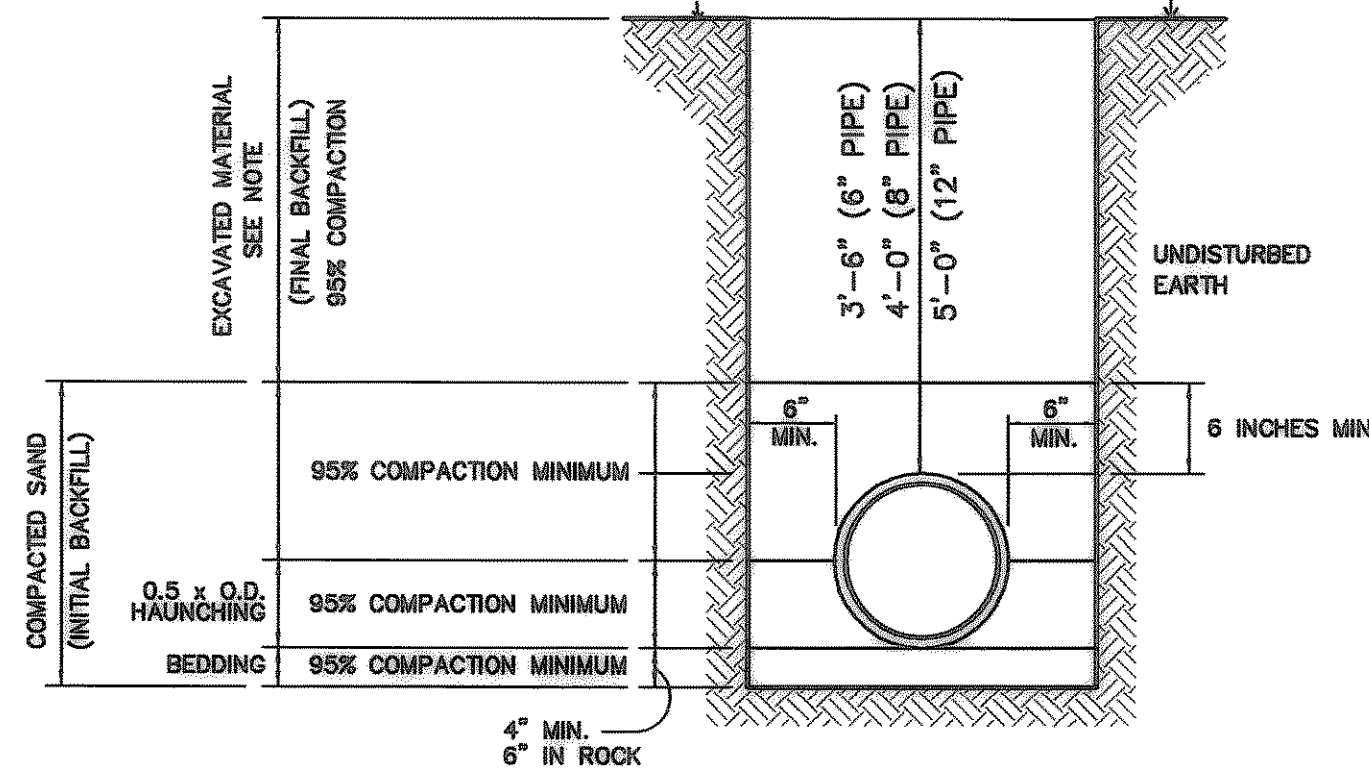
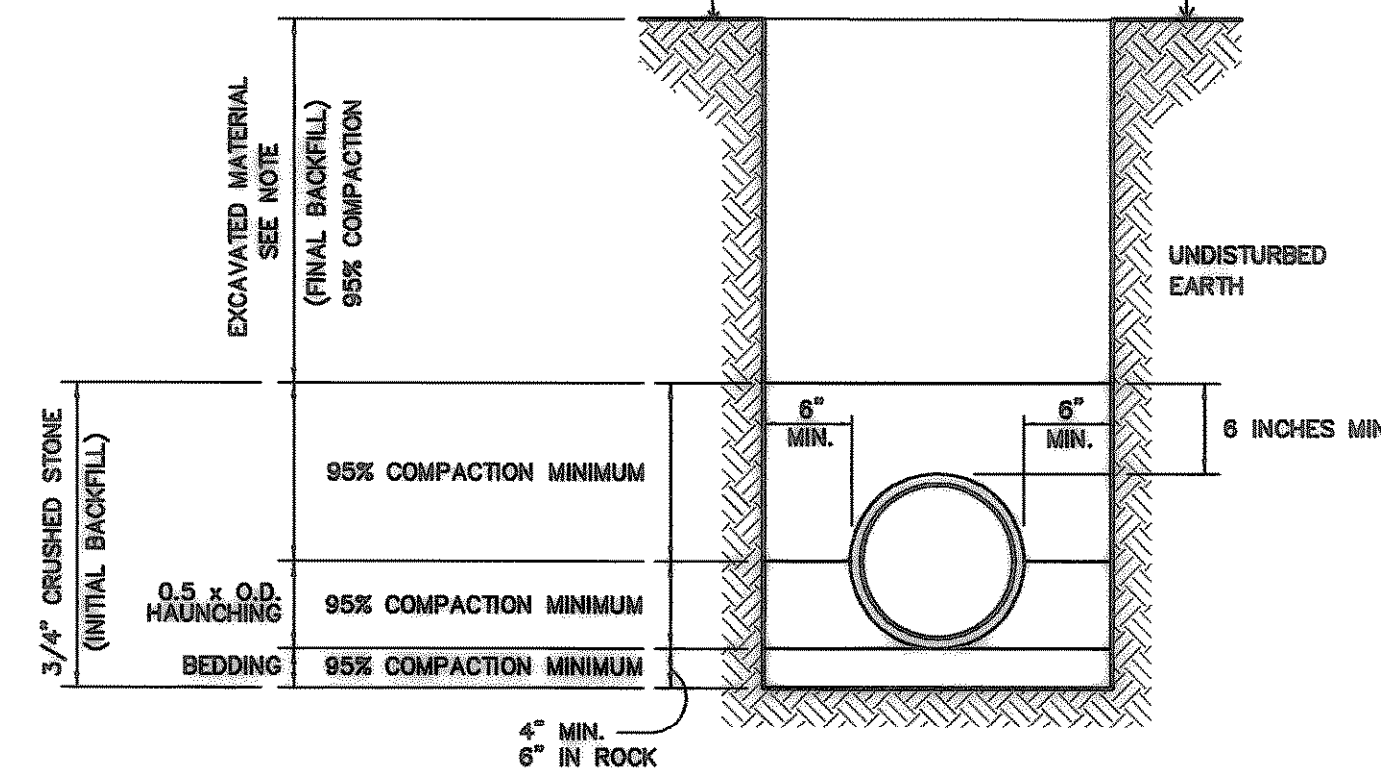


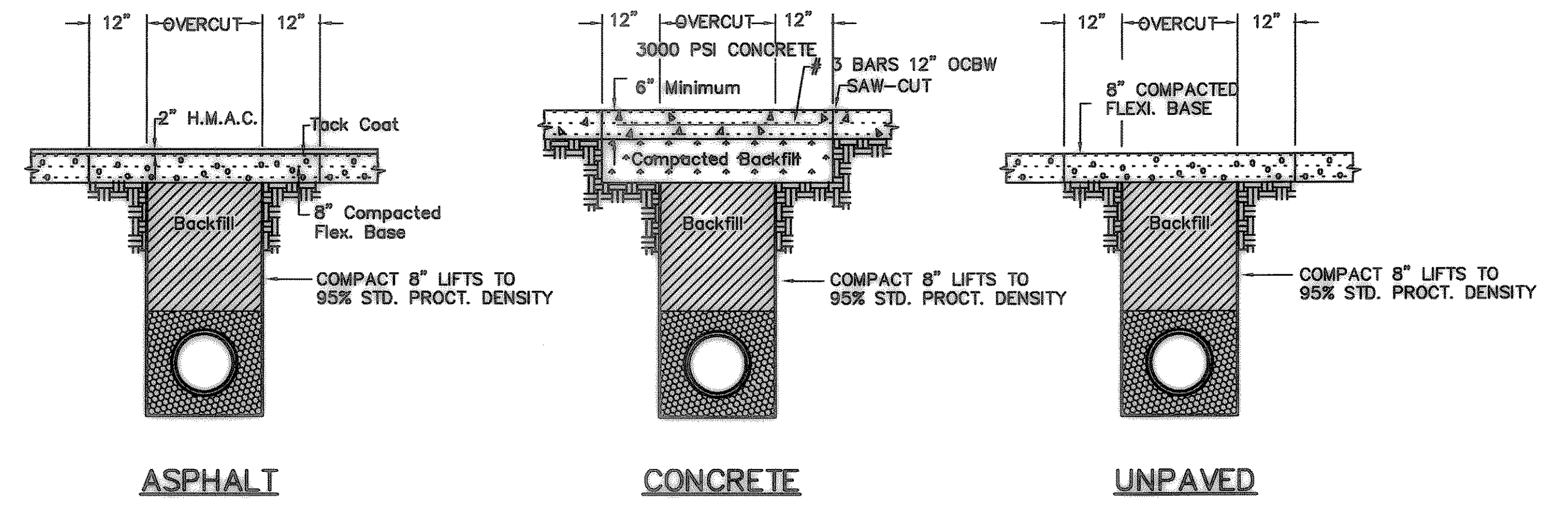
NOTE:
EXCAVATED MATERIAL MAY BE USED IN THE TRENCH BACKFILL, PROVIDED, (1) THAT ALL HARD ROCK AND STONES HAVING ANY DIMENSIONS GREATER THAN 6" IN DIAMETER AND FROZEN EARTH, DEBRIS AND ROOTS LARGER THAN TWO INCHES ARE REMOVED; AND (2) THE MATERIAL IS APPROVED BY THE OWNER.



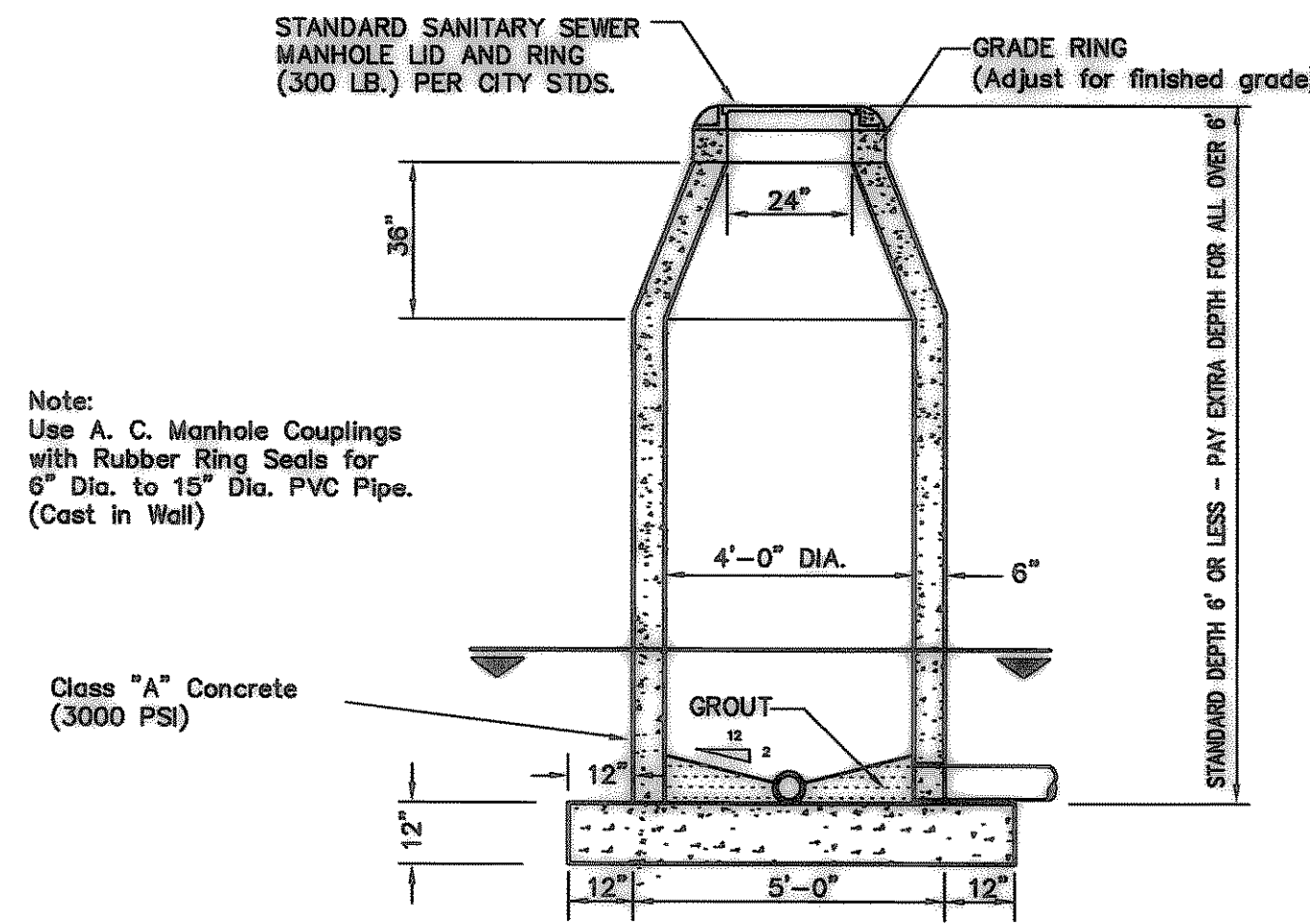
TRENCH SECTION - C900 PVC WATER PIPE
SCALE: NONE



TRENCH SECTION - SDR 35 - PVC SEWER PIPE
N.T.S.

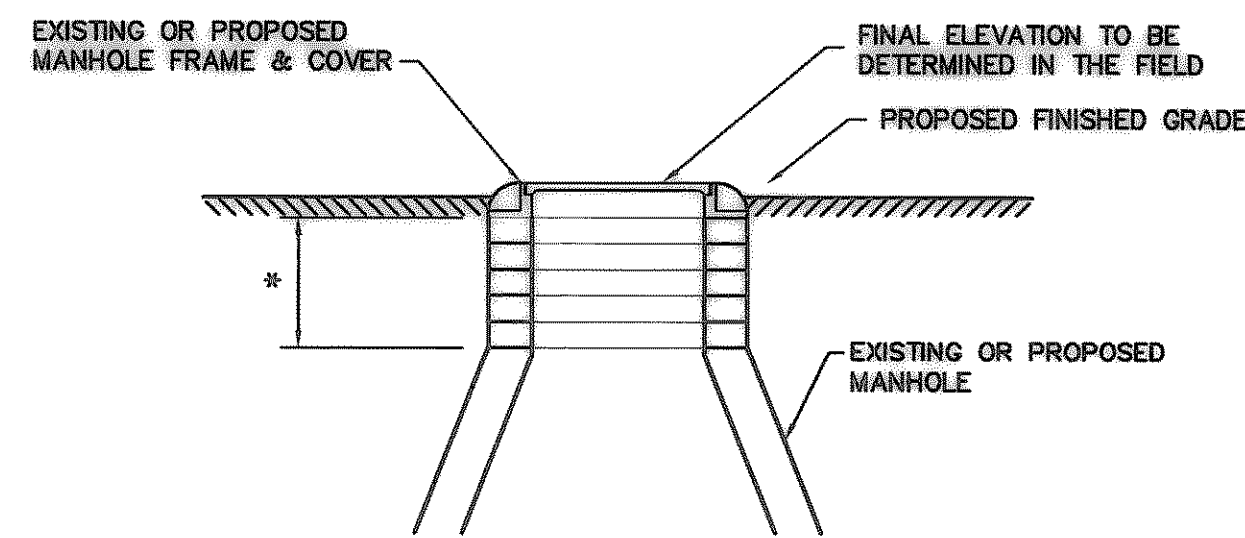


DRIVEWAY AND STREET REPAIR DETAIL
SCALE: NONE



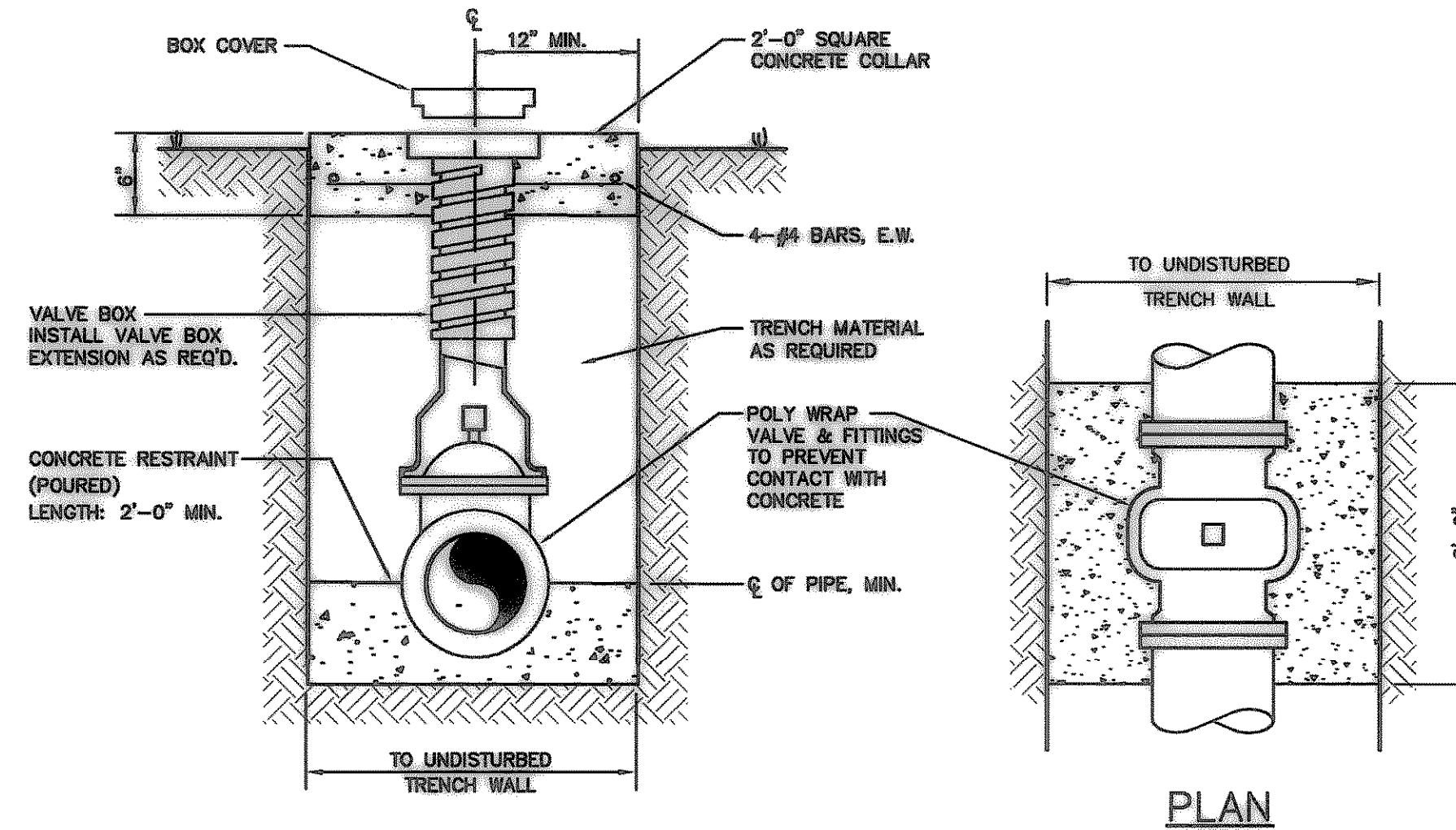
STANDARD MANHOLE SECTION
SCALE: NONE
(CAST IN PLACE)

MANHOLE DETAILS
SCALE: NONE



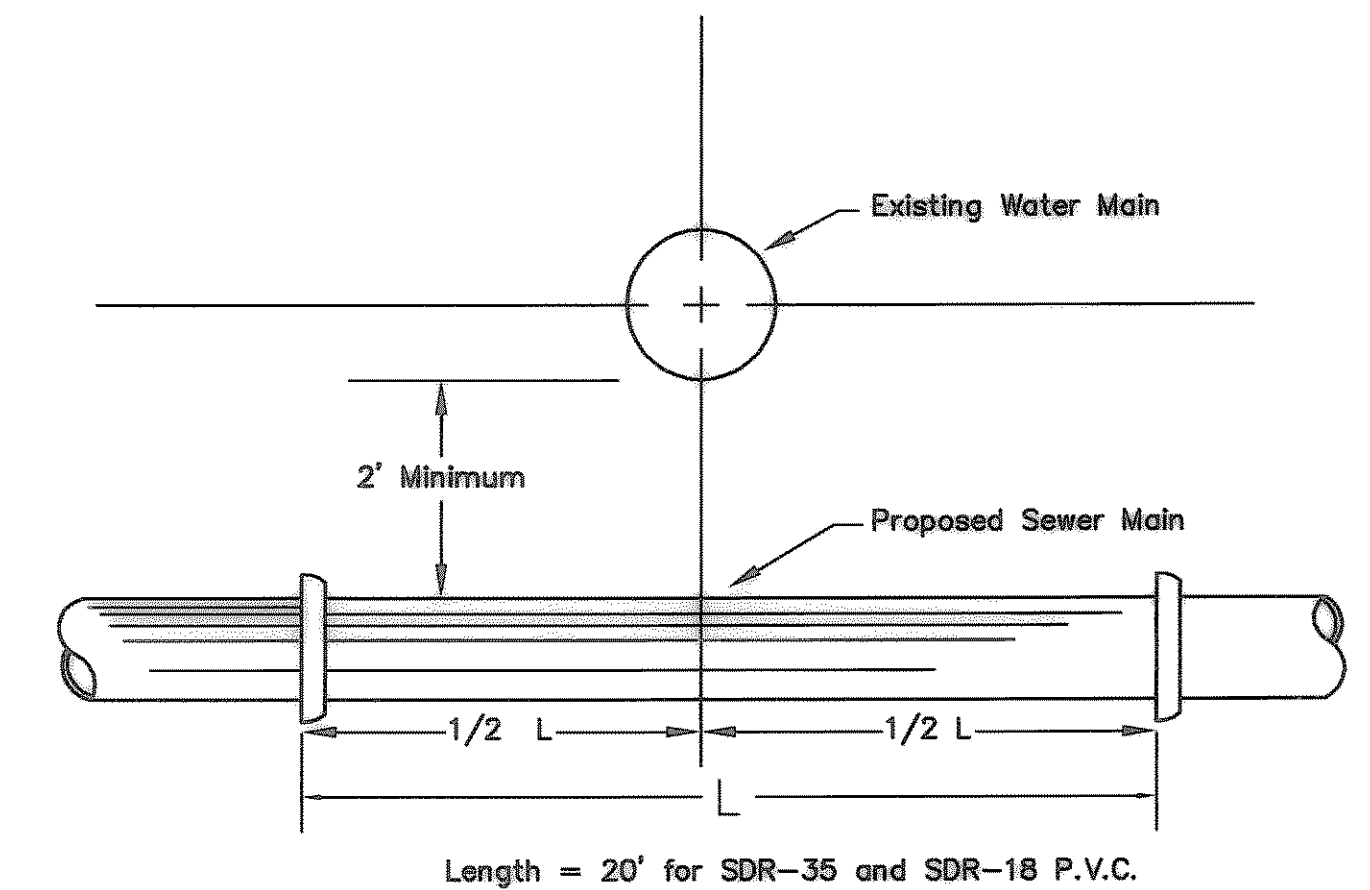
* CONCRETE ADJUSTING RINGS OR POURED IN PLACE CONCRETE, AS REQ'D., MAX. 24"

MANHOLE ADJUSTMENT
SCALE: NONE

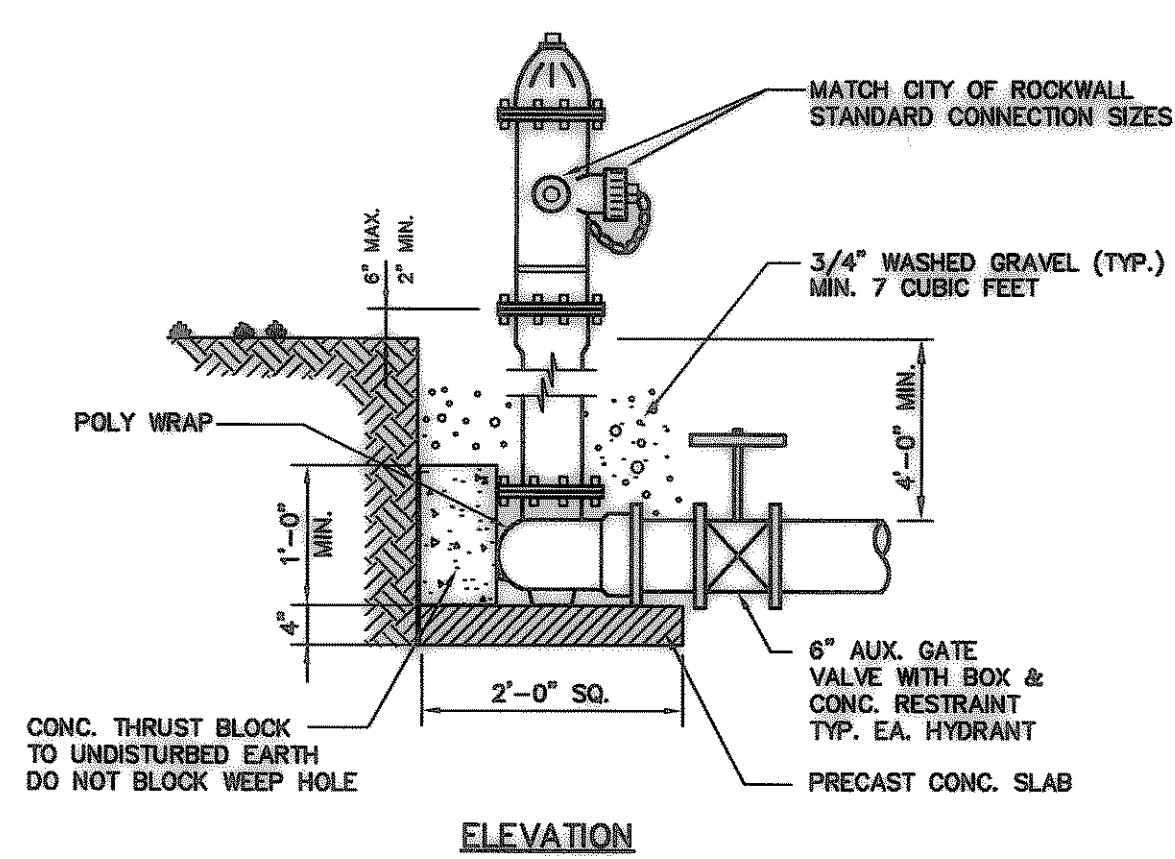


VALVE & VALVE BOX CONC. RESTRAINT
SCALE: NONE

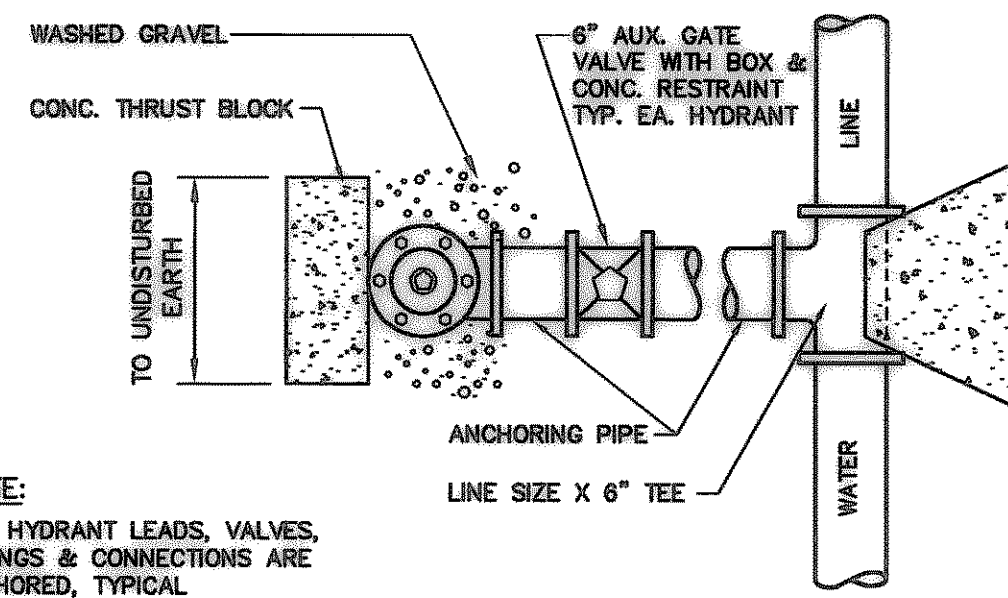
NOTES:
TYPICAL ALL VALVES, 3,000 PSI CONCRETE COLLARS SHALL BE PLACED AFTER TRENCH COMPACTION, SETTLEMENT AND FINAL GRADING HAVE TAKEN PLACE. A PERMANENTLY ATTACHED VALVE OPERATING NUT EXTENSION STEM SHALL BE INSTALLED ON ALL VALVES WITH OPERATING NUTS EXCEEDING 4'-0" BELOW THE TOP OF THE VALVE BOX. THE EXTENSION SHALL BRING THE OPERATING NUT TO 4'-0" OR LESS TO THE TOP OF THE VALVE BOX.



DETAIL - WATER & SEWER MAIN CROSSING
SCALE: NONE



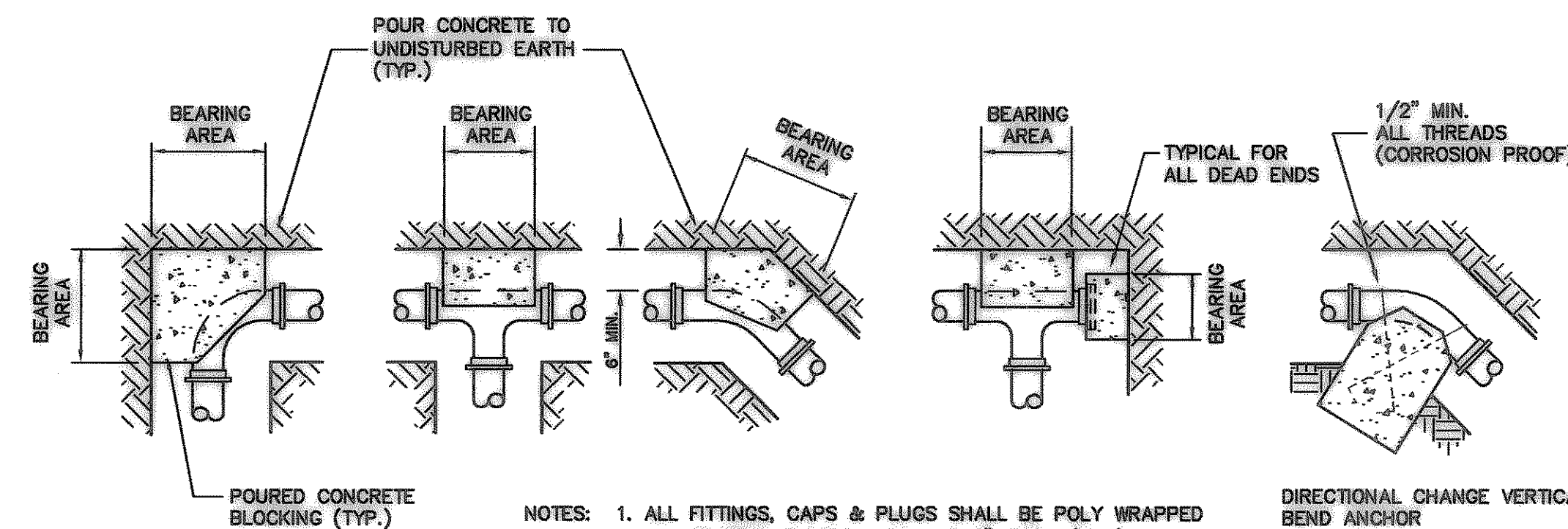
ELEVATION



PLAN

NOTE:
1. FIRE HYDRANT LEADS, VALVES, FITTINGS & CONNECTIONS ARE ANCHORED, TYPICAL

TYPICAL FIRE HYDRANT SETTING
SCALE: NONE



NOTES:
1. ALL FITTINGS, CAPS & PLUGS SHALL BE POLY WRAPPED
2. ALL BEARING BLOCKS SHALL BE 6" THICK (MIN.)

FITTING SIZES	MIN. BEARING AREA OF BLOCK IN SQ. FT. (UNLESS OTHERWISE INDICATED ON THE PLANS)				
	TEE & END	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
TO 6"	3.6	5.4	2.5	2.0	2.0
8"	6.3	8.9	4.8	2.5	2.0
10"	9.9	13.9	7.6	3.9	2.0
12"	14.2	20.0	10.9	5.6	2.8
16"	25.1	35.5	19.2	9.8	4.9

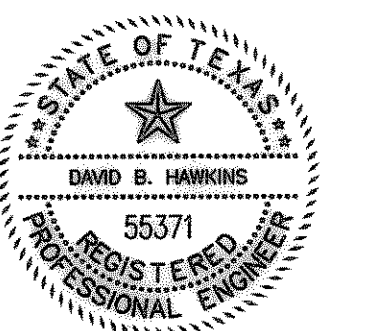
SOIL BEARING PRESSURE	MULTIPLIER
1000	2.0
1500	1.33
2000	1.0
3000	0.67

PRESSURE LINE THRUST BLOCKING
SCALE: NONE

RECORD DRAWINGS

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER HAS NOT VERIFIED THE ACCURACY OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT OF WHICH MAY BE ASSOCIATED WITH THE INFORMATION PROVIDED. JOHN E. HAWKINS & ASSOCIATES, INC.

By: _____ Date: 2/16/02



REVISION	DATE	DESCRIPTION	TAN	SHEET NO.
2	10/23/02	EDITED DETAILS, AS PER CITY REMARKS	JTB	C17
1	8/16/02	GENERAL REVISIONS	BY	

JOHN E. HAWKINS & ASSOCIATES, INC.
CONSULTING ENGINEERS SINCE 1957
103 E. VIRGINIA ST. SUITE 206
MCKINNEY, TEXAS 75069, 972-548-2678

**JAMES LITTLEPAGE
CULVER'S RESTAURANT
UTILITY DETAILS**

Scale: NONE Date: AUG '02 Job No. 776.2
Dsn. By: DBH Dwn. By: AEP Ckd. By: DBH