























































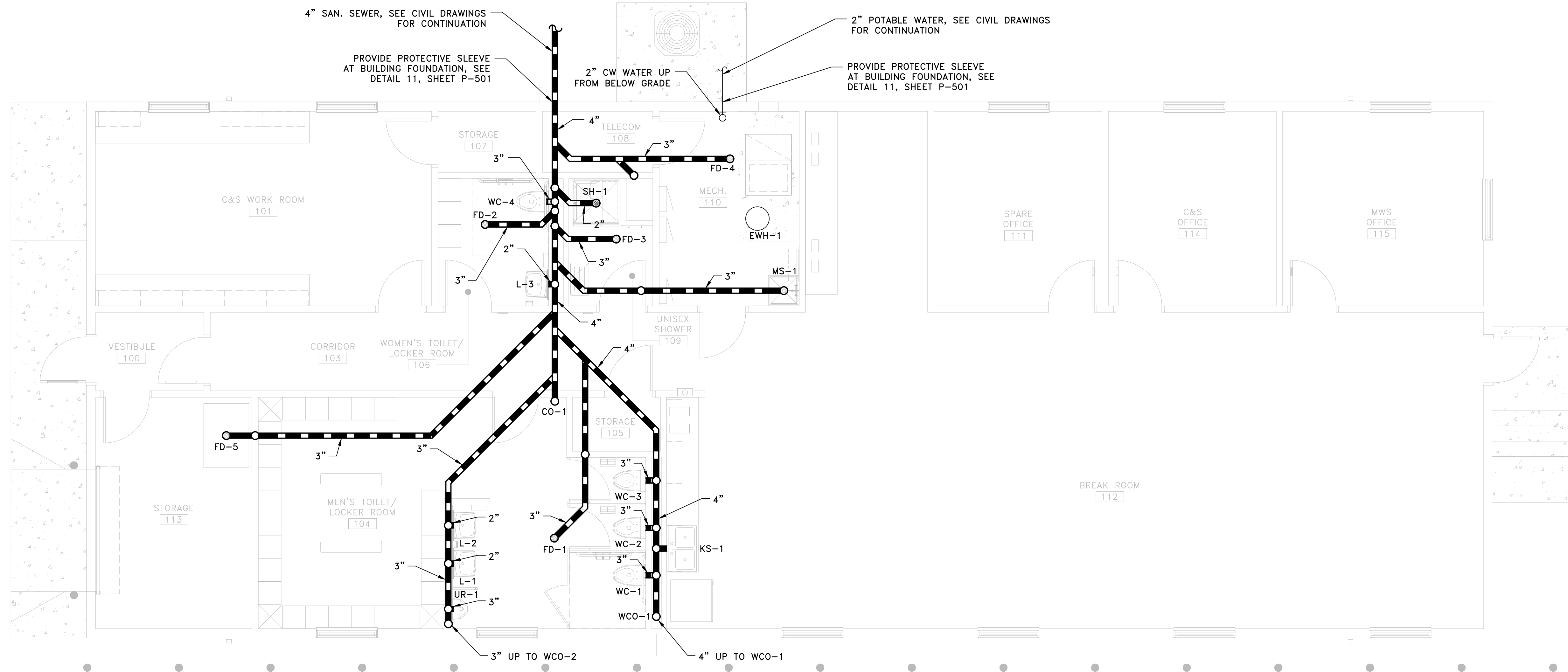


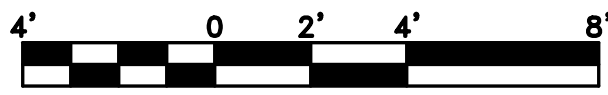
GENERAL NOTES – ALL CONTRACTORS	GENERAL NOTES – PLUMBING	FITTING AND MISCELLANEOUS LEGEND		ABBREVIATIONS	
<p>A. DRAWINGS ARE GENERALLY DIAGRAMMATIC. ROUTING OF PIPING, DUCTWORK, CONDUITS, RACEWAYS, ETC., AS SHOWN ON DRAWINGS, DOES NOT INTEND TO SHOW EVERY RISE, DROP, OFFSET, FITTING NOR EVERY STRUCTURAL ELEMENT THAT MAY BE ENCOUNTERED DURING THE INSTALLATION OF THIS WORK. EACH CONTRACTOR SHALL MAKE ANY REQUIRED CHANGES FROM THE GENERAL ROUTING SHOWN ON THESE DRAWINGS, SUCH AS OFFSETS, BENDS OR CHANGES IN ELEVATION DUE TO COORDINATION WITH THE WORK OF OTHER TRADES AND BUILDING CONSTRUCTION. ALL CHANGES SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY IN COMPLETION DATE OF THE PROJECT.</p> <p>B. IT IS INTENDED THAT EQUIPMENT SHALL BE LOCATED SYMMETRICALLY WITH THE ARCHITECTURAL ELEMENTS OF THE BUILDING, NOTWITHSTANDING THE FACT THAT LOCATIONS INDICATED BY THESE DRAWINGS MAY BE DISTORTED FOR CLEARNESS OF PRESENTATION.</p> <p>C. CONTRACTOR SHALL CHECK DRAWINGS OF OTHER TRADES TO VERIFY THAT SPACES IN WHICH THEIR WORK WILL BE INSTALLED ARE CLEAR OF OBSTRUCTIONS. WORK SHALL BE INSTALLED TO MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITION AT ALL POINTS IN THE BUILDING. WHERE HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE, CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE INSTALLATION OF THEIR WORK.</p> <p>D. CONTRACTOR SHALL FURNISH OTHER TRADES ADVANCE INFORMATION AND/OR SHOP DRAWINGS ON LOCATIONS AND SIZES OF PIPING, DUCTWORK, CONDUIT, RACEWAYS, EQUIPMENT, FRAMES, BOXES, SLEEVES AND OPENINGS, ETC. NEEDED FOR THEIR WORK TO PERMIT OTHER TRADES AFFECTED TO INSTALL THEIR WORK PROPERLY AND WITHOUT DELAY.</p> <p>E. WHERE THERE IS EVIDENCE THAT WORK OF ONE TRADE WILL INTERFERE WITH WORK OF OTHER TRADES, ALL TRADES SHALL MEET ON JOB SITE TO WORK OUT SPACE CONDITIONS AND MAKE SATISFACTORY ADJUSTMENTS TO INSTALLATION OF THE NEW WORK. CONTRACTORS SHALL VERIFY EXACT LOCATIONS OF ALL DEVICES AND EQUIPMENT WITH FIELD CONDITIONS, SHOP DRAWINGS, AND WORK OF OTHER TRADES PRIOR TO ROUGH-IN. EACH CONTRACTOR SHALL BE RESPONSIBLE, AT THEIR OWN EXPENSE, FOR THE REMOVAL AND REINSTALLATION OF ANY PART OF THEIR WORK IF SAME WAS INSTALLED WITHOUT CONSULTING WITH OTHER TRADES BEFORE INSTALLING THEIR WORK.</p> <p>F. CONTRACTOR SHALL PROVIDE SLEEVES IN BEAMS, FLOORS, COLUMNS AND WALLS AS SHOWN ON THE DRAWINGS, AS REQUIRED BY JOB SITE CONDITIONS, AND/OR AS SPECIFIED, WHEN INSTALLING THEIR WORK. ALL BEAMS AND COLUMNS WHICH ARE REQUIRED TO BE SLEEVED SHALL BE CUT AND REINFORCED AS REQUIRED BY FIELD CONDITIONS AND LOCATIONS AND SIZES SHALL BE CHECKED AND APPROVED BY ARCHITECT BEFORE CONTRACTOR CUTS ANY STRUCTURAL BUILDING MEMBER.</p> <p>G. THE SEQUENCE FOR THE INSTALLATION OF ALL WORK SHALL BE COORDINATED BETWEEN ALL CONTRACTORS ON THE PROJECT AND IN STRICT ACCORDANCE WITH ARCHITECT/ ENGINEER AND OWNERS STIPULATION AS CALLED FOR IN THE SPECIFICATION AND/OR AS DIRECTED.</p> <p>H. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND STRUCTURAL CONTRACT DRAWINGS (BEFORE SUBMITTING THEIR BIDS) TO FAMILIARIZE THEMSELVES WITH THE EXTENT OF THE GENERAL CONTRACTORS WORK, CEILING HEIGHTS AND CLEARANCE FOR INSTALLING THEIR WORK.</p> <p>I. CONTRACTOR SHALL BE RESPONSIBLE AND PAY FOR ALL CORING, CUTTING, PATCHING, REPAIRING, REFINISHING AND REMOVAL/REPLACEMENT OF NEW OR EXISTING BUILDING CONSTRUCTION REQUIRED TO ACCOMMODATE THE INSTALLATION OR REMOVAL OF THEIR WORK.</p> <p>J. CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR OWN CLEAN-UP DURING CONSTRUCTION. IF CONTRACTOR FAILS TO PROVIDE SUCH CLEAN-UP, THE ARCHITECT/ENGINEER WILL DIRECT ANOTHER CONTRACTOR TO PERFORM THE CLEAN-UP AND THE NEGLIGENT CONTRACTOR SHALL PAY THE ASSOCIATED BACK-CHARGES AS DEEMED APPROPRIATE BY THE ARCHITECT/ ENGINEER.</p> <p>K. CONTRACTOR SHALL INSTALL ALL AUXILIARY SUPPORTING STEEL AS REQUIRED FOR THE SUPPORTING OF THEIR PIPING, DUCTWORK, CONDUIT, TANKS, EQUIPMENT, ETC. ALL SUPPORTING STEEL FOR ITEMS ABOVE A SUSPENDED CEILING SHALL BE FROM BUILDING STRUCTURAL MEMBERS ONLY.</p> <p>L. UNLESS INDICATED OTHERWISE, THE ARCHITECT/ENGINEER MAKES NO REPRESENTATION AS TO WHETHER OR NOT ANY HAZARDOUS OR CONTAMINATED MATERIALS (INCLUDING BUT NOT LIMITED TO ASBESTOS, PCB'S, CONTAMINATED SOILS, ETC.) ARE PRESENT WITHIN THE EXISTING BUILDING OR ON THE SITE. WORK SHOWN ON THE DRAWINGS AND/OR INDICATED IN THE SPECIFICATIONS SHALL NOT BE CONSTRUED TO CALL FOR CONTACT WITH ANY OF THESE MATERIALS. IF THESE MATERIALS ARE ENCOUNTERED OR SUSPECTED, THE CONTRACTOR SHALL NOT DISTURB THEM AND SHALL CONTACT THE ARCHITECT/ ENGINEER IMMEDIATELY.</p> <p>M. CONTRACTOR SHALL STORE ALL MATERIALS AND EQUIPMENT SHIPPED TO THE SITE IN A PROTECTED AREA. IF MATERIAL IS STORED OUTSIDE OF THE BUILDING, IT MUST BE STORED OFF THE GROUND A MINIMUM OF SIX INCHES (6") SET ON 6 X 6 PLANKS AND/ OR WOOD PALLETS. ALL MATERIAL AND EQUIPMENT MUST BE COMPLETELY COVERED WITH WATERPROOF TARPS OR VISQUIN. ALL PIPING AND DUCTWORK WILL HAVE THE ENDS CLOSED TO KEEP OUT DIRT AND OTHER DEBRIS. NO EQUIPMENT WILL BE ALLOWED TO BE STORED ON THE SITE UNLESS IT IS SITTING ON WOOD PLANKS AND COMPLETELY PROTECTED WITH WEATHERPROOF COVERS.</p> <p>N. THE DRAWINGS, SCHEDULES AND SPECIFICATIONS HAVE BEEN PREPARED USING ONE MANUFACTURER FOR EACH PIECE OF EQUIPMENT AS THE BASIS FOR DIMENSIONAL DESIGN. IF THE CONTRACTOR PURCHASES EQUIPMENT LISTED AS A SPECIFIED ACCEPTABLE MANUFACTURER BUT IS NOT THE SCHEDULED MANUFACTURER USED FOR THE BASE DESIGN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL THE DIMENSIONS OF THE EQUIPMENT TO VERIFY THAT IT WILL FIT IN THE SPACE SHOWN ON THE DRAWINGS. MINOR DEVIATIONS IN DIMENSIONS WILL BE PERMITTED, PROVIDED THE RATINGS MEET THOSE SHOWN ON THE DRAWINGS AND EQUIPMENT WILL PHYSICALLY FIT INTO THE SPACE ALLOCATED WITH SUITABLE ACCESS AROUND EQUIPMENT FOR OPERATION AND MAINTENANCE ON THE EQUIPMENT.</p> <p>O. CONTRACTOR AND/OR MANUFACTURER SHALL VERIFY THAT THE CHARACTERISTICS OF THE EQUIPMENT HE SUBMITS FOR REVIEW MEETS THE CAPACITY AND DUTY SPECIFIED.</p> <p>P. WHEN EQUIPMENT IS SUBMITTED FOR REVIEW AND DOES NOT MEET THE PHYSICAL SIZE OR ARRANGEMENT OF THAT SCHEDULED AND SPECIFIED, CONTRACTOR SHALL PAY FOR ALL ALTERATIONS REQUIRED TO ACCOMMODATE SUCH EQUIPMENT AT NO ADDITIONAL COST TO OWNER. CONTRACTOR WILL ALSO PAY ALL COSTS FOR ADDITIONAL WORK REQUIRED BY OTHER CONTRACTORS, OWNER, ARCHITECT OR ENGINEER TO MAKE CHANGES WHICH WOULD ALLOW THE EQUIPMENT TO FIT IN THE SPACE AND FUNCTION AS INTENDED.</p>	<p>A. ALL WATER SUPPLY PIPING SHALL BE SUSPENDED WITH CLEVIS AND/OR TRAPEZE PIPE HANGERS. INSULATED PIPING SHALL REST ON STEEL OR WOOD. PIPE COVERING PROTECTION SADDLES OR SHEET METAL INSULATION SHIELDS AS CALLED FOR IN THE SPECIFICATIONS AND/OR DETAILED ON THE DRAWINGS.</p> <p>B. ALL WATER SUPPLY PIPING SHALL BE INSULATED, INCLUDING ALL PIPING ABOVE CEILINGS, INSIDE EQUIPMENT, CABINETS, PIPE CHASES AND IN WALLS. SEE SPECIFICATIONS FOR TYPE AND THICKNESS OF INSULATION.</p> <p>C. ALL HOT WATER SUPPLY SHALL BE INSTALLED TO COMPENSATE FOR EXPANSION OF THE PIPE BY INSTALLING PIPE ANCHORS, GUIDES, EXPANSION JOINTS OR LOOPS AND PIPE OFFSETS AS REQUIRED BY FIELD CONDITIONS OR AS SHOWN ON THE DRAWINGS. ALL PIPING PASSING THRU FLOOR CONSTRUCTION SHALL HAVE A SCHEDULE 40 STEEL PIPE SLEEVE INSTALLED AROUND PIPE ONLY.</p> <p>D. ALL PIPE PASSING THRU WALLS SHALL HAVE A GALVANIZED SHEET METAL OR SCHEDULE 40 STEEL PIPE SLEEVE INSTALLED AROUND THE PIPE AND PIPE INSULATION. SEE SLEEVE DETAILS IN THESE DRAWINGS.</p> <p>E. PITCH ALL SUPPLY AND RETURN WATER LINES TO DRAIN COMPLETELY THROUGH LOWER EQUIPMENT FIXTURES, UNIONS, OR DRAIN VALVES. INSTALL A 1/2" DRAIN VALVE WITH 3/4" HOSE THREAD AND VACUUM BREAKER OUTLET IN ALL MAIN PIPING RUNS WHICH WOULD NOT BE ABLE TO DRAIN THRU A LOWER PIECE OF EQUIPMENT.</p> <p>F. ALL VENT AND WASTE PIPING SIZES ARE MINIMUM. ADDITIONAL VENTS SHALL BE ADDED AND/OR PIPE SIZE INCREASED AS REQUIRED BY APPLICABLE CODES, STATUTES AND REGULATIONS, ETC. WITHOUT ADDITIONAL COST TO THE OWNER.</p> <p>G. UNUSED OPENINGS IN SEWERS, MANHOLES, ETC. SHALL BE CAPPED; THOSE IN PIPING SHALL BE CAPPED OR PLUGGED; STRUCTURAL MEMBERS AND SUPPORTS SHALL NOT BE CUT UNLESS AUTHORIZED BY ARCHITECT IN WRITING.</p> <p>H. CERTAIN ABBREVIATIONS OR SYMBOLS, WHEN APPLIED TO PRESENT (OR EXISTING) LINE, DEVICE OR EQUIPMENT, SHALL HAVE THE FOLLOWING MEANINGS:</p> <p>I. VERIFY EXACT LOCATION, SIZE, INVERT, ETC. IN FIELD. THIS NOTE APPLIES TO ALL PRESENT OR EXISTING UTILITIES AND CONSTRUCTION WHETHER CALLED FOR OR NOT.</p>	<div><div><div> BALL VALVE</div><div> O.S. & Y. GATE VALVE</div><div> NON-RISING STEM GATE VALVE</div><div> BUTTERFLY VALVE</div><div> GLOBE VALVE</div><div> ANGLE VALVE</div><div> TWO-WAY CONTROL VALVE</div><div> THREE-WAY CONTROL VALVE</div><div> PLUG VALVE</div><div> FLOAT OPERATED VALVE</div><div> CHECK VALVE</div><div> PRESSURE RELIEF VALVE</div><div> BALANCING VALVE</div><div> PRESSURE REDUCING VALVE</div><div> CYLINDER OPERATOR</div><div> DIAPHRAGM OPERATOR</div><div> SOLENOID OPERATOR</div><div> MOTOR OPERATOR</div><div> PROCESS FLOW DIRECTION</div><div> Y-TYPE FIRE DEPT. CONNECTION</div><div> 90° ELBOW UP</div><div> 90° ELBOW DN</div><div> TEE UP</div><div> TEE DN</div><div> PIPE GUIDE</div><div> PIPE ANCHOR</div></div><div><div> PIPE CAP</div><div> CONCENTRIC REDUCER</div><div> ECCENTRIC REDUCER</div><div> FLEXIBLE CONNECTION</div><div> FLOAT AND THERMOSTATIC TRAP</div><div> THERMOSTATIC TRAP</div><div> STRAINER</div><div> STRAINER W/ BLOW-OFF VALVE</div><div> PROPELLER FAN</div><div> SUPPLY FAN, (UNLESS NOTED OTHERWISE)</div><div> PUMP</div><div> FILTER</div><div> COOLING COIL</div><div> HEATING COIL</div><div> HEATING RECOVERY COIL</div><div> DAMPER</div><div> BACKFLOW PREVENTER</div><div> PIPING FLOW DIRECTION</div><div> FLOOR CLEANOUT</div><div> FLOOR DRAIN</div><div> FLOOR SINK</div><div> AREA DRAIN</div><div> SHOWER DRAIN</div><div> DENOTES REMOVAL</div><div> DENOTES CONNECTION TO EXISTING</div><div> CONTINUATION REFERENCE</div><div> DENOTES ROOM IDENTIFICATION</div><div> DENOTES EXISTING CONDITIONS</div><div> DENOTES PROJECT RELATED ITEMS</div><div> THERMOMETER</div></div></div>	<p>NOTE: NOT ALL ABBREVIATIONS SHOWN MAY BE REQUIRED FOR THIS PROJECT.</p> <div><div>AC</div><div>ABOVE CEILING</div></div> <div><div>BV</div><div>BALL VALVE</div></div> <div><div>BJA</div><div>BETWEEN JOISTS ABOVE</div></div> <div><div>BFP</div><div>BACKFLOW PREVENTER</div></div> <div><div>BF</div><div>BALANCING FITTING</div></div> <div><div>CIO</div><div>CAST IRON PIPE – OVERHEAD</div></div> <div><div>CIU</div><div>CAST IRON PIPE UNDERGROUND</div></div> <div><div>CK</div><div>CHECK VALVE</div></div> <div><div>CO</div><div>CLEANOUT</div></div> <div><div>CTB</div><div>CLOSE TO BOTTOM OF BEAM</div></div> <div><div>CTC</div><div>CLOSE TO CEILING</div></div> <div><div>CW</div><div>COLD WATER (POTABLE/ DOMESTIC)</div></div> <div><div>DIP</div><div>DUCTILE IRON PIPE</div></div> <div><div>DS</div><div>DOWNSPOUT</div></div> <div><div>DWV</div><div>DROP TO WASTE, RAISE TO VENT FIRST FIGURE – WASTE SIZE; SECOND FIGURE – VENT SIZE</div></div> <div><div>EW</div><div>ELECTRICAL WATER HEATER</div></div> <div><div>EWC</div><div>ELECTRIC WATER COOLER</div></div> <div><div>EWS</div><div>EYEWASH/ SHOWER</div></div> <div><div>EW</div><div>EYEWASH</div></div> <div><div>FBO</div><div>FURNISHED BY OTHERS</div></div> <div><div>FCO</div><div>FLOOR CLEANOUT</div></div> <div><div>FD</div><div>FLOOR DRAIN</div></div> <div><div>FPWH</div><div>FREEZE-PROOF WALL HYDRANT</div></div> <div><div>GV</div><div>GATE VALVE</div></div> <div><div>GW</div><div>GAS WATER HEATER</div></div> <div><div>HB</div><div>HOSE BIBB</div></div> <div><div>HV</div><div>HOSE VALVE</div></div> <div><div>HW</div><div>HOT WATER (POTABLE/ DOMESTIC)</div></div> <div><div>HWR</div><div>HOT WATER RETURN</div></div> <div><div>HWS</div><div>HOT WATER SUPPLY</div></div> <div><div>IMB</div><div>ICE MAKER OUTLET BOX</div></div> <div><div>INV.</div><div>INVERT ELEVATION</div></div> <div><div>KS</div><div>KITCHEN SINK</div></div> <div><div>KW</div><div>KITCHEN WASTE</div></div> <div><div>LAV</div><div>LAVATORY</div></div> <div><div>MS</div><div>MOP SINK</div></div> <div><div>PS</div><div>PIPE SLEEVE</div></div> <div><div>RCO</div><div>RISER CLEANOUT</div></div> <div><div>S</div><div>STRAINER</div></div> <div><div>SH</div><div>SHOWER</div></div> <div><div>S.MH</div><div>SANITARY MANHOLE</div></div> <div><div>SS</div><div>SANITARY SEWER</div></div> <div><div>SSR</div><div>SERVICE SINK RECEPTOR</div></div> <div><div>ST.MH</div><div>STORM MANHOLE</div></div> <div><div>TB</div><div>THRUST BLOCK</div></div> <div><div>TFA</div><div>TO FLOOR ABOVE</div></div> <div><div>TFB</div><div>TO FLOOR BELOW</div></div> <div><div>TJA</div><div>THROUGH OPEN JOISTS ABOVE</div></div> <div><div>TMV</div><div>THERMOSTATIC MIXING VALVE URINAL</div></div> <div><div>US</div><div>UTILITY SINK</div></div> <div><div>UV V42"</div><div>UNDERFLOOR VENT LINE RUN OR CONNECTED ABOVE FLOOR BY 42"</div></div> <div><div>VB</div><div>VACUUM BREAKER</div></div> <div><div>VTR</div><div>VENT THROUGH ROOF</div></div> <div><div>W</div><div>WASTE</div></div> <div><div>WB</div><div>WALL BOX</div></div> <div><div>WC</div><div>WATER CLOSET</div></div> <div><div>WCO</div><div>WALL CLEANOUT</div></div> <div><div>WF</div><div>WASH FOUNTAIN</div></div> <div><div>WH</div><div>WALL HYDRANT</div></div> <div><div>WHA</div><div>WATER HAMMER ARRESTOR</div></div> <div><div>WT</div><div>WATER THERMOMETER</div></div> <div><div>YCO</div><div>YARD CLEANOUT</div></div>		



NOT TO BE USED FOR CONSTRUCTION	NO.	REVISION	BY	DATE		DESIGNED: TBC	NORFOLK SOUTHERN CORPORATION CAMBRIA YARD CHRISTIANSBURG, VIRGINIA	PLUMBING SYMBOLS, ABBREVIATIONS AND NOTES	SHEET NO. P-001
						DRAWN: RDF			
						CHECKED: CMA			
						DATE: 7-18-24			
						PROJECT NO: 24.080			



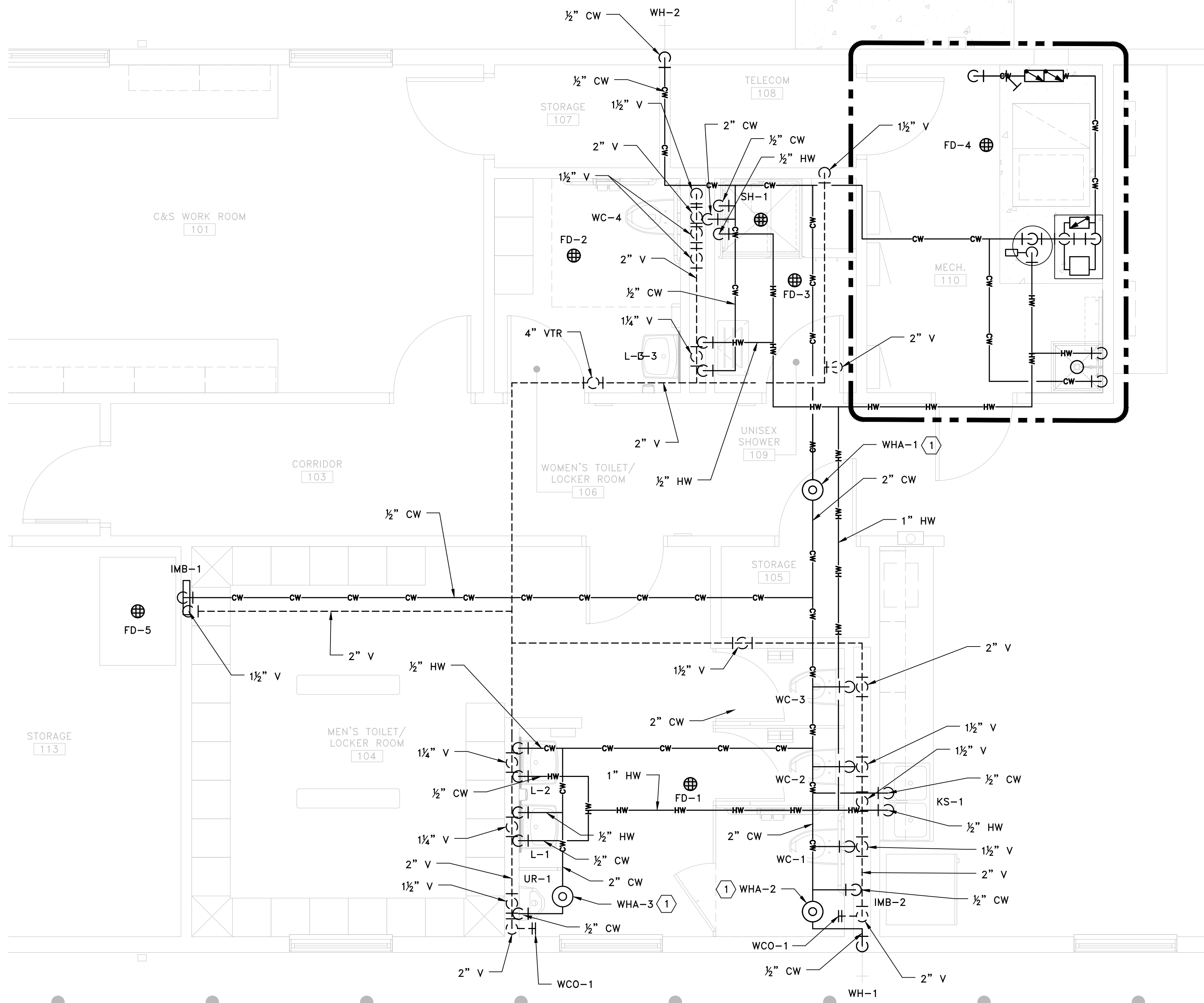
BELOW FLOOR PLUMBING PLAN
SCALE: 1/4" = 1'-0"



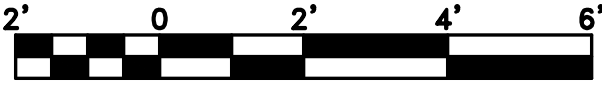
- GENERAL NOTES:**
- 1. COORDINATE ALL ELECTRICAL & MECHANICAL FIXTURES WITH ELECTRICAL & MECHANICAL SCHEDULES AND DRAWINGS FROM APPROPRIATE SHEETS.
 - 2. REFER TO CODE COMPLIANCE PLAN FOR ADDITIONAL INFORMATION. SEE DWG A-001.
 - 3. REFER TO THE ROOM FINISH SCHEDULE FOR CEILING HEIGHTS, UNLESS NOTED OTHERWISE.
 - 4. CONTRACTOR SHALL VERIFY ALL DIMENSION & RELATIONS TO OTHER WORK PRIOR TO FABRICATION & INSTALLATION.
 - 5. COORDINATED & WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE DRAWINGS.
 - 6. THE CONTRACTOR SHALL FURNISH AS-BUILT DRAWINGS INDICATING ALL CHANGES & DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS.
 - 7. ALL SANITARY SEWER PIPE SHALL BE SLOPED AT 1% UNLESS NOTED OTHERWISE.
 - 8. SANITARY WASTE PIPING SHALL BE SDR 11 PVC COMPLIANT W/ IPC 2015.
 - 9. UNLESS OTHERWISE NOTED, SANITARY SEWER PIPING SHALL BE SLOPED AT 1/4" INCH PER FOOT (2%).



NOT TO BE USED FOR CONSTRUCTION	NO.	REVISION	BY	DATE		DESIGNED:	TBC	NORFOLK SOUTHERN CORPORATION CAMBRIA YARD CHRISTIANSBURG, VIRGINIA	BELOW FLOOR PLUMBING PLAN	SHEET NO. P-100
						DRAWN:	RDF			
						CHECKED:	CMA			
						DATE:	7-18-24			
						PROJECT NO:	24.080			

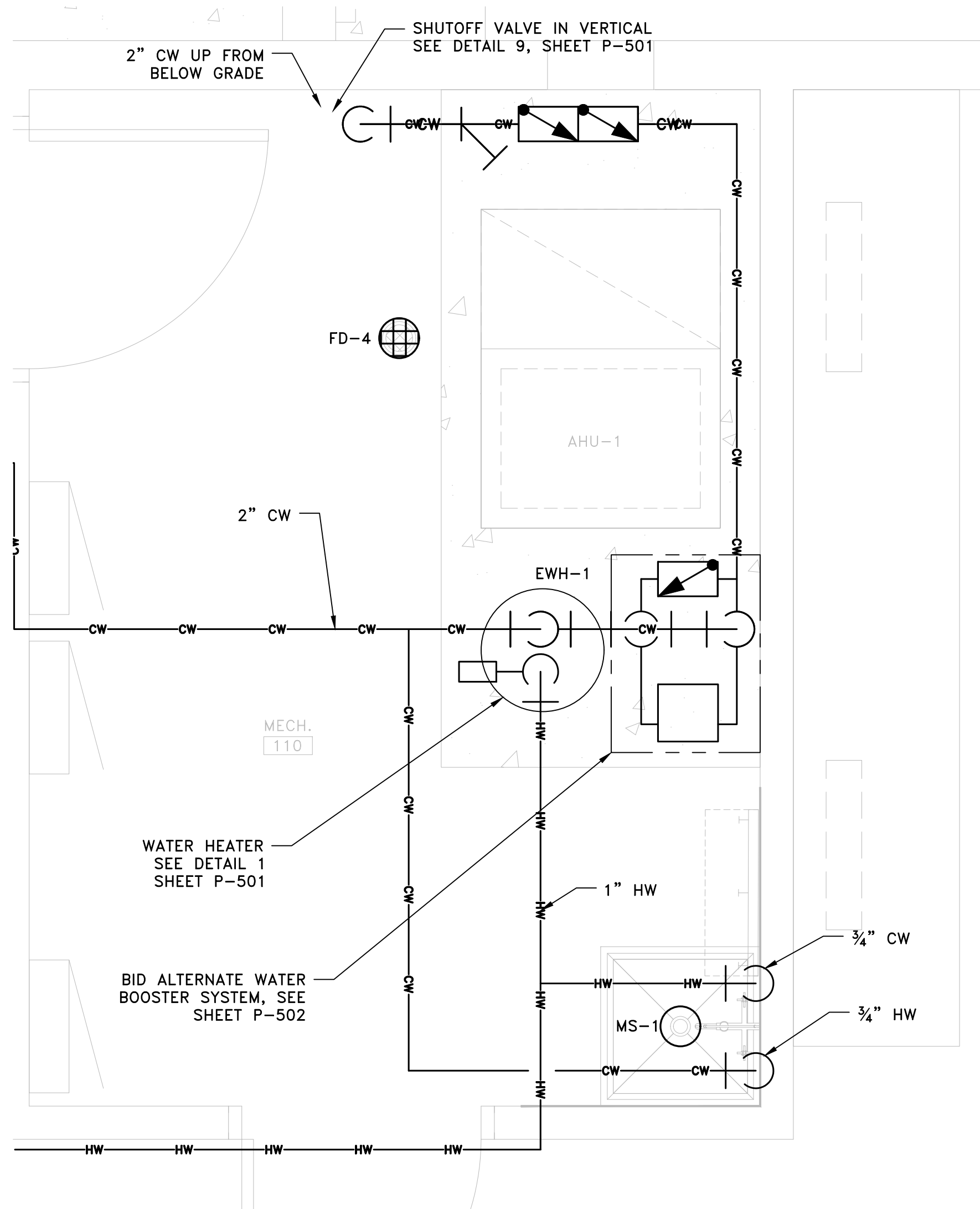


ABOVE FLOOR PLUMBING PLAN
SCALE: 3/8" = 1'-0"

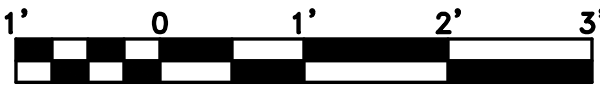


KEY NOTES:

- 1 WATER HAMMER ARRESTOR, SIOUX CHIEF 655-XX OR EQUAL. SIZE PER FIXTURE UNITS ON BRANCH, SEE WSFU TABLE ON DWG P-302.



DETAIL 2
ENLARGED ABOVE FLOOR PLUMBING PLAN
SCALE: 3/4" = 1'-0"



GENERAL NOTES:

- COORDINATE ALL ELECTRICAL & MECHANICAL FIXTURES WITH ELECTRICAL & MECHANICAL SCHEDULES AND DRAWINGS FROM APPROPRIATE SHEETS.
- REFER TO CODE COMPLIANCE PLAN FOR ADDITIONAL INFORMATION. SEE DWG A-001.
- REFER TO THE ROOM FINISH SCHEDULE FOR CEILING HEIGHTS, UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL VERIFY ALL DIMENSION & RELATIONS TO OTHER WORK PRIOR TO FABRICATION & INSTALLATION.
- COORDINATED & WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE DRAWINGS.
- THE CONTRACTOR SHALL FURNISH AS-BUILT DRAWINGS INDICATING ALL CHANGES & DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS.
- PROVIDE FLOOR DRAINS PER DETAIL 8, SHEET P-501.
- PROVIDE LAVATORIES PER DETAIL 3, SHEET P-501.
- PROVIDE WATER CLOSETS PER DETAIL 4, SHEET P-501.
- PROVIDE URINALS PER DETAIL 5, SHEET P-501.
- RUN WATER DISTRIBUTION IN FINISHED CEILING AND SUPPLY BRANCHES IN WALLS TO FIXTURES.



**NOT TO BE USED FOR
CONSTRUCTION**

NO.	REVISION	BY	DATE

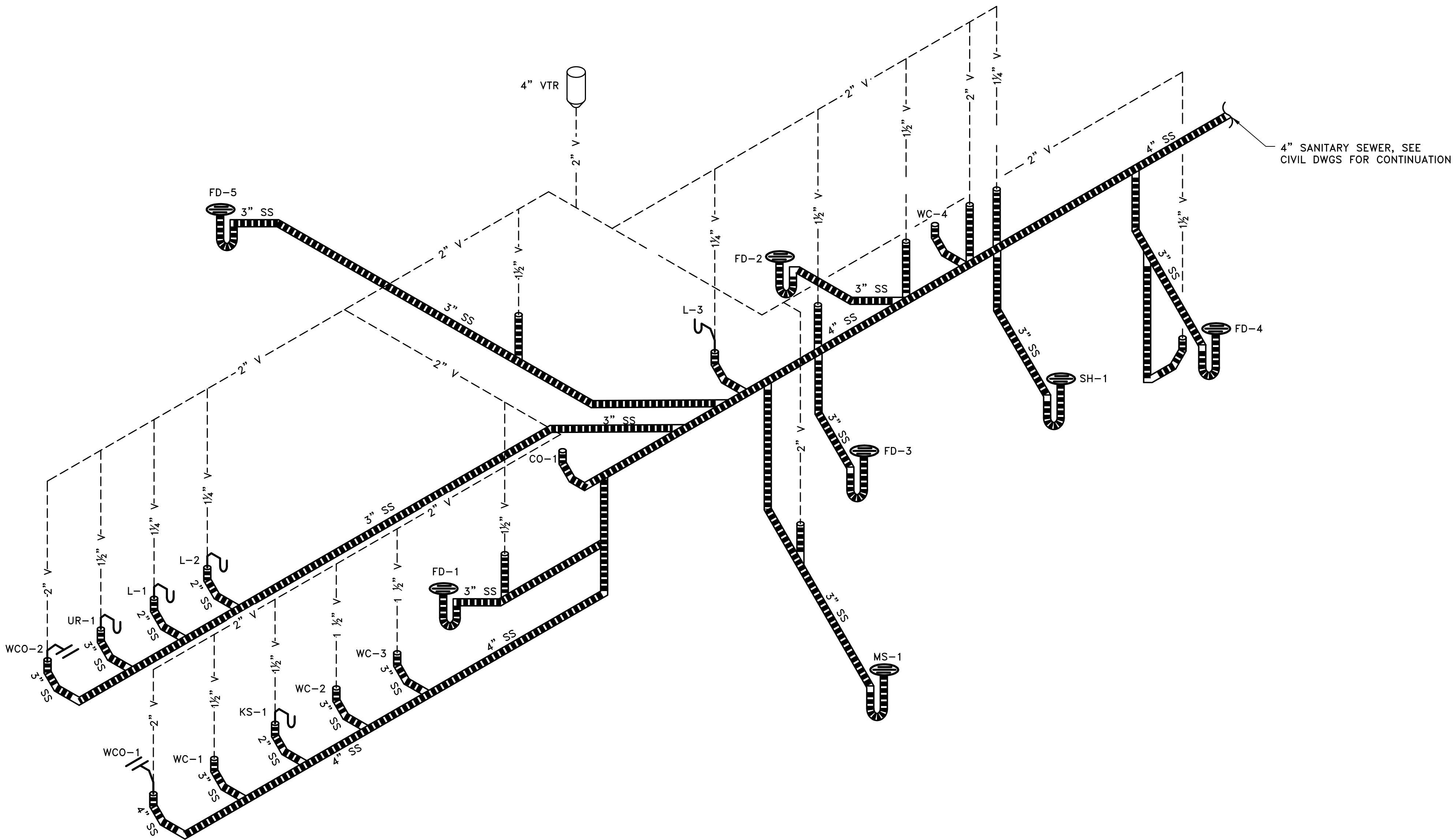


DESIGNED:	TBC
DRAWN:	RDF
CHECKED:	CMA
DATE:	7-18-24
PROJECT NO:	24.080

NORFOLK SOUTHERN CORPORATION
CAMBRIA YARD
CHRISTIANSBURG, VIRGINIA

**ABOVE FLOOR
PLUMBING PLAN**

SHEET NO.
P-120



SANITARY SEWER RISER DIAGRAM
SCALE: N.T.S.

PLUMBING FIXTURE CONNECTION SCHEDULE							
FIX. NO.	WASTE	VENT	SUPPLIES		WSFU	DFU	REMARKS
			HW	CW			
WC-1	4"	2"	-	2"	2.5	4	SEE DETAIL 4, SHEET P-501
WC-2	4"	2"	-	2"	2.5	4	SEE DETAIL 4, SHEET P-501
WC-3	4"	2"	-	2"	2.5	4	SEE DETAIL 4, SHEET P-501
WC-4	4"	2"	-	2"	2.5	4	SEE DETAIL 4, SHEET P-501
UR-1	3"	1½"	-	1½"	2	2	SEE DETAIL 5, SHEET P-501
L-1	2"	1¼"	½"	½"	1	1	SEE DETAIL 3, SHEET P-501
L-2	2"	1¼"	½"	½"	1	1	SEE DETAIL 3, SHEET P-501
L-3	2"	1¼"	½"	½"	1	1	SEE DETAIL 3, SHEET P-501
KS-1	2"	1¼"	½"	½"	1.5	2	
MS-1	3"	2"	¾"	¾"	1.5	3	
SH-1	2"	1¼"	½"	½"	2	2	
FD-1	3"	1½"	-	-	-	2	SEE DETAIL 8, SHEET P-501
FD-2	3"	1½"	-	-	-	2	SEE DETAIL 8, SHEET P-501
FD-3	3"	1½"	-	-	-	2	SEE DETAIL 8, SHEET P-501
FD-4	3"	1½"	-	-	-	2	SEE DETAIL 8, SHEET P-501
FD-5	3"	1½"	-	-	-	2	SEE DETAIL 8, SHEET P-501
CO-1	4"	-	-	-	-	-	
WCO-1	4"	-	-	-	-	-	
WCO-2	4"	-	-	-	-	-	
IMB-1	-	-	-	½"	-	-	
IMB-2	-	-	-	½"	-	-	
WH-1	-	-	-	¾"	2.5	-	SEE DETAIL 10, SHEET P-501
WH-2	-	-	-	¾"	2.5	-	SEE DETAIL 10, SHEET P-501
WH-2	-	-	-	¾"	2.5	-	SEE DETAIL 10, SHEET P-501
				TOTAL	27.5	38	SEE DETAIL 10, SHEET P-501



NOT TO BE USED FOR
CONSTRUCTION

NO.	REVISION	BY	DATE



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DRAWN:	RDF
CHECKED:	CMA
DATE:	7-18-24
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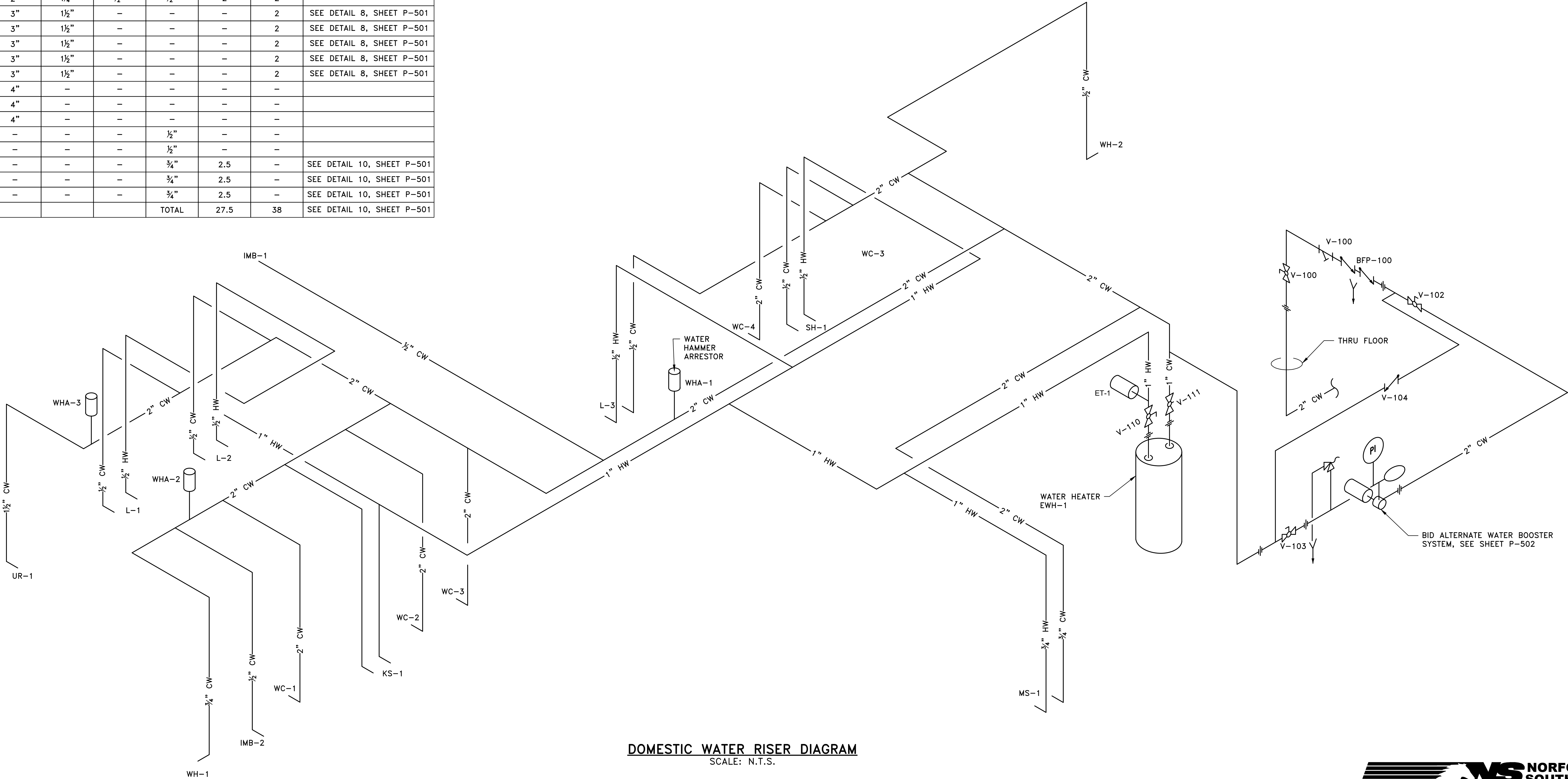
NORFOLK SOUTHERN CORPORATION
CAMBRIA YARD
CHRISTIANSBURG, VIRGINIA

SANITARY SEWER
RISER DIAGRAM

SHEET NO.
P-301

PLUMBING FIXTURE CONNECTION SCHEDULE							
FIX. NO.	WASTE	VENT	SUPPLIES		WSFU	DFU	REMARKS
			HW	CW			
WC-1	4"	2"	-	2"	2.5	4	SEE DETAIL 4, SHEET P-501
WC-2	4"	2"	-	2"	2.5	4	SEE DETAIL 4, SHEET P-501
WC-3	4"	2"	-	2"	2.5	4	SEE DETAIL 4, SHEET P-501
WC-4	4"	2"	-	2"	2.5	4	SEE DETAIL 4, SHEET P-501
UR-1	3"	1½"	-	1½"	2	2	SEE DETAIL 5, SHEET P-501
L-1	2"	1¼"	½"	½"	1	1	SEE DETAIL 3, SHEET P-501
L-2	2"	1¼"	½"	½"	1	1	SEE DETAIL 3, SHEET P-501
L-3	2"	1¼"	½"	½"	1	1	SEE DETAIL 3, SHEET P-501
KS-1	2"	1¼"	½"	½"	1.5	2	
MS-1	3"	2"	¾"	¾"	1.5	3	
SH-1	2"	1¼"	½"	½"	2	2	
FD-1	3"	1½"	-	-	-	2	SEE DETAIL 8, SHEET P-501
FD-2	3"	1½"	-	-	-	2	SEE DETAIL 8, SHEET P-501
FD-3	3"	1½"	-	-	-	2	SEE DETAIL 8, SHEET P-501
FD-4	3"	1½"	-	-	-	2	SEE DETAIL 8, SHEET P-501
FD-5	3"	1½"	-	-	-	2	SEE DETAIL 8, SHEET P-501
CO-1	4"	-	-	-	-	-	
WCO-1	4"	-	-	-	-	-	
WCO-2	4"	-	-	-	-	-	
IMB-1	-	-	-	½"	-	-	
IMB-2	-	-	-	½"	-	-	
WH-1	-	-	-	¾"	2.5	-	SEE DETAIL 10, SHEET P-501
WH-2	-	-	-	¾"	2.5	-	SEE DETAIL 10, SHEET P-501
WH-2	-	-	-	¾"	2.5	-	SEE DETAIL 10, SHEET P-501
				TOTAL	27.5	38	SEE DETAIL 10, SHEET P-501

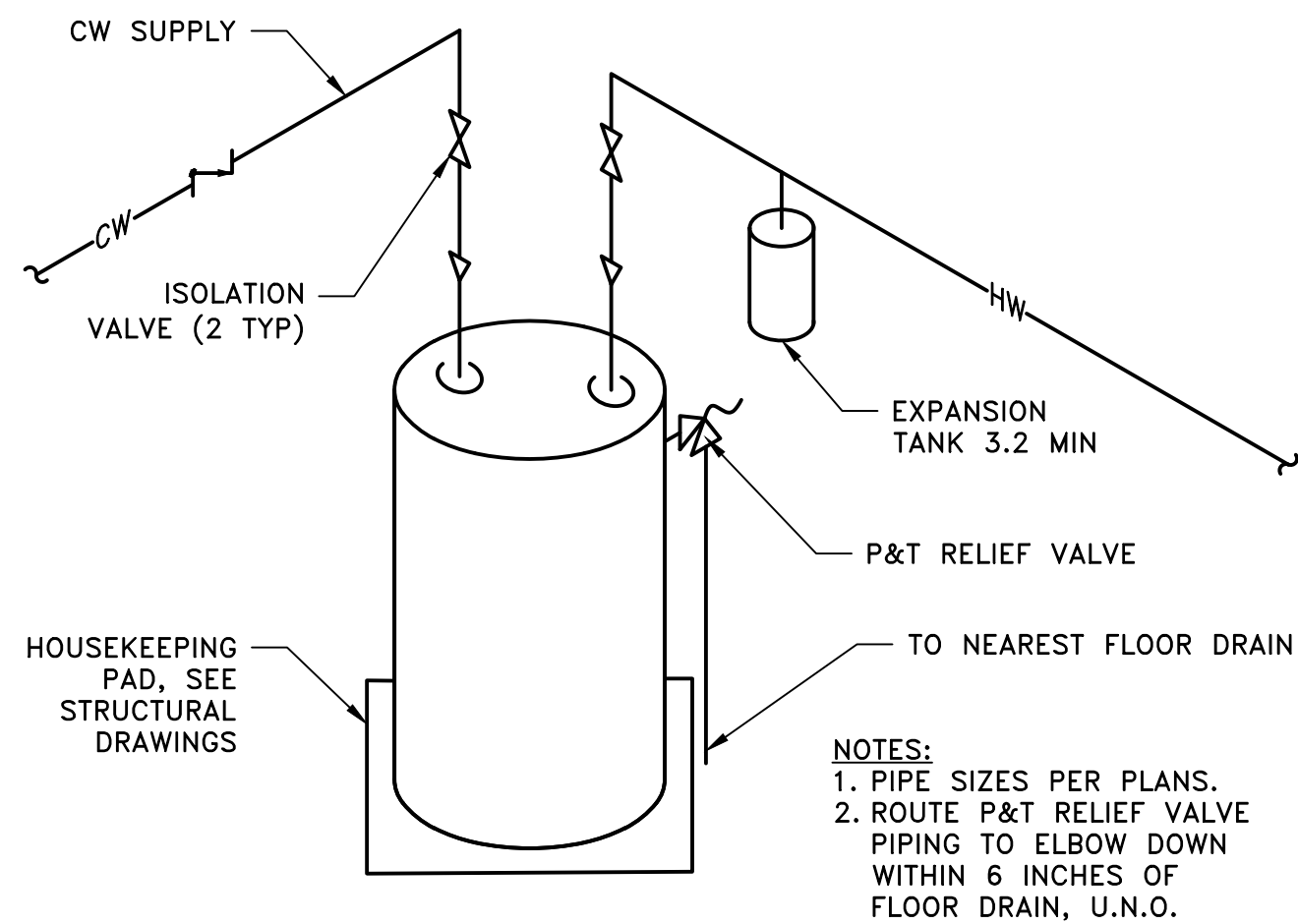
- NOTES:
1. WATER PIPING LAYOUT AND SIZING BASED ON ASSUMPTION OF MINIMUM 25 PSI AVAILABLE FROM HEADER AT JANITOR ROOM. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCY.
 2. PROVIDE PRESSURE REGULATING VALVE IF EXCESS PRESSURE FROM HEADER IS FOUND.
 3. ALL WATER PIPING SHALL BE INSULATED. SEE SPECIFICATIONS.
 4. SEE PLUMBING FIXTURE CONNECTION CHART FOR SIZING INFORMATION.
 5. ALL BELOW GRADE WATER PIPING SHALL BE COPPER, TYPE K AND ALL ABOVE GRADE WATER PIPING SHALL BE COPPER, TYPE L. CONTRACTOR SHALL PROVIDE ALL TRANSITION FITTINGS FOR CONNECTIONS BETWEEN DISSIMILAR MATERIALS.
 6. VERIFY LOCATION OR COORDINATE WATER METER INSTALLATION W/ SPECIFICATIONS AND LOCAL AUTHORITIES AS NECESSARY.
 7. PROVIDE MANUAL AIR VENT VALVES AT (2) HIGH POINT LOCATIONS.



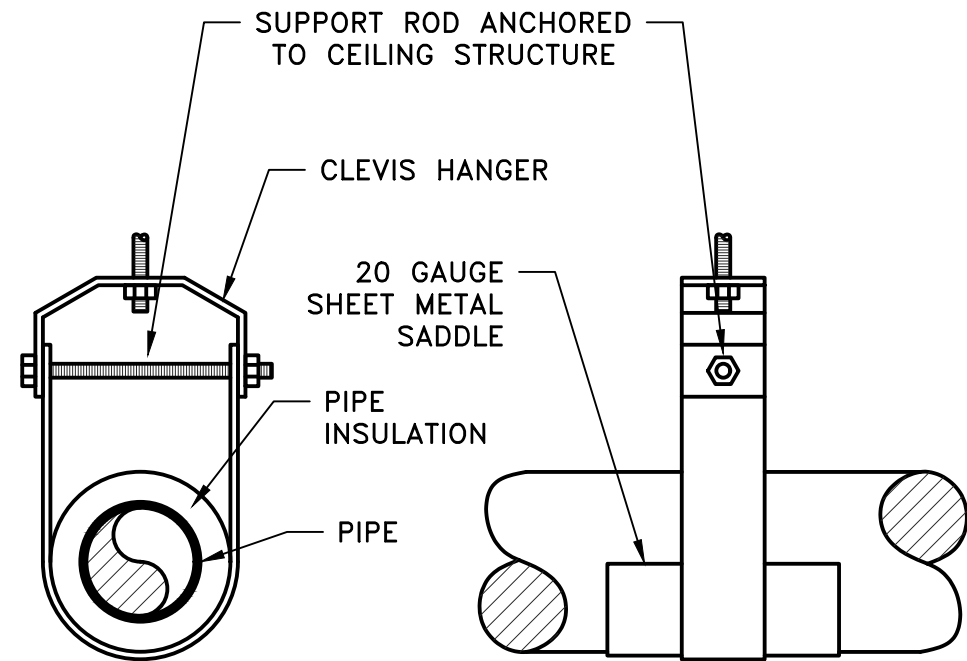
DOMESTIC WATER RISER DIAGRAM
SCALE: N.T.S.



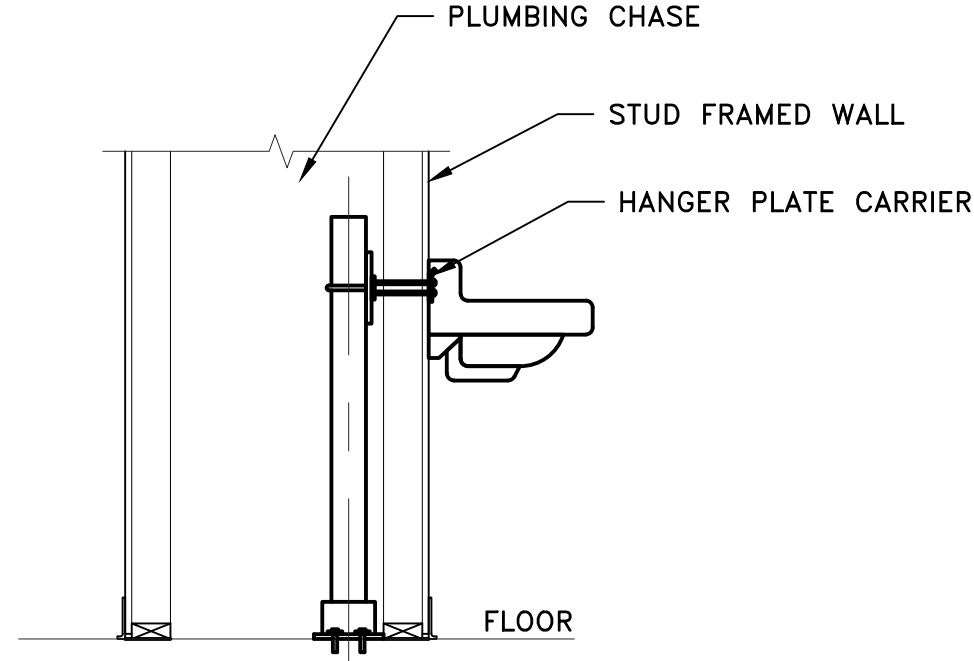
NOT TO BE USED FOR CONSTRUCTION	NO.	REVISION	BY	DATE		DESIGNED: TBC	NORFOLK SOUTHERN CORPORATION CAMBRIA YARD CHRISTIANSBURG, VIRGINIA	DOMESTIC WATER RISER DIAGRAM	SHEET NO. P-302
						DRAWN: RDF			
						CHECKED: CMA			
						DATE: 7-18-24			
						PROJECT NO: 24.080			



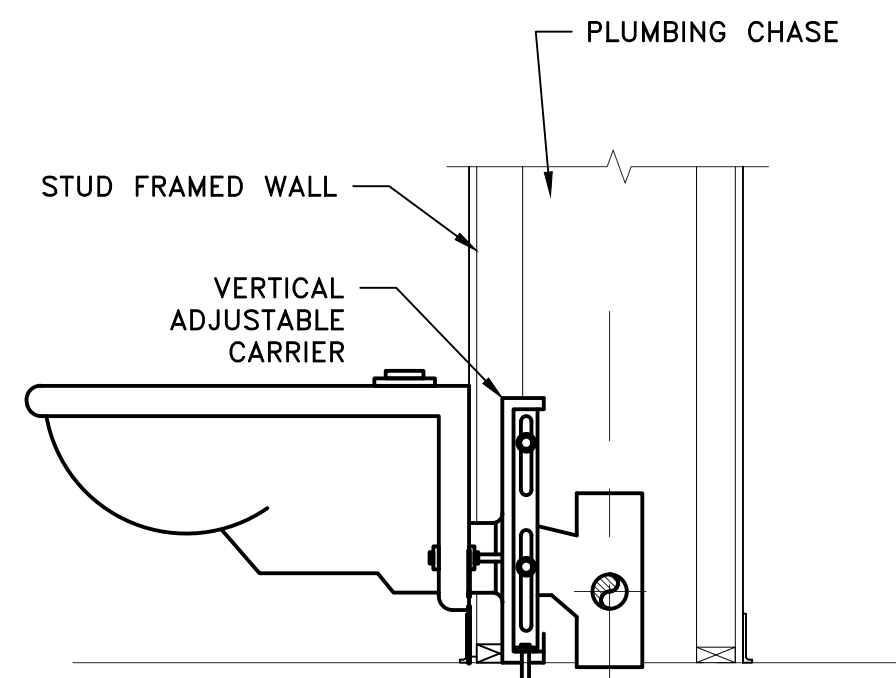
DETAIL 1
TYPICAL WATER HEATER DETAIL
SCALE: N.T.S.



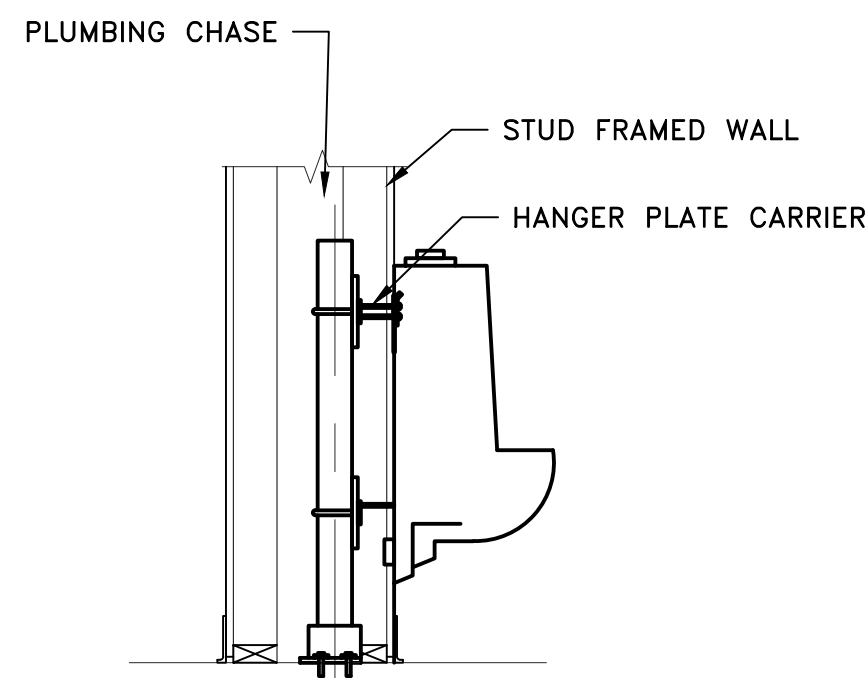
DETAIL 2
TYPICAL PIPE HANGER DETAIL
SCALE: N.T.S.



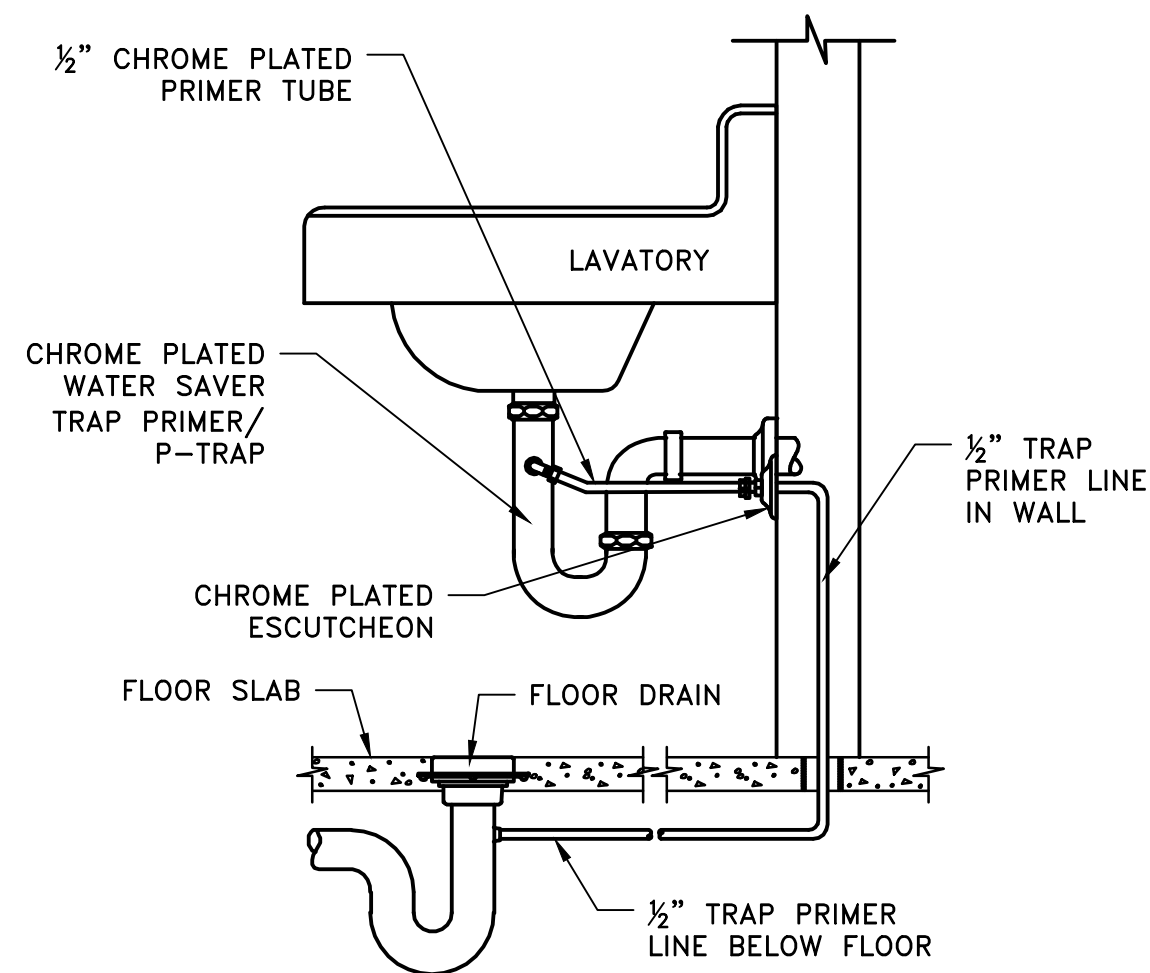
DETAIL 3
WALL HUNG LAVATORY DETAIL
SCALE: N.T.S.



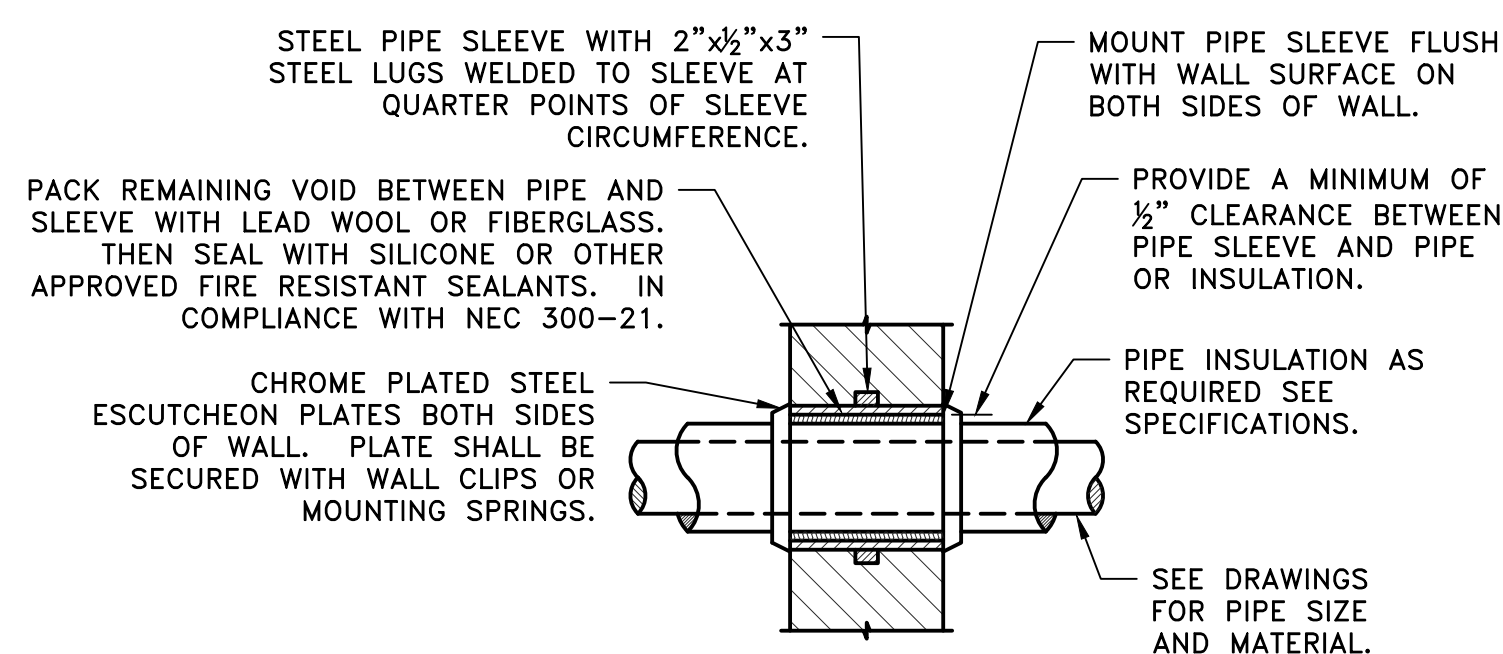
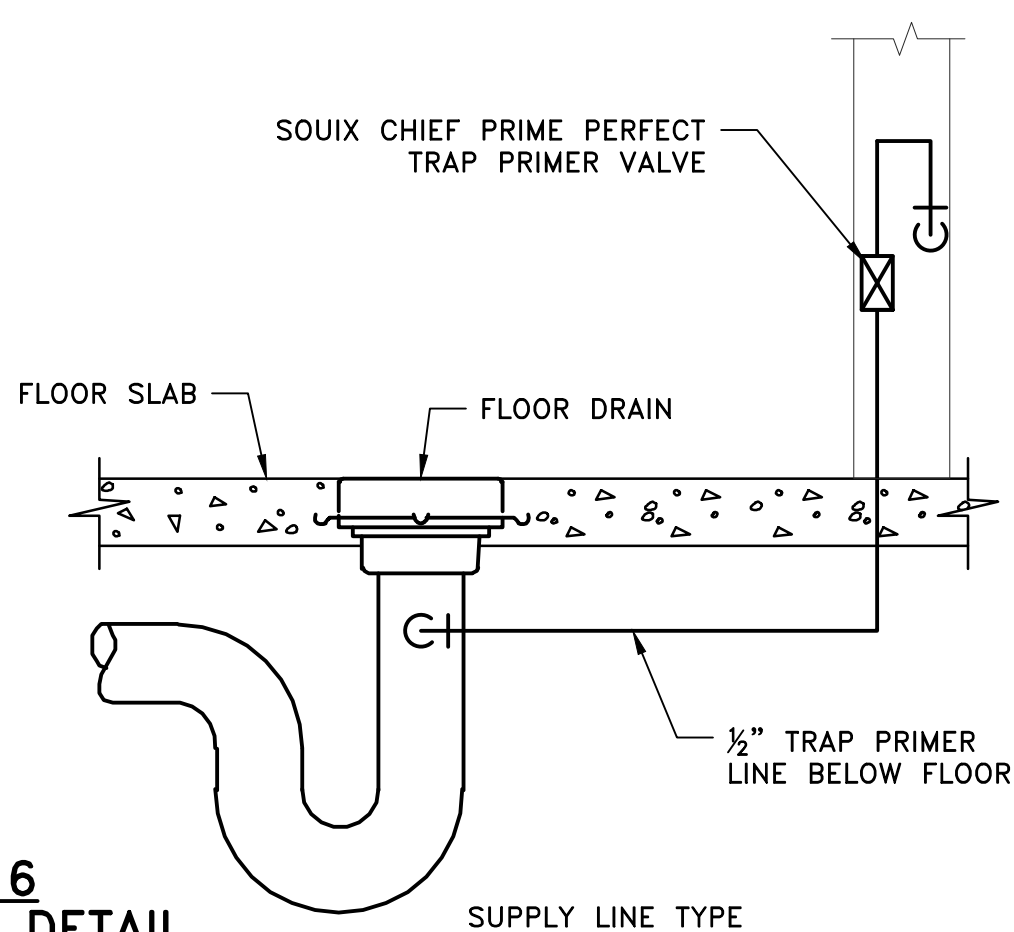
DETAIL 4
WATER CLOSET DETAIL
SCALE: N.T.S.



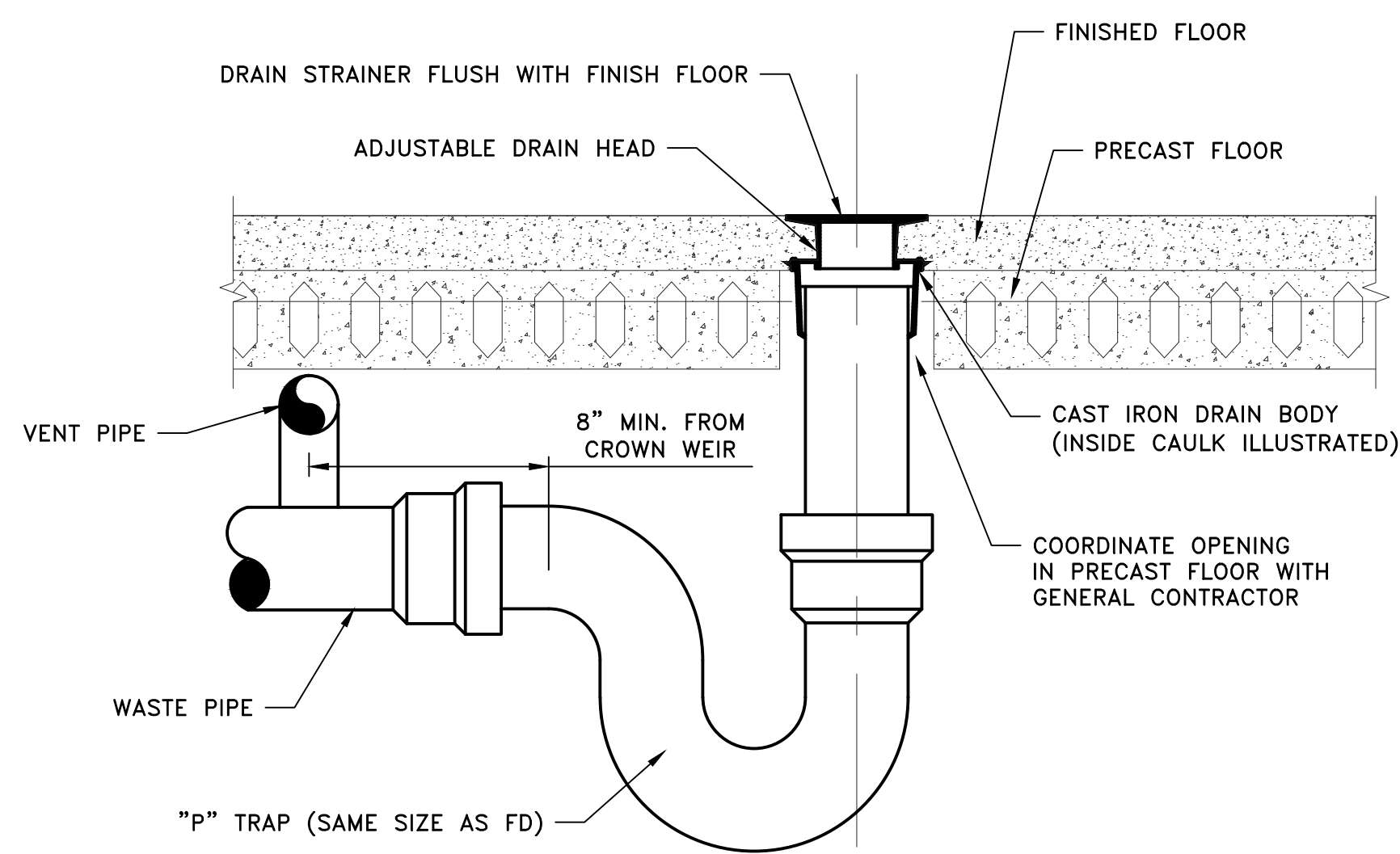
DETAIL 5
URINAL DETAIL
SCALE: N.T.S.



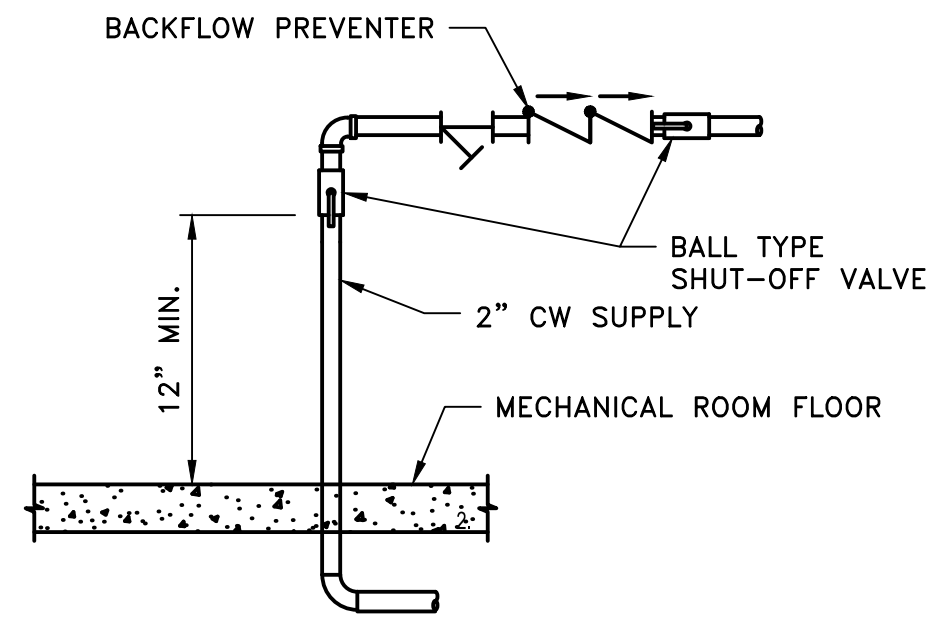
DETAIL 6
TRAP PRIMER DETAIL
SCALE: N.T.S.



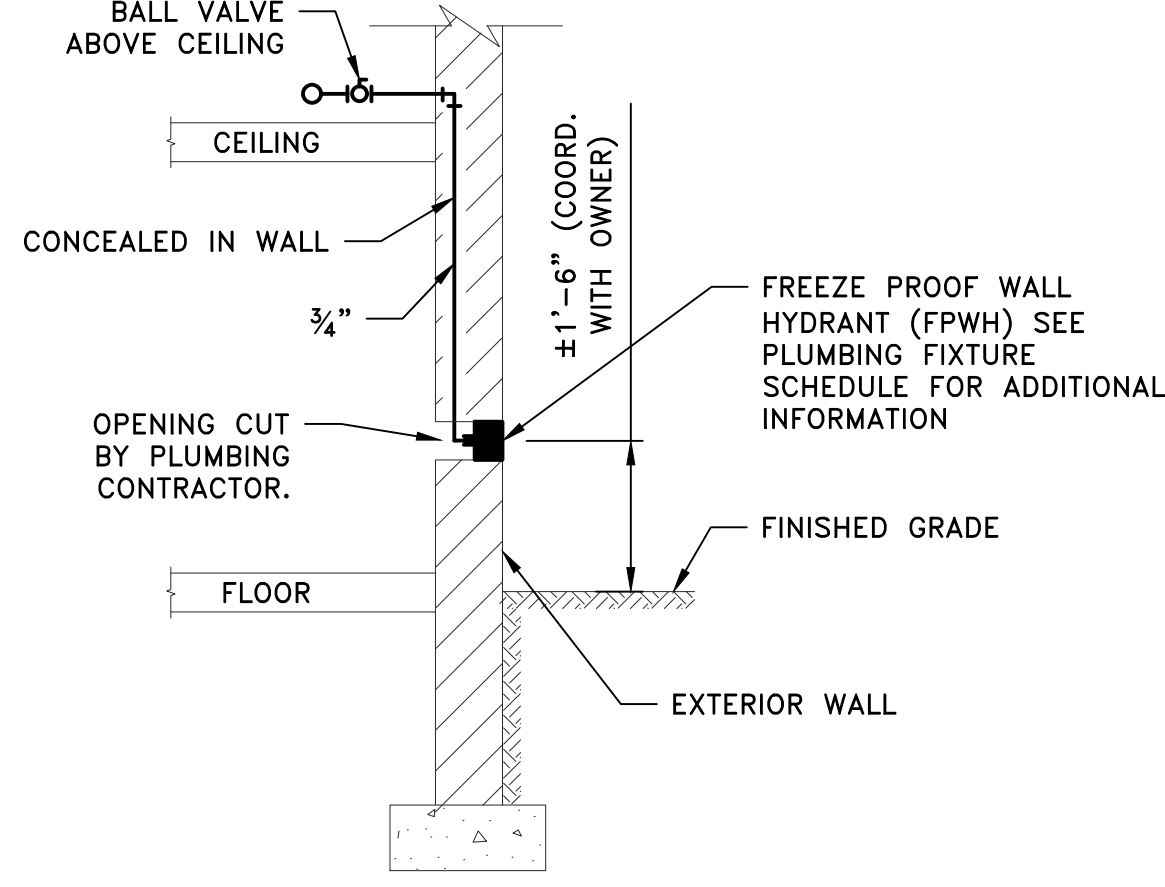
DETAIL 7
EXPOSED PIPE SLEEVE THRU INTERIOR WALL DETAIL
SCALE: N.T.S.



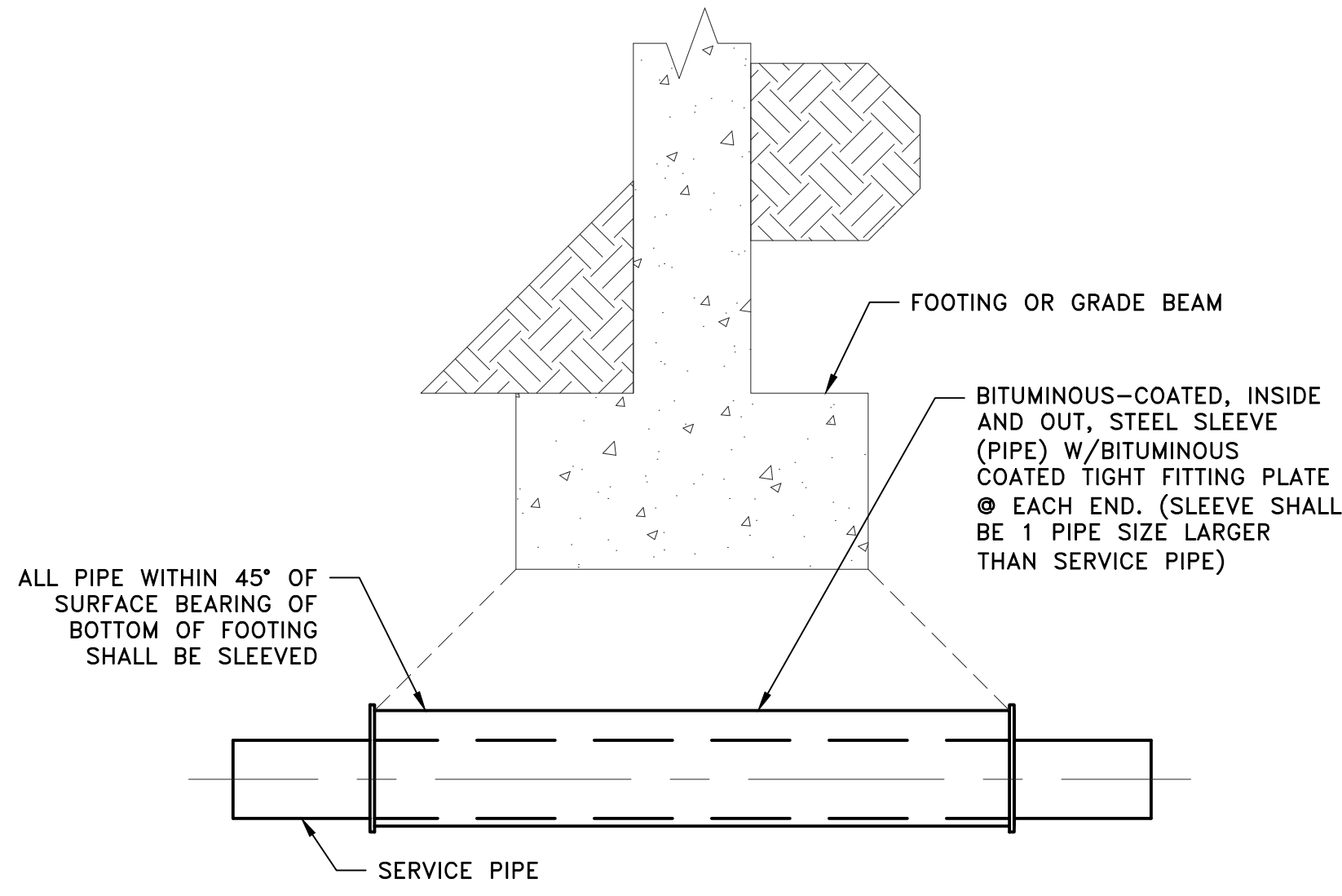
DETAIL 8
FLOOR DRAIN DETAIL
SCALE: N.T.S.



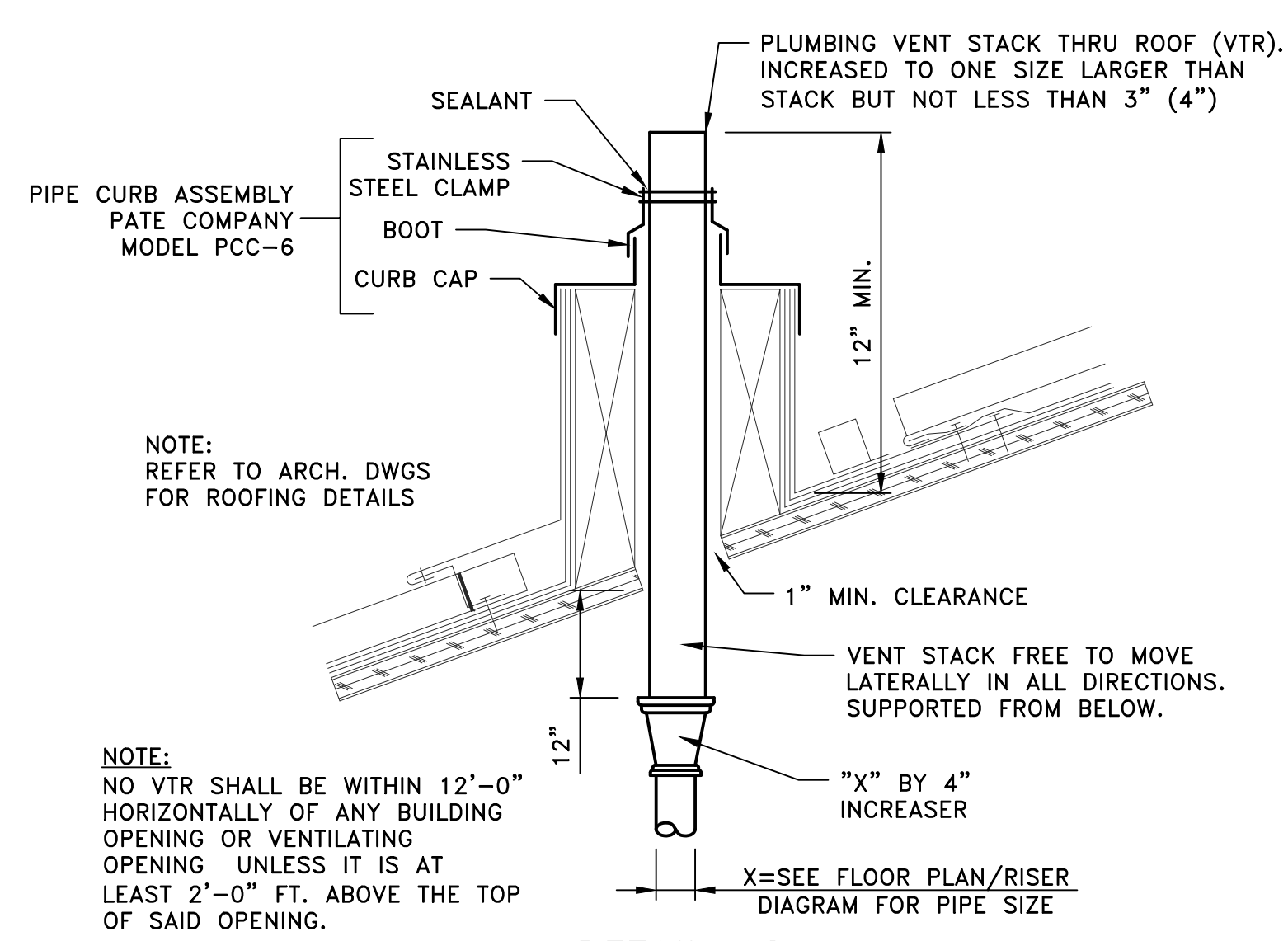
DETAIL 9
IN BUILDING DOMESTIC WATER ENTRANCE DETAIL
SCALE: N.T.S.



DETAIL 10
FREEZE PROOF WALL HYDRANT (FPWH)
SCALE: N.T.S.



DETAIL 11
FOOTING PIPE SLEEVE DETAIL
SCALE: N.T.S.



DETAIL 12
PLUMBING VENT THRU ROOF (VTR)
SCALE: N.T.S.



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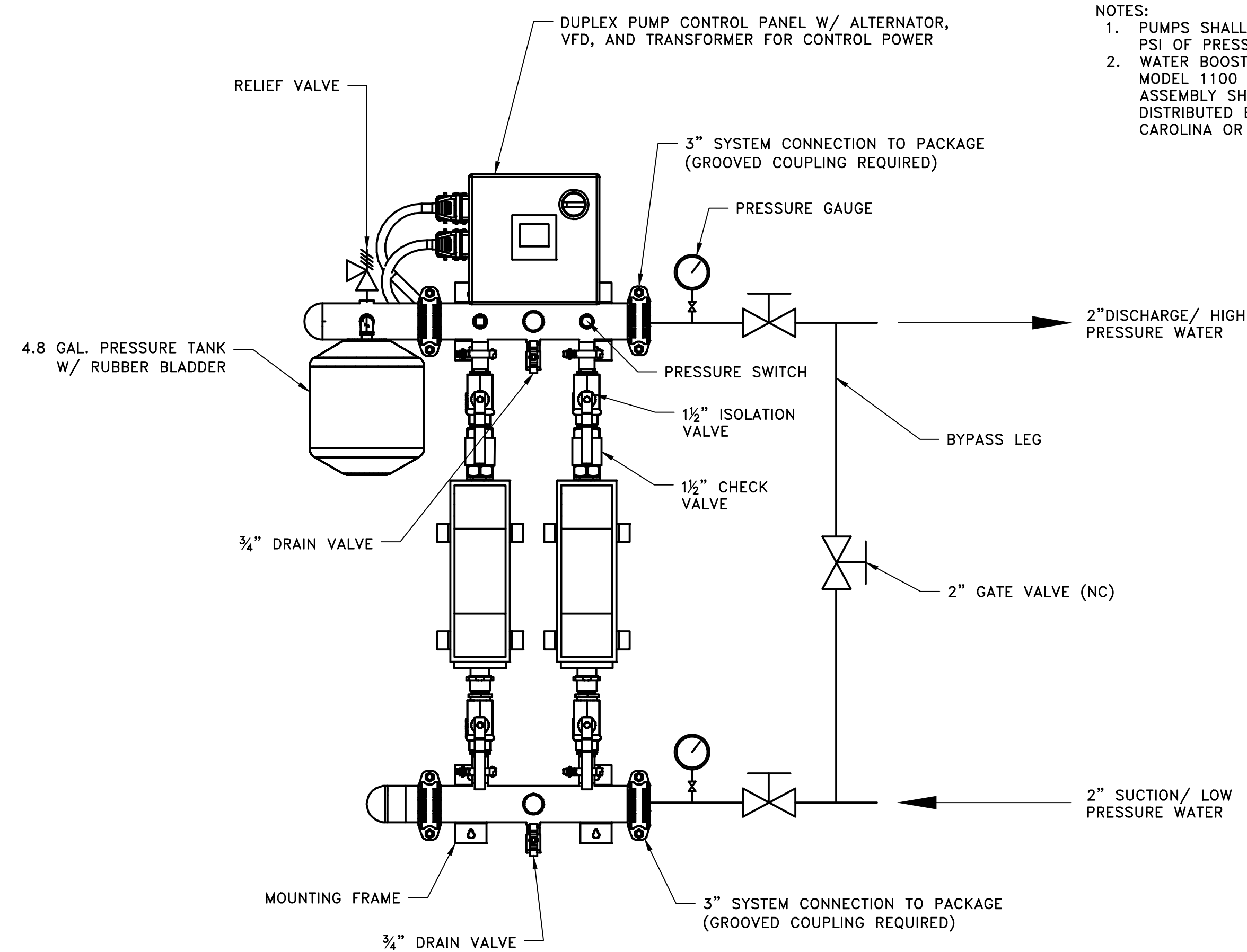


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NORFOLK SOUTHERN CORPORATION
CAMBRIA YARD
CHRISTIANSBURG, VIRGINIA

PLUMBING DETAILS

SHEET NO.
P-501



- NOTES:
1. PUMPS SHALL BE CAPABLE OF DELIVERING 70 GPM AT 22 PSI OF PRESSURE BOOST.
 2. WATER BOOSTER PUMP SHALL BE FRANKLIN ELECTRIC INLINE MODEL 1100 VARIABLE SPEED OR EQUAL. BOOSTER PUMP ASSEMBLY SHALL BE FRANKLIN ELECTRIC SPEC PAK AS DISTRIBUTED BY HEAT TRANSFER SALES OF IRMO, SOUTH CAROLINA OR EQUAL.

DETAIL 1
BOOSTER PUMP
ALTERNATE BID ITEM
 SCALE: N.T.S.



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NORFOLK SOUTHERN CORPORATION
CAMBRIA YARD
CHRISTIANSBURG, VIRGINIA

PLUMBING DETAILS

SHEET NO.

P-502

WATER HEATER SCHEDULE											
LOCATION	MANUFACTURER MODEL #	TYPE	INPUT RATING (KW)	NOMINAL STORAGE CAPACITY (GAL.)	RECOVERY RATE (GPH)	TEMP. RISE (°F)	DIAMETER (IN.)	PROCESS CONN. (IN.)	ELECTRICAL		REMARKS
									VOLTS	PHASE	
UTILITY ROOM	A.O. SMITH HNT-55	ELECTRIC	4.5	55	21	90	12	¾	240	1	PIPE RELIEF TO 6" AFF NEAR FLOOR DRAIN, PROVIDE DIELECTRIC UNION IN HOT & COLD WATER PIPE CONNECTIONS. PROVIDE INTEGRAL THERMOSTAT AND HIGH TEMP CUTOFF SWITCH FOR ELEMENTS, FUSED INTERNAL CIRCUITS, J-BOX WITH TERMINAL BLOCK

BACKFLOW PREVENTER SCHEDULE									
UNIT #	MANUFACTURER MODEL #	SIZE (IN.)	FLOW RATE (GPM)	PRESSURE LOSS (PSI)	ISO BALL VALVE CONSTRUCTION	RELIEF VALVE	INLET STRAINER	END CONNECTION	REMARKS
BFP-1	APOLLO RPLF4A	2	70	11	BRONZE BODY, SILICONE DISC	STAINLESS STEEL, REMOVABLE SEAT	BRONZE CONSTRUCTION	NPT	LEAD FREE, INCLUDE AIR GAP FITTING, Y-STRAINER, BALL VALVES, TEST COCKS. DRAIN OUTLET SHALL BE TYPE M COPPER TUBE, ROUTED FULL SIZE, AND DISCHARGE W/90 DEG. ELBOW DIRECTED INTO DRAIN

CHECK VALVE SCHEDULE								
SERVICE	MANUFACTURER MODEL #	STYLE	BODY MATERIAL	SPRING	SEATS/SEALS	SIZE RANGE (IN.)	END CONNECTIONS	REMARKS
POTABLE WATER	FNW FIG. X431	2 PIECE, INLINE	FORGED BRASS	STAINLESS STEEL	NBR/EPDM	½ TO 2	PRESS	NSF-61 APPROVED FOR POTABLE WATER APPLICATIONS

BALL VALVE SCHEDULE								
SERVICE	MANUFACTURER MODEL #	STYLE	BODY MATERIAL	TRIM	PACKING/SEATS/SEALS	SIZE RANGE (IN.)	END CONNECTIONS	REMARKS
POTABLE WATER	FNW FIG. 430	FULL PORT, 2 PIECE	FORGED BRASS	BRASS, NICKEL-CHROME PLATED	PTFE/PTFE/NBR/EPDM	¼ TO 2	PRESS	PROVIDE WITH LOCKING LEVER, NSF-61 APPROVED FOR POTABLE WATER APPLICATIONS, INCL STEM EXTENSION FOR INSULATED SYSTEMS

STRAINER SCHEDULE					
SERVICE	MANUFACTURER MODEL #	STYLE	DESCRIPTIONS	END CONNECTIONS	REMARKS
WATER	WATTS 777-S1	WYE TYPE	CAST BRONZE BODY, SS 40 MESH SCREEN, W/ TAPPED RETAINER CAP AND CLOSURE PLUG	2" FNPT	NSF-61 APPROVED FOR POTABLE WATER APPLICATIONS

PLUMBING FIXTURE SCHEDULE					
UNIT NO.	MANUFACTURER MODEL NO.	MOUNTING HEIGHT	MATERIAL	ACCESSORIES	REMARKS
WC-2 WC-3	AMERICAN STANDARD AFWALL MILLENIUM #2859.016	WALL MOUNT - 14¾" ABOVE FINISH FLOOR	WHITE VITREOUS CHINA	MANUAL FLUSH VALVE, WHITE HEAVY DUTY SEAT AMERICAN STANDARD W/ EVERCLEAN #5905.110, AND BOLT CAPS	SIPHON JET, ELONGATED BOWL, 1½" TOP SPUD, 1.6 GALLON FLUSH, SUPPORT BY CARRIER SYSTEM ZURN Z1201-ND4 OR EQUAL
WC-1 WC-4	AMERICAN STANDARD AFWALL MILLENIUM #2859.016, WITH ADA ACCESSORIES	WALL MOUNT - 17½" ABOVE FINISH FLOOR	WHITE VITREOUS CHINA	MANUAL FLUSH VALVE, WHITE HEAVY DUTY SEAT AMERICAN STANDARD W/ EVERCLEAN #5905.110, AND BOLT CAPS	ADA COMPLIANT SIPHON JET, ELONGATED BOWL, 1½" TOP SPUD, 1.6 GALLON FLUSH, SUPPORT BY CARRIER SYSTEM ZURN Z1201-ND4 OR EQUAL
UR-1	AMERICAN STANDARD WASHBROOK FLOWISE UNIVERSAL URINAL #6590.001	WALL MOUNT - 24" ABOVE FINISH FLOOR	WHITE VITREOUS CHINA	AMERICAN STANDARD MANUAL #6045.101.002 FLUSH VALVE	BLOW-OUT, WALL HUNG, INTEGRAL TRAP, WALL HANGERS, 2" IPS OUTLET, ¾" TOP SPUD, 1 GALLON FLUSH, SUPPORT BY PLATE SYSTEM ZURN Z122 OR EQUAL
LAV-1 LAV-2 LAV-3	AMERICAN STANDARD COMRADE 0124.131 WALL-HUNG LAVATORY	WALL MOUNT - 34" ABOVE FINISH FLOOR	WHITE VITREOUS CHINA	CHICAGO 420-E2805ABCP ADA COMPLIANT, 4" CENTER, DECK MOUNTED FITTING W/ POP-UP, CERAMIC MIXING CARTRIDGE, 120° MAXIMUM MIXING ANGLE, SOFTFLO AERATOR, TEMPERATURE LIMIT STOP, CHROME PLATE FINISH. PREFABRICATED INSULATION KIT FOR EXPOSED TRAPS, WASTE PIPING AND WATER SUPPLY, MANUFACTURED BY BROCAR PRODUCTS OR EQUAL.	20" x 18¼", 4" CENTERS, ADA COMPLIANT, REAR OVERFLOW, SOAP DEPRESSION, DRILLED FOR CONCEALED ARM SUPPORT
KS-1	ELKAY LUSTERTONE LR3322 SINK	LAY-IN COUNTER TOP	#18 GAUGE, TYPE 304 STAINLESS STEEL	CHICAGO 201-G8AE3-317AB SINK MOUNTED FAUCET, NO. 317 WRIST BLADE HANDLES, SWING PLAIN END GOOSENECK SPOUT, LAMINAR FLOW CONTROL IN SPOUT, QUATURN OPERATING CARTRIDGE. SS STRAINER, LK35 CRUMB CUP, REMOVABLE BASKET.	33"x22" OUTSIDE DIMENSIONS, TWO 13½"x16"x7¾" BOWLS, SELF-RIMMING SOUND DEADENED, 3 HOLE 4" CENTERS, 3½" DRAIN OPENING
SHR-1	AQUATIC BATH ACCESSIBLE SHOWER MODEL #1363BFS COMPLIES WITH ADA	FLOOR SET	ONE PIECE, OPEN TOP WITH INNER AND OUTER SURFACES GALVANIZED-BONERIZED STEEL FINISH IN SYNTHETIC BAKED-ON ENAMEL	INCLUDES THERMOSTATICALLY CONTROLLED, SINGLE LEVER MIXING VALVE WITH SERVICE STOPS. AQUATIC BATH, HAND HELD SHOWER HEAD WITH SWIVEL FITTING, 69" FLEXIBLE STAINLESS STEEL HOSE WITH IN-LINE VACUUM BREAKER, RETRACTABLE PHENOLIC SHOWER SEAT WITH STAINLESS STEEL FRAME, ONE (1) WRAP-AROUND STAINLESS STEEL GRAB BAR, ONE (1) VERTICAL STAINLESS STEEL GRAB BAR, CURTAIN ROD, 10 OZ. GSA APPROVED CURTAIN.	36"W x 36"D x 75¼"H INSIDE DIMENSIONS, INSTALLED WITH ACCESSORIES SEALED WATERPROOF AND THRESHOLD SHALL NOT EXCEED ½" ABOVE FINISHED FLOOR MATERIAL. SEE STALL EDGE INSTALLATION DETAILS ON THE ARCHITECTURAL DRAWINGS.
MS-1	STERN WILLIAMS MOP SERVICE BASIN MTB-2424	FLOOR SET	ONE-PIECE MOLDED PORTLAND CEMENT WITH MARBLE CHIPS AND SEALER	CHICAGO FAUCET 897-RCF, 8" BODY, ADJUSTABLE ARMS, VACUUM BREAKER SPOUT WITH PAIL HOOK AND WALL BRACE. INTEGRAL STOP VALVES FOR SERVICING	24"x24" OUTSIDE DIMENSIONS, WITH 1¼" WIDE SHOULDER. HEIGHT SHALL BE 10". DRAIN SHALL BE INTEGRALLY MOLDED, COMPLETE WITH DRAIN SEAL FOR INSTALLATION OF 3" IRON PIPE. REMOVABLE STAINLESS STEEL STRAINER.
FPWH-1 FPWH-2	WOODFORD B67 BOX TYPE FREEZELESS WALL HYDRANT	MOUNT - 36" ABOVE FINISH FLOOR	8" BOX AND DOOR ANODIZED ALUMINUM, HYDRANT STANDARD CHROME	FREEZELESS, AUTOMATIC DRAINING, NIDEL MODEL 50HA HIGH FLOW DOUBLE CHECK BACKFLOW PREVENTER, STAINLESS STEEL OPERATING STEM	ASSE STANDARD 1052 APPROVED, ¾" FNPT
SD-1	JOSAM 30000-A-CP FLOOR DRAIN	FLUSH WITH SHOWER FLOOR	CAST IRON WITH CHROME PLATED STRAINER	TWO PIECE BODY WITH DOUBLE DRAINAGE FLANGE AND 1/2" PRIMER TAP, WEJLOC INVERTIBLE FLASHING COLLAR, WEEPHOLES, BOTTOM OUTLET CONNECTION AND NIKALOY ADJUSTABLE ROUND SUPER-FLO CHROME PLATED STRAINER.	SUITABLE FOR PEDESTRIAN TRAFFIC AREAS
FD-1 FD-2 FD-3 FD-4 FD-5	JOSAM 30000-A-2 FLOOR DRAIN	FLUSH WITH FINISHED FLOOR	CAST IRON WITH BRONZE ADJUSTABLE STRAINER	TWO PIECE BODY WITH DOUBLE DRAINAGE FLANGE AND 1/2" PRIMER TAP, WEJLOC INVERTIBLE FLASHING COLLAR, WEEPHOLES, BOTTOM OUTLET CONNECTION AND NIKALOY ADJUSTABLE ROUND SUPER-FLO BRONZE STRAINER.	SUITABLE FOR PEDESTRIAN TRAFFIC AREAS
CO-1	JOSAM 58540 PLUG CLEANOUT	THREADED BRONZE PLUG	FINISH BRONZE	FOR ANY N.P.T. FEMALE THREADED FITTING	COUNTERSUNK BRONZE N.P.T THREADED PLUG FOR USE IN CONJUNCTION WITH STANDARD PIPE FITTINGS.
WCO-1 WCO-2	JOSAM 58600-COT WALL CLEANOUT	24" ABOVE FINISH FLOOR	STAINLESS STEEL	CLEAN OUT COVER WITH NO-HUB CLEANOUT TEE	SS COVER, CAST IRON TEE
IMB-1 IMB-2	OATEY 39125	48" ABOVE FINISH FLOOR	FULLY RECESSED	1/4 TURN BALL VALVE AND WATER HAMMER ARRESTOR IN BOX, MAKE FINAL CONNECTION TO BOX WITH STAINLESS STEEL BRAIDED HOSE.	FULLY RECESSED WALL SUPPLY BOX WITH COVER

