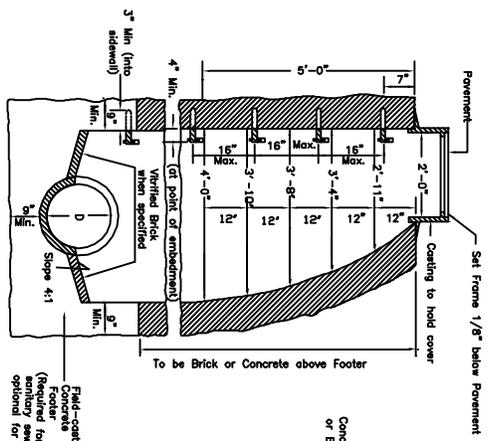
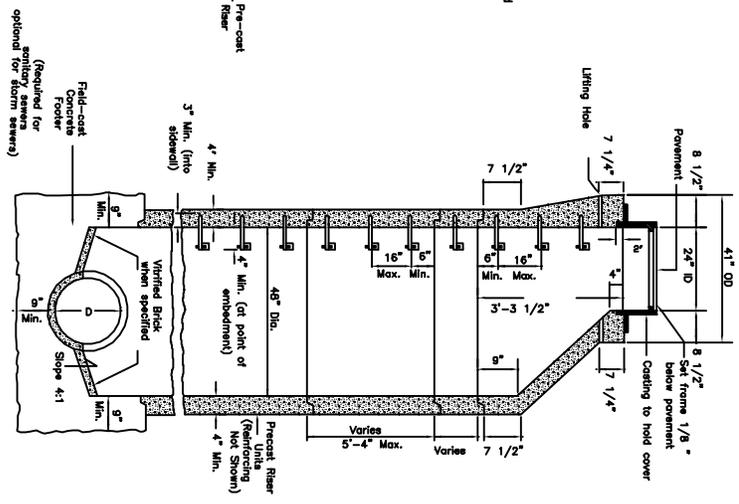
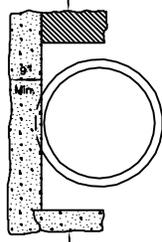


PLAN VIEWS



CAST-IN-PLACE OPTION

CONCRETE BASE  
FOR USE WITH STORM SEWERS ONLY  
May Be Precast



PRE-CAST

NOTES

- Type A Manholes, when specified on the Plans, may be cast-in-place or pre-cast (cast-in-place or pre-cast option) as shown herein.
- Steps, frames, and covers shall be as shown on Standard Sheet DR7-X.
- "Keyed" or "doweled" type construction joints, acceptable to the Engineer, may be used in the construction of concrete manholes.
- If the cast-in-place manhole is over twelve feet (12') in depth, the sidewalls below that depth will be double thickness.
- Pipe at elevations other than shown may be joined to the manhole by cutting a hole the size of the connecting pipe in the manhole, inserting the pipe the thickness of the manhole shell and closing of openings around the connecting pipe with joint mortar.
- Drawing shows pipe entering and leaving manhole in a straight line. However, the pipes may enter or leave at an angle or place as called for or shown on the Plans.
- Minimum height of bench wall above flowline of pipe is 25% of the diameter of the pipes.
- The use of brick for manhole construction will not be allowed when a manhole is located in the roadway.
- The following additional notes are applicable for pre-cast manhole steps shall be placed into plastic concrete wall during manufacture or mortared into holes after the concrete has set.
- Side-wall sections may be used in any combination to produce a manhole of desired depth, except the tapered top section shall be retained as shown.
- The tapered top section shall be manufactured and meet the same requirements as the manhole's sidewalls, but shall conform to the dimensions detailed herein.
- Lifting holes in the tapered top section and the circumferential notches in the manhole cover are for handling purposes only.
- The pre-cast sidewall units shall be set in joint mortar or sealed with O-ring gaskets.

**WEST VIRGINIA DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**STANDARD SHEET DR7-A**

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TYPE A MANHOLE

STANDARD SHEET DR7-A