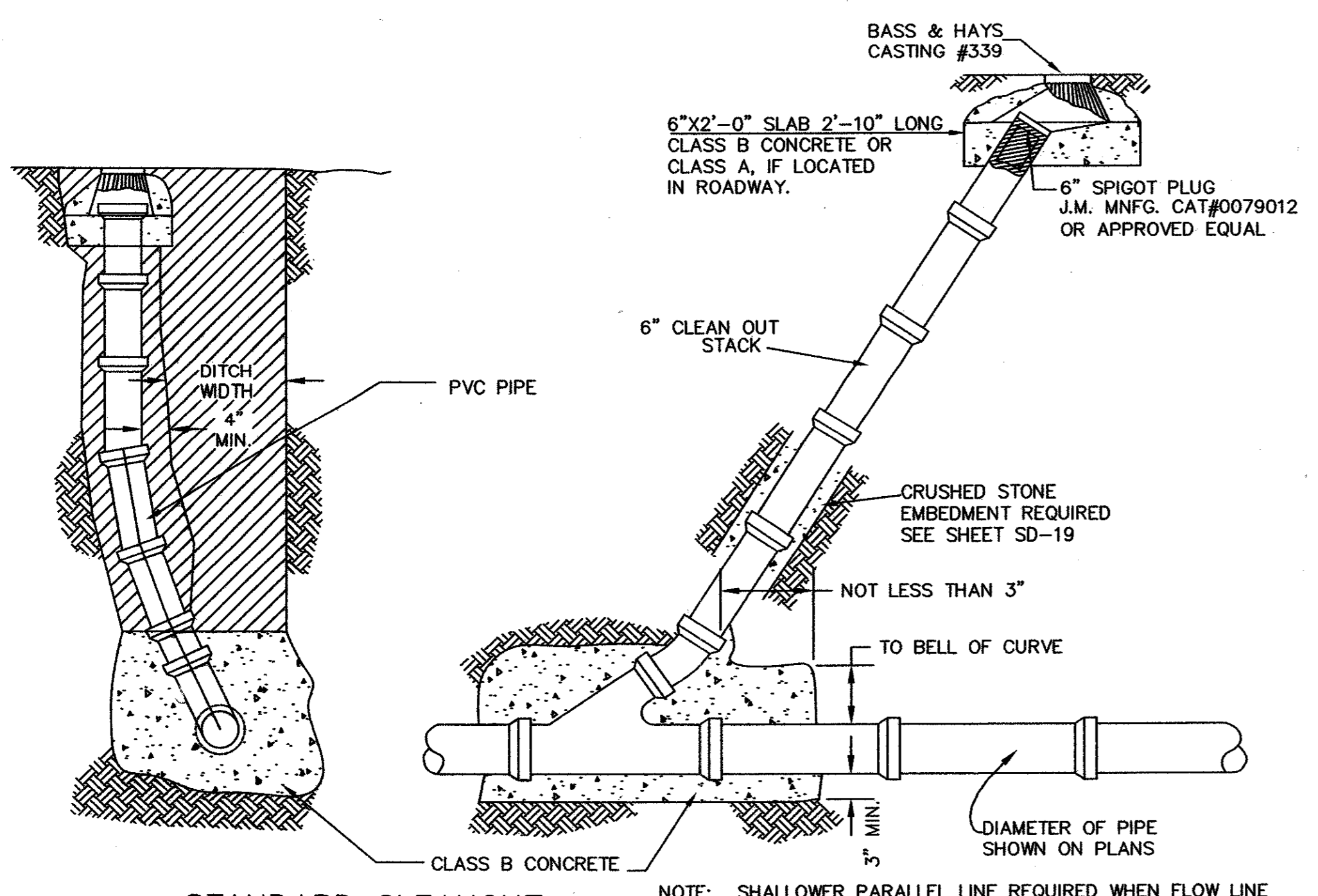
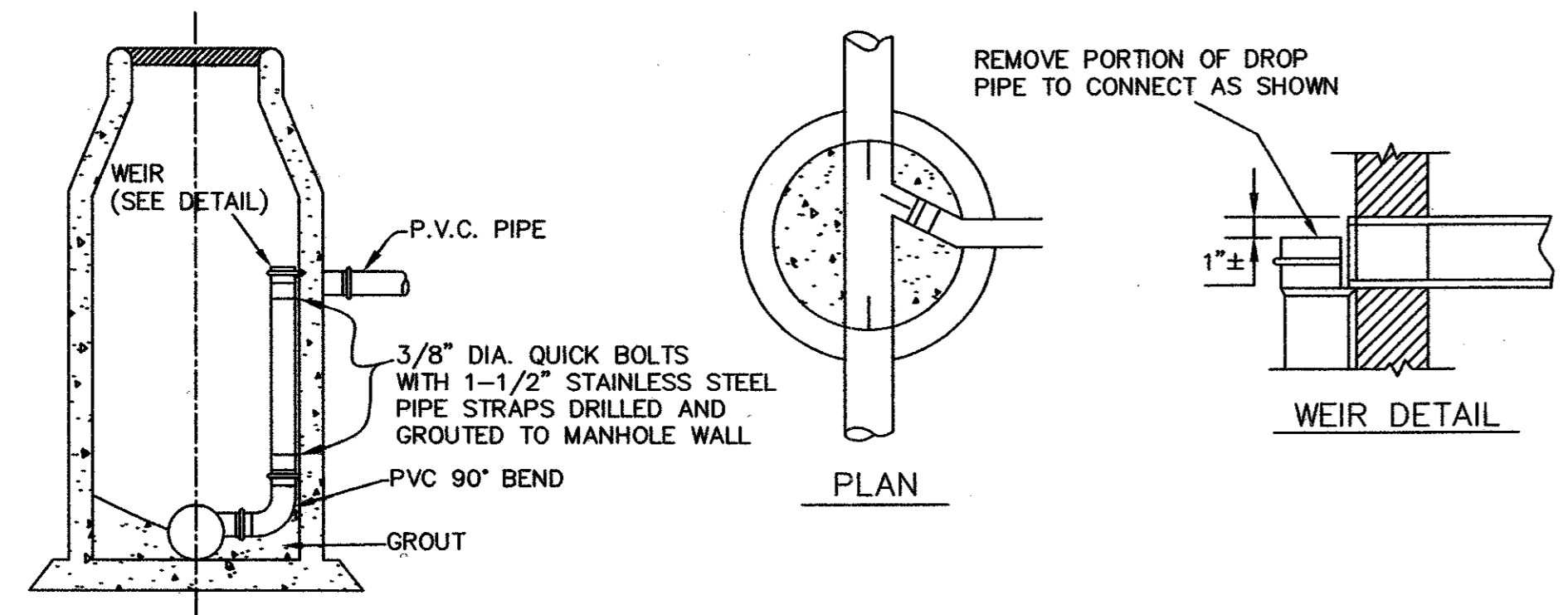


NO.	DATE	REVISION	APPROV.
1	06/01/04	REVISE GENERAL NOTES & REMOVED DETAILS	A.K.C.
2			
3			



STANDARD CLEANOUT
N.T.S.

NOTE: SHALLOWER PARALLEL LINE REQUIRED WHEN FLOW LINE OF SANITARY SEWER EXCEEDS 12 FT. DEPTH. VERTICAL DROP CONNECTIONS NOT PERMITTED.

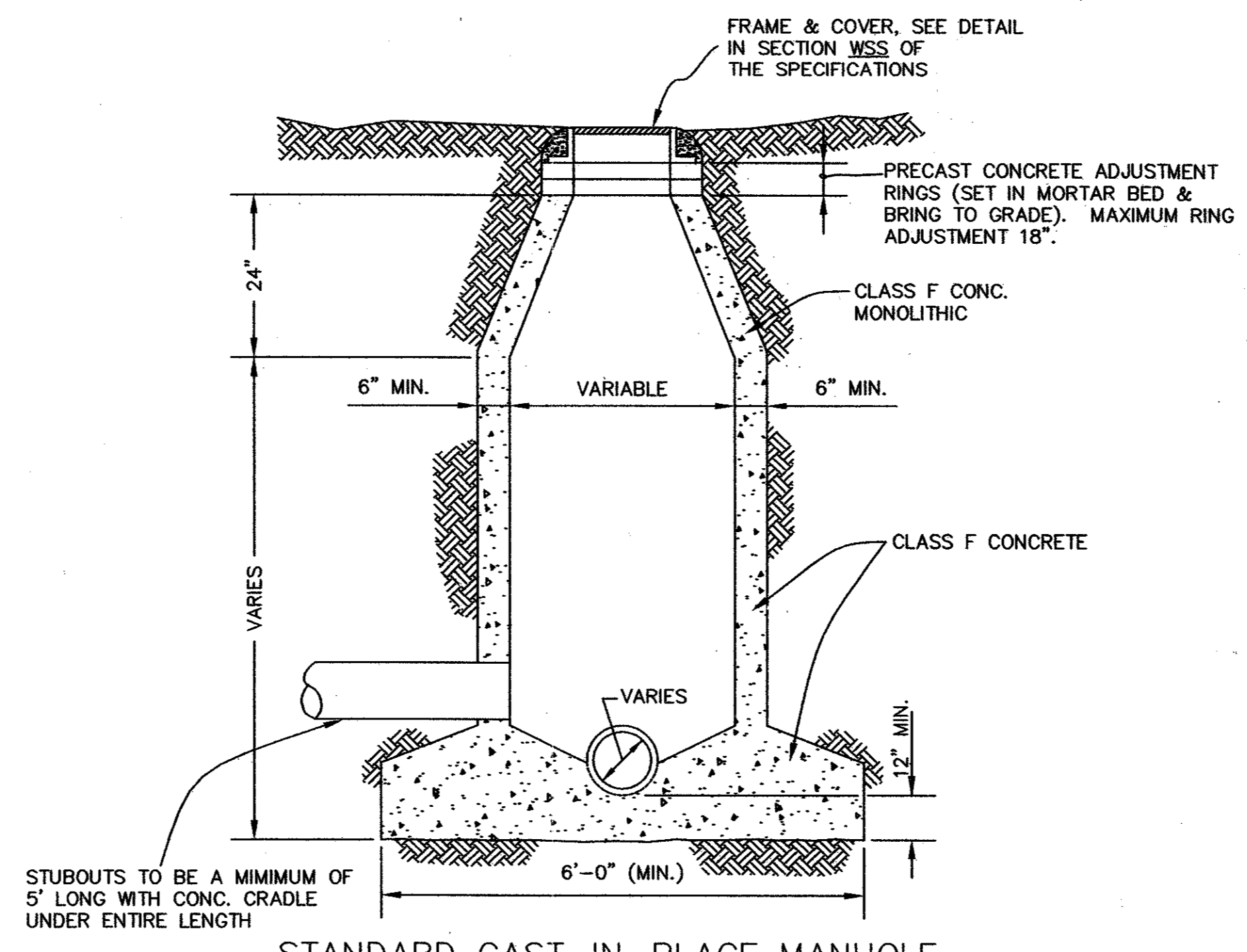


ELEVATION DROP MANHOLE

GENERAL NOTES

- ALL SANITARY SEWER PIPE MAINS SHALL BE PVC SDR-35 PIPE. LATERALS SHALL BE PVC SDR-35 PIPE.
- SANITARY SEWER PIPE JOINTS SHALL CONFORM TO CURRENT ASTM DESIGNATIONS FOR PVC PIPE.
- ALL SANITARY SEWER LATERALS SHALL INCLUDE TEE, WYE BEND, PIPE, AND STANDARD CLEANOUT INSTALLED AT THE PROPERTY LINE OF EACH LOT, UNLESS OTHERWISE INDICATED ON THE PLANS. 6" OR LARGER LATERALS REQUIRE M.H. AT MAIN SEWER PIPE. LATERALS SHALL HAVE A MIN SLOPE OF 1/8" / 1'.
- UNLESS OTHERWISE NOTED, ALL MATERIAL AND CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS.
- THE LOCATION OF ALL MANHOLES, CLEANOUTS, AND SERVICES SHALL BE MARKED ON THE STREET, PARKING OR ALLEY CURB, AS DIRECTED BY THE CITY ENGINEER.
- PVC PIPE SHALL BE MANUFACTURED FROM A LOW FILLER PVC COMPONENT CAPABLE OF MEETING THE HIGHEST PERFORMANCE STANDARDS OF THE ASTM SPECIFICATIONS.
- ALL PVC PIPE INSTALLED SHALL BE TESTED FOR DEFLECTION. THE DEFLECTIONS TEST SHALL BE USED TO DETERMINE ADEQUACY OF PIPE, BEDDING, BACKFILL, AND INSTALLATION. THE TEST SHALL CONSIST OF HAND PULLING A MANDREL SIZED AT 95% OF THE INSIDE DIAMETER OF THE PIPE FROM MANHOLE TO MANHOLE AT LEAST 30 DAYS AFTER BACKFILLING.
- THE CONTRACTOR SHALL PLACE CONCRETE ENCASEMENT IN SUCH A MANNER THAT ALL PIPE INSTALLATIONS MEET THE SPECIFICATION DEFLECTION REQUIREMENTS. CONCRETE ENCASEMENT, AS SHOWN ON DRAWINGS, SHALL END AT A PIPE JOINT IN EACH CASE. (NO SEPARATE PAY ITEM FOR CONCRETE ENCASEMENT)
- ALL MAIN LINE, LATERAL AND SERVICE TRENCHES SHALL BE BACKFILLED WITH CEMENT STABILIZED SAND. IF THE PIPE IS CONCRETE ENCASED, THE CEMENT STABILIZED SAND SHALL EXTEND FROM THE TOP OF THE CONCRETE ENCASEMENT TO THE TOP OF THE TRENCH. (NO SEPARATE PAY ITEM FOR CEMENT STABILIZED SAND).

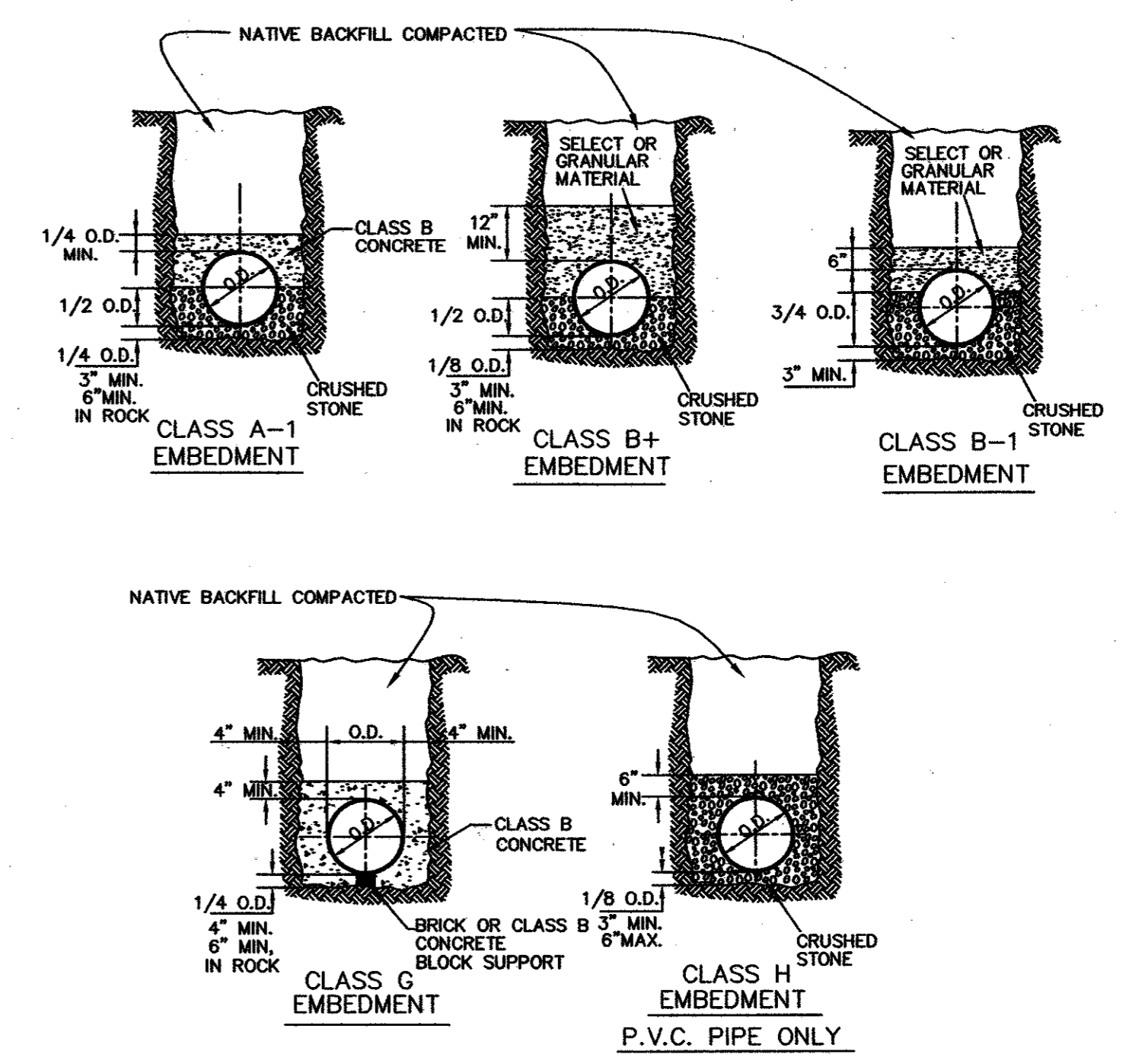
SEE SECTIONS IR & WSS OF THE TECHNICAL SPECIFICATIONS FOR TESTING INFORMATION.



STANDARD CAST-IN-PLACE MANHOLE

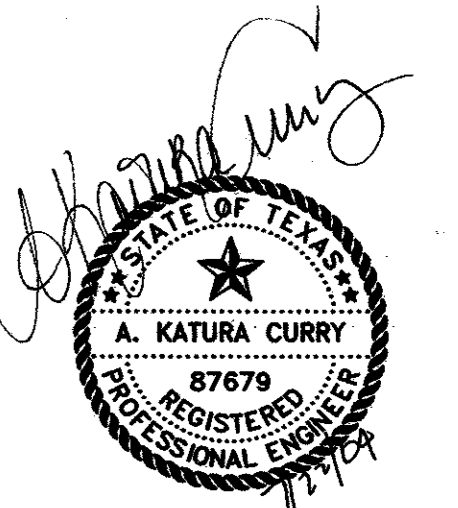
CAST-IN-PLACE NOTES:

- KEYWAYS REQUIRED FOR ALL CONSTRUCTION JOINTS.
- P.V.C. WATER STOP REQUIRED FOR ALL JOINTS IN LOWER 4'-0" OF MANHOLES.



NOTES:

- TYPE OF EMBEDMENT OR ENCASEMENT SHALL BE SHOWN IN THE PROFILES FOR ALL LINES. LOAD CALCULATIONS SHALL BE SUBMITTED TO THE CITY ENGINEER.
 - NO WATER JETTING OR FLOODING ALLOWED UNDER PAVEMENTS. NO WATER JETTING OR FLOODING ALLOWED IN CLAY MATERIALS. JETTING PROCEDURE SHALL BE APPROVED BY THE CITY ENGINEER.
 - ALL EMBEDMENT MATERIALS SHALL BE COMPACTED TO 90% STANDARD PROCTOR DENSITY EXCEPT UNDER FUTURE PAVING. UNDER FUTURE PAVING, EMBEDMENT MATERIALS SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY AND AS SHOWN ON PAVEMENT REPLACEMENT DETAIL ON SHEET SD-17.
 - CLASS B CONCRETE MIN. 4 SACK, WATER CEMENT RATIO 8; 28-DAY MINIMUM STRENGTH, 2000 PSI.
 - CRUSHED STONE GRADATION (AGGREGATE GRADE 4)
- | SIEVE SIZE | % RETAINED |
|------------|------------|
| 1-1/2 INCH | 0 |
| 1 INCH | 0-5 |
| 1/2 INCH | 40-75 |
| NO. 4 | 90-100 |
| NO. 8 | 95-100 |
- GRANULAR MATERIAL SHALL BE FREE FLOWING SUCH AS SAND OR HYDRAULICALLY GRADED CRUSHED STONE FINES, OR MIXED SAND & GRAVEL OR SANDY LOAM. THE MATERIAL SHALL BE FREE OF CLAY AND ORGANIC MATTER AND SHALL NOT CONTAIN LUMPS OR STONES OVER 2 INCHES IN DIAMETER.
 - SELECT MATERIAL SHALL BE GRAVEL, FINE ROCK CUTTINGS, SAND, SANDY LOAM, AND MATERIALS FREE OF CLAY AND ORGANIC MATTER. ROCK CUTTINGS SHALL HAVE NO DIMENSION OVER 2 INCHES.



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY:
A. KATURA CURRY
ON 7-21-04.
ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DATE:	MAY 2004	SCALE:	NOT TO SCALE	JOB NO.:	320
DRAWN:	G&A	DESIGN:	BRG	REVIEWED:	BRG
ARAPAHO ROAD PHASE III					
STANDARD CONSTRUCTION DETAILS					
SANITARY SEWER					
TOWN OF ADDISON					
g&a			Grantham & Associates, Inc.		
1919 S. SHILOH ROAD, SUITE 310, L.B. 8 GARLAND, TEXAS 75042			(972) 864-2333 (TEL) (972) 864-2334 (FAX)		

SHT. SS-7