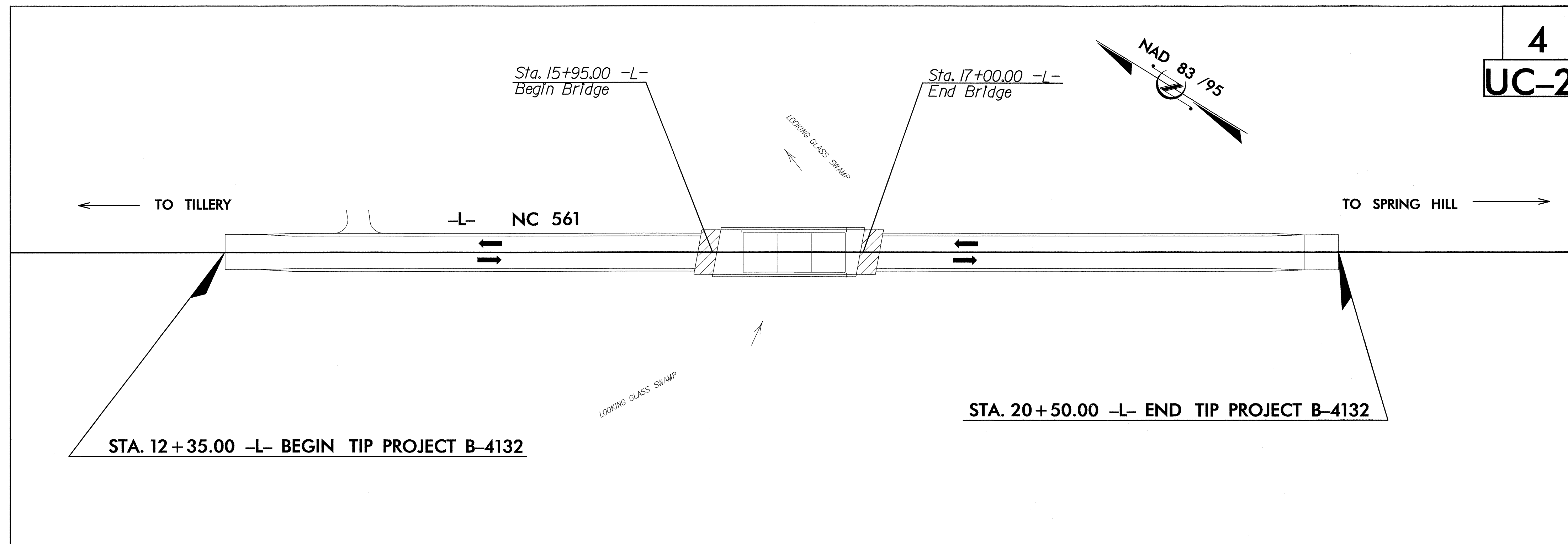
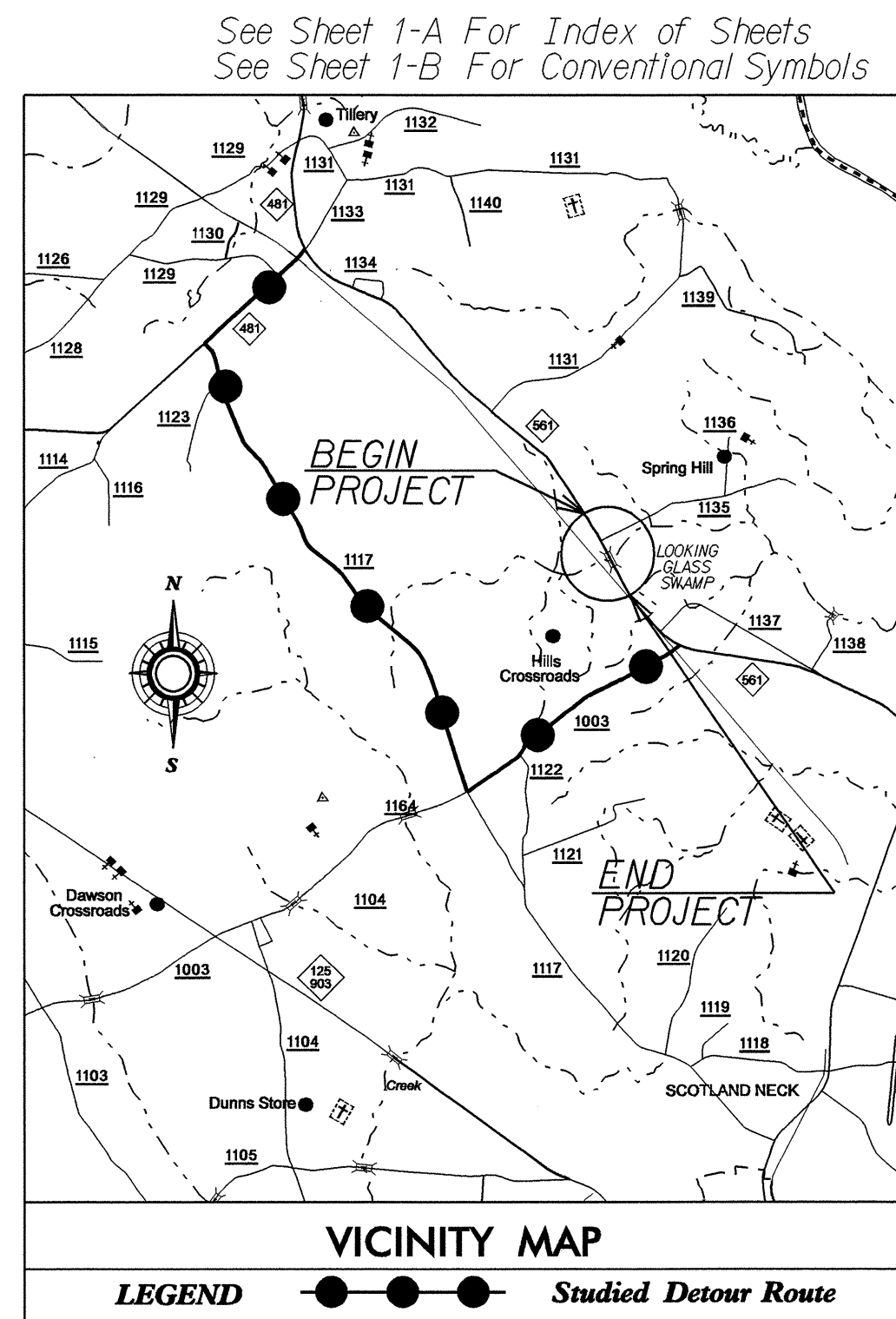


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

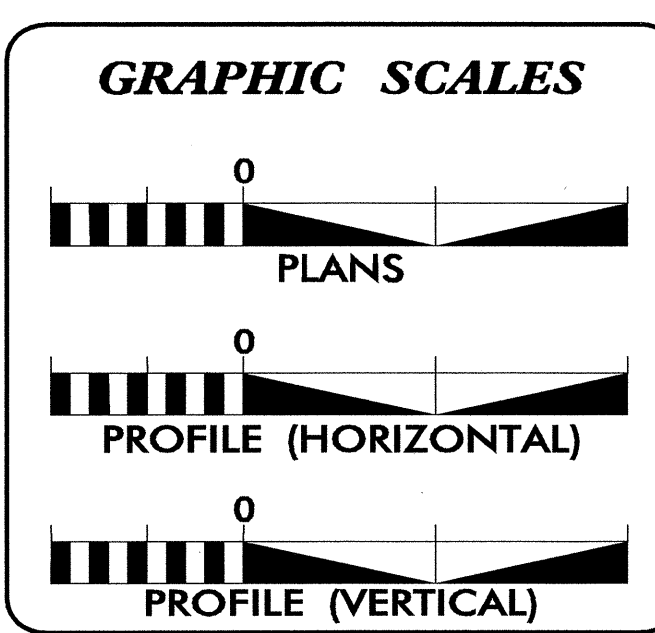
UTILITY CONSTRUCTION PLANS HALIFAX COUNTY

**LOCATION: BRIDGE NO. 97 OVER LOOKING GLASS SWAMP
AND APPROACHES ON NC 561**

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE



TIP PROJECT: B-4132

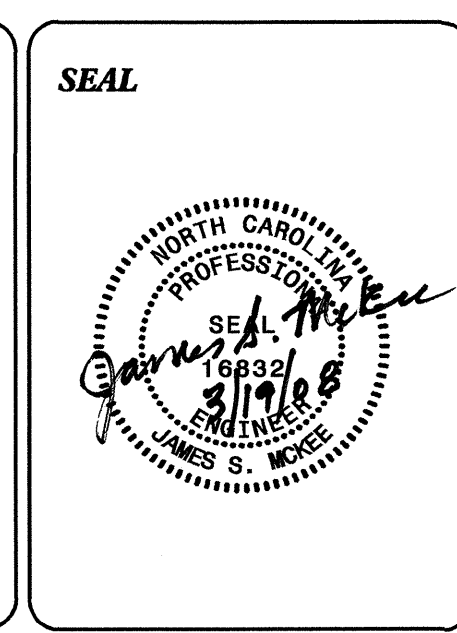


INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2	UTILITY CONSTRUCTION PLAN SHEET
UC-3	PROFILE SHEET
UC-4	DETAILS SHEET

WATER AND SEWER OWNERS ON PROJECT

(1) HALIFAX COUNTY - WATER

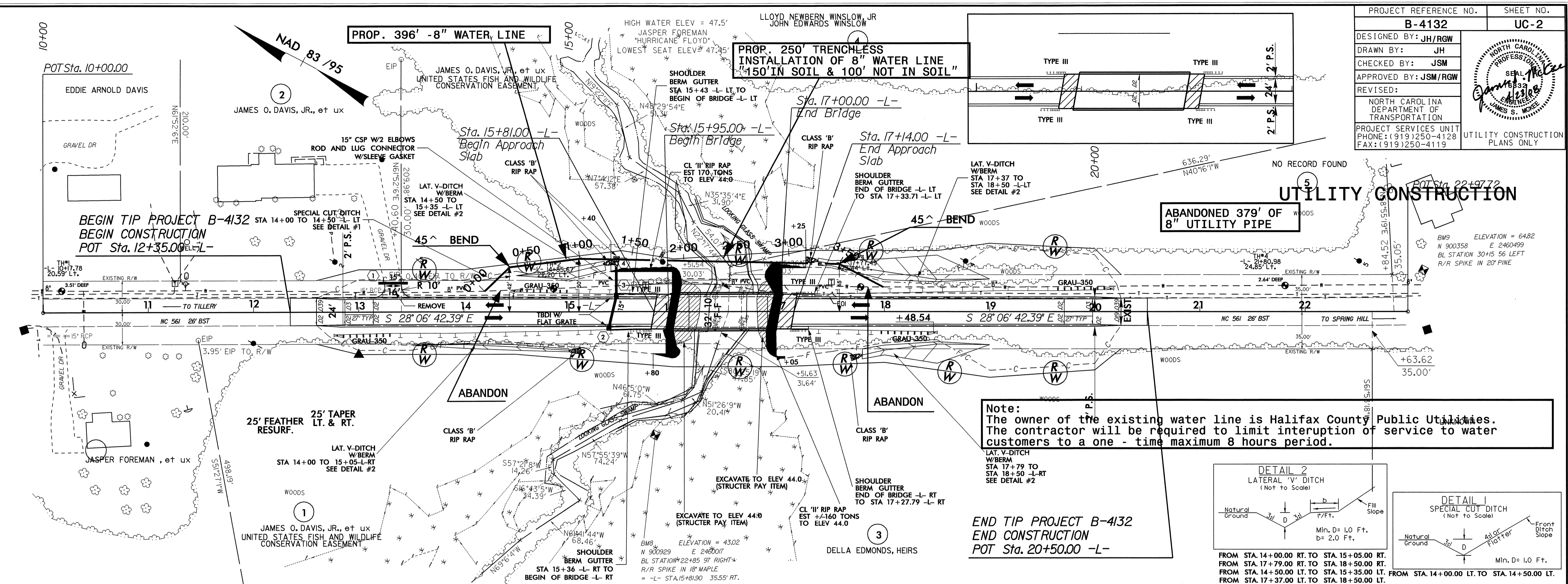


PREPARED IN THE OFFICE OF:

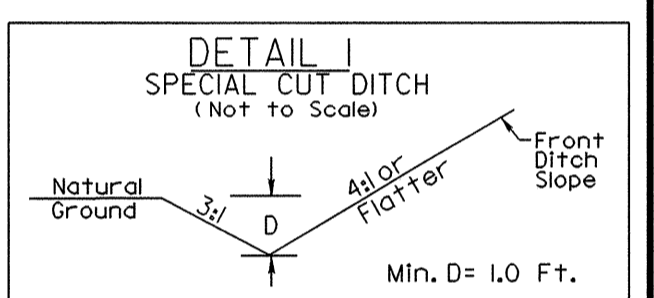
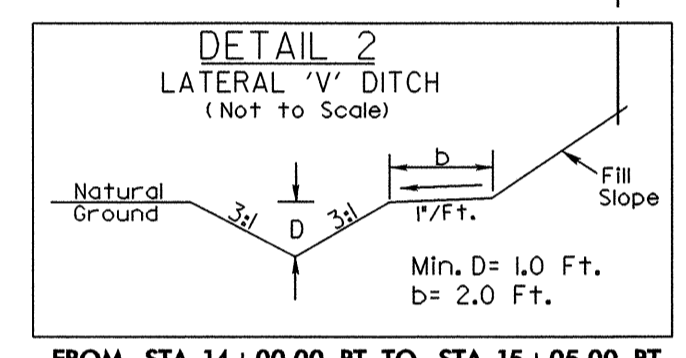
**DIVISION OF HIGHWAYS
PROJECT SERVICES
UTILITY SECTION**

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

Roger Worthington, P.E.	UTILITIES SECTION ENGINEER
Steve McKee, P.E.	UTILITIES SQUAD LEADER PROJECT ENGINEER
Jamshid Hafshejani	UTILITIES PROJECT DESIGNER



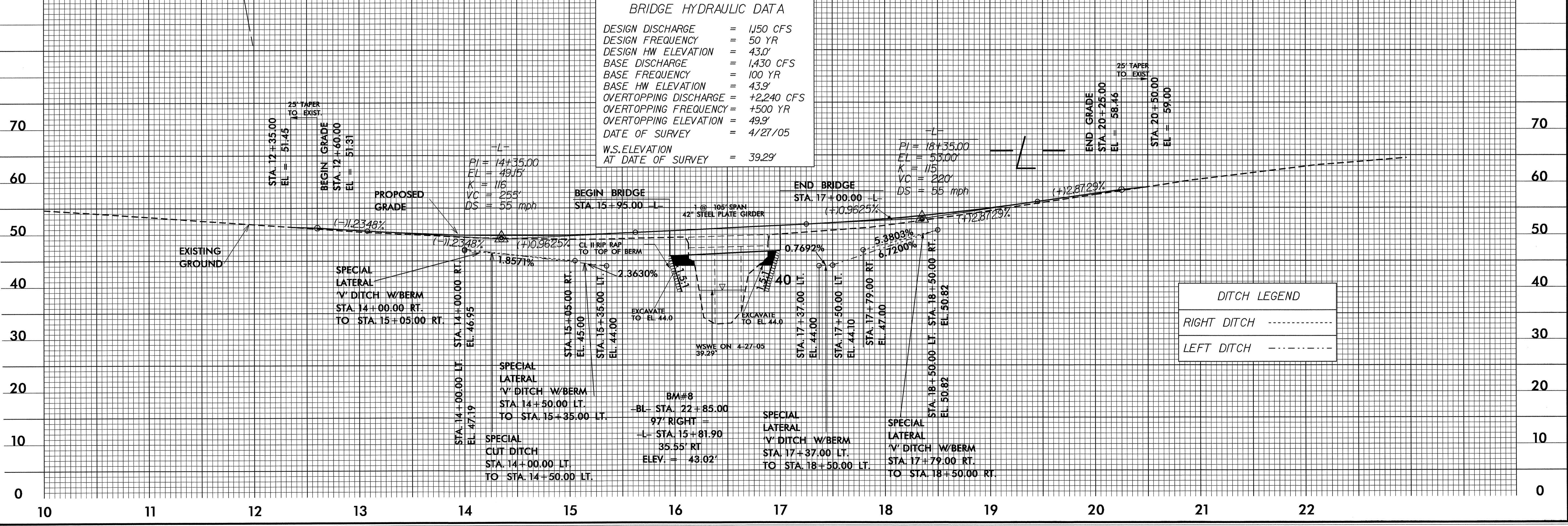
Note: The owner of the existing water line is Halifax County Public Utilities. The contractor will be required to limit interruption of service to water customers to a one - time maximum 8 hours period.



FROM STA. 14+00.00 RT. TO STA. 15+05.00 RT.
 FROM STA. 17+79.00 RT. TO STA. 18+50.00 RT.
 FROM STA. 14+50.00 LT. TO STA. 15+35.00 LT.
 FROM STA. 17+37.00 LT. TO STA. 18+50.00 LT.

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1,150 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 43.0'
BASE DISCHARGE	= 1,430 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 43.9'
OVERTOPPING DISCHARGE	= +2,240 CFS
OVERTOPPING FREQUENCY	= +500 YR
OVERTOPPING ELEVATION	= 49.9'
DATE OF SURVEY	= 4/27/05
W.S. ELEVATION AT DATE OF SURVEY	= 39.29'




DITCH LEGEND

RIGHT DITCH	-----
LEFT DITCH	-----

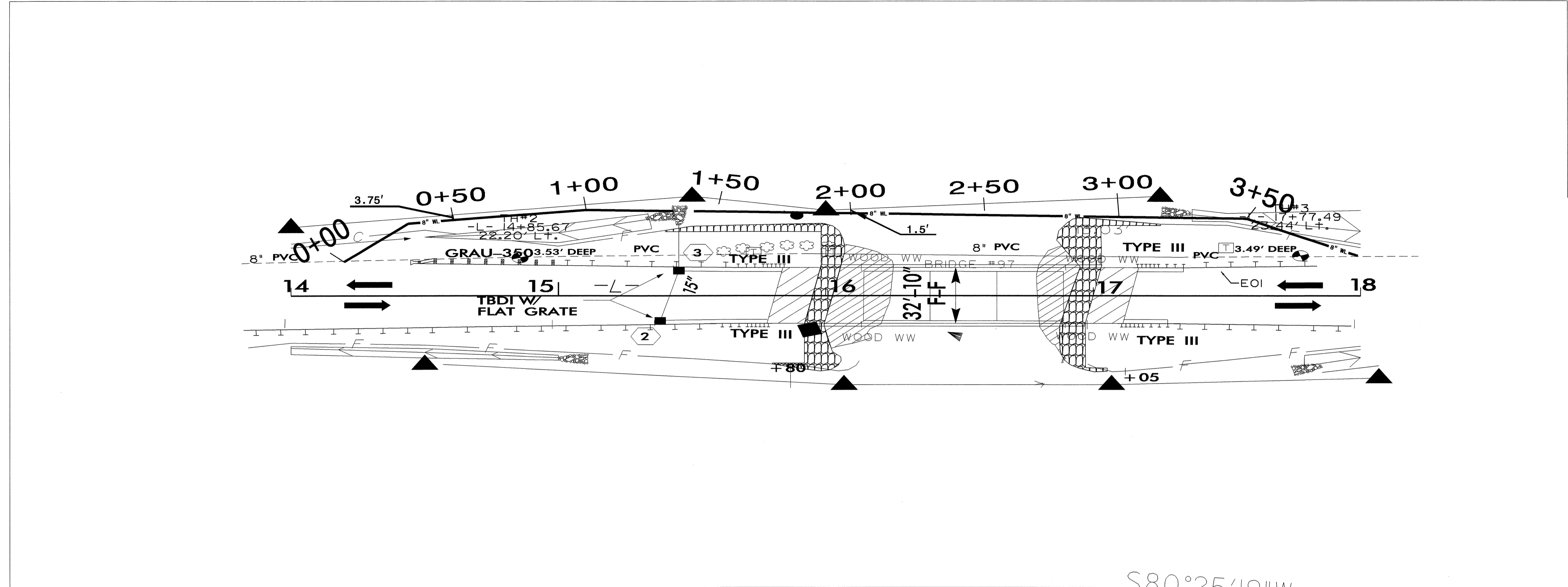
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8/17/99

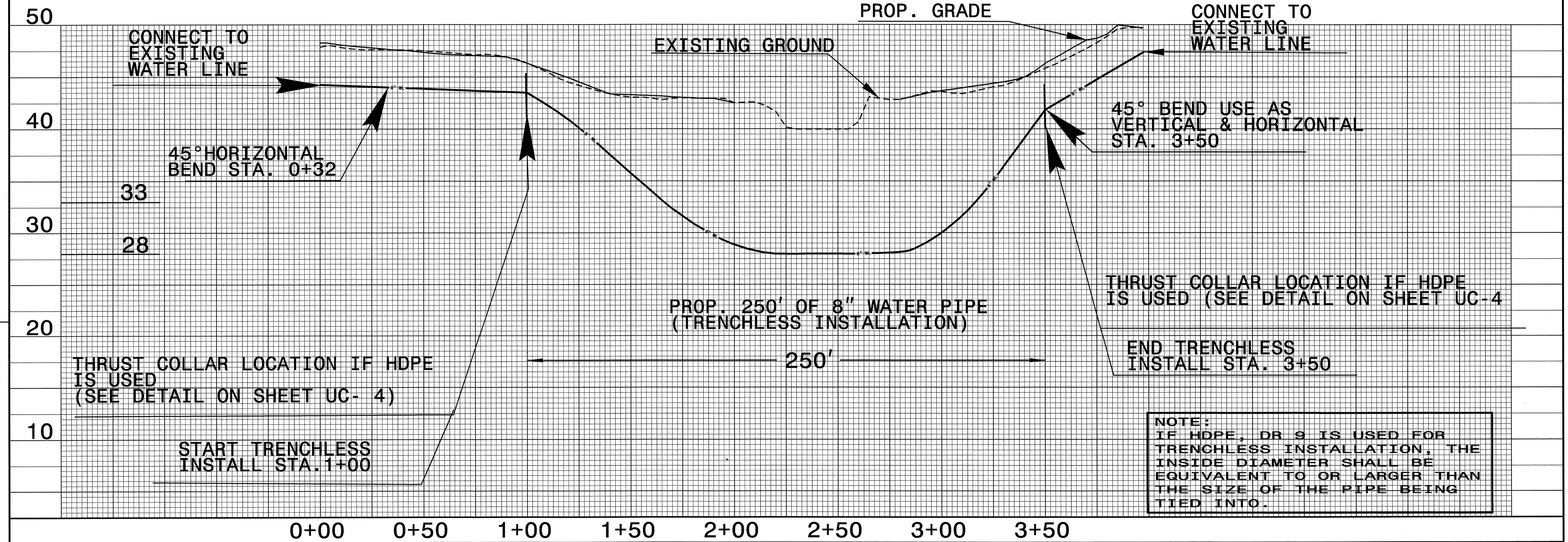
REVISIONS

PROJECT REFERENCE NO. B-4132	SHEET NO. UC-3
DESIGNED BY: JH/RGW	
DRAWN BY: JH	
CHECKED BY: JSM	
APPROVED BY: JSM/RGW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION PROJECT SERVICES UNIT PHONE: (919)250-4128 FAX: (919)250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION



S80°25'19"W

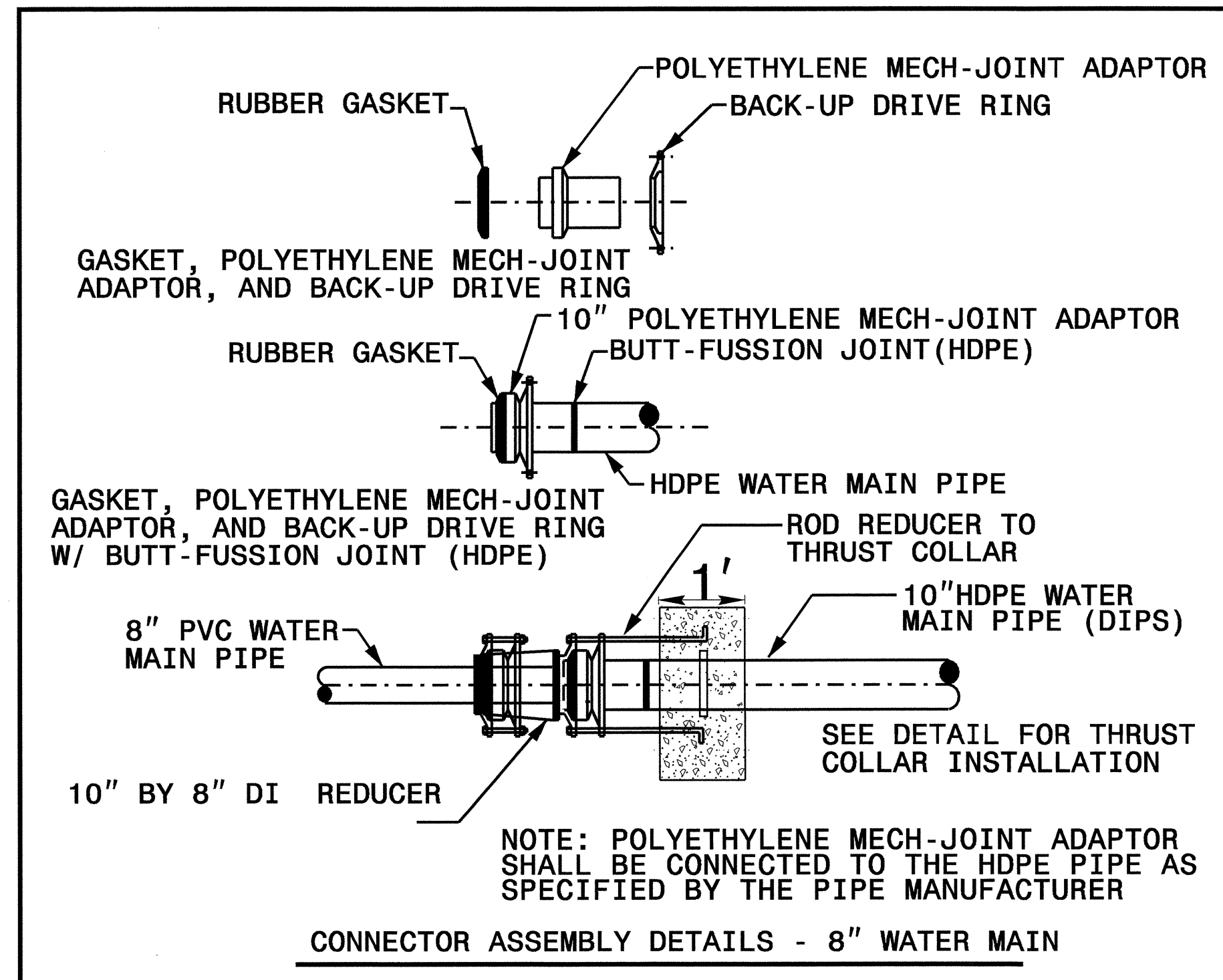


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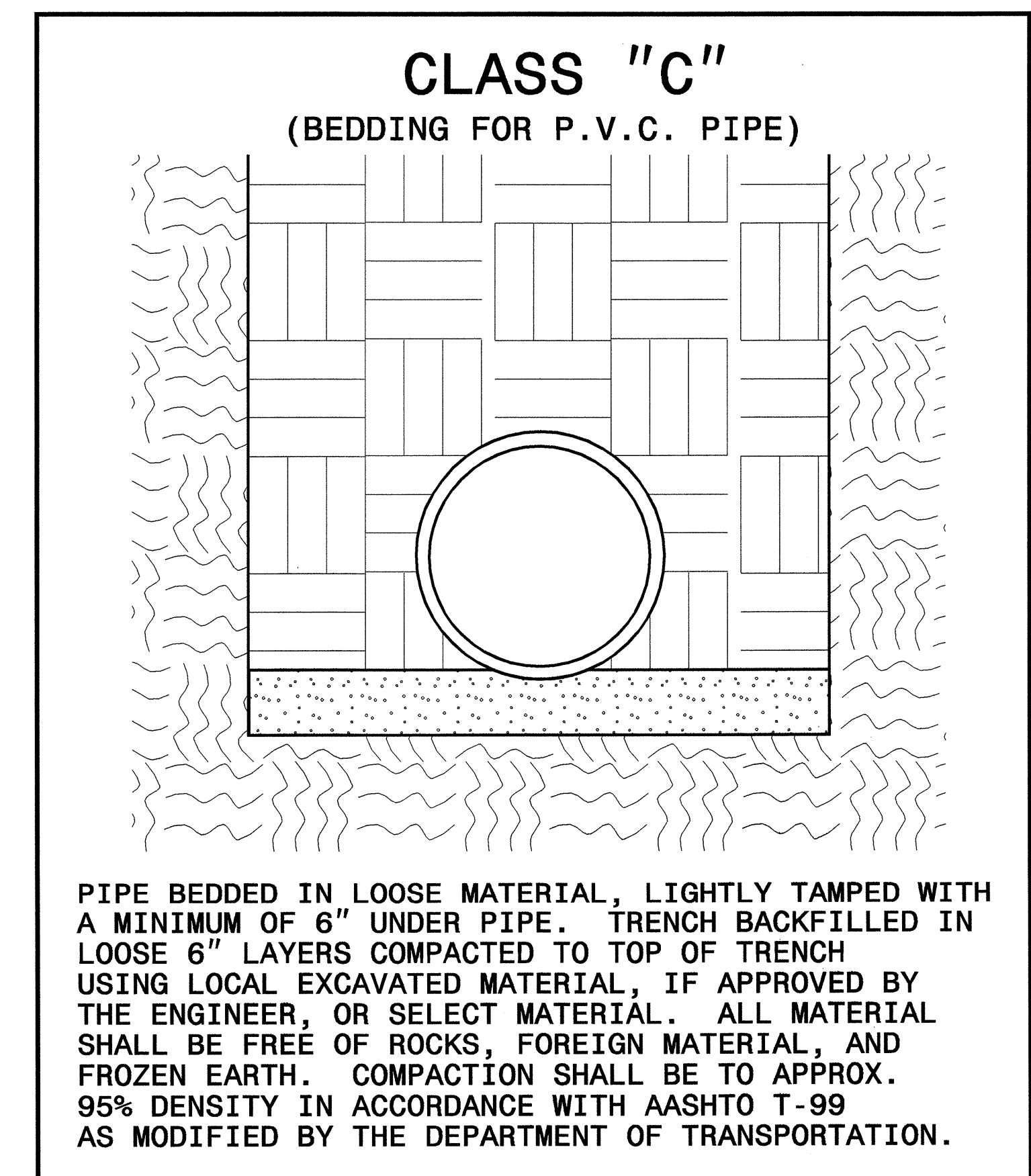
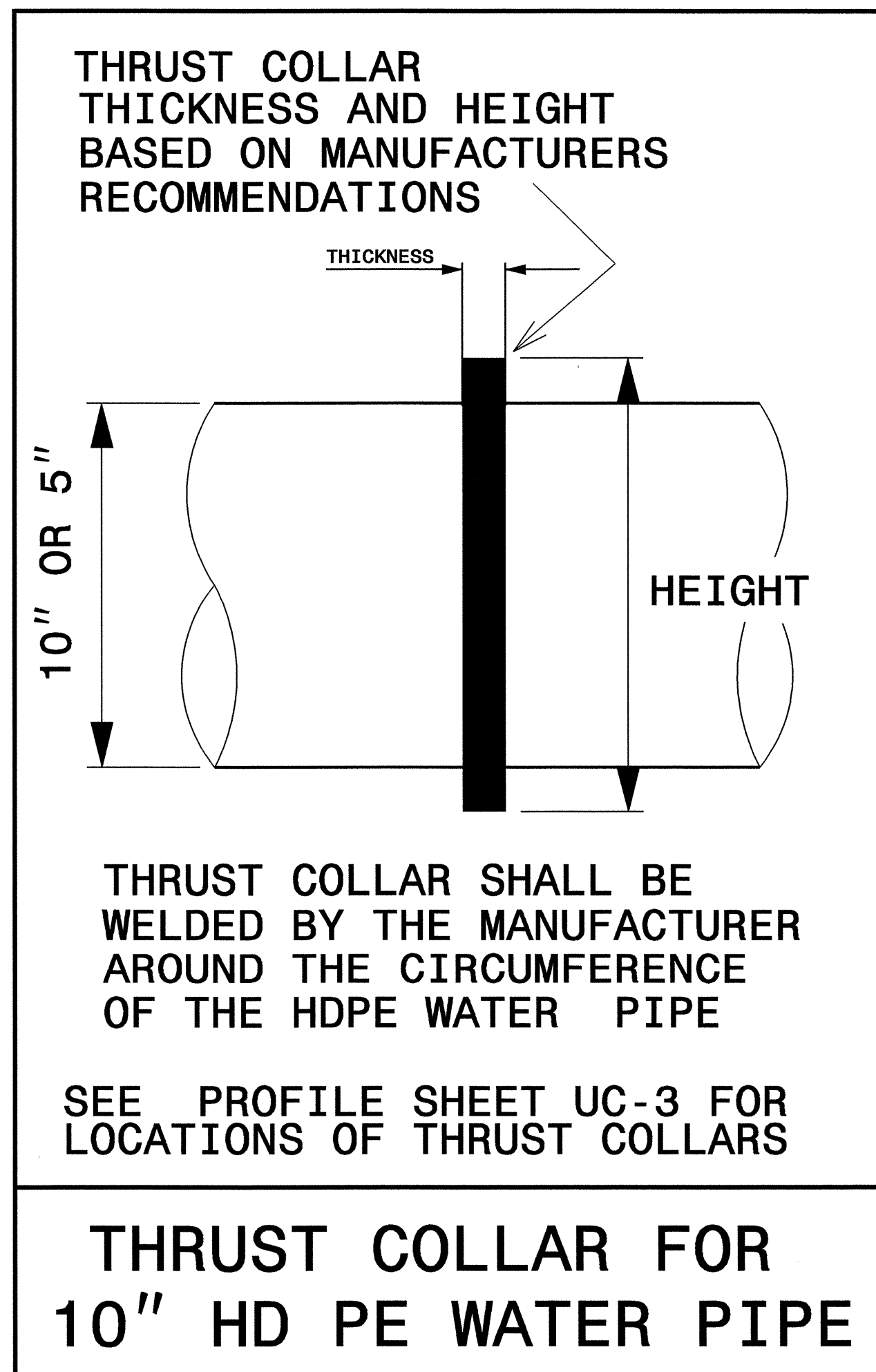
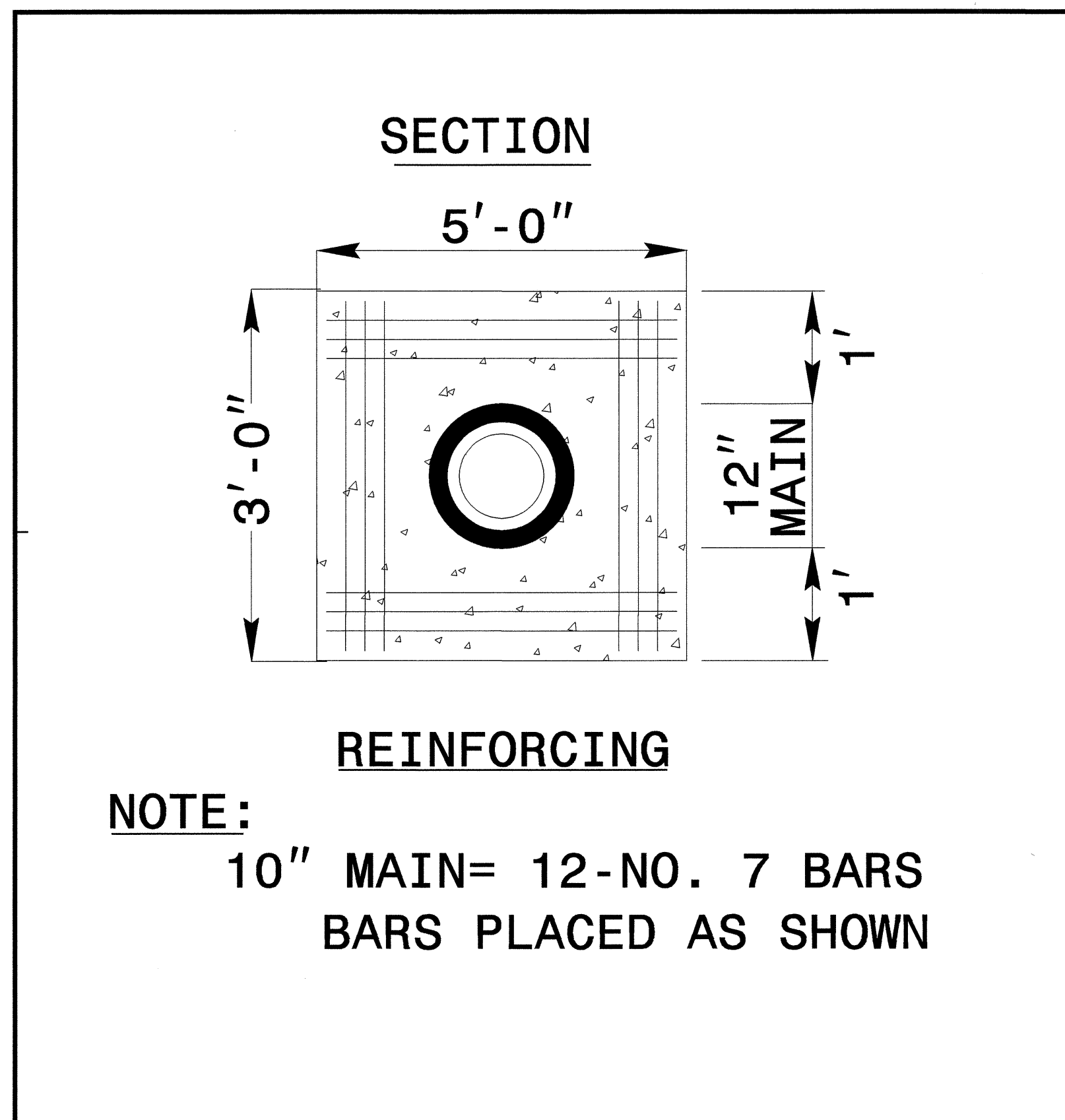
DETAIL FOR HDPE TRENCHLESS INSTALLATION AND PVC BEDDING, TRENCH WIDTH DETAILS

PROJECT REFERENCE NO. B-4132	SHEET NO. UC-4
DESIGNED BY: JH	
DRAWN BY: JH	
CHECKED BY: JSM	
APPROVED BY: JSM	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
DESIGN SERVICES UNIT PHONE: (919)250-4128 FAX: (919)250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

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		



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T.I.P. NO.	SHEET NO.
B-4132	UO-1

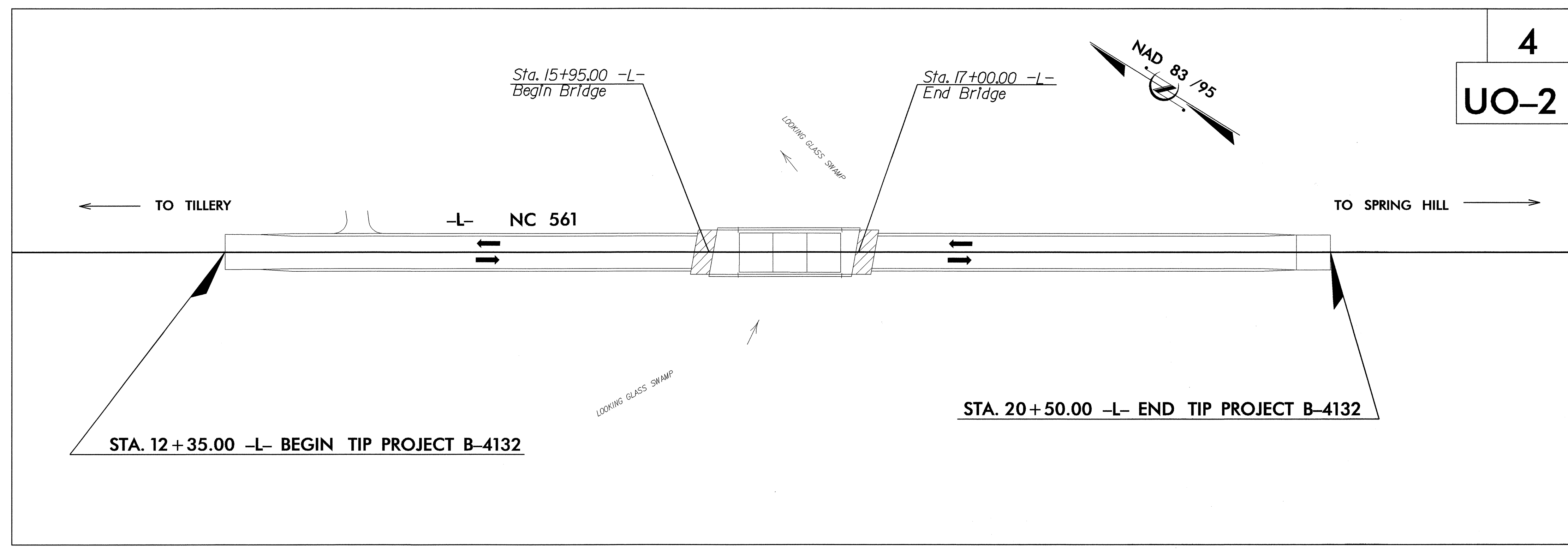
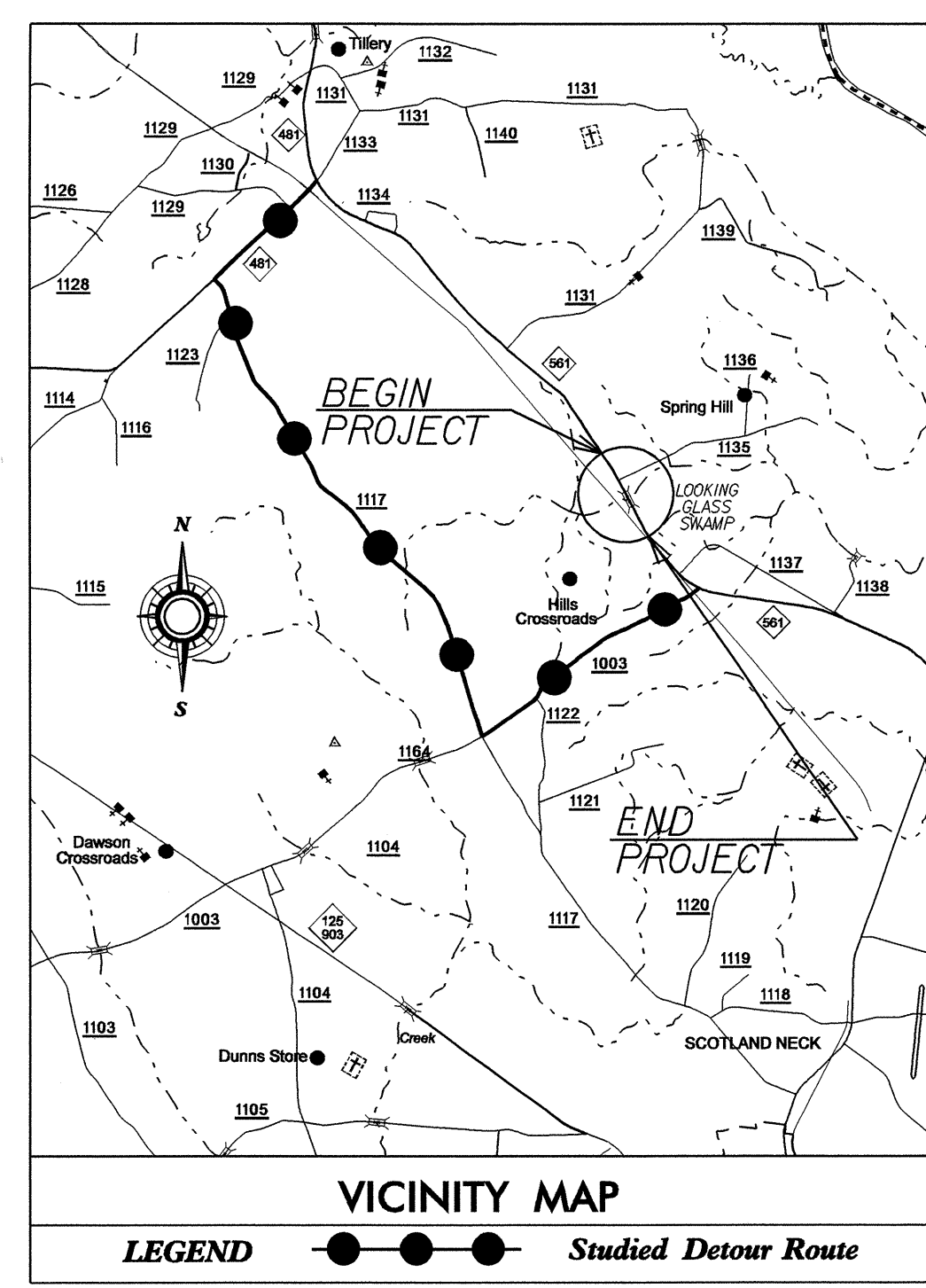
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

**UTILITIES BY OTHERS PLANS
HALIFAX COUNTY**

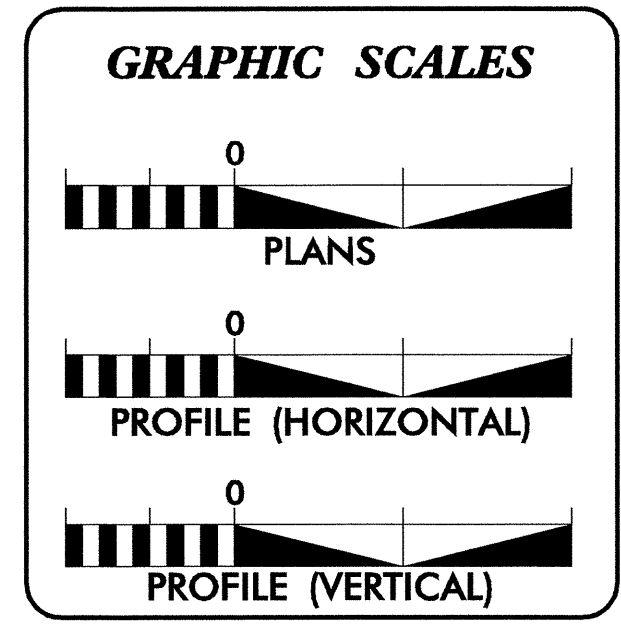
**LOCATION: BRIDGE NO. 97 OVER LOOKING GLASS SWAMP
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TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE

TIP PROJECT: B-4132



4
UO-2

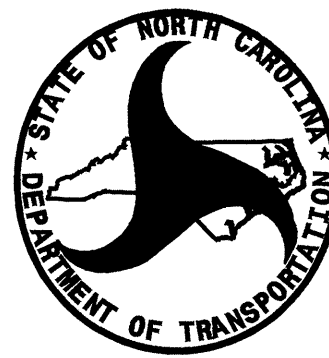


INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2	UTILITIES BY OTHERS PLAN SHEETS

UTILITY OWNERS ON PROJECT

(1) HALIFAX EMC. - POWER
(2) EMBARQ. - TELEPHONE



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

1591 MAIL SERVICES CENTER
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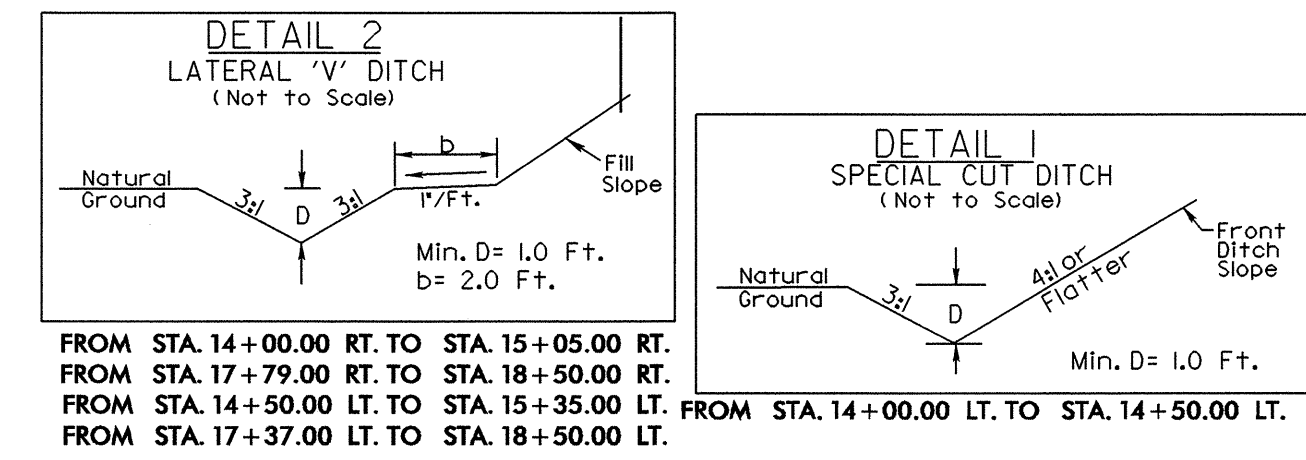
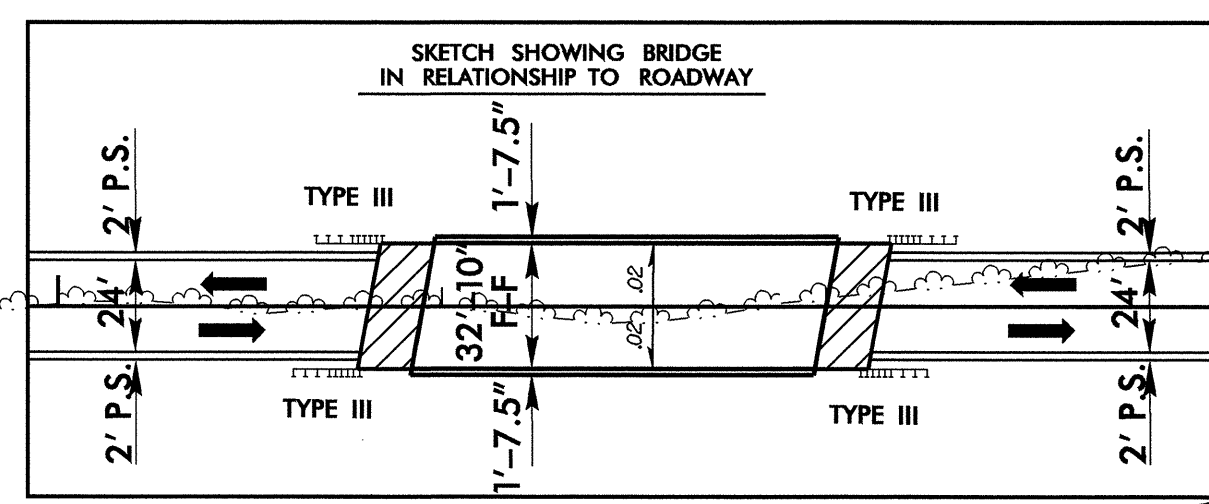
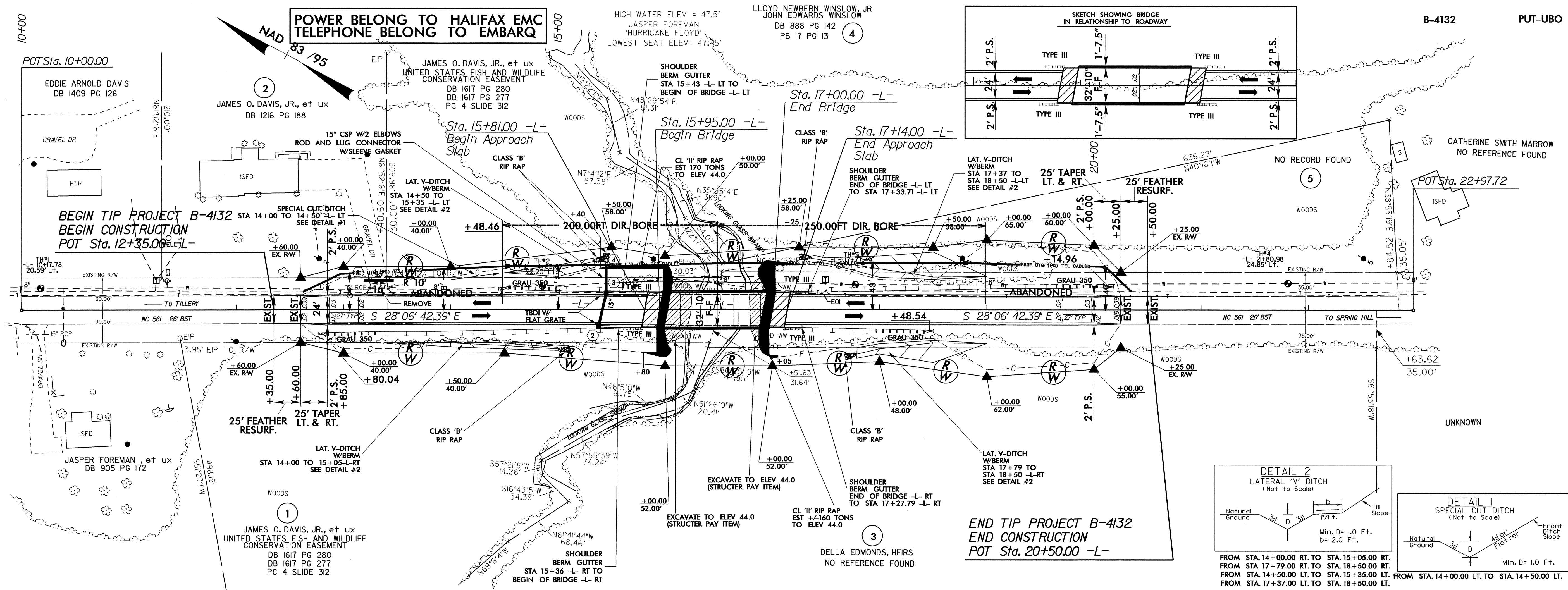
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Steve McKee, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER
Jamshid Hafshejani UTILITIES PROJECT DESIGNER

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r:\utilities\p\proj\b-4132-putubo_ubl.rdy_t.sh.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$

UTILITIES BY OTHERS

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

**POWER BELONGS TO HALIFAX EMC
TELEPHONE BELONGS TO EMBARQ**



8/17/99
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