

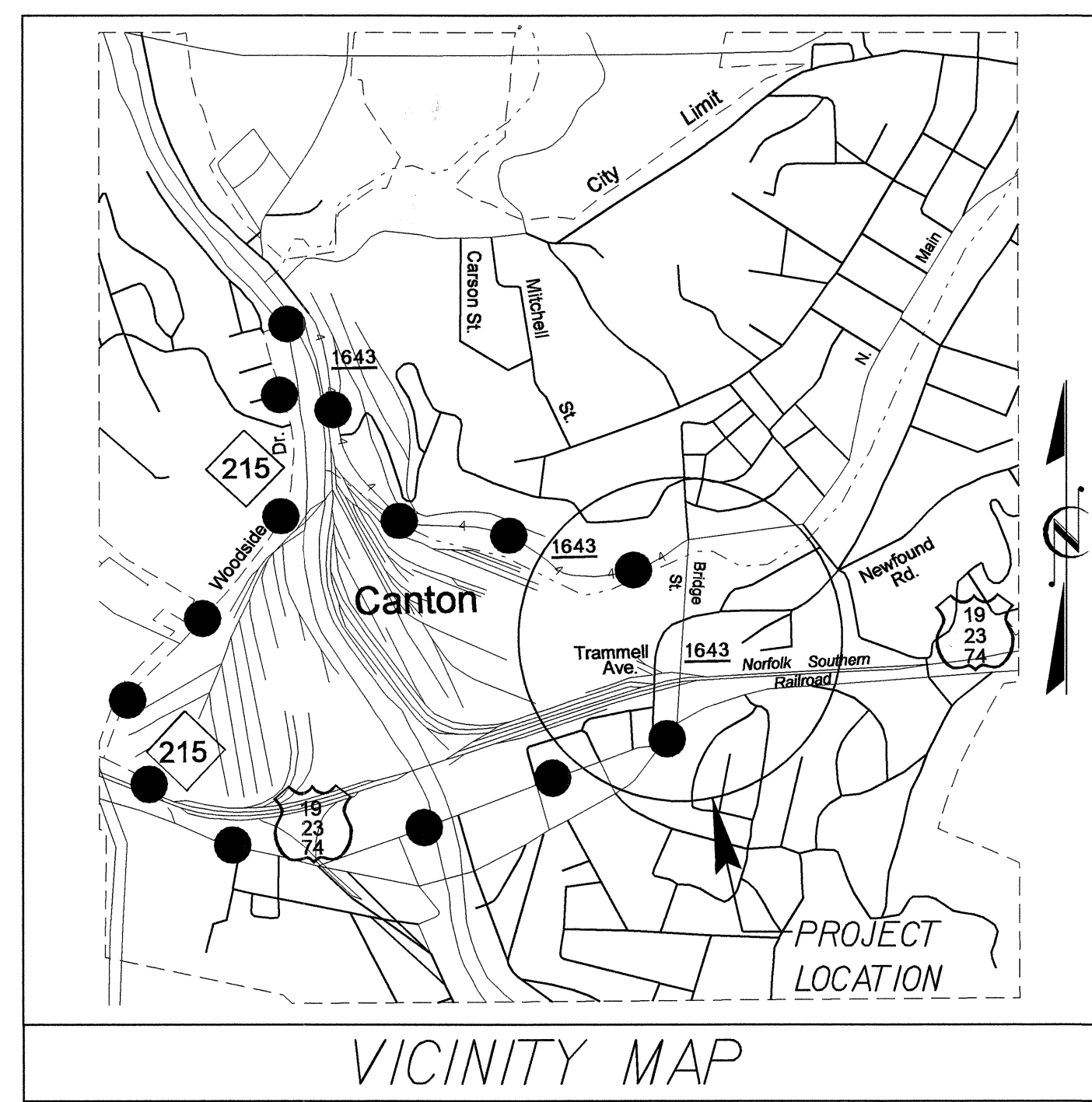
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

**UTILITY CONSTRUCTION PLANS
HAYWOOD COUNTY**

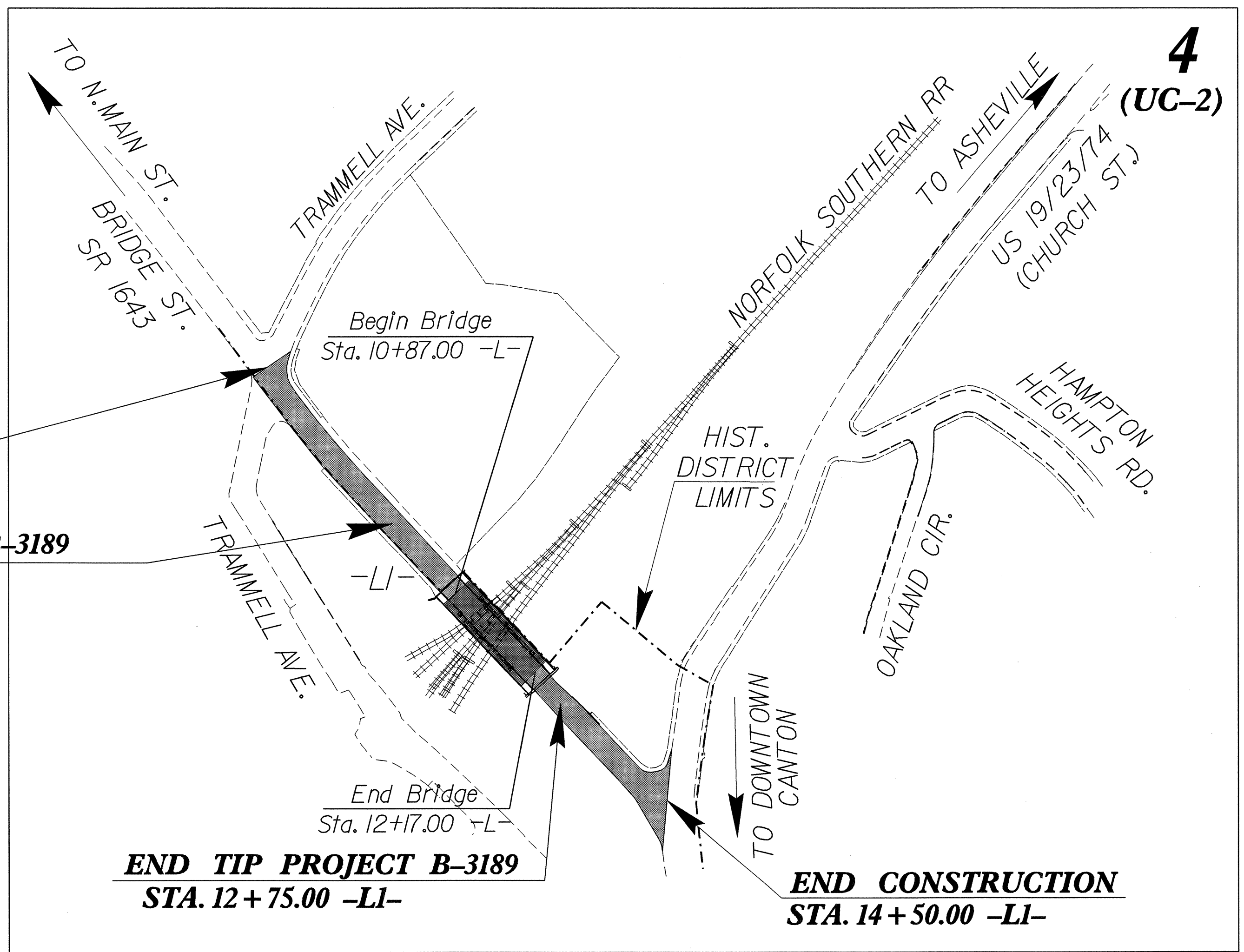
**LOCATION: BRIDGE NO. 272 ON SR 1643 (BRIDGE ST.) OVER
NORFOLK-SOUTHERN RAILROAD IN CANTON**

TYPE OF WORK: WATER LINE RELOCATION

TIP PROJECT: B-3189



OFFSITE DETOUR ROUTE



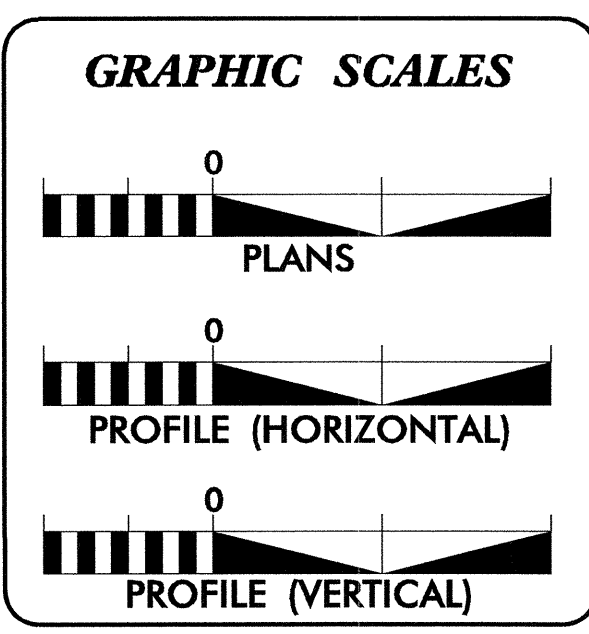
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STA. 7+90.00 -L1-**

**BEGIN TIP PROJECT B-3189
STA. 10+00.00 -L1-**

**END TIP PROJECT B-3189
STA. 12+75.00 -L1-**

**END CONSTRUCTION
STA. 14+50.00 -L1-**

2006 STANDARD SPECIFICATIONS
FOR ROADS AND STRUCTURES



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2	UTILITY CONSTRUCTION PLAN SHEET
UC-3	DETAIL SHEET
UC-4 THRU UC-7	BRIDGE ATTACHMENT
UC-8 AND UC-9	BRIDGE ATTACHMENT DETAIL SHEET

WATER AND SEWER OWNERS ON PROJECT

(1) WATER LINE - TOWN OF CANTON
(2) SANITARY SEWER LINE - TOWN OF CANTON

UTILITIES CONTACT FOR TOWN OF CANTON
MR. DALE INMAN PH. 828 646 3407 OR 828 648 2364



PREPARED IN THE OFFICE OF:
**DIVISION OF HIGHWAYS
PROJECT SERVICES
UTILITY SECTION**

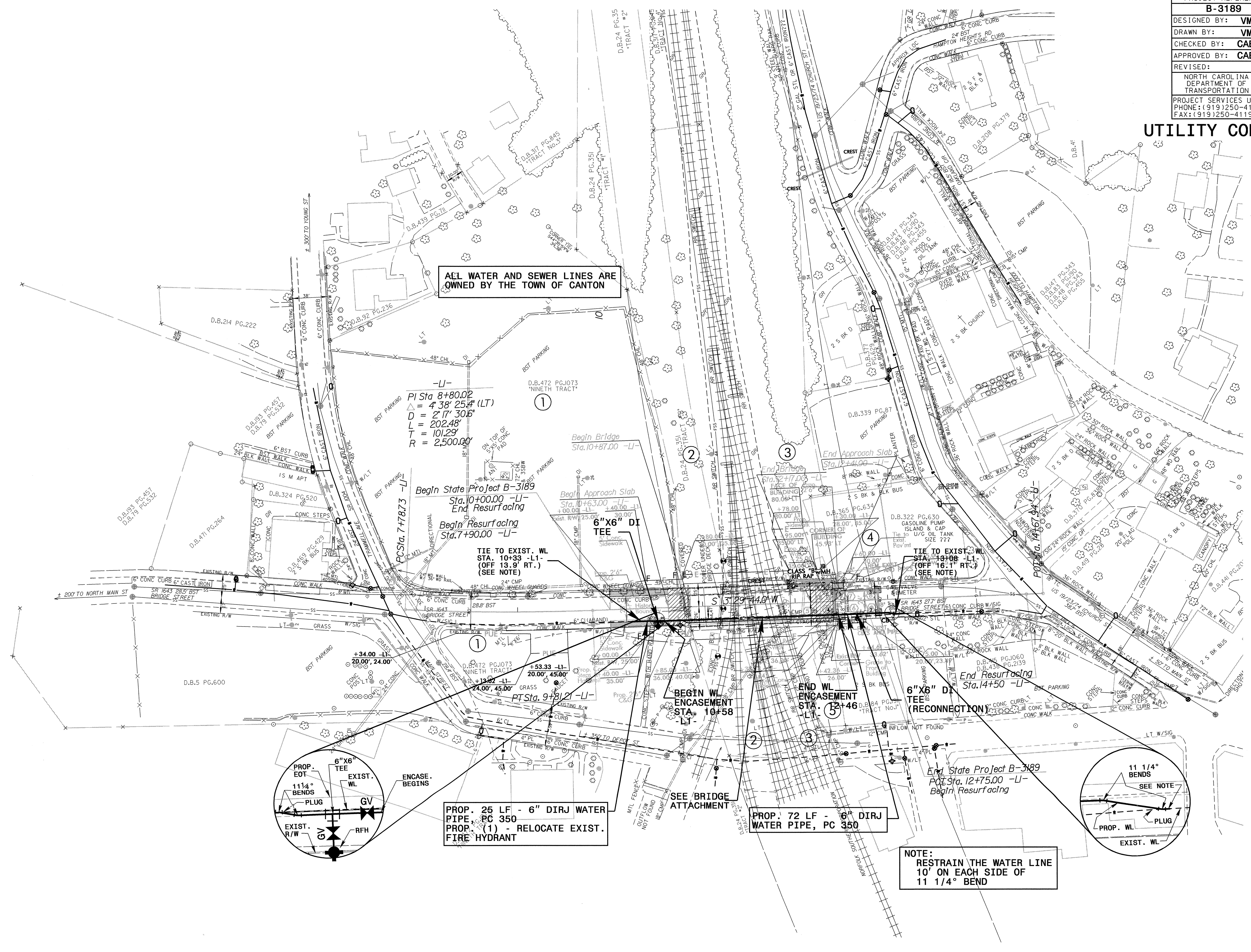
1591 MAIL SERVICES CENTER
RALEIGH NC 27699-1591
PHONE (919) 250-4128
FAX (919) 250-4119

R. G. WORTHINGTON, P.E. UTILITIES SECTION ENGINEER
C. A. BARCLAY, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER
V. MOUA UTILITIES PROJECT DESIGNER

12-FEB-2007 08:47 F:\Utilities\div_ut\proj\b3189_ut_uc_01.dgn \$\$\$\$USERNAME\$\$\$

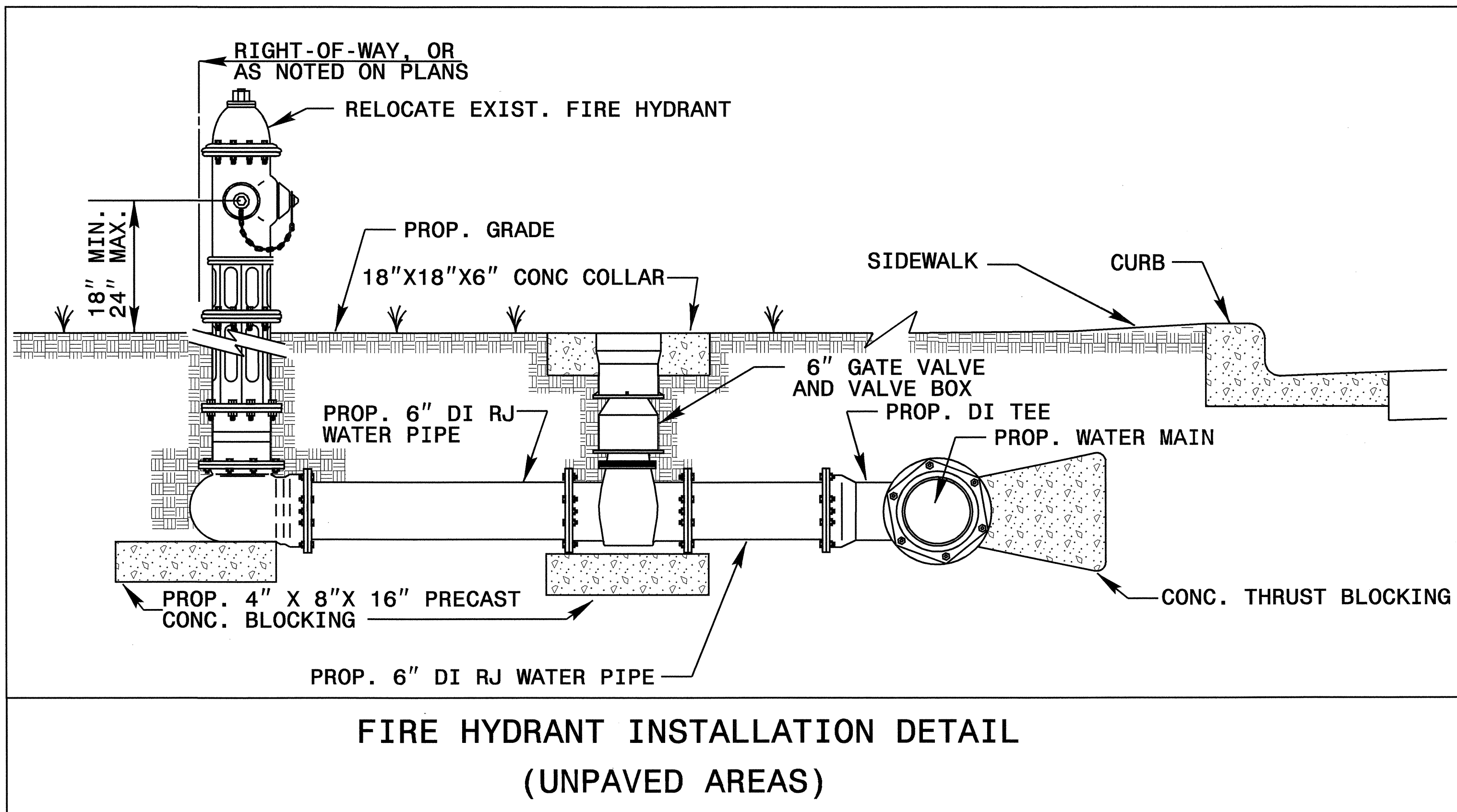
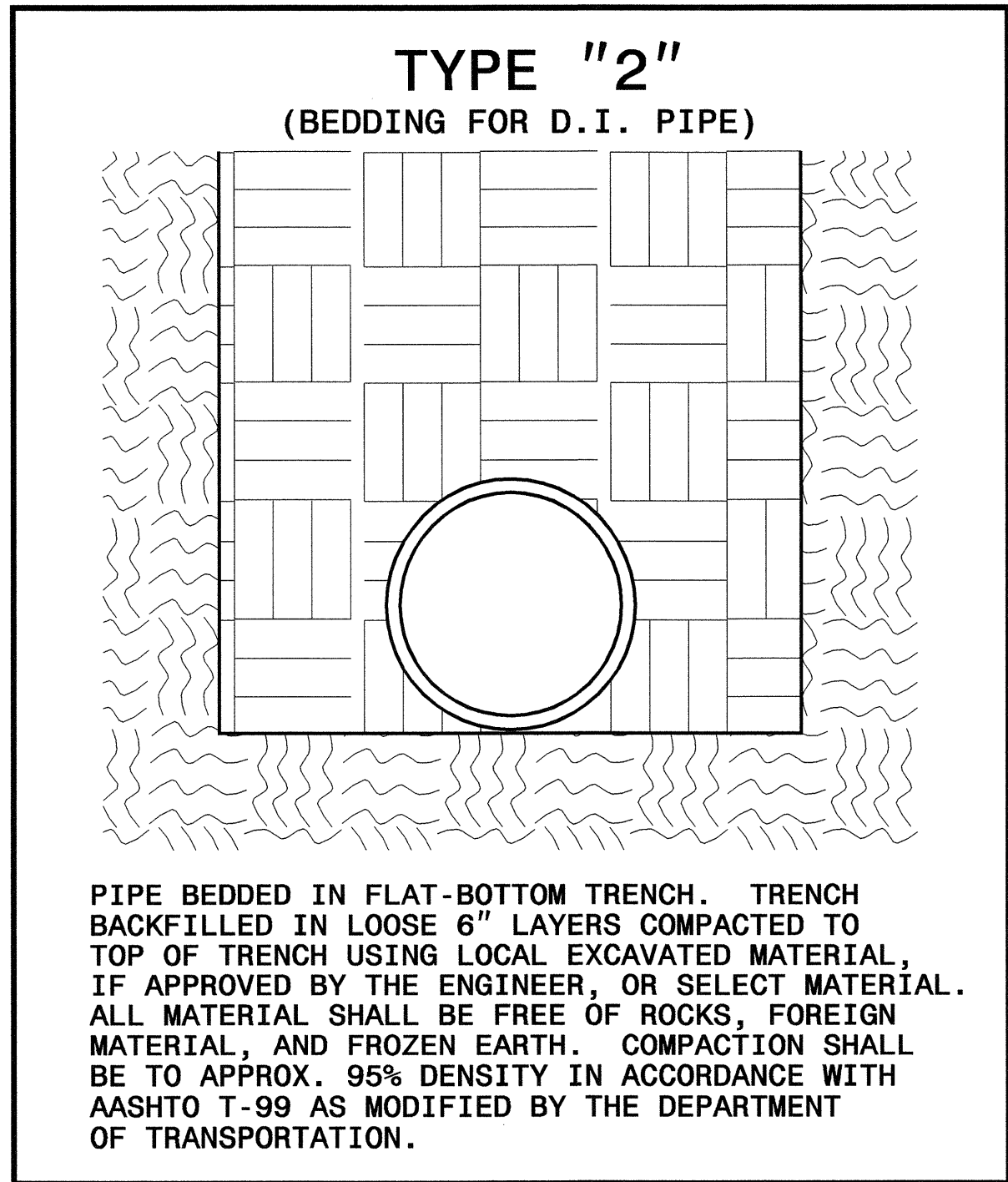
UTILITY CONSTRUCTION

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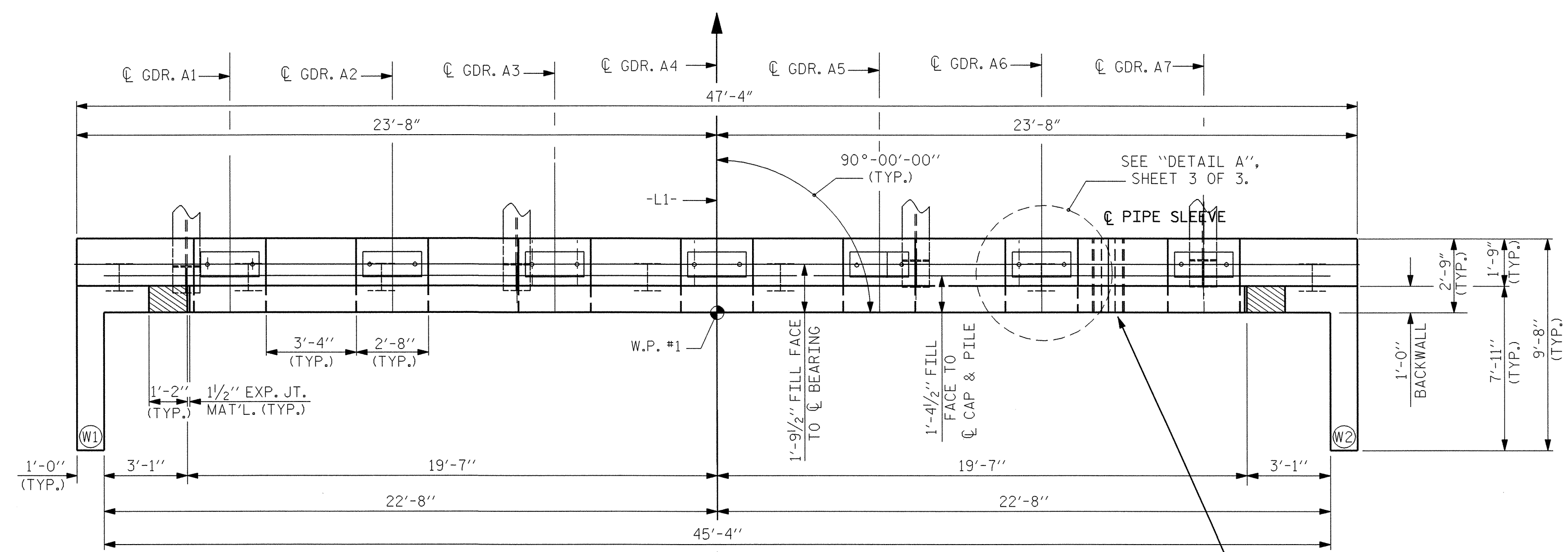
UTILITY CONSTRUCTION

MAXIMUM TRENCH WIDTH AT TOP OF PIPE			
NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)	NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)
4	28	20	44
6	30	24	48
8	32	30	54
10	34	36	60
12	36	42	66
14	38	48	72
16	40	54	78
18	42		

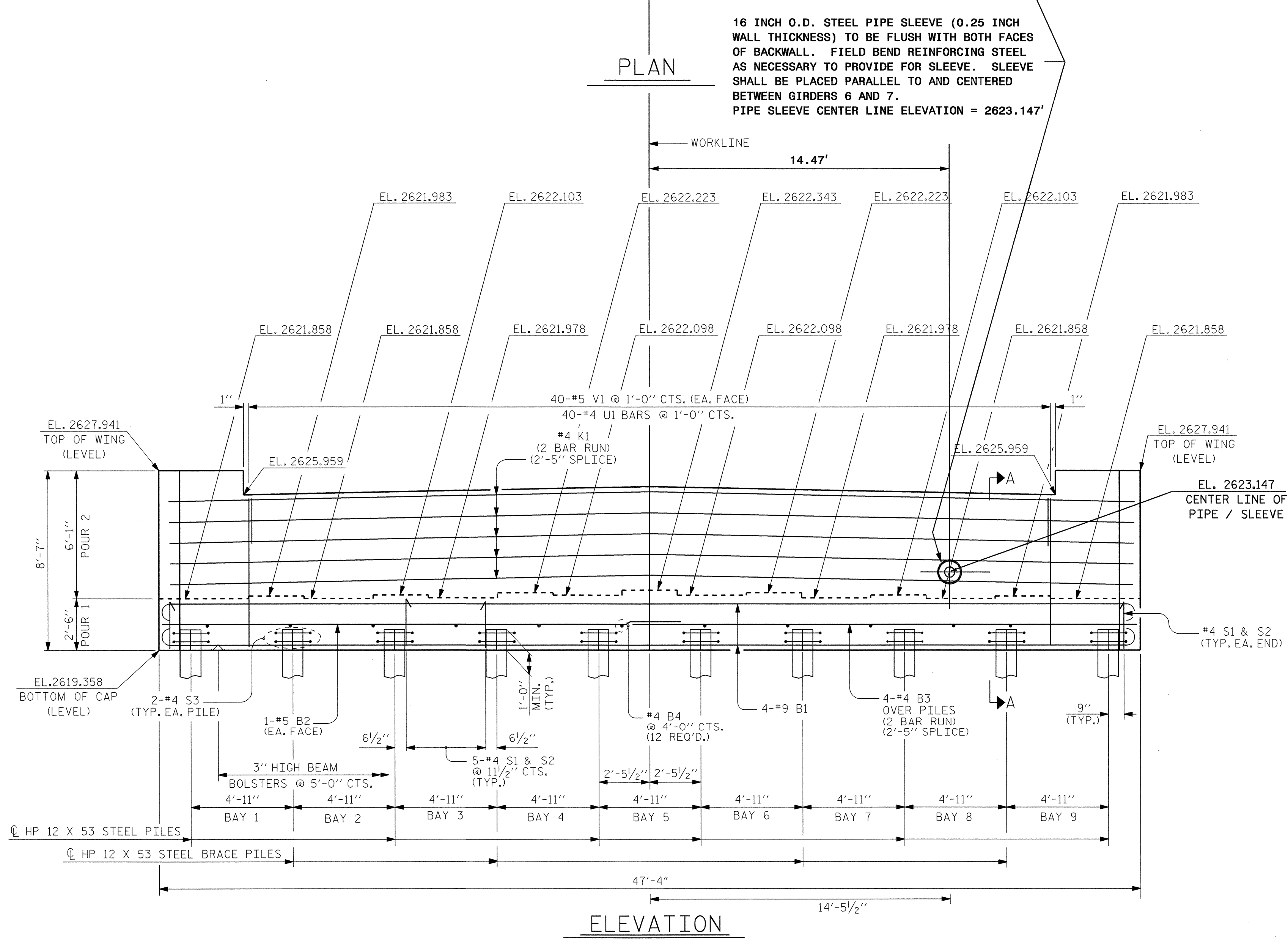


PROJECT REFERENCE NO.	SHEET NO.
B-3189	UC-4
DESIGNED BY: VM	
DRAWN BY: VM	
CHECKED BY: CAB	
APPROVED BY: CAB	
REVISER:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION PROJECT SERVICES UNIT PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION



16 INCH O.D. STEEL PIPE SLEEVE (0.25 INCH WALL THICKNESS) TO BE FLUSH WITH BOTH FACES OF BACKWALL. FIELD BEND REINFORCING STEEL AS NECESSARY TO PROVIDE FOR SLEEVE. SLEEVE SHALL BE PLACED PARALLEL TO AND CENTERED BETWEEN GIRDERS 6 AND 7.
 PIPE SLEEVE CENTER LINE ELEVATION = 2623.147'

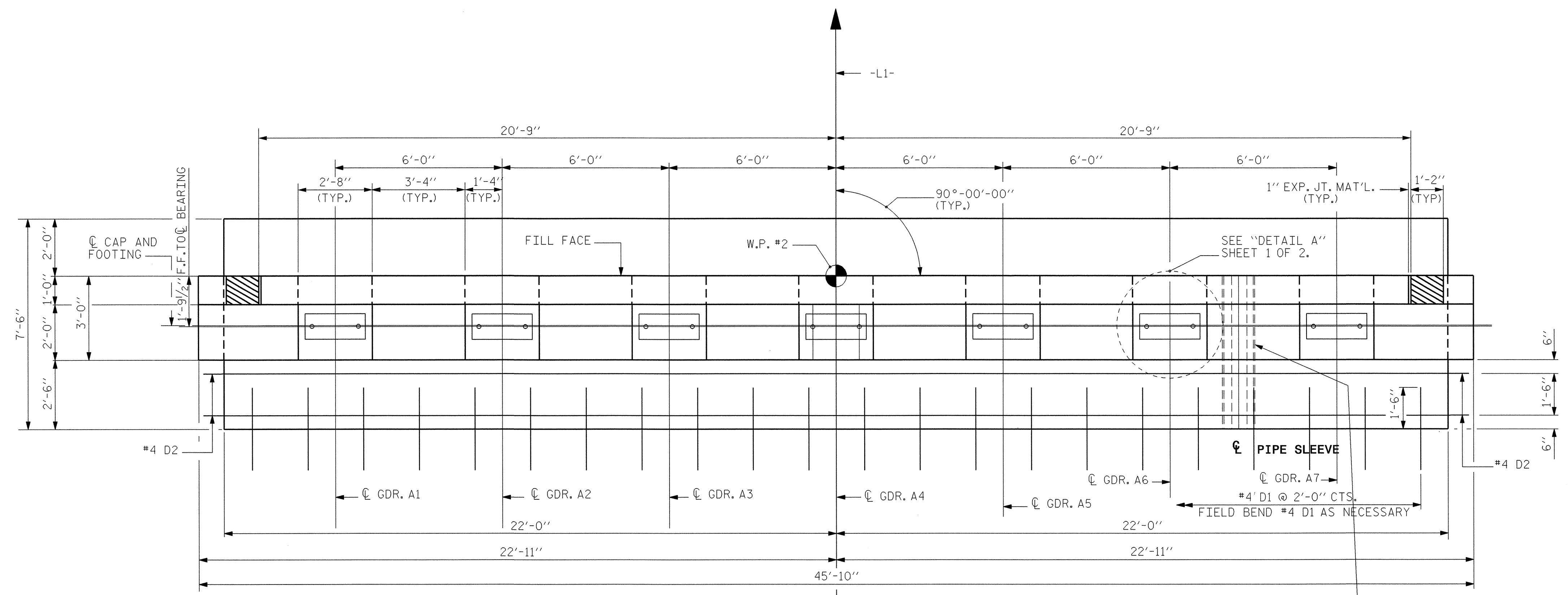


**UTILITY ATTACHMENT
 END BENT # 1**

5/14/99
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PROJECT REFERENCE NO.	SHEET NO.
B-3189	UC-5
DESIGNED BY: VM	
DRAWN BY: VM	
CHECKED BY: CAB	
APPROVED BY: CAB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION PROJECT SERVICES UNIT PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

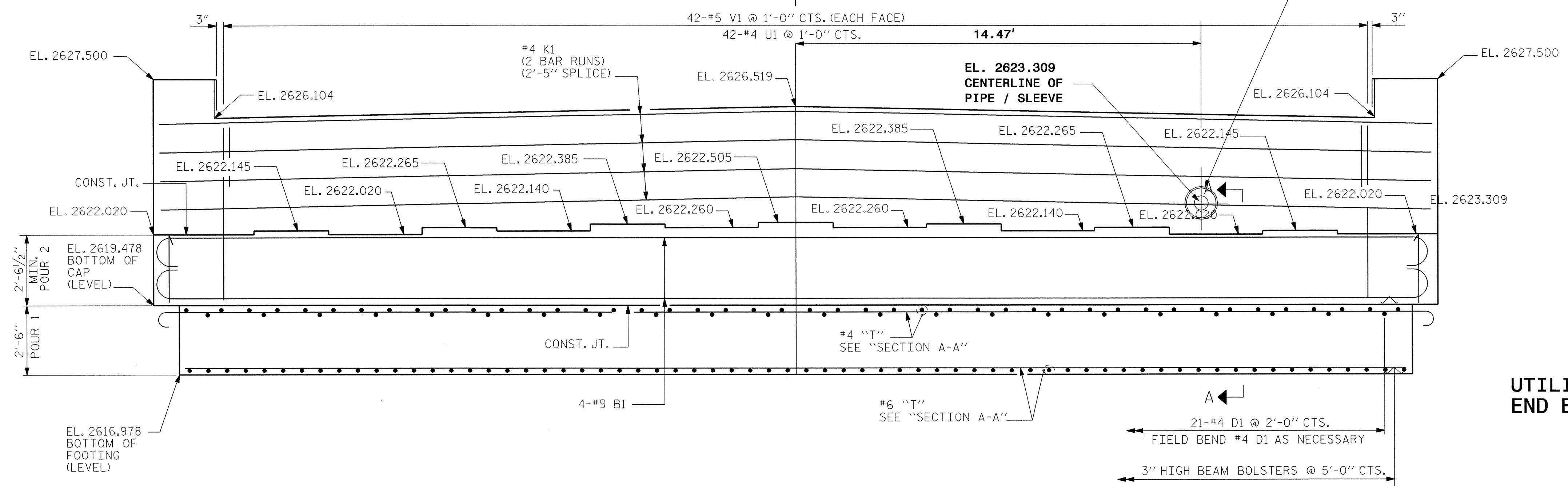
UTILITY CONSTRUCTION



NOTE: SEE ALSO UTILITY CONSTRUCTION SPECIAL PROJECT PROVISIONS FOR CORING THROUGH THE EXISTING RETAINING WALL.

16 INCH O.D. STEEL PIPE SLEEVE (0.25 INCH WALL THICKNESS) TO BE FLUSH WITH BOTH FACES OF BACKWALL. FIELD BEND REINFORCING STEEL AS NECESSARY TO PROVIDE FOR SLEEVE. SLEEVE SHALL BE PLACED PARALLEL TO AND CENTERED BETWEEN GIRDERS 6 AND 7. PIPE SLEEVE CENTER LINE ELEVATION = 2623.309'

PLAN



ELEVATION

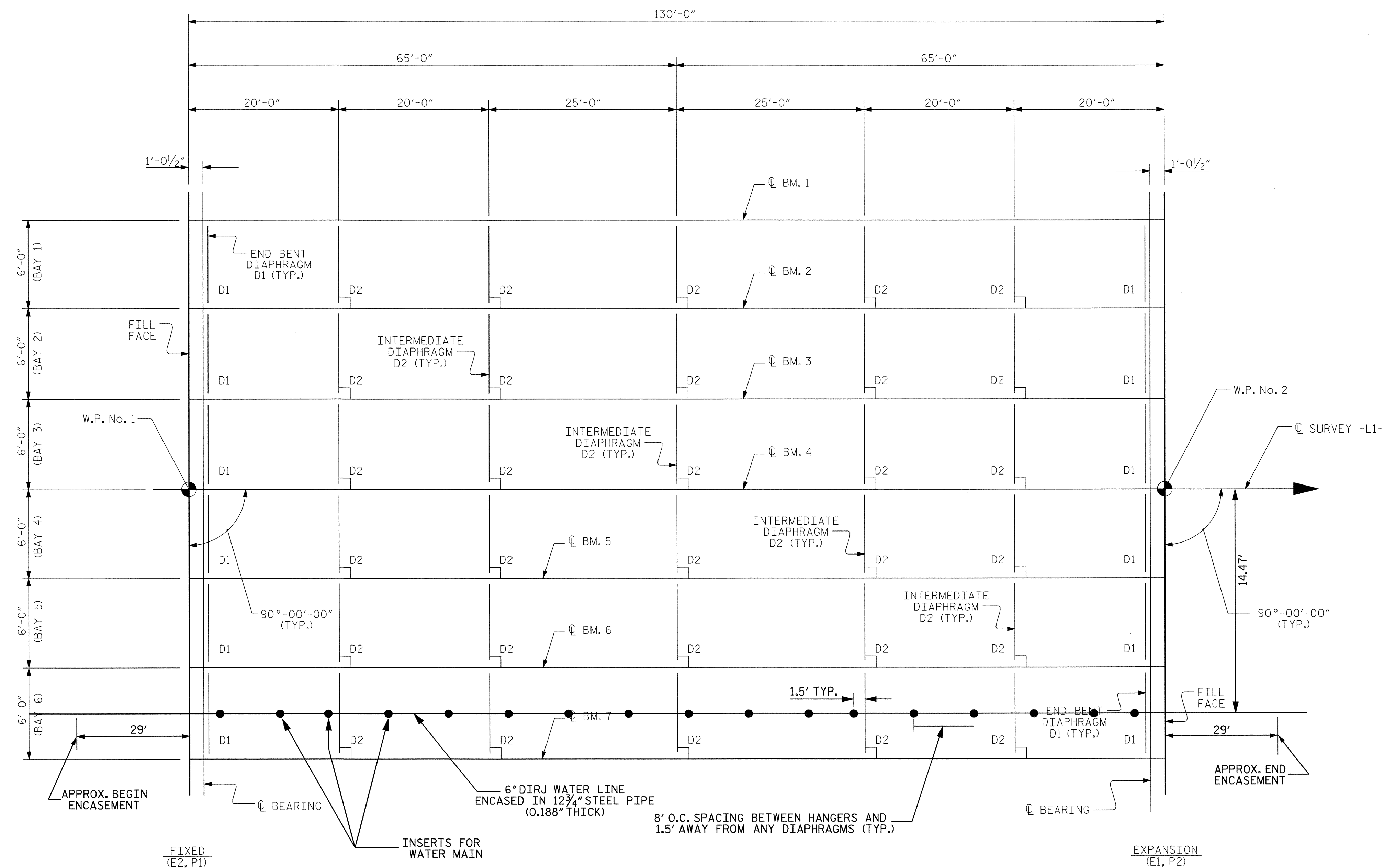
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 5/14/99

5/14/99

PROJECT REFERENCE NO. B-3189	SHEET NO. UC-7
DESIGNED BY: VM	
DRAWN BY: VM	
CHECKED BY: CAB	
APPROVED BY: CAB	
REVISER:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
PROJECT SERVICES UNIT PHONE: (919)250-4128 FAX: (919)250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

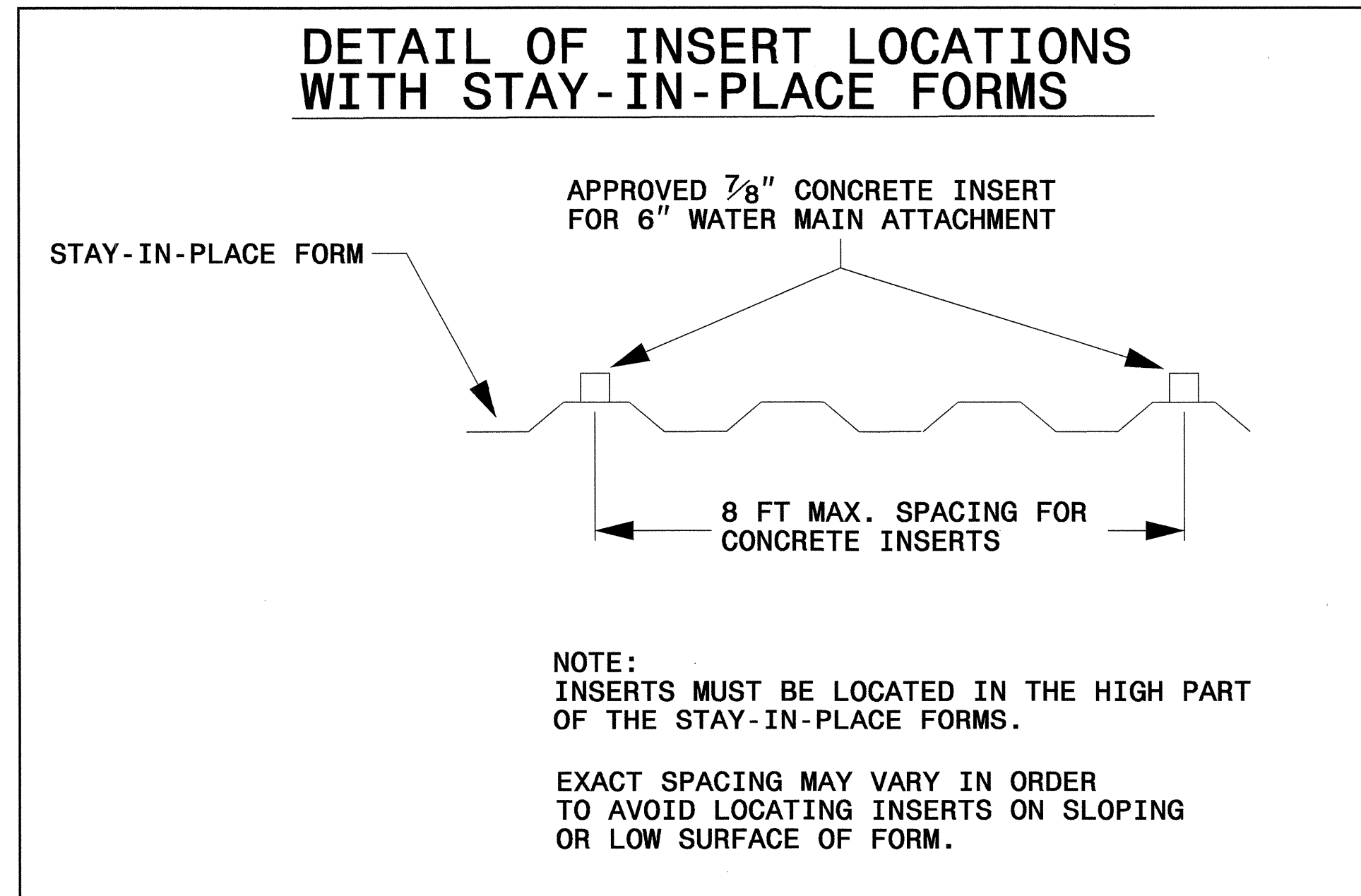
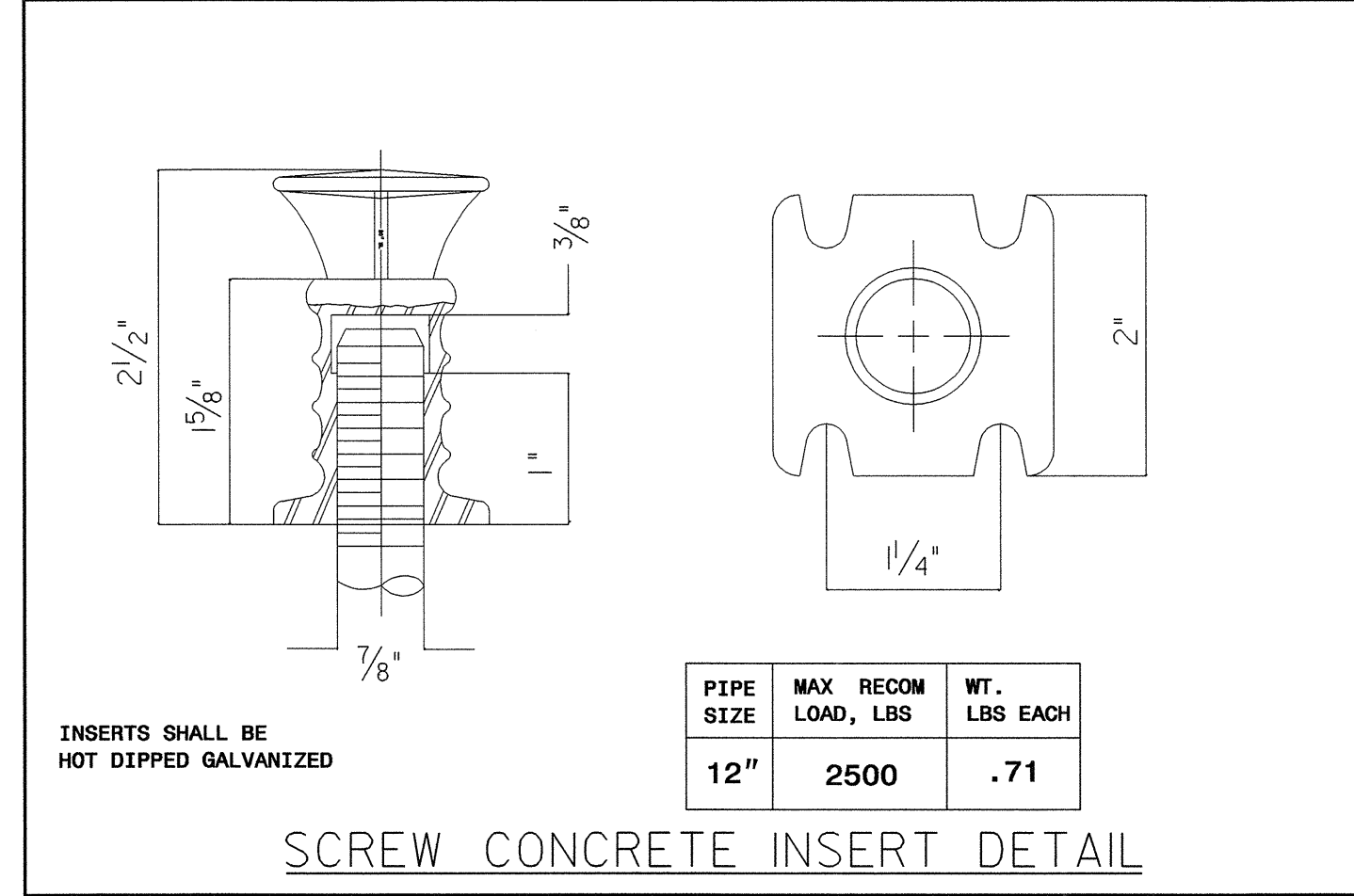
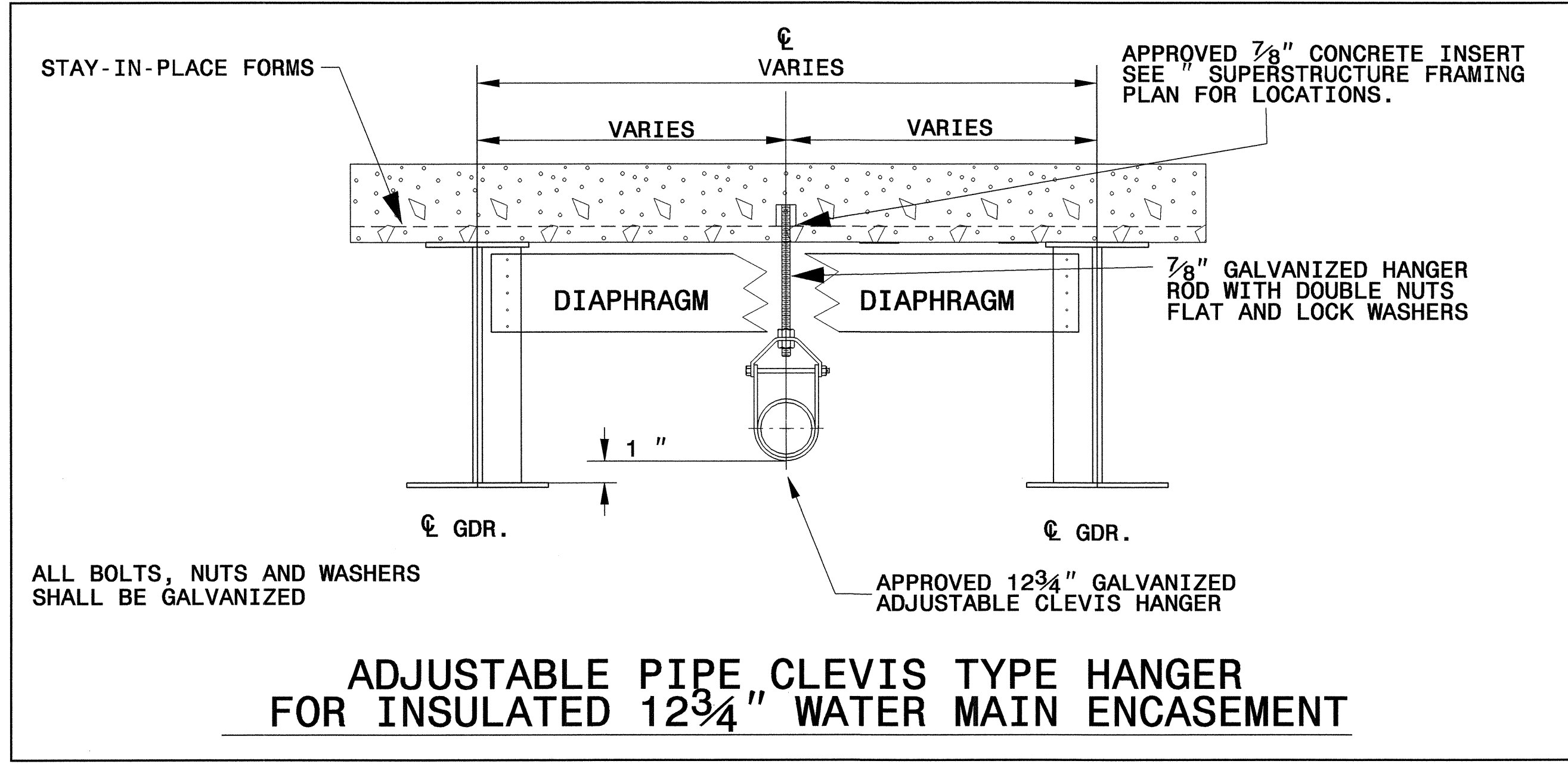
UTILITY CONSTRUCTION



FRAMING PLAN

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UTILITY CONSTRUCTION

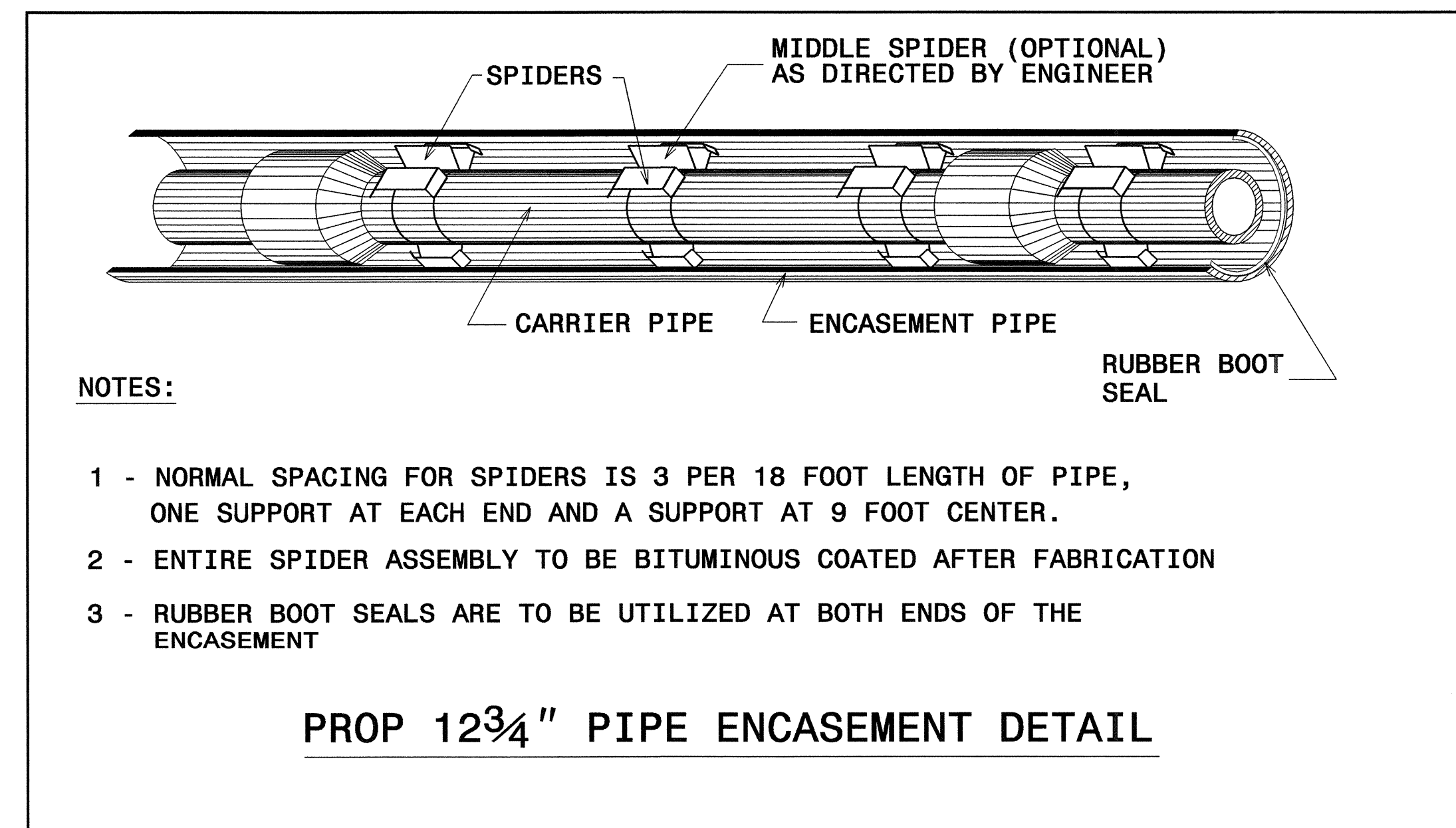
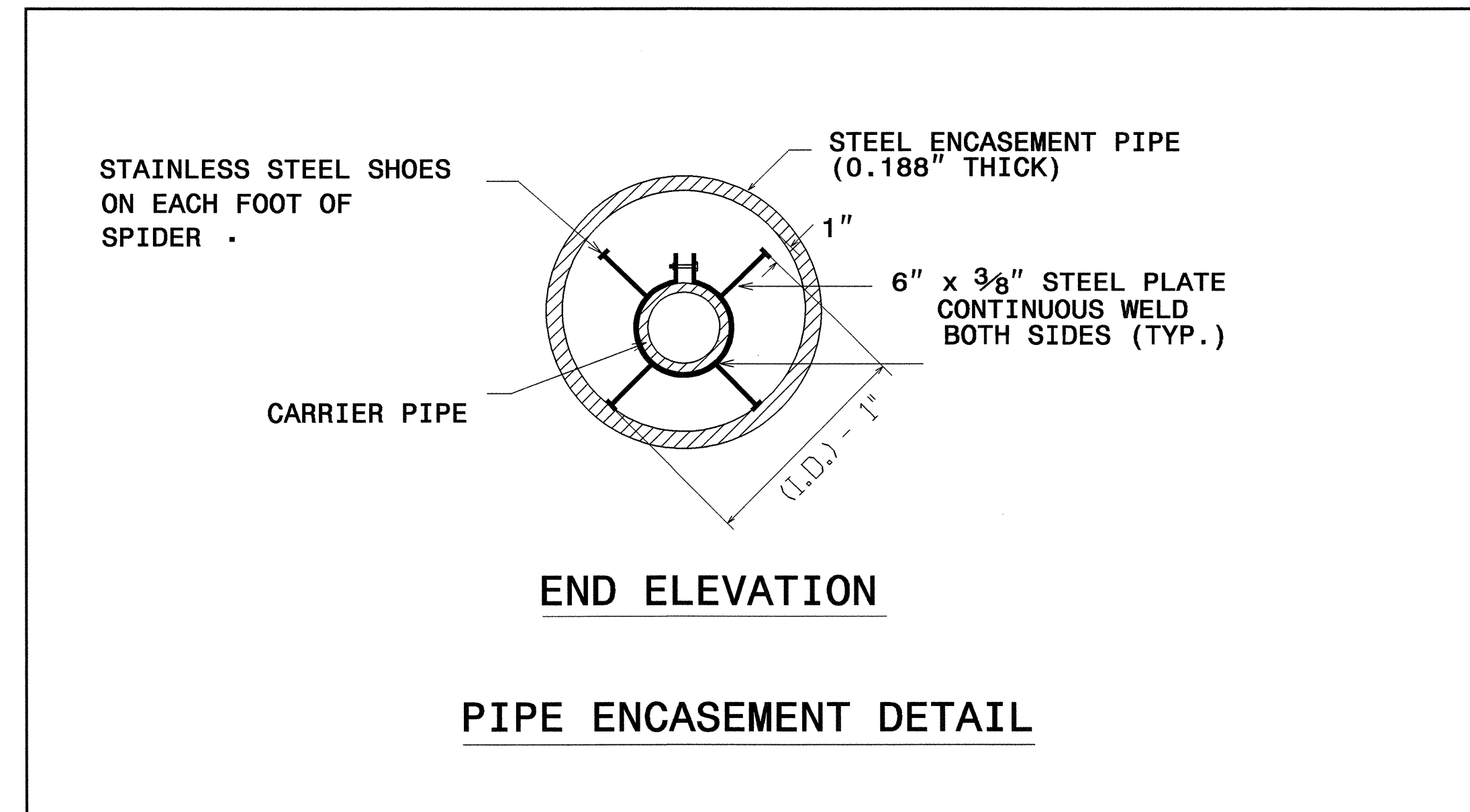
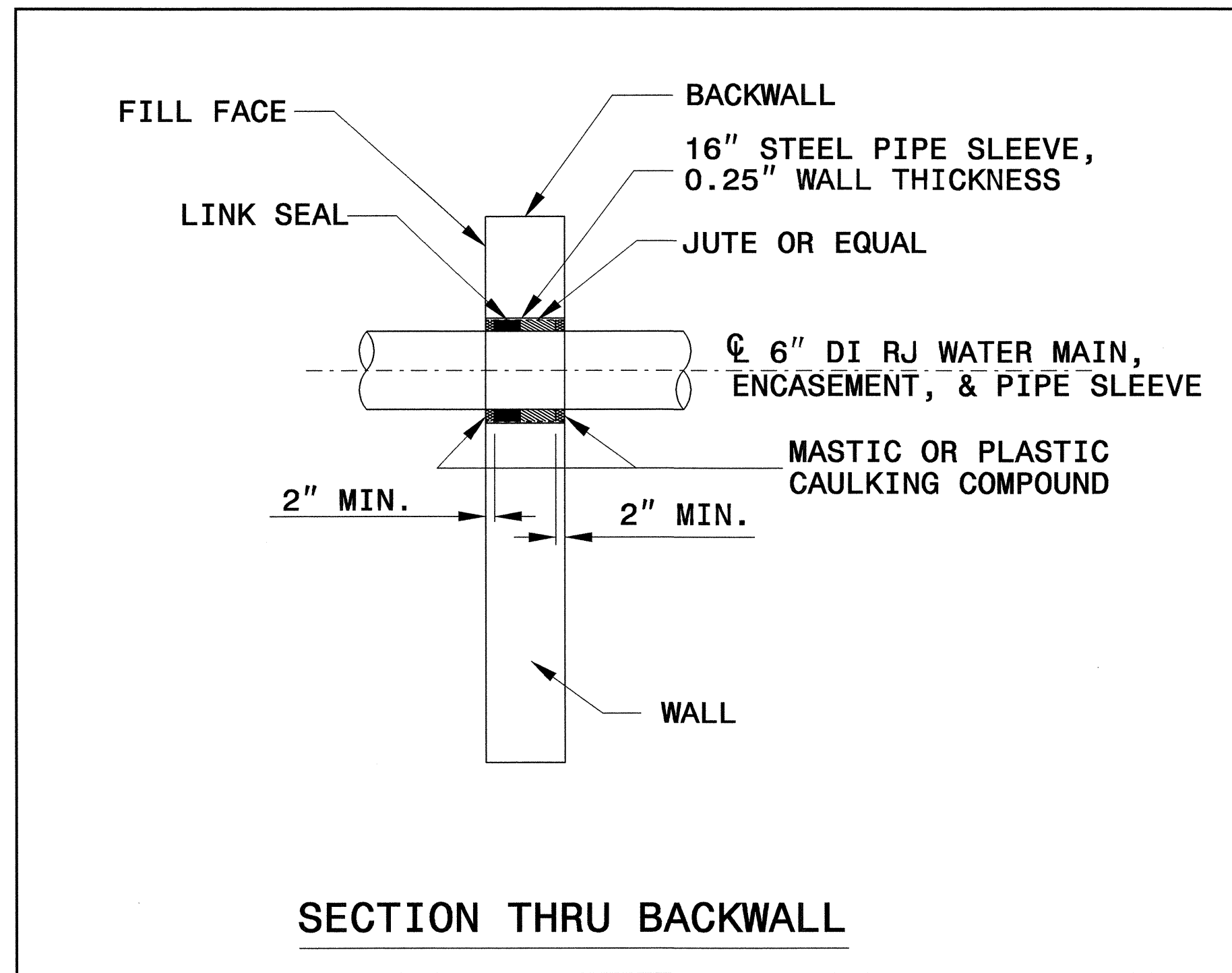


BILL OF MATERIALS FOR 6" WATER MAIN		
NO.	UNITS	ITEMS
1	2 EA	16" STEEL PIPE SLEEVE, 0.250" WALL THICKNESS, 16" LENGTH (END BENTS)
2	17 EA	7/8" APPROVED GALV. CONCRETE INSERTS
3	17 EA	APPROVED GALV. CLEVIS TYPE HANGER FOR 12 3/4" STEEL ENCASMENT WITH 7/8" GALV. HANGER RODS
4	188 FT	6" DI RESTRAINED JOINT WATER PIPE, PC 350
5	2 EA	APPROVED MODULAR TYPE CASING SEAL
6	31 LB	JUTE
7	25 LB	MASTIC OR PLASTIC CAULKING COMPOUND
8	188 FT	12 3/4" STEEL ENCASMENT PIPE (0.188" THICK)
9	2 EA	RUBBER BOOT SEAL

THESE QUANTITIES ARE FOR ESTIMATED QUANTITIES ONLY.

PROJECT REFERENCE NO.	SHEET NO.
B-3189	UC-9
DESIGNED BY: VM	
DRAWN BY: VM	
CHECKED BY: CAB	
APPROVED BY: CAB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
PROJECT SERVICES UNIT PHONE: (919)250-4128 FAX: (919)250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION



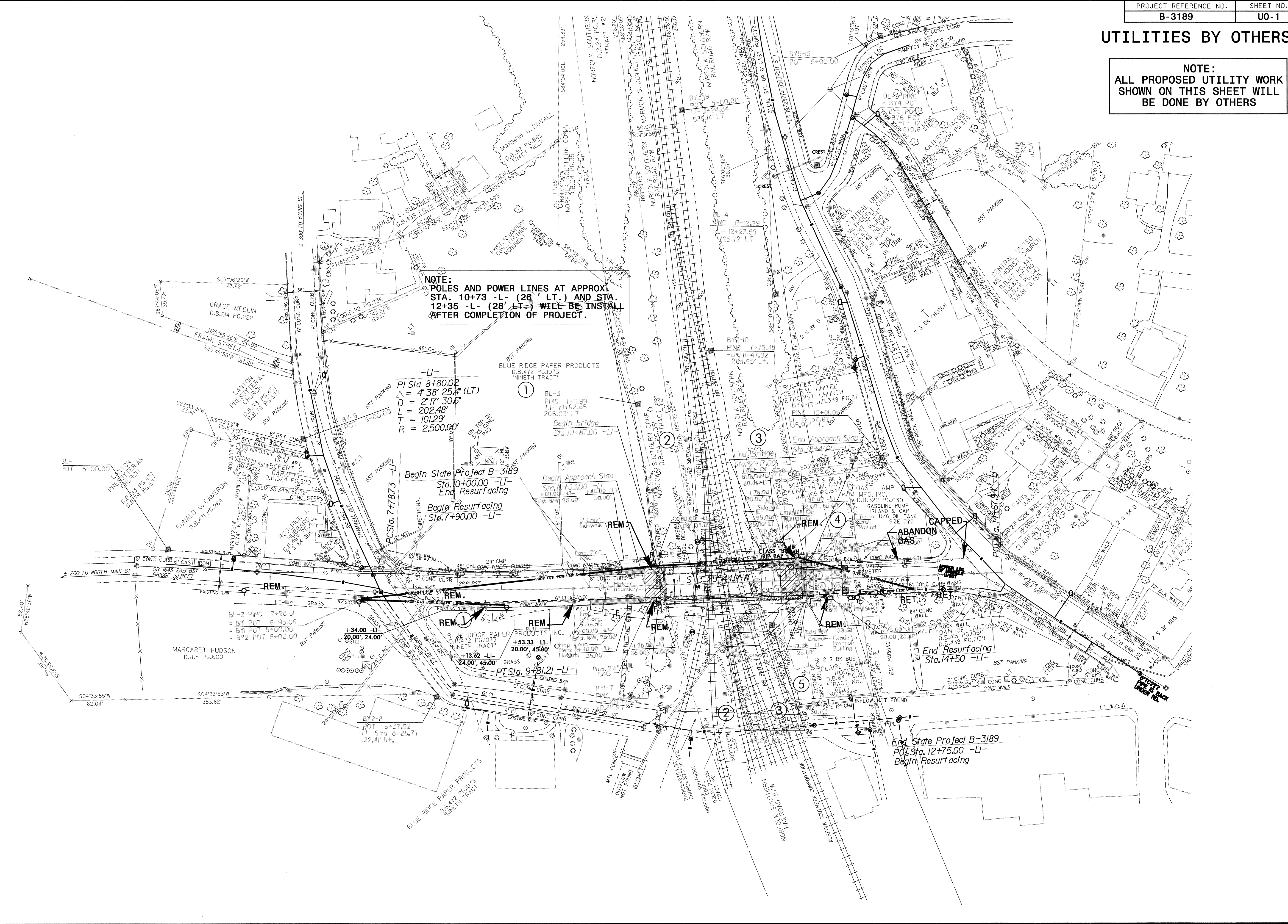
NOTES:

- 1 - NORMAL SPACING FOR SPIDERS IS 3 PER 18 FOOT LENGTH OF PIPE, ONE SUPPORT AT EACH END AND A SUPPORT AT 9 FOOT CENTER.
- 2 - ENTIRE SPIDER ASSEMBLY TO BE BITUMINOUS COATED AFTER FABRICATION
- 3 - RUBBER BOOT SEALS ARE TO BE UTILIZED AT BOTH ENDS OF THE ENCASMENT

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK
SHOWN ON THIS SHEET WILL
BE DONE BY OTHERS

5/14/99



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