

<p>BASIC PLUMBING REQUIREMENTS</p> <p>1 ALL MATERIAL AND EQUIPMENT SHALL BE LISTED, LABELED OR CERTIFIED BY UNDERWRITERS LABORATORIES, INC., WHERE SUCH STANDARD HAVE BEEN ESTABLISHED. EQUIPMENT AND MATERIAL WHICH ARE NOT COVERED BY UL STANDARDS WILL BE ACCEPTED PROVIDED EQUIPMENT AND MATERIAL IS LISTED, LABELED, CERTIFIED OR OTHERWISE DETERMINED TO MEET SAFETY REQUIREMENTS OF A NATIONALLY RECOGNIZED TESTING LABORATORY.</p> <p>2 CONTRACTOR SHALL VISIT SITE PRIOR TO BID TO BECOME FAMILIAR WITH EXISTING CONDITIONS. ANY CONCERNS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO BID.</p> <p>3 UNLESS MORE STRINGENT PROVISIONS ARE SHOWN OR SPECIFIED, THE WORK SHALL COMPLY WITH APPLICABLE STANDARDS OF THE FOLLOWING: A. AMERICAN NATIONAL STANDARD INSTITUTE (ANSI). B. AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME). C. FACTORY MUTUAL SYSTEM (FM). D. MANUFACTURERS' STANDARDIZATION SOCIETY OF VALVE AND FITTING INDUSTRY (MSS). E. NATIONAL ELECTRICAL CODE (NEC), INCLUDING AMENDMENTS BY LOCAL AUTHORITY HAVING JURISDICTION. F. UNDERWRITERS LABORATORIES, INC. (UL). G. UNIFORM PLUMBING CODE 2007. H. MAINE STATE INTERNATIONAL PLUMBING CODE.</p> <p>4 DURING CONSTRUCTION, PROTECT EQUIPMENT, PIPE AND DUCTWORK. PREVENT ENTRY OF WATER, DIRT AND OBSTRUCTING MATERIALS. CLOSE OPEN ENDS WITH TEMPORARY CLOSURES OF METAL OR POLYETHYLENE. PROTECT WORK AGAINST FREEZING. PROVIDE TEMPORARY HEAT AS NEEDED.</p> <p>5 THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENTS, APPROXIMATE SIZES AND RELATIVE LOCATIONS OF PRINCIPAL EQUIPMENT AND MATERIALS TO BE PROVIDED. PROVIDE CONSTRUCTION OFFSETS AS REQUIRED FOR COORDINATED INSTALLATION. PROVIDE MINOR EQUIPMENT, DETAILS, MATERIALS, AND METHODS NOT USUALLY SHOWN BUT STANDARD, REFERENCED AND SPECIFIED, TO COMPLETE THE WORK.</p> <p>6 CONCEAL MECHANICAL CONSTRUCTION RUNNING THROUGH FINISHED SPACES WITHIN THE WALLS OR IN CHASES, WHERE CEILINGS OCCUR, CONCEAL THE WORK ABOVE THE CEILING UNLESS INDICATED OTHERWISE.</p> <p>7 IN FINISHED SPACES WITH OR WITHOUT CEILINGS, COORDINATE THE WORK WITH OTHER TRADES SO AS TO BE IN CONFORMANCE WITH THE REFLECTED CEILING PLANS. IN FINISHED SPACES WITHOUT CEILING, RUN PIPING PARALLEL WITH LINES OF BUILDING.</p> <p>8 COOPERATE WITH OTHER TRADES AND FURNISH IN WRITING, INFORMATION NECESSARY TO PERMIT THE WORK OF OTHER TRADES TO BE INSTALLED AND WITH LEAST POSSIBLE INTERFERENCES OR DELAY.</p> <p>9 WHERE PHYSICAL INTERFERENCES CANNOT BE RESOLVED READILY, PREPARE COMPOSITE DRAWINGS AT A SCALE OF NOT LESS THAN 1/4 INCH = 1 FT, CLEARLY SHOWING THE WORK OF THIS DIVISION IN RELATION TO THE WORK OF OTHER TRADES. OBTAIN WRITTEN ACCEPTANCE BY (A/E) (O/R) OF PROPOSED CHANGES AND DISTRIBUTE DRAWINGS TO OTHER TRADES AFFECTED. CORRECT INSTALLED WORK IN CONFLICT WITH WORK OF OTHER TRADES AT NO ADDITIONAL COST.</p> <p>10 SUBJECT TO ACCEPTANCE BY OWNER AND WITHOUT EXTRA COST, MAKE MODIFICATIONS IN THE LAYOUT AS REQUIRED TO PREVENT CONFLICT WITH WORK OF OTHER TRADES OR FOR THE PROPER EXECUTION OF THE WORK.</p> <p>11 DO NOT INSTALL PIPING OR EQUIPMENT FOREIGN TO THE ELECTRICAL EQUIPMENT IN ELECTRICAL ROOMS AND CLOSETS. DO NOT INSTALL PIPING AND DUCTS OVER, AROUND, IN FRONT OF, IN BACK OF, OR BELOW ELECTRICAL EQUIPMENT IN MECHANICAL EQUIPMENT ROOMS. DRIP PANS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES AROUND ELECTRICAL EQUIPMENT.</p> <p>12 FIRE STOPPING; SYSTEM OR DEVICES LISTED IN THE UL FIRE RESISTANCE DIRECTORY UNDER CATEGORIES XHOR AND XHEZ MAY BE USED, PROVIDING THAT IT CONFORMS TO CONSTRUCTION TYPE, PENETRATION TYPE, ANNUAL SPACE REQUIREMENTS AND FIRE RATING INCLUDED IN EACH SEPARATE INSTANCE, AND THAT THE SYSTEMS BY SYMMETRICAL FOR WALL APPLICATIONS. SYSTEMS OR DEVICES MUST BE ASBESTOS FREE. MORTAR SYSTEMS MUST BE WARNOCK HERSEY APPROVED. 3M IS THE DESIGN STANDARD. FIRE STOP ALL PIPE PENETRATIONS THRU RATED WALLS AND FLOORS.</p> <p>13 WARRANTY: PROVIDE MINIMUM 12 MONTHS FROM DATE OF INSTALLATION OR 18 MONTHS FROM DATE OF SHIPMENT ON ALL EQUIPMENT. EXTENDED WARRANTIES MAY BE REQUIRED, AND ARE INDICATED IN EQUIPMENT SECTIONS.</p> <p>14 EQUIPMENT MANUFACTURER LISTED ON DRAWING SCHEDULES IS THE BASIS OF DESIGN AND IS SHOWN ON PLANS. IF CONTRACTOR CHOOSES TO USE ONE OF THE OTHER MANUFACTURERS LISTED IN SPECIFICATION, CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIT AND PROVIDING ALL NECESSARY MODIFICATIONS TO MEP SYSTEMS TO ACCOMMODATE PROPER INSTALLATION OF THIS EQUIPMENT AND COMPLIANCE WITH DESIGN INTENT.</p> <p>15 EQUIPMENT SHALL COMPLY WITH SPECIFIC EQUIPMENT SECTIONS AND ALL OTHER RELATED SECTIONS, IE: MOTORS, FANS, FILTERS, COILS, ISOLATION, ETC.</p> <p>16 CONTRACTOR IS RESPONSIBLE FOR SECURING ALL PERMITS.</p> <p>17 ALL DEMOLITION EQUIPMENT AND PIPING OTHERS SHALL SAFELY REMOVED FROM THE SITE AND DEPOSITED IN A LAWFUL MANNER. CONTRACTOR IS RESPONSIBLE FOR DRAINING, REMOVING AND DISPOSING OF ALL WORKING FLUIDS IN A LAWFUL MANNER.</p> <p>18 CHANGE ORDERS: ALL CHANGE ORDER REQUESTS WILL BE IDENTIFIED PRIOR TO THE WORK BEING INSTALLED. CHANGE ORDERS REQUESTED AFTER INSTALLATION WILL NOT BE HONORED.</p> <p>19 ANY PIPING, FITTING OR FIXTURE DESIGNED FOR THE DISPENSING OF POTABLE WATER SHALL COMPLY WITH THE REDUCTION OF LEAD IN DRINKING WATER ACT AND MEET NSF/ANSI 61 STANDARDS.</p> <p>SHOP DRAWING REQUIREMENTS</p> <p>1 SHOP DRAWINGS: CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ALL SPECIFIED EQUIPMENT. CONTRACTOR SHALL PROVIDE COORDINATED SHOP DRAWINGS FOR PIPING, SHOWING COORDINATION WITH OTHER DISCIPLINES. NO EQUIPMENT OR PIPING SHALL BE INSTALLED WITHOUT AN APPROVED SHOP DRAWING. WORK OR EQUIPMENT INSTALLED WITHOUT ENGINEER'S APPROVAL WILL BE SUBJECT TO REMOVAL AND REWORK PER THE ENGINEERS SOLE DISCRETION REGARDLESS OF DESIGN DOCUMENTS. ALL COST WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL ALLOW 10 BUSINESS DAYS FOR ENGINEERS REVIEW. ALL WORK SHALL BE INSTALLED PER THE APPROVED SHOP DRAWING. FIELD MODIFICATIONS TO THE APPROVED SHOP DRAWING SHALL BE SUBMITTED FOR ENGINEER APPROVAL PRIOR TO INSTALLATION.</p> <p>2 SHOP DRAWING SUBMISSION: SHOP DRAWING SUBMISSIONS SHALL LIST ON COVER PAGE IN BULLETED LIST FORMAT ALL EXCEPTIONS AND CLARIFICATIONS TO THE SPECIFICATION. IF EXCEPTIONS ARE NOT LISTED IT WILL BE ASSUMED THAT SUBMITTED EQUIPMENT MEETS ALL ASPECTS OF THE SPECIFICATION. SUBMISSION OF SHEETMETAL FABRICATION DRAWINGS IS INDICATION THAT DUCTWORK AND PIPING FIT AS DRAWN, UNLESS SHOP DRAWING CLEARLY IDENTIFIES CONFLICT. CONFLICT RESOLUTION AFTER APPROVED SHOP DRAWINGS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. SUBMIT FOUR COPIES.</p> <p>3 WHEN ENGINEERS SUBMITTAL REVIEW STAMP INDICATES THE FOLLOWING: REVIEWED WITH COMMENTS, REVISE & RESUBMIT FABRICATION MAY BE UNDERTAKEN. CHANGES TO CONTRACT ARE NOT AUTHORIZED UNLESS STATED IN SEPARATE LETTER OR CHANGE ORDER.</p> <p>4 WHEN ENGINEERS SUBMITTAL REVIEW STAMP INDICATES THE FOLLOWING: NOT REVIEWED A REVIEW OF THE SUBMITTAL WAS NOT REQUIRED OR REQUESTED. SUBMITTAL DOES NOT MEET SPECIFICATION REQUIREMENTS FOR REVIEW.</p> <p>5 WHEN ENGINEERS SUBMITTAL REVIEW STAMP INDICATES THE FOLLOWING: REJECTED FABRICATION SHOULD NOT BE UNDERTAKEN. RESUBMIT CORRECTED COPIES FOR REVIEW. CORRECTIONS SHALL BE LIMITED TO ITEMS MARKED.</p> <p>6 GENERAL SHOP DRAWING INSTRUCTIONS: A. REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. B. THE CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS TO BE CONFIRMED AND CORRELATED AT THE SITE; FOR FABRICATION PROCESSES OR TO THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION AND FOR COORDINATION OF THE WORK OF ALL TRADES. C. SUBMISSION FOR REVIEW IMPLIES THAT THE CONTRACTOR HAS REVIEWED THE PRODUCT WITH ALL OTHER TRADES PRIOR TO SUBMITTING FOR REVIEW. CONTRACTOR IS RESPONSIBLE FOR ALL CHANGES AND MODIFICATIONS FOR ITEMS NOT COORDINATED. D. ALL EXCEPTIONS TO THE SPECIFICATION MUST BE SHOWN IN A CLEARLY BULLETED LIST ON THE COVER SHEET OF THE SUBMITTAL. CONTRACTOR IS RESPONSIBLE FOR FULL COMPLIANCE TO THE SPECIFICATIONS FOR ALL OTHER ITEMS NOT NOTED ON THE COVER SHEET OF THE SUBMITTAL.</p> <p>7 CONTRACTOR UPON REQUEST WILL RECEIVE ARCHITECTURAL AUTOCAD FILES FOR THE PREPARATION OF THEIR SHOP DRAWINGS. MEP FILES WILL NOT BE PROVIDED.</p>	<p>SUPPORTS</p> <p>1 PROVIDE SUPPORT MATERIALS IN ACCORDANCE WITH MSS SP-58. USE SUPPORT MATERIALS WHICH ARE COMPATIBLE WITH THE MATERIALS OF THE PIPING OR EQUIPMENT. PROTECT AGAINST RUST, ABRASION AND ELECTROLYTIC ACTION.</p> <p>2 USE COPPER PLATED HANGERS AND SUPPORTS FOR BARE COPPER PIPING. USE HOT-DIP GALVANIZE OR ZINC ELECTRO-PLATE OTHER METAL SUPPORT COMPONENTS.</p> <p>3 SUPPORT PIPING SYSTEMS IN ACCORDANCE WITH APPLICABLE (REFERENCED) STANDARDS. SPACE PIPING IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. INDEPENDENTLY SUPPORT CONCENTRATED WEIGHTS SUCH AS VALVES, STRAINERS, HEAVY FITTINGS AND WHERE DIRECTION CHANGES OCCUR, SUPPORT PIPING FROM BUILDING STRUCTURE. INCORPORATE REQUIREMENTS FOR VIBRATION CONTROL WITHIN THE SUPPORT SYSTEM.</p> <p>4 STANDARD PIPE HANGERS (MSS TYPES LISTED FOR REFERENCE): A. TYPE 1: ADJUSTABLE CLEVIS HANGER, CARBON STEEL. B. TYPE 40: INSULATION PROTECTION SHIELD, CARBON STEEL, GALVANIZED FINISH, MINIMUM 12-INCH LENGTH. C. TYPE 8: EXTENSION PIPE OR RISER CLAMP, CARBON STEEL. D. TYPE 38: ADJUSTABLE PIPE SADDLE SUPPORT, CAST IRON SADDLE, LOCKNUT NIPPLE AND CAST IRON REDUCER. E. TYPE 103: OFFSET PIPE CLAMP, CARBON STEEL.</p> <p>5 CLAMPS, INSERTS, ATTACHMENTS, ANCHORS, GUIDES: A. TYPE 18: INSERT, MALLEABLE IRON, UL & FM APPROVED. B. TYPE 19 AND 23: C-TYPE CLAMP, DUCTILE IRON CLAMP, HARDENED STEEL CUP POINT SET SCREW AND LOCKNUT. C. TYPE 22: WELDED BEAM ATTACHMENT, CARBON STEEL. D. TYPE 28 AND 29: FORGED STEEL BEAM CLAMP WITH EYE NUT. E. TYPE 31, 32, 33: LIGHT, MEDIUM, HEAVY WELDED CARBON STEEL BRACKET. ATTACH PIPE WITH SCHEDULED HANGER OR SUPPORT. F. UNIVERSAL TRAPEZE HANGERS (UNISTRUIT), CARBON STEEL CHANNEL. G. HANGER RODS: CARBON STEEL, CADMIUM PLATED, THREADED BOTH ENDS, THREADED ONE END, OR CONTINUOUSLY THREADED.</p> <p>MECHANICAL IDENTIFICATION</p> <p>1 ACCEPTABLE MANUFACTURERS: SETON, BRADY, CRAFTMARK.</p> <p>2 IDENTIFY PUMPS, HEAT TRANSFER EQUIPMENT, WATER HEATERS, TANKS AND WATER TREATMENT DEVICES AND ALL OTHER EQUIPMENT WITH PLASTIC NAMEPLATES PERMANENTLY ATTACHED TO THE EQUIPMENT.</p> <p>3 IDENTIFY PIPING, COVERED OR UNCOVERED, CONCEALED OR EXPOSED, WITH PIPE MARKERS. PRESSURE SENSITIVE VINYL, CONFORM TO ANSI/OSHA STANDARDS. INDICATE PIPE FLOW DIRECTION AND MEDIA.</p> <p>MECHANICAL INSULATION</p> <p>1 ACCEPTABLE MANUFACTURERS: CERTANTEED, JOHN MANVILLE, OWENS-CORNING.</p> <p>2 USE MATERIALS WITH MAXIMUM FLAME SPREAD/FUEL CONTRIBUTED/SMOKE DEVELOPED RATING OF 25/50/50 IN ACCORDANCE WITH ASTM E84.</p> <p>3 USE INSULATION RATED FOR TEMPERATURES ENCOUNTERED.</p> <p>4 TYPE A: GLASS FIBER; ANSI/ASTM C547; 'K' VALUE OF 0.23 AT 75 DEGREES F; NONCOMBUSTIBLE, HIGH DENSITY, WHITE KRAFT JACKET BONDED TO ALUMINUM FOIL, REINFORCED WITH FIBER GLASS YARN. MANVILLE MICRO-LOK AP-T PLUS.</p> <p>5 INSTALL INSULATION AFTER PIPING HAS BEEN PRESSURE TESTED AND ACCEPTED. CONTINUE INSULATION WITH VAPOR BARRIER THROUGH PIPE SUPPORTS, HANGERS AND SLEEVES. INSULATE JOINTS, FITTINGS, VALVES, UNIONS, FLANGES, STRAINERS, FLEXIBLE CONNECTIONS, EXPANSION JOINTS AND OTHER DEVICES WITH INSULATION OF LIKE MATERIAL AND THICKNESS AS ADJOINING PIPE AND FINISH WITH GLASS CLOTH AND ADHESIVE. INSTALL INSULATION ON VALVES, FLANGES, UNIONS, STRAINERS AND EXPANSION JOINTS IN SUCH A MANNER THAT IT CAN BE EASILY REMOVED AND REPLACED WITHOUT DAMAGE.</p> <p>PIPING</p> <p>1 DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENTS, APPROXIMATE SIZES AND RELATIVE LOCATIONS OF PRINCIPAL EQUIPMENT AND MATERIALS. PROVIDE OFFSETS AS REQUIRED FOR COORDINATED INSTALLATION. PROVIDE MINOR EQUIPMENT, DETAILS, MATERIALS AND METHODS NOT SHOWN BUT STANDARD, REFERENCED AND SPECIFIED, TO COMPLETE THE WORK. FLUSH AND CHEMICALLY CLEAN PIPING SYSTEMS.</p> <p>2 REFER TO DRAWING PIPE SCHEDULE FOR PIPE SYSTEM'S MATERIAL, FITTINGS AND DEVICES REQUIREMENTS; ONLY MATERIALS SPECIFICALLY SCHEDULED FOR A PARTICULAR SYSTEM MAY BE USED.</p> <p>3 PIPE: A. COPPER TYPE L: HARD DRAWN, SEAMLESS COPPER; ASTM B88. B. COPPER TYPE DWV: SEAMLESS COPPER; ASTM B306. C. PVC: PLAIN ENDS, SCHEDULE 40 POLYVINYL CHLORIDE (PVC) PLASTIC DWV PIPE; ASTM D2665, D1784. D. CAST IRON NO-HUB: HUBLESS, CAST IRON SOIL PIPE; CISPI 301.</p> <p>4 FITTINGS: A. WROUGHT COPPER: SOLDERED-JOINT PRESSURE FITTINGS; ASME B16.22. B. WROUGHT COPPER: SOLDERED-DWV, ASTM B306-99. C. PVC: SOCKET TYPE, DWV PIPE PATTERNS; ASTM D2665, D3311, D1784. D. NO-HUB: HUBLESS, CAST IRON; CISPI 301.</p> <p>5 JOINT MATERIAL: A. SOLDER FILLER METAL: ALLOY SB5 (95% TIN, 5% ANTIMONY); ASTM B32. FLUX: PASTE OR LIQUID, ASTM B 813. B. SOLVENT WELDED: SOCKET TYPE; ASTM D2564. C. NO-HUB: STAINLESS STEEL COUPLING ASSEMBLY; CISPI 310 WITH NEOPRENE RUBBER GASKET C564. D. GASKET, DI: MOLDED RUBBER, ANSI A21.11.</p> <p>6 UNIONS: BRONZE; SOLDERED JOINT.</p> <p>7 MISCELLANEOUS: A. BOLTS AND NUTS: CARBON STEEL HEXHEAD STUDS WITH HEAVY HEX NUTS; ASTM A307 GRADE B, ASTM A194 GRADE 2H. B. GASKETS: NON-ASBESTOS MATERIAL, THICKNESS, PRESSURE AND TEMPERATURE TO SUIT SYSTEM; FLEXITALLIC. C. DIELECTRIC FITTINGS: ISOLATION FLANGES, UNIONS AND COUPLINGS, EPCO SALES, INC.</p> <p>VALVES</p> <p>1 ACCEPTABLE MANUFACTURERS: GRINNEL, STOCKHAM, NIBCO, HAMMOND, CRANE, DEZURICK.</p> <p>2 REFER TO DRAWING PIPE SCHEDULE FOR SYSTEM VALVE SELECTION; ONLY VALVES SPECIFICALLY SCHEDULED FOR A PARTICULAR SYSTEM MAY BE USED.</p> <p>3 BALL, 2 PIECE: 600 PSI TWO-PIECE, FULL PORT, BRONZE BODY BALL VALVE, STEEL LEVER HANDLE WITH PROTECTIVE SLEEVE (LOCKABLE WHERE INDICATED), PTFE SEAT, SOLDERED JOINT, MSS-SP-110. PROVIDE VALVE STEM EXTENSIONS FOR VALVES IN INSULATED SYSTEMS. EQUAL TO HAMMOND UP8311A.</p> <p>4 GLOBE, BRONZE: 300 PSI, BRONZE BODY, LEAD FREE DISC, RISING STEM, THREADED BONNET, THREADED ENDS, MALLEABLE IRON HAND WHEEL. MSS-SP-80-T2. EQUAL TO HAMMOND UP418.</p> <p>5 CHECK, BRONZE: 200 PSI, BRONZE BODY, BRONZE DIE, THREADED CAP, SOLDERED JOINTS, SWING TYPE. MSS-SP-80-T3. EQUAL TO STOCKHAM LFB-309Y.</p> <p>6 BALL, 3 PIECE: 600 PSI THREE-PIECE, FULL PORT, BRONZE BODY, CHROME-PLATED BRASS BALL, ZINC PLATED STEEL HANDLE WITH PROTECTIVE SLEEVE, PTFE SEAT, PRE-CLEANED AND CAPED, BRAZED JOINT. MSS-SP-110. HAMMOND UP8614.</p>	<p>WATER SYSTEM VALVES AND SPECIALTIES</p> <p>1 GRAVITY TRAP PRIMERS: CAST BRONZE WITH 1/2 INCH NPT FEMALE CONNECTION. JAY R. SMITH FIGURE 2699.</p> <p>2 WATER HAMMER ARRESTOR: JAY R. SMITH FIGURE 5000, JOSAM, WADE, ZURN. ASSE STANDARD 1010 AND PDI STANDARD WH201. FIELD MANUFACTURED UNITS NO APPROVED.</p> <p>3 MIXING VALVE, EMERGENCY FIXTURE: MANUFACTURERS; BRADLEY, GUARDIAN, POWERS, SPEAKMAN. EMERGENCY TEMPERING VALVE DESIGNED TO PROVIDE 85°F TEPID, POTABLE WATER AT ± 5°F FOR 15 MINUTES PERIOD. COLD WATER BYPASS. ASSE 1071.</p> <p>4 MIXING VALVE, POINT OF USE: MANUFACTURERS; WATTS, POWERS, SPEAKMAN. ASSE 1070. INDIVIDUAL LAVATORY INSTALLATION. INTEGRAL CHECKS, ADJUSTABLE TEMPERATURE SELECTION WITH LOCKDOWN, LEAD FREE. 125 PSI, 0.5 GPM MINIMUM FLOW.</p> <p>DRAINS</p> <p>1 MANUFACTURER: JAY R. SMITH (BOD), WADE, JOSAM, ZURN. ALL DRAINS SHALL BE BY ONE MANUFACTURER. PROVIDE TRAP PRIMER CONNECTION, WHEN INDICATED.</p> <p>2 IN AREAS WHERE RESINOUS FLOORING WILL BE INSTALLED, PROVIDE WIDE FLANGE ON DRAINS.</p> <p>3 PROVIDE DRAIN OUTLETS COMPATIBLE WITH PIPE MATERIAL. PROVIDE PRIMER CONNECTION WHERE INDICATED ON RISER.</p> <p>4 FLOOR DRAIN (GENERAL USE): CAST IRON BODY, FLANGE AND FLASHING COLLAR WITH CAST IRON GRATE AND SLOTTED SEDIMENT BUCKET, SERIES 2010.</p> <p>CLEANOUTS</p> <p>1 MANUFACTURER: JAY R. SMITH (BOD), WADE, JOSAM, ZURN. ALL CLEANOUTS SHALL BE BY ONE MANUFACTURER.</p> <p>2 FINISHED FLOOR AREAS: CAST IRON BODY WITH FLANGE AND INSIDE CAULK OUTLET, ADJUSTABLE HOUSING WITH ROUND SECURED SATIN NICKEL BRONZE SCORATED TOP; SERIES 4020.</p> <p>3 IN AREAS WHERE RESILIENT TILE OR SHEET FLOORING WILL BE INSTALLED, PROVIDE CLEANOUT COVERS WITH RECESS TO RECEIVE FLOORING MATERIAL. PROVIDE CLEANOUT MARKERS IN CARPETED AREAS. IN AREAS WHERE RESINOUS FLOORING WILL BE INSTALLED, PROVIDE WIDE FLANGED CLEANOUT COVERS.</p> <p>4 WALLS, INTERIOR: A. HUB OPENINGS: CAST IRON FERRULE WITH TAPERED THREADED BRONZE PLUG. PLUG TAPPED FOR CENTER SCREW. STAINLESS STEEL ACCESS COVER WITH HARDWARE WHERE REQUIRED. SERIES 4422. B. NO-HUB CLEANOUTS: TAPER THREADED BRONZE PLUG WITH CENTER SCREW TAPPING. STAINLESS STEEL ACCESS COVER WITH HARDWARE WHERE REQUIRED. SERIES 4472. ACCESS COVER SHALL NOT EXCEED SIX INCHES IN DIAMETER.</p> <p>5 FLASHING: AT FLOOR DRAINS AND FLOOR CLEANOUTS ABOVE GROUND LEVEL, INSTALL FLASHING TO 12 INCHES BEYOND OUTSIDE DIAMETER OF CLEANOUT.</p> <p>6 CLEANOUTS AND ACCESS COVERS: A. INSTALL FULL SIZE CLEANOUTS UP TO FOUR INCHES IN DIAMETER AT CHANGES IN DIRECTION ON HORIZONTAL DRAINAGE LINES, AND AT INTERVALS NOT GREATER THAN 50 FT ON STRAIGHT RUNS. B. DO NOT INSTALL CLEANOUTS IN ELECTRICAL EQUIPMENT ROOMS, EXTEND CLEANOUTS TO OUTSIDE OF WALL OR PARTITION. C. INSTALL ACCESS COVERS AT CLEANOUTS IN PARTITIONS AND WALLS.</p> <p>PLUMBING FIXTURES & TRIM</p> <p>1 MANUFACTURERS: FURNISH FIXTURES AND TRIM BY SAME MANUFACTURER FOR EACH PRODUCT SPECIFIED THROUGHOUT: A. FIXTURES (VITREOUS WARE): AMERICAN STANDARD, KOHLER, TOTO, ZURN. B. FIXTURES (STAINLESS STEEL): JUST MANUFACTURING, ELKAY. C. SEATS: OLSONITE, BEMIS, CHURCH. D. MOP RECEPTORS: FIAT, STERN/WILLIAMS. E. TRIM: DELTA, CHICAGO, AMERICAN STANDARD. F. SUPPLY AND TRAPS: MCGUIRE, AMERICAN STANDARD, BRASSCRAFT. G. SAFETY EQUIPMENT: SPEAKMAN, GUARDIAN, BRADLEY. H. TRAP INSULATION KITS: TRUEBRO, TCI PRODUCTS, BROCAR PRODUCTS.</p> <p>2 GENERAL REQUIREMENTS: A. FIXTURE COLOR: WHITE, EXCEPT AS SHOWN OR SPECIFIED OTHERWISE. B. VITREOUS WARE: BEST QUALITY. NON-ABSORBENT WARE OR IMPERFECT FIXTURES WILL NOT BE ACCEPTED. C. GLAZING ON METAL: THOROUGHLY FUSED TO BODY WITHOUT DISCOLORATION, CHIPS, FLAWS OR CRAZE. GLAZE ALL SURFACES EXCEPT THOSE COMING IN CONTACT WITH WALLS, FLOOR OR OTHER FIXTURES. D. FIXTURE TRIM: CAST BRASS FAUCET BODIES. POLISHED CHROME FINISH ON FIXTURE TRIM AND EXPOSED PIPING. E. FIXTURE TRAPS: WALL TYPE WITH INTEGRAL CLEANOUT PLUGS. COMPLY WITH SPECIFIED PLUMBING CODE. F. ACCESSORIES: FURNISH FIXTURES WITH SPECIALTIES, TRIM AND FACTORY PAINTED SUPPORT BRACKETS.</p> <p>3 INSTALLATION: A. ROUGH-IN FIXTURE PIPING CONNECTIONS IN ACCORDANCE WITH MINIMUM SIZES INDICATED IN FIXTURE ROUGH-IN SCHEDULE FOR PARTICULAR FIXTURES. B. INSTALL FIXTURES PLUMB AND LEVEL. C. PROVIDE PIPING CONNECTIONS TO FIXTURES WITH VALVES AND ESCUTCHEONS. D. PROVIDE THROUGH BOLTS AND 1/4 INCH THICK STEEL BACKING PLATES FOR SECURING WALL HANGERS FOR WALL-HUNG FIXTURES NOT FURNISHED WITH CHAIR CARRIERS. E. INSTALL EACH FIXTURE WITH TRAP, EASILY REMOVABLE FOR SERVICING AND CLEANING. F. PROVIDE CHROME PLATED SUPPLIES TO FIXTURES WITH WHEEL HANDLE STOPS, REDUCERS AND ESCUTCHEONS. G. INSTALL CHROME PLATED PARTS USING METHODS AND TOOLS WHICH WILL NOT DAMAGE FINISHED SURFACES. H. RIGIDLY SECURE SUPPLIES BEHIND WALL OR WITHIN WALL PIPE SPACE. I. VERIFY THAT PLUMBING FIXTURES AND TRIM ARE TIGHT, LEAK-FREE AND FUNCTION PROPERLY.</p> <p>MEDICAL GAS WARNING SYSTEMS</p> <p>1 ALL LOCAL, MASTER, AND AREA ALARM PANELS USED FOR MEDICAL GAS SYSTEMS SHALL PROVIDE THE FOLLOWING: A. SEPARATE VISUAL INDICATORS FOR EACH CONDITION MONITORED. B. CANCELABLE AUDIBLE INDICATION OF AN ALARM CONDITION. THE AUDIBLE INDICATOR SHALL PRODUCE MINIMUM OF 80 db MEASURED AT 3 FT. A SECOND INDICATED CONDITION OCCURRING WHILE THE ALARM IS SILENCED SHALL REINITIATE THE AUDIBLE SIGNAL. C. A MEAN TO VISUALLY INDICATE A LAMP OR LED FAILURE.</p> <p>2 LOCAL, MASTER AND AREA ALARMS SHALL INDICATE VISUALLY AND AUDIBLY IF: A. THE MONITORED CONDITION OCCURS. B. THE WIRING TO THE SENSOR OR SWITCH IS DISCONNECTED.</p> <p>3 EACH LOCAL, MASTER AND AREA ALARM PANEL SHALL BE LABELED FOR ITS AREA OF SURVEILLANCE AND ROOMS SERVED. EACH INDICATOR SHALL BE SEPARATELY LABELED INDICATING THE CONDITION MONITORED.</p> <p>4 WHERE MULTIPLE PANELS ARE INTENDED TO INDICATE THE SAME CONDITION: A. BOTH MASTER ALARMS REQUIRED BY NFPA 99-5.1.9.2.1 SHALL BE CONNECTED BY DEDICATED WIRING DIRECTLY TO THE SENSORS OR SWITCHES. B. OTHER PANELS SHALL BE PERMITTED TO BE CONNECTED THROUGH INDIRECT MEANS SUCH AS TRANSMISSION LINES PROVIDED THAT SUCH INDIRECT MEANS ARE FULLY SUPERVISED AND FAILURE OF SUCH INDIRECT TRANSMISSIONS IS INDICATED AT ALL PANEL SO CONNECTED.</p> <p>5 LOCAL, MASTER AND AREA ALARMS SHALL BE POWERED FROM THE LIFE SAFETY BRANCH OF THE EMERGENCY SYSTEM AS DESCRIBED IN NFPA 99 CHAPTER, "ELECTRICAL SYSTEMS."</p> <p>6 ALL PRESSURE SWITCHES, PRESSURE GAUGES, AND PRESSURE-SENSING DEVICES DOWN STREAM OF THE SOURCE VALVE SHALL BE PROVIDED WITH A GAS SPECIFIC DEMAND CHECK FITTING TO FACILITATE SERVICING, TESTING, OR REPLACEMENT.</p> <p>7 THE RESPONSIBLE AUTHORITY OF THE FACILITY SHALL ENSURE THAT ALL LABELING OF ALARMS, WHERE ROOM NUMBERS OR DESIGNATIONS ARE USED, IS ACCURATE AND UP TO-DATE.</p> <p>8 ALL WIRING FROM SWITCH OR SENSORS SHALL BE SUPERVISED OR PROTECTED AS REQUIRED BY SECTIONS 517-30(C) (3) OF NFPA 70, NATIONAL ELECTRICAL CODE, FOR EMERGENCY SYSTEM CIRCUITS.</p> <p>9 A CENTRALIZED COMPUTER SHALL NOT SUBSTITUTE FOR ANY REQUIRED MEDICAL GAS ALARM PANEL, BUT SHALL BE PERMITTED TO BE USED TO SUPPLEMENT THE MEDICAL GAS ALARM SYSTEM.</p>	<p>RestorixHealth Excellence in Wound Care</p> <p>DENNIS NOSKIN ARCHITECTS 1000 Main Street, Portland, ME 04101</p> <p>ZAF CONSULTING MECHANICAL, ELECTRICAL, PLUMBING DANIEL AVARINE Professional Engineer License No. 13062 www.zafcorp.com</p> <p>JOHN ZABELKOWICZ, P.E. PROFESSIONAL ENGINEER LICENSE NO.: 13062</p> <p>JOHN ZABELKOWICZ, P.E. PROFESSIONAL ENGINEER LICENSE NO.: 13062</p> <p>STATE: MAINE</p> <p>MAINE MEDICAL CENTER BRIGHTON CAMPUS WOUND CARE AND HYPERBARIC MEDICINE 333 BRIGHTON AVENUE PORTLAND, ME 04103</p> <p>PROJECT:</p> <p>KEY PLAN: GROUND FLOOR</p> <p>ISSUE DATES: STATE APPROVALS MARCH 20, 2015 BLDG. DEPT. REVIEW</p> <p>DRAWN BY: ECH CHECKED BY: BF SCALE: AS NOTED PROJECT NO.: P14110</p> <p>SHEET TITLE: PLUMBING SPECIFICATIONS</p> <p>DRAWING NO.: P-7</p> <p>© 2014</p>
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