Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 01/06/14

## GAS DEMAND LOAD

| NO. | DESCRIPTION | CONN. SIZE | QTY. | INPUT (MBH/EA) | TOTAL (MBH) |
|---|---|---|---|---|---|
| WH-1 | TANKLESS WATER HEATER | 3/4" | 1 | 180 | 180 |
| RTU-1 | ROOFTOP UNIT FURNACE | 3/4" | 1 | 115 | 115 |
| RTU-2 | ROOFTOP UNIT FURNACE | 3/4" | 1 | 115 | 115 |
| 2 | FRYER | 1/2" | 1 | 80 | 80 |
| | | COOKING EQUIPMENT SUB-TOTAL | | | 80 |
| | | WATER HEATING SUB-TOTAL | | | 180 |
| | | HVAC SUB-TOTAL | | | 230 |
| | | GAS DEMAND TOTAL | | | 490 |

NOTE(S):
1. THE ACTUAL LENGTH TO THE MOST REMOTE APPLIANCE CONNECTION IS 100'-0". THE SYSTEM IS SIZED FOR A TOTAL DEVELOPED LENGTH OF MAXIMUM 150-0".
2. THE SERVICE TO THE TENANT SPACE SHALL BE INSTALLED AS A LOW PRESSURE SUPPLY (INLET PRESSURE OF 0.5 PSI) AND A 0.5" WC PRESSURE DROP.
3. PIPE SIZES SHOWN ON THE RISER DIAGRAM ARE BASED ON THE 2009 INTERNATIONAL FUEL GAS CODE, WITH CITY AMENDMENTS. VERIFY FIELD CONDITIONS FOR ACTUAL DEVELOPED LENGTH AND POSSIBLE ADJUSTMENTS TO PIPE SIZES.
4. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY FOR THE PROVISION OF THE COMPLETE METER ASSEMBLY INCLUDING REGULATOR AND VENTING REQUIREMENTS.

## BACKFLOW DEVICE SCHEDULE

| ITEM/ FIXTURE | ITEM/ EQUIPMENT # | BACKFLOW DEVICE |
|---|---|---|
| BAG-N-BOX SODA SYSTEM | - | RPZ-1 |
| ICE MAKER(S) | - | RPZ-2 |
| TEA BREWER(S) | - | BFP-1 |
| ECOLAB CONNECTION(S) | - | |
| SODA DISPENSER(S) | - | |
| INCOMING WATER SERVICE | - | BFP-2 |
| SERVICE SINK | - | INTEGRAL |

NOTE(S):
1. ALL TESTABLE BACKFLOW DEVICES SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION WITHIN 5'-0" OF THE FLOOR, WITH CLEARANCE AROUND THE TEST PORTS FOR TESTING PURPOSES.

## KITCHEN H.W. DEMAND

| ITEM | QTY. | GPH | TOTAL GPH |
|---|---|---|---|
| LAVATORY | 2 | 5 | 10 |
| KITCHEN HAND SINK | 1 | 5 | 5 |
| 3 COMPARTMENT SINK | 1 | 90 | 90 |
| PRE RINSE SINK | 1 | 20 | 20 |
| PREP SINK | 1 | 10 | 10 |
| SERVICE SINK | 1 | 20 | 20 |
| TOTAL | | | 155 |

HOT WATER CALCULATIONS:

PEAK DEMAND
1. 155 GPH (PEAK DEMAND) X 0.40 (DEMAND FACTOR) = 62 GPH.
2. 62 GPH (DEMAND) X 1.0 (STORAGE FACTOR) = 62 GALS.
3. 155 GPH (PEAK DEMAND) / 60 MIN./HR = 2.6 GPM.
4. 40°F DOMESTIC SUPPLY WATER TEMPERATURE.
5. 140°F DESIGN SUPPLY HOT WATER FOR KITCHEN.
6. 500 GPM X $\Delta$ T = MIN. OUTPUT BTUH REQUIRED AT WATER HEATER. (500)(2.6)(100) = 130,000 BTUH.

CAPACITY PROVIDED
1. (1) TANKLESS WATER HEATER WITH 169,200 BTUH OUTPUT CAPACITY AND CONTINUOUS RECOVERY.

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## GREASE INTERCEPTOR CALCULATION

| TAG | DESCRIPTION | QTY. | DFU'S | TOTAL (DFU'S) |
|---|---|---|---|---|
| FS-1 | FLOOR SINK (3-COMP) | 1 | 4 | 4 |
| | | | TOTAL DFU'S | 4 |
| TABLE 10-2 HYDROMECHANICAL GREASE INTERCEPTOR (HGI) SIZING RECOMMENDATION | | | | 8 (20GPM) |

NOTE(S):
1. CALCULATIONS WERE PERFORMED PER 2009 UNIFORM PLUMBING CODE, TABLE 10-2.

## PIPING MATERIAL SCHEDULE

| | | |
|---|---|---|
| 1. | WATER PIPE (ABOVE GROUND) | CROSSLINKED POLYETHYLENE (PEX) TUBING WITH BRASS INSERT FITTINGS. NO PEX PIPING SHALL BE INSTALLED WHERE IT IS EXPOSED TO DIRECT SUNLIGHT. |
| 2. | WATER PIPE (BELOW GROUND) | CROSSLINKED POLYETHYLENE (PEX) TUBING WITH BRASS INSERT FITTINGS. NO JOINTS OR UNIONS SHALL BE INSTALLED BELOW THE BUILDING SLAB. |
| 3. | SEWER AND VENT PIPE (ABOVE AND BELOW GRADE) | PIPE AND FITTINGS SHALL BE PVC FOR USE IN GRAVITY, NON-PRESSURE APPLICATIONS AS IDENTIFIED IN ASTM D 1784. |
| 4. | CONDENSATE DRAIN PIPE AND INDIRECT DRAINAGE PIPE (INTERIOR TO BUILDING) | TYPE 'M" COPPER WITH 95/5 SILVER SOLDER JOINT FITTINGS. INSULATE CONDENSATE PIPING WITH 1/2" ARMAFLEX CLOSED CELL PIPE INSULATION WITH SELF SEALING ADHESIVE JOINTS, OR EQUIVALENT. |
| 5. | CONDENSATE DRAIN PIPE (EXTERIOR TO BUILDING) | TYPE 'M" COPPER WITH 95/5 SILVER SOLDER JOINT FITTINGS. |
| 6. | GAS PIPE | SCHEDULE 40 BLACK STEEL WITH MALLEABLE IRON FITTINGS. WELDED JOINTS FOR PIPE 2-1/2" AND LARGER AND ALL JOINTS BELOW GRADE. |

## PLUMBING FIXTURE SCHEDULE

| MARK | FIXTURE | ROUGH-IN-SIZE S/W | V | CW | HW | DESCRIPTION/REMARKS |
|---|---|---|---|---|---|---|
| WC-1 | WATER CLOSET (ADA) | 4" | 2" | 1/2" | - | AMERICAN STANDARD 'CADET' #2467.016 WHITE VITREOUS CHINA, FLOOR MOUNTED, ADA COMPLIANT TANK TYPE PRESSURE ASSISTED 1.6 GPF WATER CLOSET. TRIP LEVER SHALL BE INSTALLED ON WIDE SIDE OF STALL. INCLUDE BEMIS #1055 WHITE ELONGATED OPEN FRONT SEAT-LESS COVER, WITH CHECK HINGE STOPS. |
| LAV-1 | LAVATORY (ADA) | 2" | 1 1/2" | 1/2" | 1/2" | AMERICAN STANDARD 'DECLYN' #0321.026 WALL HUNG WHITE VITREOUS CHINA. INCLUDE CONCEALED ARM CARRIER, AMERICAN STANDARD #6055.202 DC POWERED AUTOMATIC FAUCET, OFF-SET GRID DRAIN, BRASSCRAFT "COMMERCIAL" RIGID SUPPLIES, ANGLE STOPS, AND CHROME PLATED 17GA. L.A. PATTERN CAST BRASS P-TRAP WITH SECURED ESCUTCHEON. P-TRAP AND WATER SUPPLIES SHALL BE WRAPPED WITH TRUEBRO LAVGUARD #102 FOR HANDICAP PROTECTION. |
| FD-1 | FLOOR DRAIN | 3" | 2" | - | - | JR SMITH #2005-B-NB-U, DUCO CAST IRON BODY FLOOR DRAIN WITH STEEL THREADED INSERTS AND ADJUSTABLE NICKEL BRONZE 6" ROUND TOP. |
| FD-2 | FLOOR DRAIN | 3" | 2" | - | 1/2" | JR SMITH #2005-B-NB-U-P050, DUCO CAST IRON BODY FLOOR DRAIN WITH STEEL THREADED INSERTS AND ADJUSTABLE NICKEL BRONZE 6" ROUND TOP, AND TRAP PRIMER CONNECTION. |
| FS-1 | FLOOR SINK | 3" | 2" | - | - | ZURN #1900 SANI-FLOOR RECEPTOR, 12x12x6 ACID RESISTING PORCELAIN ENAMEL INTERIOR AND TOP, CAST IRON BODY, SQUARE SLOTTED LIGHT DUTY GRATE, AND WHITE ABS DOME STRAINER. COORDINATE GRATE CONFIGURATION WITH KITCHEN ROUGH IN PLANS. |
| HD-1 | HUB DRAIN | 4" | 2" | - | - | FIELD FABRICATED PVC BODY HUB DRAIN WITH BOTTOM OUTLET AND PVC REDUCER. TOP OF THE HUB SHALL BE 6" AFF. |
| FCO | FLOOR CLEANOUT | LINE SIZED | - | - | - | ZURN #1400 ADJUSTABLE FLOOR CLEANOUT, DURA-COATED CAST IRON BODY, GAS AND WATER TIGHT TAPERED THREAD PLUG, AND 5"ø ROUND POLISHED NICKEL BRONZE TOP. |
| WCO | WALL CLEANOUT | LINE SIZED | - | - | - | ZURN #1443 SQUARE WALL CLEANOUT, DURA-COATED CAST IRON BODY, GAS AND WATER TIGHT TAPERED THREAD PLUG, AND NICKEL BRONZE SECURED SQUARE, SMOOTH WALL ACCESS COVER AND FRAME. |
| SS-1 | SERVICE SINK | 3" | 2" | 3/4" | 3/4" | FIAT #MSB2424 MOLDED STONE SERVICE SINK. INSTALL COMPLETE WITH #830-AA CHROME PLATED SERVICE FAUCET W/ VACUUM BREAKER, INTEGRAL STOPS, WALL BRACE, PAIL HOOK AND HOSE THREAD ON SPOUT, 832-AA HOSE AND BRACKET, AND 889-CC MOP HANGER. |

## PLUMBING EQUIPMENT SCHEDULE

| MARK | FIXTURE | ROUGH-IN-SIZE S/W | V | CW | HW | DESCRIPTION/REMARKS |
|---|---|---|---|---|---|---|
| WH-1 | TANKLESS WATER HEATER | - | - | 1" | 1" | RINNAI #R75-LSi NATURAL GAS FIRED TANKLESS APPLIANCE COMPLETE WITH MCC-91 CONTROLLER AND T&P VALVE, 180,000 BTUH INPUT, 94+% EFFICIENCY WITH A CONTINUOUS RECOVERY AT A 100°F RISE. APPLIANCE IS INDIVIDUALLY DIRECT VENTED/ SEALED FOR COMBUSTION WITH MANUFACTURER AVAILABLE UBBINK CONCENTRIC VENT KIT WITH ROOF TERMINATION. |
| ET-1 | EXPANSION TANK | - | - | 3/4" | - | WATTS REGULATOR #PLT-12, WITH STEEL BODY AND BUTYL RUBBER DIAPHRAGM FOR 4.5 GALLONS TOTAL CAPACITY/ 2.8 GALLONS ACCEPTANCE CAPACITY, 40 PSI FACTORY PRE-CHARGED. |
| TP-1 | TRAP PRIMER | - | - | 1/2" | - | PPP, INC. #PR-500 "PRIME RITE" TRAP PRIMER, BRONZE CONSTRUCTION WITH VACUUM PORTS, ADJUSTABLE WITH 1/2" COPPER TYPE "L" TO RECEPTOR. PROVIDE DISTRIBUTION UNIT AS REQUIRED FOR SUPPLY TO MULTIPLE DRAINS. INSTALL VALVE RECESSED IN WALL A MINIMUM 12" AFF, PROVIDE ACCESS PANEL. |
| WHA-1 | WATER HAMMER ARRESTER | - | - | LINE SIZED | - | PPP, INC. SERIES SC, FULLY MECHANICAL WATER HAMMER ARRESTER SIZED AND LOCATED PER THE MANUFACTURER SPECIFICATIONS. |
| MXV-1 | MIXING VALVE | - | - | 1/2" | 1/2" | WATTS REGULATOR #L111 UNDER SINK THERMOSTATIC MIXING VALVE, WITH BRASS BODY AND INTEGRAL MOUNTING HOLES, TAMPER RESISTANT ENCLOSURE. |
| RPZ-1 | REDUCED PRESSURE BACKFLOW PREVENTER | - | - | LINE SIZED | - | WATTS REGULATOR #SS009 REDUCED PRESSURE ZONE ASSEMBLY WATER SUPPLY TO CARBONATOR(S) SHALL BE PROTECTED BY AN APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER AND SHALL BE RATED FOR 150 PSI, THE BODY & ADAPTERS ARE OF STAINLESS STEEL CONSTRUCTION, ALL RUBBER COMPONENTS COMPLY WITH FDA FOOD ADDITIVE REGULATIONS. |
| RPZ-2 | REDUCED PRESSURE BACKFLOW PREVENTER | - | - | LINE SIZED | - | WATTS REGULATOR #009 REDUCED PRESSURE ZONE ASSEMBLY WATER SUPPLY TO ICE MACHINE(S) SHALL BE PROTECTED BY AN APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER AND SHALL BE RATED FOR 150 PSI, THE BODY & ADAPTERS ARE OF BRONZE CONSTRUCTION, ALL RUBBER COMPONENTS COMPLY WITH FDA FOOD ADDITIVE REGULATIONS. |
| BFP-1 | BACKFLOW PREVENTER | - | - | LINE SIZED | - | WATTS REGULATOR #SD-3 DUAL CHECK WITH ATMOSPHERIC PORT. WATER SUPPLY TO BEVERAGE FIXTURE APPLIANCES, ETC. SHALL BE PROTECTED BY AN APPROVED BACKFLOW PREVENTER AND SHALL BE RATED FOR CONTINUOUS OR INTERMITTENT PRESSURE, STAINLESS STEEL BODY CONSTRUCTION AND ALL RUBBER INTERNAL COMPONENTS. |
| BFP-2 | BACKFLOW PREVENTER | - | - | LINE SIZED | - | WATTS REGULATOR #007 DOUBLE CHECK VALVE ASSEMBLY. DOMESTIC WATER SERVICE TO THE TENANT SPACE SHALL BE PROTECTED BY AN APPROVED BACKFLOW PREVENTER AND SHALL BE RATED FOR 150 PSI, TWO POSITIVE SEATING CHECK MODULES WITH CAPTURED SPRINGS AND RUBBER SEAT DISCS. VERIFY APPROVAL WITH UTILITY AND JURISDICTION PRIOR TO INSTALLATION. |
| WF-1 | BEVERAGE STATION WATER FILTER | - | - | 3/4" | - | MULTI-CARTRIDGE MANIFOLDED WATER FILTER SYSTEM WITH BUILT-IN PRESSURE GAUGE, INLET WATER SHUT-OFF VALVE, OUTLET CHECK VALVES, MOUNTING BRACKETS, 3-CARTRIDGE FILTERS. THE WATER FILTER ASSEMBLY SHALL BE FURNISHED WITH THE KITCHEN EQUIPMENT PACKAGE AND INSTALLED BY THE PLUMBING CONTRACTOR. |
| GI-1 | GREASE INTERCEPTOR | 4" | 2" | - | - | THERMACO BIG DIPPER W-250-IS, 304 STAINLESS STEEL 50 LBS. GREASE RETENTION. 25 GPM MAXIMUM INLET FLOW RATE. REFER TO PLUMBING SANITARY PLANS FOR PROPOSED LOCATION. |

## PLUMBING LEGEND

| SYMBOL | ABBREV. | DESCRIPTION |
|---|---|---|
| SAN | S OR W | SOIL OR WASTE (BELOW GRADE) |
| GW | GW | GREASE WASTE |
| V | V | VENT |
| CD | CD | CONDENSATE DRAIN |
| ST | ST | STORM DRAIN |
| CW | CW | COLD WATER |
| FW | FW | FILTERED WATER |
| SW | SW | SOFTENED WATER |
| FSW | FSW | FIRE SERVICE WATER |
| HW | HW | HOT WATER |
| HWR | HWR | HOT WATER RETURN |
| RCL | RCL | RECLAIMED HEAT WATER |
| G | G | GAS, NATURAL OR PROPANE |
| | UP | PIPE UP |
| | DN. | TEE DOWN |
| | DN. | PIPE DOWN |
| | FCO | FLOOR CLEANOUT |
| | DCO | DOUBLE CLEANOUT |
| | CO | CLEANOUT, WALL OR PIPE |
| | SOV | SHUT-OFF VALVE |
| NO | SOV | SHUT-OFF VALVE, NORMALLY OPEN |
| NC | SOV | SHUT-OFF VALVE, NORMALLY CLOSED |
| | C.V. | CHECK VALVE |
| | B.V. | BALANCING VALVE |
| | U | UNION |
| | P.V. | MECHANICAL PLUG VALVE (GAS) |
| | SOC | SHUT-OFF COCK (GAS) |
| | EAAV | EARTHQUAKE ACTUATED AUTOMATIC VALVE (GAS) |
| | S.V. | ELECTRIC SOLENOID VALVE (GAS) |
| R | P.R. | PRESSURE REGULATOR (GAS) |
| | POC | POINT OF CONNECTION |
| | T&P | TEMPERATURE & PRESSURE RELIEF VALVE |
| | VTR | VENT TO ROOF |
| | HD | HUB DRAIN |
| | FD | FLOOR DRAIN (COORDINATE GRATE REQS) |
| | FS | FLOOR SINK (COORDINATE GRATE REQS) |
| | RP | RECIRCULATION PUMP |
| | HB | HOSE BIBB |
| | KEC | KITCHEN EQUIPMENT CONTRACTOR |
| | BTUH | BRITISH THERMAL UNITS PER HOUR |
| | MBH | BTUH X 1000 |
| | CFH | CUBIC FEET PER HOUR (1 MBH = 1 CFH) |
| | (E) | EXISTING |
| | I.E. | INVERT ELEVATION |
| | CONN | CONNECTION |
| | FU | FIXTURE UNITS |
| | GPM | GALLONS PER MINUTE |
| | GPH | GALLONS PER HOUR |
| | HP | HORSEPOWER |
| | PSI | POUNDS PER SQUARE INCH |
| | AP | ACCESS PANEL |
| | W/ | WITH |
| | FLR | FLOOR |
| | CLG | CEILING |
| | ABV | ABOVE |
| | BEL | BELOW |
| | UG | UNDERGROUND |
| | DN | DOWN |
| | CONT. | CONTINUE |
| | TYP. | TYPICAL |
| | FOH | FRONT OF HOUSE |
| | BOH | BACK OF HOUSE |
| | A.D.A. | AMERICAN DISABILITIES ACT |
| | A.F.F. | ABOVE FINISH FLOOR |
| | B.F.F. | BELOW FINISH FLOOR |

## TESTING PROCEDURES

| | |
|---|---|
| 1. | TEST INSTALLED WATER PIPING AT 100 PSI FOR A PERIOD OF 8 HOURS, OBSERVING FOR ANY VISIBLE LEAKS. TEST PIPING AGAIN WITH FIXTURES INSTALLED. |
| 2. | CHLORINATE ALL WATER PIPING FOR A PERIOD OF 8 HRS, BY CHARGING WITH A HYPOCHLORINATE SOLUTION TO ACHIEVE A 5 PPM STRENGTH AT THE FIXTURE FURTHEST FROM THE POINT OF APPLICATION. UPON COMPLETION OF THE CHLORINATION, FLUSH ALL PIPING UNTIL NO CHLORINE CAN BE DETECTED BY TASTE. CLEAN ALL STRAINERS AND SET WATER FLOWS FROM FIXTURES IN ACCORDANCE WITH MANUFACTURER AND LOCAL REQUIREMENTS. |
| 3. | TEST INSTALLED GAS PIPING AT 60 PSI FOR A PERIOD OF 2 HRS, USING SOAP AND WATER OBSERVING FOR ANY VISIBLE LEAKS AT ALL JOINTS. |
| 4. | TEST INSTALLED WASTE AND VENT PIPING FOR A PERIOD OF 8 HRS, BY CAPPING OR PLUGGING ALL JOINTS TO A LEVEL OF THE HIGHEST FIXTURE OR FITTING. FILL THE SYSTEM WITH WATER AND OBSERVE FOR ANY LEAKS. |

## PLUMBING GENERAL NOTES

1. NOTE: FOR THE PURPOSE OF CLEARNESS AND LEGIBILITY, THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ALTHOUGH SIZES AND LOCATIONS OF EQUIPMENT ARE DRAWN TO SCALE WHEREVER POSSIBLE, THE CONTRACTOR SHALL MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS AND VERIFY THIS INFORMATION PRIOR TO ORDERING, FABRICATING OR INSTALLING ANY MATERIALS.
2. THE PLUMBING SYSTEM DESIGN, INSTALLATION AND MATERIALS SHALL CONFORM TO ALL FEDERAL, STATE AND LOCAL CODES AND AUTHORITIES HAVING JURISDICTION. 1
3. PLUMBING QUALITY, WEIGHTS OF MATERIALS AND ALTERNATE METHODS OF CONSTRUCTION SHALL CONFORM TO THE 2009 UNIFORM PLUMBING CODE, WITH CITY AMENDMENTS.
4. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN ON THESE DRAWINGS AND SPECIFICATIONS WITH ALL DISCIPLINES AND TRADES PRIOR TO SUBMITTAL OF BID AND INSTALLATION OF SYSTEM.
5. CONTRACTOR SHALL MAKE ALL ARRANGEMENTS WITH UTILITY COMPANIES FOR SERVICE AND CONNECTIONS AND SHALL PAY FOR ALL FEES, CHARGES, PERMITS AND METERS.
6. THE PLUMBING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND LABOR (INCLUDING THE COMPLETE PLUMBING SYSTEM) FOR A PERIOD OF ONE YEAR FROM WRITTEN ACCEPTANCE BY THE TENANT. ANY DEFECTS IN MATERIALS AND OR LABOR FOUND WITHIN THE GUARANTEE PERIOD SHALL BE REMEDIED OR REPAIRED BY THIS CONTRACTOR IN A TIMELY FASHION, AT NO COST TO THE TENANT.
7. ALL PLUMBING FIXTURE LOCATIONS (WATER CLOSETS, LAVATORIES ETC.) ARE DIAGRAMMATIC. CONTRACTOR SHALL REFER TO FOOD SERVICE AND ARCHITECTURAL DRAWINGS FOR EXACT PLACEMENT AND MOUNTING HEIGHTS.
8. ANY DEVIATIONS FROM THE DRAWINGS OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO INSTALLATION.
9. CONTRACTOR SHALL VISIT SITE PRIOR TO SUBMITTAL OF BID AND FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS. SUBMITTAL OF BID WILL VERIFY THAT THE CONTRACTOR HAS VISITED THE SITE.
10. PIPING SHALL BE INSTALLED PARALLEL TO BUILDING LINES AND SUPPORTED AND ANCHORED AS REQUIRED TO FACILITATE EXPANSION AND CONTRACTION. THE INSTALLATION SHALL MEET ALL CONSTRUCTION CONDITIONS AND ALLOW FOR THE INSTALLATION OF OTHER TRADES.
11. SUPPORT PIPING WITH CLEVIS OR SPLIT RING TYPE PIPE HANGERS WITH 3/8" ALL THREAD ROD AND BEAM CLAMPS. PLUMBERS TAPE AND WIRE NOT PERMITTED. 1
12. TRAP PRIMERS FOR FLOOR DRAINS AND FLOOR SINKS AND WATER HAMMER ARRESTORS TO BE INSTALLED AS PER THE 2009 UNIFORM PLUMBING CODE, WITH CITY AMENDMENTS AND THE LATEST EDITION OF THE AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE 1010) SIZING AND INSTALLATION REQUIREMENTS.
13. ALL VALVES, TRAP PRIMERS, WATER HAMMER ARRESTORS OR OTHER EQUIPMENT SHOWN IN WALLS OR ABOVE NON-ACCESSIBLE CEILINGS SHALL BE INSTALLED BEHIND AN ACCESS PANEL. 1
14. ALL SERVICE WATER HEATING EQUIPMENT TO BE IN COMPLIANCE WITH THE 2009 UNIFORM PLUMBING CODE, WITH CITY AMENDMENT REQUIREMENTS.
15. ALL ITEMS PROJECTING THROUGH THE ROOF SHALL BE FLASHED THROUGH CURBS OR PIPE SEALS A MINIMUM OF 12" ABOVE THE ROOF. THE PIPE CURBS AND SEALS SHALL BE INSTALLED BY THE ROOFING CONTRACTOR. ENSURE THAT AMPLE BOOT OPENINGS ARE PROVIDED TO ACCOMMODATE ANY ELECTRICAL CONDUIT PENETRATIONS REQUIRED FOR POWER. 1
16. ALL WATER PIPING TO BE INSULATED AS PER THE 2009 UNIFORM PLUMBING CODE, WITH CITY AMENDMENT REQUIREMENTS:

| PIPE SIZE | INSULATION THICKNESS | INSULATION VALUE |
|---|---|---|
| 1/2" THRU 1 1/4" | 1/2" | R = 4.0 |
| 1-1/2" THRU 2" | 1" | R = 6.0 |

17. CONTRACTOR SHALL PROVIDE: EANCETS, TRAPS, STOPS, BALL VALVES, BACKFLOW DEVICES FOR KITCHEN EQUIP. GASCOCKS, WATER HAMMER ARRESTORS, CLEANOUT COVERS AND INDIRECT WASTE TO AN APPROVED RECEPTOR AND ALL NECESSARY TRIM FOR A COMPLETELY CONNECTED PLUMBING SYSTEM.
18. ALL CLEANOUTS SHALL BE INSTALLED WHERE READILY ACCESSIBLE AND LOCATED AS PER CODE REQUIREMENTS. THE CONTRACTOR SHALL COORDINATE ALL CLEAN OUT LOCATIONS WITH EQUIPMENT, MILLWORK, ETC., PRIOR TO INSTALLATION.
19. ALL PLUMBING FIXTURE VENTS TO TERMINATE A MINIMUM OF 12 INCHES FROM ANY VERTICAL SURFACE AND 10'-0" FROM OR 3'-0" ABOVE ANY MECHANICAL EQUIPMENT OUTSIDE AIR INTAKE.
20. ALL VALVES, UNIONS, ETC. TO BE SAME SIZE AS CONNECTED SUPPLY LINE UNLESS OTHERWISE NOTED ON DRAWINGS.
21. UNIONS SHALL BE PROVIDED AND INSTALLED AFTER EACH SCREW-TYPE VALVE AND PRIOR TO EQUIPMENT CONNECTIONS.
22. PIPING SHALL BE INSTALLED COMPLETE WITH DIELECTRIC UNIONS BETWEEN CONNECTIONS OF NON-FERROUS MATERIALS.
23. PROVIDE ACCESSIBLE WATER SUPPLY STOP VALVE(S) AT EACH FIXTURE.
24. PROVIDE A LINE SIZED PRESSURE REDUCING VALVE AT THE BUILDING SERVICE CONNECTION SHOULD THE SUPPLY PRESSURE EXCEED 80 PSI.
25. ALL UNDERGROUND METALLIC PIPE AND FITTINGS SHALL BE PROTECTED IN ACCORDANCE WITH THE SOILS ENGINEER'S RECOMMENDATIONS.
26. NO PIPING SHALL BE DIRECTLY EMBEDDED IN CONCRETE, MASONRY WALLS, OR CONCRETE FOOTINGS.
27. THE PLUMBING CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS FOR ALL POINTS OF CONNECTION WITH THE GENERAL CONTRACTOR AND OTHER TRADES PRIOR TO START OF WORK.
28. VERIFY EXACT LOCATIONS, DEPTH AND SIZE OF ALL PIPING TO WHICH CONNECTIONS ARE REQUIRED. COORDINATE ALL CONNECTIONS WITH SITE CONDITIONS AND SITE UTILITY CONTRACTOR/ REPRESENTATIVE.
29. ALL HORIZONTAL PIPING LINES EXTENDED AND CONNECTED TO EQUIPMENT SHALL BE RUN AT THE HIGHEST POSSIBLE ELEVATIONS AND NOT LESS THAN 6" ABOVE THE FLOOR TO PROVIDE CLEARANCE FOR CLEANING.
30. ALL CUTTING OF EXISTING PAVING, WALKS AND/OR FLOORS SHALL UTILIZE MACHINE SAW CUTTING EQUIPMENT. HOLES FOR PIPES IN CONCRETE WALLS OR FLOORS SHALL UTILIZE CORE DRILLING EQUIPMENT. COORDINATE WITH ARCHITECTURAL DETAILS FOR FLOOR CUTTING AND PATCHING.
31. THE PLUMBING CONTRACTOR IS TO PROVIDE ALL ADDITIONAL STEEL, HANGER MATERIALS, RODS AND CLAMPS AS REQUIRED FOR COORDINATION WITH WORK OF OTHER TRADES.
32. PIPING LAYOUT IS SCHEMATIC ONLY, EXACT ROUTING AND INSTALLATION OF PIPES TO BE COORDINATED WITH THE BUILDING STRUCTURE AND THE WORK OF OTHER CONTRACTORS. NO WATER OR DRAIN LINES ARE PERMITTED TO BE INSTALLED OVER OR UNDER ELECTRICAL PANELS.
33. NO LIQUID TRANSMISSION PLUMBING PIPING SHALL BE INSTALLED ABOVE ELECTRICAL SWITCH GEAR, EQUIPMENT, OR PANELS. MAKE ADJUSTMENTS NECESSARY TO REROUTE PIPING FOR ACTUAL INSTALLATION OF ELECTRIC EQUIPMENT.
34. WHENEVER FOUNDATION WALLS, EXTERIOR WALLS, ROOFS, ETC. ARE PENETRATED FOR THE INSTALLATION OF PLUMBING SYSTEMS, THEY SHALL BE PATCHED TO MATCH EXISTING CONSTRUCTION AND SEALED WEATHER TIGHT.
35. EXPOSED PIPING IN THE GUEST AREAS SHALL BE PAINTED TO MATCH THE WALL COLOR. EXPOSED GAS PIPING IN THE KITCHEN SHALL BE PAINTED WHITE.
36. DURING THE PROGRESS OF THE WORK, MAINTAIN AN ACCURATE RECORD OF ALL CHANGES MADE IN THE PLUMBING SYSTEMS. THE RECORD DRAWING SHALL SHOW CHANGES IN MANUFACTURER (WITH NUMBERS AND TRADE NAMES). MATERIALS, SIZES, LOCATIONS AND HOOK-UP POINTS. AS-BUILTS SHALL BE GIVEN TO OWNER'S CONSTRUCTION MANAGER AT COMPLETION OF JOB.
37. UPON COMPLETION OF JOB, THIS CONTRACTOR SHALL INSPECT ALL EXPOSED PORTIONS OF THE PLUMBING INSTALLATION AND COMPLETELY REMOVE ALL EXPOSED LABELS, SOIL, MARKINGS AND FOREIGN MATERIAL EXCEPT PRODUCT LABELS AND THOSE REQUIRED BY LAW.
38. PLUMBING CONTRACTOR SHALL BE ON SITE AND PRESENT AT THE DATE OF STORE TURNOVER.
39. PLUMBING CONTRACTOR SHALL PROVIDE MANUFACTURER'S OPERATION LITERATURE FOR ALL INSTALLED EQUIPMENT AND FIXTURES AT THE DATE OF STORE TURNOVER.


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PORTLAND, ME 04101

| DATE | DESCRIPTION |
|---|---|
| 11/18/13 | PERMIT ISSUE |

| | DATE | DESCRIPTION |
|---|---|---|
| 1 | 12/23/13 | CITY COMMENTS |

SHEET TITLE:
PLUMBING SCHEDULES

SHEET NUMBER:
P3.0

PROJECT NUMBER:
EVB130001