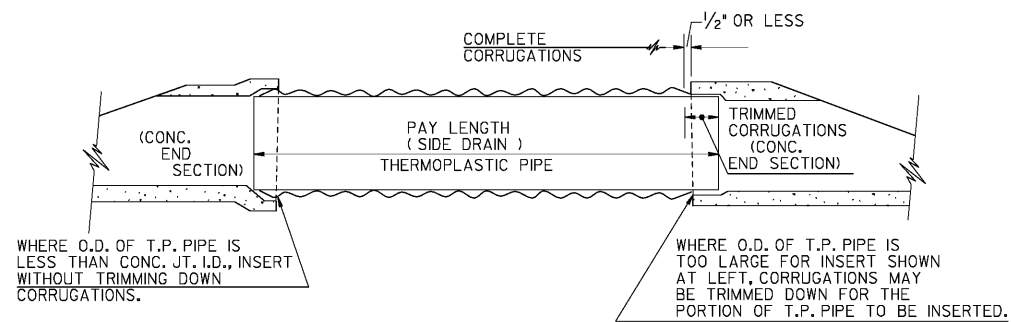


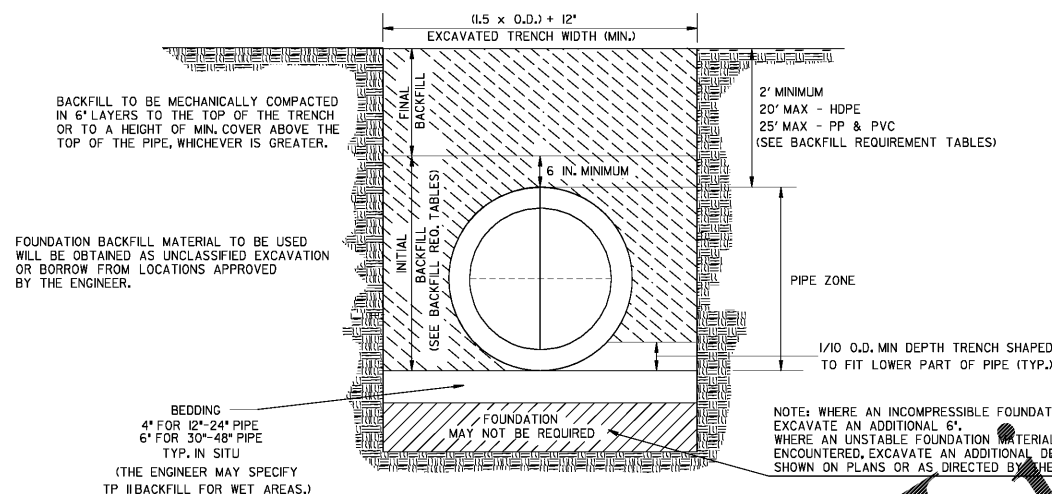
CONCRETE TO THERMOPLASTIC SIDE DRAIN OR CROSS DRAIN CONNECTION ALTERNATES



WHERE O.D. OF T.P. PIPE IS LESS THAN CONC. JT. I.D., INSERT WITHOUT TRIMMING DOWN CORRUGATIONS.

WHERE O.D. OF T.P. PIPE IS TOO LARGE FOR INSERT SHOWN AT LEFT, CORRUGATIONS MAY BE TRIMMED DOWN FOR THE PORTION OF T.P. PIPE TO BE INSERTED.

THERMOPLASTIC PIPE TRENCH INSTALLATIONS



BACKFILL TO BE MECHANICALLY COMPACTED IN 6\"/>

FOUNDATION BACKFILL MATERIAL TO BE USED WILL BE OBTAINED AS UNCLASSIFIED EXCAVATION OR BORROW FROM LOCATIONS APPROVED BY THE ENGINEER.

BEDDING: 4\"/>

FOUNDATION: FOUNDATION MAY NOT BE REQUIRED.

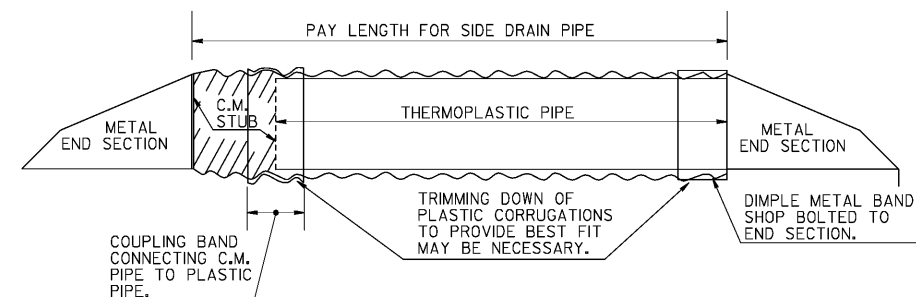
NOTE: WHERE AN INCOMPRESSIBLE FOUNDATION EXISTS, EXCAVATE AN ADDITIONAL 6\"/>

MULTIPLE PIPE SPACING: A CLEAR SPACE EQUAL TO TWO TIMES THE INSIDE DIAMETER, OR 6 FT., WHICHEVER IS LESSER SHALL BE REQUIRED BETWEEN MULTIPLE LINES OF THERMOPLASTIC PIPE.

ALLOWABLE PIPE SIZES

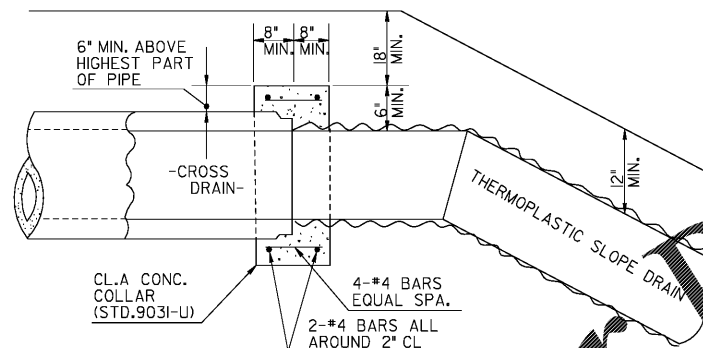
HIGH DENSITY POLYETHYLENE (HDPE) AASHTO M 294	POLYPROPYLENE (PP) AASHTO M 300	PROFILE WALL POLYVINYL CHLORIDE (PVC) AASHTO M 304	CORRUGATED SMOOTH INTERIOR POLYVINYL CHLORIDE (PVC) ASTM F 949
NOMINAL SIZE (IN.)	NOMINAL SIZE (IN.)	NOMINAL SIZE (IN.)	NOMINAL SIZE (IN.)
12	12	12	12
15	15	15	15
18	18	18	18
24	24	21	21
	30	24	24
36	36	30	30
42	42	36	36
48	48	42	
		48	

METAL TO THERMOPLASTIC SIDE DRAIN CONNECTION ALTERNATES (SEE GENERAL NOTE NO. 5)



NOTE: FOR PLASTIC SIDE DRAIN CONNECTIONS TO SAFETY END SECTIONS, SEE THE SMOOTH TAPERED SLEEVE CONNECTOR DETAILS (SEE GA STANDARD I122 FOR SAFETY SLOPE END SECTIONS FOR SIDE DRAIN PIPES).

ALL CROSS DRAIN TYPES TO THERMOPLASTIC SLOPE DRAIN CONNECTION



NOTES: PAYMENT FOR LIN. FT. OF PIPE SHALL INCLUDE THE CONCRETE COLLAR. CONCRETE COLLARS ARE ALSO PERMITTED FOR SIDE DRAIN CONNECTIONS. CONNECTIONS SHOWN ABOVE FOR SIDE DRAIN ARE NOT PERMITTED FOR SLOPE DRAIN CONNECTIONS.

BACKFILL REQUIREMENT TABLES

STORM DRAIN INSTALLATIONS			
PIPE TYPE	MAX. FILL HEIGHT (FT)	INITIAL BACKFILL TYPE	FOUNDATION BACKFILL TYPE
HDPE	20	STRUCTURAL	CLASS II B2 OR BETTER
PVC	25	STRUCTURAL	CLASS II B3 OR BETTER
PP	25	STRUCTURAL	CLASS II B3 OR BETTER

SIDE DRAIN (DRIVEWAY) INSTALLATIONS (FILL HEIGHTS UP TO 10-FT)			
PIPE TYPE	MAX. FILL HEIGHT (FT)	INITIAL BACKFILL TYPE	FOUNDATION BACKFILL TYPE
HDPE	10	CLASS II B2 OR BETTER	CLASS II B2 OR BETTER
PVC	10	CLASS II B3 OR BETTER	CLASS II B3 OR BETTER
PP	10	CLASS II B3 OR BETTER	CLASS II B3 OR BETTER

SIDE DRAIN (DRIVEWAY) INSTALLATIONS (FILL HEIGHTS ABOVE 10-FT)			
PIPE TYPE	MAX. FILL HEIGHT (FT)	INITIAL BACKFILL TYPE	FOUNDATION BACKFILL TYPE
HDPE	20	STRUCTURAL	CLASS II B2 OR BETTER
PVC	25	STRUCTURAL	CLASS II B3 OR BETTER
PP	25	STRUCTURAL	CLASS II B3 OR BETTER

INITIAL BACKFILL & BEDDING QUANTITIES		
NOMINAL SIZE (IN.)	INITIAL BACKFILL (FT ³ /LF)	BEDDING (FT ³ /LF)
12	2.97	0.83
15	3.80	0.96
18	4.73	1.08
24	6.86	1.33
30	9.34	2.38
36	12.18	2.75
42	15.38	3.13
48	18.93	3.50

NOTE: BACKFILL AND BEDDING QUANTITIES IN THE ABOVE TABLE ARE BASED ON THE TYPICAL INSIDE DIAMETER OF PIPE - NOT THE OUTSIDE DIAMETER OF PIPE.

- GENERAL NOTES:
- SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION & SUPPLEMENTS THERETO.
 - THE MINIMUM COVER SHALL BE 24\"/>
 - THE MAXIMUM HEIGHT OF FILL SHALL BE:
 - 20\"/>
 - 25\"/>
 - 25\"/>
 - MINIMUM PIPE STIFFNESS SHALL BE IN ACCORDANCE WITH AASHTO M 294, TYPE 'S' FOR HDPE PIPE, AASHTO M 304 FOR PROFILE WALL PVC PIPE, AASHTO M 330 FOR PP PIPE, AND ASTM F 949 FOR CORRUGATED SMOOTH INTERIOR PVC PIPE.
 - METAL FLARED END SECTIONS PER STD. I120 ARE PERMITTED ONLY WHERE THE PLANS LIST PLAIN CORRUGATED STEEL PIPE AS AN ALLOWABLE ALTERNATE FOR THE CULVERT.
 - GRADED AGGREGATE MEETING SECTION 815 SHALL BE USED FOR STRUCTURAL BACKFILL IN ACCORDANCE WITH BACKFILL REQUIREMENT TABLES AND WILL NOT BE PAID FOR SEPARATELY. PAYMENT WILL BE INCLUDED IN THE OVERALL PRICE BID FOR PIPE.
 - NORMAL BACKFILL MATERIAL MEETING SUBSECTION 810.2.01 MAY BE USED FOR SIDE DRAIN APPLICATIONS FOR FILL HEIGHTS UP TO 10 FT IN ACCORDANCE WITH TYPE AND CLASS LISTED IN THE BACKFILL REQUIREMENT TABLES. IF THE REQUIRED SOIL CLASS IS NOT AVAILABLE USE GRADED AGGREGATE MATERIAL MEETING SECTION 815.

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REV. INTL. BK. FILL TO 6\"/>	REV. INTL. BK. FILL QUANTITIES REV. GRAD. AGG. MTL. TO REF. SEC. 815 IN GEN. NOTES 6&7	REVISION DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA STANDARD THERMOPLASTIC PIPE NO SCALE SEPTEMBER 2016
H.A.C. BY TRACED DRAWN B.J.O. CHECKED W.D.I.	(SUBMITTED) <i>B.A.H.</i> STATE DESIGN POLICY ENGINEER (APPROVED) <i>Margaret B. Pirelo</i> C.E. ENGINEER	NUMBER 1030P	