

CONSULTANTS:

CIVIL ENGINEER:
McCLELLAND CONSULTING ENGINEERS INC.

LANDSCAPE ARCHITECT:
LARBON BURNS SMITH

STRUCTURAL ENGINEER:
CROMWELL ENGINEERS INC.

MECH. ELEC. PLUMB. ENGINEER:
CROMWELL ENGINEERS INC.

GLOBAL VILLAGE CONSULTANT:
CAMBRIDGE SEVEN ASSOCIATES

INTERIOR DESIGNER:
POLK STANLEY ROWLAND CURZON PORTER ARCHITECTS

GENERAL CONTRACTOR:
CDI CONTRACTORS, INC.

NOTES:

ISSUE DATE:
17 SEPTEMBER 07

REVISIONS:

#	DATE	DESCRIPTION

MURPHY KELLER EDUCATION CENTER

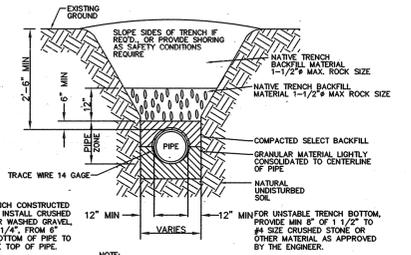
HEIFER INTERNATIONAL CENTER

LITTLE ROCK, ARKANSAS

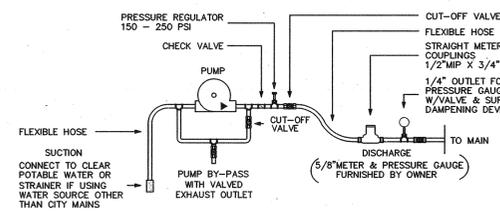
PSRCP JOB NUMBER:
431E

CONTENTS:
SITE UTILITY DETAILS

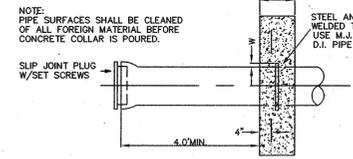
SHEET NUMBER:
C602



10 TYPICAL WATERLINE TRENCH
N.T.S.

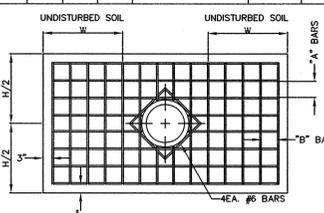


7 BASIC LAYOUT FOR TEST PUMP
N.T.S.

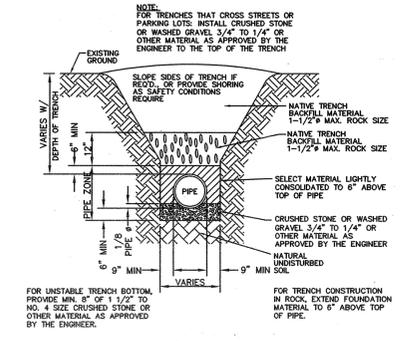


ANCHOR COLLAR SCHEDULE

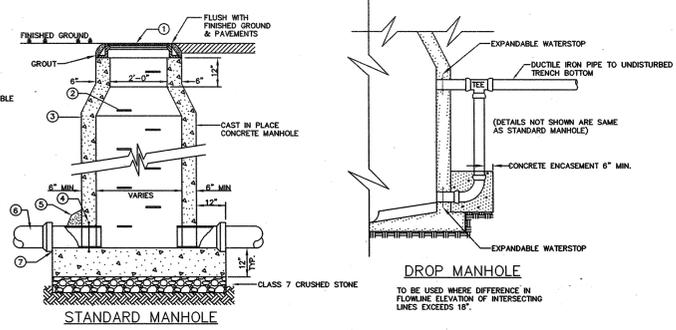
PIPE SIZE	DIMENSIONS				REINFORCING BARS	
	W	H	T	M	"A" BARS	"B" BARS
6"	1.5"	2.0"	1.0"	M.J. RETAINER GLAND	#6@8"	#6@8"
8"	1.5"	2.5"	1.0"	M.J. RETAINER GLAND	#6@8"	#6@8"
12"	2.0"	4.0"	1.5"	M.J. RETAINER GLAND	#6@8"	#6@8"
16"	3.0"	4.5"	1.5"	M.J. RETAINER GLAND	#6@8"	#6@8"
20"	3.0"	5.0"	2.0"	M.J. RETAINER GLAND	#6@8"	#6@8"
24"	3.5"	5.5"	2.0"	M.J. RETAINER GLAND	#7@8"	#6@10"
30"	6.5"	6.0"	2.5"	4"	#8@8"	#7@10"
36"	7.0"	7.0"	2.5"	4"	#8@8"	#7@10"



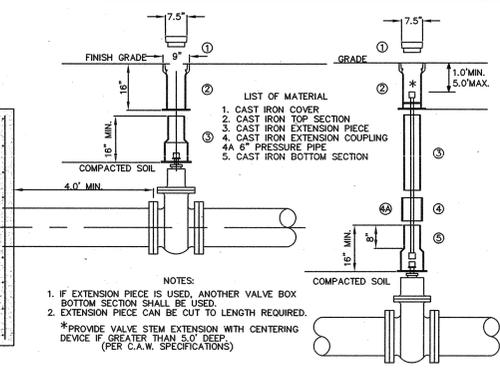
8 ANCHOR COLLAR (ELEVATION)
N.T.S.



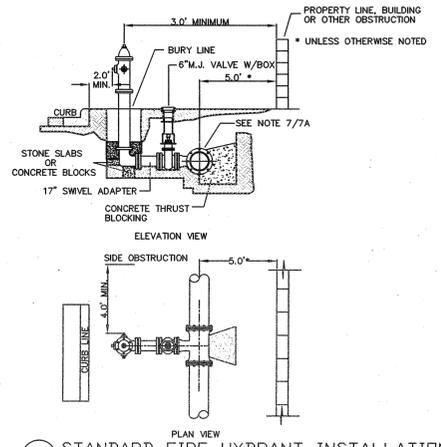
12 TYPICAL DUCTILE IRON SEWER TRENCH
N.T.S.



13 MANHOLE DETAIL
N.T.S.

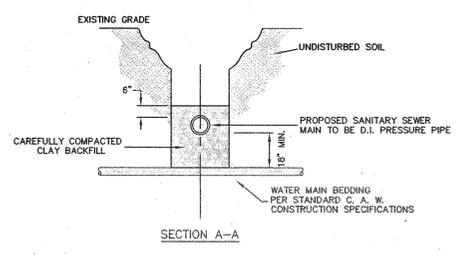


4 GATE VALVE & VALVE BOX INSTALLATION
N.T.S.

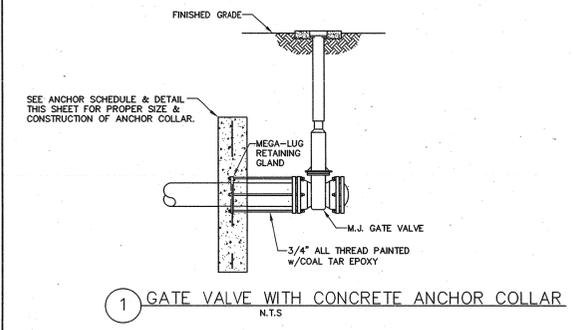


5 STANDARD FIRE HYDRANT INSTALLATION
USE ANCHOR TEE (UNLESS OTHERWISE NOTED)

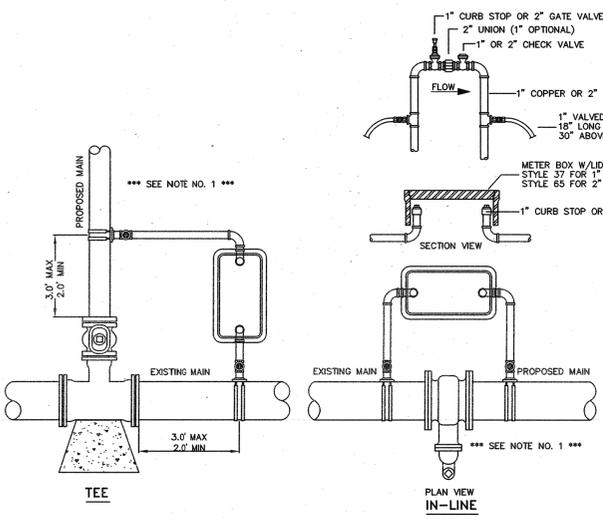
- NOTES:**
- DRAINAGE BED SHALL CONSIST OF CRUSH STONE OR COURSE GRAVEL WITH COURSE SAND. MINIMUM VOLUME OF 6 CU. FT. DRAIN BED SHALL EXTEND A MINIMUM OF 6' ABOVE DRAIN OUTLET.
 - USE 6" D.I. NIPPLE WITH M.J. RETAINER GLANDS IF DISTANCE BETWEEN VALVE AND HYDRANT MUST BE GREATER THAN 17" SWIVEL ADAPTER.
 - FIRE HYDRANT TO BE BLOCKED AGAINST FIRM SOIL AS SHOWN.
 - ALL HYDRANTS SHALL BE INSTALLED PLUMB.
 - LARGE NOZZLE SHALL FACE CURB UNLESS OTHERWISE NOTED. ROTATE BARREL AS REQUIRED.
 - HYDRANT SHOULD NOT BE SET CLOSER THAN 4.0' TO OBSTRUCTIONS THAT ARE IN LINE WITH NOZZLE.
 - M.J. ANCHOR TEE, TAPPING SLEEVE OR TAPPING SADDLE MAY BE USED (SEE MATERIAL SPECIFICATIONS) WHEN USING REGULAR M.J. TEE USE 1 1/2" SWIVEL ADAPTER NIPPLE BETWEEN TEE AND VALVE.
 - HYDRANTS TO BE SET AT DEPTHS GREATER THAN 5.0' SHALL BE SET WITH A MODIFIED FIRE HYDRANT SETTING. (CONTACT C.A.W. ENGINEERING DEPT. FOR DETAILED DRAWING FOR DEEP DEPTH FIRE HYDRANT SETTINGS).
 - CONTRACTOR RESPONSIBLE FOR SPOOL PIECES TO POSITION HYDRANT ON LOCATION SHOWN ON THE PLANS.



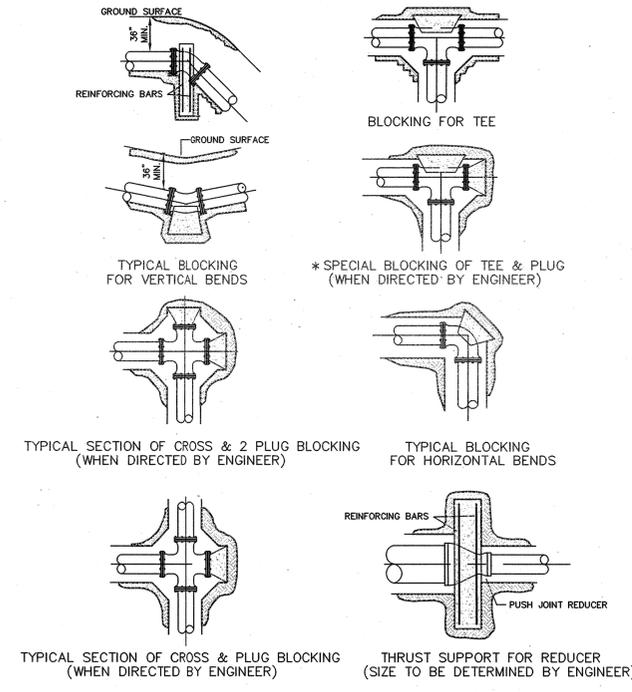
6 SEWER CROSSING
N.T.S.



1 GATE VALVE WITH CONCRETE ANCHOR COLLAR
N.T.S.



2 1" & 2" FILL CONNECTION DETAILS TYPICAL INSTALLATIONS
N.T.S.



- NOTES ON THRUST BLOCKING**
- ALL BLOCKING SHALL BE AGAINST UNDISTURBED HAND DUG SOIL.
 - WHERE SOIL CONDITIONS MAKE IT NECESSARY TO POUR CONCRETE OVER JOINTS, THE ENDS OF THE ADJACENT PIPES MUST HAVE A THRUST BLOCK TO RESIST MOVEMENT OF THESE JOINTS.
 - WEIGHT CALCULATIONS TO BE BASED ON THRUST DUE TO STATIC PRESSURE + 50% OR TEST PRESSURE, WHICHEVER IS GREATER. (THRUST = 2AP SIN 1/2 WHERE A = AREA OF PIPE P = WATER PRESSURE)
 - WHEN BLOCKING AGAINST PLUG, PLUG SHALL BE COVERED TO PREVENT BONDING OF CONCRETE.
 - WHERE SHEAR BECOMES A PROBLEM PROPER REINFORCING MUST BE INSTALLED INTO THE BLOCKING.
 - CLEARANCE SHALL BE A MINIMUM OF 6" BETWEEN PIPE AND OBSTRUCTIONS.
 - CLEARANCE ON PIPES BELONGING TO OIL/GAS COMPANIES SHALL BE 18" UNLESS SPECIAL PERMISSION IS GIVEN BY THESE COMPANIES.

3 THRUST BLOCKING
N.T.S.