

PLUMBING SPECIFICATIONS

01 GENERAL CONDITIONS
GENERAL AND SPECIAL CONDITIONS ARE HEREBY MADE AN INTEGRAL PART OF THIS DIVISION OF THE SPECIFICATIONS IN THAT THEY ARE APPLICABLE TO THE WORK UNDER THIS DIVISION UNLESS OTHERWISE NOTED.
PROVIDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED FOR THE COMPLETION AND OPERATION OF ALL SYSTEMS IN THIS SECTION OF WORK IN ACCORDANCE WITH ALL APPLICABLE CODES.
PERMITS: APPLY FOR AND PAY FOR ALL NECESSARY PERMITS, FEES, AND INSPECTIONS REQUIRED BY ANY PUBLIC AUTHORITY HAVING JURISDICTION. ACREAGE CHARGES, BOND PROPERTY ASSESSMENTS AND FACILITIES CHARGE ARE NOT TO BE CONSIDERED TO BE A PART OF THIS CONTRACT.
WARRANTY: PROVIDE ALL MATERIALS AND EQUIPMENT UNDER THIS SECTION OF THE SPECIFICATIONS WITH A ONE YEAR WARRANTY FROM THE DATE OF ACCEPTANCE OF WORK BY THE OWNER.
THE CONTRACTOR SHALL TIE INTO CIVIL PROVIDED TAP AS INDICATED ON PLANS. ALL COSTS FOR THIS SERVICE SHALL BE PART OF HIS BID CONTRACT PRICE.
PROTECT COPPER PIPING AGAINST CONTACT WITH DISSIMILAR METALS. ALL HANGERS, SUPPORTS, ANCHORS, AND CLIPS SHALL BE COPPER OR COPPER PLATED.
PROTECT COPPER PIPING AGAINST CONTACT WITH ALL MASONRY. WHERE COPPER IS SLEEVED THROUGH MASONRY, PROVIDE COPPER OR RED BRASS SLEEVES.
MAKE SURE PROVISIONS ARE INSTALLED IN ALL PIPING SO NO STRAIN OR BREAKAGE RESULTS FROM EXPANSION OR CONTRACTION.
INSTALL WATER PIPING IN EXTERIOR WALLS ON THE CONDITIONED SIDE OF THE WALL INSULATION.
FITCH ALL WATER PIPES SO THAT ALL PARTS MAY BE DRAINED. THE FORMATION OF SAGS AND TRAPS SHALL BE AVOIDED.
PROVIDE SHOCK ARRESTORS WHERE SHOWN ON PLANS FOR THE COMPLETE ELIMINATION OF WATER HAMMER.
STERILIZE DOMESTIC WATER PIPING IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION'S SPECIFICATIONS AND LOCAL HEALTH DEPARTMENT REGULATIONS.
SLOPE SANITARY WASTE PIPING 2.5" AND SMALLER AT 1/4" PER FOOT MIN. SLOPE SANITARY WASTE PIPING 3" AND LARGER AT 1/8" PER FOOT MINIMUM.
WHERE WASTE PIPING IS EXPOSED IN REST ROOM AREAS, PROVIDE CHROME PLATED BRASS PIPING, WITH MATCHING STOPS AND ESCUTCHEONS.
PROVIDE REMOVABLE TRAPS WITH INTEGRAL CLEAN-OUT PLUG FOR ALL LAVATORIES. INSTALL CLEAN-OUTS IN A LOCATION THAT PERMITS ACCESS FOR SERVICE WITHOUT DAMAGE TO THE BUILDING OR FINISHED MATERIALS.
INSTALL CLEAN-OUTS IN A LOCATION THAT PERMITS ACCESS FOR SERVICE WITHOUT DAMAGE TO THE BUILDING OR FINISHED MATERIALS.
02 MATERIALS AND EQUIPMENT
ALL NEW WORK SHALL BE OF MATERIALS LISTED BELOW OR SHALL MATCH EXISTING. IF A CONFLICT EXISTS BETWEEN MATERIALS AND/OR EQUIPMENT, THE MORE STRINGENT SHALL APPLY AS ADJUDGED BY THE ARCHITECT/ENGINEER. THE CONTRACTOR SHALL FIELD VERIFY MATERIAL TYPE AND EQUIPMENT.
A. SANITARY SEWER PIPE AND FITTINGS - BELOW GRADE.
SCHEDULE 40 PVC DWV PIPE, (ASTM D1784 - D1785), PVC SOCKET FITTINGS AND SOLVENT CEMENTED FITTINGS. (ASTM D2665)
B. SANITARY SEWER/VENT PIPE AND FITTINGS - ABOVE GRADE.
SCHEDULE 40 PVC DWV PIPE, (ASTM D1784 - D1785), PVC SOCKET FITTINGS AND SOLVENT CEMENTED FITTINGS. (ASTM D2665)
C. DOMESTIC WATER PIPING BELOW GRADE.
SOFT ANNEALED SEAMLESS COPPER TUBING, TYPE 'K' (ASTM B 88) WITH NO JOINTS BELOW GRADE.
F. DOMESTIC WATER PIPING AND JOINTS ABOVE GRADE.
HARD DRAWN SEAMLESS COPPER TUBING, TYPE 'L' (ASTM B 88) WITH 95-5 SILVER SOLDERED JOINTS (ASME B16.18/22) OR PRESSURE SEALED JOINTS WITH EPDM-RUBBER, O-RING SEAL (PROGRESS OR EQUAL).

PLUMBING LEGEND

Table with columns for NEW WORK and ABBREVIATIONS. Lists symbols for various plumbing components like pipes, valves, and fixtures.

PLUMBING NOTES

- 1. ALL PLUMBING SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST ISSUE OF THE STATE PLUMBING CODE AND THE NATIONAL FIRE CODES WHICH APPLY.
2. P.C. SHALL VERIFY EXACT LOCATION AND INVERT ELEVATIONS OF IN-IN POINTS TO BUILDINGS EXISTING PLUMBING UTILITIES PRIOR TO ROUGH-IN. ANY CORRD. REQUIRED SHALL BE MADE BY THE CONTRACTOR IN THE FIELD.
3. ALL PLUMBING PIPING SHALL BE CLOSELY COORDINATED WITH STRUCTURAL SYSTEM, MECHANICAL SYSTEM AND ELECTRICAL SYSTEM TO INSURE PROPER COMPLIANCE WITH CODES AND INSURE THAT ALL TRADES WILL NOT CONFLICT WITH EACH OTHER.
4. IF ANY SUBSTITUTED EQUIPMENT IS SUBMITTED AND APPROVED WITH PLUMBING CONNECTIONS OTHER THAN THAT SHOWN ON THE DRAWINGS AND SCHEDULES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE PROPER PLUMBING CONNECTIONS TO THIS EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER.
5. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DOORS, WINDOWS, WALLS, FIXTURES, ETC.
6. ALL CLEANOUTS SHALL HAVE TOPS SPECIALLY DESIGNED FOR SPECIFIC FLOOR FINISHES SUCH AS CARPET, TILE, ETC. UNLESS OTHERWISE SPECIFIED.
7. ALL FLOOR CLEANOUT FLOOR DRAIN AND CATCH BASIN TRAPS SHALL BE COVERED DURING CONSTRUCTION TO PREVENT DAMAGE.
8. VENTS WILL BE COLLECTED ABOVE THE CEILING AND EXTENDED THROUGH THE ROOF AT FEW POINTS AS POSSIBLE. VENT PENETRATIONS SHALL AVOID MECHANICAL EQUIPMENT INTAKE AIR LOCATIONS PER CODE REQUIREMENTS.
9. EXCEPT WHERE PIPE SPACE IS PROVIDED OR UNLESS OTHERWISE NOTED, SUPPLY, WASTE AND VENT RISERS SHALL BE RUN IN UNPARTITIONED AREAS.
10. PROVIDE ACCESS PANELS AS REQUIRED AT VALVE LOCATIONS TO PROVIDE ACCESS TO CONTROL VALVES. COORDINATE TYPE AND LOCATION WITH GENERAL CONTRACTOR.
11. PROVIDE ACCESS TO ALL EQUIPMENT REQUIRING CLEANING OR ADJUSTMENT.
12. P.C. SHALL PROVIDE A PRESSURE REDUCING VALVE WHERE WATER MAIN ENTERS BUILDING IF PRESSURE EXCEEDS 80 PSI. SET PRV @ 75 PSI.
13. CONTRACTOR SHALL VERIFY DOMESTIC WATER PRESSURE ENTERING BUILDING. WATER PRESSURE SHALL BE A MINIMUM OF 35 PSI AND A MAXIMUM OF 80 PSI ENTERING THE BUILDING DOWNSTREAM OF WATER METER AND BACKFLOW PREVENTER. CONTRACTOR SHALL MEASURE DOMESTIC WATER PRESSURE DOWNSTREAM OF BOTH THE WATER METER AND BACKFLOW PREVENTER ASSEMBLY PRIOR TO ROUGHING-IN AND PRIOR TO CERTIFICATE OF OCCUPANCY. IF FIELD MEASURED PRESSURE LESS THAN 35 PSI THE CONTRACTOR SHALL PROVIDE A VARIABLE SPEED BOOSTER PUMP AND TANK /W BYPASS EQUAL TO "QUANTUMFLO ATOM 2.0 HP" INSTALLED AT LOCATION COORDINATED WITH PLUMBING ENGINEER. IF MEASURED PRESSURE MORE THAN 80 PSI PLUMBING CONTRACTOR SHALL PROVIDE A PRESSURE REDUCING VALVE WHERE DOMESTIC WATER MAIN ENTERS BUILDING.

SHOCK ARRESTOR TABLE

Table with columns: TAG, POI WH201 DESIGNATION, FIXTURE UNITS, SELECTION BASED ON MANUFACTURER, MODEL NUMBER, REMARKS. Lists shock arrestors for various fixtures.

PIPE LABEL LEGEND

Table with columns: PLAN DESIGNATION, PIPE LABEL. Lists labels for domestic water and domestic hot water.

PLUMBING FIXTURE SCHEDULE

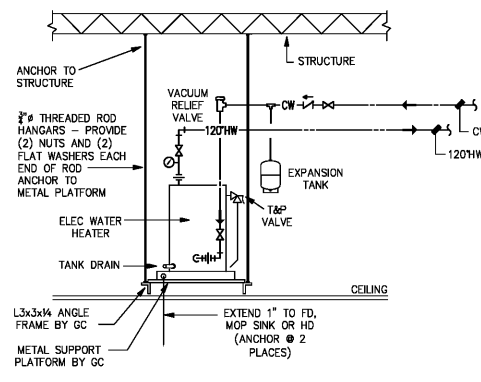
Table with columns: TAG, FIXTURE TYPE, DESCRIPTION, SERVICE CONNECTIONS (SAN, VENT, HW, CW), REMARKS. Lists plumbing fixtures like water closets, lavatories, and mop sinks.

ELECTRIC WATER HEATER SCHEDULE

Table with columns: TAG, DESCRIPTION, ELECTRICAL DATA (GALLONS STORAGE, NO ELEMENTS, TOTAL KW, VOLTAGE, PHASE, HERTZ, RECOVERY GPH/RSE, WEIGHT LBS), SELECTION BASED ON MANUFACTURER, MODEL NUMBER, REMARKS/OPTIONS. Lists electric water heaters.

EXPANSION TANK SCHEDULE

Table with columns: TAG, DESCRIPTION, VOLUME (GALLONS), DIAMETER (INCHES), HEIGHT (INCHES), SELECTION BASED ON MANUFACTURER, MODEL NUMBER, REMARKS. Lists expansion tanks.



ELECTRIC WATER HEATER

SCALE: NONE
NOTES:
1. DRAWINGS FOR SCHEMATIC PURPOSES ONLY. ALL VALVES & EQUIPMENT MUST BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.



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