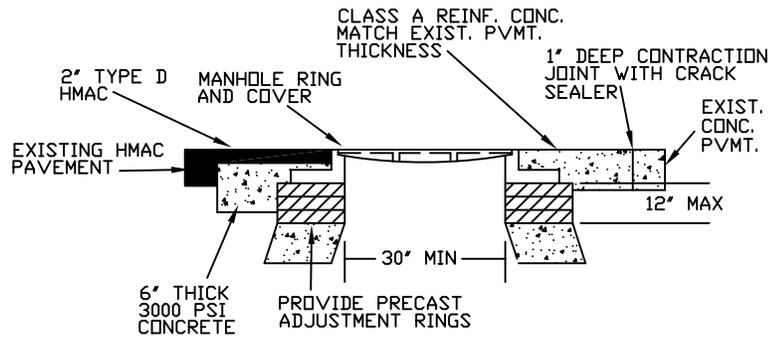
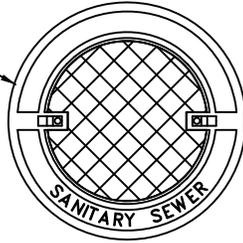


30" Cast Iron Manhole Frame (to be furnished and installed by contractor) Bass and Hayes VRM-30 with pick bars or equal marked "sanitary sewer"



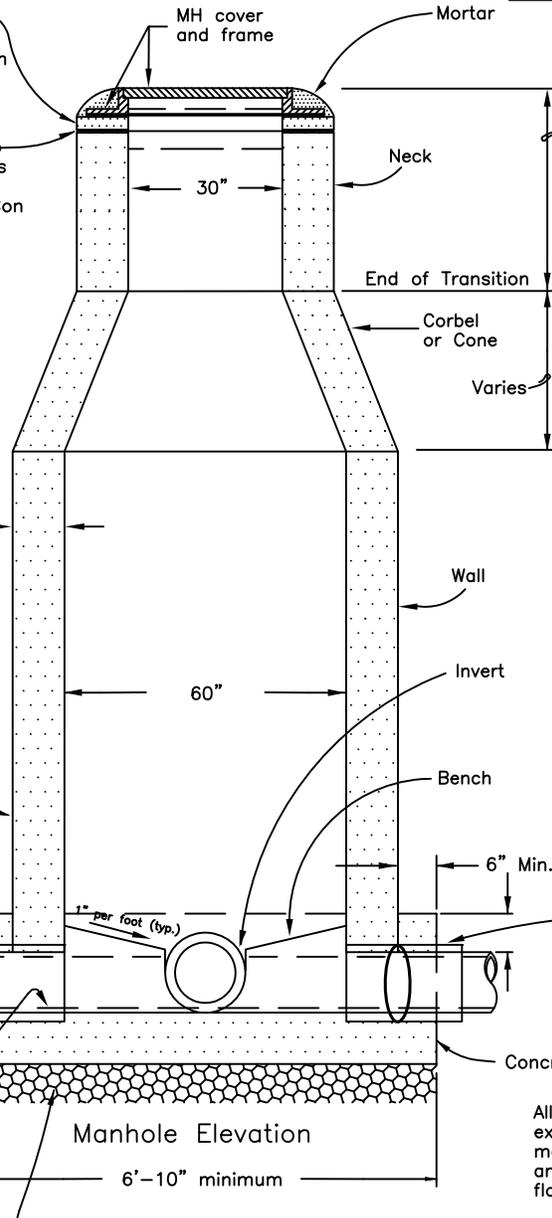
**MANHOLE TOP FOR STREET INSTALLATION**

34" O.D x 30" I.D. Precast Concrete Grade Rings (Plaster exterior and interior surfaces with smooth coats of non-shrink hydraulic cement grout).

Use double ring of 1/2" GS/5 Precast Concrete Sealant, as manufactured by General Sealants, Inc., or CS-102 Con Seal, as manufactured by Concrete Sealants, Inc., to seal ring to concrete and between grade rings. (See Note 1.)

All concrete shall be class A 3,000 psi compressive strength.

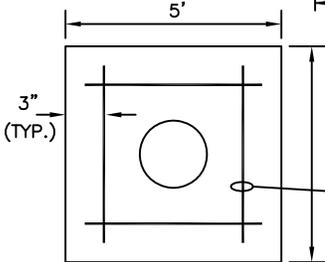
Coat Exterior of manhole with 2 map coats of Themec 450 Heavy Themecol or Koppers Bitumastic Super Service, Black.



Variable, but not to exceed 2' - 6". (See Note 1.)

**Notes:**

1. Grade rings may be used to adjust neck 12" or less. When adjustment is greater than 12", contractor shall use sono tube and place concrete for neck adjustment. Precast concrete grade rings shall be constructed by manufacturer in standard 2", 3", 6", 8" and 12" heights.
2. Contractor shall not remove any forms until 24 hours after concrete is placed. No backfill shall begin until 96 hours after concrete is placed.
3. All manhole inverts shall be full depth of sewer pipes. All inverts shall be formed to center of manhole and shall provide smooth flow transitions.
4. Manholes in undeveloped areas shall be installed with 5'x5'x5" thick concrete pads with cover in center of pad. Pads shall be reinforced with four No. 4 rebars. Install fiberglass MH marker by pad.
5. Contractor shall rub all interior surfaces to a smooth finish.
6. Manhole to be adjusted to final grade prior to paving operation on new concrete streets.
7. Manholes constructed within 100-year flood plain shall have watertight ring and lid.



**MANHOLE PAD FOR NON-TRAFFIC AREAS**

Rubber boot or ring at all pipe penetrations (typ.)

All inverts shall extend throughout manhole bottom and provide smooth flow transitions

All benches shall be slightly higher than top of pipes and slope gently to inverts.

S-04	CAST IN PLACE CONCRETE MANHOLE	
CITY OF BURLESON		
ORIGINAL	10/6/06	SWC
REVISION		
REVISION		
REVISION		