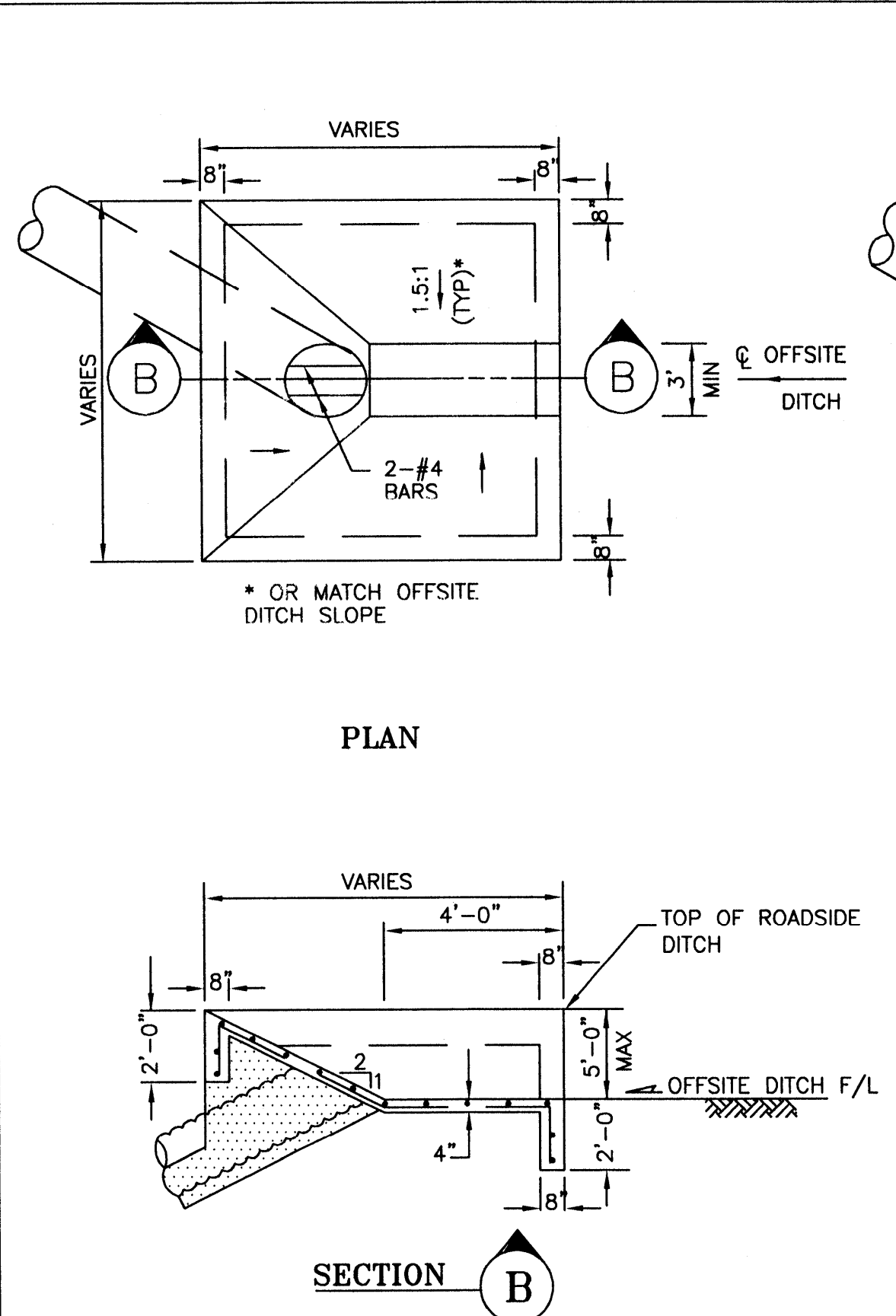
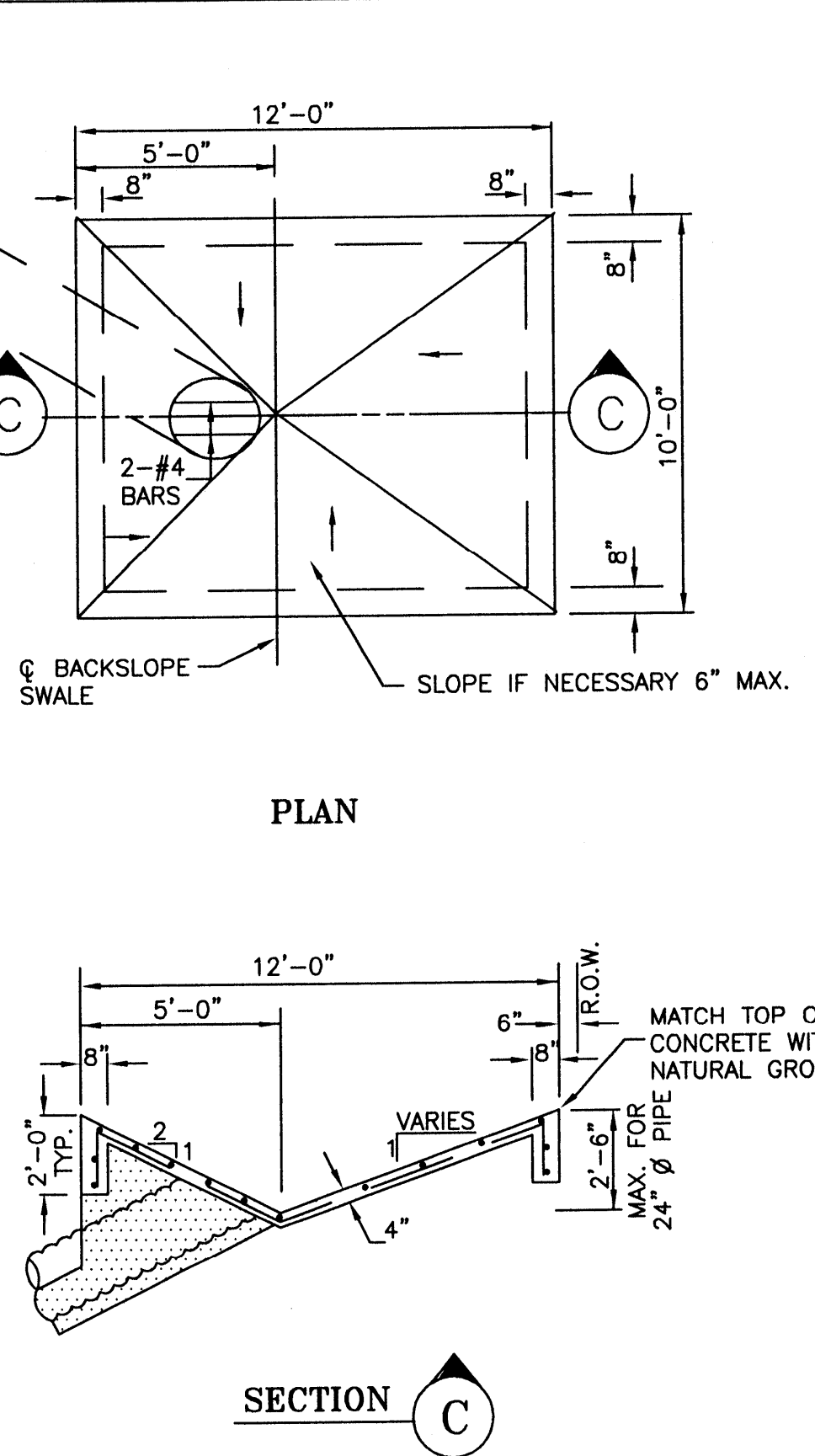


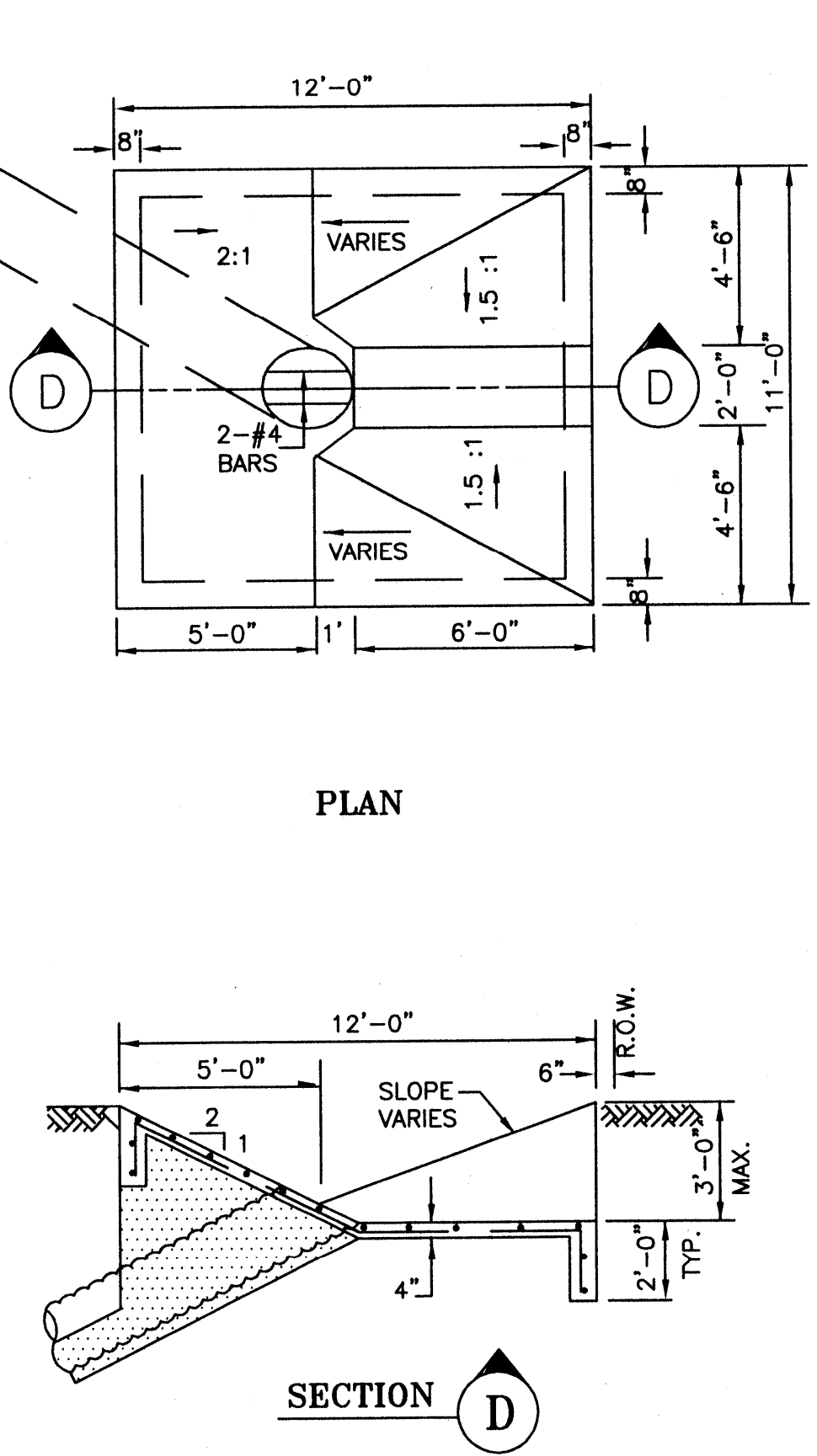
TYPICAL INTERCEPTOR OUTFALL STRUCTURE LAYOUT



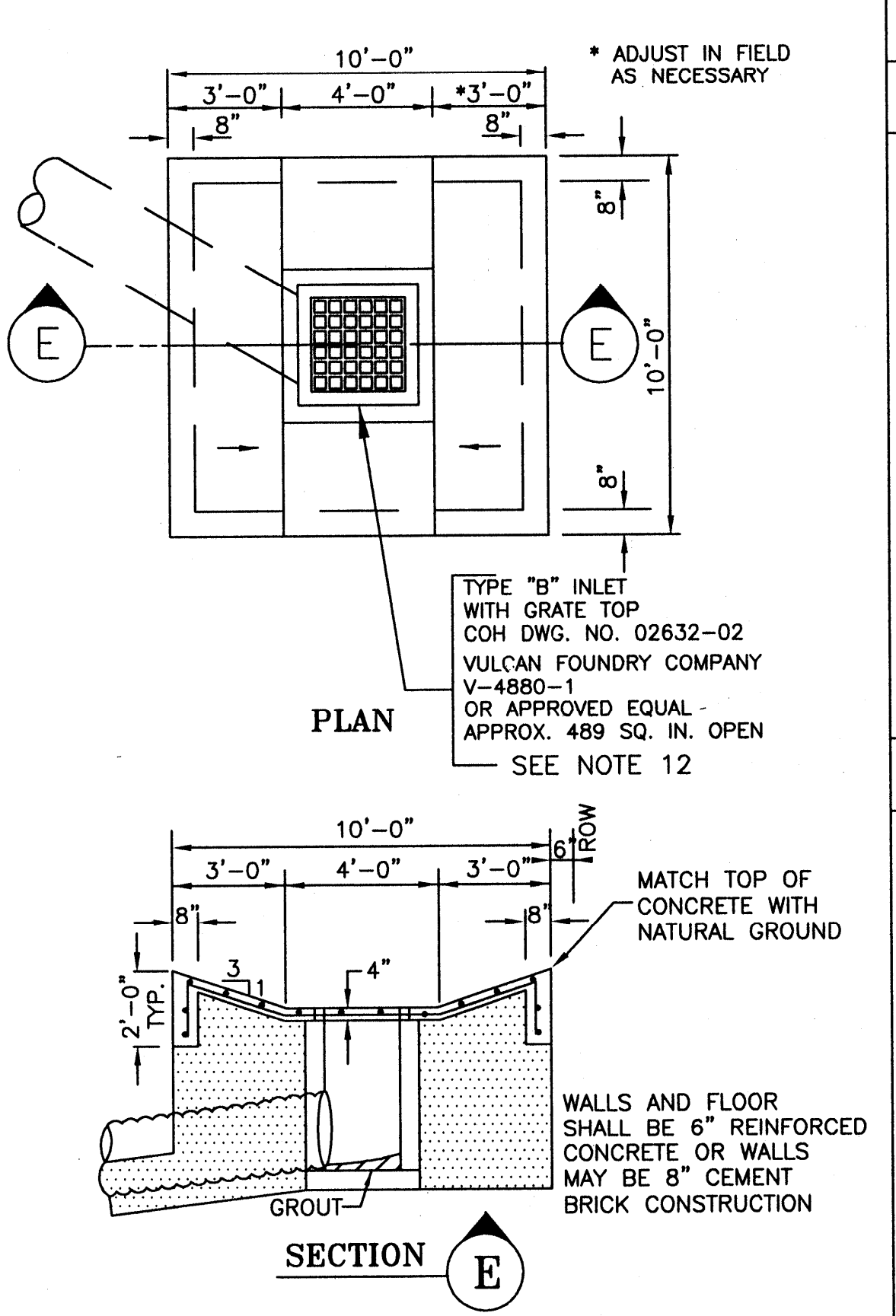
TYPICAL OFFSITE DITCH INTERCEPTOR STRUCTURE (42" MAX.)



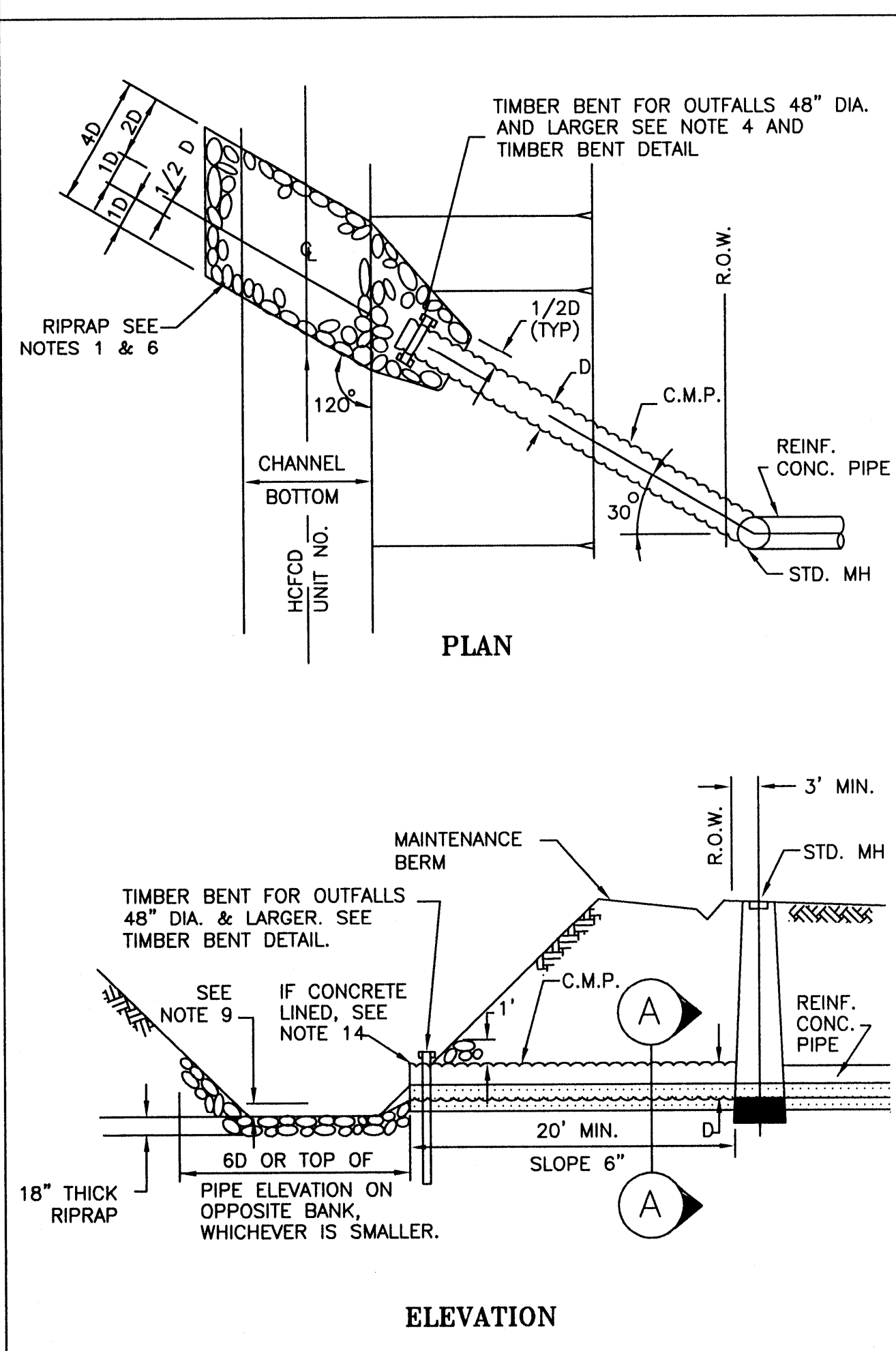
TYPICAL BACKSLOPE INTERCEPTOR STRUCTURE (24" & 30" ONLY)



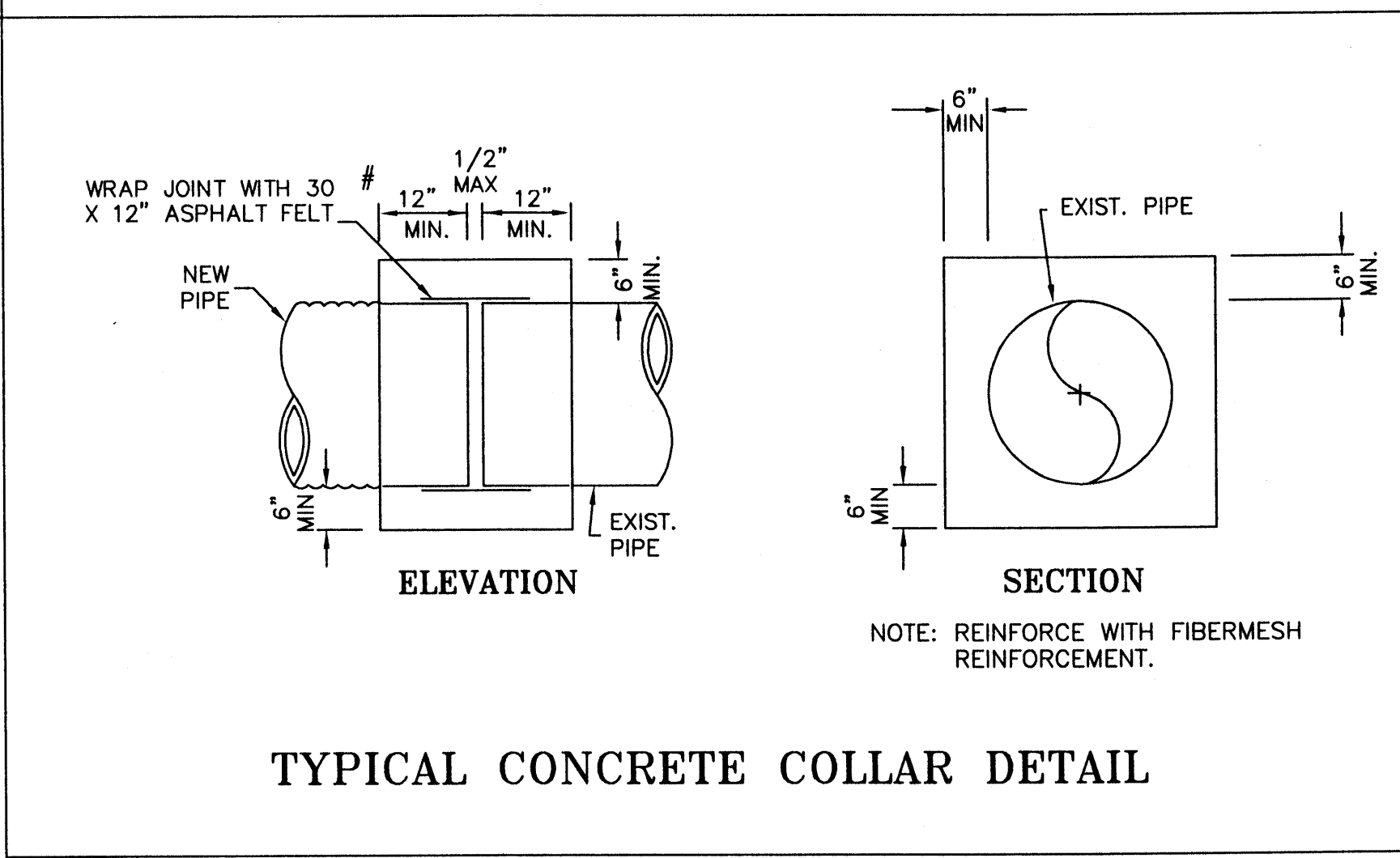
COMBINATION BACKSLOPE AND OFFSITE DITCH INTERCEPTOR (42" MAX.)



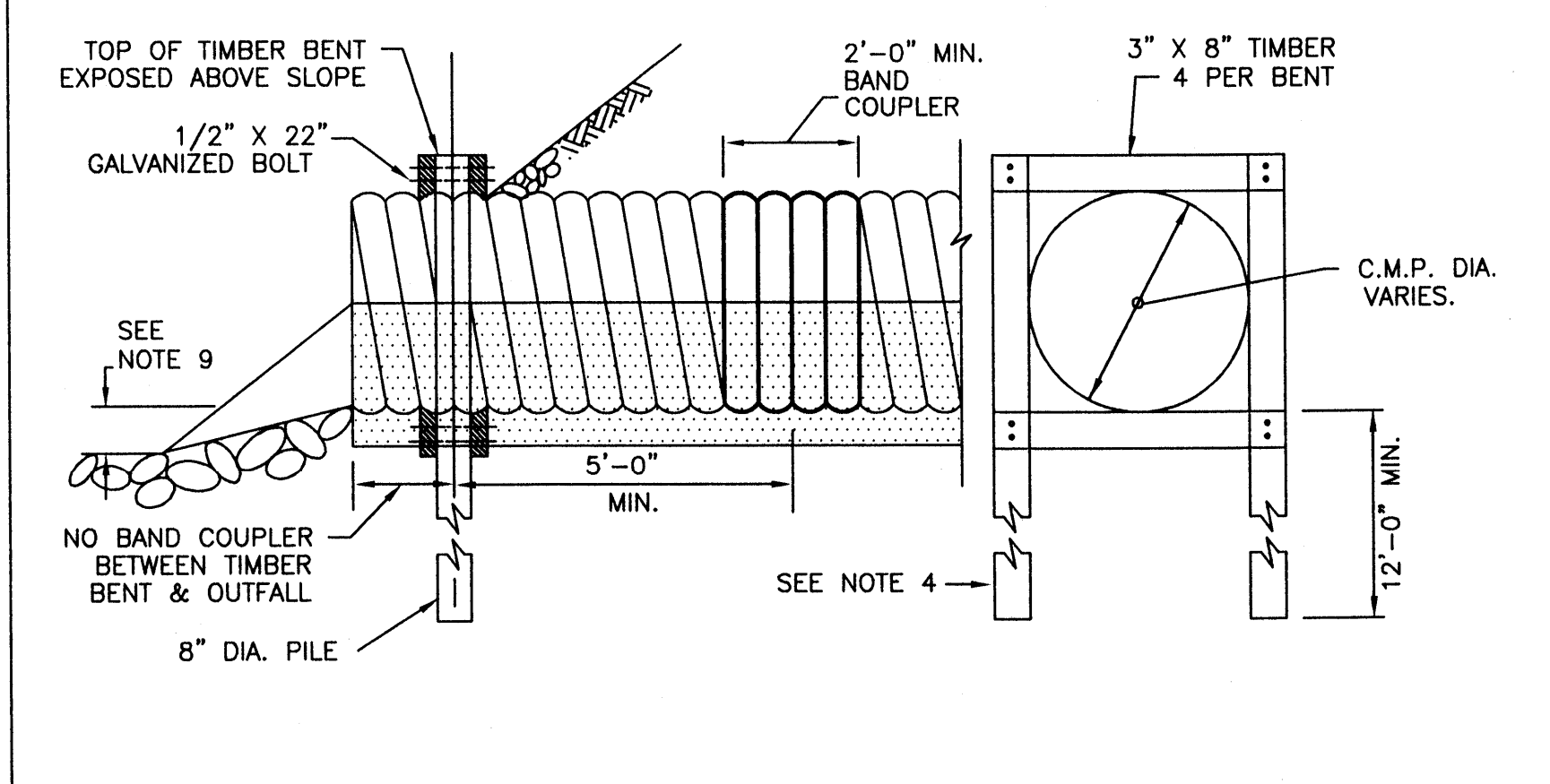
URBAN BACKSLOPE INTERCEPTOR STRUCTURE (24" ONLY)



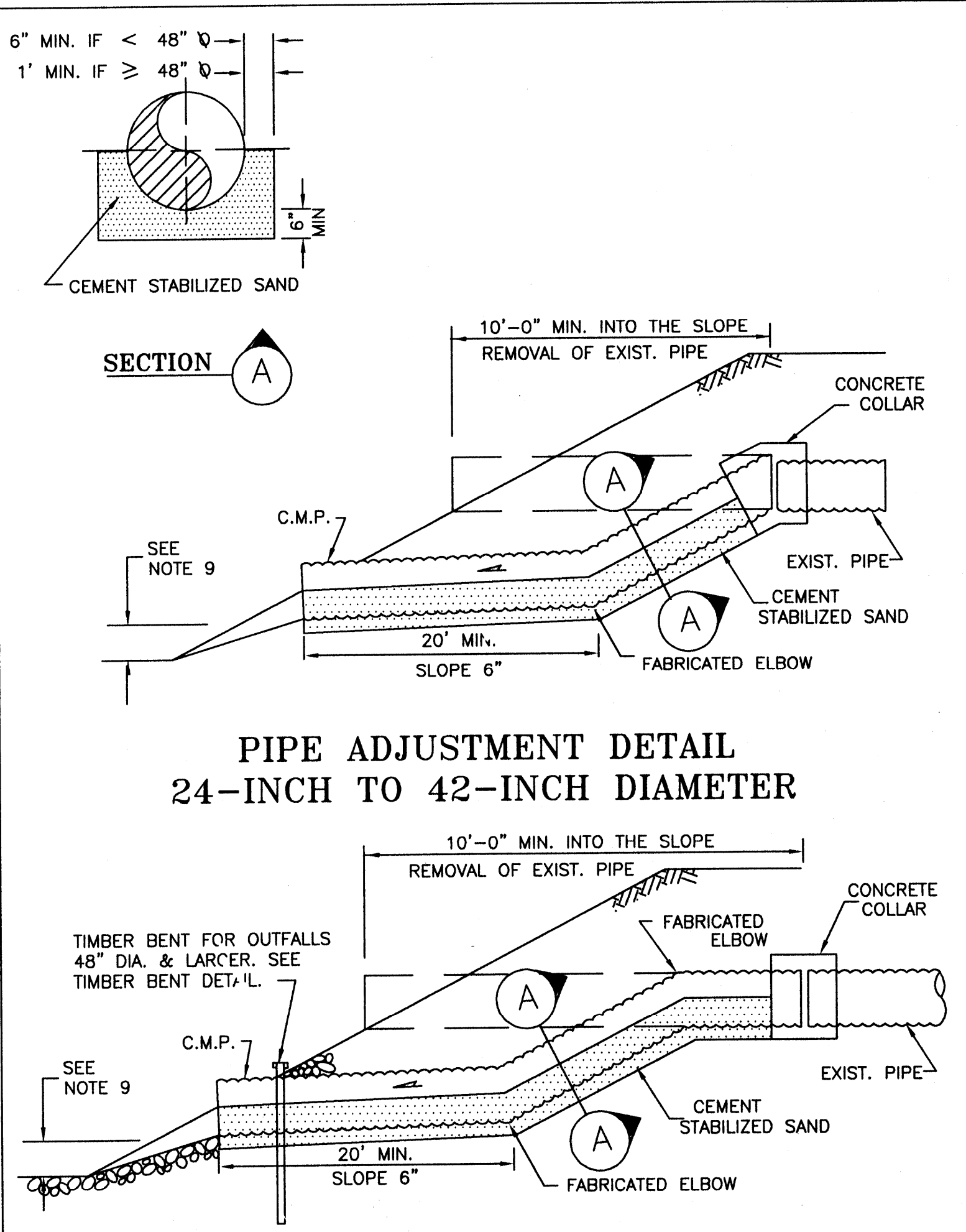
TYPICAL STORM SEWER OUTFALL STRUCTURE LAYOUT



TYPICAL CONCRETE COLLAR DETAIL



TIMBER BENT DETAIL FOR 48" C.M.P. AND LARGER OUTFALLS



PIPE ADJUSTMENT DETAIL 24-INCH TO 42-INCH DIAMETER

PIPE ADJUSTMENT DETAIL 48-INCH AND LARGER DIAMETER

- GENERAL NOTES**
- INTERCEPTOR STRUCTURE OUTFALLS > 48" DIAMETER AND ALL STORM SEWER AND TREATMENT PLANT OUTFALLS SHALL BE INSTALLED WITH RIPRAP EROSION PROTECTION, DIMENSIONED AS SHOWN IN "TYPICAL STORM SEWER OUTFALL STRUCTURE LAYOUT."
 - ALL STORM SEWER AND INTERCEPTOR OUTFALL PIPES WITHIN THE HCFCO RIGHT-OF-WAY SHALL BE CORRUGATED METAL PIPE (CMP) IN ACCORDANCE WITH HCFCO SPECIFICATION NO. 02642-CORRUGATED METAL PIPE.
 - CEMENT STABILIZED SAND SHALL BE PROVIDED AND PLACED IN ACCORDANCE WITH HCFCO SPECIFICATION NO. 02321-CEMENT STABILIZED SAND.
 - TIMBER BENTS SHALL BE IN ACCORDANCE WITH HCFCO SPECIFICATION NO.02464-TIMBER BENTS.
 - ALL EXCAVATION, FILL AND BACKFILL FOR THE INTERCEPTOR STRUCTURES SHALL BE IN ACCORDANCE WITH HCFCO SPECIFICATION NO. 02316 - STRUCTURAL EXCAVATION AND BACKFILLING.
 - RIPRAP SHALL BE IN ACCORDANCE WITH HCFCO SPECIFICATION NO. 02378-RIPRAP.
 - CONCRETE SHALL BE IN ACCORDANCE WITH HCFCO SPECIFICATION NO. 03316-CONCRETE.
 - ALL INTERCEPTOR STRUCTURES SHALL HAVE:
 - 2'-FEET DEEP X 8-INCH WIDE TOE ALL AROUND THE STRUCTURE.
 - STEEL REINFORCING- 4 BARS (GRADE 40) AT 12 INCHES C.C., EACH WAY, OR FIBERMESH REINFORCEMENT.
 - THE FLOWLINE OF ALL OUTFALL PIPES SHALL BE 1 FOOT ABOVE THE DESIGN CHANNEL FLOWLINE, OR 1 FOOT ABOVE NORMAL WATER SURFACE ELEVATION.
 - SLOPE LAST 20 FEET OF OUTFALL PIPE 6 INCH.
 - SEE THE CONCRETE PAVING DETAIL SHEET FOR CMP OUTFALL DETAILS THROUGH CONCRETE PAVING.
 - CONCRETE PAD AROUND THE TYPE "B" INLET SHALL BE PAID FOR AS CONCRETE INTERCEPTOR STRUCTURE PER THE UNIT PRICE SCHEDULE. THE TYPE "B" INLET WITH GRATE TOP SHALL BE PAID FOR AS TYPE "B" INLET WITH GRATE TOP AS PER THE UNIT PRICE SCHEDULE.

Bobby K. Wilson
12-27-99

DATE	APPR			
DESCRIPTION				
REV				
HARRIS COUNTY FLOOD CONTROL DISTRICT				
9900 NORTHWEST FREEWAY HOUSTON, TEXAS 77092				
HARRIS COUNTY MUD 191 DETENTION POND				
CHAMPIONS ARBOR				
HCFCO OUTFALL AND INTERCEPTOR STRUCTURE DETAILS				
DATE: NOVEMBER 1999				
DRAWING NUMBER				
1 OF 1				
SHEET NUMBER				
10 OF 11				

ME\STD\MEOUTFALL.DWG