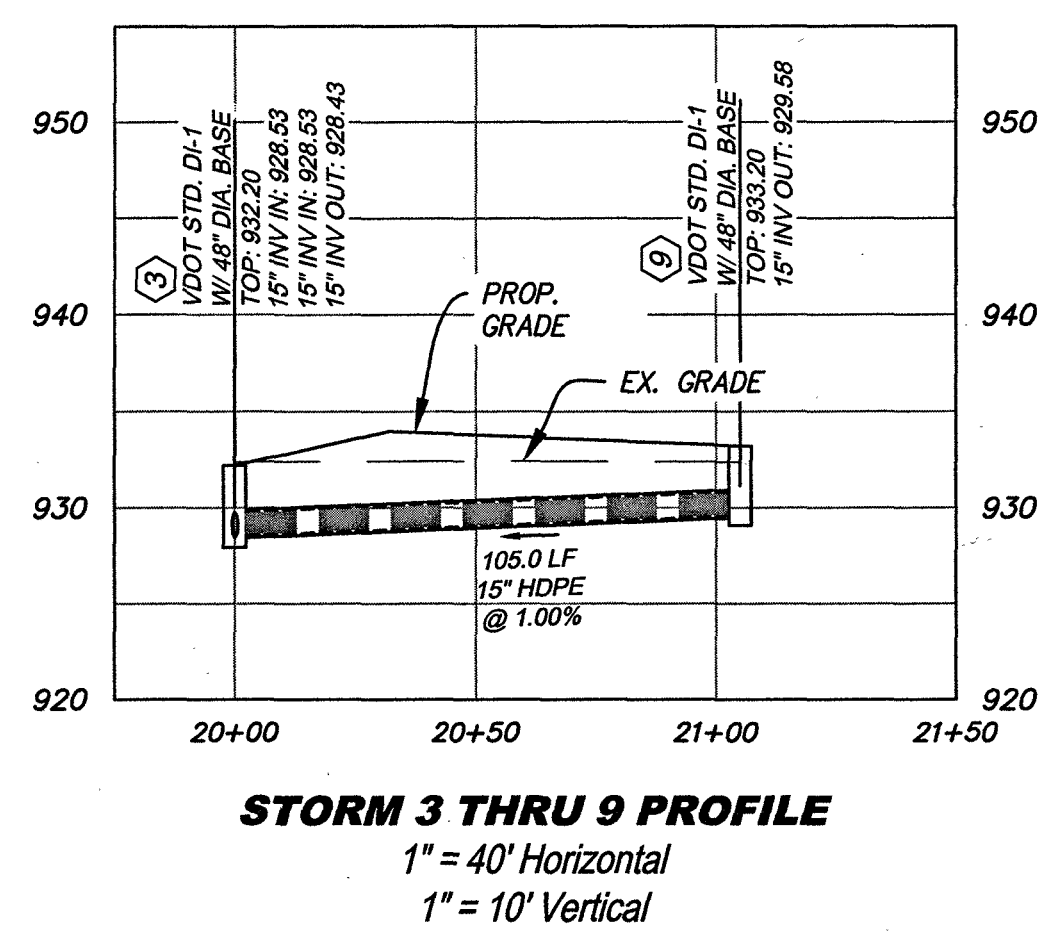
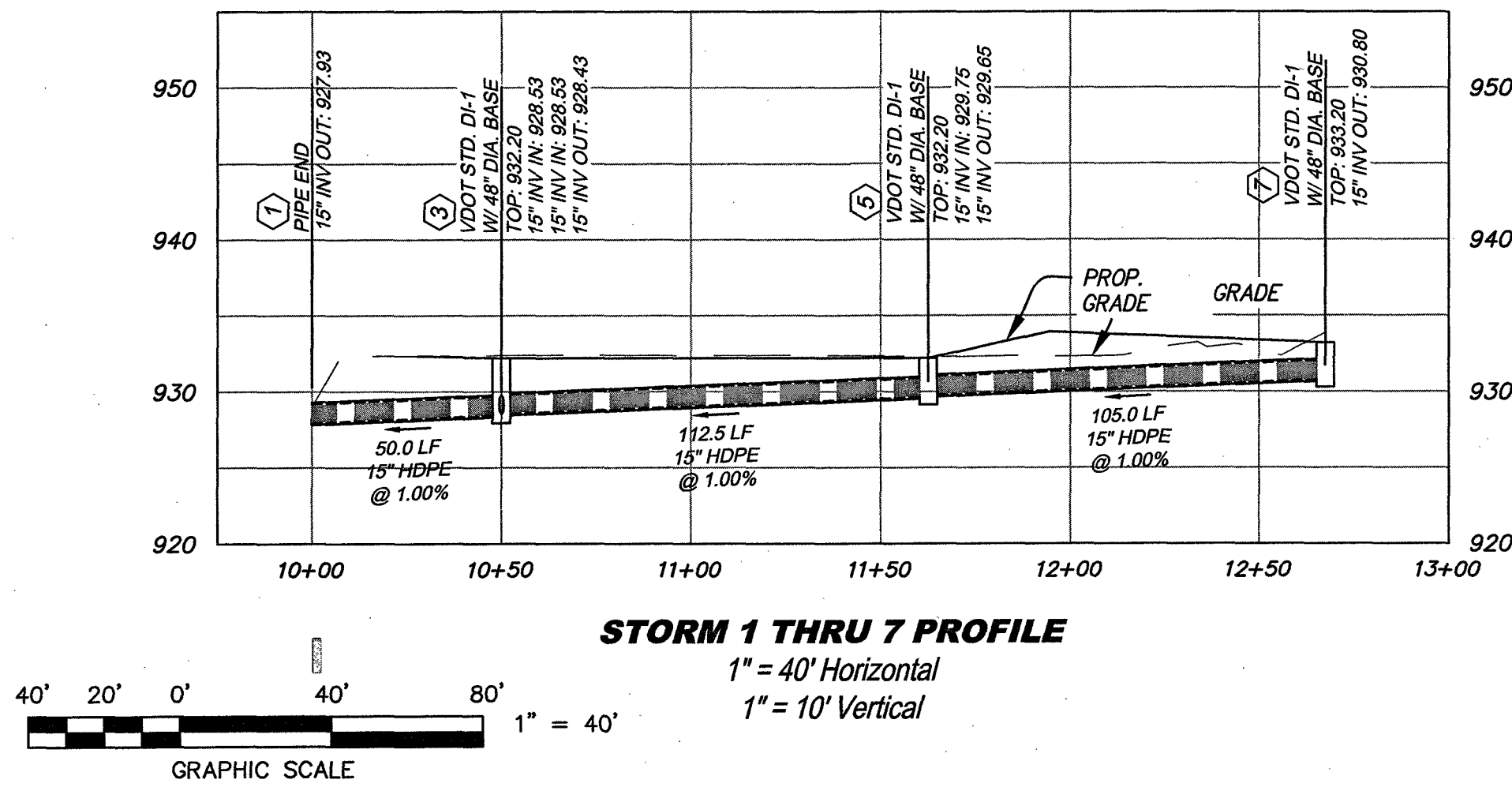


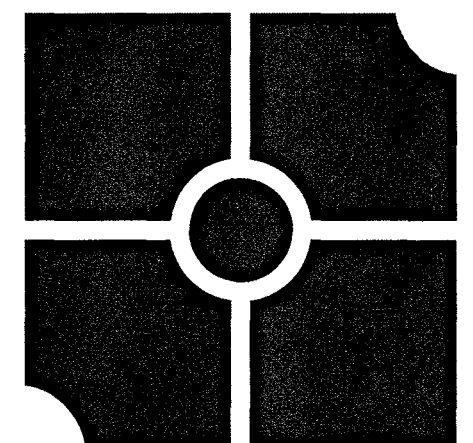
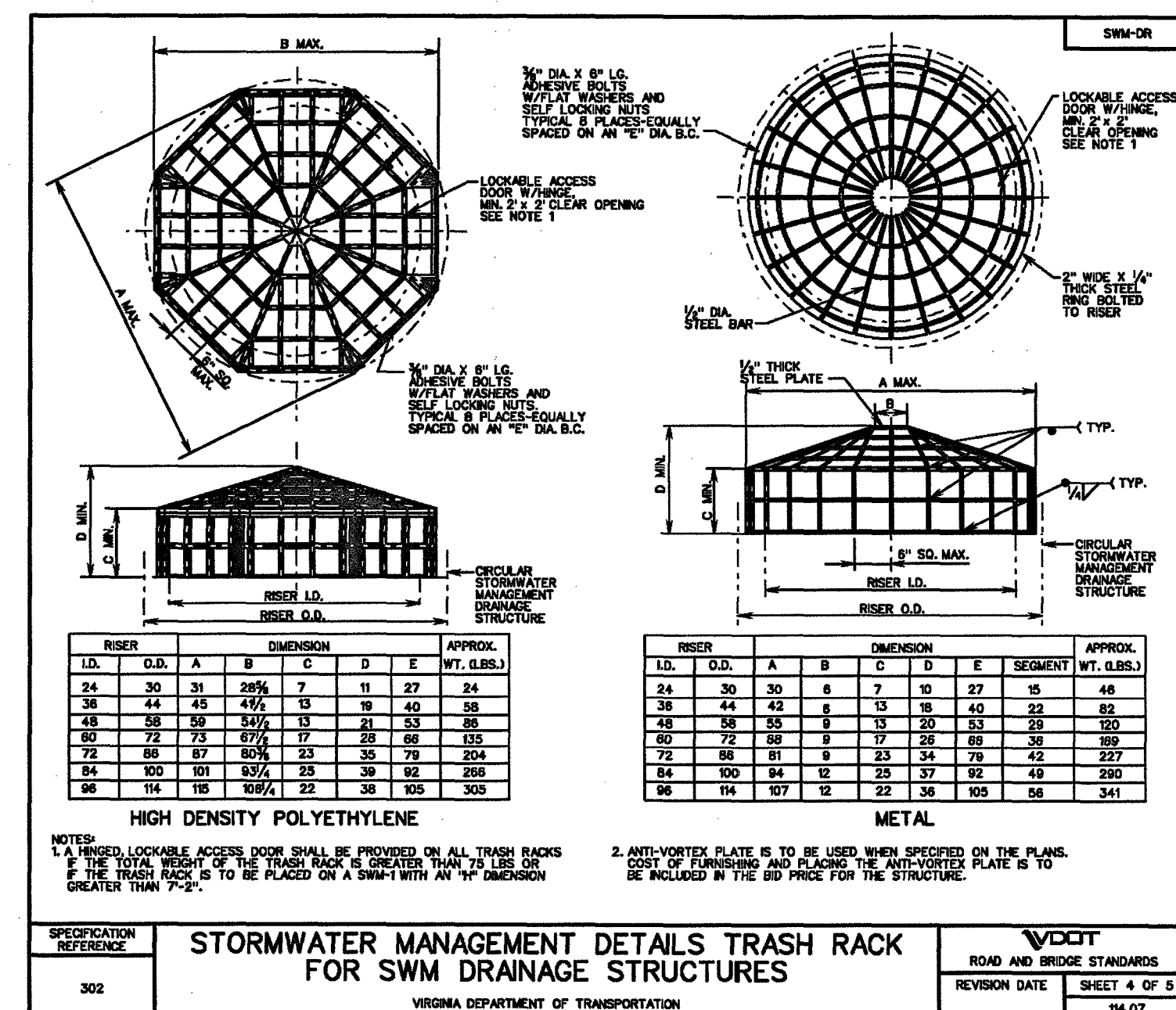
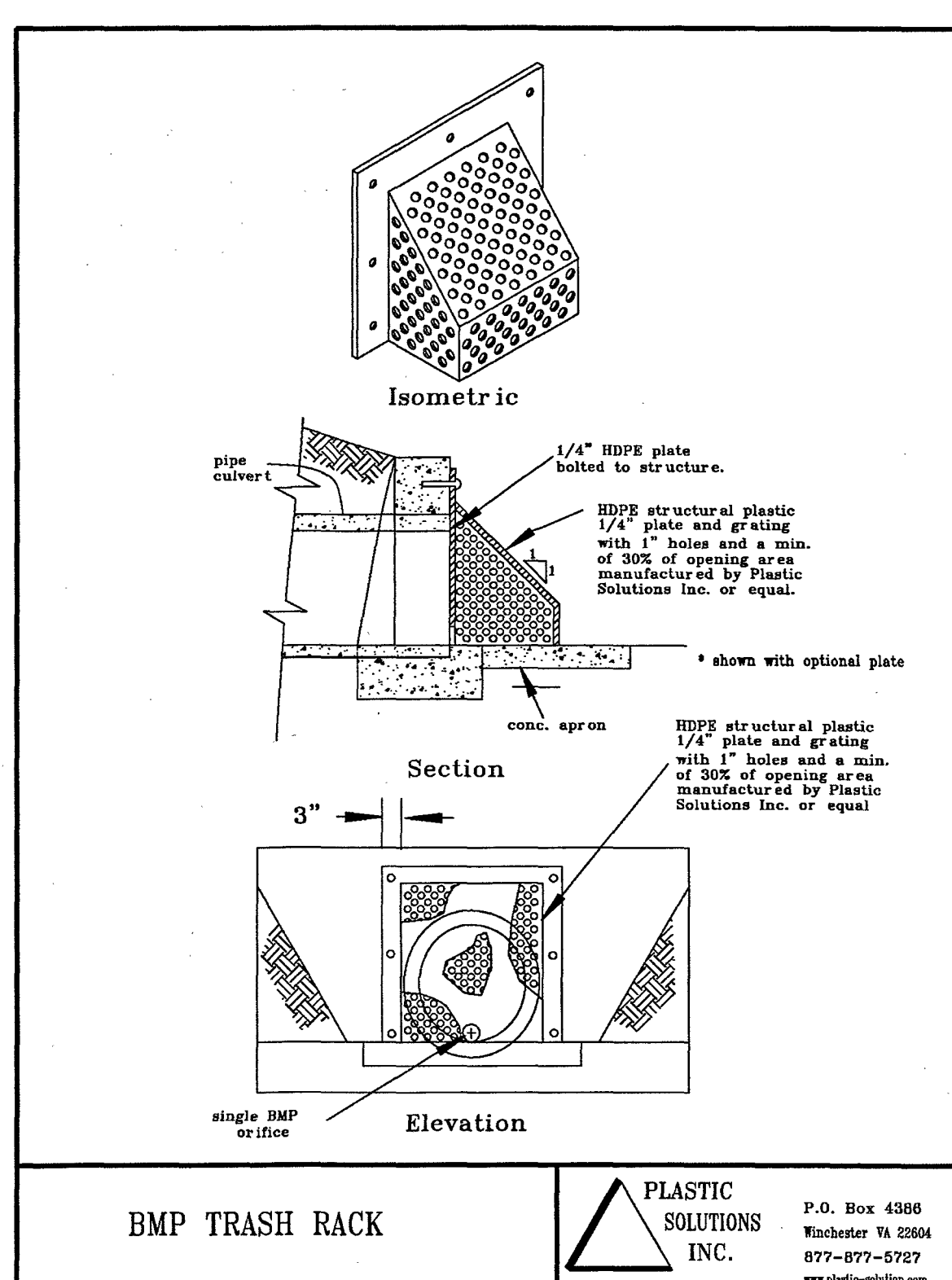
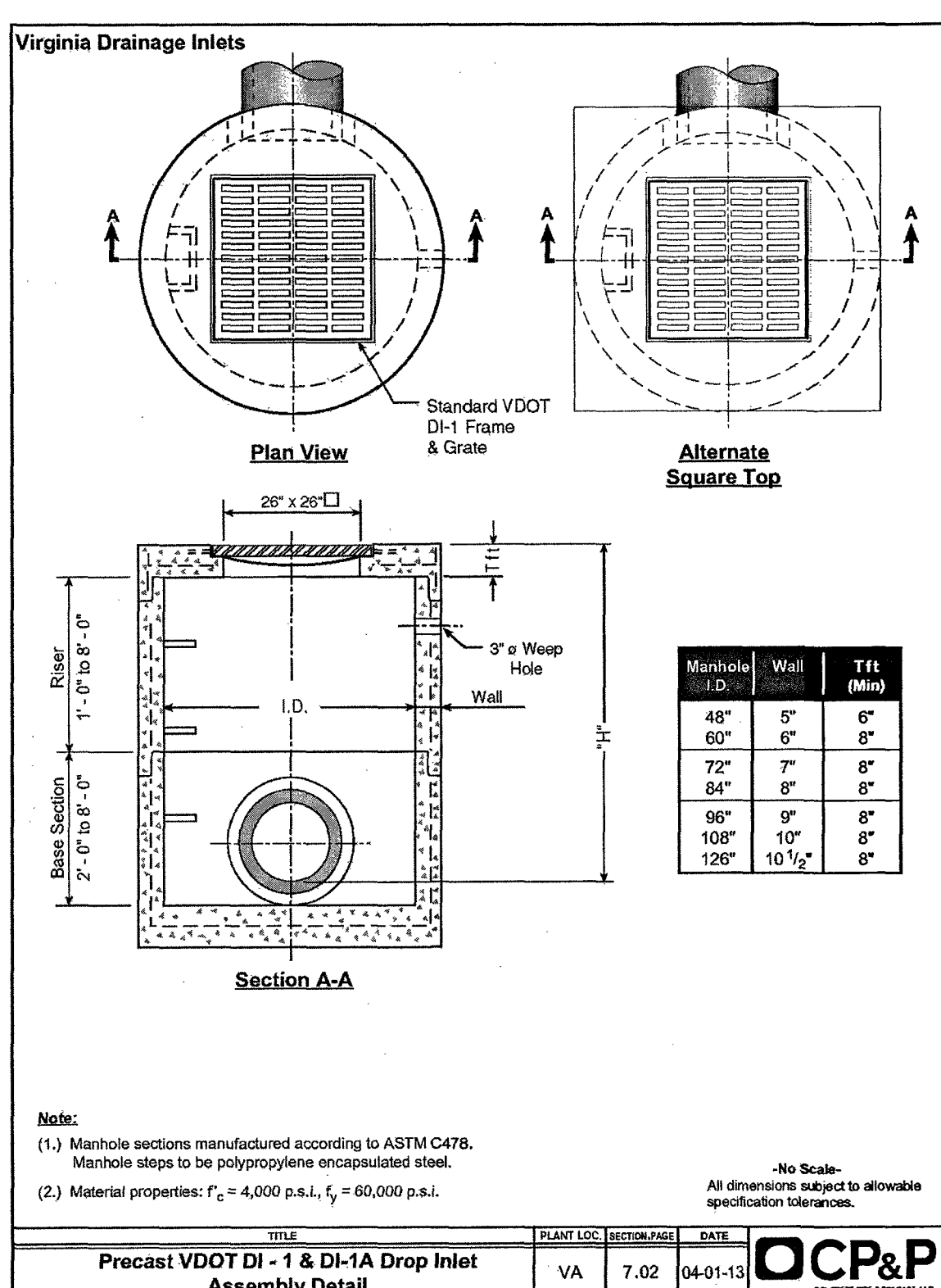
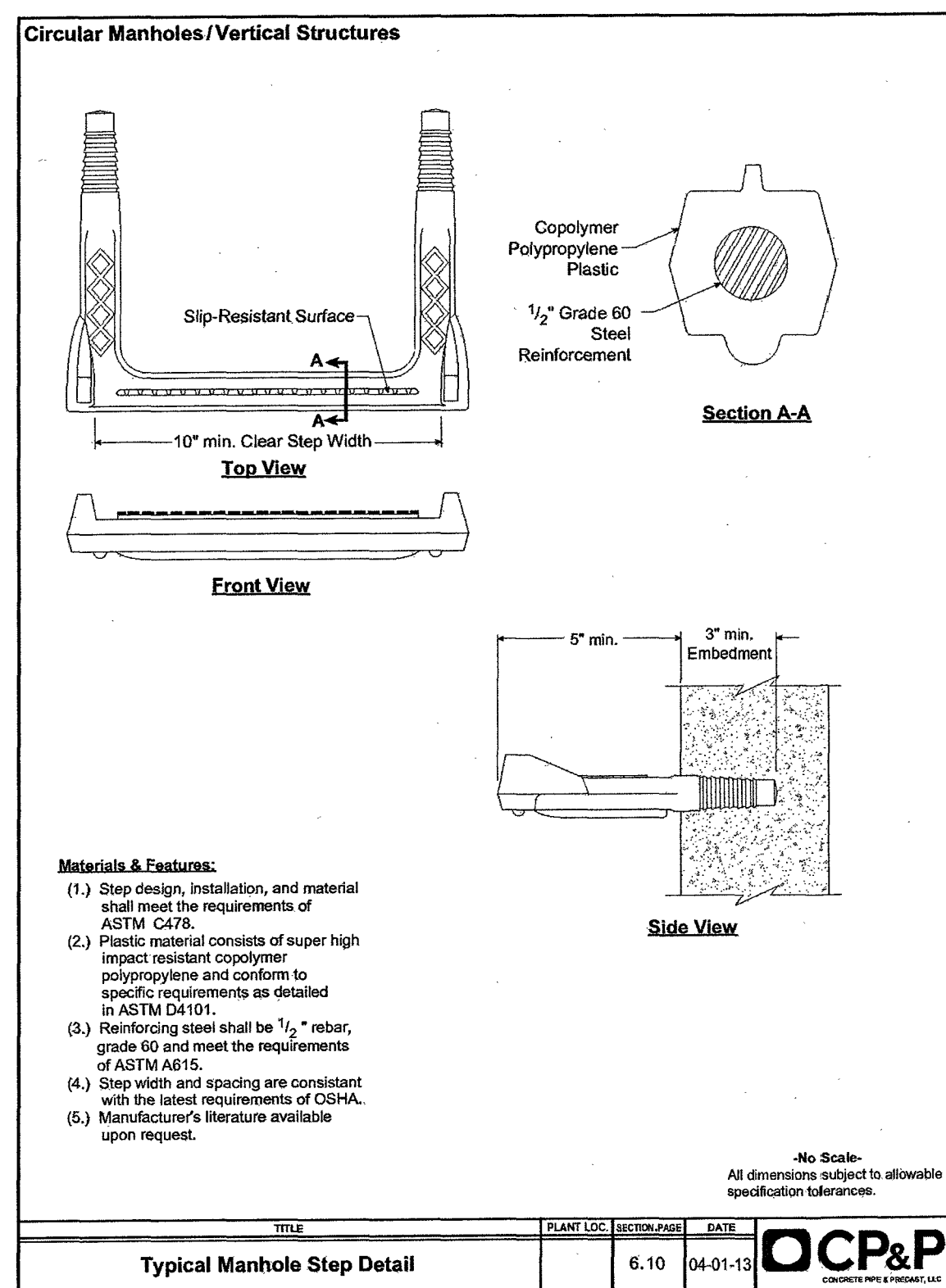
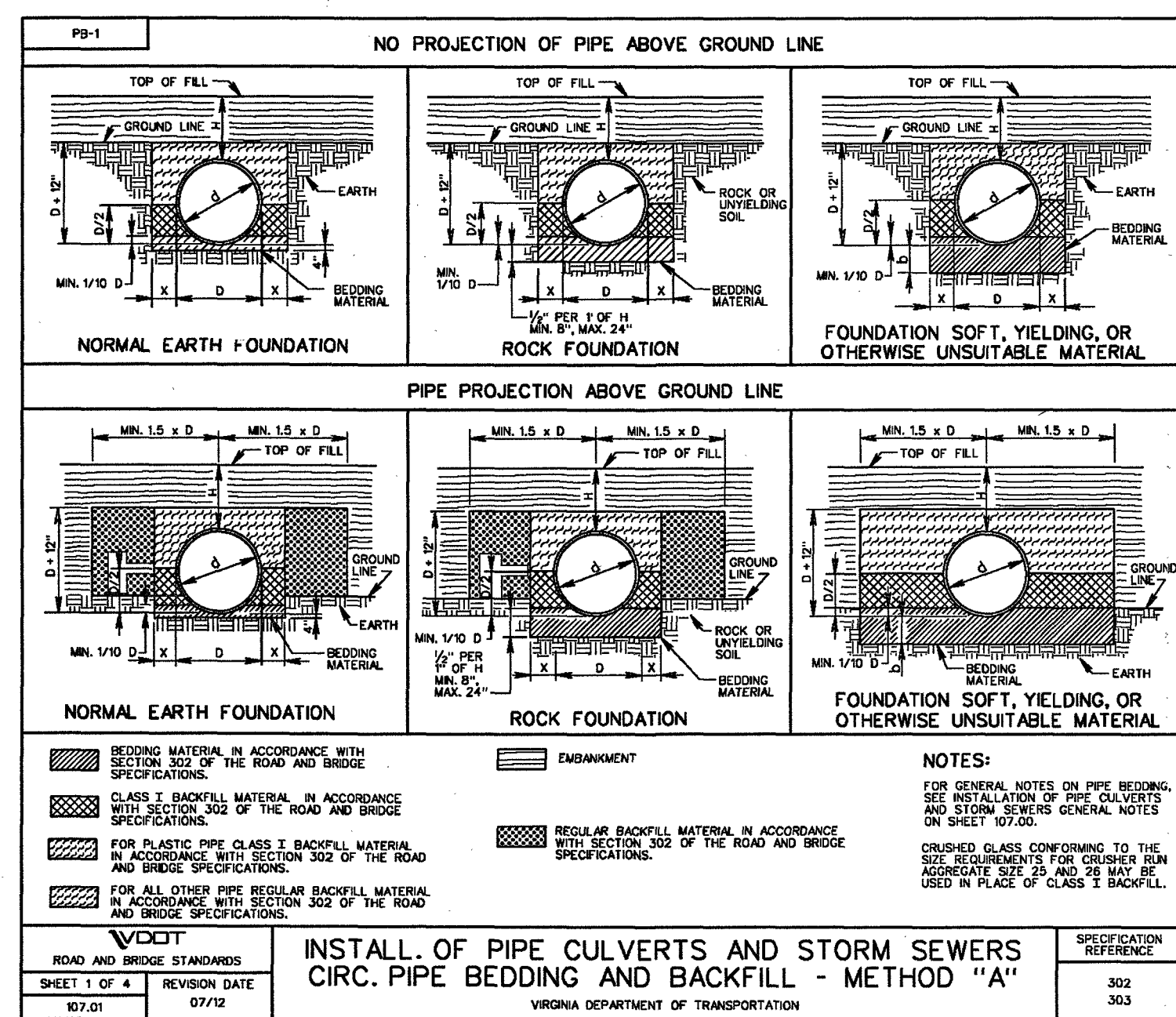
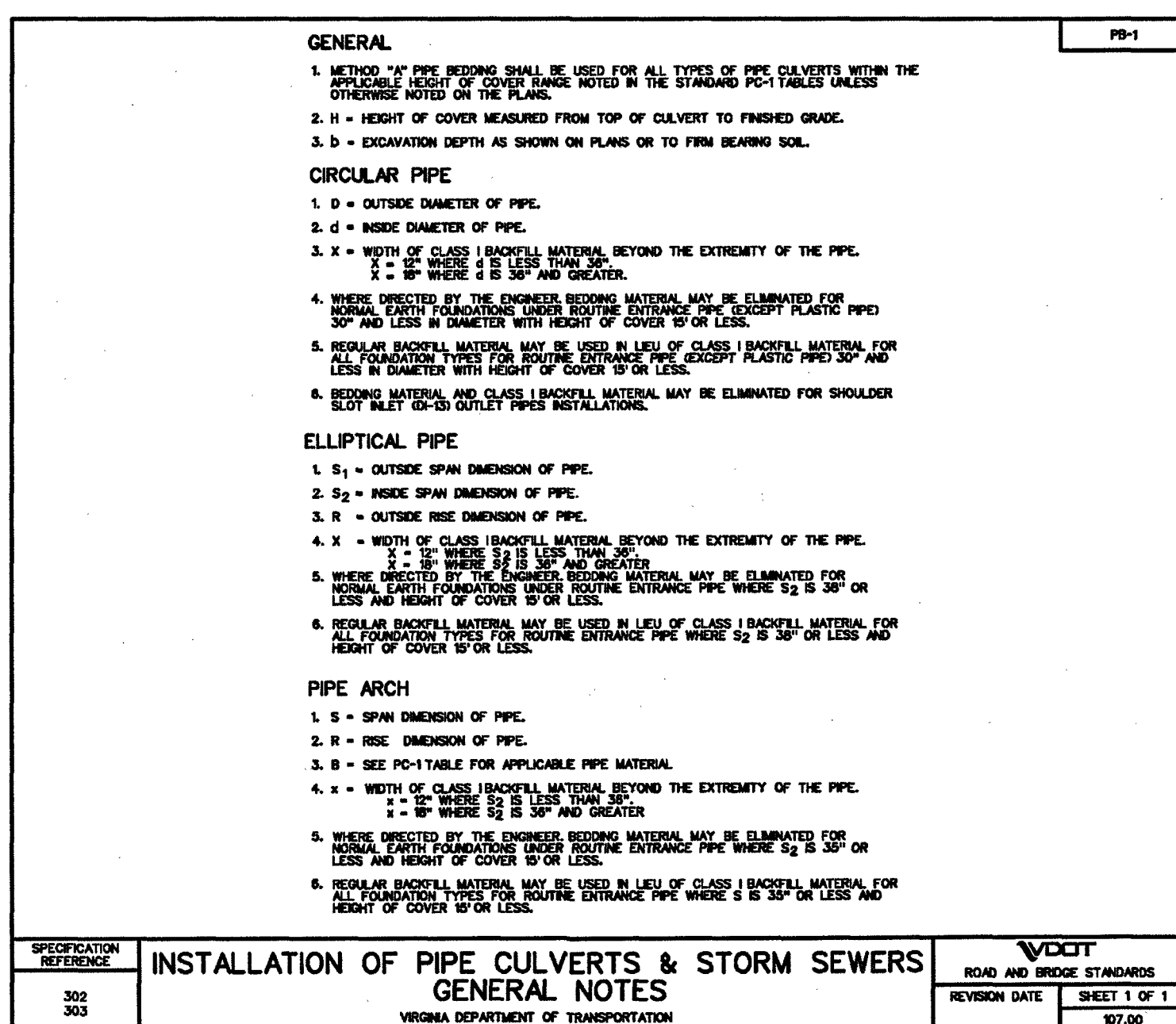
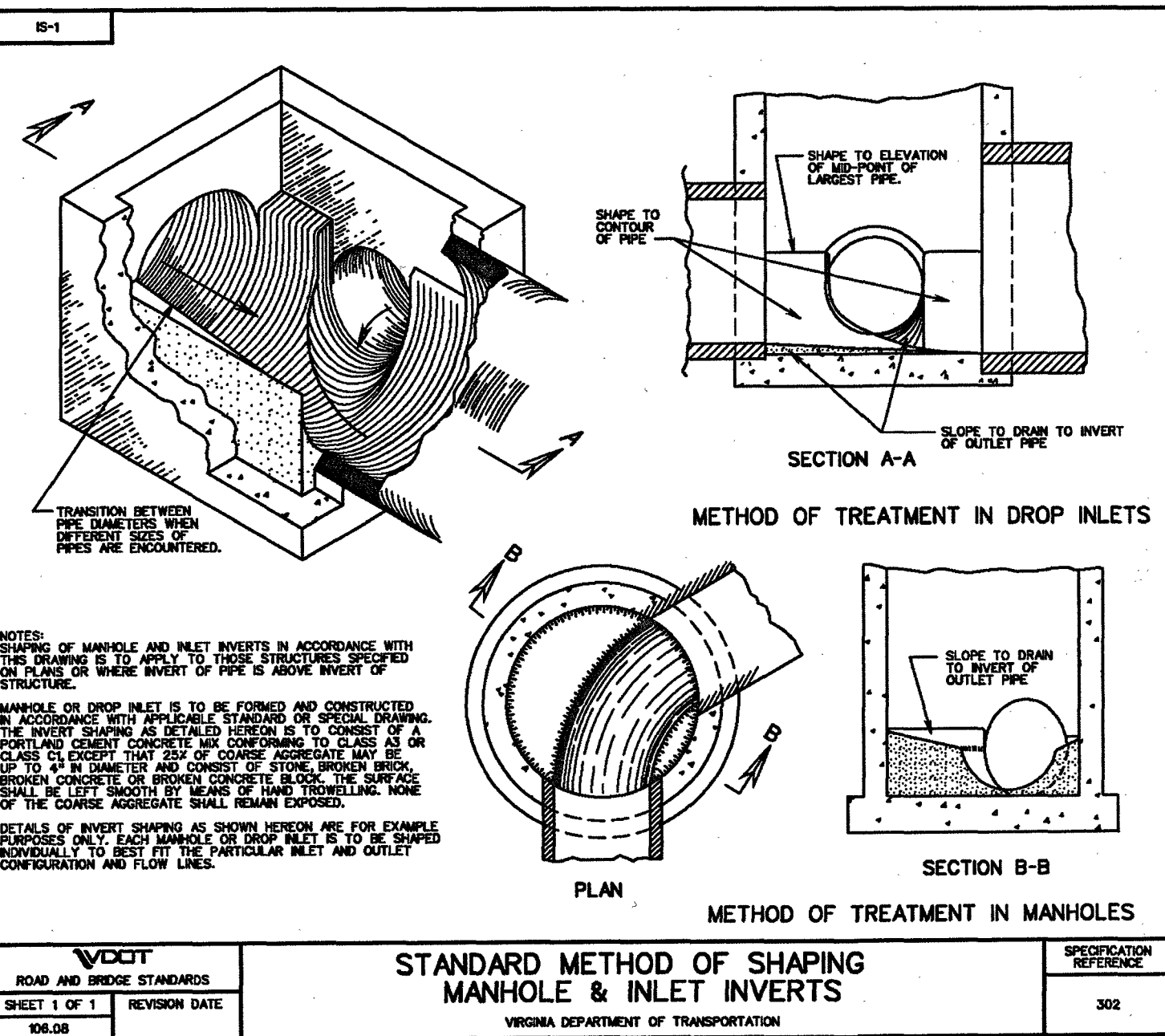


# DRAINAGE PIPE NOTES

- ALL DRAINAGE PIPE SHOWN AS HDPE SHALL BE HDPE, TYPE N-12 WT/IB BY "ADS" OR AN APPROVED EQUIVALENT.
- ALL DRAINAGE PIPE BEDDING FOR HDPE SHALL BE IN ACCORDANCE WITH VDOT DETAIL "PB-1", SHOWN IN DETAIL 107.01 WITH THE FOLLOWING NOTED SPECIFICATIONS:
  - CLASS I & CLASS II BEDDING SHALL BE #26 OR #68 CRUSHED STONE
  - TRENCH WIDTH SHALL BE OUTSIDE PIPE DIAMETER PLUS 24"
  - COVER OVER PIPE SHALL BE A MINIMUM OF 2 FEET
  - STONE BACKFILL IS REQUIRED TO A DEPTH OF 12" ABOVE TOP OF PIPE
  - CONTRACTOR SHALL HAND COMPACT MATERIAL UNDER PIPE HAUNCHES
  - "NORMAL EARTH FOUNDATION" DETAILS APPLY FOR THE PIPE BACKFILL, BOTH WITH "NO PIPE PROJECTING ABOVE GROUND LINE"
  - SOIL MATERIAL PLACED ABOVE STONED BACKFILL SHALL BE PLACED IN 8" MAXIMUM LIFTS AND COMPACTED TO 90% STANDARD PROCTOR.
- SHOULD THE DEVELOPER CHOOSE TO UTILIZE REINFORCED CONCRETE PIPE, MATERIAL SHALL BE CLASS III, ASTM C443 RUBBER GASKET PIPE.
- THE CONTRACTOR SHALL PLACE IS-1, INLET SHAPING IN ALL DRAINAGE STRUCTURES, INCLUDING EXISTING STRUCTURES WHERE NEW PIPES ARE CONNECTED.
- IF HDPE IS UTILIZED, THE CONCRETE STRUCTURES SHALL INCLUDE A FLEXIBLE BOOT FOR ADEQUATE PIPE CONNECTION TO THE STRUCTURE.

## CLARIFICATION NOTES FOR RISER, TRASH RACK AND ANTI-VORTEX DEVICE:

- RISER SHALL BE A 48-INCH DIA. CONCRETE PRECAST STRUCTURE AS CONSTRUCTED BY HANSON OR APPROVED EQUAL.
- THE STRUCTURE SHALL BE CONSTRUCTED WITH ALL ORIFICES DENOTED WITHIN THE PROFILE.
- THE RISER SHALL UTILIZE A TRASH RACK WITH AN ANTI-VORTEX ASSEMBLY. DIMENSIONS ARE SHOWN ON DETAIL 114.07; ACCEPTABLE SUBSTITUTION MATERIALS EXIST WHEN MANUFACTURED BY HANSON, CONTECH, AND OTHER MANUFACTURERS AS APPROVED EQUALS.
- NOTE 1 ON VDOT DETAIL 114.07 STATES "A HINGED, LOCKABLE ACCESS DOOR SHALL BE PROVIDED IF THE TOTAL WEIGHT EXCEEDS 75 LBS." FOR THIS PROJECT A HINGED, LOCKABLE ACCESS SHALL BE PROVIDED REGARDLESS OF MATERIAL AS THE ORIFICE OPENINGS ARE SMALL DIAMETER.
- THE ANTI-VORTEX PLATE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, BASED ON THE MATERIALS USED TO CONSTRUCT THE DEVICE. CONSTRUCTION OF THE ANTI-VORTEX PLATE FOR HDPE IS DIFFERENT THAN FOR METAL.



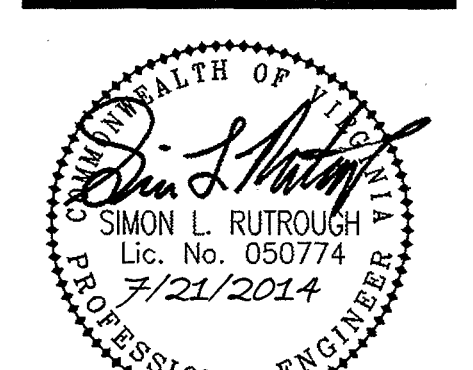
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**Berkley Self Storage Expansions**  
Prepared for  
**Front Street Investments, LLC**  
City of Roanoke, VA

## REVISIONS:

| NO. | DATE         | BY      | REASON            |
|-----|--------------|---------|-------------------|
| 1   | 21 July 2014 | SRB/SLR | Per City Comments |
| 2   |              |         |                   |
| 3   |              |         |                   |
| 4   |              |         |                   |
| 5   |              |         |                   |
| 6   |              |         |                   |
| 7   |              |         |                   |
| 8   |              |         |                   |
| 9   |              |         |                   |
| 10  |              |         |                   |

DESIGNED BY: SRB/SLR

DRAWN BY: SRB/SLR

CHECKED BY: SLR

SCALE: As Shown

DATE: May 20, 2014

## SHEET TITLE:

**Storm Profiles and Details**

C07

07 OF 09

PROJECT NUMBER: 10-0041-01