- 2. FOR OPEN CUT SEWER REPLACEMENT, DETECTABLE TRACER (TERRA TAPE OR APPROVED EQUIVALENT) SHALL BE LAID WITH PVC PIPE AND CONNECTED TO ALL FITTINGS. TAPE SHALL BE LAID 6" ABOVE THE TOP OF PIPE, THE BACKFILL MATERIAL, OR ON TOP OF
- 3. SANITARY SEWER PIPE SHALL BE SDR-35 PVC UNLESS OTHERWISE SHOWN ON THE PLANS OR APPROVED BY THE CITY ENGINEER. IN SIZES OVER 15" IN DIAMETER, THE TYPE OF MATERIAL SHALL BE AS SPECIFIED IN THE PLANS.
- 4. MANHOLE FRAMES AND 24" DIAMETER COVER WITH THE "CITY OF ROCKWALL" AS MANUFACTURED BY THE VULCAN FOUNDRY, INC.-CATALOG NO. V-1342, BASS AND HAYS FOUNDRY-CATALOG NO. 300-24, OR APPROVED EQUAL SHALL BE FURNISHED FOR ALL SANITARY SEWER MANHOLES. THIS FRAME AND COVER IS STOCKED BY SEVERAL SUPPLIERS IN THIS AREA.
- 5. CLASS "C" CONC. (3600 PSI AT 28 DAYS) OR PRECAST REINF. CONC. SHALL BE USED FOR ALL MANHOLES.

CLASS H EMBEDMENT

(GRAVITY SEWER)

6. USE ONLY A NON-SHEAR COUPLING FOR PIPE CONNECTIONS.

NATIVE MATERIAL

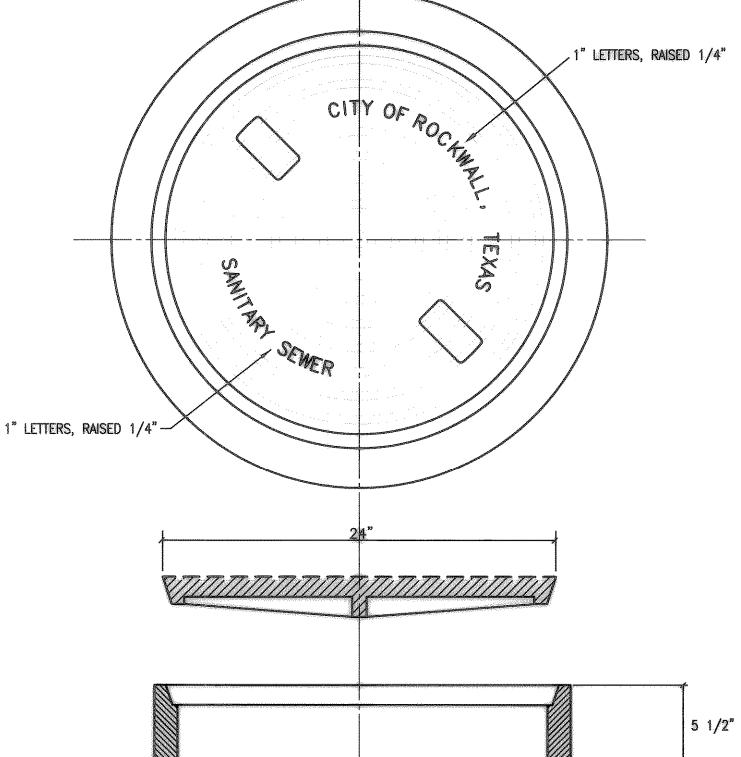
COMPACTED IN

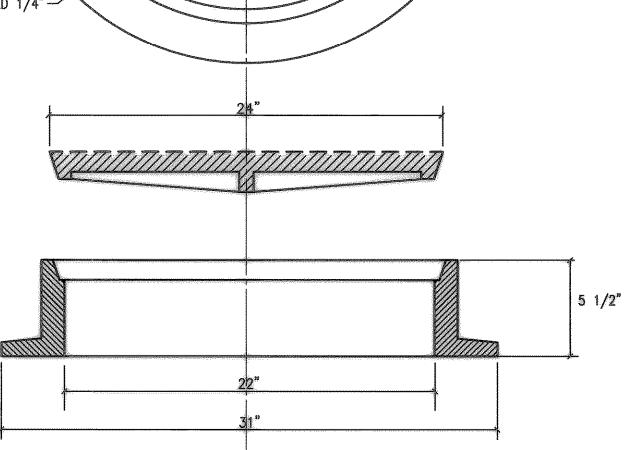
STD. PROCTOR

(NON-GRANULAR)

6" LIFTS TO 95%

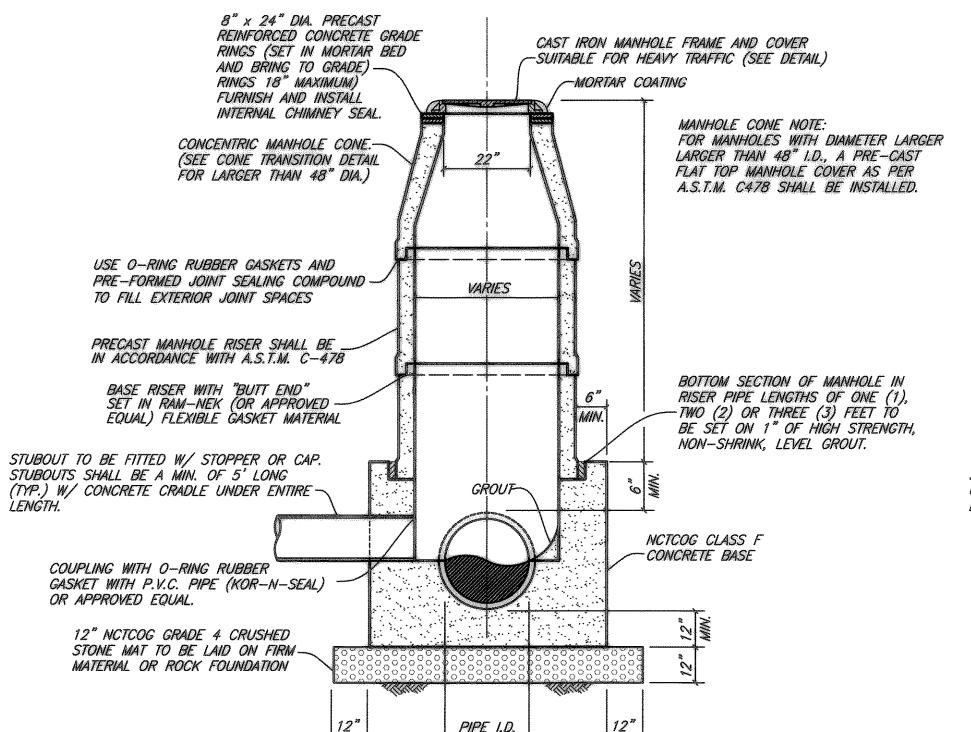
7. WHEN THE TRENCH SAFETY EXCEEDS 5 FEET IN DEPTH, THE CONTRACTOR SHALL MEET OR OR EXCEED THE O.S.H.A. STANDARDS FOR TRENCH SAFETY.





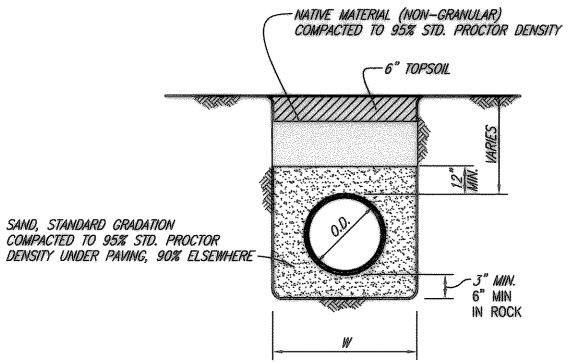
MANHOLE RING AND COVER WITH LOCKING DEVICE & PICK SLOTS

BASS AND HAYES FOUNDRY, INC. TRAFFIC BEARING MANHOLE: 400-24 NON TRAFFIC BEARING MANHOLES: 300-24



GRADE 4 CRUSHED STONE (NCTCOG ITEM 2.1.8 (a))

.1/8 O.D. (3" MIN., 6" MIN. IN ROCK)



CLASS B-3 EMBEDMENT

(PRESSURE PIPE)

INITIAL CUT FOR INITIAL CUT FOR PIPE INSTALLATION PIPE INSTALLATION UNDISTURBED NO. 3 DEFORMED FULL DEPTH SAW CUT BARS @ 12" O.C.E.W. MIN. TRENCH BANK LONGITUDINAL BUTT JOINT (LAP EXIST. REINF. 12") REMOVE & REPLACE EXIST. CONC. PVMT. 6" MIN. 3600 P.S.I. CONCRETE EXIST. CONC. PUNT. (TO REMAIN INTACT) (NCTCOG CLASS C, MATCH EXIST. THICKNESS PLUS 2 INCHES) NON-GRANULAR OR SELECT MATERIAL PROP. SAN. SEW. CRUSHED STONE (NCTCOG GRADE 4)

CONCRETE STREET OR DRIVEWAY REPAIR

CLASS G EMBEDMENT

CONCRETE ENCASEMENT

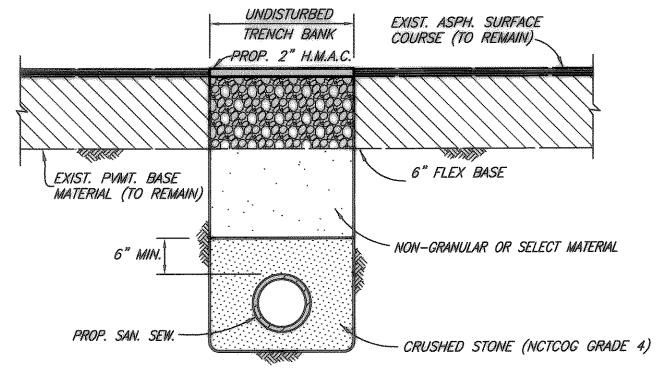
NATIVE MATERIAL

COMPACTED IN 6" LIFTS TO 95%-

STD. PROCTOR

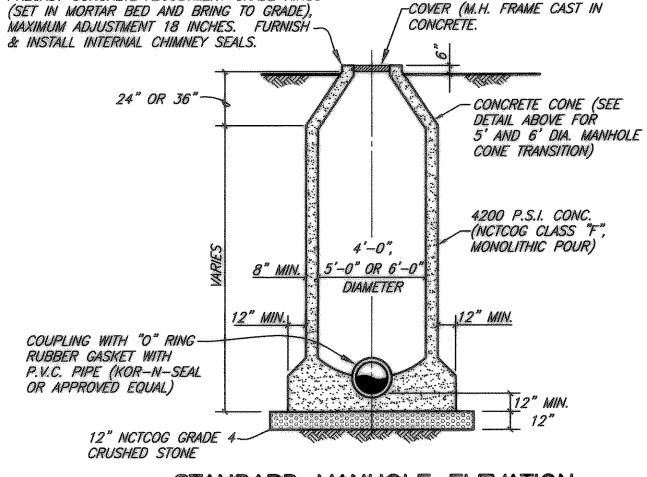
BRICK OR

CONC. BLOCK-



ASPHALT STREET OR DRIVEWAY REPAIR

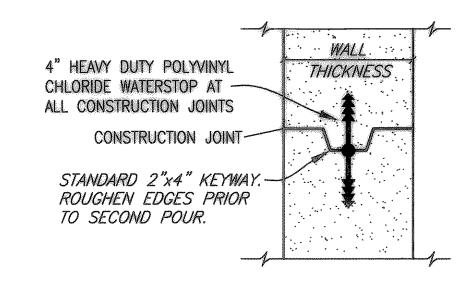
CAST IRON M.H. FRAME &



PRECAST CONCRETE ADJUSTMENT GRADE RINGS

STANDARD MANHOLE ELEVATION 4'. 5' & 6' DIAMETER MANHOLES

SANITARY SEWER MANHOLE (CAST IN PLACE)



-NCTCOG ITEM 7.4.5

CLASS "B" CONCRETE

MANHOLE CONSTRUCTION JOINT KEYWAY WITH WATERSTOP

This record drawing is a compilation of the sealed engineering drawing for this project; modified by addenda, change orders and information furnished by the contractor. The information shown on the record drawings that was provided by the contractor or others not associated with the design engineer cannot be verified for accuracy or completeness. This original sealed drawings are on file at the offices of Birkhoff, Hendricks & Conway, L.L.P.

BY <u>PAC</u> DATE <u>1/19/07</u>

These plans and related specifications were prepared for construction of this specific project only. Reuse of these documents is not permitted without written authorization of Birkhoff, Hendricks & Conway, L.L.P.

SHEET NO.

CITY OF ROCKWALL, TEXAS

AMITY LANE SAN. SEW. IMPROVEMENTS **DETAILS**

> BIRKHOFF, HENDRICKS & CONWAY, L.L.P. CONSULTING ENGINEERS

Dallas, Texas PROJECT: 2002-104 DESIGNED BY: P.A.C. DATE: SEPTEMBER, 2004 OF 19 SHEETS

PRECAST CONCRETE MANHOLE

ALL JOINTS IN PRECAST MANHOLE SHALL BE SEALED ON OUTSIDE OF MANHOLE WITH AQUAGARD SHRINK SEAL.

THESE DOCUMENTS ARE FOR BIDDING, CONSTRUCTION, AND PERMIT_PURPOSES.

PAUL A. CARLINE

85400