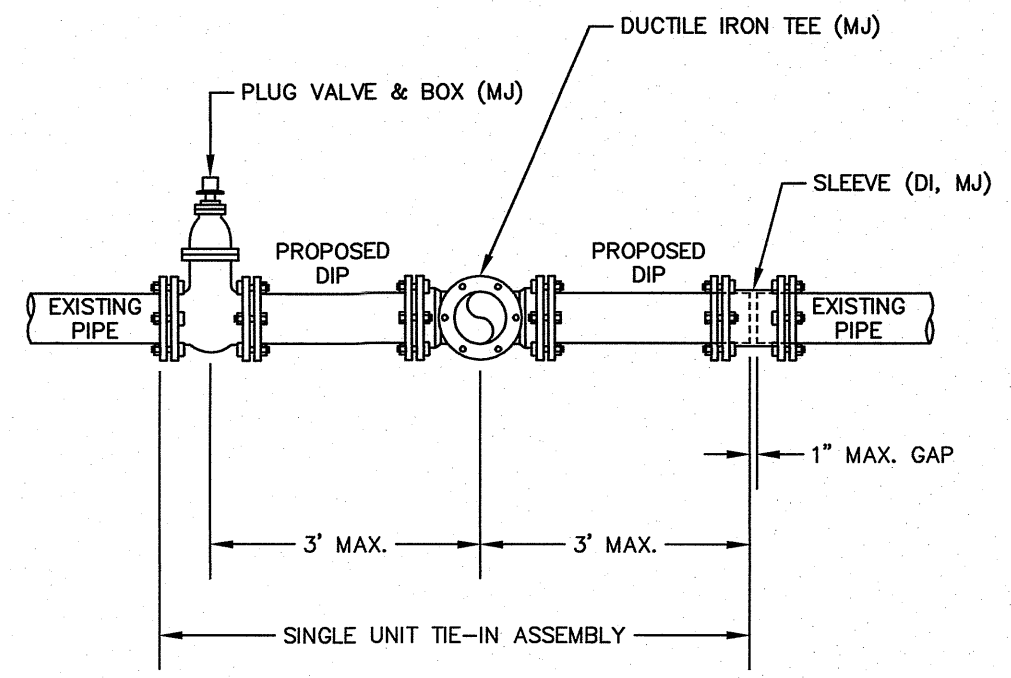


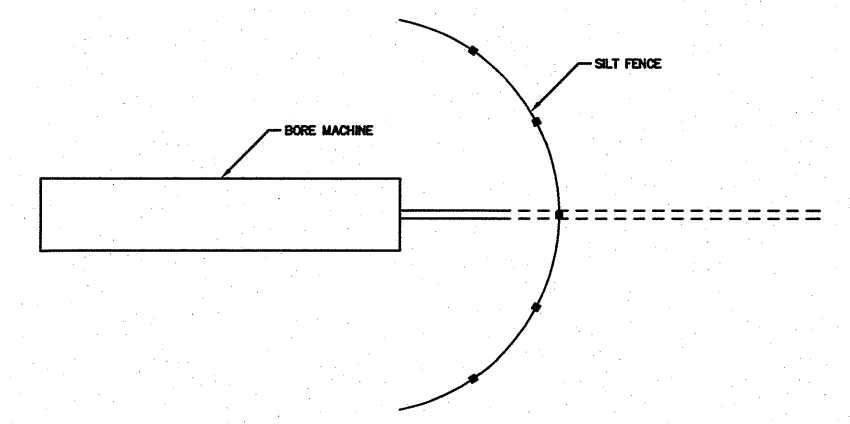
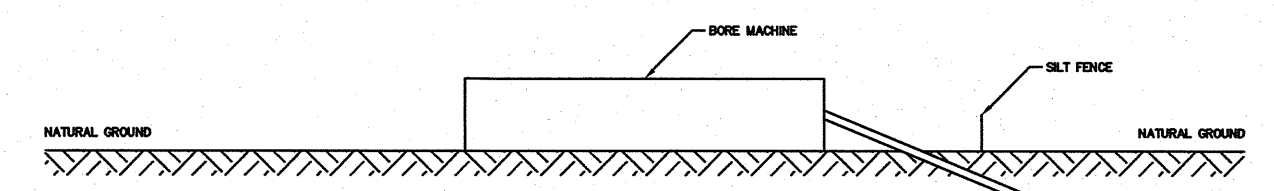
MINIMUM DIMENSIONS

D	E	F
12"	12"	12"
15"	12"	12"
18"	12"	12"
24"	12"	12"
30"	12"	12"
36"	12"	12"
42"	12"	12"
48"	12"	12"
54"	18"	18"
60"	18"	18"
66"	18"	18"
72"	18"	18"

- WHEN A PIPE IS INSTALLED ABOVE OR BELOW AN EXISTING STORM DRAIN, INSTALL A PIPE COLLAR ON ALL STORM DRAIN JOINTS DISTURBED.
- CONSTRUCT THE PIPE COLLAR WITH NCDOT CLASS "B" OR BETTER CONCRETE.
- USE 12 INCH DIAMETER VALUES FOR PIPE DIAMETERS LESS THAN 12 INCH.



- NOTES:
- PRE-ASSEMBLE THE SINGLE UNIT TIE-IN ASSEMBLY, TO INCLUDE TEE, VALVE, AND SLEEVE INTO A SINGLE UNIT PRIOR TO CUTTING INTO THE EXISTING LINE. FITTINGS AND VALVES SHALL BE MECHANICAL JOINT WITH GRIPPING RINGS.
 - AFTER THE SINGLE UNIT TIE-IN ASSEMBLY HAS BEEN FULLY ASSEMBLED AND IS READY FOR INSTALLATION, CUT A SEGMENT OF PIPE FROM THE EXISTING LINE. THE LENGTH OF THE SEGMENT REMOVED SHALL ALLOW INSTALLATION OF THE SINGLE UNIT TIE-IN ASSEMBLY WITH ONE SLEEVE. THE GAP BETWEEN THE EXISTING PIPE AND THE SINGLE UNIT TIE-IN ASSEMBLY SHALL NOT EXCEED ONE (1) INCH.
 - THE SINGLE UNIT TIE-IN ASSEMBLY SHALL BE INSTALLED WITH A SLEEVE.
 - INSTALL THE SINGLE UNIT TIE-IN ASSEMBLY BY INSERTING THE END OF THE EXISTING PIPE FULLY INTO THE VALVE ON THE END OF THE SINGLE UNIT TIE-IN ASSEMBLY. INSTALL THE OPPOSITE END OF THE SINGLE UNIT TIE-IN ASSEMBLY BY ALIGNING THE ASSEMBLY WITH THE EXISTING PIPE AND SLIDING THE SLEEVE OVER THE GAP BETWEEN THE ASSEMBLY AND THE END OF THE EXISTING PIPE. CENTER THE SLEEVE OVER THE GAP.
 - MINIMIZE TIME THAT THE EXISTING FORCE MAIN IS OUT OF SERVICE.



PROJECT REFERENCE NO. B-4926		SHEET NO. UC-3E	
DESIGNED BY: JWM	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		
DRAWN BY: MW	UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151		
CHECKED BY: DEG	REVISI		
APPROVED BY: JWM	REVISED:		
UTILITY CONSTRUCTION			
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McDAVID ASSOCIATES, INC. Corporate License No. C-131 ENGINEERS • PLANNERS • LAND SURVEYORS CORPORATE OFFICE: 3714 North Main Street, Farmville, NC 27828 BRANCH OFFICE: 109 East Walnut Street, Goldsboro, NC 27533 Telephone: (252) 753-2139, (919) 735-7330 Facsimile: (252) 753-7225, (919) 735-7351			
REVISIONS			
NO.	DATE	DESCRIPTION	
MAI REVIEW OFFICER APPROVAL			

STORM DRAIN PIPE COLLAR

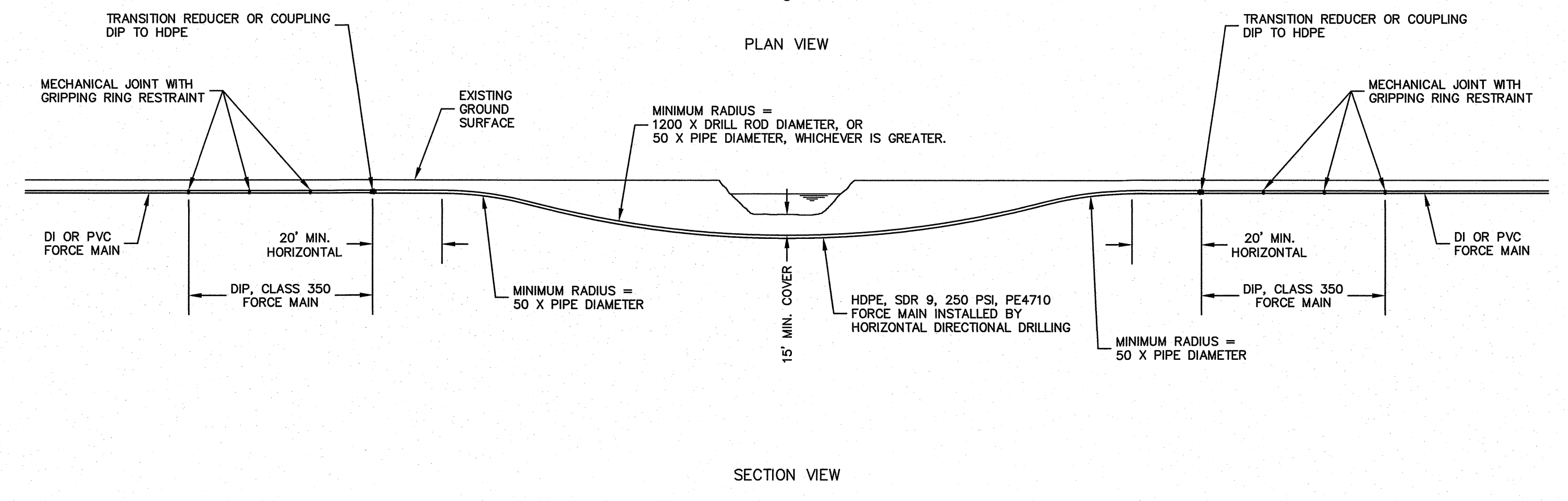
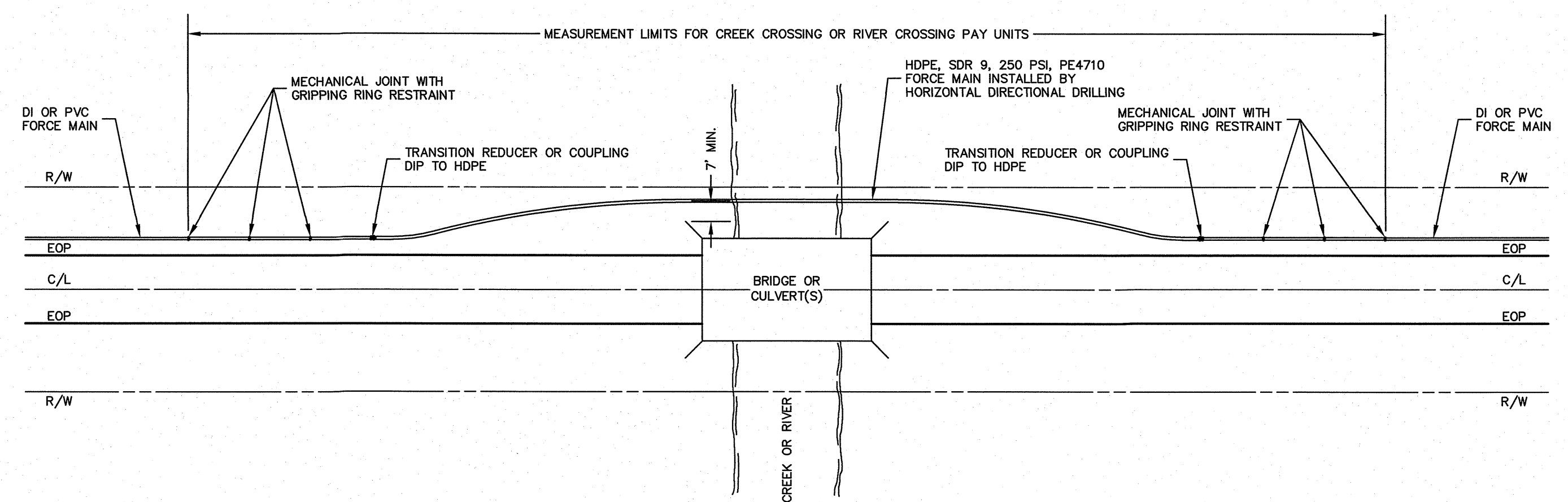
A

SINGLE UNIT TIE-IN ASSEMBLY

B

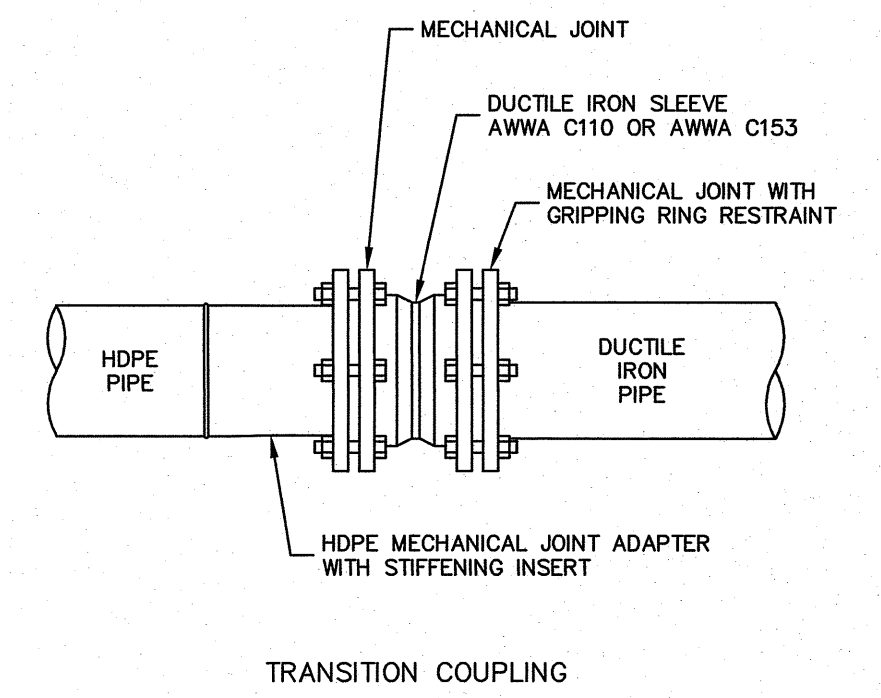
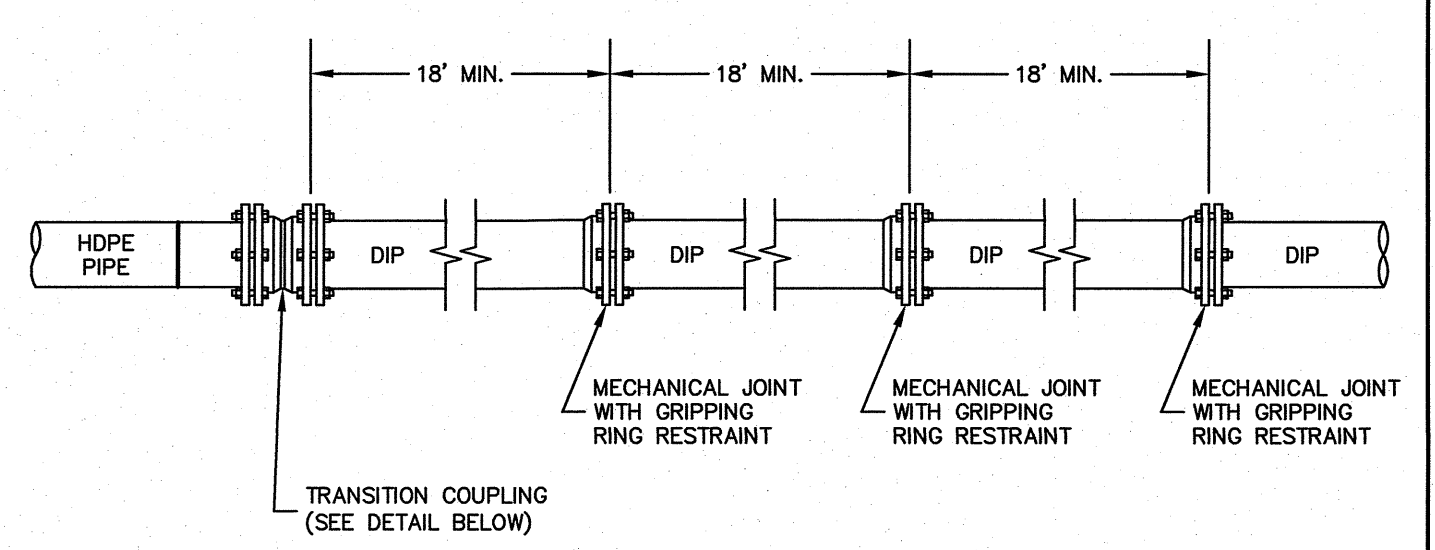
DIRECTIONAL DRILL PIT

C



FORCE MAIN CREEK OR RIVER CROSSING WITH HDPE INSTALLED BY HORIZONTAL DIRECTIONAL DRILLING

D



TRANSITION COUPLING AND JOINT RESTRAINT FOR FORCE MAIN CREEK OR RIVER CROSSING WITH HDPE PIPE

E

F

REVISIONS