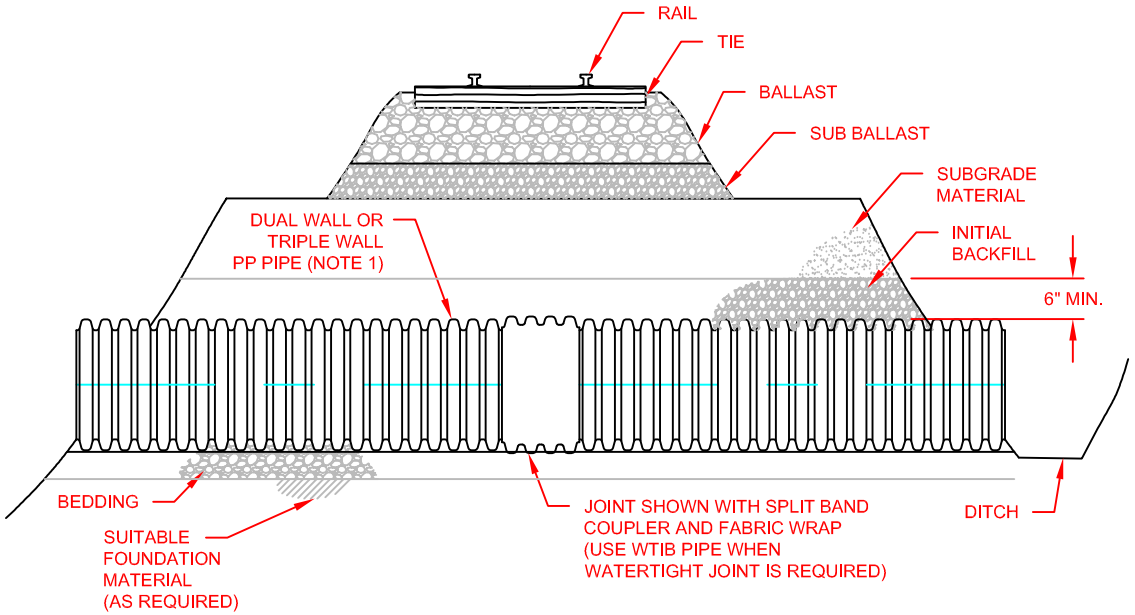

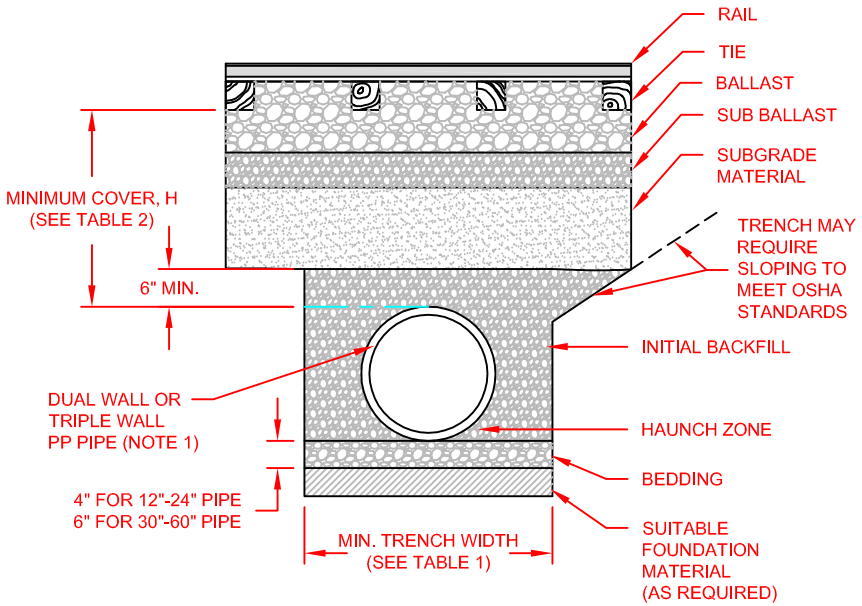

NOTES:

1. DUAL WALL POLYPROPYLENE PIPE SHALL MEET AASHTO M330 (TYPE S), ASTM F2736 AND ASTM D2881. TRIPLE WALL POLYPROPYLENE PIPE SHALL MEET AASHTO M330 (TYPE D) AND ASTM F2764.

2. 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

3. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED. ALL OPEN-GRADED (POORLY GRADED) BACKFILL SHALL BE WRAPPED WITH 8 OZ. (MINIMUM) WOVEN GEOTEXTILE FABRIC.

4. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE UNSUITABLE MATERIAL TO THE REQUIRED DEPTH AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE DESIGN ENGINEER. DEPTH OF FOUNDATION IMPROVEMENT MAY BE REDUCED BY USE OF GEOTEXTILE FABRIC AND GRID. REQUIRED TRENCH WIDTH MAY INCREASE WHEN FOUNDATION MATERIAL IS MODIFIED.

5. BEDDING: SUITABLE MATERIAL SHALL BE ASTM D2321 CLASS I, II OR III. MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 12"-24" (300mm-600mm); 6" (150mm) FOR 30"-60" (750mm-1500mm). THE MIDDLE THIRD OF THE BEDDING SHALL BE LOOSE AND UNIFORM IN DEPTH AND CONSISTANCY. AFTER PIPE IS IN PLACE, COMPACT BEDDING TO INITIAL BACKFILL STANDARDS.

6. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE ASTM D2321 CLASS I OR II UNLESS STATED OTHERWISE BY THE DESIGN ENGINEER. MINIMUM COMPACTION SHALL BE:

   CLASS I COMPACT IN PLACE, 8" LOOSE LIFTS WITH JUMPING JACK OR SMALL VIBRATORY COMPACTOR
   CLASS II, COMPACT IN PLACE, 8" LOOSE LIFTS TO MIN. 95% STANDARD PROCTOR DENSITY

7. THE CONTRACTOR SHOULD PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATIONS TO DESIGN ENGINEER, WHERE BACKFILL VERIFICATION IS NOT PROVIDED OR WHERE BACKFILL MAY BECOME SATURATED AFTER PLACEMENT, ONLY ASTM CLASS I OR II (CLEAN) BEDDING AND BACKFILL SHOULD BE USED.

8. PRIOR TO FINAL COMPACTION EFFORT, WORK BACKFILL INTO HAUNCH ZONE BY SHOVELING IN PLACE AND DIAGONALLY WALKING (STOMPING) THE SOIL INTO THE HAUNCH ZONE. THIS EFFORT WILL MAKE VERTICAL COMPACTION MORE EFFECTIVE.

TABLE 1
RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
12" (300mm)	30" (762mm)
15" (375mm)	34" (864mm)
18" (450mm)	39" (991mm)
24" (600mm)	48" (1219mm)
30" (750mm)	56" (1422mm)
36" (900mm)	64" (1626mm)
42" (1050mm)	72" (1829mm)
48" (1200mm)	80" (2032mm)
60" (1500mm)	96" (2438mm)

TABLE 2
MINIMUM RECOMMENDED COVER[1,3] BASED ON RAILWAY LOADING CONDITIONS

PIPE DIAM.	COOPER E-80[2]
UP TO 24" (600mm)	24" (610mm)
30" - 36" (750mm-900mm)	36" (914mm)
42" - 60" (1050mm-1500mm)	48" (1219mm)

1. COVER IS MEASURED FROM TOP OF PIPE TO BOTTOM OF RAILWAY TIE.
2. LOADS GREATER THAN E-80 LOAD MAY REQUIRE ADDITIONAL COVER.
3. MINIMUM COVER MAY BE INCREASED TO PREVENT PIPE DAMAGE DUE TO ROUTINE TRACK MAINTENANCE.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
2	REV. DRAWING NAME OR NUMBER	TJR	01/28/16	

RAILWAY TRENCH INSTALLATION DETAIL (PP)

DRAWING NUMBER: STD-107B

ADS Advanced Drainage Systems, Inc.
4640 TRUEMAN BLVD
HILLIARD, OHIO 43026

DRAWN BY:	CKM
DATE:	7/20/15
CK'D BY:	
SCALE:	NTS
SHEET:	1 OF 1