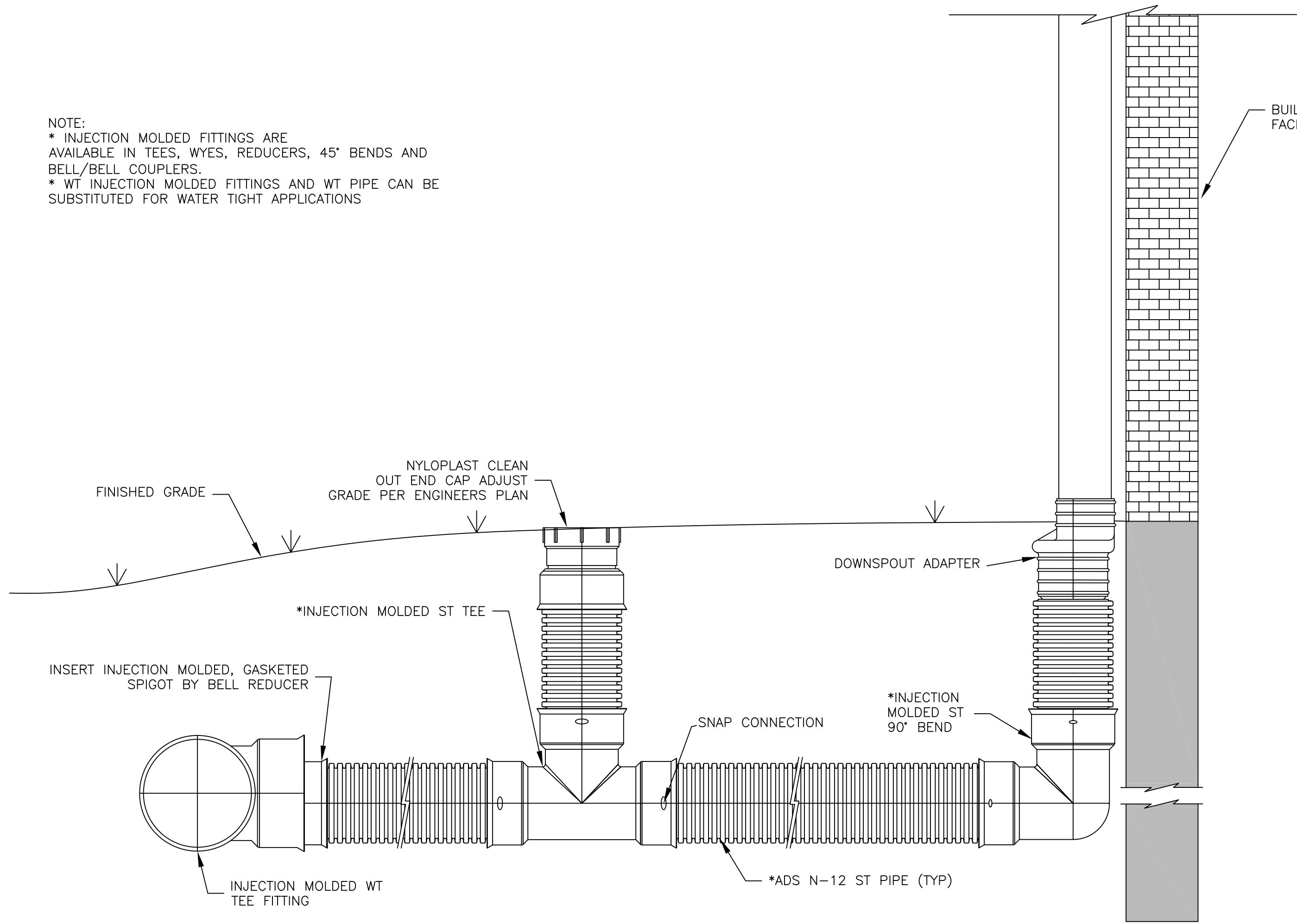
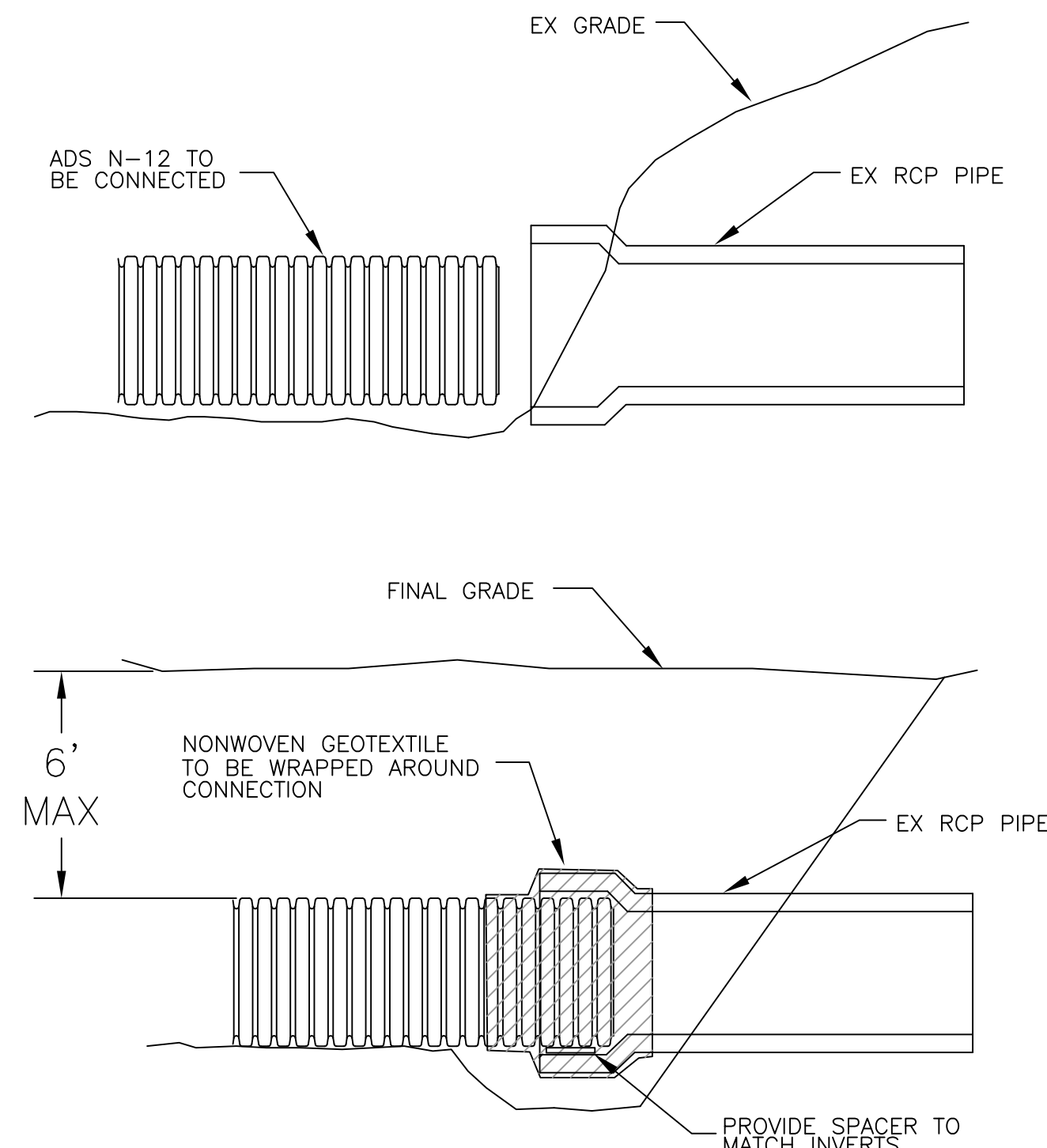


NOTE:
 * INJECTION MOLDED FITTINGS ARE AVAILABLE IN TEES, WYES, REDUCERS, 45° BENDS AND BELL/BELL COUPLERS.
 * WT INJECTION MOLDED FITTINGS AND WT PIPE CAN BE SUBSTITUTED FOR WATER TIGHT APPLICATIONS



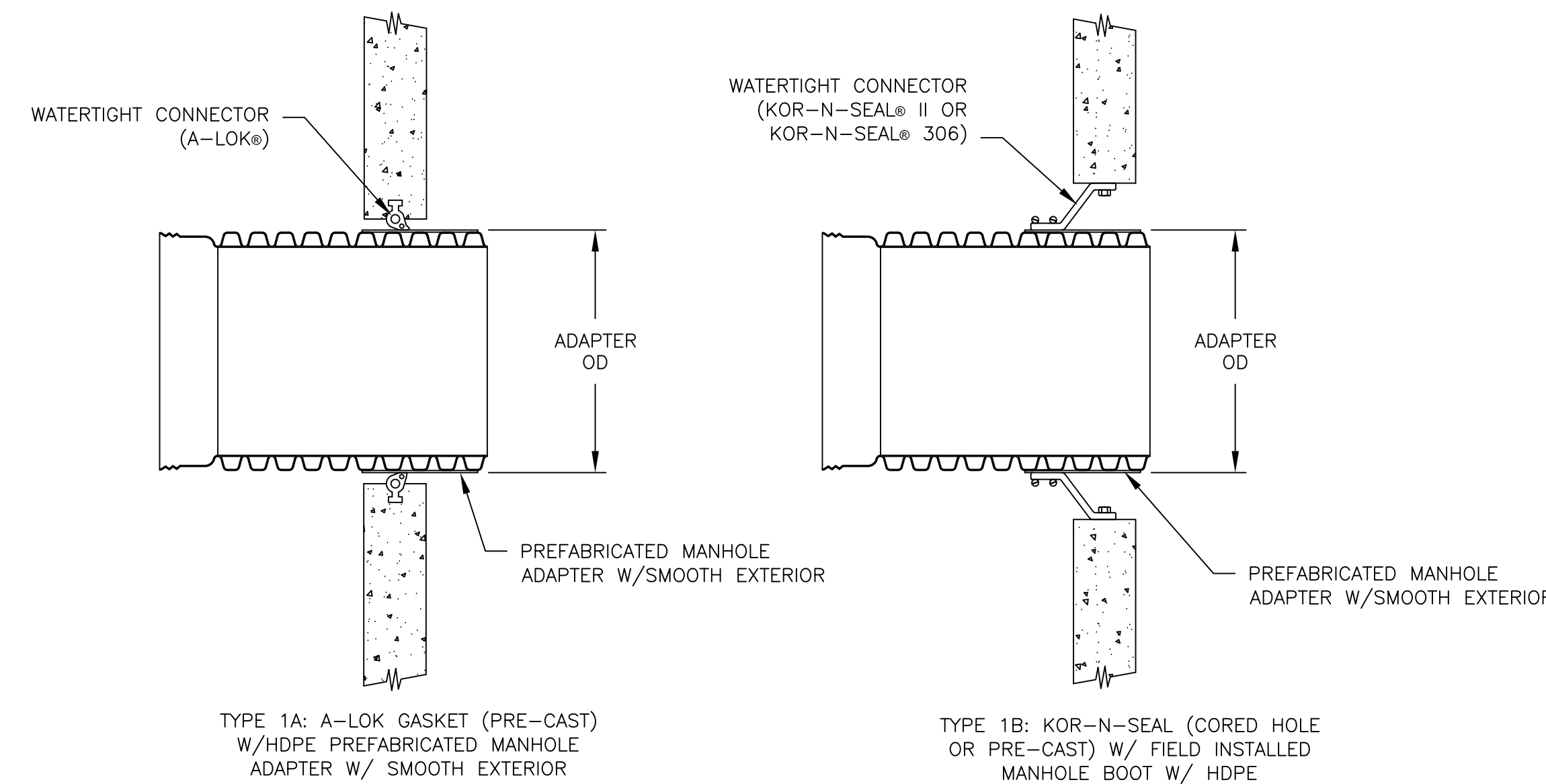
ROOF DRAIN DETAIL WITH CLEANOUT

DETAIL IS APPLICABLE FOR JOINING ADS N-12 TO RCP BELL END UNDER SHALLOW COVER, LESS THAN 6" DEEP AND NO LIVE LOADING



- NOTES
- EXISTING GRADE TO BE EXCAVATED IN SUCH A MANNER TO PROVIDE A SAFE WORK AREA.
 - SPACER OR SHIM TO BE PROVIDED IN BELL TO ALLOW MATCHING OF INVERTS.
 - AREA UNDER BELL CONNECTION MUST BE OVEREXCAVATED TO ALLOW AMPLE WORK AREA TO WRAP NON-WOVEN GEOTEXTILE.
 - NON-WOVEN GEOTEXTILE TO BE WRAPPED AROUND CONNECTION WITH FULL SEAM OVERLAP TO PROVIDE FULL PROTECTION FROM SOIL INTRUSION.
 - CONNECTION AND PIPE TO BE BACKFILLED PER ASTM D2321.

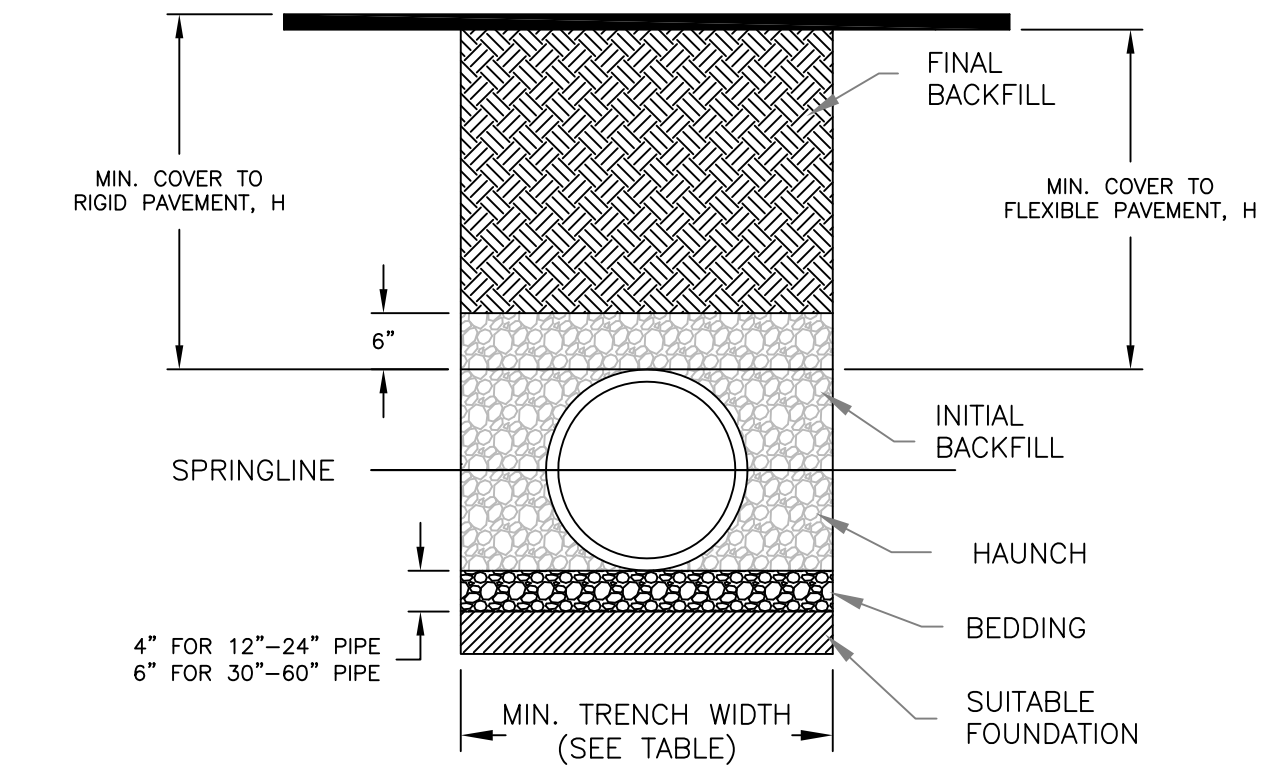
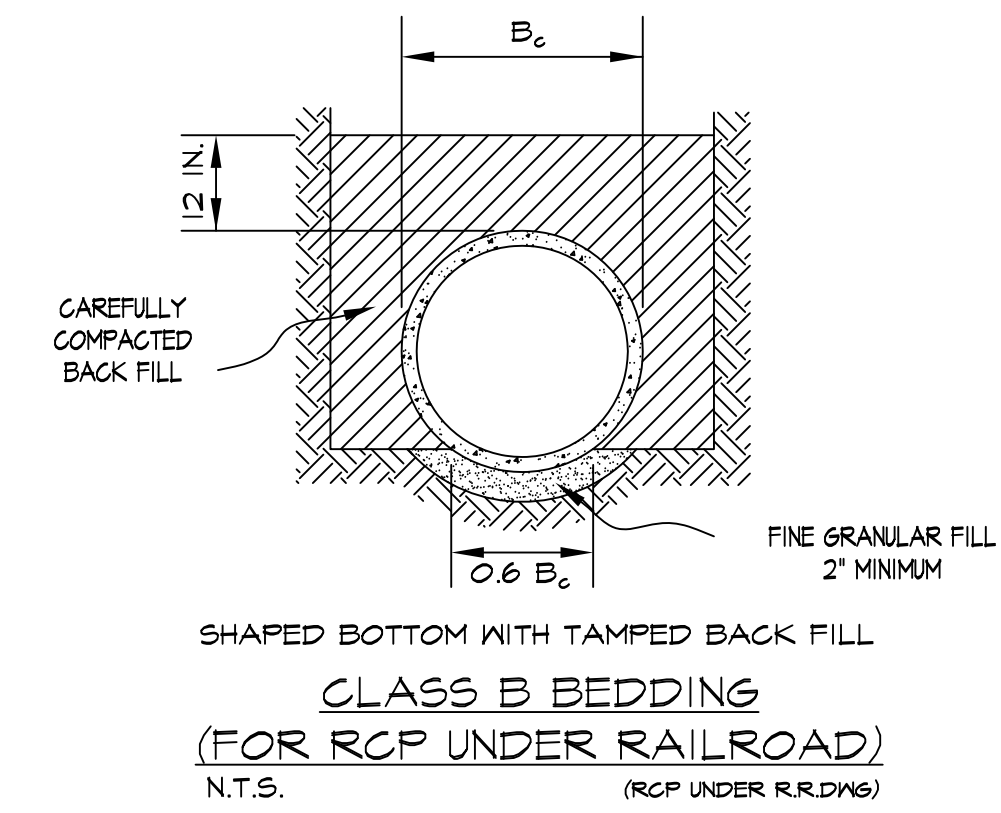
DISSIMILAR MATERIALS ADAPTER



SEE STANDARD DETAIL STD-201 AND TECHNICAL NOTE: 5.04 HDPE CONNECTIONS TO MANHOLES AND STRUCTURES FOR INSTALLATION RECOMMENDATIONS.

PIPE SIZE (IN)	ADAPTER OD (IN)	ADS PRODUCT		KOR-N-SEAL		A-LOK RING	
		ADS PRODUCT	ADS PRODUCT	SERIES 1 OR SERIES 306	SERIES 306	SERIES 306	SERIES 306
12	14.75	1222ANB	1222ANBH	S106-20BWS	N/A	480	475
15	18.0	1522ANB	1522ANBH	S106-20WS	S306-22	580	580
18	21.75	1822ANB	1822ANBH	S206-26	S306-28	710	710
24	28.57	2422ANB	2422ANBH	S206-32	S306-32	915	930
30	35.93	3022ANB	3022ANBH	S206-40	S306-40	1180	1180
36	41.85	3622ANB	3622ANBH	S206-46	S306-46	1350	1360
42	48.52	4222ANB	4222ANBH	S206-52L	S306-52L	1560	1570
48	54.65	4822ANB	4822ANBH	S206-58L	S306-58L	1745	1790
54	N/A	61.75	N/A	CUSTOM	S206-64L	N/A	1940
60	67.46	6022ANB	6022ANBH	S206-72	N/A	2170	2170

NOTES:
 PERFORMANCE HIGHLY DEPENDENT ON INSTALLATION. CONTRACTOR MUST INSURE MANHOLE GASKET IS UNIFORMLY SEATED AROUND STRUCTURE ADAPTER. EXTRA PRECAUTIONS MUST BE TAKEN TO PREVENT DIFFERENTIAL SETTLEMENT BETWEEN THE PIPE AND MANHOLE.
 ** THIRD PARTY - CODES AS SUPPLIED BY MANUFACTURER
 KOR-N-SEAL is a registered trademark of NPC, Inc.
 A-LOK is a registered trademark of A-LOK Products, Inc. (www.a-lok.com)



NOTE: ALL ADS OR HDPE PIPE TO BE INSTALLED IN PAVED AREAS TO BE BACKFILLED WITH STONE OR LEAN CONCRETE FULL DEPTH

RECOMMENDED MINIMUM TRENCH WIDTHS

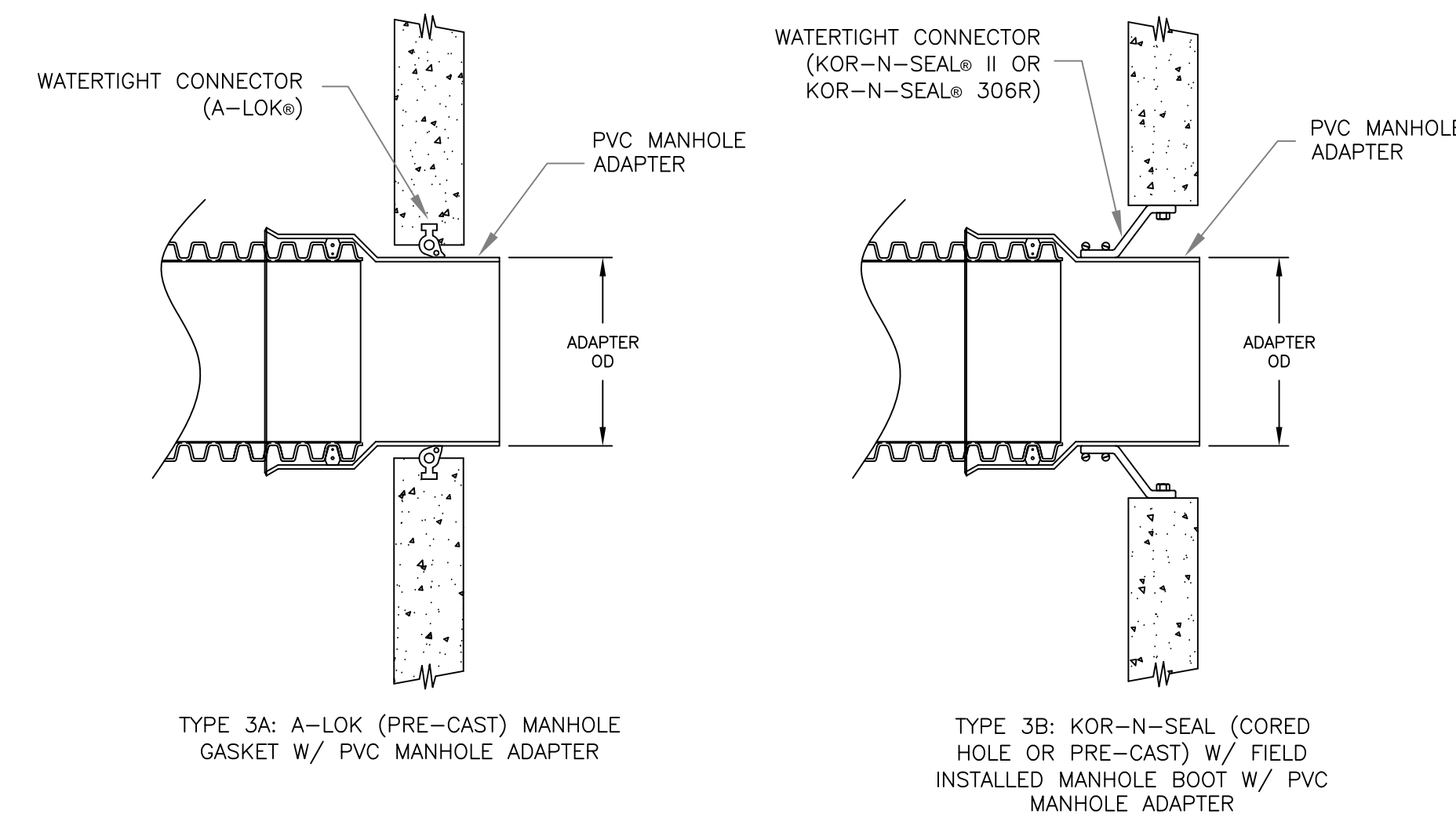
PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

- NOTES:
- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION.
 - MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
 - FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
 - BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, UNLESS OTHERWISE NOTED BY THE ENGINEER. MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm), 6" (150mm) FOR 30"-60" (750mm-900mm).
 - INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
 - MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

MINIMUM RECOMMENDED COVER BASED ON LOADING CONDITIONS

PIPE DIAM.	SURFACE LIVE LOADING CONDITION	
	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
54" - 60"	24"	60"

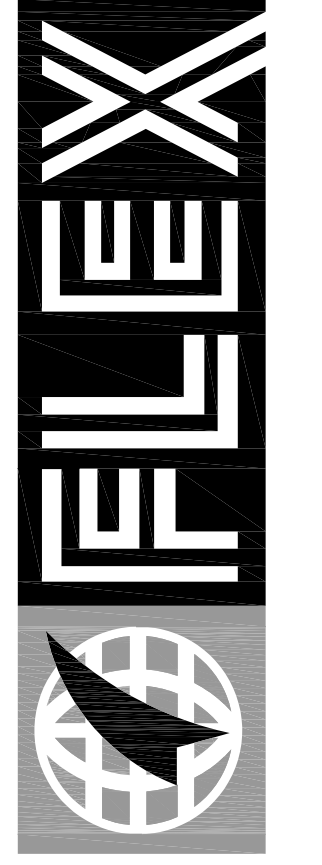
* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER



SEE STANDARD DETAIL STD-201 AND TECHNICAL NOTE: 5.04 HDPE CONNECTIONS TO MANHOLES AND STRUCTURES FOR INSTALLATION RECOMMENDATIONS.

PIPE SIZE ADAPTER (IN)	ADAPTER OD (IN)	ADS PRODUCT CODES	KOR-N-SEAL		A-LOK RING
			SERIES 1 OR II	SERIES 306	
12	12.5	1268AG	S106-16AWP	N/A	470
15	15.3	1568AG	S106-20BWS	N/A	490
18	18.7	1868AG	S206-24A	S306-22	610
24	24.8	2468AG	S206-28	S306-28	800

NOTES:
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 ** THIRD PARTY - CODES AS SUPPLIED BY MANUFACTURER
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FLEX FILMS (U.S.A.) INC.
 1221 NORTH BLACK BRANCH ROAD
 ELIZABETHTOWN, KENTUCKY 42702

PROJECT L-12 BOPET U.S.A.

DATE	REVISION	BY

PROJECT NO. 2064-25
 DESIGNED BY G.A.R.
 DRAWN BY J.R.M.
 CHECKED BY G.A.R.
 REVIEWED BY G.A.R.
 DATE JUNE 2011
 SCALE AS SHOWN



DRAWING NO. UFL-L12 C-110.4

STORM DRAINAGE DETAILS

AUG 08 4:2064-25 FLEX FILM - ELIZABETHTOWN, TN PATTERSON INDUSTRIAL PARK, C-110 STORM DRAINAGE DETAILS.DWG