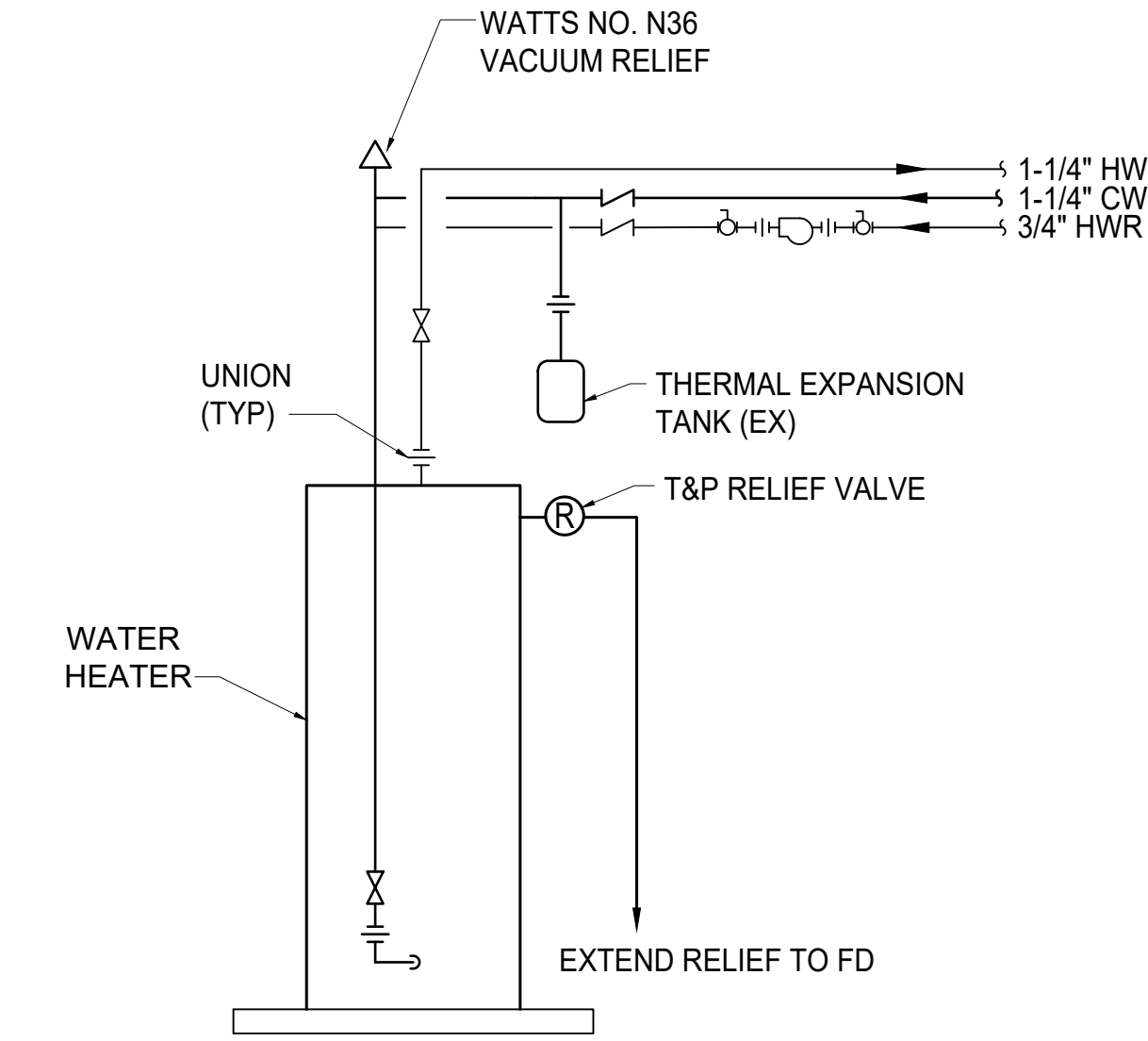
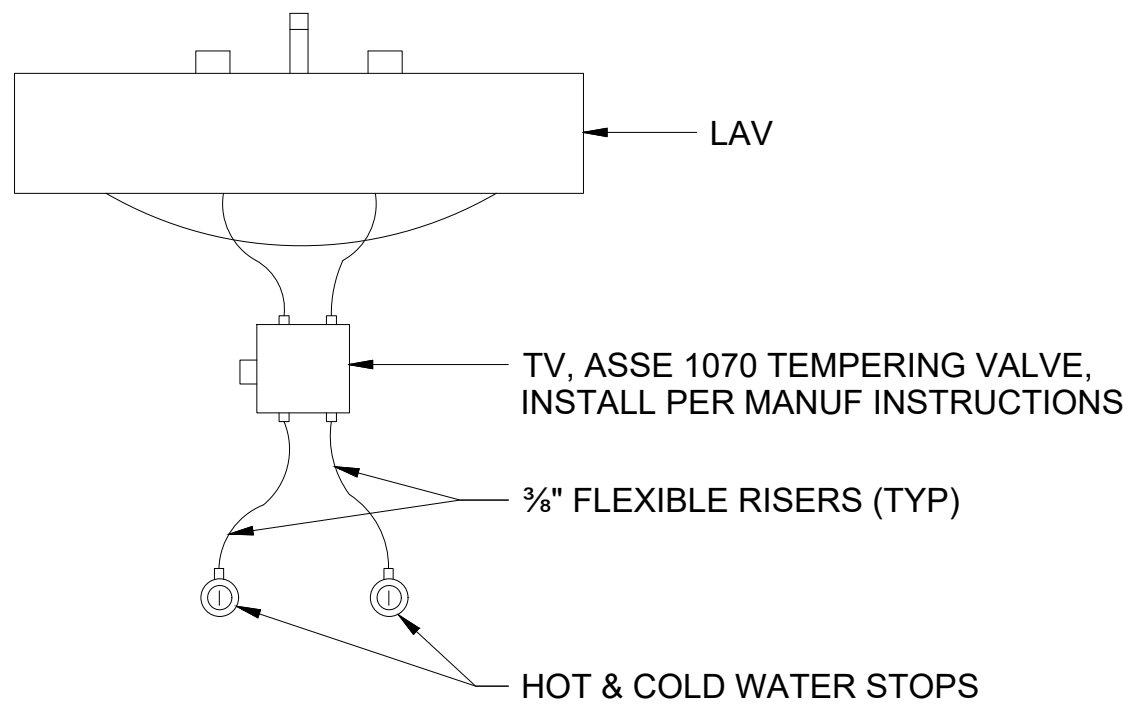


PLUMBING FIXTURE SCHEDULE:

TWC-2	ADA WATER CLOSET: AMERICAN STANDARD MADERA FLOWISE MODEL #3043.001, 16-1/2" HEIGHT, VITREOUS CHINA ELONGATED SIPHON JET BOWL, FLOOR MOUNTED, WHITE HEAVY DUTY SOLID PLASTIC OPEN FRONT SEAT WITHOUT COVER, STAINLESS STEEL CHECK HINGE, ADA COMPLIANT. FLUSH VALVE SHALL BE AMERICAN STANDARD MODEL 6047.121.002, 11.5" SUPPLY C/L TO TOP OF BOWL, 1.28 GPF CHROME PISTON FLUSH VALVE WITH ADA COMPLIANT HANDLE. REFER TO ARCHITECTURAL PLANS FOR HANDLE DIRECTION.
TWC-5	WATER CLOSET: AMERICAN STANDARD MADERA FLOWISE MODEL #2234.001, 15" HEIGHT, VITREOUS CHINA ELONGATED SIPHON JET BOWL, FLOOR MOUNTED, WHITE HEAVY DUTY SOLID PLASTIC OPEN FRONT SEAT WITHOUT COVER, STAINLESS STEEL CHECK HINGE. FLUSH VALVE SHALL BE AMERICAN STANDARD MODEL 6047.121.002, 11.5" SUPPLY C/L TO TOP OF BOWL, 1.28 GPF CHROME PISTON FLUSH VALVE WITH HANDLE. REFER TO ARCHITECTURAL PLANS FOR HANDLE DIRECTION.
LAV-1	AMERICAN STANDARD "LUCERNE" 0355.012 WHITE VITREOUS CHINA WALL HUNG HANDICAP LAVATORY, THREE HOLE MOUNT FOR 4" CENTERS, WITH MOEN 8413F05 CENTERSET CHROME FAUCET WITH SINGLE LEVER HANDLE, METAL GRID STRAINER, OFFSET PVC P-TRAP, FLEXIBLE TUBING SUPPLIES, COMPRESSION FITTINGS AND STOPS. PROVIDE TRUEBRO #102W PRE- MOLDED INSULATION ON BOTH WATER SUPPLIES AND DRAIN. PROVIDE WITH WALL CARRIER. PROVIDE TEMPERING VALVE.
SWR-1	SHOWER, AQUATIC BATH, MODEL ICON SH3636 ACRYIX, 36X36X75.5 ONE-PIECE SHOWER. PROVIDE WITH PRESSURE BALANCING MIXING VALVE IN WALL, 2" BRASS SHOWER DRAIN WITH STRAINER, AND SHOWER CURTAIN WITH ROD. PROVIDE SHOWER SYSTEM WITH RIGHT OR LEFT HAND FIXTURE WALL AS INDICATED ON PLANS. REFER TO ARCHITECTURAL DETAILS FOR ADDITIONAL INFORMATION.
SWR-2	ADA SHOWER, AQUATIC BATH, MODEL 1363BFRF, 36X36X75 ONE-PIECE SHOWER WITH FOLDING SEAT ON LEFT SIDE, VERTICAL ENTRY BAR, L SHAPE HORIZONTAL GRAB BAR, AND HAND HELD SPRAYER AND SLIDE BAR. PROVIDE WITH PRESSURE BALANCING MIXING VALVE IN WALL, 2" BRASS SHOWER DRAIN WITH STRAINER, AND SHOWER CURTAIN WITH ROD. PROVIDE SHOWER SYSTEM WITH RIGHT HAND FIXTURE WALL AS INDICATED ON PLANS. REFER TO ARCHITECTURAL DETAILS FOR ADDITIONAL INFORMATION.
S-1	ELKAY, LUSTERTONE STAINLESS STEEL, 29"X22"X5-1/2", DOUBLE BOWL, TOP MOUNT, MODEL LRADQ292255. PROVIDE ELKAY DECK MOUNTED FAUCET WITH LEVER HANDLES AND SIDE MOUNTED SPRAYER, MODEL LKD2433C.
JMS-1	MOP SINK: AMERICAN STANDARD, MODEL 7741.000 FLORWELL SERVICE SINK, 28 INCH X 28 INCH X 13 INCH, ENAMELED CAST IRON CONSTRUCTION, WITH REMOVABLE VINYL RIM GUARD, FLAT GRID DRAIN W/ 3" OUTLET. PROVIDE EXPOSED YOKE WALL MOUNT UTILITY FAUCET, AMERICAN STANDARD MODEL 8344.012, TOP BRACE, 6" CAST BRASS SPOUT WITH VACUUM BREAKER. CERAMIC DISC VALVES. INTEGRAL SUPPLY STOPS. VANDAL-RESISTANT METAL LEVER HANDLES. BUCKET HOOK. 3/4" THREADED HOSE END. 1/2" NPT FEMALE INLETS.
EW-2:	ELECTRIC WATER COOLER, ELKAY EZH2O® BOTTLE FILLING STATION WITH BI-LEVEL ADA COOLER DUAL HANDS FREE ACTIVATION NON-FILTERED REFRIGERATED STAINLESS, MODEL EZOOTL8WSSK. WITH CHILLING CAPACITY OF 8.0 GPH (GALLONS PER HOUR) OF 50°F DRINKING WATER. BASED ON 80°F INLET WATER AND 90°F AMBIENT. PER ASHRAE 18 TESTING. FEATURES SHALL INCLUDE ANTIMICROBIAL*, GREEN TICKER™, HANDS FREE, LAMINAR FLOW, REAL DRAIN. FURNISHED WITH FLEXI-GUARD® SAFETY BUBBLER. ELECTRONIC BOTTLE FILLER SENSOR & SENSOR BUBBLER ACTIVATION. PRODUCT SHALL BE WALL MOUNT (ON WALL), FOR INDOOR APPLICATIONS, SERVING 2 STATION(S). UNIT SHALL BE CERTIFIED TO UL 399 AND CAN/CSA C22.2 NO. 120.



DETAIL OF CONNECTIONS TO WATER HEATER (EWH-1)



TYPICAL TEMPERING VALVE FOR LAVATORIES

LEGEND	ABBREVIATIONS
BRANCH CONNECTION - BOTTOM OF MAIN	AAV AIR ADMITTANCE VALVE
BRANCH CONNECTION - SIDE OF MAIN	ABV ABOVE
BRANCH CONNECTION - TOP OF MAIN	ABF ABOVE FINISHED FLOOR
PIPE DOWN OR PIPE FROM BELOW	BFF BELOW FINISHED FLOOR
PIPE UP OR PIPE FROM ABOVE	BTU BRITISH THERMAL UNIT
DIRECTION OF FLOW	BEL BELOW
DOMESTIC COLD WATER	CLG CEILING
DOMESTIC HOT WATER	CO CLEANOUT
DOMESTIC HOT WATER RECIRCULATING	CONN CONNECT, CONNECTION
NATURAL GAS PIPING	CW COLD WATER
SANITARY SEWER, GREASE WASTE OR DRAIN	CONT CONTINUED
SANITARY VENT	DN DOWN
CLEANOUT FLUSH WITH FLOOR	EA EACH
OUTLET WITH P-TRAP	ELEV ELEVATION
WALL HYDRANT	EWG ELECTRIC WATER COOLER
WATER HAMMER ARRESTER	F DEGREES FAHRENHEIT
GATE VALVE	FD FLOOR DRAIN
BALL VALVE	FIN FINISHED
SHUTOFF VALVE IN VERTICAL	FLR FLOOR
CHECK VALVE	FR FROM
T&P RELIEF VALVE	FT FEET
BALANCING COCK	GPH GALLONS PER HOUR
UNION	GPM GALLONS PER MINUTE
PRESSURE GAUGE AND GAUGE COCK	GW GREASE WASTE
THERMOMETER	HB HOSE BIBB
STRAINER, STRAINER WITH DRAIN	HC HANDICAPPED ACCESSIBLE
RELIEF VALVE	HW HOT WATER
BACKFLOW PREVENTER (BFP)	HP HORSEPOWER
MEDICAL GAS PIPING - OXYGEN	IN INCH, INCHES
MEDICAL GAS PIPING - VACUUM	INV INVERT
MEDICAL GAS PIPING - MEDICAL AIR	MAX MAXIMUM
	MBH THOUSAND BTU PER HOUR
	MIN MINIMUM
	SH SHEET
	TYP TYPICAL
	V SANITARY VENT
	VTR VENT THRU ROOF
	W SANITARY WASTE
	WCO WALL CLEANOUT
	WH WALL HYDRANT
	WHA WATER HAMMER ARRESTER
	ZVB MEDICAL GAS ZONE VALVE BOX
	CONNECT TO EXISTING
	LIMITS OF DEMOLITION

PLUMBING EQUIPMENT SCHEDULE:

FD	FLOOR DRAIN, ZURN MODEL Z415, DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS. FOR MECHANICAL ROOM DRAINS NOT RECIEIVING INDIRECT WASTE, FINISHED SPACES INCLUDING TOILET, SHOWER, LOCKER ROOMS, ETC., PROVIDE WITH TYPE B, ROUND, POLISHED NICKEL BRONZE, LIGHT DUTY HEEL PROOF STRAINER. FOR ANY FLOOR DRAINS RECIEIVING INDIRECT WASTE OR CONDESATE (NOT FLOOR SINKS), PROVIDE TYPE I POLISHED NICKEL BRONZE STRAINER WITH RAISED FLANGE. ALL FLOOR DRAINS SHALL BE PROTECTED AGAINST LOSS OF TRAP SEAL BY EVAPORATION BY INSTALLATION OF ELASTOMERIC TRAP GUARD DRAIN INSERT, EQUAL TO PROSET SYSTEMS MODEL #TG.
TV	THERMOSTATIC MIXING VALVE, WATTS MODEL LFMMV, LEAD FREE, SET AT 110°F OUTLET. MOUNT BELOW RESPECTIVE FIXTURE WITH THERMOSTAT ON TEMPERED LINE. INSTALL PER MANUFACTURERS REQUIREMENTS.
CO	CLEAN OUT. PROVIDE FLOOR CLEAN OUT (ZURN MODEL ZS-1400) OR WALL CLEAN OUT (ZURN MODEL ZS-1468 WITH ACCESS COVER AND PLUG) AS INDICATED ON PLANS. EXTERIOR GRADE CLEANOUTS SHALL BE PROVIDED WITH TRAFFIC RATED COVERS.
WH	WALL HYDRANT, ZURN MODEL Z1320XL, ENCASED, ECOLOTROL, LEAD-FREE, NON-FREEZE AUTOMATIC DRAINING WALL HYDRANT FOR FLUSH INSTALLATION. HYDRANT FEATURES INTEGRAL BACKFLOW PREVENTER WITH ANTI-SIPHON TECHNOLOGY, COPPER CASING, ALL-BRONZE INTERIOR COMPONENTS WITH 1/2 TURN LONG-LIFE CERAMIC DISC CARTRIDGE, COMBINATION 3/4" FEMALE SOLDER AND 3/4" MALE PIPE THREAD INLET CONNECTION, AND 3/4" MALE HOSE CONNECTION. HYDRANT FURNISHED WITH TYPE 304 STAINLESS STEEL HOUSING WITH LOCKING HINGED COVER STAMPED "WATER" AND INCLUDES OPERATING KEY. CONTRACTOR SHALL COORDINATE WITH WALL THICKNESS.
BFP	REDUCED PRESSURE ZONE BACK FLOW PREVENTER (FOR BUILDING SERVICE) SIZES 1/2" - 2". WATTS SERIES LFU009. PROVIDE WITH AIR GAP DRAIN OUTLET PIPED TO NEAREST FLOOR DRAIN. SIZES 2-1/2" - 4". WATTS SERIES 909. PROVIDE WITH OUTSIDE STEM AND YOKE RESILLIENT SEATED GATE VALVES AND AIR GAP DRAIN OUTLET PIPED TO NEAREST FLOOR DRAIN.
EX	EXPANSION TANK - AMTROL THERM-X-TROL MODEL #ST-5 THERMAL EXPANSION TANK, 2.0 GALLONS MIN. ACCEPTANCE VOLUME WITH DIAPHRAGM. FACTORY PRE-CHARGED TO 40 PSI, SET EQUAL TO LINE PRESSURE.
EWH-1	ELECTRIC WATER HEATER, A.O. SMITH MODEL #DVE-300-18 , 300 GALLON CAPACITY TANK, 74 GAL./HR. RECOVERY AT 40 DEG.F. ENT.AND 100 DEG.F. RISE, 18 KW, 208V/3PH, T & P RELIEF VALVE. PIPING CONNECTIONS INCLUDING T&P RELIEF VALVE ON SIDE OF EQUIPMENT.
HWCP-1	B&G SERIES ECOCIRC 20-18 CIRCULATING PUMP, 0-70 WATTS., 115V/1PH, 2.5 GPM AT 10 FT. OF HEAD. RECIRCULATION SYSTEM IS TO FUNCTION AS A CONSTANT TEMPERATURE SYSTEM WITH CONTROLS AS REQUIRED TO MAINTAIN A CONSTANT TEMP IN THE HOT WATER LOOP. PROVIDE WITH REMOTE TEMPERATURE SENSOR TO MONITOR LOOP TEMPS. PUMP SHALL BE AUTOMATICALLY DISABLED DURING NIGHT MODE/AFTER BUSINESS HOURS.

STEEL DYNAMICS RAIL SPIKE BUILDING

CONSTRUCTION DRAWINGS

PLUMBING LEGEND, SCHEDULES,

AND DETAILS

3302 BAKER AVENUE NW
ROANOKE CITY, VA

DATE: 2026-07-10

SCALE: As indicated

DESIGNER:

DRAFTER:

CHECKED:

PROJECT NO.
0077490.01

SEALED



SHEET NUMBER

P1.01

MUNICIPALITY PROJECT

Westwood

Westwood Professional Services, Inc.

1208 CORPORATE CIRCLE

ROANOKE, VA 24018

REV. DATE DESCRIPTION

T: 540.772.9580
F: 540.426.3435

PLUMBING SPECIFICATIONS:

1. GENERAL PROVISIONS:

- 1.A. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2021 VIRGINIA UNIFORM STATEWIDE BUILDING CODE, ALL FEDERAL, STATE, AND CITY CODES, ORDINANCES, AND STANDARDS.
- 1.B. THE PLANS ARE DIAGRAMMATIC IN NATURE AND BASED ON ONE MANUFACTURER'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS, OR ALL THE DETAILS OF THE EQUIPMENT. VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO BE USED. INSTALLATION SHALL BE WITHIN THE LIMITATIONS IMPOSED BY THE ARCHITECTURAL, STRUCTURAL, HVAC, ELECTRICAL, AND PLUMBING REQUIREMENTS WITH ADEQUATE SPACE FOR MAINTENANCE.
- 1.C. GUARANTEE: ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED TO BE FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE AND CONTRACTOR SHALL MAKE GOOD, WITHOUT ADDITIONAL COST TO THE OWNER, ANY DEFECTS WHICH MAY APPEAR WITHIN THAT PERIOD. MANUFACTURER'S WARRANTIES EXTENDING BEYOND ONE YEAR SHALL BE PROCESSED AND TURNED OVER TO THE OWNER.

- 1.D. MAJOR ITEMS ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INCIDENTAL ITEMS REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM.
- 1.E. A TRADE NAMES AND CATALOG NUMBERS SHALL BE INTERPRETED AS ESTABLISHING A GENERAL DESIGN AND STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING COMPETITION. UNLESS STATED OTHERWISE, THE CONTRACTOR MAY USE ANY ARTICLE WHICH, IN HIS JUDGEMENT, AND WITH WRITTEN COMMENT FROM THE ARCHITECT/ENGINEER INDICATING NO OBJECTION, IS EQUAL OR SUPERIOR TO THAT SPECIFIED. DRAWINGS SHOWING CHANGES OR REVISIONS REQUIRED BY THE SUBSTITUTION FOR SPECIFIED ITEMS SHALL BE SUBMITTED WITH THE SHOP DRAWING DATA, AND THE COSTS OF ALL SUCH CHANGES SHALL BE BORNE BY THE CONTRACTOR.

- 1.F. SIMILAR ITEMS SHALL BE PROVIDED BY A SINGLE MANUFACTURER.
- 1.G. ALL REQUIRED WALL OR FLOOR OPENINGS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND/OR OTHER RELEVANT TRADES.
- 1.H. ALL PIPING SHALL BE INSTALLED ABOVE THE CEILING UNLESS INDICATED OTHERWISE. ALL WATER PIPING AND P-TRAPS SHALL BE INSTALLED WITHIN THE BUILDINGS INSULATION ENVELOPE OR BE PROVIDED WITH A FREEZE PROTECTION SYSTEM.
- 1.I. PROVIDE SUPPORTS TO RIGIDLY ATTACH ALL EQUIPMENT, APPURTENANCES AND PIPE AS REQUIRED FOR SUPPORT. PRIOR TO INSTALLATION OF HANGERS AND INSERTS, THE CONTRACTOR SHALL COORDINATE LOCATIONS AND REQUIREMENTS TO MINIMIZE CONFLICTS WITH OTHER BUILDING SYSTEMS. INSTALLATION OF PIPE HANGERS AND SUPPORTS SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURERS STANDARDIZATION SOCIETY (MSS) STANDARDS SP-58, 69 AND 89.
- 1.J. THE CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL EQUIPMENT INDICATED TO BE FURNISHED BY OTHERS.

2. SUBMITTAL AND SHOP DRAWINGS:

- 2.A. SUBMIT MANUFACTURER'S CERTIFIED DATA RELATIVE TO ALL EQUIPMENT, PIPING, CONTROLS, ETC. REQUIRED FOR THE INSTALLATION OF THE PLUMBING AND FIRE PROTECTION SYSTEMS. SUBMIT FOR REVIEW ALL NECESSARY ENGINEERING, PRODUCT AND INSTALLATION DATA, SHOP DRAWINGS, SAMPLES ETC. FOR ALL EQUIPMENT, MATERIAL, AND SYSTEMS TO ASCERTAIN COMPLIANCE WITH THE TECHNICAL REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- 2.B. SUBMIT A DIGITAL PDF OF ALL NECESSARY DATA, CUTS, MANUFACTURER'S SELECTIONS, CATALOGS, BULLETINS, INSTALLATION INSTRUCTIONS, DRAWINGS, DIAGRAMS, CURVES, ETC. CLEARLY INDICATE ON THE SUBMITTED DATA, THE MANUFACTURER'S NAME, PRODUCT NUMBER(S), OPTIONS, EQUIPMENT CAPACITY, DIMENSIONAL DATA, WEIGHTS, AND OTHER APPLICABLE TECHNICAL DATA FOR THE PROJECT.
- 2.C. TRADE NAMES, MANUFACTURERS, AND CATALOGUE NUMBERS ARE MENTIONED HEREIN AND ON THE DRAWINGS SOLELY IN ORDER TO ESTABLISH A STANDARD FOR THE TYPE, GENERAL DESIGN, AND QUALITY OF PRODUCT REQUIRED. OTHER PRODUCTS SIMILAR IN DESIGN OF EQUIVALENT QUALITY CAPABLE OF FITTING WITHIN THE SPACES ALLOCATED AND COMPLYING WITH THE DRAWINGS AND SPECIFICATIONS WILL BE CONSIDERED AFTER THE CONTRACT IS LET UNLESS "PRIOR APPROVAL" REQUIREMENTS ARE SET FORTH IN THESE DOCUMENTS.

- 2.D. REVIEW OF SUBMITTALS AND SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR FITTING THE EQUIPMENT IN THE SPACE ALLOTTED WITH SPACE FOR ALL CONNECTIONS AND SERVICING AND FOR THE COORDINATION OF THE WORK WITH WORK OF OTHER TRADES.

- 2.E. THE CONTRACTOR SHALL REVIEW ALL SUBMITTALS AND SHOP DRAWINGS AND INDICATE BY STAMP OR LETTER THAT HE HAS REVIEWED THEM, BEFORE FORWARDING THEM TO THE ARCHITECT AND/OR ENGINEER. SUBMITTALS AND DRAWINGS WILL BE RETURNED AFTER REVIEW INDICATING WHETHER EXCEPTIONS ARE TAKEN, THE SUBMITTAL RETURNED WITH CORRECTIONS, OR IS COMPLETELY REJECTED. RESUBMISSION OF REVISED SUBMITTALS AND SHOP DRAWINGS, IF REQUIRED, SHALL BE DONE BEFORE INSTALLATION AND CONSTRUCTION IS BEGUN.

- 2.F. CORRECTIONS OR COMMENTS MADE ON THE SUBMITTALS AND DRAWINGS DURING THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THIS REVIEW IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, FABRICATION PROCESSES, TECHNIQUES OF CONSTRUCTION, COORDINATING THE WORK WITH THAT OF ALL OTHER TRADES, AND PERFORMING WORK IN A SAFE AND SATISFACTORY MANNER. REVIEW OF THE SUBMITTALS SHALL NOT PERMIT ANY DEVIATION FROM PLANS AND SPECIFICATIONS.

3. AS-BUILT DRAWINGS:
- 3.A. MAINTAIN DAILY UPDATED DRAWINGS SHOWING DEVIATIONS FROM CONSTRUCTION DOCUMENTS. AT THE END OF THE PROJECT, PROFESSIONALLY PREPARE AS-BUILT DRAWINGS AND SUBMIT DRAWINGS TO THE ARCHITECT/ENGINEER.

4. OPERATION AND MAINTENANCE MANUALS:
- 4.A. UPON COMPLETION OF THE PROJECT, SUBMIT ALL OPERATION AND MAINTENANCE MANUALS, WARRANTIES, SPARE PARTS LIST, AS-BUILT DRAWINGS, TEST AND BALANCE REPORTS, AND LETTER OF GUARANTEE ALL BOUND IN THREE RING BINDERS, CLEARLY SHOWING WHICH EQUIPMENT WAS SUPPLIED TO THE JOB.

5. PIPING SPECIALTIES:
- 5.A. ACCESS DOORS: ACCESS DOORS SHALL BE PROVIDED FOR ALL CONCEALED VALVES, CONTROLS, AND ANY OTHER EQUIPMENT OR MATERIALS REQUIRING INSPECTION OR MAINTENANCE. ACCESS DOORS SHALL BE FURNISHED FOR FLOORS, WALLS AND CEILINGS, OF ADEQUATE SIZE SO THAT CONCEALED ITEMS WILL BE READILY ACCESSIBLE FOR SERVICING OR FOR REMOVAL AND REPLACEMENT IF NECESSARY.
- 5.B. PIPE ESCUTCHEONS: INSTALL PIPE ESCUTCHEONS ON EACH PIPE PENETRATION THRU FLOORS, WALLS PARTITIONS, AND CEILINGS WHERE PENETRATION IS EXPOSED TO VIEW AND ON EXTERIOR OF BUILDING. SECURE ESCUTCHEON TO PIPE OR INSULATION SO ESCUTCHEON COVERS PENETRATION HOLE, AND IS FLUSH WITH ADJOINING SURFACE. PROVIDE SHEET STEEL ESCUTCHEONS, SOLID OR SPLIT HINGED. FOR AREAS WHERE WATER AND CONDENSATION CAN BE EXPECTED TO ACCUMULATE, PROVIDE CAST BRASS OR SHEET BRASS ESCUTCHEONS, SOLID OR SPLIT HINGED.

- 5.C. PIPE SLEEVES: INSTALL PIPE SLEEVES WHERE PIPING PASSES THROUGH WALLS, FLOORS, CEILINGS, AND ROOFS. DO NOT INSTALL SLEEVES THROUGH STRUCTURAL MEMBERS OF WORK, EXCEPT AS DETAILED ON DRAWINGS, OR AS REVIEWED BY ARCHITECT/ENGINEER. SIZE SLEEVES SO THAT PIPING AND INSULATION (IF ANY) WILL HAVE FREE MOVEMENT IN SLEEVE, INCLUDING ALLOWANCE FOR THERMAL EXPANSION; BUT NOT LESS THAN 2 PIPE SIZES LARGER THAN PIPING RUN. INSTALL LENGTH OF SLEEVE EQUAL TO THICKNESS OF CONSTRUCTION PENETRATED, AND FINISH FLUSH TO SURFACE; EXCEPT FLOOR SLEEVES. EXTEND FLOOR SLEEVES 1/4 INCH ABOVE LEVEL FLOOR FINISH, AND 3/4 INCH ABOVE FLOOR FINISH SLOPED TO DRAIN. PROVIDE TEMPORARY SUPPORT OF SLEEVES DURING PLACEMENT OF CONCRETE AND OTHER WORK AROUND SLEEVES, AND PROVIDE TEMPORARY CLOSURE TO PREVENT CONCRETE AND OTHER MATERIALS FROM ENTERING SLEEVES.

- 5.D. WATER HAMMER ARRESTORS (WHA): PROVIDE AT ALL FAST OPENING WATER VALVES INCLUDING WATER CLOSETS, URNIALS, AND CLOTHES WASHERS. SHALL BE ZURN MODEL 1260XL OR EQUIVALENT AND SHALL BE SIZED AND PLACED WITHIN THE SYSTEM AS RECOMMENDED BY THE MANUFACTURER.

6. INSULATION:

- 6.A. FLAME/SMOKE RATINGS: PROVIDE COMPOSITE PLUMBING INSULATION (INSULATION, JACKETS, COVERINGS, SEALERS, MASTICS AND ADHESIVES) WITH FLAME-SPREAD RATING OF 25 OR LESS, AND SMOKE-DEVELOPED RATING OF 50 OR LESS, AS TESTED BY ASTM E84 METHOD. INSULATION SHALL BE LABELED BY THE MANUFACTURER. THE LABEL SHALL INDICATE THE INSULATING VALUE, FLAME SPREAD AND SMOKE-DEVELOPED RATING.
- 6.B. INSTALLATION: INSULATION SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS USING ONLY ADHESIVES, MASTICS AND PLUMBING FASTENERS APPROVED BY THE INSULATION MANUFACTURER. INSULATION SHALL NOT BE APPLIED UNTIL AFTER THE EQUIPMENT HAS BEEN TESTED WITH RESULTS ACCEPTABLE TO THE ARCHITECT/ENGINEER. INSULATION WITH A VAPOR BARRIER JACKET SHALL BE APPLIED WITH A CONTINUOUS, UNBROKEN VAPOR SEAL AND ALL JOINTS SHALL BE SEALED WITH A VAPOR BARRIER ADHESIVE UNLESS OTHERWISE INDICATED. STAPLES, STICK CLIPS AND HANGERS SHALL BE VAPOR SEALED WHERE THEY PUNCTURE VAPOR BARRIER JACKETS.

6.C. MATERIALS:

- 6.C.A. GLASS FIBER PIPE INSULATION: HEAVY DENSITY PREFORMED PIPE INSULATION WITH OPERATING TEMPERATURE RANGE OF -60 DEGREES F TO 350 DEGREES F, THERMAL CONDUCTIVITY "K"=0.24 BTU-IN/HOUR-SF-DEG F AT 100 DEGREES F. FACTORY APPLIED JACKET (ASJ) SHALL CONSIST OF WHITE KRAFT PAPER BONDED TO ALUMINUM FOIL AND REINFORCED WITH GLASS FIBER YARN. EQUAL TO OWENS-CORNING ASJ.
- 6.C.B. CELLULAR FOAM PIPE INSULATION: TUBULAR, FLEXIBLE, FIRE RESISTANT INSULATION WITH OPERATING TEMPERATURE RANGE OF -40 DEGREES F TO 220 DEGREES F, THERMAL CONDUCTIVITY

"K"=0.27 BTU-IN/HOUR-SF-DEG F AT 75 DEGREES F. NO JACKET REQUIRED. EQUAL TO ARMSTRONG ARMAFLEX AP.

- 6.C.C. A POLYETHYLENE PIPE INSULATION: INSULATION MATERIALS CORPORATION OF AMERICA (IMCOA), FLEXIBLE CLOSED CELL POLYETHYLENE TUBING, ASTM C534, "K"=0.24 AT 75 DEGREES F, SERVICE TEMPERATURE -110F TO 210F. NO JACKET REQUIRED.

- 6.D. OMIT INSULATION ON EXPOSED PLUMBING FIXTURE RUNOUTS FROM FACES OF WALL OR FLOOR TO FIXTURE; ON UNIONS, FLANGES, STRAINERS, FLEXIBLE CONNECTIONS, AND EXPANSION JOINTS.

- 6.E. COVER VALVES, FITTINGS AND SIMILAR ITEMS IN EACH PIPING SYSTEM WITH EQUIVALENT THICKNESS AND COMPOSITION OF INSULATION AS APPLIED TO ADJOINING PIPE RUN.

- 6.F. ALL DOMESTIC WATER PIPING ABOVE GROUND INCLUDING COLD, HOT, AND HOT WATER RE-CIRCULATING PIPING SHALL BE INSULATED WITH A MINIMUM 1/2" THICK INSULATION.

7. PLUMBING PIPING:

- 7.A. DOMESTIC WATER PIPING SHALL BE COPPER TUBE AND FITTINGS IN ACCORDANCE WITH ASTM B88, TYPE L HARD DRAWN COPPER. JOINTS SHALL BE MADE WITH LEAD FREE SOLDER.

- 7.B. STORM, SOIL, WASTE, AND VENT PIPING BELOW GRADE SHALL BE SCHEDULE 40 PVC PIPE AND FITTINGS. PVC SCHEDULE 40 PIPE SHALL BE IRON PIPE SIZE (IPS) CONFORMING TO ASTM D 1785. INJECTION MOLDED PVC SCHEDULE 40 FITTINGS SHALL CONFORM TO ASTM D 2466. PIPE AND FITTINGS SHALL BE MANUFACTURED AS A SYSTEM AND BE THE PRODUCT OF ONE MANUFACTURER. PIPE AND FITTINGS SHALL CONFORM TO NSF INTERNATIONAL STANDARD 61 AND THE HEALTH-EFFECTS PORTION OF NSF STANDARD 14.

- 7.C. STORM, SOIL, WASTE, AND VENT PIPING ABOVE GRADE SHALL BE HUBLESS CAST IRON PIPE TYPE DESIGNED FOR SAID APPLICATION. HUBLESS CAST IRON PIPE AND FITTINGS SHALL BE MANUFACTURED FROM GRAY CAST IRON AND SHALL CONFORM TO ASTM A 888 AND CISPI STANDARD 301. ALL PIPE AND FITTINGS SHALL BE MARKED WITH THE COLLECTIVE TRADEMARK OF THE CAST IRON SOIL PIPE INSTITUTE® AND LISTED BY NSF® INTERNATIONAL. HUBLESS COUPLINGS SHALL CONFORM TO CISPI STANDARD 310, SHALL BE MANUFACTURED IN THE UNITED STATES, AND BE CERTIFIED BY NSF® INTERNATIONAL.

- 7.D. CONDENSATE DRAINS SHALL BE TYPE L HARD DRAWN COPPER. JOINTS SHALL BE MADE WITH LEAD FREE SOLDER.

- 7.E. SLOPE ALL DRAIN LINES AT 1/4 INCH PER FOOT FOR SIZES LESS THAN 4 INCHES. SLOPE AT 1/8 INCH PER FOOT FOR SIZES 4 INCH AND LARGER.

- 7.F. SOIL, WASTE, AND VENT PIPING BELOW GRADE SHALL BE A MINIMUM OF 2 INCH AND SHALL BE PROVIDED WITH METALLIC TRACING/DETECTION WIRE.

- 7.G. VENTS SHALL EXTEND A MINIMUM OF 12 INCHES ABOVE THE ROOF. ROOF FLASHING SHALL BE PROVIDED AND COORDINATED WITH THE GENERAL AND ROOFING CONTRACTORS.

- 7.H. TRENCHING AS REQUIRED FOR UNDERGROUND PIPING SHALL BE GRADED TO UNIFORM PITCH AND SHALL BE NO WIDER THAN NECESSARY FOR PIPING INSTALLATION. CLEAN BACKFILL SHALL BE USED AND THOROUGHLY TAMPED IN LAYERS NOT EXCEEDING 6 INCHES TO A MINIMUM DEPTH OF 1 FOOT ABOVE PIPE. COMPACTED BACKFILL SHALL BE USED FOR THE ENTIRE DEPTH OF EXCAVATION UNDER SLAB ON GRADE CONSTRUCTION.

- 7.I. NATURAL GAS SYSTEMS: PIPING SHALL BE SCHEDULE 40 BLACK STEEL PIPE, ASTM A120/A53-CW OR ASTM/A53 GRADE B (WELDED OR SEAMLESS); WROUGHT STEEL BUTTWELDING FITTINGS. GAS COCKS 2 INCHES AND SMALLER SHALL BE RATED FOR 150 PSI, NON SHOCK WOG, BRONZE STRAIGHTWAY COCK, FLAT OR SQUARE HEAD, WITH THREADED ENDS. ALL GAS PIPING CONNECTIONS SHALL BE PROVIDED WITH A 6 INCH DIRT TRAP, UNION, AND GAS COCK SHUT OFF VALVE. ALL JOINTS SHALL BE SEALED WITH CHEMICALLY RESISTANT SEALER APPLIED TO MALE THREADS OF PIPE CONNECTION. GAS PIPING SHALL BE INSTALLED WITH A 1/64 INCH PER FOOT DOWNWARD SLOPE IN THE DIRECTION OF FLOW. A ROLLER BEARING TYPE PIPE SUPPORT SHALL BE USED TO SUPPORT ALL GAS PIPING LOCATED ON THE ROOF. SUPPORTS SHALL HAVE A POLYCARBONATE BASE, WITH PIPE RESTING ON A SELF LUBRICATING POLYCARBONATE RESIN AXLE AND ROLLER AND BE SIZED FOR THE PIPE BEING SUPPORTED. MAXIMUM SPACING SHALL NOT EXCEED 10FT.

8. PLUMBING FIXTURES, PUMPS, AND WATER HEATERS SHALL BE PROVIDED AND INSTALLED AS PER THE PLUMBING FIXTURE SCHEDULE. ALL EXPOSED FIXTURE SUPPLIES AND WASTE LINES SHALL BE CHROME PLATED. NO EXPOSED COPPER, PVC, AND/OR CAST IRON IS ALLOWED.

9. CLEANOUTS SHALL BE THE SAME SIZE AS LINE SERVED, BUT NOT LARGER THAN 4 INCHES, AND SHALL BE PROVIDED AT THE BASE OF EACH SOIL AND WASTE STACK, AT ALL POINTS WHERE DIRECTION CHANGE IS MORE THAN 45 DEGREES, AT MINIMUM INTERVALS OF 50 FEET FOR 4 INCH AND SMALLER PIPING, AT MINIMUM INTERVALS OF 100 FEET FOR PIPING LARGER THAN 4 INCHES, AS REQUIRED BY CODE AND AS INDICATED ON THE DRAWINGS. COVERS SHALL BE SET FLUSH WITH FLOOR OR WALL.

10. PLUMBING VALVES

- 10.A. PROVIDE SHUT-OFF VALVE AND UNION OR EQUIVALENT AT EACH HOT AND COLD WATER EQUIPMENT CONNECTION. PROVIDE SHUTOFF VALVE ON EACH BRANCH OR RISER THAT SERVES TWO OR MORE PLUMBING FIXTURES.

- 10.B. GATE VALVES 2-1/2 INCHES AND SMALLER: ALL BRONZE, RISING STEM, SOLID WEDGE DISC. STOCKHAM B-100 OR B-108.
- 10.C. GLOBE VALVES: ALL BRONZE, RENEWABLE COMPOSITION DISC. STOCKHAM B-16 OR B-14-T.
- 10.D. CHECK VALVES IN HORIZONTAL PIPES: 2 INCHES AND SMALLER: ALL BRONZE, REGRINDING BRONZE DISC, HORIZONTAL SWING, Y-PATTERN. STOCKHAM B-319OR B-309.
- 10.E. CHECK VALVES IN VERTICAL PIPES AND PUMP DISCHARGE: SILENT CHECK VALVE WITH SEMI-STEEL BODY, BRONZE TRIM AND STAINLESS STEEL SPRING. METRAFLEX 700 SERIES.
- 10.F. BALL VALVES MAY BE USED IN LIEU OF GATE VALVES 2 INCHES AND SMALLER. BALL VALVES SHALL HAVE BRONZE BODY, BRONZE BALL AND TPE SEATS AND SEALS. STOCKHAM S-216BRRT OR S-216BRRS.

11. CLEANING AND TESTING

- 11.A. ALL WATER PIPING, VALVES, ETC. SHALL BE THOROUGHLY FLUSHED OF FOREIGN MATTER AND TESTED FOR LEAKS IN ACCORDANCE WITH THE PLUMBING AND BUILDING CODE, LATEST EDITION. ANY LEAKAGE SHALL BE REPAIRED. DISINFECT DOMESTIC WATER PIPING INCLUDING WATER SERVICE PIPING IN ACCORDANCE WITH AWWA C601.
- 11.B. ALL DRAIN, WASTE AND VENT PIPING SHALL BE TESTED FOR LEAKS IN ACCORDANCE WITH THE PLUMBING AND BUILDING CODE CODE, LATEST EDITION. NO VISIBLE DROP IN WATER LEVEL WILL BE ACCEPTABLE.

END OF SPECIFICATIONS.

STEEL DYNAMICS RAIL SPIKE BUILDING

CONSTRUCTION DRAWINGS

PLUMBING SPECIFICATIONS

DATE: 2026-07-10

SCALE: As indicated

DESIGNER:

DRAFTER:

CHECKED:

PROJECT NO:
0077490.01

SIN



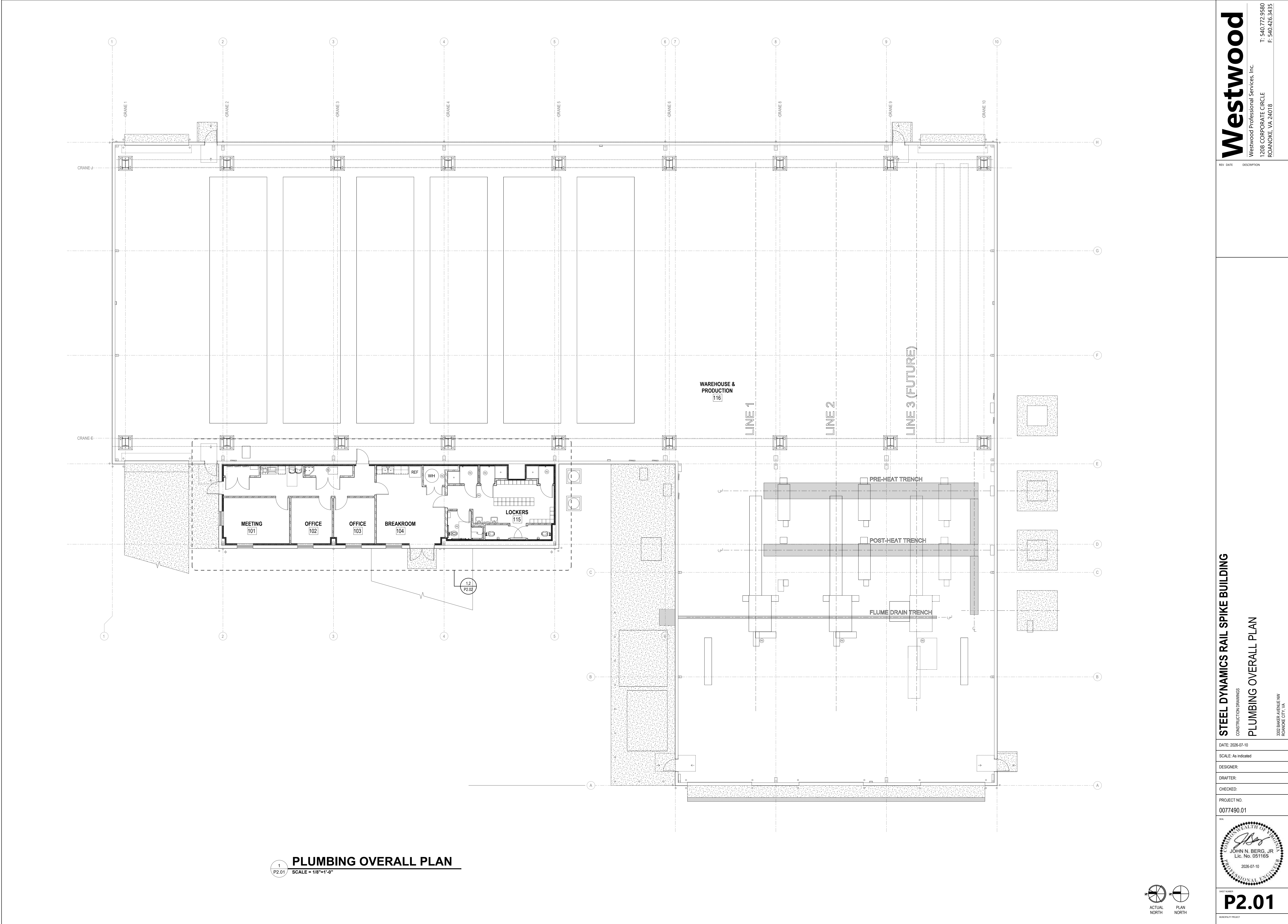
SHEET NUMBER

P1.02

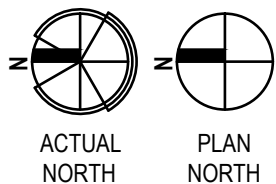
MUNICIPALITY PROJECT

Westwood Professional Services, Inc.
1208 CORPORATE CIRCLE
ROANOKE, VA 24018

T: 540.772.9580
F: 540.426.3435



1
P2.01
PLUMBING OVERALL PLAN
SCALE = 1/8"=1'-0"



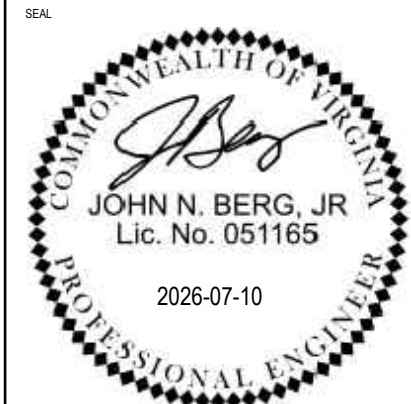
STEEL DYNAMICS RAIL SPIKE BUILDING

CONSTRUCTION DRAWINGS

PLUMBING OVERALL PLAN

3302 BAKER AVENUE NW
ROANOKE CITY, VA

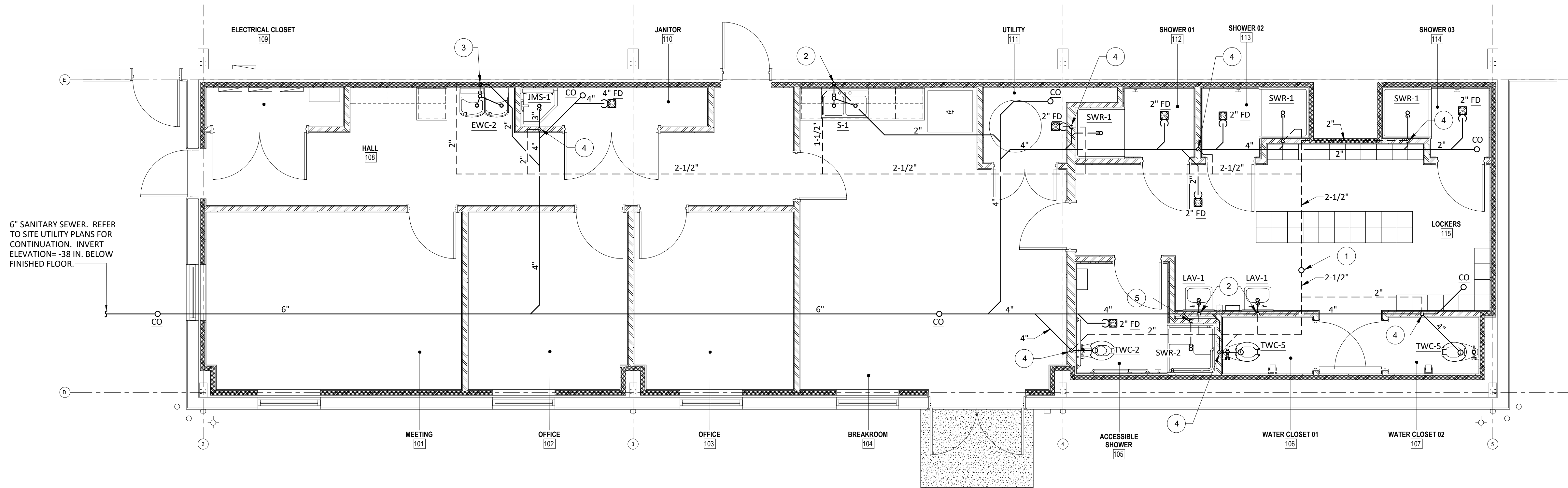
DATE: 2026-07-10
SCALE: As indicated
DESIGNER:
DRAFTER:
CHECKED:
PROJECT NO.
0077490.01



SHEET NUMBER
P2.01
MANUFACTURING PROJECT

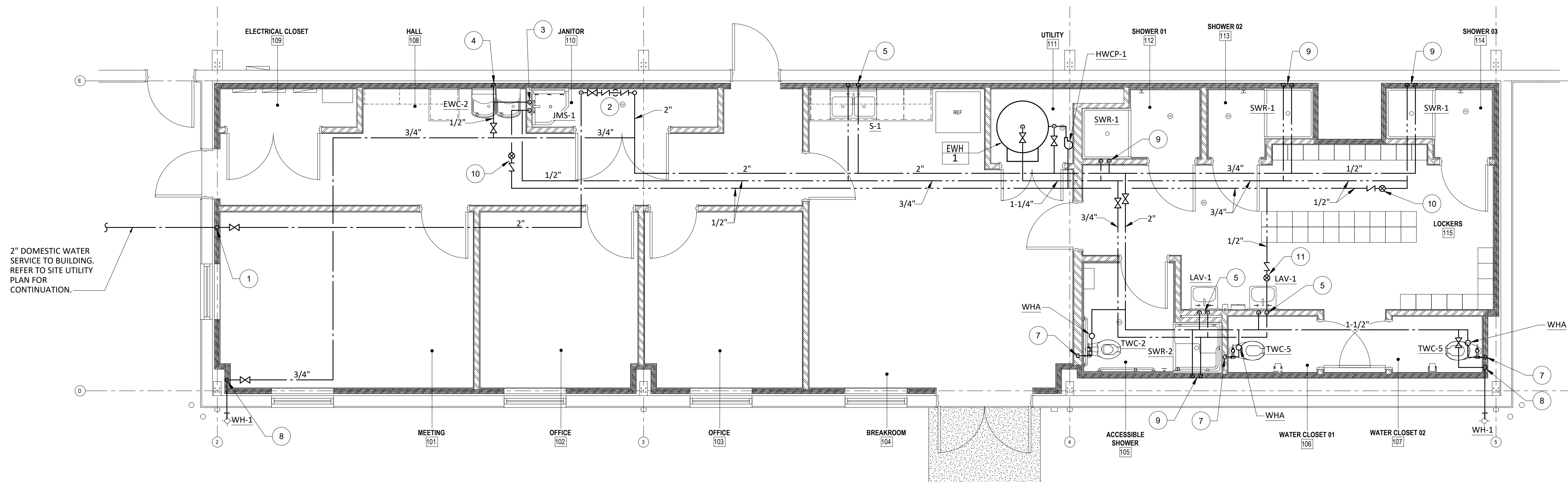
Westwood
Westwood Professional Services, Inc.
1208 CORPORATE CIRCLE
ROANOKE, VA 24018
T: 540.772.9580
F: 540.426.3435

REV. DATE DESCRIPTION



- KEYED NOTES (WASTE & VENT):
- 1 3\" VENT UP TO VTR.
 - 2 1-1/2\" VENT AND 2\" WASTE DOWN.
 - 3 2\" VENT AND 2\" WASTE DOWN.
 - 4 2\" VENT DOWN.
 - 5 1-1/2\" VENT DOWN.

1
P2.02
ENLARGED PLUMBING PLAN - WASTE AND VENT
SCALE = 1/4\"=1'-0"



- KEYED NOTES (WATER):
- 1 2\" CW MAIN UP FROM BELOW GRADE TO ABOVE CEILING.
 - 2 2\" RPZ BACKFLOW PREVENTER. INSTALL AT 24\" AFF AND PROVIDE 6\" HUB DRAIN BELOW FOR DISCHARGE RELIEF AND ROUTE DRAIN LINE TO MOP SINK.
 - 3 1/2\" CW AND 1/2\" HW DOWN TO MOP SINK.
 - 4 1/2\" CW DOWN TO WATER FOUNTAIN.
 - 5 1/2\" CW AND 1/2\" HW DOWN TO SINK/LAV.
 - 6 WATER HAMMER ARRESTOR.
 - 7 1\" CW DOWN TO WATER CLOSET.
 - 8 3/4\" CW DOWN TO WALL HYDRANT.
 - 9 1/2\" CW AND 1/2\" HW DOWN TO SHOWER.
 - 10 CHECK VALVE AND BALANCING COCK. SET TO 1.0 GPM.
 - 11 CHECK VALVE AND BALANCING COCK. SET TO 0.5 GPM.

2
P2.02
ENLARGED PLUMBING PLAN - WATER
SCALE = 1/4\"=1'-0"

