Z:\=Project Directories\6200-6299\6277 - Republic Wire\=Construction Documents\6277-P3-0-PLUMBING-DETAILS.dwg=EBS, Plot Date/Time: May 25, 2017-1:47pm - By: kelly.obrien
THESE DRAWINGS AND SPECIFICATIONS ARE NOT AUTHORIZED TO BE USED AS CONTRACT DOCUMENTS. THESE DRAWINGS HAVE BEEN PREPARED TO DEMONSTRATE COMPLIANCE WITH APPLICABLE CODES, AND ARE INTENDED TO PROVIDE THE AUTHORITIES HAVING JURISDICTION WITH INFORMATION TO DETERMINE CODE COMPLIANCE. THE INSTALLING CONTRACTOR IS RESPONSIBLE TO ENSURE THAT MEANS, METHODS, AND MATERIALS USED IN CONSTRUCTION ARE INSTALLED IN ACCORDANCE WITH ANY CONTRACTURAL AGREEMENT THAT MAY EXIST WITH AN OWNER, CONSTRUCTION MANAGER, GENERAL CONTRACTOR, ETC.

## DIVISION 22 - PLUMBING

1. General Plumbing Requirements
   a. All work under this Division shall incorporate the requirements/guidelines detailed in Division 01 - General Requirements. Wherever the requirements/guidelines differ from/exceed the requirements of this Division's specifications, the guidelines shall take precedence.
   b. Refer to architectural drawings, general notes and instructions to bidders, general conditions, supplementary general conditions, specifications and drawings, and as-built plans, which apply in all respects to this section.
   c. All work shall be performed in strict accordance with all applicable state and local codes and ordinances. In case of conflict between the drawings/specifications and the codes and ordinances, the highest standard shall apply. The plumbing contractor shall satisfy code requirements as a minimum standard without any extra cost to owner.
   d. The plumbing contractor must be licensed by the State of this project to install new plumbing systems.
   e. Provide a complete and fully operational plumbing system. The plumbing contractor shall furnish and install all labor, material and equipment necessary to complete the plumbing work.
   f. Thoroughly examine all areas where equipment and piping will be installed and report any condition that prevents the proper installation of the plumbing work prior to bid. Contractor shall also examine the drawings and specifications of other branches of work, making reference to them for details of new or existing building conditions. No extras will be allowed for failure to include all required work in bid. All work shall be done at times convenient to the owner and only during normal working hours, unless specified otherwise. Plumbing contractor shall take their own measurements and be responsible for them.
   g. Procure and pay for all permits, fees, taxes and inspections necessary to complete the plumbing work. Furnish certificate of approval for work from inspection authority to owner before final acceptance for work. Certificate of final inspection and approval shall be submitted with the contractor's request for payment. No final payment will be approved without this certificate.
   h. Drawings are diagrammatic only intending to show general runs and locations of equipment, fixtures, ducts, piping and not necessarily showing all offsets, details, accessories and equipment to be connected.
   i. All work shall be accurately laid-out with other trades, prior to installation & fabrication, to avoid all conflicts and obtain a neat and workmanlike installation which will afford maximum accessibility for equipment operation, maintenance clearances and headroom.
2. Use Of Drawings And Specifications
   a. EBS drawings and specifications are intended to convey design intent only. All means and methods, sequences, techniques, and procedures of construction as well as any associated safety precautions and programs, and all incidental and temporary devices required to construct the project, and to provide a complete and fully operational plumbing system are the responsibility of the plumbing contractor.
3. Contractor Coordination
   a. The plumbing drawings and specifications convey design intent only. Means and methods, sequences, techniques, and procedures of construction as well as any associated safety precautions and programs, and all incidental and temporary devices required to construct the project are the responsibility of the plumbing contractor. Coordination drawings showing system and component installation layout, routing, details, etc. Shall be produced by the plumbing contractor and under the supervision of the general contractor/construction manager, or appropriate party as applicable. All systems installed by each sub-contractor shall be coordinated with one another and approved by general contractor/construction manager, etc. prior to installation and/or fabrication. If questions concerning design intent arise during coordination, EBS can assist where appropriate.
4. Plumbing Fixtures
   a. All fixtures, drains, piping, equipment, and plumbing components shall comply with the requirements (including but not limited to fixture types, dimensions, accessories, manufacturers, materials, anti-scald protection features, flow rates, etc.).
   b. Shut off valves/stops shall be provided at all lavatories, sinks and water closets.
   c. Provide in-wall washer supply/drain boxes for clothes washers. Boxes shall be fire-rated where installed in walls that are rated.
   d. Furnish and install wall mounted sinks per plans.
   e. Coordinate color of all fixtures with architect.
   f. Provide ADA compliant fixtures where indicated on the architectural plans.
   g. Provide new plumbing fixtures, equipment, piping & valves as indicated on drawings & as specified. Fixtures shall be securely fastened to prevent any movement of fixture during normal use. Seal to wall, floor or countertop with siliconized acrylic-latex caulk.
5. Drain Pans
   a. Provide drain pan under water heaters. Pipe water heater drain and pressure relief valve separately and indirectly to floor drain (not to drain pan).
6. Domestic Water Systems
   a. New fixtures shall be connected to the existing water services.
   a. Install water pressure regulators where necessary to limit the incoming water pressure to 80 psi inside the building. If not already installed.
   b. Domestic water piping 2" and smaller shall be copper tube with wrought copper sweat fittings joined with lead free solder. Provide type "L" copper tube above grade and type "K" below grade. Domestic water piping 2-1/2" and larger shall be either copper pipe & fittings or mechanical grooved pipe & fittings.
   c. Adjust all stops and valves properly prior to project completion.
7. Domestic Water Heating System
   a. Where a backflow preventer is provided upstream of the water heater, provide expansion tank for heating system. Size according to the system volume, pressures, temperatures, and recommendations of water heater manufacturer.
   b. Provide expansion tank for water heating system. Expansion tank shall have minimum 3.2 gallon capacity.
   c. Provide heat traps on inlet and outlet of water heater(s).
8. Hose Bibbs and Wall Hydrants
   a. Provide hose bibs in mechanical rooms (unless a janitor's sink is installed in the same room). Hose bibs shall be equal to Woodford model ½" 24P or approved equal with vacuum breaker. Provide hose bibb "less handle", and provide "optional loose tee key". Approved manufacturers of equal products shall be Zurn, Wade, Josam, Smith, or Watts.
   b. Provide frost-proof exterior wall hydrants with loose-tee keys on each elevation of building. Wall hydrants shall be equal to ¾" Woodford model B-67 wall hydrant with chrome finish on brass casting with box and hinged, door. Conceal within interior partitions and/or install in a manner that prevents freezing.. Furnish to owner, one valve key for each key operated wall hydrant installed. Approved manufacturers of equal products shall be Zurn, Wade, Josam, Smith, or Watts.
9. Water Hammer Arrestors/Shock Absorbers
   a. Remove shock conditions from all piping. Provide and install water hammer arrestors/shock absorbers on all piping serving flush valve fixtures and equipment with quick-closing valves. Water hammer arrestors shall be provided per plumbing and drainage institute standard PDI-WH 201.
10. Sanitary and Vent Systems
   a. Connect new sanitary piping to existing sewer lateral.
   b. Where not installed in a plenum, sanitary and vent piping shall be schedule 40 PVC piping and fittings conforming to ASTM D 2665, solid-wall drain piping with PVC socket solvent weld fittings conforming to ASTM D2665, made to ASTM D3311, drain, waste, and vent patterns.
   c. Where piping must be installed in a plenum, sanitary and vent piping shall be no-hub, cast-iron pipe with no-hub couplings consisting of a stainless steel shield, clamp, and Neoprene gasket. Couplings shall be tested and certified to CISPI 310, ASTM C1277, ASTM C564, and NSF.
   d. Provide floor drains for all equipment producing condensate and that have drain connections.
   e. Cut and patch basement slab as required to install new sanitary piping.
   f. Provide floor drains for all equipment producing condensate and that have drain connections.
   g. Cut and patch slab as required to install new floor drains needed for mechanical equipment and reduced pressure backflow preventers.All traps shall be easily serviceable for cleaning.
   h. All toilet flanges are to be securely fastened to the floor.
11. Storm Piping
   a. Underground storm piping within buildings 16" and under shall be schedule 40 PVC piping and fittings conforming to ASTM D 2665, solid-wall drain piping with PVC socket solvent weld fittings conforming to ASTM D2665, made to ASTM D3311, drain, waste, and vent patterns.
   b. Underground storm piping within buildings larger than 16" shall be hub-and-spigot, service weight cast iron pipe conforming to ASTM A74 or ASTM A888.
   c. Aboveground storm piping shall be schedule 40 PVC piping and fittings conforming to ASTM D 2665, solid-wall drain piping with PVC socket solvent weld fittings conforming to ASTM D2665, made to ASTM D3311, drain, waste, and vent patterns.
12. Cleanouts
   a. Provide floor and wall cleanouts where required in all soil, waste, drain and storm piping. In areas with ceramic tile or carpeted flooring, provide cleanouts with square, adjustable, nickel bronze top. In areas with resilient flooring, provide cleanouts with square, adjustable, nickel bronze top with tile recess. Cleanouts shall be same size as pipe except that cleanouts larger than 4" will not be required. Where cleanouts occur in walls of finished areas, they shall be concealed behind chrome plated access covers.
13. Natural Gas Piping Systems
   a. Gas service piping - all exterior gas piping shall be medium density polyethylene plastic piping approved by the local utility company.
   b. Interior gas piping shall be schedule 40 steel pipe, ASTM A53. Piping 2" and under shall be threaded, piping larger than 4" shall be welded, and 2-1/2", 3", and 4" can be threaded or welded.
      i. Malleable-Iron Threaded Fittings: ASME B16.3, Class 150, standard pattern.
      ii. Wrought-Steel Welding Fittings: ASTM A 234/A 234M for butt welding and socket welding.
   c. Provide gas piping run-outs to all gas-fired equipment. Piping shall be installed full-size to each unit's gas inlet connection, burner, regulator, etc. Provide and install gas cock and make final connections. Connections to each gas-fired equipment item shall include a drip leg and shutoff gas cock. Comply with equipment manufacturer's instruction. For connections to gas-fired rooftop equipment, include the roof penetration and install the gas piping through the roof in a location that has been coordinated with the mechanical contractor.
14. Valves - General
   a. Plumbing contractor shall provide valves where indicated on plans and as necessary for proper system operation and component isolation. Install valves for each fixture and item of equipment.
   b. Locate shut-off valves adjacent to equipment for easy access such that valves can be reached without moving equipment.
15. Valves for Domestic Water
   a. The requirements of the Lead-Free Law S.3874 are now being enforced. It is the contractor's responsibility to provide lead-free products as mandated by the law and as required/interpreted by the authority having jurisdiction.
   b. Provide valves for working pressure in water piping of 125 psi or greater.
   c. General Duty Shut-off Ball Valves
      i. Provide two-piece, full port, silicon bronze ball valves with the capability of accepting extended operating handles (for insulated piping). Valves shall be NIBCO Model T/S/PC-595-Y-66-LF (-NS) or equal product manufactured by American Valve Co, Crane, Hammond, Milwaukee, Red-White Valve Corporation, or Watts.
16. Hangers & Supports
   a. The plumbing contractor shall furnish all pipe supports required for their work. All piping shall be supported per code. Additional supports shall be provided where required to prevent sagging. Where alternative piping materials are used, hanger spacing can be reduced as recommended by the manufacturer and where allowed by code.
17. Support for Piping installed on Roof
   a. All gas piping on roof to be supported with rubber, UV-resistant support blocks equal to Mifab CXM-B.
18. Insulation
   a. Provide thermal insulation on all domestic cold water, domestic hot water, domestic hot water return, horizontal storm piping, roof drain sumps, horizontal sanitary drain piping installed above ceilings that receive condensate, and insulate the first eight feet of water heater outlet piping with self-sealing closed cell elastomeric foam or premolded fiberglass pipe covering with all-service jacket. Provide a continuous vapor tight seal. Insulation shall be continuous thru all walls and floors. NFPA fire hazard rating for insulation, adhesives, sealers, and coatings shall not exceed 25 for flame spread and 50 for smoke developed, unless otherwise required by the local authority or energy codes. The minimum insulation levels shall be as follows:
      i. Provide ½" thick elastomeric insulation or 1" thick fiberglass insulation on domestic cold water piping that is required to be insulated.
      ii. Provide 1" thick elastomeric insulation or 1-1/2" thick fiberglass insulation on hot and hot water return piping.
      iii. Provide 1" thick elastomeric insulation or 1-1/2" thick fiberglass insulation on horizontal storm piping and roof drain sumps.
      iv. Provide ½" thick elastomeric insulation or 1" thick fiberglass insulation on horizontal sanitary drain piping installed above ceilings that receive condensate.
      v. Provide insulation on all piping that requires heat trace to be protected from freezing. Thickness shall be as required by the manufacturer and shall take into account the pipe size, pipe material, liquid being conveyed, and anticipated low temperature of the space where the piping is being installed.
19. Insulation for Handicap Accessible Fixtures (where not protected with a shroud)
   a. All handicap lavatory p-trap and angle stop assemblies shall be insulated with trap wrap protective kit manufactured by Proflo model PF202WH or equal. Abrasion resistant, anti-microbial vinyl exterior cover shall be smooth. For traps, the insulation shall have a cleanout nut cap to allow service to the trap without disassembly. For stops, the insulation shall have a lock lid that prevents tampering but allows access without removal of the insulation. Fasteners shall remain substantially out of sight. Acceptable manufacturers include Proflo, Truebro, and Plumberex.
20. Escutcheon Plates
   a. Install one piece chrome plated brass wall plate equipped with set screw around all exposed pipe passing through walls in finished areas.
21. Access Panels
   a. Provide access panels or provide access panel quantities & locations to the general contractor prior to bidding. There shall be no extras for having to add access panels after bids are awarded.
22. Fire Stopping
   a. Provide fire stopping at all penetrations through rated separations per local codes & regulations & per UL recommendations for assemblies encountered in project.
   b. The fire stopping material shall meet the integrity of the fire rated wall, floor, ceiling & roof being penetrated. Refer to architect's drawings for wall, floor, ceiling & roof fire ratings prior to bidding work.
23. Flashing & Counterflashing
   a. Provide roof flashing and counterflashing for all roof penetrations.
   b. Obtain approval from general contractor, construction manager, owner and/or roofing contractor prior to making any penetrations so that warranties are not compromised or voided.
24. Cathodic Protection
   a. Provide dielectric insulation at points where copper or brass pipe comes in contact with ferrous piping, reinforcing steel or other dissimilar metal in structure.
25. Excavation, Trenching & Backfill
   a. Do all excavation, trenching & backfill required for the installation of plumbing work.
   b. All backfill shall be compacted & brought to finished grade and shall match surrounding conditions.
   c. Restore all disturbed flooring to original condition.
   d. All piping shall be laid on a bed of sand, 6" thick minimum. Backfill under building and all drives, roads and walks with bank-run gravel.
26. Cutting and Patching
   a. Cut and patch walls and floors to match building construction where required to install all plumbing. Do all excavation, trenching & backfill required for the installation of underground plumbing. All backfill shall be compacted & brought to finished grade and shall match surrounding conditions. Restore all disturbed flooring to original condition. All piping shall be laid on a bed of sand, 6" thick minimum.
27. Connections
   a. Install unions at final connection to each piece of equipment. Install dielectric couplings to connect piping materials of dissimilar metals.
28. Installation
   a. Install piping free of sags and bends. Install fittings for changes in direction and branch connections. Install sleeves for pipes passing through concrete and masonry walls, gypsum-board partitions, concrete floor, and roof slabs. Seal pipe penetrations through rated construction with firestopping sealant material. Underground water and sewer lines shall be laid in separate trenches with a minimum horizontal spacing as required by code, excavated to the proper depth and graded to produce the required fall.
29. Testing
   a. All plumbing work shall be tested & approved by inspector prior to being backfilled, concealed & put into service. After testing is complete & approved, the plumbing contractor shall disinfect the potable water system as required by local authority. Test water parity according to local requirements and submit certified test results to owner for review and approval.
30. Shop Drawings
   a. Submit to the architect pdf file copies of complete & certified shop drawings, descriptive data, performance data & ratings, diagrams and specifications on all specified equipment, including accessories, and materials for review.
   b. The make, model number, type, finish & accessories of all equipment and materials shall be reviewed & approved by the plumbing contractor & general contractor prior to submitting to the architect for their review & approval.
   c. Review of shop drawings does not relieve the plumbing contractor/vendor from compliance with the requirements of the contract drawings, specifications & applicable codes.
31. Owner's Instructions
   a. Provide two sets of complete operating and maintenance instructions with drawings, typewritten instructions and operating sequences and descriptive data sheets. Assemble each set in a hard-bound cover.
32. Warranty
   a. The plumbing contractor shall unconditionally warrant all work to be free of defects in equipment, material and workmanship for a period of one (1) year from the date of final acceptance by owner and the plumbing contractor will repair or replace any defective work promptly and without charge to the owner.
   b. Restore any other existing work damaged in the course of repairing defective equipment, materials and workmanship.
33. Miscellaneous
   a. Provide protection plates as required to ensure no piping is damaged.
   b. Provide drain pan under water heaters and clothes washers. Pipe drain pans indirectly to a floor drain.
   c. All components are to be installed flush and plumb.
   d. All escutcheons, valves, wastes, and overflows shall be chrome.
   e. Provide ADA insulation wrap on all exposed piping below ADA fixtures.
   f. Provide fire stopping at all penetrations through rated separations where required per local codes & regulations. The fire stopping material shall meet the integrity of the fire rated wall, floor, ceiling and/or roof being penetrated. Refer to architect's drawings for wall, floor, ceiling & roof fire ratings prior to bidding work.
   g. Provide access panels where access is required for plumbing valves and equipment.
   h. Cut and patch walls and floors where required to install all plumbing. Do all excavation, trenching & backfill required for the installation of underground plumbing. All backfill shall be compacted & brought to finished grade and shall match surrounding conditions. Restore all disturbed flooring to original condition. All piping shall be laid on a bed of sand, 6" thick minimum.
   i. Roof flashing shall be furnished & installed by the roofing contractor. Roof counter-flashing shall be furnished & installed by the plumbing contractor. Coordinate work with roofing contractor & pay all fees. Obtain approval from owner or roofing contractor prior to making any penetrations so that warranties are not compromised or voided.

END OF DIVISION 22 - PLUMBING

PLUMBING EQUIPMENT AND FIXTURE SCHUEDLE

EWC1 - EQUAL TO OASIS MODEL PSAC.

FD1 - FLOOR DRAIN - EQUAL TO SIOUX CHIEF MODEL 842-P WITH NICKEL BRONZE ADJUSTABLE STRAINER. PROVIDE TRAP PRIMERS WHERE REQUIRED BY CODE. REFER TO WASTE AND VENT ISOMETRIC FOR SIZES.

SK1 - KITCHEN SINK ADA - EQUAL TO KOHLER MODEL MIDDLETON 14707, 33" X 22" X 7" DEEP, 20 GAUGE DOUBLE BOWL STAINLESS STEEL SINK WITH KOHLER MODEL SIMPLICE K-596 SINGLE HANDLE KITCHEN FAUCET 1.8 GPM W/ SPRAYHEAD, HIGH-ARCH SPOUT, LEAD LAW COMPLIANT, HOT & COLD STOP & SUPPLY.

LV1 - LAVATORY ADA - EQUAL TO KOHLER MODEL K-2005-0, VITREOUS CHINA, 22"X18" WALL HUNG LAVATORY W/ KOHLER K-15198-F-CP SINGLE LEVER POLISHED CHROME FAUCET WITH 0.5 GPM AERATOR, FLEXIBLE STAINLESS SUPPLY PIPES, ANGLE STOPS, "P" TRAP, POPUP DRAIN, AND PROFLO #PF200TRAP COVER.

LV2 - LAVATORY ADA - EQUAL TO KOHLER MODEL K-2211, MADE OF VITREOUS CHINA, SHALL MEET ADA REQUIREMENTS W/ POLISHED CHROME FAUCET, KOHLER MODEL K-98146-4, 4"CENTERSET INSTALLATION, 0.5 GPM AERATOR. FLEXIBLE STAINLESS SUPPLY PIPES, ANGLE STOPS, "P" TRAP, POPUP DRAIN. PROVIDE INSULATION EQUAL TO TRUEBRO "LAV GUARD" TRAP & SUPPLY INSULATORS AND WALL HANGER. MEETS ADA GUIDELINES.

MS1 - MOP SINK - EQUAL TO FIAT MODEL MSB-2424 - 24" X 24" FLOOR SINK WITH FIAT HOSE AND BRACKET, 889 CC MOP BRACKET, E-77-AA BUMPER GUARDS, 3" STAINLESS STEEL STRAINER AND 60" HIGH STAINLESS STEEL WALL GUARDS. SINK TO BE MOUNTED FLUSH WITH WALLS AND SILICON SEALANT APPLIED WHERE SINK MEETS WALL. TRIM - AMERICAN STANDARD #8344.112 EXPOSED YOKE WALL MOUNT UTILITY FAUCET, ROUGH CHROME.

OD1 - OVERFLOW DRAIN - EQUAL TO SIOUX CHIEF MODEL 868-W-E-S-U, PVC BODY, POLYETHYLENE DOME WITH EXTENSION, ROOF SUMP, AND UNDERDECK CLAMP.

RD1 - ROOF DRAIN - EQUAL TO SIOUX CHIEF MODEL 868-E-S-U, PVC BODY, POLYETHYLENE DOME WITH EXTENSION, ROOF SUMP, AND UNDERDECK CLAMP.

TP1- TRAP PRIMER - EQUAL TO SIOUX CHIEF MODEL 695-01.

UR1 - URINAL - EQUAL TO KOHLER MODEL K-4904-ET WITH SLOAN MODEL 186-0.125 SMO BATTERY OPERATED FLUSH VALVE.

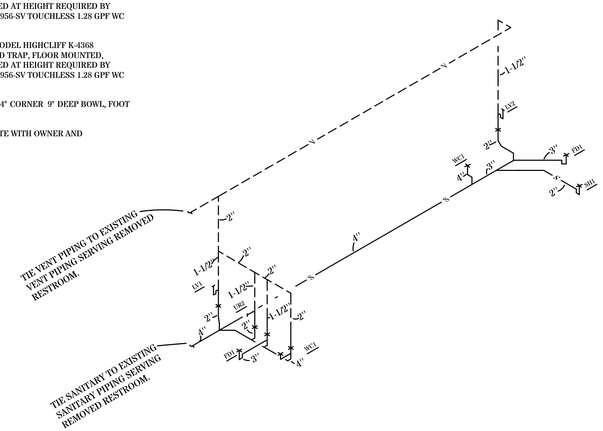
UR2 - URINAL ADA - EQUAL TO KOHLER MODEL K-4904-ET WITH SLOAN MODEL 186-0.125 SMO BATTERY OPERATED FLUSH VALVE MOUNT AT ADA HEIGHT.

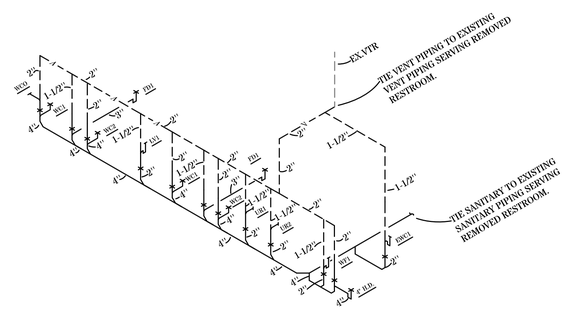
WC1 - WATER CLOSET ADA - FLOOR MOUNT - EQUAL TO KOHLER MODEL HIGHCLIFF K-4368 ELONGATED TOILET BOWL, WHITE, WITH INTEGRAL STOPS AND TRAP, FLOOR MOUNTED, WHITE SEAT WITH CONCEALED CHECK HINGE STOPS. MOUNTED AT HEIGHT REQUIRED BY CODE. PROVIDE FLUSH VALVE EQUAL TO KOHLER MODEL K-10956-SV TOUCHLESS 1.28 GPF WC FLUSHOMETER.

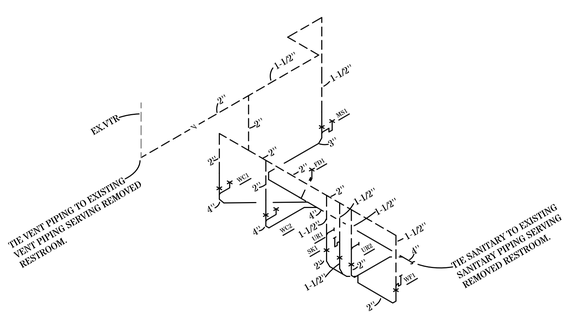
WC2 - WATER CLOSET - FLOOR MOUNT - EQUAL TO KOHLER MODEL HIGHCLIFF K-4368 ELONGATED TOILET BOWL, WHITE, WITH INTEGRAL STOPS AND TRAP, FLOOR MOUNTED, WHITE SEAT WITH CONCEALED CHECK HINGE STOPS. MOUNTED AT HEIGHT REQUIRED BY CODE. PROVIDE FLUSH VALVE EQUAL TO KOHLER MODEL K-10956-SV TOUCHLESS 1.28 GPF WC FLUSHOMETER.

WF1 - WASHFOUNTAIN - EQUAL TO BRADLEY MODEL WF2613, 54" CORNER 9" DEEP BOWL, FOOT CONTROL, STANDARD HEIGHT WITH GRAY TERRAZO FINISH.

SH1- SHOWER SURROUND, DRAIN AND CONTROLS. COORDINATE WITH OWNER AND ARICHITECT.




## PLUMBING ISOMETRIC

NOT TO SCALE

## PLUMBING LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| —— S —— | SANITARY/WASTE PIPING (S,W) |
| —— V —— | VENT PIPING |
| —— CW —— | COLD WATER PIPING |
| —— HW —— | HOT WATER PIPING |
| —— G —— | NATURAL GAS PIPING |
| FD ● | FLOOR DRAIN |
| —⋈— | BALL VALVE |
| —⋈— | GAS REGULATOR |
| CO ○ | CLEANOUT |
| WH ⊢ | FROST PROOF WALL HYDRANT |
| HB ⊢ | HOSE BIBB |
| (#) | VENT THROUGH ROOF RISER INDICATOR |

## PLUMBING GENERAL NOTES

A. THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT.

B. DESIGN DRAWINGS ARE SCHEMATIC. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR REQUIRED FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS.

C. BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

D. PROVIDE POINT-OF-USE THERMOSTATIC MIXING VALVES ON ALL PUBLIC LAVATORIES AND HAND SINKS. VALVES SHALL MEET ASSE 1070 AND SHALL BE EQUAL TO WATTS USG-B.

E. PROVIDE WATER SUPPLIED TRAP PRIMER CONNECTIONS TO ALL FLOOR DRAINS AND FLOOR SINKS.

F. PROVIDE SQUARE STRAINERS ON FLOOR DRAINS IN TILED AREAS.

G. REFER TO ARCHITECT'S PLANS AND ELEVATIONS FOR ALL FIXTURE MOUNTING HEIGHTS.

H. TRAP PRIMERS SHALL BE REQUIRED ON ALL FLOOR DRAINS AND OPEN RECEPTACLES IN COMMERCIAL MECHANICAL/BOILER ROOMS AND ON OPEN RECEPTACLES THAT RECEIVE THE DISCHARGE FROM A TEMPERATURE AND PRESSURE RELIEF DEVICE DISCHARGE ONLY.

I. PROVIDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO COMPLETELY FURNISH, INSTALL, AND PLACE INTO OPERATION, ALL SYSTEMS SHOWN ON THE DRAWINGS AND DELINEATED IN THE SPECIFICATIONS IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND ORDINANCES. REPORT ANY KNOWN DISCREPANCIES TO THE ARCHITECT/ENGINEER PRIOR TO INSTALLATION.

J. COORDINATE ALL WORK AND SPACE REQUIREMENTS IN CEILING SPACES WITH OTHER TRADES PRIOR TO INSTALLATION; INCLUDING BUT NOT LIMITED TO: ARCHITECTURAL, CIVIL, STRUCTURAL, ELECTRICAL, FIRE PROTECTION, AND MECHANICAL.

K. INSTALL ALL EQUIPMENT WITH CODE REQUIRED AND MANUFACTURER RECOMMENDED MINIMUM CLEARANCES FOR SERVICE, ACCESS, AND FIRE PROTECTION.

L. MAINTAIN A MINIMUM OF 10 FEET BETWEEN ALL OUTSIDE AIR INTAKES AND ALL EXHAUST, VENT, AND FLUE OUTLETS.

M. WATER PIPING IN AREAS SUBJECT TO FREEZING TEMPERATURES WILL NOT BE PERMITTED WITHOUT PROVIDING FROST PROOF PROTECTION.

N. MAKE FINAL CONNECTION TO OWNER SUPPLIED EQUIPMENT.

O. WHEREVER FIXTURES REQUIRING PLUMBING CONNECTIONS ARE FURNISHED BY OWNER OR ARE RELOCATED, PLUMBING SUBCONTRACTOR SHALL FURNISH AND INSTALL CARRIERS, "P" TRAP AND STOPS.

25 MAY 2017

MSP
McGill Smith Punshon, Inc.
3700 Park 42 Drive Suite 190B
Cincinnati, Ohio 45241-2097
Tel. 513-759-0004 ▪ Fax 513-563-7099
Engineers ▪ Architects ▪ Surveyors
Planners ▪ Landscape Architects

| | | | |
|---|---|---|---|
| | DAG | Project Mgr. | SSS |
| Checked by | SSS | | |

| Issue/ Revision | Revision Number | Date |
|---|---|---|
| BID / PERMIT | | 05/25/17 |

PR-06164
ENGINEERED BUILDING SYSTEMS INC.
TEAMWORK • COLLABORATION
SHARED SUCCESS
515 Monmouth Street, Suite 204
Newport, KY 41071 (859) 261-0585
MEP Consulting Services, Inc. in OH

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# RENOVATIONS AND ADDITIONS FOR Republic Wire

UNION CENTRE DRIVE
WEST CHESTER, OHIO 45069

Sheet Title
PLUMBING DETAILS

Project No. 97333.33
Scale AS NOTED
Sheet No. P3.0