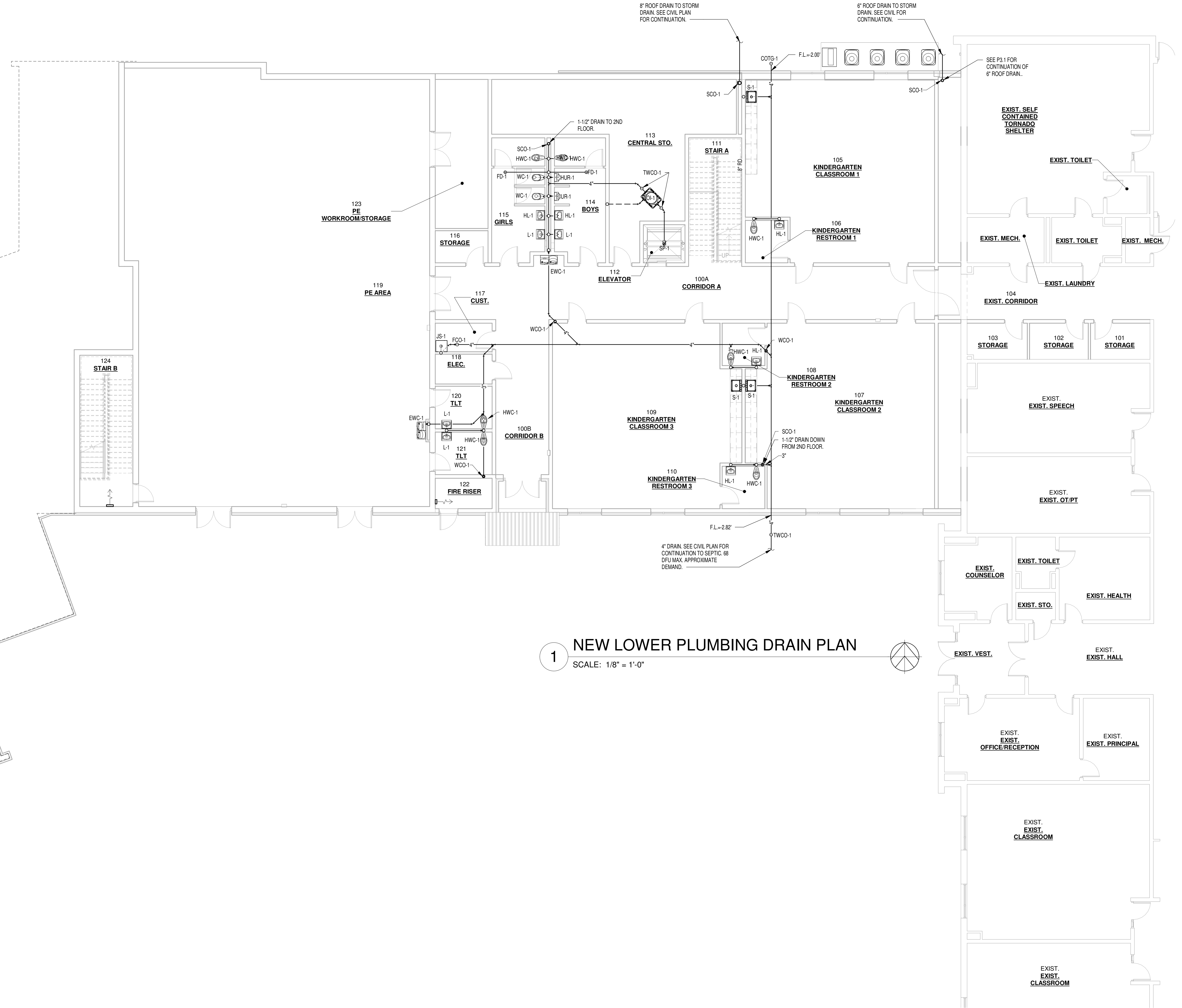


# GENERAL PLUMBING NOTES

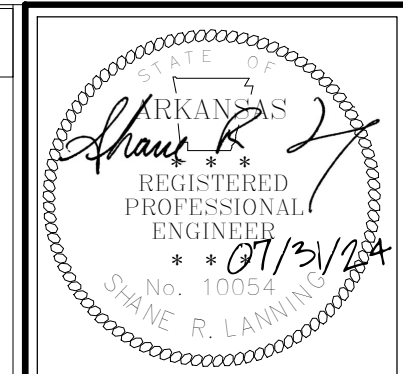
1. PLUMBING CONTRACTOR SHALL READ AND BECOME FAMILIAR WITH THE REQUIREMENTS OF THE ARKANSAS SCHOOL FACILITIES MANUAL. ALL REQUIREMENTS OF THE MANUAL WHETHER SPECIFICALLY STATED ON THESE DOCUMENTS OR NOT SHALL APPLY TO THIS PROJECT. PLUMBING CONTRACTOR SHALL SPECIFICALLY READ AND UNDERSTAND CHAPTER 7200 - PLUMBING.
2. CAREFULLY EXAMINE THE SITE AND BUILDING ARCHITECTURAL PLANS TO BECOME THOROUGHLY FAMILIAR WITH ALL EXISTING CONDITIONS. VERIFY AND COORDINATE THE EXACT LOCATIONS OF ALL EQUIPMENT, FIXTURES, PIPING, ETC WITH ALL OTHER TRADES. REVIEW ARCHITECTURAL ELEVATIONS AND DRAWINGS FOR EXACT DIMENSIONS.
3. PROVIDE ALL ESSENTIAL MATERIALS FOR THE COMPLETION OF THE PLUMBING WORK TO MAKE THE SYSTEM READY FOR NORMAL AND PROPER OPERATION; INCLUDING ALL WORK OR MATERIALS NOT DIRECTLY SHOWN ON THE DRAWINGS OR IN THE SPECIFICATIONS, BUT NECESSARY FOR THE PROPER OPERATION OF THE SYSTEM.
4. ALL WORK SHALL COMPLY WITH APPLICABLE PLUMBING CODES, REQUIREMENTS OF THE STATE HEALTH DEPARTMENT AND LOCAL ORDINANCES.
5. PLUMBING SUPPLY AND DRAIN PLANS ARE DIAGRAMMATICAL IN NATURE. REGARDLESS OF HOW SHOWN ON THE PLANS, CONTRACTOR TO INSTALL ALL PIPING IN A CONCEALED LOCATION UNLESS OTHERWISE DIRECTED. THE FINAL LAYOUT SHALL BE GOVERNED BY ACTUAL FIELD CONDITIONS WITH ALL MEASUREMENTS VERIFIED AT THE SITE AND COORDINATED WITH OTHER DISCIPLINES. DURING CONSTRUCTION, ANY CONFLICT BETWEEN ARCHITECT'S INTENT AND THE CONTRACTORS INTERPRETATION OF PLUMBING PLANS SHALL BE RESOLVED SO AS TO MAINTAIN THE ARCHITECT'S AESTHETIC EXPECTATIONS OF THE PROJECT. DESIGN AND ROUTING OF THE PLUMBING SYSTEMS ARE LIMITED TO THE PIPING AND FITTINGS AVAILABLE WITHIN REVIT. SPECIAL PIPING AND FITTINGS CAN BE USED IN THE FIELD TO SIMPLIFY OVERALL DESIGN.
6. INSTALL WATER HAMMER ARRESTOR AT ALL QUICK-CLOSING VALVES AND AT END OF EACH BRANCH ON HOT AND COLD WATER PIPING. ALSO, PROVIDE AN ARRESTOR AT EACH BATTERY OF WATER CLOSETS AND AT OTHER FIXTURES OR EQUIPMENT AS DIRECTED BY MANUFACTURER'S INSTALLATION INSTRUCTIONS.
7. PROVIDE ISOLATION VALVES TO SERVE EACH SET OF COLD, HOT AND HOT WATER RETURN RISERS. PROVIDE ISOLATION VALVES TO SERVE EACH SET OF TOILET ROOMS AND AT ALL EQUIPMENT. PROVIDE THERMOSTATIC MIXING VALVES SET TO 110 DEGREES AT EACH PUBLIC HAND WASHING FIXTURE THAT REQUIRES HOT WATER. PROVIDE SHUT-OFF STOPS FOR EACH PLUMBING FIXTURE INSTALLED. AN ACCESS PANEL SHALL BE PROVIDED AS REQUIRED TO ALLOW ACCESS TO ALL VALVES INSTALLED IN A CONCEALED LOCATION. AVOID INSTALLING ANY MAINTENANCE ITEMS ABOVE HARD CEILINGS UNLESS ACCESS IS PROVIDED.
8. ROUTE WATER PIPING AND SERVE EACH PLUMBING FIXTURE FROM WITHIN THE WALLS WHEREVER POSSIBLE. UNLESS OTHERWISE NOTED, WATER PIPING SHOWN ON PLANS ARE FOR CLARIFICATION ONLY.
9. ALL PIPING AT VALVE PORTION OF FREEZE PROOF HOSE BIBBS SHALL BE INSIDE THE INSULATION AND PROVIDE AN ISOLATION VALVE. SEAL AIR TIGHT AT SHEATHING PENETRATION.
10. MOUNT ALL FLUSH CONTROLS FOR HANDICAPPED WATER CLOSETS ON THE OPEN SIDE OF TOILET AREAS.
11. ALL PIPING LOCATED ON THE ROOF SHALL BE ANCHORED AS DIRECTED BY THE ROOF MANUFACTURER WITH FASTENERS APPROVED BY THE ROOF MANUFACTURER.
12. THE MINIMUM SIZE FLOOR DRAIN ON THIS PROJECT SHALL BE 2" UNLESS NOTED OTHERWISE ON THE DRAWINGS. ALL DRAIN AND VENT PIPING INSTALLED BELOW SLAB SHALL BE A MINIMUM 2".
13. THE MINIMUM SLOPE FOR 2-1/2" DRAIN PIPING SHALL BE 1/4" AND 3" TO 6" SHALL BE 1/8".
14. ALL FLOOR SINKS FOR INDIRECT WASTE FROM EQUIPMENT ON 6" LEGS ARE REQUIRED TO BE LOCATED WITH MINIMUM OF 50% EXPOSURE. FLOOR SINKS FOR INDIRECT WASTE FROM PREPARATION SINKS, EQUIPMENT WASHING SINKS, AND FIXTURES ON LEGS HIGHER THAN 6" SHOULD BE EASILY ACCESSIBLE AND LOCATED FLUSH WITH THE FRONT EDGE OF THE UNITS. A PROPER AIR GAP IS REQUIRED.
15. FLOOR DRAINS AND FLOOR SINKS UNDER CABINETS THAT ARE SEALED TO THE FLOOR MUST HAVE A HOLE CUT IN THE BOTTOM OF THE CABINET. THIS HOLE MUST BE LARGER THAN THE DIAMETER OF THE DRAIN. DRAIN LINES TO THIS DRAIN MUST BE PROPERLY AIR GAPPED.
16. PROVIDE A CLEAN OUT AT ALL DEAD ENDS AND CHANGES IN DIRECTION GREATER THAN 45° FOR SANITARY AND STORM DRAINAGE.
17. MAKE PROVISIONS TO INSTALL ALL VENT THROUGH ROOF (VTR) ON THE BACK SIDE OF ALL ROOF RIDGES. COORDINATE WITH OTHER TRADES TO AVOID INSTALLING VTR WITHIN 10' OF A FRESH AIR INTAKE. AVOID INSTALLATION OF VTR IN LOW SPOTS ON ROOF OR IN VALLEYS. OFFSET AS REQUIRED TO MEET THESE REQUIREMENTS.
18. CONTRACTOR TO REVIEW ALL PLAN SHEETS FOR FIXTURE TAGS. MOST FIXTURE TAGS ARE LOCATED ON THE FIRST PLAN SHEET. FIXTURES THAT DO NOT APPEAR ON THE FIRST SHEET WILL BE TAGGED ON OTHER SHEETS.
19. PROVIDE A VALVE, UNION, AND A DIRT LEG AT EACH GAS APPLIANCE CONNECTION.

UPPER LEVEL ABOVE

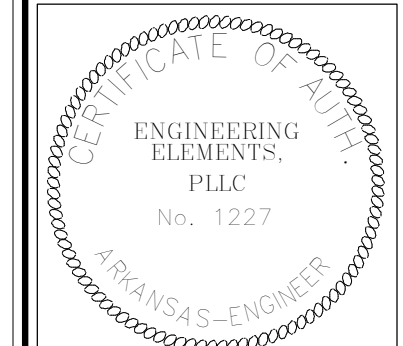


**1 NEW LOWER PLUMBING DRAIN PLAN**  
SCALE: 1/8" = 1'-0"

PROJ: 19-68  
PROJECT NO: 23-078  
DATE: 07/31/2024



**PRIMARY SCHOOL ADDITION**  
JOHNSON COUNTY WESTSIDE  
193 SCHOOL ST., HARTMAN, AR 72840

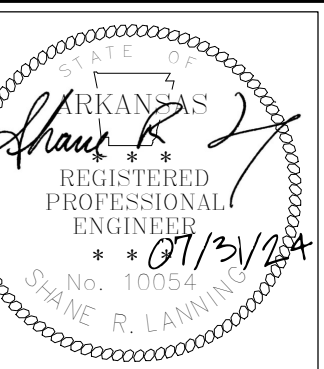


**ARCHITECTURE PLUS INC.**  
907 South 21st Street, Fort Smith, Arkansas 479/783-8395  
PLUMBING DRAIN PLAN - LOWER LEVEL

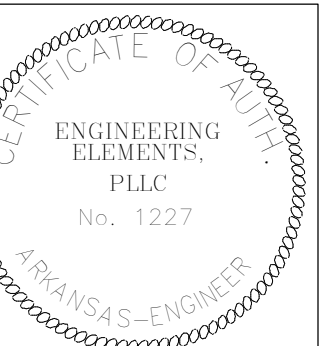
REVISIONS:		
No.	Description	Date

PROJECT: 19-68  
DATE: 07/31/2024  
**P1.1**





**PRIMARY SCHOOL ADDITION**  
JOHNSON COUNTY WESTSIDE  
193 SCHOOL ST., HARTMAN, AR 72840



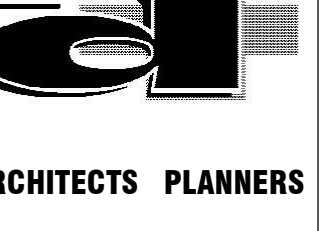
**ARCHITECTURE PLUS INC.**  
907 South 21st Street, Fort Smith, Arkansas 71903-8395  
PLUMBING DRAIN PLAN - UPPER LEVEL

REVISIONS:		
No.	Description	Date

PROJECT: 19-68

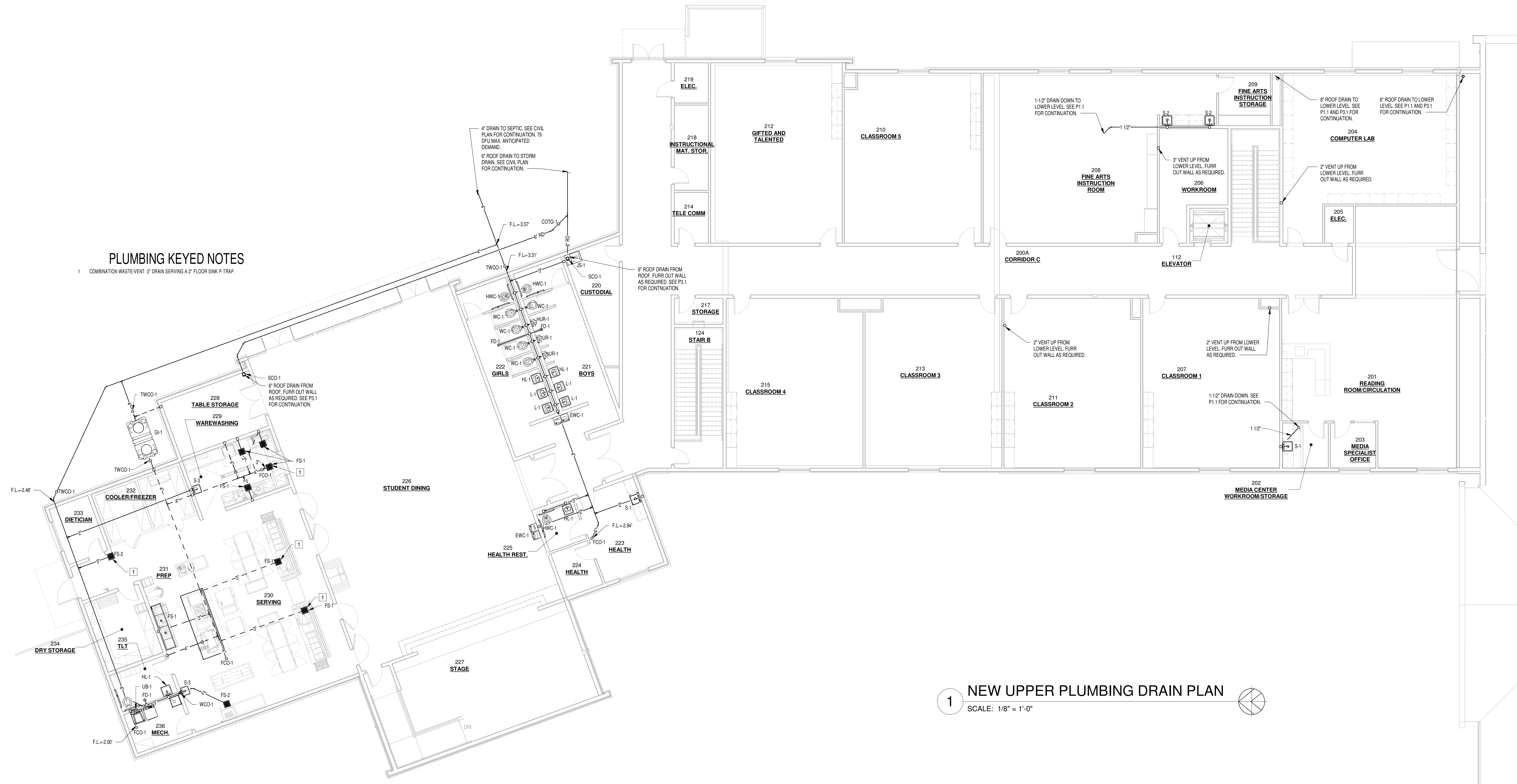
DATE: 07/31/2024

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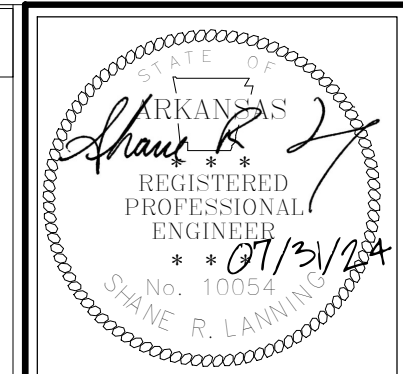


### PLUMBING KEYED NOTES

- 1 COMBINATION WASTE-VENT, 3" DRAIN SERVING A 2" FLOOR SINK P-FRAPH.



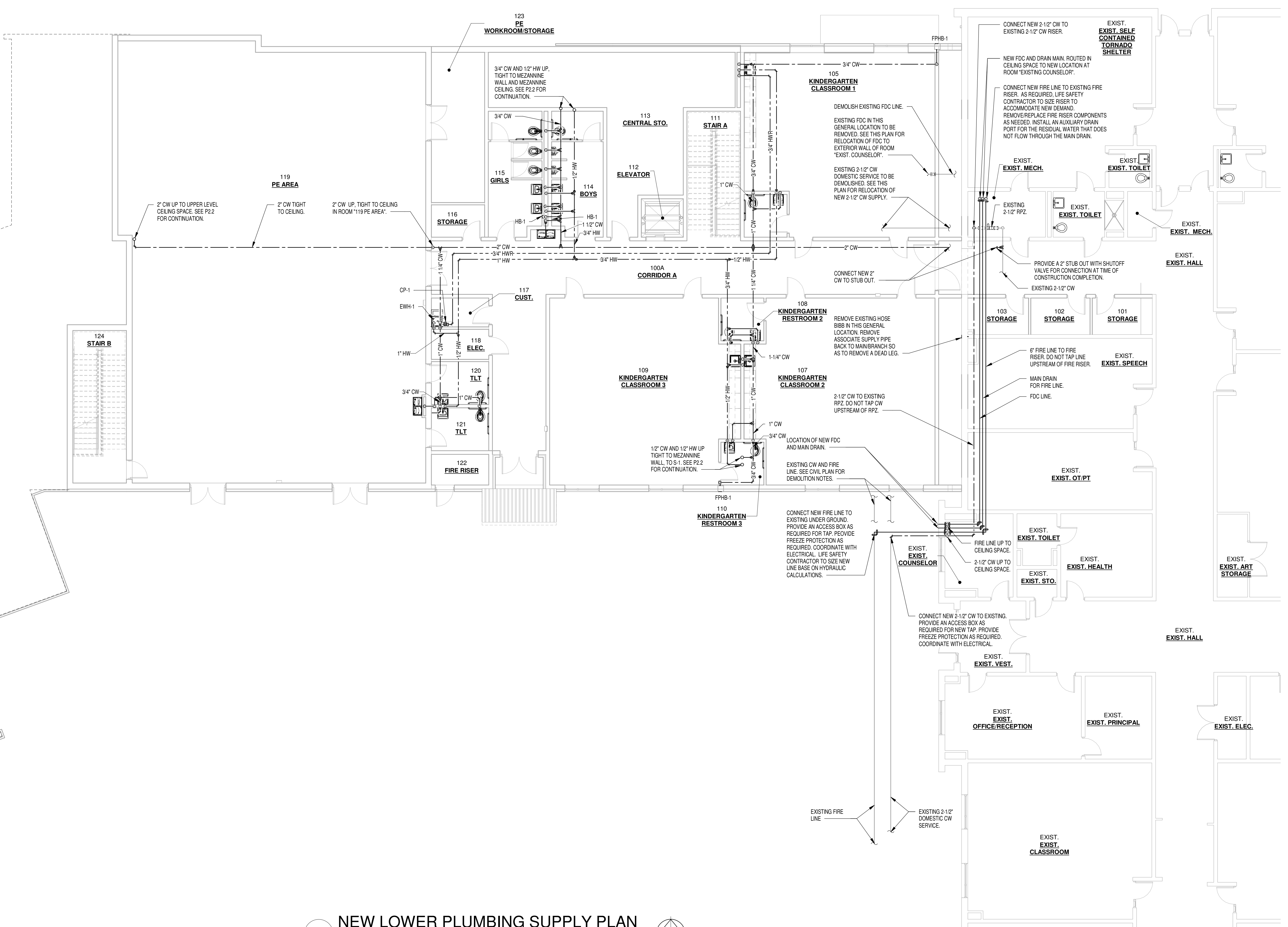
**1 NEW UPPER PLUMBING DRAIN PLAN**  
SCALE: 1/8" = 1'-0"



### FIRE SPRINKLER NOTES

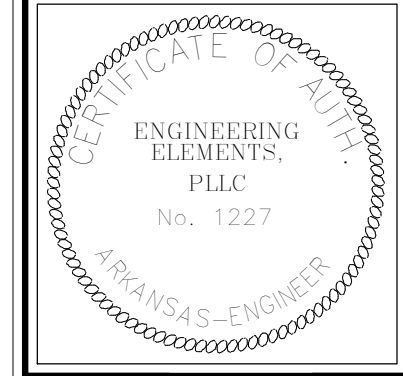
- PRIOR TO DESIGN OF ANY SYSTEM, SPRINKLER CONTRACTOR SHALL DETERMINE THE HAZARD CLASSIFICATION OF ALL OCCUPANCIES.
- DESIGN & INSTALL THE SYSTEM PER THE REQUIREMENTS OF NFPA NO. 13. ALL DEFICIENCIES SHALL BE THE RESPONSIBILITY OF THE SPRINKLER CONTRACTOR & ANY DEVIATIONS FROM THE REQUIREMENTS IN NFPA NO. 13, AND/OR THE APPROVED PLANS SHALL REQUIRE SPECIAL PERMISSION FROM THE ARCHITECT/ENGINEER.
- PAY ALL PERMITS, LICENSES, FEES, DEPOSITS AND CHARGES IN CONNECTION WITH THE WORK, EXCEPT AS NOTED HEREIN.
- COMPLY WITH ALL RULES, REGULATIONS, LAWS AND ORDINANCES OF THE STATE, LOCAL, CITY OR COUNTY AUTHORITIES AND UTILITY COMPANIES. DESIGN, FABRICATE, INSTALL AND SECURE ALL NECESSARY APPROVALS FOR THE FIRE PROTECTION AUTOMATIC SPRINKLER SYSTEM ACCEPTABLE TO THE INSURANCE SERVICE OFFICE (ISO), STATE HEALTH DEPARTMENT, LOCAL FIRE MARSHAL, FACTORY MUTUAL, AND THE ARCHITECT/ENGINEER.
- THE FIRE PROTECTION AUTOMATIC SPRINKLER SYSTEM SHALL BE DESIGNED, FABRICATED, INSTALLED & TESTED BY AN EXPERIENCED CONTRACTOR APPROVED BY THE ARCHITECT/ENGINEER AND LICENSED BY THE STATE TO PERFORM SUCH WORK.
- SUBMIT SHOP DRAWINGS INCLUDING HYDRAULIC CALCULATIONS TO THE ARCHITECT/ENGINEER AND THE OWNERS INSURANCE COMPANY FOR APPROVAL. ALL SHOP DRAWINGS, BEFORE BEING SENT TO THE ARCHITECT, MUST BARE THE INSURANCE SERVICE OFFICES (ISO) STAMP OF ACCEPTANCE AND THE LOCAL FIRE MARSHAL'S STAMP OF APPROVAL.
- PROVIDE SPRINKLER HEADS FOR EACH ROOM OR SPACE FOR COMPLETE PROTECTION EXCEPT FOR ENCLOSURES SPECIFICALLY EXEMPT FROM THE REQUIREMENTS.
- SUBMIT LAYOUT DRAWINGS OF COMPLETE OVERHEAD SYMMETRICAL SPRINKLER SYSTEM & RELATED EQUIPMENT INDICATING RELATIONSHIP OF ALL THE OVERHEAD ITEMS INCLUDING CEILING AIR DIFFUSERS, LIGHTING FIXTURES, STRUCTURAL BEAMS, AND ALL OTHER ITEMS WHICH MAY CONFLICT. SUBMIT COMPLETE DETAILS AND SECTIONS TO CLEARLY DEFINE AND CLARIFY THE DESIGN, INCLUDING A MATERIALS LIST DESCRIBING ALL PROPOSED MATERIALS BY MANUFACTURER NAME AND MODEL NUMBER.
- CONTRACTOR SHALL, WHEN MODIFYING THE SPRINKLER SYSTEM, VERIFY ROUTES AND COORDINATE WITH OTHER TRADES ANY ADDITIONAL ROUTES THAT ARE REQUIRED, RUN ALL PIPING PARALLEL OR PERPENDICULAR TO STRUCTURE IN ALL AREAS.
- ALL PIPES SHALL MEET OR EXCEED CORROSION RESISTANCE RATIO OF SCH. 40 STEEL PIPE. FIELD COORDINATION IS REQUIRED, ESPECIALLY WHEN CUTTING OR ADJUSTING PIPES FOR SPRINKLER INSTALLATION. AS PER THE REQUIREMENTS OF THE ARKANSAS DEPARTMENT OF HEALTH, ALL UNDERGROUND PIPING TO BE CHLORINATED.
- USE PENDANT SEMI-RECESSED HEADS AND ESCUTCHEONS AT ALL CEILINGS. AT EXPOSED STRUCTURE AREA USE BRASS UPRIGHT GLASS BULB HEADS, WHERE APPROVED BY NFPA 13, ALL HEADS SHALL BE FAST RESPONSE HEADS. ALL HEADS SHALL BE LOCATED IN THE CENTER OF CEILING T.I.E. (NO EXCEPTIONS)
- FACTORY MUTUAL RESEARCH CORPORATION (FMRC) APPROVED EQUIPMENT SHOULD BE UTILIZED WHERE APPLICABLE, & THE DETAILS OF THE INSTALLATION SHOULD CONFORM TO FACTORY MUTUAL ENGINEERING ASSOCIATION (FMEA) GOOD PRACTICES.
- UPON COMPLETION OF THE SPRINKLER SYSTEM INSTALLATION, TEST AND RE-TEST THE COMPLETE INSTALLATION & MAKE ALL CORRECTIONS AS NECESSARY TO SECURE ACCEPTANCE BY FACTORY MUTUAL & THE FIRE MARSHAL. FURNISH ALL TEST EQUIPMENT & PERSONNEL REQUIRED.
- AFTER THE FIRE SPRINKLER SYSTEM HAS BEEN COMPLETELY TESTED, INSPECTED & APPROVED, SECURE A LETTER OF FINAL ACCEPTANCE FROM THE ADMINISTRATIVE AUTHORITY ADDRESSED TO THE SPRINKLER COMPANY RESPONSIBLE FOR THE INSTALLATION, PREPARED IN TRIPLICATE. DELIVER ALL THREE COPIES TO THE ARCHITECT/ENGINEER.
- A CORROSION-RESISTANT PLACARD SHALL BE PLACED ON THE BASE OF THE RISER STATING THE DESIGN CRITERIA & RESULTING DEMAND AT THE BASE OF THE RISER, INCLUDING HOSE STREAM ALLOWANCES. ALL PIPING, FITTINGS, HANGERS, VALVES, & DEVICES ARE TO COMPLY WITH NFPA NO. 13.
- FLOW & TAMPER SWITCHES SHALL BE PROVIDED BY FIRE ALARM CONTRACTOR & INSTALLED & LABELED BY THE SPRINKLER CONTRACTOR. WIRING SHALL BE PROVIDED BY FIRE ALARM CONTRACTOR. SPRINKLER PIPING SHALL BE PAINTED, COLOR SPECIFIED BY ARCHITECT (ONLY ON EXPOSED PIPING).

UPPER LEVEL ABOVE



**1 NEW LOWER PLUMBING SUPPLY PLAN**  
SCALE: 1/8" = 1'-0"

**PRIMARY SCHOOL ADDITION**  
JOHNSON COUNTY WESTSIDE  
193 SCHOOL ST., HARTMAN, AR 72840



**ARCHITECTURE PLUS INC.**  
907 South 21st Street, Fort Smith, Arkansas 479/783-8395

PLUMBING SUPPLY PLAN - LOWER LEVEL

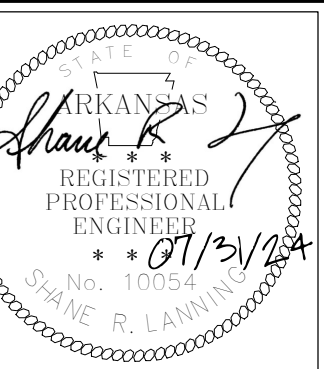
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PROJECT: 19-68

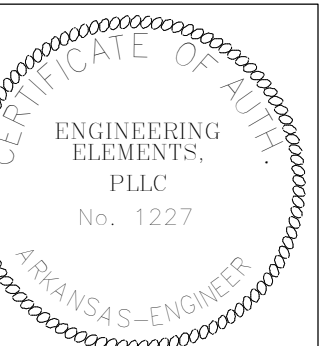
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**PRIMARY SCHOOL ADDITION**  
JOHNSON COUNTY WESTSIDE  
193 SCHOOL ST., HARTMAN, AR 72840



**ARCHITECTURE PLUS INC.**  
907 South 21st Street, Fort Smith, Arkansas 72903-5395  
PLUMBING SUPPLY PLAN - UPPER LEVEL

REVISIONS:	No.	Description	Date

PROJECT: 19-68

DATE: 07/31/2024

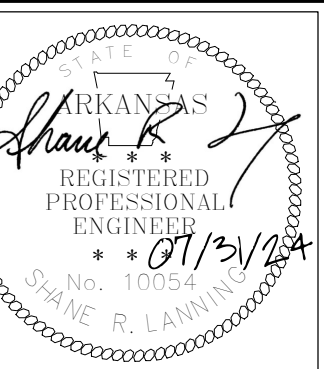
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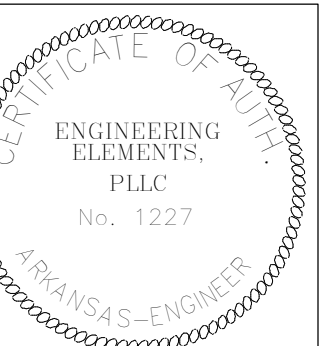
ARCHITECTS PLANNERS



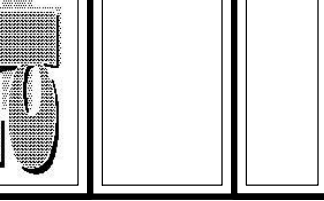
**1 NEW UPPER PLUMBING SUPPLY PLAN**  
SCALE: 1/8" = 1'-0"



**PRIMARY SCHOOL ADDITION**  
 JOHNSON COUNTY WESTSIDE  
 193 SCHOOL ST., HARTMAN, AR 72840



**ARCHITECTURE PLUS INC.**  
 807 South 21st Street, Fort Smith, Arkansas 479/783-8395  
 ENGINEERING ELEMENTS, PLLC  
 No. 1227  
 ARKANSAS-ENGINEER



REVISIONS:		
No.	Description	Date

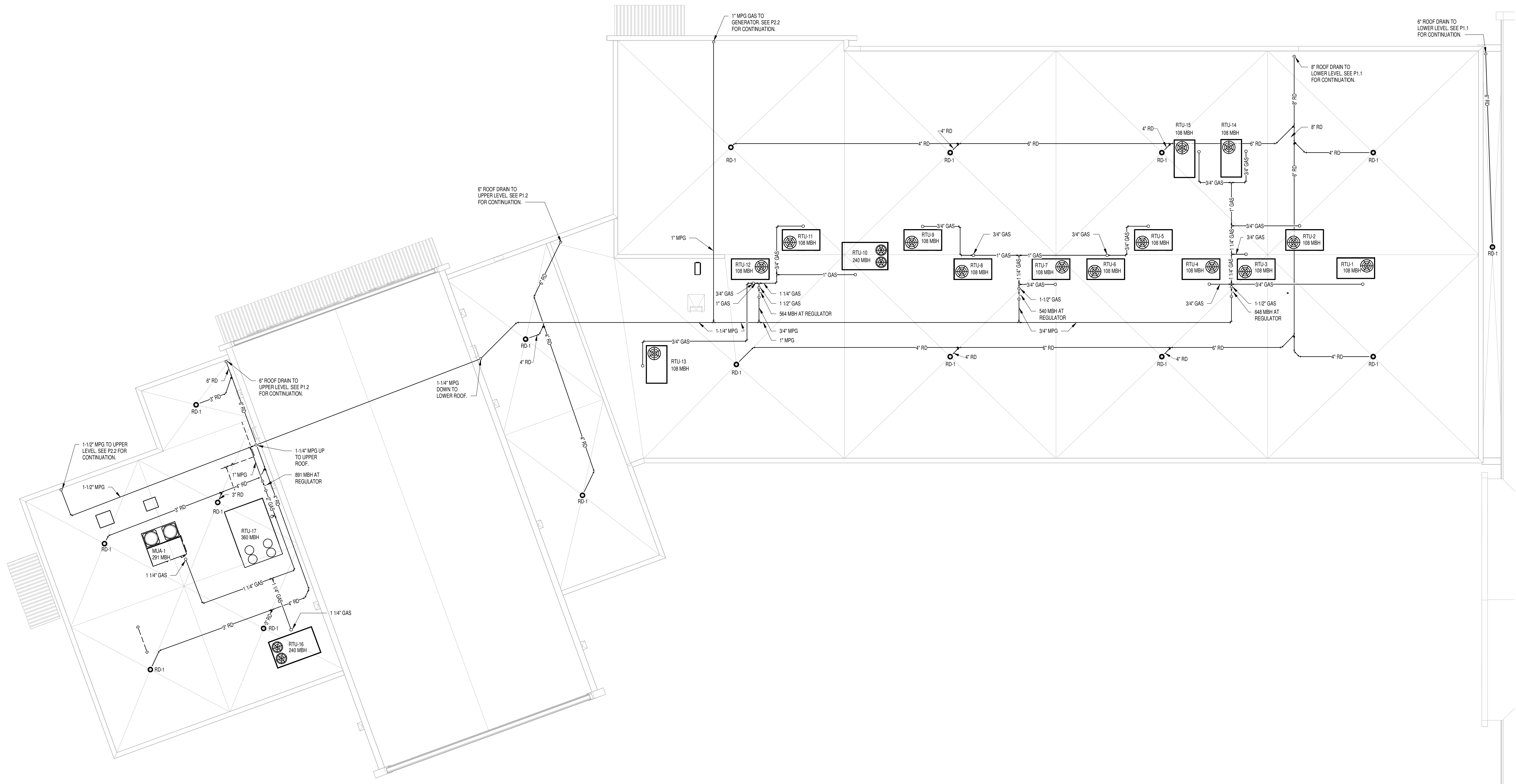
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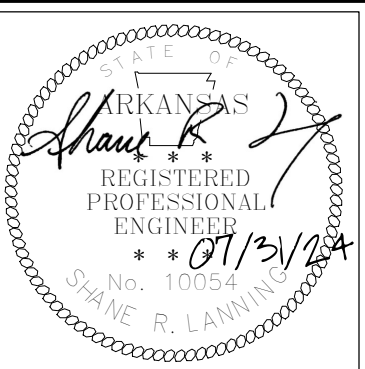
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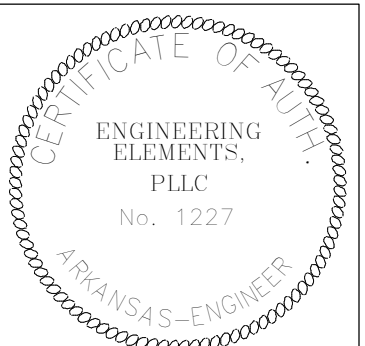
ARCHITECTS PLANNERS



**1 PLUMBING ROOF PLAN**  
 SCALE: 1/8" = 1'-0"



**PRIMARY SCHOOL ADDITION**  
JOHNSON COUNTY WESTSIDE  
193 SCHOOL ST., HARTMAN, AR 72840



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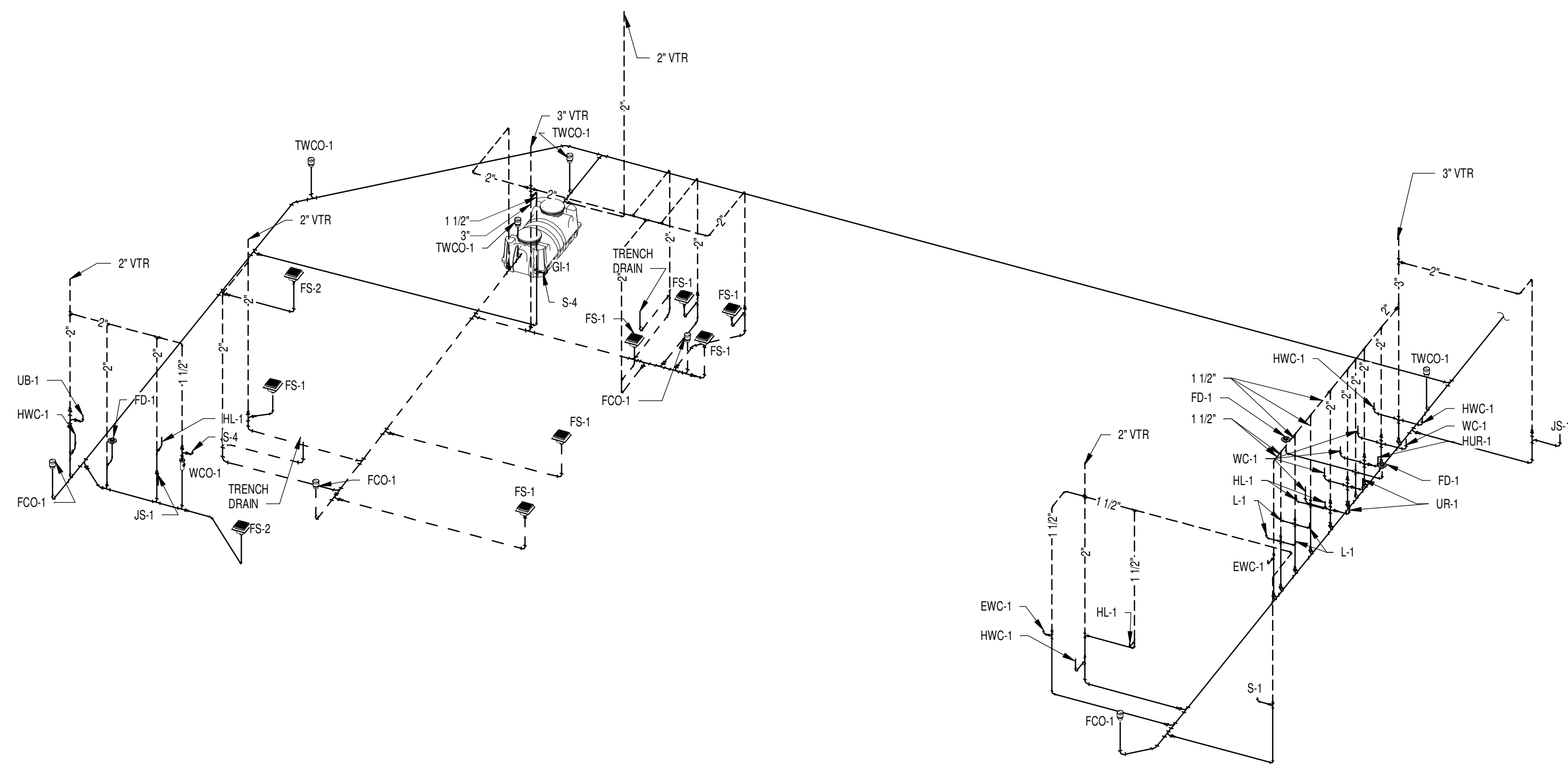
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PROJECT: 19-68  
DATE: 07/31/2024

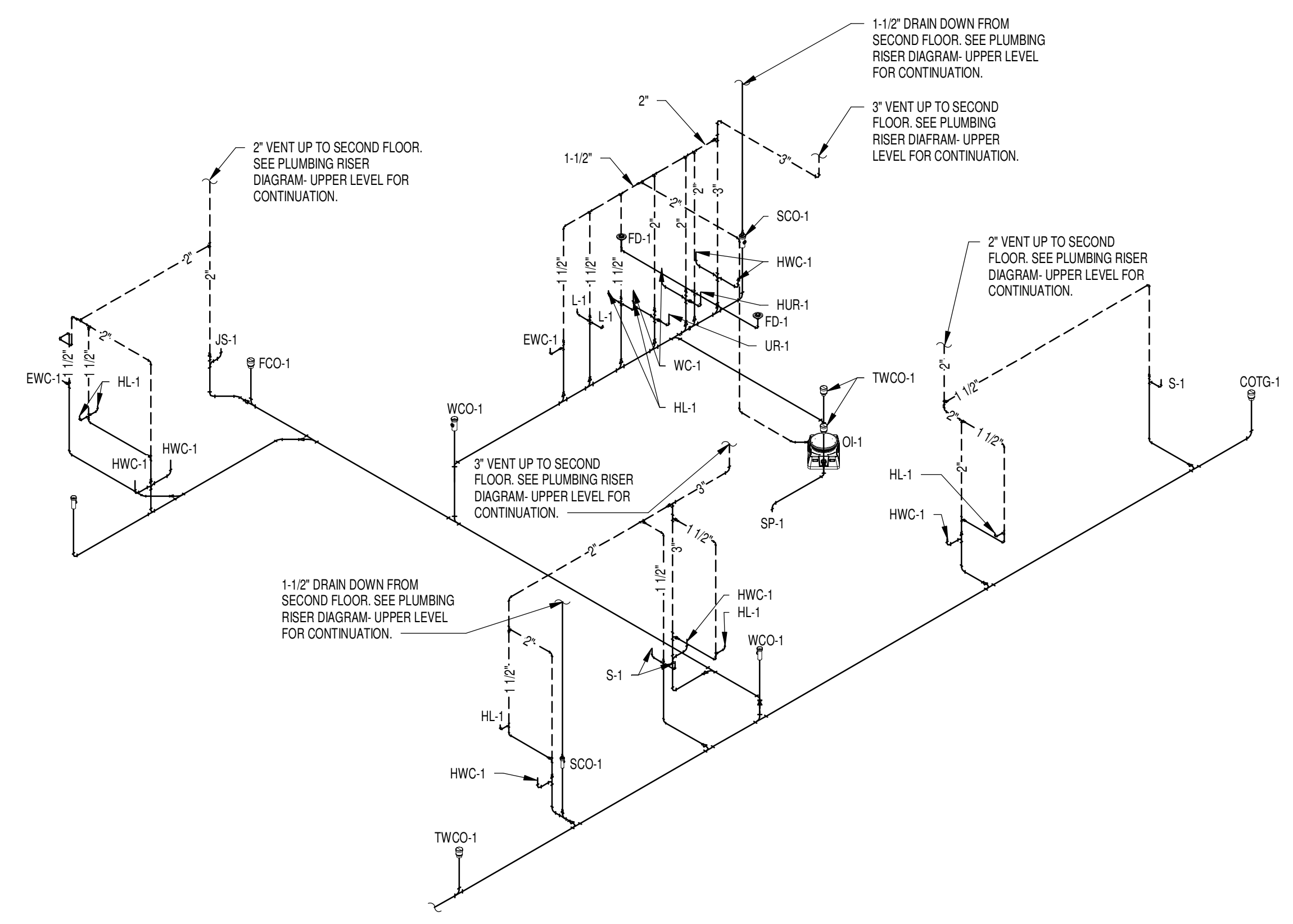
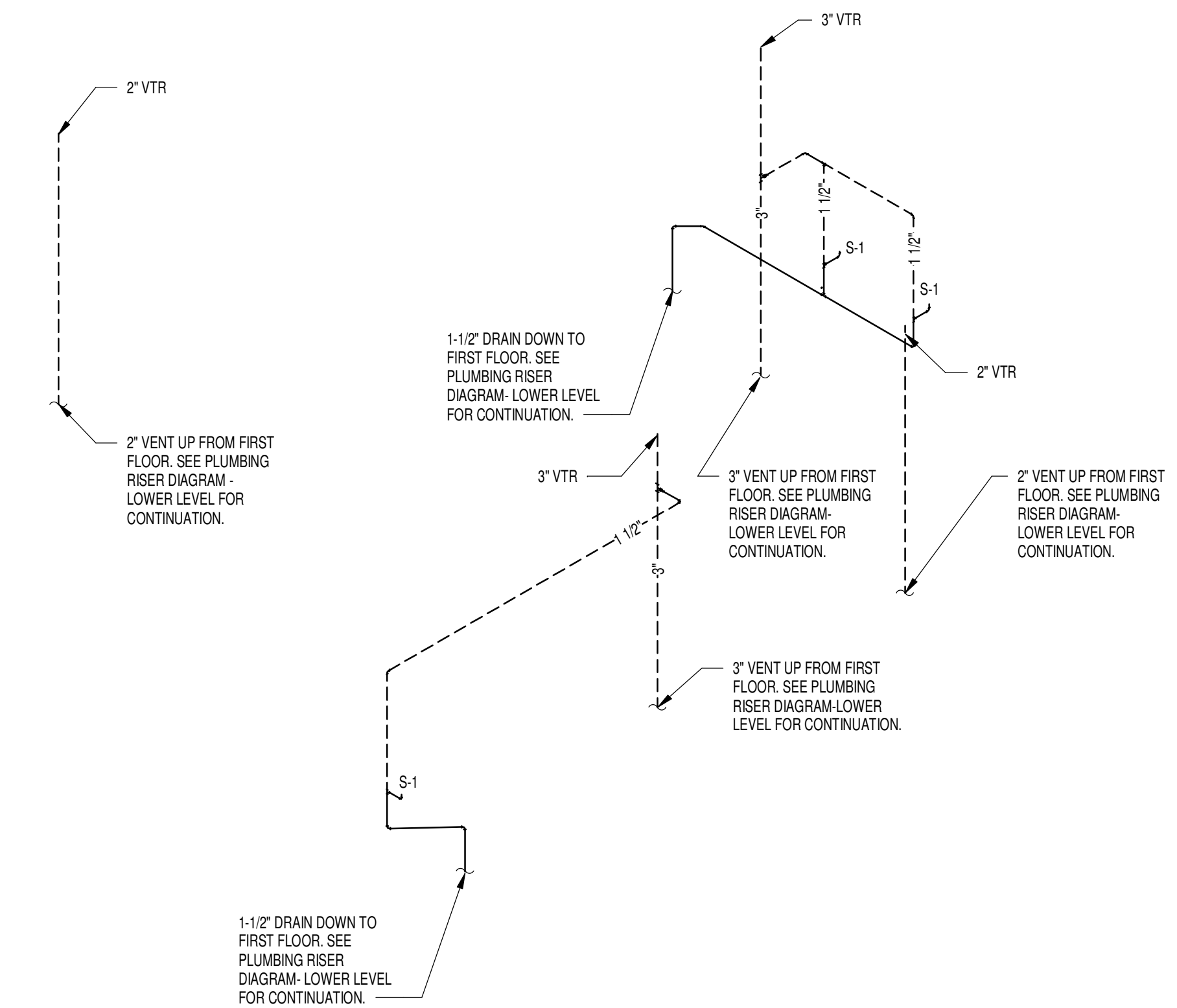
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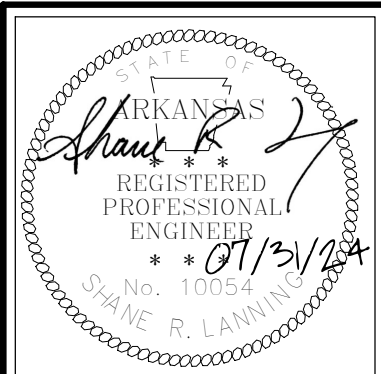
PLUMBING RISER DIAGRAM



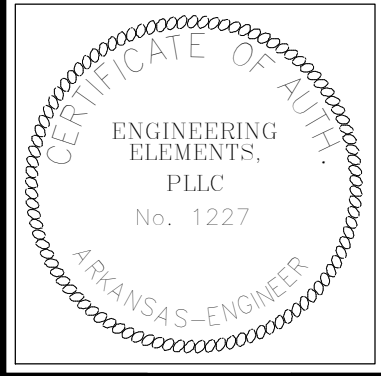
**2 PLUMBING RISER DIAGRAM - UPPER LEVEL**  
SCALE: N.T.S.



**1 PLUMBING RISER DIAGRAM - LOWER LEVEL**  
SCALE: N.T.S.



**PRIMARY SCHOOL ADDITION**  
JOHNSON COUNTY WESTSIDE  
193 SCHOOL ST., HARTMAN, AR 72840



**ARCHITECTURE PLUS, INC.**  
907 South 21st Street, Fort Smith, Arkansas 479/783-8395  
PLUMBING SCHEDULES AND DETAILS

REVISIONS:  
No. Description Date

PROJECT: 19-68  
DATE: 07/31/2024

P5.1



### WATER CLOSET AND URINAL SCHEDULE

TAG	MANUFACTURER	MODEL	DESCRIPTION	WATTS	VOLTS/PH
WC-1	AMERICAN STANDARD	2234.001	ADA FLOOR MOUNTED FLUSH VALVE, VITREOUS CHINA ELONGATED RIM, WITH SLOAN SENSOR FLUSHMETER 111 SFSM, AMERICAN STANDARD SEAT 5901.100, PROVIDE SLOAN TRANSFORMER EL-451 SERVING UP TO 6 FLUSHMETERS.	25 VA	120/1
WC-1	AMERICAN STANDARD	2234.001	WATER CLOSET FLOOR MOUNTED FLUSH VALVE, VITREOUS CHINA ELONGATED RIM, WITH SLOAN SENSOR FLUSHMETER 111 SFSM, AMERICAN STANDARD SEAT 5901.100, PROVIDE SLOAN TRANSFORMER EL-451 SERVING UP TO 6 FLUSHMETERS.	25 VA	120/1
HUR-1 & UR-1	AMERICAN STANDARD	6400.014	'STALLBROOK' LOW CONSUMPTION URINAL, FLOOR MOUNTED STALL, VITREOUS CHINA, WASH OUT ACTION 3.8 UPF (1.0 GPM) PER FLUSH, INTEGRAL FLUSH SPREADER, 1" (18MM) TOP SPUD, WITH SLOAN SENSOR FLUSHMETER 186 SFSM, PROVIDE SLOAN TRANSFORMER EL-451 SERVING 6 FLUSHMETERS.	25 VA	120/1

### LAVATORY, SINK, AND SHOWER SCHEDULE

TAG	MANUFACTURER	MODEL	DESCRIPTION	WATTS	VOLTS/PH
HL-1	AMERICAN STANDARD	LUCERNE 0355.012	ADA WALL MOUNTED 20"x18" HOLES 4" O.C. VITREOUS CHINA, WITH SLOAN OPTIMA ETF-600 SENSOR OPERATED FAUCET, PROVIDE LAVISHED EQUAL TO TRUEBRO IPS COMP. LAVATORY PROTECTIVE ENCLOSURES TO COVER TRIMS, TAILPIECES AND ANGLE STOPPS, PROVIDE EL-154 TRANSFORMER SERVING UP TO 3 SINKS.	50 VA	120/1
L-1	AMERICAN STANDARD	LUCERNE 0355.012	WALL MOUNTED 20"x18" HOLES 4" O.C. VITREOUS CHINA, WITH SLOAN OPTIMA ETF-600 SENSOR OPERATED FAUCET, PROVIDE EL-154 TRANSFORMER SERVING UP TO 3 SINKS.	50 VA	120/1
S-1	ELKAY	LR2522	SELF RIMMING SINGLE COMP. STAINLESS STEEL SINK, 25"X22" ELKAY LK3000 SINGLE LEVER GOOSE NECK FAUCET, PROVIDE TWO HOLES ON DECK.		
S-2	ELKAY	LR2522	SELF RIMMING SINGLE COMP. STAINLESS STEEL SINK, 25"X22" ELKAY LK3000 SINGLE LEVER GOOSE NECK FAUCET, PROVIDE TWO HOLES ON DECK, PROVIDE CLAY TRAP EQUAL TO GLECO TRAP 0184.		
S-3	ELKAY	WLLW192205D C	WALL HUNG SINGLE BOWL, STAINLESS STEEL SINK KIT WITH BUILT IN WRIST BLADE FAUCET, 19"X23".		
JS-1	FIAT	MSB2424	FLOOR MOUNTED JANITOR'S SINK, MOLDED STONE 24"X24", PROVIDE SERVICE FAUCET #63.600A, PROVIDE HOSE BRACKET #32AA, WOP HANGER #89CC, BAMP GUARDS ET#24A, WALL GUARDS 2 PANELS MSQ2424 & 1 BRACKET MSB2424.		

### PLUMBING EQUIPMENT SCHEDULE

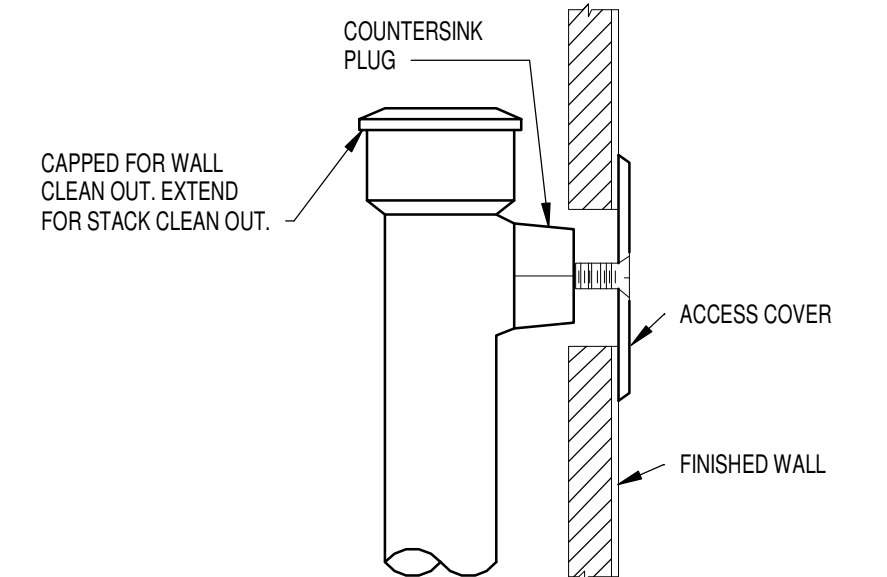
TAG	MANUFACTURER	MODEL	DESCRIPTION	WATTS	VOLTS/PH
CP-1	BELL & GOSSETT	N8F-8S/LW	CIRCULATING PUMP, BRONZE BODIED 4" OF HEAD AT 1 GPM, PROVIDE AUTOMATIC TIMER KIT TC-1, PROVIDE AQUASTAT.	39 VA	115/1
EW-1	ELKAY	EZ3T28W5LK	SPLIT LEVEL ELECTRIC WATER COOLER WITH BOTTLE FILLER	370 VA	115/1
EW-1	AD SMITH	EJCS-20	19 GALLON COMPACT MODEL ELECTRIC WATER HEATER	2500 VA	120/1
EW-2	AD SMITH	DSE-30A	LIGHT-DUTY COMMERCIAL ELECTRIC WATER HEATER	12000 VA	240/1
FPH-1	JR SMITH	55907	BRONZE QUARTER TURN NON-FREEZE HYDRANT WITH HOSE CONNECTION, INTEGRAL VACUUM BREAKER, T HANDLE KEY, AND STAINLESS STEEL BOX		
GI-1	SCHIER PRODUCTS	GB-500	510 GALLON LIQUID CAPACITY GREASE INTERCEPTOR		
HB-1	ZURN	Z1350	MILD CLIMATE WALL HYPHANT IN LOCKABLE BOX		
HW-1	NAVERI	NPE-1005	INSTANTANEOUS WATER HEATER, 100 MBH	200 VA	120/1
OL-1	STRIEM	OS-50	57 GALLON OIL INTERCEPTOR, 50 GPM FLOW RATE, HOLDS 40 GALLONS OF OIL		
RPZ-1	WATTS	LP90NR52.5	REDUCED PRESSURE ZONE BACKFLOW ASSEMBLY WITH STRAINER		
SB-1	GUY GRAY	BIM-875	SUPPLY BOX, 1/2" CW CONNECTION		
SP-1	ZOELLER	M85	SUMP PUMP SUBMERSIBLE, 50 GPM @ 15' HEAD	1288 VA	115/1
UB-1	GUY GRAY	B200	UTILITY BOX, 2" VALVE SUPPLY, 2" DRAIN CONNECTION		

### DRAIN SCHEDULE

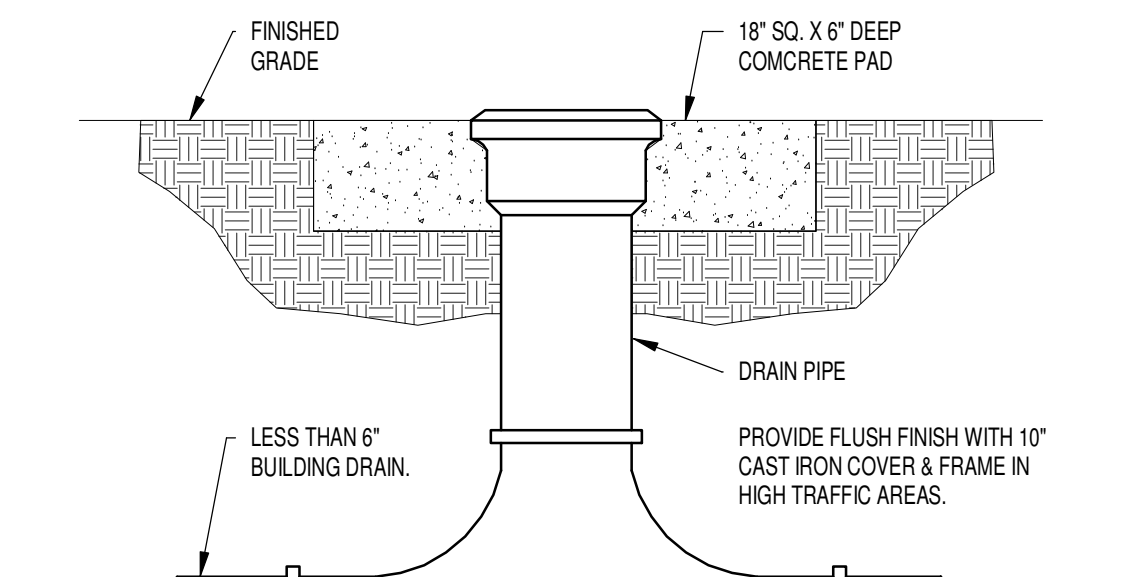
TAG	MANUFACTURER	MODEL	DESCRIPTION
FD-1	JR SMITH	20589	DUCO CAST IRON BODY WITH FLASHING COLLAR AND ADJUSTABLE STRAINER HEAD, PROVIDE JR SMITH QUAD CLOSE TRAP SEAL 2892.
FS-1	JR SMITH	3180-12	FLOOR SINK, 12 1/2" SQUARE, 10" DEEP, HALF GRADE, CAST IRON BODY WITH ACID RESISTANT INTERIOR, EXTEND PVC FLASHING UNDER TILE OR FLOOR FINISH 2" FROM FLOOR SINK, SEAL ALL SEAMS WITH MANUFACTURER'S RECOMMENDED SOLVENT PROVIDE SEDIMENT BUCKET WITH STAINLESS STEEL MESH SCREENS, PROVIDE JR SMITH QUAD CLOSE TRAP SEAL 2892.
FS-2	JR SMITH	3180-10	FLOOR SINK, 12 1/2" SQUARE, 10" DEEP, 3/4" GRADE, CAST IRON BODY WITH ACID RESISTANT INTERIOR, EXTEND PVC FLASHING UNDER TILE OR FLOOR FINISH 2" FROM FLOOR SINK, SEAL ALL SEAMS WITH MANUFACTURER'S RECOMMENDED SOLVENT PROVIDE SEDIMENT BUCKET WITH STAINLESS STEEL MESH SCREENS, PROVIDE JR SMITH QUAD CLOSE TRAP SEAL 2892.
RD-1	JR SMITH	1310	ROOF DRAIN, DUCO CAST IRON BODY WITH COMBINED FLASHING CLAMP AND GRAVEL STOP WITH POLYETHYLENE DOME

### CLEAN OUT SCHEDULE

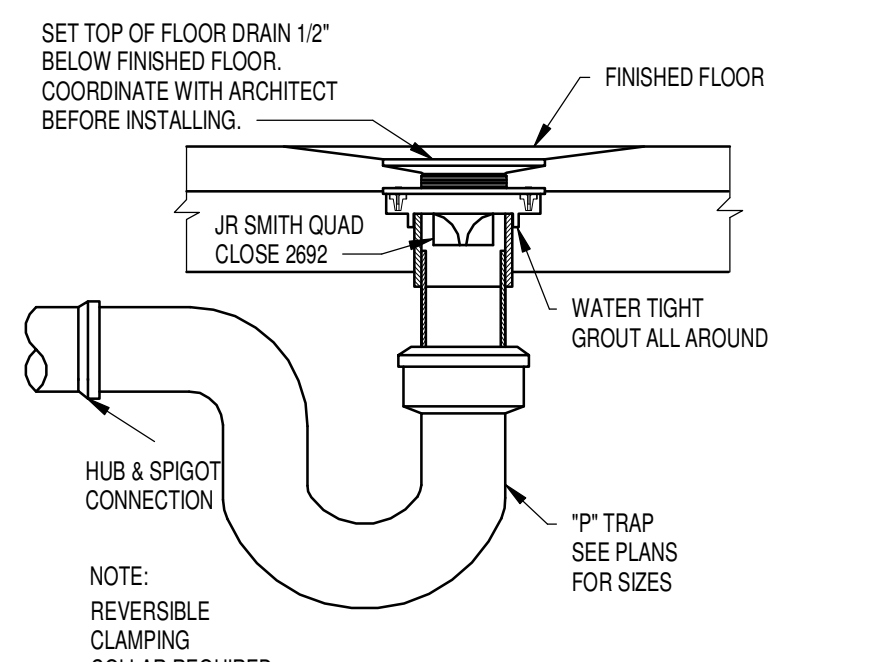
TAG	MANUFACTURER	MODEL	DESCRIPTION
COTG-1	JR SMITH	4240	DUCO CAST IRON CLEANOUT WITH ROUND ADJUSTABLE NICKEL BRONZE TOP
FOG-1	JR SMITH	4240	DUCO CAST IRON CLEANOUT WITH ROUND ADJUSTABLE NICKEL BRONZE TOP
SCS-1	JR SMITH	4510	STACK CLEAN OUT TEE AND COUNTERSINK PLUG WITH STAINLESS STEEL ROUND COVER AND SCREW
TWCO-1	JR SMITH	4240	DUCO CAST IRON CLEANOUT WITH ROUND ADJUSTABLE NICKEL BRONZE TOP
WCO-1	JR SMITH	4510	WALL CLEAN OUT TEE AND COUNTERSINK PLUG WITH STAINLESS STEEL ROUND COVER AND SCREW



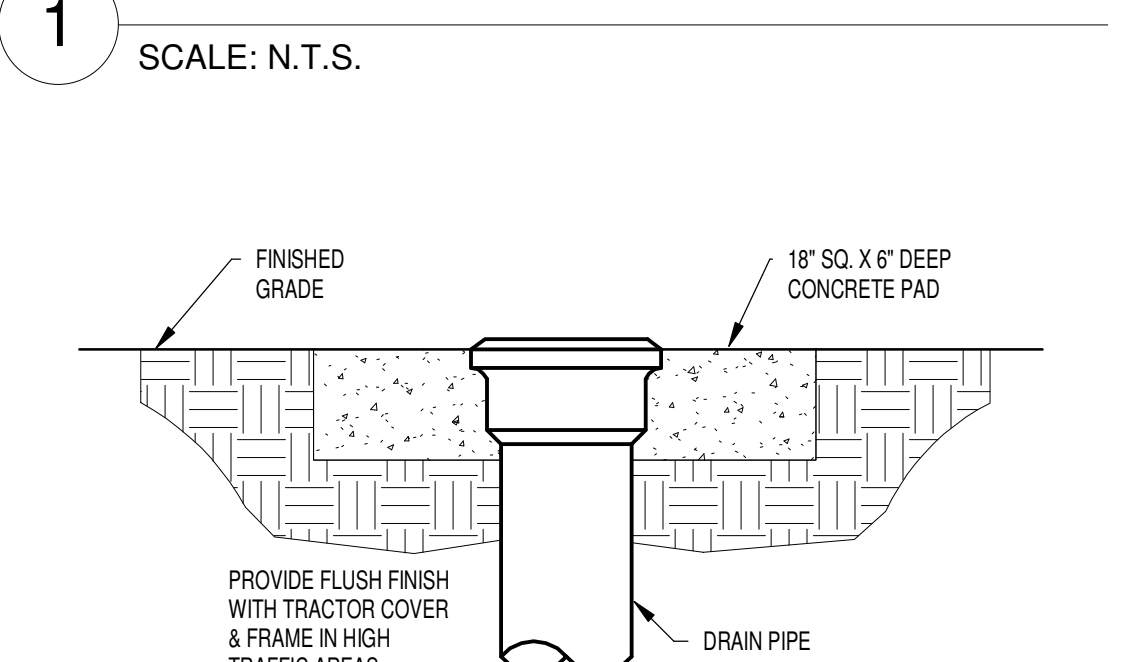
**4 WALL/STACK CLEAN OUT**  
SCALE: N.T.S.



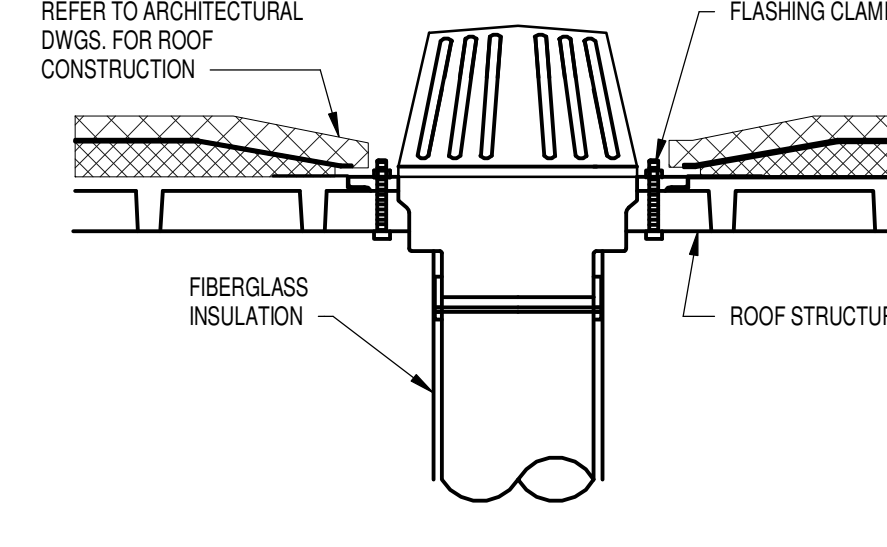
**1 TWO-WAY CLEAN OUT**  
SCALE: N.T.S.



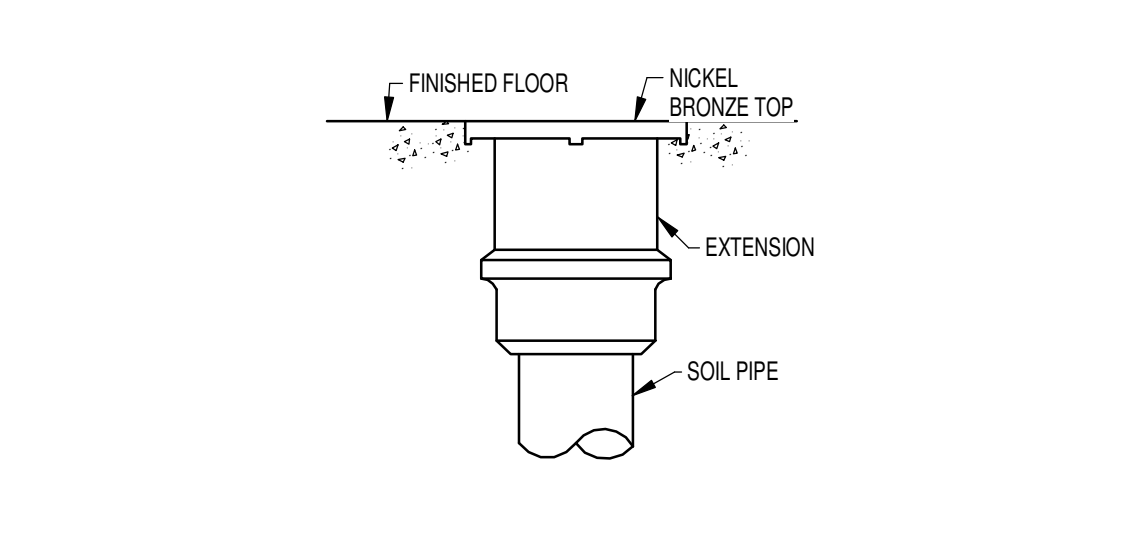
**5 FLOOR DRAIN**  
SCALE: N.T.S.



**2 CLEAN OUT TO GRADE**  
SCALE: N.T.S.



**6 ROOF DRAIN**  
SCALE: N.T.S.



**3 FLOOR CLEAN OUT**  
SCALE: N.T.S.

### ROUGH-IN AND MOUNTING HEIGHT SCHEDULE

FIXTURE	WASTE	VENT	COLD WATER	HOT WATER	INSTALLATION HEIGHT
WATER CLOSETS (FLUSH VALVE)	3"	2"	1"	---	STD 19" TO TOP OF SEAT ADA 17" TO TOP OF SEAT KINDERGARTEN 10" TO TOP OF SEAT
URINALS (FLUSH VALVE)	2"	1 1/2"	3/4"	---	STD 22" TO TOP OF RIM ADA 17" TO TOP OF RIM 44" MAX. TO FLUSH LEVER
JANITOR'S SINK	3"	1 1/2"	1/2"	1/2"	STD 31" TO TOP OF RIM ADA 34" TO TOP OF RIM KINDERGARTEN 24" TO TOP OF RIM
LAVATORIES AND SINKS	1 1/2"	1 1/4"	1/2"	1/2"	STD 31" TO TOP OF RIM ADA 34" TO TOP OF RIM KINDERGARTEN 24" TO TOP OF RIM
DRINKING FOUNTAIN	1 1/2"	1 1/4"	1/2"	---	STD 40" TO TOP OF ORIFICE ADA 38" TO TOP OF ORIFICE
HOSE BIBB	---	---	3/4"	---	18" ABOVE GRADE OUTSIDE, 18" A.F.F. INSIDE
SUPPLY BOX	---	---	1/2"	---	36" TO BOTTOM OF BOX
UTILITY BOX	3"	1 1/2"	1/2"	1/2"	36" TO BOTTOM OF BOX

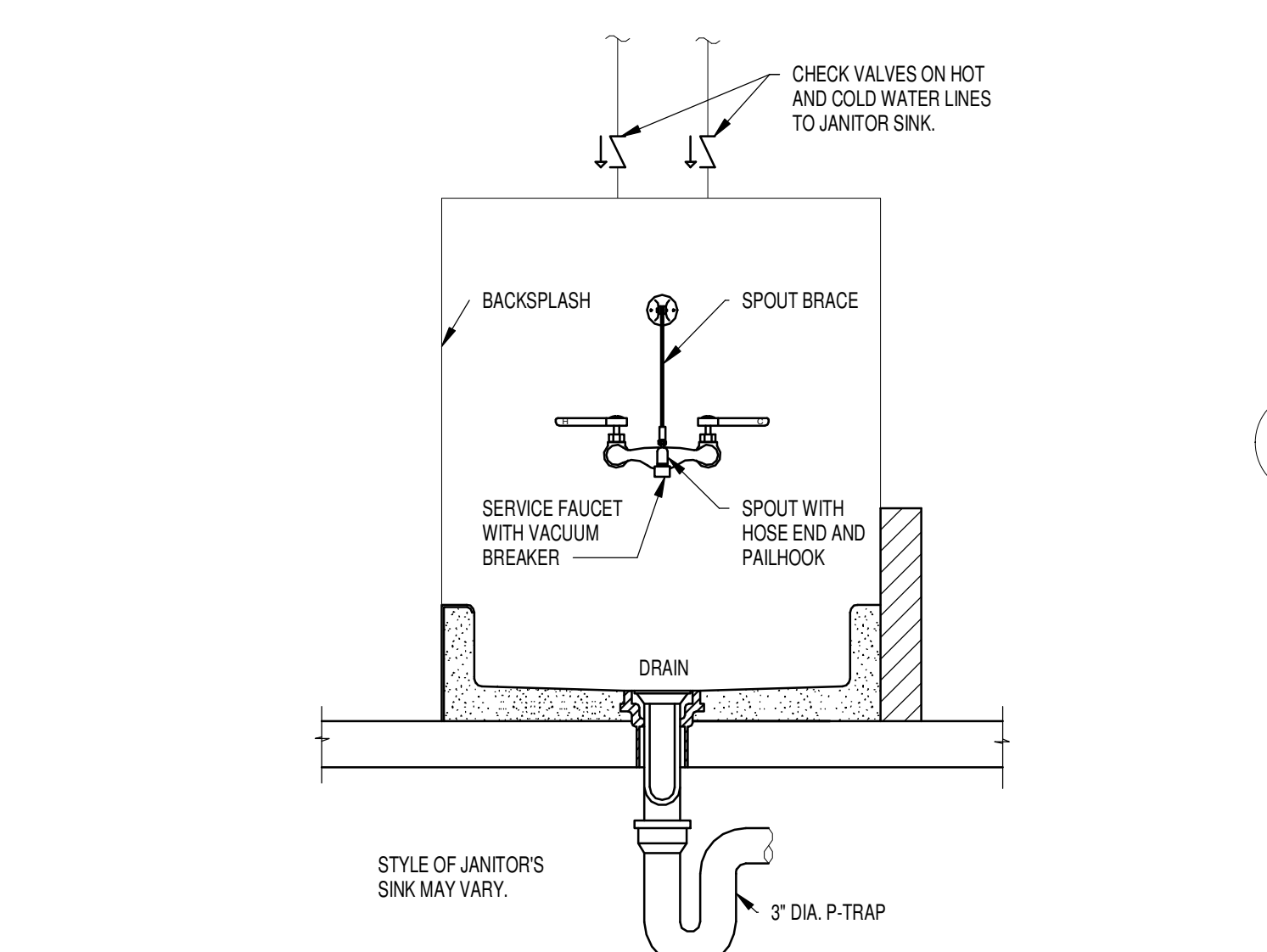
NOTE: ALL DRAIN AND VENT LINES BELOW SLAB SHALL BE 2" OR LARGER.

### MATERIALS SCHEDULE

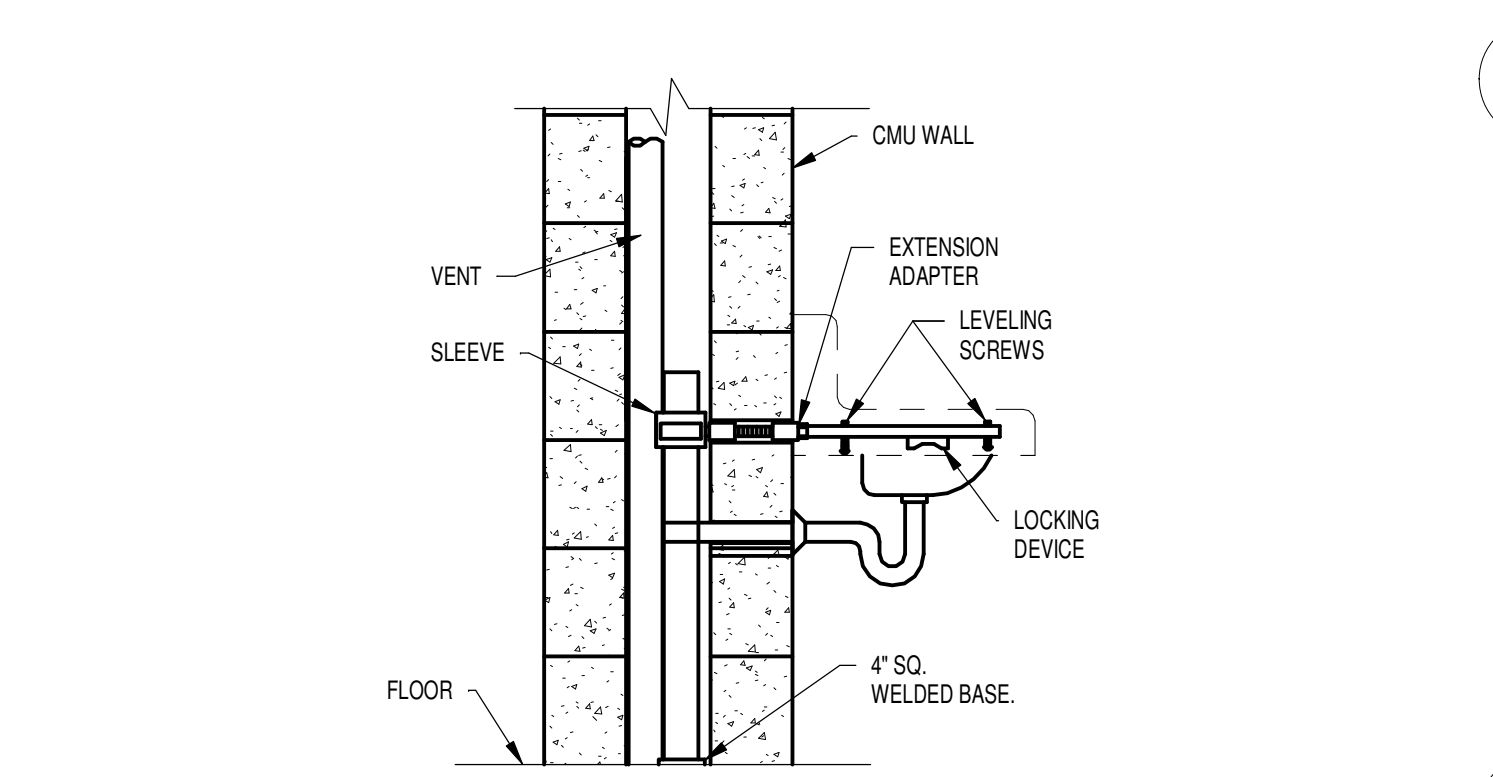
SERVICE	MATERIAL DESCRIPTION
UNDERGROUND SANITARY SEWER AND VENT PIPING INSIDE AND OUTSIDE BUILDING	SCHEDULE 40 PVC PIPE AND FITTINGS.
UNDERGROUND GREASE WASTE INSIDE AND OUTSIDE BUILDING	EQUAL TO CHARLOTTE PIPE EDGE HP IRON FIRST 10' DOWNSTREAM OF DISHWASHER DISCHARGE. ALL OTHER GREASE PIPING SCHEDULE 40 PVC PIPE AND FITTINGS.
ABOVE GROUND SANITARY SEWER AND VENT	SCHEDULE 40 PVC PIPE AND FITTINGS. CPVC AT OPEN AIR PLENUMS.
ABOVE GROUND DOMESTIC WATER	TYPE 1/2" COPPER WITH WROUGHT COPPER FITTINGS AND 95.5 LEAD FREE SOLDER. SIL-FDS JOINTS ABOVE SLAB ARE NOT ALLOWED.
UNDERGROUND DOMESTIC WATER INSIDE AND OUTSIDE BUILDING	1" AND SMALLER: ASTM B88 TYPE 'K' COPPER JOINTS OR FITTINGS UNDER SLAB. MAKE CONNECTIONS ABOVE SLAB WITH WROUGHT COPPER FITTINGS AND LEAD FREE SOLDER. 1-1/4" AND LARGER: ASTM B88 TYPE 'K' COPPER WROUGHT COPPER FITTINGS MAKE JOINTS WITH SIL-FDS (15% AG).
ABOVE GROUND GAS	SCHEDULE 40 BLACK STEEL WITH MALLEABLE IRON FITTINGS OR WELDED JOINTS WITH BUTT WELD FITTINGS. IF IN CONTACT WITH MATERIAL OR ATMOSPHERE EXERTING A CORROSIVE ACTION, METALLIC PIPING AND FITTINGS COATED WITH A CORROSION-RESISTANT MATERIAL SHALL BE USED.
UNDERGROUND GAS	APPROVED PLASTIC WITH FUSED FITTING OR WITH SCHEDULE 40 STEEL WITH MALLEABLE IRON FITTINGS OR WELDED JOINTS WITH BUTT WELD FITTINGS. MILL COAT PIPE WITH HIGH DENSITY POLYETHYLENE OVER ADHESIVE UNDERCOATING WRAP FIELD JOINTS AND FITTINGS WITH REPLIC 'X' TRU-TAPE OR EQUAL.
STORM DRAIN PIPING, ROOF, AND OVERFLOW DRAIN ABOVE GROUND	STANDARD WEIGHT CAST IRON 'NO-HUB' PIPE, FITTINGS, AND JOINTS OF STANDARD WEIGHT STAINLESS STEEL, NEOPRENE COUPLINGS OR SCHEDULE 40 PVC PIPE.
STORM DRAIN PIPING UNDERGROUND	SCHEDULE 40 PVC PIPE AND FITTINGS.

### INSULATION SCHEDULE

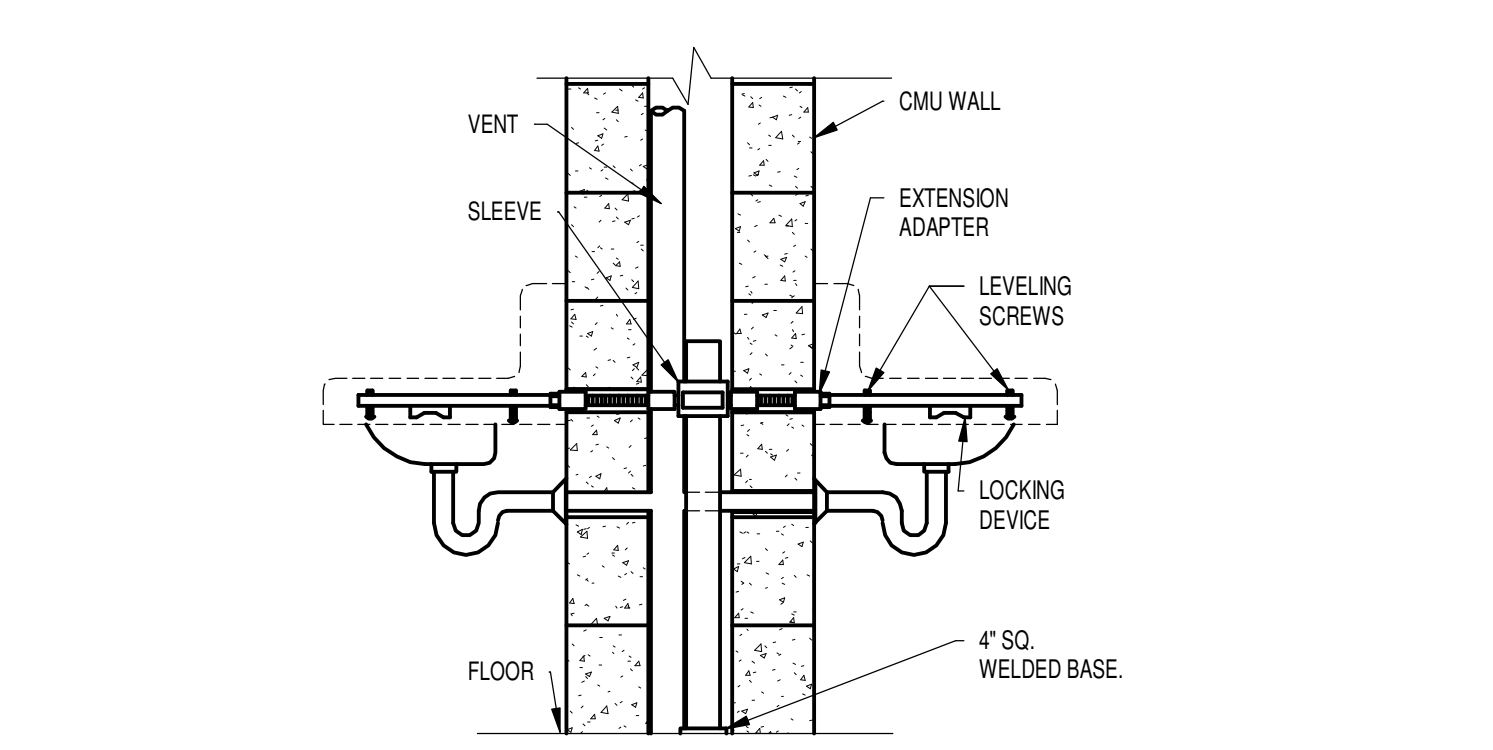
DESCRIPTION	TYPE	THICKNESS
DOMESTIC COLD AND HOT WATER PIPING ABOVE AND UNDER GROUND (NON-REGULATING)	ELASTOMERIC	1/2"
SUPPLY AND RETURN WATER FOR A RECIRCULATING HOT WATER SYSTEM	ELASTOMERIC	1" & MINIMUM R-3.71
WATER COOLERS TRAPS, ADA LAVATORY AND SINK TRAPS, TAILPIECES, HOT AND COLD WATER SUPPLIES.	ANTIMICROBIAL VINYL EQUAL TO TRUEBRO BRAND LAV GUARD	1/8"
ALL ABOVE GROUND ROOF DRAIN PIPING.	FIBERGLASS ASJ	1"



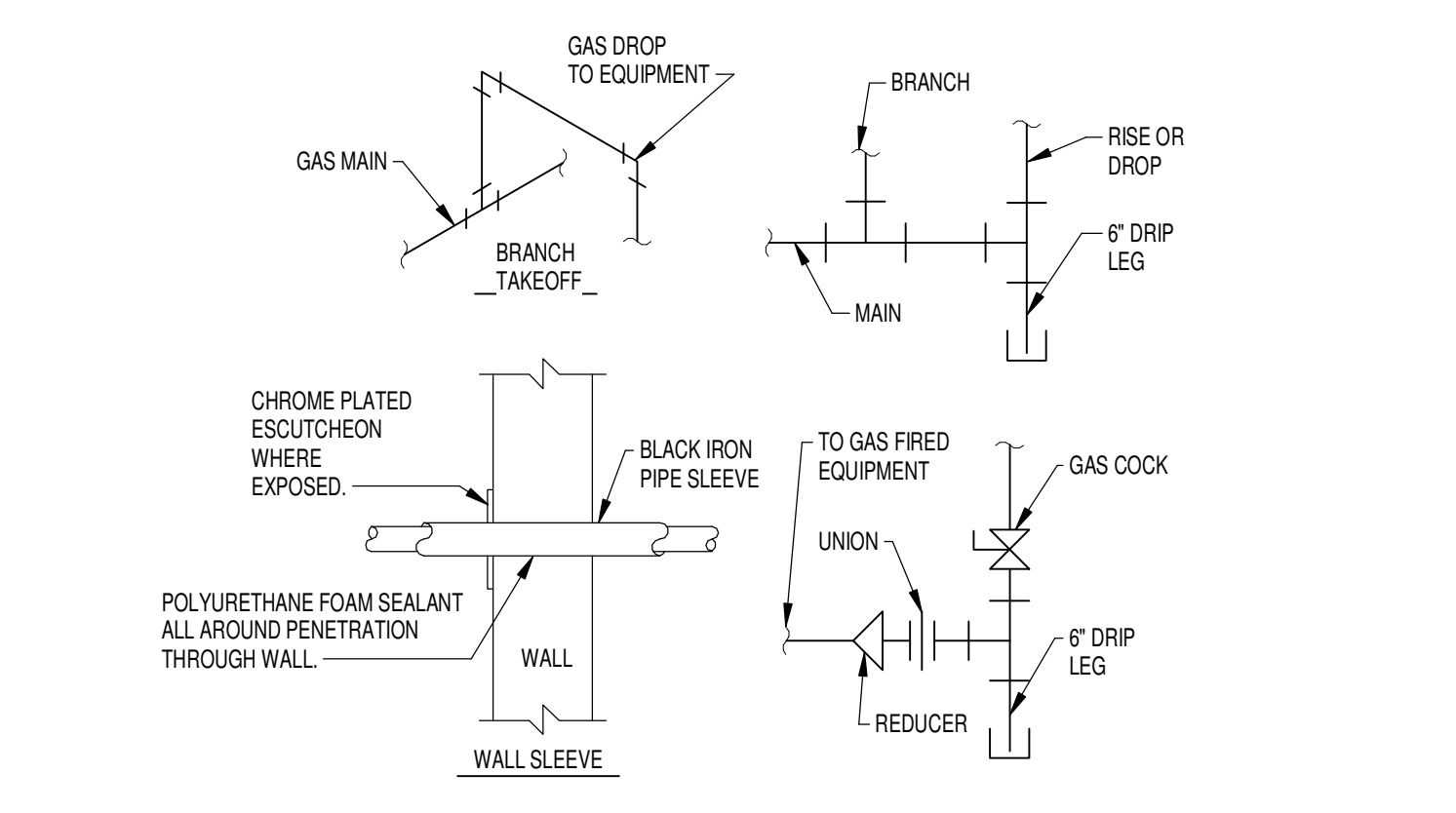
**7 JANITOR'S SINK**  
SCALE: N.T.S.



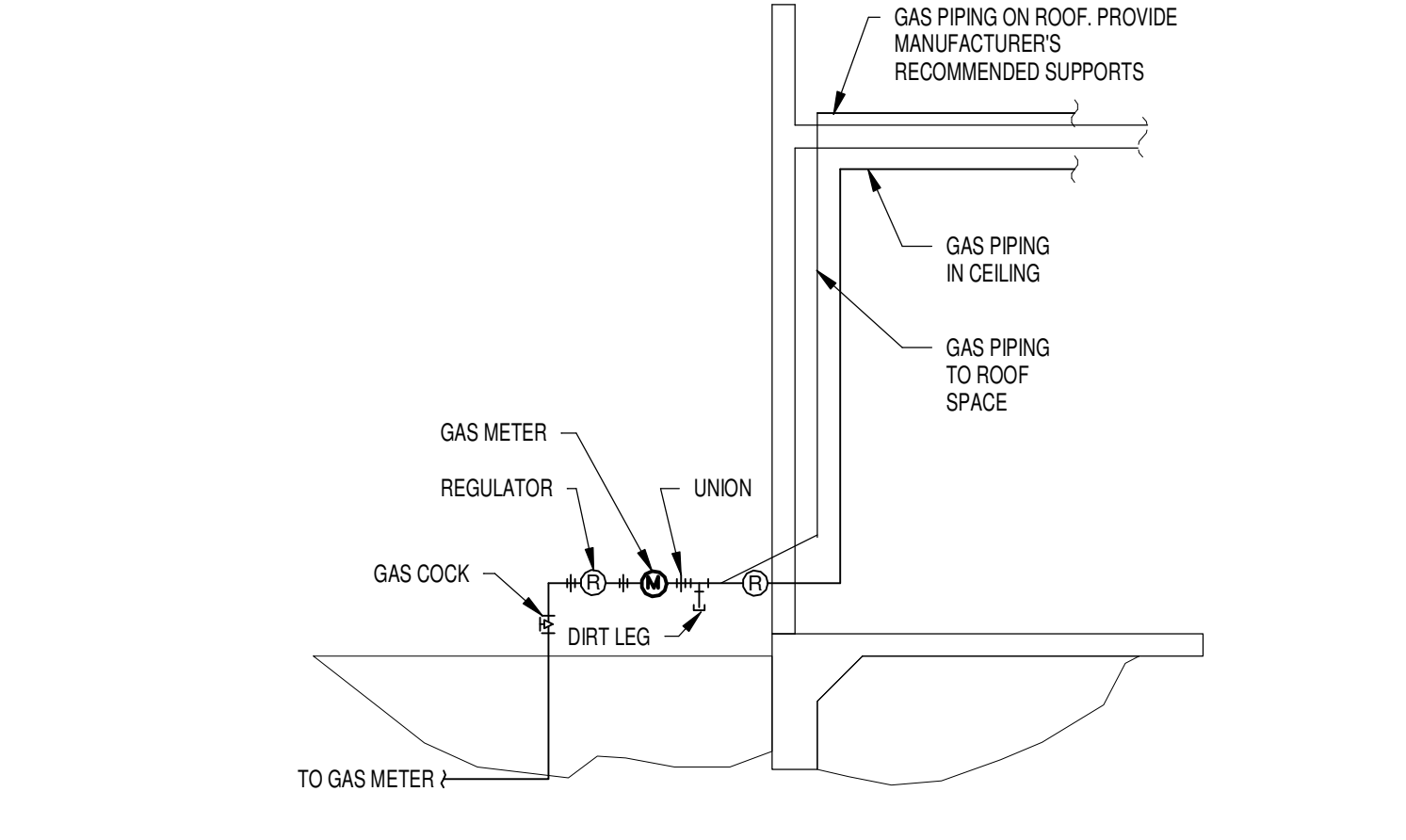
**8 LAVATORY SUPPORT W CMU**  
SCALE: N.T.S.



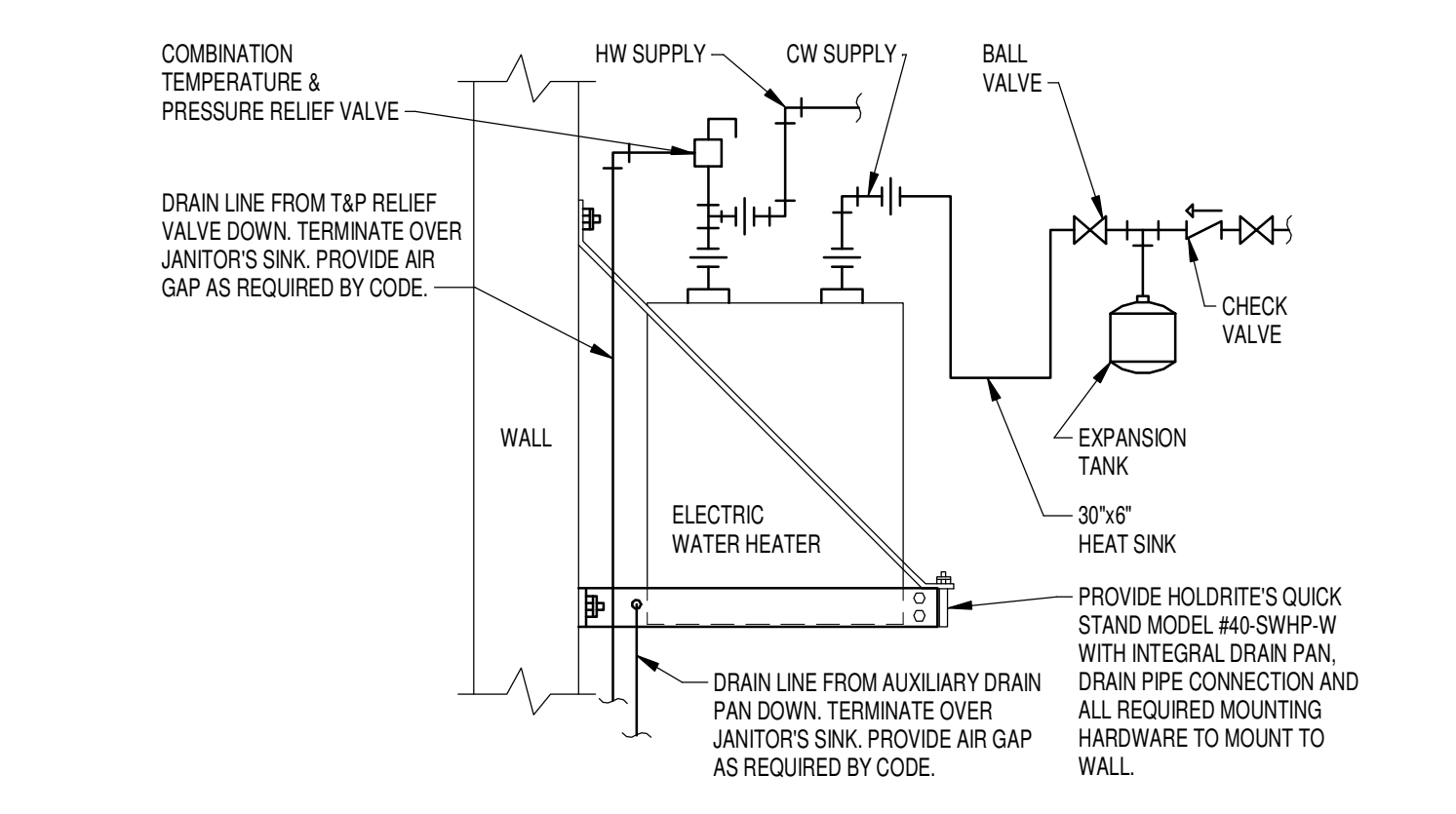
**9 LAVATORY SUPPORT BACK 2 BACK W CMU**  
SCALE: N.T.S.



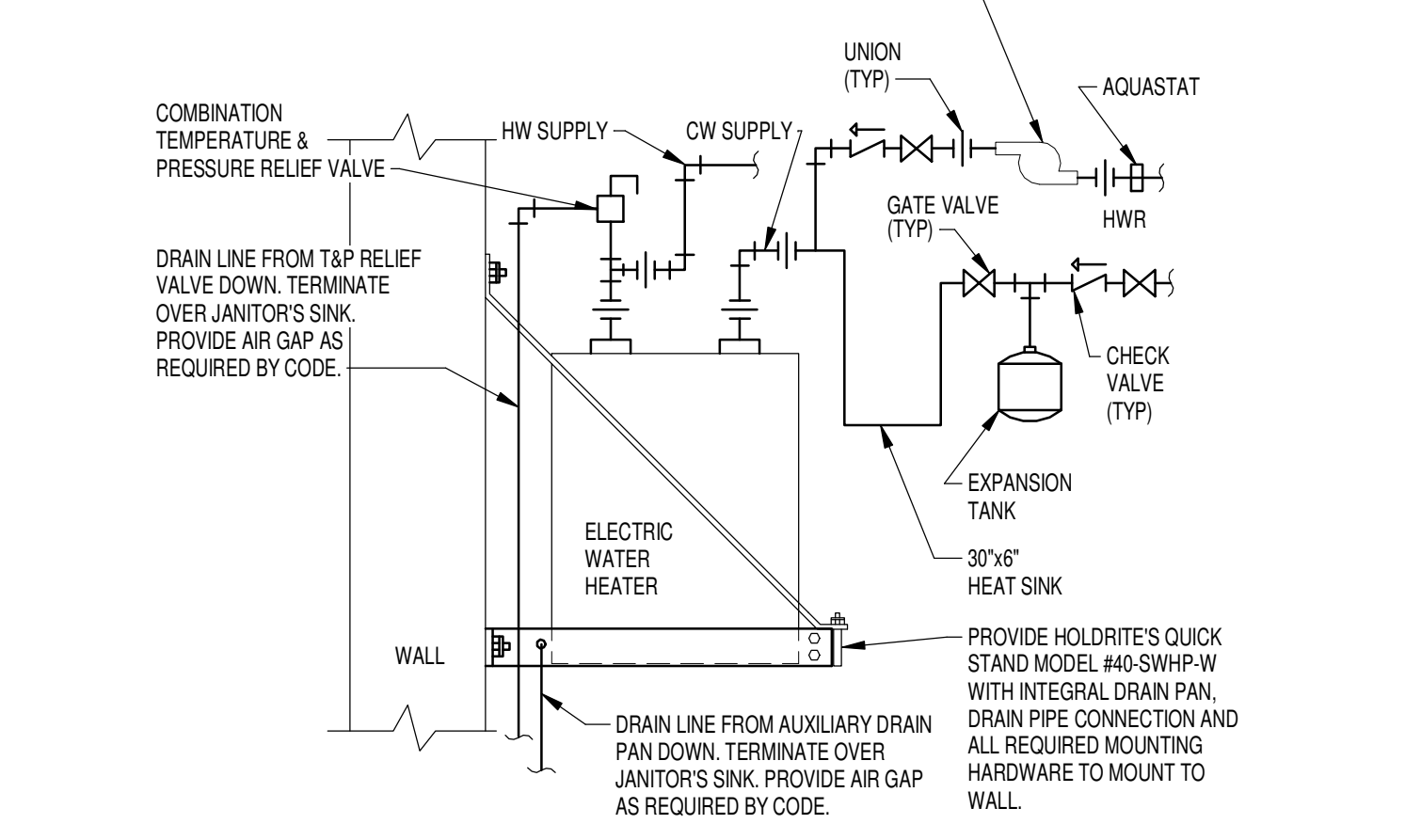
**10 GAS PIPING**  
SCALE: N.T.S.



**11 GAS RISER W METER**  
SCALE: N.T.S.



**12 WH SHELF MOUNTED**  
SCALE: N.T.S.



**13 WH SHELF MOUNTED WITH CIRC PUMP**  
SCALE: N.T.S.