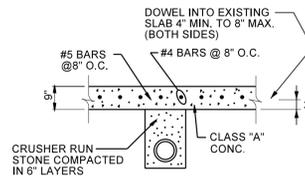


FIRE HYDRANT REMOVAL

N.T.S.



CONCRETE PAVEMENT

SEE DETAIL FOR CROSSING STATE OR U.S. HIGHWAYS. DRAWING MSUDET3.

SEE DRAWING MSUDET4 FOR ADDITIONAL TRENCH REPAIR DRAWINGS FROM METRO PUBLIC WORKS.

TRENCH PAVEMENT REPAIR (CONCRETE)

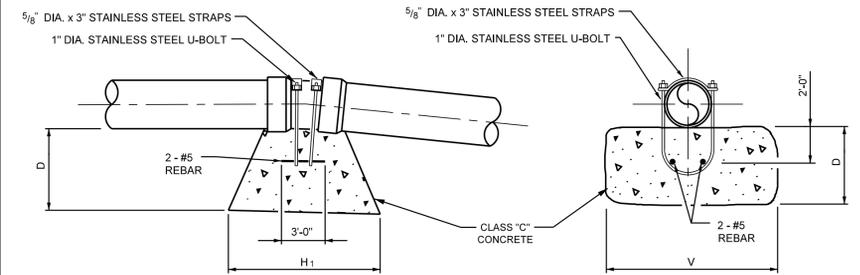
NOT TO SCALE

NOTES:

- ALL WORK SHALL BE FIELD CHECKED AND APPROVED BY THE METROPOLITAN PUBLIC WORKS DEPARTMENT PRIOR TO BEGINNING AND AFTER COMPLETION THEREOF.
- INSPECTION PERSONNEL OF THE DEPARTMENT SHALL BE NOTIFIED AT LEAST TWO(2) DAYS PRIOR TO COMMENCING WORK.
- THE WORK SPECIFIED HEREON SHALL BE FREE FROM WORKMANSHIP DEFECTS FOR A PERIOD OF ONE (1) YEAR AFTER COMPLETION.
- EXISTING PAVEMENTS, BASES, CURBS AND GUTTERS AND SIDEWALKS SHALL BE CUT AND BROUGHT TO A NEAT LINE BY USE OF AN AIR HAMMER OR OTHER SUITABLE EQUIPMENT. EXPANSION JOINTS REMOVED SHALL BE REPLACED.
- THE MINIMUM WIDTH TO BE TRIMMED ON EACH SIDE OF THE TRENCH LINE, AS SEEN IN THE SECTION MAY BE WAIVED OR AMENDED UPON APPROVAL OF THE INSPECTOR; HOWEVER, A MINIMUM WIDTH OF REPLACEMENT SHALL BE 4'-0" TO ALLOW FOR A ROLLER.
- IF PERMANENT PAVEMENT REPAIRS CANNOT BE MADE AT THE END OF EACH WORKING DAY, THEN TEMPORARY REPLACEMENT SHALL BE MADE WITH 3" COLD MIX OR HOT BITUMINOUS SEAL COAT OVER COMPACTED CRUSHER RUN STONE.
- ALL EXCAVATIONS MADE WITHIN PUBLIC RIGHT-OF-WAY REQUIRE EXCAVATIONS AND STREET CLOSURE PERMITS FROM THE PUBLIC WORKS DEPARTMENT PRIOR TO COMMENCING WORK.

CONCRETE THRUST BLOCK NOTES -

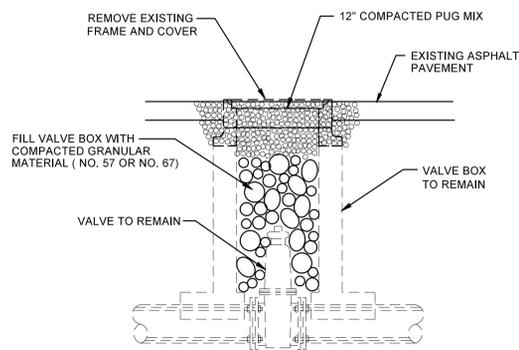
- THE CONTRACTOR SHALL INSTALL CONCRETE THRUST BLOCKS AT EACH BEND IN THE PIPELINE OF FIVE (5) DEGREES OR GREATER TO WITHSTAND THE PRESSURE RATING OF THE PIPE.
- FOR CONCRETE BLOCKING DIMENSIONS AND NOTES, REFER TO TABLE OF DIMENSIONS FOR CONCRETE BLOCKING ON DRAWING MSUDET1.
- ALL FITTINGS SHALL BE DOUBLE POLYWRAPPED. CARE SHALL BE TAKEN TO AVOID DAMAGING POLYWRAP.
- CONCRETE THRUST BLOCKS SHALL BE ALLOWED TO CURE, BEFORE BACKFILLING.
- ALL THRUST BLOCKS REQUIRED AT BENDS IN THE HORIZONTAL PLANE SHALL BE FORMED WITH PLYWOOD TO PREVENT CONCRETE FROM ENVELOPING THE JOINT.
- ALL THRUST BLOCKS SHALL BE KEYPED INTO THE TRENCH WALL, EXTENDING INTO UNDISTURBED MATERIAL.
- WHEN VERTICAL BENDS ARE CALLED FOR ON THE CONSTRUCTION PLANS, THE CONTRACTOR SHALL SUBMIT THE BLOCKING DESIGN, INCLUDING CALCULATIONS, TO THE DESIGN ENGINEER FOR REVIEW AND ACCEPTANCE. ANCHORAGES SHALL BE DESIGNED TO RESIST THRUST CAUSED BY INTERNAL TEST PRESSURE WITHIN THE PIPE. PROTECTION AGAINST CORROSION SHALL BE INHERENT IN THE DESIGN. THE BLOCKING DESIGN SHALL BE SEALED, SIGNED, AND DATED BY A PROFESSIONAL ENGINEER.
- ALL VERTICAL BENDS TO HAVE STAINLESS STEEL STRAPS ANCHORING THE PIPE TO THE BLOCKING.
- ALL PIPE JOINTS OR FITTINGS SHALL BE WRAPPED IN POLYETHYLENE SHEET PLASTIC PRIOR TO THE KICKER BEING POURED.



FOR VERTICAL BENDS 5° OR MORE

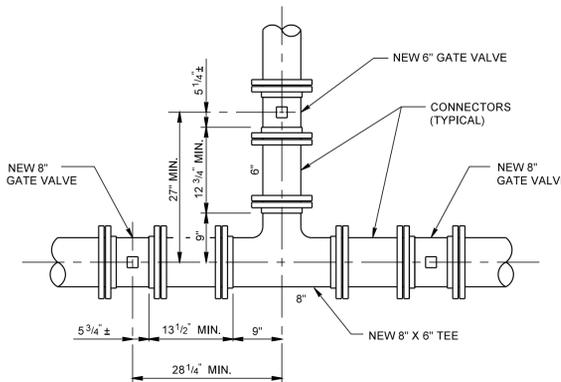
NOTE: FOR CONCRETE BLOCKING DIMENSIONS AND NOTES, REFER TO TABLE OF DIMENSIONS FOR CONCRETE BLOCKING ON DRAWING MSUDET1.

REVERSE CONCRETE BLOCKING



EXISTING VALVES TO BE ABANDONED

N.T.S.



TYPICAL VALVE SPACING

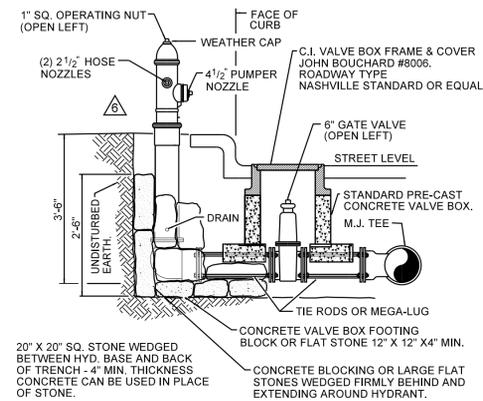
N.T.S.

NOTE: VALVES TO BE ABANDONED ARE SHOWN AS ON PLANS (TYPICAL)

NOTE: MEGA-LUG ALL VALVES. SEE NOTE 12, DWG MSUDET1

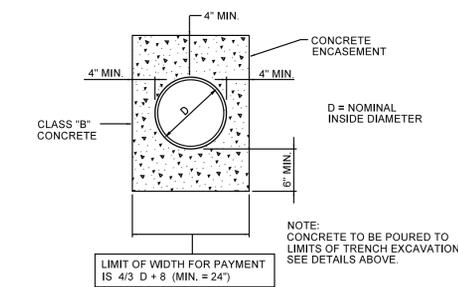
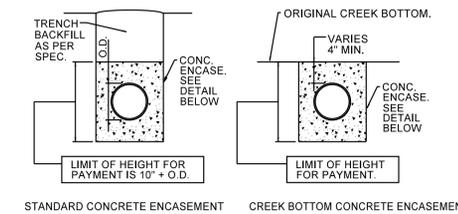
PUSH ON PIPE JOINT			
PIPE SIZE IN INCHES	MAXIMUM OFFSET IN INCHES LAYING LENGTH = 18 FEET	MAXIMUM OFFSET IN INCHES LAYING LENGTH = 20 FEET	MAXIMUM DEFLECTION ANGLE IN DEGREES
3	19	21	5
4	19	21	5
6	19	21	5
8	19	21	5
10	19	21	5
12	19	21	5
14	11	12	3
16	11	12	3
18	11	12	3
20	11	12	3
24	11	12	3
30	11	12	3
36	11	12	3
42	11	12	3
48	—	12	3
54	—	12	3
60	—	12	3

MAXIMUM FULL LENGTH PIPE DEFLECTION



CONCRETE BLOCKING OR HYDRANT SHALL BE SET ON FLAT STONE OR CONC. VALVE BOX FOOTING BLOCK. LARGE FLAT STONES SHALL BE WEDGED FIRMLY BEHIND AND EXTENDING AROUND HYDRANT TO UNDISTURBED EARTH.
CARE SHALL BE TAKEN TO SET HYDRANT PLUMB.
A MINIMUM OF 2 CU. FT. OF CRUSHED STONE SHALL BE PLACED AROUND LEAD ADJOINING BLOCKING FOR DRAINAGE FROM WASTE OPENING.

FIRE HYDRANT INSTALLATION



CONCRETE ENCASEMENT

- REVISD 05/18/20
- NOT USED
- NOT USED
- NOT USED
- REVISD 09/29/17
- REVISD 10/29/09
- REVISD 03/19/09
- REVISD 09/15/04
- REVISD 04/15/04
- REVISD 03/04/04
- REVISD 02/20/04
- REVISD 06/23/03
- REVISD 05/16/03
- REVISD 04/02/03

MADISON SUBURBAN UTILITY DISTRICT
MADISON, TENNESSEE

GENERAL DETAILS
JVE / BWSC

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5100 Linbar Drive, Suite 106
Nashville, Tennessee 37211
Phone: (615) 781-8725

DRAWN:	CHECKED:
DATE: DECEMBER 2, 2002	DRAWING NO.: MSUDET2

03/27/04
DETAILS GENERAL
MSUDET2 REV 4/04