

CHK/LDT R180-07 8716601\QUANT 2-18-89

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		7	40
				JOB NO.		40042		
				① SCHEDULE OF BRIDGE QUANTITIES				30177

SCHEDULE OF BRIDGE QUANTITIES

BRIDGE NO.	CODE NO.	NAME PLATE TITLE	UNIT OF BRIDGE	ITEM NO.	SP AND 205	SP AND 611	SP AND 611	SP AND 611	801	SP,SS & 802	SP,SS & 804	SP,SS& 805	SP,SS,& 805	SPSS,& 805	SP,SSAND 807	SS AND 807	SS AND 807	807	812	SP & 817	SP	SP
				ITEM	REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO. 1)	8" C.M. PERFORATED PIPE UNDERDRAINS FOR STRUCTURES	6" PVC PIPE UNDERDRAINS FOR STRUCTURES	8" PVC PIPE UNDERDRAINS FOR STRUCTURES	UNCLASSIFIED EXCAVATION FOR STRUCTURES BRIDGES *	CLASS S CONCRETE	REINFORCING STEEL GRADE 60	STEEL FILING (HP14 X 73)	STEEL PILING (HP14 X 89)	STEEL PILING (HP14 X 102)	STRUCTURAL STEEL IN BEAM SPANS (A36)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A36)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A588)	PAINTING STRUCTURAL STEEL	BRIDGE NAME PLATE (TYPE C)	UNTREATED TIMBER FOR BRIDGES	BRIDGE DECK WATER-PROOFING	WALL DRAINAGE SYSTEM
					LUMP SUM	LIN. FT.	LIN. FT.	LIN. FT.	CU. YD.	CU. YD.	LB.	LIN. FT.	LIN. FT.	LIN. FT.	LB.	LB.	LB.	TON	EA.	M.F.B.M.	SQ. YD.	SQ. FT.
6323	X631	HWY 180	EXISTING BRIDGE	1																		
			SOUTH ABUTMENT			90	85	1,909	602.8	46,885								1				2,036
			134' PLATE GIRDER SPAN		287										336,314	141,089	238.7			375		1,485
			NORTH ABUTMENT			115		1,962	508.5	41,750												
			295'-4" SHOOFLY TRESTLE						70.2	8,215	1,073	160	160	121,703				21				
TOTALS FOR JOB 40042				1	287	205	85	3,871	1,181.5	96,850	1,073	160	160	121,703	336,314	141,089	238.7	1	21	375	3,521	

* ESTIMATED QUANTITY OF ROCK EXCAVATION - JOB 40042 = 343 CU.YD.S

SCHEDULE OF BRIDGE QUANTITIES
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.N.F. DATE: OCT., 1988
CHECKED BY: T.B.H. DATE: OCT., 1988
DESIGNED BY: D.C.W. DATE: OCT., 1988
SCALE: AS NOTED

BRIDGE NO. 6323 DRAWING NO. 30177

BRIDGE ENGINEER

CHK/BWC R180--10 8710501 2-18-89

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		10	40
				JOB NO.		40042		
(1) GENERAL NOTES - BRIDGES								30178

GENERAL NOTES

1. LEVEL DATUM IS MEAN SEA LEVEL REFERENCED TO U.S.C. AND G.S.
2. ALL CONCRETE SHALL BE CLASS S.
3. REINFORCING STEEL SHALL BE ASTM A615 OR A617 GRADE 60 DEFORMED BARS. LAP SPLICES SHALL BE A MINIMUM OF 32 BAR DIAMETERS IN LENGTH UNLESS OTHERWISE NOTED. BAR SIZES ARE DESIGNATED BY NUMBER, THE FIRST DIGIT OR DIGITS INDICATING THE SIZE OF THE BAR. BARS SHALL BE ACCURATELY LOCATED IN THE FORMS AND FIRMLY HELD IN PLACE BY STEEL 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 OF "REINFORCING STEEL."
4. ALL CONCRETE SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.
5. ALL STRUCTURE STEEL SHALL BE A36 UNLESS NOTED ON THE DRAWINGS AS A588.
6. BORING LOGS MAY BE OBTAINED FROM THE PROGRAM AND CONTRACTS DIVISION UPON REQUEST.
7. EXISTING BRIDGE 1910 SHALL BE REMOVED IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATIONS AND SPECIAL PROVISION "REMOVAL OF EXISTING BRIDGE STRUCTURES".

NOTES FOR SHOOFLY

1. ALL TIMBERS SHALL BE SOUTHERN PINE OR DOUGLAS FIR WITH THE MINIMUM ALLOWABLE STRESS VALUES INDICATED BELOW:
F (BENDING STRESS) = 1600 P.S.I.
V (HORIZONTAL SHEAR STRESS) = 95 P.S.I.
C (COMPRESSION PARALLEL TO GRAIN) = 1450 P.S.I.
Q (COMPRESSION PERPENDICULAR TO GRAIN) = 500 P.S.I.
2. ALL MATERIAL REMOVED FROM THE TEMPORARY SHOOFLY STRUCTURE SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
3. SPIKES IN CROSSTIES AND BENTS WILL NOT BE MEASURED FOR PAYMENT BUT SHALL BE SUBSIDIARY TO THE ITEM "UNTREATED BRIDGE TIMBERS". MISCELLANEOUS ANGLES, PLATES, SHAPES AND BOLTS IN THE TEMPORARY SHOOFLY TRESTLE WILL BE PAID FOR AS "STRUCTURAL STEEL IN BEAM SPANS (A36)".
4. HOLES FOR DRIVE SPIKES TO BE BORED 1/2" DIAMETER.
5. THE APPLICABLE GRADING RULES SHALL BE THOSE OF THE SOUTHERN PINE INSPECTION BUREAU, OR THE WEST COAST LUMBERMEN'S ASSOCIATION. NO DIRECT PAYMENT WILL BE MADE FOR REMOVAL OF THE TEMPORARY SHOOFLY STRUCTURE; SUCH COST SHALL BE INCLUDED IN THE PRICE BID FOR MATERIALS INVOLVED.
6. STEEL H PILING SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER.

H PILING	DRIVEN CAPACITY (TONS)
HP 14X73	96
HP 14X89	117
HP 14X102	135

7. PILING LENGTHS ARE FOR ESTIMATING QUANTITIES AND FOR USE IN DETERMINING PAYMENT FOR CUT-OFF AND BUILD-UP IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. ESTIMATED LENGTH OF PILES IS 24'.
8. MANUFACTURED FILE TIPS SHALL BE INSTALLED ON ALL PILES ON THE SHOOFLY ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS. THE PILE TIPS SHALL BE HARD - BITE HP 77600 H - PILE POINTS MANUFACTURED BY ASSOCIATED PIPE AND FITTING CORPORATION, VERSA - BITE 300P ROCK DUTY SERIES H - PILE POINTS MANUFACTURED BY VERSA - STEEL, INC. OR EQUAL AS APPROVED BY THE BRIDGE ENGINEER. MANUFACTURED PILE TIPS SHALL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM OF "STEEL PILING (HP 14)."

STRUCTURAL STEEL NOTES

1. FIELD CONNECTIONS SHALL BE MADE WITH 7/8" DIAMETER BOLTS UNLESS OTHERWISE NOTED. THE MINIMUM DISTANCE BETWEEN THE CENTERS OF 7/8" DIAMETER BOLTS SHALL NO BE LESS THAN 3 TIMES THE DIAMETER OF THE BOLT AND PREFERABLY NOT LESS THAN 3". THE MINIMUM DISTANCE FROM THE CENTER OF A 7/8" DIAMETER BOLT TO A SHEARED OR FLAME CUT EDGE SHALL BE 1 1/2" AND TO A ROLLED OR PLANED EDGE SHALL BE 1 1/4". BOLT HOLES IN FIELD SPLICES SHALL NOT EXCEED 15/16" IN DIAMETER. BOLT HEADS AT FIELD SPLICES SHALL BE PLACED ON THE EXTERIOR SIDE OF BEAMS, AND DOTTOM OF BEAM FLANGES.
2. OVERSIZED HOLES 3/16" GREATER THAN THE BOLT DIAMETER MAY BE USED AT ALL BOLTED CONNECTIONS OTHER THAN FIELD SPLICES FOR BOLTS 7/8" AND LESS IN DIAMETER. WASHERS UNDER BOTH NUT AND HEAD OF THE BOLT SHALL BE USED WITH OVERSIZED BOLT HOLES.
3. ALL WIDE FLANGE BEAMS AND PLATE GIRDERS SHALL MEET THE REQUIREMENTS OF THE CHARPY V-NOTCH TEST AS SPECIFIED IN SUBSECTION 807.05 OF THE STANDARD SPECIFICATIONS. WIDE FLANGE BEAMS IN THE TEMPORARY SHOOFLY STRUCTURE DO NOT REQUIRE CHARPY V-NOTCH TESTS.
4. STRUCTURAL SHAPES OF EQUAL OR GREATER STRENGTH MAY BE SUBSTITUTED FOR SHAPES SHOWN IF APPROVAL IS OBTAINED FORM THE BRIDGE ENGINEER. PAYMENT WILL BE MADE ON THE BASIS OF SHAPES SHOWN.
5. ALL WELDS TO BE MADE DURING FABRICATION, BOTH TEMPORARY AND PERMANENT, SHALL BE FULLY DETAILED ON SHOP DRAWINGS. ADDITIONAL WELDS FOR ERECTION PURPOSES, BOTH PERMANENT AND TEMPORARY, SHALL BE FULLY DETAILED AND SUBMITTED TO THE BRIDGE ENGINEER.
6. ALL WELDING SHALL CONFORM TO SUBSECTION 807.24 OF THE STANDARD SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATION 807-1.
7. ALL BEAMS SHALL BE BLOCKED IN THEIR TRUE POSITION, WITH WEBS HORIZONTAL, IN THE SHOP. THE CAMBER, LENGTH OF SECTIONS, DISTANCE BETWEEN BEARINGS AND OPENING OF JOINTS SHALL BE MEASURED WITH THE BEAMS IN THIS POSISTION AND THIS INFORMATION SHALL BECOME A PART OF THE PERMANENT RECORDS OF THIS JOB.
8. BEARINGS SHALL BE FIRMLY SEATED IN ACCORDANCE WITH SUBSECTION 807.51 OF THE STANDARD SPECIFICATIONS. THIS ITEM OF WORK AND MATERIAL IS TO BE CONSIDERED AS SUBSIDIARY TO THE ITEM OF "STRUCTURAL STEEL IN BEAM SPANS (A36)" AND WILL NOT BE PAID FOR DIRECTLY.
9. THE BEARING ASSEMBLES SHALL BE SET IN A VERTICAL POSITION AT 60 DEGREES F.
10. ALL STRUCTURAL STEEL IN MAIN LINE BRIDGE, EXCEPT GALVANIZED MEMBERS, CONTACT SURFACES OF BOLTED CONNECTIONS, SURFACES WITHIN 3" OF HOLES AND FIELD WELDS, AND SURFACES IN CONTACT WITH CONCRETE, SHALL BE GIVEN ONE SHOP PRIME COAT AND TWO FIELD COATS OF PAINT AFTER ERECTION AS SPECIFIED IN SUBSECTION 807.59 OF THE STANDARD SPECIFICATIONS. THE FINISH COAT SHALL BE ALUMINUM.
11. ANCHOR BOLTS IN THE MAINLINE BRIDGE SHALL BE ASTM DESIGNATION A36 AND SHALL BE GALVANIZED TO CONFORM TO ASTM A153. ANCHOR BOLTS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A36)."
12. STEEL PLATES FOR MAIN MEMBERS SHALL BE CUT AND FABRICATED SO THAT THE PRIMARY DIRECTION OF ROLLING IS PARALLEL TO THE DIRECTION OF THE MAIN TENSLE AND / OR COMPRESSIVE STRESS.
13. GROOVE WELDS IN MAIN MEMBERS SHALL BE QUALITY CONTROL (Q.C.) TESTED BY NONDESTRUCTIVE TESTING AS REQUIRED BY THE GOVERNING WELDING SPECIFICATION. FILLET WELDS AT FLANGE TO WEB PLATE CONNECTIONS SHALL BE Q.C. TESTED BY THE MAGNETIC PARTICLE METHOD. ALL Q.C. TESTING IS TO BE AT THE CONTRACTORS EXPENSE.

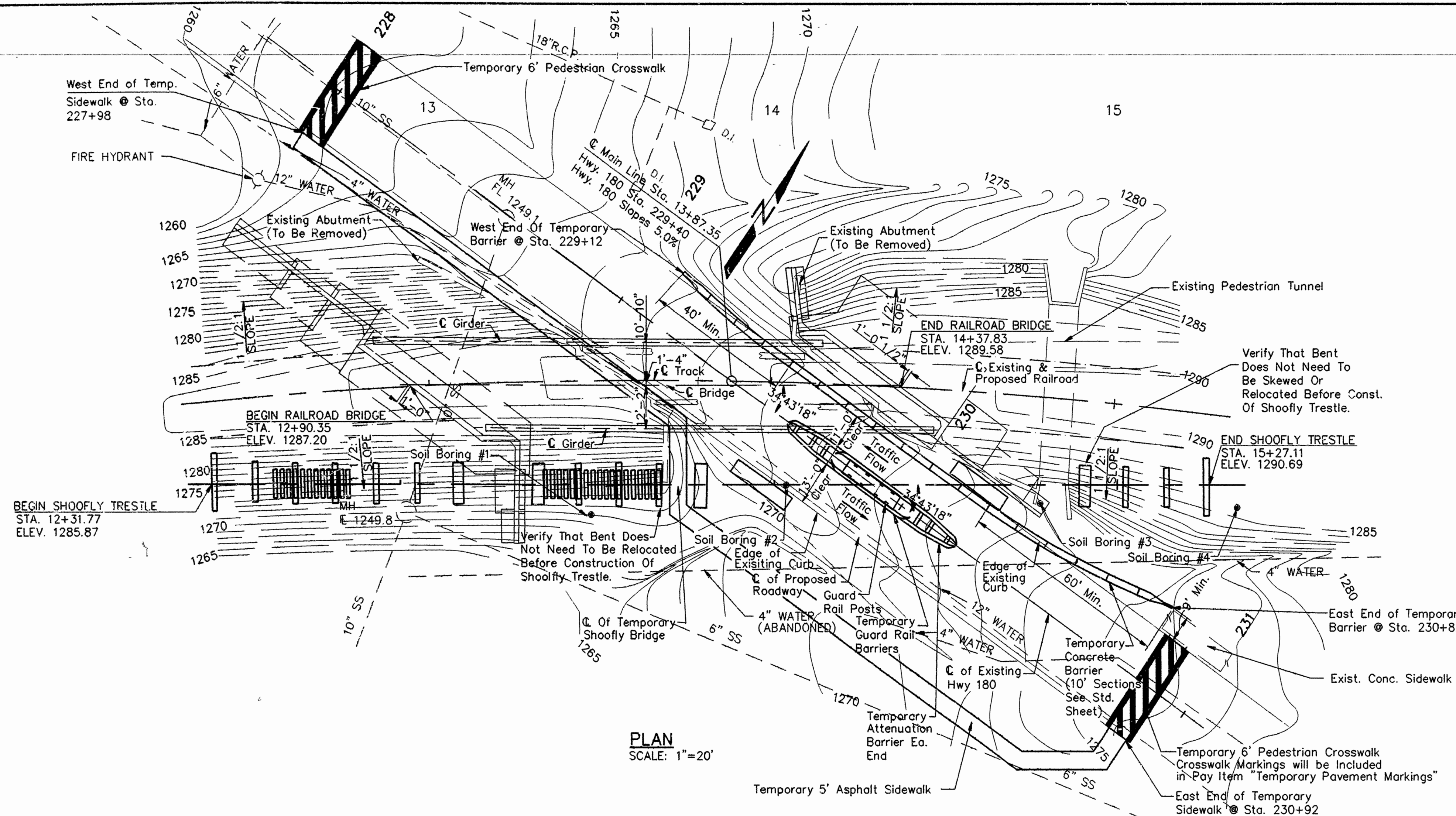
GENERAL NOTES
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: B.W.C. DATE: OCT., 1988
CHECKED BY: T.B.H. DATE: OCT., 1988 SCALE: NONE
DESIGNED BY: D.C.W. DATE: OCT., 1988

BRIDGE NO. DRAWING NO. 30178

BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8-24-89	9-6-89			6	ARK.		11	40
JOB NO.						40042		
1 LAYOUT OF TEMP. SHOOFLY STRUC.								30179



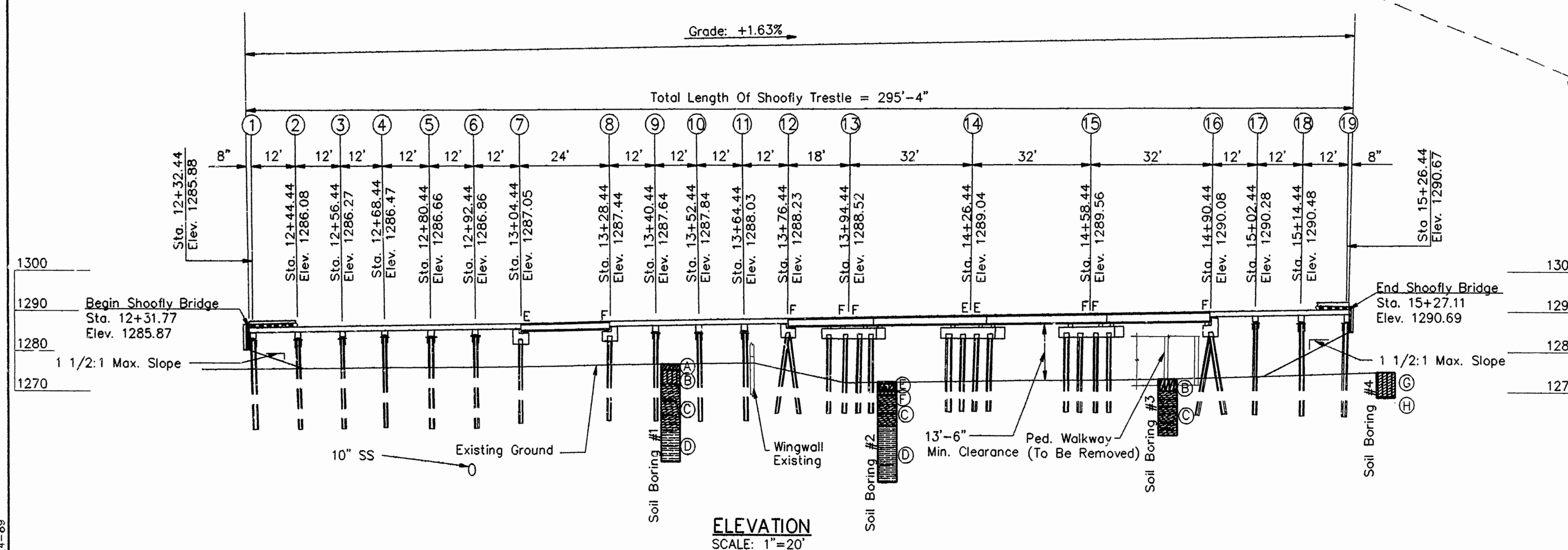
PLAN
SCALE: 1"=20'

SEQUENCE OF CONSTRUCTION

1. Place Shoofly Embankment From Beginning Of Shoofly To Shoofly Trestle. (Both North & South Sides)
2. Construct Shoofly Trestle & Construct Temporary Railroad Tracks On Embankment. Construct Temporary Guard Rail Barriers Around The Shoofly Bridge Pier At The Centerline Of Hwy 180 & Temporary Concrete Barrier On North Side Of Hwy 180 Around Proposed Abutment.
3. Switch Rail Traffic To Shoofly.
4. Remove Existing Railroad Bridge. The Existing Bridge Shall Be Salvaged For Re-erection. See Special Provision For Salvage And Disposal.
5. Construct Temporary Asphalt Sidewalk & Crosswalks. Provide Covered Sidewalk Under Shoofly And Bridge Construction. Covered Sidewalk Will Be Subsidiary To Maintenance Of Traffic.
6. Demolish Pedestrian Tunnel.
7. Construct Railroad Bridge. After Excavation For The North Abutment And The First Lift Of The North Abutment Front Wall Is Completed, The Temporary Concrete Barriers Shall Be Taken Down And New Curb And Gutter Constructed.
8. Complete Embankment & Construct Track.
9. Switch Rail Traffic To Permanent Alignment.
10. Remove Shoofly Trestle & Regrade Shoofly Embankment.

NOTE:

EXISTING 12" & 4" WATER MAINS, AND EXISTING 10" AND 6" SANITARY SEWER LINES ARE TO REMAIN IN PLACE AND IN SERVICE. THE CONTRACTOR IS TO EXERCISE EXTREME CAUTION IN THE AREAS OF THESE UTILITIES. EXACT LOCATION OF UTILITIES TO BE DETERMINED PRIOR TO COMMENCING CONSTRUCTION. PLAN LOCATIONS ARE APPROXIMATIONS AND SHOULD BE VERIFIED BY THE CONTRACTOR.



ELEVATION
SCALE: 1"=20'

SOIL BORING LEGEND

- (A) Medium dense brown clayey sand (fill)
- (B) Very stiff to stiff tan and gray silty clay with numerous ferrous nodules.
- (C) Soft gray and tan weathered clayey shale with ferrous stains and deposits.
- (D) Soft to medium soft dark gray shale.
- (E) Stiff reddish tan silty clay with chert gravel.
- (F) Hard light gray limestone.
- (G) Very stiff to stiff reddish tan, tan and gray silty clay with ferrous nodules.
- (H) Medium hard light gray limestone.

LAYOUT OF TEMPORARY SHOOFLY STRUCTURE
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: R.N.F. DATE: OCT., 1988
CHECKED BY: T.B.H. DATE: OCT., 1988
DESIGNED BY: D.C.W. DATE: OCT., 1988

SCALE: AS NOTED

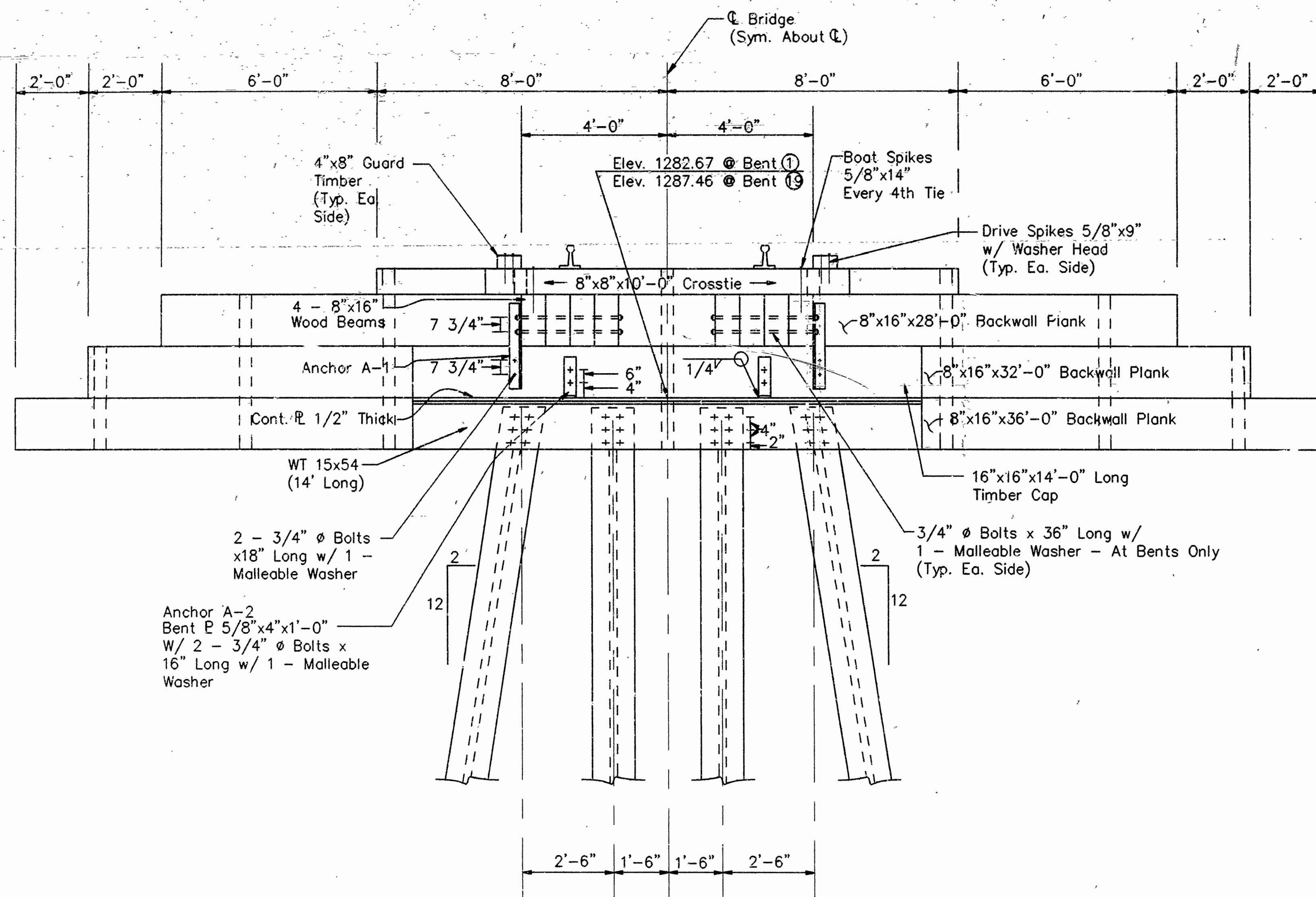
BRIDGE NO.

DRAWING NO. 30179

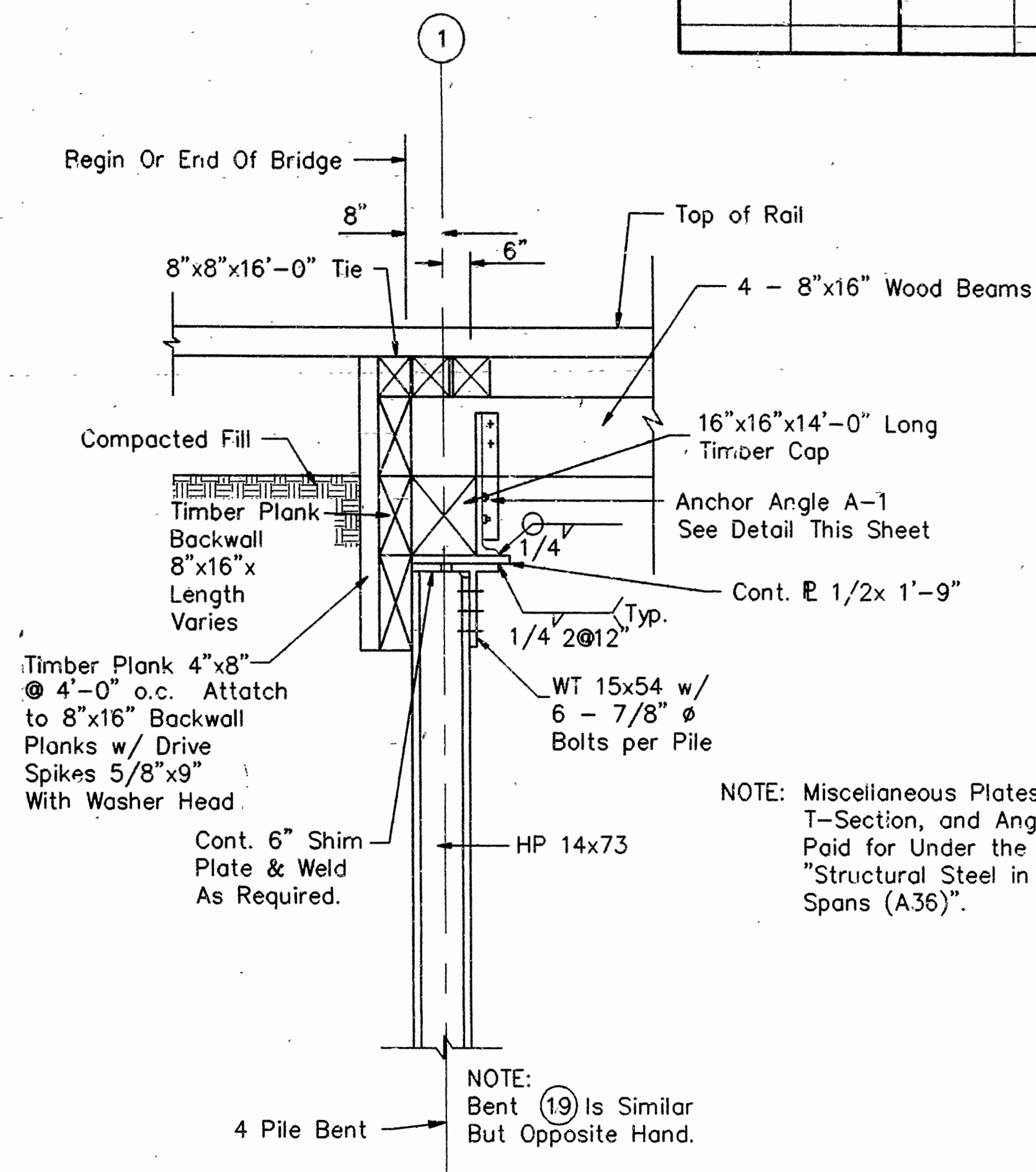
BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		12	40
						40042		

(1) SHOOFLY ABUTMENT DETAILS 3018



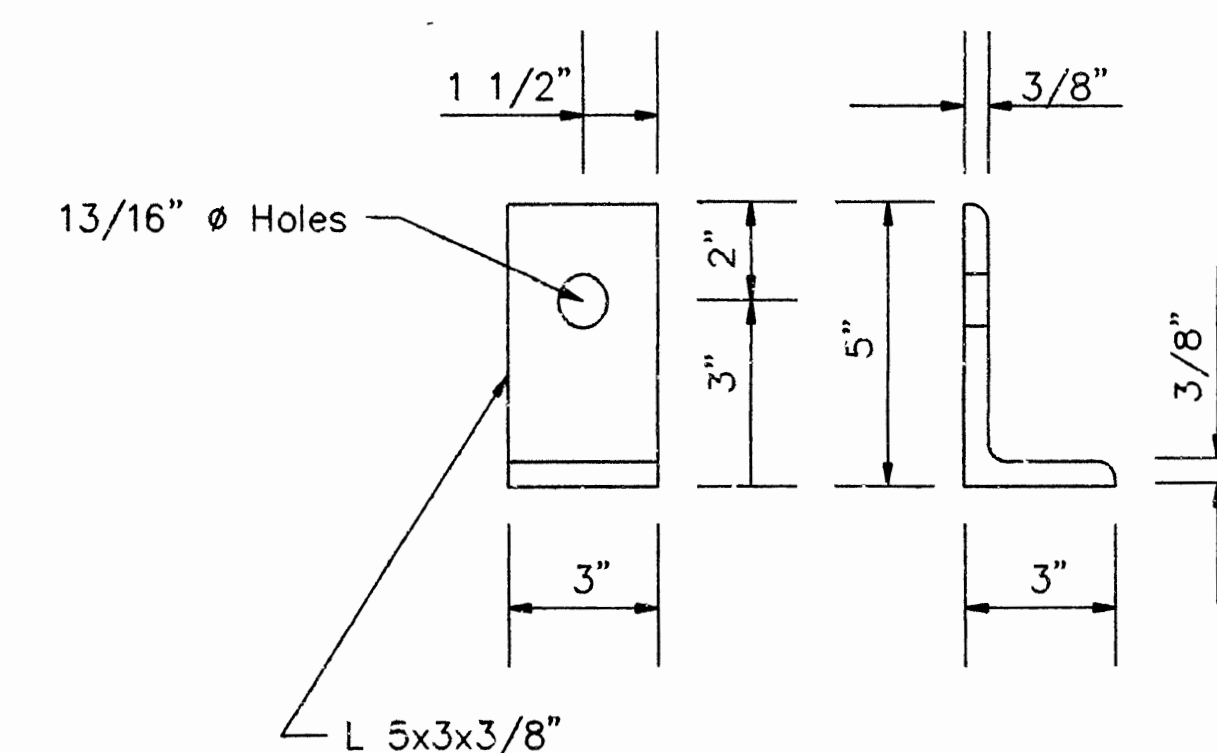
SECTION A-A
SCALE: 1/2"=1'-0"



NOTE: Miscellaneous Plates, Bolts
T-Section, and Angles to be
Paid for Under the Item
"Structural Steel in Beam
Spans (A36)".

4 Pile Bent → NOTE:
Bent (19) Is Similar
But Opposite Hand.

END VIEW
SCALE: 1/2"=1'-0"



ANCHOR ANGLE A-4
Scale: None

SHOOFLY ABUTMENT DETAILS
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: R.N.F. DATE: OCT., 1988
CHECKED BY: T.B.H. DATE: OCT., 1988
DESIGNED BY: D.C.W. DATE: OCT., 1988

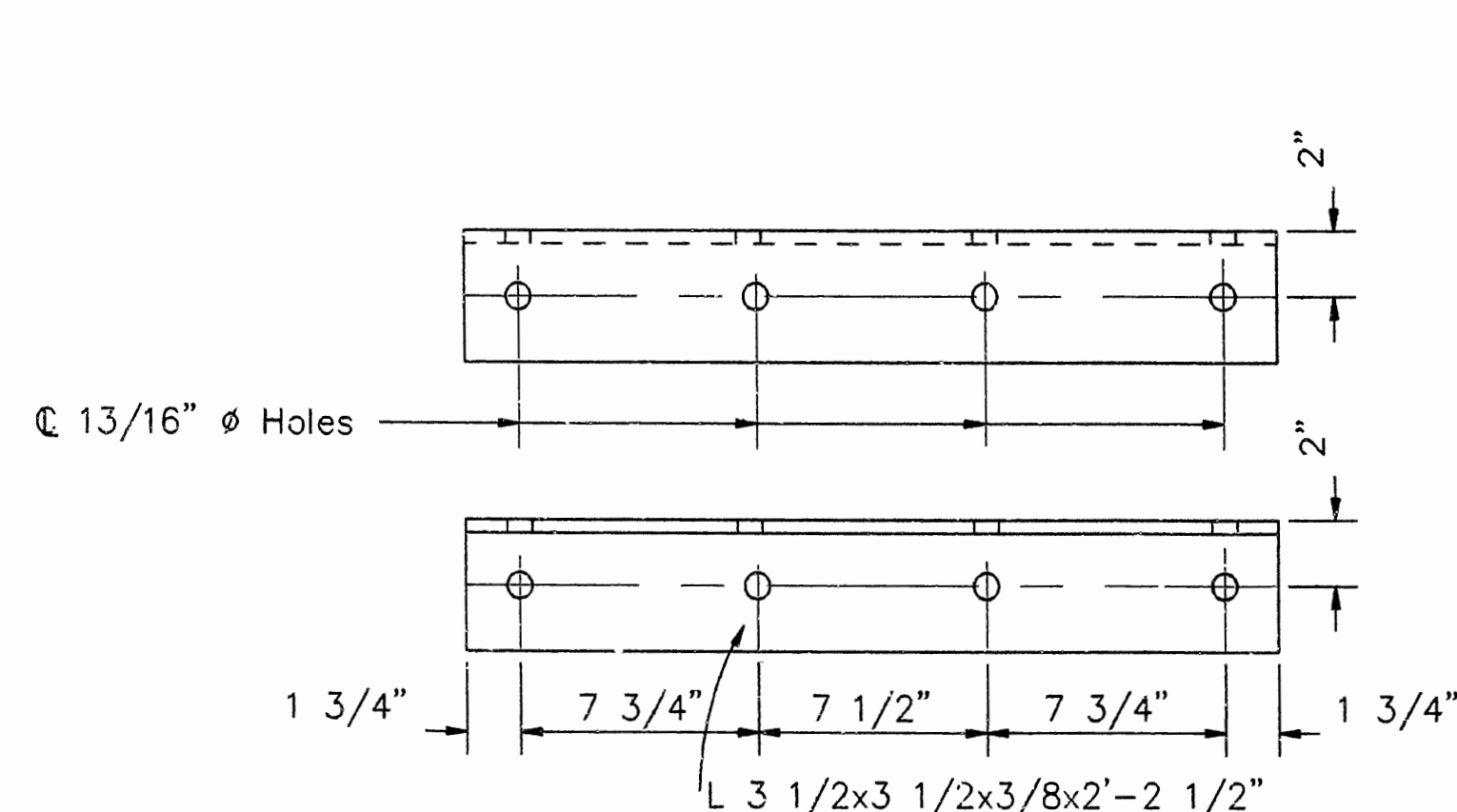
SCALE: AS NOTED

BRIDGE NO.

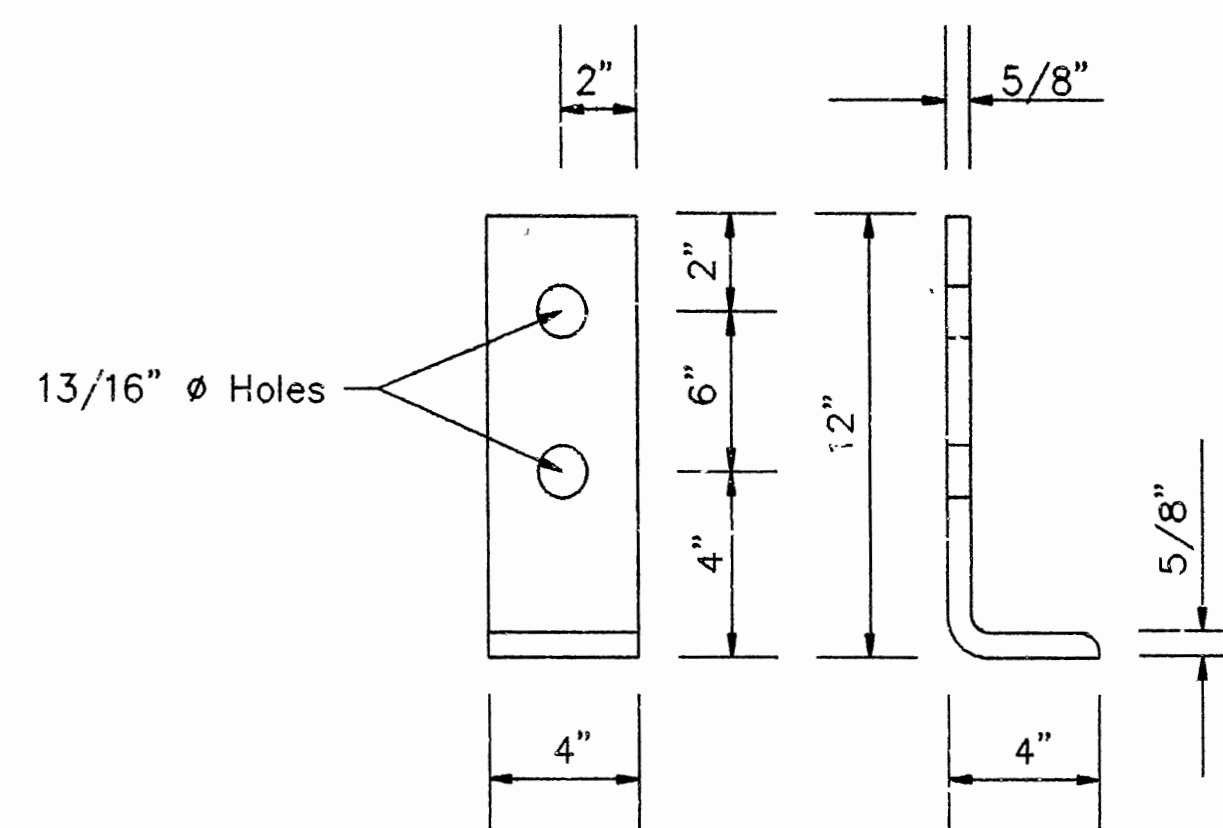
DRAWING NO. 30180

Anchor 'A-2
Bent P 5/8"x4"x1'-0" —
W/ 2 - 3/4" \emptyset Bolts x
16" Long w/ 1 - Malleable
Washer

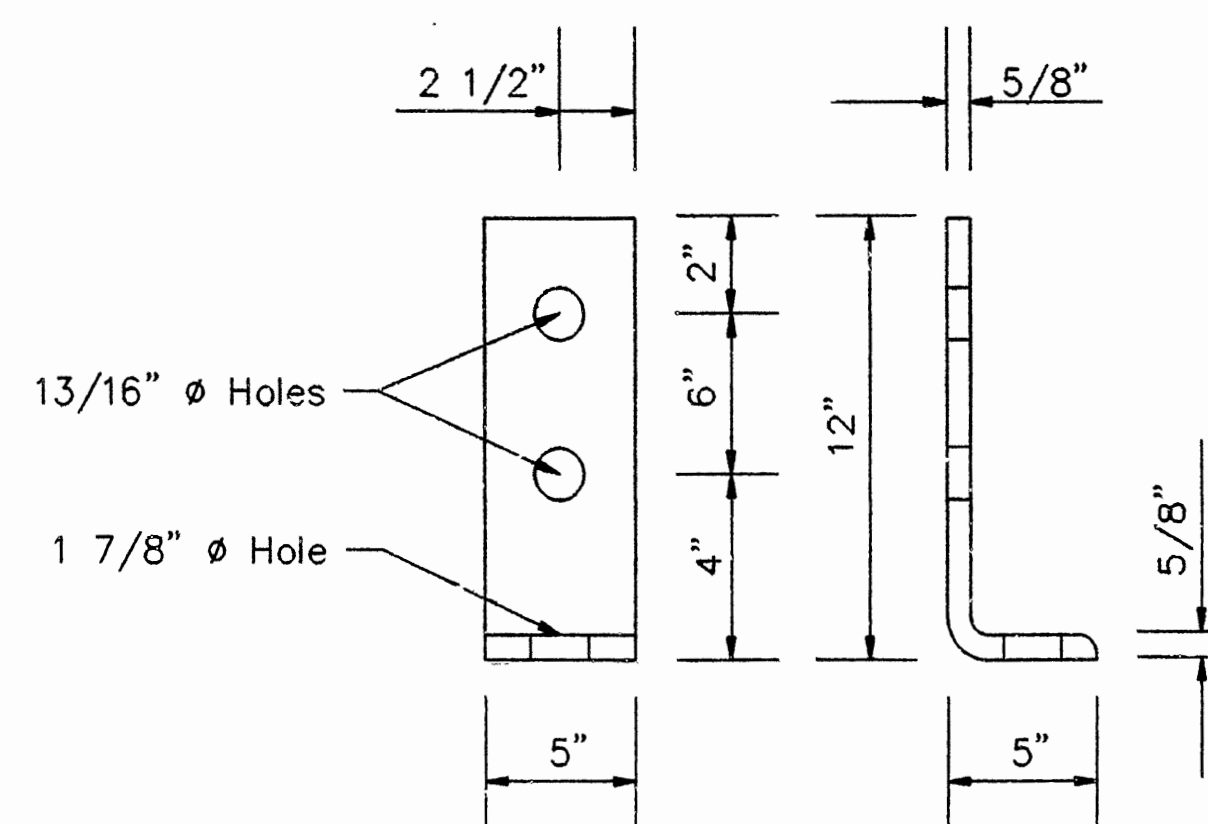
ANCHOR ANGLE A-1
Scale: None



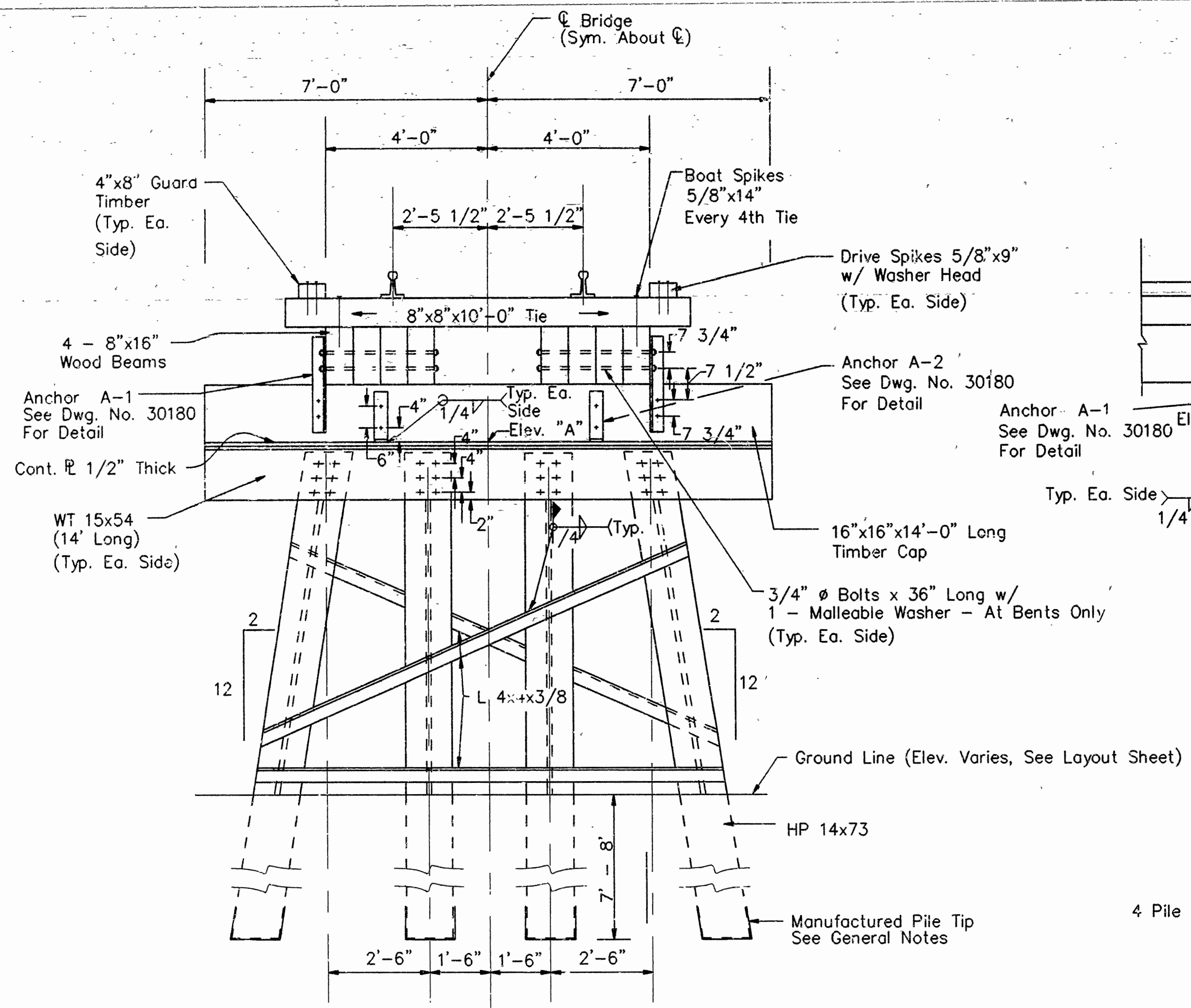
BENT PLATE ANCHOR A-2
Scale: None



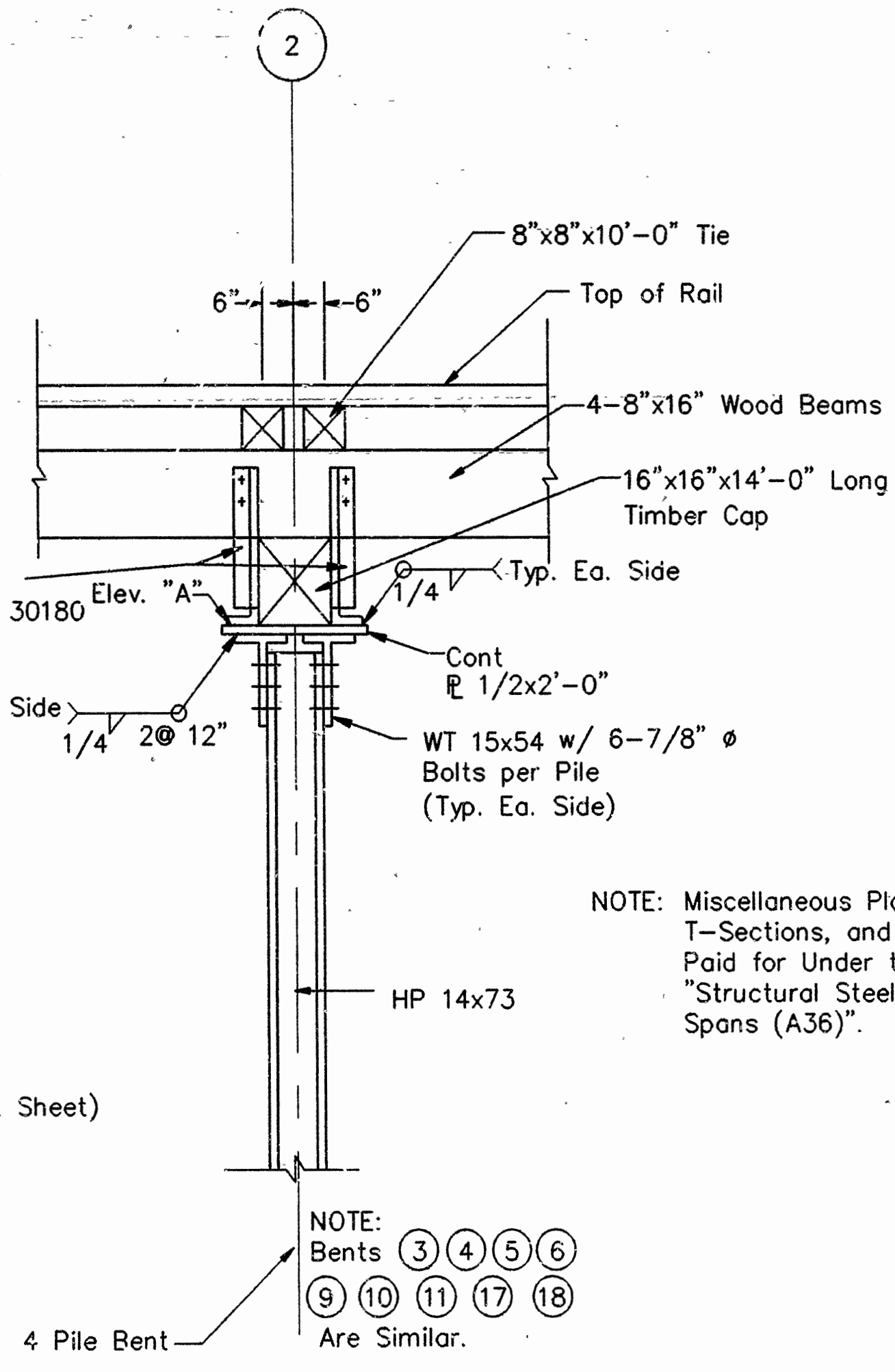
BENT PLATE ANCHOR A-3
Scale: None



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		13	40
				JOB NO.		40042		
				(1) SHOOFLY BENT DETAIL (1 OF 3)			30181	



SECTION B-B
SCALE: 1/2"=1'-0"



END VIEW
SCALE: 1/2"=1'-0"

ELEVATION "A"	
Bent No.	Bearing Elev.
2	1282.87
3	1283.06
4	1283.26
5	1283.45
6	1283.65
9	1284.43
10	1284.63
11	1284.82
17	1287.07
18	1287.27

SHEET 1 OF 3
SHOOFLY BENT DETAILS
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: R.N.F. DATE: OCT., 1988
CHECKED BY: T.B.H. DATE: OCT., 1988
DESIGNED BY: D.C.W. DATE: OCT., 1988
SCALE: AS NOTED
BRIDGE NO. DRAWING NO. 30181

DWF/RNF R80-07C 8716601 4-16-90 15 1:1

⚠ REVISD SKEW ANGLE AND SIZE FOR END
FLOOR BEAM, ADDED FLOOR BEAM SHOE
AND PEDESTAL. REVISED QUANTITIES.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
11-15-90	12-4-90			6	ARK.		6	31
				JOB NO.		40042		
				① SCHEDULE OF BRIDGE QUANTITIES				30183

SCHEDULE OF BRIDGE QUANTITIES

BRIDGE NO.	CODE NO.	NAME PLATE TITLE	UNIT OF BRIDGE	ITEM NO.	SP AND 205	SP AND 611	SP AND 611	SP AND 611	801	SS AND 802	SS & 804	SS AND 807	SS AND 807	807	812	SP	SP	SP
				ITEM	REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO. 1)	8" C.M. PIPE UNDERDRAINS FOR STRUCTURES	6" PVC PIPE UNDERDRAINS FOR STRUCTURES	8" PVC PIPE UNDERDRAINS FOR STRUCTURES	UNCLASSIFIED EXCAVATION FOR STRUCTURES BRIDGES *	CLASS S CONCRETE	REINFORCING STEEL (GRADE 60)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A36)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A588)	PAINTING STRUCTURAL STEEL	BRIDGE NAME PLATE (TYPE C)	BRIDGE DECK WATER-PROOFING	WALL DRAINAGE SYSTEM	SHORING
					LUMP SUM	LIN. FT.	LIN. FT.	LIN. FT.	CU. YD.	CU. YD.	LB.	LB.	LB.	TON	EA.	SQ. YD.	SQ. FT.	LUMP SUM
6323	X631	HWY 180	EXISTING BRIDGE		1													
			SOUTH ABUTMENT				96	65	1,350	403.3 404.3	30,190 30250	19		1			1,633	0.5
			134'-5 3/4" PLATE GIRDER SPAN		290							303,672 315,422	138,655 132,440	221.2		332		
			NORTH ABUTMENT			104		852	318.6 319.6	23,543 23,600	19						1,408	0.5
TOTALS FOR JOB 40042				1	290	200	65	2,202	721.9 723.9	53,733 53,850	303,710 315,460	138,655 132,440	221.2 224.0	1	332	3,041	1	

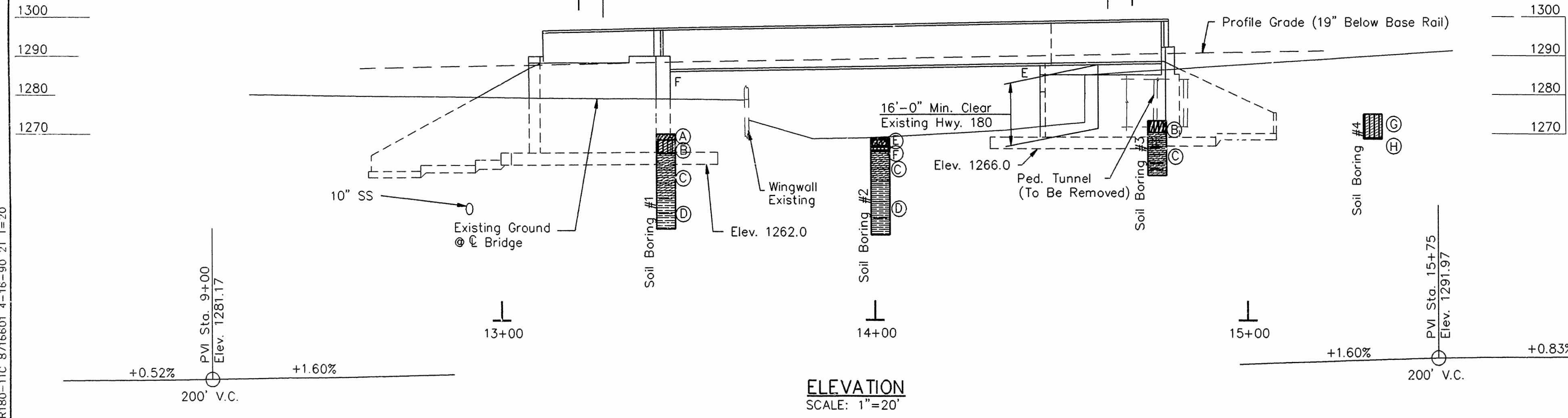
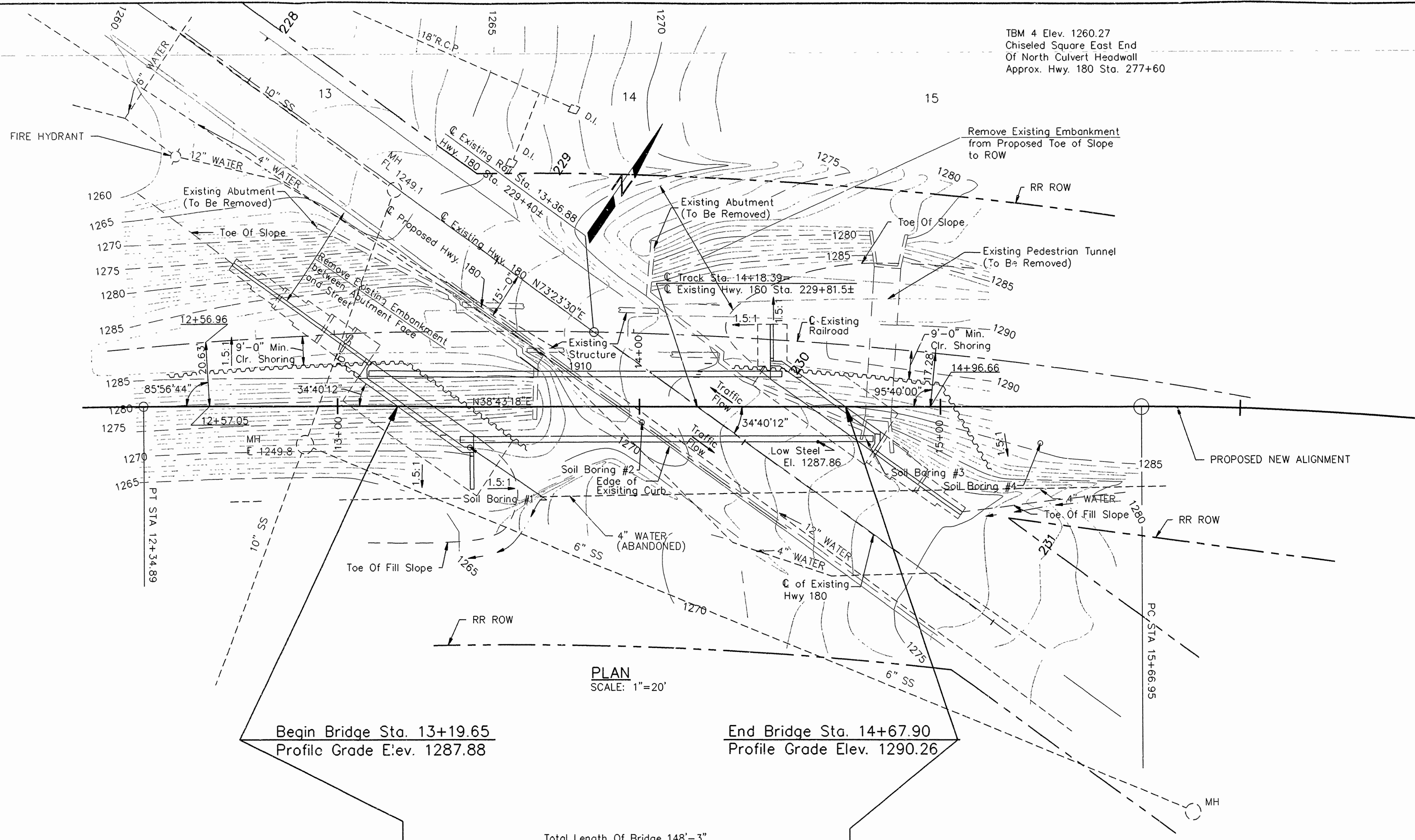
* ESTIMATED QUANTITY OF ROCK EXCAVATION - JOB 40042 = 213 CU.YD.S



SCHEDULE OF BRIDGE QUANTITIES
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: R.N.F. DATE: OCT., 1988
CHECKED BY: T.B.H. DATE: OCT., 1988
DESIGNED BY: D.C.W. DATE: OCT., 1988
SCALE: AS NOTED
BRIDGE NO. 6323 DRAWING NO. 30183

BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		9	31
				JOB NO.		40042		
				LAYOUT OF HWY. 180 GRADE SEP.				30184



SOIL BORING LEGEND

- (A) Medium dense brown clayey sand (fill)
- (B) Very stiff to stiff tan and gray silty clay with numerous ferrous modules.
- (C) Soft gray and tan weathered clayey shale with ferrous stains and deposits.
- (D) Soft to medium soft dark gray shale.
- (E) Stiff reddish tan silty clay with chert gravel.
- (F) Hard light gray limestone.
- (G) Very stiff to stiff reddish tan, tan and gray silty clay with ferrous modules.
- (H) Medium hard light gray limestone.

LAYOUT OF HIGHWAY 180 GRADE SEPARATION
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.
DRAWN BY: R.N.F. DATE: OCT., 1988
CHECKED BY: J.B.H. DATE: OCT., 1988
DESIGNED BY: D.C.W. DATE: OCT., 1988
SCALE: AS NOTED

BRIDGE NO. 6323 DRAWING NO. 30184

TBM 4 Elev. 1260.27
Chiseled Square East End
Of North Culvert Headwall
Approx. Hwy. 180 Sta. 277+60

DMF/RNF R180-10C 8716601 4-17-90 15 1-1

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		10	31
				JOB NO.		40042		
① GENERAL NOTES - BRIDGES								30185

GENERAL NOTES

1. LEVEL DATUM IS MEAN SEA LEVEL REFERENCED TO U.S.C. AND G.S.
2. ALL CONCRETE SHALL BE CLASS S.
3. REINFORCING STEEL SHALL BE ASTM A615 OR A617 GRADE 60 DEFORMED BARS. LAP SPLICES SHALL BE A MINIMUM OF 32 BAR DIAMETERS IN LENGTH UNLESS OTHERWISE NOTED. BAR SIZES ARE DESIGNATED BY NUMBER, THE FIRST DIGIT OR DIGITS INDICATING THE SIZE OF THE BAR. BARS SHALL BE ACCURATELY LOCATED IN THE FORMS AND FIRMLY HELD IN PLACE BY STEEL 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 OF "REINFORCING STEEL."
4. ALL CONCRETE SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.
5. ALL STRUCTURAL STEEL SHALL BE A36 UNLESS NOTED ON THE DRAWINGS AS A588.
6. BORING LOGS MAY BE OBTAINED FROM THE PROGRAM AND CONTRACTS DIVISION.
7. EXISTING BRIDGE 1910 SHALL BE REMOVED IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATIONS AND SPECIAL PROVISION "REMOVAL OF EXISTING BRIDGE STRUCTURES".
8. QUANTITIES FOR "STRUCTURAL EXCAVATION" ARE COMPUTED IN ACCORDANCE WITH STANDARD DRAWING NO. 1891F.
9. ALL FOOTINGS SHALL BE FOUNDED A MINIMUM OF ONE FOOT INTO SHALE.

STRUCTURAL STEEL NOTES

1. FIELD CONNECTIONS SHALL BE MADE WITH 7/8" DIAMETER BOLTS UNLESS OTHERWISE NOTED. THE MINIMUM DISTANCE BETWEEN THE CENTERS OF 7/8" DIAMETER BOLTS SHALL NO BE LESS THAN 3 TIMES THE DIAMETER OF THE BOLT AND PREFERABLY NOT LESS THAN 3". THE MINIMUM DISTANCE FROM THE CENTER OF A 7/8" DIAMETER BOLT TO A SHEARED OR FLAME CUT EDGE SHALL BE 1 1/2" AND TO A ROLLED OR PLANED EDGE SHALL BE 1 1/4". BOLT HOLES IN FIELD SPLICES SHALL NOT EXCEED 15/16" IN DI.METER. BOLT HEADS AT FIELD SPLICES SHALL BE PLACED ON THE EXTERIOR SIDE OF BEAMS, AND BOTTOM OF BEAM FLANGES.
2. OVERSIZED HOLES 3/16" GREATER THAN THE BOLT DIAMETER MAY BE USED AT ALL BOLTED CONNECTIONS OTHER THAN FIELD SPLICES FOR BOLTS 7/8" AND LESS IN DIAMETER. WASHERS UNDER BOTH NUT AND HEAD OF THE BOLT SHALL BE USED WITH OVERSIZED BOLT HOLES.
3. ALL WIDE FLANGE BEAMS AND PLATE GIRDERS SHALL MEET THE REQUIREMENTS OF THE CHARPY V--NOTCH TEST AS SPECIFIED IN SUBSECTION 807.05 OF THE STANDARD SPECIFICATIONS. IN ADDITION, THE BOTTOM FLANGES OF THE PLATE GIRDER SHALL HAVE FREQUENCY (P) IMPACT TESTING TO 30 FT. LB. AT 50' F.
4. STRUCTURAL SHAPES OF EQUAL OR GREATER STRENGTH MAY BE SUBSTITUTED FOR SHAPES SHOWN IF APPROVAL IS OBTAINED FORM THE BRIDGE ENGINEER. PAYMENT WILL BE MADE ON THE BASIS OF SHAPES SHOWN.
5. ALL WELDS TO BE MADE DURING FABRICATION, BOTH TEMPORARY AND PERMANENT, SHALL BE FULLY DETAILED ON SHOP DRAWINGS. ADDITIONAL WELDS FOR ERECTION PURPOSES, BOTH PERMANENT AND TEMPORARY, SHALL BE FULLY DETAILED AND SUBMITTED TO THE BRIDGE ENGINEER.
6. ALL WELDING SHALL CONFORM TO SUBSECTION 807.24 OF THE STANDARD SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATION 807-1.
7. ALL BEAMS SHALL BE BLOCKED IN THEIR TRUE POSITION, WITH WEBS HORIZONTAL, IN THE SHOP. THE CAMBER, LENGTH OF SECTIONS, DISTANCE BETWEEN BEARINGS AND OPENINC OF JOINTS SHALL BE MEASURED WITH THE BEAMS IN THIS POSITION AND THIS INFORMATION SHALL BECOME A PART OF THE PERMANENT RECORDS OF THIS JOB.
8. BEARINGS SHALL BE FIRMLY SEATED IN ACCORDANCE WITH SUBSECTION 807.51 OF THE STANDARD SPECIFICATIONS. THIS ITEM OF WORK AND MATERIAL IS TO BE CONSIDERED AS SUBSIDIARY TO THE ITEM OF "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A36)" AND WILL NOT BE PAID FOR DIRECTLY.
9. THE BEARING ASSEMBLES SHALL BE SET IN A VERTICAL POSITION AT 60 DEGREES F.
10. ALL STRUCTURAL STEEL, EXCEPT GALVANIZED MEMBERS, CONTACT SURFACES OF BOLTED CONNECTIONS, SURFACES WITHIN 3" OF HOLES AND FIELD WELDS, AND SURFACES IN CONTACT WITH CONCRETE, SHALL BE GIVEN ONE SHOP PRIME COAT AND TWO FIELD COATS OF PAINT AFTER ERECTION AS SPECIFIED IN SUBSECTION 807.59 OF THE STANDARD SPECIFICATIONS. THE FINISH COAT SHALL BE ALUMINUM.
11. ANCHOR BOLTS SHALL BE ASTM DESIGNATION A36 AND SHALL BE GALVANIZED TO CONFORM TO ASTM A153. ANCHOR BOLTS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS (A36)."
12. STEEL PLATES FOR MAIN MEMBERS SHALL BE CUT AND FABRICATED SO THAT THE PRIMARY DIRECTION OF ROLLING IS PARALLEL TO THE DIRECTION OF THE MAIN TENSLE AND / OR COMPRESSIVE STRESS.
13. GROOVE WELDS IN MAIN MEMBERS SHALL BE QUALITY CONTROL (Q.C.) TESTED BY NONDESTRUCTIVE TESTING AS REQUIRED BY THE GOVERNING WELDING SPECIFICATION. FILLET WELDS AT FLANGE TO WEB PLATE CONNECTIONS SHALL BE Q.C. TESTED BY THE MAGNETIC PARTICLE METHOD. ALL Q.C. TESTING IS TO BE AT THE CONTRACTORS EXPENSE.
14. ULTRASONIC TESTING AT THE MILL IS REQUIRED FOR THE PLATE GIRDER FLANGES.
15. THE STRUCTURAL STEEL FABRICATOR SHALL BE CERTIFIED UNDER THE AISC QUALITY CERTIFICATION PROGRAM, CATEGORY III, MAJOR STEEL BRIDGES.

GENERAL NOTES -- BRIDGES
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

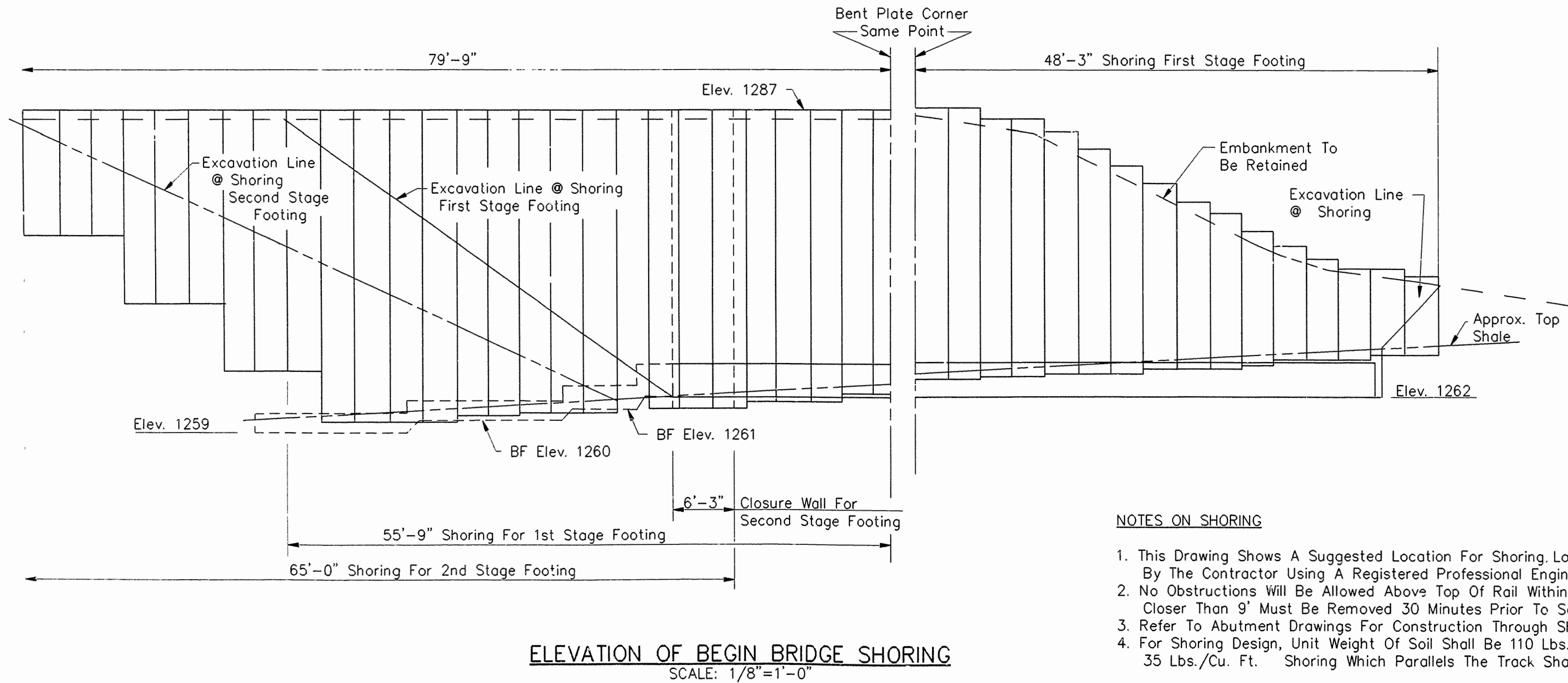
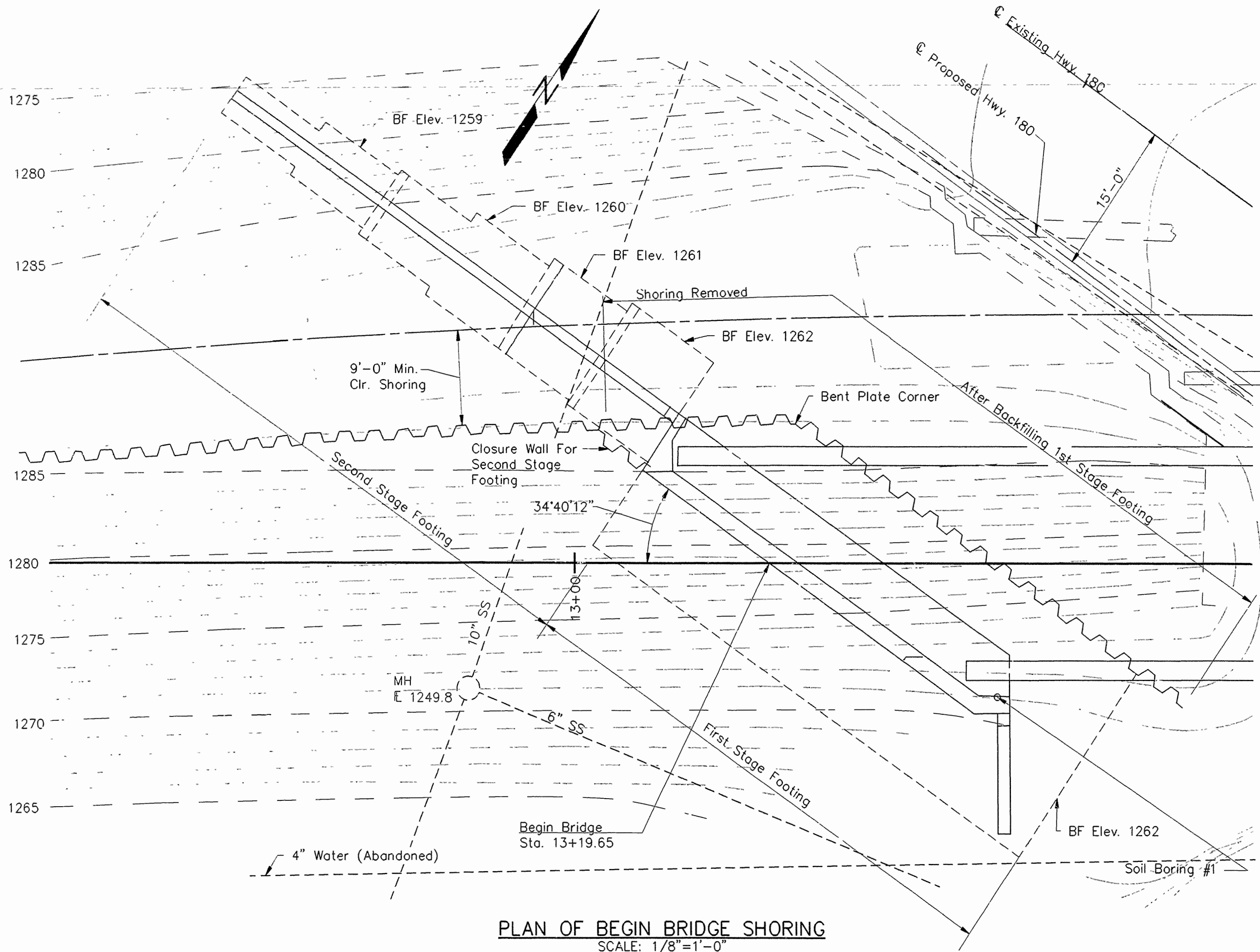
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CHECKED BY: T.B.H. DATE: OCT., 1988 SCALE: NONE
DESIGNED BY: D.C.W. DATE: OCT., 1988

BRIDGE ENGINEER

BRIDGE NO. 6323

DRAWING NO. 30185

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		11	31
				JOB NO.		40042		
				SHORING-PLAN				30186

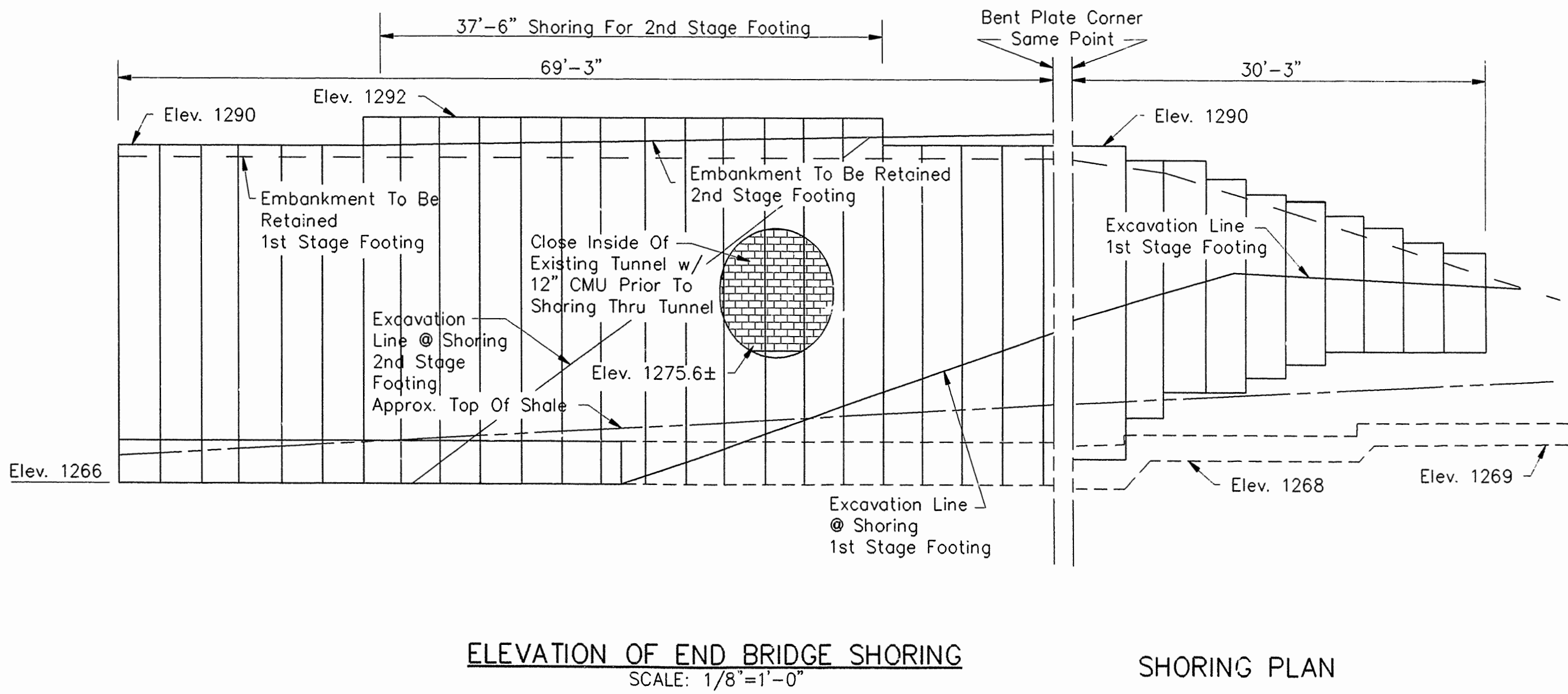
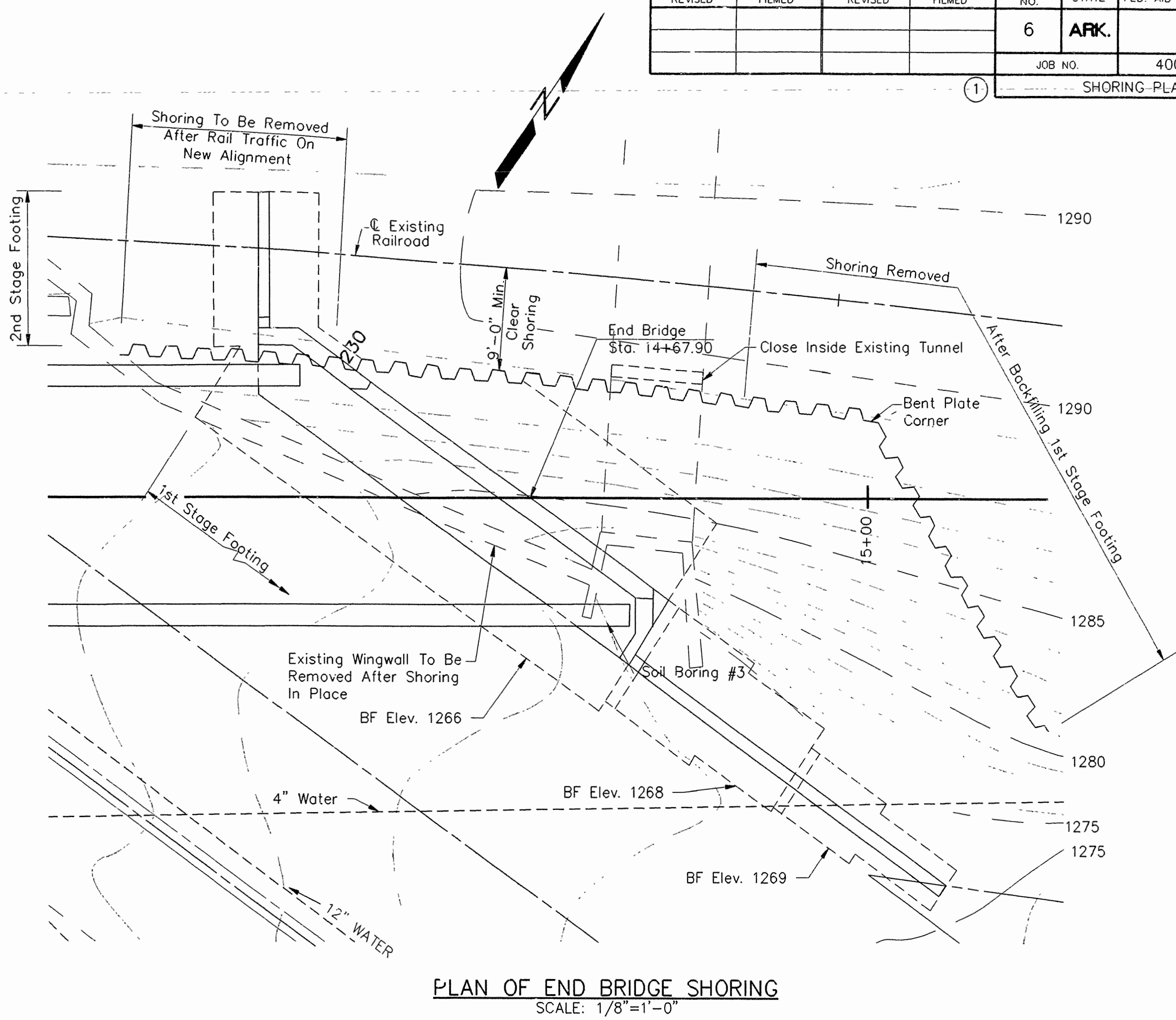


NOTES ON SHORING

1. This Drawing Shows A Suggested Location For Shoring. Location, Type Of Shoring And Bracing Is To Be Designed By The Contractor Using A Registered Professional Engineer and Submitted To The Railroad For Approval.
2. No Obstructions Will Be Allowed Above Top Of Rail Within 9' Of Active Track. Temporary Equipment Closer Than 9' Must Be Removed 30 Minutes Prior To Scheduled Rail Traffic.
3. Refer To Abutment Drawings For Construction Through Shoring.
4. For Shoring Design, Unit Weight Of Soil Shall Be 110 Lbs./Cu. Ft. With An Equivalent Fluid Pressure Of 35 Lbs./Cu. Ft. Shoring Which Parallels The Track Shall Be Designed With A Surcharge Of 5000 Lbs./Sq. Ft.

LEGEND

BF = Bottom Of Footing



SHORING PLAN
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: R.N.F. DATE: JAN., 1990
CHECKED BY: T.B.H. DATE: JAN., 1990
DESIGNED BY: T.B.H. DATE: JAN., 1990

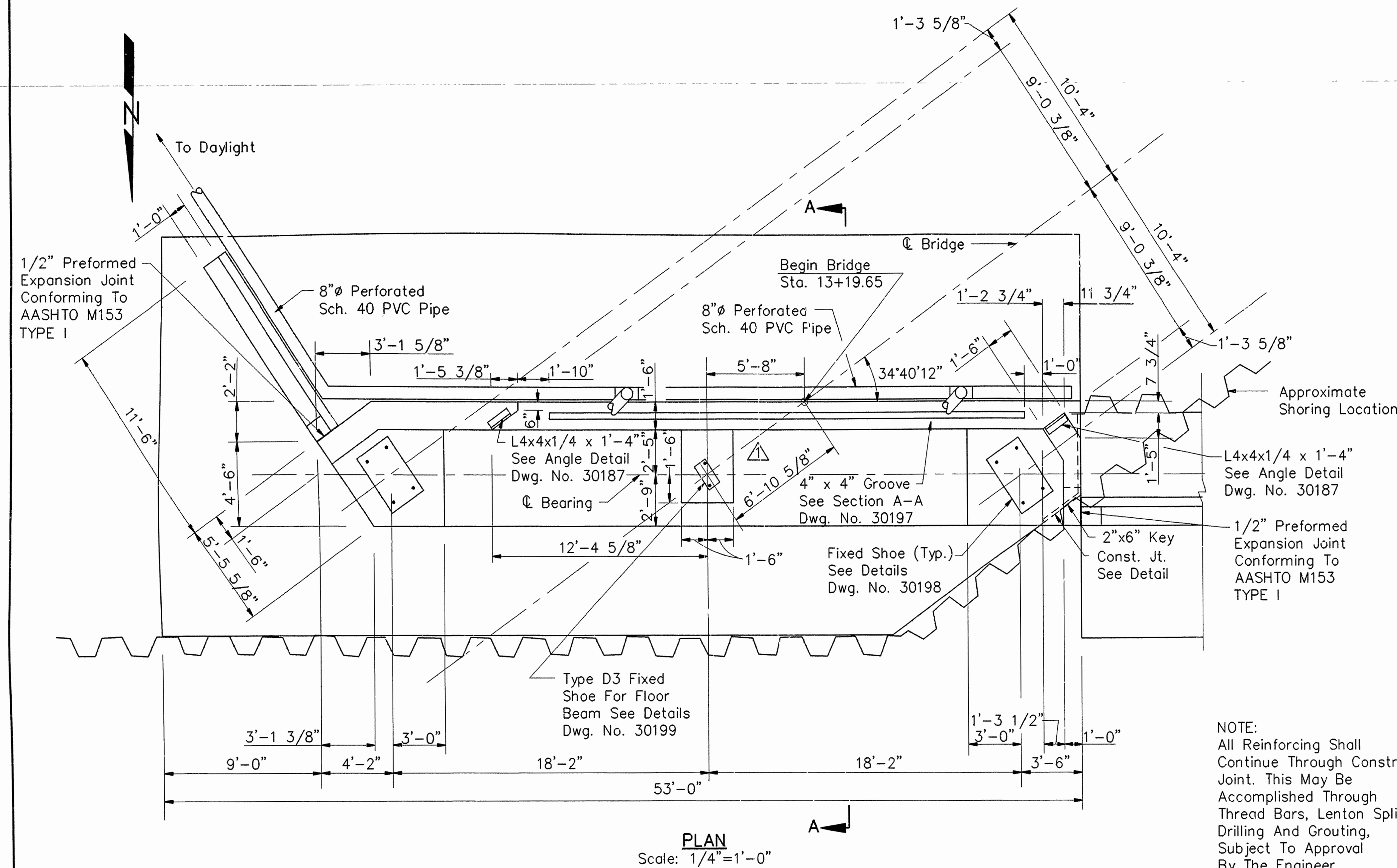
SCALE: AS NOTED

BRIDGE NO. 6323

DRAWING NO. 30186

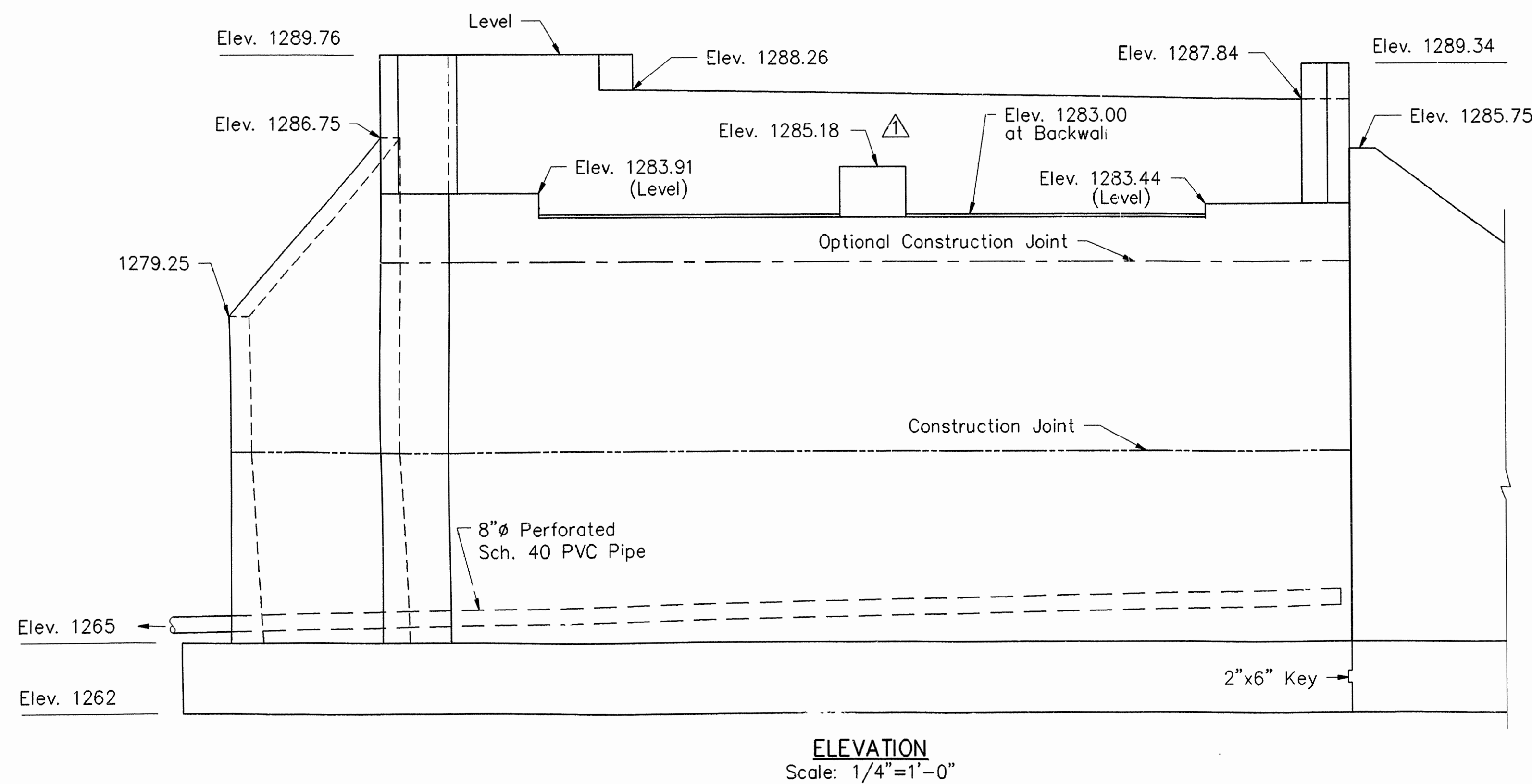
BRIDGE ENGINEER

DEH/RNF R180-DSA 8716601 11-7-90 15



NOTE:
All Reinforcing Shall Continue Through Construction Joint. This May Be Accomplished Through Thread Bars, Lenton Splices, Drilling And Grouting, Subject To Approval By The Engineer.

DETAIL OF CONSTRUCTION JOINT
Scale: 1/2"=1'-0"

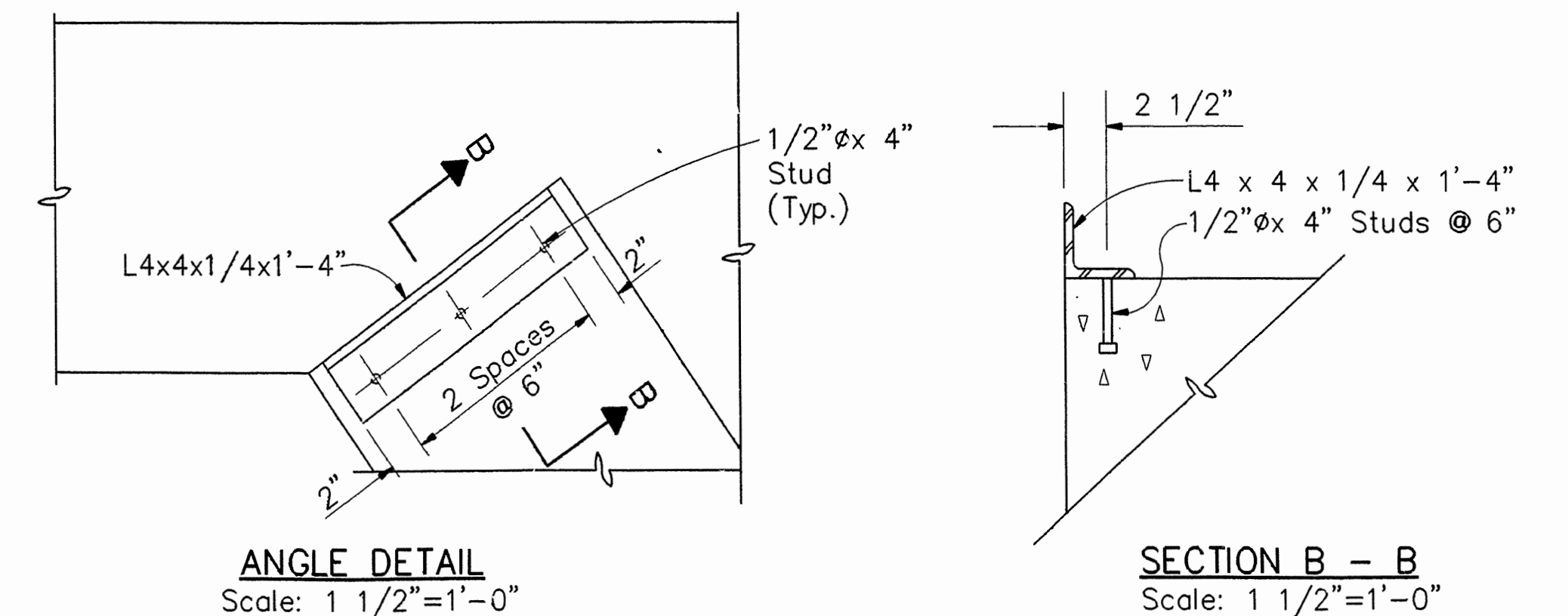
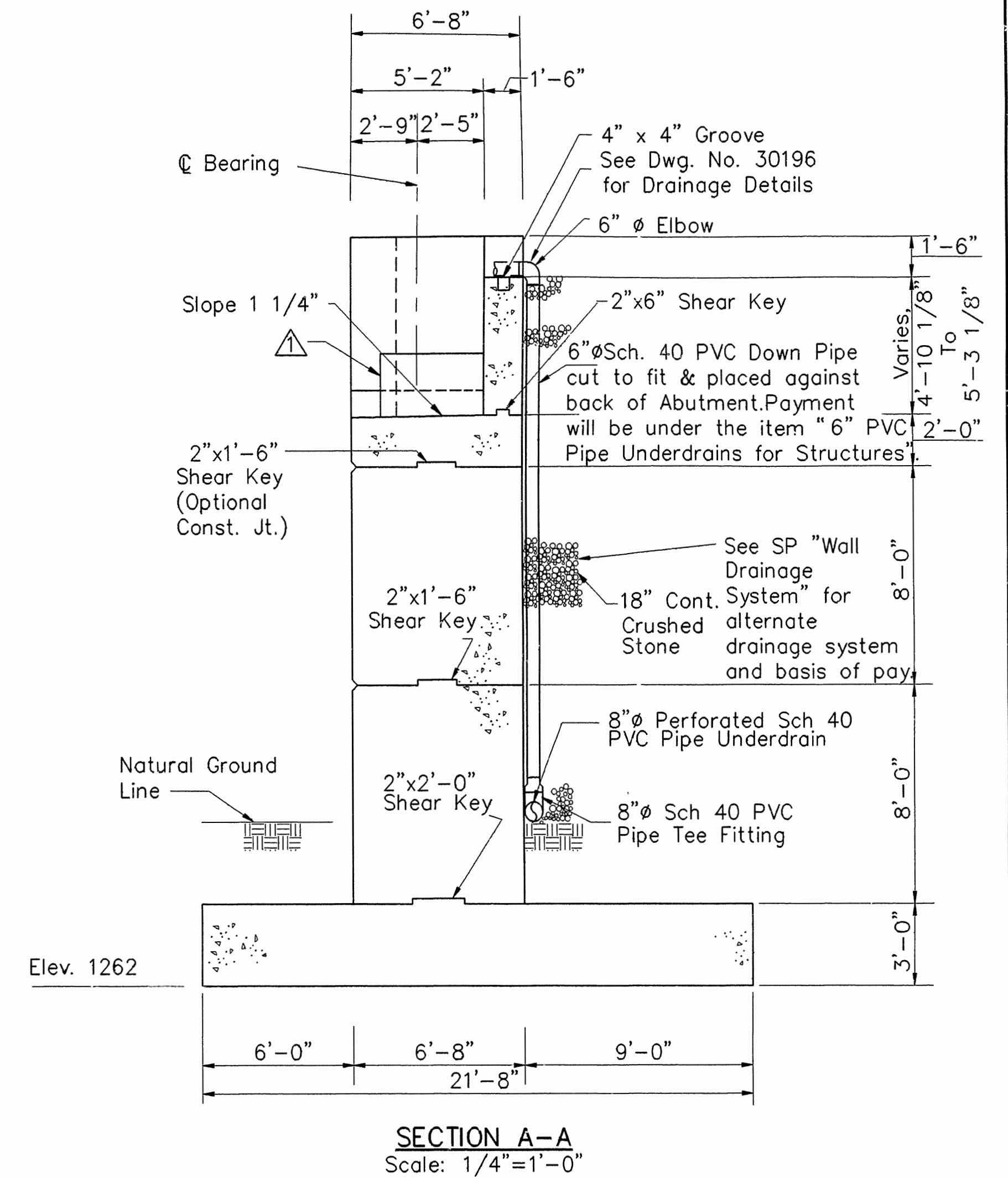


DEAD LOAD FROM SUPERSTRUCTURE 472.5 KIPS
LIVE LOAD FROM SUPERSTRUCTURE 758.0 KIPS
SURCHARGE OVER 8.5 FEET OF BACKWALL 1.88 KSF
MAXIMUM TOE PRESSURE 4.60 KSF

NOTES

- See Dwg. No. 30188 For Reinforcing.
- See Dwg. No. 30197 For Drainage Plan.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
11-15-90	12-4-90			6	ARK.		12	31
				JOB NO.		40042		
				①		DETAILS OF S. ABUTMENT 30187		



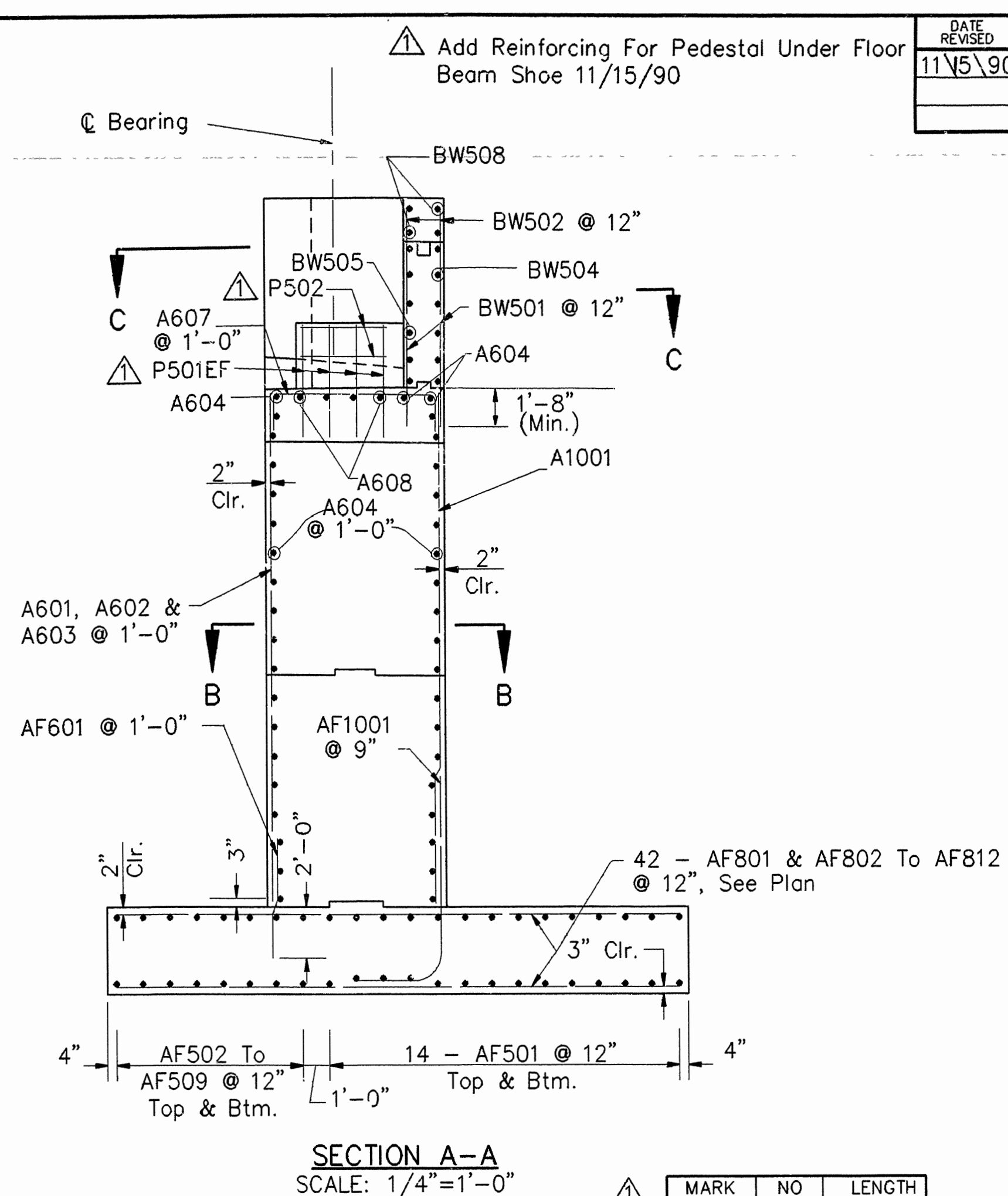
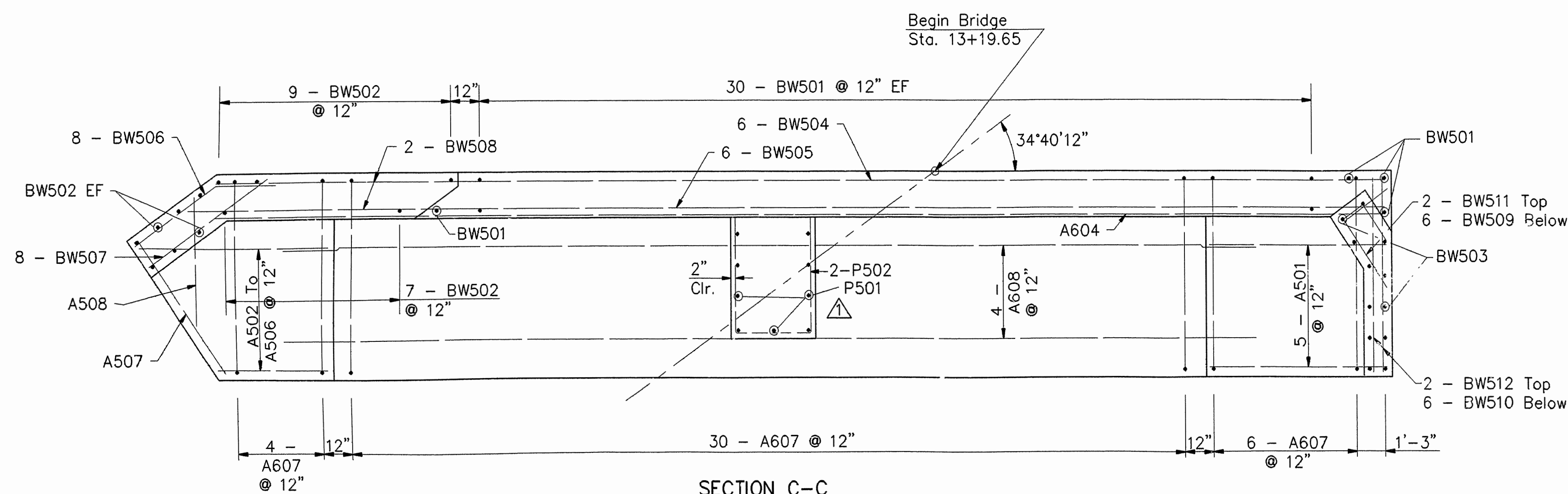
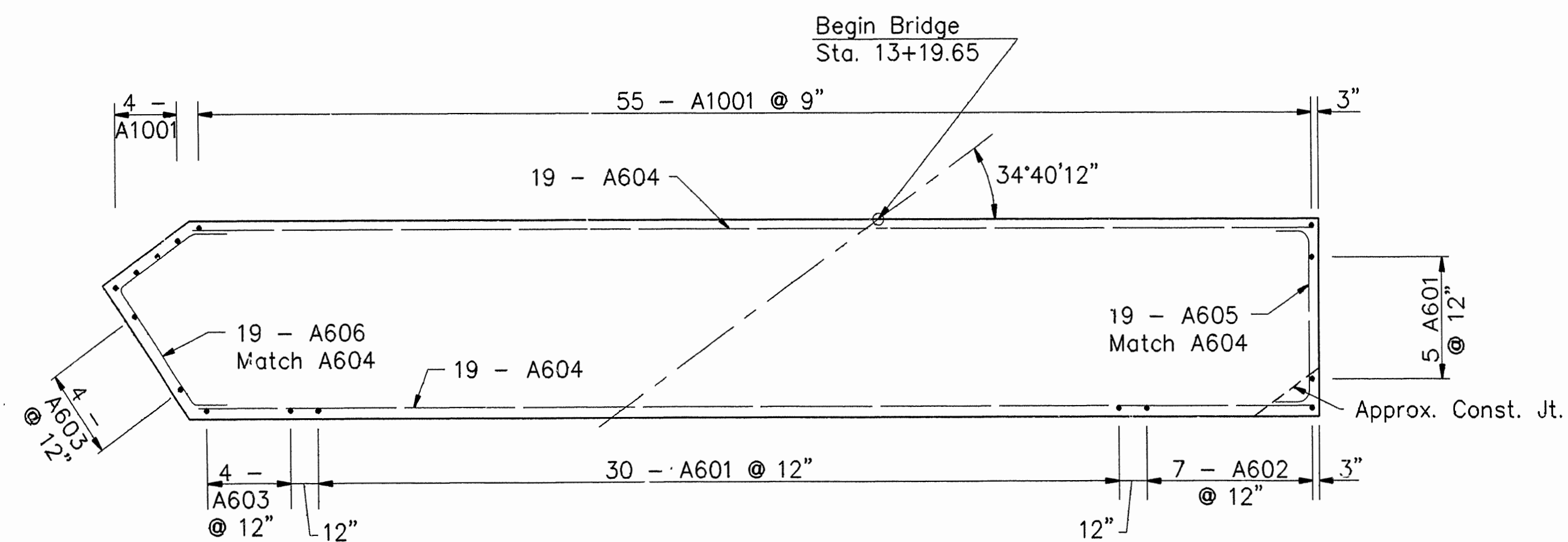
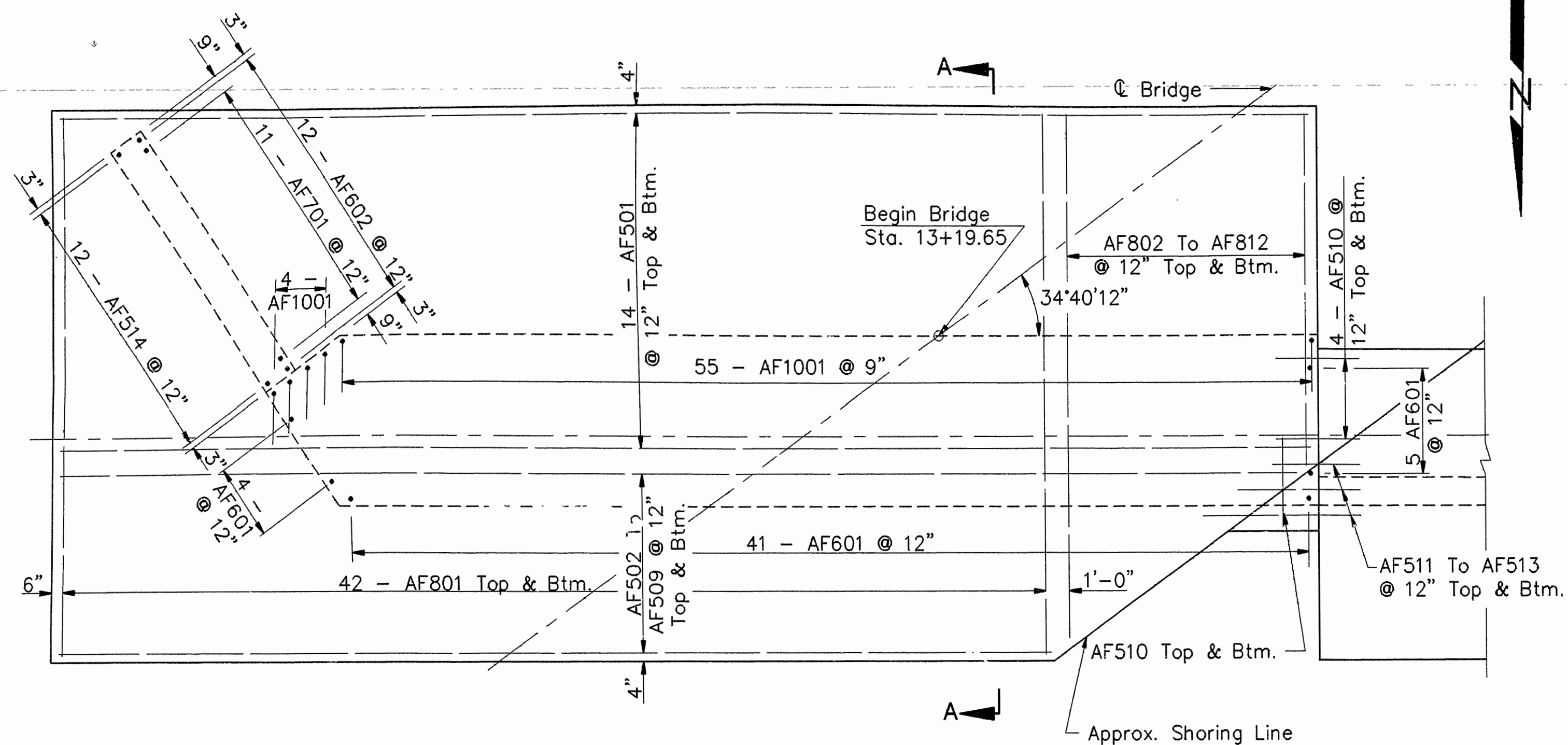
DETAILS OF SOUTH ABUTMENT
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.N.F. DATE: JAN., 1990
CHECKED BY: T.B.H. DATE: JAN., 1990
DESIGNED BY: T.B.H. DATE: JAN., 1990
SCALE: AS NOTED

BRIDGE NO. 6323

DRAWING NO. 30187

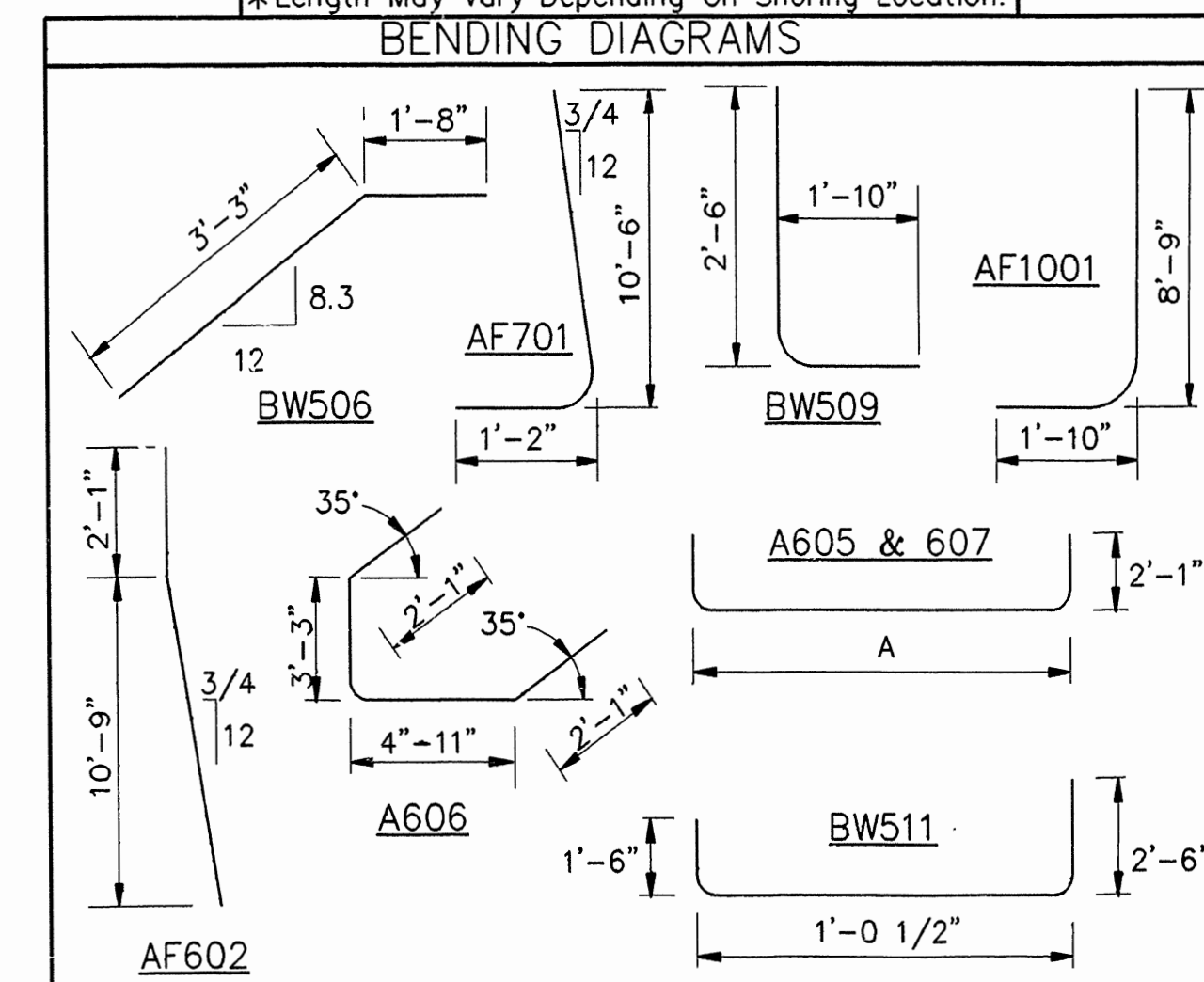
BRIDGE ENGINEER



MARK	NO	LENGT
P501	9	3'-8"
P502	2	10'-0"

NOTE:
See Dwg. No. 30187
For Dimensions.

REINFORCEMENT SCHEDULE FOR SOUTH ABUTMENT					
	MARK	NO	LENGTH	PIN DIA	A
*	AF501	28	52'-6"	STR.	
	AF502		41'-9"		
	TO	2 EA.	TO	STR.	
*	AF509		51'-9"		
	AF510	10	3'-4"	STR.	
*	AF511	2	3'-10"	STR.	
	AF512	2	5'-4"	STR.	
*	AF513	2	6'-10"	STR.	
	AF514	12	3'-8"	STR.	
	AF601	50	3'-1"	STR.	
	AF602	12	12'-10"	4 1/2"	
	AF701	11	11'-6"	5 1/4"	
	AF801	84	21'-2"	STR.	
*	AF802		14'-0"		
	TO	2 EA.	TO	STR.	
*	AF812		20'-9"		
	AF1001	59	10'-3"	10"	
	A501	5	6'-2"	STR.	
	A502		3'-10"		
	TO	1 EA.	TO	STR.	
	A506		6'-9"		
	A507	1	5'-1"	STR.	
	A508	1	4'-0"	STR.	
	A601	35	17'-10"	STR.	
	A602	7	18'-2"	STR.	
	A603	8	18'-8"	STR.	
	A604	39	40'-6"	STR.	
	A605	19	10'-0"	4 1/2"	6'-2"
	A606	19	12'-2"	4 1/2"	
	A607	40	10'-2"	4 1/2"	6'-4"
	A608	4	33'-8"	STR.	
	A1001	59	17'-10"	STR.	
	BW501	64	6'-9"	STR.	
	BW502	23	8'-2"	STR.	
	BW503	12	7'-10"	STR.	
	BW504	6	40'-6"	STR.	
	BW505	6	43'-0"	STR.	
	BW506	8	4'-11"	3 3/4"	
	BW507	8	5'-0"	STR.	
	BW508	4	8'-2"	STR.	
	BW509	6	4'-3"	3 3/4"	
	BW510	12	6'-4"	STR.	
	BW511	2	4'-10"	3 3/4	
	BW512	4	4'-6"	STR.	
* Length May Vary Depending On Shoring Location.					



REINFORCING - SOUTH ABUTMENT
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

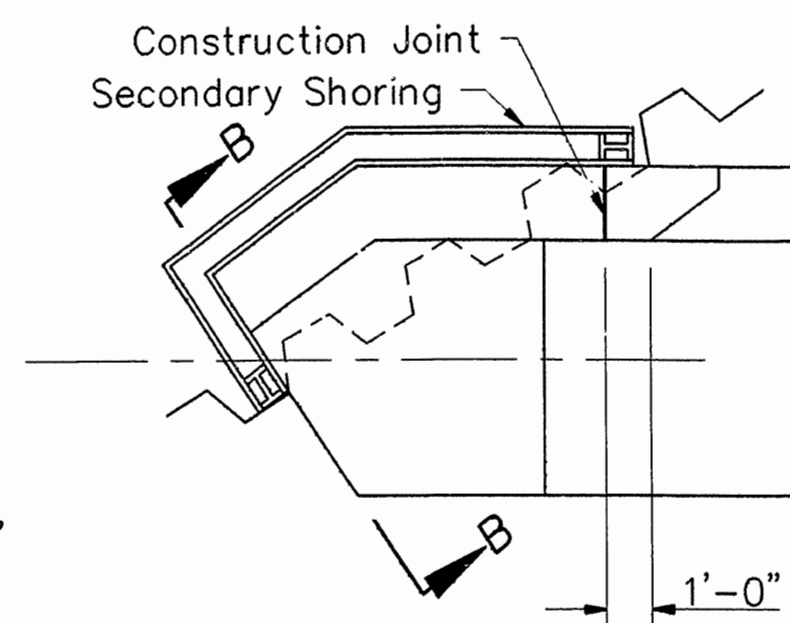
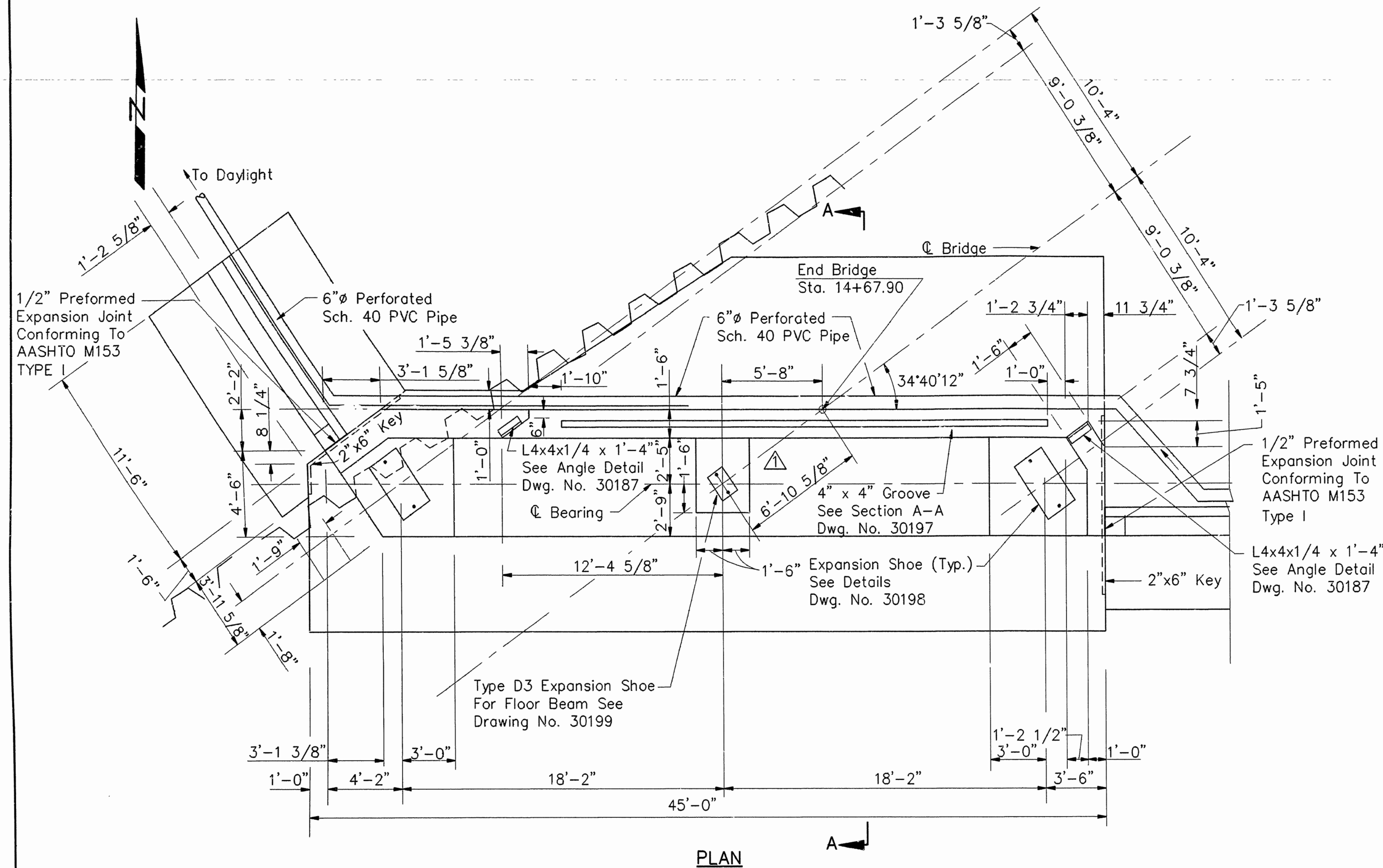
DRAWN BY: R.N.F. DATE: JAN., 1990
 CHECKED BY: T.B.H. DATE: JAN., 1990 SCALE: AS NOTED
 DESIGNED BY: D.C.W. DATE: JAN., 1990

BRIDGE NO. 6323 DRAWING NO. 30188

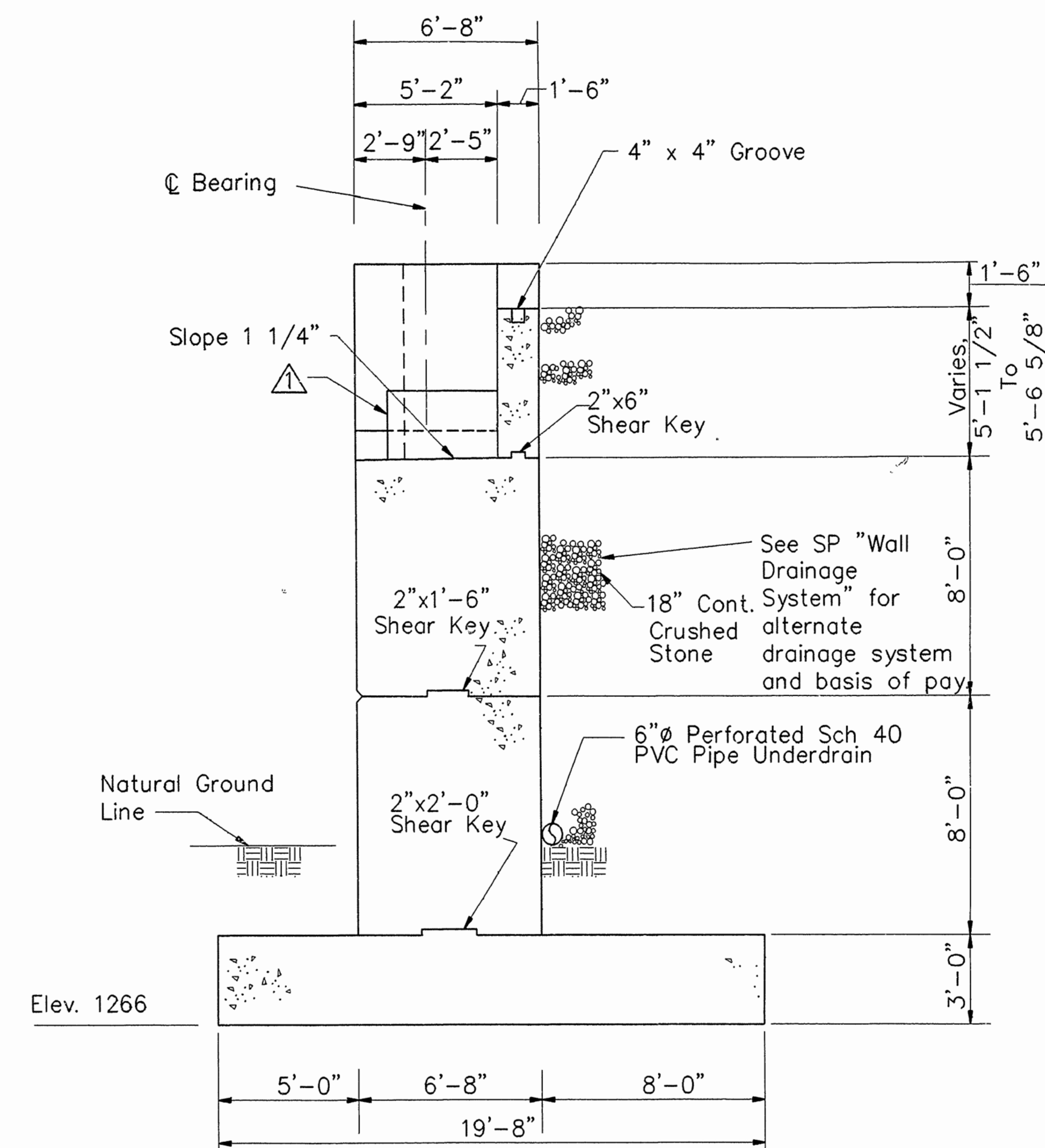
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11-15-90	12-4-90			6	ARK.		14	31
				JOB NO.		40042		
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DETAILS OF N. ABUTMENT 30189

1 Added Pedestal Under Floor Beam Shoe
11-15-90.



SHORING DETAILS



SECTION A-A

NOTE:
See Drawing Number 30190
For Reinforcing.

DEAD LOAD FROM SUPERSTRUCTURE	472.5 KIPS
LIVE LOAD FROM SUPERSTRUCTURE	758.0 KIPS
SURCHARGE OVER 8.5 FEET OF BACKWALL	1.88 KSF
MAXIMUM TOE PRESSURE	4.82 KSF

DETAILS OF NORTH ABUTMENT
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: R.N.F. DATE: JAN., 1990

CHECKED BY: T.B.H. DATE: JAN., 1990

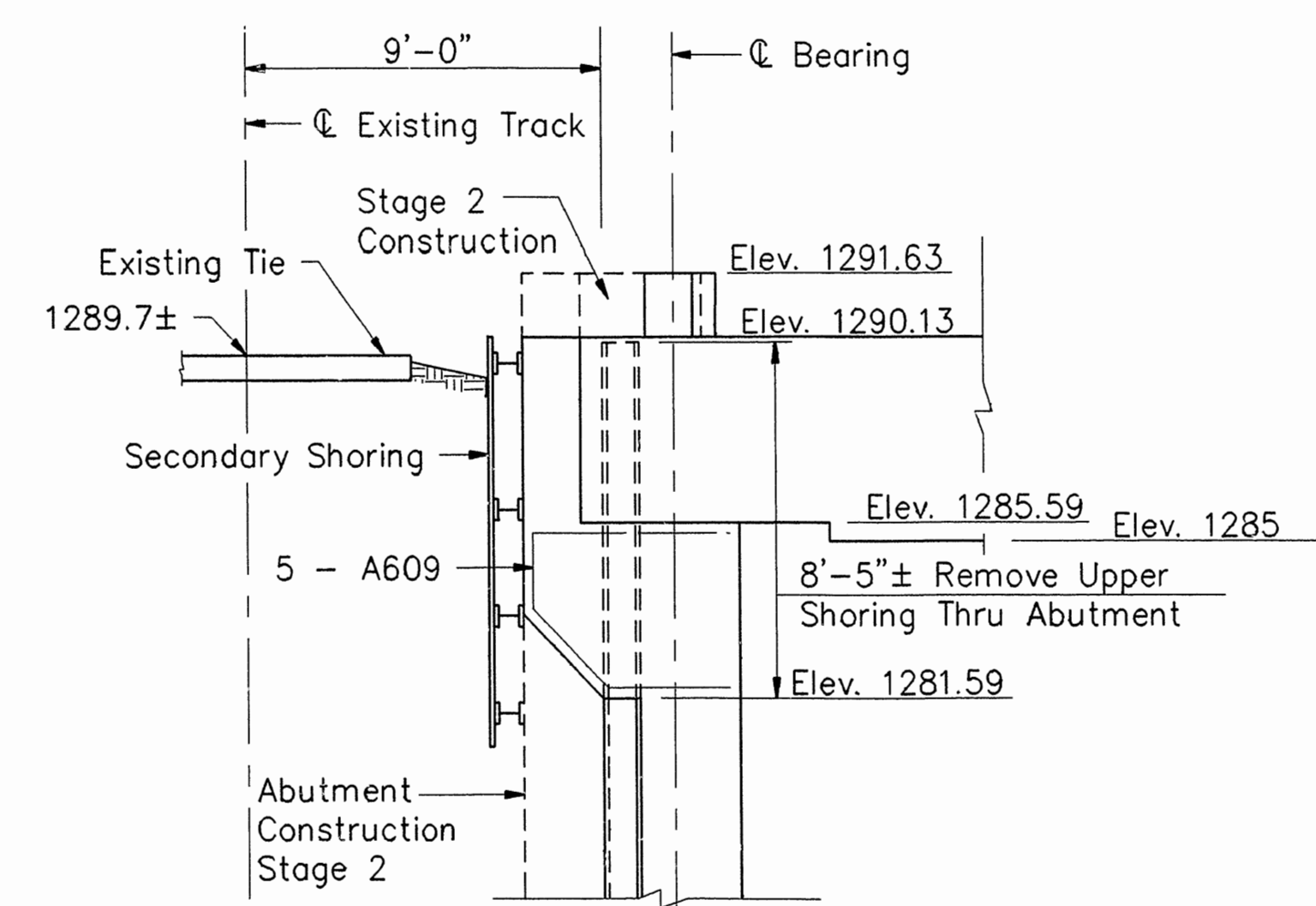
SCALE: $1/4" = 1'-0"$

DESIGNED BY: T.B.H. DATE: JAN., 1990

BRIDGE NO. 6707

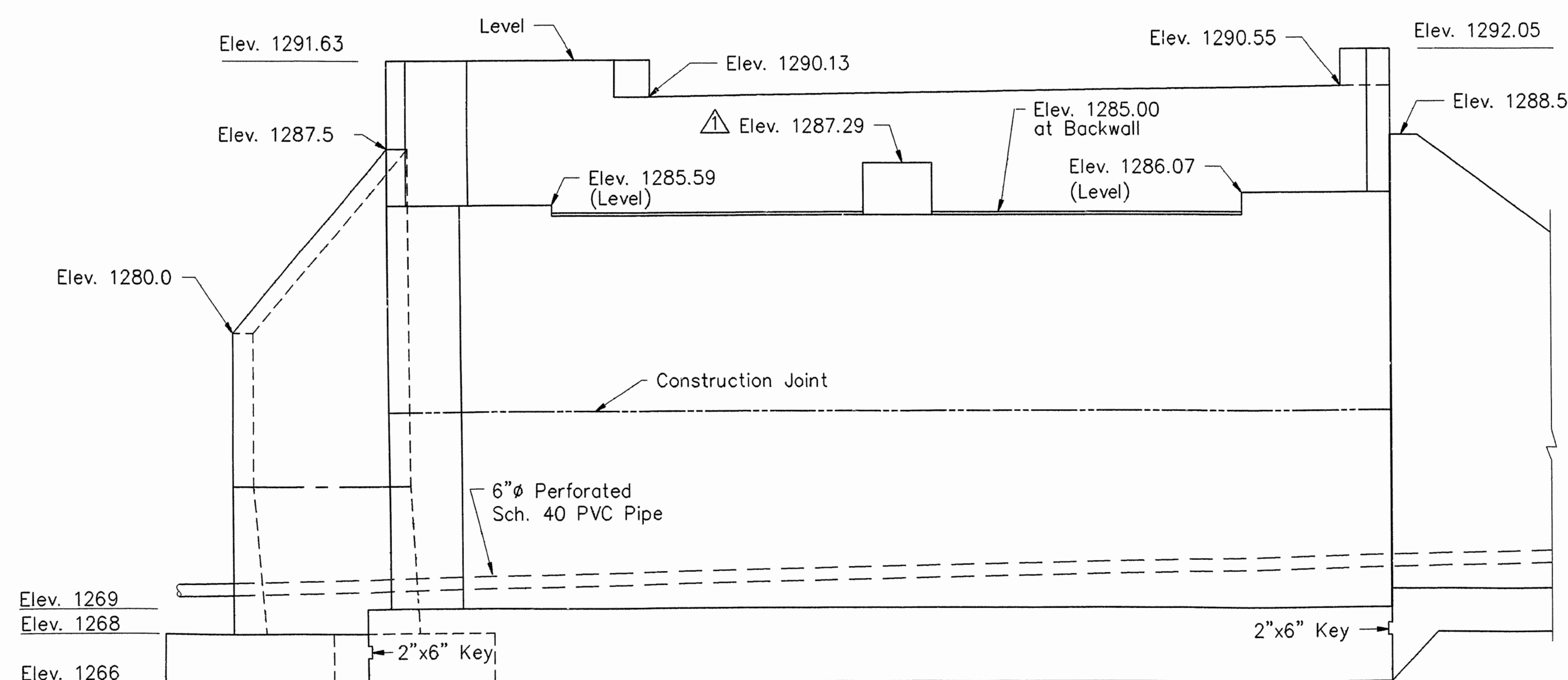
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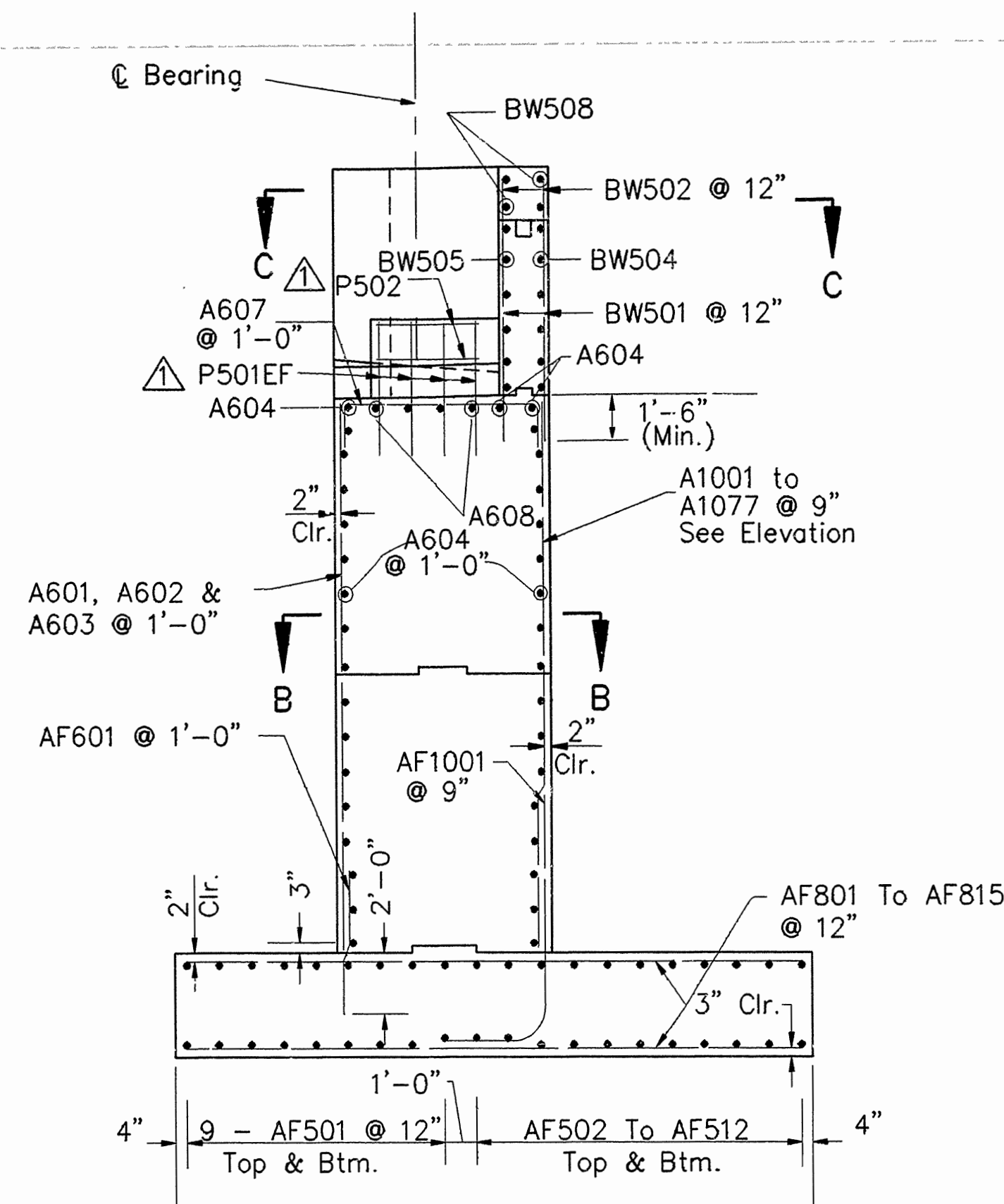
DRAWING NO. 30189



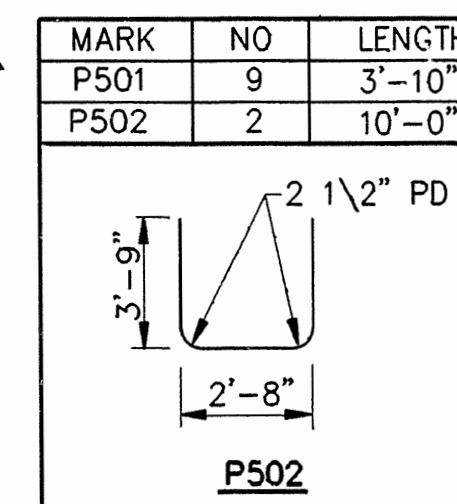
ELEVATION B-B

NOTE:
All Reinforcing Shall Continue Through Construction Joint. This May
Be Accomplished Through Thread Bars, LENTON Splices, Drilling
And Grouting, Subject To Approval Of The Engineer.

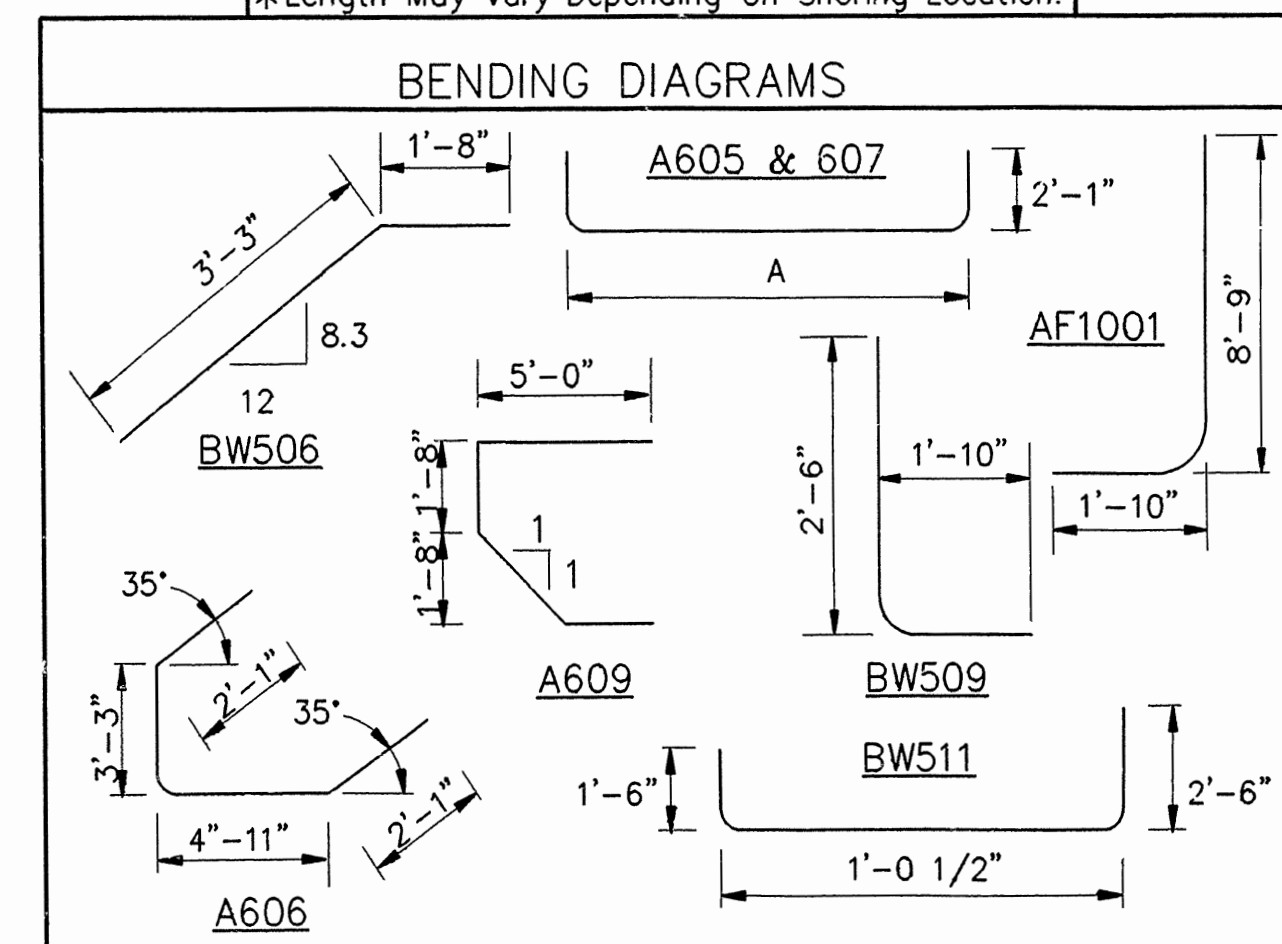
ELEVATION



SECTION A-A
SCALE: 1/4"=1'-0"



NOTE:
See Dwg. No. 30189 For Dimensions.



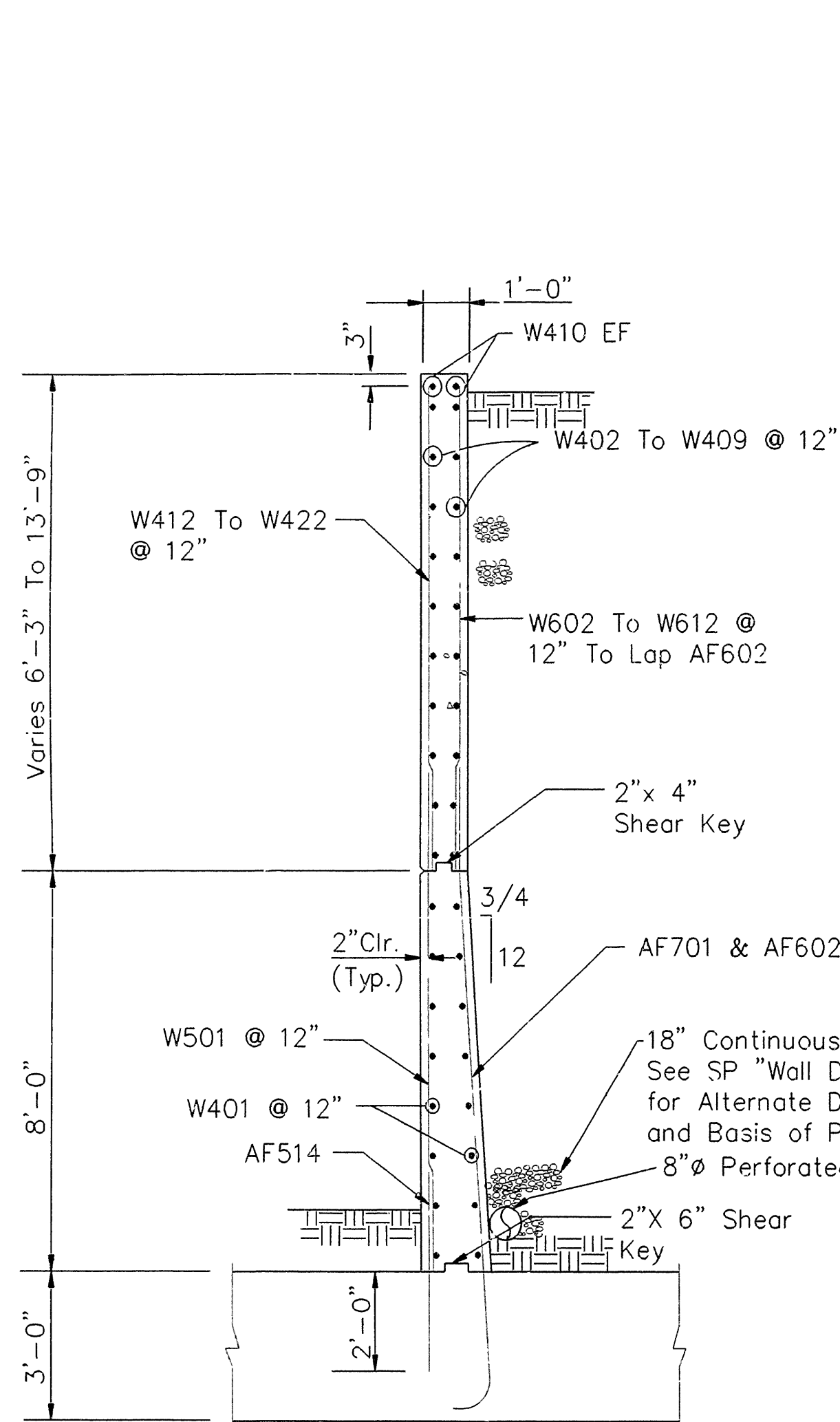
REINFORCING - NORTH ABUTMENT
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION

DRAWN BY: R.N.F. DATE: OCT., 1988
 CHECKED BY: T.B.H. DATE: OCT., 1988 SCALE: AS NOTED
 DESIGNED BY: D.C.W. DATE: OCT., 1988

BRIDGE NO. 6323

DRAWING NO. 30190

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		16	31
				JOB NO.		40042		
				WINGWALLS DETAILS				30191



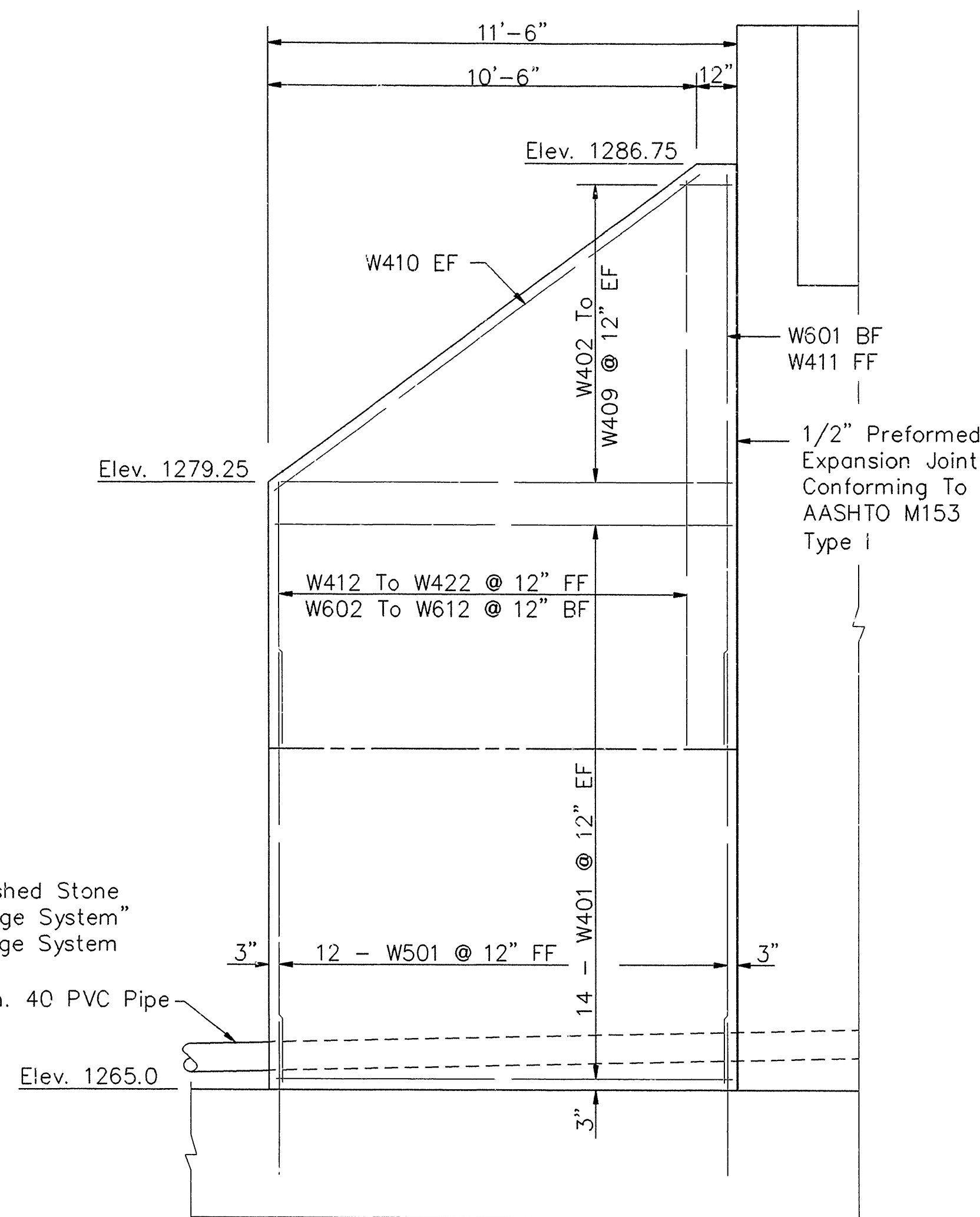
SECTION THRU EAST WINGWALL - SOUTH ABUTMENT

Scale: 3/8"=1'-0"

NOTE:

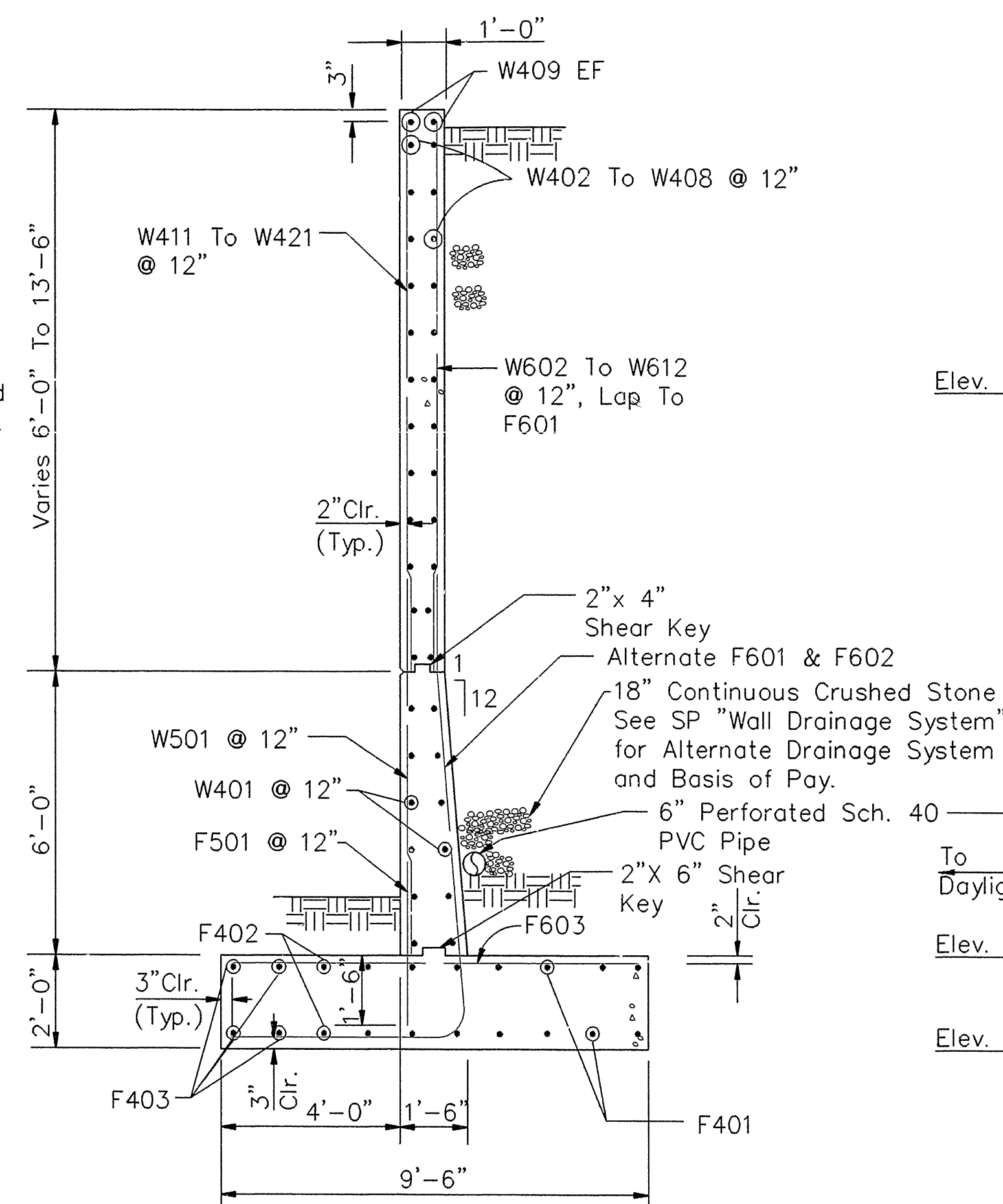
See Drawing No. 30187 For Foundation.

See Drawing No. 30188 For Schedule & Spacing Bars AF501, AF6302 & AF701.



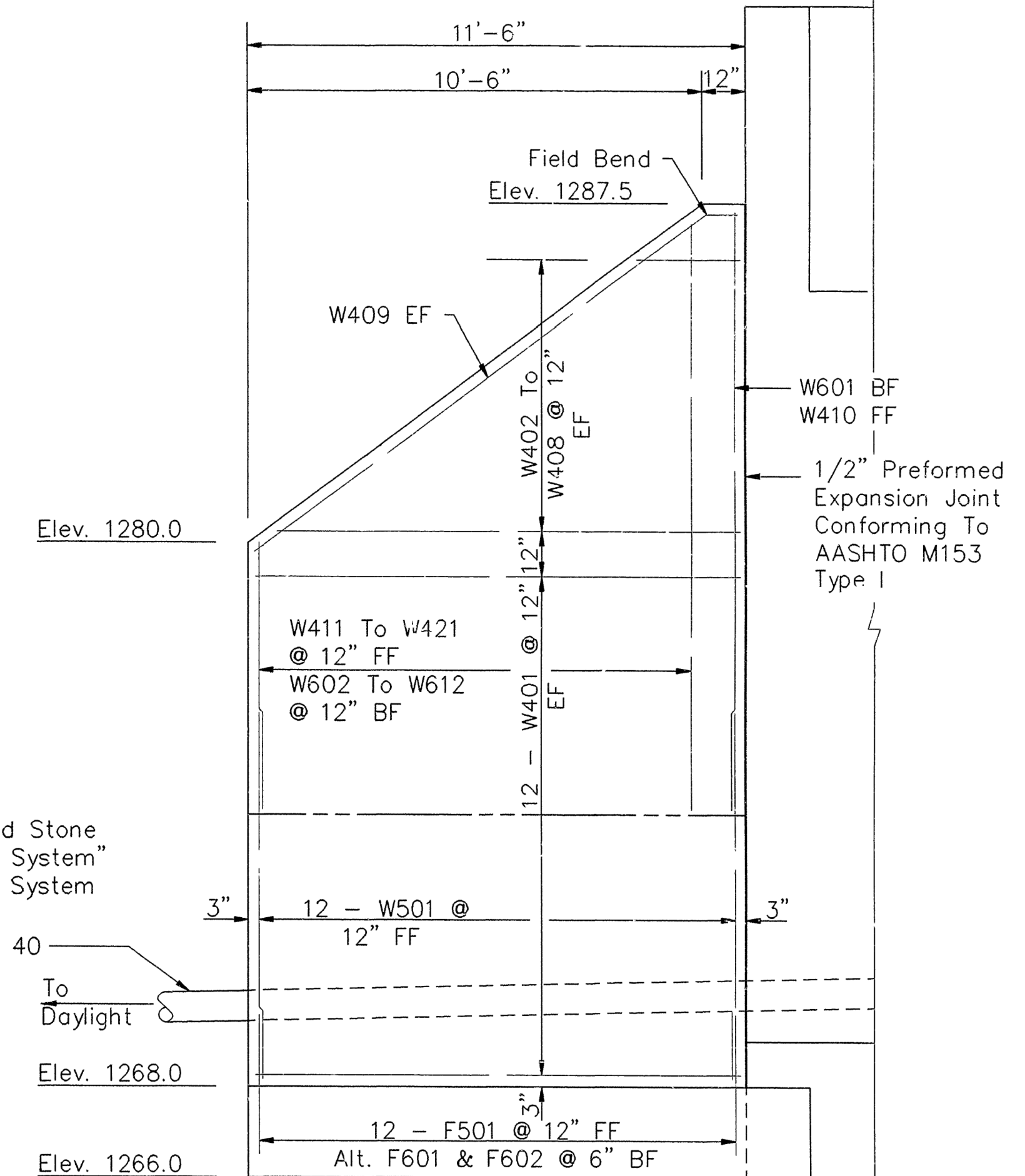
ELEVATION OF EAST WINGWALL - SOUTH ABUTMENT

Scale: 3/8"=1'-0"



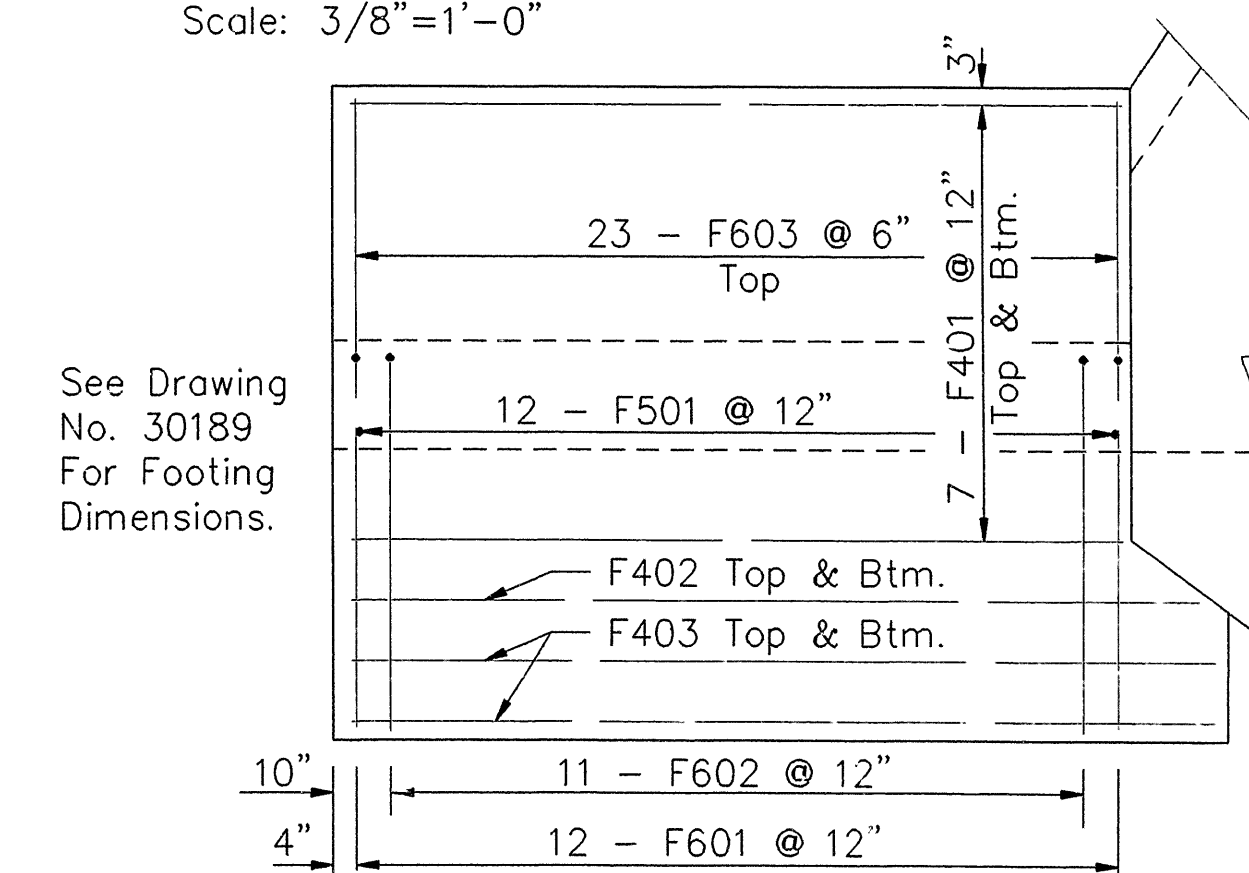
SECTION THRU WEST WINGWALL - NORTH ABUTMENT

Scale: 3/8"=1'-0"



ELEVATION OF WEST WINGWALL - NORTH ABUTMENT

Scale: 3/8"=1'-0"



FOOTING PLAN - WEST WINGWALL - NORTH ABUTMENT

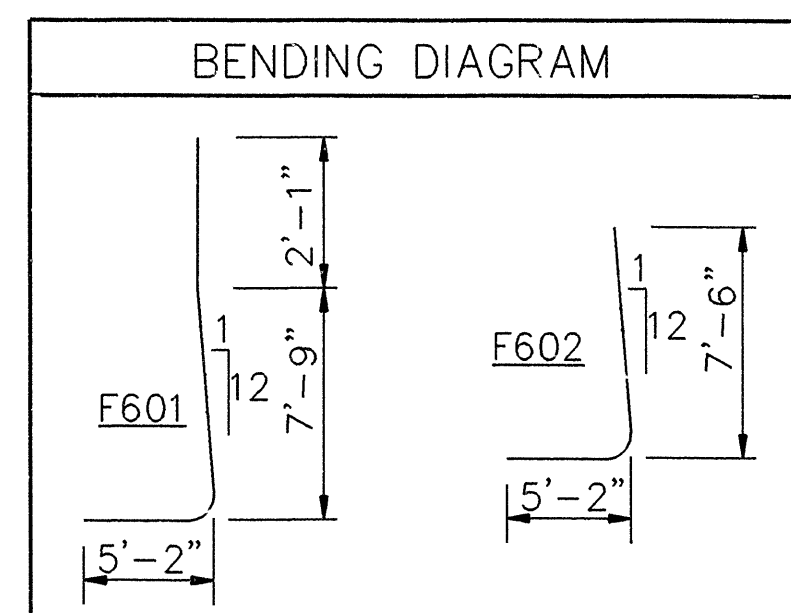
Scale: 3/8"=1'-0"

LEGEND

---	Construction Joint - Required
EF	Each Face
FF	Front Face
BF	Back Face

REINFORCEMENT SCHEDULE FOR EAST WINGWALL			
MARK	NO	LENGTH	PIN DIA
W401	28	11'-3"	STR.
W402	2	1'-0"	STR.
TO	2 EA.	TO	STR.
W409		10'-10"	
W410	2	12'-10"	STR.
W411	1	13'-7"	STR.
W412		6'-3"	
TO	1 EA.	TO	STR.
W422		13'-5"	
W501	12	9'-4"	STR.
W601	1	13'-7"	STR.
W602		6'-3"	
TO	1 EA.	TO	STR.
W612		13'-5"	

REINFORCEMENT SCHEDULE FOR WEST WINGWALL			
MARK	NO	LENGTH	PIN DIA
F401	14	11'-3"	STR.
F402	2	12'-0"	STR.
F403	4	12'-6"	STR.
F501	12	3'-2"	STR.
F601	12	14'-11"	4 1/2"
F602	11	12'-7"	4 1/2"
W401	24	11'-3"	STR.
W402		2'-1"	
TO	2 EA.	TO	STR.
W408		10'-6"	
W409	2	13'-7"	STR.
W410	1	13'-4"	STR.
W411		6'-0"	
TO	1 EA.	TO	STR.
W421		13'-2"	
W501	12	7'-4"	STR.
W601	1	13'-4"	STR.
W602		6'-0"	
TO	1 EA.	TO	STR.
W612		13'-2"	



WINGWALL DETAILS
EAST WINGWALL - SOUTH ABUTMENT
WEST WINGWALL - NORTH ABUTMENT
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: R.N.F. DATE: JAN., 1990
CHECKED BY: T.B.H. DATE: JAN., 1990
DESIGNED BY: D.C.W. DATE: JAN., 1990
SCALE: AS NOTED

BRIDGE NO. 6323

DRAWING NO. 30191

BRIDGE ENGINEER

1

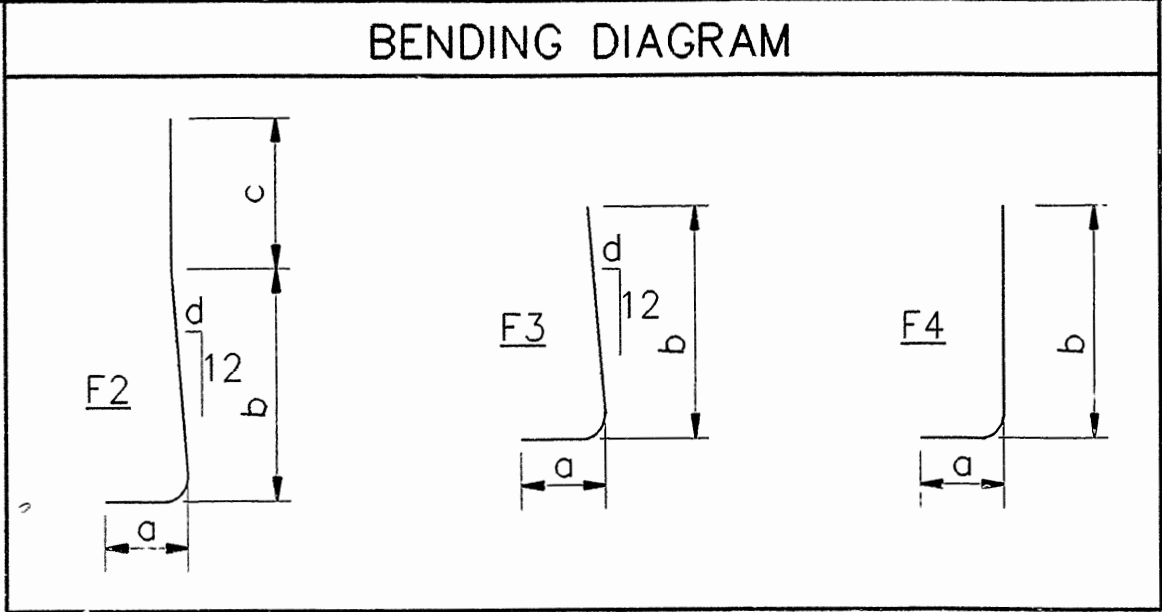
ELEVATION

BRIDGE ENGINEER

DMF/RNF R180-SW 8716601 4-17-90 15

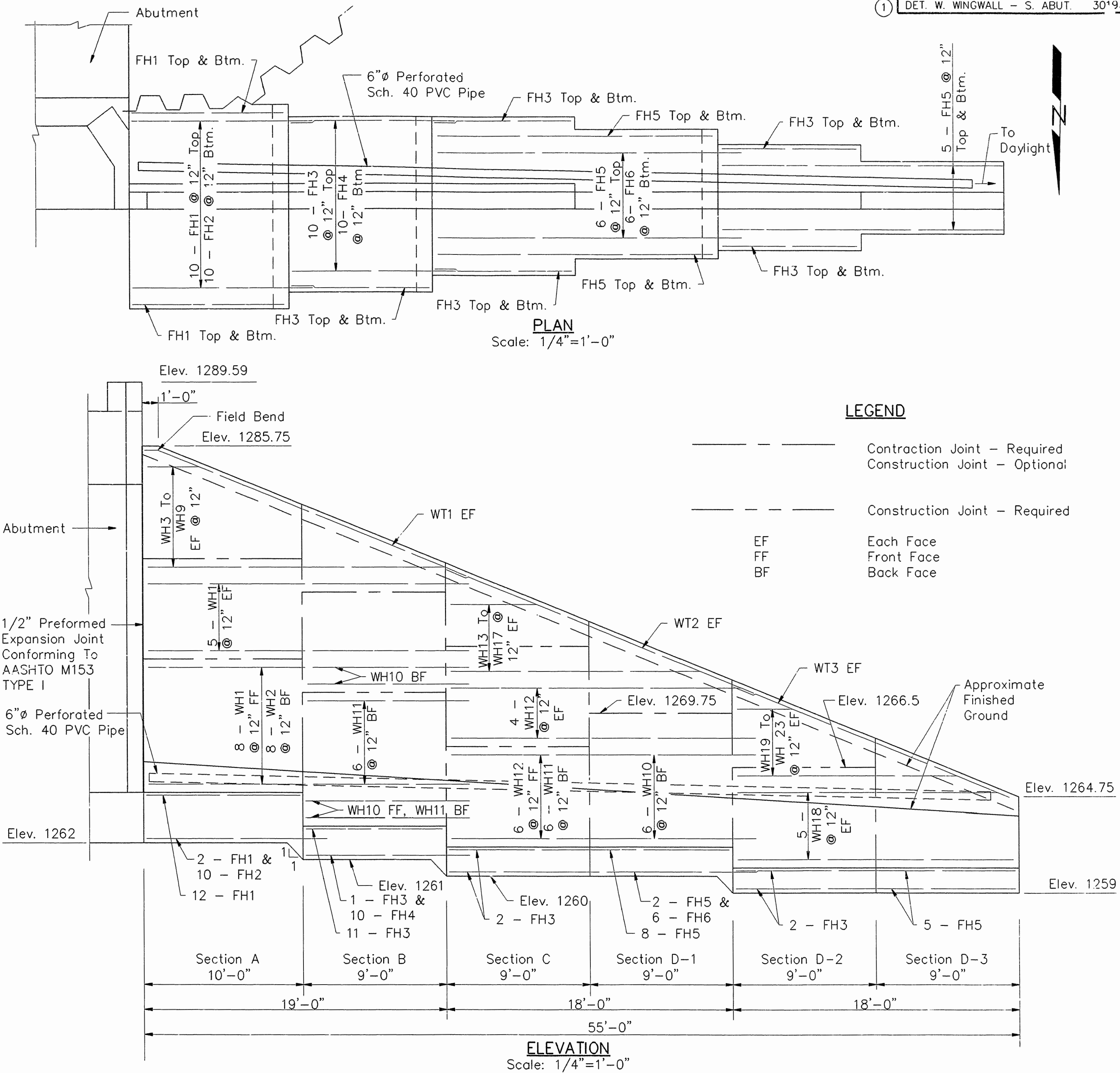
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				6	ARK.		18	31
				JOB NO.	40042			
				DET. W. WINGWALL - S. ABUT.	30*93			

REINFORCING SCHEDULE												
SECTION	Footing Dim.			MARK	SIZE	SPA.	NO.	LENGTH	PIN DIA.	a	b	c
	w	t	d									d
A	12'-2"	6'-0"	3'-0"	FH1	#4	12"	14	9'-6"	STR.			
				FH2	#4	12"	10	11'-2"	STR.			
				F1	#7	6"	20	11'-8"	STR.			
				F2	#8	12"	10	20'-8"	5 1/4	7'-3"	10'-9"	2'-10"
				F3	#7	12"	10	17'-7"	6"	7'-3"	10'-6"	3/4
				VFD	#5	12"	10	3'-8"	STR.			
				WH1	#4	12"	18	20'-4"	STR.			
				WH2	#4	12"	8	9'-8"	STR.			
				WH3				3'-10"				
				TO	#4	12"	2 EA.	TO	STR.			
				WH9				19'-3"				
				WT1	#4		2	22'-0"	STR.			
				V1	#7	12"	10	9'-3" TO 12'-6"	STR.			
				VF1	#5	12"	10	9'-4"	STR.			
B	10'-6"	5'-0"	2'-0"	VF2	#4	12"	10	9'-3" TO 12'-6"	STR.			
				FH3	#4	12"	12	8'-9"	STR.			
				FH4	#4	12"	10	10'-4"	STR.			
				F1	#6	6"	18	10'-0"	STR.			
				F2	#6	12"	9	17'-10"	4 1/2	6'-2"	9'-9"	2'-1"
				F3	#7	12"	9	15'-6"	5 1/4	6'-2"	9'-6"	3/4
				VFD	#5	12"	9	3'-2"	STR.			
				WH10	#4	12"	4	10'-4"	STR.			
				WH11	#4	12"	8	8'-10"	STR.			
				V1	#6	12"	9	7'-9" TO 10'-11"	STR.			
				VF1	#5	12"	9	9'-4"	STR.			
				VF2	#6	12"	9	7'-9" TO 10'-11"	STR.			
C	9'-6"	4'-0"	1'-9"	FH3	#4	12"	4	8'-10"	STR.			
				FH5	#4	12"	10	17'-9"	STR.			
				FH6	#4	12"	6	19'-4"	STR.			
				F1	#6	6"	18	9'-0"	STR.			
				F2	#6	12"	9	14'-7"	4 1/2	5'-2"	7'-6"	2'-1"
				F3	#6	12"	9	12'-3"	4 1/2	5'-2"	7'-3"	1
				VFD	#5	12"	9	3'-2"	STR.			
				WH11	#4	12"	6	8'-10"	STR.			
				WH12	#4	12"	14	19'-4"	STR.			
				WH13				5'-9"				
				TO	#4	12"	2 EA.	TO	STR.			
				WH17				16'-3"				
				WT2	#4		2	21'-0"	STR.			
				V1	#6	12"	9	7'-6" TO 10'-8"	STR.			
D1	7'-9"	3'-0"	1'-9"	VF1	#5	12"	9	8'-4"	STR.			
				VF2	#4	12"	9	7'-6" TO 10'-8"	STR.			
				F1	#5	6"	18	7'-3"	STR.			
				F4	#6	12"	9	8'-9"	4 1/2	3'-7"	5'-4"	
				VFD	#4	12"	9	2'-10"	STR.			
				WH10	#4	12"	6	10'-4"	STR.			
D2	6'-4"	2'-6"	1'-6"	V1	#6	12"	9	10'-0" TO 13'-2"	STR.			
				VF1	#4	12"	9	10'-0" TO 13'-2"	STR.			
				FH3	#4	12"	4	8'-10"	STR.			
				FH5	#4	12"	10	17'-9"	STR.			
				F1	#5	6"	18	5'-10"	STR.			
				F4	#6	12"	9	6'-3"	4 1/2	3'-1"	3'-4"	
				VFD	#4	12"	9	2'-7"	STR.			
				WH18	#4	12"	10	17'-10"	STR.			
				WH19				3'-9"				
				TO	#4	12"	2 EA.	TO	STR.			
				WH23				14'-0"				
				WT3	#4		2	19'-0"	STR.			
				V1	#6	12"	9	7'-9" TO 10'-11"	STR.			
				VF1	#4	12"	9	7'-9" TO 10'-11"	STR.			
D3	4'-4"	1'-6"	1'-6"	F1	#5	12"	9	3'-10"	STR.			
				F4	#5	12"	9	4'-11"	3 3/4	2'-1"	2'-11"	
				VFD	#4	12"	9	2'-7"	STR.			
				V1	#5	12"	9	4'-3" TO 7'-5"	STR.			
				VF1	#4	12"	9	4'-3" TO 7'-5"	STR.			



NOTES:

- See Dwg. No. 30194 for Sections A, B, C, & D.
- See Dwg. No. 30187 for Details of South Abutment.



DETAILS OF WEST WINGWALL - SOUTH ABUTMENT

ARKANSAS & MISSOURI RAILROAD

HWY. 180 GRADE SEPARATION (FAYETTEVILLE)

WASHINGTON COUNTY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: R.H.F. DATE: JAN., 1990

CHECKED BY: T.B.H. DATE: JAN., 1990

DESIGNED BY: T.B.H. DATE: JAN., 1990

SCALE: AS NOTED

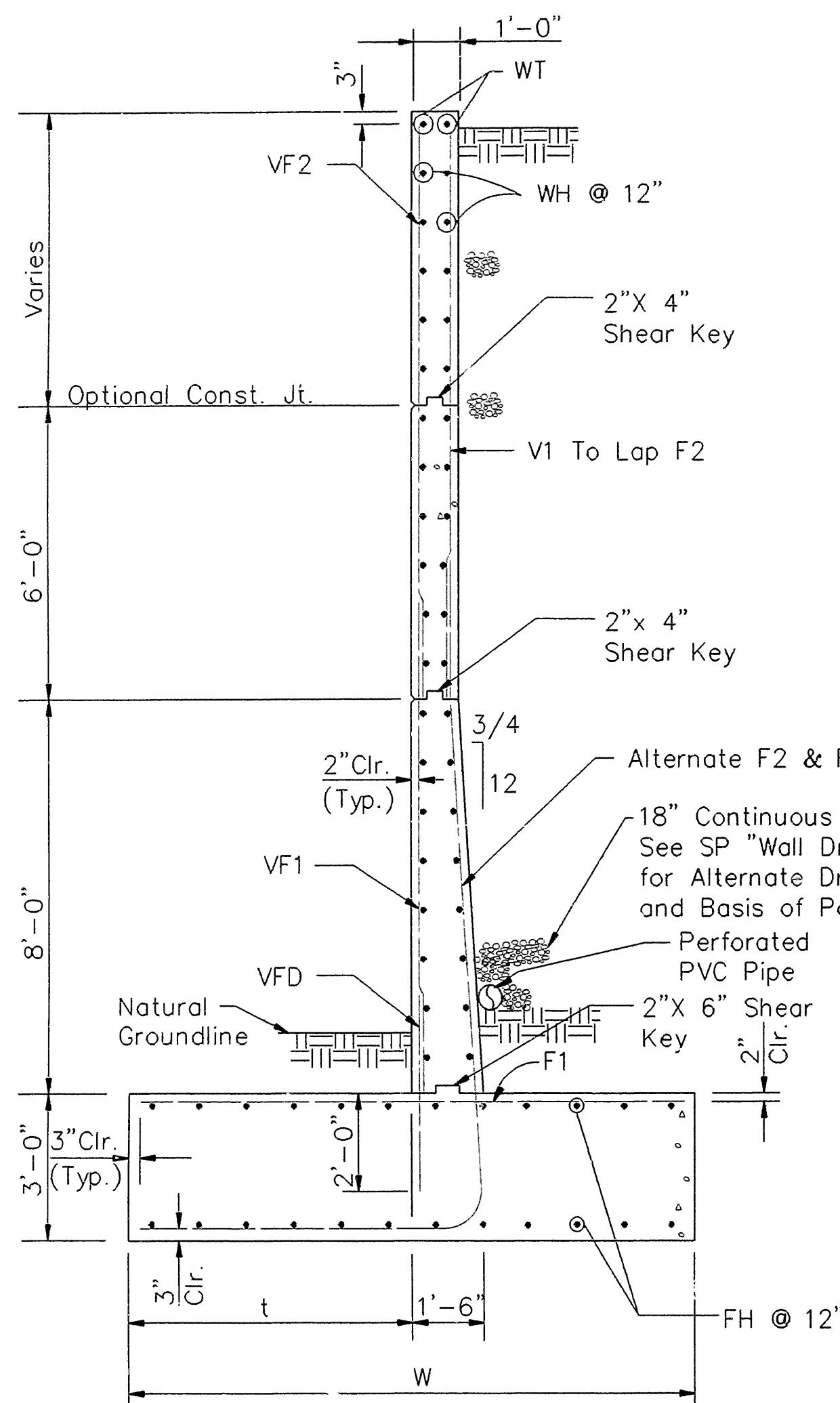
BRIDGE NO. 6323

BRIDGE ENGINEER

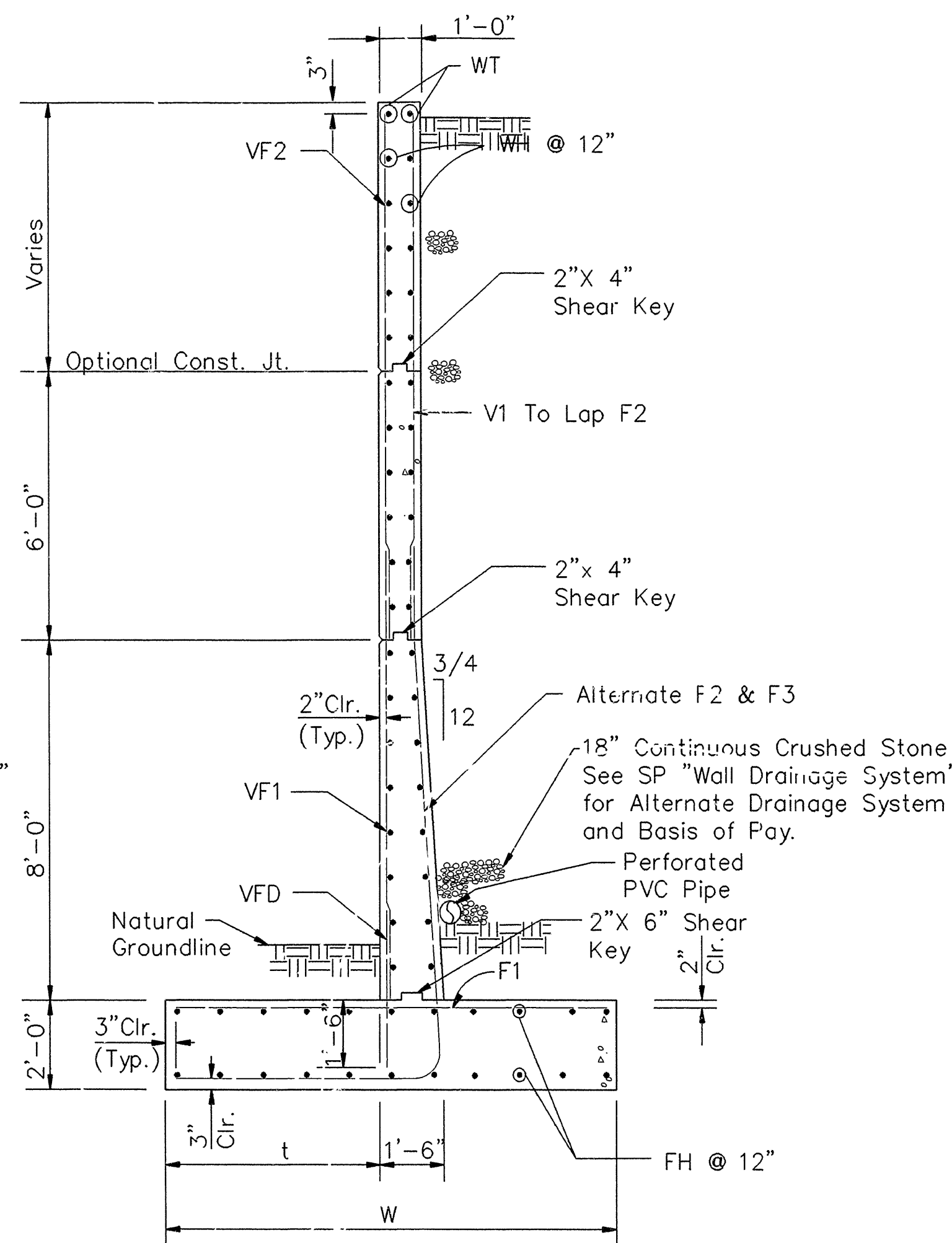
DRAWING NO. 30193

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		19	31
				JOB NO.	40042			

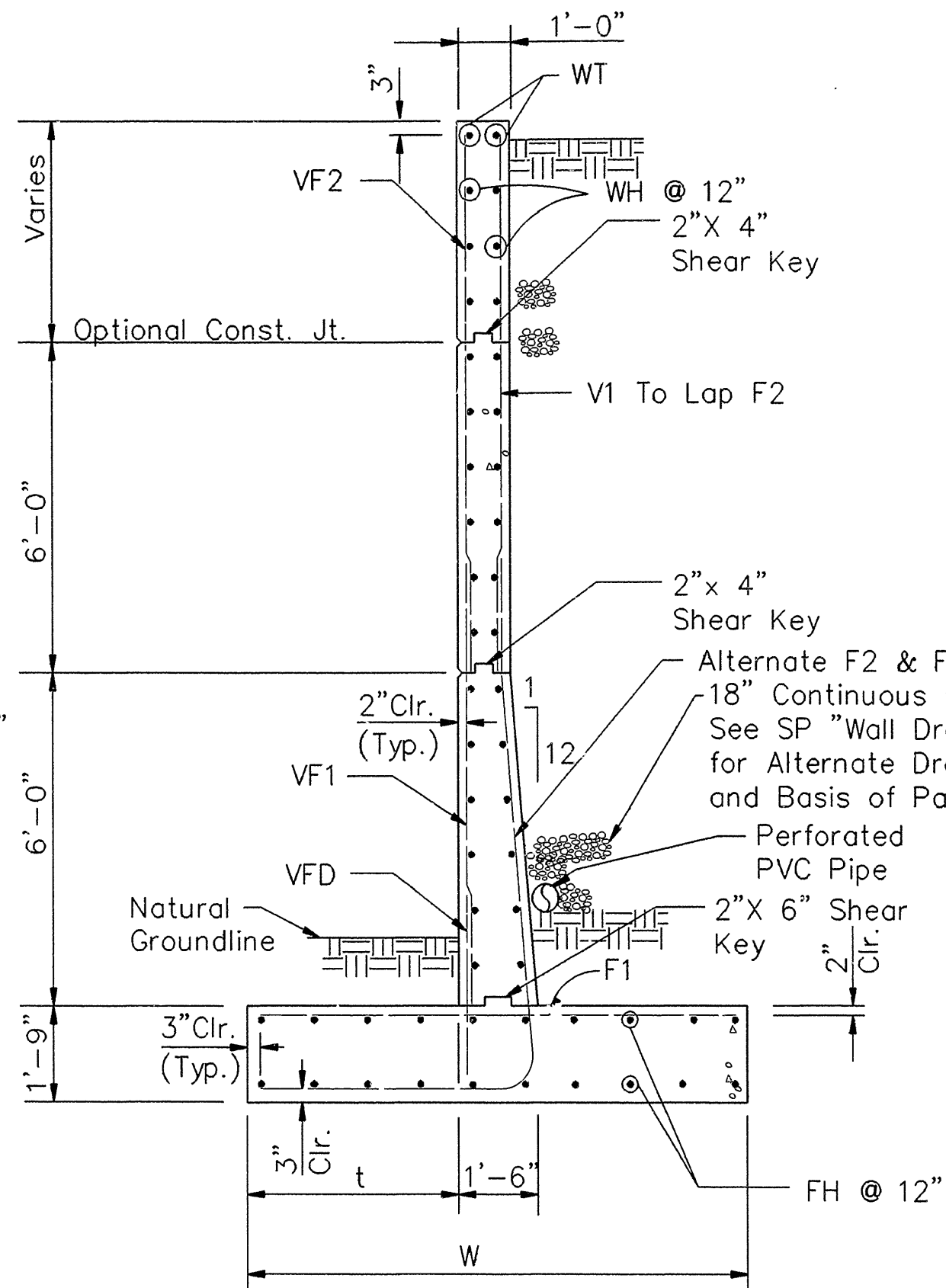
1 TYPICAL WINGWALL DETAILS 30194



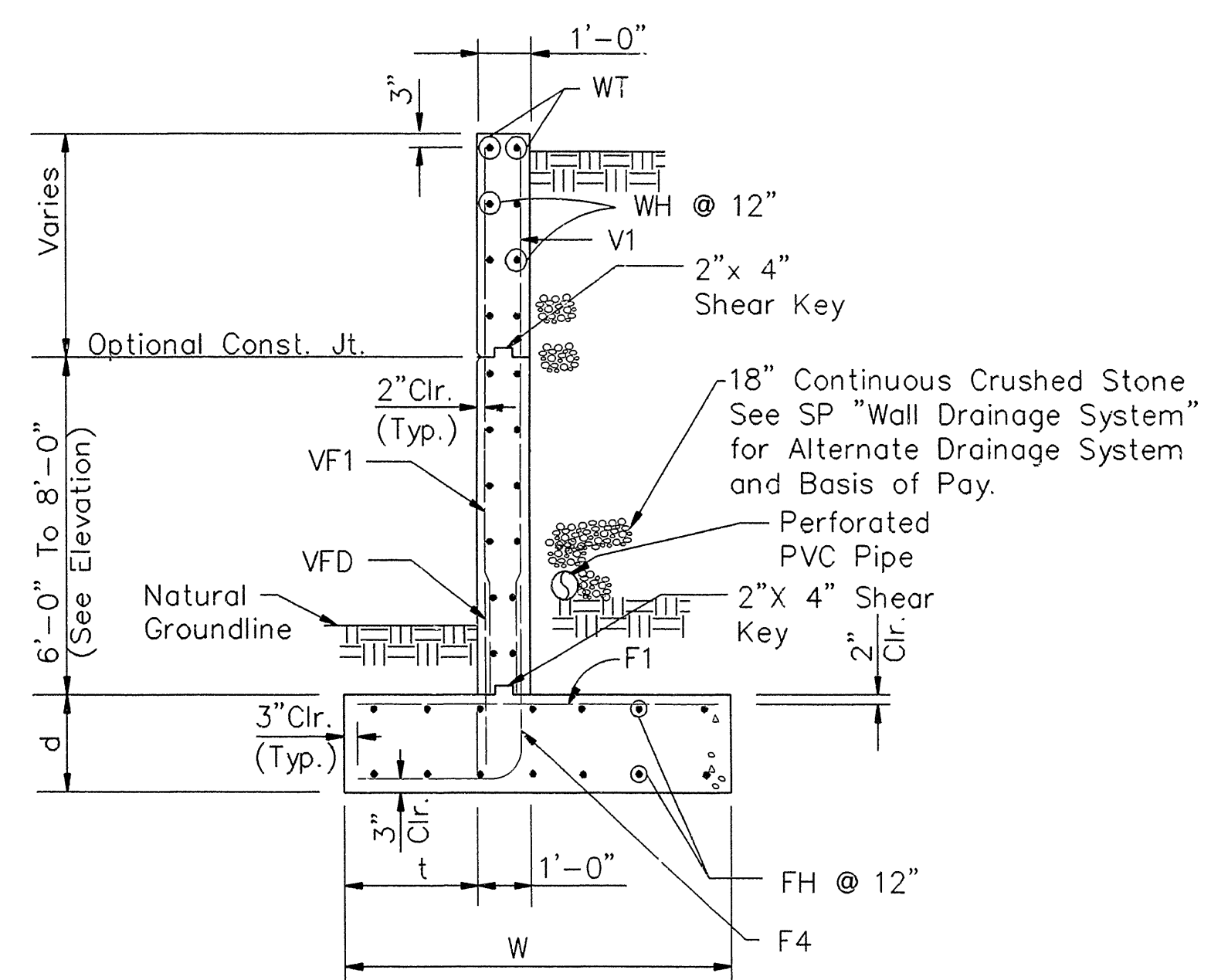
SECTION A
Scale: 3/8"=1'-0"



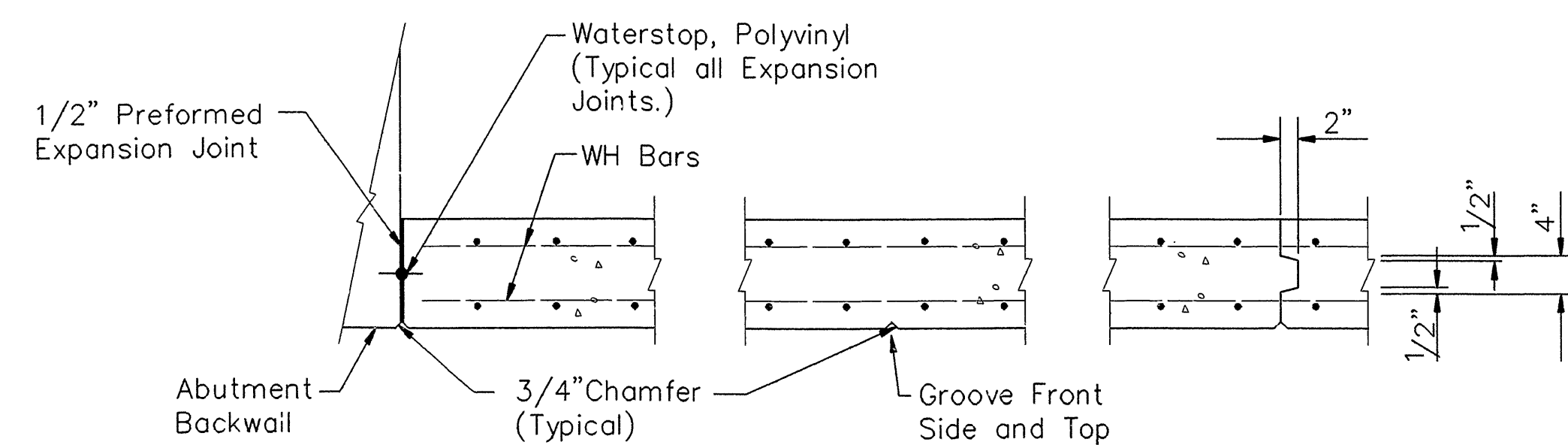
SECTION B
Scale: 3/8"=1'-0"



SECTION C
Scale: 3/8"=1'-0"



SECTION D
Scale: 3/8"=1'-0"



EXPANSION JOINT CONTRACTION JOINT CONSTRUCTION JOINT

10' Maximum Spacing

NOTE: Construction Joint may be Combined with Contraction Joint or Expansion Joint.

NOTE: Preformed Expansion, Joint Filler Shall Conform to AASHTO M153 Type I. Preformed Joint Filler and Waterstop Shall be Subsidiary to Class S Concrete.

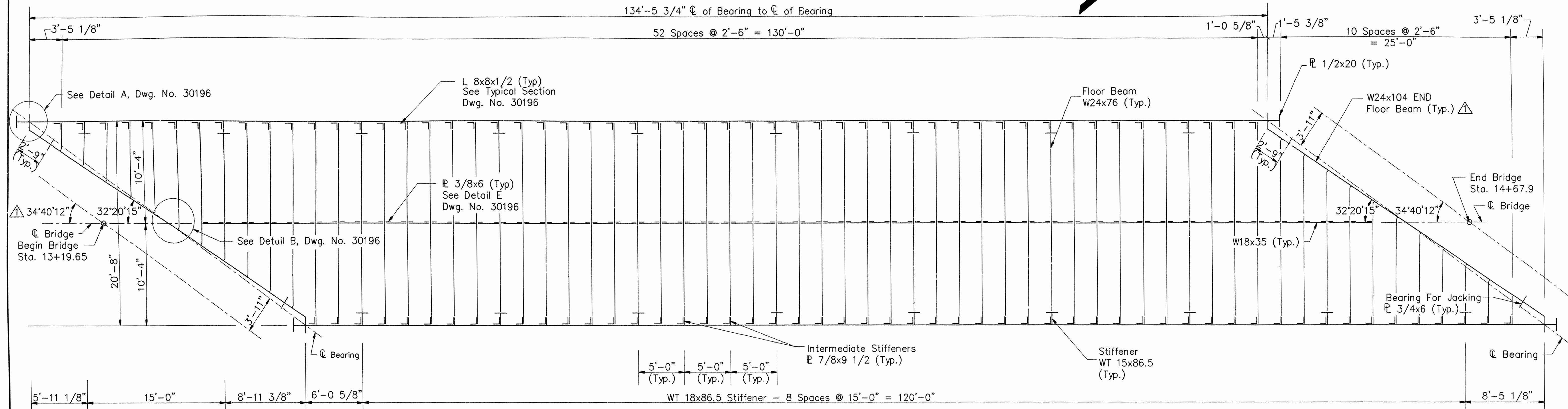
TYPICAL WINGWALL DETAILS
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: R.N.F. DATE: JAN., 1990
CHECKED BY: T.B.H. DATE: JAN., 1990
DESIGNED BY: T.B.H. DATE: JAN., 1990
SCALE: AS NOTED
BRIDGE NO. 6323 DRAWING NO. 30194

DMF/RNF R180-WD 8716601 4-17-90 15

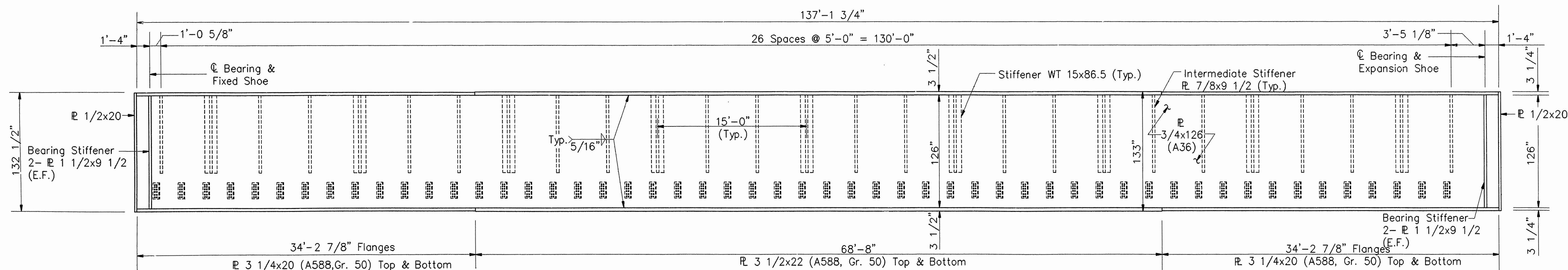
BRIDGE ENGINEER

△ REVISED SKEW Δ AND SIZE END FLOOR BEAM
11/15/90.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
11/15/90	12-4-90			6	ARK.		20	31
				JOB NO.		40042		
				① DETAILS OF PLT GRD SPAN 30195				



FRAMING PLAN
SCALE: 1"=5'-0"



GIRDER ELEVATION
SCALE: 1"=5'-0"

NOTE:
For Details on Fixed and
Expansion Shoes See Dwg.
No. 30198.

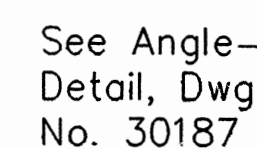
SHEET 1 OF 3
DETAILS OF PLATE GIRDER SPAN
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
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CHECKED BY: T.B.H. DATE: JAN., 1990
DESIGNED BY: W.R.W. DATE: JAN., 1990
SCALE: AS NOTED

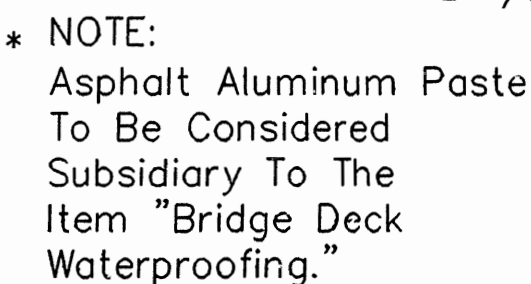
BRIDGE NO. 6323 DRAWING NO. 30195

DEL/RNF REV-DPG 8716601 11-14-90 15 1:1

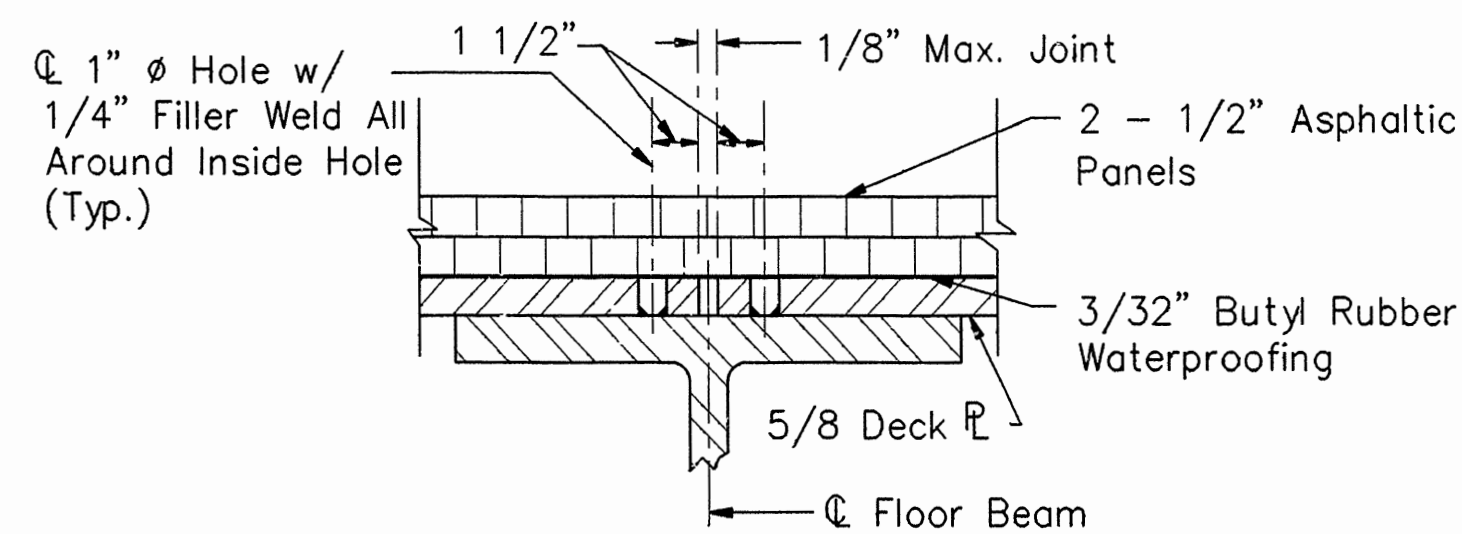
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11-15-90	12-4-90			6	ARK.		22	31
				JOB NO.		40042		



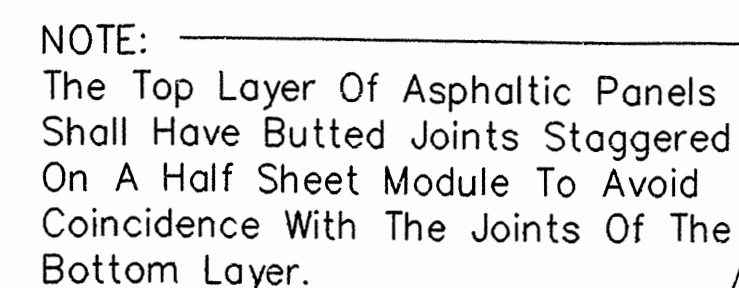
PARTIAL PLAN VIEW
SCALE: 3/4"=1'-0"



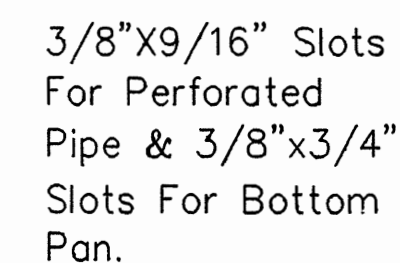
SECTION A-A
NO SCALE



DECK PLATE JOINT DETAIL
NO SCALE

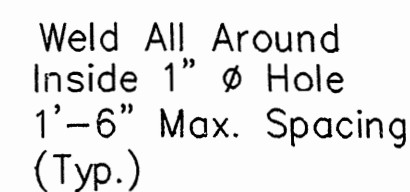


DRAINAGE PLAN
SCALE: 1"=20'



TYPICAL DECK DRAIN DETAILS
NO SCALE

DECK DRAIN EXPANSION DETAILS
NO SCALE



PART PLANS OF DECK
NO SCALE

SHEET 3 OF 3

DETAILS OF PLATE GIRDER SPAN
ARKANSAS & MISSOURI RAILROAD
HWY. 180 GRADE SEPARATION (FAYETTEVILLE)
WASHINGTON COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

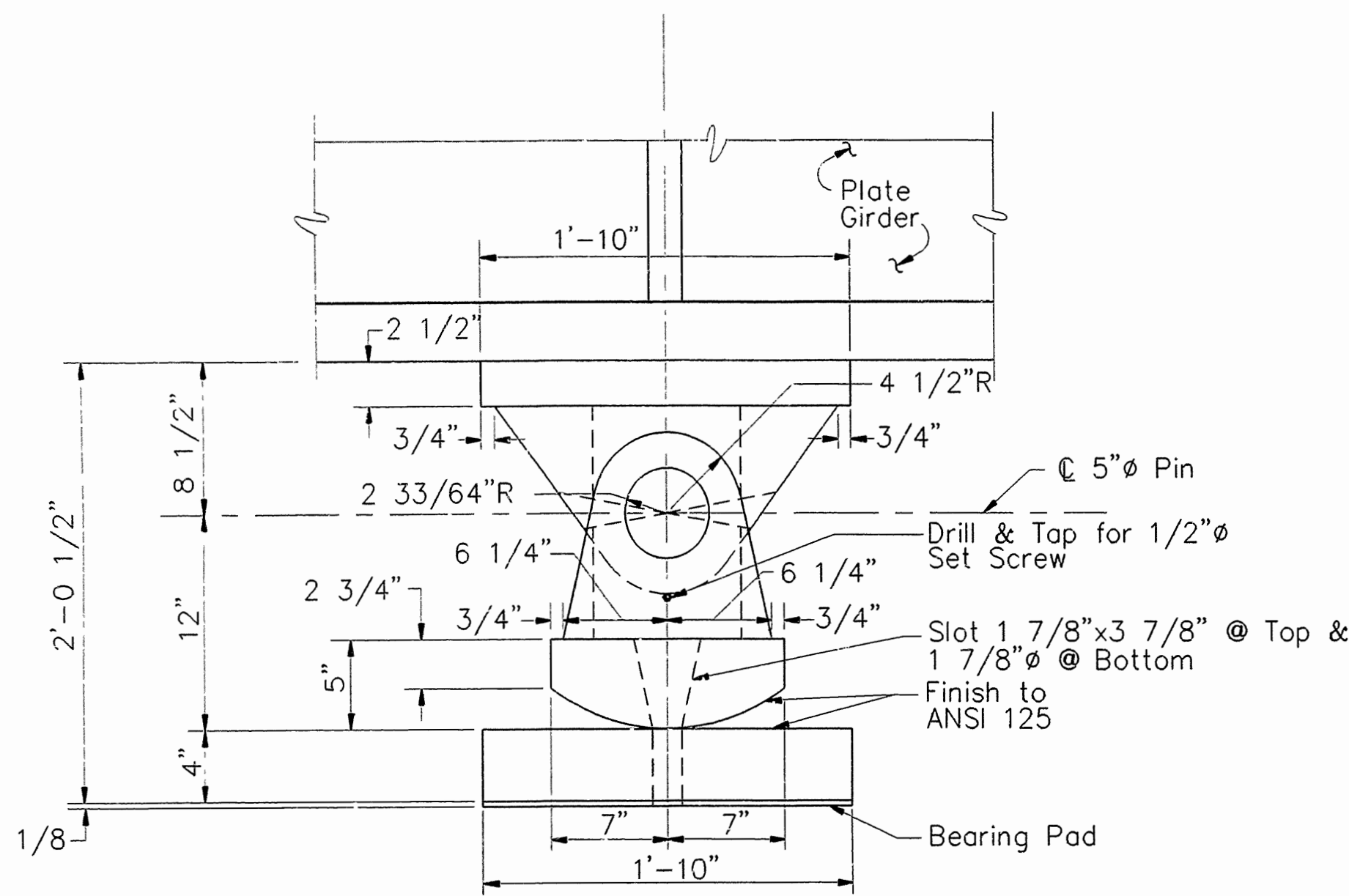
DRAWN BY: R.N.F. DATE: OCT., 1988
CHECKED BY: T.B.H. DATE: OCT., 1988
DESIGNED BY: W.R.W. DATE: OCT., 1988

SCALE: AS NOTED

BRIDGE NO. 6232 DRAWING NO. 30197

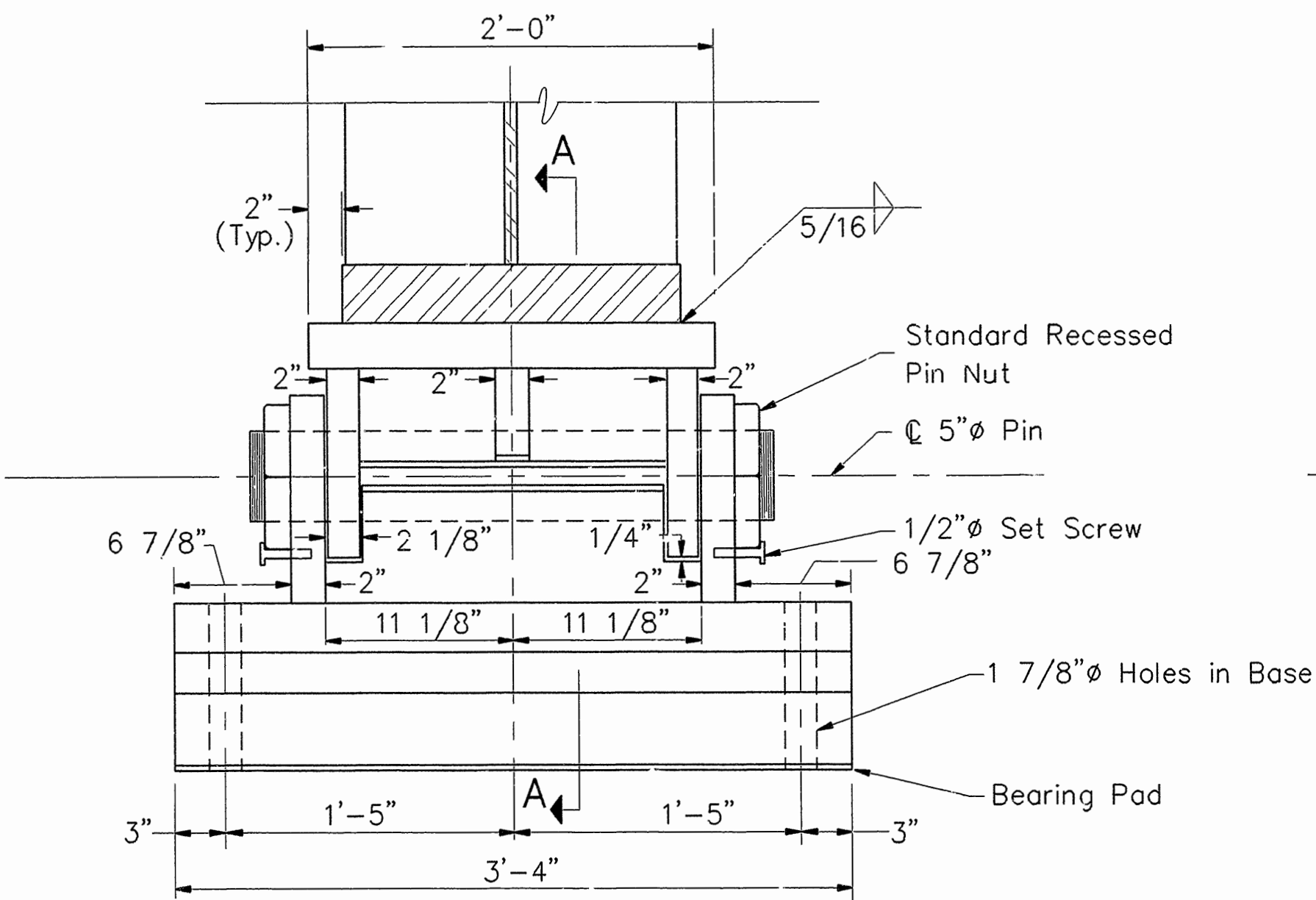
NOTES:

- Shoes shall be of Carbon Steel and may be cast or built of Welded Plates. Masonry Plates for Expansion Shoes shall be ASTM A36. All Shoe Castings shall be ASTM A27. Grade 65-35. Pins shall be ASTM A-668, Class D.
- All Anchor Bolts shall be 1 3/4"Ø galvanized (ASTM A153) swedged bolts.
- Where flat surface is indicated the tolerance shall be .003 inches in any direction.
- 1/8" thick Bearing Pads under the shoes shall not be paid for directly but shall be incidental to the cost of Structural Steel.
- Rubber Washer shall be a Closed Cell Expanded Rubber, meeting the Requirements of ASTM D1056 for RE-42 B2E2 Material.



EXPANSION SHOE

Scale 1 1/2"=1'-0"



SECTION A-A

Scale 1 1/2"=1'-0"

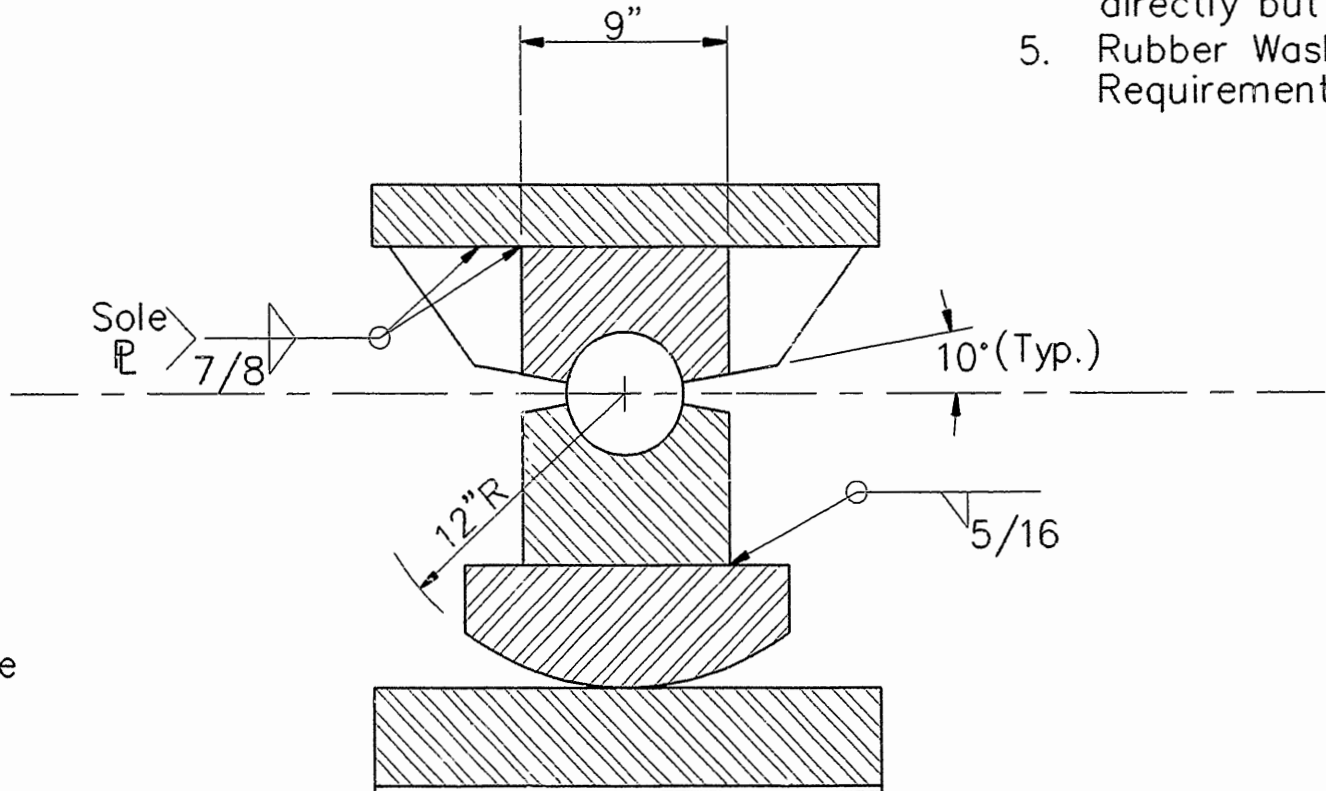
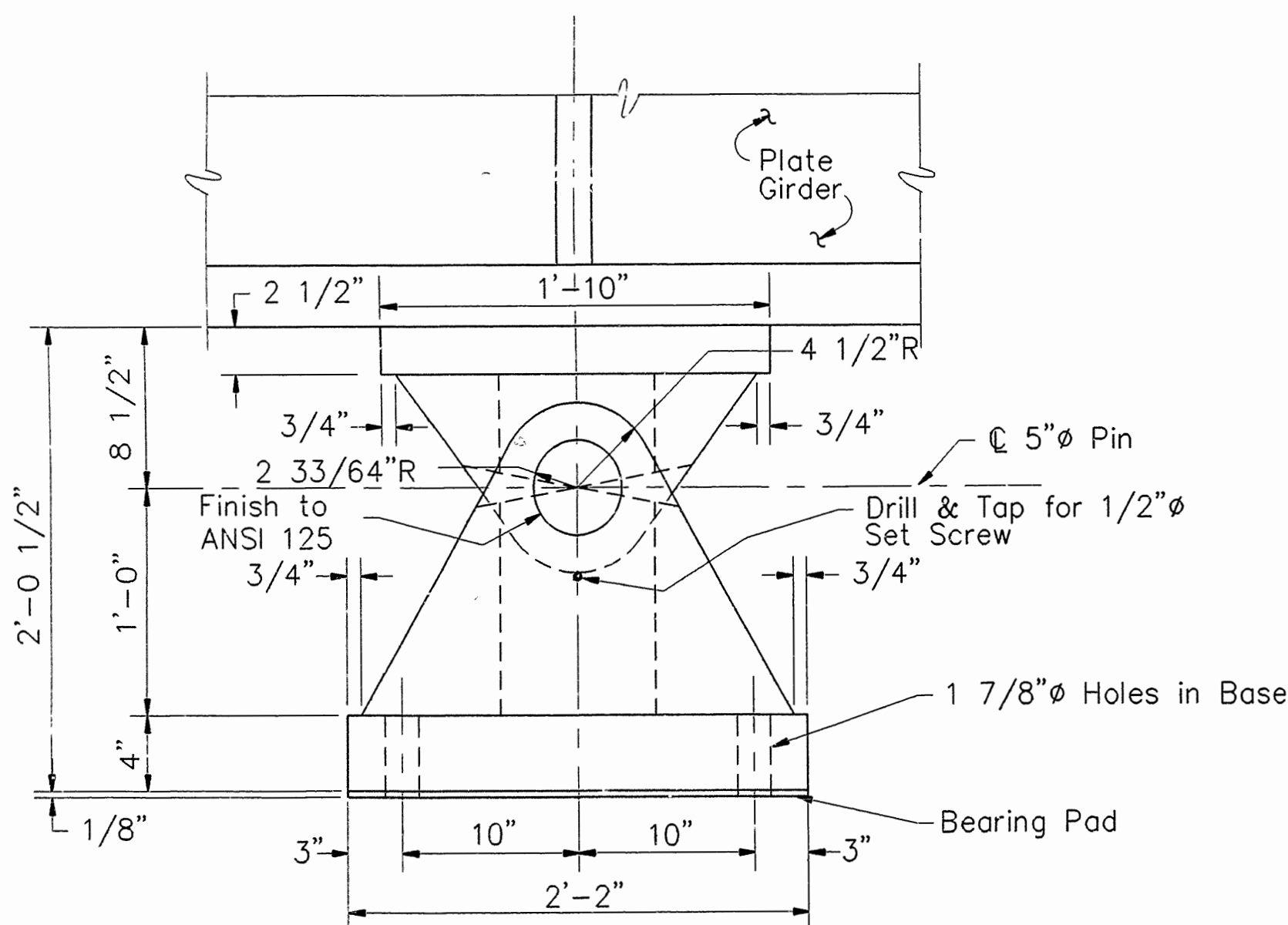


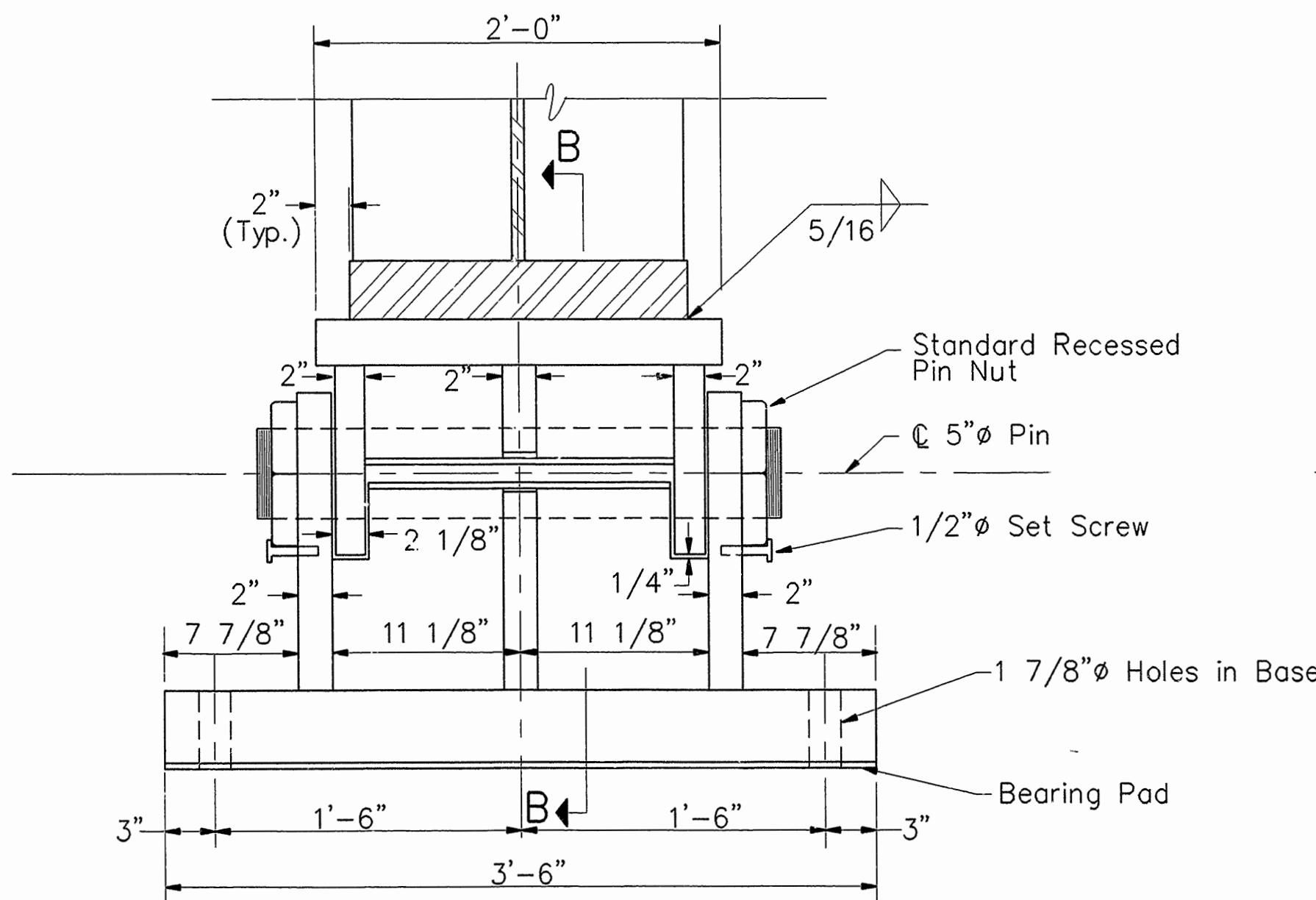
TABLE OF ANCHOR BOLT VARIABLES

TYPE OF SHOE	BOLT LENGTH	"A"	"B"	"C"
Expansion	2'-9 5/8"	3 1/2"	9 1/8"	1'-9"
Fixed	2'-3 7/8"	2 3/4"	4 1/8"	1'-9"



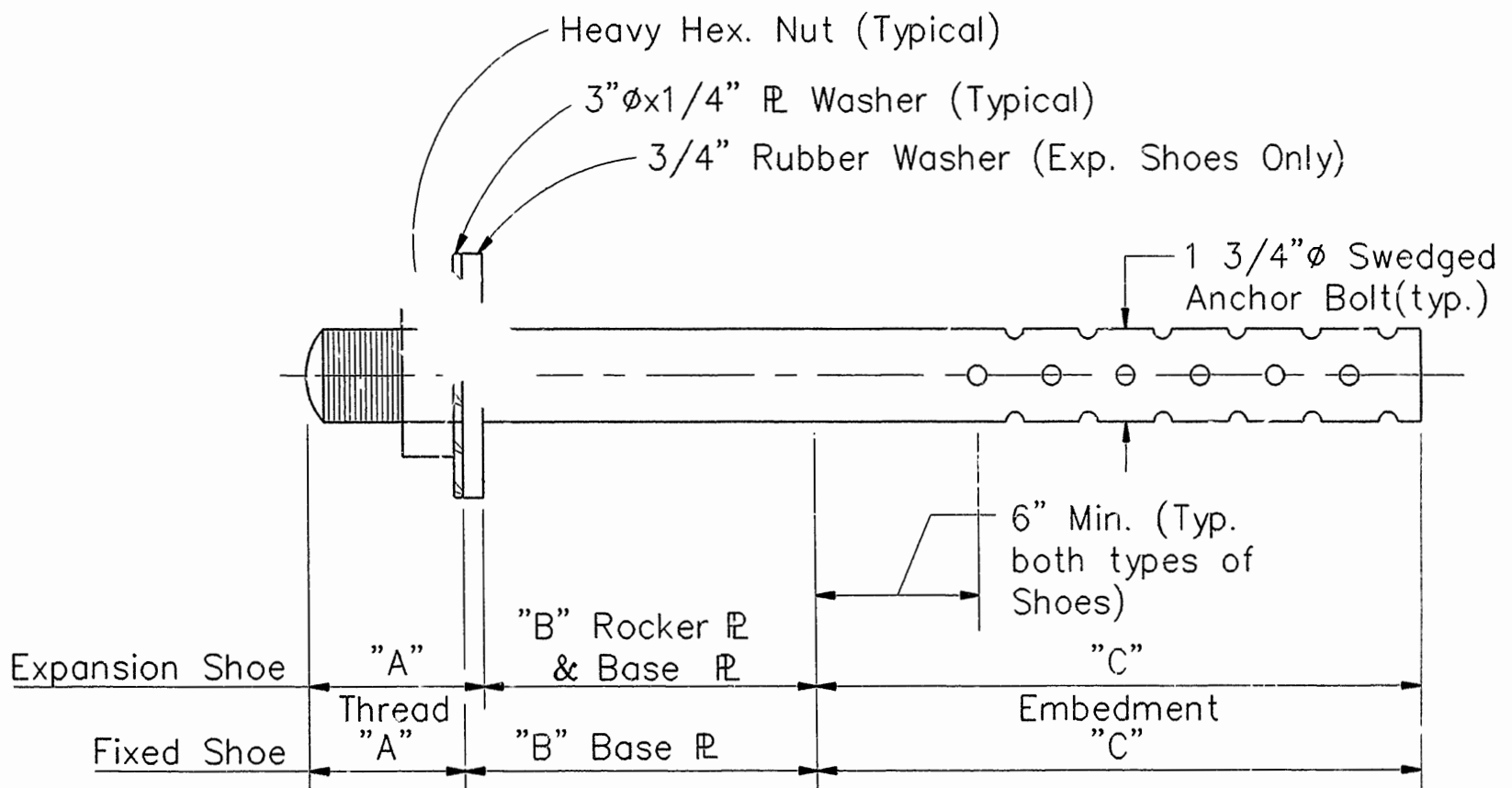
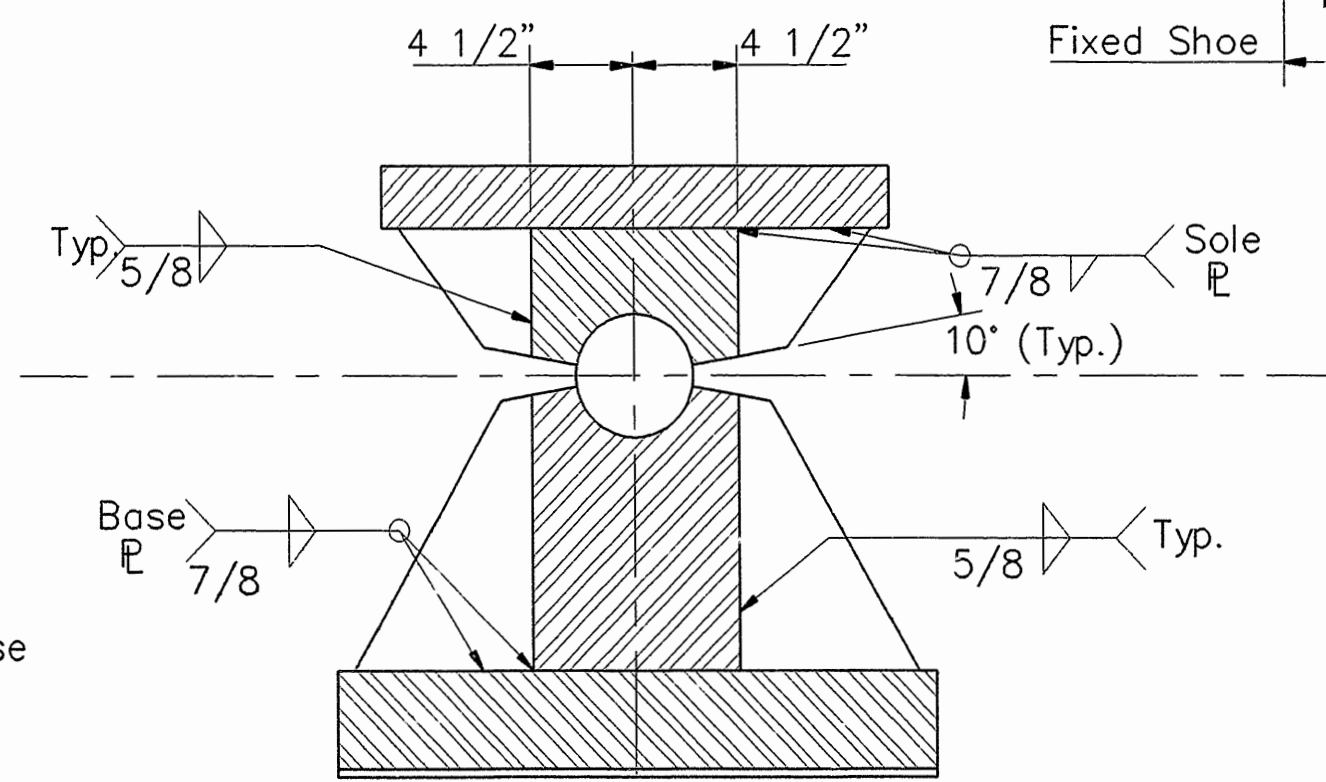
FIXED SHOE

Scale 1 1/2"=1'-0"



SECTION B-B

Scale 1 1/2"=1'-0"



ANCHOR BOLT DETAIL

No Scale

SHOE DETAILS

ARKANSAS & MISSOURI RAILROAD

HWY. 180 GRADE SEPARATION (FAYETTEVILLE)

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SCALE: AS NOTED

BRIDGE NO. 6323

DRAWING NO. 30198

BRIDGE ENGINEER