### PLUMBING SPECIFICATIONS

#### **GENERAL:**

1. ALL WORK SHALL COMPLY WITH THE ARCHITECTURAL GENERAL CONDITIONS. SEE ARCHITECTURAL SPECIFICATIONS.

2. ALL PLUMBING WORK SHALL BE INSTALLED BY A MASTER PLUMBER CERTIFIED IN THE STATE OF FLORIDA, DEPARTMENT OF PROFESSIONAL REGULATION.

3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE HIS/HER WORK WITH THAT OF OTHER TRADES. SEE ARCHITECTURAL DRAWINGS FOR A DESCRIPTION OF WORK AND SEQUENCE OF CONSTRUCTION. THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC IN NATURE. THEY ARE, HOWEVER, AS ACCURATE AS SCALE PERMITS AND THE CONTRACTOR SHALL FOLLOW THEM AS CLOSELY AS POSSIBLE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL CONDITIONS RELATING TO THE WORK IN THE FIELD PRIOR TO PROCEEDING WITH THE PLUMBING INSTALLATION. THE CONTRACTOR SHALL VERIFY ALL WALLS, PARTITIONS, AND STRUCTURAL SYSTEMS BEFORE INSTALLATION AND FABRICATION OF ANY FIXTURES OR PIPING SYSTEMS. ALL OFFSETS REQUIRED FOR INSTALLATION OF PIPING SHALL BE INCLUDED IN THE SCOPE OF WORK AT NO ADDITIONAL COST TO THE OWNER. THE ENGINEER SHALL BE THE SOLE INTERPRETER OF THE DRAWINGS INCLUDED HEREIN.

4. ALL MATERIALS SHALL BE NEW, USA MANUFACTURED AND OF BEST QUALITY AND SHALL BE THE PRODUCTS OF REPUTABLE MANUFACTURERS. MATERIALS AND EQUIPMENT SHALL BE PROPERLY STORED AND PROTECTED FROM THE WEATHER AT ALL TIMES DURING CONSTRUCTION TO PREVENT UNNECESSARY CORROSION AND FOULING. ALL WORK SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER BY SKILLED AND COMPETENT PLUMBERS. ANY WORKER CONSIDERED INCOMPETENT OR UNFIT FOR WORK ON THIS CONSTRUCTION PROJECT SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR UNDER THE DIRECTION OF THE

5. THE CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE SYSTEM OF SANITARY WASTE AND VENT PIPING COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, ORDINANCES, ETC., WHETHER FEDERAL, STATE OR LOCAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ANY PERMITS AND PAYING ANY FEES REQUIRED IN ORDER TO PROCEED WITH THE WORK.

THE CONTRACTOR IS REQUIRED TO ATTEND ALL CONSTRUCTION CONFERENCES INCLUDING A PRE-BID CONFERENCE(IF SCHEDULED), AND THE OWNER'S PROGRESS MEETINGS AS SCHEDULED BY THE THE OWNER. FAILURE TO MAKE REFERENCES IN THE SPECIFICATIONS TO ANY ITEMS OF THE WORK SHOWN BY THE DRAWINGS, AND NECESSARY TO THE COMPLETION OF THE WORK SHALL NOT RELIEVE THE CONTRACTOR OF THE FULL RESPONSIBILITY TO FURNISH THE MATERIALS AND PERFORM THE WORK OF SUCH ITEMS, IN A MANNER COMPARABLE TO OTHER ITEMS OF SIMILAR NATURE FOR WHICH DETAILED SPECIFICATIONS ARE INCLUDED. DRAWINGS AND SPECIFICATIONS ARE INTENDED

TO CLEARLY SET FORTH ALL WORK, AND THE DETAILED DESCRIPTION IS ADDED TO ASSIST IN ESTABLISHING THE SCOPE AND THE LOCATION OF THE SEVERAL PARTS OF THE WORK. COLLECTIVELY, THEY SHALL GOVERN AND CONTROL THE SCOPE CHARACTER AND DESIGN OF THE WORK, AND ANY ITEM CALLED FOR IN ANY ONE OF THE DOCUMENTS SHALL BE AS THOUGH REQUIRED IN ALL.

7. WORK CONSISTS OF FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, TRANSPORTATION, SCAFFOLDING, SERVICES, SUPERVISION, PLANT, AND PERFORMING ALL OPERATIONS REQUIRED TO PROPERLY COMPLETE ALL WORK IN ACCORDANCE WITH THESE SPECIFICATIONS AND AS INDICATED ON THE APPLICABLE DRAWINGS, SUBJECT TO TERMS AND CONDITIONS OF THE CONTRACT. THE CONTRACTOR IS REQUIRED TO HAVE A QUALIFIED AND EXPERIENCED GENERAL SUPERINTENDENT AND EXPERIENCED SUPERINTENDENT FOR EACH TRADE INVOLVED ON THE JOB WHEN ANY WORK IS IN PROGRESS. ALL WORK SHALL CONFORM WITH ALL LOCAL AND STATE ORDINANCES OR

REGULATIONS GOVERNING THE INSTALLATION OF SUCH EQUIPMENT. IF WORK, AS LAID OUT, INDICATED OR SPECIFIED IS RECOGNIZED TO BE CONTRARY TO OR CONFLICTING WITH LOCAL ORDINANCES OR REGULATIONS, THE CONTRACTOR SHALL REPORT SAME TO THE ARCHITECT BEFORE SUBMITTING A BID. THE ARCHITECT WILL THEN ISSUE INSTRUCTIONS AS TO PROCEDURE. IF CONTRACTOR FAILS TO NOTIFY THE ARCHITECT OF CONFLICTS OR OMISSIONS NOTED ABOVE, ALL CHANGES REQUIRED TO COMPLY WITH ORDINANCES AND REGULATIONS SHALL BE MADE WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

8. THE LATEST EDITIONS OF THE ESTABLISHED STANDARDS OF THE FOLLOWING ORGANIZATIONS, AND INDIVIDUAL STANDARDS NAMED SHALL BE FOLLOWED THE SAME AS IF THEY WERE FULLY WRITTEN HEREIN AND CONSTITUTE A PART OF THE SPECIFICATION REQUIREMENTS EXCEPT WHERE OTHERWISE SPECIFIED:

- 1. FLORIDA BUILDING CODE, 8TH EDITION (2023)
- 2. FLORIDA PLUMBING CODE, 8TH EDITION (2023) 3. FLORIDA MECHANICAL CODE, 8TH EDITION (2023) 4. NFPA 70, NATIONAL ELECTRICAL CODE, 2019
- 5. NFPA 101, LIFE SAFETY CODE, 2017

6. ALL OSHA REGULATIONS. 7. ALL LOCAL CITY & STATE REGULATIONS

9. THE SUBMISSION OF A BID OR PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT THE CONTRACTOR HAS FAMILIARIZED HIMSELF/HERSELF WITH THE PLANS, SPECIFICATIONS AND BUILDING SITE. CLAIMS MADE SUBSEQUENT TO THE PROPOSAL FOR MATERIALS AND OR LABOR DUE TO DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED, UNLESS DIFFICULTIES COULD NOT HAVE BEEN FORESEEN EVEN THOUGH PROPER EXAMINATION HAD BEEN MADE.

10. ALL POWER WIRING, RELAYS, PANELS, TRANSFORMERS, DISCONNECT SWITCHES WHICH MAY BE REQUIRED FOR ANY PLUMBING EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL CONTROL WIRING, RELAYS, AND PANELS REQUIRED FOR ANY EQUIPMENT FURNISHED AND INSTALLED BY THE PLUMBING CONTRACTOR SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR AND PROVIDED BY UNDER THE PLUMBING SECTION. ALL MOTOR STARTERS REQUIRED FOR MOTORS INCLUDED NECESSARY RELATED STOPS, VALVES, TRAPS, ETC., AND MAKING FOR PLUMBING EQUIPMENT SHALL BE FURNISHED BY THE PLUMBING CONTRACTOR WITH THE REQUIRED EQUIPMENT. ALL STARTERS SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR.

11. ALL FEES, PERMITS, TAPS, LICENSE, INSURANCE, AND BONDS SHALL BE PAID BY THIS CONTRACTOR FOR ALL RELATED WORK. 12. ALL CUTTING AND PATCHING SHALL BE DONE BY WORKMEN SKILLED IN THE TRADES INVOLVED. ALL CUTTING SHALL BE DONE IN SUCH A MANNER AS NOT TO ENDANGER OR DAMAGE FACILITIES. ALL PATCHING SHALL FINISH FLUSH AND SMOOTH AND SHALL MATCH EXISTING ADJOINING SURFACES.

#### **PIPING:**

1. ALL PIPE SIZES SHOWN ARE AMERICAN STANDARD NOMINAL PIPE DIMENSIONS.

2. ALL SANITARY WASTE, DRAINS AND VENT PIPING FROM FIXTURES SHALL BE STANDARD WEIGHT CAST IRON, ASTM A888 WITH NO-HUB COUPLINGS, ASTM C1277 AND C1540, CHARLOTTE PIPE AND FOUNDRY COMPANY OR TYLER PIPE/SOIL DIVISION; OR WROT COPPER DWV PIPE AND FITTINGS (INSULATED WHERE USED AS CONDENSATE DRAINS)

3. ALL SANITARY WASTE, DRAINS AND VENT PIPING SYSTEMS CONNECTING TO EXISTING SYSTEMS SHALL BE COMPATIBLE WITH THE EXISTING PIPING SYSTEMS.

4. DOMESTIC HOT WATER AND COLD WATER PIPING SHALL BE TYPE \_ COPPER TUBING, ASTM B32 WITH WROT COPPER SOLDER—JOINT FITTINGS MEETING THE REQUIREMENTS OF ANSI B16.22. PIPE ROUTING SHOWN IS SCHEMATIC AND IS NOT INTENDED TO INDICATE EXACT LOCATION OF ALL PIPING FITTINGS AND OFFSETS REQUIRED. THE CONTRACTOR SHALL PROVIDE ALL ADDITIONAL OFFSETS AND FITTINGS FOR PROPER INSTALLATION AND TO

MAINTAIN CLEARANCES AROUND EQUIPMENT. THE CONTRACTOR SHALL VERIFY ALL STRUCTURAL, MECHANICAL, ELECTRICAL INSTALLATIONS AND OBSTRUCTIONS AND ROUTE PIPING TO AVOID ANY INTERFERENCES. SLEEVE AND FIRE STOP ALL PENETRATIONS OF RATED WALLS

INSULATE ALL HOT WATER, COLD WATER AND HOT WATER RECIRCULATION LINES WITH 3/4" FIRE RATED ARMAFLEX AP PIPE

CEILINGS, FLOORS, ETC., INCLUDING ROOF.

GLUE AND SEAL ALL JOINTS WITH APPROVED MATERIALS. USE NO DUCT TAPE ON JOINTS.

8. SEE PARTIAL SANITARY WASTE AND VENT RISER SCHEMATIC DIAGRAMS FOR WASTE AND VENT PIPE SIZING. 9. SEE PARTIAL WATER RISER SCHEMATIC DIAGRAMS FOR WATER

PIPING SIZING. 10. INSTALL ALL PIPING HIGH AS POSSIBLE, WITHIN WALLS OR IN CHASES, EXCEPT AS SPECIFICALLY NOTED. PATCH ALL EXISTING SURFACES DISTURBED TO MATCH ADJACENT SURFACES. WORK TO BE DONE ONLY BY WORKMAN SKILLED IN THE TRADE INVOLVED AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.

11. ALL CONCEALED PIPING IN CHASE AREAS SHALL BE SUPPORTED WITH A PIPING SUPPORT SYSTEM, SUMNER POSIFIX, STAKFIX AND CHANNEL OR APPROVED EQUAL 12. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL WHEN REQUIRED BY CODE AN AIR GAP SERVING INDIVIDUAL FIXTURES, DEVICES, APPLIANCES OR APPARATUS.

13. PLUMBING CONTRACTOR TO PROVIDE ALL SANITARY WASTE, VENT AND, DOMESTIC WATER PIPING ROUGH-IN AND MAKE FINAL CONNECTIONS (INCLUDING SUPPLYING AND INSTALLING ALL NECESSARY RELATED STOPS, VALVES, TRAPS, ETC., AND MAKING READY FOR USE) TO ALL EQUIPMENT WHETHER FURNISHED BY

THIS CONTRACTOR OR FURNISHED BY OTHERS.

14. ALL CONCEALED VALVES, WATER HAMMER ARRESTORS, CLEANOUTS, ETC., CONCEALED IN WALLS SHALL BE PROVIDED WITH AN ACCESS PANEL, ZURN MODEL ZN-1460 OR APPROVED EQUAL. ALL CONCEALED ITEMS ABOVE "HARD" CEILINGS SHALL BE PROVIDED WITH ACCESS PANELS (FIRE RATED FOR ALL RATED CEILINGS ). ALSO, SEE SPECIFICATIONS.

15. INSTALL EXPOSED PIPING AT RIGHT ANGLES OR PARALLEL TO BUILDING WALLS. DIAGONAL RUNS ARE NOT PERMITTED UNLESS EXPRESSLY INDICATED.

16. INSTALL PIPING FREE OF SAGS OR BENDS AND WITH AMPLE SPACE BETWEEN PIPING TO PERMIT PROPER INSULATION APPLICATIONS.

17. CONCEAL ALL PIPE INSTALLATIONS IN WALLS, PIPE CHASES, UTILITY SPACES, ABOVE CEILINGS, BELOW GRADE OR FLOORS, UNLESS INDICATED TO BE EXPOSED TO VIEW.

18. INSTALL PIPING TIGHT TO SLABS, BEAMS, JOISTS, COLUMNS, WALLS. AND OTHER PERMANENT ELEMENTS OF THE BUILDING. PROVIDE SPACE TO PERMIT INSULATION APPLICATIONS. WITH 1INCH CLEARANCE OUTSIDE THE INSULATION. ALLOW SUFFICIENT SPACE ABOVE REMOVABLE CEILING PANELS TO ALLOW FOR PANEL REMOVAL. LOCATE GROUPS OF PIPES PARALLEL TO EACH OTHER, SPACED TO PERMIT APPLYING FULL INSULATION AND SERVICING OF VALVES.

19. INSTALL DRAINS AT LOW POINTS IN MAINS, RISERS, AND BRANCH LINES CONSISTING OF A TEE FITTING, 3/4 INCH BALL VALVE, AND SHORT 3/4 INCH THREADED NIPPLE AND CAP.

20. FIRE BARRIER PENETRATIONS: WHERE PIPES PASS THOUGH FIRE RATED WALLS, PARTITIONS, CEILINGS, AND FLOORS, MAINTAIN THE FIRE RATED INTEGRITY. REFER TO ARCHITECTURAL FOR RATED BARRIERS SPECIAL SEALERS AND MATERIALS. NOTE: BUILDING STRUCTURE IS PROTECTED BY RATED BARRIER. ALL PIPE BOTTOM OF FLOOR SLAB SUPPORTING FIXTURES OR DRAINS. SUPPORTS PENETRATING BARRIER MUST BE FIRE SEALED. COORDINATE

### **FIXTURES:**

WORK WITH OTHER DISCIPLINES.

1. SEE ARCHITECTURAL DRAWINGS FOR EXACT PLUMBING FIXTURE LOCATIONS AND MOUNTING HEIGHTS. COMPLY WITH ADA RULES FOR INSTALLATION DIMENSIONS. COMPLY WITH MANUFACTURER'S STANDARDS FOR HEIGHTS OF STANDARD FIXTURES.

2. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL WHEN REQUIRED BY CODE AN AIR GAP SERVING INDIVIDUAL FIXTURES, DEVICES, APPLIANCES OR APPARATUS.

PLUMBING CONTRACTOR TO PROVIDE ALL SANITARY WASTE. VENT AND, DOMESTIC WATER PIPING ROUGH-IN AND MAKE FINAL CONNECTIONS (INCLUDING SUPPLYING AND INSTALLING ALL READY FOR USE) TO ALL EQUIPMENT WHETHER FURNISHED BY THIS CONTRACTOR OR FURNISHED BY OTHERS.

4. INSTALL PLUMBING FIXTURES LEVEL AND PLUMB, IN ACCORDANCE WITH FIXTURE MANUFACTURERS' WRITTEN INSTALLATION INSTRUCTIONS, ROUGHING- IN DRAWINGS, AND REFERENCED STANDARDS.

5. INSTALL WALL-HANGING, BACK-OUTLET URINALS WITH GASKET SEALS

6. FASTEN WALL-HANGING PLUMBING FIXTURES SECURELY TO SUPPORTS ATTACHED TO BUILDING SUBSTRATE WHEN SUPPORTS ARE SPECIFIED, AND TO BUILDING WALL CONSTRUCTION WHERE NO SUPPORT IS INDICATED.

7. FASTEN FLOOR-MOUNTED FIXTURES AND SPECIAL FIXTURES HAVING HOLES FOR SECURING FIXTURE TO WALL CONSTRUCTION, TO REINFORCEMENT BUILT INTO WALLS.

8. SECURE SUPPLIES BEHIND WALL OR WITHIN WALL PIPE SPACE, PROVIDING RIGID INSTALLATION.

9. INSTALL STOP VALVE IN AN ACCESSIBLE LOCATION IN EACH WATER SUPPLY TO EACH FIXTURE.

10. INSTALL TRAP ON FIXTURE OUTLET EXCEPT FOR FIXTURES HAVING INTEGRAL TRAP. 11. INSTALL ESCUTCHEONS AT EACH WALL, FLOOR, AND CEILING

PENETRATION IN EXPOSED FINISHED LOCATIONS AND WITHIN

REQUIRED TO CONCEAL PROTRUDING PIPE FITTINGS. 12. SEAL FIXTURES TO WALLS, FLOORS, AND COUNTERS USING A SANITARY-TYPE, ONE-PART, MILDEW-RESISTANT, SILICONE SEALANT IN ACCORDANCE WITH SEALING REQUIREMENTS SPECIFIED IN

ARCHITECTURAL SECTION "JOINT SEALERS." MATCH SEALANT

COLOR TO FIXTURE COLOR.

CABINETS AND MILLWORK. USE DEEP PATTERN ESCUTCHEONS WHERE

13. INSPECT EACH INSTALLED FIXTURE FOR DAMAGE. REPLACE DAMAGED FIXTURES AND COMPONENTS.

14. TEST FIXTURES TO DEMONSTRATE PROPER OPERATION UPON COMPLETION OF INSTALLATION AND AFTER UNITS ARE WATER PRESSURIZED. REPLACE MALFUNCTIONING FIXTURES AND COMPONENTS, THEN RETEST. REPEAT PROCEDURE UNTIL ALL UNITS OPERATE PROPERLY.

15. OPERATE AND ADJUST FAUCETS AND CONTROLS. REPLACE DAMAGED AND MALFUNCTIONING FIXTURES, FITTINGS, AND CONTROLS.

16. ADJUST WATER PRESSURE AT DRINKING FOUNTAINS, ELECTRIC WATER COOLERS, AND FAUCETS, SHOWER VALVES, AND FLUSHOMETERS HAVING CONTROLS, TO PROVIDE PROPER FLOW AND

17. REPLACE WASHERS OF LEAKING AND DRIPPING FAUCETS AND

18. CLEAN FIXTURES, FITTINGS, AND SPOUT AND DRAIN STRAINERS WITH MANUFACTURERS' RECOMMENDED CLEANING METHODS AND MATERIALS.

19. PROVIDE PROTECTIVE COVERING FOR INSTALLED FIXTURES AND

20. DO NOT ALLOW USE OF FIXTURES FOR TEMPORARY FACILITIES, EXCEPT WHEN APPROVED IN WRITING BY THE OWNER.

#### SANITARY WASTE AND VENT:

1. USE FITTINGS FOR ALL CHANGES IN DIRECTION AND ALL

2. INSTALL EXPOSED PIPING AT RIGHT ANGLES OR PARALLEL TO BUILDING WALLS. DIAGONAL RUNS ARE NOT PERMITTED, UNLESS

EXPRESSLY INDICATED. 3. CONCEAL ALL PIPE INSTALLATIONS IN WALLS, PIPE CHASES. UTILITY SPACES, ABOVE CEILINGS, BELOW GRADE OR FLOORS, UNLESS INDICATED TO BE EXPOSED TO VIEW.

4. MAKE CHANGES IN DIRECTION FOR DRAINAGE AND VENT PIPING USING APPROPRIATE 45 DEGREE WYES, HALF WYES, OR LONG SWEEP QUARTER, SIXTH, EIGHTH, OR SIXTEENTH BENDS. SANITARY TEES OR SHORT QUARTER BENDS MAY BE USED ON VERTICAL STACKS OF DRAINAGE LINES WHERE THE CHANGE IN DIRECTION OF FLOW IS FROM HORIZONTAL TO VERTICAL, EXCEPT USE LONG TURN TEES WHERE TWO FIXTURES ARE INSTALLED BACK TO BACK AND HAVE A COMMON DRAIN. STRAIGHT TEES, ELBOWS, AND CROSSES MAY BE USED ON VENT LINES. NO CHANGE IN DIRECTION OF FLOW GREATER THAN 90 DEGREES SHALL BE MADE. WHERE DIFFERENT SIZES OF DRAINAGE PIPES AND FITTINGS ARE CONNECTED, USE PROPER SIZE, STANDARD INCREASERS AND REDUCERS. REDUCTION OF THE SIZE OF DRAINAGE PIPING IN THE DIRECTION OF FLOW IS PROHIBITED.

5. PIPING RUNOUTS TO FIXTURES: PROVIDE DRAINAGE AND VENT PIPING RUNOUTS TO PLUMBING FIXTURES AND DRAINS, WITH APPROVED TRAP, OF SIZES INDICATED; BUT IN NO CASE SMALLER THAN REQUIRED BY THE PLUMBING CODE.

6. LOCATE PIPING RUNOUTS AS CLOSE AS POSSIBLE TO 7. DO NOT ENCLOSE, OR PUT INTO OPERATION DRAINAGE AND VENT PIPING SYSTEM UNTIL IT HAS BEEN INSPECTED AND APPROVED BY THE AUTHORITY HAVING JURISDICTION.

8. DURING THE PROGRESS OF THE INSTALLATION, NOTIFY THE PLUMBING OFFICIAL HAVING JURISDICTION, AT LEAST 24 HOURS PRIOR TO THE TIME SUCH INSPECTION MUST BE MADE. PERFORM TESTS SPECIFIED BELOW IN THE PRESENCE OF THE PLUMBING OFFICIAL.

19 ROUGH IN INSPECTION: ARRANGE FOR INSPECTION OF THE PIPING SYSTEM BEFORE CONCEALED OR CLOSED-IN AFTER SYSTEM IS ROUGHED IN, AND PRIOR TO SETTING FIXTURES.

10. FINAL INSPECTION: ARRANGE FOR A FINAL INSPECTION BY THE PLUMBING OFFICIAL TO OBSERVE THE TESTS SPECIFIED BELOW AND TO INSURE COMPLIANCE WITH THE REQUIREMENTS OF THE PLUMBING CODE.

11. REINSPECTIONS: WHENEVER THE PIPING SYSTEM FAILS TO PASS THE TEST OR INSPECTION, MAKE THE REQUIRED CORRECTIONS, AND ARRANGE FOR REINSPECTED BY THE PLUMBING OFFICIAL.

12. REPORTS: PREPARE INSPECTION REPORTS, SIGNED BY THE PLUMBING OFFICIAL.

13. PIPING SYSTEM TEST TEST DRAINAGE AND VENT SYSTEM IN ACCORDANCE WITH THE PROCEDURES OF THE AUTHORITY HAVING JURISDICTION. OR IN THE ABSENCE OF A PUBLISHED PROCEDURE, AS FOLLOWS:

## PLUMBING LEGEND

COLD WATER PIPING  HOT WATER PIPING  HOT WATER RETURN PIPING  SANITARY WASTE PIPING  CONDENSATE DRAIN  GOGAS PIPING  KITCHEN WASTE (GREASE)  STORM  WATER METER  HOSE BIBB WITH VACUUM BREAKER  PLAN VIEW) (ISOMETRIC)  WALL CLEANOUT  COOFICE FLOOR CLEANOUT  COOFICE SINK  OROOF DRAIN  CATCH BASIN  FLOOR SINK  OROOF DRAIN  CONNECT TO EXISTING  VALVE IN PVC VALVE BOX  BALLANCING VALVE  GATE VALVE  BALL VALVE  BALLANCING VALVE  CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  SOLENOID OPERATED VALVE  VALVE IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM  CONNECTION, BOTTOM						
HOT WATER RETURN PIPING  SANITARY WASTE PIPING  CD CONDENSATE DRAIN  GC GR KITCHEN WASTE (GREASE)  ST STORM  WATER METER  HOSE BIBB WITH VACUUM BREAKER  LIL CLEANOUT PLUG WCOILO WALL CLEANOUT  CO FLOOR CLEANOUT  CATCH BASIN  CATCH BASIN  CONNECT TO EXISTING  VALVE IN PVC VALVE BOX  BALL VALVE  BALL VALVE  BALL VALVE  BALL VALVE  BALANCING VALVE  CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  VALVE IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, BOTTOM	I	COLD WATER PIPING				
SANITARY WASTE PIPING		HOT WATER PIPING				
SANITARY WASTE VENT PIPING  CD CONDENSATE DRAIN  GR KITCHEN WASTE (GREASE)  ST STORM  WATER METER  HOSE BIBB WITH VACUUM BREAKER  CLEANOUT PLUG  WCOIL—O FLOOR CLEANOUT  CO FLOOR CLEANOUT  CO FLOOR SINK  O ROOF DRAIN  CONNECT TO EXISTING  VALVE IN PVC VALVE  BALL VALVE  BALL VALVE  BALANCING VALVE  CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  VALVE IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM		HOT WATER RETURN PIPING				
CD————————————————————————————————————		SANITARY WASTE PIPING				
GR KITCHEN WASTE (GREASE)  ST STORM  WATER METER  HOSE BIBB WITH VACUUM BREAKER  CLEANOUT PLUG  WCOILO WALL CLEANOUT  COO FLOOR CLEANOUT  FLOOR DRAIN  CATCH BASIN  FLOOR SINK  O ROOF DRAIN  CONNECT TO EXISTING  VALVE IN PVC VALVE BOX  BUTTERFLY VALVE  GATE VALVE  BALANCING VALVE  CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  VALVE IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, BOTTOM		SANITARY WASTE VENT PIPING				
ST STORM  WATER METER  HC HOSE BIBB WITH VACUUM BREAKER  CLEANOUT PLUG  WCOIL WALL CLEANOUT  FLOOR CLEANOUT  CO FLOOR DRAIN  CATCH BASIN  CONNECT TO EXISTING  VALVE IN PVC VALVE BOX  BALL VALVE  BALL VALVE  BALL VALVE  CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  CAS COCK IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, BOTTOM	——CD——	GAS PIPING KITCHEN WASTE (GREASE)				
ST STORM  WATER METER  HGHAN VIEW) (ISOMETRIC)  HOSE BIBB WITH VACUUM BREAKER  CLEANOUT PLUG  WALL CLEANOUT  FLOOR CLEANOUT  FLOOR DRAIN  CATCH BASIN  CONNECT TO EXISTING  VALVE IN PVC VALVE BOX  BUTTERFLY VALVE  BALL VALVE  BALL VALVE  BALL VALVE  BALL VALVE  CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  VALVE IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CONNECTION, TOP  CONNECTION, BOTTOM	——-G——					
WATER METER  HC-   HOSE BIBB WITH VACUUM BREAKER	———GR———					
HC (PLAN VIEW) (ISOMETRIC)  HOSE BIBB WITH VACUUM BREAKER  CLEANOUT PLUG  WCO FLOOR CLEANOUT  FLOOR CLEANOUT  FLOOR DRAIN  CATCH BASIN  CONNECT TO EXISTING  VALVE IN PVC VALVE BOX  BUTTERFLY VALVE  GATE VALVE  BALL VALVE  BALL VALVE  BALANCING VALVE  CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  VALVE IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CONNECTION, TOP  CONNECTION, BOTTOM	——- ST ——					
CLEANOUT PLUG   WALL CLEANOUT   COO   FLOOR CLEANOUT   FLOOR CLEANOUT   FLOOR SINK   CONNECT TO EXISTING   VALVE IN PVC VALVE BOX   BUTTERFLY VALVE   BALL VALVE   BALL VALVE   BALL VALVE   CHECK VALVE (SWING)   FRESSURE REDUCING VALVE   VALVE IN RISE   GAS COCK   BALANCING COCK   GAS PRESSURE REGULATOR   BUSHING   DIRECTION, TOP   CONNECTION, BOTTOM   CONNECTION, CONNECTION, BOTTOM   CONNECTION, CONNECT	(M)	WATER METER				
WCOIL—O  COO— FLOOR CLEANOUT FLOOR CLEANOUT FLOOR DRAIN CATCH BASIN FLOOR SINK O ROOF DRAIN CONNECT TO EXISTING VALVE IN PVC VALVE BOX BUTTERFLY VALVE GATE VALVE BALL VALVE BALL VALVE CHECK VALVE (SWING) PRESSURE REDUCING VALVE CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  VALVE IN RISE GAS COCK IN RISE GAS COCK BALANCING COCK GAS PRESSURE REGULATOR BUSHING DIRECTION OF FLOW CAP CONNECTION, TOP CONNECTION, BOTTOM	ا کا		1			
WCOIL—O FLOOR CLEANOUT FLOOR CLEANOUT FLOOR CLEANOUT FLOOR CLEANOUT FLOOR DRAIN CATCH BASIN FLOOR SINK O ROOF DRAIN CONNECT TO EXISTING VALVE IN PVC VALVE BOX BUTTERFLY VALVE GATE VALVE BALL VALVE BALL VALVE CHECK VALVE (SWING) PRESSURE REDUCING VALVE CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  VALVE IN RISE GAS COCK IN RISE GAS COCK BALANCING COCK GAS PRESSURE REGULATOR BUSHING DIRECTION OF FLOW CAP CONNECTION, TOP CONNECTION, BOTTOM	 	CLEANOUT PLUG	1			
FLOOR CLEANOUT FLOOR DRAIN CATCH BASIN FLOOR SINK OROF DRAIN CONNECT TO EXISTING VALVE IN PVC VALVE BOX BUTTERFLY VALVE GATE VALVE BALL VALVE BALL VALVE CHECK VALVE (SWING) PRESSURE REDUCING VALVE CAS COCK IN RISE GAS COCK BALANCING COCK GAS PRESSURE REGULATOR BUSHING DIRECTION OF FLOW CAP CONNECTION, TOP CONNECTION, BOTTOM	wcoll—O	WALL CLEANOUT	1			
FLOOR DRAIN CATCH BASIN FLOOR SINK O ROOF DRAIN CONNECT TO EXISTING VALVE IN PVC VALVE BOX BUTTERFLY VALVE GATE VALVE BALL VALVE BALL VALVE CHECK VALVE (SWING) PRESSURE REDUCING VALVE SOLENOID OPERATED VALVE VALVE IN RISE GAS COCK BALANCING COCK GAS PRESSURE REGULATOR BUSHING DIRECTION OF FLOW CAP CONNECTION, TOP CONNECTION, BOTTOM		FLOOR CLEANOUT	1			
CATCH BASIN  FLOOR SINK  O ROOF DRAIN  CONNECT TO EXISTING  VALVE IN PVC VALVE BOX  BUTTERFLY VALVE  GATE VALVE  BALL VALVE  BALANCING VALVE  CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  VALVE IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CONNECTION, TOP  CONNECTION, BOTTOM	_		†			
FLOOR SINK  O ROOF DRAIN  CONNECT TO EXISTING  VALVE IN PVC VALVE BOX  BUTTERFLY VALVE  GATE VALVE  BALL VALVE  BALLANCING VALVE  CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  SOLENOID OPERATED VALVE  VALVE IN RISE  GAS COCK IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM	•		†			
CONNECT TO EXISTING  VALVE IN PVC VALVE BOX  BUTTERFLY VALVE  GATE VALVE  BALL VALVE  BALANCING VALVE  CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  SOLENOID OPERATED VALVE  VALVE IN RISE  GAS COCK IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM	<b>G</b> ——	FLOOR SINK	1			
VALVE IN PVC VALVE BOX  BUTTERFLY VALVE  GATE VALVE  BALL VALVE  BALANCING VALVE  CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  SOLENOID OPERATED VALVE  VALVE IN RISE  GAS COCK IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM	0	CONNECT TO EXISTING				
BUTTERFLY VALVE  GATE VALVE  BALL VALVE  BALLANCING VALVE  CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  SOLENOID OPERATED VALVE  VALVE IN RISE  GAS COCK IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM	<b>A</b>					
GATE VALVE BALL VALVE BALANCING VALVE CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  SOLENOID OPERATED VALVE  VALVE IN RISE GAS COCK IN RISE GAS COCK BALANCING COCK GAS PRESSURE REGULATOR BUSHING DIRECTION OF FLOW CAP CONNECTION, TOP  CONNECTION, BOTTOM						
BALL VALVE  BALANCING VALVE  CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  SOLENOID OPERATED VALVE  VALVE IN RISE  GAS COCK IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM	——————————————————————————————————————	BUTTERFLY VALVE				
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CHECK VALVE (SWING)  PRESSURE REDUCING VALVE  SOLENOID OPERATED VALVE  VALVE IN RISE  GAS COCK IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM	— XXI	BALL VALVE				
PRESSURE REDUCING VALVE  SOLENOID OPERATED VALVE  VALVE IN RISE  GAS COCK IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM		BALANCING VALVE				
SOLENOID OPERATED VALVE  VALVE IN RISE  GAS COCK IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM	<b>—</b>	CHECK VALVE (SWING)				
VALVE IN RISE  GAS COCK IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM		PRESSURE REDUCING VALVE				
GAS COCK IN RISE  GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM	\$	SOLENOID OPERATED VALVE	Ī			
GAS COCK  BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM	$\bowtie$	VALVE IN RISE	Ì			
BALANCING COCK  GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM	Ю	GAS COCK IN RISE	]			
GAS PRESSURE REGULATOR  BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM		GAS COCK	]			
BUSHING  DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM		BALANCING COCK	Ī			
DIRECTION OF FLOW  CAP  CONNECTION, TOP  CONNECTION, BOTTOM	— <del>\$</del> —	GAS PRESSURE REGULATOR	1			
CAP  CONNECTION, TOP  CONNECTION, BOTTOM	$\overline{}$	BUSHING	╊			
CONNECTION, TOP  CONNECTION, BOTTOM		DIRECTION OF FLOW	1			
CONNECTION, BOTTOM	<u> </u>	CAP	1			
	<u> </u>	CONNECTION, TOP				
CONNECTION, BOTTOM		CONNECTION, BOTTOM				
		CONNECTION, BOTTOM				
TEE, TURNED DOWN		TEE, TURNED DOWN				
TEE, TURNED UP		TEE, TURNED UP	ľ			
——+ <del>‡</del> +—— CROSS		CROSS				

ELBOW, 90°

ELBOW, 45°

14. LEAVE UNCONCEALED ALL NEW. ALTERED. EXTENDED. OR

TESTING, THAT HAS BEEN COVERED OR CONCEALED BEFORE

15. PROTECT DRAINS DURING REMAINDER OF CONSTRUCTION

PERIOD, TO AVOID CLOGGING WITH DIRT AND DEBRIS, AND TO

16. PLACE PLUGS IN ENDS OF UNCOMPLETED PIPING AT END

PLUMBING FIXTURES HAVE BEEN SET AND THEIR TRAPS FILLED

PREVENT DAMAGE FROM TRAFFIC AND CONSTRUCTION WORK.

17. FINISHED PLUMBING TEST PROCEDURE: AFTER THE

WITH WATER. THEIR CONNECTIONS SHALL BE TESTED AND

19. PREPARE REPORTS FOR ALL TESTS AND REQUIRED

21. CONTRACTOR SHALL VERIFY ALL EXISTING SANITARY

18. REPAIR ALL LEAKS AND DEFECTS USING NEW MATERIALS

20. CLEAN INTERIOR OF PIPING SYSTEM. REMOVE DIRT AND

WASTE PIPING BELOW GRADE IS IN USABLE CONDITION. TEST

AND RETEST SYSTEM OR PORTION THEREOF UNTIL SATISFACTORY

REPLACED DRAINAGE AND VENT PIPING UNTIL IT HAS BEEN

TESTED AND APPROVED. EXPOSE ALL SUCH WORK FOR

IT HAS BEEN TESTED AND APPROVED.

OF DAY OR WHENEVER WORK STOPS.

PROVED GAS AND WATERTIGHT.

DEBRIS AS WORK PROGRESSES.

ALL PIPING PRIOR TO CONNECTION.

RESULTS ARE OBTAINED.

CORRECTIVE ACTION.

 $\overline{\phantom{a}}$ 

ELBOW, TURNED DOWN

ELBOW, TURNED UP

REDUCER, CONCENTRIC

### PLUMBING FIXTURE SCHEDULE

\FF	ABOVE FINISHED FLOOR CATCH BASIN	NOTE: ALL FIXTURES AND EQUIPMENT LISTED ARE APPROVED BY THE OWNER. SUBSTITUTIONS REQUIRE PRIOR APPROVAL.									
CB CD CFH CO	CONDENSATE DRAIN CUBIC FEET PER HOUR CLEANOUT CONTINUATION DOMESTIC COLD WATER DOWN DOWNSPOUT DRAWING ELEVATION EXISTING DEGREE FAHRENHEIT FLOOR DRAIN FLOOR SINK GAS GALLONS PER HOUR GALLONS PER MINUTE KITCHEN WASTE (GREASE) HOSE BIBB DOMESTIC HOT WATER DOMESTIC HOT WATER RECIRCULATING INVERT ELEVATION INDIRECT WASTE KILOWATT POUNDS MANHOLE NORMALLY CLOSED NOT IN CONTRACT NORMALLY OPEN NOT TO SCALE OUTSIDE DIAMETER OVERFLOW STORM DRAIN	SYMBOL	FIXTURE TYPE	RUN-OUT SIZES WASTE CW HW			DESCRIPTION				
CONT CW ON OS OWG CLEV EXIST		<b>√</b> P−1	WATER CLOSET	4"	1"	-	AMERICIAN STANDARD AFWALL 2257.101, VITREOUS CHINA WATER CLOSET, ELONGATED BOWL, WALL HUNG, WHITE CHINA FINISH WITH ANTIMICROBIAL GLAZE, CHROME WALL BOLT CAPS, 1½" TOP SPUD, SIPHON JET ACTION, KOHLER K-4670-CA ELONGATED, ANT-MICROBIAL SOLID PLASTIC SEAT, AMERICAN STANDARD 6067.761 1.6 GPF SENSOR OPERATED DUAL FLUSH VALVE. HARD WIRED 120V TRANS. BRASS CHROME PLATED ESCUTCHEON PLATE, JOSAM 12674-XSD SERIES CARRIER. MOUNT AT STANDARD HEIGHT. SEE ARCHITECTURAL DRAWINGS.				
FD FS GPH MSGR HW C W C BH VICO S T PS OF SAN SAN C VEL R R PBP SAN SAN C VEL R PBP SAN		√ P-2	WATER CLOSET	4"	1"	-	AMERICIAN STANDARD AFWALL 2257.101, VITREOUS CHINA WATER CLOSET, ELONGATED BOWL, WALL HUNG, WHITE CHINA FINISH WITH ANTIMICROBIAL GLAZE, CHROME WALL BOLT CAPS, 1½" TOP SPUD, SIPHON JET ACTION, KOHLER K-4670-CA ELONGATED, ANT-MICROBIAL SOLID PLASTIC SEAT, AMERICAN STANDARD 6067.761 1.6 GPF SENSOR OPERATED DUAL FLUSH VALVE. HARD WIRED 120V TRANS. BRASS CHROME PLATED ESCUTCHEON PLATE, JOSAM 12674-XSD SERIES CARRIER. MOUNT AT ADA HEIGHT. SEE ARCHITECTURAL DRAWINGS.				
		<b>□</b> P−3	URINAL WALL HUNG	2"	3/4"	-	WALL MOUNTED URINAL, ZURN Z5755.205, OMNI-FLOW 1 GPF, WHITE CHINA FINISH, CHROME WALL BOLTS, AMERICAN STANDARD FLOWISE SELECTRONIC SENSOR OPERATED 3/4" FLUSH VALVE, 120V TRANS. BRASS CHROME PLATED ESCUTCHEON PLATE, JOSAM 17560-UR FLOOR-MOUNT CARRIER, MOUNT STANDARD HEIGHT. SEE ARCHITECTURAL.				
		P-3A	URINAL 🐁 WALL HUNG	2"	3/4"	-	WALL MOUNTED URINAL, ZURN Z5755.205, OMNI-FLOW 1 GPF, WHITE CHINA FINISH, CHROME WALL BOLTS, AMERICAN STANDARD FLOWISE SELECTRONIC SENSOR OPERATED 3/4" FLUSH VALVE, 120V TRANS. BRASS CHROME PLATED ESCUTCHEON PLATE, JOSAM 17560-UR FLOOR-MOUNT CARRIER. MOUNT ADA HEIGHT. SEE ARCHITECTURAL.				
		<b>⊘</b> <sub>P-4</sub>	LAVATORY	1-1/4"	1/2"	1/2"	AMERICAN STANDARD 19x16 9482 UNDERMOUNT LAVATORY. AMERICAN STANDARD SELECTRONIC ELECTRONIC FAUCET HARD-WIRED AC POWERED. FURNISH AND INSTALL KOHLER K-8999 P-TRAP, CHICAGO 327-XCP TAIL PIECE AND STRAINER, 1/4 TURN ANGLE STOPS AND SUPPLY KIT, BRASS CHROME PLATED ESCUTCHEON PLATES. PROVIDE MIXING VALVE TM.				
		₽-5	LAVATORY 🗞	1-1/4"	1/2"	1/2"	KOHLER K-2005 WALL MOUNT LAVATORY, WHITE, KOHLER K-8998 P-TRAP, AMERICAN STANDARD SELECTRONIC ELECTRONIC FAUCET HARD-WIRED AC POWERED. FURNISH AND INSTALL KOHLER K-8999 P-TRAP, CHICAGO 327-XCP TAIL PIECE AND STRAINER, 1/4 TURN ANGLE STOPS AND SUPPLY KIT, BRASS CHROME PLATED ESCUTCHEON PLATES. PROVIDE MIXING VALVE TM.				
		P-6	DOUBLE BOWL SINK	1-1/4"	1/2"	1/2"	ELKAY DLR432212 DOUBLE COMPARTMENT SINK, 18 GAUGE, SELF RIMMING, FULLY UNDERCOATED, 8" FAUCET CENTERS WITH T&S BRASS B-1142 SWIVEL GOOSENECK FAUCET, McGUIRE 17 GAUGE P-TRAP WITH CLEANOUT, ½" x ¾" ¼ TURN ANGLE STOPS AND RISER SUPPLIES (CHROME).				
		P-7	SINGLE BOWL SINK	1-1/4"	1/2"	1/2"	ELKAY ELUH231712 SINGLE COMPARTMENT SINK, 18 GAUGE, UNDERMOUNT, FULLY UNDERCOATED, 8" FAUCET CENTERS WITH T&S BRASS B-1142 SWIVEL GOOSENECK FAUCET, McGUIRE 17 GAUGE P-TRAP WITH CLEANOUT, ½" x ¾" ¼ TURN ANGLE STOPS AND RISER SUPPLIES (CHROME).				
		P-8	ANGLE STOP WALL BOX	ı	1/2"	-	IPS CORP. PLASTIC FITTING WALL BOX WITH 1/2" BRASS ANGLE STOP				
NOTES:  1. ALL TRAPS, DRAINS, TRIM, EXPOSED PIPING AND FIXTURE ACCESSORIES SHALL HAVE A POLISHED CHROME FINISH UNLESS OTHERWISE INDICATED.  2. ALL FIXTURES SHALL BE INSTALLED WITH HARD WIRED 120V AUTOMATIC FAUCETS.  3. CONTRACTOR SHALL FURNISH AND INSTALL ALL DRAINS, P—TRAPS, STOP VALVES, CARRIERS AND SUPPLY LINES.  4. ALL PLUMBING PIPES SHALL BE INSULATED WITH 3/4" ARMAFLEX (FIRE RATED) PIPE INSULATION.  5. ALL ADA LAVATORY TRIM SHALL BE INSULATED WITH 1/2" ARMAFLEX (FIRE RATED) PIPE INSULATION AND WRAPPED WITH PRE—FORMED PVC JACKET KITS.  6. COORDINATE ALL FIXTURES WITH STATE OF FLORIDA ADA REQUIREMENTS. SEE ARCHITECTURAL DRAWINGS FOR INSTALLATION DIMENSIONS.  7. FURNISH AND INSTALL WATER HAMMER ARRESTORS AS SHOWN ON THE PLUMBING RISER DIAGRAM. ARRESTORS TO BE ACCESSIBLE.  8. FURNISH AND INSTALL ACCESS DOORS IN ALL HARD CEILINGS.											
VALVE SCHEDULE											

#### 8. FURNISH AND INSTALL ACCESS

V-1	BALL VALVE	600 WOG	CAST BRONZE	BRONZE	THREADED	2-PIECE				
NOTES:										
1. ALL VAL	.VES ARE LINE SIZE U	NLESS OTH	ERWISE INDICATED.	SEE FLOOR	PLANS.					
2. ALL VAL	LVES ARE TO BE INSU	LATED WITH	PRE-FORMED(REM	MOVALABLE)	SNAP-ON JACK	ŒT.				

CONNECTIONS

REMARKS

MILWAUKEE BA-100S

CLASS BODY

### AIR ADMITTANCE VALVE SCHEDULE

STUDOR MAXI VENT

#### TESTING:

1. ALL FINISHED FIELD INSTALLED PRESSURE PIPING SYSTEMS SHALL RECEIVE A HYDROSTATIC TEST OF 1 1/2 TIMES THE OPERATING PRESSURE FOR A PERIOD OF NOT LESS THAN TWENTY-FOUR (24) HOURS WITH NO LEAKAGE EVIDENT DURING THE TEST. MISCELLANEOUS PIPING SYSTEMS MAY BE TESTED AT A LESSER PRESSURE IF SO DIRECTED BY THE ENGINEER AND APPROVED BY THE LOCAL BUILDING INSPECTION DEPARTMENT. THE ENGINEER SHALL BE NOTIFIED IN ADVANCE OF ANY TESTING SO THAT HIS REPRESENTATIVE MAY OBSERVE ANY TEST AS DEEMED NECESSARY. ALL PIPING SYSTEMS, EQUIPMENT, SPECIALTIES, ETC., SHALL ALSO BE TESTED UNDER ACTUAL OPERATING CONDITIONS AFTER COMPLETION OF CONSTRUCTION AND ANY MALFUNCTIONS, LEAKAGE OR WARPAGE SHALL BE CORRECTED. DURING THIS TEST, THE PUMPS, TRAPS, VALVES, STRAINERS, SPECIALTIES AND ALL ACCESSORIES SHALL BE GIVEN A THOROUGH INSPECTION AND ALL ITEMS SHALL BE LEFT IN FIRST CLASS WORKING ORDER. THE CONTRACTOR SHALL TEST ALL SYSTEMS FOR THEIR INTENDED FUNCTION.

3. LABEL ALL VALVES WITH THE AREA SERVED.

850.656.7326 P.E. #17964 CONSULTANT: 032 THOMASVILLE ROAD, SUITE C TALLAHASSEE, FLORIDA 32308 (850) 422-1763 PHONE  $\leq$  $\circ$ S E CIFICATION Щ «Х ARC STA OR DOI REVIEWED BY: DRAWN BY:

Dodstone Architects

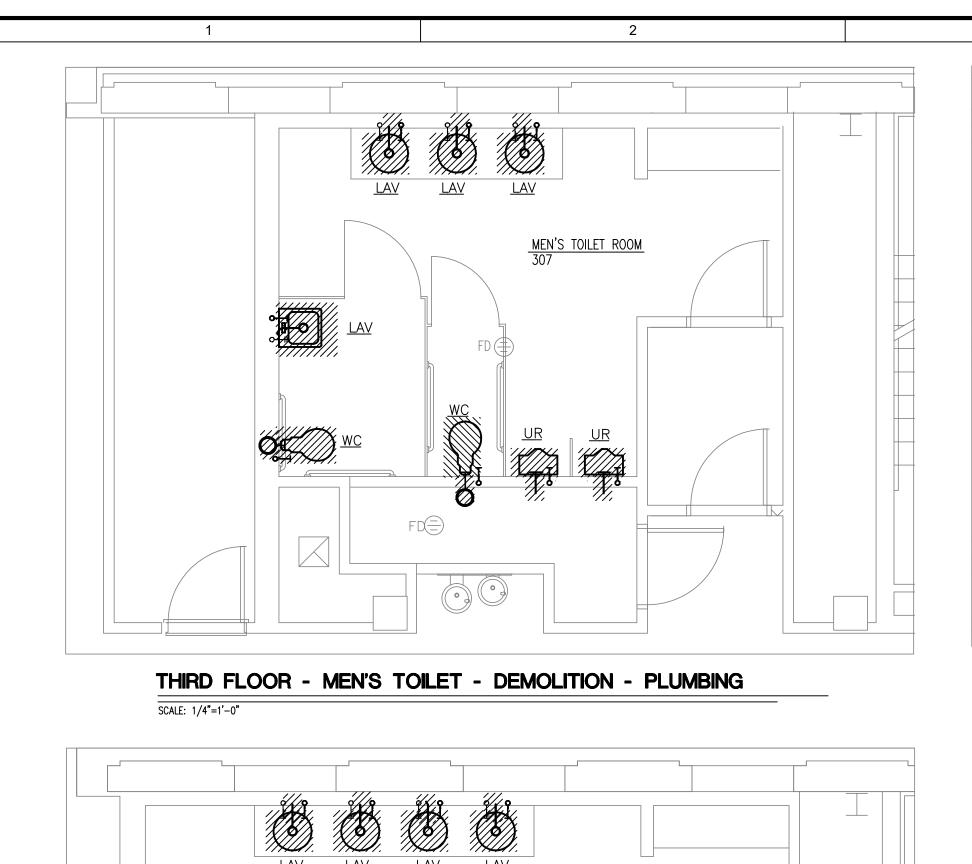
> 3011-1 Powell Road Tallahassee, FL 32308

> LARRY M. SIMMONS

ECHANICAL/ELECTRICAL/PLUMBING

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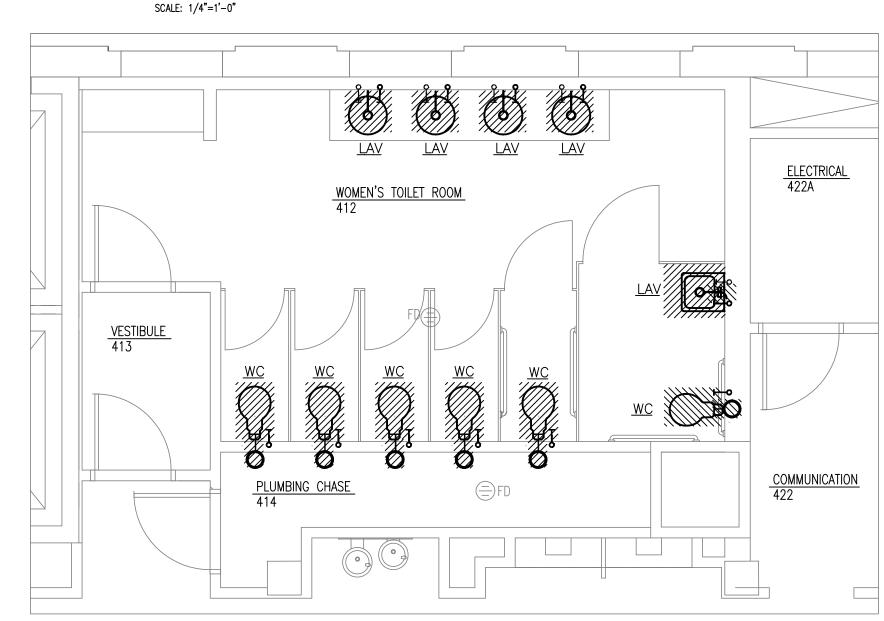
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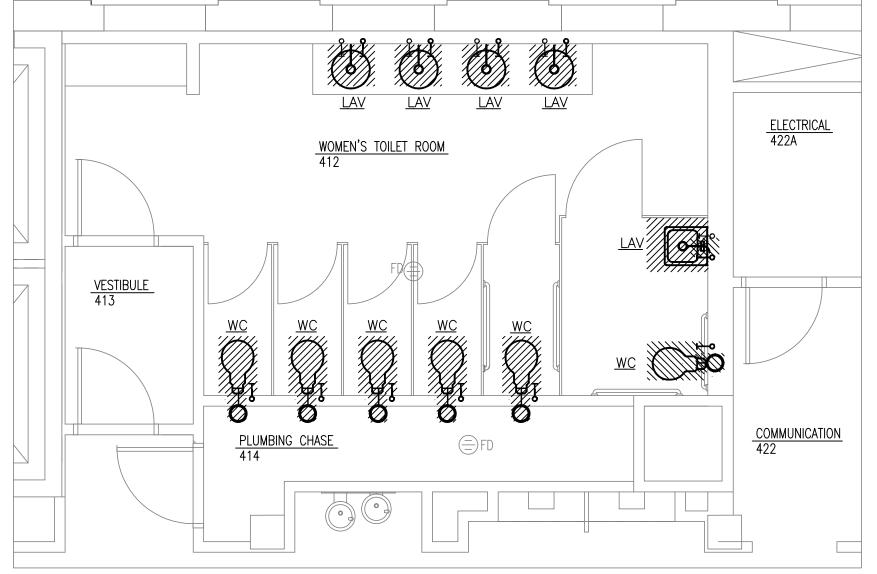


MEN'S TOILET ROOM

XXXX

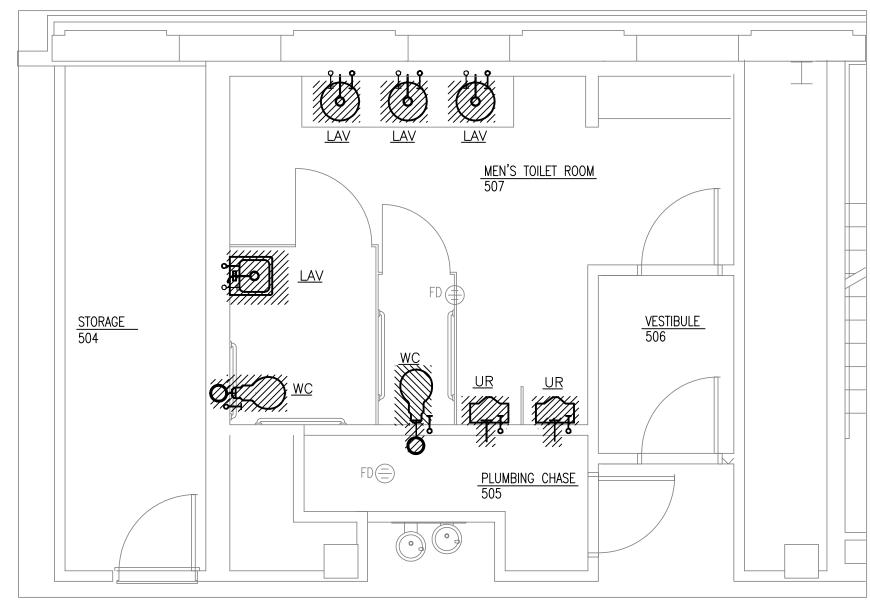
SCALE: 1/4"=1'-0"





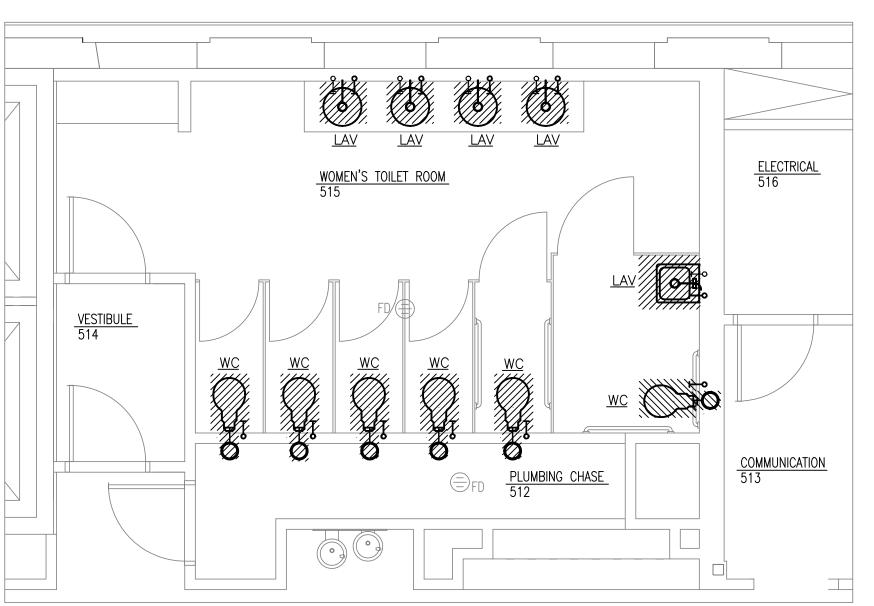
THIRD FLOOR - WOMEN'S TOILET - DEMOLITION - PLUMBING





FOURTH FLOOR - MEN'S TOILET - DEMOLITION - PLUMBING

FIFTH FLOOR - MEN'S TOILET - DEMOLITION - PLUMBING SCALE: 1/4"=1'-0"



FIFTH FLOOR - WOMEN'S TOILET - DEMOLITION - PLUMBING

BREAK ROOM 34" WATER TO P-3A ABOVE THIRD FLOOR CLG. ELECT. 401A COMMUNICATION 401

FOURTH FLOOR - MENS & WOMEN'S TOILET - DEMOLITION - PLUMBING

SCALE: 1/4"=1'-0"

COMMUNICATION 324

ELECTRICAL 324A

### **GENERAL DEMOLITION NOTES**

- 1. SEE PLUMBING PLANS FOR ADDITIONAL WORK AND SCOPE OF ALL NEW SANITARY WASTE, VENT AND WATER SYSTEMS. THIS CONTRACTOR SHALL FURNISH LABOR, MATERIALS AND EQUIPMENT FOR THE DEMOLITION OF EXISTING WALLS, CEILINGS, AND FLOORS RELATED TO THE REMOVAL AND INSTALLATION OF THE PLUMBING SYSTEMS DETAILED HEREINAFTER. SEE ARCHITECTURAL DRAWINGS FOR THE SCOPE OF GENERAL DEMOLITION AND COORDINATE ALL WORK WITH THE GENERAL CONSTRUCTION.
- 2. THE WORK CONSIST OF FURNISHING ALL LABOR AND MATERIALS IN CONNECTION WITH THE DEMOLITION OF EXISTING PLUMBING FIXTURES AND ASSOCIATED PIPING AS NOTED ON THE DRAWINGS. THE CONTRACTOR SHALL COMPLETE ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE SPECIFICATIONS AND COMPLY WITH ALL APPLICABLE LOCAL AND STATE CODES, STANDARDS, SPECIFICATIONS AND REGULATIONS OF GOVERNING AUTHORITIES HAVING JURISDICTION. CONTRACTOR SHALL ACCOMPLISH ALL NECESSARY DEMOLITION AND REMOVAL OF EXISTING WORK REQUIRED FOR THE PROJECT AND REMOVE ALL UNWANTED MATERIAL AND DEBRIS FROM THE SITE. MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF PER CODE. COMPLY WITH ALL ARCHITECTURAL DEMOLITION SPECIFICATIONS AND LAYOUTS.
- 3. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AT THE SITE, AND EXAMINE ADJOINING WORK WHICH IN ANY WAY WILL AFFECT THE COMPLETION OF THIS WORK. CONTRACTOR SHALL REPORT TO THE ARCHITECT, IN WRITING, ANY CONDITION WHICH WILL PREVENT THE PROPER PERFORMANCE OF THE WORK.
- 4. VARIOUS EQUIPMENT AND MATERIALS MAY BE REQUIRED TO REMAIN THE PROPERTY OF THE OWNER(COORDINATE). ALL NON-SALVAGEABLE EQUIPMENT AND MATERIALS REMOVED SHALL BE THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE IMMEDIATELY AFTER DEMOLITION. COORDINATE WITH THE OWNER PRIOR TO REMOVAL.
- 5. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY (TEMPORARY) PROTECTION OF THE OCCUPIED PORTIONS OF THE BUILDING WHERE EXISTING STRUCTURE OR FINISHES SHALL BE DEMOLISHED OR REMOVED. TEMPORARY PROTECTION SHALL BE SUCH THAT THE INTERIOR OF EXISTING OFFICE AREAS WILL BE PROTECTED FROM DUST. THE CONTRACTOR WILL BE RESPONSIBLE FOR CORRECTING ANY DAMAGE TO THE EXISTING BUILDING(S) OR ITS CONTENT BY REASON OF THE INADEQUACY OF SUCH PROTECTION AT NO ADDITIONAL COST TO THE OWNER. FURNISH AND INSTALL ADEQUATE GUARDS, BARRICADES AND OTHER TEMPORARY PROTECTIVE METHODS TO PREVENT INJURY TO PERSONS OR DAMAGE TO PROPERTY. DO NOT OBSTRUCT EXISTING EXIT ACCESSWAYS.

- 6. EXISTING BUILDINGS IN THE AREA WILL BE OCCUPIED OR IN USE DURING THE ENTIRE CONSTRUCTION PERIOD. THIS CONTRACTOR SHALL PERFORM THE WORK IN A MANNER TO CAUSE THE LEAST INTERFERENCE WITH THE OPERATIONS OF ADJOINING BUILDINGS OR ANY PART THEREOF. TEMPORARY SHUT-DOWNS OF ANY UTILITY SERVICE OR FACILITY SHALL BE MADE ONLY AT SUCH TIMES AS AGREED UPON AND WITH THE PRIOR KNOWLEDGE AND CONSENT OF THE OWNER.
- 7. ALL PERSONNEL WORKING ON THIS PROJECT SHALL OBTAIN SECURITY CLEARANCE FROM THE OWNER. ANY ONE WORKING ON THIS PROJECT CONSIDERED UNFIT FOR ANY REASON SHALL BE REMOVED IMMEDIATELY.
- 3. IN THE EVENT OF ANY INTERRUPTION OF UTILITY SERVICE DURING DEMOLITION, THE CONTRACTOR SHALL IMMEDIATELY PLACE AN ADEQUATE FORCE AT THE SOURCE OF SUCH INTERRUPTION TO PLACE THE SYSTEM BACK IN SERVICE WITH THE LEAST POSSIBLE DELAY. COORDINATE WITH THE OWNER.
- CONTRACTOR SHALL, AT ALL TIMES, KEEP THE CONSTRUCTION AREA FREE FROM ACCUMULATION OF WASTE MATERIAL AND RUBBISH CAUSED BY HIS EMPLOYEES OR WORK, AND SHALL MAINTAIN THE BUILDING "BROOM CLEAN" DURING CONSTRUCTION. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL RUBBISH, TOOLS, SCAFFOLDING AND SURPLUS MATERIALS FROM WITHIN THE BUILDING.
- 10. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND SIZE OF ALL EXISTING PLUMBING EQUIPMENT TO BE REMOVED. VERIFY THE LOCATION AND SIZE OF ALL PIPING PRIOR TO BID. CONTRACTOR SHALL REMOVE ALL PIPING, VALVES AND EQUIPMENT NOT REQUIRED FOR USE IN THE NEW PLUMBING SYSTEMS. SEE NEW WORK DRAWINGS.
- 11. CAP AND INSULATE ALL EXISTING PIPING SYSTEMS TO REMAIN IN SERVICE AS MODIFIED BY REMOVAL OF EXISTING EQUIPMENT AND PIPING NOT REQUIRED.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE TO SEE THAT ALL HIS PERSONNEL AND THAT ALL OF HIS SUBCONTRACTORS ARE MADE AWARE THIS FACILITY MAY CONTAIN ASBESTOS TYPE MATERIALS. AT ANY TIME WORKMAN ENCOUNTER ANY SUSPECT ASBESTOS TYPE MATERIALS ALL WORK IN THAT AREA WILL BE STOPPED IMMEDIATELY AND THE AREA KEPT CLEARED UNTIL A POSITIVE IDENTIFICATION HAS BEEN DETERMINED. IN THE EVENT THE SUSPECT MATERIAL PROVES TO BE ASBESTOS, ALL AFFECTED AREAS WILL BE KEPT ISOLATED UNTIL ALL MATERIAL HAS BEEN REMOVED AND THE SPACES AFFECTED ARE APPROVED FOR NORMAL USE. IT IS NOTED THAT ONLY AUTHORIZED AND APPROVED PERSONNEL SHALL BE ALLOWED TO PARTICIPATE IN ANY MANNER WHATSOEVER EITHER IN THE SEARCH OF, OR THE REMOVAL OF ASBESTOS. COORDINATE WITH THE OWNER.

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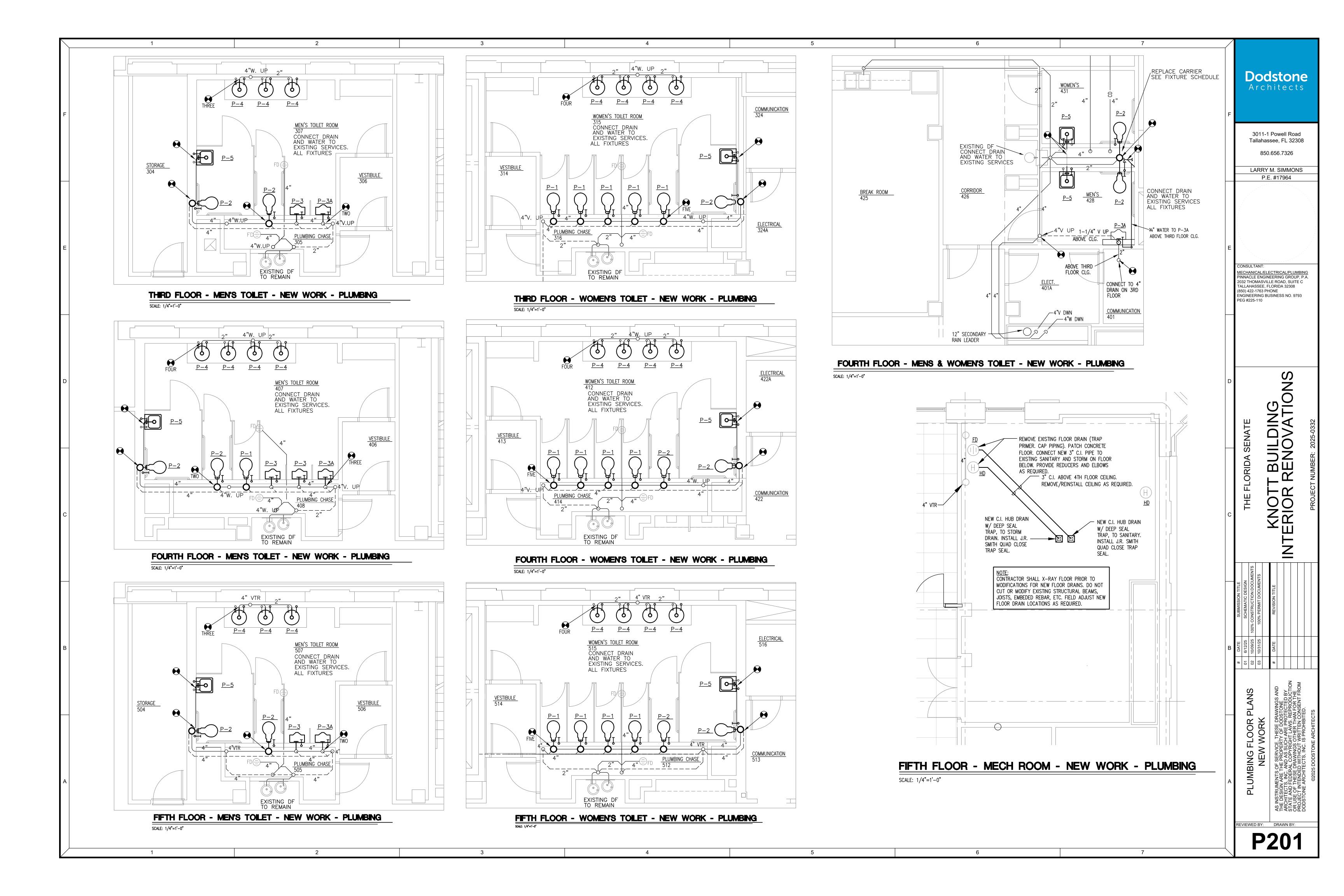
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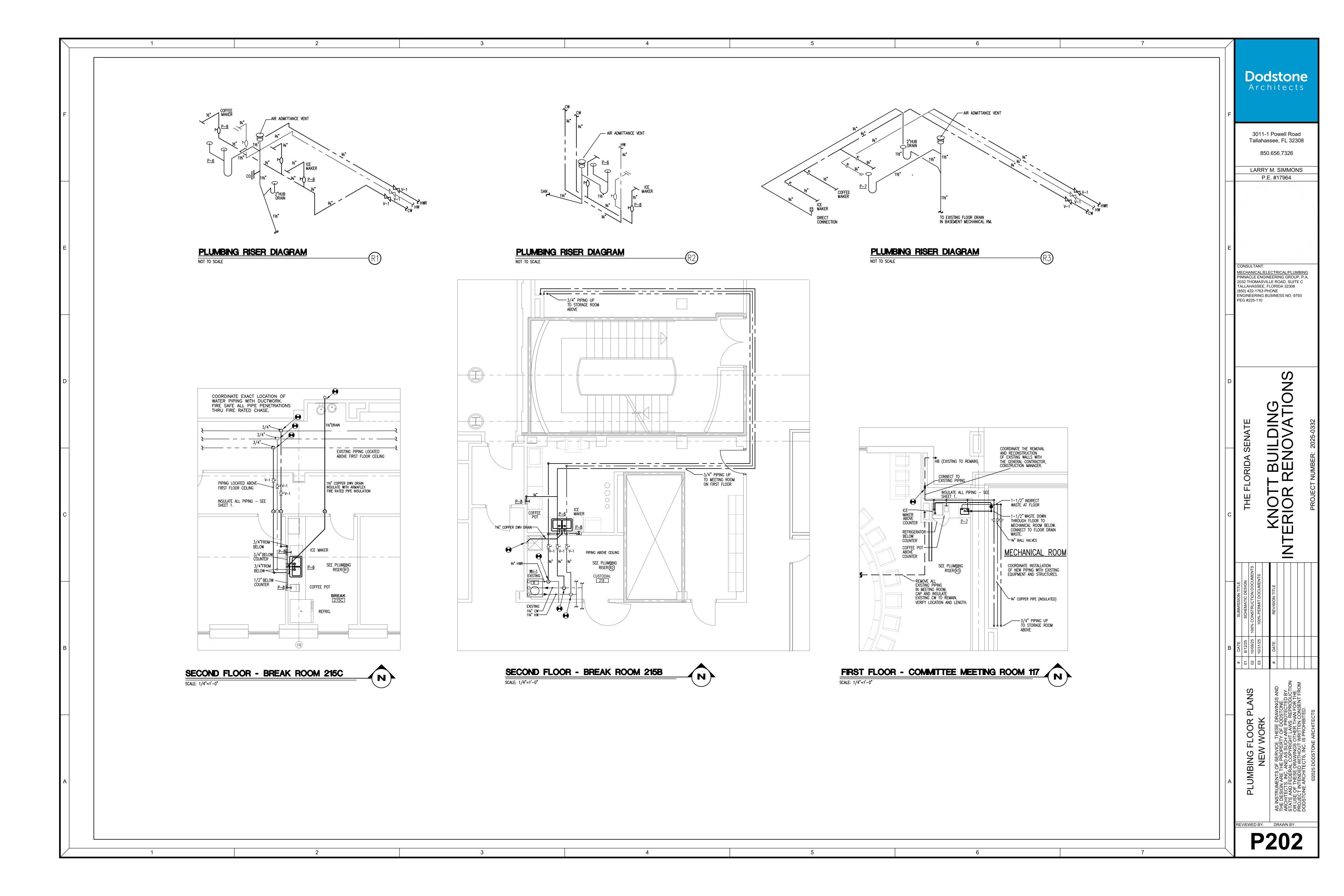
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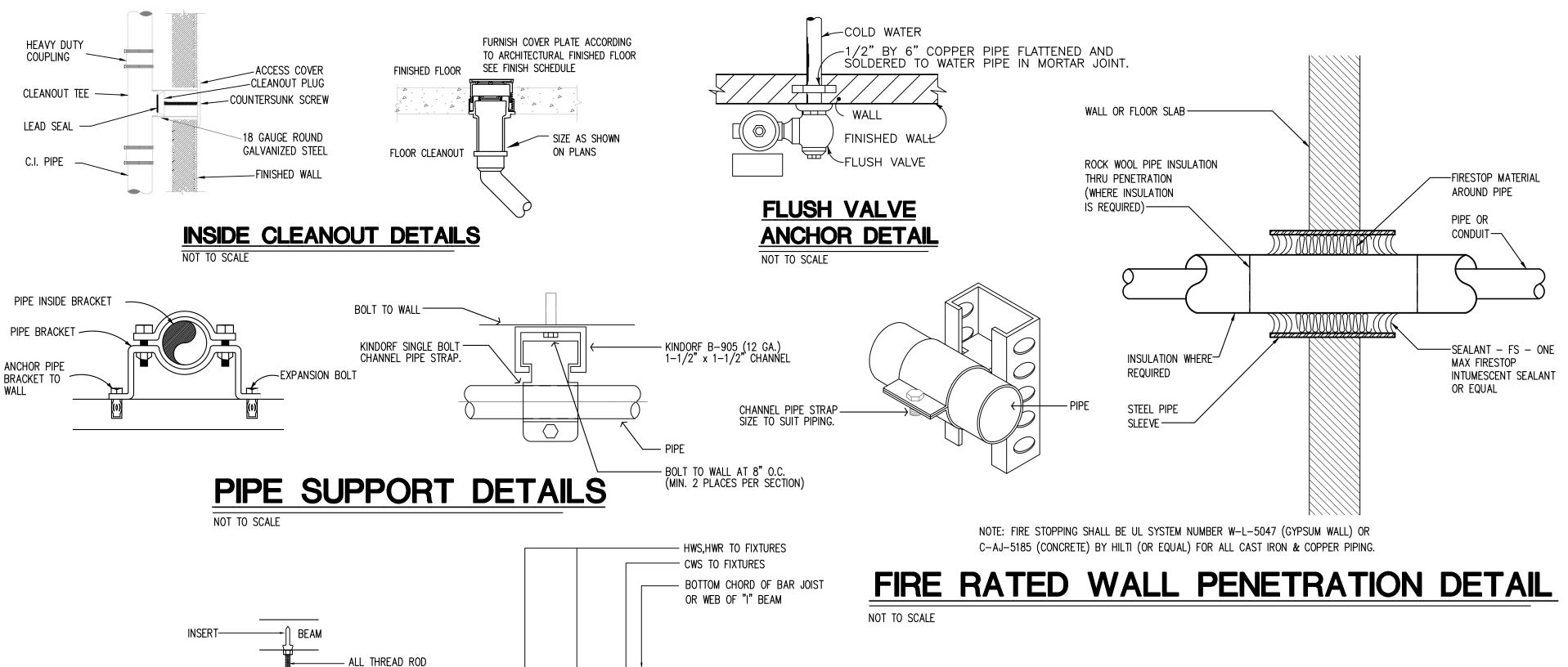


### PLUMBING NOTES:

- CONTRACTOR SHALL PROVIDE A COMPLETE DRAINAGE, WASTE AND VENT PLUMBING SYSTEM. WORK CONSISTS OF FURNISHING ALL MATERIALS, EQUIPMENT, AND SERVICES REQUIRED FOR COMPLETE SYSTEMS. INCLUDE ANY INCIDENTAL APPARATUS, APPLIANCES, MATERIAL LABOR AND SERVICES NECESSARY TO MAKE NEW WORK COMPLETE IN ALL RESPECTS AND FULLY READY FOR OPERATION.
- 2. ALL PIPING SHOWN SHALL BE FURNISHED AND INSTALLED BY THE PLUMBING CONTRACTOR UNLESS NOTED AS EXISTING.
- 3. EXISTING FLOOR DRAINS TO REMAIN IN USE. CLEAN FIXTURE AND INSTALL NEW TOP PLATE (CHROME).
- 4. EXISTING WATER STOP VALVES SHALL BE REPLACED. FREEZE PIPING TO ISOLATE FOR DEMOLITION. FURNISH AND INSTALL NEW BRONZE BALL VALVES FOR EACH WATER SERVICE FOR ISOLATION. ANY SYSTEM SHUTDOWN SHALL OCCUR AFTER REGULAR OFFICE HOURS. SCHEDULE WITH OWNER.
- 5. ALL PLUMBING WORK SHALL BE INSTALLED, TESTED, AND CLEANED IN ACCORDANCE WITH THE 2023 (8TH EDITION) OF THE FLORIDA PLUMBING CODE.
- MAKE SUCH OFFSETS AND DEVIATIONS FROM WORK SHOWN ON THE DRAWINGS, AS MAY BE NECESSARY TO FIT THE ACTUAL SPACE CONDITIONS.
- 7. THE DRAWINGS AND DIAGRAMS OF PLUMBING PIPING ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED. INSTALLER SHALL COORDINATE AT SITE WITH ALL PLUMBING, AND HVAC. AND ELECTRICAL WORK SO AS NOT TO CONFLICT IN LOCATION WITH OTHER WORK UNDER THIS CONTRACT OR THAT MAY BE EXISTING.
- 8. EXACT LOCATION NUMBER AND TYPE OF PLUMBING FIXTURES SHALL BE DETERMINED FROM ARCHITECTURAL DRAWINGS. VERIFY SUCH LOCATIONS BEFORE
- PROCEEDING ROUGH-IN. 9. INSTALLER SHALL NOT CUT ANY STRUCTURAL MEMBERS WITHOUT FIRST SECURING WRITTEN APPROVAL FROM THE AUTHORITY HAVING JURISDICTION OVER THIS
- PROJECT. 10. PROVIDE DIELECTRIC UNIONS AT ALL CONNECTIONS BETWEEN DISSIMILAR PIPING METALS.
- 11. PROVIDE ALL SINKS AND LAVATORIES WITH SLIP JOINT TRAP FITTINGS FOR CLEANOUT.
- 12. UPON COMPLETION OF THE WORK UNDER THIS CONTRACT, THE CONTRACTOR SHALL REMOVE ALL TOOLS, APPLIANCES, SURPLUS MATERIALS, AND SCRAP. ALL IDENTIFIED EXISTING EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER.
- 13. WHEN CONFLICTS OCCUR IN SPECIFICATIONS OR IN THE DRAWINGS, OR BETWEEN EITHER, THE ITEMS OF GREATER QUANTITY OR HIGHER COST SHALL BE PROVIDED.
- 14. THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES IN ORDER TO AVOID CONFLICTS.
- 15. THE MINIMUM SIZE WATER LINE SHALL BE 3/4" UNLESS NOTED OTHERWISE. RUN-OUTS TO FIXTURES MAY BE 1/2" NOT TO EXCEED 3 FEET IN LENGTH.
- 16. PIPE ROUTING SHOWN IS SCHEMATIC AND IS NOT INTENDED TO INDICATE EXACT ROUTING AND ALL ADDITIONAL OFFSETS AND FITTINGS REQUIRED FOR PROPER INSTALLATION AND TO MAINTAIN CLEARANCES. CONTRACTOR TO VERIFY STRUCTURAL, MECHANICAL, ELECTRICAL INSTALLATIONS AND OBSTRUCTIONS OF ALL DESCRIPTION AND ROUTE PIPING TO AVOID ANY AND ALL INTERFERENCES.
- 17. SLEEVE AND FIRE STOP ALL PENETRATIONS OF RATED WALLS, CEILINGS, FLOORS, ETC., INCLUDING ROOF. FLASH AND COUNTERFLASH ROOF PENETRATIONS.
- 18. SEE PARTIAL SANITARY WASTE AND VENT RISER SCHEMATIC DIAGRAM FOR WASTE AND VENT PIPE SIZING.
- 19. SEE WATER RISER SCHEMATIC DIAGRAM FOR WATER PIPING SIZING.
- 20. PLUMBING CONTRACTOR TO PROVIDE SANITARY WASTE, VENT, DOMESTIC WATER, ETC., ROUGH-IN AND MAKE FINAL CONNECTIONS (INCLUDING SUPPLYING AND/OR INSTALLING ALL NECESSARY RELATED STOPS, VALVES, TRAPS, ETC., AND MAKING READY FOR USE) TO ALL EQUIPMENT WHETHER FURNISHED BY THIS CONTRACTOR OR FURNISHED BY OTHERS.
- 21. ALL CONCEALED PIPING IN CHASE AREAS SHALL BE SUPPORTED WITH A PIPING SUPPORT SYSTEM SUCH AS SUMNER POSIFIX, STAKFIX AND CHANNEL OR APPROVED
- 22. PLUMBING CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL PIPING INTO AREAS WITH MECHANICAL DUCTWORK. SEE HVAC DRAWINGS. ALSO COORDINATE WITH ALL OTHER TRADES. PRIOR TO INSTALLATION.

ELECTRONIC SENSOR ACTIVATED

23. INSULATE ALL HOT WATER, COLD WATER AND HOT WATER RECIRCULATION LINES WITH 3/4" ARMAFLEX (FIRE RATED) PIPE INSULATION. GLUE AND SEAL ALL JOINTS WITH APPROVED MATERIALS. USE NO DUCT TAPE ON JOINTS.



FURNISH & INSTALL

3/4"FR ARMAFLEX

ALL CW, HW, HWR PIPING

NOT TO SCALE

INSULATION ON

MULTIPLE PIPING SYSTEMS INSIDE BUILDING

SUPPORTS AT 4'-0" ON CENTER (MINIMUM)

## PIPE HANGER DETAILS

NOT TO SCALE

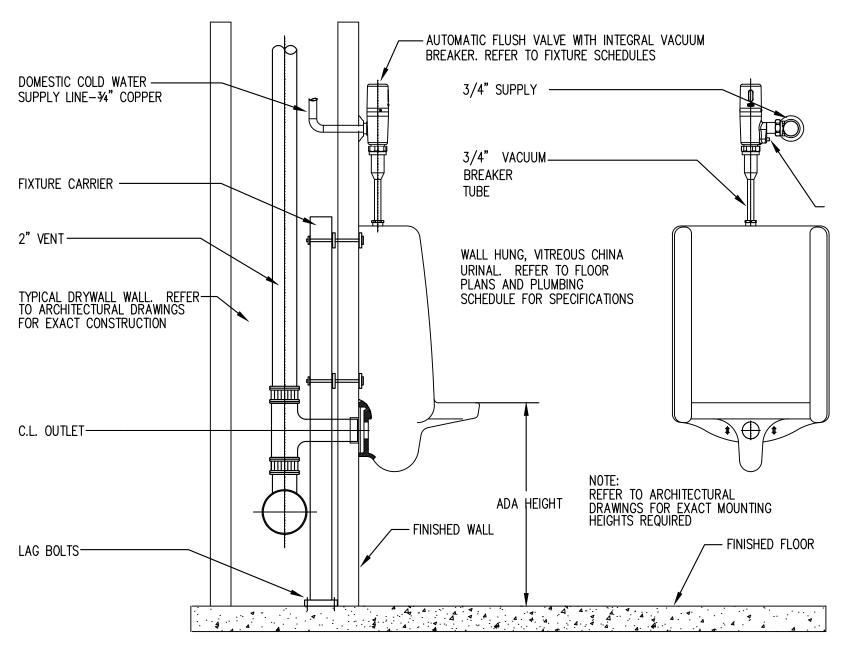
CENTER BEAM CLAMP

PIPE HANGER DETAIL

PIPE HANGER RING —— GRINNELL FIG. CT-99C

COPPER PLATED

NOT TO SCALE



# WALL HUNG URINAL MOUNTING DETAIL

- AUTOMATIC FLUSH VALVE WITH INTEGRAL VACUUM BREAKER. REFER DOMESTIC COLD WATER -TO FIXTURE SCHEDULES SUPPLY LINE-1" COPPER WALL HUNG, VITREOUS CHINA WATER CLOSET. REFER TO FLOOR PLANS AND PLUMBING DRYWALL WALL CHASE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT CONSTRUCTION. SCHEDULE FOR SPECIFICATIONS COORDINATE WIDTH WIDTH REFER TO ARCHITECTURAL WITH GENERAL CONTRACTOR. DRAWINGS FOR EXACT MOUNTING HEIGHTS REQUIRED FIXTURE CARRIER -SEE SCHEDULE HOR.WASTE -TO EXIST. DRAIN THREADED NIPPLE THRU BY MANUFACTURER'S ANCHOR ---MINIMUM LENGTH (MIN. 1/2 DIA.)REQUIRED FOR THIS (MAX. 5/8 DIÁ.) THRU-WALL APPLICATION.

# WATER CLOSET MOUNTING DETAIL

HAND WASHING FAUCET WALL-HUNG LAVATORY SUPPORTED WITH CARRIER INSTALL AT ADA HEIGHT 3/8" COPPER SUPPLY TUBE INSULATE TRAP WITH TCI SKAL+GARD PROTECTIVE DEVICE HOT WATER TEMPERATURE CONTROL SYSTEM - TM REMOTE ELECTRONIC ARMSTRONG DMV-1 TEMPERATURE CONTROL IN STAINLESS STEEL ENCLOSURE LOCATE WHERE APPROVED BY ARCHITECT - LAVATORY TRAP INSULATE ALL PIPING WITH ARMAFLEX. INSTALL TCI SKAL+GARD PROTECTIVE COVERS. 3/8" COPPER SUPPLY TUBE -INSULATE ALL PIPING WITH ARMAFLEX. INSTALL TCI SKAL+GARD PROTECTIVE COVERS. HOT WATER SUPPLY COLD WATER SUPPLY WITH ANGLE STOP WITH ANGLE STOP P-5 LAVATORY - FINISHED FLOOR 

# TYPICAL LAVATORY PIPING DETAIL

NOT TO SCALE NOTE: WATER AND DRAIN CONNECTIONS FOR P-4 LAVATORIES SAME AS SHOWN

> EVIEWED BY: DRAWN BY: **P300**

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NACLE ENGINEERING GROUP, P.A. 032 THOMASVILLE ROAD, SUITE C ALLAHASSEE, FLORIDA 32308 (850) 422-1763 PHONE NGINEERING BUSINESS NO. 9793 # 00 01 # WALL. LENGTH DETERMINED ANCHOR FOOT