

SLOTTED DRAIN SPECIFICATION
VARIABLE HEIGHT GRATE

1.0 General

- 1.1 This specification covers Slotted Drain used for the removal of water as shown on the plans.
- 1.2 The Corrugated Steel Pipe used in the Slotted Drain shall meet the requirements of AASHTO M36/ASTM A760. The CMP shall be ALUMINIZED STEEL Type 2 per AASHTO M-274, or galvanized steel per AASHTO M 218. The diameter and gage shall be as shown on the plans.

2. Connections

- 2.1 The Corrugated Steel Pipe shall have a minimum of two rerolled annular ends.
- 2.2 The Slotted Drain bands shall be a modified HUGGER Bands to secure the pipe and prevent infiltration of the backfill.
- 2.3 When the Slotted Drain is banded together, the adjacent grates shall have a maximum 3" gap.

3. Grates

- 3.1 The grates shall be manufactured from ASTM A1011, Grade 36 steel. The spacers and bearing bars (sides) shall be 3/16" material ± 0.008 ".
- 3.2 The spacers shall be on 6" centers and welded on both sides to each bearing bar (sides) with four (4) 1-1/4" long 3/16" fillet welds on each side of the bearing bar.
- 3.3 The plate extender shall be 7 gage steel meeting ASTM A 761 with minimum yield / tensile strengths of 28,000 and 42,000 respectively.
- 3.4 The engineer may call for tensile strength tests on the grate if the grate is not in compliance with Section 3.2. If tensile strength tests are called for, minimum results for an in-place spacer pulled perpendicular to the bearing bar shall be:
 - T = 12,000 pounds for 2-1/2" grate
 - T = 15,000 pounds for 6" grate
- 3.5 The grates shall be vertical (straight sides) with a 1-3/4" opening in the top and spacers centered 6" unless shown otherwise on the plans. The top and bottom grate shall be 2-1/2" or 6" high as needed.
- 3.6 CONTECH Method #1 for variable height grates, or an approved equal, shall be used to achieve the slope shown on the plans.

4. Galvanizing

- 4.1 The grate and plate extenders shall be galvanized in accordance with ASTM A 123 except with a 2 oz. galvanized coating, total both sides.

5. Grate Attached to CSP

- 5.1 The grate shall be fillet welded with a minimum weld 1" long to the CSP on each side of the grate at every other corrugation.

6. Tolerances - Finished Slotted Drain -20' Lengths

- 6.1 Vertical Bow - $\pm 3/8$ "
- 6.2 Horizontal Bow - $\pm 5/8$ "
- 6.3 Twist - $\pm 1/2$ "

Note : All fabrication of the product shall occur within the United States of America.



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