



TABLE A - 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"

TABLE B - RECOMMENDED MAXIMUM HEIGHT OF COVER		
PIPE DIAMETER INCHES	AREA SQ. FT.	MAXIMUM HEIGHT OF COVER FEET
12	0.8	21
15	1.2	21
18	1.8	20
24	3.1	20
30	4.9	19
36	7.1	18
42	7.1	18
48	7.1	17

TABLE C - RECOMMENDED MINIMUM HEIGHT OF COVER DURING CONSTRUCTION	
PIPE DIAMETER	MINIMUM COVER HEIGHT DURING CONSTRUCTION
12" TO 30"	18"
36" AND ABOVE	1/2 DIAMETER

TABLE D - MINIMUM RECOMMENDED COVER BASED ON RAILWAY LOADING CONDITIONS **	
PIPE DIAM.	COOPER E-80***
UP TO 24"	24"
30"-36"	36"
42"-60"	48"

\*\* COVER IS MEASURED FROM TOP OF PIPE TO BOTTOM OF RAILWAY TIE.

\*\*\* E-80 COVER REQUIREMENTS, ARE ONLY APPLICABLE TO ASTM F 2306 PIPE.

## TYPICAL TRENCH DETAIL FOR HDPE STORM DRAIN PIPE

NOT TO SCALE

REFERENCE  
200, 302, 303

CATEGORY  
EARTHWORK

DATE  
6/16

SHEET No.  
1 OF 2

DETAIL No.  
EW\_04

**NOTES:**

1. ALL PIPE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THESE SPECIFICATIONS OR AS MODIFIED BY THE OWNER.
2. TRENCH BOX OR OTHER SHORING METHODS SHALL NOT DISTURB THE PIPE BEDDING AND BACKFILL MATERIAL AFTER THEIR COMPACTION.
3. WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH INDICATED ON THE DRAWING OR AS DIRECTED BY THE OWNER AND REPLACE WITH BEDDING MATERIAL.
4. BEDDING MATERIAL SHALL BE CRUSHED STONE OR VDOT NO. 57 STONE IN ACCORDANCE WITH SPECIFICATION SECTION 303 UNLESS OTHERWISE NOTED ON THE DRAWINGS OR REQUIRED BY THE OWNER. MINIMUM BEDDING THICKNESS SHALL BE 6-INCHES.
5. BACKFILL MATERIAL SHALL CONFORM TO THE FOLLOWING:
  - A. INITIAL BACKFILL:  
VDOT AGGREGATE NO. 25, 26, 21A, OR 21B; AS INDICATED ON THE DRAWINGS OR AS DIRECTED BY THE OWNER, SHALL BE INSTALLED AS INITIAL BACKFILL IN THE PIPE ZONE EXTENDING NOT LESS THAN 12-INCHES ABOVE THE CROWN OF PIPE. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
  - B. FINAL BACKFILL:  
FINAL BACKFILL MATERIALS SHALL BE THE SAME AS THE INITIAL BACKFILL UNLESS OTHERWISE INDICATED ON THE DRAWINGS OR DIRECTED BY THE OWNER.
6. MINIMUM COVER (H):

TRAFFIC APPLICATIONS - MINIMUM COVER SHALL BE 24-INCHES, UNLESS MODIFIED BY THE LOCALITY, FOR UP TO 60-INCH DIAMETER PIPE, MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF FLEXIBLE PAVEMENT OR TO THE TOP OF RIGID PAVEMENT.

NON-TRAFFIC APPLICATIONS - MINIMUM COVER IN GRASS OR LANDSCAPE AREA IS 12-INCHES FROM THE TOP OF THE PIPE TO GROUND SURFACE.

ENTRANCES - THE MINIMUM FINISHED COVER IS 9-INCHES FOR PIPE DIAMETERS LESS THAN OR EQUAL TO 24-INCH. FOR PIPE DIAMETERS GREATER THAN 24-INCHES, THE MINIMUM COVER SHALL BE 12-INCHES OR 1/8 THE PIPE DIAMETER, WHICHEVER IS GREATER. WHERE THE SURFACE OVER THE TOP OF THE PIPE WILL BE ASPHALT, A MINIMUM OF 6-INCHES OF SELECT BACKFILL MATERIAL SHALL BE PLACED BETWEEN THE TOP OF THE PIPE AND THE BOTTOM OF THE ASPHALT.

## TYPICAL TRENCH DETAIL FOR HDPE STORM DRAIN PIPE

NOT TO SCALE

REFERENCE 200, 302, 303	CATEGORY EARTHWORK	DATE 6/16	SHEET No. 2 OF 2	DETAIL No. EW_04
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