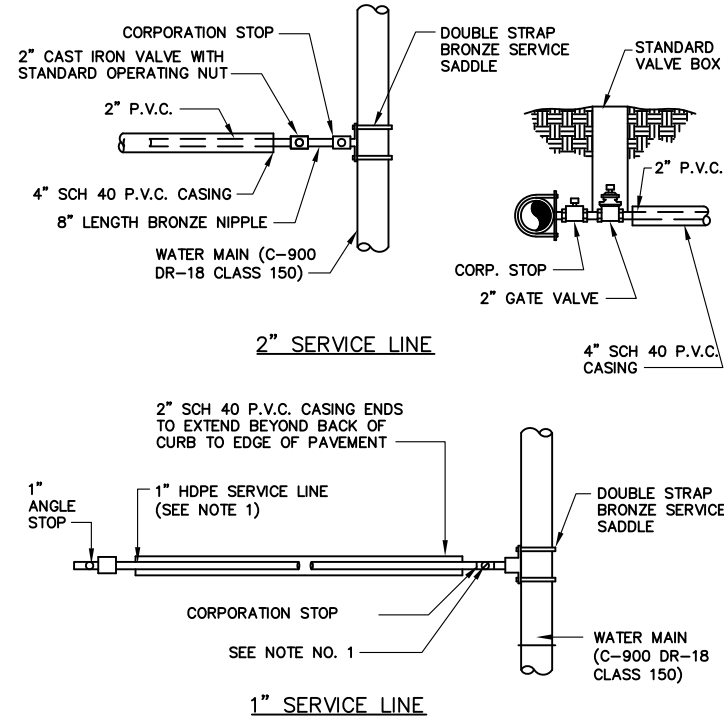


**NOTES:**

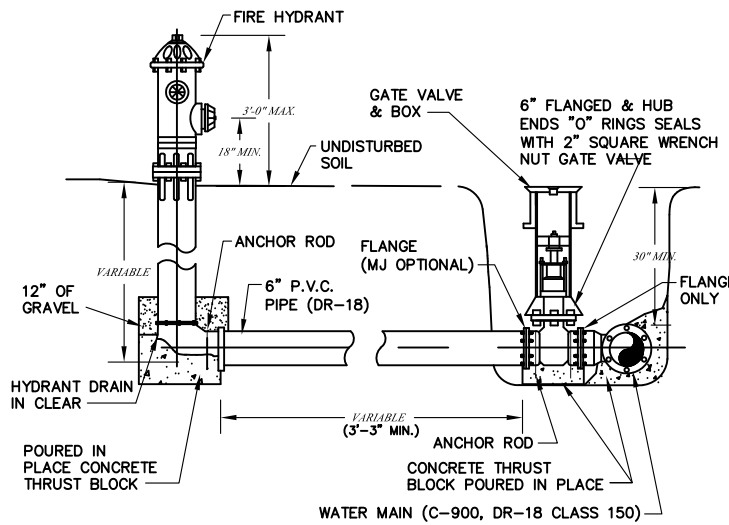
- SERVICE LINES GREATER THAN 1" REQUIRE P.V.C. SCHEDULE 40 PIPE.
- 1" SERVICE LINES SHALL BE SDR-9, HDPE, ASTM D-2737
- 2" SERVICES REQUIRE BOTH CORP. STOP AND CAST IRON VALVE.
- ONE SERVICE REQUIRED FOR EACH LOT.
- 2" ANGLE STOPS REQUIRED FOR 2" SERVICES AT METER LOCATION.
- A U-BRANCH FITTING REQUIRED FOR 1" SERVICES AT METER LOCATION.



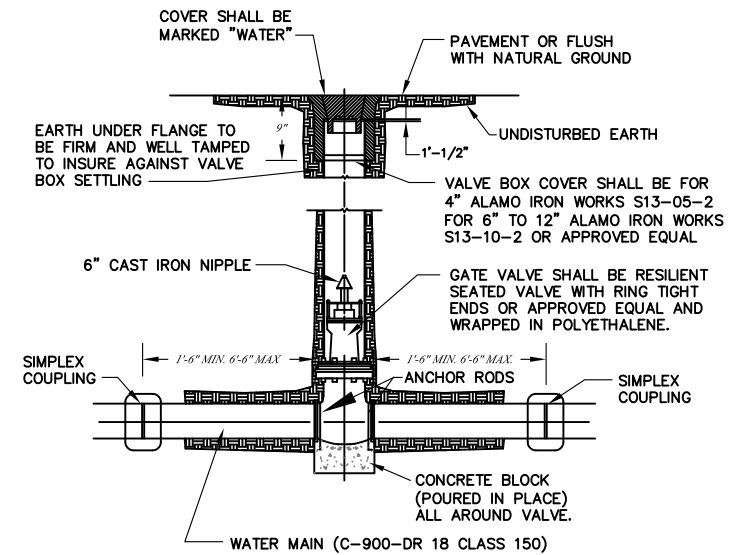
TYPICAL WATER SERVICE DETAIL

**GENERAL NOTES**

- FIRE HYDRANT ELEVATIONS WILL BE SET BY THE ENGINEER.
- FLANGE MUST BE AT FINISHED GRADE OR 3" TO 6" ABOVE 2. FLANGE MUST BE AT FINISHED GRADE OR 3" TO 6" ABOVE TOP OF CURB.
- FLANGED GATE VALVE INSTALLATION TO BE USED WITH 10" WATER LINES OR GREATER.
- BBF TEES TO BE USED WITH 10" WATER LINE OR GREATER BBF TEES TO BE USED WITH SMALLER DIA. PIPES.
- ACCEPTABLE HYDRANT BRANDS ARE MUELLER, AMERICAN DARLING AND KENNEDY.



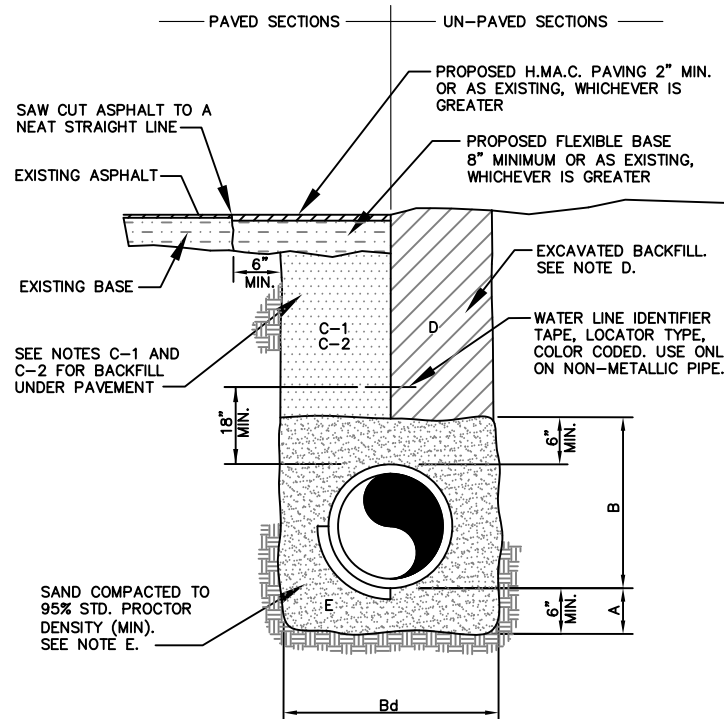
TYPICAL FIRE HYDRANT DETAIL



**GENERAL NOTES:**

- CAST IRON BOOT TO BE USED IN HEAVY TRAFFIC AREAS
- CONCRETE BLOCK (POURED IN PLACE)

TYPICAL VALVE DETAIL



WATER BEDDING DETAIL

**GENERAL NOTES:**

- SAND BEDDING PLACED, HAND LEVELED, AND COMPACTED BEFORE PIPE IS LAID, UP TO BOTTOM OF PIPE (MIN. THICKNESS = 6").
- SAND BACKFILL PLACED AND COMPACTED AFTER PIPE IS LAID, FROM BOTTOM OF PIPE TO 6" ABOVE THE TOP OF PIPE. WORK IN UNDER PIPE HAUNCHES AND COMPACT BY HAND TO SPRING LINE. USE VIBRATORY-TYPE COMPACTORS FOR LIFTS ABOVE THE SPRING LINE. MAXIMUM 6" LIFTS.
- MINIMUM TRENCH WIDTH: PIPE O.D. + 16" (FOR 16" PIPE AND SMALLER)  
PIPE O.D. X 1.25 + 12" (FOR 18" PIPE AND LARGER)
- (CITY STREETS, PARKING AREA, AND DRIVEWAYS) SELECT EXCAVATED BACKFILL MECHANICALLY COMPACTED TO 95% STANDARD PROCTOR DENSITY IN 8" MAX. LIFTS.
- (STATE MAINTAINED ROADWAY) SAND/CEMENT STABILIZED BACKFILL WITH 7% PORTLAND CEMENT COMPACTED TO 95% STANDARD PROCTOR DENSITY.
- EXCAVATED EARTH BACKFILL MECHANICALLY COMPACTED IN 12" MAX. LIFTS. MINIMUM STANDARD PROCTOR DENSITY: 90% OUTSIDE RIGHT OF WAY  
95% INSIDE RIGHT OF WAY
- EMBEDMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D 2321. EMBEDMENT MATERIAL SHALL BE CLASS II OR III WITH < 50% PASSING A No. 200 SIEVE AND PLASTICITY INDEX < 7.

WHERE THIS STANDARD CONFLICTS WITH THE RECOMMENDATION OF ANY GEOTECHNICAL REPORT, OBTAIN WRITTEN CLARIFICATION FROM THE UTILITY ENGINEER PRIOR TO CONSTRUCTION.

FOUNDATION PREPARATION USING COBBLES, GRAVEL, CEMENT STABILIZATION, OR OTHER METHODS AS DIRECTED BY THE ENGINEER SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE.

BACKFILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, AND COMPACTED TO 95% STANDARD PROCTOR DENSITY IN 6" MAXIMUM LIFTS. STRUCTURE BACKFILL MATERIAL SHALL BE SAND.

**GENERAL NOTES:**

- CONTRACTOR TO CONTACT ALL UTILITIES COMPANIES IN THE AREA FOR FIELD VERIFICATION OF EXISTING FACILITIES. UTILITY COMPANY'S SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:

CITY OF McALLEN	(956) 972-7600
CENTRAL POWER & LIGHT CO.	1-800-274-2611
SOUTHERN UNION GAS CO.	1-800-743-2945
AT&T	1-800-288-2020
U.S. SPRINT CO.	(956) 948-3100
TIME WARNER CABLE	1-800-222-5355
TX EXCAVATION SAFETY SYSTEM	1-800-344-8377

- CONTRACTOR TO EXPOSE ANY EXISTING FACILITY THAT MAY BE IN CONFLICT PRIOR TO START OF CONSTRUCTION.
- ALL EXISTING CITY UTILITIES (WATER/SEWER) SHOWN ARE FROM BEST INFORMATION AVAILABLE. NEITHER THE ENGINEER NOR THE CITY IS RESPONSIBLE FOR THE ACCURACY OF LOCATION.
- CONTRACTOR SHALL AT ALL TIMES ALLOW ACCESS TO EXISTING DRIVEWAYS OR PROVIDE/MAINTAIN ALTERNATIVE ALL WEATHER ROUTES.
- ALL TRAFFIC CONTROL DEVICES SHALL BE IN CONFORMANCE WITH TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
- TRENCHES OR EXCAVATIONS MAY NOT BE LEFT OPEN OVERNIGHT UNLESS AUTHORIZED IN WRITING BY THE ENGINEERING DEPARTMENT. IN SUCH CASES, THE CONTRACTOR MUST PROVIDE 1/2" STEEL PLATES OVER PLATES WITH ANCHORING AS PER SPECIFICATIONS TO BE PROVIDED BY THE CITY OF McALLEN.
- ANY DAMAGE TO FENCES, WALKS, OR PRIVATE PROPERTY SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ALL EXCAVATED MATERIAL AND DEBRIS FROM THE SITE AT NO ADDITIONAL EXPENSE TO THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING CONSTRUCTION MATERIALS TESTING THROUGH THE CITY'S DESIGNATED FIELD REPRESENTATIVE 24 HOURS PRIOR TO TESTING. CONTRACTOR IS RESPONSIBLE FOR ADHERING CLOSELY TO TESTING SCHEDULE AND AVOID ANY DELAYS IN THE FIELD.

GENERAL NOTES

FILE NAME:

DATE: FEB 2023

SURVEYED BY:

DESIGNED BY: XXXX

DRAWN BY: XXXX

CHECKED BY:

PROJECT NO:

XXXXXX

WATER STANDARD DETAILS

TITLE:



SCALE:

REVISIONS:

SHEET NO.:

X