GENERAL WATER CONSTRUCTION NOTES FOR PRIVATE WATER SYSTEM

1. CONTRACTOR TO PROVIDE THREE COPIES OF THE FOLLOWING INFORMATION TO THE COUNTY INSPECTOR FOR APPROVAL A MINIMUM OF FOURTEEN CALENDAR DAYS PRIOR TO CONSTRUCTION. (1.) CERTIFICATION THAT ALL PRIVATE WATER SYSTEM MATERIALS COMPLY WITH THE PLANS/SPECIFICATIONS. (2.) CATALOG CUTS FOR ALL PRIVATE WATER SYSTEM PIPE, VALVES, FITTINGS, APPURTENANCES, AND RELATED ITEMS.

2. SPECIAL SCHEDULING OUTSIDE OF NORMAL WORKING HOURS MAY BE REQUIRED AND A MINIMUM THREE (3) WORKING DAY ADVANCE NOTICE BY THE CONTRACTOR TO THE ORANGE WATER DIVISION INSPECTOR IS REQUIRED FOR SYSTEM SHUT–DOWNS.

3. COUNTY INSPECTOR SHALL BE NOTIFIED OF ANY AND ALL WATER SYSTEM CONSTRUCTION 24 HOURS PRIOR TO BEGINNING CONSTRUCTION, (714) 288–2475.

4. WATER MAINS AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH A.W.W.A STANDARD FOR INSTALLATION OF DUCTILE–IRON WATER MAINS AND THEIR APPURTENANCES: C–600–2001, C–105/A21.5–93 OR MOST RECENT UPDATE AND COUNTY OF ORANGE ARCHITECTURAL & ENGINEERING GUIDELINE. INSTALLATION SHALL BE BY A CONTRACTOR HOLDING A VALID CLASS A OR C–34 SPECIALTY LICENSE FROM THE STATE OF CALIFORNIA.

5. CONNECTION TO EXISTING CITY WATER MAINS SHALL BE MADE ONLY AFTER SUCCESSFUL PRESSURE TEST AND STERILIZATION HAS BEEN COMPLETED.

6. FINAL INSPECTION SHALL BE MADE AFTER COMPLETE INSTALLATION OF THE WATER SYSTEM AND APPURTENANCES, DISINFECTION, RAISING TO GRADE OF ALL ON–SITE, OFF–SITE, TAPPING VALVES, AND METER BOXES AND FIRE HYDRANT SUPPORT COLLARS.

7. ALL CITY DEDICATED FIRE HYDRANTS SHALL BE PAINTED AFTER INSTALLATION WITH APPROVED SAFETY ORANGE PER CITY OF ORANGE FIRE DEPARTMENT REQUIREMENT.

8. WATER DEPARTMENT STANDARDS ARE AVAILABLE AT THE CITY OF ORANGE WATER DEPARTMENT, 189 S. WATER ST., ORANGE, CA 92866.

9. ALL MATERIALS SHALL BE NEW AND FREE OF DEFECTS.

10. CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF WATER MAINS AND OTHER UTILITIES PRIOR TO CONSTRUCTION.

11. INSTALLATION OF SEWER MAINS IN THE VICINITY OF WATER MAINS SHALL BE DONE IN PER DPW STD. 204 AND IN ACCORDANCE WITH THE CALIFORNIA STATE HEALTH DEPARTMENT STANDARD REQUIREMENTS FOR MATERIALS INSTALLATIONS AND HORIZONTAL AND VERTICAL SEPARATIONS.

12. A FIVE (5) FOOT MINIMUM HORIZONTAL CLEARANCE AND A ONE (1) FOOT MINIMUM VERTICAL CLEARANCE IS REQUIRED BETWEEN WATER MAINS, LATERALS, SERVICES, METERS, FIRE HYDRANTS AND SIGNS, TREES OR OTHER SUBSTANTIAL SHRUBS, BRUSHES, OR PLANTS.

13. A FIVE (5) FOOT MINIMUM CLEARANCE IS REQUIRED BETWEEN ALL WATER MAINS LATERALS, SERVICES, METERS, FIRE HYDRANTS, AND SIGNS. TREES OR OTHER SUBSTANTIAL SHRUBS, BUSHES, OR PLANTS. UNLESS OTHERWISE SHOWN ON THE PLAN.

14. A FIVE (5) FOOT SEPARATION SHALL BE MAINTAINED FROM THE CITY WATER MAINS TO THE PROPOSED BUILDINGS AND STRUCTURES UNLESS OTHERWISE APPROVED BY THE ENGINEER.

15. PERMANENT SIGNS, AWNINGS, OR OTHER STRUCTURES ARE PROHIBITED FROM INSTALLATION OVER CITY WATER MAINS, LATERALS, SERVICES, METERS, AND FIRE HYDRANTS.

16. ALL METERS, DETECTOR CHECKS, AND FIRE HYDRANTS IMPACTED BY THE DEMOLITION SHALL BE RETURNED TO THE CITY WATER YARD.

17. ALL FITTINGS TO BE INSTALLED WITH THRUST BLOCKS AND MEGA– LUG RETAINING GLANDS OR EQUAL.

18. ALL WORK SHALL BE IN CONFORMANCE WITH THE COUNTY OF ORANGE ARCHITECTURAL & ENGINEERING SPECIFICATIONS AND SHALL ALSO BE DONE TO THE SATISFACTION OF THE COUNTY INSPECTOR.

19. ALL PIPE, PIPELINE FITTINGS, AND SERVICES SHALL BE WRAPPED WITH POLYETHYLENE PER A.W.W.A. STANDARD FOR POLYETHYLENE ENCASEMENT FOR DUCTILE IRON PIPING FOR WATER AND OTHER LIQUIDS C–105. POLYWRAP MATERIAL SHALL BE CLEAR 8 MIL POLYETHYLENE FLAT TUBING WITH DIMENSIONS APPROPRIATE FOR THE SIZE OF PIPE.

20. WATER MAINLINES, FITTINGS, & APPURTENANCES SHALL BE INSTALLED THREE AND ONE–HALF (3.5) FEET BELOW FINISHED SURFACE TYPICALLY (NOT SUBGRADE) UNLESS INDICATED OTHERWISE ON PLANS. CONTRACTOR SHALL HAVE DESIGN CIVIL ENGINEER STAKE WATER PIPELINES, FIRE HYDRANTS, AND METER LOCATIONS.

21. PUBLIC WATER VALVES SHALL BE OPERATED BY CITY STAFF ONLY.

22. INDIVIDUAL PRESSURE REGULATORS SHALL BE FURNISHED AND INSTALLED BY THE APPLICANT/DEVELOPER ON SERVICES WHERE THE INCOMING PRESSURE EXCEEDS EIGHTY POUNDS PER SQUARE INCH (80 PSI).

23. EACH BUILDING SHALL BE PROTECTED WITH A SEPARATE FIRE SERVICE UNLESS OTHERWISE APPROVED BY THE FIRE DEPARTMENT.

24. FIRE SERVICES ARE SUBJECT TO FIRE DEPARTMENT REVIEW AND APPROVAL.

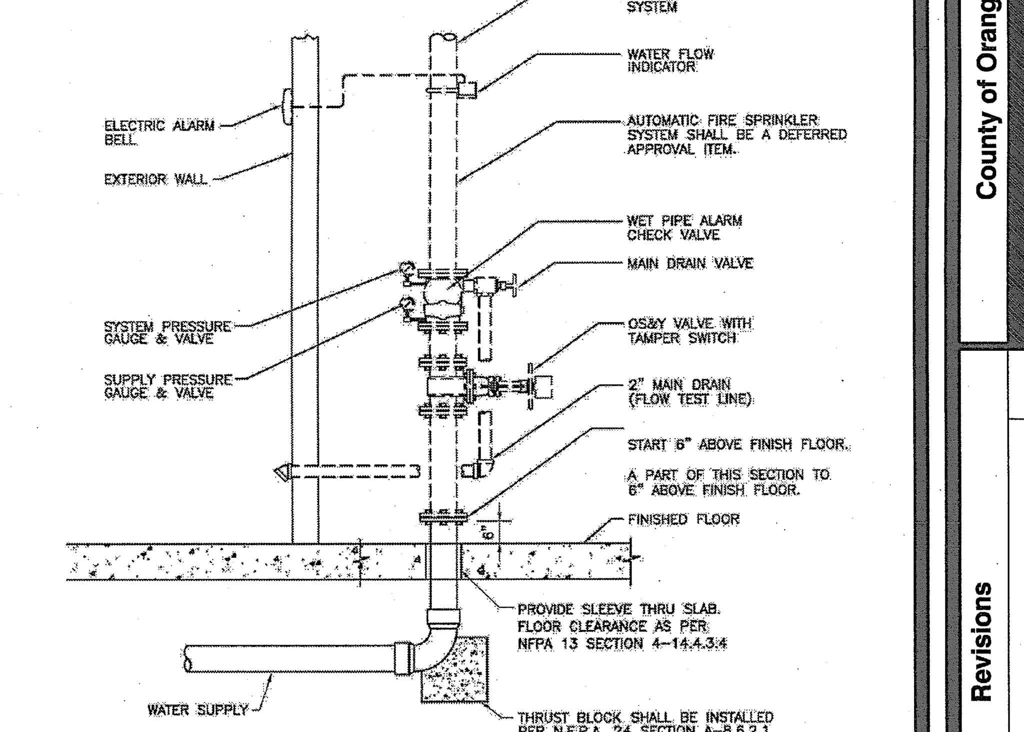
25. THE CONTRACTOR SHALL SATISFY ALL WATER MAIN CONNECTION, PLAN CHECK, AND INSPECTION CHARGES AS DETERMINED BY THE WATER DIVISION PRIOR TO APPROVAL OF THE WATER PLAN.

26. THE CONTRACTOR SHALL SATISFY ALL WATER BOND REQUIREMENTS FOR THE INSTALLATION OF THE WATER SYSTEM AS DETERMINED BY THE WATER DIVISION PRIOR TO APPROVAL OF THE WATER PLAN.

27. POLYETHYLENE WRAP SHALL BE INSTALLED OVER ALL DUCTILE IRON PIPE, VALVES FITTINGS, COPPER SERVICE LATERALS, AND APPURTENANCES PER A.W.W.A. STD C–105/A21.5–93 OR MOST RECENT UPDATE.

28.. THE CONTRACTOR IS RESPONSIBLE FOR RE–ESTABLISHING LATERAL CONNECTIONS TO THE WATER MAIN AND TEMPORARY TIE–OVERS MAY BE REQUIRED AS DETERMINED BY THE ENGINEER.

29. INSTALLATIONS FOUND TO BE IN NON–COMPLIANCE WITH THESE CONSTRUCTION NOTES SHALL BE REMOVED AND RE–INSTALLED PER COUNTY INSPECTOR APPROVAL PRIOR TO FINAL JOB APPROVAL AT THE CONTRACTOR'S EXPENSE.



UNDER FOUNDATION FIRE RISER DETAIL

NO SCALE

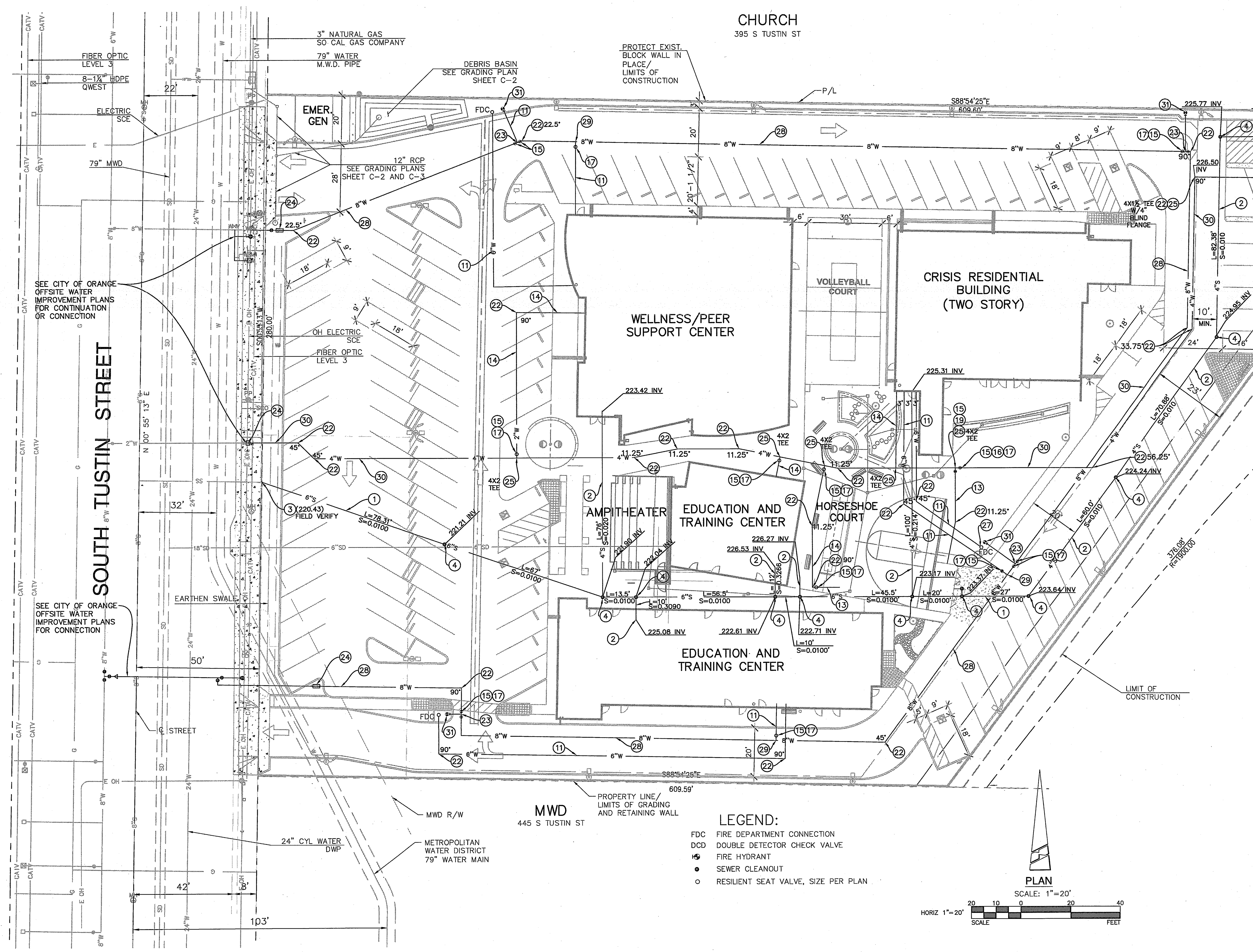
NOTES:

1. THIS PLAN IS FOR THE CONSTRUCTION OF SEWER AND ONSITE WATER FACILITIES ONLY.
2. REFER TO FIRE SPRINKLER AND/OR PLUMBING PLANS FOR THE CONSTRUCTION WITHIN THE BUILDING.
3. A SEPARATE FIRE DEPARTMENT PLAN CHECK AND APPROVAL IS REQUIRED FOR ALL UNDERGROUND FIRE LINE CONSTRUCTION ON THE SYSTEM SIDE OF THE DETECTOR CHECK. THE CONTRACTOR IS RESPONSIBLE FOR HIRING A PROPERLY LICENSED PROFESSIONAL CIVIL ENGINEER AT HIS COST TO PREPARE AND SUBMIT UNDERGROUND SERVICE DRAWINGS FOR REVIEW AND APPROVAL TO THE CITY FIRE DEPARTMENT AFTER THE AWARD OF THE CONTRACT AND PRIOR TO THE INSTALLATION OF THE UNDERGROUND FIRE LINE SYSTEM.
4. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF EXISTING FACILITIES PRIOR TO CONSTRUCTION.

*5. UNLESS OTHERWISE NOTED, AGENCY STANDARD IS PER CITY OF ORANGE AND SPECIFICATION IS PER COUNTY OF ORANGE ARCHITECT–ENGINEER GUIDE.

6. THE FIRE SYSTEM (LOCATION OF FDC) IS DESIGNED FOR NON FIRE RATED BUILDING WALL.
7. SEE CITY OF ORANGE OFFSITE WATER IMPROVEMENT PLAN FOR CONTINUATION OR CONNECTION.
6. ONSITE WATER TO BE OWNED AND MAINTAINED BY COUNTY OF ORANGE/OWNER.
7. IT IS THE RESPONSIBILITY OF THE CONSULTANTS AND CONTRACTORS TO INDEPENDENTLY VERIFY THE EXISTING AVAILABLE PRESSURE AND FLOW CONDITIONS AND DESIGN THE ON–SITE SYSTEMS TO MEET THE SITE SPECIFIC REQUIREMENTS. FIRE SERVICE PRESSURE AND FLOW TEST RESULTS ARE VALID ONLY WHEN FIELD TESTED BY THE APPROPRIATE FIRE AUTHORITIES.

* UNDERGROUND FIRELINE DESIGN STANDARD AND SPECIFICATION PER SEPARATE FIRE DEPARTMENT PLAN.



SEWER CONSTRUCTION NOTES

1. CONSTRUCT 6" SEWER SDR–35
2. CONSTRUCT 4" ABS SEWER SERVICE LATERAL
3. CONNECT TO EXISTING SEWER LATERAL
4. INSTALL SEWER CLEANOUT PER AGENCY STANDARD PLAN NO. 208

WATER CONSTRUCTION NOTES

10. INSTALL 1" P.V.C. SCH. 40 WATER LINE INCLUDING REQUIRED FITTINGS & THRUST BLOCKS PER AGENCY STD. PLAN 109
11. INSTALL 6" P.V.C. (AWWA C–900 CLASS 150) WATER LINE INCLUDING REQUIRED FITTINGS & THRUST BLOCKS PER AGENCY STD. PLAN 109
12. INSTALL 4" P.V.C. (AWWA C–900 CLASS 150) WATER LINE INCLUDING REQUIRED FITTINGS & THRUST BLOCKS PER AGENCY STD. PLAN 109
13. INSTALL 3/4" P.V.C. SCH. 40 WATER LINE INCLUDING REQUIRED FITTINGS & THRUST BLOCKS PER AGENCY STD. PLAN 109
14. INSTALL 2" P.V.C. SCH. 40 WATER LINE INCLUDING REQUIRED FITTINGS & THRUST BLOCKS PER AGENCY STD. PLAN 109
15. INSTALL VALVE BOX PER SPECIFICATION
16. INSTALL 2"X1" REDUCER PER SPECIFICATION
17. INSTALL RESILIENT SEAT GATE VALVE SIZE PER PIPE DIAMETER SHOWN ON PLAN PER COUNTY OF ORANGE ARCHITECT–ENGINEER GUIDE SPECIFICATION.
19. INSTALL 2"X¾" REDUCER PER SPECIFICATION.
20. NOT USED
21. CONNECT TO EXISTING 2" WATER METER AND BOX.
22. INSTALL BEND AT ANGLE AND SIZE SHOWN ON THE PLAN INCLUDING THRUST BLOCK PER AGENCY STD. PLAN 109
23. INSTALL FIRE HYDRANT ASSEMBLY PER AGENCY STD. PLAN 102
24. CONNECT TO PROPOSED VALVE OR METER SHOWN ON OFF–SITE UTILITY PLAN
25. INSTALL TEE (SIZE PER PLAN) INCLUDING THRUST BLOCK PER AGENCY STD. PLAN 109.
26. INSTALL 1–1/2" P.V.C. (SCH.40 OR APPROVED EQUAL) WATER LINE INCLUDING REQUIRED FITTINGS & THRUST BLOCKS PER AGENCY STD. PLAN 109
27. INSTALL FIRE DEPARTMENT CONNECTION (FDC) PER FIRE DEPARTMENT REQUIREMENT
28. CONSTRUCT 8" PUSH–ON TYPE SINGLE GASKET JOINT CLASS 350 DUCTILE IRON PIPE, WITH A NOMINAL LAYING LENGTH OF 18' INCLUDING FITTINGS & THRUST BLOCKS PER AGENCY STD. PLAN 109
29. CONSTRUCT 8"X6" TEE INCLUDING THRUST BLOCK PER AGENCY STD. PLAN 109
30. INSTALL 4" P.V.C. DR 18 CLASS 150 WATER LINE INCLUDING REQUIRED FITTINGS & THRUST BLOCKS PER AGENCY STD. PLAN 109
31. INSTALL FIRE HYDRANT CONCRETE COLLER AND LANDSCAPE INSTALLATION PER AGENCY STD. PLAN 103

County of Orange
OC PUBLIC WORKS
Architecture & Engineering
0742 Revisions
Sym. Descrip. Date By
Consultants
WILLDAN Engineering
2401 EAST KATELLA AVENUE, SUITE 450 ANAHEIM, CALIFORNIA 92806–6073 714/978–8200 FAX 714/978–8299
PREPARED UNDER THE SUPERVISION OF KENNETH C. TAYLOR 56185 11/26/09 R.C.E. DATE
Drawn Chkd. Date 11/26/09
REGISTERED PROFESSIONAL ENGINEER KENNETH C. TAYLOR No. 56185 EXP. 12–31–10 CIVIL STATE OF CALIFORNIA
A-E Seal
A-E ALEXANDER + HIBBS, AIA, INC.
ALEXANDER + HIBBS AIA INC. Architecture and Planning 1200 N. JEFFERSON ST. SUITE A ANAHEIM, CALIFORNIA 92807 (714) 630–3686
Design PM Chkd. KT Date Nov. 26, 2009
Sht Title WATER AND SEWER PLAN
Project COUNTY OF ORANGE HEALTH CARE AGENCY 401 SOUTH TUSTIN STREET
401 SOUTH TUSTIN STREET ORANGE, CA 92866
PROJ. NO. 100-042-210-1900 H2407P20
Plan No. 52333-03608
Sheet C-5

0742 COUNTY OF ORANGE HEALTH CARE AGENCY 401 SOUTH TUSTIN STREET
U:\jn17336_401_S_Tustin_Renovation\PS&E\Plans\pl–GRAD–WATR–SSWR–05.dwg Plotted: 11/13/2009 12:37 PM