

PLUMBING LEGEND	
120 HOT WATER SUPPLY	--- DHW ---
HOT WATER RETURN	--- HWR ---
COLD WATER SUPPLY	--- DCW ---
SANITARY	--- SAN ---
KITCHEN GREASE SANITARY	--- GW ---
STORM	--- ST ---
STORM OVERFLOW	--- OF ---
VENT PIPING	--- VENT ---
CONDENSATE	--- C ---
ELBOW, TURNED DOWN	DN
ELBOW, TURNED UP	UP
ELBOW, 90°	
CONNECTION, TOP	
CONNECTION, BOTTEM	
CONNECTION, SIDE	
CAP, AIR AND WATER TIGHT	
VENT THROUGH ROOF	VTR
RECIRCULATION PUMP	
CHECK VALVE / BACKFLOW PREVENTOR	
BALL VALVE	
FLOW CONTROL VALVE	
WATER METER	
PRESSURE REGULATOR	
SOLENOID SHUTOFF VALVE	
HOSE BIBB WITH VACUUM BREAKER	HB#
AIR ADMITTANCE VALVE (BOD: STUODR)	AAV
UNION	
WALL CLEANOUT	wco
FLOOR CLEANOUT	FCO
FLOOR DRAIN	FD
FLOOR SINK	FS
EXISTING SYSTEM PIPING	EX###
TO BE DEMOLISHED	EX###
DEMOLITION KEYNOTE	#
RENOVATION KEYNOTE	#
CONNECT TO EXISTING	
LIMITS OF DEMOLITION	
ACCESS PANEL	
MIN. INVERT ELEVATION	MIN. I.E.

ABBREVIATIONS	
AAV	AIR ADMITTANCE VALVE
AFF	ABOVE FINISHED FLOOR
AHAP	AS HIGH AS POSSIBLE
BFP	BACK FLOW PREVENTOR
BF	BELOW FLOOR
BF	BELOW FINISHED FLOOR
BG	BELOW GRADE
BOD	BASIS OF DESIGN
C	CONDENSATE
CO	CLEAN OUT
CWV	COMBINATION WASTE AND VENT
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DN	DOWN
EO	EXTERIOR CLEANOUT
EWC	ELECTRIC WATER COOLER
EVH	ELECTRIC WATER HEATER
EX	EXISTING
FC	FLOOR CONTROL VALVE
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
GW	GAS WATER HEATER
HB	HOSE BIBB
HD	HUB DRAIN
HWR	HOT WATER RETURN
IE	INVERT ELEVATION
IM	ICE MAKER VALVE BOX
IRP	IN-LINE RECIRCULATION PUMP
L	LAVATORY
MS	MOP SINK
PF	PLUMBING FIXTURE
SAN	SANITARY WASTE
SK	SHOWER
SH	STAINLESS STEEL SINK
Typ	TYPICAL
TMV	THERMOSTATIC MIXING VALVE
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WH	WALL HYDRANT
WHA	WATER HAMMER ARRESTER
WHY	FREEZE PROOF WALL HYDRANT
XT	EXPANSION TANK

CODE REFERENCE (ALL MAY NOT APPLY)	
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.	
FBC, BUILDING	FLORIDA BUILDING CODE 8TH EDITION
FBC, PLUMBING	FLORIDA BUILDING CODE 8TH EDITION
FBC, EXISTING BUILDING	FLORIDA BUILDING CODE 8TH EDITION
FBC, FUEL GAS	FLORIDA BUILDING CODE 8TH EDITION
FFPC	FLORIDA FIRE PREVENTION CODE, 2023 8TH EDITION
NFPA 54	NATIONAL FUEL GAS CODE
NFPA 101	LIFE SAFETY CODE
NFPA 101A	GUIDE ON ALTERNATIVE APPROACHES TO LIFE SAFETY
NFPA 101B	CODE FOR MEANS OF EGRESS FOR BUILDINGS AND STRUCTURES
NFPA 900	BUILDING ENERGY CODE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ADA	AMERICAN WITH DISABILITIES ACT
UL	UNDERWRITERS LABORATORIES

INTERIOR CLEANOUT SCHEDULE		
LOCATION	TYPE	JR SMITH #
FLOOR (FCO) (CAST IRON BODY, BRONZE PLUG, NICKEL BRONZE TOP)		4028C
WALL (WCO) (CAST IRON BODY, BRONZE PLUG STAINLESS STEEL COVER)		4532S
EXPOSED (TCO) (CAST IRON BODY, BRONZE PLUG, THREADED CAP)	HORIZONTAL VERTICAL	4400C 4512S

EXTERIOR CLEANOUT SCHEDULE		
LOCATION	TYPE	JR SMITH #
ONE WAY (CAST IRON BODY, BRONZE PLUG, CAST IRON TOP TAPER THREAD)		4233L
TWO WAY (CAST IRON BODY, BRONZE PLUG, CAST IRON TOP TAPER THREAD)		4233L

WATER HAMMER ARRESTOR SCHEDULE						
FIXTURE UNITS	1-11	12-32	33-60	61-113	114-154	155-330
JR SMITH #:	5005	5010	5020	5030	5040	5050

SUBMITTAL REQUIREMENTS	
1. USE OF AN APPROVAL STAMP ON SUBMITTAL DOCUMENTS CERTIFIES THAT THE CONTRACTOR HAS COMPLIED WITH THE CONTRACT DOCUMENT REQUIREMENTS.	
2. THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR DEVIATIONS FROM REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE ARCHITECT/ENGINEER'S APPROVAL OF SHOP DRAWINGS, PRODUCT DATA, SAMPLES, OR SIMILAR SUBMITTAL ITEMS UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE ARCHITECT/ENGINEER IN WRITING OF SUCH DEVIATION AT THE TIME OF SUBMITTAL AND THE ARCHITECT/ENGINEER HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION. THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS, PRODUCT DATA, SAMPLES, OR SIMILAR SUBMITTAL ITEMS BY THE ARCHITECT/ENGINEER'S APPROVAL THEREOF.	
3. CONTRACTOR SHALL SUPPLY TO THE ARCHITECT SUBMITTALS ON THE FOLLOWING WHERE APPLICABLE (ALL MAY NOT APPLY):	
	3.1. PLUMBING FIXTURES 3.2. PIPE AND FITTINGS 3.3. INSULATION MATERIALS 3.4. PLUMBING ACCESSORIES AND SPECIALTIES 3.5. VALVES 3.6. HOT WATER HEATER

ENERGY SYSTEMS - WATER HEATING	
1. SERVICE WATER HEATING EQUIPMENT SHALL ALLOW LAVATORY OUTLET TEMPERATURES IN PUBLIC FACILITY RESTROOMS SHALL BE LIMITED TO 110°F. CONTROL BY TMV.	
2. WATER-HEATING EQUIPMENT AND HOT WATER STORAGE TANKS SHALL MEET THE REQUIREMENTS OUTLINED IN FBC CHAPTER 4, TABLE C404.2 AND THE EFFICIENCY SHALL BE VERIFIED THROUGH DATA FURNISHED BY THE MANUFACTURER THROUGH CERTIFICATION UNDER AN APPROVED CERTIFICATION PROGRAM.	
3. ALL HOT WATER SUPPLY AND RECIRCULATION PIPING IN THE HOT WATER SYSTEM SHALL BE INSULATED WITH MINIMUM 1" OF INSULATION HAVING A CONDUCTIVITY OF 0.27 (BTU / IN / H X FT ² X °F).	
4. CIRCULATING HOT WATER SYSTEM PUMPS OR HEAT TRACE SHALL BE ARRANGED TO BE TURNED OFF EITHER AUTOMATICALLY OR MANUALLY WHEN THERE IS LIMITED HOT WATER DEMAND. READY ACCESS SHALL BE PROVIDED TO THE OPERATING CONTROLS.	
5. FOR NON-CIRCULATING STORAGE WATER TANKS HEAT TRAPS MUST BE INSTALLED ON THE SUPPLY AND DISCHARGE PIPING ASSOCIATED WITH THE EQUIPMENT.	
6. CONDENSER HEAT RECOVERY SHALL BE INSTALLED FOR HEATING OR REHEATING OF SERVICE HOT WATER, PROVIDED THE FACILITY OPERATES 24 HOURS A DAY, THE TOTAL HEAT CAPACITY OF WATER-COOLED SYSTEMS EXCEEDS 6,000,000 BTU/HR OF HEAT REJECTION, AND THE DESIGN SERVICE WATER HEATING LOAD EXCEEDS 1,000,000 BTU/HR. THE HEAT RECOVERY SHALL PROVIDE THE SMALLER OF EITHER: 60% OF THE PEAK HEAT REJECTION LOAD AT DESIGN CONDITIONS, OR PROVIDE THE PREHEATING REQUIRED TO RAISE THE PEAK SERVICE HOT WATER DRAW TO 85°F.	

PLUMBING GENERAL NOTES	
1. LOCATIONS OF ANY WASTE AND SUPPLY PIPING SHOWN ARE ONLY APPROXIMATE. THE PLUMBING CONTRACTOR SHALL VERIFY THESE LOCATIONS BEFORE PROCEEDING WITH WORK.	
2. ALL PLUMBING PIPE SHALL BE RUN STRAIGHT, SQUARE, AND LEVEL. NO SAGGING OF PLUMBING PIPING SHALL BE ACCEPTED.	
3. ALL DRAINAGE PIPING 3" AND LARGER SHALL HAVE A MINIMUM SLOPE OF 1/8" PER FOOT, PIPING 2-1/2" AND SMALLER SHALL HAVE A MINIMUM SLOPE OF 1/4" PER FOOT UNLESS OTHERWISE NOTED.	
4. VENT PIPING SHOWN ON FLOOR PLAN IS ONLY INDICATIVE EXCEPT FOR VTR LOCATIONS.	
5. CONTRACTOR SHALL INSTALL DIELECTRIC UNIONS AT CONNECTIONS OF DISSIMILAR METALS.	
6. VALVES AND FITTINGS SHALL BE OF THE SAME SIZE AS THE LINE IN WHICH THEY ARE INSTALLED.	
7. ALL WATER SANITARY WASTE, VENT AND SUPPLY PIPING SHALL BE INSTALLED AS CLOSE TO PLANS AS POSSIBLE WITH NO CHANGE IN SIZING.	
8. SEE ARCHITECTURAL DRAWINGS FOR EXACT PLUMBING FIXTURE LOCATIONS, MOUNTING HEIGHTS, DIMENSIONS AND ADDITIONAL REQUIREMENTS NOT COVERED ON THESE DRAWINGS.	
9. PIPING SHALL NOT BE RUN ABOVE ELECTRICAL OR SERVER EQUIPMENT, COORDINATE WITH FIELD CONDITIONS.	
10. DO NOT PENETRATE WALL FOOTINGS AS REQUIRED TO CLEAR PLUMBING SERVICES. WHERE ABSOLUTELY NECESSARY, ALL PIPES PENETRATING BEARING WALL OR FOOTING MUST BE SLEEVED AND IN A LOCATION APPROVED BY THE STRUCTURAL ENGINEER.	
11. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY SUPPORTING DEVICES OR ALL FIXTURES INCLUDED IN THESE CONTRACT DOCUMENTS.	
12. WALL BRACKETS, HANGERS, SUPPORTS, ETC. SHALL BE PROVIDED WHERE REQUIRED IN ACCORDANCE WITH THE BEST STANDARD PRACTICE OF THE TRADE AND AS PER CODE. ADDITIONAL SUPPORTS SHALL BE PROVIDED TO TRANSMIT LOADS TO THE MAIN STRUCTURE WHERE REQUIRED. CPVC PIPING SUPPORTS SHALL BE 3" O" ON CENTER FOR 1/2" THRU 1" AND 4" O" ON CENTER FOR 1-1/2" AND LARGER. ALL EXPOSED SUPPORTS SHALL BE HOT DIPPED GALVANIZED OR FIBERGLASS REINFORCED "UNISTRUT" TYPE INCLUDING HARDWARE.	
13. POWER WIRING, PANELS, TRANSFORMERS, AND DISCONNECT SWITCHES FOR PLUMBING EQUIPMENT SHALL BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL CONTROL WIRING, RELAYS, AND PANELS SHALL BE PROVIDED AND INSTALLED BY THE PLUMBING CONTRACTOR. ALL MOTOR STARTERS REQUIRED FOR ANY PLUMBING EQUIPMENT SHALL BE FURNISHED BY THE PLUMBING CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR.	
14. INSTALL ACCESS PANELS (MINIMUM 18x18) WHERE EQUIPMENT REQUIRING ACCESS RESIDES ABOVE AN INACCESSIBLE CEILING TYPE.	
15. 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.	
16. ALL CONCEALED PIPING IN CHASE AREAS SHALL BE SUPPORTED WITH A PIPING SUPPORT SYSTEM, SUMNER POSIFIX, STAKFIX AND CHANNEL OR APPROVED EQUAL.	
17. PURGE, CLEAN, DISINFECT & TEST WATER PIPING SYSTEMS. SUBMIT REPORT & WATER SAMPLES TO A.H.J. USE PROCEDURE PRESCRIBED BY A.H.J., OR IF METHOD NOT PRESCRIBED USE AWWA C651 OR AWWA C652.	
18. CONTRACTOR SHALL INSTALL WATER HAMMER ARRESTORS AT ALL QUICK CLOSING VALVES. REFER TO PFC 604.9.	

CONDENSATE, SANITARY WASTE AND VENT	
1. GRAVITY FLOW SYSTEMS HAVE SPACE PRIORITY FOR SLOPING PIPES.	
2. SLOPING PIPES SHALL BE STARTED AT THE HIGHEST POINT POSSIBLE.	
3. ALL SOIL, WASTE, AND VENT PIPING SHALL BE TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE AND LOCAL PERMITTING AUTHORITIES REQUIREMENTS.	
4. THE GENERAL CONTRACTOR SHALL VERIFY ALL FLOOR DRAIN AND WATER SUPPLY LOCATIONS BEFORE POURING SLABS.	
5. 1. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR CONDENSATE PIPES AFTER AIR UNIT TRAP. MECHANICAL CONTRACTOR RESPONSIBLE FOR FIRST 12" OF CONDENSATE AND TRAP.	
6. INVERT SHOWN ON PLANS IS AN ESTIMATE OF MINIMUM INVERT CALCULATED USING ENGINEERING ESTIMATES OF SLOPE, FITTING DIMENSIONS AND OTHER FACTORS THAT MAY NOT MATCH THE EXACT FIELD CONDITIONS. DUE DILIGENCE HAS BEEN PUT FORTH TO COORDINATE THIS WITH THE SITE CONNECTIONS BUT IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ACTUAL SITE CONNECTION INVERT AND ITS CONNECTION TO THE BUILDING SERVICE PIPING. ANY ISSUES SHALL BE BROUGHT TO THE ATTENTION OF THE EOR PRIOR TO COMMENCING WITH INSTALLATION OF UNDERGROUND PIPING.	
7. WHEN REQUIRED BY CODE PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL AN AIR GAP SERVING INDIVIDUAL FIXTURES, DEVICES, OR APPLIANCES.	
8. ALL SANITARY WASTE LINES SHALL BE INSTALLED UNDER THE FLOOR SLAB, UNLESS OTHERWISE NOTED. VENT PIPING SHALL BE INSTALLED ABOVE CEILING AND IN WALLS UNLESS NOTED OTHERWISE.	
9. FLOOR DRAIN TRAPS SHALL BE DEEP SEAL (MIN. 4") FURNISH AND INSTALL TRAP PRIMERS, WHERE INDICATED, OR IF LOCAL CODES REQUIRE THEM. VERIFY AND INCLUDE IN BID. PER FBC P 1002.4 ANY TRAPPED FIXTURE SUBJECT TO EVAPORATION SHALL BE FURNISHED WITH 1/2" TRAP PRIMER CONNECTION TO NEAREST DCW WATER SUPPLY LINE, WITH VALVE CONFORMING TO ASSE1018. USE SELF SEAL RUBBER TYPE THAT CONFORM TO ASSE1044 FOR REMOTE DRAINS THAT ARE OVER 20' FROM THE WATER SUPPLY.	
10. SIZE AND LOCATION OF CLEANOUTS SHALL BE IN ACCORDANCE WITH FLORIDA PLUMBING CODE AND ALL JURISDICTIONAL REGULATIONS.	
11. PIPING SPECIFICATIONS	
11.1. CONDENSATE, DOMESTIC WASTE, AND VENT PIPING SHALL BE SCHEDULE 40 PVC/DWV PIPE WITH SOLVENT WELD DRAINAGE FITTINGS CONFORMING TO ASTM D-2665.	
11.2. VENT PIPING SHALL BE MINIMUM OF 2", UNLESS NOTED OTHERWISE.	
11.3. PIPING INSTALLED WITHIN A RETURN AIR PLENUM SHALL BE CAST IRON WITH HUB AND SPIGOT FITTINGS OR PVC PIPING WITH 1/2" THICK FIRE WRAP INSULATION SEALED TO PROVIDE FS/SD=25/50.	
11.4. UNLESS NOTED OTHERWISE, ASSUME ALL COMBINED DISCHARGE CONNECTIONS ARE WYE TYPE.	
12. EXPOSED PIPING	
12.1. ALL EXPOSED PIPING SHALL BE COORDINATED WITH OTHER ABOVE-CEILING SYSTEMS AND ROUTED TO AVOID CONFLICTS EVEN IF ITS ROUTING IS DIFFERENT THAN WHAT IS SHOWN ON THESE PLANS.	
12.2. ALL EXPOSED PIPING SHALL BE INSTALLED NEAT AND ORDERLY. PAINT TO MATCH ADJACENT ARCHITECTURAL SURFACE OR AS DIRECTED BY ARCHITECT.	

GENERAL NOTES	
1. THE ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR ANY MISUSE AND/OR MISREPRESENTATION OF THIS SET OF DOCUMENTS.	
2. THE CONTRACTOR ASSUMES RESPONSIBILITY FOR THE USE OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL MAKE THEMSELVES AWARE OF PROJECT CONDITIONS AND OWNER REQUIREMENTS PRIOR TO PROCUREMENT OF EQUIPMENT AND SERVICES. CHANGES IN PROJECT COST WILL NOT BE GRANTED DUE TO FIELD CONFLICTS AND OR PROJECT CONDITIONS.	
3. THIS SET OF DRAWINGS AND SPECIFICATIONS SHALL NOT BE CONSIDERED A SET OF CONSTRUCTION DOCUMENTS UNLESS A SIGNATURE AND DATE ARE AFFIXED TO THE DRAWINGS AND SPECIFICATIONS BY THE ENGINEER OF RESPONSIBLE CHARGE OF THE GIVEN DISCIPLINE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED UNLESS EMBOSSED AND THE SHA AUTHENTICATION CODE MUST BE VERIFIED ON ELECTRONIC COPIES.	
4. CONFLICTS BETWEEN THIS SET OF DRAWINGS AND THE CONTRACT SPECIFICATIONS SHALL BE RESOLVED BY THE ENGINEER OF RECORD. THE CONTRACTOR DOES NOT HAVE THE AUTHORITY TO INTERPRET CONFLICTS AND RESOLVE ISSUES WITHOUT WRITTEN DIRECTION FROM THE ENGINEER OF RECORD.	
5. ANY CONFLICTS IN THE FIELD OR WITHIN THESE DOCUMENTS SHALL BE RECORDED AND PROVIDED TO THE ENGINEER OF RECORD ON THE CONTRACTOR'S STANDARD LETTERHEAD. WRITTEN DIRECTION RESOLVING CONFLICT WILL BE ISSUED BY THE ENGINEER OF RECORD.	
6. PRIOR TO INSTALLATION, COORDINATE AND ADJUST THE FINAL LOCATION OF ALL WALL MOUNTED DEVICES AND EQUIPMENT WITH ALL CASEWORK, SHELVING OR OTHER WALL MOUNTED FURNISHINGS.	
7. PLANS ARE DIAGRAMMATIC IN NATURE AND INTENDED TO SHOW THE GENERAL SCOPE OF THE WORK TO BE PERFORMED. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ALL DIMENSIONS.	
8. DUE TO THE SMALL SCALE OF THE DRAWINGS, AND TO UNFORESEEN JOB CONDITIONS, ALL REQUIRED OFFSETS, TRANSITIONS AND FITTINGS MAY NOT BE SHOWN BUT SHALL BE PROVIDED AT NO ADDITIONAL COST.	
9. THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES AND EXISTING EQUIPMENT TO ENSURE THE EQUIPMENT SPECIFIED WILL WORK FOR THE SPACES PROVIDED. FINAL DIMENSIONS OF SYSTEMS SHOWN ON THESE PLANS SHALL BE COORDINATED IN THE FIELD. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR PROVIDING OFFSETS AND TRANSITIONS TO FIT IN SPACES PROVIDED AND AT NO COST TO THE OWNER.	
10. THE CONTRACTOR IS RESPONSIBLE FOR ANY SPECIAL REQUIREMENTS INVOLVED IN INSTALLING EQUIPMENT IN THE BUILDING. DISMANTLING AND REASSEMBLING OF ANY EQUIPMENT SHALL BE DONE AS REQUIRED TO BRING INTO THE BUILDING AND EQUIPMENT ROOMS.	
11. ALL WORK PERFORMED AS PART OF THIS PROJECT SHALL BE PERFORMED BY EXPERIENCED TRADESMEN WHO ARE TRAINED, EXPERIENCED, AND SKILLED IN THE TASKS INCIDENTAL TO THE PROJECT.	
12. ALL WORK SHALL COMPLY WITH APPLICABLE OSHA AND EPS REGULATIONS AND GUIDELINES.	
13. THE CONTRACTOR PERFORMING WORK ON THIS PROJECT WILL BE RESPONSIBLE FOR REGULARLY CLEANING THE WORK AREA OF ANY DEBRIS ASSOCIATED WITH THE WORK BEING PERFORMED. THE SITE SHALL BE CLEAN OF ALL CONSTRUCTION DEBRIS AT THE COMPLETION OF THE JOB, BEFORE FINAL PAYMENT IS MADE.	
14. REASONABLE PRECAUTIONS SHALL BE MADE FOR SAFETY AND HEALTH INCLUDING BUT NOT LIMITED TO WARNING SIGNS, SAFETY PRECAUTIONS, AND BARRICADES FOR PEDESTRIANS.	
15. COORDINATE ALL DEMOLITION, CLEANING, AND CONSTRUCTION WORK. CONTRACTOR SHALL PROVIDE OWNER A FULL CONSTRUCTION SCHEDULE.	
16. CONTRACTOR SHALL BE HELD TO PROVIDED SCHEDULE. THEY SHALL BE RESPONSIBLE FOR PROVIDING SUFFICIENT MANPOWER AND EQUIPMENT TO COMPLETE THE WORK IN THE TIME INDICATED.	
17. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND SECURITY OF ALL EQUIPMENT AND MATERIALS. THE LOCATION OF STORAGE SHALL BE RESTRICTED SPECIFICALLY TO THE AREA ALLOTTED BY THE OWNER.	
18. ALL ITEMS INSTALLED UNDER THE SCOPE OF THIS PROJECT SHALL BE NEW, CLEAN, AND FREE OF DEFECTS.	
19. IF DRAWING CHANGES ARE NEEDED FOR INSPECTION DUE TO FIELD CHANGES MADE BY THE CONTRACTOR WITHOUT PRIOR APPROVAL OF THE ENGINEER AND AGREED UPON TERMS, THEN THE CONTRACTOR SHALL PAY HOURLY RATES TO THE ENGINEER OF RECORD FOR MAKING NECESSARY CHANGES.	
20. SUPPORTS, HANGERS, WIRING, AND PIPING SHALL BE INSTALLED IN A NEAT FASHION AND IN AN ORDERLY APPEARANCE.	
21. ALL ROOF EQUIPMENT SHALL BE SECURED TO STRUCTURE TO RESIST A 160 MPH WIND LOAD.	
22. PROTECT THE ROOF FROM DAMAGE WHENEVER ANY WORK ON THE ROOF IS REQUIRED.	
23. CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF ALL PARTITIONS LABELED WITH A SPECIAL LISTING ON THE ARCHITECTURAL PLANS. THIS INCLUDES FIRE, SMOKE ACUSTICAL AND OTHER UL WALL OR CEILING ASSEMBLIES.	
24. STRUCTURAL PENETRATIONS INCLUDING BUT NOT LIMITED TO WALL, FLOOR, OR BEAM SHALL BE APPROVED BY THE STRUCTURAL ENGINEER. ALL BEAM SLEEVES AND REINFORCING APPROVED BY THE STRUCTURAL ENGINEER SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.	
25. CONTRACTOR SHALL GUARANTEE THE WORK AND MATERIALS FOR PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. THIS GUARANTEE SHALL BE IN ADDITION TO THE WARRANTIES PROVIDED BY THE MATERIAL SUPPLIES AND MANUFACTURERS.	
26. VALUE ENGINEERING OR CHANGES TO PLANS MUST BE APPROVED BY THE ENGINEER OF RECORD AND RESUBMITTED THROUGH THE BUILDING DEPARTMENT PRIOR TO BEING INSTALLED.	

PLUMBING SHEET INDEX	
SHEET NUMBER	SHEET NAME
P0.1	PLUMBING NOTES & LEGEND
P1.1	FLOOR PLAN - SANITARY
P1.2	FLOOR PLAN - PRESSURE
P1.3	FLOOR PLAN - BAY EQUIPMENT
P4.1	PLUMBING ENLARGED PLANS
PS.1	PLUMBING DETAILS
PS.2	PLUMBING DETAILS
PE.1	PLUMBING SCHEDULES
P9.1	SANITARY RISER DIAGRAM
P9.2	PRESSURE RISER DIAGRAM
PG.0	GAS NOTES & LEGEND
PG.1	GAS FLOOR PLAN & RISER

POTABLE WATER	
1. ALL POTABLE WATER PIPING SHALL BE DISINFECTED IN ACCORDANCE WITH THE PLUMBING CODE AND VERIFIED BY WRITTEN REPORT FROM THE STATE BOARD OF HEALTH.	
2. ALL PLUMBING PIPING SHALL BE CONCEALED IN FLOORS, WALLS, OR ABOVE CEILING AS APPLICABLE EXCEPT AT IMMEDIATE FIXTURE.	
3. PROVIDE HANGERS FOR SUPPLY PIPING AT A MAXIMUM SPACING OF 3 FEET.	
4. PROVIDE WATER HAMMER ARRESTORS AT EACH FIXTURE, QUICK CLOSING VALVE, OR BATTERY OF FIXTURES WHERE REQUIRED AND PER FBC-P 604.9. ARRESTORS SHALL BE FACTORY FABRICATED, SIZED PER PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.I. WH-201. AIR CHAMBERS SHALL NOT BE CONSIDERED AN EQUAL TO WATER HAMMER ARRESTORS AS SPECIFIED.	
5. BALL VALVES 1/4" THRU 2" SHALL BE TWO PIECE - 600 WOG, TEFLON SEATS, ANSI 316 STAINLESS STEEL BALL AND STEM (EXTENSION STEM ON INSULATED HOT WATER AND TEMPERED HOT WATER), BRONZE BODY WITH THREADED OR SOLDER ENDS.	
6. DURING CONSTRUCTION ALL PRESSURE PIPING SYSTEMS SHALL RECEIVE A HYDROSTATIC TEST OF 1-1/2 TIMES THE OPERATING PRESSURE FOR A PERIOD OF NOT LESS THAN EIGHT (8) HOURS. NO LEAKAGE EVIDENT DURING THE TEST PERIOD IS ALLOWED. NOTIFY THE ARCHITECT AND ENGINEER OF RECORD 24 HOURS IN ADVANCE OF ANY TESTING SO THAT THEY MAY OBSERVE IF THE NEED IS CALLED FOR. PIPING SYSTEMS, EQUIPMENT, SPECIALTIES, PUMPS, TRAPS, VALVES, STRAINERS, ETC. SHALL BE INSPECTED AND TESTED FOR PROPER FUNCTIONALITY AT THE CONCLUSION OF CONSTRUCTION AND ANY LEAKAGE OR MALFUNCTIONS SHALL BE REPAIRED.	
7. PROVIDE ISOLATION AND ASSE1024 DUAL CHECK BACKFLOW PREVENTION BEFORE AND BEVERAGE CONNECTION, CARBONATED DEVICE(ASSE1022), STERILIZATION EQUIPMENT, AND ICE MACHINE SUPPLY, PER FBC-P608.3 AND 608.17.	
8. MOUNT HOSE BIBBS 24" ABOVE FINISHED GRADE, UNLESS OTHERWISE NOTED.	
9. ALL PRESSURE PIPING SHALL BE INSTALLED ABOVE CEILING AND IN WALLS UNLESS NOTED OTHERWISE.	
10. BELOW GRADE	
10.1. PIPING SHALL BE COATED WITH HEAVY TROWEL GRADE LION OIL CO. NOKORODE SEALKOTE OR APPROVED EQUAL.	
10.2. UNDERGROUND SERVICE PIPING SHALL BE COPPER TUBING.	
11. PIPING SPECIFICATIONS	
11.1. ABOVE GRADE DOMESTIC COLD WATER SUPPLY PIPING SHALL BE HIGH IMPACT CPVC WITH SOLVENT WELD FITTINGS.	
11.1.1. PROVIDE TRANSITION FITTINGS AS REQUIRED TO INSTALL VALVES, FIXTURE STOPS, EQUIPMENT AND OTHER COMPONENTS.	
11.1.2. ALL PIPES AND FITTINGS SHALL CONFORM TO ASTM 1784.	
11.2. PIPING LOCATED IN RETURN AIR PLENUMS SHALL BE TYPE L HARD COPPER TUBE OR CPVC WITH 1" THICK FIRE WRAP INSULATION SEALED TO PROVIDE FS/SD=25/50.	
11.3. EXPOSED PIPING SHALL BE TYPE L HARD COPPER TUBE PAINTED TO MATCH ADJACENT ARCHITECTURAL SURFACE.	
12. INSULATION SPECIFICATIONS	
12.1. INSULATE COLD WATER SUPPLY PIPING IN EXTERIOR WALLS AND ATTIC AS WELL AS ALL HOT WATER WITH 1" IMCOLOCK PRE-SLIT, PRE-GLUED INSULATION. INSULATE FITTINGS WITH MITERED CUT PIECES OF IMCOLOCK, 1" INSULATION.	
12.2. THERE SHALL BE NO EXPOSED HOT WATER SUPPLY PIPING EXCEPT WITHIN MECHANICAL OR EQUIPMENT ROOMS.	
12.3. PIPING UNDER HANDICAPPED LAVATORIES SHALL BE INSULATED PER AMERICANS WITH DISABILITIES ACT WITH FACTORY FABRICATED SEAMLESS MICROBIAL PVC RESIN INSULATION.	
13. EXPOSED PIPING	
13.1. ALL EXPOSED PIPING SHALL BE COORDINATED WITH OTHER ABOVE-CEILING SYSTEMS AND ROUTED TO AVOID CONFLICTS EVEN IF ITS ROUTING IS DIFFERENT THAN THAT WHICH IS SHOWN ON THESE PLANS.	
13.2. ALL EXPOSED PIPING SHALL BE INSTALLED NEAT AND ORDERLY. PAINT TO MATCH ADJACENT ARCHITECTURAL SURFACE OR AS DIRECTED BY ARCHITECT.	



FSM Engineering
150 John Knox Road
Tallahassee, FL 32303
p.850.222.5683
FL CA 28968

GADSDEN CO. BOCC

**Gadsden Co
EMS Facility**

Joe Adams Road
Quincy, FL 32351



**Clemons, Rutherford,
& Associates, Inc.**

Architects
Planners
Interior Designers
Construction Managers
2027 Thomasville Road
Tallahassee, Florida 32308
phone 850-385-6153
fax 850-386-8420
cra@craarchitects.com

The Drawings, Specifications and other documents prepared by Clemons, Rutherford & Associates, Inc. (CRA) for this Project are instruments of CRA for use solely with respect to this Project and, unless otherwise provided, CRA shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including the copyright. The Owner shall be permitted to retain copies, including reproducible copies, of CRA's Drawings, Specifications and other documents for information and reference in connection with the Owner's use and occupancy of the Project. CRA's Drawings, Specifications and other documents shall not be used by the Owner or others on other projects, for documents shall not be used by the Owner or others on other projects, in addition to this Project or for completion of this Project by others, unless the Architect is assigned to be in default under this Agreement, except by agreement in writing and with appropriate compensation to CRA.



Robert E. Gelhardt II, PE#77568

Submittal

Phase	Date	Drw	Chk
100% Construction Doc.	5/26/25	BK	RG
100% Review Documents	12/16/24	BK	RG
Design Development	7/31/24	BK	RG
Schematic Design	6/25/24	BK	RG
-	-	-	-
-	-	-	-

Revision

#	Description	Date



FSM Engineering
150 John Knox Road
Tallahassee, FL 32303
p.850.222.5683
FL CA 28968

GADSDEN CO. BOCC

**Gadsden Co
EMS Facility**

Joe Adams Road
Quincy, FL 32351



**Clemons, Rutherford,
& Associates, Inc.**

Architects
Planners
Interior Designers
Construction Managers

2027 Thomasville Road
Tallahassee, Florida 32308

phone 850-385-6153
fax 850-386-8420
cra@craarchitects.com

The Drawings, Specifications and other documents prepared by Clemons, Rutherford & Associates, Inc. (CRA) for this Project are instruments of CRA for use solely with respect to this Project and, unless otherwise provided, CRA shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including the copyright. The Owner shall be permitted to retain copies, including reproducible copies, of CRA's Drawings, Specifications and other documents for information and reference in connection with the Owner's use and occupancy of the Project. CRA's Drawings, Specifications or other documents shall not be used by the Owner or others on other projects, for documents shall not be used by the Owner or others on other projects, in addition to this Project or for completion of this Project by others, unless the Architect is adjudged to be in default under this Agreement, except by agreement in writing and with appropriate compensation to CRA.



Robert E. Gelhardt II, PE#77568

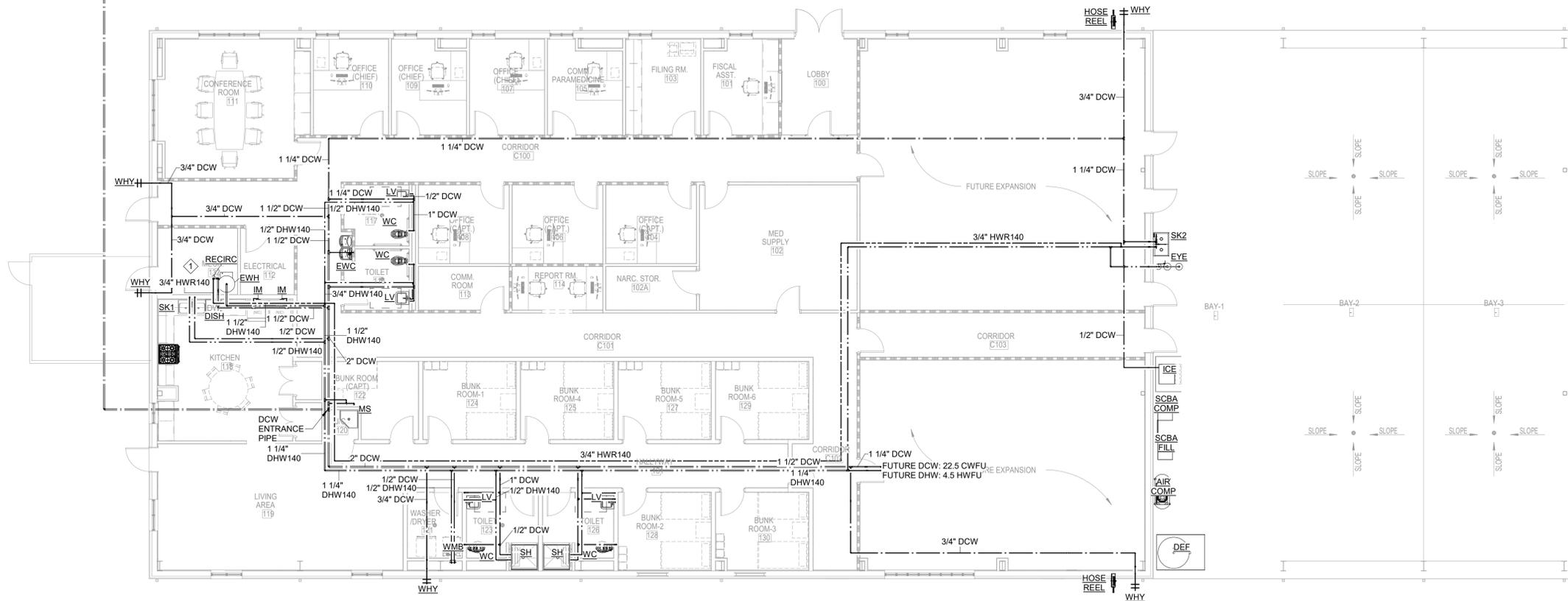
PRESSURE GENERAL NOTES

1. WATER PIPING MATERIAL & FITTINGS FROM PLUMBING FIXTURES ON ALL FLOORS SHALL BE EITHER A) COPPER (AS SPEC'D IN PLUMBING MATERIAL SCHEDULE), OR B) CPVC PRODUCT.
2. ALL HOT WATER & HOT WATER RETURN SYSTEM SHALL BE INSULATED AS INDICATED IN PLUMBING MATERIAL SCHEDULE.
3. ALL FAUCETS SHALL BE EQUIPPED WITH TEMPERATURE & PRESSURE VALVES AS REQUIRED BY ASME-A112.1070-2014, ASSE-1016-2011, ASSE-1017-2014 & ASSE-1070-2014 USING THERMOSTATIC MIXING VALVES; HOT WATER DELIVERED TO MIXING VALVES FROM WATER HEATERS SHALL BE SUPPLIED AT 120F DEGREES IN ORDER TO CONTROL BACTERIA. ADJUSTMENTS MUST BE MADE AT FIXTURES TO ASSURE TEMPERED WATER COMPLIANCE AS SET FORTH BY GOVERNING CODES.
4. ALL FAUCETS SHALL HAVE FACTORY BUILT-IN TEMPERATURE LIMIT TO PREVENT SCALDING.

RENOVATION PRESSURE KEYED NOTES

- | | |
|---|---|
| 1 | HOT WATER FILL LINE SHALL BE INSTALLED WITH BACKFLOW PREVENTER. |
|---|---|

FROM 2" DCW METER



1 PHASE 1 PRESSURE FLOOR PLAN
P1.2 Scale: 1/8" = 1'-0"

PROPRIETARY INFORMATION: THESE DOCUMENTS ARE THE PROPERTY OF CRA ARCHITECTS, INC. AND ARE NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPIING, RECORDING, OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF CRA ARCHITECTS, INC.

Submittal

Phase	Date	Drw	Chk
100% Construction Doc.	5/26/25	BK	RG
100% Review Documents	12/16/24	BK	RG
Design Development	7/31/24	BK	RG
Schematic Design	6/25/24	BK	RG

Revision

#	Description	Date

CRA Project # **23065**

Phase: **100% Construction Documents**

SHEET TITLE
**FLOOR PLAN -
PRESSURE
P1.2**



FSM Engineering
150 John Knox Road
Tallahassee, FL 32303
p.850.222.5683
FL CA 28968

GADSDEN CO. BOCC

**Gadsden Co
EMS Facility**

Joe Adams Road
Quincy, FL 32351



**Clemons, Rutherford,
& Associates, Inc.**

Architects
Planners
Interior Designers
Construction Managers
2027 Thomasville Road
Tallahassee, Florida 32308
phone 850-385-6153
fax 850-386-8420
cra@craarchitects.com

The Drawings, Specifications and other documents prepared by Clemons, Rutherford & Associates, Inc. (CRA) for this Project are instruments of CRA for use solely with respect to this Project and, unless otherwise provided, CRA shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including the copyright. The Owner shall be permitted to retain copies, including reproducible copies, of CRA's Drawings, Specifications and other documents for information and reference in connection with the Owner's use and occupancy of the Project. CRA's Drawings, Specifications and other documents shall not be used by the Owner or others on other projects, for documents shall not be used by the Owner or others on other projects, for additions to this Project or for completion of this Project by others, unless the Architect is adjudged to be in default under this Agreement, except by agreement in writing and with appropriate compensation to CRA.



Robert E. Gelhardt II, PE#77568

Submittal

Phase	Date	Drw	Chk
100% Construction Doc.	5/26/25	BK	RG
100% Review Documents	12/16/24	BK	RG
Design Development	7/31/24	BK	RG
Schematic Design	6/25/24	BK	RG

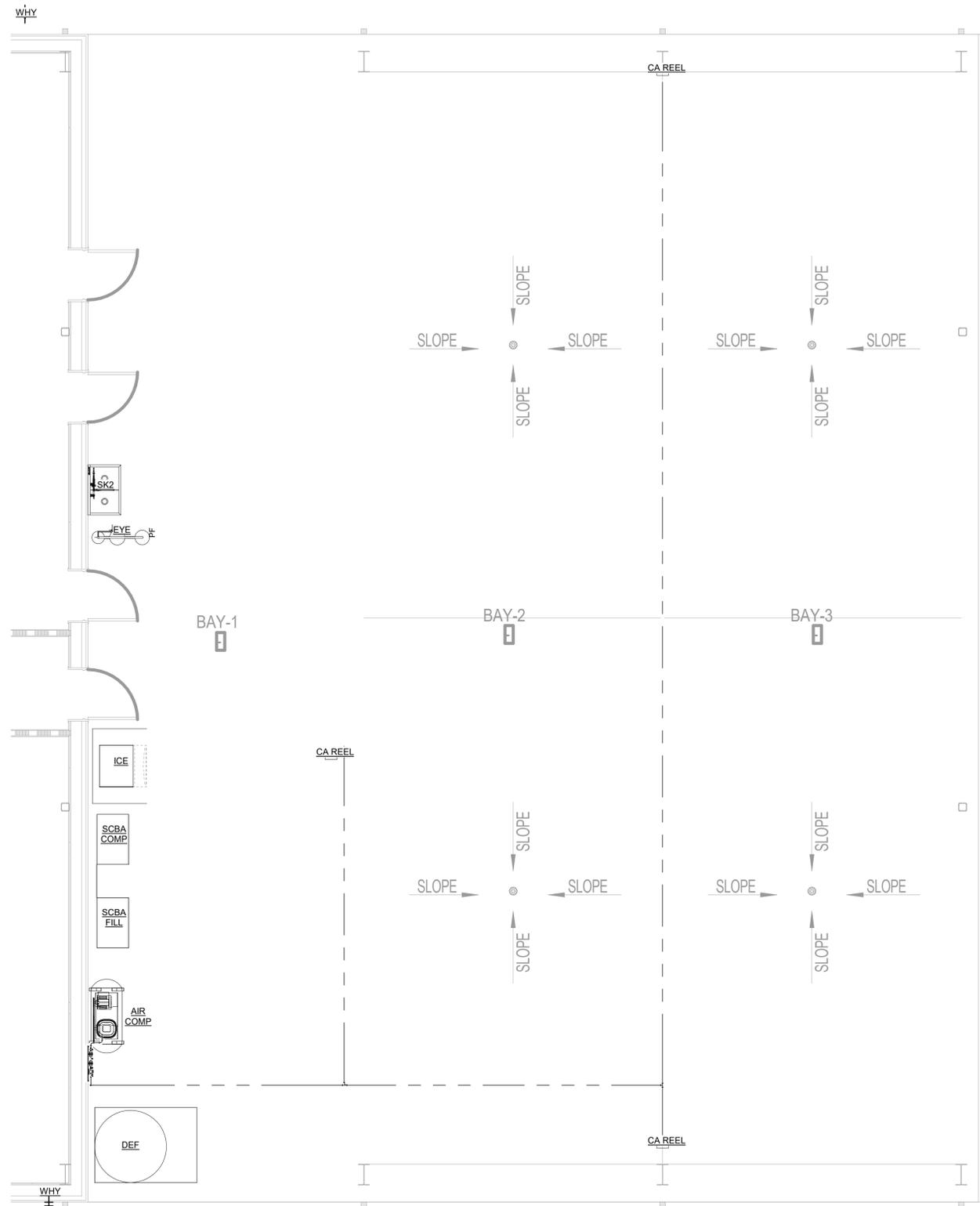
Revision

#	Description	Date

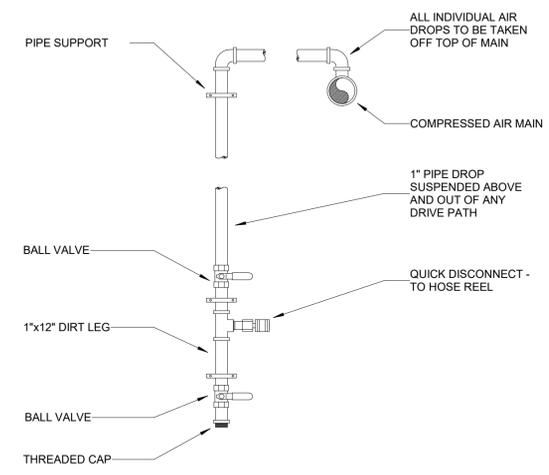
CRA Project # **23065**

Phase: **100% Construction Documents**

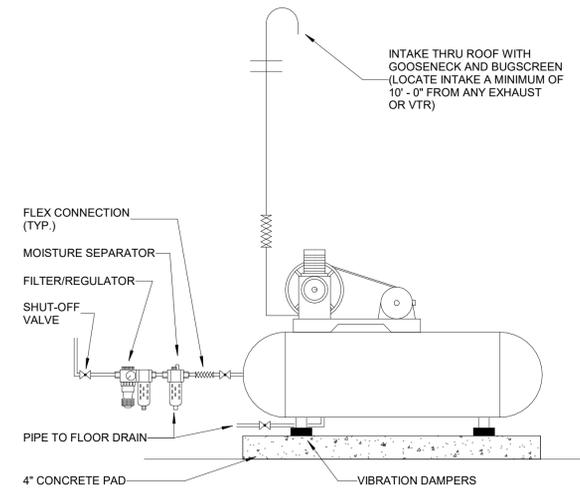
SHEET TITLE
FLOOR PLAN - BAY EQUIPMENT
P1.3



1 FLOOR PLAN - BAY EQUIPMENT AND COMPRESSED AIR
P1.3 Scale: 1/4" = 1'-0"



2 COMPRESSED AIR DROP DETAIL
P1.3 SCALE: NTS



3 PLANT AIR COMPRESSOR DETAIL
P1.3 SCALE: NTS

PROPRIETARY TO THE ARCHITECT. NO PART OF THESE DOCUMENTS MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPIING, RECORDING, OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF THE ARCHITECT.



FSM Engineering
 150 John Knox Road
 Tallahassee, FL 32303
 p.850.222.5683
 FL CA 28968

GADSDEN CO. BOCC

**Gadsden Co
 EMS Facility**

Joe Adams Road
 Quincy, FL 32351



**Clemons, Rutherford,
 & Associates, Inc.**

Architects
 Planners
 Interior Designers
 Construction Managers

2027 Thomasville Road
 Tallahassee, Florida 32308

phone 850-385-6153
 fax 850-386-8420
 cra@craarchitects.com

The Drawings, Specifications and other documents prepared by Clemons, Rutherford & Associates, Inc. (CRA) for this Project are instruments of CRA for use solely with respect to this Project and, unless otherwise provided, CRA shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including the copyright. The Owner shall be permitted to retain copies, including reproducible copies, of CRA's Drawings, Specifications and other documents for information and reference in connection with the Owner's use and occupancy of the Project. CRA's Drawings, Specifications and other documents shall not be used by the Owner or others on other projects, for documents shall not be used by the Owner or others on other projects, for additions to this Project or for completion of this Project by others, unless the Architect is adjudged to be in default under this Agreement, except by agreement in writing and with appropriate compensation to CRA.



Robert E. Gelhardt II, PE#77568

Submittal

Phase	Date	Drw	Chk
100% Construction Doc.	5/26/25	BK	RG
100% Review Documents	12/16/24	BK	RG
Design Development	7/31/24	BK	RG
Schematic Design	6/25/24	BK	RG

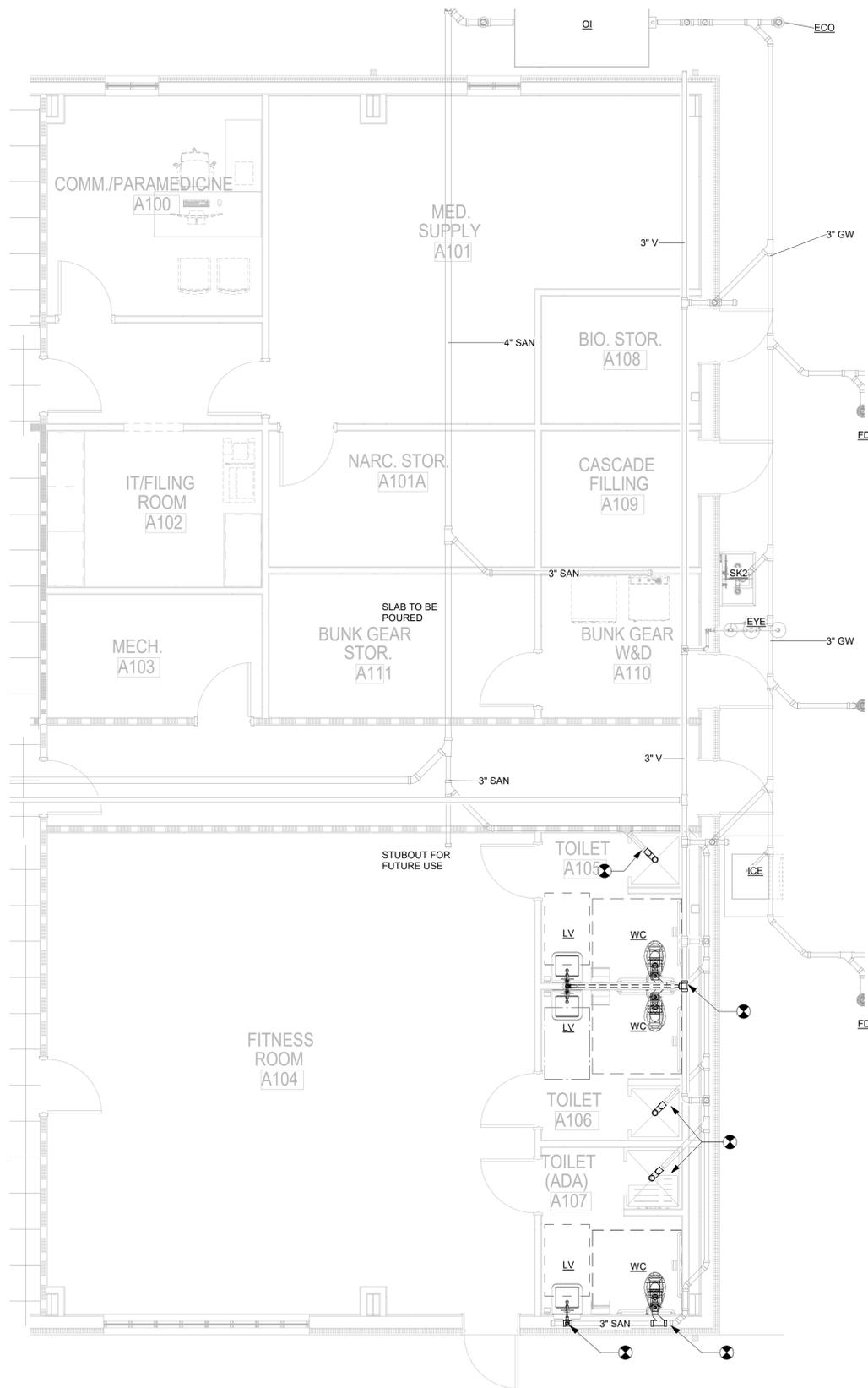
Revision

#	Description	Date

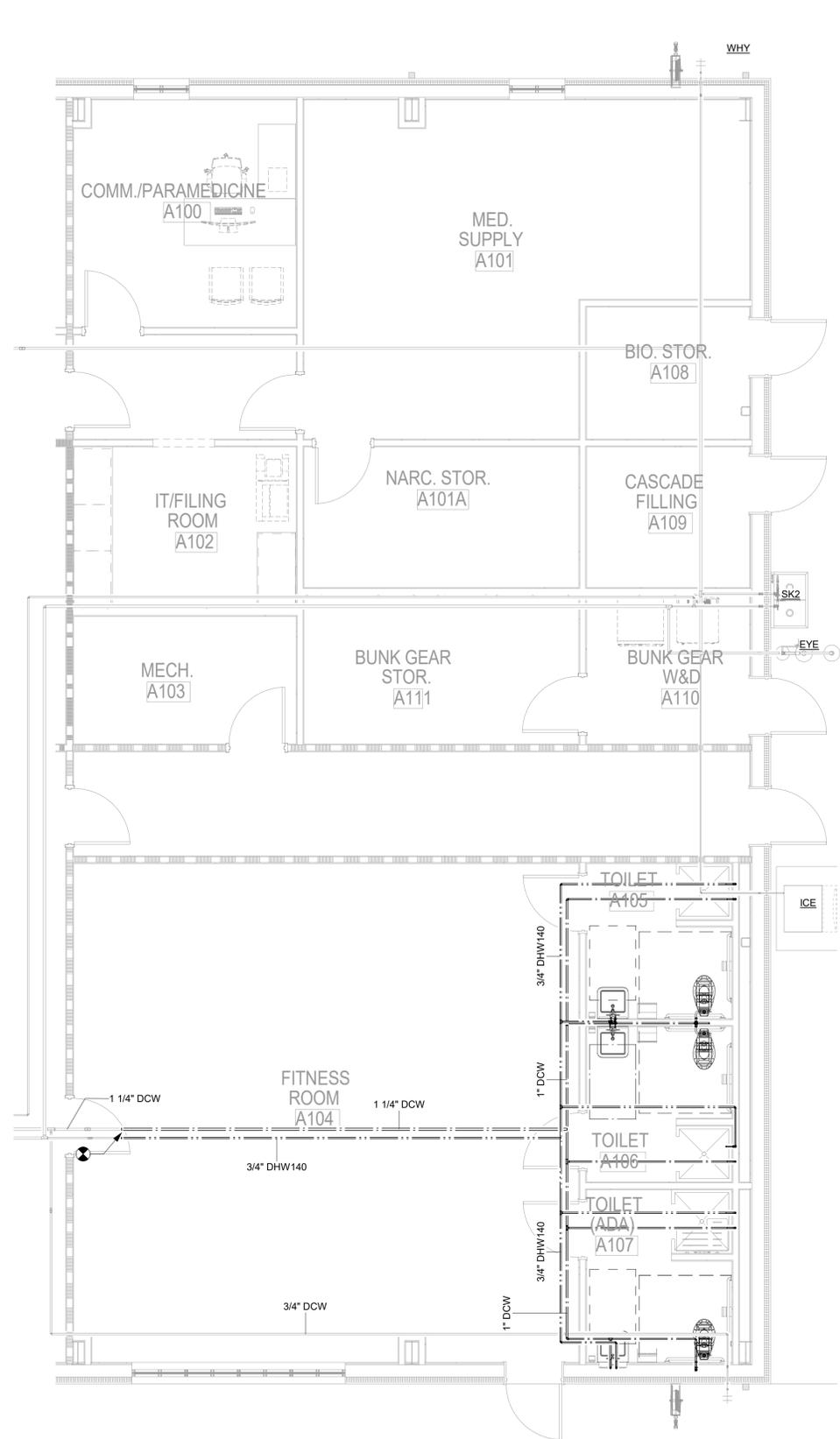
CRA Project # **23065**

Phase: **100% Construction Documents**

SHEET TITLE
PLUMBING ENLARGED PLANS
P4.1



1 ENLARGED PLAN - FUTURE BUILDOUT - SANITARY
 P4.1 Scale: 1/4" = 1'-0"



2 ENLARGED PLAN - FUTURE BUILDOUT - PRESSURE
 P4.1 Scale: 1/4" = 1'-0"

REPRODUCED FROM THE ORIGINAL DRAWING. THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF THE ARCHITECT. NO PART OF THESE DOCUMENTS MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING, OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF THE ARCHITECT.



FSM Engineering
150 John Knox Road
Tallahassee, FL 32303
p.850.222.5683
FL CA 28968

GADSDEN CO. BOCC

**Gadsden Co
EMS Facility**

Joe Adams Road
Quincy, FL 32351



**Clemons, Rutherford,
& Associates, Inc.**

Architects
Planners
Interior Designers
Construction Managers

2027 Thomasville Road
Tallahassee, Florida 32308

phone 850-385-6153
fax 850-386-8420
cra@craarchitects.com

The Drawings, Specifications and other documents prepared by Clemons, Rutherford & Associates, Inc. (CRA) for this Project are instruments of CRA for use solely with respect to this Project and, unless otherwise provided, CRA shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including the copyright. The Owner shall be permitted to retain copies, including reproducible copies, of CRA's Drawings, Specifications and other documents for information and reference in connection with the Owner's use and occupancy of the Project. CRA's Drawings, Specifications and other documents shall not be used by the Owner or others on other projects, for documents shall not be used by the Owner or others on other projects, in addition to this Project or for completion of this Project by others, unless the Architect is adjudged to be in default under this Agreement, except by agreement in writing and with appropriate compensation to CRA.



Robert E. Gelhardt II, PE#77568

Submittal

Phase	Date	Drw	Chk
100% Construction Doc.	5/26/25	BK	RG
100% Review Documents	12/16/24	BK	RG
Design Development	7/31/24	BK	RG
Schematic Design	6/25/24	BK	RG
-	-	-	-
-	-	-	-

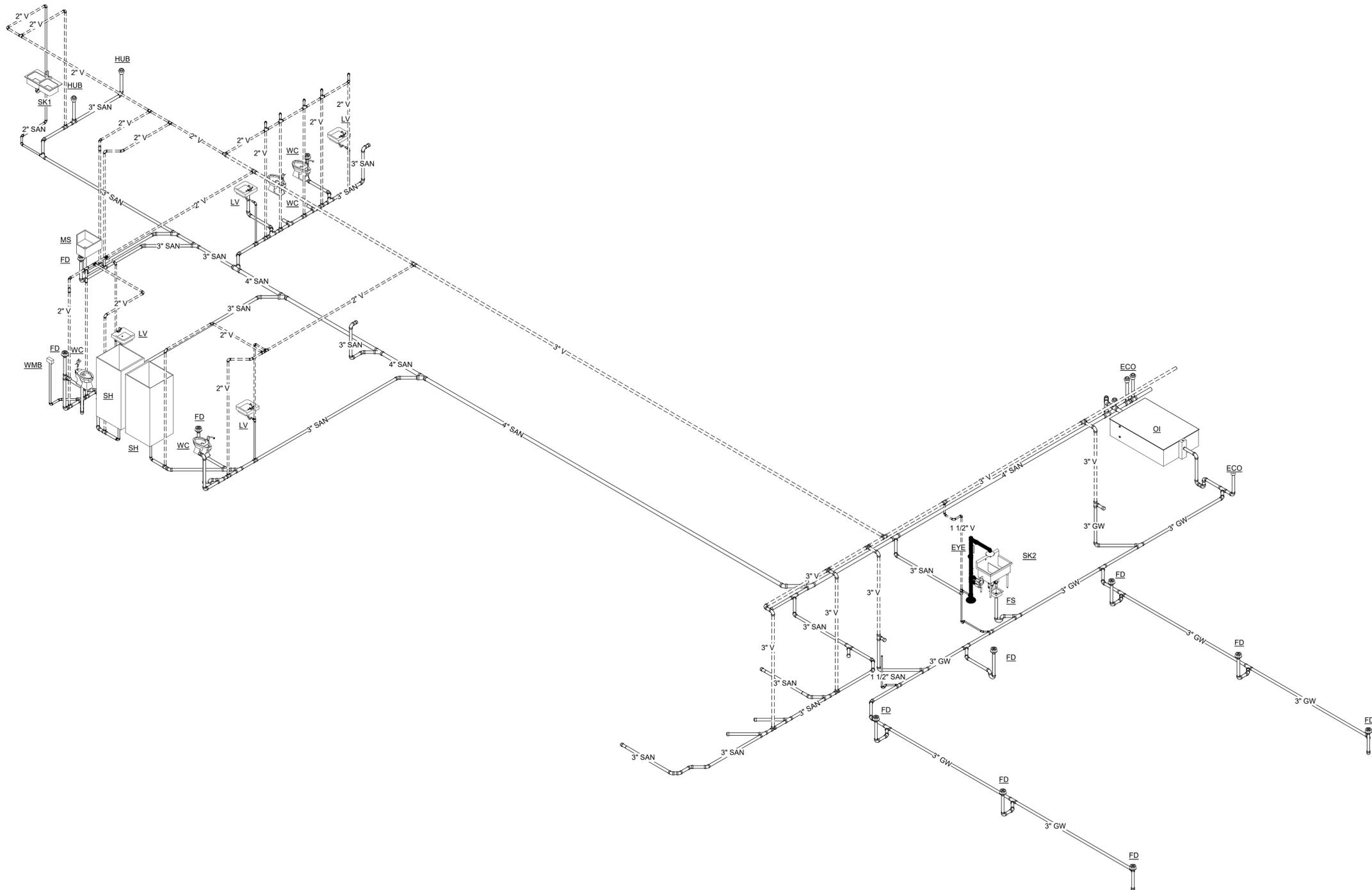
Revision

#	Description	Date

CRA Project # **23065**

Phase: **100% Construction Documents**

SHEET TITLE
**SANITARY RISER
DIAGRAM
P9.1**



1 SANITARY RISER
Scale:

PROPRIETARY TO THE DESIGN PROFESSIONAL ENGINEER. THESE DRAWINGS ARE THE PROPERTY OF THE DESIGN PROFESSIONAL ENGINEER. NO PART OF THESE DOCUMENTS MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPIING, RECORDING, OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION.



FSM Engineering
150 John Knox Road
Tallahassee, FL 32303
p.850.222.5683
FL CA 28968

GADSDEN CO. BOCC

**Gadsden Co
EMS Facility**

Joe Adams Road
Quincy, FL 32351



**Clemons, Rutherford,
& Associates, Inc.**

Architects
Planners
Interior Designers
Construction Managers

2027 Thomasville Road
Tallahassee, Florida 32308

phone 850-385-6153
fax 850-386-8420
cra@craarchitects.com

The Drawings, Specifications and other documents prepared by Clemons, Rutherford & Associates, Inc. (CRA) for this Project are instruments of CRA for use solely with respect to this Project and, unless otherwise provided, CRA shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including the copyright. The Owner shall be permitted to retain copies, including reproducible copies, of CRA's Drawings, Specifications and other documents for information and reference in connection with the Owner's use and occupancy of the Project. CRA's Drawings, Specifications and other documents shall not be used by the Owner or others on other projects, for documents shall not be used by the Owner or others on other projects, for additions to this Project or for completion of this Project by others, unless the Architect is adjudged to be in default under this Agreement, except by agreement in writing and with appropriate compensation to CRA.



Robert E. Gelhardt II, PE#77568

Submittal

Phase	Date	Drw	Chk
100% Construction Doc.	5/26/25	BK	RG
100% Review Documents	12/16/24	BK	RG
Design Development	7/31/24	BK	RG
Schematic Design	6/25/24	BK	RG
-	-	-	-
-	-	-	-

Revision

#	Description	Date

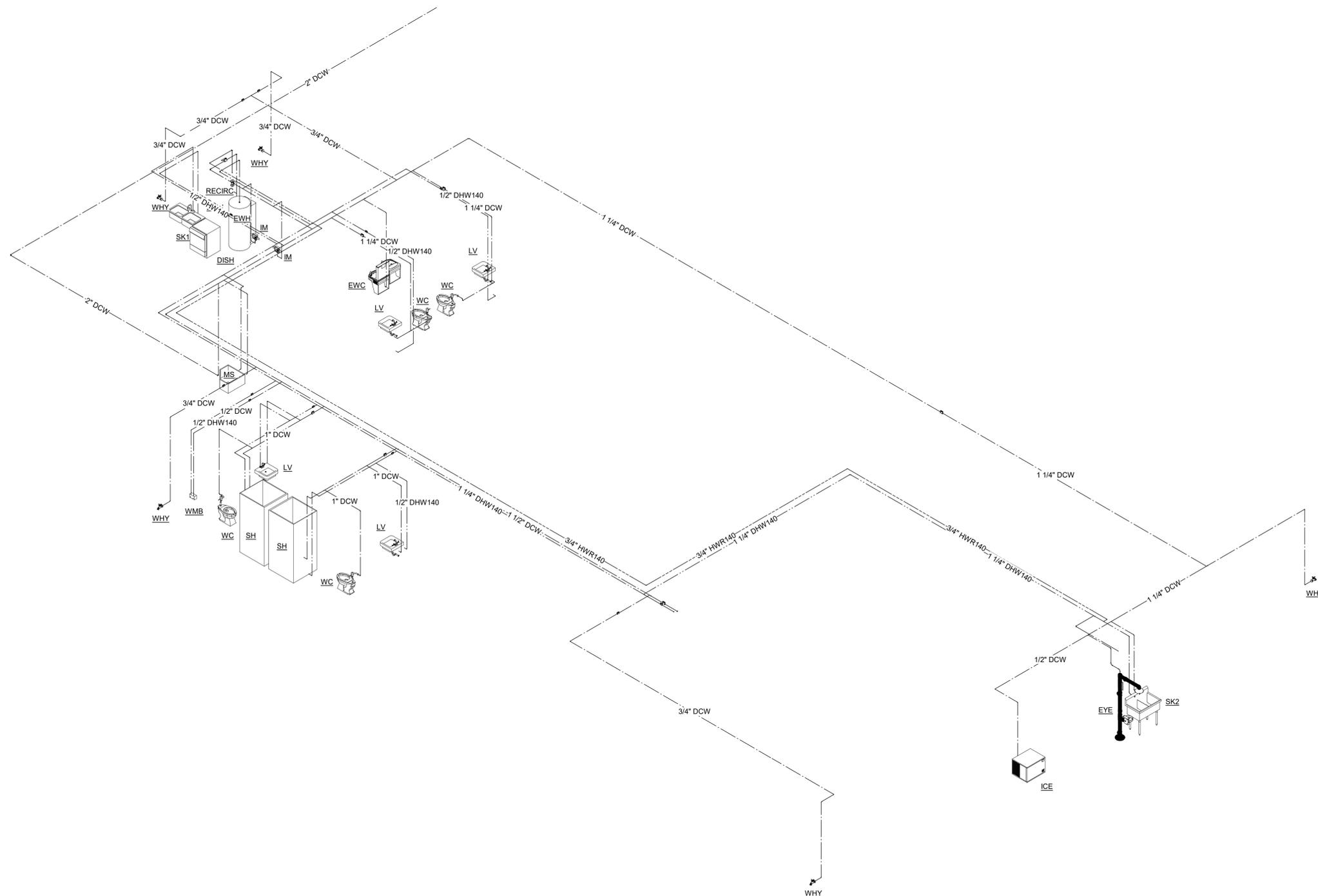
CRA Project # **23065**

Phase: **100% Construction Documents**

SHEET TITLE

**PRESSURE RISER
DIAGRAM**

P9.2

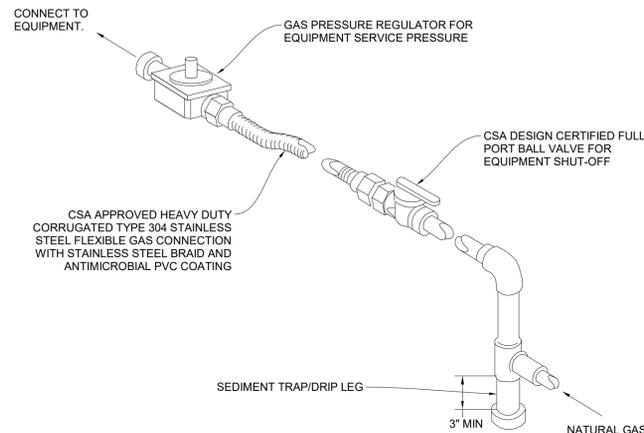


1 PRESSURE RISER
P9.2 Scale:

REPRODUCED BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF THE ARCHITECT. NO PART OF THESE DOCUMENTS MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING, OR OTHERWISE WITHOUT THE PRIOR WRITTEN PERMISSION OF THE ARCHITECT.

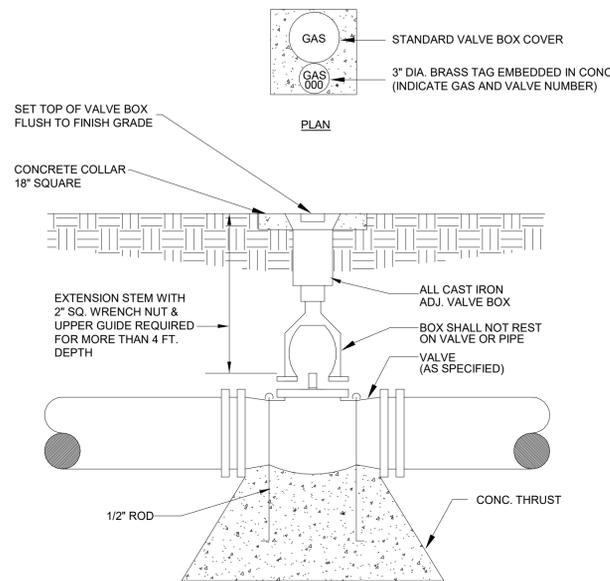
GAS PIPING

1. INSTALL GAS PIPING, APPLIANCES, AND SPECIALTIES IN ACCORDANCE WITH FBC-FUEL GAS 2020, 7TH ED, NFPA-54.
2. CLEARANCES. UNDERGROUND GAS PIPING SHALL BE INSTALLED WITH SUFFICIENT CLEARANCE FROM ANY OTHER UNDERGROUND STRUCTURE TO AVOID CONTACT THEREWITH, TO ALLOW MAINTENANCE, AND TO PROTECT AGAINST DAMAGE FROM PROXIMITY TO OTHER STRUCTURES. IN ADDITION, UNDERGROUND PLASTIC PIPING SHALL BE INSTALLED WITH SUFFICIENT CLEARANCE OR SHALL BE INSULATED FROM ANY SOURCE OF HEAT SO AS TO PREVENT THE HEAT FROM IMPAIRING THE SERVICEABILITY OF THE PIPE.
3. COVER REQUIREMENTS. UNDERGROUND PIPING SYSTEMS SHALL BE INSTALLED WITH A MINIMUM OF 18IN. OF COVER. WHERE EXTERNAL DAMAGE TO THE PIPE IS NOT LIKELY TO RESULT, THE MINIMUM COVER SHALL BE 12IN(300MM). WHERE A MINIMUM OF 12IN OF COVER CANNOT BE PROVIDED, THE PIPE SHALL BE INSTALLED IN CONDUIT OR BRIDGED(SHIELDED).
4. THROUGH FOUNDATION WALL. UNDERGROUND PIPING, WHERE INSTALLED THROUGH THE OUTER FOUNDATION OR BASEMENT WALL OF A BUILDING, SHALL BE ENCASED IN A PROTECTIVE PIPE. THE SPACE BETWEEN THE GAS PIPING AND THE BUILDING SHALL BE SEALED TO PREVENT ENTRY OF GAS OR WATER.
5. PIPING UNDERGROUND BENEATH BUILDINGS. WHERE THE INSTALLATION OF GAS PIPING UNDERGROUND BENEATH BUILDINGS IS UNAVOIDABLE, THE PIPING SHALL BE ENCASED IN AN APPROVED CONDUIT DESIGNED TO WITHSTAND THE SUPERIMPOSED LOADS. THE CONDUIT SHALL EXTEND INTO A NORMALLY USABLE AND ACCESSIBLE PORTION OF THE BUILDING AND, AT THE POINT WHERE THE CONDUIT TERMINATES IN THE BUILDING, THE SPACE BETWEEN THE CONDUIT AND THE GAS PIPING SHALL BE SEALED TO PREVENT THE POSSIBLE ENTRANCE OF ANY GAS LEAKAGE WHERE THE END SEALING IS OF A TYPE THAT WILL RETAIN THE FULL PRESSURE OF THE PIPE. THE CONDUIT SHALL BE DESIGNED FOR THE SAME PRESSURE AS THE PIPE. THE CONDUIT SHALL EXTEND AT LEAST 4IN(100MM) OUTSIDE THE BUILDING, BE VENTED ABOVE GRADE TO THE OUTSIDE, AND BE INSTALLED SO AS TO PREVENT THE ENTRANCE OF WATER AND INSECTS.
6. CONNECTION OF PLASTIC PIPING. PLASTIC PIPE SHALL BE INSTALLED OUTSIDE, UNDERGROUND ONLY.
7. CONNECTIONS BETWEEN METALLIC AND PLASTIC PIPING. CONNECTIONS MADE OUTSIDE AND UNDERGROUND BETWEEN METALLIC AND PLASTIC PIPING SHALL BE MADE ONLY WITH ASTM D 2515, STANDARD SPECIFICATION FOR THERMOPLASTIC GAS PRESSURE PIPE, TUBING, AND FITTINGS, CATEGORY 1 TRANSITION FITTINGS.
8. HANGERS, SUPPORTS, AND ANCHORS. PIPING SHALL BE SUPPORTED WITH PIPE HOOKS, METAL PIPE STRAPS, BANDS, BRACKETS, OR HANGERS SUITABLE FOR THE SIZE OF PIPING, OF ADEQUATE STRENGTH AND QUALITY, AND LOCATED AT INTERVALS SO AS TO PREVENT OR DAMP OUT EXCESSIVE VIBRATION. PIPING SHALL BE ANCHORED TO PREVENT UNDUE STRAINS ON CONNECTED EQUIPMENT AND SHALL NOT BE SUPPORTED BY OTHER PIPING. PIPE HANGERS AND SUPPORTS SHALL CONFORM TO THE REQUIREMENTS OF ANS/MSS SP-58. PIPE HANGERS AND SUPPORTS-MATERIALS, DESIGN AND MANUFACTURE.
9. OTHER OCCUPANCIES. IN OTHER THAN INDUSTRIAL OCCUPANCIES AND WHERE APPROVED BY THE AUTHORITY HAVING JURISDICTION, GAS PIPING EMBEDDED IN CONCRETE FLOOR SLABS CONSTRUCTED WITH PORTLAND CEMENT SHALL BE SURROUNDED WITH A MINIMUM OF 1 1/2IN OF CONCRETE AND SHALL NOT BE IN PHYSICAL CONTACT WITH OTHER METALLIC STRUCTURES SUCH AS REINFORCING RODS OR ELECTRICALLY NEUTRAL CONDUCTORS. ALL PIPING, FITTINGS, AND RISERS SHALL BE PROTECTED AGAINST CORROSION IN ACCORDANCE WITH NFPA-54. PIPING SHALL NOT BE EMBEDDED IN CONCRETE SLABS CONTAINING QUICKSET ADDITIVES OR CINDER AGGREGATE.
10. EACH OUTLET, INCLUDING A VALVE, SHALL BE CLOSED GAS TIGHT WITH A THREADED PLUG OF CAP IMMEDIATELY AFTER INSTALLATION AND SHALL BE LEFT CLOSED UNTIL THE GAS UTILIZATION EQUIPMENT IS CONNECTED THERETO. WHEN EQUIPMENT IS DISCONNECTED FROM AN OUTLET AND THE OUTLET IS NOT TO BE USED AGAIN IMMEDIATELY, IT SHALL BE CLOSED GAS TIGHT.
11. GAS APPLIANCE FLEXIBLE CONNECTIONS SHALL BE MADE IN COMPLIANCE WITH FBC-FG SECTION 411.1 AND 411.1.1.

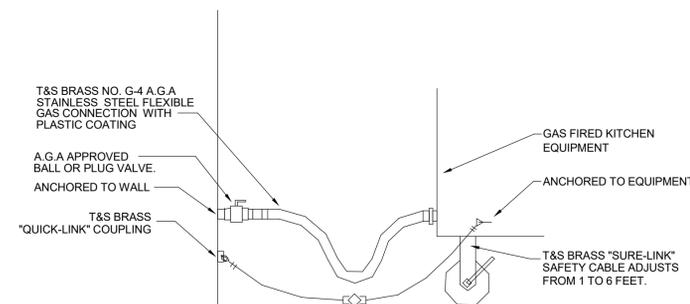


- NOTE:**
1. SEE DRAWING FOR DISTRIBUTION PIPE SIZE.
 2. UNDERGROUND PIPING SHALL BE HOT-DIPPED GALVANIZED OR COPPER TUBING.
 3. SIZE REGULATORS TO DELIVER REQUISITE INPUT X 110% AT MAXIMUM PIPING SYSTEM/DISTRIBUTION PRESSURE DROPS, I.E. MINIMUM DELIVERY PRESSURES.

1 EQUIPMENT GAS CONNECTION DETAIL
SCALE: NTS



2 GAS SERVICE VALVE BOX DETAIL
SCALE: NTS



3 KITCHEN EQUIPMENT GAS CONNECTION
SCALE: NTS

TABLE 402.4(2) SCHEDULE 40 METALLIC PIPE

	Gas													
	Natural													
Inlet Pressure	Less than 2 psi													
Pressure Drop	0.5 in. w.c.													
Specific Gravity	0.60													
PIPE SIZE (inch)														
Nominal	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12
Actual ID	0.622	0.824	1.049	1.380	1.610	2.067	2.469	3.068	4.026	5.047	6.065	7.981	10.020	11.938
Length (ft)	Capacity in Cubic Feet of Gas Per Hour													
10	172	360	678	1,390	2,090	4,020	6,400	11,300	23,100	41,800	67,600	139,000	252,000	399,000
20	118	247	466	957	1,430	2,760	4,400	7,780	15,900	28,700	46,500	95,500	173,000	275,000
30	95	199	374	768	1,150	2,220	3,530	6,250	12,700	23,000	37,300	76,700	139,000	220,000
40	81	170	320	657	985	1,900	3,020	5,350	10,900	19,700	31,900	65,600	119,000	189,000
50	72	151	284	583	873	1,680	2,680	4,740	9,660	17,500	28,300	58,200	106,000	167,000
60	65	137	257	528	791	1,520	2,430	4,290	8,760	15,800	25,600	52,700	95,700	152,000
70	60	126	237	486	728	1,400	2,230	3,950	8,050	14,600	23,600	48,500	88,100	139,000
80	56	117	220	452	677	1,300	2,080	3,670	7,490	13,600	22,000	45,100	81,900	130,000
90	52	110	207	424	635	1,220	1,950	3,450	7,030	12,700	20,600	42,300	76,900	122,000
100	50	104	195	400	600	1,160	1,840	3,260	6,640	12,000	19,500	40,000	72,600	115,000
125	44	92	173	355	532	1,020	1,630	2,890	5,890	10,600	17,200	35,400	64,300	102,000
150	40	83	157	322	482	928	1,480	2,610	5,330	9,650	15,600	32,100	58,300	92,300
175	37	77	144	296	443	854	1,360	2,410	4,910	8,880	14,400	29,500	53,600	84,900
200	34	71	134	275	412	794	1,270	2,240	4,560	8,260	13,400	27,500	49,900	79,000



FSM Engineering
150 John Knox Road
Tallahassee, FL 32303
p.850.222.5683
FL CA 28968

GADSDEN CO. BOCC

**Gadsden Co
EMS Facility**

Joe Adams Road
Quincy, FL 32351



**Clemons, Rutherford,
& Associates, Inc.**

Architects
Planners
Interior Designers
Construction Managers
2027 Thomasville Road
Tallahassee, Florida 32308
phone 850-385-6153
fax 850-386-8420
cra@craarchitects.com

The Drawings, Specifications and other documents prepared by Clemons, Rutherford & Associates, Inc. (CRA) for this Project are instruments of CRA for use solely with respect to this Project and, unless otherwise provided, CRA shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including the copyright. The Owner shall be permitted to retain copies, including reproducible copies, of CRA's Drawings, Specifications and other documents for information and reference in connection with the Owner's use and occupancy of the Project. CRA's Drawings, Specifications or other documents shall not be used by the Owner or others on other projects, for documents shall not be used by the Owner or others on other projects, in addition to this Project or for completion of this Project by others, unless the Architect is assigned to be in default under this Agreement, except by agreement in writing and with appropriate compensation to CRA.



Submittal

Phase	Date	Drw	Chk
100% Construction Doc.	5/26/25	BK	RG
100% Review Documents	12/16/24	BK	RG
Design Development	7/31/24	BK	RG
Schematic Design	6/25/24	BK	RG
-	-	-	-
-	-	-	-

Revision

#	Description	Date

CRA Project # **23065**

Phase: **100% Construction Documents**

SHEET TITLE
**GAS NOTES &
LEGEND
PG0.1**

