

BEDDING & BACKFILL NOTES:

PIPE ZONE (A):

1. BEDDING AND BACKFILL MATERIAL TO CONSIST OF CLEAN, WELL GRADED, GRAVEL, CRUSHED SCREENINGS OR SAND CONFORMING TO:

SCREEN SIZE	PERCENT PASSING BY WEIGHT
1/2" INCH	100%
1/4" INCH	95% TO 100%

MAXIMUM PLASTICITY INDEX SHOULD BE NO GREATER THAN 12. PLACE BACKFILL IN TRENCH AND LIGHTLY TAMP OR VIBRATE TO CONSOLIDATE AND SEAT THE MASS AGAINST THE PIPE AND EARTHEN SURFACES.

2. BEDDING ENVELOPE TO BE PLACED IN A DRY CONDITION AND VIBRATED IN PLACE TO A RELATIVE DENSITY OF 70%. MINIMUM DRY DENSITY TO BE DETERMINED USING ASTM D4254 TEST METHOD B. MAXIMUM DRY DENSITY PER ASTM D4253, TEST METHOD 1A OR 2A. IF A VIBRATION TABLE IS NOT AVAILABLE, TXDOT TEST METHOD TEX-113-E CAN BE USED TO DETERMINE MAXIMUM DRY DENSITY IN LIEU OF ASTM D4253.
3. THE DEPTH OF THE GRANULAR EMBEDMENT BELOW THE OUTSIDE BOTTOM OF THE PIPE BARREL TO BE AS INDICATED BELOW:

PIPE SIZE	ON SOIL	ON ROCK
27" AND SMALLER	4"	6"
30" TO 60"	4"	9"
66" AND LARGER	6"	12"

BACKFILL (B):

4. BACKFILL FOR UNPAVED AREAS:
 - A. EXCAVATED TRENCH MATERIAL, FREE OF DEBRIS, ORGANICS AND CLAY LUMPS, MAY BE USED AS COMPACTED BACKFILL OVER BEDDING ENVELOPES.
 - B. COMPACT BACKFILL TO 95% OF THE MAXIMUM DRY DENSITY DETERMINED USING TXDOT TEST METHOD TEX-114-E OR ASTM D698, PROCEDURE A. COMPACTED LIFT THICKNESS SHOULD NOT BE MORE THAN 6 INCHES AND WATER CONTENTS OF THE COMPACTED BACKFILL SHOULD BE WITHIN $\pm 2\%$ OF OPTIMUM.
5. BACKFILL UNDER ROADS AND STRUCTURES TO BE CRUSHED LIMESTONE (FLEXIBLE BASE) COMPACTED TO 100% OF MAXIMUM DRY DENSITY USING TXDOT TEST METHOD 113-E.

TRENCH WIDTHS (W):

6. THE MINIMUM TRENCH WIDTH (W) TO BE AS FOLLOWS:

PIPE $\leq$ 30-INCH	PIPE $\geq$ 31-INCH
W1 = 12" (MIN.)	W1 = 1'-6" (MIN.)

7. MAXIMUM TRENCH WIDTH IS UNLIMITED FOR TRENCH ZONE OVER 1 FT ABOVE TOP OF PIPE.

PAVEMENT NOTES:

1. THE EXISTING PAVING SURFACE SHALL BE SAWCUT IN A STRAIGHT LINE A MINIMUM OF 12" WIDER THAN UNDISTURBED SIDES OF THE TRENCH AND SYMMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION.
2. DAMAGED PAVEMENT OUTSIDE THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH A BASE THICKNESS MATCHING EXISTING.
3. REPLACEMENT HMAC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON THE EXISTING SURFACE LAYER.

DETAIL DEPICTS DIMENSIONAL REQUIREMENTS.
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR THE APPROPRIATE USE OF THIS STANDARDS.



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STANDARD CONSTRUCTION DETAILS
WASTEWATER

DATE:
MARCH 2007

SCALE:
NTS

SHEET:
SD-SS12B