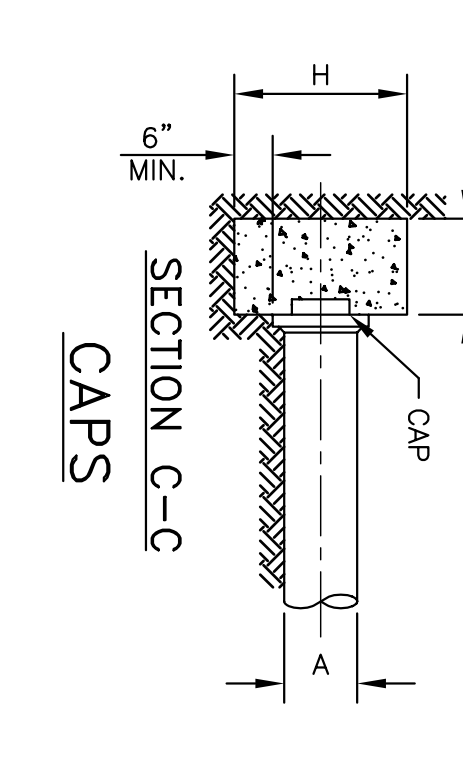
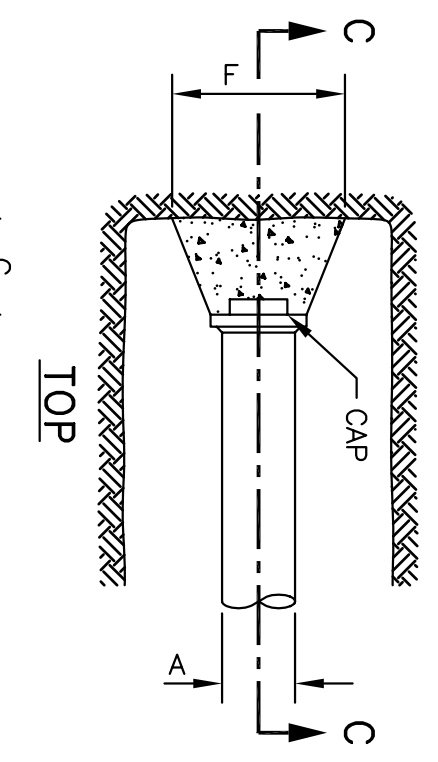
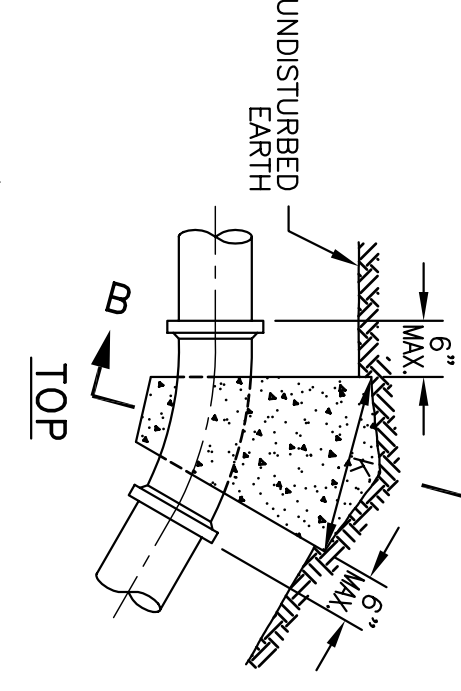


TEES

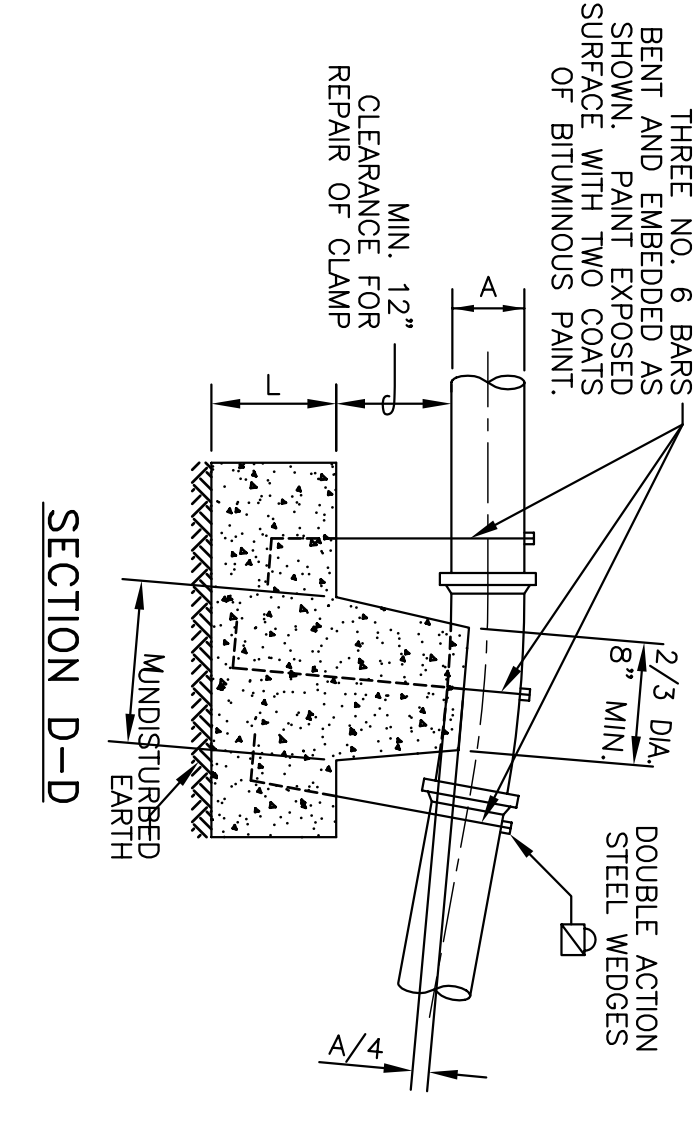


CAPS



HORIZONTAL BENDS

ANCHORAGE FOR VERTICAL BENDS



PIPE SIZE	6"	8"	10"	12"	16"
A	6"	8"	10"	12"	16"
B	7"	9"	10"	12"	14"
C	7"	9"	13"	15"	26"
D	10"	10"	10"	12"	14"
E	1.5"	2"	2.5"	3"	4"
F	1.5"	2.1"	3.0"	3.8"	5.6"
G	6"	8"	10"	10"	12"
H	16"	18"	20"	22"	26"
J	10"	12"	14"	16"	20"
K	11 1/4"	12"	12"	16"	18"
L	11 1/4"	12"	12"	16"	18"
M	11 1/4"	12"	12"	16"	18"
N	11 1/4"	12"	12"	16"	18"
O	11 1/4"	12"	12"	16"	18"
P	11 1/4"	12"	12"	16"	18"
Q	11 1/4"	12"	12"	16"	18"
R	11 1/4"	12"	12"	16"	18"
S	11 1/4"	12"	12"	16"	18"
T	11 1/4"	12"	12"	16"	18"
U	11 1/4"	12"	12"	16"	18"
V	11 1/4"	12"	12"	16"	18"
W	11 1/4"	12"	12"	16"	18"
X	11 1/4"	12"	12"	16"	18"
Y	11 1/4"	12"	12"	16"	18"
Z	11 1/4"	12"	12"	16"	18"

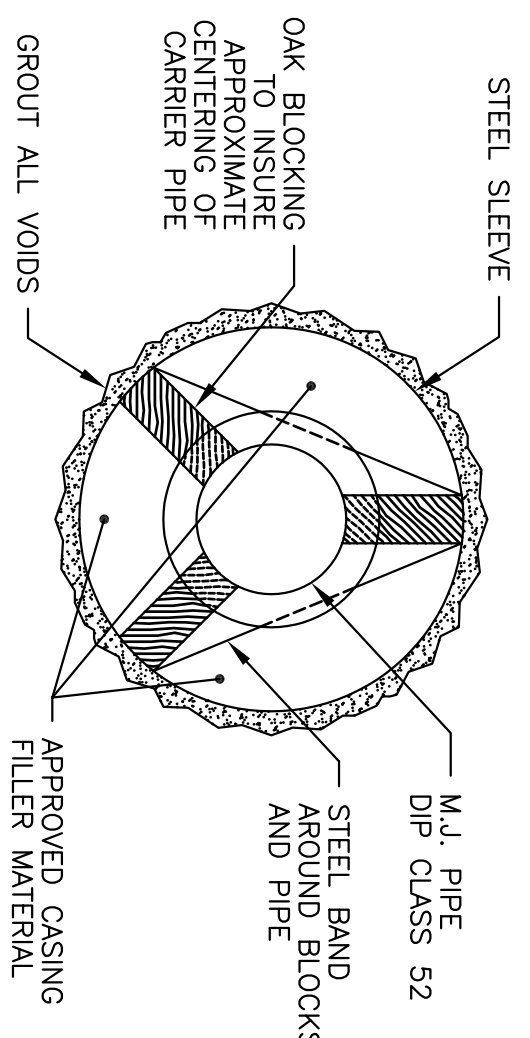
NOTES:

- CARRY CONCRETE BUTTRESSES TO UNDISTURBED EARTH.
- BUTRESS DIMENSIONS SHOWN ARE MINIMUM. DIMENSIONS ARE BASED UPON SOIL BEARING PRESSURE OF 3000 P.S.F. AND STATIC WATER PRESSURE OF 150 P.S.I. WHERE WATER PRESSURE EXCEEDS 150 P.S.I. AND/OR WHERE SOIL BEARING PRESSURE IS LESS THAN 3000 P.S.I. SPECIAL BUTTRESS DESIGN IS REQUIRED.
- ALL TEES, BENDS & CAPS, SHALL BE ANCHORED OR BUTRESSED IN ACCORDANCE WITH THIS STANDARD DETAIL.

BUTRESSES

PIPE INSTALLATION

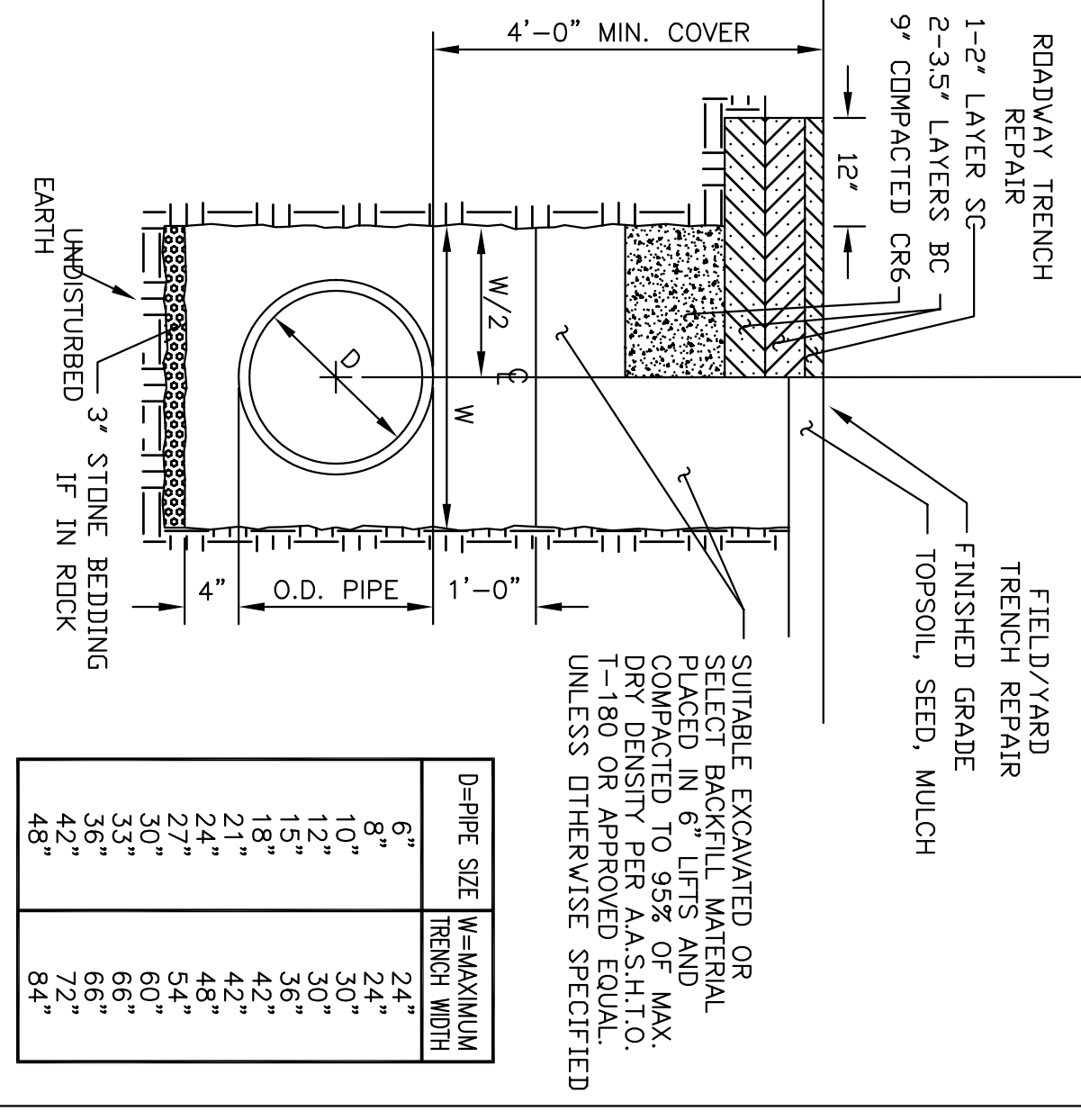
SLEEVE & CARRIER



CASING DIAMETER	MAX. LENGTH	INSTALLATION METHOD
UP TO 36"	175'	BORING
36" TO 60"	200'	JACKING
60" AND UP	NO MAX.	TUNNELING

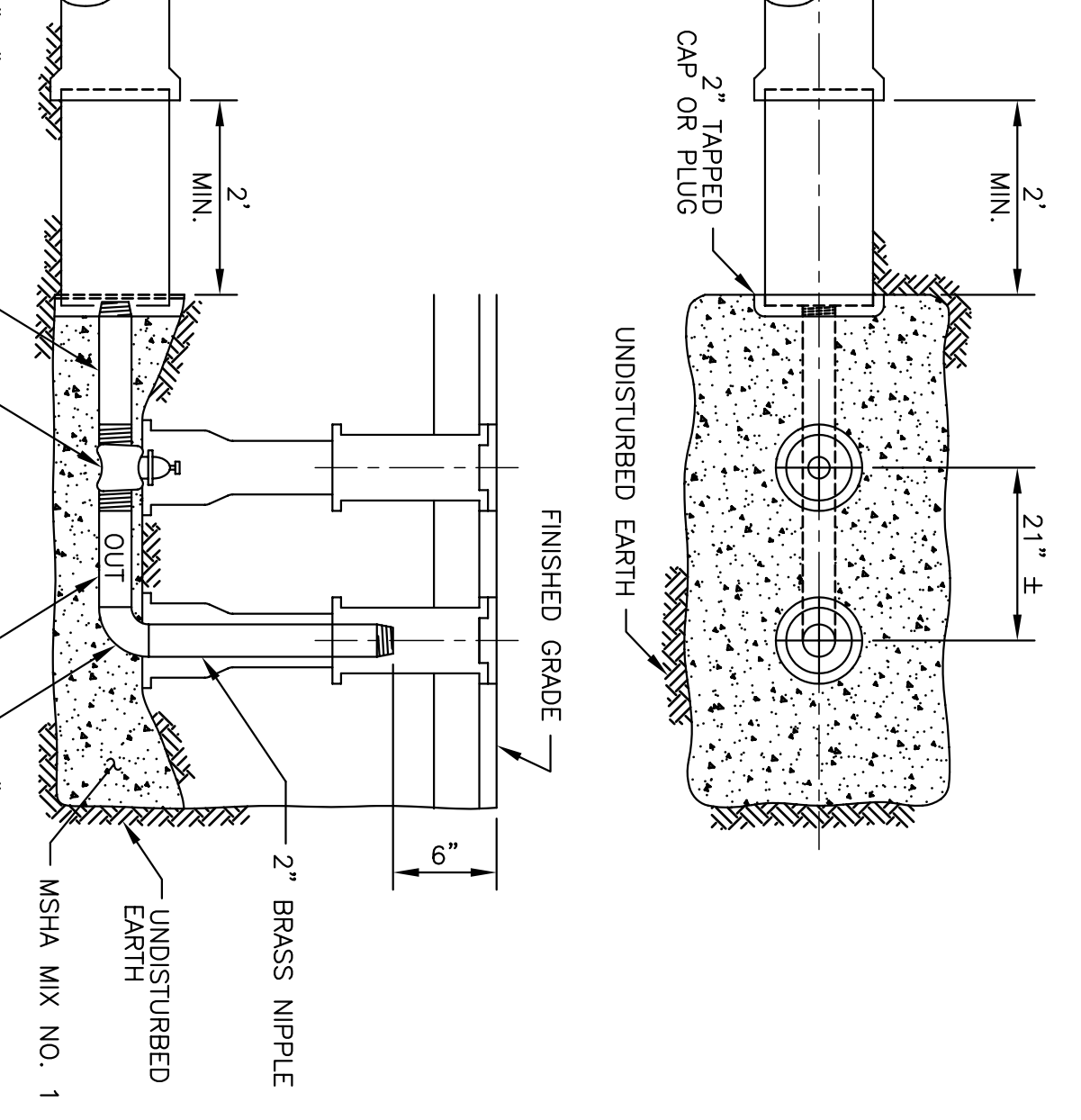
CASING SHOULD NORMALLY BE 6" TO 8" LARGER THAN THE MAX. O.D. OF THE CARRIER PIPE BELLS.

TRENCH DETAIL

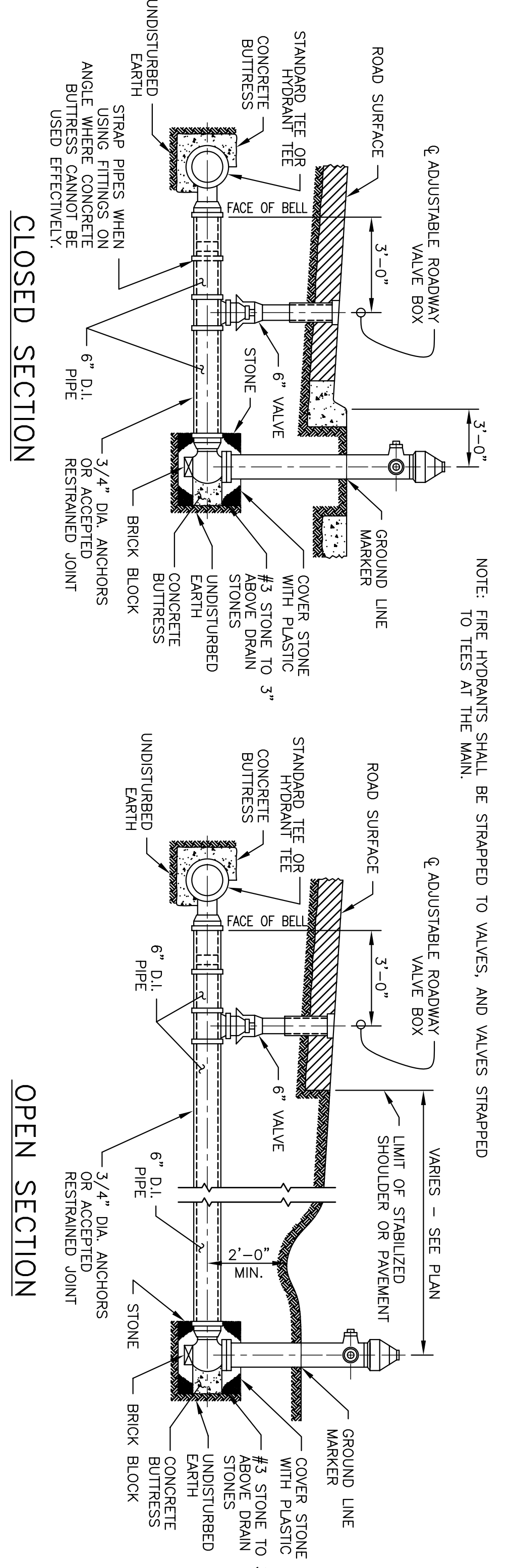


D-PIPE SIZE	W-MAXIMUM	H-MAXIMUM	WIDTH
6"	24"	24"	24"
8"	24"	24"	24"
10"	30"	30"	30"
12"	30"	30"	30"
15"	36"	36"	36"
18"	42"	42"	42"
21"	42"	42"	42"
24"	48"	48"	48"
27"	54"	54"	54"
30"	60"	60"	60"
36"	66"	66"	66"
42"	72"	72"	72"
48"	84"	84"	84"

CAP AND BLOWOFF



FIRE HYDRANT SETTINGS

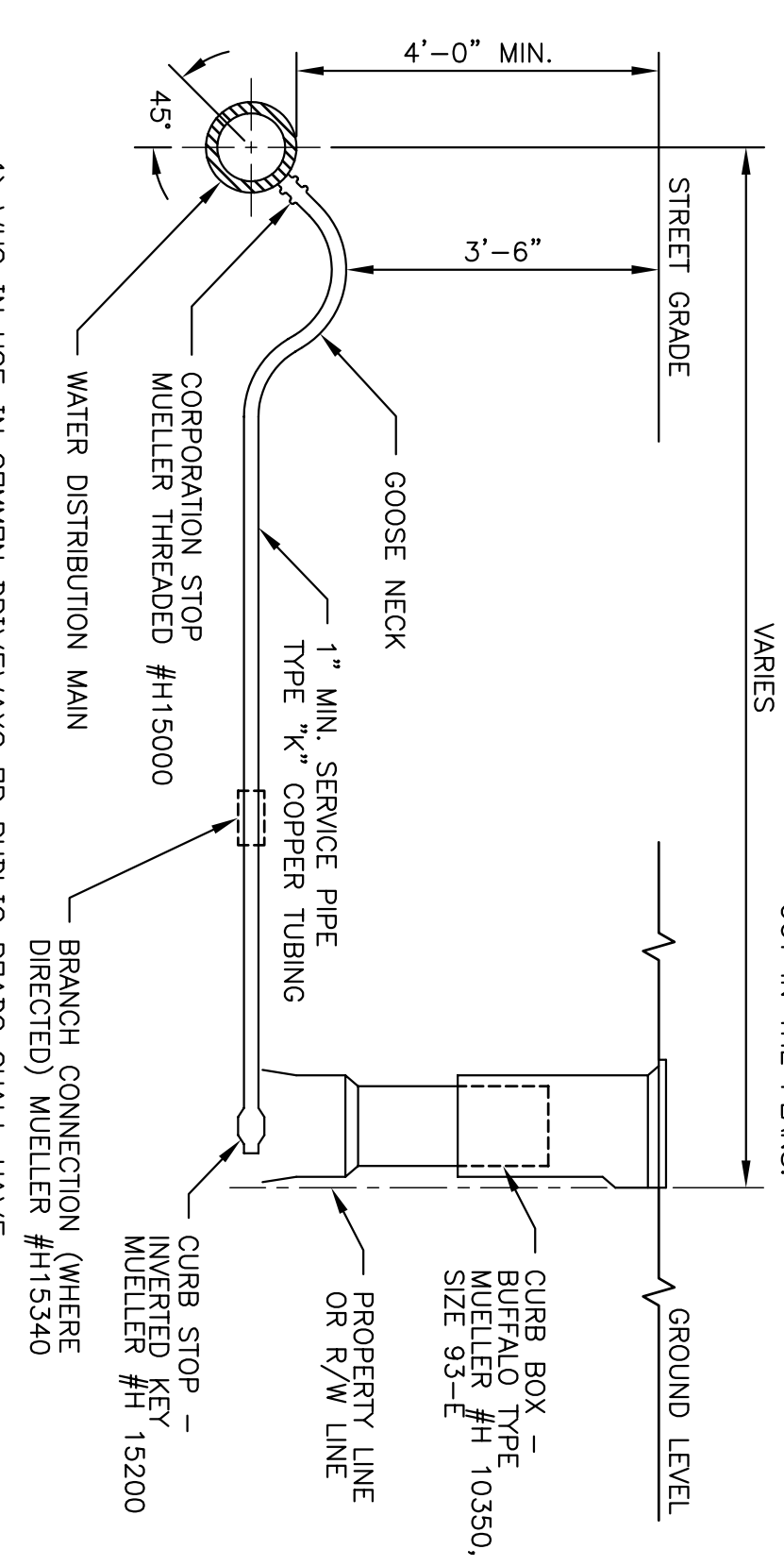


NOTE: THE MINIMUM ACCEPTABLE SIZE FOR WATER SERVICE PIPE SHALL BE 1" AND THE MINIMUM ACCEPTABLE SIZE FOR WATER SERVICE SHALL BE 1" IN THE PLANS.

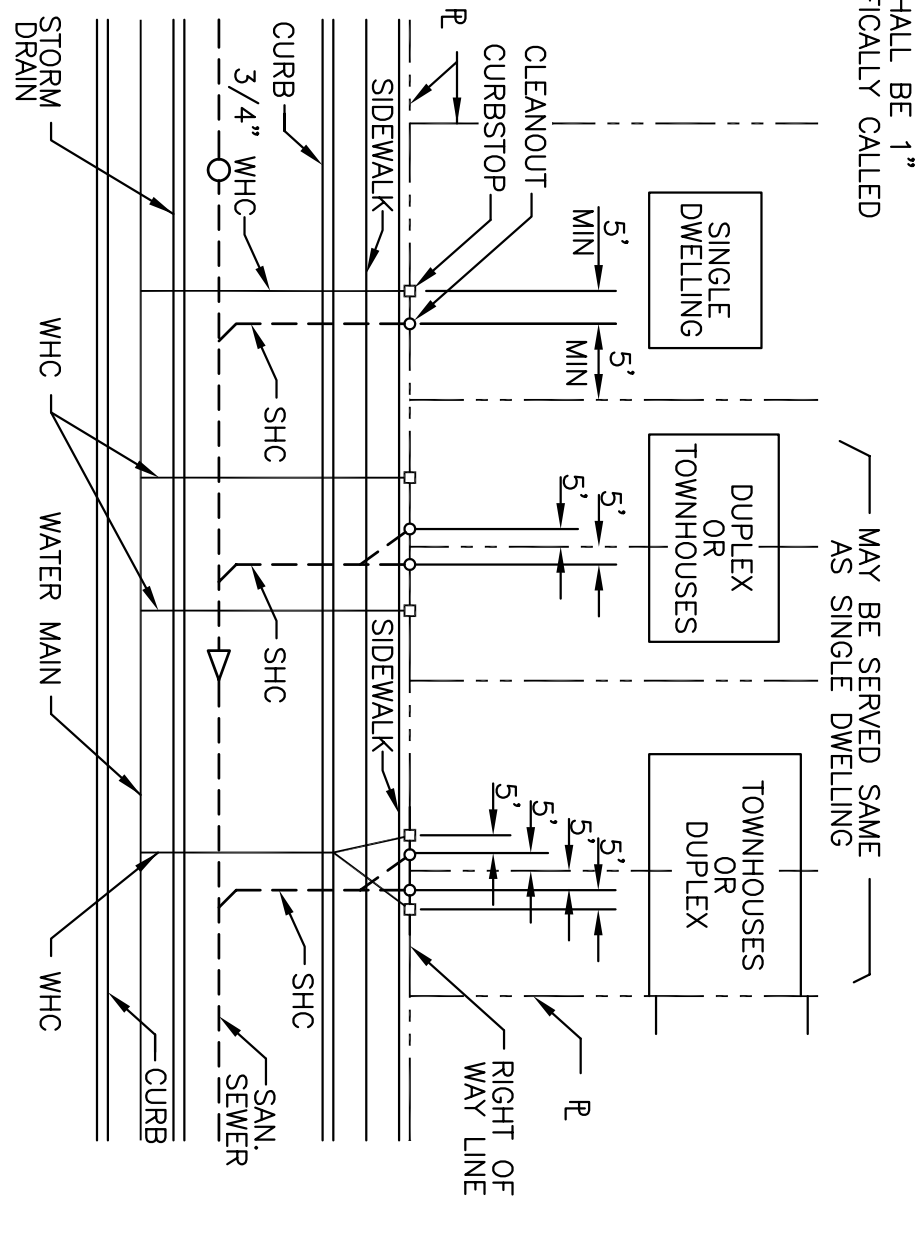
WATER HOUSE CONNECTION (WHC)

- WHC IN USE-IN-COMMON DRIVEWAYS OR PUBLIC ROADS SHALL HAVE ROADWAY BOXES INSTALLED AT CURB BODIES OR CURB STOPS.
- IF THE MULLER MANUFACTURER CATALOG NUMBER FOR THE WATER SERVICE FITTINGS SHOWN ON THESE TYPICAL DETAILS ARE NOT AVAILABLE FOR LARGER DIAMETER CONNECTIONS, THE CONTRACTOR SHALL INSTALL AN APPROVED EQUAL TYPE FOR THE SIZE SPECIFIED IN THE PLANS OR SPECIFICATIONS.

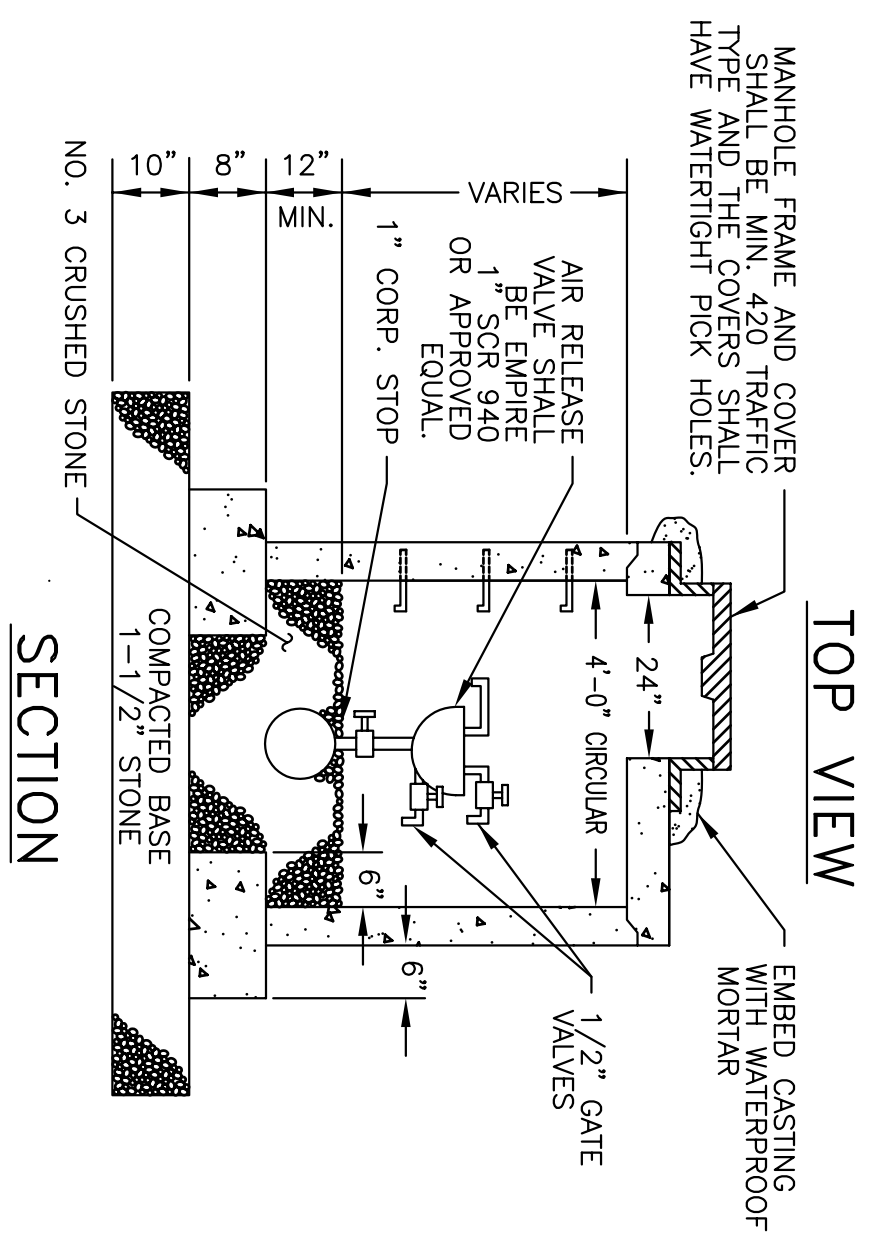
STANDARD CONNECTION



TYPICAL METHODS FOR SERVICE



AIR RELEASE VALVE IN MANHOLE



- ALL FITTINGS AND PIPE TO BE BRASS.
- MANHOLE TO BE IN ACCORD WITH A.S.T.M. C478.

GENERAL NOTES:

- ALL WATER MAINS AND LATERAL SHALL HAVE A MINIMUM COVER OF 4'-0".
- ALL CONCRETE SHALL BE SHA MIX NO. 1 UNLESS OTHERWISE NOTED.
- WATER MAINS AND APPURTENANCES ARE SUBJECT TO INSPECTION AND TESTING IN ACCORDANCE WITH THE STANDARD PROCEDURES OF THE CITY OF WESTMINSTER AND THEIR INSPECTORS IN THE FIELD.
- MINIMUM VERTICAL CLEARANCES AT CROSSINGS BETWEEN WATER LINES WITH OTHER UTILITIES SHALL BE 12' WATER SHALL CROSS ABOVE SANITARY SEWER, MINIMUM LATERAL CLEARANCE FROM UTILITY BOLES, INLETS, CURB AND GUTTER MONHOLES, AND OTHER MISCELLANEOUS STRUCTURES SHALL BE 36". ALL CLEARANCES SHALL BE MEASURED FROM OUTSIDE TO OUTSIDE EDGES.
- WHERE TEES AND CROSSERS ARE LOCATED AT STATION AND OFFSET ALONG THE CONSTRUCTION BASELINE, IT SHALL BE UNDERSTOOD THAT ADJACENT VALVE(S) DEPICTED ON THE PLAN SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO THESE FIXTURES, UNLESS OTHERWISE DIRECTED BY THE CITY INSPECTOR.

STANDARD WATER CONSTRUCTION DETAILS