Red, Stiff to Very Stiff
RI - Clayey Chert Gravel, Yellowish-Red and Black, Medium Dense
SI - Cherty Fat Clay, Yellowish-Brown, Soft (apparent Moderately Hard Limestone at 33.6 feet)

"N" VALUES

Boring No. BT-102
Sta. 1059+90.00 - 0.00' Left of CL Construction
1.0 - 2.0 N = 11
2.5 - 3.5 N = 9
5.5 - 6.5 N = 16
9.0 - 10.0 N = 17
14.0 - 15.0 N = 14
19.0 - 20.0 N = 9
23.6 - 24.0 N = 50 (5")
29.0 - 30.0 N = 19
34.0 - 35.0 N = 13

Boring No. BT-103
Sta. 1060+45.00 - 0.00' Left of CL Construction
1.0 - 2.0 N = 5
2.5 - 3.5 N = 6
5.5 - 6.5 N = 12
9.0 - 10.0 N = 24
14.0 - 15.0 N = 33
19.0 - 20.0 N = 15
24.0 - 25.0 N = 26
29.0 - 30.0 N = 8
33.5 - 33.9 N = 50 (5")

Boring No. - BT-104
Sta. 1061+00.00 - 0.00' Left of CL Construction
1.0 - 2.0 N = 11
2.5 - 3.5 N = 9
5.5 - 6.5 N = 15
9.0 - 10.0 N = 22
14.0 - 15.0 N = 18
19.0 - 20.0 N = 24
24.0 - 25.0 N = 12
29.0 - 30.0 N = 3
33.5 - 33.6 N = 50 (1")

1059+00 1060+00 1061+00 1062+00

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
12.2.2015
BRIDGE ENGINEER

SHEET 2 OF 3
LAYOUT OF RAMP 2
UNDERPASS AT 8TH STREET
HWY. 62/102 INTCHNG. IMPVTS. &
8TH STREET WIDENING (BENTONVILLE) (S)
BENTON COUNTY
ROUTE I-49 SEC. 29
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: DMW DATE: 10/30/15
FILENAME: b090376xl_L2.dgn
SCALE: 1" = 20'

BRIDGE NO. 07368 DRAWING NO. 57859

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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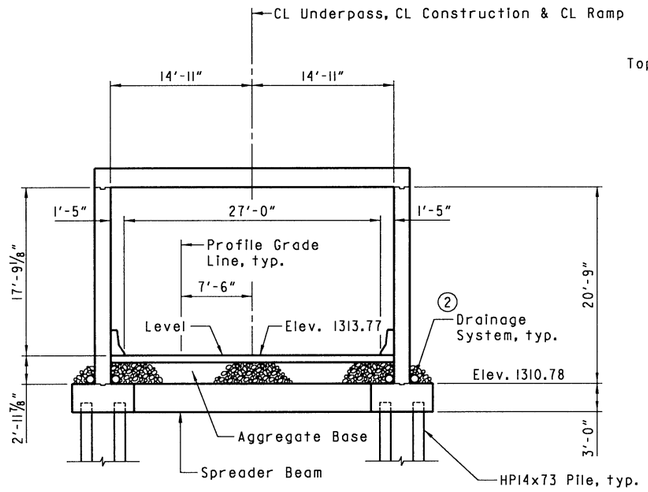
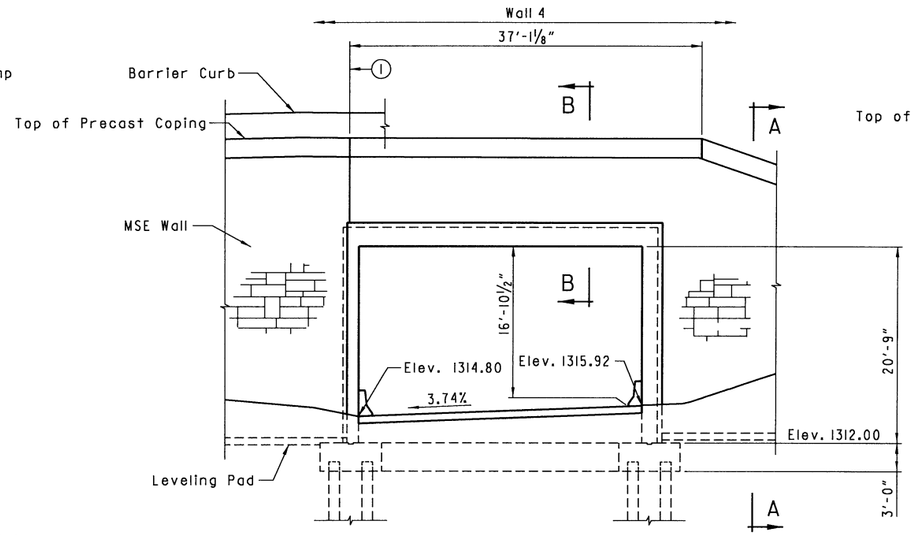
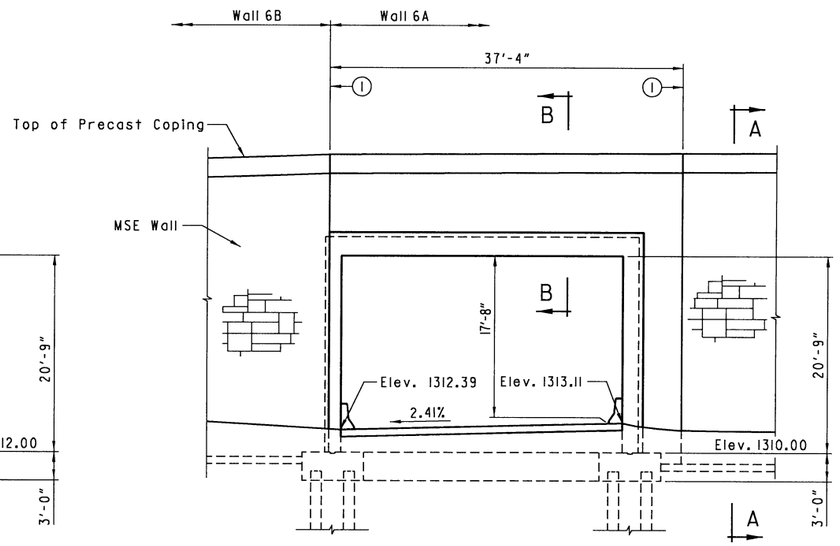
				JOB NO.		090376	175	555
				(1) 07368		LAYOUT		57860



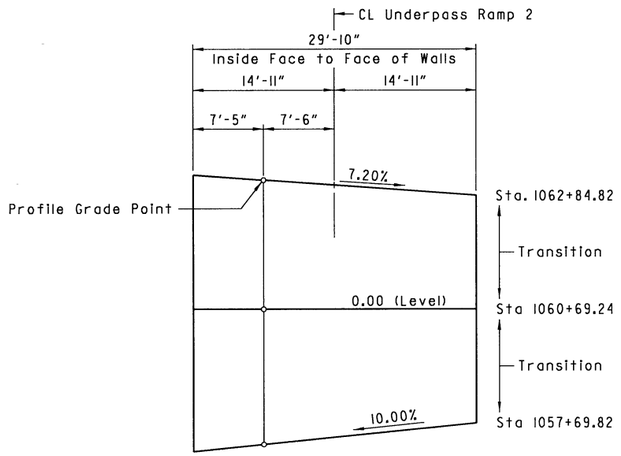
SECTION THROUGH UNDERPASS
STA. 1060+69.24
(Looking Ahead Station)



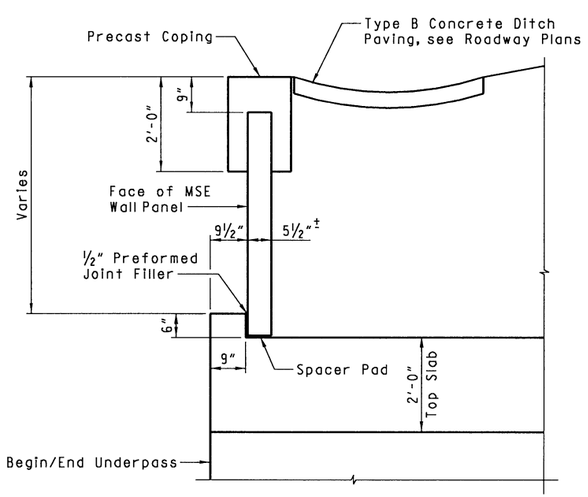
END VIEW - BEGIN UNDERPASS
(Looking Ahead Station)



END VIEW - END UNDERPASS
(Looking Back Station)



RAMP 2 UNDERPASS
PAVEMENT SUPERELEVATION
(Looking Ahead, Rotate superelevation about profile grade point)



SECTION B-B

NOTES:

For detail of Section A-A, see Roadway Plans.

Stations shown are measured along CL Ramp 2.

For MSE wall layouts, see Roadway Plans.

(1) Break in horizontal alignment of MSE wall, see Roadway Plans.

(2) For details of Drainage System, see Roadway Plans.

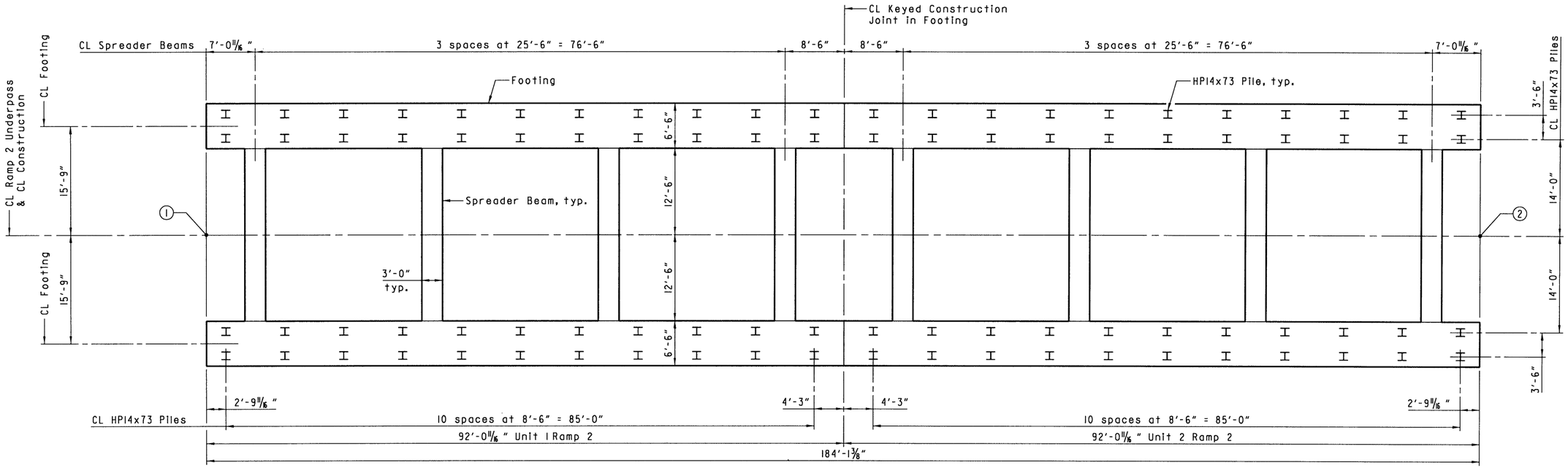
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
10-30-15
BRIDGE ENGINEER

SHEET 3 OF 3
LAYOUT OF RAMP 2
UNDERPASS AT 8TH STREET
HWY. 62/102 INTCHNG. IMPVTS. &
8TH STREET WIDENING (BENTONVILLE) (S)
BENTON COUNTY
ROUTE I-49 SEC. 29
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: DMW DATE: 10/30/15
FILENAME: b090376xl_L3.dgn
SCALE: NO SCALE

BRIDGE NO. 07368
DRAWING NO. 57860

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.		090376	176	555
				(1) 07368		UNDERPASS		57861



FOUNDATION PLAN - RAMP 2 UNDERPASS

Scale: 1/8" = 1'-0"

(1) Begin Underpass, Sta. 1059+57.16
(2) End Underpass, Sta. 1061+41.27

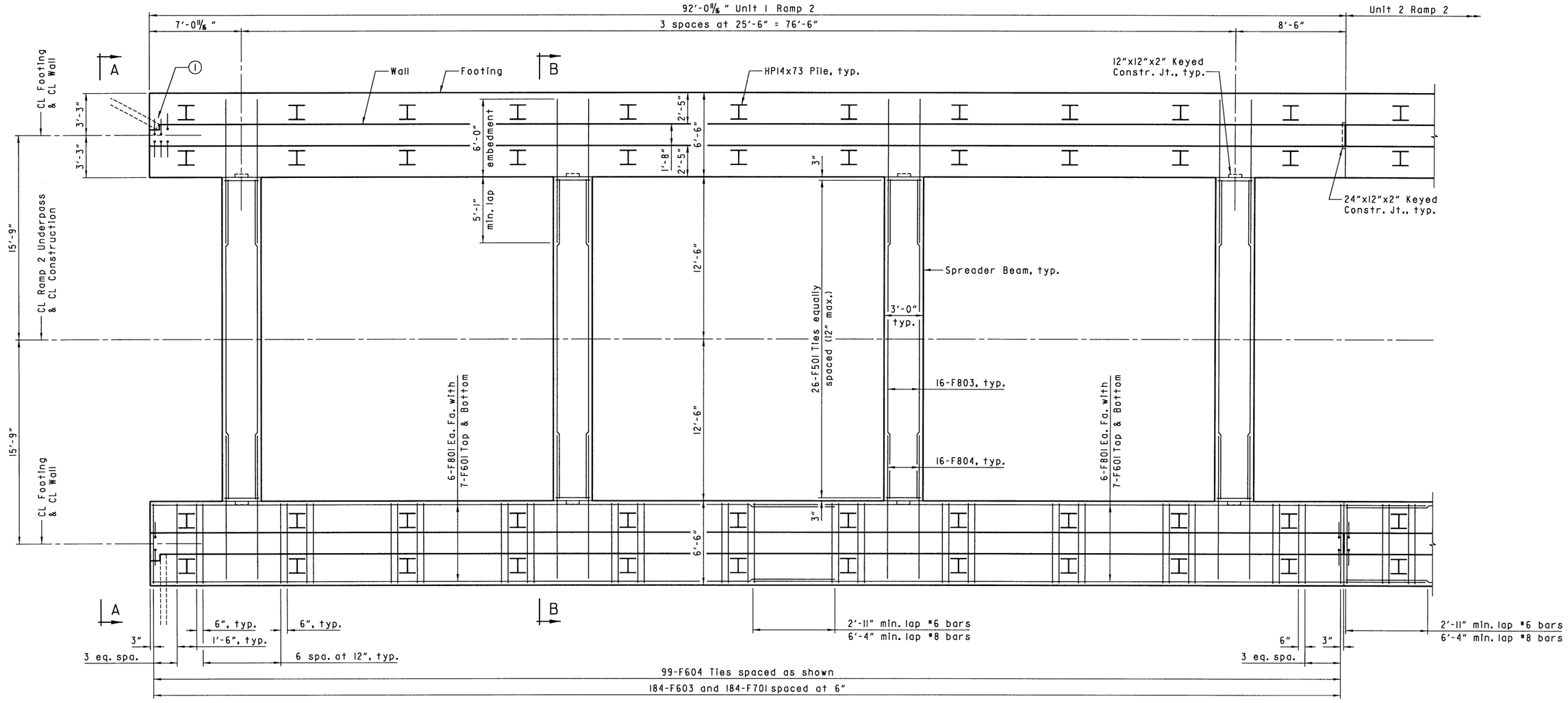
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
6.2.2016
BRIDGE ENGINEER

SHEET 1 OF 7
DETAILS OF RAMP 2
UNDERPASS AT 8TH STREET
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376xl_sl.dgn
SCALE: 1/8" = 1'-0"

BRIDGE NO. 07368 DRAWING NO. 57861

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.		090376	177	555
				(1) 07368		UNDERPASS		57862



FOUNDATION REINFORCING PLAN - UNIT 1 RAMP 2 UNDERPASS

Scale: 1/4" = 1'-0"

(1) Shift first two F603 bars 5" towards centerline of footing to provide clearance at 5"x9" notch cast in wall.

STATE OF ARKANSAS
JERRY D. STEVENSON
REGISTERED PROFESSIONAL ENGINEER
No. 16183

6-2-2016

BRIDGE ENGINEER

SHEET 2 OF 7
DETAILS OF RAMP 2
UNDERPASS AT 8TH STREET

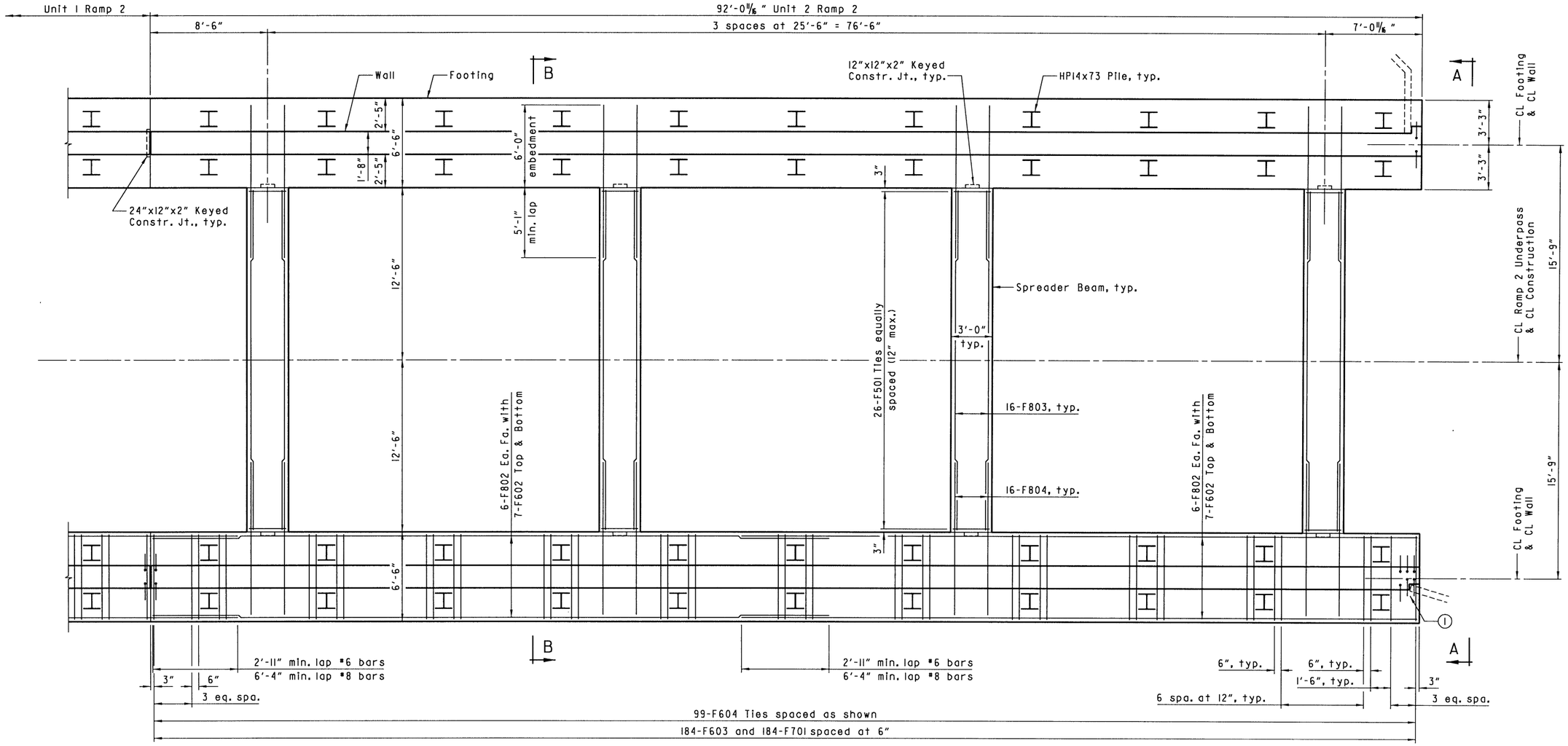
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x1_s2.dgn
SCALE: 1/4" = 1'-0"

BRIDGE NO. 07368 DRAWING NO. 57862

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.		090376	178	555
				① 07368		UNDERPASS		57863



FOUNDATION REINFORCING PLAN - UNIT 2 RAMP 2 UNDERPASS

Scale: 1/4" = 1'-0"

① Shift first two F603 bars 5" towards centerline of footing to provide clearance at 5"x9" notch cast in wall.

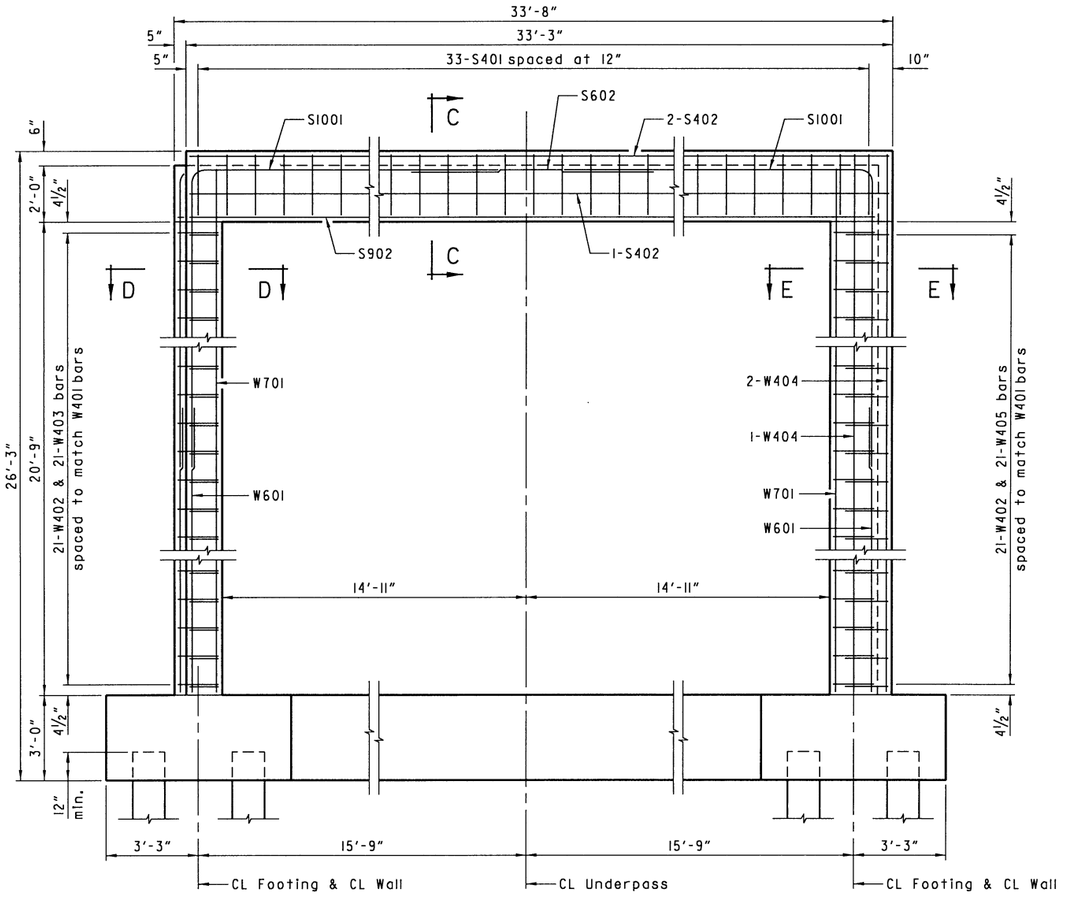
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
10-2-2015
BRIDGE ENGINEER

SHEET 3 OF 7
DETAILS OF RAMP 2
UNDERPASS AT 8TH STREET
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

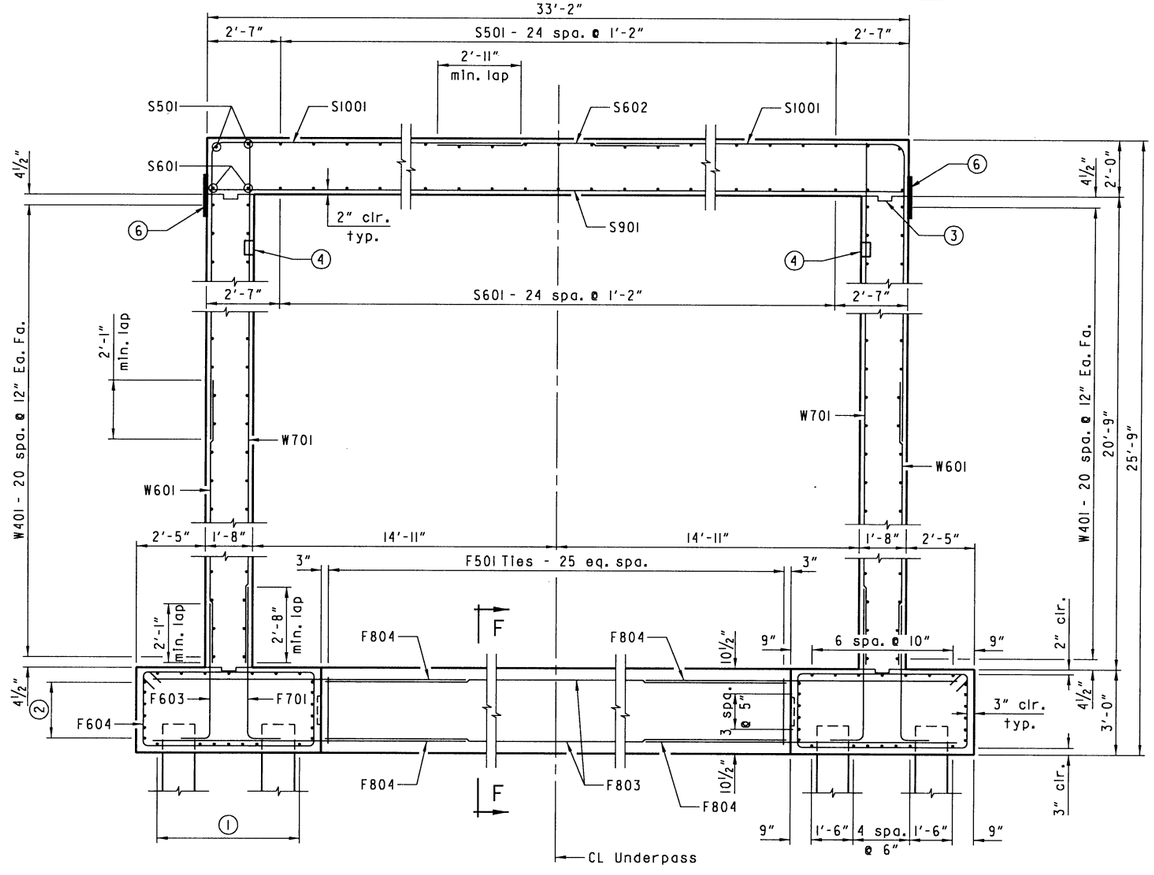
DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376xl_s3.dgn
CHECKED BY: JDS DATE: 10/30/15 SCALE: 1/4" = 1'-0"
DESIGNED BY: TG DATE: 10/30/15

BRIDGE NO. 07368 DRAWING NO. 57863

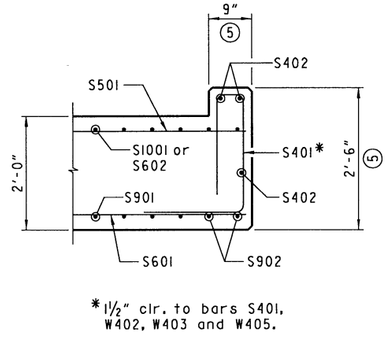
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	179	555
				(1) 07368		UNDERPASS		57864



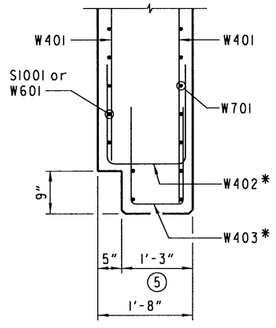
VIEW A-A
Scale: ⅜" = 1'-0"



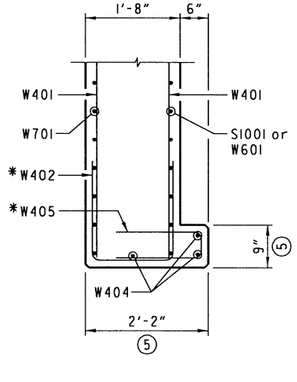
SECTION B-B
Scale: ⅜" = 1'-0"



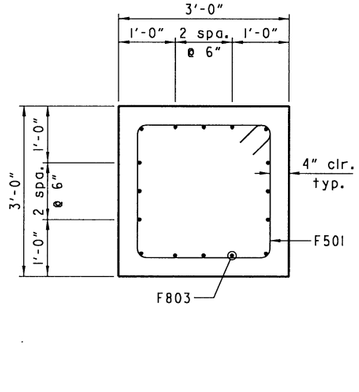
SECTION C-C
Scale: ¾" = 1'-0"



SECTION D-D
Scale: ¾" = 1'-0"



SECTION E-E
Scale: ¾" = 1'-0"



SECTION F-F
Scale: ¾" = 1'-0"

(1) F601 bars Top & Bottom Unit 1 and F602 bars Top & Bottom Unit 2.

(2) F801 bars Ea. Fa. Unit 1 and F802 bars Ea. Fa. Unit 2.

(3) Continuous 2"x6" Keyed Construction Joint, typical 4 places.

(4) For details of Junction Box, Conduit and Expansion Fittings, see Electrical Plans. Contractor may cut one vertical W701 bar to facilitate installation of the junction box.

(5) Class 3 Textured Coating Finish, see General Notes.

(6) 1'-6" wide Waterproofing Membrane (Type C) per Section 815 centered on construction joint.

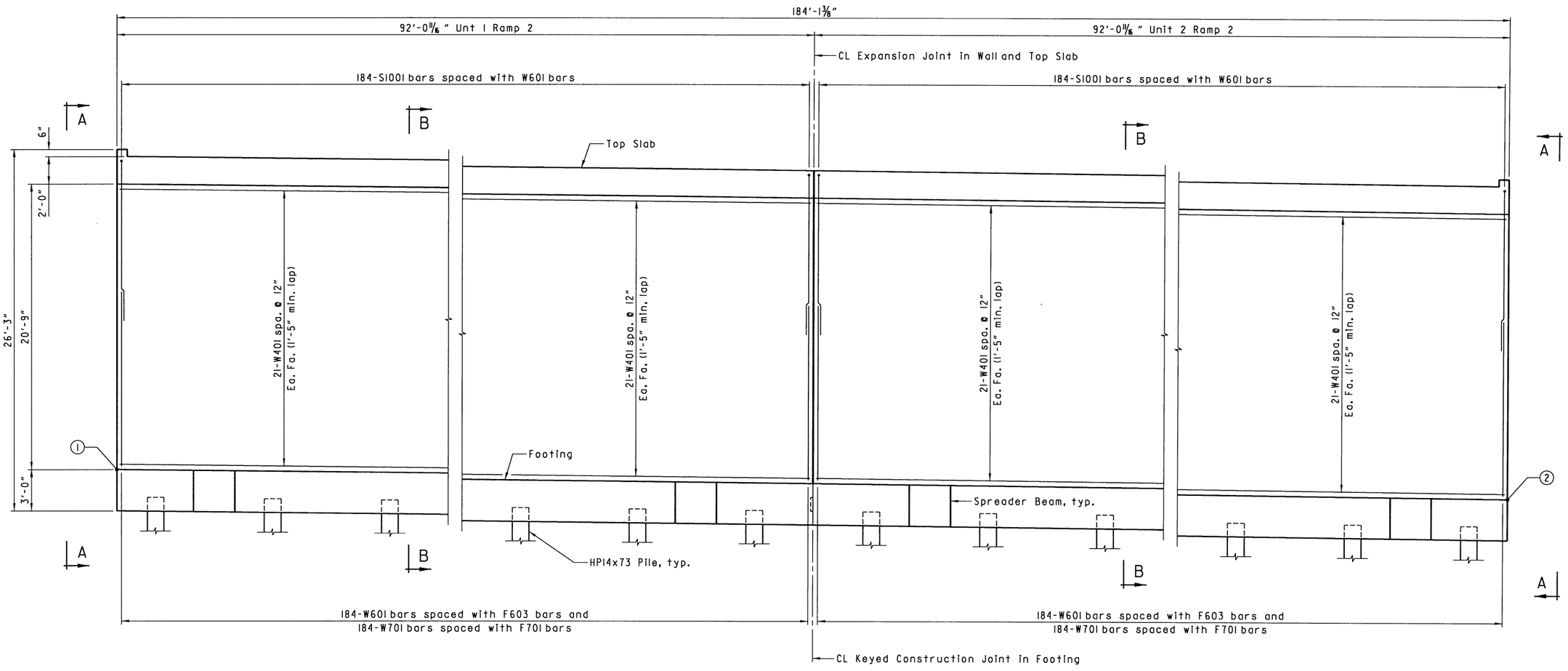
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JEFFERY D. SEVERSON
BRIDGE ENGINEER

SHEET 4 OF 7
DETAILS OF RAMP 2
UNDERPASS AT 8TH STREET
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376xl_s4.dgn
SCALE: AS NOTED

BRIDGE NO. 07368
DRAWING NO. 57864

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.		090376	180	555
				① 07368		UNDERPASS		57865



WALL REINFORCING SECTION - RAMP 2 UNDERPASS

Scale: ¼" = 1'-0"

① Begin Underpass, Sta. 1059+57.16, Elev. 1312.00
② End Underpass, Sta. 1061+41.27, Elev. 1310.00

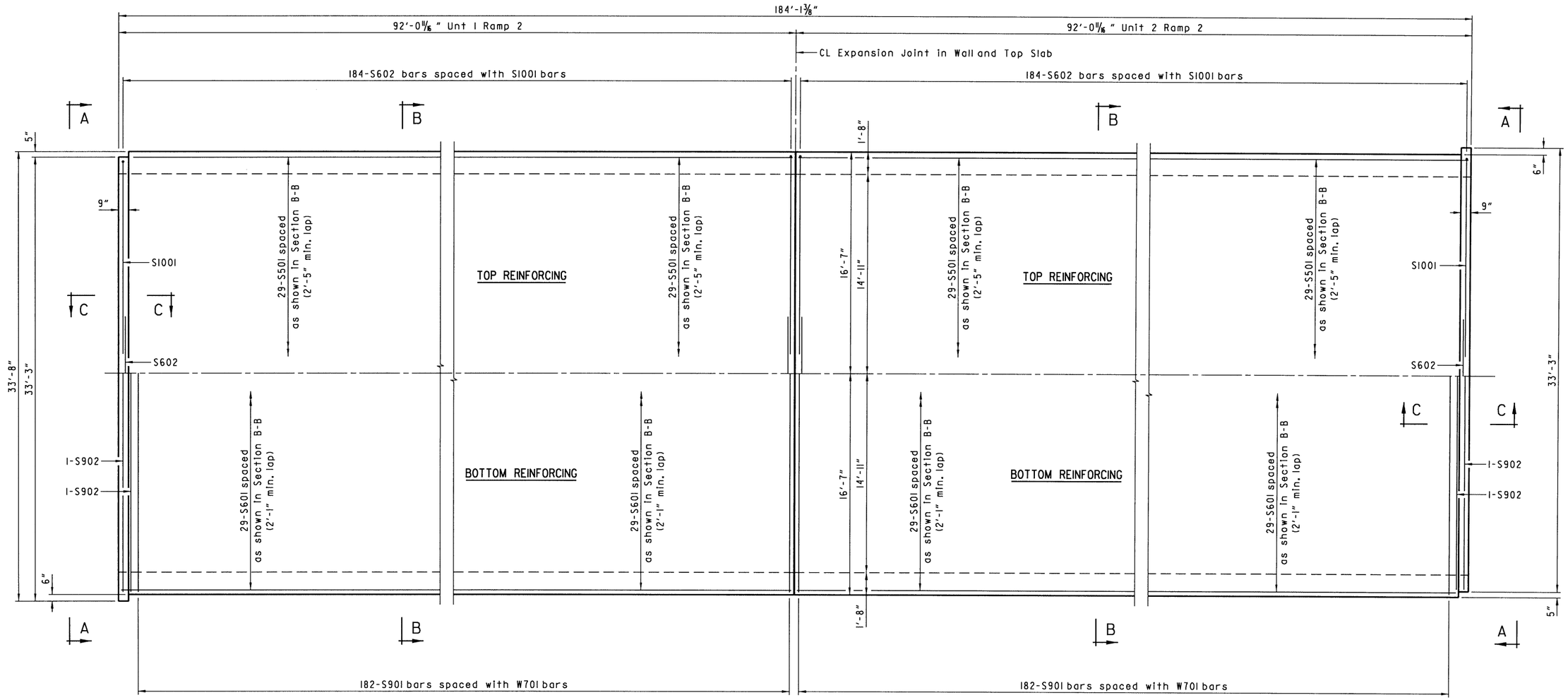
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEPHENSON
BRIDGE ENGINEER

SHEET 5 OF 7
DETAILS OF RAMP 2
UNDERPASS AT 8TH STREET
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376xl_s5.dgn
SCALE: ¼" = 1'-0"

BRIDGE NO. 07368 DRAWING NO. 57865

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.		090376	181	555
				(1) 07368		UNDERPASS		57866



TOP SLAB REINFORCING PLAN - RAMP 2 UNDERPASS

Scale: 1/4" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON

9.2.15

BRIDGE ENGINEER

SHEET 6 OF 7
DETAILS OF RAMP 2
UNDERPASS AT 8TH STREET

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

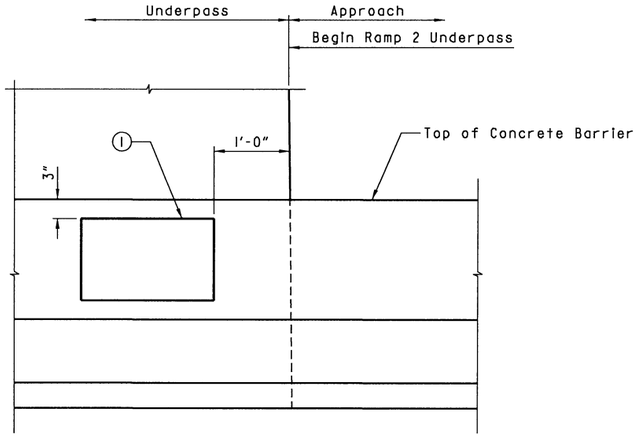
DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15

FILENAME: b090376xl.s6.dgn
SCALE: 1/4" = 1'-0"

BRIDGE NO. 07368

DRAWING NO. 57866

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.		090376	182	555
				① 07368		UNDERPASS		57867



VIEW SHOWING LOCATION OF NAME PLATE

Scale: 1" = 1'-0"

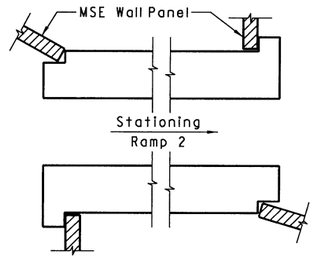
① Place Type D Bridge Name Plate on right concrete barrier approximately 1'-0" from beginning of Ramp 2 Underpass.

② Waterproofing Membrane (Type C) per Section 815.

③ Continuous 2"x6" Keyed Construction Joint (walls) and 2"x8" Keyed Construction Joint (top slab).

④ 1" Dia. x 20" long smooth Dowel Bar at 12" centers, epoxy coated.

⑤ Closed end dowel bar sleeve to allow movement.



LOCATION PLAN
END OF WALL TREATMENT

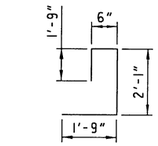
No Scale

BAR LIST

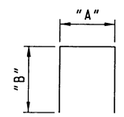
MARK	NO. REQ'D.	LENGTH	"A"	"B"	PIN. DIA.
F501	208	10'-0"			3¾"
F601	56	48'-11"			Str.
F602	56	47'-5"			Str.
F603	736	5'-9"	4'-10"	1'-0"	4½"
F604	396	18'-0"			4½"
F701	736	6'-5"	5'-5"	1'-2"	5¼"
F801	48	52'-4"			Str.
F802	48	49'-2"			Str.
F803	128	24'-10"			Str.
F804	256	11'-2"			Str.
W401	336	46'-7"			Str.
W402	84	4'-9"	1'-5"	1'-9"	2"
W403	42	4'-4"	1'-0"	1'-9"	2"
W404	6	23'-0"			Str.
W405	42	3'-4"	6"	1'-6"	2"
W601	736	12'-11"			Str.
W701	736	22'-6"			Str.
S401	66	5'-10"			2"
S402	6	32'-11"			Str.
S501	116	47'-1"			Str.
S601	116	46'-11"			Str.
S602	368	8'-6"			Str.
S901	364	32'-10"			Str.
S902	4	32'-5"			Str.
S1001	736	26'-7"			10"

BENDING DIAGRAM

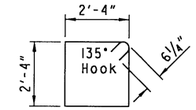
Dimensions are out to out of bars.



S401



W402, W403 & W405



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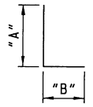
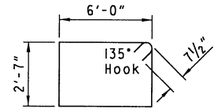
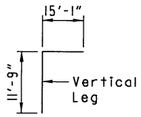


F603 & F701



F604



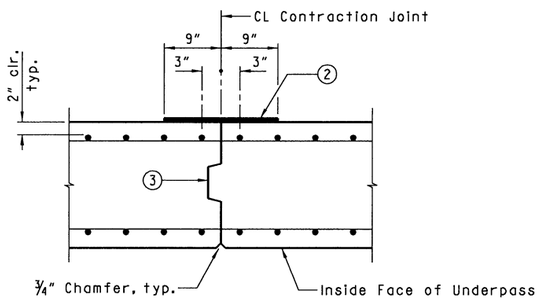
S1001

CONTRACTOR NOTES:

Details of each unit of falsework construction for the underpass structure support system, complete with dimensions and kind and condition of materials, shall be submitted to the Engineer prior to construction for informational and record purposes. These details shall be approved by a Registered Professional Engineer, who shall certify that the adequacy of all components has been verified. File copies of all design calculation shall be maintained by the Contractor until final acceptance of the project. The Contractor shall be responsible for the results obtained by the use of the falsework.

Falsework supporting the top slab shall remain in place a minimum of 7 days and until the concrete has reached a minimum compressive strength of 3,200 psi. Falsework supporting the top slab of preceding adjacent pours (either side of contraction and expansion joints) shall remain in place for a distance of not less than 20' back from the centerline of said joint until the above requirements have been satisfied for the succeeding pour.

Backfill adjacent to the underpass shall not be placed until the underpass structure is complete.



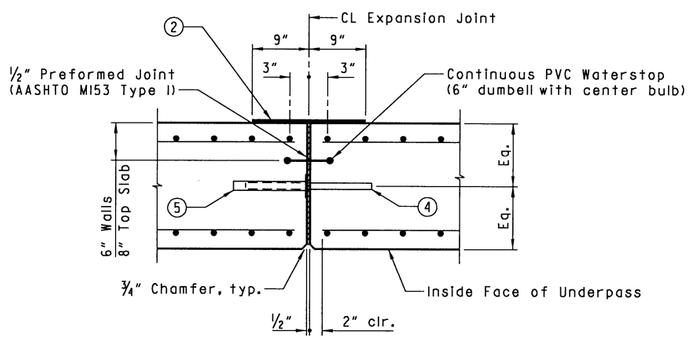
TYPICAL CONTRACTION JOINT DETAIL

No Scale

NOTES:

Contraction joints shall be placed to maintain clearance to main reinforcing steel as shown. The Contractor shall locate the contraction joints to maintain equal spacing of joints in the walls and top slab of each underpass unit, 30'-0" maximum. Longitudinal reinforcing shall be continuous through contraction joints as shown.

All contraction joints, including all materials, devices and work required shall be considered subsidiary to the item "Class S(AE) Concrete - Bridge" and will not be paid for directly.



TYPICAL EXPANSION JOINT DETAIL

No Scale

NOTES:

The expansion joint shall be located in the walls and top slab where shown on Dwg. Nos. 57865 & 57866. Longitudinal reinforcing shall stop 2" clear at the expansion joint as shown.

The waterstop shall be continuous starting at the top of the footing and extend 16" into the top slab, continue across the top slab into the opposite wall 14" and then down to the top of the opposite footing.

Dowel bars shall be securely held in place to ensure that the bars are both level horizontally and parallel to the centerline of the underpass structure.

All expansion joints, including all materials, devices and work required shall be considered subsidiary to the item "Class S(AE) Concrete - Bridge" and will not be paid for directly.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JEREMY D. STEPHENSON
10.2.15

BRIDGE ENGINEER

SHEET 7 OF 7
DETAILS OF RAMP 2
UNDERPASS AT 8TH STREET

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376xl_s7.dgn
SCALE: NO SCALE

BRIDGE NO. 07368 DRAWING NO. 57867

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.		090376	183	555
				(1) 07368		LIGHTING		57868

10 5 0 5 10 20

LEGEND

N.M.C. Conduit (Quantity and size per plan)

LED Tunnel Light & Junction Box

Luminaire (Circuit - *)

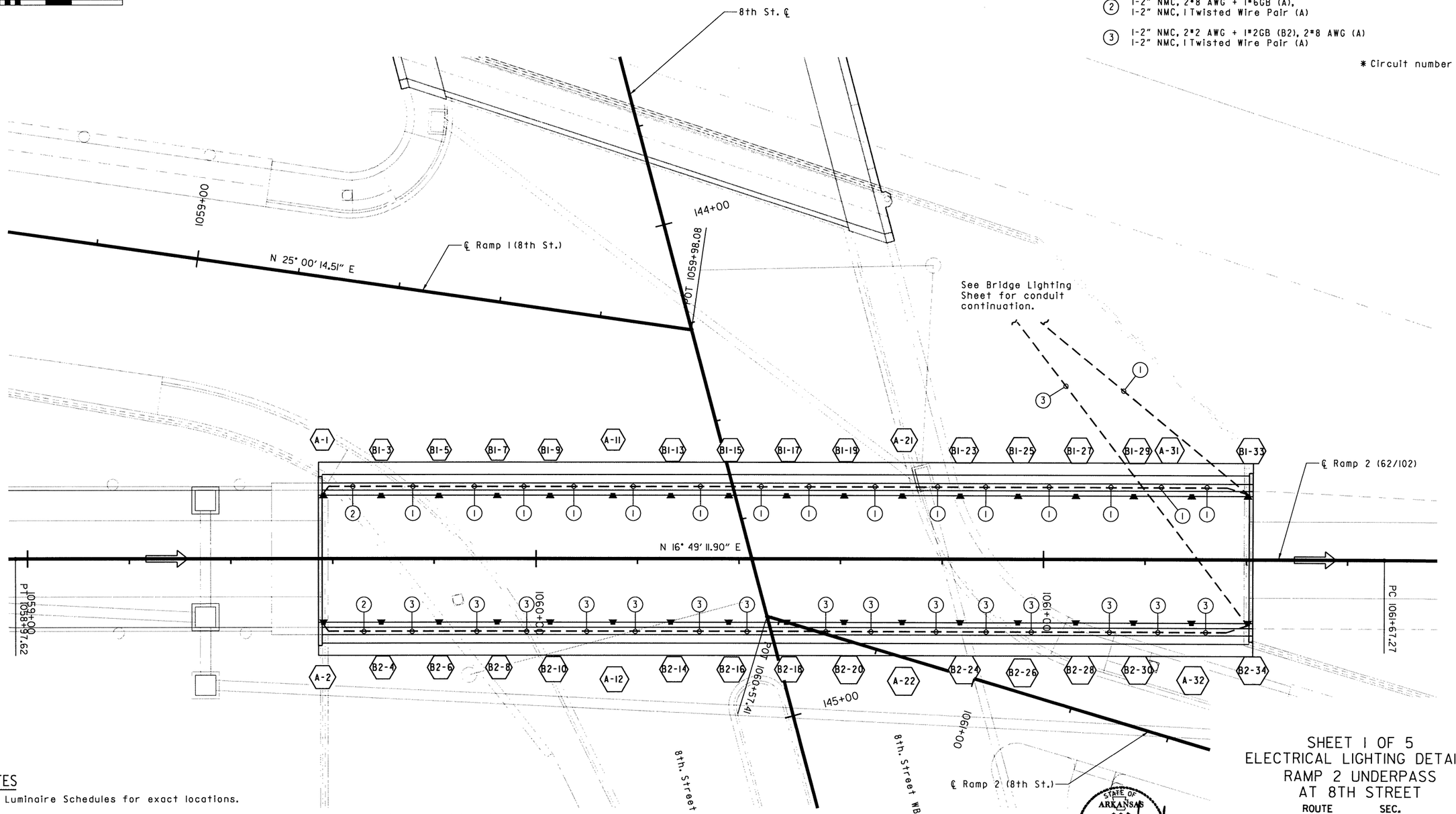
CONDUIT AND CONDUCTOR SCHEDULE *

(1) 1-2" NMC, 2*2 AWG + 1*2GB (B1), 2*8AWG (A)
1-2" NMC, 1 Twisted Wire Pair (A)

(2) 1-2" NMC, 2*8 AWG + 1*6GB (A),
1-2" NMC, 1 Twisted Wire Pair (A)

(3) 1-2" NMC, 2*2 AWG + 1*2GB (B2), 2*8 AWG (A)
1-2" NMC, 1 Twisted Wire Pair (A)

* Circuit number in parenthesis



NOTES

See Luminaire Schedules for exact locations.

Route communications conduit and wire only into junction box as required per wiring diagram.

Install expansion/deflection couplings at tunnel expansion joints.

Conduit in tunnel walls shown schematically for clarity.

The four tunnel lights at ends of tunnels may be shifted 18" inwards at the contractors discretion to facilitate installation.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HUNT
6/1/16
BRIDGE ENGINEER

SHEET 1 OF 5
ELECTRICAL LIGHTING DETAILS
RAMP 2 UNDERPASS
AT 8TH STREET

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: ADR DATE: 10/30/15 FILENAME: b090376x1.ELI
CHECKED BY: PH DATE: 10/30/15 SCALE:
DESIGNED BY: AWR DATE: 10/30/15

BRIDGE NO. 07368 DRAWING NO. 57868

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.		090376	184	555
				(1) 07368		LIGHTING		57869

RAMP 2 TUNNEL LUMINAIRE SCHEDULE

Luminaire Number	Station (CL Ramp 2)	Offset	Height (ft)	Tilt	Type	Distribution	Circuit Number	Day Switched	Day Power	Night Switched	Night Power
A-1	1059+58.16	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	A	On	100%	On	11%
A-2	1059+58.16	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	A	On	100%	On	11%
B1-3	1059+69.56	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B1	On	100%	Off	n/a
B2-4	1059+69.56	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B2	On	100%	Off	n/a
B1-5	1059+80.96	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B1	On	100%	Off	n/a
B1-6	1059+80.96	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B2	On	100%	Off	n/a
B1-7	1059+92.36	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B1	On	100%	Off	n/a
B2-8	1059+92.36	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B2	On	100%	Off	n/a
B1-9	1060+03.76	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B1	On	100%	Off	n/a
B2-10	1060+03.76	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B2	On	100%	Off	n/a
A-11	1060+15.16	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	A	On	100%	On	11%
A-12	1060+15.16	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	A	On	100%	On	11%
B1-13	1060+26.56	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B1	On	100%	Off	n/a
B2-14	1060+26.56	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B2	On	100%	Off	n/a
B1-15	1060+37.96	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B1	On	100%	Off	n/a
B2-16	1060+37.96	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B2	On	100%	Off	n/a
B1-17	1060+49.36	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B1	On	100%	Off	n/a
B2-18	1060+49.36	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B2	On	100%	Off	n/a
B1-19	1060+60.76	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B1	On	100%	Off	n/a
B2-20	1060+60.76	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B2	On	100%	Off	n/a
A-21	1060+72.16	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	A	On	100%	On	11%
A-22	1060+72.16	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	A	On	100%	On	11%
B1-23	1060+83.56	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B1	On	100%	Off	n/a
B2-24	1060+83.56	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B2	On	100%	Off	n/a
B1-25	1060+94.96	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B1	On	100%	Off	n/a
B2-26	1060+94.96	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B2	On	100%	Off	n/a
B1-27	1061+06.36	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B1	On	100%	Off	n/a
B2-28	1061+06.36	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B2	On	100%	Off	n/a
B1-29	1061+17.76	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B1	On	100%	Off	n/a
B2-30	1061+17.76	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B2	On	100%	Off	n/a
A-31	1061+29.16	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	A	On	100%	On	11%
A-32	1061+29.16	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	A	On	100%	On	11%
B1-33	1061+40.27	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B1	On	100%	Off	n/a
B2-34	1061+40.27	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	B2	On	100%	Off	n/a

VOLTAGE DROP

Circuit A - 2.21%
Circuit B1 - 4.54%
Circuit B2 - 4.76%

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16192
DAVID A. HUBER
6/1/16
BRIDGE ENGINEER

SHEET 2 OF 5
ELECTRICAL LIGHTING DETAILS
RAMP 2 UNDERPASS
AT 8TH STREET
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: ADR DATE: 10/30/15
CHECKED BY: PH DATE: 10/30/15
DESIGNED BY: AWR DATE: 10/30/15
FILENAME: b090376xl_EL2.dgn
SCALE:

BRIDGE NO. 07368 DRAWING NO. 57869

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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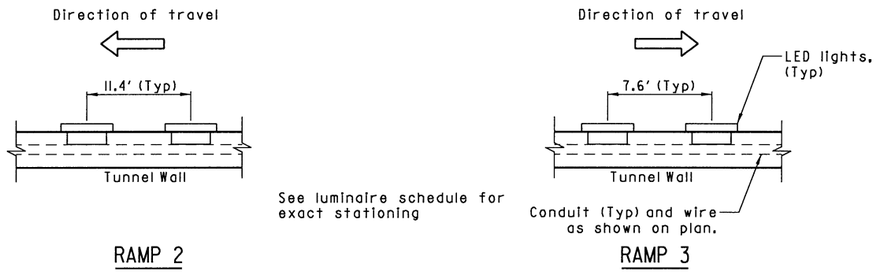
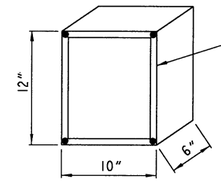
				JOB NO.		090376	185	555
				(1) 07368		LIGHTING		57870



TUNNEL PLAN VIEW

No Scale



TYPICAL LED LIGHT JUNCTION BOX DIMENSIONS

No Scale

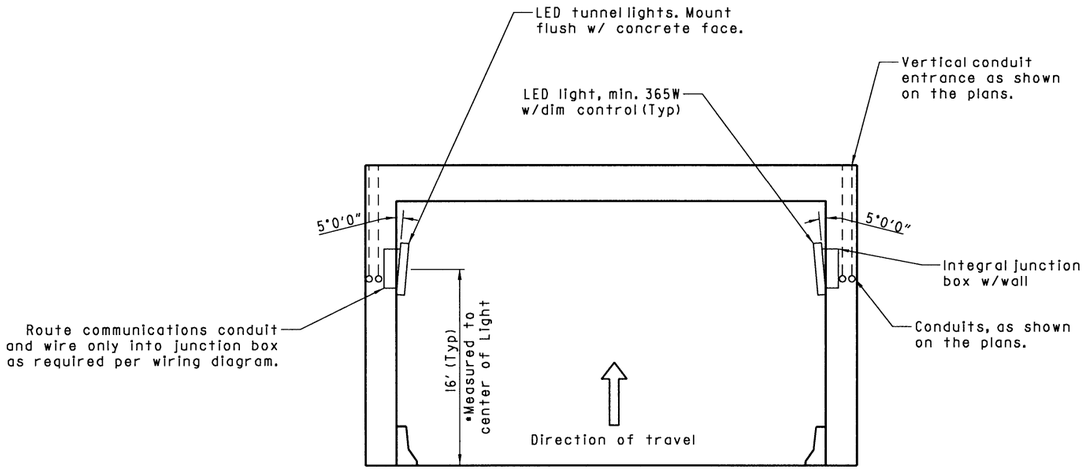
NOTES:

Contractor may use lock washers to prevent conduit pull back.

Type NEMA 4X.

Integral to tunnel wall.

Contractor may cut one vertical rebar member for installation of the junction box. See bridge plans.



• Height shall be measured from the pavement at the face of the barrier to the center of the light fixture.

TYPICAL TUNNEL SECTION

No Scale

Contractor may cut one vertical rebar member for installation of the junction box. Contractor shall route horizontal rebar around junction box if required. See bridge plans.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HUNT

6/1/16

BRIDGE ENGINEER

SHEET 3 OF 5
ELECTRICAL LIGHTING DETAILS
RAMP 2 UNDERPASS
AT 8TH STREET

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: ADR DATE: 10/30/15
CHECKED BY: PH DATE: 10/30/15
DESIGNED BY: AWR DATE: 10/30/15

FILENAME: b090376xl_EL3.dgn
SCALE:

BRIDGE NO. 07368

DRAWING NO. 57870

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.		090376	186	555
				(1) 07368		LIGHTING		57871

GENERAL NOTES

Electrical work shall be performed in accordance with the current editions of the NFPA 70 (2014) National Electrical Code, state electrical code, and local electrical code.

Coordinate electrical power supply with the equipment supplied.

Coordinate all electrical work and power outages with owner and power utility.

Service, feeder, and branch wiring shall be minimum THHN/THWN-2 type.

All AIC ratings shall be UL integrated panel ratings.

Phase and neutral buses shall be copper 100% rated unless otherwise noted.

Ground buses shall be copper.

See luminaire schedule for light types and wattage.

All communications cable shall be rated for 600V.

Install an equipment grounding conductor in all feeder and branch circuits.

Install lugs as required to fit wiring.

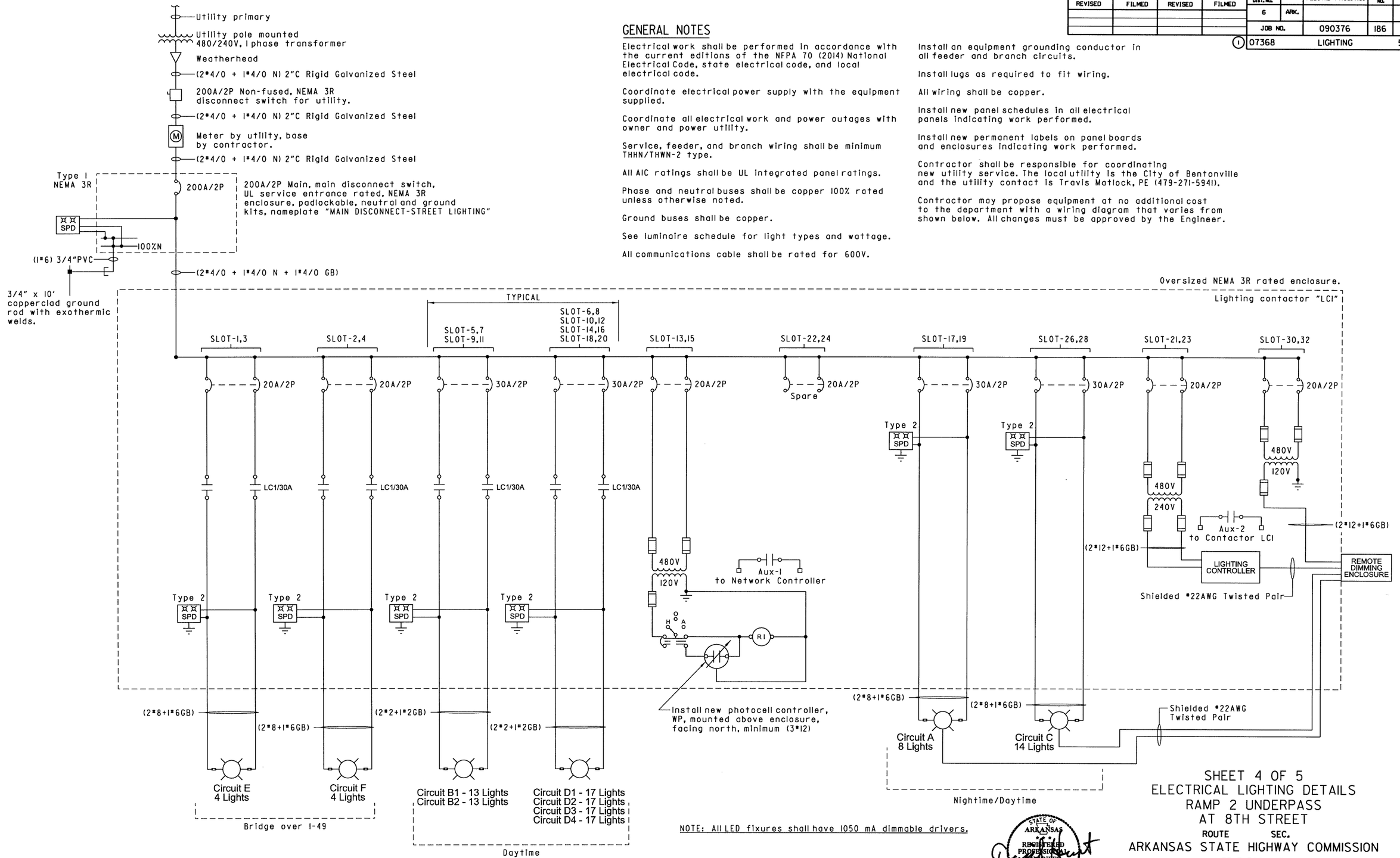
All wiring shall be copper.

Install new panel schedules in all electrical panels indicating work performed.

Install new permanent labels on panel boards and enclosures indicating work performed.

Contractor shall be responsible for coordinating new utility service. The local utility is the City of Bentonville and the utility contact is Travis Matlock, PE (479-271-5941).

Contractor may propose equipment at no additional cost to the department with a wiring diagram that varies from shown below. All changes must be approved by the Engineer.



NOTE: All LED fixures shall have 1050 mA dimmable drivers.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 15192 DAVID A. HURT

6/1/16

BRIDGE ENGINEER

SHEET 4 OF 5
ELECTRICAL LIGHTING DETAILS
RAMP 2 UNDERPASS
AT 8TH STREET

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: ADR DATE: 10/30/15
CHECKED BY: PH DATE: 10/30/15
DESIGNED BY: AWR DATE: 10/30/15

FILENAME: b090376xl_EL4.dgn
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BRIDGE NO. 07368 DRAWING NO. 57871

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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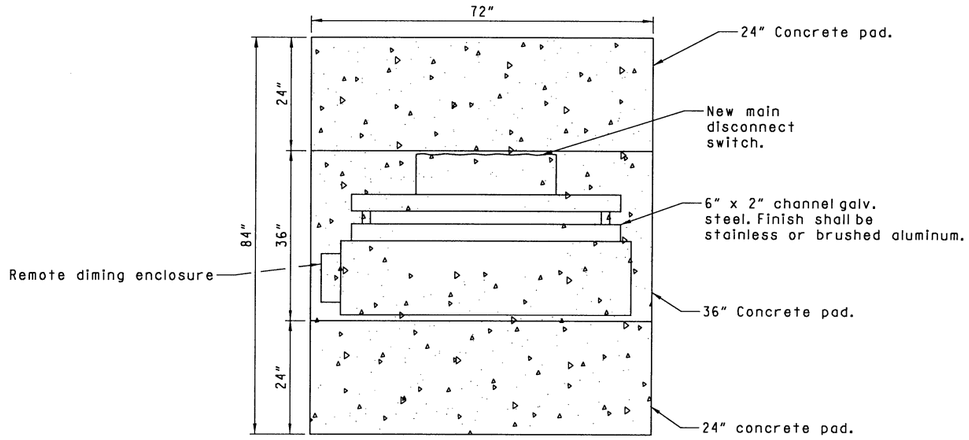
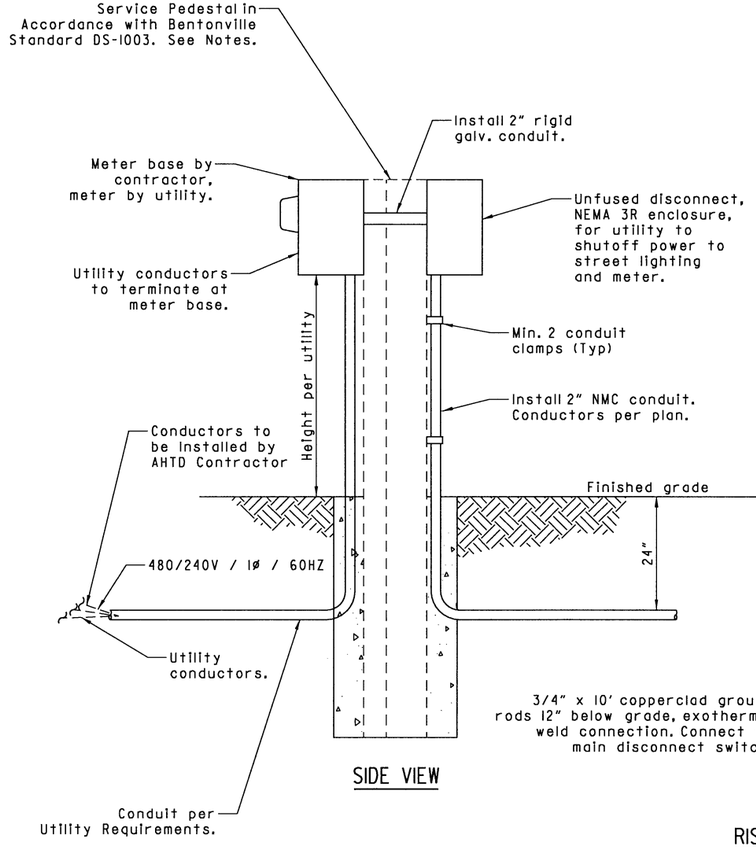
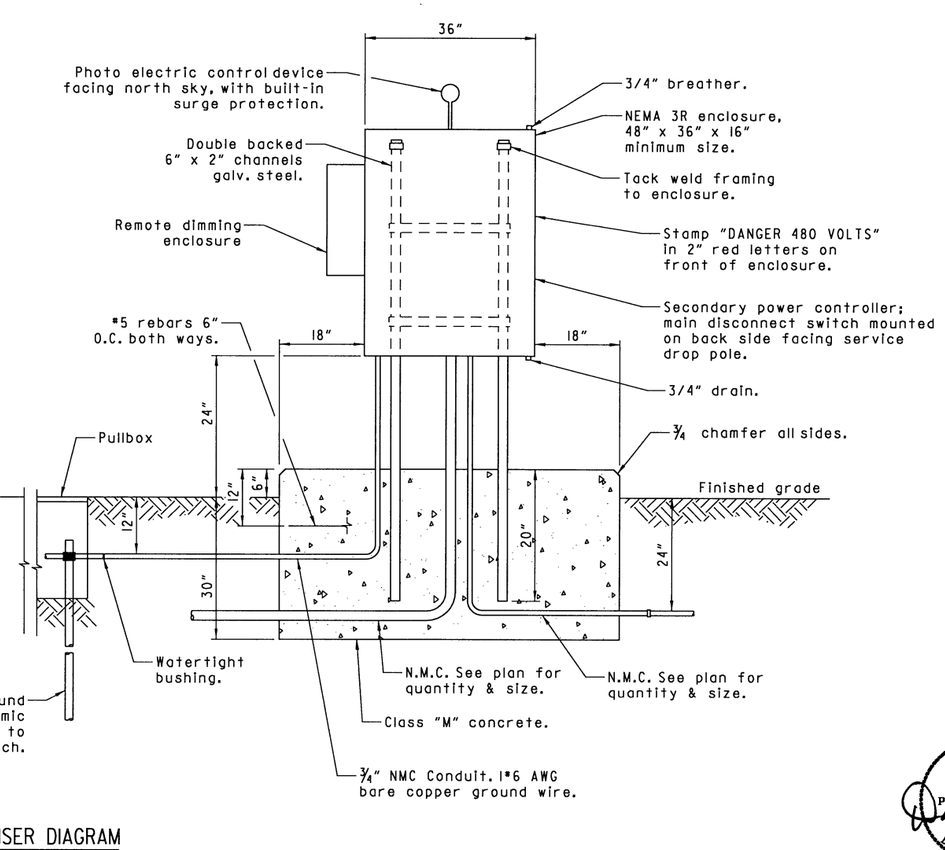


PLAN VIEW



SIDE VIEW



RISER DIAGRAM

No Scale

NOTES:

Contractor shall install shelving as appropriate to mount network controller load center, and contactors as shown in the wiring diagram.

Utility service is provided by City of Bentonville (Travis Matlock) at 479-271-5941. Contact 1 week in advance prior to construction.

Any holes or entrances into enclosure must be sealed using silicone caulk.

The meter pedestal shall be in accordance with City of Bentonville standard DS-1003 with the exception of a 200A main service.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 15192 DAVID A. HUNT

6/1/16

BRIDGE ENGINEER

SHEET 5 OF 5
ELECTRICAL LIGHTING DETAILS
RAMP 2 UNDERPASS
AT 8TH STREET

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: ADR DATE: 10/30/15 FILENAME: b090376xl_EL5.dgn

CHECKED BY: PH DATE: 10/30/15 SCALE:

DESIGNED BY: AWR DATE: 10/30/15

BRIDGE NO. 07368 DRAWING NO. 57872

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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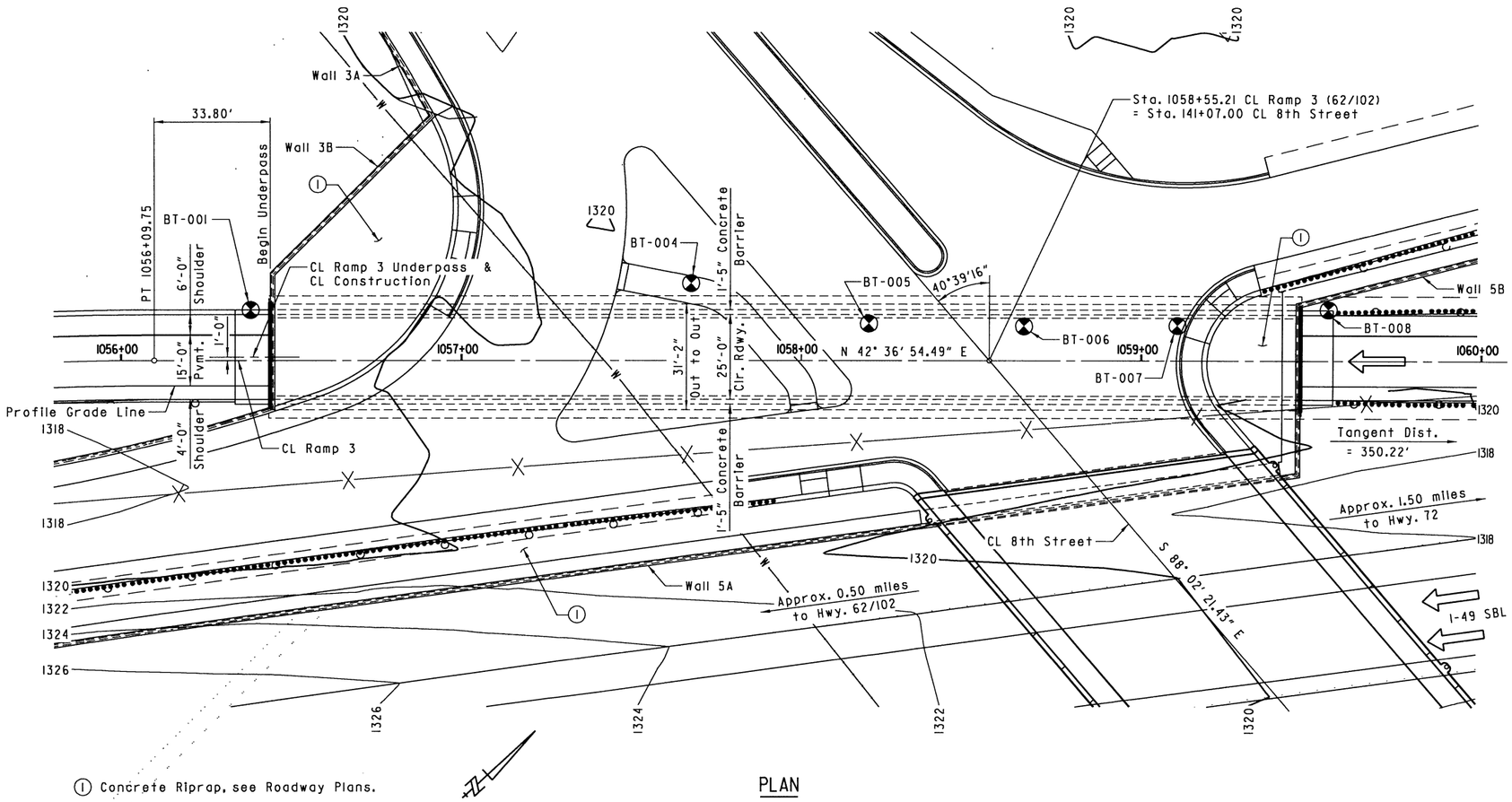
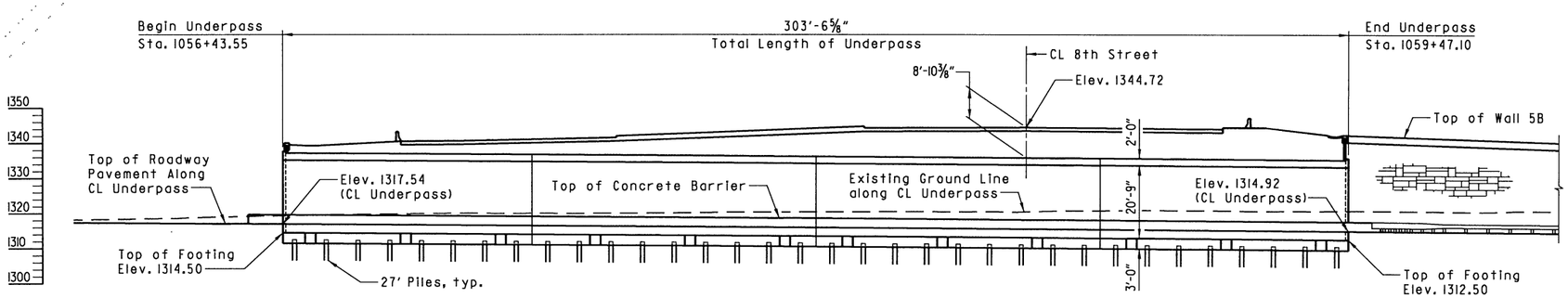
				JOB NO.		090376	188	555
				(1) 07369		LAYOUT		57873



① Concrete Riprap, see Roadway Plans.

PLAN



SECTION ALONG CL RAMP 3 UNDERPASS (62/102)

GENERAL NOTES:

BENCH MARK: BM 919 Square cut in drop inlet I-49, 3.36' Lt. of Sta. 1054+01.90, CL I-49, Elev. 1326.47.

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 refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications (Sixth Edition, 2012) with current interim specifications.

LIVE LOADING: HL-93 SEISMIC ZONE: I S_{D1} = 0.087 SITE CLASS: C

MATERIALS AND STRENGTHS:

Class S(AE) Concrete (Underpass walls & top slab)	f'c = 4,000	psi
Class S Concrete (Underpass footings)	f'c = 3,500	psi
Reinforcing Steel (Grade 60, AASHTO M31 or M322, Type A)	fy = 60,000	psi

BORING LOGS: Boring logs may be obtained from the Construction Contract Procurement Section of the Program Management Division.

TEXTURED COATING FINISH: Class 3 Textured Coating Finish shall conform to Subsection 802.19 except as noted. The finish shall be applied to entrance and exit of the underpass surfaces as shown in the plans. The color of the textured finish shall be gray and shall match Federal Standard 595B, Color Chip No. 37150. Textured Coating Finish shall not be applied on surfaces where Class 2 Protective Surface Treatment is applied.

CLASS 2 PROTECTIVE SURFACE TREATMENT: Class 2 Protective Surface Treatment shall be applied to the exposed surfaces of the underpass structure (inside face of walls and top slab) and to the face and top of the concrete barrier.

STEEL PILING: All Piling 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 Cherty Limestone on the boring legend. Lengths of piling shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with the Standard Specifications. Actual lengths to be determined in the field. On all piles the Contractor shall use approved steel H-Pile driving points.

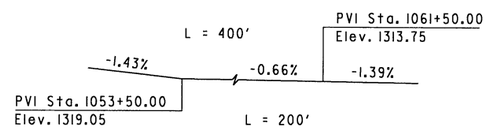
DETAIL DRAWINGS:	DRAWING NOS.
Underpass	57876 - 57887
Lighting	57888 - 57889

MAINTENANCE OF TRAFFIC: See Roadway Plans.

NOTES:

For R/W data, see Roadway Plans.

Wall elevations shown are approximate. Final dimensions may vary depending on the wall manufacturer/design selected. For wall layouts, see Roadway Plans.



VERTICAL CURVE DATA

Vertical Curve is along Profile Grade Line 8.50 feet right of CL Underpass

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 16183 JERRY D. STEPHENSON

10.2.2016

BRIDGE ENGINEER

SHEET 1 OF 3
LAYOUT OF RAMP 3
UNDERPASS AT 8TH STREET
HWY. 62/102 INTCHNG. IMPVTS. & 8TH STREET WIDENING (BENTONVILLE) (S)
BENTON COUNTY

ROUTE I-49 SEC. 29

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

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CHECKED BY:	JDS	DATE:	10/30/15	SCALE:	1" = 20'
DESIGNED BY:	DMW	DATE:	10/30/15		

BRIDGE NO. 07369 DRAWING NO. 57873

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.		090376	189	555
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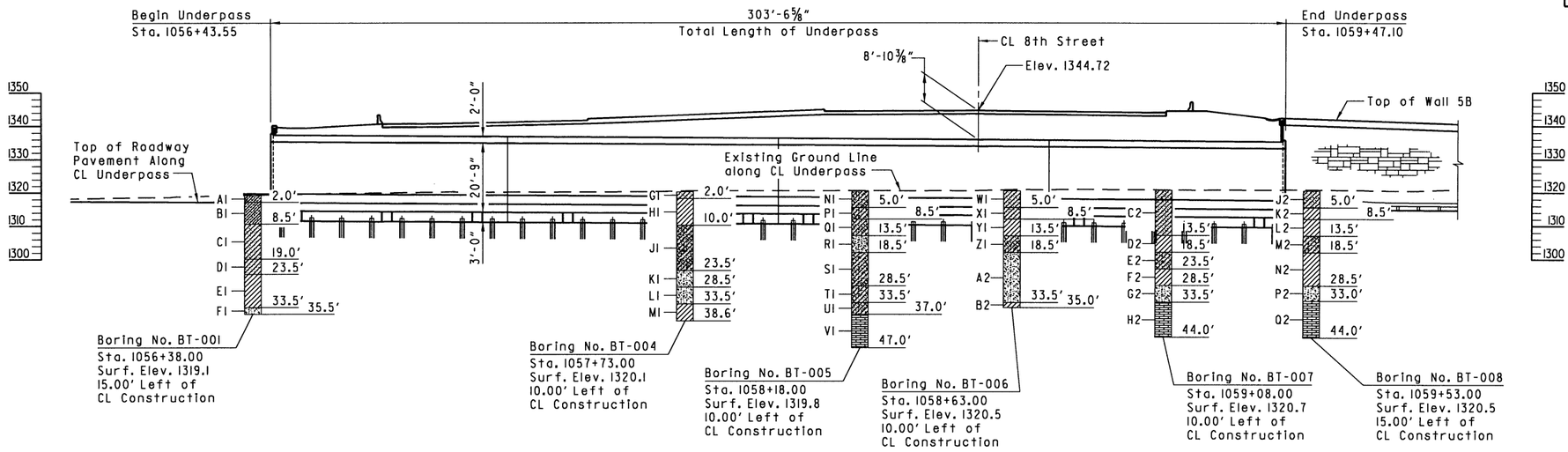

SECTION ALONG CL RAMP 3 UNDERPASS (62/102)

BORING LEGEND

AI - Lean Clay, with Sand, Dark Yellowish-Brown, Medium Stiff
BI - Lean Clay, trace Sand, Dark Yellowish-Brown to Mottled Brownish Yellow and Grayish-Brown, Stiff
CI - Sandy Lean to Fat Clay, with Chert Gravel, Reddish-Brown to Yellowish-Red, Very Stiff
DI - Clayey Sand, with Chert Seams, Reddish-Brown to Gray, Very Dense
EI - Cherty Lean Clay, Reddish-Brown, Medium Stiff to Stiff
FI - Silty Chert Gravel, Strong Brown, Medium Dense (apparent Hard Cherty Limestone at 35.5 feet)
GI - Lean Clay, with Silt, Yellowish-Brown, Medium Stiff
HI - Lean Clay, trace Sand, Yellowish-Brown to Grayish-Brown, Stiff to Very Stiff
JI - Lean to Fat Clay, with Sand and Chert Gravel, Dark Reddish-Brown to Red, Very Stiff
KI - Clayey Chert Gravel, Red, Very Dense
LI - Clayey Chert Grave, Red, Medium Dense
MI - Cherty Fat Clay, with Highly Weathered Chert Fragments, Dark Yellowish-Brown and Pale Brown, Medium Stiff (apparent Limestone at 38 feet)
NI - Lean Clay, with Silt, trace Gravel, Dark Yellowish-Brown, Stiff
PI - Lean to Fat Clay, trace Sand, Mottled Dark Yellowish-Brown and Light Olive-Brown, Stiff to Very Stiff
QI - Lean to Fat Clay, trace Sand, Yellowish-Red, Stiff
RI - Clayey Chert Gravel, with Sand, Light Gray and Dark Reddish-Brown, Very Dense
SI - Fat Clay, with Chert Gravel, Dark Reddish-Brown, Stiff (with Chert Seams below 23.5 feet)
TI - Clayey Chert Gravel, Light Gray and Dark Reddish-Brown, medium Dense
UI - Fat Clay, with Chert Gravel, Strong Brown, Medium Stiff to Stiff
VI - Cherty Limestone, light Gray and Gray, Hard
WI - Lean Clay, trace Sand, Yellow-Brown and Yellowish-Brown, Stiff to Very Stiff
XI - Lean to Fat Clay, trace Sand, Mottled Yellowish-Brown and Dark Grayish-Brown, Very Stiff
YI - Lean to Fat Clay, Dark Reddish-Brown, Stiff
ZI - Lean to Fat Clay, with Sand and Chert Gravel, Dark Reddish-Brown and Light Gray, Very Stiff
A2 - Clayey Chert Gravel, Light Gray and Yellowish-Red, Dense to Very Dense (with Chert Seams below 23.5 feet)
B2 - Fat Clay, with Highly Weathered Chert Fragments, Yellowish-Brown and Pale Brown, Medium Stiff to Stiff
C2 - Lean Clay, with Sand, yellowish-Brown, Stiff (Dark Reddish-Brown, Very Stiff below 6.5 feet)
D2 - Fat Clay, with Chert Seams, Dark Reddish-Brown and Light Gray, Stiff to Very Stiff
E2 - Fat Clay, with Chert Gravel, Dark Reddish-Brown to Light Olive-Brown, Very Stiff
F2 - Fat Clay, with Chert Seams, Dark Reddish-Brown and Light Gray, Stiff to very Stiff
G2 - Silty Chert Gravel, with Sand, Yellowish-Red and Black, Medium Dense
H2 - Cherty Limestone, Light Gray and Gray, Hard
J2 - Fill - Lean Clay, with Silt, trace Sand, Brown to Yellowish-Brown
K2 - Fill - Lean to Fat Clay, with Clay Pockets, Brown to Yellowish-Brown
L2 - Fat Clay, Dark Reddish-Brown, Very Stiff
M2 - Fat Clay, with Chert Gravel, Yellowish-Red and Light Olive-Brown, Stiff
N2 - Cherty Fat Clay, Yellowish-Red, Very Stiff to Hard
P2 - Clayey Chert Gravel, Yellowish-Red to Reddish-Yellow, Medium Dense
Q2 - Cherty Limestone, Light Gray and Gray, Hard

1056+00 1057+00 1058+00 1059+00

"N" VALUES

Boring No. BT-001
Sta. 1056+38.00 - 15.00' Left of CL Construction
1.0 - 2.0 N = 5
2.5 - 3.5 N = 10
5.5 - 6.5 N = 14
9.0 - 10.0 N = 20
14.0 - 15.0 N = 16
19.7 - 20.0 N = 50 (3")
24.0 - 25.0 N = 14
29.0 - 30.0 N = 9
34.0 - 35.0 N = 11
35.5 - 35.5 N = 50 (0")

Boring No. BT-004
Sta. 1057+73.00 - 10.00' Left of CL Construction
1.0 - 2.0 N = 7
2.5 - 3.5 N = 16
5.5 - 6.5 N = 15
10.5 - 11.5 N = 24
14.0 - 15.0 N = 39
19.0 - 20.0 N = 30
24.0 - 25.0 N = 53
29.0 - 30.0 N = 16
34.0 - 35.0 N = 6
38.5 - 38.6 N = 50 (1")

Boring No. BT-005
Sta. 1058+18.00 - 10.00' Left of CL Construction
1.0 - 2.0 N = 11
2.5 - 3.5 N = 13
7.0 - 8.0 N = 16
9.0 - 10.0 N = 13
14.0 - 15.0 N = 53
19.0 - 20.0 N = 15
23.7 - 24.0 N = 50 (3")
29.0 - 30.0 N = 25
34.0 - 35.0 N = 9

Boring No. BT-006
Sta. 1058+63.00 - 10.00' Left of CL Construction
1.0 - 2.0 N = 20
2.5 - 3.5 N = 14
5.5 - 6.5 N = 16
9.0 - 10.0 N = 15
14.0 - 15.0 N = 20
19.0 - 20.0 N = 46
24.0 - 24.2 N = 50 (3")
29.0 - 30.0 N = 26
34.0 - 35.0 N = 9

Boring No. BT-007
Sta. 1059+08.00 - 10.00' Left of CL Construction
1.0 - 2.0 N = 13
2.5 - 3.5 N = 8
7.0 - 8.0 N = 19
9.0 - 10.0 N = 20
13.5 - 14.0 N = 50 (6")
19.0 - 20.0 N = 27
23.6 - 24.0 N = 50 (5")
29.0 - 30.0 N = 25
33.9 - 34.0 N = 50 (1")

Boring No. BT-008
Sta. 1059+53.00 - 15.00' Left of CL Construction
1.0 - 2.0 N = 5
4.0 - 5.0 N = 10
5.5 - 6.5 N = 11
9.0 - 10.0 N = 25
14.0 - 15.0 N = 10
19.0 - 20.0 N = 31
24.0 - 25.0 N = 23
29.0 - 30.0 N = 20
33.9 - 34.0 N = 50 (1")

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEPHENSON
10.2.2015
BRIDGE ENGINEER

SHEET 2 OF 3
LAYOUT OF RAMP 3
UNDERPASS AT 8TH STREET
HWY. 62/102 INTCHNG. IMPVTS. &
8TH STREET WIDENING (BENTONVILLE) (S)
BENTON COUNTY
ROUTE I-49 SEC. 29
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: DMW DATE: 10/30/15
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SCALE: 1" = 20'

BRIDGE NO. 07369 DRAWING NO. 57874

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.		090376	190	555
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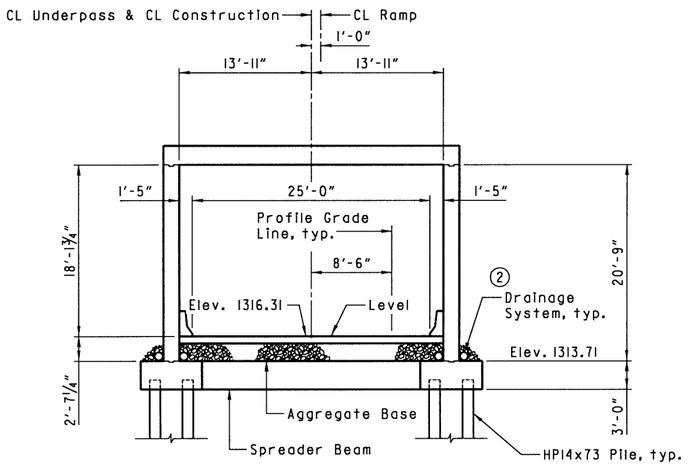
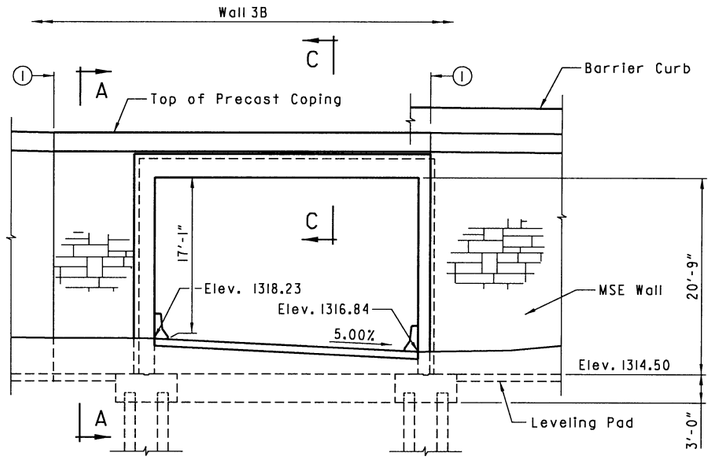
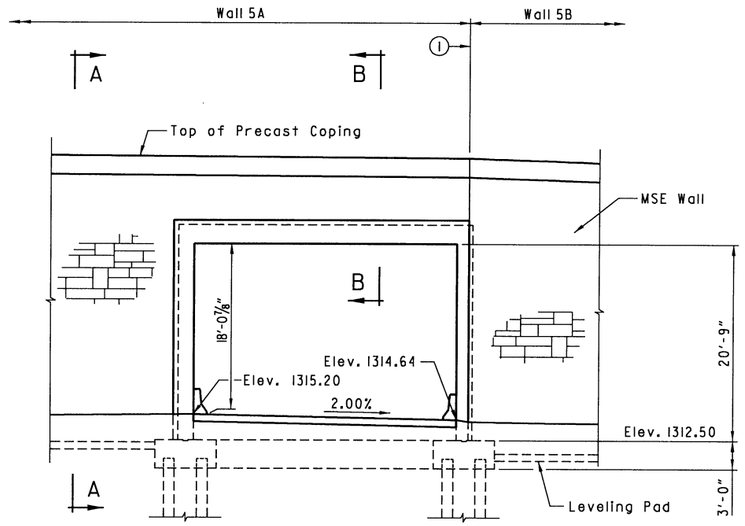


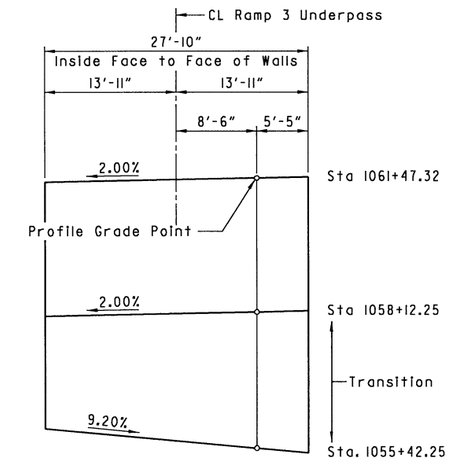
SECTION THROUGH UNDERPASS
STA. 1057+64.04
(Looking Ahead Station)



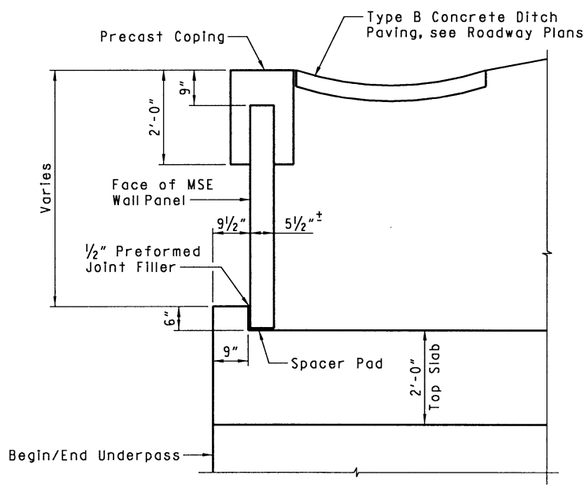
END VIEW - BEGIN UNDERPASS
(Looking Ahead Station)



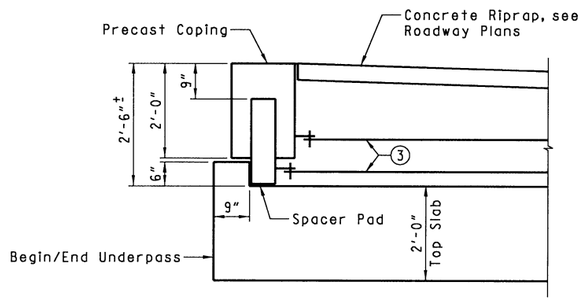
END VIEW - END UNDERPASS
(Looking Back Station)



RAMP 3 UNDERPASS
PAVEMENT SUPERELEVATION
(Looking Ahead, Rotate superelevation about profile grade point)



SECTION B-B



SECTION C-C

NOTES:

For detail of Section A-A, see Roadway Plans.

Stations shown are measured along CL Ramp 3.

For MSE wall layouts, see Roadway Plans.

(1) Break in horizontal alignment of MSE wall, see Roadway Plans.

(2) For details of drainage system, see Roadway Plans.

(3) MSE Wall supplier shall design and furnish attachments for concrete coping and partial wall panel.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JEREMY D. PETERSON

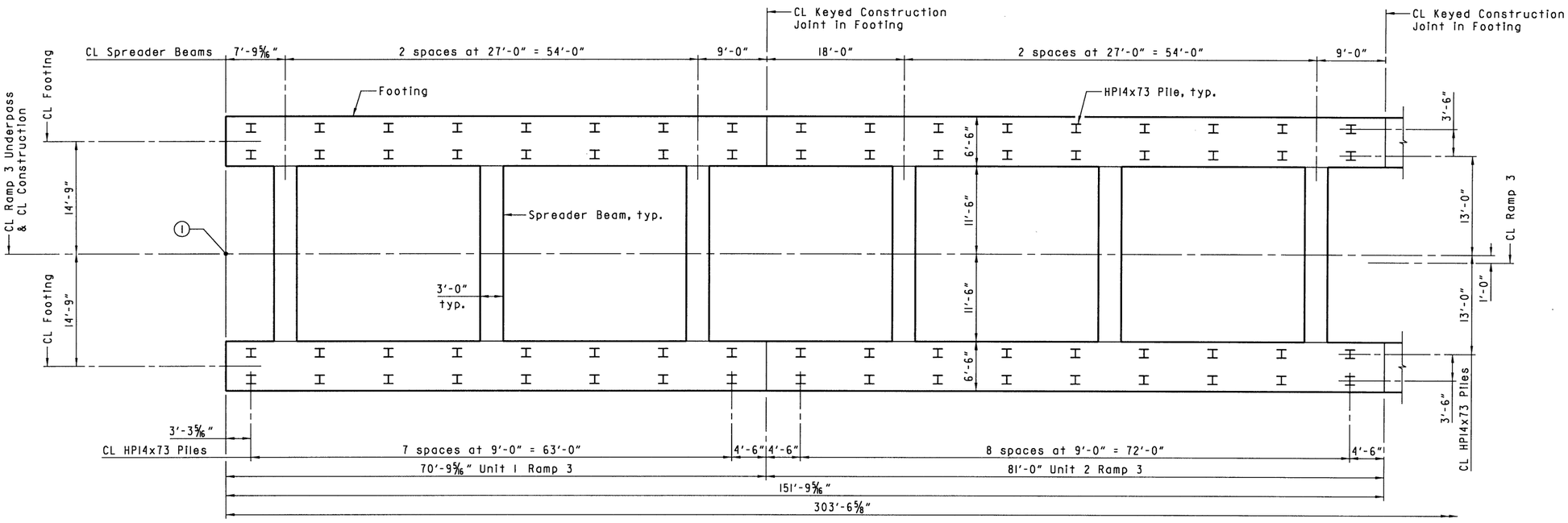
BRIDGE ENGINEER

SHEET 3 OF 3
LAYOUT OF RAMP 3
UNDERPASS AT 8TH STREET
HWY. 62/102 INTCHNG. IMPVTS. &
8TH STREET WIDENING (BENTONVILLE) (S)
BENTON COUNTY
ROUTE I-49 SEC. 29
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: DMW DATE: 10/30/15
FILENAME: b090376x2.L3.dgn
SCALE: NO SCALE

BRIDGE NO. 07369
DRAWING NO. 57875

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.		090376	191	555
				① 07369		UNDERPASS		57876



FOUNDATION PLAN - UNITS 1 & 2 RAMP 3 UNDERPASS

Scale: 1/8" = 1'-0"

① Begin Underpass, Sta. 1056+43.55

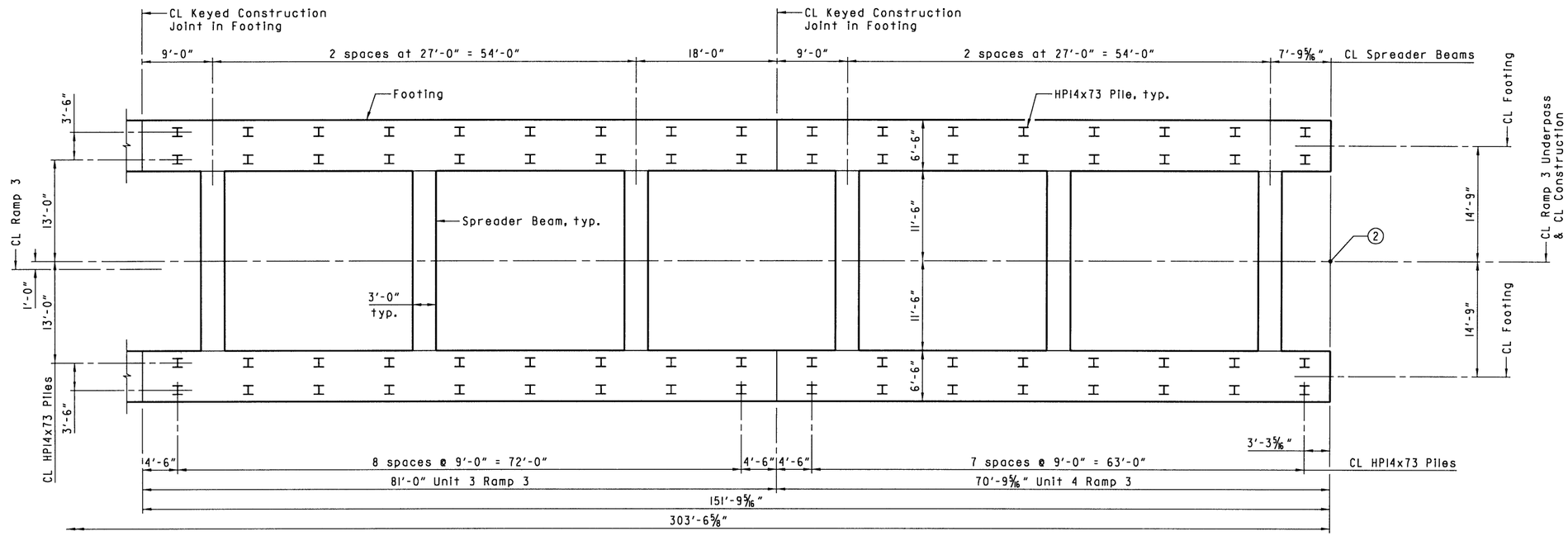
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEPHENSON
10-2-2016
BRIDGE ENGINEER

SHEET 1 OF 12
DETAILS OF RAMP 3
UNDERPASS AT 8TH STREET
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x2_sl.dgn
SCALE: 1/8" = 1'-0"

BRIDGE NO. 07369 DRAWING NO. 57876

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.		090376	192	555
				(1) 07369		UNDERPASS		57877



FOUNDATION PLAN - UNITS 3 & 4 RAMP 3 UNDERPASS

Scale: 1/8" = 1'-0"

(2) End Underpass, Sta. 1059+47.10

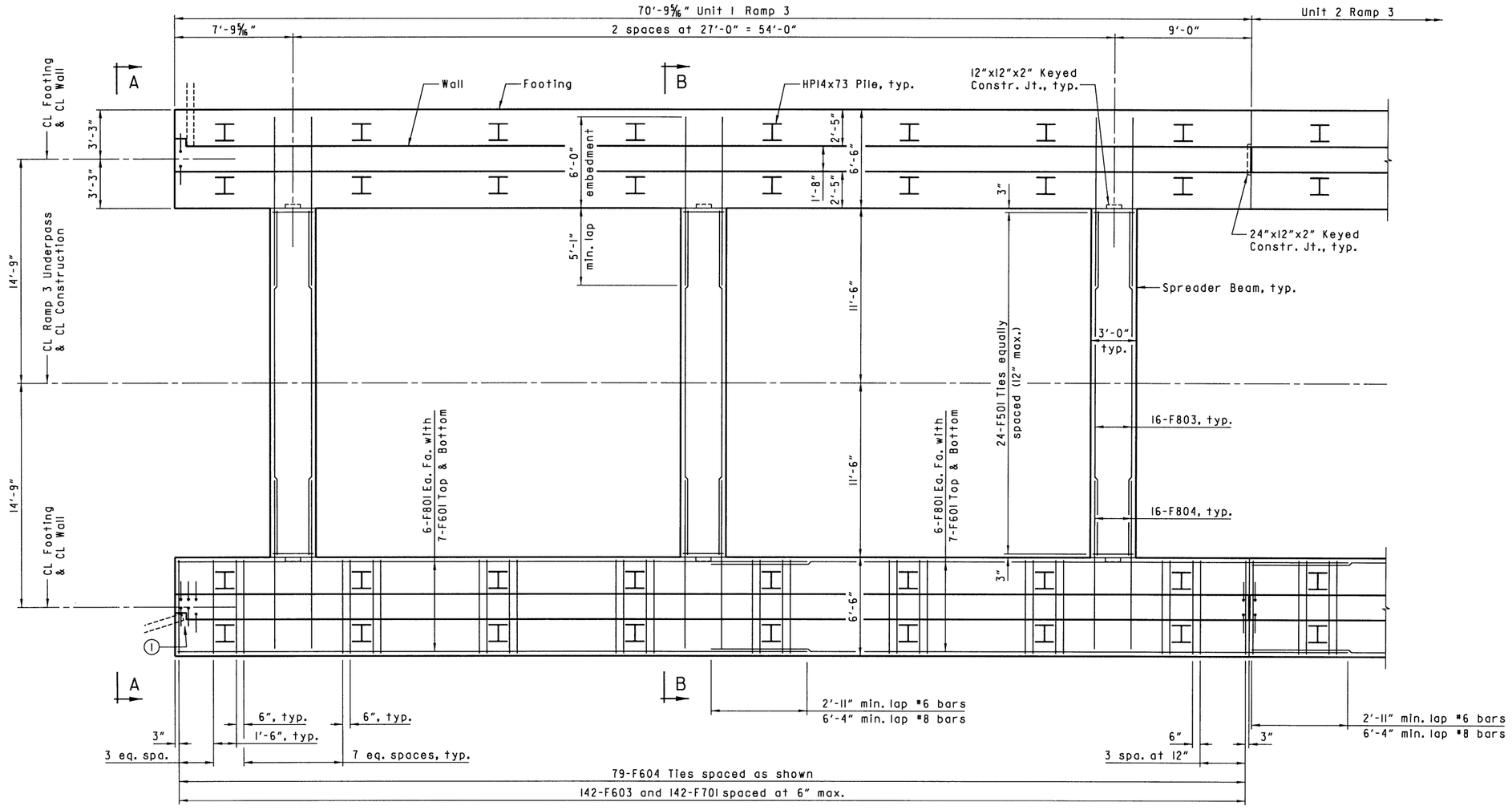
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. SPENCER
10-29-16
BRIDGE ENGINEER

SHEET 2 OF 12
DETAILS OF RAMP 3
UNDERPASS AT 8TH STREET
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x2_s2.dgn
SCALE: 1/8" = 1'-0"

BRIDGE NO. 07369 DRAWING NO. 57877

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.		090376	193	555
				① 07369		UNDERPASS		57878



FOUNDATION REINFORCING PLAN - UNIT 1 RAMP 3 UNDERPASS

Scale: 1/4" = 1'-0"

① Shift first two F603 bars 5" towards centerline of footing to provide clearance at 5"x9" notch cast in wall.

STATE OF ARKANSAS — REGISTERED PROFESSIONAL ENGINEER — No. 16183 — JERRY D. GIBSON

12-2-2016

BRIDGE ENGINEER

SHEET 3 OF 12
DETAILS OF RAMP 3
UNDERPASS AT 8TH STREET

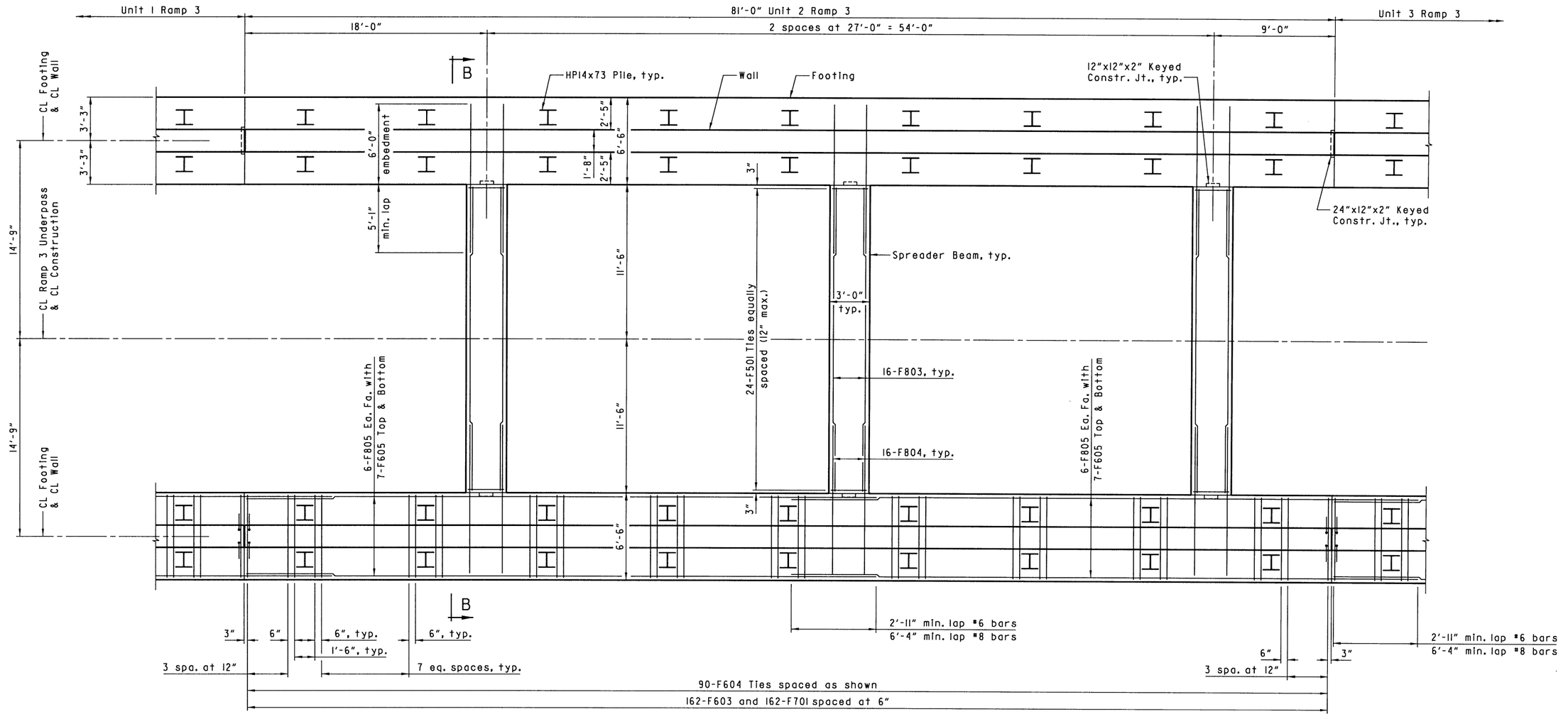
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376x2_s3.dgn
CHECKED BY: JDS DATE: 10/30/15 SCALE: 1/4" = 1'-0"
DESIGNED BY: TG DATE: 10/30/15

BRIDGE NO. 07369 DRAWING NO. 57878

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.		090376	194	555
				(1) 07369		UNDERPASS		57879



FOUNDATION REINFORCING PLAN - UNIT 2 RAMP 3 UNDERPASS

Scale: 1/4" = 1'-0"

STATE OF ARKANSAS
JERRY D. PETERSON
REGISTERED PROFESSIONAL ENGINEER
No. 16183

6-2-2016

BRIDGE ENGINEER

SHEET 4 OF 12
DETAILS OF RAMP 3
UNDERPASS AT 8TH STREET

ROUTE SEC.

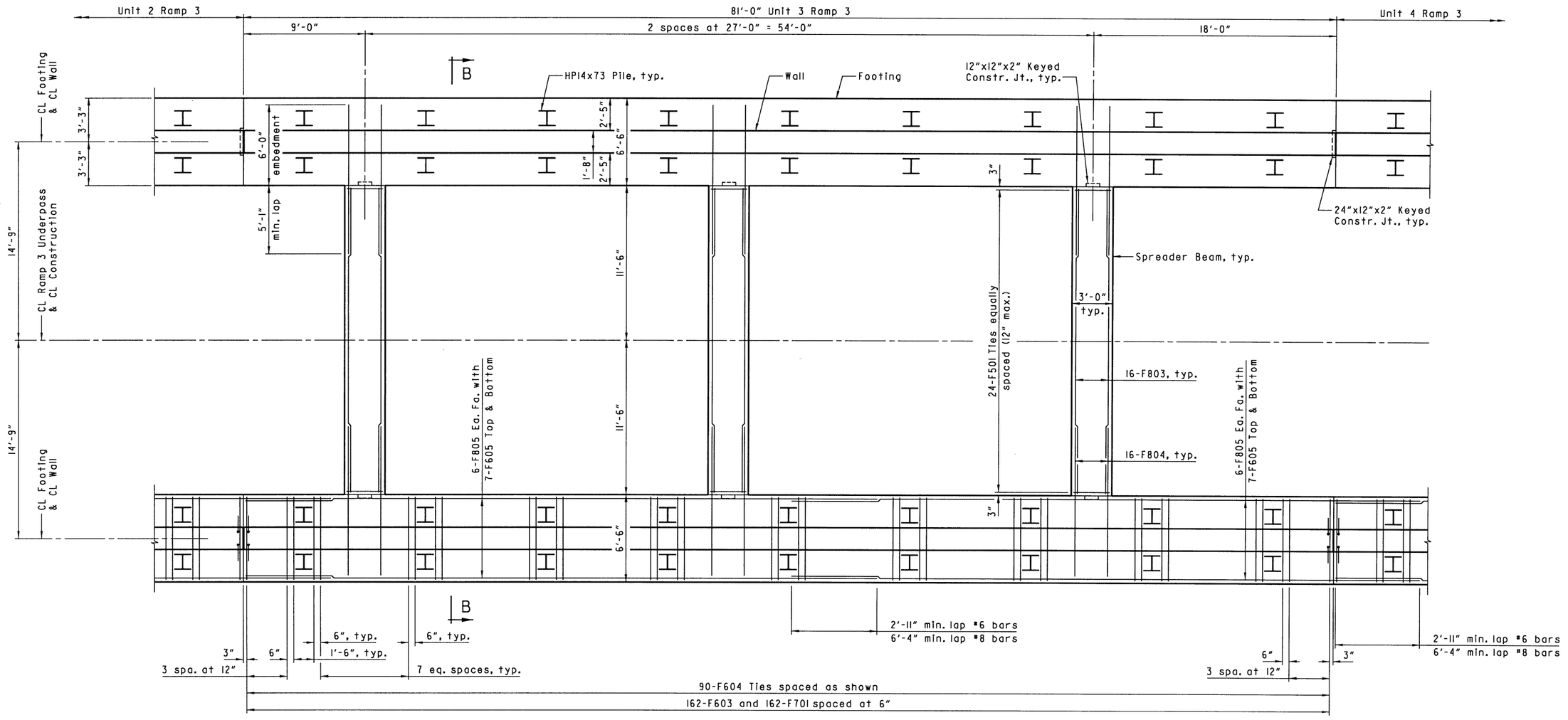
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15

FILENAME: b090376x2_s4.dgn
SCALE: 1/4" = 1'-0"

BRIDGE NO. 07369 DRAWING NO. 57879

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.		090376	195	555
				(1) 07369		UNDERPASS		57880



FOUNDATION REINFORCING PLAN - UNIT 3 RAMP 3 UNDERPASS

Scale: 1/4" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON

BRIDGE ENGINEER

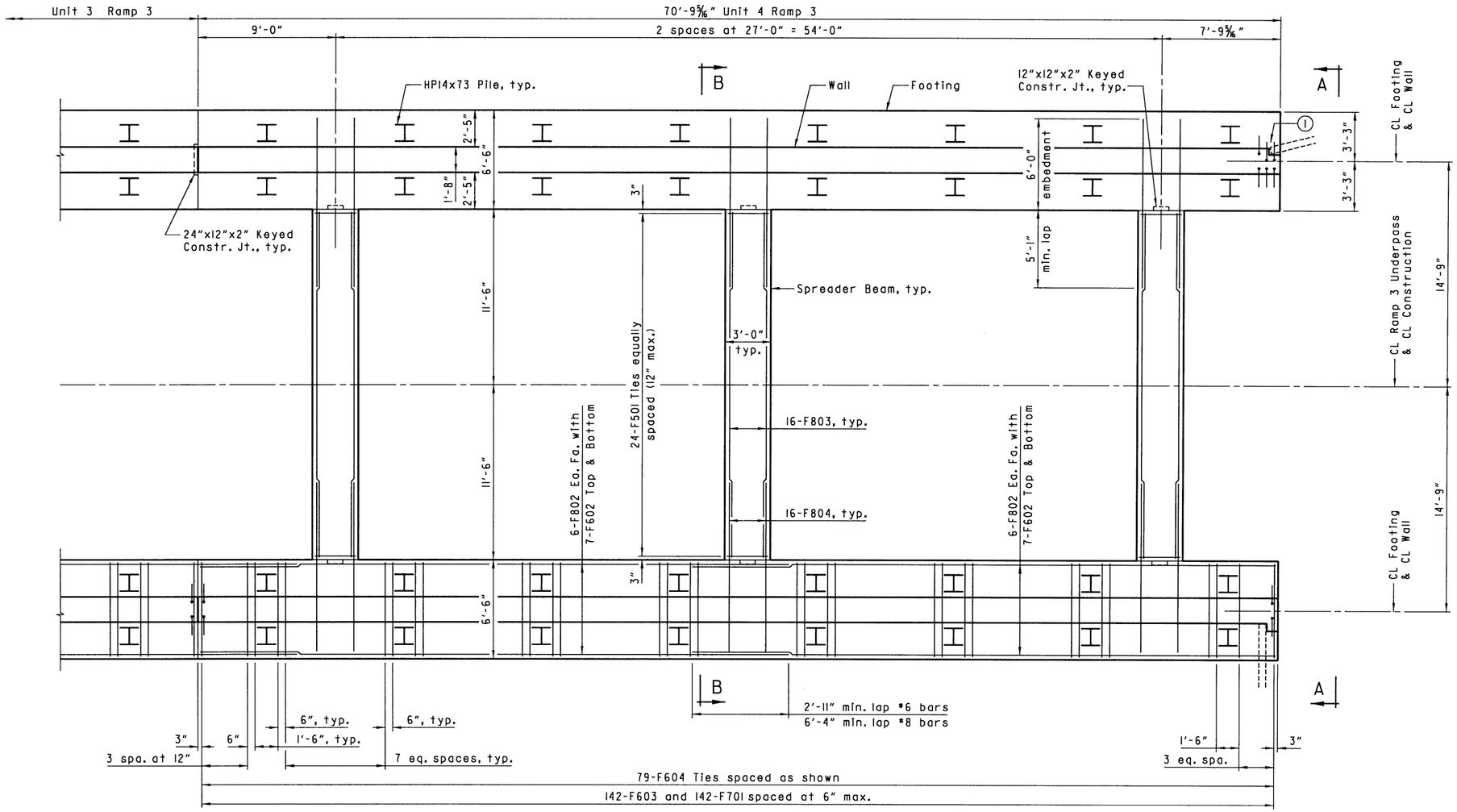
SHEET 5 OF 12
DETAILS OF RAMP 3
UNDERPASS AT 8TH STREET
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x2_s5.dgn
SCALE: 1/4" = 1'-0"

BRIDGE NO. 07369 DRAWING NO. 57880

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.		090376	196	555
				① 07369		UNDERPASS		57881



FOUNDATION REINFORCING PLAN - UNIT 4 RAMP 3 UNDERPASS

Scale: 1/4" = 1'-0"

① Shift first two F603 bars 5" towards centerline of footing to provide clearance at 5"x9" notch cast in wall.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 16183 JERRY D. STEVENSON

10.2.15

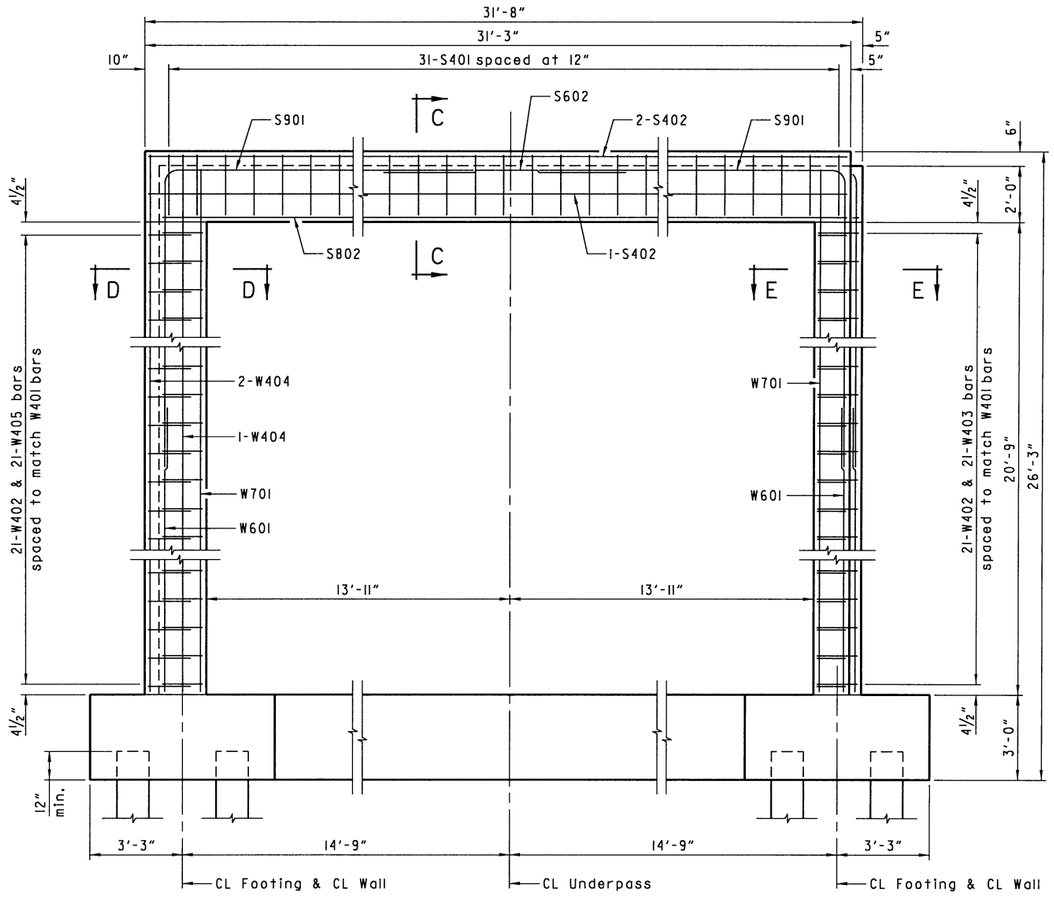
BRIDGE ENGINEER

SHEET 6 OF 12
DETAILS OF RAMP 3
UNDERPASS AT 8TH STREET
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

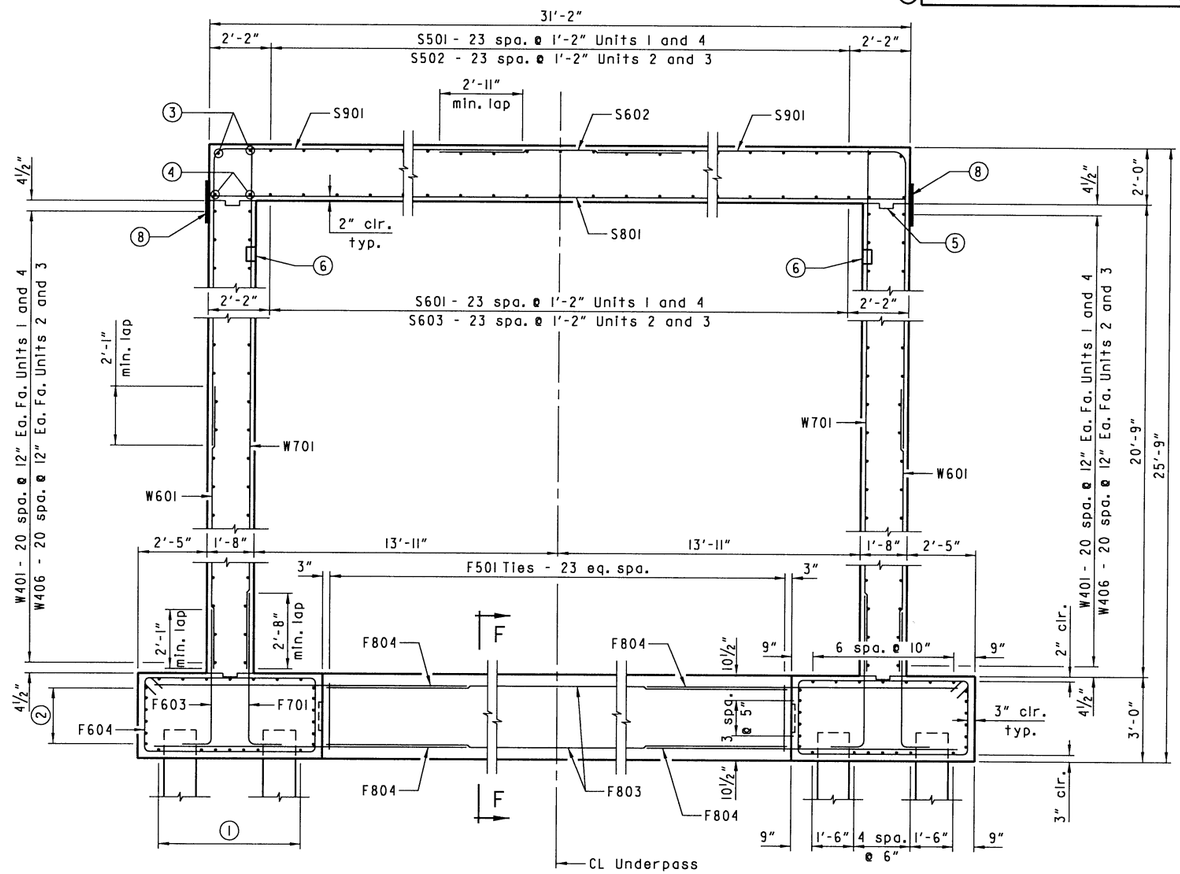
DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x2_s6.dgn
SCALE: 1/4" = 1'-0"

BRIDGE NO. 07369 DRAWING NO. 57881

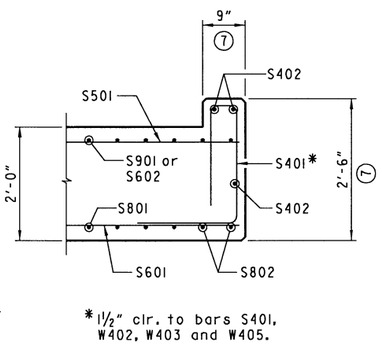
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	197	555
				(1) 07369		UNDERPASS		57882



VIEW A-A
Scale: 3/8" = 1'-0"

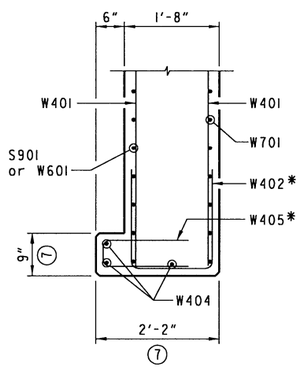


SECTION B-B
Scale: 3/8" = 1'-0"

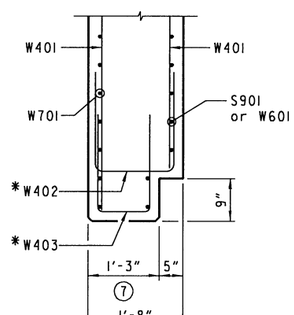


*1½" clr. to bars S401, W402, W403 and W405.

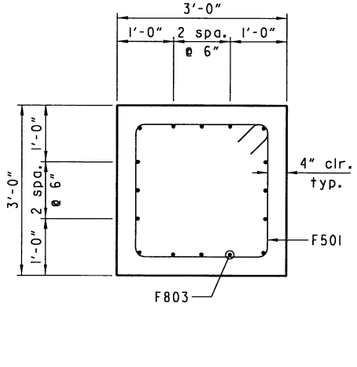
SECTION C-C
Scale: 3/4" = 1'-0"



SECTION D-D
Scale: 3/4" = 1'-0"



SECTION E-E
Scale: 3/4" = 1'-0"



SECTION F-F
Scale: 3/4" = 1'-0"

(1) F601 bars Top & Bottom Unit 1, F602 bars Top & Bottom Unit 4 and F605 bars Top & Bottom Units 2 and 3.

(2) F801 bars Ea. Fa. Unit 1, F802 bars Ea. Fa. Unit 4 and F805 bars Ea. Fa. Units 2 and 3.

(3) S501 bar Units 1 and 4 and S502 bar Units 2 and 3.

(4) S601 bar Units 1 and 4 and S603 bar Units 2 and 3.

(5) Continuous 2"x6" Keyed Construction Joint, typical 4 places.

(6) For details of Junction Box, Conduits and Expansion Fittings, see Electrical Plans. Contractor may cut one vertical W701 bar to facilitate installation of the junction box.

(7) Class 3 Textured Coating Finish, see General Notes.

(8) 1'-6" wide Waterproofing Membrane (Type C) per Section 815 centered on construction joint.

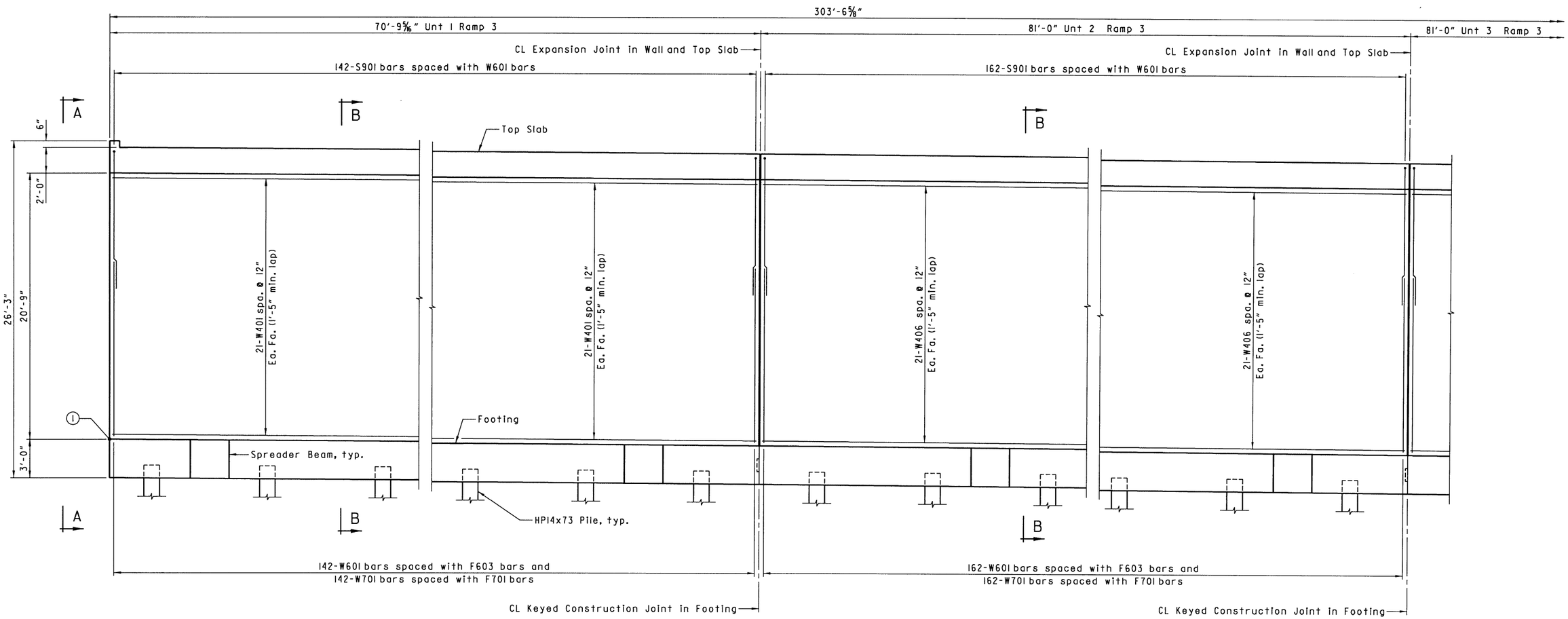
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEPHENSON
6-2-16
BRIDGE ENGINEER

SHEET 7 OF 12
DETAILS OF RAMP 3
UNDERPASS AT 8TH STREET
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x2_s7.dgn
SCALE: AS NOTED

BRIDGE NO. 07369 DRAWING NO. 57882

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.		090376	198	555
				① 07369		UNDERPASS		57883



WALL REINFORCING SECTION - UNITS 1 & 2 RAMP 3 UNDERPASS

Scale: ¼" = 1'-0"

① Begin Underpass, Sta. 1056+43.55, Elev. 1314.50

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STAWNESON

BRIDGE ENGINEER

SHEET 8 OF 12
DETAILS OF RAMP 3
UNDERPASS AT 8TH STREET

ROUTE SEC.

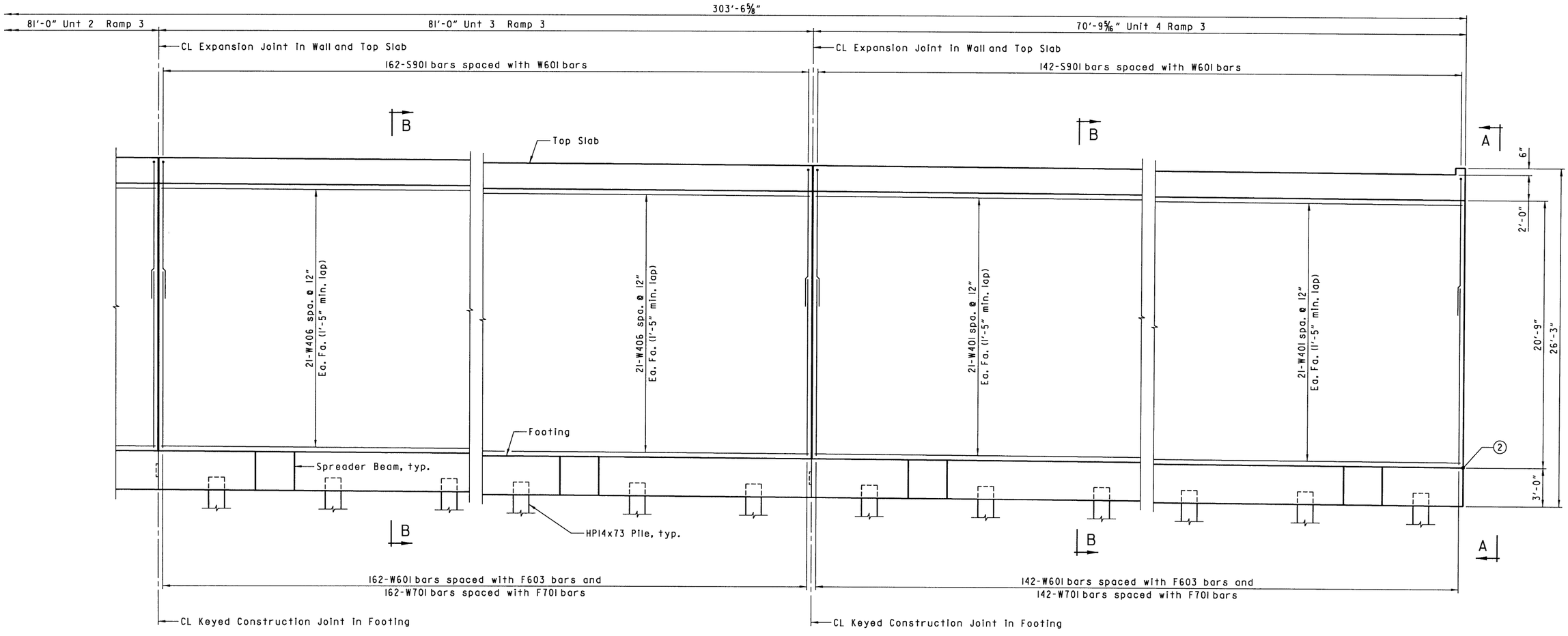
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15

FILENAME: b090376x2_s8.dgn
SCALE: ¼" = 1'-0"

BRIDGE NO. 07369 DRAWING NO. 57883

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.		090376	199	555
				① 07369		UNDERPASS		57884



WALL REINFORCING SECTION - UNITS 3 & 4 RAMP 3 UNDERPASS

Scale: ¼" = 1'-0"

② End Underpass, Sta. 1059+47.10, Elev. 1312.50

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 16183 JERRY D. STEPHENSON

BRIDGE ENGINEER

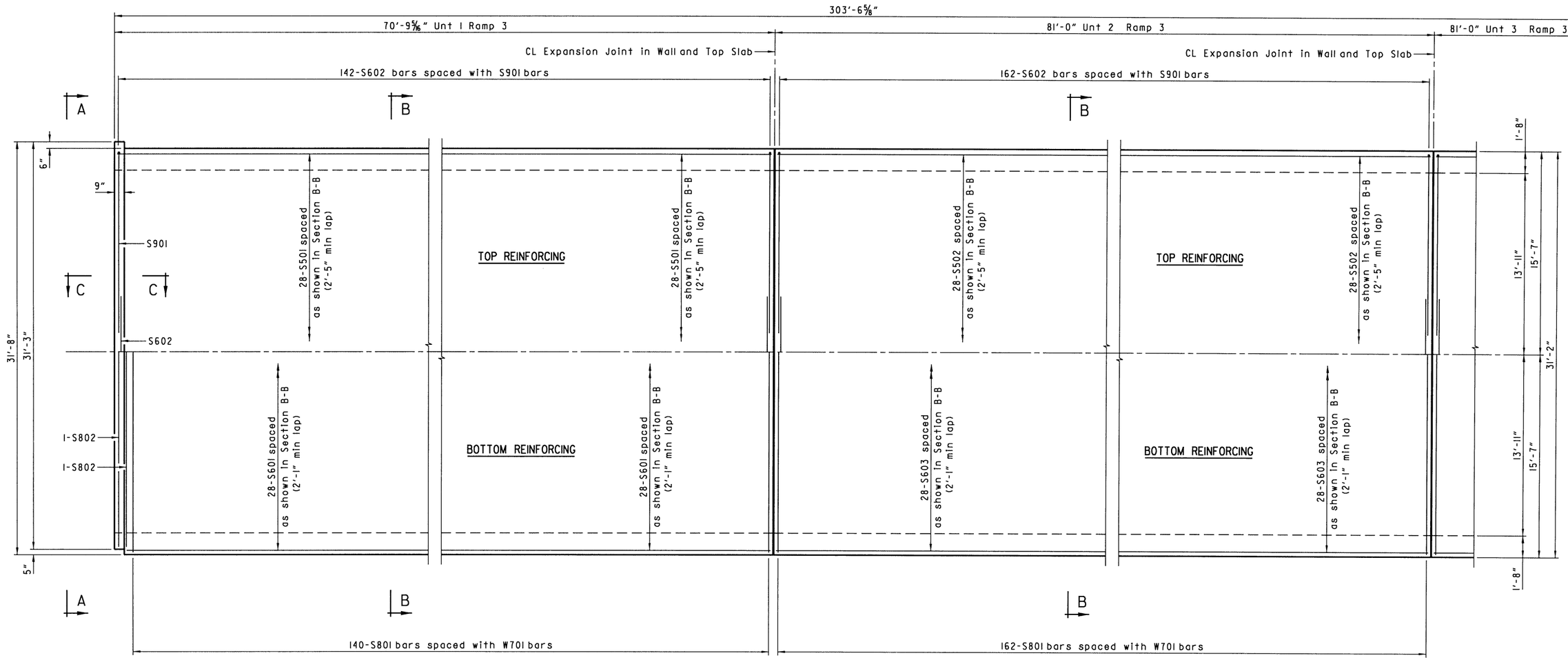
SHEET 9 OF 12
DETAILS OF RAMP 3
UNDERPASS AT 8TH STREET
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x2_s9.dgn
SCALE: ¼" = 1'-0"

BRIDGE NO. 07369 DRAWING NO. 57884

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.		090376	200	555
				(1) 07369		UNDERPASS		57885



TOP SLAB REINFORCING PLAN - UNITS 1 & 2 RAMP 3 UNDERPASS

Scale: ¼" = 1'-0"

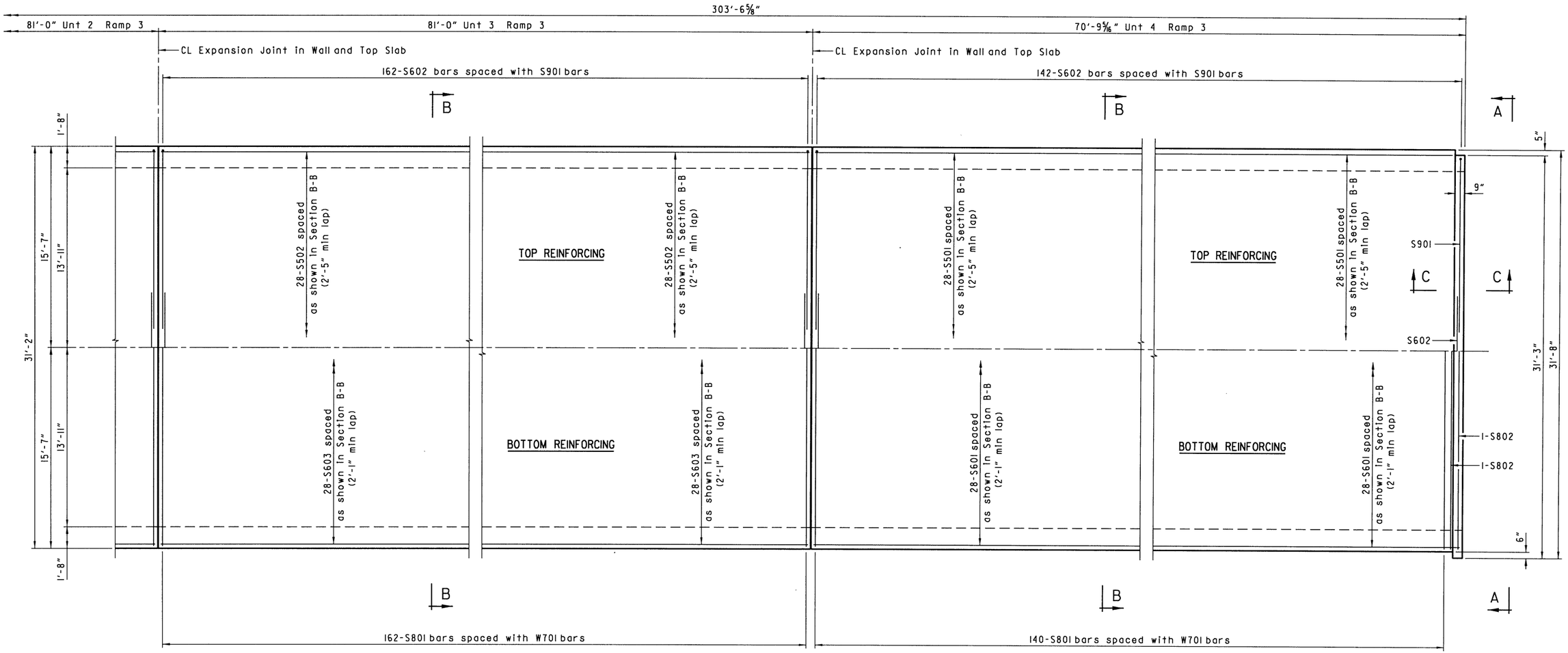
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEPHENSON
10.2.2015
BRIDGE ENGINEER

SHEET 10 OF 12
DETAILS OF RAMP 3
UNDERPASS AT 8TH STREET
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x2_sl0.dgn
SCALE: ¼" = 1'-0"

BRIDGE NO. 07369 DRAWING NO. 57885

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.		090376	201	555
				(1) 07369		UNDERPASS		57886



TOP SLAB REINFORCING PLAN - UNITS 3 & 4 RAMP 3 UNDERPASS

Scale: 1/4" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEPHENSON
10.22.16
BRIDGE ENGINEER

SHEET 11 OF 12
DETAILS OF RAMP 3
UNDERPASS AT 8TH STREET
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x2_sll.dgn
SCALE: 1/4" = 1'-0"

BRIDGE NO. 07369 DRAWING NO. 57886

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
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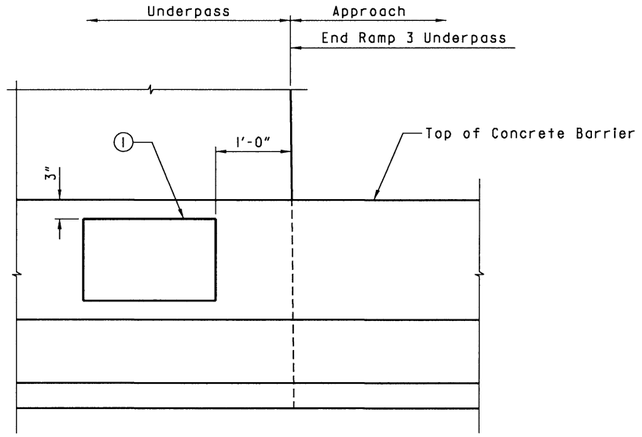
				(1) 07369		UNDERPASS		57887



VIEW SHOWING LOCATION OF NAME PLATE

Scale: 1" = 1'-0"

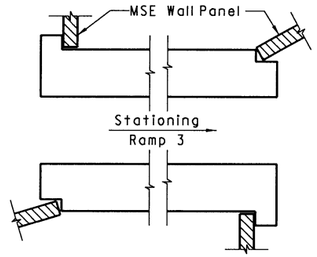
(1) Place Type D Bridge Name Plate on left concrete barrier approximately 1'-0" from end of Ramp 3 Underpass.

(2) Waterproofing Membrane (Type C) per Section 815.

(3) Continuous 2"x6" Keyed Construction Joint (walls) and 2"x8" Keyed Construction Joint (top slab).

(4) 1" Dia. x 20" long smooth Dowel Bar at 12" centers, epoxy coated.

(5) Closed end dowel bar sleeve to allow movement.



LOCATION PLAN
END OF WALL TREATMENT

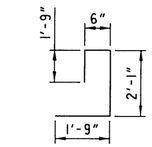
No Scale

BAR LIST

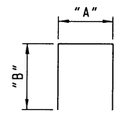
MARK	NO. REQ'D.	LENGTH	"A"	"B"	PIN. DIA.
F501	288	10'-0"			3¾"
F601	56	38'-4"			Str.
F602	56	36'-10"			Str.
F603	1216	5'-9"	4'-10"	1'-0"	4½"
F604	676	18'-0"			4½"
F605	112	43'-6"			Str.
F701	1216	6'-5"	5'-5"	1'-2"	5¼"
F801	48	41'-9"			Str.
F802	48	38'-6"			Str.
F803	192	22'-10"			Str.
F804	384	11'-2"			Str.
F805	96	46'-11"			Str.
W401	336	36'-0"			Str.
W402	84	4'-9"	1'-5"	1'-9"	2"
W403	42	4'-4"	1'-0"	1'-9"	2"
W404	6	23'-0"			Str.
W405	42	3'-4"	6"	1'-6"	2"
W406	336	41'-1"			Str.
W601	1216	14'-0"			Str.
W701	1216	22'-6"			Str.
S401	62	5'-10"			2"
S402	6	30'-11"			Str.
S501	112	36'-6"			Str.
S502	112	41'-7"			Str.
S601	112	36'-4"			Str.
S602	608	8'-0"			Str.
S603	112	41'-5"			Str.
S801	604	30'-10"			Str.
S802	4	30'-5"			Str.
S901	1216	24'-9"			9"

BENDING DIAGRAM

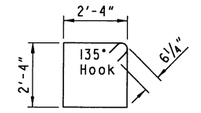
Dimensions are out to out of bars.



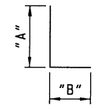
S401



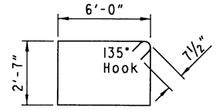
W402, W403 & W405



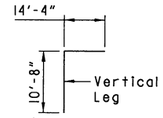
F501



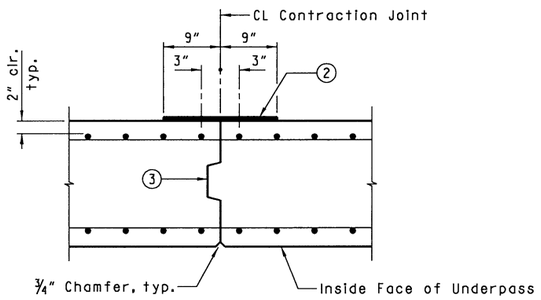
F603 & F701



F604



S901



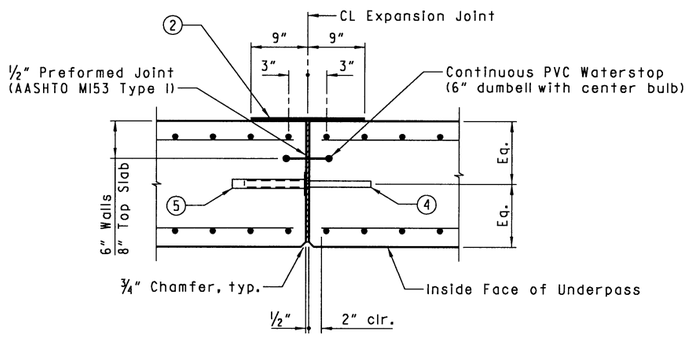
TYPICAL CONTRACTION JOINT DETAIL

No Scale

NOTES:

Contraction joints shall be placed to maintain clearance to main reinforcing steel as shown. The Contractor shall locate the contraction joints to maintain equal spacing of joints in the walls and top slab of each underpass unit, 30'-0" maximum. Longitudinal reinforcing shall be continuous through contraction joints as shown.

All contraction joints, including all materials, devices and work required shall be considered subsidiary to the item "Class S(AE) Concrete - Bridge" and will not be paid for directly.



TYPICAL EXPANSION JOINT DETAIL

No Scale

NOTES:

The expansion joint shall be located in the walls and top slab where shown on Dwg. Nos. 57883 - 57886. Longitudinal reinforcing shall stop 2" clear at the expansion joint as shown.

The waterstop shall be continuous starting at the top of the footing and extend 16" into the top slab, continue across the top slab into the opposite wall 14" and then down to the top of the opposite footing.

Dowel bars shall be securely held in place to ensure that the bars are both level horizontally and parallel to the centerline of the underpass structure.

All expansion joints, including all materials, devices and work required shall be considered subsidiary to the item "Class S(AE) Concrete - Bridge" and will not be paid for directly.

CONTRACTOR NOTES:

Details of each unit of falsework construction for the underpass structure support system, complete with dimensions and kind and condition of materials, shall be submitted to the Engineer prior to construction for informational and record purposes. These details shall be approved by a Registered Professional Engineer, who shall certify that the adequacy of all components has been verified. File copies of all design calculation shall be maintained by the Contractor until final acceptance of the project. The Contractor shall be responsible for the results obtained by the use of the falsework.

Falsework supporting the top slab shall remain in place a minimum of 7 days and until the concrete has reached a minimum compressive strength of 3,200 psi. Falsework supporting the top slab of preceding adjacent pours (either side of contraction and expansion joints) shall remain in place for a distance of not less than 20' back from the centerline of said joint until the above requirements have been satisfied for the succeeding pour.

Backfill adjacent to the underpass shall not be placed until the underpass structure is complete.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
12-2-2015
BRIDGE ENGINEER

SHEET 12 OF 12
DETAILS OF RAMP 3
UNDERPASS AT 8TH STREET

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15

FILENAME: b090376x2_sl2.dgn
SCALE: NO SCALE

BRIDGE NO. 07369 DRAWING NO. 57887

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.		090376	203	555
				(1) 07369		LIGHTING		57888

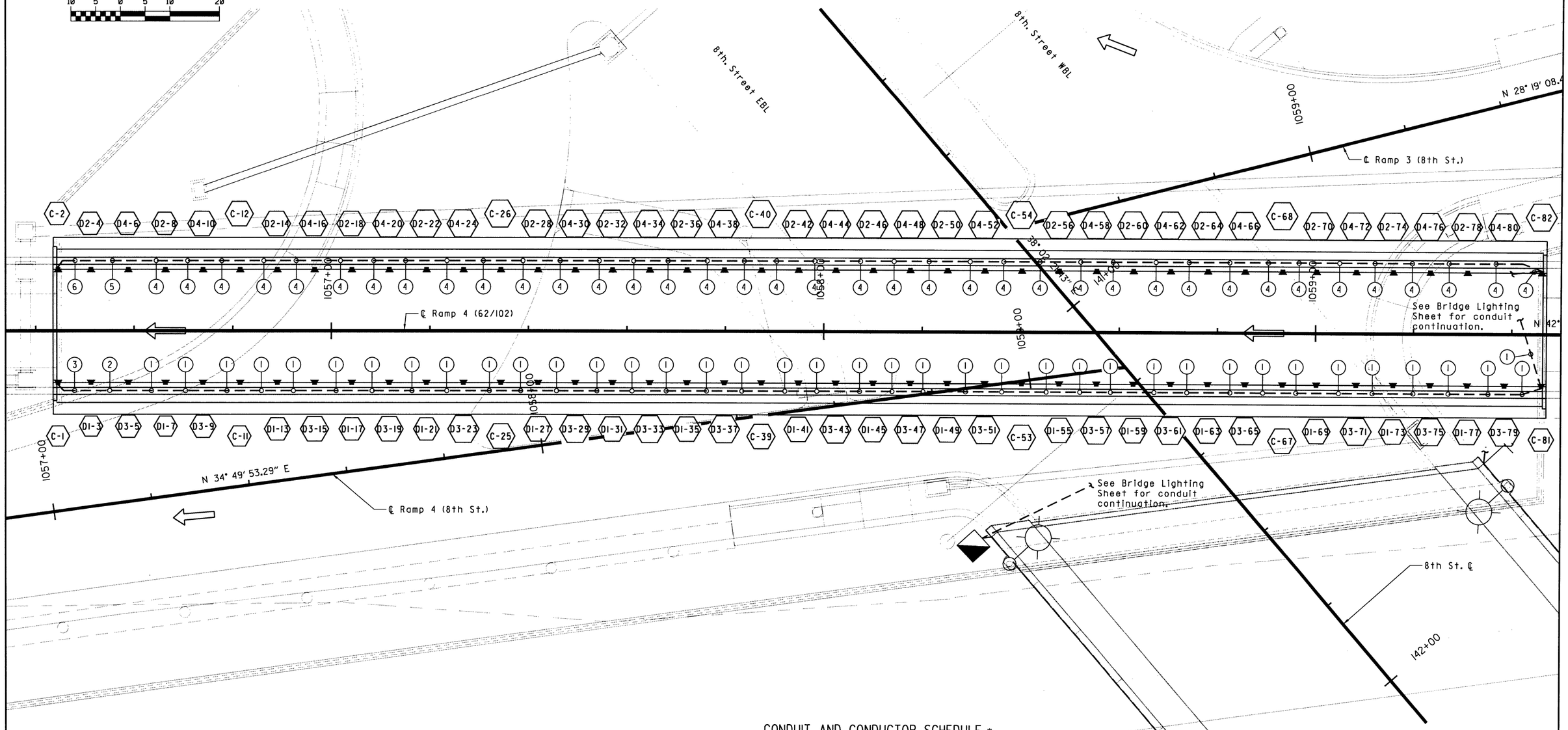
10 5 0 5 10 20

LEGEND

N.M.C. Conduit (Quantity and size per plan)

LED Tunnel Light & Junction Box

Luminaire (Circuit - *)


8th. Street EBL
8th. Street WBL
1059+00
℄ Ramp 3 (8th St.)
N 28° 19' 08.4
C-2 D2-4 D4-6 D2-8 D4-10 C-12 D2-14 D4-16 D2-18 D4-20 D2-22 D4-24 C-26 D2-28 D4-30 D2-32 D4-34 D2-36 D4-38 C-40 D2-42 D4-44 D2-46 D4-48 D2-50 D4-52 C-54 D2-56 D4-58 D2-60 D4-62 D2-64 D4-66 C-68 D2-70 D4-72 D2-74 D4-76 D2-78 D4-80 C-82
6 5 4 4 4

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.		090376	204	555
				(1) 07369		LIGHTING		57889

RAMP 3 TUNNEL LUMINAIRE SCHEDULE

Luminaire Number	Station (CL Ramp 3)	Offset	Height (ft)	Tilt	Type	Distribution	Circuit Number	Day Switched	Day Power	Night Switched	Night Power
C-1	1056+44.55	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	C	On	100%	On	11%
C-2	1056+44.55	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	C	On	100%	On	11%
D1-3	1056+51.26	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a
D2-4	1056+51.26	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-5	1056+58.82	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-6	1056+58.82	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
D1-7	1056+66.38	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a
D2-8	1056+66.38	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-9	1056+73.94	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-10	1056+73.94	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
C-11	1056+81.5	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	C	On	100%	On	11%
C-12	1056+81.5	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	C	On	100%	On	11%
D1-13	1056+89.06	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a
D2-14	1056+89.06	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-15	1056+96.62	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-16	1056+96.62	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
D1-17	1057+04.18	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a
D2-18	1057+04.18	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-19	1057+11.74	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-20	1057+11.74	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
D1-21	1057+19.3	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a
D2-22	1057+19.3	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-23	1057+26.86	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-24	1057+26.86	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
C-25	1057+34.42	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	C	On	100%	On	11%
C-26	1057+34.42	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	C	On	100%	On	11%
D1-27	1057+41.98	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a
D2-28	1057+41.98	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-29	1057+49.54	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-30	1057+49.54	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
D1-31	1057+57.1	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a
D2-32	1057+57.1	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-33	1057+64.66	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-34	1057+64.66	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
D1-35	1057+72.22	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a
D2-36	1057+72.22	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-37	1057+79.78	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-38	1057+79.78	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
C-39	1057+87.34	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	C	On	100%	On	11%
C-40	1057+87.34	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	C	On	100%	On	11%
D1-41	1057+94.9	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a

RAMP 3 TUNNEL LUMINAIRE SCHEDULE - Continued

Luminaire Number	Station (CL Ramp 3)	Offset	Height (ft)	Tilt	Type	Distribution	Circuit Number	Day Switched	Day Power	Night Switched	Night Power
D2-42	1057+94.9	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-43	1058+02.46	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-44	1058+02.46	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
D1-45	1058+10.02	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a
D2-46	1058+10.02	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-47	1058+17.58	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-48	1058+17.58	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
D1-49	1058+25.14	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a
D2-50	1058+25.14	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-51	1058+32.7	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-52	1058+32.7	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
C-53	1058+40.26	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	C	On	100%	On	11%
C-54	1058+40.26	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	C	On	100%	On	11%
D1-55	1058+47.82	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a
D2-56	1058+47.82	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-57	1058+55.38	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-58	1058+55.38	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
D1-59	1058+62.94	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a
D2-60	1058+62.94	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-61	1058+70.5	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-62	1058+70.5	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
D1-63	1058+78.06	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a
D2-64	1058+78.06	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-65	1058+85.62	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-66	1058+85.62	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
C-67	1058+93.18	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	C	On	100%	On	11%
C-68	1058+93.18	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	C	On	100%	On	11%
D1-69	1059+00.74	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a
D2-70	1059+00.74	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-71	1059+08.3	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-72	1059+08.3	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
D1-73	1059+15.86	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a
D2-74	1059+15.86	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-75	1059+23.42	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-76	1059+23.42	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
D1-77	1059+30.98	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D1	On	100%	Off	n/a
D2-78	1059+30.98	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D2	On	100%	Off	n/a
D3-79	1059+38.54	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D3	On	100%	Off	n/a
D4-80	1059+38.54	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	D4	On	100%	Off	n/a
C-81	1059+46.1	Rt	16	-5°	LED Wall Pack - 365W Min.	Type IV	C	On	100%	On	11%
C-82	1059+46.1	Lt	16	-5°	LED Wall Pack - 365W Min.	Type IV	C	On	100%	On	11%

VOLTAGE DROP

Circuit C - 3.46%
Circuit D1 - 3.33%
Circuit D2 - 3.84%
Circuit D3 - 3.18%
Circuit D4 - 3.62%

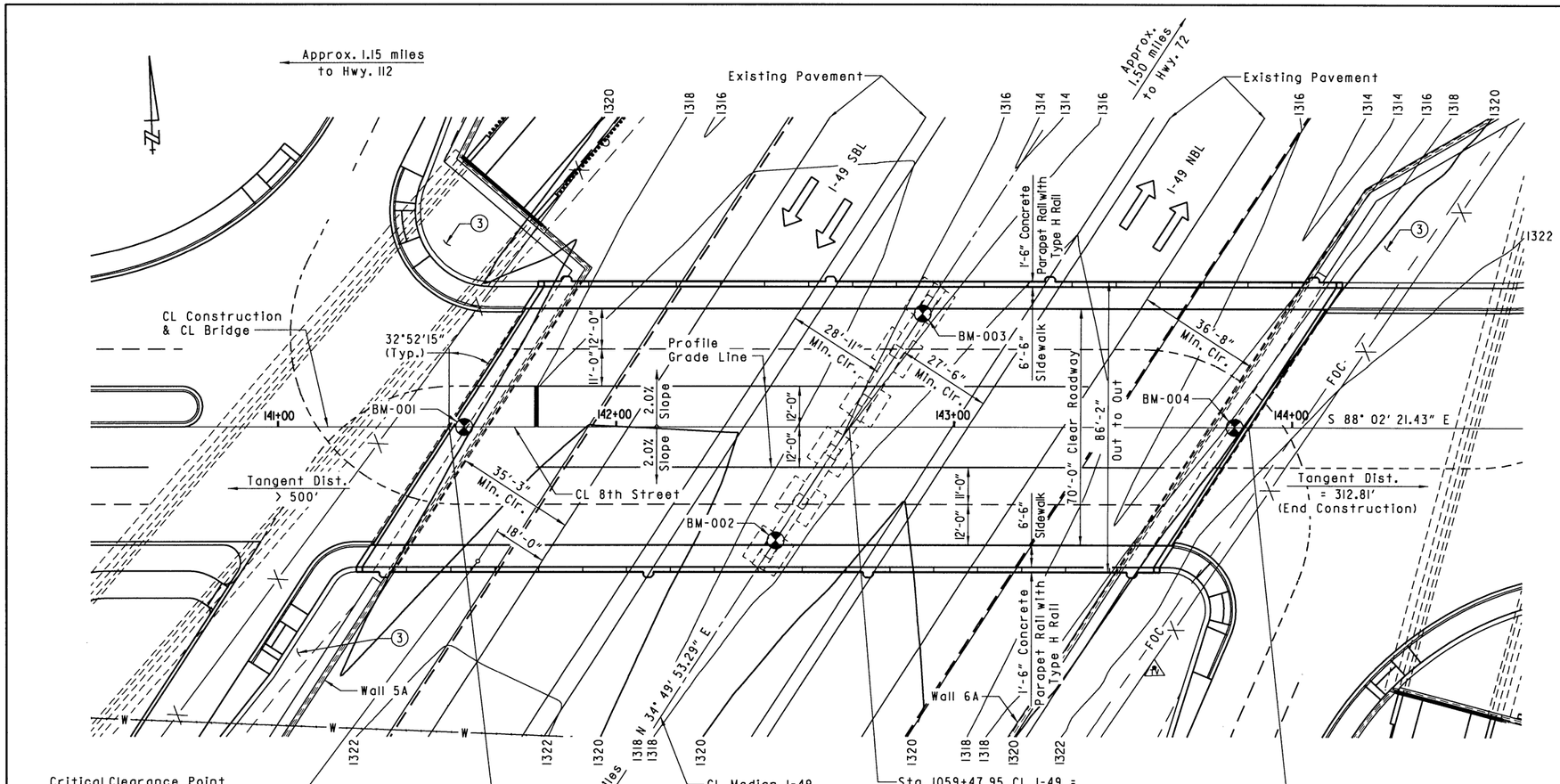
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HURST
6/1/16
BRIDGE ENGINEER

SHEET 2 OF 2
ELECTRICAL LIGHTING DETAILS
RAMP 3 UNDERPASS
AT 8TH STREET
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: ADR DATE: 10/30/15
CHECKED BY: PH DATE: 10/30/15
DESIGNED BY: AWR DATE: 10/30/15
FILENAME: b090376x2_EL2.dgn
SCALE:

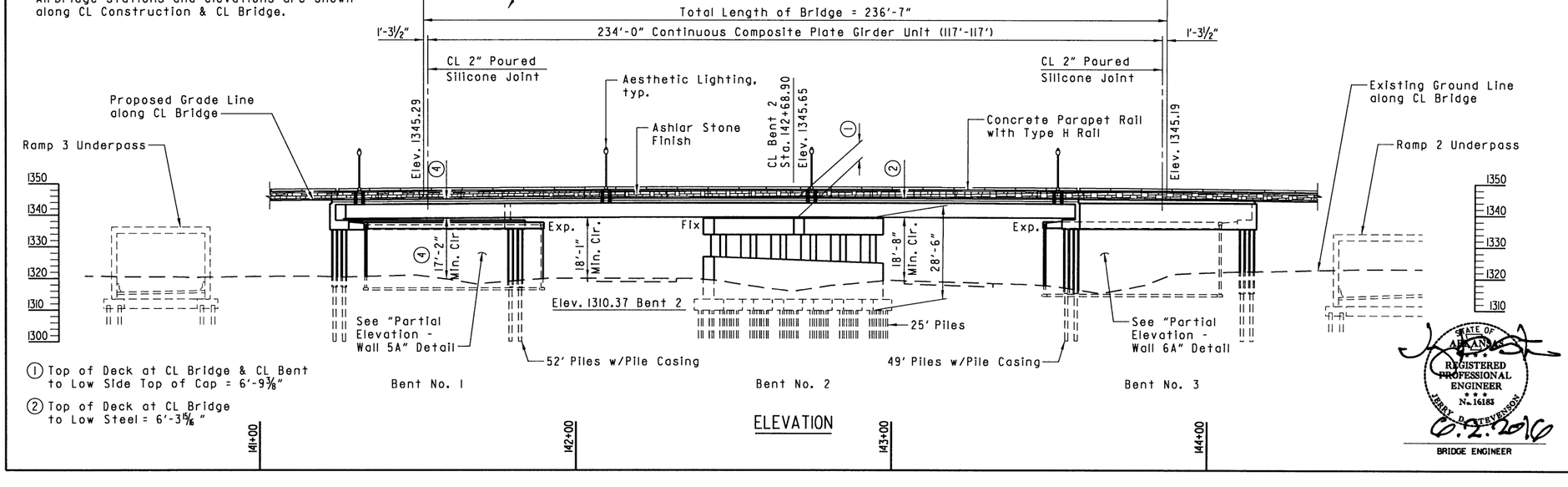
BRIDGE NO. 07369 DRAWING NO. 57889

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.		090376	205	555
				(1) 07370		LAYOUT		57890



NOTE:

All bridge stations and elevations are shown along CL Construction & CL Bridge.



ELEVATION

(1) Top of Deck at CL Bridge & CL Bent to Low Side Top of Cap = 6'-9⅜"

(2) Top of Deck at CL Bridge to Low Steel = 6'-3⅝"

NOTE:

The Contractor shall be aware that the embankment and MSE walls at End Bents 1 and 3 must be in place 3 months prior to the installation of the end bent piling. This waiting period is necessary to allow the post construction settlement to occur prior to the end bent construction.

(3) Concrete Riprap, see Roadway Plans.

(4) Minimum vertical clearance measured at outside edge of future shoulder. Top of Deck at CL Bridge to Low Steel = 6'-3 3/16"

PVI Sta. 142+25.00
Elev. 1354.20
+3.42% -3.00%
L=1100'

VERTICAL CURVE DATA

Vertical Curve is along Profile Grade Lines 12' Left & Right of CL Bridge.

SHEET 1 OF 7
LAYOUT OF BRIDGE
8TH STREET OVER I-49
HWY. 62/102 INTCHNG. IMPVTS. & 8TH STREET WIDENING (BENTONVILLE) (S)
BENTON COUNTY

ROUTE I-49 SEC. 29

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
6.2.2016
BRIDGE ENGINEER

DRAWN BY:	TLW	DATE:	10/30/15	FILENAME:	b090376x3.LI.dgn
CHECKED BY:	JDS	DATE:	10/30/15	SCALE:	1" = 20'
DESIGNED BY:	TG	DATE:	10/30/15		

BRIDGE NO. 07370 DRAWING NO. 57890

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.		090376	206	555
				(1) 07370		LAYOUT		57891

GENERAL NOTES:

BENCH MARK: BM 919 Square cut in drop inlet I-49, 3.36' Lt. of Sta. 1054+01.90, CL I-49, Elev. 1326.47.

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 refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications (Sixth Edition, 2012) with current interim specifications.

LIVE LOADING: HL-93 SEISMIC ZONE: I S_{D1}: 0.087 Site Class: C

MATERIALS AND STRENGTHS:

Class S(AE) Concrete (superstructure)	f'c= 4,000 psi
Class S Concrete (substructure)	f'c= 3,500 psi
Reinforcing Steel (Grade 60, AASHTO M31 or M322, Type A)	fy = 60,000 psi
Structural Steel (AASHTO M 270, Gr. 50)	Fy = 50,000 psi
Structural Steel (AASHTO M 270, Gr. 36)	Fy = 36,000 psi

FORM INSERT: State of Arkansas form insert to be used on MSE walls (4 locations), See Dwg. No. 57894.

BORING LOGS: Boring logs may be obtained from the Construction Contract Procurement Section of the Program Management Division.

WAITING PERIOD: The Contractor shall be aware that the embankment and MSE walls at End Bents 1 and 3 must be in place 3 months prior to installation of the end bent piling. This waiting period is necessary to allow the post construction settlement to occur prior to the end bent construction.

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 95 tons. All piles shall be driven into hard limestone with chert seams as detailed in borings unless bearing is achieved at a higher elevation. 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 lengths are to be determined in the field. The Contractor shall use approved steel H-pile driving points.

The Contractor shall drive the piling in Bents 1 and 3 in the following manner:

End bent piling shall be driven after embankment construction is complete and the waiting period has elapsed. Pile casings shall be used for all piling and shall be installed prior to or during embankment construction extending from bottom of leveling pad to bottom of cap. Pile casing material shall have sufficient strength to retain it's original form free from harmful distortions after compaction of the fill material surrounding it. The minimum inside diameter of the casing shall be 18". Piles shall be driven through the open casings after embankment to bottom of cap is in place and the waiting period has elapsed. After driving is completed, the pile casing shall be backfilled with an approved non-shrink grout, or other approved material in a single continuous operation to completely fill voids. Pile casings and backfill will not be paid for directly but shall be considered subsidiary to the item "Steel Piling (HP12x53)".

PAINT: All structural steel except galvanized steel and steel which is completely encased in concrete shall be painted in accordance with Subsection 807.75. The color of paint shall conform to Federal Standard 595B, Color Chip No. 26122 (semi-gloss), Dark Gray.

TEXTURED COATING FINISH: Class 3 Textured Coating Finish shall be applied to all areas as specified in SP Job No. 090376 "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.

MEDIAN PIER PROTECTION: Pier protection will be coordinated with the future I-49 Project CA0902. As a minimum the pier will be temporarily protected with impact attenuator devices.

BRIDGE DECK: The concrete bridge deck, except sidewalks, shall be given a tine finish as specified for final finishing in Subsection 802.19 for Class 5, Tined Bridge Roadway Surface Finish. Sidewalks shall be given a Class 6, Broomed Finish.

DETAIL DRAWINGS:	DRAWING NOS.
End Bents	57897 - 57904
Intermediate Bent	57905 - 57908
234' Continuous Composite Plate Girder Unit	57909 - 57921
Elastomeric Bearings	57922
Type H Metal Bridge Rail	57923
Lighting	57924 - 57928
Concrete Riprap	55002
Steel Piling	55020

MAINTENANCE OF TRAFFIC: See Roadway Plans.

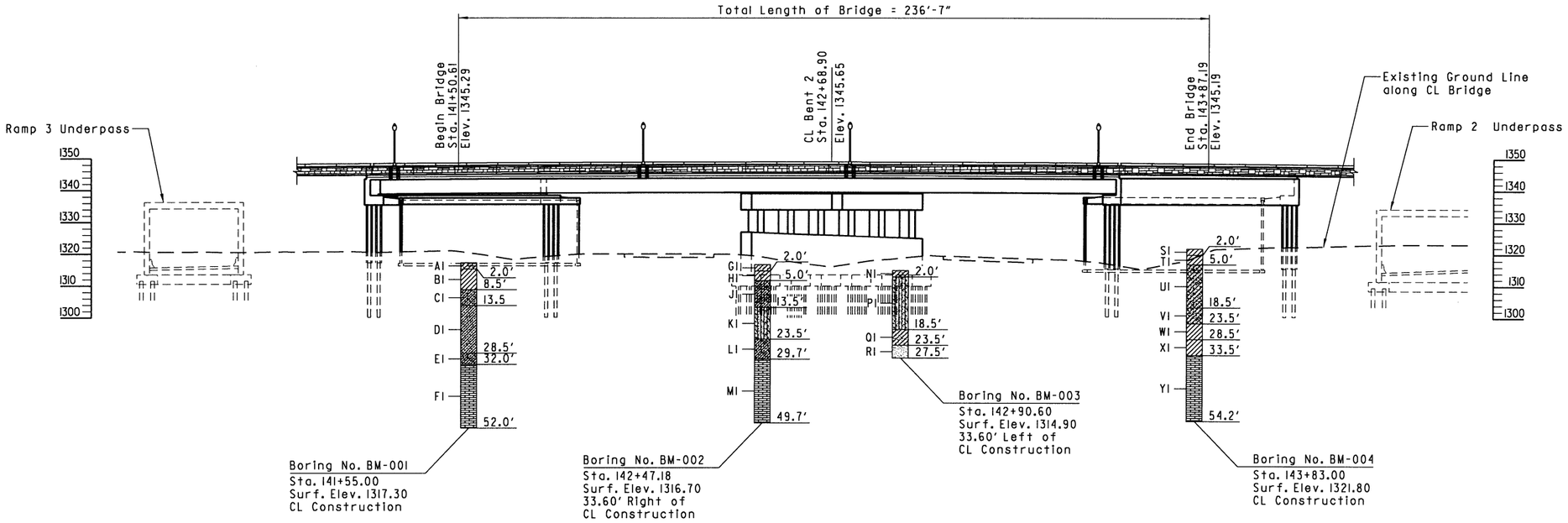
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. JOHNSON
9.2.2016
BRIDGE ENGINEER

SHEET 2 OF 7
LAYOUT OF BRIDGE
8TH STREET OVER I-49
HWY. 62/102 INTCHNG. IMPVTS. &
8TH STREET WIDENING (BENTONVILLE) (S)
BENTON COUNTY
ROUTE I-49 SEC. 29
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376x3_L2.dgn
CHECKED BY: JDS DATE: 10/30/15 SCALE: NO SCALE
DESIGNED BY: TG DATE: 10/30/15

BRIDGE NO. 07370 DRAWING NO. 57891

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.		090376	207	555
				(1) 07370		LAYOUT		57892



ELEVATION

NOTE:

Stations and Elevations shown are along CL Construction & CL Bridge.

BORING LEGEND

AI - Fill-Sandy Lean Clay, Brown and Yellowish-Brown
BI - Lean Clay, Reddish-Brown and Yellowish-Brown, Stiff to very Stiff
CI - Fat Clay, with Chert Fragments, Reddish-Brown, very Stiff
DI - Cherty Elastic Silt, with Sand, Reddish-Brown and Pinkish-Gray, very Stiff
EI - Clayey Chert Gravel, with Sand, dark Reddish-Brown, Loose
FI - Limestone, with Chert seams, Light Gray, Hard
GI - Fill-Sandy Lean Clay, Brown and Reddish-Brown
HI - Lean Clay, Reddish-Brown and Yellowish-Brown, Stiff
JI - Fat Clay, with Sand, Reddish-Brown, Stiff to very Stiff
KI - Elastic Silt, trace Chert Gravel, Reddish-Brown, Stiff
LI - Cherty Fat Clay, Reddish-Brown and Pinkish-Gray, Stiff
MI - Limestone, with Chert Seams, Light Gray, Hard
NI - Cherty Fat Clay, Yellowish-Brown and Reddish-Brown, Stiff to very Stiff
PI - Fat Clay, with Chert Gravel, Reddish-Brown, Stiff to very Stiff
QI - Clayey Sand, with Chert Gravel, Light Gray and Brownish-Yellow, Dense
RI - Clayey Sand, with Chert Gravel, Reddish-Brown and Pinkish-Gray, Loose
SI - Sandy Lean Clay, Brown, very Stiff
TI - Sandy Lean Clay, Brown, Stiff
UI - Lean Clay, with Sand and Chert Gravel, Reddish-Brown, Still to very Stiff
VI - Clayey Chert Gravel, Light Gray and Reddish-Brown, very Dense
WI - Clayey Chert Gravel, Light Gray and Reddish-Brown, Medium-Dense
XI - Cherty Fat Clay, Reddish-Brown, Stiff
YI - Limestone, with Cherty Seams, Light Gray, Hard

"N" VALUES

Boring No. BM-001
Sta. 141+55.00 - CL Construction
1.0 - 2.0, N = 21
2.5 - 3.5, N = 18
5.5 - 6.5, N = 13
9.0 - 10.0, N = 34
14.0 - 15.0, N = 26
19.0 - 20.0, N = 16
24.0 - 25.0, N = 25
29.0 - 30.0, N = 8

Boring No. BM-002
Sta. 142+47.18 - 33.60' Right of CL Construction
1.0 - 2.0, N = 18
2.5 - 3.5, N = 14
5.5 - 6.5, N = 23
9.0 - 10.0, N = 20
14.0 - 15.0, N = 12
18.5 - 18.7, N = 50 (3")
24.0 - 25.0, N = 14
29.5 - 29.9, N = 50 (5")

Boring No. BM-003
Sta. 142+90.60 - 33.60' Left of CL Construction
1.0 - 2.0, N = 30
2.5 - 3.5, N = 33
6.0 - 6.2, N = 50 (3")
9.0 - 10.0, N = 25
14.0 - 15.0, N = 34
19.0 - 20.0, N = 44
24.0 - 25.0, N = 9

Boring No. BM-004
Sta. 143+83.00 - CL Construction
1.0 - 2.0, N = 19
2.5 - 3.5, N = 9
5.5 - 6.5, N = 13
9.0 - 10.0, N = 59
14.0 - 15.0, N = 55
19.5 - 19.6, N = 50 (1")
24.0 - 25.0, N = 22
29.0 - 30.0, N = 9
34.0 - 34.1, N = 50 (1")

141+00 142+00 143+00 144+00

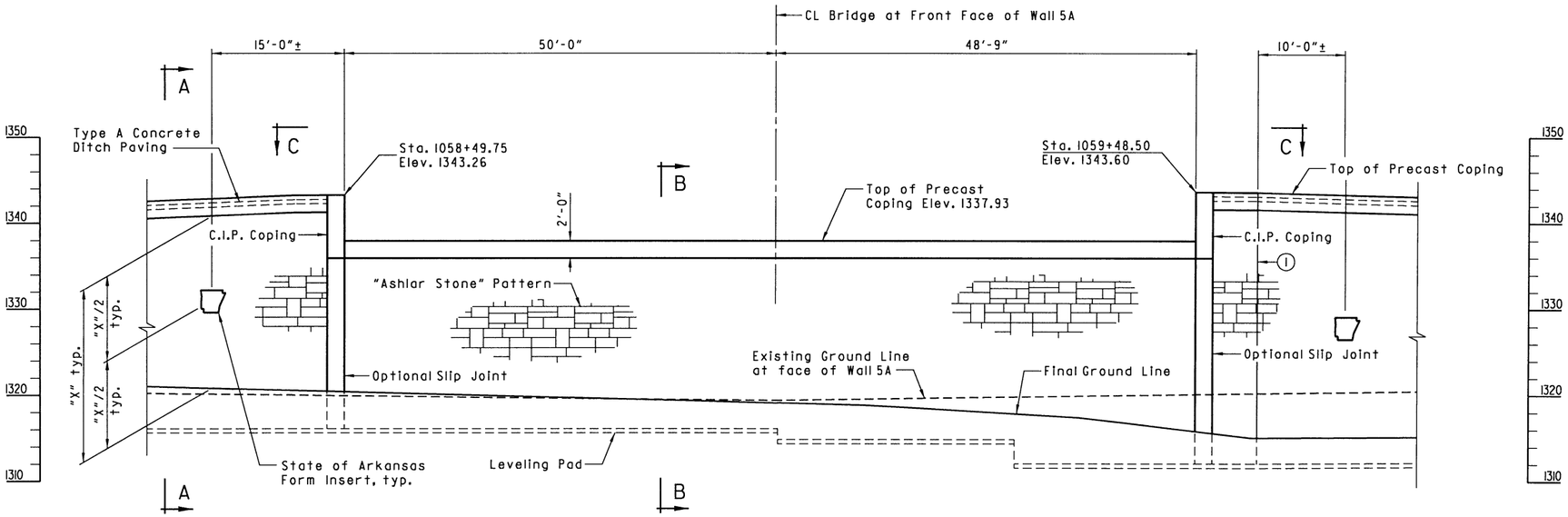
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEPHENSON
6.2.2016
BRIDGE ENGINEER

SHEET 3 OF 7
LAYOUT OF BRIDGE
8TH STREET OVER I-49
HWY. 62/102 INTCHNG. IMPVTS. &
8TH STREET WIDENING (BENTONVILLE) (S)
BENTON COUNTY
ROUTE I-49 SEC. 29
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x3_L3.dgn
SCALE: 1" = 20'

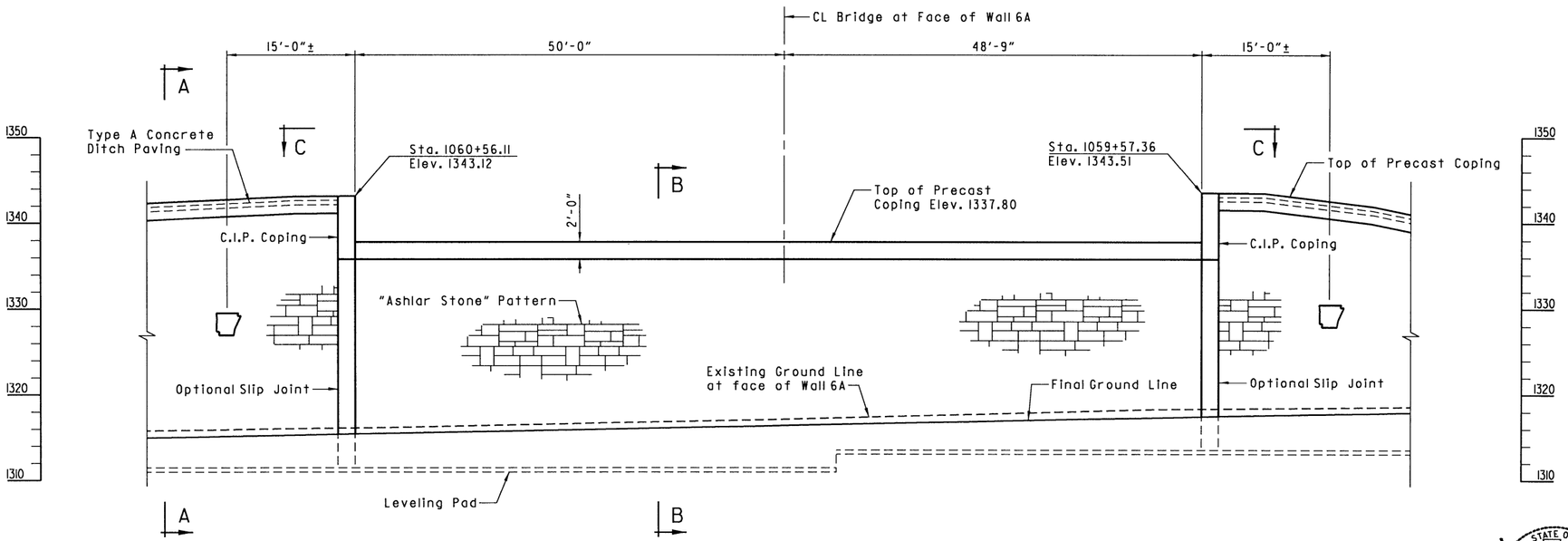
BRIDGE NO. 07370 DRAWING NO. 57892

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.		090376	208	555
				(1) 07370		LAYOUT		57893



PARTIAL ELEVATION - WALL 5A

Scale: 1/8" = 1'-0"
(At Face of Wall Looking Back)



PARTIAL ELEVATION - WALL 6A

Scale: 1/8" = 1'-0"
(At Face of Wall Looking Ahead)

LOCATION OF FORM INSERTS

LOCATION	STATION ALONG WALL
Wall 5A	1058+35±
Wall 5A	1059+65±
Wall 6A	1059+42±
Wall 6A	1060+71±

NOTES:

For Section A-A, see Roadway Plans.

For Section B-B, see Dwg. 57895.

For View C-C, see Dwg. 57894.

Stations shown are along face of MSE Wall.

For MSE wall layouts, see Roadway Plans.

State of Arkansas Form Insert to be used at MSE Walls, see Dwg. No. 57894.

(1) Break in horizontal alignment of MSE wall, see Roadway Plans.

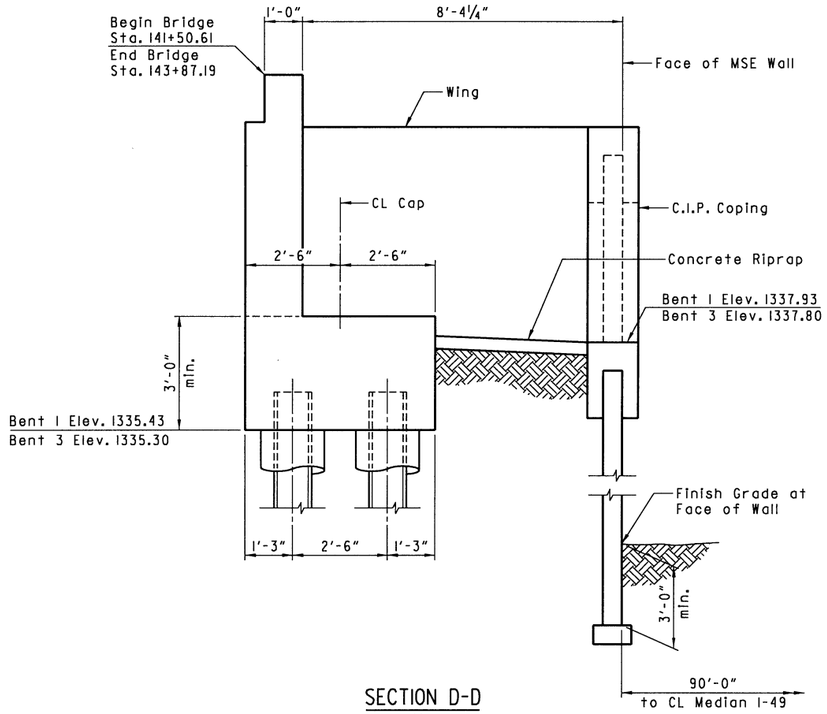
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
9.2.2016
BRIDGE ENGINEER

SHEET 4 OF 7
LAYOUT OF BRIDGE
8TH STREET OVER I-49
HWY. 62/102 INTCHNG. IMPVTS. &
8TH STREET WIDENING (BENTONVILLE) (S)
BENTON COUNTY
ROUTE I-49 SEC. 29
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

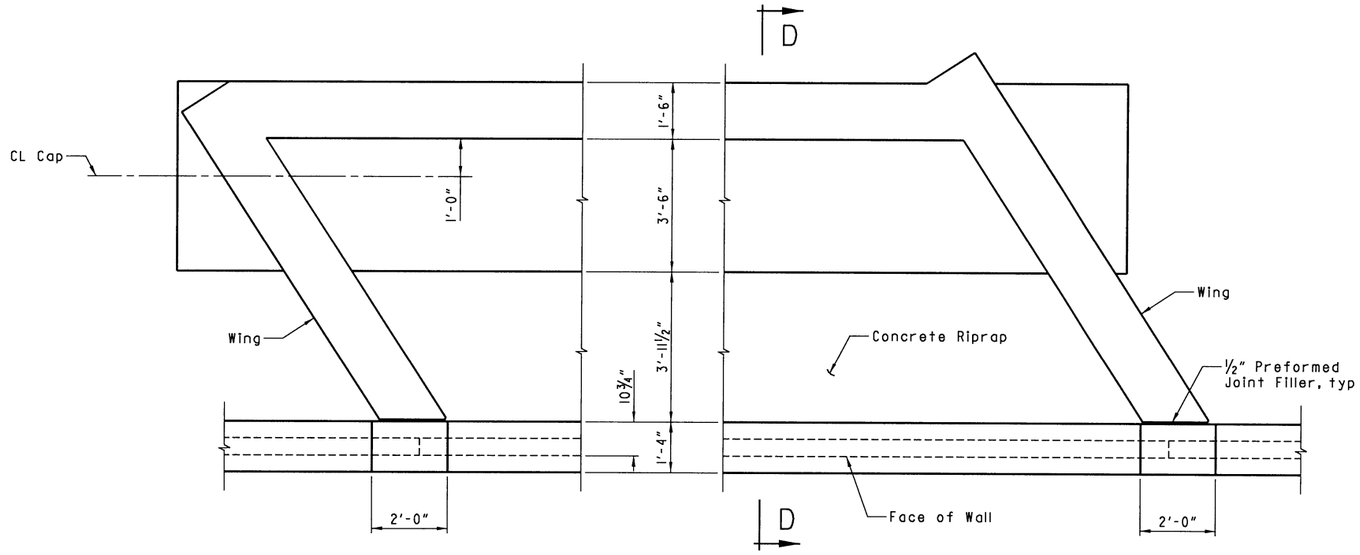
DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: DMW DATE: 10/30/15
FILENAME: b090376x3_L4.dgn
SCALE: AS NOTED

BRIDGE NO. 07370 DRAWING NO. 57893

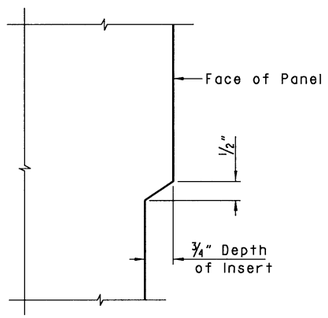
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	209	555
				(1) 07370		LAYOUT		57894



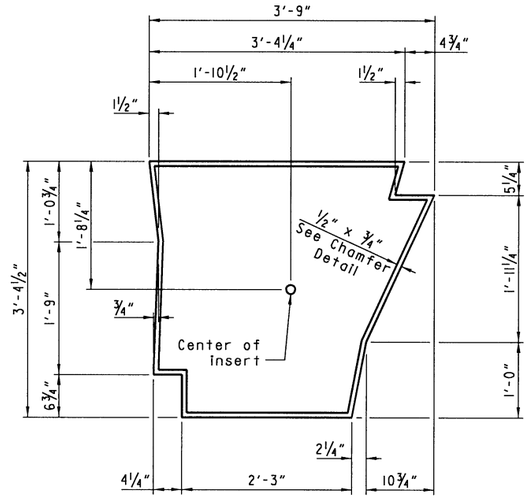
SECTION D-D
Scale: ½" = 1'-0"



VIEW C-C
Scale: ½" = 1'-0"



CHAMFER DETAIL
No Scale



FORM INSERT DETAILS AT MSE WALL
No Scale

FORM INSERT GENERAL 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 form inserts shall be included in the unit price bid for "Retaining Walls".

Damaged or worn form inserts shall be replaced at the contractor's expense.

The form inserts shall be approved by the Engineer before their use.

Place form inserts on both sides of the bridge at Bents 1 and 3 as shown on Dwg. No. 57893. Location of inserts shall be shown on working drawings and submitted to the Engineer for approval. Working drawings must show the interaction of the panel surface finish and the form insert. Inset lines of panel surface finish shall not cross form insert.

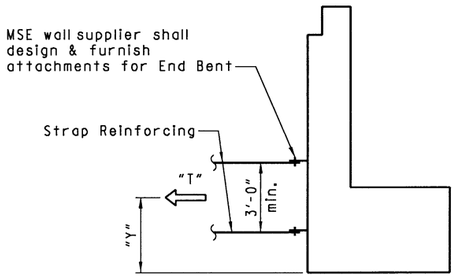
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. JOHNSON
10-31-2016
BRIDGE ENGINEER

SHEET 5 OF 7
LAYOUT OF BRIDGE
8TH STREET OVER I-49
HWY. 62/102 INTCHNG. IMPVTS. &
8TH STREET WIDENING (BENTONVILLE) (S)
BENTON COUNTY
ROUTE I-49 SEC. 29
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: DMW DATE: 10/30/15
FILENAME: b090376x3_L5.dgn
SCALE: AS NOTED

BRIDGE NO. 07370 DRAWING NO. 57894

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.		090376	210	555
				① 07370		LAYOUT		57895



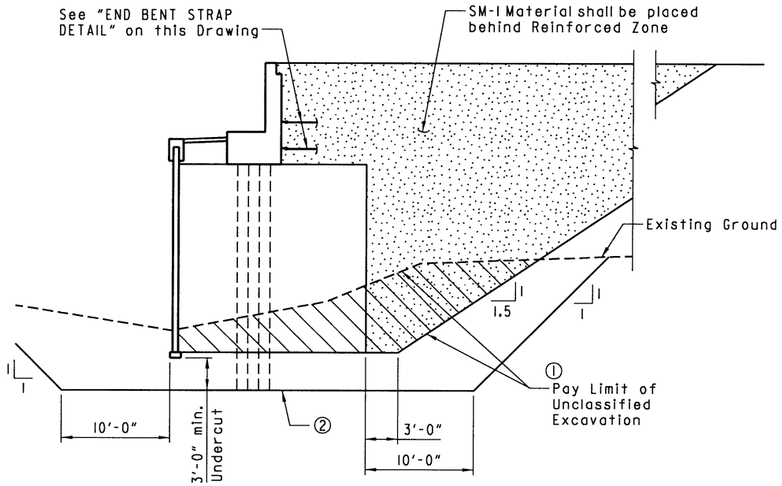
END BENT STRAP DETAIL

No Scale

T = Resultant Force required to be resisted by strap reinforcing

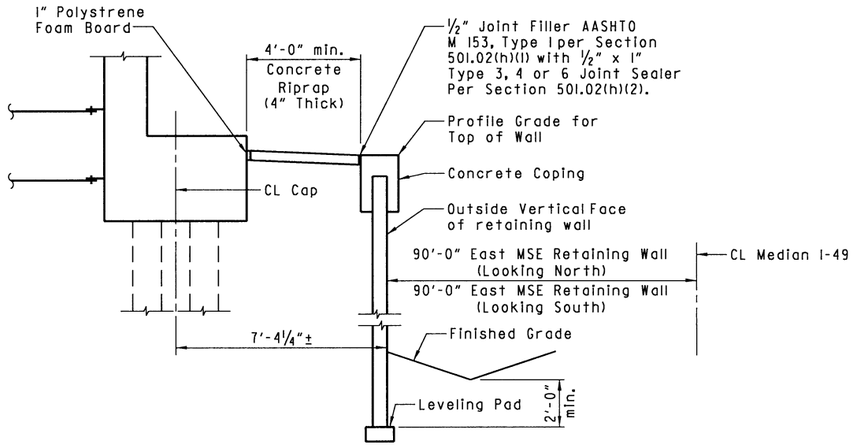
Y = Centroid of strap reinforcing

LIMIT STATE	"T" Kips/Ft.	"Y" Ft.
SERVICE	4.3	4.0
STRENGTH	6.0	



EMBANKMENT DETAIL

No Scale



SECTION B-B

Scale: ⅜"=1'-0"

NOTES:

Piling shall be driven after waiting period, see "Layout".

Details not shown for filter fabric, drainage fill, backwall and pay limits of "Unclassified Excavation" are similar to "SECTION A-A", see Roadway Plans.

NOTES:

Placement of reinforcing for retaining walls may be affected by end bent construction. See "End Bent Details" for pile locations and wingwall details.

See SP Job No. 090376 "Retaining Walls" for additional information.

Joint filler, joint sealer, polystyrene foam board and rodent screen will not be paid for directly but will be considered subsidiary to "Retaining Wall".

See Dwg. Nos. 57893 & 57894 for Form Insert location and details.

① Excavation required for reinforcing zone, leveling pad and placement of SM-1 material will be paid for under the pay item "Unclassified Excavation", see SP Job No. 090376 "Retaining Walls".

② MSE wall foundations should bear on the stiff to very stiff native clays. If soft and/or unsuitable materials are encountered, they are to be removed by undercutting to the limits shown or at the direction of the Engineer. The undercutting, backfill and placement of the backfill shall be in accordance with the SP Job No. 090376 "Retaining Walls". The backfill material shall be approved stiff native clays available on the site or an approved granular material.

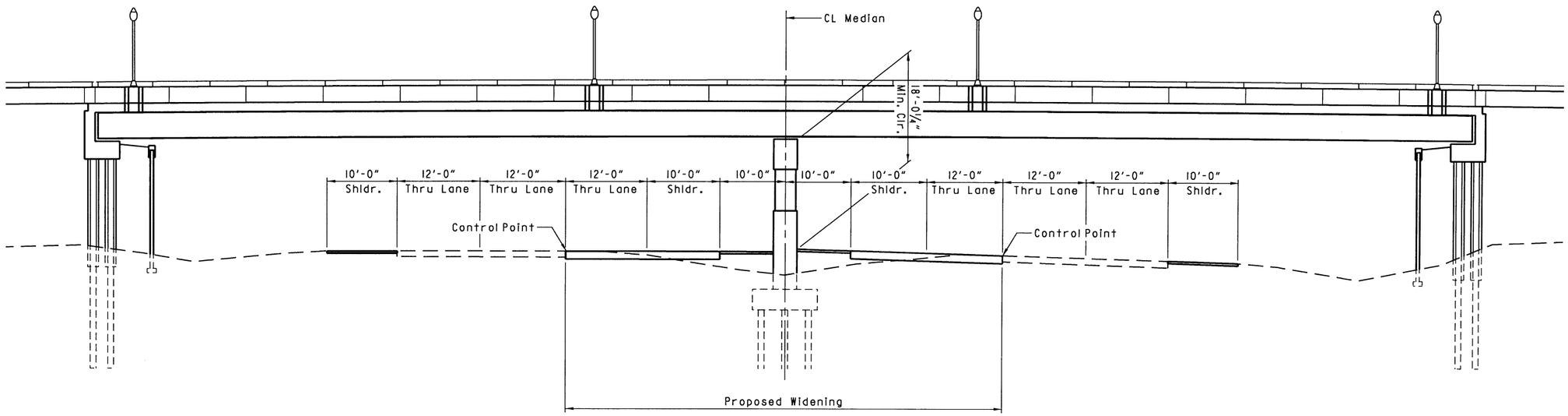
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEPHENSON
12-2-16
BRIDGE ENGINEER

SHEET 6 OF 7
LAYOUT OF BRIDGE
8TH STREET OVER I-49
HWY. 62/102 INTCHNG. IMPVTS. &
8TH STREET WIDENING (BENTONVILLE) (S)
BENTON COUNTY
ROUTE I-49 SEC. 29
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

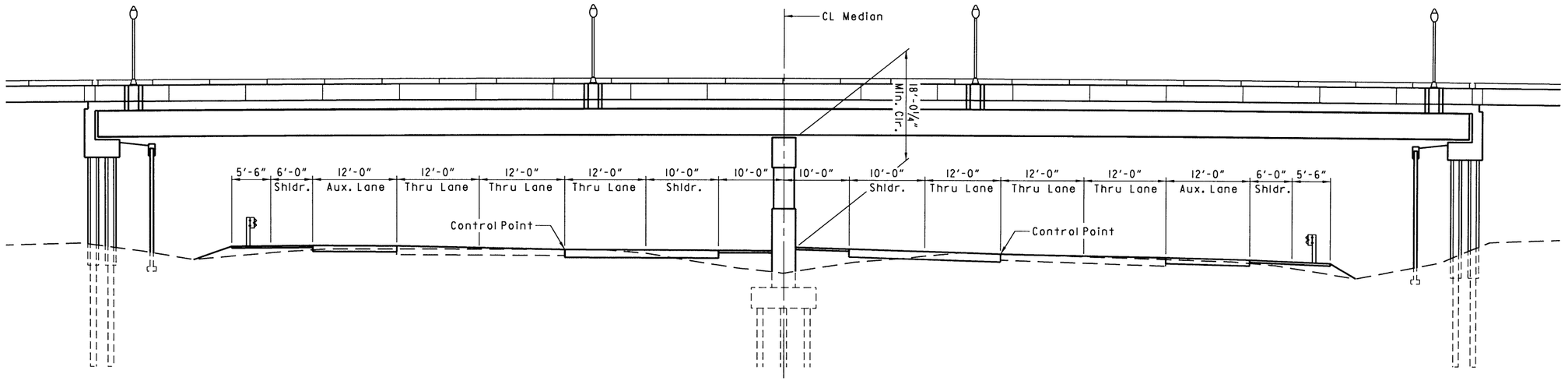
DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: DMW DATE: 10/30/15
FILENAME: b090376x3.L6.dgn
SCALE: AS NOTED

BRIDGE NO. 07370 DRAWING NO. 57895

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.		090376	211	555
				(1) 07370		LAYOUT		57896



SECTION THROUGH PROPOSED INSIDE WIDENING
(Along CL 8th Street)



SECTION THROUGH FUTURE OUTSIDE WIDENING (BY OTHERS)
(Along CL 8th Street)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JEREMY D. PETERSON
10-29-16
BRIDGE ENGINEER

SHEET 7 OF 7
LAYOUT OF BRIDGE
8TH STREET OVER I-49
HWY. 62/102 INTCHNG. IMPVTS. &
8TH STREET WIDENING (BENTONVILLE) (S)
BENTON COUNTY
ROUTE I-49 SEC. 29
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

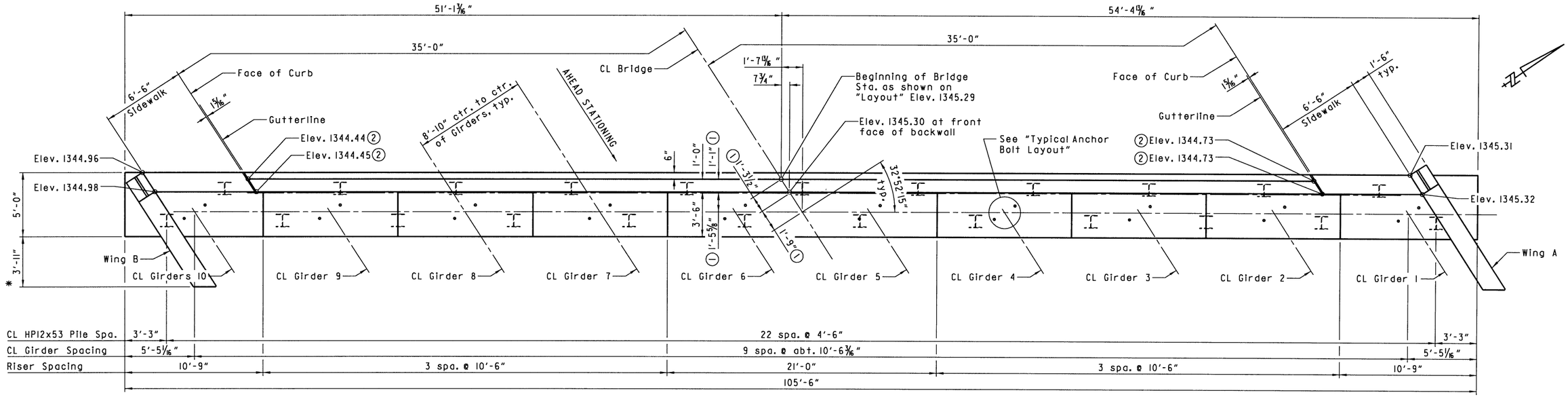
DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: DMW DATE: 10/30/15
FILENAME: b090376x3_L7.dgn
SCALE: 1" = 10'

BRIDGE NO. 07370 DRAWING NO. 57896

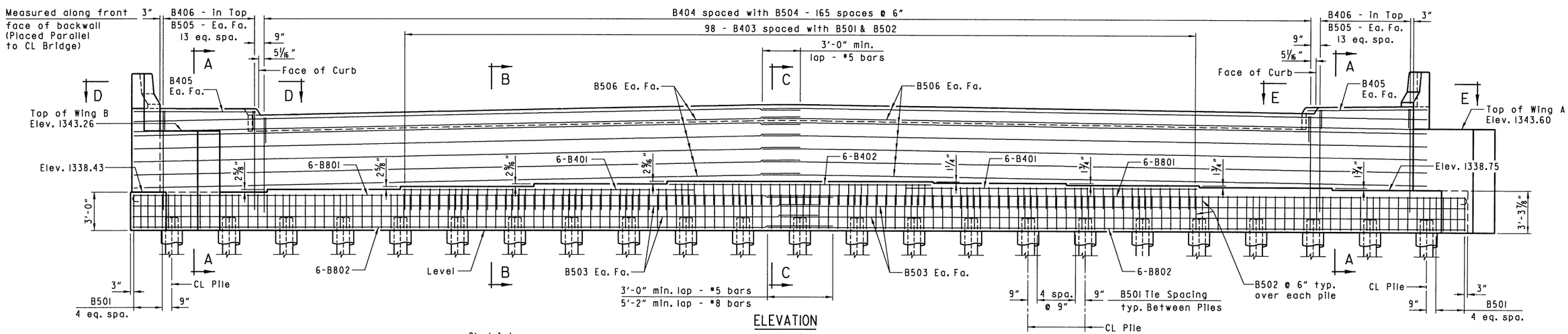
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	212	555
				(1) 07370		BENT 1		57897

(1) Measured from CL Joint
(2) At Gutterline

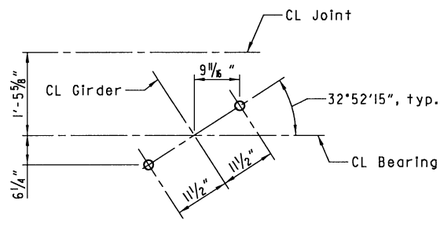
*Field verify dimension to coordinate with MSE Wall supplier.



PLAN
Scale: 1/4" = 1'-0"



ELEVATION
Looking Back
Scale: 1/4" = 1'-0"



TYPICAL ANCHOR BOLT LAYOUT
Scale: 3/4" = 1'-0"
For details of Elastomeric Bearings, see Dwg. No. 57922

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
6.1.2016
BRIDGE ENGINEER

SHEET 1 OF 4
DETAILS OF BENT 1
8TH STREET OVER I-49
ROUTE SEC.

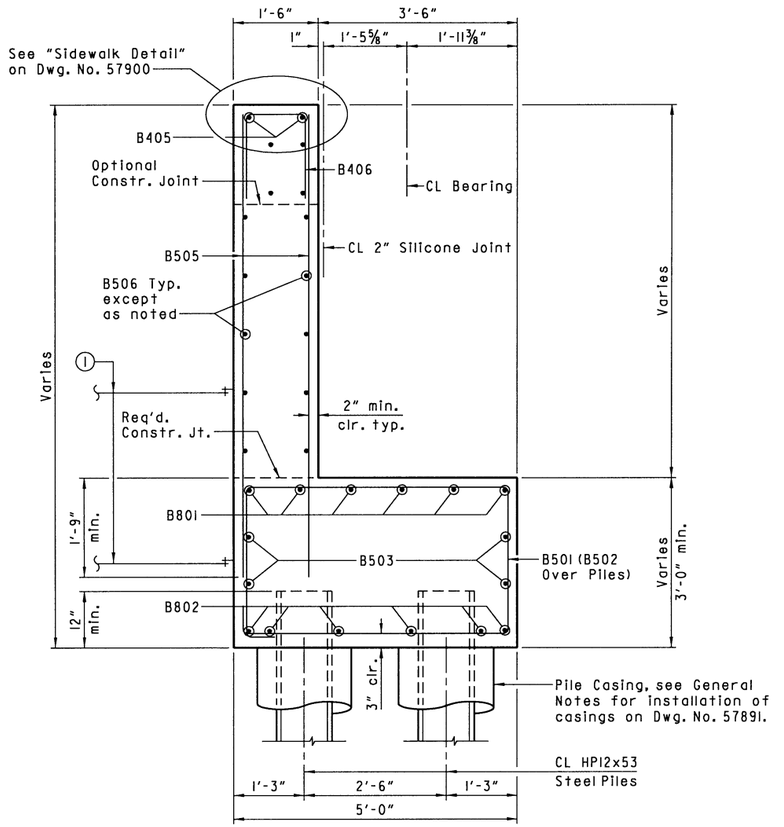
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376x3_bll.dgn
CHECKED BY: JDS DATE: 10/30/15 SCALE: AS NOTED
DESIGNED BY: TG DATE: 10/30/15

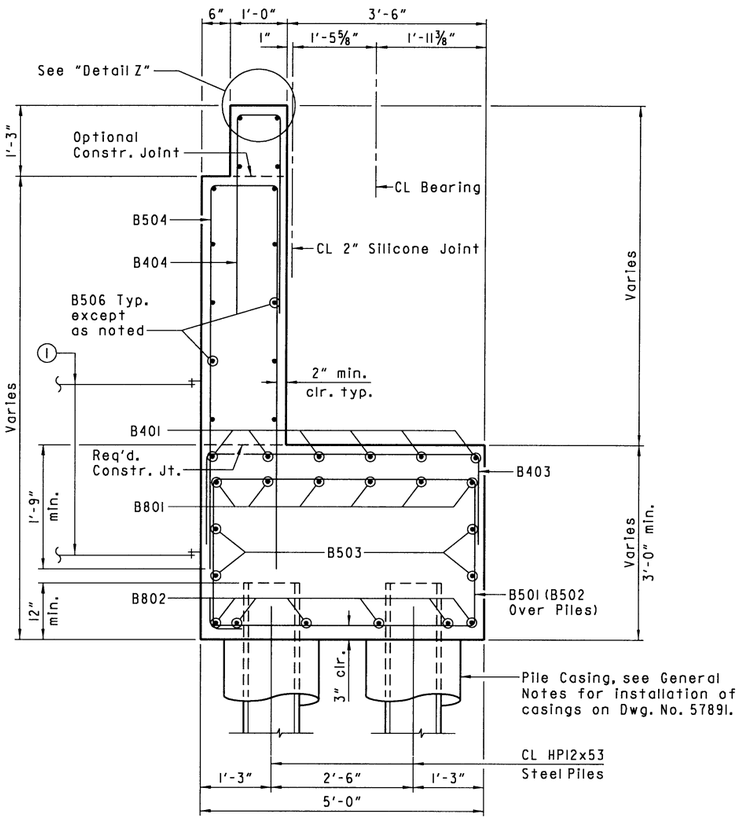
BRIDGE NO. 07370 DRAWING NO. 57897

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.		090376	213	555
				(1) 07370		BENT 1		57898

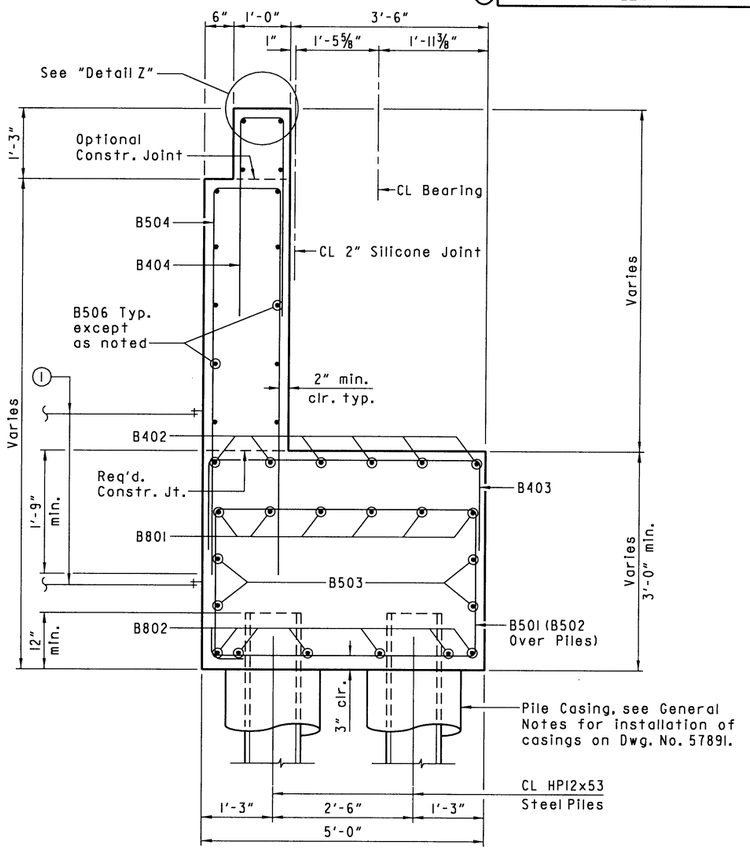
(1) Reinforcing straps and attachments to be designed and furnished by MSE wall supplier. See Dwg. No. 57895 for additional details.



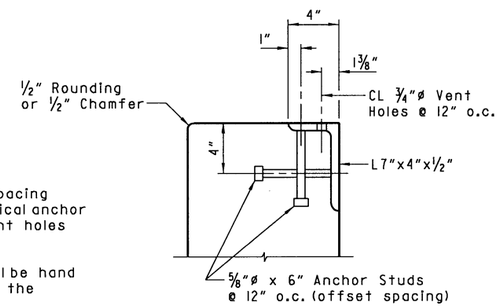
SECTION A-A
Scale: ¾" = 1'-0"



SECTION B-B
Scale: ¾" = 1'-0"



SECTION C-C
Scale: ¾" = 1'-0"



DETAIL Z
No Scale

NOTES:

Transverse spacing between vertical anchor studs and vent holes shall be 6".

Concrete shall be hand packed under the joint armor.

For additional joint details, see Dwg. Nos. 57919 and 57920.

GENERAL NOTES:

End Bent piling shall not be driven until the waiting period has elapsed. See "Layout" for more information.

Backwall above the required construction joint shall not be poured until the girders are in place. Backwall may be placed prior to placing the adjacent concrete deck only if the optional backwall construction joint is used. See "Details for Blocking Expansion Joint Device" on Dwg. No. 57919 for additional information.

All concrete shall be Class "S" and be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

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.

Structural Steel in end bents shall be AASHTO M 270, Gr. 50 and shall be paid for as "Structural Steel in Plate Girder Spans (M 270, Gr. 50). Structural Steel shall be cleaned and painted in accordance with Subsection 807.75. The color of the paint shall be Gray (semi gloss) and shall match Fed. Std. 595B, Color Chip No. 26122.

Top reinforcing bars shall be properly placed to avoid interference with anchor bolts or sheet metal sleeves.

For additional information, see "Layout".

Class 2 Protective Surface Treatment shall be applied to the top of backwall.

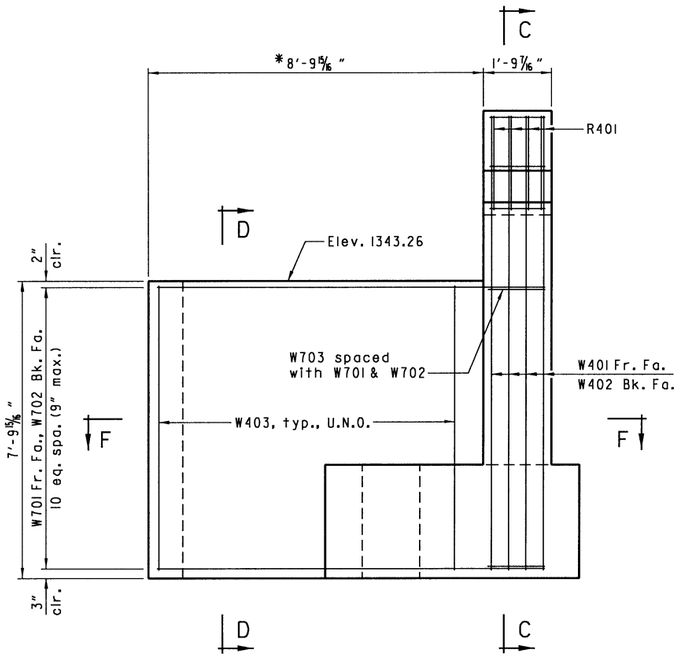
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
6.2.2016
BRIDGE ENGINEER

SHEET 2 OF 4
DETAILS OF BENT 1
8TH STREET OVER I-49
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

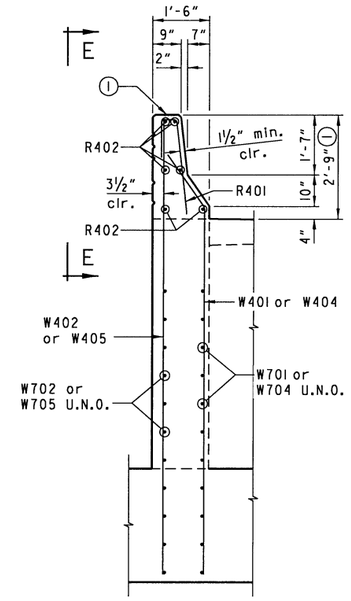
DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x3_bl2.dgn
SCALE: AS NOTED

BRIDGE NO. 07370 DRAWING NO. 57898

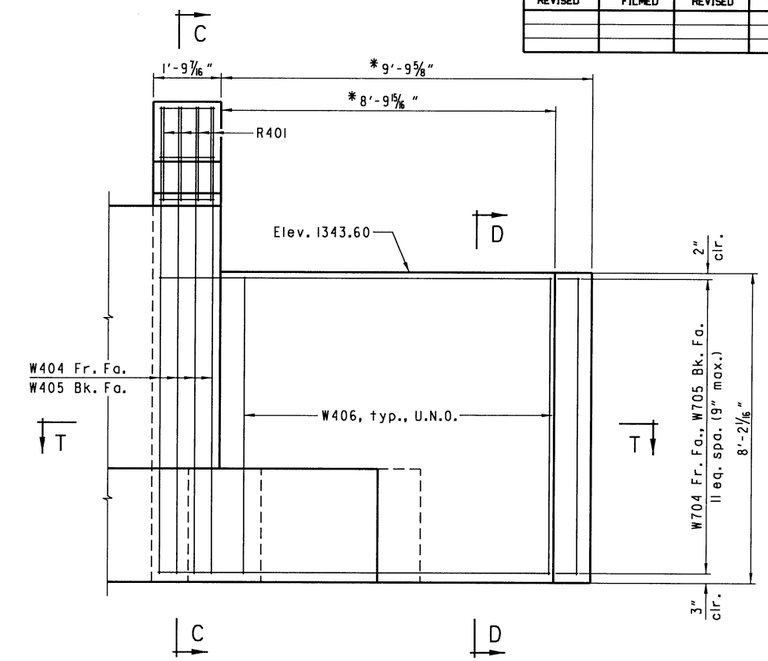
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	214	555
				① 07370		BENT 1		57899



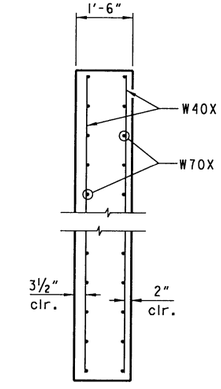
VIEW A-A
Scale: ½" = 1'-0"



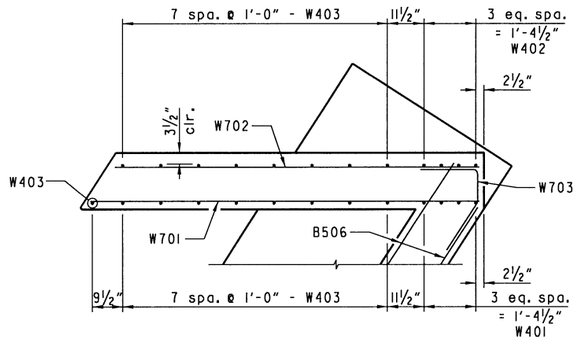
SECTION C-C
Scale: ½" = 1'-0"



VIEW B-B
Scale: ½" = 1'-0"



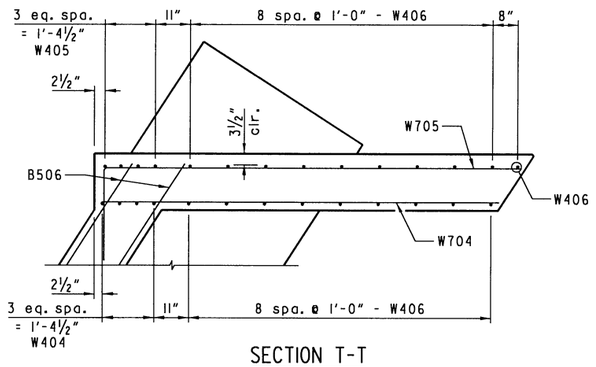
SECTION D-D
Scale: ½" = 1'-0"



SECTION F-F
Scale: ½" = 1'-0"

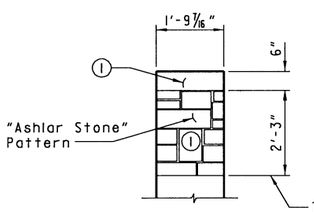
LEGEND

Fr. Fa. = Front Face
Bk. Fa. = Back Face
Ea. Fa. = Each Face
U.N.O. = Unless Noted Otherwise



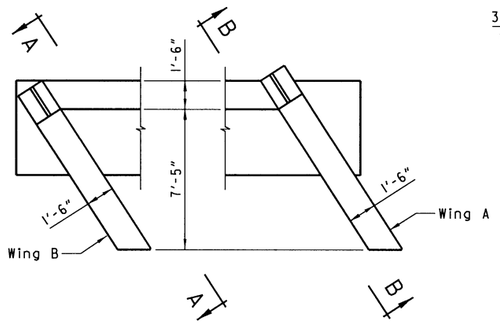
SECTION T-T
Scale: ½" = 1'-0"

* Field verify dimension to coordinate with MSE Wall supplier.



VIEW E-E
Scale: ½" = 1'-0"

① Class 3 Textured Coating Finish (Color = Gray, Color Chip No. 37150)



PLAN OF WINGS
Scale: ¼" = 1'-0"

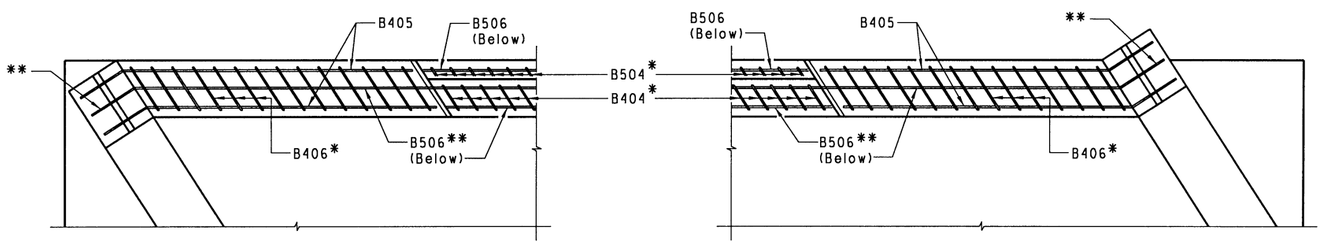
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
6.2.2016
BRIDGE ENGINEER

SHEET 3 OF 4
DETAILS OF BENT 1
8TH STREET OVER I-49
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376x3_bl3.dgn
CHECKED BY: JDS DATE: 10/30/15 SCALE: AS NOTED
DESIGNED BY: TG DATE: 10/30/15

BRIDGE NO. 07370 DRAWING NO. 57899

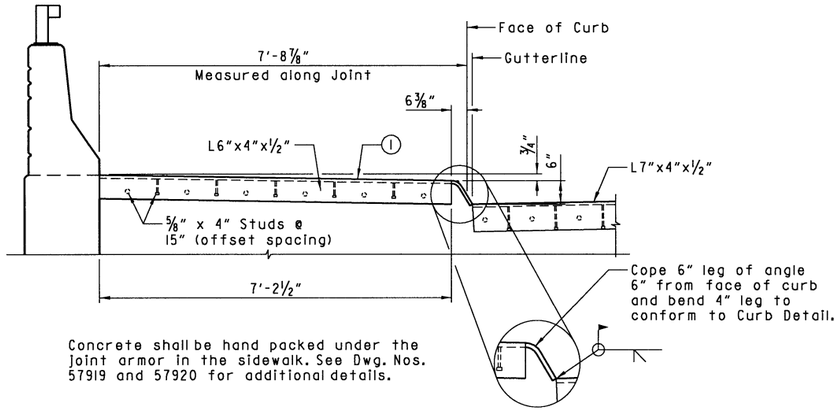
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	215	555
				(1) 07370		BENT 1		57900



VIEW D-D
Scale: ½" = 1'-0"

*Place parallel to CL Bridge
**Field bend top 2 layers of B506 bars. All remaining B506 bars shall be as shown in the wing details on Dwg. No. 57899.

VIEW E-E
Scale: ½" = 1'-0"



Concrete shall be hand packed under the joint armor in the sidewalk. See Dwg. Nos. 57919 and 57920 for additional details.

SIDEWALK DETAIL
Scale: ⅝" = 1'-0"

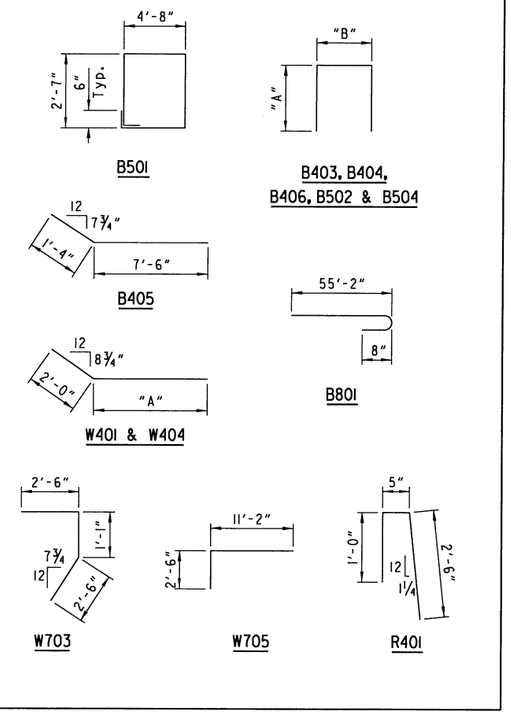
(1) ⅜" Pattern Plate, see Dwg. No. 57920.

BAR LIST

MARK	NO. REQ'D.	LENGTH	"A"	"B"	PIN. DIA.
B401	12	22'-10"			Str.
B402	6	20'-8"			Str.
B403	98	8'-6"	2'-0"	4'-8"	2"
B404	166	7'-4"	3'-4"	9½"	2"
B405	4	8'-10"			3"
B406	28	3'-9"	1'-3"	1'-4½"	2"
B501	120	15'-0"			2½"
B502	46	9'-8"	2'-7"	4'-8"	2½"
B503	8	54'-2"			Str.
B504	166	14'-2"	6'-6"	1'-4½"	2½"
B505	56	8'-6"			Str.
B506	28	52'-9"			Str.
B801	12	56'-1"			6"
B802	12	55'-2"			Str.
R401	8	3'-9"			2"
R402	12	1'-6"			Str.
W401	4	11'-6"	9'-6"		3"
W402	4	11'-11"			Str.
W403	17	7'-6"			Str.
W404	4	11'-10"	9'-10"		3"
W405	4	12'-3"			Str.
W406	19	7'-10"			Str.
W701	11	10'-2"			Str.
W702	11	9'-6"			Str.
W703	11	5'-11"			5¼"
W704	12	10'-6"			Str.
W705	12	13'-6"			5¼"

BENDING DIAGRAM

Dimensions are out to out of bars.



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
JERRY D. STEVENSON
No. 16183
6.2.2016
BRIDGE ENGINEER

SHEET 4 OF 4
DETAILS OF BENT 1
8TH STREET OVER I-49
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

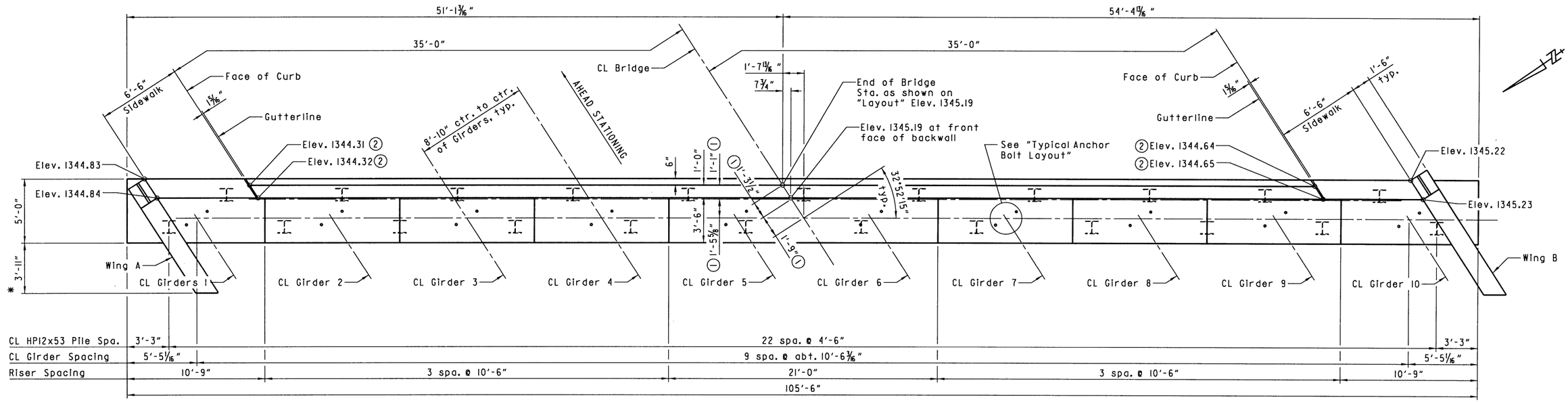
DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376x3_bl4.dgn
CHECKED BY: JDS DATE: 10/30/15 SCALE: AS NOTED
DESIGNED BY: TG DATE: 10/30/15

BRIDGE NO. 07370 DRAWING NO. 57900

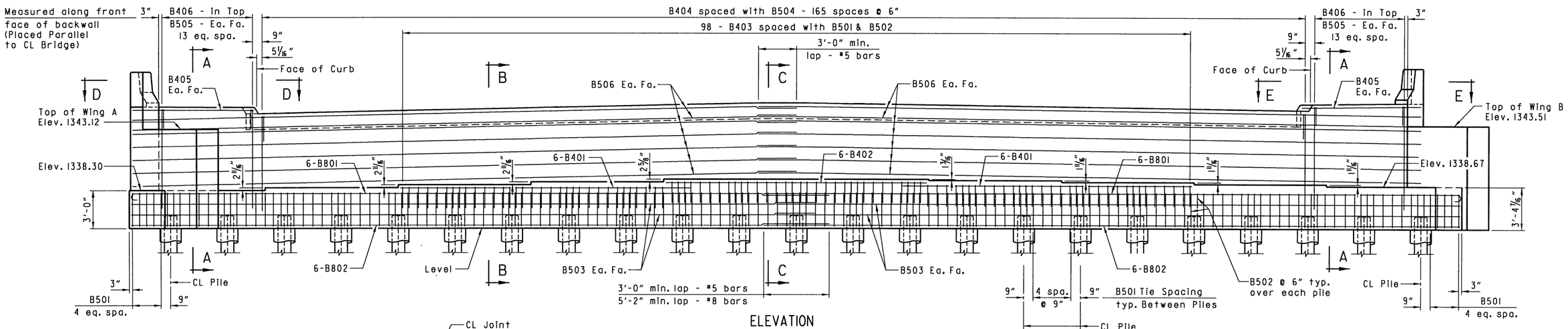
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	216	555
				(1) 07370		BENT 3		57901

(1) Measured from CL Joint
(2) At Gutterline

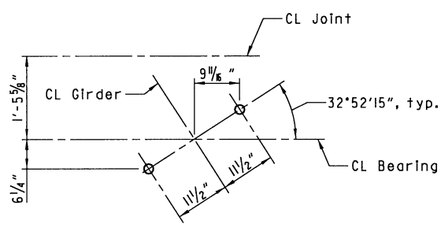
*Field verify dimension to coordinate with MSE Wall supplier.



PLAN
Scale: 1/4" = 1'-0"



ELEVATION
Looking Ahead
Scale: 1/4" = 1'-0"



TYPICAL ANCHOR BOLT LAYOUT
Scale: 3/4" = 1'-0"
For details of Elastomeric Bearings, see Dwg. No. 57922

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 16183 JERRY D. STEVENSON
10.2.2016
BRIDGE ENGINEER

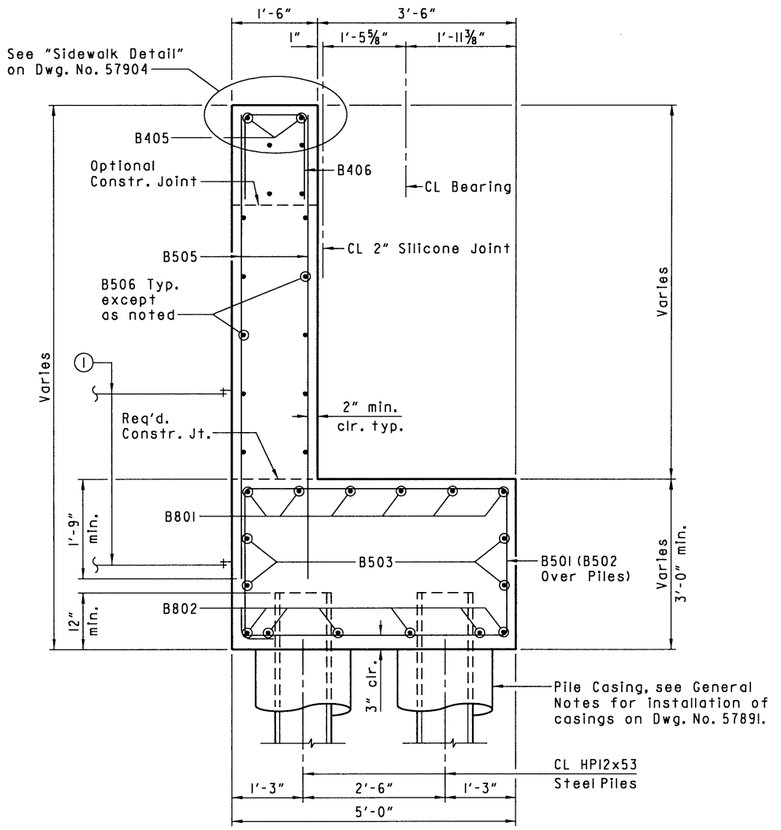
SHEET 1 OF 4
DETAILS OF BENT 3
8TH STREET OVER I-49
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x3_b3l.dgn
SCALE: AS NOTED

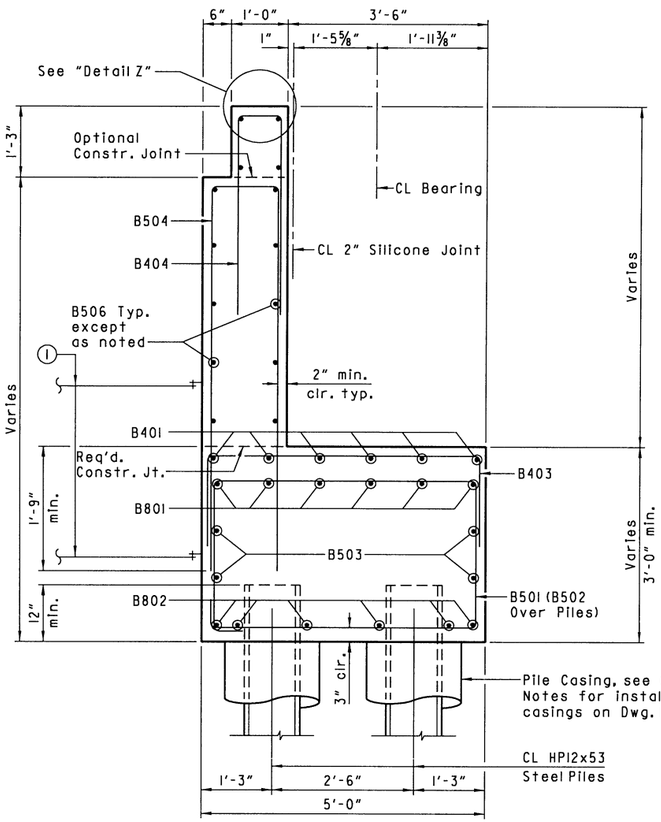
BRIDGE NO. 07370 DRAWING NO. 57901

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.		090376	217	555
				(1) 07370		BENT 3		57902

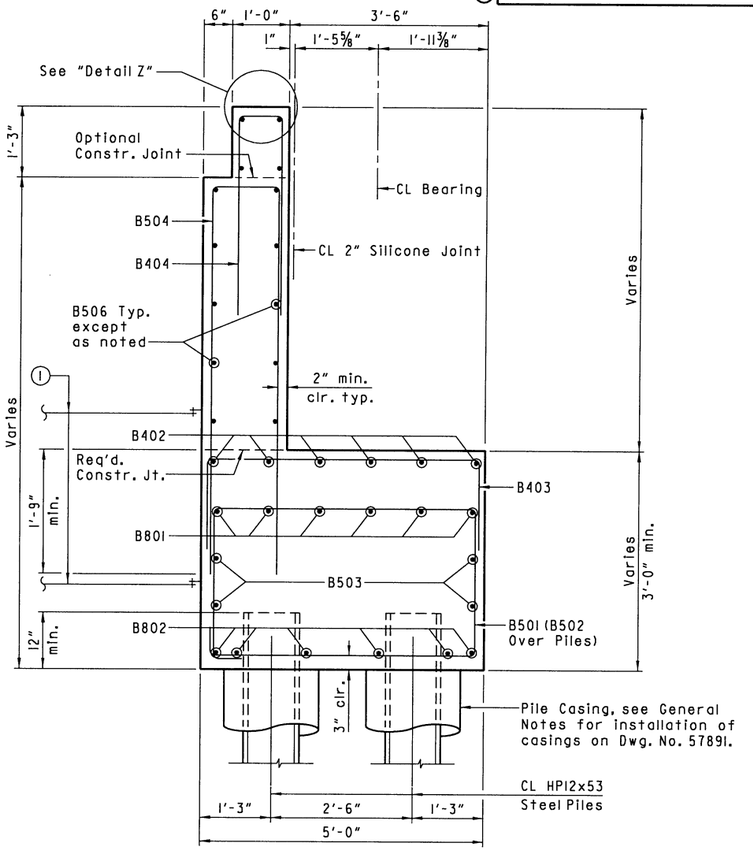
(1) Reinforcing straps and attachments to be designed and furnished by MSE wall supplier. See Dwg. No. 57895 for additional details.



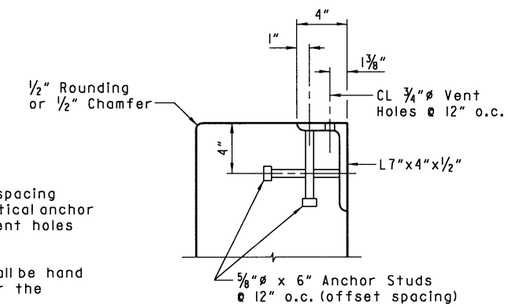
SECTION A-A
Scale: ¾" = 1'-0"



SECTION B-B
Scale: ¾" = 1'-0"



SECTION C-C
Scale: ¾" = 1'-0"



NOTES:

Transverse spacing between vertical anchor studs and vent holes shall be 6".

Concrete shall be hand packed under the joint armor.

For additional joint details, see Dwg. Nos. 57919 and 57920.

DETAIL Z
No Scale

GENERAL NOTES:

End Bent piling shall not be driven until the waiting period has elapsed. See "Layout" for more information.

Backwall above the required construction joint shall not be poured until the girders are in place. Backwall may be placed prior to placing the adjacent concrete deck only if the optional backwall construction joint is used. See "Details for Blocking Expansion Joint Device" on Dwg. No. 57919 for additional information.

All concrete shall be Class "S" and be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

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.

Structural Steel in end bents shall be AASHTO M 270, Gr. 50 and shall be paid for as "Structural Steel in Plate Girder Spans (M 270, Gr. 50). Structural Steel shall be cleaned and painted in accordance with Subsection 807.75. The color of the paint shall be Gray (semi gloss) and shall match Fed. Std. 595B, Color Chip No. 26122.

Top reinforcing bars shall be properly placed to avoid interference with anchor bolts or sheet metal sleeves.

For additional information, see "Layout".

Class 2 Protective Surface Treatment shall be applied to the top of backwall.

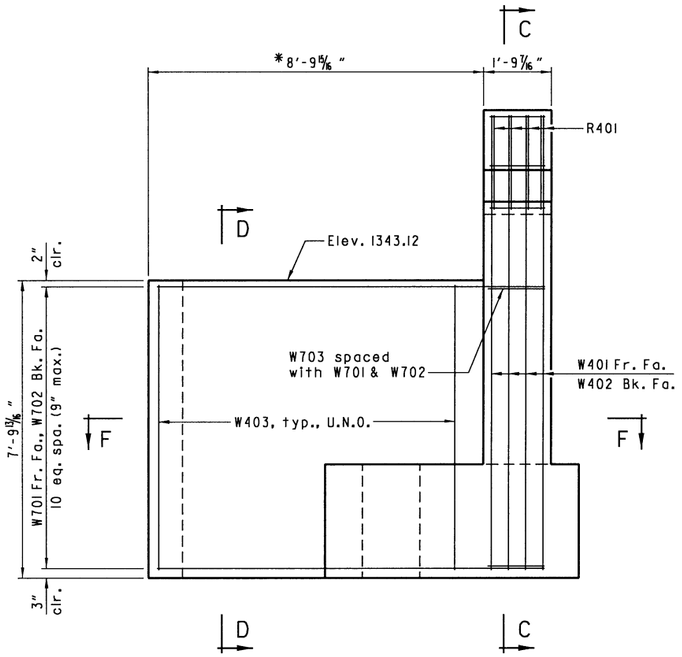
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEPHENSON
12.2.2016
BRIDGE ENGINEER

SHEET 2 OF 4
DETAILS OF BENT 3
8TH STREET OVER I-49
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

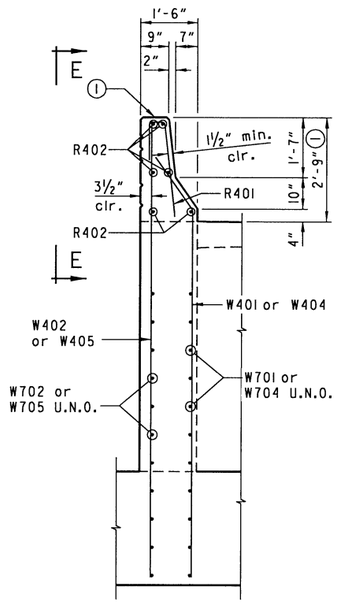
DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x3_b32.dgn
SCALE: AS NOTED

BRIDGE NO. 07370 DRAWING NO. 57902

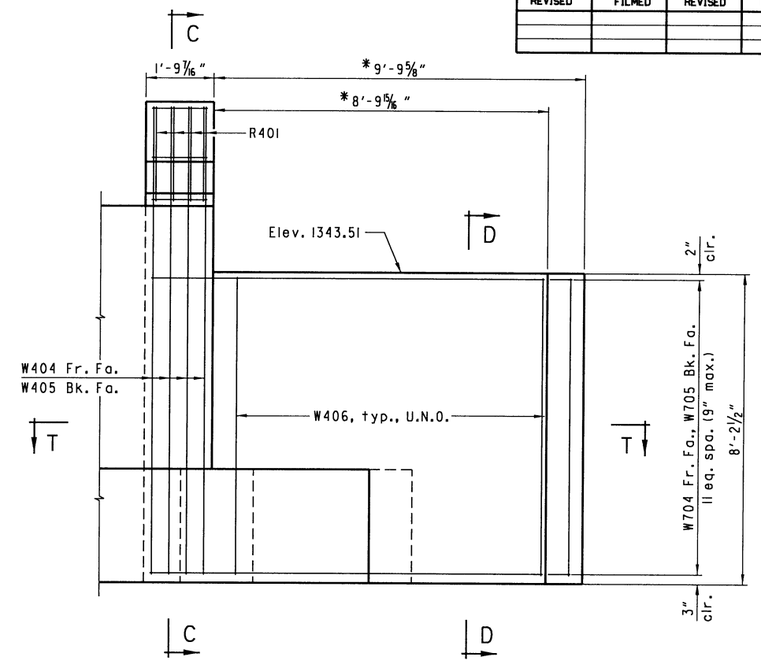
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	218	555
				① 07370		BENT 3		57903



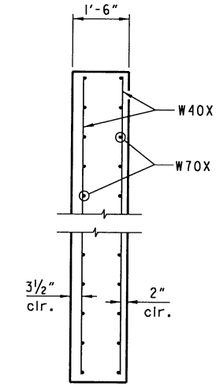
VIEW A-A
Scale: ½" = 1'-0"



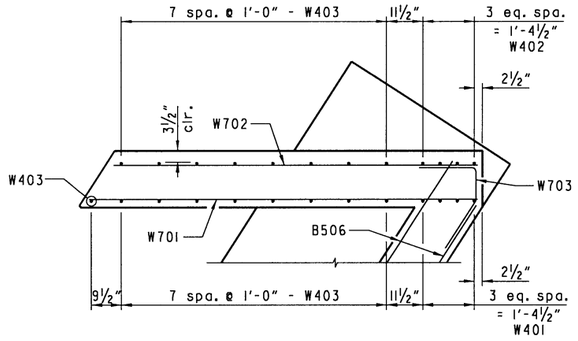
SECTION C-C
Scale: ½" = 1'-0"



VIEW B-B
Scale: ½" = 1'-0"

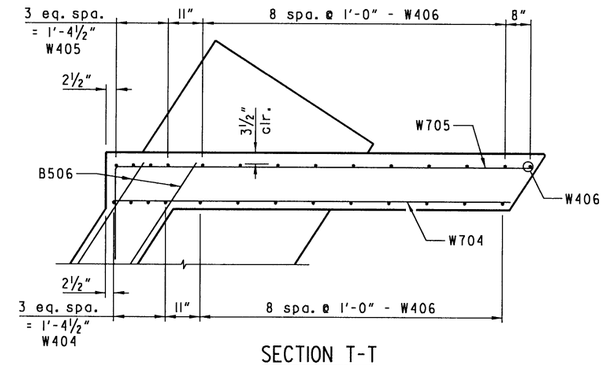


SECTION D-D
Scale: ½" = 1'-0"



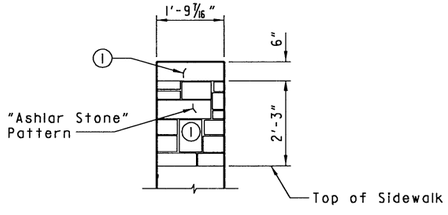
SECTION F-F
Scale: ½" = 1'-0"

LEGEND
Fr. Fa. = Front Face
Bk. Fa. = Back Face
Ea. Fa. = Each Face
U.N.O. = Unless Noted Otherwise



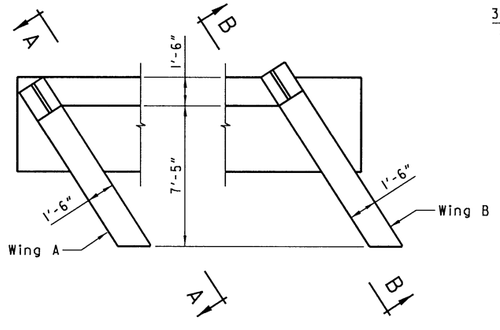
SECTION T-T
Scale: ½" = 1'-0"

*Field verify dimension to coordinate with MSE Wall supplier.



VIEW E-E
Scale: ½" = 1'-0"

① Class 3 Textured Coating Finish (Color = Gray, Color Chip No. 37150)



PLAN OF WINGS
Scale: ¼" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
12.2.2015

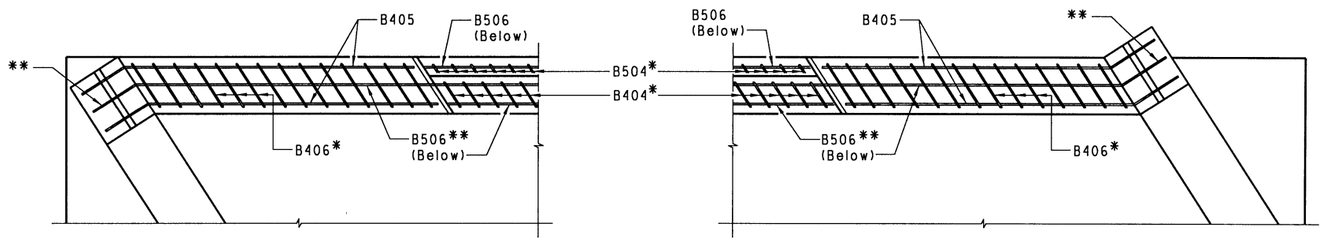
BRIDGE ENGINEER

SHEET 3 OF 4
DETAILS OF BENT 3
8TH STREET OVER I-49
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x3_b33.dgn
SCALE: AS NOTED

BRIDGE NO. 07370 DRAWING NO. 57903

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.		090376	219	555
				(1) 07370		BENT 3		57904



VIEW D-D
Scale: ½" = 1'-0"

VIEW E-E
Scale: ½" = 1'-0"

*Place parallel to CL Bridge

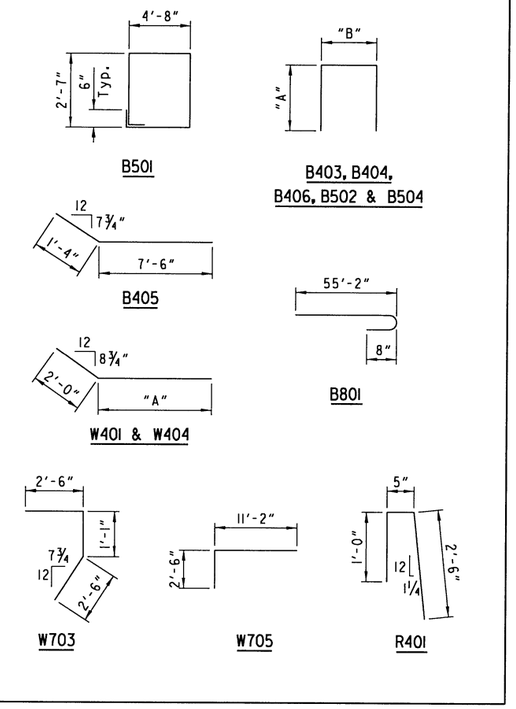
**Field bend top 2 layers of B506 bars. All remaining B506 bars shall be as shown in the wing details on Dwg. No. 57903.

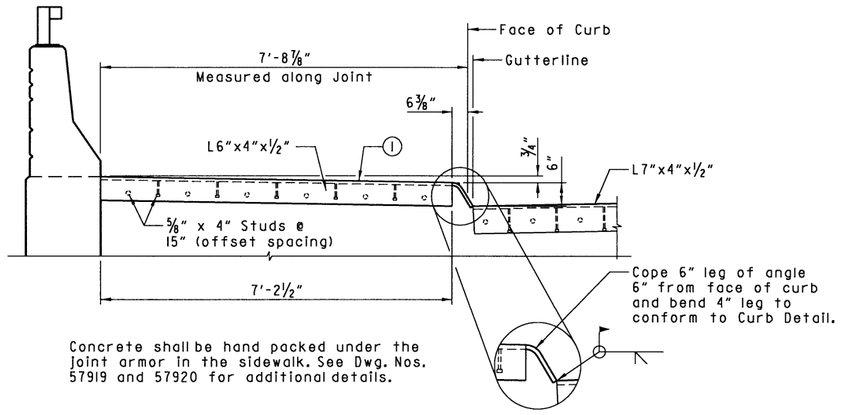
BAR LIST

MARK	NO. REQ'D.	LENGTH	"A"	"B"	PIN. DIA.
B401	12	22'-10"			Str.
B402	6	20'-8"			Str.
B403	98	8'-6"	2'-0"	4'-8"	2"
B404	166	7'-4"	3'-4"	9½"	2"
B405	4	8'-10"			3"
B406	28	3'-9"	1'-3"	1'-4½"	2"
B501	120	15'-0"			2½"
B502	46	9'-8"	2'-7"	4'-8"	2½"
B503	8	54'-2"			Str.
B504	166	14'-2"	6'-6"	1'-4½"	2½"
B505	56	8'-6"			Str.
B506	28	52'-9"			Str.
B801	12	56'-1"			6"
B802	12	55'-2"			Str.
R401	8	3'-9"			2"
R402	12	1'-6"			Str.
W401	4	11'-6"	9'-6"		3"
W402	4	11'-11"			Str.
W403	17	7'-6"			Str.
W404	4	11'-10"	9'-10"		3"
W405	4	12'-3"			Str.
W406	19	7'-10"			Str.
W701	11	10'-2"			Str.
W702	11	9'-6"			Str.
W703	11	5'-11"			5¼"
W704	12	10'-6"			Str.
W705	12	13'-6"			5¼"

BENDING DIAGRAM

Dimensions are out to out of bars.





SIDEWALK DETAIL
Scale: ⅝" = 1'-0"

(1) ⅜" Pattern Plate, see Dwg. No. 57920.

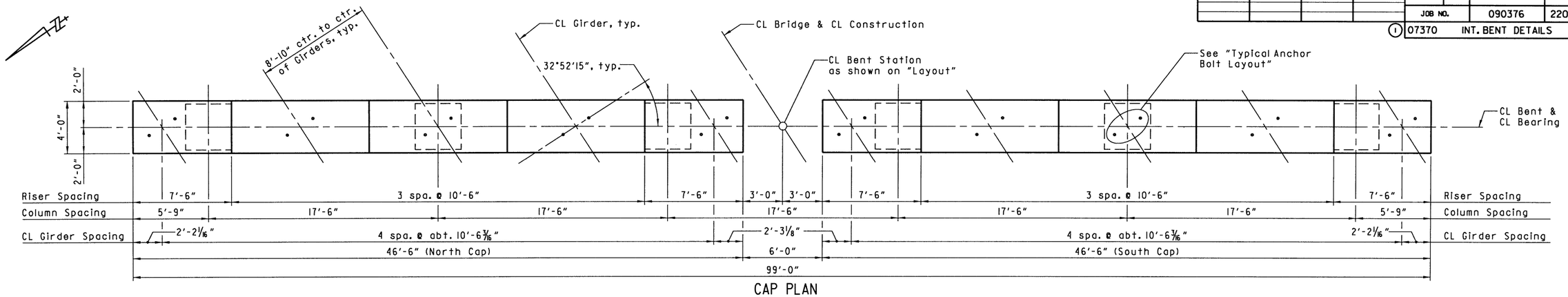
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
12-2-2016
BRIDGE ENGINEER

SHEET 4 OF 4
DETAILS OF BENT 3
8TH STREET OVER I-49
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x3_b34.dgn
SCALE: AS NOTED

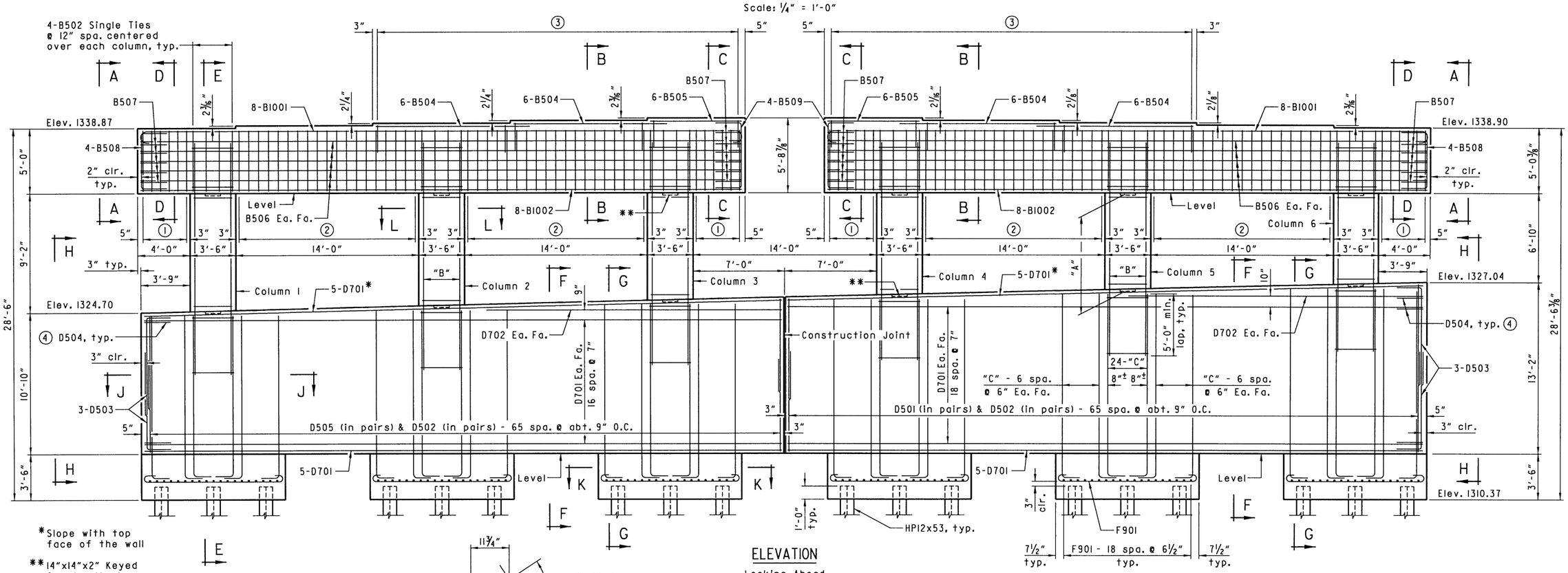
BRIDGE NO. 07370 DRAWING NO. 57904

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.		090376	220	555
				① 07370		INT. BENT DETAILS		57905



CAP PLAN

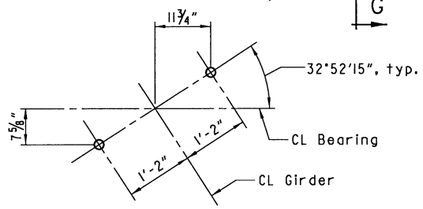
Scale: 1/4" = 1'-0"



*Slope with top face of the wall

**14"x14"x2" Keyed Constr. Jt., typ.

TABLE OF VARIABLES			
COLUMN NO.	"A"	"B"	"C"
1	9'-0 7/16"	24-C801	F801
2	8'-7 7/16"	24-C802	F802
3	8'-2 1/2"	24-C803	F803
4	7'-9 1/2"	24-C804	F804
5	7'-4 9/16"	24-C805	F805
6	6'-11 9/16"	24-C806	F806



TYPICAL ANCHOR BOLT LAYOUT

Scale: 3/4" = 1'-0"
For details of Elastomeric Bearings, see Dwg. No. 57922

ELEVATION

Looking Ahead
Scale: 1/4" = 1'-0"

① Double B501 - 5 spa. @ 8"
② Double B501 - 18 spa. @ 9"
③ 38 - B503 spaced with Double B501 & B502
④ Spaced with D701 & D702 as shown in Elevation.

STATE OF ARKANSAS
JERRY D. STEVENSON
REGISTERED PROFESSIONAL ENGINEER
No. 16183
6.2.2016
BRIDGE ENGINEER

SHEET 1 OF 4
DETAILS OF INTERMEDIATE BENT 8TH STREET OVER I-49

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

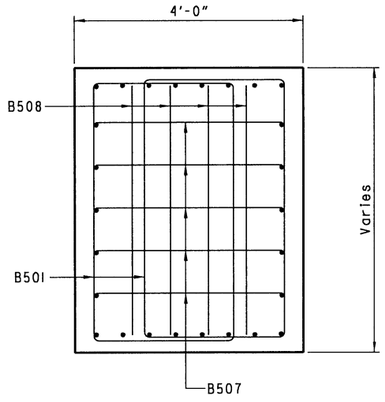
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x3_b21.dgn
SCALE: AS NOTED

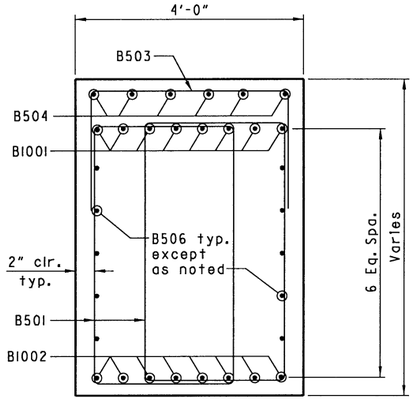
BRIDGE NO. 07370 DRAWING NO. 57905

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.		090376	221	555

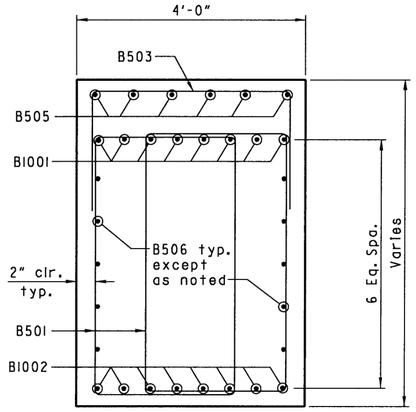
(1) 07370 INT. BENT DETAILS 57906



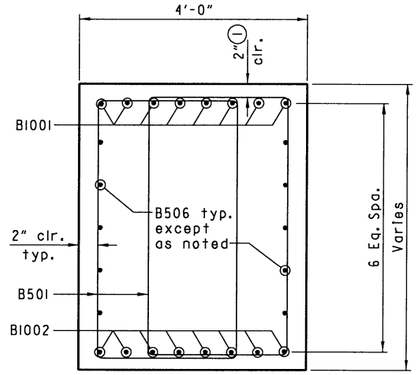
VIEW A-A
Scale: 3/4" = 1'-0"



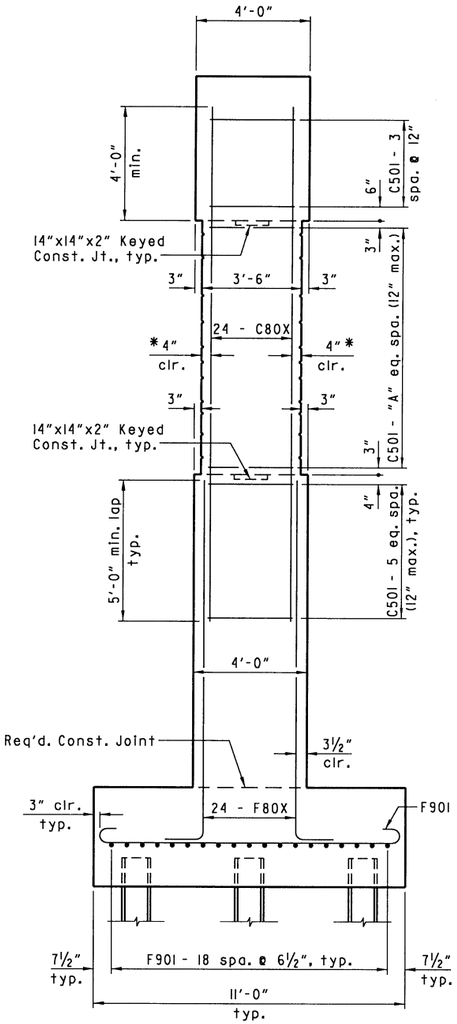
SECTION B-B
Scale: 3/4" = 1'-0"



SECTION C-C
Scale: 3/4" = 1'-0"



SECTION D-D
Scale: 3/4" = 1'-0"



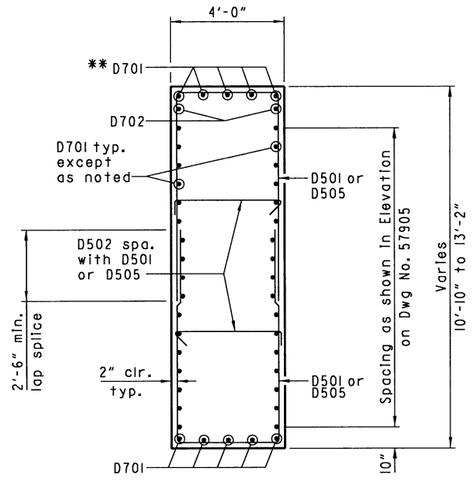
SECTION E-E
Scale: 3/8" = 1'-0"

* Form Liner shall be a maximum depth of 2" to provide a minimum clearance of 2".

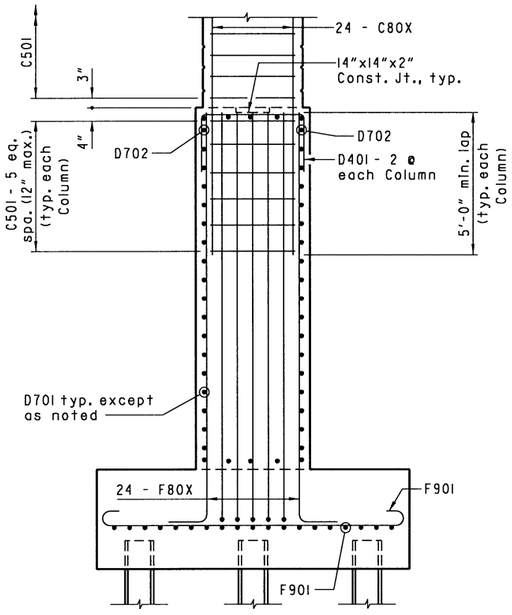
** Slope with the top face of wall

(1) 2 3/8" clear (South Cap)

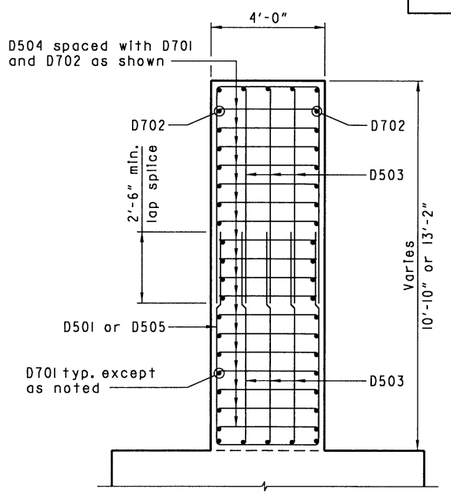
TABLE OF VARIABLES	
COLUMN NO.	"A"
1	9
2	9
3	8
4	8
5	7
6	7



SECTION F-F
Scale: 3/8" = 1'-0"



SECTION G-G
(D501, D502 and D505 bars not shown for clarity)
Scale: 3/8" = 1'-0"



VIEW H-H
(Footing Steel not shown for clarity)
Scale: 3/8" = 1'-0"

STATE OF ARKANSAS
JERRY D. STEPHENSON
REGISTERED PROFESSIONAL ENGINEER
No. 16183
6.2.2016
BRIDGE ENGINEER

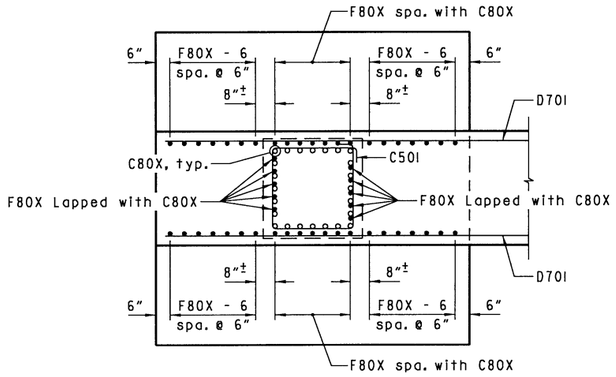
SHEET 2 OF 4
DETAILS OF INTERMEDIATE BENT
8TH STREET OVER I-49
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376x3_b22.dgn
CHECKED BY: JDS DATE: 10/30/15 SCALE: AS NOTED
DESIGNED BY: TG DATE: 10/30/15

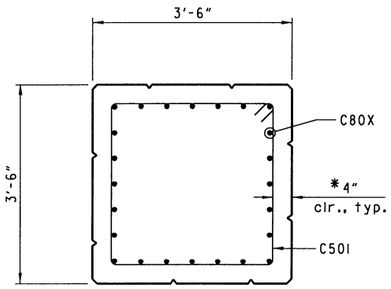
BRIDGE NO. 07370 DRAWING NO. 57906

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.		090376	222	555

(1) 07370 INT. BENT DETAILS 57907

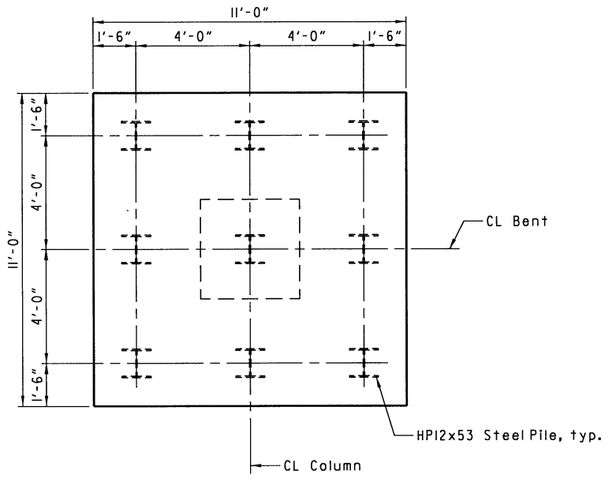


SECTION J-J
Scale: 3/8" = 1'-0"



SECTION L-L
Scale: 3/4" = 1'-0"

*Form Liner shall be a maximum depth of 2" to provide a minimum clearance of 2".



SECTION K-K
Scale: 3/8" = 1'-0"

GENERAL NOTES:

All concrete shall be Class S with a minimum 28 day compressive strength, f'c = 3,500 psi, and shall be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

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 shall be properly placed to avoid interference with anchor bolts or sheet metal sleeves.

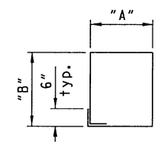
For additional information, see "Layout".

BAR LIST

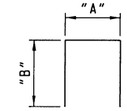
MARK	NO. REQ'D.	LENGTH	"A"	"B"	PIN. DIA.
B501	200	15'-2"	2'-8"	4'-8"	2½"
B502	24	12'-10"	3'-8"	4'-8"	2½"
B503	76	7'-10"	3'-8"	2'-2"	2½"
B504	24	12'-6"			Str.
B505	12	7'-2"			Str.
B506	20	46'-2"			Str.
B507	22	8'-5"	3'-6¾"	2'-6"	2½"
B508	8	9'-5"	4'-6¾"	2'-6"	2½"
B509	8	10'-1"	5'-3⅜"	2'-6"	2½"
B1001	16	49'-0"			10"
B1002	16	46'-2"			Str.
C501	114	12'-0"			3¾"
C801	24	18'-4"			Str.
C802	24	17'-11"			Str.
C803	24	17'-6"			Str.
C804	24	17'-1"			Str.
C805	24	16'-8"			Str.
C806	24	16'-3"			Str.
D401	12	7'-6"	3'-8"	2'-0"	2"
D501	132	18'-10"	3'-8"	7'-8"	2½"
D502	264	4'-10"			3¾"
D503	12	10'-1"	7'-8"	2'-6"	3¾"
D504	37	8'-3"	3'-6"	2'-6"	3¾"
D505	132	17'-8"	3'-8"	7'-1"	2½"
D701	92	48'-11"			Str.
D702	4	22'-8"			Str.
F801	52	13'-11	12'-9"	1'-4"	6"
F802	52	14'-4"	13'-2"	1'-4"	6"
F803	52	14'-9"	13'-7"	1'-4"	6"
F804	52	15'-2"	14'-0"	1'-4"	6"
F805	52	15'-7"	14'-5"	1'-4"	6"
F806	52	16'-0"	14'-10"	1'-4"	6"
F901	228	13'-0"			9"

BENDING DIAGRAM

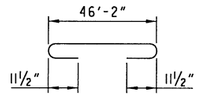
Dimensions are out to out of bars.



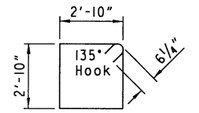
B501



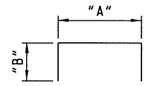
B502, B503, B507, B508 & B509



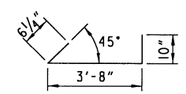
B1001



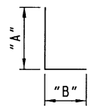
C501



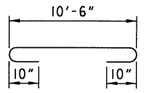
D401, D501, D504 & D505



D502



D503 & F801 TO F806



F901

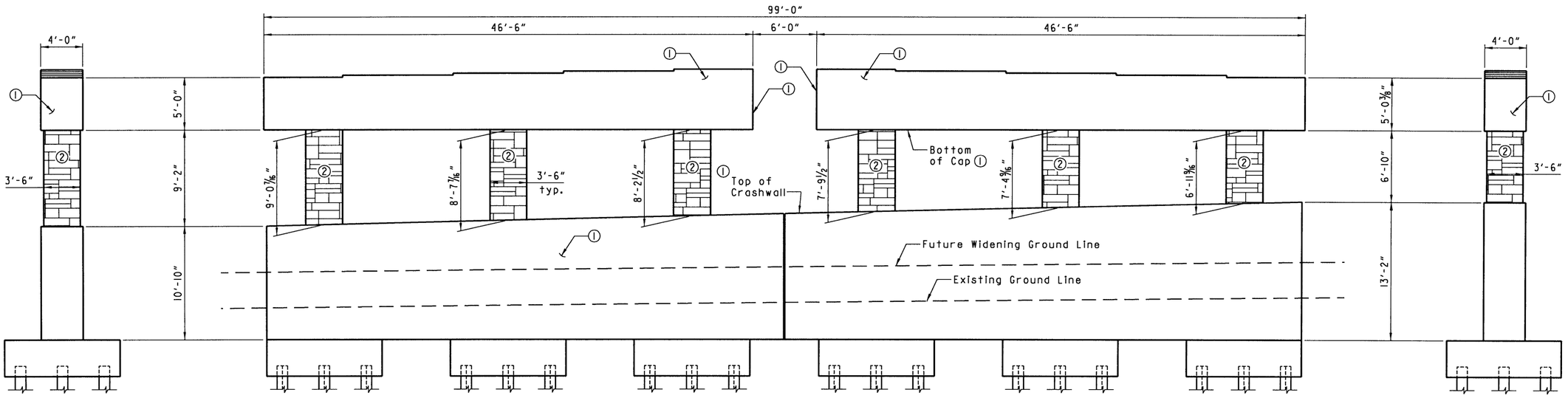
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
6.1.2016
BRIDGE ENGINEER

SHEET 3 OF 4
DETAILS OF INTERMEDIATE BENT
8TH STREET OVER I-49
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x3_b23.dgn
SCALE: AS NOTED

BRIDGE NO. 07370 DRAWING NO. 57907

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.		090376	223	555
				① 07370		INT. BENT DETAILS		57908



NORTH END VIEW

ELEVATION
Looking Ahead

SOUTH END VIEW

ASHLAR STONE PATTERN
Scale: 3/16" = 1'-0"

① Class 3 Textured Coating Finish
(Color = Gray, Color Chip No. 37150).

② "Ashlar Stone" Pattern & Class 3
Textured Coating Finish
(Color = Gray, Color Chip No. 37150).

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
6.2.2016
BRIDGE ENGINEER

SHEET 4 OF 4
DETAILS OF INTERMEDIATE BENT
8TH STREET OVER I-49
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376x3_b24
CHECKED BY: JDS DATE: 10/30/15 SCALE: AS NOTED
DESIGNED BY: TG DATE: 10/30/15

BRIDGE NO. 07370 DRAWING NO. 57908

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.		090376	224	555
				(1) 07370		234 FT. UNIT		57909

(1) Tolerance: Minus = 1/4", Plus equal to amount of Slab Thickening used to meet Slab Thickness Tolerance, see "Adjustment for Slab Thickness Tolerance", Dwg. No. 57910.

(2) See "Adjustment for Slab Thickness Tolerance", Dwg. No. 57910.

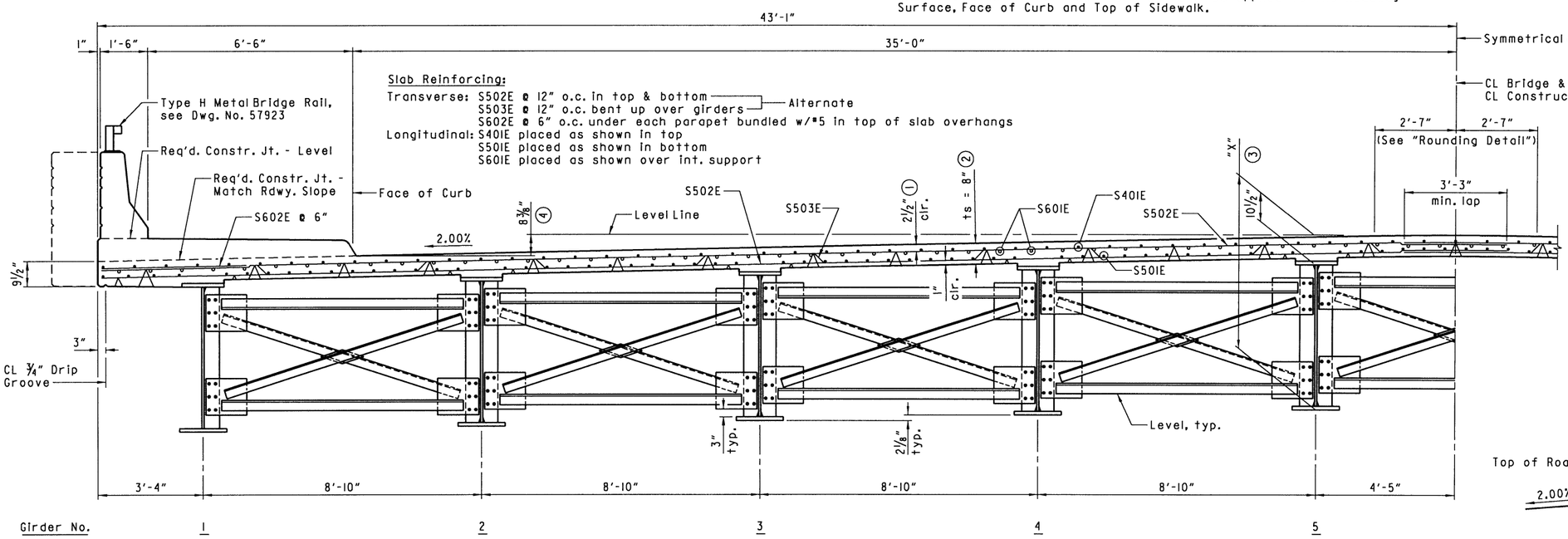
(3) "X" = 5'-4 1/2" + Bottom Flange Thickness, measured at CL Bearing & CL Girder.

(4) Working point to gutterline, see "Rounding Detail".

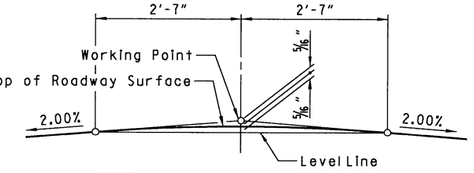
NOTES:

At Contractor's option, in lieu of providing bar S503E, one #5 bar top and bottom may be substituted for each bar. Payment for reinforcing will be based on the weight of bar S503E. Bars in top and bottom shall be Epoxy Coated.

Class 2 Protective Surface Treatment shall be applied to the Roadway Surface, Face of Curb and Top of Sidewalk.



Bar positions or clearances from the forms shall be maintained by means of stays, ties, hangers or other approved devices per Subsection 804.06.



NOTE:

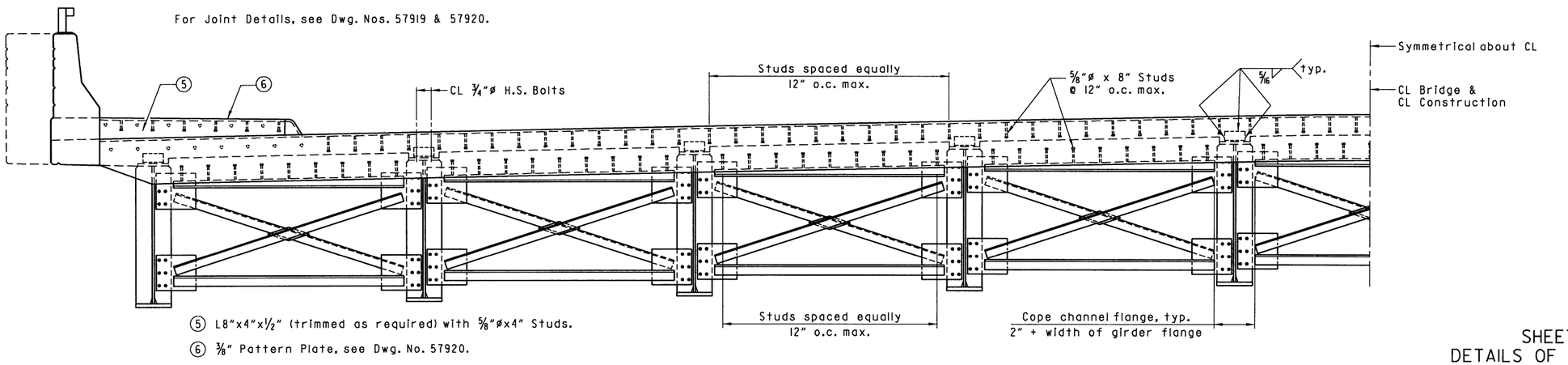
Working Point matches Theoretical Profile Grade.

ROUNDING DETAIL

No Scale

TYPICAL ROADWAY SECTION

Looking Ahead
Scale: 1/2" = 1'-0"



TYPICAL SECTION THROUGH JOINT

Looking Ahead - Bent 1
Bent 3 Similar
Scale: 1/2" = 1'-0"

EXPANSION DEVICE
Roadway Channel - MC18x42.7
Conn. Angle - L8"x4"x1/2"
Note: Detail device 1/8" high and provide 1/4" shims using 2 - 1/16" plates and 1 - 1/8" plate.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
8.2.2016
BRIDGE ENGINEER

SHEET 1 OF 13
DETAILS OF 234'-0" CONTINUOUS COMPOSITE PLATE GIRDER UNIT
8TH STREET OVER I-49

ROUTE SEC.

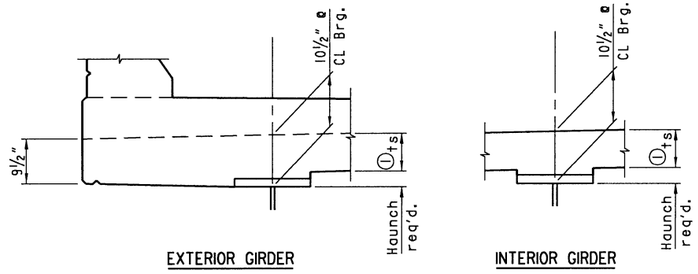
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x3_sl.dgn
SCALE: AS NOTED

BRIDGE NO. 07370 DRAWING NO. 57909

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.		090376	225	555
				① 07370		234 FT. UNIT		57910



① Tolerance when removable deck forming is used is +½", -¼", Haunch forming is required and shall be adjusted to maintain slab thickness tolerance.

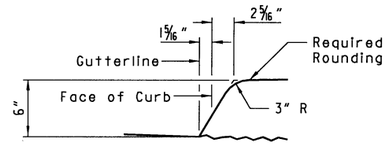
Note: ts = slab thickness as shown on superstructure detail drawings.

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". 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.

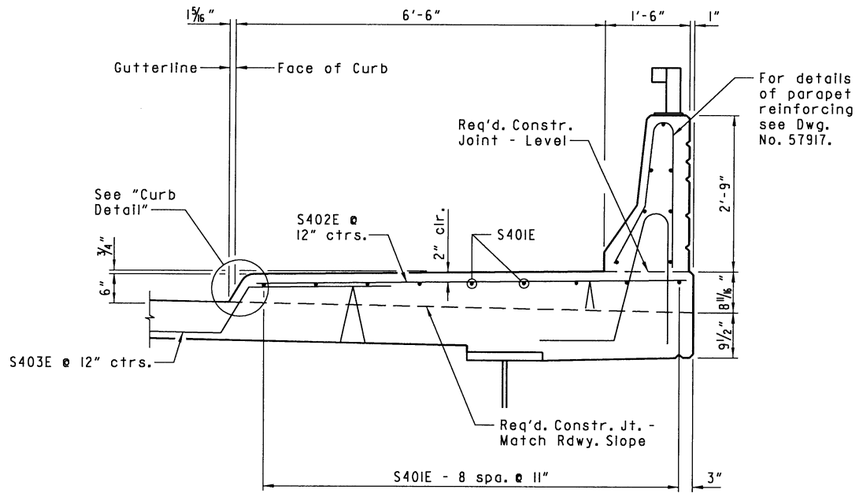
ADJUSTMENT FOR SLAB THICKNESS TOLERANCE

Scale: ¾" = 1'-0"



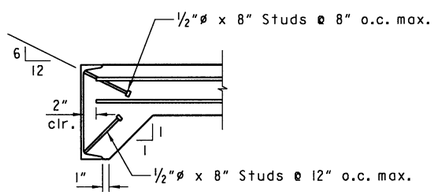
CURB DETAIL

No Scale



SIDEWALK DETAIL

Scale: ¾" = 1'-0"

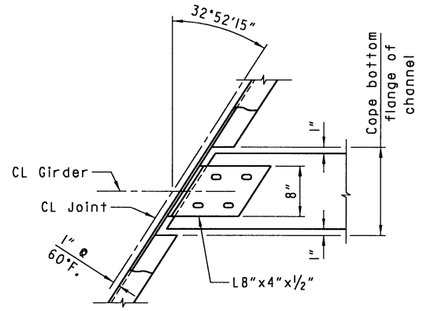


NOTE:

As an alternate to ⅝"ø studs, ½"ø x 8" studs spaced as shown may be used. Use weight of ⅝"ø stud as basis of measurement of structural steel in anchors.

DETAILS OF ALTERNATE ANCHORS

No Scale



CHANNEL CONNECTION DETAIL

Scale: 1" = 1'-0"

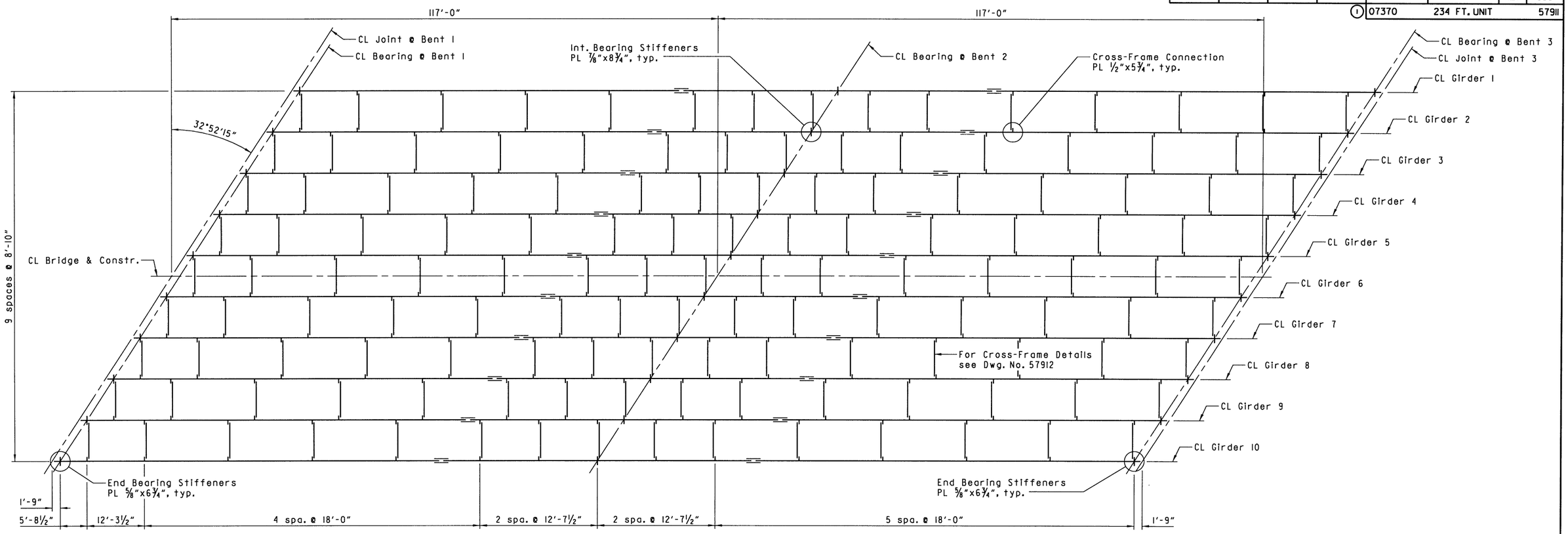
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
6.2.2016
BRIDGE ENGINEER

SHEET 2 OF 13
DETAILS OF 234'-0" CONTINUOUS COMPOSITE PLATE GIRDER UNIT
8TH STREET OVER I-49
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

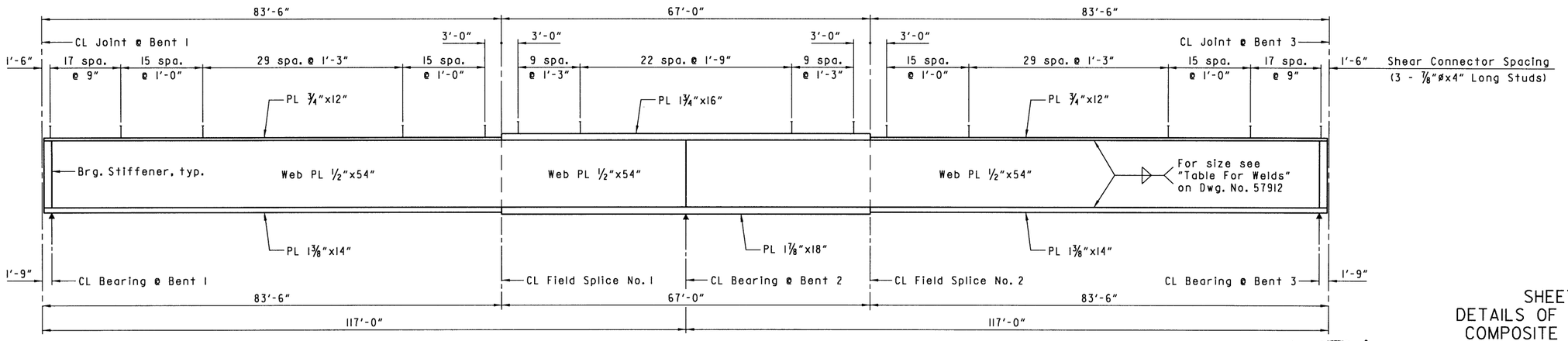
DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x3_s2.dgn
SCALE: AS NOTED

BRIDGE NO. 07370 DRAWING NO. 57910

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.		090376	226	555
				(1) 07370		234 FT. UNIT		57911



FRAMING PLAN



GIRDER ELEVATION

NOTES:

All web and flange plates shall be AASHTO M 270, Gr. 50 steel.

CL Joint and End of Girder are vertical.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STRETCHER

6.2.2016

BRIDGE ENGINEER

SHEET 3 OF 13
DETAILS OF 234'-0" CONTINUOUS COMPOSITE PLATE GIRDER UNIT 8TH STREET OVER I-49

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

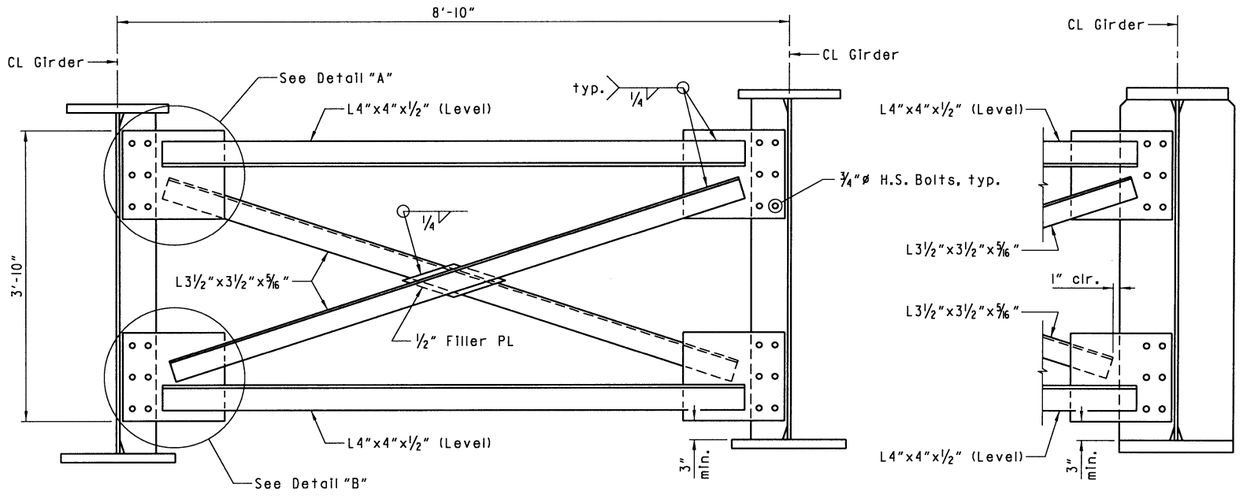
DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376x3_s3.dgn

CHECKED BY: JDS DATE: 10/30/15 SCALE: NO SCALE

DESIGNED BY: TG DATE: 10/30/15

BRIDGE NO. 07370 DRAWING NO. 57911

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.		090376	227	555
				(1) 07370		234 FT. UNIT		57912

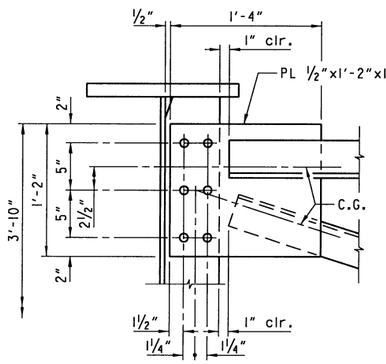


INTERMEDIATE CROSS-FRAME DETAIL

Scale: 1" = 1'-0"

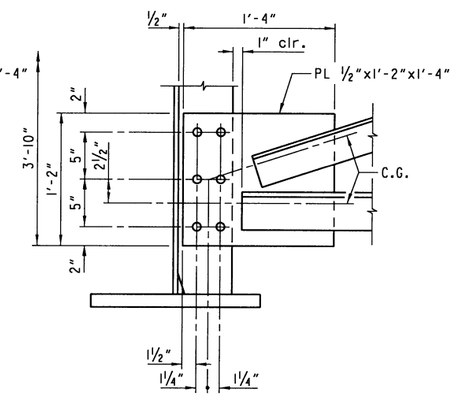
CROSS-FRAME CONNECTION DETAIL
AT INTERIOR & END BENT BEARINGS

Scale: 1" = 1'-0"



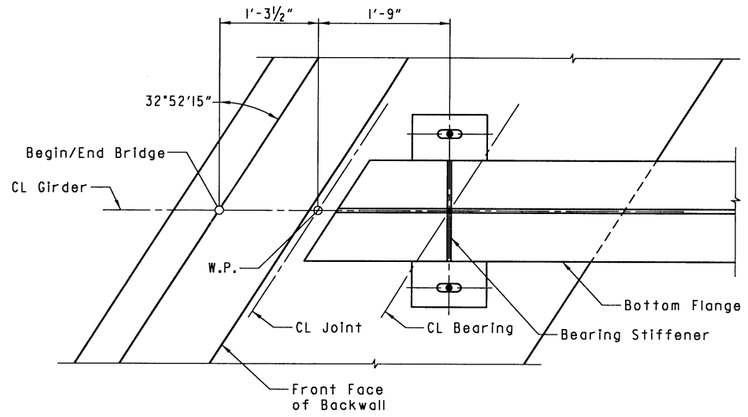
DETAIL A

Scale: 1½" = 1'-0"



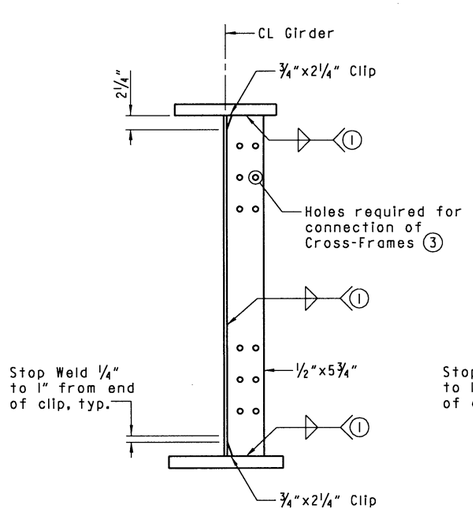
DETAIL B

Scale: 1½" = 1'-0"



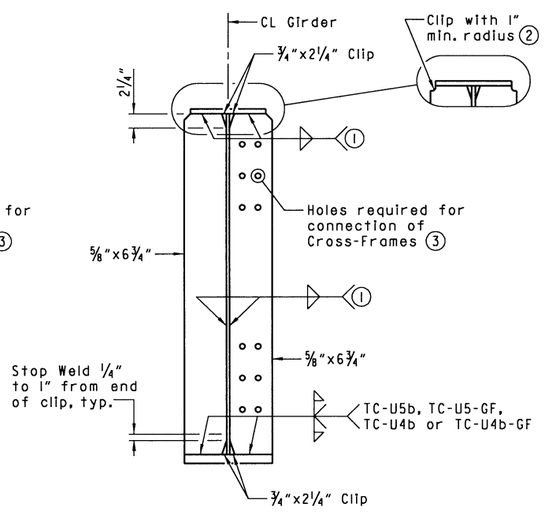
BEARING PLAN AT END BENT

Scale: 1" = 1'-0"



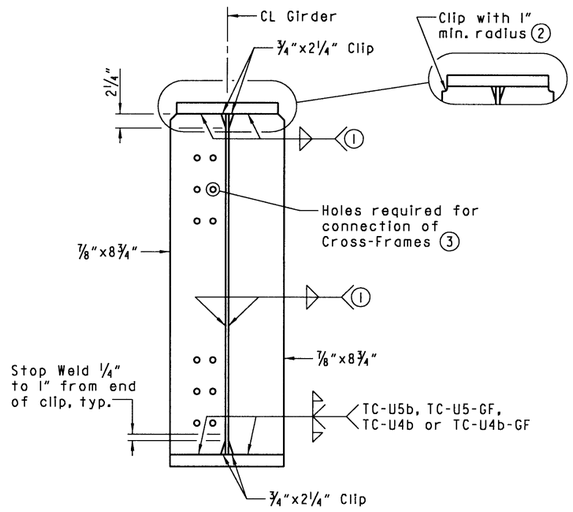
CROSS-FRAME CONNECTION PLATE

Scale: 1" = 1'-0"



BEARING STIFFENER AT END BENTS

Scale: 1" = 1'-0"



BEARING STIFFENER AT INTERIOR BENT

Scale: 1" = 1'-0"

TABLE FOR WELDS

MATERIAL THICKNESS OF THICKER PART JOINED (INCHES)	MINIMUM SIZE OF FILLET WELD (INCHES)	SINGLE PASS WELD
To ¾" Inclusive	¼"	MUST
Over ¾"	5/16"	BE USED

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.

(1) See "Table for Welds" this sheet for Minimum Weld Size.

(2) If permanent deck forms are used, the Fabricator shall clip the plate as necessary to accommodate the support angle.

(3) Refer to Framing Plan on Dwg. No. 57911 for location of Cross-Frame connection holes.

NOTE:

Bearing Stiffeners shall be fabricated to be plumb in their final positions.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. PETERSON
8.12.2016
BRIDGE ENGINEER

SHEET 4 OF 13
DETAILS OF 234'-0" CONTINUOUS
COMPOSITE PLATE GIRDER UNIT
8TH STREET OVER I-49

ROUTE SEC.

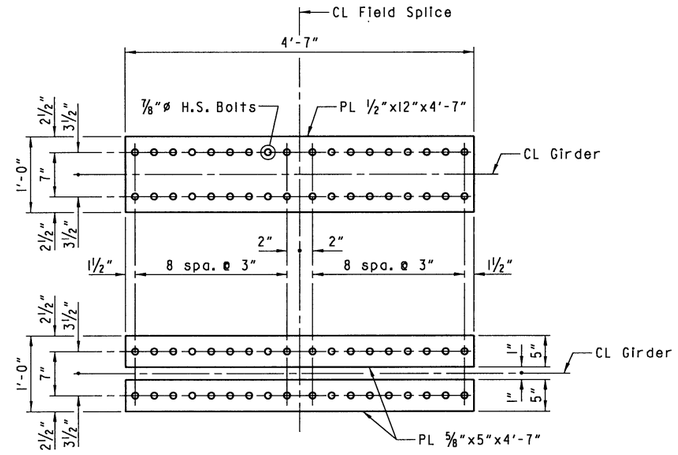
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x3_s4.dgn
SCALE: AS NOTED

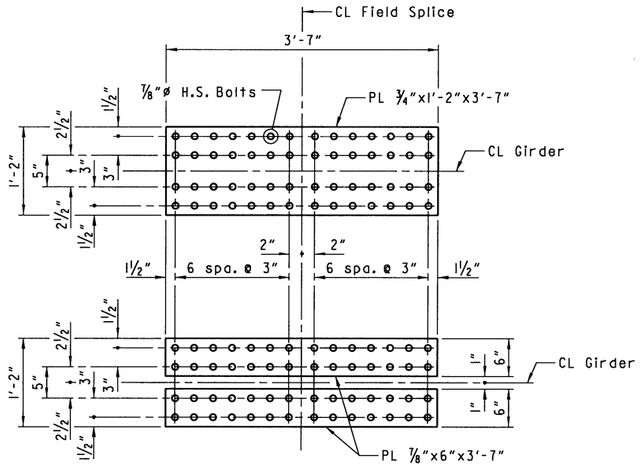
BRIDGE NO. 07370 DRAWING NO. 57912

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.		090376	228	555
				(1) 07370		234 FT. UNIT		57913



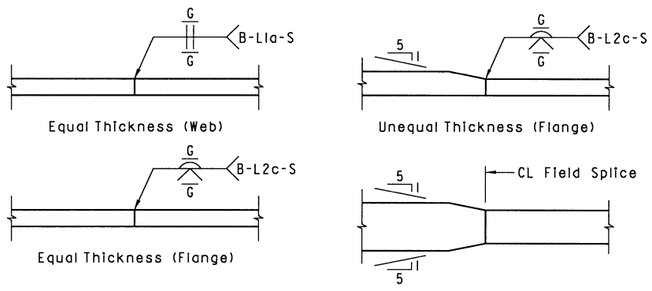
TOP FLANGE SPLICE

Scale: 1" = 1'-0"



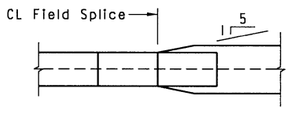
BOTTOM FLANGE SPLICE

Scale: 1" = 1'-0"



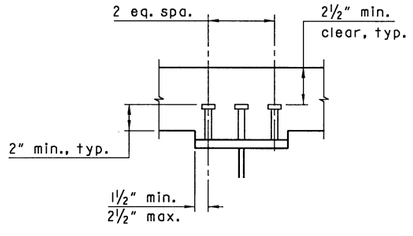
DETAILS OF WELDED SPLICES

No Scale



FIELD SPLICE AT UNEQUAL FLANGE WIDTHS

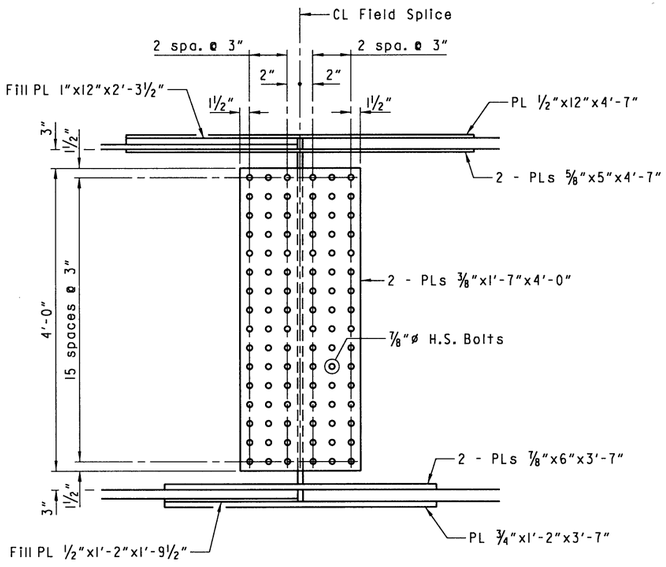
No Scale



Stud Shear Connectors shown shall be ⅞"ø x 4" long, granular flux filled, solid fluxed or equal, and automatically end welded to the girder flange in accordance with the recommendations of the Manufacturer.

SHEAR CONNECTOR DETAIL

No Scale



DETAILS OF FIELD SPLICE NO. 1

(Field Splice No. 2 is Similar by Symmetry)
Scale: 1" = 1'-0"

NOTES:

All field splice bolts shall be ⅞"ø H.S. Bolts.

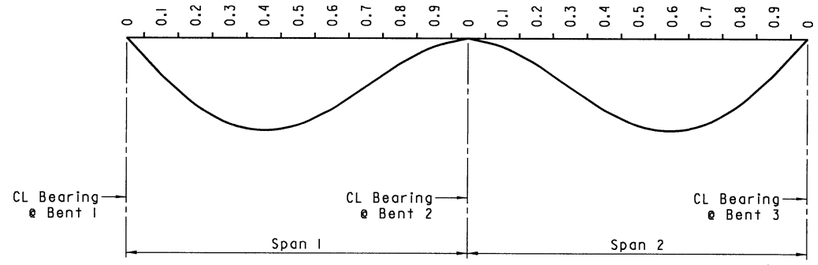
All holes for splice bolts shall be 15/16" Dia.

All field splice plates shall be AASHTO M 270, Gr. 50 steel.

Bolted field splices may be eliminated or shop welded splices may be substituted with the approval of the Engineer. Payment will be made on the basis of plan quantities.

TABLE OF DEAD LOAD DEFLECTIONS (INCHES)

	POINT OF DEFLECTION	STRUCTURAL STEEL		STRUCTURAL STEEL + SLAB		STRUCTURAL STEEL + SLAB + PARAPET + SIDEWALK	
		GRDS. 1 & 10	GRDS. 2 - 9	GRDS. 1 & 10	GRDS. 2 - 9	GRDS. 1 & 10	GRDS. 2 - 9
SPAN 1	0	0.000	0.000	0.000	0.000	0.000	0.000
	0.1	0.137	0.148	0.655	0.737	0.737	0.815
	0.2	0.250	0.271	1.195	1.344	1.345	1.488
	0.3	0.323	0.350	1.543	1.736	1.738	1.923
	0.4	0.349	0.378	1.661	1.869	1.873	2.073
	0.5	0.327	0.353	1.551	1.744	1.752	1.937
	0.6	0.265	0.286	1.254	1.410	1.420	1.570
	0.7	0.180	0.194	0.850	0.956	0.965	1.067
	0.8	0.095	0.102	0.447	0.503	0.509	0.562
	0.9	0.028	0.030	0.131	0.147	0.149	0.165
SPAN 2	0	0.000	0.000	0.000	0.000	0.000	0.000
	0.1	0.029	0.032	0.132	0.149	0.150	0.167
	0.2	0.098	0.106	0.450	0.506	0.512	0.565
	0.3	0.184	0.199	0.854	0.960	0.969	1.071
	0.4	0.268	0.290	1.257	1.413	1.423	1.573
	0.5	0.329	0.356	1.554	1.747	1.755	1.941
	0.6	0.351	0.380	1.663	1.871	1.875	2.075
	0.7	0.325	0.352	1.545	1.738	1.740	1.925
	0.8	0.251	0.272	1.196	1.346	1.346	1.490
	0.9	0.137	0.149	0.655	0.737	0.737	0.815
	0	0.000	0.000	0.000	0.000	0.000	0.000



TYPICAL DEAD LOAD DEFLECTIONS DIAGRAM

No Scale

NOTE:

Camber for dead load deflection plus vertical curve ±¼" tolerance. Deflections shown are from a chord from CL Bearing to CL Bearing. Vertical curve corrections not included. Negative sign (-) indicates point above chord.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 16183 JERRY D. STEVENSON

6.2.2016

BRIDGE ENGINEER

SHEET 5 OF 13
DETAILS OF 234'-0" CONTINUOUS COMPOSITE PLATE GIRDER UNIT
8TH STREET OVER I-49

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

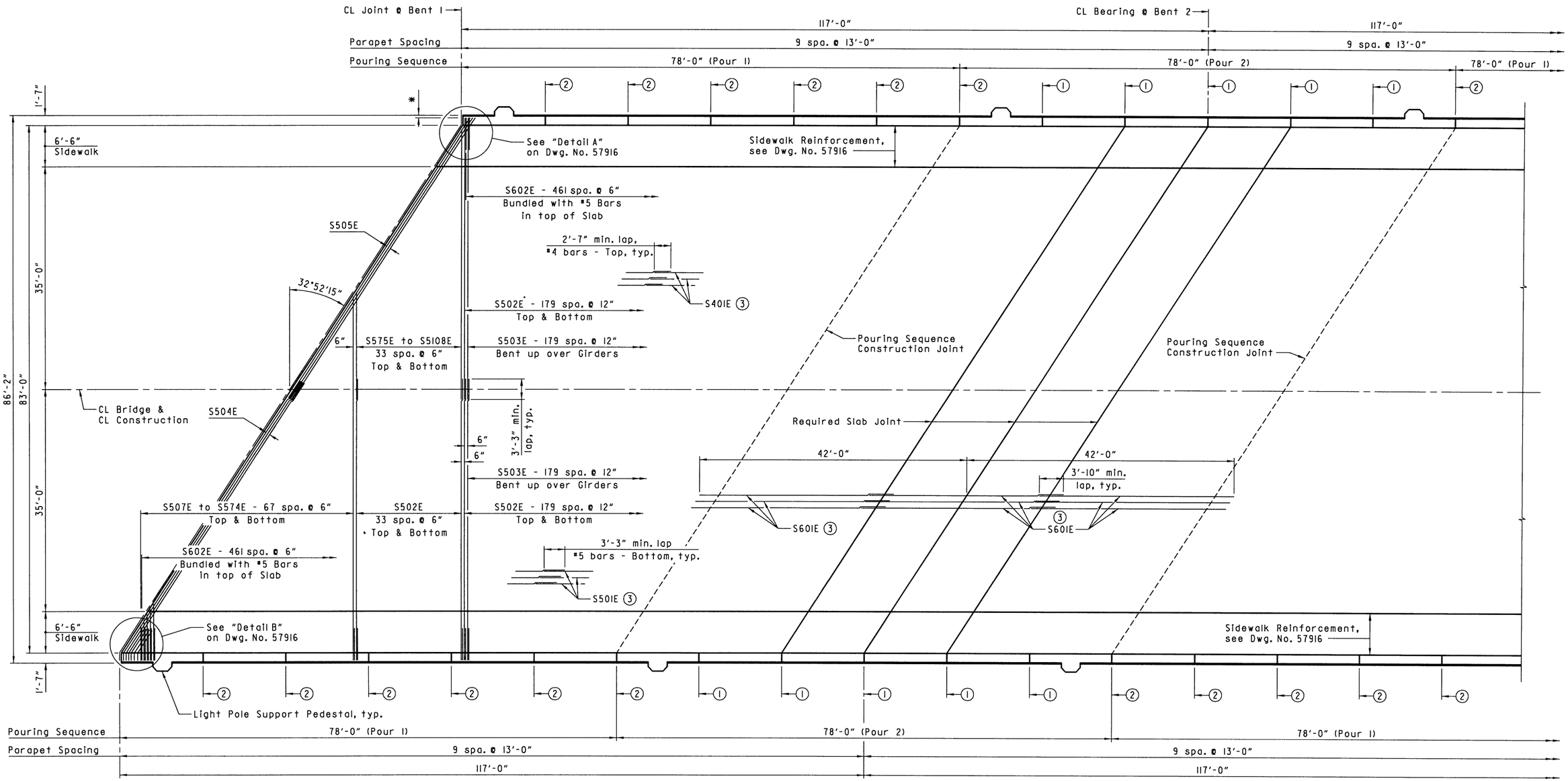
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15

FILENAME: b090376x3_s5.dgn
SCALE: AS NOTED

BRIDGE NO. 07370 DRAWING NO. 57913

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.		090376	229	555
				(1) 07370		234 FT. UNIT		57914



(1) CL Full-Depth Parapet Joint (¼" to 1" max.). Stop 4" from top of sidewalk, see Dwg. No. 57917.

(2) CL Partial-Depth Parapet Joint (¼" to 1" max.). Stop 1'-2" from top of sidewalk, see Dwg. No. 57917.

(3) Place as shown in "Typical Roadway Section", see Dwg. No. 57909.

* Typical 2" Clear Cover unless otherwise noted.

REINFORCING PLAN & DECK POURING SEQUENCE

Scale: ⅛" = 1'-0"

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 16183 JERROD D. REVERSON

9.2.2016

BRIDGE ENGINEER

SHEET 6 OF 13
DETAILS OF 234'-0" CONTINUOUS COMPOSITE PLATE GIRDER UNIT 8TH STREET OVER I-49

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

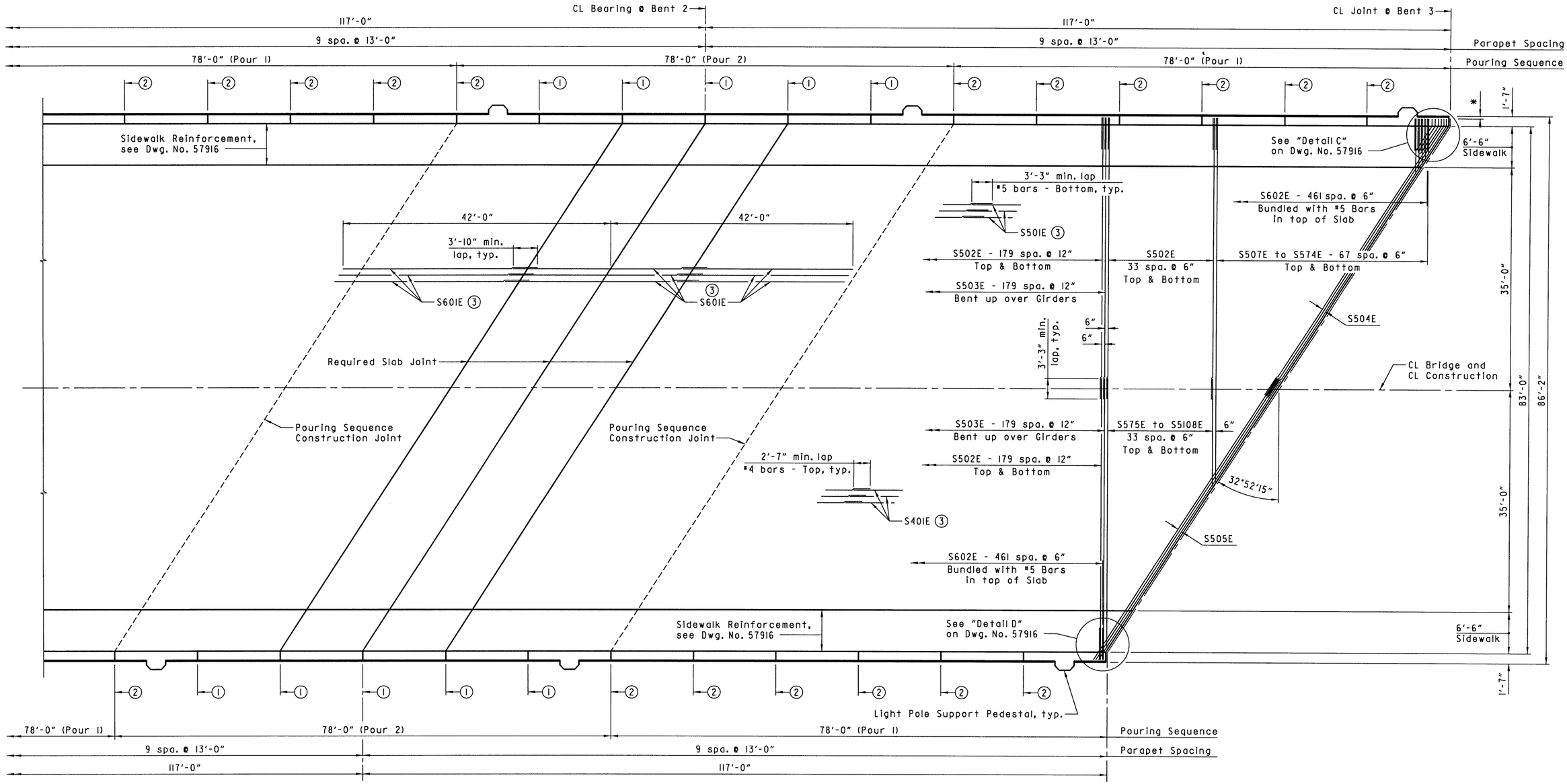
DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376x3_s6.dgn

CHECKED BY: JDS DATE: 10/30/15 SCALE: ⅛" = 1'-0"

DESIGNED BY: TG DATE: 10/30/15

BRIDGE NO. 07370 DRAWING NO. 57914

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.		090376	230	555
				① 07370		234 FT. UNIT		57915



① CL Full-Depth Parapet Joint (¼" to 1" max.). Stop 4" from top of sidewalk, see Dwg. No. 57917.

② CL Partial-Depth Parapet Joint (¼" to 1" max.). Stop 1'-2" from top of sidewalk, see Dwg. No. 57917.

③ Place as shown in "Typical Roadway Section", see Dwg. No. 57909.

* Typical 2" Clear Cover unless otherwise noted.

REINFORCING PLAN & DECK POURING SEQUENCE

Scale: ⅛" = 1'-0"

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 16183 JERRY D. STEVENSON

10.2.2015

BRIDGE ENGINEER

SHEET 7 OF 13
DETAILS OF 234'-0" CONTINUOUS COMPOSITE PLATE GIRDER UNIT 8TH STREET OVER I-49

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

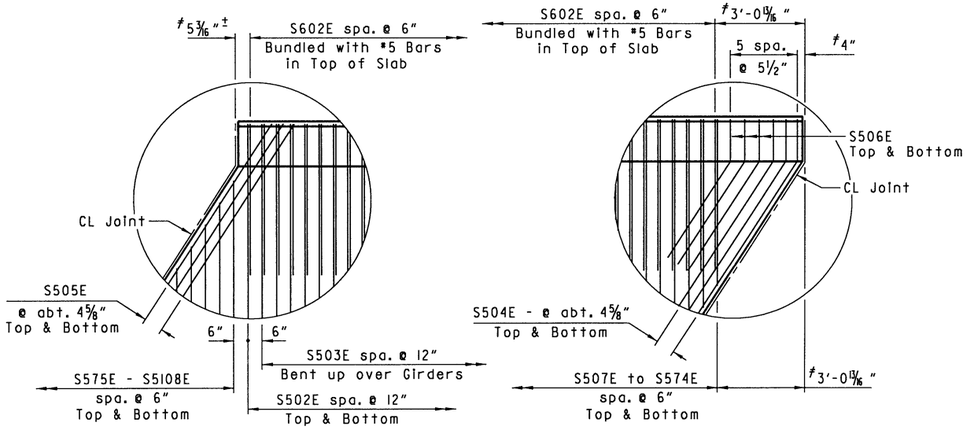
DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376x3_s7.dgn

CHECKED BY: JDS DATE: 10/30/15 SCALE: ⅛" = 1'-0"

DESIGNED BY: TG DATE: 10/30/15

BRIDGE NO. 07370 DRAWING NO. 57915

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.		090376	231	555
				(1) 07370		234 FT. UNIT		57916

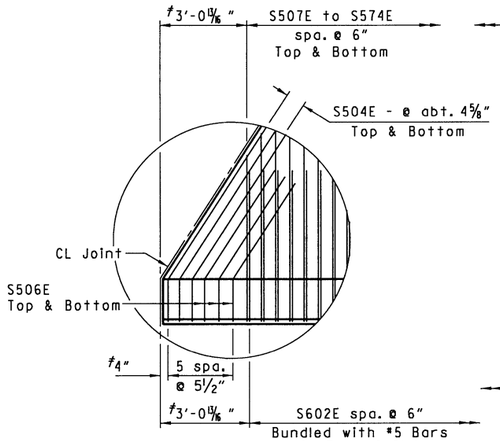


DETAIL A

Scale: 3/8" = 1'-0"

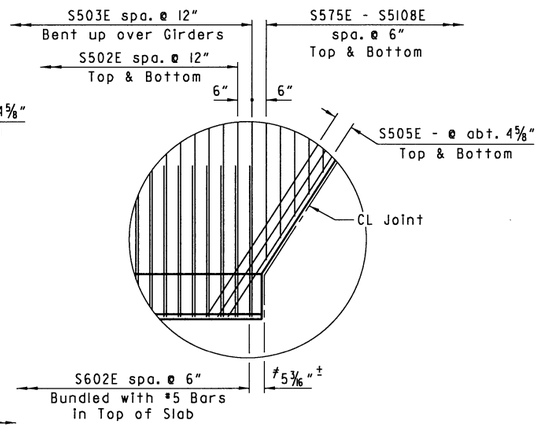
DETAIL C

Scale: 3/8" = 1'-0"



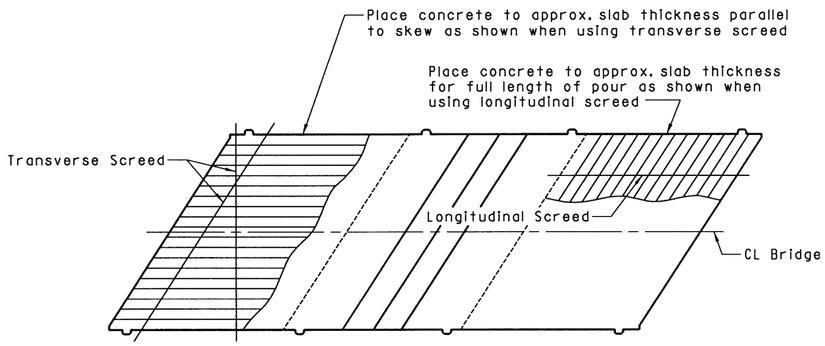
DETAIL B

Scale: 3/8" = 1'-0"



DETAIL D

Scale: 3/8" = 1'-0"

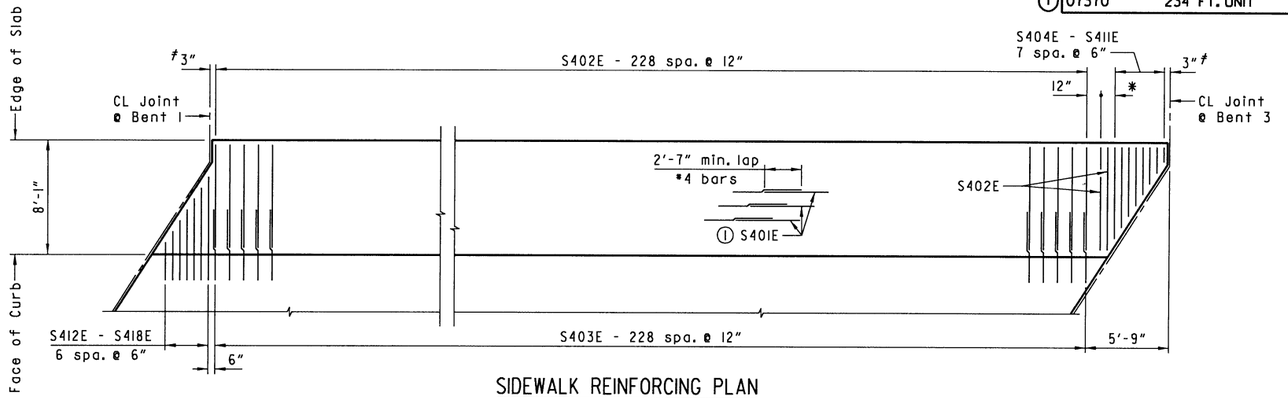


NOTE:

At the Contractor's option, the transverse screed may be placed parallel to the skew or perpendicular to CL Bridge.

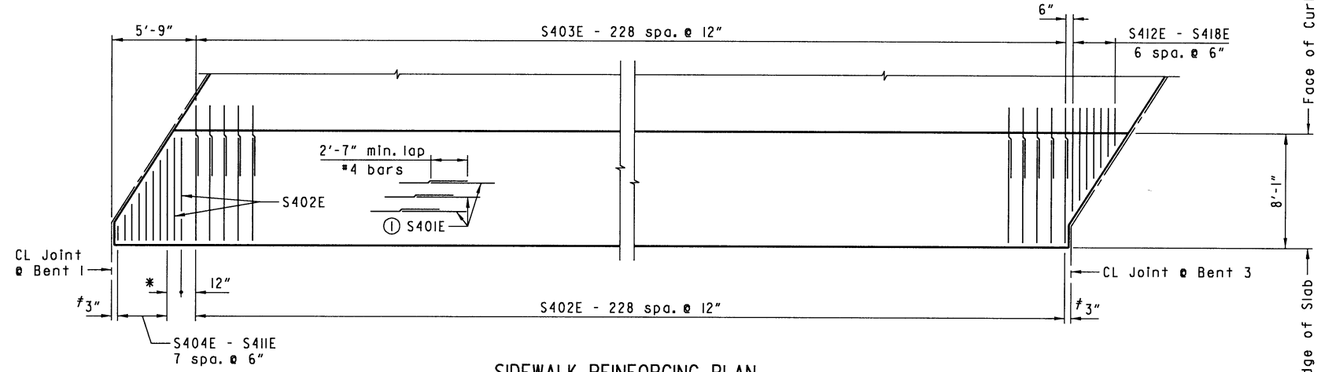
CONCRETE PLACEMENT PROCEDURE

No Scale



SIDEWALK REINFORCING PLAN

Scale: 3/16" = 1'-0"



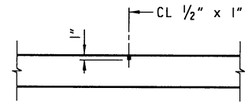
SIDEWALK REINFORCING PLAN

Scale: 3/16" = 1'-0"

♯ Measured from CL Joint.

* 2 spa. @ 6"

(1) Place as shown in "Sidewalk Detail", Dwg. No. 57910.



NOTES:

Pours with the same number may be placed simultaneously or separately. All Pours (1) must be placed before Pour (2) can be placed. 48 hours shall elapse before the end of a pour and the start of the next pour. 72 hours shall elapse between the end of a pour and the start of an adjacent pour. Any parapet railing or sidewalk pours made before the entire slab unit has been placed must be approved by the Engineer. A minimum of 72 hours shall elapse between the completion of the entire deck and the pouring of the sidewalk, and a minimum of 72 hours shall elapse between completion of the sidewalk and the pouring of the parapet railing.

The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence shown.

Concrete in bridge superstructure shall be consolidated for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

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. 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.

SLAB JOINT DETAIL

No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
10.2.2015

BRIDGE ENGINEER

SHEET 8 OF 13
DETAILS OF 234'-0" CONTINUOUS
COMPOSITE PLATE GIRDER UNIT
8TH STREET OVER I-49

ROUTE SEC.

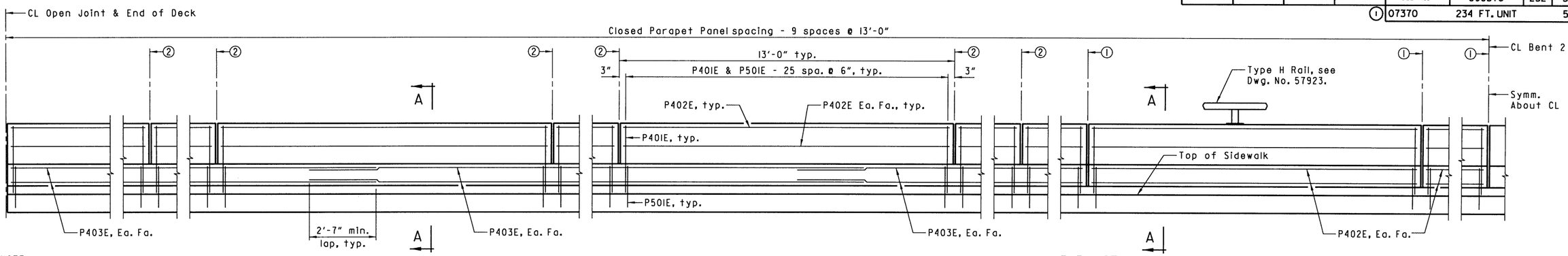
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376x3_s8.dgn
CHECKED BY: JDS DATE: 10/30/15 SCALE: AS SHOWN
DESIGNED BY: TG DATE: 10/30/15

BRIDGE NO. 07370 DRAWING NO. 57916

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.		090376	232	555
				(1) 07370		234 FT. UNIT		57917



NOTE:

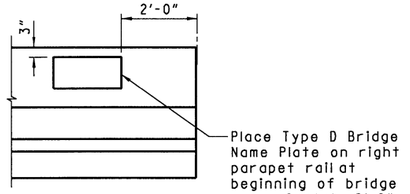
For location of full and partial depth joints, see "Reinforcing Plan and Deck Pouring Sequence", Dwg. Nos. 57914 & 57915.

① CL Full-Depth Parapet Joint (¼" to 1" max.). Stop 4" from top of Sidewalk.

② CL Partial-Depth Parapet Joint (¼" to 1" max.). Stop 1'-2" from top of Sidewalk.

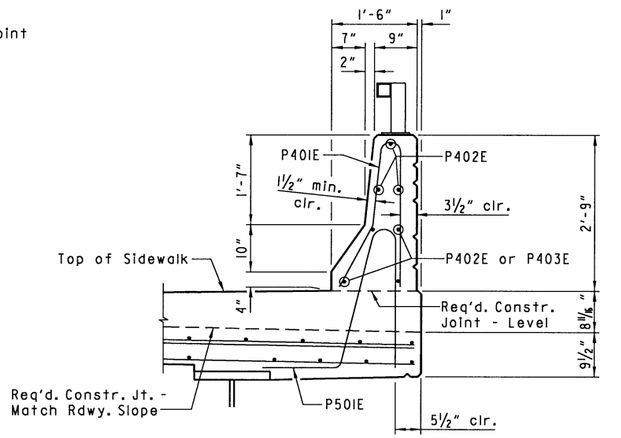
ELEVATION - CONCRETE PARAPET RAIL

(Looking @ Roadway Face of Parapet)
Scale: ½" = 1'-0"



VIEW SHOWING LOCATION OF NAME PLATE

Scale: ½" = 1'-0"

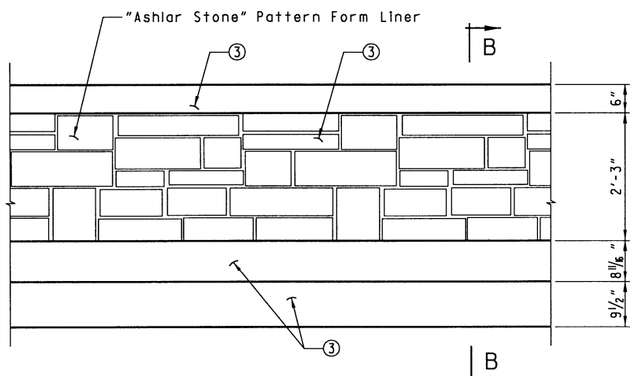


SECTION A-A

Scale: ¾" = 1'-0"

NOTE:

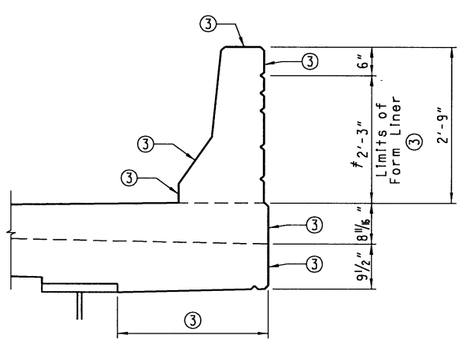
Form liner shall be a max. depth of 2" to provide a min. clearance of 1½" to parapet reinforcing.



PANEL ELEVATION

Scale: ¾" = 1'-0"

③ Class 3 Textured Coating Finish (Color = Gray, Color Chip No. 37150).



≠ "Ashlar Stone" Pattern

SECTION B-B

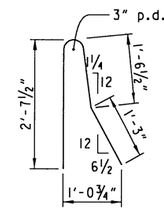
Scale: ¾" = 1'-0"

BAR LIST

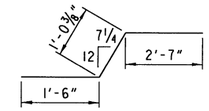
MARK	NO. REQ'D.	LENGTH	PIN. DIA.
P401E	936	5'-6"	3"
P402E	140	12'-8"	Str.
P403E	48	32'-0"	Str.
P501E	936	6'-3"	3¾"
S401E	735	35'-7"	Str.
S402E	462	7'-7"	Str.
S403E	458	5'-1"	3"
S404E-S411E	2 Ea.	1'-4"-6'-9"	Str.
S412E-S418E	2 Ea.	3'-2"-7'-9"	3"
S501E	580	49'-4"	Str.
S502E	856	44'-7"	Str.
S503E	360	45'-8"	3"
S504E	12	52'-6"	3¾"
S505E	12	52'-9"	Str.
S506E	12	6'-4"	3¾"
S507E-S574E	4 Ea.	5'-11"-57'-6"	Str.
S575E-S5108E	4 Ea.	17'-1"-42'-7"	Str.
S601E	258	30'-7"	Str.
S602E	924	5'-2"	Str.

BENDING DIAGRAM

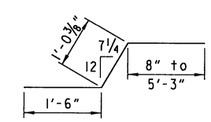
Dimensions are out to out of bars.



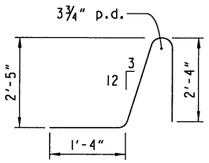
P401E



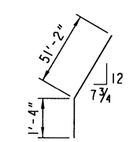
S403E



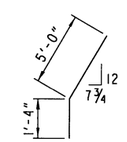
S412E TO S418E



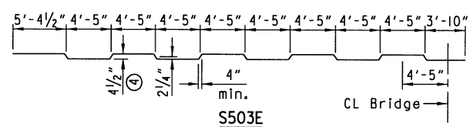
P501E



S504E



S506E



S503E

④ ½" over tolerance, no under tolerance

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 16183 JERRY D. STEVENSON

C.I. 2016

BRIDGE ENGINEER

SHEET 9 OF 13
DETAILS OF 234'-0" CONTINUOUS COMPOSITE PLATE GIRDER UNIT 8TH STREET OVER I-49

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376x3_s9.dgn
CHECKED BY: JDS DATE: 10/30/15 SCALE: AS NOTED
DESIGNED BY: TG DATE: 10/30/15

BRIDGE NO. 07370 DRAWING NO. 57917

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.		090376	233	555
				(1) 07370		234 FT. UNIT		57918

GENERAL NOTES - SUPERSTRUCTURE:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 2014 edition with applicable Supplemental Specifications and Special Provisions.

DESIGN SPECIFICATION: AASHTO LRFD Bridge Design Specifications (Sixth Edition, 2012) with current interim specifications.

MATERIAL AND STRENGTHS:

Class S(AE) Concrete	f'c = 4,000 psi
Reinforcing Steel (Grade 60, AASHTO M 31 or M 322, Type A)	fy = 60,000 psi
Structural Steel (AASHTO M 270, Gr. 50)	Fy = 50,000 psi
Structural Steel (AASHTO M 270, Gr. 36)	Fy = 36,000 psi

CONCRETE:
Concrete shall be poured in the dry and all exposed corners to be chamfered ¾" unless otherwise noted. All concrete shall be Class S(AE) with a minimum 28-day compressive strength f'c = 4,000 psi. 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 Deck Forms are used.

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. The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence shown.

The concrete deck, except sidewalks, shall be given a tine finish in accordance with Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish. Sidewalks shall be given a 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 girder. If a longitudinal strike-off is used, a vertical camber adjustment must be made in the strike-off to account for the future dead load deflection due to the parapet railing and sidewalk. A minimum of 72 hours shall elapse between completion of the slab and the start of the sidewalk pour. A minimum of 72 hours shall elapse between completion of the sidewalk pour and the beginning of the parapet railing pour.

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. 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:
All structural steel shall be AASHTO M 270, Grade 50 unless otherwise noted and shall be paid for as "Structural Steel in Plate Girder Spans (M 270, Gr. 50)". All structural steel shall be cleaned in accordance with Subsection 807.84 unless otherwise noted. Structural steel completely embedded in concrete may be AASHTO M 270, Gr. 36 or Gr. 50 unless otherwise noted. See Dwg. No. 57922 for cleaning requirements of external load plates on elastomeric bearings.

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.

All structural steel except galvanized steel and steel which is completely encased in concrete shall be painted in accordance with Subsection 807.75. The color of paint shall conform to Federal Standard 595B, Color Chip No. 26122 (semi-gloss), Dark Gray.

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.

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 plan quantities.

All girder webs & flanges of plate girder and field splice plates 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. 50)".

All girders shall be blocked in their true position in the shop with the webs horizontal in groups as specified in Subsection 807.54(b)(2). The camber, length of sections, distance between bearings and openings of joints shall be measured with the girders in their true position and this information shall become part of the permanent records for this job. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram. All girder dimensions are based on a temperature of 60 degrees F. A tolerance of ¼"+/- is allowed for camber.

Groove welds in flange and web plates shall be Quality Control (Q.C.) tested by nondestructive testing, as required by the governing specifications, in Subsection 807.23(b). Fillet welds at flange to web plate connections shall be Quality Control (Q.C.) tested by the magnetic particle method. All Quality Control (Q.C.) testing is at the Contractor's expense.

Steel plates for main load carrying members (flanges and web plates) and 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.

Girder webs may be made by shop splicing with a minimum length of 25'-0" for sections. Flange plates longer than 50'-0" may be made by shop splicing with a minimum length of 25'-0" for sections. Material specifications and locations of shop-welded splice, if any, shall be shown on the shop drawings. No additional payment for these splices will be made.

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.

Field connections shall be bolted with high-strength bolts and shall be ¾"ø bolts unless otherwise noted. Holes for ¾"ø bolts shall be 15/16 "ø unless otherwise noted. Bolts shall be placed with heads on the outside face of the exterior girder webs and on the bottom of the beam flanges.

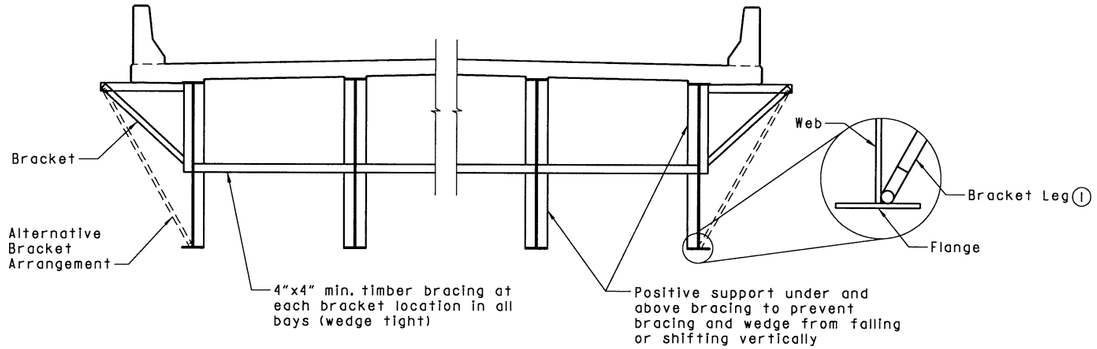
Unless otherwise noted, cross-frames shall be installed as girders are erected. All bolts in cross-frames and field splices shall be installed and tightened in accordance with Subsection 807.71 prior to pouring the concrete deck.

All stud shear connectors shall be granular flux filled, solid fluxed or equal and shall be automatically end welded in accordance with the recommendations of the Manufacturer.

Bearings shall be seated in accordance with Subsection 808.08. This work and material is to be considered subsidiary to the item "Structural Steel in Plate Girder Spans (M 270, Gr. 50)" and will not be paid for directly.

All contact surfaces between plates at the field splices shall be free of paint, oil, rust or scale before assembly.

(1) The brackets shall be installed in a manner that avoids any nicks or gouges in the flange, web and weld.



SCREED RAIL SUPPORT DETAIL

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 ½"x5¾" web stiffeners are welded to the insides of the exterior girders at the location of each bracket or if the alternate bracket shown above is used. The alternate bracket arrangement shall extend down to the junction of the web and bottom flange. The stiffeners shall conform to the details for cross-frame connection plates shown on Dwg. No. 57912. 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" (M 270, GR. 50)."

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. WEBSTER

6.2.2016

BRIDGE ENGINEER

SHEET 10 OF 13
DETAILS OF 234'-0" CONTINUOUS COMPOSITE PLATE GIRDER UNIT
8TH STREET OVER I-49

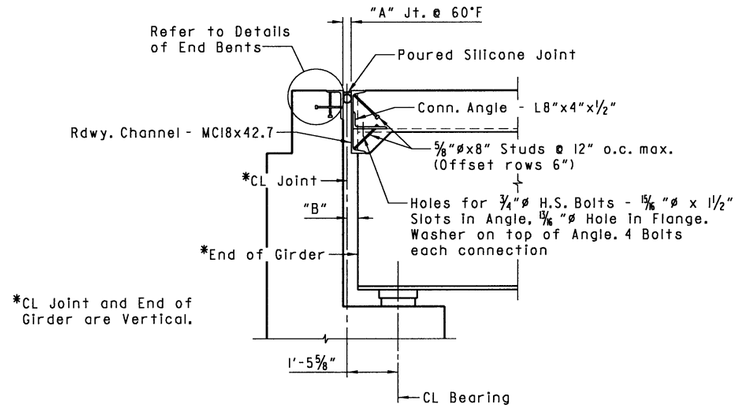
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x3_sl0.dgn
SCALE: NO SCALE

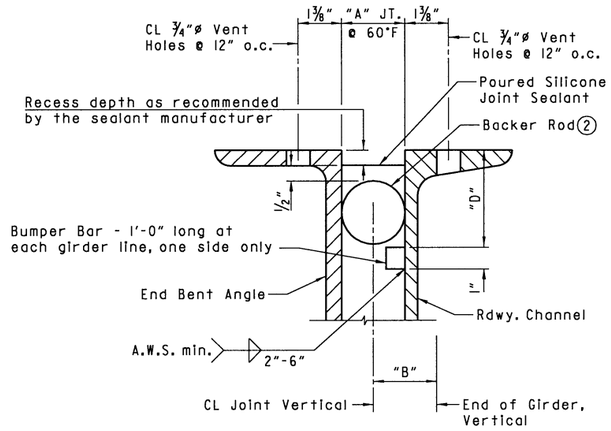
BRIDGE NO. 07370 DRAWING NO. 57918

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.		090376	234	555
				(1) 07370		234 FT. UNIT		57919

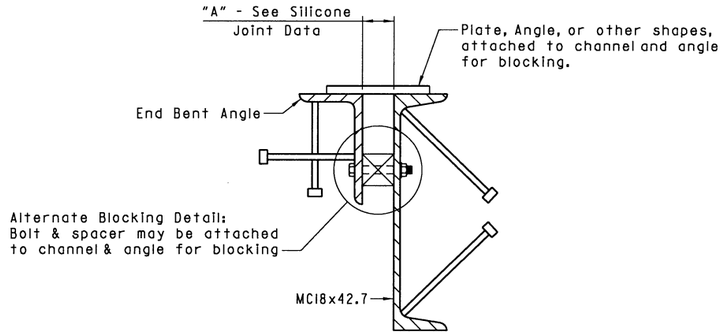


JOINT AT END BENTS

Perpendicular to CL Joint



DETAIL OF POURED SILICONE JOINT SEAL



NOTE:

Each expansion joint device shall be blocked in the Shop by the Fabricator to the dimension "A" shown @ 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

SILICONE JOINT DATA

BENT NUMBER	"A" WIDTH PERPENDICULAR TO JOINT AT 24 HOUR AVERAGE TEMPERATURE (1) OF:			"B" PERPENDICULAR TO JOINT AT 60°F	BUMPER BAR SIZE	"D"
	40°F	60°F	80°F			
1 & 3	2 3/16"	2"	1 13/16"	± 2¼"	1"x1"	4½"

(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.

Notes: 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.

(2) BACKER ROD NOTE:

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.

Except as noted, do not install more backer rod than that which 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.

EXPANSION DEVICE INSTALLATION AT END BENTS

The Contractor may elect to install the expansion device for the end bents 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 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, the opening adjusted for temperature, and the backwall constructed.

2. The backwall shall be poured to the optional construction joint after 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. Backfill shall not be placed behind the backwall until the deck concrete on the adjacent span has been placed.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 16183 JERRY D. STEVENSON

BRIDGE ENGINEER

SHEET 11 OF 13
DETAILS OF 234'-0" CONTINUOUS COMPOSITE PLATE GIRDER UNIT
8TH STREET OVER I-49

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376x3_sil.dgn
CHECKED BY: JDS DATE: 10/30/15 SCALE: NO SCALE
DESIGNED BY: TG DATE: 10/30/15

BRIDGE NO. 07370 DRAWING NO. 57919

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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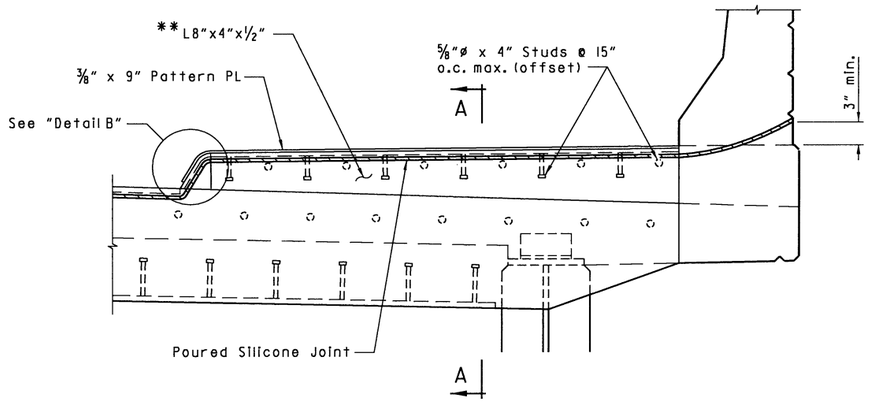
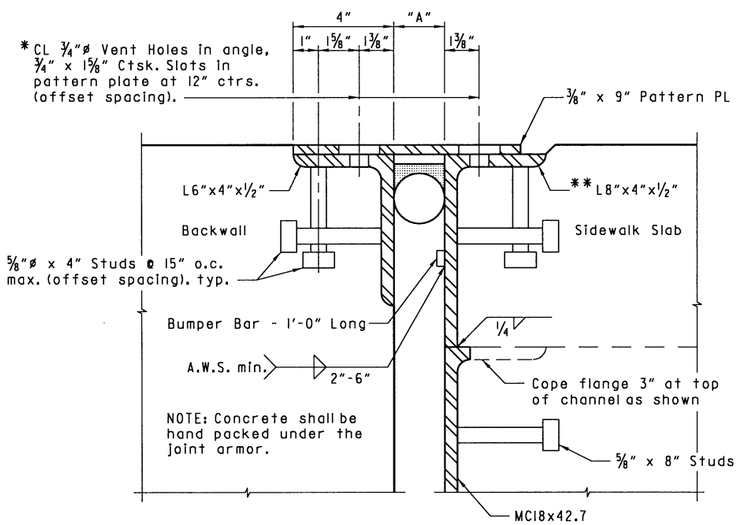
				JOB NO.		090376	235	555
				(1) 07370		234 FT. UNIT		57920



SECTION THROUGH SIDEWALK

No Scale

Note: Install seal in slab joint and parapet joint with damming procedure as recommended by the Manufacturer. The sealant shall be recessed to prevent damage and be allowed to cure prior to removal of the outer damming material.

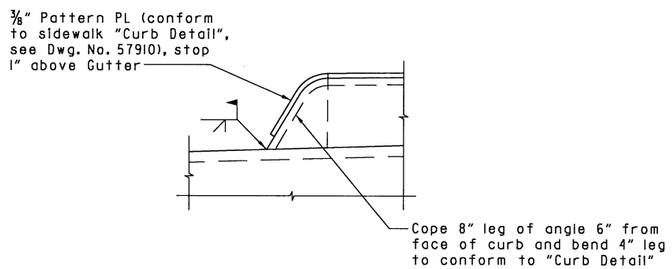


SECTION A-A

No Scale

* ¾" x 1⅝" Ctsk. Slots in ⅜" Pattern Plates. Tap 4" leg of angle for ⅞"ø Flat Head Cap Screws @ 12" o.c. Install screws in the shop and ship as a unit. Remove screws on one side after erection is complete.

** Trim vertical leg of L8"x4"x½" as needed.



DETAIL B

No Scale

The surfaces of the ⅜" plates shall be painted with aluminum epoxy paint in accordance with Section 638, or as approved by the Engineer. Only one coat is required and shall be applied in the Fabricator's shop. Painting will not be paid for directly, but will be considered subsidiary to "Structural Steel in Plate Girder Spans (M 270, Gr. 50)".

STATE OF ARKANSAS
JERRY D. STEVENSON
REGISTERED PROFESSIONAL ENGINEER
No. 16183
12-2-2016
BRIDGE ENGINEER

SHEET 12 OF 13
DETAILS OF 234'-0" CONTINUOUS COMPOSITE PLATE GIRDER UNIT
8TH STREET OVER I-49

ROUTE SEC.

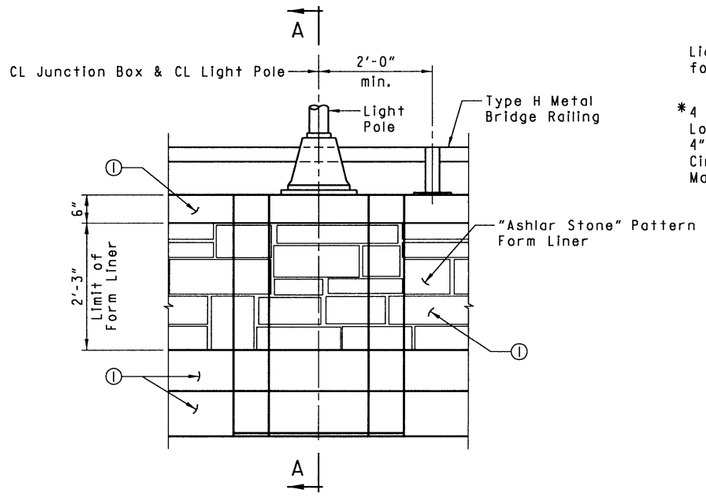
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376x3_sl2.dgn
CHECKED BY: JDS DATE: 10/30/15 SCALE: NO SCALE
DESIGNED BY: TG DATE: 10/30/15

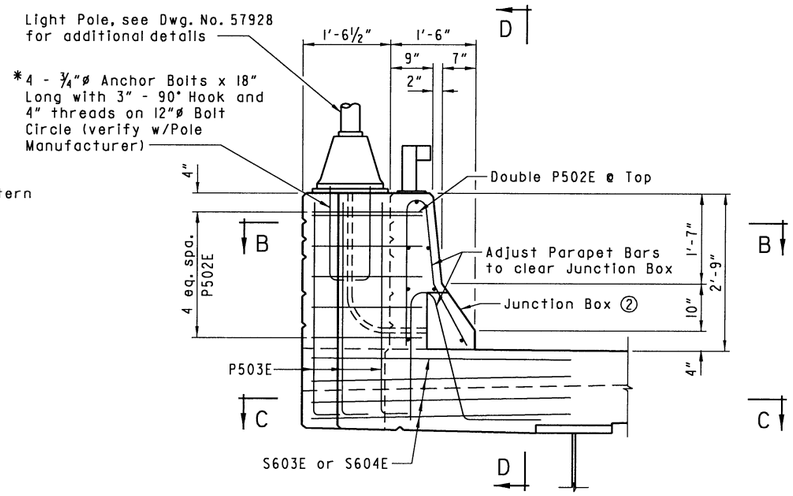
BRIDGE NO. 07370 DRAWING NO. 57920

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.		090376	236	555
				(1) 07370		234 FT. UNIT		57921



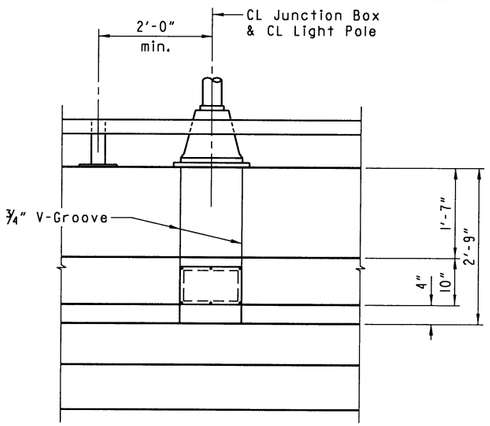
ELEVATION SHOWING LIGHT POLE SUPPORT DETAIL

For locations see Dwg. No. 57890
Scale: 3/4" = 1'-0"



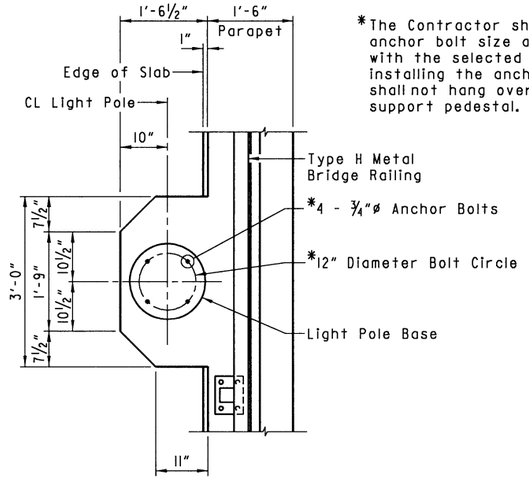
SECTION A-A

Scale: 3/4" = 1'-0"



VIEW D-D

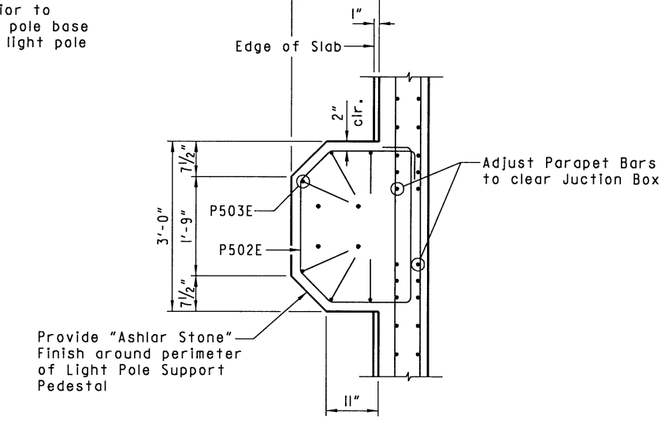
Scale: 3/4" = 1'-0"



PLAN - LIGHT POLE SUPPORT PEDESTAL

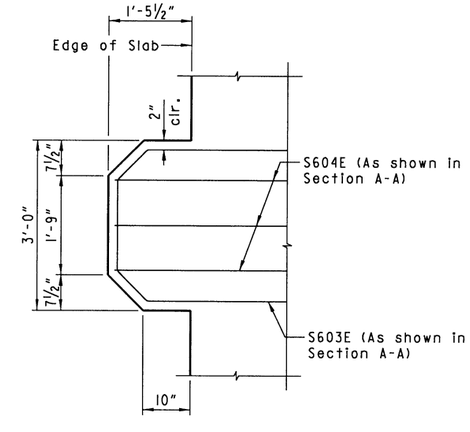
For locations see Dwg. No. 57890
Scale: 3/4" = 1'-0"

*The Contractor shall verify the required anchor bolt size and corresponding bolt circle with the selected light pole base prior to installing the anchor bolts. The light pole base shall not hang over the face of the light pole support pedestal.



SECTION B-B

Scale: 3/4" = 1'-0"

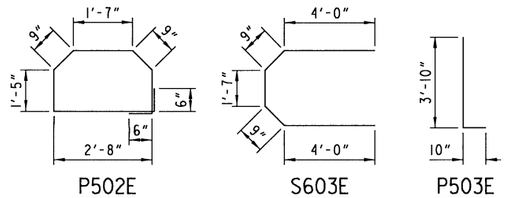


SECTION C-C

Scale: 3/4" = 1'-0"

BAR LIST

MARK	NO. REQ'D.	LENGTH	PIN. DIA.	BENDING DIAGRAM
P502E	48	9'-4"	2 1/2"	Dimensions are out to out of bars.
P503E	48	4'-7"	3 3/4"	
S603E	32	11'-1"	4 1/2"	
S604E	96	4'-0"	Str.	



(1) Class 3 Textured Coating Finish (Color = Gray, Color Chip No. 37150).

(2) For details of Junction Box, Conduits and Expansion Fittings, see Dwg. No. 57928.

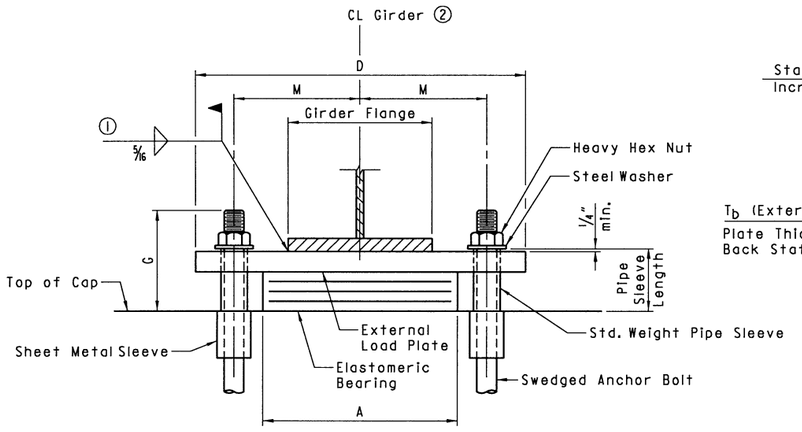
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. PETERSON
C. 2. 2016
BRIDGE ENGINEER

SHEET 13 OF 13
DETAILS OF 234'-0" CONTINUOUS COMPOSITE PLATE GIRDER UNIT
8TH STREET OVER I-49
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: JDS DATE: 10/30/15
DESIGNED BY: TG DATE: 10/30/15
FILENAME: b090376x3_sl3.dgn
SCALE: 3/4" = 1'-0"

BRIDGE NO. 07370
DRAWING NO. 57921

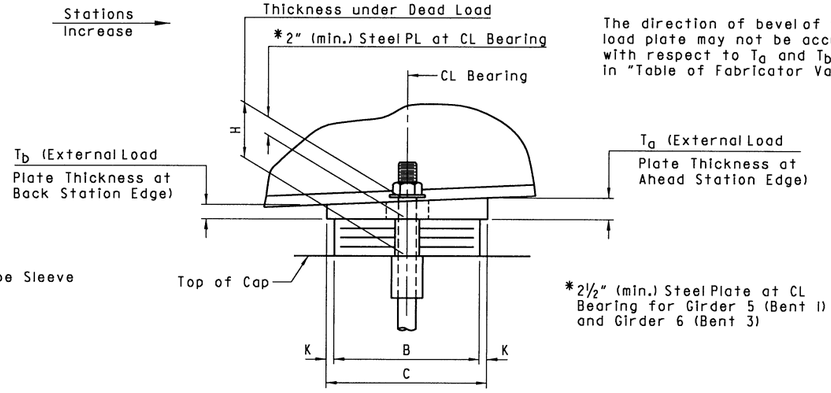
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	237	555
				① 07370		ELASTO. BRGS.		57922



FRONT VIEW

① Care shall be taken to ensure that the external load plate is in full complete contact with the girder flange before welding begins.

② Centerline of the elastomeric pad shall be aligned with centerline of the girder.

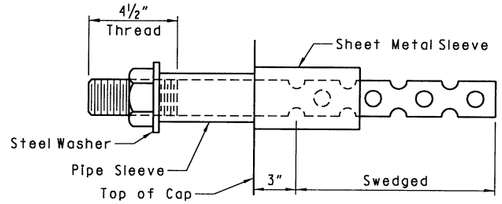


*2½" (min.) Steel Plate at CL Bearing for Girder 5 (Bent 1) and Girder 6 (Bent 3)

SIDE VIEW

NOTE:

The direction of bevel of the external load plate may not be accurately depicted with respect to T_a and T_b values shown in "Table of Fabricator Variables".

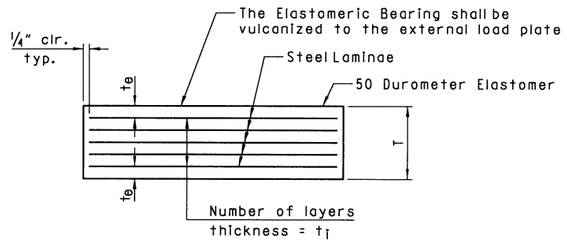


ANCHOR BOLT DETAIL

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 masonry. 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 sleeve will not be paid for directly, but will be considered subsidiary to the item "Structural Steel in Plate Girder Spans, (M 270, Gr. 50)".



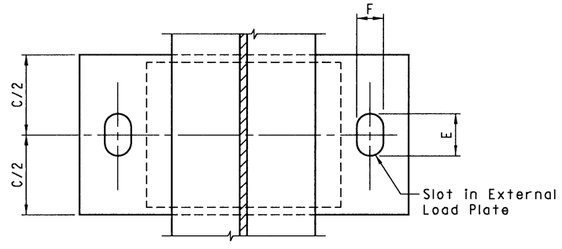
ELASTOMERIC BEARING

t_e = thickness of elastomer cover on top and bottom of pad

t_1 = thickness of elastomer between steel laminae

N = number of elastomer layers of thickness t_1

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 Deg. F and 80 Deg. 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.



PLAN VIEW

GENERAL NOTES

Elastomeric Bearings shall conform to Section 808 of the Standard Specifications and shall be paid for at the unit price bid for "Elastomeric Bearings".

External load plates shall conform to AASHTO M 270, Grade 50. Pipe sleeves shall be ASTM A500, Grade B, and shall be galvanized to conform to AASHTO M 232, Class C or AASHTO M 298, Class 50.

External load plates shall be completely fabricated (including bevel and bolt holes) and shall be cleaned before vulcanizing to the elastomeric bearing. The surface 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 painted in accordance with Subsection 807.75. Mask areas of field welding. The color of paint shall conform to Federal Standard 595B, Color Chip No. 26122 (semi-gloss), Dark Gray. Painting will not be paid for directly, but shall be considered subsidiary to "Elastomeric Bearings".

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 (M 270, Gr. 50)". External Load Plates will not be measured or paid for separately, but will be considered included in the unit price bid for "Elastomeric Bearings".

Bearings shall be seated in accordance with Subsection 808.08. This work and materials are considered as subsidiary to the item "Elastomeric Bearings" and will not be paid for directly.

TABLE OF FABRICATOR VARIABLES

BRIDGE NO.	LOCATION BENT NO(S).	LOCATION GIRDER NO.	BEARING TYPE	NO. OF BEARINGS EACH BENT	*MAXIMUM DESIGN LOAD (KIPS)	G	H	ELASTOMERIC PAD A	B	N	t_1	t_e	NO. & THICKNESS OF STEEL LAMINAE	T	EXTERNAL LOAD PLATE 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.)
07370	1	1-4, 6-10	Exp.	9	164	8"	5"	18"	12"	4	½"	¼"	5 @ 12 Gauge	3"	13"	29"	4⅝"	2⅝"	½"	11½"	2.04"	1.96"	1¾"x31"	55	2"x5¼"	4"x16"	3⅜"
	1	5	Exp.	1	164	8½"	5½"	18"	12"	4	½"	¼"	5 @ 12 Gauge	3"	13"	29"	4⅝"	2⅝"	½"	11½"	2.54"	2.46"	1¾"x31"	55	2"x5¾"	4"x16"	3⅜"
	2	All	Fix	10	456	9¼"	5"	22"	14"	4	½"	¼"	5 @ 12 Gauge	3"	15"	35"	3¾"	3¾"	½"	14"	2.00"	2.00"	2¾"x42"	55	3"x5¼"	5"x16"	5"
	3	1-5, 7-10	Exp.	9	164	8"	5"	18"	12"	4	½"	¼"	5 @ 12 Gauge	3"	13"	29"	4⅝"	2⅝"	½"	11½"	1.95"	2.05"	1¾"x31"	55	2"x5¼"	4"x16"	3⅜"
	3	6	Exp.	1	164	8½"	5½"	18"	12"	4	½"	¼"	5 @ 12 Gauge	3"	13"	29"	4⅝"	2⅝"	½"	11½"	2.45"	2.55"	1¾"x31"	55	2"x5¾"	4"x16"	3⅜"

*Maximum Design Load = Service I Limit State

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
9.2.2016
BRIDGE ENGINEER

DETAILS OF ELASTOMERIC BEARINGS
8TH STREET OVER I-49

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376x3_el.dgn

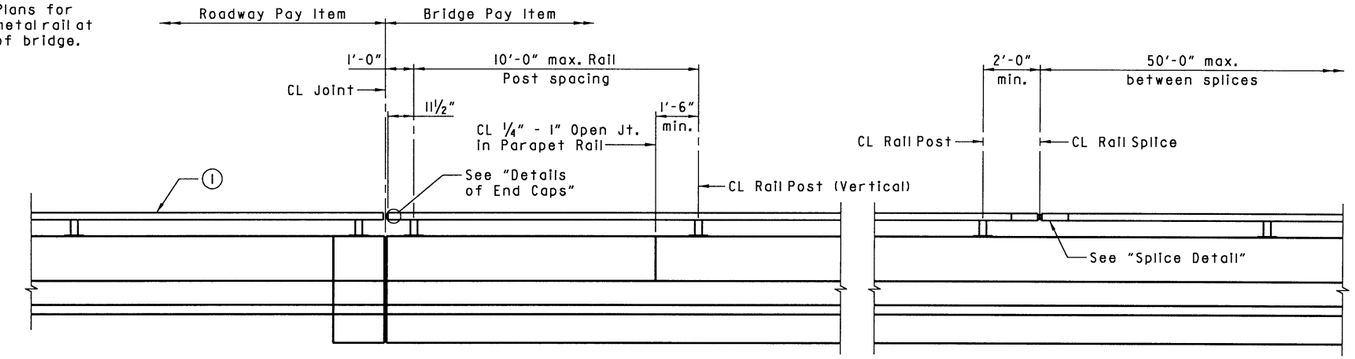
CHECKED BY: JDS DATE: 10/30/15 SCALE: NO SCALE

DESIGNED BY: TG DATE: 10/30/15

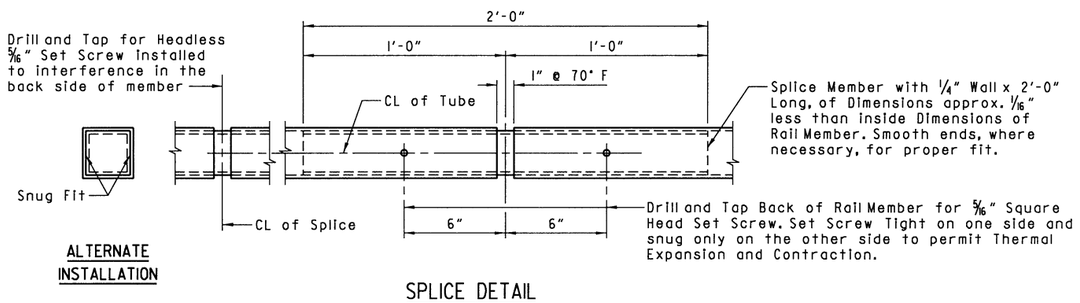
BRIDGE NO. 07370 DRAWING NO. 57922

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.		090376	238	555
				① 07370		TYPE H RAIL		57923

① See Roadway Plans for locations of metal rail at each corner of bridge.

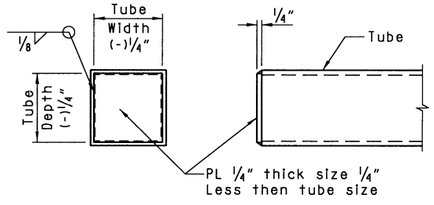


RAIL POST SPACING DETAIL



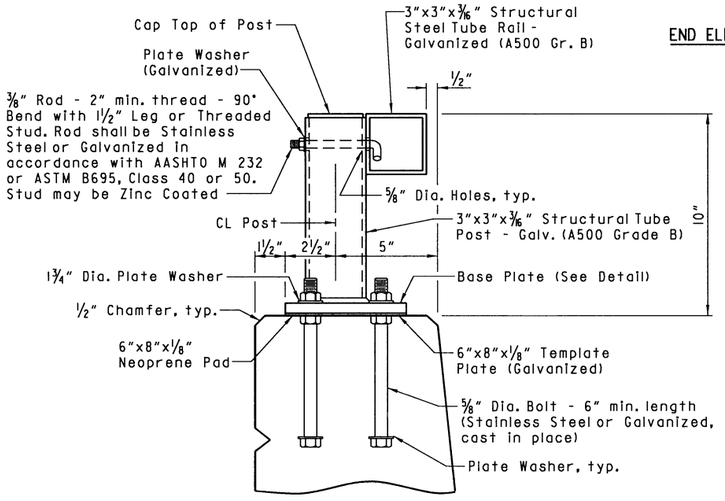
ALTERNATE INSTALLATION

SPLICE DETAIL



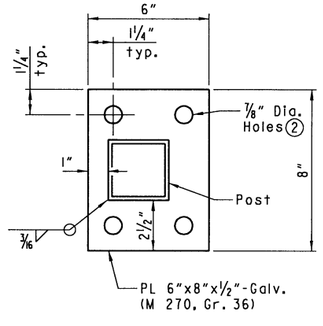
END ELEVATION SIDE ELEVATION

DETAILS OF END CAPS



DETAILS OF POST ANCHOR SYSTEM

(CAST IN PLACE BOLTS)



BASE PLATE

NOTES FOR BRIDGE RAILING:

Rail layout shall conform to vertical and horizontal alignment of bridge. All post shall be vertical.

Maximum post spacing = 10'-0"

Minimum distance from centerline post to centerline open or contraction joints in parapet = 1'-6".

Rail splices shall be at 50' maximum spacing. Centerline splices shall be located at a minimum of 2 feet from centerline of post. Rail sections shall be fabricated to attach to at least three posts.

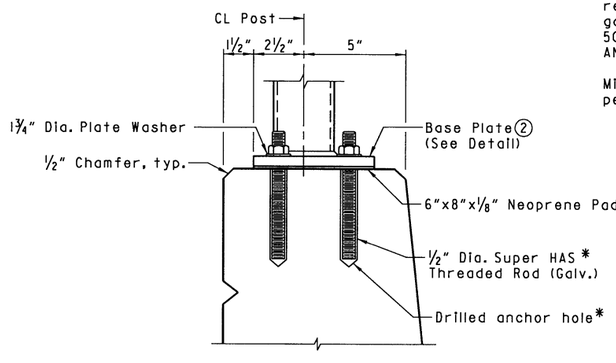
Base plates shall not be placed upon areas that are improperly finished, deformed or irregular.

Metal bridge railing, including post, fasteners, base plates, template plates, anchor bolts, neoprene pads, galvanizing and powder coatings shall be paid for at the contract unit price bid per linear foot for "Metal Bridge Railing (Type H)".

Shop drawings showing details of railing shall be submitted and approval secured before fabrication is begun.

*HILTI HIT RE 500 Epoxy Adhesive Anchor System with 4½" embedment or an approved equal.

The HILTI Epoxy Adhesive Anchor System shall be installed in accordance with Manufacturer's recommendations.



DETAILS OF ALTERNATE POST ANCHOR SYSTEM

(EPOXY ADHESIVE ANCHORS)

MATERIALS:

Tubing, Posts, and Accessories: AASHTO M 270, Gr. 36 or ASTM A500-Grade B.

Railing End Caps shall conform to AASHTO M 270, Gr. 36 galvanized.

Steel rail members shall be galvanized in accordance with AASHTO M 111 after fabrication and shall receive a powder coating process after galvanizing. Galvanizing shall not interfere with the powder coating process. Galvanized surfaces shall be prepared in accordance with Subsection 807.87 and the powder coating manufacturer's recommendations before application of the powder coating process. The powder coating process shall be a two coat system applied using electrostatic spray. The base coat shall be a thermosetting epoxy powder with a minimum thickness of 2-4 mils. The top coat shall be a tough polyester powder coat with a minimum thickness of 2-4 mils. Color shall be Bronze. Coated galvanized framework shall have a salt spray resistance of 3,000 hours using ASTM B117 without loss of adhesion. The powder coating process shall be in accordance with the Manufacturer's recommendations.

The Contractor shall submit a paint color sample prior to fabrication for Owner's approval.

Cast in place anchor bolts shall be of stainless steel or high strength steel. Stainless steel anchor bolts shall conform to ASTM A193 or A320-Grade B8 with a minimum yield strength of 80,000 psi. High strength steel anchor bolts shall conform to AASHTO M 164 or A354-Grade BC galvanized in accordance with AASHTO M 232 or ASTM B695, Class 40 or 50.

Splice Set Screws shall conform to the requirements of ASTM A193 or A320-Grade B8 (stainless steel) or AASHTO M 270, Gr. 36 (galvanized).

Nuts shall conform to AASHTO M 292, Gr. 8A (stainless steel) or galvanized in accordance with AASHTO M 232 or ASTM B695, Class 40 or 50.

Threads on bolts, screws, and nuts shall conform to American Standard Coarse Series, Class 2 FIT, ASA Specification B1.1.

Washers shall be stainless steel and conform to the requirements of ASTM A276 or A167-Type 302 with dimensions meeting ASTM F436, or high strength steel conforming to AASHTO M 293 and galvanized in accordance with AASHTO M 232 or ASTM B695, Class 40 or 50.

Plate Washers shall be stainless steel and conform to the requirements of ASTM A167-Type 302 or AASHTO M 270, Gr. 36, galvanized in accordance with AASHTO M 232 or ASTM B695, Class 40 or 50. Plate Washers shall have dimensions meeting the requirements of ANSI/ASME B18.22.1, Type A plain washer (Wide Series).

Mixing of stainless steel and galvanized fasteners will not be permitted.

NOTE:

For details of post and rail not shown, see alternate for cast in place bolts.

② Holes shall be ¾" diameter if epoxy adhesive anchors are used.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 16183 JEBRAN D. SIMPSON

BRIDGE ENGINEER

DETAILS OF TYPE H METAL BRIDGE RAILING 8TH STREET OVER I-49

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15 FILENAME: b090376x3_hr.dgn

CHECKED BY: JDS DATE: 10/30/15 SCALE: NO SCALE

DESIGNED BY: TG DATE: 10/30/15

BRIDGE NO. 07370 DRAWING NO. 57923

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.		090376	239	555
				(1) 07370		LIGHTING		57924

Lighting						
Item Number	Description	Location			Total	Unit
		Bridge	Ramp 2	Ramp 3		
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/0000 A.W.G., E.G.C.)	72			72	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/8 A.W.G., E.G.C.)	359			359	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/2 A.W.G.)	615		630	1245	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/2 A.W.G., E.G.C.)	351	530	630	1511	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/8 A.W.G.)	834	550	650	2034	LIN. FT.
SP	COMMUNICATIONS CABLE, OVERHEAD (6 PAIR, 22 A.W.G.)	557	550	635	1742	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	30			30	LIN. FT.
710	NON-METALLIC CONDUIT (1")	64			64	LIN. FT.
SP & 710	NON-METALLIC CONDUIT (2")	995	1100	1310	3405	LIN. FT.
710	NON-METALLIC CONDUIT (3")	75			75	LIN. FT.
711	CONCRETE PULL BOX (TYPE 2)	4			4	EACH
SP	ROADWAY ILLUMINATION POLE (HOLOPHANE WADSWORTH, BRIDGE MOUNTED PEDESTAL, 12')	8			8	EACH
SP	SERVICE POINT ASSEMBLY (UNDERGROUND SECONDARY SERVICE, ROADWAY LIGHTING)	1			1	EACH
SP	LIGHTING CONTROLLER ASSEMBLY	1			1	EACH
SP	LED TUNNEL LIGHTING ASSEMBLY		34	82	116	EACH

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HUNT

8/1/16

BRIDGE ENGINEER

SHEET 1 OF 5
ELECTRICAL LIGHTING DETAILS
8TH STREET OVER I-49
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

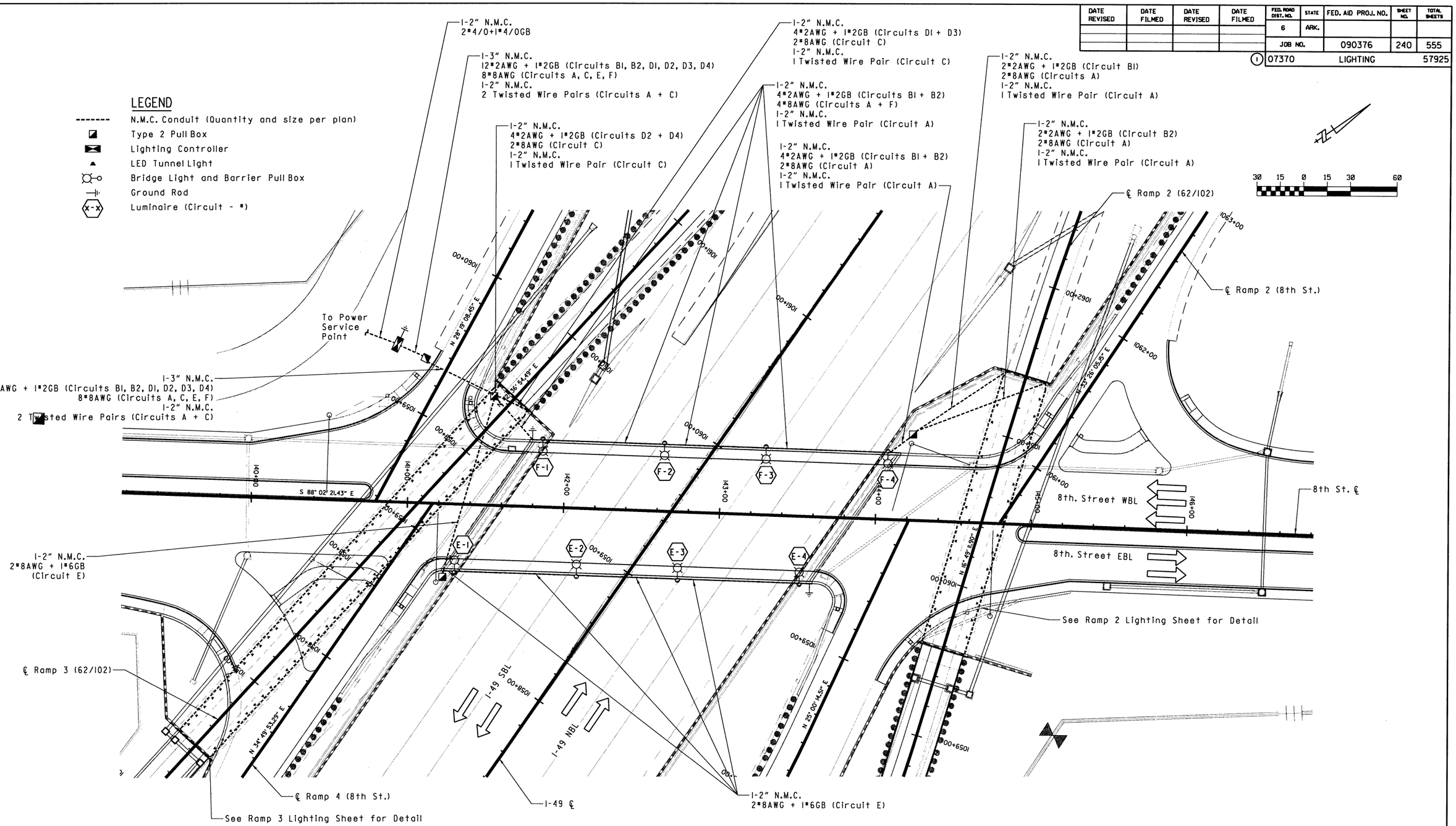
DRAWN BY: ADR DATE: 10/30/15 FILENAME: b090376x3_ELI.dgn
CHECKED BY: PH DATE: 10/30/15 SCALE:
DESIGNED BY: AWR DATE: 10/30/15

BRIDGE NO. 07370 DRAWING NO. 57924

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.		090376	240	555
				(1) 07370		LIGHTING		57925

LEGEND

- N.M.C. Conduit (Quantity and size per plan)
- Type 2 Pull Box
- Lighting Controller
- LED Tunnel Light
- Bridge Light and Barrier Pull Box
- Ground Rod
- Luminaire (Circuit - *)



NOTES

See Luminaire Schedules for exact locations.

Splice conductors as necessary to furnish a system as shown on the plans in pull boxes only.

See traffic signal plans for additional conduits in bridge rail.

Coordinate with the utility for specific requirements at power hook up.

Conduit in bridge rail shown schematically for clarity.

INFRASTRUCTURE SCHEDULE			
ITEM	℄	STA.	OFFSET
Controller	8th St.	140+93	100' Lt.
PB*1	8th St.	141+09	92' Lt.
PB*2	8th St.	141+57	70' Lt.
PB*3	8th St.	141+24	47' Rt.
PB*4	8th St.	144+22	55' Lt.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 15192 DAVID A. HURT

6/1/16

BRIDGE ENGINEER

SHEET 2 OF 5

ELECTRICAL LIGHTING DETAILS

8TH STREET OVER I-49

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: ADR DATE: 10/30/15

CHECKED BY: PH DATE: 10/30/15

DESIGNED BY: AWR DATE: 10/30/15

FILENAME: b090376x3.EL2.dgn

SCALE:

BRIDGE NO. 07370

DRAWING NO. 57925

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.		090376	241	555
				(1) 07370		LIGHTING		57926

BRIDGE LIGHTING LUMINAIRE SCHEDULE

Luminaire Number	Station (CL 8th Street)	Offset	Mount	Height	Pole	Luminaire	Type	Circuit Number	Notes
E-1	141+31.54	Rt	Barrier Blister	TBD	WDA-12-F5J-17-P07-LAB-BK	GVU-100HP-M-A-B-7-N-N-P	TBD	E	TBD
F-1	141+85.17	Lt	Barrier Blister	TBD	WDA-12-F5J-17-P07-LAB-BK	GVU-100HP-M-A-B-7-N-N-P	TBD	F	TBD
E-2	142+09.59	Rt	Barrier Blister	TBD	WDA-12-F5J-17-P07-LAB-BK	GVU-100HP-M-A-B-7-N-N-P	TBD	E	TBD
F-2	142+63.22	Lt	Barrier Blister	TBD	WDA-12-F5J-17-P07-LAB-BK	GVU-100HP-M-A-B-7-N-N-P	TBD	F	TBD
E-3	142+74.59	Rt	Barrier Blister	TBD	WDA-12-F5J-17-P07-LAB-BK	GVU-100HP-M-A-B-7-N-N-P	TBD	E	TBD
F-3	143+28.22	Lt	Barrier Blister	TBD	WDA-12-F5J-17-P07-LAB-BK	GVU-100HP-M-A-B-7-N-N-P	TBD	F	TBD
E-4	143+52.65	Rt	Barrier Blister	TBD	WDA-12-F5J-17-P07-LAB-BK	GVU-100HP-M-A-B-7-N-N-P	TBD	E	TBD
F-4	144+06.28	Lt	Barrier Blister	TBD	WDA-12-F5J-17-P07-LAB-BK	GVU-100HP-M-A-B-7-N-N-P	TBD	F	TBD

Note: Pole and Luminaire are Holophane products per City of Bentonville Standard.

VOLTAGE DROP

CIRCUIT E - 0.42%
CIRCUIT F - 0.75%

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 15192
DAVID A. HUNT

6/1/16

BRIDGE ENGINEER

SHEET 3 OF 5
ELECTRICAL LIGHTING DETAILS
8TH STREET OVER I-49
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: ADR DATE: 10/30/15
CHECKED BY: PH DATE: 10/30/15
DESIGNED BY: AWR DATE: 10/30/15

FILENAME: b090376x3_EL3.dgn
SCALE:

BRIDGE NO. 07370 DRAWING NO. 57926

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.		090376	242	555
				(1) 07370		LIGHTING		57927

GENERAL LIGHTING NOTES:

All lighting shall be staked in the field by contractor for approval by engineer. Contractor shall place the assemblies as staked locations unless directed otherwise by the engineer.

It shall be the responsibility of the contractor to protect existing and new structures such as pipes, inlets, aprons, bridges, etc. from damage which might occur during construction. The contractor shall replace or repair, as directed by the engineer, only structures damaged during the life of the contract. No payment shall be made for replacement or repair of damaged items.

Any areas disturbed during construction shall be restored by the contractor (to include grassing and site grading) as directed by the engineer.

Existing underground utility lines are shown on the drawings based upon the best information available to the engineer. The contractor shall work directly with the involved utility owners to have underground utility lines field located in advance of construction.

All lights shall be wired w/fused connectors and branch conductors as specified by the manufacturer. E.G.C. shall not be fused.

Tunnel mounted junction boxes shall be grounded to the ground wire using 1#6 GB Jumper, if using metallic box.

Tunnel lights shall be ordered w/integral junction box. Boxes shall be NEMA 4x rated, unless otherwise approved by the engineer.

All splices in pull boxes or junction boxes, no splices in conduit. No inline splices allowed without approval from Engineer.

ELECTRICAL DUCT NOTES:

Contractor shall stake the duct installation in plan elevation for new electrical ducts to avoid existing utilities, staking plan shall be approved by the engineer prior to work.

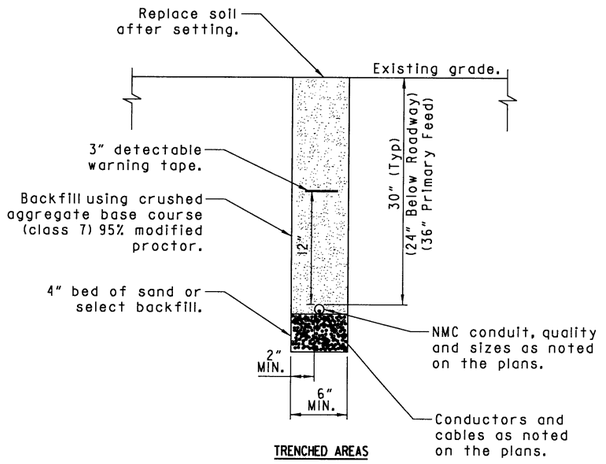
Contractor shall adjust the depth of the electrical ducts as required to maintain the minimum cover requirement indicated and avoid existing utilities.

Install duct conduit supports at 5'-0" O.C. maximum spacing (typical all ducts).

All conduit shall be SCH40 PVC unless otherwise noted. Conduit used for directional boring shall be rated and labeled as such.

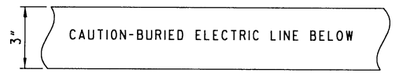
Install conductors and cables as noted on drawings. Install pullwire in all spare ducts.

Marker tape shall be a 3" wide, detectable type construction with red background and black lettering, "CAUTION-BURIED ELECTRICAL LINE BELOW".



NON-ENCASED ELECTRICAL AND COMMUNICATIONS DUCT DETAIL

No Scale



GENERAL NOTES:

Power marking tapes shall be detectable type construction with red background and black lettering.

Tape shall be detectable, durable, highly visible, resistant to elements, meeting and/or exceeding all industry standards.

UNDERGROUND DETECTABLE WARNING TAPE

No Scale

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 15192 DAVID A. HURST

6/1/16

BRIDGE ENGINEER

SHEET 4 OF 5

ELECTRICAL LIGHTING DETAILS

8TH STREET OVER I-49

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

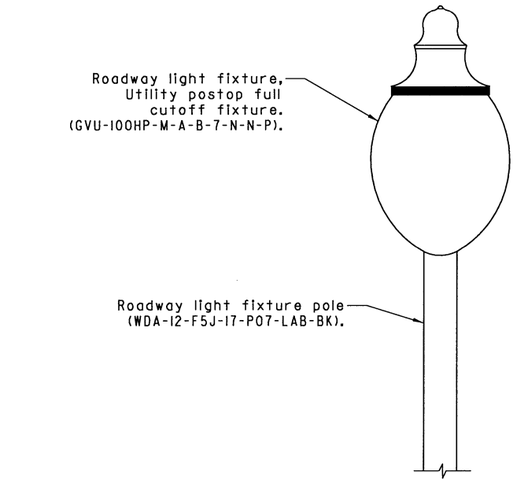
DRAWN BY: ADR DATE: 10/30/15 FILENAME: b090376x3.EL4.dgn

CHECKED BY: PH DATE: 10/30/15 SCALE:

DESIGNED BY: AWR DATE: 10/30/15

BRIDGE NO. 07370 DRAWING NO. 57927

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.		090376	243	555
				(1) 07370		LIGHTING		57928



TYPICAL ROADWAY LIGHTING FIXTURE DETAIL

No Scale

NOTES:

All hardware shall be corrosion resistant, galvanized or stainless rigid steel.

Construct foundation in accordance with pole manufacturers guidelines and per these plans.

Refer to plan for conduit and conductor sizes. Use long sweep 90° elbows on all conduit bends that meet NEC minimum radius requirements.

Tie all pole, equipment ground, and all other metal equipment and grounding lugs together using minimum #6 AWG solid bare copper and approved exothermic welds and connect to ground rod system.

Color of light fixture and pole shall match; paint chip # TBD. Contractor shall submit paint sample for approval by owner and engineer before installing fixture.

The contractor shall use caution when installing conduits in barrier to not impact rebar or construction joints.

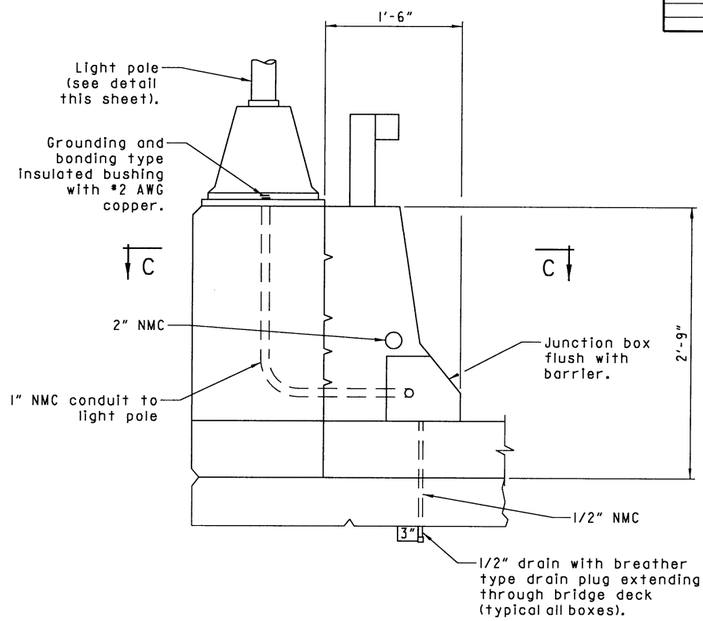
BOX NOTES:

NEMA 3R galvanized steel construction with gasket, recessed and flush in parapet wall.

Internal copper ground bar with min. 4 lugs.

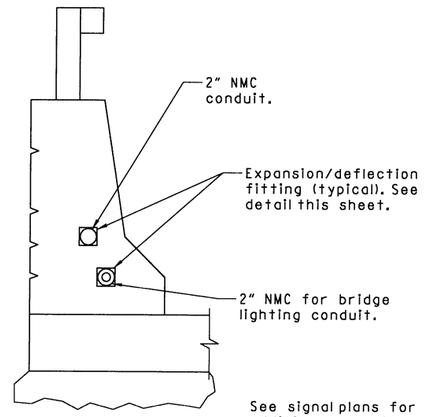
External ground lug, bonded to #2/0 ground wire system using #6 AWG copper wire.

Splice wires in box according to NEC. All wires shall be type THHW or greater.



SECTION A-A

No Scale



SECTION B-B

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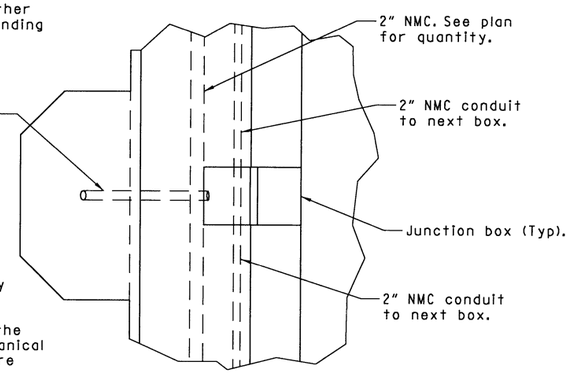

SECTION C-C

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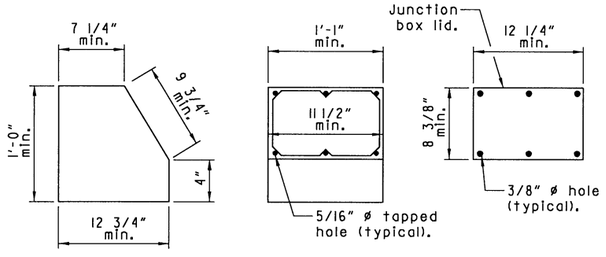
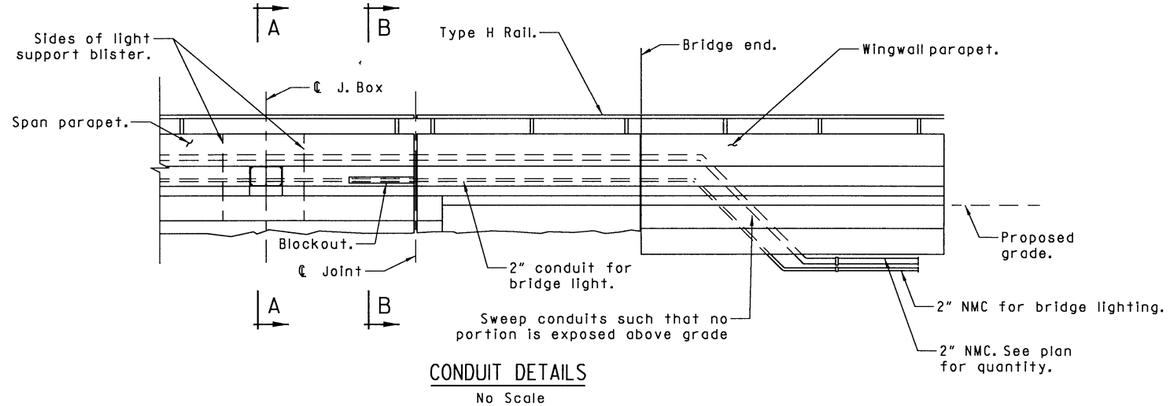


Note: Junction box and lid material shall be 1/4" A36 steel. Fasteners shall be 3/16" ø x 3/4" S.S. FH socket screws. Weld per AHTD standard spec. Hot dip galvanized and powder coat after fabrication per bridge railing general notes. Prefabricated junction boxes may be substituted by the contractor if approved by the engineer. The junction boxes shall be adequately anchored to the parapet by means of an approved mechanical device. Junction boxes shall not interfere with slider plates or expansion joints. Provide at least one 1/2" min. Drainage hole near the bottom of the junction box.

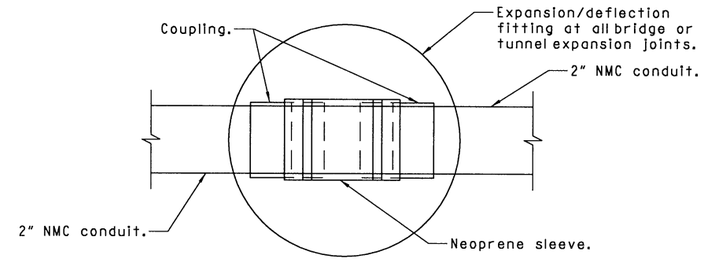
BRIDGE JUNCTION BOX DETAILS

No Scale



CONDUIT DETAILS

No Scale



EXPANSION AND DEFLECTION FITTING DETAIL (TYP)

No Scale

Note: The movement range of the expansion fitting shall meet or exceed the movement range of the bridge expansion joints.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 15192 DAVID A. HUNT

6/1/16

BRIDGE ENGINEER

SHEET 5 OF 5
ELECTRICAL LIGHTING DETAILS
8TH STREET OVER I-49

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

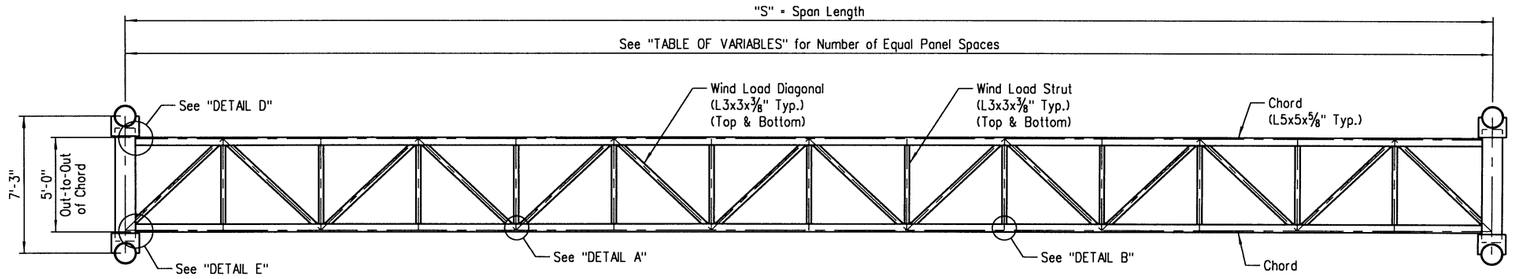
LITTLE ROCK, ARK.

DRAWN BY: ADR DATE: 10/30/15
CHECKED BY: PH DATE: 10/30/15
DESIGNED BY: AWR DATE: 10/30/15
FILENAME: b090376x3.EL5.dgn
SCALE:

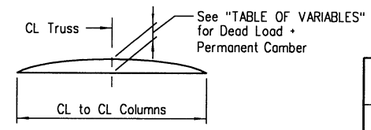
BRIDGE NO. 07370 DRAWING NO. 57928

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.		090376	244	555

(1) OH-049-04-13 SIGN STRUCTURE 57929



PLAN

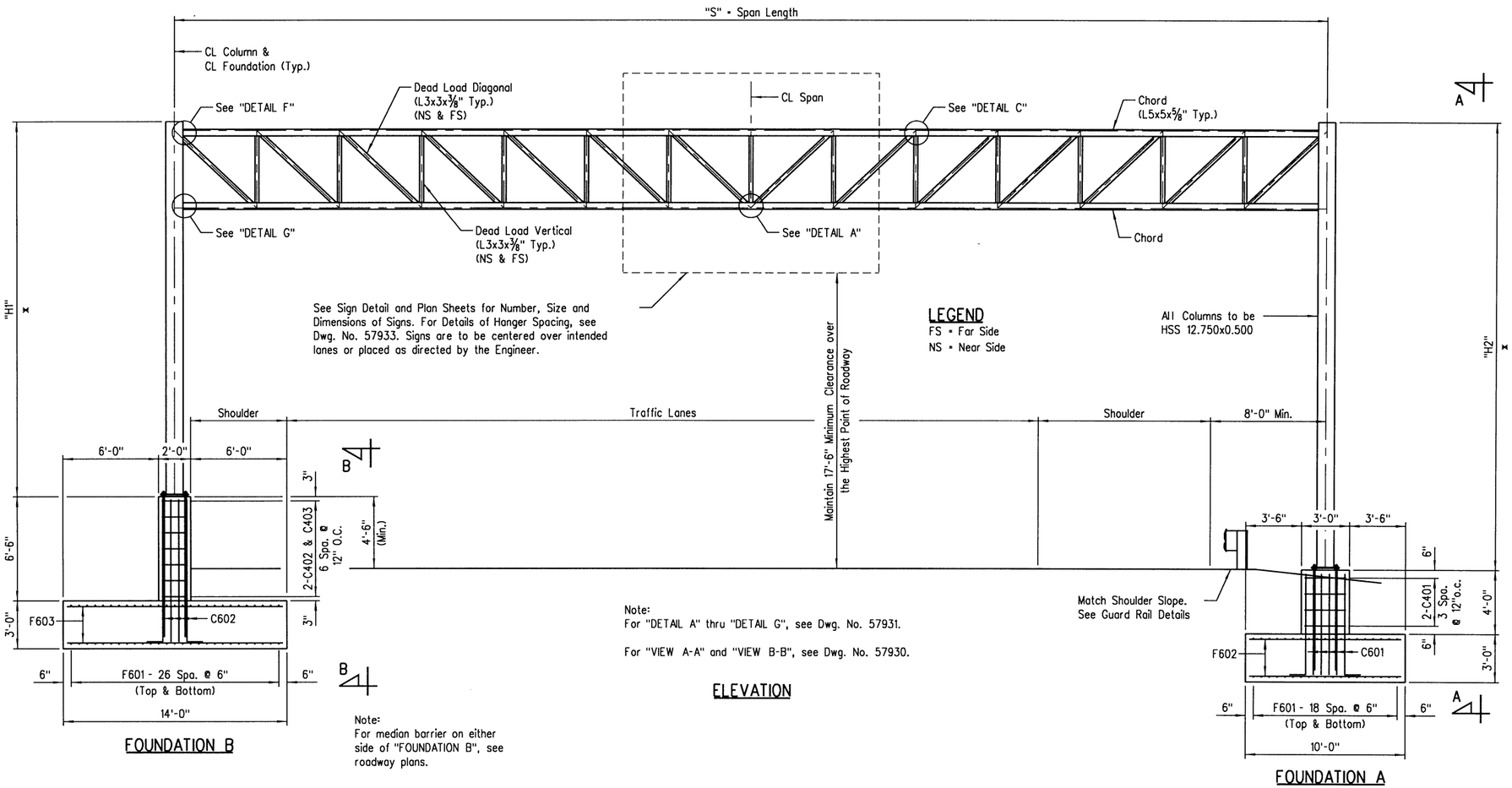


TRUSS CAMBER DIAGRAM

TABLE OF VARIABLES

Span (ft)	No. of Equal Panel Spaces	Dead Load + Permanent Camber
60' thru 65'	12	1"
66' thru 75'	14	1 1/4"
76' thru 85'	16	1 1/2"

x Note:
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 (60'-0" to 85'-0") is sufficient to meet the minimum clearances and to fit the new structure to the existing and/or proposed conditions.



ELEVATION

FOUNDATION B

FOUNDATION A

SPAN LENGTH TABLE

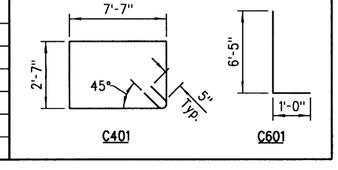
Structure No.	"S"
OH-049-04-13	82'-0"

APPROXIMATE QUANTITIES FOR FOUNDATION (FOR INFORMATION ONLY)

FOUNDATION	CLASS S CONCRETE (Cu. Yards)	REINFORCING STEEL (Lbs.)	EXCAVATION (Cu. Yards)
A	27.6	2947	78
B	40.7	4678	72

BAR LIST - FOUNDATION A

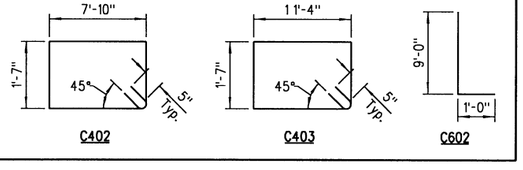
MARK	NO. REQ'D	LENGTH	P.D.
C401	8	20'-10"	3"
C601	56	7'-3"	4 1/2"
F601	38	19'-6"	Str.
F602	78	9'-6"	Str.



NOTE: Dimensions of bars are out-to-out.

BAR LIST - FOUNDATION B

MARK	NO. REQ'D	LENGTH	P.D.
C402	14	19'-4"	3"
C403	7	26'-4"	3"
C602	82	9'-10"	4 1/2"
F601	54	19'-6"	Str.
F603	78	13'-6"	Str.



NOTE: Dimensions of bars are out-to-out.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 16183 JERRY L. STEPHENSON

BRIDGE ENGINEER

SHEET 1 OF 5
DETAILS FOR 60' TO 85' STEEL OVERHEAD SIGN STRUCTURES WITH MEDIAN FOUNDATION
BENTON COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

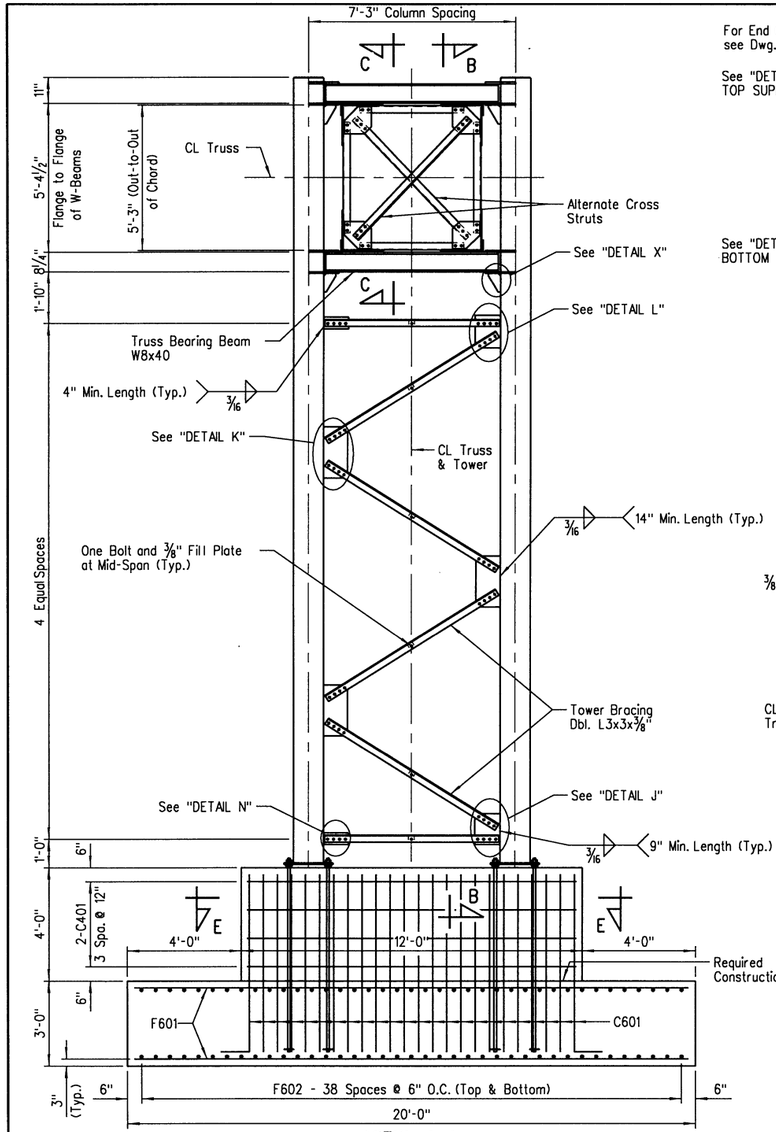
DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: BLA DATE: 10/30/15
DESIGNED BY: YZ DATE: 10/30/15
FILENAME: b090376x4_t1.dgn
SCALE: NO SCALE

STR. NO. OH-049-04-13 DRAWING NO. 57929

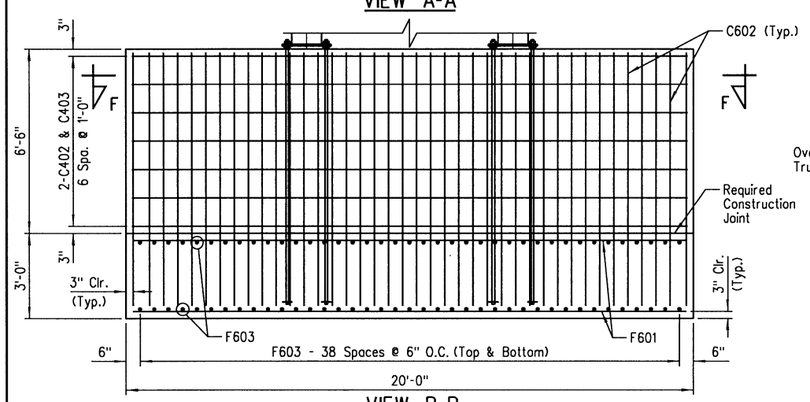
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	245	555

(1) OH-049-04-13 SIGN STRUCTURE 57930

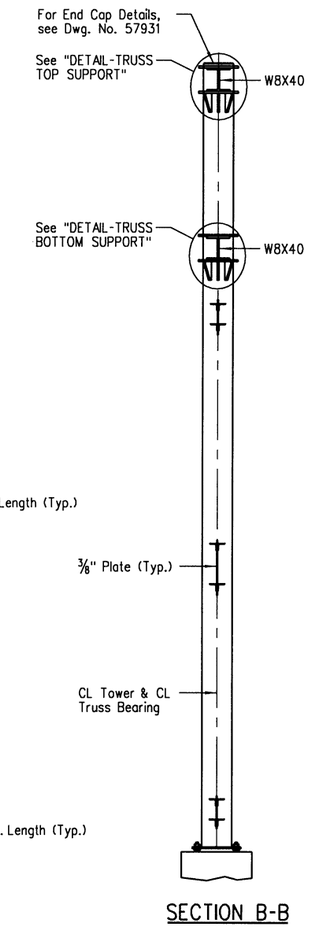
(1) Bolts shall be 1" Dia. and slotted hole in gusset plate and chord angle $1\frac{1}{16}$" x $2\frac{1}{2}$". Use plate washer on gusset plate side. $1\frac{1}{16}$" Dia. holes in $\frac{3}{4}$" shim plate and beam flange.



VIEW A-A

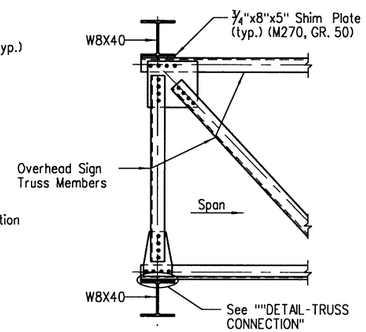


VIEW B-B

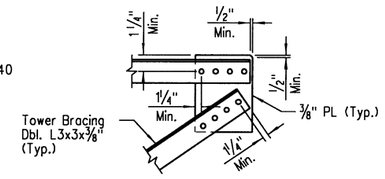


SECTION B-B

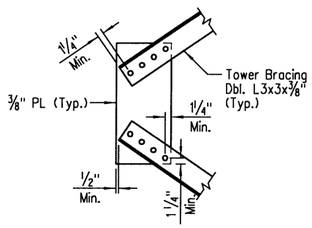
Note:
For "SECTION E-E" and "SECTION F-F", see Dwg. No. 57931.



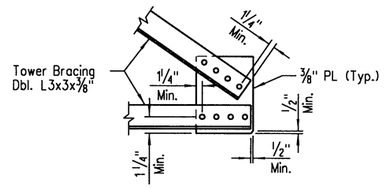
SECTION C-C



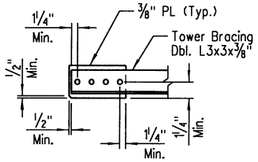
DETAIL L



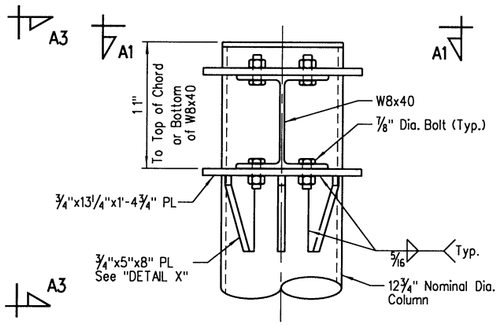
DETAIL K



DETAIL J

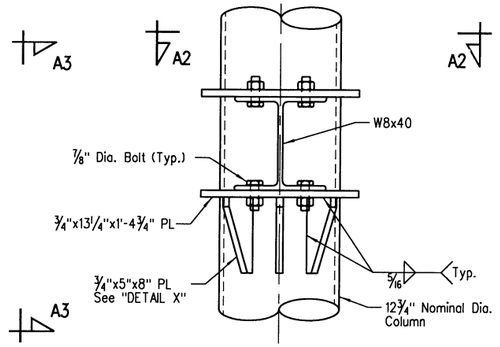


DETAIL N



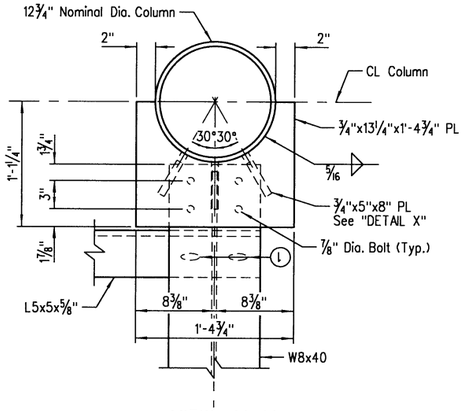
DETAIL - TRUSS TOP SUPPORT

(L5x5x⅝" Top Chord not shown for clarity)

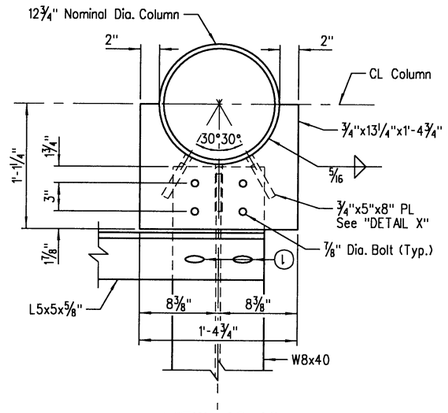


DETAIL - TRUSS BOTTOM SUPPORT

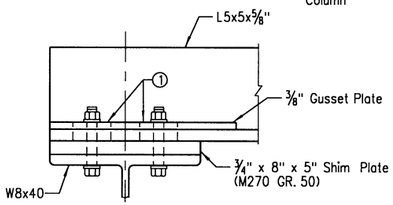
(L5x5x⅝" Bottom Chord not shown for clarity)



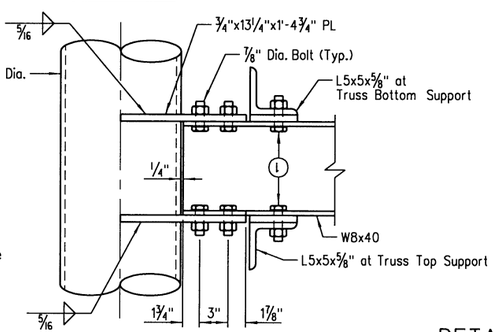
VIEW A1-A1



VIEW A2-A2

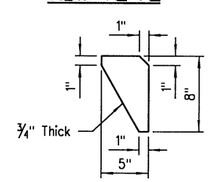


DETAIL - TRUSS CONNECTION



VIEW A3-A3

(¾"x5"x8" Plates not shown for clarity)



DETAIL X

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
10-30-15
BRIDGE ENGINEER

SHEET 2 OF 5
DETAILS FOR 60' TO 85'
STEEL OVERHEAD SIGN STRUCTURES
WITH MEDIAN FOUNDATION
BENTON COUNTY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: BLA DATE: 10/30/15
DESIGNED BY: YZ DATE: 10/30/15
FILENAME: b090376x4_t2.dgn
SCALE: NO SCALE

STR. NO. OH-049-04-13 DRAWING NO. 57930

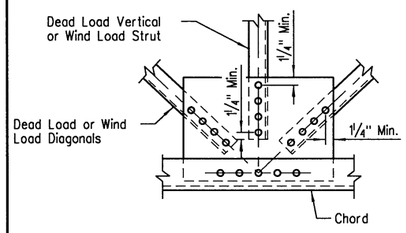
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	246	555
				(1) OH-049-04-13 SIGN STRUCTURE				57931

(1) Bolts shall be 1" Dia. and slotted holes in gusset plate and chord angle $1\frac{1}{16}$" x $2\frac{1}{2}$". Use plate washer on gusset plate side.

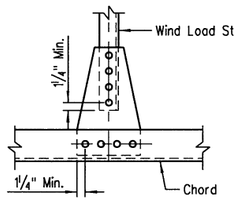
(2) Bolts shall be $\frac{3}{4}$" Dia. and open holes shall be $\frac{13}{16}$".

(3) $1\frac{1}{16}$" Dia. Holes at top or bottom flanges as required.

NOTE:
Thickness of all gusset plates shall be $\frac{3}{8}$".



DETAIL A



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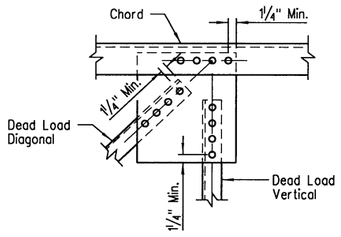

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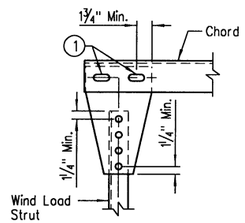

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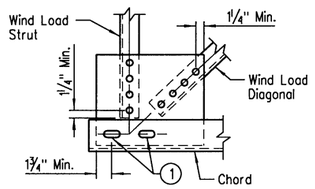

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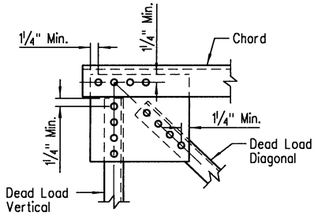

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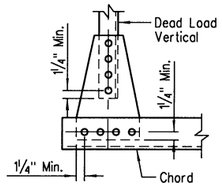

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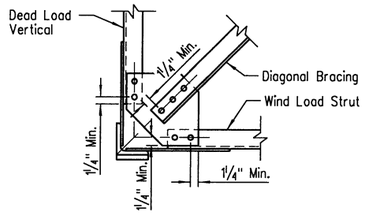
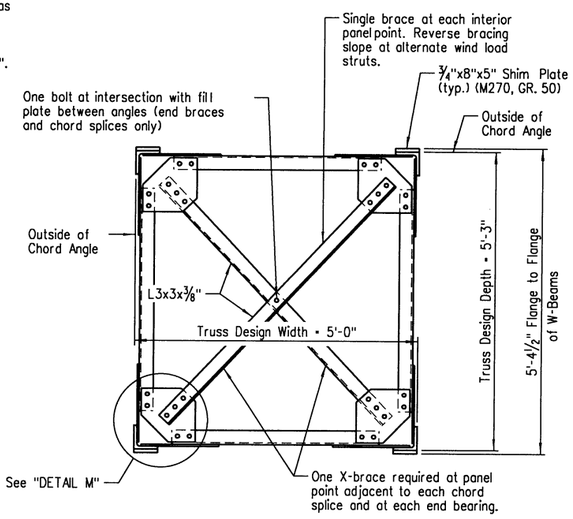
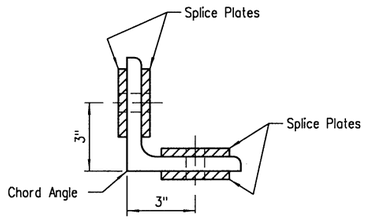


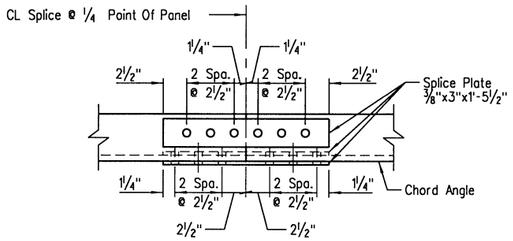
DETAIL M



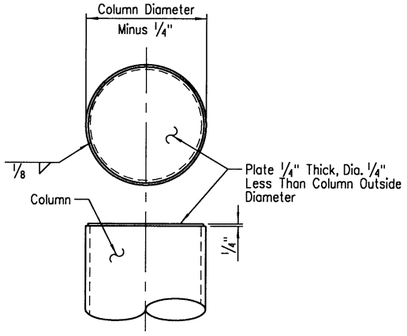
TRUSS SECTION



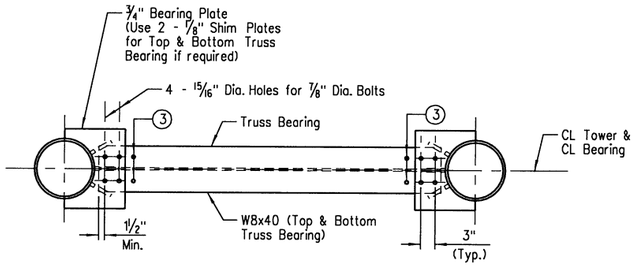
SECTION ON CL SPLICE



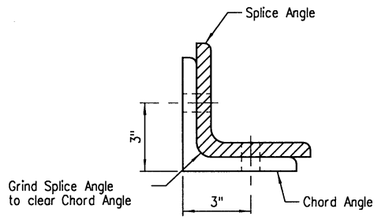
CHORD SPLICE USING PLATE (2)



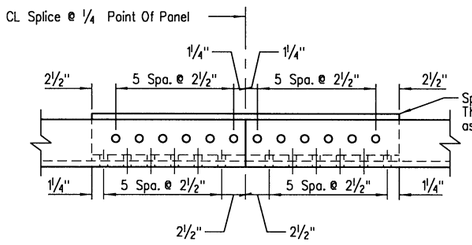
END CAP DETAILS



PLAN AT TRUSS BEARING

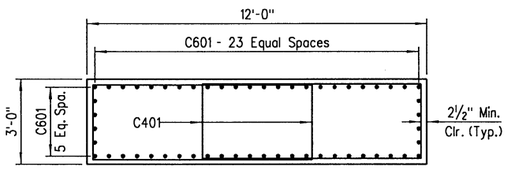


SECTION ON CL SPLICE

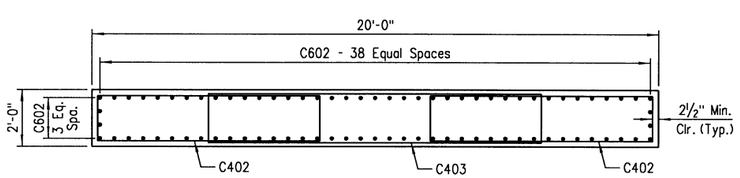


OPTIONAL CHORD SPLICE USING ANGLES (3)
Place Splice Angle on inside of Truss

Note:
Chord angles may be spliced in convenient lengths for galvanizing and sign placement.



SECTION "E-E"
Foundation A



SECTION "F-F"
Foundation B

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
JERRY L. STEVENSON
No. 16183
8-2-2016
BRIDGE ENGINEER

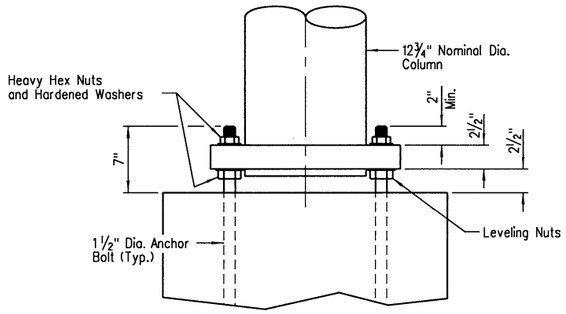
SHEET 3 OF 5
DETAILS FOR 60' TO 85'
STEEL OVERHEAD SIGN STRUCTURES
WITH MEDIAN FOUNDATION
BENTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: BLA DATE: 10/30/15
DESIGNED BY: YZ DATE: 10/30/15
FILENAME: b090376x4_t3.dgn
SCALE: NO SCALE

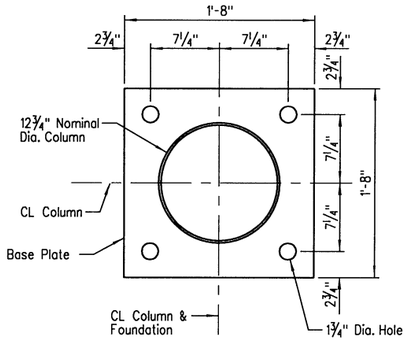
STR. NO. OH-049-04-13 DRAWING NO. 57931

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.		090376	247	555

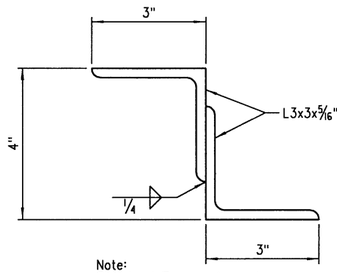
(1) OH-049-04-13 SIGN STRUCTURE 57932



ELEVATION - COLUMN BASE

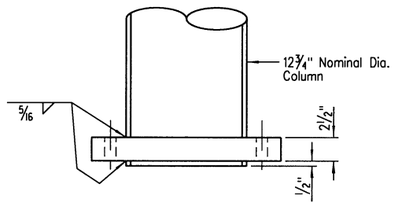


PLAN - COLUMN BASE



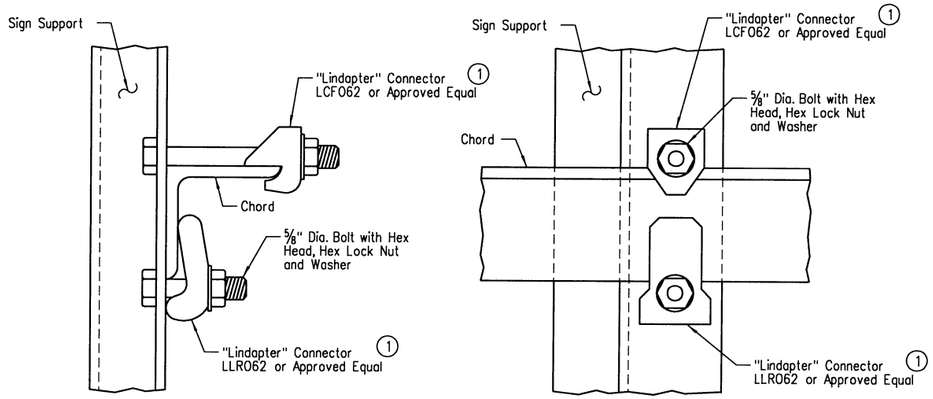
Note:
Structural Z support may be fabricated from angles as shown.

DETAIL OF ALTERNATE Z SUPPORT

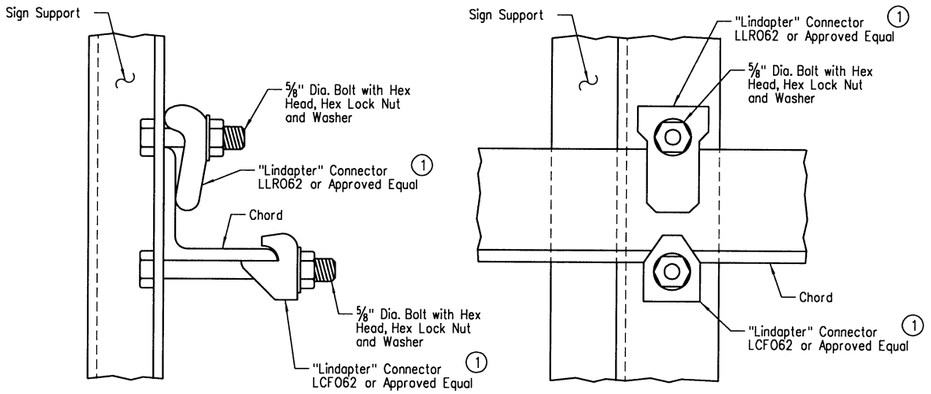


Note:
Diameter of hole in base plate to be ⅛" larger than column diameter.

DETAIL OF COLUMN CONNECTION TO BASE PLATE



TOP CHORD

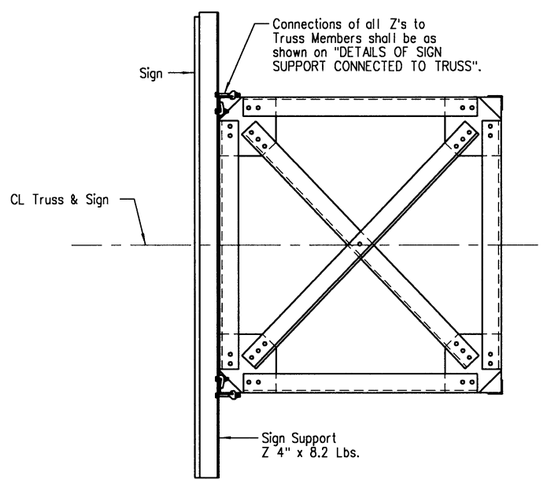


BOTTOM CHORD

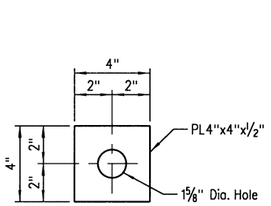
(1) Note:
All "Lindapter" connectors or approved equal shall be installed according to manufacturer's recommendations. All connectors, bolts, nuts and washers shall be galvanized.

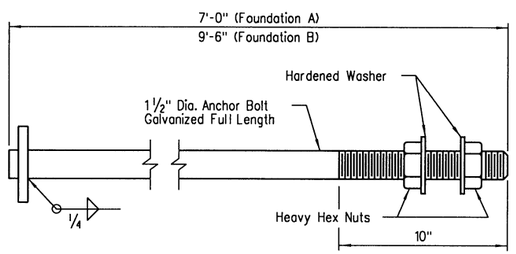
Note:
Install all support connectors clear of the gusset plates and splice locations.

DETAILS OF SIGN SUPPORT CONNECTED TO TRUSS



SECTION THRU TRUSS





Anchor bolts shall comply with AASHTO M314, Grade 55. with Supplementary Requirement S1 and galvanized according to Section 807.07. Nuts for bolts shall be as specified in Section 807.07.

ANCHOR BOLT DETAIL

SHEET 4 OF 5
DETAILS FOR 60' TO 85'
STEEL OVERHEAD SIGN STRUCTURES
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LITTLE ROCK, ARK.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY L. RITTENSON
6.2.2016
BRIDGE ENGINEER

DRAWN BY: TLW DATE: 10/30/15
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FILENAME: b090376x4_t4.dgn
SCALE: NO SCALE

STR. NO. OH-049-04-13 DRAWING NO. 57932

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.		090376	248	555

(1) OH-049-04-13 SIGN STRUCTURE 57933

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 Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, Sixth Edition, 2013.

Basic Wind Speed = 90 mph.
Fatigue Category: 1

This structure is approved for a maximum sign area equal to 75% of the span length times a sign height of 15 feet with a weight of 2.5 lbs. per sq. foot and an additional load of 1200 lbs. for a Variable Message Sign panel when required under this contract or for future installation. Use of additional sign area 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 (Grade 60, AASHTO M 31 or M 322, Type A)	fy = 60,000 psi

Structural steel sign support members shall comply with the following specifications:

Angles:	AASHTO M 270, Grade 36 (Fy = 36,000 psi)
Plate, W-Section:	AASHTO M 270, Grade 50 (Fy = 50,000 psi)
(1) Pipe:	ASTM A 139, Gr. C, straight-seam welded (Fy = 42,000 psi)
	ASTM A 500, Gr. B (Fy = 42,000 psi)
	ASTM A 501, Gr. B (Fy = 50,000 psi)
	ASTM A 714, Class 2, Grade II, Type E or S (Fy = 50,000 psi)
Z-Shapes:	AASHTO M 270, Grade 36 (Fy = 36,000 psi)
Shim Plates:	ASTM A 1011, SS, Grade 36, Type 2 or Grade 40
Bolts:	ASTM A 325, Type 1
Locknuts - Approved Type:	Meeting or exceeding AASHTO M 292
Washers:	ASTM F 436
Nuts:	ASTM A 563 or AASHTO M 292, Grade DH or 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 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 1/2" 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 SP Job No. 090376 "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' 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.

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 3/4" diameter and open holes shall be 13/16" diameter. Bolt spacing shall be 2 1/2" for 3/4" diameter bolts unless otherwise noted. Bolts shall be placed with heads on the outside face of all members. All high strength bolts shall be installed to obtain the specified minimum tension in accordance with Subsection 807.71.

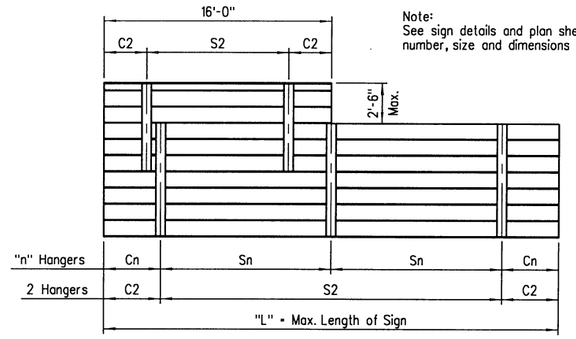
All truss frame bolts shall comply with ASTM A325 Type 1, galvanized according to Subsection 807.06. Heavy hex nuts and hardened washers for ASTM A325 Type 1 bolts shall be furnished and galvanized in accordance with Subsection 807.06.

Lock nuts to be equipped with nylon locking inserts or other approved type locking system. Lock nuts to be installed according to manufacturer's recommendations.

Anchor bolts shall comply with AASHTO M 314, Grade 55 including Supplementary Requirement S1, and galvanized according to Subsection 807.07. Nuts and washers for anchor bolts shall be furnished and galvanized in accordance with Subsection 807.07.

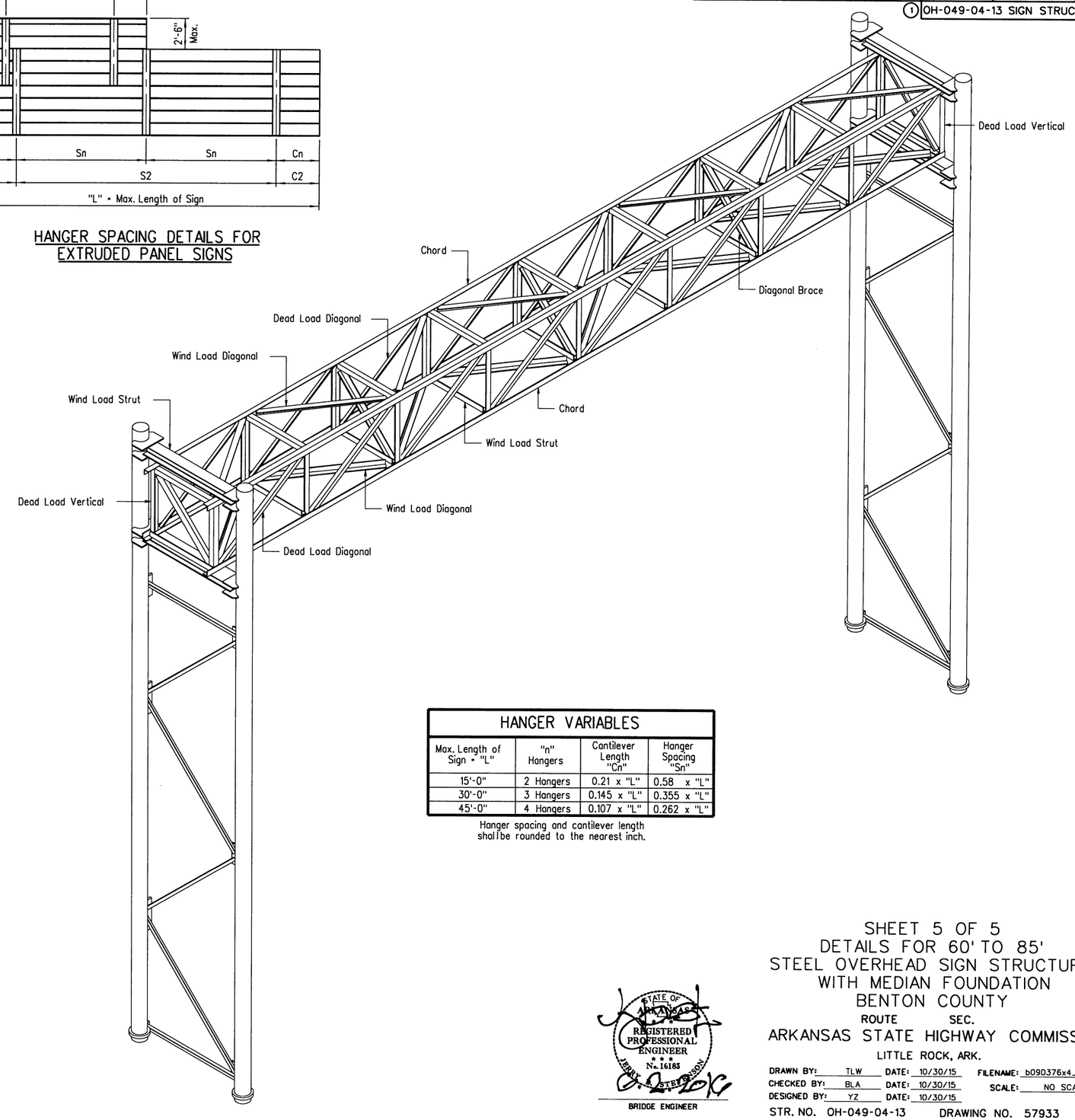
Shoring may be required to protect existing shoulders during excavation. Any shoring required shall not be paid for directly, but shall be considered incidental to the item "Steel Overhead Sign Structure". The excavations for the footings shall be backfilled before the structure is attached to the foundations.

(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



Note:
See sign details and plan sheets for number, size and dimensions of signs.

HANGER SPACING DETAILS FOR EXTRUDED PANEL SIGNS



HANGER VARIABLES			
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"

Hanger spacing and cantilever length shall be rounded to the nearest inch.

STATE OF ARKANSAS
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No. 16183
JERRY L. STEVENSON

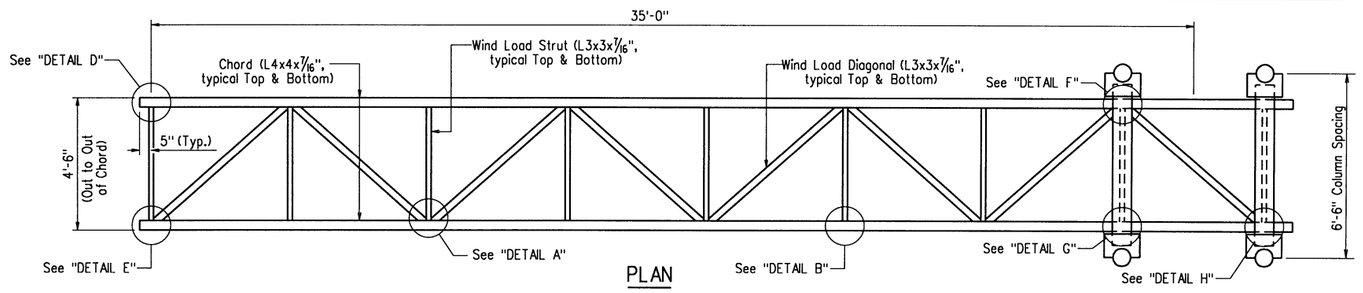
BRIDGE ENGINEER

SHEET 5 OF 5
DETAILS FOR 60' TO 85'
STEEL OVERHEAD SIGN STRUCTURES
WITH MEDIAN FOUNDATION
BENTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

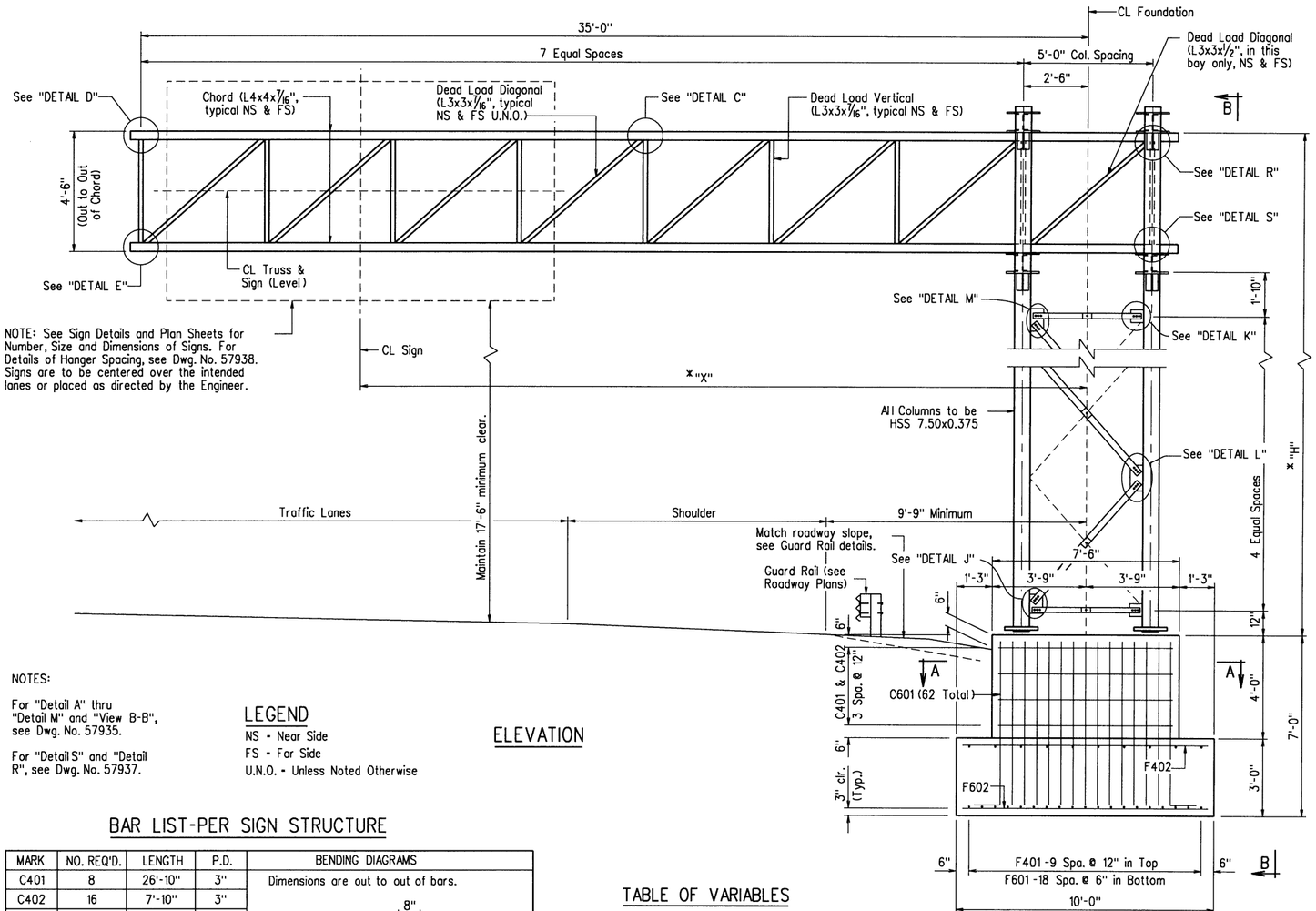
DRAWN BY: TLW DATE: 10/30/15
CHECKED BY: BLA DATE: 10/30/15
DESIGNED BY: YZ DATE: 10/30/15
FILENAME: b090376x4_t5.dgn
SCALE: NO SCALE

STR. NO. OH-049-04-13 DRAWING NO. 57933

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.		090376	249	555
				(1) OC-049-04-14 SIGN STRUCTURE				57934



PLAN



ELEVATION

NOTE: See Sign Details and Plan Sheets for Number, Size and Dimensions of Signs. For Details of Hanger Spacing, see Dwg. No. 57938. Signs are to be centered over the intended lanes or placed as directed by the Engineer.

NOTES:

For "Detail A" thru "Detail M" and "View B-B", see Dwg. No. 57935.

For "Detail S" and "Detail R", see Dwg. No. 57937.

LEGEND

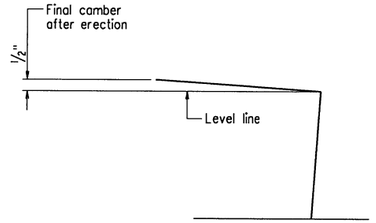
NS - Near Side
FS - Far Side
U.N.O. - Unless Noted Otherwise

x NOTE:
The Contractor shall make field measurements to determine the following:

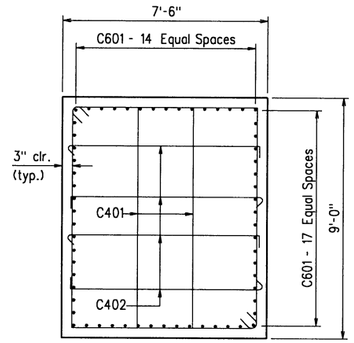
1) To verify that dimension "X" is sufficient to center the sign over the intended lane while maintaining minimum horizontal clearances.

2) To determine the column height "H" required to maintain the minimum vertical clearance with the centerline of the sign located at the CL of the truss. If the structure height "H" exceeds 30'-0" contact the Engineer.

These verifications and measurements are required prior to submittal of the shop drawings. The column height "H" shall be shown on the shop drawings with a note stating that the Contractor has made the required field measurements.



TRUSS CAMBER DIAGRAM



SECTION A-A

BAR LIST-PER SIGN STRUCTURE

MARK	NO. REQ'D.	LENGTH	P.D.	BENDING DIAGRAMS
C401	8	26'-10"	3"	Dimensions are out to out of bars.
C402	16	7'-10"	3"	
C601	62	7'-3"	4½"	
F401	10	14'-6"	Str.	
F402	15	9'-6"	Str.	
F601	19	14'-6"	Str.	
F602	29	9'-6"	Str.	

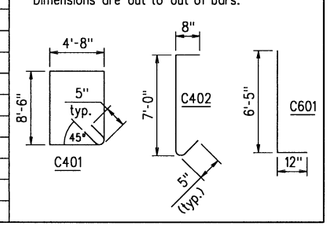


TABLE OF VARIABLES

STRUCTURE NUMBER	"X"
OC-049-04-14	35'-0"

APPROXIMATE QUANTITIES (FOR INFORMATION ONLY)

STRUCTURE NUMBER	CLASS S CONCRETE (Cu. Yards)	REINFORCING STEEL (Lbs.)	EXCAVATION (Cu. Yards)
EACH STRUCTURE	26.7	1,922	56

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
BRIDGE ENGINEER

SHEET 1 OF 5
DETAILS FOR 35' STEEL
CANTILEVER SIGN STRUCTURE
BENTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JJR DATE: 05/01/15 FILENAME: b090376x4_t6.dgn
CHECKED BY: TG DATE: 05/01/15 SCALE: NO SCALE
DESIGNED BY: SLW DATE: 05/01/15

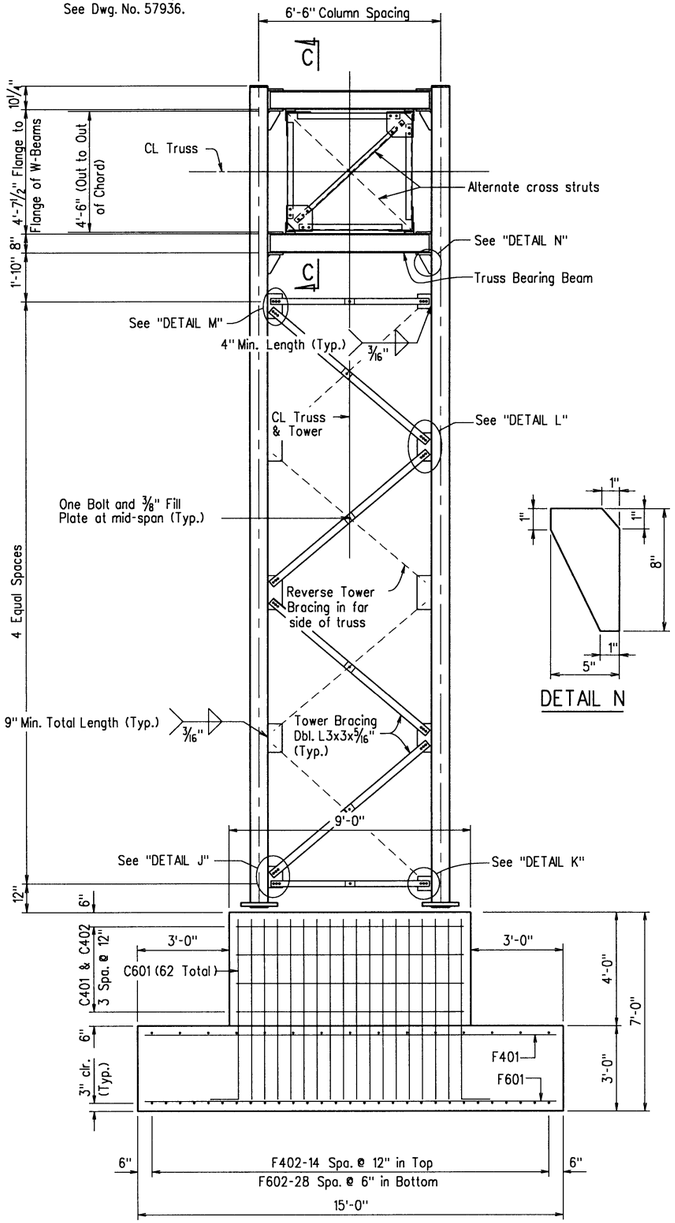
STR. NO. OC-049-04-14 DRAWING NO. 57934

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.		090376	250	555
				① OC-049-04-14 SIGN STRUCTURE				57935

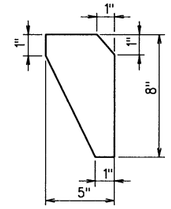
NOTE:

Thickness of all gusset plates shall be 3/8".

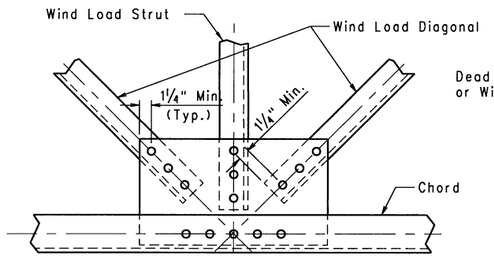
For "Section C-C", See Dwg. No. 57936.



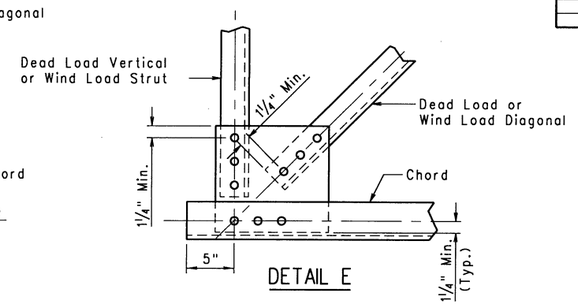
VIEW B-B



DETAIL N



DETAIL A



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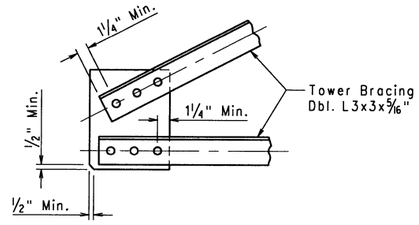

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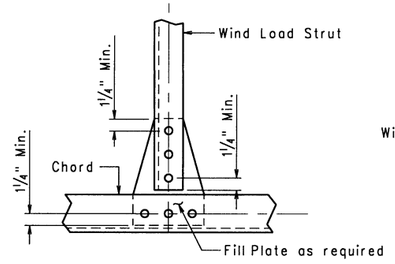
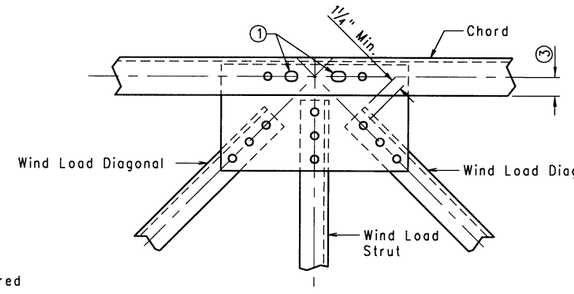


DETAIL B



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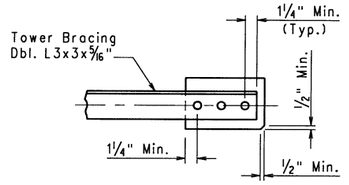

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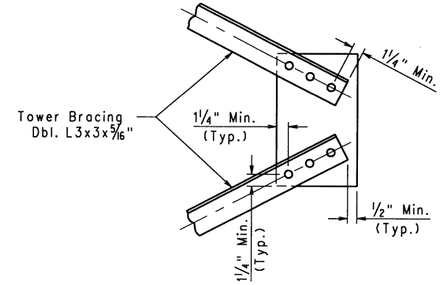

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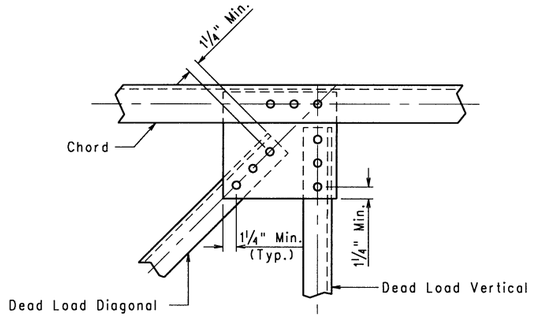

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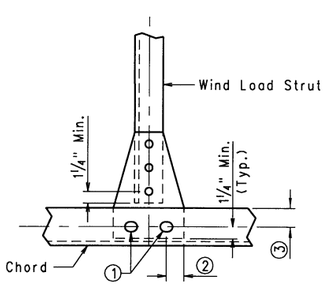

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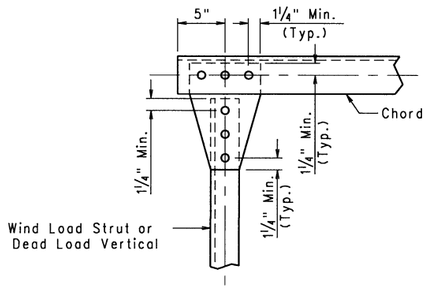

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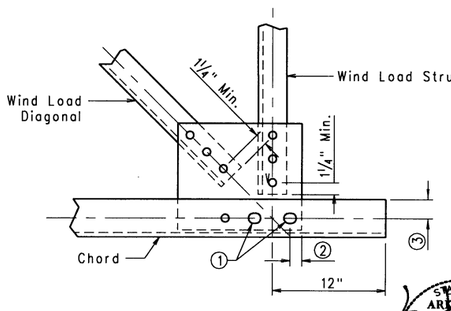

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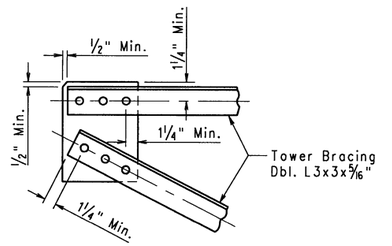


DETAIL M

① Bolts shall be 1 1/8" Dia. and slotted hole in gusset plate and chord angle 13/16"x1½". Use plate washer on gusset plate side. 13/16" Dia. holes in ¾" shim plate and beam flange.

② 1 1/16" minimum edge distance for slotted holes, typical.

③ 1½" minimum edge distance for slotted holes, typical.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY STEVENSON
6-2-2016
BRIDGE ENGINEER

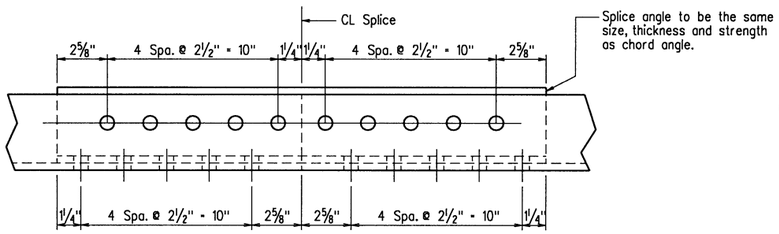
SHEET 2 OF 5
DETAILS FOR 35' STEEL
CANTILEVER SIGN STRUCTURE
BENTON COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JJR DATE: 05/01/15
CHECKED BY: TG DATE: 05/01/15
DESIGNED BY: SLW DATE: 05/01/15
FILENAME: b090376x4_t7.dgn
SCALE: NO SCALE

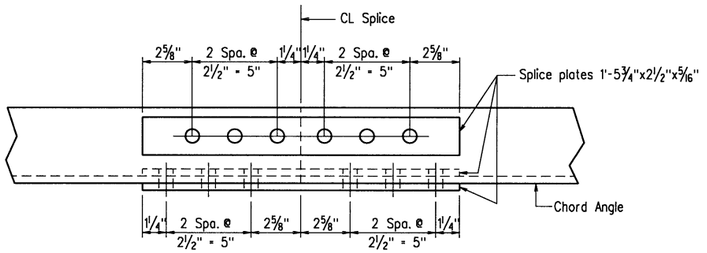
STR. NO. OC-049-04-14 DRAWING NO. 57935

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.		090376	251	555
				(1) OC-049-04-14 SIGN STRUCTURE				57936



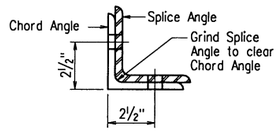
NOTE: Place splice angles on inside of truss. Bolts shall be ¾" ` and open holes shall be 13/16" `. Minimum center to center of bolt spacing shall be 2½".

OPTIONAL CHORD SPLICE USING ANGLES

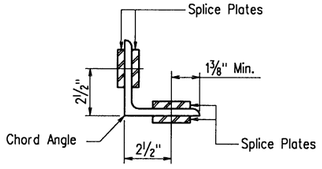


NOTE: Bolts shall be ¾" ` and open holes shall be 13/16" `. Minimum center to center of bolt spacing shall be 2½".

OPTIONAL CHORD SPLICE USING PLATES



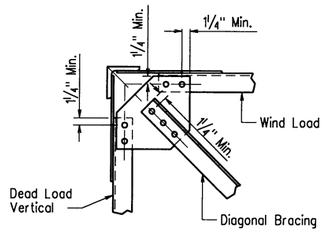
SECTION AT CL SPLICE



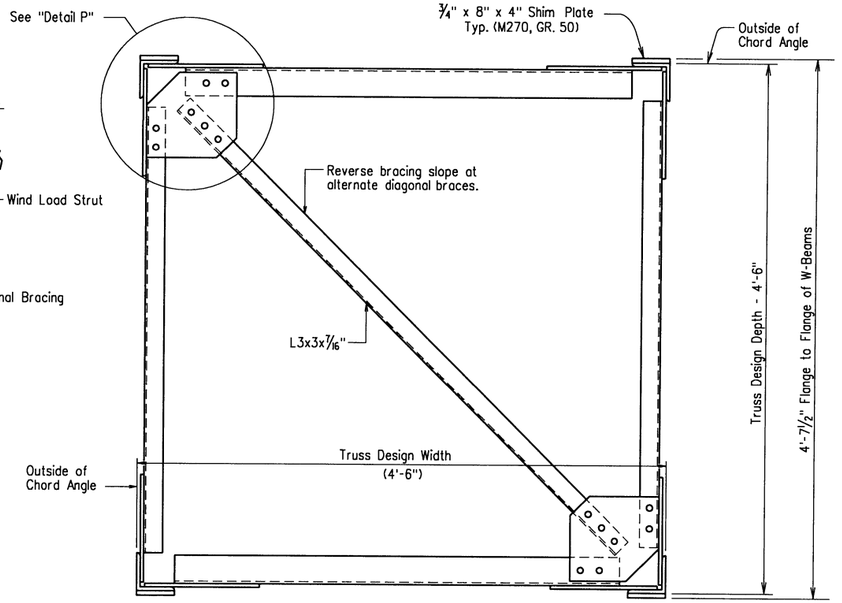
SECTION AT CL SPLICE

① Bolts shall be 1⅛" Dia. and slotted hole in gusset plate and chord angle 13/16"x1½". Use plate washer on gusset plate side. 13/16" Dia. hole in ¾" shim plate and beam flange.

② 13/16" Dia. holes at top or bottom flange as required.

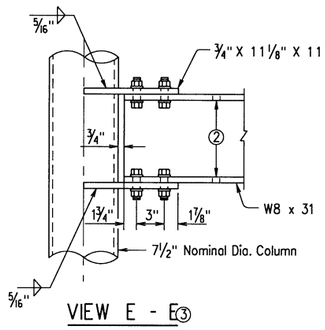


DETAIL P



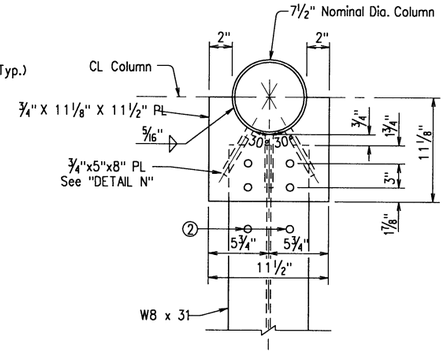
TRUSS SECTION

SPLICE DETAILS

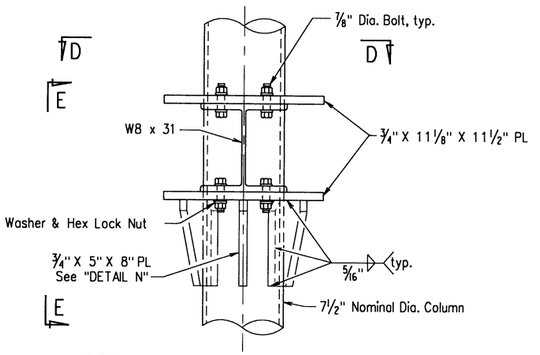


VIEW E - E③

¾" X 5" X 8" Plate not shown for clarity

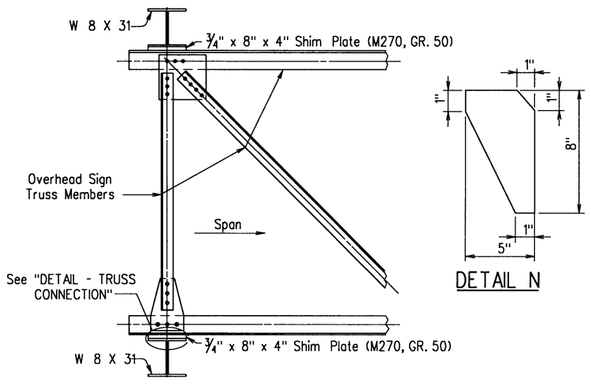


VIEW D - D③



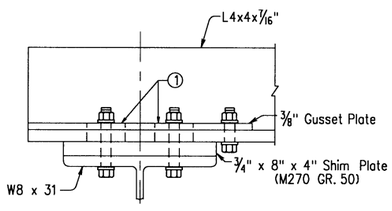
DETAIL - TRUSS BEARING SUPPORT

Bottom support shown, Top support similar.



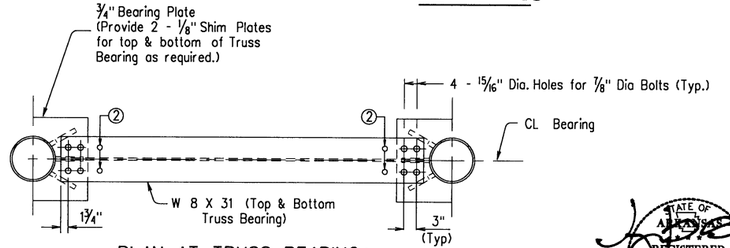
SECTION C-C

DETAIL N



DETAIL - TRUSS CONNECTION

Shown for bottom connection, top connection similar.



PLAN AT TRUSS BEARING③

③ Chord Angle and shim plate not shown for clarity.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY D. STEVENSON
BRIDGE ENGINEER

SHEET 3 OF 5
DETAILS FOR 35' STEEL CANTILEVER SIGN STRUCTURE
BENTON COUNTY

ROUTE SEC.

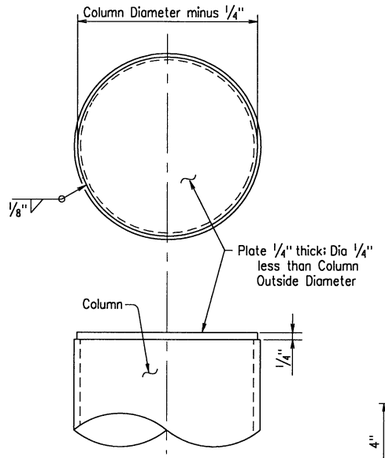
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

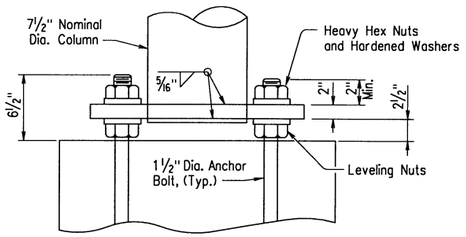
DRAWN BY: JJR DATE: 05/01/15 FILENAME: b090376x4_t8.dgn
CHECKED BY: TG DATE: 05/01/15 SCALE: NO SCALE
DESIGNED BY: SLW DATE: 05/01/15

STR. NO. OC-049-04-14 DRAWING NO. 57936

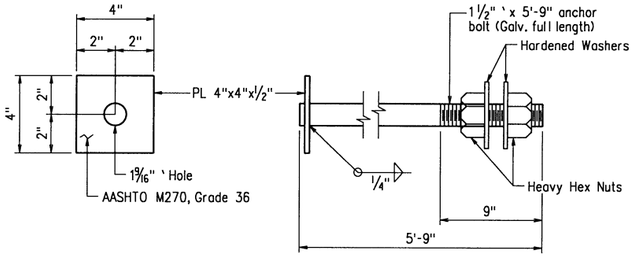
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	252	555
				(1)	OC-049-04-14	SIGN STRUCTURE		57937



END CAP DETAILS

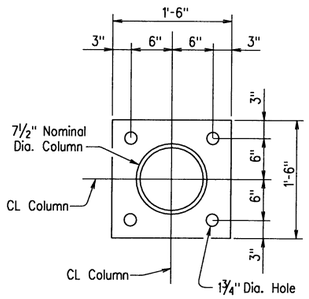


ELEVATION - COLUMN BASE

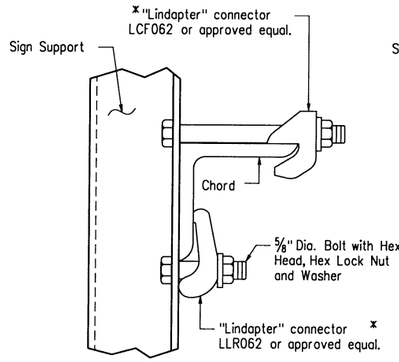


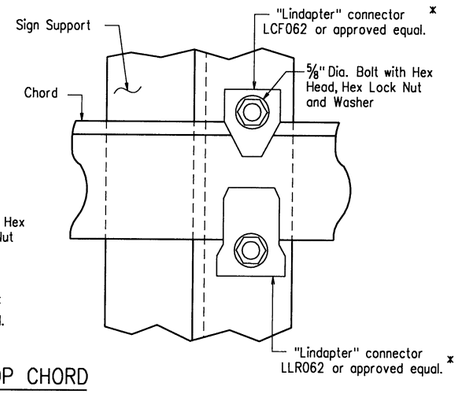
Anchor bolts shall comply with AASHTO M314, Grade 55, with Supplementary Requirement S1, and galvanized according to subsection 807.07. Nuts and washers for bolts shall be as specified in subsection 807.07.

ANCHOR BOLT DETAIL

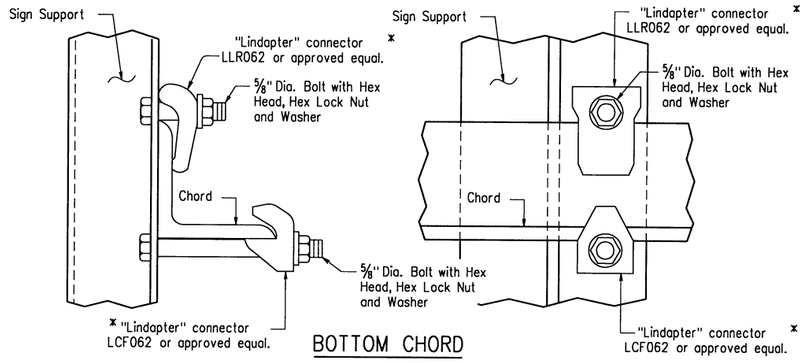


PLAN - COLUMN BASE





TOP CHORD

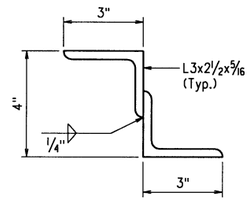


BOTTOM CHORD

* All "Lindapter" connectors or approved equal shall be installed according to manufacturer's recommendations. All connectors, bolts, nuts and washers shall be galvanized.

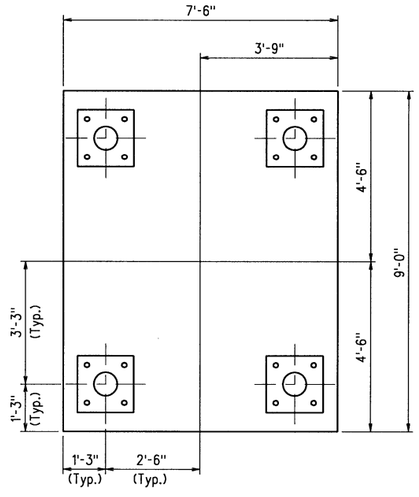
NOTE: Install all support connectors clear of the gusset plates and splice locations.

DETAILS OF SIGN SUPPORT CONNECTION TO TRUSS

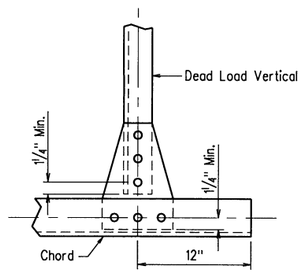


NOTE: Structural Z support may be fabricated from angles as shown.

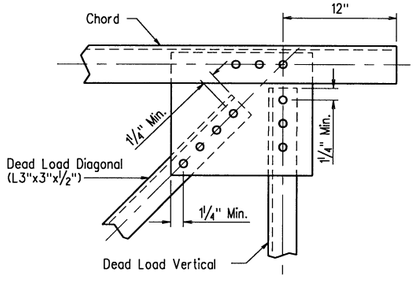
DETAILS OF ALTERNATE Z SUPPORT



PLAN - TOWER BASE

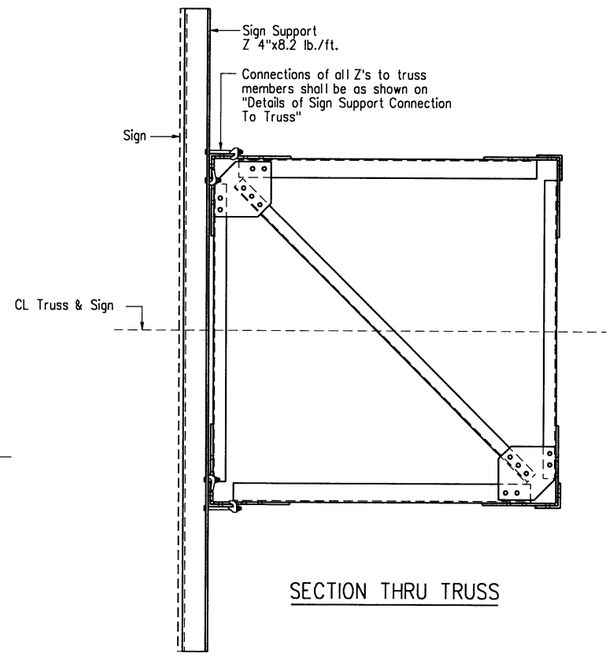


DETAIL S

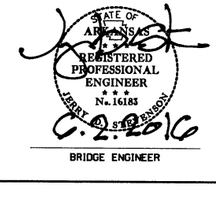


DETAIL R

4 - 3/4" Bolts on both ends of dead load diagonal in this bay only.



SECTION THRU TRUSS



BRIDGE ENGINEER

SHEET 4 OF 5
DETAILS FOR 35' STEEL
CANTILEVER SIGN STRUCTURE
BENTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JJR DATE: 05/01/15
CHECKED BY: TG DATE: 05/01/15
DESIGNED BY: SLW DATE: 05/01/15
FILENAME: b090376x4_t9.dgn
SCALE: NO SCALE

STR. NO. OC-049-04-14 DRAWING NO. 57937

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.		090376	253	555
				① OC-049-04-14 SIGN STRUCTURE				57938

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:

Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, AASHTO 2013 (Sixth Edition) with current interim Revisions.

Basic Wind Speed = 90 mph

Fatigue Category: I

This structure is approved for 325 square feet of sign area. Use of additional area 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 (Grade 60, AASHTO M 31 or M 322, Type A)	fy = 60,000 psi

Structural steel sign support members shall comply with the following specifications:

Angles:	AASHTO M 270, Grade 36 (Fy = 36,000 psi)
Plate, W-Section:	AASHTO M 270, Grade 50 (Fy = 50,000 psi)
① Pipe:	ASTM A139, Grade C (Fy = 42,000 psi), ASTM A500, Grade B (Fy = 42,000 psi), ASTM A501, Grade B (Fy = 50,000 psi) or ASTM A714, Class 2, Grade II, Type E or S (Fy = 50,000 psi)
Z-shapes:	AASHTO M 270, Grade 36 (Fy = 36,000 psi)
Shim Plates:	ASTM A 1011, SS, Grade 36, Type 2 or Grade 40
Bolts:	ASTM A325, Type 1
Locknuts:	Approved Type - Meeting or exceeding AASHTO M 292
Washers:	ASTM F436
Nuts:	ASTM A563 or AASHTO M 292, Grade DH or Grade 2H

All steel shall be galvanized according to Subsection 807.19. Steel completely encased in concrete may not be galvanized.

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.

Connections shall be bolted with high-strength bolts. Unless noted otherwise, bolts shall be $\frac{3}{4}$" diameter and open holes shall be $\frac{13}{16}$" diameter. Bolt spacing shall be $2\frac{1}{2}$" for $\frac{3}{4}$" diameter bolts unless otherwise noted. Bolts shall be placed with heads on the outside face of all members. All high strength bolts shall be installed to obtain the specified minimum tension in accordance with Subsection 807.71.

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.

Anchor bolts shall comply with AASHTO M314, Grade 55, with Supplementary Requirement S1, and galvanized according to Subsection 807.07. Nuts and washers for anchor bolts shall be furnished and galvanized in accordance with Subsection 807.07.

All truss frame bolts shall comply with ASTM A325, Type 1, and galvanized according to Subsection 807.06. Nuts and washers for ASTM A325, Type 1, bolts shall be furnished and galvanized in accordance with Subsection 807.06.

Field splices shall be located in order to avoid sign panel connections. Only one chord splice is permitted with a minimum section length of 15 feet.

All main load carrying tension members greater than $\frac{1}{2}$" 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 SP Job No. 090376 "Steel Sign Structures".

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 column to truss connection plate welds.

Truss field sections shall be shop assembled. Entire truss shall be fully assembled and lifted into place as one unit onto the support. All truss member connections shall be bolted connections.

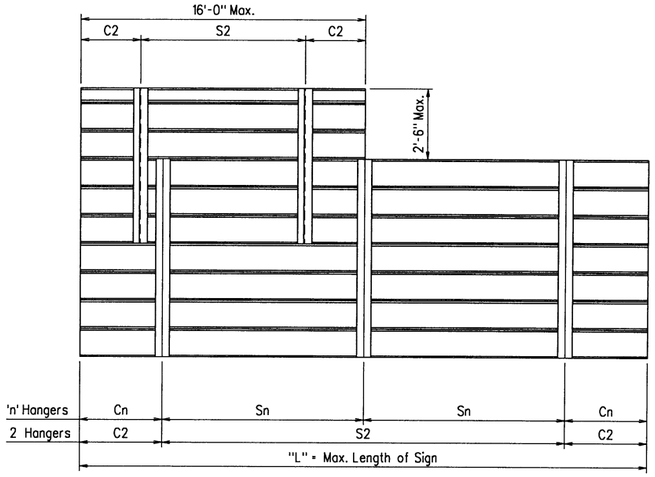
All truss member connections shall be bolted.

Lock nuts to be equipped with nylon locking inserts or other approved type locking system. Lock nuts to be installed according to manufacturer's recommendations.

Shoring may be required to protect existing shoulders during excavation. Any shoring required shall not be paid for directly, but shall be considered incidental to the item "Steel Cantilever Sign Structure". The excavations for the footings shall be backfilled before the structure is attached to the foundation.

Galvanized coating damaged during transport, handling or erection shall be field repaired in accordance with Subsection 807.88.

The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and to fit the new structures to the existing conditions.



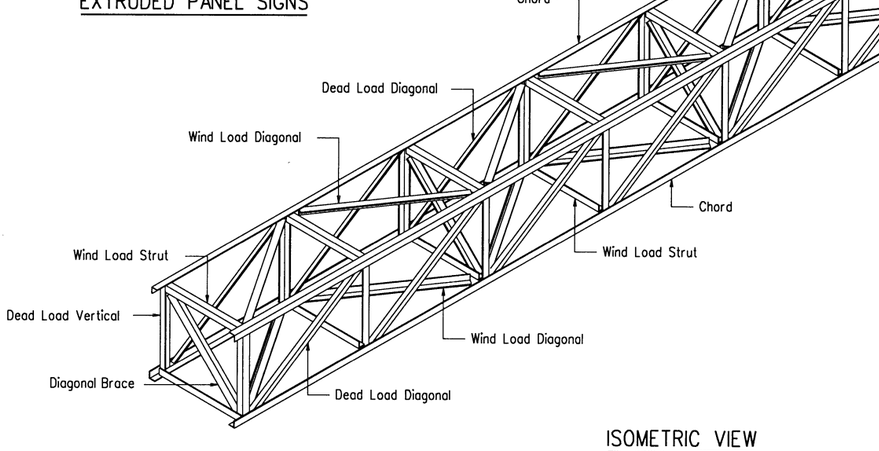
NOTE: See sign details and plan sheets for number, size and dimensions of signs.

HANGER SPACING DETAILS FOR EXTRUDED PANEL SIGNS

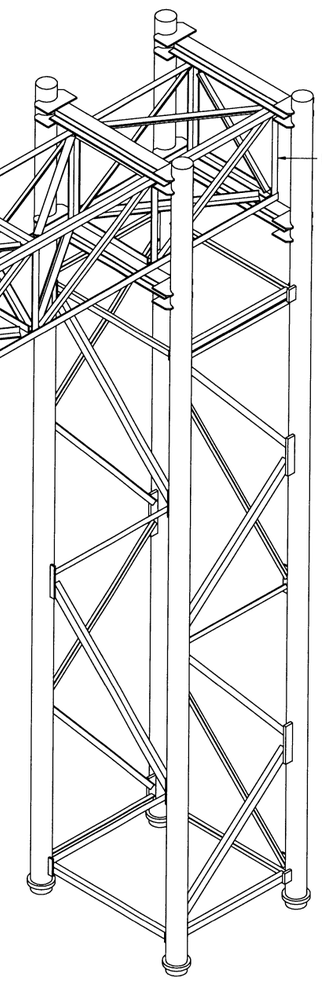
HANGER VARIABLES

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"

Hanger spacing and cantilever length shall be rounded to the nearest inch.



ISOMETRIC VIEW



① In addition to material requirements, all pipe used for welding 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

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 16183
JERRY L. SHAMPINSON
BRIDGE ENGINEER

SHEET 5 OF 5
DETAILS FOR 35' STEEL CANTILEVER SIGN STRUCTURE
BENTON COUNTY

ROUTE SEC.

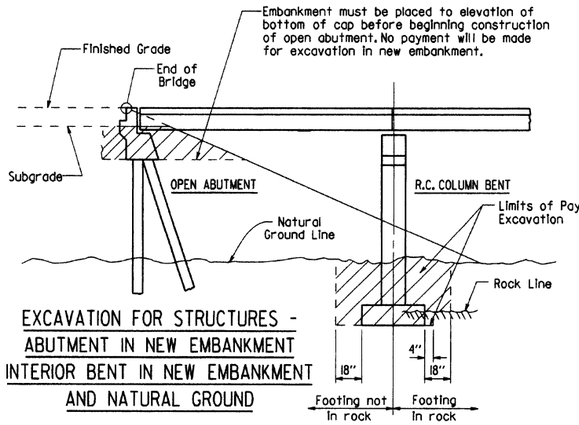
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

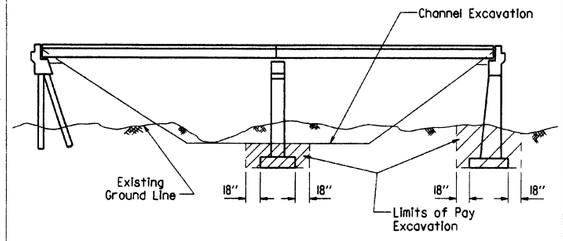
DRAWN BY: JJR DATE: 05/01/15 FILENAME: b090376x4_t10.dgn
CHECKED BY: TG DATE: 05/01/15 SCALE: NO SCALE
DESIGNED BY: SLW DATE: 05/01/15

STR. OC-049-04-14 DRAWING NO. 57938

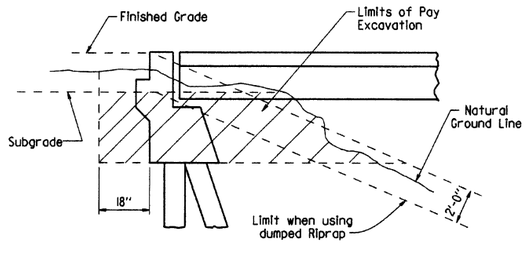
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		254	
				JOB NO.				
				(1) RIPRAP & EXCAV. 55001				



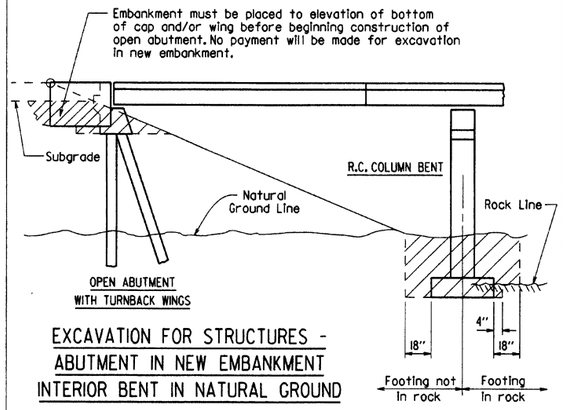
EXCAVATION FOR STRUCTURES - ABUTMENT IN NEW EMBANKMENT INTERIOR BENT IN NEW EMBANKMENT AND NATURAL GROUND



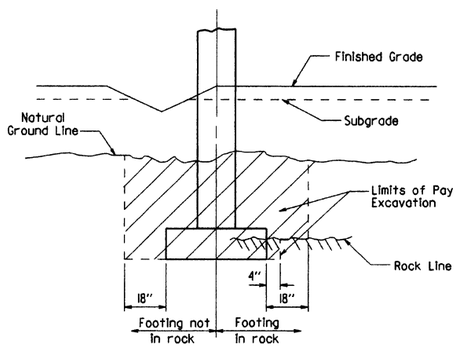
EXCAVATION FOR STRUCTURES - BRIDGE LOCATION WITH DESIGNATED CHANNEL CHANGE



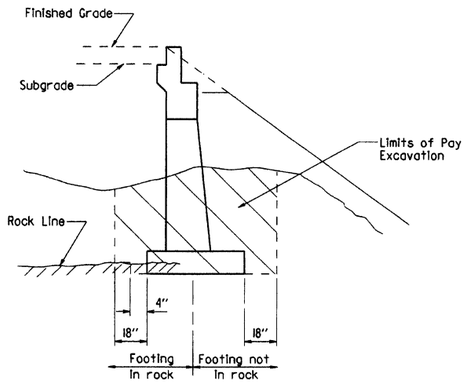
EXCAVATION FOR STRUCTURES - ABUTMENT IN NATURAL GROUND



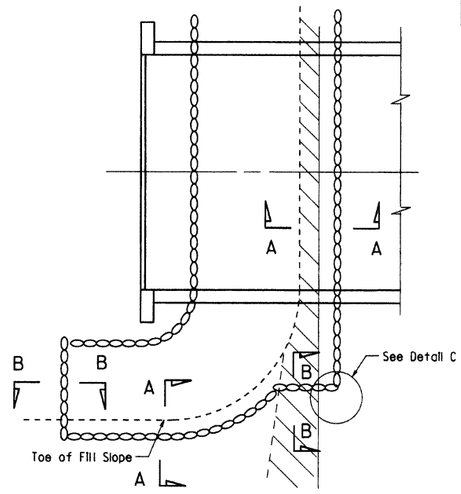
EXCAVATION FOR STRUCTURES - ABUTMENT IN NEW EMBANKMENT INTERIOR BENT IN NATURAL GROUND



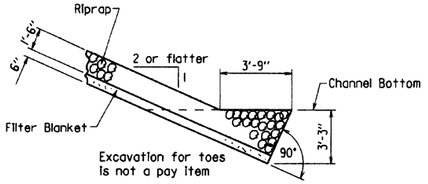
EXCAVATION FOR STRUCTURES - BENT IN ROADWAY FILL SECTION AND NATURAL GROUND



EXCAVATION FOR STRUCTURES - ABUTMENT IN NATURAL GROUND AND NEW EMBANKMENT

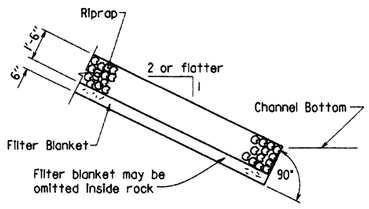


PLAN OF DUMPED RIPRAP



SECTION A-A

(Toe Excavation in Soil)



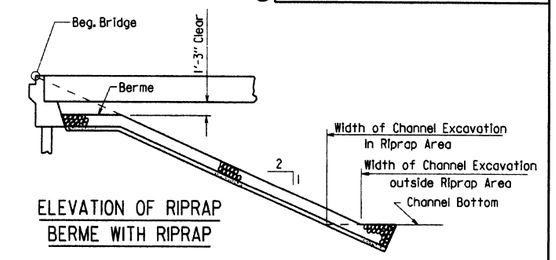
SECTION A-A

(Toe Excavation in Rock)

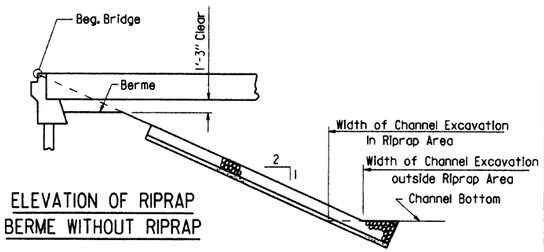
Note : Use this type of toe when rock is encountered which is in a stable condition.

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.

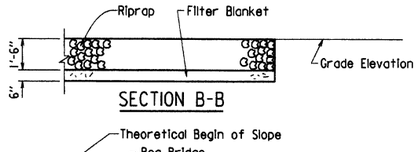
Note : Details for computing excavation for structures are included for information as to how plan quantities were calculated and for use when adjusting quantities when changing footing elevation.



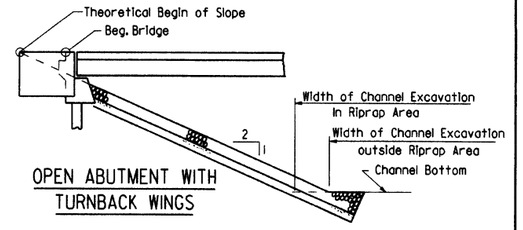
ELEVATION OF RIPRAP BERME WITH RIPRAP



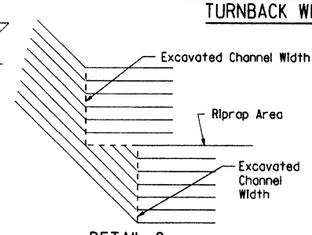
ELEVATION OF RIPRAP BERME WITHOUT RIPRAP



SECTION B-B



OPEN ABUTMENT WITH TURNBACK WINGS



DETAIL C

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

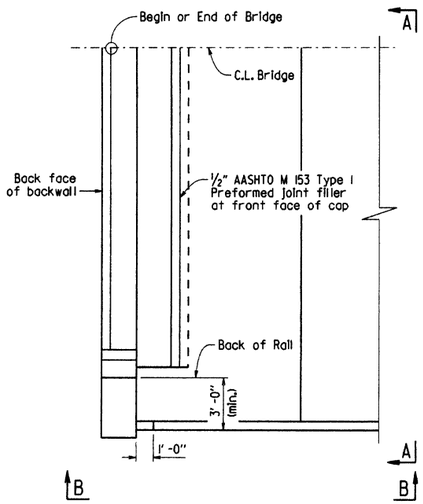
DESIGNED BY: STD. DATE:

DRAWING NO. 55001

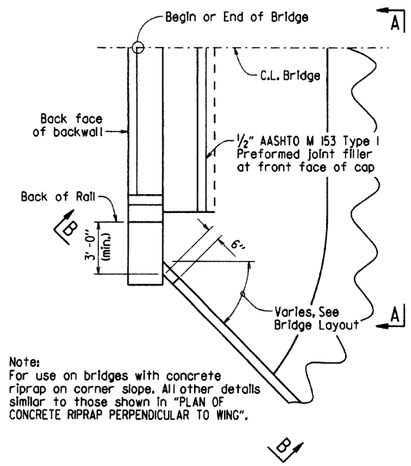
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		255	
				JOB NO.				

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.



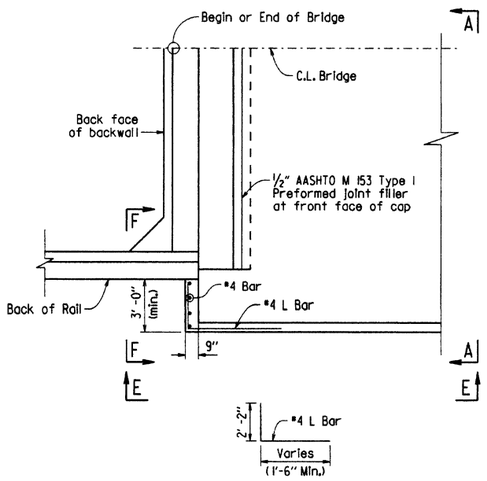
PLAN OF CONCRETE RIPRAP
PERPENDICULAR TO WING
¼" = 1'-0"



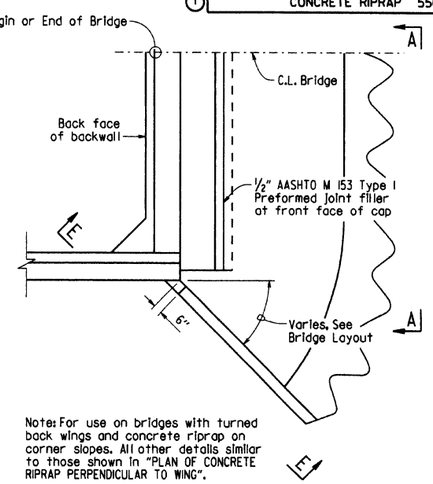
Note:
For use on bridges with concrete riprap on corner slope. All other details similar to those shown in "PLAN OF CONCRETE RIPRAP PERPENDICULAR TO WING".

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".

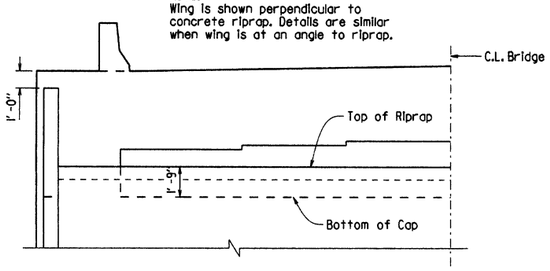


PLAN OF CONCRETE RIPRAP
PERPENDICULAR TO TURNED BACK WING
¼" = 1'-0"

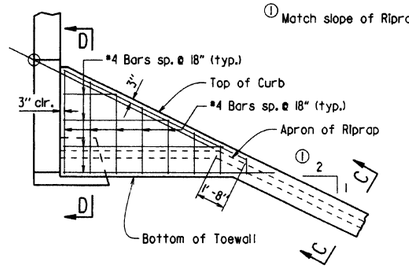


Note: For use on bridges with turned back wings and concrete riprap on corner slopes. All other details similar to those shown in "PLAN OF CONCRETE RIPRAP PERPENDICULAR TO WING".

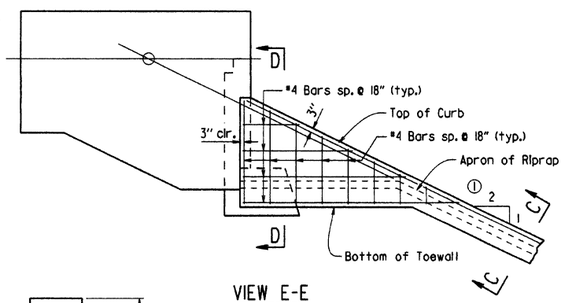
PLAN OF CONCRETE RIPRAP
AT ANGLE FROM TURNED BACK WING
¼" = 1'-0"



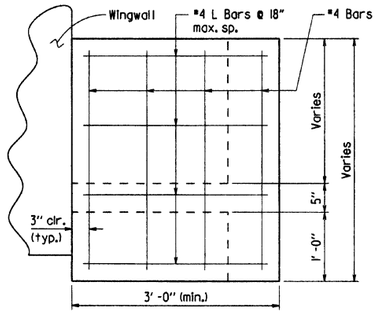
VIEW A-A
¼" = 1'-0"



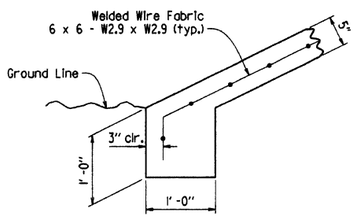
VIEW B-B
¼" = 1'-0"



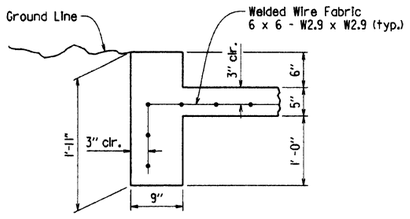
VIEW E-E
¼" = 1'-0"



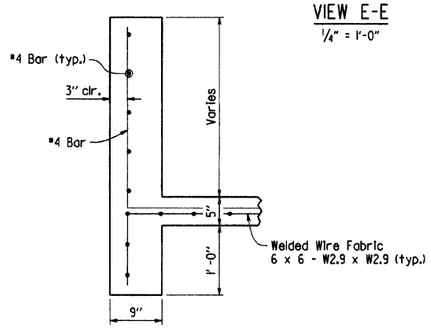
VIEW F-F
1" = 1'-0"



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

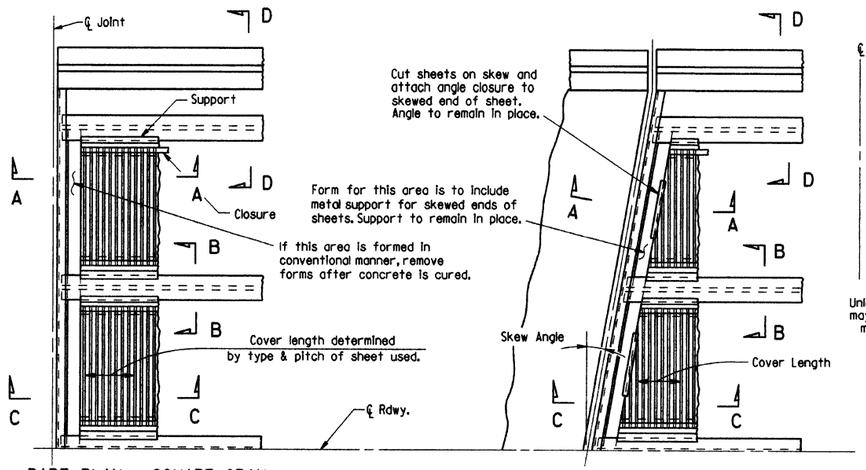
LITTLE ROCK, ARK.

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.		256	
				JOB NO.				

① BRIDGE DECK FORMS 55005

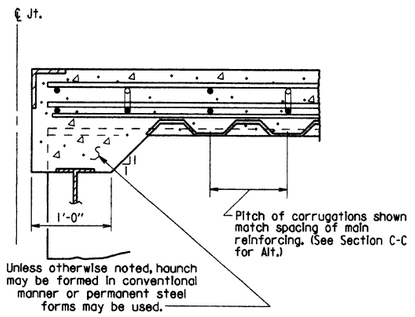


PART PLAN - SQUARE SPAN

⅜" = 1'-0"

PART PLAN - SKEWED SPAN

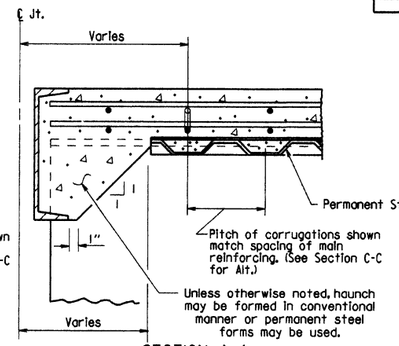
⅜" = 1'-0"



SECTION A-A

N.T.S.

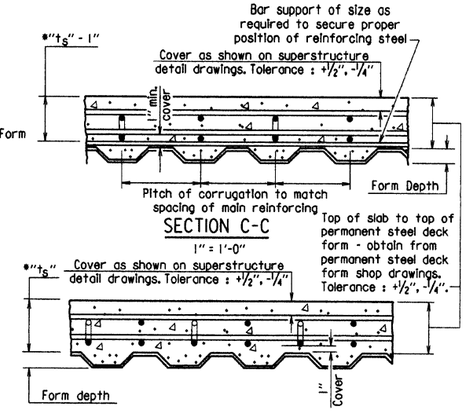
(Angle at end of span)



SECTION A-A

N.T.S.

(Channel at end of span)



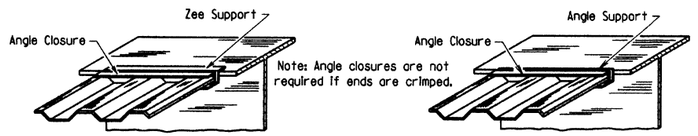
SECTION C-C

1" = 1'-0"

SECTION C-C - ALTERNATE

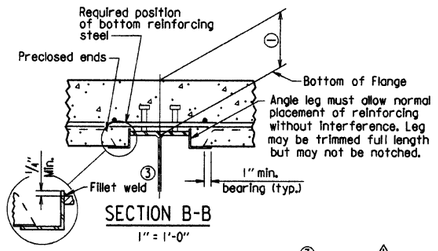
1" = 1'-0"

(Applicable when corrugations do not match spacing of main reinforcement)



SKETCH OF PERMISSIBLE SUPPORTS

N.T.S.

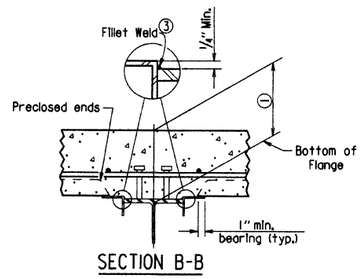


SECTION B-B

1" = 1'-0"

(Showing permissible support for tension flange where shear connectors are used, and for all compression flanges)

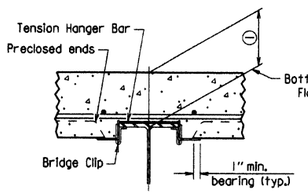
③ Minimum weld: ⅛" x 1" @ 18". More weld may be required; maximum length per weld = 1½" (typ.)



SECTION B-B

1" = 1'-0"

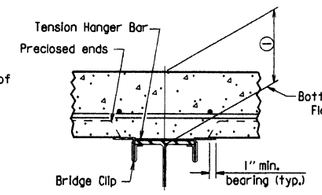
(Showing permissible support for tension flange where shear connectors are used and for all compression flanges)



SECTION B-B

1" = 1'-0"

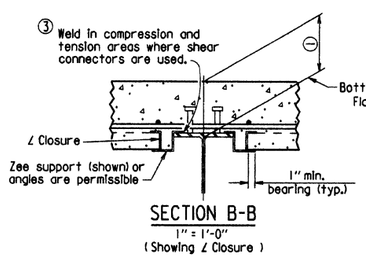
(Showing permissible support for tension flange where shear connectors are not used)



SECTION B-B

1" = 1'-0"

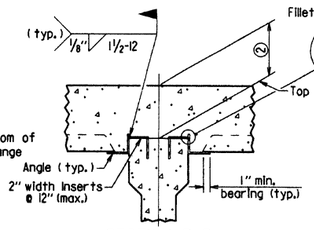
(Showing permissible support for tension flange where shear connectors are not used)



SECTION B-B

1" = 1'-0"

(Showing ∠ Closure)

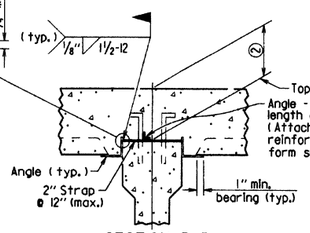


SECTION B-B

(FOR CONCRETE GIRDERS)

1" = 1'-0"

(Showing support by insert cast in girder)

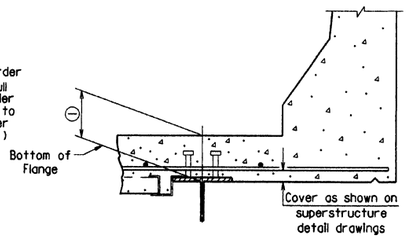


SECTION B-B

(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 + 1¾" + 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.

*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.

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

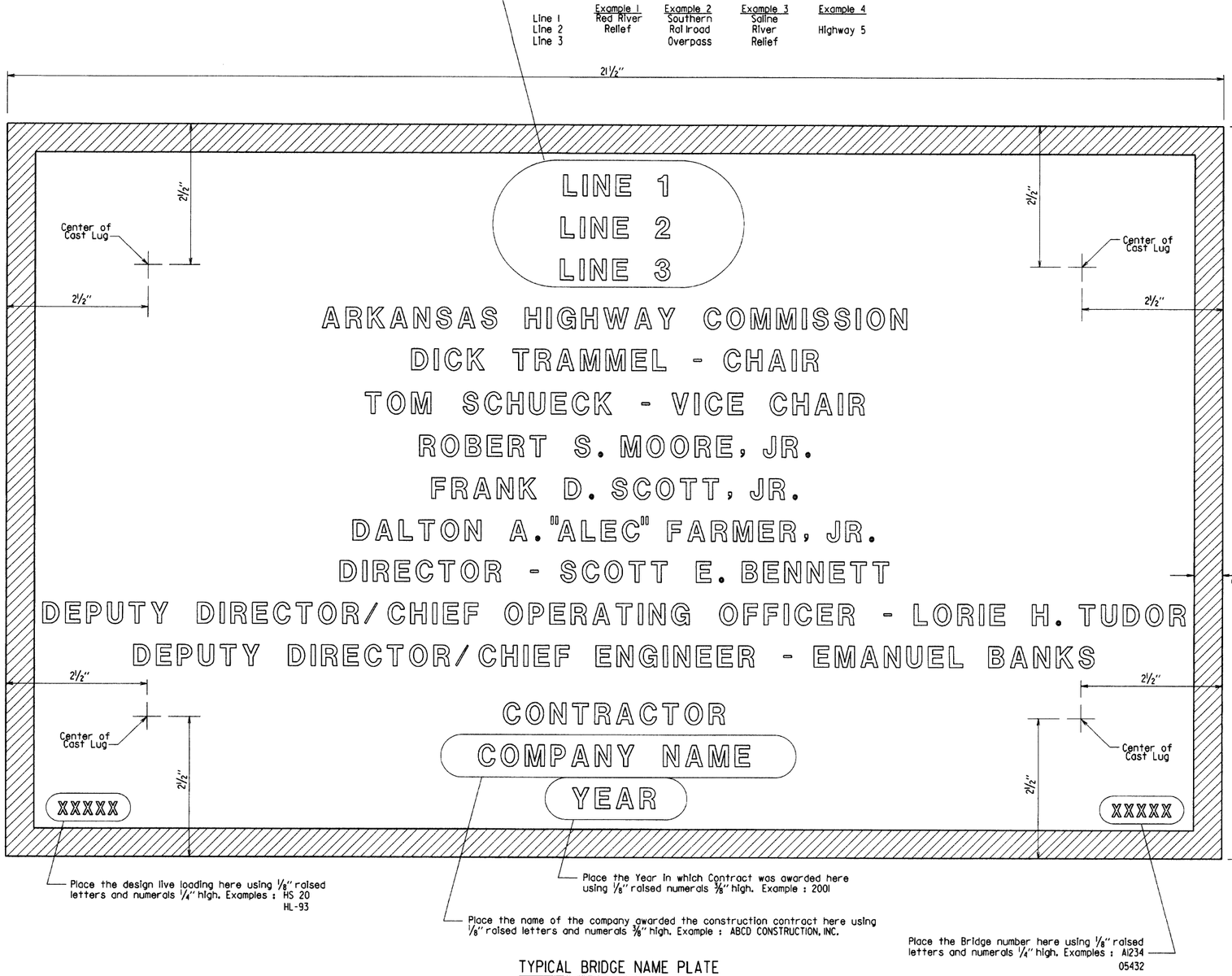
DESIGNED BY: STD. DATE: —

DRAWING NO. 55005

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
12-1-14				6	ARK.		257	
1-14-15				JOB NO.				
				TYPE D NAME PLATE		55010		

The name of the bridge as shown on the plans shall be placed on Lines 1 - 3 using 1/8" raised letters and numerals 3/8" high.

	Example 1	Example 2	Example 3	Example 4
Line 1	Red River	Southern	Saline	
Line 2	Relief	Railroad	River	Highway 5
Line 3		Overpass	Relief	



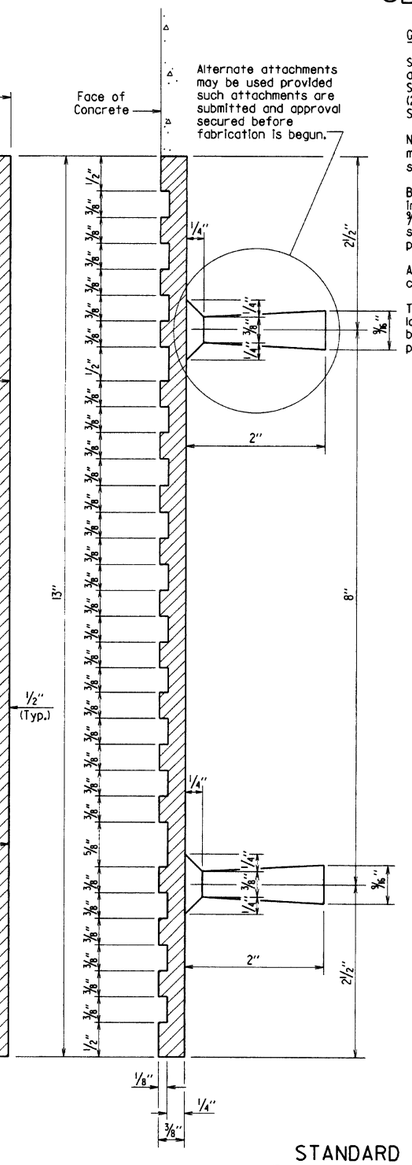
Place the design live loading here using 1/8" raised letters and numerals 1/4" high. Examples : HS 20 HL-93

Place the Year in which Contract was awarded here using 1/8" raised numerals 3/8" high. Example : 2001

Place the name of the company awarded the construction contract here using 1/8" raised letters and numerals 3/8" high. Example : ABCD CONSTRUCTION, INC.

Place the Bridge number here using 1/8" raised letters and numerals 1/4" 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 1/4" thick and shall include four tapering cone lugs 3/8" to 9/16"x 2" long. The border and all lettering shall be raised 1/8" 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.

2 Revised Chair and Vice Chair Added New Commissioner
1-14-15 KDH Checked By: CRE

1 Revised Deputy Director/ Chief Engineer Added Deputy Director/ Chief Operating Officer
12-1-14 KDH Checked By: CRE

STANDARD DETAILS FOR TYPE D BRIDGE NAME PLATE

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

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.		25	
				JOB NO.				

① STEEL H-PILES 55020

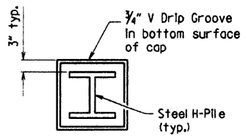
GENERAL NOTES FOR STEEL H-PILES:

Steel H-Piles shall conform to AASHTO M 270, Grade 36 or greater.

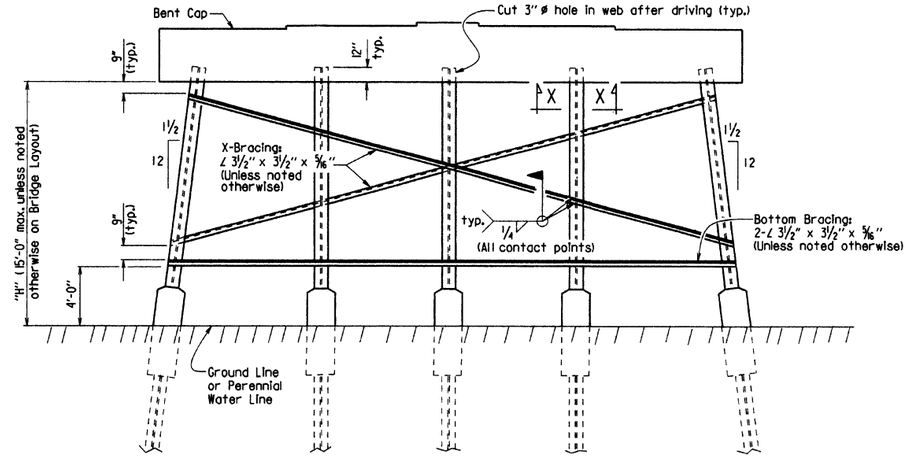
See Bridge Layout and Bent Details for pile size, estimated length, spacing, pile anchorage (if required) and for driving information.

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.

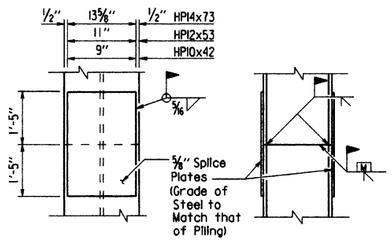
Omit X-Bracing and Bottom Bracing when "H" is 5 feet or less.

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)



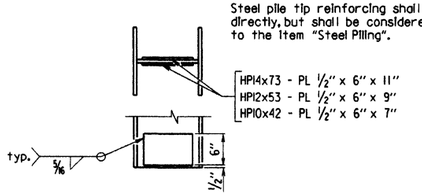
The Contractor may for his own convenience and at his own expense provide as many as three splices per pile. Minimum spacing between splices shall be 5 feet.

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 Specifications 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:

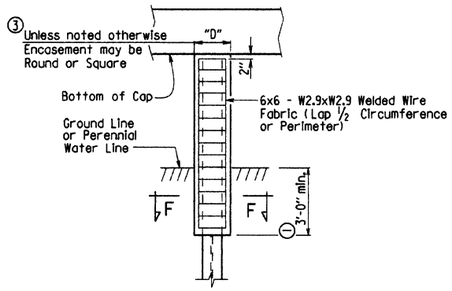
⚠ See Bridge Layout for additional notes, any pile encasement restrictions and required location of pile encasements.

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.

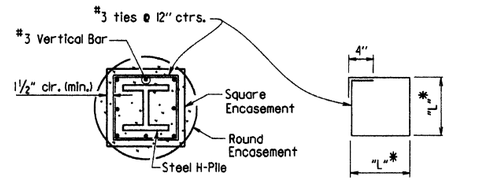
Welded Wire Fabric shall conform to AASHTO M 55 or M 221. Galvanized Corrugated Steel Pipe shall conform to AASHTO M 36 and M 218.

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)

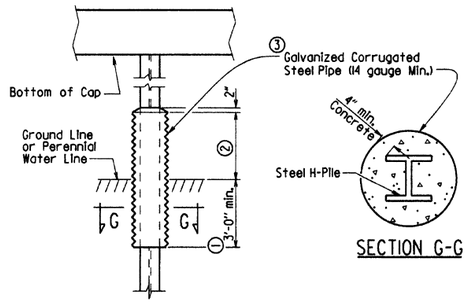


SECTION F-F

*Measured out-to-out of bar.

TABLE OF VARIABLES FOR PILE ENCASEMENT

Pile Size	"D" Square Encsmt.	"D" Round Encsmt.	"L"*
HP10x42	1'-7"	2'-0"	1'-4"
HP12x53	1'-8"	2'-2"	1'-5"
HP14x73	1'-11"	2'-6"	1'-8"



SECTION G-G

ALTERNATE PILE ENCASEMENT DETAIL FOR STEEL H-PILES

(Shown with Partial Height Encasement)

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.

⚠ 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

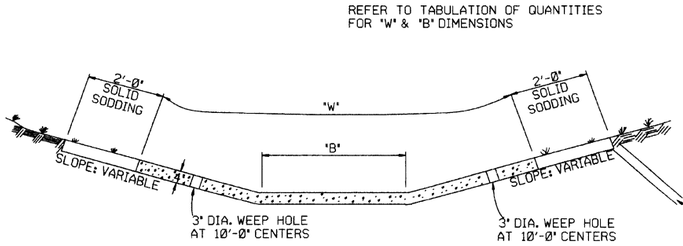
STANDARD DETAILS FOR STEEL H-PILES AND PILE ENCASEMENTS

ARKANSAS STATE HIGHWAY COMMISSION

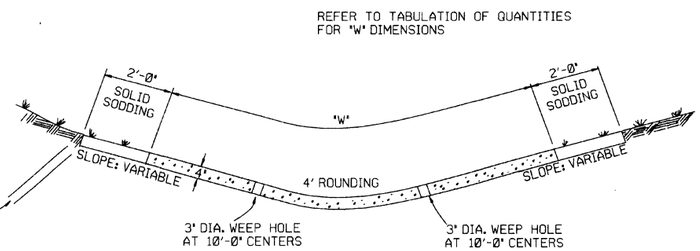
LITTLE ROCK, ARK.

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



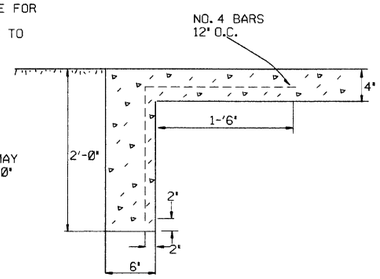
TYPE A



EXCAVATE TO NEAT LINES TO CONSTRUCT DITCH PAVING AND SOLID SODDING.

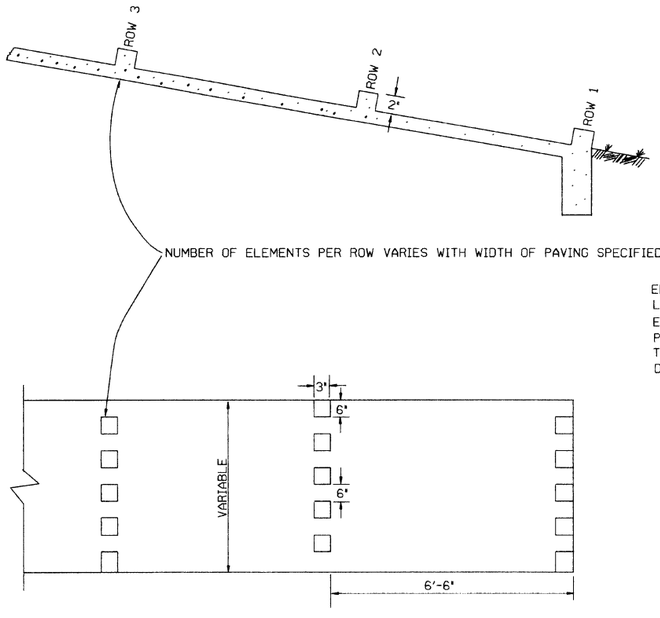
TYPE B

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



ENERGY DISSIPATORS
(NO SCALE)

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 UNCLUDED IN THE PRICE BID FOR CONCRETE DITCH PAVING.

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.

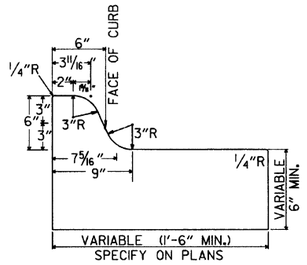
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45' INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

DATE	REVISION	DATE FILM'D
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



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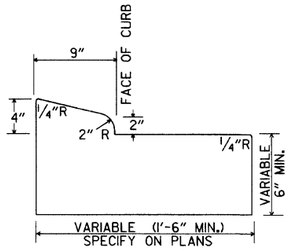
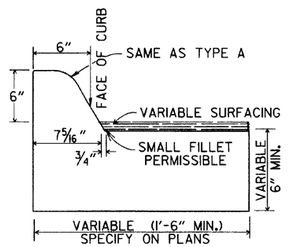
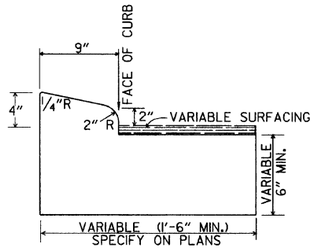


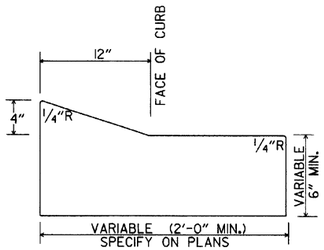
TYPE B-1



TYPE C



TYPE B-2



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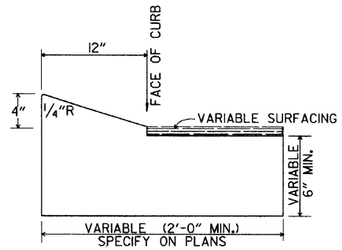
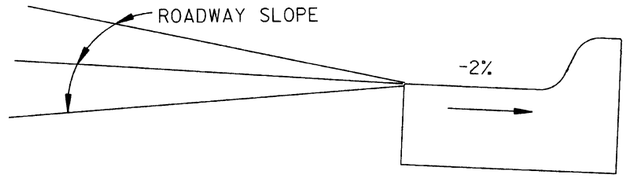


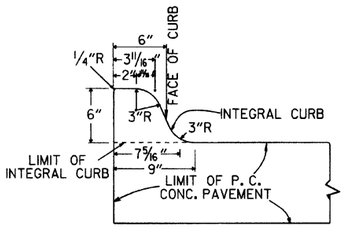
TYPE E-2

CONCRETE COMBINATION CURB AND GUTTER

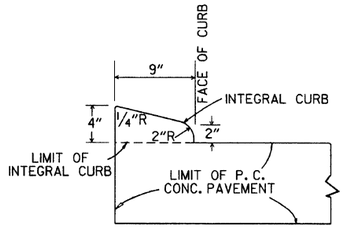


DETAIL OF GUTTER SLOPE

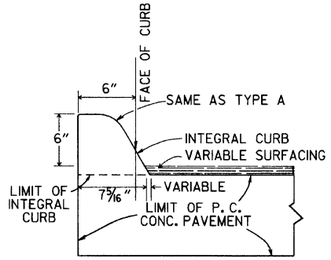
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.



TYPE A

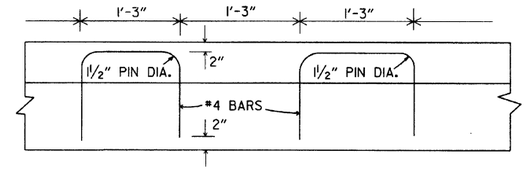


TYPE B

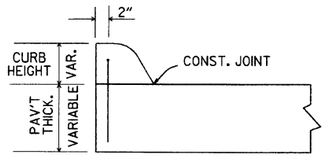


TYPE C

INTEGRAL CURB

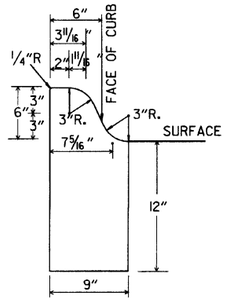


LONGITUDINAL SECTION

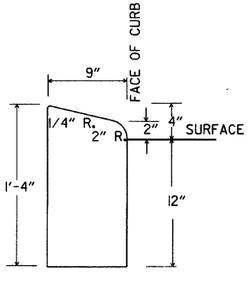


ELEVATION

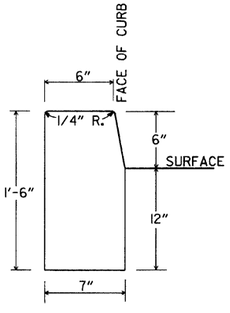
ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



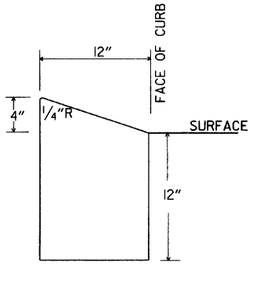
TYPE A



TYPE B

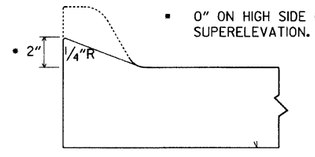


TYPE D



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

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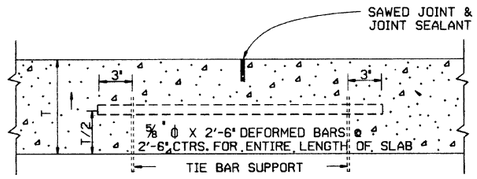
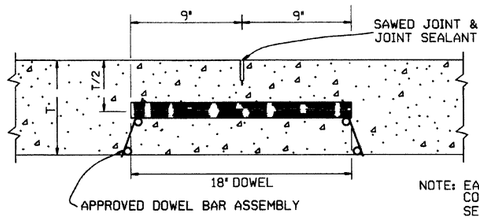
CURBING DETAILS

STANDARD DRAWING CG-1



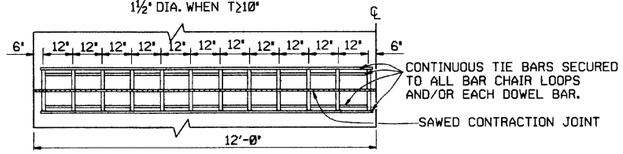
LONGITUDINAL JOINT

NOTE: THE TIE BAR SUPPORT SHOWN ABOVE MAY BE ELIMINATED IF OTHER APPROVED METHODS FOR PLACING AND SUPPORTING THE TIE BARS ARE PROVIDED.
TIE BARS SHALL BE 15' FROM TRANSVERSE JOINTS.



NOTE: EACH DOWEL TO BE COATED ACCORDING TO SECTION 502 OF THE STANDARD SPECIFICATIONS.

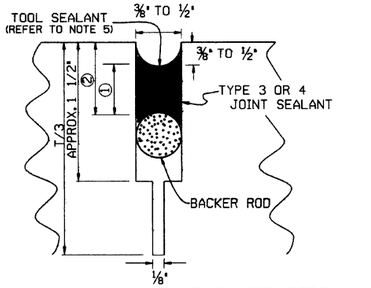
ROUND STEEL BAR DOWEL
1¼" DIA. WHEN T<10"
1½" DIA. WHEN T≥10"



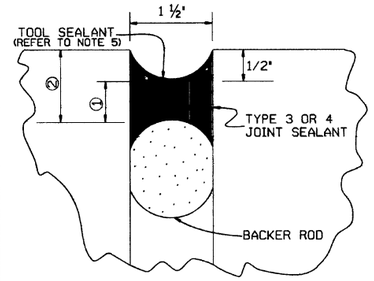
ONE-HALF 24' PAVEMENT
12 DOWELS
PLAN

NOTE: FOR 20' PAVEMENT USE 20 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR.
FOR 15' PAVEMENT USE 15 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR.
FOR 26' PAVEMENT USE 26 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR.
FOR PAVEMENT WIDTHS OTHER THAN THOSE SHOWN ABOVE, USE DOWELS AT 12" CTRS. WITH 6" MAX. SPACING FROM C.L. TO FIRST BAR. DISTANCE FROM EDGE OF SLAB TO FIRST BAR SHALL BE ADJUSTED TO MAINTAIN 12" DOWEL BAR SPACING

CONTRACTION JOINT DETAILS



DETAIL OF SAWED CONTRACTION JOINT



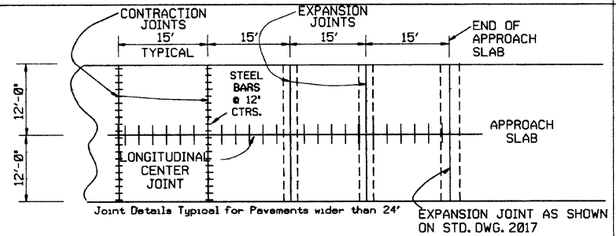
DETAIL OF EXPANSION JOINT

JOINT CONFIGURATION FOR TYPE 3 OR 4 JOINT SEALANT

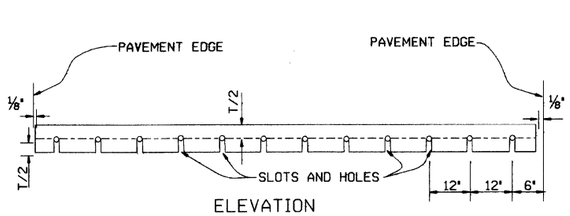
JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
¼	¼	⅜	½
⅜	¼	½	½
½	¼	⅝	½
½	⅜	⅝	½
⅝	⅜	¾	⅝
¾	⅜	⅞	⅞
¾	½	⅞	⅞
1 ½	¾	2	1 ¼

JOINT CONFIGURATION FOR TYPE 5 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
¼	½	⅜	¾
⅜	¾	½	1

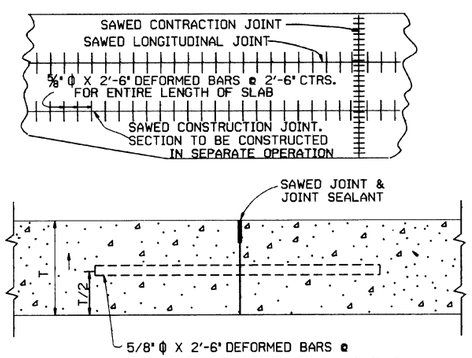


PLAN SHOWING EXPANSION JOINTS AT BRIDGE APPROACH SLABS



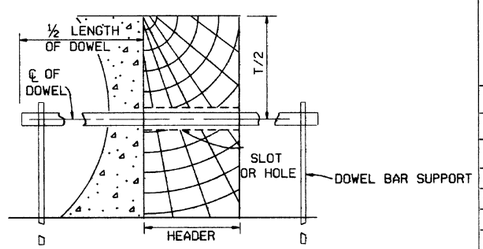
ELEVATION

NOTE: ALL DOWEL BARS SHALL CONFORM TO THE DETAILS FOR CONTRACTION JOINTS.



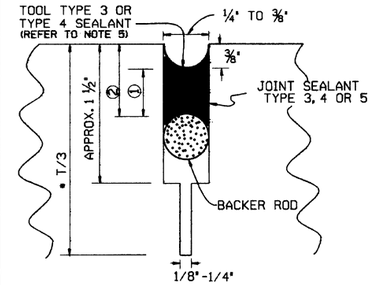
NOTE: TIE BARS SHALL BE 15' FROM TRANSVERSE JOINTS.

LONGITUDINAL CONSTRUCTION JOINT



SECTION

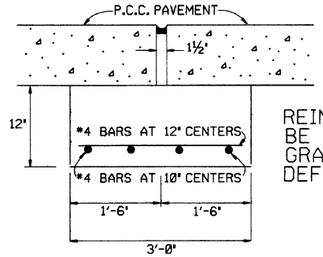
TRANSVERSE CONSTRUCTION JOINT



*NOTE: T/3 SAW CUT NOT REQUIRED FOR LONGITUDINAL CONSTRUCTION JOINT.

DETAIL OF SAWED LONGITUDINAL JOINT AND LONGITUDINAL CONSTRUCTION JOINT

DATE	REVISION	DATE FILMED
5-25-06	ADDED GENERAL NOTE 7	
10-9-03	REMOVED TIE BAR COATING & REVISED GENERAL NOTES	
11-16-01	ADDED TOOL SEALANT AND NOTE 5; REVISED NOTE 3	
4-26-96	REVISED CONTRACTION JOINT NOTE	
11- 3-94	ADDED NOTE RE: REINF. BARS	
4- 1-93	REVISED DOWEL BARS & GEN. NOTES	4- 1-93
10- 1-92	REVISED DOWEL SPACING	10- 1-92
8- 15-91	ADDED SPAC FOR CONTR JTS & DEL KEYWAY	
05-24-90	REVISED TIE BAR, DOWEL & JOINT SIZE	
01-25-90	ADDED EXPANSION JOINT	01-25-90
11-30-89	CHANGED T/4+1 TO T/3+1	11-30-89
03-23-89	ALTERED SAWED JOINT & ADDED NOTE	512-03-23-89
07-15-88	REVISED AND REDRAWN	632-07-15-88



REINFORCING SHALL BE GRADE 40 OR GRADE 60 DEFORMED BARS.

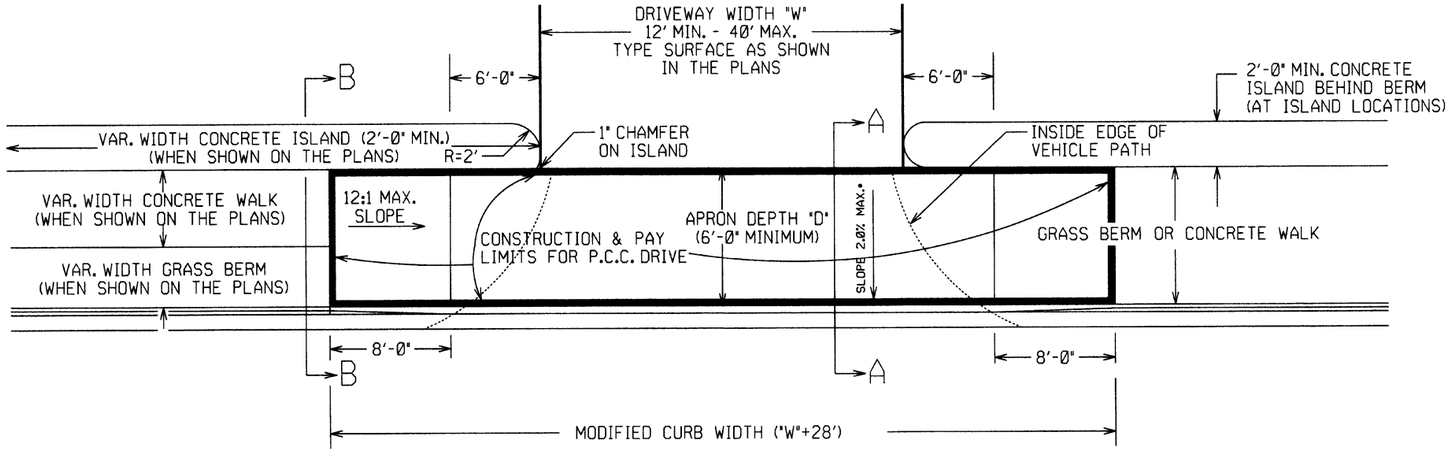
DETAIL OF JOINT SUPPORT FOR EXPANSION JOINTS

GENERAL NOTES
1. 'T' DENOTES THICKNESS OF SLAB.
2. DOWEL BARS SHALL BE PLACED IN ACCORDANCE WITH THE DIMENSIONS SHOWN. A TOLERANCE OF PLUS OR MINUS ONE INCH WILL BE ALLOWED FOR THE VERTICAL AND LATERAL PLACEMENT AND A TOLERANCE OF PLUS OR MINUS ¼" WILL BE ALLOWED FOR THE TILT AND SKEW. DOWEL BARS SHALL BE FIELD COATED FOR A MINIMUM DISTANCE OF 2" GREATER THAN HALF THE LENGTH OF THE BAR WITH AN APPROVED GREASE AS A BOND BREAKER JUST PRIOR TO PLACEMENT OF CONCRETE.
3. THE EXPANSION 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 SPECIFIED IN THE PLANS. PAYMENT FOR ALL OTHER WORK AND MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE JOINT SUPPORT SHALL BE INCLUDED IN THE PRICE BID FOR THE ABOVE ITEMS.
4. CONTRACTION JOINTS SHALL BE CONSTRUCTED ON 15' CENTERS.
5. TOOLING NOT REQUIRED FOR SELF-LEVELING SILICONE.
6. UNLESS OTHERWISE SPECIFIED IN THE PLANS, CONCRETE SHOULDERS SHALL BE CONSTRUCTED ACCORDING TO THE DETAILS SHOWN HEREON. CONTRACTION JOINTS SHALL MATCH CONTRACTION JOINTS IN THE LANES.
7. TIE WIRES IN DOWEL BAR ASSEMBLIES SHALL NOT BE CUT PRIOR TO PLACEMENT OF PAVING CONCRETE.

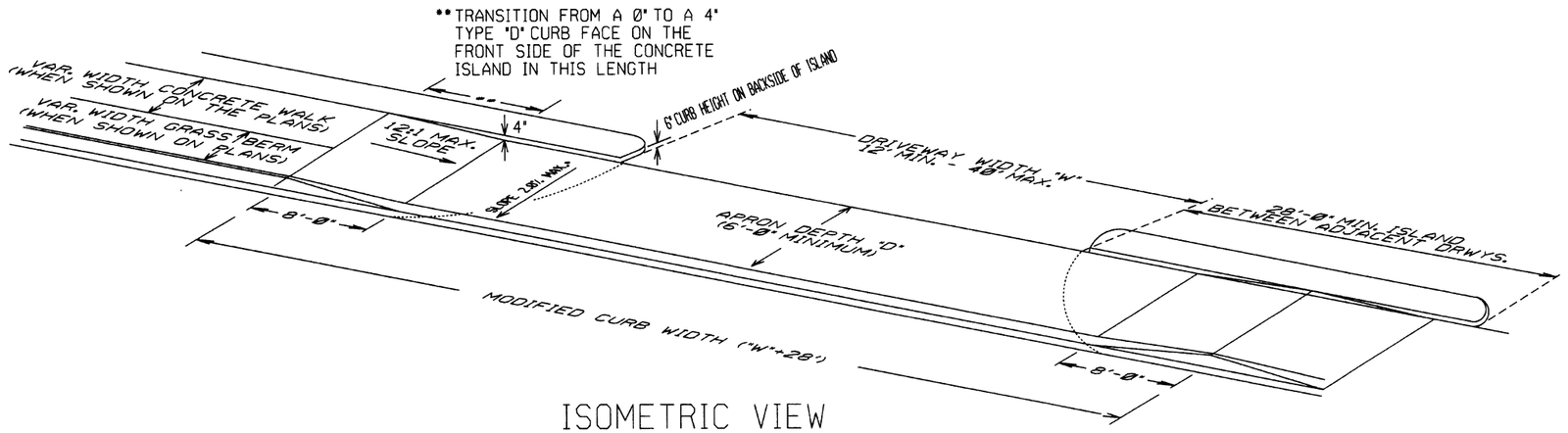
ARKANSAS STATE HIGHWAY COMMISSION

TRANSVERSE & LONGITUDINAL JOINTS FOR CONCRETE PAVEMENT (NON-REINFORCED)

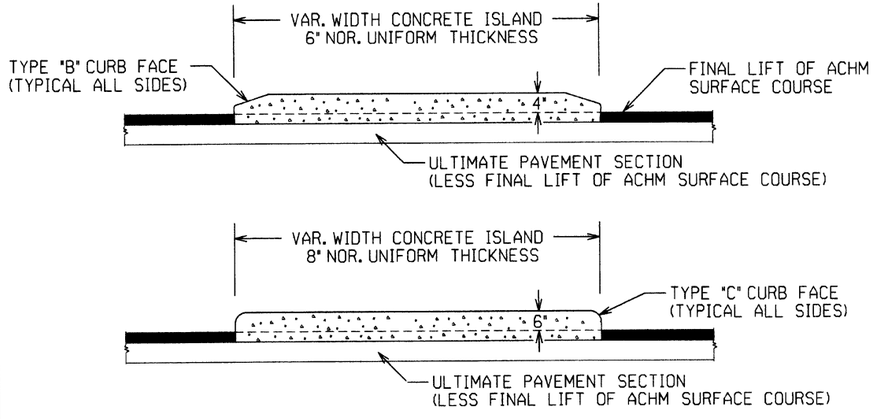
STANDARD DRAWING CPTJ - 6A



PLAN VIEW

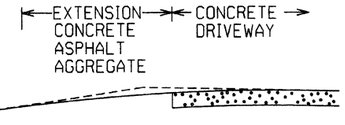


ISOMETRIC VIEW



CURBED ISLANDS FOR CHANNELIZATION

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".



EXTENSION TYPICAL SECTIONS

1: CONCRETE - 6" P.C. CONCRETE DRIVEWAY

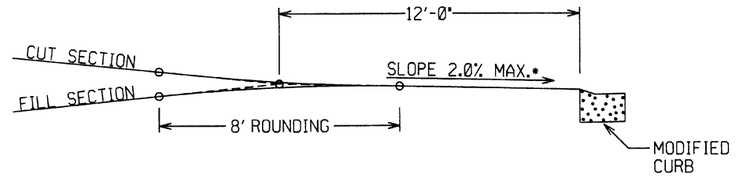
2: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
4" ACHM BINDER COURSE.(1") OR
4" ACHM BASE COURSE (1-1/2")

3: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
7" AGGREGATE BASE COURSE

4: AGGREGATE - 6" AGGREGATE BASE COURSE

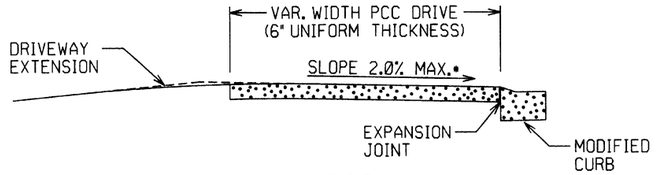
THE TYPE OF EXTENSION SHALL BE AS SHOWN IN THE PLANS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, SUBSTITUTE A LOWER NUMBERED TYPE OF EXTENSION IN LIEU OF THE TYPE SPECIFIED IN THE PLANS, BUT AT NO ADDITIONAL COST TO THE DEPARTMENT.

DRIVEWAY EXTENSION DETAILS

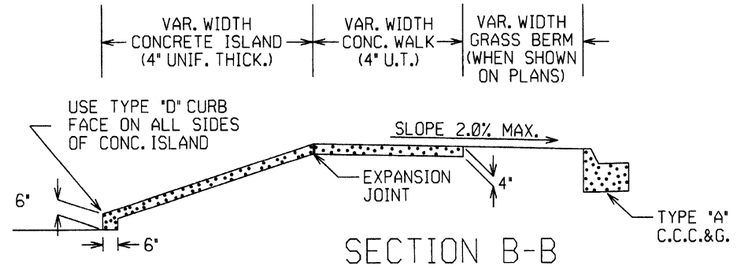


DRIVEWAY VERTICAL ALIGNMENT DETAILS

• NOTE: DRIVEWAYS MAY NOT BE SLOPED AWAY FROM THE ROADWAY UNLESS APPROVED BY THE ENGINEER.



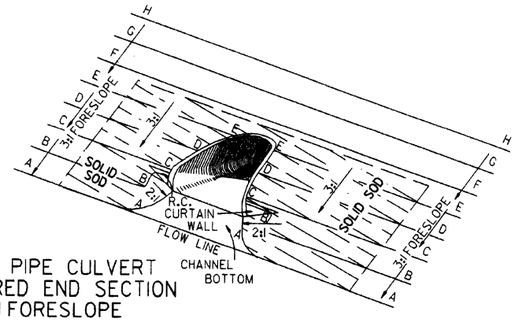
SECTION A-A



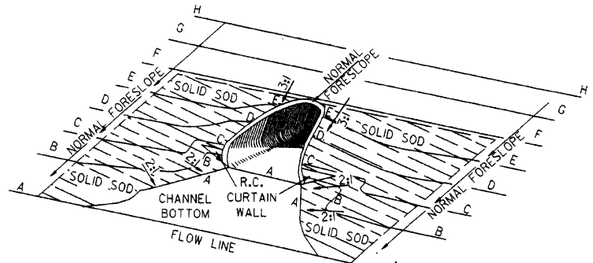
SECTION B-B
CURBED ISLAND BEHIND WALK

DATE REV	DATE FILMED	DESCRIPTION
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

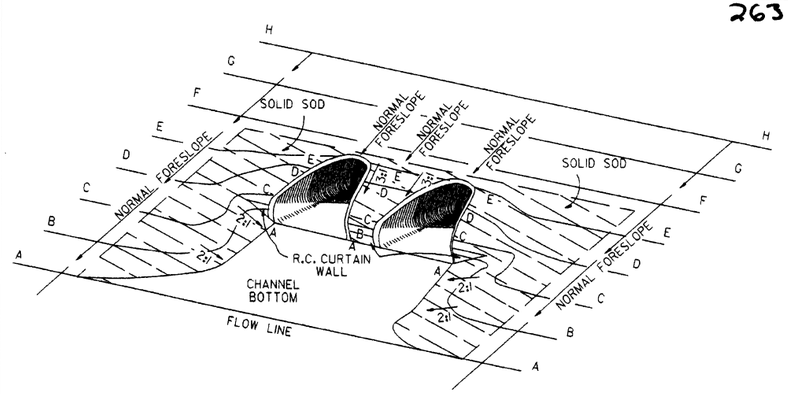
ARKANSAS STATE HIGHWAY COMMISSION
DETAILS OF DRIVEWAYS & ISLANDS
STANDARD DRAWING DR-1



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

R.C. CURTAIN WALL
DIMENSIONS & QUANTITIES

PIPE DIA.	H_1	L_1	L	L (DBL.) / 2	SINGLE R.C.P.C. CONC. CU. YDS.	SINGLE R.C.P.C. REINF. STEEL LBS.	DOUBLE R.C.P.C. CONC. CU. YDS.	DOUBLE R.C.P.C. REINF. STEEL LBS.
18"	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.

REINFORCING STEEL SCHEDULE

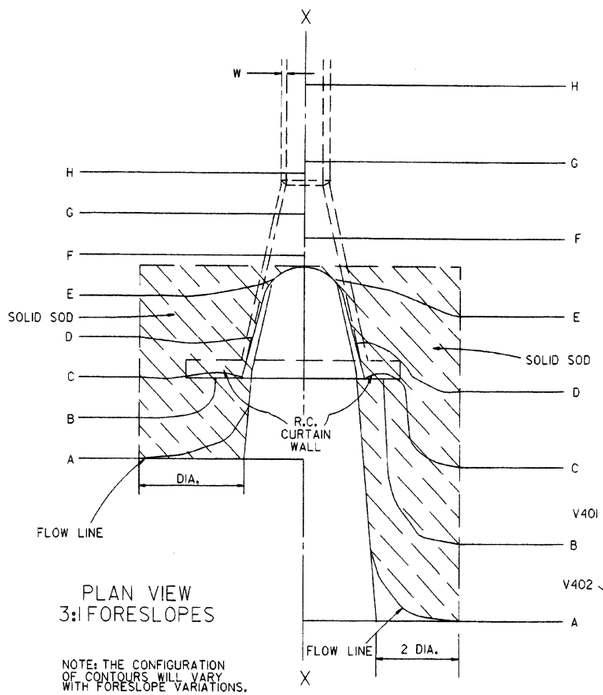
PIPE DIA.	SINGLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	V401 L	V401 NO.	V402 L	V402 NO.	DOUBLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	H403 L	H403 NO.	V401 L	V401 NO.	V402 L	V402 NO.
18"	7'-8"	2	1'-11½"	4	1'-7½"	8	8"	8	12'-2"	2	1'-11½"	4	8"	2	1'-7½"	10	8"	14
24"	9'-2"	2	2'-2"	4	1'-8½"	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 SQ. YDS.	SINGLE R.C.P.C. 4:1 SQ. YDS.	SINGLE R.C.P.C. 6:1 SQ. YDS.	DOUBLE R.C.P.C. 3:1 SQ. YDS.	DOUBLE R.C.P.C. 4:1 SQ. YDS.	DOUBLE R.C.P.C. 6:1 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

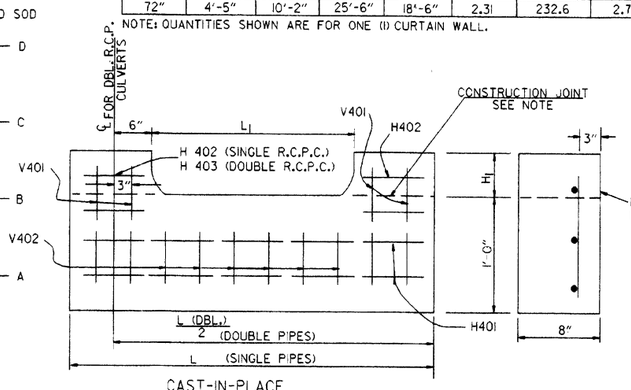
NOTE: QUANTITIES SHOWN ABOVE ARE FOR ONE (1) END OF F.E.S.



PLAN VIEW
3:1 FORESLOPES

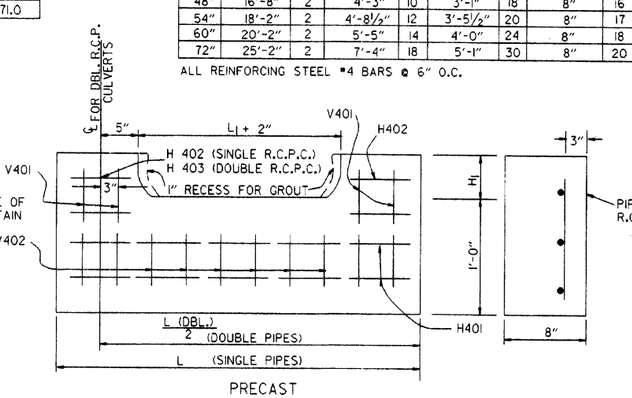
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES



CAST-IN-PLACE

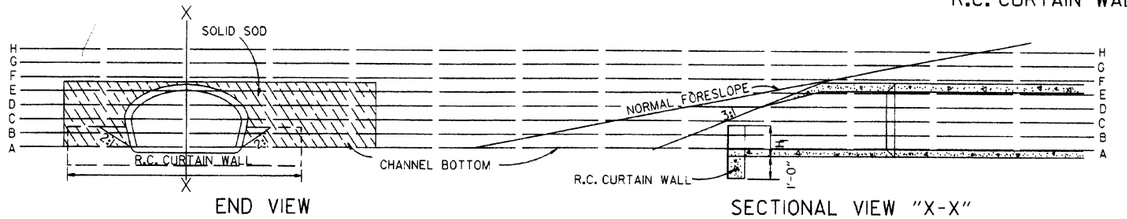
NOTE: THE PORTION OF THE R.C. CURTAIN WALL BENEATH THE FLARED END SECTION (LOWER 1'-0") SHALL BE PLACED MONOLITHICALLY. THE FLARED END SECTION SHALL THEN BE SET IN PLACE & THE REMAINING PORTIONS OF THE R.C. CURTAIN WALL PLACED.



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"

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 W/10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.

DATE	REVISION	FILMED
10-18-96	ADDED NOTE TO SOLID SODDING	10-18-96
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

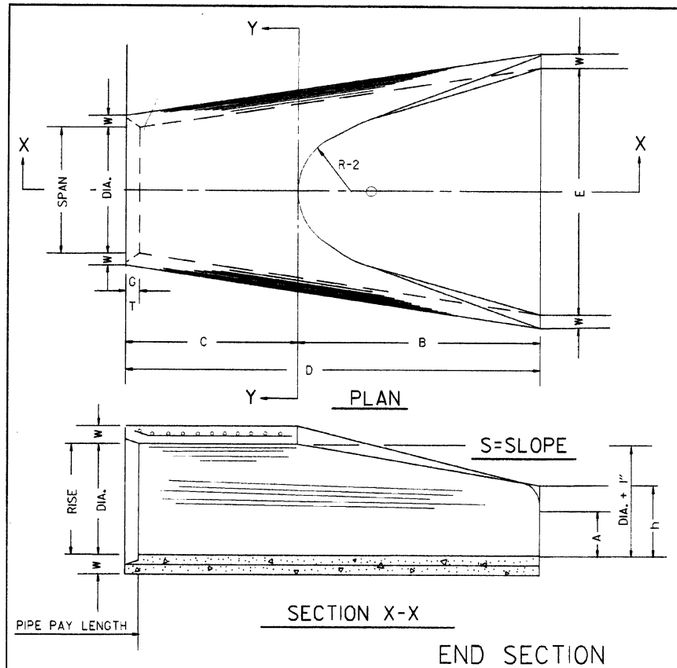
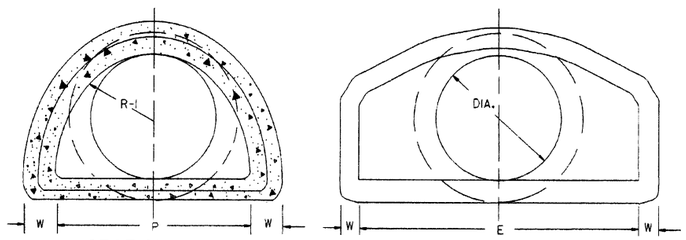


TABLE OF DIMENSIONS

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 13/16"	14"	2½"	1600	1'-1½"
30"	3½"	1'-0"	4'-6"	1'-7¾"	6'-3¼"	5'-0"	3:1	31"	37"	18½"	15"	3¼"	1940	1'-4⅝"
36"	4"	1'-3"	5'-3"	2'-10¼"	8'-1¾"	6'-0"	3:1	37"	47 1/16"	24 5/16"	20"	3½"	4100	1'-8"
42"	4½"	1'-5"	5'-3"	2'-11"	8'-2"	6'-6"	3:1	43"	53⅛"	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"	33⅜"	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 5/16"	24"	5"	13250	4'-6"



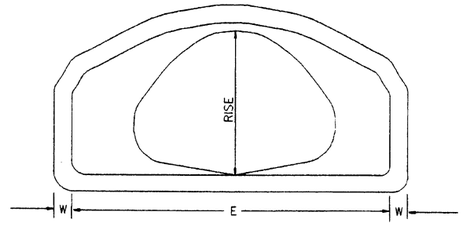
NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

END SECTION FOR REINFORCED CONCRETE PIPE CULVERTS

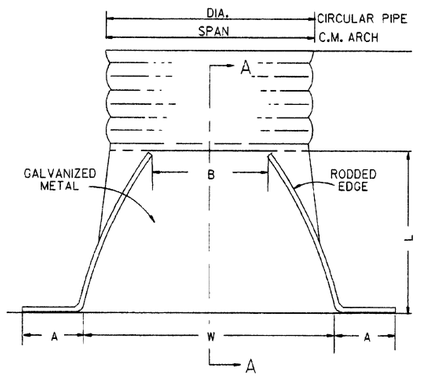
ARCH PIPE

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 3/16"	15"	2½"	2½:1
30	36¼	36	22½	23	3½"	10"	3'-1"	3'-0½"	6'-1½"	6'-0"	47 1/16"	20"	3"	2½:1
36	43¾	44	26⅝	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 13/16"	24"	5"	2¼:1

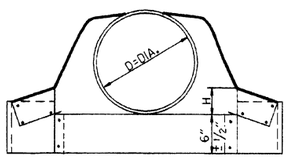
• THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PER CENT FROM THE VALUES SPECIFIED BY AASHTO M 206.



END VIEW
CONCRETE ARCH PIPE



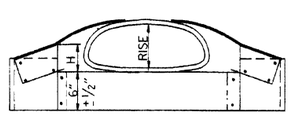
NOTE: ALTERNATE CONNECTIONS TO THE PIPE CULVERTS, IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICES, MAY BE MADE SUBJECT TO THE APPROVAL OF THE ENGINEER.



CIRCULAR PIPE

CIRCULAR PIPE

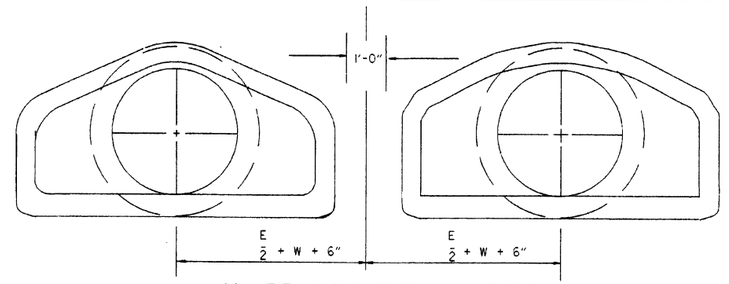
D. DIA.	GAUGE	A 1" ±	B. MAX.	H 1" ±	L 11½" ±	W 2" ±	S
		INCHES					
12	16	6	6	6	21	24	2½:1
15	16	7	8	6	26	30	2½:1
18	16	8	10	6	31	36	2½:1
21	16	9	12	6	36	42	2½:1
24	16	10	13	6	41	48	2½:1
30	14	12	16	8	51	60	2½:1
36	14	14	19	9	60	72	2½:1
42	12	16	22	11	69	84	2½:1
48	12	18	27	12	78	90	2½:1
54	12	18	30	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



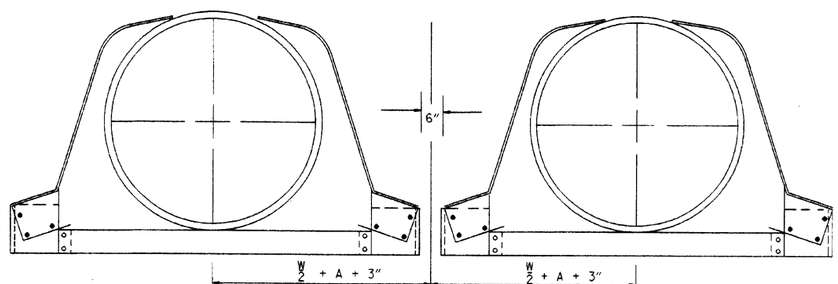
C.M. ARCH PIPE

C.M. ARCH PIPE

EQUIV. DIA.	SPAN	RISE	A 1" ±	B MAX.	H 1" ±	L 11½" ±	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



MULTIPLE R.C. PIPE CULVERTS



MULTIPLE C.M. PIPE CULVERTS

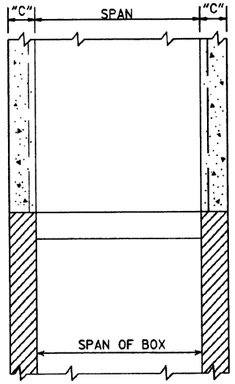
END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS

DATE	REVISION	FILMED
10-18-96	REVISED ASTM REF. TO AASHTO	10-18-96
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

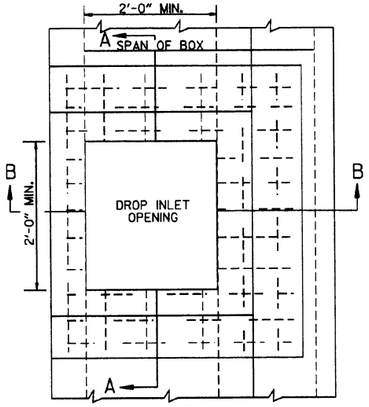
ARKANSAS STATE HIGHWAY COMMISION

FLARED END SECTION

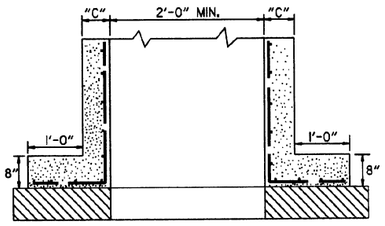
STANDARD DRAWING FES-2



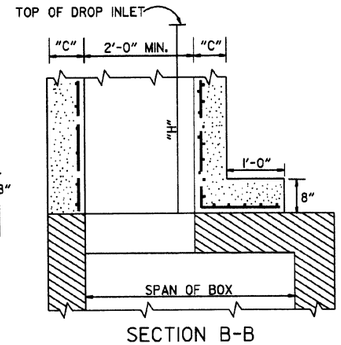
SECTION B-B



PLAN

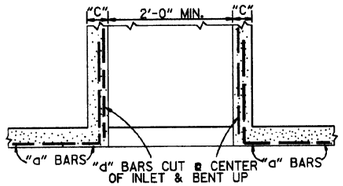


SECTION A-A

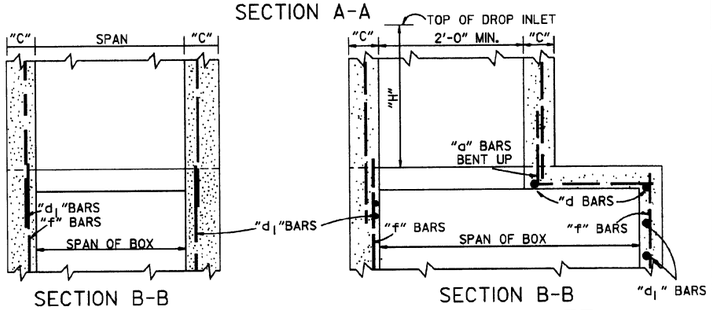


SECTION B-B

METHOD OF CONSTRUCTING DROP INLET ON EXISTING R.C. BOX CULVERT



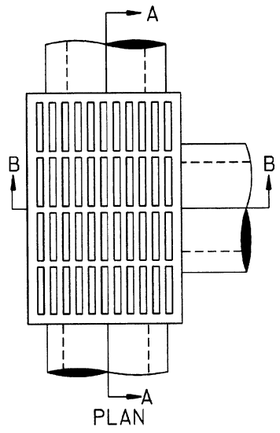
SECTION A-A



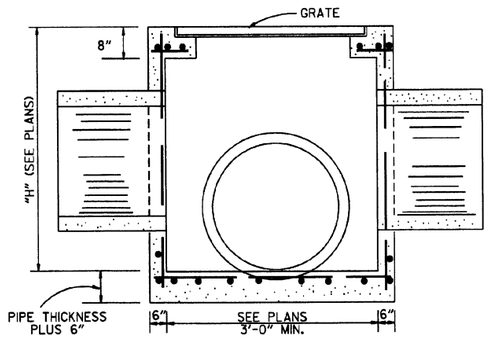
SECTION B-B SECTION B-B

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.

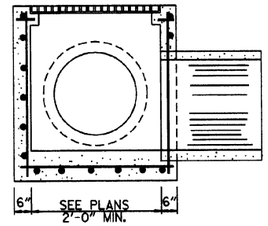


PLAN



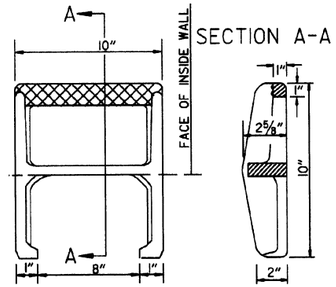
SECTION A-A

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)

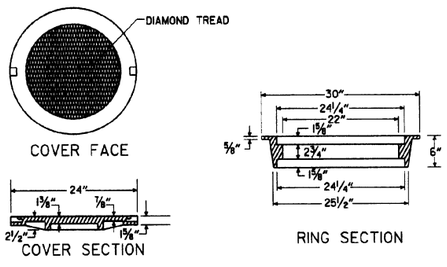


APPROX. WEIGHT = 11 LBS. (CAST IRON)

PLAN

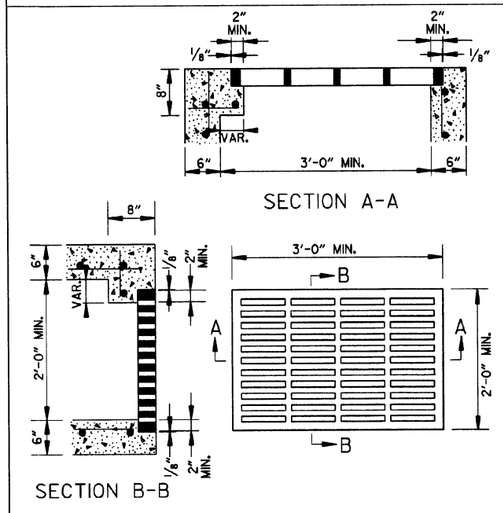
NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET



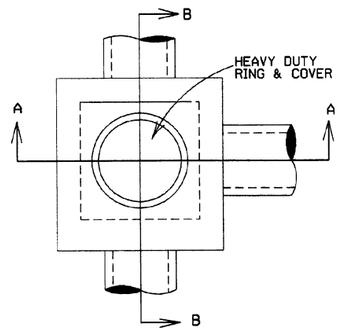
APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER

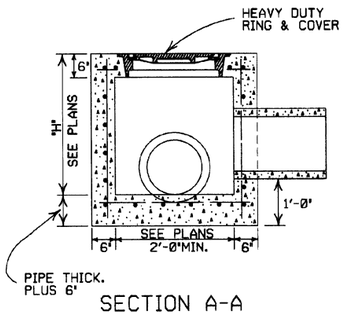


APPROXIMATE MINIMUM WATERWAY OPENING = 260 SQ. IN.

GRATE FOR TYPE E DROP INLET

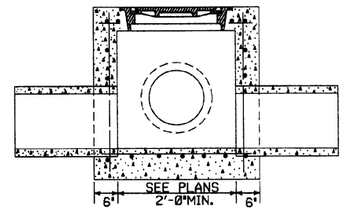


PLAN



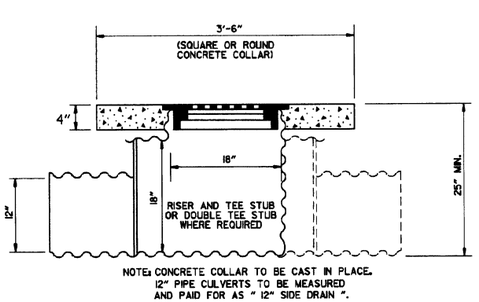
SECTION A-A

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.

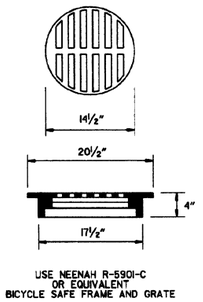


SECTION B-B

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:

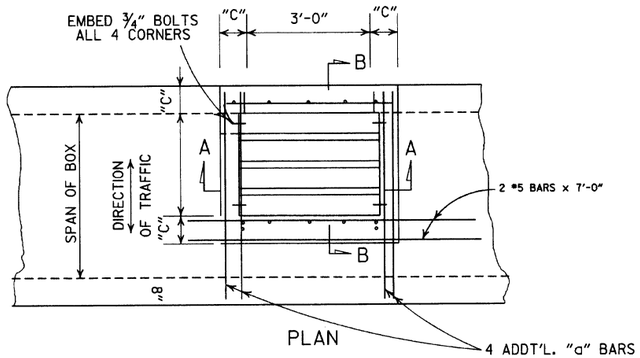
1. ALL EXPOSED CORNERS SHALL BE ¾" CHAMFERED.
2. STEPS SHALL BE INSTALLED ON 16" CENTERS ON ALL INLETS 4'-0" HIGH OR OVER, OR AS APPROVED BY THE ENGINEER.
3. EXPANSION JOINT MATERIAL SHALL BE ¾" PREFORMED FIBER.
4. GRATE OR GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS 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	

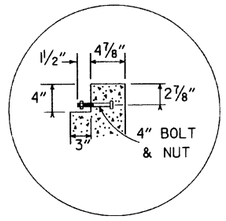
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS & JUNCTION BOXES

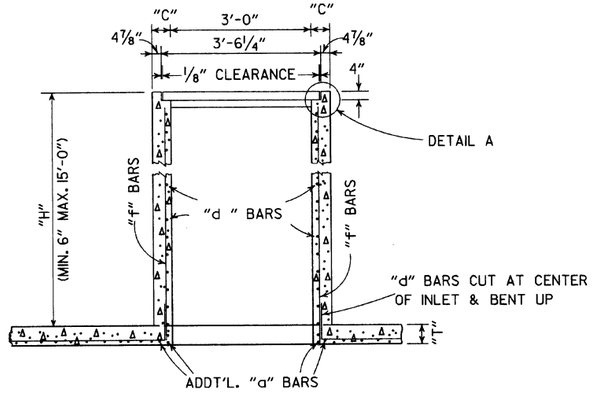
STANDARD DRAWING FPC-9



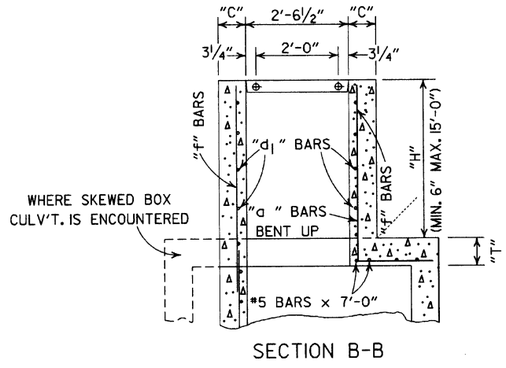
PLAN



DETAIL A



SECTION A-A

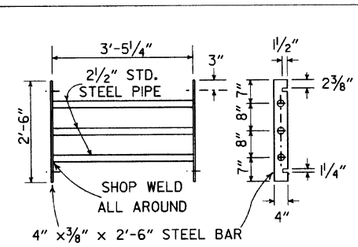


SECTION B-B

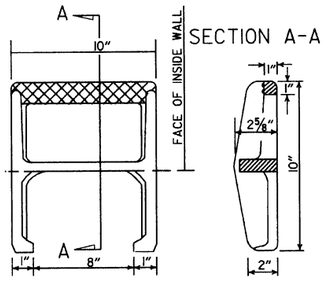
NOTE: ADDT'L.REINF. STEEL TO BE INCLUDED IN UNIT PRICE BID PER TYPE "TM" D.I.

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

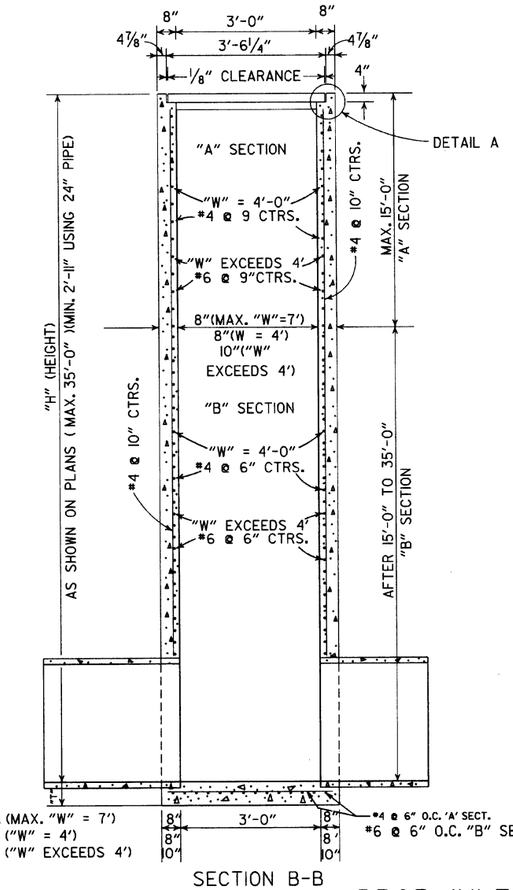
GENERAL NOTES:

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.

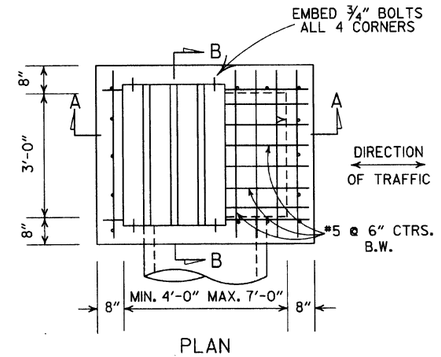
TABLE OF "W" DIMENSIONS

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"

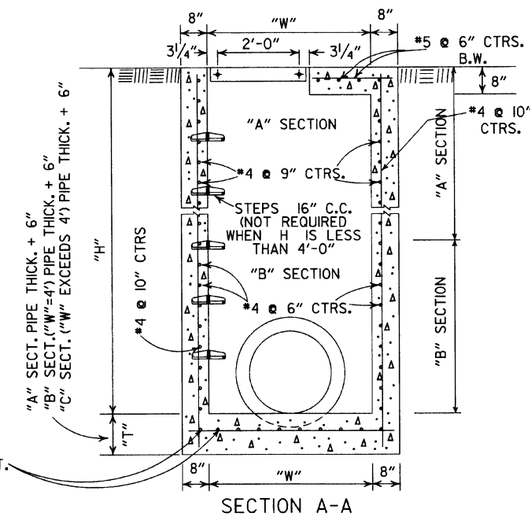
NOTE: DIMENSIONS SHOWN ABOVE ARE FOR PIPES INTERSECTING DROP INLET ON ONE SIDE ONLY. FOR SKEWED PIPES INTERSECTING BOTH SIDES OF DROP INLET, "W" WILL NEED TO BE INCREASED OR AXIS OF INTERSECTING PIPES WILL NEED TO BE SHIFTED.



SECTION B-B



PLAN



SECTION A-A

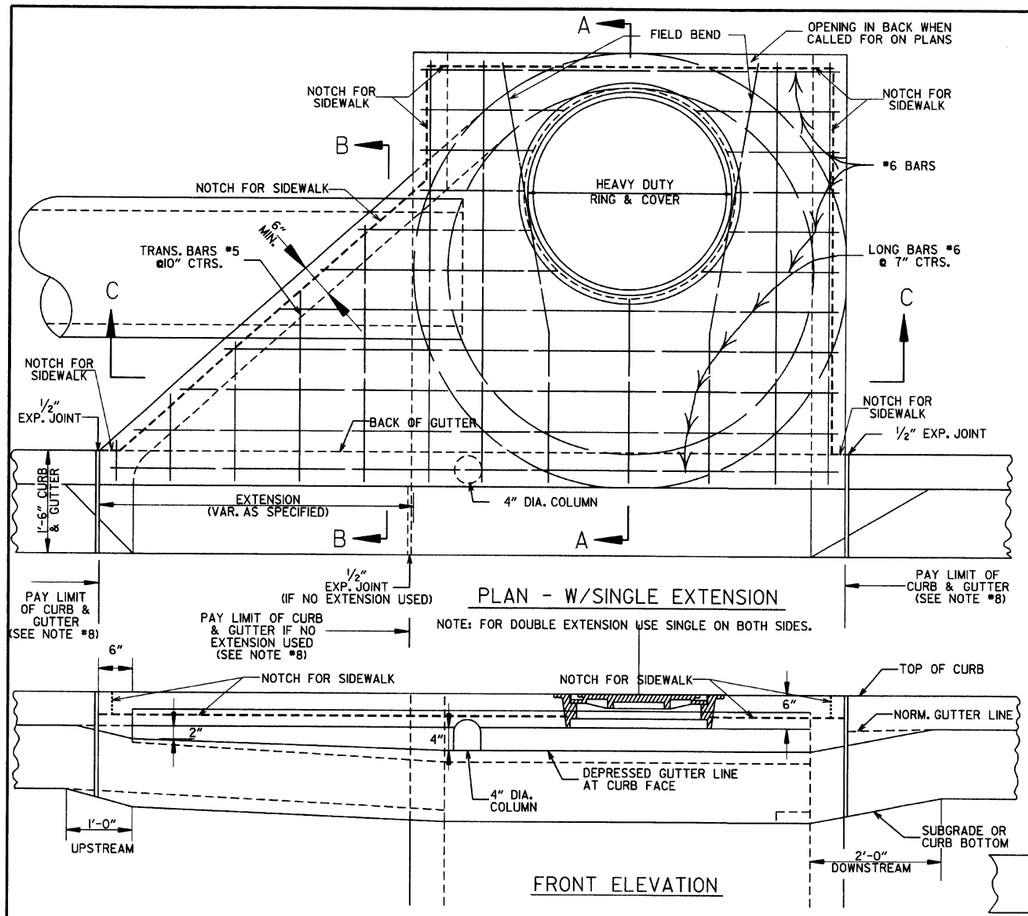
DROP INLET(TYPE RM)

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	7/9-7-15-88
10-2-72	REVISED AND REDRAWN	542-10-2-72
REVISED		DATE FILMED

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS

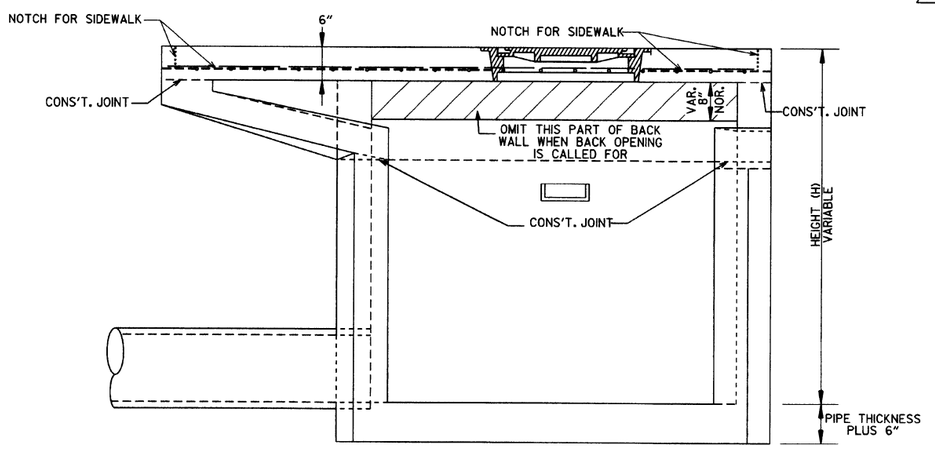
STANDARD DRAWING FPC-9D



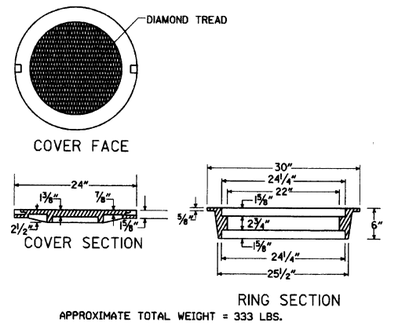
PLAN - W/SINGLE EXTENSION

NOTE: FOR DOUBLE EXTENSION USE SINGLE ON BOTH SIDES.

FRONT ELEVATION



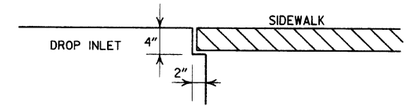
SECTION C-C



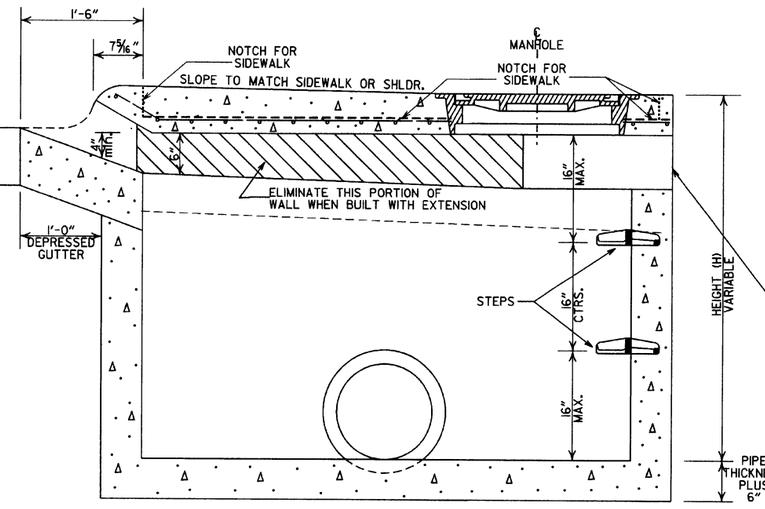
APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER

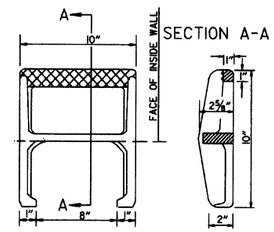
1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.



DETAIL OF NOTCH FOR SIDEWALKS



SECTION A-A

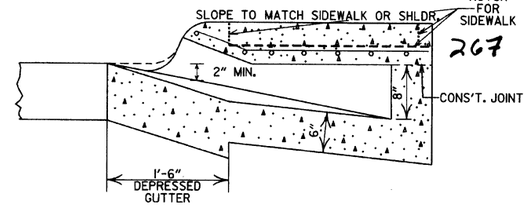


APPROX. WEIGHT = 11 LBS. (CAST IRON)

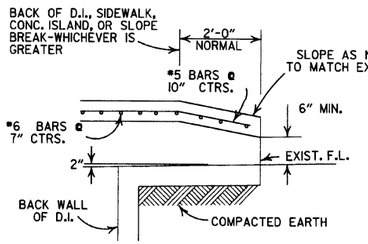
PLAN

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET



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 3/4" 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. 1 1/2" 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.

LEAVE OPENING IN BACK WHEN CALLED FOR ON PLANS REFER TO BACK OPENING DETAIL

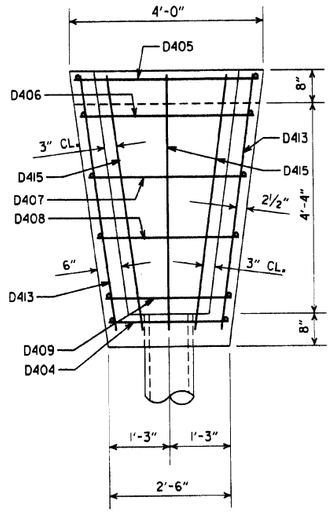
DIA. OF D.I.	DIA. OF OUTLET PIPE	MINIMUM WALL THICKNESS CAST IN PLACE	MINIMUM WALL THICKNESS PRECAST
4' I.D.	12" THRU 27"	6"	5"
5' I.D.	30" THRU 42"	8"	6"
6' I.D.	48" THRU 54"	8"	7"

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 & BACK OPENING DIMENSION	
10-12-95	CORRECTED *6 BAR SPACING	
7-20-95	CORRECTED DIAMETER OF D.I. IN BOX	
12-2-94	TYPE C TO MO (OPEN BACK DETAIL)	
11-1-94	REVISED GENERAL NOTES	11-3-94
4-1-93	REV. BACK OPEN DETAIL & NOTE	4-3-93
8-15-91	REVISED NOTES 11& 7 & ADDED BK.OPEN DETAIL	8-15-91
11-10-89	ADDED NOTE & NO. 12	11-30-89
4-24-89	ADDED NOTE & MINIMUM WALL THICKNESS	5/6-5-24-89
7-15-88	ADDED EXTEND NOTE TO SECTION A-A	6&8-7-15-88
11-18-87	MODIFIED WALL THICKNESS	7&5-12-87
6-12-87	ISSUED	4-6-12-87

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLET (TYPE MO)

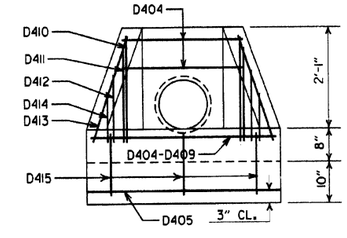
STANDARD DRAWING FPC-9M



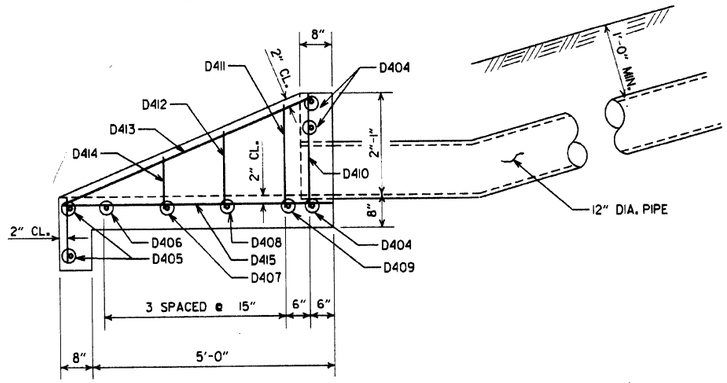
PLAN

BAR LIST (CONCRETE SPILLWAY)

MARK	NO. REQ'D.	LENGTH	BENDING DIAGRAM
D404	3	2'-2"	
D405	2	3'-8"	
D406	1	3'-5"	
D407	1	3'-1"	
D408	1	2'-9"	
D409	1	2'-5"	
D410	2	2'-5"	
D411	2	2'-2"	
D412	2	1'-9"	
D413	2	5'-6"	
D414	2	1'-2"	
D415	3	6'-5"	5'-4", 1'-2", 2" P.D., D415

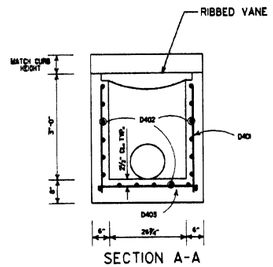


FRONT ELEVATION



SIDE ELEVATION
CONCRETE SPILLWAY

DETAILS OF CONCRETE SPILLWAY (TYPE A)

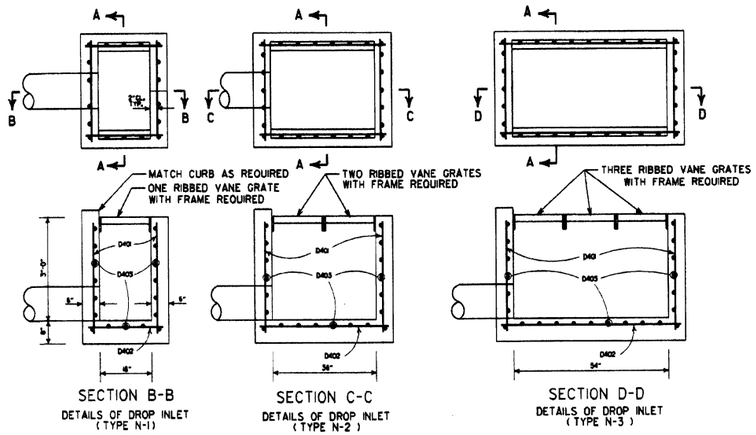


SECTION A-A

BAR LIST (DROP INLET)

MARK	TYPE N-1		TYPE N-2		TYPE N-3	
	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH
D401	20	3'-0"	26	3'-0"	32	3'-0"
D402	19	2'-2"	19	3'-8"	19	5'-2"
D403	17	2'-11"	20	2'-11"	23	2'-11"

ALL BARS #4 @ 6" SPACING



SECTION B-B
DETAILS OF DROP INLET
(TYPE N-1)

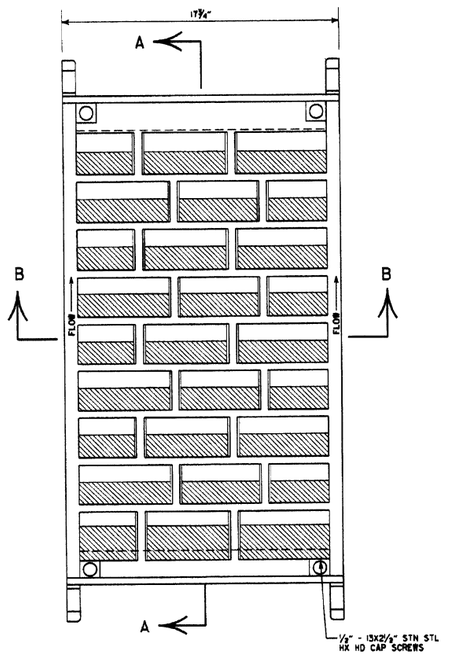
SECTION C-C
DETAILS OF DROP INLET
(TYPE N-2)

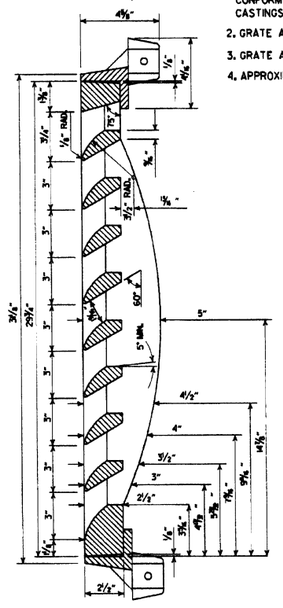
SECTION D-D
DETAILS OF DROP INLET
(TYPE N-3)

DETAILS OF DROP INLET

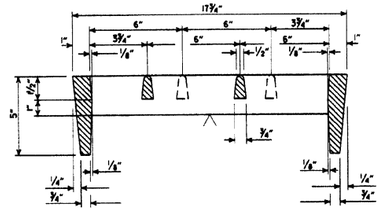
GENERAL NOTES (GRATE & FRAME)

1. RIBBED VANE 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 & AASHTO M 306.
2. GRATE AND FRAME SHALL NOT BE PAINTED.
3. GRATE AND FRAME SHALL BE INSTALLED IN DROP INLET IN ASSEMBLED POSITION.
4. APPROXIMATE WEIGHT OF GRATE SHALL BE 170 LBS.

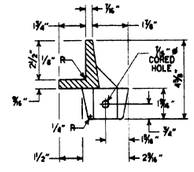




SECTION A-A



SECTION B-B



SECTION THRU FRAME

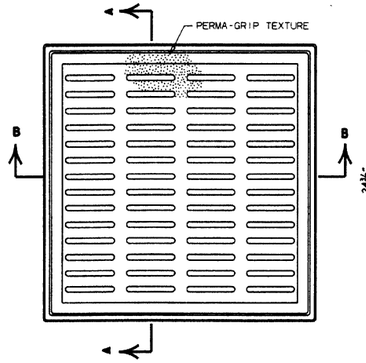
DETAILS OF RIBBED VANE GRATE AND FRAME

DATE REVISED	DATE FILMED	DESCRIPTION
7-02-98	7-2-98	REVISED SECT. A-A DETAIL OF DROP INLET & ADDED AASHTO REF. TO NOTE 1, REVISED GRATE
10-18-96		REVISED ASTM REF. TO AASHTO
8-15-91		ISSUED

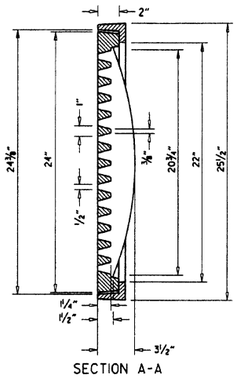
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS AND SPILLWAY OUTLET

STANDARD DRAWING FPC-9N



SECTION B-B

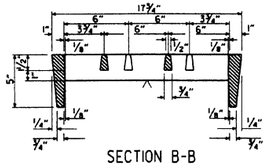


SECTION A-A

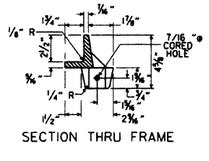
DETAILS OF PEDESTRIAN GRATE AND FRAME

GENERAL NOTES (PEDESTRIAN GRATE & FRAME)

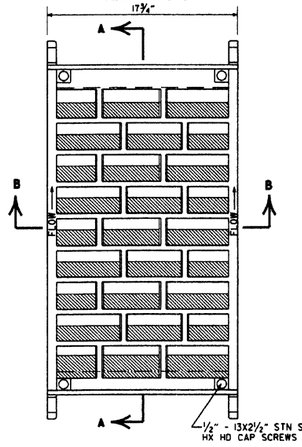
1. THE PEDESTRIAN GRATE SHALL BE ORIENTED IN THE TOP OF THE DROP INLET SO THAT THE 1/2" OPENINGS ARE PERPENDICULAR TO THE PATH OF PEDESTRIAN TRAVEL.
2. THE PEDESTRIAN GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B. & AASHTO M 306.
3. THE GRATE AND FRAME SHALL NOT BE PAINTED.
4. THE GRATE AND FRAME SHALL BE INSTALLED IN THE DROP INLET IN THE ASSEMBLED POSITION.
5. THE APPROXIMATE WEIGHT OF THE GRATE AND FRAME SHALL BE 211LBS.
6. THE MINIMUM WATERWAY OPENING SHALL BE 122 SQ. IN.

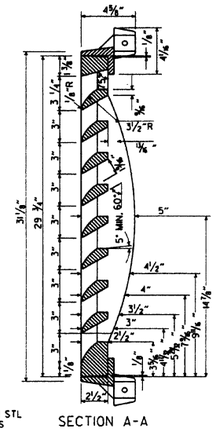


SECTION B-B



SECTION THRU FRAME



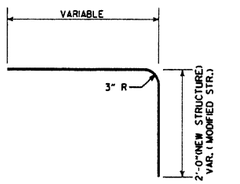


SECTION A-A

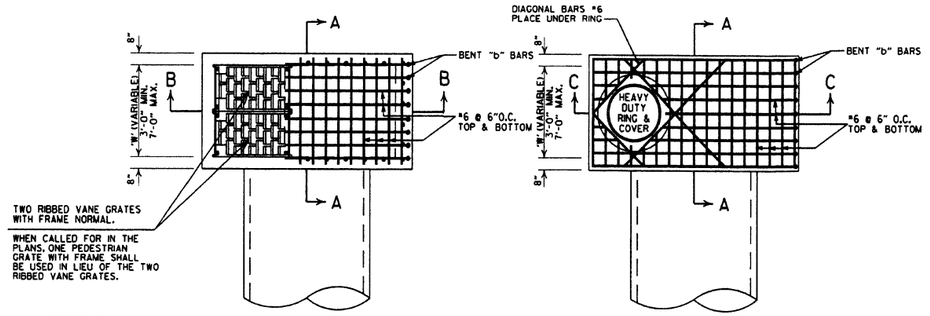
DETAILS OF RIBBED VANE GRATE AND FRAME

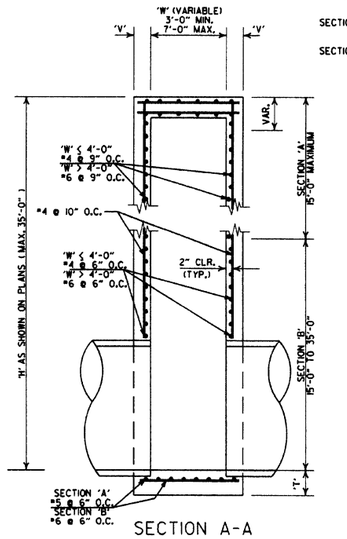
GENERAL NOTES (RIBBED VANE GRATE & FRAME)

1. RIBBED VANE 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, & AASHTO M 306.
2. GRATE AND FRAME SHALL NOT BE PAINTED.
3. GRATE AND FRAME SHALL BE INSTALLED IN DROP INLET IN ASSEMBLED POSITION.
4. APPROXIMATE WEIGHT OF GRATE SHALL BE 170 LBS.

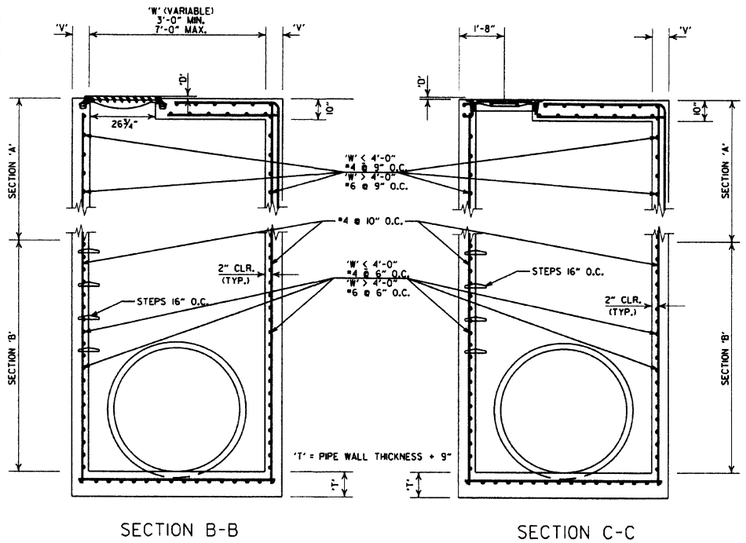


DETAIL OF BENT "b" BAR





SECTION A-A



SECTION B-B

SECTION C-C

DETAILS OF DROP INLET (TYPE ST)

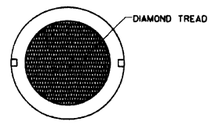
DETAILS OF JUNCTION BOX (TYPE ST)

GENERAL NOTES (TYPE ST DROP INLET & JUNCTION BOX)

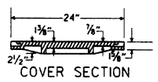
1. THE 'D' DIMENSION SHALL MATCH THE FINAL LIFT OF ACHM SURFACE COURSE SHOWN IN THE PLANS WHEN ASPHALT PAVING SURROUNDS THE GRATE OR RING COVER, AND SHALL BE 0" AT OTHER INSTALLATIONS.
2. THE STEPS SHALL BE OMITTED WHERE 'H' IS LESS THAN 4'-0".
3. ALL EXPOSED CORNERS ARE TO HAVE A 3/4" CHAMFER.

GENERAL NOTES (HEAVY DUTY RING & COVER):

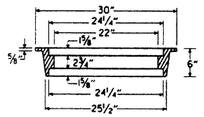
1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
4. 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.



COVER FACE



COVER SECTION



RING SECTION

HEAVY DUTY RING & COVER

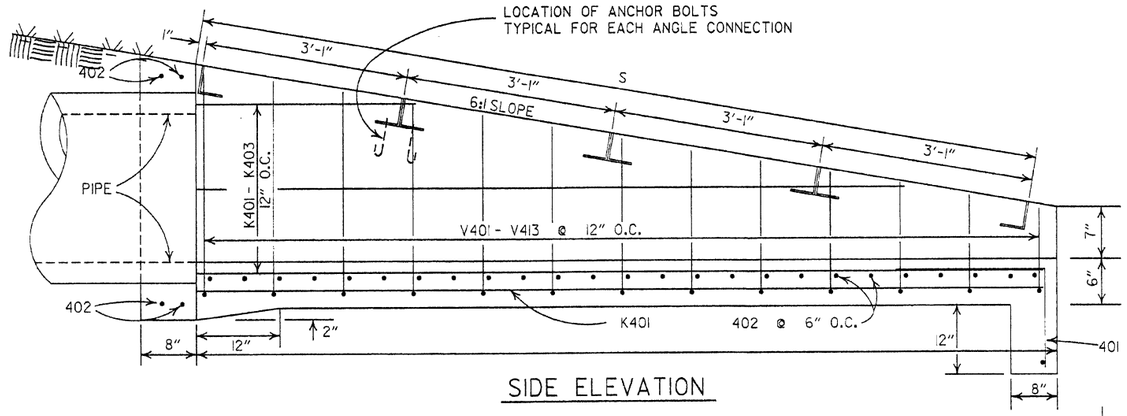
APPROXIMATE TOTAL WEIGHT = 333 LBS.

DATE REVISED	DATE FILMED	DESCRIPTION
7-26-12		REMOVED NOTE 4, REVISED 'T', REVISED BOTTOM SLAB REBAR FOR SECTION 'A', SHOWED REBAR CLEARANCE IN SECTIONS
11-16-01		ADDED NOTE 4
1-12-00		REVISED HEAVY DUTY RING & COVER
5-13-99		ADDED PEDESTRIAN FRAME & GRATE
7-02-98		REMOVED NOTE 5, REV. DIMENSIONS, ADDED HEAVY DUTY RING & COVER ADDED AASHTO REF. REVISED GRATE
10-18-96		REVISED ASTM REF. TO AASHTO
10-1-92		REVISED & REISSUED
8-15-91	8-15-91	REVISED & REISSUED

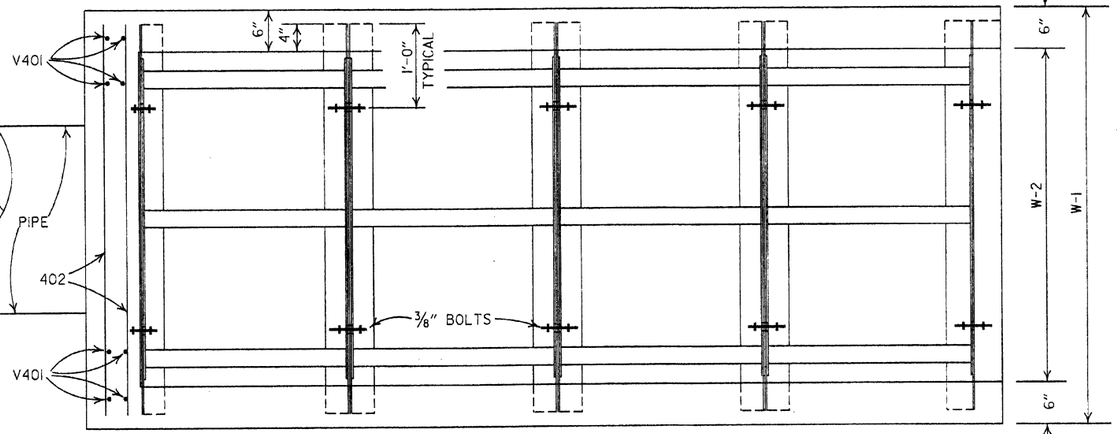
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLET & JUNCTION BOX (TYPE ST)

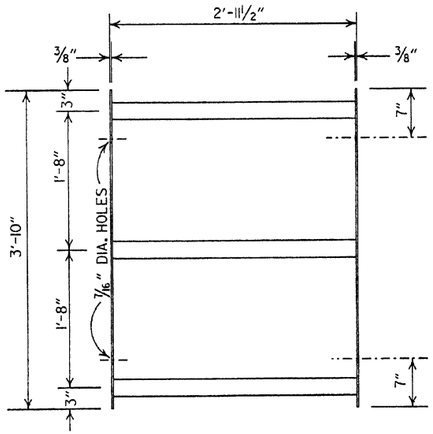
STANDARD DRAWING FPC-9S



SIDE ELEVATION

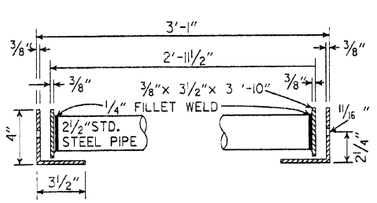


PLAN



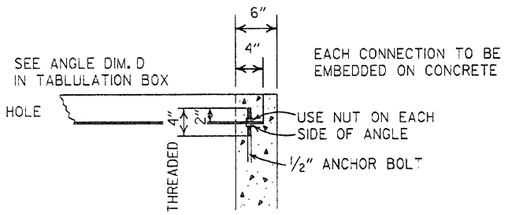
STANDARD GRATE PANEL

NOTE: 2½" STANDARD STEEL PIPE TO BE VENTED FOR GALVANIZING.

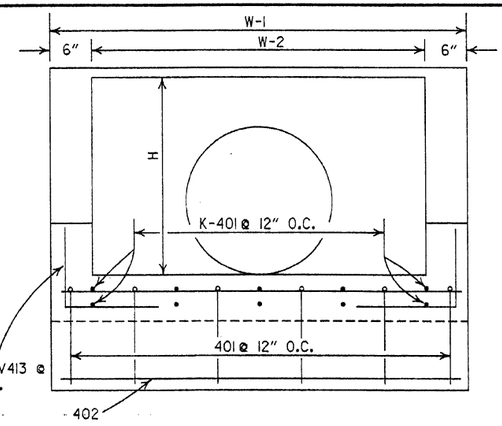


TYPICAL SECTION

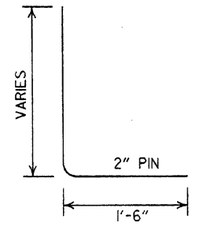
FURNISH WASHERS WITH BOLTS



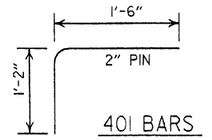
DETAIL OF ANGLE CONNECTION



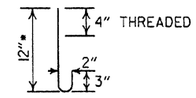
END ELEVATION



V BARS



401 BARS



(TWO BOLTS PER ANGLE)

ANCHOR BOLTS

• NOTE: USE 5" ANCHOR BOLTS ON FIRST ANGLE ON LOW END ONLY. BOLTS EMBEDDED IN CONCRETE NEED NOT BE GALVANIZED.

BENDING DIAGRAM

(DIMENSIONS ARE OUTSIDE TO OUTSIDE)

QUANTITIES & DIMENSIONS - ONE GRATE COMPLETE

PIPE DIA.	W - 1	W - 2	L	S	H	PANEL SIZE	NUMBER OF PANELS	ANGLE DIMEN. D	APPROX. CONC. QUANT. CU. YDS.
24"	5'-0"	4'-0"	12'-6"	12'-8"	2'-8"	2'-11½"x 3'-10"	4	4" x 3½" x⅜"	2.35
30"	5'-0"	4'-0"	15'-6"	15'-8½"	3'-2"	2'-11½"x 3'-10"	5	4" x 3½" x⅜"	3.09
18"	5'-0"	4'-0"	9'-6"	9'-7½"	2'-2"	2'-11½"x 3'-10"	3	4" x 3½" x⅜"	1.77

BAR LISTS - ONE HEADWALL

24" PIPE

MRK	LENGTH	NO.
401	2'-8"	6
402	4'-8"	30
K401	12'-2"	10
K402	10'-3"	2
K403	4'-3"	2
V401	4'-5"	10
V402	4'-1"	2
V403	3'-11"	2
V404	3'-9"	2
V405	3'-7"	2
V406	3'-5"	2
V407	3'-3"	2
V408	3'-1"	2
V409	2'-11"	2
V410	2'-9"	2
V411	2'-7"	2
V412	2'-5"	2
V413	2'-3"	2

30" PIPE

MRK	LENGTH	NO.
401	2'-8"	6
402	4'-8"	36
K401	15'-2"	10
K402	13'-3"	2
K403	7'-3"	2
K404	1'-3"	2
V401	4'-11"	10
V402	4'-7"	2
V403	4'-5"	2
V404	4'-3"	2
V405	4'-1"	2
V406	3'-11"	2
V407	3'-9"	2
V408	3'-7"	2
V409	3'-5"	2
V410	3'-3"	2
V411	3'-1"	
V412	2'-11"	
V413	2'-9"	
V414	2'-7"	
V415	2'-5"	
V416	2'-3"	

18" PIPE

MARK	LENGTH	NO.
401	2'-8"	6
402	4'-8"	24
K401	9'-2"	10
K402	7'-3"	2
K403	1'-3"	2
V401	3'-11"	10
V402	3'-7"	2
V403	3'-5"	2
V404	3'-3"	2
V405	3'-1"	2
V406	2'-11"	2
V407	2'-9"	2
V408	2'-7"	2
V409	2'-5"	2
V410	2'-3"	2

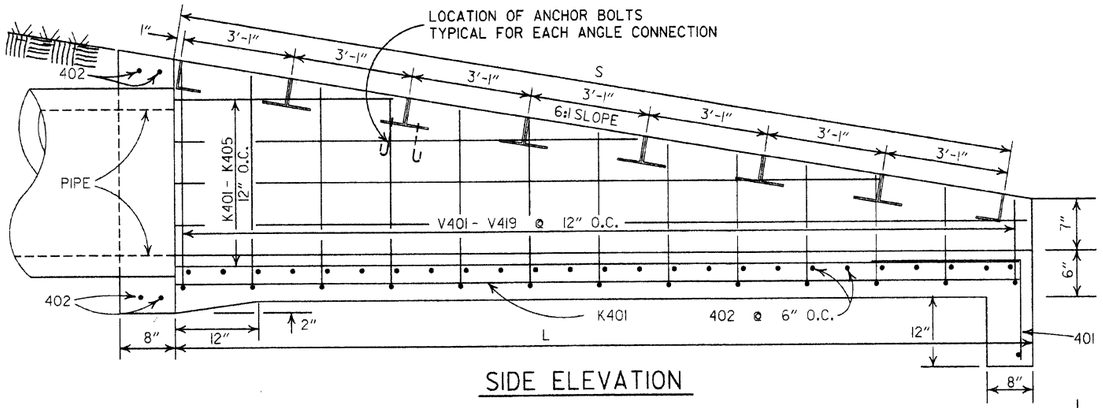
DATE	REVISION	DATE FILMED
8-15-91	REVISED GRATE PANEL	8-15-91
2-16-89	ADDED (TYPE I) TO TITLE	581-2-16-89
7-15-88	CHANGED TITLE	641-7-15-88
2-18-75	ADDED QTYS. & DIMENSIONS FOR 18" PIPE	985-2-18-75
10-2-72	REVISED & REDRAWN	761-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

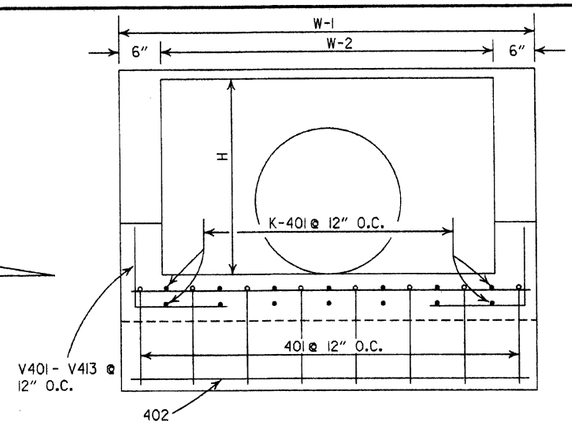
STEEL GRATE ASSEMBLY (TYPE I)

STANDARD DRAWING G-1

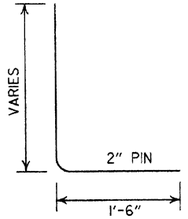
STDGI.DGN



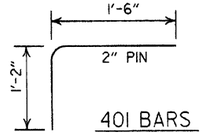
SIDE ELEVATION



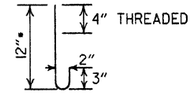
END ELEVATION



V BARS



401 BARS



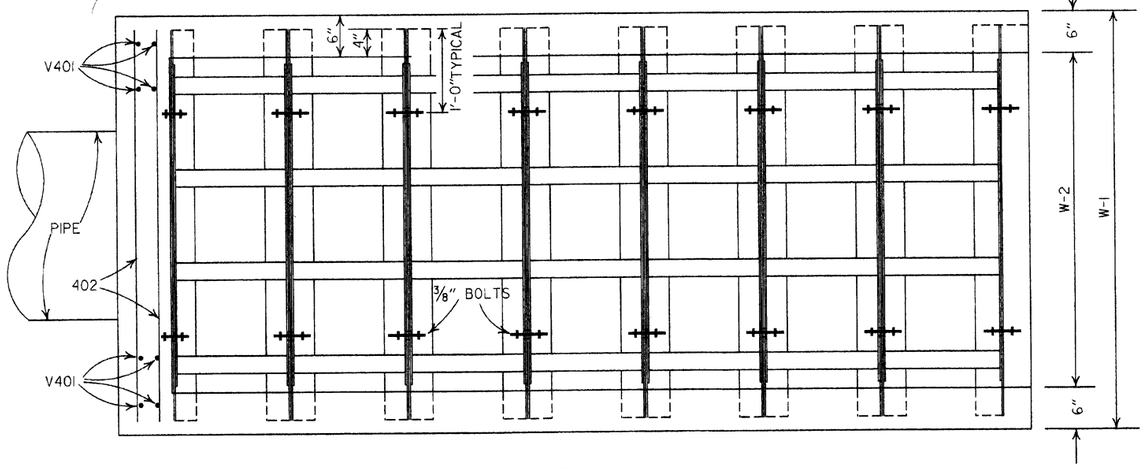
(TWO BOLTS PER ANGLE)

ANCHOR BOLTS

• NOTE: USE 5" ANCHOR BOLTS ON FIRST ANGLE ON LOW END ONLY. BOLTS EMBEDDED IN CONCRETE NEED NOT BE GALVANIZED.

BENDING DIAGRAM

(DIMENSIONS ARE OUTSIDE TO OUTSIDE)



PLAN

QUANTITIES & DIMENSIONS - ONE GRATE COMPLETE

PIPE DIA.	W - 1	W - 2	L	S	H	PANEL SIZE	NUMBER OF PANELS	ANGLE DIMEN. D	APPROX. CONC. QUANT. CU. YDS.
36"	7'-0"	6'-0"	18'-6"	18'-9"	3'-8"	2'-11½"x 5'-10"	6	4" x 4" x⅜"	4.55
42"	7'-0"	6'-0"	21'-7"	21'-10½"	4'-2"	2'-11½"x 5'-10"	7	4" x 4" x⅜"	5.37
48"	7'-0"	6'-0"	24'-8"	25'-0 "	4'-8"	2'-11½"x 5'-10"	8	4" x 4" x⅜"	6.23

BAR LISTS - ONE HEADWALL

36" PIPE

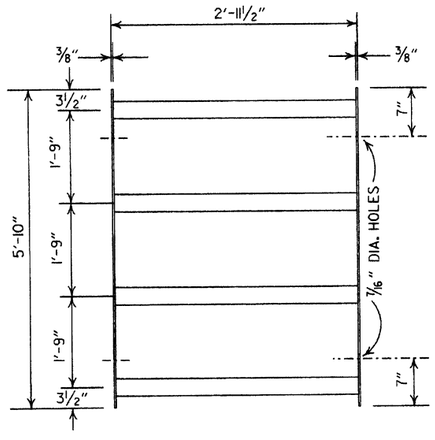
MARK	LENGTH	NO.
401	2'-8"	8
402	6'-8"	42
K401	18'-2"	14
K402	10'-3"	2
K403	6'-3"	2
K404	4'-3"	2
V401	5'-5"	10
V402	5'-1"	2
V403	4'-11"	2
V404	4'-9"	2
V405	4'-7"	2
V406	4'-5"	2
V407	4'-3"	2
V408	4'-1"	2
V409	3'-11"	2
V410	3'-9"	2
V411	3'-7"	2
V412	3'-5"	2
V413	3'-3"	2
V414	3'-1"	2
V415	2'-11"	2
V416	2'-9"	2
V417	2'-7"	2
V418	2'-5"	2
V419	2'-3"	2

42" PIPE

MARK	LENGTH	NO.
401	2'-8"	8
402	6'-8"	48
K401	21'-3"	14
K402	19'-3"	2
K403	13'-3"	2
K404	7'-3"	2
K405	1'-3"	2
V401	5'-11"	10
V402	5'-7"	2
V403	5'-5"	2
V404	5'-3"	2
V405	5'-1"	2
V406	4'-11"	2
V407	4'-9"	2
V408	4'-7"	2
V409	4'-5"	2
V410	4'-3"	2
V411	4'-1"	2
V412	3'-11"	2
V413	3'-9"	2
V414	3'-7"	2
V415	3'-5"	2
V416	3'-3"	2
V417	3'-1"	2
V418	2'-11"	2
V419	2'-9"	2
V420	2'-7"	2
V421	2'-5"	2
V422	2'-3"	2

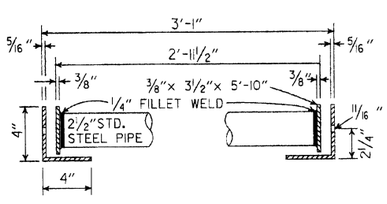
48" PIPE

MARK	LENGTH	NO.
401	2'-8"	8
402	6'-8"	54
K401	24'-4"	14
K402	22'-3"	2
K403	16'-3"	2
K404	10'-3"	2
K405	4'-3"	2
V401	6'-5"	10
V402	6'-1"	2
V403	5'-11"	2
V404	5'-9"	2
V405	5'-7"	2
V406	5'-5"	2
V407	5'-3"	2
V408	5'-1"	2
V409	4'-11"	2
V410	4'-9"	2
V411	4'-7"	2
V412	4'-5"	2
V413	4'-3"	2
V414	4'-1"	2
V415	3'-11"	2
V416	3'-9"	2
V417	3'-7"	2
V418	3'-5"	2
V419	3'-3"	2
V420	3'-1"	2
V421	2'-11"	2
V422	2'-9"	2
V423	2'-7"	2
V424	2'-5"	2
V425	2'-3"	2



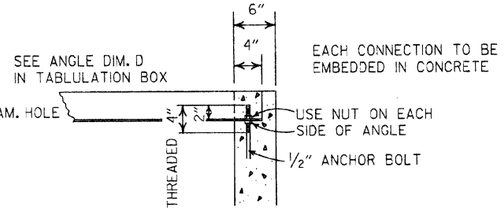
STANDARD GRATE PANEL

NOTE: 2½" STANDARD STEEL PIPE TO BE VENTED FOR GALVANIZING.



TYPICAL SECTION

FURNISH WASHERS WITH BOLTS



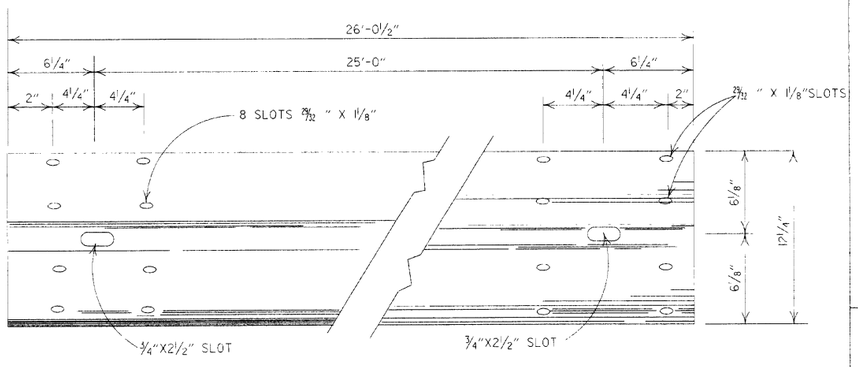
DETAIL OF ANGLE CONNECTION

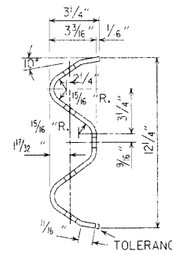
DATE	REVISION	DATE FILMED
8-15-91	REVISED GRATE PANEL	8-15-91
2-16-89	ADDED (TYPE I) TO TITLE	582-2-16-89
7-15-88	CHANGED TITLE	642-7-15-88
5-22-74	W-1 & W-2 CORRECTED ON PLAN VIEW	568-5-22-74
11-1-73	ADDED NOTE RE: WASHER AT TYP. SECT.	504-11-1-73
10-2-72	REVISED & REDRAWN	761-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

STEEL GRATE ASSEMBLY (TYPE I)

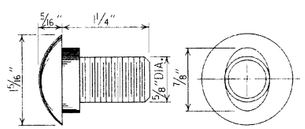
STANDARD DRAWING G-2



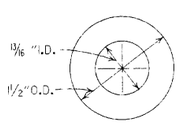


DETAILS OF
W-BEAM GUARD RAIL

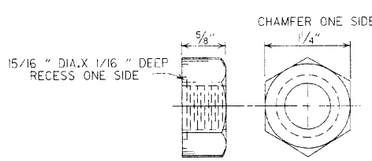
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



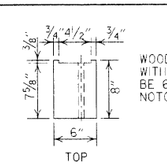
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER

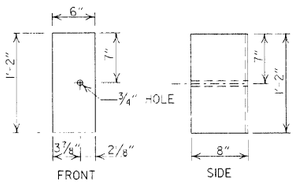


NUT

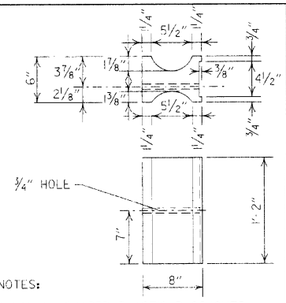


WOOD BLOCKOUT USED WITH WOOD POSTS SHALL BE 6"X8"X1'-2" WITH NO NOTCH REQUIRED.

TOP

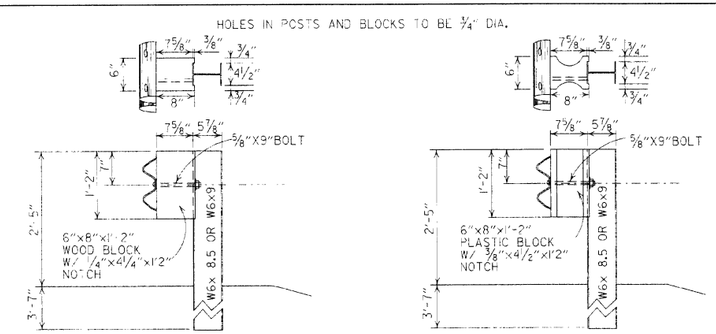


WOOD BLOCKOUT
(W-BEAM)



NOTES:
1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

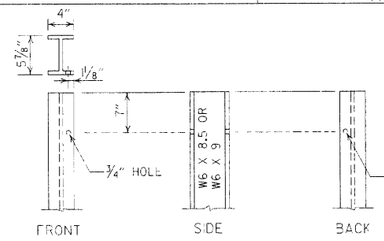
PLASTIC BLOCKOUT
(W-BEAM)



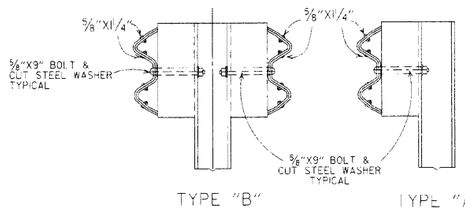
WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF STEEL LINE POST CONNECTIONS
(W-BEAM)



STEEL POST



TYPE "B" TYPE "A"

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 3/4" BEYOND IT.

WHERE W-BEAM GUARD RAIL CONTINUES, THE INTERMEDIATE SECTIONS SHALL HAVE A POST SPACING OF 6'-3" UNLESS OTHERWISE NOTED.

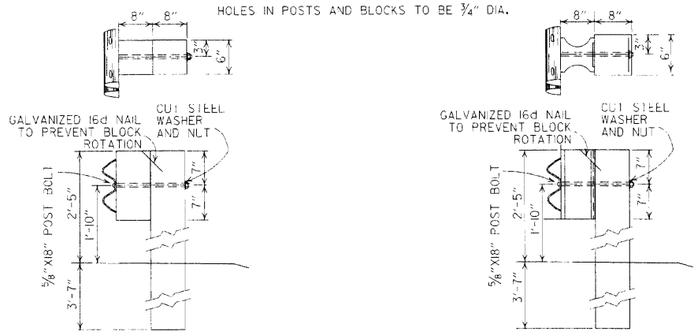
W-BEAM GUARD RAIL REPRESENTING INTERMEDIATE SECTIONS WILL BE MEASURED ALONG THE ROADWAY FACE FROM CENTERLINE OF POST TO CENTERLINE OF POST.

USE W-BEAM GUARD RAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB. FOR EXTENSIONS OR MODIFICATION OF EXISTING GUARD RAIL, W-BEAM GUARD RAIL 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# (1400 f) OR NO.1 1350 f SOUTHERN PINE.

CONTRACTOR SHALL HAVE THE OPTION OF USING WOOD BLOCKOUTS FOR W-BEAM GUARD RAIL OR PLASTIC BLOCKOUTS, AS LONG AS BLOCKOUT USED MEETS NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) FOR W-BEAM GUARD RAIL.



POSTS AND BLOCKS TO BE ROUGH SAWN 6"X8" WITH A TOLERANCE OF + OR - 1/4".

WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

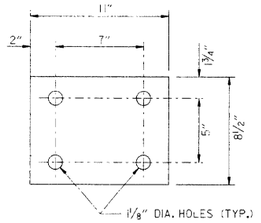
DETAILS OF WOOD LINE POST CONNECTIONS
(W-BEAM)

DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
10-5-09	ADDED REFERENCE TO MASH	
4-10-03	REVISED GENERAL NOTES	
8-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & ON STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
3-30-00	REMOVED GUARD RAIL AT BRIDGE ENDS	
1-12-00	ADDED PLASTIC BLOCKOUT	
8-12-98	REV. BLOCKOUTS TO WOOD, DELETED CONC. POST & REV. GENERAL NOTE, DELETED DET. OF GUARD RAIL 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	
4-3-97	REMOVED "LAP IN DIRECTION OF TRAFFIC" NOTE & PLACED ARROWS ON WASHERS	
10-18-96	REVISED WOOD POST NOTE	
6-2-94	ADDED ALT. STEEL POST SIZE	
8-5-93	REVISED STEEL POST SIZE	8-5-93
10-1-92	REDRAWN & REVISED	10-1-92
8-15-91	REVISED WASHER NOTE	8-15-91
8-2-90	REV. GEN. NOTE & DEPHT OF ANC. POST IN ROCK	8-2-90
7-15-88	REVISED SECTION 3 & GENERAL NOTES	
3-4-88	REV. ANCHOR POST, ELEV. NOTES & POST IN ROCK	780 3-4-88
10-30-87	REVISED WOOD LINE POST DETAIL	546-10-30-87
10-9-87	REDRAWN & REVISED	802-10-9-87

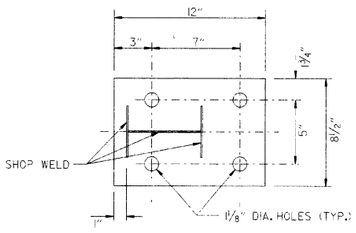
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-8

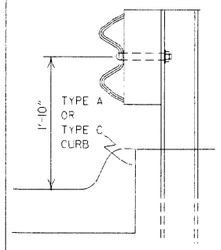


WASHER PLATE



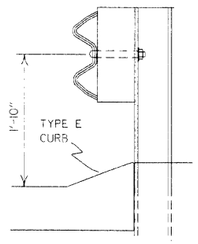
BASE PLATE

Note: Bolts, nuts, washers and plates shall be galvanized in accordance with Section 807 of the Standard Specifications.



FOR DESIGN SPEEDS OF 50 MPH OR LESS

ALIGN FACE OF GUARD RAIL WITH FACE OF CURB.



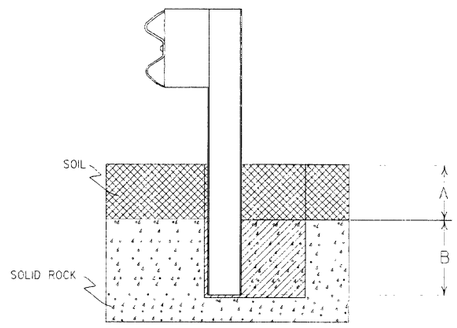
FOR DESIGN SPEEDS OF 55 MPH OR MORE

PLACE GUARD RAIL POSTS AGAINST BACK OF CURB.

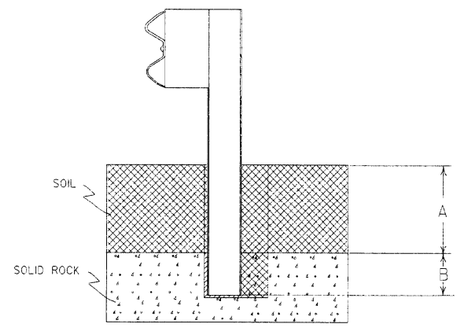
DETAIL OF GUARD RAIL PLACEMENT BEHIND CURB (W-BEAM)

FOR DESIGN SPEEDS OF 50 MPH OR LESS ALL CURB FACES, AS SHOWN ON STD. DRWG. CG-1, MAY BE USED. FOR DESIGN SPEEDS OF 55 MPH OR MORE TYPE "E" CURB FACE SHALL BE USED.

Case 1

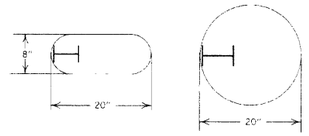


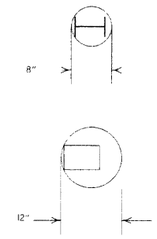
Case 2



Plan View Steel Posts

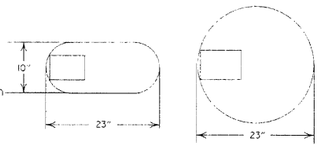
Either hole configuration acceptable





Plan View Wood Posts

Either hole configuration acceptable



Notes: For overlying soil depths (A) ranging from 0 to 18", the depth of required drilling (B) is equal to 24".

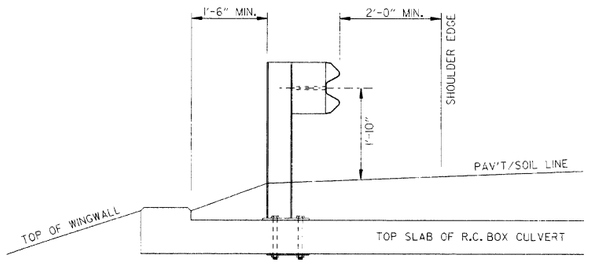
Zone A:
Backfill according to Section 617.03(a).

Zone B:
Backfill hole in 6" lifts with material meeting the requirements of Section 802.02(c) - Alternate gradation. Compact to 95% maximum dry density per ASTM D-698.

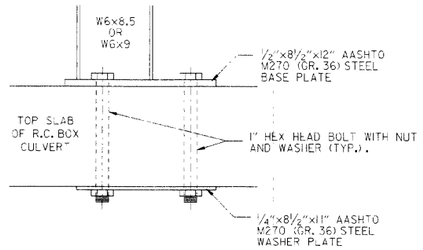
Notes: For overlying soil depths (A) ranging from 18" to 44", the depth of required drilling (B) is equal to either 12" or 44" minus the depth of soil whichever is less.

Zone A & B:
Backfill according to Section 617.03(a).

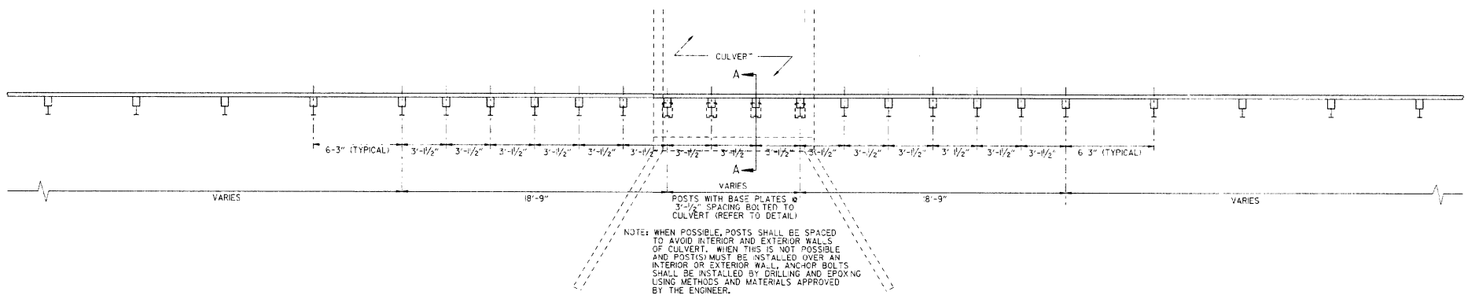
DETAIL OF POST PLACEMENT IN SOLID ROCK (W-BEAM)



SECTION A-A



DETAIL OF CONNECTION



NOTE: WHEN POSSIBLE, POSTS SHALL BE SPACED TO AVOID INTERIOR AND EXTERIOR WALLS OF CULVERT. WHEN THIS IS NOT POSSIBLE AND POST(S) MUST BE INSTALLED OVER AN INTERIOR OR EXTERIOR WALL, ANCHOR BOLTS SHALL BE INSTALLED BY DRILLING AND EPOXING USING METHODS AND MATERIALS APPROVED BY THE ENGINEER.

PLAN LAYOUT OF TYPE A GUARD RAIL AT LOW-FILL CULVERTS

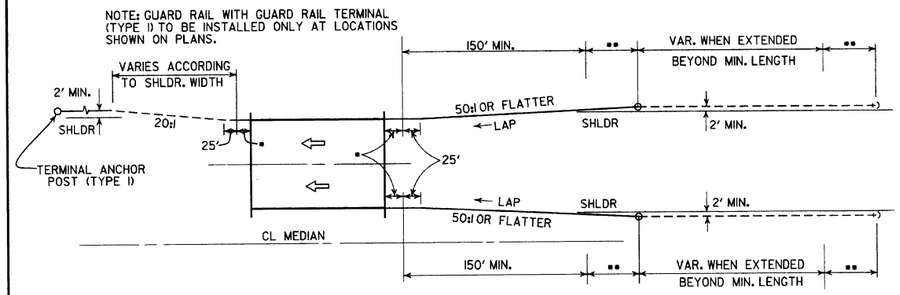
NOTE: THIS DETAIL IS TO BE USED ONLY WHEN THE COVER OVER THE CULVERT DOES NOT PERMIT FULL EMBEDMENT OF GUARD RAIL POSTS AS SHOWN ON STD. DWG. GR-6.

DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
4-12-07	REVISED DETAIL OF GUARD RAIL PLACEMENT BEHIND CURB	
11-10-05	ADDED GUARD RAIL PLACEMENT BEHIND CURB; REVISED DETAIL OF CONNECTION	
11-18-04	REVISED POST PLACEMENT IN ROCK & CULVERT CONNECTION DETAILS. ADDED DETAIL FOR GUARD RAIL PLACEMENT AT LOW-FILL CULVERTS	
3-30-00	REMOVED CONCRETE INSERT ANCHOR	
8-12-98	CHANGED STEEL SPACER BLOCK TO WOOD BLOCKOUT, ADD. DET. OF GUARD RAIL CONNECTION TO R.C. BOX CULVT. DELETED DET. OF STEEL LINE POST CONN.& ADDED DET. OF GUARD RAIL PLACE. BEHIND CURB & DET. OF POST PLACE. IN SOLID ROCK	
4-3-96	PLACED ARROWS AT CUT STEEL WASHERS	4-3-96
10-18-96	REV. ASTM REF. TO AASHTO	
1-22-95	ADDED OPTIONAL HOLES	
6-2-94	REVISED ALTERNATE POST SIZE	
8-5-93	REVISED STEEL POST SIZE	
10-1-92	REDRAWN & REVISED	10-1-92
8-2-90	DEL. WASHER ON ANCHOR ASSEMBLY	8-2-90
1-15-88	CONFORMED TO 1988 SPECS	
3-4-88	REVISED ANCHOR NOTE	
10-30-87	REVISED ANCHOR ASSEMBLY	712-10-30-87
6-30-87	REVISED PLACEMENT BEHIND CURB	547-10-30-87
10-9-87	REDRAWN & REVISED	803-10-9-87

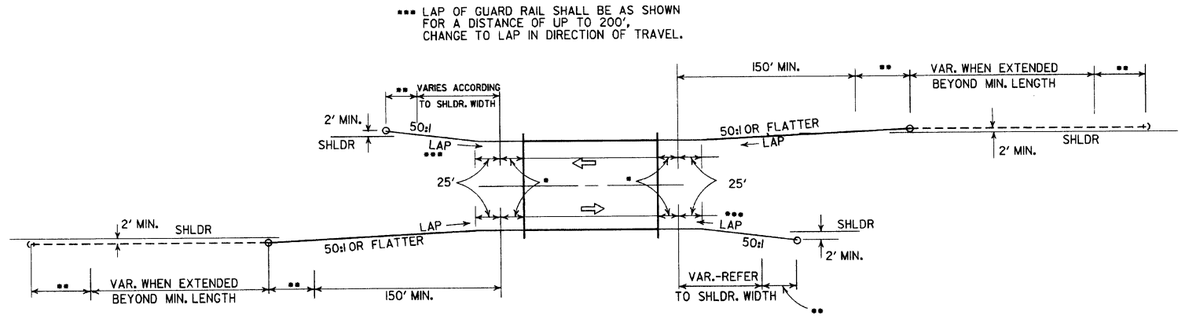
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-8A

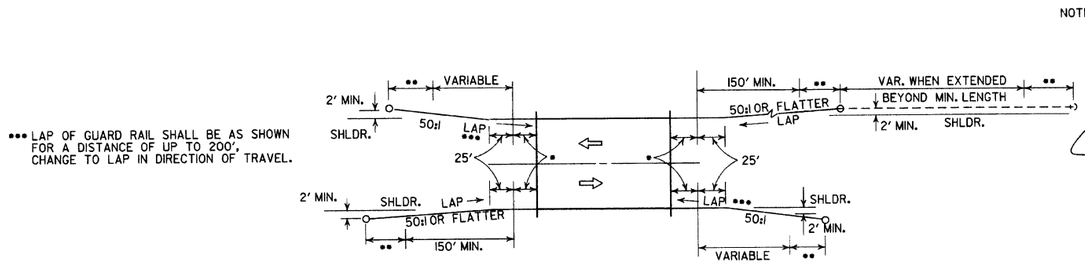


ONE-WAY TRAFFIC

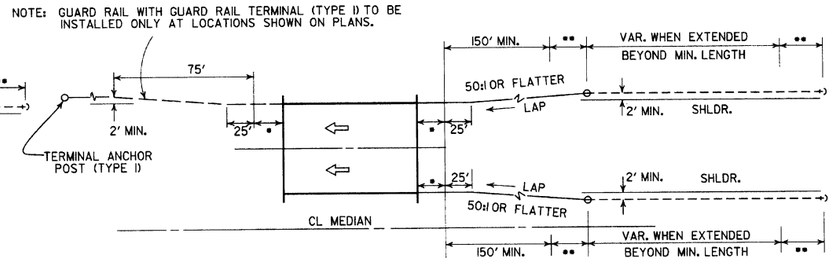


TWO-WAY TRAFFIC

METHODS OF INSTALLATION OF GUARD RAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)



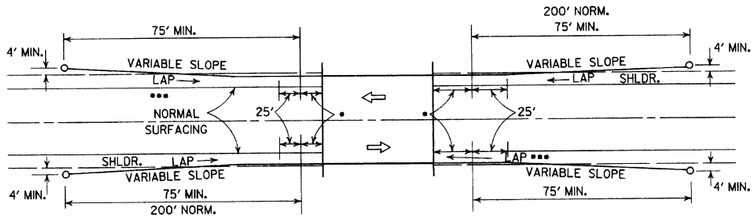
TWO-WAY TRAFFIC



ONE-WAY TRAFFIC

METHOD OF INSTALLATION OF GUARD RAIL AT FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)

••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



LEGEND

- • THRIE BEAM GUARD RAIL TERMINAL
- •• GUARD RAIL TERMINAL (TYPE 2)

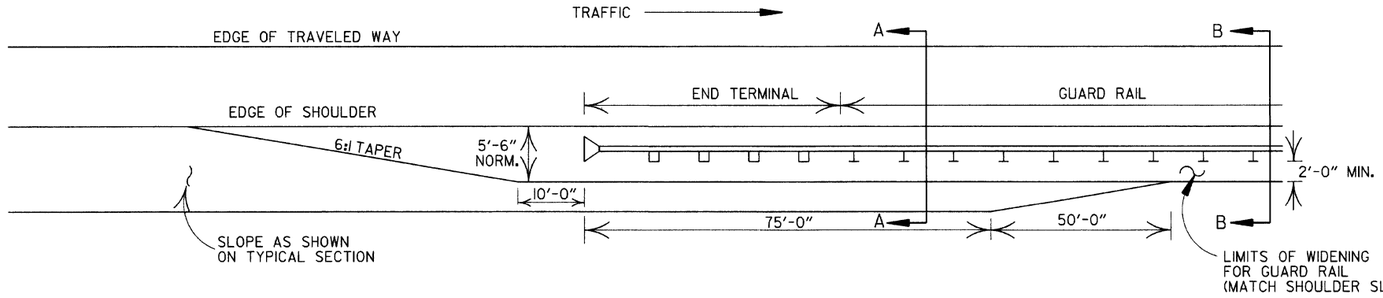
METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERMINAL (TYPE I) (FULL SHOULDER WIDTH OR LESS BRIDGES)

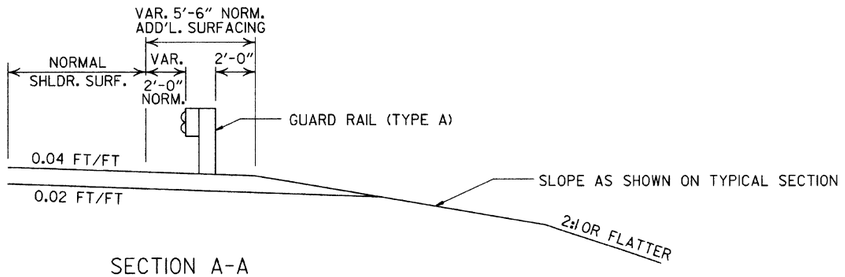
DATE	REVISION	DATE FILM
4-17-08	REVISED LAYOUTS	
11-10-05	REMOVED GUARD RAIL NOTES AND DETAILS	
11-16-01	DELETED NOTE-METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERM. (TY. I)	
1-12-00	ADDED CONSTRUCTION NOTE	1-12-00
6-26-97	REVISED LAYOUT	
10-1-92	REDRAWN & REVISED	10-1-92
	ADDED NOTE	
10-9-87	REDRAWN & REVISED	

ARKANSAS STATE HIGHWAY COMMISSION

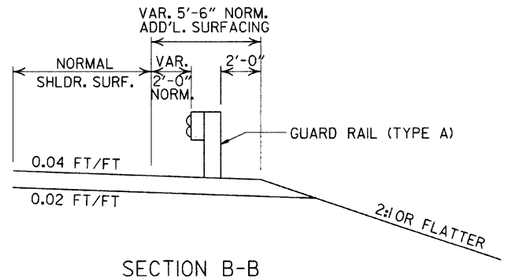
GUARD RAIL DETAILS

STANDARD DRAWING GR-9





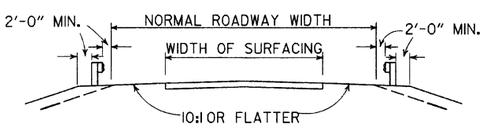
SECTION A-A



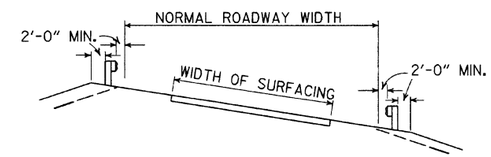
SECTION B-B

DETAILS OF WIDENING FOR GUARD RAIL

NOTE: NORMAL SECTION TO BE WIDENED APPROX. 5'-6" EACH SIDE TO SUPPORT GUARD RAIL.

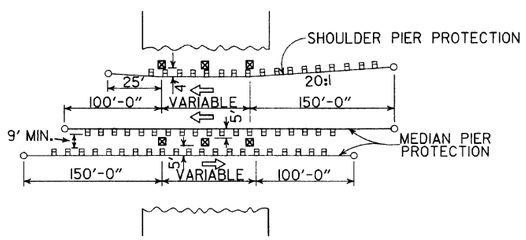


SECTION ON TANGENT



SECTION ON CURVE

DETAILS SHOWING POSITION OF GUARD RAIL ON HIGHWAY



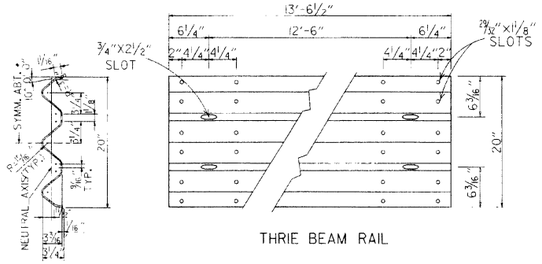
METHOD OF INSTALLATION OF GUARD RAIL AT FIXED OBSTACLE

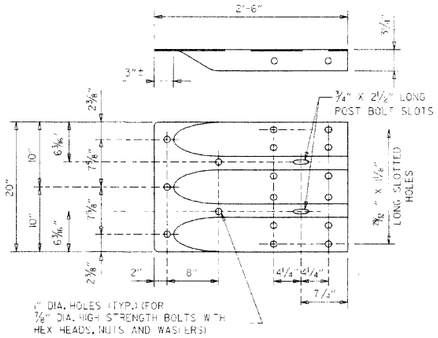
DATE	REVISION	DATE FILM
4-17-08	MINOR REVISION	
11-10-05	DRAWN	

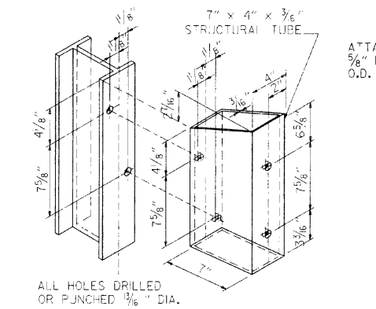
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

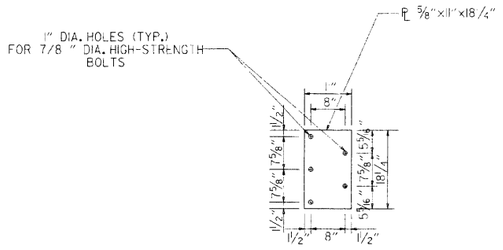
STANDARD DRAWING GR-9A



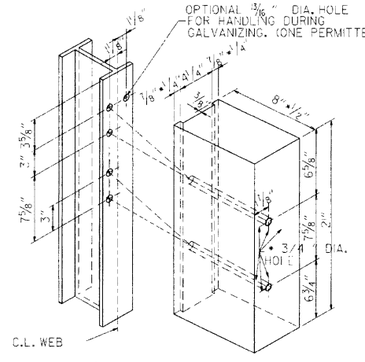




ATTACH BLOCKOUT TO POST USING ⅝" DIA. HEX HEAD BOLTS WITH 1½" O.D. CUT STEEL WASHERS AND NUT.



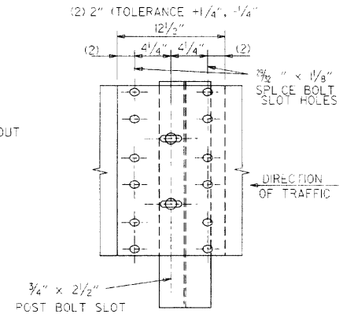
CONNECTOR PLATE SHALL BE AASHTO M270, GR. 36 AND SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO SUBSECTION 807.19 OF THE STANDARD SPECIFICATIONS. CONNECTOR PLATE TO BE BOLTED TO SPECIAL END SHOE USING ⅞" DIA. HIGH STRENGTH BOLTS, WITH THE HEADS PLACED ON THE TRAFFIC FACE. WASHERS SHALL BE USED UNDER THE HEAD AND NUT. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AND SHALL CONFORM TO SUBSECTION 807.06.



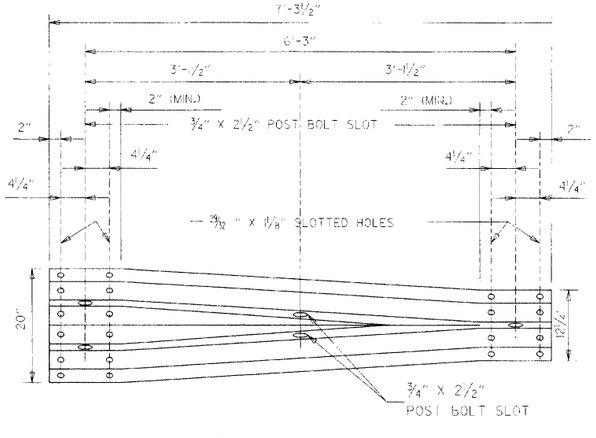
ALL HOLES ⅜" DIAMETER EXCEPT AS NOTED

HOLE PUNCHING DETAIL
FOR STEEL POST & WOOD OR PLASTIC BLOCKOUTS

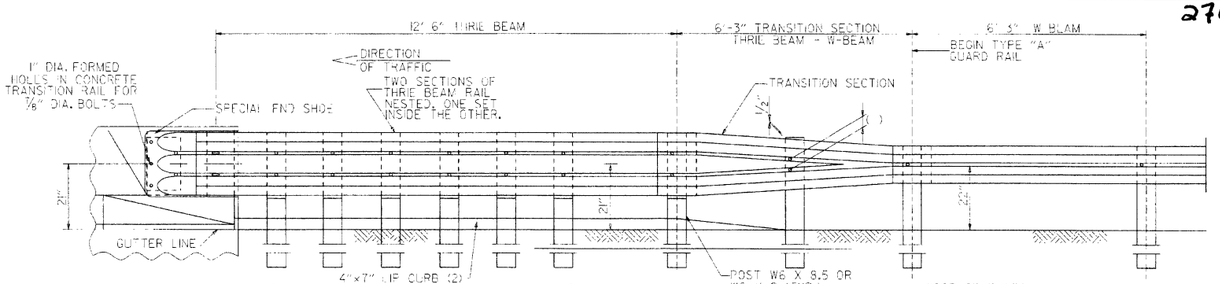
NOTE: BLOCKS SHALL BE THE SAME TYPE THROUGHOUT THE PROJECT LIMITS.

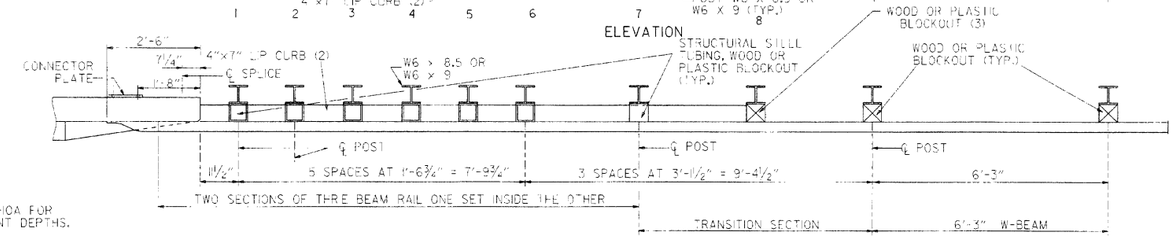


THRIE BEAM RAIL SPLICE AT POST

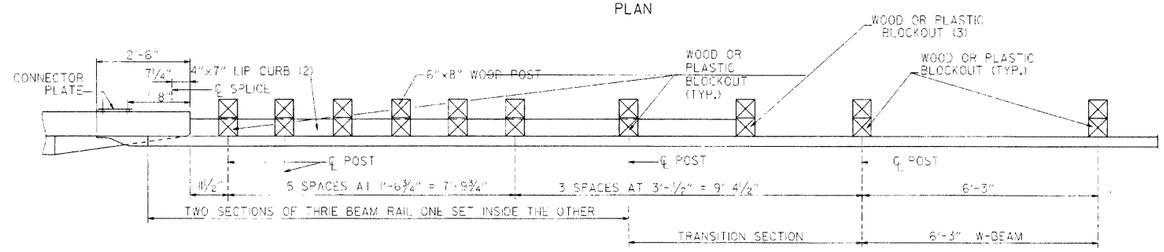


TRANSITION SECTION





NOTE:
SEE STANDARD DRAWING GR-10A FOR GUARD RAIL POST EMBEDMENT DEPTHS.



(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 GUARD RAIL 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 ¾" BEYOND IT.

ALL LAP SPLICES, INCLUDING SPECIAL END SHOES, SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWINGS GR-9 & GR-11.

WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7# (1400 #) OR NO. 1 1350 # SOUTHERN PINE.

REFER TO STD. DRWG. GR-10A FOR POST DETAILS.

USE THRIE BEAM GUARD RAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.

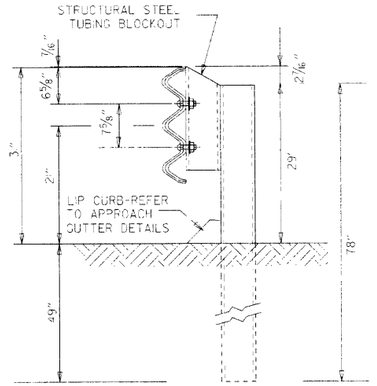
THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.

DATE	REVISION	DATE FILM
7-14-10	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	
4-10-03	REVISED GENERAL NOTES	
8-22-02	REVISED NOTE (2)	
6-29-00	MOVED DIMENSION LINES	
5-18-00	ADDED NOTE	
3-30-00	DRAWN & ISSUED	

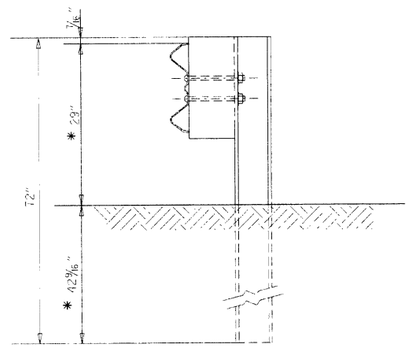
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-10

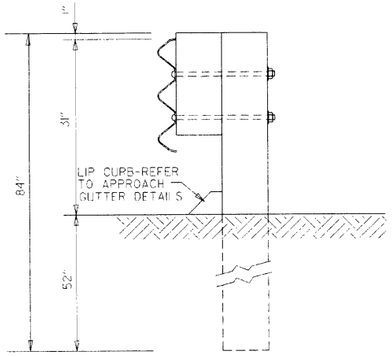


THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7

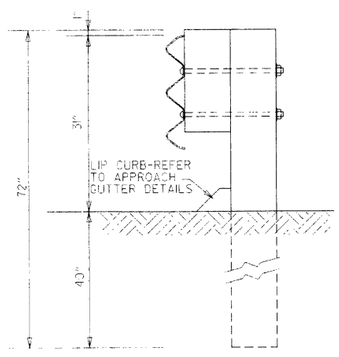


W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8

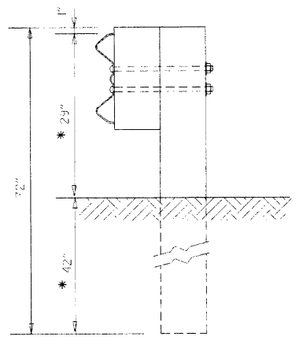
* NOTE:
THESE DIMENSIONS WILL NEED TO BE ADJUSTED IN THE FIELD TO MAKE THE TRANSITION FROM 21" MID POINT OF THRIE BEAM TO 22" MID POINT OF W BEAM.



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.

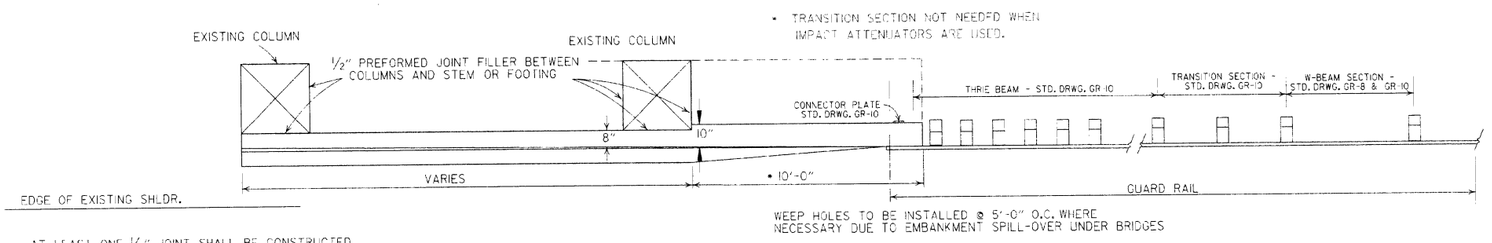
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7# (1400 ft) OR NO. 1 350 # SOUTHERN PINE.

DATE	REVISION	DATE FILM
7-14-10	REVISED POST 8 DIMENSIONS	
11-29-07	ADDED PLASTIC BLOCKOUTS	
8-22-02	REVISED LIP CURB NOTE	
3-30-00	DRAWN & ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

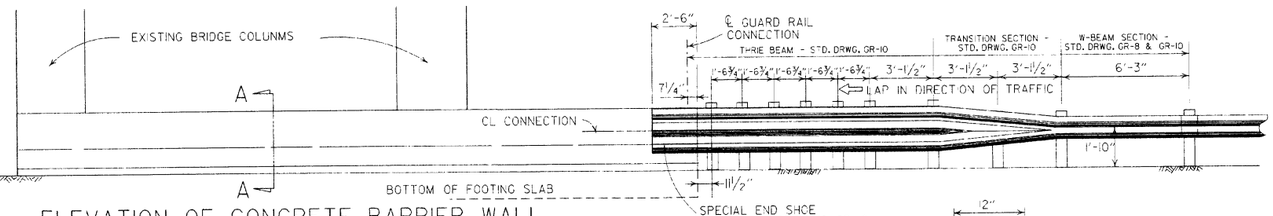
STANDARD DRAWING GR-10A



• TRANSITION SECTION NOT NEEDED WHEN IMPACT ATTENUATORS ARE USED.

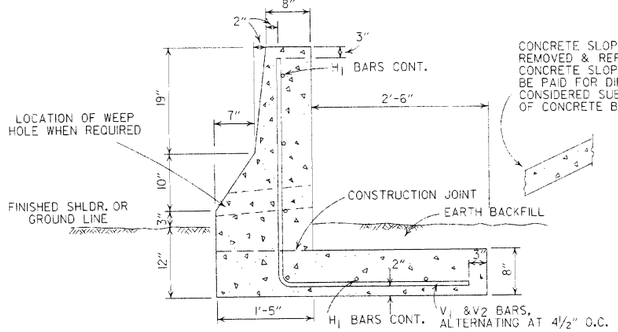
PLAN OF CONCRETE BARRIER WALL

AT LEAST ONE ½" JOINT SHALL BE CONSTRUCTED IN THE CONCRETE BARRIER WALL. JOINTS SHALL BE EQUALLY SPACED AT A MAXIMUM OF 25'-0" O.C. FILL JOINT WITH PREFORMED JOINT FILLER.



NOTE:
ALL EXPOSED EDGES OF THE CONCRETE BARRIER WALL SHALL HAVE A ¾" CHAMFER.

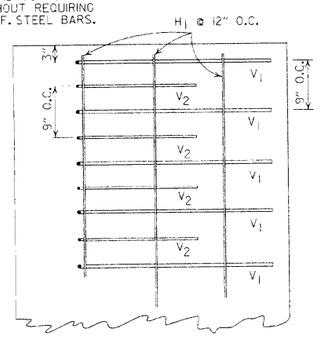
ELEVATION OF CONCRETE BARRIER WALL



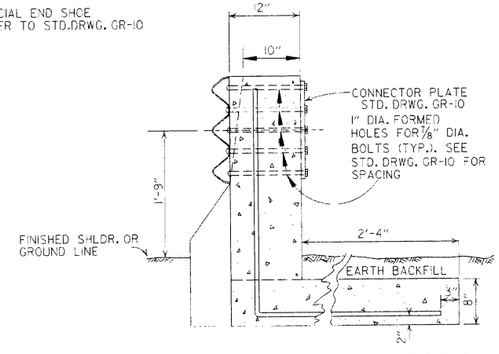
CONCRETE SLOPE PAVING TO BE REMOVED & REPLACED WHERE REQ'D. CONCRETE SLOPE PAVING WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM OF CONCRETE BARRIER WALL.

SECTION A-A

IF FOR ANY REASON IT IS NECESSARY TO CONSTRUCT THE FOOTING AT A LOWER ELEVATION THAN IS SHOWN, THE STEM MAY BE LENGTHENED 1'-0" BETWEEN FIN. SHLDR. AND TOP OF FOOTING WITHOUT REQUIRING HEAVIER REINF. STEEL BARS.



PLAN OF REINFORCING STEEL IN FOOTING

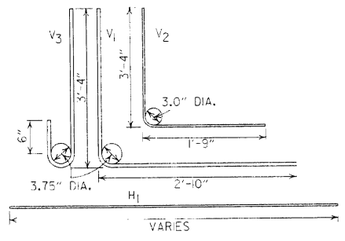


SECTION THRU CONNECTION

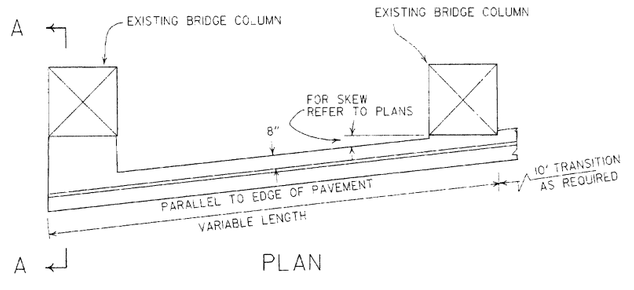
BAR LIST

MARK	NO.	SIZE	LENGTH
V1		#5	6'-2¼"
V2		#4	5'-1"
V3		#5	4'-1⅛"
H1	6	4	VAR.

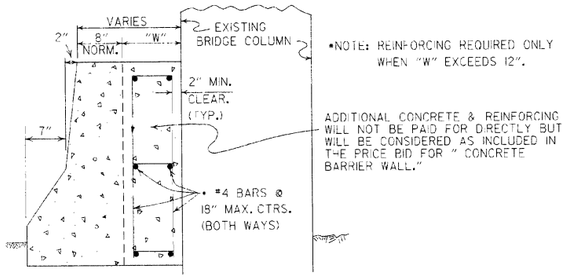
THE V3 BARS SHALL BE USED IN PLACE OF THE V1 & V2 BARS IN FRONT OF PIERS.



BEND DIAGRAMS



PLAN



•NOTE: REINFORCING REQUIRED ONLY WHEN "W" EXCEEDS 12".

ADDITIONAL CONCRETE & REINFORCING WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED AS INCLUDED IN THE PRICE BID FOR " CONCRETE BARRIER WALL."

SECTION A-A

DETAILS OF CONCRETE BARRIER WALL WHEN PIERS ARE SKEWED TO ROADWAY

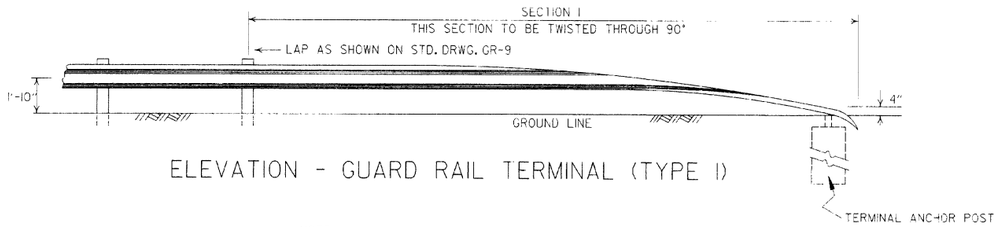
DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF "W-BEAM"	
8-22-02	REV. SECTION A-A OF DETAILS OF CONCRETE BARRIER WALL	
6-29-00	MOVED DIMENSION LINE	
5-15-00	ADDED NOTE	
3-30-00	REVISED TO INCLUDE THRIE BEAM	
6-2-94	ADDED TRANSITION SECTION NOTE	
10-1-92	REDRAWN & REVISED	10-1-92
8-15-91	REVISED DRAWING PLAN CONC. BARR.	8-15-91
2-16-89	ADDED SKEWED DETAILS	594-2-16-89
7-14-88	CHANGED TITLE	
10-9-87	REDRAWN & REVISED	

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE BARRIER WALL (PIER PROTECTION TYPE A)

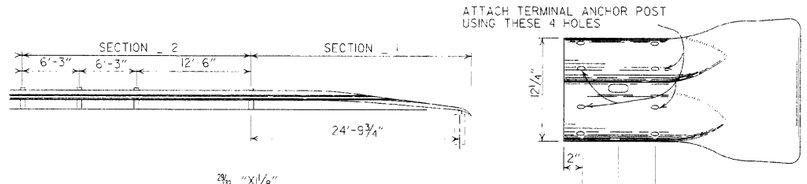
STANDARD DRAWING GR-11

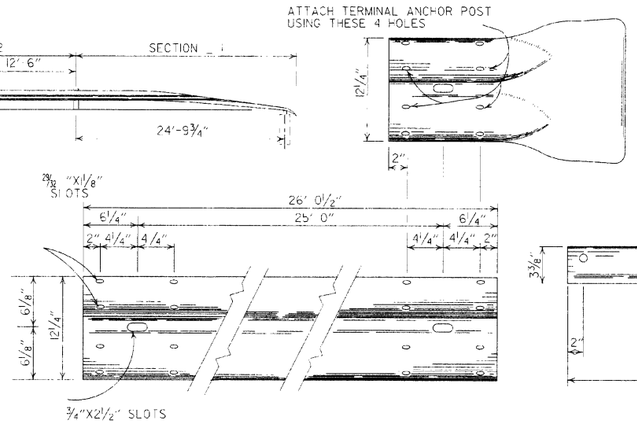
PLAN - GUARD RAIL TERMINAL (TYPE I)



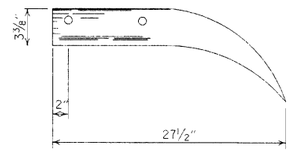
ELEVATION - GUARD RAIL TERMINAL (TYPE I)

NOTE:
SECTIONS I AND 2 OF GUARD RAIL TERMINAL SHALL BE PAID FOR AT THE PRICE BID PER LINEAR FOOT OF THE TYPE OF GUARD RAIL SPECIFIED.

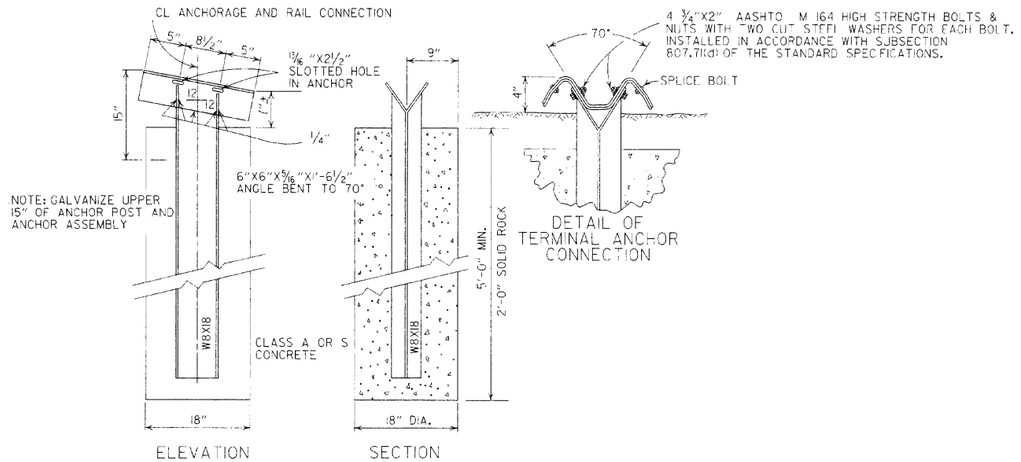




SECTION I



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.

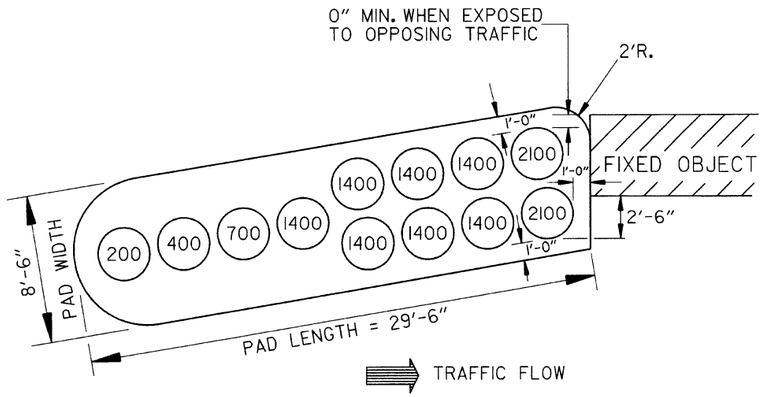
DETAIL OF TERMINAL ANCHOR POST (TYPE I)

DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
6-26-97 10 18 96	REVISED LAP NOTE REVISED ASTM REF. TO AASHTO	
11-3-94	DIMENSION TERMINAL DETAIL	
11-11-92	ADDED NOTE FOR PAYMENT	11-11-92
10-1-92	DRAWN & ISSUED	10-1-92

ARKANSAS STATE HIGHWAY COMMISSION

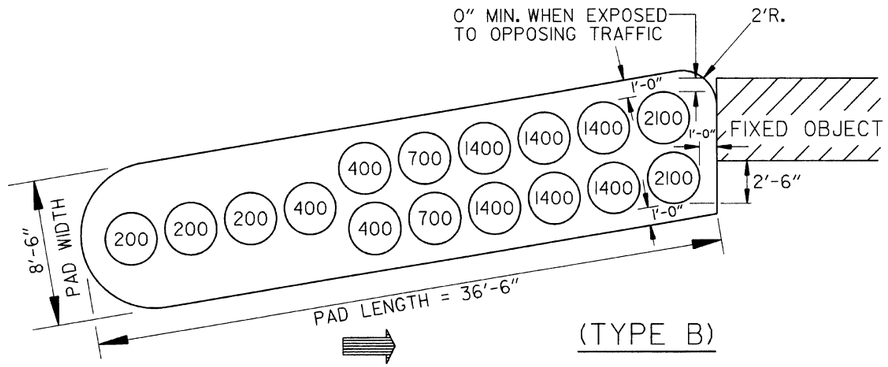
GUARD RAIL DETAILS

STANDARD DRAWING GR1-1



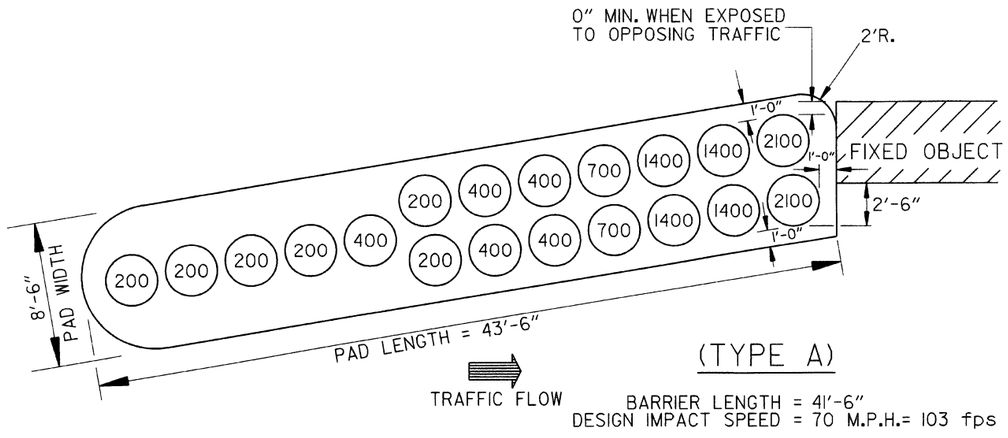
(TYPE C)

BARRIER LENGTH = 27'-6"
DESIGN IMPACT SPEED = 50 M.P.H.= 73.3 fps



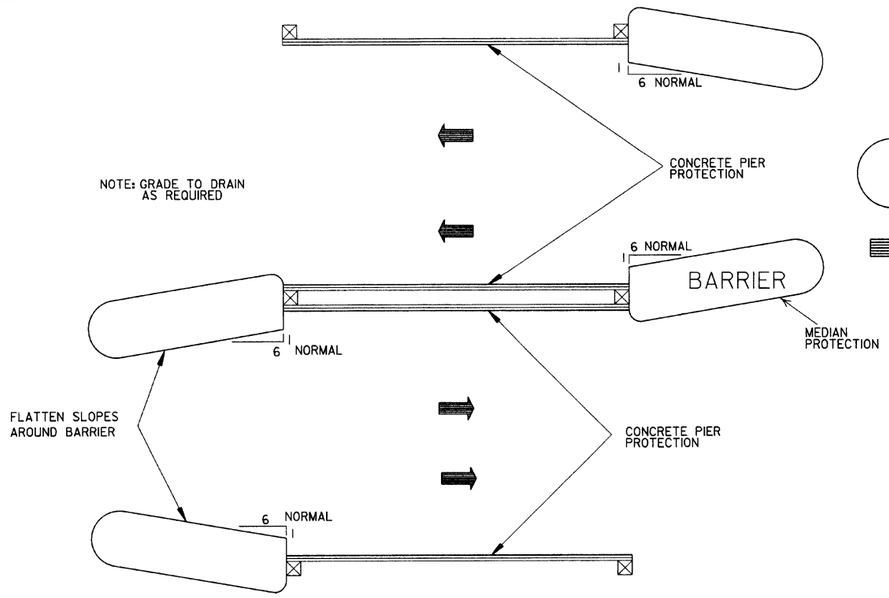
(TYPE B)

BARRIER LENGTH = 34'-6"
DESIGN IMPACT SPEED = 60 M.P.H.= 88 fps

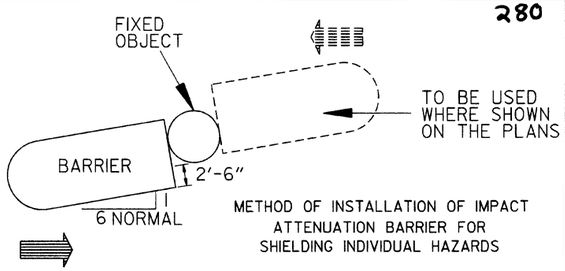


(TYPE A)

BARRIER LENGTH = 41'-6"
DESIGN IMPACT SPEED = 70 M.P.H.= 103 fps



METHOD OF INSTALLATION OF
IMPACT ATTENUATION BARRIER
FOR PIER PROTECTION



METHOD OF INSTALLATION OF IMPACT
ATTENUATION BARRIER FOR
SHIELDING INDIVIDUAL HAZARDS

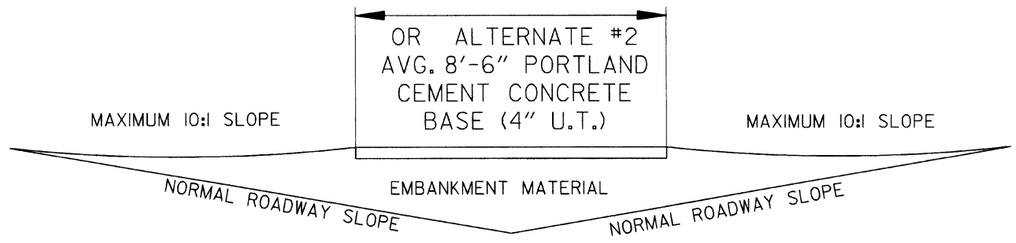
APPROXIMATE QUANTITIES PER PAD

TYPE	ALTERNATE #1		ALTERNATE #2
	AGGR. BASE COURSE	A.C.H.M. SURFACE COURSE	P.C.CONC. BASE (4"U.T.)
	TONS	TONS	SQ.YDS.
A	9.7	4.6	41.6
B	8.1	3.8	34.9
C	6.6	3.1	28.3

NOTE: APPROXIMATE QUANTITIES SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY. PAYMENT TO BE INCLUDED IN UNIT PRICE BID FOR IMPACT ATTENUATION BARRIER.

GENERAL NOTES

1. DIMENSIONS SHOWN ARE TO TOP OF PLASTIC MODULES.
2. SPACING BETWEEN PLASTIC MODULES SHALL NOT EXCEED 6" AT THE TOP.
3. PLASTIC MODULES SHALL MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).



DETAIL OF BARRIER PAD

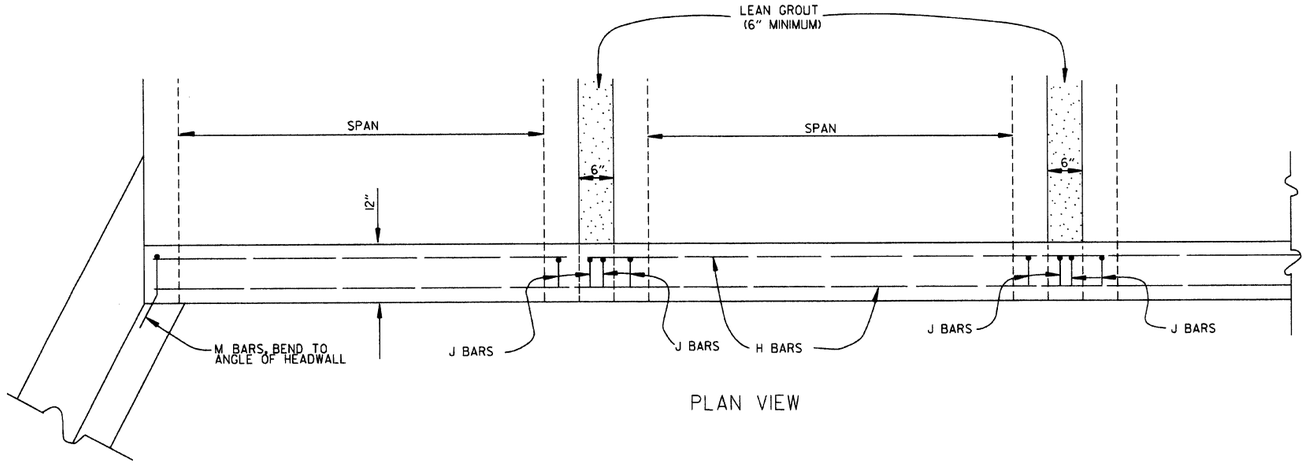
NOTE: BARRIER PAD TO BE SKEWED TOWARD ONCOMING TRAFFIC A MAXIMUM OF 6:1 WITH 6:1 BEING NORMAL

DATE	REVISION	DATE FILMED
10-15-09	ADDED REFERENCE TO MASH	
11-29-07	REVISED TY. A & TY. C ARRAYS	
11-19-98	REVISED FIXED OBJECT	
11-18-98	REV. NOTES & TYPE A MOD. WTS.	
10-18-96	REDRAWN	
7-15-88	CONFORMED TO 1988 SPECS	
7-29-87	REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

IMPACT ATTENUATION BARRIER

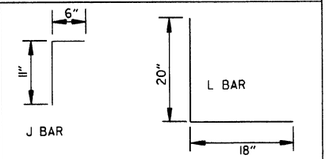
STANDARD DRAWING IB-1



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.

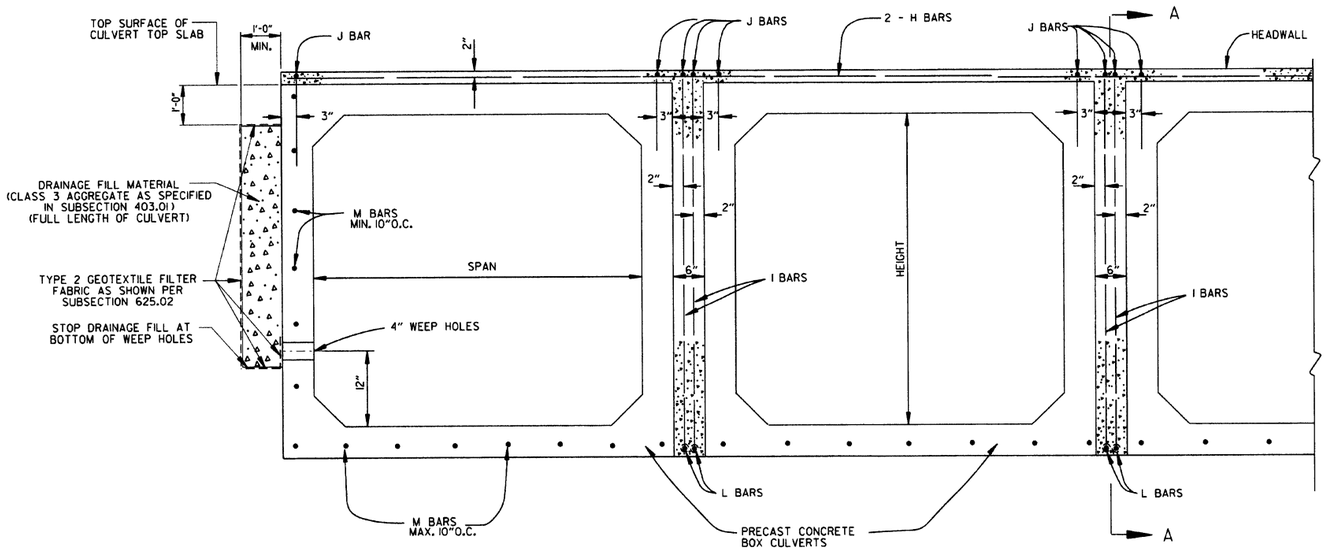
THE MEMBRANE WATERPROOFING WILL BE REQUIRED ON THE TOP EXTERNAL JOINT AND SHALL EXTEND 1 FOOT DOWN THE SIDES OF THE CULVERT.

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.

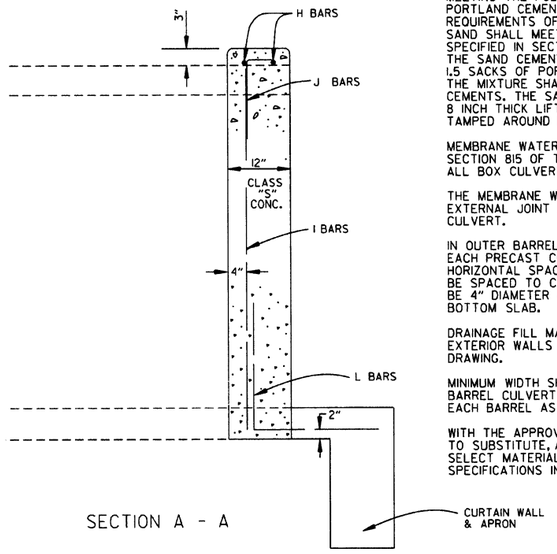
DRAINAGE FILL MATERIAL WITH GEOTEXTILE FABRIC IS REQUIRED AT THE EXTERIOR WALLS OF THE ASSEMBLED CULVERT, SEE DETAILS ON THIS DRAWING.

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	AHTD NOMINAL	AASHTO M 206	AHTD 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	31⅝	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.

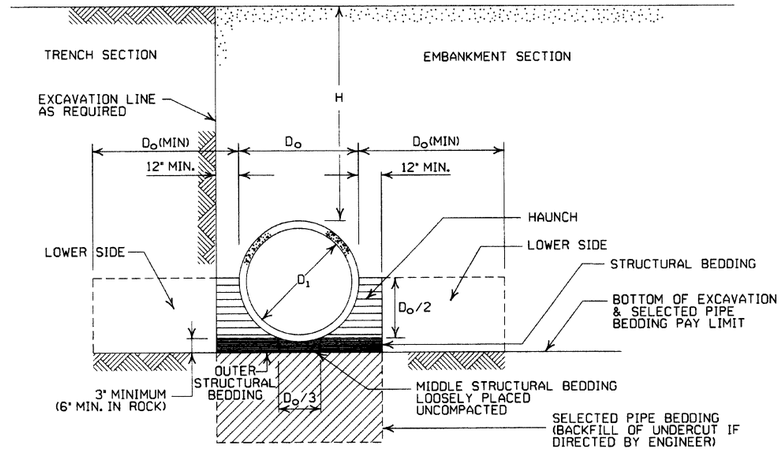
- LEGEND -

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 STATE HIGHWAY AND TRANSPORTATION DEPARTMENT 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)	①MINUMUM 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

CORRUGATED METAL PIPE ARCHES

EQUIV. DIA. (INCHES)	PIPE DIMENSION SPAN X RISE (INCHES)	MINUMUM CORNER RADIUS (INCHES)	STEEL: MIN. THICKNESS REQUIRED INCHES	STEEL: ① MIN. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	STEEL: MAX. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	ALUMINUM: MIN. THICKNESS REQUIRED INCHES	ALUMINUM: ① MIN. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	ALUMINUM: MAX. HEIGHT OF FILL, "H" (FT.) INSTALLATION 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 TYPE 2	INSTALLATION TYPE 1	INSTALLATION TYPE 2	INSTALLATION 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.

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

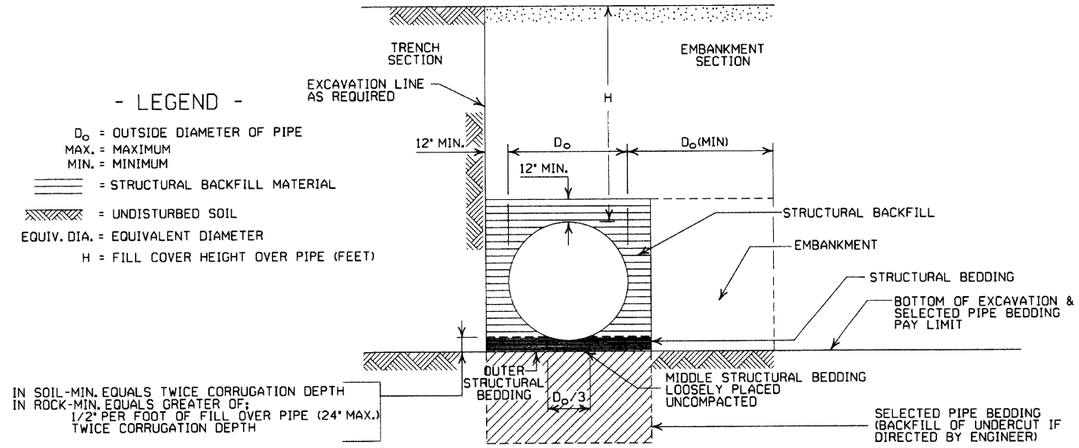
③ SM-3 WILL NOT BE ALLOWED.

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

- 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 STATE HIGHWAY AND TRANSPORTATION DEPARTMENT 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 1 INCH. 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

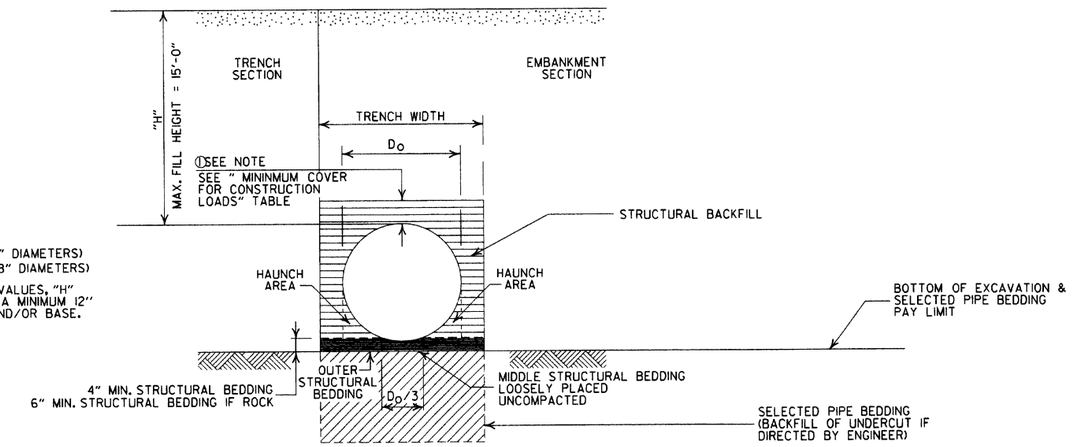
PIPE DIAMETER	CLEAR DISTANCE BETWEEN PIPES
18"	1'-6"
24"	2'-0"
30"	2'-6"
36"	3'-0"
42"	3'-6"
48"	4'-0"

MINIMUM TRENCH WIDTH BASED ON FILL HEIGHT "H"

PIPE DIAMETER	TRENCH WIDTH (FEET) "H" < 10'-0"	TRENCH WIDTH (FEET) "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.



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.

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.

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 CONFROM 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.)
Ø = 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 1 INCH. 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

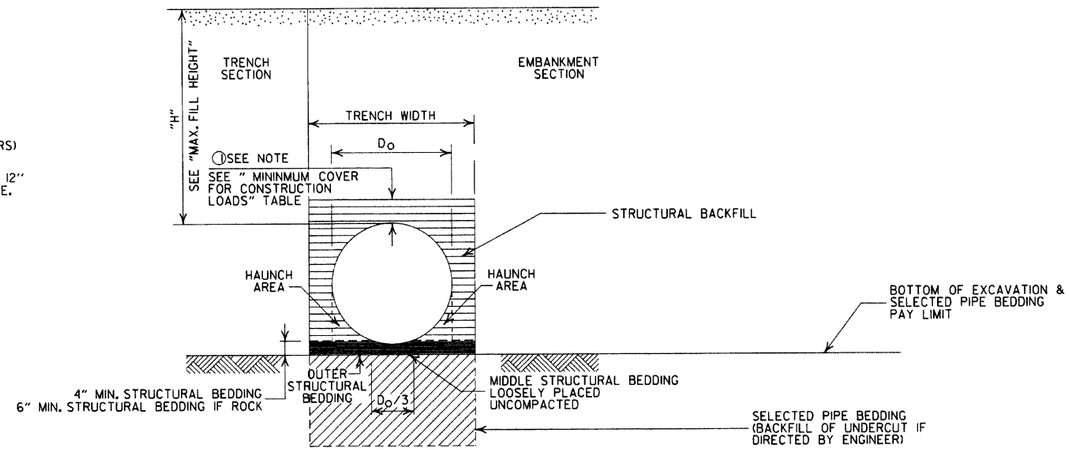
PIPE DIAMETER	"H"
18"	45'-0"
24"	45'-0"
30"	40'-0"
36"	40'-0"

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 CONFROM 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. 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

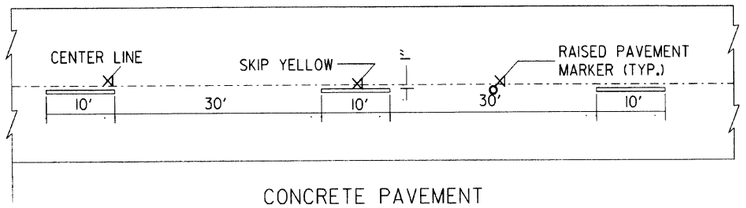
DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REV GENERAL NOTES & MINIMUM COVER NOTE; DELETED SM3 MATERIAL	
11-17-10	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

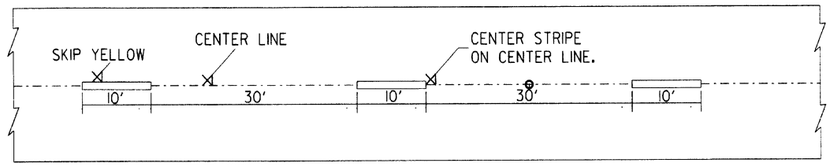
PLASTIC PIPE CULVERT (PVC F949)

STANDARD DRAWING PCP-2

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.

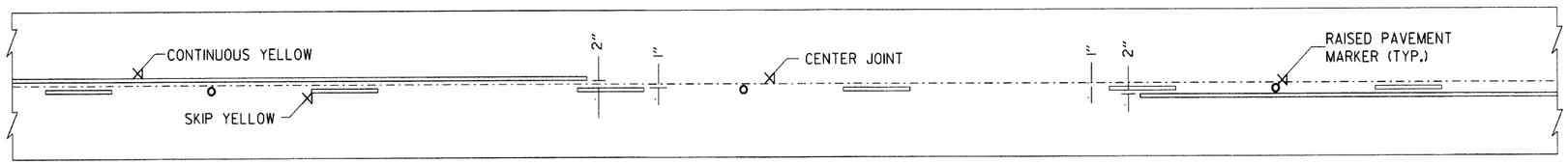


CONCRETE PAVEMENT

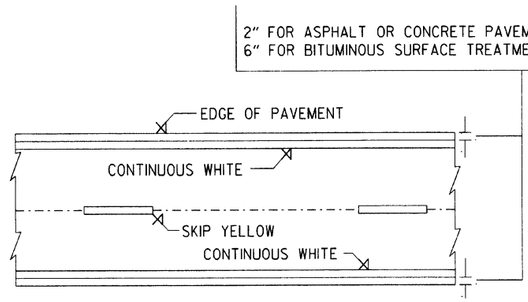


ASPHALT PAVEMENT

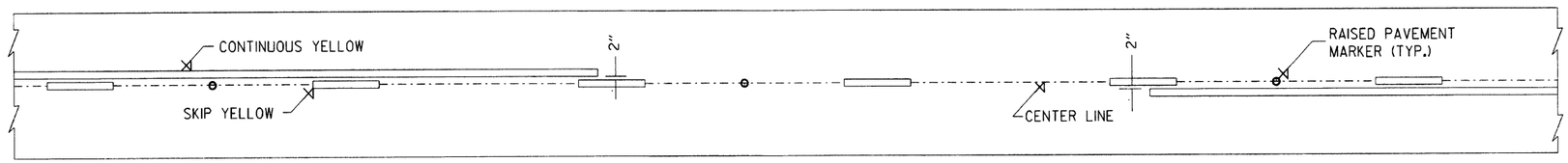
BROKEN LINE STRIPING



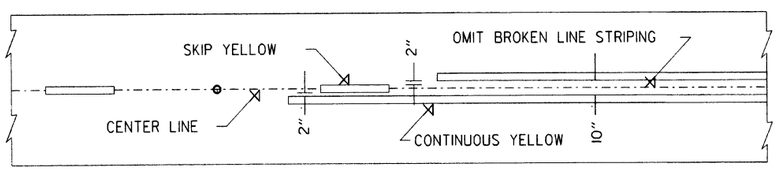
SOLID LINE STRIPING ON CONCRETE PAVEMENT



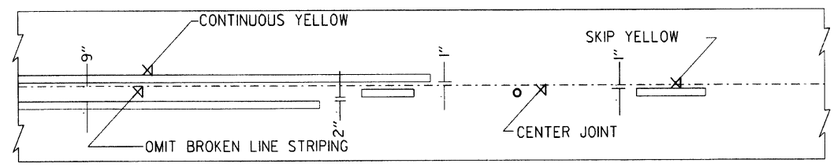
PAVEMENT EDGE LINE MARKING



SOLID LINE STRIPING ON ASPHALT PAVEMENT

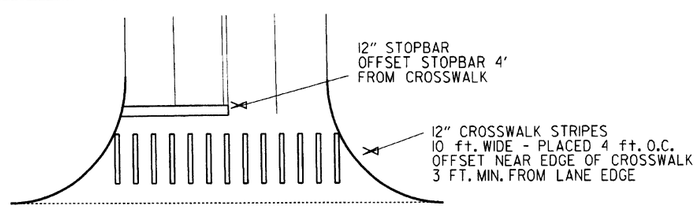


ASPHALT PAVEMENT

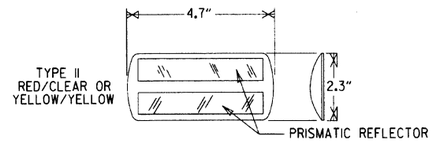


CONCRETE PAVEMENT

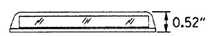
STRIPING AT ADJACENT NO PASSING LANES



CROSSWALK AND STOPBAR DETAILS



NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.



DETAIL OF STANDARD RAISED PAVEMENT MARKERS

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 AHTD QUALIFIED PRODUCTS LIST.

DATE	REVISION	FILMED
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

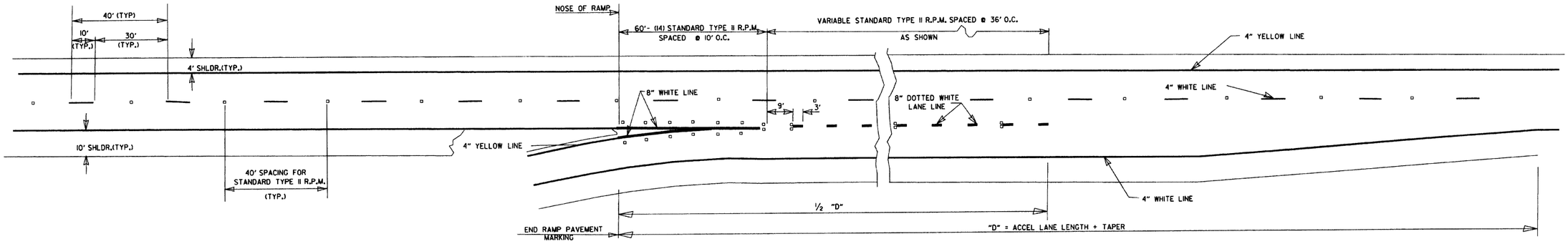
STANDARD DRAWING PM-1

PAVEMENT MARKING QUANTITIES
(BASED ON 700' ACCEL. LANE + 300' TAPER)

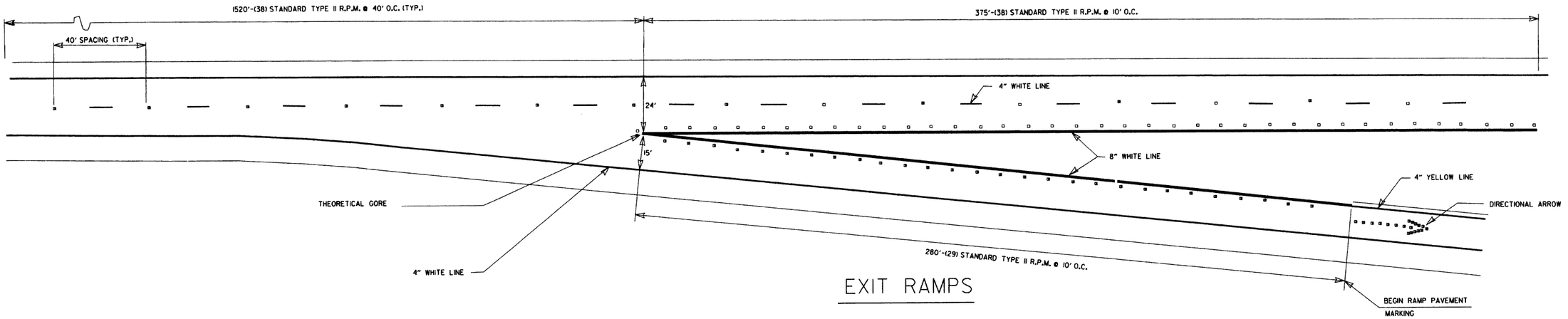
ENTRANCE RAMP

8" WHITE = 228 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

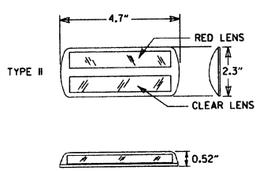
EXIT RAMP
4" WHITE = 280 LIN. FT.
8" WHITE = 655 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH



ENTRANCE RAMPS

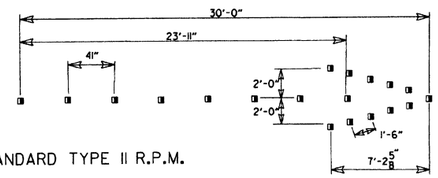


EXIT RAMPS



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 AHTD QUALIFIED PRODUCTS LIST.

DATE	REVISION	FILMED
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

ARKANSAS STATE HIGHWAY COMMISSION

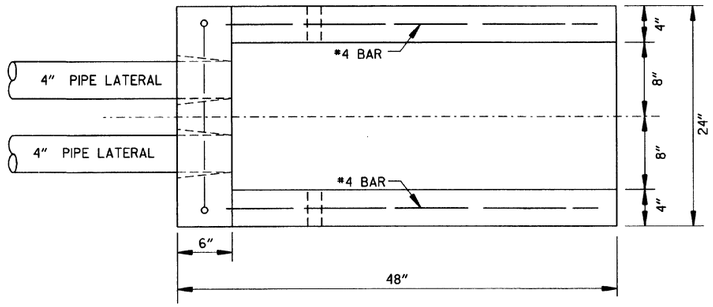
PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS

STANDARD DRAWING PM-2

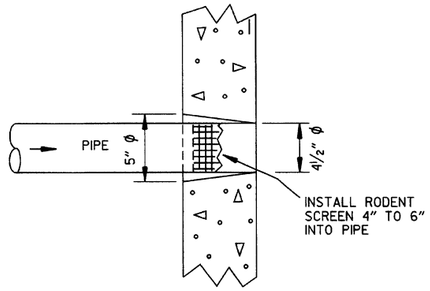
NOTE:
1. GRANULAR BACKFILL TO BE SUBSIDIARY TO PIPE UNDERDRAIN.

2. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.

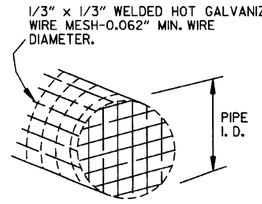
3. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.



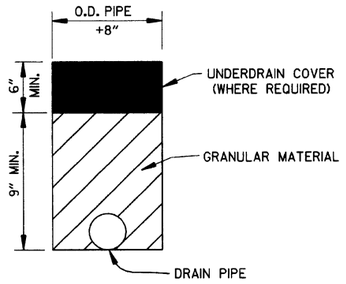
PLAN VIEW

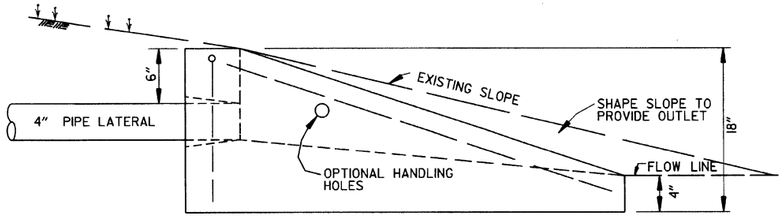


DETAIL OF HOLE FOR 4" PIPE

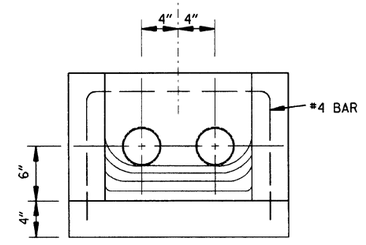


DETAIL OF RODENT SCREEN

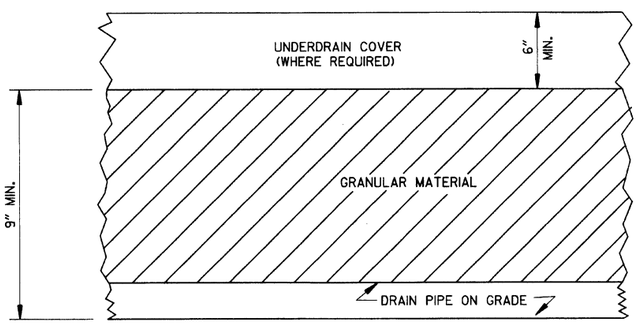




SIDE VIEW

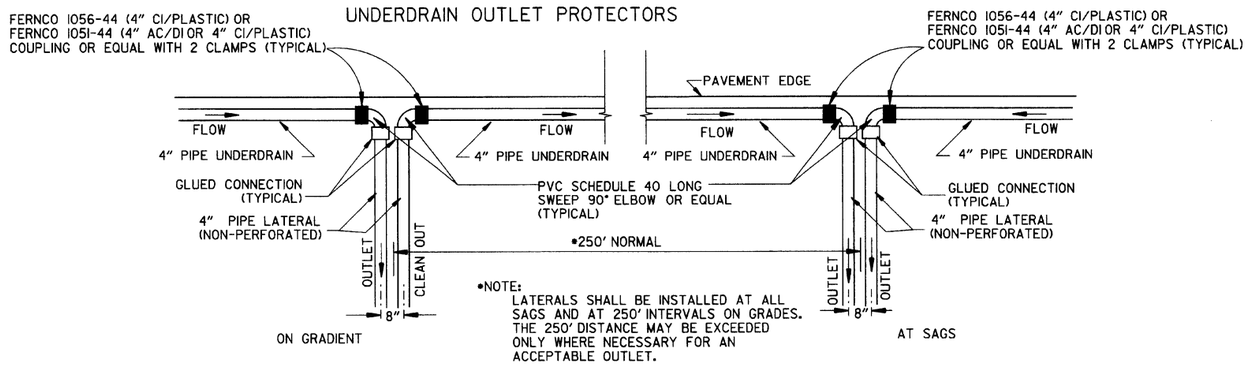


FRONT VIEW



DETAILS OF PIPE UNDERDRAIN

UNDERDRAIN OUTLET PROTECTORS



•NOTE:
LATERALS SHALL BE INSTALLED AT ALL SAGS AND AT 250' INTERVALS ON GRADES. THE 250' DISTANCE MAY BE EXCEEDED ONLY WHERE NECESSARY FOR AN ACCEPTABLE OUTLET.

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
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

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF PIPE UNDERDRAIN

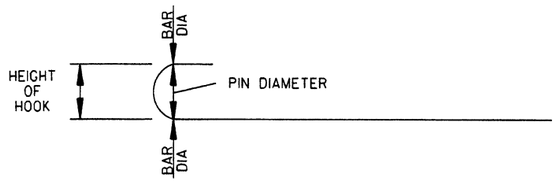
STANDARD DRAWING PU-1

7-20-95 INSTD.PUI

STEEL FABRICATION: REINFORCING STEEL FABRICATION SHALL CONFORM TO THE DIMENSIONS LISTED IN THE TABLE BELOW:

BAR SIZE	PIN DIAMETER	HOOK EXTENSION "K"
3	2 1/4"	4"
4	3 "	4 1/2"
5	3 3/4"	5"
6	4 1/2"	6"
7	5 1/4"	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 2 3/4 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

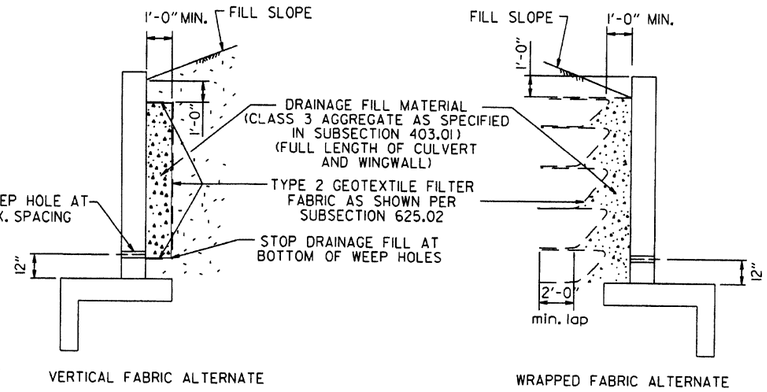
THE HOOKED BARS SHALL BE PLACED IN THE BOTTOM OF THE TOP SLAB AND THE TOP OF THE BOTTOM SLAB. THE STRAIGHT BARS SHALL BE PLACED IN THE TOP OF THE TOP SLAB AND THE BOTTOM OF THE BOTTOM SLAB. SEE TABLE BELOW FOR LENGTHS OF REPLACEMENT HOOKED AND STRAIGHT BARS.

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.

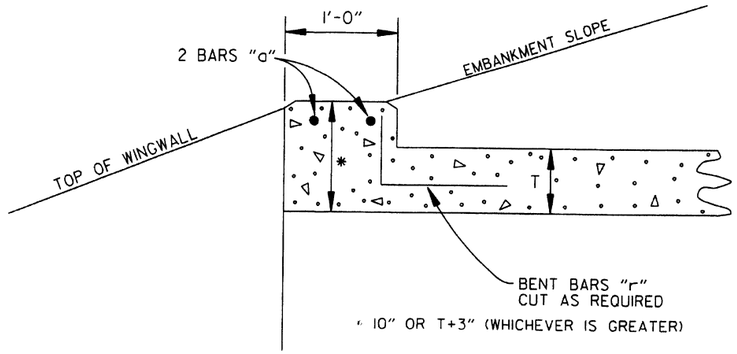
MEMBRANE WATERPROOFING SHALL BE APPLIED TO ALL CONSTRUCTION JOINTS IN THE TOP SLAB AND THE SIDEWALLS OF R.C. BOX CULVERTS AS DIRECTED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THIS ITEM, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS BID FOR THE R.C. BOX CULVERT.

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 1/2 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.

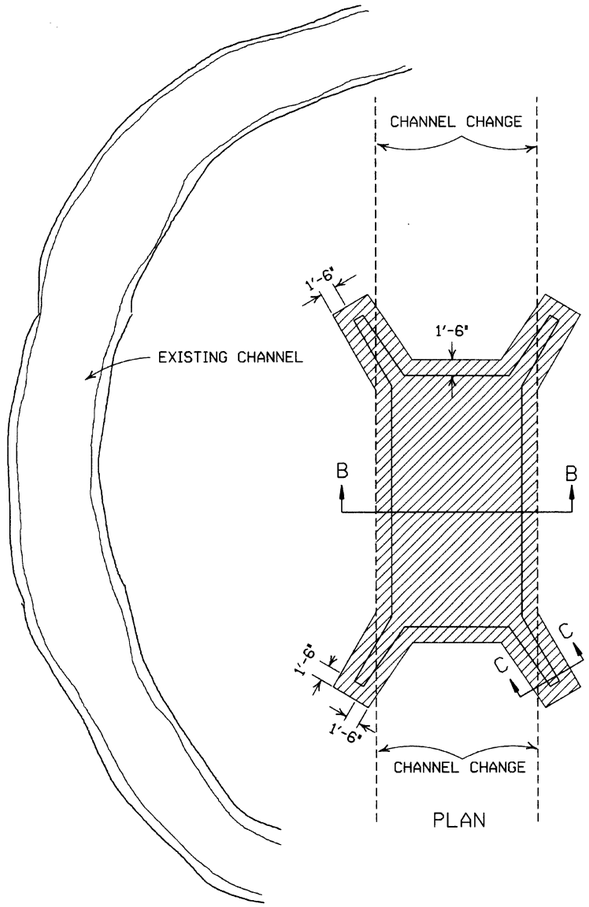
R.C. BOX CULVERT HEADWALL MODIFICATIONS

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

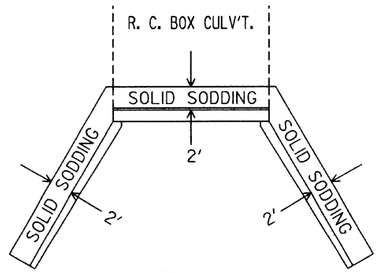
REINFORCED CONCRETE BOX CULVERT DETAILS

STANDARD DRAWING RCB-1



PLAN

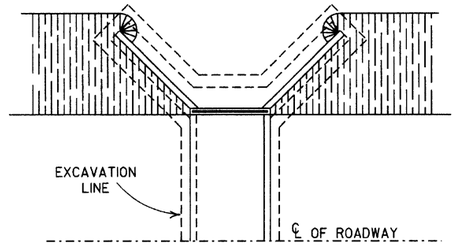
SOLID SODDING



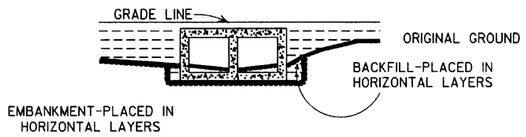
PLAN

PARTIAL SECTION SHOWING SOLID SODDING AT HEADWALLS AND WING WALLS

NOTE: LENGTH MEASURED ALONG THE CENTER OF 2' STRIP OF SOLID SODDING.

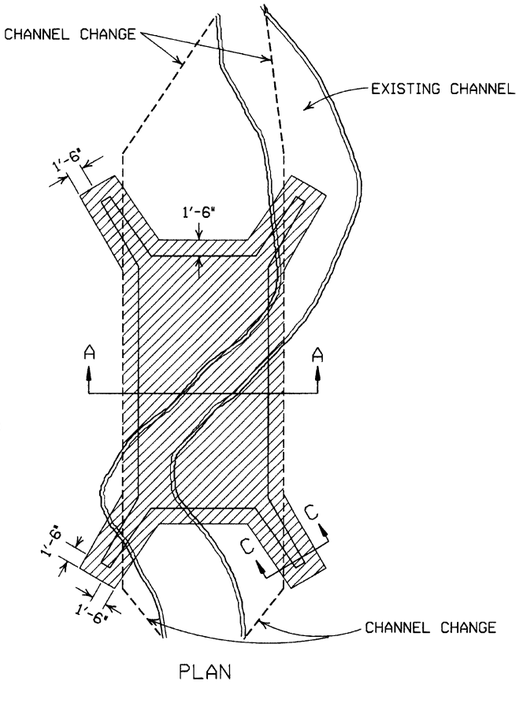


PLAN

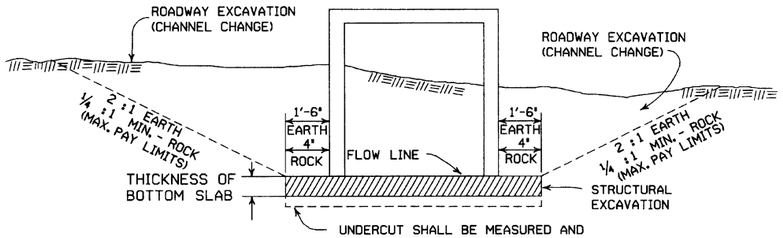


LONGITUDINAL SECTION

BACKFILL DETAILS FOR BOX CULVERT

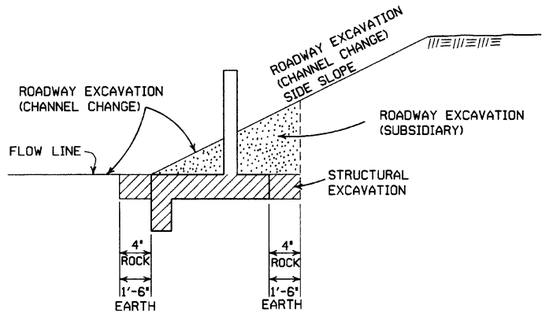


PLAN

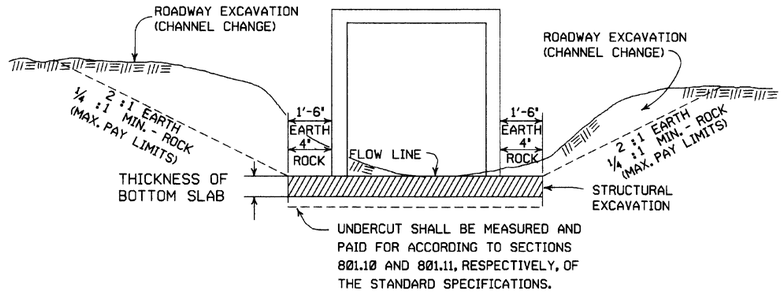


SECTION B-B

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.

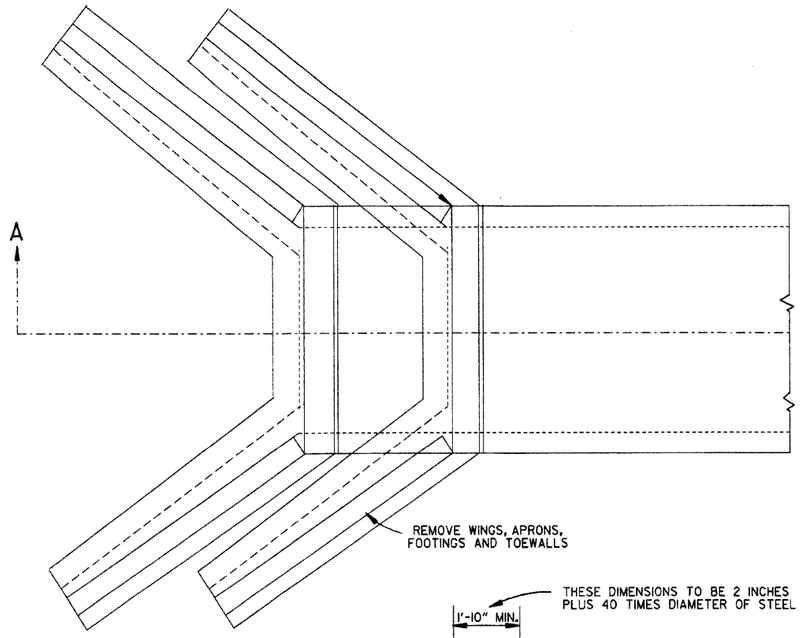
ROADWAY EXCAVATION SHOWN IN SECTION C-C ABOVE AS SUBSIDIARY WILL NOT BE MEASURED OR PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION.

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

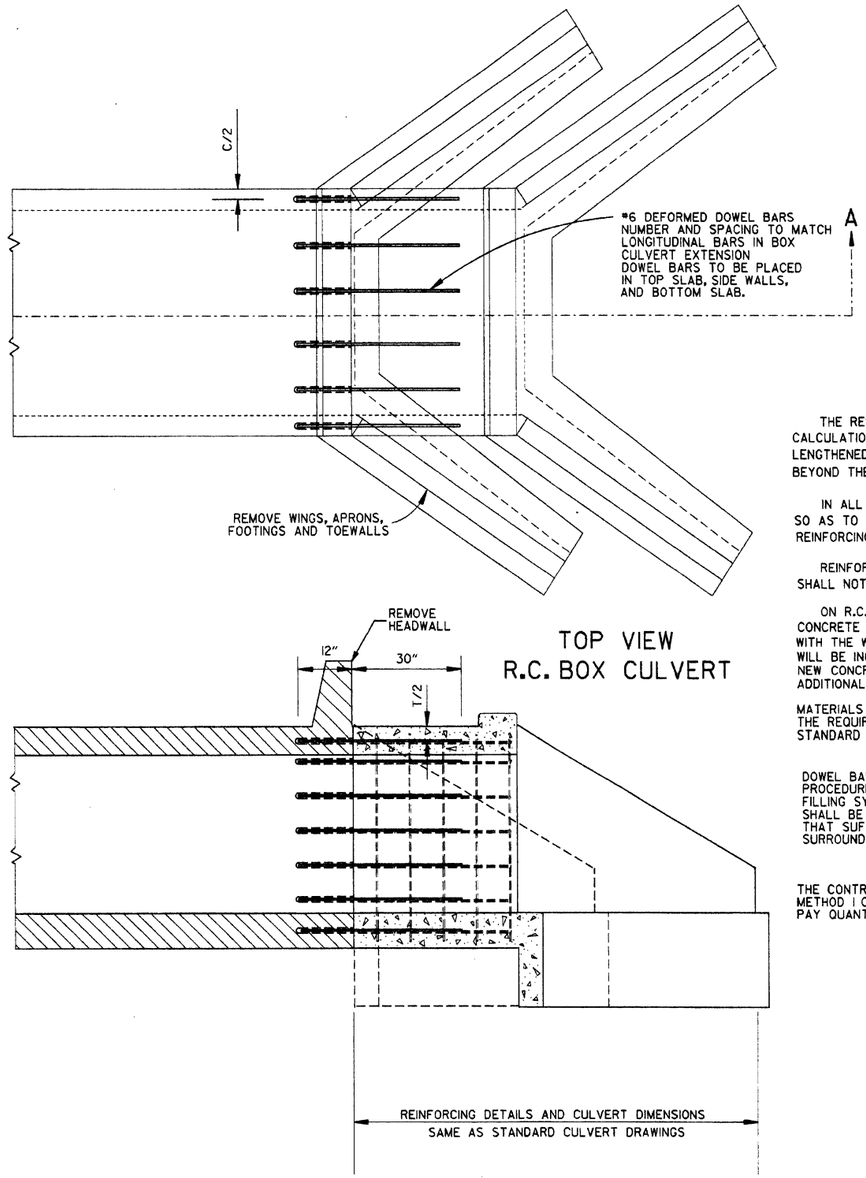
STANDARD DRAWING RCB-2



TOP VIEW
R.C. BOX CULVERT

SECTION A-A

METHOD 1



TOP VIEW
R.C. BOX CULVERT

SECTION A-A

METHOD 2

GENERAL NOTES

	USE FOR METHOD
THE RESIDENT ENGINEER WILL MAKE INDIVIDUAL CALCULATIONS OF QUANTITIES FOR EACH STRUCTURE LENGTHENED, MAKING NO ALLOWANCE FOR OVERBREAKAGE BEYOND THE LINES INDICATED.	1
IN ALL INSTANCES CONCRETE SHALL BE REMOVED SO AS TO PERMIT FULL 40 DIAMETER SPLICE OF REINFORCING STEEL.	1
REINFORCING STEEL REMOVED FROM EXISTING STRUCTURE SHALL NOT BE REUSED IN CONSTRUCTING EXTENSION.	1&2
ON R.C. BOX CULVERTS THAT HAVE AN EXISTING CONCRETE APRON; THE CONCRETE APRON SHALL BE REMOVED WITH THE WINGS. THE COST OF REMOVING ALL OLD CONCRETE WILL BE INCLUDED IN THE PRICE BID PER CUBIC YARD FOR NEW CONCRETE OF THE CLASS SPECIFIED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.	1&2
MATERIALS FOR SECURING DOWEL BARS SHALL MEET THE REQUIREMENTS OF SECTION 507.02 OF THE STANDARD SPECIFICATIONS.	2
DOWEL BARS SHALL BE INSTALLED AS FOLLOWS; THE DRILLING PROCEDURE SHALL BE APPROVED BY THE ENGINEER, THE FILLING SYSTEM SHALL BE APPROVED BY THE ENGINEER, AND SHALL BE AN INJECTION-TYPE SYSTEM WHICH WILL INSURE THAT SUFFICIENT MATERIAL IS INJECTED SO IT COMPLETELY SURROUNDS THE BARS AND FILLS THE HOLES.	2
THE CONTRACTOR SHALL HAVE THE OPTION OF USING EITHER METHOD 1 OR METHOD 2. REGARDLESS OF WHICH METHOD IS USED, PAY QUANTITIES WILL BE CALCULATED BASED ON METHOD 1.	1&2

NOTE:
NO PART OF THIS STANDARD IS TO BE USED FOR ANY DETAILS RELATIVE TO NEW CONSTRUCTION.

SEE STANDARD DRAWING LISTED IN TABULATION OF STRUCTURES FOR ALL NEW CONSTRUCTION DETAILS.

DATE	REVISION	DATE FILM
10-12-95	CHANGED DRAWING # FROM 144-A	
4-1-93	ADDED GENERAL NOTE	
10-1-92	ADDED ALT. METHOD OF EXTENSION	
11-30-89	REDRAWN	
1-4-83	ELIMINATED CONCRETE CLASS	
12-20-56	RETRACED	

ARKANSAS STATE HIGHWAY COMMISSION

METHOD OF EXTENDING EXISTING R.C. BOX CULVERTS

STANDARD DRAWING RCB-3

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 (2-4-2 CONFIGURATION) UNLESS OTHERWISE NOTED.
2. LOOP AND FEEDER WIRE SHALL BE CONTINUOUS WITHOUT SPLICES EXCEPT AT THE LOOP/FEEDER WIRE SPLICE AS SHOWN. SPLICE SHALL BE ROSIN SOLDERED AND WATERPROOFED WITH AN ACCEPTED SPLICE KIT. DRAIN WIRE SHALL BE GROUNDED IN CABINET AND INSULATED AT LOOP TO FEEDER SPLICE.
3. THE LOOP TO FEEDER SPLICE, FEEDER JACKET AND JACKET OF LOOP WIRE IN DUCT SHALL BE COMPLETELY SEALED AND WATERPROOFED.
4. CONTRACTOR MAY MAKE CONNECTIONS TO SIGNAL CABLE AND LOOP TO FEEDER CONNECTION AT TERMINAL STRIPS MOUNTED TO POLE INSIDE HAND HOLD COVER AS SHOWN IN DETAIL. TERMINALS MUST BE EASILY ACCESSIBLE, BUT PROTECTED AGAINST ACCIDENTAL CONTACT. CONNECTION OF POWER CARRYING CIRCUITS MUST BE SEPARATED 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 SEPARATE "FEEDER WIRE" UNLESS OTHERWISE NOTED. ALL FEEDER WIRES SHALL BE LABELED AS TO LOOP NUMBER AS DESIGNATED ON THE PLANS.
6. ALL LOOP WIRE ENTERING PULL BOXES SHALL BE ENCLOSED IN CONDUIT. EACH LOOP WIRE SHALL ENTER PULL BOX OR POLE BASE THROUGH A SEPARATE PIECE OF ONE INCH (1"Ø) 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. WARRANTY PERIOD FOR LOOPS SHALL NOT COMMENCE UNTIL TESTED BY THE CONTRACTOR AND ACCEPTED BY THE ENGINEER. CONTRACTOR SHALL PERFORM TEST AND PROVIDE A RECORD TO THE ENGINEER AS LISTED IN THE DETECTOR LOOP TESTING PROCEDURE.
9. UNLESS OTHERWISE APPROVED BY THE ENGINEER, BACKER ROD SHALL BE INSTALLED IN SHORT SECTIONS SPACED NOT MORE THAN 18" APART AND WEDGED INTO SLOT TO HOLD CABLE IN PLACE. CABLE SHALL BE TOTALLY ENCAPSULATED IN SEALER.
10. "HOT POUR" SEALER SHALL NOT BE ALLOWED WITH 705-LOOP WIRING IN DUCT.
11. WHERE UNDERGROUND SPLICES OF SIGNAL CABLE ARE REQUIRED, CONNECTIONS SHALL BE SOLDERED AND COMPLETELY WATERPROOFED TO THE SATISFACTION OF THE ENGINEER. WATERPROOFING SHALL EXTEND A MINIMUM OF TWO 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. CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE. ONLY ONE NEUTRAL IS REQUIRED FOR PEDESTRIAN SIGNALS. A SEPARATE 5C (TYPICAL) IS PROVIDED FOR PEDESTRIAN PUSH BUTTONS.
13. TRAFFIC CONTROLLER CABINET AND LAYOUT SHALL BE SUCH THAT IT IS NOT NECESSARY TO SHUT DOWN POWER OR REMOVE LOAD SWITCHES IN ORDER TO EASILY TEST OR MODIFY DETECTOR INPUTS TO CONTROLLER. CONTROLLER CABINET SHALL BE WIRED SUCH POWER TO LOAD SWITCHES CANNOT BACKFEED TO LOAD SWITCH POWER BUSS DURING FLASH OPERATION.

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.

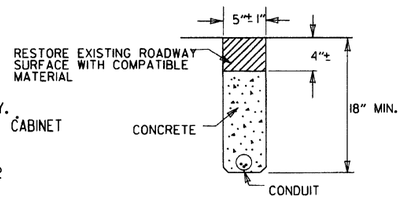
(3) OPEN SPLICE (DO NOT BREAK CONNECTION) REPEAT TEST 1& 2
IF TEST 3 IS BAD, GO TO TEST 4

(4) BREAK SPLICE, INSTALL JUMPER IN CABINET, REPEAT TESTS 1& 2 SEPARATELY FOR FEEDER AND FOR LOOP

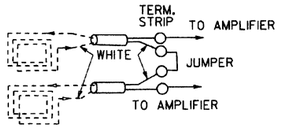
FAILURES TYPICALLY RESULT FROM BROKEN WIRE IN PAVEMENT, FAULTY INSULATION OF LOOP OR FEEDER WIRE, OR POORLY INSULATED SPLICE CONNECTION.

TRENCHING DETAIL

(FOR SAW CUT TRENCH IN ROADWAY)

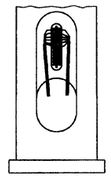


SERIES CONNECTED LOOPS

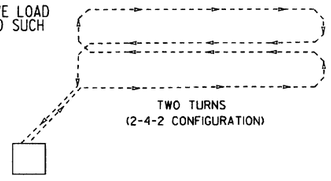


WIND LOOPS COUNTERCLOCKWISE; TAG WIRE EXITING SLOT AND TIE TO WHITE LEAD OF FEEDER WIRE; WHEN LOOPS ARE TIED TO SAME VEHICLE DETECTOR, SERIES CONNECT IN CABINET AS SHOWN.

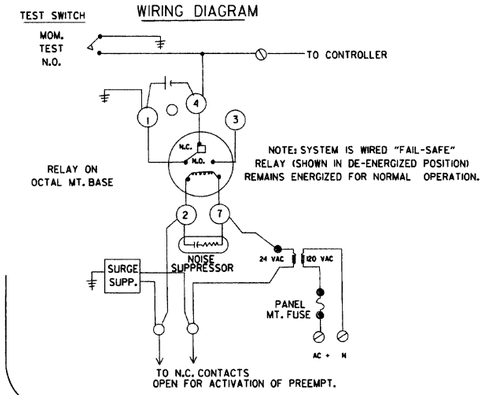
HANDHOLE TERMINAL

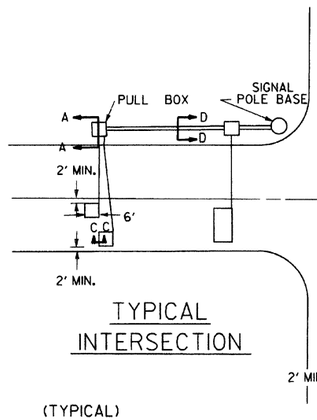


QUADRUPOLE LOOP

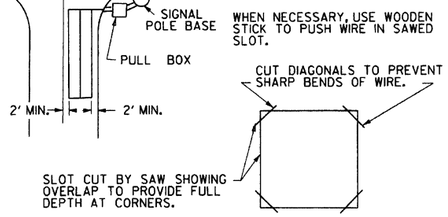


TRAFFIC SIGNAL PRE-EMPTION INTERFACE WIRING DIAGRAM

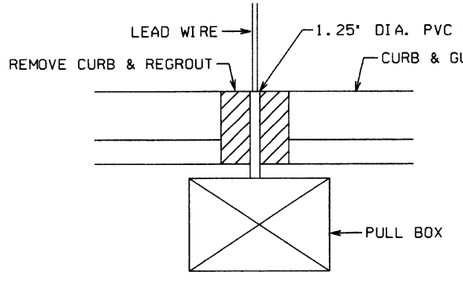


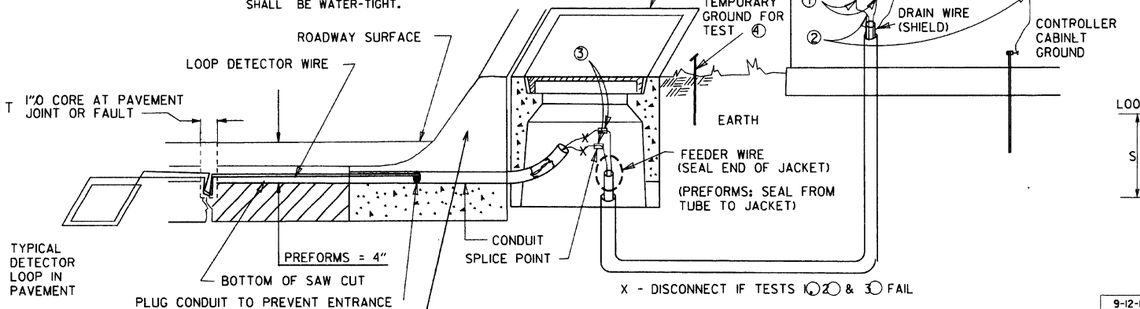


TYPICAL INTERSECTION



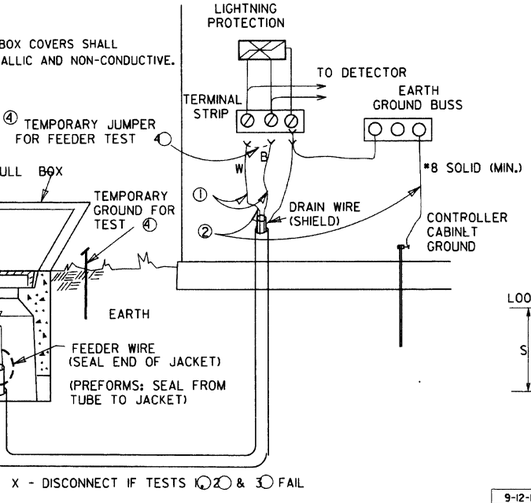
(TYPICAL)





SECTION A-A

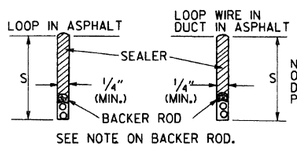
1'-6" CONCRETE COMBINATION CURB AND GUTTER



SPECIAL NOTE

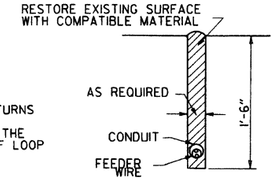
IF FEEDER WIRE JACKET IS LEFT UNSEALED AND WATER IS ALLOWED TO ENTER JACKET, CONTRACTOR WILL BE REQUIRED TO REPLACE FEEDER AT NO COST TO THE DEPARTMENT.

TYPICAL SECTIONS FOR PULSE AND PRESENCE LOOP DETECTORS



SECTION C-C

S=2 ½" IN ASPHALT
S=1½" IN CONCRETE



SECTION D-D

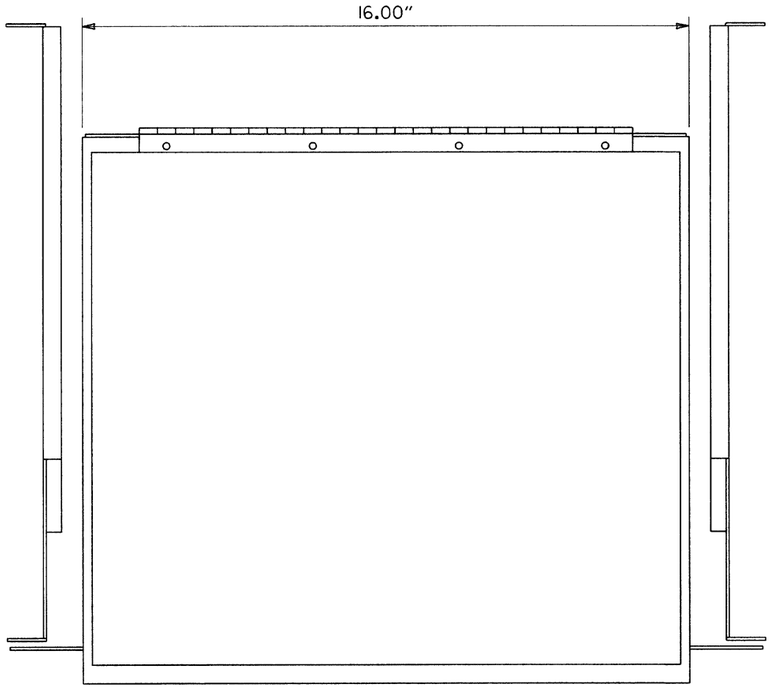
DATE	REVISION	DATE FILM
9-12-13	ISSUED AS STANDARD DRAWING	
5-17-01	REVISED	
4-11-01	REVISED	
2-4-00	REVISED PRE-EMPTION TEST SWITCH	
11-18-98	REVISED NOTES	
11-21-95	ISSUED	

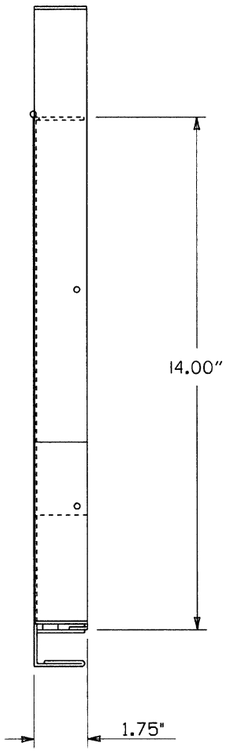
ARKANSAS STATE HIGHWAY COMMISSION

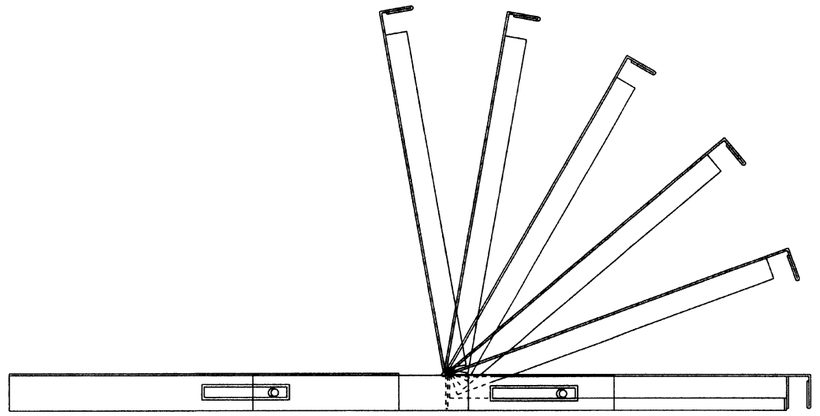
LOOP DETECTOR INSTALLATION

STANDARD DRAWING SD-4

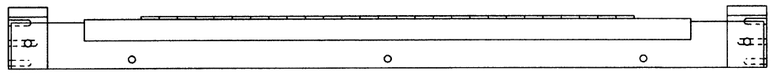
DRAWER PLAN VIEW



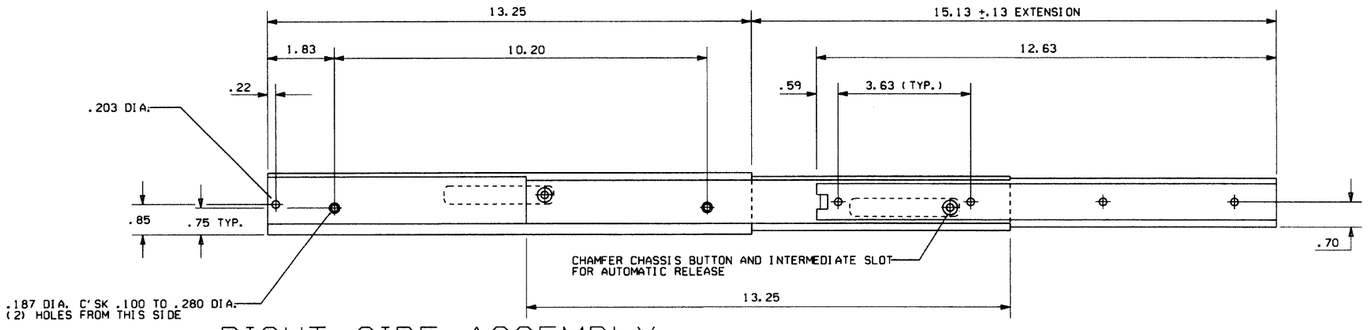




NOTES:
1. RIGHT HAND SLIDE SHOWN, LEFT SLIDE OPPOSITE.
2. GENERAL DEVICES (CC3002-99-0102) OR EQUAL AND CONTAINS (1) RIGHT HAND SLIDE ASSEMBLY, (1) LEFT HAND SLIDE ASSEMBLY.
3. ALL HARDWARE NECESSARY TO FASTEN SLIDE ASSEMBLY TO UNDERSIDE OF CONTROLLER SHELF SHALL BE INCLUDED.



FRONT VIEW



RIGHT SIDE ASSEMBLY

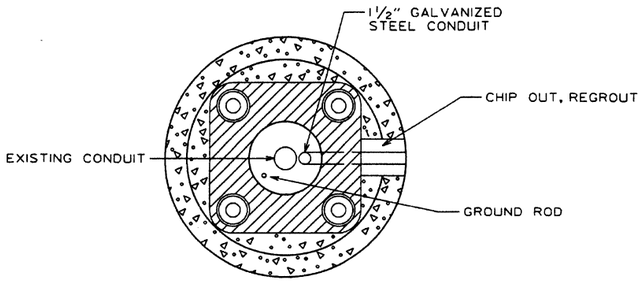
DATE	REVISION	DATE FILM
9-12-13	ISSUED AS STANDARD DRAWING	
6-15-05	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

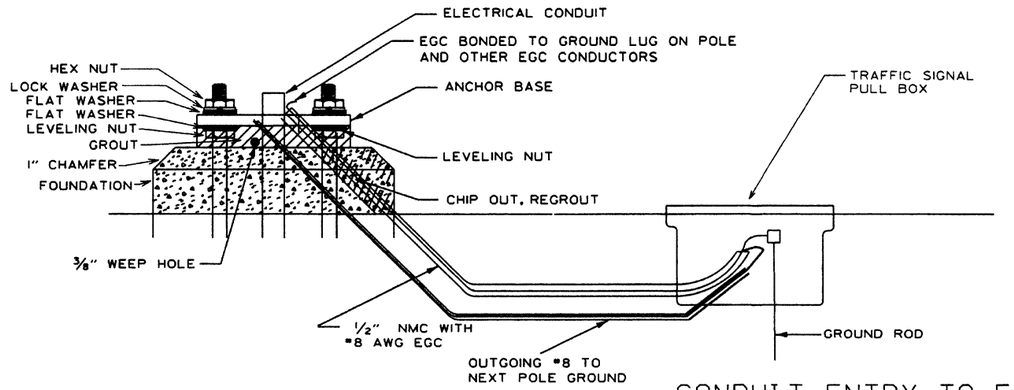
CONTROLLER CABINET
UTILITY DRAWER

STANDARD DRAWING SD-5

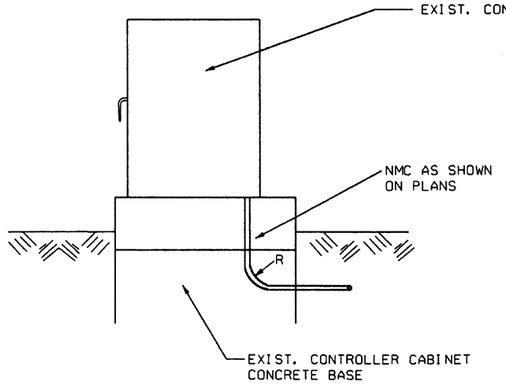
CONDUIT ENTRY TO EXISTING POLE BASE



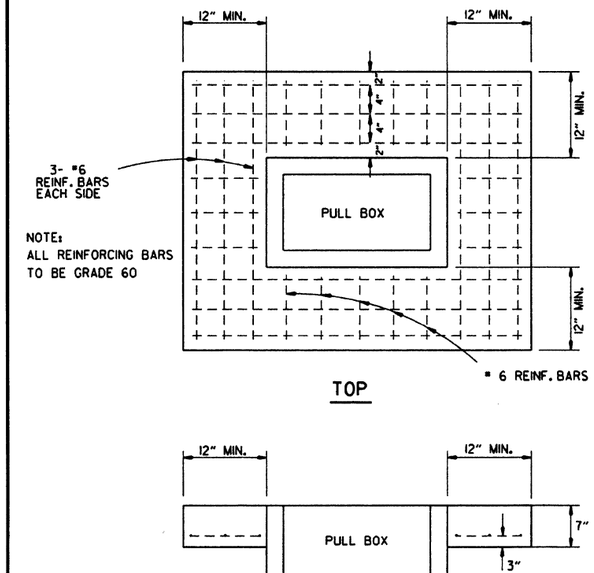
ANCHOR BASE



CONDUIT ENTRY TO EXISTING CONTROLLER CABINET



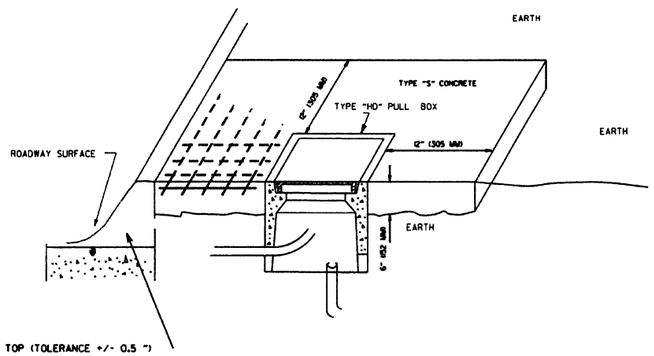
NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.



TOP

ELEVATION

TYPE "HD" CONCRETE PULL BOX DETAIL



NOTE: ALL TYPE 1 AND TYPE 2 HD PULL BOXES ARE INSTALLED WITH AN APRON OF CONCRETE 12" (305 MM) WIDE AND 7" (178 MM) IN DEPTH. ALL PAYMENT SHALL BE INCLUDED IN THE PRICE OF THE TYPE HD PULL BOX. 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 PULL BOX IS REQUIRED IN CONCRETE.

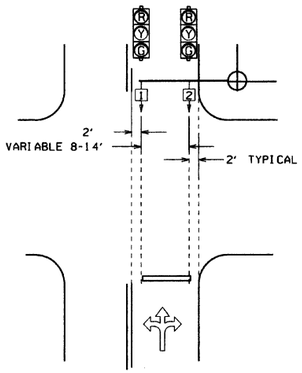
DATE	REVISION	DATE FILM
9-2-15	REVISED PULL BOX DEPTH	
9-12-13	ISSUED AS STANDARD DRAWING	
5-21-09	REVISED GROUNDING	
7-31-08	ADDED & REVISED CONDUIT ENTRY	
6-23-04	REVISED CLEARANCE AT CURB ENTRY	
1-4-02	ADDED REINFORCING TO BOX APRON	
7-2-01	REVISED	
12-27-99	REVISED NOTES	
11-18-98	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

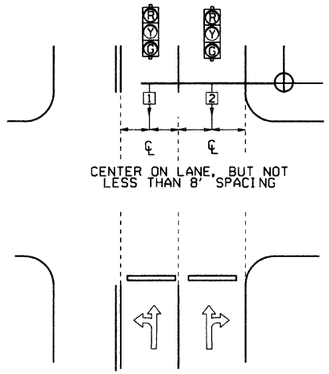
HEAVY DUTY PULL BOX

STANDARD DRAWING SD-6

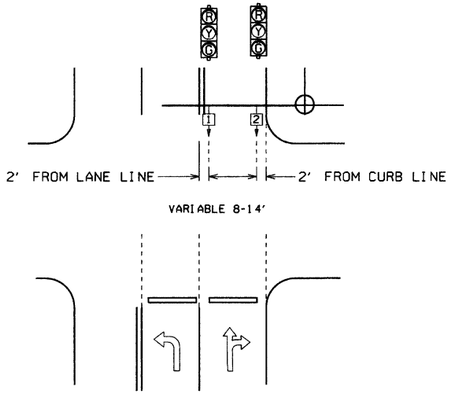
(A)



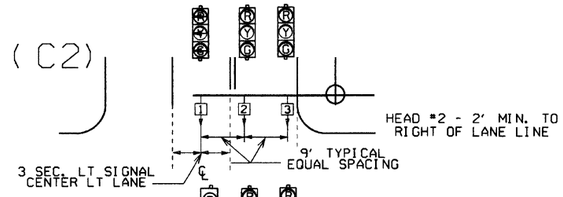
(B)



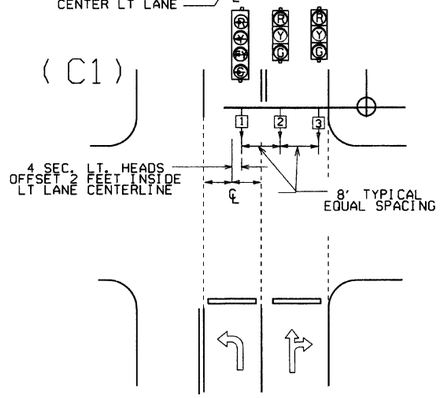
(C)



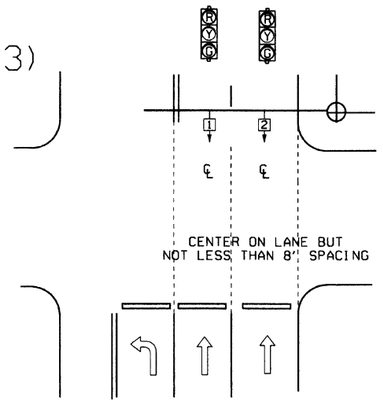
(C2)



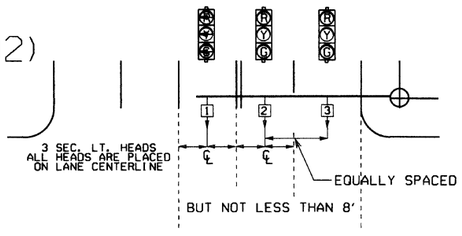
(C1)



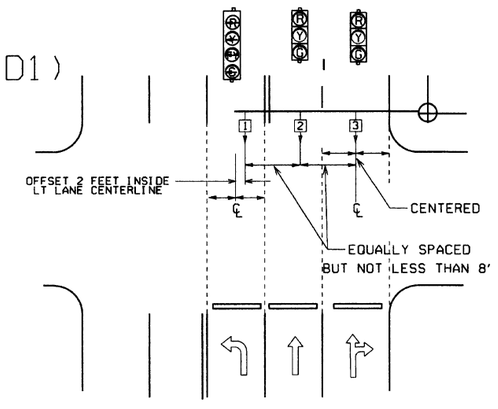
(C3)



(D2)

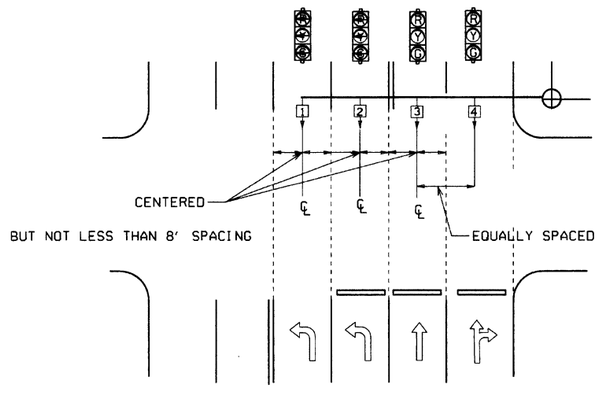


(D1)



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.

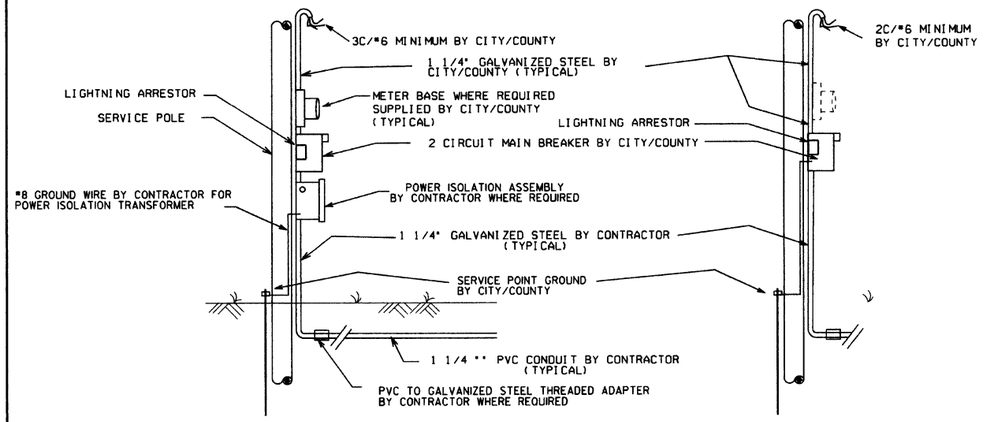
5. ALL SIGNAL HEADS SHOWN ON THIS DETAIL SHEET SHALL BE LOCATED ACCORDING TO THE DIMENSIONS SHOWN IN RELATION TO THE APPROACH SIDE OF THE INTERSECTION.

6. MAXIMUM MOUNTING HEIGHT OF SIGNAL FACES LOCATED BETWEEN 40 FEET AND 53 FEET FROM STOP BAR SHALL BE IN ACCORDANCE WITH FIGURE 4D-1 OF 2009 MUTCD.

			ARKANSAS STATE HIGHWAY COMMISSION
9-12-13	ISSUED AS STANDARD DRAWING		SIGNAL HEAD PLACEMENT
3-11-10	2009 MUTCD		
12-9-99	ISSUED		STANDARD DRAWING SD-8
DATE	REVISION	DATE FILM	

MAIN BREAKER NOT NEAR CONTROLLER CABINET SECONDARY REQUIRED

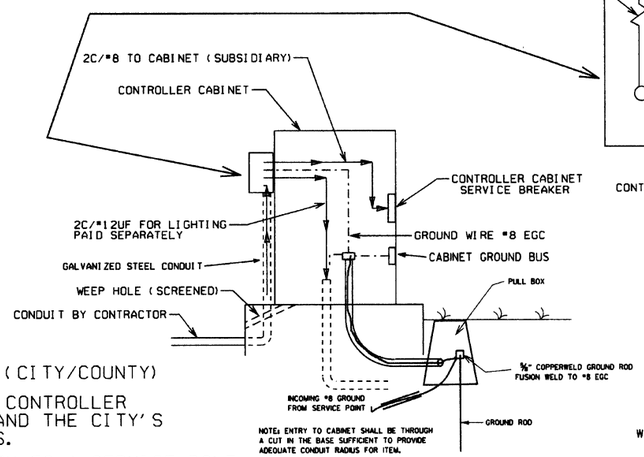
WITH POWER ISOLATION ASSEMBLY

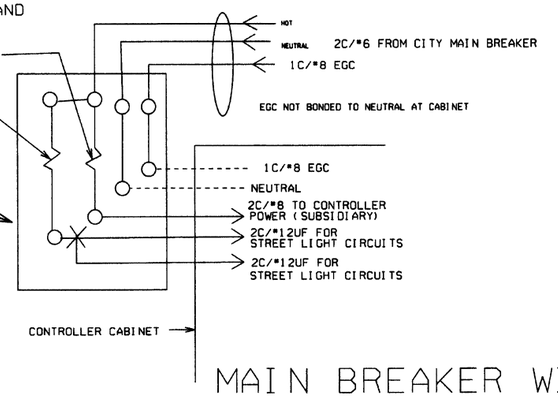


WITHOUT POWER ISOLATION ASSEMBLY

GROUND ROD-A 10' X ⅝" GROUND ROD SHALL BE INSTALLED IN THE PULL BOX FOR EACH POLE AND THE CONTROLLER. PAYMENT FOR THE GROUND ROD AND ½" NMC SHALL BE INCLUDED IN ITEM 701. THE PULL BOX AND CONDUCTOR BOX SHALL BE PAID FOR SEPARATELY.

SECONDARY BREAKER BY CONTRACTOR (SUBSIDIARY)





MAIN BREAKER WIRING (TYPICAL)

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 OR COUNTY'S RESPONSIBILITY VARIES ACCORDINGLY AS INDICATED ON THESE DETAILS.

1. 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, ELECTRICAL CONDUCTORS AND WEATHERHEAD. WHERE STREET LIGHTING IS INCLUDED AS PART OF SIGNAL INSTALLATION, STREET LIGHTING CIRCUIT (2C/#12 AWG 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.

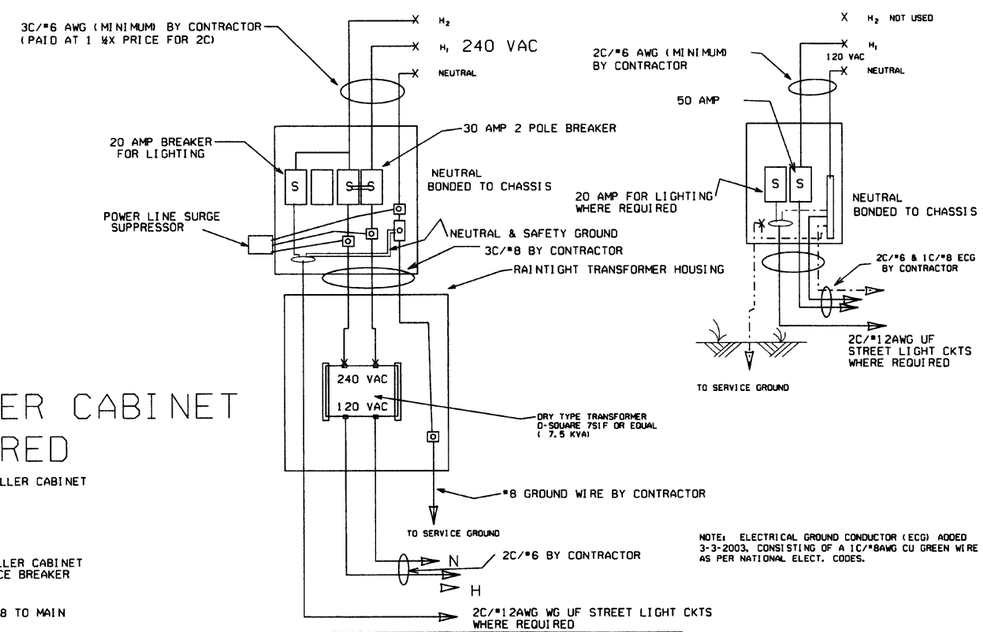
2. MAIN BREAKER NOT NEAR CONTROLLER CABINET: THE MAIN BREAKER ASSEMBLY, GALVANIZED STEEL CONDUIT, WEATHERHEAD AND WIRE ABOVE MAIN BREAKER AND CONNECTION TO THE UTILITY SHALL BE PROVIDED BY CITY/COUNTY. CONTRACTOR SHALL PROVIDE AS PART OF CONTRACT SECONDARY BREAKER, CONDUIT, WIRE AND WIRING TO THE MAIN BREAKER.

3. 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.

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.

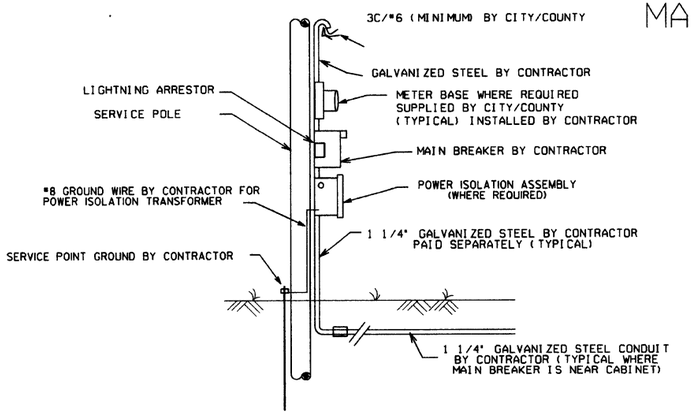
WITH POWER ISOLATION ASSEMBLY
4 CIRCUIT MAIN BREAKER

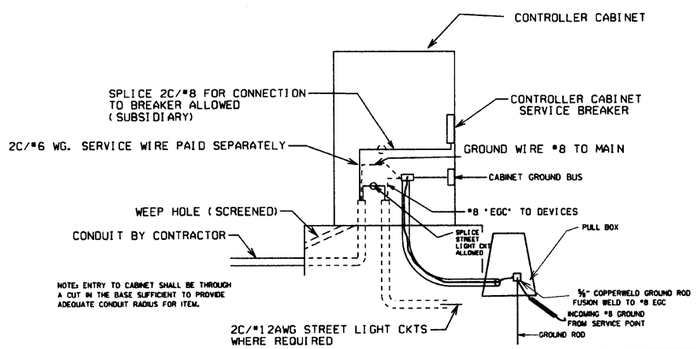
WITHOUT POWER ISOLATION ASSEMBLY
2 CIRCUIT MAIN BREAKER



NOTE: ELECTRICAL GROUND CONDUCTOR (ECG) ADDED 3-3-2003, CONSISTING OF A 1C/#8AWG CU GREEN WIRE AS PER NATIONAL ELECT. CODES.

MAIN BREAKER NEAR CONTROLLER CABINET SECONDARY NOT REQUIRED





DATE	REVISION	DATE FILM
9-12-13	ISSUED AS STANDARD DRAWING	
4-18-13	ADDED LIGHTNING ARRESTOR	
5-21-09	REVISED GROUNDING	
7-31-08	REVISED GROUNDING	
3-3-03	ADDED EGC NOTE	
9-26-01	REVISED	
12-27-99	REVISED	
7-28-99	REVISED	
2-5-99	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

SERVICE POINT

STANDARD DRAWING SD-9

NOTES, PED 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 SIGN FACES SHALL BE CONSTRUCTED OF HIGH INTENSITY SHEETING (TYPE III) WITH SILKSCREEN LEGEND AND BORDER.

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 4 FT. BEHIND CURB OR SHOULDER.

2. OCTAGONAL POLES AND ARMS MEETING THE REQUIREMENTS OF THE PLANS AND 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 SPEED LIMIT IS GREATER THAN 45 MPH WITH AN ARM 60' OR LONGER.

USE FATIGUE CATEGORY II FOR STRUCTURES ON ROUTES WITH A SPEED LIMIT LESS THAN 65 MPH AND GREATER THAN 45 MPH WITH ARMS LESS THAN 60' AND ROUTES WITH SPEED LIMITS OF 45 MPH AND LESS WITH AN ARM 60' OR LONGER.

USE FATIGUE CATEGORY III FOR ALL STRUCTURES WHERE SPEED LIMIT IS 45 MPH AND LESS AND ARMS LESS THAN 60'.

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT 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 1/2" 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, 12 INCH, AND HAVE 5 IN. BACK PLATES:

HEADS AT END OF ARM - ONE 4 SEC., 85 LB., 16.0 SQ. FT. ONE SIGN MOUNTED 3 FT. FROM SIGNAL = 2' X 0' X 2' = 6'; 20 LB. REMAINING HEADS SPACED A 8 FT. = 3 SEC., 56 LB., TWO 5 SEC):
14.4 SQ. FT. DESIGN TO ACCOMMODATE (INCLUDING
2 HEADS FOR ARMS 10 TO 16 FT.
2 HEADS FOR ARMS 10 TO 16 FT.; INCLUDING LB.
3 HEADS FOR 18 TO 24 FT. ARMS;
4 HEADS FOR OVER 26 FT. ARMS.

STREET NAME SIGN -- 72" X 18", 36 LB., MOUNTED SUCH THAT OUTSIDE EDGE IS NOT GREATER THAN 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.), 3.3 SQ. FT., 75 LB. PED SIGNALS -- TWO 2 SEC. 12 INCH MOUNTED 8 FT. FROM BASE OF POLE.
POST MOUNTED 3 SEC. SIGNAL HEAD AT 10 FT. ON SIDE OF POLE.

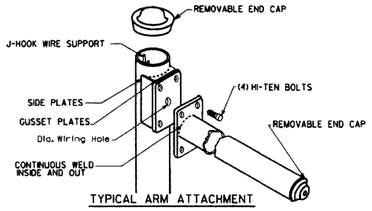
4. POLE/MAST ARM CAP -- POLE AND MAST ARMS CAPS SHALL BE PROVIDED. FABRICATED OF EITHER STEEL OR CAST ALUMINUM.

5. HAND HOLE -- HAND HOLES SHALL BE 4 X 6 INCHES FOR STANDARD, AND 3 X 5 INCHES FOR PED POLES. MINIMUM PLACED APPROXIMATELY 12 INCHES FROM BASE, AND SHALL BE FIXED WITH A BOLT DOWN COVER. A VACUUM FORMED ABS COVER IS AN ACCEPTABLE ALTERNATE TO STEEL. POLES GREATER THAN 21 FT. IN HEIGHT (FOR ROADWAY LUMINAIRE ATTACHMENT) SHALL INCLUDE A HAND HOLD WITHIN 12 INCHES OF MAST ARM(S) ATTACHMENT(S).

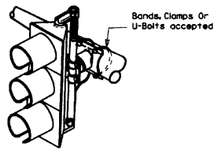
6. POLE/MAST ARM TAPER AND SLOPE - AVERAGE TAPER OF SIGNAL ARMS AND POLE SHALL BE 0.125 TO 0.15 INCHES PER FT.

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 ARM SHALL MAINTAIN A POSITIVE AFTER IT IS PLACED UNDER LOAD.

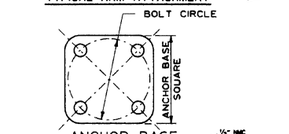
7. NUT COVERS - EACH POLE SHALL INCLUDE A BOLT DOWN NUT COVER FOR EACH ANCHOR BOLT.



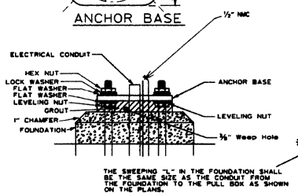
TYPICAL ARM ATTACHMENT

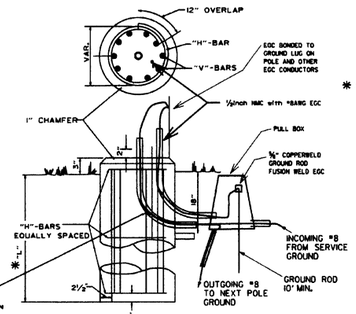


NOTE: THE SIGNAL SHALL BE CONNECTED TO THE MAST ARM BY BRACKETING AS DIRECTED BY THE ENGINEER.



ANCHOR BASE



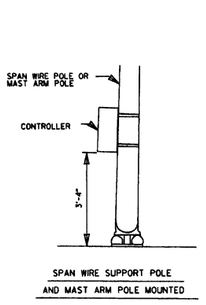


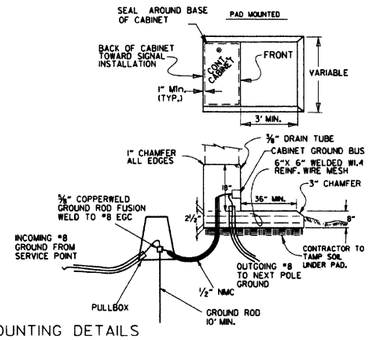
THE GROUND ROD SHALL BE FUSION WELDED TO A IC/#8 A.W.G. SOLID COPPER GROUND WIRE. ATTACHMENT TO THE PRIMARY GROUND MAY BE BY AN APPROVED CLAMP. THE ROD IS TO BE LOCATED IN THE CONCRETE PULL BOX.

TYPICAL FOUNDATION DETAILS

POLE FOUNDATION MINIMUM DIMENSIONS AND STEEL REINFORCING. ALL REINFORCING STEEL SHALL BE GRADE 40 MIN.

ARM LENGTH	FDN. DIAMETER	DEPTH "L" *	STEEL VERT.	STEEL HORZ.	STEEL 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"





CONTROLLER CABINET MOUNTING DETAILS

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 5/8" GROUND ROD SHALL BE INSTALLED IN THE PULL BOX FOR EACH POLE AND THE CONTROLLER. PAYMENT FOR THE GROUND ROD AND 1/2" NMC SHALL BE INCLUDED IN ITEM 714 FOR SIGNAL POLES AND ITEM 701 FOR THE CONTROLLER. THE PULL BOX AND CONDUCTOR BOX SHALL BE PAID FOR SEPARATELY.

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 1/4" 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 PED PUSH SWITCH SHALL BE CONSIDERED SUBSIDIARY TO THE ITEM PEDESTRIAN SIGNAL HEAD.

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.

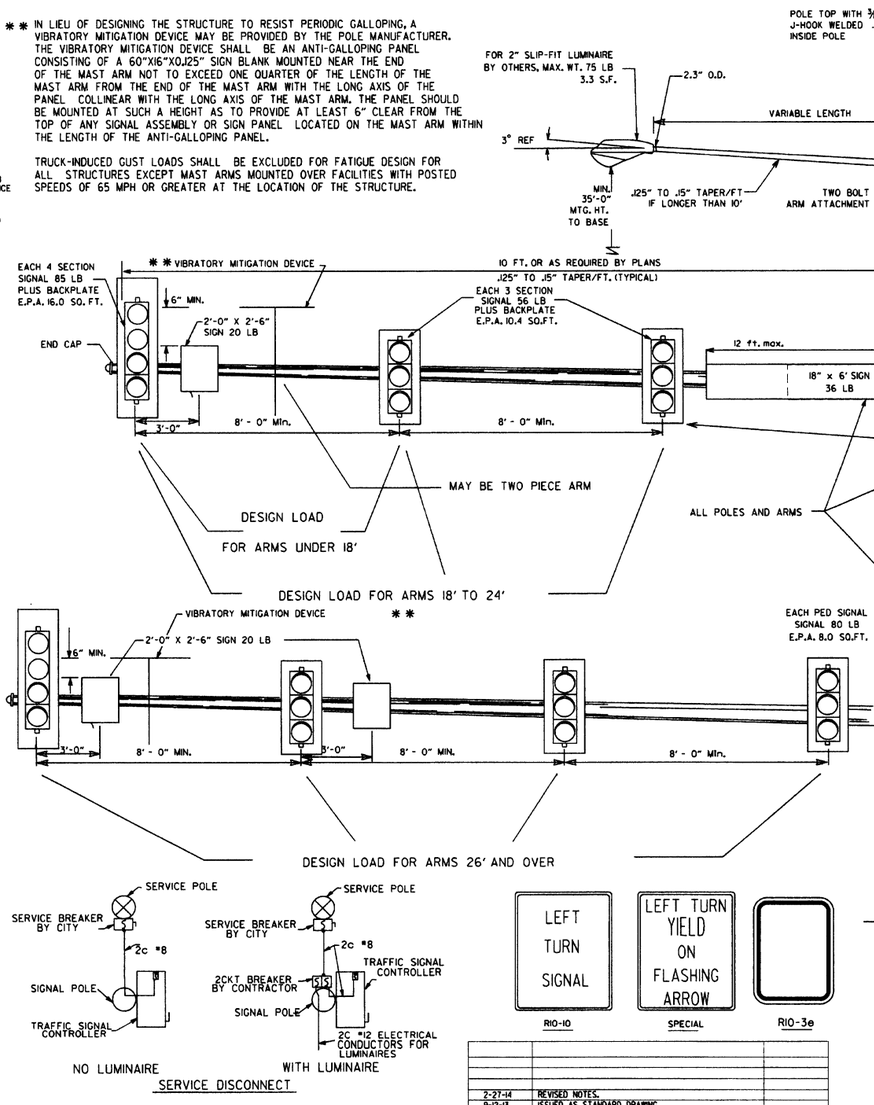
THE CONTRACTOR MAY BE REQUIRED TO ALTER THE FLASHING DISPLAY DURING THE TEMPORARY FLASH PERIOD, AT THE TIME INTERSECTION IS PLACED IN PERMANENT OPERATION, THE FLASH SEQUENCE SHALL THEN BE RETURNED TO THAT INDICATED ON THE PLAN SHEETS. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THESE ALTERATIONS IN FLASH SEQUENCE.

SPECIAL NOTE: 90 MPH WIND ZONE DESIGN, SEE NOTE 3. MINIMUM STRUCTURAL REQUIREMENTS.

* 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 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"X16"X0.125" 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 A HEIGHT AS TO PROVIDE AT LEAST 6" CLEAR FROM THE TOP OF ANY SIGNAL ASSEMBLY OR 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.



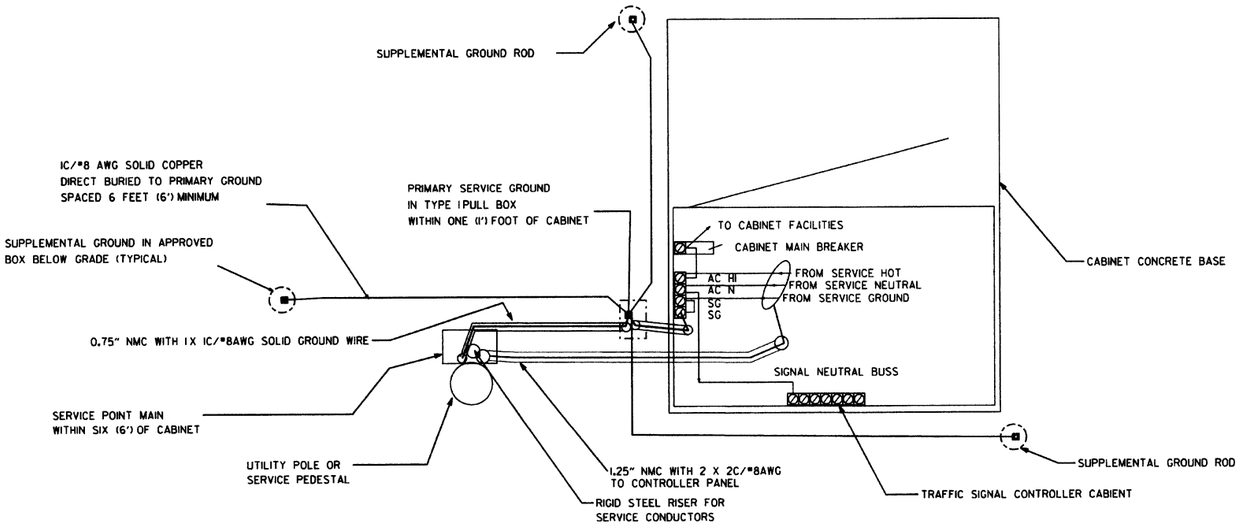
SERVICE DISCONNECT

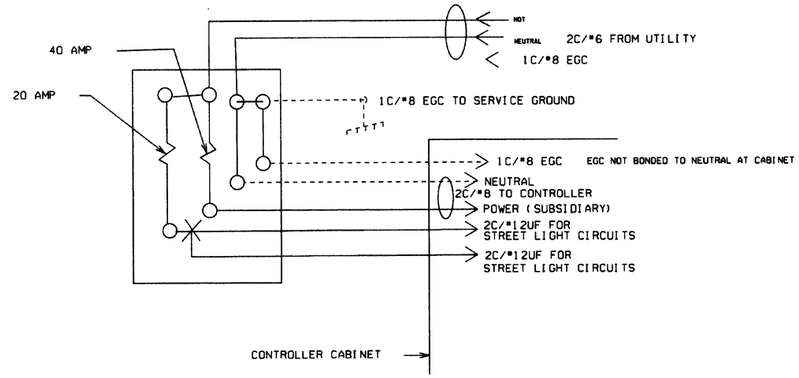
DATE	REVISION	DATE FILM
2-27-14	REVISED NOTES	
9-12-13	ISSUED AS STANDARD DRAWING	
7-21-11	REVISED VMD, SIGNAL HEADS	
5-21-09	REVISED GROUNDING	
7-31-08	REVISED GROUNDING	
4-25-08	ADDED VIBRATORY MITIGATION DEVICE & NOTES	
4-18-08	REVISED AASHTO NOTES	
4-17-08	REVISED TO 2001 AASHTO STANDARDS	
10-12-04	REVISED CABINET ORIENTATION	
6-23-04	REVISED	
5-4-04	REV. NOTE 3/AASHTO REQUIREMENTS	
6-8-01	REV. NOTES & POLE MAST ARM SLOPE	
4-11-01	REVISED POLE TAPERS	
4-25-00	REV. NOTES & SIGNAL HEAD PLACEMENT	
11-22-99	REVISED FOUNDATION DETAILS	
11-17-98	REVISED DETAILS AND NOTES	
1-21-95	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

STEEL POLE WITH MAST ARM

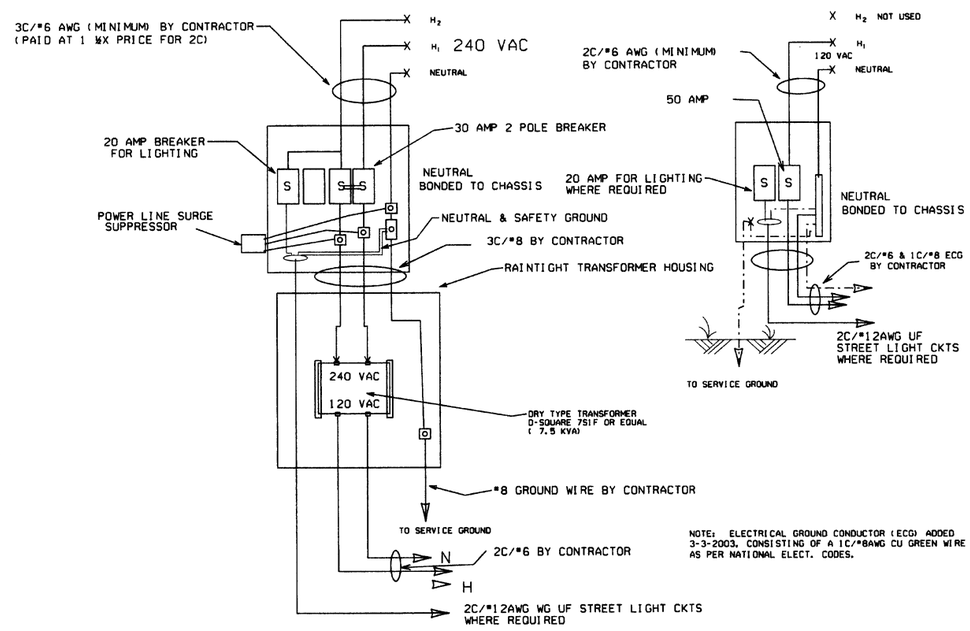
STANDARD DRAWING SD-11





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.



1. LOCATION OF SERVICE: TO MEET THE REQUIREMENTS FOR SAFETY AND MAXIMIZE LIGHTNING PROTECTION, THE "SERVICE POINT MAIN" FROM THE UTILITY PRIMARY SERVICE POINT MUST BE WITHIN SIX (6') FEET OF THE TRAFFIC SIGNAL CONTROLLER CABINET. ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE OR PEDISTAL 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, POWER ISOLATION ASSEMBLY WHERE REQUIRED, METER LOOP IF REQUIRED BY LOCAL UTILITY, ELECTRICAL CONDUCTORS AND WEATHERHEAD. WHERE STREET LIGHTING IS INCLUDED AS PART OF SIGNAL INSTALLATION, STREET LIGHTING CIRCUIT (2C/#12 AWG 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.

2. METER LOOP: 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.

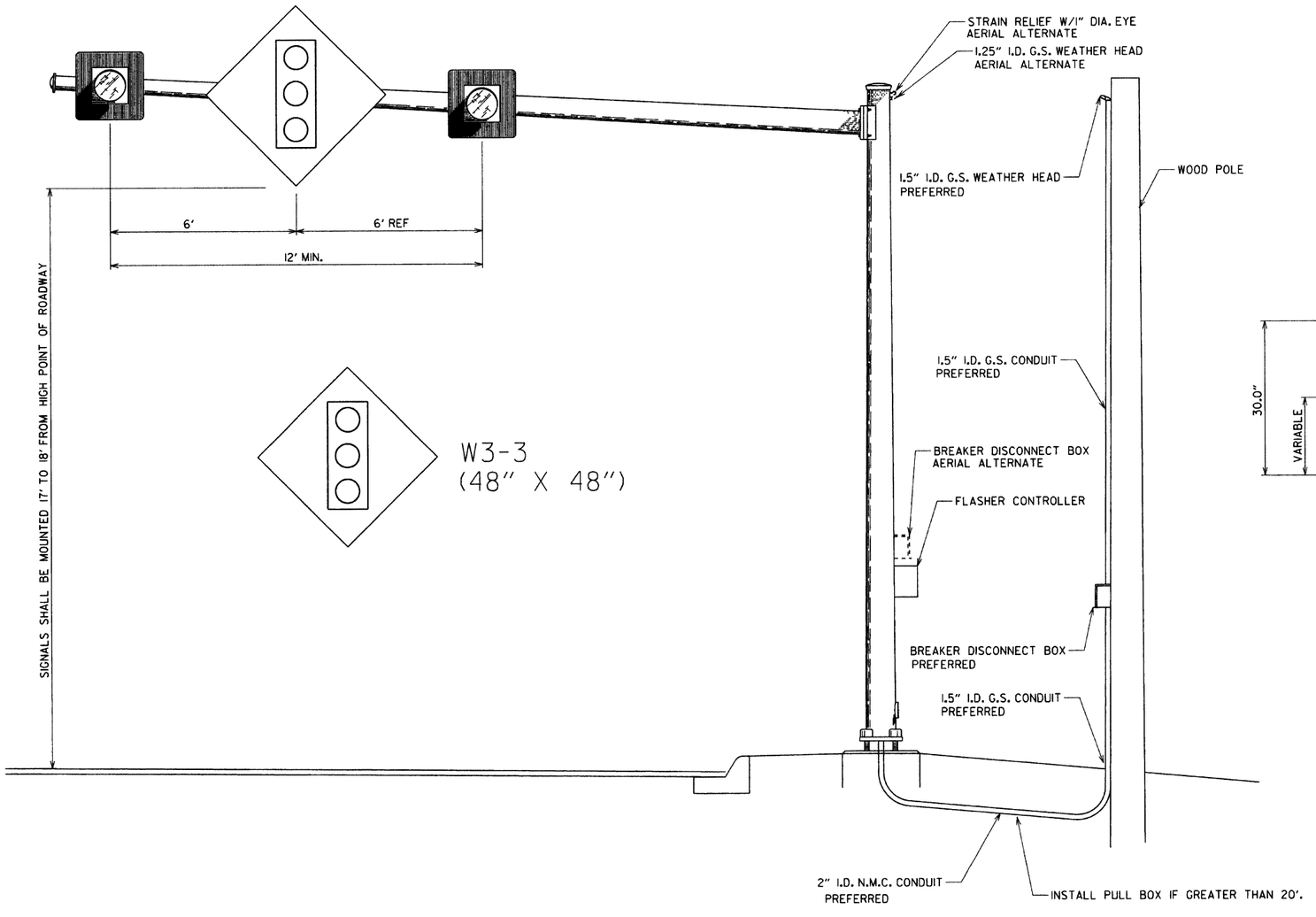
3. SUPPLEMENTAL GROUND RODS: SUPPLEMENTAL GROUND RODS ARE FUSION WELDED TO 1 C/#8AWG. SOLID COPPER GROUND WIRE. ATTACHMENT TO PRIMARY GROUND MAY BE BY AN APPROVED CLAMP. RODS ARE LOCATED IN A BOX APPROVED BY THE ENGINEER MEETING THE SAME LOADING REQUIREMENTS AS SECTION 711 CONCRETE PULL BOX OF THE STANDARD SPECIFICATION, WITH THE EXCEPTION TO DIMENSIONS. BOX MAY BE EITHER ROUND OR SQUARE APPROXIMATELY SIX (6") INCHES MINIMUM INSIDE DIMENSIONS AND SIX (6") INCHES DEPTH. (STRONGWELL PC0608BA06 WITH PC0608CA00 LID OR EQUAL)

DATE	REVISION	DATE FILM
9-12-13	ISSUED AS STANDARD DRAWING	
1-17-08	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

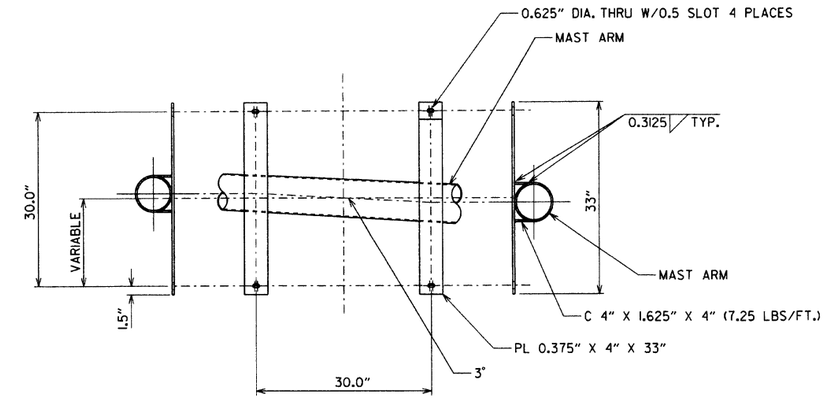
SERVICE POINT INSTALLATION WITH SUPPLEMENTAL GROUNDING ARRAY

STANDARD DRAWING SD-12



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	

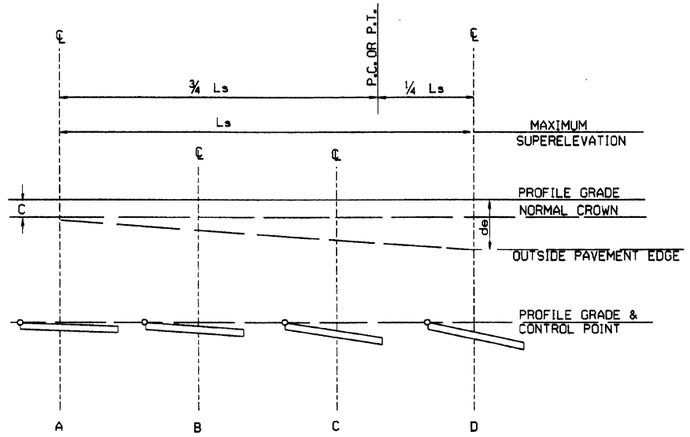
ARKANSAS STATE HIGHWAY COMMISSION

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 e	30 MPH Ls (FT) MINIMUM	30 MPH Ls (FT) DESIRABLE	40 MPH e	40 MPH Ls (FT) MINIMUM	40 MPH Ls (FT) DESIRABLE	50 MPH e	50 MPH Ls (FT) MINIMUM	50 MPH Ls (FT) DESIRABLE	55 MPH e	55 MPH Ls (FT) MINIMUM	55 MPH Ls (FT) DESIRABLE	60 MPH e	60 MPH Ls (FT) MINIMUM	60 MPH Ls (FT) DESIRABLE	65 MPH e	65 MPH Ls (FT) MINIMUM	65 MPH Ls (FT) DESIRABLE	70 MPH e	70 MPH Ls (FT) MINIMUM	70 MPH Ls (FT) DESIRABLE
0° 15'	N.C.			N.C.			N.C.			N.C.			N.C.			N.C.			N.C.		
0° 30'	N.C.			N.C.			N.C.			N.C.			N.C.			N.C.			N.C.		
0° 45'	N.C.			N.C.			R.C.			R.C.			0.023			0.025			0.028		
1° 00'	N.C.			R.C.			0.021			0.022			0.030			0.033	250		0.037	275	
1° 15'	N.C.			R.C.			0.026			0.028			0.037			0.041			0.046		
1° 30'	N.C.			0.021			0.031	200		0.033	225		0.043	250		0.048			0.054		
1° 45'	N.C.			0.025			0.036			0.039			0.048			0.055			0.062		
2° 00'	R.C.			0.028	175		0.040			0.043			0.055			0.062			0.070		
2° 15'	R.C.			0.031			0.045			0.048			0.061			0.069	265		0.078	300	
2° 30'	0.021			0.034			0.049			0.053			0.067			0.075	280		0.085	315	400
2° 45'	0.023			0.037			0.053			0.058			0.072			0.081	300		0.091	335	
3° 00'	0.025			0.040			0.057			0.063			0.077	260		0.087	315		0.098	350	
3° 15'	0.027	150		0.043			0.061			0.067	230		0.082	275		0.093	335	400	0.104	375	450
3° 30'	0.029			0.046			0.065	205		0.072	245		0.088	295		0.099	355		0.111	400	
3° 45'	0.031		250	0.049			0.069	215		0.076	255		0.093	310		0.104	375		0.117	425	
4° 00'	0.033			0.051			0.072	225		0.080	270		0.098	325		0.110	395		0.123	450	
4° 30'	0.037			0.056			0.078	240		0.087	290		0.106	345		0.119	425		0.134	475	
5° 00'	0.040			0.061			0.083	250		0.091	295		0.111	360		0.125	445		0.140	500	
5° 30'	0.043			0.066	185		0.088	260		0.094	300	400	0.115	375		0.129	460		0.145	525	
6° 00'	0.046			0.070	190		0.092	270		0.096	305		0.118	385		0.132	470		0.149	535	
6° 30'	0.050			0.074	200		0.095	280	350	0.100	315		0.121	395		0.135	480		0.152	545	
7° 00'	0.053			0.078	210		0.098	285					0.124	405		0.138	490		0.155	555	
7° 30'	0.056			0.081	215		0.099	290					0.126	410		0.140	500		0.158	565	
8° 00'	0.058			0.084	220		0.100	290					0.128	415		0.142	505		0.160	575	
8° 30'	0.061			0.087	225	300	D MAX = 8° 15'						0.130	420		0.144	510		0.162	580	
9° 00'	0.063			0.089	230								0.132	425		0.146	520		0.164	590	
10° 00'	0.068	160		0.094	245								0.135	435		0.150	530		0.169	605	
11° 00'	0.072	170		0.097	250								0.138	445		0.153	540		0.172	615	
12° 00'	0.076	175		0.099	250								0.140	450		0.155	550		0.175	625	
13° 00'	0.080	180		0.100	250								0.142	455		0.157	555		0.177	635	
14° 00'	0.083	190		D MAX = 13° 15'									0.144	460		0.159	560		0.179	640	
15° 00'	0.085	195											0.145	465		0.160	565		0.180	645	
16° 00'	0.089	200											0.147	470		0.162	570		0.182	650	
17° 00'	0.091	200											0.148	475		0.163	575		0.183	655	
18° 00'	0.093	205											0.149	480		0.164	580		0.184	660	
19° 00'	0.095	210											0.150	485		0.165	585		0.185	665	
20° 00'	0.097	215	300										0.151	490		0.166	590		0.186	670	
21° 00'	0.098	215											0.152	495		0.167	595		0.187	675	
22° 00'	0.099	215											0.153	500		0.168	600		0.188	680	
23° 00'	0.099	215											0.154	505		0.169	605		0.189	685	
24° 00'	0.100	220											0.155	510		0.170	610		0.190	690	
	D MAX = 24° 45'									D MAX = 6° 30'			D MAX = 5° 15'			D MAX = 4° 15'			D MAX = 3° 30'		



ONE-WAY TRAFFIC
INSIDE LANE

SUPERELEVATION FORMULA = $S = -\frac{L(de-C)}{Ls} - C$

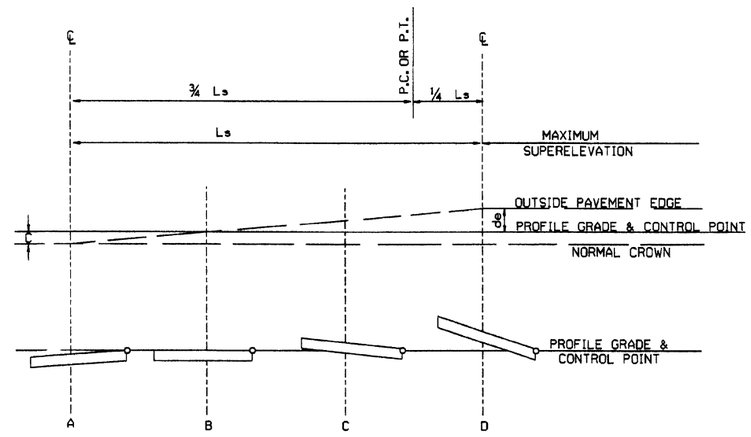
GENERAL NOTES

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
OUTSIDE LANE

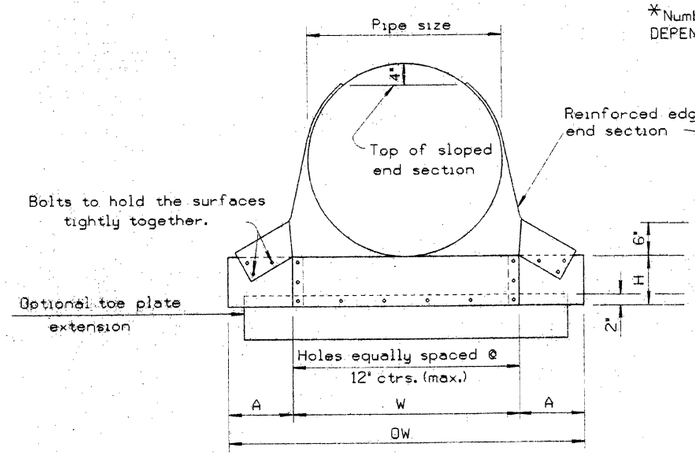
SUPERELEVATION FORMULA = $S = +\frac{L(de+C)}{Ls} - C$

DATE	REVISION	DATE FILMED
01-09-87	ISSUED	578-1-15-87

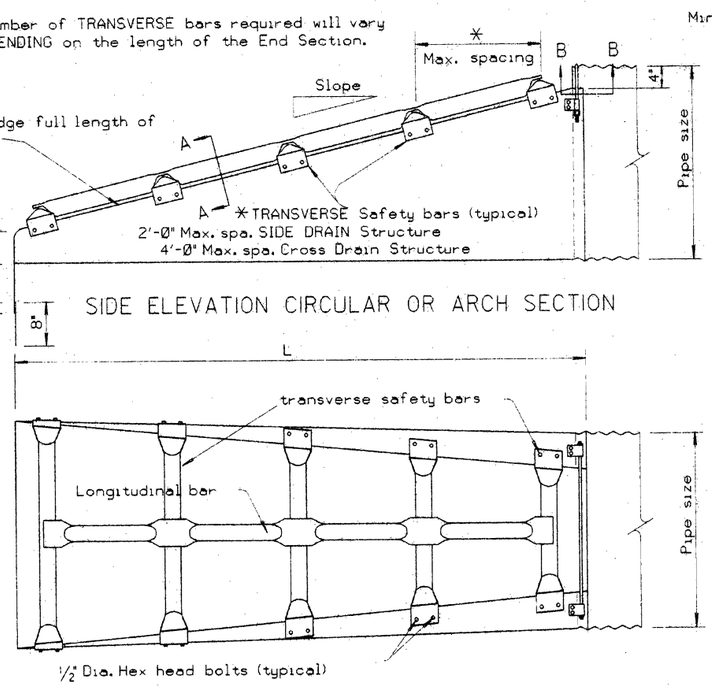
ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR ONE-WAY TRAFFIC

STANDARD DRAWING SE-1

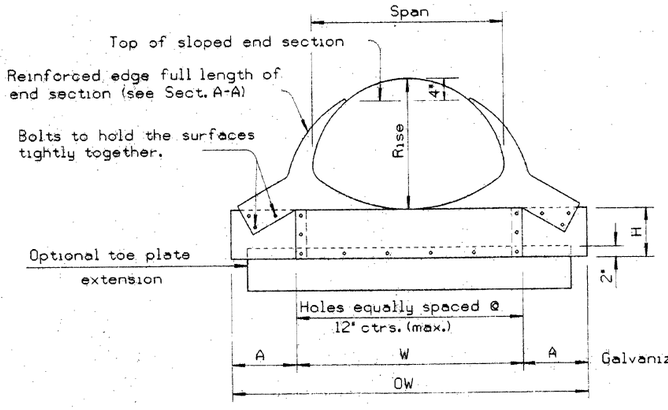


FRONT VIEW CIRCULAR PIPE

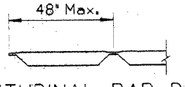


SIDE ELEVATION CIRCULAR OR ARCH SECTION

TOP VIEW CIRCULAR OR ARCH SECTION

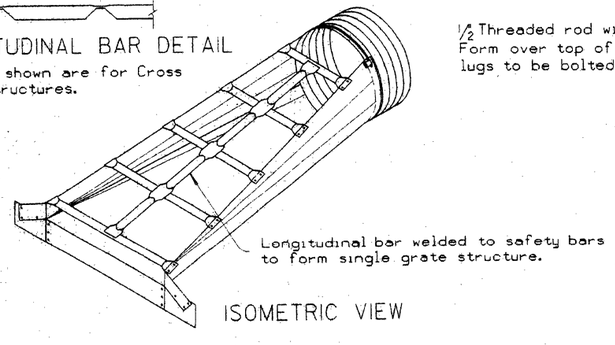


FRONT VIEW ARCH PIPE

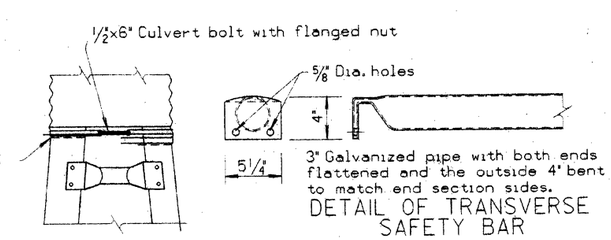


LONGITUDINAL BAR DETAIL

Note: Bars shown are for Cross Drain Structures.



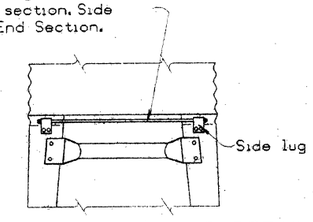
ISOMETRIC VIEW



TYPE #1 CONNECTOR DETAIL

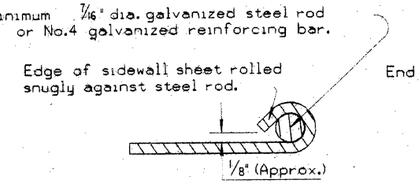
For 15" thru 24" pipe

DETAIL OF TRANSVERSE SAFETY BAR

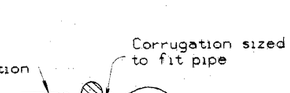


TYPE #2 CONNECTOR DETAIL

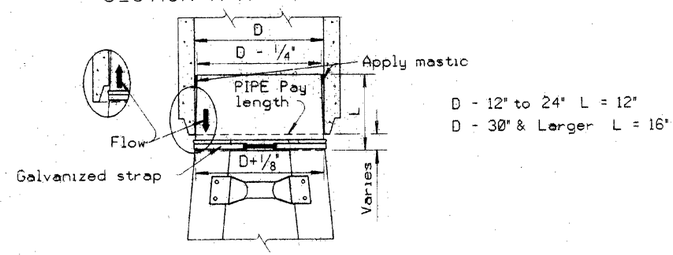
For 30" and larger round pipes & 21"x15" thru 64"x43" arch pipes



SECTION A-A



SECTION B-B



D - 12" to 24" L = 12"
D - 30" & Larger L = 16"

Note: Metal end section to be firmly wedged INTO PIPE END BEFORE BACKFILLING PIPE.

(Tapered sleeve to be 12 Ga. smooth galvanized steel in accordance with AASHTO M 218.)

STEEL END SECTION FOR CONCRETE PIPE
(Alternate for Concrete End Section)

GENERAL NOTES

End sections shall be fabricated from galvanzied steel meeting the requirements of SUBSECTION 606.02(c)(1) OF THE STANDARD SPECIFICATIONS.
When specified optional toe plate extension shall be punched and bolted to end section apron lip with 3/8" diameter galvanized bolts. Steel for toe plate extension shall be same gauge as end section.
Dimensions shall be overall width less 6" by 8" high.
Attachment to circular pipes 15" through 24" diameter shall be made with Type #1 straps. All other sizes shall be attached with Type #2 rods and lugs.
Safety bars shall be fabricated from steel pipe meeting the requirements of ASTM A-53 Schedule 40 Specifications. Safety bars shall be hot dipped galvanized after fabrication.
All work and materials required for construction and installation of safety end section shall be included in the PRICE BID EACH FOR SAFETY END SECTIONS FOR PIPE CULVERTS.
Longitudinal and transverse bars will be required for cross drain structures when span is greater than 30", no safety bars will be REQUIRED FOR 30" SPAN OR LESS WHEN USED ON CROSS DRAIN STRUCTURES.
Transverse bars will be required for all sizes of side drain structures.
Class 1 safety end sections shall be end sections with a 4:1 slope.
Class 2 safety end sections shall be end sections with a 6:1 slope.

SAFETY END SECTIONS FOR ARCH PIPES													SAFETY END SECTIONS FOR CIRCULAR PIPES								
Equv. Dia.	Nom. W.W. Area Sq Ft	Pipe Arch Span (In.)	Pipe Arch Rise (In.)	Min. Gauge End Sect.	Dimensions in Inches A	H	W	OW	Slope	L (In)	Slope	L (In)	Pipe Dia.	Min. Gauge Ends	Dimensions in Inches A 1"Tol	H 1"Tol	W 2"Tol	OW	L Dimensions in Inches Slope	L	Slope	L
18"	1.6	21	15	16	8	6	27	43	4:1	20	6:1	30	15"	16	8	6	21	37	4:1	20	6:1	30
21"	2.2	24	18	16	8	6	30	46	4:1	32	6:1	48	18"	16	8	6	24	40	4:1	32	6:1	48
24"	2.9	28	20	16	8	6	34	50	4:1	40	6:1	60	21"	16	8	6	27	43	4:1	44	6:1	66
30"	4.5	35	24	14	12	9	41	65	4:1	56	6:1	84	24"	16	8	6	30	46	4:1	56	6:1	84
36"	6.5	42	29	12	12	9	48	72	4:1	76	6:1	114	30"	12	12	9	36	60	4:1	80	6:1	120
42"	8.9	49	33	12	16	12	55	87	4:1	92	6:1	138	36"	12	12	9	42	66	4:1	104	6:1	156
48"	11.6	57	38	12	16	12	63	95	4:1	112	6:1	168	42"	12	16	12	48	80	4:1	128	6:1	192
54"	14.7	64	43	12	16	12	70	102	4:1	132	6:1	198	48"	12	16	12	54	86	4:1	152	6:1	228
60"	18.1	71	47	12	16	12	77	109	4:1	148	6:1	222	54"	12	16	12	60	92	4:1	176	6:1	264
72"	26.0	83	57	12	16	12	89	121	4:1	188	6:1	282	60"	12	16	12	66	98	4:1	200	6:1	300

DATE	REVISION	DATE FILMED
10-18-96	REVISED ASTM REF. TO AASHTO	10-18-96
8-15-91	DRAWN & ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

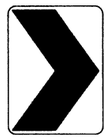
SAFETY END SECTION FOR CIRCULAR AND ARCH PIPES

STANDARD DRAWING SES-1

FILE stdsesi.dgn

R1-1
30"X30"

W1-3
30"X30"
(LT. OR RT.)

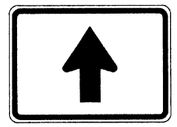


W1-8
18"X24"

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.)

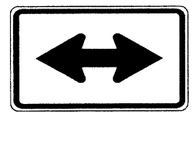
W2-1
30"X30"

S1-1
36"X36"

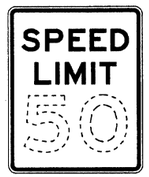
W3-2
36"X36"

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"

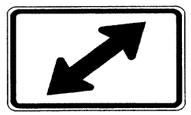
W1-5
30"X30"
(LT. or RT.)

W2-2
30"X30"

W5-2
36"X36"

W8-3
36"X36"

R1-3P
18"X6"



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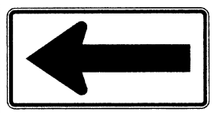
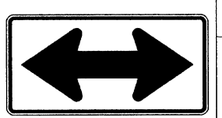
21"X15"

W1-1
30"X30"
(LT. or RT.)



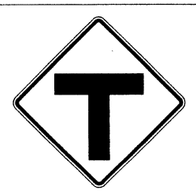
W1-6
48"X24"



W1-7
48"X24"

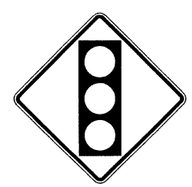
W1-2
30"X30"
(LT. or RT.)

W2-3
30"X30"
(LT. or RT.)

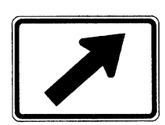


W2-4
30"X30"

W10-1
36" DIAMETER



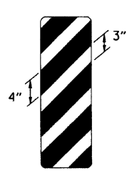
W3-3
36"X36"



M6-2
21"X15"

S4-3P
24"X8"

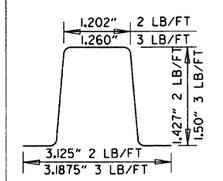
S4-2P
24"X10"



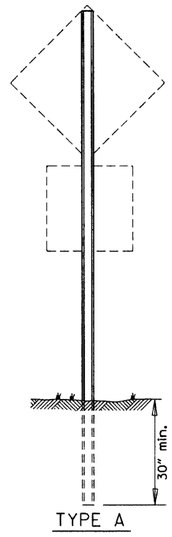
OM-3
12"X36"
(LT. or RT.)

MINIMUM DIMENSIONS SHOWN

SUPPORT SECTION

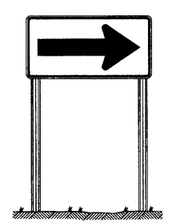


(U-CHANNEL)
STANDARD SUPPORT
ASSEMBLIES

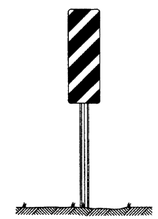


TYPE A

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.

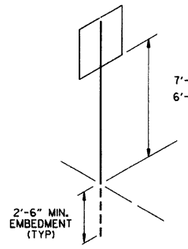
STANDARD HIGHWAY SIGNS

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 W1-8	
1-5-81	REDRAWN	960-1-15-81
9-15-78	ADDED W14-3	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

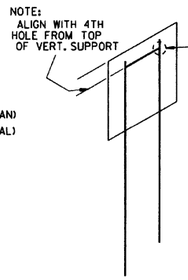
SUPPORT ASSEMBLIES

ARKANSAS STATE HIGHWAY COMMISSION

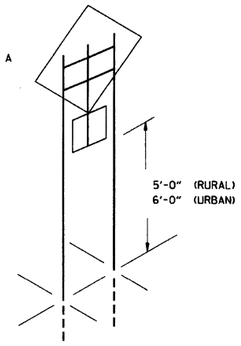
STANDARD HIGHWAY SIGNS
AND SUPPORT ASSEMBLIES
STANDARD DRAWING SHS-1



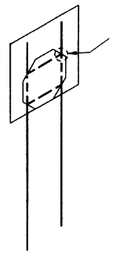
U-1



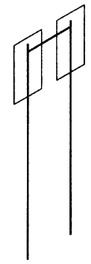
U-2



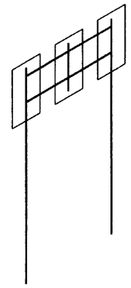
U-2 (A)



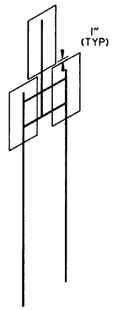
U-2 (B)



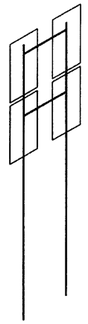
U-2 (I)



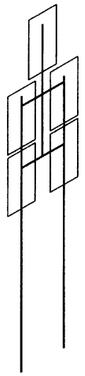
U-2 (2)



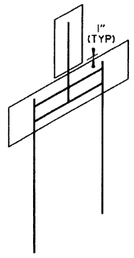
U-2 (3)



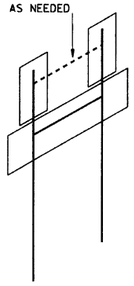
U-2 (4)



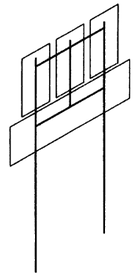
U-2 (5)



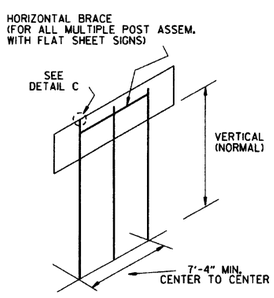
U-2 (6)



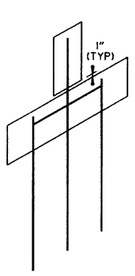
U-2 (7)



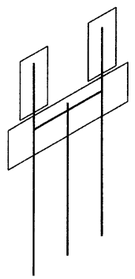
U-2 (8)



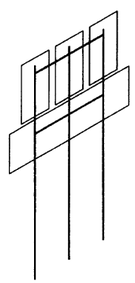
U-3



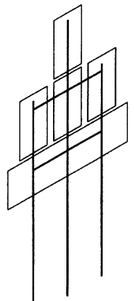
U-3 (1)



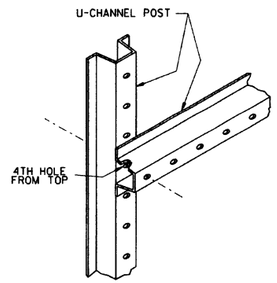
U-3 (2)



U-3 (3)

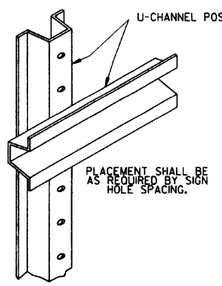


U-3 (4)



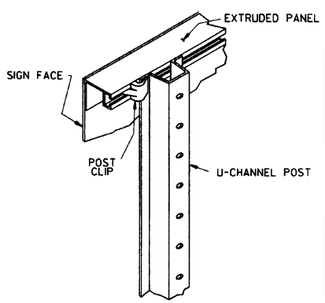
DETAIL A

SHOWING HORIZONTAL BRACE



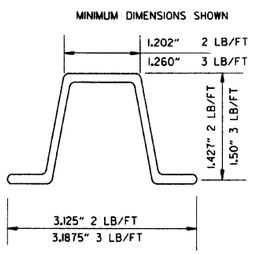
DETAIL B

SHOWING BACK-TO-BACK INSTALLATION



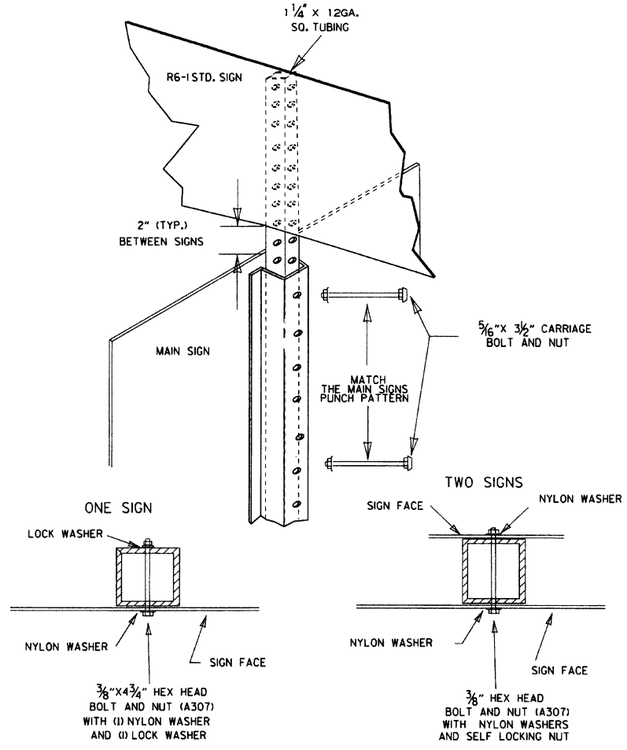
DETAIL C

SHOWING GUIDE SIGN MOUNTING WITH EXTRUDED PANELS



DETAIL C

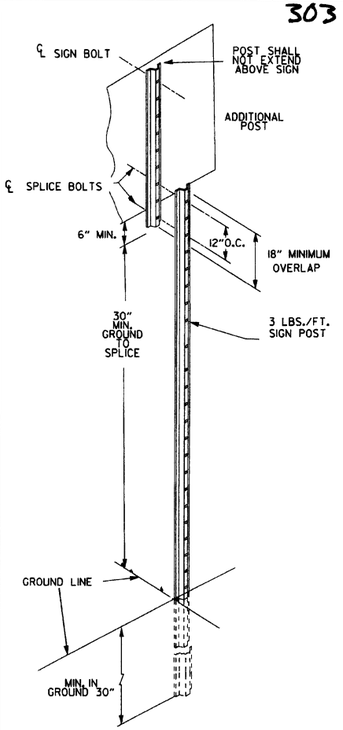
U-CHANNEL POST



DETAIL E

R6-1 EXTENSION

FOR U-CHANNEL POST



DETAIL F

DETAIL OF SPLICES

NOTES:

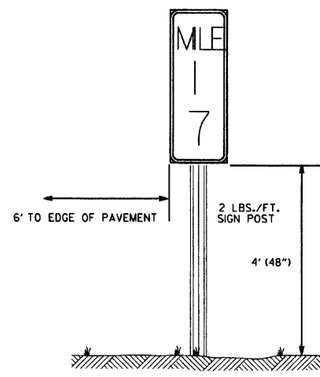
SIGNS AT LEAST 8' IN LENGTH MAY BE INSTALLED ON THREE 3 LB. POST. IN NO CASE SHALL THERE BE MORE THAN TWO 3 LB. POSTS WITHIN A 7' PATH.

SPLICES NECESSARY TO ATTAIN PROPER MOUNTING HEIGHT SHALL BE AS SHOWN IN DETAIL (F).

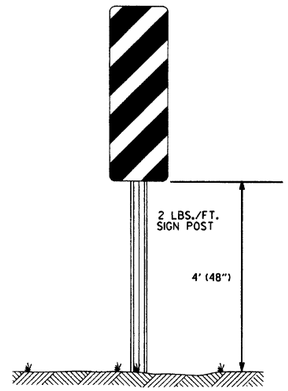
NORMAL INSTALLATIONS WILL REQUIRE 5/16 " DIA. CARRIAGE BOLTS TO MOUNT SIGNS TO POST AND TO ASSEMBLE THE VARIOUS POST SUPPORTS.

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

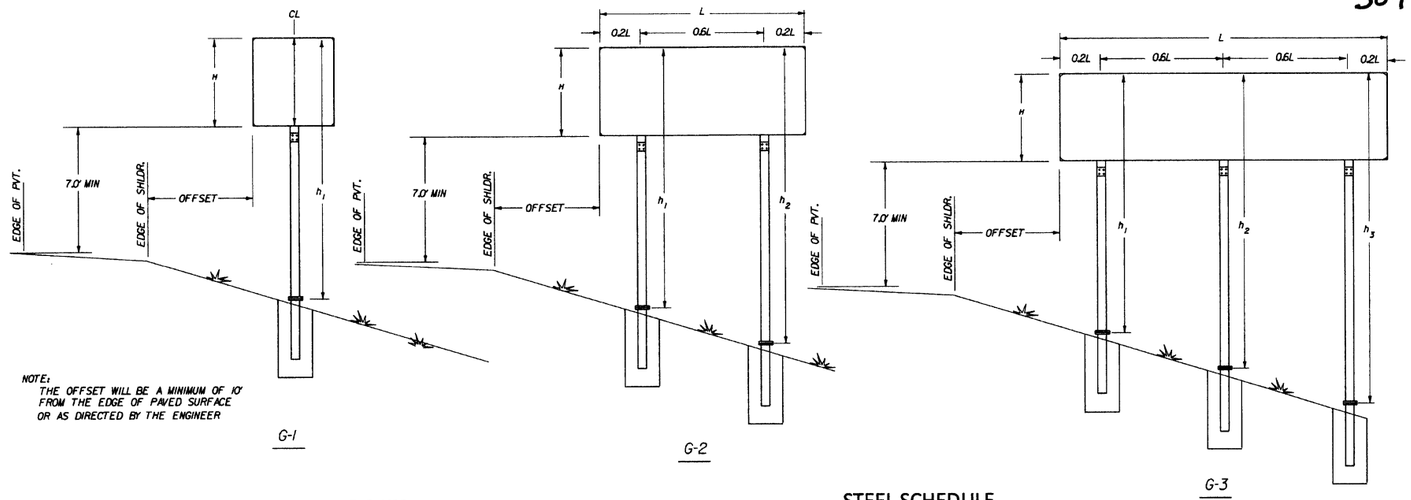
DATE	REVISION	FILMED
9-12-13	REVISED U-2(3), U-2(6), U-3(1), DETAIL D; ADDED DETAILS E & F; ADDED TYPICAL MARKERS	
10-9-03	REMOVED ROUND POST & REVISED SPACING	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL	6-8-95
2-2-95	REDRAWN	2-2-95

ARKANSAS STATE HIGHWAY COMMISSION

U-CHANNEL POST ASSEMBLIES

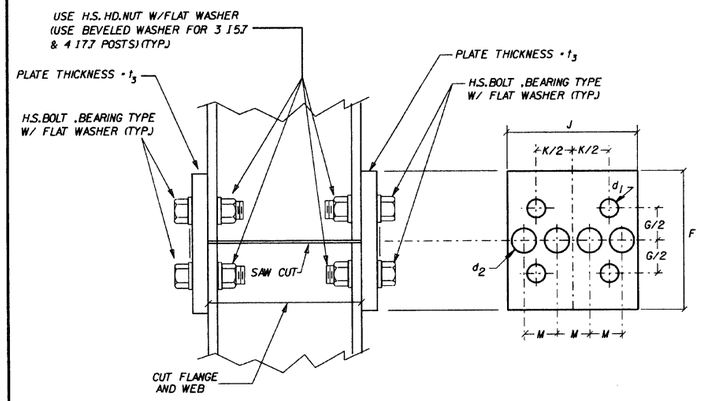
STANDARD DRAWING SHS-2

POST SIZE	BASE CONNECTION DATA										FUSE PLATE DATA									WT. OF EACH FUSE PLATE LBS.
	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	
W 6X9												1 1/4"	2"		4"	2 1/4"	1"	9/16"	3/4"	1/4"	1/2" x 1 1/2"	1.01
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"	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 6X15												5"	2 1/2"		5 1/4"	2 3/4"	1 1/4"	13/16"	1 1/16"	3/8"	3/4" x 2 1/4"	2.26
W 8X18												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 8X21	3/4" x 3 1/2"	750"-1050"	6"	2 1/4"	1 7/8"	3 1/2"	1 1/4"	1"	3/4"	5/16"	11/32"	6"	3"		5 3/4"	2 3/4"	1 3/8"	13/16"	1 1/8"	1/2"	3/4" x 2 1/4"	4.03
W 10X22												6"	3"		6 1/2"	3 1/2"	1 5/8"	13/16"	1 5/16"	1/2"	3/4" x 2 1/4"	4.47
W 10X26																						
W 12X26																						



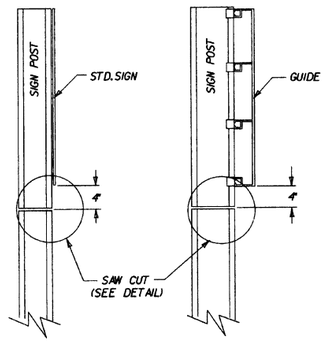
NOTE:
THE OFFSET WILL BE A MINIMUM OF 10' FROM THE EDGE OF PAVED SURFACE OR AS DIRECTED BY THE ENGINEER

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: 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.

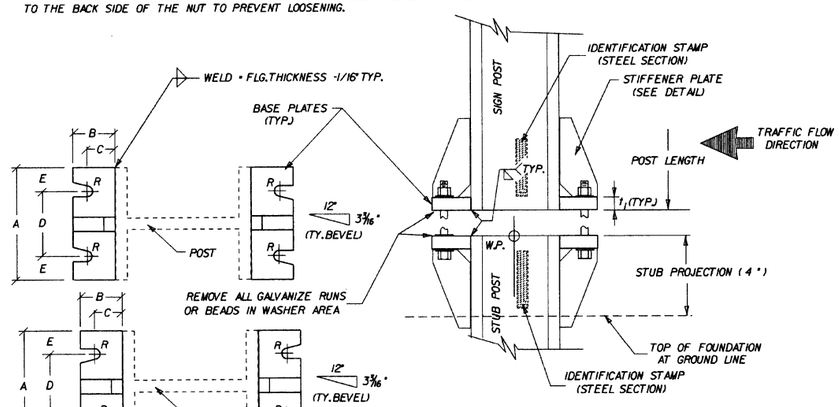


NOTE: POST SHALL BE SAW CUT AFTER GALVANIZING AND THE CUT SURFACE TREATED. AFTER PLATE IS INSTALLED AND ALL BOLTS FULLY TIGHTENED, WITH AN APPROVED ZINC SOLDER MEETING THE FEDERAL SPEC. O-G-93 (STICK ONLY).

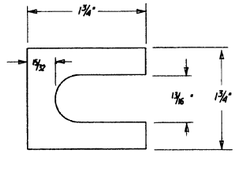
STANDARD SIGNS GUIDE SIGNS

FUSE PLATE DETAILS

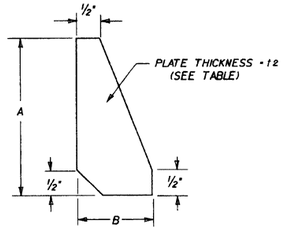
NOTE: SECTIONS SHOWN ARE FOR INSTALLATION ON THE RIGHT SHOULDER AND IN THE GORE. BOLT HOLES IN BASE PLATE ARE SLOTTED AND BEVELED AS SHOWN. USE H.S. BOLTS WITH HEX HD., HEX NUT AND THREE FLAT WASHERS FOR EACH BOLT. SEE TABLE FOR BOLT DIA. AND TORQUE.
NOTE: ASSEMBLE SIGN POST TO STUB POST USING THE BOLTS 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.



FURNISH 2 ~ .012"+/- THICK AND 2 ~ .032"+/- THICK SHIMS PER POST



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.

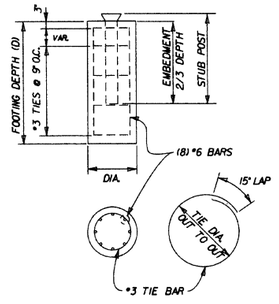
REFER TO THE PLANS FOR FOOTING DIMENSIONS.

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

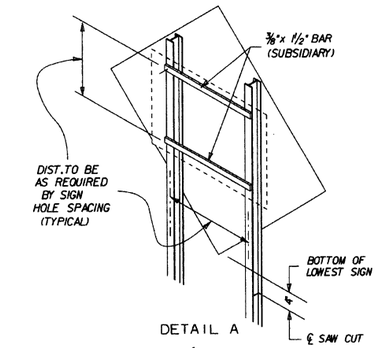


FOOTING QUANTITIES

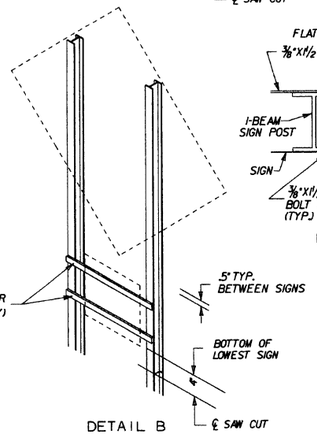
FOOTINIG DEPTH	NUMBER TIE BARS REQ'D	18" DIAMETER		24" DIAMETER		30" DIAMETER		36" DIAMETER	
		CLASS S CONCRETE	REINF STEEL	CLASS S CONCRETE	REINF STEEL	CLASS S CONCRETE	REINF STEEL	CLASS S CONCRETE	REINF STEEL
FEET		CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)
2.50	4	0.16	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

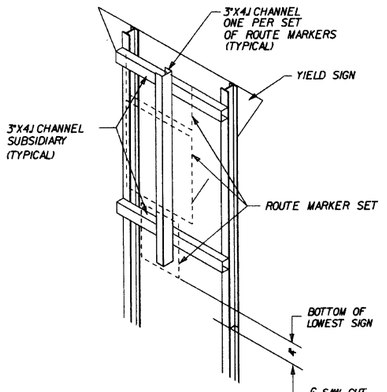
			ARKANSAS STATE HIGHWAY COMMISSION
			DETAIL OF BREAKAWAY SIGN SUPPORTS FOR GUIDE SIGNS
9-12-13	ISSUED		STANDARD DRAWING SHS-3
DATE	REVISION	FILMED	



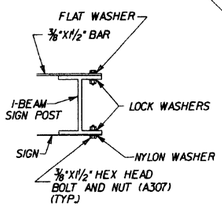
DETAIL A



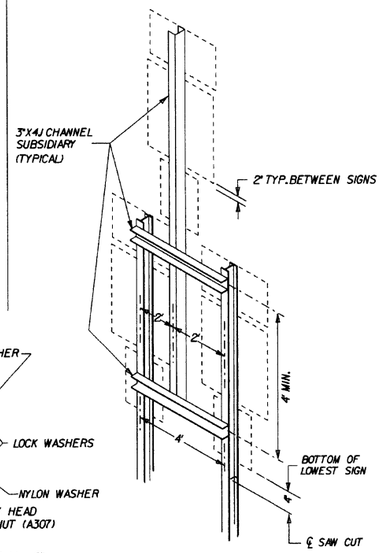
DETAIL B



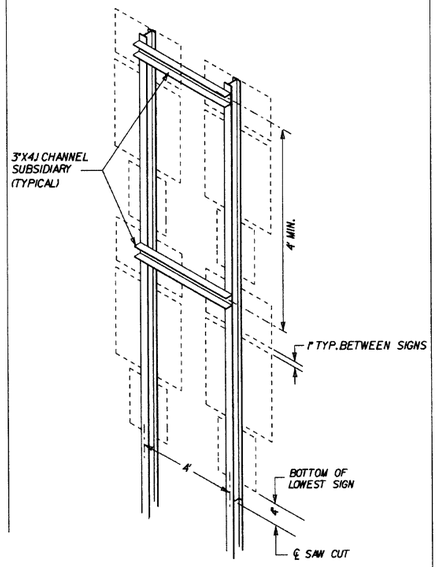
DETAIL C



DETAIL F



DETAIL D



DETAIL E

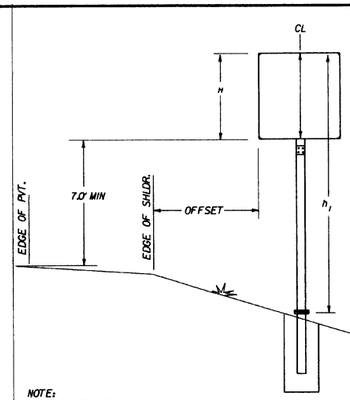
NOTE

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.

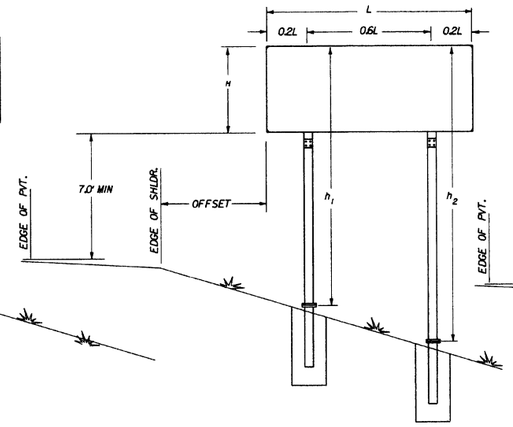
REFER TO THE P.C. RUTLEDGE FORMULA ON PAGE 58 OF THE AASHTO PUBLICATION "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

ALL BOLT HOLES SHALL BE 1/8" DIA. UNLESS OTHERWISE SHOWN.

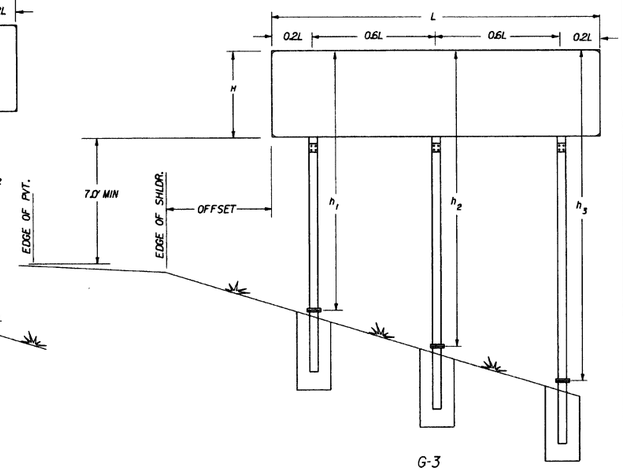


NOTE:
THE OFFSET WILL BE A MINIMUM OF 10' FROM THE EDGE OF PAVED SURFACE OR AS DIRECTED BY THE ENGINEER.

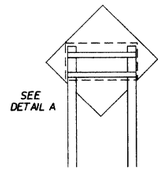
G-1



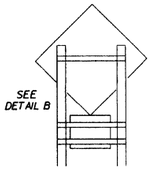
G-2



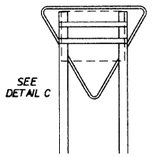
G-3



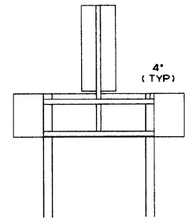
G2-1



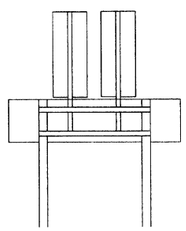
G2-2



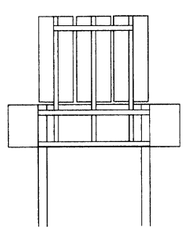
G2-3



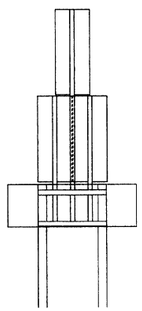
G2-4



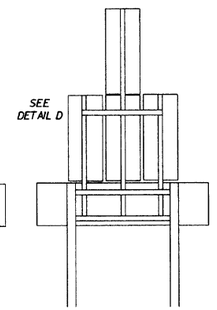
G2-5



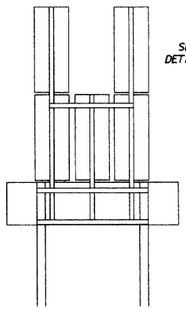
G2-6



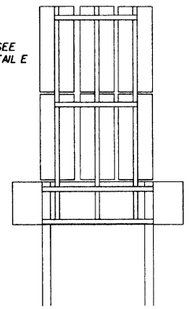
G2-7



G2-8



G2-9



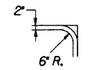
G2-10

DATE	REVISION	FILMED
9-12-13	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

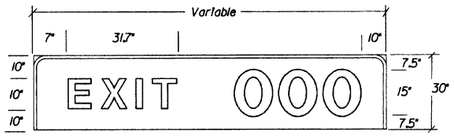
DETAIL OF BREAKAWAY SIGN SUPPORTS FOR STANDARD SIGNS

STANDARD DRAWING SHS-4



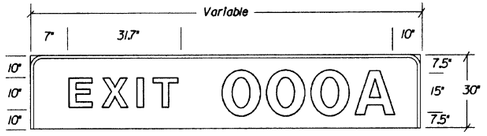
TYPICAL DETAIL

TYPE A



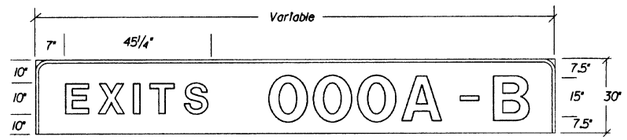
EXIT WITH 1 DIGIT 84"X30"=17.50 SF
EXIT WITH 2 DIGITS 96"X30"=20.0 SF
EXIT WITH 3 DIGITS 114"X30"=23.57 SF

TYPE B



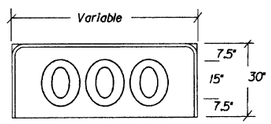
EXIT WITH 1 DIGIT PLUS "A"OR"B" 96"X30"=20.0 SF
EXIT WITH 2 DIGITS PLUS "A"OR"B" 114"X30"=23.57 SF
EXIT WITH 3 DIGITS PLUS "A"OR"B" 126"X30"=26.25 SF

TYPE C



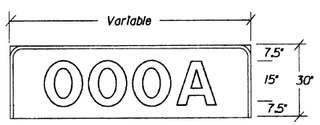
EXITS WITH 1 DIGIT PLUS "A"&"B" 132"X30"=27.50 SF
EXITS WITH 2 DIGITS PLUS "A"&"B" 150"X30"=31.25 SF
EXITS WITH 3 DIGITS PLUS "A"&"B" 168"X30"=35.00 SF

TYPE D



1 DIGIT 24"X30"=5.0 SF
2 DIGITS 42"X30"=8.75 SF
3 DIGITS 60"X30"=12.50 SF

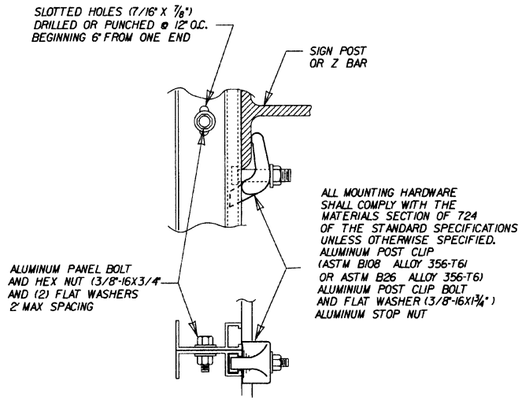
TYPE E

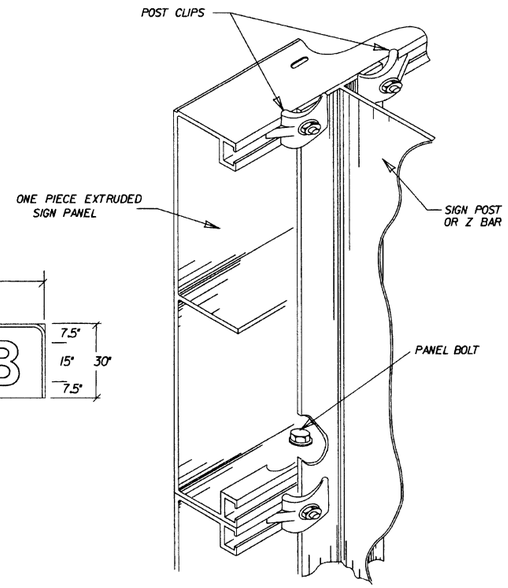


1 DIGIT PLUS "A"OR"B" 42"X30"=8.75 SF
2 DIGITS PLUS "A"OR"B" 60"X30"=12.50 SF
3 DIGITS PLUS "A"OR"B" 78"X30"=16.25 SF

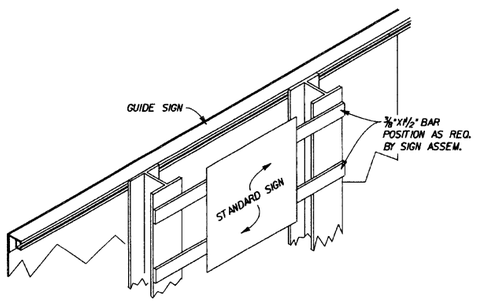
EXIT PANEL DETAILS

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".

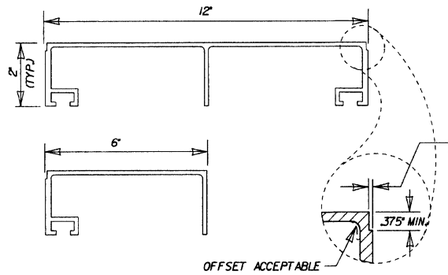




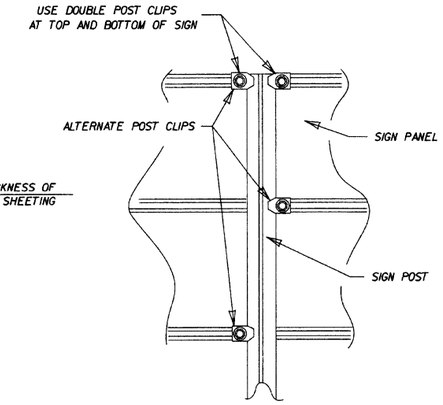
MOUNTING HARDWARE



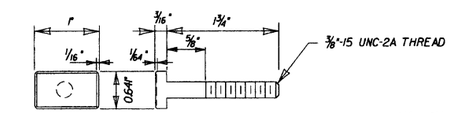
SECONDARY SIGN INSTALLATION ON BACKSIDE OF GUIDE SIGN



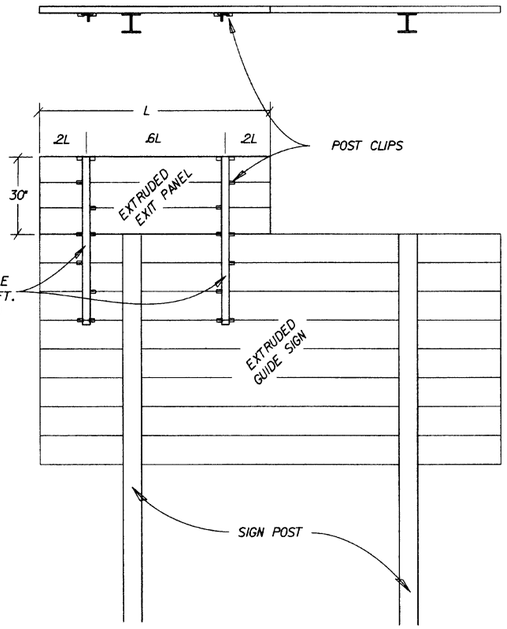
ONE PIECE EXTRUDED SIGN PANELS



POST CLIP PLACEMENT



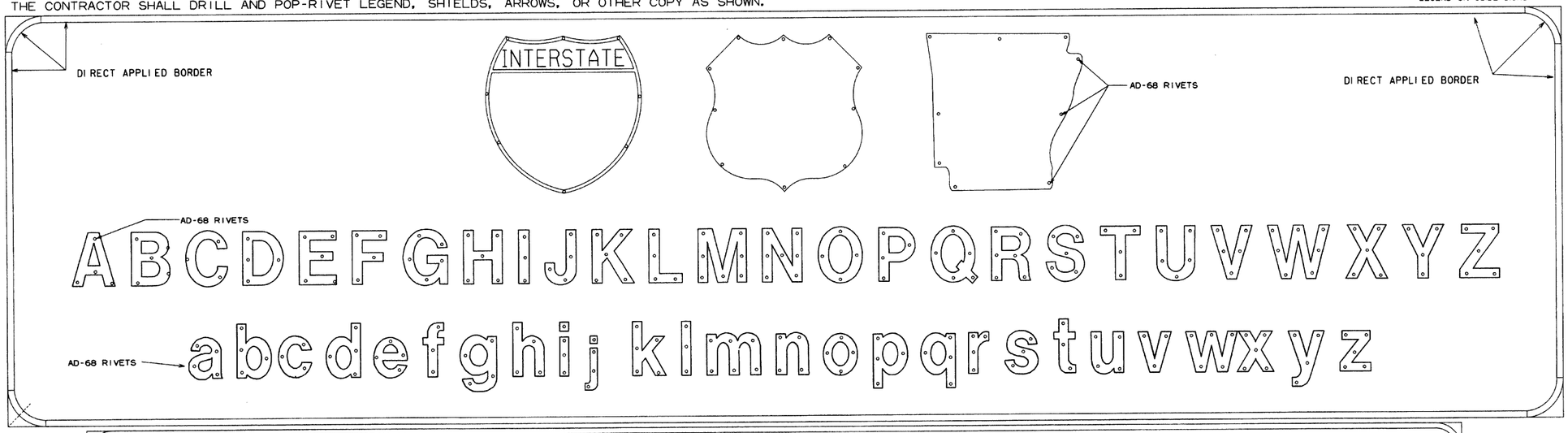
POST CLIP BOLT

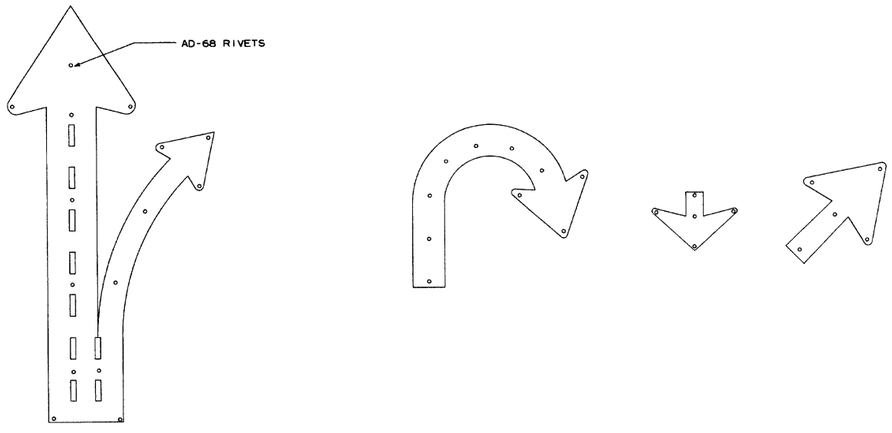


			ARKANSAS STATE HIGHWAY COMMISSION
			DETAILS OF GUIDE SIGN PANELS
9-12-13 DATE	ISSUED REVISION	FILMED	STANDARD DRAWING SHS-5

THE CONTRACTOR SHALL DRILL AND POP-RIVET LEGEND, SHIELDS, ARROWS, OR OTHER COPY AS SHOWN.

MOUNTING DETAILS FOR DEMOUNTABLE LEGEND ON GUIDE SIGNS





NOTES:

LEGEND ON GUIDE SIGNS ON THE MAIN LANES SHALL BE DEMOUNTABLE LEGEND.
LEGEND ON GUIDE SIGNS ON CROSS ROADS AND RAMPS SHALL BE DIRECT APPLIED.
THE DEMOUNTABLE AND DIRECT APPLIED LEGENDS SHALL BE TYPE IX SHEETING.

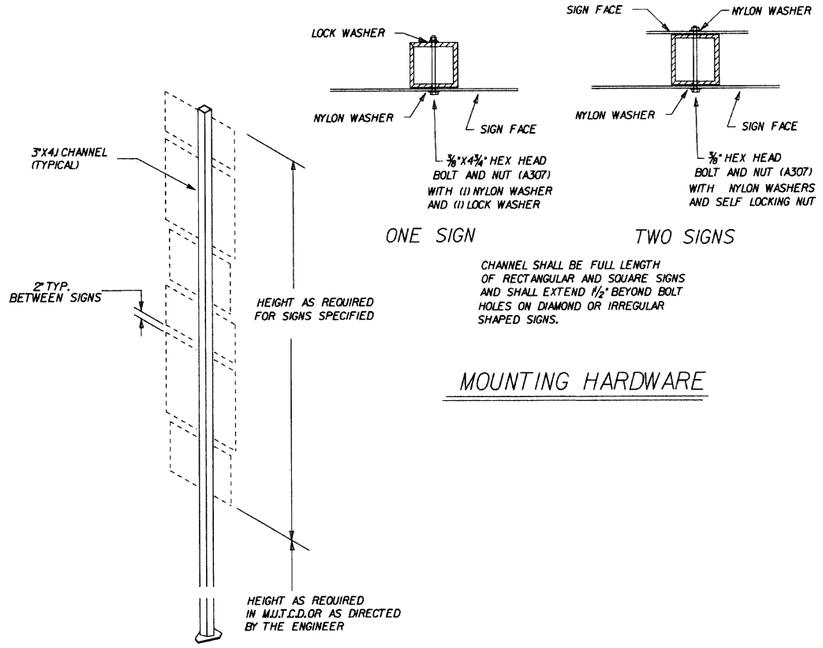
THE BACKGROUND ON ALL GUIDE SIGNS AND STANDARD SIGNS SHALL BE CONSTRUCTED USING TYPE III SHEETING.

TYPE IX SHEETING FOR BORDER, LEGEND, SHIELDS, ARROWS, OR OTHER COPY SHALL BE ORIENTED VERTICALLY AS PER MANUFACTURERS' DATUM MARKS, ORIENTATION MARKS, OR OTHER RECOMMENDATIONS.

SIGN LEGEND, SHIELDS, ARROWS OR OTHER COPY SHALL BE APPLIED WITH RIVETS ONLY.

NO OTHER METHOD OF APPLYING CHARACTERS IS ALLOWED.

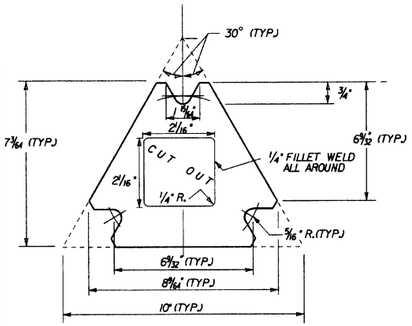
			ARKANSAS STATE HIGHWAY COMMISSION
			MOUNTING DETAILS FOR DEMOUNTABLE LEGEND ON GUIDE SIGNS
9-12-13 DATE	ISSUED REVISION	FILMED	STANDARD DRAWING SHS-6



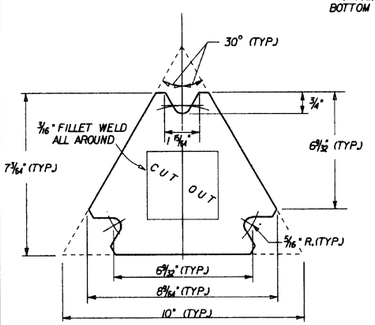
ONE SIGN TWO SIGNS

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



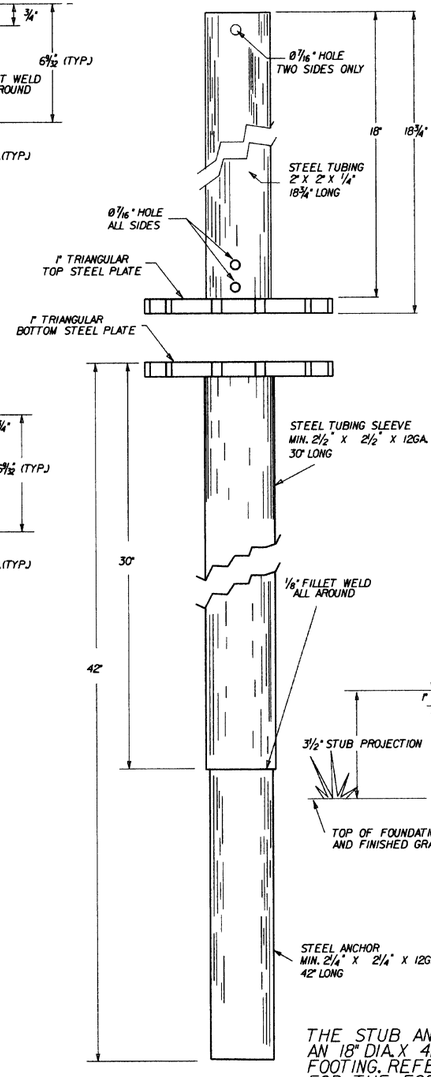
BOTTOM PLATE

GENERAL NOTES:

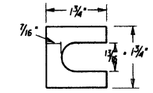
THE TOP PLATE OF TRIANGULAR SUP BASES SHALL HAVE THE SAME EXTERIOR DIMENSIONS AS THE BOTTOM PLATE.

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 .

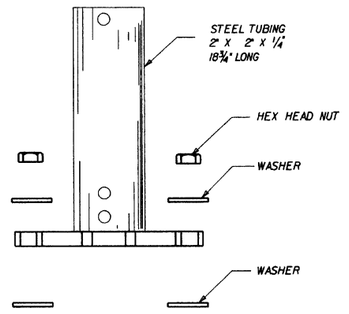
OTHER MASH COMPLIANT BREAKAWAY SIGN SUPPORTS THAT HAVE THE SAME TOP PLATE DIMENSIONS AND SUPPORT 2¼" X 2¼" SQUARE TUBE SIGN POSTS MAY BE SUBSTITUTED AS APPROVED BY THE ENGINEER.

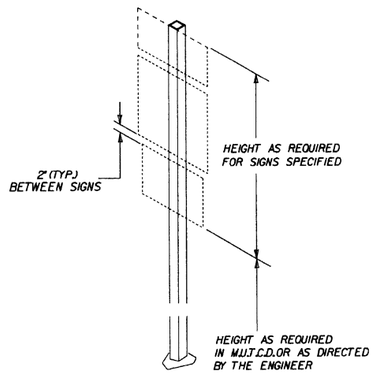


THE STUB ANCHOR SHALL BE SET IN AN 18" DIA. X 42" DEEP CONCRETE FOOTING. REFER TO STD.DRWG.SHS-3 FOR THE FOOTING DETAILS.



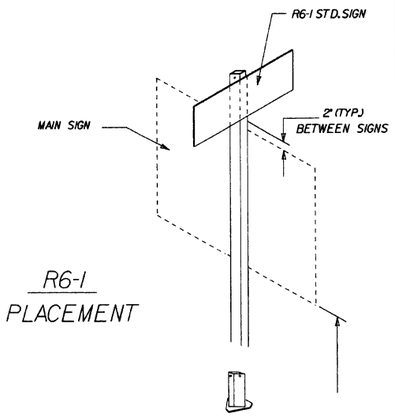
SHIM DETAIL





TYPE-I

BASIS OF ESTIMATE
APPROX. 100 lbs STEEL



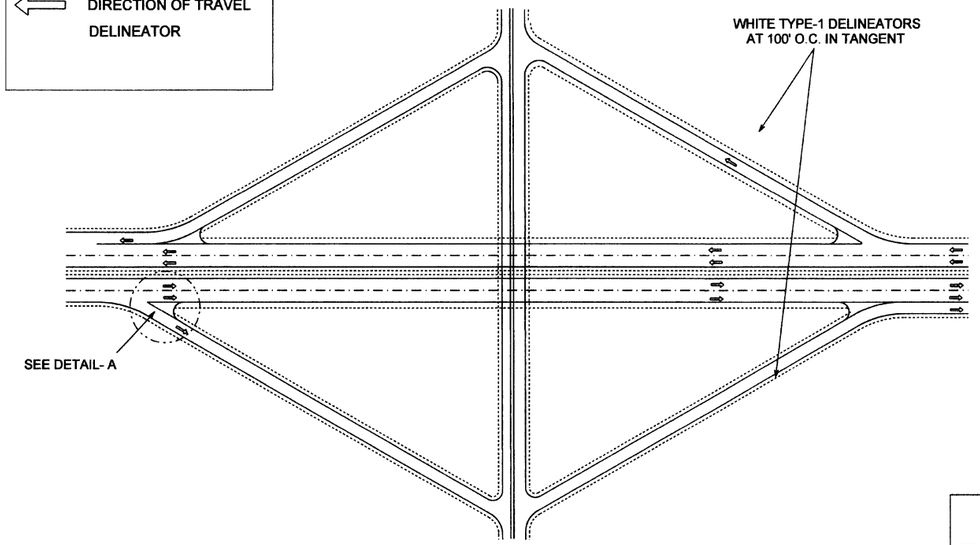
R6-1 PLACEMENT

			ARKANSAS STATE HIGHWAY COMMISSION
			DETAIL OF OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS
9-12-13 DATE	ISSUED REVISION	FILMED	STANDARD DRAWING SHS-7

LEGEND

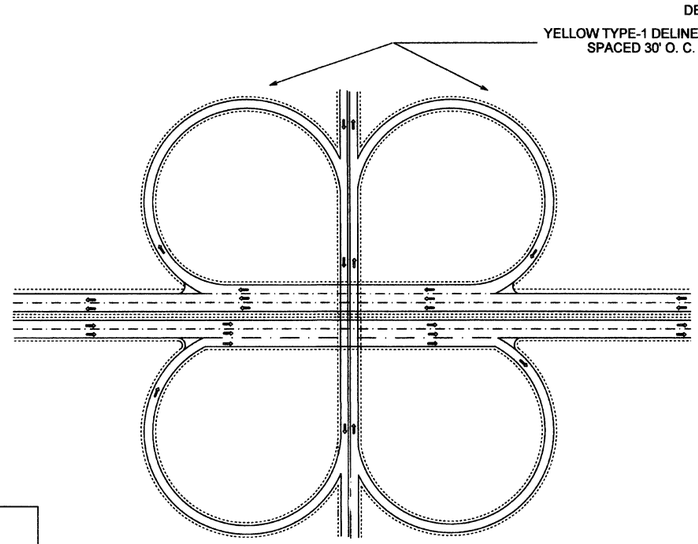
DIRECTION OF TRAVEL

DELINEATOR

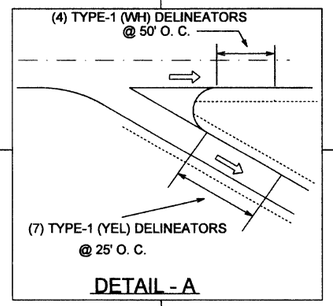


TYPICAL DIAMOND INTERCHANGE (ALL RAMPS)

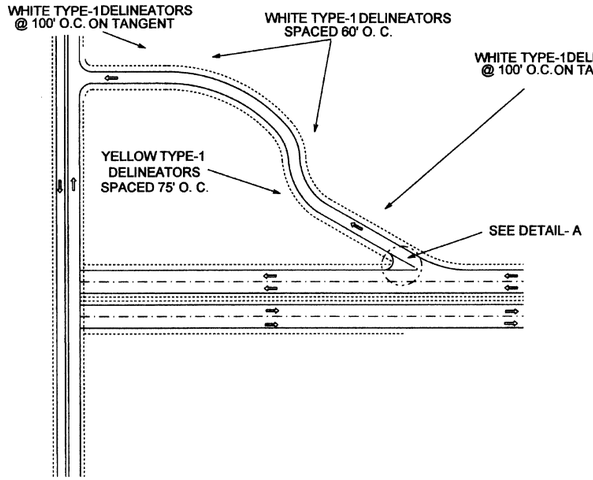
DELINEATORS PLACEMENT DETAIL



TYPICAL CLOVERLEAF INTERCHANGE (ALL RAMPS)



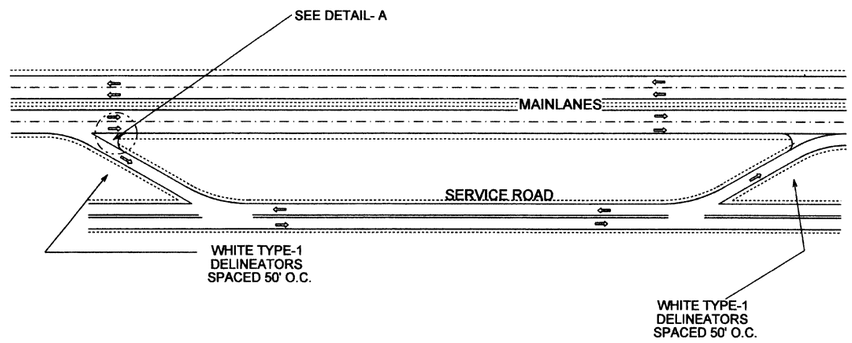
DETAIL - A



MODIFIED DIAMOND INTERCHANGE

NOTE:

DELINEATORS SHALL ONLY BE INSTALLED AS SHOWN IN DETAIL-A IF RAISED PAVEMENT MARKERS ARE NOT PRESENT IN THE GORE OF THE OFF RAMPS.

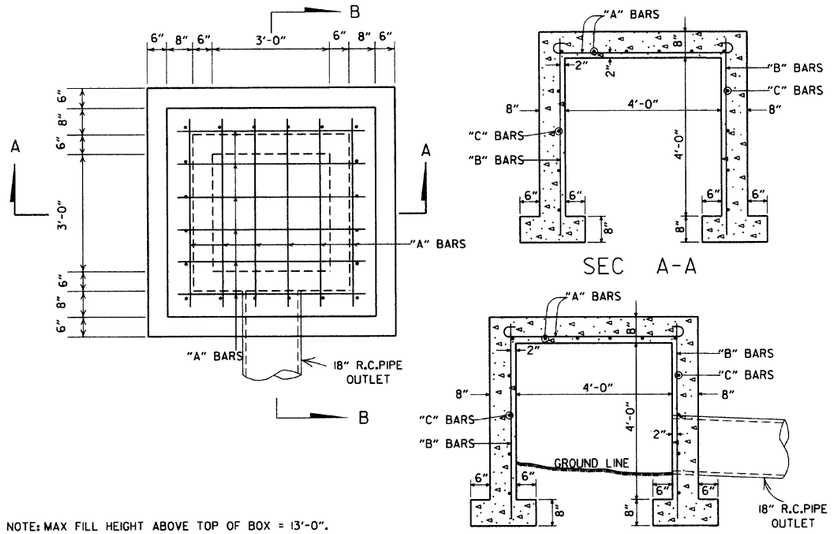


TYPICAL SLIP RAMP

GUIDANCE:

DELINEATORS SHOULD BE MOUNTED ON SUITABLE SUPPORTS SO THAT THE TOP OF THE HIGHEST RETROREFLECTOR IS 1.2 M (4 FT) ABOVE THE NEAR ROADWAY EDGE. THEY SHOULD BE PLACED 0.6 TO 2.4 M (2 TO 8 FT) OUTSIDE THE OUTER EDGE OF THE SHOULDER, OR IF APPROPRIATE, IN LINE WITH THE ROADSIDE BARRIER THAT IS 2.4 M (8 FT) OR LESS OUTSIDE THE OUTER EDGE OF THE SHOULDER.

			ARKANSAS STATE HIGHWAY COMMISSION
			TYPICAL DELINEATOR PLACEMENT ALONG THE INTERSTATE SYSTEM
9-12-13	ISSUED		STANDARD DRAWING SHS-8
DATE	REVISION	FILMED	

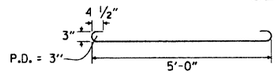


NOTE: MAX FILL HEIGHT ABOVE TOP OF BOX = 13'-0".

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



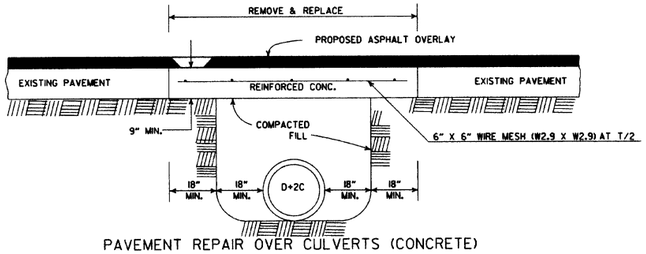
"A" BARS

QUANTITIES

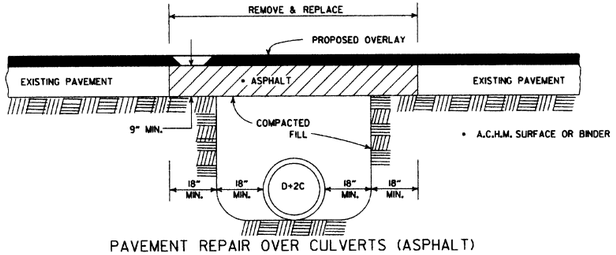
CONCRETE 3.31 CU. YDS.
REINFORCING STEEL 168 LB.

GENERAL NOTE:
THE PAY ITEMS FOR REINFORCED CONCRETE SPRING BOXES SHALL BE FOR THE QUANTITTIES OF CONCRETE OF THE CLASS SPECIFIED, REINFORCING STEEL, EXCAVATION FOR STRUCTURES AND 18" R.C. PIPE CULVERT.

REINFORCED CONCRETE SPRING BOX



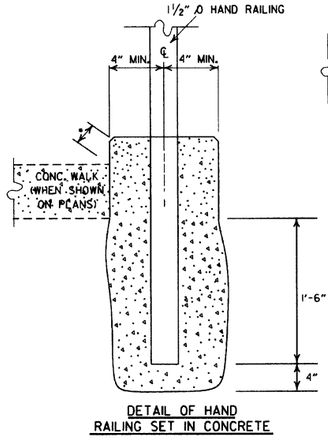
PAVEMENT REPAIR OVER CULVERTS (CONCRETE)



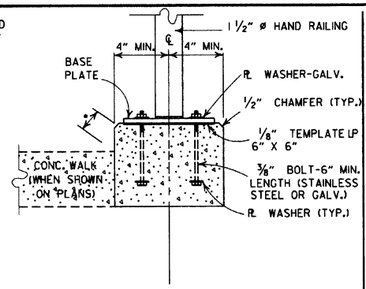
PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS

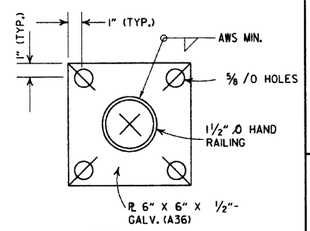
* A 2" MIN. HIGH CURB IS REQUIRED WHEN CONCRETE WALK IS ADJACENT TO THE HAND RAILING. PAYMENT FOR CURB SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR CONCRETE WALKS.



DETAIL OF HAND RAILING SET IN CONCRETE

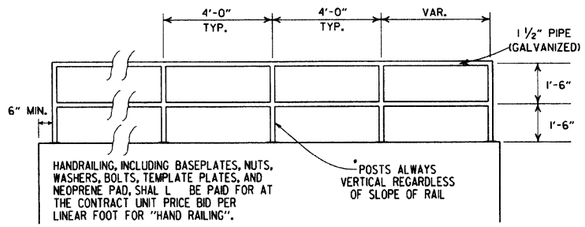


POST CONNECTION TO WALL

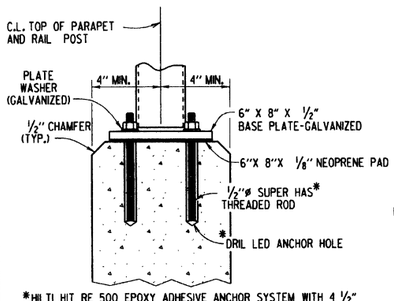


BASE PLATE

POST CONNECTION DETAILS



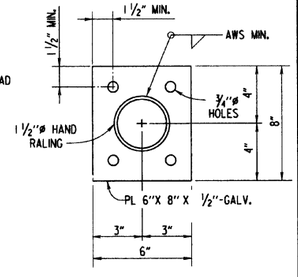
HAND RAILING SHALL CONFORM TO SECTION 633.



*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.

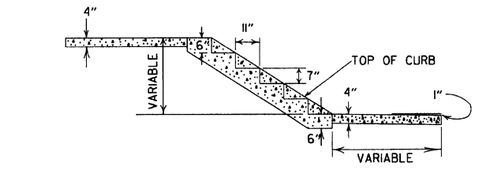
POST CONNECTION TO WALL



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.

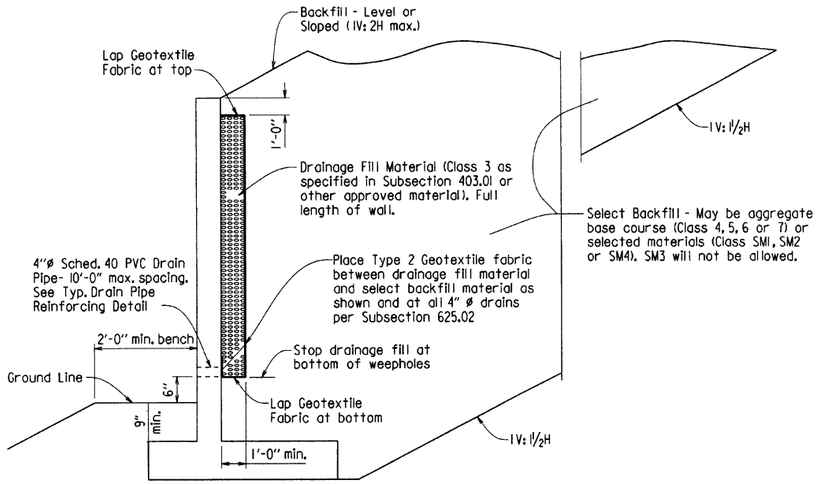
DETAILS OF CONCRETE STEPS & WALKS

DATE	REVISION	DATE FILMED
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	
4-26-96	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

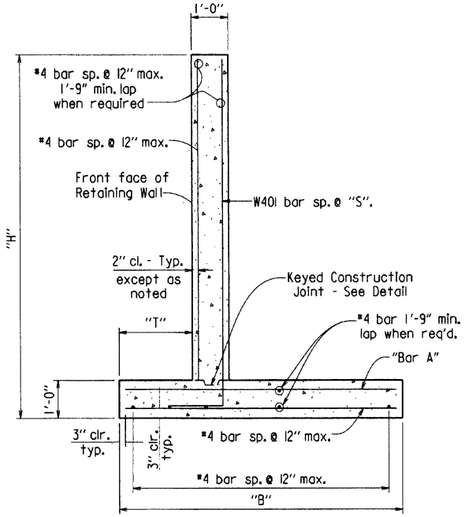
DETAILS OF SPECIAL ITEMS

STANDARD DRAWING SI-1



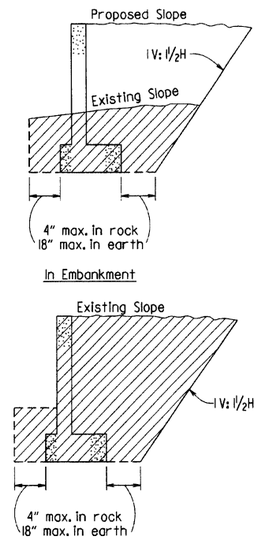
TYPICAL DRAINAGE & BACKFILL DETAILS

N.T.S



TYPICAL SECTION

N.T.S



NOTE: Hatched area denotes maximum limits of pay excavation.

DETAILS OF EXCAVATION

N.T.S

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: Arkansas state Highway and Transportation Department 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.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications, Sixth Edition (2012).

LIVE LOAD: Live Load Surcharge is not included in the design of these walls. Vehicular Live Load shall not be allowed within a distance equal to one-half the height of the wall.

CONCRETE: Concrete shall be poured in the dry and all exposed corners to be chamfered ½". All concrete shall be Class S with a minimum 28 day compressive strength f'c = 3,500 psi. A Class 2 Surface finish shall be used on all surfaces of the concrete unless otherwise noted.

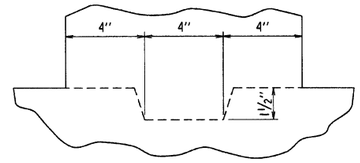
REINFORCING STEEL: All reinforcing steel shall conform to AASHTO M31 orM53, Grade 60.

Foundations for footings shall be prepared in accordance with subsection 801.04. Backfill for retaining walls shall be in accordance with subsection 801.08.

Waterproof Membrane (Type C), waterstops, preformed joints, weep holes & geotextile fabric shall not be paid for directly, but shall be considered subsidiary to Class S Concrete.

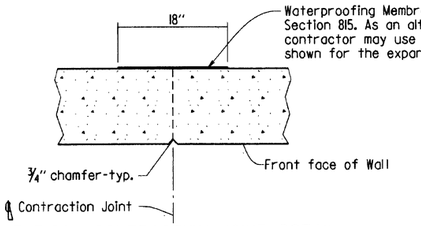
Drainage fill material (Class 3) and select backfill shall be measured and paid for as Compacted Embankment.

These details are not intended for use along streams or ditches without consideration for scour.



KEYED CONSTRUCTION JOINT DETAIL

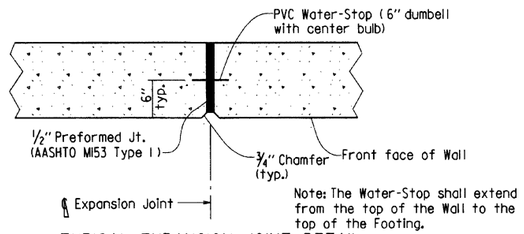
N.T.S



TYPICAL CONTRACTION JOINT DETAIL

N.T.S.

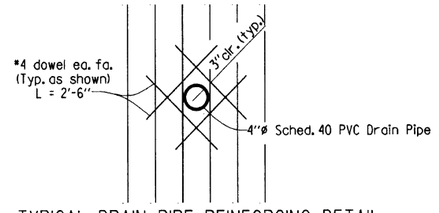
Note: 20'-0" Max. Spacing between Contraction Joints. Horizontal reinforcement shall be continuous through Contraction joints.



TYPICAL EXPANSION JOINT DETAIL

N.T.S.

Note: 60'-0" Max. Spacing between Expansion Joints. Horizontal reinforcing shall stop 2" from ℄ Expansion Joint.



TYPICAL DRAIN PIPE REINFORCING DETAIL

N.T.S

SEISMIC ZONE: These walls have been designed for the following site adjusted peak ground accelerations (A_s):
Level Backfill - $A_s \leq .40g$
Sloped Backfill (1V: 2H max.) - $A_s \leq .30g$

TABLE OF RETAINING WALL VARIABLES

(LEVEL BACKFILL)

"H"	"T"	"B"	"S"	"Bar A" Size @ Spacing
3'-0"	9"	2'-6"	12"	#4 @ 12"
4'-0"	9"	3'-6"	12"	#4 @ 12"
5'-0"	9"	4'-0"	12"	#4 @ 12"
6'-0"	9"	4'-6"	12"	#4 @ 12"
7'-0"	9"	5'-6"	12"	#4 @ 10"
8'-0"	9"	6'-0"	12"	#5 @ 10"
9'-0"	1'-0"	7'-0"	12"	#5 @ 6½"

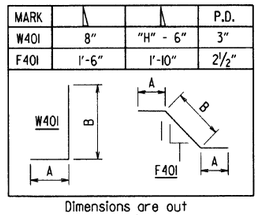
TABLE OF RETAINING WALL VARIABLES

(SLOPED BACKFILL) (1V: 2H MAX.)

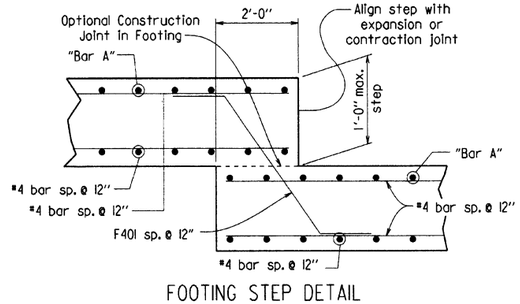
"H"	"T"	"B"	"S"	"Bar A" Size @ Spacing
3'-0"	9"	2'-6"	12"	#4 @ 12"
4'-0"	9"	3'-6"	12"	#4 @ 12"
5'-0"	9"	4'-6"	12"	#4 @ 12"
6'-0"	9"	5'-6"	12"	#4 @ 6"
7'-0"	9"	6'-6"	12"	#5 @ 6½"
8'-0"	1'-6"	8'-0"	7½"	#6 @ 6"
9'-0"	1'-11"	9'-6"	5"	#8 @ 6"

BENDING DIAGRAMS

MARK			P.D.
W401	8"	"H" - 6"	3"
F401	1'-6"	1'-10"	2½"



Dimensions are out to out of bars.



FOOTING STEP DETAIL

N.T.S.

DATE	REVISION	DATE FILMED
5-12-16	REVISED SLOPES FOR SELECT BACKFILL	
2-27-14	REVISED GENERAL NOTES	
7-26-12	DRAWING ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

REINFORCED CONCRETE RETAINING WALL (WITHOUT LIVE LOAD SURCHARGE)

STANDARD DRAWING SI - 2

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"

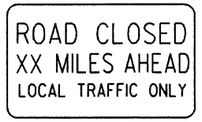
R5-1

STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

R11-2

48"X30"

R11-3A



60"X30"

R11-4

60"X30"

RSP-1

48"X30"

W1-1

STD. 36"X36"
FWY. 48"X48"

W1-2

STD. 36"X36"
FWY. 48"X48"

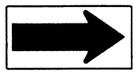
W1-3

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"

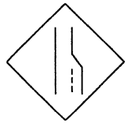
W3-1

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"

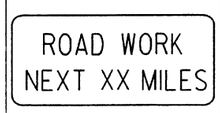
W8-11

STD. 36"X36"
FWY. 48"X48"

W8-9

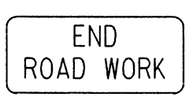
STD. 36"X36"
FWY. 48"X48"

G20-1



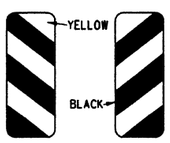
60"X24"

G20-2



48"X24"

OM-3L OM-3R



12"X36"

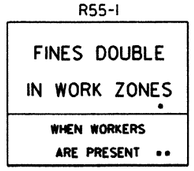
M4-9

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.

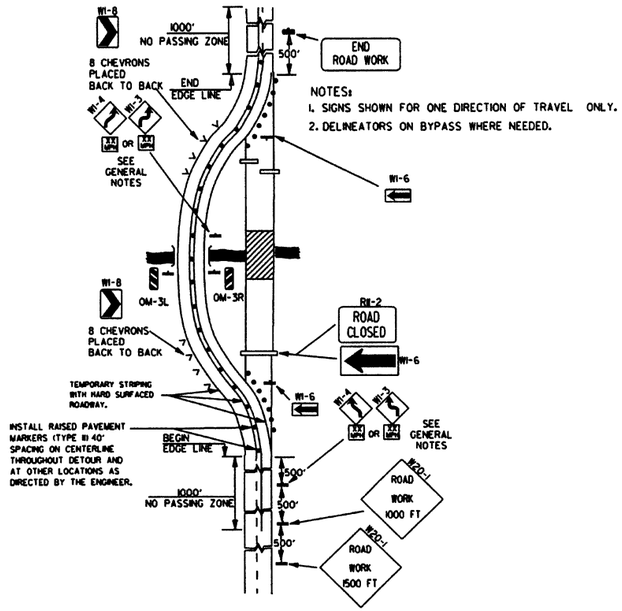
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

DATE	REVISION	FILMED
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS 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

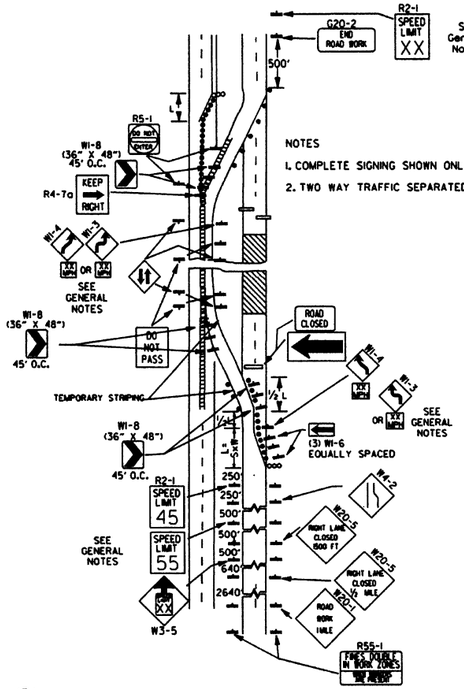
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



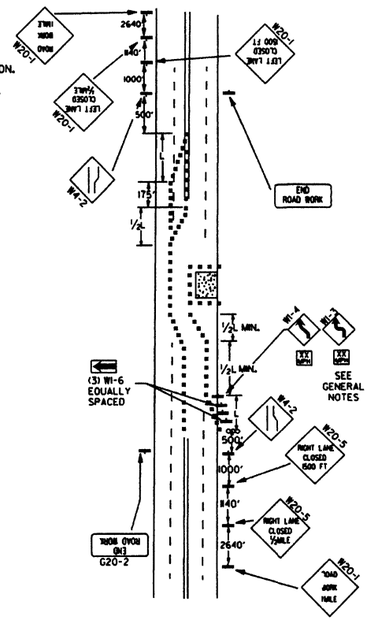
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.

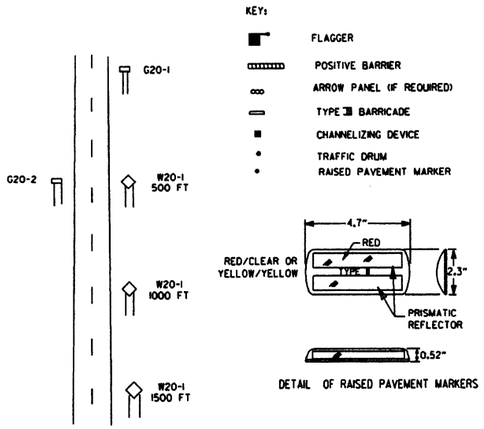


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

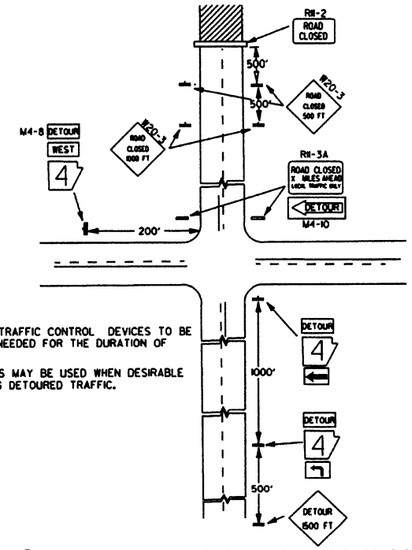
(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.



(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

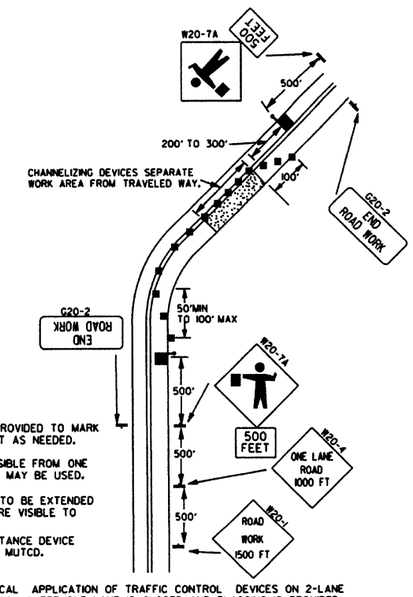


TYPICAL ADVANCE WARNING SIGN PLACEMENT



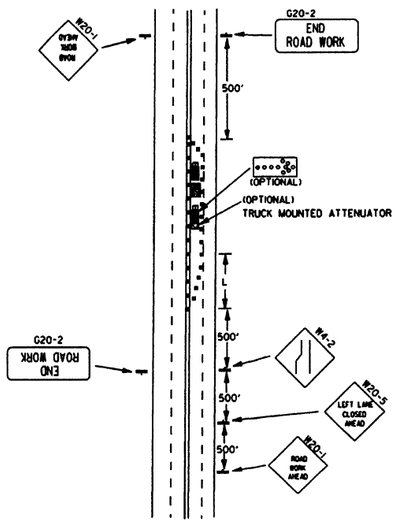
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

(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.

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.

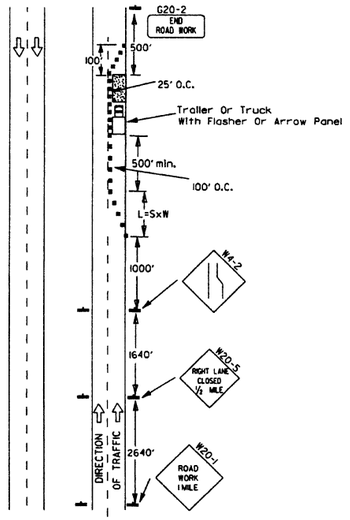
GENERAL NOTES:
1. ADVISORY SPEED POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1 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. 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.
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 AHTD QUALIFIED PRODUCTS LIST.

DATE	REVISION	FILMED
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	
3-8-10	ADDED (AFAD)	
8-20-08	REVISED SIGN DESIGNATIONS	
8-18-04	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	
8-15-9	DRAWN AND PLACED IN USE	

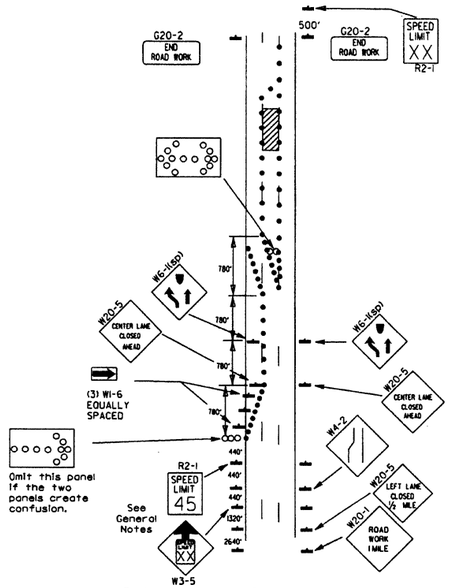
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

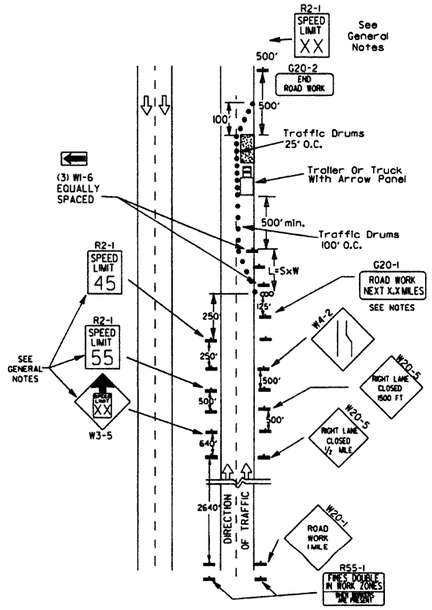
STANDARD DRAWING TC-2



(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.



(C) Typical application - construction operations of intermediate to long term duration on a 4-lane divided roadway where half of the roadway is closed.

KEY:

ooo Arrow Panel (if Required)

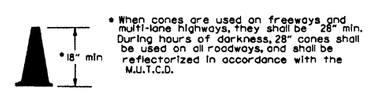
■ Channelizing Device

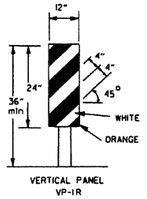
● Traffic drum

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 1 mile 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 1 mile 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 NCHRP-350 or 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.

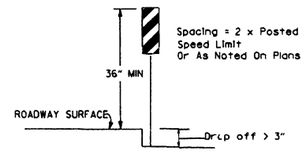
Channelizing devices





NOTE:
For all road closures, the Type III barricades shall be of sufficient length to extend across entire roadway.

VERTICAL PANEL PLACEMENT



TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

VERTICAL DIFFERENTIAL	LOCATIONS	TRAFFIC CONTROL
1" to 3"	Centerline, lane lines	W8-11
1" to 3"	Edge of shoulder	W8-9
Greater than 3"	Lane lines	Standard lane closure required
Greater than 3"	Edge of traveled lane	*RSP-1 and vertical panels, drums or concrete barrier
Greater than 3"	Edge of shoulder	*Vertical panels, drums or concrete barrier

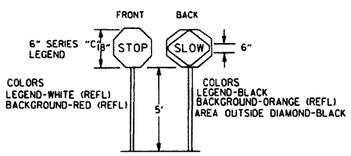
* When shown on the plans concrete barrier will be used.

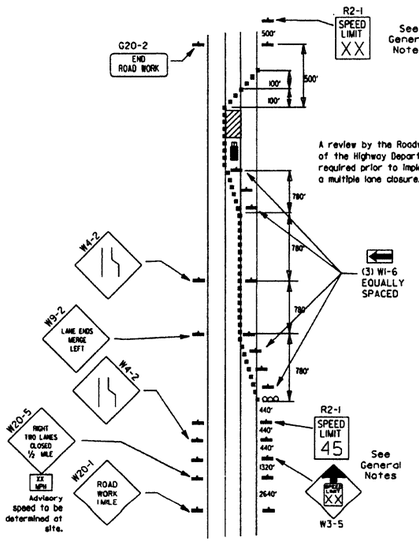
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

FLAG

Flag shall be of good grade red material

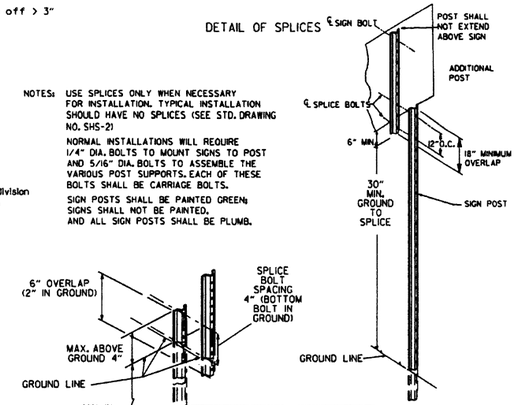
STOP SLOW PADDLE





(D) Typical application - closing multiple lanes of a multilane highway.

DETAIL OF SPLICES



NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

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.

DATE	REVISION	FILMED
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	

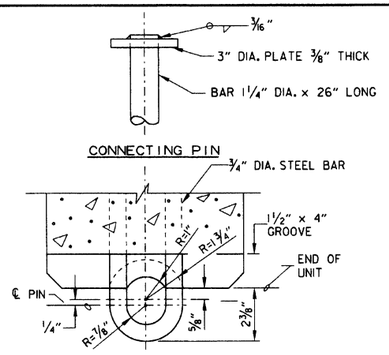
ARKANSAS STATE HIGHWAY COMMISSION

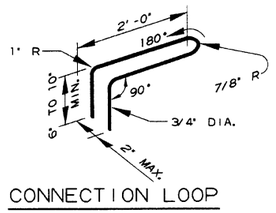
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

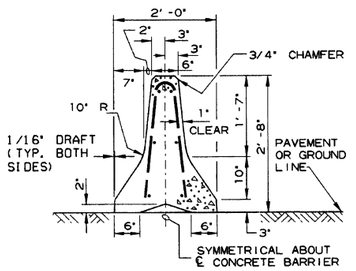
STANDARD DRAWING TC-3

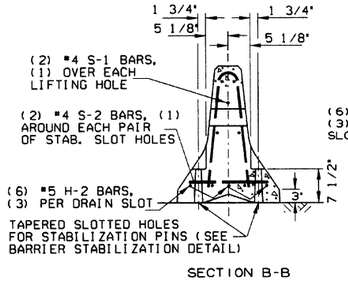
REINFORCING BAR TABLE PER BARRIER UNIT

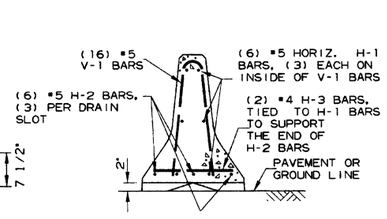
MARK	LOCATION	BAR SIZE	(NO. BARS)	SKETCH
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)	19'-3"
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)	6'-6"
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2, TIED TO V-1	#4	(2)	1'-6"
S-1	OVER LIFT HOLES	#4	(2)	2'-5", 90°, 3 3/8" R, LIFTING HOLE
S-2	HORIZ. 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; TOTAL LENGTH 4'-9"
V-1	VERTICAL IN BARRIER(3) EACH END & (2) AT EACH DRAIN SLOTS	#5	(16)	2 3/16" R, 12°, 1 1/2", 6", 2'-1 3/8", 4 3/8"

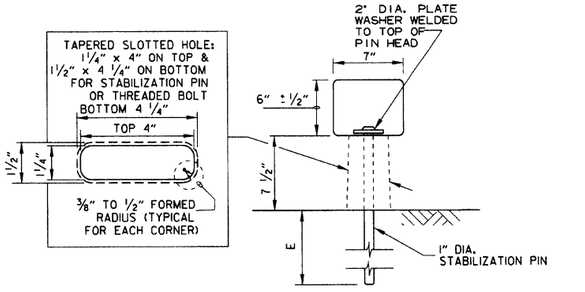




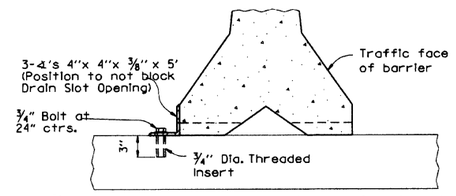






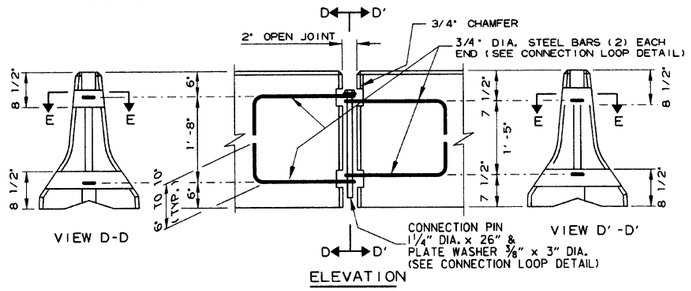


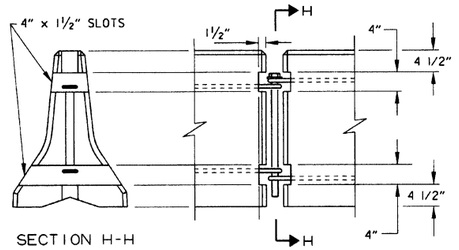
(E) 4" - Concrete Pavement
8" - Asphalt Pavement
12" - Shoulder Areas

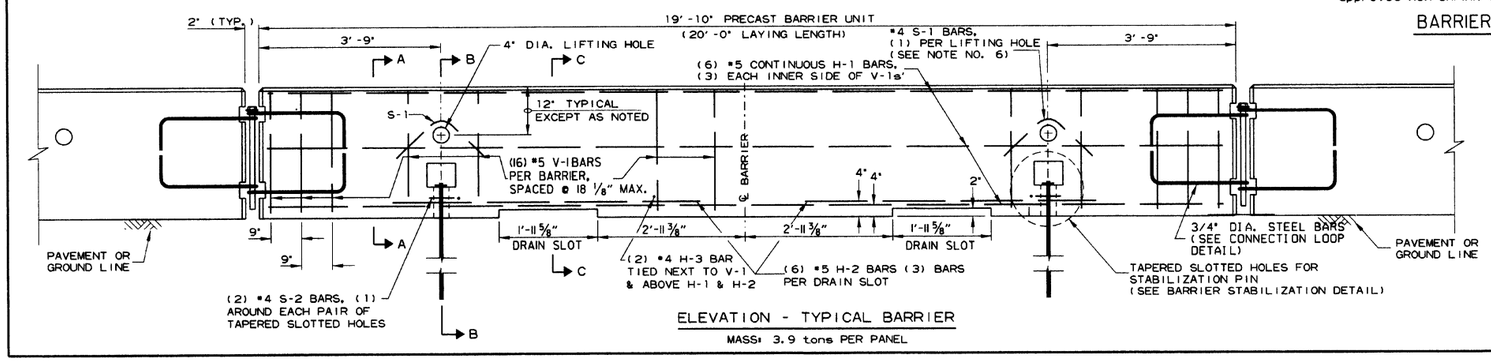


NOTE: 3/4" Threaded Inserts shall be cast in place for all new bridge decks and drilled and grouted for existing bridge decks. Inserts shall have a minimum ultimate load capacity of 8000 lbs. in tension. After removal of barrier, bolts, and angles, the inserts shall be filled with approved non-shrink epoxy.

BARRIER STABILIZATION DETAIL
BRIDGE DECKS







ELEVATION - 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 AHTD 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 NCHRP-350 test level 3 or 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 NCHRP Report 350 or 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 NCHRP Report 350 or Manual For Assessing Safety Hardware (MASH) and include a copy of the Federal Highway Administration's (FHWA) approval letter with all attachments. Precast concrete barrier units shall be fabricated and installed in accordance with crash testing and documentation provided in the FHWA approval letter. 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.

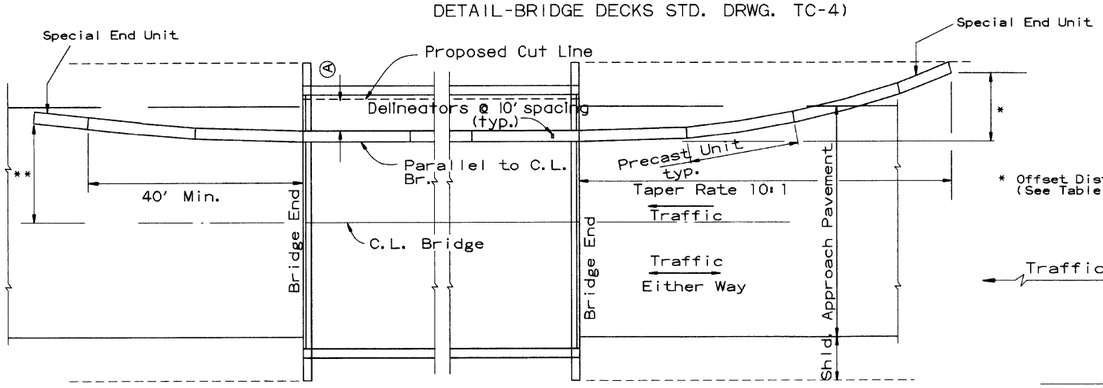
DATE	REVISION	FILMED
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

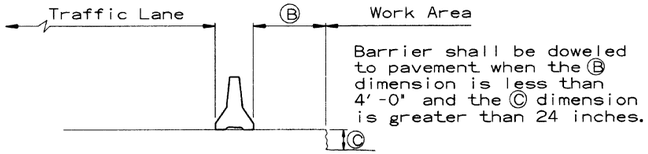
STANDARD DRAWING TC-4

Ⓐ 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)



BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

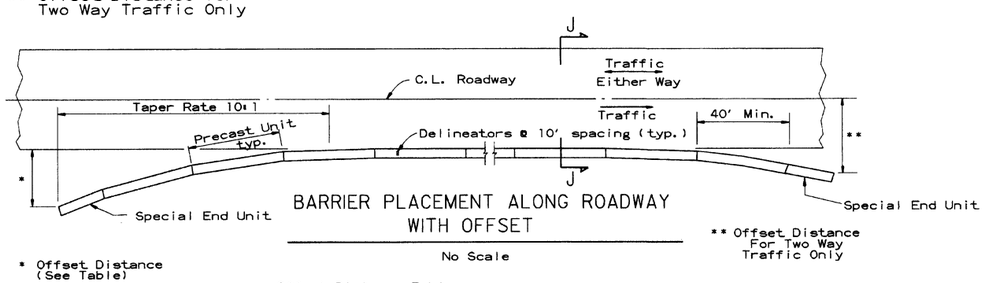


Barrier shall be doweled to pavement when the Ⓑ dimension is less than 4'-0" and the Ⓒ dimension is greater than 24 inches.

SECTION J-J

No Scale

** Offset Distance for Two Way Traffic Only



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

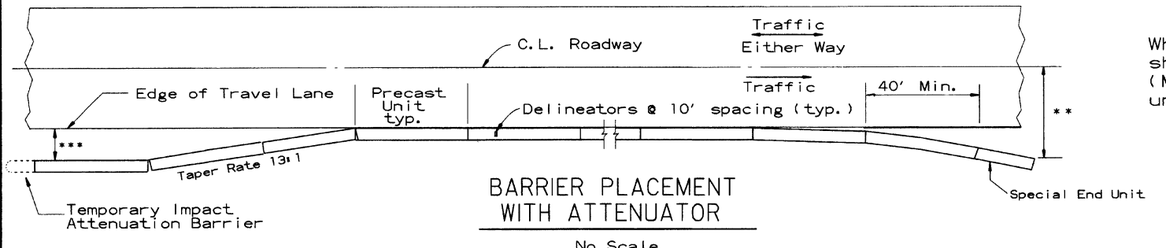
** Offset Distance For Two Way Traffic Only

* Offset Distance (See Table)

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.

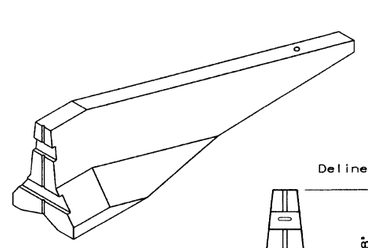


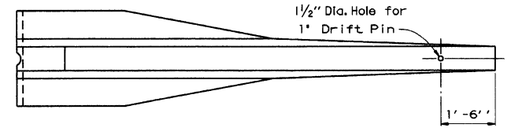
BARRIER PLACEMENT WITH ATTENUATOR

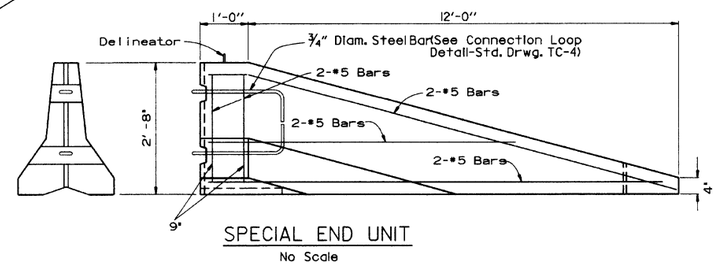
No Scale

*** Min. 3'-0" From Edge of Travel Lane to Nearest Edge of Attenuator

** Offset Distance For Two Way Traffic Only







SPECIAL END UNIT

No Scale

General Notes

When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with an NCHRP-350 or 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
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	

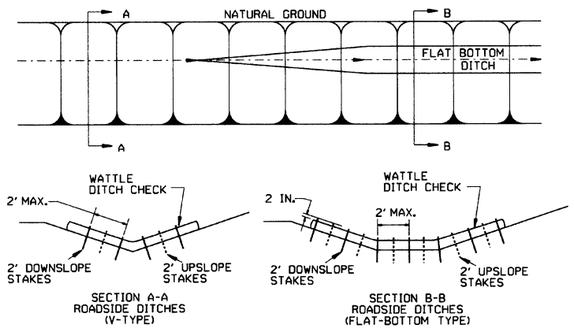
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

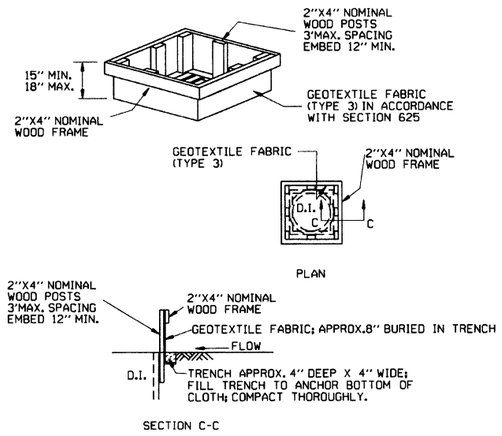
STANDARD DRAWING TC-5

GENERAL NOTES

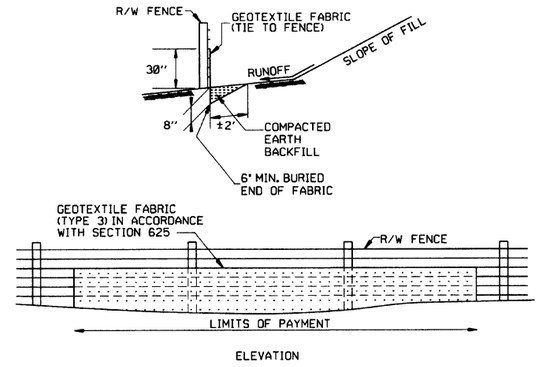
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



DROP INLET SILT FENCE (E-7)



SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

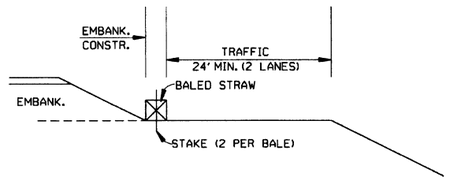
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

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.

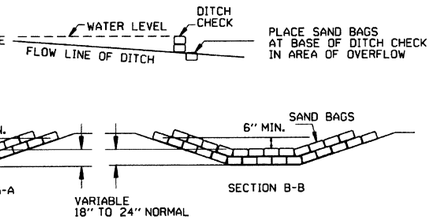
2. NO GAPS SHALL BE LEFT BETWEEN BALES.

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.



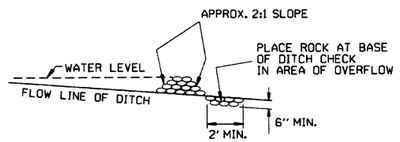
BALED STRAW FILTER BARRIER (E-2)

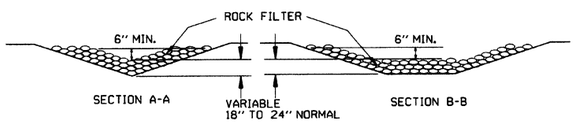
NUMBER OF SAND BAGS AND ARRANGEMENT VARIABLE WITH ON-SITE CONDITIONS.



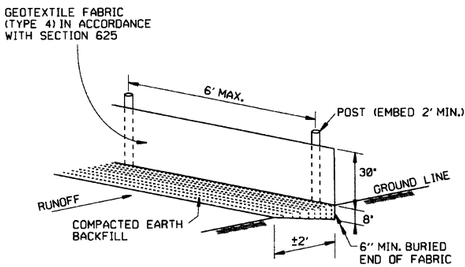
PLACE SAND BAGS AT BASE OF DITCH CHECK IN AREA OF OVERFLOW

SAND BAG DITCH CHECK (E-5)





ROCK DITCH CHECK (E-6)



SILT FENCE (E-11)

GENERAL NOTES

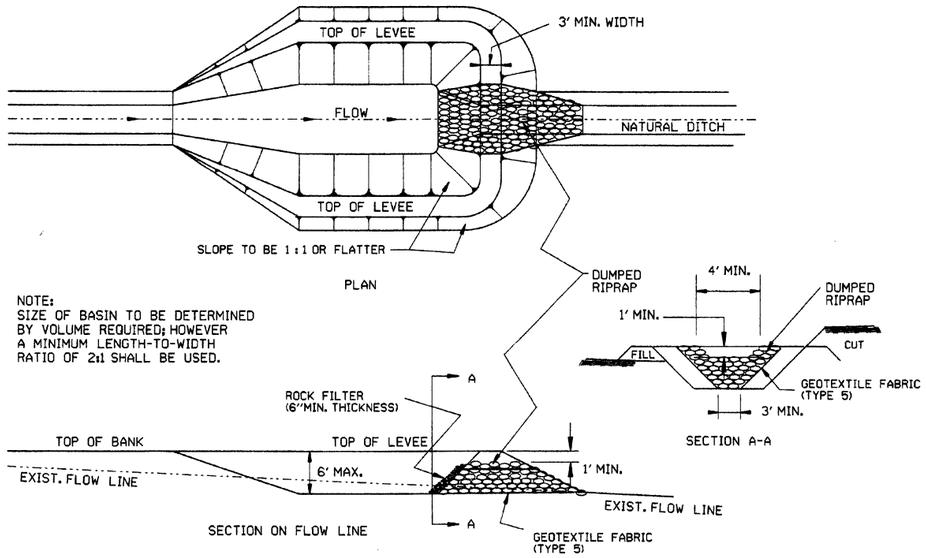
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

DATE	REVISION	FILMED
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK	
11-18-98	ADDED NOTES	
7-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
7-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
7-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC	
6-2-94	REVISED E-1,4,7 & 11; DELETED E-2 & 3	6-2-94
4-1-93	REDRAWN	
10-1-92	REDRAWN	
8-2-76	ISSUED R.D.M.	298-7-28-76

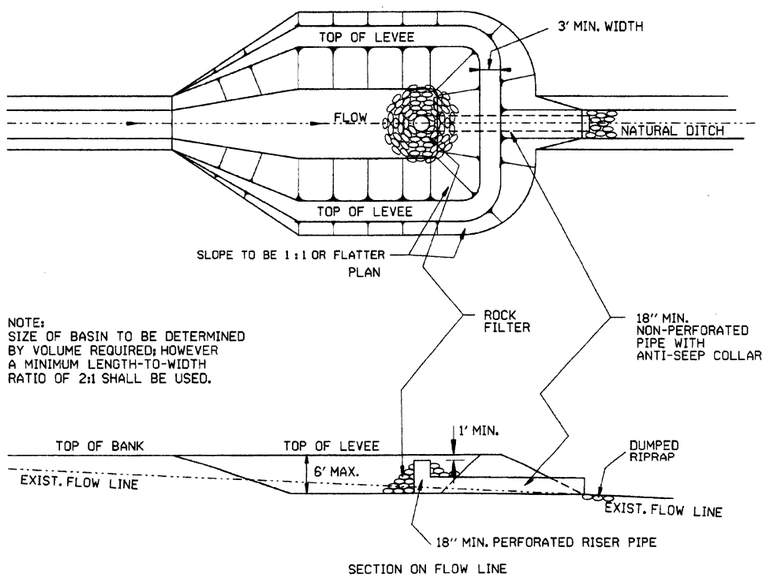
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

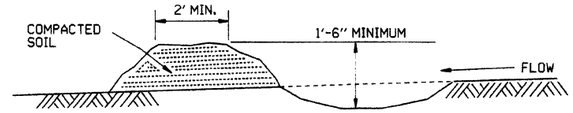
STANDARD DRAWING TEC-1



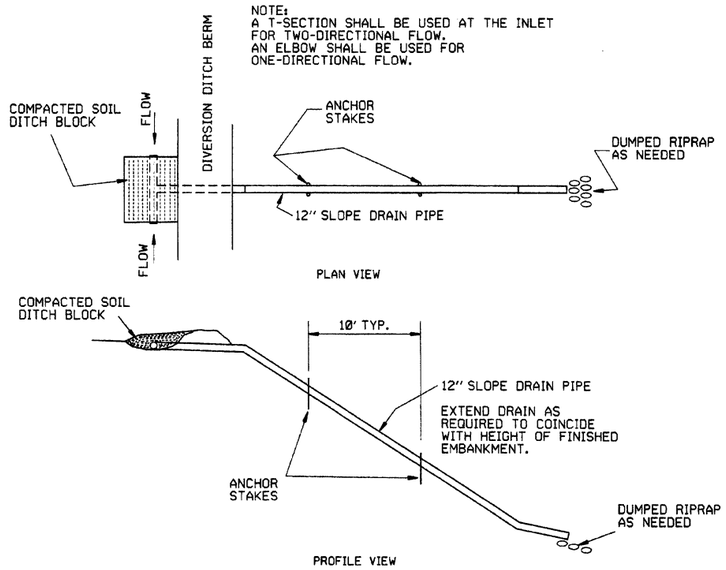
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



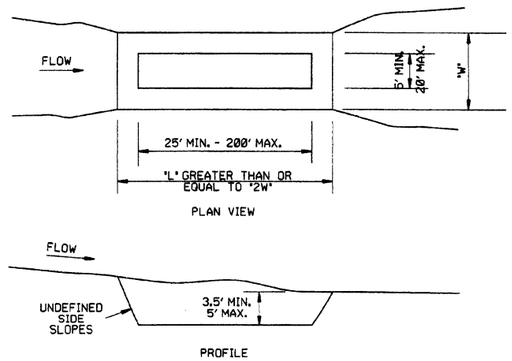
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



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

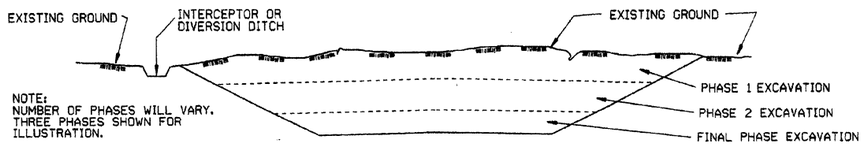
STANDARD DRAWING TEC-2

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



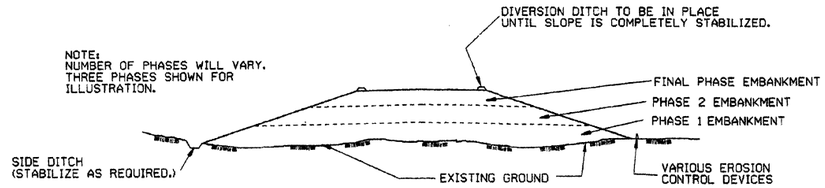
GENERAL NOTE

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

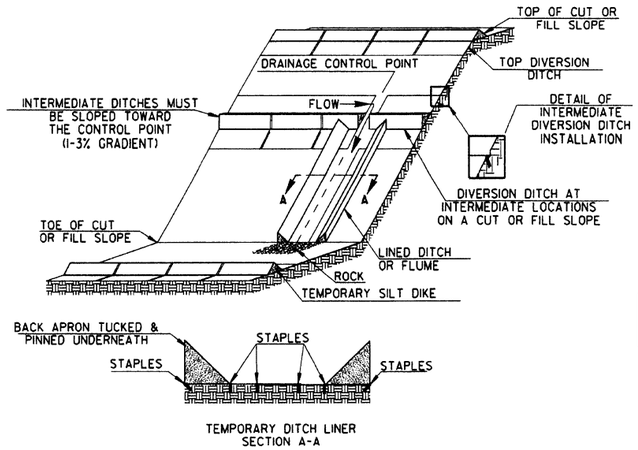
1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD 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.

DATE	REVISION	FILMED
11-03-94	CORRECTED SPELLING	
8-2-94	Drawn & Issued	6-2-94

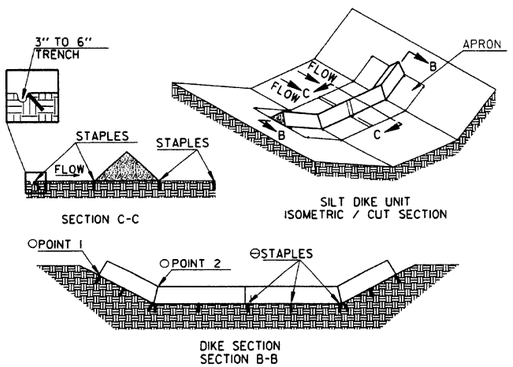
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-3



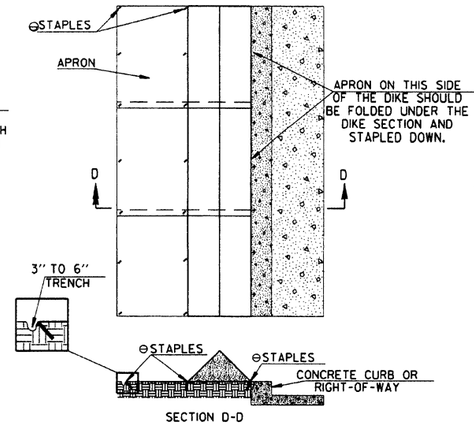
TRIANGULAR SILT DIKE INSTALLATION
FOR
DIVERSION DITCH AND/OR DITCH LINER



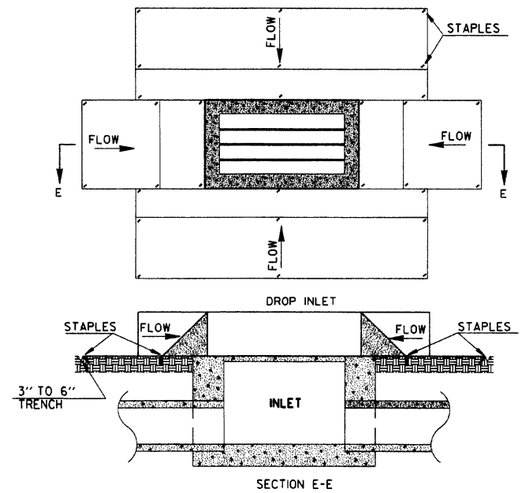
TRIANGULAR SILT DIKE INSTALLATION
FOR
ROADWAY DITCH OR DRAINAGE DITCH

○ POINT "1" MUST BE HIGHER THAN POINT "2" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

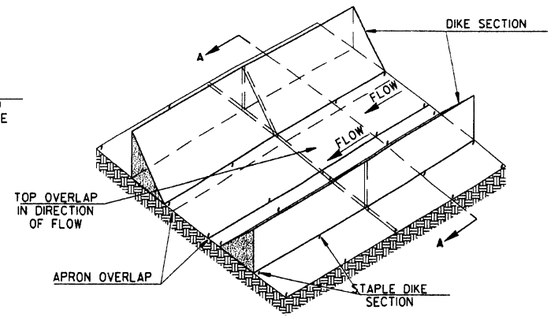
⊖ STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE UNIT AS SHOWN ON THE DIAGRAM.



TRIANGULAR SILT DIKE INSTALLATION
FOR
CONTINUOUS BARRIER



TRIANGULAR SILT DIKE INSTALLATION
FOR
DROP INLETS



TRIANGULAR SILT DIKE INSTALLATION
FOR
TEMPORARY DITCH LINER

GENERAL NOTES

1. THIS WORK SHALL CONSIST OF FURNISHING, INSTALLING, AND MAINTAINING THE TRIANGULAR SILT DIKE. THE DIKES SHALL BE USED AS A CONTINUOUS LINE BARRIER AT THE TOE OF SLOPE OR ACROSS THE ROADWAY DITCH TO CONTAIN SEDIMENT AND MINIMIZE EROSION, OR AS DIRECTED BY THE ENGINEER. THESE DIKES SHALL BE INSTALLED AND LOCATED AS SOON AS CONSTRUCTION WILL ALLOW OR AS DIRECTED BY THE ENGINEER.

2. TRIANGULAR SILT DIKE SHALL BE TRIANGULAR SHAPED HAVING A HEIGHT OF AT LEAST 8" TO 10" IN THE CENTER WITH EQUAL SIDES AND A 16" TO 20" BASE. THE TRIANGULAR SHAPED INNER MATERIAL SHALL BE URETHANE FOAM. THE OUTER COVER SHALL BE A WOVEN GEOTEXTILE FABRIC PLACED AROUND THE INNER MATERIAL & ALLOWED TO EXTEND BEYOND BOTH SIDES OF THE TRIANGLE 24" TO 36". THIS FABRIC SHOULD BE MILDEW RESISTANT, ROT-PROOF AND RESISTANT TO HEAT AND ULTRAVIOLET RADIATION MEETING REQUIREMENTS FOR SEDIMENT CONTROL IN AASHTO M288. THE DIKES SHALL BE ATTACHED TO THE GROUND WITH WIRE STAPLES. THE STAPLES SHALL BE NO. 11 GAUGE WIRE AND BE AT LEAST 6" TO 8" LONG. STAPLES SHALL BE PLACED AS SHOWN ON THESE DETAILS.

   THE CONTRACTOR SHALL INSPECT ALL DIKES AFTER EACH RAINFALL EVENT OF AT LEAST 0.5" OR GREATER. ANY DEFICIENCIES OR DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR. ACCUMULATED SILT OR DEBRIS SHALL BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER. IF THE DIKES ARE DAMAGED OR INADVERTENTLY MOVED DURING THE SILT REMOVAL PROCESS, THE CONTRACTOR SHALL IMMEDIATELY REPLACE AFTER DAMAGE OCCURS.

3. ACCEPTED TRIANGULAR SILT DIKE, MEASURED AS PROVIDED ABOVE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR TRIANGULAR SILT DIKE. PRICE BID WILL INCLUDE THE COST OF FURNISHING THE DIKES, INSTALLING, MAINTAINING AND REMOVAL WHEN DIRECTED BY THE ENGINEER.

SYMBOLOGY

SYMBOL TO BE USED TO DENOTE DEVICE ON PLANS

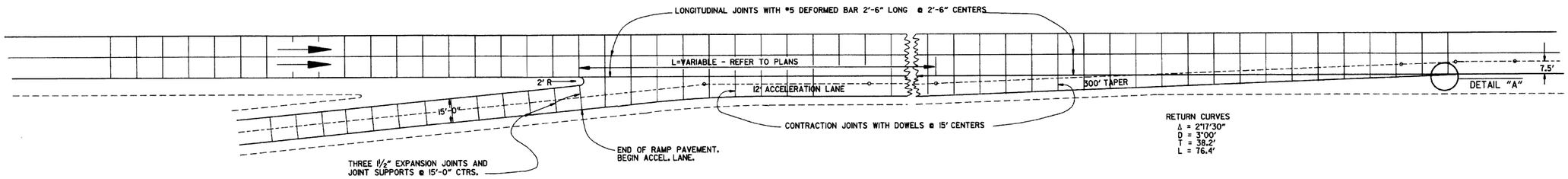
NOTE: SILT DIKE SHOULD ONLY BE USED FOR DROP INLETS IN SUMP LOCATIONS.

DATE	REVISION	FILMED
7-26-12	REVISED GENERAL NOTE 2.	
12-15-11	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

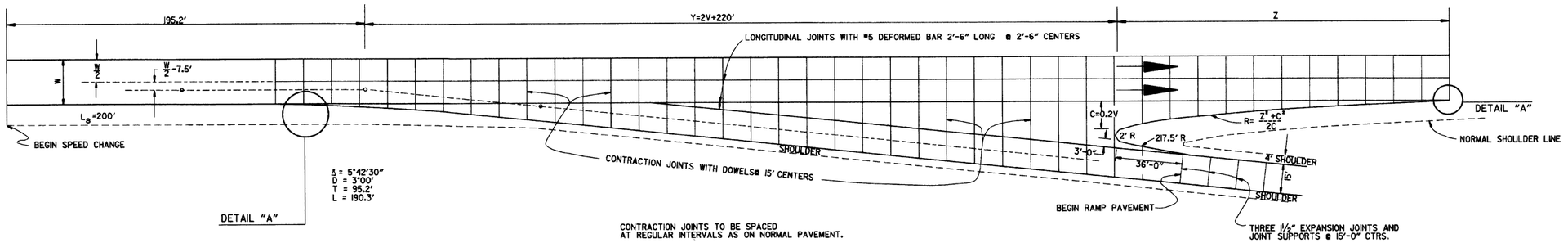
TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-4



ENTRANCE RAMP

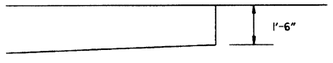
NOTE: JOINT SPACING ON THE MAIN LANES SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO THESE JOINT LAYOUTS. THE MAIN LANE JOINT SPACING MAY BE REDUCED TO A 12' MINIMUM.



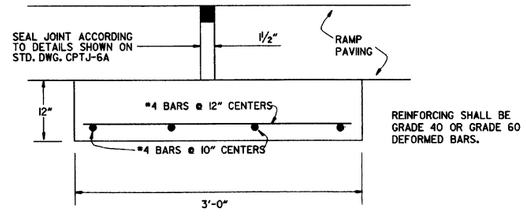
EXIT RAMP

EXIT RAMP

DESIGN SPEED V	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.

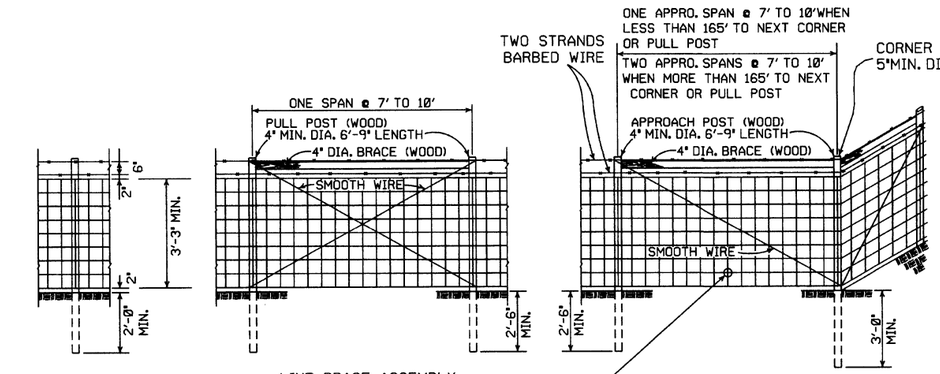
DATE	REVISION	DATE FILM'D
8-22-02	DELETED NOTE	
11-16-01	CORRECTED SPELLING ON ENTRANCE RAMP NOTE	
5-13-99	ADDED, EDITED AND DELETED NOTES	
11-03-94	ADDED NOTE RE: REINF. BARS	
10-1-92	ADDED DETAIL A & OTHER MINOR CHANGES	10-1-92
1-25-90	REVISED EXPANSION JOINT	1-25-90
7-15-88	CONFORM'D TO 1988 SPECIFICATIONS	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)

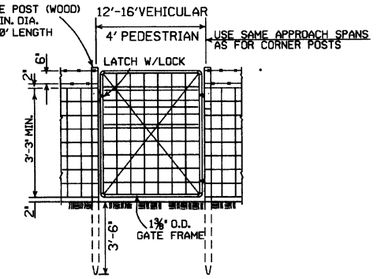
STANDARD DRAWING TR-1A

TYPE C FENCE (WOOD POSTS)

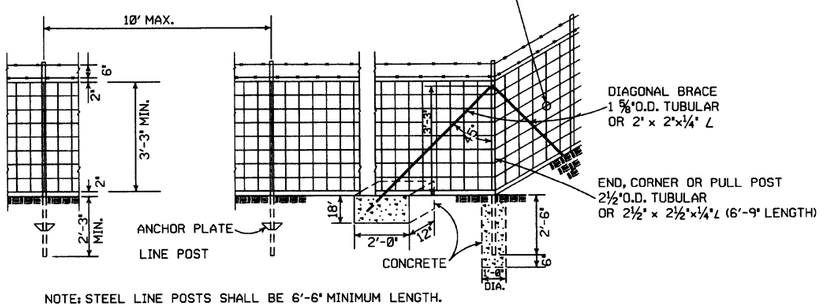


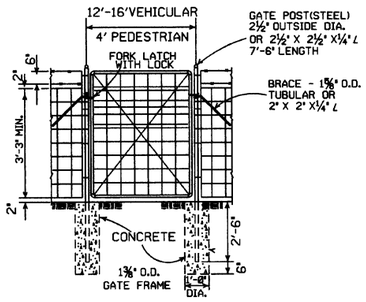
LINE POST
3" MIN. DIA. 6'-3" LENGTH
MAX. SPACING TO BE 10'-0"

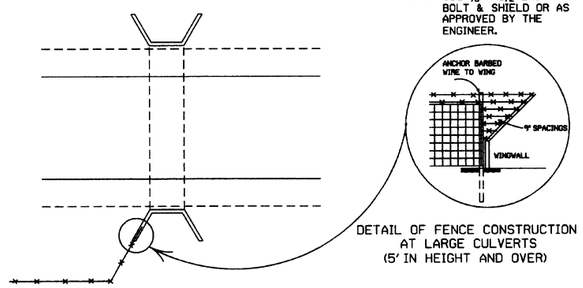
LINE BRACE ASSEMBLY
MAX. SPACING TO BE 330'

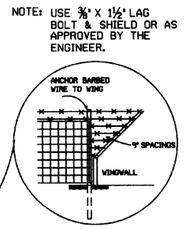


OTHER APPROVED TIES WILL BE PERMITTED







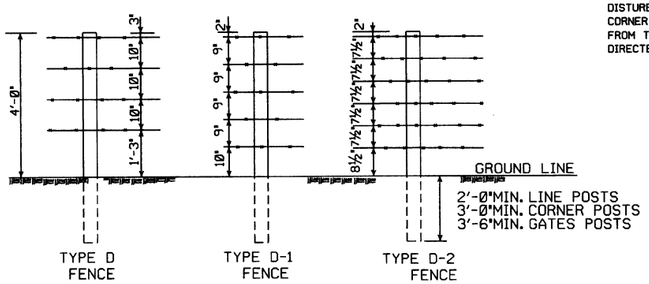


DETAIL OF FENCE CONSTRUCTION AT LARGE CULVERTS (5' IN HEIGHT AND OVER)

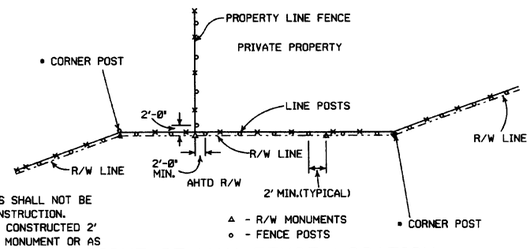
NOTE: STEEL LINE POSTS SHALL BE 6'-6" MINIMUM LENGTH.

TYPE C FENCE (STEEL POSTS)

4 STRANDS BARBED WIRE (D)
5 STRANDS BARBED WIRE (D-1)
6 STRANDS BARBED WIRE (D-2)

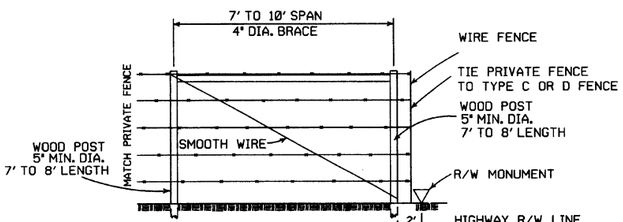


NOTE: SPACING AND SIZE (EXCEPT LENGTH) OF POSTS, APPROACH SPANS, PULL POST ASSEMBLIES, AND CORNER BRACING FOR TYPE D FENCE SHALL CONFORM TO TYPE C FENCE. USE GALVANIZED STAPLES ON WOOD POSTS AND APPROVED FASTENERS ON STEEL POSTS.



• 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.

RIGHT-OF-WAY FENCE LOCATION



PRIVATE FENCE TERMINAL INSTALLATION
WHERE EXISTING FENCE CONSISTS OF STEEL POSTS, USE END POST ASSEMBLY AS SHOWN IN TYPE C FENCE OR OTHER END POST ASSEMBLY AS APPROVED BY THE ENGINEER.

GENERAL NOTES:

STEEL LINE POSTS SHALL BE PAINTED OR GALVANIZED. TUBULAR END, CORNER, PULL, OR DIAGONAL BRACES MUST CONFORM TO THE DIMENSIONS AND WEIGHTS SPECIFIED ON STANDARD DRAWING WF-3 (CHAIN LINK). APPROVED ALTERNATES ARE ACCEPTABLE.
AN ACCEPTABLE TOLERANCE IN LENGTH OF TUBULAR OR WOODEN POSTS SHALL BE - 1" TO +2".
TUBULAR POSTS MUST BE PAINTED OR GALVANIZED.

THE CONTRACTOR SHALL FURNISH AT LEAST 25% OF TIMBER LINE POSTS OF 7 FOOT LENGTHS IN ORDER TO PROVIDE SUFFICIENT SET IN SOFT GROUND OR SMALL DEPRESSIONS.

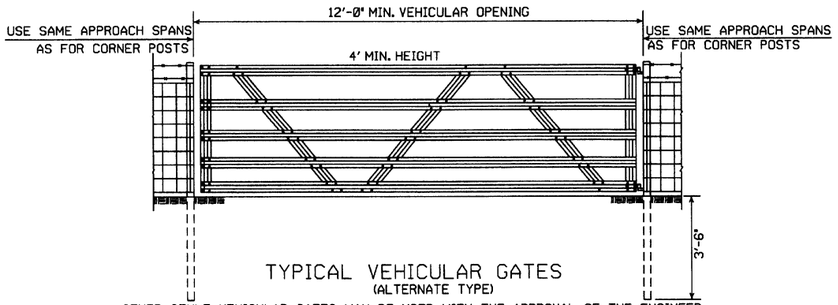
DRIVEWAY GATES, EITHER SINGLE 12' TO 16' OR DOUBLE 6' TO 8' OPENING OF THE SAME TYPE AS THE PEDESTRIAN GATE, SHALL BE INSTALLED ON THE RIGHT SIDE OF EACH THROUGH LANE ROAD AT LARGE CULVERTS OR BRIDGE CROSS FENCE, FOR USE OF MAINTENANCE EQUIPMENT. LOCATION OF GATES TO BE SHOWN ON PLANS OR AS DESIGNATED BY THE ENGINEER.

AT STREAM CROSSINGS, THE FENCE SHALL NOT BE CONSTRUCTED ACROSS LARGE STREAMS. WHERE CLEARANCE IS SUFFICIENT FROM THE TOP OF THE 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 SUFFICIENT, THE FENCE SHALL BE TERMINATED WITH CROSS CONNECTIONS AND END POSTS ADJACENT TO BRIDGE ABUTMENTS OR CULVERT WINGWALLS.

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 WIRES A MINIMUM OF 4 TIMES FOR EACH WIRE LOOP.

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.

STAPLE AT LEAST TOP, BOTTOM AND ALTERNATE WIRES OF WOVEN FABRIC FOR WOOD LINE POSTS.



TYPICAL VEHICULAR GATES
(ALTERNATE TYPE)

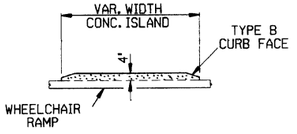
OTHER STYLE VEHICULAR GATES MAY BE USED WITH THE APPROVAL OF THE ENGINEER. THE METHOD OF SECURING GATE (LATCH AND/OR LOCK) SHALL MEET THE APPROVAL OF THE ENGINEER.

DATE	REVISION	FILMED
8-22-02	REVISED GENERAL NOTES	
10-18-96	REVISED AASHTO	
11-22-95	REVISED R-O-W LOCATION DETAIL	
6-2-94	REVISED BARB WIRE AND ADDED CORNER POST NOTES	6-2-94
8-5-93	REVISED R/W INSTALLATION FENCE	8-5-93
10-1-92	ADDED STAPLE NOTE	10-1-92
8-15-91	ADDED TYPE D-2 FENCE	8-15-91
11-30-89	DELETED CLASS CONCRETE	11-30-89
7-15-88	ADDED SPLICE NOTE	700-7-15-88
10-30-87	GENERAL REVISIONS	549-10-30-87
11-1-84	MAX. POST SPACING MIN. WIRE GAUGE	507-11-1-84
1-4-83	MIN. DIA. LINE POST	648-1-4-83
3-2-81	TOLERANCE FOR POST LENGTH	722-3-2-81
12-1-72	ADDED D-1 & FENCE INSTALLATION	564-12-1-72
10-2-72	REVISED AND REDRAWN	540-10-2-72

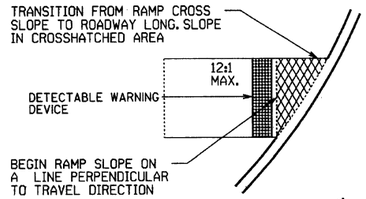
ARKANSAS STATE HIGHWAY COMMISSION

WIRE FENCE
TYPE C AND D

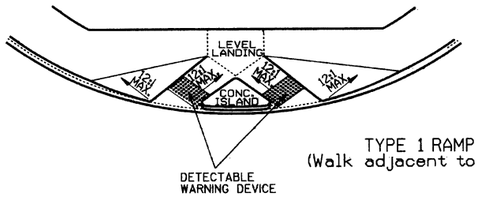
STANDARD DRAWING WF-4



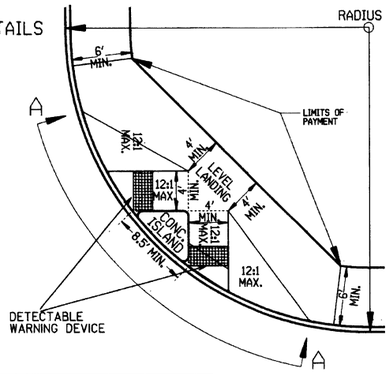
CONCRETE ISLAND DETAIL



SLOPE TRANSITION DETAILS



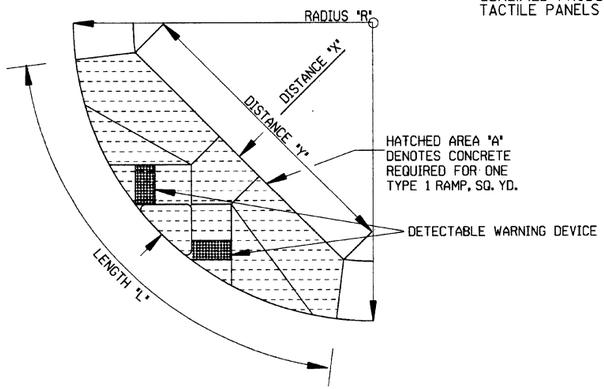
TYPE 1 RAMP
(Walk adjacent to curb)



SECTION A-A

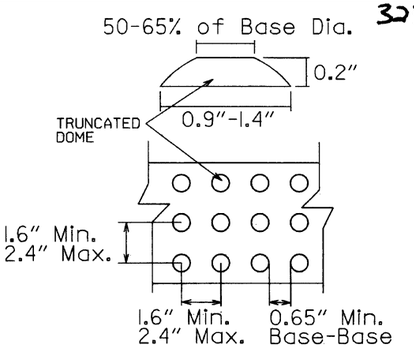
TYPE 1 RAMP DIMENSIONS AND QUANTITIES

RADIUS "R"	DISTANCE "X"	DISTANCE "Y"	LENGTH "L"	RAMP AREA "A"
FEET	FEET	FEET	FEET	SQ. YD.
15	11.67	18.82	32.18	26.21
20	11.52	22.28	35.46	30.07
25	11.43	26.60	38.77	33.80
30	11.37	30.26	40.93	36.90
35	11.33	33.51	43.11	39.77
40	11.30	36.45	45.26	42.45
45	11.27	39.16	47.34	44.97
50	11.25	41.69	49.36	47.35
55	11.24	44.07	51.31	49.63
60	11.22	46.33	53.21	51.80



GENERAL NOTES FOR DETECTABLE WARNING DEVICES

THE DETECTABLE WARNING DEVICE SHALL BE LOCATED SO THAT THE NEAREST EDGE OF THE DEVICE IS 6 TO 8 INCHES FROM THE FACE OF THE CURB.
TRUNCATED DOMES IN THE DETECTABLE WARNING SURFACE SHALL MEET THE REQUIREMENTS OF THE GEOMETRIC CONFIGURATION SHOWN.
DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
DETECTABLE WARNING DEVICE SHALL BE 24 INCHES IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
DETECTABLE WARNING DEVICE SHALL BE ON THE AHTD QUALIFIED PRODUCTS LIST FOR CAST-IN-PLACE TACTILE PANELS (ADA DETECTABLE WARNING).

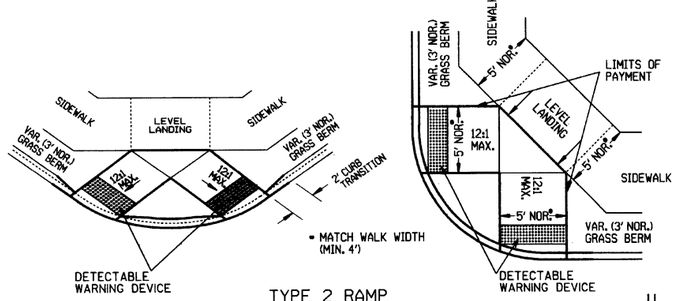


DETECTABLE WARNING DEVICE DETAIL

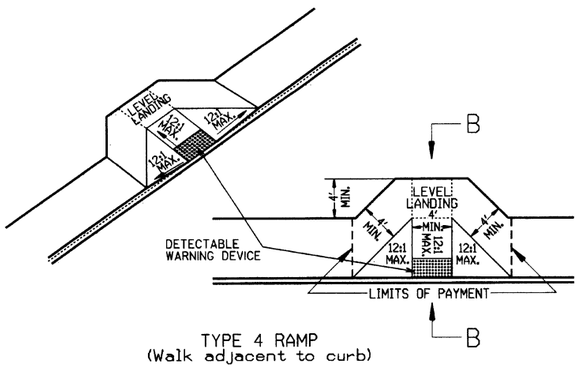
GENERAL NOTES:

IN NEW CONSTRUCTION, UNLESS OTHERWISE INDICATED ON THE PLANS, WHEELCHAIR RAMPS ARE TO BE PROVIDED AT ALL CORNERS OF CURBED STREET INTERSECTIONS AND MID-BLOCK CROSSWALK LOCATIONS.
IN ALTERATIONS WHEELCHAIR RAMPS ARE TO BE PROVIDED AT CURBED STREET INTERSECTIONS WITH PEDESTRIAN TRAFFIC AND MID-BLOCK CROSSWALK LOCATIONS.
THE LENGTH OF THE RAMP SHALL BE SUCH THAT THE SLOPE DOES NOT EXCEED 12:1. THE SURFACE TEXTURE OF THE RAMP SHALL CONFORM TO A CLASS 6 FINISH ACCORDING TO SECTION 802.19.
THE NORMAL GUTTER GRADE SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP.
ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
THE MINIMUM THICKNESS OF THE RAMP, WALK, & LANDING SHALL BE 4".
THE MINIMUM WIDTH OF THE RAMPS SHALL BE THE WALK WIDTH OR 36", WHICHEVER IS GREATER.
RAMPS SHALL BE MODIFIED AS NECESSARY TO INSURE THAT THEY ARE PARALLEL TO A LINE DRAWN FROM THE CENTER OF ONE RAMP TO THE CENTER OF THE RAMP ON THE OPPOSITE SIDE OF THE INTERSECTION.
THE DIMENSIONS AND QUANTITIES SHOWN ON THIS DRAWING ARE FOR A 90° INTERSECTION ONLY. DIMENSIONS AND QUANTITIES FOR SKEWED INTERSECTIONS WILL VARY, AND ARE TO BE DETERMINED BY THE ENGINEER.

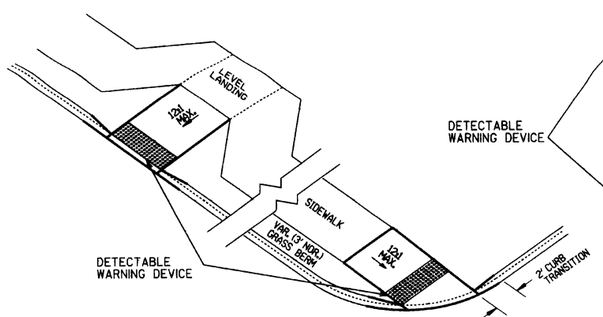
NOTE:
THE CROSS SLOPE OF THE RAMPS, LEVEL LANDINGS, AND SIDEWALKS SHALL NOT EXCEED 2.0% UNLESS REQUIRED TO MATCH STREET LONGTITUDINAL GRADE.



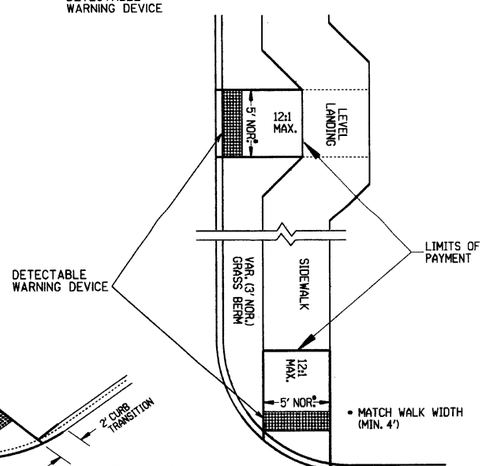
TYPE 2 RAMP

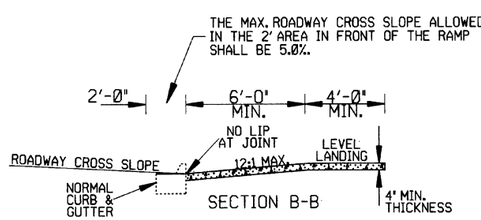


TYPE 4 RAMP
(Walk adjacent to curb)



TYPE 3 RAMP





SECTION B-B

RAMP SELECTION CRITERIA

FIRST CHOICE	TYPE 1	CORNER LOCATIONS WITH THE WALK ADJACENT TO THE CURB (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 2	CORNER LOCATIONS WITH THE WALK OFFSET FROM THE CURB A DISTANCE INSUFFICIENT TO ALLOW THE REQUIRED RAMP SLOPE (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 3	CORNER LOCATIONS WITH THE WALK OFFSET FROM THE CURB A DISTANCE SUFFICIENT TO ALLOW THE REQUIRED RAMP SLOPE (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 4	TANGENT LOCATIONS (BOTH NEW CONSTRUCTION AND ALTERATIONS).
SECOND CHOICE	TYPE 5	TANGENT LOCATIONS (ALTERATIONS ONLY).
THIRD CHOICE	TYPE 6	CORNER LOCATIONS (ALTERATIONS ONLY). THIS RAMP MAY BE USED ONLY IF THE TYPE 5 RAMPS CANNOT BE PLACED AT THE ENDS OF THE RADIUS.
FOURTH CHOICE		IF SITE CONSTRAINTS PREVENT THE CONSTRUCTION OF ANY OF THE TYPES LISTED, THEN AND ONLY THEN CAN THE 12:1 MAX. SLOPE ON THE RAMP BE EXCEEDED TO PROVIDE ACCESS TO THE STREET LEVEL (ALTERATIONS ONLY). THE SLOPE CAN BE STEEPENED TO A 10:1 MAX. FOR A MAX. LENGTH OF 5' OR A 8:1 MAX. FOR A MAX. LENGTH OF 2'. SLOPES STEEPER THAN 8:1 ARE NOT ALLOWED UNDER ANY CIRCUMSTANCES.

NOTE: IN ALTERATIONS, THE SELECTION OF THE TYPE OF WHEELCHAIR RAMP TO BE CONSTRUCTED SHALL BE BASED ON THE AMOUNT OF RIGHT-OF-WAY AVAILABLE, AND ON THE PRESENCE OF OTHER SITE CONSTRAINTS (UTILITIES, BUILDINGS, ETC.). THE TABLE ABOVE LISTS THE ORDER IN WHICH THE RAMPS ARE TO BE CONSIDERED.

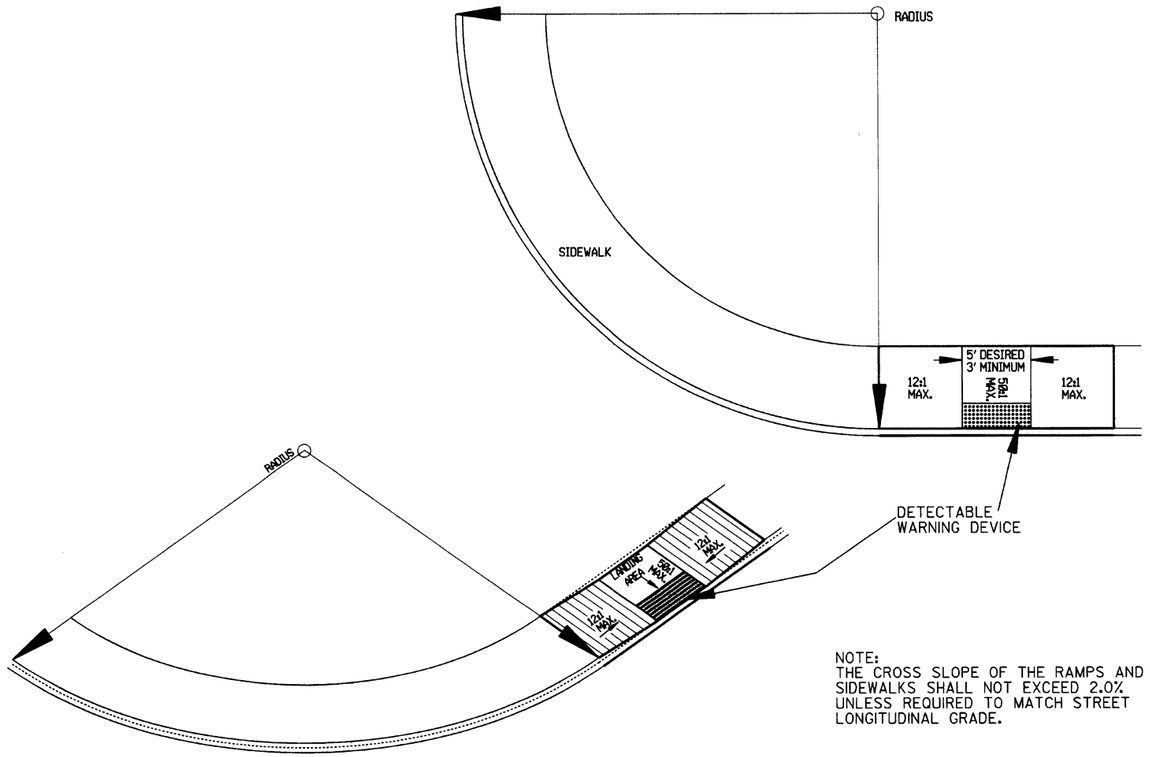
AN ALTERATION IS DEFINED AS A PROJECT THAT CHANGES OR AFFECTS THE USE OF A PEDESTRIAN PATHWAY (OVERLAYS, SIGNALIZATION PROJECTS, ETC.) BUT DOES NOT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY. ALL PROJECTS THAT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY WILL USUALLY BE CONSIDERED NEW CONSTRUCTION FOR THE PURPOSES OF THE CHART ABOVE.

DATE	REVISION	DATE FILM
11-10-05	REVISED TO NEW SIDEWALK POLICY	
10-9-03	REVISED GEN. NOTES & ADDED NOTE	
4-10-03	REV. DETECTABLE WARNING DEVICES	
8-22-02	ADD DETECTABLE WARNING DEVICES	
3-30-00	ADD. SLOPE TRANS. & REV. ISL. DIMS.	
11-18-98	REVISED NOTES	
8-12-98	REVISED TEXTURE	
7-02-98	REDRAWN & REISSUED	
10-18-96	CORRECTED DIMENSIONS	10-18-96
5-24-90	FROM8%TO6%MAX.SLOPES	5-24-90
7-15-88	ADJUSTED MAX. SLOPE	652-7-15-88
7-14-88	INCLUD."CONC. ISLD."IN PAY ITEM	------
6-02-76	ISSUED-P.H.D.	299-7-28-76

ARKANSAS STATE HIGHWAY COMMISSION

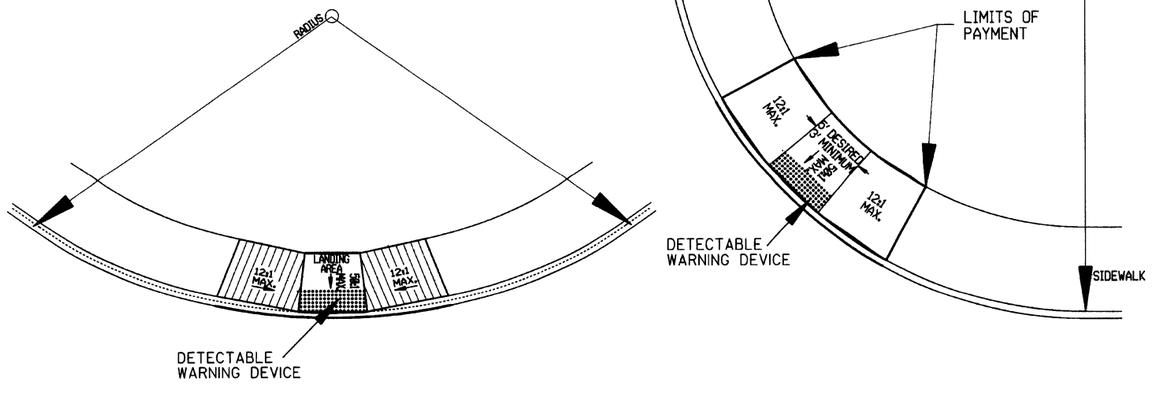
WHEELCHAIR RAMPS
NEW CONSTRUCTION
AND ALTERATIONS

STANDARD DRAWING WR-1



NOTE:
THE CROSS SLOPE OF THE RAMPS AND SIDEWALKS SHALL NOT EXCEED 2.0% UNLESS REQUIRED TO MATCH STREET LONGITUDINAL GRADE.

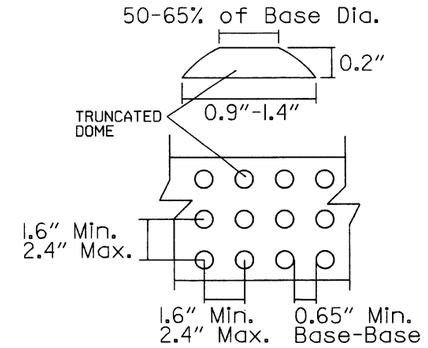
TYPE 5 RAMP



TYPE 6 RAMP

GENERAL NOTES FOR DETECTABLE WARNING DEVICES

THE DETECTABLE WARNING DEVICE SHALL BE LOCATED SO THAT THE NEAREST EDGE OF THE DEVICE IS 6 TO 8 INCHES FROM THE FACE OF THE CURB.
TRUNCATED DOMES IN THE DETECTABLE WARNING SURFACE SHALL MEET THE REQUIREMENTS OF THE GEOMETRIC CONFIGURATION SHOWN.
DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
DETECTABLE WARNING DEVICE SHALL BE 24 INCHES IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
DETECTABLE WARNING DEVICE SHALL BE ON THE AHTD QUALIFIED PRODUCTS LIST FOR CAST-IN-PLACE TACTILE PANELS (ADA DETECTABLE WARNING).



DETECTABLE WARNING DEVICE DETAIL

GENERAL NOTES:

IN ALTERATIONS WHEELCHAIR RAMPS ARE TO BE PROVIDED AT CURBED STREET INTERSECTIONS WITH PEDESTRIAN TRAFFIC AND MID-BLOCK CROSSWALK LOCATIONS.
THE LENGTH OF THE RAMP SHALL BE SUCH THAT THE SLOPE DOES NOT EXCEED 12:1. THE SURFACE TEXTURE OF THE RAMP SHALL CONFORM TO A CLASS 6 FINISH ACCORDING TO SECTION 802.19.
THE NORMAL GUTTER GRADE SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP.
ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
THE MINIMUM THICKNESS OF THE RAMP, WALK, & LANDING SHALL BE 4'.
THE MINIMUM WIDTH OF THE RAMPS SHALL BE THE EXISTING WALK WIDTH OR 36', WHICHEVER IS GREATER.
MINOR MODIFICATIONS OF THESE DETAILS, AS APPPROVED BY THE ENGINEER, MAY BE MADE TO ADJUST TO LOCAL CONDITIONS.

RAMP SELECTION CRITERIA

FIRST CHOICE	TYPE 1	CORNER LOCATIONS WITH THE WALK ADJACENT TO THE CURB (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 2	CORNER LOCATIONS WITH THE WALK OFFSET FROM THE CURB A DISTANCE INSUFFICIENT TO ALLOW THE REQUIRED RAMP SLOPE (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 3	CORNER LOCATIONS WITH THE WALK OFFSET FROM THE CURB A DISTANCE SUFFICIENT TO ALLOW THE REQUIRED RAMP SLOPE (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 4	TANGENT LOCATIONS (BOTH NEW CONSTRUCTION AND ALTERATIONS).
SECOND CHOICE	TYPE 5	TANGENT LOCATIONS (ALTERATIONS ONLY).
THIRD CHOICE	TYPE 6	CORNER LOCATIONS (ALTERATIONS ONLY). THIS RAMP MAY BE USED ONLY IF THE TYPE 5 RAMPS CANNOT BE PLACED AT THE ENDS OF THE RADIUS.
FOURTH CHOICE		IF SITE CONSTRAINTS PREVENT THE CONSTRUCTION OF ANY OF THE TYPES LISTED, THEN AND ONLY THEN CAN THE 12:1 MAX. SLOPE ON THE RAMP BE EXCEEDED TO PROVIDE ACCESS TO THE STREET LEVEL (ALTERATIONS ONLY). THE SLOPE CAN BE STEEPENED TO A 10:1 MAX. FOR A MAX. LENGTH OF 5' OR A 8:1 MAX. FOR A MAX. LENGTH OF 2'. SLOPES STEEPER THAN 8:1 ARE NOT ALLOWED UNDER ANY CIRCUMSTANCES.

NOTE: IN ALTERATIONS, THE SELECTION OF THE TYPE OF WHEELCHAIR RAMP TO BE CONSTRUCTED SHALL BE BASED ON THE AMOUNT OF RIGHT-OF-WAY AVAILABLE, AND ON THE PRESENCE OF OTHER SITE CONSTRAINTS (UTILITIES, BUILDINGS, ETC.). THE TABLE ABOVE LISTS THE ORDER IN WHICH THE RAMPS ARE TO BE CONSIDERED.

AN ALTERATION IS DEFINED AS A PROJECT THAT CHANGES OR AFFECTS THE USE OF A PEDESTRIAN PATHWAY (OVERLAYS, SIGNALIZATION PROJECTS, ETC.) BUT DOES NOT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY. ALL PROJECTS THAT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY WILL USUALLY BE CONSIDERED NEW CONSTRUCTION FOR THE PURPOSES OF THE CHART ABOVE.

DATE	REVISION	DATE FILM
10-9-03	REVISED GENERAL NOTES & ADDED NOTE.	10-09-03
4-10-03	REVISED DETECTABLE WARNING DEVICE DETAIL	
8-22-02	ADDED DETECTABLE WARNING DEVICES DETAILS	
11-18-98	REV. FOURTH CHOICE NOTE	
8-12-98	REVISED TEXTURE	
7-02-98	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

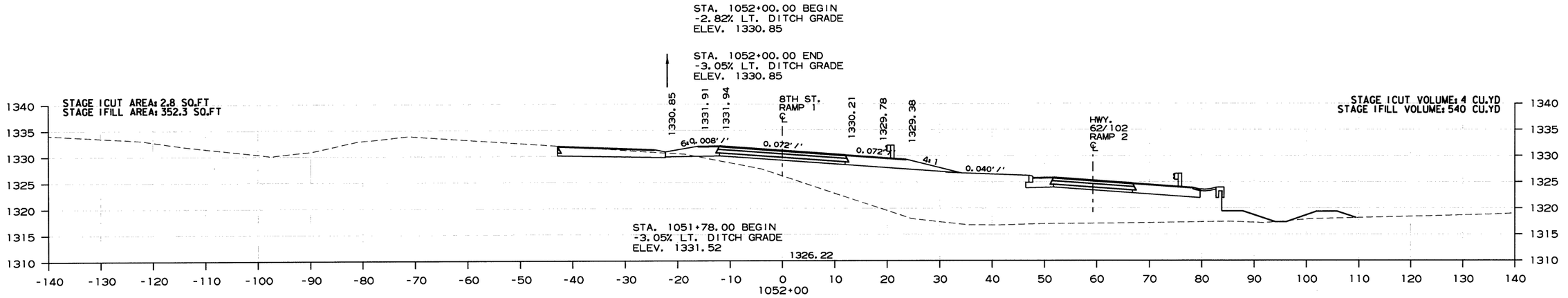
WHEELCHAIR RAMPS ALTERATIONS ONLY

STANDARD DRAWING WR-2

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	325	555

(2) CROSS SECTIONS - 8TH ST. RAMP 1

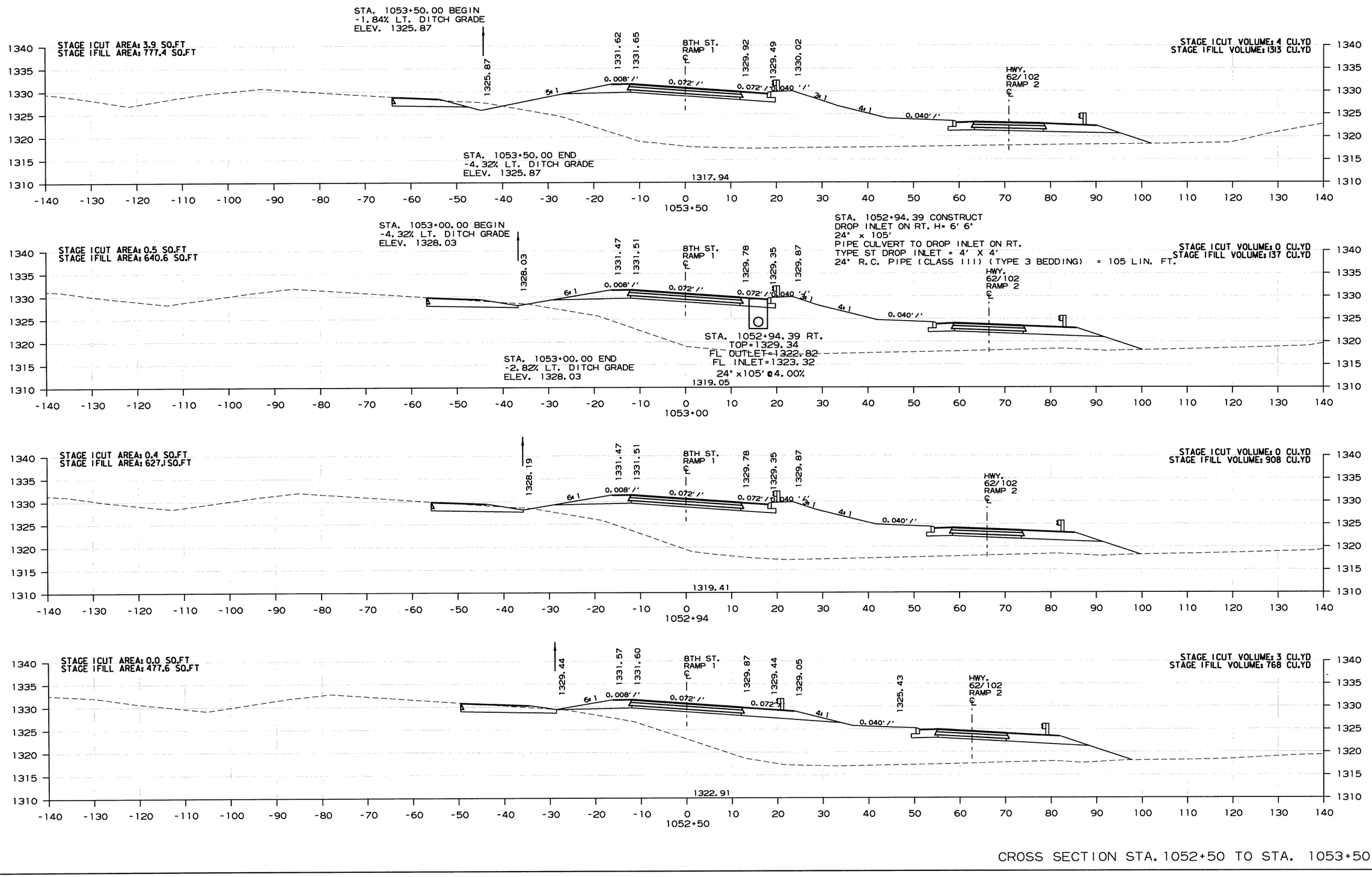


CROSS SECTION STA. 1051+20 TO STA. 1052+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	326	555

(2) CROSS SECTIONS - 8TH ST. RAMP 1

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

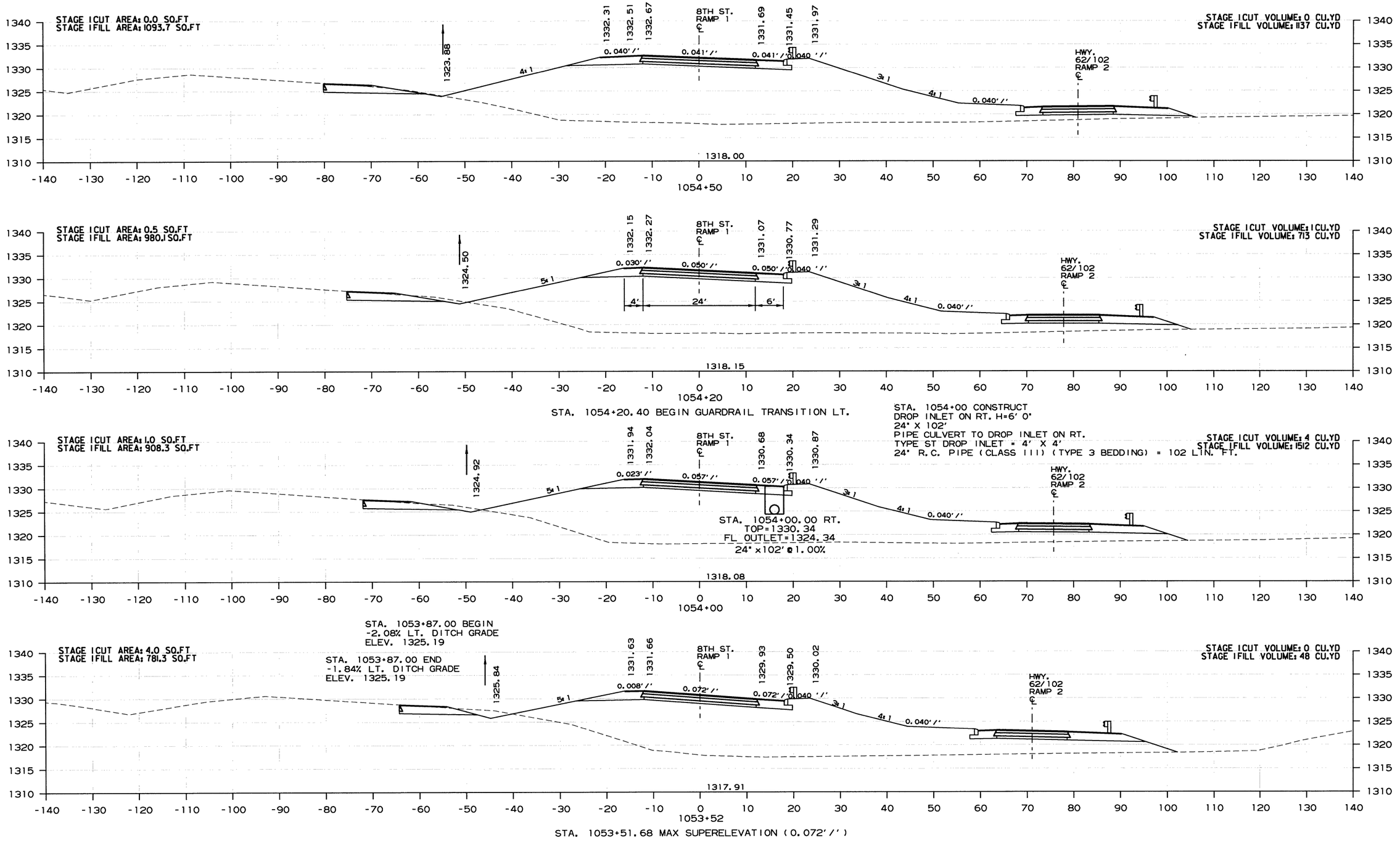


CROSS SECTION STA. 1052+50 TO STA. 1053+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	327	555

(2) CROSS SECTIONS - 8TH ST. RAMP 1

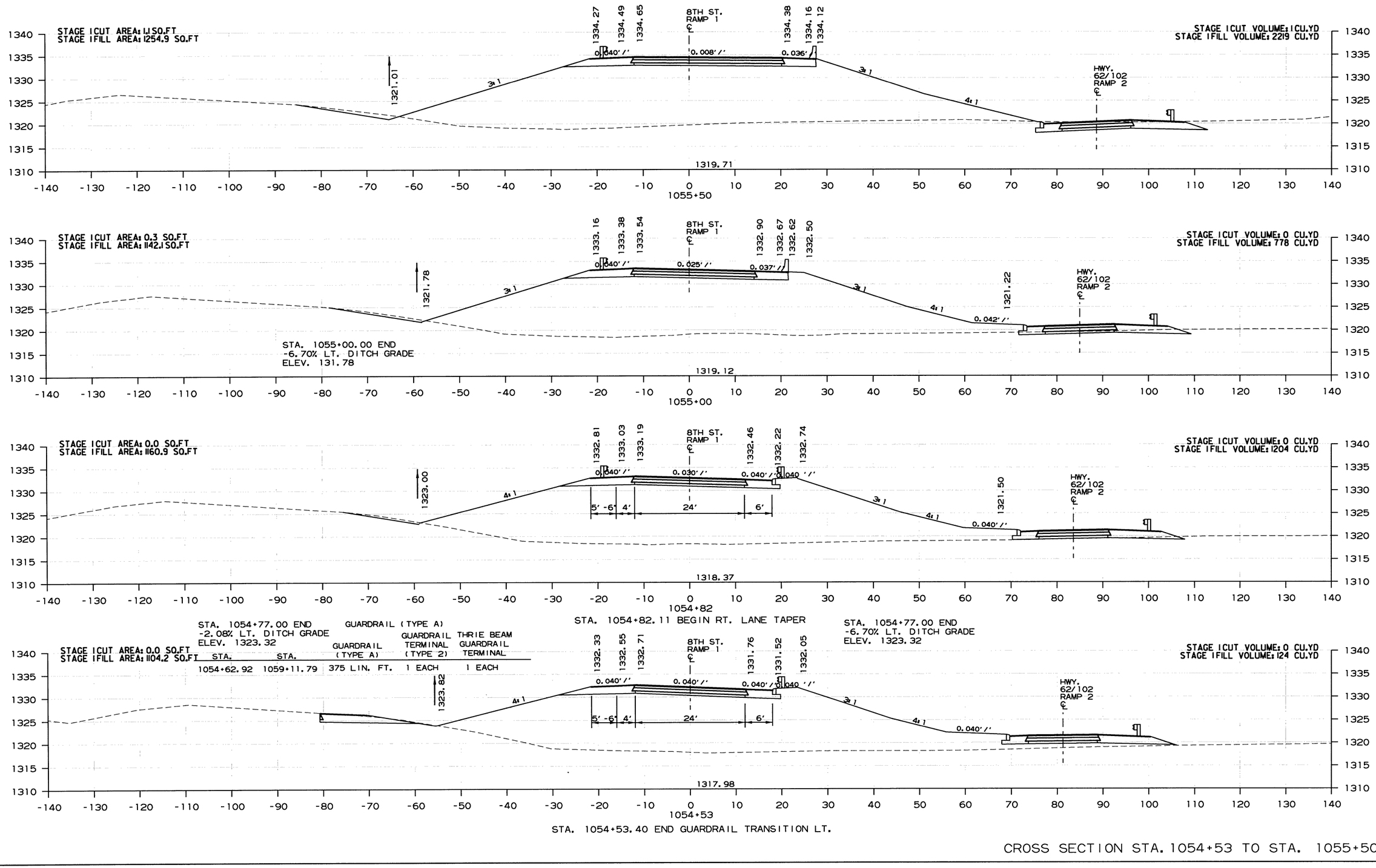


CROSS SECTION STA. 1053+52 TO STA. 1054+50

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	328	555

(2) CROSS SECTIONS - 8TH ST. RAMP 1

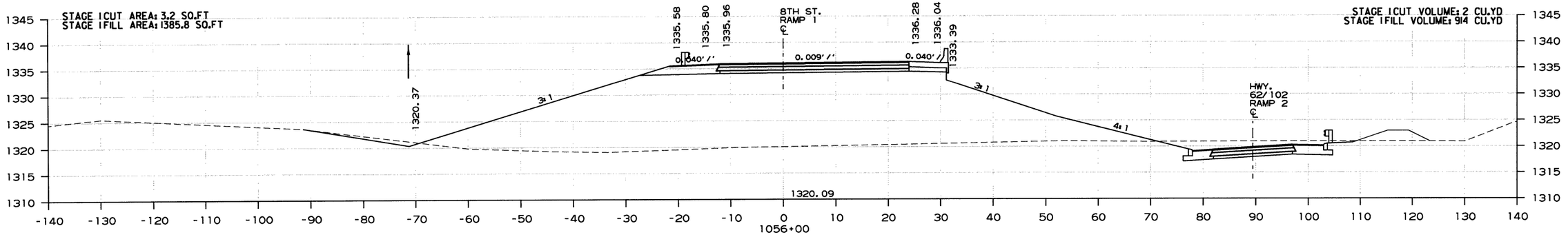
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

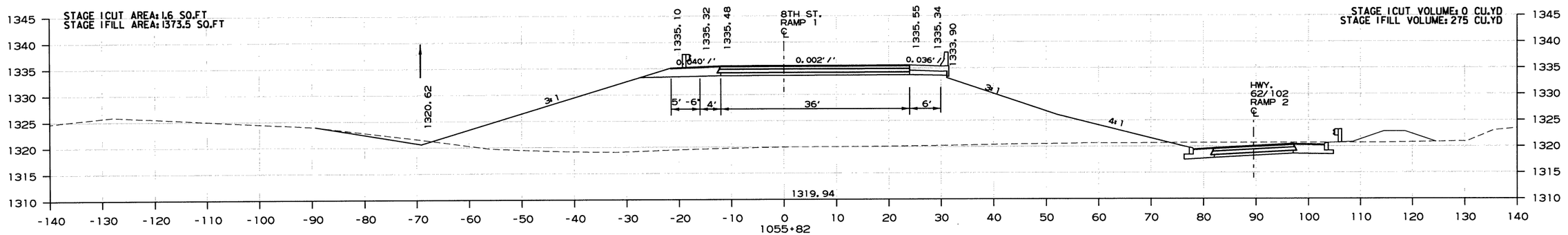


CROSS SECTION STA. 1054+53 TO STA. 1055+50

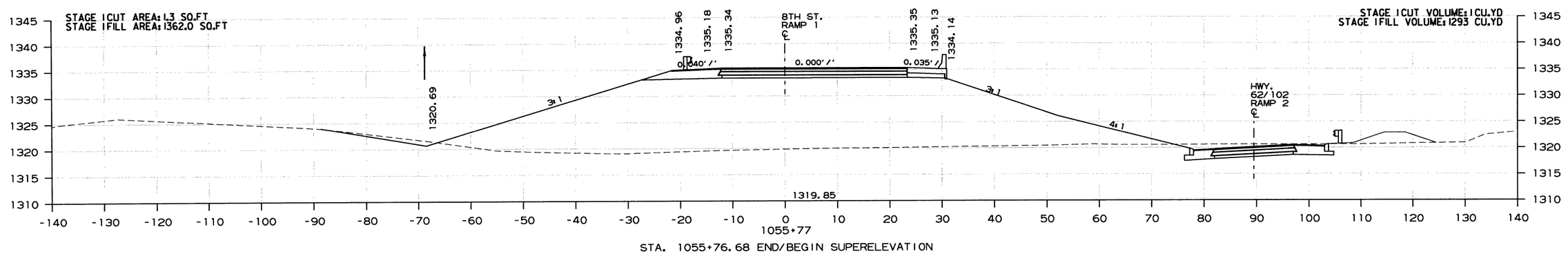
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	329	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 1			





STA. 1055+82.11 END RT. LANE TAPER

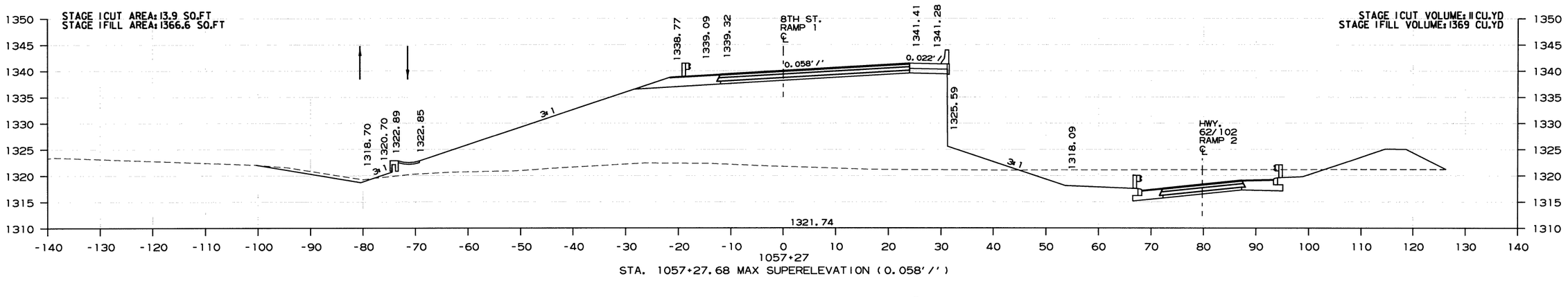


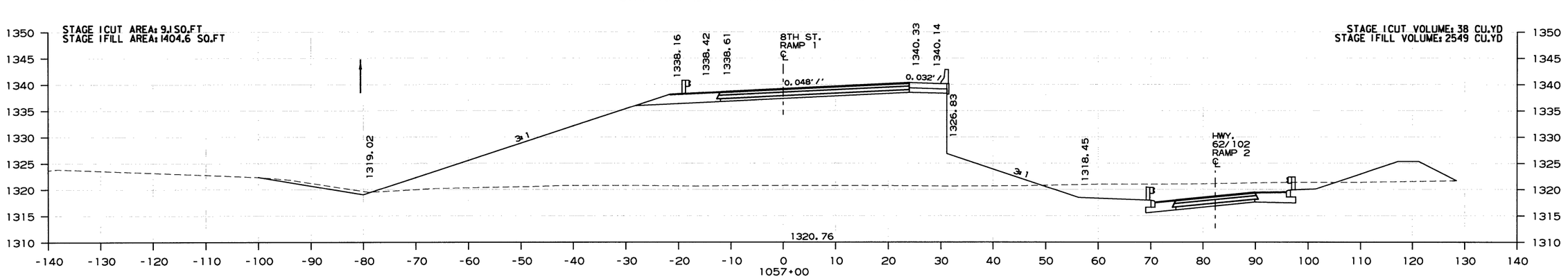
STA. 1055+76.68 END/BEGIN SUPERELEVATION

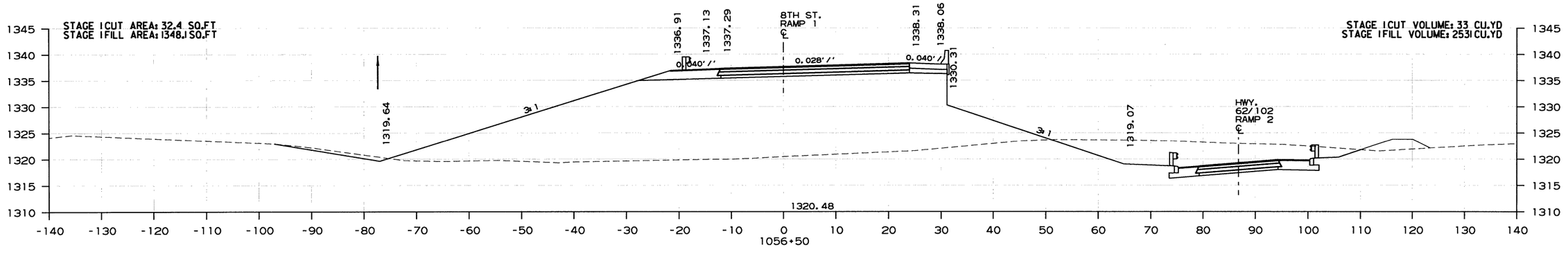
CROSS SECTION STA. 1055+77 TO STA. 1056+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	330	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 1			





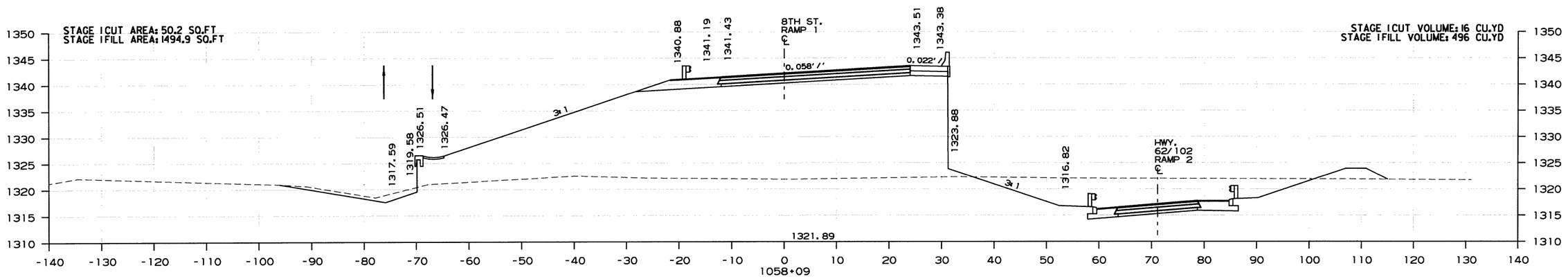


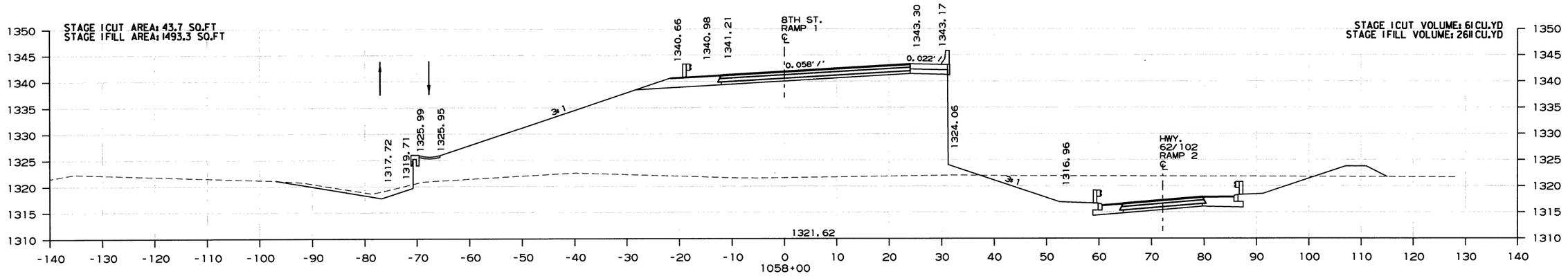
CROSS SECTION STA. 1056+50 TO STA. 1057+27

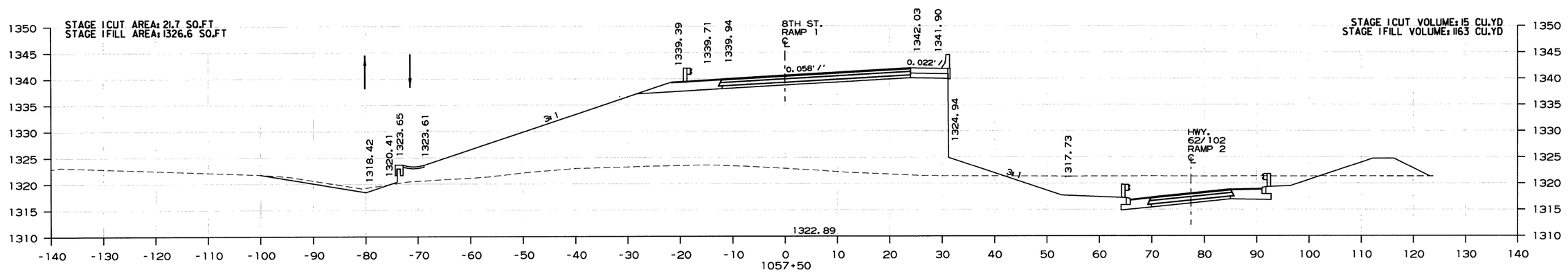
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	331	555

(2) CROSS SECTIONS - 8TH ST. RAMP 1





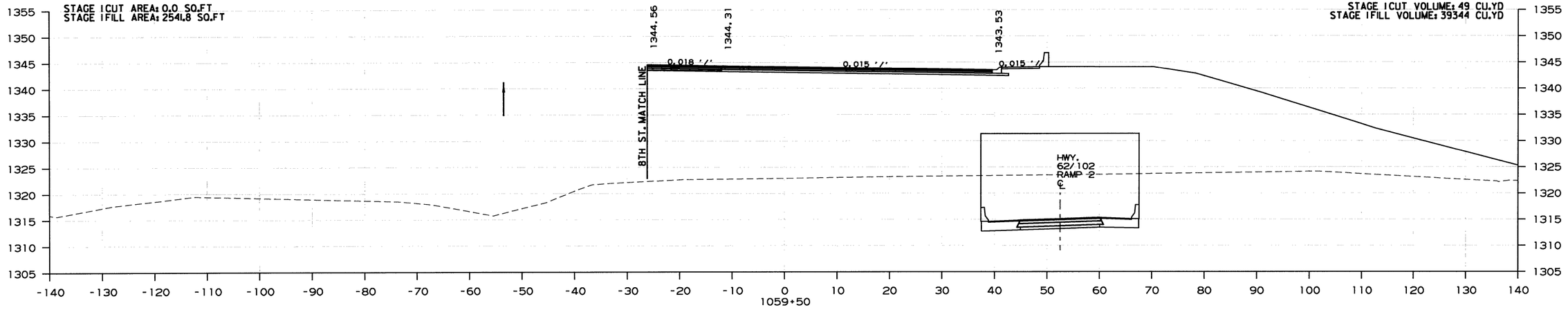


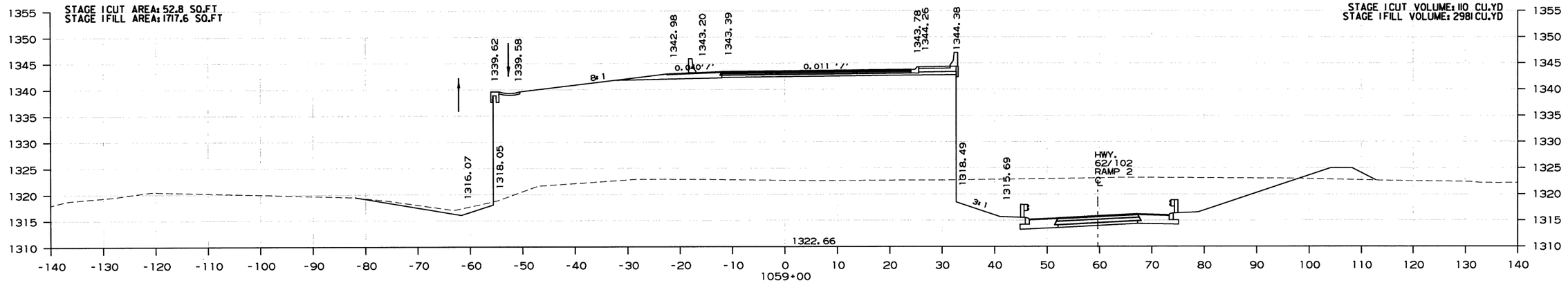
CROSS SECTION STA. 1057+50 TO STA. 1058+09

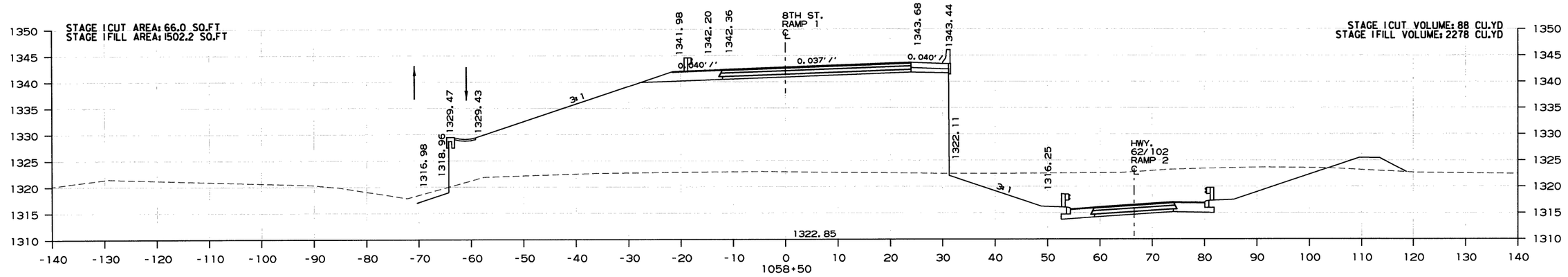
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	332	555

(2) CROSS SECTIONS - 8TH ST. RAMP 1



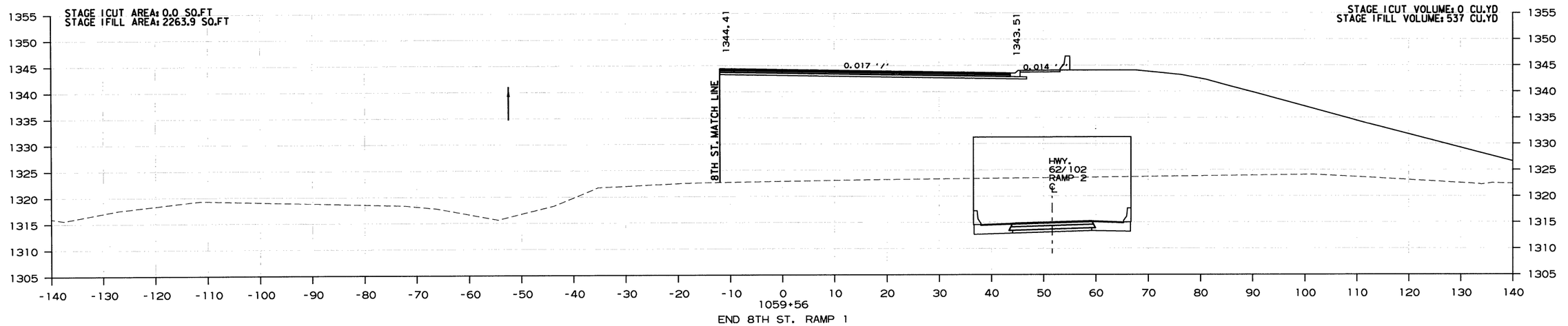




CROSS SECTION STA. 1058+50 TO STA. 1059+50

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	333	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 1			

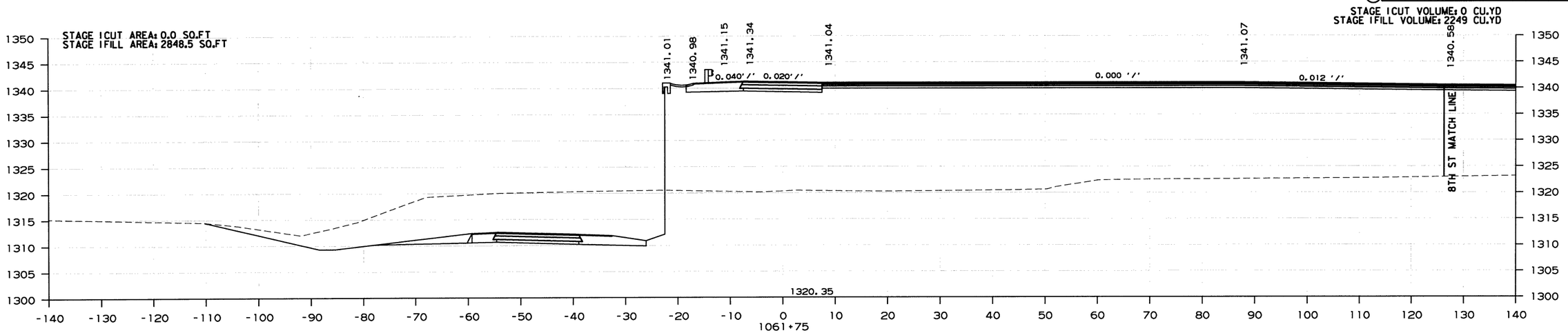


CROSS SECTION STA. 1059+56 TO STA. 1059+56

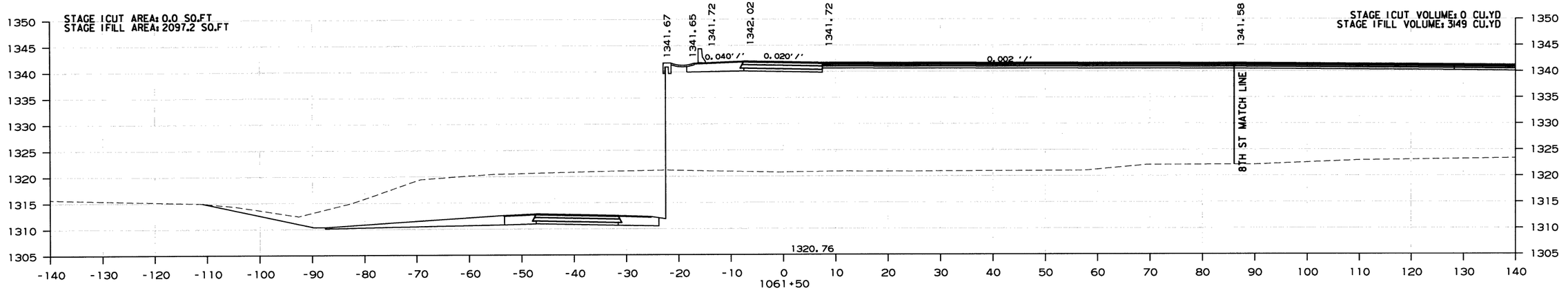
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

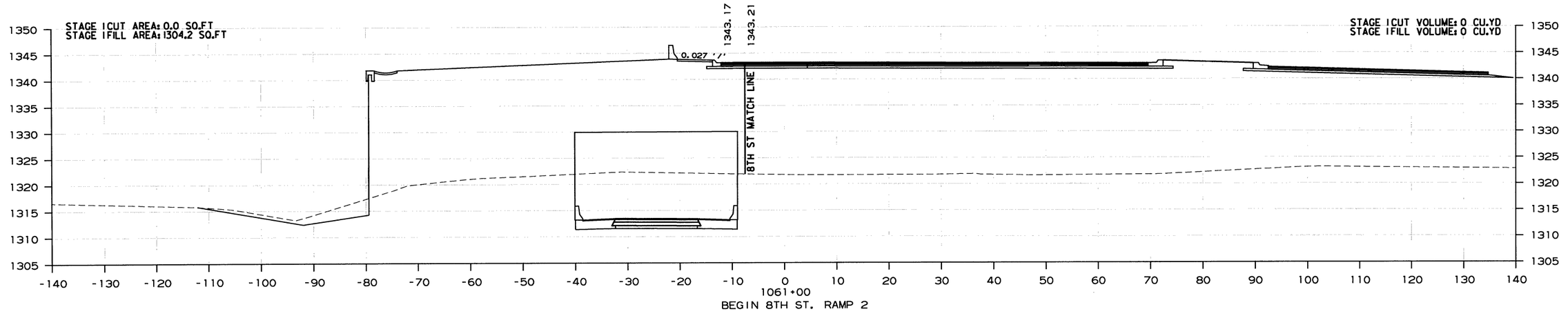
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	334	555

(2) CROSS SECTIONS - 8TH ST. RAMP 2



STA. 1061+74.56 BEGIN SUPERELEVATION



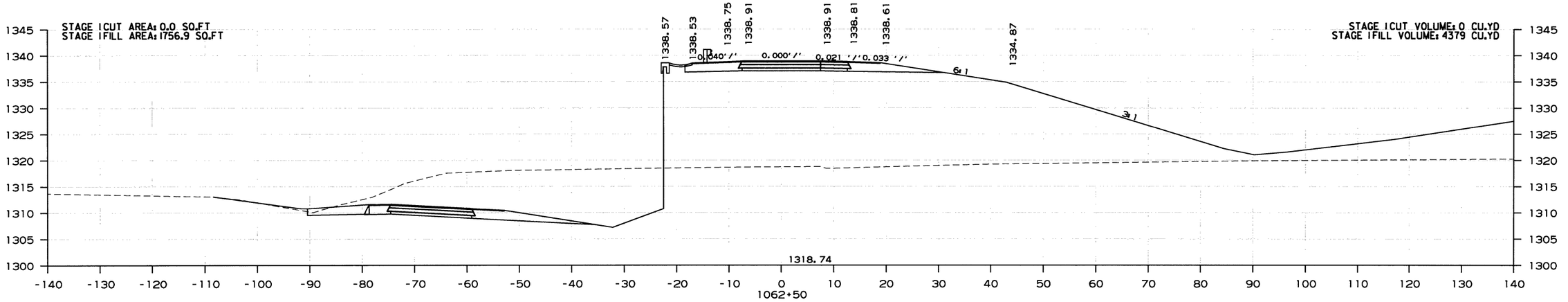


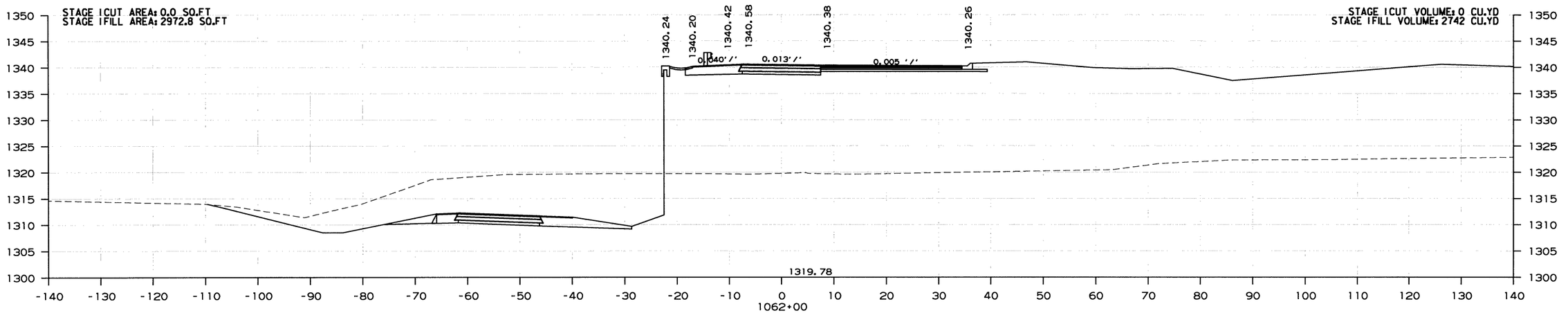
CROSS SECTION STA. 1061+00 TO STA. 1061+75

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	335	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 2			

			GUARDRAIL (TYPE A)			
	STA.	STA.	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL	TERMINAL ANCHOR POST (TYPE 1)
RAMP 2 (8TH ST.) LT.	1061+60.32	1069+80.00	800 LIN. FT.		1 EACH	1 EACH

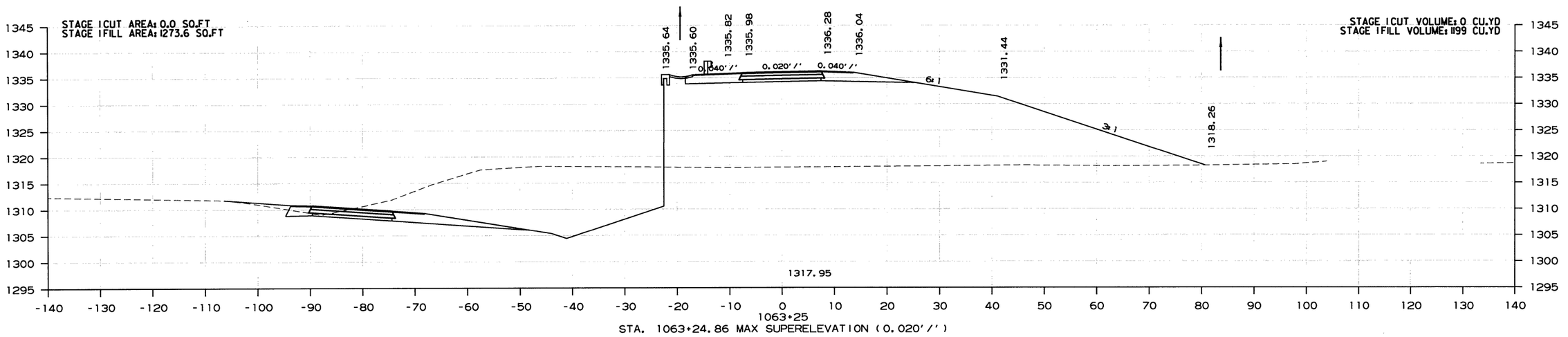


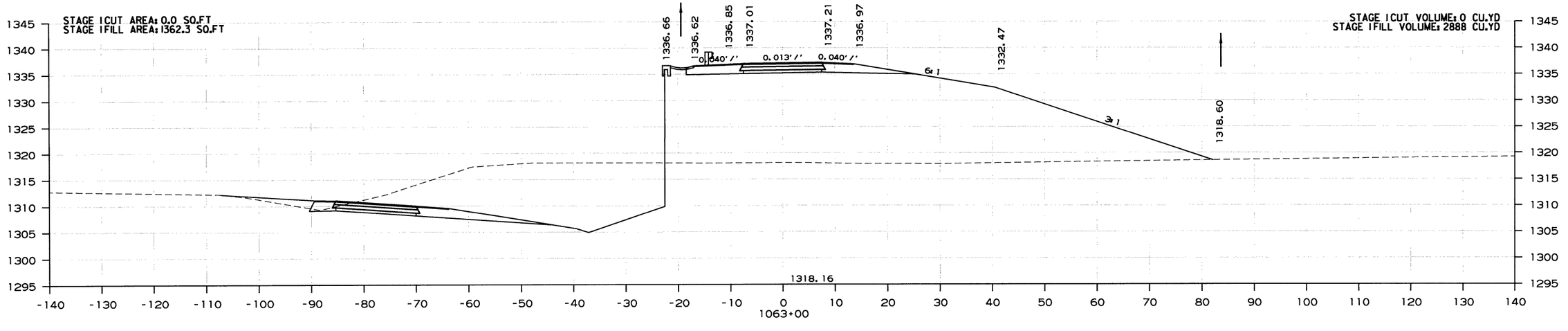


CROSS SECTION STA. 1062+00 TO STA. 1062+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	336	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 2			

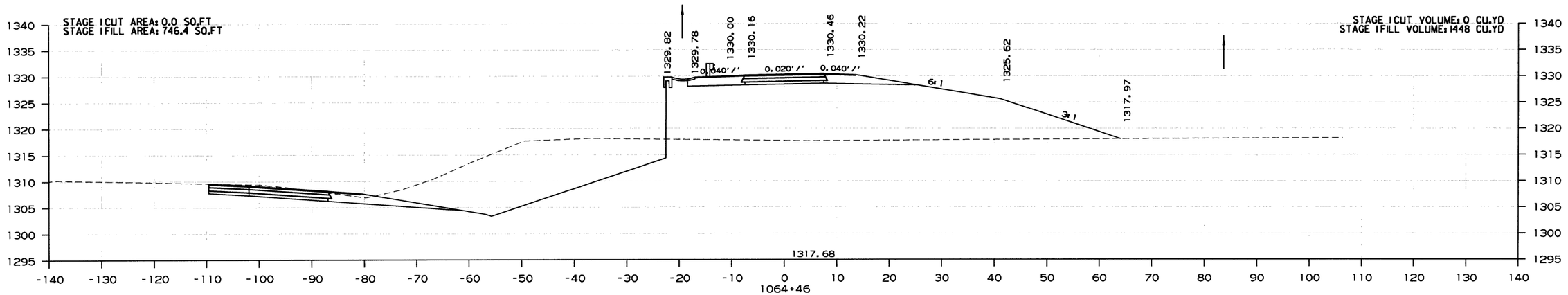




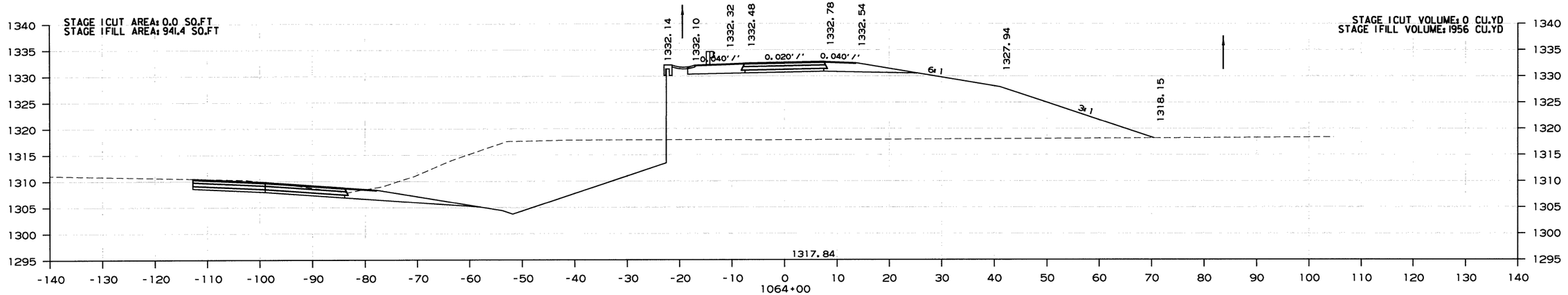
CROSS SECTION STA. 1063+00 TO STA. 1063+25

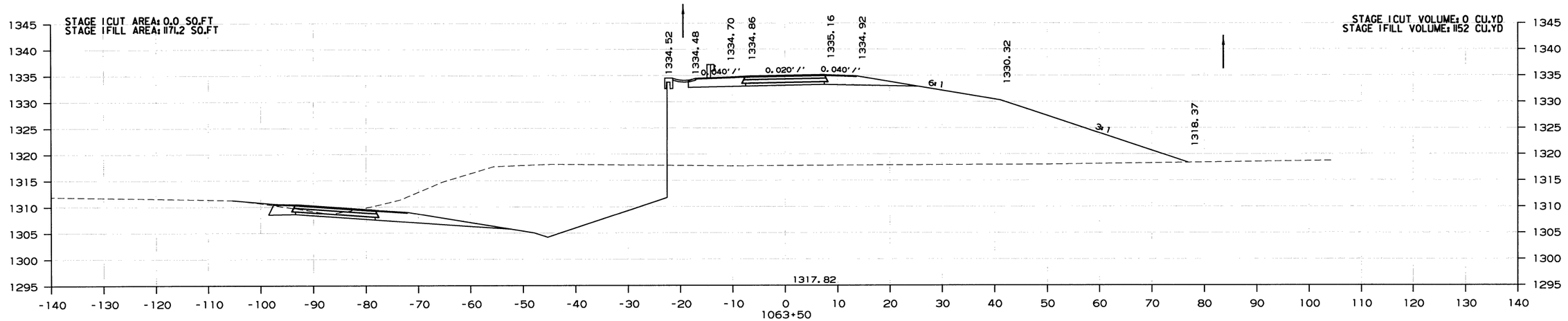
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	337	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 2			



STA. 1064+46.32 MAX SUPERELEVATION (0.020'/')



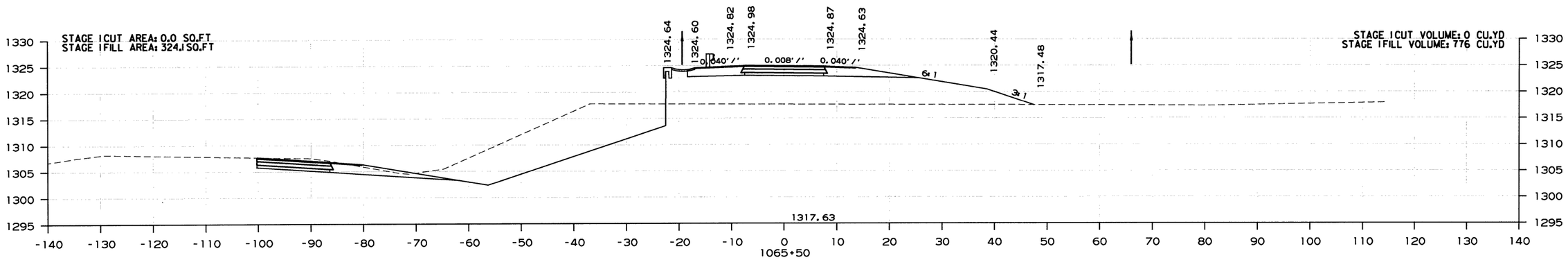


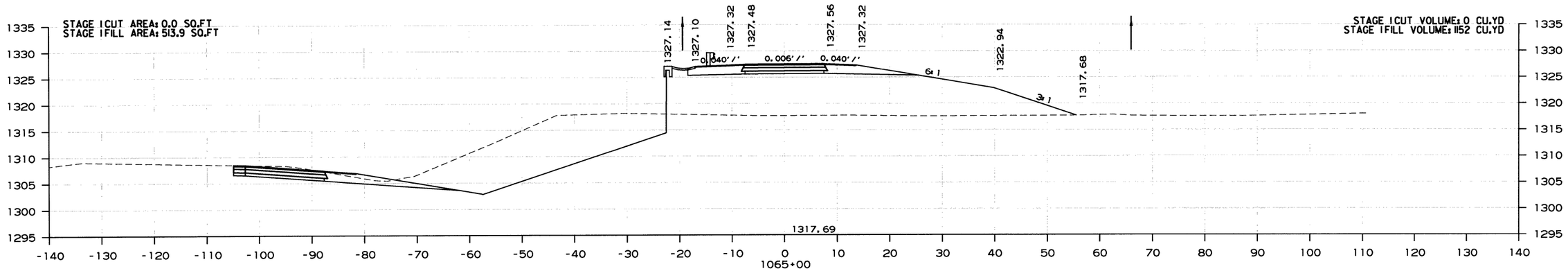
CROSS SECTION STA. 1063+50 TO STA. 1064+46

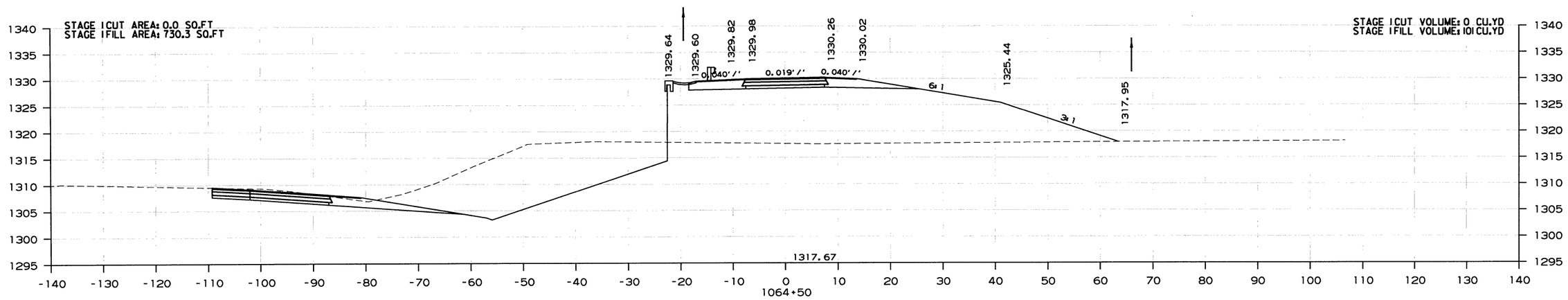
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	338	555

(2) CROSS SECTIONS - 8TH ST. RAMP 2



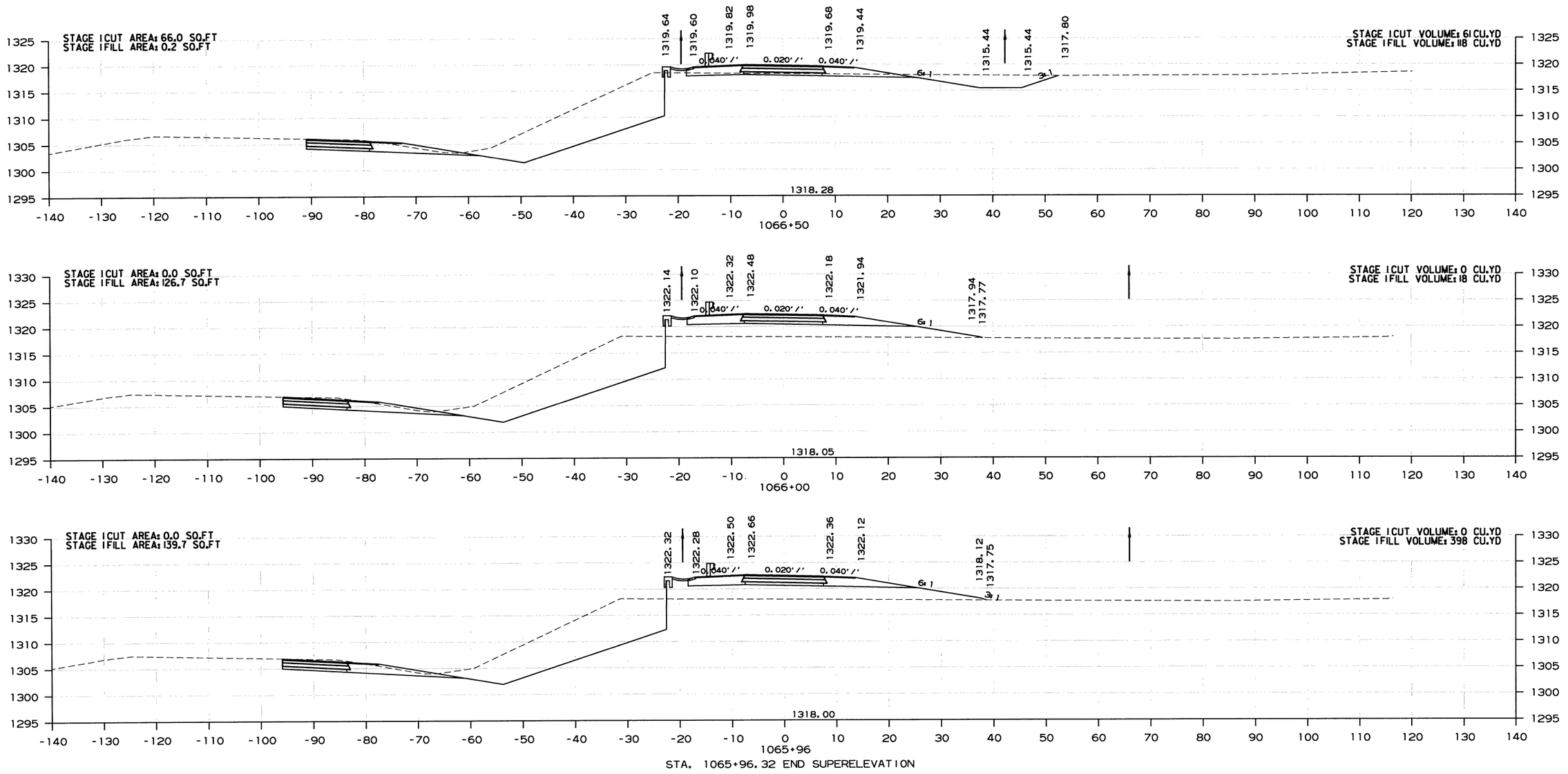




CROSS SECTION STA. 1064+50 TO STA. 1065+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	339	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 2			

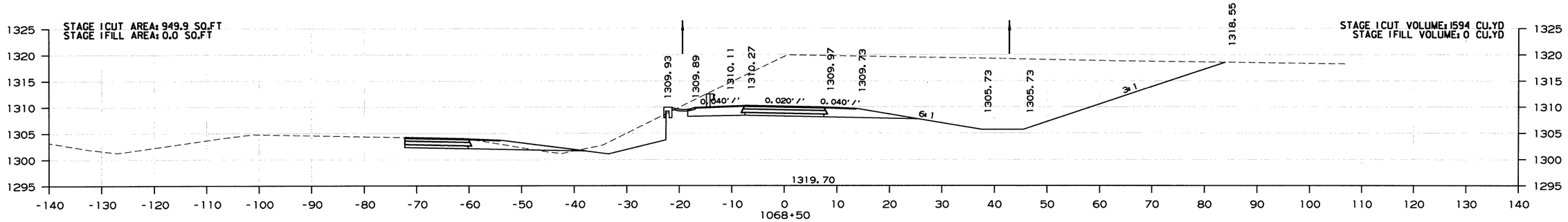


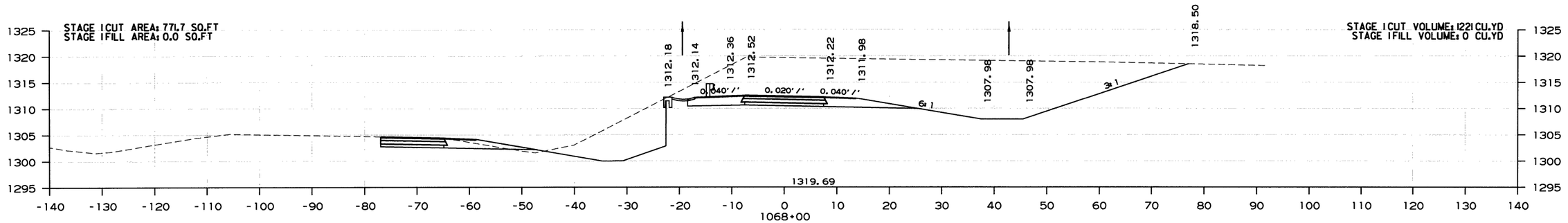
STA. 1065+96.32 END SUPERELEVATION

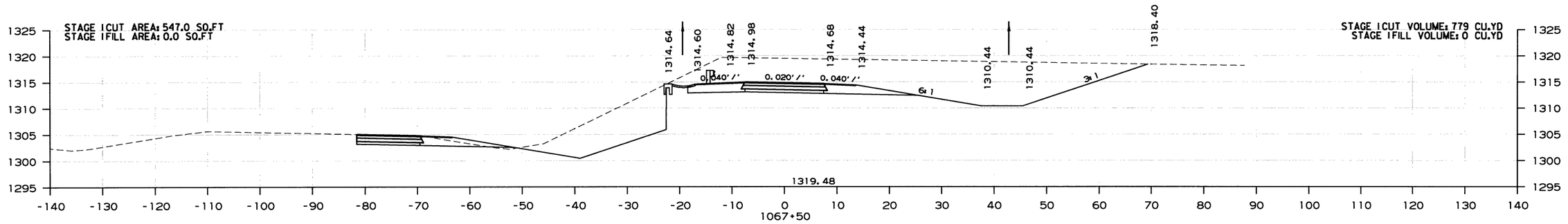
CROSS SECTION STA. 1065+96 TO STA. 1066+50

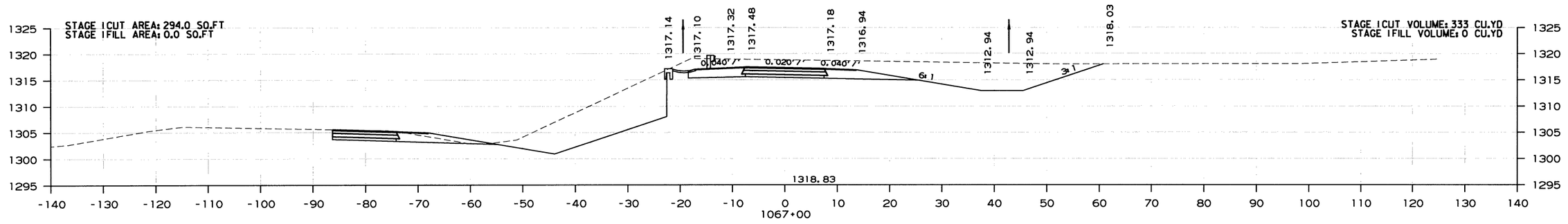
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	340	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 2			





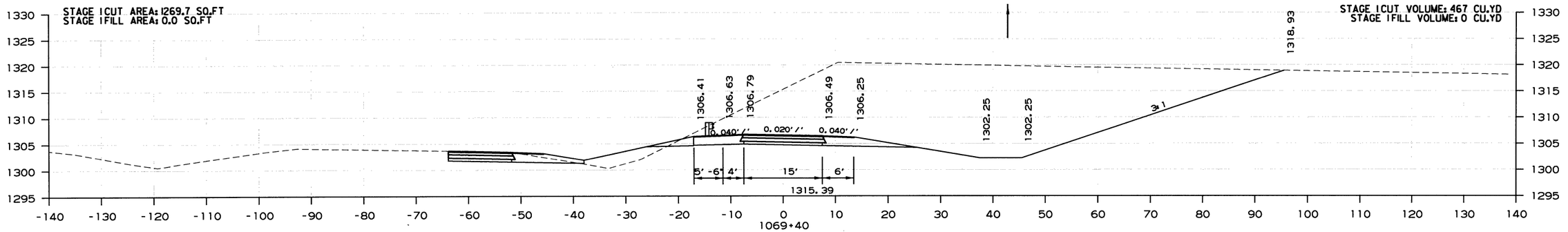


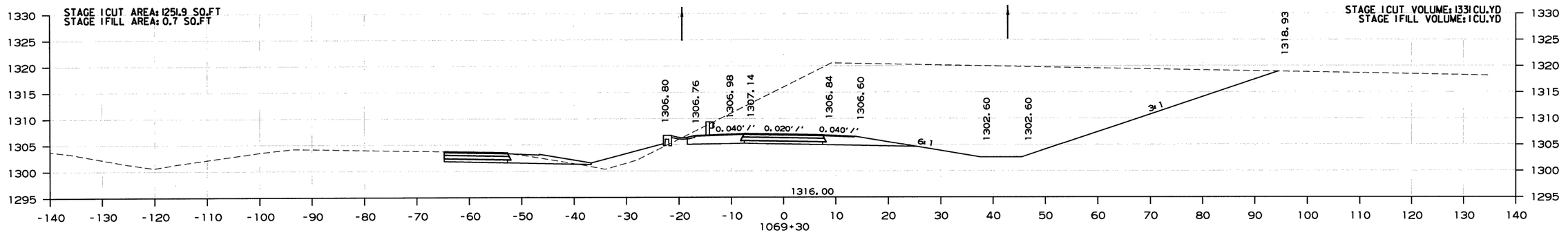


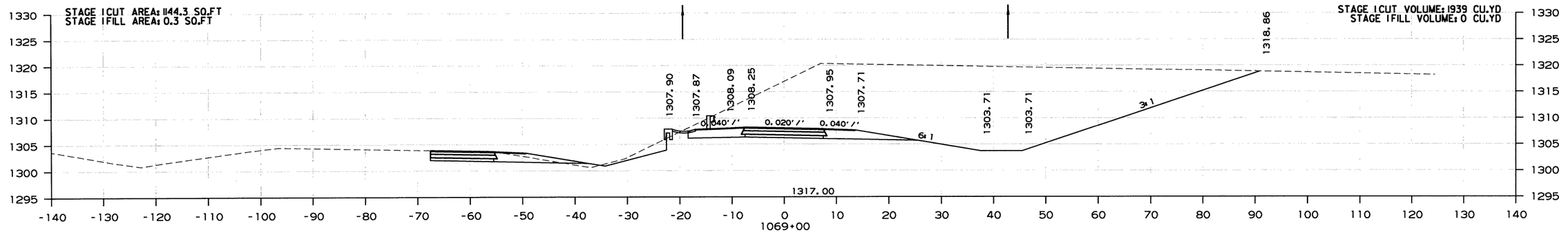
CROSS SECTION STA. 1067+00 TO STA. 1068+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	341	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 2			





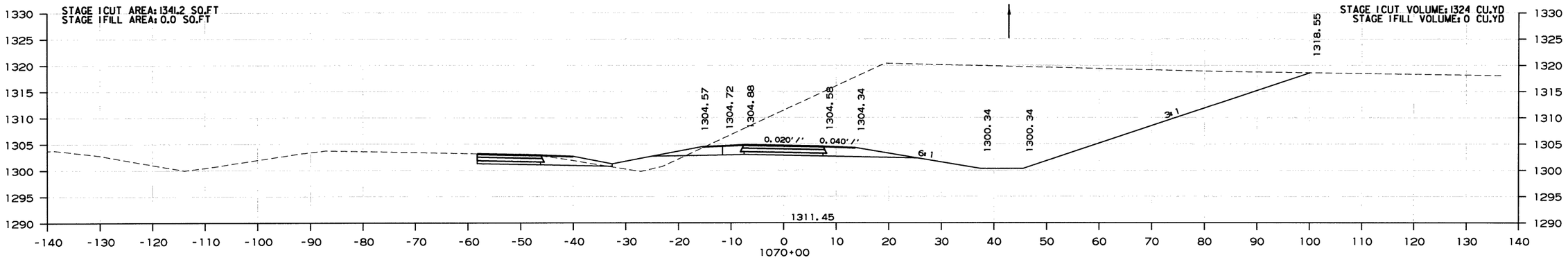


CROSS SECTION STA. 1069+00 TO STA. 1069+40

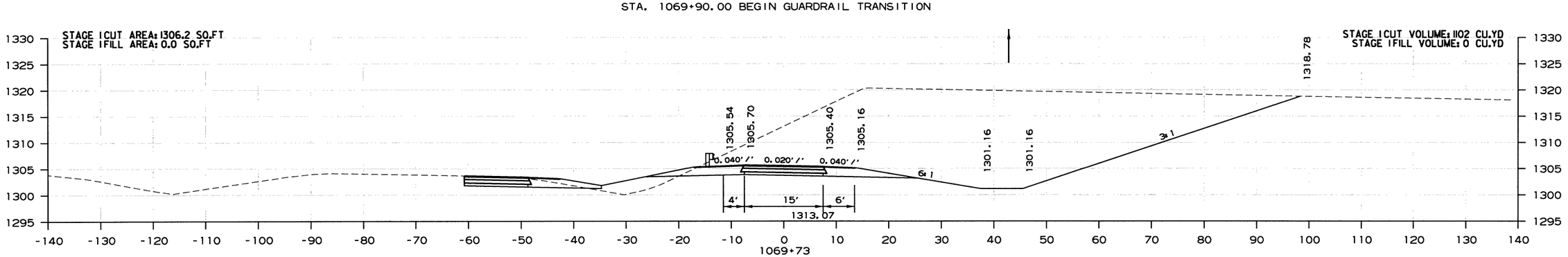
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

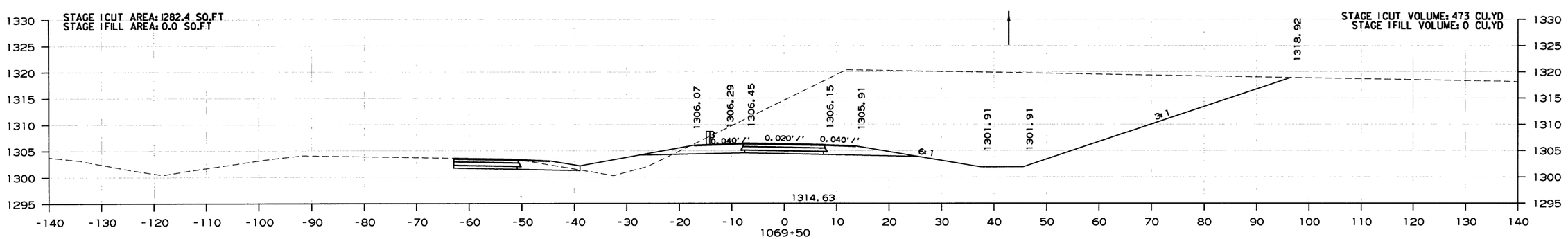
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	342	555

(2) CROSS SECTIONS - 8TH ST. RAMP 2



STA. 1069+90.00 BEGIN GUARDRAIL TRANSITION

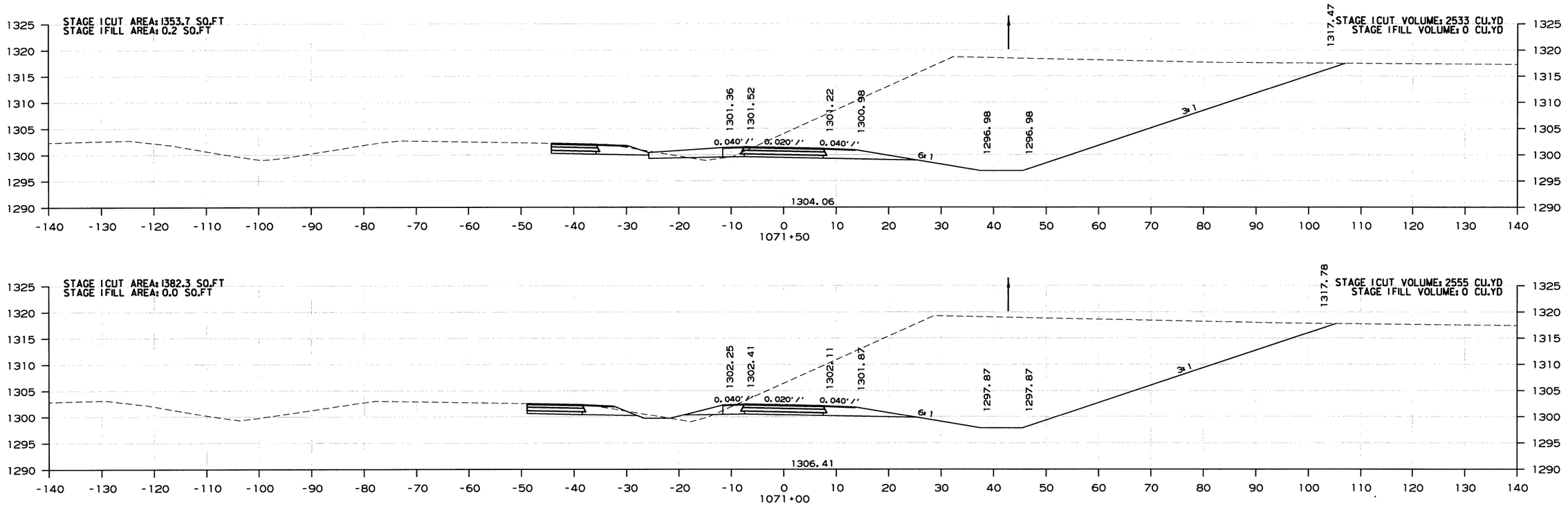




CROSS SECTION STA. 1069+50 TO STA. 1070+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	343	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 2			

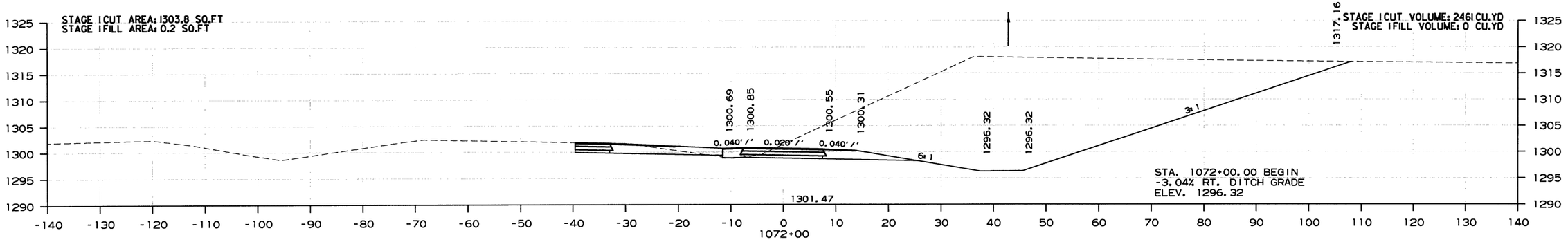


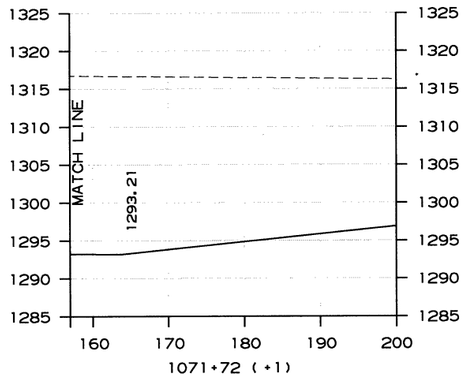
STA. 1070+23.00 END GUARDRAIL TRANSITION

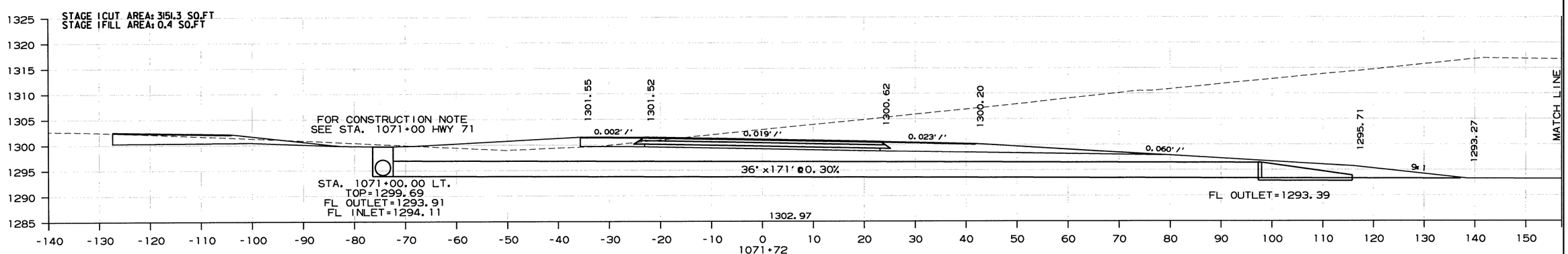
CROSS SECTION STA. 1070+50 TO STA. 1071+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	344	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 2			



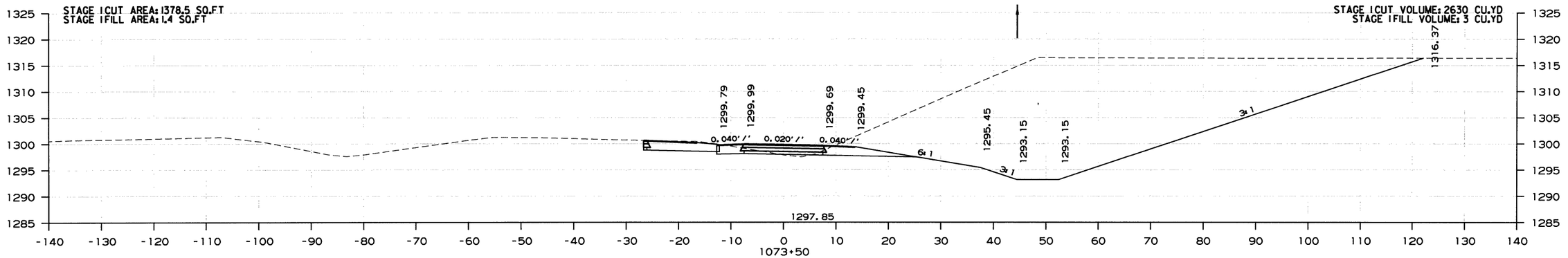


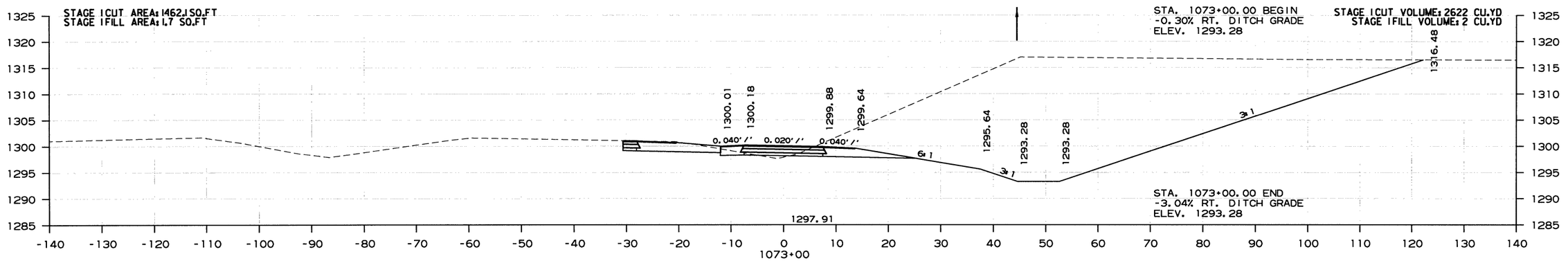


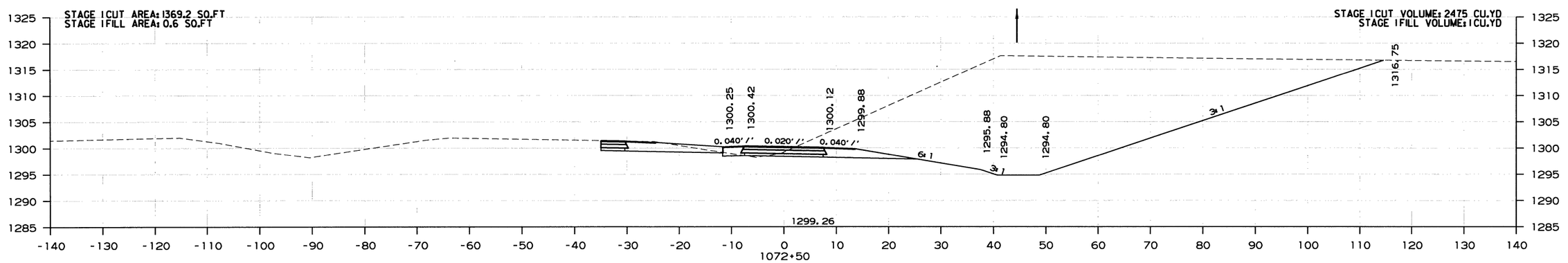
CROSS SECTION STA. 1071+72 TO STA. 1072+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	345	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 2			



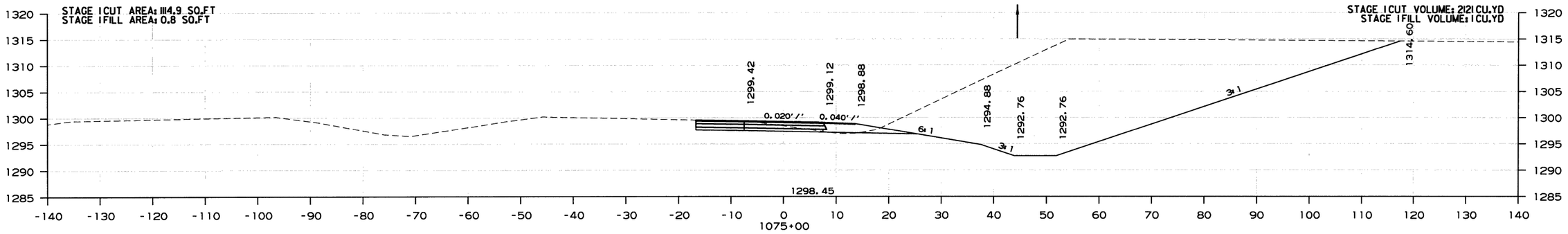


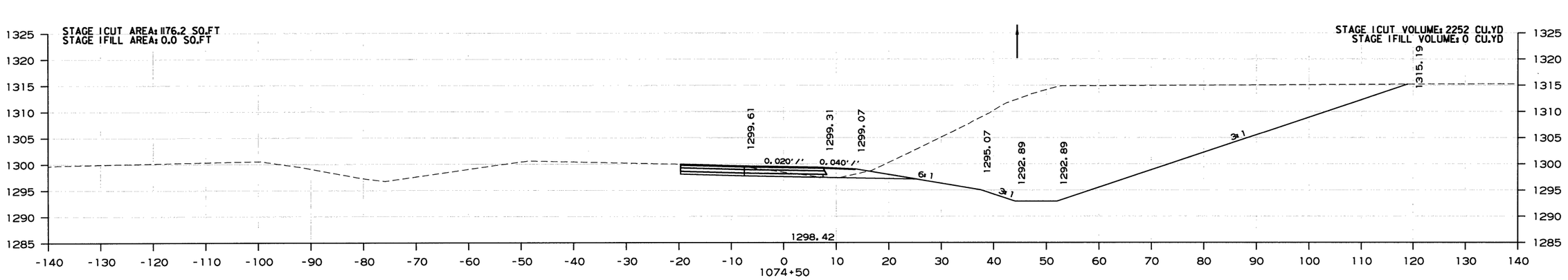


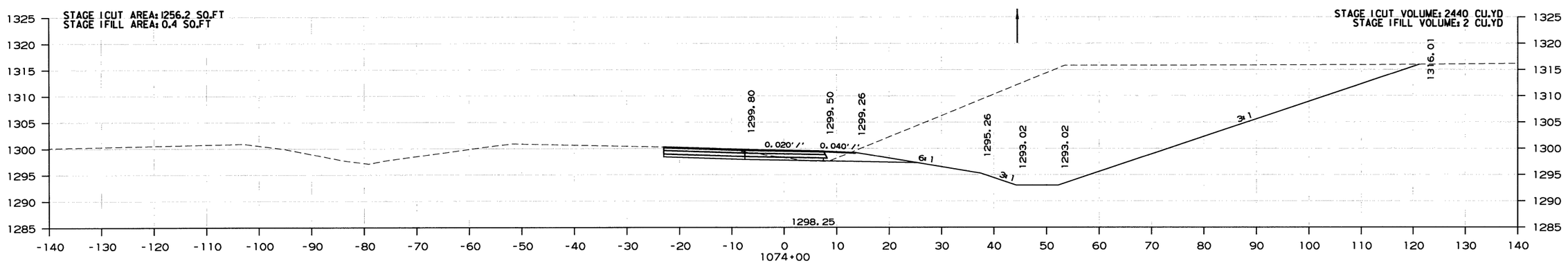
CROSS SECTION STA. 1072+50 TO STA. 1073+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	346	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 2			



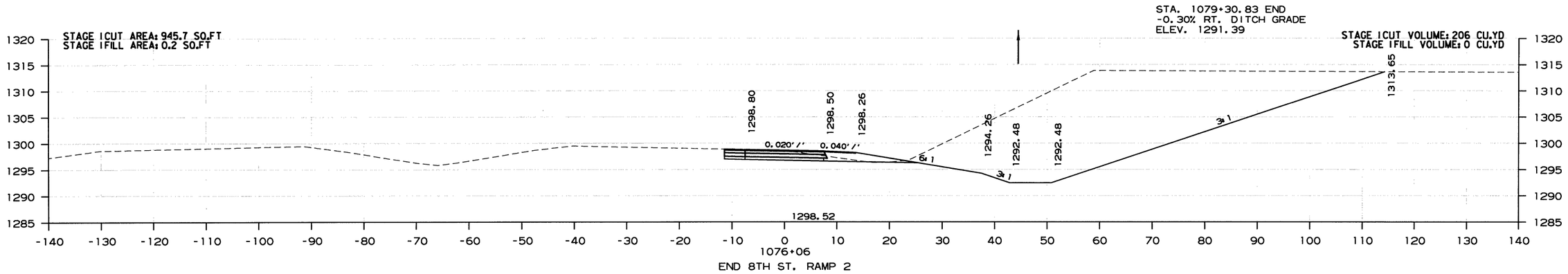


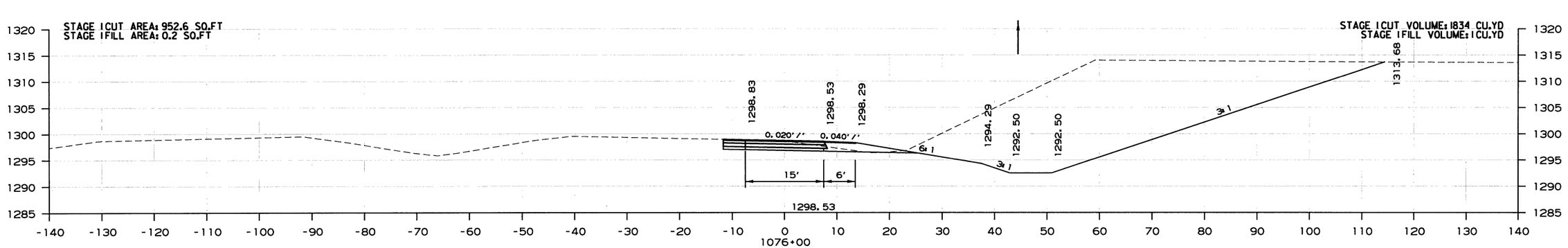


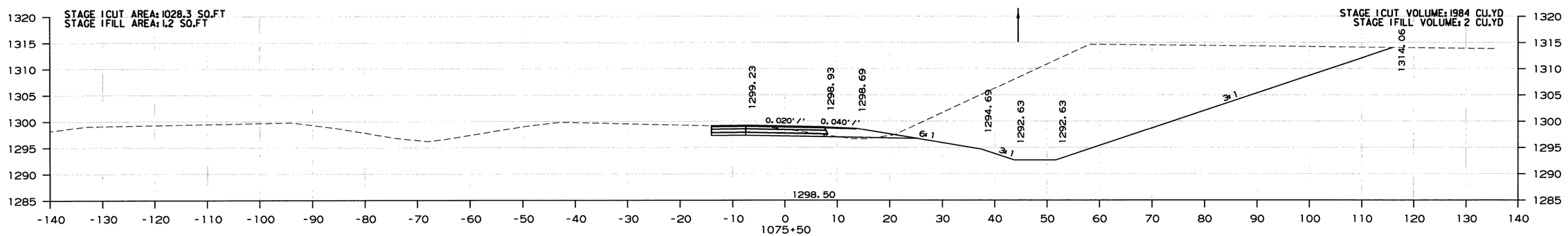
CROSS SECTION STA. 1074+00 TO STA. 1075+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	347	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 2			



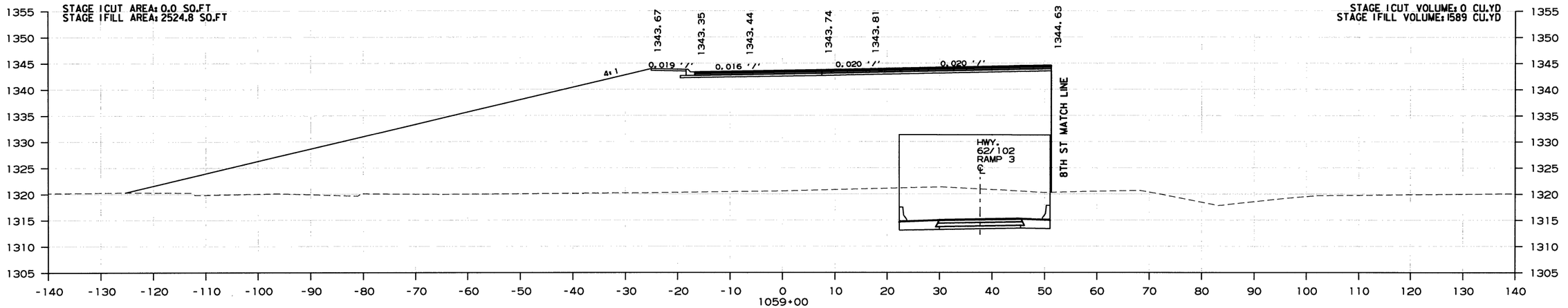




CROSS SECTION STA. 1075+50 TO STA. 1076+06

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

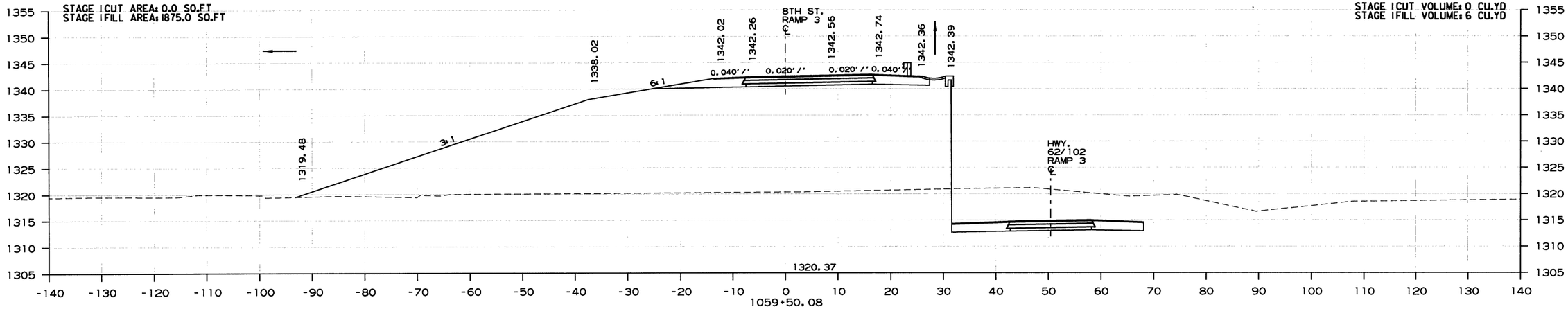
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	348	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 3			



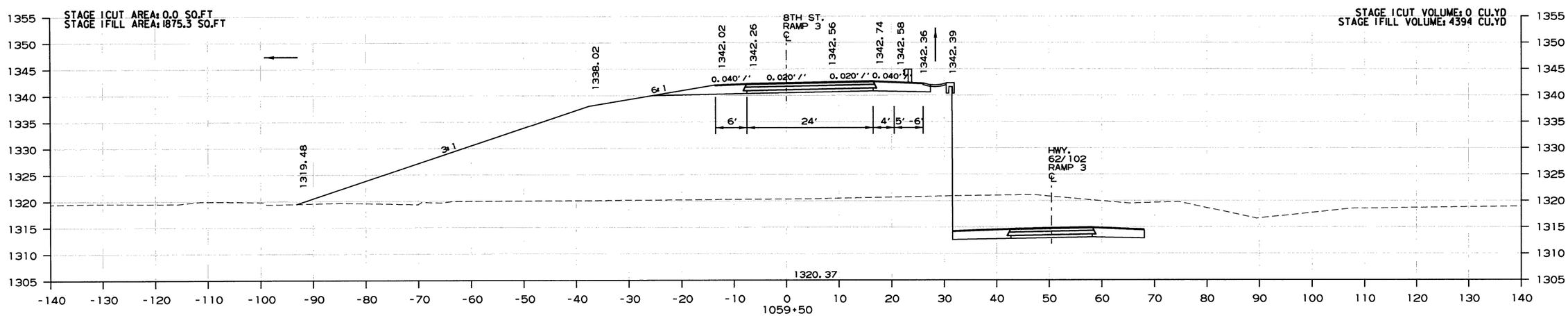
CROSS SECTION STA. 1058+83 TO STA. 1059+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	349	555
				(2) CROSS SECTIONS - 8TH ST. RAMP 3				



STA. 1059+50.08 BEGIN SUPERELEVATION

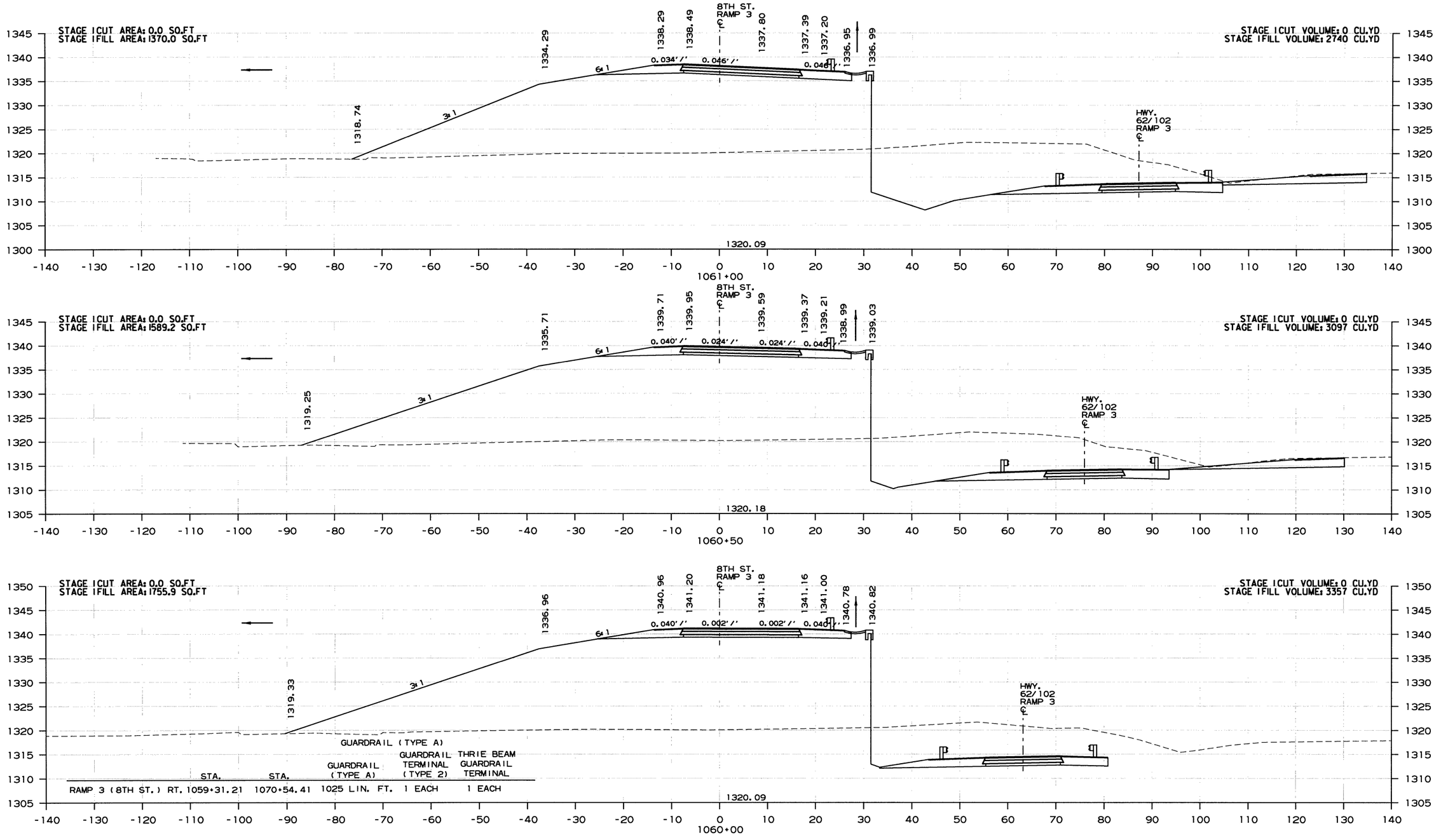


CROSS SECTION STA. 1059+50 TO STA. 1059+50.08

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	350	555

(2) CROSS SECTIONS - 8TH ST. RAMP 3

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.



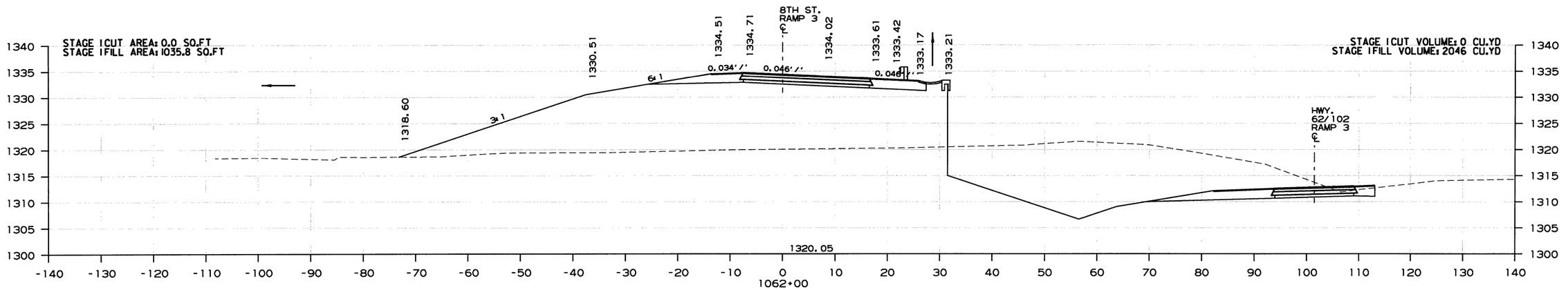
GUARDRAIL (TYPE A)

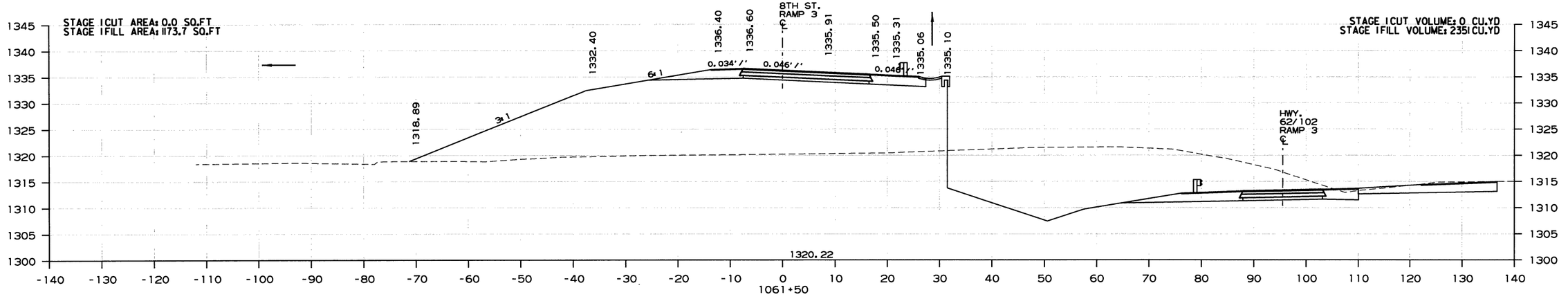
	STA.	STA.	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
RAMP 3 (8TH ST.) RT.	1059+31.21	1070+54.41	1025 LIN. FT.	1 EACH	1 EACH

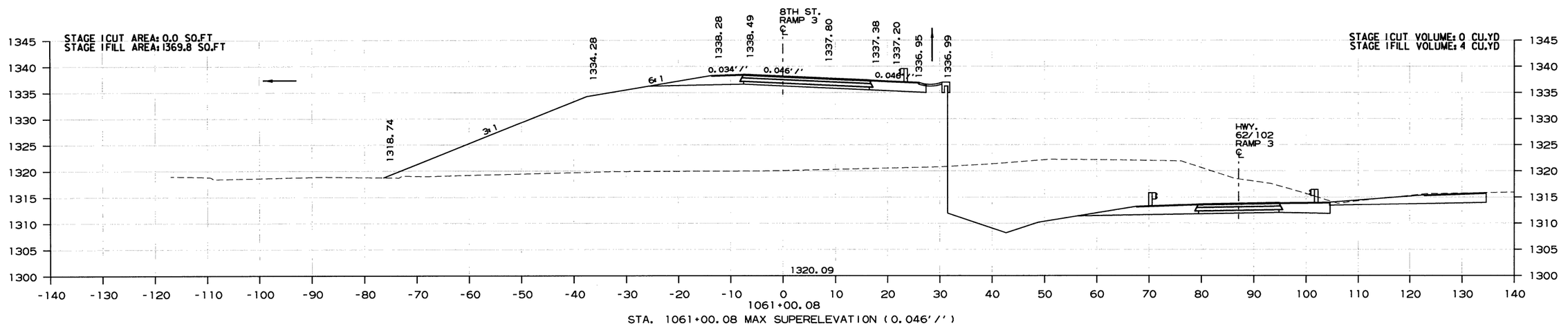
CROSS SECTION STA. 1060+00 TO STA. 1061+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	351	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 3			





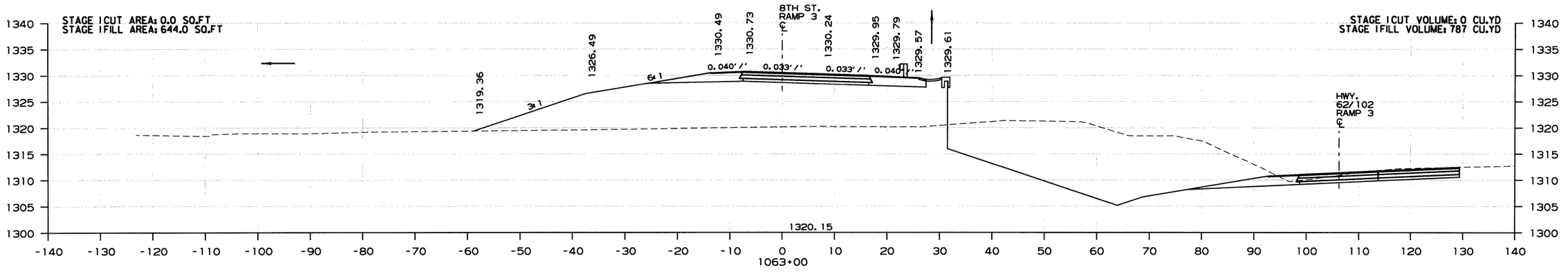


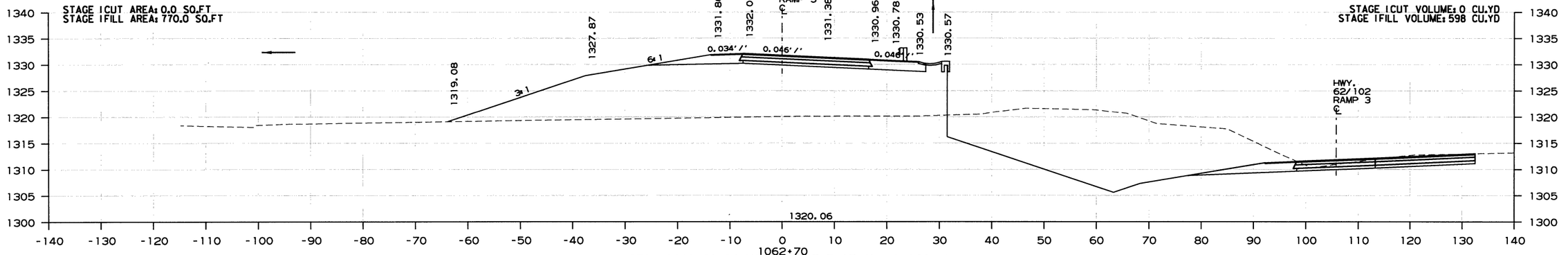
STA. 1061+00.08 MAX SUPERELEVATION (0.046'/')

CROSS SECTION STA. 1061+00 TO STA. 1062+00

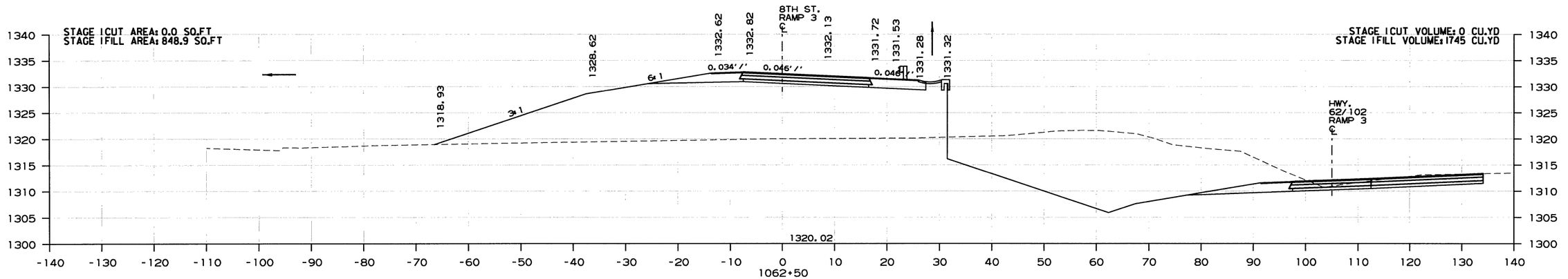
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	352	555
				(2) CROSS SECTIONS - 8TH ST. RAMP 3				





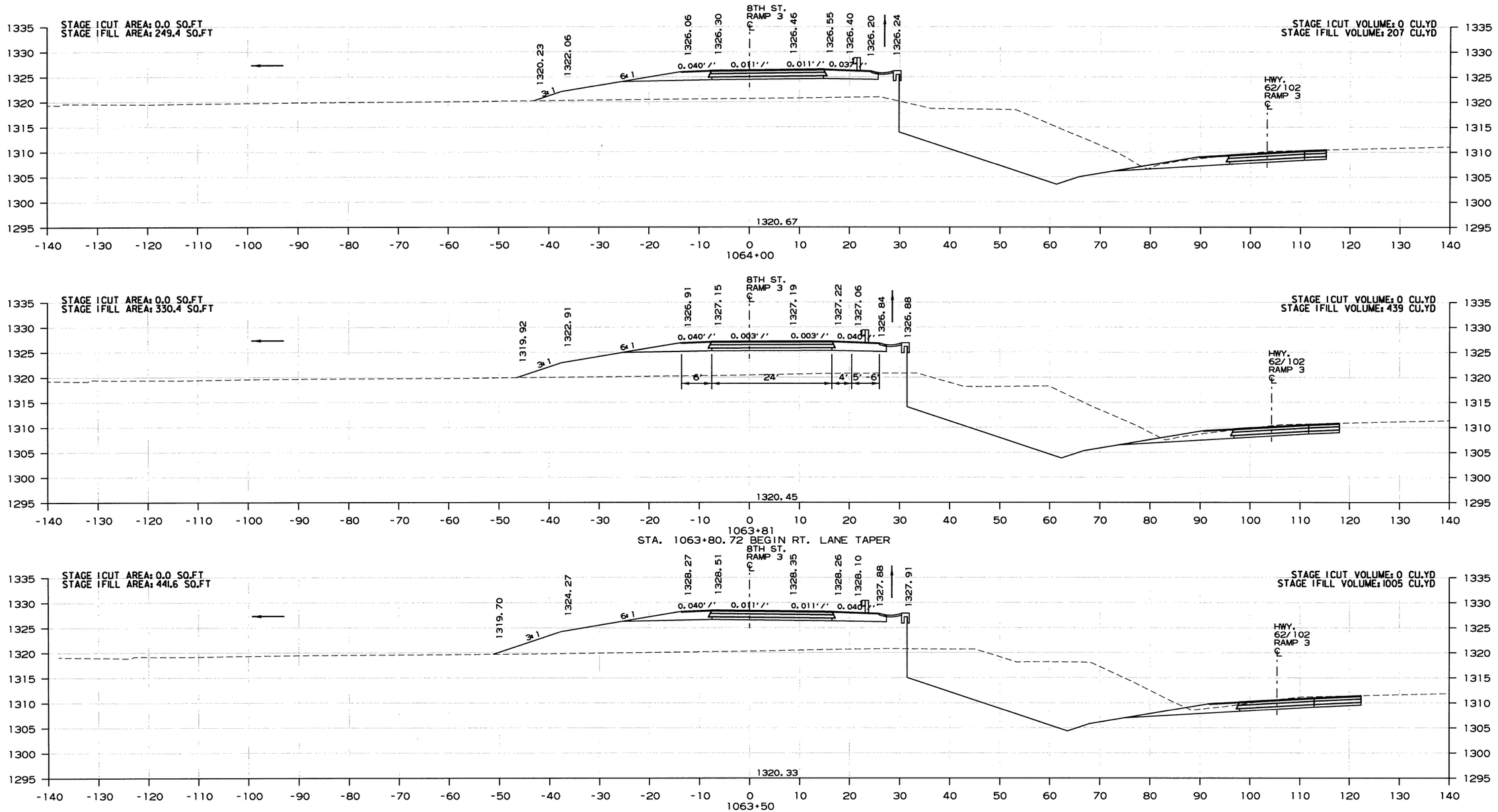
STA. 1062+69.94 MAX SUPERELEVATION (0.046'/')



CROSS SECTION STA. 1062+50 TO STA. 1063+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

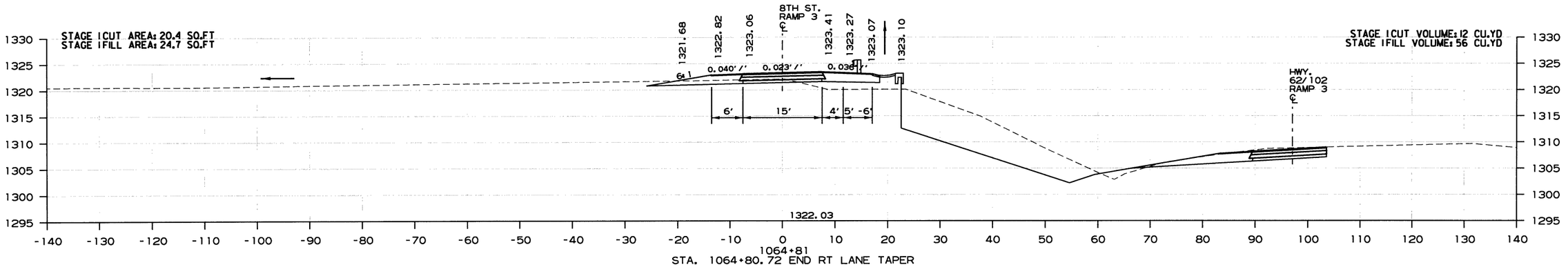
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	353	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 3			



CROSS SECTION STA. 1063+50 TO STA. 1064+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

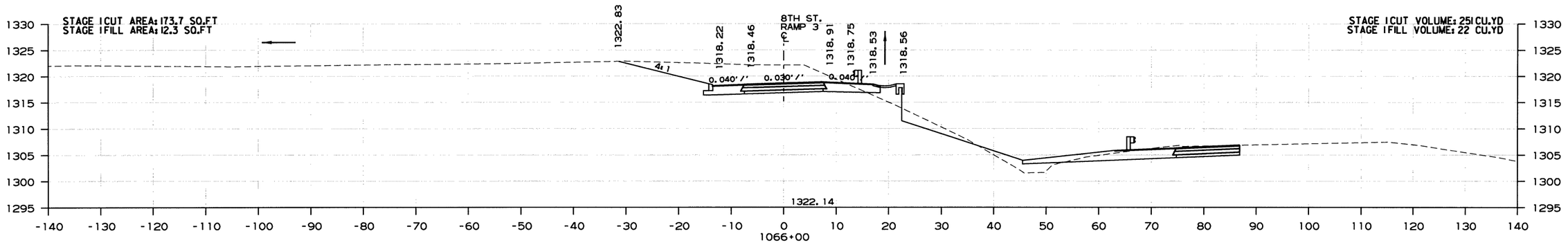
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	354	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 3			

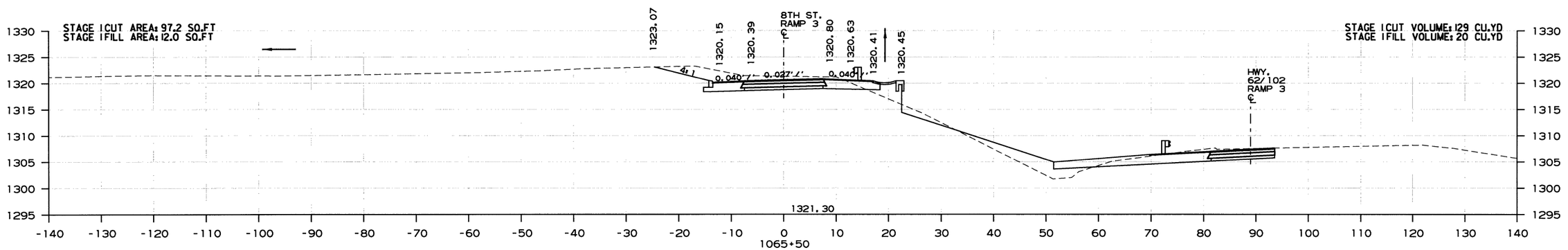


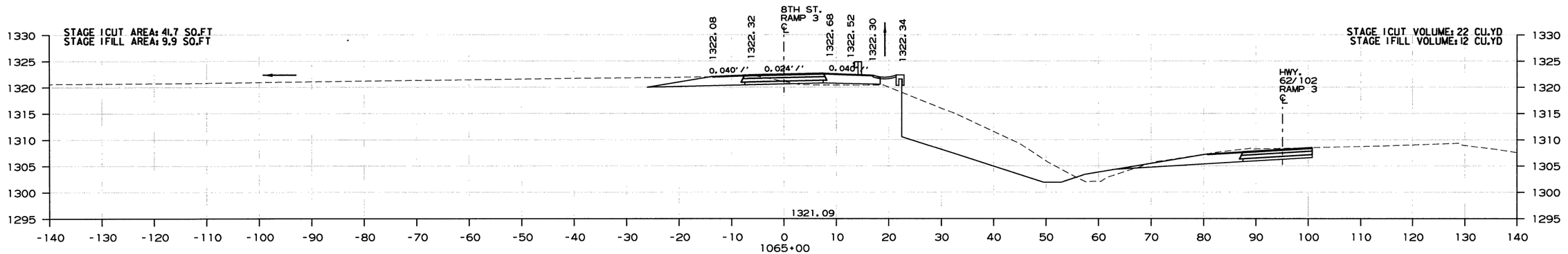
CROSS SECTION STA. 1064+20 TO STA. 1064+81

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	355	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 3			



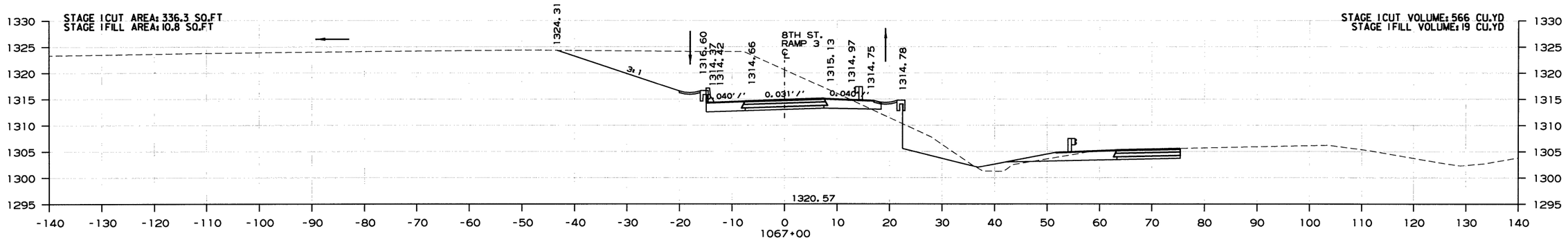


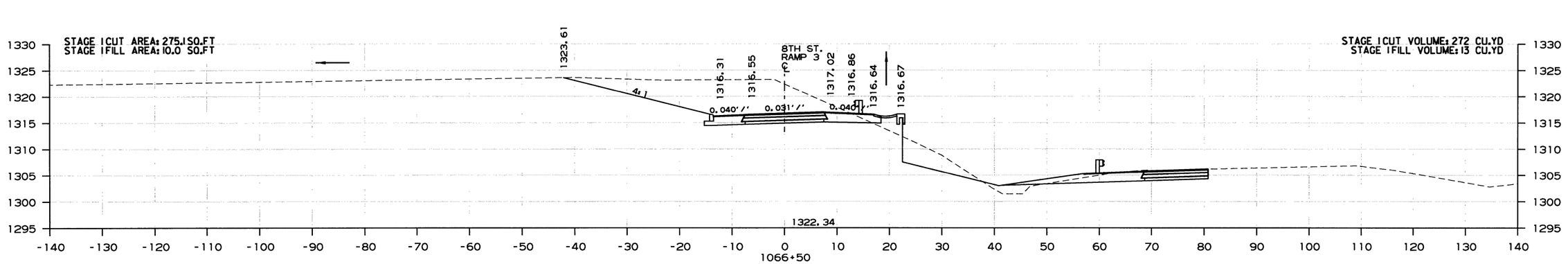


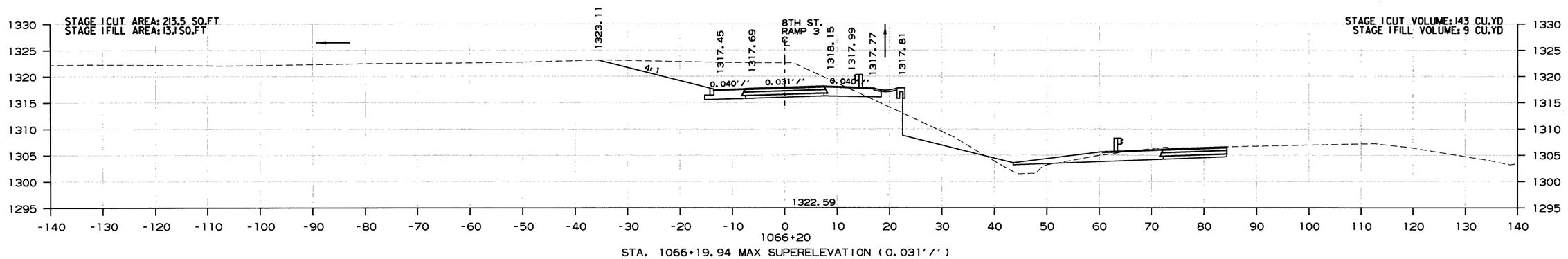
CROSS SECTION STA. 1065+00 TO STA. 1066+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	356	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 3			







STA. 1066+19.94 MAX SUPERELEVATION (0.031'/')

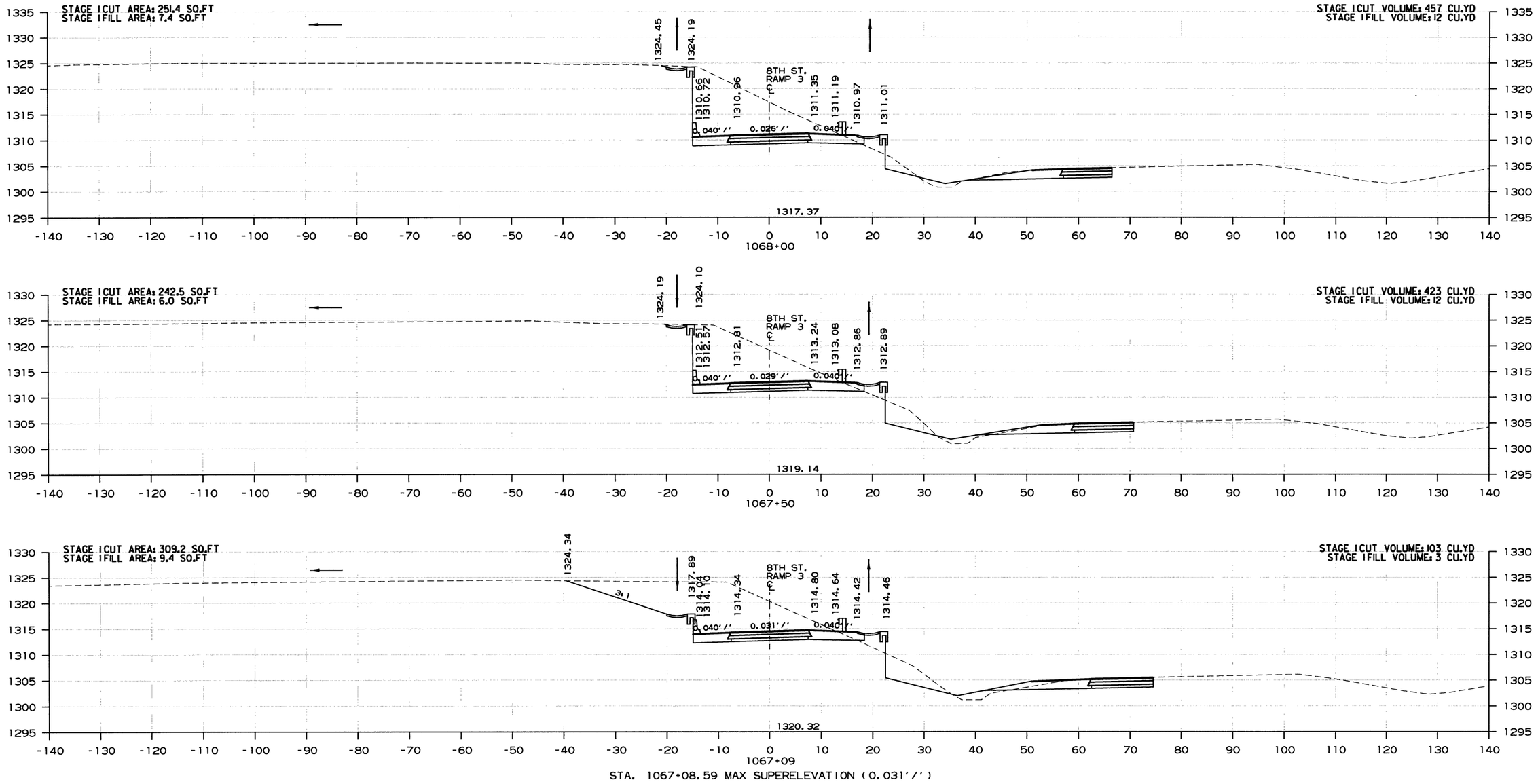
CROSS SECTION STA. 1066+20 TO STA. 1067+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		090376	357	555

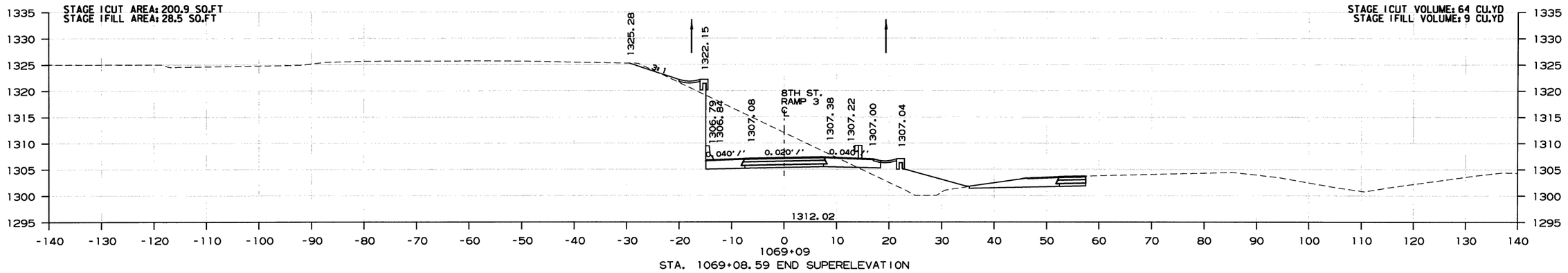
(2) CROSS SECTIONS - 8TH ST. RAMP 3

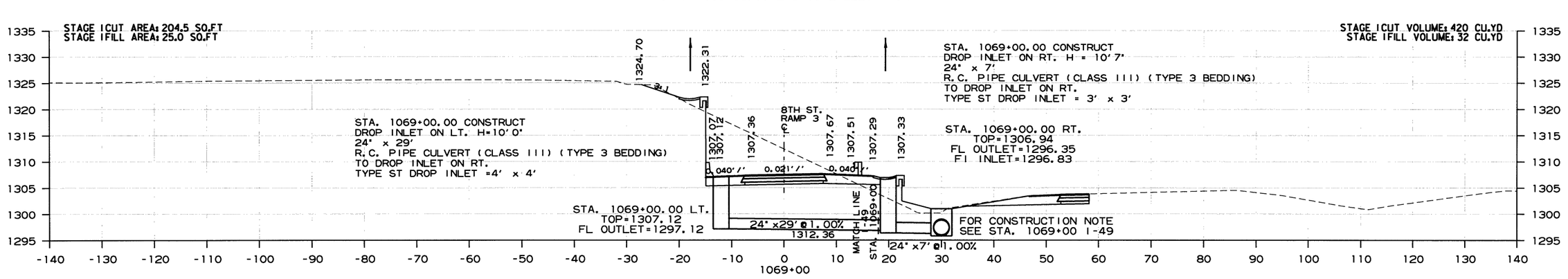


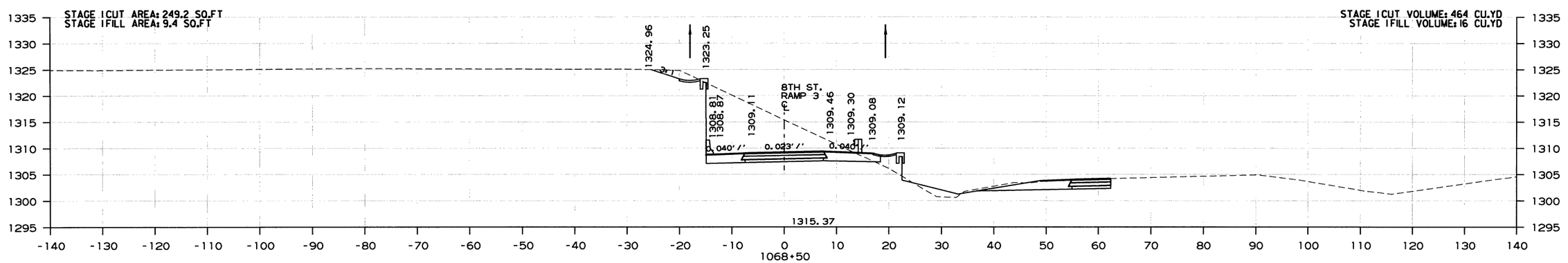
CROSS SECTION STA. 1067+09 TO STA. 1068+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	358	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 3			



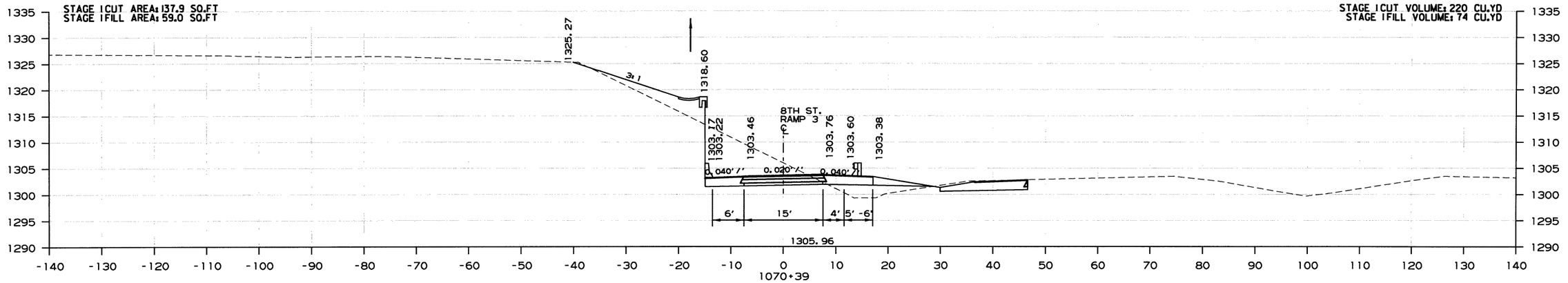


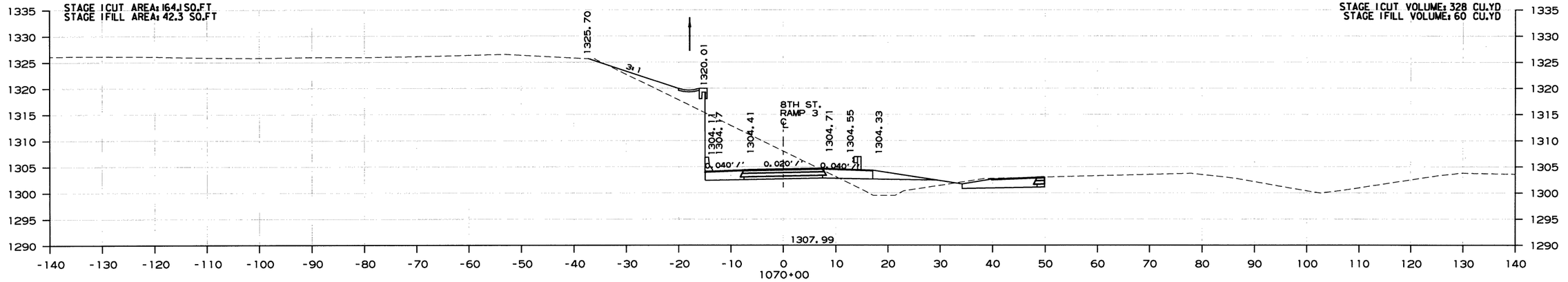


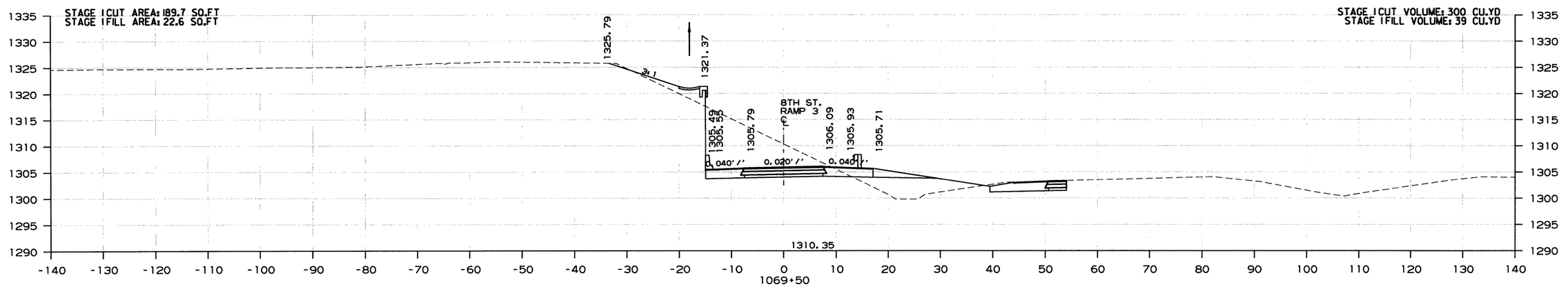
CROSS SECTION STA. 1068+50 TO STA. 1069+09

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	359	555
				(2) CROSS SECTIONS - 8TH ST. RAMP 3				





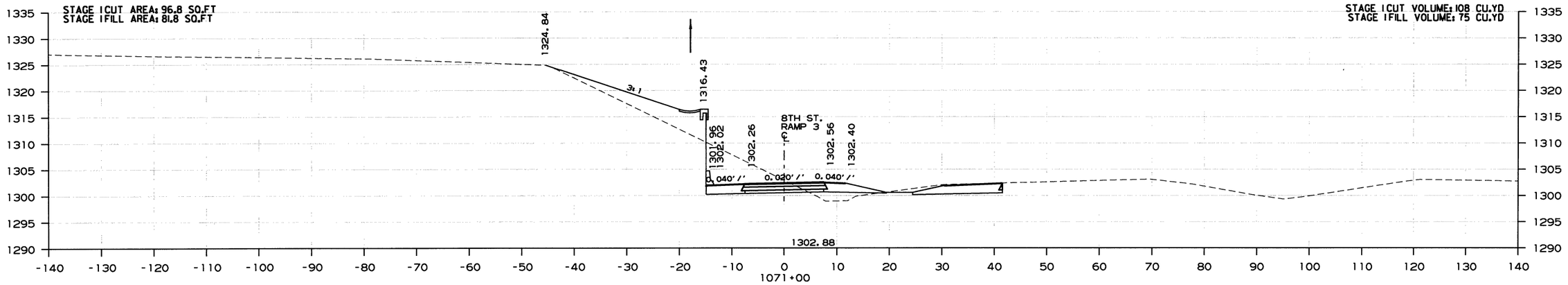


CROSS SECTION STA. 1069+50 TO STA. 1070+39

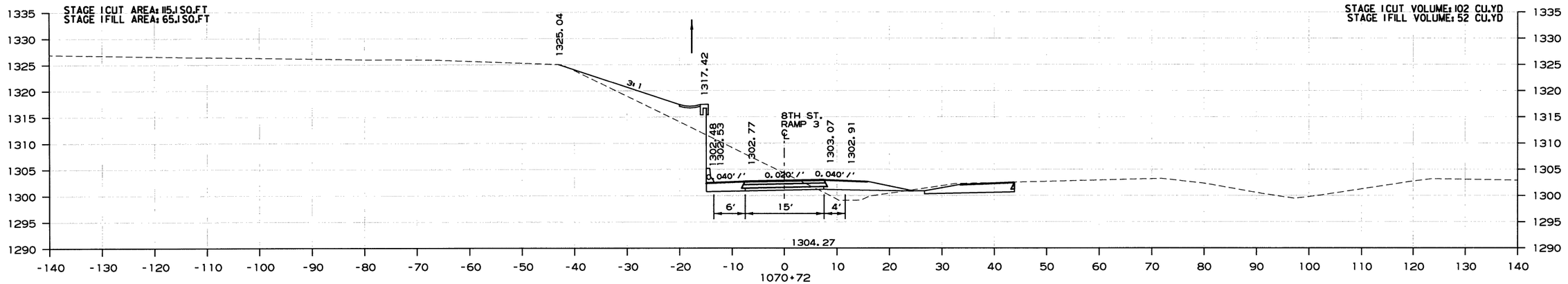
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	360	555

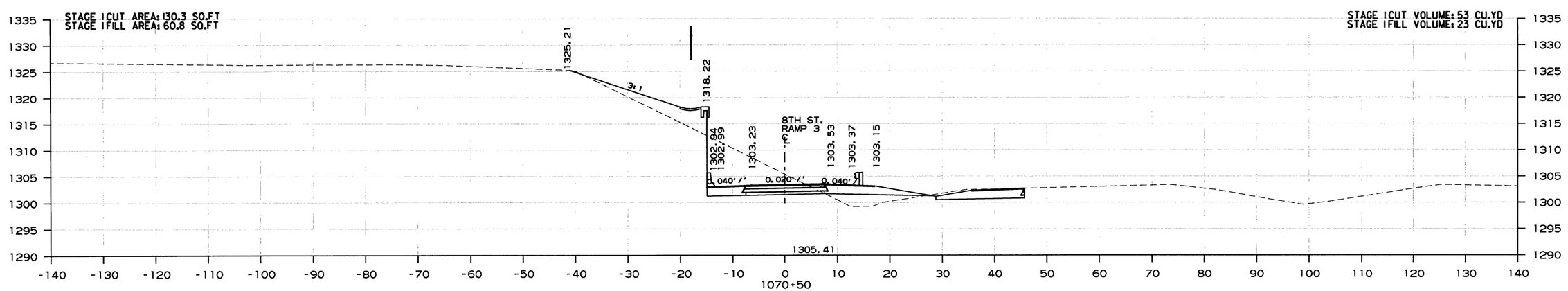
(2) CROSS SECTIONS - 8TH ST. RAMP 3



STA. 1070+97.41 END GUARDRAIL TRANSITION



STA. 1070+64.41 BEGIN GUARDRAIL TRANSITION

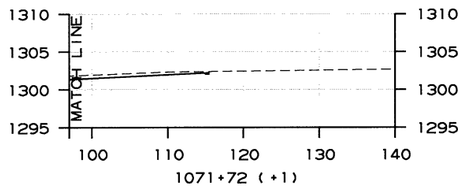


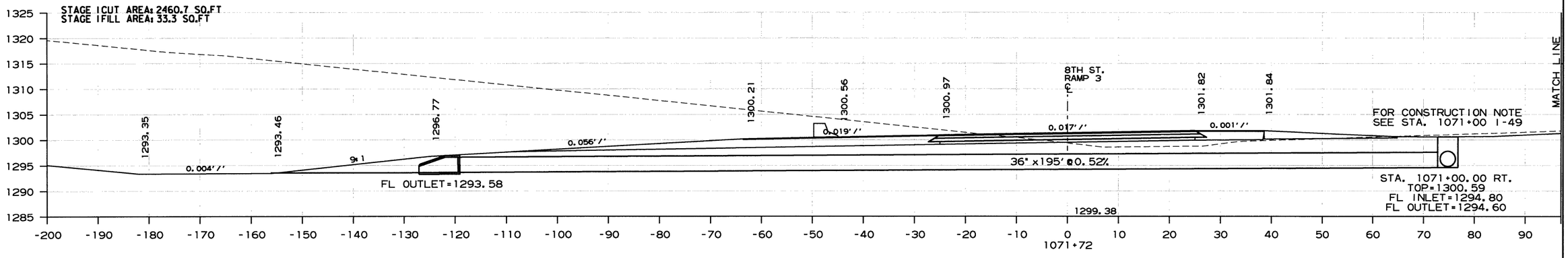
CROSS SECTION STA. 1070+50 TO STA. 1071+00

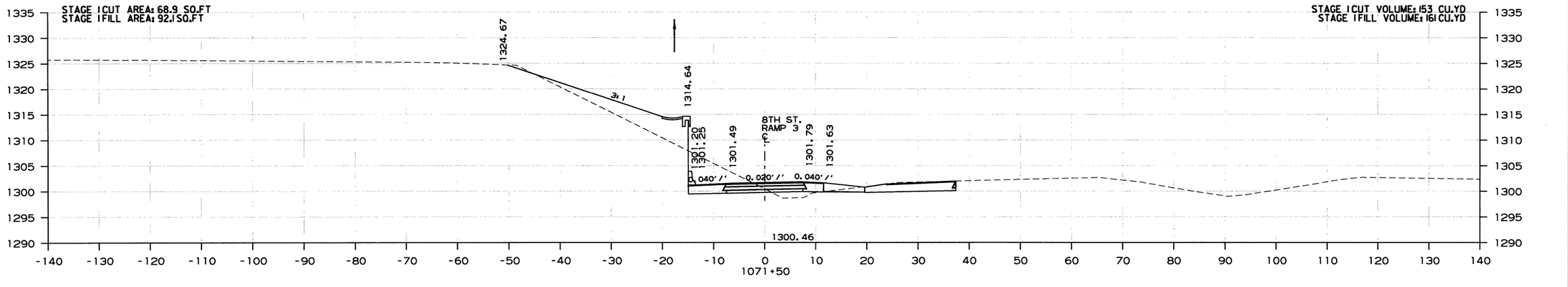
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	361	555

(2) CROSS SECTIONS - 8TH ST. RAMP 3



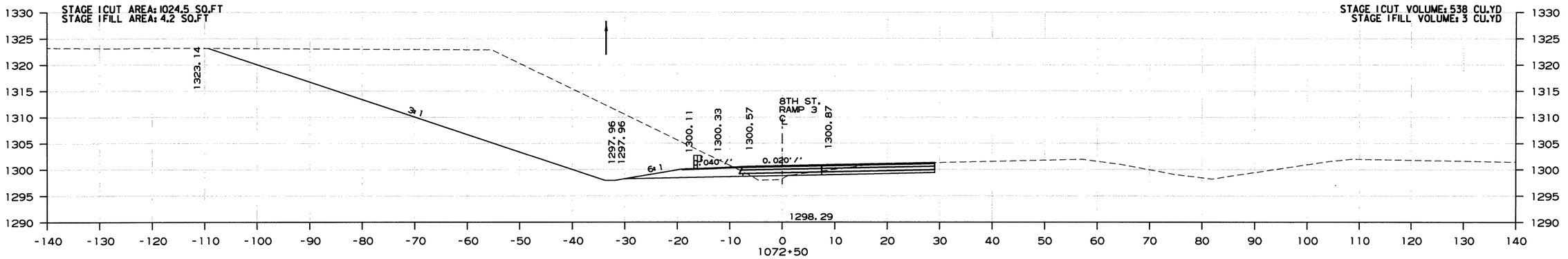




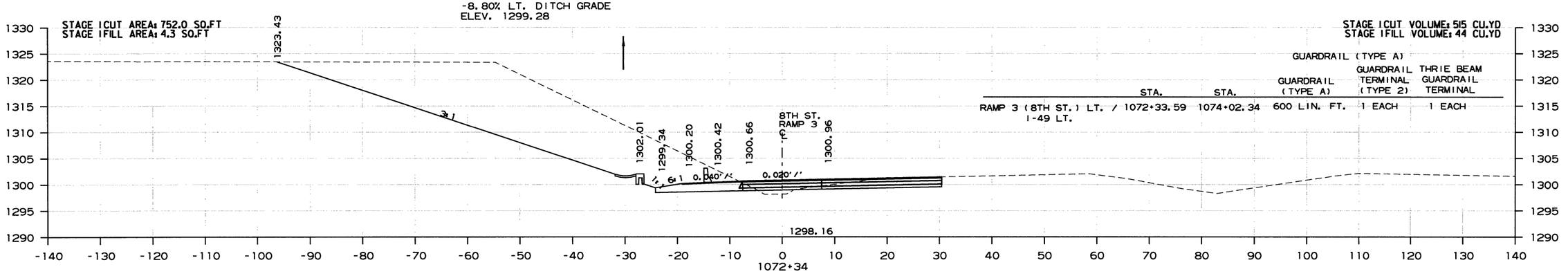
CROSS SECTION STA. 1071+50 TO STA. 1071+72

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

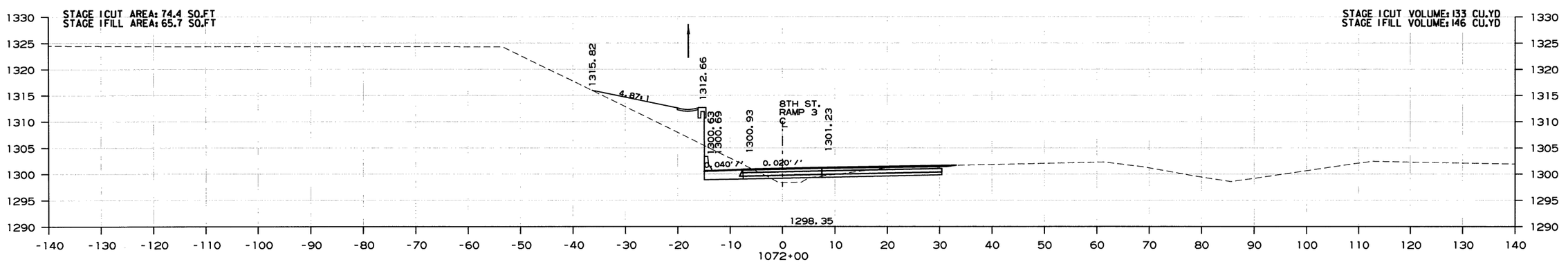
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	362	555
				(2) CROSS SECTIONS - 8TH ST. RAMP 3				



STA. 1072+35.00 BEGIN
-8.80% LT. DITCH GRADE
ELEV. 1299.28



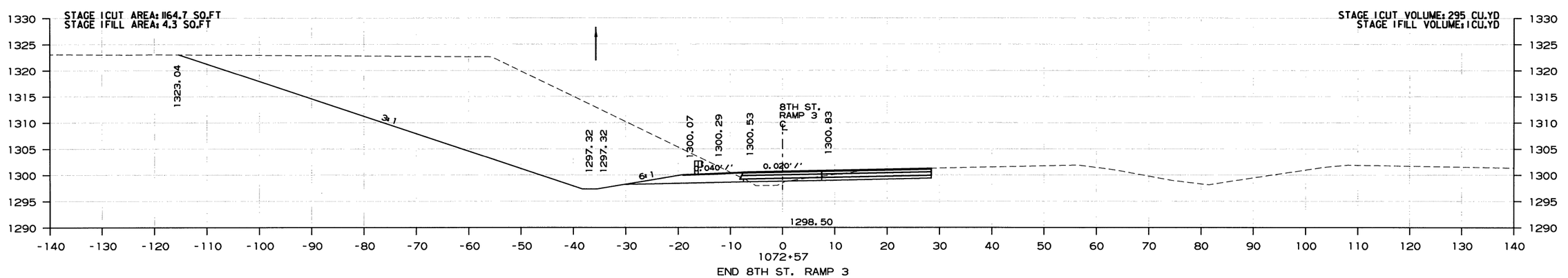
	STA.	STA.	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	GUARDRAIL THRIE BEAM TERMINAL
RAMP 3 (8TH ST.) LT. / I-49 LT.	1072+33.59	1074+02.34	600 LIN. FT.	1 EACH	1 EACH



CROSS SECTION STA. 1072+00 TO STA. 1072+50

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	363	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 3			

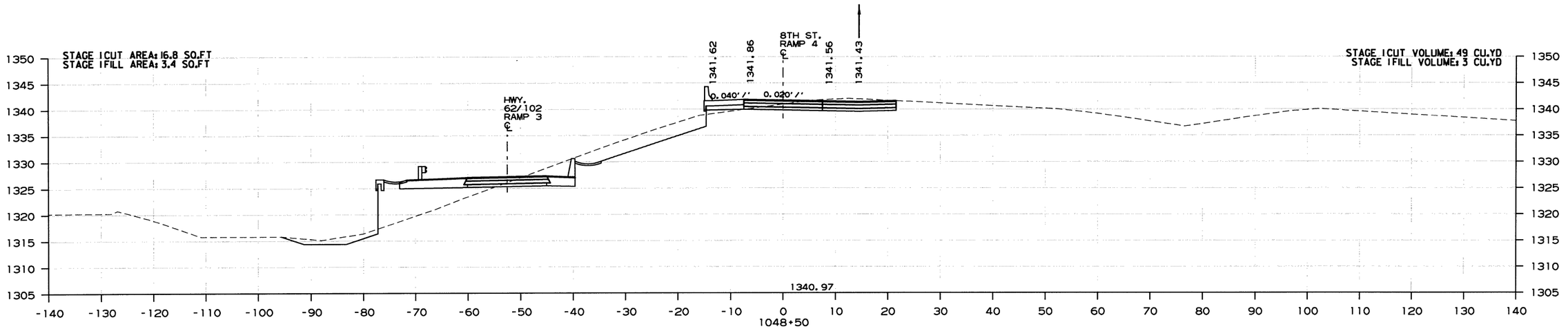


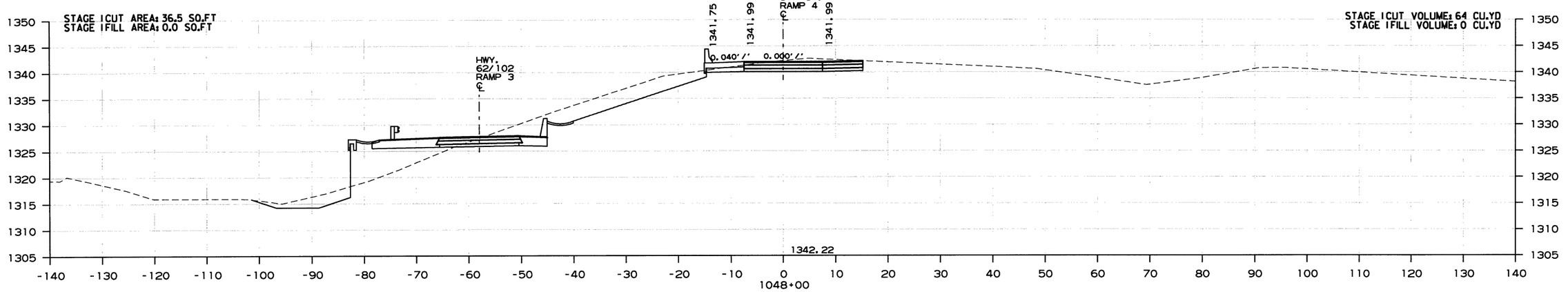
CROSS SECTION STA. 1072+57 TO STA. 1072+57

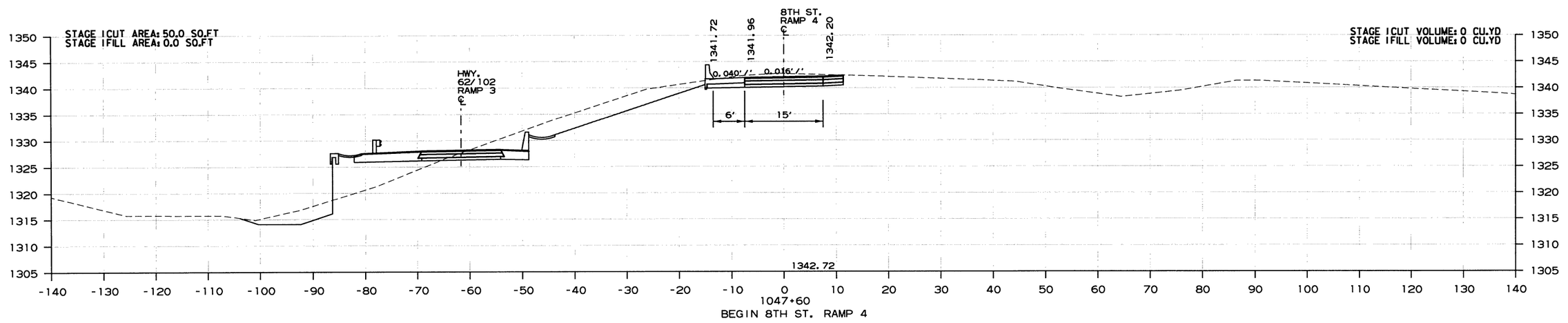
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	364	555

(2) CROSS SECTIONS - 8TH ST. RAMP 4



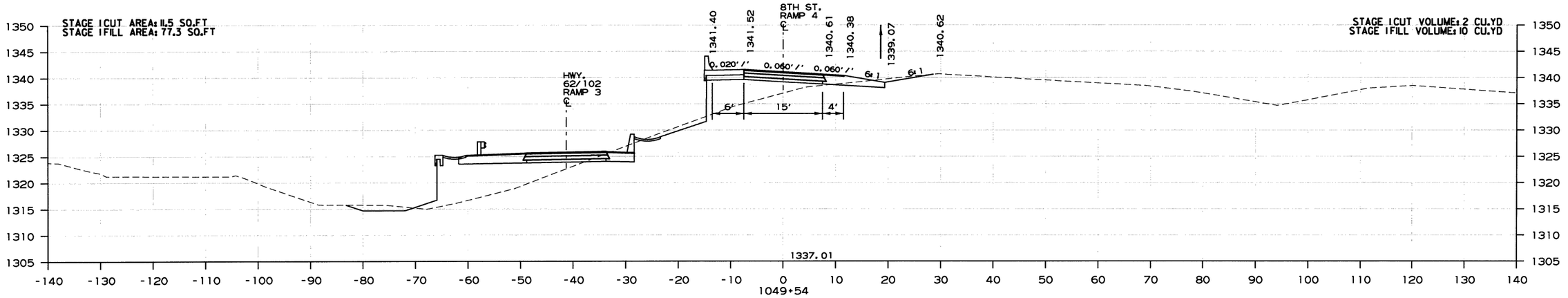




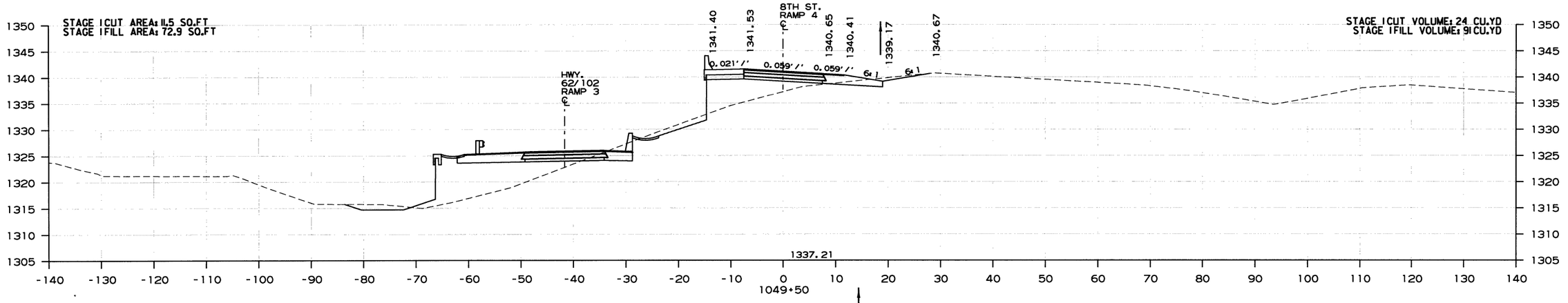
CROSS SECTION STA. 1047+60 TO STA. 1048+50

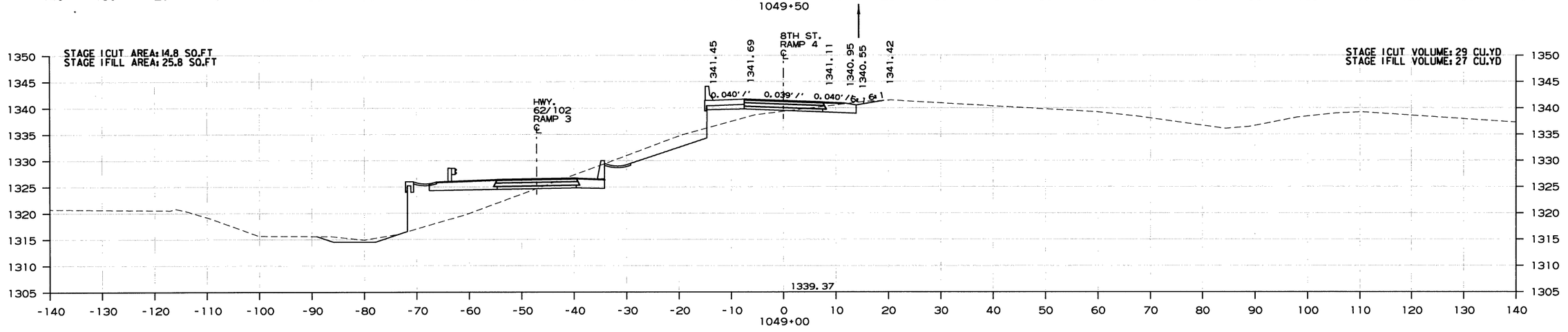
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	365	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 4			



STA. 1049+53.62 BEGIN RT. LANE TAPER

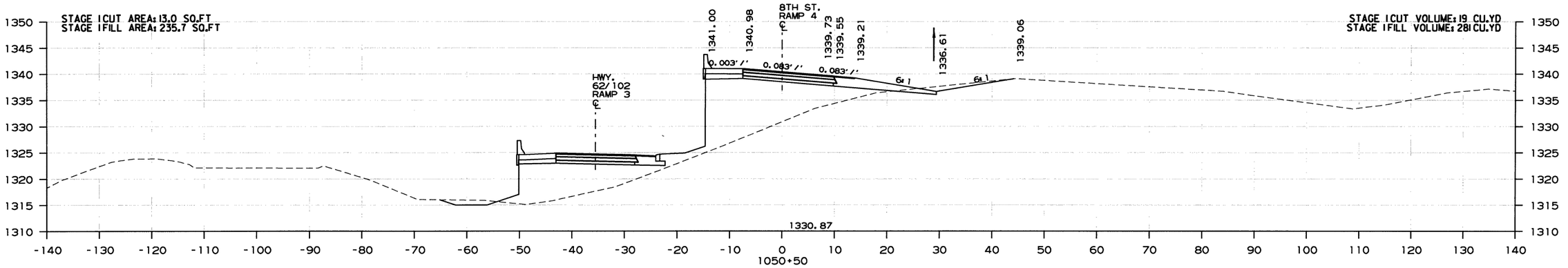


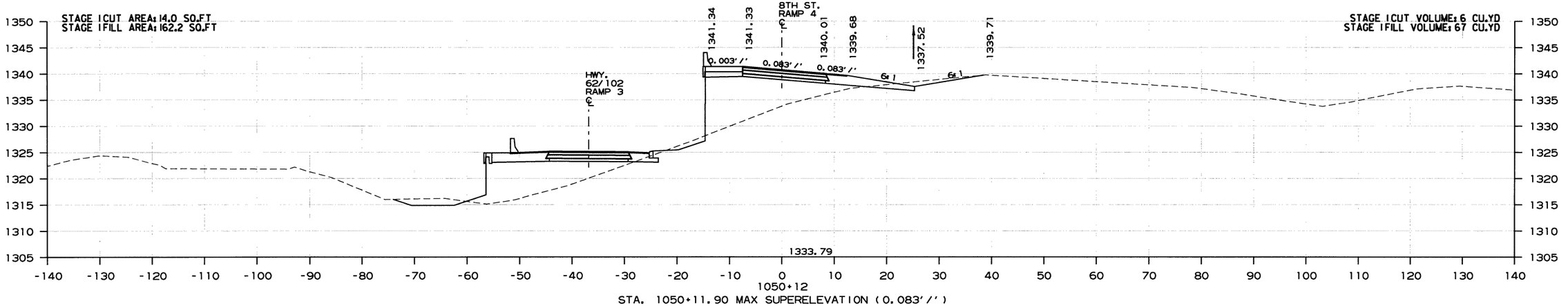


CROSS SECTION STA. 1049+00 TO STA. 1049+54

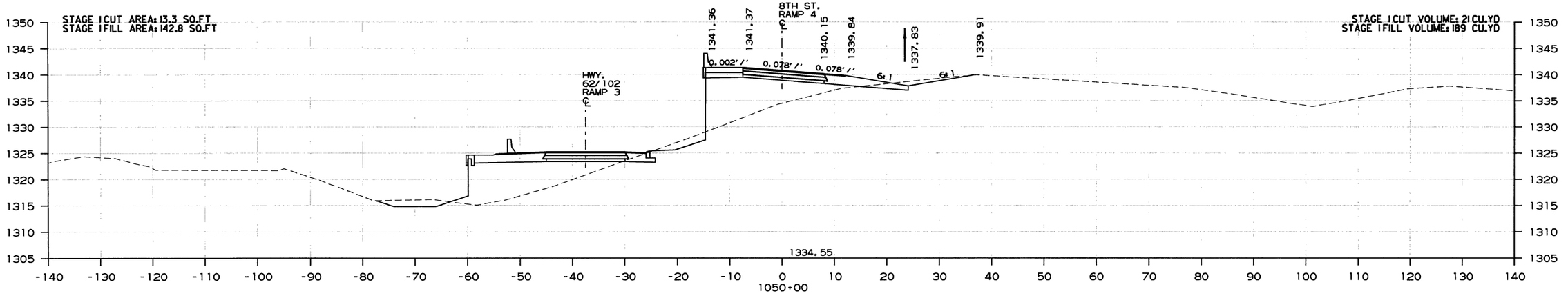
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	366	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 4			





STA. 1050+11.90 MAX SUPERELEVATION (0.083'/')

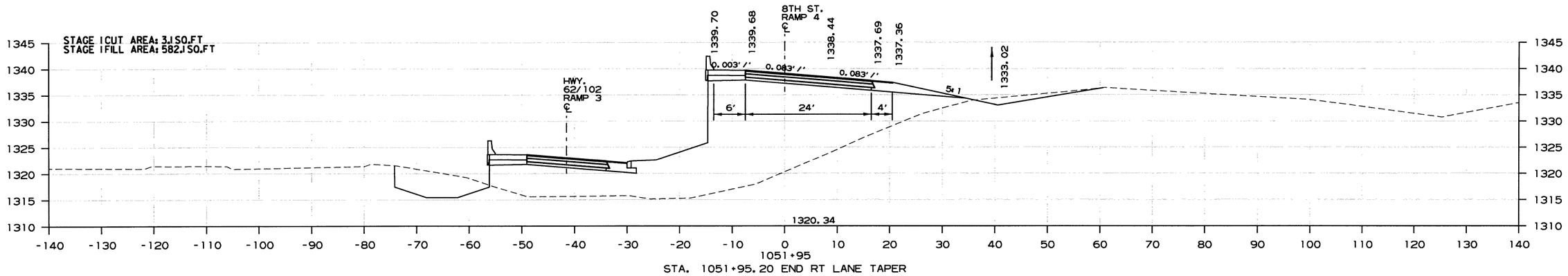


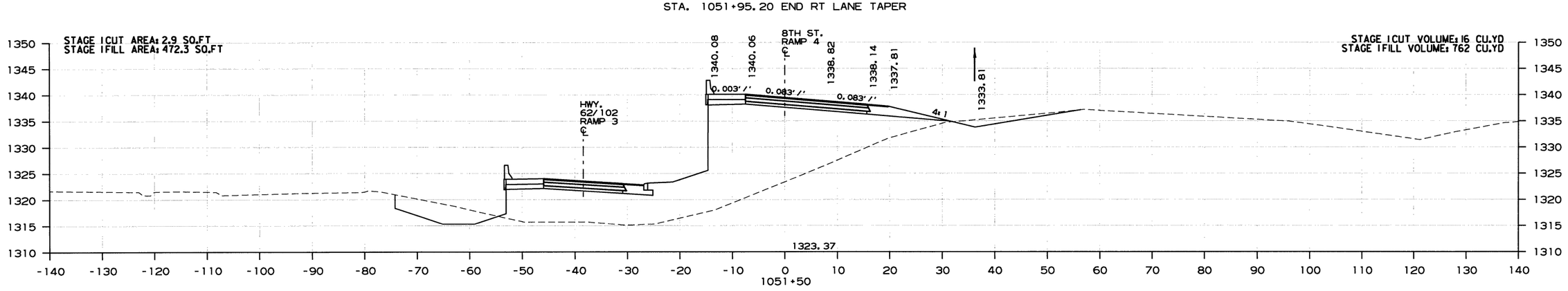
CROSS SECTION STA. 1050+00 TO STA. 1050+50

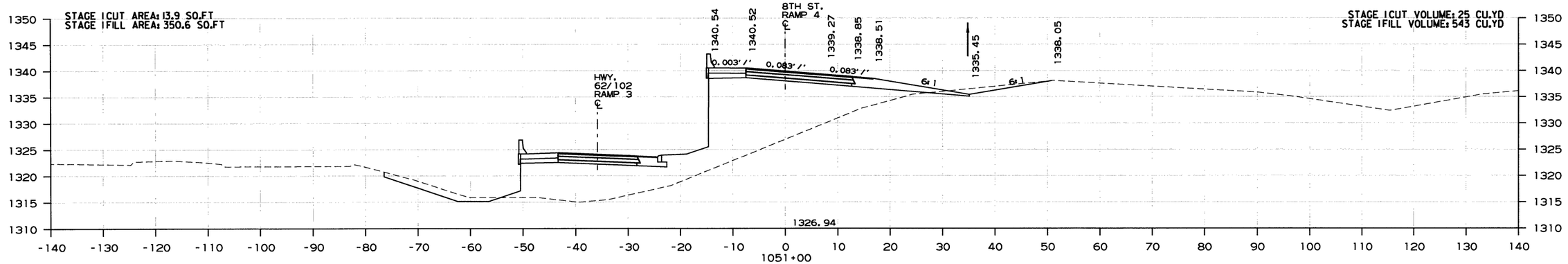
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	367	555

(2) CROSS SECTIONS - 8TH ST. RAMP 4

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.



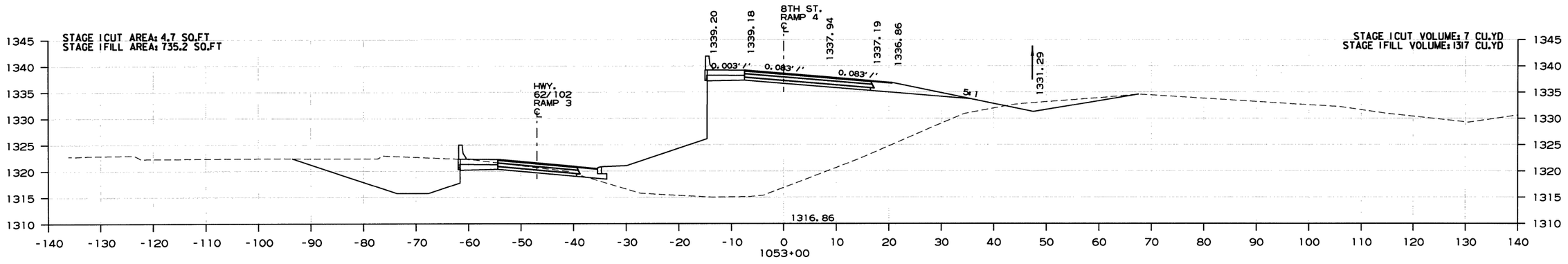


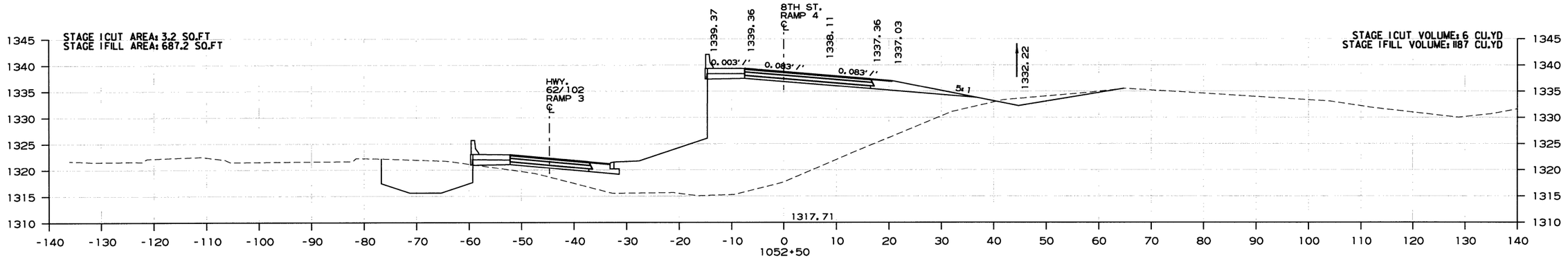


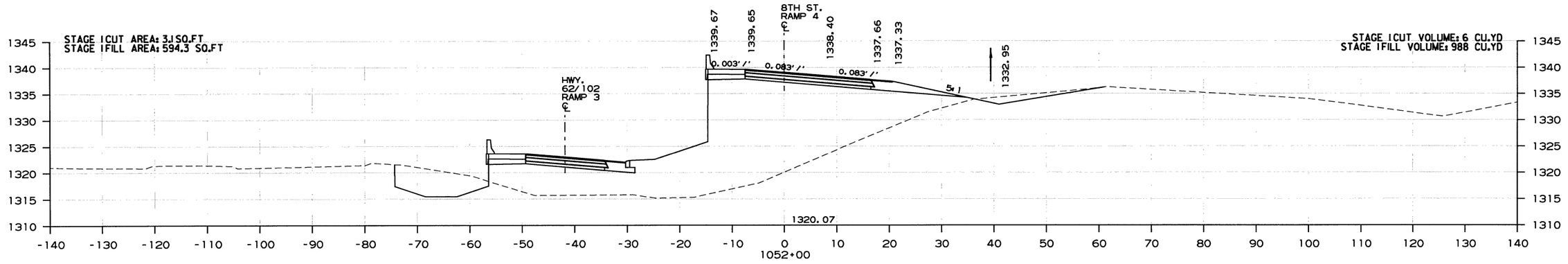
CROSS SECTION STA. 1051+00 TO STA. 1051+95

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	368	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 4			



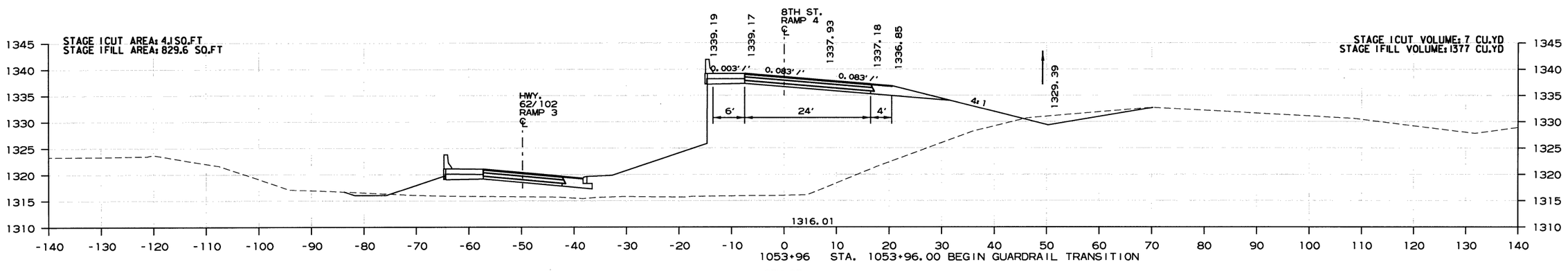


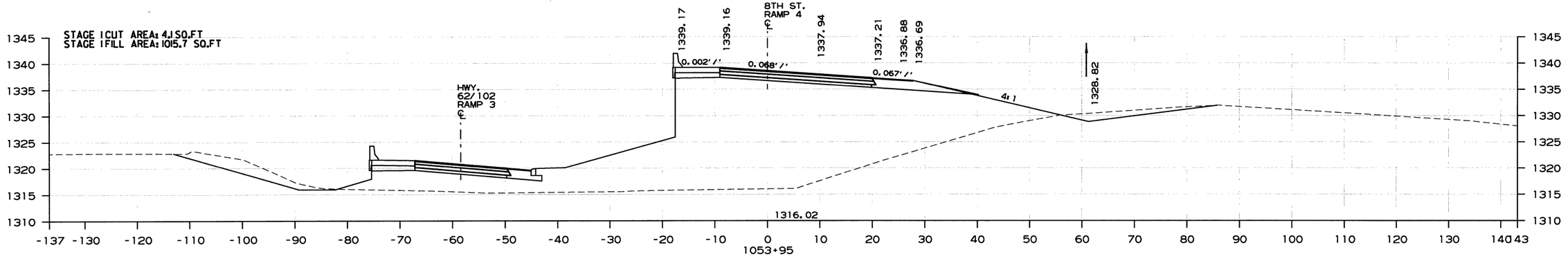


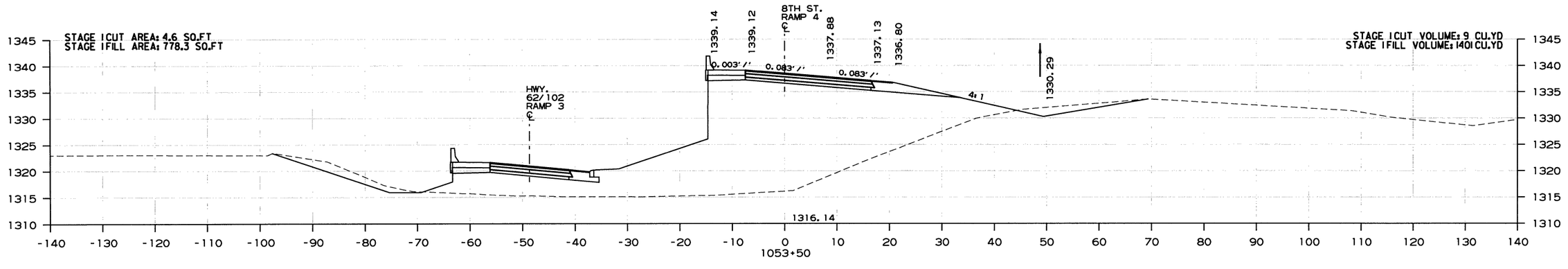
CROSS SECTION STA. 1052+00 TO STA. 1053+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	369	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 4			





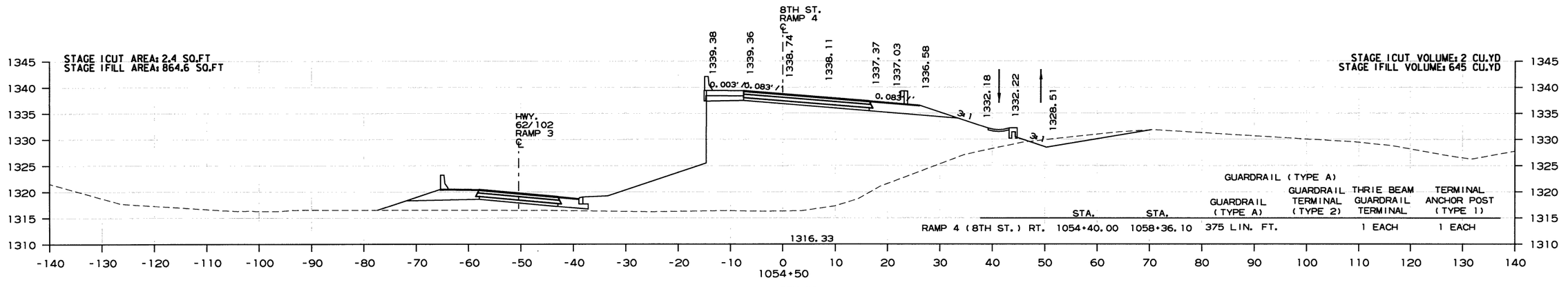


CROSS SECTION STA. 1053+50 TO STA. 1053+96

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	370	555

(2) CROSS SECTIONS - 8TH ST. RAMP 4

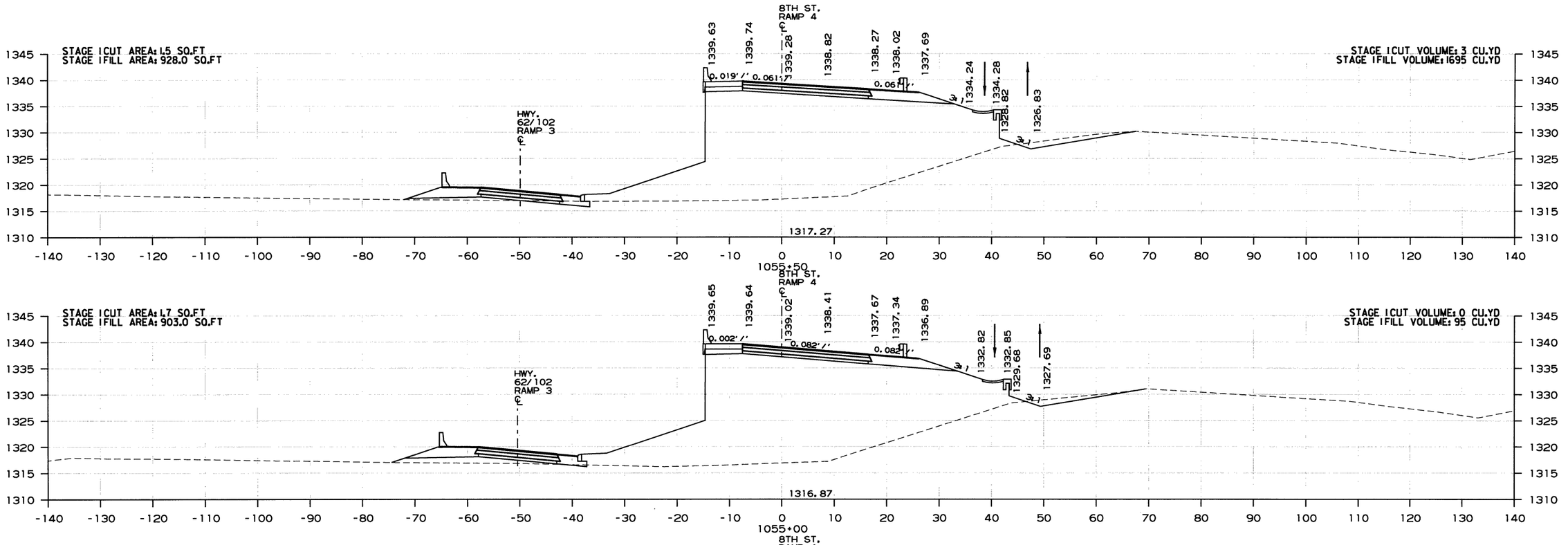
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.



CROSS SECTION STA. 1054+00 TO STA. 1054+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	371	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 4			

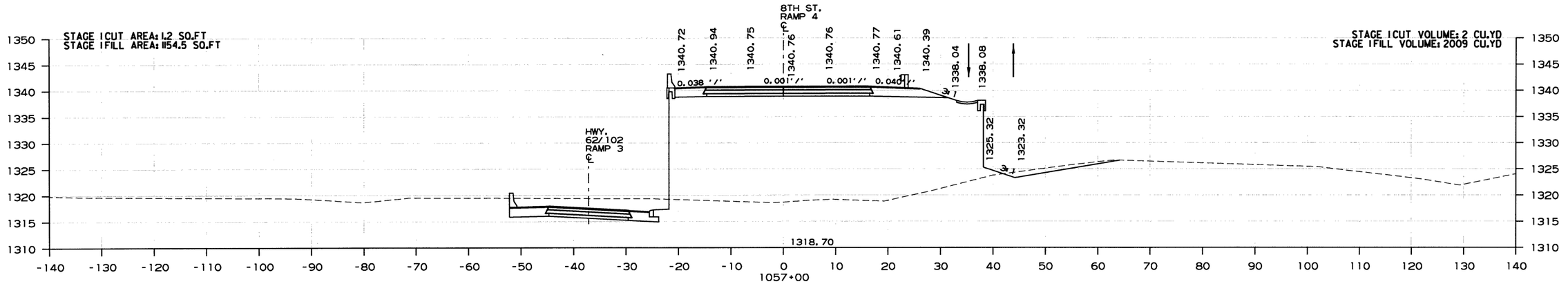


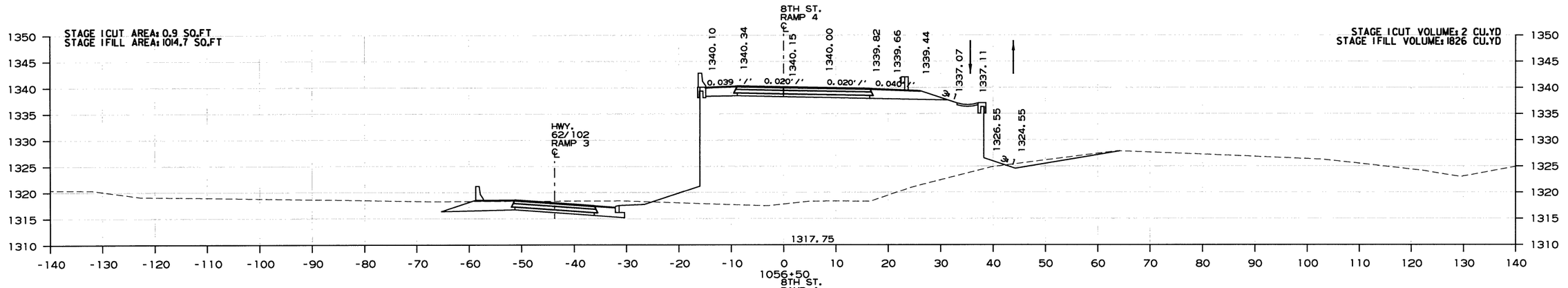
STA. 1054+97.16 MAX SUPERELEVATION (0.083'/')

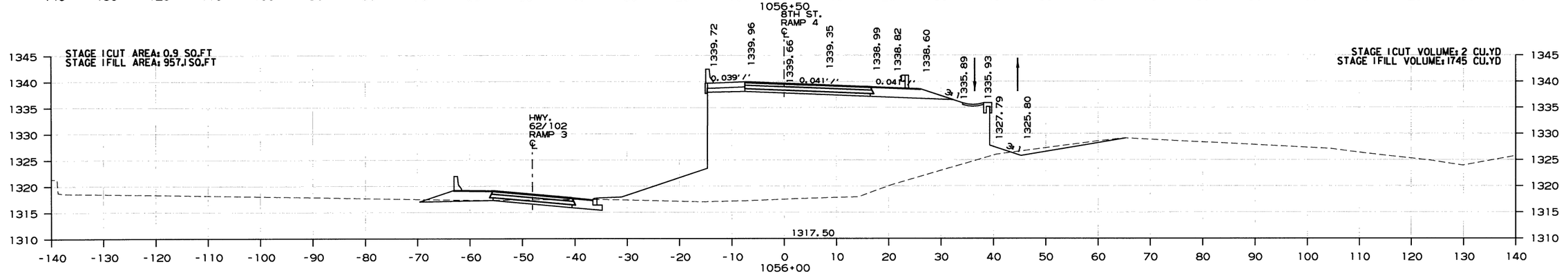
CROSS SECTION STA. 1054+97 TO STA. 1055+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	372	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 4			



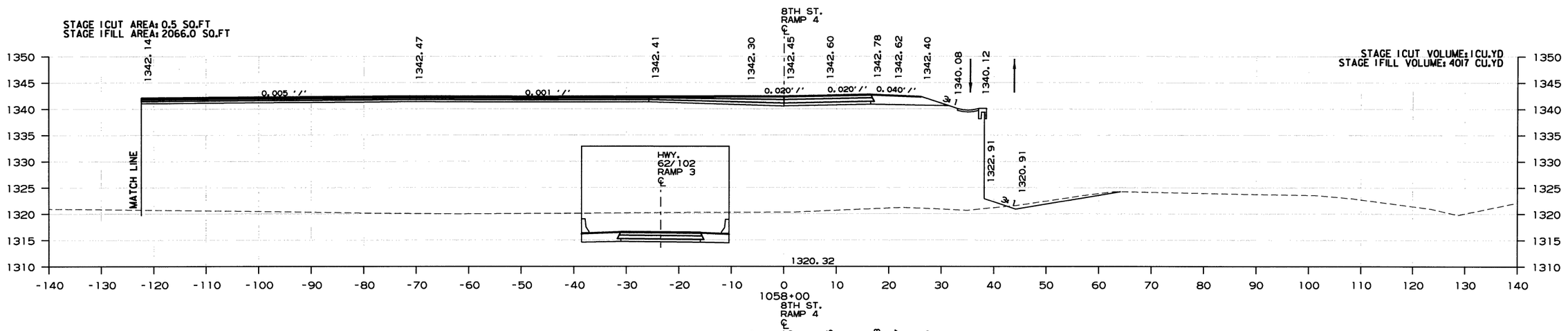


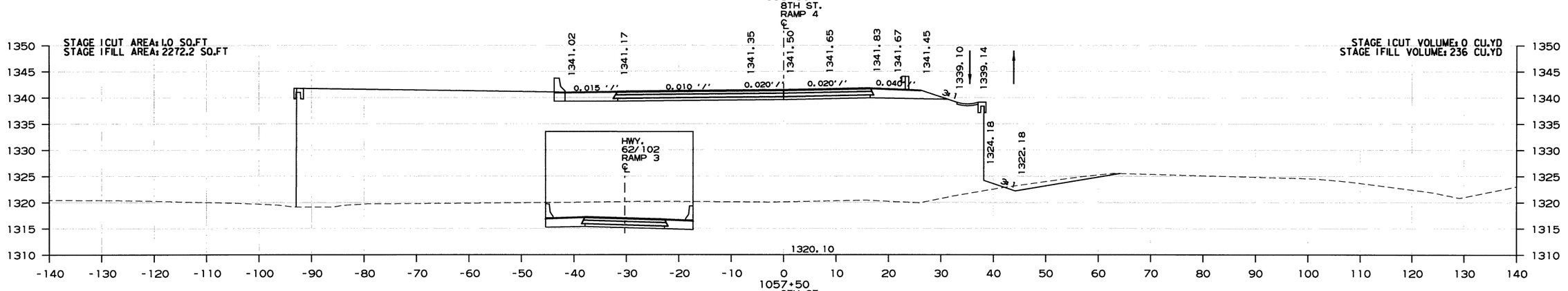


CROSS SECTION STA. 1056+00 TO STA. 1057+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	373	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 4			

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.



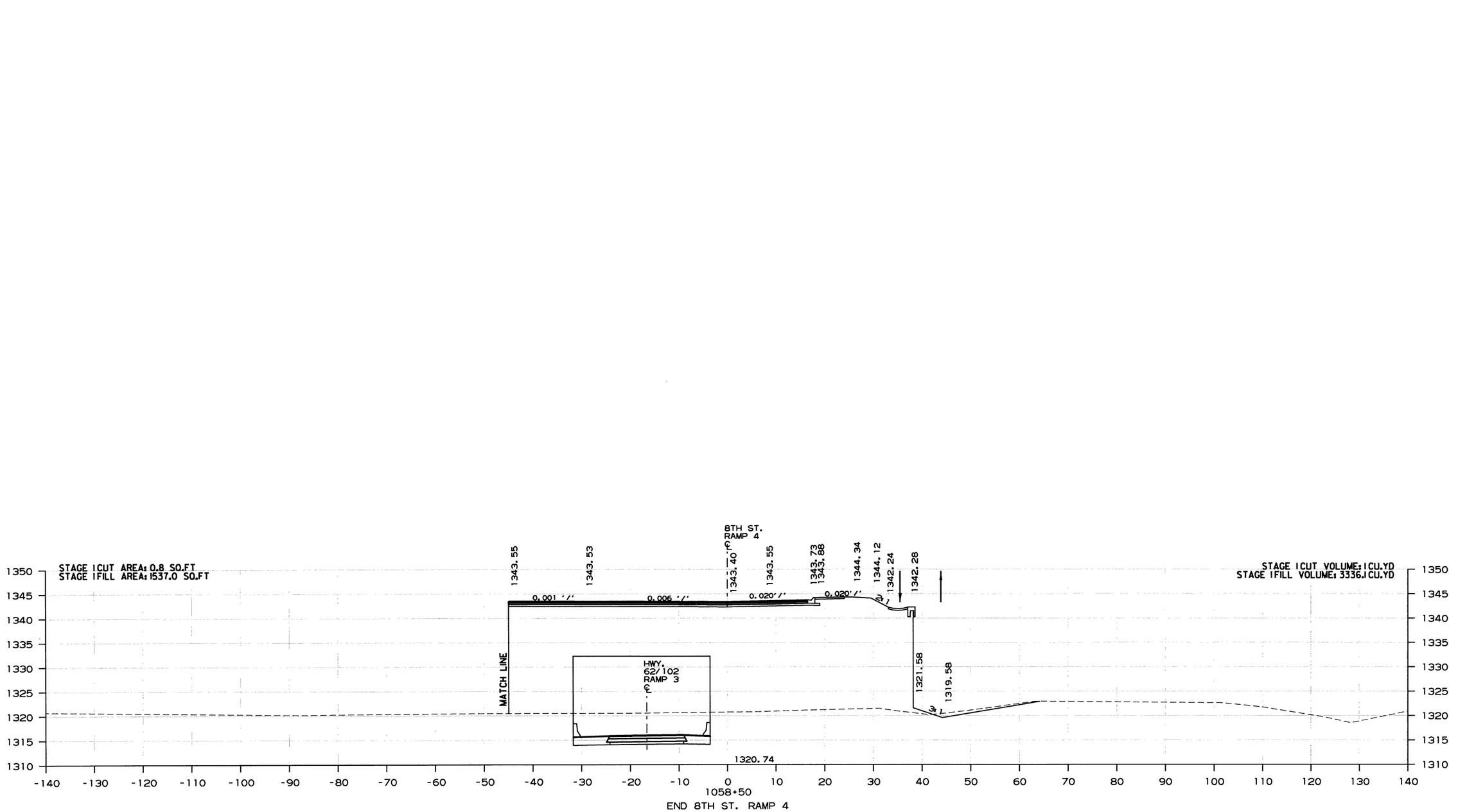


STA. 1057+47.16 END SUPERELEVATION

CROSS SECTION STA. 1057+47 TO STA. 1058+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	374	555
				(2)	CROSS SECTIONS - 8TH ST. RAMP 4			

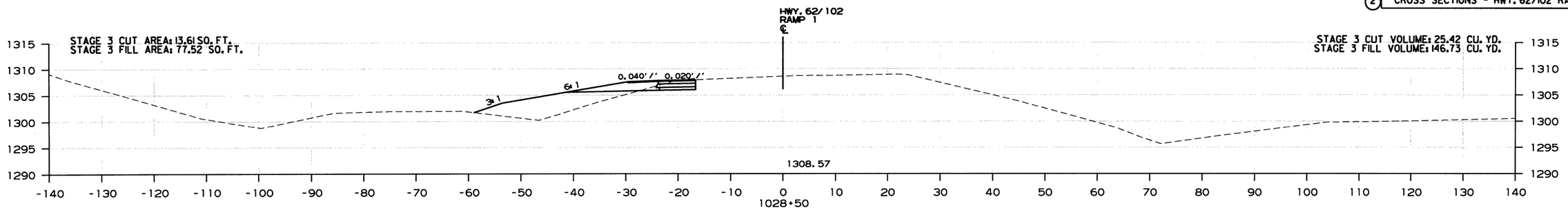


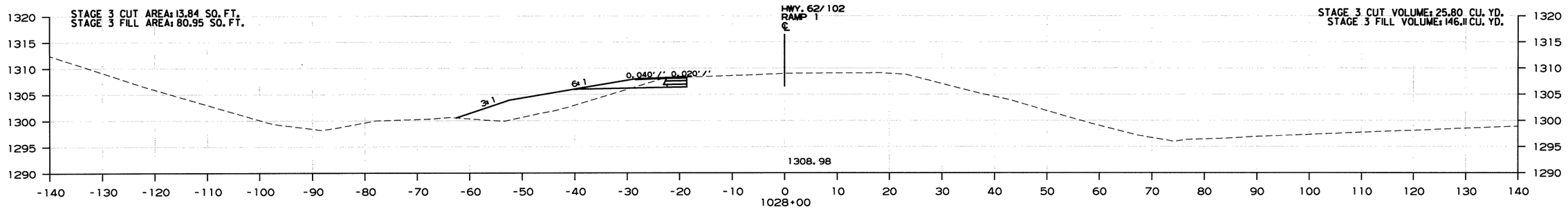
CROSS SECTION STA. 1058+50 TO STA. 1058+50

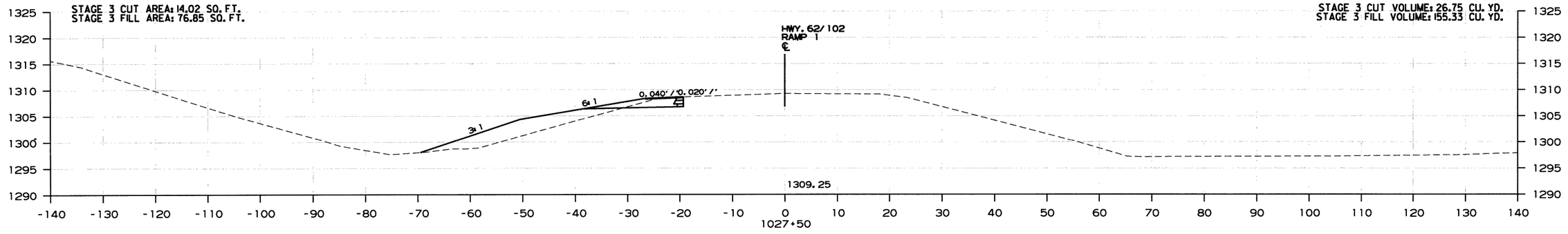
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	375	555

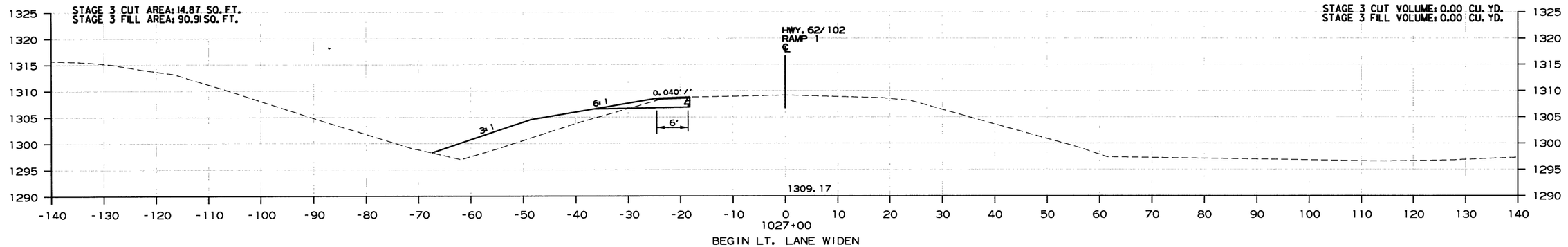
(2) CROSS SECTIONS - HWY. 62/102 RAMP 1

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.







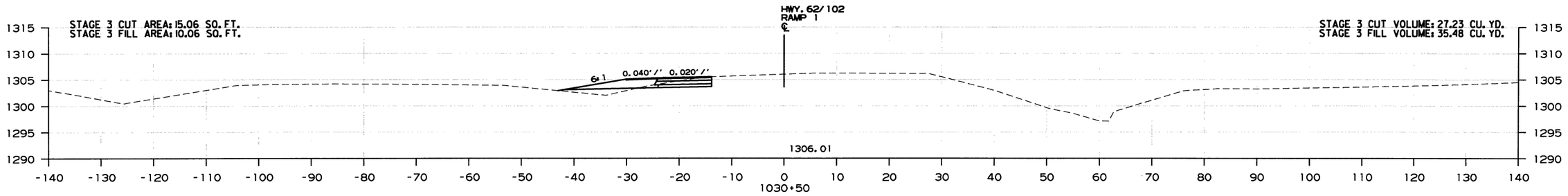


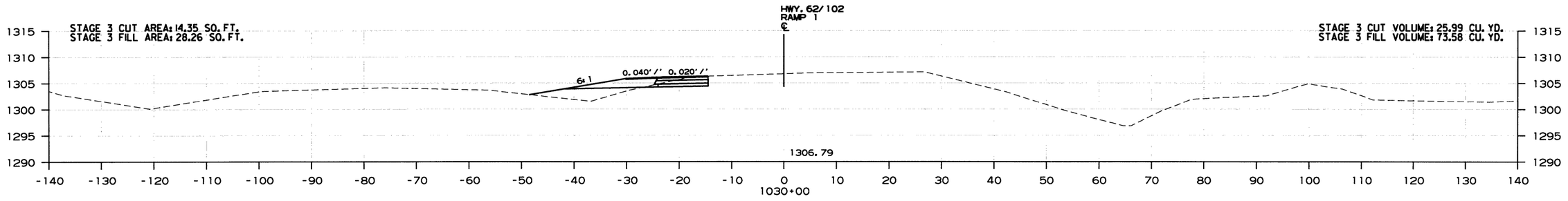
BEGIN LT. LANE WIDEN
BEGIN HWY. 62 /102 RAMP 1

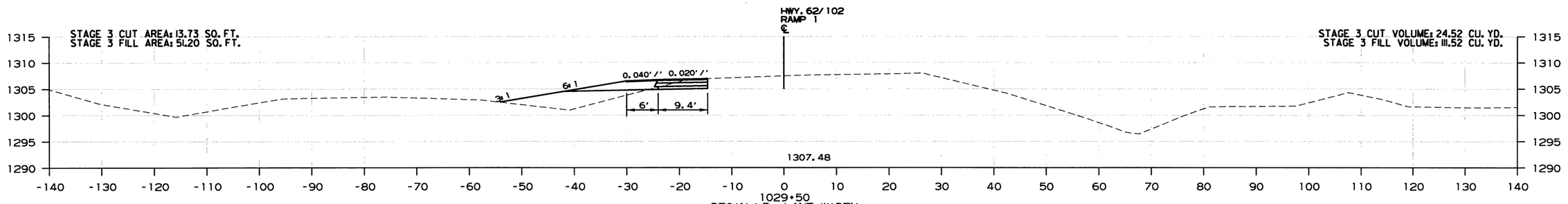
CROSS SECTION STA. 1027+00 TO STA. 1028+50

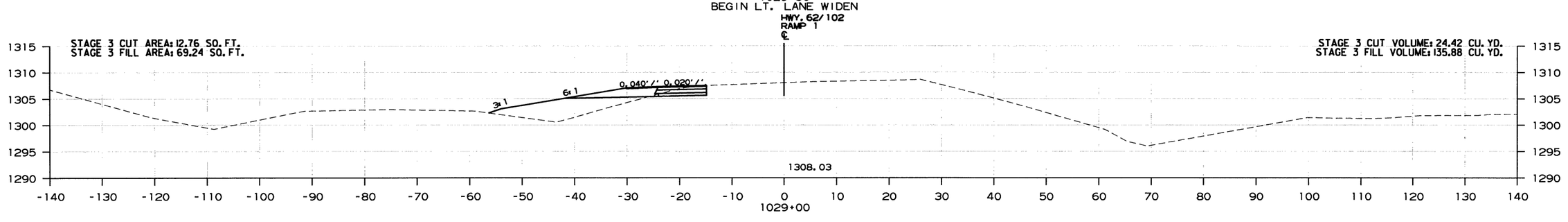
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	376	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 1





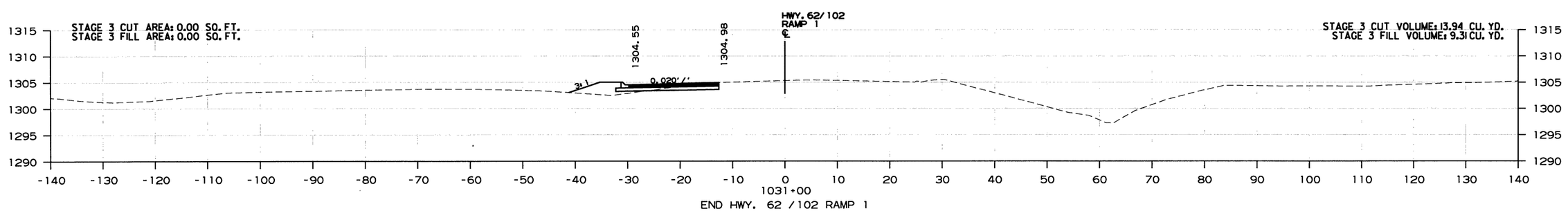




CROSS SECTION STA. 1029+00 TO STA. 1030+50

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	377	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 1

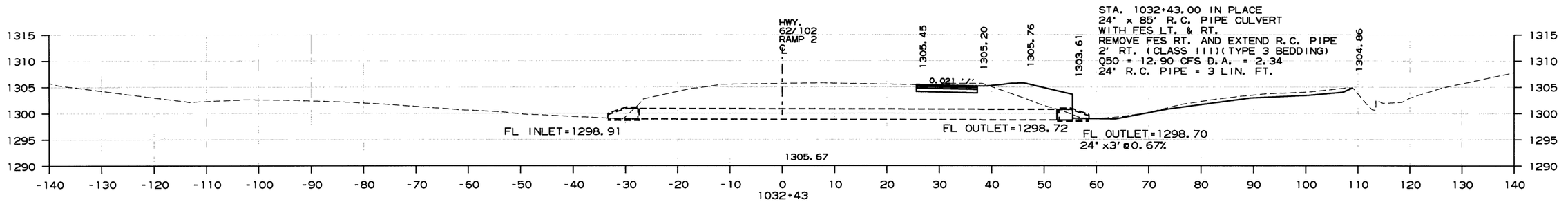


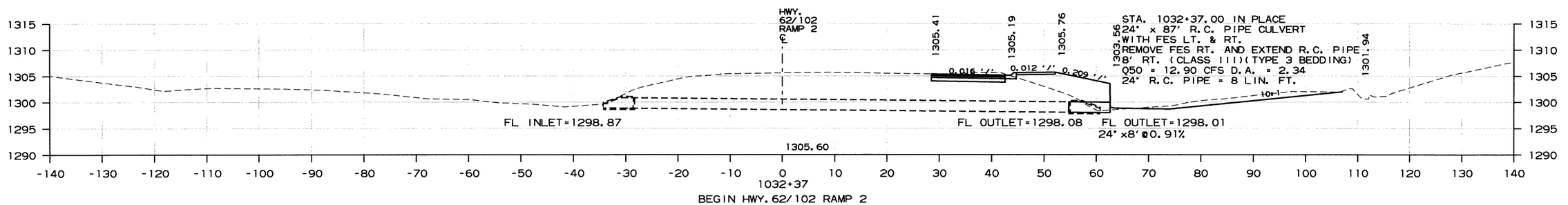
CROSS SECTION STA. 1031+00 TO STA. 1031+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		090376	378	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2



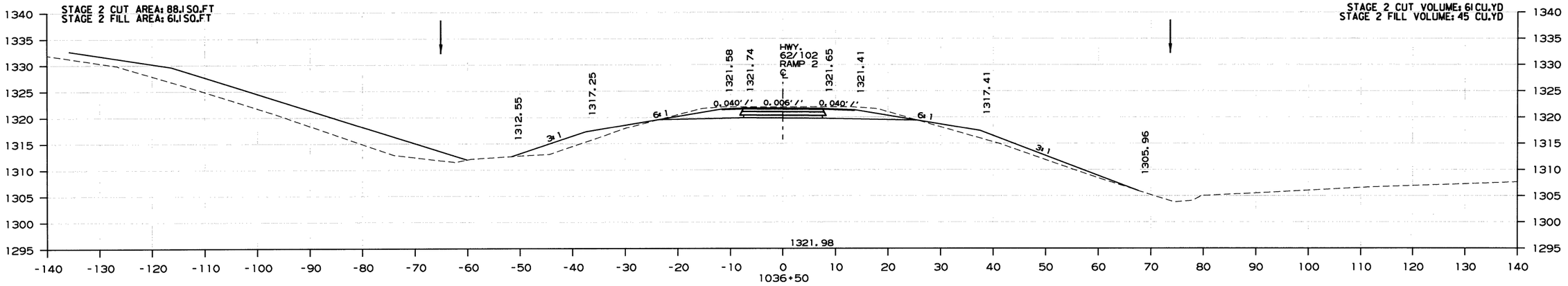


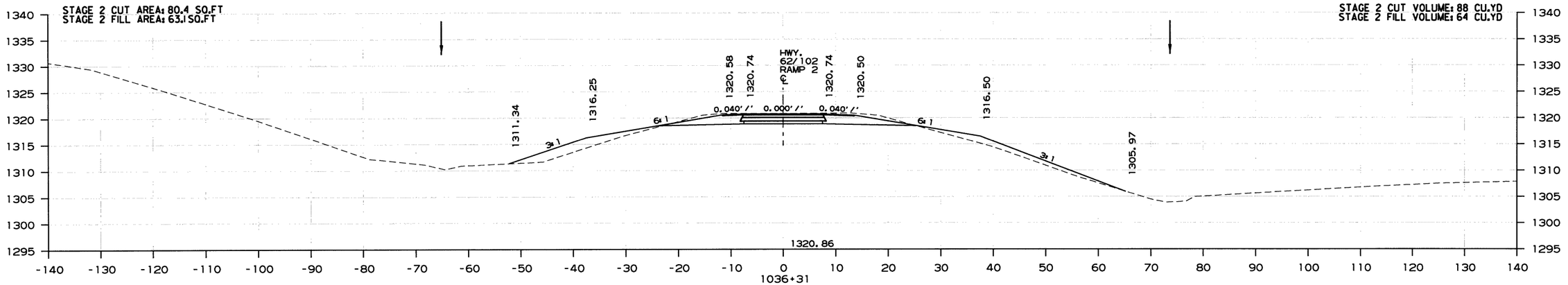
CROSS SECTION STA. 1032+37 TO STA. 1032+43

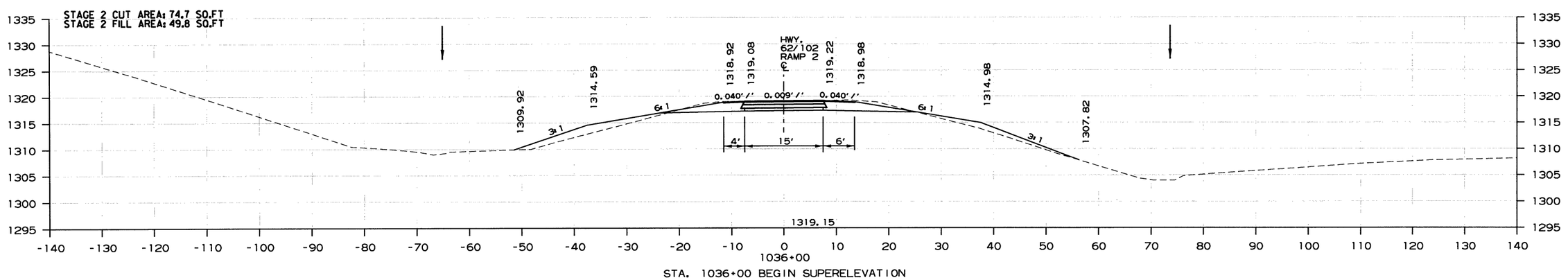
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	379	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2







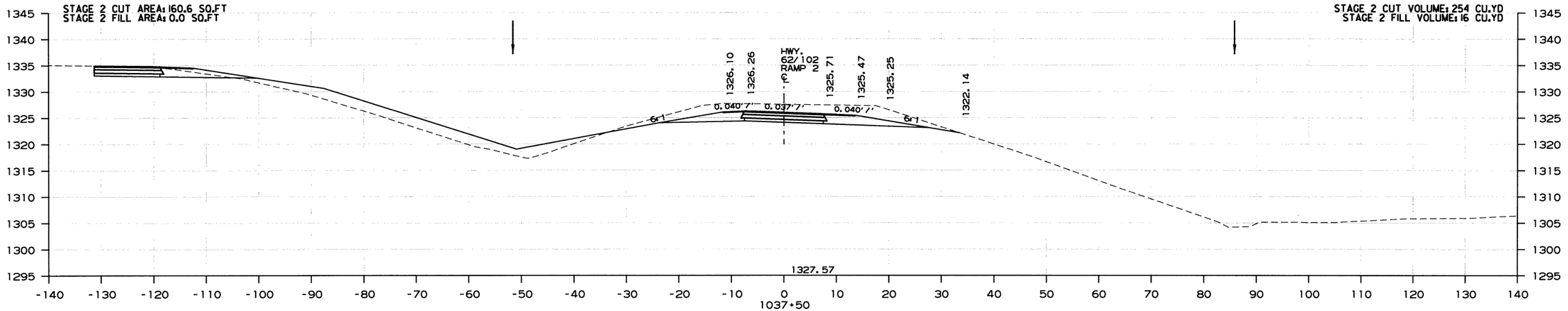
STA. 1036+00 BEGIN SUPERELEVATION

CROSS SECTION STA. 1036+00 TO STA. 1036+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	380	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2

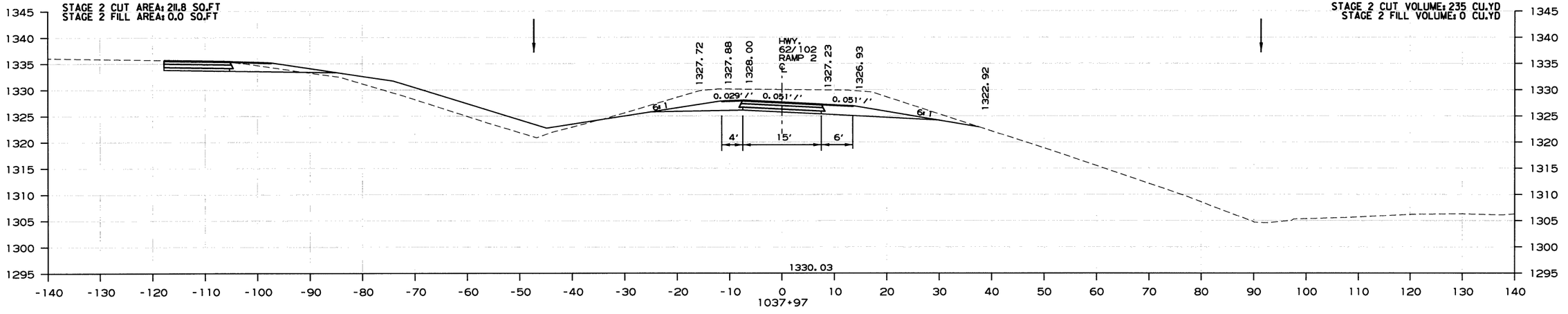


CROSS SECTION STA. 1037+00 TO STA. 1037+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	381	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2

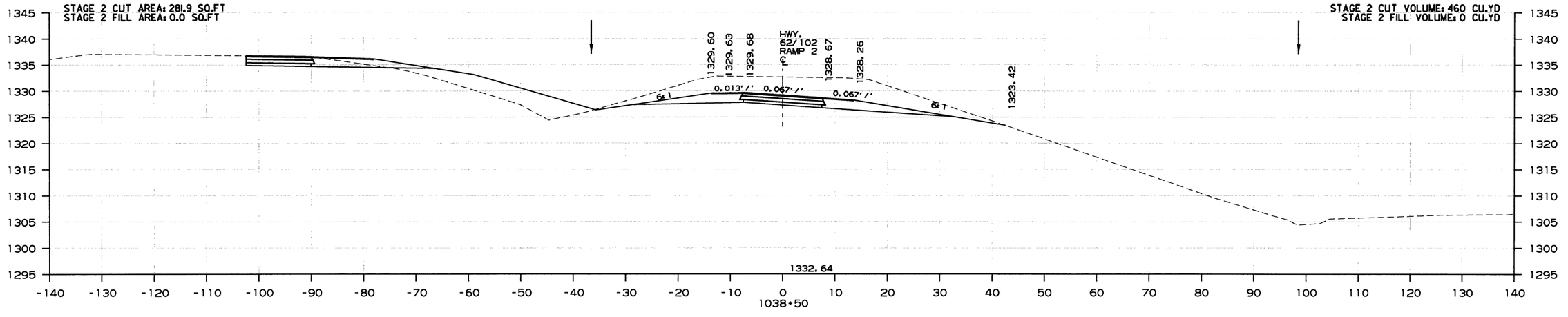


CROSS SECTION STA. 1037+64 TO STA. 1037+97

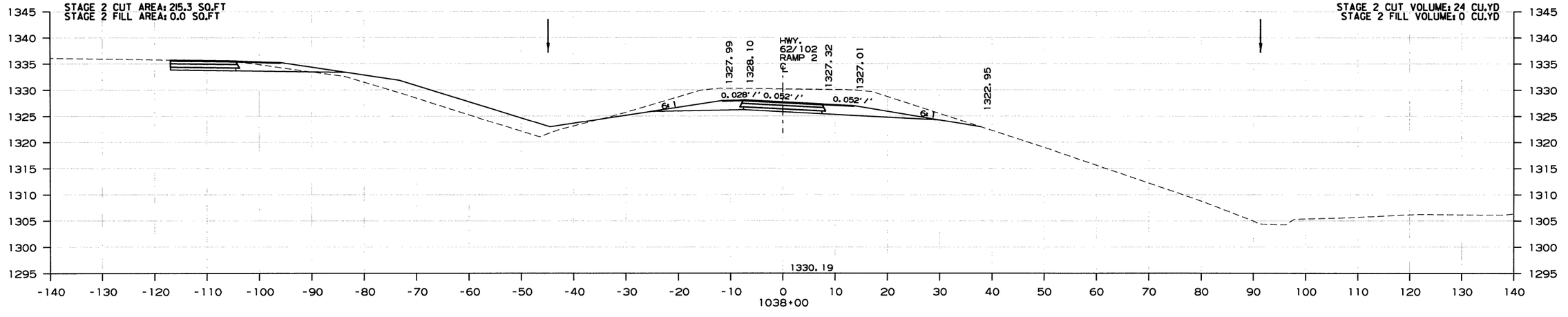
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	382	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2



STA. 1038+38.25 BEGIN GUARDRAIL TRANSITION LT.

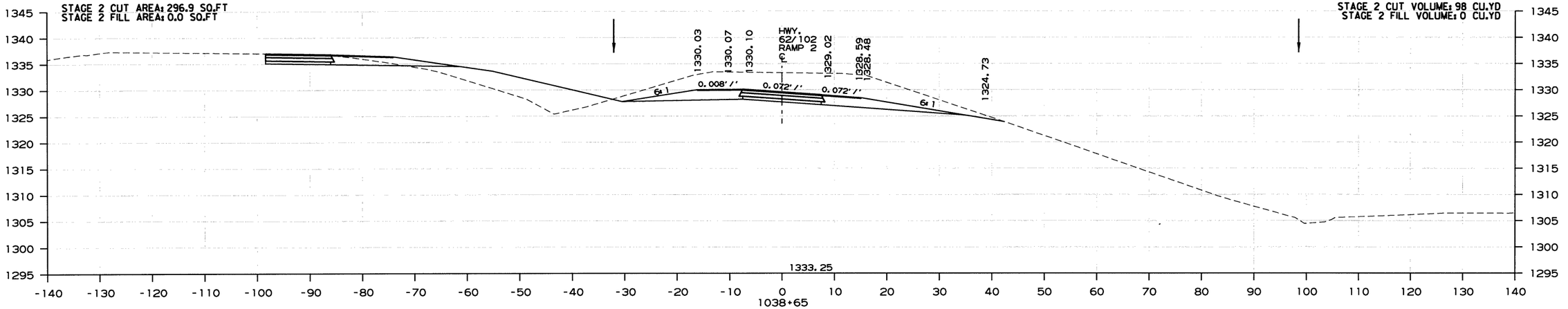


CROSS SECTION STA. 1038+00 TO STA. 1038+50

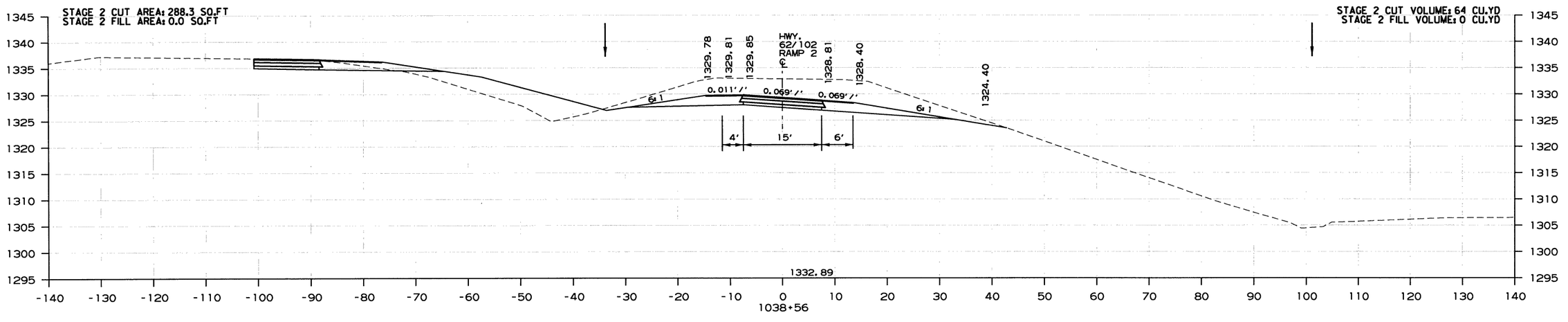
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	383	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2



STA. 1038+65.05 MAX SUPERELEVATION (0.072'/')

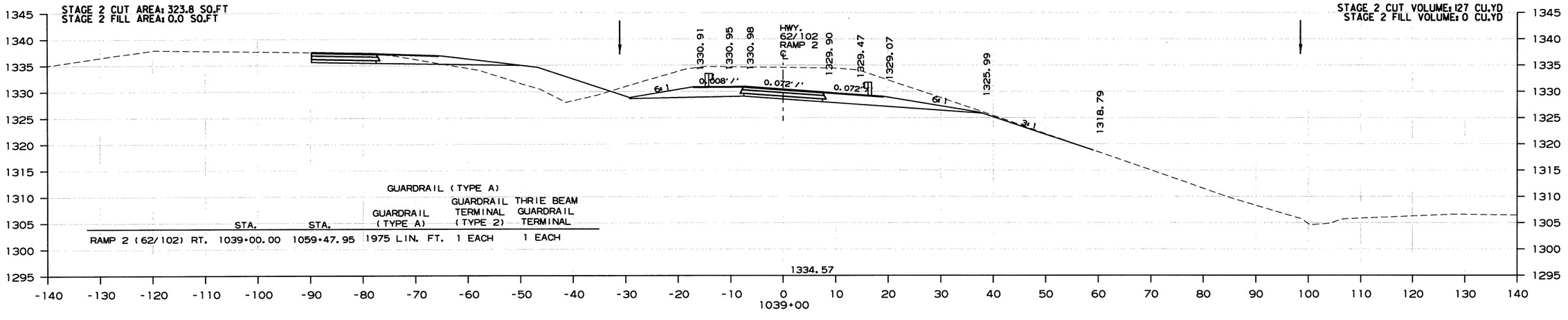


STA. 1038+57.00 BEGIN GUARDRAIL TRANSITION RT.

CROSS SECTION STA. 1038+56 TO STA. 1038+65

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	384	555
				(2)	CROSS SECTIONS - HWY. 62/102 RAMP 2			



STA. 1038+71.25 END GUARDRAIL TRANSITION LT.
STA. 1038+90.00 END GUARDRAIL TRANSITION RT.

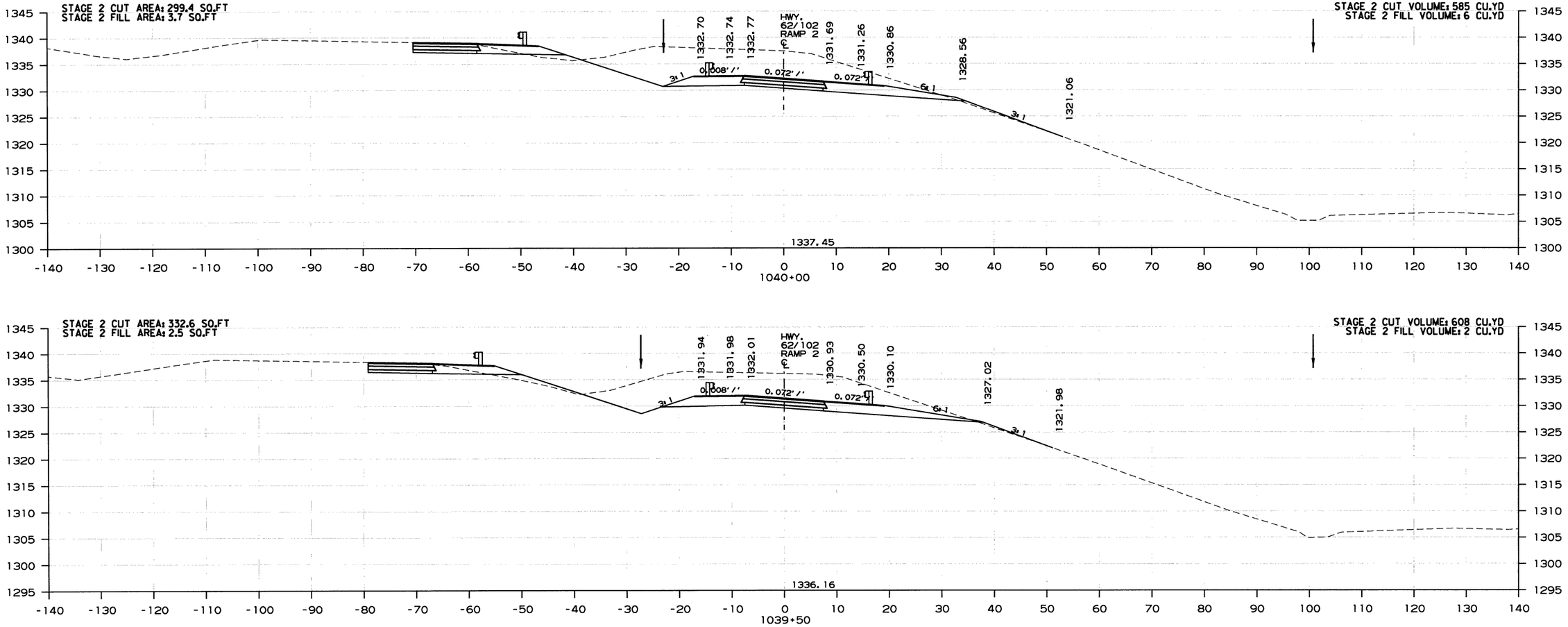
CROSS SECTION STA. 1038+89 TO STA. 1039+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		090376	385	555

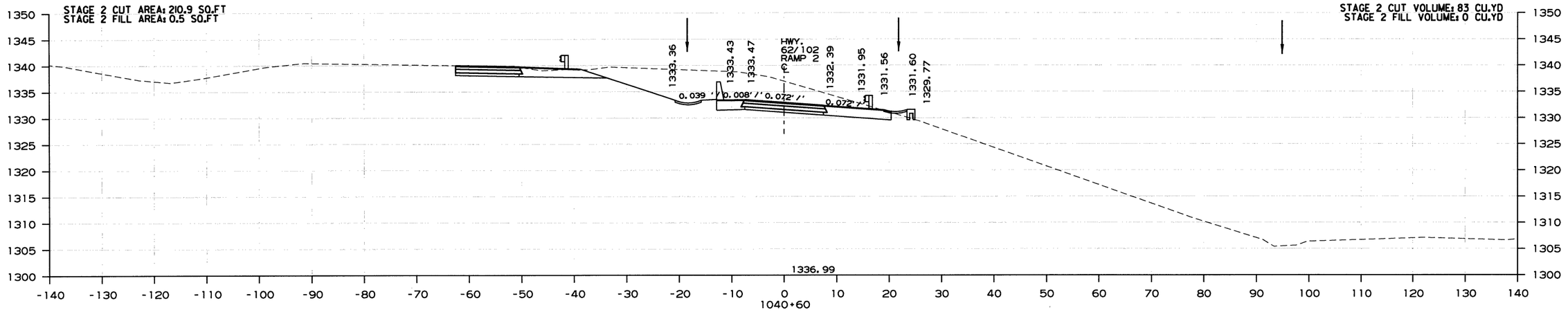
(2) CROSS SECTIONS - HWY. 62/102 RAMP 2



CROSS SECTION STA. 1039+50 TO STA. 1040+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	386	555
				(2)	CROSS SECTIONS - HWY. 62/102 RAMP 2			

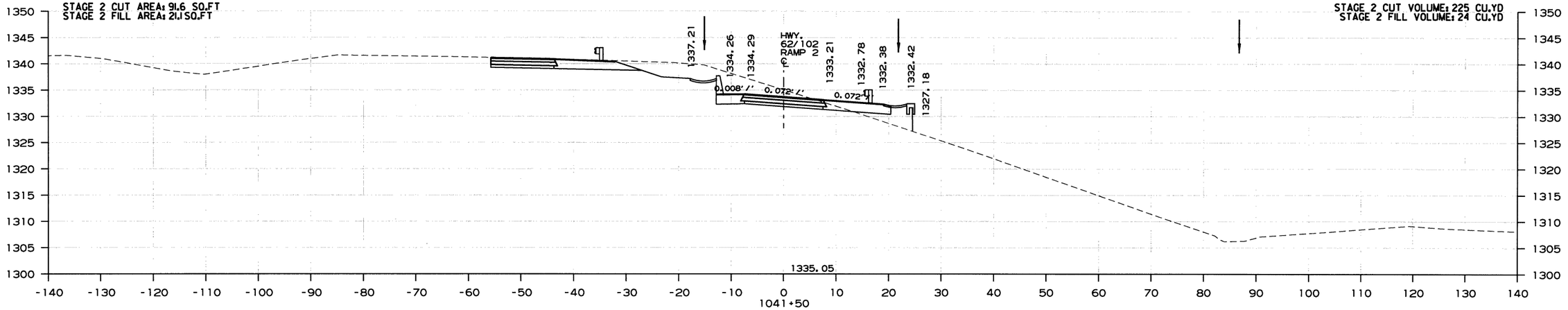


CROSS SECTION STA. 1040+50 TO STA. 1040+60

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	387	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2

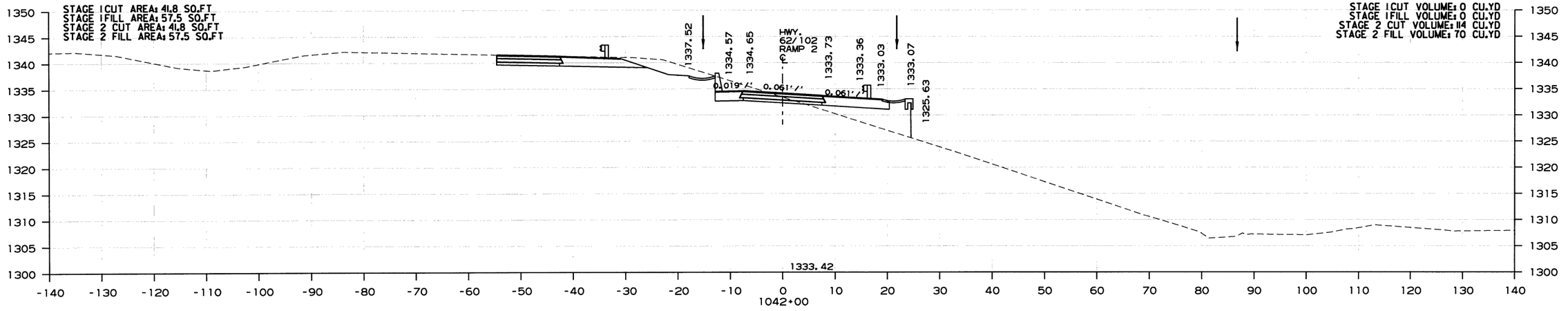


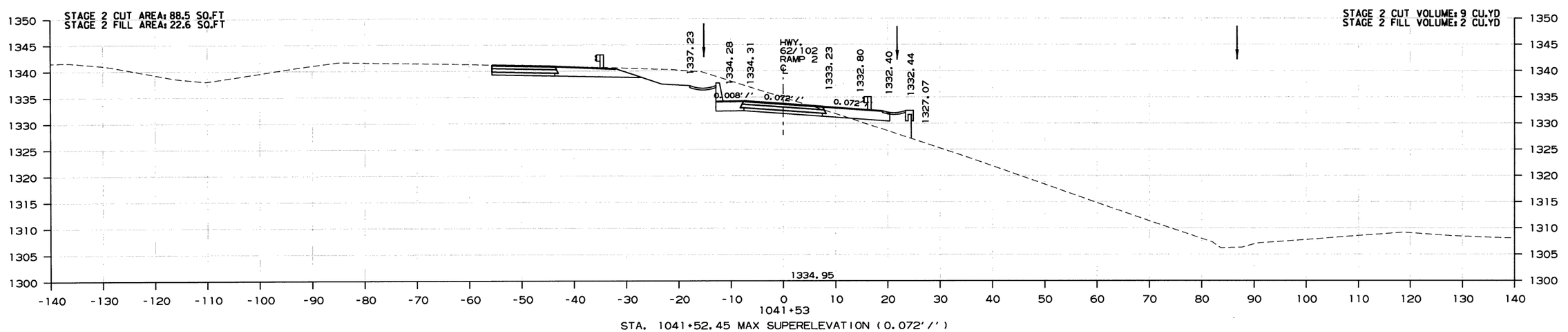
CROSS SECTION STA. 1041+00 TO STA. 1041+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	388	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2





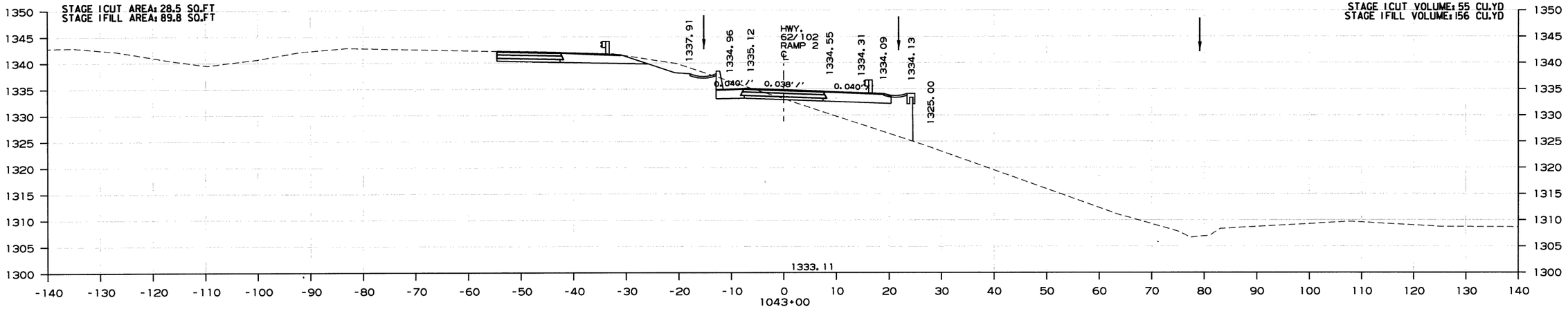
STA. 1041+52.45 MAX SUPERELEVATION (0.072'/')

CROSS SECTION STA. 1041+53 TO STA. 1042+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	389	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2

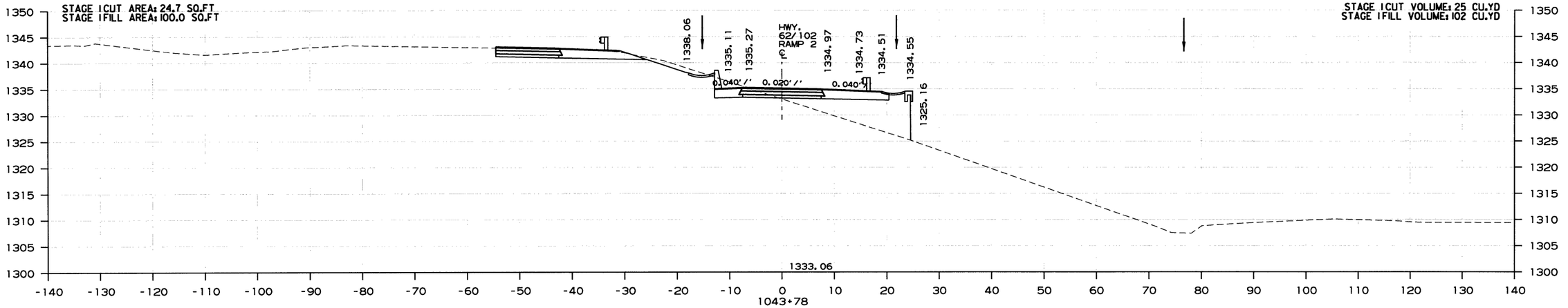


CROSS SECTION STA. 1042+50 TO STA. 1043+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	390	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2

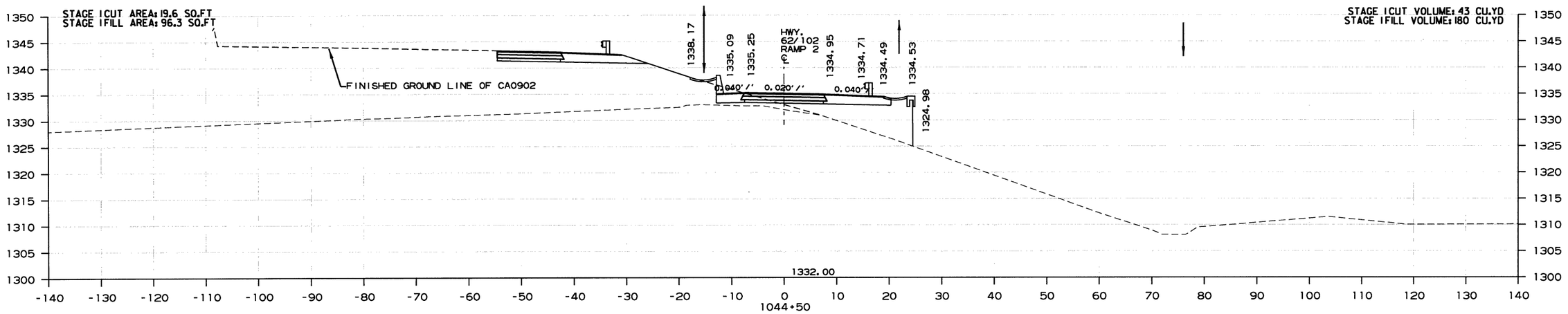


CROSS SECTION STA. 1043+50 TO STA. 1043+78

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	391	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2

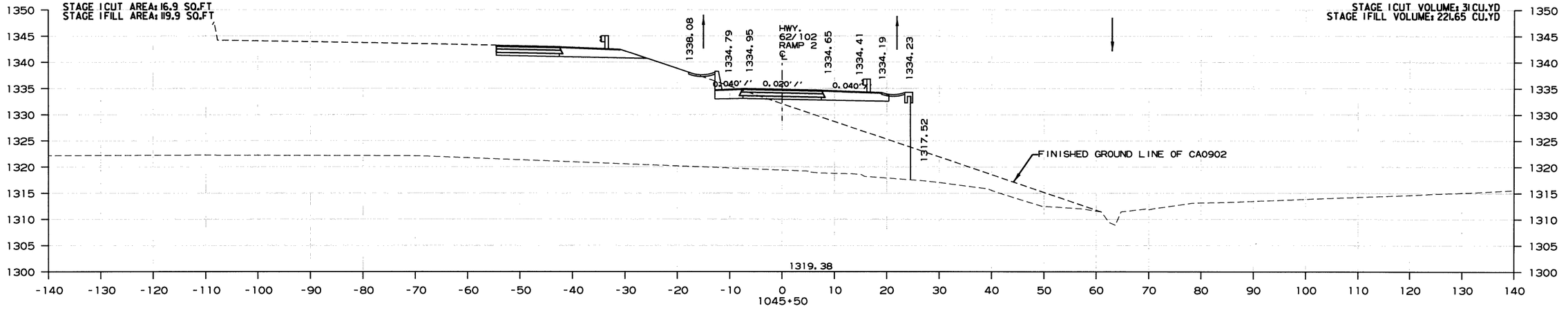


CROSS SECTION STA. 1044+00 TO STA. 1044+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	392	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2



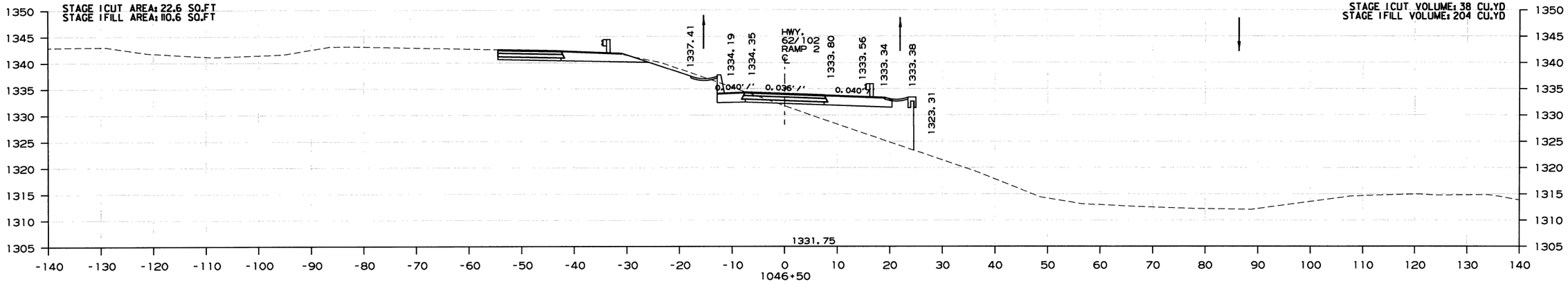
CROSS SECTION STA. 1045+00 TO STA. 1045+50

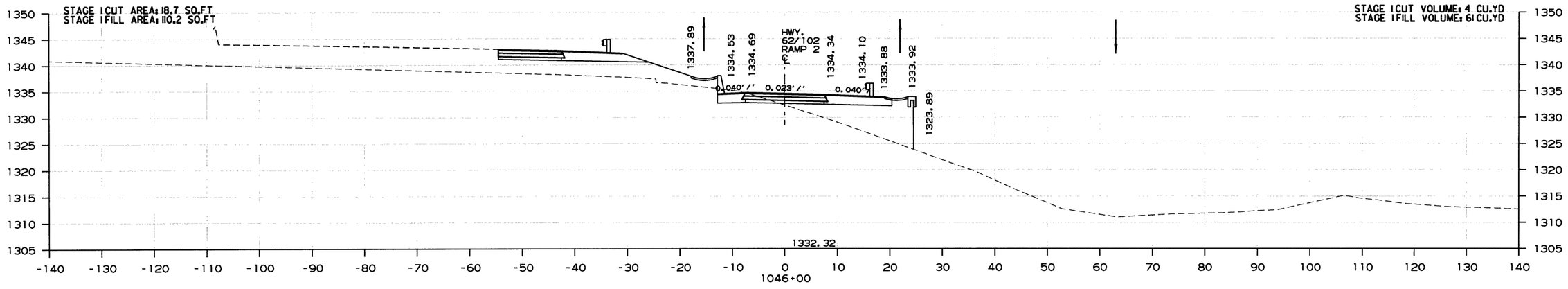
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

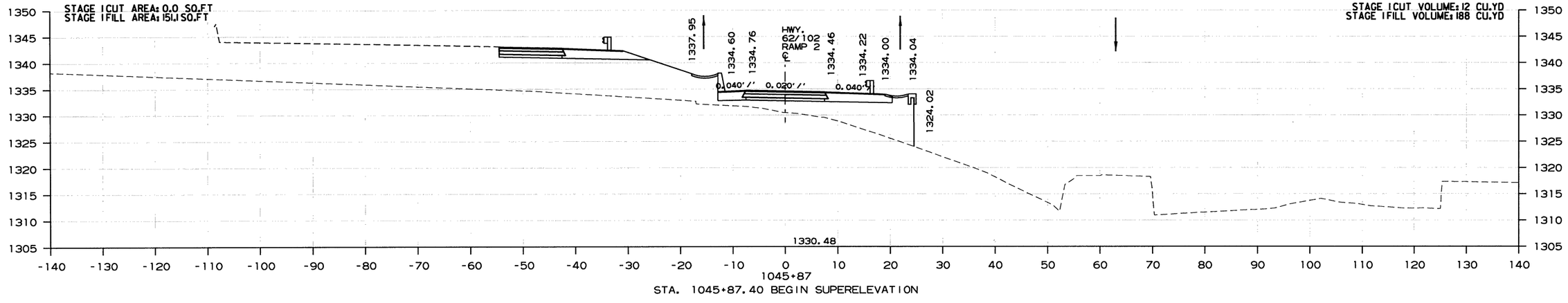
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		090376	393	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2







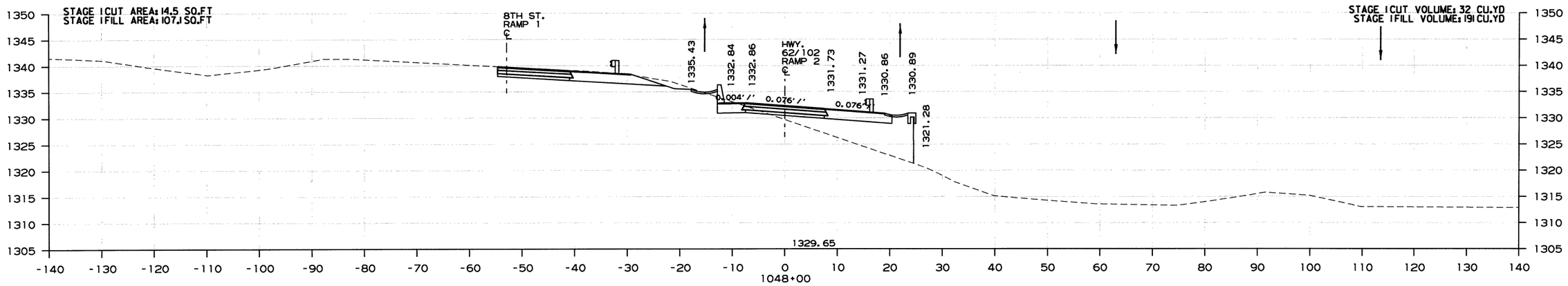
STA. 1045+87.40 BEGIN SUPERELEVATION

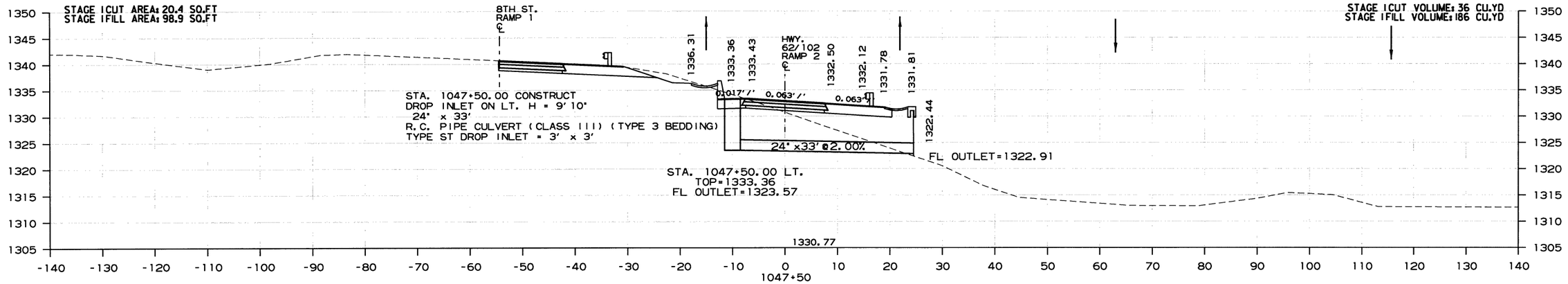
CROSS SECTION STA. 1045+87 TO STA. 1046+50

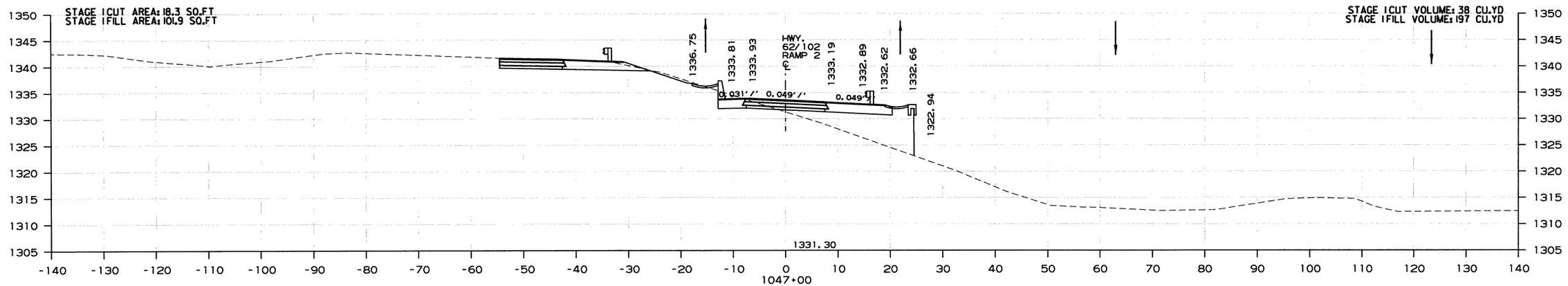
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	394	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2



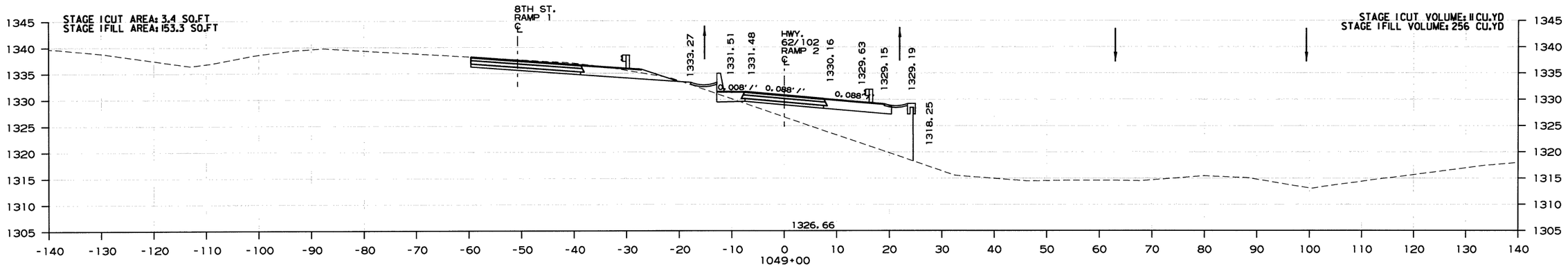


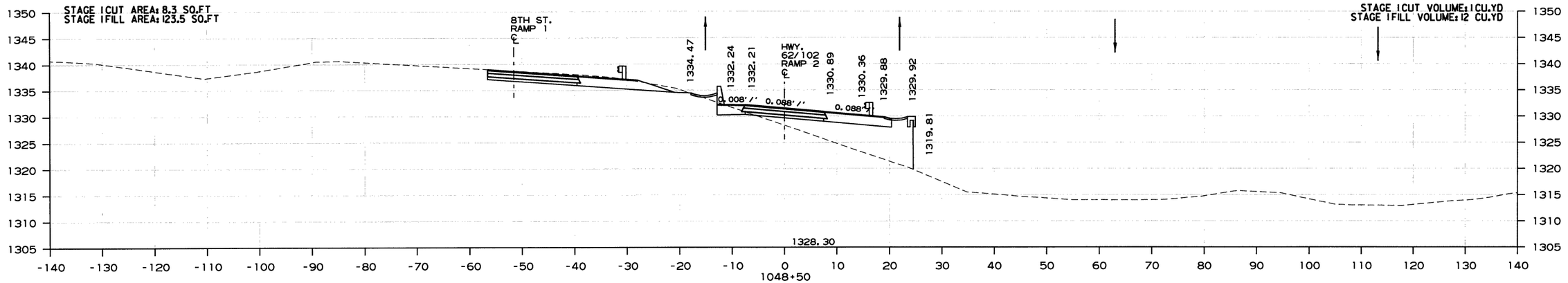


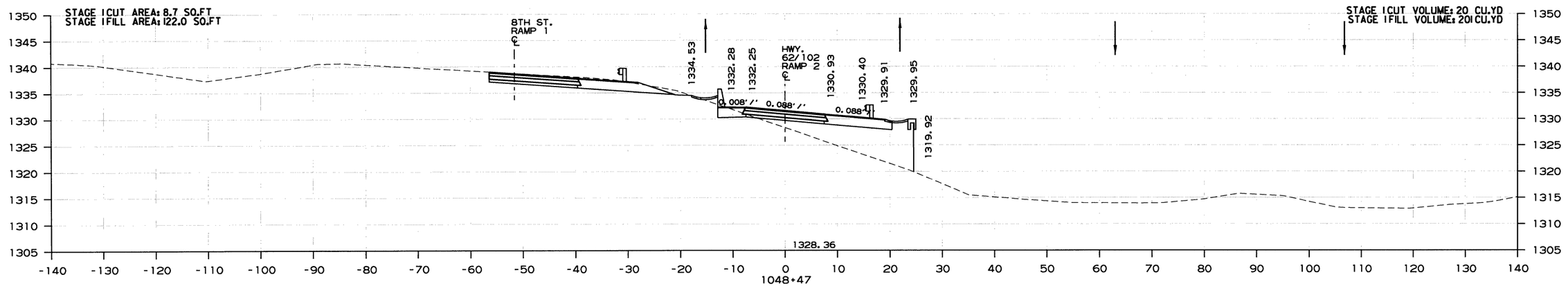
CROSS SECTION STA. 1047+00 TO STA. 1048+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	395	555
				(2)	CROSS SECTIONS - HWY. 62/102 RAMP 2			







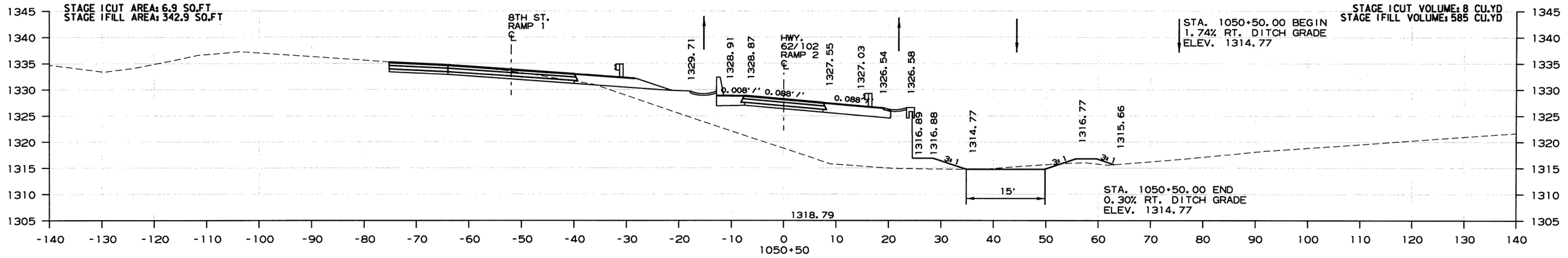
STA. 1048+47.40 MAX SUPERELEVATION (-0.088 '/')

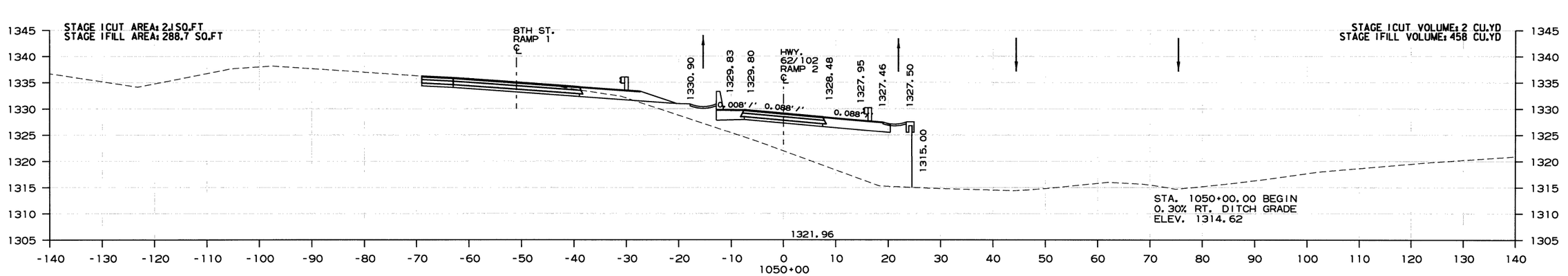
CROSS SECTION STA. 1048+47 TO STA. 1049+00

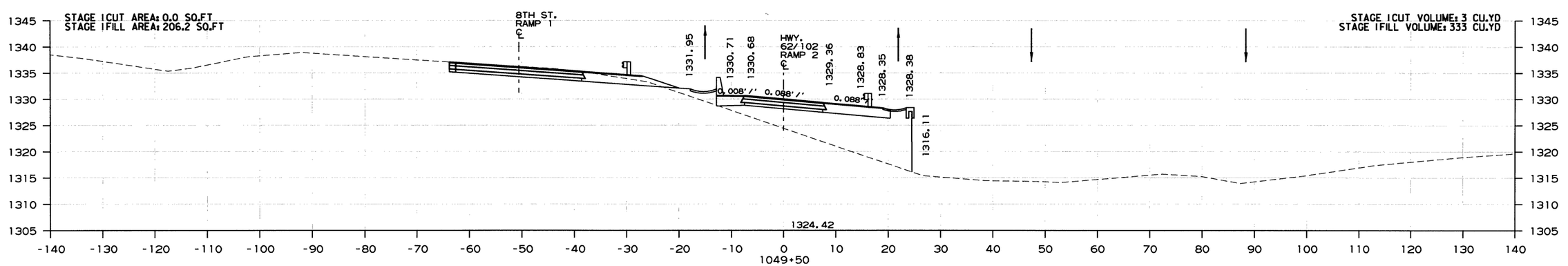
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	396	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2





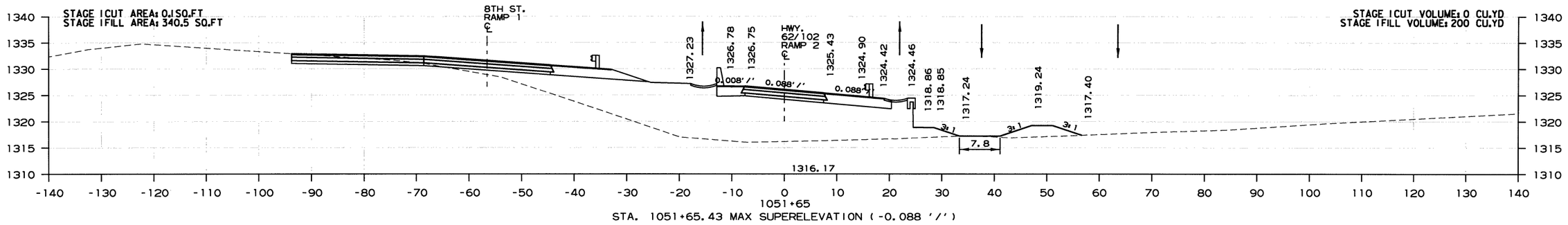


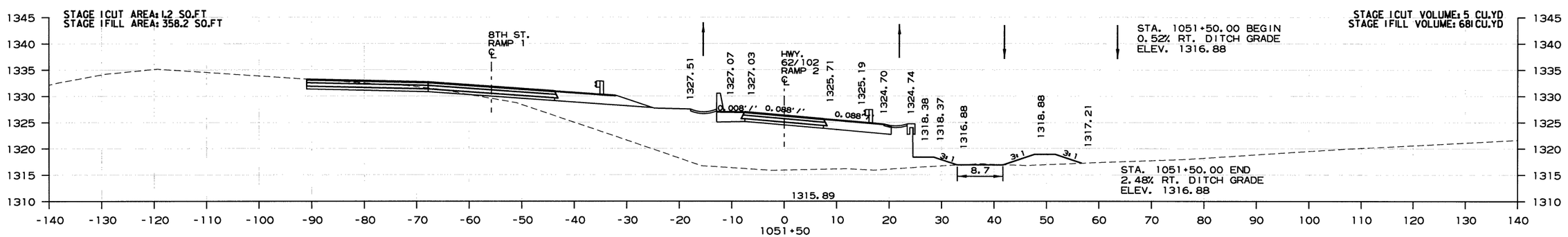
CROSS SECTION STA. 1049+50 TO STA. 1050+50

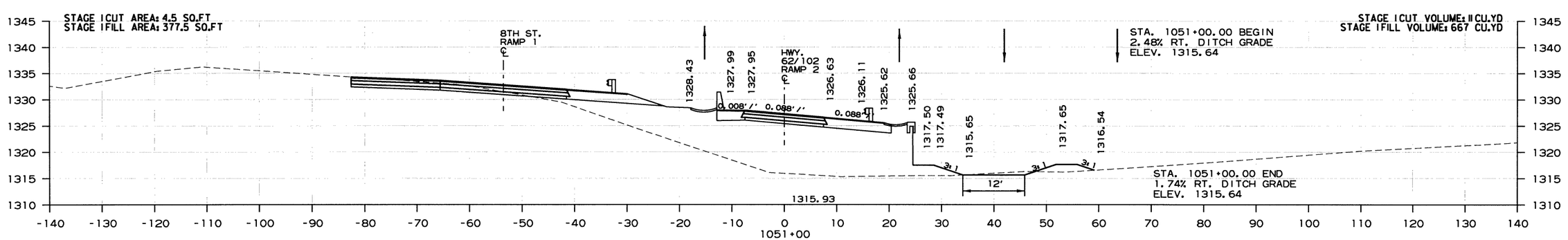
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	397	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2





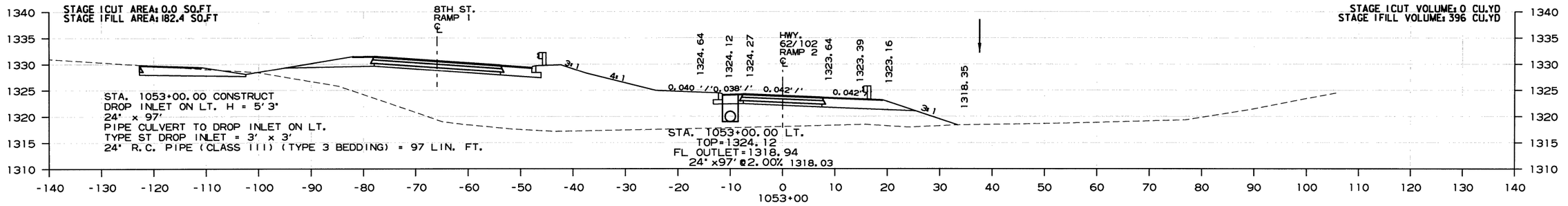


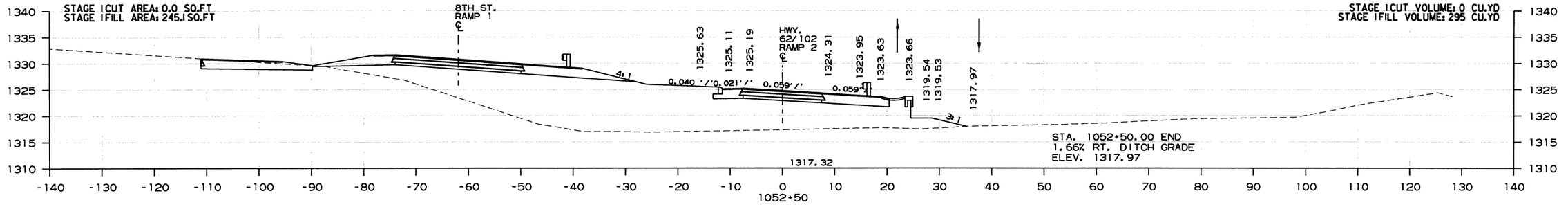
CROSS SECTION STA. 1051+00 TO STA. 1051+65

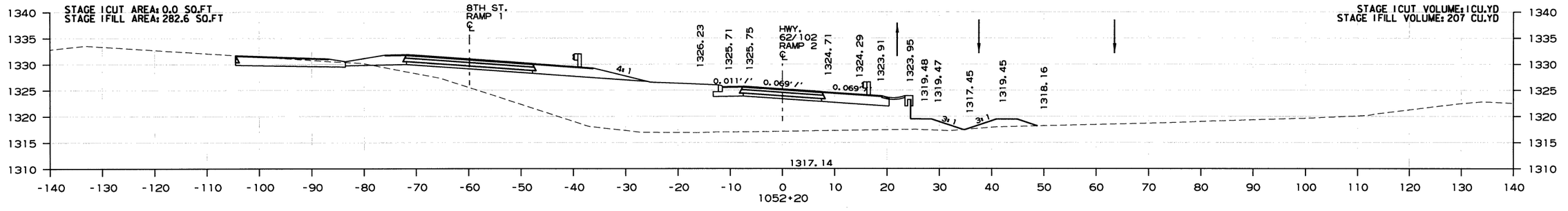
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

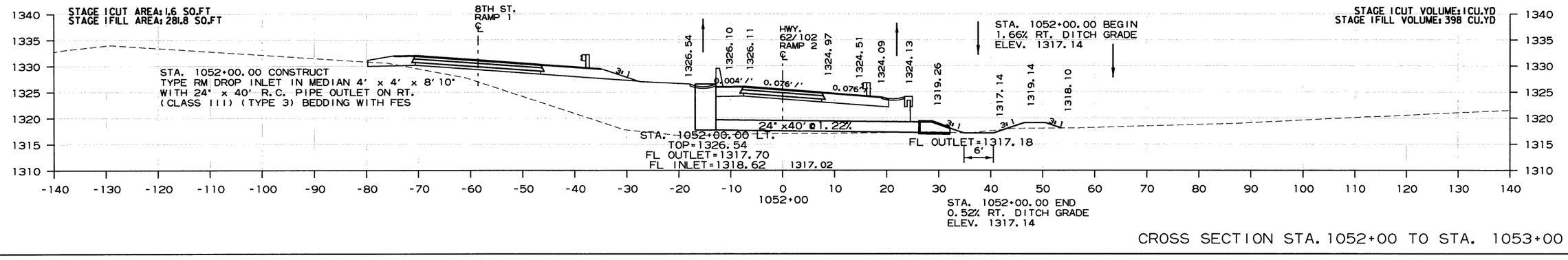
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	398	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2





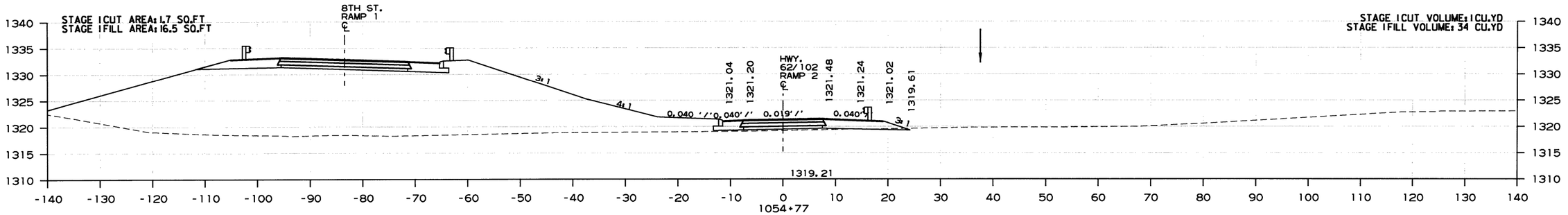


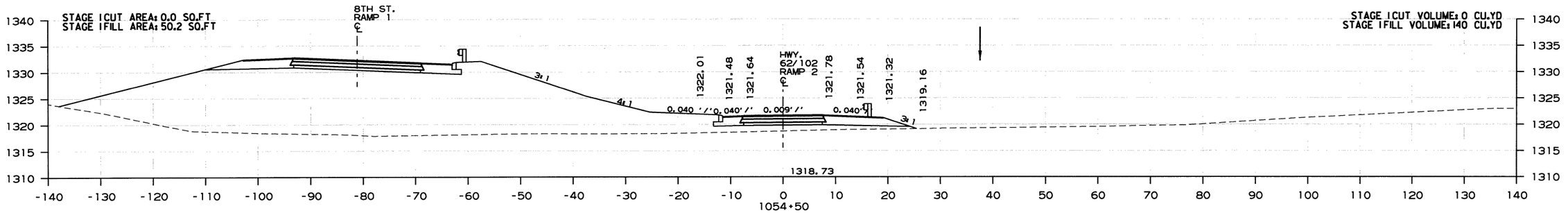


CROSS SECTION STA. 1052+00 TO STA. 1053+00

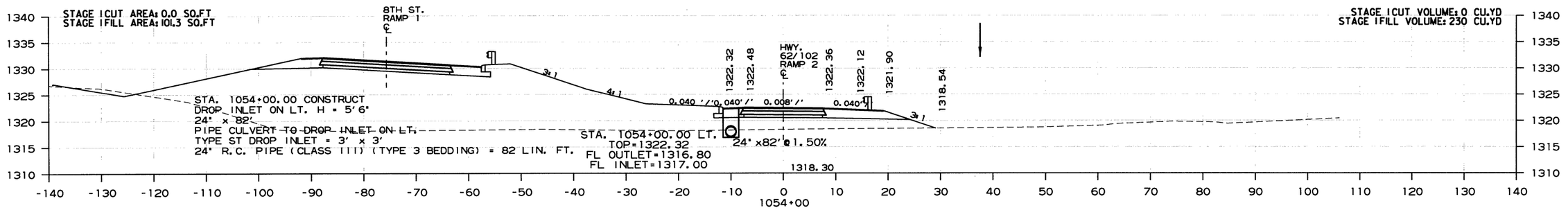
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

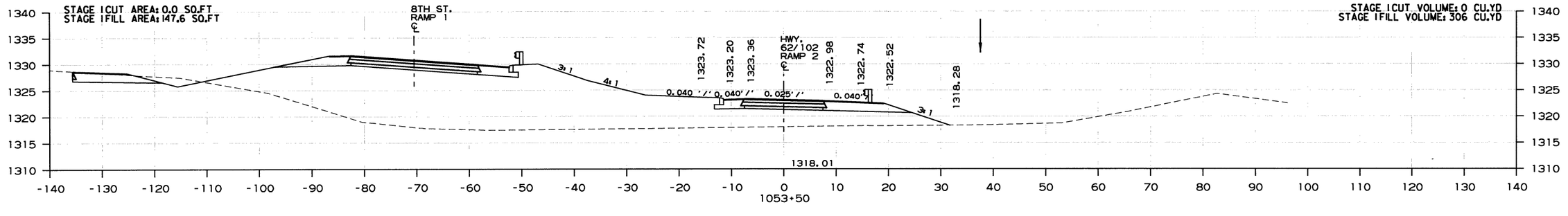
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	399	555
				(2)	CROSS SECTIONS - HWY. 62/102 RAMP 2			





STA. 1054+25.43 END/BEGIN SUPERELEVATION



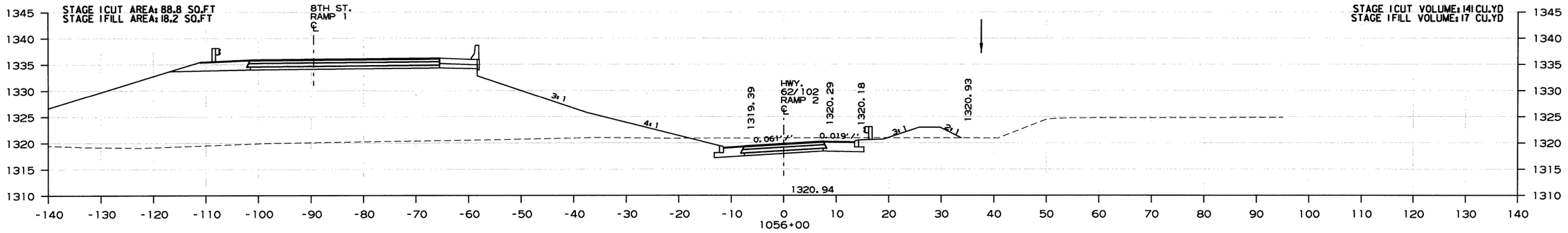


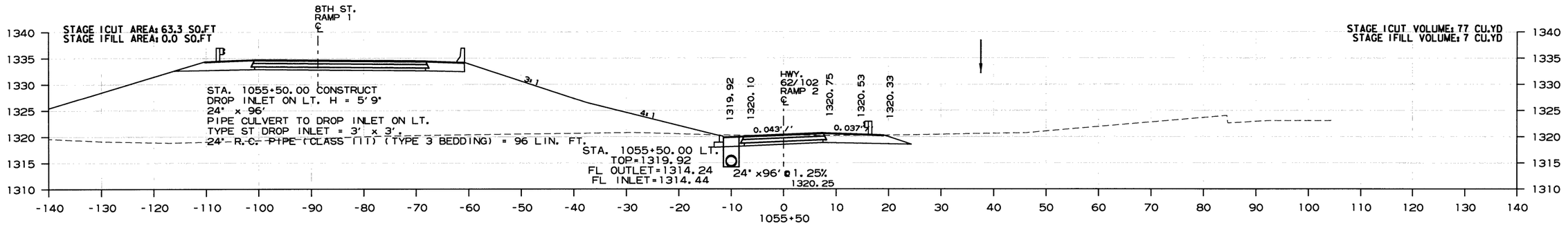
CROSS SECTION STA. 1053+50 TO STA. 1054+77

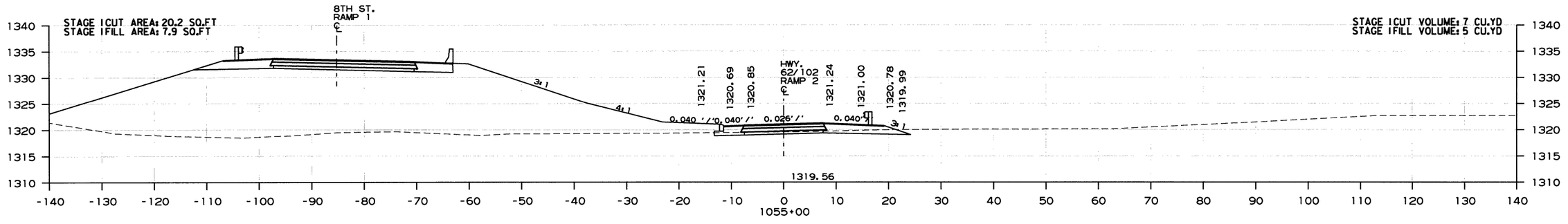
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

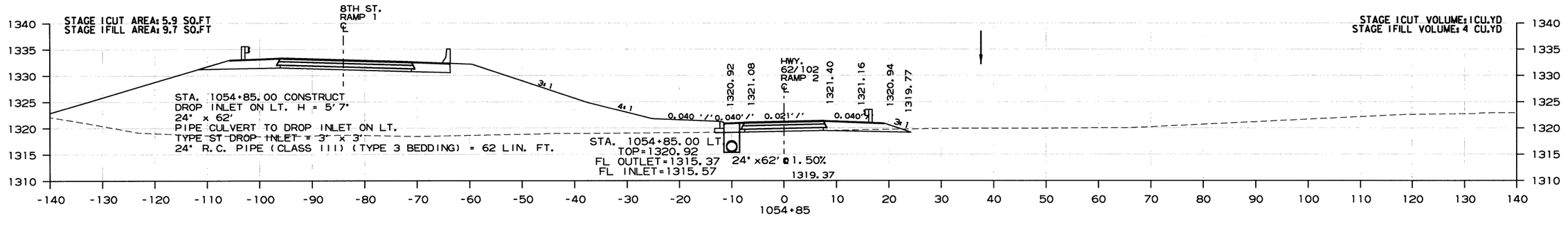
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	400	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2







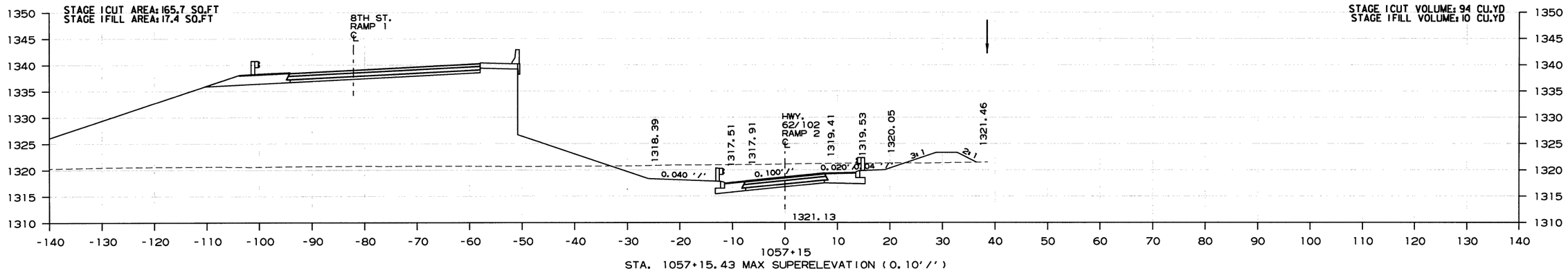


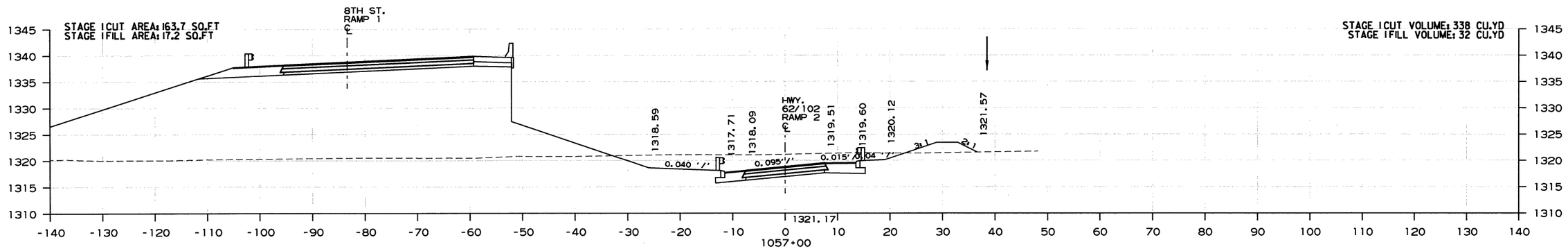
CROSS SECTION STA. 1054+85 TO STA. 1056+00

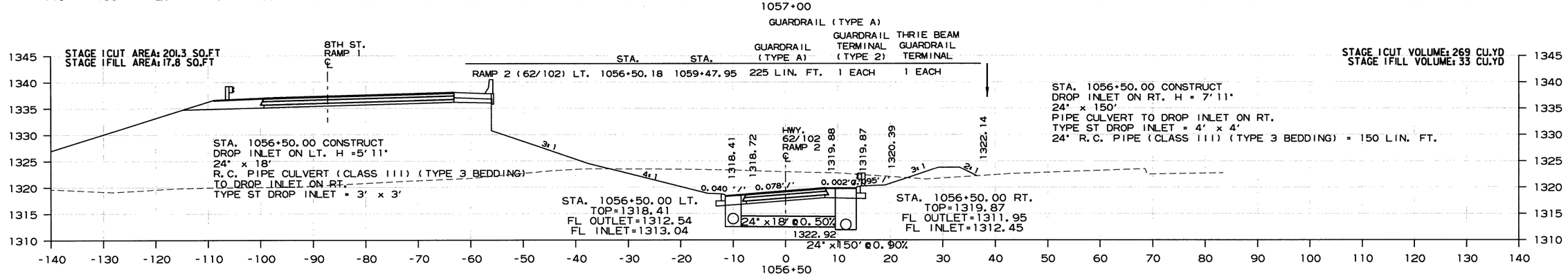
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	401	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2





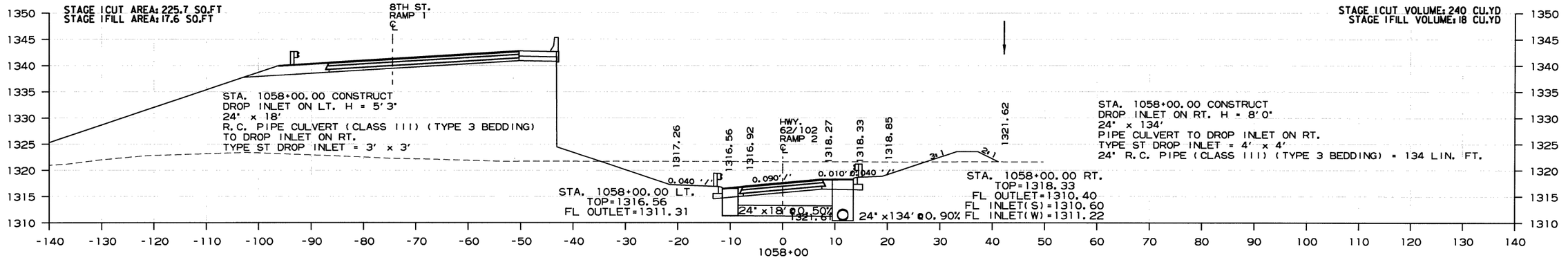


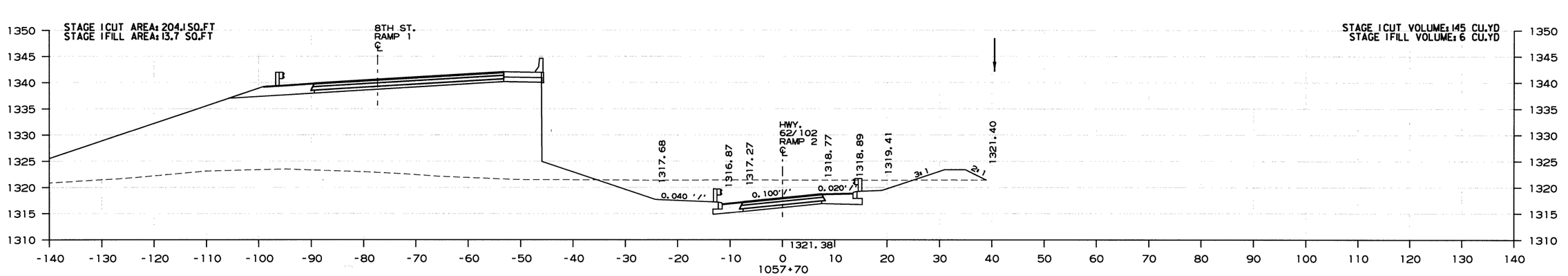
CROSS SECTION STA. 1056+50 TO STA. 1057+15

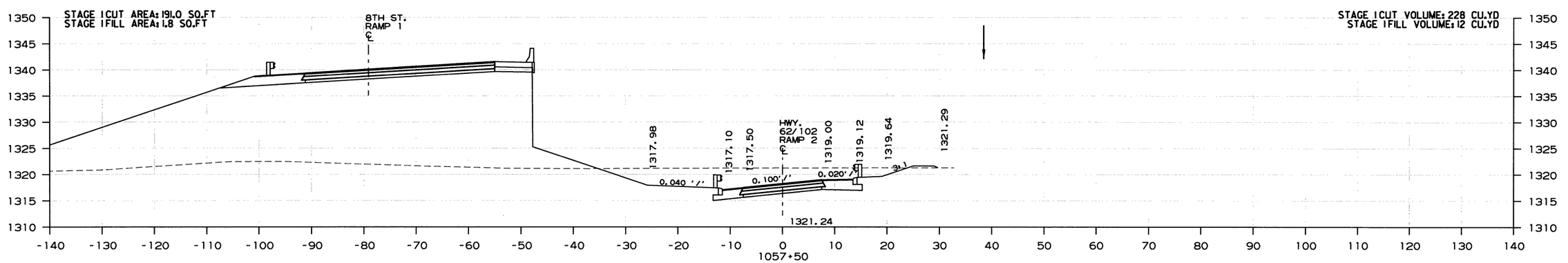
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	402	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2





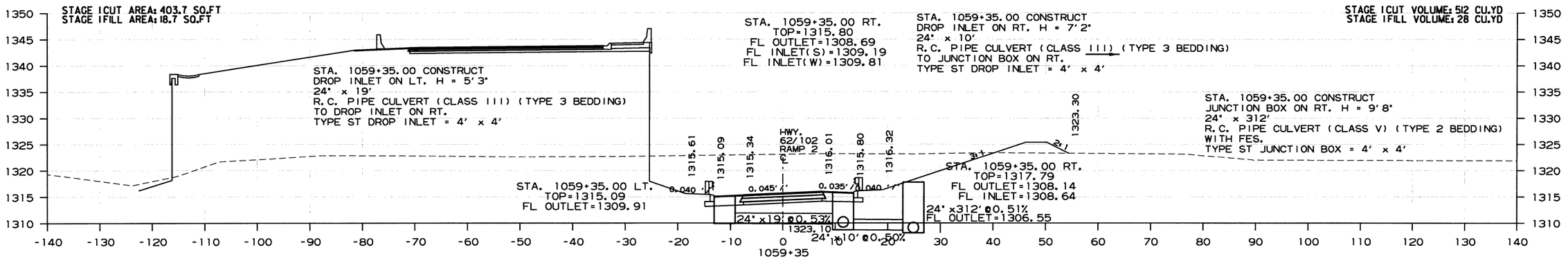


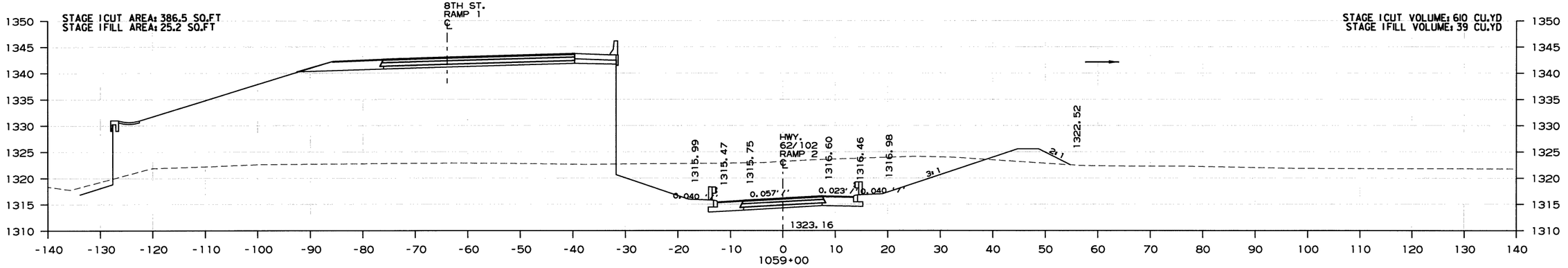
CROSS SECTION STA. 1057+50 TO STA. 1058+00

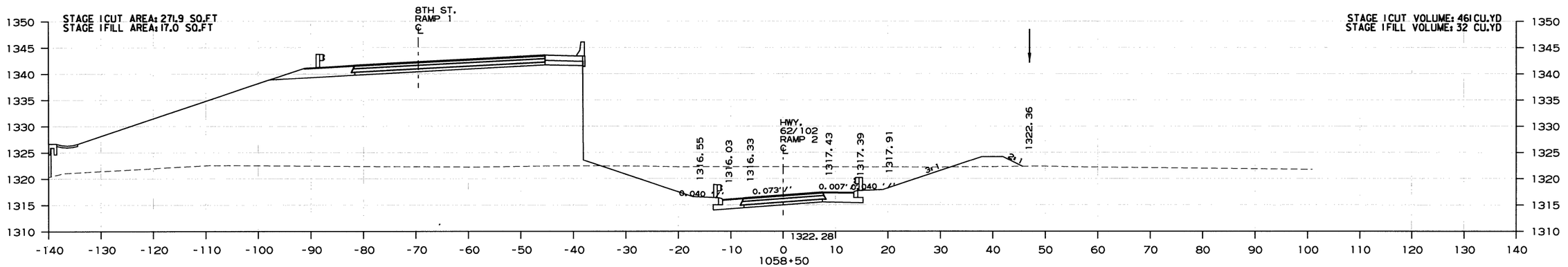
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	403	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2



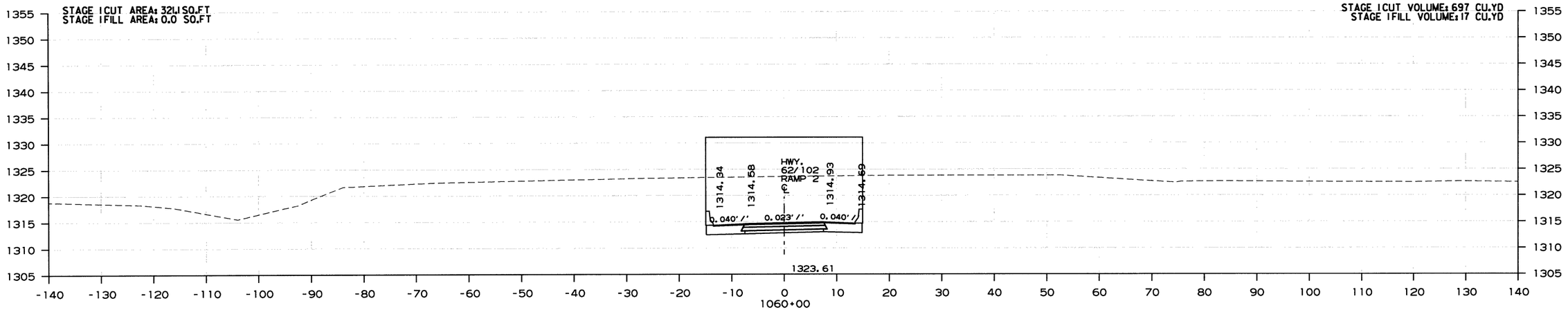




CROSS SECTION STA. 1058+50 TO STA. 1059+35

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	404	555
				(2) CROSS SECTIONS - HWY. 62/102 RAMP 2				

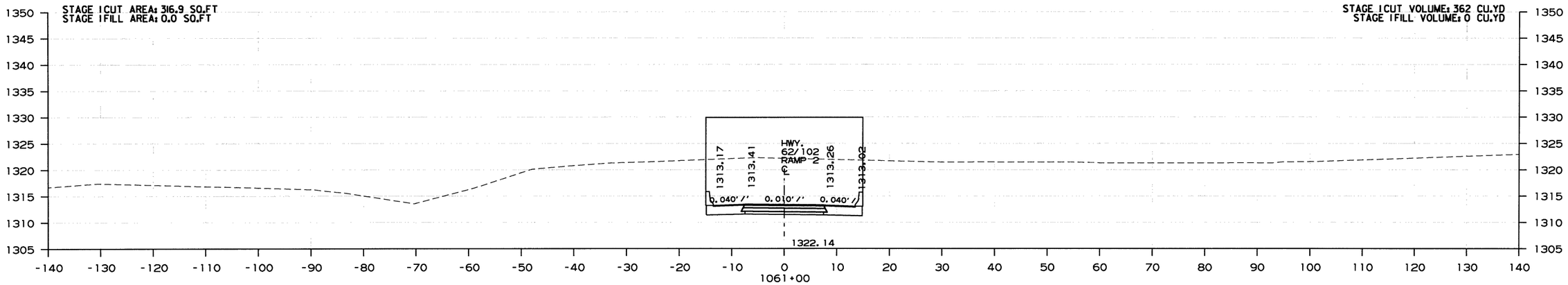


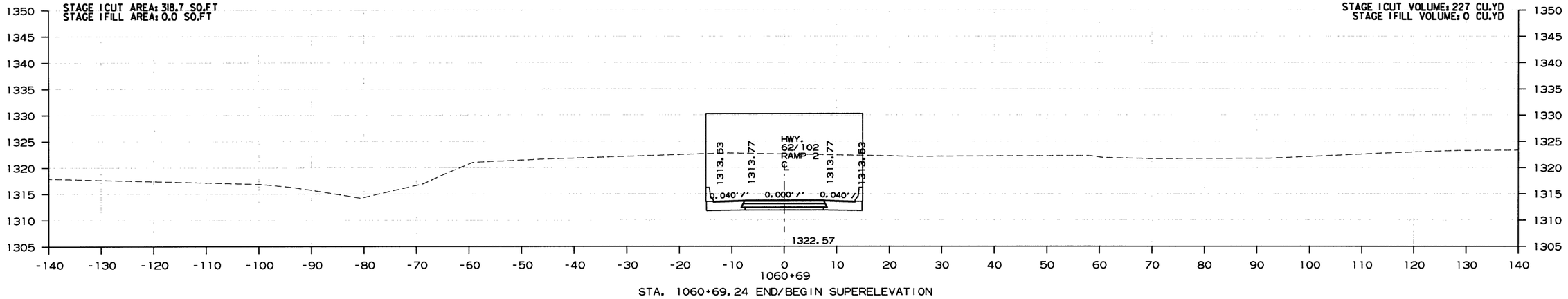
CROSS SECTION STA. 1059+50 TO STA. 1060+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

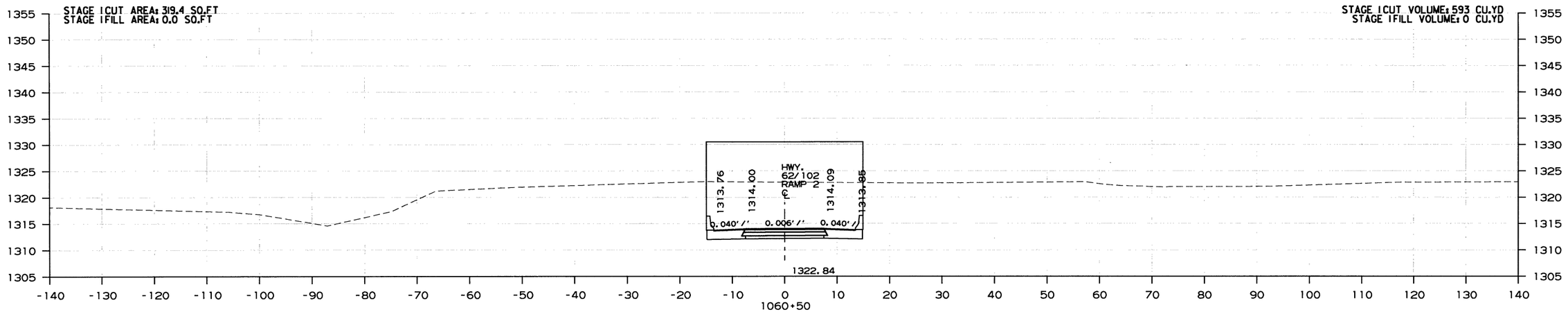
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	405	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2





STA. 1060+69.24 END/BEGIN SUPERELEVATION

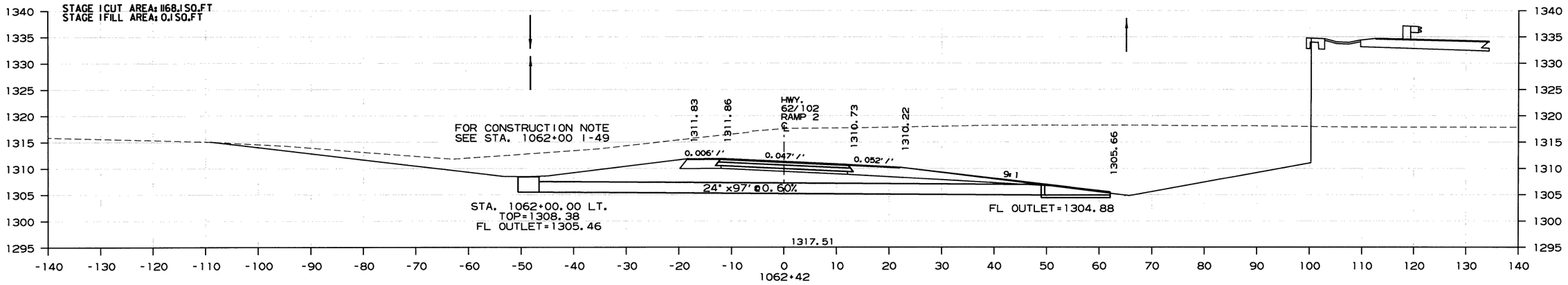


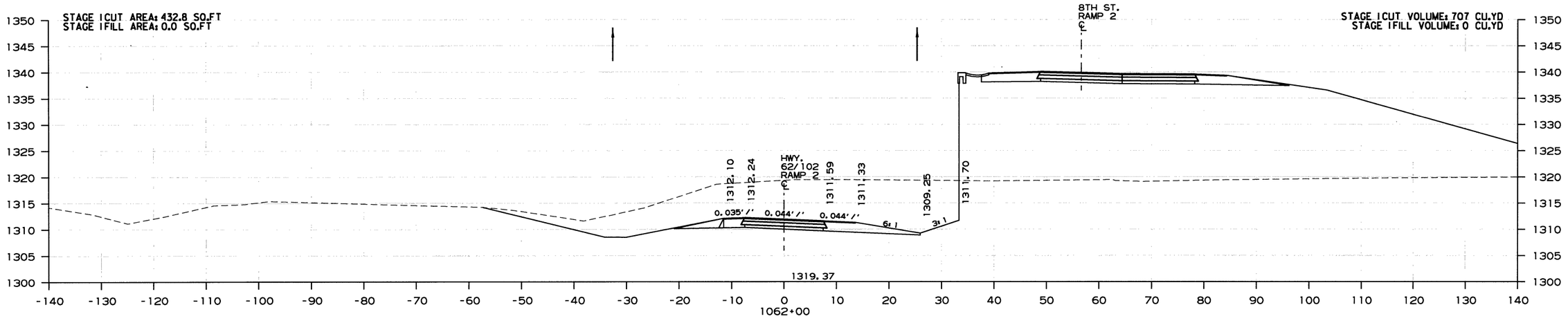
CROSS SECTION STA. 1060+50 TO STA. 1061+00

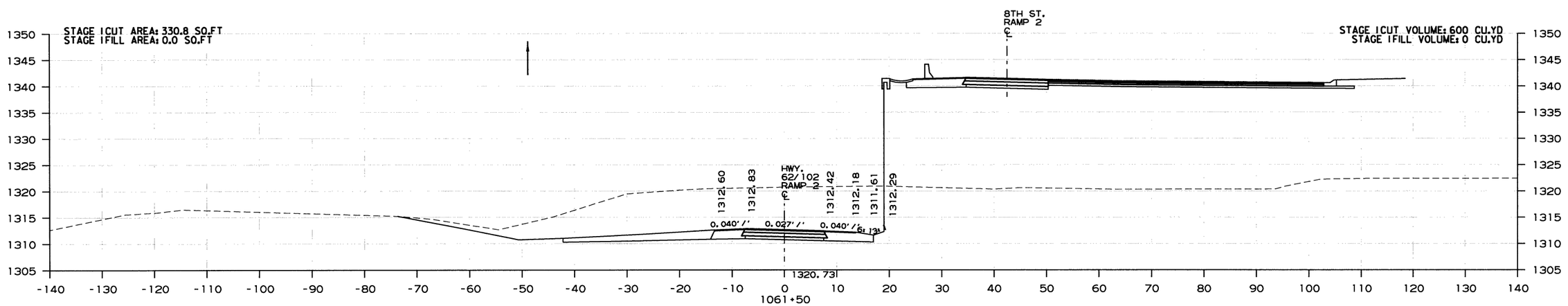
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	406	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2





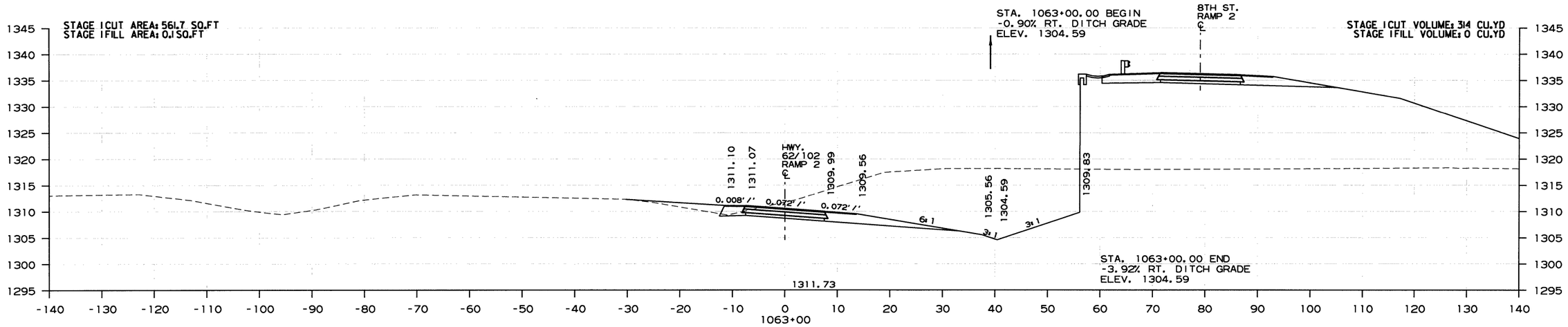


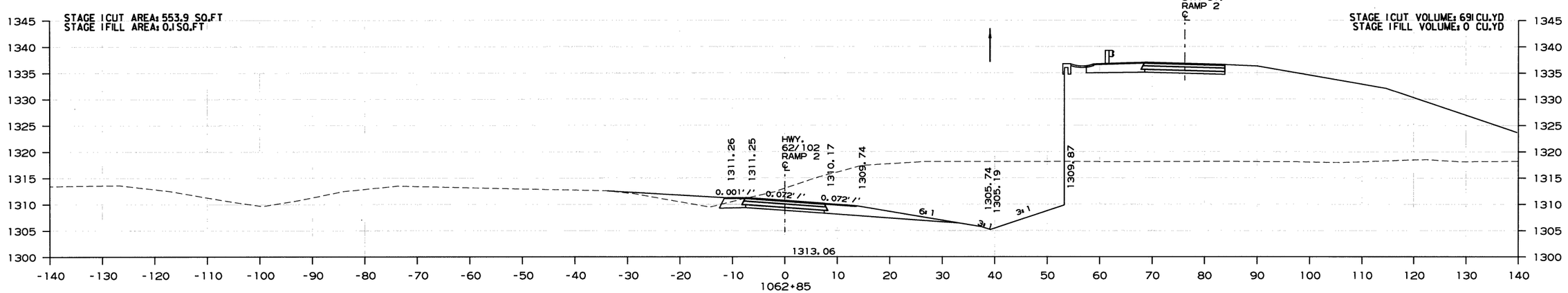
CROSS SECTION STA. 1061+50 TO STA. 1062+42

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	407	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2



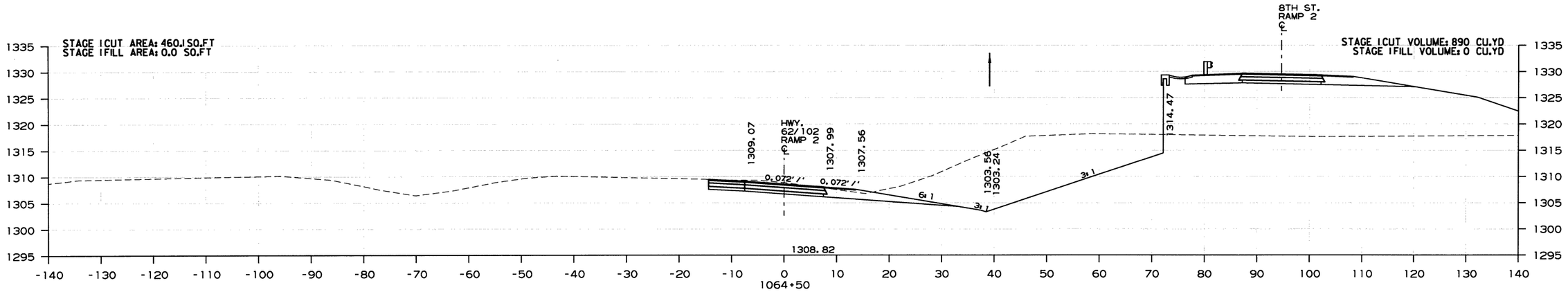


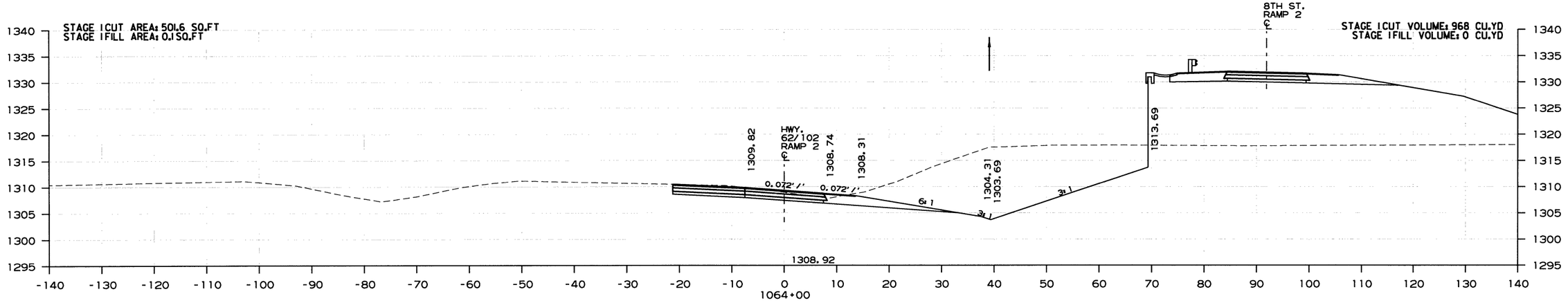
CROSS SECTION STA. 1062+50 TO STA. 1063+00

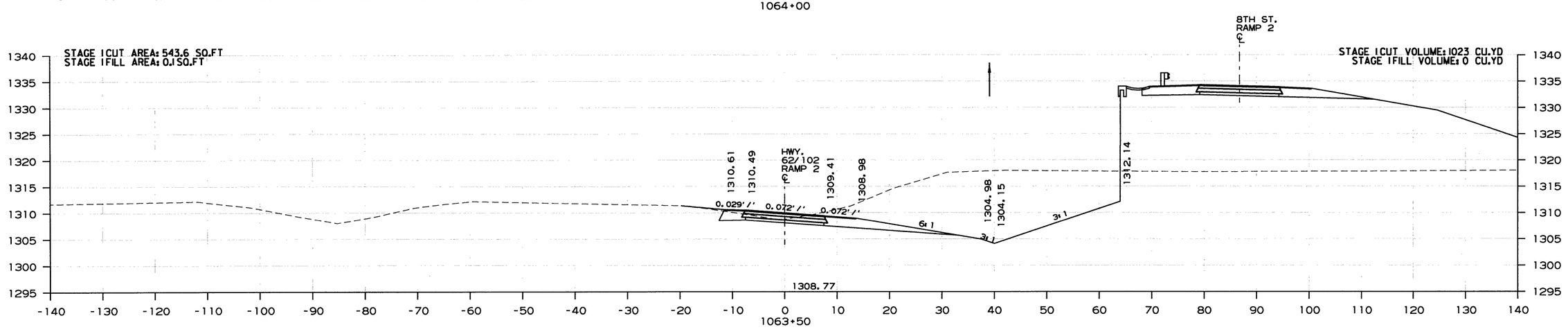
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	408	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2







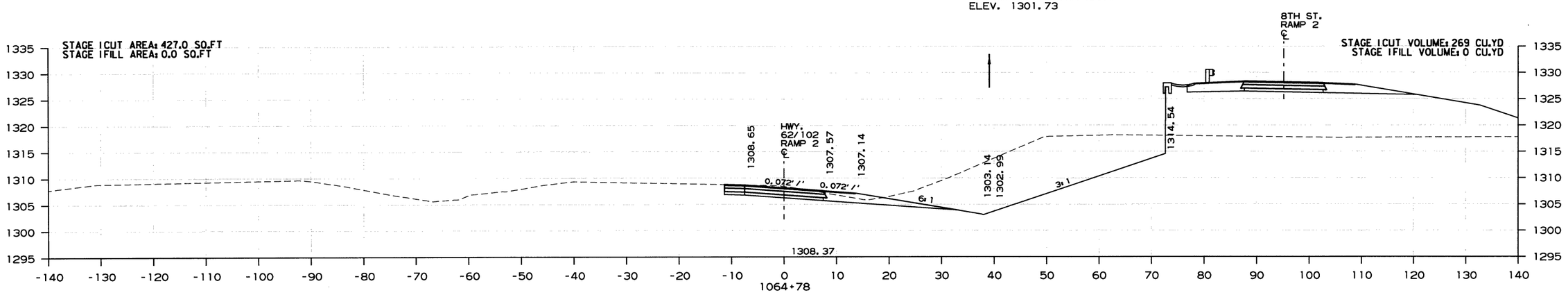
CROSS SECTION STA. 1063+50 TO STA. 1064+50

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	409	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 2

STA. 1066+17.56 END
-0.90% RT. DITCH GRADE
ELEV. 1301.73

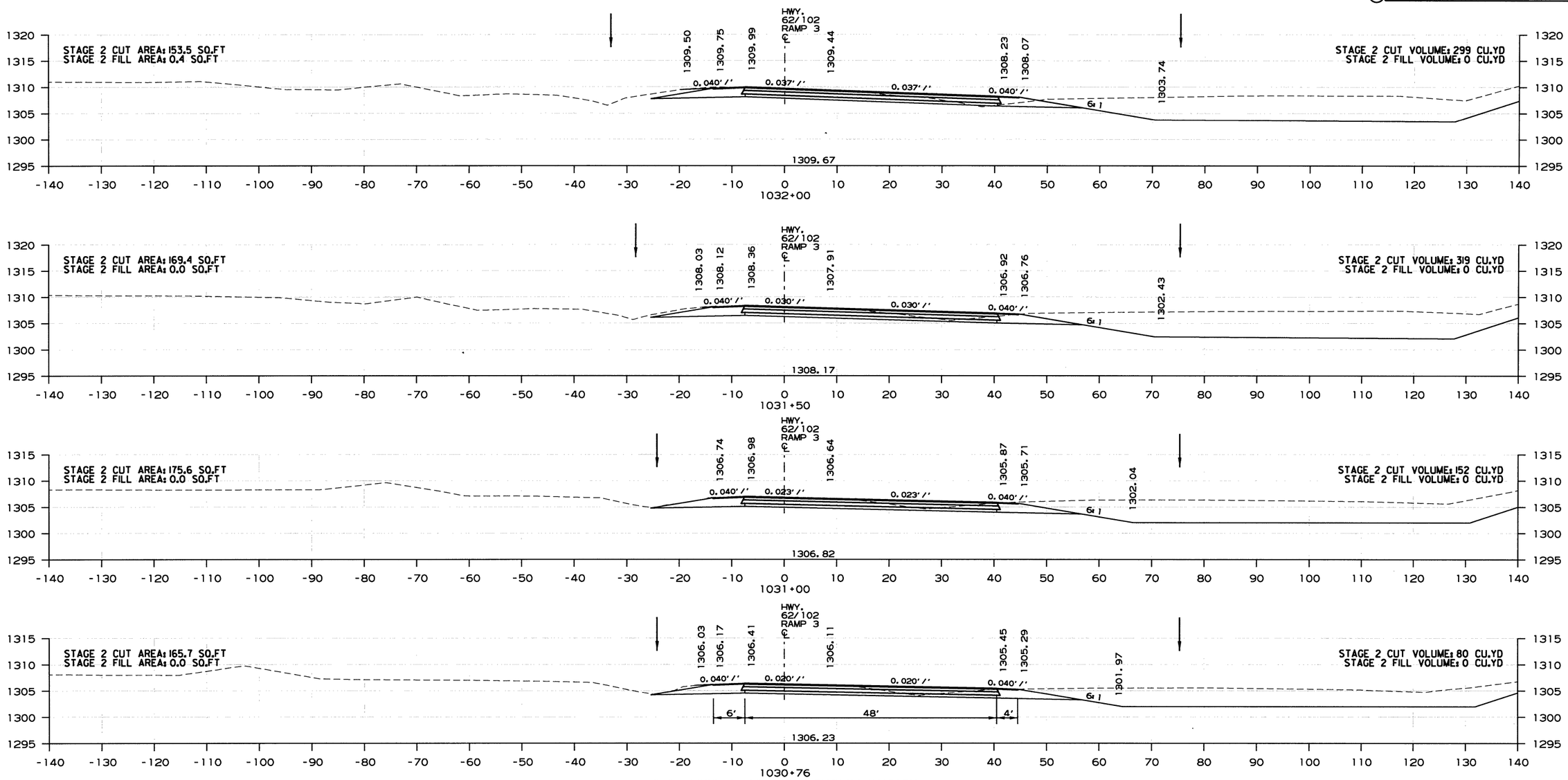


CROSS SECTION STA. 1064+62 TO STA. 1064+78

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	410	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.



STA. 1030+75.48 BEGIN SUPERELEVATION

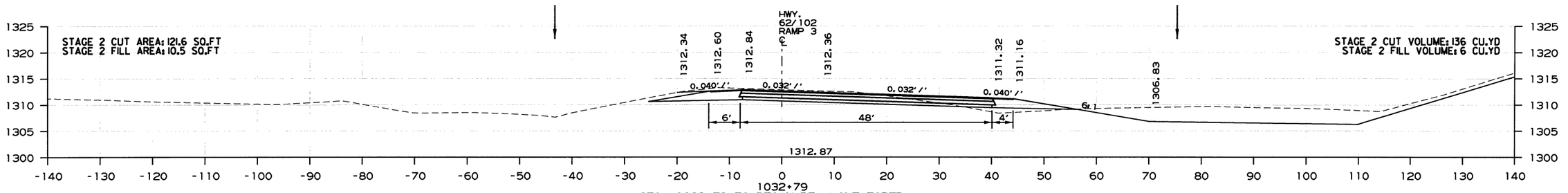
BEGIN HWY. 62/102 RAMP 3

CROSS SECTION STA. 1030+76 TO STA. 1032+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	411	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3



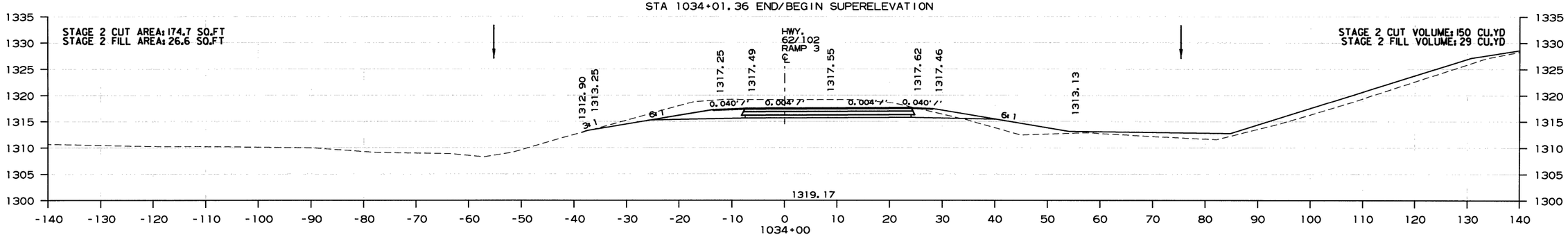
CROSS SECTION STA. 1032+25 TO STA. 1032+79

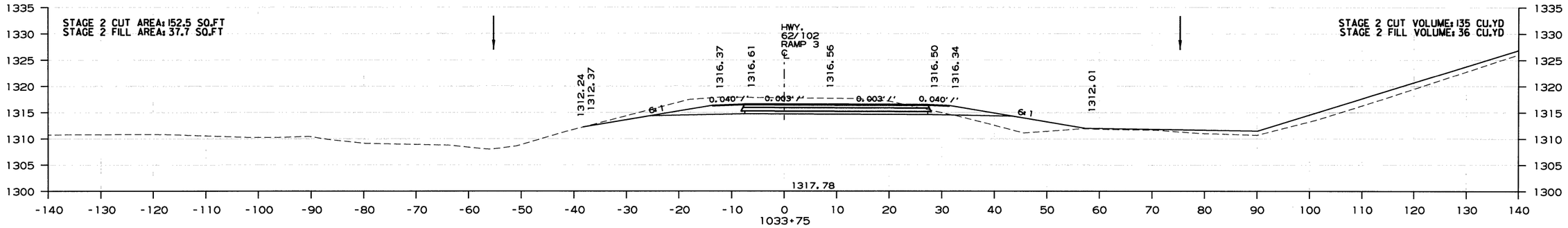
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

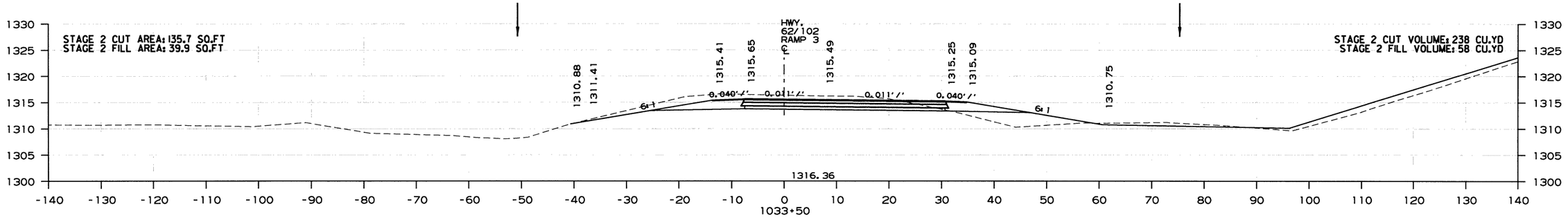
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	412	555

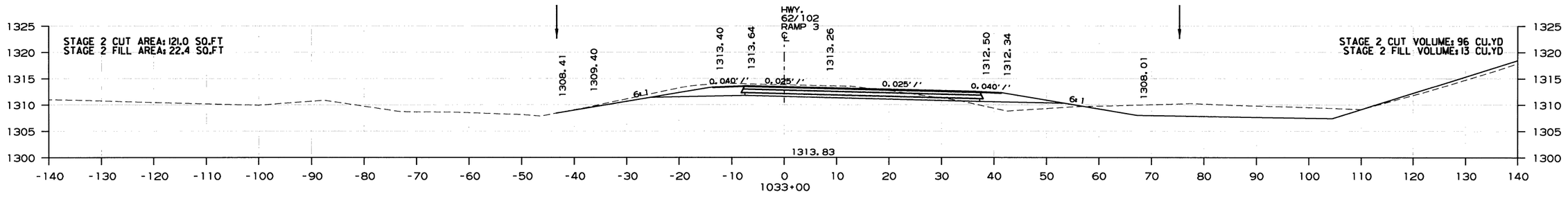
(2) CROSS SECTIONS - HWY. 62/102 RAMP 3

STA 1034+01.36 END/BEGIN SUPERELEVATION







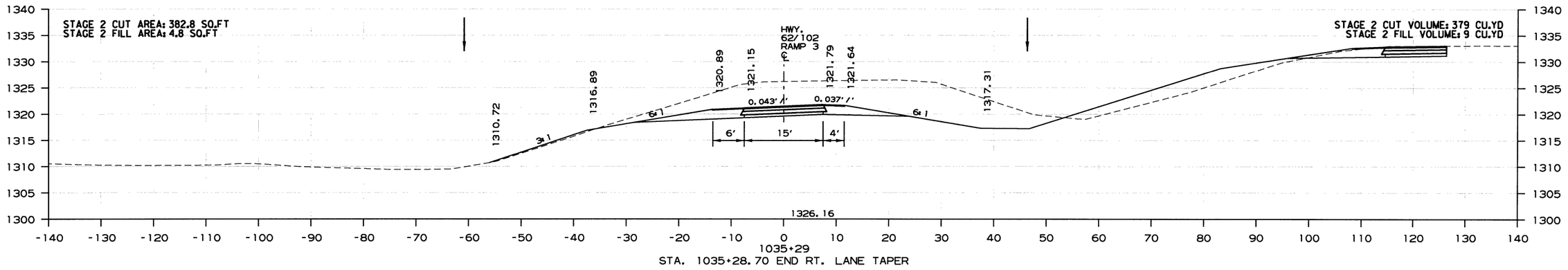


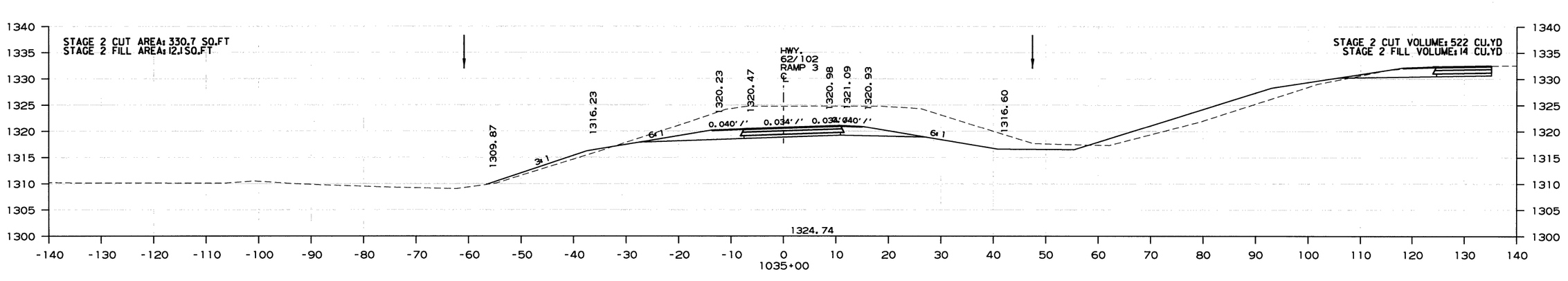
CROSS SECTION STA. 1033+00 TO STA. 1034+00

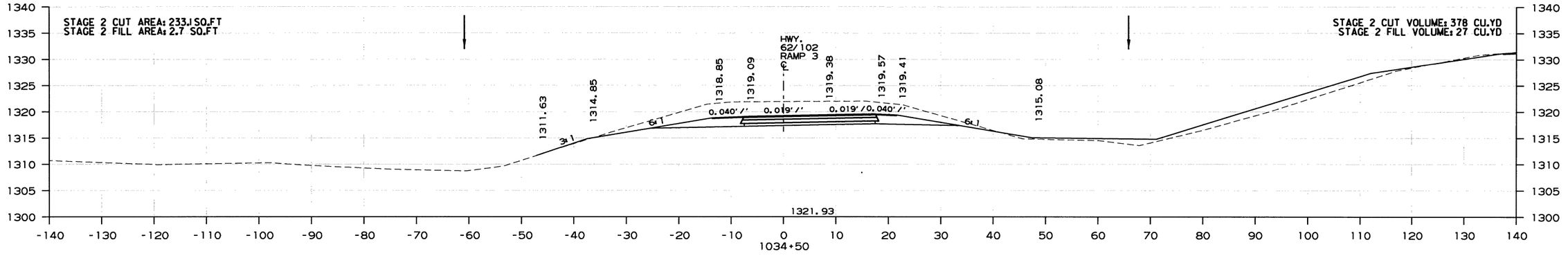
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	413	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3





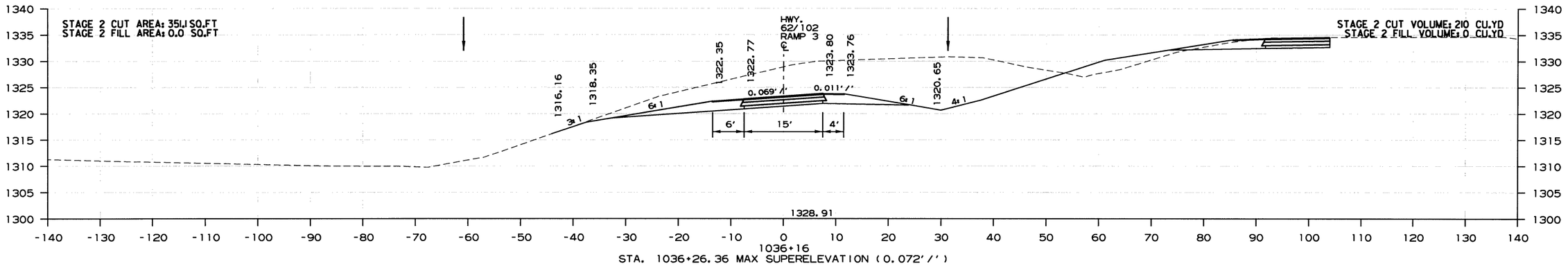


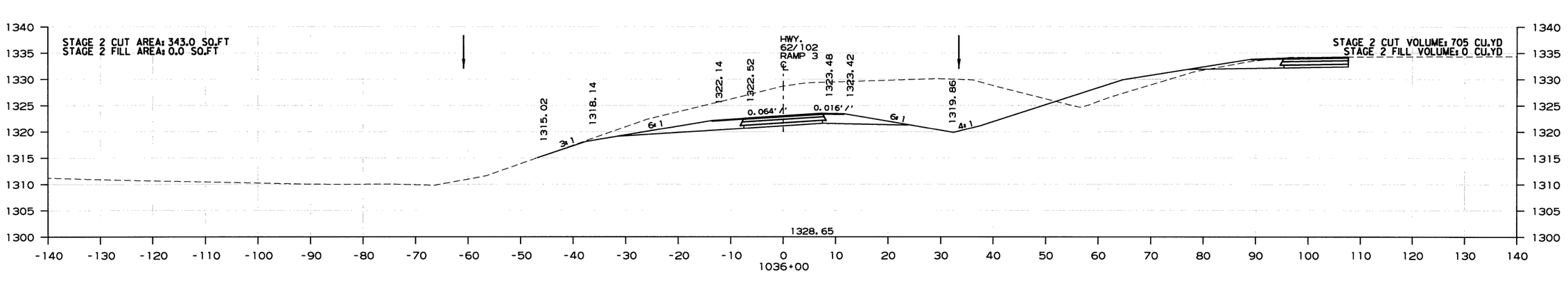
CROSS SECTION STA. 1034+50 TO STA. 1035+29

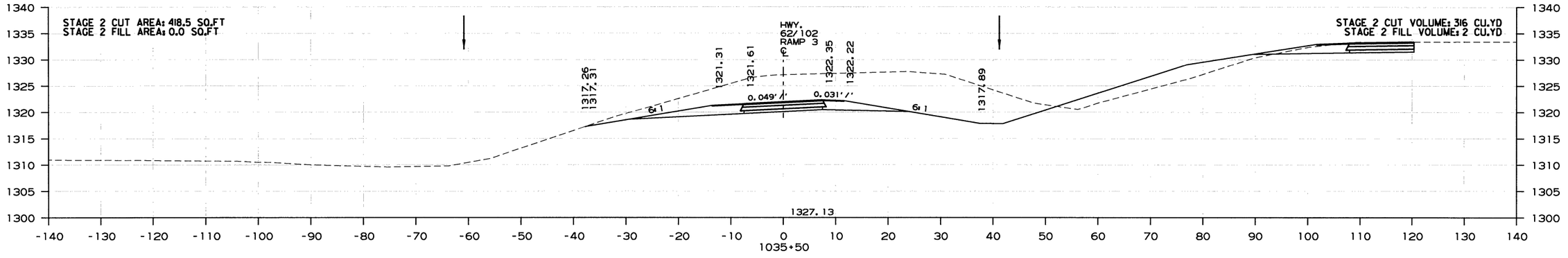
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	414	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3





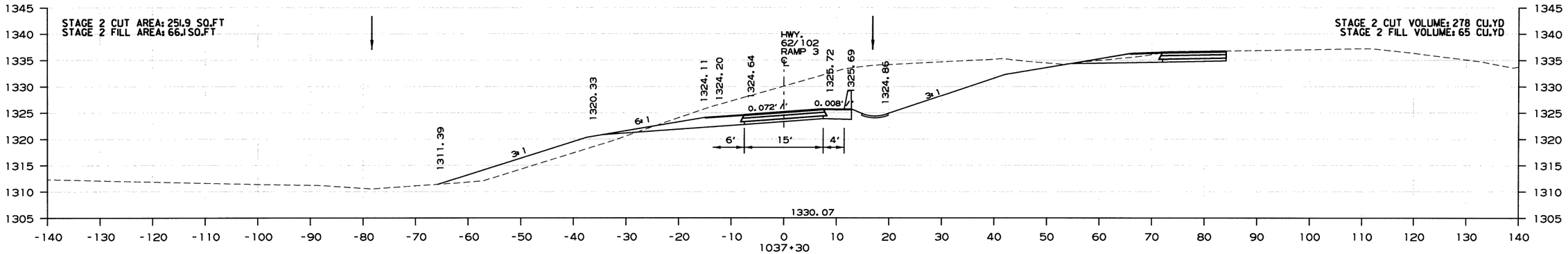


CROSS SECTION STA. 1035+50 TO STA. 1036+16

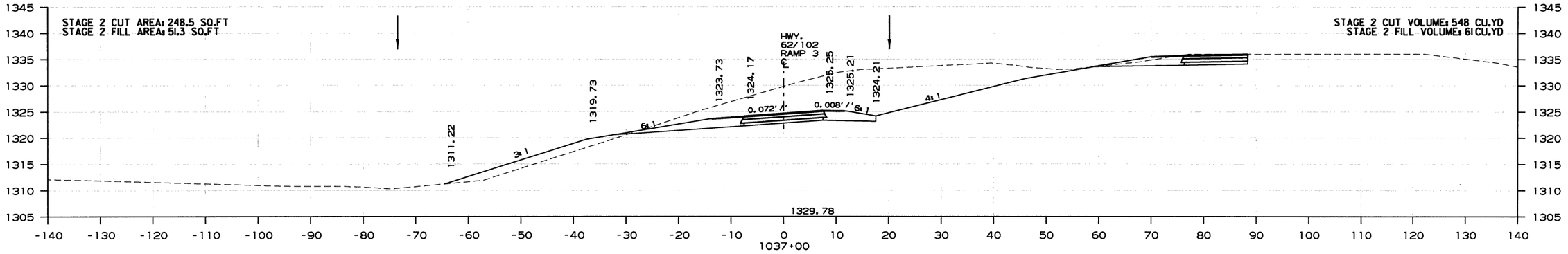
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

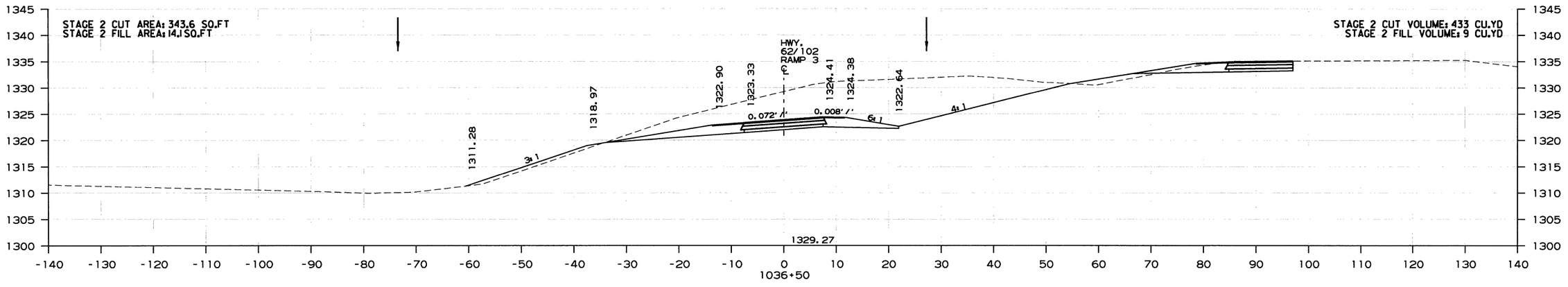
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	415	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3



STA. 1037+22.00 BEGIN GUARDRAIL TRANSITION LT.



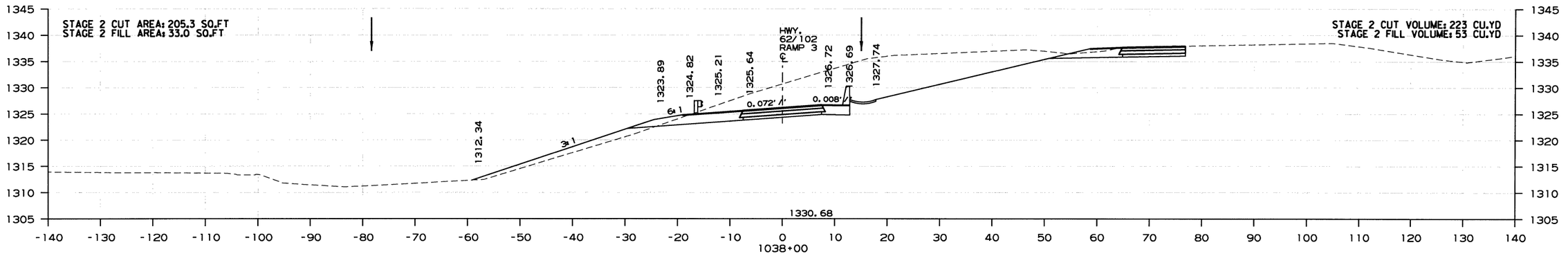


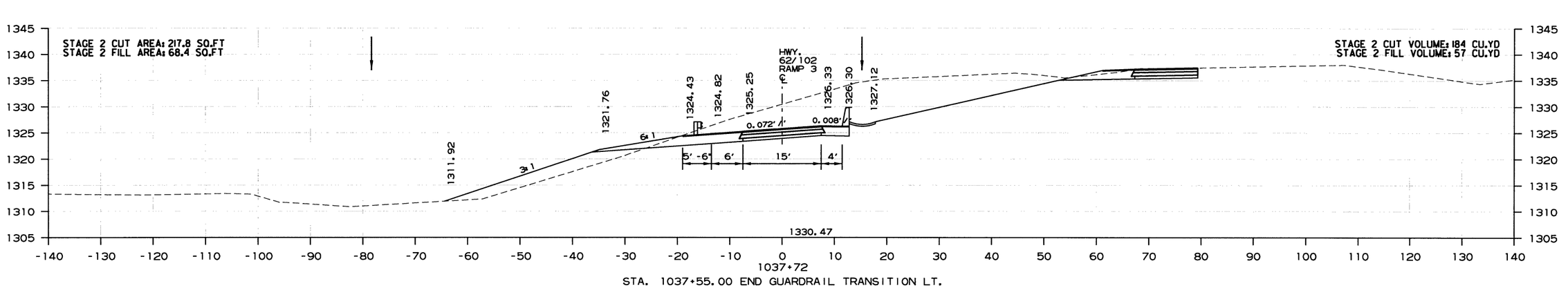
CROSS SECTION STA. 1036+50 TO STA. 1037+30

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

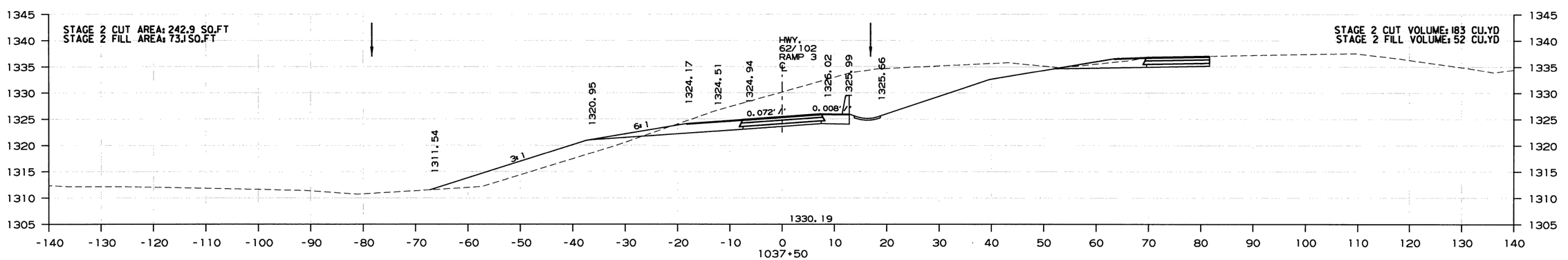
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	416	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3





STA. 1037+55.00 END GUARDRAIL TRANSITION LT.

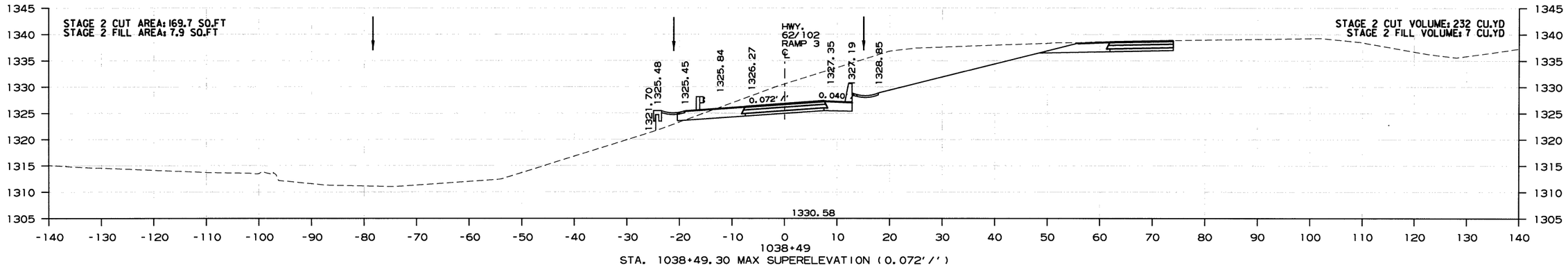


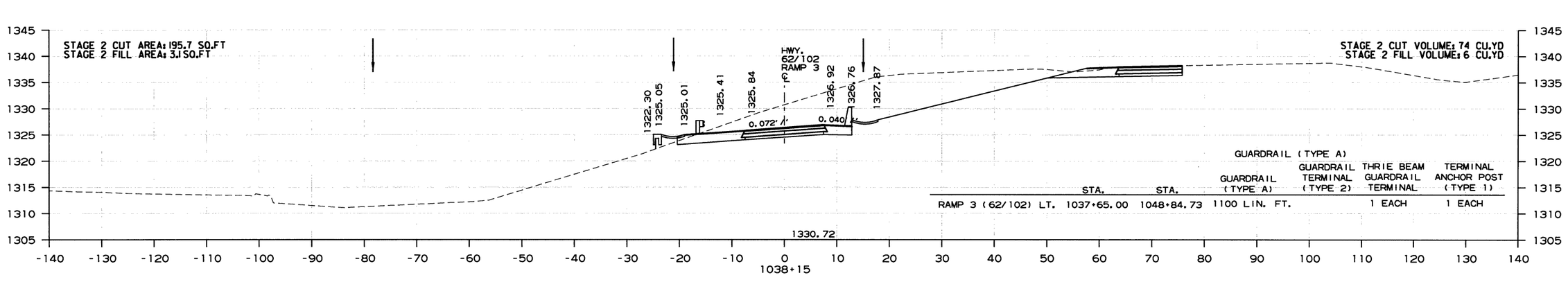
CROSS SECTION STA. 1037+50 TO STA. 1038+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

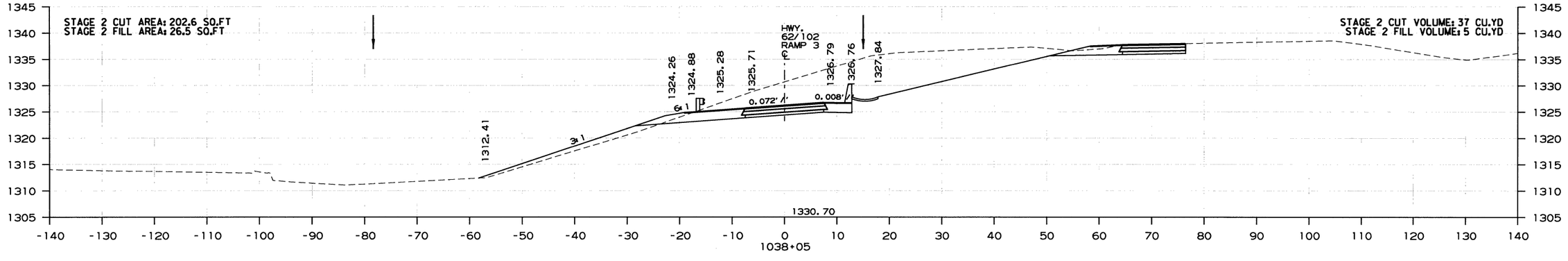
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	417	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3





	STA.	STA.	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL	TERMINAL ANCHOR POST (TYPE 1)
			GUARDRAIL (TYPE A)			
RAMP 3 (62/102) LT.	1037+65.00	1048+84.73	1100 LIN. FT.		1 EACH	1 EACH

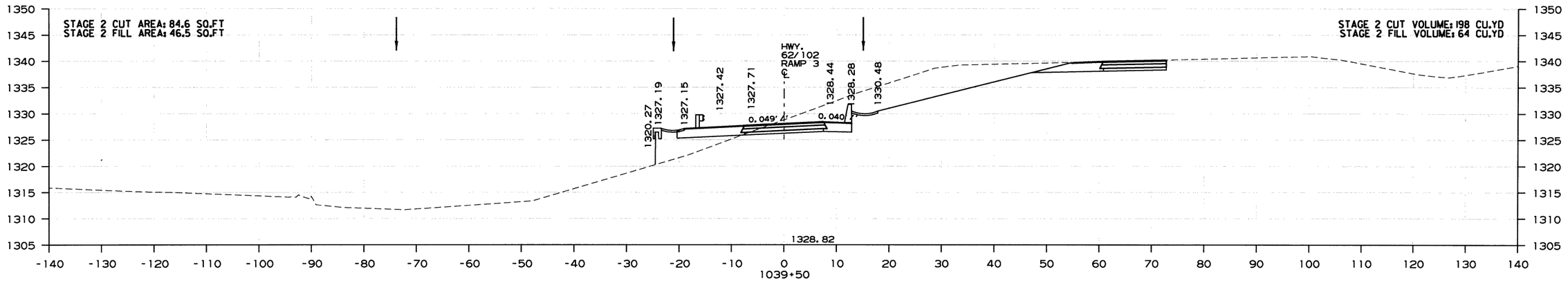


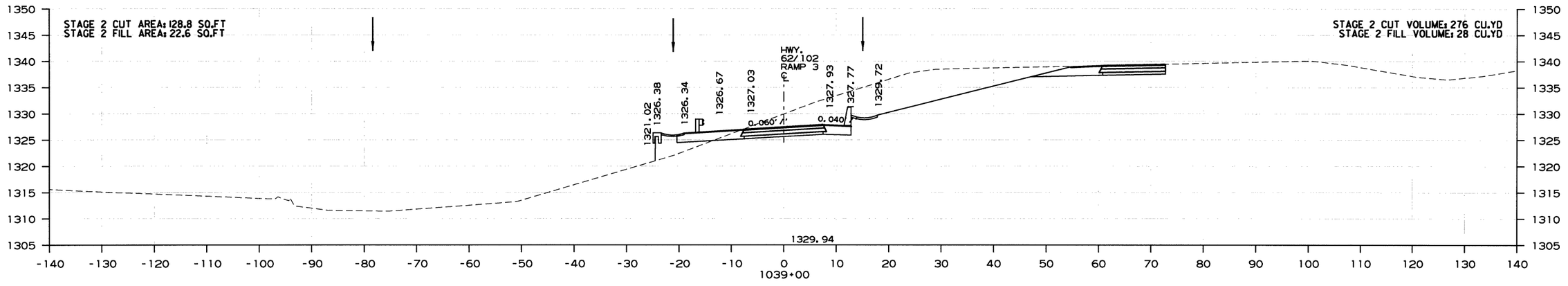
CROSS SECTION STA. 1038+05 TO STA. 1038+49

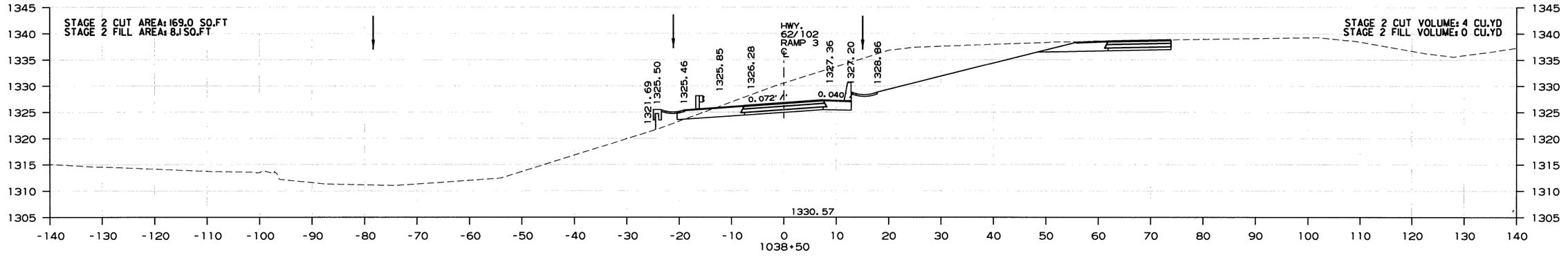
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	418	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3





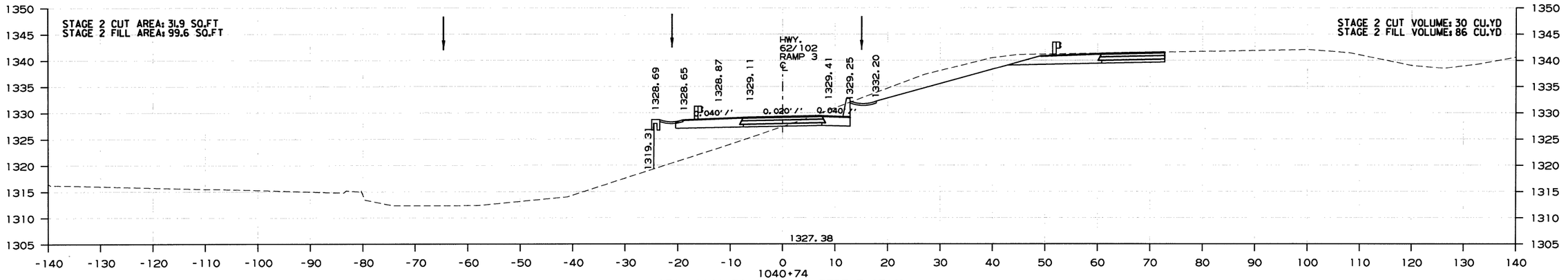


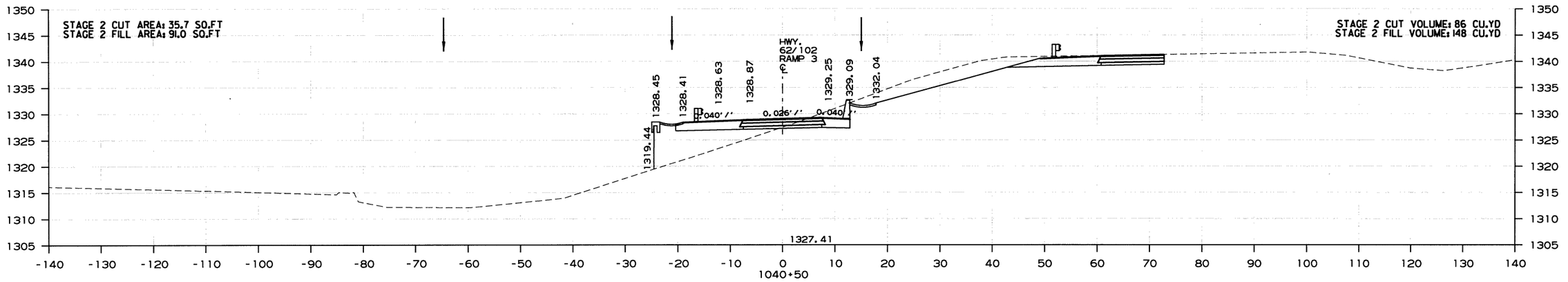
CROSS SECTION STA. 1038+50 TO STA. 1039+50

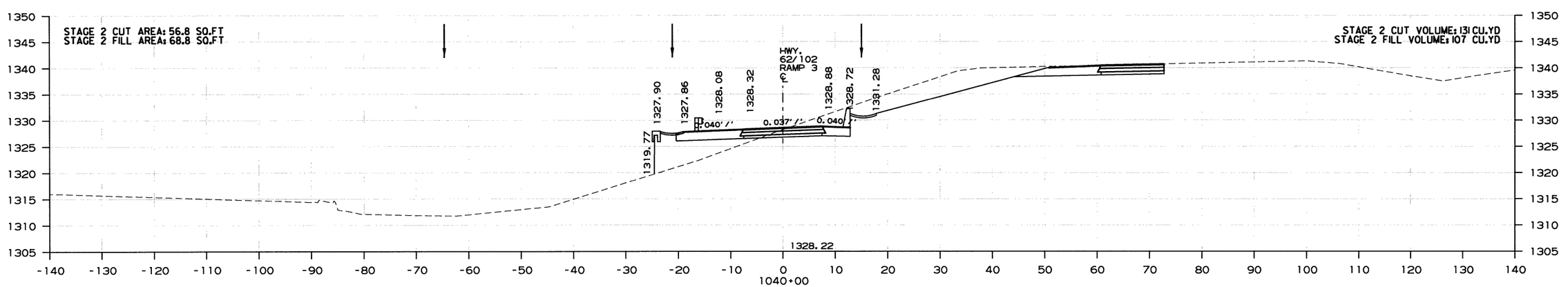
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	419	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3





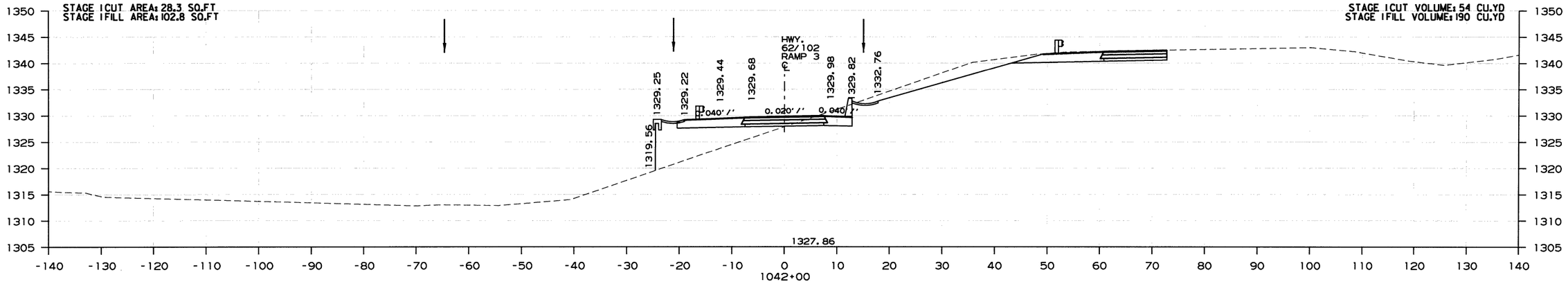


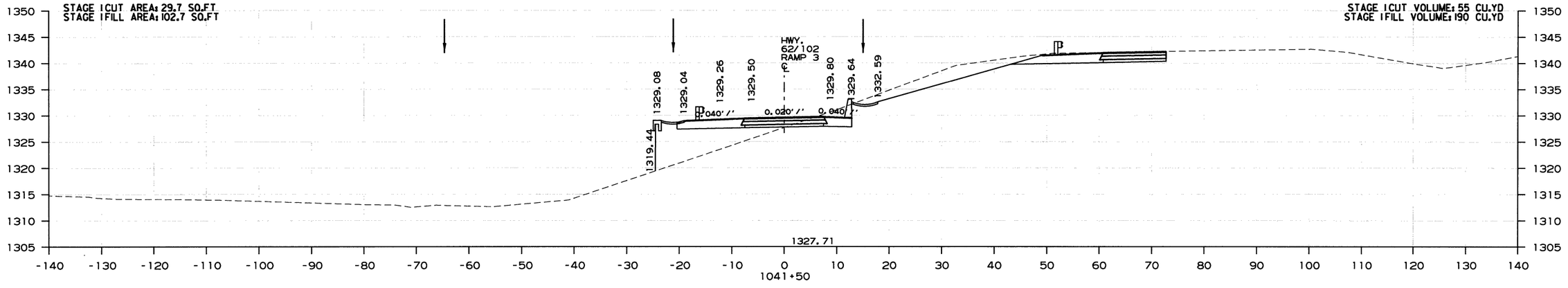
CROSS SECTION STA. 1040+00 TO STA. 1040+74

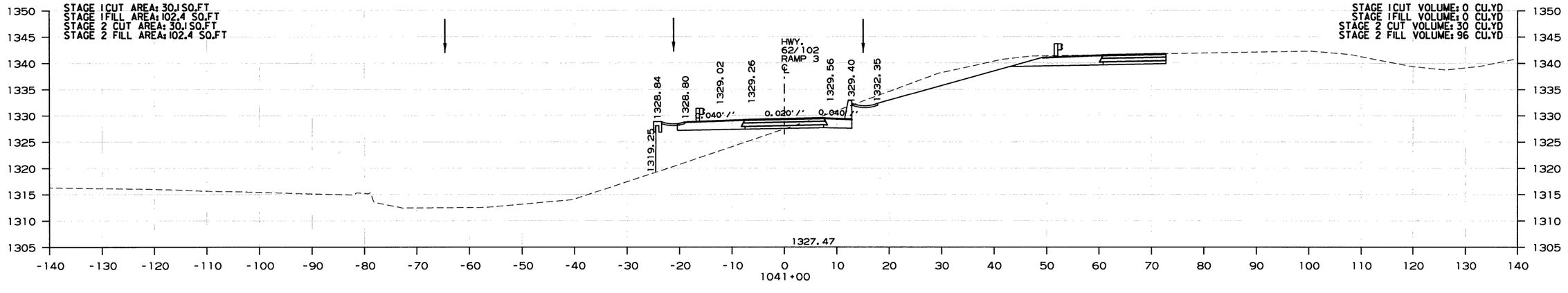
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	420	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3





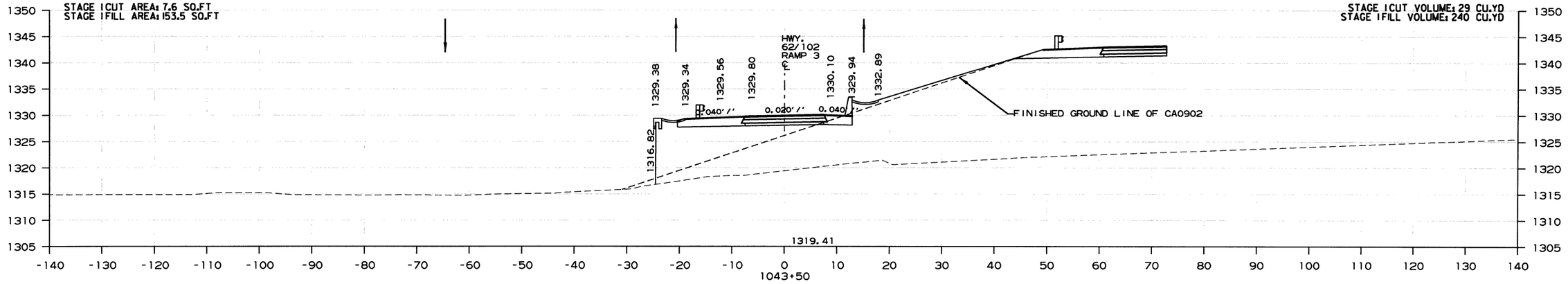


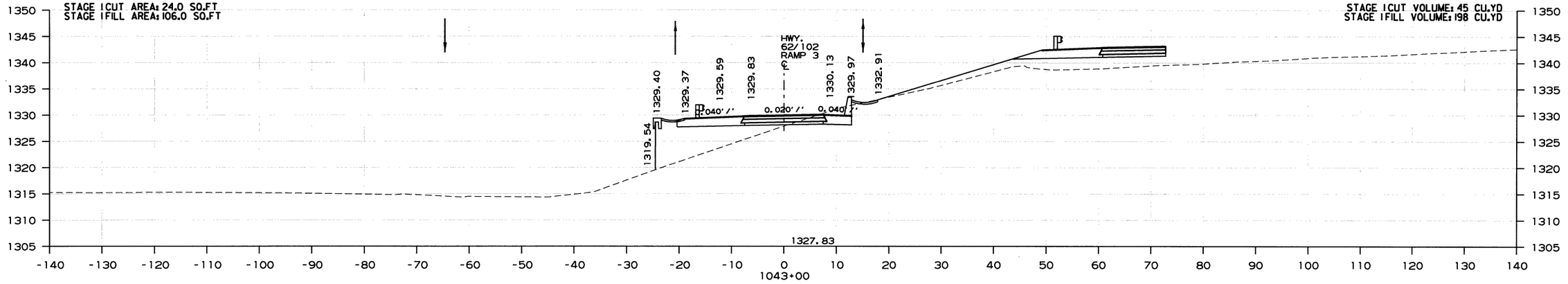
CROSS SECTION STA. 1041+00 TO STA. 1042+00

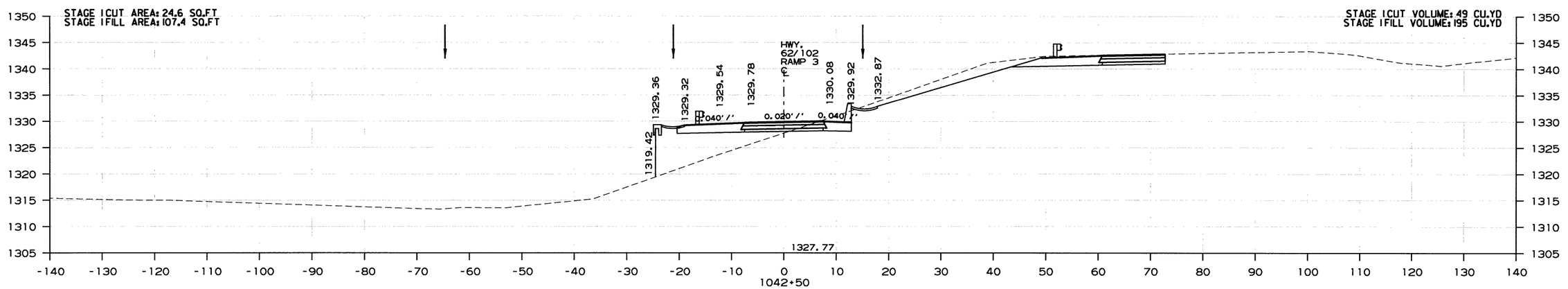
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	421	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3





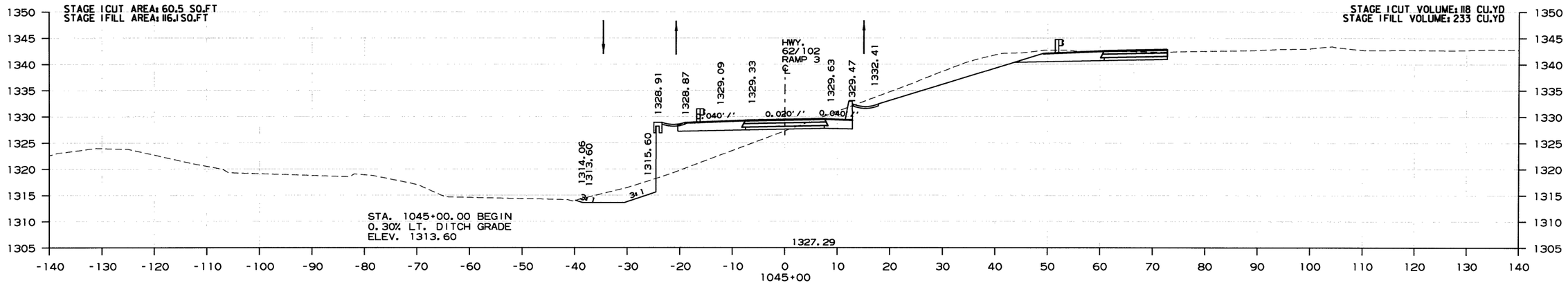


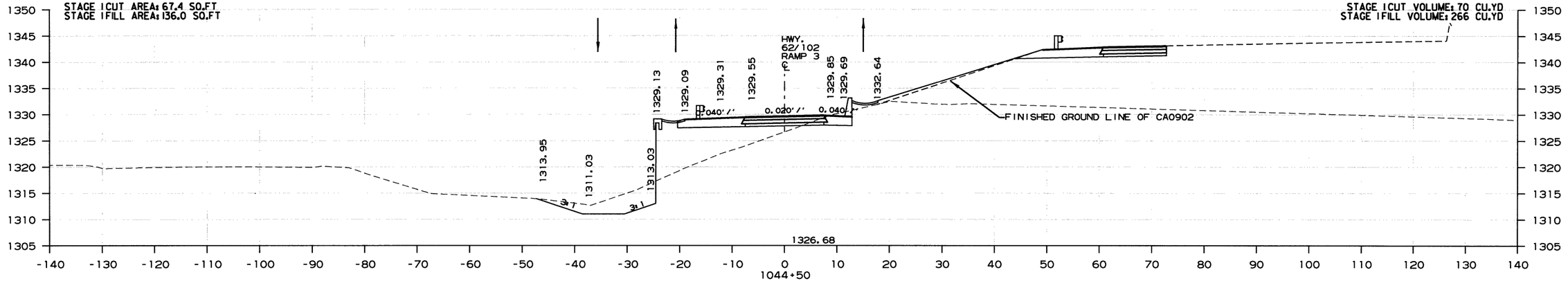
CROSS SECTION STA. 1042+50 TO STA. 1043+50

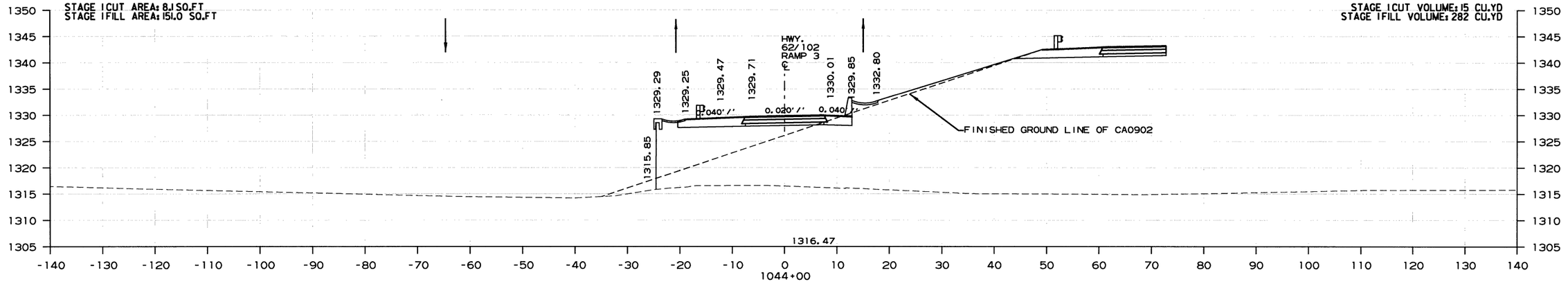
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	422	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3





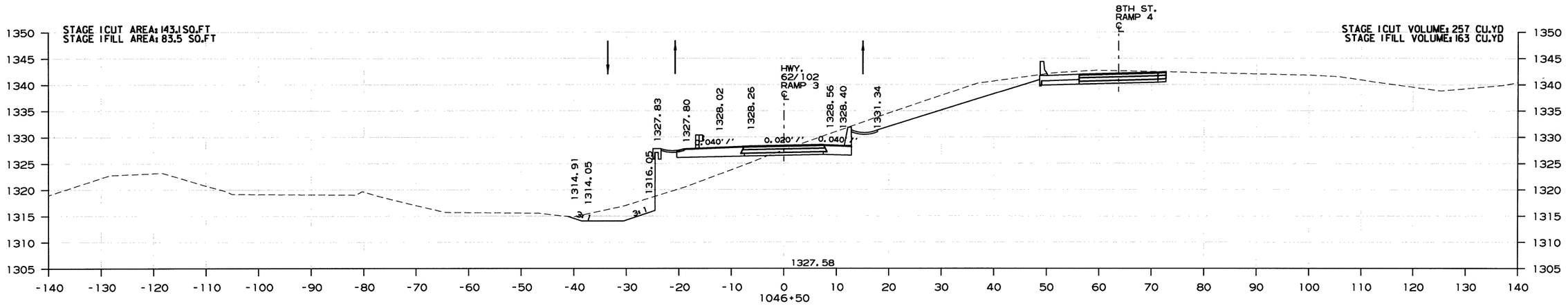


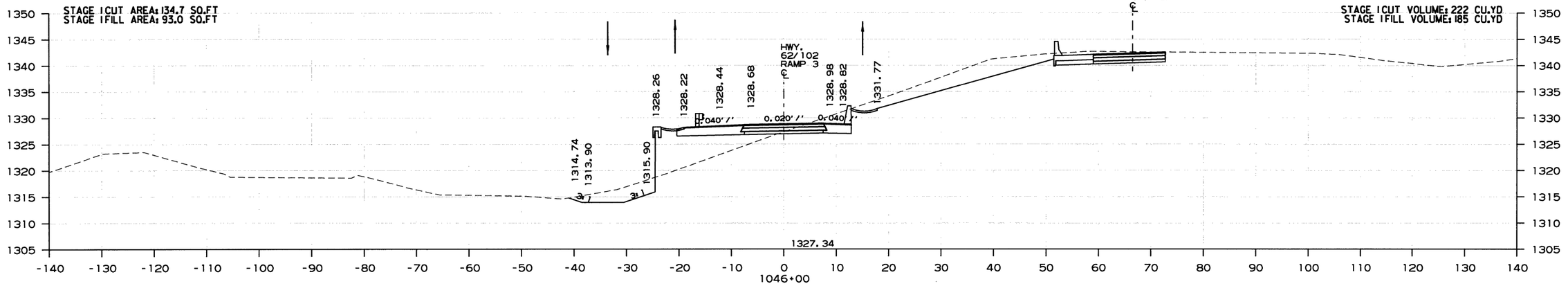
CROSS SECTION STA. 1044+00 TO STA. 1045+00

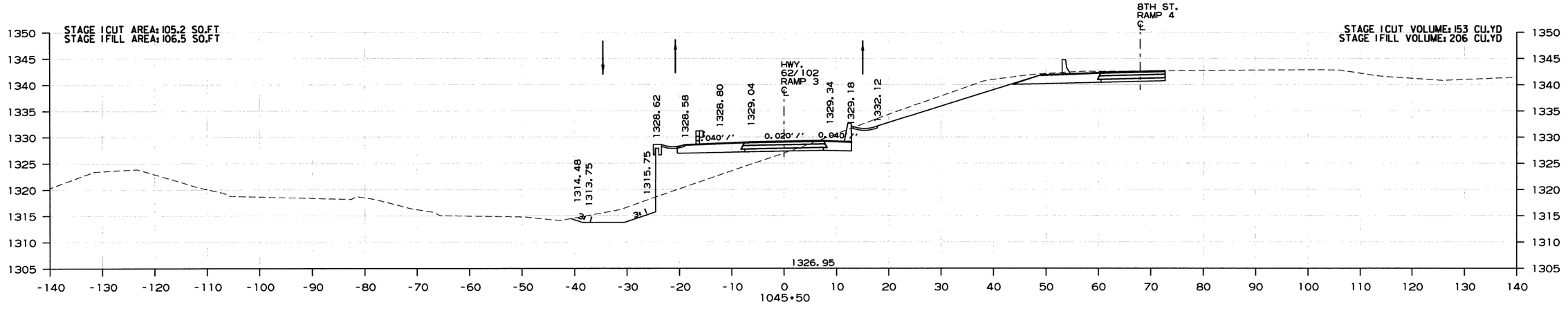
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	423	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3





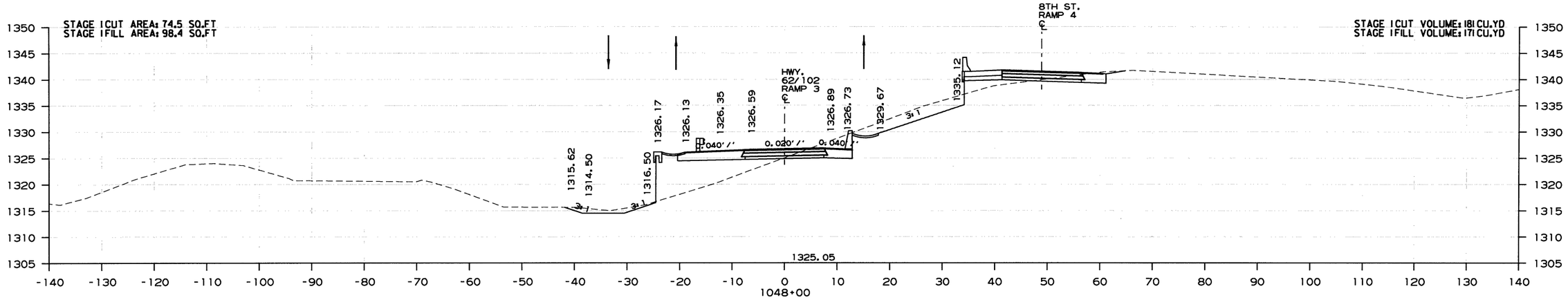


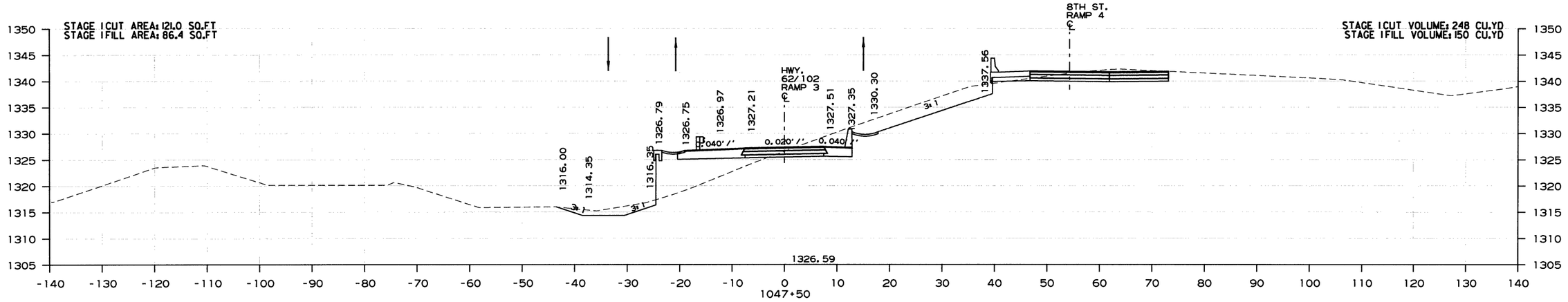
CROSS SECTION STA. 1045+50 TO STA. 1046+50

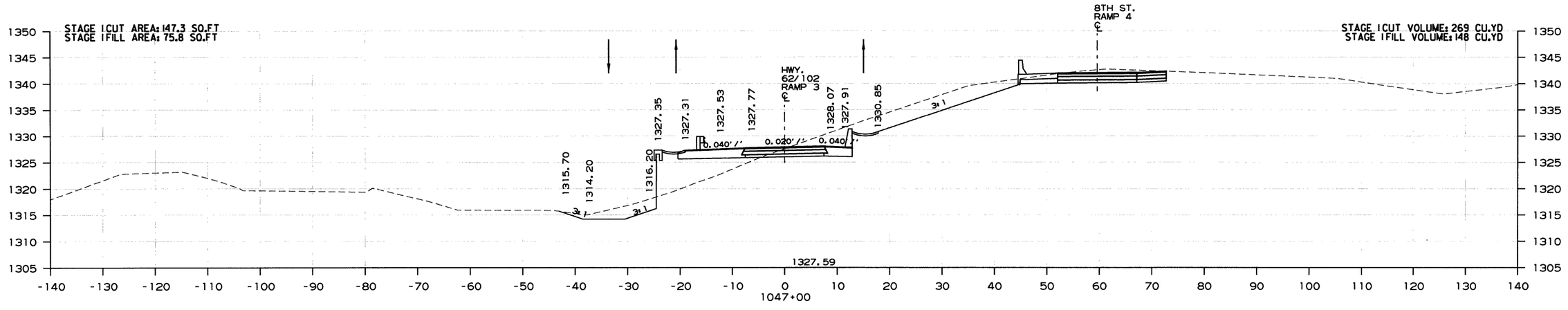
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	424	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3





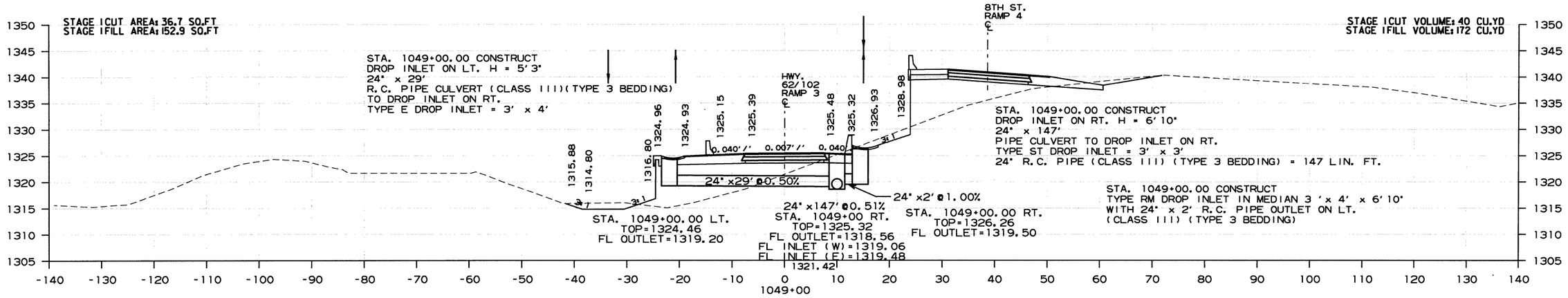


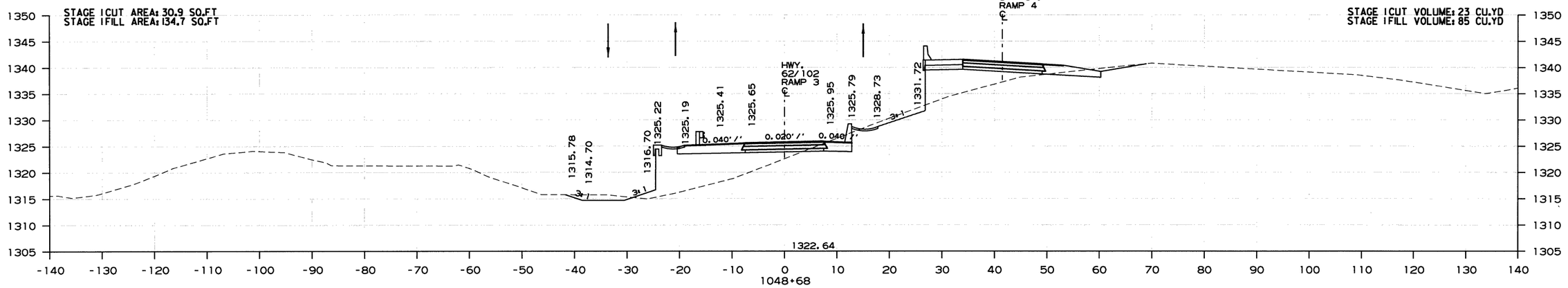
CROSS SECTION STA. 1047+00 TO STA. 1048+00

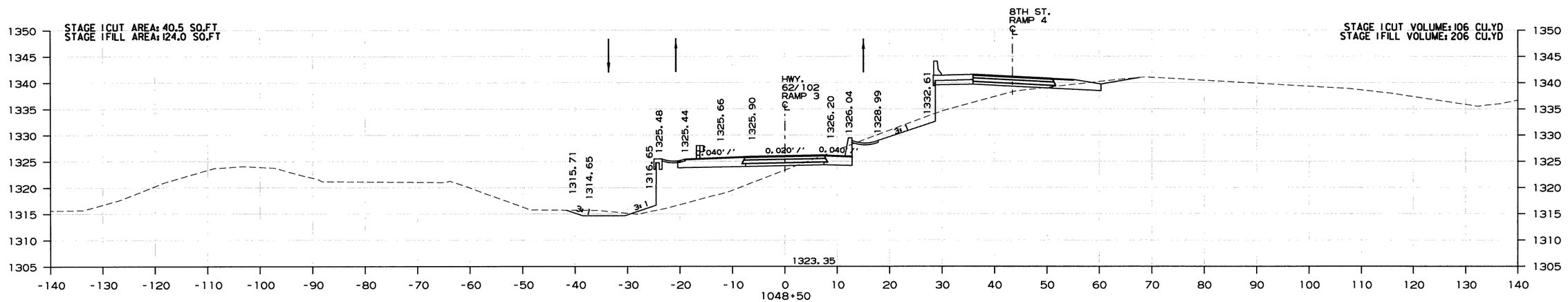
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	425	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.





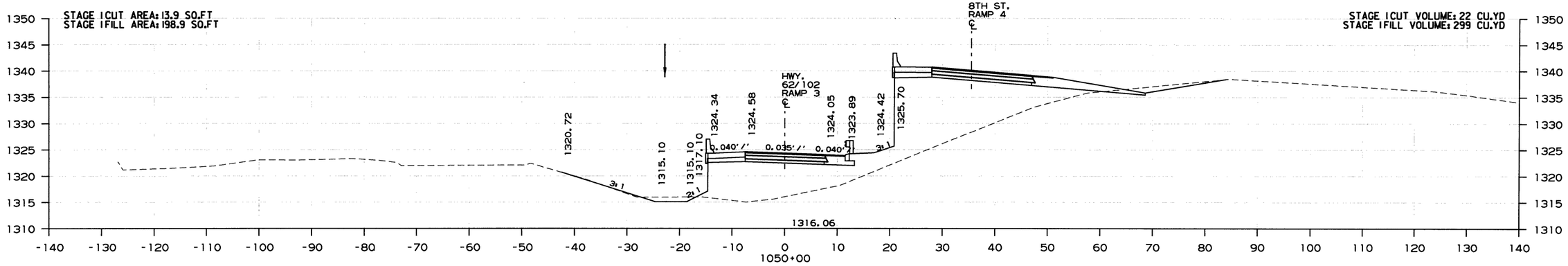


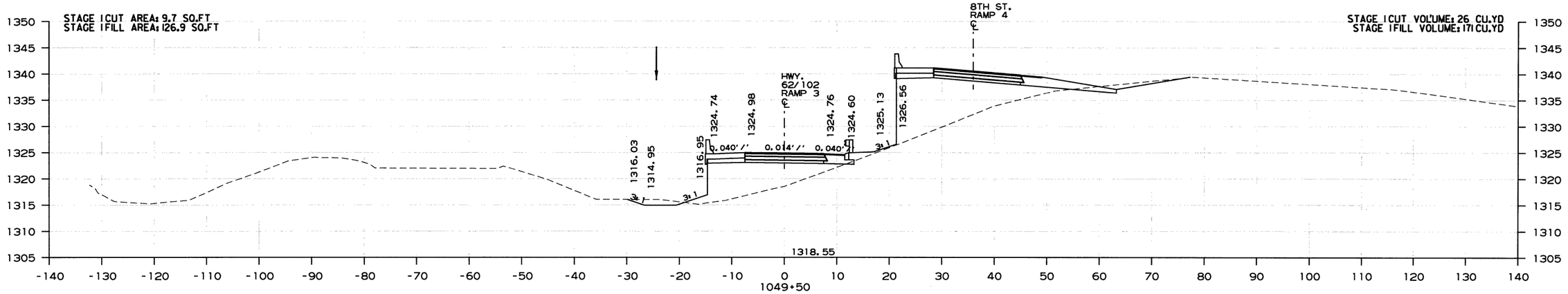
CROSS SECTION STA. 1048+50 TO STA. 1049+00

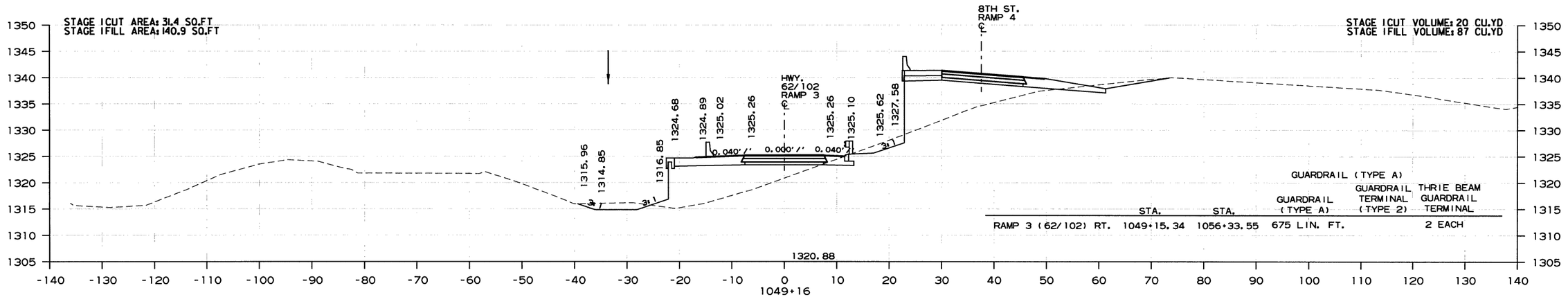
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	426	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3







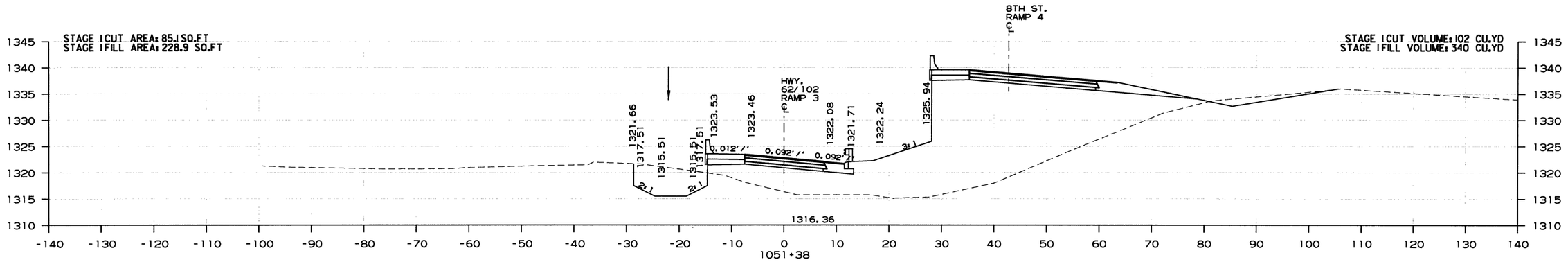
			GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
	STA.	STA.	GUARDRAIL (TYPE A)		
RAMP 3 (62/102) RT.	1049+15.34	1056+33.55	675 LIN. FT.		2 EACH

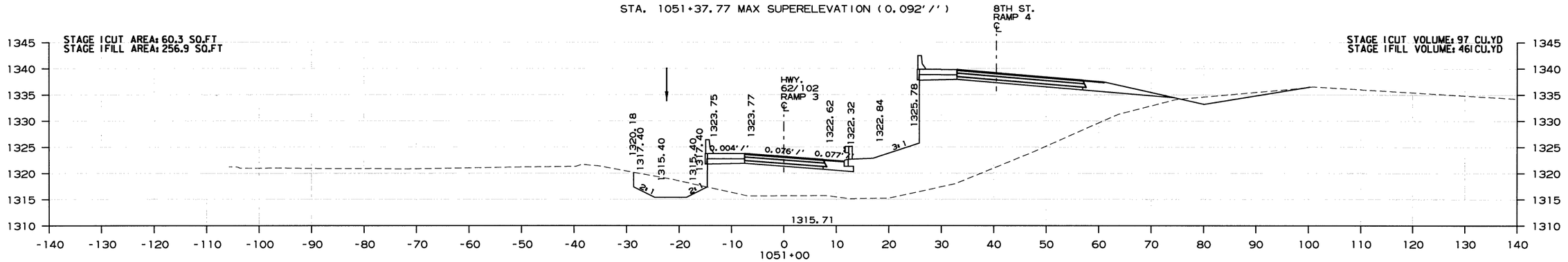
CROSS SECTION STA. 1049+16 TO STA. 1050+00

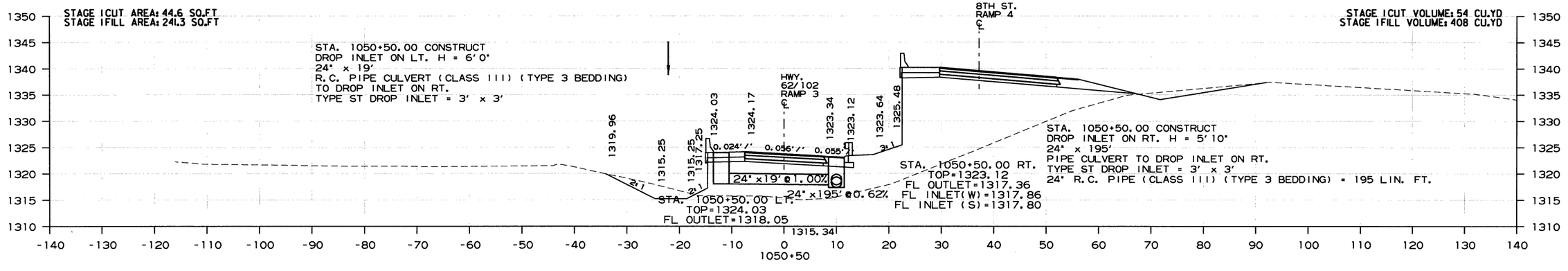
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	427	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3





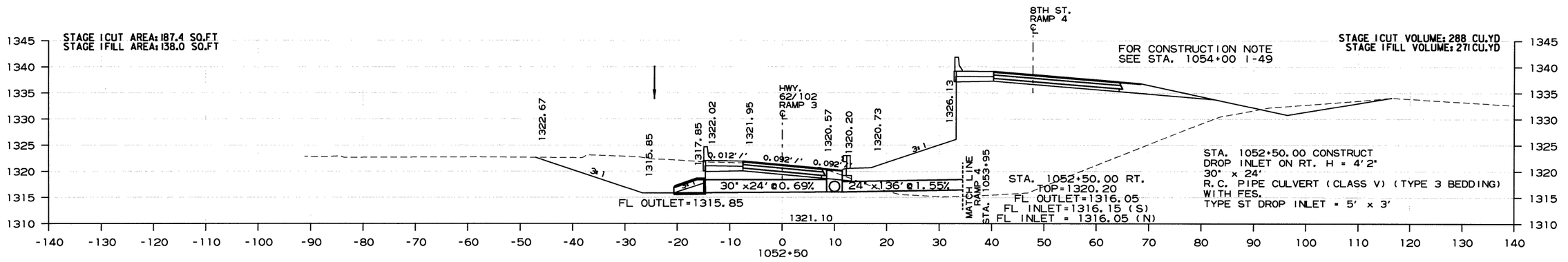


CROSS SECTION STA. 1050+50 TO STA. 1051+38

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	428	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3

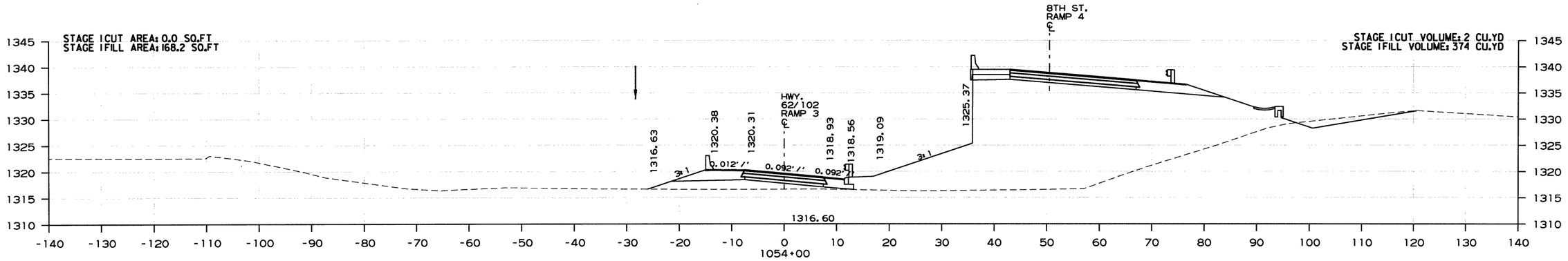


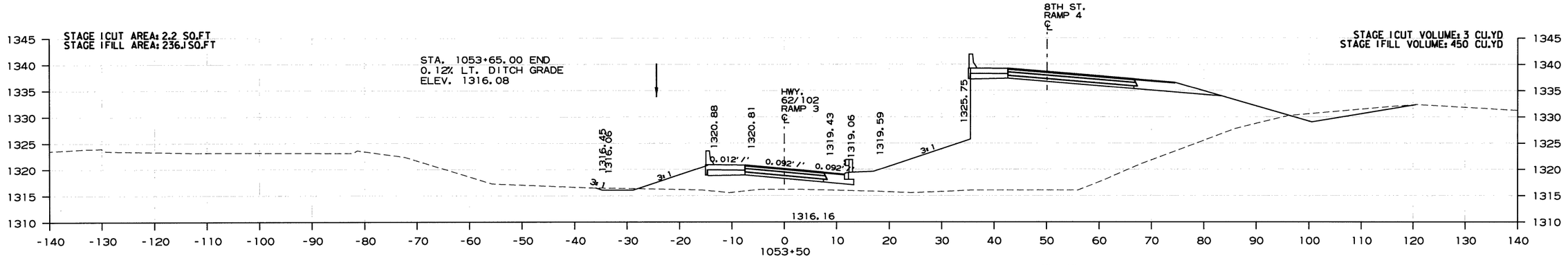
CROSS SECTION STA. 1051+50 TO STA. 1052+50

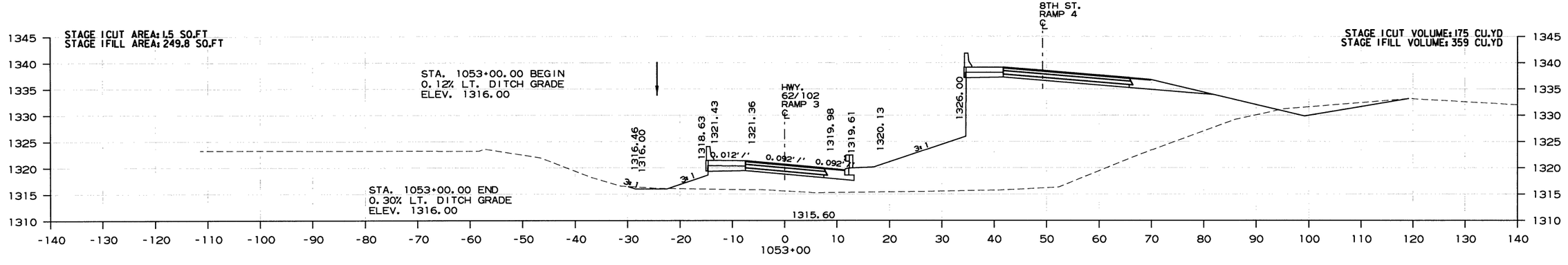
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	429	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3





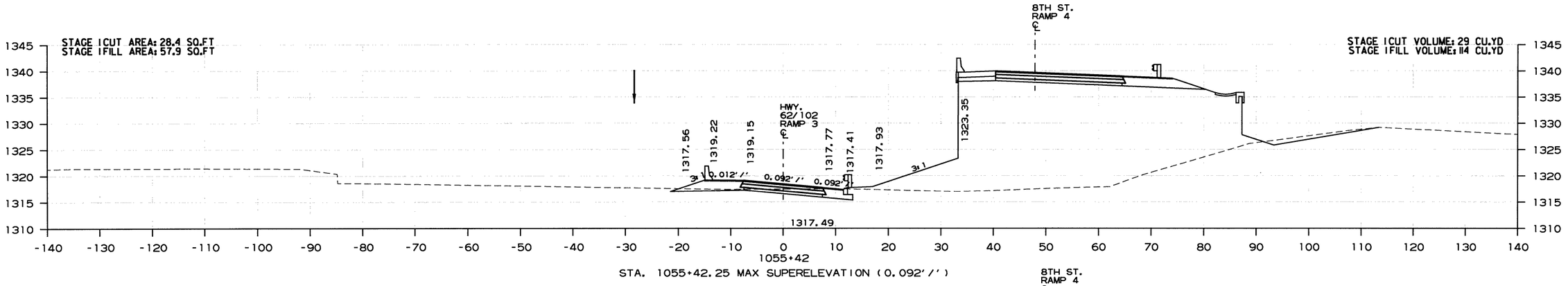


CROSS SECTION STA. 1053+00 TO STA. 1054+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	430	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

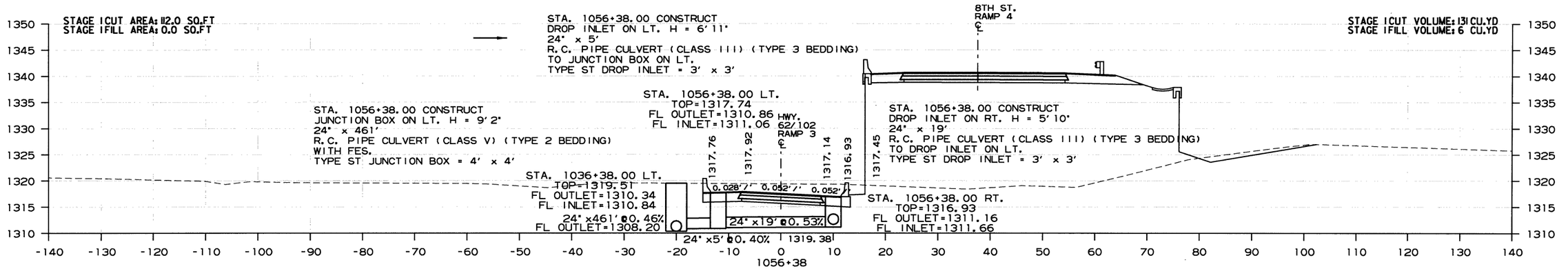


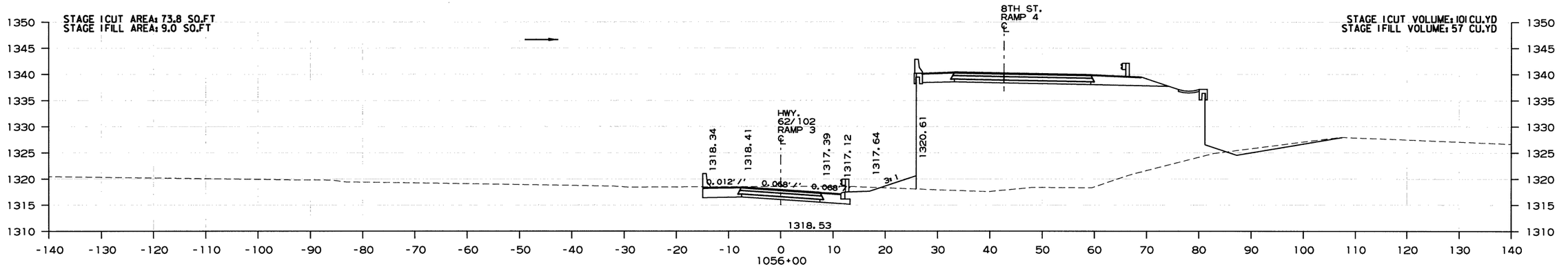
CROSS SECTION STA. 1054+50 TO STA. 1055+42

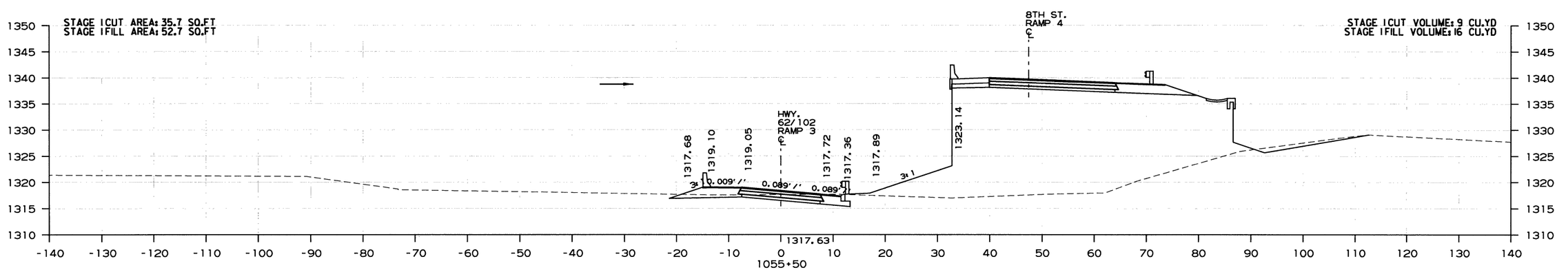
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	431	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3





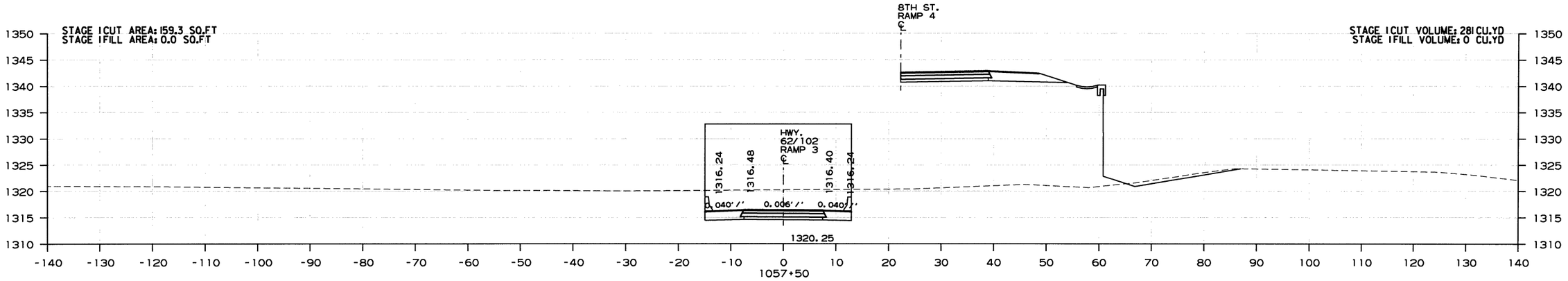


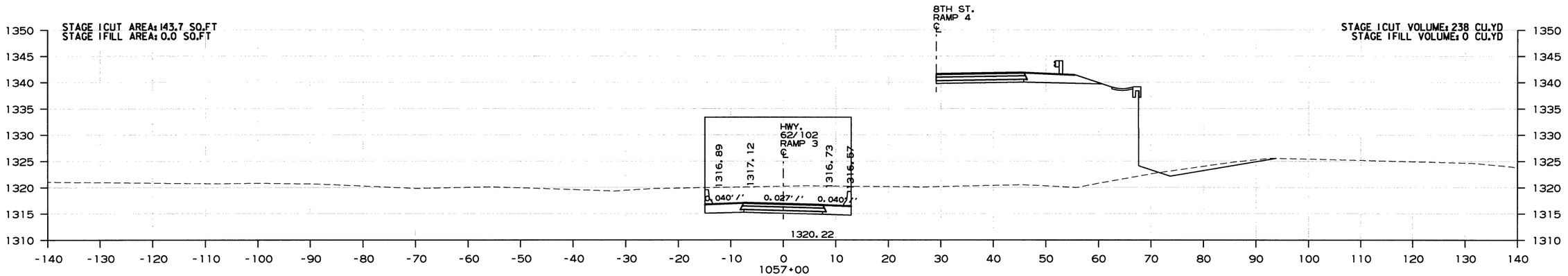
CROSS SECTION STA. 1055+50 TO STA. 1056+38

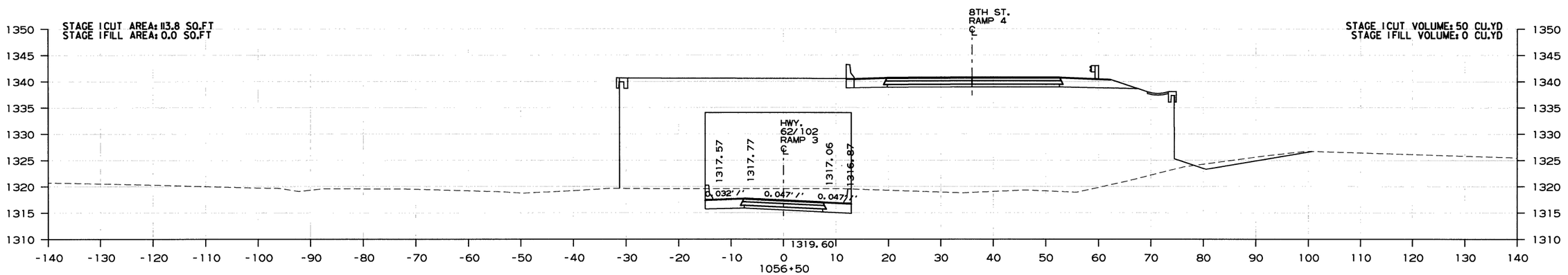
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	432	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3





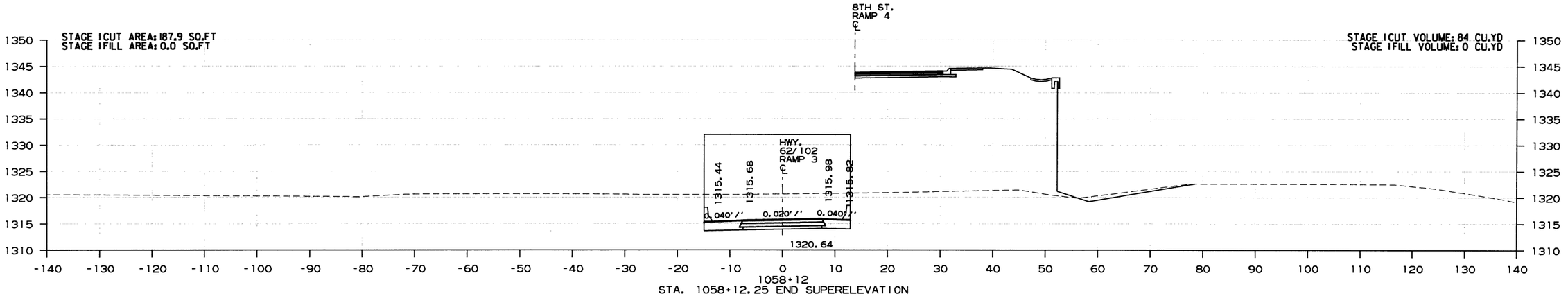


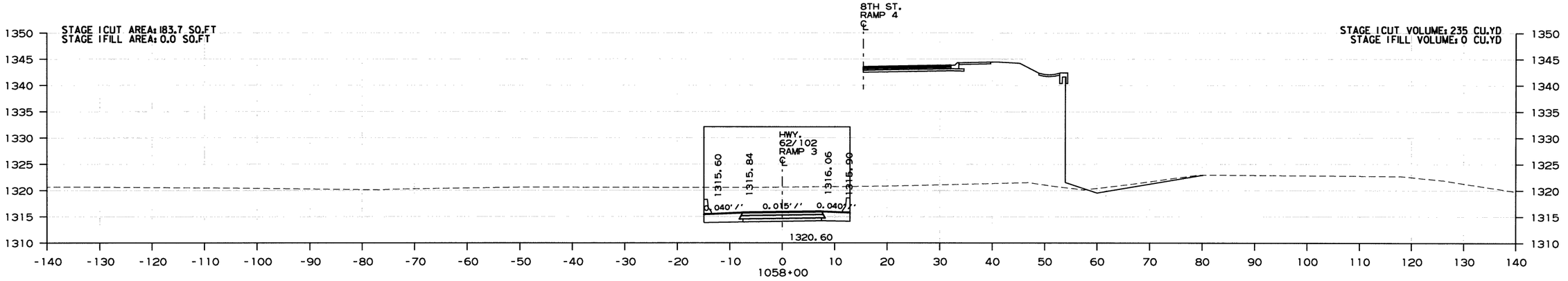
CROSS SECTION STA. 1056+50 TO STA. 1057+50

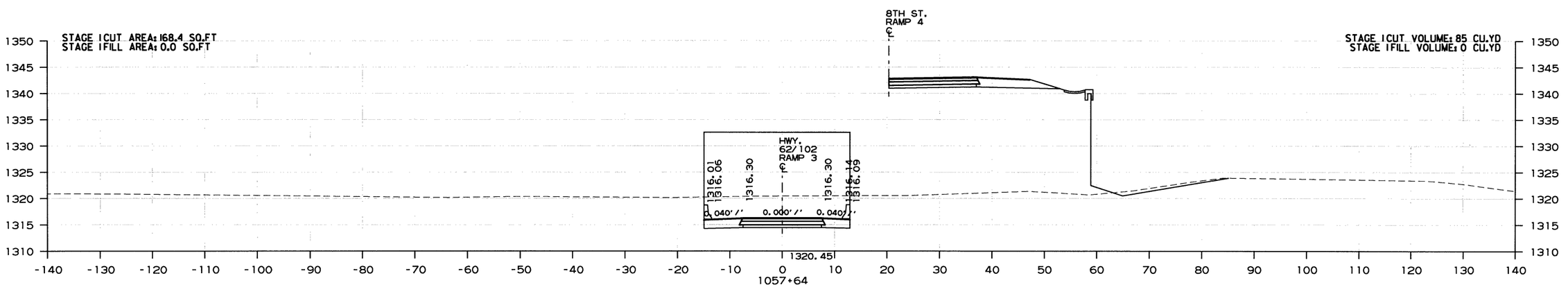
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	433	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3



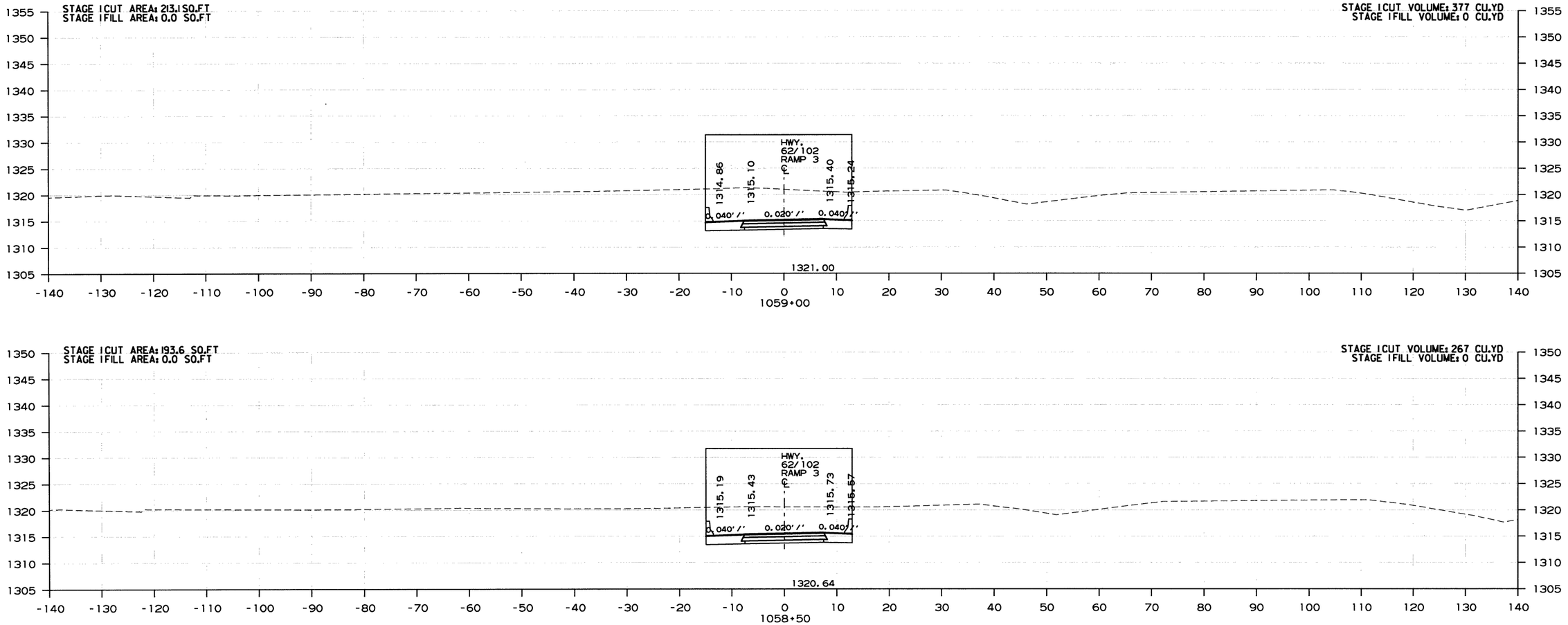




CROSS SECTION STA. 1057+64 TO STA. 1058+12

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	434	555
				(2) CROSS SECTIONS - HWY. 62/102 RAMP 3				

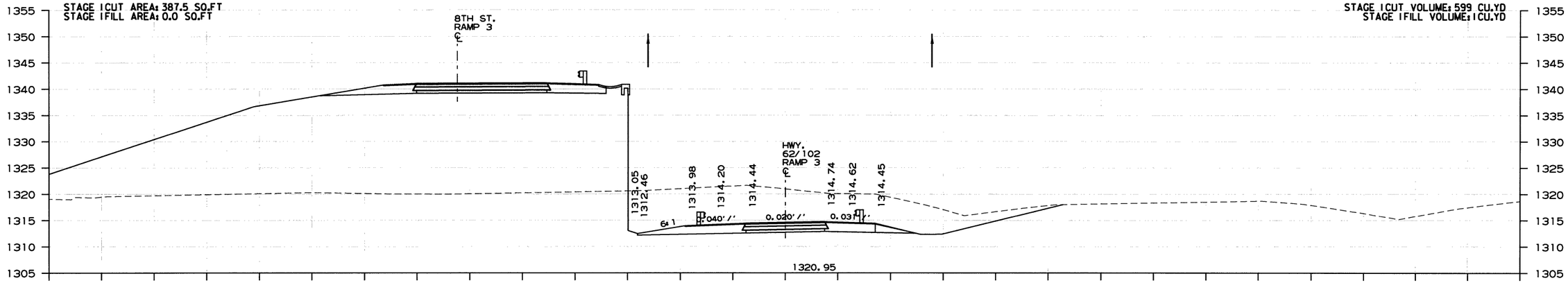


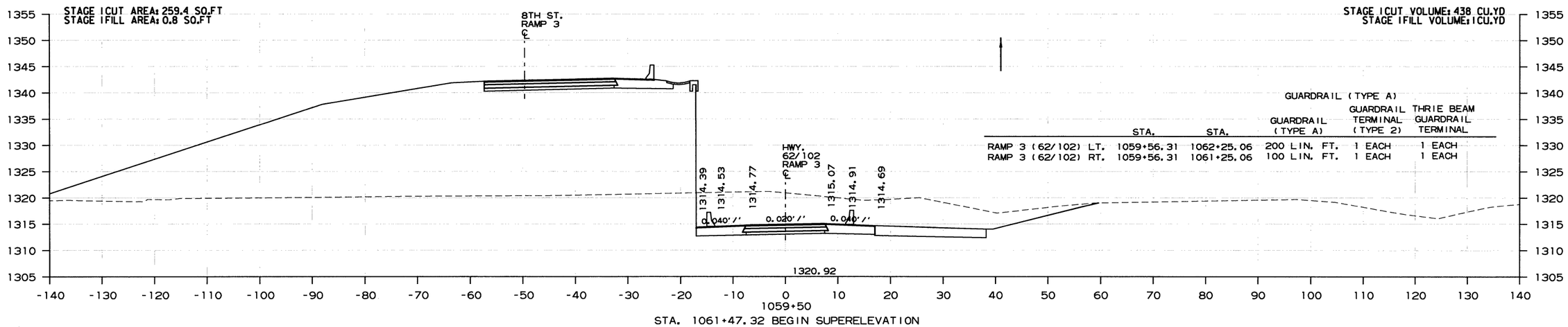
CROSS SECTION STA. 1058+50 TO STA. 1059+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	435	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3





	STA.	STA.	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	GUARDRAIL THRIE BEAM TERMINAL
RAMP 3 (62/102) LT.	1059+56.31	1062+25.06	200 LIN. FT.	1 EACH	1 EACH
RAMP 3 (62/102) RT.	1059+56.31	1061+25.06	100 LIN. FT.	1 EACH	1 EACH

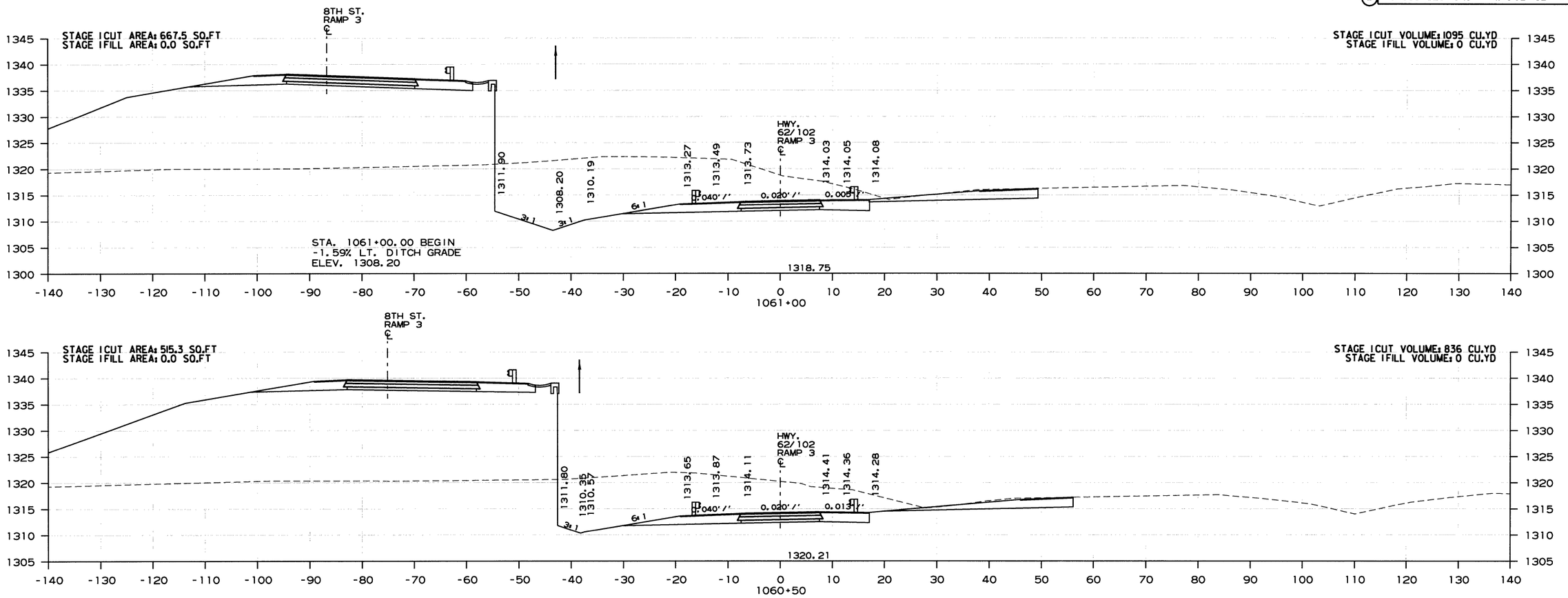
STA. 1061+47.32 BEGIN SUPERELEVATION

CROSS SECTION STA. 1059+50 TO STA. 1060+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	436	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

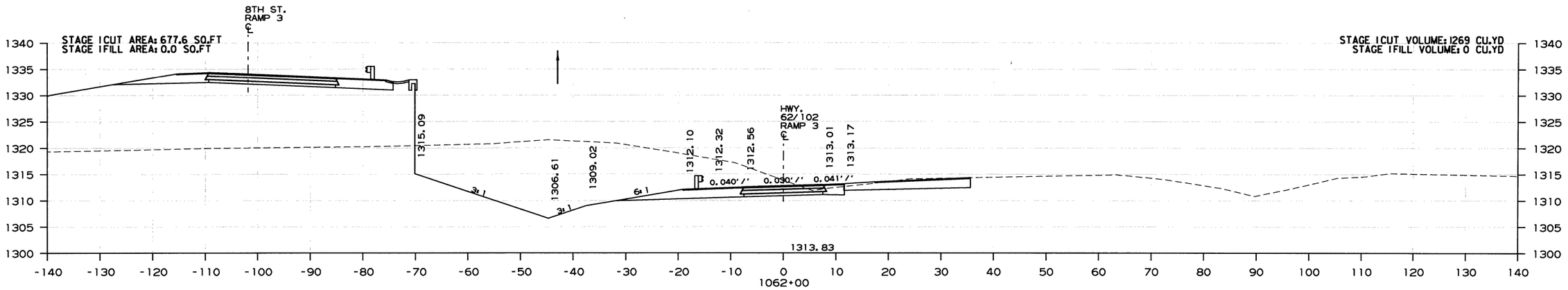


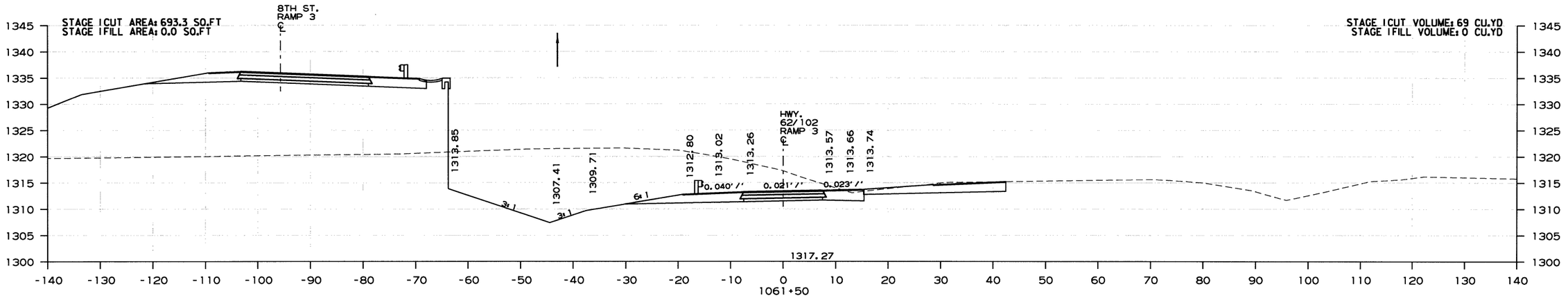
CROSS SECTION STA. 1060+43 TO STA. 1061+00

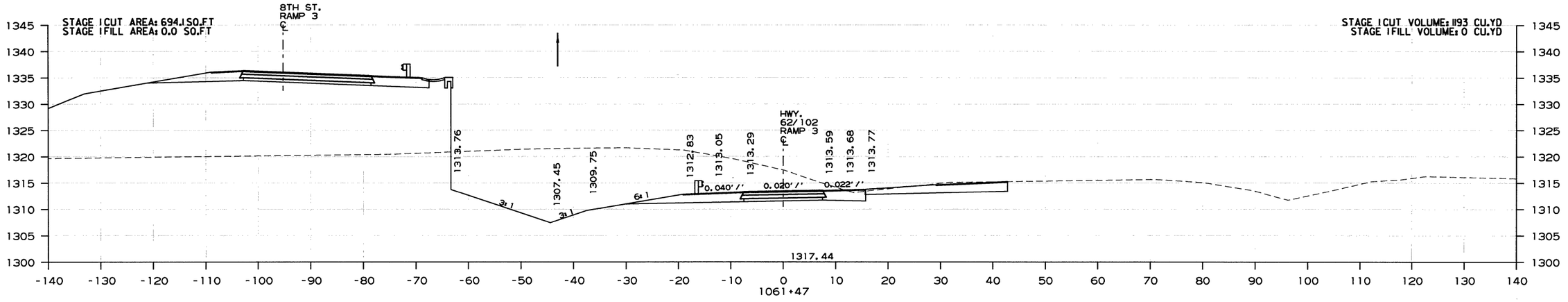
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	437	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3







CROSS SECTION STA. 1061+47 TO STA. 1062+00

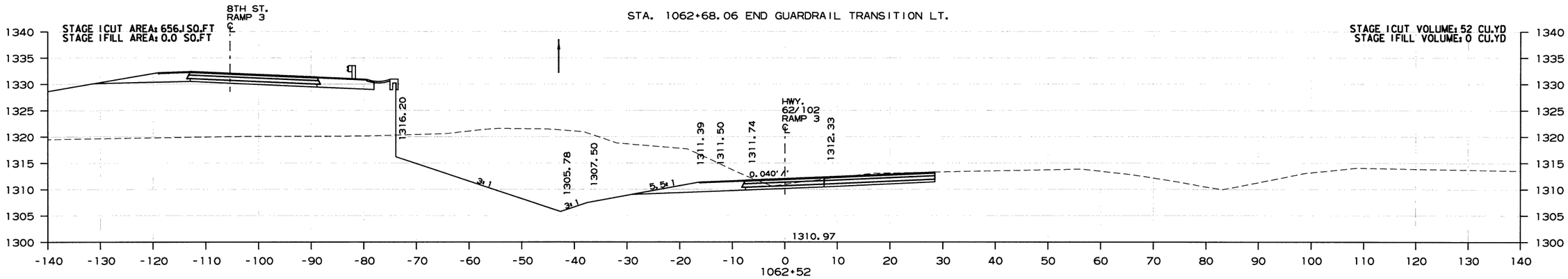
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

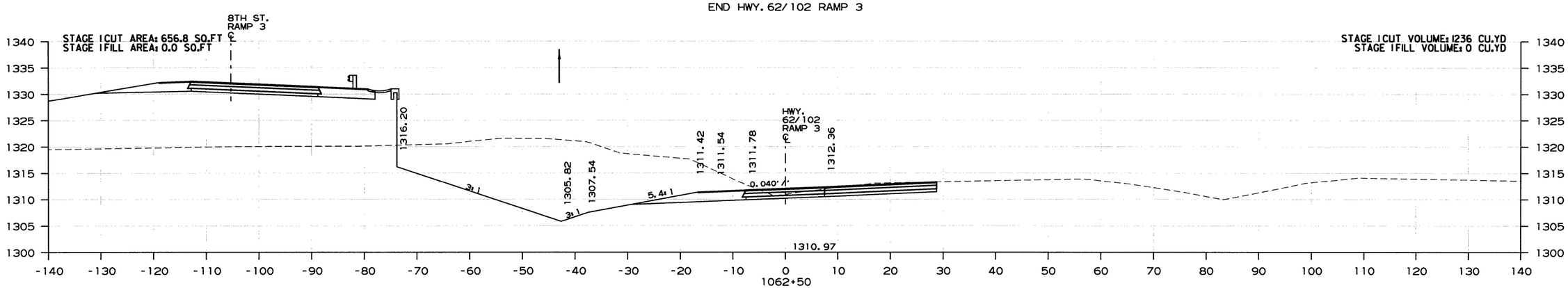
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	438	555

(2) CROSS SECTIONS - HWY. 62/102 RAMP 3

STA. 1065+00.00 END
-1.59% LT. DITCH GRADE
ELEV. 1301.85

STA. 1062+68.06 END GUARDRAIL TRANSITION LT.



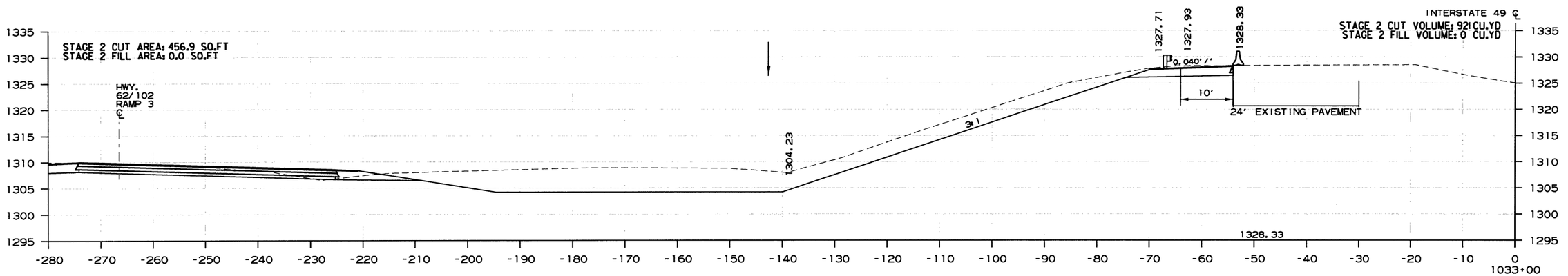


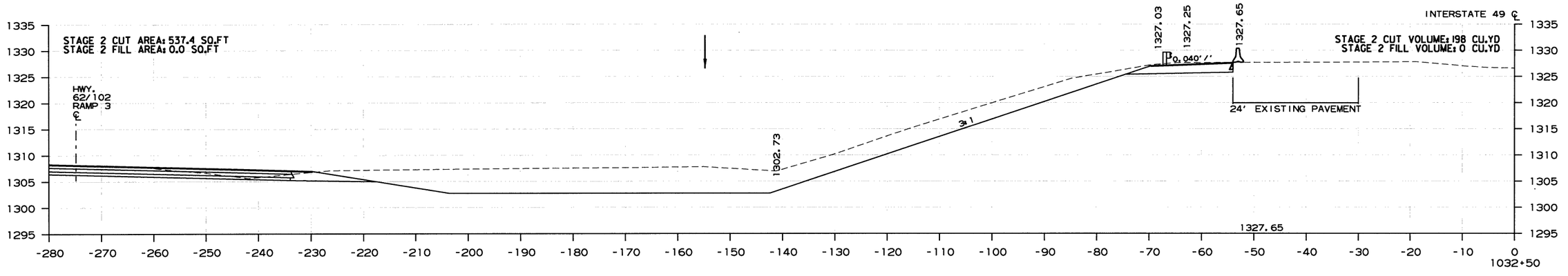
STA. 1062+35.06 BEGIN GUARDRAIL TRANSITION LT.

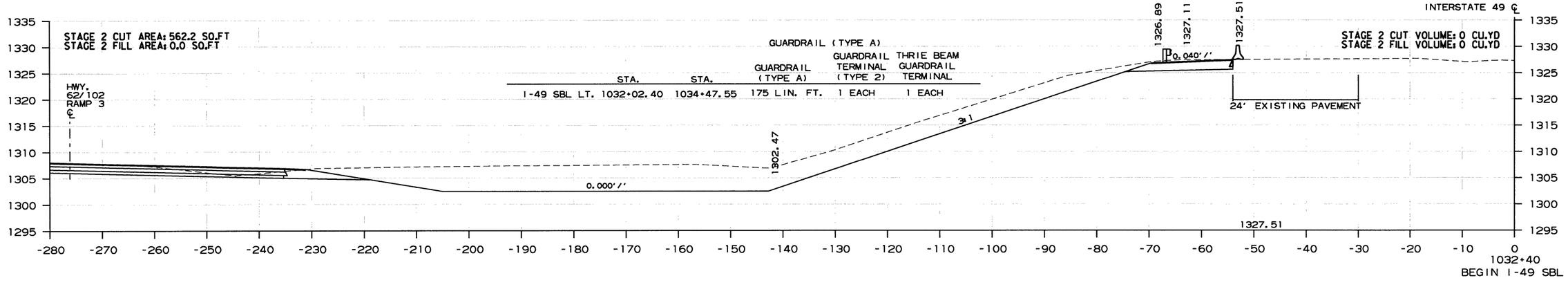
CROSS SECTION STA. 1062+50 TO STA. 1062+52

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	439	555
				(2)	CROSS SECTIONS - I-49 SBL			







GUARDRAIL (TYPE A)

	STA.	STA.	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
I-49 SBL LT.	1032+02.40	1034+47.55	175 LIN. FT.	1 EACH	1 EACH

CROSS SECTION STA. 1032+40 TO STA. 1033+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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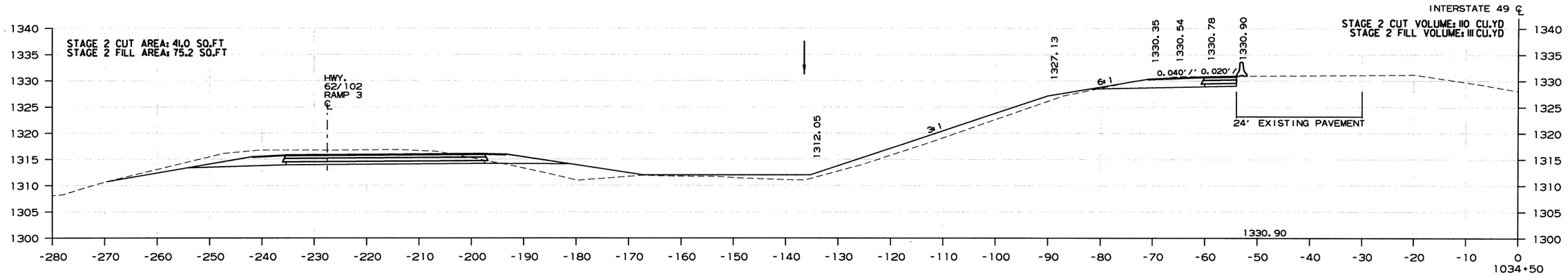

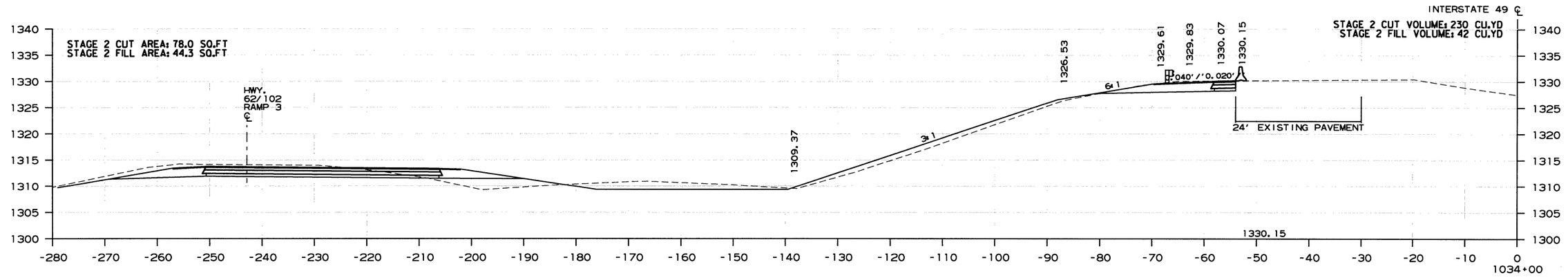

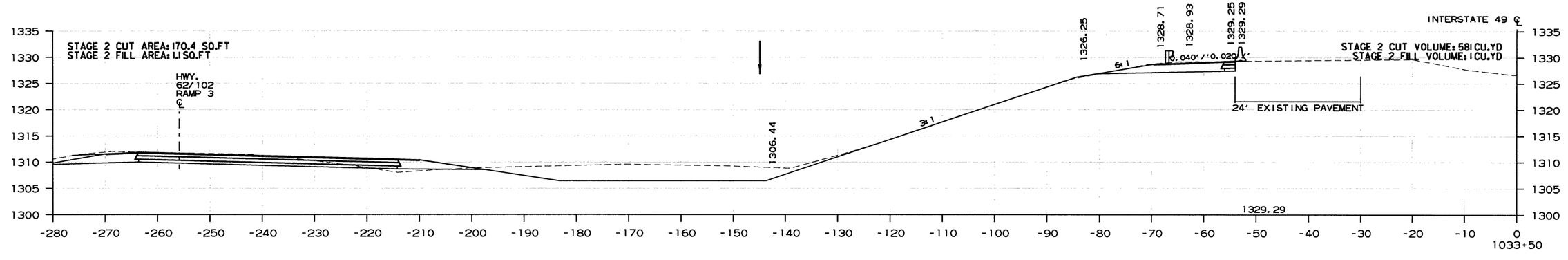

CROSS SECTION STA. 1033+50 TO STA. 1034+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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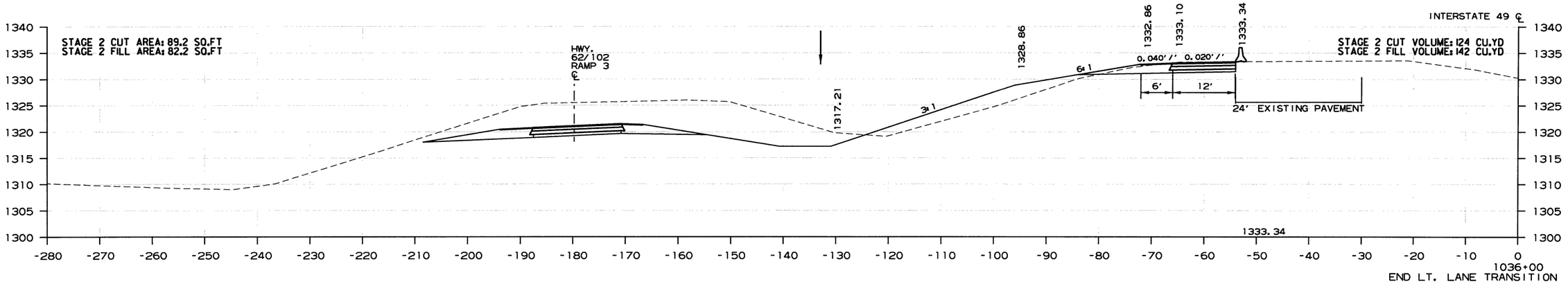

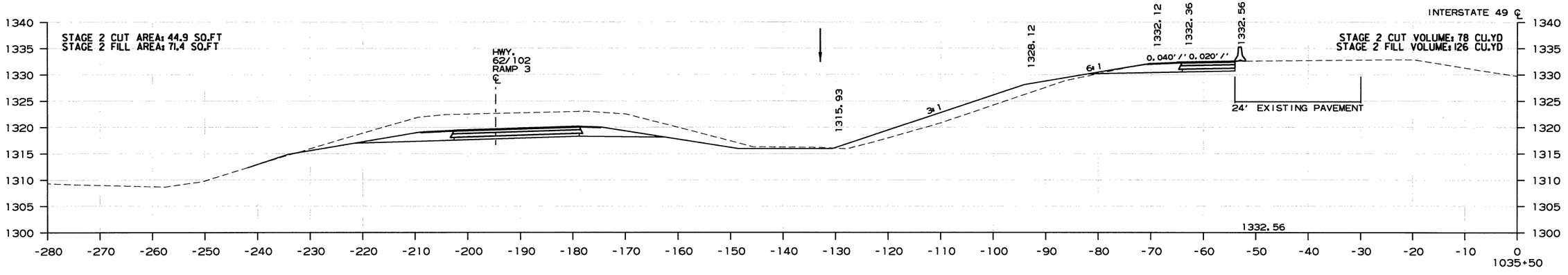

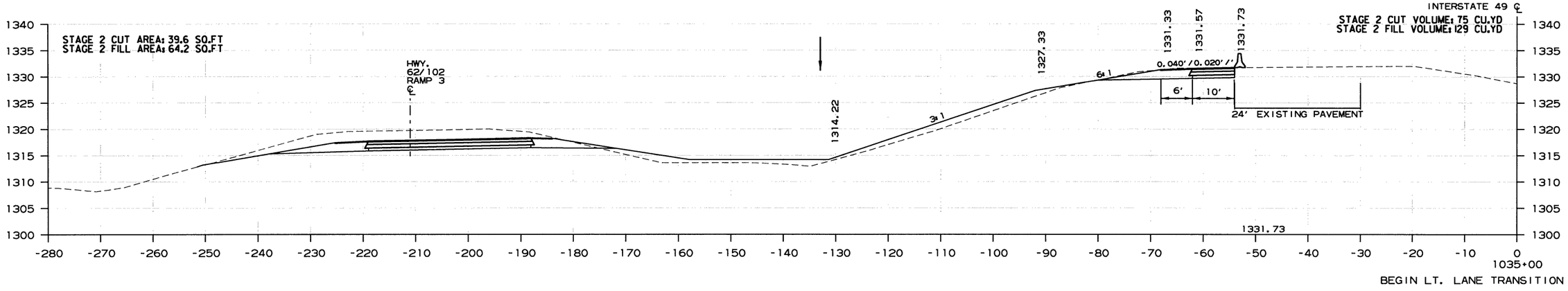

CROSS SECTION STA. 1035+00 TO STA. 1036+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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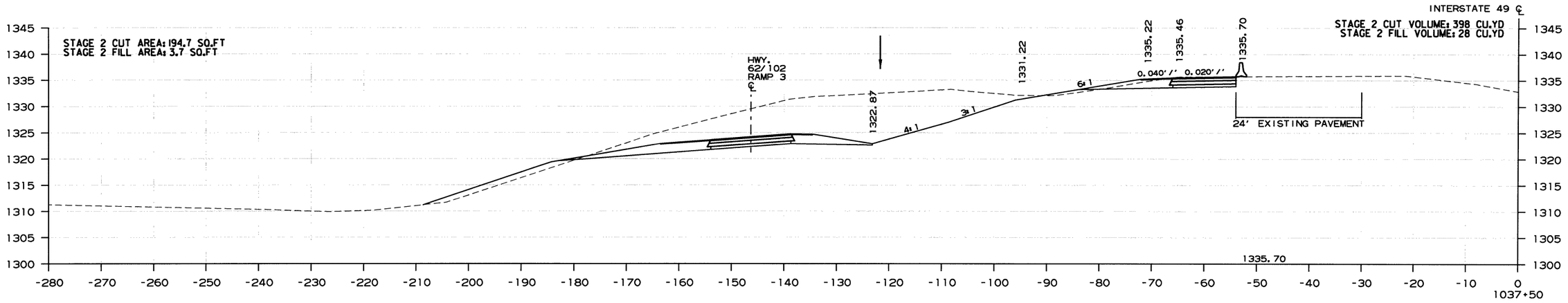
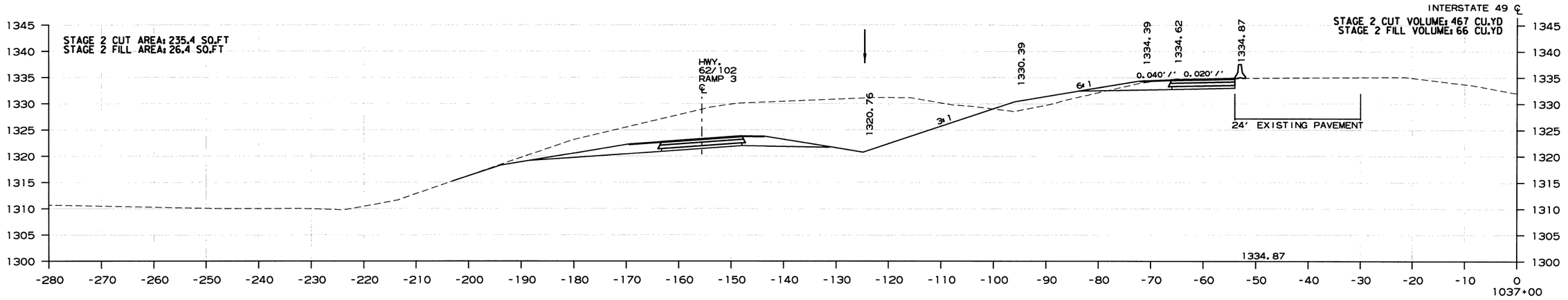
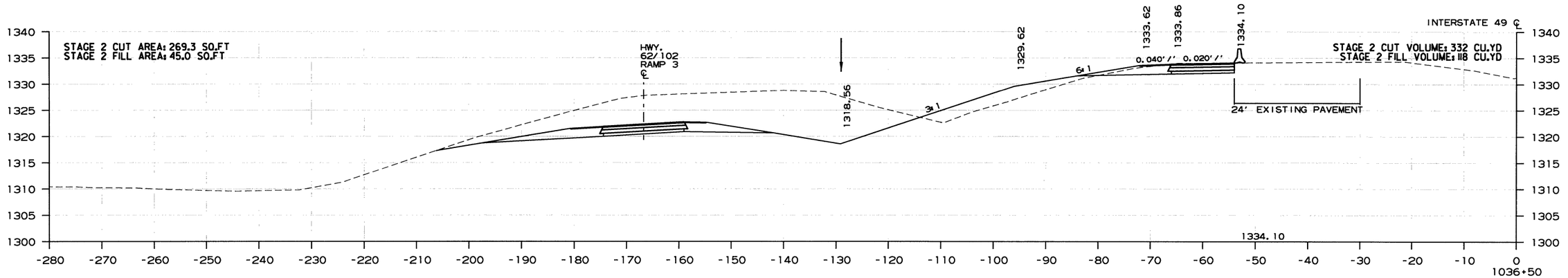
				JOB NO.		090376	442	555
				(2)	CROSS SECTIONS - I-49 SBL			





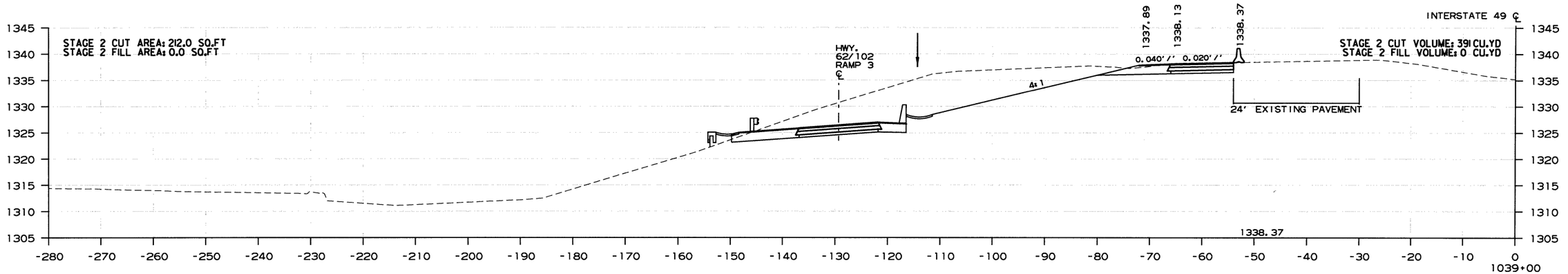


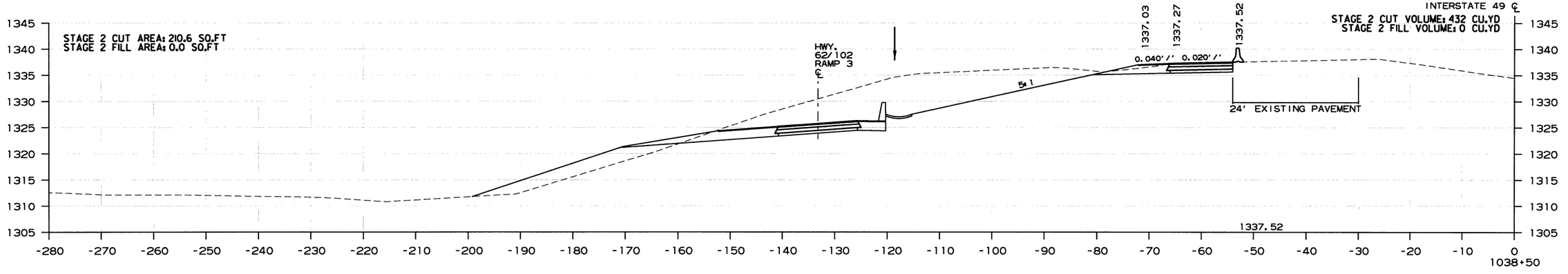
CROSS SECTION STA. 1036+50 TO STA. 1037+50

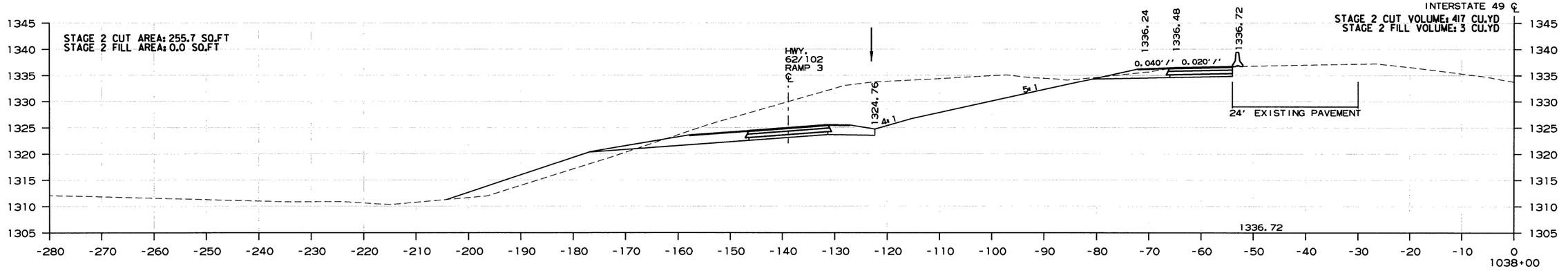
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	443	555

(2) CROSS SECTIONS - I-49 SBL



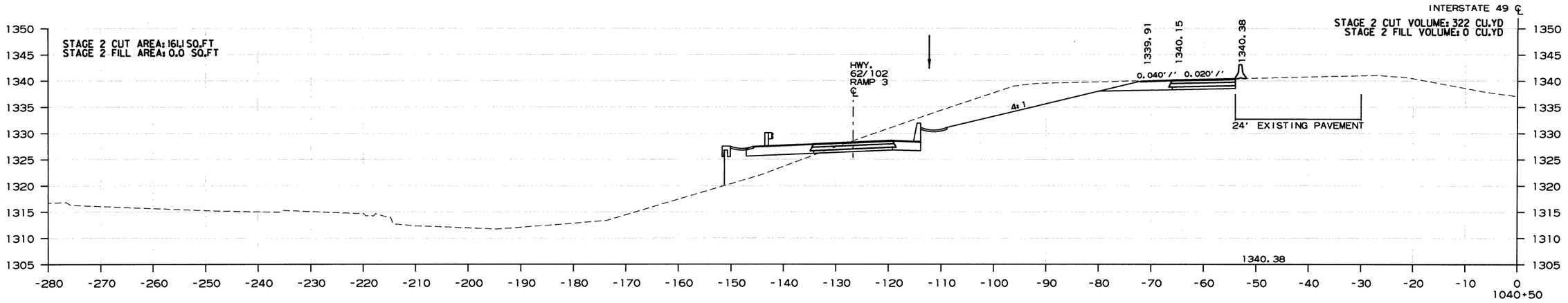


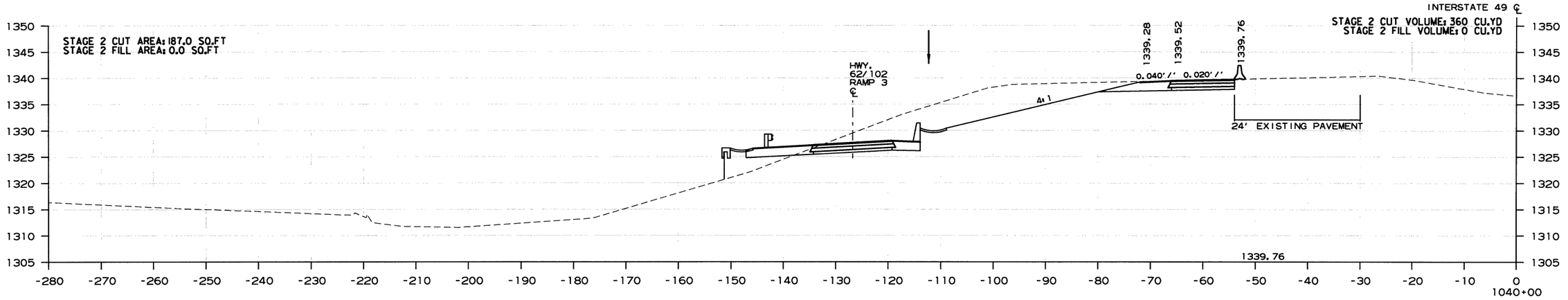


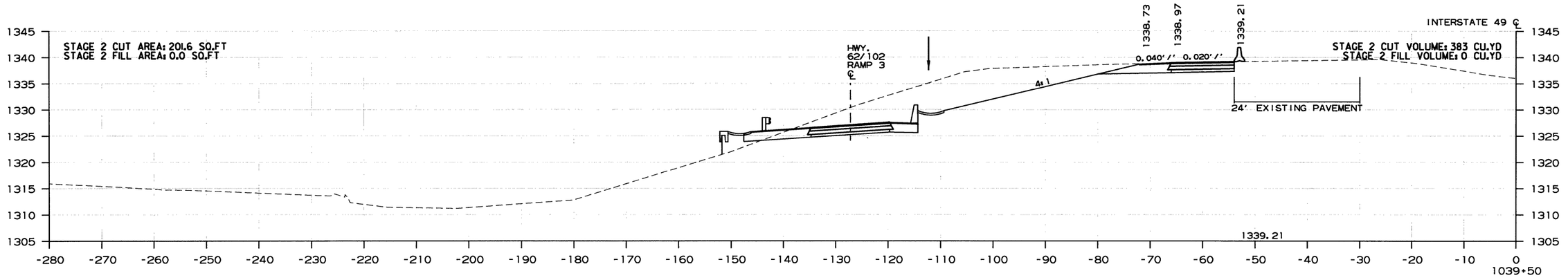
CROSS SECTION STA. 1038+00 TO STA. 1039+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	444	555
				(2)	CROSS SECTIONS - I-49 SBL			



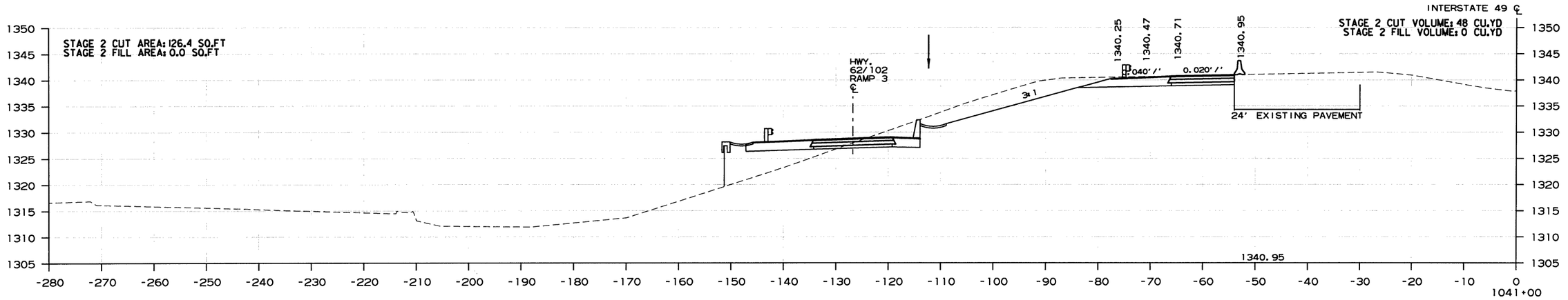


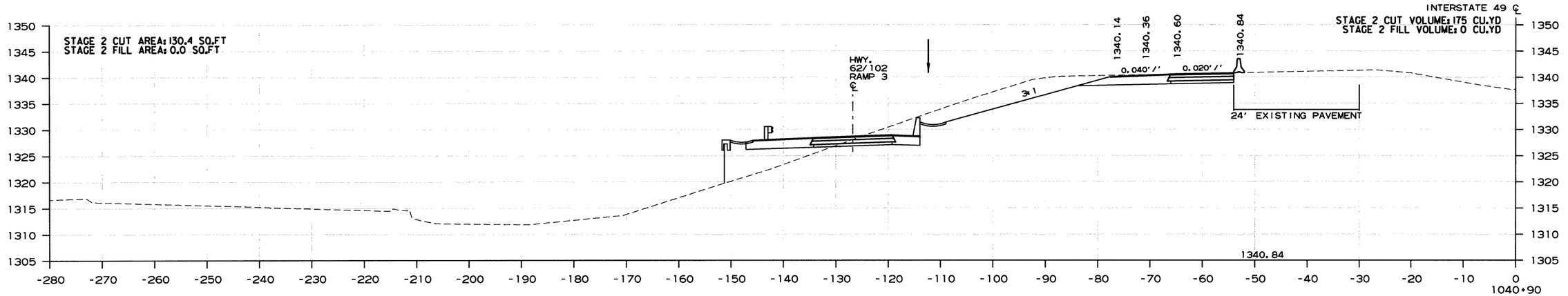


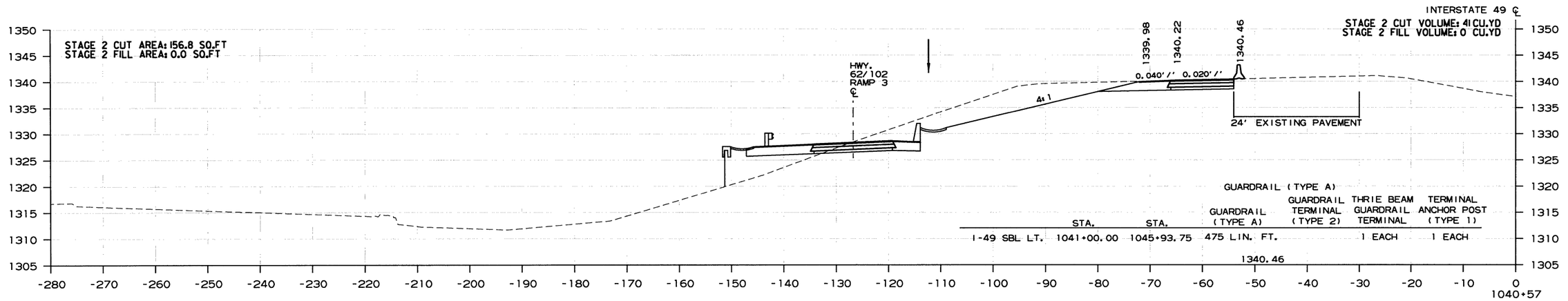
CROSS SECTION STA. 1039+50 TO STA. 1040+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	445	555
				(2)	CROSS SECTIONS - I-49 SBL			







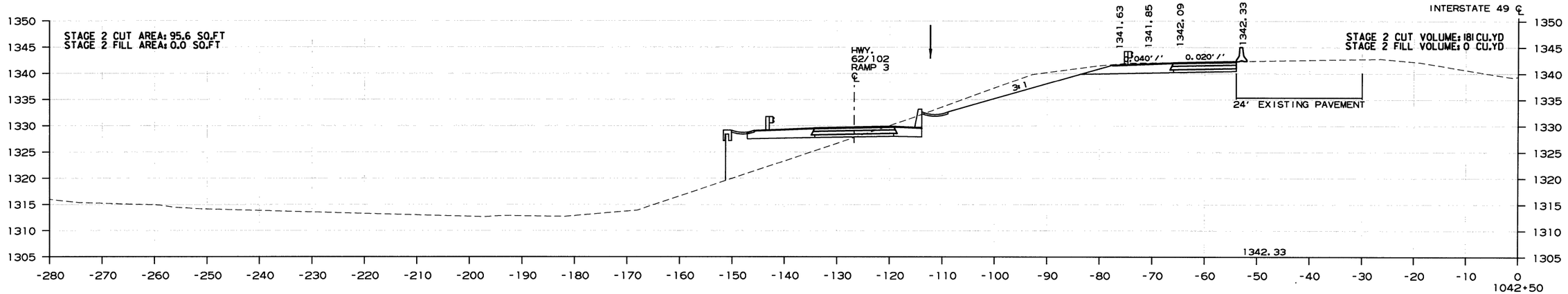
GUARDRAIL (TYPE A)

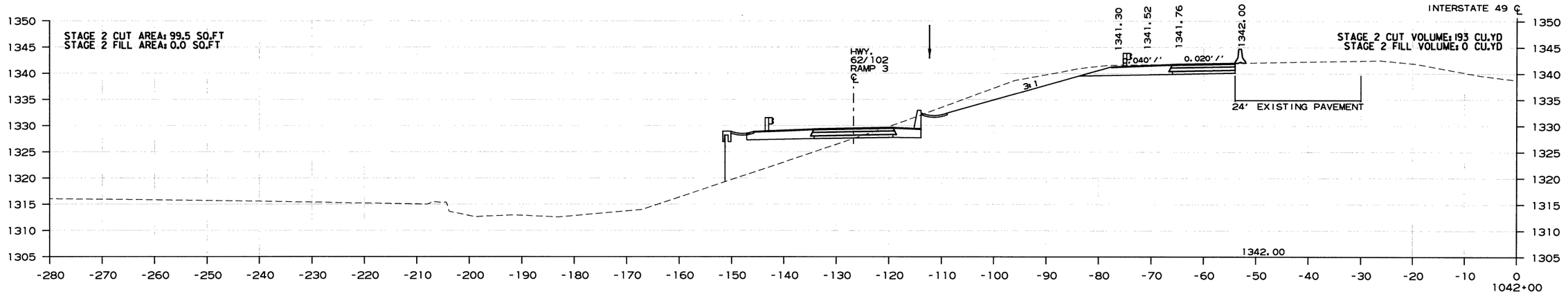
	STA.	STA.	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL	TERMINAL ANCHOR POST (TYPE 1)
I-49 SBL LT.	1041+00.00	1045+93.75	475 LIN. FT.		1 EACH	1 EACH

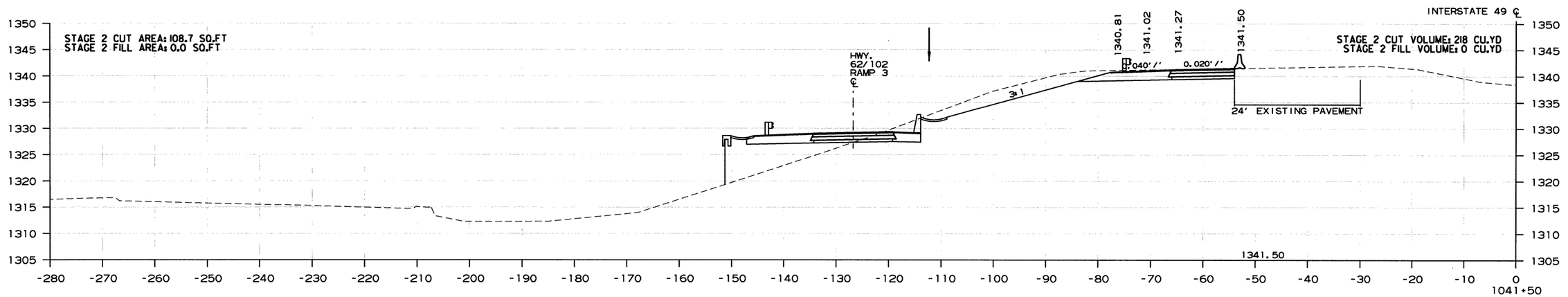
CROSS SECTION STA. 1040+57 TO STA. 1041+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	446	555
				(2)	CROSS SECTIONS - I-49 SBL			







CROSS SECTION STA. 1041+50 TO STA. 1042+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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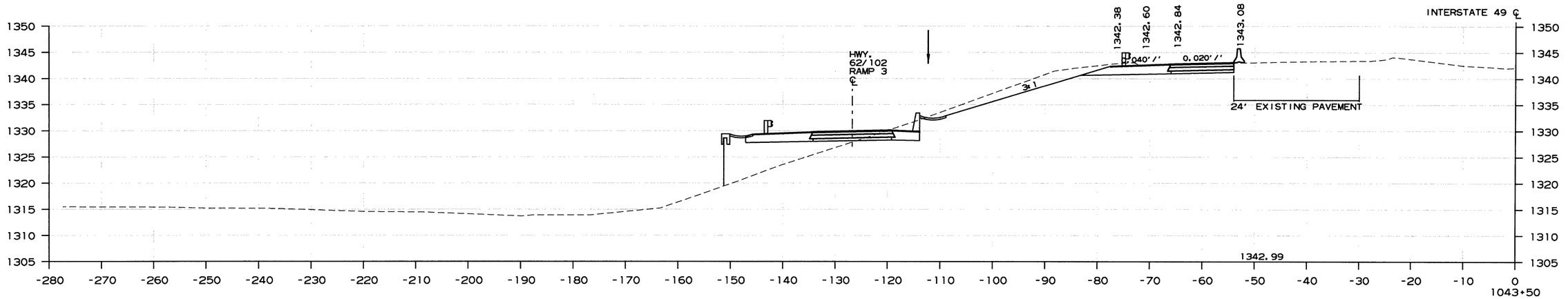
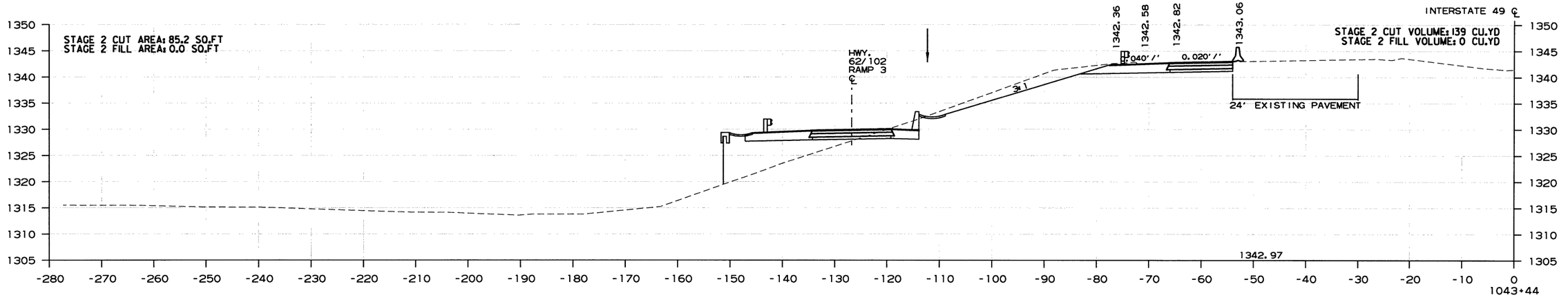
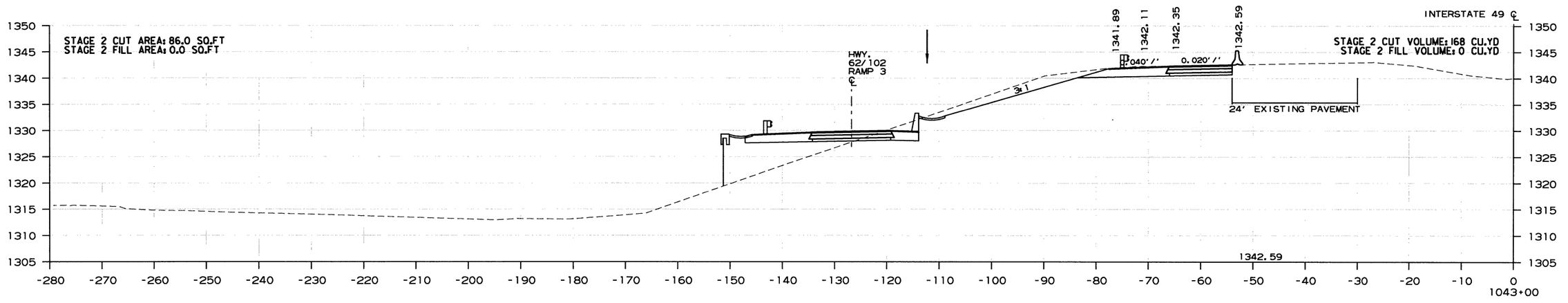
				JOB NO.		090376	447	555
				(2)	CROSS SECTIONS - I-49 SBL			



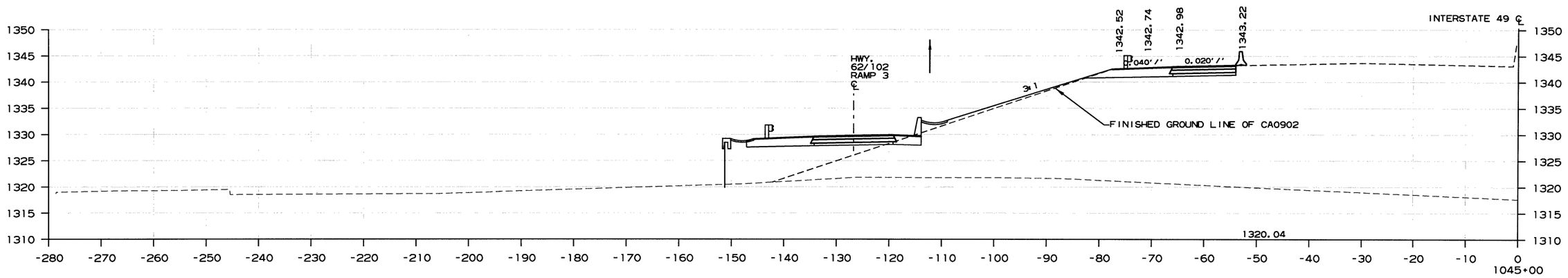


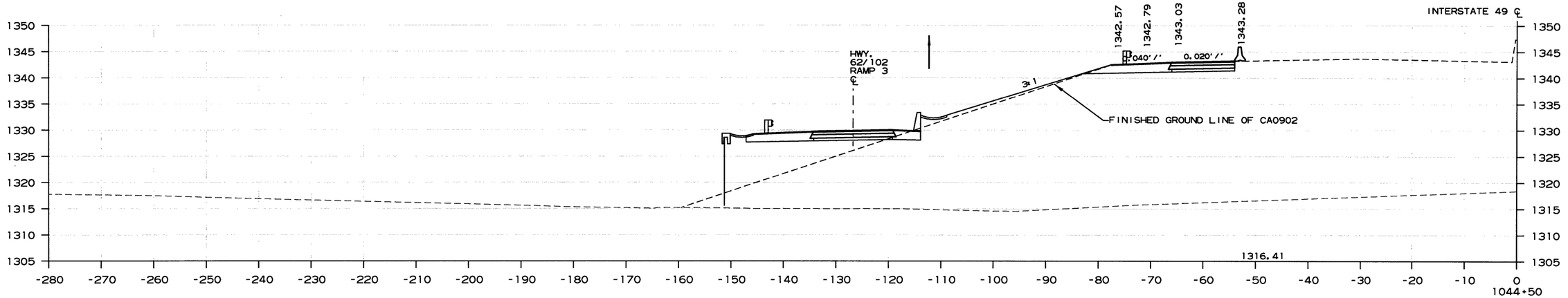


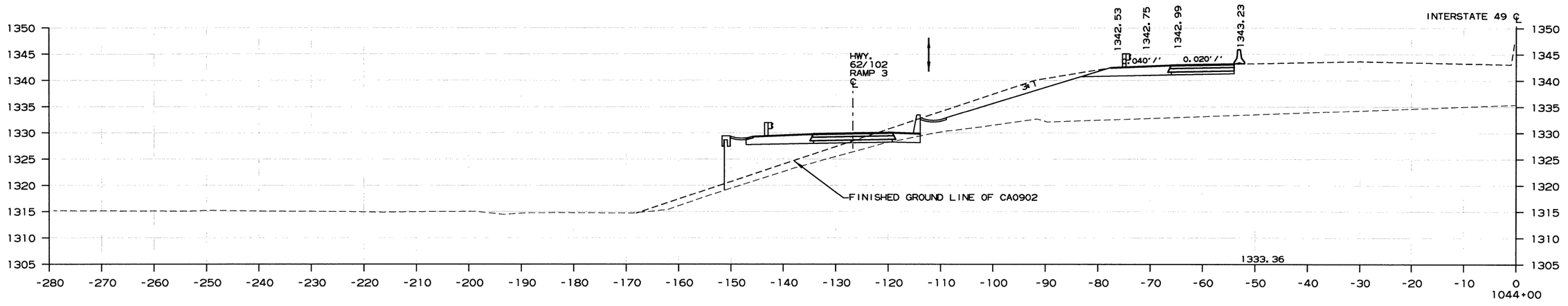
CROSS SECTION STA. 1043+00 TO STA. 1043+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	448	555
				(2)	CROSS SECTIONS - I-49 SBL			



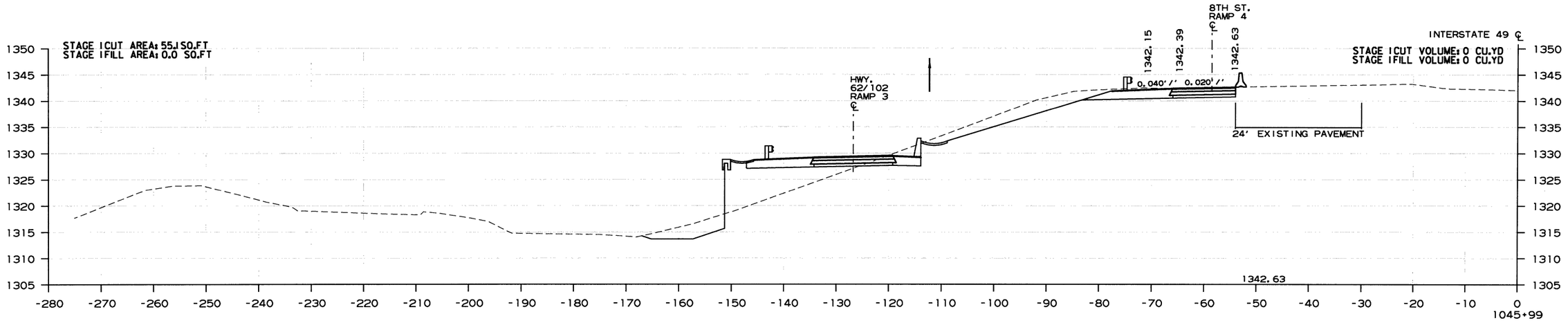


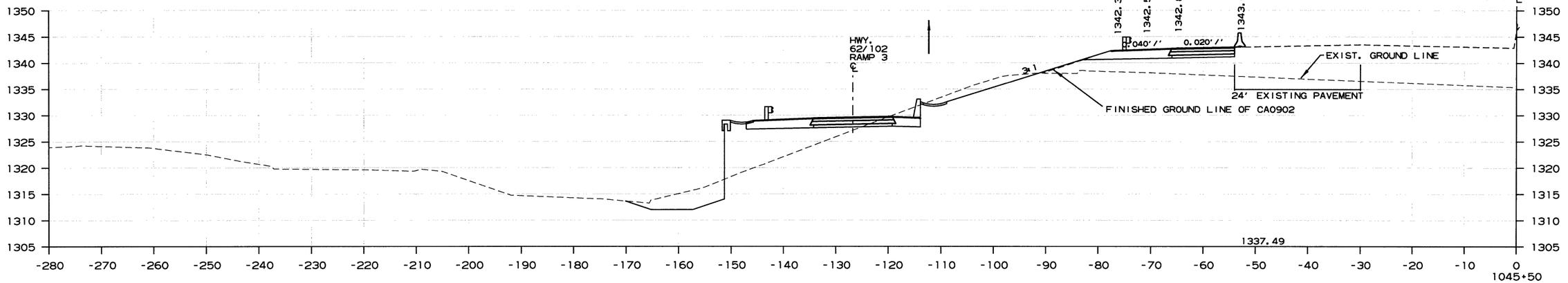


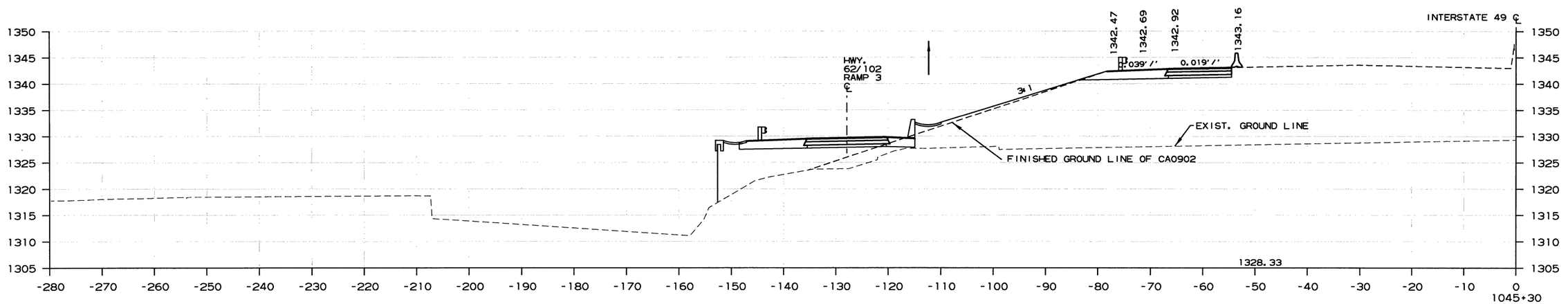
CROSS SECTION STA. 1044+00 TO STA. 1045+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	449	555
				(2)	CROSS SECTIONS - I-49 SBL			



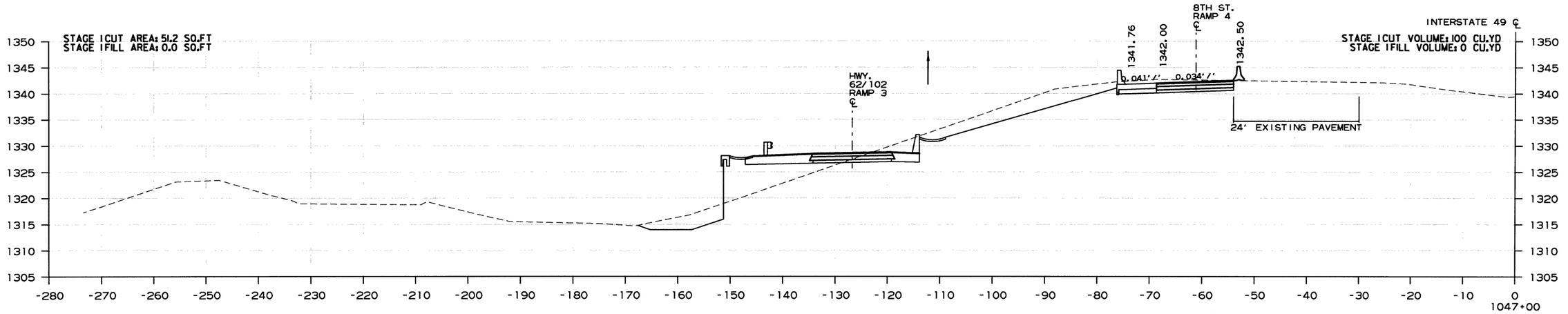


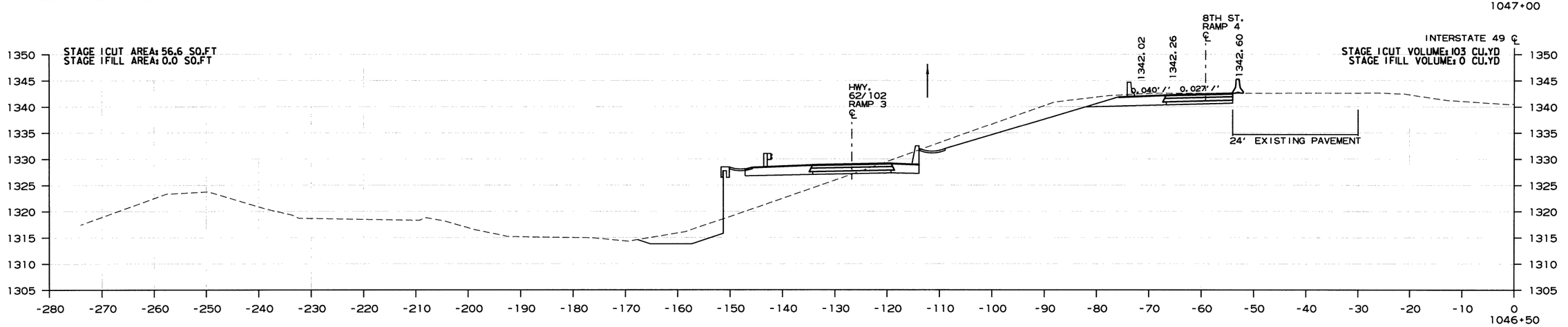


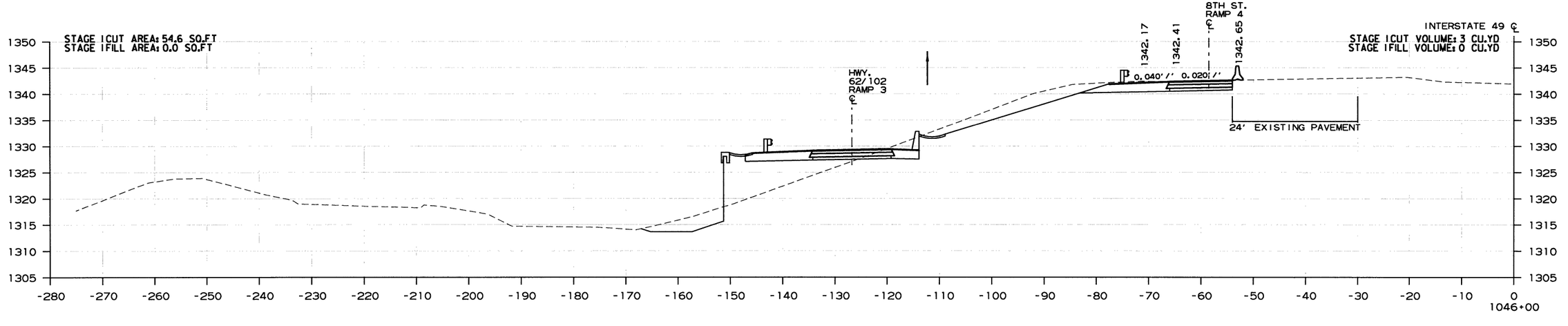
CROSS SECTION STA. 1045+30 TO STA. 1045+99

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	450	555
				(2)	CROSS SECTIONS - I-49 SBL			







CROSS SECTION STA. 1046+00 TO STA. 1047+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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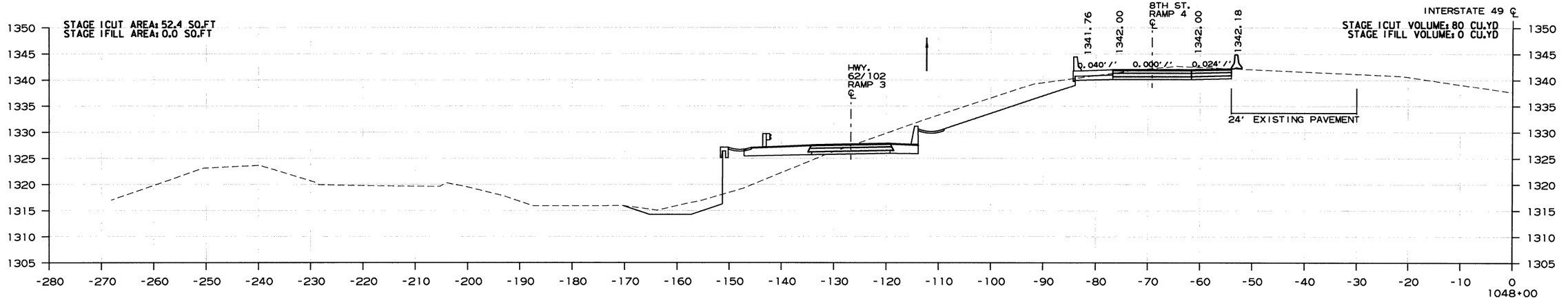
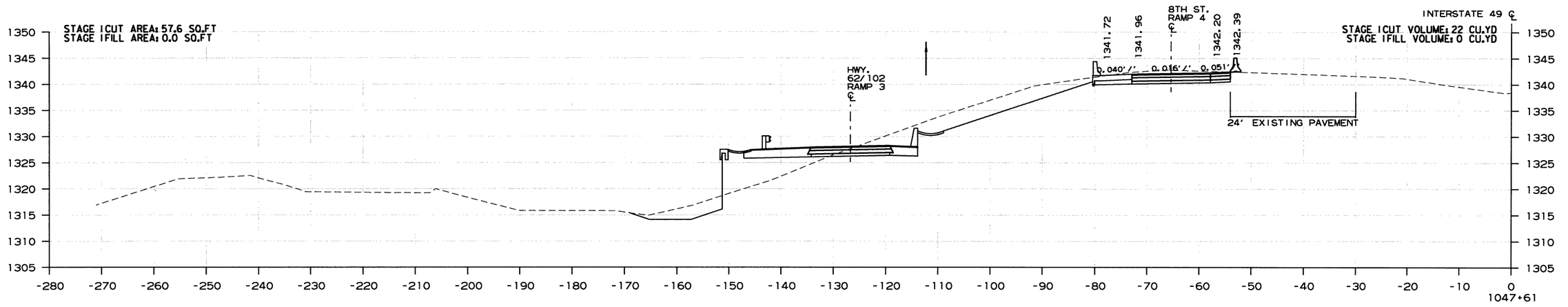
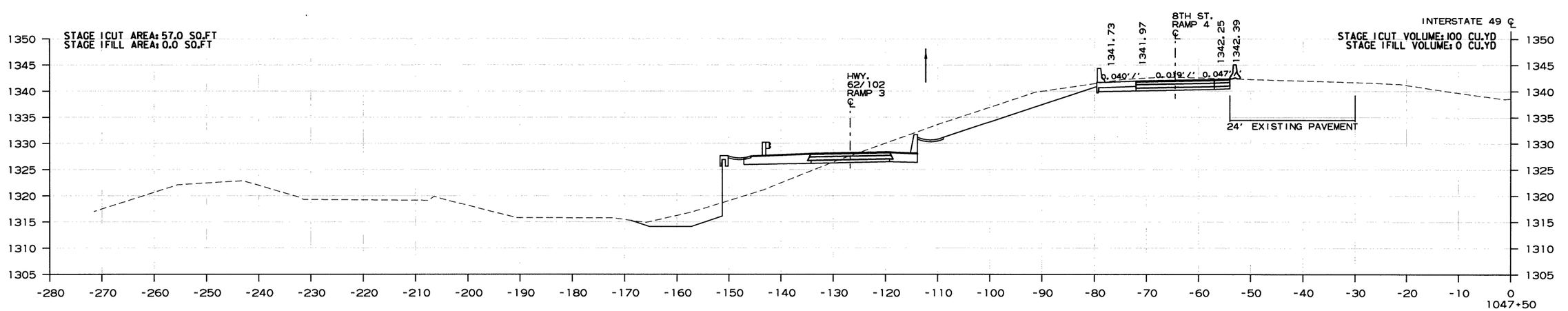
				JOB NO.		090376	451	555
				(2)	CROSS SECTIONS - I-49 SBL			



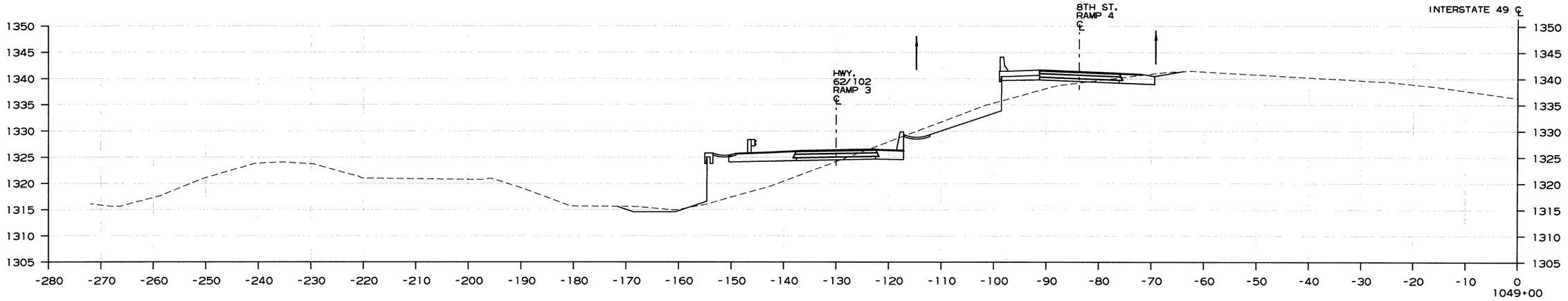


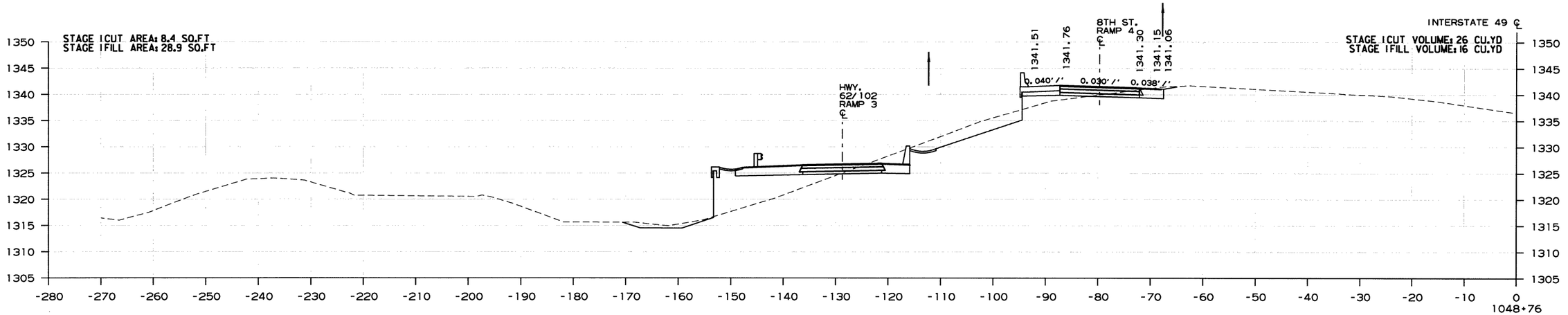


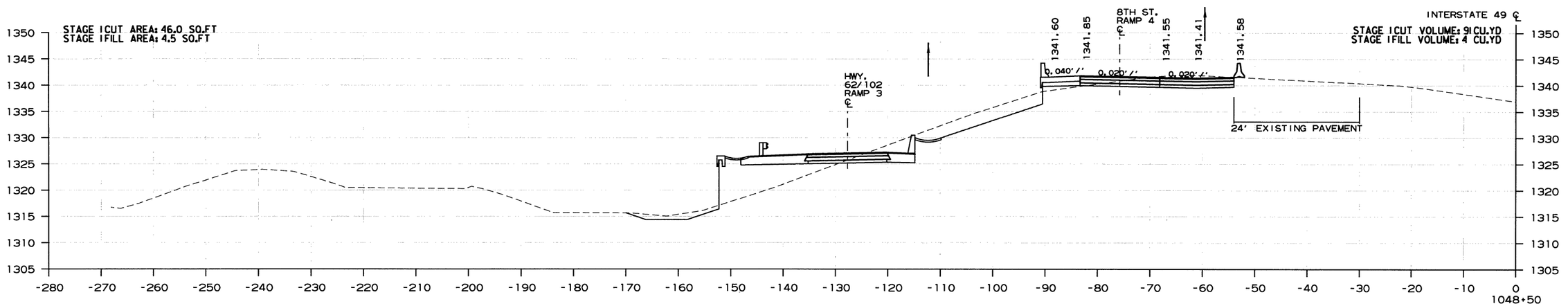
CROSS SECTION STA. 1047+50 TO STA. 1048+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	452	555
				(2)	CROSS SECTIONS - I-49 SBL			



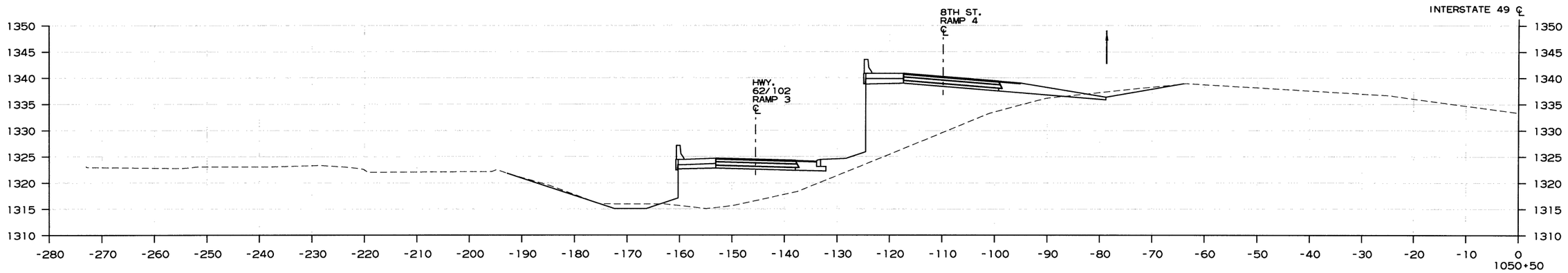


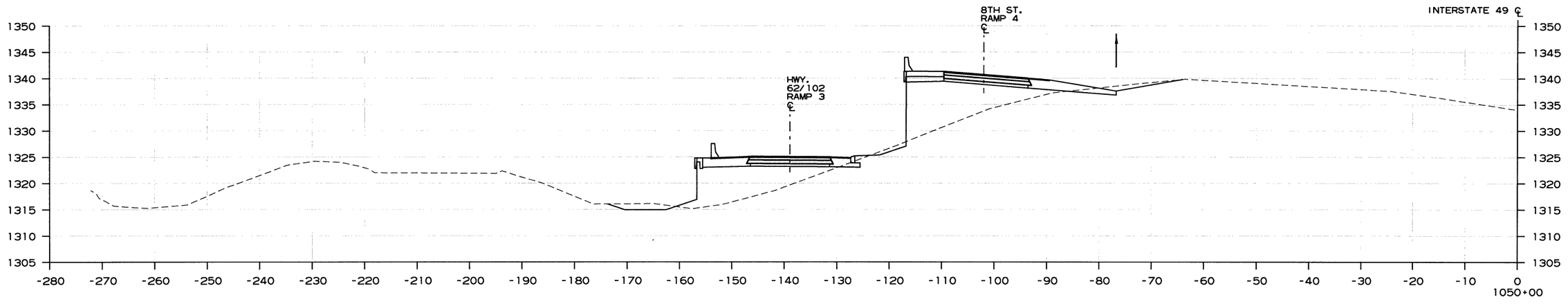


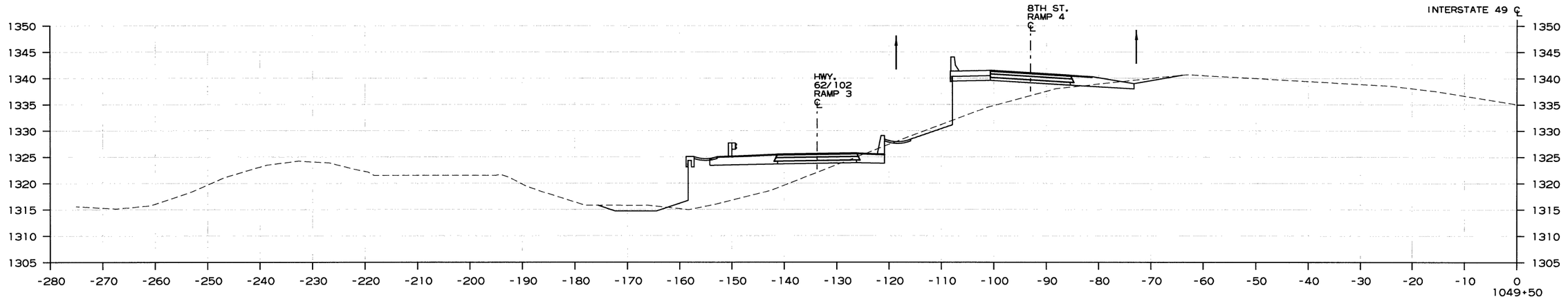
CROSS SECTION STA. 1048+50 TO STA. 1049+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	453	555
				(2) CROSS SECTIONS - I-49 SBL				



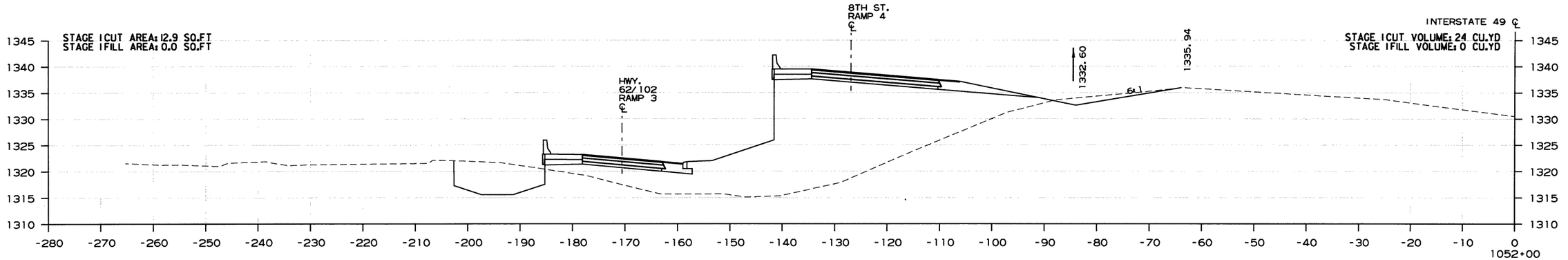


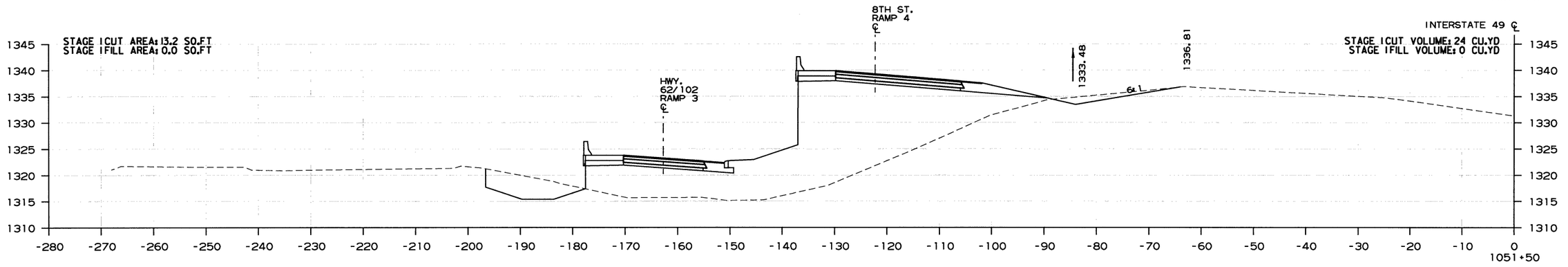


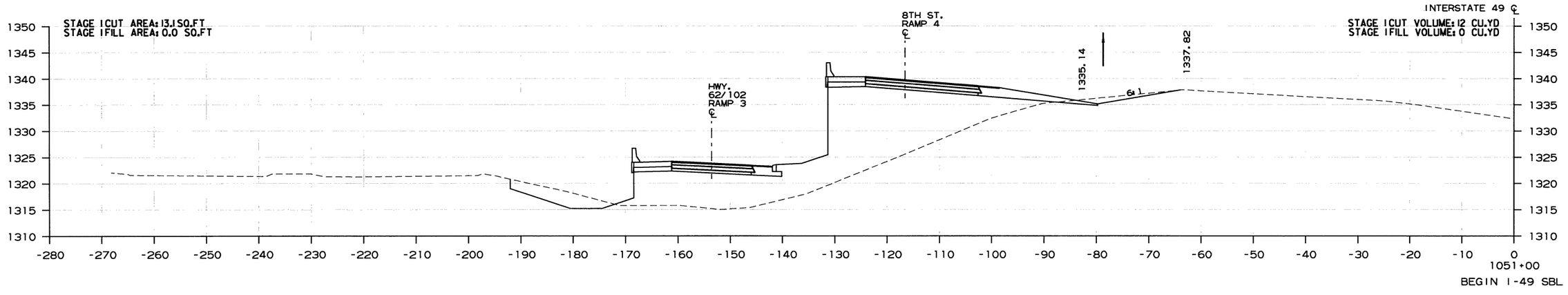
CROSS SECTION STA. 1049+50 TO STA. 1050+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	454	555
				(2)	CROSS SECTIONS - I-49 SBL			



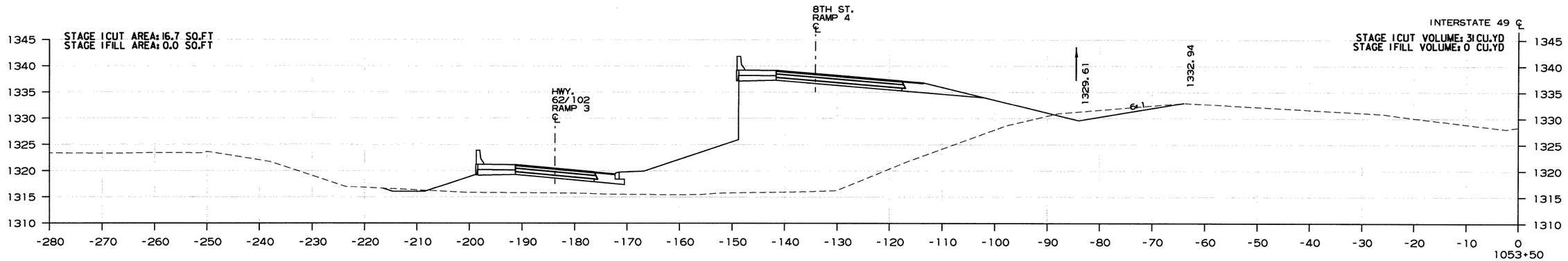


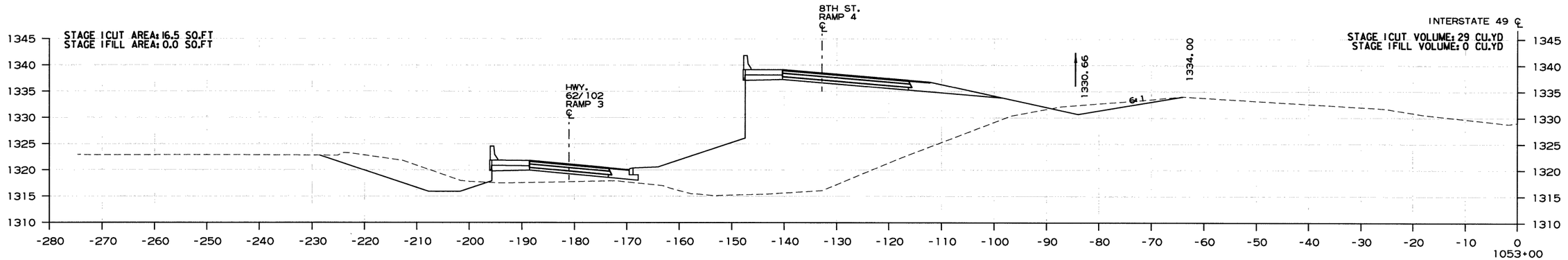


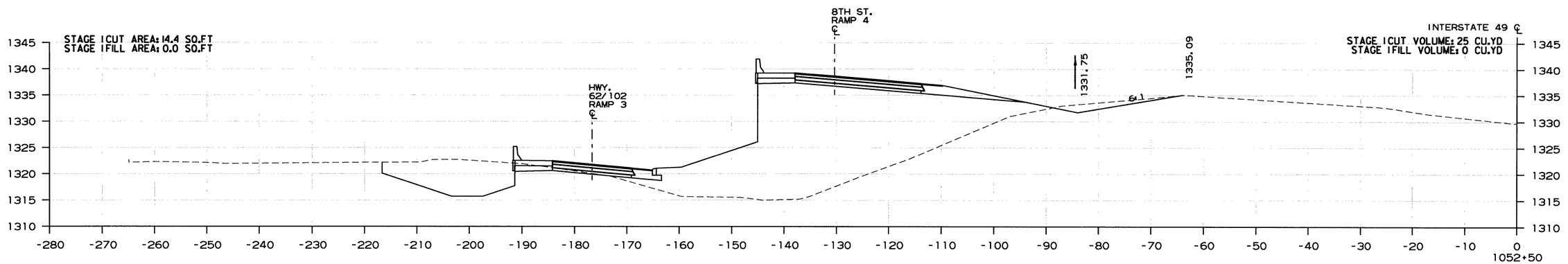
CROSS SECTION STA. 1051+00 TO STA. 1052+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	455	555
				(2)	CROSS SECTIONS - I-49 SBL			



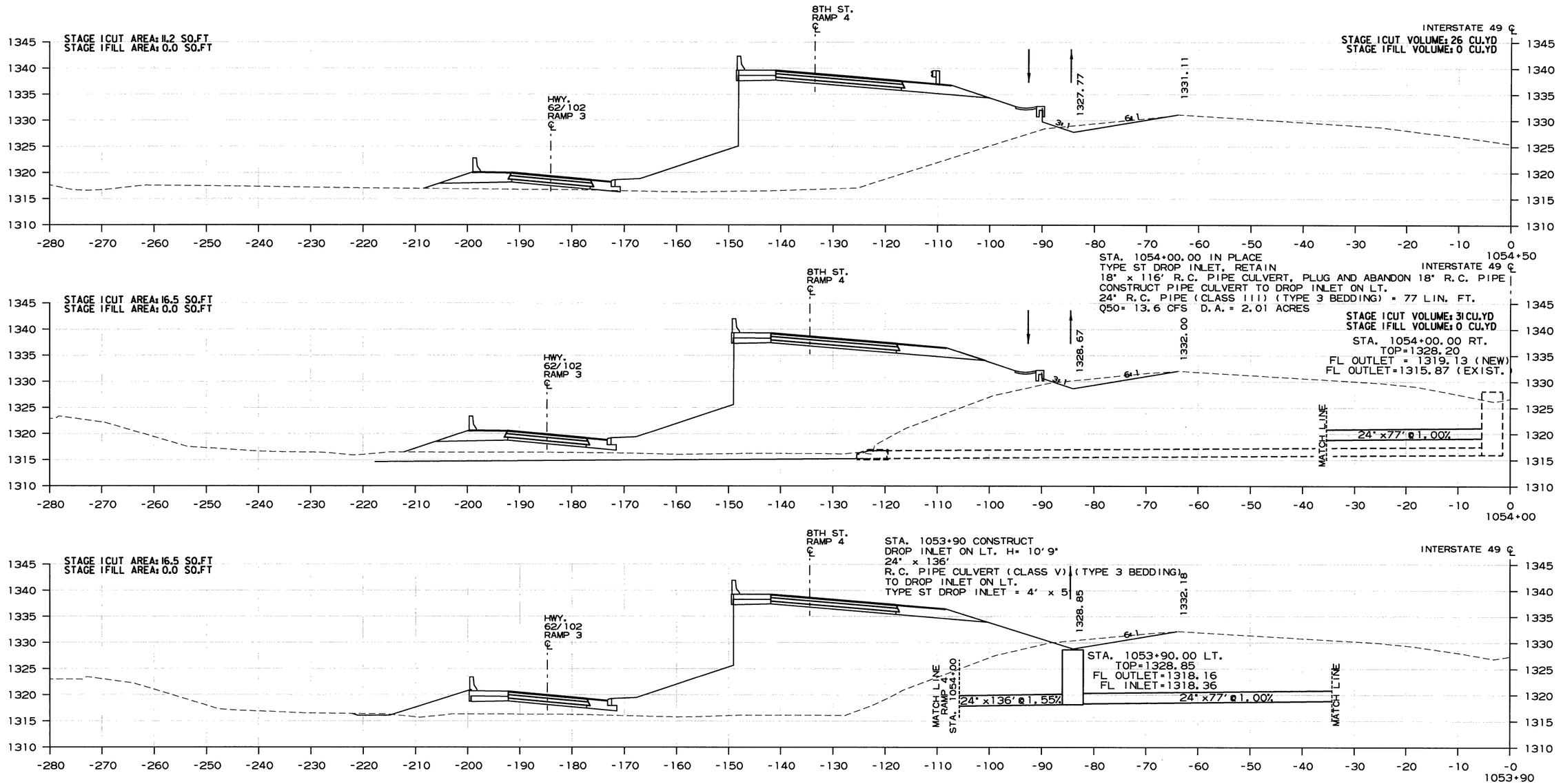




CROSS SECTION STA. 1052+50 TO STA. 1053+50

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	456	555
				(2)	CROSS SECTIONS - I-49 SBL			

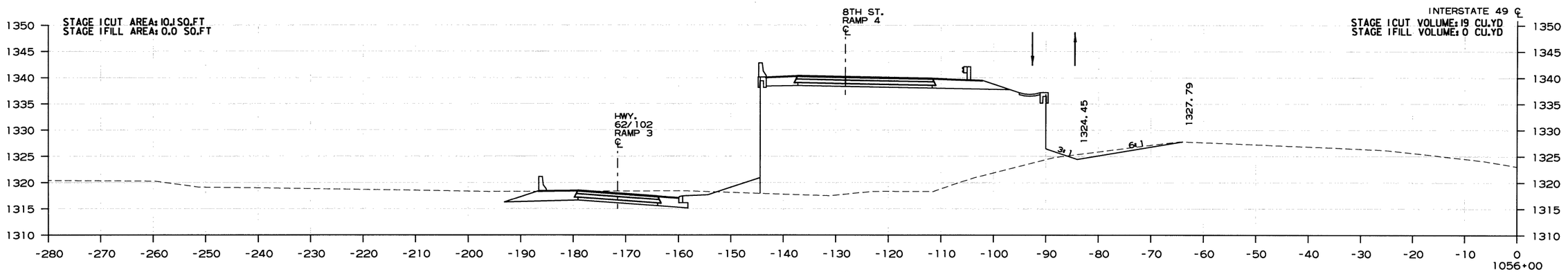
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

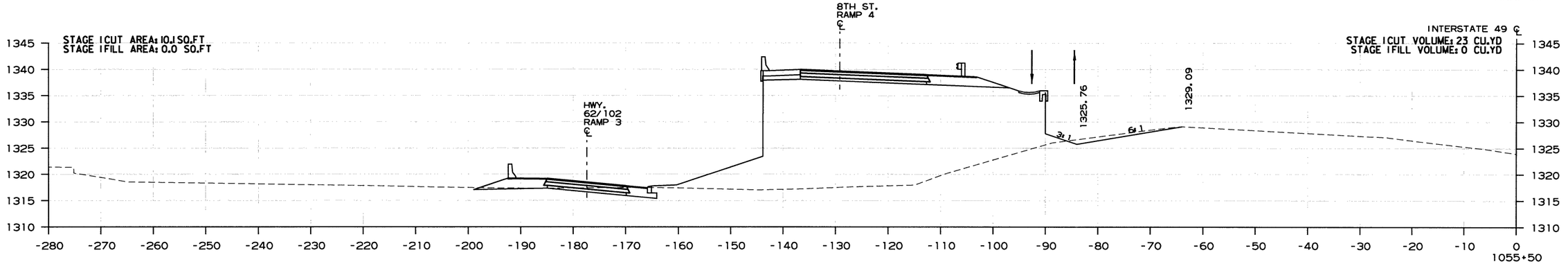


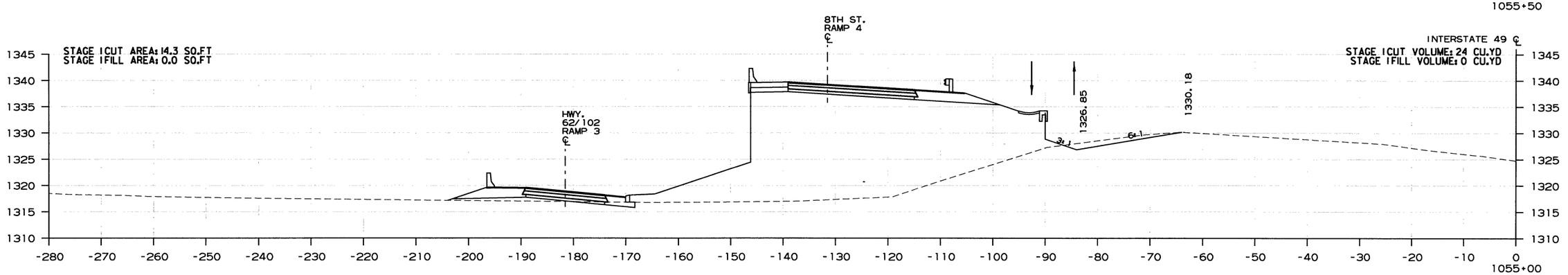
CROSS SECTION STA. 1053+90 TO STA. 1054+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	457	555
				(2)	CROSS SECTIONS - I-49 SBL			



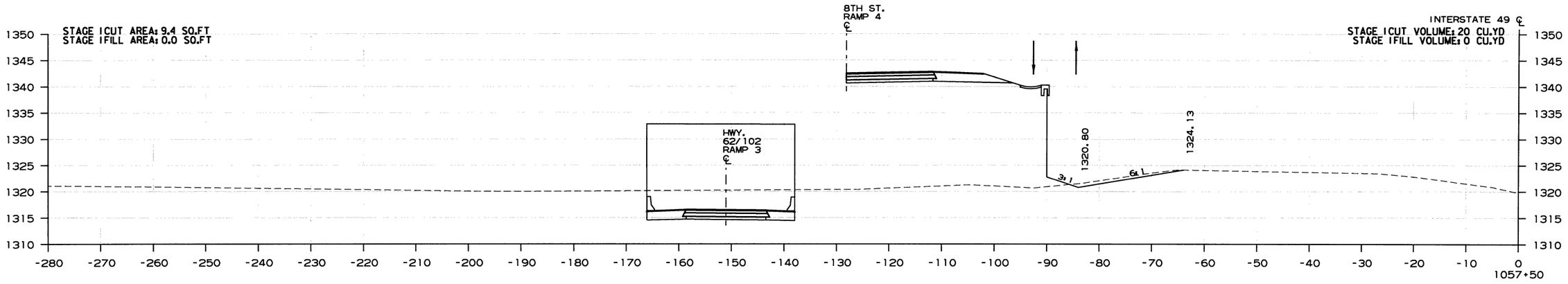


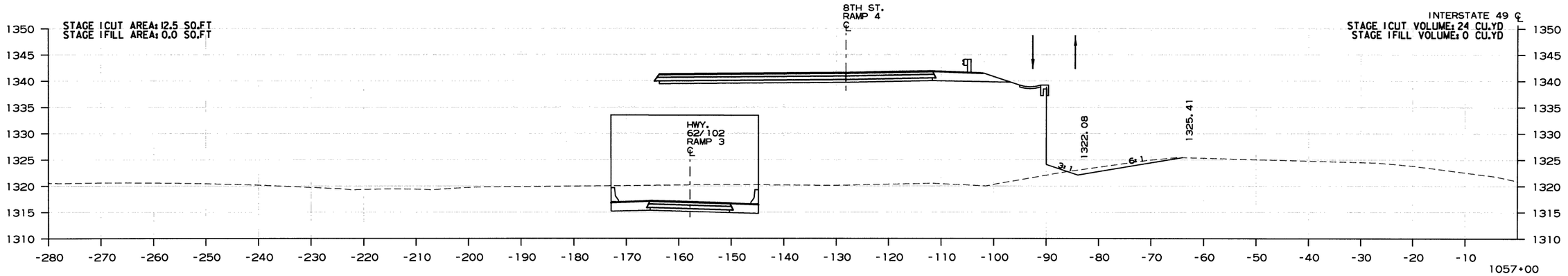


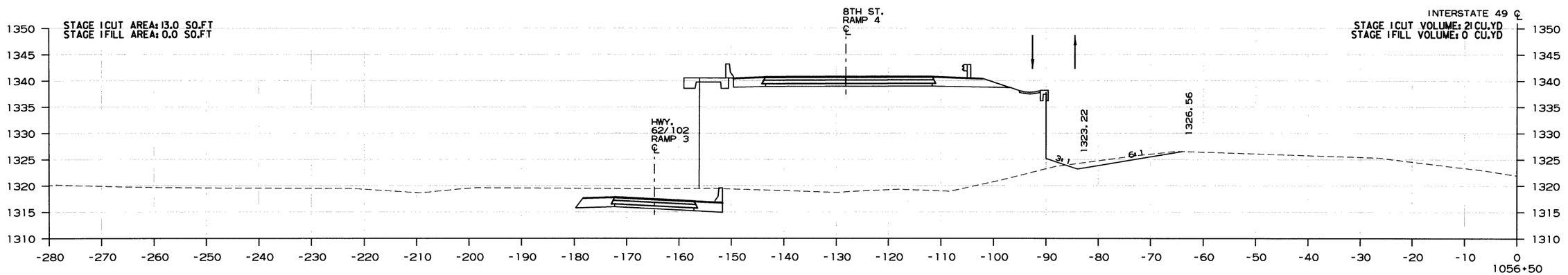
CROSS SECTION STA. 1055+00 TO STA. 1056+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	458	555
				(2) CROSS SECTIONS - I-49 SBL				



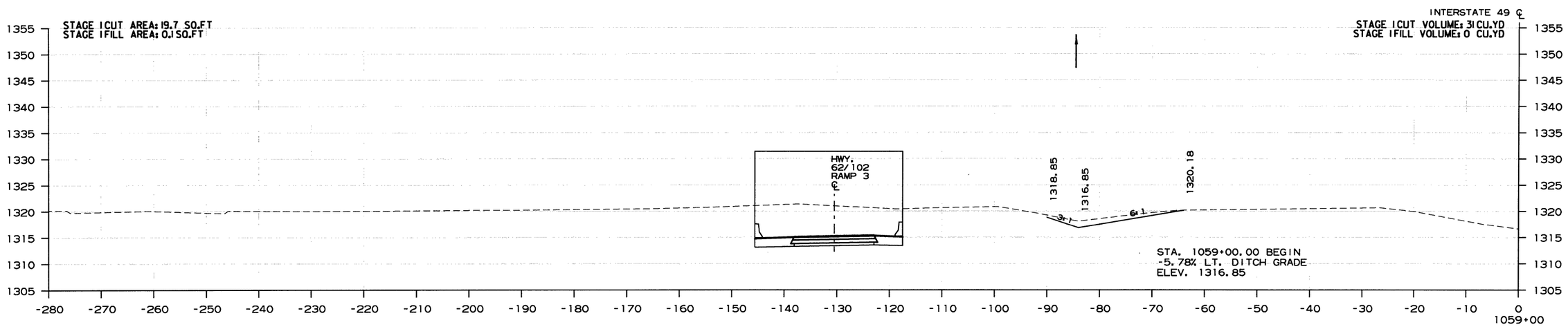


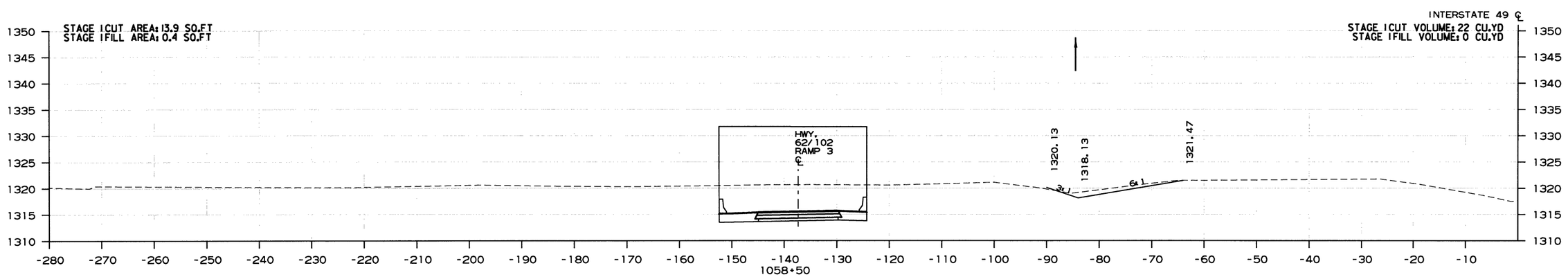


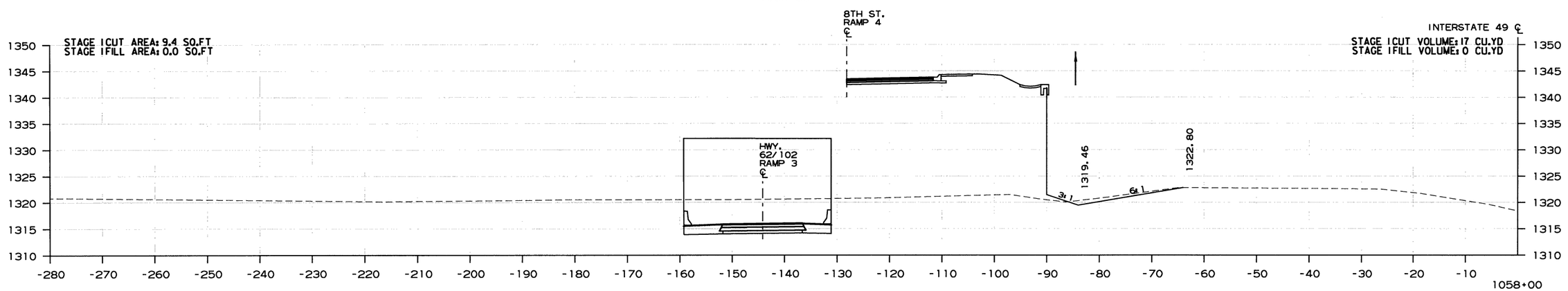
CROSS SECTION STA. 1056+50 TO STA. 1057+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	459	555
				(2)	CROSS SECTIONS - I-49 SBL			



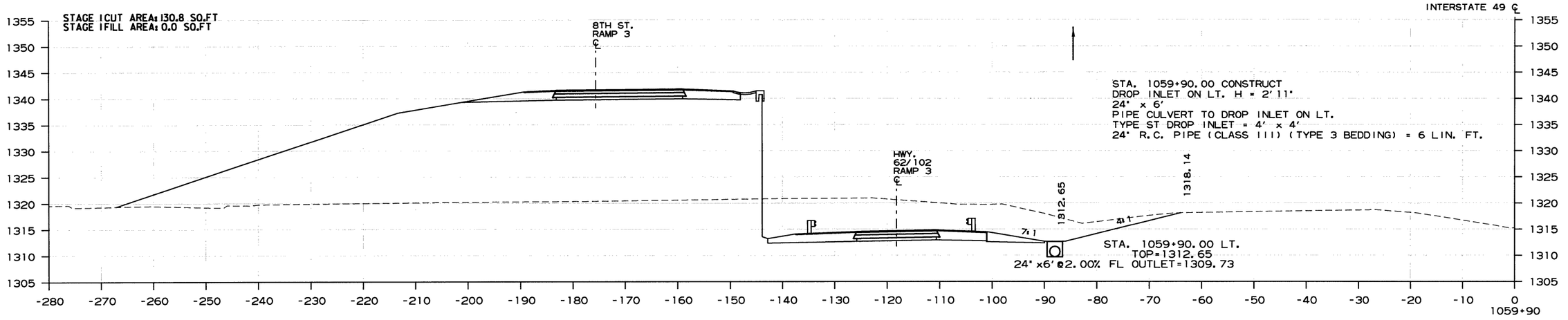


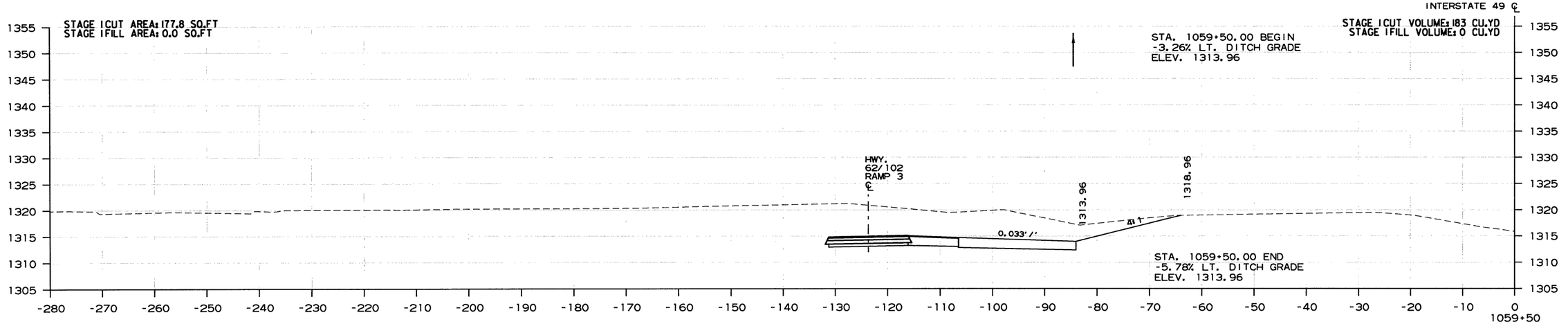


CROSS SECTION STA. 1058+00 TO STA. 1059+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	460	555
				(2)	CROSS SECTIONS - I-49 SBL			

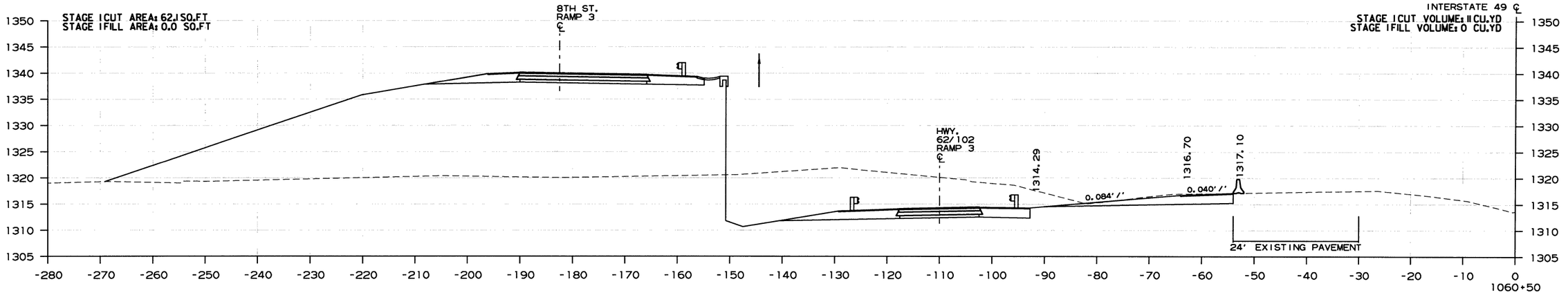


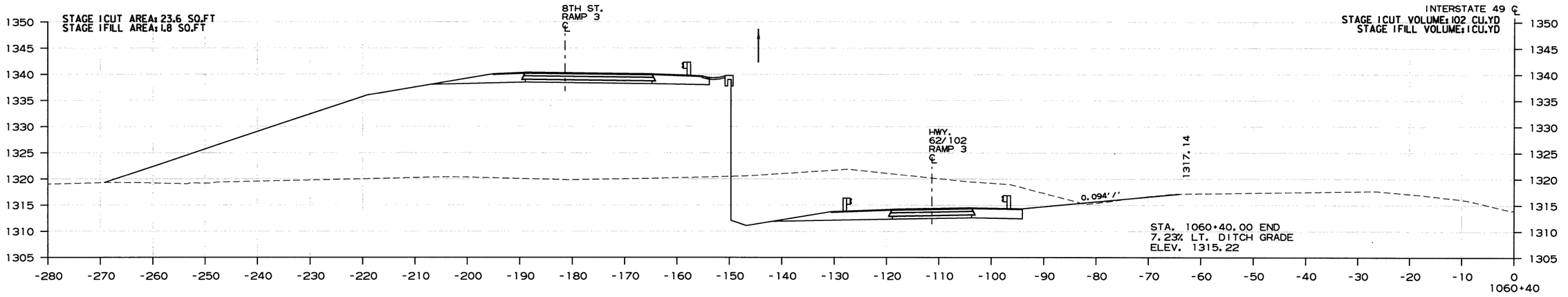


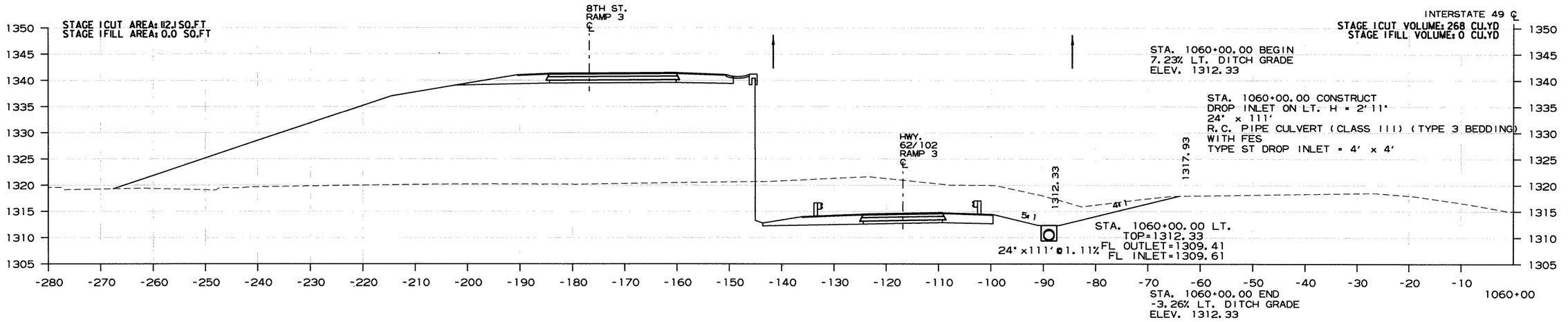
CROSS SECTION STA. 1059+50 TO STA. 1059+90

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	461	555
				(2)	CROSS SECTIONS - I-49 SBL			



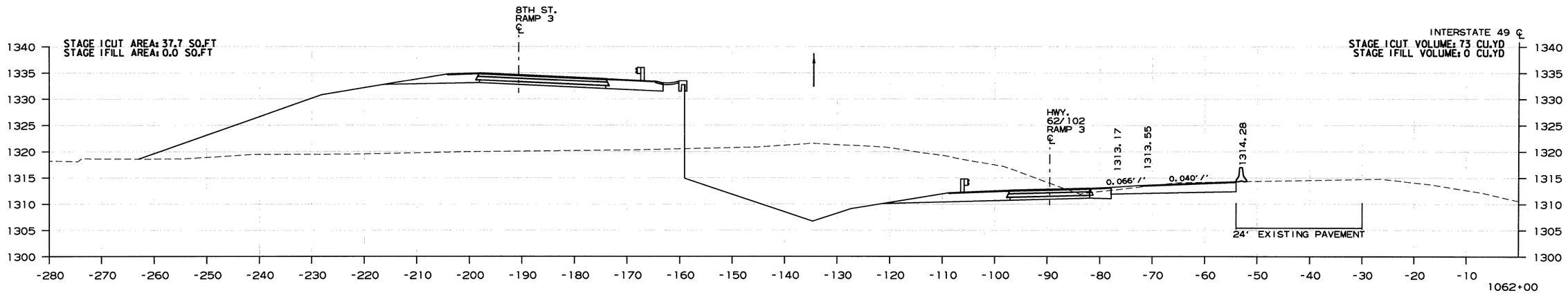


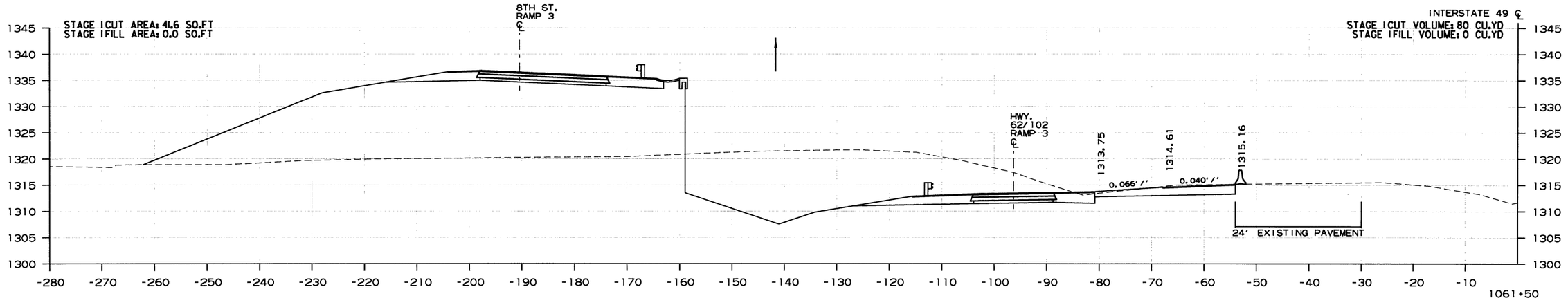


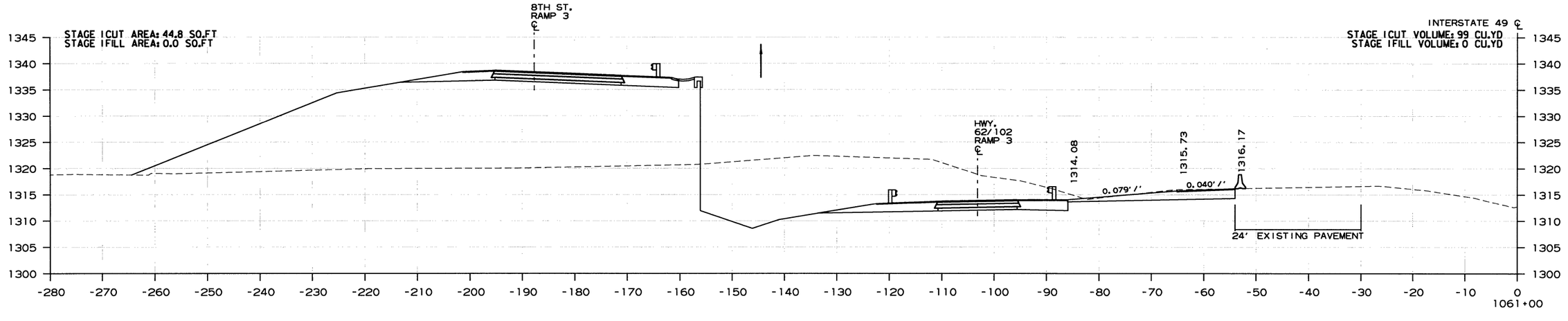
CROSS SECTION STA. 1060+00 TO STA. 1060+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	462	555
				(2)	CROSS SECTIONS - I-49 SBL			



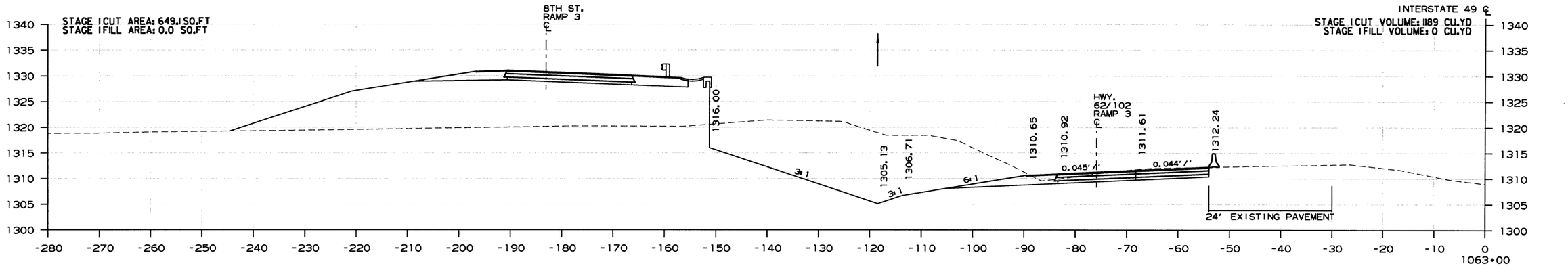


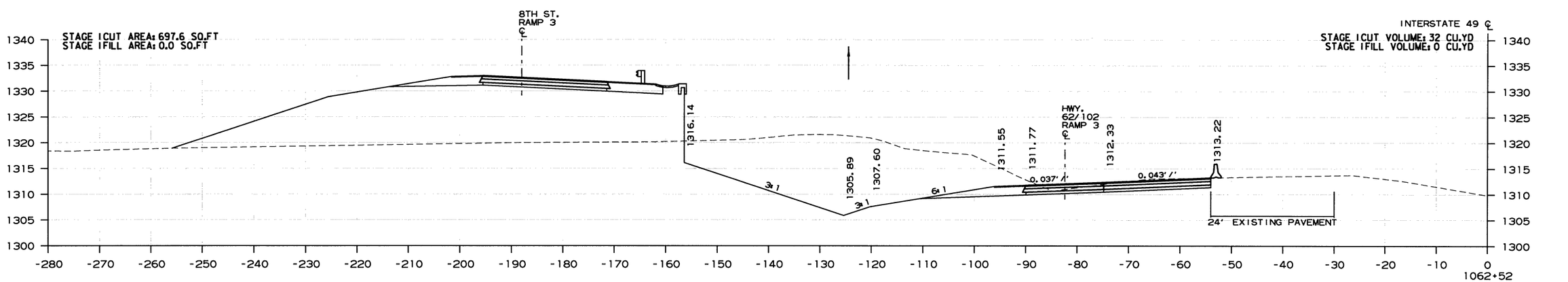


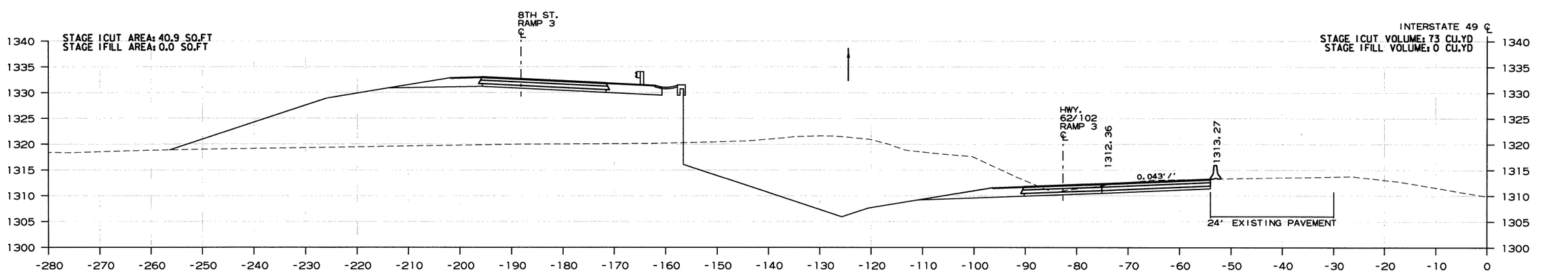
CROSS SECTION STA. 1061+00 TO STA. 1062+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	463	555
				(2)	CROSS SECTIONS - I-49 SBL			



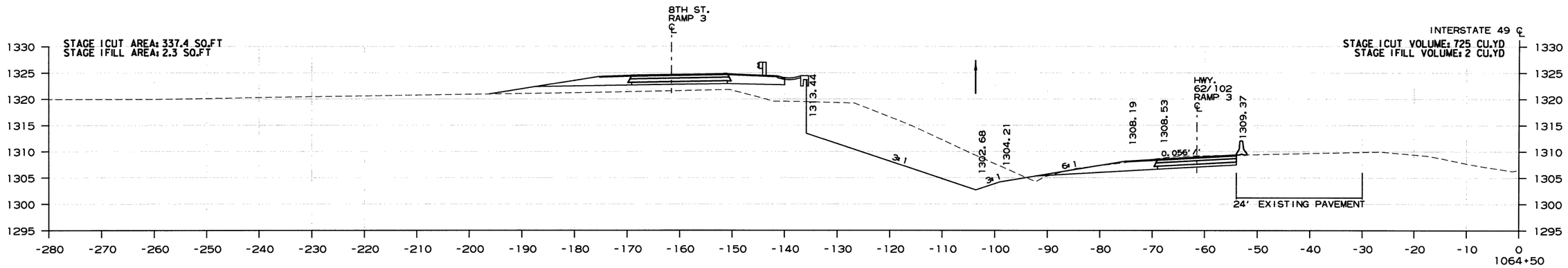


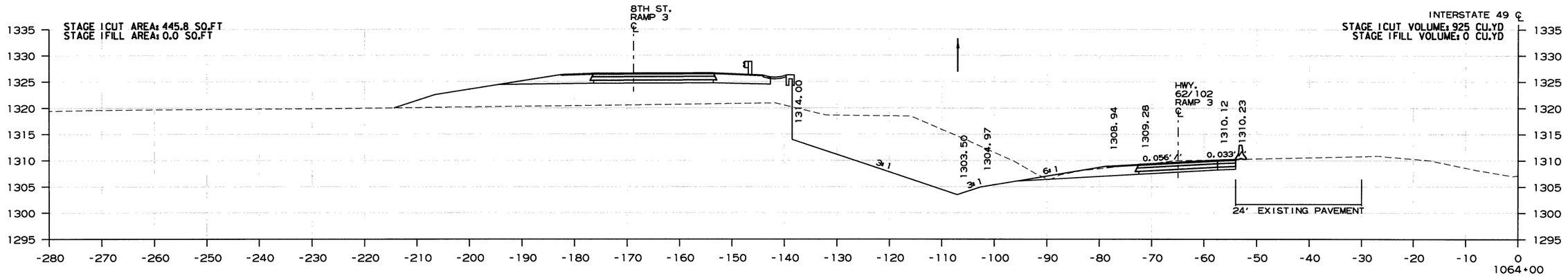


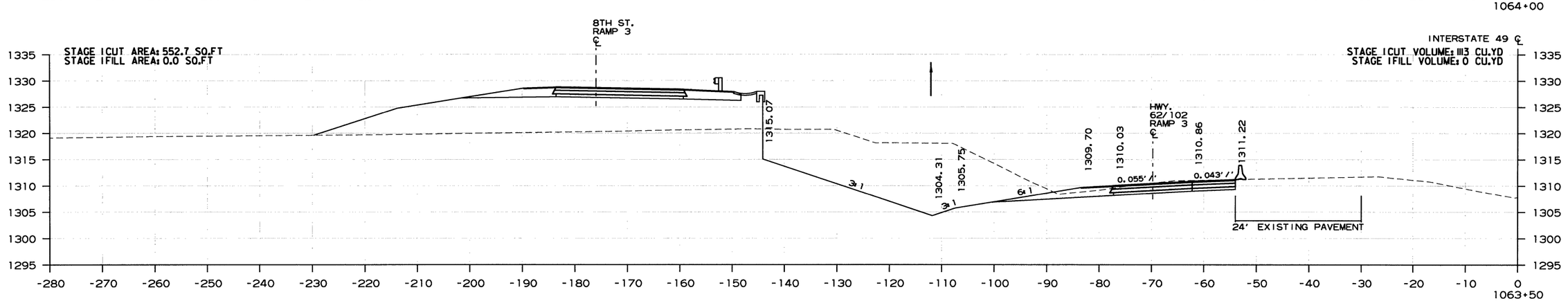
CROSS SECTION STA. 1062+50 TO STA. 1063+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	464	555
				(2)	CROSS SECTIONS - I-49 SBL			







CROSS SECTION STA. 1063+50 TO STA. 1064+50

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	465	555
				(2)	CROSS SECTIONS - I-49 SBL			

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

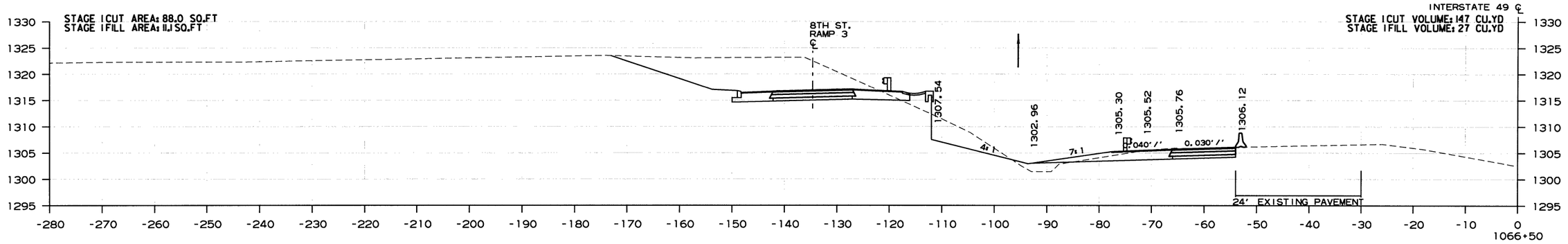
GUARDRAIL (TYPE A)

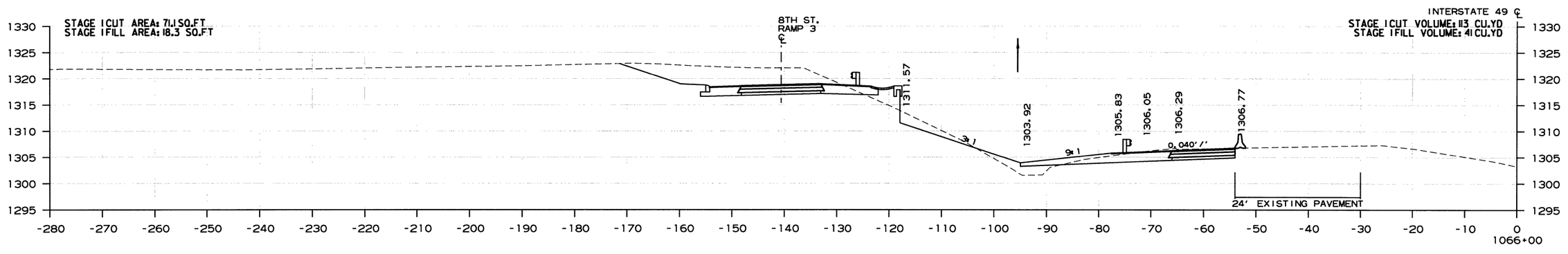
	STA.	STA.	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL	TERMINAL ANCHOR POST (TYPE 1)
I-49 SBL LT.	1065+06.77	1067+31.77	175 LIN. FT.	1 EACH		1 EACH

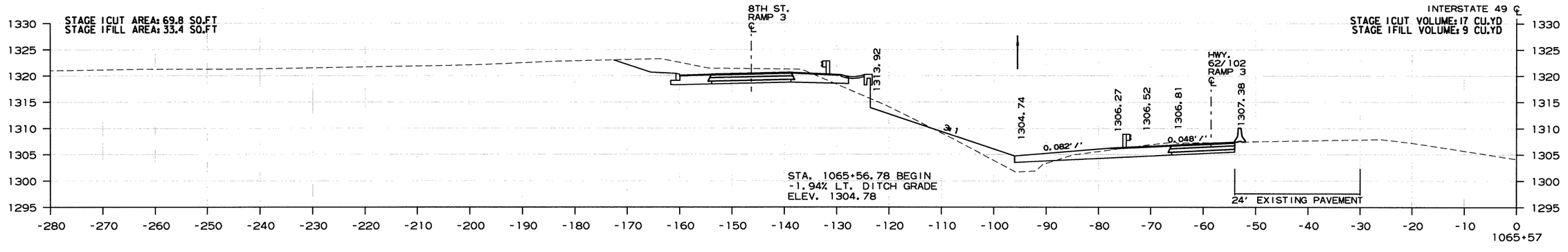
CROSS SECTION STA. 1064+90 TO STA. 1065+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	466	555
				(2)	CROSS SECTIONS - I-49 SBL			



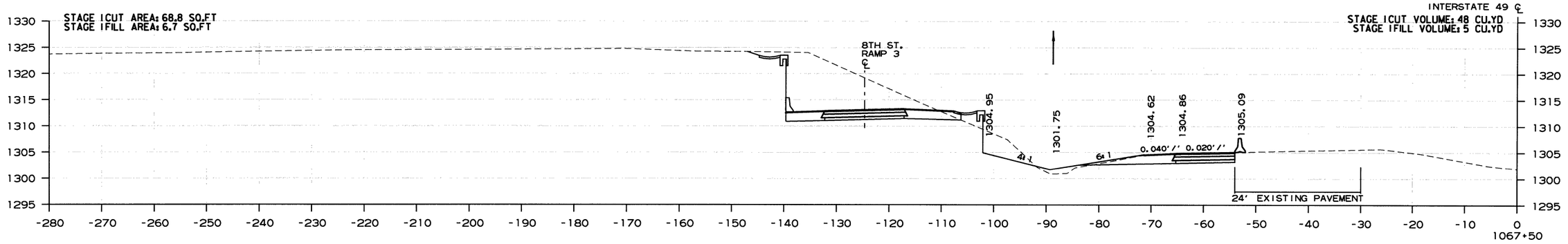


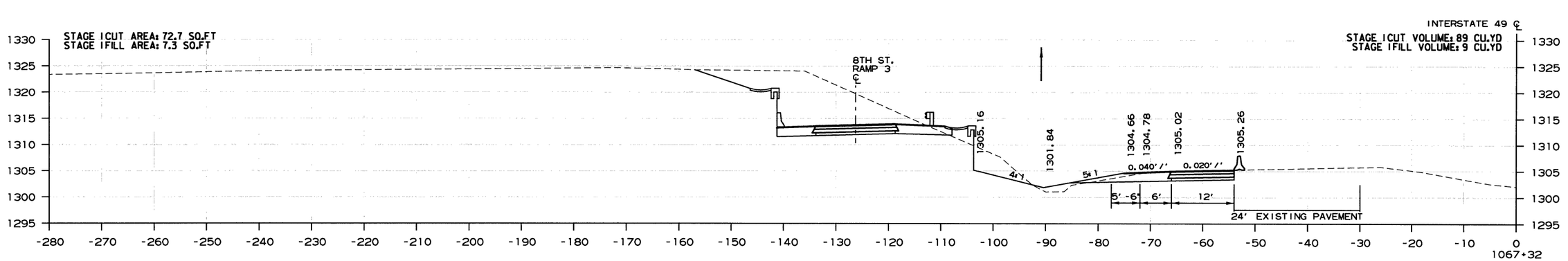


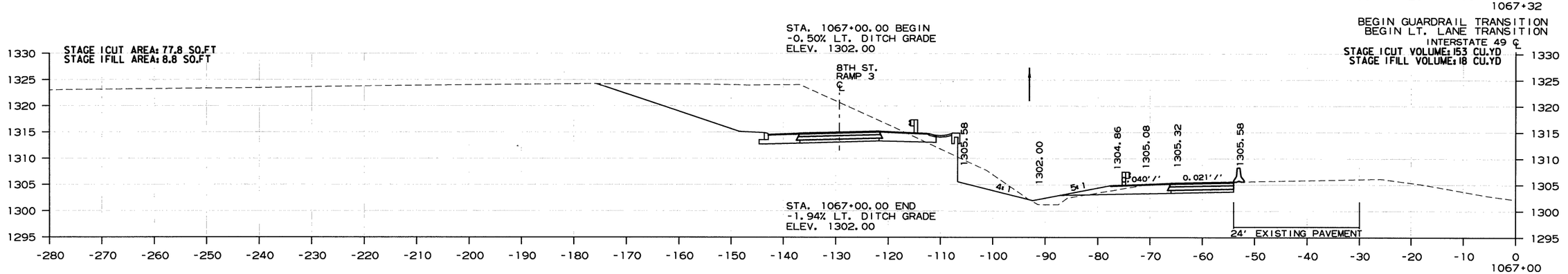
CROSS SECTION STA. 1065+57 TO STA. 1066+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	467	555
				(2)	CROSS SECTIONS - I-49 SBL			



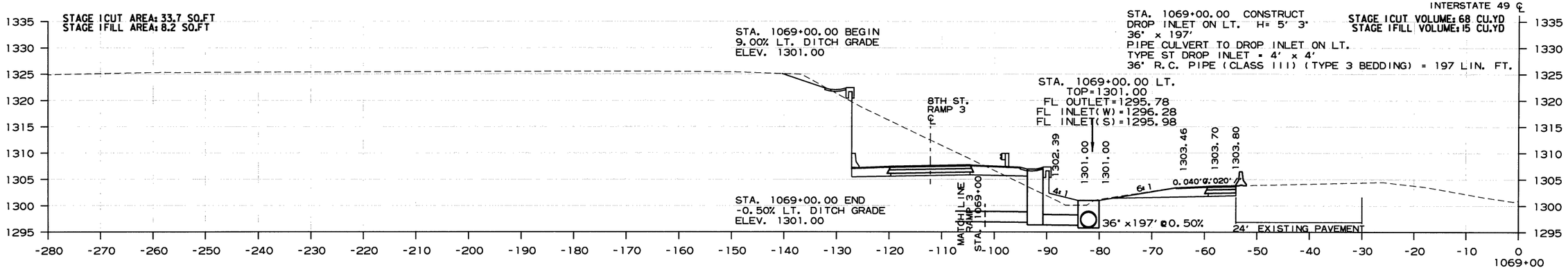


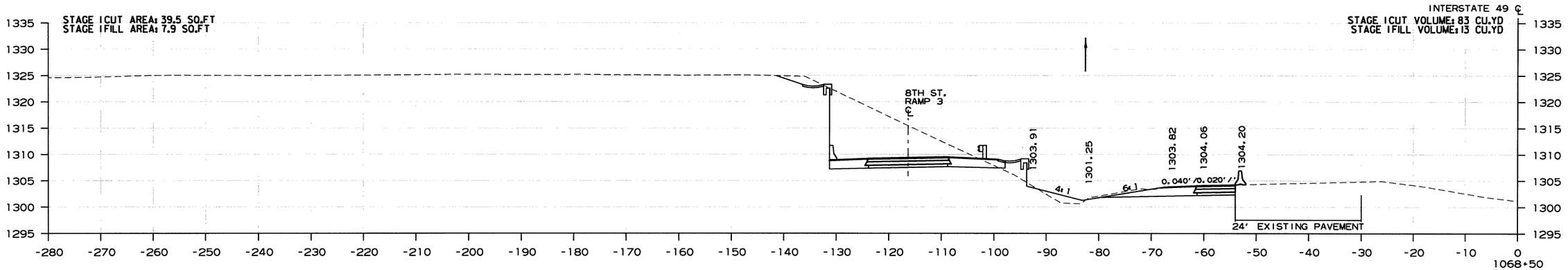


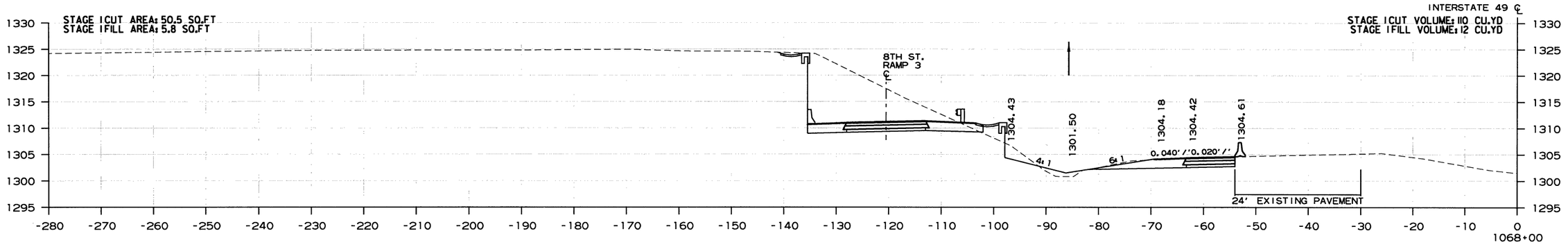
CROSS SECTION STA. 1067+00 TO STA. 1067+50

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	468	555
				(2)	CROSS SECTIONS - I-49 SBL			



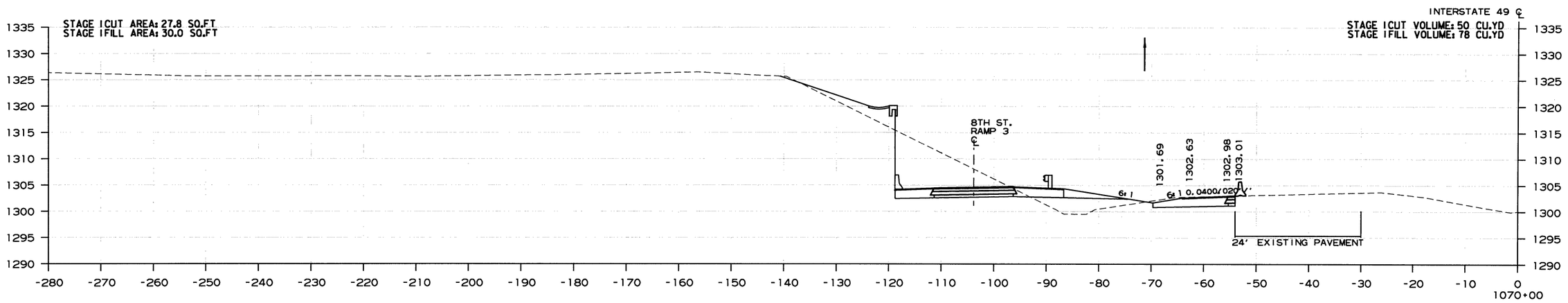


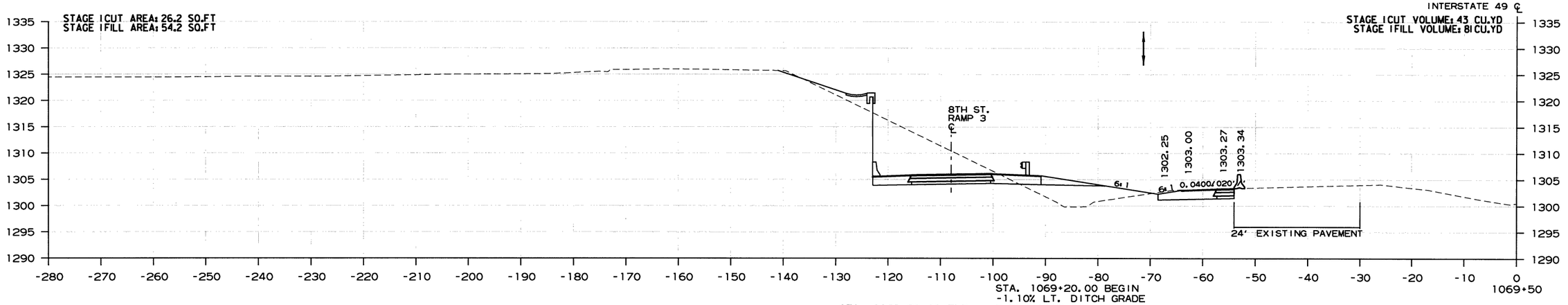


CROSS SECTION STA. 1068+00 TO STA. 1069+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	469	555
				(2)	CROSS SECTIONS - I-49 SBL			

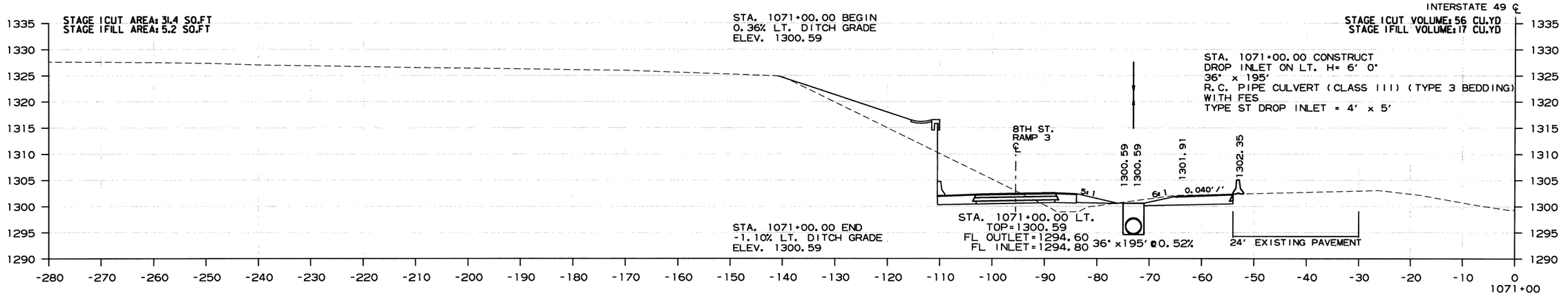


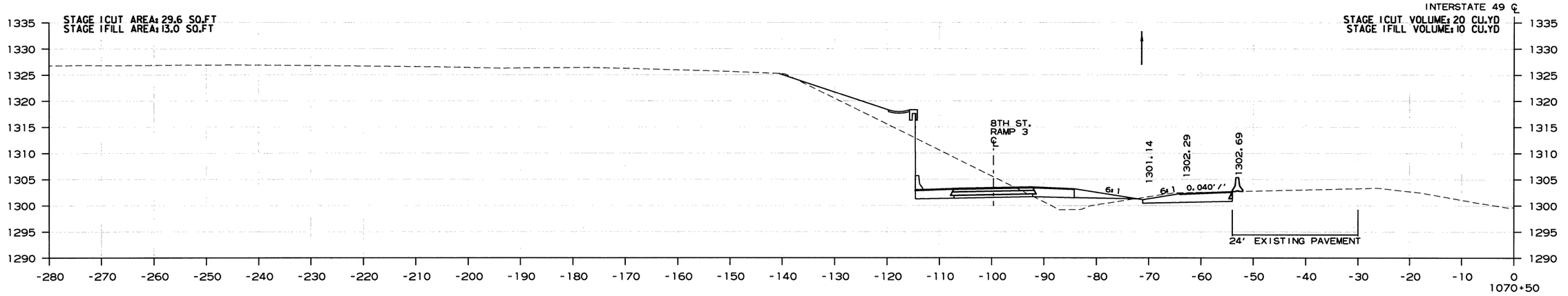


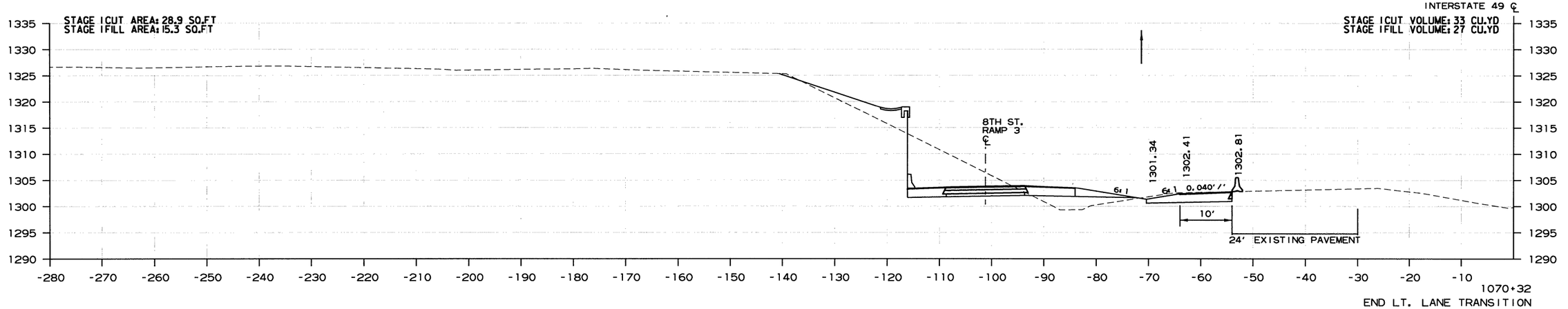
CROSS SECTION STA. 1069+10 TO STA. 1070+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	470	555
				(2)	CROSS SECTIONS - I-49 SBL			



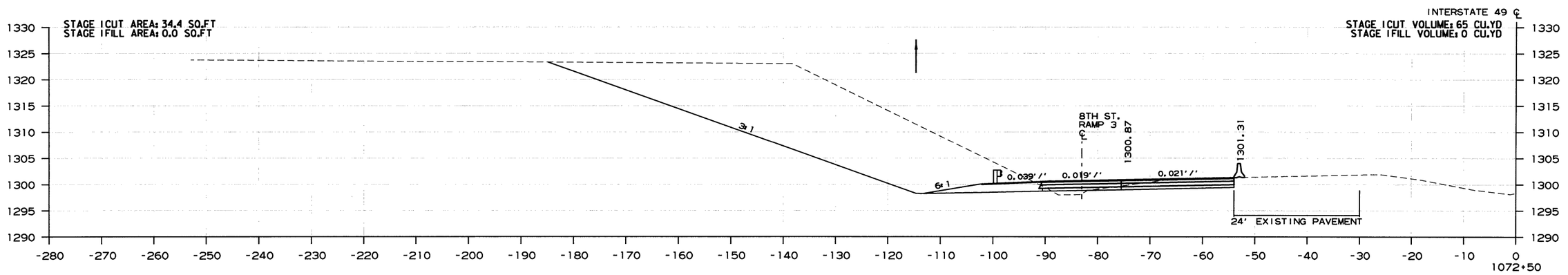


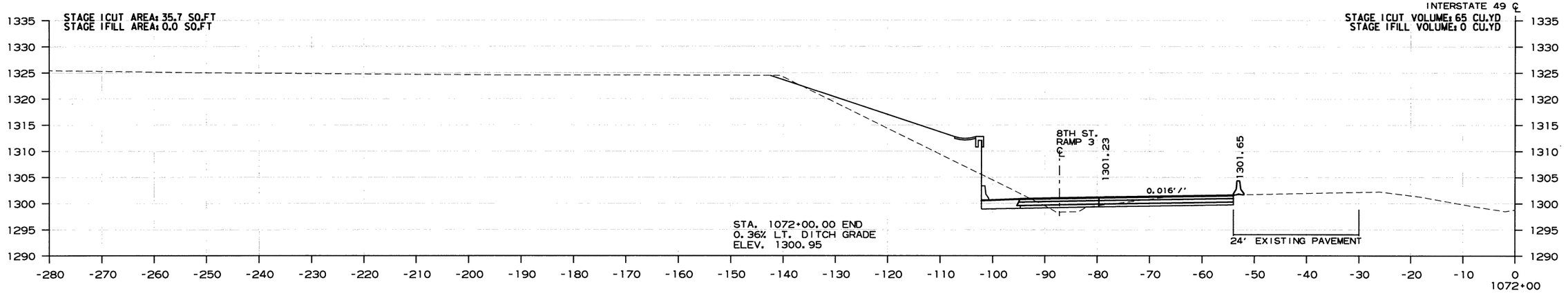


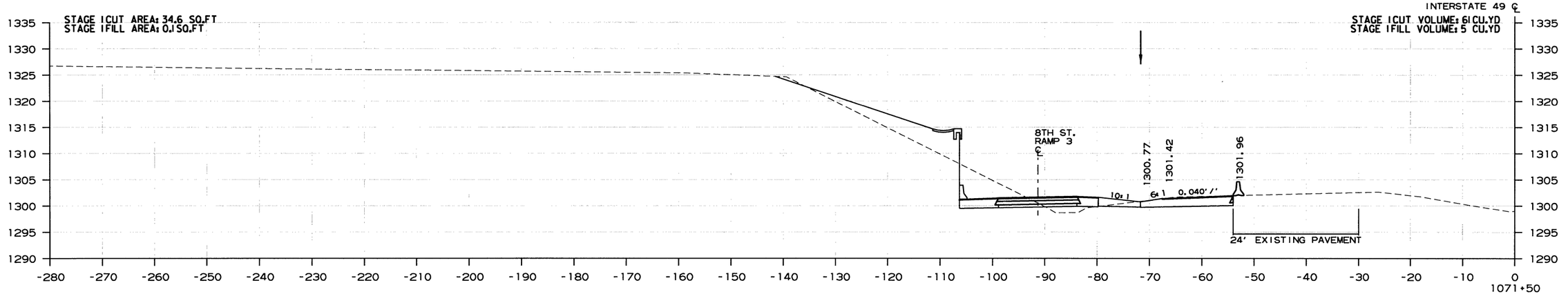
CROSS SECTION STA. 1070+32 TO STA. 1071+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	471	555
				(2)	CROSS SECTIONS - I-49 SBL			



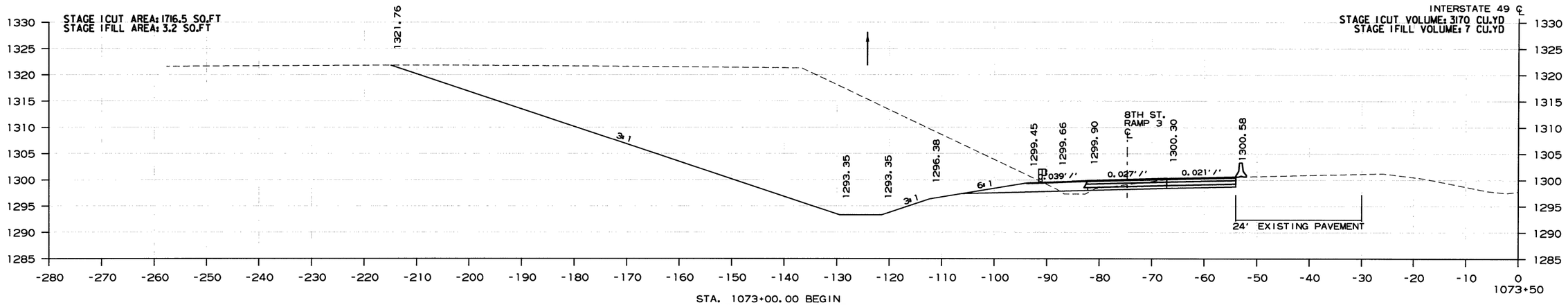




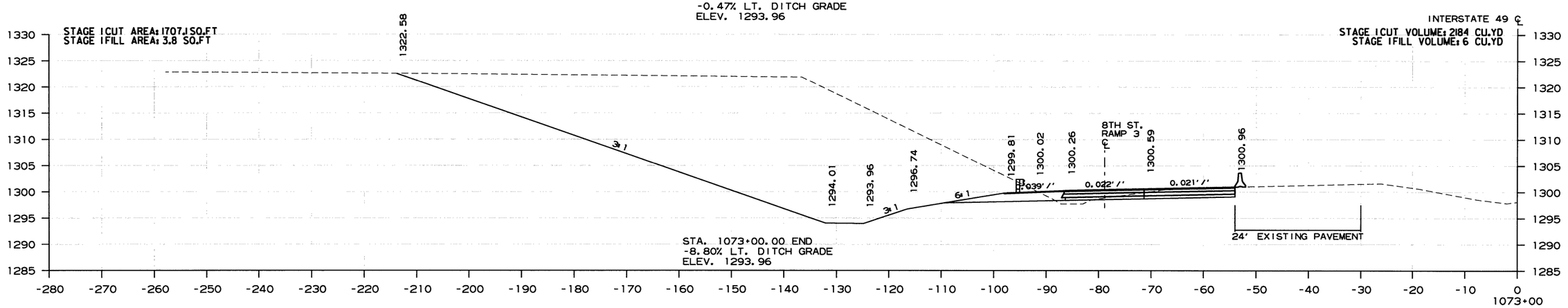
CROSS SECTION STA. 1071+50 TO STA. 1072+50

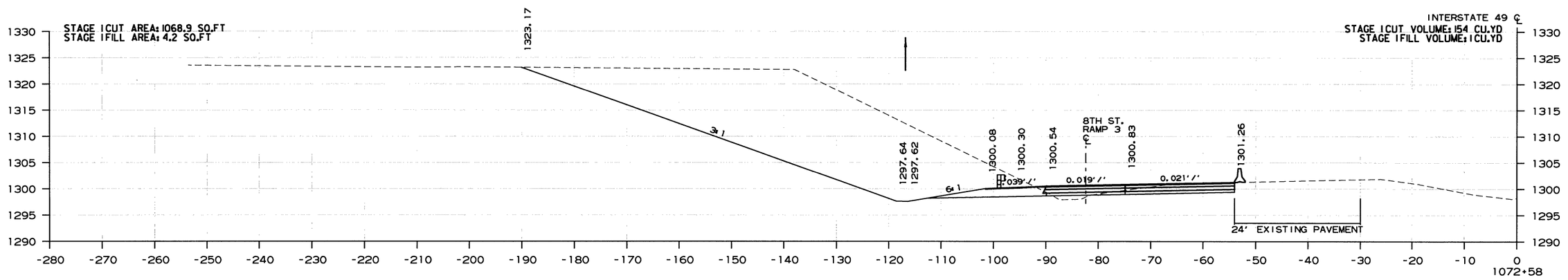
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	472	555
				(2)	CROSS SECTIONS - I-49 SBL			

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.



STA. 1073+00.00 BEGIN
-0.47% LT. DITCH GRADE
ELEV. 1293.96

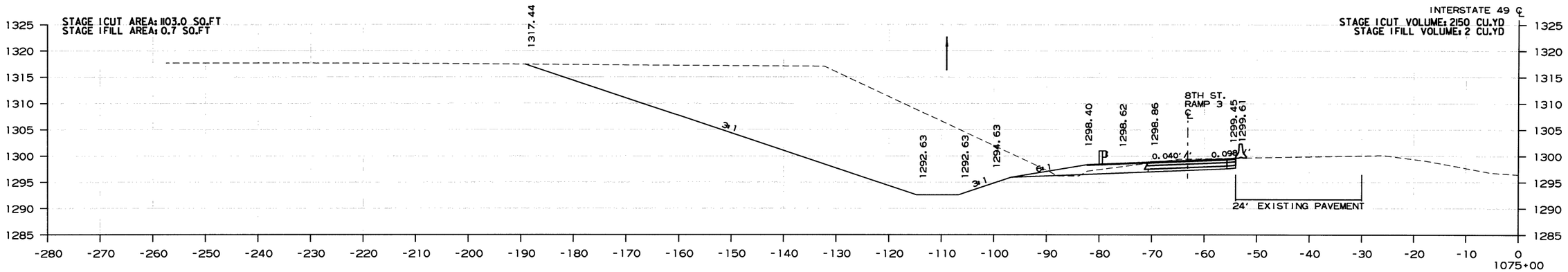


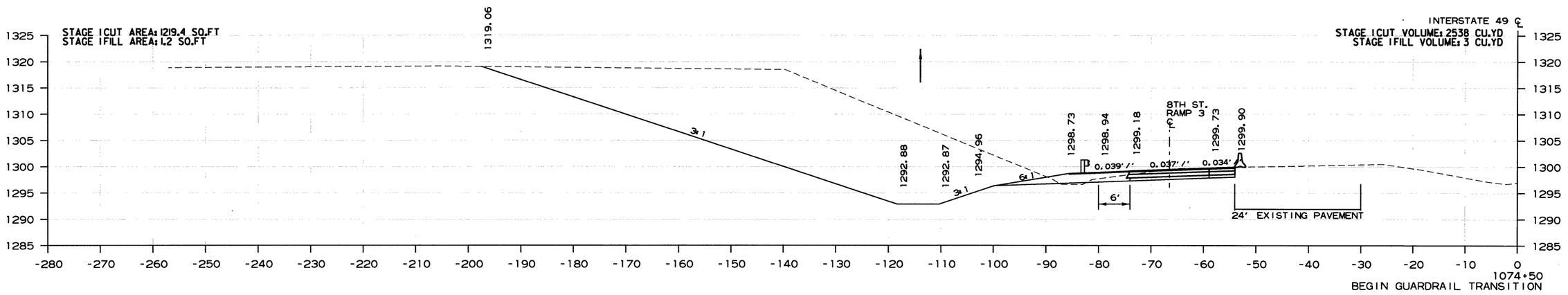


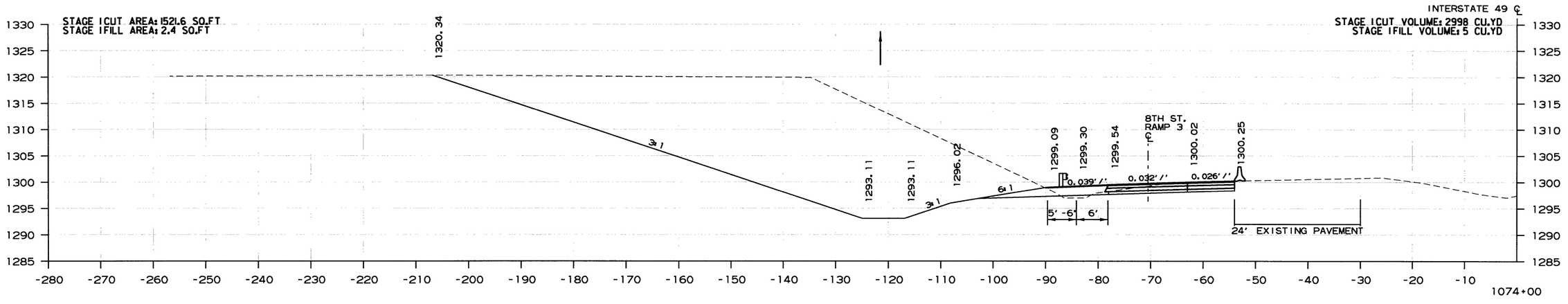
CROSS SECTION STA. 1072+58 TO STA. 1073+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	473	555
				(2) CROSS SECTIONS - I-49 SBL				



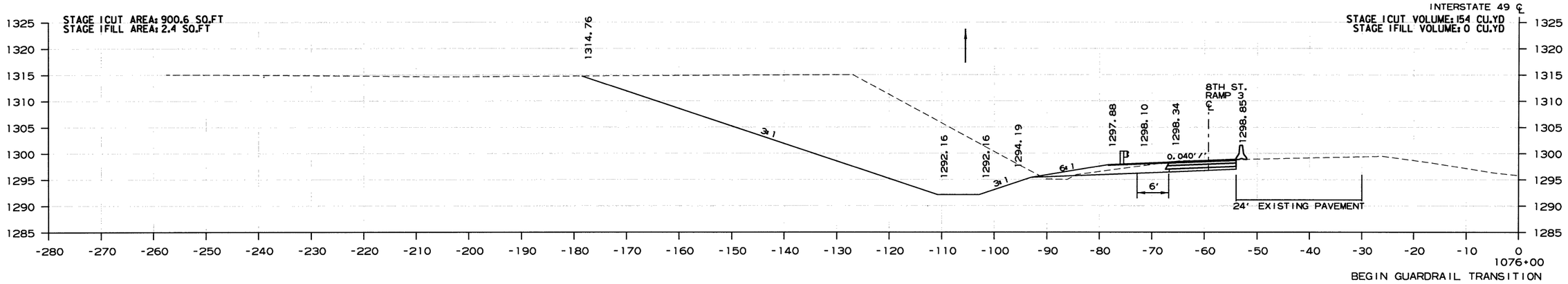


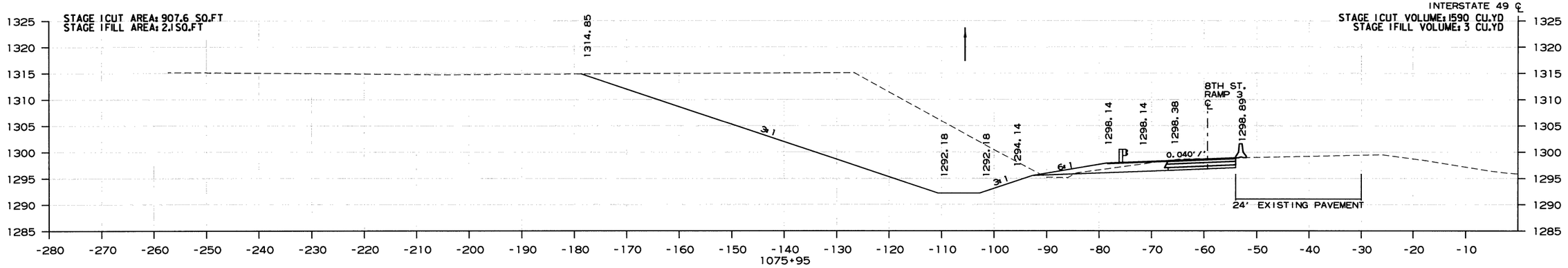


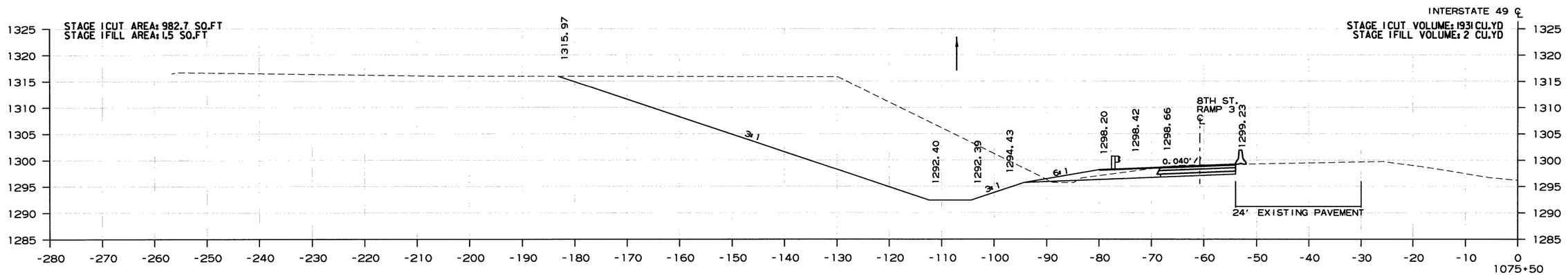
CROSS SECTION STA. 1074+00 TO STA. 1075+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	474	555
				(2)	CROSS SECTIONS - I-49 SBL			



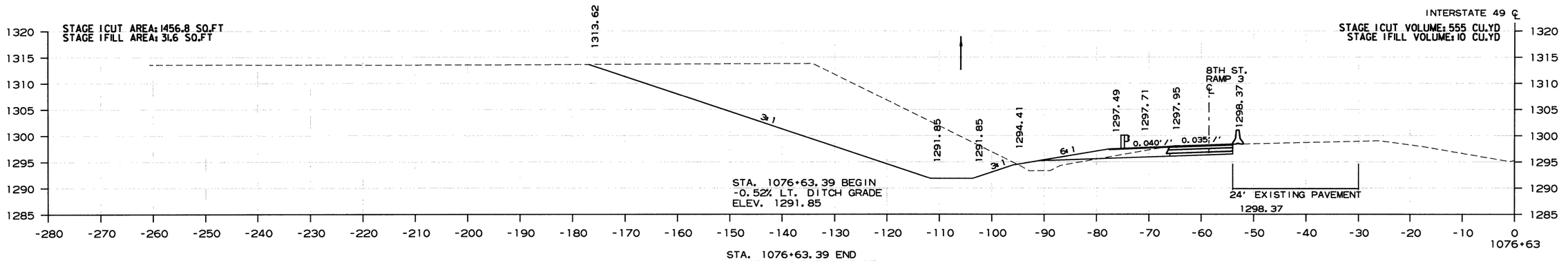


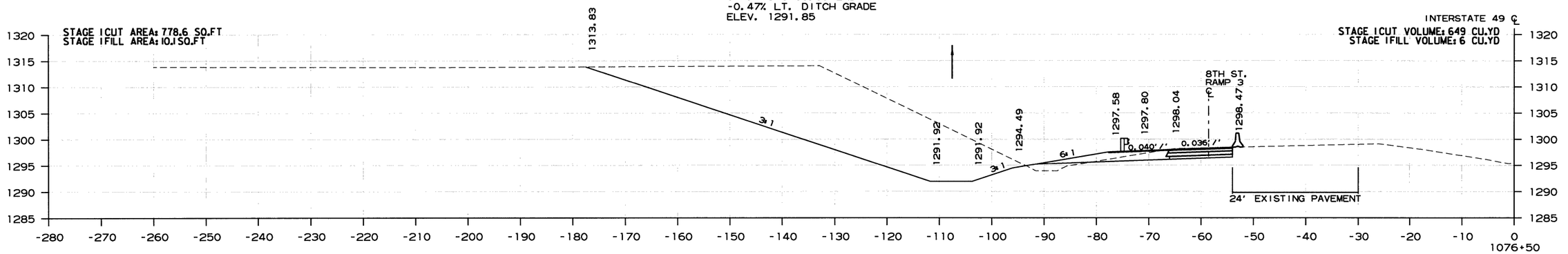


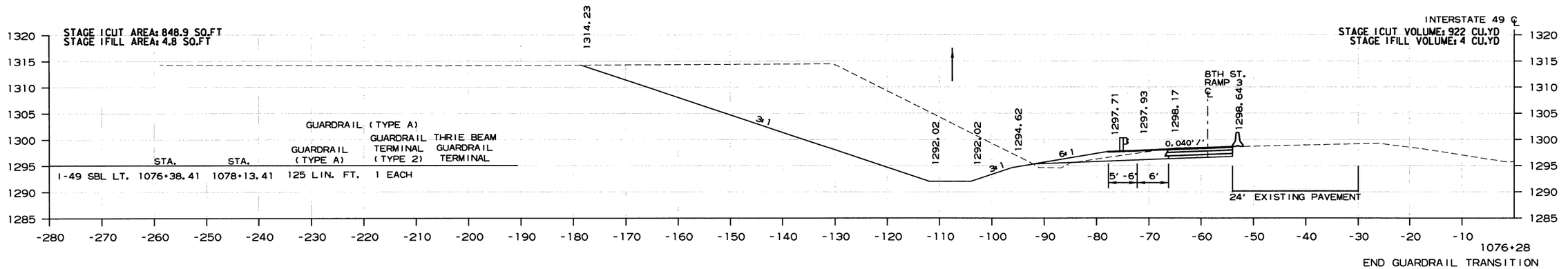
CROSS SECTION STA. 1075+50 TO STA. 1076+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	475	555
				(2)	CROSS SECTIONS - I-49 SBL			

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.



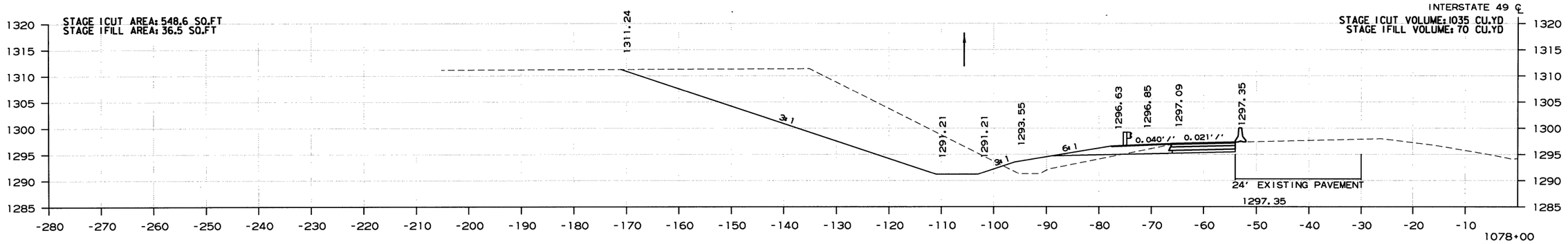


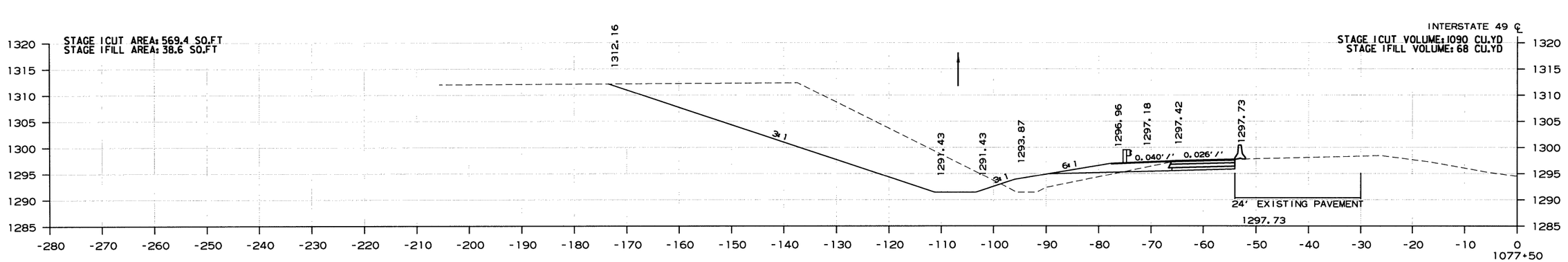


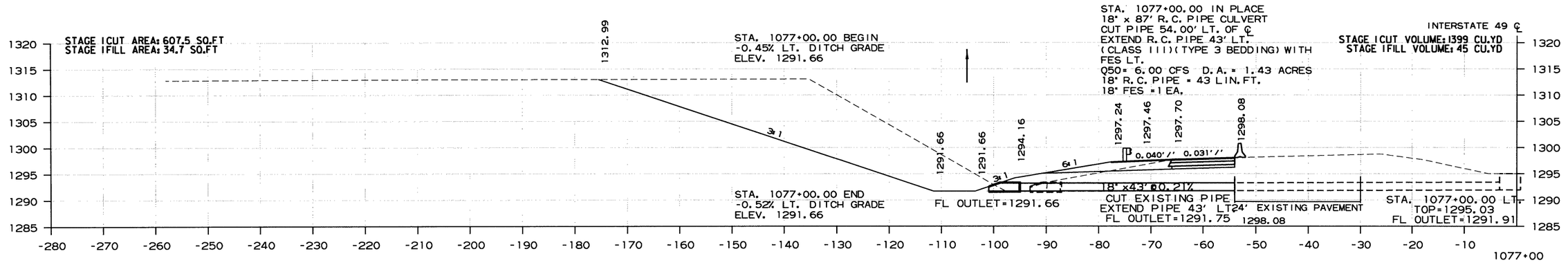
CROSS SECTION STA. 1076+28 TO STA. 1076+63

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	476	555
				(2)	CROSS SECTIONS - I-49 SBL			







CROSS SECTION STA. 1077+00 TO STA. 1078+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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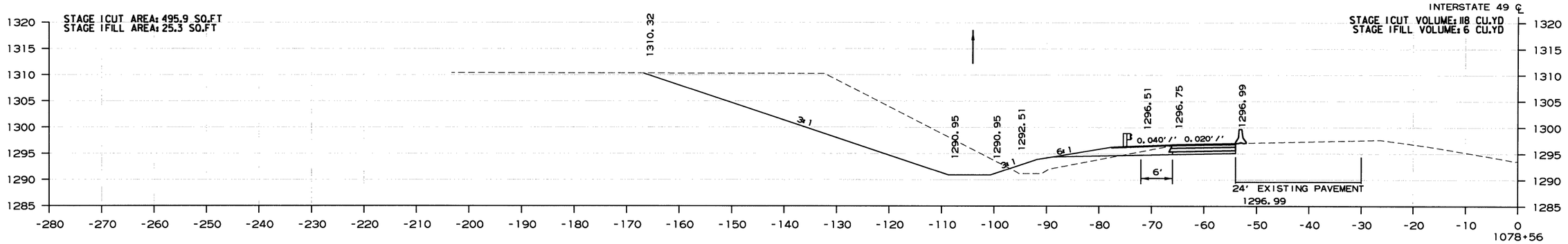
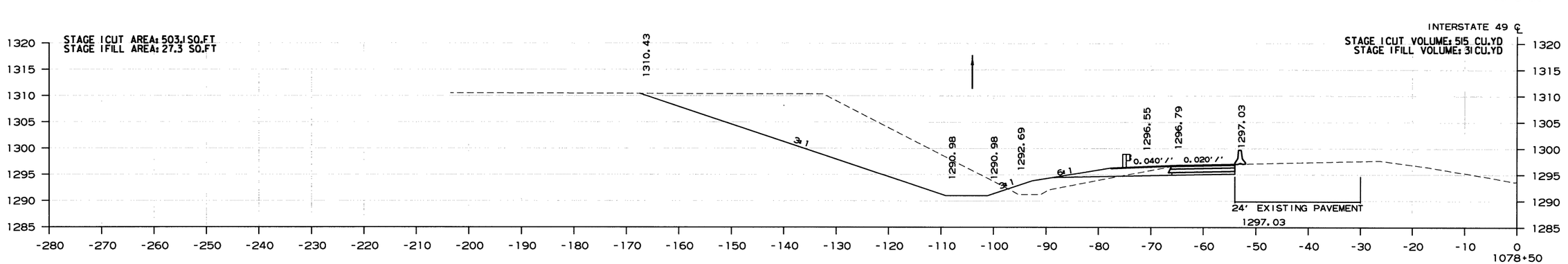
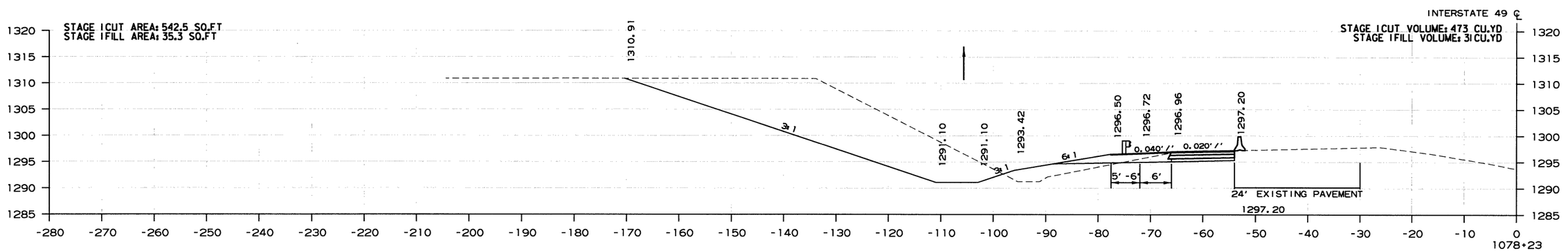
				JOB NO.		090376	477	555
				(2)	CROSS SECTIONS - I-49 SBL			



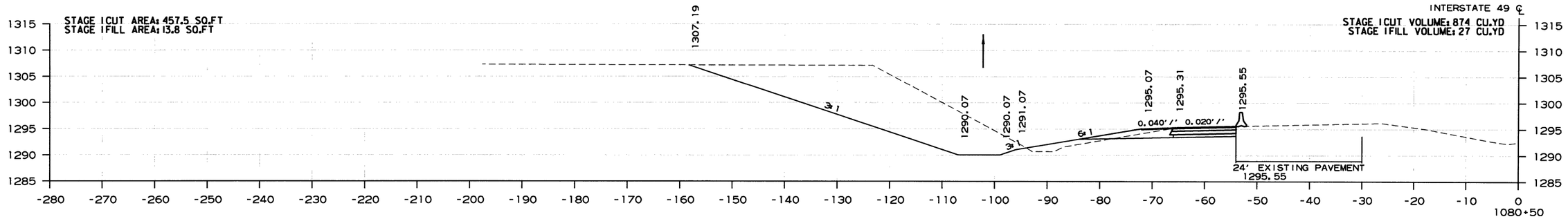


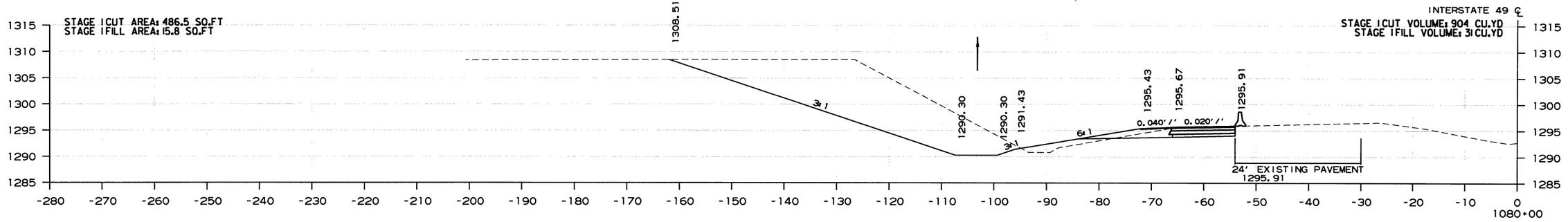


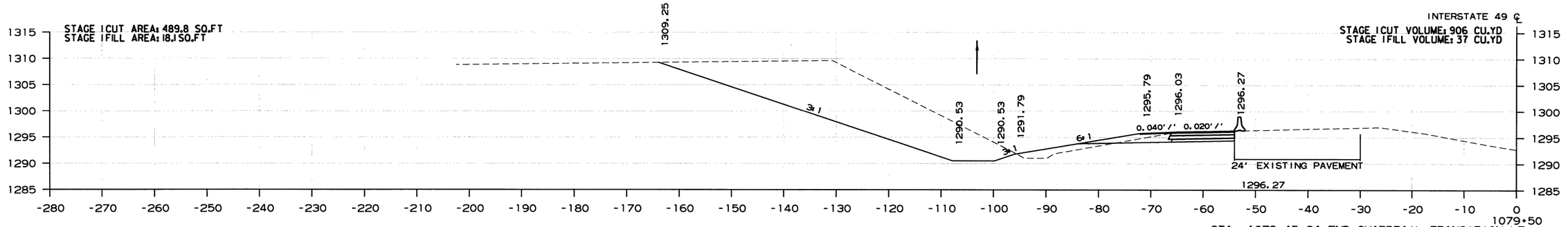
CROSS SECTION STA. 1078+23 TO STA. 1078+56

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

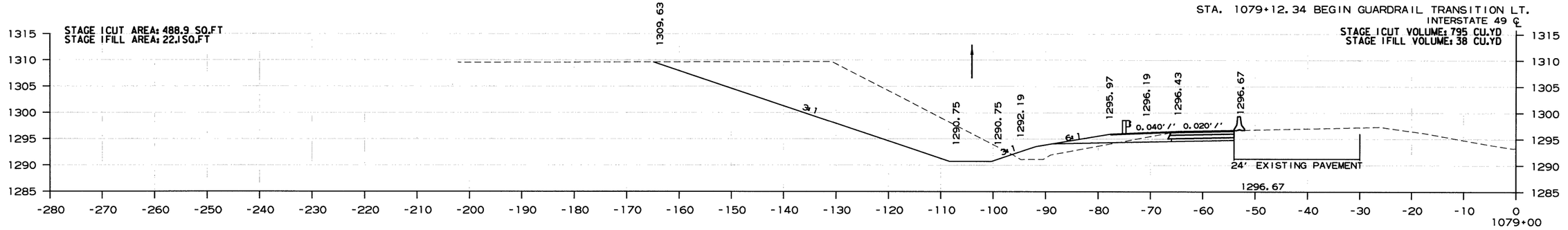
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	478	555
				(2)	CROSS SECTIONS - I-49 SBL			







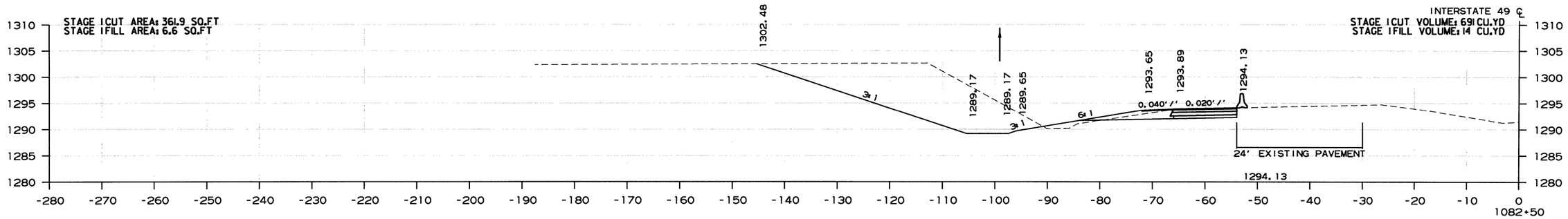
STA. 1079+45.34 END GUARDRAIL TRANSITION LT.
STA. 1079+12.34 BEGIN GUARDRAIL TRANSITION LT.

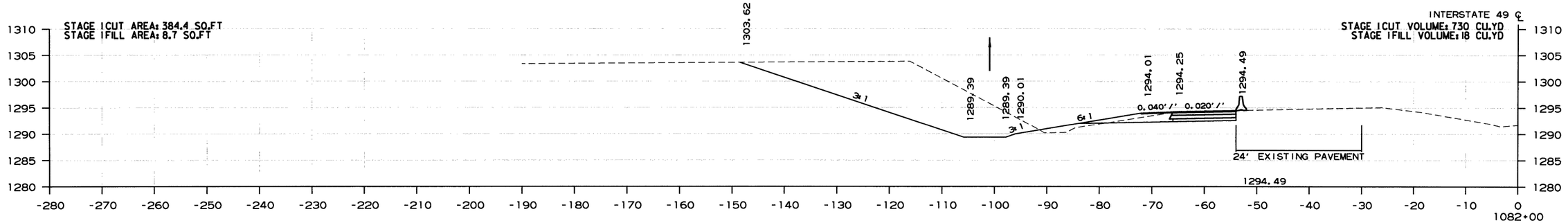


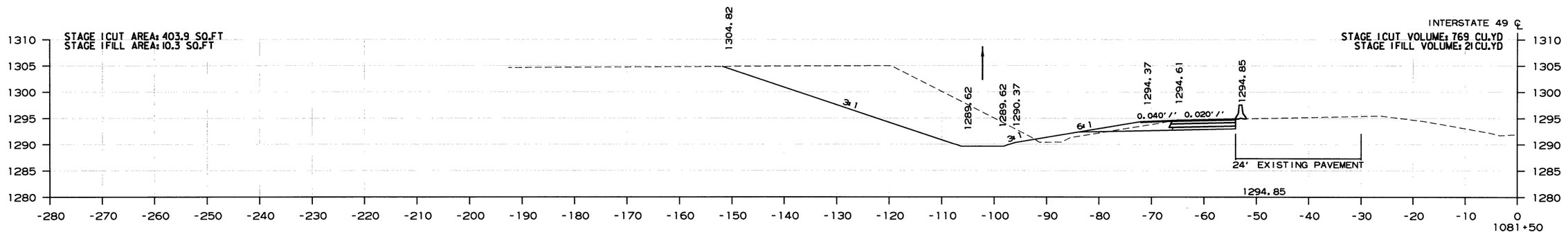
CROSS SECTION STA. 1079+00 TO STA. 1080+50

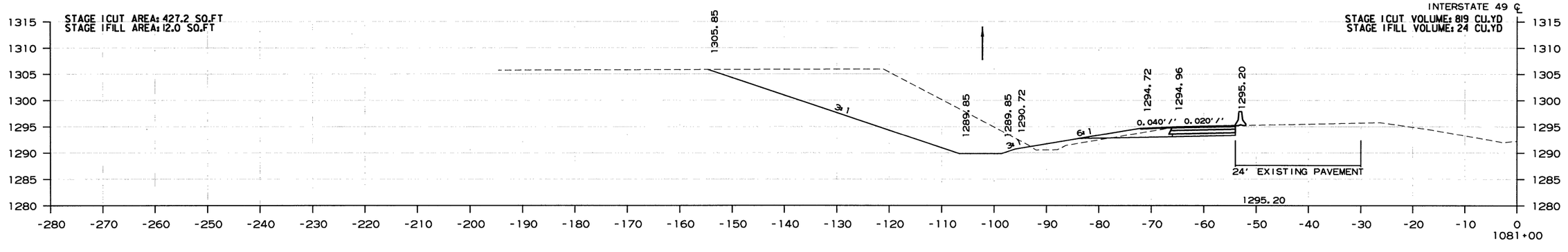
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	479	555
				(2)	CROSS SECTIONS - I-49 SBL			









CROSS SECTION STA. 1081+00 TO STA. 1082+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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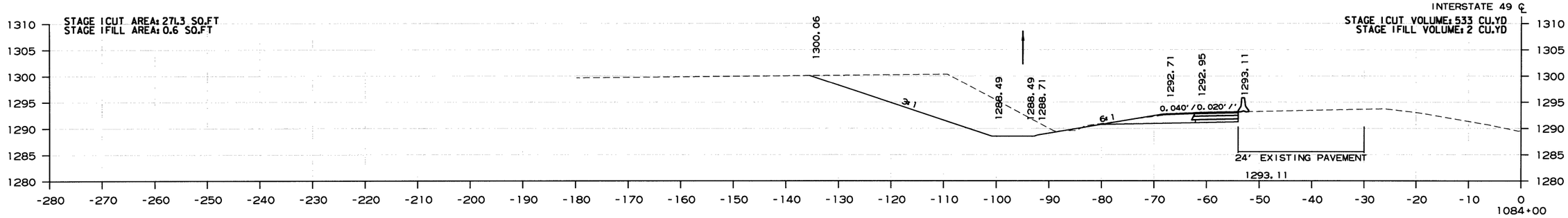
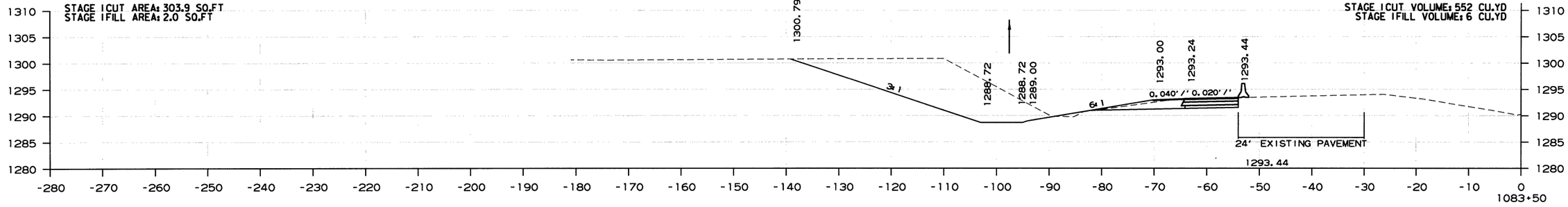
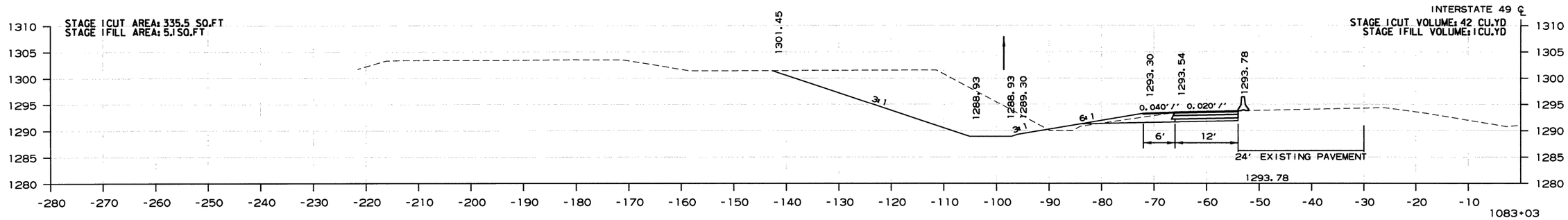
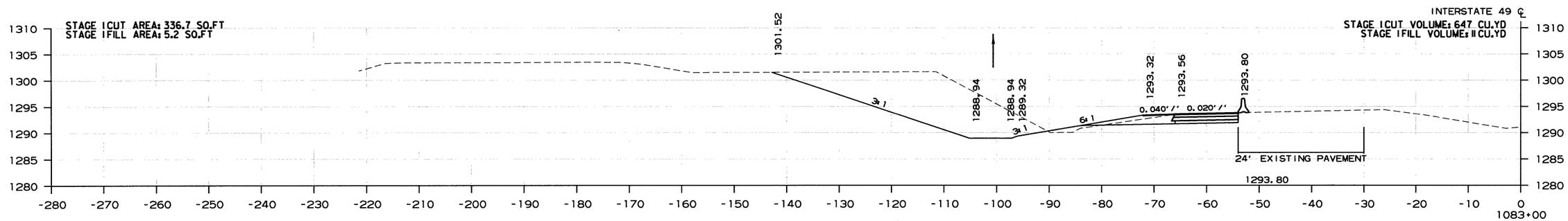
				JOB NO.		090376	480	555
				(2)	CROSS SECTIONS - I-49 SBL			









CROSS SECTION STA. 1083+00 TO STA. 1084+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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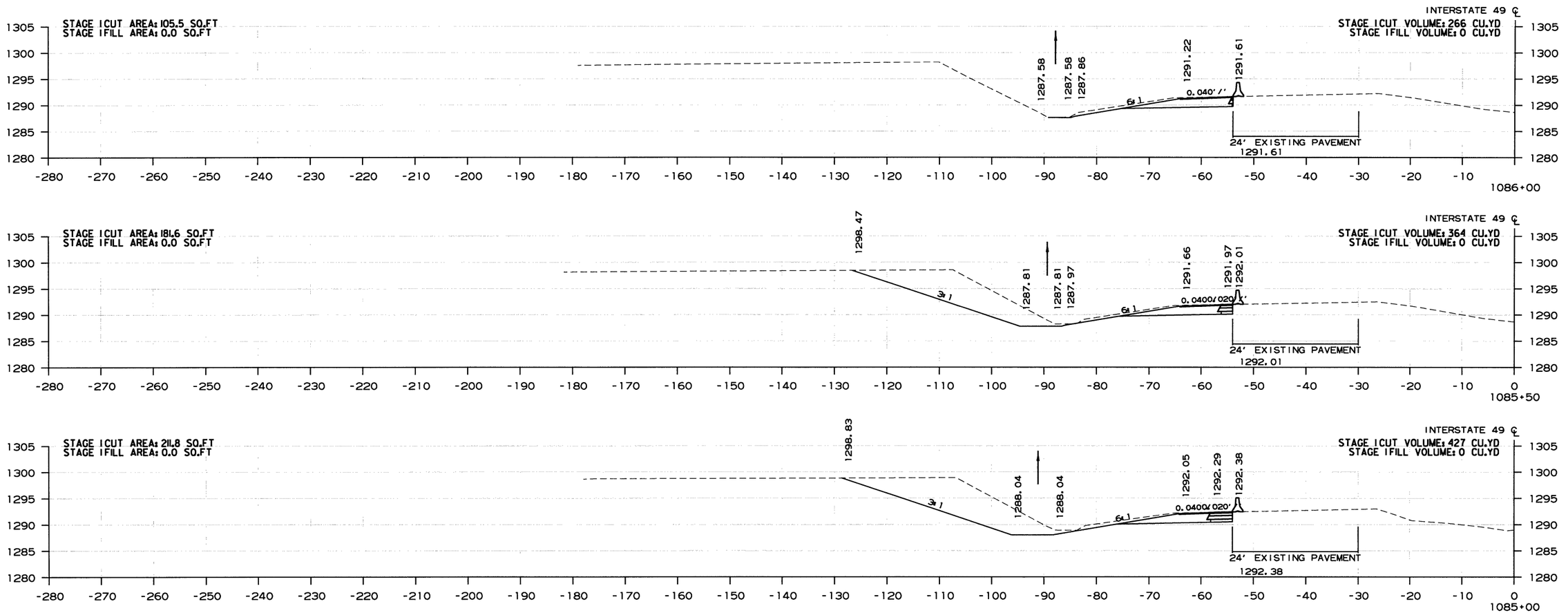
				JOB NO.		090376	481	555
				(2)	CROSS SECTIONS - I-49 SBL			



CROSS SECTION STA. 1084+50 TO STA. 1086+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		090376	482	555
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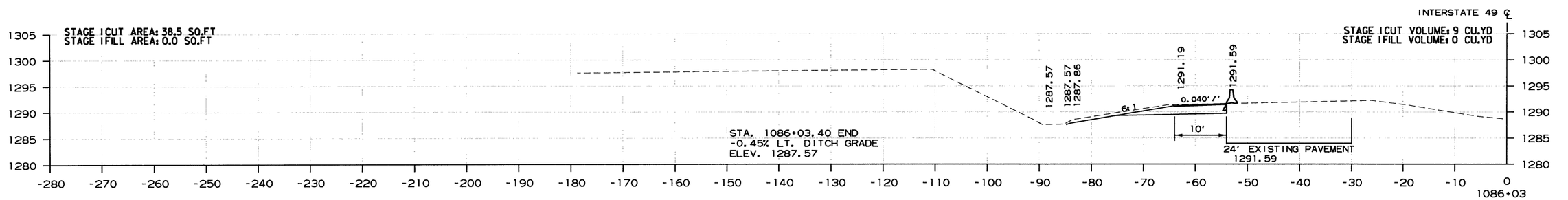

CROSS SECTION STA. 1086+03 TO STA. 1086+03

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		090376	483	555
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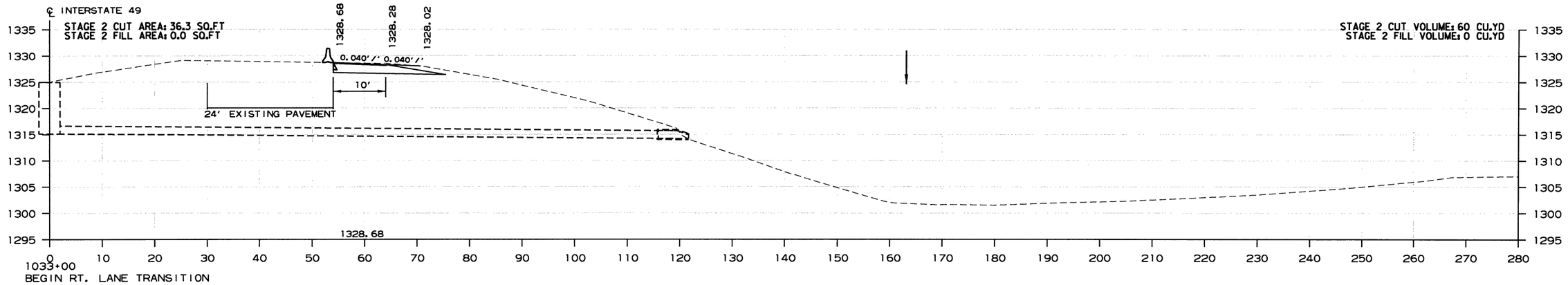

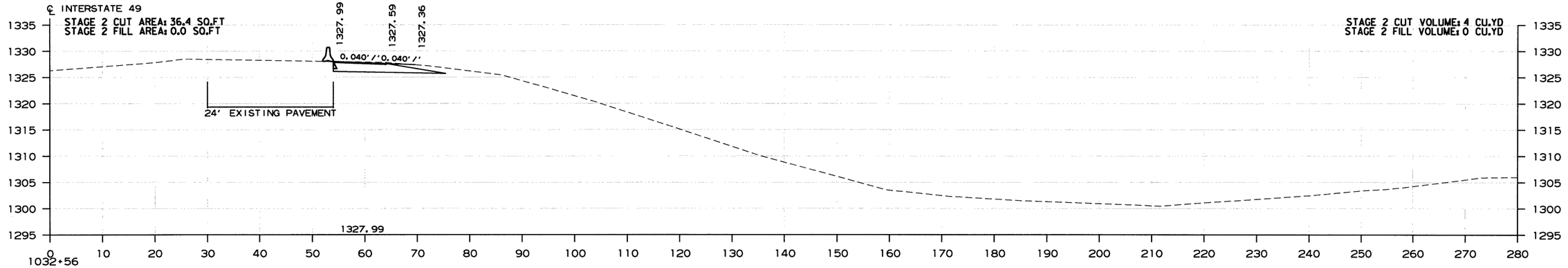

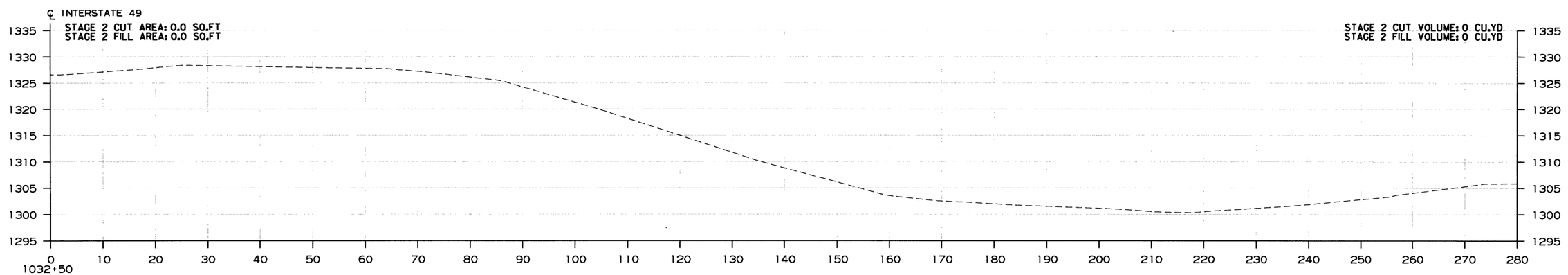

CROSS SECTION STA. 1032+50 TO STA. 1033+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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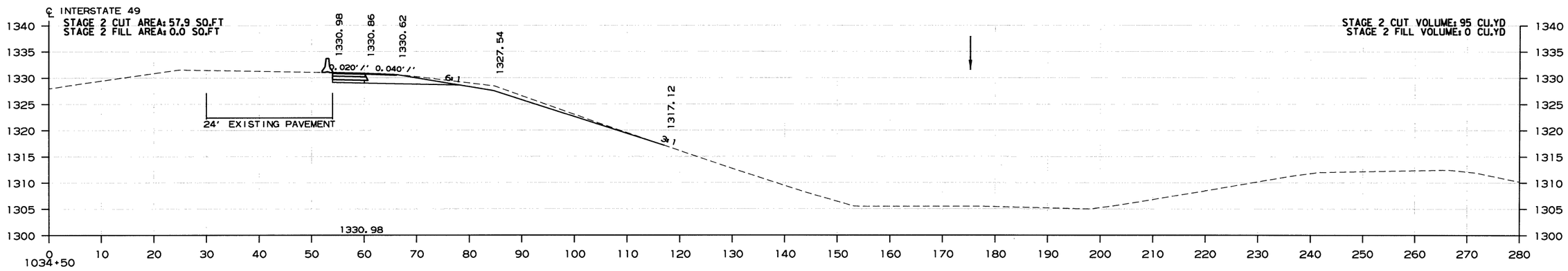

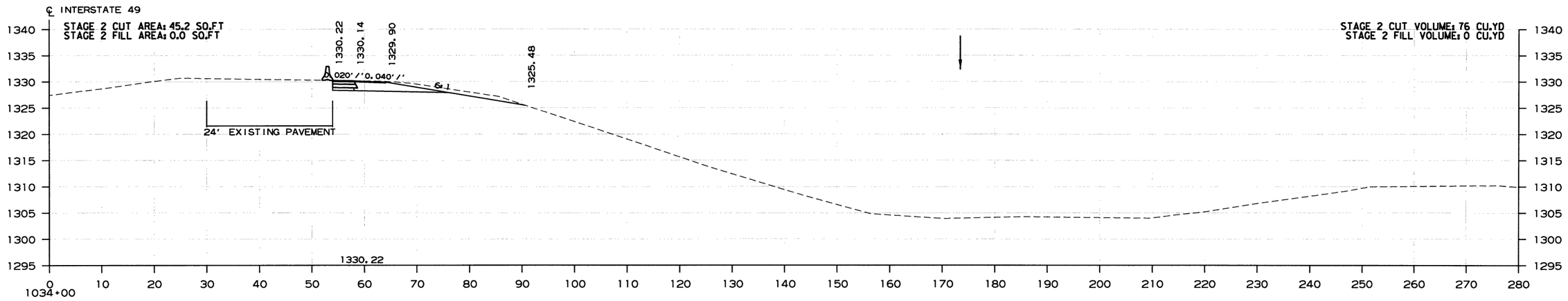

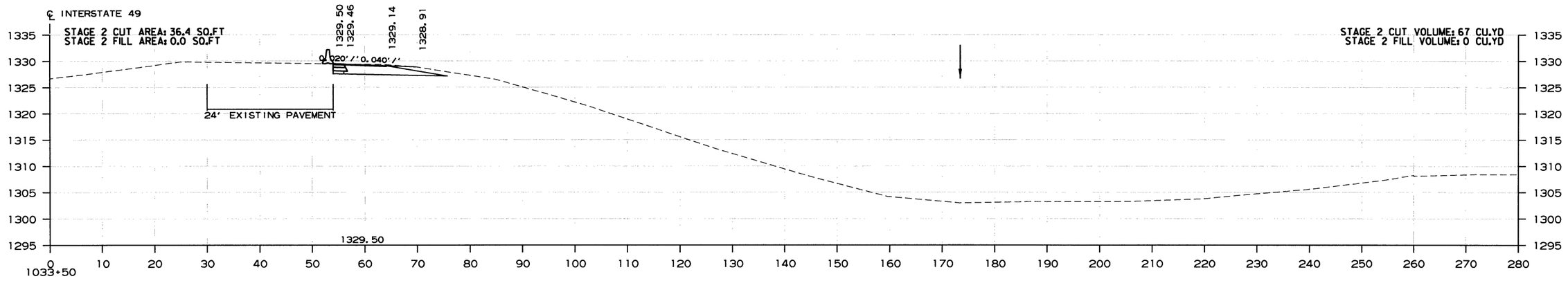

CROSS SECTION STA. 1033+50 TO STA. 1034+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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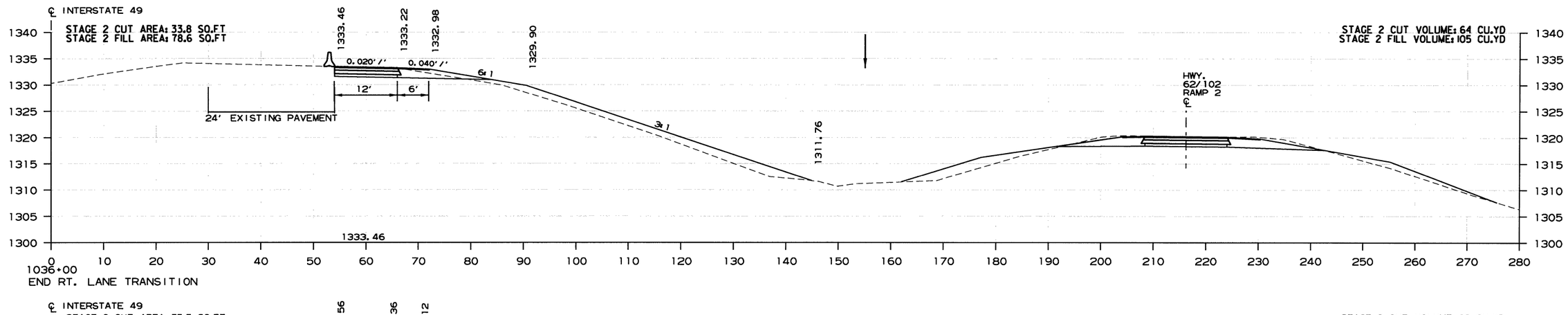

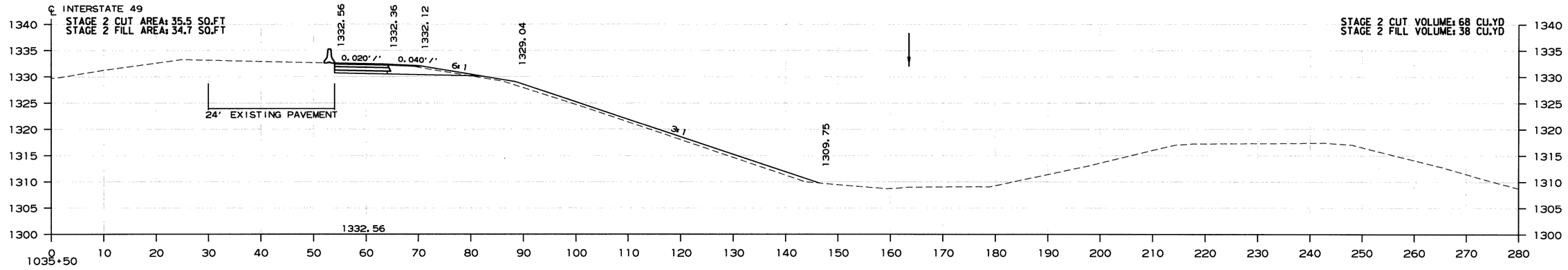

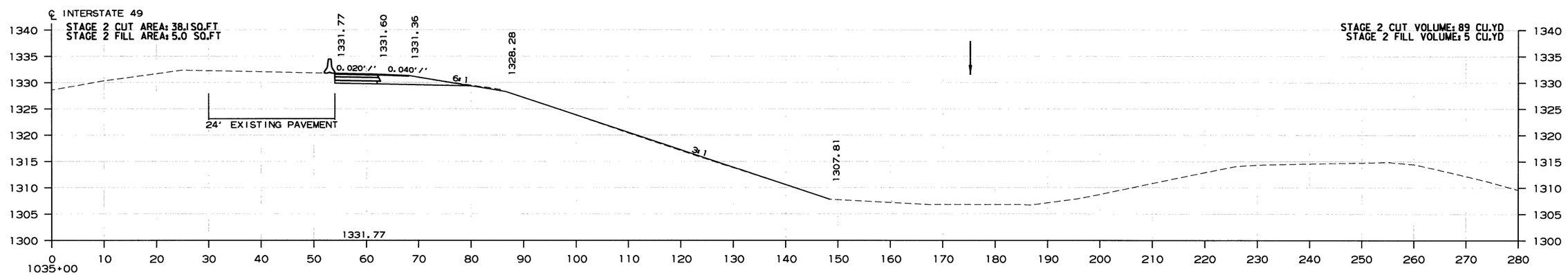

CROSS SECTION STA. 1035+00 TO STA. 1036+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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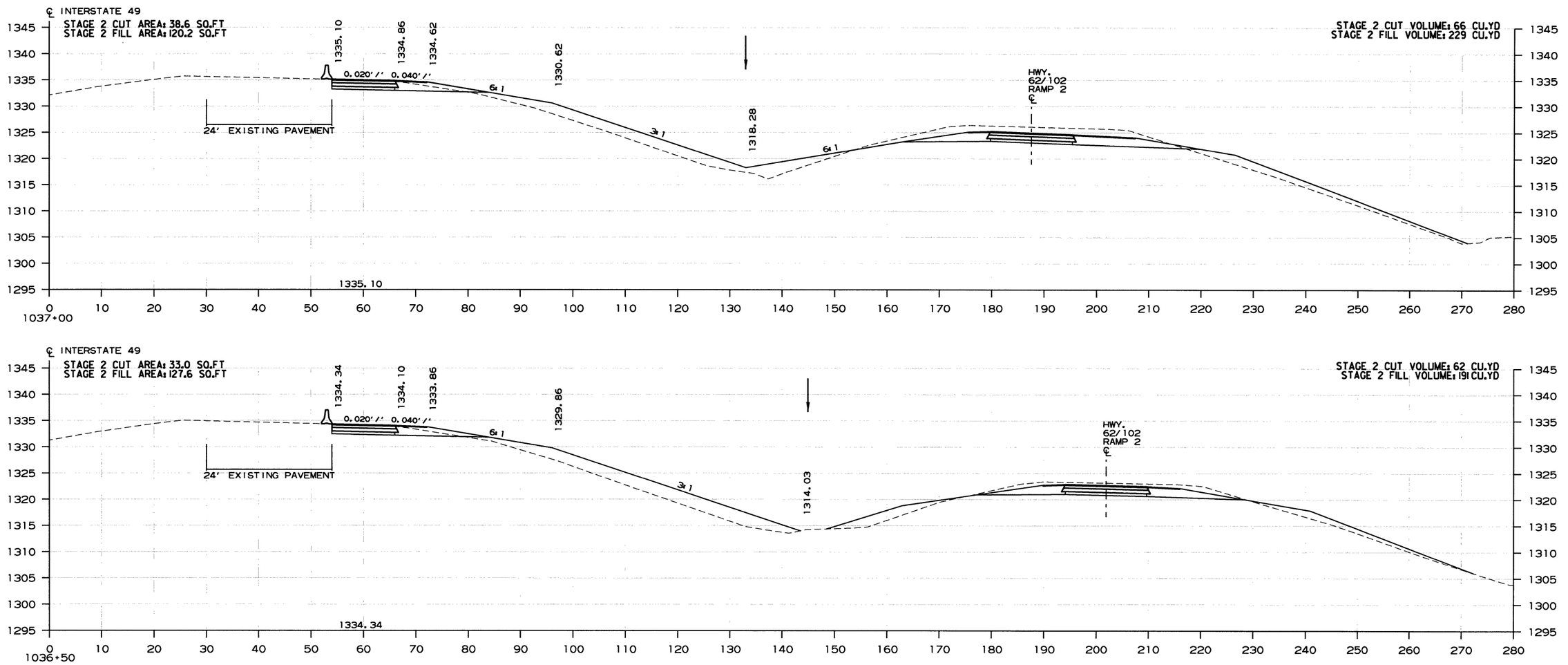
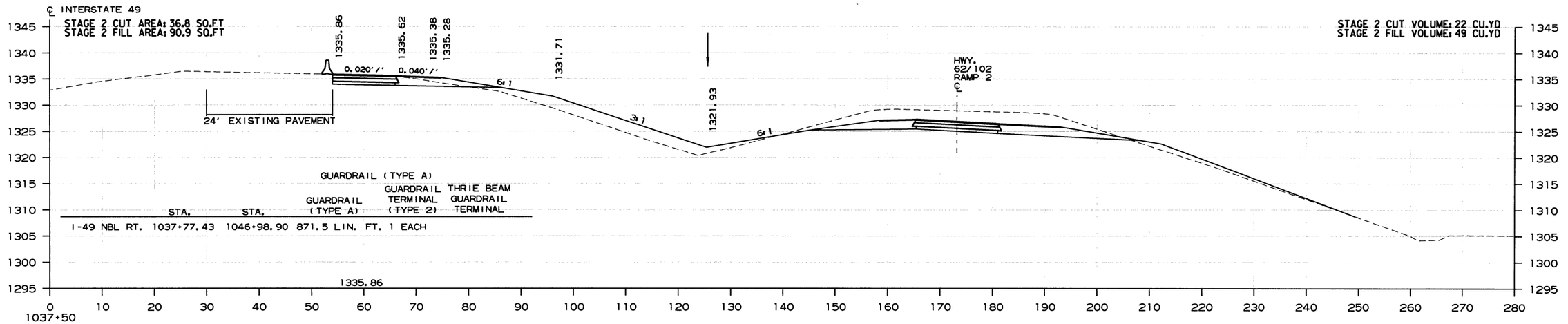
				(2)	CROSS SECTIONS - I-49 NBL			

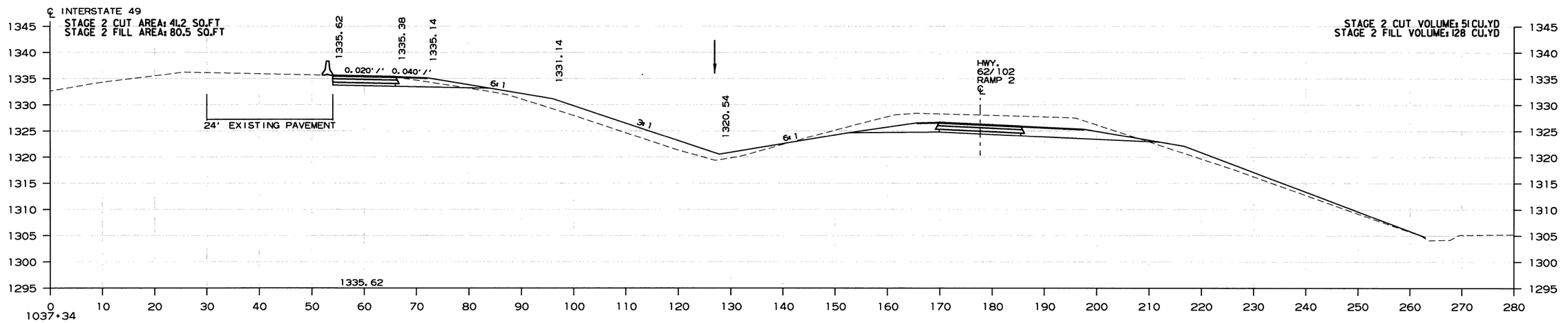


CROSS SECTION STA. 1036+50 TO STA. 1037+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	487	555
				(2)	CROSS SECTIONS - I-49 NBL			





CROSS SECTION STA. 1037+34 TO STA. 1037+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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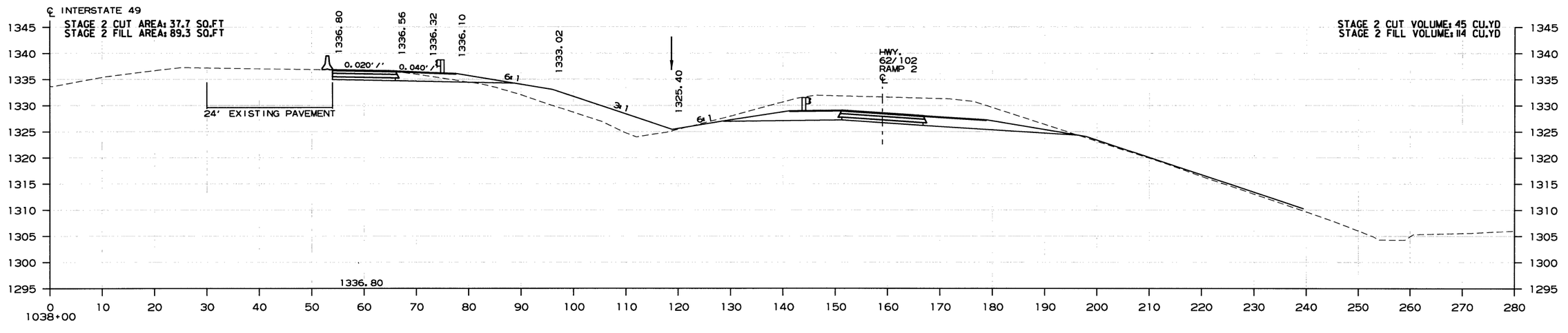
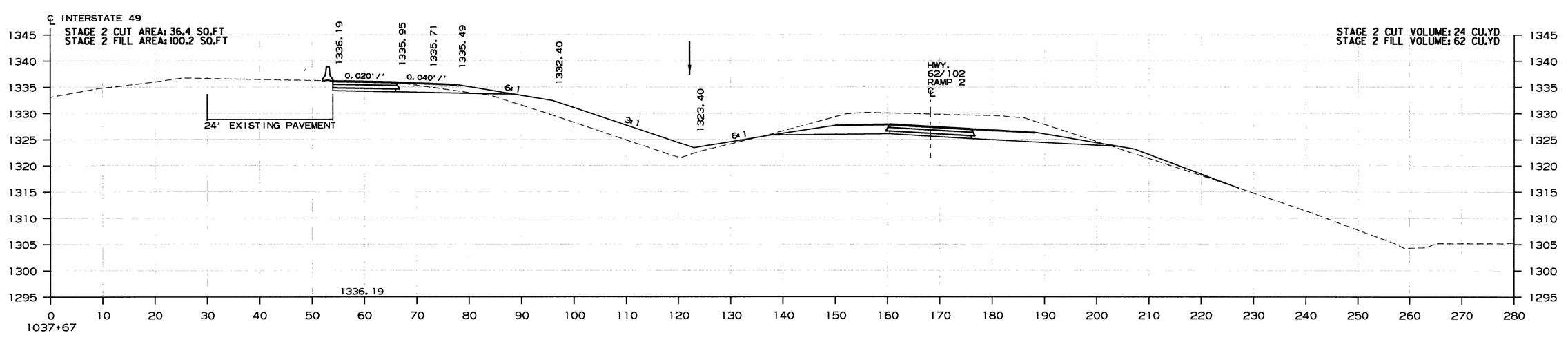
				JOB NO.		090376	488	555
				(2)	CROSS SECTIONS - I-49 NBL			





CROSS SECTION STA. 1037+67 TO STA. 1038+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
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SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		090376	489	555
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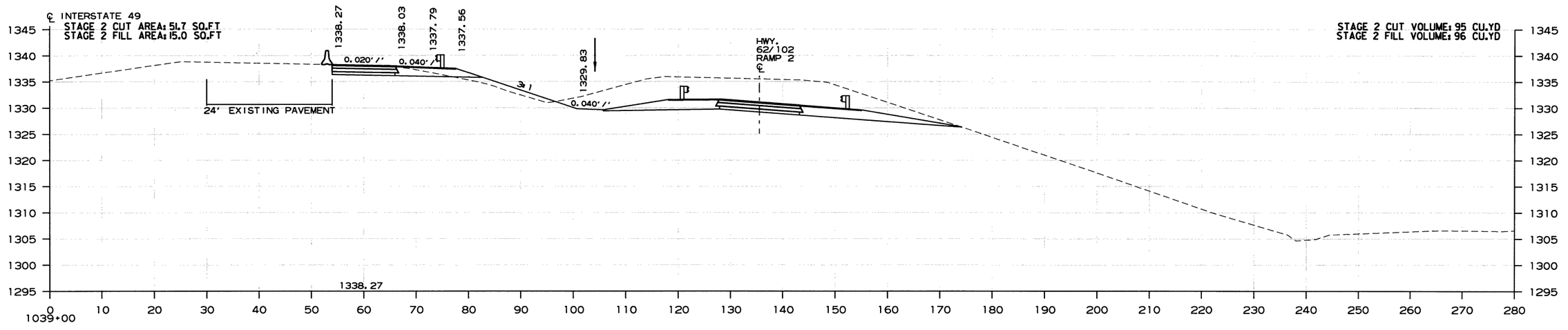

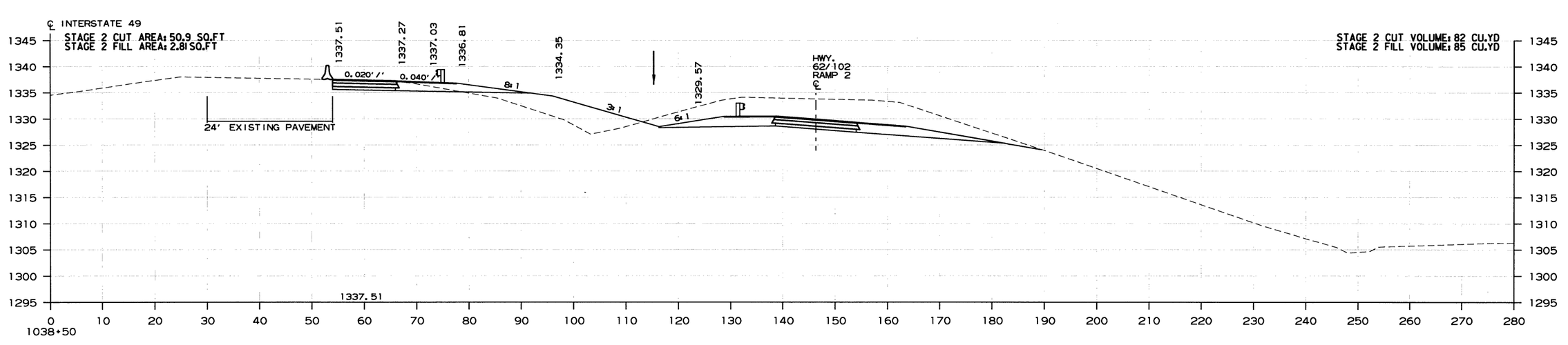

CROSS SECTION STA. 1038+50 TO STA. 1039+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
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SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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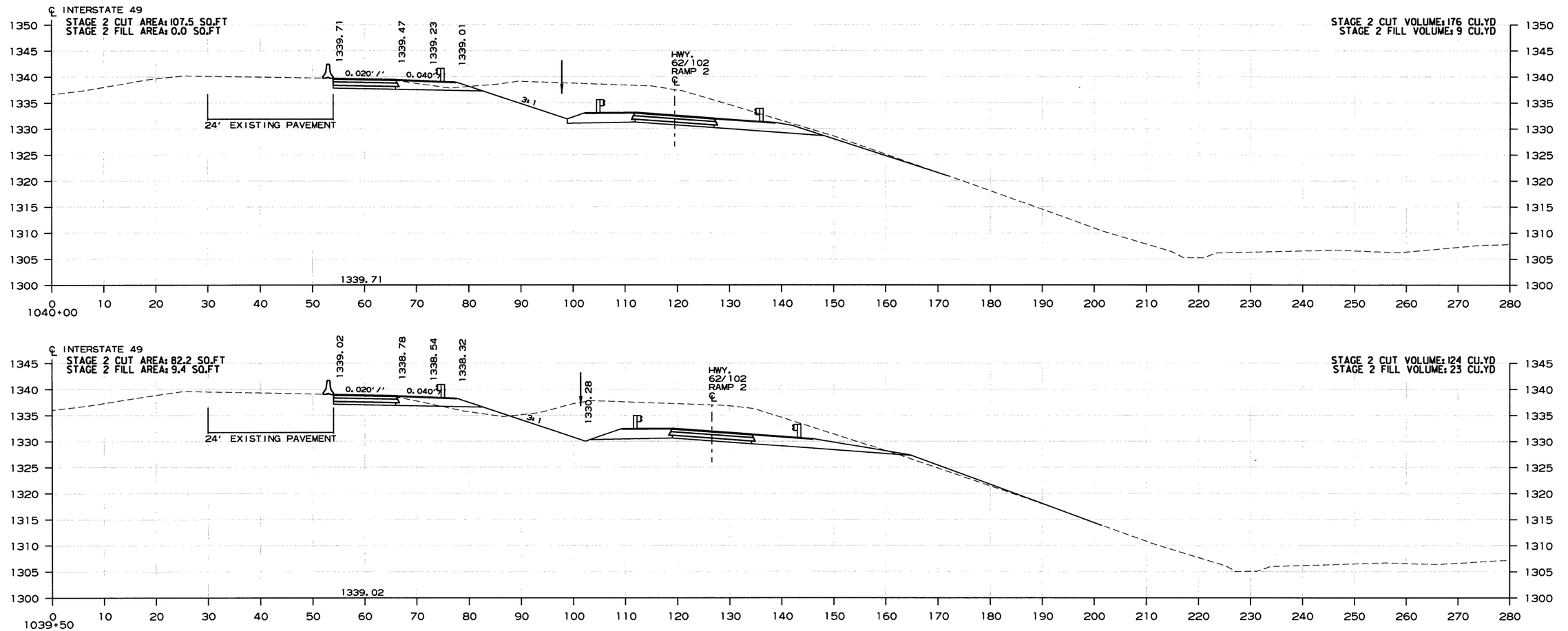
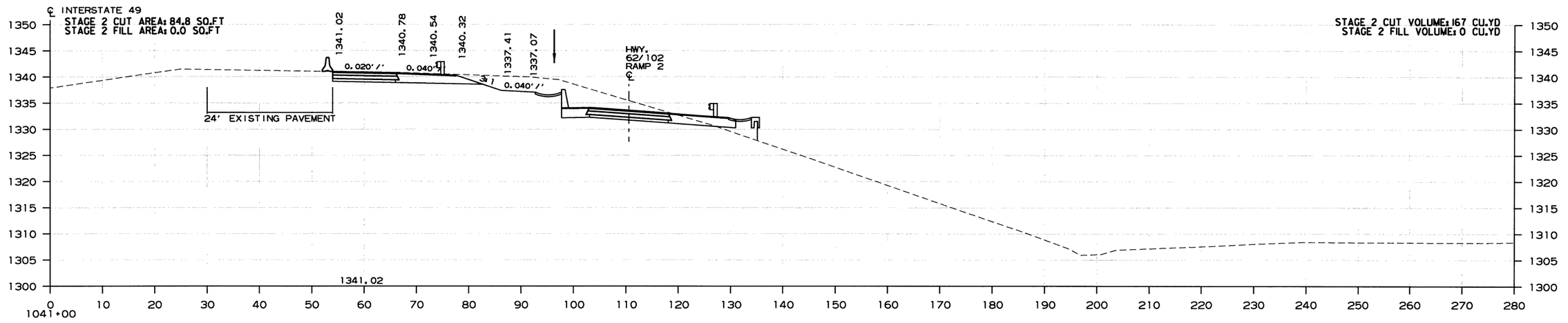
				(2)	CROSS SECTIONS - I-49 NBL			

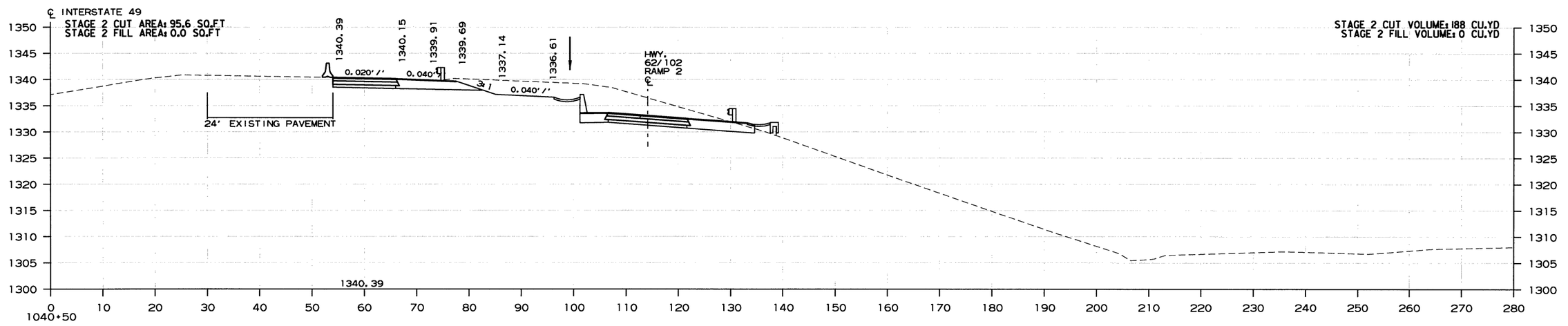


CROSS SECTION STA. 1039+50 TO STA. 1040+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	491	555
				(2)	CROSS SECTIONS - I-49 NBL			

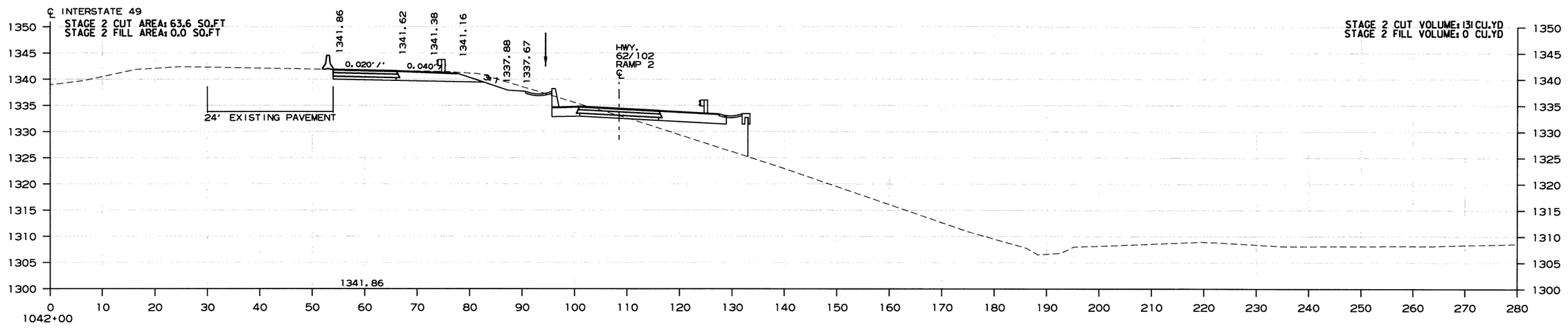


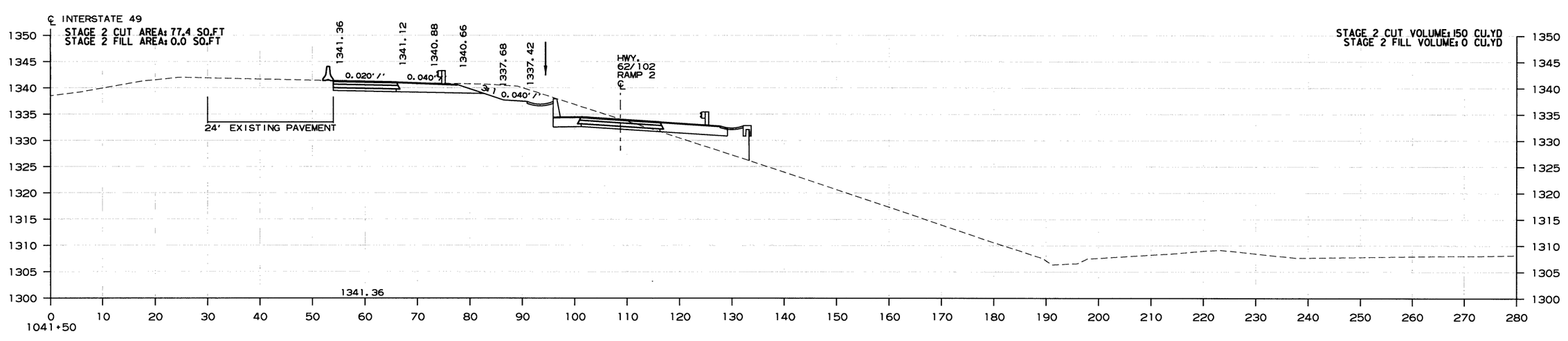


CROSS SECTION STA. 1040+50 TO STA. 1041+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	492	555
				(2)	CROSS SECTIONS - I-49 NBL			

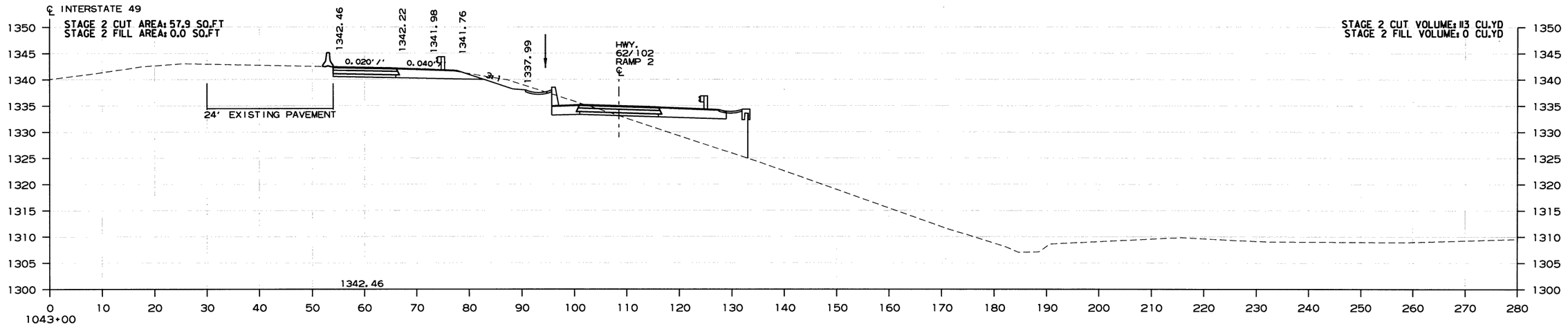


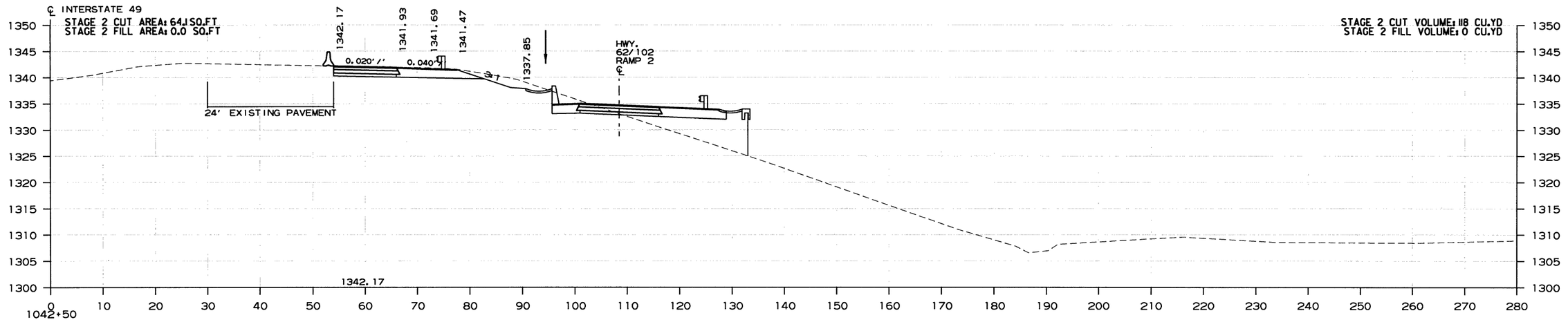


CROSS SECTION STA. 1041+50 TO STA. 1042+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	493	555
				(2)	CROSS SECTIONS - I-49 NBL			

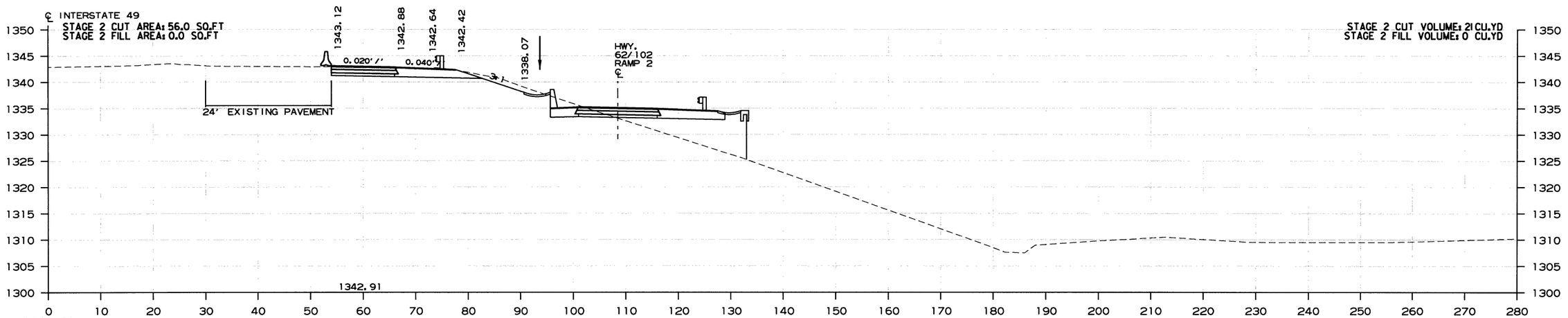


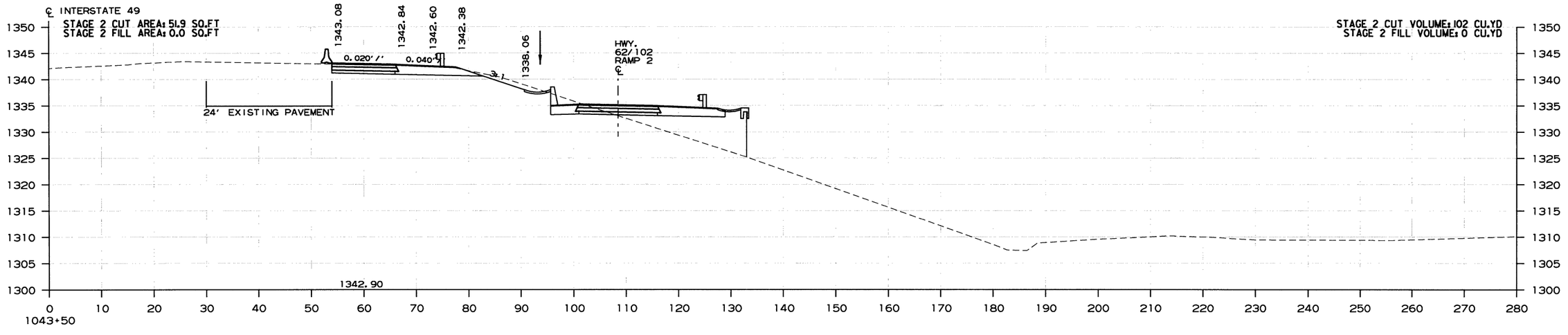


CROSS SECTION STA. 1042+50 TO STA. 1043+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	494	555
				(2)	CROSS SECTIONS - I-49 NBL			

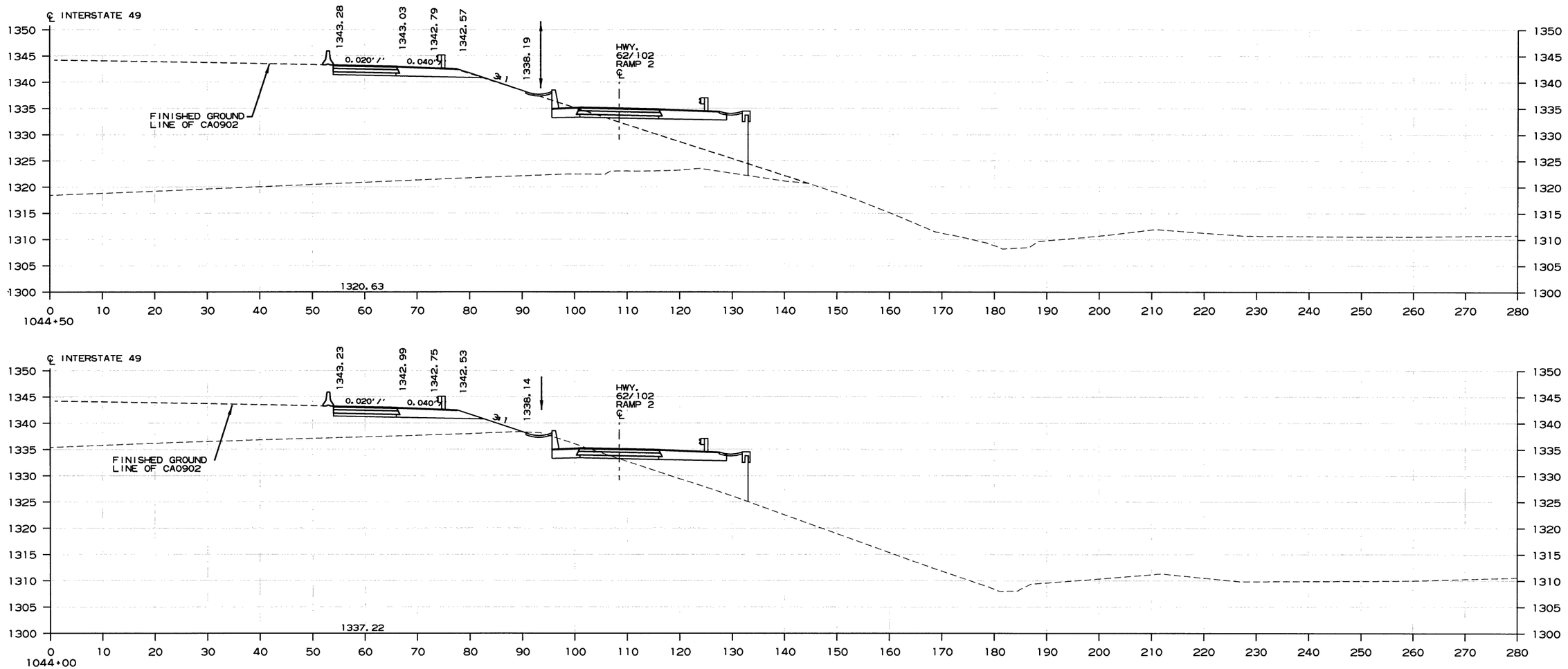




CROSS SECTION STA. 1043+50 TO STA. 1043+60

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

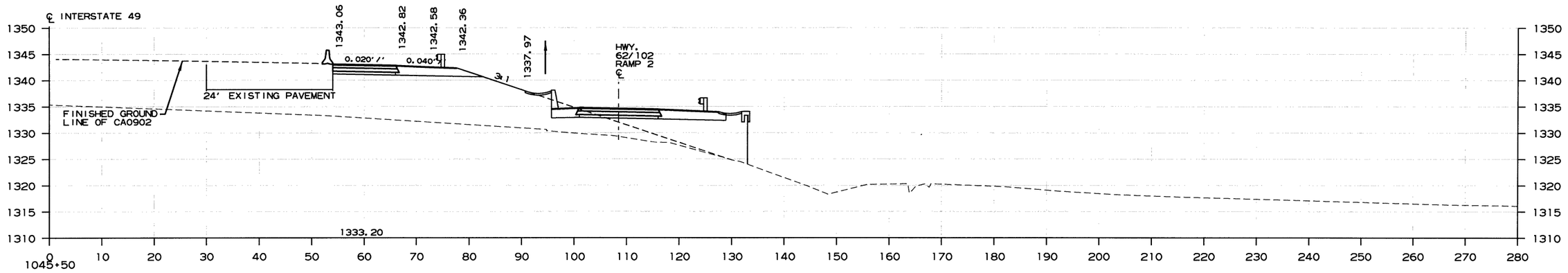
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	495	555
				(2)	CROSS SECTIONS - I-49 NBL			

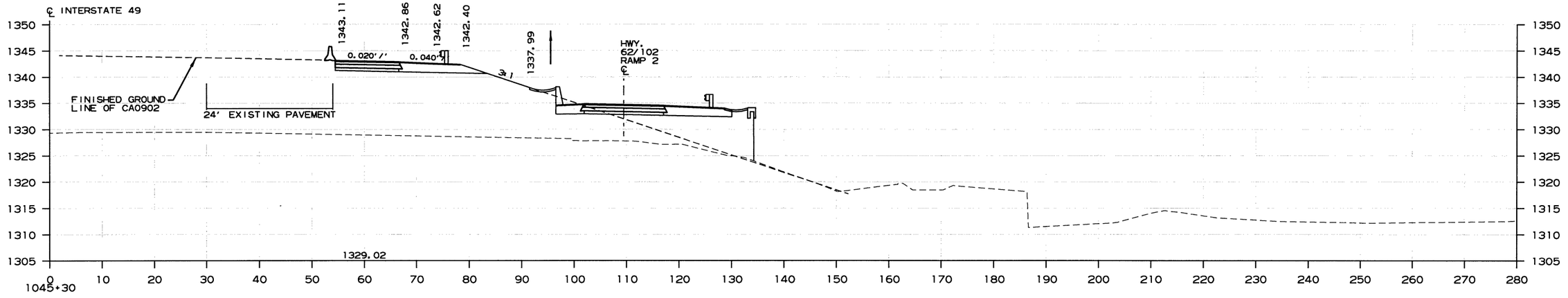


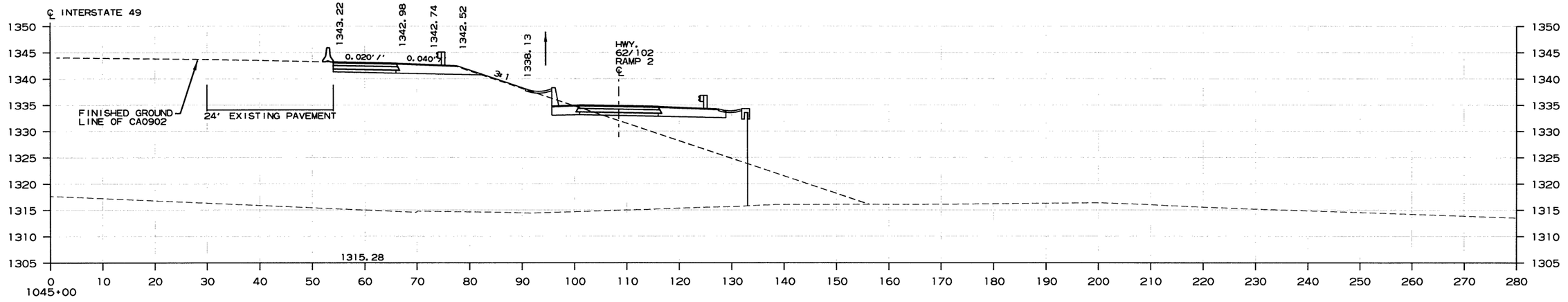
CROSS SECTION STA. 1044+00 TO STA. 1044+50

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	496	555
				(2)	CROSS SECTIONS - I-49 NBL			

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.



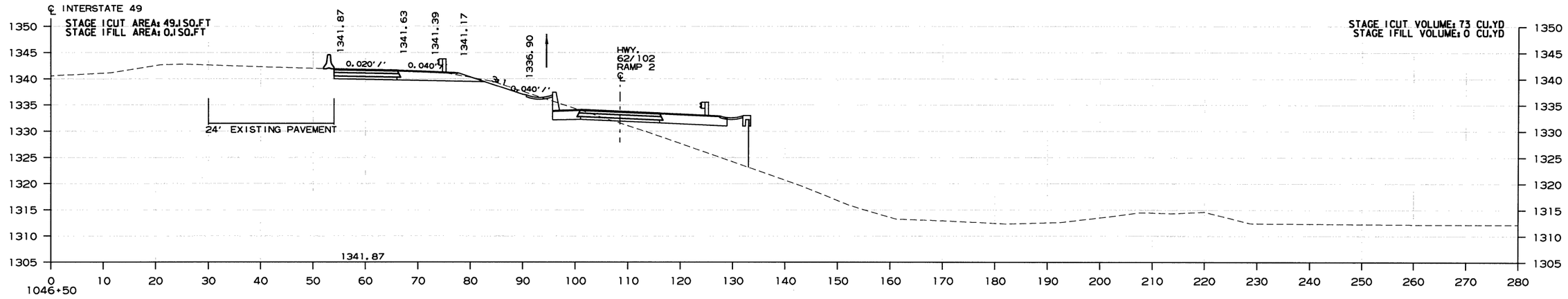


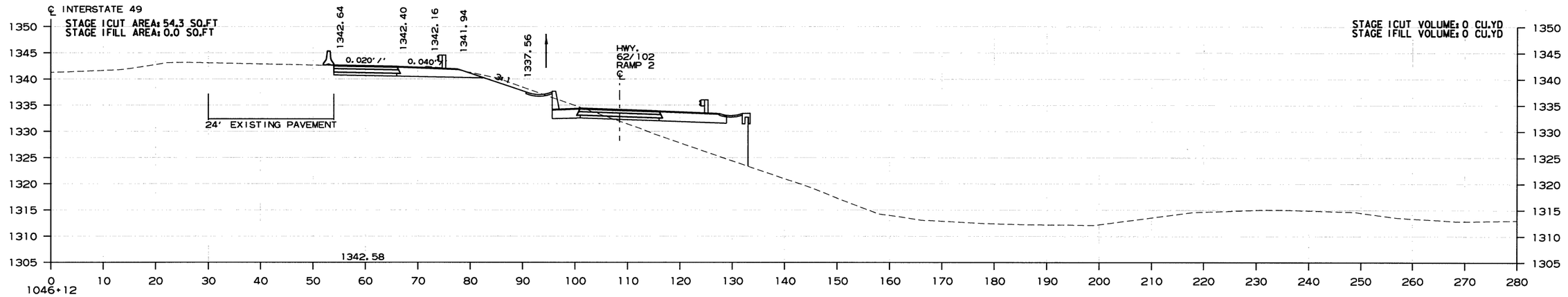


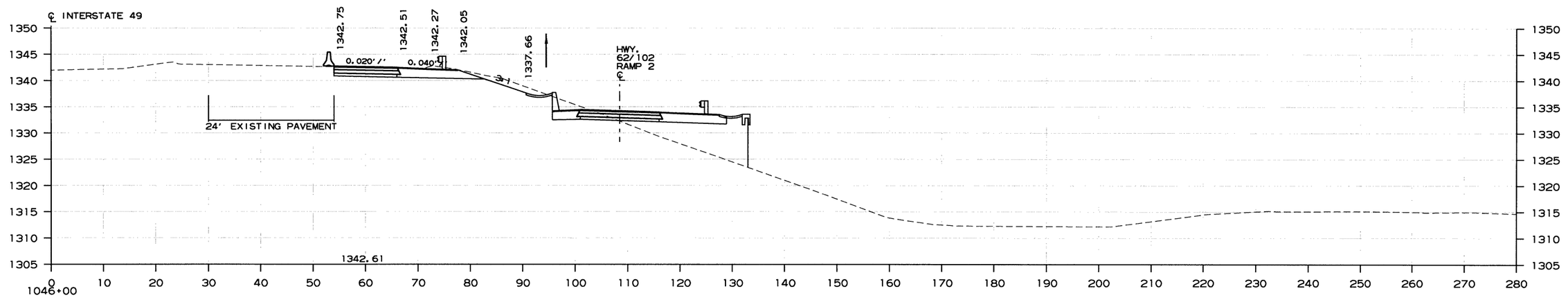
CROSS SECTION STA. 1045+00 TO STA. 1045+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	497	555
				(2)	CROSS SECTIONS - I-49 NBL			



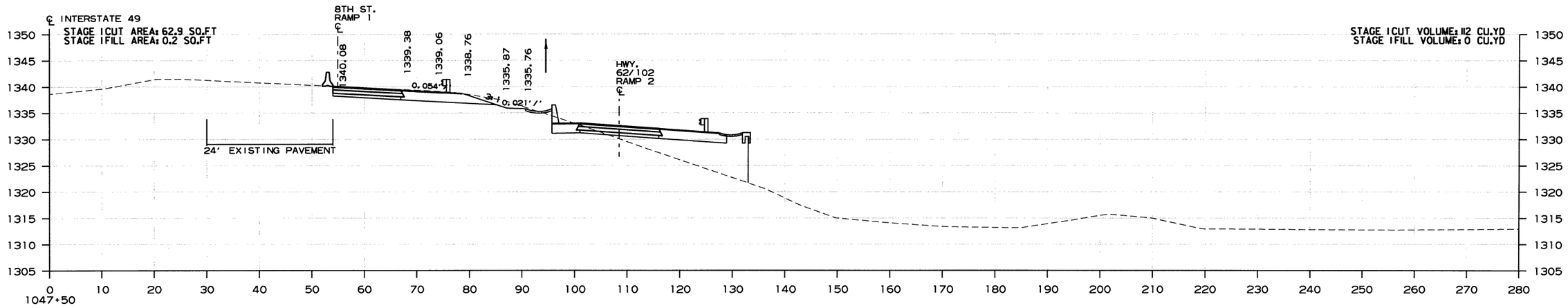


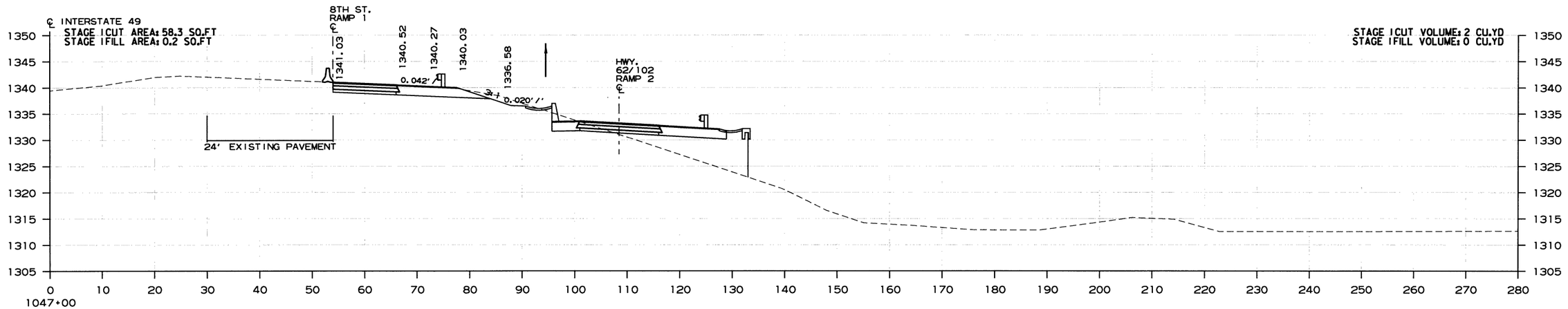


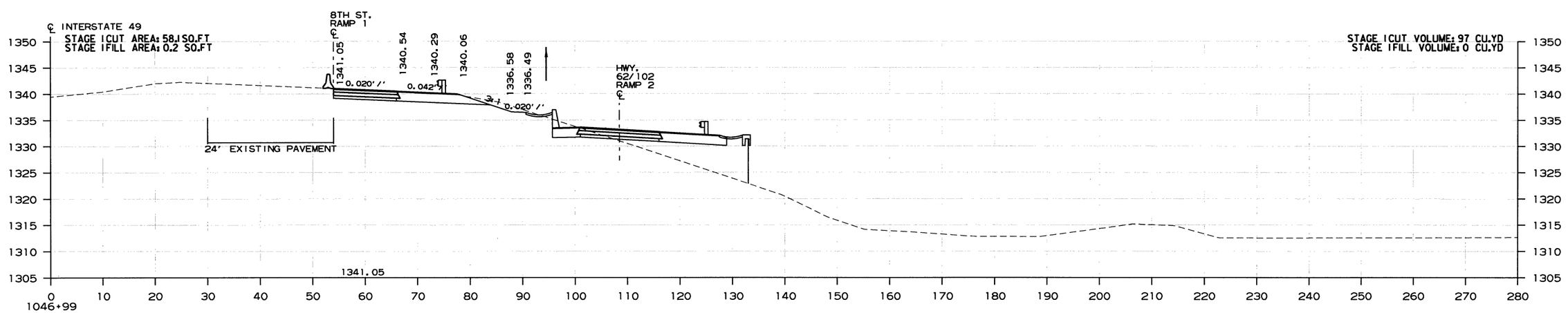
CROSS SECTION STA. 1046+00 TO STA. 1046+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	498	555
				(2)	CROSS SECTIONS - I-49 NBL			



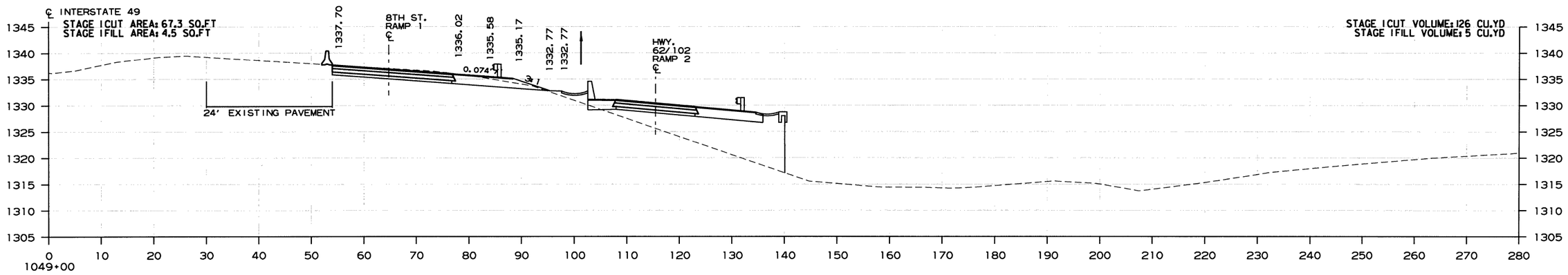


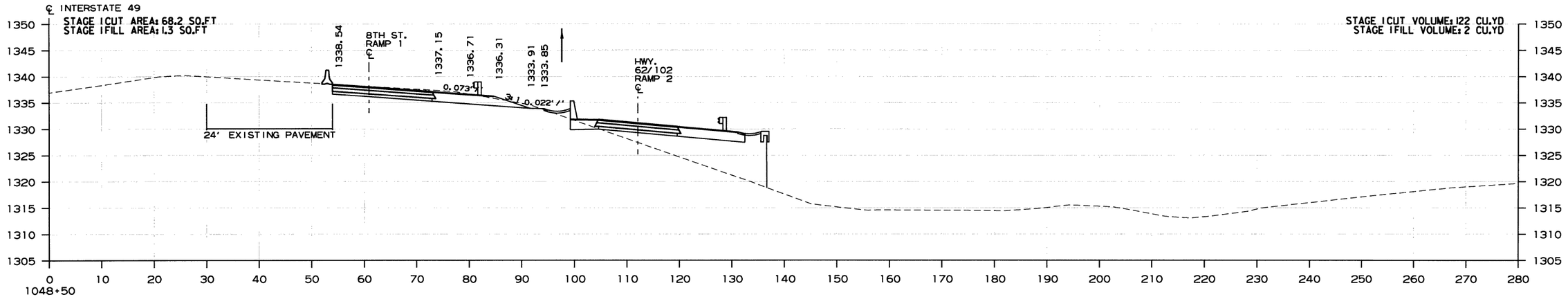


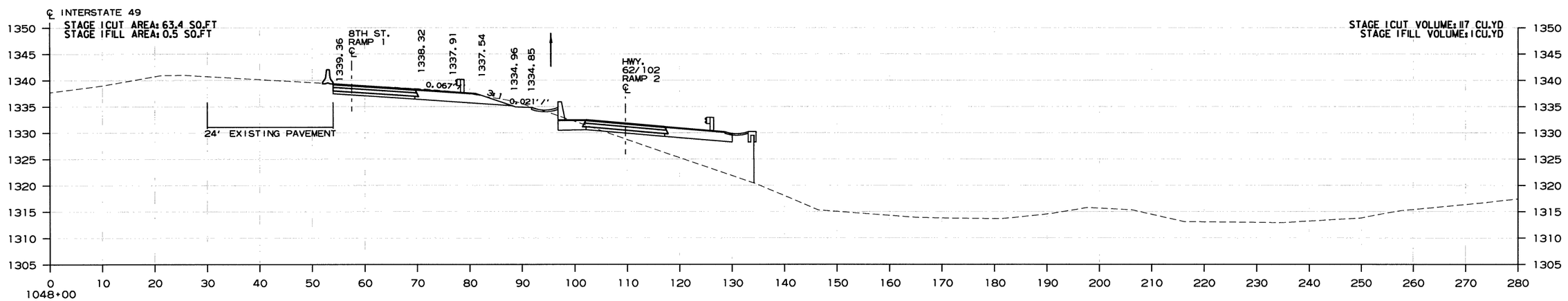
CROSS SECTION STA. 1046+99 TO STA. 1047+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	499	555
				(2)	CROSS SECTIONS - I-49 NBL			



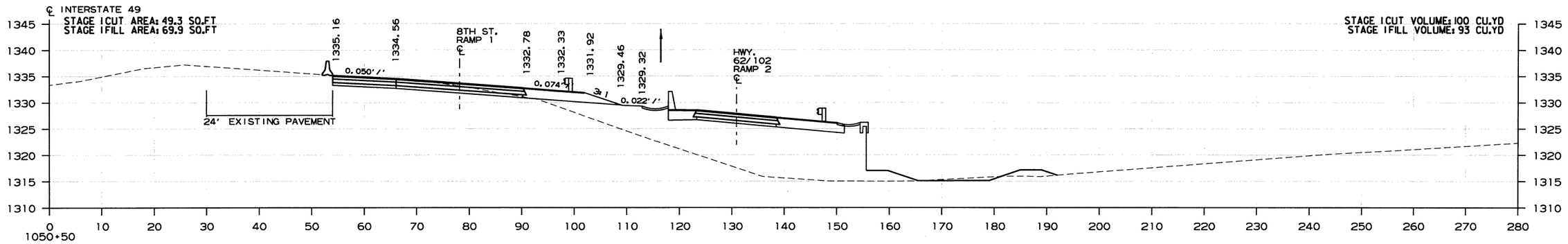


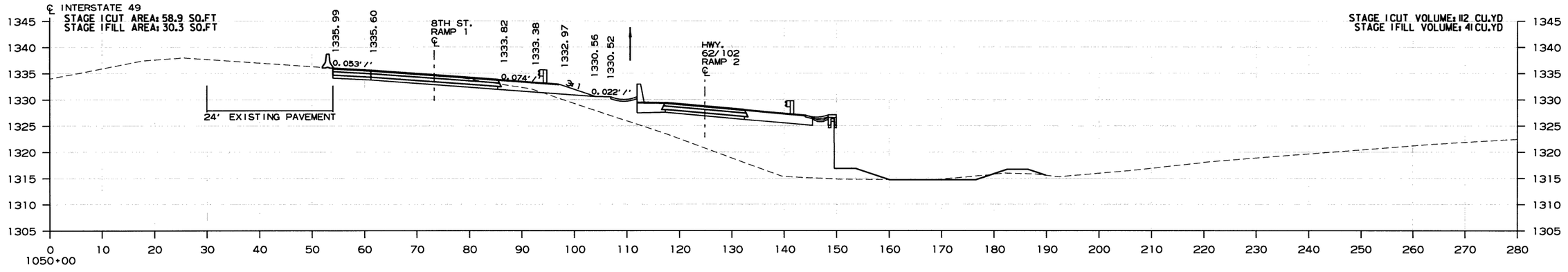


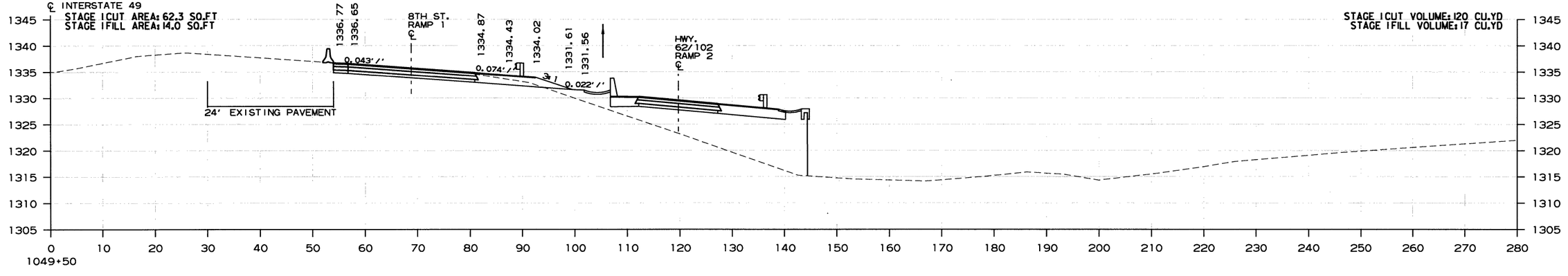
CROSS SECTION STA. 1048+00 TO STA. 1049+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	500	555
				(2)	CROSS SECTIONS - I-49 NBL			



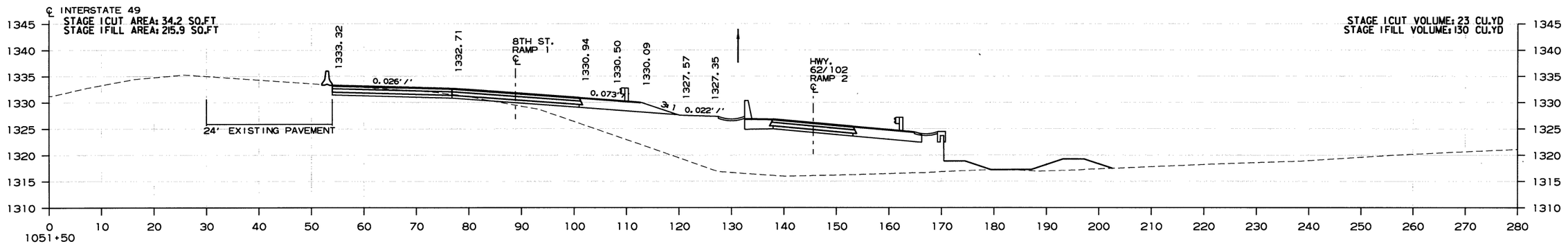


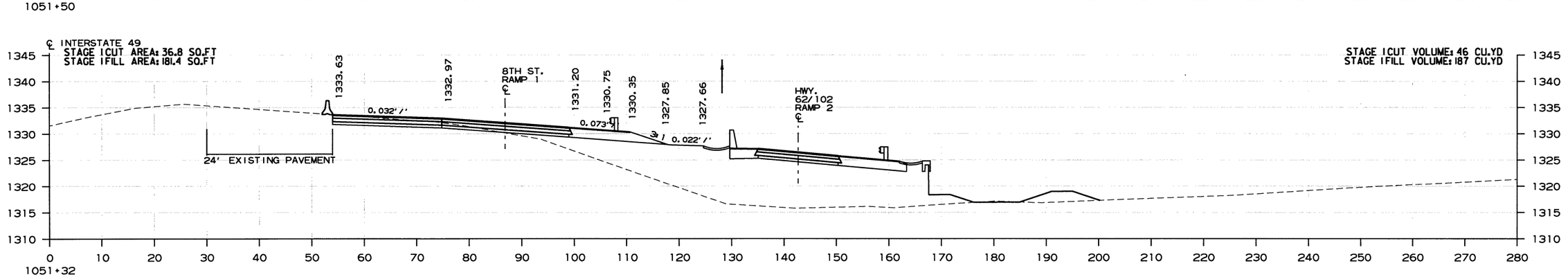


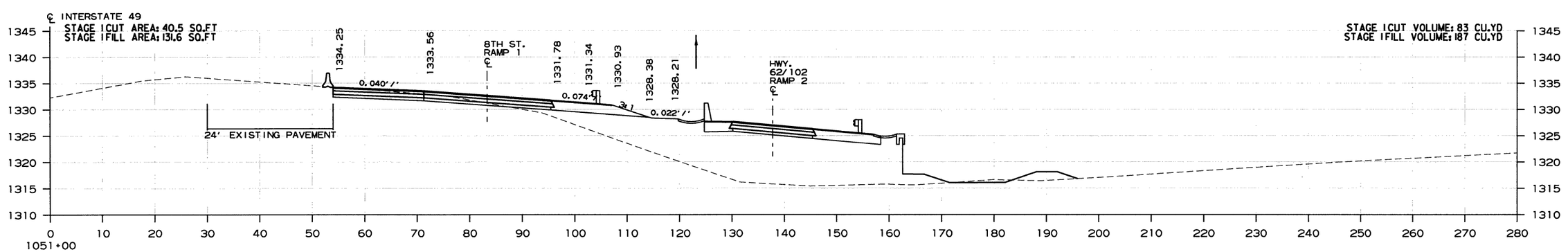
CROSS SECTION STA. 1049+50 TO STA. 1050+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	501	555
				(2)	CROSS SECTIONS - I-49 NBL			



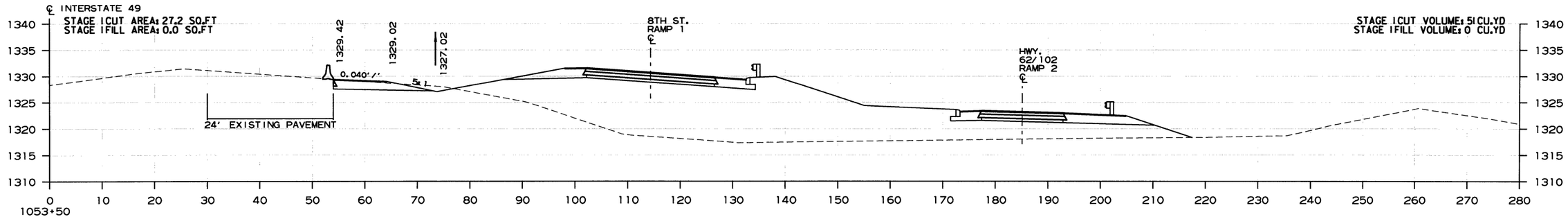


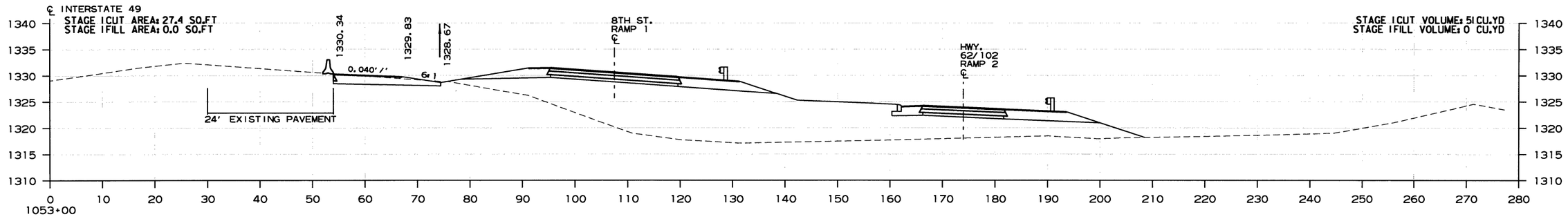


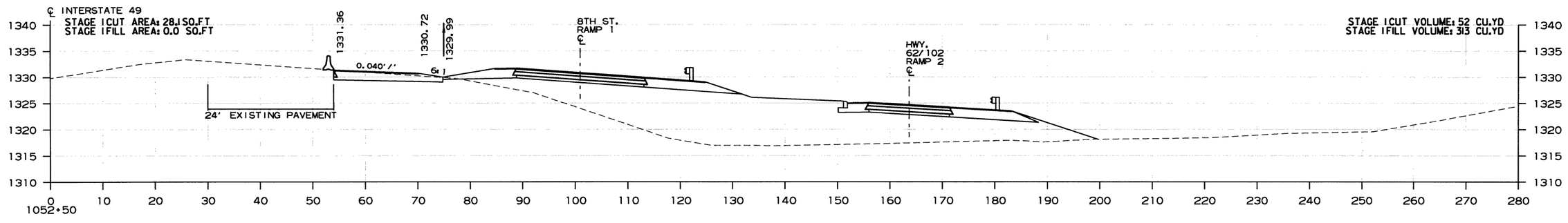
CROSS SECTION STA. 1051+00 TO STA. 1051+50

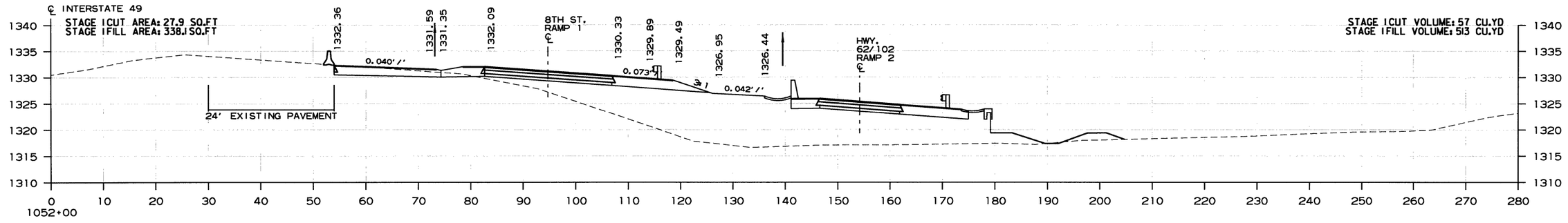
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	502	555
				(2)	CROSS SECTIONS - I-49 NBL			





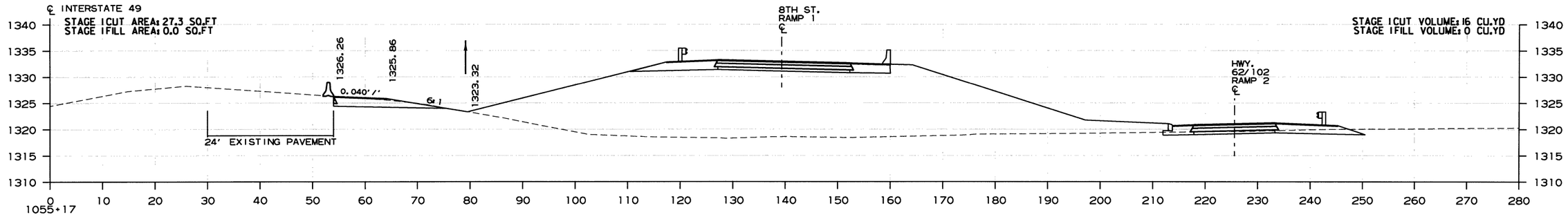


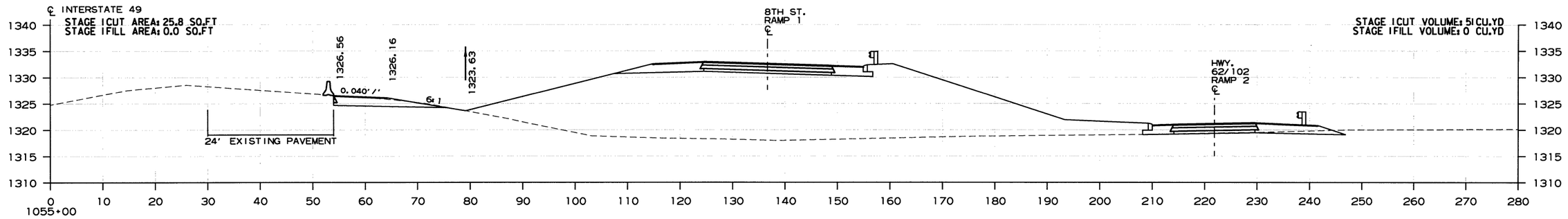


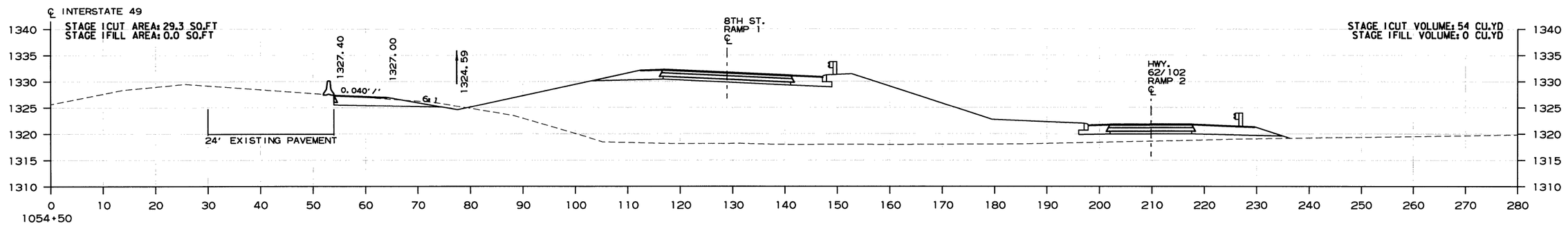
CROSS SECTION STA. 1052+00 TO STA. 1053+50

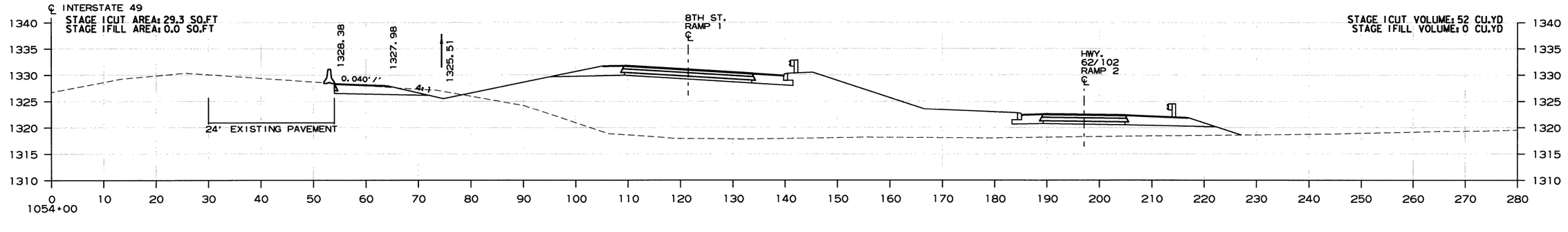
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	503	555
				(2)	CROSS SECTIONS - I-49 NBL			









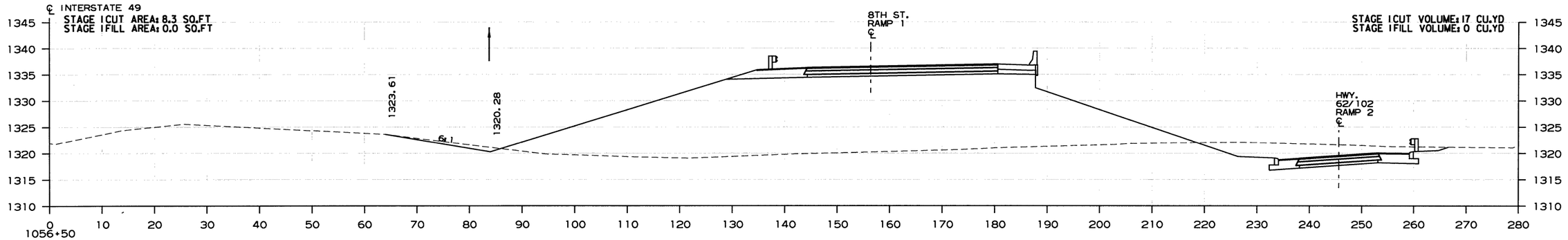
CROSS SECTION STA. 1054+00 TO STA. 1055+17

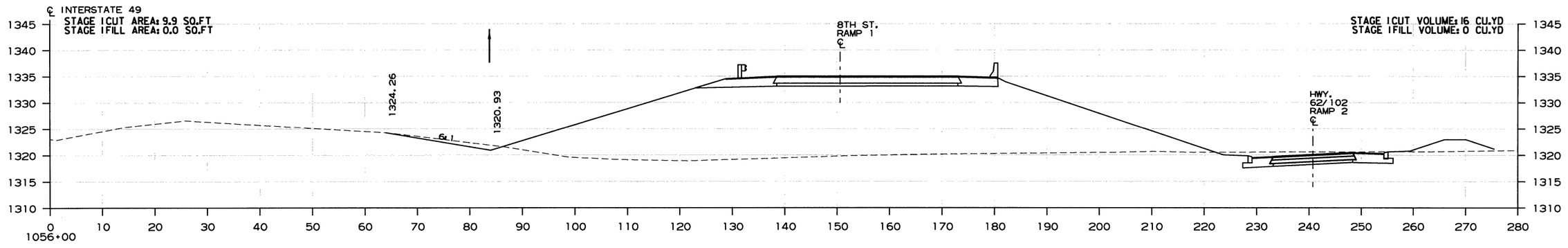
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

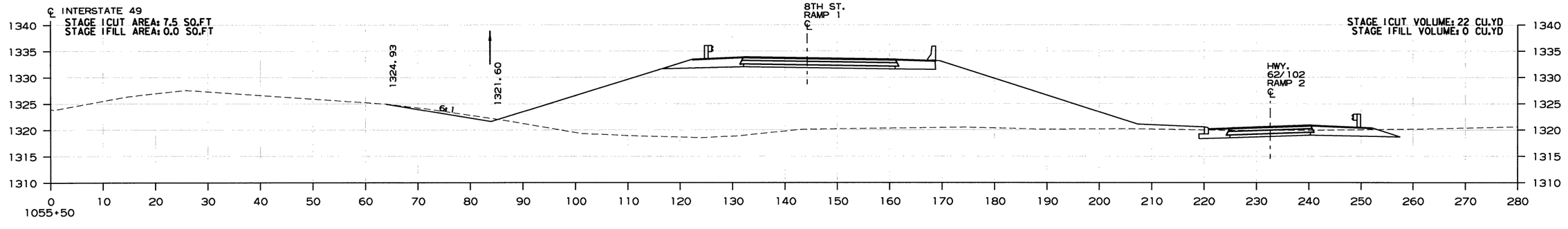
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		090376	504	555

(2) CROSS SECTIONS - I-49 NBL



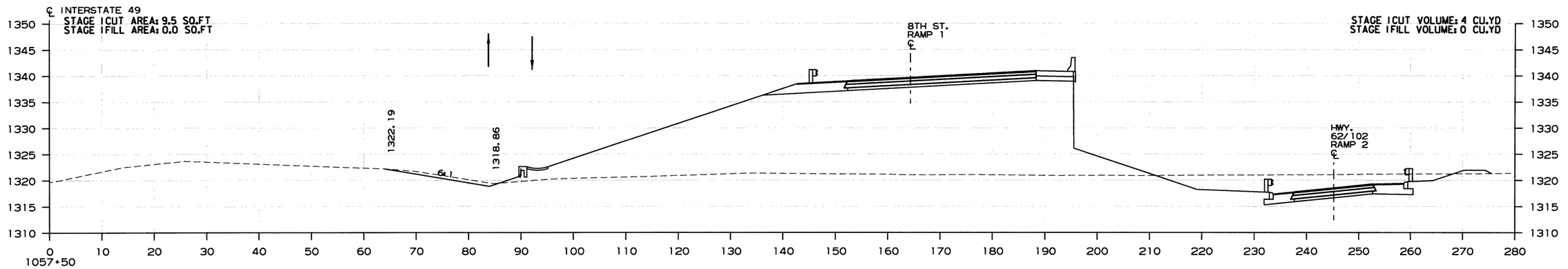


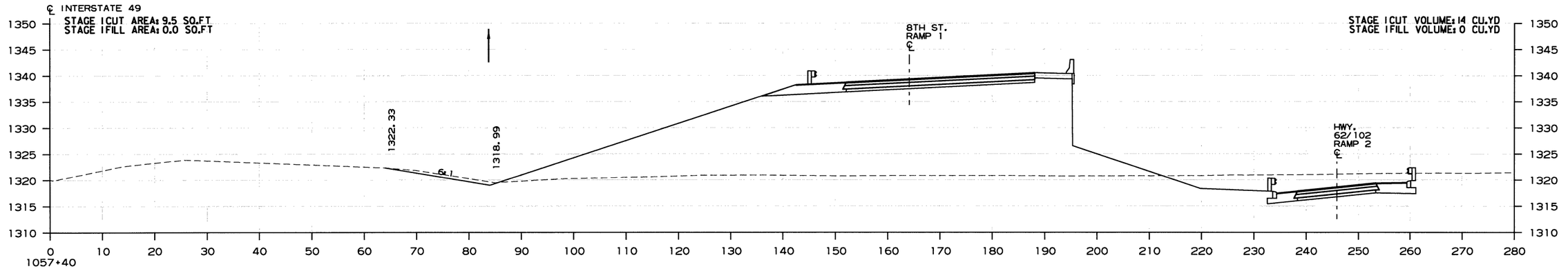


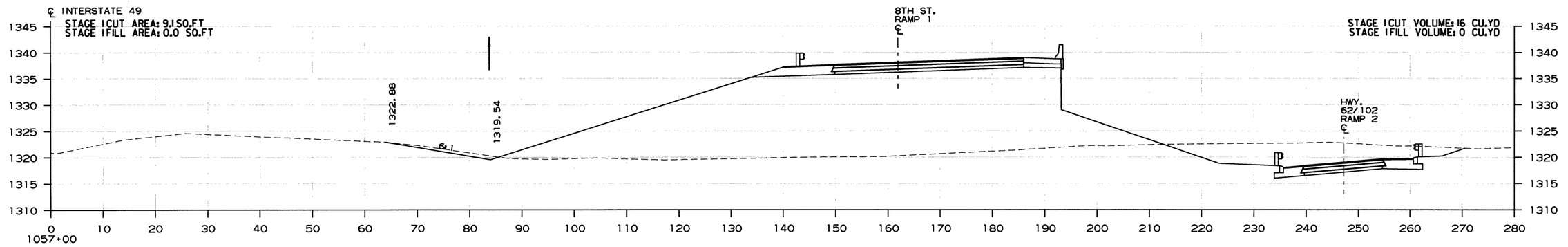
CROSS SECTION STA. 1055+50 TO STA. 1056+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	505	555
				(2)	CROSS SECTIONS - I-49 NBL			



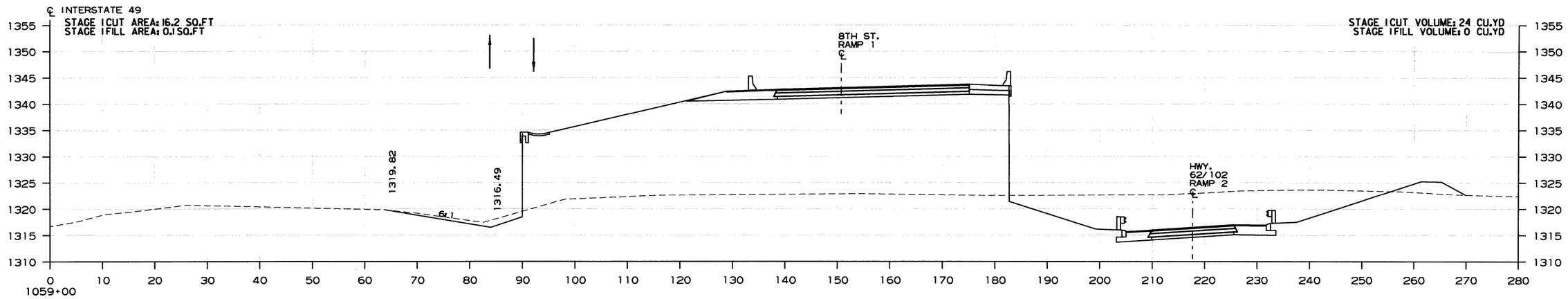


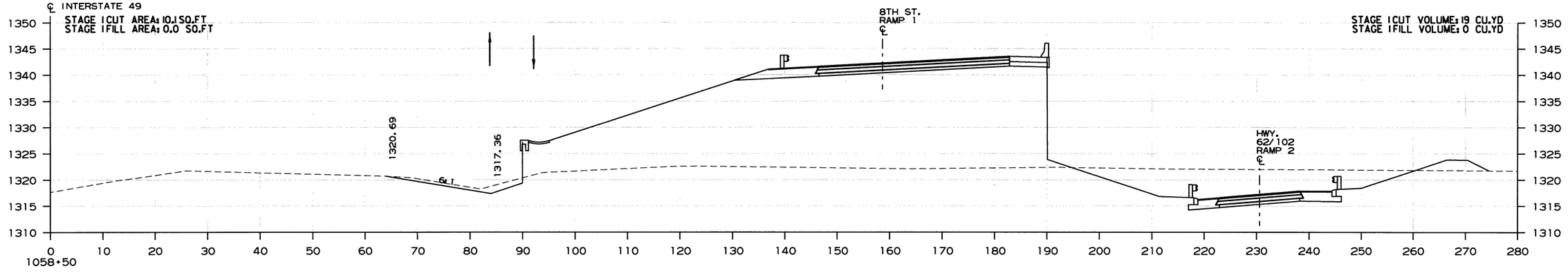


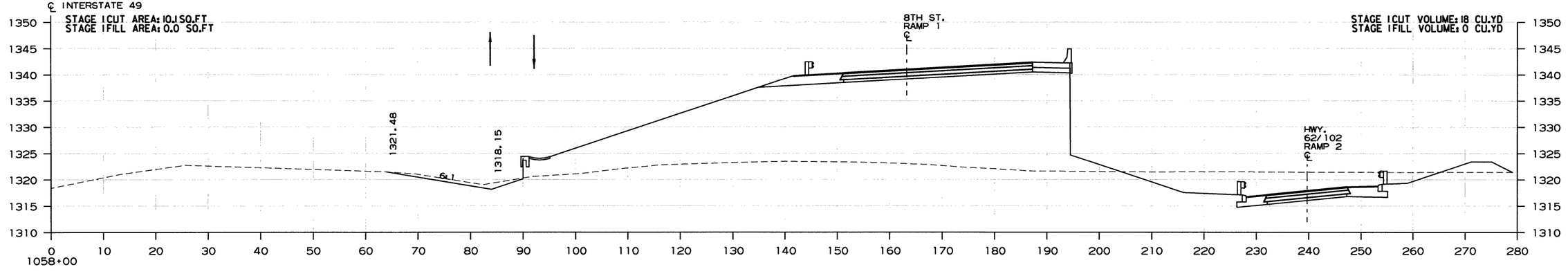
CROSS SECTION STA. 1057+00 TO STA. 1057+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	506	555
				(2)	CROSS SECTIONS - I-49 NBL			



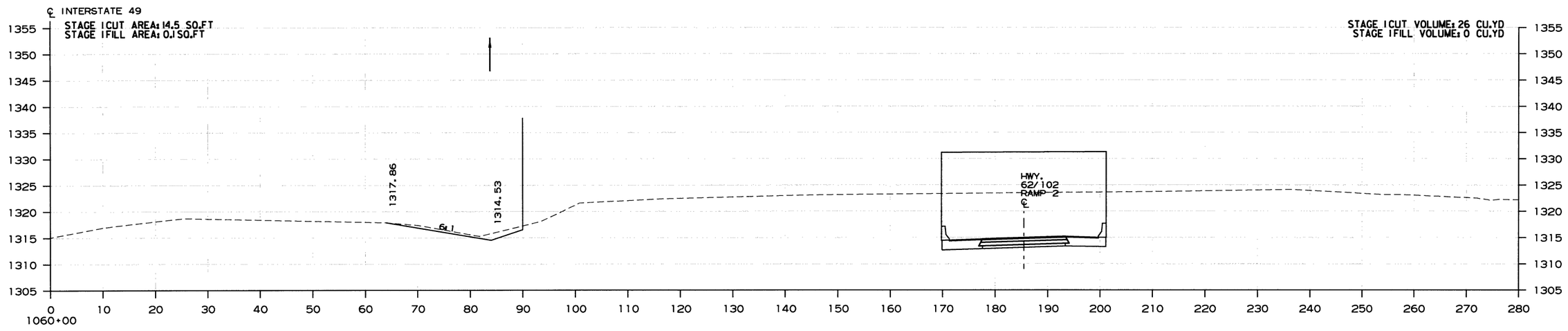




CROSS SECTION STA. 1058+00 TO STA. 1059+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

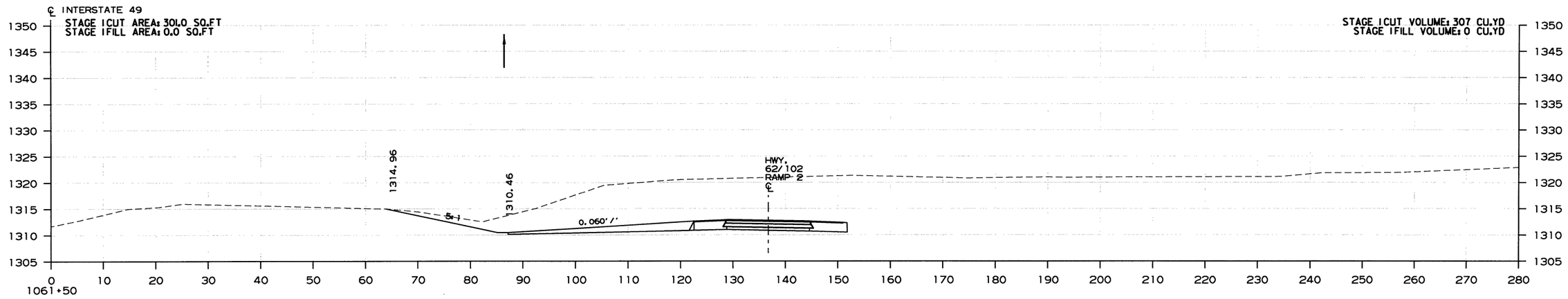
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	507	555
				(2)	CROSS SECTIONS - I-49 NBL			

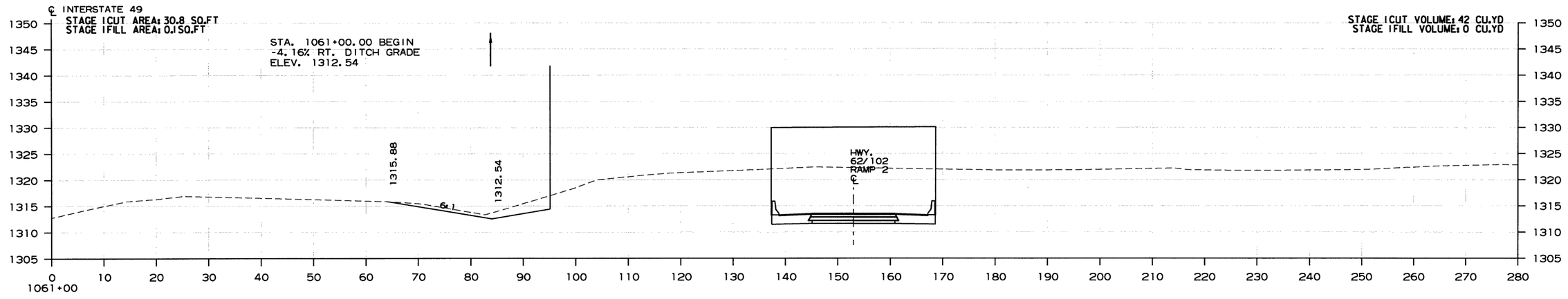


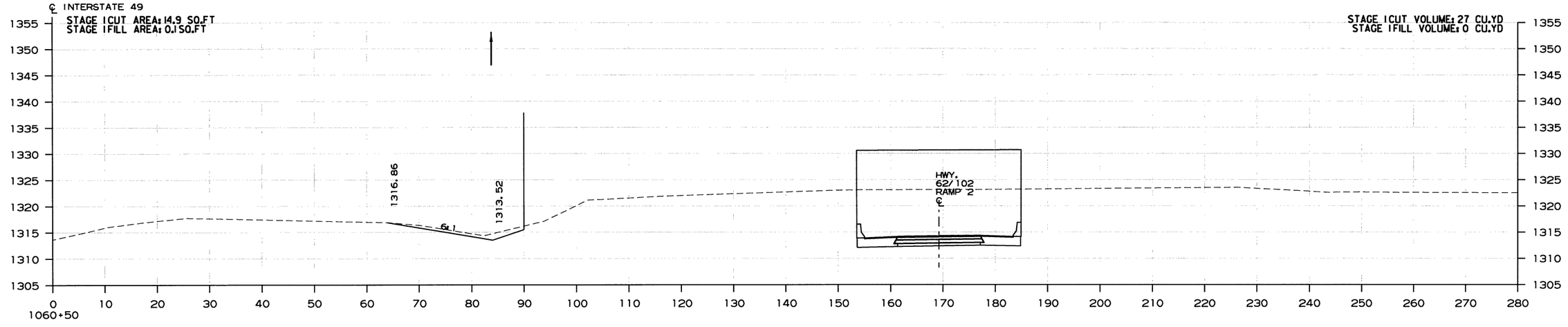
CROSS SECTION STA. 1059+50 TO STA. 1060+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	508	555
				(2)	CROSS SECTIONS - I-49 NBL			



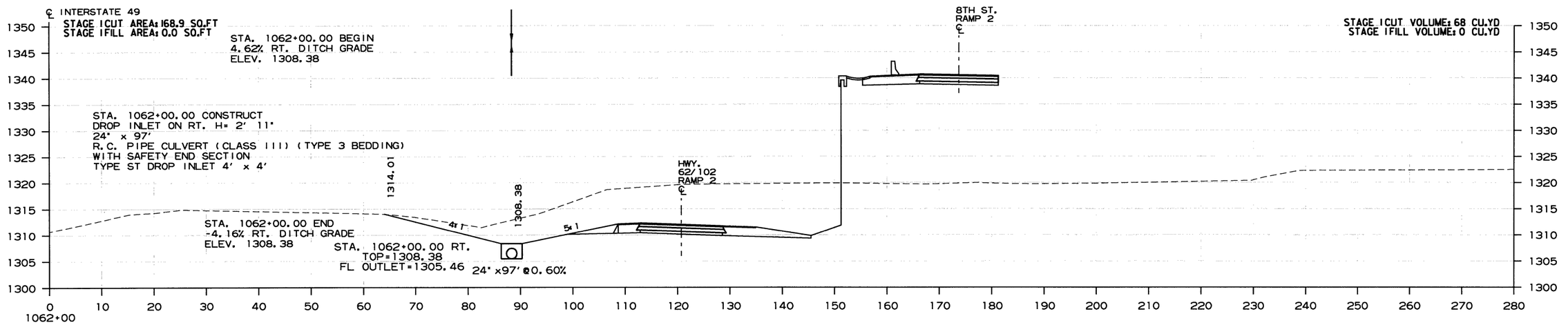


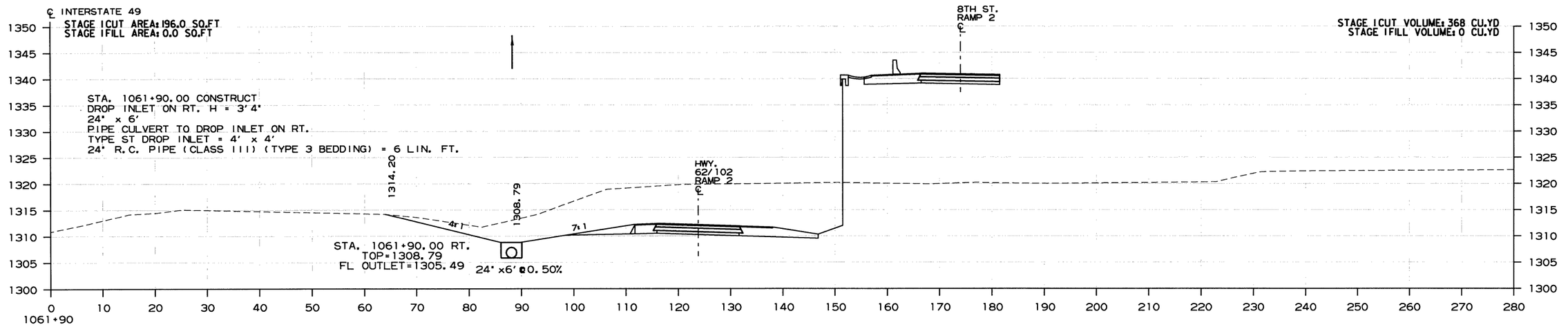


CROSS SECTION STA. 1060+50 TO STA. 1061+50

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	509	555
				(2)	CROSS SECTIONS - I-49 NBL			



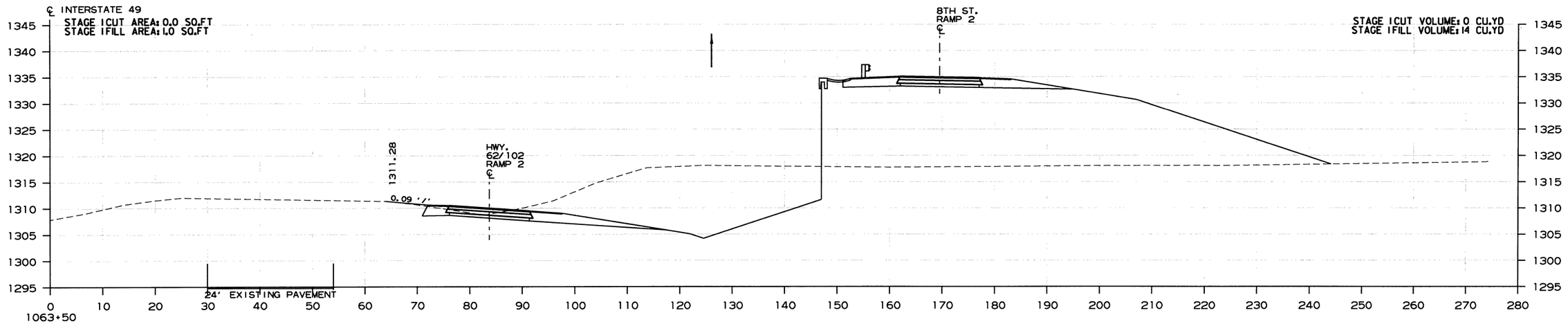


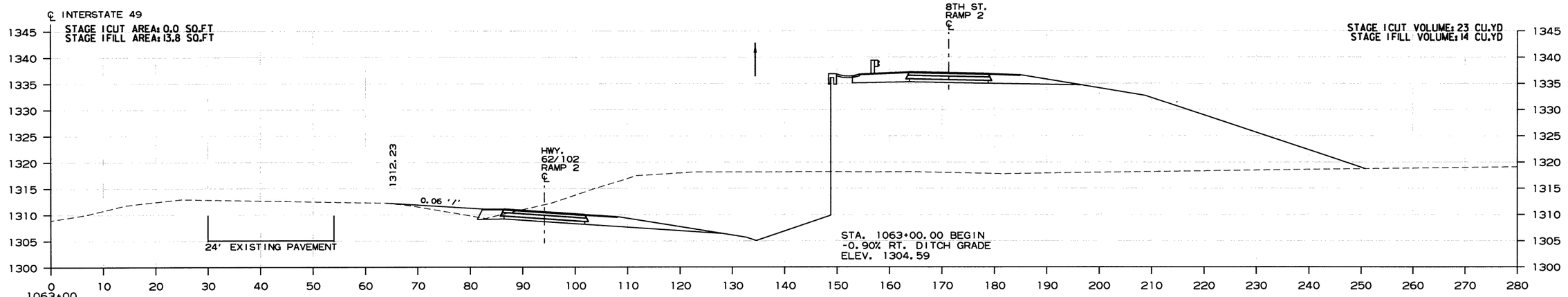
CROSS SECTION STA. 1061+90 TO STA. 1062+00

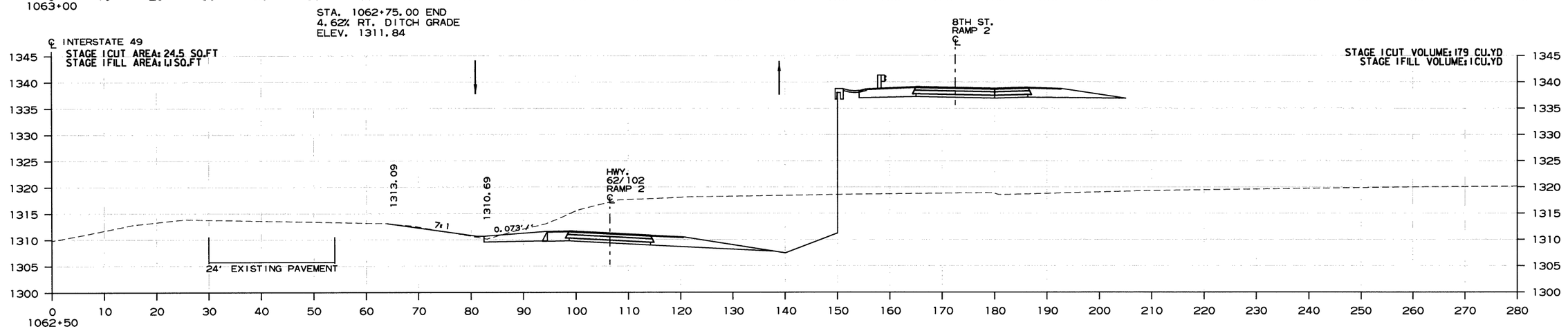
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	510	555

(2) CROSS SECTIONS - I-49 NBL



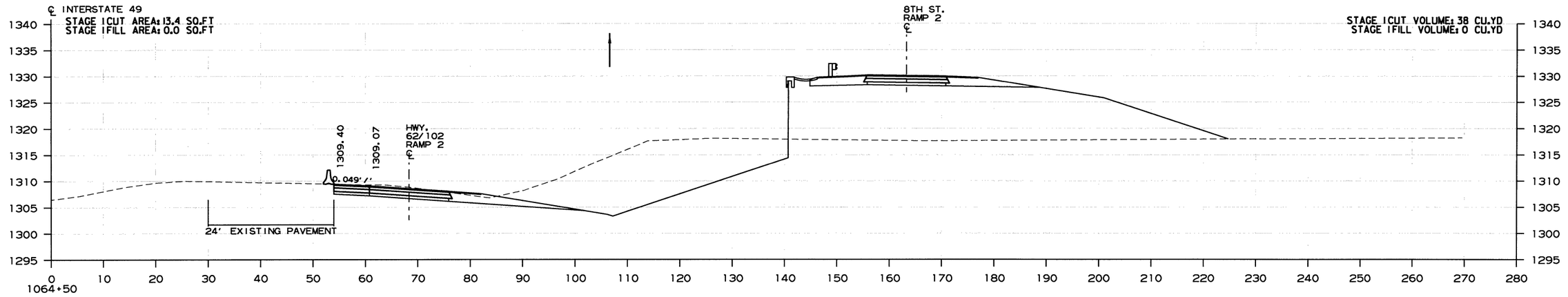


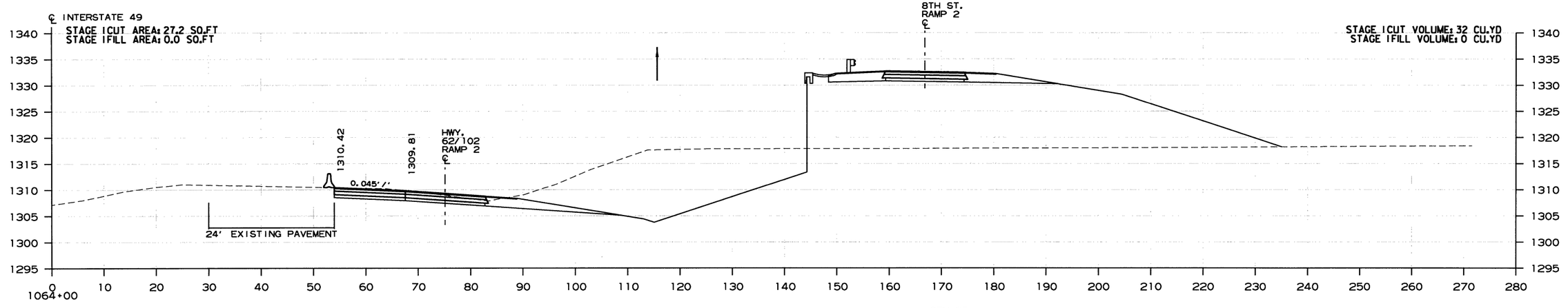


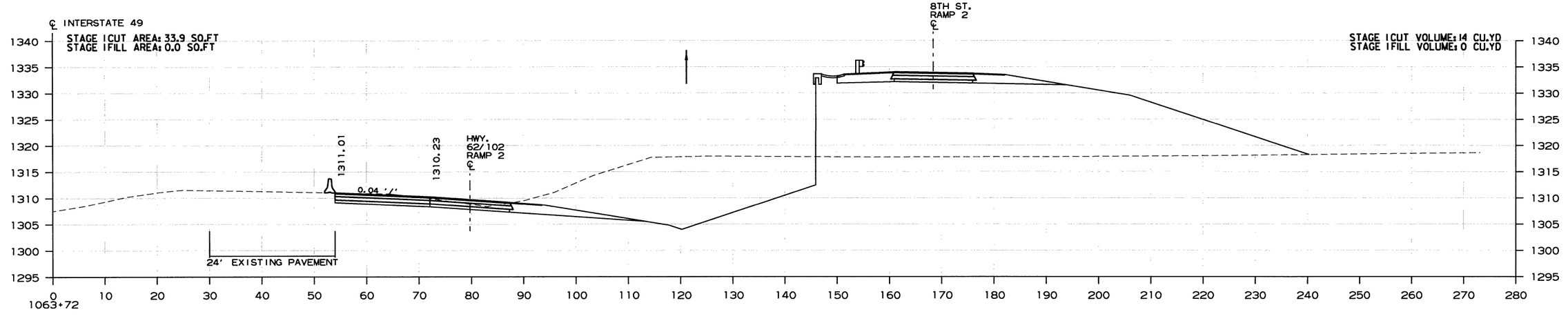
CROSS SECTION STA. 1062+50 TO STA. 1063+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	511	555
				(2)	CROSS SECTIONS - I-49 NBL			



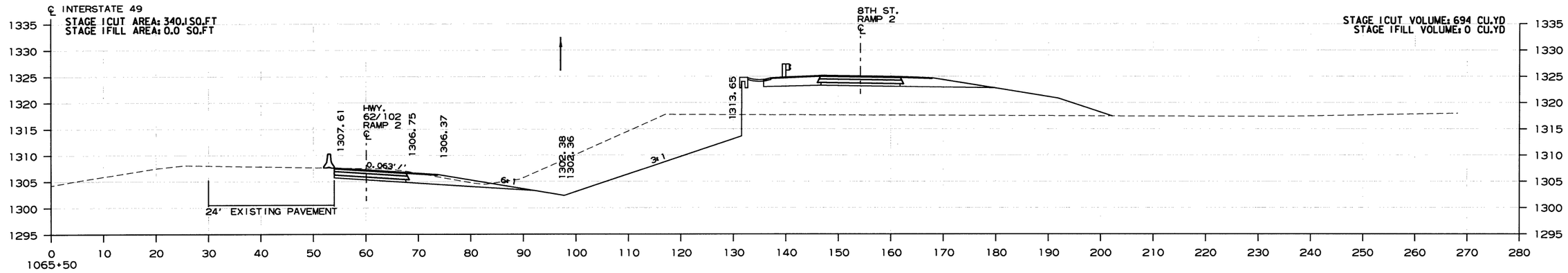


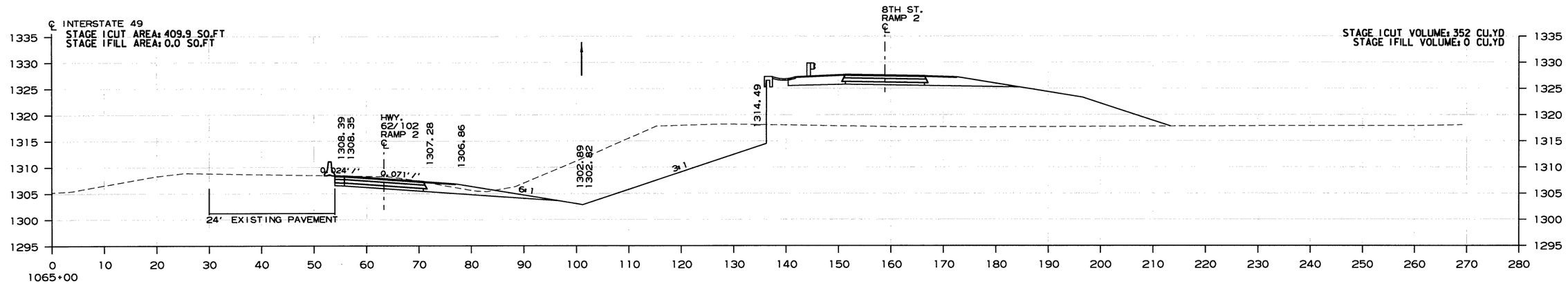


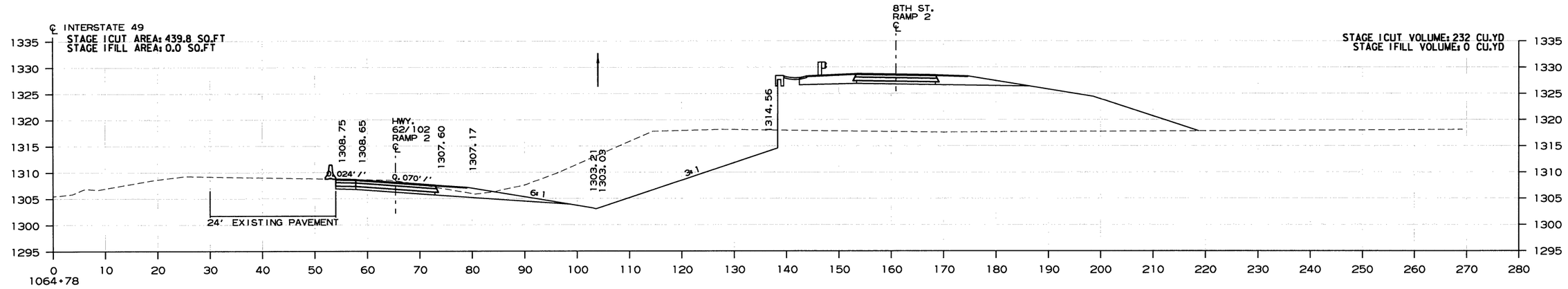
CROSS SECTION STA. 1063+72 TO STA. 1064+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	512	555
				(2)	CROSS SECTIONS - I-49 NBL			







CROSS SECTION STA. 1064+78 TO STA. 1065+50

INFORMATION ABOUT NEARBY ROADWAYS ARE
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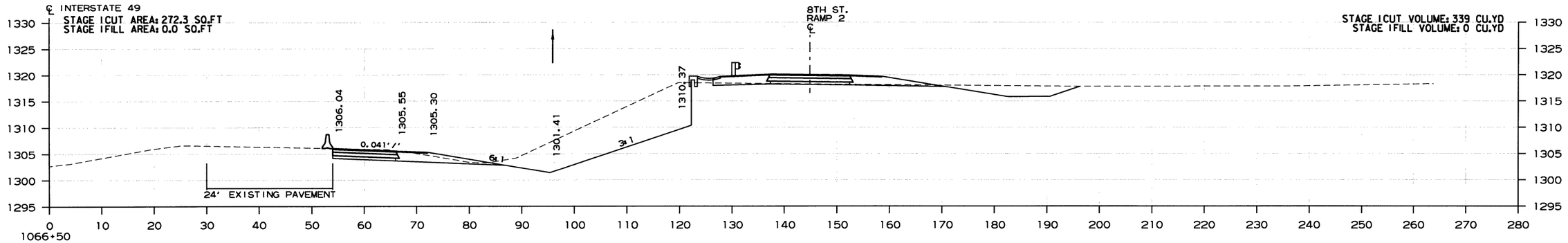
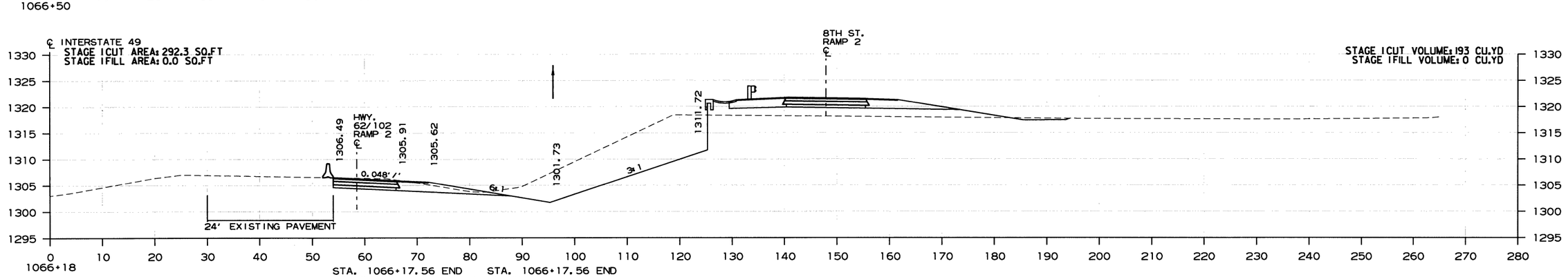
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	513	555
				(2)	CROSS SECTIONS - I-49 NBL			



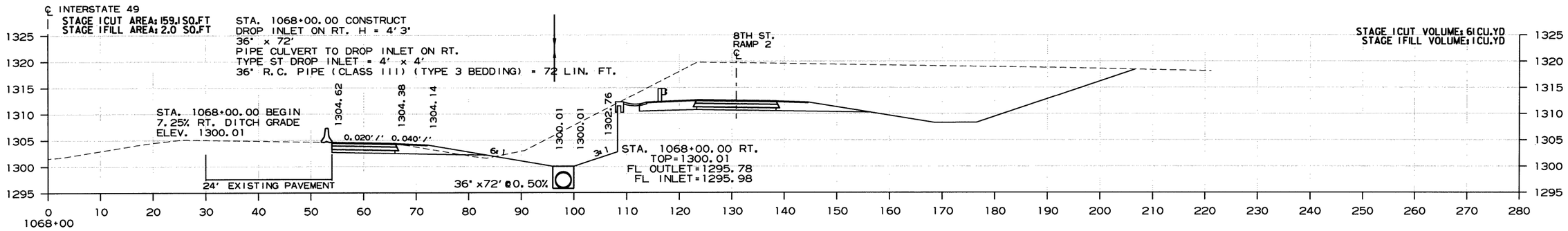


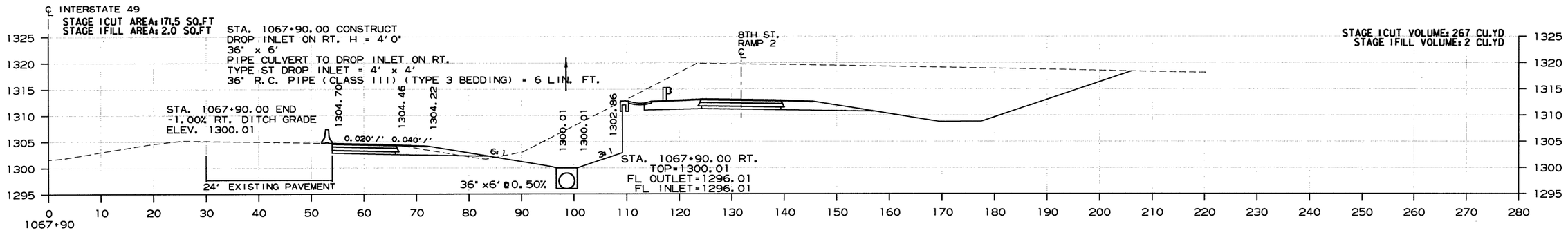
CROSS SECTION STA. 1066+00 TO STA. 1066+50

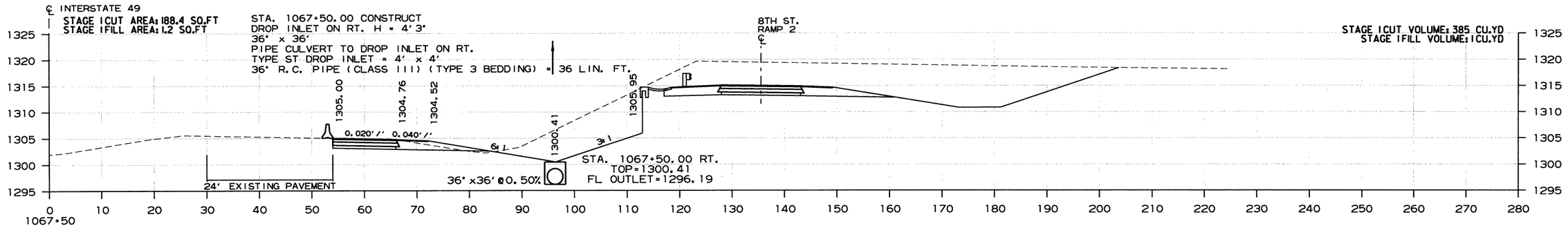
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

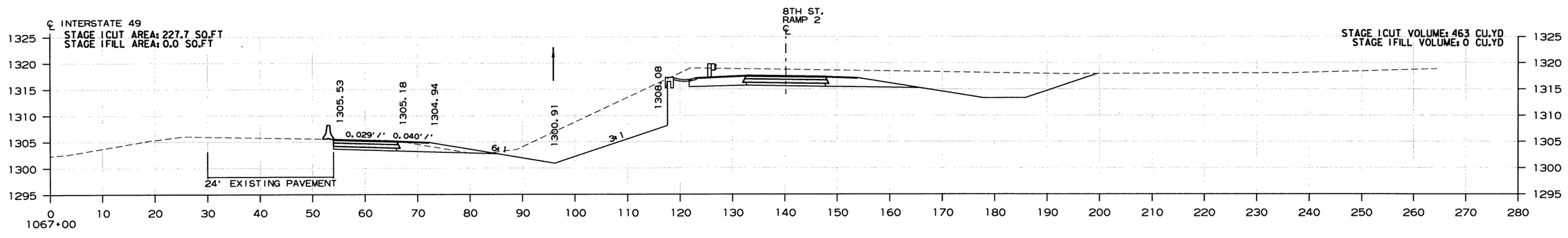
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	514	555

(2) CROSS SECTIONS - I-49 NBL









CROSS SECTION STA. 1067+00 TO STA. 1068+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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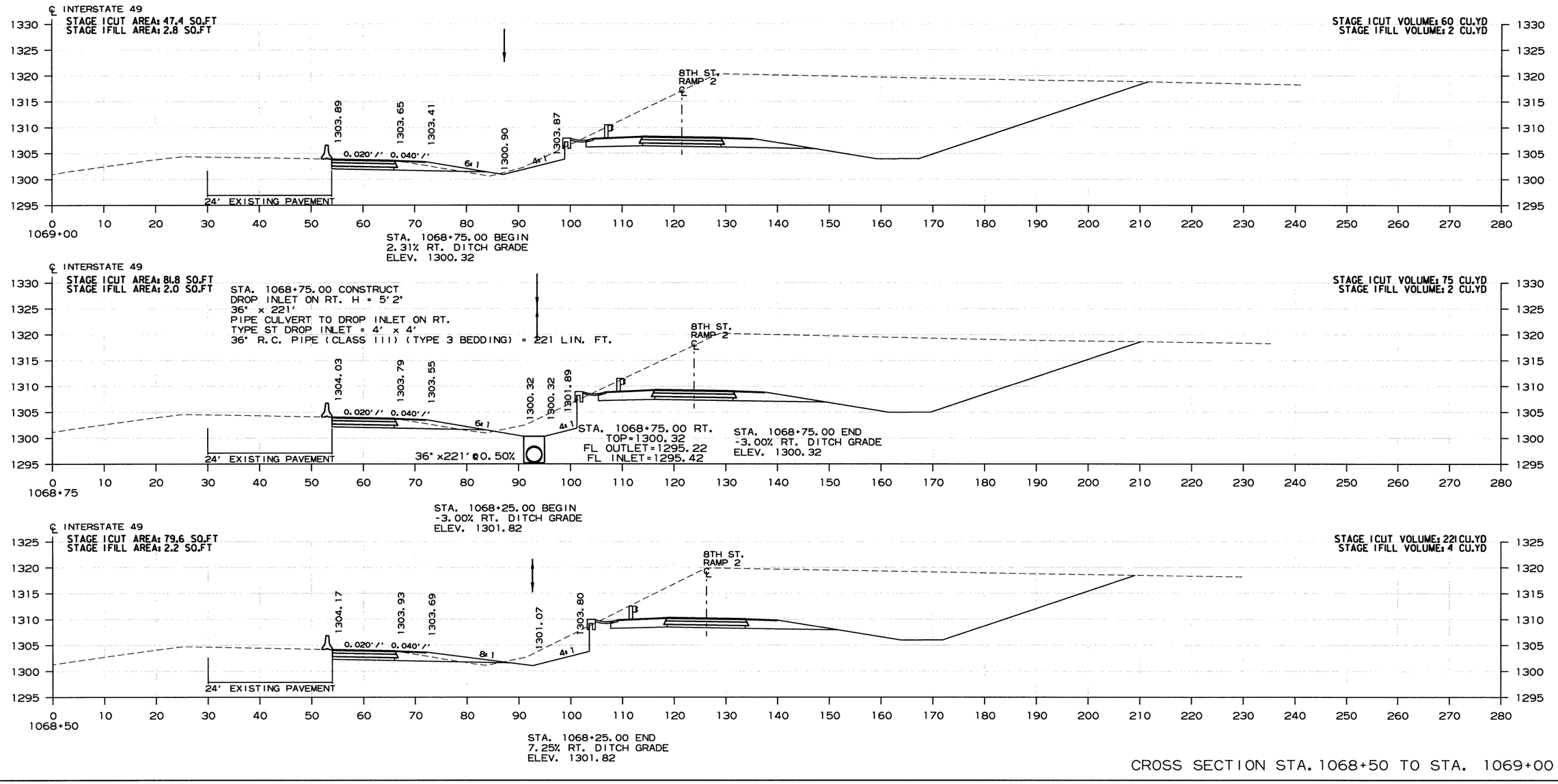
				JOB NO.		090376	515	555
				(2)	CROSS SECTIONS - I-49 NBL			



CROSS SECTION STA. 1068+50 TO STA. 1069+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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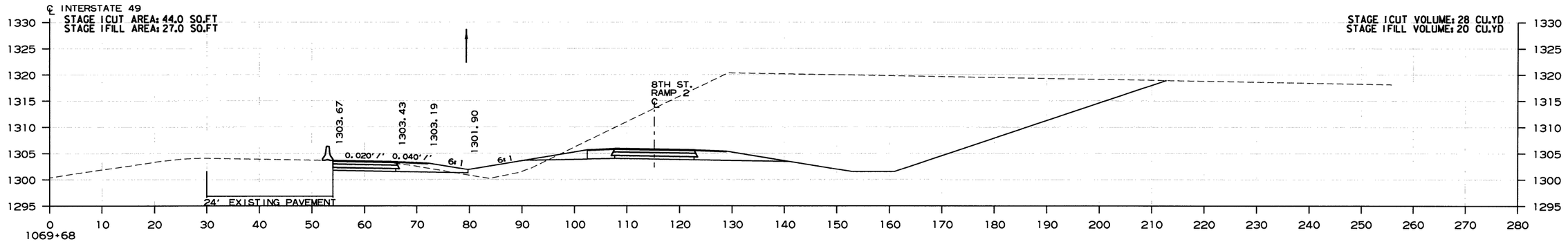
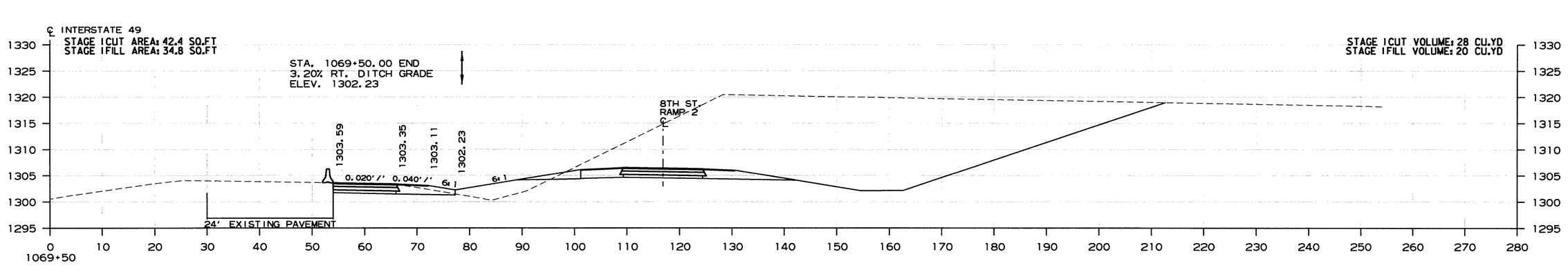
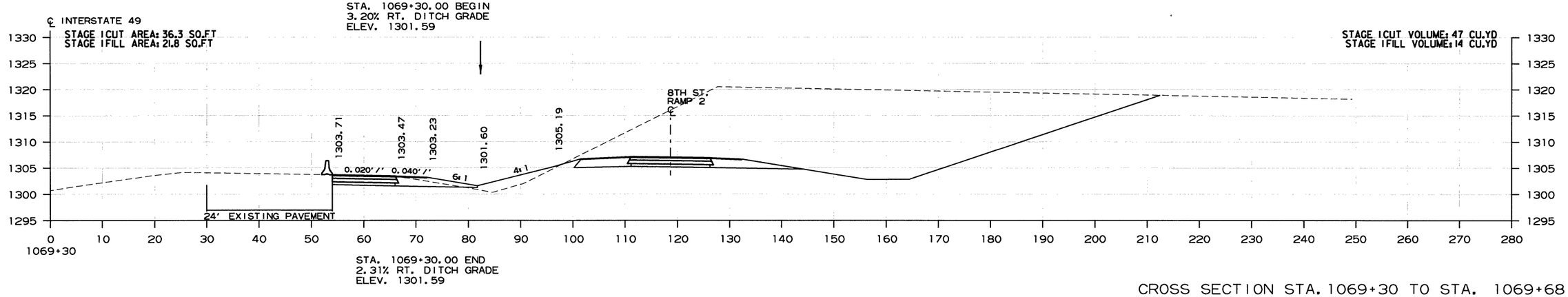
				JOB NO.		090376	516	555
				(2)	CROSS SECTIONS - I-49 NBL			



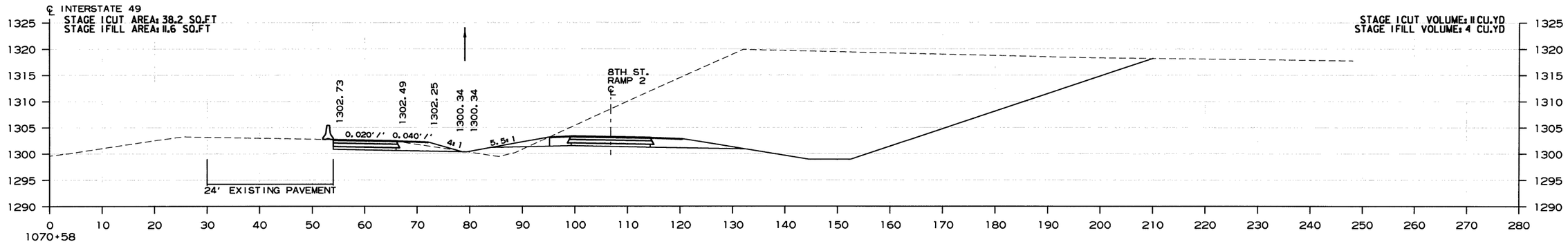


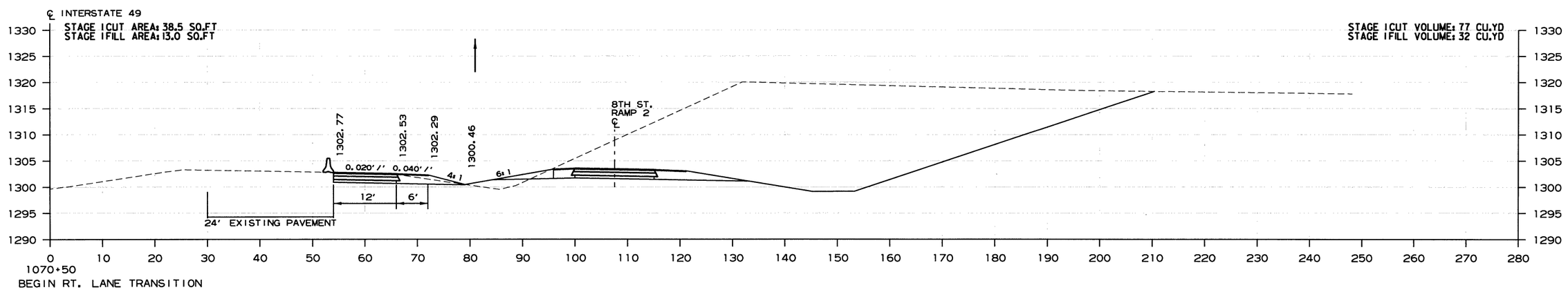


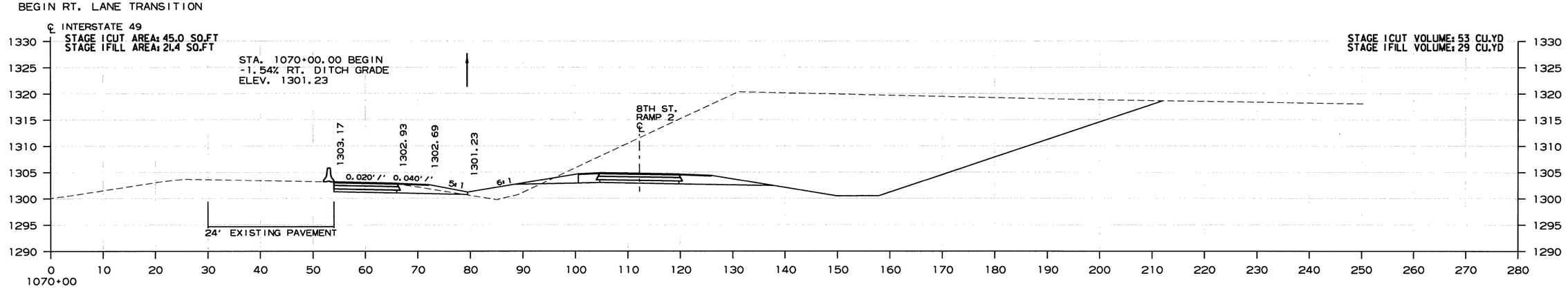
CROSS SECTION STA. 1069+30 TO STA. 1069+68

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	517	555
				(2)	CROSS SECTIONS - I-49 NBL			



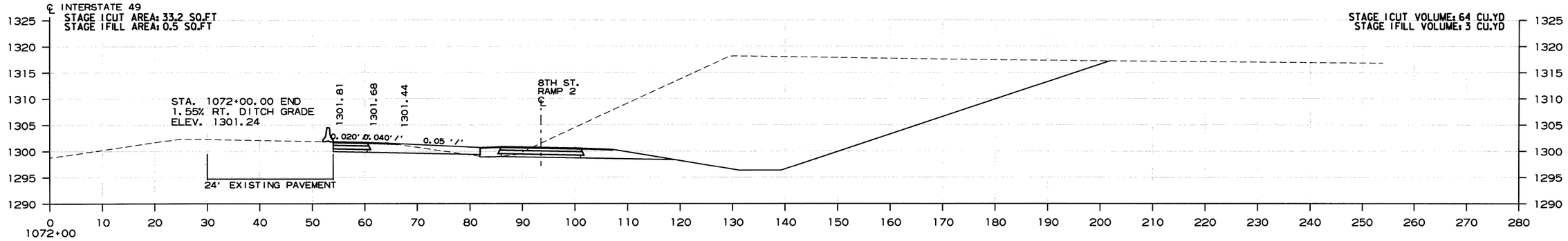


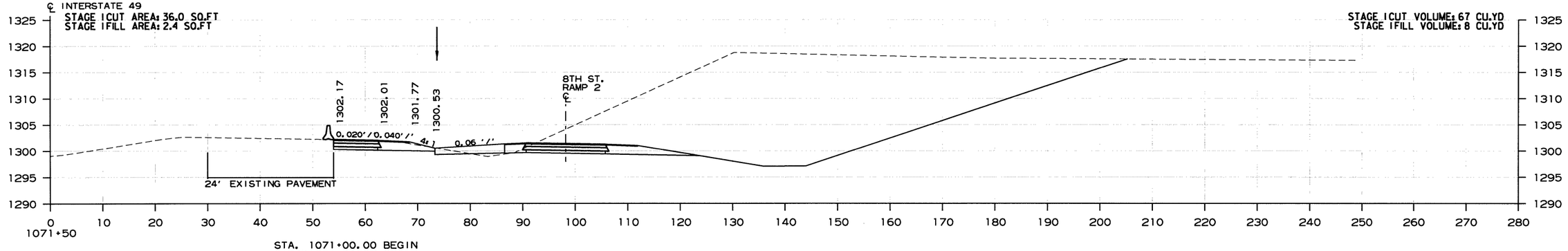


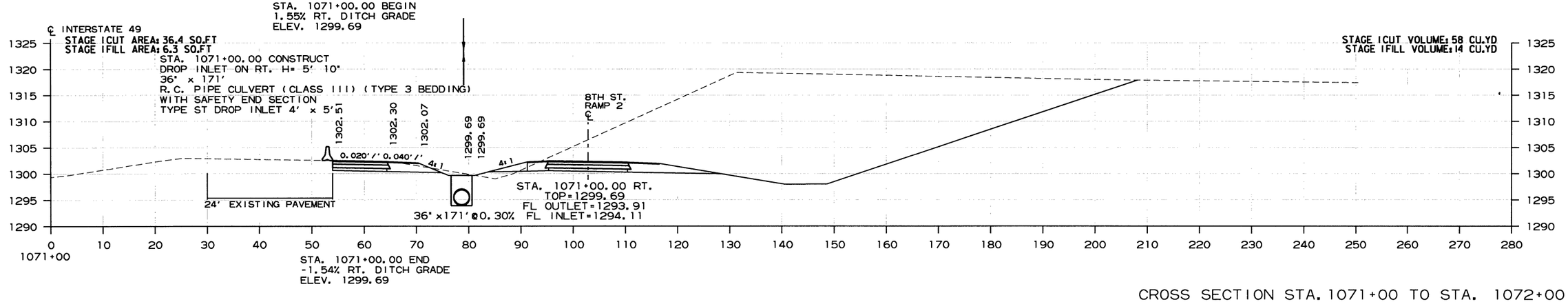
CROSS SECTION STA. 1070+00 TO STA. 1070+58

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	518	555
				(2)	CROSS SECTIONS - I-49 NBL			







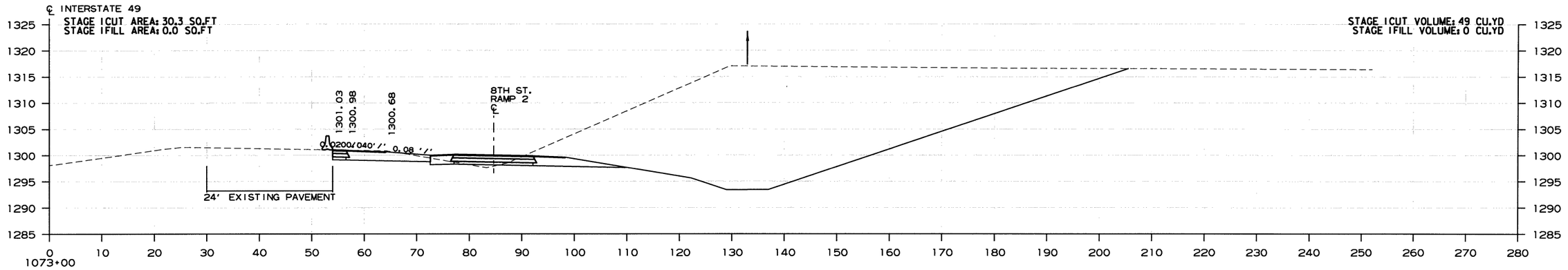
CROSS SECTION STA. 1071+00 TO STA. 1072+00

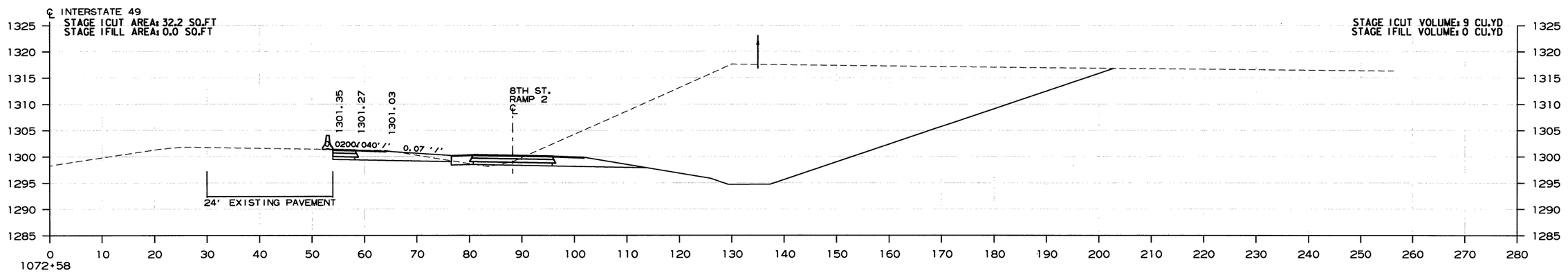
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

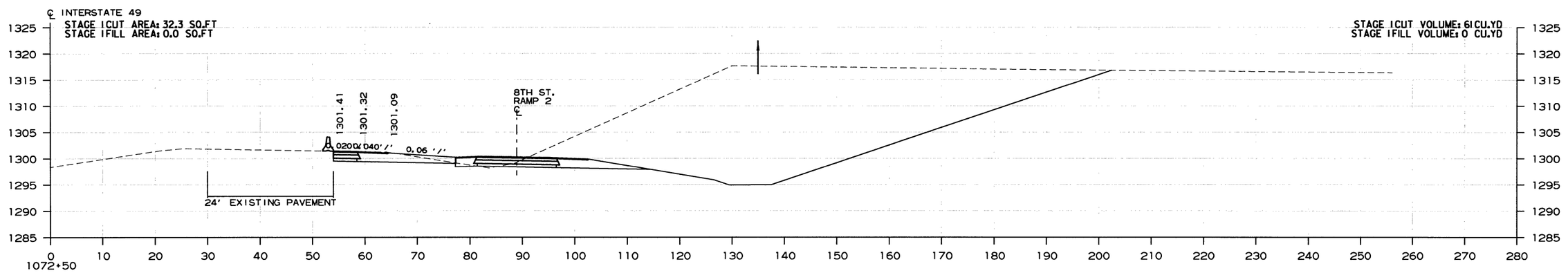
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		090376	519	555

(2) CROSS SECTIONS - I-49 NBL



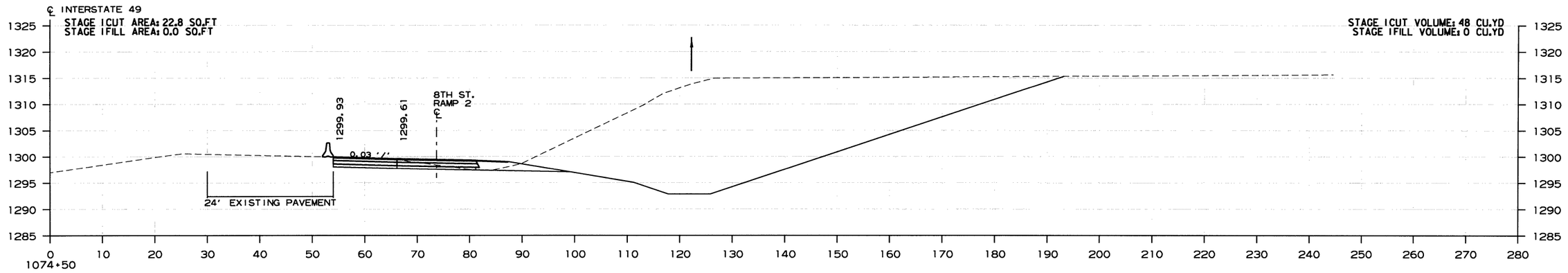


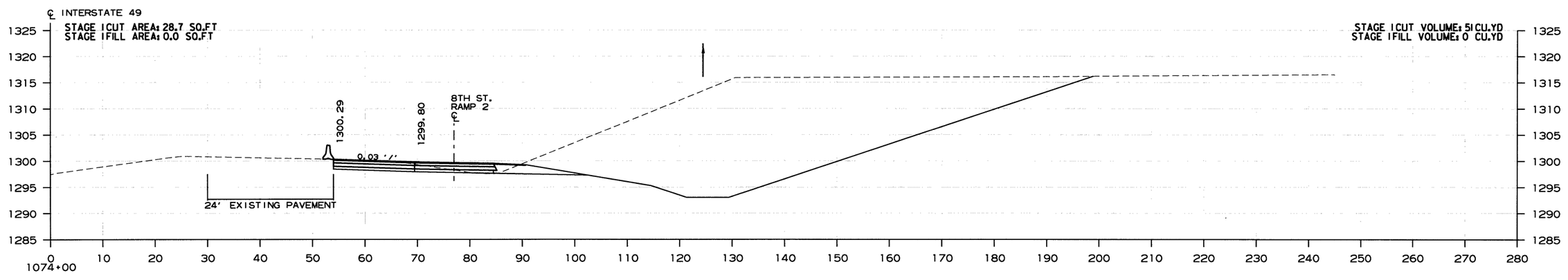


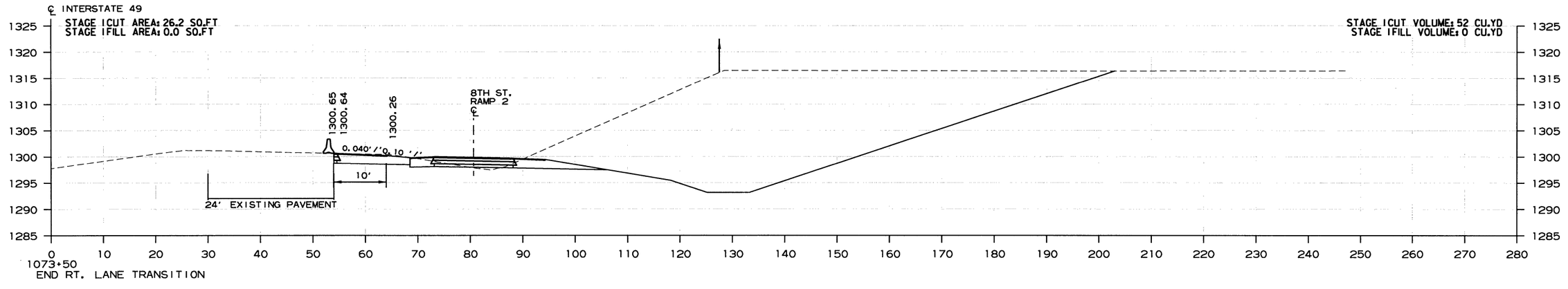
CROSS SECTION STA. 1072+50 TO STA. 1073+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	520	555
				(2)	CROSS SECTIONS - I-49 NBL			



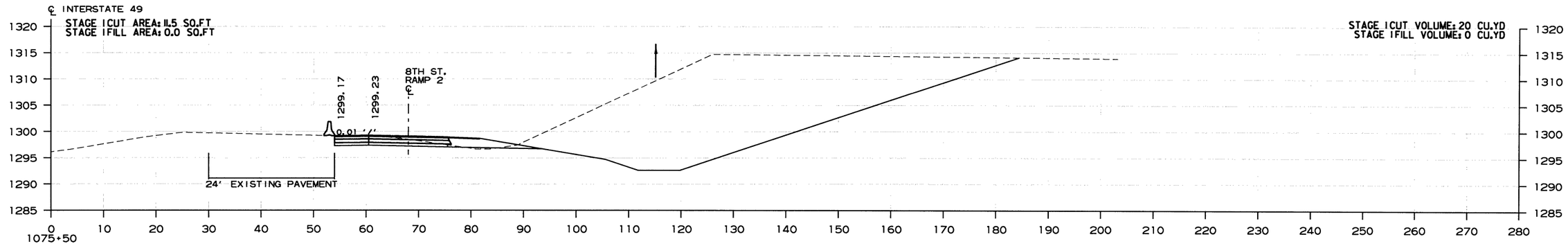


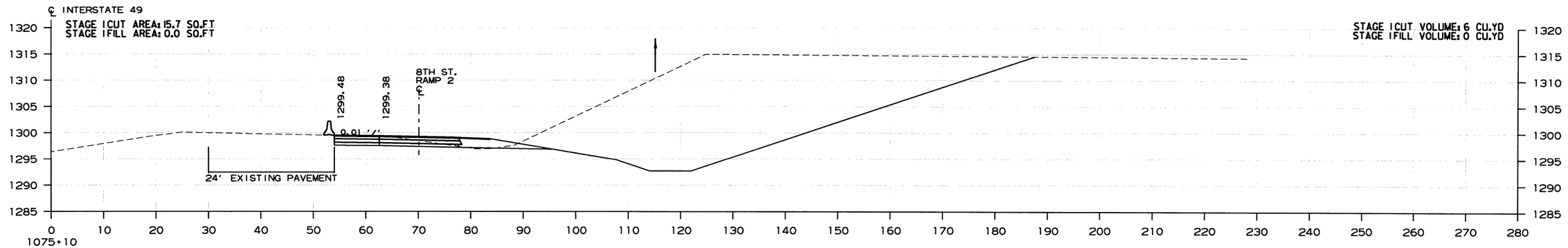


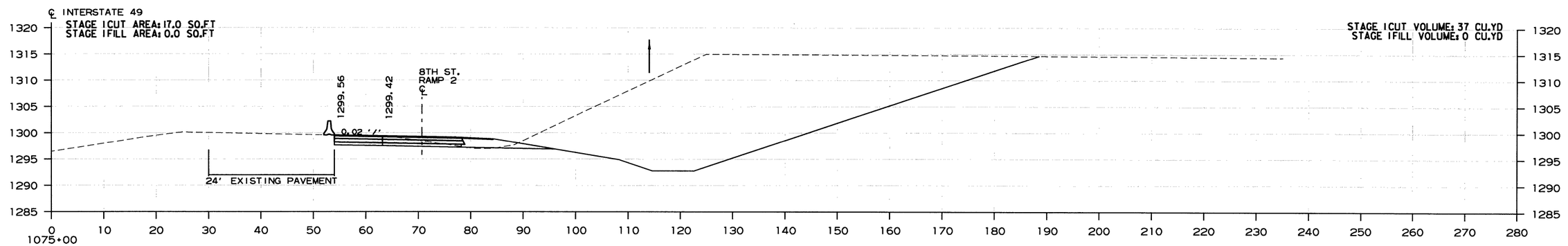
CROSS SECTION STA. 1073+50 TO STA. 1074+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	521	555
				(2)	CROSS SECTIONS - I-49 NBL			



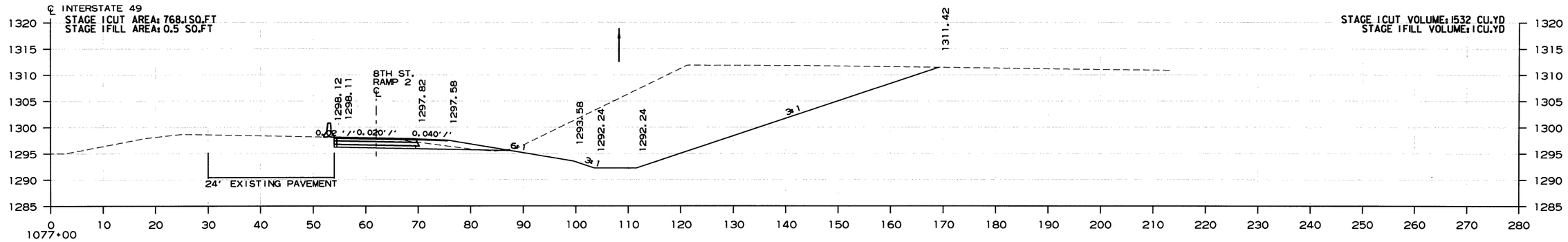


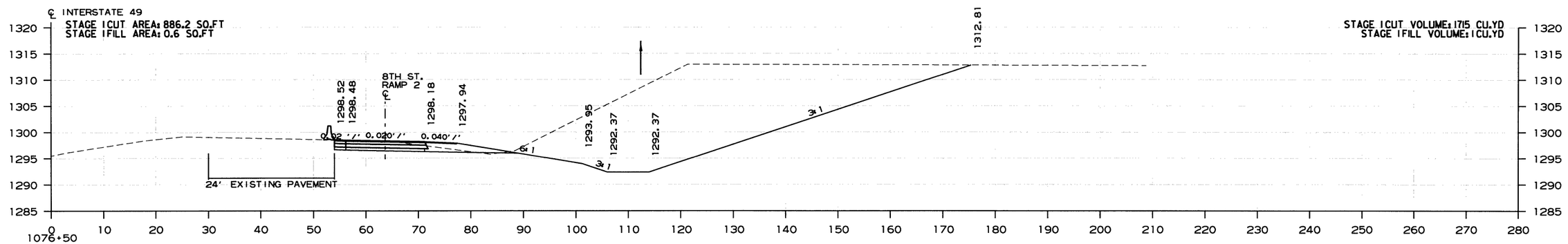


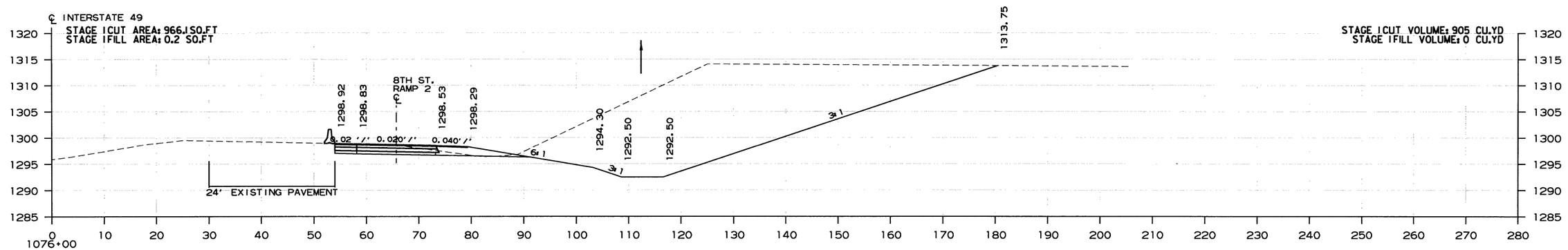
CROSS SECTION STA. 1075+00 TO STA. 1075+50

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	522	555
				(2)	CROSS SECTIONS - I-49 NBL			







CROSS SECTION STA. 1076+00 TO STA. 1077+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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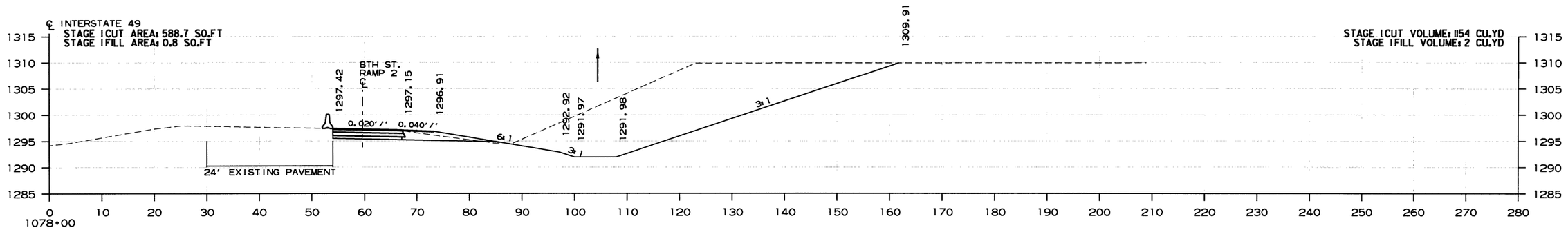
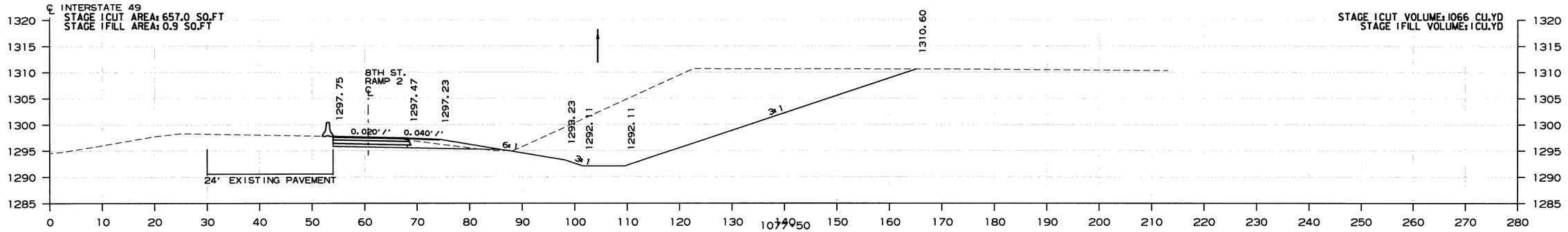
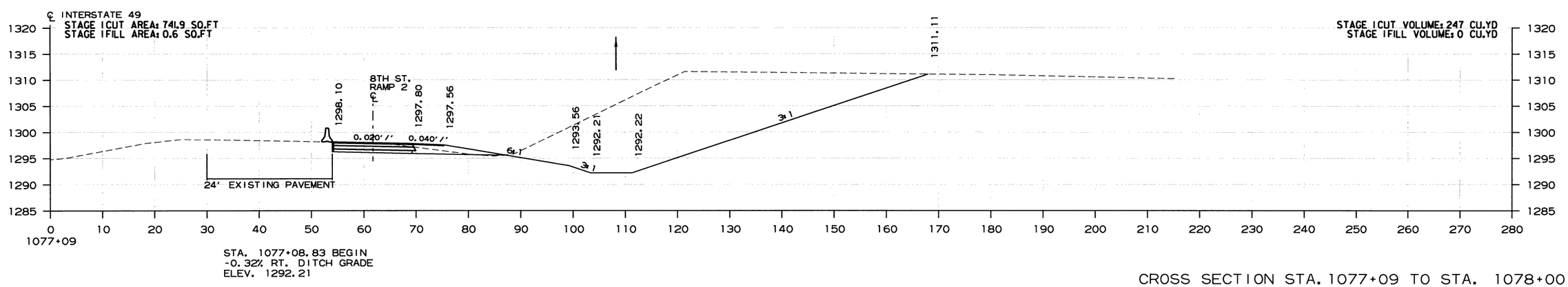
				JOB NO.		090376	523	555
				(2)	CROSS SECTIONS - I-49 NBL			



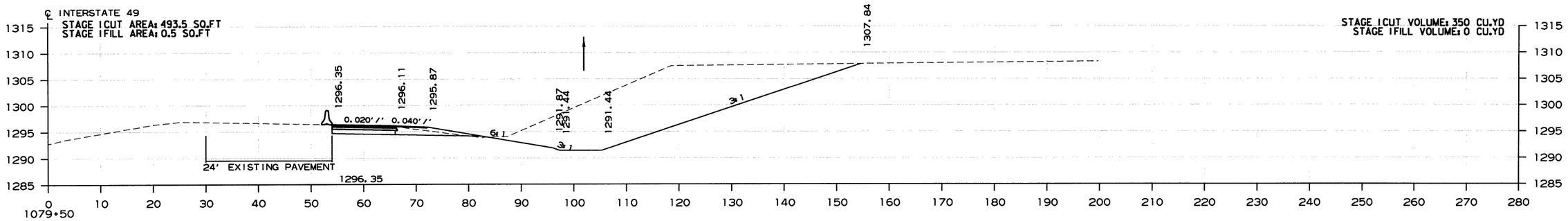


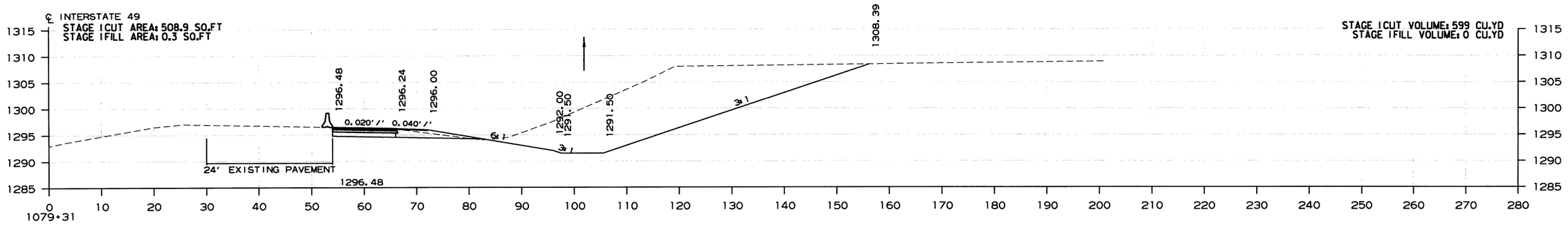


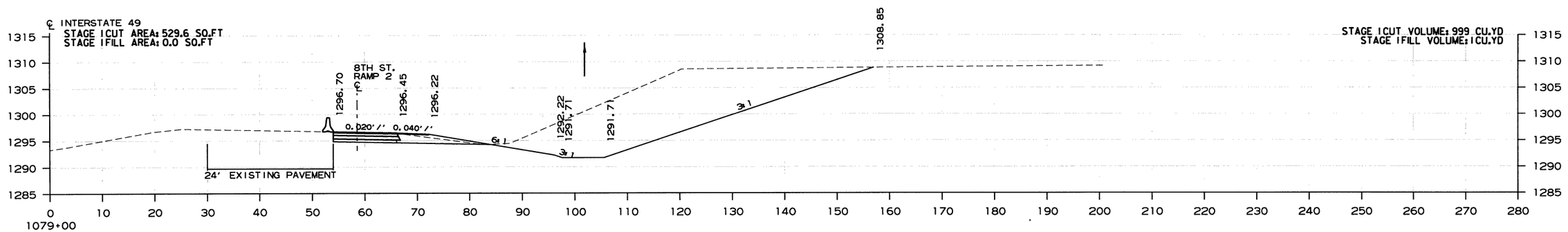
CROSS SECTION STA. 1077+09 TO STA. 1078+00

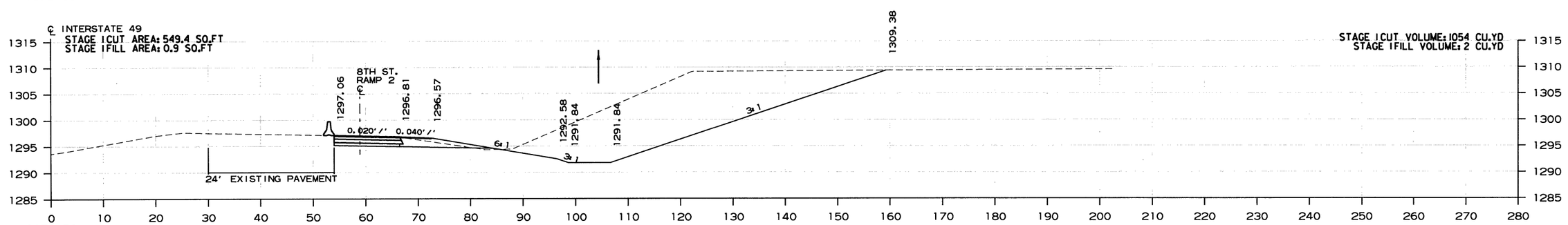
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	524	555
				(2)	CROSS SECTIONS - I-49 NBL			





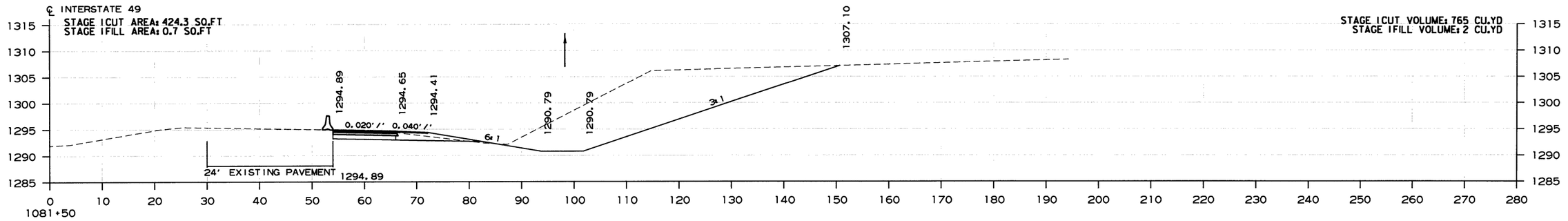


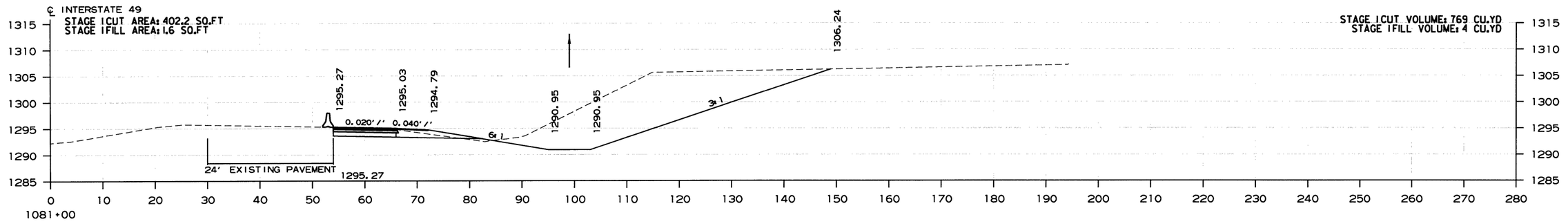


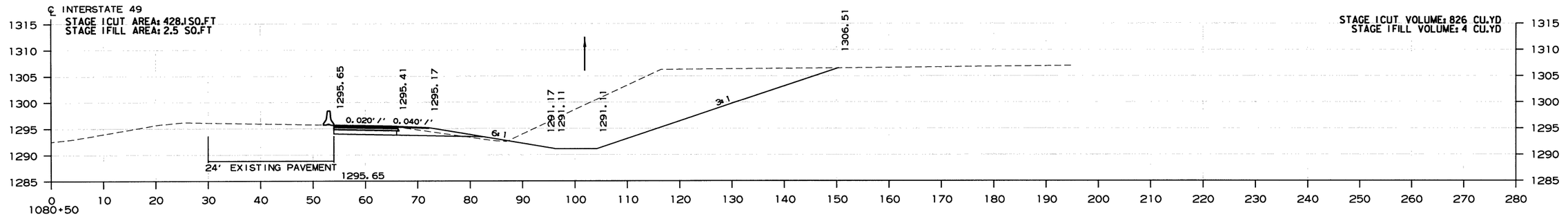
CROSS SECTION STA. 1078+50 TO STA. 1079+50

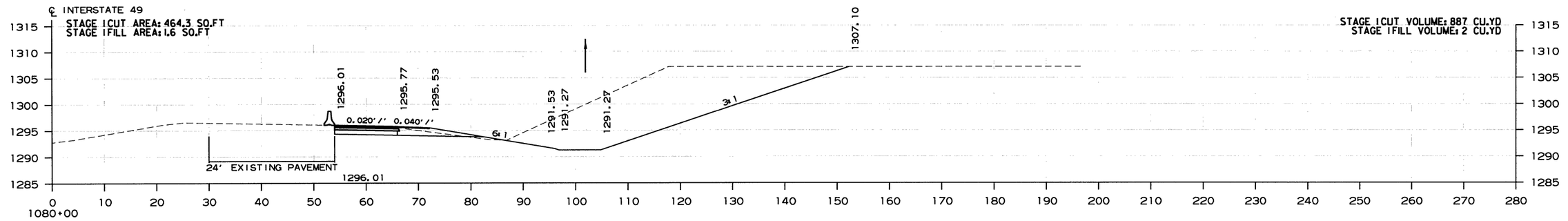
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	525	555
				(2)	CROSS SECTIONS - I-49 NBL			





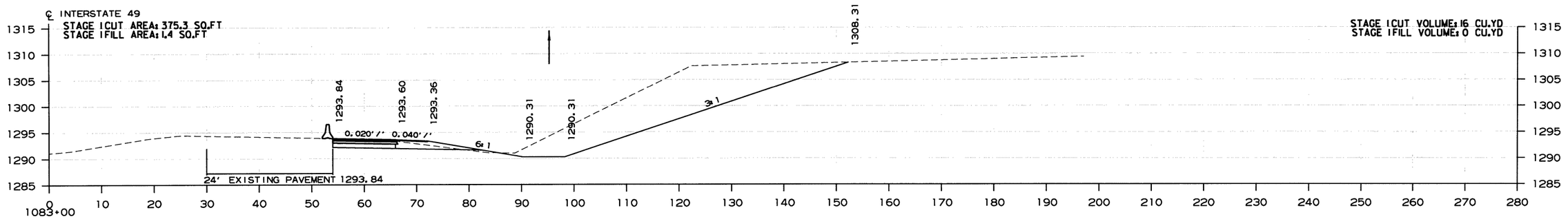


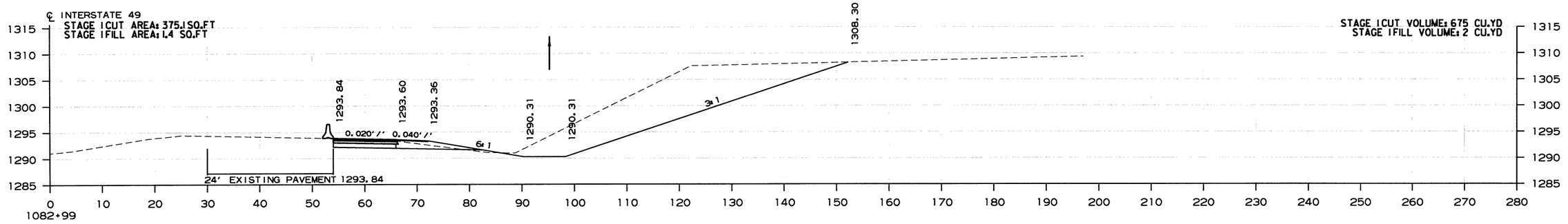


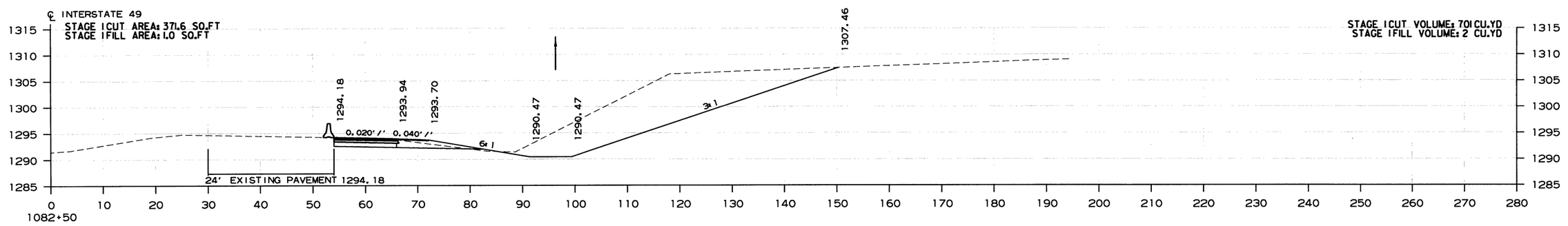
CROSS SECTION STA. 1080+00 TO STA. 1081+50

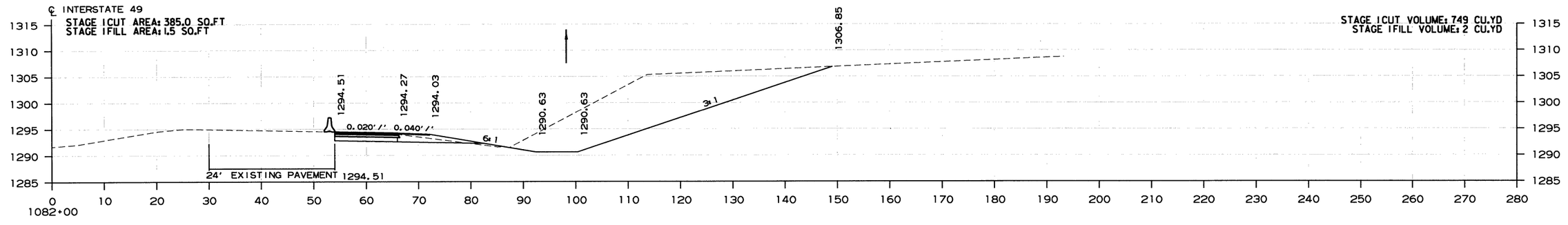
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	526	555
				(2)	CROSS SECTIONS - I-49 NBL			





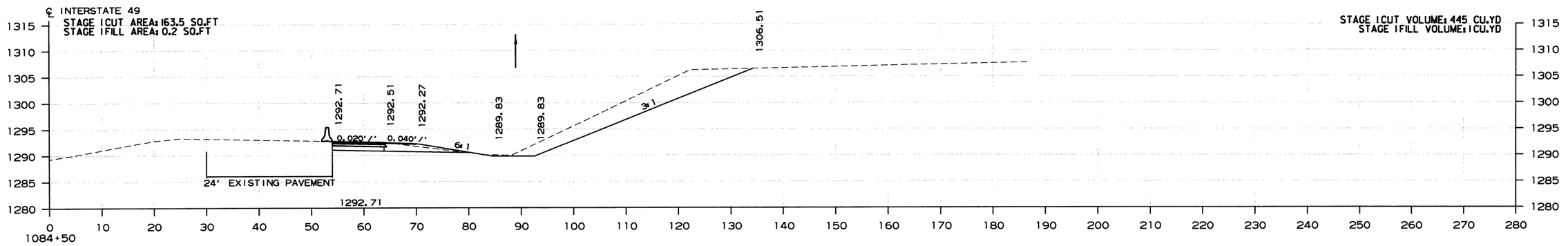


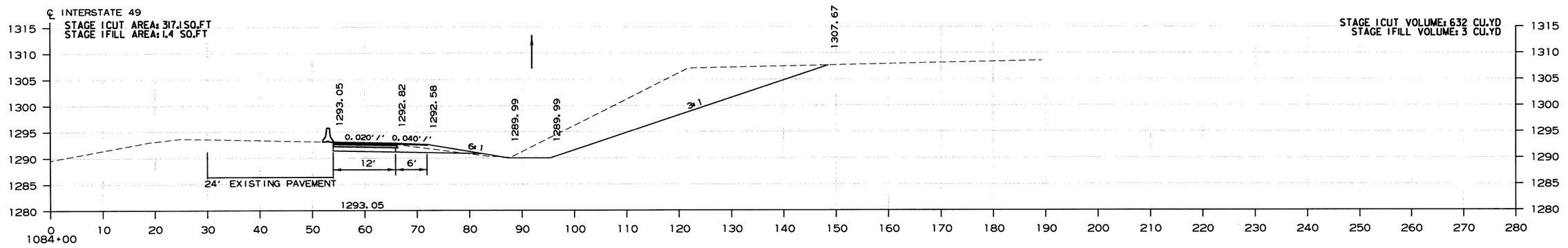


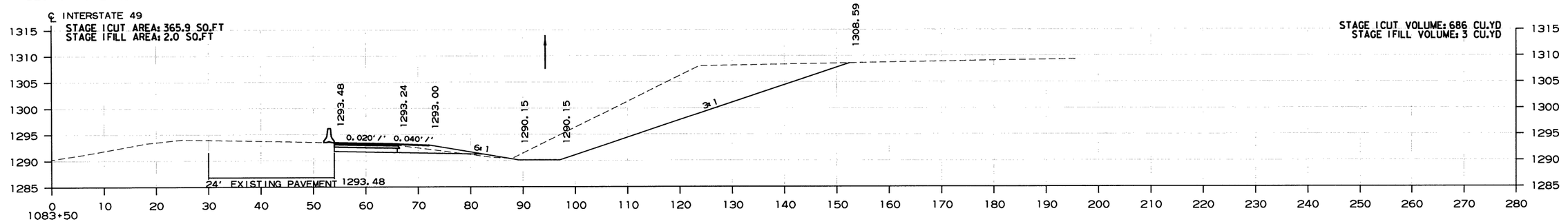
CROSS SECTION STA. 1082+00 TO STA. 1083+00

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	527	555
				(2)	CROSS SECTIONS - I-49 NBL			



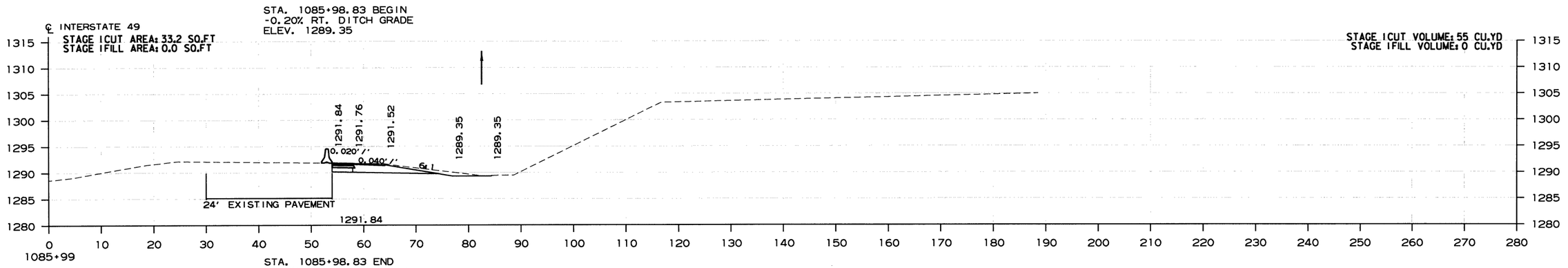


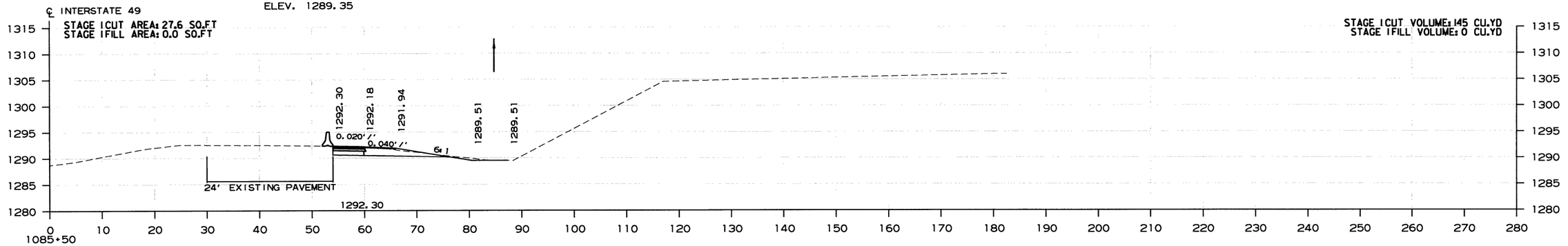


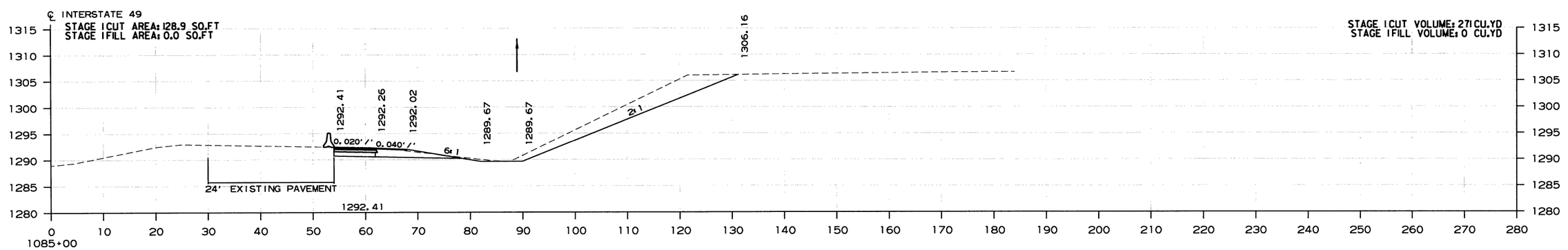
CROSS SECTION STA. 1083+50 TO STA. 1084+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	528	555
				(2)	CROSS SECTIONS - I-49 NBL			



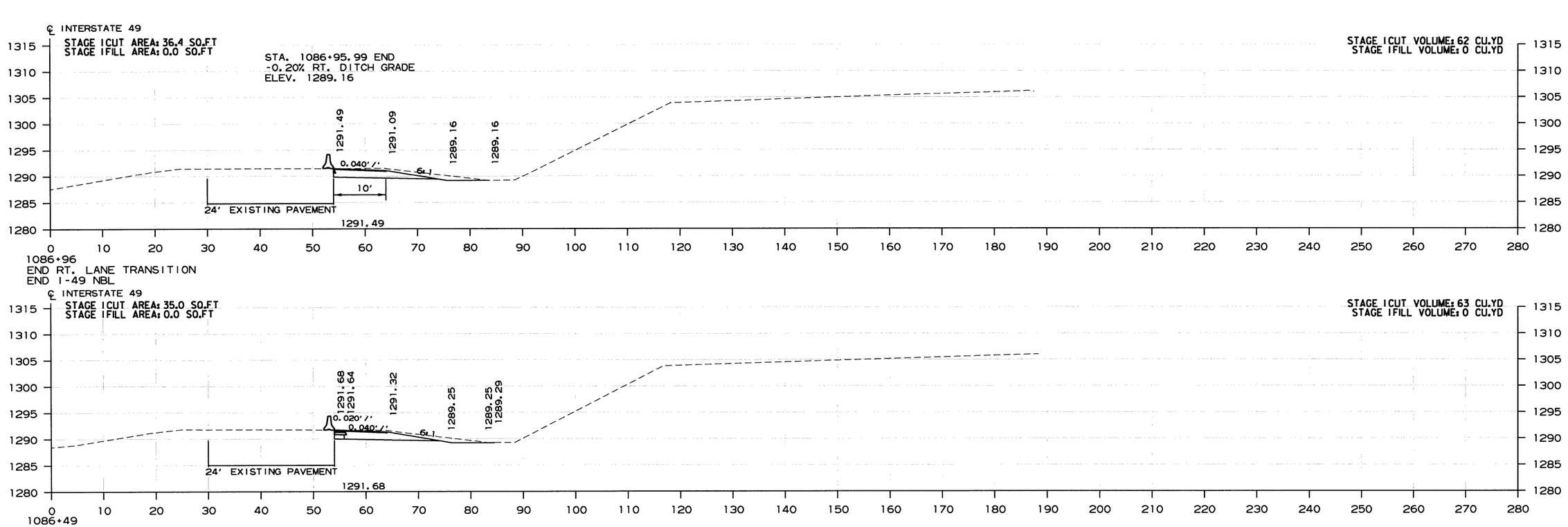




CROSS SECTION STA. 1085+00 TO STA. 1085+99

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

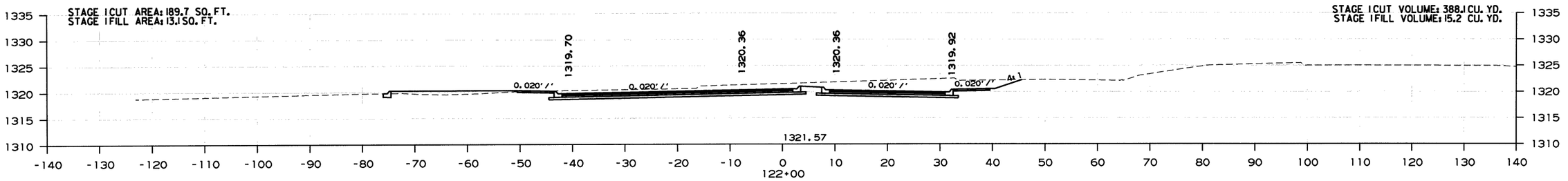
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	529	555
				(2)	CROSS SECTIONS - I-49 NBL			

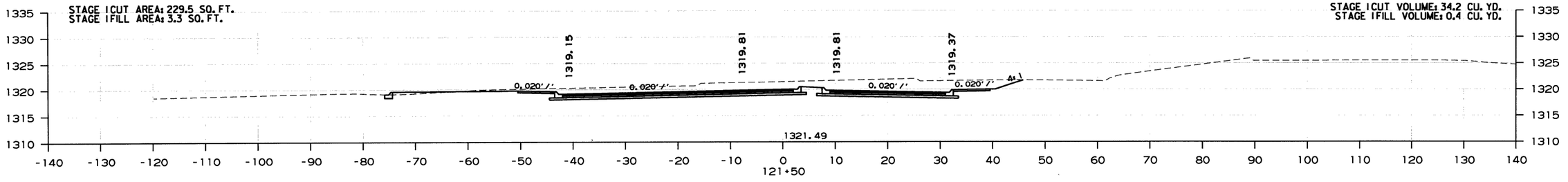


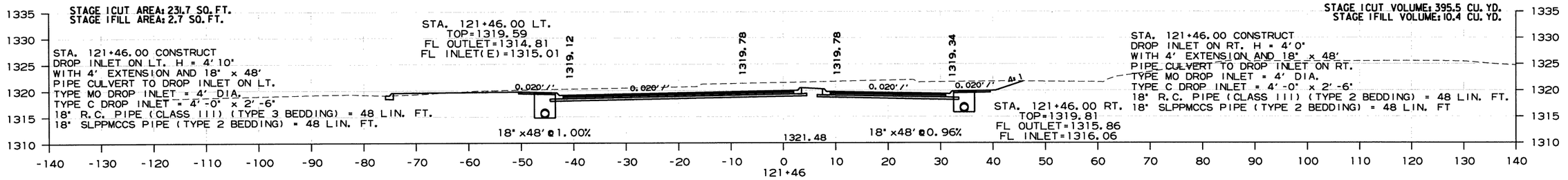
CROSS SECTION STA. 1086+49 TO STA. 1086+96

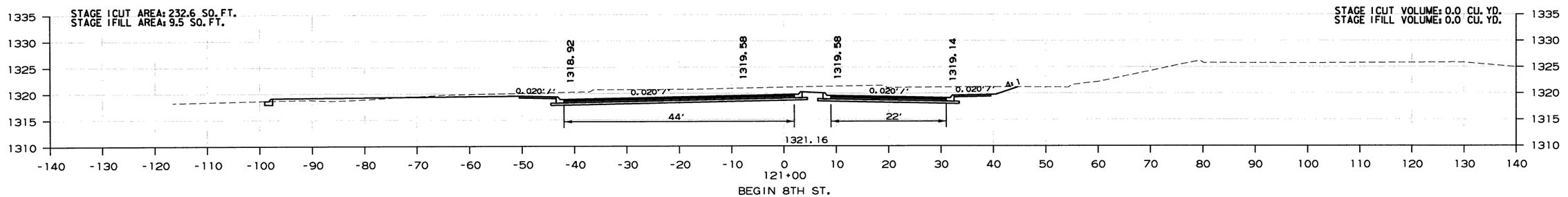
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	530	555
				(2)	CROSS SECTIONS - 8TH STREET			





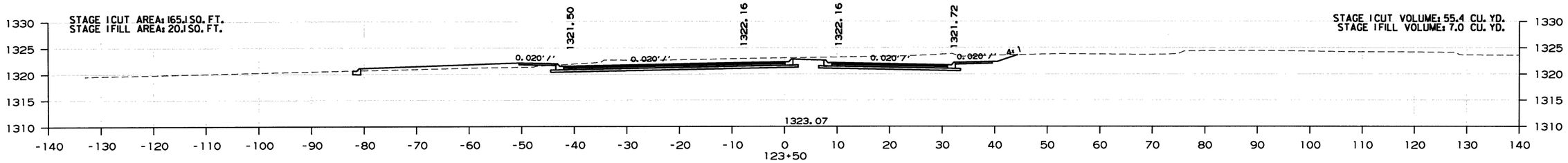


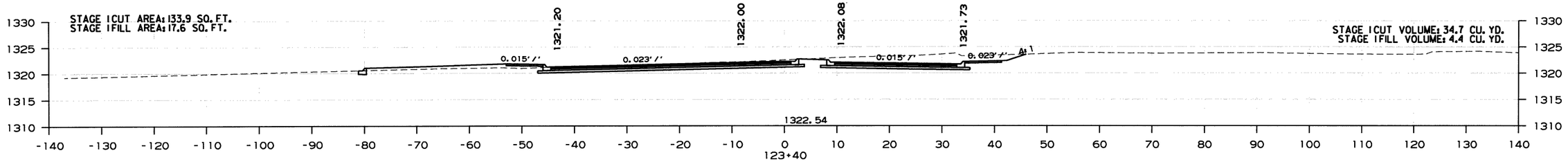


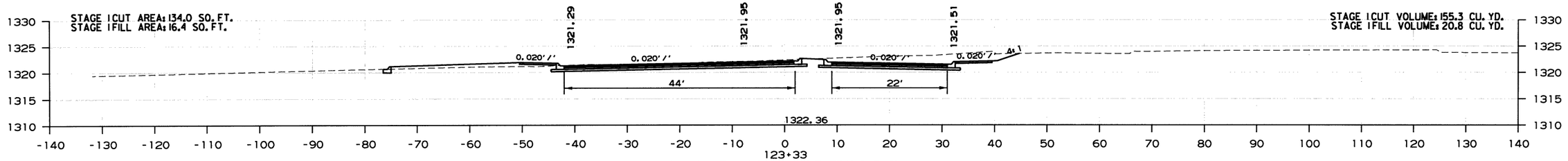
CROSS SECTION STA. 121+00 TO STA. 122+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	531	555
				(2)	CROSS SECTIONS - 8TH STREET			

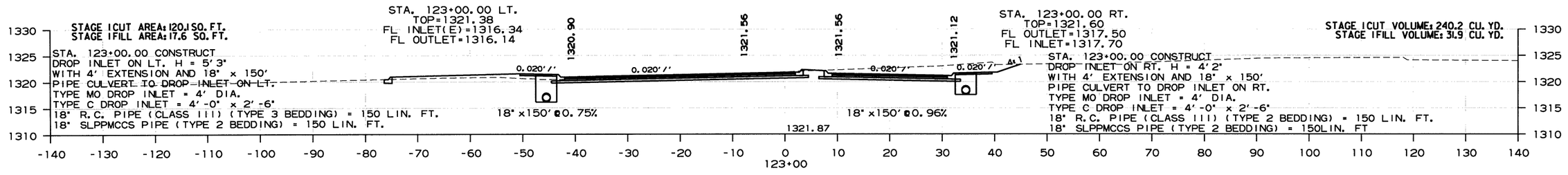
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

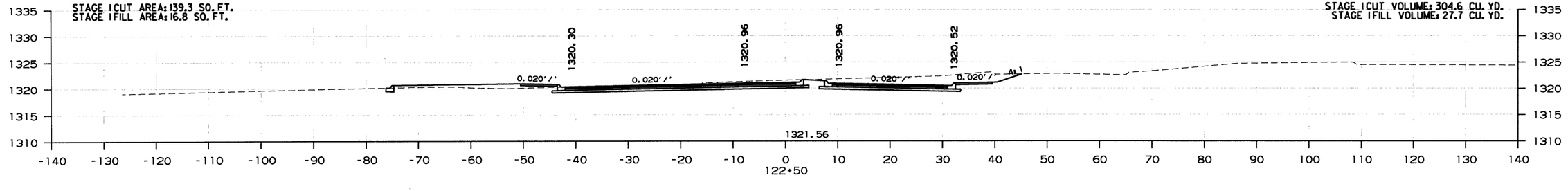






BEGIN LT. INSIDE LANE TRANSITION

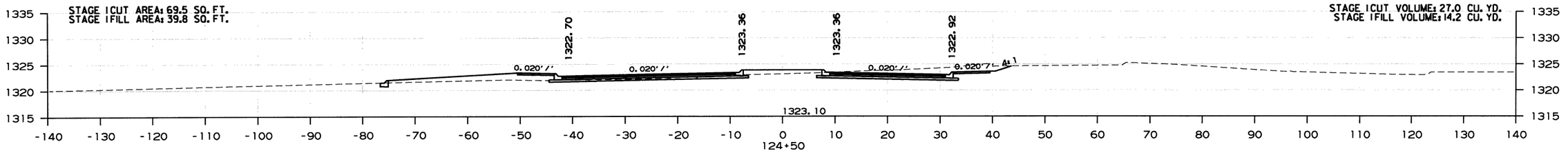


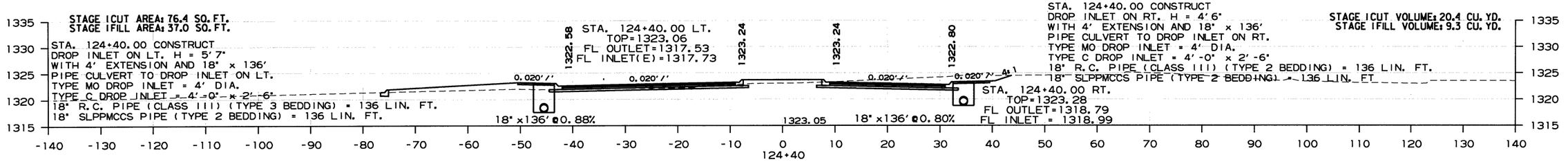


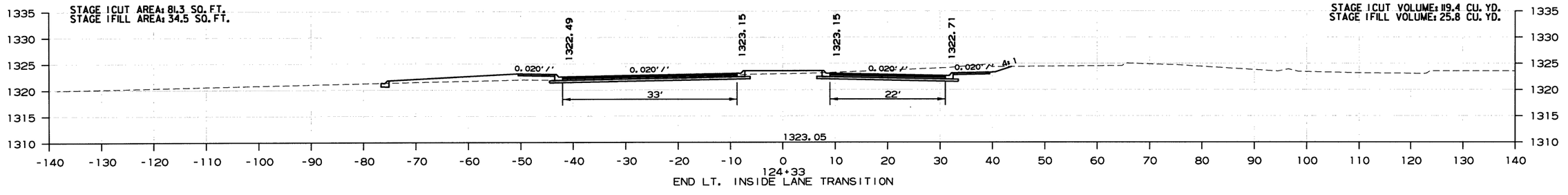
CROSS SECTION STA. 122+50 TO STA. 123+50

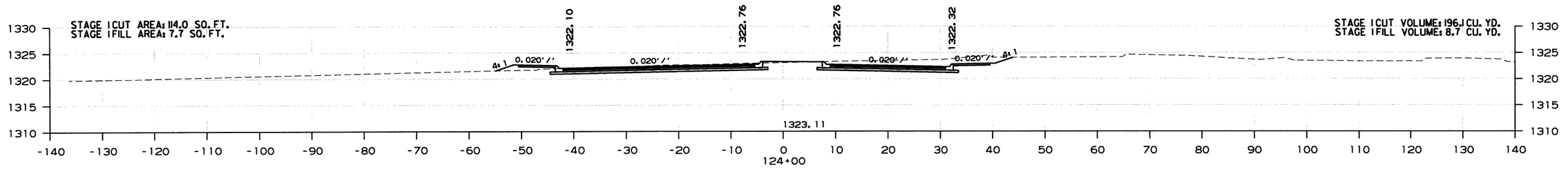
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.NO. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	532	555

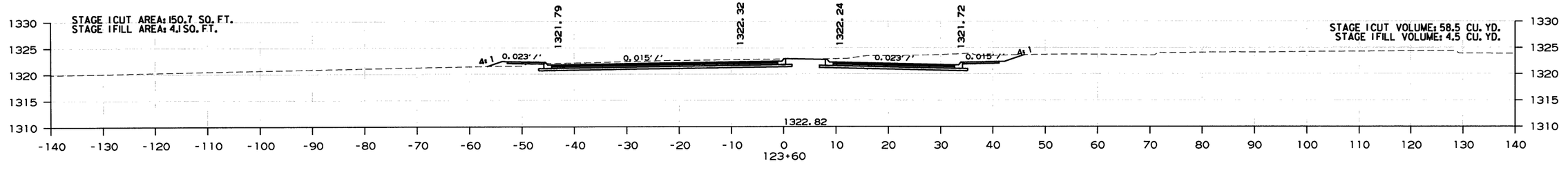
(2) CROSS SECTIONS - 8TH STREET







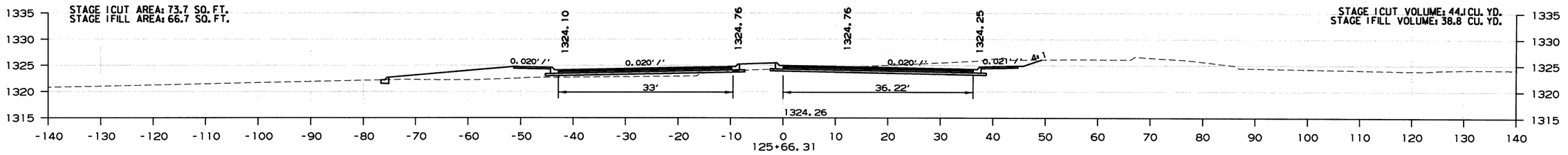


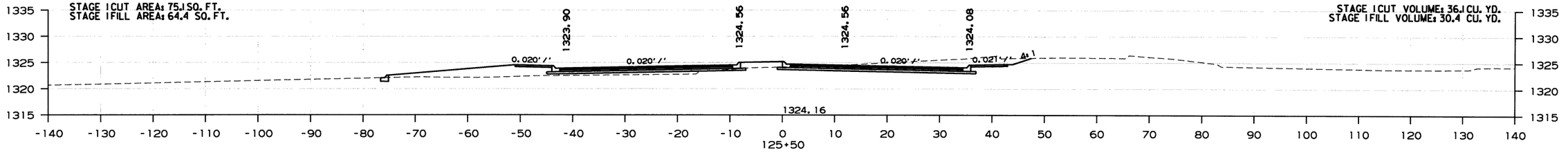


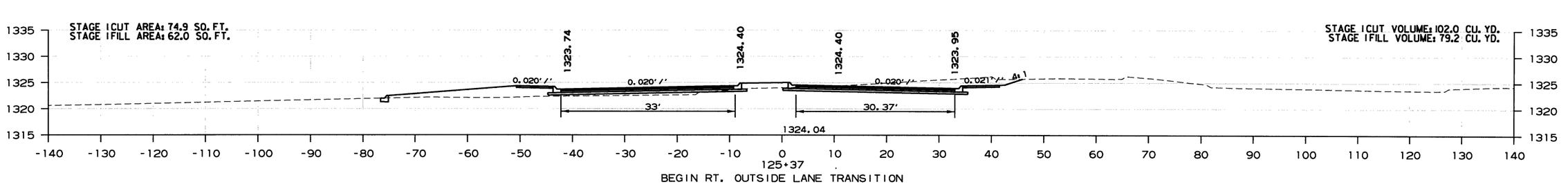
CROSS SECTION STA. 123+60 TO STA. 124+50

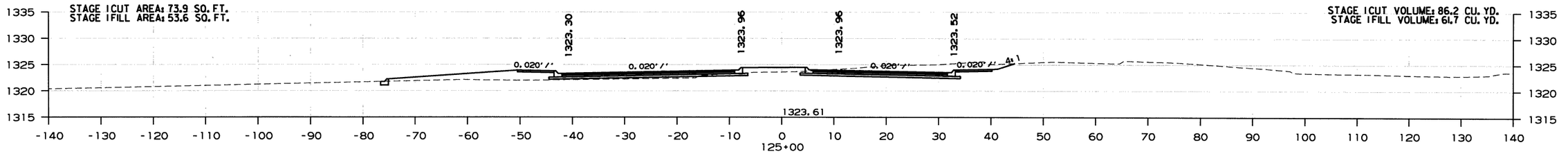
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

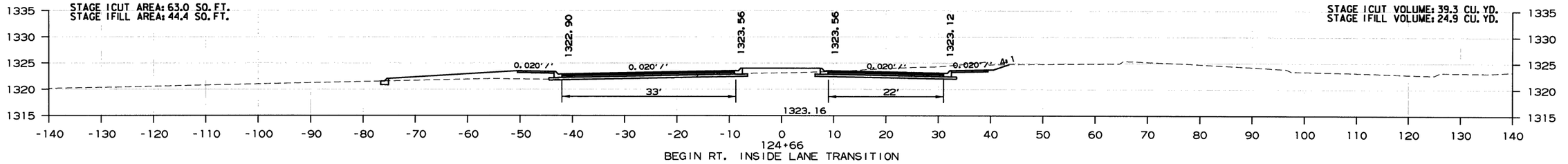
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	533	555
				(2)	CROSS SECTIONS - 8TH STREET			







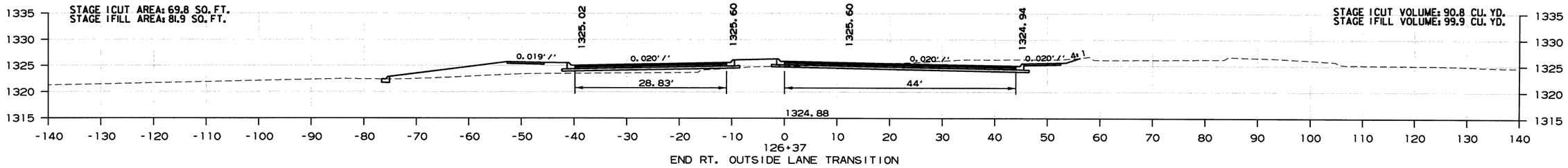


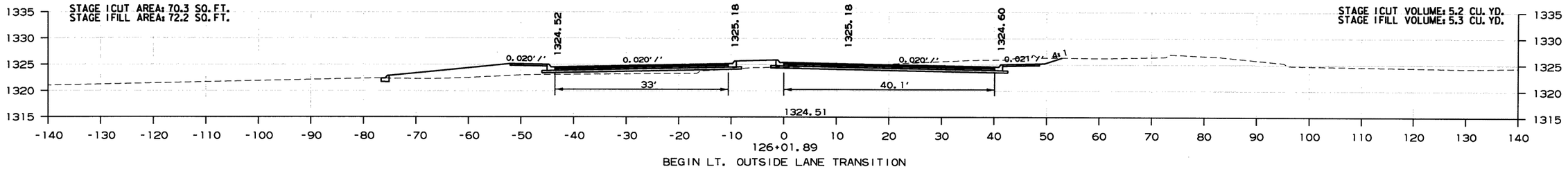


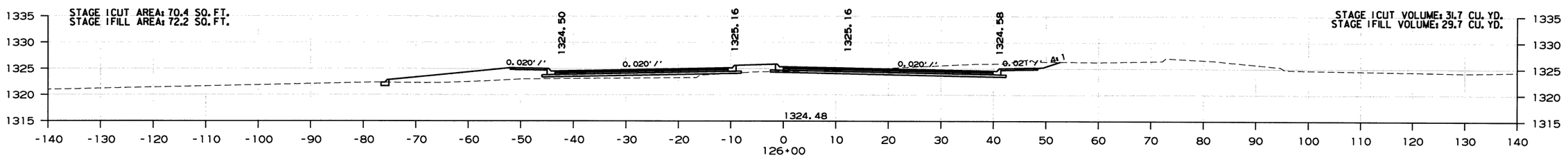
CROSS SECTION STA. 124+66 TO STA. 125+66

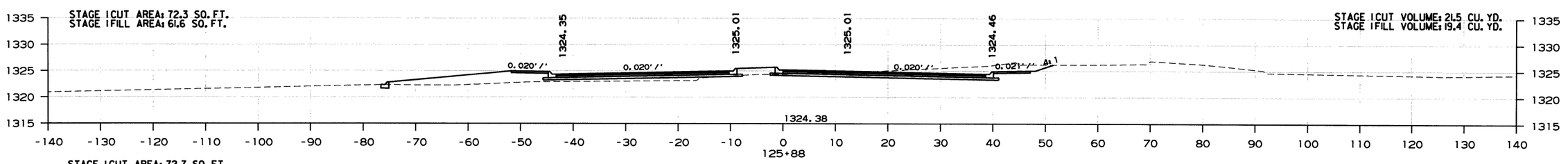
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

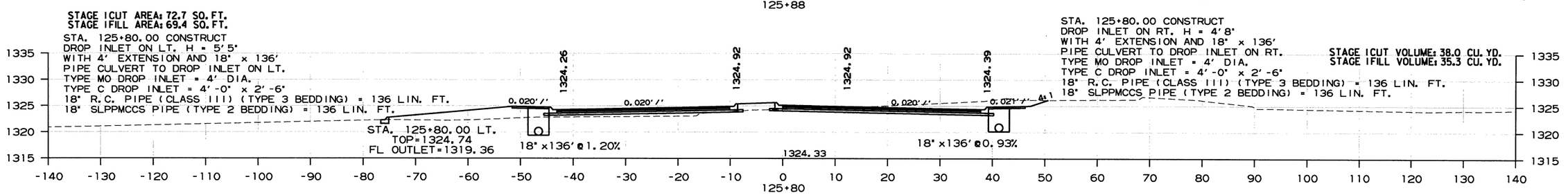
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	534	555
				(2)	CROSS SECTIONS - 8TH STREET			







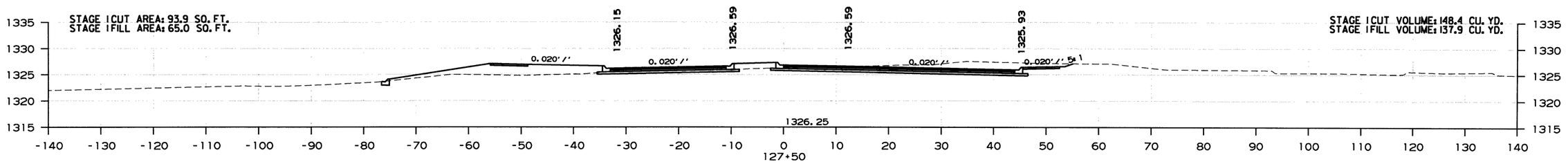


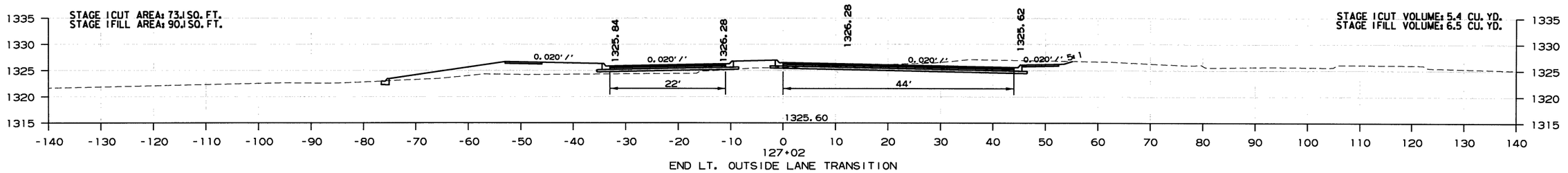


CROSS SECTION STA. 125+80 TO STA. 126+37

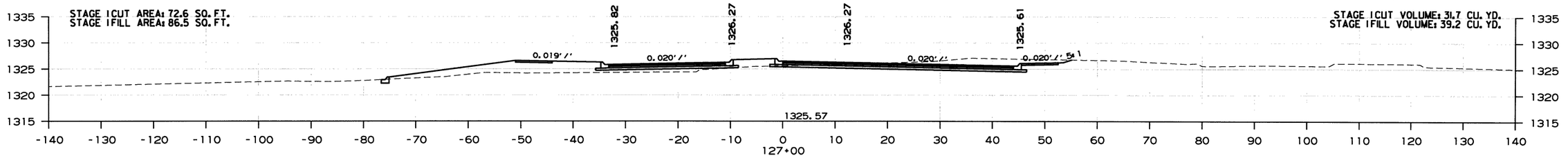
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

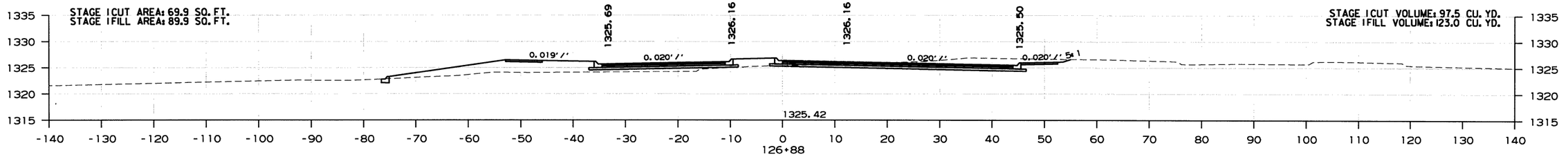
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	535	555
				(2)	CROSS SECTIONS - 8TH STREET			

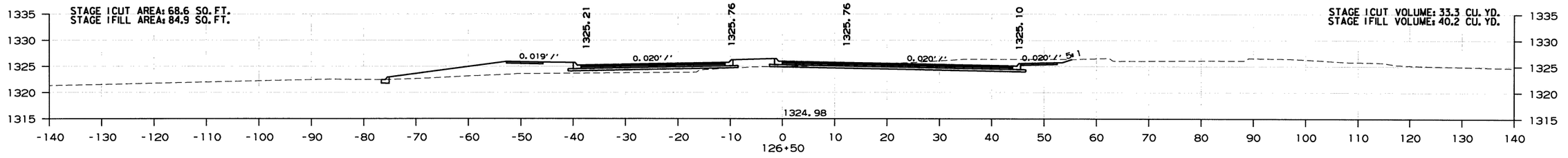




END LT. OUTSIDE LANE TRANSITION



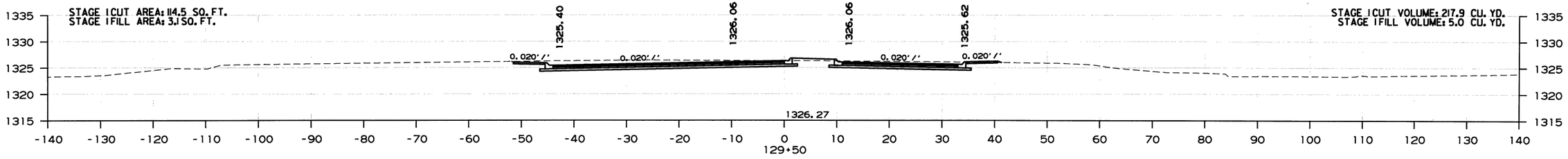


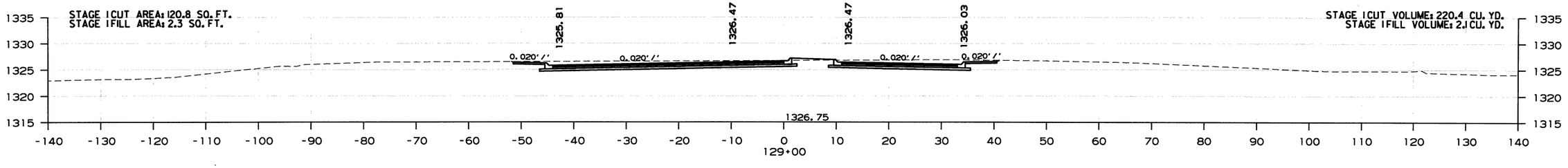


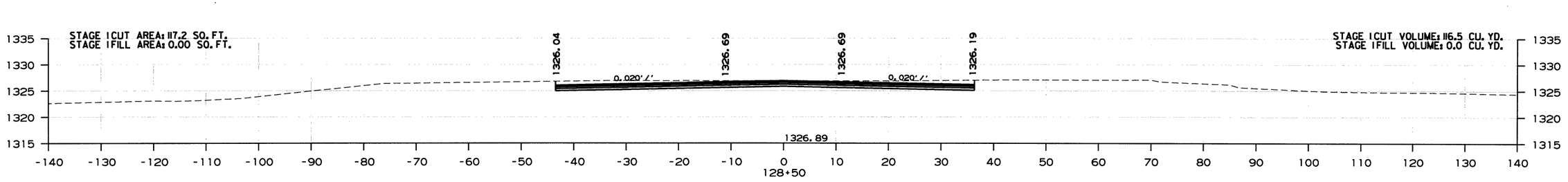
CROSS SECTION STA. 126+50 TO STA. 127+50

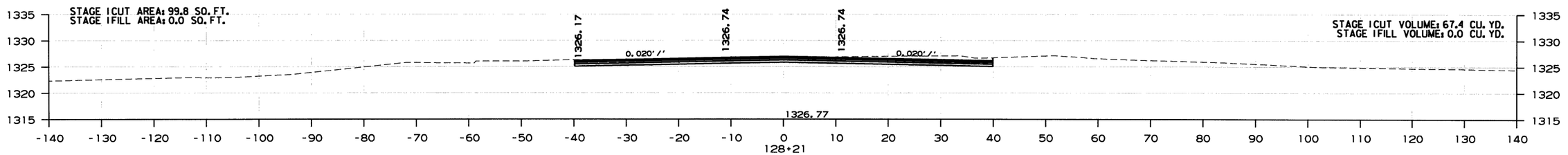
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

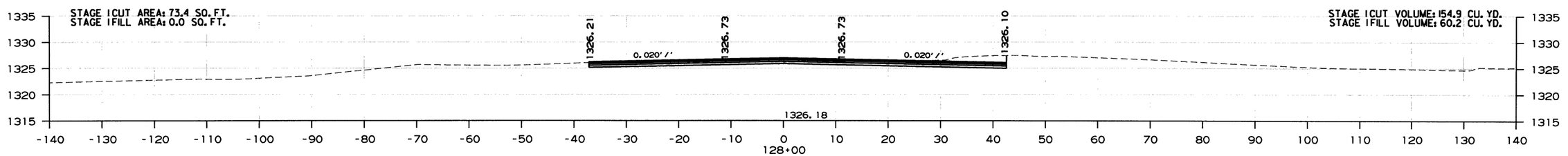
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	536	555
				(2)	CROSS SECTIONS - 8TH STREET			







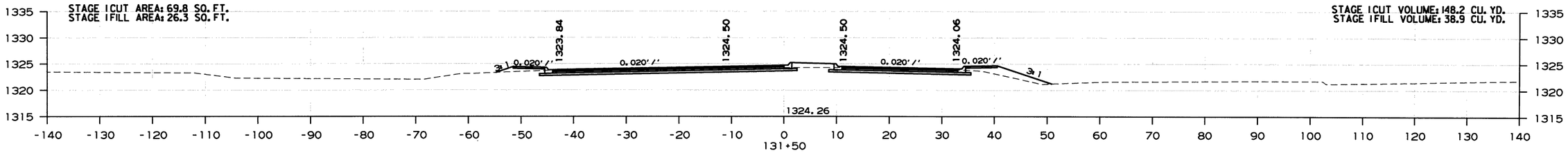


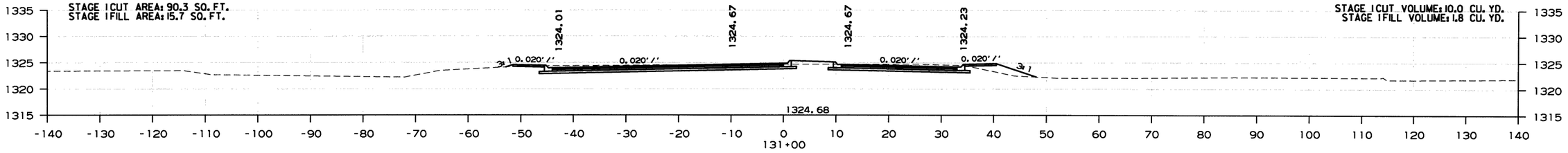


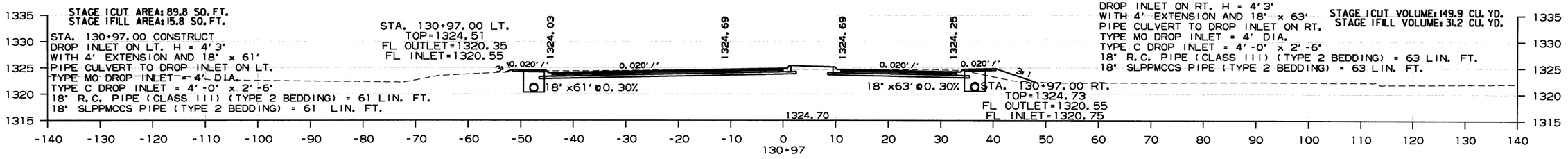
CROSS SECTION STA. 128+00 TO STA. 129+50

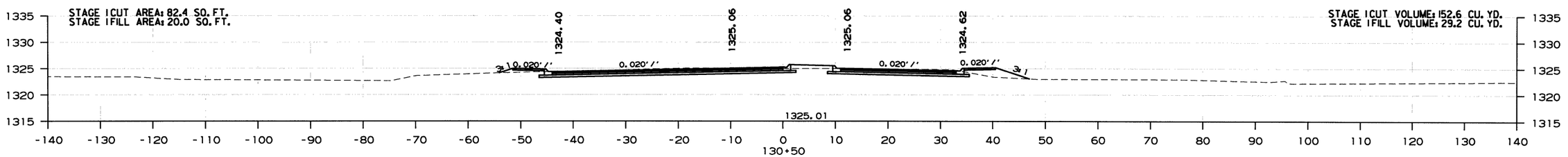
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

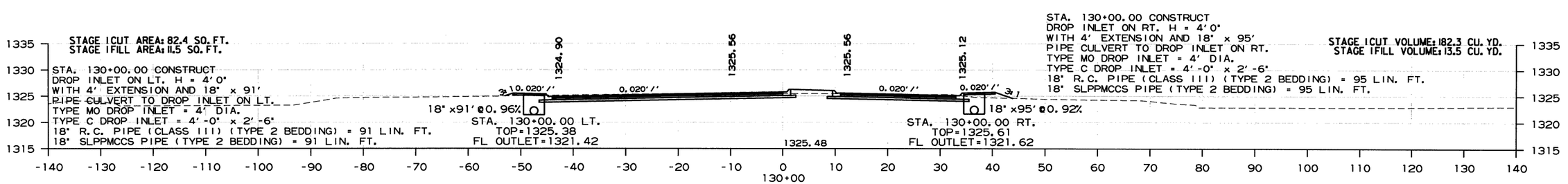
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	537	555
				(2)	CROSS SECTIONS - 8TH STREET			







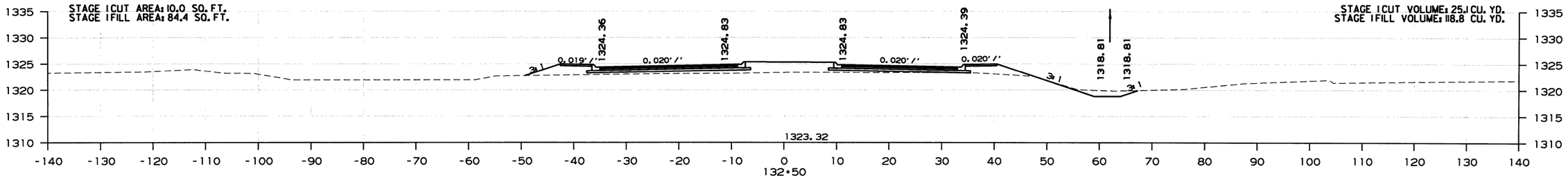




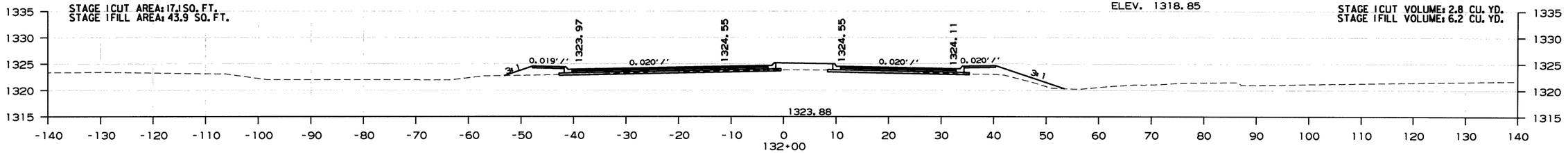
CROSS SECTION STA. 130+00 TO STA. 131+50

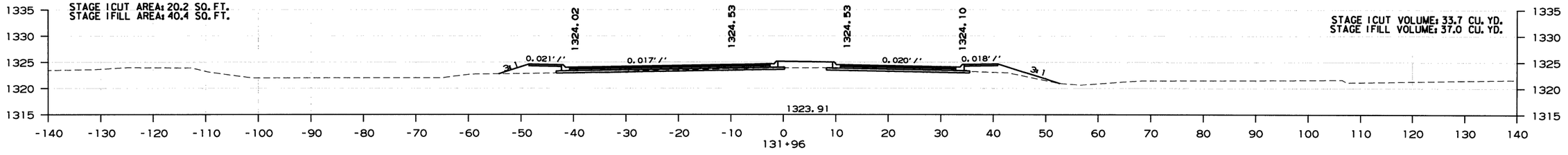
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	538	555
				(2)	CROSS SECTIONS - 8TH STREET			

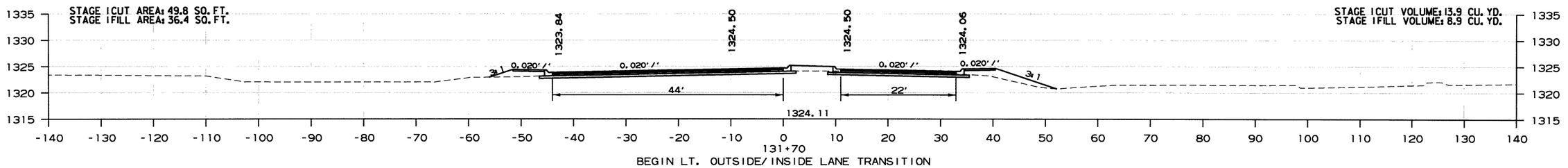
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.



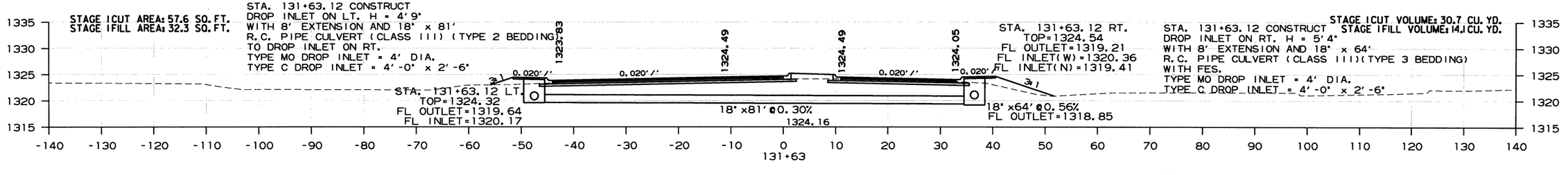
STA. 132+25.00 BEGIN
-0.16% RT. DITCH GRADE
ELEV. 1318.85







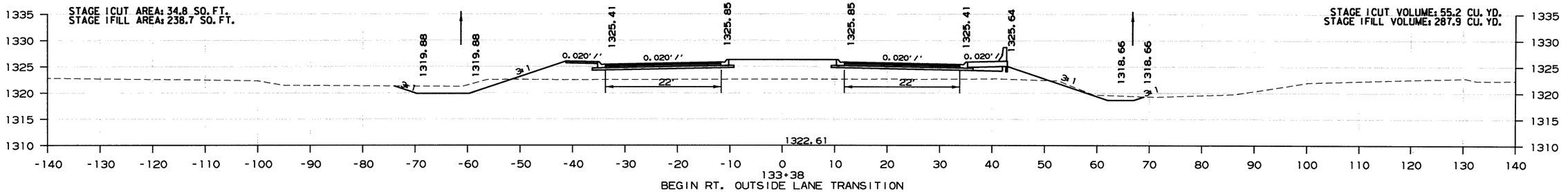
BEGIN LT. OUTSIDE/ INSIDE LANE TRANSITION

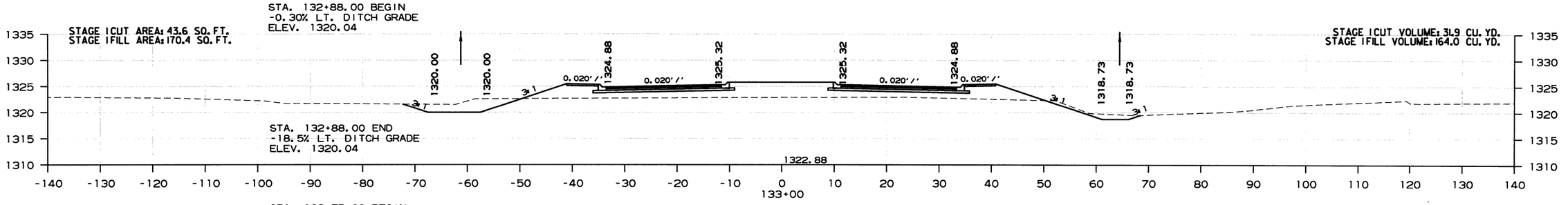


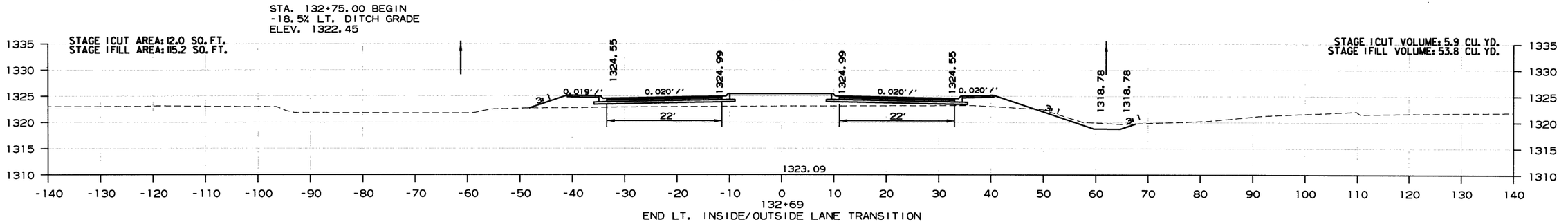
CROSS SECTION STA. 131+63 TO STA. 132+50

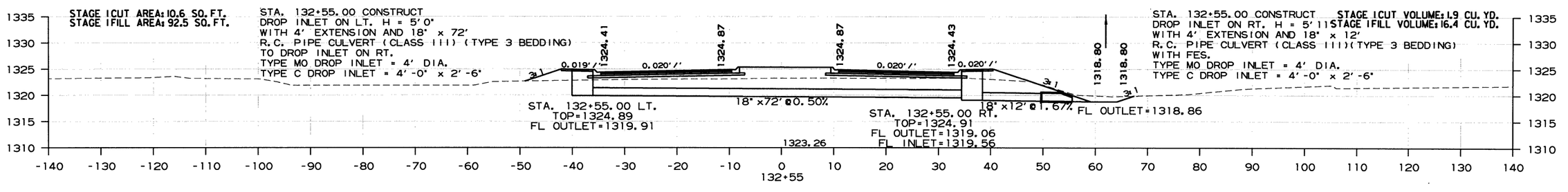
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	539	555
				(2)	CROSS SECTIONS - 8TH STREET			





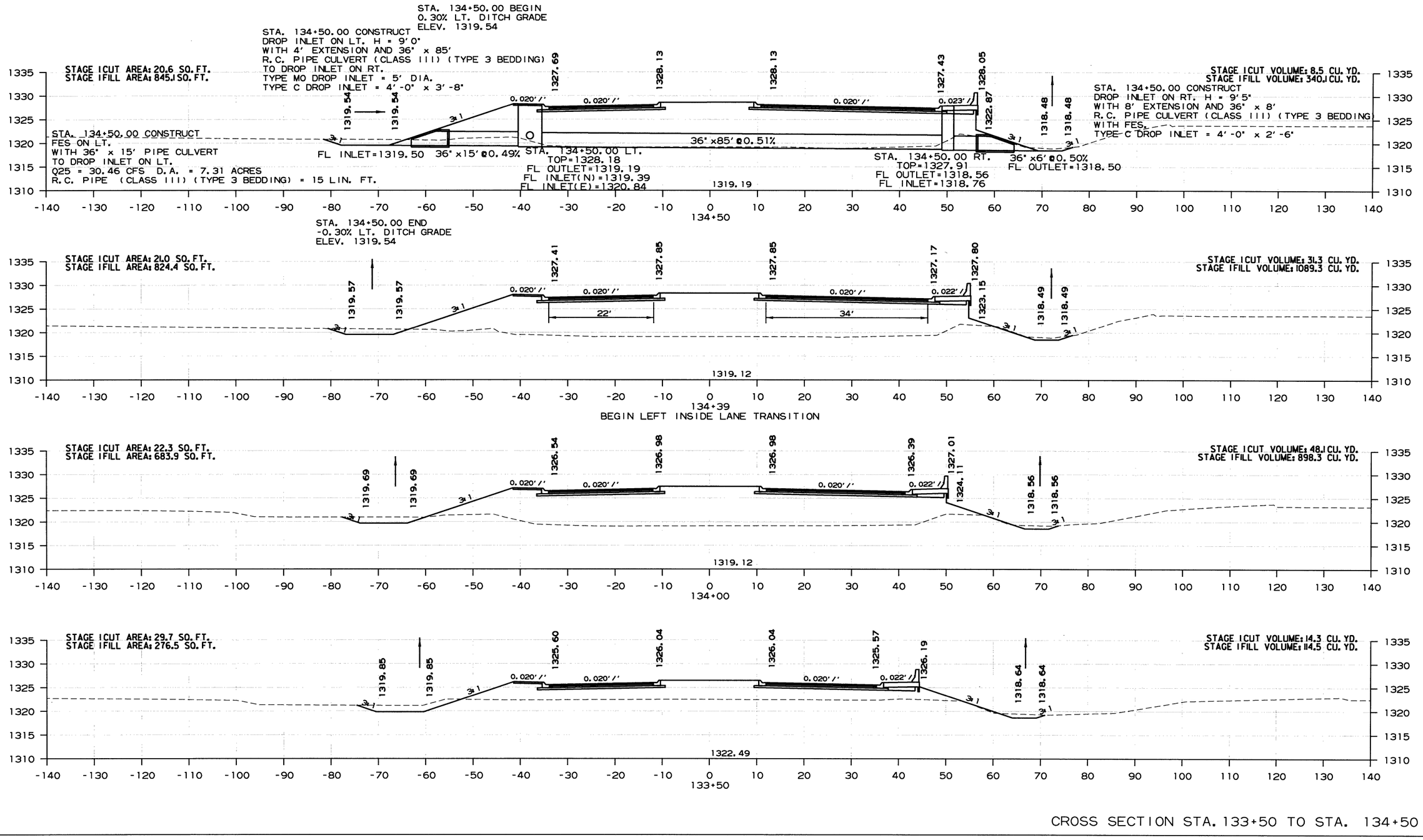




CROSS SECTION STA. 132+55 TO STA. 133+38

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	540	555
				(2)	CROSS SECTIONS - 8TH STREET			

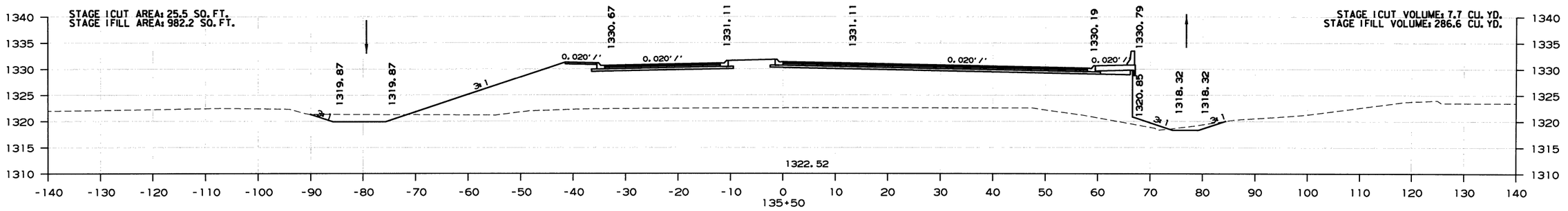
INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

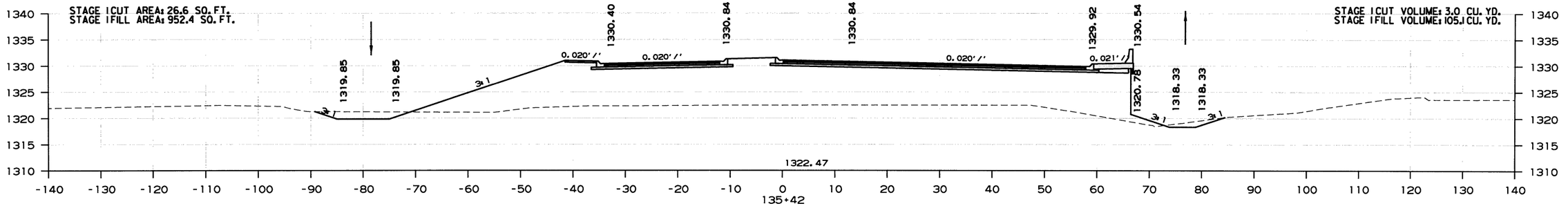


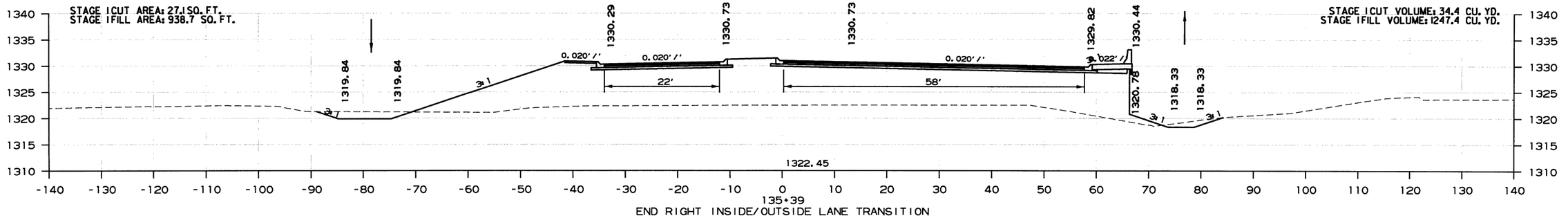
CROSS SECTION STA. 133+50 TO STA. 134+50

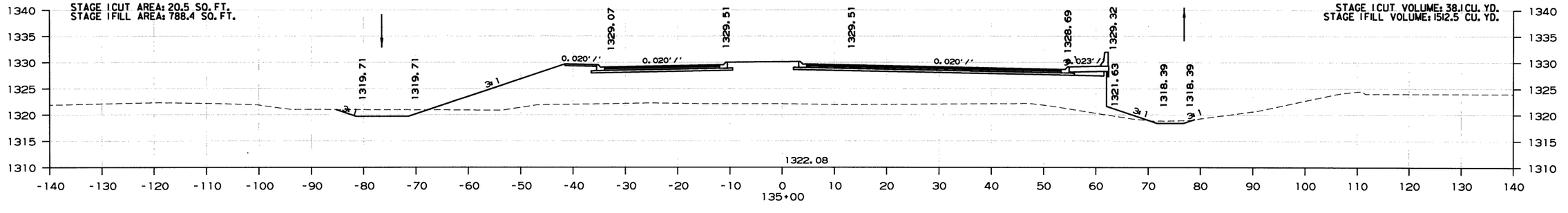
INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	541	555
				(2)	CROSS SECTIONS - 8TH STREET			





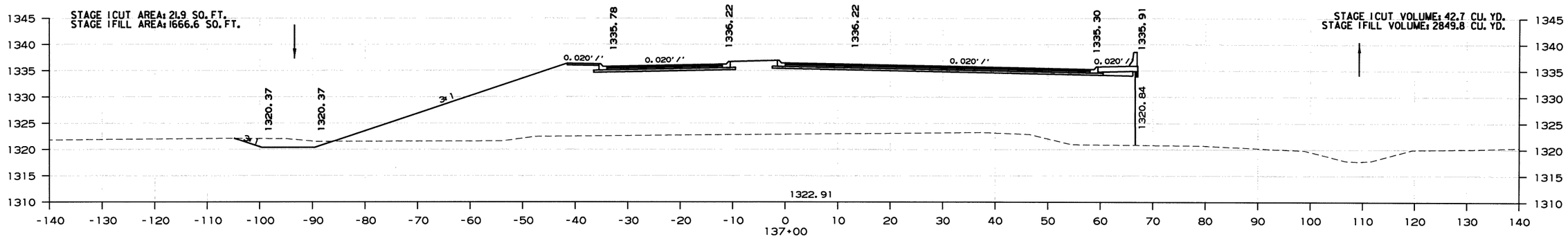


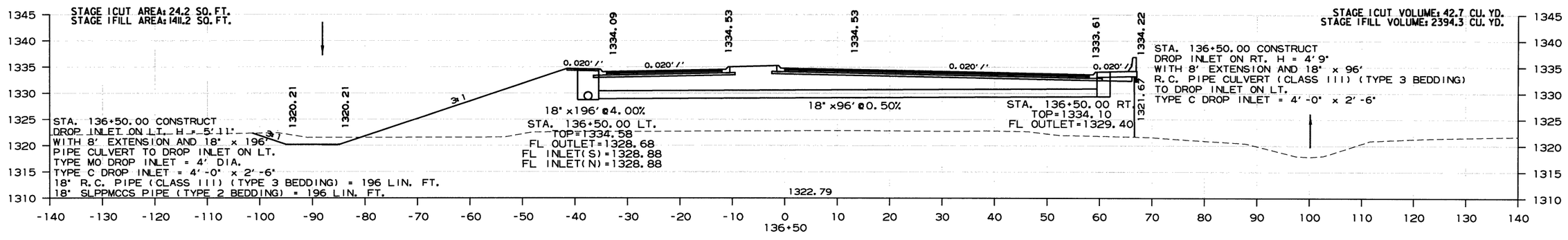


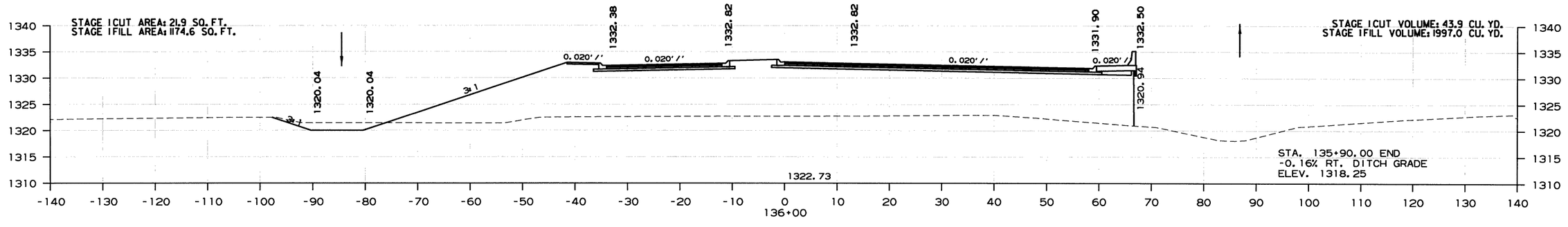
CROSS SECTION STA. 135+00 TO STA. 135+50

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	542	555
				(2)	CROSS SECTIONS - 8TH STREET			



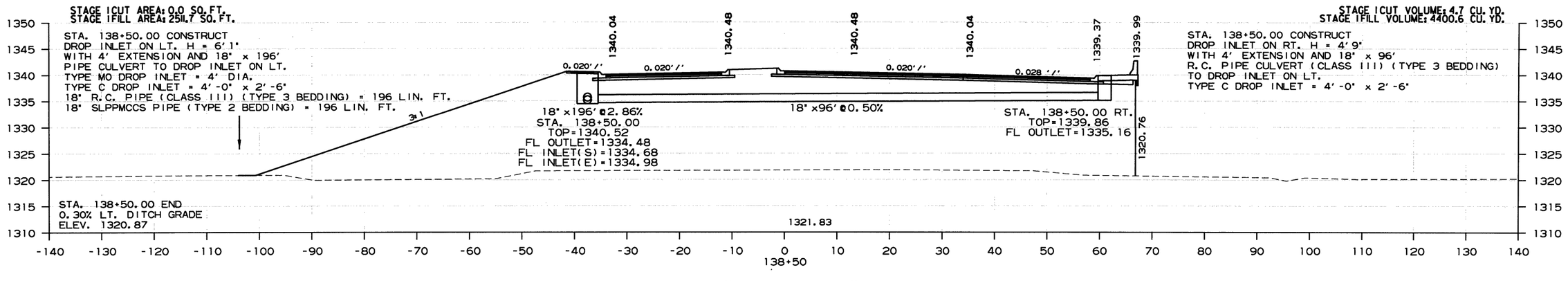




CROSS SECTION STA. 136+00 TO STA. 137+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

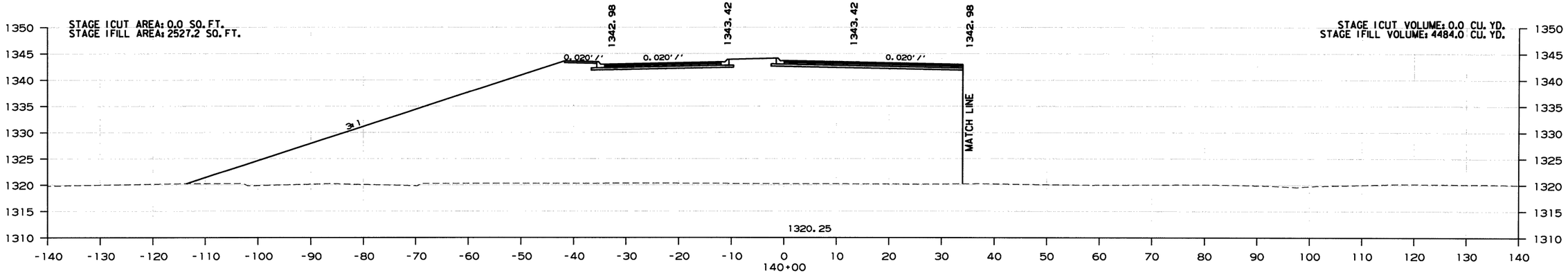
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	543	555
				(2)	CROSS SECTIONS - 8TH STREET			

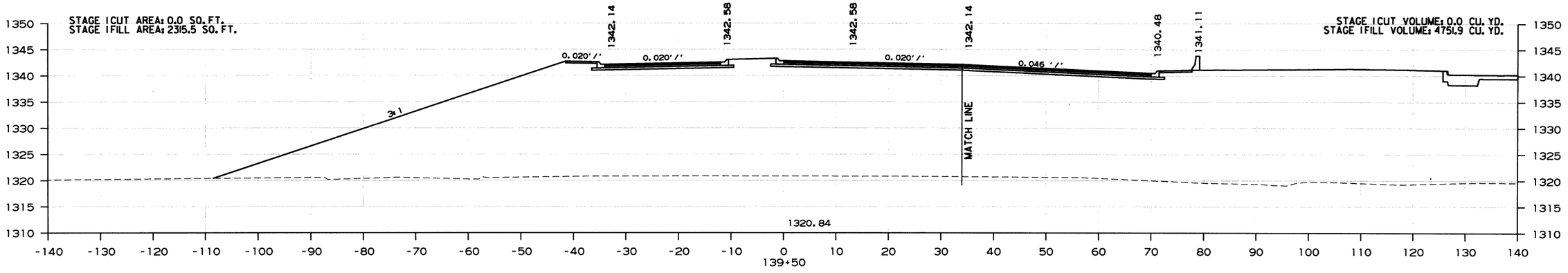


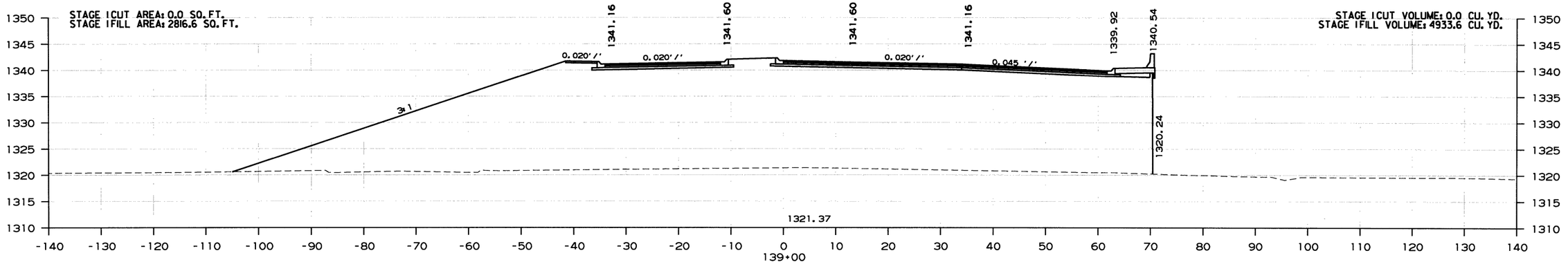
CROSS SECTION STA. 137+50 TO STA. 138+50

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	544	555
				(2)	CROSS SECTIONS - 8TH STREET			



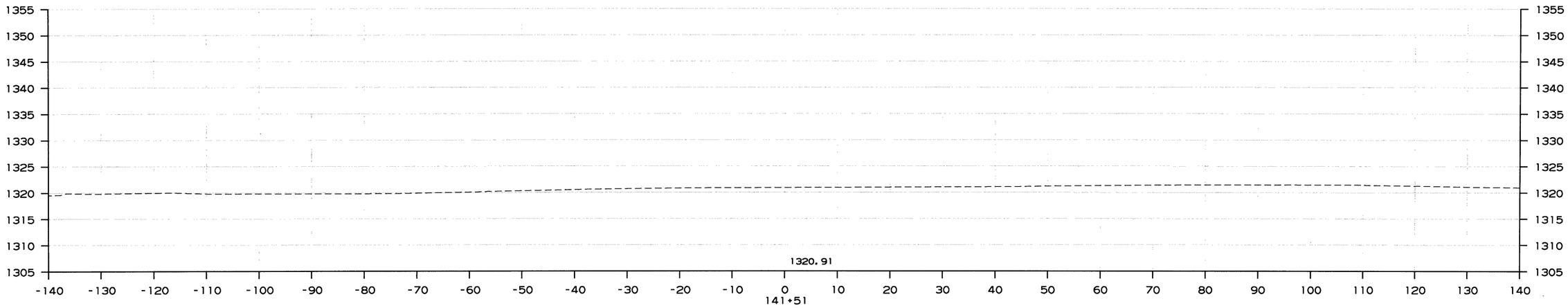


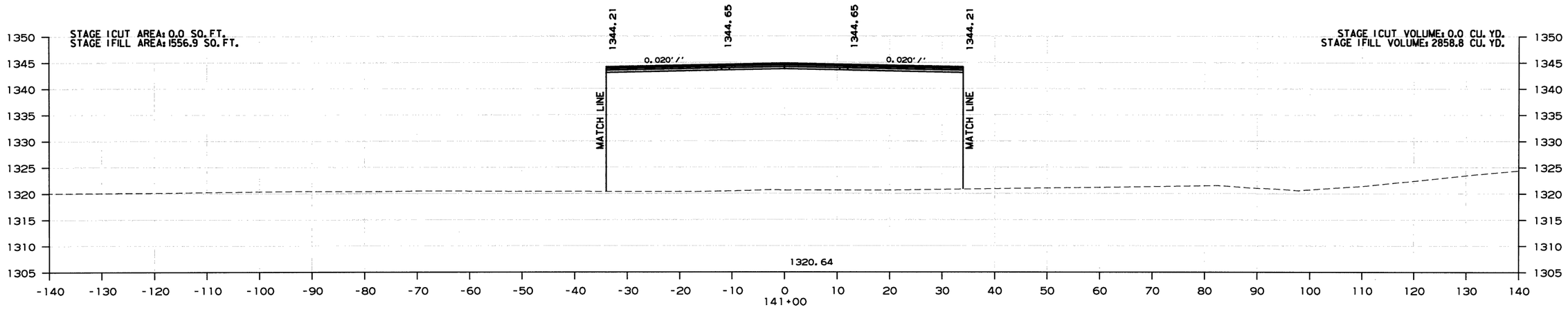


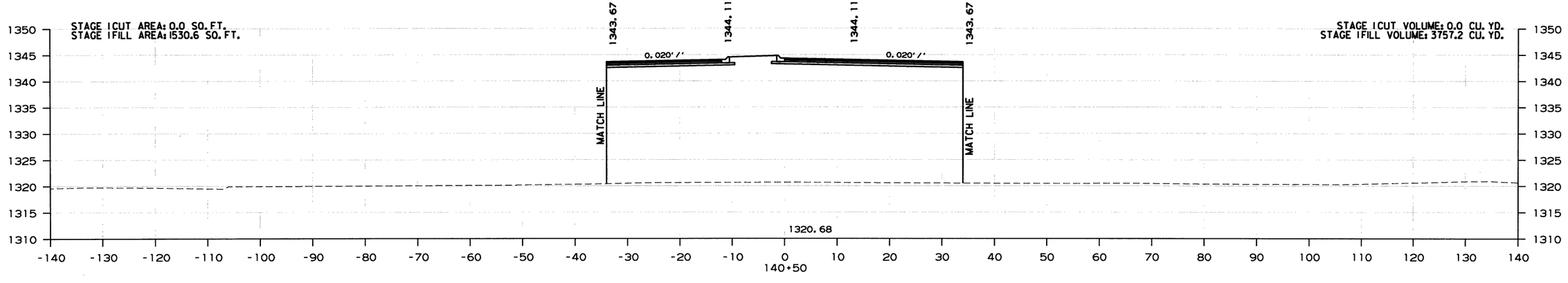
CROSS SECTION STA. 139+00 TO STA. 140+00

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	545	555
				(2)	CROSS SECTIONS - 8TH STREET			



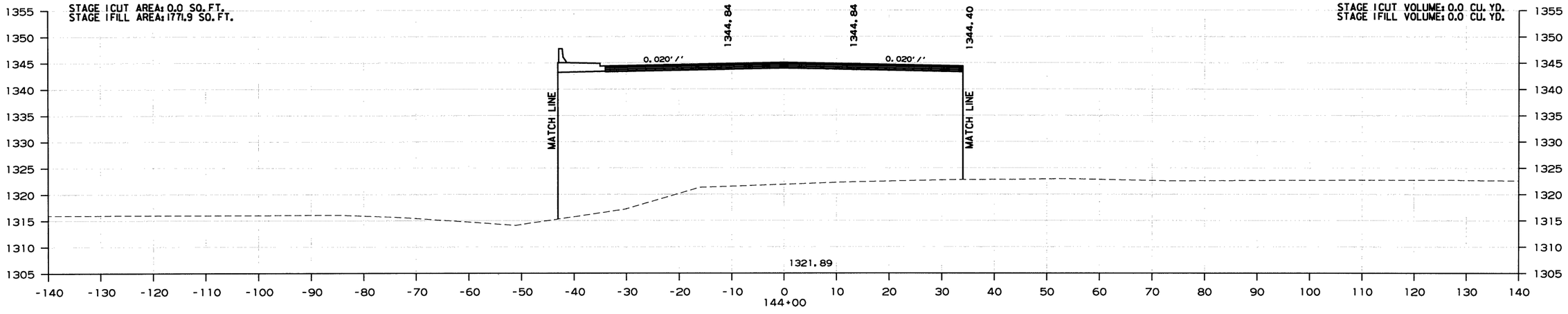




CROSS SECTION STA. 140+50 TO STA. 141+51

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.

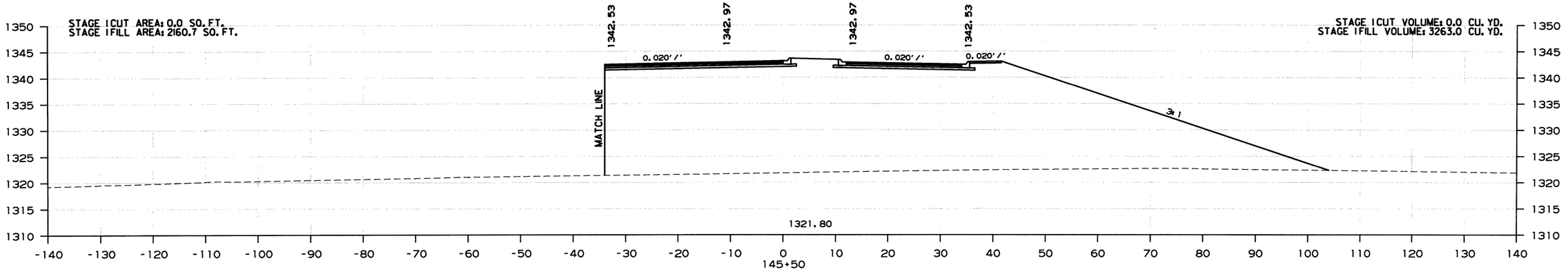
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	546	555
				(2)	CROSS SECTIONS - 8TH STREET			

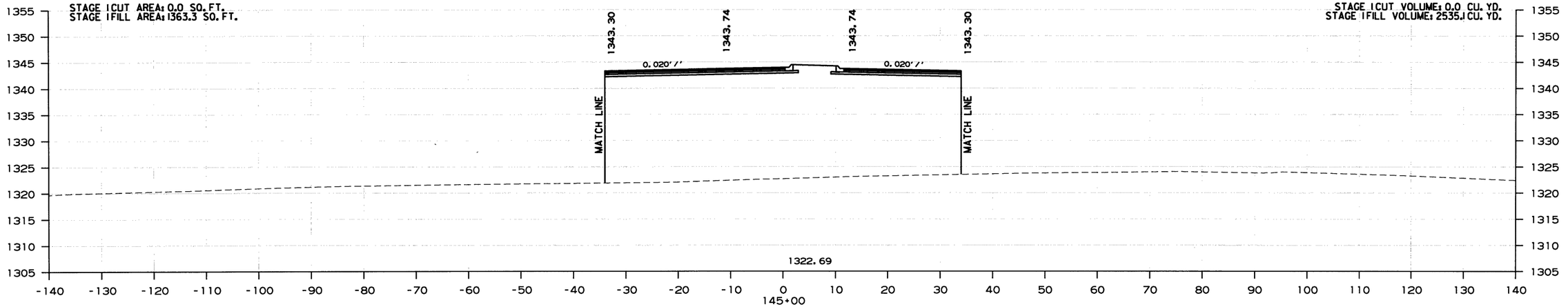


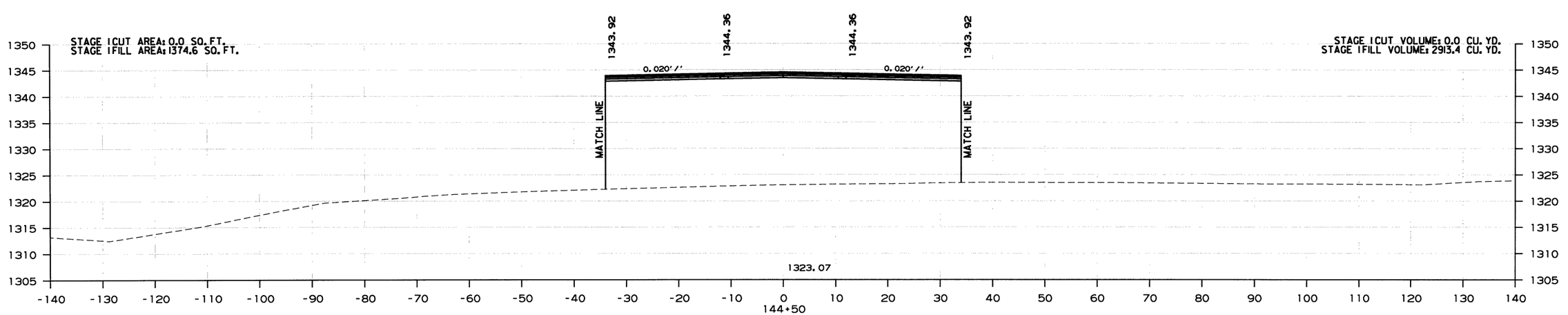
CROSS SECTION STA. 143+87 TO STA. 144+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	547	555
				(2)	CROSS SECTIONS - 8TH STREET			

INFORMATION ABOUT NEARBY ROADWAYS ARE FOR REFERENCE ONLY. SEE RESPECTIVE CROSS SECTIONS FOR ADDITIONAL INFORMATION.



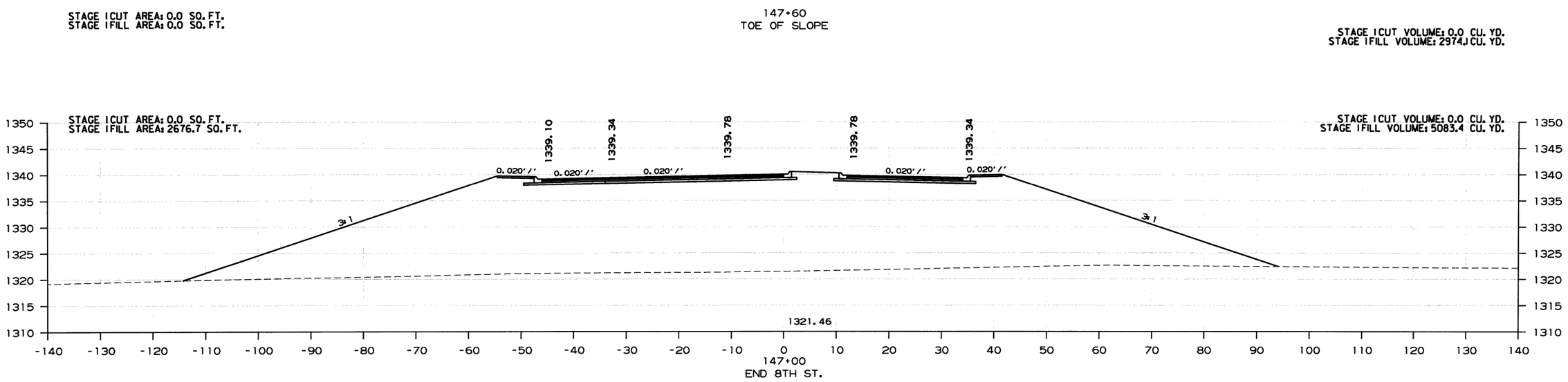




CROSS SECTION STA. 144+50 TO STA. 145+50

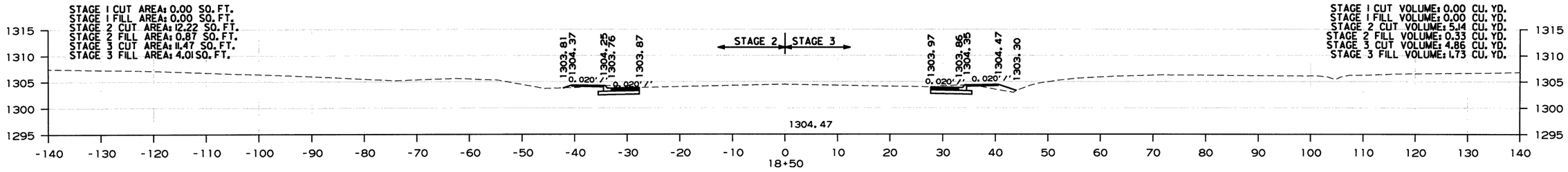
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	548	555
				(2)	CROSS SECTIONS - 8TH STREET			

INFORMATION ABOUT NEARBY ROADWAYS ARE
FOR REFERENCE ONLY. SEE RESPECTIVE CROSS
SECTIONS FOR ADDITIONAL INFORMATION.



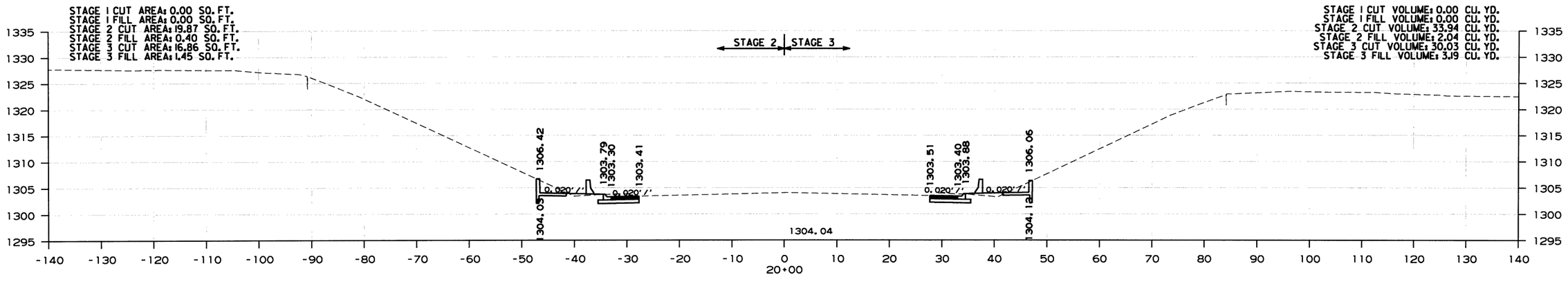
CROSS SECTION STA. 146+00 TO STA. 147+00

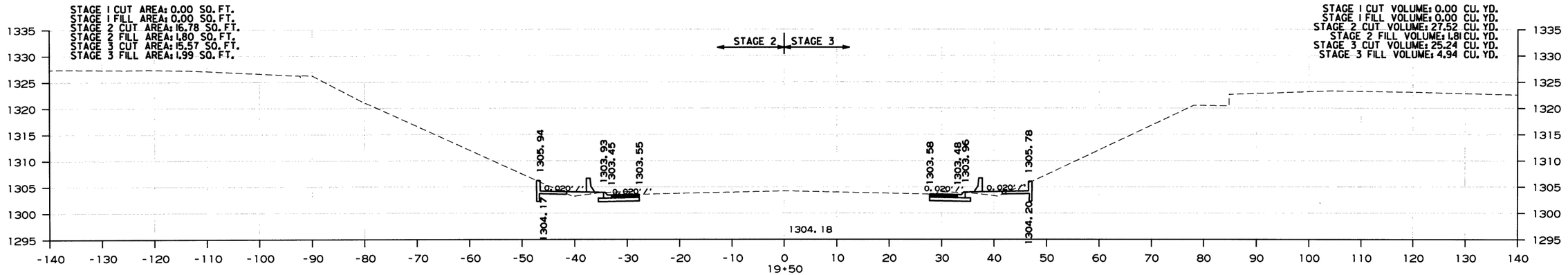
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	549	555
				(2)	CROSS SECTIONS - HWY. 62/102			

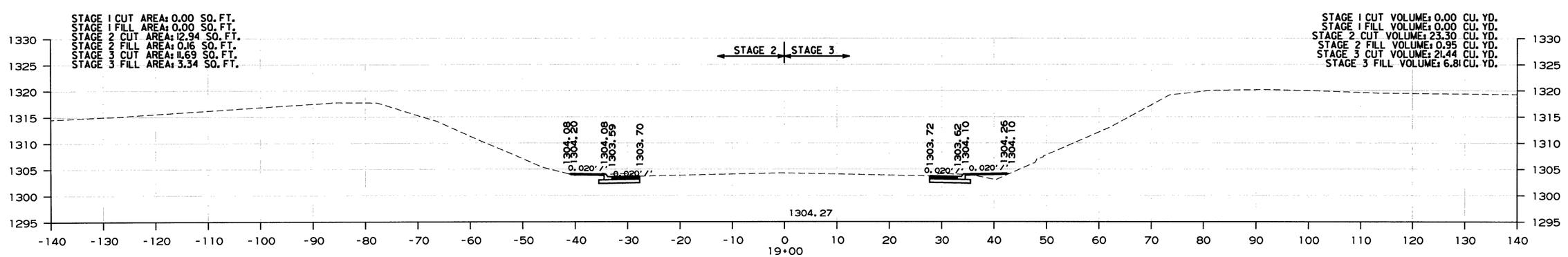


CROSS SECTION STA. 17+50 TO STA. 18+50

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	550	555
				(2)	CROSS SECTIONS - HWY. 62/102			

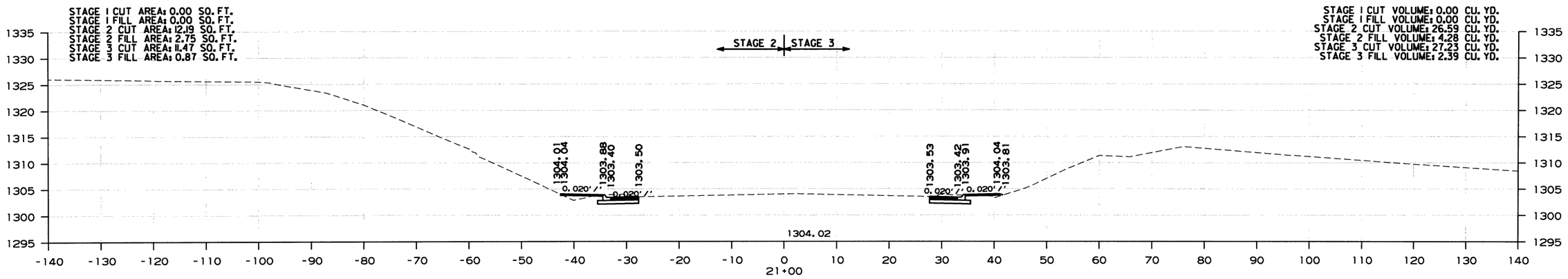


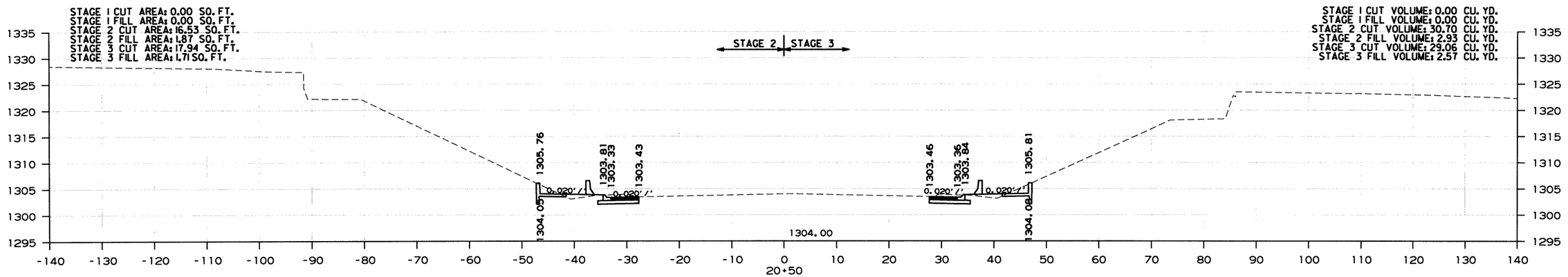


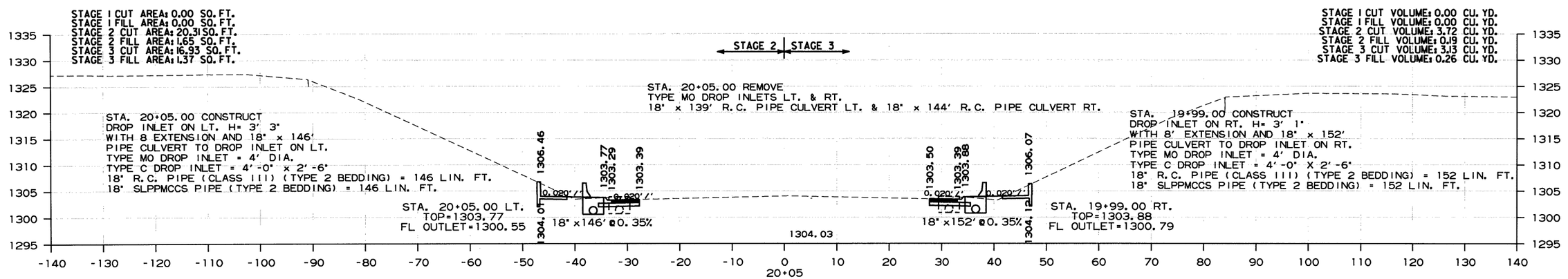


CROSS SECTION STA. 19+00 TO STA. 20+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	551	555
				(2)	CROSS SECTIONS - HWY. 62/102			







CROSS SECTION STA. 20+05 TO STA. 21+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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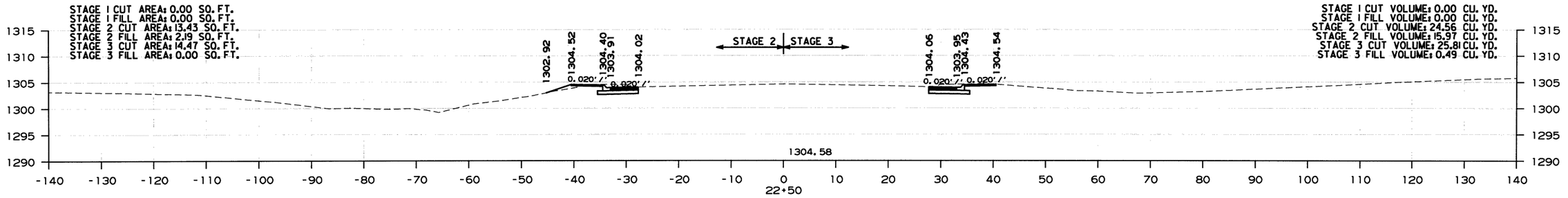
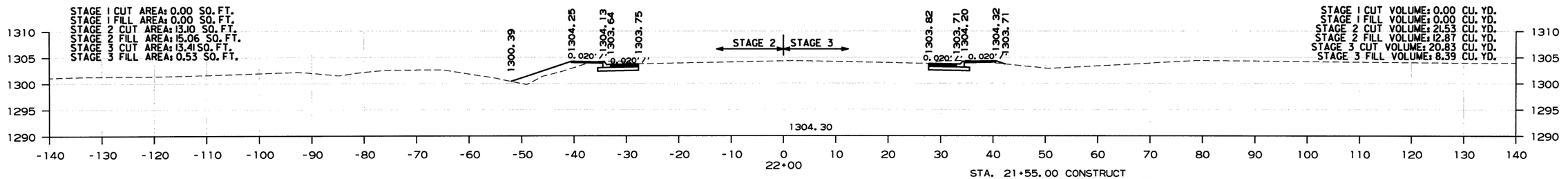
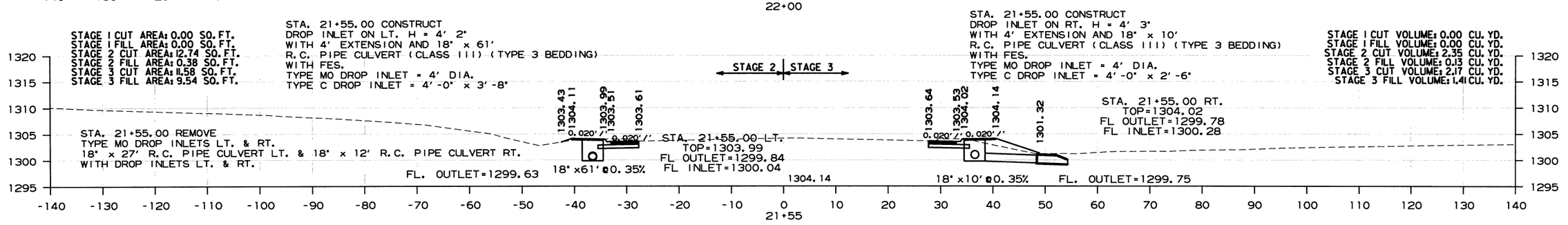
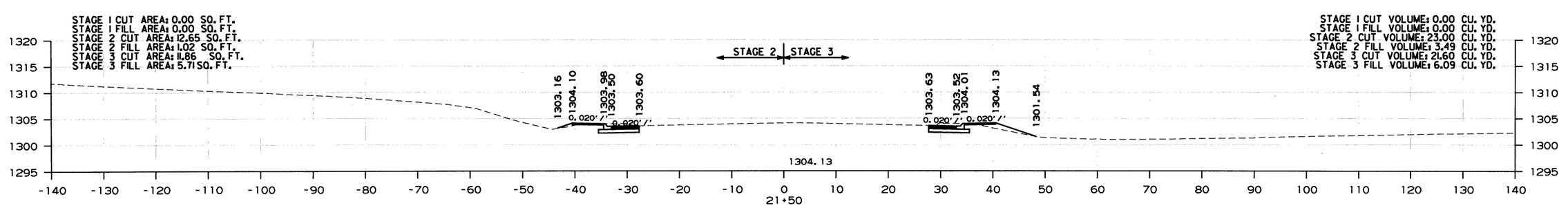
				JOB NO.		090376	552	555
				(2)	CROSS SECTIONS - HWY. 62/102			



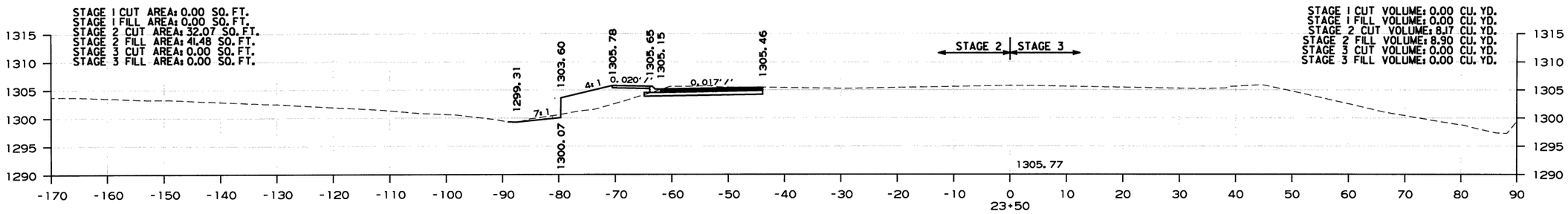


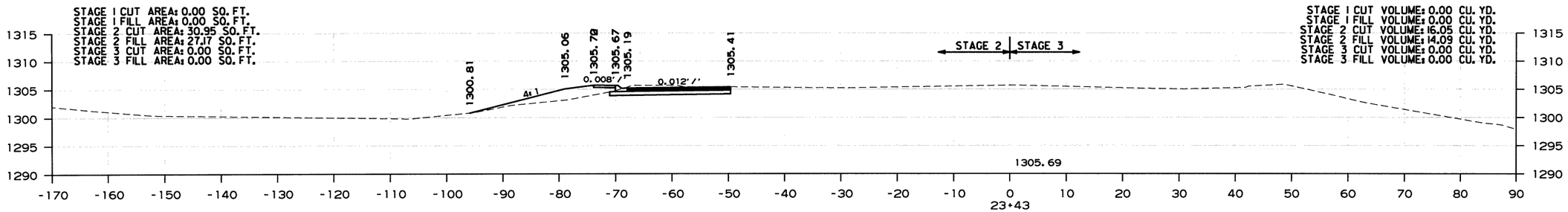


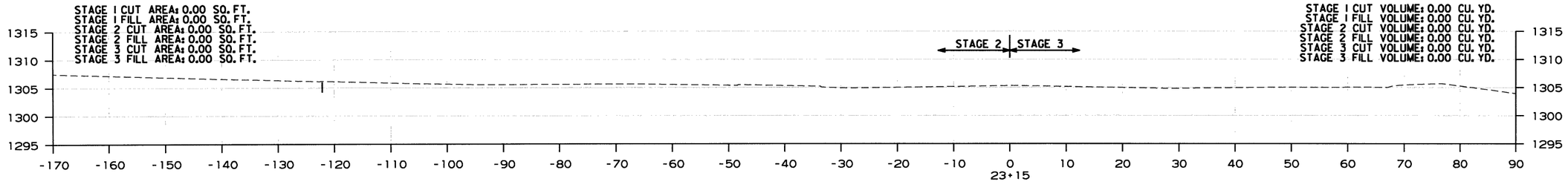


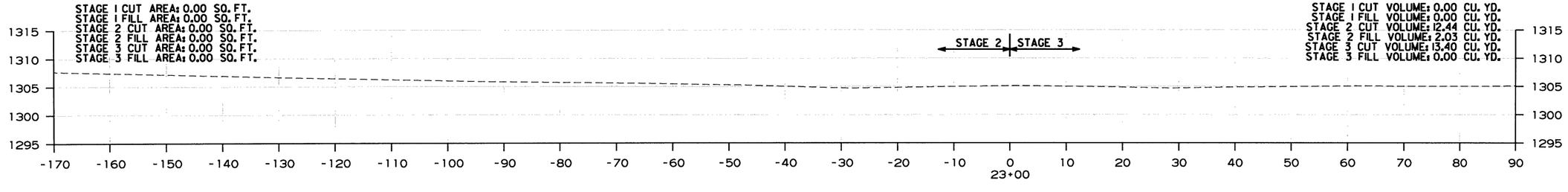
CROSS SECTION STA. 21+50 TO STA. 22+50

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	553	555
				(2)	CROSS SECTIONS - HWY. 62/102			



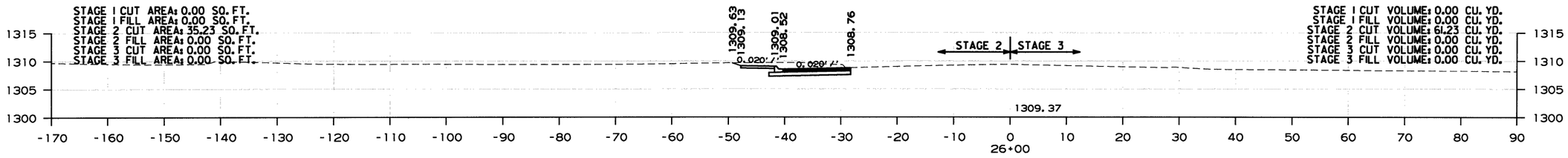


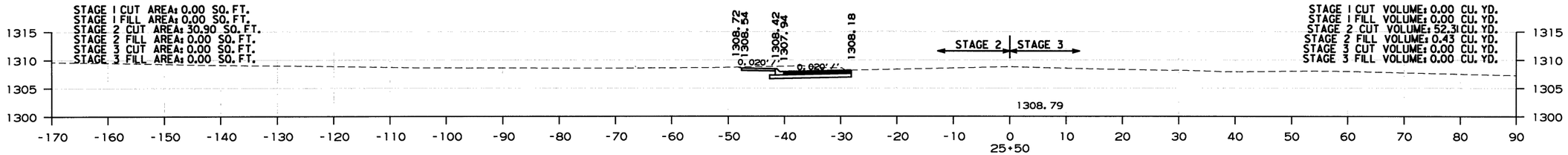


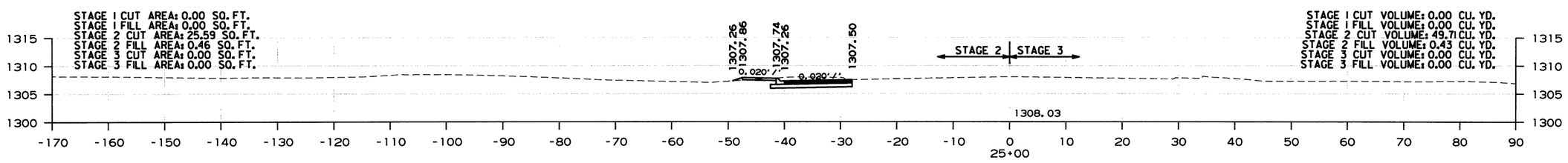


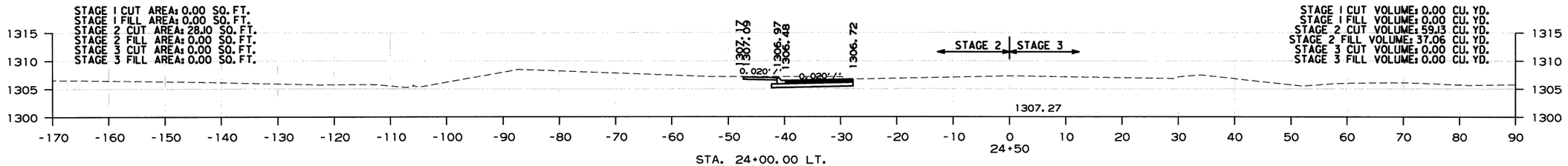
CROSS SECTION STA. 23+00 TO STA. 23+50

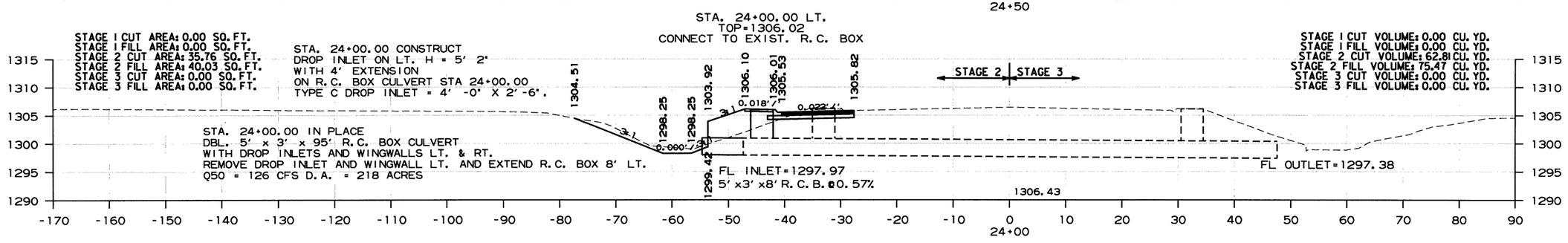
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	554	555
				(2)	CROSS SECTIONS - HWY. 62/102			





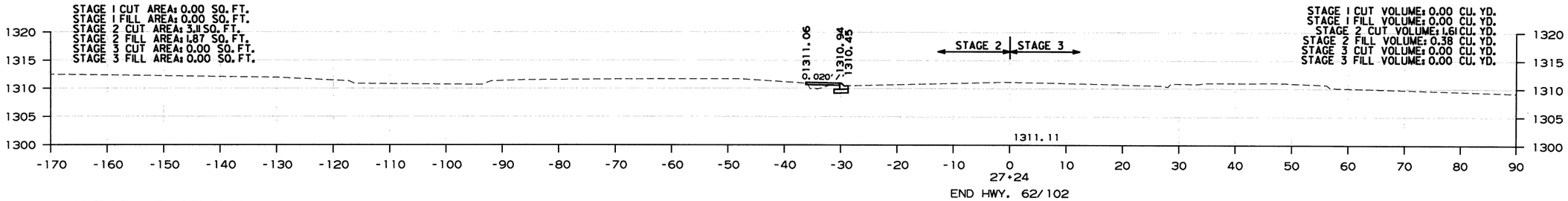


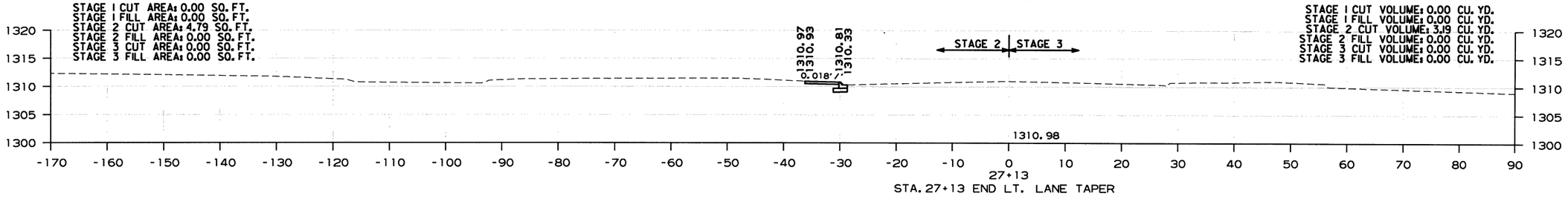


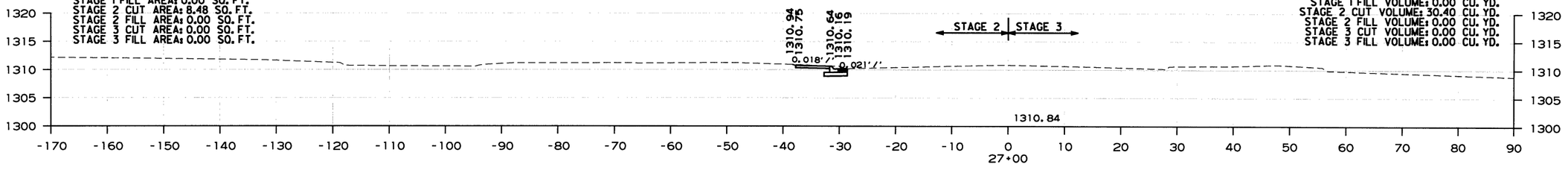


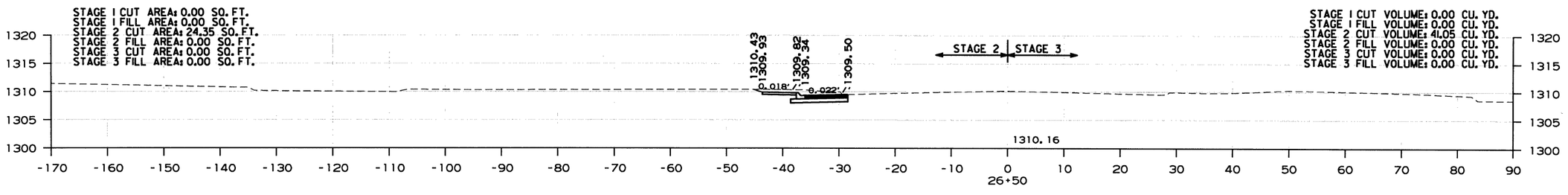
CROSS SECTION STA. 24+00 TO STA. 26+00

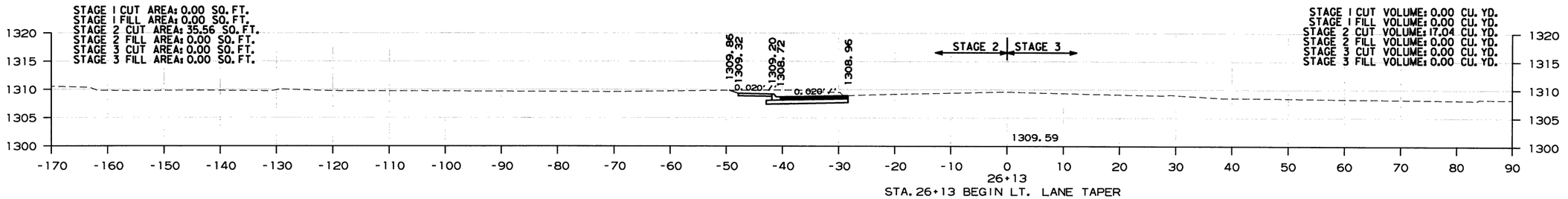
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		090376	555	555
				(2)	CROSS SECTIONS - HWY. 62/102			











CROSS SECTION STA. 26+13 TO STA. 27+24