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**FLORIDA RIVER ESTATES
FIRE PREVENTION SYSTEM**
LA PLATA COUNTY, CO

Issue Record:
CONSTR PLAN 21-Jun-13

Revisions:

Project Number: N/A

Designed by: TWE

Checked by: BAH

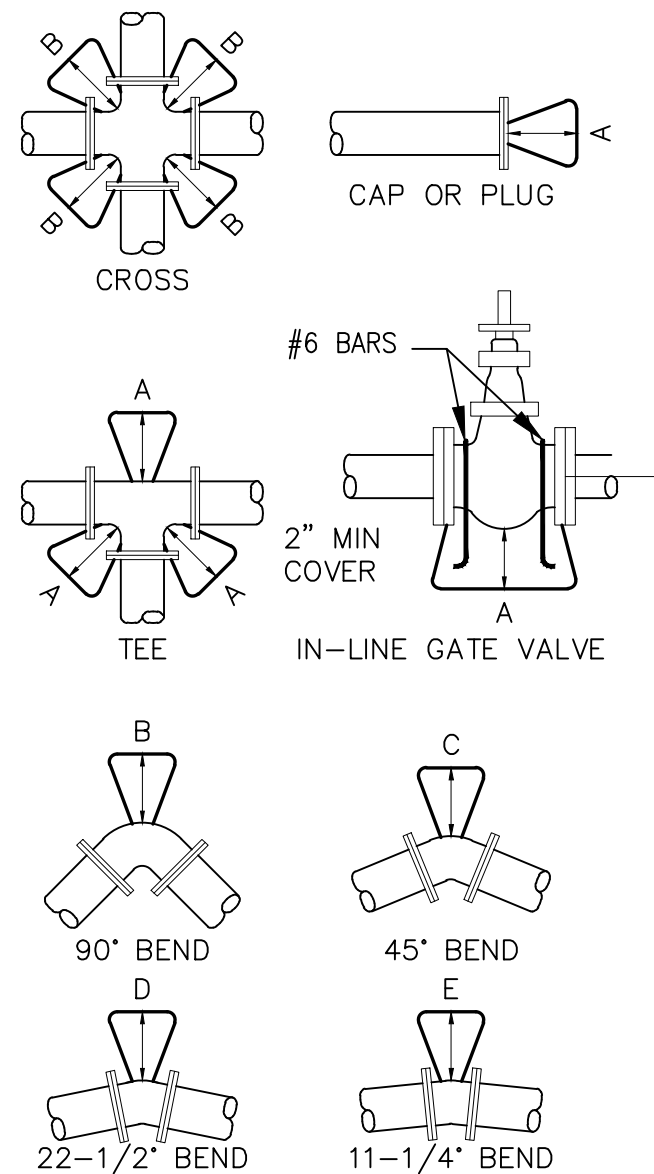
Sheet

C-01

FIRE PREVENTION SYSTEM

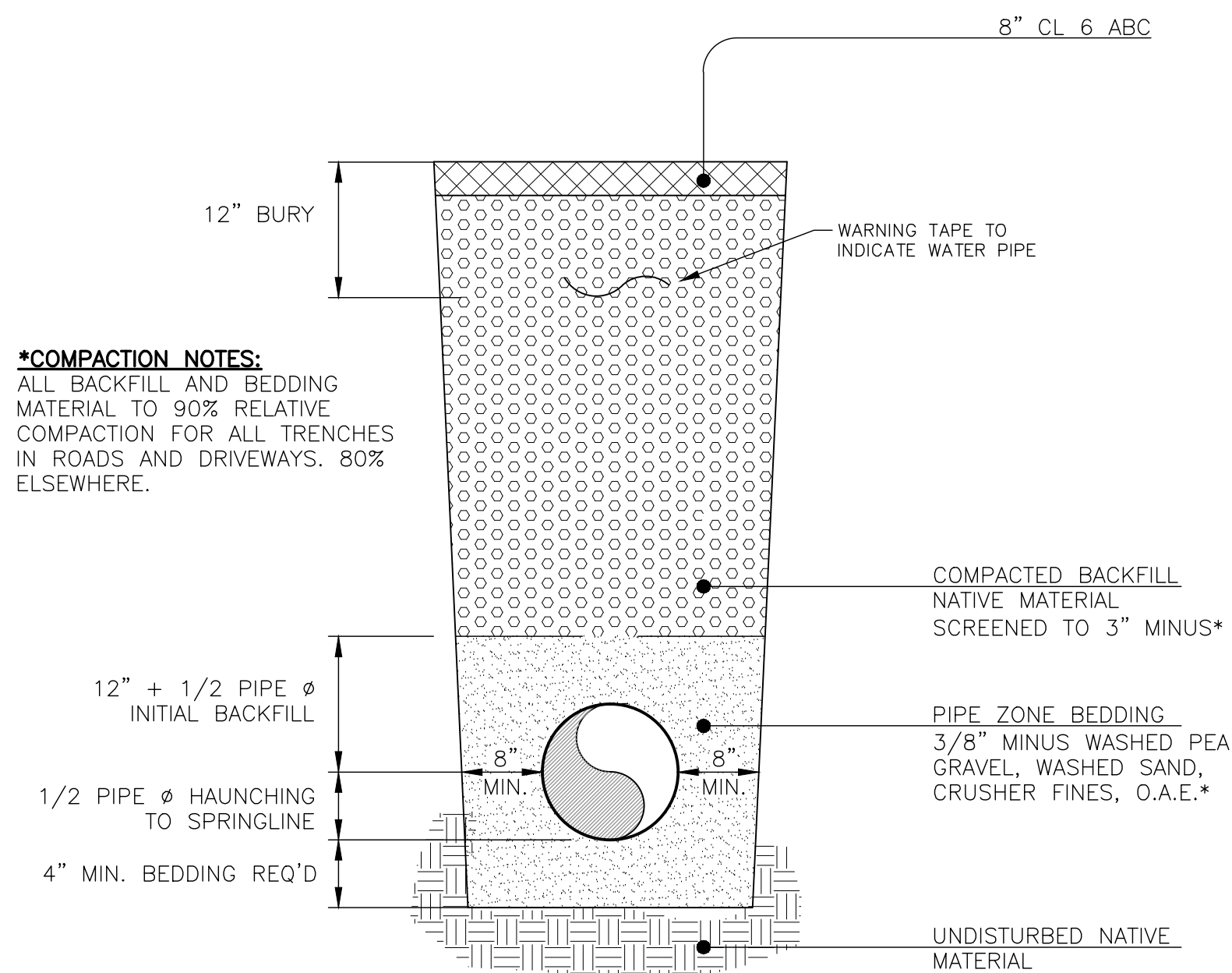
FLORIDA RIVER ESTATES FIRE PREVENTION SYSTEM PLAN

MINIMUM REQUIRED BEARING AREA (SQ FT)						
PIPE	Tees/ends		90°	45°	22.5°	11.25°
	A	B	C	D	E	
4"	1.3	1.8	1.0	0.5	--	--
6"	2.8	4.0	2.2	1.1	0.5	
8"	5.0	7.1	3.8	2.0	1.0	
10"	7.8	11.1	6.0	3.0	1.5	
12"	11.3	16.0	8.6	4.4	2.2	
14"	15.4	21.7	11.8	6.0	3.0	



- THE TABLE PROVIDES THE MINIMUM CONCRETE BEARING SURFACE OF THRUST BLOCKS & ARE BASED ON THE FOLLOWING PARAMETERS:
 - 100 PSI INTERNAL FLUID PRESSURE
 - 1,000 PSF SOIL BEARING CAPACITY
 DEVIATIONS FROM THESE CONDITIONS REQUIRE RECALCULATING SIZE OF THRUST BLOCK CONCRETE SHALL BE CAST-IN-PLACE WITH A MIN 1/4 SQ FT BEARING AGAINST THE FITTING CONCRETE SHALL BEAR AGAINST FITTING ONLY AND NOT ADJACENT PIPING. CONCRETE SHALL NOT IMPEDE DISMANTLING JOINT OR FITTING.
- BLOCKING SHALL WITHSTAND BOTH THE TEST PRESSURE AND ALL OPERATING PRESSURES.
- IF VERTICAL BENDS ARE REQUIRED TO INSTALL WATERMAIN, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR CONSTRUCTION DETAILS
- BEARING AREA MAY BE REDUCED OR ELIMINATED BY USING TIE RODS OR RESTRAINED JOINTS, WHEN DESIGNED AND SEALED BY A P.E.
- VALVES & FITTINGS MUST BE ENCASED IN PE IN ACCORDANCE WITH AWWA C-105 PRIOR TO INSTALLING THE THRUST BLOCKING.

THRUST BLOCKING TABLE
(NO SCALE)



BACKFILL DETAIL
(NO SCALE)

GENERAL WATER NOTES:

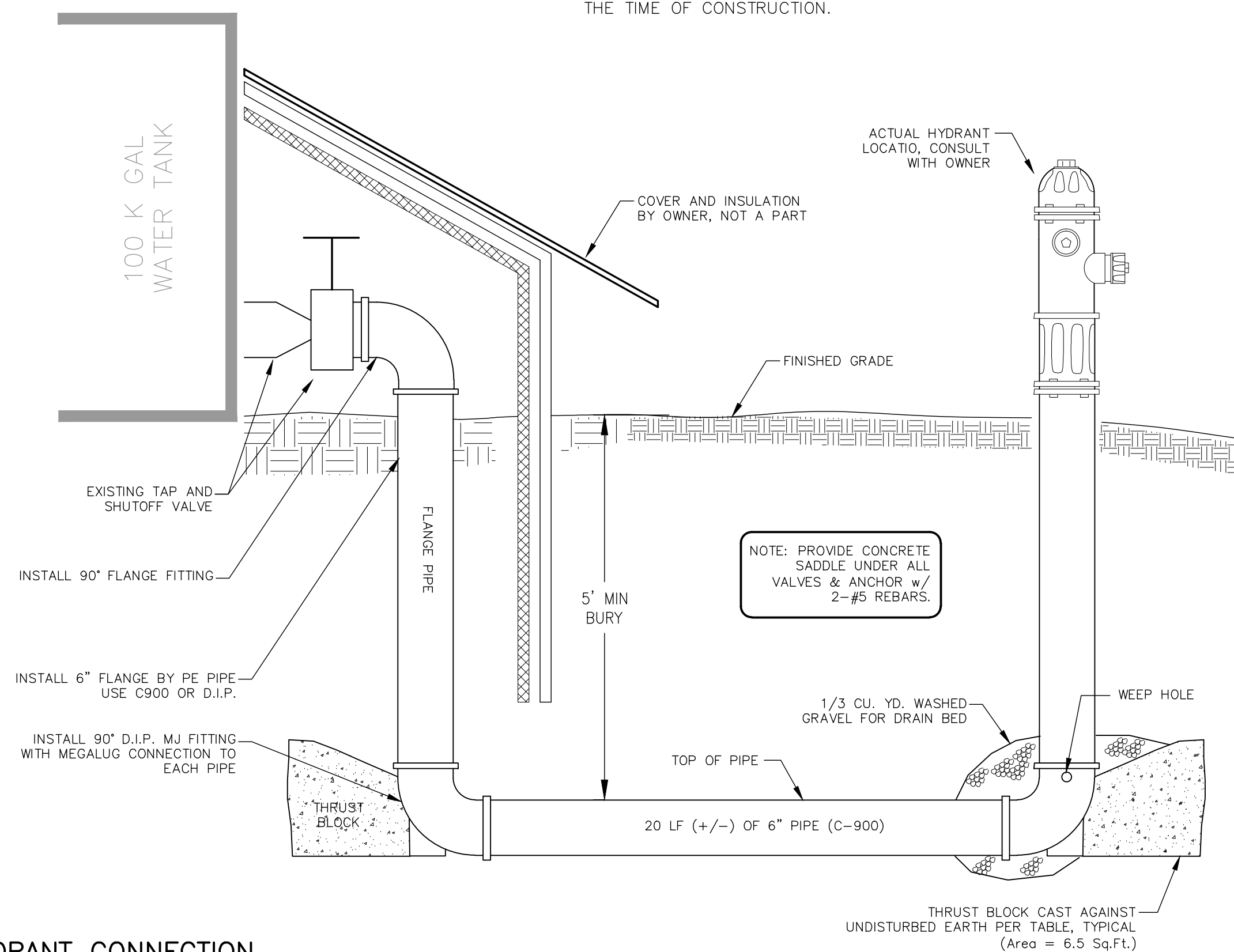
- ALL WATER MAIN PIPING SHALL BE C-900 DR 18 COMPLYING WITH AWWA C900 OR CL 52 D.I.P.
- ALL LINES SHALL BE PRESSURE TESTED PER AWWA STANDARDS. MINIMUM TEST PRESSURE SHALL BE 50 PSI FOR A MINIMUM OF ONE HOUR.
- A LEAKAGE TEST SHALL BE PERFORMED PER AWWA STANDARDS, IF REQUIRED BY OWNER.
- THE MINIMUM FACE AREA FOR ALL THRUST BLOCKS SHALL BE AS SHOWN IN THE THRUST BLOCK TABLE.
- FIRE HYDRANTS SHALL COMPLY WITH AWWA C-502. THE HYDRANTS SHALL BE MUELLER CENTURIAN MODEL No. A-423 WITH 5" STORTZ CONNECTION OR EQUAL AS APPROVED BY DURANGO FIRE AND RESCUE AUTHORITY.

GENERAL NOTES:

- THE CONTRACTOR MUST BE FAMILIAR WITH THE PROPOSED PROJECT'S EXISTING CONDITIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, DIFFICULT CONSTRUCTION AROUND EXISTING TREES AND UTILITIES, CONNECTING TO EXISTING WATER LINES AND SMALL VERTICAL GRADE ADJUSTMENTS NECESSARY TO AVOID CONSTRUCTION CONFLICTS. THE CONTRACTOR MUST ADJUST PRICING TO ACCOUNT FOR THESE DIFFICULT CONSTRUCTION SITUATIONS. NO COMPENSATION SHALL BE GIVEN FOR EXISTING SURFACE CONDITIONS THAT MAY CAUSE DIFFICULT FIELD CONSTRUCTION MODIFICATIONS. CONTRACTOR SHALL EXPECT EXCAVATION TO INCLUDE INDIVIDUAL ROCKS OF VARYING SIZE, CONTACT ENGINEER FOR DIRECTION IF LARGE BOULDERS OR BEDROCK IS ENCOUNTERED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING:
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PERMITS, FEES, OR TARIFFS REQUIRED FOR THE PROJECT. PERMITS, FEES, OR TARIFFS SHALL BE CONSIDERED INCIDENTAL TO THE WORK.
 - PROVIDING THE OWNER WITH AN "AS CONSTRUCTED" RED LINED PRINT PRIOR TO FINAL ACCEPTANCE OF THE WORK.
 - THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY IN ACCORDANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
 - THE PROPER AND LEGAL DISPOSAL OF ALL DEMOLISHED AND EXCESS MATERIALS.
 - THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS AT AND ADJACENT TO THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

NOTES:

- PER THE REQUIREMENTS OF DURANGO FIRE AND RESCUE AUTHORITY (DFRA), HYDRANTS SHALL BE RED-PAINTED, OPEN LEFT (COUNTER-CLOCKWISE) MUELLER BRAND SUPER CENTURION 250 A-423 WITH (2) 2 1/2" NH PORTS AND ONE STEAMER CONNECTION EQUIPPED WITH A 5" STORTZ FITTING AND CAP (OPTION 479, 5").
- THE STEAMER CONNECTION MUST FACE AWAY FROM THE TANK. HYDRANTS SUBJECT TO PROBABLE VEHICULAR DAMAGE MUST BE PROTECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE INTERNATIONAL FIRE CODE. A DISTANCE OF 3' CLEAR MUST BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT. WHEN LANDSCAPING IS COMPLETE ALL HYDRANT BASE FLANGES ARE TO BE 6" ABOVE FINISHED GRADE.
- ALL FIRE HYDRANTS MUST MEET THE DFRA REQUIREMENTS. FIELD INSPECTION AND VERIFICATION OF LOCATION SHALL BE REQUIRED AT THE TIME OF CONSTRUCTION.



FIRE HYDRANT CONNECTION
(NO SCALE)



Know what's below.
Call before you dig.