SYMBOL	DESCRIPTION		
			ABOVE FINISHED FLOOR
14"x18"	SQUARE OR RECTANGULAR DUCT. FIRST FIGURE IS DIMENSION OF SIDE SHOWN ON PLAN	AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY
√ 14"Ø	ROUND DUCT. FIGURE IS DIAMETER OF THE DUCT	ASSOC	ASSOCIATED
		ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
	FLEX DUCT	AUX	AUXILIARY
	SUPPLY DUCTWORK	BHP	
	RETURN DUCTWORK	BOD BOP	BOTTOM OF DUCT/DEVICE (INSULATION NOT INCLUDED) BOTTOM OF PIPE
	EXHAUST DUCTWORK	CFM	CUBIC FEET PER MINUTE
$\overline{\boxtimes}$	CEILING SUPPLY AIR DIFFUSER.	CIP	CLEAN IN PLACE
		CMU	CONCRETE MASONRY UNIT
	CEILING RETURN AIR GRILLE/REGISTER	COMPR COND	COMPRESSOR
	CEILING EXHAUST AIR GRILLE/REGISTER	CV	CONSTANT VOLUME
N (L")	AIR DISTRIBUTION DEVICE. "A" IS TYPE MARK, "X" AND "Y"	DB	DRY BULB
(W") X" x Y" Z CFM	ARE NECK DIMENSIONS, AND "Z" IS AIR FLOW RATE. LINEAR DIFFUSERS ONLY: "N" IS NUMBER OF SLOTS, "L" IS LENGTH, "W" IS SLOT WIDTH.	DBA	DECIBELS, A WEIGHTED
(**) X"/Y" Ø	ELLIPTICAL DIMENSION. "X" IS THE MAJOR AXIS, AND "Y" IS	DPT	
Ы	THE MINOR AXIS. SIDEWALL SUPPLY AIR REGISTER WITH MANUAL BALANCING	EAT	ENTERING AIR TEMPERATURE ENERGY EFFICIENCY RATIO
	DAMPER	EL	ELEVATION
	SIDEWALL RETURN OR EXHAUST AIR GRILLE/REGISTER	ENT	ENTERING
	SIDE WALL RETORIN ON EXHAUST AIR GRIELE/REGISTER	ERV	ENERGY RECOVERY VENTILATION
	BEVELED RECTANGULAR TAP	ESP	EXTERNAL STATIC PRESSURE
		EXT	
	BEVELED RECTANGULAR TAP WITH MANUAL DAMPER	FRPM GA	FAN WHEEL REVOLUTIONS PER MINUTE
		HP	HORSE POWER
<u></u> _∕_ _┣	ROUND CONICAL TAKEOFF	HSPF	HEATING SEASONAL PERFORMANCE FACTOR
└╷╵╟╴╴╴	NUUNU UUNUAL IANLUFF	HTG	HEATING
┯ <u>╱</u> ┯ <u></u>		IEER	INTEGRATED ENERGY EFFICIENCY RATIO
	ROUND CONICAL SPIN-IN TAP W/ MANUAL DAMPER	IMP	INSULATED METAL PANEL
	ELBOW WITH TURNING VANES	IN KW	KILOWATT
		LAT	LEAVING AIR TEMPERATURE
		LVG	LEAVING
	MANUAL VOLUME DAMPER (MVD)	MBH	1,000 BRITISH THERMAL UNITS PER HOUR
		MCA MERV	MINIMUM CIRCUIT AMPACITY MINIMUM EFFICIENCY REPORTING VALUE
	MOTORIZED (ELECTRIC OPERATED) DAMPER	MOCP	MAXIMUM OVERCURRENT PROTECTION
XX	FIRE AND/OR SMOKE DAMPER AND SLEEVE.	MRE	MOISTURE REMOVAL EFFICIENCY
	XX= DAMPER DESIGNATOR (F=FIRE, S=SMOKE, F/S = COMBINATION FIRE/SMOKE DAMPER)	NSF	NATIONAL SANITARY FOUNDATION
	PROVIDE ACCESS DOOR	PSI	POUNDS PER SQUARE INCH
UC <u>1"</u>	UNDERCUT DOOR 1"	QTY RCP	QUANTITY REMOTE CONTROL PANEL
\bullet	CONNECTION OF NEW WORK TO EXISTING	SCR	SILICON CONTROLLED RECTIFIER
XXX	THERMOSTAT AND ASSOCIATED UNIT (XXX). BINARY OUTPUT.	SEER	SEASONAL ENERGY EFFICIENCY RATIO
XXXS	TEMPERATURE SENSOR AND ASSOCIATED UNIT (XXX). ANALOG OUTPUT.	SENS	SENSIBLE
XXX (H)	HUMIDITY SENSOR AND ASSOCIATED UNIT (XXX). ANALOG OUTPUT.	SF	SQUARE FEET
SD	DUCT MOUNTED SMOKE DETECTOR	SMACNA SP	SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIAT
S	MANUAL ON/OFF SWITCH	SQ	SQUARE
RSP X	REMOTE SETPOINT PANEL DUCT TYPE TAG. SEE DUCT SCHEDULE FOR DUCT TYPE "X"	SS	STAINLESS STEEL
REMOTE REFEREN		SZVAV	SINGLE ZONE VARIABLE AIR VOLUME
۱	L (LOW PORT), H (HIGH PORT) AAA (ASSOCIATED UNIT)	TYP UV	TYPICAL ULTRA-VIOLET
	SOLID DOT TERMINATES IN THE ROOM WITH PORT INLET. HOLLOW DOT INDICATES THE PORT INLET IS IN A LOCATION NOT SHOWN ON THE PLAN.	V/PH/HZ	VOLTS/PHASE/HERTZ
Х	X (SETPOINT TARGET)	VAV	VARIABLE AIR VOLUME
		VFD	VARIABLE FREQUENCY DRIVE
		WG	WATER GAUGE
		WB	WET BULB
NOTE: ALL SYMBOLS,	, ABBREVIATIONS, AND SYSTEMS SHOWN MAY NOT APPEAR ON DRAWINGS	WB WCI	WET BULB
	, ABBREVIATIONS, AND SYSTEMS SHOWN MAY NOT APPEAR ON DRAWINGS	WB WCI	WET BULB
М		WB WCI	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR
М	IECHANICAL	WB WCI	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET TYPE DESIGNATOR SHEET SUB-TYPE DESIGNATOR
М	IECHANICAL	WB WCI	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET TYPE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SEQUENCE NUMBER
M SYS 0A	OUTSIDE AIR	WB WCI	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET TYPE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SEQUENCE NUMBER
M SYS OA RA	IECHANICAL TEMS LEGEND	WB WCI	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET TYPE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SEQUENCE NUMBER
M SYS 0A	OUTSIDE AIR	WB WCI	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET TYPE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SEQUENCE NUMBER
M SYS OA RA	IECHANICAL TEMS LEGEND OUTSIDE AIR RETURN AIR	WB WCI	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET TYPE DESIGNATOR SHEET SEQUENCE NUMBER *SHEET SEQUENCE NUMBER *AREA DESIGNATOR *AREA DESIGNATOR *AREA DESIGNATOR
M SYS OA RA SA	IECHANICAL TEMS LEGEND OUTSIDE AIR RETURN AIR SUPPLY AIR	WB WCI	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET TYPE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SEQUENCE NUMBER *AREA DESIGNATOR *AREA DESIGNATOR *AREA DESIGNATOR *AREA DESIGNATOR
M SYS OA RA SA EA	IECHANICAL IECHANICAL OUTSIDE AIR IETURN AIR SUPPLY AIR EXHAUST AIR	WB WCI	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET TYPE DESIGNATOR SHEET SEQUENCE NUMBER *SHEET SEQUENCE NUMBER *AREA DESIGNATOR *AREA DESIGNATOR *AREA DESIGNATOR
M SYS OA RA SA EA TA CD	ECHANICAL DUTSIDE AIR Image: Dutside AIR	WB WCI	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET TYPE DESIGNATOR SHEET SEQUENCE NUMBER *SECTOR DESIGNATOR *AREA DESIGNATOR *AREA DESIGNATOR *AREA DESIGNATOR MECHANICAL DRAWINGS SHEET TYPE DESIGNATOR SHEET TYPE DESIGNATOR SHEET SEQUENCE NUMBER
M SYS OA RA SA EA TA	ECHANICAL DUTSIDE AIR Image: Dutside AIR	WB WCI	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET TYPE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SEQUENCE NUMBER *AREA DESIGNATOR *AREA DESIGNATOR *AREA DESIGNATOR *AREA DESIGNATOR MECHANICAL DRAWINGS MECHANICAL DRAWINGS SENERAL - SYMBOLS, LEGENDS, NOTES, ETC. PLANS ELEVATIONS & PROFILES
M SYS OA RA SA EA TA CD	ECHANICAL DUTSIDE AIR Image: Dutside AIR	WB WCI	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET TYPE DESIGNATOR SHEET SEQUENCE NUMBER * APPLICABLE TO PLANS ONLY DISCIPLINE DESIGNATOR * APPLICABLE TO PLANS ONLY DISCIPLINE DESIGNATOR MECHANICAL DRAWINGS SHEET TYPE DESIGNATOR SHEET TYPE DESIGNATOR SHEET SEQUENCE NUMBER * APPLICABLE TO PLANS ONLY MECHANICAL DRAWINGS SECTONS SECTONS & PROFILES SECTONS LARGE SCALE VIEWS
M SYS OA RA SA EA TA CD REFG	ECHANICAL UTSIDE AIR CUTSIDE AIR RETURN AIR SUPPLY AIR EXHAUST AIR TRANSFER AIR CONDENSATE DRAIN GAS REFRIGERANT	WB WCI	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SEQUENCE NUMBER *SECTOR DESIGNATOR *AREA DESIGNATOR
M SYS OA RA SA EA TA CD REFG	ECHANICAL UTSIDE AIR CUTSIDE AIR RETURN AIR SUPPLY AIR EXHAUST AIR TRANSFER AIR CONDENSATE DRAIN GAS REFRIGERANT	WB WCI S MN MN 0 1 2 3 4 5 6 7 8	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SEQUENCE NUMBER * SECTOR DESIGNATOR * APPLICABLE TO PLANS ONLY DISCIPLINE DESIGNATOR * APPLICABLE TO PLANS ONLY MECHANICAL DRAWINGS ELEVATIONS & PROFILES SECTIONS LARGE SCALE VIEWS DETAILS SCHEDULES AND DIAGRAMS MECHANICAL CONTROLS USER DEFINED
M SYS OA RA SA EA TA CD REFG	ECHANICAL UTSIDE AIR CUTSIDE AIR RETURN AIR SUPPLY AIR EXHAUST AIR TRANSFER AIR CONDENSATE DRAIN GAS REFRIGERANT	WB WCI S MN MN 0 1 2 3 4 5 6 7 8	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR SHEET TYPE DESIGNATOR SHEET TYPE DESIGNATOR SHEET SEQUENCE NUMBER "*AREA DESIGNATOR *AREA DESIGNATOR
M SYS OA RA SA EA TA CD REFG	ECHANICAL UTSIDE AIR CUTSIDE AIR RETURN AIR SUPPLY AIR EXHAUST AIR TRANSFER AIR CONDENSATE DRAIN GAS REFRIGERANT	WB WCI S MN MN 0 1 2 3 4 5 6 7 8	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SEQUENCE NUMBER *SECTOR DESIGNATOR *AREA DESIGNATOR
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M SYS OA RA SA EA TA CD REFG	ECHANICAL UTSIDE AIR CUTSIDE AIR RETURN AIR SUPPLY AIR EXHAUST AIR TRANSFER AIR CONDENSATE DRAIN GAS REFRIGERANT	WB WCI	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SEQUENCE NUMBER * APPLICABLE TO PLANS ONLY DISCIPLINE DESIGNATOR * APPLICABLE TO PLANS ONLY * APPLICABLE TO PLANS ONLY * APPLICABLE TO PLANS * APPLICABLE TO PLANS * APPLICABLE TO PLANS ONLY * APPLICABLE TO PLANS * APPLICABLE TO PLANS * APPLICABLE TO PLANS ONLY * APPLICABLE TO PLANS * APPLICABLE TO
M SYS OA RA SA EA TA CD REFG	ECHANICAL UTSIDE AIR CUTSIDE AIR RETURN AIR SUPPLY AIR EXHAUST AIR TRANSFER AIR CONDENSATE DRAIN GAS REFRIGERANT	WB WCI	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SEQUENCE NUMBER * APPLICABLE TO PLANS ONLY DISCIPLINE DESIGNATOR * APPLICABLE TO PLANS ONLY * APPLICABLE TO PLANS ONLY * APPLICABLE TO PLANS ONLY * APPLICABLE TO PLANS * APPLICABLE TO PLANS * APPLICABLE TO PLANS ONLY * APPLICABLE TO PLANS * APPLICABL
M SYS OA RA SA EA TA CD REFG	ECHANICAL UTSIDE AIR CUTSIDE AIR RETURN AIR SUPPLY AIR EXHAUST AIR TRANSFER AIR CONDENSATE DRAIN GAS REFRIGERANT	WB WCI	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR SHEET TYPE DESIGNATOR SHEET SEQUENCE NUMBER * APPLICABLE TO PLANS ONLY DISCIPLINE DESIGNATOR * APPLICABLE TO PLANS ONLY * APPLICABLE TO PLANS ONLY * APPLICABLE TO PLANS SCHEDULES AND DIAGRAMS MECHANICAL CONTROLS USER DEFINED SO FEPRIED SO FEPRIED SO FEPRIED W TYPES 1 & 4 ONLY FOUNDATION FIRST FLOOR / SLAB ELEVATED FLOORS STRUCTURE & FRAMING, MEZZANINE NTERST FLOOR / SLAB
M SYS OA RA SA EA TA CD REFG	ECHANICAL UTSIDE AIR CUTSIDE AIR RETURN AIR SUPPLY AIR EXHAUST AIR TRANSFER AIR CONDENSATE DRAIN GAS REFRIGERANT	WB WCI S S VIE 0 1 2 3 4 5 6 7 8 9 5 6 7 8 9 5	WET BULB WIRELESS COMMUNICATION INTERFACE MECHANICAL SHEET IDENTIFIER LEVEL 1 DISCIPLINE DESIGNATOR LEVEL 2 DISCIPLINE DESIGNATOR SHEET TYPE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SUB-TYPE DESIGNATOR SHEET SEQUENCE NUMBER "AREA DESIGNATOR" * APPLICABLE TO PLANS ONLY DISCIPLINE DESIGNATOR * APPLICABLE TO PLANS ONLY DISCIPLINE DESIGNATOR * APPLICABLE TO PLANS ONLY MECHANICAL DRAWINGS SHEET SUB-TYPE DESIGNATOR SHEET SUB-TYPE DESIGNATOR BELEVATIONS & PROFILES SCHEDULES AND DIAGRAMS MECHANICAL CONTROLS USER DEFINED 3D REPRESENTATION SHEET SUB-TYPE DESIGNATOR W TYPES 1 & 4 ONLY FOUNDATION FIRST FLOOR / SLAB ELEVATED FLOORS STRUCTURE & FRAMING, MEZZANINE NTERSTITAL SPACE ROOF STRUCTURE / FRAMING

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PROJECT DESIGN CONDITIONS DESIGN CONDITIONS SOURCE: 2017 ASHRAE FUNDAMENTALS HA DESIGN CONDITIONS NEAREST ASHRAE CITY SUMMER (0.4%) WINTE DB / WB CECIL FIELD 96.1 ºF / 76.7 ºF CODES IN FORCE THIS IS A LIST OF MAJOR CODES FOR RECORD PURPOSES AND D EXEMPT THE CONTRACTOR FROM FOLLOWING ALL APPLICABLE C 2020 FLORIDA BUILDING CODE 2020 FLORIDA ENERGY CONSERVATION CODE 2020 FLORIDA MECHANICAL CODE 2020 FLORIDA PLUMBING CODE 2020 FLORIDA FUEL GAS CODE 2020 FLORIDA FIRE PREVENTION CODE MECHANICAL SHEET LIST SHEET NO. SHEET NAME MECHANICAL LEGEND, NOTES & SCHEDULES M0001 OVERALL FIRST FLOOR MECHANICAL PLAN PARTIAL FIRST FLOOR MECHANICAL PLAN – AREA 2 PARTIAL SECOND FLOOR MECHANICAL PLAN – AREA 2 OVERALL ROOF MECHANICAL PLAN PARTIAL ROOF MECHANICAL PLAN - AREA 2 MECHANICAL DETAILS M1421 MECHANICAL SCHEDULES

PARTIAL FIRST FLOOR MECHANICAL DEMOLITION PLAN – AREA 2 PARTIAL SECOND FLOOR MECHANICAL DEMOLITION PLAN – AREA 2

PARTIAL ROOF MECHANICAL DEMOLITION PLAN – AREA 2

MECHANICAL CONTROLS

3

3

4

4

S		MECHANICAL GENERAL NOTES
ANDBOOK	1.0 GENE 1.01	RAL: FOLLOW ALL GENERAL NOTES AND SPECIFICATIONS UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
R (99%) DB 0 F	1.02	FOR COMMUNICATION WITH THE ENGINEER, PLEASE FOLLOW THE OFFICIAL RFI PROCESS AS OUTLINED IN THE GENERAL CONDITIONS. PROPOSED SUBSTITUTIONS OR CHANGES IN EQUIPMENT, COMPONENTS, MATERIALS, PRODUCTS, AND/OR CONSTRUCTION FROM THOSE PROVIDED IN THE CONTRACT DOCUMENTS (DRAWINGS AND SPECIFICATIONS), SHALL BE REQUESTED IN WRITING. THE PROPOSAL SHALL CONTAIN NOT LESS THAN THE FOLLOWING: a. COMPLETE SUBMITTAL INFORMATION INCLUDING: PRODUCT DATA, GRAPHIC INFORMATION, PERFORMANCE DATA, TEST RESULTS, AND WARRANTY INFORMATION. b. DESCRIPTION COMPARING THE PROPOSED SUBSTITUTION AND THE RESULTING VARIANCES WITH SPECIFIED COMPONENTS. c. COMPARISON OF COST BETWEEN PROPOSED SUBSTITUTION AND SPECIFIED COMPONENTS. d. COMPARISON OF LEAD TIME BETWEEN PROPOSED SUBSTITUTION AND SPECIFIED COMPONENTS.
DOES NOT CODES.	1.04	ALL EQUIPMENT, COMPONENTS, AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS AND INSTALLATION REQUIREMENTS OF THE MANUFACTURER. ALL EQUIPMENT, COMPONENTS, AND MATERIALS SH. ALSO BE INSTALLED USING ACCEPTED STANDARD PRACTICES WITH ATTENTION MADE TO SAFETY, DURABILITY, NEATNESS OF FINISHED WORK, MAINTENANCE ACCESSIBILITY, AND CODE REQUIRED CLEARANCES (SUCH AS THOSE REQUIRED BY THE NEC).
	1.05 1.06	ALL EQUIPMENT, COMPONENTS, AND MATERIALS INDICATED ON THE DRAWINGS OR WITHIN THE SPECIFICATION SHALL BE NEW. ALL EQUIPMENT, COMPONENTS, AND MATERIALS SHALL BE PROTECTED FROM ANY DAMAGE INCLUDING (BUT NOT LIMITED TO) WEATHER OR PHYSICAL DAMAGE FROM JOBSITE DELIVERY THROUGH FINAL COMPLETION. ALL EQUIPMENT COMPONENTS, AND MATERIALS SUPPLIED UNDER THIS DIVISION, WHICH MAY HAVE BEEN DAMAGED OR SCRATCHED, SHALL BE RESTORED AND TOUCHED UP WITH THE MANUFACTURER'S PAINT TO MANUFACTURED CONDITION.
	1.07	THE DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL THE STRUCTURAL AND CONSTRUCTION DETAILS NECESSARY FOR A COMPLETE INSTALLATION. ANY REQUIREMENT INVOLVING ACCURATE MEASUREMENTS SHALL BE TAKEN THE SITE. ANY NECESSARY LABOR AND MATERIAL CHANGES OR ADDITIONS TO ACCOMMODATE STRUCTURAL CONDITIONS SHALL BE MADE.
	1.08	PERFORM ALL WORK IN ACCORDANCE WITH ALL RULES AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION AND PROVIDE ADDITIONAL EQUIPMENT, COMPONENTS, MATERIALS, AND LABOR WHERE REQUIRED FOR COMPLIANCE.
	1.09 1.10	ALL SERVICES SHALL BE INSTALLED PARALLEL TO BUILDING LINES. IN PROCESS WASHDOWN AREAS, HANGER RODS SHALL BE STAINLESS STEEL ROD WITH THREADED ENDS. FULLY THREADED RODS WILL NOT BE PERMITTED IN SUCH AREAS.
	1.11	ALL EQUIPMENT, COMPONENT, AND MATERIAL LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CLEARANCES, AND EXISTING CONDITIONS. ANY CONFLICTS SHALL BE SUBMITTED AS AN RFI TO THE ENGINEER WITH A PROPOSED SOLUTION.
	1.12	LOADS SUSPENDED FROM THE ROOF OR FLOOR STRUCTURE ABOVE SHALL BE DIRECTLY SUPPORTED FROM THE STRUCTURAL MEMBER (SUCH AS, WITHOUT LIMITATION: CONCRETE TEE BEAM, BAR JOIST, OR STEEL BEAM). PROVIDE SECONDARY SUPPORT MATERIAL DESIGNED TO CARRY THE LOAD BETWEEN THE STRUCTURAL MEMBERS. DO NOT SUPPORT LOADS FROM BRIDGING OR ROOF DECK.
	1.13	PROVIDE UL LISTED THROUGH PENETRATION FIRE STOP SYSTEM FOR ALL PENETRATIONS THOUGH FIRE RATED ASSEMBLIES NOT PROTECTED BY FIRE DAMPERS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE-RATED ASSEMBLIES.
	1.14	SHOP DRAWING SUBMITTALS: SUBMIT TO STELLAR FOR REVIEW BEFORE COMMENCING WORK. PROVIDE SHOP DRAWINGS FOR ALL EQUIPMENT, COMPONENTS, AND MATERIALS TO BE PROVIDED UNDER THIS CONTRACT. THE FOLLOWIN APPLIES TO SHOP DRAWING SUBMITTALS: A. CLEARLY INDICATE ON EACH SUBMITTAL THE MARK OR DESIGNATION WHICH CORRESPONDS TO THE CONTRACT DRAWING SCHEDULES. FOR MARK WILL BE REJECTED. B. SUBMIT DRAWINGS OR CUTS OF ALL MATERIALS AND EQUIPMENT FOR REVIEW. SUCH SUBMITTALS MUST CONTAIN OUTLINE DIMENSIONS, OPERATING CLEARANCES, INSTALLATION, OPERATING AND MAINTENANCE INFORMATION AND SUFFICIENT ENGINEERING DATA TO INDICATE SUBSTANTIAL COMPLIANCE WITH SPECIFICATIONS. ALL SHOP DRAWING SUBMITTALS FOR ONE SPECIFICATION SECTION OF WORK OR ONE MECHANICAL SYSTEM SHALL BE SUBMITTED AT OI TIME. INCOMPLETE SUBMITTALS WILL BE REJECTED. C. WHERE A SUBCONTRACTOR CONSIDERS ADDITIONAL DETAIL OR SHOP DRAWINGS ESSENTIAL TO PROPER FABRICATION OR INSTALLATION OF EQUIPMENT AND PIPING, THEY SHALL PREPARE SUCH DRAWINGS AND SUBMIT FOR REVIEW D. DESIGN IS BASED ON MANUFACTURER NAMED ON DRAWINGS OR IN SPECIFICATIONS. SHOP DRAWINGS SHALL CLEARLY INDICATE EXCEPTIONS TO OR DEVIATIONS FROM THE DESIGN BASIS.
	1.15 1.16	THE JOINING OF DISSIMILAR PIPE MATERIALS SHALL BE MADE WITH DIELECTRIC FITTINGS. UPON COMPLETION OF WORK, THOROUGHLY CLEAN THE ENTIRE SYSTEM AND TEST TO ENSURE THAT THE SYSTEM PERFORMS TO REQUIREMENTS. LEAVE WORK IN SUITABLE OPERATING CONDITION TO BE TURNED OVER TO THE OWNE
	1.17	PROVIDE 3 HOUR RATED FIRE DAMPER FOR DUCT PENETRATIONS THROUGH FIRE-RATED ASSEMBLIES WITH RATINGS OF 3 HOURS OR MORE. PROVIDE 1.5-HOUR RATED FIRE DAMPER FOR ALL OTHER DUCT PENETRATIONS THROUGH FI RATED ASSEMBLIES. DAMPERS SHALL BE UL LISTED AND INSTALLED IN ACCORDANCE WITH THEIR LISTING.
	1.18 1.19	EQUIPMENT SHALL NOT HAVE EXCESSIVE NOISE OR VIBRATION WHICH WILL IMPACT THE LONGEVITY OF THE EQUIPMENT. COORDINATE SIZE AND LOCATION OF CONCRETE HOUSEKEEPING AND VIBRATION ISOLATION BASES. CONCRETE HOUSEKEEPING PADS FOR ALL FLOOR-MOUNTED EQUIPMENT MUST BE MADE WITH A MINIMUM OF 4" THICK REINFORCED CONCRETE, HAVE CHAMFERED EDGES, AND MUST BE A MINIMUM OF 4" LARGER ON ALL FOUR SIDES THAN THE EQUIPMENT FOOTPRINT. CAST ANCHOR-BOLT INSERTS INTO BASE. CONCRETE, REINFORCEMENT AND FORMWORK REQUIREMENTS ARE SPECIFIED ON STRUCTURAL DRAWINGS.
	1.20	AN AIR BALANCING DAMPER MAY NOT BE OMITTED FROM A SUPPLY DIFFUSER OR EXHAUST REGISTER EVEN WHEN AN ACCESSIBLE BALANCING DAMPER IS PROVIDED IN THE BRANCH DUCT SERVING THE DIFFUSER OR EXHAUST REGIST
	1.21	PROVIDE SMOKE DETECTOR ON SUPPLY AND/OR RETURN DUCTWORK AS SHOWN ON THE DRAWINGS OR AS REQUIRED BY CODE. INTERLOCK SMOKE DETECTOR WITH FAN FOR SHUTDOWN UPON ACTIVATION AND PROVIDE SIGNAL TO CENTRAL FIRE ALARM PANEL. UPON A SIGNAL FROM THE CENTRAL FIRE ALARM PANEL, ALL MECHANICAL AIR-MOVING EQUIPMENT SHALL AUTOMATICALLY DE-ENERGIZE. SMOKE DETECTORS SHALL BE POWERED BY THE CONTROL TRANSFORMER FROM THE UNIT SERVED. SMOKE DETECTOR SAMPLING TUBE SHALL EXTEND THE FULL WIDTH OF THE DUCT AND AN ACCESS DOOR IS REQUIRED FOR SERVICE AND INSPECTION.
	1.22	PROVIDE CONDENSATE DRAIN PIPING FOR ALL MECHANICAL UNITS WHICH CONDENSE WATER INCLUDING (BUT NOT LIMITED TO) RTU'S, AHU'S, FCU'S, AND CRU'S REGARDLESS OF WHETHER THE DRAIN PIPING IS SPECIFICALLY SHOWN OF THE PLANS OR NOT. PROVIDE P TRAP AT THE UNIT AND CONTINUOUSLY SLOPE THE PIPE DOWNWARD TO DISCHARGE POINT. WHEN CONDENSATE PUMPS ARE USED AT THE UNIT NO P TRAP IS REQUIRED BUT THE DISCHARGE FROM THE PUMP SHALL RISE VERTICALLY ABOVE THE MAXIMUM ELEVATION OF THE HORIZONTAL DRAIN LINE AND DISCHARGE INTO THE HORIZONTAL LINE FROM ABOVE. FOR RTU'S ROUTE TO ROOF DRAIN OR GUTTER, FOR INDOOR UNITS ROUTE TO FLOOR DRAIN, HUB DRAIN, OR MOP SINK UNLESS NOTED OTHERWISE ON DRAWINGS. CONDENSATE DRAIN PIPING SIZE SHALL MATCH THE UNIT CONNECTION BUT IN NO CASE SHALL BE LESS THAN 3/4".
	1.23	FOR SUSPENDED BUILDING-INTERIOR MOUNTED UNITS WITH COOLING COILS, PROVIDE AUXILIARY CONDENSATE DRAIN PANS. AUXILIARY DRAIN PAN SHALL EXTEND A MINIMUM OF 3" LARGER THAN THE LENGTH AND WIDTH OF THE UNIT AND SHALL INCLUDE THE COIL CONNECTIONS. PAN SHALL BE CONSTRUCTED AND SUPPORTED IN SUCH A WAY AS TO ALLOW NO MORE THAN 1/4" DEFLECTION. PAN SHALL CONTAIN FLOAT SWITCH, OR WET SWITCH WIRED TO THE UNIT SERVES SUCH THAT WHEN THE AUXILIARY DRAIN PAN BEGINS TO FILL WITH WATER, THE UNIT IS SHUT OFF PRIOR TO OVERFLOW.
	1.24 1.25	ALL DUCTWORK DIMENSIONS SHOWN ARE CLEAR INSIDE DIMENSIONS, WHETHER ITS EXTERNALLY INSULATED OR INTERNALLY INSULATED. SEE PLANS DUCT CONNECTIONS TO EQUIPMENT: TRANSITION FROM DUCT SIZE INDICATED ON PLANS TO THE EQUIPMENT CONNECTION SIZE AND CONFIGURATION. TRANSITION AS REQUIRED.
	1.26 1.27	APPLY THE SAME SHEET INSULATION THICKNESS ON STANDING METAL DUCT SEAMS AS INSTALLED ON THE DUCT SURFACE. INSTALL DUCT MATERIALS ON THE EXTERIOR OF THE DUCT SUCH AS PAINT, INSULATION, AND JACKETING AFTER DUCTWORK HAS BEEN TESTED AND APPROVED.
	1.28	PVC JACKET SHALL HAVE A FLAME SPREAD RATING OF NO GREATER 25 AND SMOKE DEVELOPMENT RATING OF NO GREATER THAT 50. JACKET SHALL BE APPLIED TO THE DUCTWORK INSULATION AS RECOMMENDED BY THE JACKET MATERIAL MANUFACTURER. CAREFULLY APPLY THE ADHESIVE TO BOTH THE INSULATION AND THE PVC MATERIAL AND ALLOW TO FLASH. FINISH JOINTS AND ANGLES WITH PRE-MOLDED PVC ANGLES OF THE SAME THICKNESS AS SHEET PVC MATERIAL. USING A MANUFACTURER RECOMMENDED ADHESIVE THAT BONDS THE PVC COMPONENTS TOGETHER TO PROVIDE A WATERPROOF MEMBRANE.
	1.29	COORDINATE THE INSTALLATION OF EQUIPMENT, DUCTWORK AND PIPING IN ELECTRICAL EQUIPMENT ROOMS TO PROVIDE CODE-REQUIRED CLEARANCES IN FRONT OF AND ABOVE ELECTRICAL PANELS AND EQUIPMENT. DO NOT INSTAL DUCTS OR PIPING WHICH ARE NOT DEDICATED TO SERVING ELECTRICAL ROOM WITHIN OR THROUGH ELECTRICAL ROOM
	1.30	COORDINATE FINAL LOCATIONS OF ROOF MOUNTED EQUIPMENT WITH EXISTING STRUCTURE AND ALL APPROPRIATE DISCIPLINES, INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, STRUCTURAL, UTILITY, PROCESS AND REFRIGERATION
	1.31	INSTALL MECHANICAL ROOF MOUNTED EQUIPMENT SUCH THAT THE LIMITS OF THE MANUFACTURER'S RECOMMENDED SERVICE AREA OF ANY PART OR EXTENT OF THE EQUIPMENT TO BE INSTALLED IS AT LEAST 15 FT FROM THE ROOF EDGE, AS REQUIRED TO COMPLY WITH CURRENT OSHA REGULATIONS. IF SITE CONDITIONS PROHIBIT COMPLIANCE WITH THIS REQUIREMENT WHEN INSTALLING THE BASIS OF DESIGN EQUIPMENT, OR IF THERE IS A CHANGE IN EQUIPME MANUFACTURER FROM THE BASIS OF DESIGN WHICH PROHIBITS COMPLIANCE WITH THIS REQUIREMENT, THEN THE RESPONSIBLE CONTRACTOR SHALL ISSUE, IMMEDIATELY UPON DETERMINATION OF THIS CONDITION, AN RFI DEFINING THE DEFICIENCY AND PROPOSED REMEDY. ANY NON-COMPLIANCE WITH THE OSHA OFFSET REQUIREMENTS WHICH RESULTS FROM RESPONSIBLE CONTRACTOR'S SUBSTITUTION OF EQUIPMENT DIFFERING FROM THE BASIS OF DESIGN SHALL, AFTER RECEIVING APPROVAL OF REMEDY BY STELLAR, BE REMEDIED BY THE RESPONSIBLE CONTRACTOR AT THE RESPONSIBLE CONTRACTOR'S EXPENSE. PROPOSE AND PAY FOR AN OSHA COMPLIANT FALL PREVENTION SYST
	1.32 2.0 PROJ 2.01	INSTALL ALL WALL THERMOSTATS, TEMPERATURE SENSORS, HUMIDITY SENSORS, C02 SENSORS, AND ANY OTHER SENSORS REQUIRING ACCESSIBILTY WITH SETPOINT ADJUSTMENT AT TOP OF DEVICE AT 48" A.F.F. UNLESS OTHERWIS NOTED ON DRAWINGS IECT SPECIFIC NOTES: EXISTING FACILITY TIE-INS: IF THIS IS AN OPERATING FACILITY, ALL TIE-INS AND RELATED SHUTDOWNS MUST BE COORDINATED BY THE MECHANICAL CONTRACTOR WITH THE OWNER VIA THE STELLAR SUPERINTENDENT. EXISTING SYSTEMS ARE SHOWN ON THIS SET OF DRAWINGS BASED ON DRAWINGS USED TO CONSTRUCT THE FACILITY. CHANGES MAY HAVE OCCURRED SINCE THEN. THE CONTRACTOR SHALL FIELD-VERIFY TIE-INS AND DEVELOP ALTERNATIVE WHEN EXISTING CONDITIONS DIFFER FROM THE DRAWINGS. NEW PIPING SHALL NOT BE TIED INTO THE SAME SIZE OR SMALLER EXISTING PIPING. IF EXISTING CONDITIONS ARE FOUND TO BE DIFFERENT THAN WHAT IS SHOWN ON THE
	3.0 SEISM 3.01	DRAWINGS, CONTACT THE SUPERINTENDENT WITH A PROPOSED SOLUTION. IIC AND WIND LOADING REQUIREMENTS: DELEGATED DESIGN SUBMITTAL FOR WIND AND SEISMIC LOADING: FOR ALL EQUIPMENT, COMPONENT, AND MATERIAL IMPACTED BY THE WIND AND SEISMIC REQUIREMENTS OF THE SITE, THE ASSIGNED CONTRACTOR SHALL DESIGN, PROVIDE AND INSTALL THE SUPPORTS AND TIE-DOWNS FOR EACH ITEM TO COMPLY WITH THE PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA AS INDICATED IN THESE DOCUMENTS AND ON THE STRUCTURAL DRAWINGS, INCLUDING SUPPORT AND TIE-DOWN ANALYSIS AND DESIGN SIGNED AND SEALED BY A PROPERLY LICENSED AND QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION.
	3.02	DESIGN CALCULATIONS: CALCULATE REQUIREMENTS FOR DESIGNING TIE-DOWNS AND SUPPORT TO COMPLY WITH THE CODES AND STANDARDS AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION FOR THE PROJECT.
	3.03	SUBMITTALS: INDICATE FABRICATION AND ARRANGEMENT OF TIE-DOWN SYSTEMS AND SUPPORT SYSTEMS. DETAIL ATTACHMENTS OF RESTRAINTS TO THE RESTRAINED ITEMS AND TO THE STRUCTURE. SHOW ATTACHMENT LOCATION METHODS, AND SPACING. IDENTIFY COMPONENTS, LIST THEIR STRENGTHS, AND INDICATE DIRECTIONS AND VALUES OF FORCES TRANSMITTED TO THE STRUCTURE. BY THESE SUBMITTALS, THE CONTRACTOR THEREBY REPRESENTS THAT HE HAS DETERMINED AND VERIFIED ALL FIELD MEASUREMENTS, FIELD CONSTRUCTION CRITERIA, MATERIALS, CATALOG NUMBERS AND SIMILAR DATA AND THAT THEY HAVE CHECKED AND COORDINATED THE SHOP DRAWINGS, DA OR SAMPLES WITH THE REQUIREMENTS OF THE WORK AND OF THE CONTRACT DOCUMENTS. SUBMISSIONS SHALL BE SPECIFIC SO THAT COMPLIANCE WITH THE CONTRACT DOCUMENTS CAN BE EASILY ASCERTAINED.
	3.04	THE DELEGATED DESIGN SHALL INCLUDE DETAIL MOUNTING, SECURING AND FLASHING OF EQUIPMENT TO ROOF CURB AND OF ROOF CURB TO ROOF STRUCTURE OR OF EQUIPMENT DIRECTLY TO ROOF STRUCTURE. INDICATE IN THE SUBMITTAL HOW THE DESIGN HAS ADDRESSED COORDINATING REQUIREMENTS WITH THE ROOF MEMBRANE SYSTEM.
	3.05	THE DELEGATED DESIGN SHALL ADDITIONALLY COMPLY WITH THE REQUIREMENTS OF DIVISION 01 OF THE PROJECT'S SPECIFICATIONS WITH REGARDS TO THE DESIGN, SUBMISSION, APPROVAL AND OVERSIGHT OF THE IMPLEMENTATIC OF THE TIE-DOWN AND SUPPORT DESIGN AS A COMPLETE AND COORDINATED INSTALLED SYSTEM.
	3.06	COORDINATE LAYOUT AND INSTALLATION OF ALL RESTRAINT DEVICES WITH OTHER CONSTRUCTION THAT PENETRATES CEILINGS OR IS SUPPORTED BY THEM, INCLUDING LIGHT FIXTURES, MECHANICAL PIPEWORK, FIRE-SUPPRESSION SYSTEM COMPONENTS AND PARTITION ASSEMBLIES.



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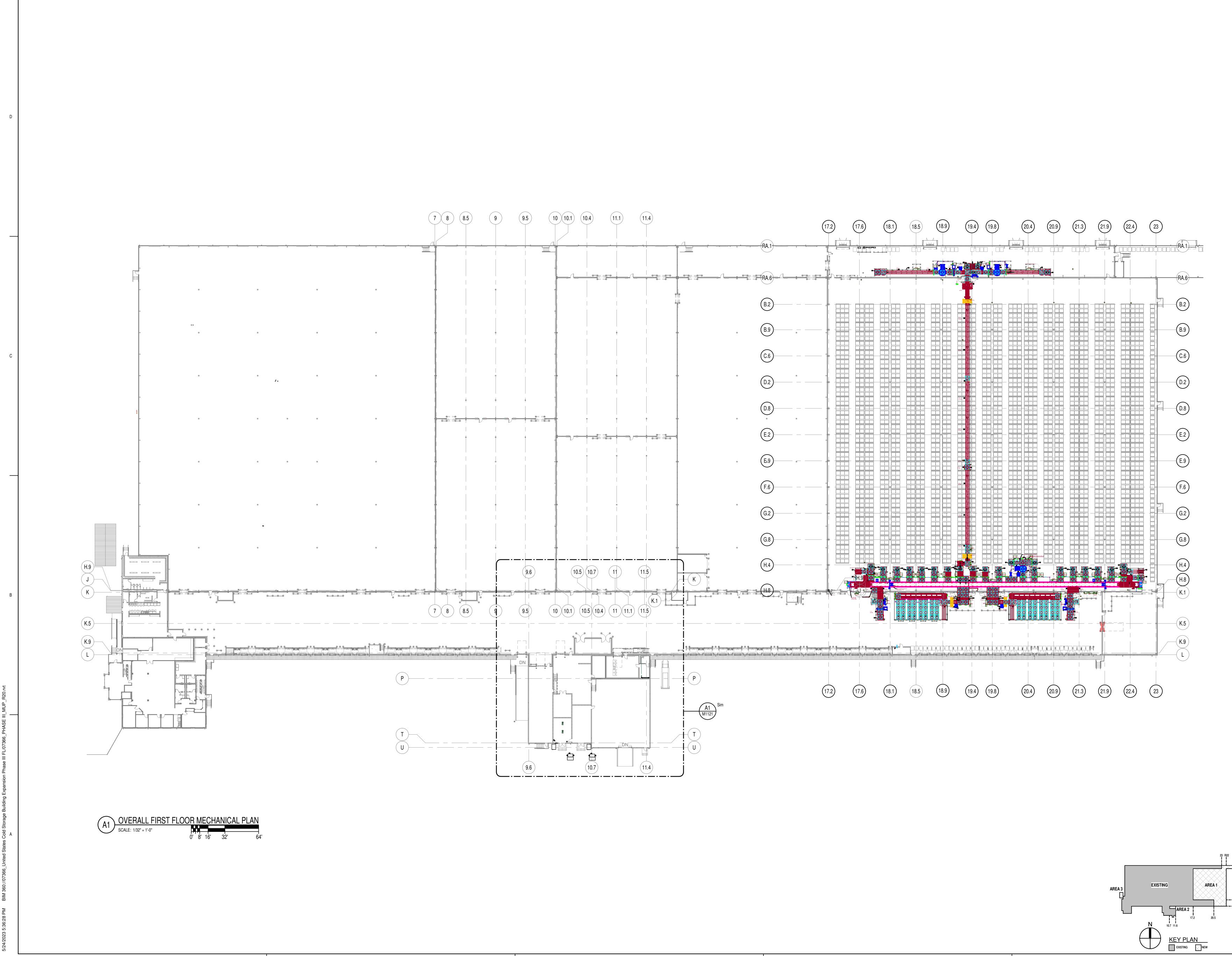
MECHANICAL LEGEND, NOTES & SCHEDULES

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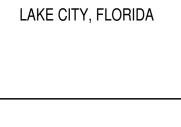
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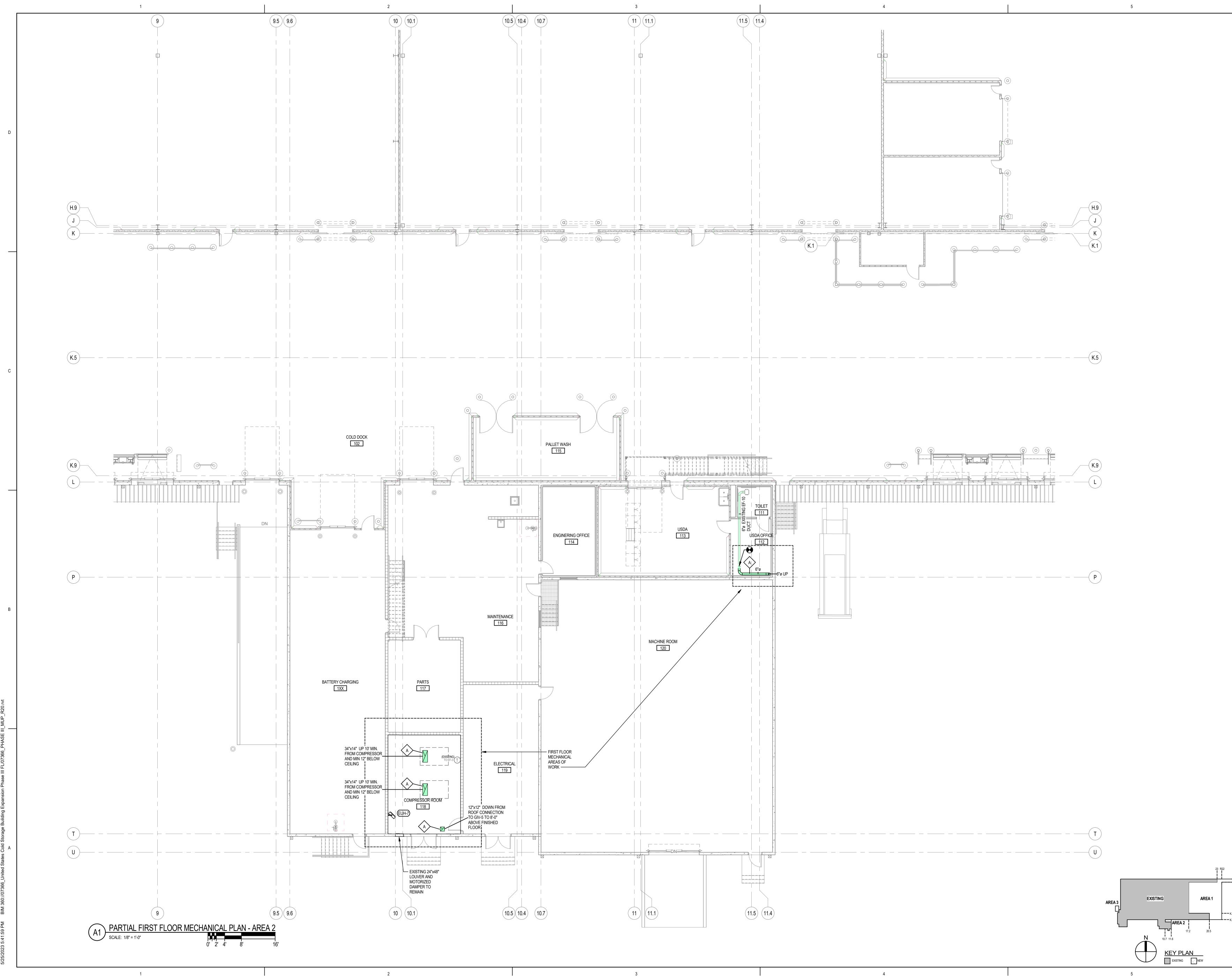


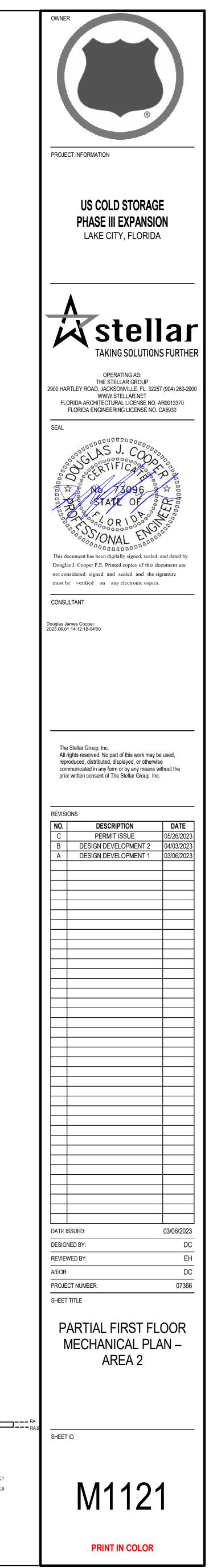
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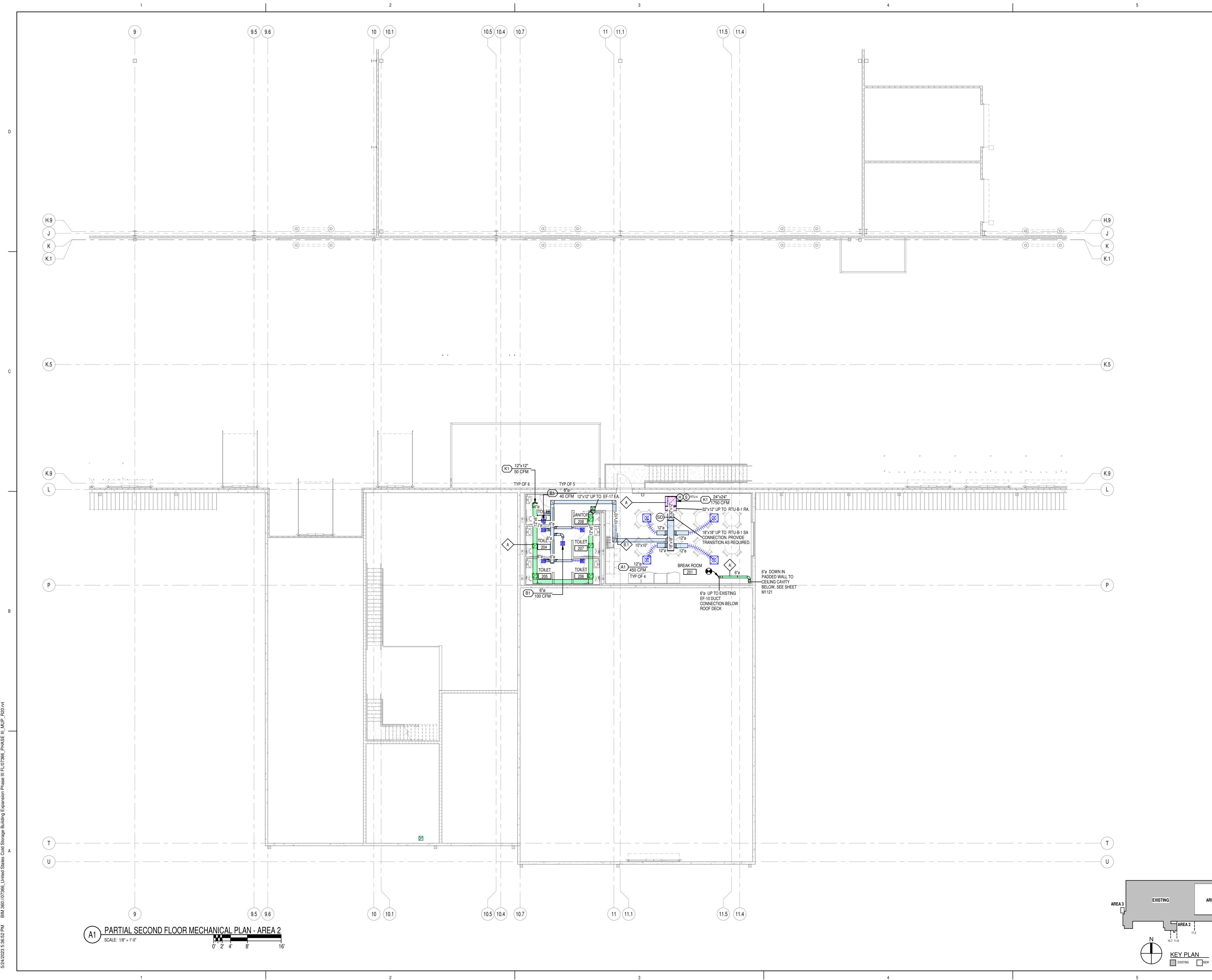
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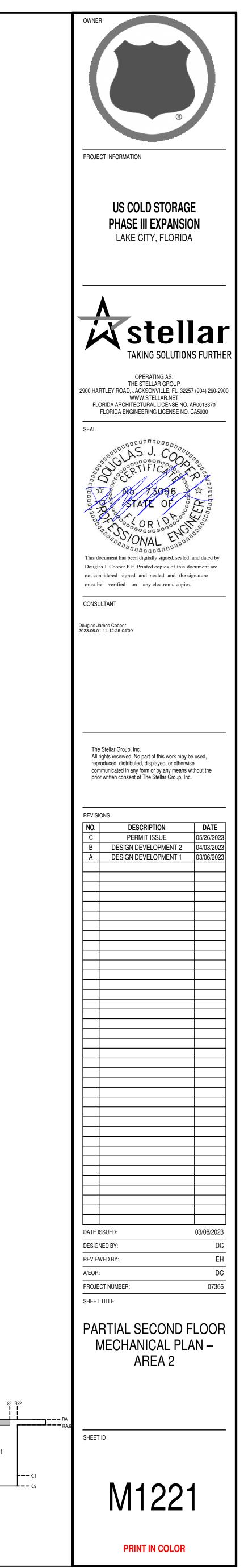
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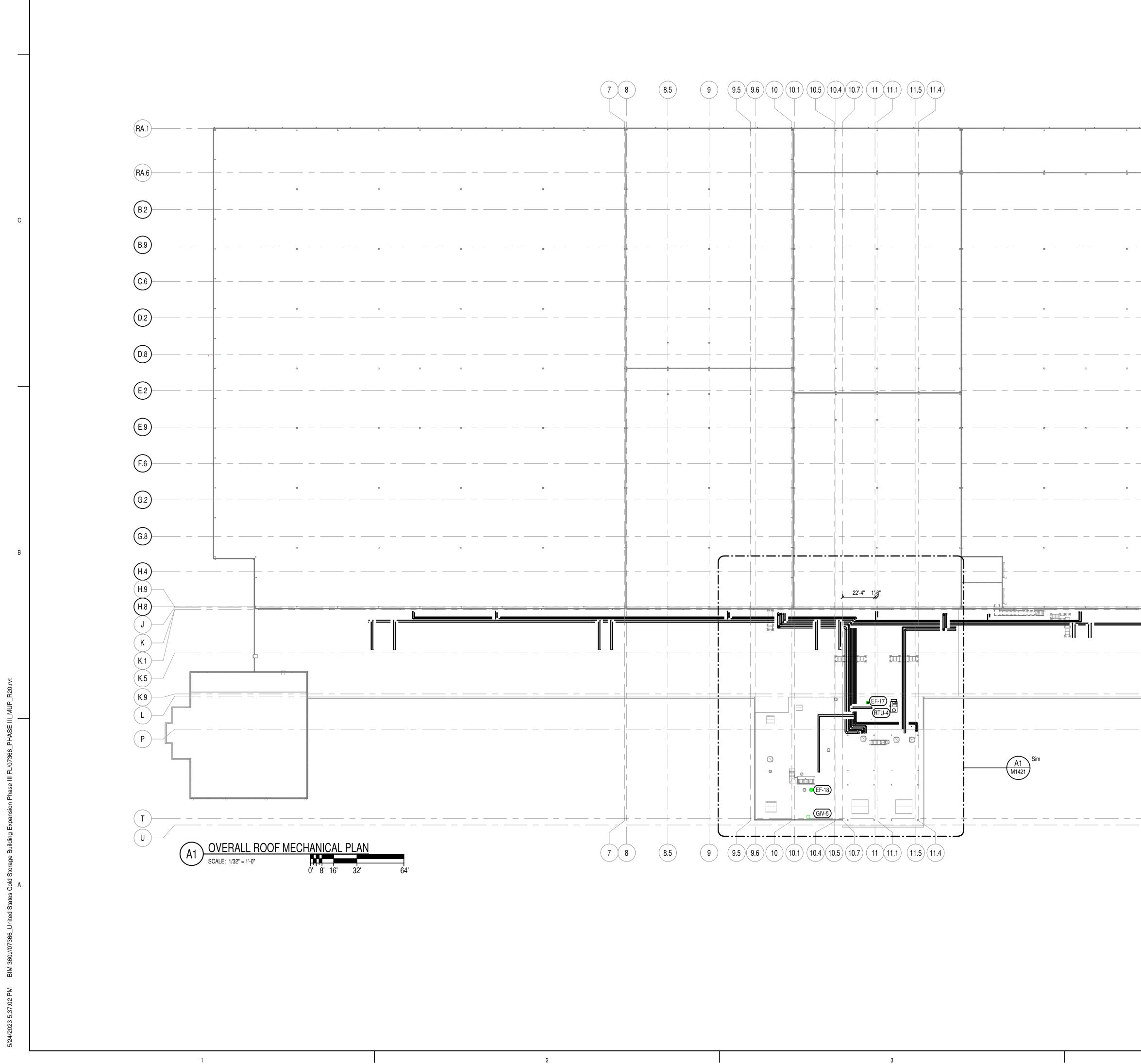




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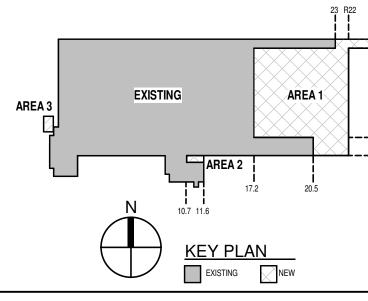
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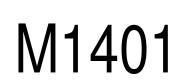


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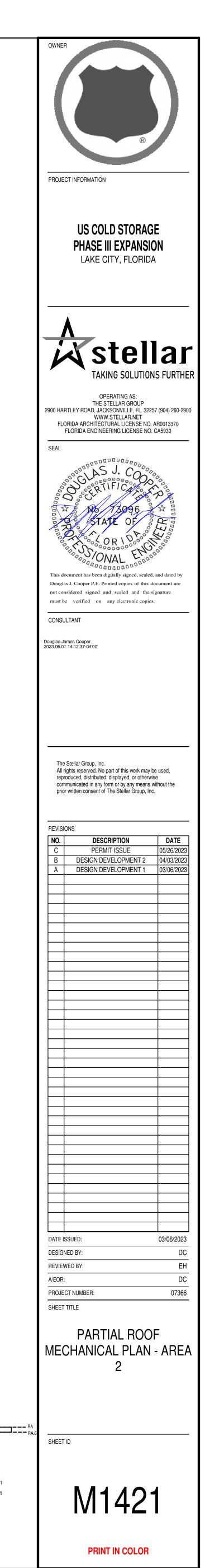
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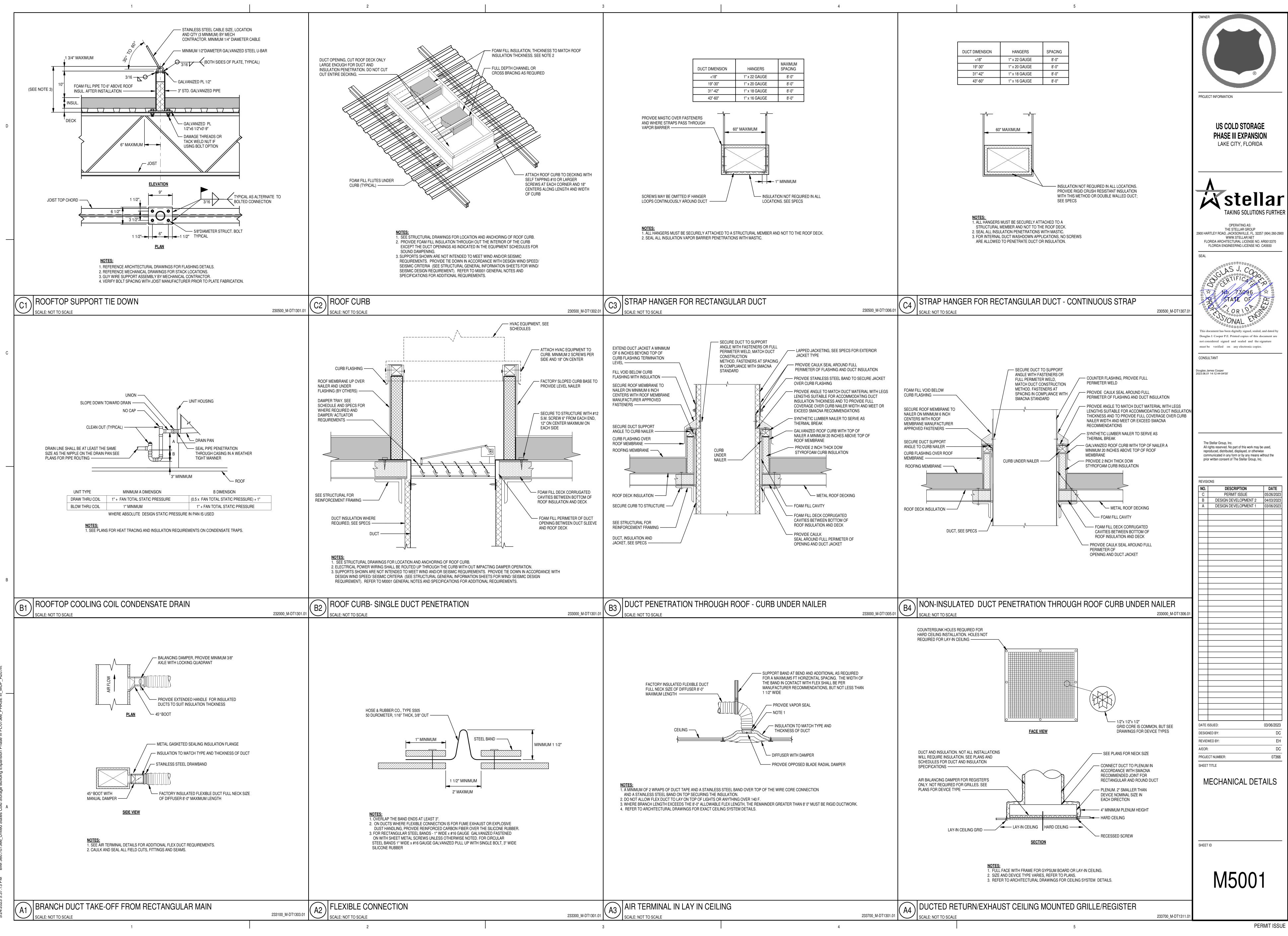
PROJECT INFORMATION

US COLD STORAGE PHASE III EXPANSION LAKE CITY, FLORIDA





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				CLASS		LATERAL JOINTS	SEAMS	SA: 1-1/2 RADIUS ROUND ELBOWS	SMACNA 2006 FIG. 4-6.	REINFORCEMENT		PERFORM	MANCES		
	4	NO INSULATION				PER SMACNA DUCT CONSTRUCTION MANUAL		TURN WITH SINGLE THICKNESS TURNIN VANES SMACNA 2006 FIG. 4-2 RA/EA:	SEALED FOR AIR TIGHT	DUCT CONSTRUCTION STANDARD	OR NEGATIVE, VELC	OCITIES SMAĆNA, UL, ANSI	I/ASTM - A534,		
		FIBERGLASS INSULATIO	N RECTANGULAR AND ROUND	SMACNA CLASS "B"		PER SMACNA DUCT CONSTRUCTION MANUAL		WHERE SPACE PERMITS OR SQUARE TURN WITH SINGLE THICKNESS TURNIN VANES SMACNA 2006 FIG. 4-2 RA/EA:	IG CONNECTION SHALL BE SEALED FOR AIR TIGHT	DUCT CONSTRUCTION STANDARD	DS - OR NEGATIVÉ, VELC	OCITIES SMACNA, UL, ANSI	I/ASTM - A534,		
		 SEAL ALL JOINTS AND PROVIDE SEALED VAF USE ACCESS DOORS A CONSTRUCT AND SUF DUCT SUPPORTS SHA INSULATION SHALL BE ALL HORIZONTAL DUC CONSTRUCT AND SUF 	SEAMS WITH GLAS POR BARRIER. AND FITTINGS MAN PORT IN ACCORDA ALL UTILIZE SADDLE SANDWICHED BE TWORK SHALL SLO PORT TO PERMIT I	UFACTURED BY ANCE WITH MANU ES WITH SUPPOF TWEEN DUCT INN DPE TO GRILLES, NTERIOR CLEAN	THE DUCT MANUFACTURER UNLES JFACTURER'S RECOMMENDATIONS RT SPACING PER SMACNA. NER LINER AND DUCT OUTER LINES , DIFFUSERS OR DRAINABLE LOW F ING BY OPERATING PERSONNEL. F	S. R. POINTS WITHOUT OIL CANNING. PROVIDE SUPPORT SPACING PER SMACNA.	 PROVIDE FALL PROTECTION BARS ACCESS DOORS IN VERTICAL SEGME MATCHING THE DUCT AND WELDED T PROVIDE GREASE DUCT RESERVOI SLOPE DUCTWORK BACK TO HOOD GREASE DUCT SHALL HAVE 18' CLE 	PRIOR TO ANY VERTICAL SEGMENT AND BENEATH AI ENTS. BARS SHALL BE 1/2" DIAMETER SOLID ROUND TO DUCT AT 1' CENTERS. WELDS TO BE POLISHED SM IR AND CLEANOUTS AS PRESCRIBED BY INTERNATION O OR GREASE RESERVOIR 1/4" PER FT OR 1" PER FT F EARANCE FROM COMBUSTIBLES AND 3" CLEARANCE F	MATERIAL 100TH. NAL MECHANICAL CODE. OR HORIZONTAL RUNS.	ACCORDANCE WITH ASTM E84 16. PROVIDE IN-DUCT SPRINKLERS LESS THAN 10" IN DIAMETER. R 17. SLOPE ALL UNDERGROUND DU PRE-MANUFACTURED DIRECT-	4 OR UL723. IF NOT, PRO S. EXCEPTIONS: DUCTS RECTANGULAR DUCTS W JCTWORK AT 1/8" PER F -BURY UNDERGROUND I	OVIDE A 1" FIRE WRAP AROUN CONVEYING NON-FLAMMABL WHERE NEITHER THE HEIGHT T TO ACCESS POINT INDICAT DUCT SYSTEM, NO COATING	ND DUCT. LE MATERIALS. I NOR THE WID TED ON PLANS.		
									RTU D	X ELECTRIC HEA	AT SCHEDI	ULE			
	PEC	SECTION 237416.11 PACKAGE	ED, SMALL-CAPACITY,			· · ·		HEATING	SUPPLY F	AN	EXHAUST FA	AN COMP	PR. CONE		
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	8	PROVIDE FACTORY MOUN TO ACHIEVE THE DESIRED PROVIDE GALVANIZED STE WITH FOIL FACING. BOTTO	ITED 120V, 15 AMP CO) VOLTAGE. EEL INSULATED ROOF	NVENIENCE GFCI (DUTLET POWERED FROM THE LINE SID	E OF THE UNIT DISCONNECT. INCLUDE SERVICE RECEPTACLE 10 INCHES FROM FINISHED ROOF SURFACE TO TOP OF CURB. C	CURB INSULATION SHALL BE 2" DOW STYROFOAI MB. SEE ARCHITECTURAL DRAWINGS FOR ROOF	RMER 17 PROVIDE OUTSIDE AIR FLOW MEASURIN 18 PROVIDE INSECT SCREEN FOR OUTSIDE M 19 PROVIDE CONDENSER HAIL GUARD. F 20 PROVIDE PREMIUM EFFICIENCY FAN MC	IG STATION TO MAINTAIN SCHEDULI E AIR INLET. DTORS.						
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 PROVIDE GALVANIZED STEEL INSULATED ROOF CUBB OF SUFFICIENT HEIGHT TO PROVIDE A MINIMUM 20 INCHES FROM FINISHED ROOF SURFACE TO TOP OF CUBB. CUBB INSULATION SHALL BE 2'DOW STRAFCOAW WITH FOL FACING, BOTTOM OF CUBB SHALL BE MANUFACTURED TO CONFORM WITH THE SLOPE OF THE ROOF SUCH THAT THE TOP OF THE CUBB IS LEVEL AND PLUMB. SEE ARCHITECTURAL DRAWINGS FOR ROOF SLOPE. PROVIDE ALUMINUM INSECT SCREEN. PROVIDE SUPPLY FILTERS IN HOOD. 					MARK AREA EUH-7 107 COMPR EUH-8 FIRE RIS NOTES: 1 1 PROVIDE SINGLE POINT POWER 2 MOUNTING HEIGHT IS FROM TO 3 PROVIDE CONTROL TRANSFORM 4 PROVIDE THERMAL CUTOFF AND 5 PROVIDE LOW VOLTAGE WALL MOUNTED THERM 6 PROVIDE UNIT MOUNTED THERM 7 PROVIDE WALL MOUNTING BRAY	AIRFLOW SERVED CFM THROW (FT) RESSOR ROOM 1100 32 SER ROOM 400 12 CONNECTION WITH FACTORY MOUNTED AND WIRED NEC COM P OF FINISHED FLOOR TO BOTTOM OF UNIT. MER AND CONTACTOR. D FAN DELAY SWITCH FOR REMOVAL OF RESIDUAL HEAT. MOUNTED THERMOSTAT. MOSTAT. CKET. ATORS FOR ADDITIONAL REQUIREMENTS. AIRFL	A9.19 WALL AND CEILING UNIT HEATERS FOR ADD HEATING CAPACITY AIR TEMP. RISE (KW) (°F) 15.0 43 5.0 40 MPLIANT COMBINATION STARTER-DISCONNECT. GRAV	NOTES: 1 PROVIDE SINGLE POINT POWER CONNECTION W ROUTED UP WITHIN THE LIMITS OF THE UNIT CU 2 PROVIDE EXTENDED LUBRICATION LINES. 3 PROVIDE GALVANIZED STEEL INSULATED ROOF BOTTOM OF CURB SHALL BE MANUFACTURED TO 4 PROVIDE GRAVITY BACKDRAFT DAMPER WITH DAMP 6 PROVIDE ADJUSTABLE BELT DRIVE. 7 PROVIDE VD. IF VFD DOES NOT COMPLY WITH I 8 PROVIDE ADJUSTABLE BELT DRIVE. 7 PROVIDE VD. IF VFD DOES NOT COMPLY WITH I 9 PROVIDE SPEED FAN XXX RPM LOW; XXX RPM 10 PROVIDE 2 SPEED FAN XXX RPM LOW; XXX RPM 11 PROVIDE ALUMINUM INSECT SCREEN IN AN INSE 13 PROVIDE ALUMINUM BIRD SCREEN. TOTIONAL REQUIREMENTS. TOTIONAL REQUIREMENTS. ELECTRICAL MODULATION V/PH/HZ MCA NONE 480/3/60 18.1 NONE 480/3/60 6.0 8 PROVIDE BADY 10 MAXIMUM TI 11 PROVIDE HARDING 18.1 NONE 480/3/60 18.1 NONE 4	TH FACTORY MOUNTED AND WIREL RB PERIMETER UNLESS THE ELECTION CURB OF SUFFICIENT HEIGHT TO PFOND CONFORM WITH THE SLOPE OF THAMPER TRAY. ER TRAY. PROVIDE HINGED FAN BASE EEE 519, A LINE REACTOR SHALL BENTROL. THIN FAN HOOD. HIGH. CT SCREEN MOUNTING BASE BETW CHEDULE MOUNTING HEIGHT(IN) 96" 65 96" 25 CACKET FOR SUPPORT FROM STRUCT ZARDOUS LOCATION UNIT. EMPERATURE OF ANY EXPOSED SUP ASH DOWN GRADE UNIT. EDULE WEATHERHOOD (IN WEATHERHOOD (IN 1000 (IN	D NEC COMPLIANT DISCONNECT. OUTDOOF RICAL SERVICES ARE ROUTED ABOVE THE I ROVIDE A MINIMUM 20 INCHES FROM FINISH HE ROOF SUCH THAT THE TOP OF THE CUR SE FOR ACTUATOR ACCESS. IF FAN VOLTAGE EQUIPPED AS NEEDED TO ELIMINATE HAR //EEN THE FAN AND THE CURB. PROVIDE AC ////////////////////////////////////	BELT R UNITS SHALL BE PROVIDE ROOF. HED ROOF SURFACE TO TOP B IS LEVEL AND PLUMB. SEI GE IS NOT 120V, PROVIDE C MONIC FEEDBACK. CESS DOORS TO ALLOW FO SIS OF DESIGN EL DISCHAF STYLI 3DACA HORIZON 700°F. 700°F.	ALUMINUM ED WITH NEMA 4 DISCONNECT. P OP OF CURB. CURB INSULATION S EE ARCHITECTURAL DRAWINGS F CONTROL TRANSFORMER FOR D OR REMOVAL AND CLEANING OF OR REMOVAL AND CLEANING OF RGE STYLE RGE STYLE TAL STD, STEEL CASED TAL STD, STEEL CASED S OF DESIGN	1,500 POWER AND CONT SHALL BE 2" DOW FOR ROOF SLOPE DAMPER. THE SCREEN. NOTES 1,2,4,6,7		
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COM CE MAX SP (IN-WG) LENGTH AIR 0.00 10"</td> <td>NOTES: 1 PROVIDE SINGLE POINT POWER CONNECTION W ROUTED UP WITHIN THE LIMITS OF THE UNIT CU 2 PROVIDE EXTENDED LUBRICATION LINES. 3 PROVIDE GALVANIZED STEEL INSULATED ROOF BOTTOM OF CURB SHALL BE MANUFACTURED TO 4 PROVIDE GALVANIZED STEEL INSULATED ROOF 9 PROVIDE ADJUSTABLE BELT DRIVE. 7 PROVIDE VD. IF VFD DOES NOT COMPLY WITH I 8 PROVIDE ECM MOTOR SUITABLE FOR SPEED CO 9 SOLID STATE SPEED FON XXX RPM LOW; XXX RPM 10 PROVIDE 2 SPEED FAN XXX RPM LOW; XXX RPM 11 PROVIDE ALUMINUM INSECT SCREEN IN AN INSE 13 PROVIDE ALUMINUM BIRD SCREEN. TOTIONAL REQUIREMENTS.</td> <td>ITH FACTORY MOUNTED AND WIREI RB PERIMETER UNLESS THE ELECTION CURB OF SUFFICIENT HEIGHT TO PERTANY. ER TRAY. PROVIDE HINGED FAN BASE EEE 519, A LINE REACTOR SHALL BENTROL. THIN FAN HOOD. HIGH. SCT SCREEN MOUNTING BASE BETW MOUNTING WEIGHT (LBS) 96" 65 96" 25 ACKET FOR SUPPORT FROM STRUCZARDOUS LOCATION UNIT. EMPERATURE OF ANY EXPOSED SUFACTION UNIT. EMPERATURE OF ANY EXPOSED SUFACTION UNIT. EMPERATURE OF ANY EXPOSED SUFACTION UNIT. EDULE</td> <td>D NEC COMPLIANT DISCONNECT. OUTDOOF RICAL SERVICES ARE ROUTED ABOVE THE I ROVIDE A MINIMUM 20 INCHES FROM FINISH HE ROOF SUCH THAT THE TOP OF THE CUR SE FOR ACTUATOR ACCESS. IF FAN VOLTAGE EQUIPPED AS NEEDED TO ELIMINATE HAR ////////////////////////////////////</td> <td>BELT R UNITS SHALL BE PROVIDE ROOF. HED ROOF SURFACE TO TOP B IS LEVEL AND PLUMB. SEI GE IS NOT 120V, PROVIDE C MONIC FEEDBACK. CESS DOORS TO ALLOW FO MONIC FEEDBACK. CESS DOORS TO ALLOW FO SIS OF DESIGN EL DISCHAF STYLI 3DACA HORIZON 700°F. 700°F.</td> <td>ALUMINUM ED WITH NEMA 4 DISCONNECT. P POF CURB. CURB INSULATION S EE ARCHITECTURAL DRAWINGS F CONTROL TRANSFORMER FOR D OR REMOVAL AND CLEANING OF OR REMOVAL AND CLEANING OF RGE E RGE STYLE TAL STD, STEEL CASED TAL STD, STEEL CASED SOF DESIGN URER MODEL</td> <td>1,500 POWER AND CONT SHALL BE 2" DOW FOR ROOF SLOPE DAMPER. THE SCREEN. I,2,4,6,7 I,2,4,6,7 I,2,4,6,7 I,2,4,6,7</td>	39.19 WALL AND CEILING UNIT HEATERS FOR ADD HEATING CAPACITY AIR TEMP. RISE (°F) 15.0 43 5.0 40 MPLIANT COMBINATION STARTER-DISCONNECT. MPLIANT COMBINATION STARTER-DISCONNECT. COM CE MAX SP (IN-WG) LENGTH AIR 0.00 10"	NOTES: 1 PROVIDE SINGLE POINT POWER CONNECTION W ROUTED UP WITHIN THE LIMITS OF THE UNIT CU 2 PROVIDE EXTENDED LUBRICATION LINES. 3 PROVIDE GALVANIZED STEEL INSULATED ROOF BOTTOM OF CURB SHALL BE MANUFACTURED TO 4 PROVIDE GALVANIZED STEEL INSULATED ROOF 9 PROVIDE ADJUSTABLE BELT DRIVE. 7 PROVIDE VD. IF VFD DOES NOT COMPLY WITH I 8 PROVIDE ECM MOTOR SUITABLE FOR SPEED CO 9 SOLID STATE SPEED FON XXX RPM LOW; XXX RPM 10 PROVIDE 2 SPEED FAN XXX RPM LOW; XXX RPM 11 PROVIDE ALUMINUM INSECT SCREEN IN AN INSE 13 PROVIDE ALUMINUM BIRD SCREEN. TOTIONAL REQUIREMENTS.	ITH FACTORY MOUNTED AND WIREI RB PERIMETER UNLESS THE ELECTION CURB OF SUFFICIENT HEIGHT TO PERTANY. ER TRAY. PROVIDE HINGED FAN BASE EEE 519, A LINE REACTOR SHALL BENTROL. 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SYSTEM SIZE PIPE JOINTING FITTINGS CPVC SCHEDULE 40 TYPE DWV					MARK AREA EUH-7 107 COMPR EUH-8 FIRE RIS NOTES: 1 1 PROVIDE SINGLE POINT POWER 2 MOUNTING HEIGHT IS FROM TO 3 PROVIDE CONTROL TRANSFORM 4 PROVIDE CONTROL TRANSFORM 5 PROVIDE LOW VOLTAGE WALL M 6 PROVIDE UNIT MOUNTED THERM 7 PROVIDE WALL MOUNTING BRAY SPEC SECTION 233723 GRAVITY VENTILL MARK AI GIV-5 COW NOTES: PROVIDE GALVANIZED STEEL INSULATION SHALL BE 2" DOW ST THE CURB IS LEVEL AND PLUMB. S 2 PROVIDE ALUMINUM INSECT SCRE	AIRFLOW SERVED CFM THROW (FT) RESSOR ROOM 1100 32 SER ROOM 400 12 R CONNECTION WITH FACTORY MOUNTED AND WIRED NEC COM P OF FINISHED FLOOR TO BOTTOM OF UNIT. MER AND CONTACTOR. D FAN DELAY SWITCH FOR REMOVAL OF RESIDUAL HEAT. MOUNTED THERMOSTAT. MOSTAT. CKET. ATORS FOR ADDITIONAL REQUIREMENTS. ATORS FOR ADDITIONAL REQUIREMENTS. ATORS FOR ADDITIONAL REQUIREMENTS. AIRFI REA SERVED CFM SERVI INTAKE, CMM SEE ARCHITECTURAL DRAWINGS FOR ROOF SLOPE. EEN.	19.19 WALL AND CEILING UNIT HEATERS FOR ADD HEATING CAPACITY AIR TEMP. RISE (%F) 15.0 43 5.0 40 MPLIANT COMBINATION STARTER-DISCONNECT. MPLIANT COMBINATION STARTER-DISCONNECT. COM CE MAX SP (IN-WG) LENGTH AIR 0.02 12" NIMUM 20 INCHES FROM FINISHED ROOF SURFA	NOTES: 1 PROVIDE SINGLE POINT POWER CONNECTION W ROUTED UP WITHIN THE LIMITS OF THE UNIT CU 2 PROVIDE EXTENDED LUBRICATION LINES. 3 PROVIDE GALVANIZED STEEL INSULATED ROOF BOTTOM OF CURB SHALL BE MANUFACTURED TA 4 PROVIDE ADJUSTABLE BELT DRIVE. 7 PROVIDE ADJUSTABLE BELT DRIVE. 7 PROVIDE VPD. IF VFD DOES NOT COMPLY WITH I 8 PROVIDE ECM MOTOR SUITABLE FOR SPEED CO 9 SOLID STATE SPEED CONTROLLER LOCATED WIT 10 PROVIDE 2 SPEED FAN XXX RPM LOW; XXX RPM 11 PROVIDE ALUMINUM INSECT SCREEN IN AN INSE 13 PROVIDE ALUMINUM BIRD SCREEN. TEACTER - ELECTRICAL MODULATION V/PH/HZ MCA 10 NONE 480/3/60 18.1 10 NONE 480/3/60 6.0 8 PROVIDE BE 10 PROVIDE BADUSTABLE BELT DRIVE. 11 PROVIDE WALL BERT 12 PROVIDE ALUMINUM BIRD SCREEN. TITY VENTILATOR SCHEE 10 MAXIMUM TI 11 PROVIDE WALL BERT 11 PROVIDE WALL BERT 12 Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	ITH FACTORY MOUNTED AND WIREI RB PERIMETER UNLESS THE ELECTI CURB OF SUFFICIENT HEIGHT TO PF CONFORM WITH THE SLOPE OF TH AMPER TRAY. ER TRAY. PROVIDE HINGED FAN BAS EEE 519, A LINE REACTOR SHALL BE NTROL. THIN FAN HOOD. HIGH. SCT SCREEN MOUNTING BASE BETW DUNTING WEIGHT HEIGHT (IN) (LBS) 96" 65 96" 25 ACKET FOR SUPPORT FROM STRUCZARDOUS LOCATION UNIT. EMPERATURE OF ANY EXPOSED SUI ASH DOWN GRADE UNIT. EDULE WEATHERHOOD (II LENGTH WIDTH 24" 26"	D NEC COMPLIANT DISCONNECT. OUTDOOP RICAL SERVICES ARE ROUTED ABOVE THE I ROVIDE A MINIMUM 20 INCHES FROM FINISH TE ROOF SUCH THAT THE TOP OF THE CUR SE FOR ACTUATOR ACCESS. IF FAN VOLTAGE E EQUIPPED AS NEEDED TO ELIMINATE HAR //EEN THE FAN AND THE CURB. PROVIDE ACC //EEN THE FAN AND THE CURB. PROVIDE ACC BAS MANUFACTURER MOD TRANE UHEC-153 TRANE UHEC-053 CTURE ABOVE. RFACE TEMPERATURE SHALL NOT EXCEED V) WEIGHT (LBS) DAMPER MOD TRAY. DAMPER TRAY. DAMPER TRAY. DAMPER TRAY. PROVIDE HINGED BASE FOF	BELT R UNITS SHALL BE PROVIDE ROOF. HED ROOF SURFACE TO TOP B IS LEVEL AND PLUMB. SEI GE IS NOT 120V, PROVIDE C MONIC FEEDBACK. CESS DOORS TO ALLOW FO SIS OF DESIGN EL DISCHAF STYLI 3DACA HORIZON 700°F. 700°F. R BASIS MANUFACTU 2 GREENHEC	ALUMINUM ED WITH NEMA 4 DISCONNECT. P POF CURB. CURB INSULATION S E ARCHITECTURAL DRAWINGS F CONTROL TRANSFORMER FOR D OR REMOVAL AND CLEANING OF RGE STYLE TAL STD, STEEL CASED TAL STD, STEEL CASED S OF DESIGN URER MODEL CK FGI-12X12	1,500 POWER AND CONT SHALL BE 2" DOW SFOR ROOF SLOPE DAMPER. THE SCREEN. IL2.4,6,7 IL2		

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		HVA	C DUCTWORK	AND INSU	_ATION SCHE	EDULE						
LONGITUDINAL SEAMS	ELBOWS	TAKE OFF	DUCT REINFORCEMENT	PRESSURE RATING	CODE REFERENCES AND PERFORMANCES	INSULATION	INSULATION THICKNESS	JACKET	DUCT AND INSULATION NOTES	ACCESS DOOR TYPE	ACCESS DOOR DESCRIPTION	ACCESS DOOR NOTES
G. 2-2 - K SEAM	SA: 1-1/2 RADIUS ROUND ELBOWS WHERE SPACE PERMITS OR SQUARE TURN WITH SINGLE THICKNESS TURNING VANES SMACNA 2006 FIG. 4-2 RA/EA: SQUARE FITTING. NO VANES"	SMACNA 2006 FIG. 4-6. CONNECTION SHALL BE SEALED FOR AIR TIGHT CONSTRUCTION.	PER LATEST EDITION OF SMACNA DUCT CONSTRUCTION STANDARDS EXTERNAL ONLY. NO TIE RODS.	LOW - 2 INCH, WG. POSITIVE - OR NEGATIVE, VELOCITIES LESS THAN 2,500 FPM	NFPA, ASTM - A167, ASHRAE, SMACNA, UL, ANSI/ASTM - A534, ASTM - E84, ASTM - C177.	N/A	N/A	N/A	1	AD1	DOOR AND FRAME MATERIAL: GALV STEEL/ALUM INSULATION: NONE DUCT TO FRAME CONNECTION: TABS OR RIVETS BASIS OF DESIGN: KEES ADH	1,4,6
G. 2-2 - K SEAM	SA: 1-1/2 RADIUS ROUND ELBOWS WHERE SPACE PERMITS OR SQUARE TURN WITH SINGLE THICKNESS TURNING VANES SMACNA 2006 FIG. 4-2 RA/EA: SQUARE FITTING. NO VANES"	SMACNA 2006 FIG. 4-6. CONNECTION SHALL BE SEALED FOR AIR TIGHT CONSTRUCTION.	PER LATEST EDITION OF SMACNA DUCT CONSTRUCTION STANDARDS EXTERNAL ONLY. NO TIE RODS.	LOW - 2 INCH, WG. POSITIVE - OR NEGATIVE, VELOCITIES LESS THAN 2,500 FPM	NFPA, ASTM - A167, ASHRAE, SMACNA, UL, ANSI/ASTM - A534, ASTM - E84, ASTM - C177.	MINERAL-FIBER BLANKET INSULATION, R-VALUE 3.8 PER INCH, DENSITY 0.75 LB/CU. FT K-VALUE 0.26 AT 75 MEAN TEMPERATURE, CERTAINTEED DUCTWRAP OR EQUAL.	OUTDOOR: NOT ALLOWED INDOOR CONDITIONED SPACE: 2" INDOOR UNCONDITIONED SPACE: 2"	OUTDOOR: NOT ALLOWED INDOOR PROCESS: NOT ALLOWED INDOOR NON-PROCESS: INTEGRAL FSK (FOIL-SCRIM-KRAFT)	1,2	AD2	DOOR AND FRAME MATERIAL: GALV STEEL/ALUM INSULATION: ELASTOMERIC/FIBERGLASS DUCT TO FRAME CONNECTION: TABS OR RIVETS BASIS OF DESIGN: KEES ADH	1-6
IN VERTICAL SEGMENTS. BAF DUCT AND WELDED TO DUCT A ASE DUCT RESERVOIR AND CLE	VS ON ACCESSIBLE DUCTS ANY VERTICAL SEGMENT AND BENEATH AN AS SHALL BE 1/2" DIAMETER SOLID ROUND M T 1' CENTERS. WELDS TO BE POLISHED SMC EANOUTS AS PRESCRIBED BY INTERNATION SE RESERVOIR 1/4" PER FT OR 1" PER FT FC	IATERIAL DOTH. AL MECHANICAL CODE.	17. SLOPE ALL UNDERGROUND DUC	OR UL723. IF NOT, PROVIDE A 1 EXCEPTIONS: DUCTS CONVEY CTANGULAR DUCTS WHERE NE TWORK AT 1/8" PER FT TO ACC	" FIRE WRAP AROUND DUCT. ING NON-FLAMMABLE MATERIALS. F EITHER THE HEIGHT NOR THE WIDT	ROUND DUCTS H IS 10" OR MORE.	 DOOR INSULATION THICKNESS TO M FOR DUCTS THAT ARE TO BE INTER ACCESS DOORS SHALL BE RATED A ACCESS DOORS SHALL BE MOUNTER 	NALLY CLEANED, SHEET METAL SCREWS MA T THE SAME PRESURE CLASS AS THE DUCT	AY NOT BE USED, EIT WORK IT IS SERVING TO THE AIRSTREAM,	HER RIVETS	R NEGATIVE PRESSURE DUCTS (WHERE ACCEPTED) OR WELDED CONNECTIONS ONL , IT SHALL BE FLUSH WITH THE INTERIOR WALL OF THI	

JIREMENTS.																																		
		HEATI	NG				SUPP	LY FAN					EXHAUS	ST FAN		COMPR	. CO	ND. FAN		ELE	ECTRIC	AL		ECTRIC		MIN T	ARGET CIENCY	FILTE	RS		BASIS OF DE	ESIGN		
COIL (°F) ENT. AIR LVG. AI DB WB DB WI	R (KW)	- MODULA TION		L (DB PF) LVG. AIR	τγ τι	PE ٢	EXT S.P. (IN. WG)	FRPM	BHP	HP EAC	H CFM	QTY.	ESP (IN. WG)	BHP	HP EACH	QTY.	QTY.	HP EACH	INTEGRAL ENERGY RECOVERY	V/PH/HZ	MCA	MOCF	P V/PH	MCA	MOCP	COOLING FULL LOAD	COOLING PART LOAD	PRE-FILTER	FINAL FILTER	WEIGHT (LBS)	MANUFACTURER	MODEL	NOTES	M
76.4 64.4 54.0 52.	8 18	NONE	60.9	87.2	1 BC P	ENUM	1.50	1237	1.2	3.1	2,100	1	1.5	1.2	3.1	2	1	1.6	-	460/3/60	35	35	460/3	6.5	10	12.3 EER	16.5 IEER	MERV-8	MERV-11	2,500	TRANE	PRECEDENT	1-12,14-16,18-20,23-26	R
	9																							CE WITH ME	RV-8 FILTER	S UPSTREAM OF I	DEVICE FOR OUTS	IDE AIR AND EXHAU	IST. SEE ENER	GY RECOVERY	SCHEDULE FOR ENERGY RE	ECOVERY PERFOR	RMANCE.	

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SEE SPEC SECTIO	N 233413 AXIAL HVAC FANS, 233416 CEI	NTRIFUGAL HVAC FANS, AND 233423 HVAC PO	OWER VENTILATORS FOR ADDITIONAL F	REQUIREMENTS.														
						AIR	FLOW		MAX	E	LECTRIC	AL				BASIS OF	DESIGN	
MARK	AREA SERVED	FAN TYPE	WHEEL TYPE	DRIVE	FAN MATERIAL	VOLUME	EXT S.P. (IN. WG)	FRPM	SOUND	BHP	HP	V/PH/HZ	STARTER TYPE	INTERLOCK	WEIGHT	MANUFACTUR ER	MODEL	NOTES
EF-17	RESTROOMS	CENTRIFUGAL UPBLAST	BACKWARD INCLINED	DIRECT	ALUMINUM	300	0.36	1203	5.1 SONES	0.04	0.1	115/1/60	ECM	RTU-4	40	GREENHECK	CUE-090-VG	1-4,8,9,12
EF-18	107 COMPRESSOR ROOM	CENTRIFUGAL DOWNBLAST	BACKWARD INCLINED	BELT	ALUMINUM	1,500	0.3	721	7 SONES	0.17	0.25	115/1/60	BY ELEC	EF-3 (EXISTING)	88	GREENHECK	GB-161	1,2,3,5,6,12
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T HEATERS FOR ADD	ITIONAL REQUIREMENTS).								
HEATING		ELECTR	ICAL	MOUNTING	WEIGHT		BASIS OF DI	ESIGN		
TEMP. RISE (℉)	MODULATION	V/PH/HZ	MCA	HEIGHT(IN)	(LBS)	MANUFACTURER	MODEL	DISCHARGE STYLE	STYLE	NOTES
43	NONE	480/3/60	18.1	96"	65	TRANE	UHEC-153DACA	HORIZONTAL	STD, STEEL CASED	1,2,4,6,7
40	NONE	480/3/60	6.0	96"	25	TRANE	UHEC-053DACA	HORIZONTAL	STD, STEEL CASED	1,2,4,6,7
RTER-DISCONNECT.			0 PROVIDE 0 MAXIMUM	BRACKET FOR SUPPO HAZARDOUS LOCATIO I TEMPERATURE OF A WASH DOWN GRADE	ON UNIT. NY EXPOSED SU	CTURE ABOVE. JRFACE TEMPERATURE SHALI	₋NOT EXCEED 700 ℉.			

		DIN	IENSIONS				WEIGUT		BASIS OF DES	SIGN	
-	THROAT (IN)		BASE	WEA	ATHERHO	DD (IN)	WEIGHT (LBS)	DAMPER INTERLOCK	MANUFACTURER	MODEL	NOTES
LENGTH	WIDTH	DIAMETER	HEIGHT	LENGTH	WIDTH	DIAMETER			WANUFACIUNEN	MODEL	
12"	12"		2"	24"	26"		37	AC-1, AC-2	GREENHECK	FGI-12X12	1,2,5
	ACE TO TOP OF CUP OF THE ROOF SUCH		5 PRC		RIZED DAMPER			IGED BASE FOR ACT	JATOR ACCESS.		

6. ALL ACCESS DOORS SHALL BE HINGED UNLESS 12" AND SMALLER ON LARGEST SIDE. 7. DOOR AND FRAME SHALL BE OF CAKEPAN CONSTRUCTION WITH A THERMAL BREAK (NO THROUGH METAL).

22 PROVIDE HOT GAS BYPASS. 23 PROVIDE MODULATING HOT GAS REHEAT AND DEHUMIDIFICATION CONTROLS / SENSORS.

24 PROVIDE COMPARATIVE ENTHALPY ECONOMIZER WITH INTEGRAL POWERED EXHAUST. 25 PROVIDE WEATHERPROOF SLOPED TOP CABINET CONSTRUCTION WITH RAIN HOOD FOR OUTSIDE AIR INTAKE.

26 PROVIDE UNIT WITH SINGLE WALLED CASING WITH FOIL FACED INSULATION ON AIRSTREAM SIDE.

27 PROVIDE DUAL WALLED UNIT WITH MINIMUM TWO INCH THICK INSULATED CASING SUITABLE FOR WIPEDOWN APPLICATION. STAINLESS STEEL INNER LINER FOR PROCESS SPACE WIPEDOWN APPLICATION. 28 PROVIDE EXTENDED HEIGHT CURB OF XX" TO ALLOW FOR TRANSITION FROM UNIT TO DUCT ROUTED BETWEEN JOIST AND SUPPORTS.

14 PROVIDE UL762 KITCHEN EXHAUST FAN WITH BIRD SCREEN, HEAT BAFFLE, GREASE TRAP AND COLLECTION TROUGH, SS FASTENERS, AND HINGE KIT. NNECTIONS SHALL BE 15 PROVIDE FAN WITH COATED NON STICK WHEEL.

16 PROVIDE FILTER RACK WITH 1" DISPOSABLE FILTERS. (MERV 8)

17 PROVIDE EXHAUST ROOF JACK CAP WITH INSECT SCREEN. OAM WITH FOIL FACING. 18 PROVIDE EXHAUST WALL CAP WITH INSECT SCREEN.

19 PROVIDE WALL BOX, SHUTTER AND WIRE GUARD.

20 PROVIDE OSHA APPROVED INLET AND OUTLET GUARD. 21 PROVIDE HANGING RODS BRACKETS AND VIBRATION ISOLATORS.

22 PROVIDE WALL MOUNTED SWITCH TO CONTROL FANS.

23 PROVIDE TIME DELAY SWITCH. 24 PROVIDE CORROSION RESISTANT FAN.

25 FAN SHALL BE VERTICAL AIR DISCHARGE WITH FAN OUTLET VELOCITY GREATER THAN 2500 FPM. 26 PROVIDE EXPLOSION PROOF FAN ASSEMBLY CONSISTING OF AMCA TYPE B SPARK RESISTANT ALUMINUM FAN CONSTRUCTION AND EXPLOSION PROOF TEFC MOTOR OUT OF THE AIRSTREAM.

27 FOR REFRIGERATION MACHINE ROOMS, DAMPER ACTUATOR SHALL FAIL OPEN.

AIR DISTRIBUTION SCHEDULE

SEE SPEC SECTION	N 233713.13 AIR DIFFUSERS, 233713.23 REGISTERES AND GRILLES, 233713.43 SECURITY REGISTE	RES AND GRILLES				
TYPE MARK	ТҮРЕ	MATERI	AL	MANUFACTURER	MODEL	NOTI
A1	24" SQUARE CEILING DIFFUSER	ALUMINU	М	PRICE	ASCD	1-5, 7
B1	12" SQUARE CEILING DIFFUSER	ALUMINU	М	PRICE	ASCD	1-5, 7
K1	LOUVERED RETURN/EXHAUST DIFFUSER	ALUMINU	М	PRICE	630	1-4, 6
FOR LAY-IN SHALL BE TYPES. 2 AIR DISTRI PROVIDED WITH FIELD 3 PROVIDE A DUCT FRA 4 PROVIDE V 5 PROVIDE O	IBUTION DEVICES LOCATED WITHIN ACOUSTICAL TILE CEILINGS SHALL BE PROVIDED WITH BORE N MOUNTING. AIR DISTRIBUTION DEVICES LOCATED WITHIN GYPSUM BOARD CEILINGS OR WALLS PROVIDED WITH BORDER FOR SURFACE MOUNTING. REFER TO ARCH DRAWINGS FOR CEILING IBUTION DEVICES LOCATED IN LOCATIONS WHERE FULL 24"x24" GRID ARE NOT AVAILABLE SHALL WITH SURFACE MOUNTING BORDERS IN LIEU OF LAY-IN. SECURE EACH DEVICE TO CEILING GRI D FABRICATED SUPPORTS. A SURFACE MOUNT FRAME IF IT IS MOUNTED DIRECTLY TO A RECTANGULAR DUCT, OR A SPIRAL ME IF IT IS MOUNTED DIRECTLY TO SPIRAL ROUND DUCT. WHITE POWDER COAT FINISH. DPPOSED BLADE DAMPER AT NECK, DAMPER MATERIAL SHALL MATCH AIR TERMINAL MATERIAL. DPPOSED BLADE DAMPERS FOR EXHAUST GRILLE APPLICATIONS. PROVIDE OPPOSED BLADE	DER 10 DROP S DEVIC ON TH 11 PROV BE SPAC D 12 SUPP DROP MATE	BOX SUPPORT TAE DE IS TO BE FLUSH M HE BOTTOM OR ON TIDE FULLY WELDED E, PROVIDE HEAT TI LY AIR DROP BOXES PBOXES PROVIDE W RIAL	CONSTRUCTION DROP BOX WITH CON 3S SHALL BE PROVIDED AT THE BOTTO MOUNTED WITH A CEILING. IF NO CEILI TOP OF THE DEVICE. 9 DRAIN PAN WITH EXTERNAL DRAIN CO RACE FOR DRAIN PAN. SEE PLANS FOR S SHALL BE PROVIDED WITH ADJUSTAI ITH SINGLE DEFLECTION GRILLES. MA IR FLOW EXIT PLATE.	OM OF THE DEVICE FOR APPL NG IS PRESENT, SUPPORT T ONNECTION. IF DROP BOX IS R HEAT TRACE LOCATIONS. BLE DRUM LOUVERS, RETUF	ICATIONS WHE ABS CAN EITHE IN A REFRIGEF RN/EXHAUST

PROVIDE OPPOSED BLADE DAMPERS FOR EXHAUST GRILLE APPLICATIONS. PROVIDE OPPOSED BLADE DAMPERS FOR RETURN GRILLES EXCEPT THOSE SERVING A VAV SYSTEM. DAMPER MATERIAL SHALL MATCH AIR TERMINAL MATERIAL

ALL DIFFUSERS / GRILLES ARE 4-WAY UNLESS INDICATED OTHERWISE. SIZE OF NECK TO MATCH SUPPLY DUCT RUNOUT UNLESS INDICATED OTHERWISE.

4

TE PIPE SCHEDULE INSULATION JACKETTING NOTES SLOPE PIPE IN DIRECTION OF FLOW 1/8" PER FOOT.
 PROVIDE P-TRAP AT EACH MECHANICAL UNIT.
 PROVIDE SELF REGULATING HEAT TRACE WHERE SPECIFIED ON PLANS
 PROVIDE ROOFTOP SUPPORT STAND EVERY 4' 0" ALONG PIPE RUN. EMENTS OF LOCAL OR STATE WATER TEST. TEST WITH A 4.3 PSI. HEAT TRACE APPLICATIONS ONLY: 1/2" ELASTOMERIC HEAT TRACE APPLICATIONS ONLY: WHITE PVC JACKET

5



SHEET ID

MECHANICAL SCHEDULES

M6001

NO.	DESCRIPTION	DATE
C	PERMIT ISSUE	05/26/2023
В	DESIGN DEVELOPMENT 2	04/03/2023
A	DESIGN DEVELOPMENT 1	03/06/2023
		-
DATE ISS	SUED:	03/06/2023
DESIGNE		DC
REVIEWI	ED BY:	EH
VEOR:		DC
ROJEC	T NUMBER:	07366

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REVISIONS

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PHASE III EXPANSION LAKE CITY, FLORIDA

US COLD STORAGE



OWNER

PROJECT INFORMATION

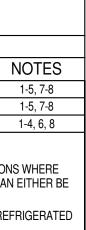
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2

PREVIOUS SEQUENCE OF OPERATION FOR: FIRE PROTECTION (210)

(FOR REFERENCE ONLY) L-2, EF-3

1. EF-3 SHALL EACH BE CONTROLLED BY LINE VOLTAGE THERMOSTAT LOCATED AS SHOWN. 2. THERMOSTAT SETPOINT SHALL BE 85 F SUMMER.

3. THERMOSTAT SHALL BE PROVIDED AND MOUNTED BY THE MECHANICAL CONTRACTOR AND WIRED BY THE ELECTRICAL CONTRACTOR. 4. THE MOTORIZED DAMPERS FOR L-2 SHALL BE INTERLOCKED WITH EF-3 TO BE OPEN WHEN EF-3 IS OPERATING. THIS WORK SHALL BE DONE BY THE ELECTRICAL CONTRACTOR. 5. ALL WIRING FOR POWER SHALL BE BY THE ELECTRICAL CONTRACTOR.

NEW SEQUENCE OF OPERATION FOR: -NOW AIR COMPRESSOR ROOM (107):

L-2, EF-3, EF-18, EUH-7 1. EF-3 (EXISTING) AND EF-18 (NEW) BOTH SHALL BE CONTROLLED BY EXISTING LINE VOLTAGE THERMOSTAT LOCATED AS SHOWN. 2. THERMOSTAT SETPOINT SHALL BE 85 F SUMMER.

3. THERMOSTAT IS EXISTING TO REMAIN.

4. THE MOTORIZED DAMPERS FOR L-2 ARE EXISTING AND SHALL REMAIN INTERLOCKED WITH EF-3 TO BE OPEN WHEN EF-3 IS OPERATING. EF-18 SHALL BE INTERLOCKED WITH EF-3 TO OPERATE WHEN EF-3 IS OPERATING. 5. EUH-7 SHALL BE CONTROLLED BY UNIT MOUNTED THERMOSTAT, SETPOINT SHALL BE 50 DEGREES F (ADJ.). 6. ALL WIRING FOR POWER SHALL BE BY THE ELECTRICAL CONTRACTOR.

OPERATION: THE SUPPLY AIR SENSOR SHALL MEASURE THE DRY BULB TEMPERATURE OF THE AIR LEAVING THE EVAPORATOR COIL WHILE ECONOMIZING. WHEN ECONOMIZING IS ENABLED AND THE UNIT IS OPERATING IN THE COOLING MODE, THE ECONOMIZER DAMPER SHALL MODULATE BETWEEN ITS MINIMUM POSITION AND 100% TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. MINIMUM POSITION SHALL BE CALCULATED BASED ON SUPPLY FAN SPEED. IF THE SUPPLY AIR TEMPERATURE STARTS TO FALL BELOW SUPPLY AIR TEMPERATURE SETPOINT, THE OUTDOOR DAMPER SHALL BE AT MINIMUM POSITION. COMPRESSORS SHALL BE DELAYED FROM OPERATING UNTIL THE ECONOMIZER HAS OPENED TO 100% FOR 5 MINUTES. SUPPLY FAN: THE UNIT CONTROLLER SHALL VARY THE SUPPLY FAN SPEED TO OPTIMIZE MINIMUM FAN SPEED IN ALL COOLING AND HEATING MODES. SUPPLY DUCT STATIC PRESSURE CONTROL: THE UNIT CONTROLLER SHALL MODULATE THE SUPPLY FAN OUTPUT AS REQUIRED TO MAINTAIN THE SUPPLY DUCT STATIC PRESSURE SETPOINT. IF THE SUPPLY DUCT STATIC PRESSURE FALLS BELOW THE SUPPLY AIR STATIC SETPOINT + DEADBAND, THE UNIT CONTROLLER SHALL INCREASE THE OUTPUT TO THE SUPPLY FAN TO MAINTAIN SETPOINT. IF THE SUPPLY DUCT STATIC PRESSURE RISES ABOVE THE

SUPPLY AIR STATIC SETPOINT + DEADBAND, THE UNIT CONTROLLER SHALL DECREASE THE OUTPUT TO THE SUPPLY FAN TO MAINTAIN

OUTSIDE AIR DAMPER SHALL DRIVE TO MINIMUM POSITION DURING DEHUMIDIFICATION. MULTI-CIRCUIT UNITS: ON A CALL FOR DEHUMIDIFICATION, THE HOT GAS REHEAT VALVE IN CIRCUIT 1 SHALL ENERGIZE AND THE COMPRESSOR(S) SHALL ENABLE. WHEN THE HUMIDITY CONTROL SETPOINT IS SATISFIES, THE VALVE SHALL BE DE-ENERGIZED AND THE COMPRESSOR(S) IN CIRCUIT 1 SHALL BE DISABLED. IF THERE IS A CALL FOR 1ST STAGE COOLING WHILE IN THE DEHUMIDIFICATION MODE, NO ACTION SHALL TAKE PLACE. IF THERE IS A CALL FOR 2ND STAGE COOLING, THE HOT GAS REHEAT VALVE SHALL BE DE-ENERGIZED, AND THE UNIT SHALL REVERT TO THE COOLING MODE. IF 2ND STAGE COOLING IS SATISFIED AND THERE IS STILL A CALL FOR DEHUMIDIFICATION, THE HOT GAS REHEAT VALVE SHALL ONCE AGAIN BE ENERGIZED. ECONOMIZER: ENABLE (COMPARATIVE ENTHALPY): OUTSIDE AIR (OA) ENTHALPY SHALL BE COMPARED WITH RETURN AIR (RA) ENTHALPY POINT. THE

ECONOMIZER SHALL ENABLE WHEN OA ENTHALPY IS LESS THAN RA ENTHALPY - 2.0 BTU/LB. THE ECONOMIZER SHALL DISABLE WHEN OA

ENTHALPY IS GREATER THAN RA ENTHALPY.

4

SHALL STAGE DOWN OR STAGE UP THE COMPRESSORS RESPECTIVELY TO MEET FULL OR PART LOAD CAPACITY REQUIREMENTS BASED ON AMBIENT TEMPERATURE. FACTORY INSTALLED HOT GAS REHEAT SHALL ALLOW APPLICATION OF DEHUMIDIFICATION. DEHUMIDIFICATION SHALL BE ALLOWED ONLY WHEN THE OUTSIDE AIR TEMPERATURE IS ABOVE 40.0 DEG. F AND BELOW 100.0 DEG. F. THE ECONOMIZER

DEHUMIDIFICATION: THE UNIT SHALL BE IN DEHUMIDIFICATION MODE IF THE SPACE HUMIDITY IS ABOVE THE DEHUMIDIFICATION SETPOINT. IN THE DEHUMIDIFICATION MODE, THE SUPPLY AIR FAN SHALL BE ENABLED, THE OUTSIDE AIR DAMPER SHALL BE COMMANDED TO MINIMUM POSITION, AND THE UNIT CONTROLLER SHALL ENERGIZE MECHANICAL COOLING AND THE HOT GAS REHEAT COIL SHALL MODULATE. MULTI-CIRCUIT UNITS: DURING DEHUMIDIFICATION MODE THE OUTSIDE AIR TEMPERATURE SHALL BE MONITORED. IF THIS TEMPERATURE RISES ABOVE THE REHEAT CAPACITY LIMIT SETPOINT OR FALLS BELOW THE REHEAT CAPACITY LIMIT SETPOINT - 3.0 DEG. F (ADJ.), THE UNIT

WHEN THE SPACE TEMPERATURE RISES ABOVE THE OCCUPIED COOLING SETPOINT THE MODE SHALL TRANSITION TO COOLING. WHEN THE TEMPERATURE IS ABOVE THE OCCUPIED COOLING SETPOINT OR BELOW THE OCCUPIED HEATING SETPOINT THE MODE SHALL REMAIN IN ITS LAST STATE. IF THE SPACE TEMPERATURE SENSOR FAILS, THE MODE SHALL REMAIN IN ITS LAST STATE AND AN ALARM SHALL ANNUNCIATE AT THE BAS. IF THE LOCAL AND COMMUNICATED SETPOINTS FAIL THE CONTROLLER SHALL DISABLE THE SUPPLY FAN AND AN ALARM SHALL ANNUNCIATE AT THE BAS.

UNIT SHALL TRANSITION TO THE OCCUPIED MODE. HEAT/COOL MODE: SPACE TEMPERATURE FALLS BELOW THE OCCUPIED HEATING SETPOINT THE MODE SHALL TRANSITION TO HEATING. WHEN THE SPACE

THE OCCUPIED MODE. PRE-COOL MODE: DURING OPTIMAL START, IF THE SPACE TEMPERATURE IS ABOVE THE OCCUPIED COOLING SETPOINT, PRE-COOL MODE SHALL BE ACTIVATED. WHEN PRE-COOL IS INITIATED, THE UNIT SHALL ENABLE THE FAN AND COOLING OR ECONOMIZER. THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED, UNLESS ECONOMIZING. WHEN THE SPACE TEMPERATURE REACHES OCCUPIED COOLING SETPOINT (ADJ.), THE

WHEN THE OPTIMAL START OCCURS. MORNING WARM-UP MODE: DURING OPTIMAL START, IF THE SPACE TEMPERATURE IS BELOW THE OCCUPIED HEATING SETPOINT A MORNING WARM-UP MODE SHALL BE ACTIVATED. WHEN MORNING WARM-UP IS INITIATED, THE UNIT SHALL ENABLE THE HEATING AND FAN. THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED. WHEN THE SPACE TEMPERATURE REACHES THE OCCUPIED HEATING SETPOINT (ADJ.), THE UNIT SHALL TRANSITION TO

4.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL STOP, THE DX COOLING SHALL BE DISABLED, AND THE OUTSIDE AIR DAMPER SHALL CLOSE. **OPTIMAL START:** THE BAS SHALL MONITOR THE SCHEDULED OCCUPIED TIME, OCCUPIED SPACE SETPOINTS AND SPACE TEMPERATURE TO CALCULATE

TEMPERATURE RISES ABOVE THE UNOCCUPIED HEATING SETPOINT OF 60.0 DEG. F (ADJ.) PLUS THE UNOCCUPIED DIFFERENTIAL OF 4.0 DEG. F (ADJ.), THE SUPPLY FAN SHALL STOP, AND THE ELECTRIC HEAT SHALL BE DISABLED. WHEN THE SPACE TEMPERATURE IS ABOVE THE UNOCCUPIED COOLING SETPOINT OF 85.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL BE COMMANDED ON, THE OUTSIDE AIR DAMPER SHALL OPEN IF ECONOMIZING IS ENABLED AND REMAIN CLOSED IF ECONOMIZING IS DISABLED AND THE DX COOLING SHALL BE ENABLED. WHEN THE SPACE TEMPERATURE FALLS BELOW THE UNOCCUPIED COOLING SETPOINT OF 85.0 DEG. F MINUS THE UNOCCUPIED DIFFERENTIAL OF

THE DISCHARGE AIR TEMPERATURE SETPOINT. THE DISCHARGE AIR TEMPERATURE SETPOINT SHALL BE DYNAMICALLY RESET BASED ON THE DEVIATION OF ACTUAL SPACE TEMPERATURE FROM THE ACTIVE SPACE TEMPERATURE SETPOINT. IF THE DISCHARGE AIR TEMPERATURE SENSOR FAILS, THE DX COOLING AND THE ELECTRIC HEAT SHALL CONTROL TO MAINTAIN THE ACTIVE SPACE TEMPERATURE SETPOINT AND AN ALARM SHALL ANNUNCIATE AT THE BAS. IF THE DISCHARGE AIR TEMPERATURE SENSOR AND THE SPACE TEMPERATURE SENSOR FAIL, THE DX COOLING AND ELECTRIC HEAT SHALL BE DISABLED, AND AN ALARM SHALL ANNUNCIATE AT THE BAS. UNOCCUPIED: WHEN THE SPACE TEMPERATURE IS BELOW THE UNOCCUPIED HEATING SETPOINT OF 60.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL BE COMMANDED ON, THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED, AND THE ELECTRIC HEAT SHALL BE ENABLED. WHEN THE SPACE

DURING OCCUPIED PERIODS, THE SUPPLY FAN SHALL RUN CONTINUOUSLY, AND THE MIXED AIR DAMPERS SHALL OPEN TO MAINTAIN MINIMUM VENTILATION REQUIREMENTS. UPON A CALL FOR DX COOLING. THE UNIT CONTROLLER SHALL ENABLE THE VARIABLE SPEED COMPRESSOR. IF THE VARIABLE SPEED COMPRESSOR CANNOT SATISFY THE LOAD CONDITIONS, THE UNIT CONTROLLER SHALL START A FIXED SPEED COMPRESSOR. THE VARIABLE SPEED COMPRESSOR SHALL MODULATE TO MAINTAIN THE ACTIVE SPACE TEMPERATURE SETPOINT. THIS PROCESS SHALL REPEAT UNTIL ALL THE FIXED SPEED COMPRESSORS HAVE BEEN STARTED OR UNTIL THE LOAD CONDITIONS CAN BE SATISFIED. IF ECONOMIZING IS ENABLED, THE OUTDOOR AIR OR MIXED AIR DAMPERS SHALL MODULATE TO MAINTAIN

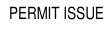
OCCUPIED/UNOCCUPIED AND HEAT/COOL MODES. IF A BAS IS NOT PRESENT, OR COMMUNICATION IS LOST WITH THE BAS THE CONTROLLER SHALL OPERATE USING DEFAULT MODES AND SETPOINTS. OCCUPIED:

BUILDING AUTOMATION SYSTEM INTERFACE: THE BUILDING AUTOMATION SYSTEM (BAS) SHALL SEND THE CONTROLLER OCCUPIED BYPASS, MORNING WARM-UP/PRE-COOL,

3. TEMPERATURE/HUMIDITY SENSOR SHALL BE PROVIDED, MOUNTED AND WIRED BY THE MECHANICAL CONTRACTOR. 4. EF-17 SHALL BE INTERLOCKED WITH RTU-4 TO RUN WHEN RTU-4 IS OPERATING. THIS WORK SHALL BE DONE BY THE ELECTRICAL CONTRACTOR. 5. ALL WIRING FOR POWER SHALL BE BY THE ELECTRICAL CONTRACTOR.

PACKAGED RTU-4, EF-17 1. RTU-1 SHALL BE CONTROLLED BY AN ELECTRONIC, PROGRAMMABLE LOW VOLTAGE RTU INTERFACE WITH TEMPERATURE AND HUMIDITY SENSORS, LOCATED AS SHOWN ON PLAN M1221. 2. TEMPERATURE/HUMIDITY SENSOR TO MAINTAIN ROOM TEMPERATURE OF 75 F SUMMER AND 70 F WINTER, AND RH OF 50%.

SEQUENCE OF OPERATION: **BREAK ROOM / TOILETS**



SHEET ID

MECHANICAL CONTROLS

M700

NO.	DESCRIPTION	DATE
В	PERMIT ISSUE	05/26/2023
A	DESIGN DEVELOPMENT 2	04/03/2023
		04/03/2023
REVIEW		DC EF
VEOR:		DC
ROJEC	T NUMBER:	07366

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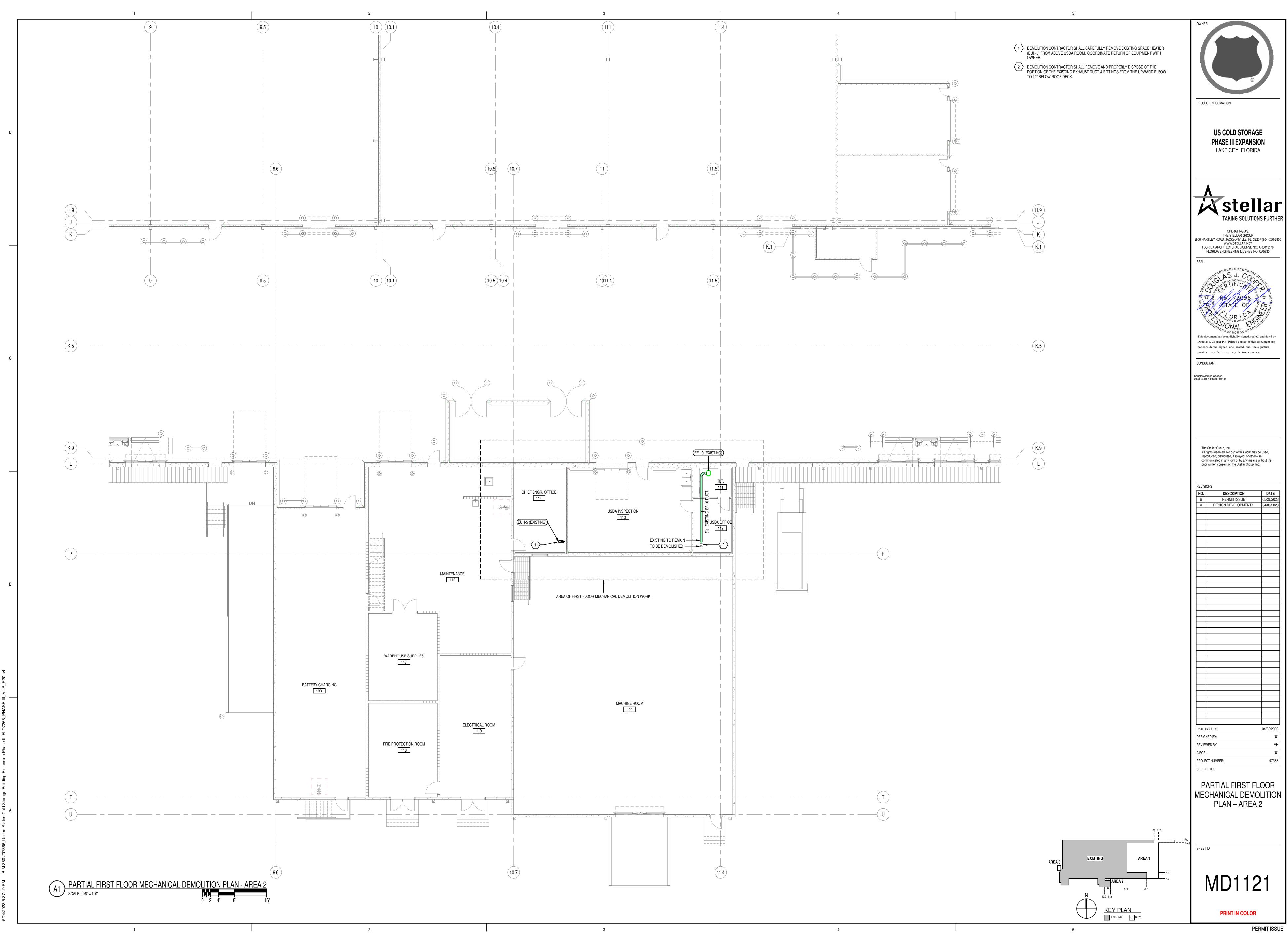
US COLD STORAGE PHASE III EXPANSION LAKE CITY, FLORIDA

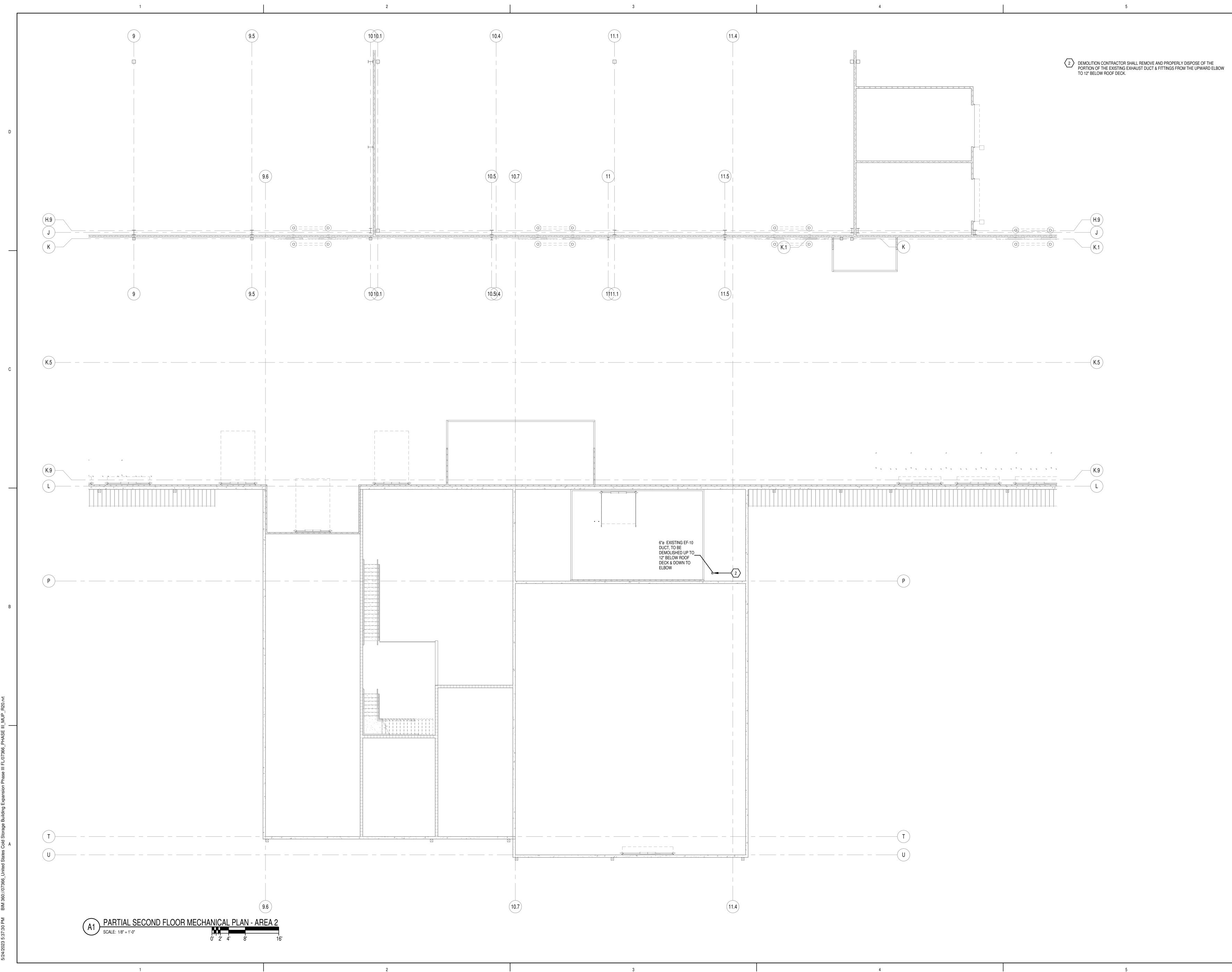
OWNER

PROJECT INFORMATION











SHEET ID

MD1221

REVIEWED BY:	EH
A/EOR:	DC
PROJECT NUMBER:	07366
SHEET TITLE	
PARTIAL SECOND F	LOOR
MECHANICAL DEMO	LITION
PLAN – AREA 2	2

NO.	DESCRIPTION	DATE
В	PERMIT ISSUE	05/26/2023
A	DESIGN DEVELOPMENT 2	04/03/2023
		_
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		_
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		04/02/0000
DATE IS		04/03/2023
DESIGNED BY:		DC
REVIEW	ED BY:	EH
A/EOR:		DC
PROJECT NUMBER: 073		07366

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CONSULTANT

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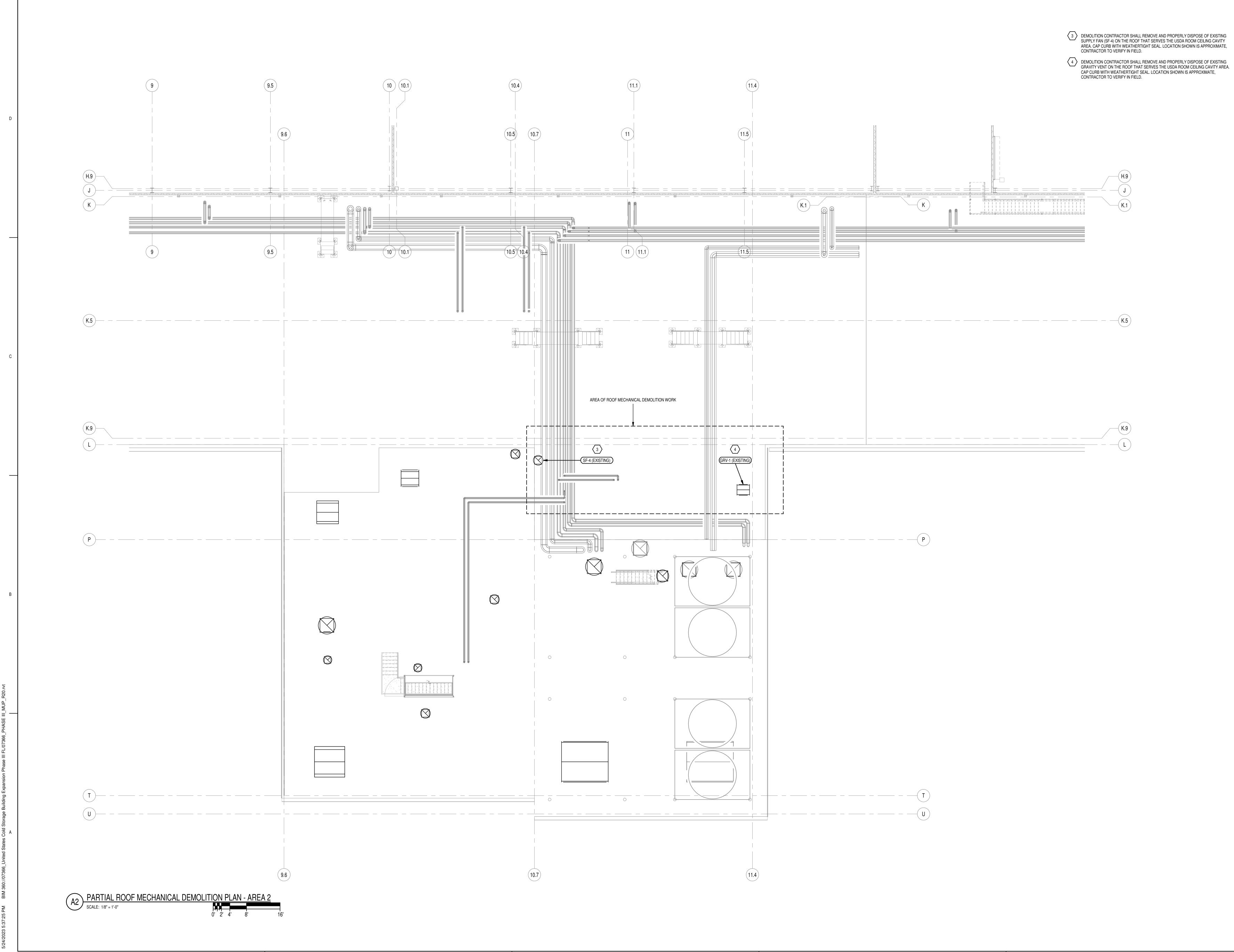
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US COLD STORAGE PHASE III EXPANSION LAKE CITY, FLORIDA

OWNER

PROJECT INFORMATION



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PERMIT IS	SUE
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SHEET TITLE

SHEET ID

MD1421

PARTIAL ROOF MECHANICAL DEMOLITION PLAN – AREA 2

REVISIO		
NO.	DESCRIPTION	DATE
В	PERMIT ISSUE	05/26/2023
A	DESIGN DEVELOPMENT 2	04/03/2023
DATE IS	SUED:	04/03/2023
DESIGNE		DC EH
A/EOR:		DC
PROJEC	T NUMBER:	07366

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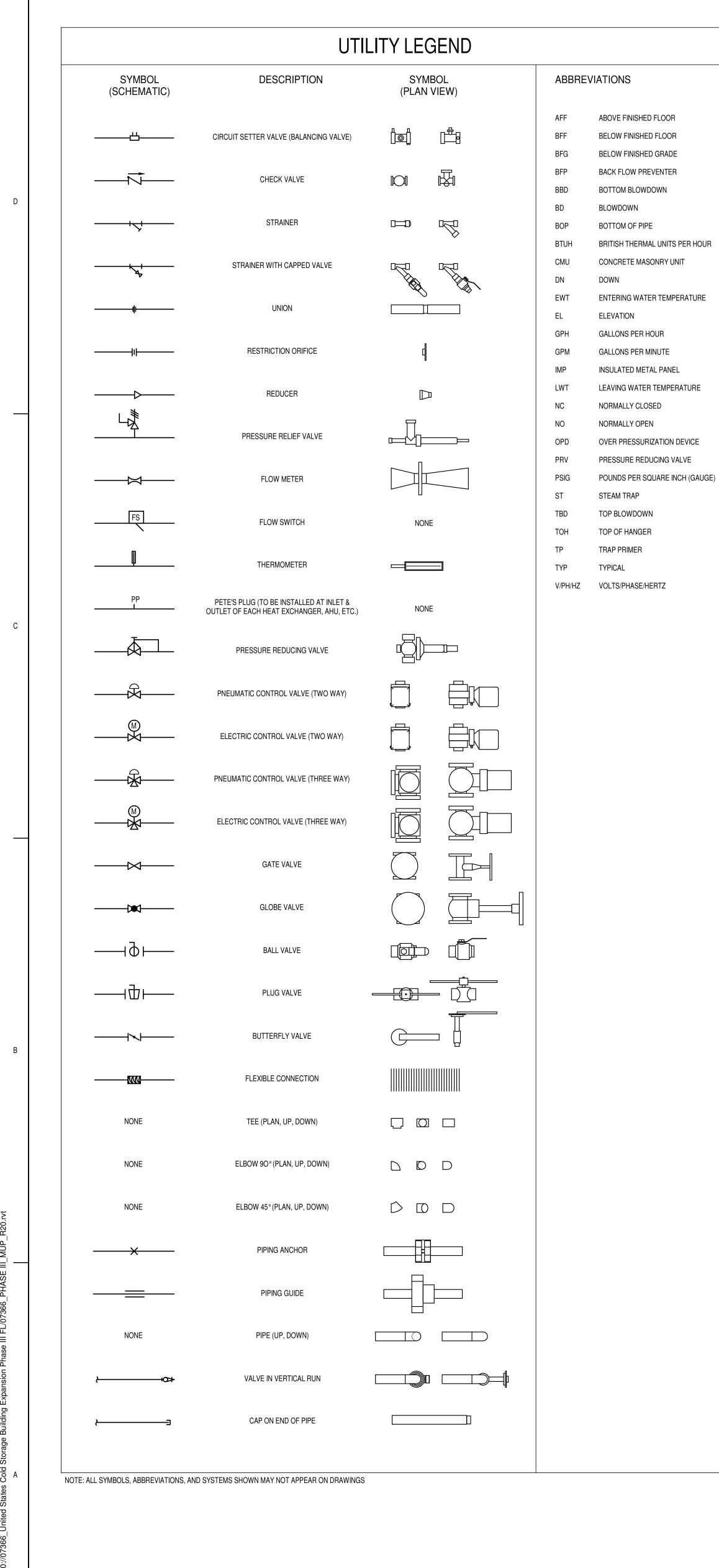
TAKING SOLUTIONS FURTHER



US COLD STORAGE PHASE III EXPANSION LAKE CITY, FLORIDA OPERATING AS: THE STELLAR GROUP 2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900 WWW.STELLAR.NET FLORIDA ARCHITECTURAL LICENSE NO. AR0013370 FLORIDA ENGINEERING LICENSE NO. CA5930 SEAL

PROJECT INFORMATION

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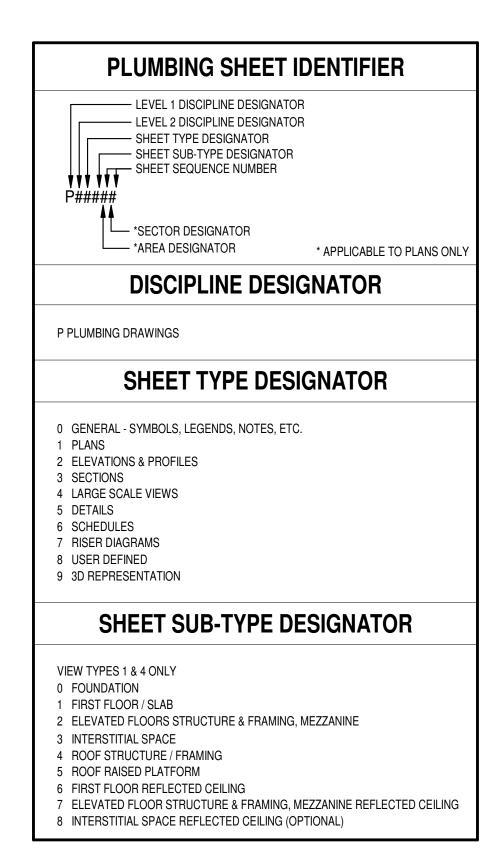
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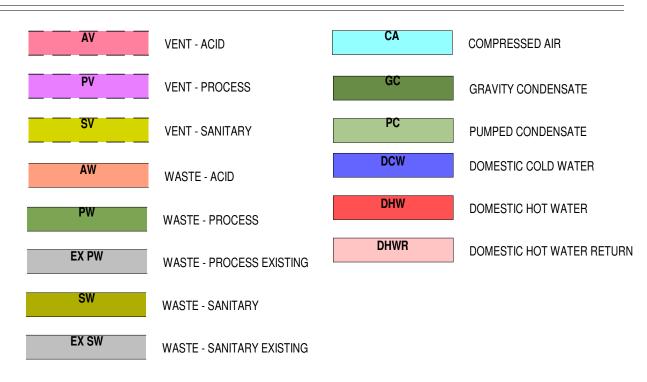
	PLUMBIN	G LE	GEND
SYMBOL	DESCRIPTION	ABBREVIATIONS	
		AFF	ABOVE FINISHED FLOOR
		ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
	FLOOR CLEAN-OUT (FCO)	BFF	BELOW FINISHED FLOOR
		BFG	BELOW FINISHED GRADE
KO	WALL CLEAN-OUT (WCO)	CMU	CONCRETE MASONRY UNIT
Μ		со	CLEAN-OUT (ON PIPE STACK)
	FLOOR DRAIN (FD)	COOG	CLEAN-OUT ON GRADE
<u> </u>		CMU	CONCRETE MASONRY UNIT
		DN	DOWN
	HUB DRAIN (HD)	DWV	DOMESTIC WASTE AND VENT
		EL	ELEVATION
		GPM	GALLONS PER MINUTE
	TIE-IN TO EXISTING	I.E.	INVERT ELEVATION
		IMP	INSULATED METAL PANEL
		NSF	NATIONAL SANITARY FOUNDATION
		oc	ON CENTER
		PSI	POUNDS PER SQUARE INCH
		SCO	STACK CLEANOUT
		TP	TRAP PRIMER
		TYP	TYPICAL
		VTR	VENT THROUGH ROOF

3

NOTE: ALL SYMBOLS, ABBREVIATIONS, AND SYSTEMS SHOWN MAY NOT APPEAR ON DRAWINGS



PLUMBING & UTILITIES SYSTEMS LEGEND



PLUMBING SHEET LIST			
SHEET NO.	SHEET NAME		
P0001	PLUMBING LEGEND AND NOTES		
P1101	OVERALL FIRST FLOOR PLUMBING PLAN		
P1111	PARTIAL FIRST FLOOR PLUMBING PLAN - AREA 1		
P1121	PARTIAL FIRST FLOOR PLUMBING PLAN - AREA 2		
P1221	PARTIAL SECOND FLOOR PLUMBING PLAN - AREA 2		
P1311	PARTIAL ROOF PLUMBING PLAN - AREA 1		
P4121	ENLARGED FIRST FLOOR PLUMBING / UTILITY PLANS - AREA 2		
P4221	ENLARGED SECOND FLOOR PLUMBING / UTILITY PLANS - AREA 2		
P5001	PLUMBING - UTILITY DETAILS		
P5002	PLUMBING - UTILITY DETAILS		
P6001	PLUMBING - UTILITY SCHEDULES		
P6002	PLUMBING - UTILITY SCHEDULES		
P7001	PLUMBING RISER DIAGRAMS		
P7002	COMPRESSED AIR FLOW DIAGRAM		
PS1100	PLUMBING - UTILITY SITE PLAN		

CODES IN FORCE
THIS IS A LIST OF MAJOR CODES FOR RECORD PURPOSES AND DOES NOT EXEMPT THE CONTRACTOR FROM FOLLOWING ALL APPLICABLE CODES.
2020 FLORIDA BUILDING CODE 2020 FLORIDA ENERGY CONSERVATION CODE 2020 FLORIDA MECHANICAL CODE 2020 FLORIDA PLUMBING CODE 2020 FLORIDA FUEL GAS CODE 2020 FLORIDA FIRE PREVENTION CODE

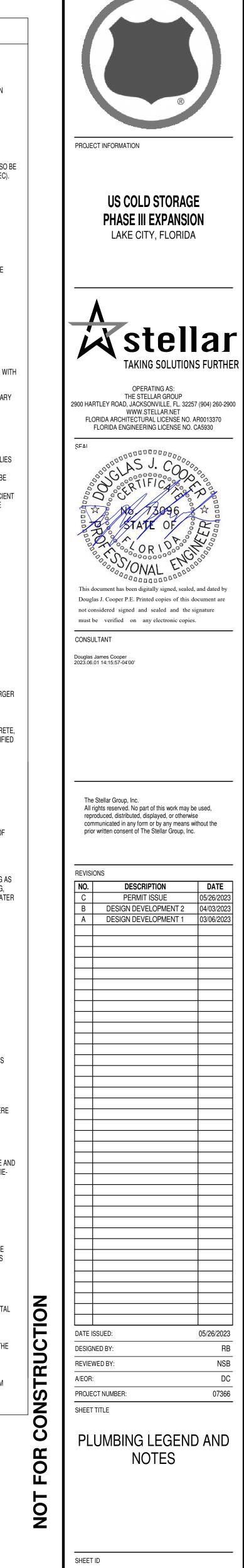
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	PLUMBING & UTILITY GENERAL NOTES
1.0 GENE 1.01	RAL: FOLLOW ALL GENERAL NOTES AND SPECIFICATIONS UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
1.02 1.03	FOR COMMUNICATION WITH THE ENGINEER, PLEASE FOLLOW THE OFFICIAL RFI PROCESS AS OUTLINED IN THE GENERAL CONDITIONS. PROPOSED SUBSTITUTIONS OR CHANGES IN EQUIPMENT, COMPONENTS, MATERIALS, PRODUCTS, AND/OR CONSTRUCTION FROM THOSE PROVIDED IN THE CONTRACT DOCUMENTS (DRAWINGS AND SPECIFICATIONS), SHALL BE REQUESTED IN WRITING. THE PROPOSAL SHALL CONTAIN NOT LESS THAN THE FOLLOWING: CONDUCTES SUBMITTED INFORMATION INCLUDING: DEPORTUGE DATA CREATING INFORMATION PERFORMANCE DATA TEST RECULTS, AND WARDANTS (INFORMATION INCLUDING).
	a. COMPLETE SUBMITTAL INFORMATION INCLUDING: PRODUCT DATA, GRAPHIC INFORMATION, PERFORMANCE DATA, TEST RESULTS, AND WARRANTY INFORMATION. b. DESCRIPTION COMPARING THE PROPOSED SUBSTITUTION AND THE RESULTING VARIANCES WITH SPECIFIED COMPONENTS. c. COMPARISON OF COST BETWEEN PROPOSED SUBSTITUTION AND SPECIFIED COMPONENTS. d. COMPARISON OF LEAD TIME BETWEEN PROPOSED SUBSTITUTION AND SPECIFIED COMPONENTS.
1.04	ALL EQUIPMENT, COMPONENTS, AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS AND INSTALLATION REQUIREMENTS OF THE MANUFACTURER. ALL EQUIPMENT, COMPONENTS, AND MATERIALS SHALL ALSO BE INSTALLED USING ACCEPTED STANDARD PRACTICES WITH ATTENTION MADE TO SAFETY, DURABILITY, NEATNESS OF FINISHED WORK, MAINTENANCE ACCESSIBILITY, AND CODE REQUIRED CLEARANCES (SUCH AS THOSE REQUIRED BY THE NEC).
1.05 1.06	ALL EQUIPMENT, COMPONENTS, AND MATERIALS INDICATED ON THE DRAWINGS OR WITHIN THE SPECIFICATION SHALL BE NEW. ALL EQUIPMENT, COMPONENTS, AND MATERIALS SHALL BE PROTECTED FROM ANY DAMAGE INCLUDING (BUT NOT LIMITED TO) WEATHER OR PHYSICAL DAMAGE FROM JOBSITE DELIVERY THROUGH FINAL COMPLETION. ALL EQUIPMENT, COMPONENTS, AND MATERIALS SUPPLIED UNDER THIS DIVISION, WHICH MAY HAVE BEEN DAMAGED OR SCRATCHED, SHALL BE RESTORED AND TOUCHED UP WITH THE MANUFACTURER'S PAINT TO MANUFACTURED CONDITION.
1.07	THE DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL THE STRUCTURAL AND CONSTRUCTION DETAILS NECESSARY FOR A COMPLETE INSTALLATION. ANY REQUIREMENT INVOLVING ACCURATE MEASUREMENTS SHALL BE TAKEN AT THE SITE. ANY NECESSARY LABOR AND MATERIAL CHANGES OR ADDITIONS TO ACCOMMODATE STRUCTURAL CONDITIONS SHALL BE MADE.
1.08	PERFORM ALL WORK IN ACCORDANCE WITH ALL RULES AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION AND PROVIDE ADDITIONAL EQUIPMENT, COMPONENTS, MATERIALS, AND LABOR WHERE REQUIRED FOR COMPLIANCE.
1.09 1.10	ALL SERVICES SHALL BE INSTALLED PARALLEL TO BUILDING LINES. IN PROCESS WASHDOWN AREAS, HANGER RODS SHALL BE STAINLESS STEEL ROD WITH THREADED ENDS. FULLY THREADED RODS WILL NOT BE PERMITTED IN SUCH AREAS.
1.11	ALL EQUIPMENT, COMPONENT, AND MATERIAL LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CLEARANCES, AND EXISTING CONDITIONS. ANY CONFLICTS SHALL BE SUBMITTED AS AN RFI TO THE ENGINEER WITH A PROPOSED SOLUTION.
1.12	LOADS SUSPENDED FROM THE ROOF OR FLOOR STRUCTURE ABOVE SHALL BE DIRECTLY SUPPORTED FROM THE STRUCTURAL MEMBER (SUCH AS, WITHOUT LIMITATION: CONCRETE TEE BEAM, BAR JOIST, OR STEEL BEAM). PROVIDE SECONDARY SUPPORT MATERIAL DESIGNED TO CARRY THE LOAD BETWEEN THE STRUCTURAL MEMBERS. DO NOT SUPPORT LOADS FROM BRIDGING OR ROOF DECK.
1.13	PROVIDE UL LISTED THROUGH PENETRATION FIRE STOP SYSTEM FOR ALL PENETRATIONS THOUGH FIRE RATED ASSEMBLIES NOT PROTECTED BY FIRE DAMPERS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE-RATED ASSEMBLIES.
1.14	SHOP DRAWING SUBMITTALS: SUBMIT TO STELLAR FOR REVIEW BEFORE COMMENCING WORK. PROVIDE SHOP DRAWINGS FOR ALL EQUIPMENT, COMPONENTS, AND MATERIALS TO BE PROVIDED UNDER THIS CONTRACT. THE FOLLOWING APPLIES TO SHOP DRAWING SUBMITTALS: A. CLEARLY INDICATE ON EACH SUBMITTAL THE MARK OR DESIGNATION WHICH CORRESPONDS TO THE CONTRACT DRAWING SCHEDULES. FOR EXAMPLE: FD-1, S-3, ETC. SUBMITTALS WHICH DO NOT INDICATE THE SCHEDULED MARK WILL BE REJECTED. B. SUBMIT DRAWINGS OR CUTS OF ALL MATERIALS AND EQUIPMENT FOR REVIEW. SUCH SUBMITTALS MUST CONTAIN OUTLINE DIMENSIONS, OPERATING CLEARANCES, INSTALLATION, OPERATING AND MAINTENANCE INFORMATION AND SUFFICIENT ENGINEERING DATA TO INDICATE SUBSTANTIAL COMPLIANCE WITH SPECIFICATIONS. ALL SHOP DRAWING SUBMITTALS FOR ONE SPECIFICATION SECTION OF WORK OR ONE PLUMBING SYSTEM SHALL BE SUBMITTED AT ONE TIME. INCOMPLETE SUBMITTALS WILL BE REJECTED. C. WHERE A SUBCONTRACTOR CONSIDERS ADDITIONAL DETAIL OR SHOP DRAWINGS ESSENTIAL TO PROPER FABRICATION OR INSTALLATION OF EQUIPMENT AND PIPING, THEY SHALL PREPARE SUCH DRAWINGS AND SUBMIT FOR REVIEW. D. DESIGN IS BASED ON MANUFACTURER NAMED ON DRAWINGS OR IN SPECIFICATIONS. SHOP DRAWINGS SHALL CLEARLY INDICATE EXCEPTIONS TO OR DEVIATIONS FROM THE DESIGN BASIS.
1.15 1.16	THE JOINING OF DISSIMILAR PIPE MATERIALS SHALL BE MADE WITH DIELECTRIC FITTINGS. UPON COMPLETION OF WORK, THOROUGHLY CLEAN THE ENTIRE SYSTEM AND TEST TO ENSURE THAT THE SYSTEM PERFORMS TO REQUIREMENTS. LEAVE WORK IN SUITABLE OPERATING CONDITION TO BE TURNED OVER TO THE OWNER.
1.17	VERIFY ALL FLOOR DRAIN FINISH ELEVATIONS WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
1.18 1.19	OFFSET VENTS AS REQUIRED TO MAINTAIN A MINIMUM OF 10 FT. SEPARATION FROM ALL OUTSIDE AIR INTAKES. PROVIDE RODENT SCREENS FOR ALL VENTS.
1.19 1.20 1.21	DO NOT LOCATE FLOOR DRAINS OR CLEANOUTS NEAR DOORS OR IN TRAVEL PATHWAYS. ALL UTILITY EQUIPMENT SHALL BE FURNISHED COMPLETE WITH MOTOR STARTERS, ELECTRICAL DISCONNECTS, AND HEATER CONTACTORS. ALL OPERATING CONTROLS AND SAFETIES SHALL BE UL OR ETL LISTED. ALL MOTORS 1 HP AND LARGER
1.22 1.23	SHALL BE PROVIDED WITH THERMAL OVERLOADS. EQUIPMENT SHALL NOT HAVE EXCESSIVE NOISE OR VIBRATION WHICH WILL IMPACT THE LONGEVITY OF THE EQUIPMENT. COORDINATE SIZE AND LOCATION OF CONCRETE HOUSEKEEPING AND VIBRATION ISOLATION BASES. CONCRETE HOUSEKEEPING PADS FOR ALL FLOOR-MOUNTED EQUIPMENT MUST BE MADE WITH A MINIMUM OF 4" THICK REINFORCED CONCRETE, HAVE CHAMFERED EDGES, AND MUST BE A MINIMUM OF 4" LARGER ON ALL FOUR SIDES THAN THE EQUIPMENT FOOTPRINT. CAST ANCHOR-BOLT INSERTS INTO BASE. CONCRETE, REINFORCEMENT AND FORMWORK REQUIREMENTS ARE SPECIFIED ON STRUCTURAL DRAWINGS.
1.24	PROVIDE FLEXIBLE PIPE CONNECTIONS TO ALL PUMPS WITH 1/2 HP OR GREATER.
1.25 1.26	PROVIDE LONG RADIUS PIPING ELBOWS. SHORT RADIUS ELBOWS WILL BE REMOVED AND REPLACED WITH LONG RADIUS ELBOWS. IN EQUIPMENT ROOMS SUCH AS THE BOILER ROOM, UTILITY ROOM, OR MECHANICAL ROOM, PROVIDE CHAINWHEEL OPERATORS FOR ALL VALVES 10 FEET OR MORE ABOVE FINISHED FLOOR.
1.27	PROVIDE EVERY PIPING DEVICE INCLUDING BUT NOT LIMITED TO VALVES, STRAINERS, SENSORS, INDICATORS, AND ORIFICE PLATES SHOWN ON THE UTILITY FLOW DIAGRAMS AND SCHEMATICS IN THE ORDER OF FLOW SHOWN REGARDLESS OF WHETHER OR NOT THEY ARE SHOWN ON THE PIPING PLANS OR DETAILS.
1.28	PROVIDE WATER HAMMER ARRESTORS IN WATER SUPPLY LINES PER CODE REGARDLESS OF WHETHER OR NOT THEY ARE SHOWN ON THE PIPING PLANS/DETAILS. ALL ITEMS SUCH AS, BUT NOT LIMITED TO: VALVES, STRAINERS, SENSORS, AND AIR SEPARATORS INSTALLED IN INSULATED PIPING SYSTEMS SHALL BE INSULATED WITH THE SAME INSULATION, JACKETING, VAPOR BARRIER, AND HEAT TRACING AS THE PIPING SYSTEM. ALL EQUIPMENT PIPED INLINE WITH AN INSULATED PIPING SYSTEM SUCH AS BUT NOT LIMITED TO TANKS, PUMPS, HEAT EXCHANGERS, METERS, AND FILTERS SHALL BE INSULATED WITH THE SAME INSULATED WITH THE SAME INSULATION, JACKETING, VAPOR BARRIER, AND HEAT TRACING AS THE PIPING SYSTEM. ALL SKID-MOUNTED PIPING ON EQUIPMENT SHIPPED TO THE JOBSITE WITHOUT INSULATION SUCH AS BUT NOT LIMITED TO BOILER FEEDWATER SYSTEMS, RO WATER SYSTEMS, WATER SOFTENERS, AND OZONE WATER SYSTEMS PIPED INLINE WITH AN INSULATED PIPING SYSTEM SHALL BE INSULATED WITH THE SAME INSULATION, JACKETING, VAPOR BARRIER, AND HEAT TRACING AS THE PIPING SYSTEM. ALL SKID-MOUNTED PIPING SYSTEM SHALL BE INSULATED WITH THE SAME INSULATION, JACKETING, VAPOR BARRIER, AND HEAT TRACING AS THE PIPING SYSTEMS, RO WATER SYSTEMS, WATER SOFTENERS, AND OZONE WATER SYSTEMS PIPED INLINE WITH AN INSULATED PIPING SYSTEM SHALL BE INSULATED WITH THE SAME INSULATION, JACKETING, VAPOR BARRIER, AND HEAT TRACING AS THE PIPING SYSTEM. ALL PIPING SYSTEM SHALL BE INSULATED WITH THE SAME INSULATION, JACKETING, VAPOR BARRIER, AND HEAT TRACING AS THE PIPING SYSTEMS. ALL PIPING SYSTEM SHALL BE INSULATED WITH THE SAME INSULATION, JACKETING, VAPOR BARRIER, AND HEAT TRACING AS THE PIPING SYSTEM. ALL PIPING SYSTEM SHALL BE INSULATED WITH THE SAME INSULATION, JACKETING, VAPOR BARRIER, AND HEAT TRACING AS THE PIPING SYSTEM. ALL PIPING SYSTEM SHALL BE INSULATED WITH THE SAME INSULATED WITH AND INSULATED WITH AND INSULATED WITH AND INSULATED WITH THE SAME INSULATED WITH THE SAME INSULATED WITH THE SAME INSULATED WITH THE
1.30	PROVIDE OPD (OVER-PRESSURE DEVICE) AT EACH GAS REGULATOR. INSTALL OPDs OUTDOORS WHERE POSSIBLE. IN CASES WHERE OPDs ARE INSTALLED INDOORS, PROVIDE A VENT TO THE OUTDOORS USING THE SAME MATERIAL AS THE SUPPLY GAS PIPING.
1.31	BALANCE ALL CIRCULATING WATER SYSTEMS TO FLOW RATES INDICATED USING CIRCUIT SETTERS AS SHOWN ON THE SCHEMATIC FLOW DIAGRAMS REGARDLESS OF WHETHER THEY ARE SHOWN ON THE PIPING PLAN/DETAILS OR NOT.
2.0 PROJ 2.01	IECT SPECIFIC NOTES: EXISTING FACILITY TIE-INS: IF THIS IS AN OPERATING FOOD MANUFACTURING FACILITY. ALL TIE-INS AND RELATED SHUTDOWNS MUST BE COORDINATED BY THE PLUMBING/UTILITY CONTRACTOR WITH THE OWNER VIA THE STELLAR SUPERINTENDENT. EXISTING SYSTEMS IS SHOWN ON THIS SET OF DRAWINGS BASED ON DRAWINGS USED TO CONSTRUCT THE FACILITY. CHANGES MAY HAVE OCCURRED SINCE THEN. THE CONTRACTOR SHALL FIELD-VERIFY TIE-INS AND DEVELOP ALTERNATIVES WHEN EXISTING CONDITIONS DIFFER FROM THE DRAWINGS. NEW PIPING SHALL NOT BE TIED INTO THE SAME SIZE OR SMALLER EXISTING PIPING. IF EXISTING CONDITIONS ARE FOUND TO BE DIFFERENT THAN WHAT IS SHOWN ON THE DRAWINGS, CONTACT THE SUPERINTENDENT WITH A PROPOSED SOLUTION.
2.02	UTILITY CONTRACTOR'S SCOPE FOR PROCESS EQUIPMENT UTILITY PIPING: INDIVIDUAL PIPING RUNOUTS ARE SHOWN ON THE DRAWINGS TO SERVE PROCESS EQUIPMENT. THE UTILITY CONTRACTOR'S SCOPE IS TO PROVIDE A HORIZONTAL RUNOUT AS SHOWN AND TERMINATE IT WITH THE APPROPRIATE VALVE. FROM THERE THE PROCESS CONTRACTOR WILL ATTACH THEIR PIPING TO THE VALVE OUTLET, TURN THEIR PIPING DOWN, PENETRATE AND SEAL THE IMP CEILING (WHERE APPLICABLE), AND MAKE THE FINAL CONNECTION TO THE PIECE OF PROCESS EQUIPMENT.
3.0 SEISN 3.01	IIC AND WIND LOADING REQUIREMENTS: DELEGATED DESIGN SUBMITTAL FOR WIND AND SEISMIC LOADING: FOR ALL EQUIPMENT, COMPONENT, AND MATERIAL IMPACTED BY THE WIND AND SEISMIC REQUIREMENTS OF THE SITE, THE ASSIGNED CONTRACTOR SHALL DESIGN, PROVIDE AND INSTALL THE SUPPORTS AND TIE-DOWNS FOR EACH ITEM TO COMPLY WITH THE PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA AS INDICATED IN THESE DOCUMENTS AND ON THE STRUCTURAL DRAWINGS, INCLUDING SUPPORT AND TIE- DOWN ANALYSIS AND DESIGN SIGNED AND SEALED BY A PROPERLY LICENSED AND QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION.
3.02	DESIGN CALCULATIONS: CALCULATE REQUIREMENTS FOR DESIGNING TIE-DOWNS AND SUPPORT TO COMPLY WITH THE CODES AND STANDARDS AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION FOR THE PROJECT.
3.03	SUBMITTALS: INDICATE FABRICATION AND ARRANGEMENT OF TIE-DOWN SYSTEMS AND SUPPORT SYSTEMS. DETAIL ATTACHMENTS OF RESTRAINTS TO THE RESTRAINED ITEMS AND TO THE STRUCTURE. SHOW ATTACHMENT LOCATIONS, METHODS, AND SPACING. IDENTIFY COMPONENTS, LIST THEIR STRENGTHS, AND INDICATE DIRECTIONS AND VALUES OF FORCES TRANSMITTED TO THE STRUCTURE. BY THESE SUBMITTALS, THE CONTRACTOR THEREBY REPRESENTS THAT HE HAS DETERMINED AND VERIFIED ALL FIELD MEASUREMENTS, FIELD CONSTRUCTION CRITERIA, MATERIALS, CATALOG NUMBERS AND SIMILAR DATA AND THAT THEY HAVE CHECKED AND COORDINATED THE SHOP DRAWINGS, DATA OR SAMPLES WITH THE REQUIREMENTS OF THE WORK AND OF THE CONTRACT DOCUMENTS. SUBMISSIONS SHALL BE SPECIFIC SO THAT COMPLIANCE WITH THE CONTRACT DOCUMENTS CAN BE EASILY ASCERTAINED.
3.04	THE DELEGATED DESIGN SHALL INCLUDE DETAIL MOUNTING, SECURING AND FLASHING OF EQUIPMENT TO ROOF CURB AND OF ROOF CURB TO ROOF STRUCTURE OR OF EQUIPMENT DIRECTLY TO ROOF STRUCTURE. INDICATE IN THE SUBMITTAL HOW THE DESIGN HAS ADDRESSED COORDINATING REQUIREMENTS WITH THE ROOF MEMBRANE SYSTEM.
3.05	THE DELEGATED DESIGN SHALL ADDITIONALLY COMPLY WITH THE REQUIREMENTS OF DIVISION 01 OF THE PROJECT'S SPECIFICATIONS WITH REGARDS TO THE DESIGN, SUBMISSION, APPROVAL AND OVERSIGHT OF THE IMPLEMENTATION OF THE TIE-DOWN AND SUPPORT DESIGN AS A COMPLETE AND COORDINATED INSTALLED SYSTEM.
3.06	COORDINATE LAYOUT AND INSTALLATION OF ALL RESTRAINT DEVICES WITH OTHER CONSTRUCTION THAT PENETRATES CEILINGS OR IS SUPPORTED BY THEM, INCLUDING LIGHT FIXTURES, MECHANICAL PIPEWORK, FIRE-SUPPRESSION SYSTEM COMPONENTS AND PARTITION ASSEMBLIES.

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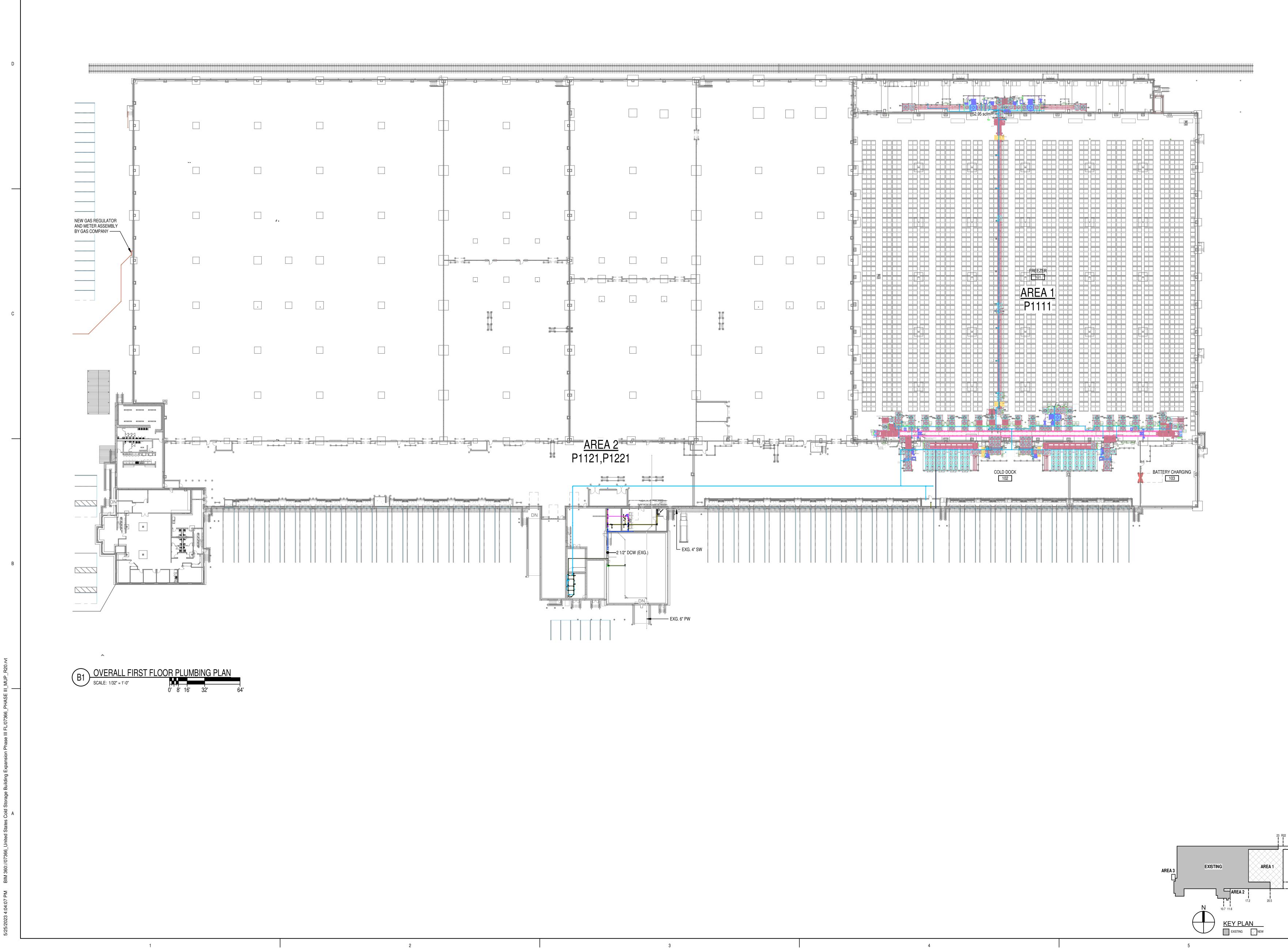
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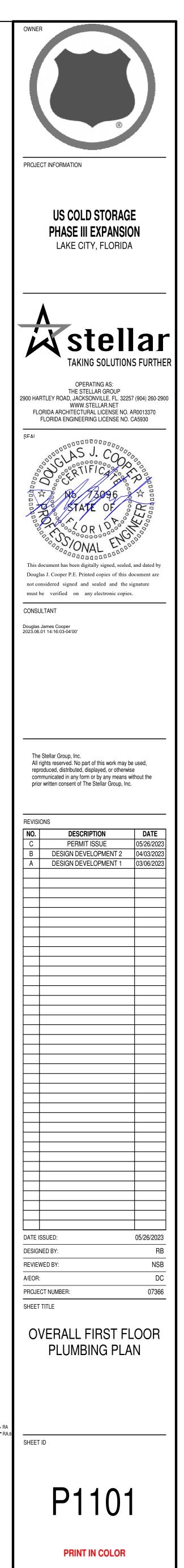


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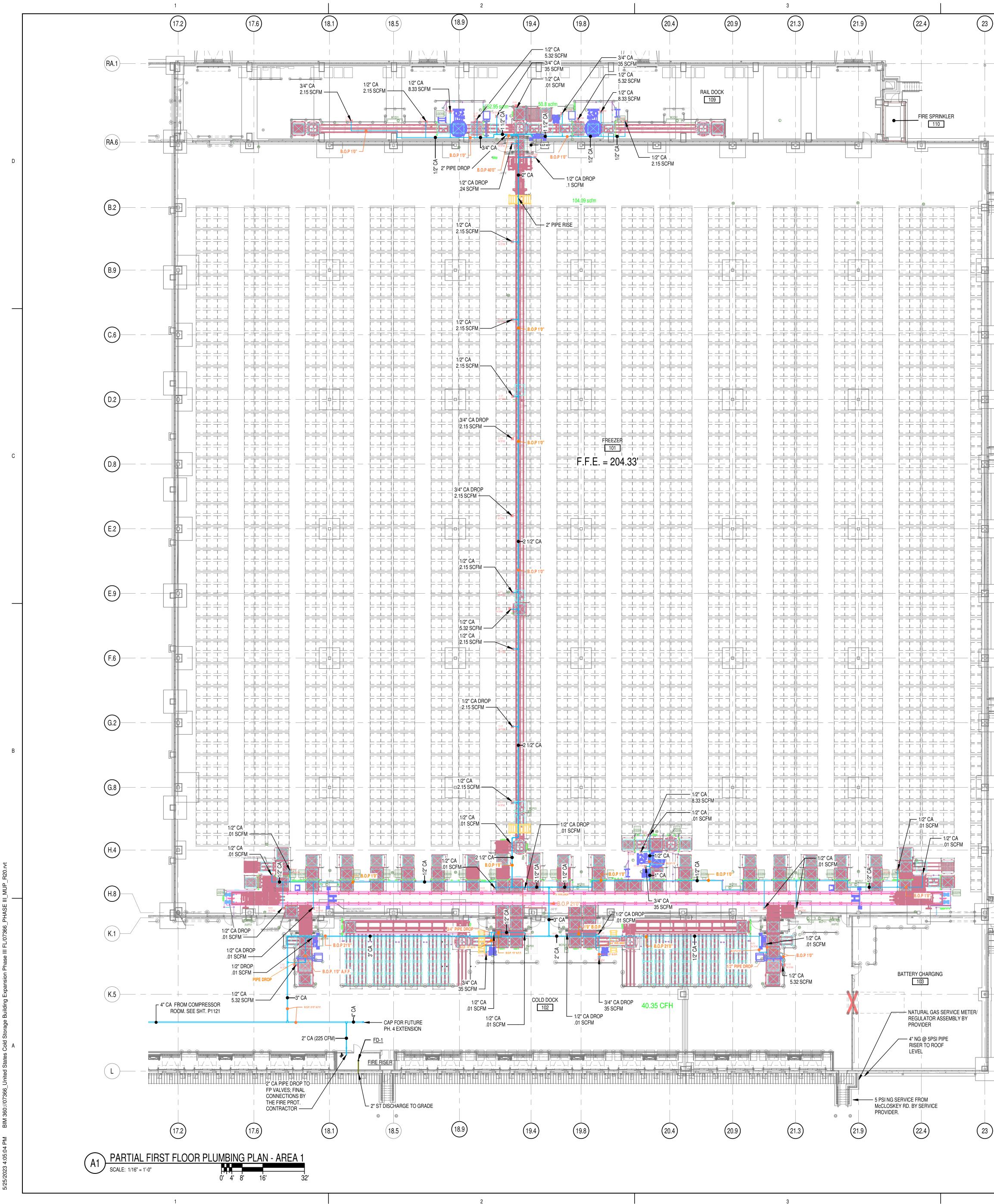
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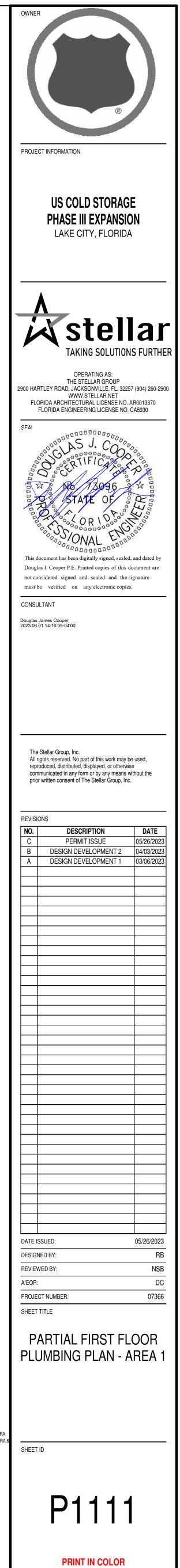




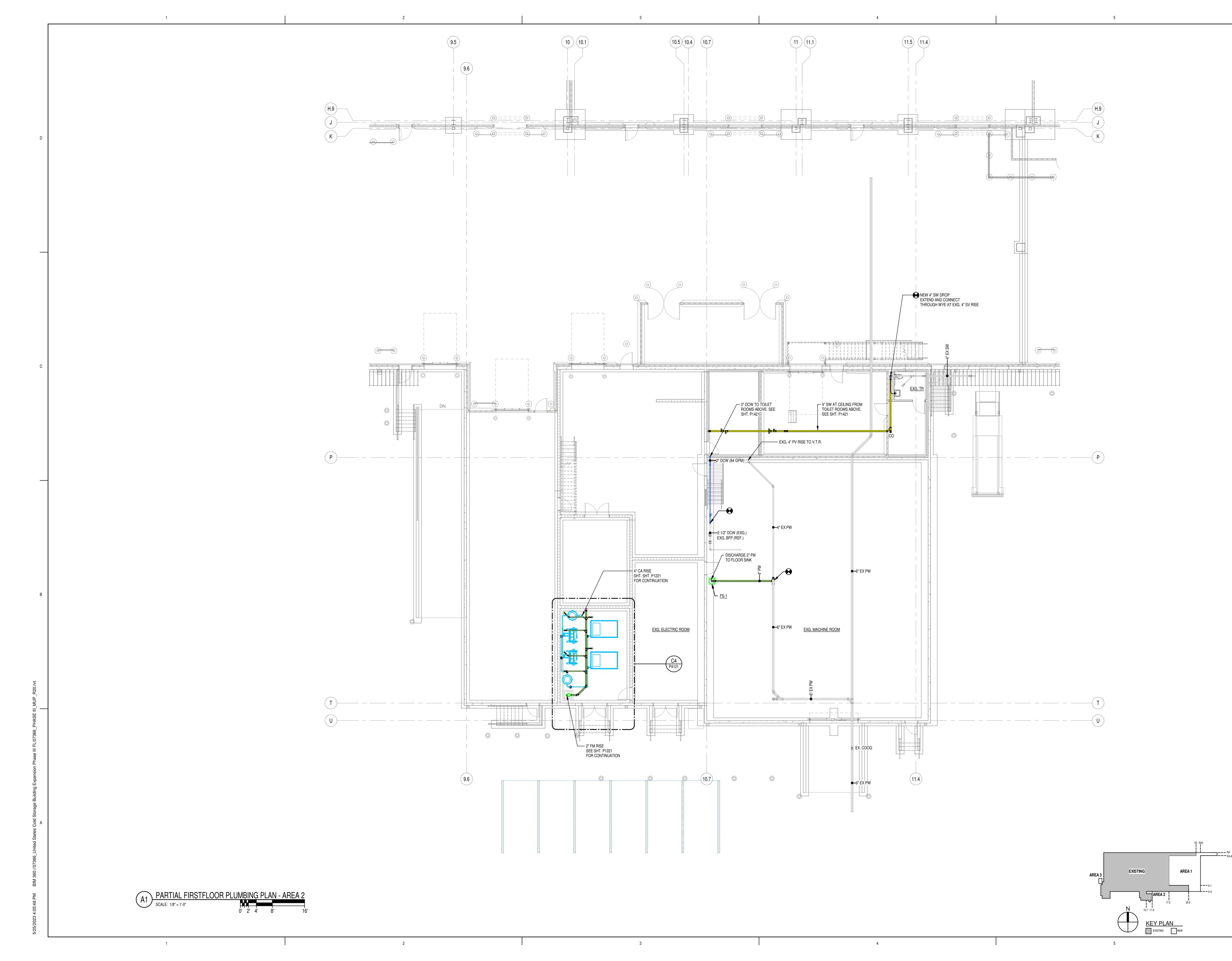
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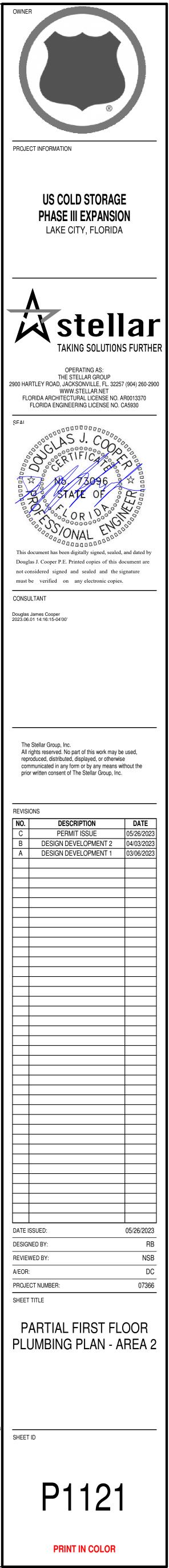


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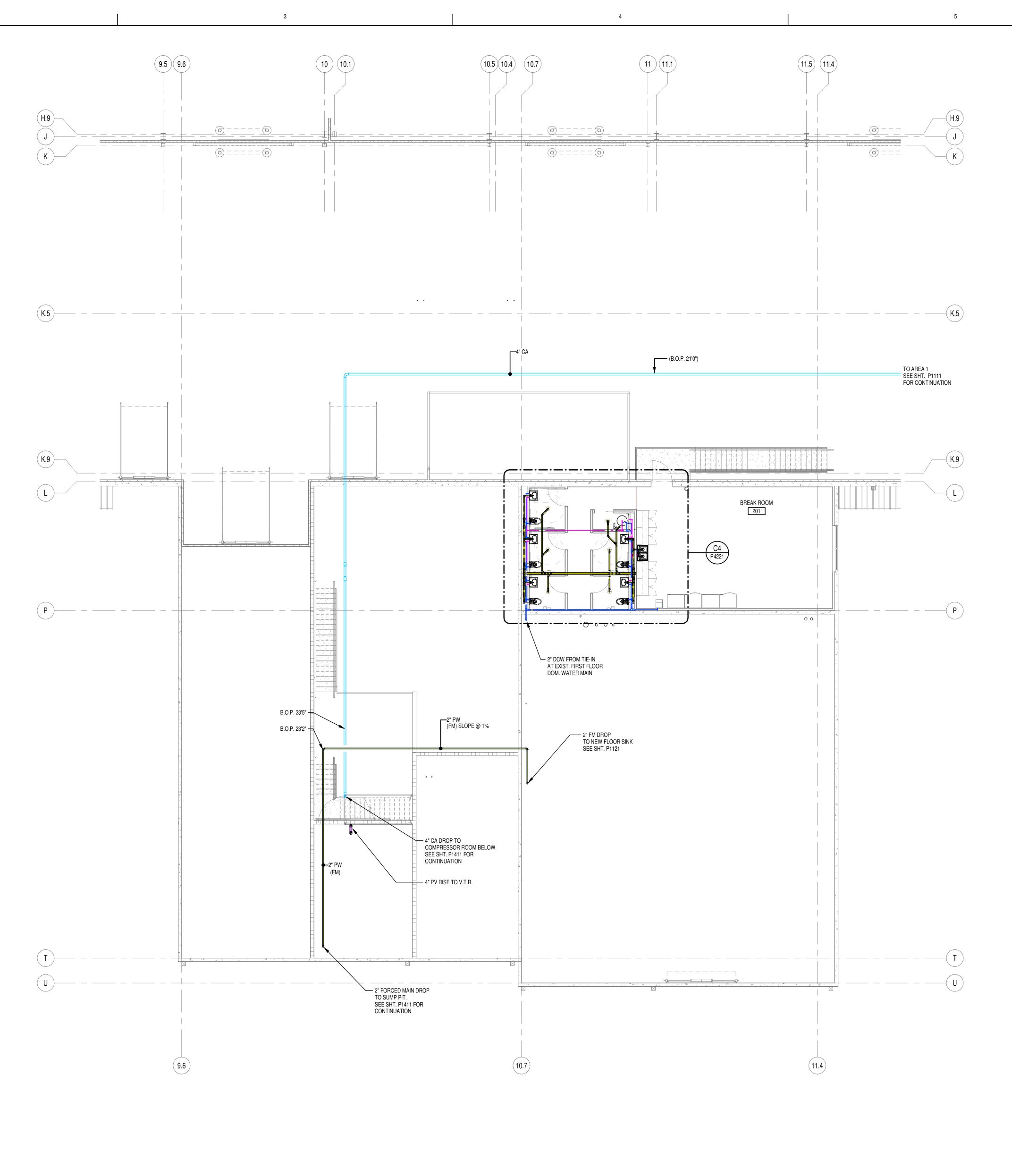


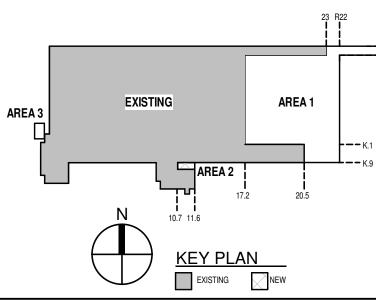


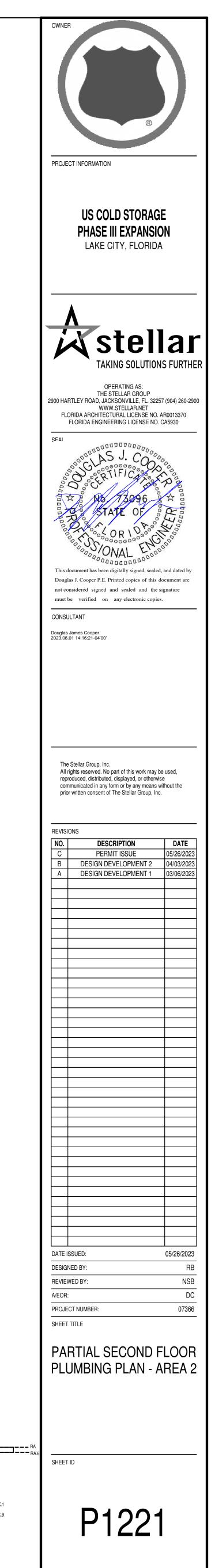


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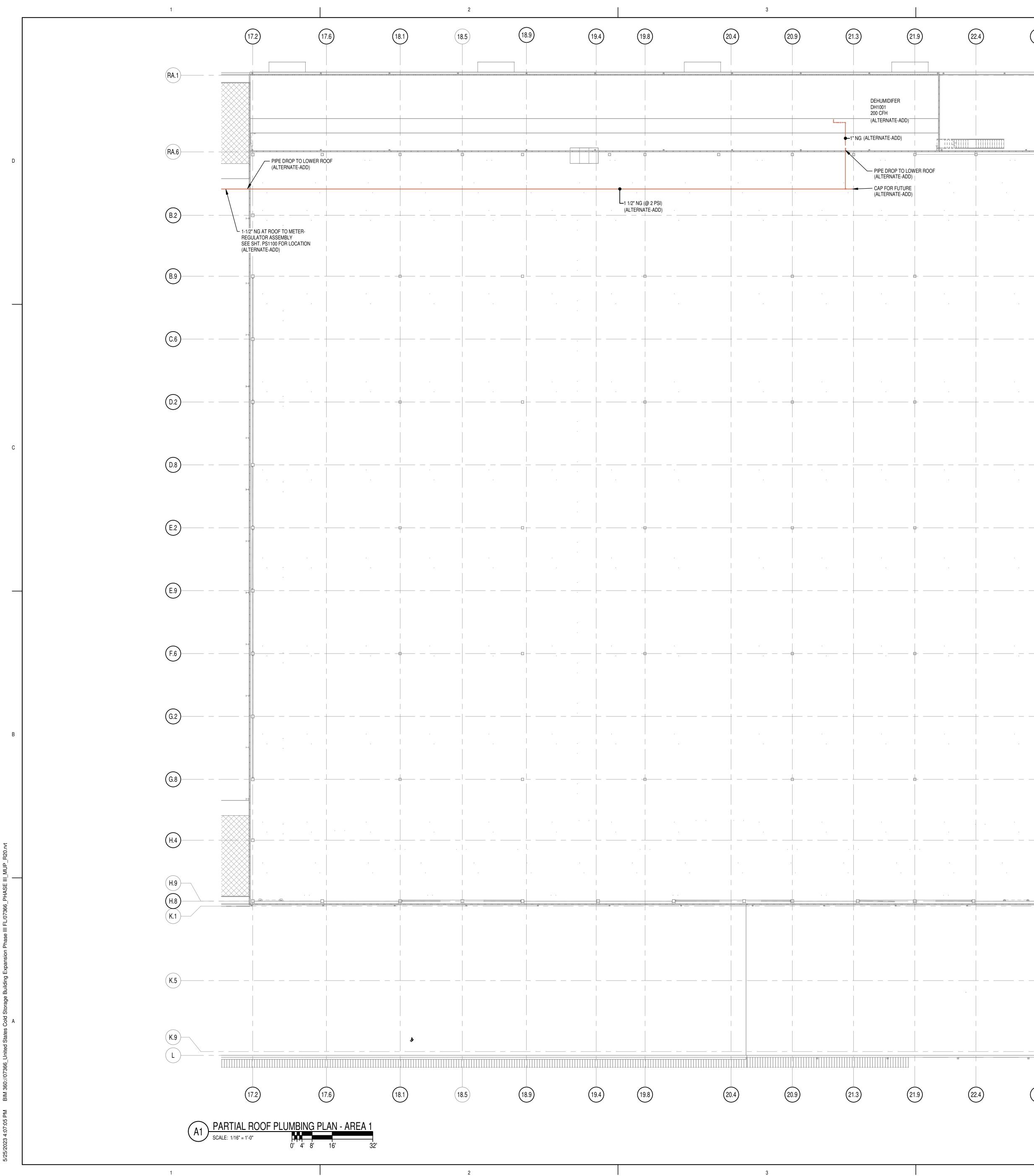
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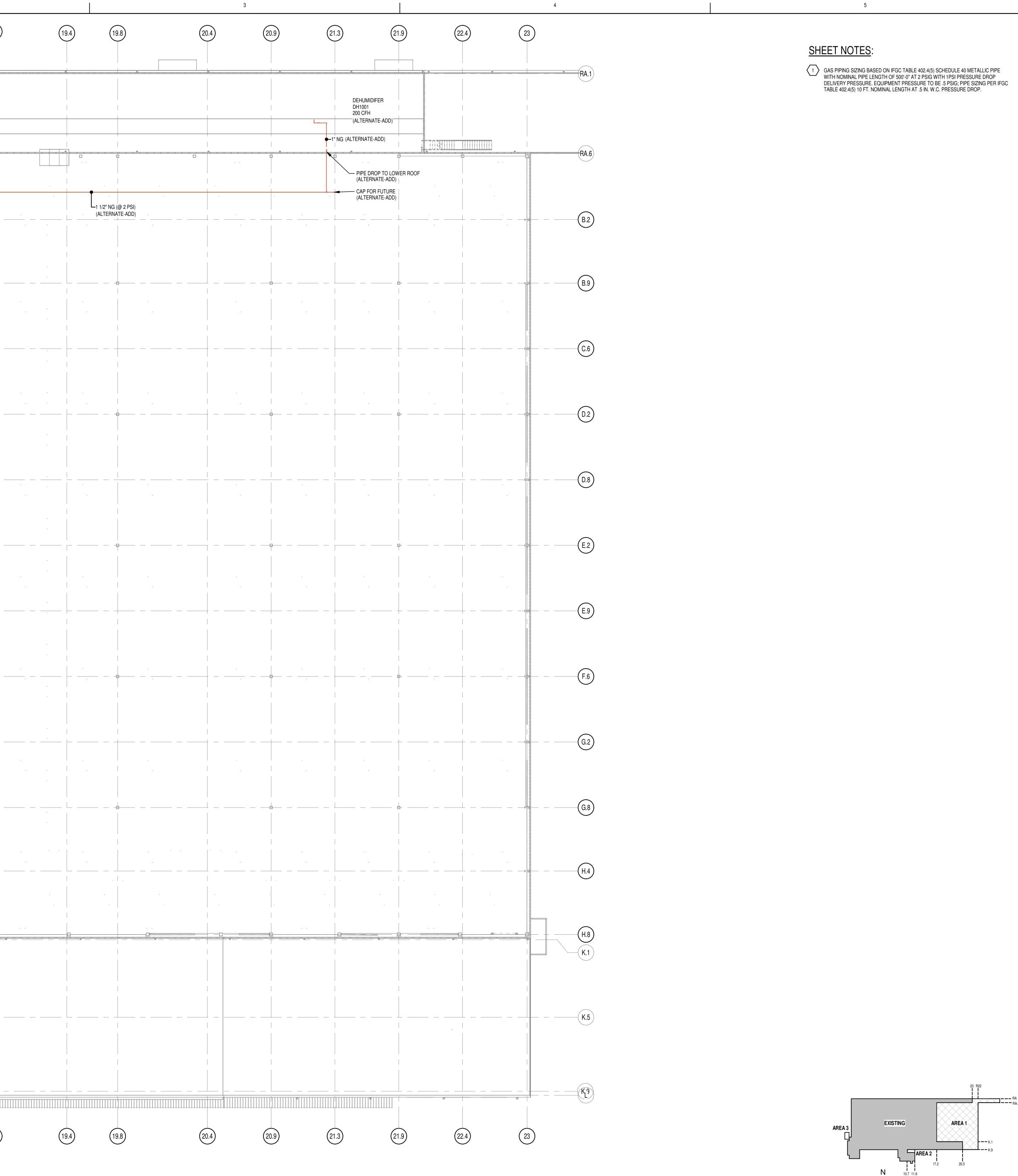
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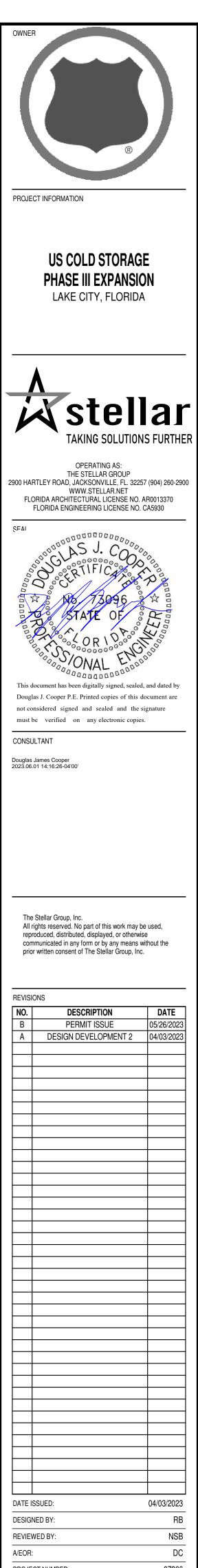


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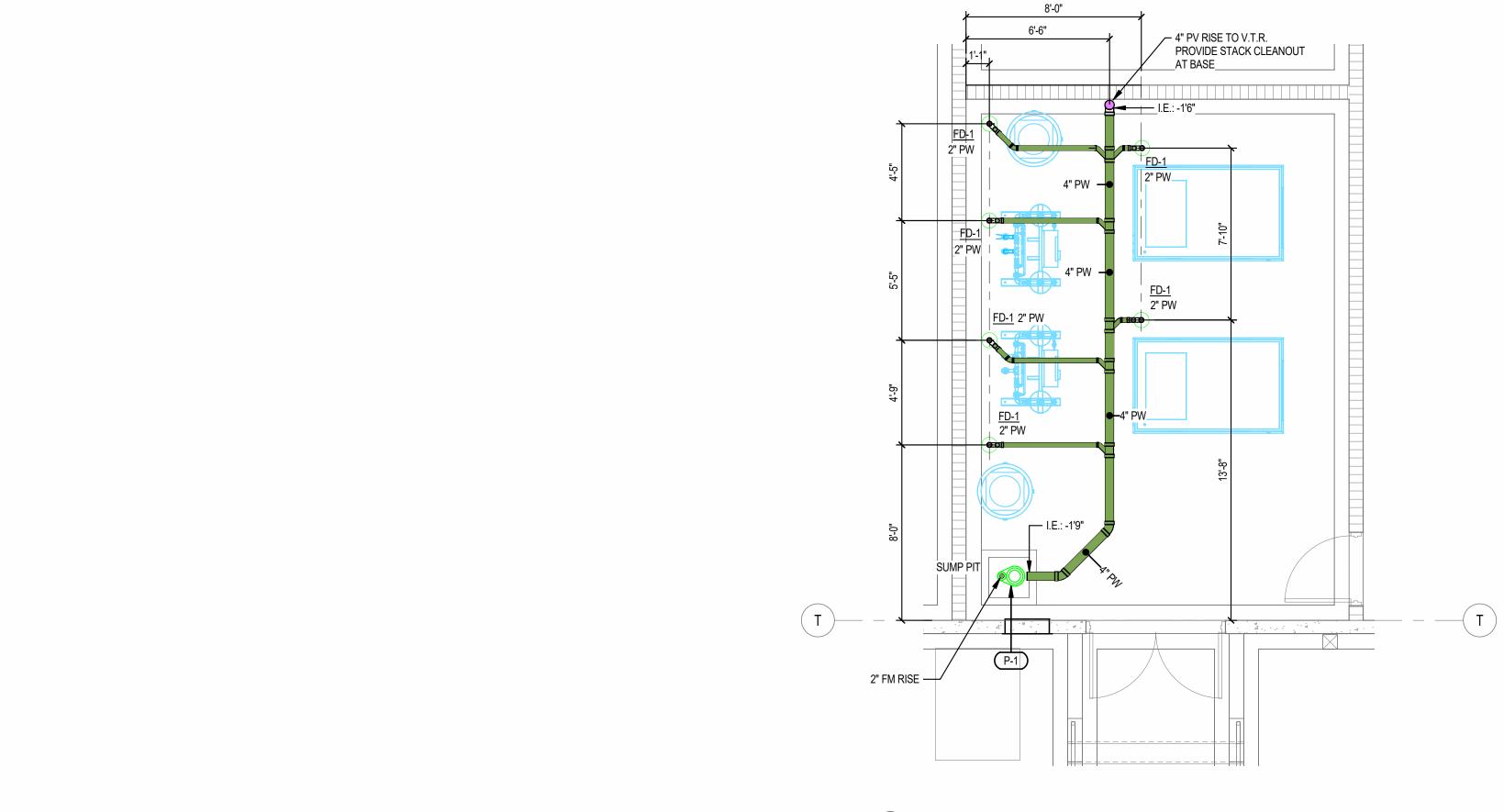
PARTIAL ROOF PLUMBING PLAN - AREA 1

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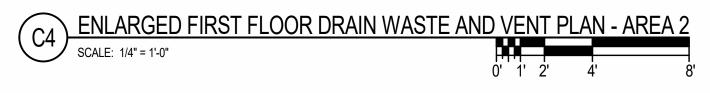
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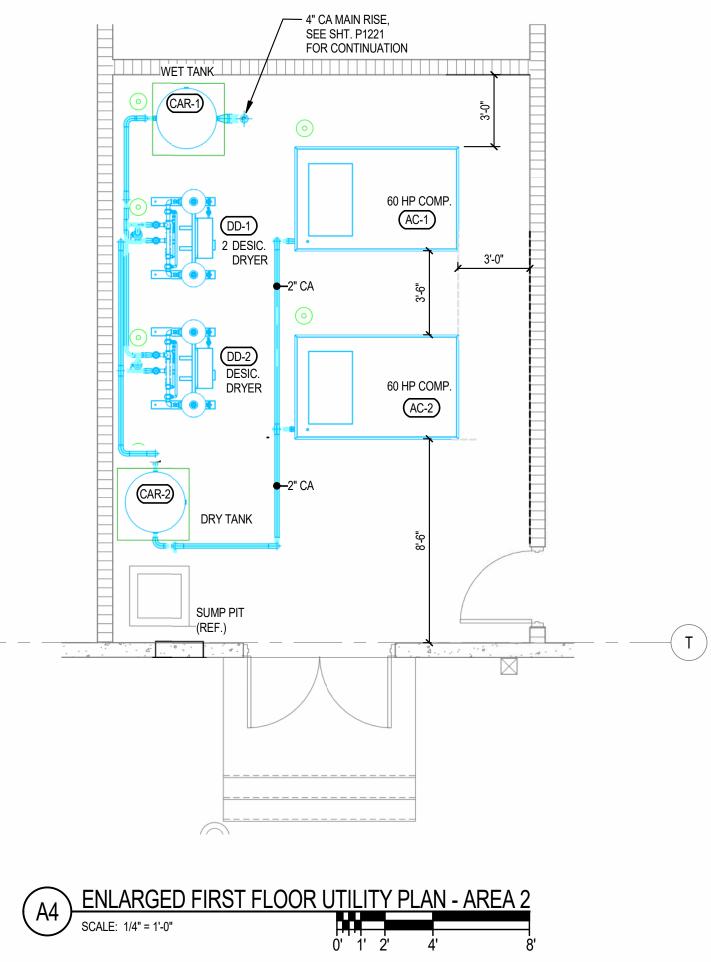


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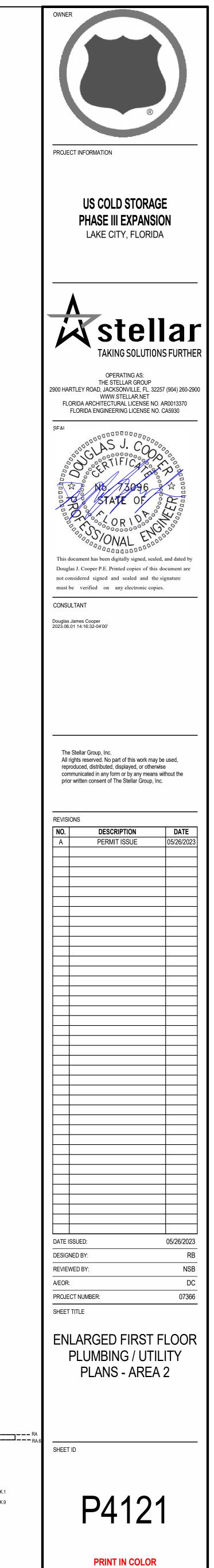


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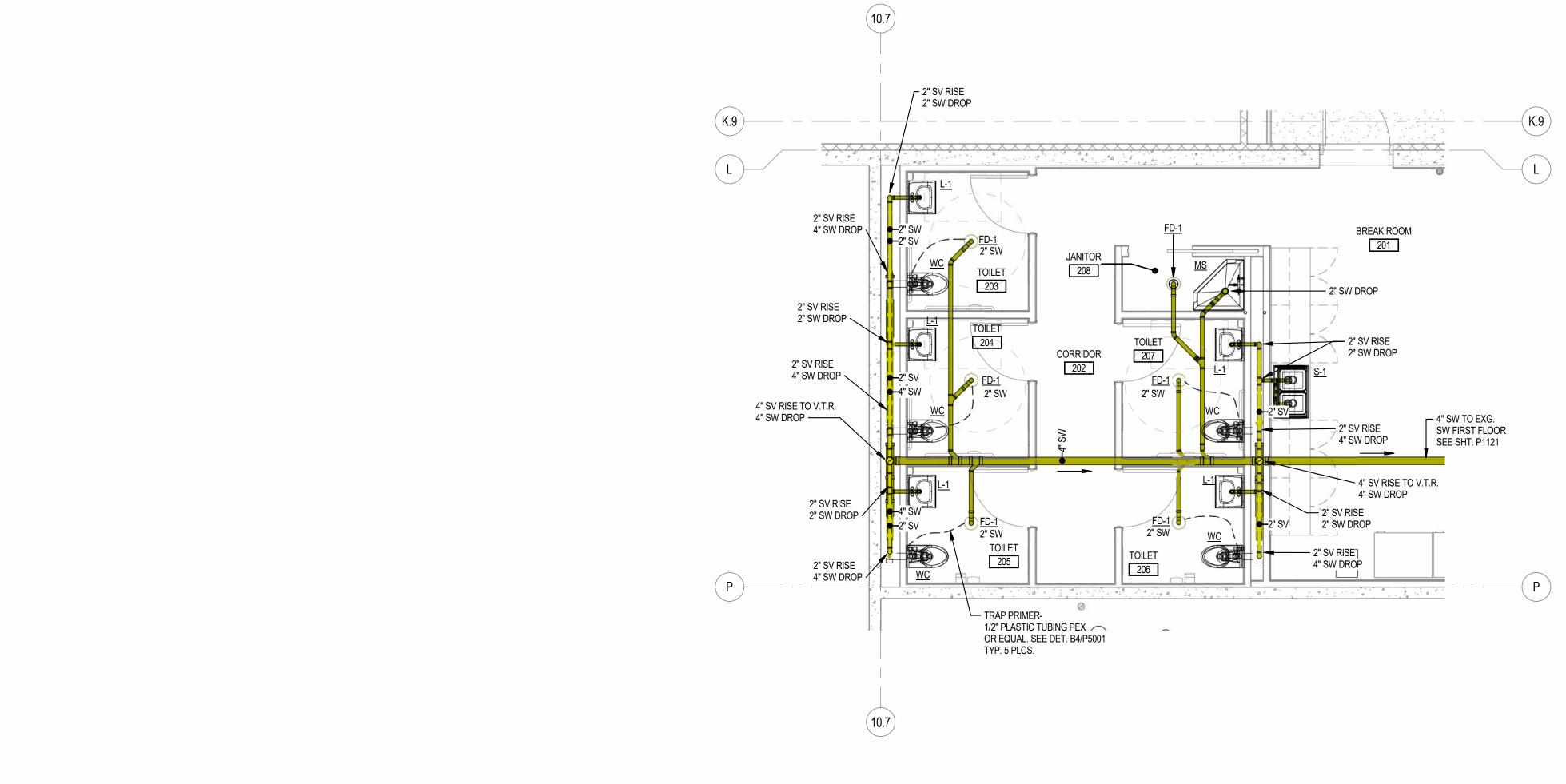
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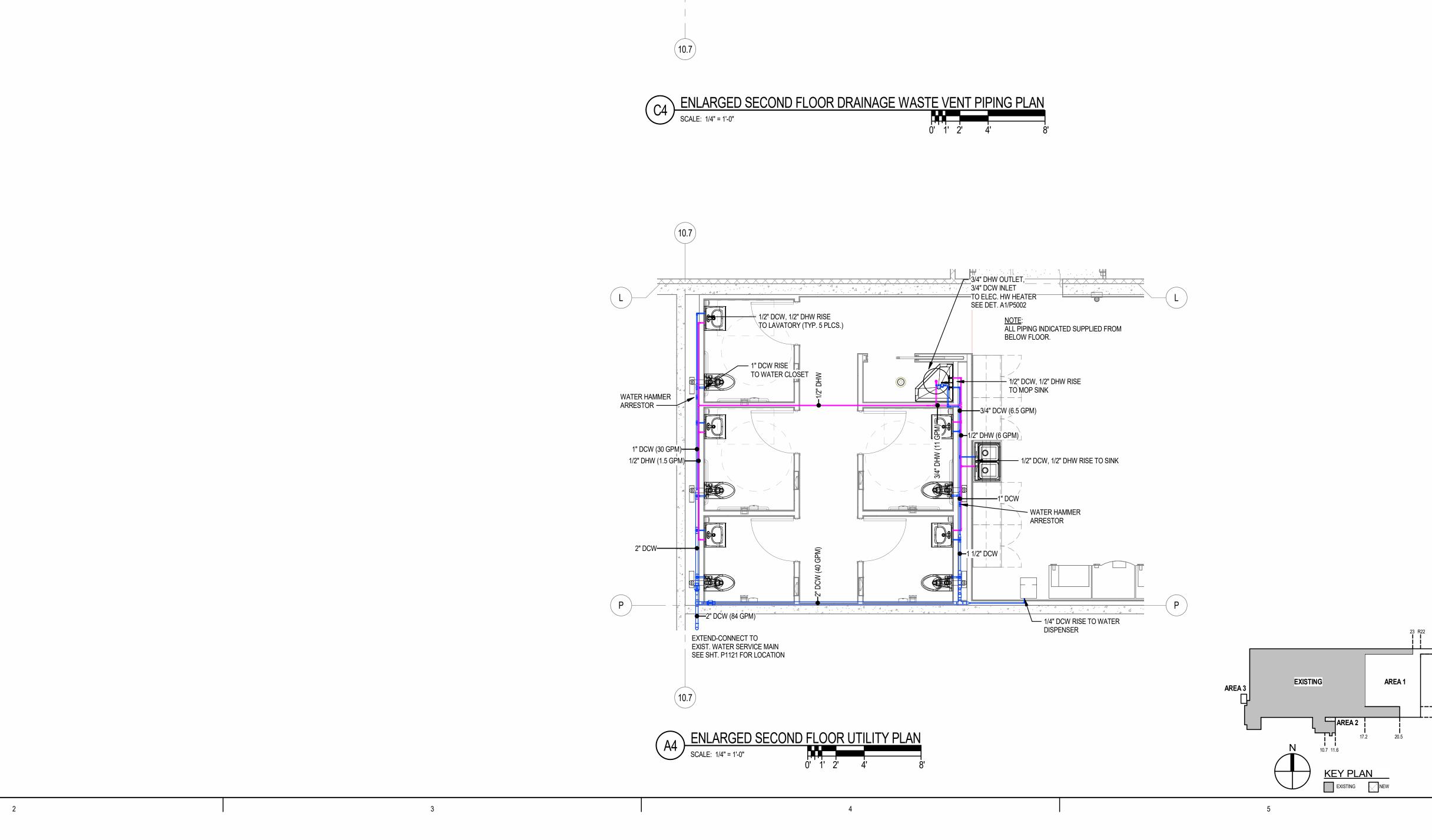


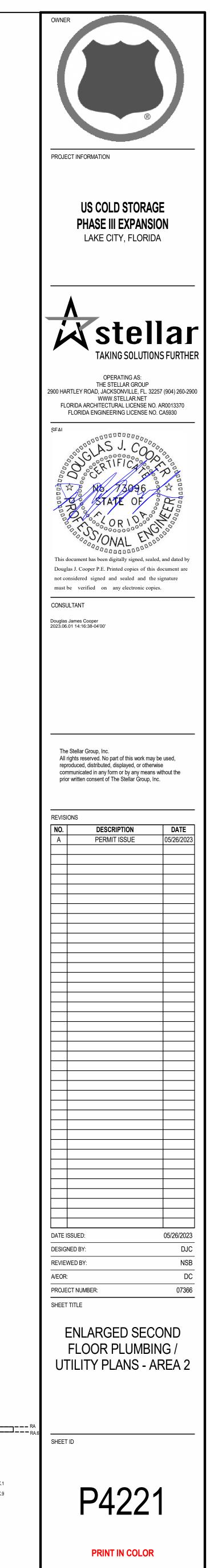
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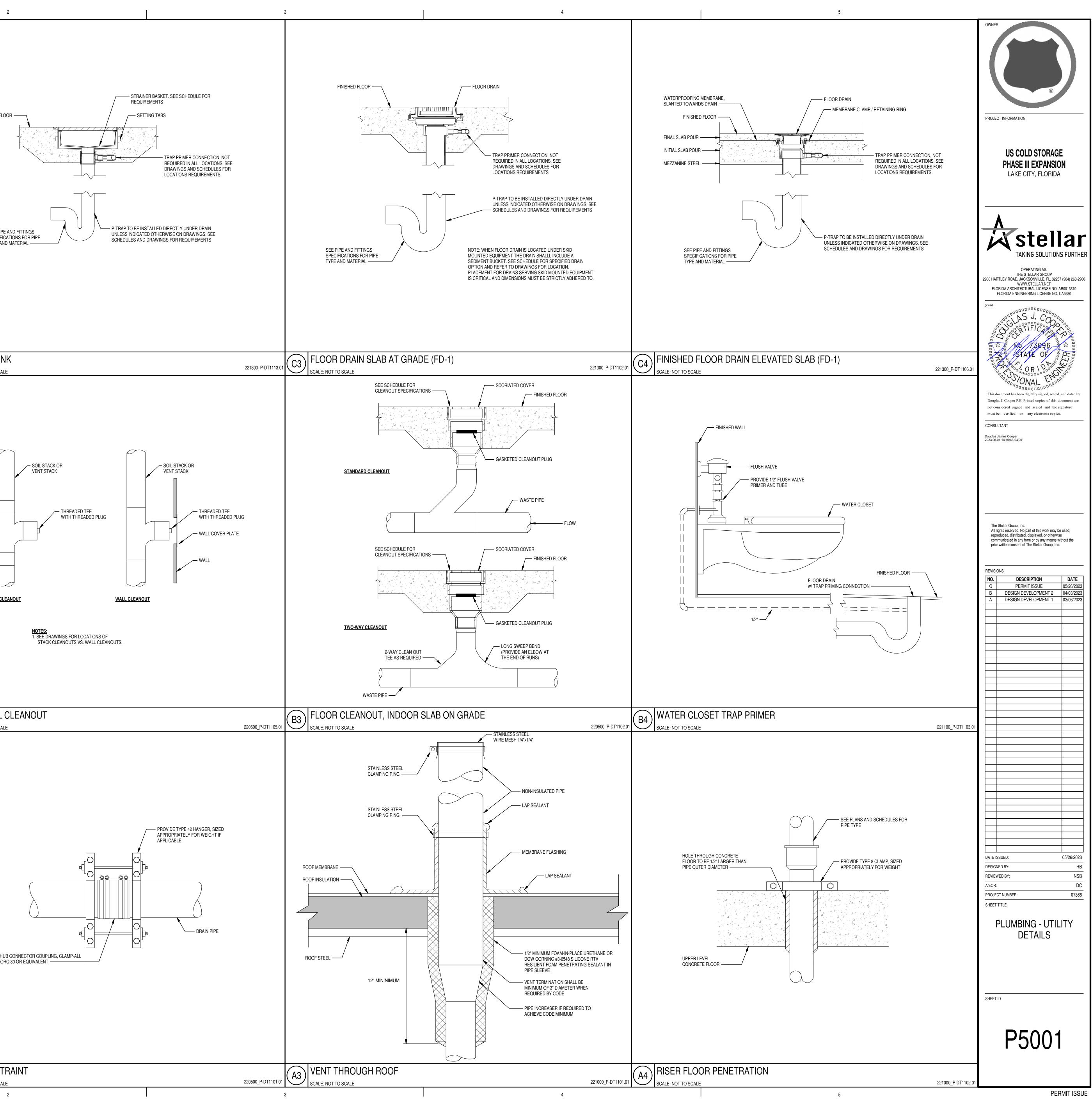




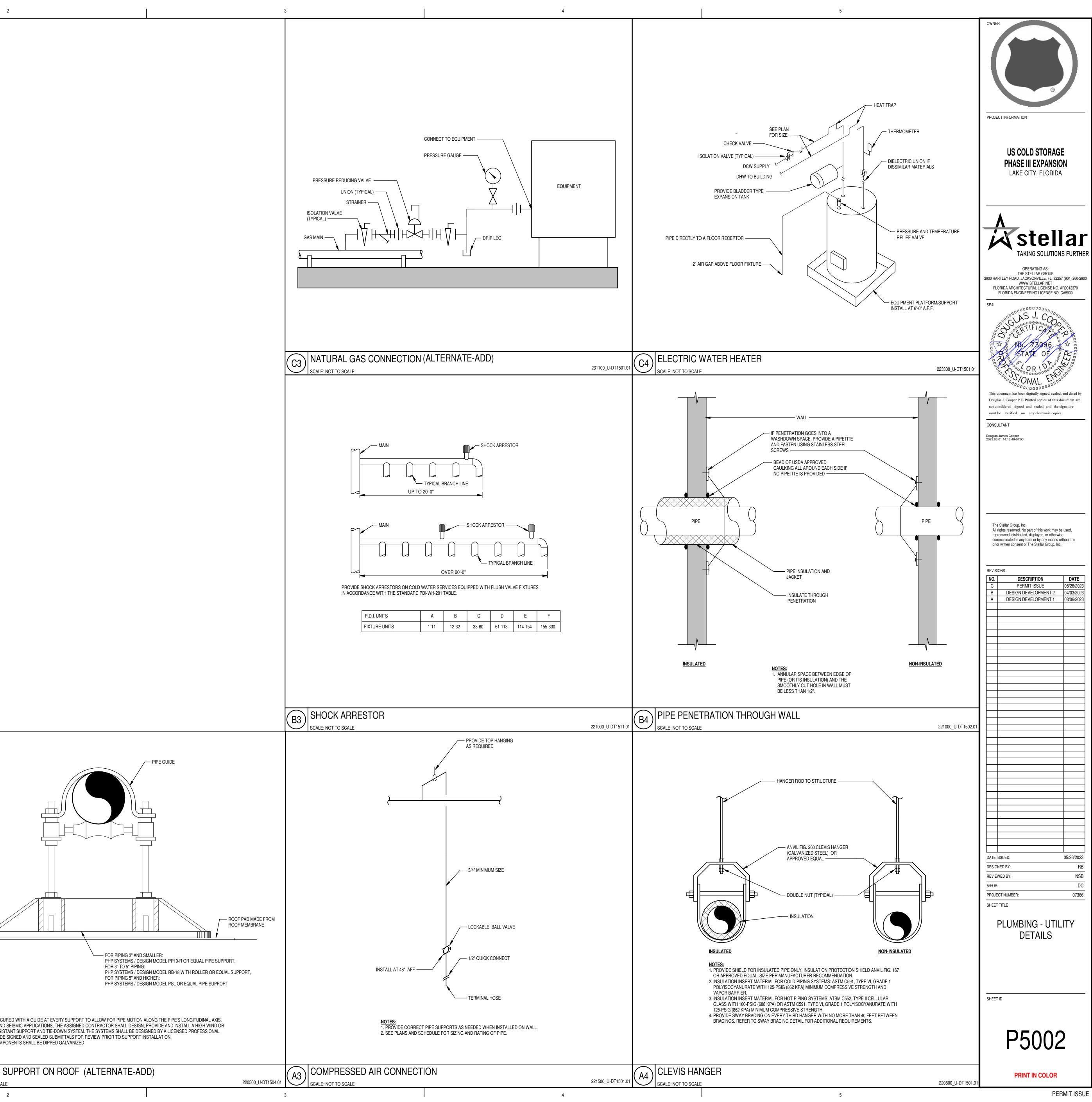
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MARK	LOCATION	SERVICE	TYPE	FLUID	FLOW (GPM)	RPM	PUMP HEAD	NPSHR	MIN EFF AT FULL	ELECTR	RICAL	WEIGHT (LBS)	BASIS OF DE	SIGN	NOTES	ACCES
IVIANN	LOCATION	JENVICE	ITFE	FLUID			(FT)	(FT)	FLOW	V/PH/HZ	HP		MANUFACTURER	MODEL		AUGES
P-1	CA ROOM	CA ROOM DRAINAGE	SUBMERSIBLE-CENTRIFUGAL	60 F WATER	25	1,350	35	20		115/1/60	0.5	56	MYERS-PENTAIR	MW-BP	NOTE 1	NOT

NOTES: 1. SUMP PUMP PACKAGE INCLUDES TETHERED AUTOMATIC FLOAT SWITCH, 20 FT. 16/3 POWER CORD AND HIGH WATER ALARM. INSTALL IN SUMP PIT.

PLUMBING FIXTURE SPECIFICATIONS

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		CO	NNECTION S	SIZES		
MODEL	DESCRIPTION	WASTE	VENT	CW	HW	COMMENTS
Z415-2NH-6B	BODY ASSEMBLY WITH ""TYPE B"" STRAINER (NO-HUB)					SIZE VARIES, SEE FLOOR PLANS
Z1901	12"X12"X 8" DEEP, CAST-IRON SINK, 1/2 GRATE, PERFORATED OUTLET STRAINER, NO HUB CONNECTION	4"				
LUCERNE 0355.012	WALL MOUNTED 20"x18" VITREOUS CHINA LAVATORY WITH 4" CENTERSET. UNIT TO BE PROVIDED WITH SLOAN OPTIMA MODEL EBF-650 POLIOSHED CHROME BATTERY OPERATED SENSOR FAUCET, SLOAN ETF-460-A CHROME PLATED STRAINER AND OUTLET TUBE, MCGUIRE CHROME PLATED 17 GA. CAST BRASS BODY ADJUSTABLE "P" TRAP WITH CLEANOUT, MCGUIRE 3/8" ANGLED LOOSE KEY STOPS WITH ANNEALED VERTICAL TUBES, CHROME PLATED BRASS ESCHUTCHEON PLATES AND ZURN CONCEALED ARM TYPE CARRIER, AND MCGUIRE MODEL PW2000WC OFFSET DRAIN AND SUPPLIES INSULATION KIT. LAVATORY COLOR TO BE WHITE. FAUCET TO BE RATED FOR A MAXIMUM FLOW OF 0.5 GPM.	2"	2"	1/2"	1/2"	
TSBC-6010	PRECAST TERRAZZO CORNER MOP BASIN, 24"x24"x12" WITH STAINLESS STEEL CAP. PROVIDE BRASS DRAIN WITH NICKEL BRONZE STRAINER,FIAT MODEL 830-AA CHROME PLATED FITTING WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAILHOOK, 3/4" HOSE THREAD ON SPOUT, FIAT MODEL 832-AA 30"x5/8" HOSE AND HOSE BRACKET AND POWER FIAT 889-CC 24" LONG x 3" WIDE STAINLESS STEEL MOP HANGER.	3"	2"	1/2"	1/2"	
CR3321	DOUBLE COMPARTMENT 33"x21" STAINLESS STEEL SINGLE LEDGE SELF RIMMING SINK. SINK TO BE CONSTRUCTED OF 18 GAUGE, TYPE 304 STAINLESS STEEL. SINK TO BE FURNISHED WITH ELKAY MODEL LK231BH5 FAUCET WITH SPRAY, ELKAY LK-35 STRAINER, MCGUIRE 17 GAUGE CAST BRASS P-TRAP WITH CLEANOUT, MCGUIRE MODEL H2166 1/2"x3/8" ANGLED LOOSE KEY STOPS WITH ANNEALED VERTICAL TUBES AND CHROME PLATED ESCUTCHEON PLATES. PROVIDE INSINKERATOR BADGER 5 1/2 hp GARBAGE DISPOSER.	1 1/2"	2"	1/2"	1/2"	
AFWALL 3351.101	WHITE VIRTEOUS CHINA WALL-HUNG ENLONGATED TOILET RATED FOR 1.28 GPF. PROVIDE SLOAN OPTIMA 8111 EXPOSED SENSOR OPERATED BATTERY-POWERED FLUSH VALVE AND OLSONITE 95SS HEAVY DUTY PLASTIC SEAT, OPEN FRONT LESS COVER WITH CONCEALED CHECK AND SS HINGE POST.	4"	2"	1"		SEE ARCH. INTERIOR ELEVATIONS FOR MTG. HEIGHTS

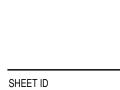
	ELECTRIC HOT WATER HEATER SCHEDULE											
	STORAGE	RECOVERY	ELEMENT	ELEMENT	GPM	L.W.T.	TEMP RISE	ELECTRICAL	RELIEF			
ON .	CAPACITY GAL.	GPH	KW	QUANTITY		F		V / ph / Hz	SIZE	MANUF.	MODEL	NOTES
SET	20	23@65F RISE	3.5	1	20	120	65	208/1/60	3/4"	AOSMITH	DEL-20-3.5	1,2,3,4,5
ON-SIMULTANEOUS 61 MINIMUM WORKING GVT3 2.1 GALLON EX 5. 1P-4M WALL MOUNT	G PRESSURE.	300 LB.)										

MARK	LOCATION	DESCRIPTION	
AIR COMPRESSOR	COMPRESSOR	INGERSOLL-RAND OIL-INJECTED ROTARY SCREW VARIABLE-SPEED COMPRESSOR	
AC-1(PRIMARY), AC-2(BACKUP)	ROOM	MODEL RS45i-A110, 45 KW (60 HP)	
		CAPACITY: 321 CFM MAXIMUM (163 CFM MINIMUM) AT 110 PSIG	
		FACTORY FILLED WITH ULTRACOOLANT	
		HEAVY-DUTY HIGH-GRADE COMPRESSOR OIL	
		ELECTRICAL: 230/460/3, NEMA PREMIUM MOTOR WITH VSD (VFD): 45 KW, 60 HP. 85 FLA	
		DIMENSIONS: 95.79"W x 49.21" D x 80.00" H, WEIGHT: 4050 LBS	
		SOUND PRESSURE LEVEL 74dBA	
		PROVIDE TEFC/HIGH EFFICIENCY INVERTER DUTY MOTOR	
		PROVIDE INTEGRATED VSD DRIVE	
		PROVIDE LOW SOUND ENCLOSURE	
		PROVIDE XE-90m MICROPROCESSOR CONTROLLER	
		PROVIDE INTEGRATED PHASE MONITOR	
		PROVIDE STD. CONDENSATE DRAIN	
		2" DISCHARGE OUTLET (FEMALE)	
		ACCESSORIES	
		1. DISCONNECT SHALL BE PROVIDED AND WIRED BY THE ELECTRICAL CONTRACTOR.	
		2. INCLUDE THERMOMETER ON COMPRESSED AIR OUTLET	
		3. AIRGUARD REMOTE COMPRESSOR MONITORING	
DESICCANT AIR DRYER	COMPRESSOR	INGERSOLL-RAND TWIN TOWER HEATLESS DESICCANT AIR DRYER, MODEL HLA500, EMS, 3V, LDP	
(DD-1) (DD-2)	ROOM	250 SCFM @ -100F, 74 SCFM PURGE,	
		PRESSURE DEWPOINT: 39°F AT INLET CONDITIONS LISTED ABOVE	
		R404a REFRIGERANT	
		ELECTRICAL: 115 /1/ 60	
		DIMENSIONS: 38.6"L x 56.5"W x 82.52"H, WEIGHT: 1562.0 LBS	
		DISCONNECT SHALL BE PROVIDED AND WIRED BY THE ELECTRICAL CONTRACTOR.	
		1-1/2" NPT AIR INLET AND OUTLET COMPRESSED AIR CONNECTIONS	
		CONDENSATE DRAIN WITH AUTODRAINER AND NO LOSS DRAIN VALVE	
		PROVIDE THERMOMETER ON COMPRESSED AIR OUTLET	
		ACCESSORIES	
		1. PRE-FILTER MODEL DD780 (833 CFM). FILTER NEEDS VERIFIED FOR PROPER FX 17 DRYER SIZE.	
		2. AFTER-FILTER MODEL DD780 (833 CFM). FILTER NEEDS VERIFIED FOR PROPER FX 17 DRYER SIZE.	
		3. DISCONNECT SHALL BE PROVIDED AND WIRED BY THE ELECTRICAL CONTRACTOR.	
COMPRESSED AIR CONTROL	COMPRESSOR ROOM	PROVIDE AIRGUARD REMOTE COMPRESSOR CELLULAR/SATELLITE/ETHERNET COMMUNICATION CAPABILITY.	
SYSTEM		PACE PNEUMATIC FLOW CONTROLLER OPTIMIZER	
OIL SEPARATOR	COMPRESSOR ROOM	POLYSEP PSG-30 OIL-WATER SEPARATOR 390 CFM(MAX.), 10 PPM, 3/4" NPT OUTLET (SIZED FOR 2 AIR COMPRESSORS)	
COMPRESSED AIR RECEIVER	COMPRESSOR ROOM	200 GALLON CAPACITY VERTICAL TANK. ONE WET. ONE DRY	
COMPRESSED AIR RECEIVER CAR-1(PRIMARY) CAR-2 (BACKUP)			
		SAMUEL PRESSURE VESSEL GROUP CRN M1355.56012348Y97N	
		ASME (SECTION VIII DIV 1) RATED PRESSURE VESSEL, 200 PSI (AT 400 F) MAWP MAXIMUM ALLOWABLE WORKING PRESSURE	
		MDMT MINIMUM DESIGN METAL TEMPERATURE -20 F AT 165 PSI	
		TANK DIMENSIONS 36" DIAMETER X 72" HIGH	
		TANK WEIGHT DRY 505 POUNDS	
		PIPING CONNECTIONS	
		PNLD II-PNEUMATIC NO LOSS DRAIN VALVE KIT 9296 CFM. 135 PSI, 1/2" TANK DISCHARGE	
		SAFETY RELIEF VALVE, 1" NPT RATED FOR 125PSI	
		PRESSURE GAUGE 1/4" PORT SIZE RATED FOR 200PSI LOWER MOUNT	
		ACCESSORIES	
		1. 4" PRESSURE GAUGE WITH ACRYLIC LENS (200 PSI RANGE)	
		2. PNEUMATIC NO LOSS DRAIN VALVE KIT	
		3. SAFETY RELIEF VALVE SET FOR 125 PSIG RELIEF FOR WET RECEIVER TANK	
	1		

FOR COORDINATION WITH SPECIFIED UNIT, CONTACT MR. MILTON BOYCE, AIR CENTERS OF FLORIDA 904-496-2350 EMAIL: m.boyce @ acfpower.com

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PLUMBING - UTILITY SCHEDULES

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US COLD STORAGE

PHASE III EXPANSION LAKE CITY, FLORIDA

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PROJECT INFORMATION

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> CESSORIES NOTE 1

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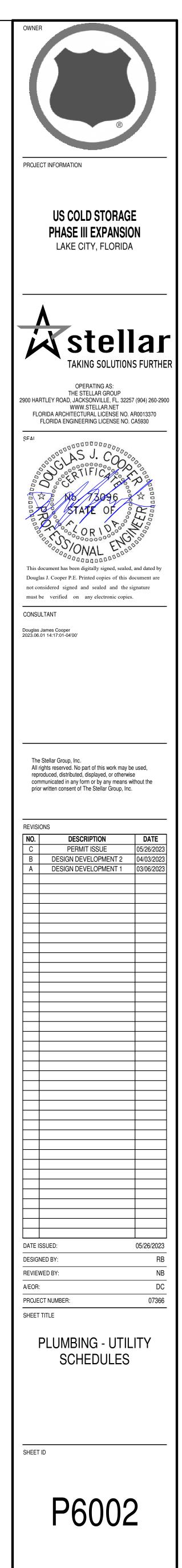
						1			U	TILITY PIPE SCH	IEDULE					
SYSTEM	SYMBOL	DESIGN PRESSURE PSIG	PIPE SIZE	PIPING SYSTEM DESCRIPTION	PIPE SPECIFICATION	JOINTS AND FITTINGS	VALVES 1/4-TURN	VALVES MULTI-TURN	CHECK VALVES	STRAINER	GAUGES	INSULATION	INSULATION THI (REFER TO INSU NOTES AT BOT OF SCHEDULE	JLATION TOM E)	JACKET	NOTES
DOMESTIC WATER STELLAR CODE 4G	DCW DHW DHWR	150 PSIG AT 150 F	2" AND SMALLER 2-1/2" AND LARGER	COPPER PIPE SOLDER JOINTS	HARD COPPER TYPE L PER ASTM B88	95-5 TIN-ANTIMONY SOLDER, ASTM B62, GR. 95 TA. LEAD FREE SOLDER. ASTM B16.22 WROUGHT COPPER FITTINGS, CAST COPPER ALLOY SOLDER JOINT FITTINGS PER ASTM B16.18.	600 PSI, BRONZE BODY, FULL PORT, 316 SS BALL & STEM, RPTFE SEAT & PACKING, SOLDER ENDS, APOLLO 77CLF 240 SERIES	NOT APPLICABLE	CLASS 125, Y-PATTERN, BRONZE BODY & INTEGRAL SEAT, SCREWED CAP, MSS-SP-80, SOLDER END CONNECTIONS. APOLLO MODEL 161S-LF	CLASS 125 Y-PATTERN BRONZE BODY, STRAIGHT THREAD CAP, 20 MESH 304 SS SCREEN, SOLDER END CONNECTIONS, TITAN YS 56-BZ	GENERAL: NO GLASS; PROVIDE ACRYLIC LENS. WHITE BACKGROUND WITH BLACK NUMERALS. PLUS OR MINUS 1% ACCURACY, INSTALL AS DETAILED. PRESSURE: BRONZE BOURDON TUBE, 4" DIAMETER, 304SS CASE, PSI SCALE, RANGE 1.5 TIMES WORKING PRESSURE. TEMPERATURE: ALCOHOL FILLED TUBE, 7" ALUMINUM CASE, DEGREES F	EQUAL TO ARMACELL ARMAFLEX NH, AEROFLEX USA AEROCEL OR K-FLEX USA ECO. ARMAFLEX AP IS NOT ACCEPTABLE. SEE NOTE "H". USE ADHESIVE RECOMMENDED BY MANUFACTURER. SEAL ALL JOIN AND SEAMS VAPOR-TIGHT WITH PRESSURE-SENSITIV	PIPE SIZE 1": PIPE SIZE 1-1/4" to 2": TS	1" (NOTE A) 1" (NOTE A) 1.5" (NOTE A) 1.5" (NOTE A) 8: 1.5" (NOTE A)	PROCESS SPACE: PLAIN 304SS JACKET, 0.015" THICK, WITH 3/4" BANDS, 304SS. <u>NON-PROCESS SPACE (NOTE G):</u> WHITE PVC JACKET, 30 MIL THICK, SOLVENT-WELDED JOINTS. <u>OUTDOORS:</u> EMBOSSED ALUMINUM JACKET, 0.016" THICK, WITH 0.007" THICK ALUMINUM BANDS.	 PROVIDE MANUAL DRAIN VALVES AT PIPING MAIN LOW POINTS. SLOPE PIPE DOWN 1" IN 40' IN DIRECTION OF FLOW. HYDROSTATICALLY PRESSURE TEST AT 1.5 TIMES WORKING PRESSURE BUT NOT LESS THAN 225 PSI FOR 2 HOURS WITH NO MORE THAN 2 PSIG LOSS. ALL COMPONENTS SHALL COMPLY WITH NSF-372 (LEAD-FREE). ALL COMPONENTS SHALL COMPLY WITH NSF-61 (POTABLE WATER SERVICE) ALL STAINLESS STEEL SYSTEMS SHALL BE PICKLED AND PASSIVATED. GROOVE 10S PIPE WITH RX ROLL SET VICTAULIC GROOVING TOOL. COUPLINGS IN SIZES 12" AND SMALLER SHALL BE INSTALLATION-READY WITH NO FIELD DISASSEMBLY REQUIRED.
COMPRESSED AIR - EQUIP. SUPPLY AND CONNECTION STELLAR CODE 3H	CA	150	2" AND SMALLER 2-1/2" AND LARGER	COPPER PIPE SOLDER JOINTS	HARD COPPER TYPE L PER ASTM B88	95-5 TIN-ANTIMONY SOLDER, ASTM B62, GR. 95 TA. LEAD FREE SOLDER. ASTM B16.22 WROUGHT COPPER FITTINGS, CAST COPPER ALLOY SOLDER JOINT FITTINGS PER ASTM B16.18.	600 PSI, BRONZE BODY, FULL PORT, 316 SS BALL & STEM, RPTFE SEAT & PACKING, SOLDER ENDS, APOLLO 77CLF 240 SERIES	NOT APPLICABLE	CLASS 125, Y-PATTERN, BRONZE BODY & INTEGRAL SEAT, SCREWED CAP, MSS-SP-80, SOLDER END CONNECTIONS. APOLLO MODEL 161S-LF	NOT APPLICABLE		 PREFORMED CLOSED CELL FLEXIBLE ELASTOMERIC ASTM C534 GRADE 3 (NON-HALOGENS), TYPE I EQUAL TO ARMACELL ARMAFLEX NH, AEROFLEX USA AEROCEL OR K-FLEX USA ECO. ARMAFLEX AP IS NOT ACCEPTABLE. SEE NOTE "H". USE ADHESIVE RECOMMENDED BY MANUFACTURER. SEAL ALL JOIN AND SEAMS VAPOR-TIGHT WITH PRESSURE-SENSITIV TAPE. INSULATE IN REFRIGERATED SPACES ONLY, SEE NOTE F. 	PIPE SIZE 1-1/4" to 2":	1" (NOTE A,B) 1" (NOTE A, B) 1" (NOTE A, B) 1" (NOTE A, B) 8: 1" (NOTE A, B)	PROCESS SPACE: PLAIN 304SS JACKET, 0.015" THICK, WITH 3/4" BANDS, 304SS. NON-PROCESS SPACE:	 PROVIDE MANUAL DRAIN VALVES AT PIPING MAIN LOW POINTS. SLOPE PIPE DOWN 1" IN 40' IN DIRECTION OF FLOW. PNEUMATICALLY PRESSURE TEST AT 1.5 TIMES WORKING PRESSURE BUT NOT LESS THAN 225 PSI FOR 2 HOURS WITH NO MORE THAN 2 PSIG LOSS. GROOVE STAINLESS PIPE WITH RX ROLL SET VICTAULIC GROOVING TOOL. COUPLINGS IN SIZES 12" AND SMALLER SHALL BE INSTALLATION-READY WITH NO FIELD DISASSEMBLY REQUIRED.
PIPE MATERIAL COPPER PVC CPVC		NTAL PIPE SU 3/4" 6	UPPORT SPAC PIPE SIZE 1" 6 4 3	CING (FT)	1-1/2" 10 4 4	2" AND LARGER 10 4 4										

A. FOR PIPING OUTDOORS OR REFRIGERATED SPACES (LESS THAN 38 F), PROVIDE ELECTRICAL HEAT TRACING AT 5 WATTS PER FOOT WITH TEMPERATURE CONTROLLER. B. INSULATION AND HEAT TRACING NOT REQUIRED FOR COMPRESSED AIR SYSTEMS WITH AIR DRYER WHICH SUPPRESSES THE DEWPOINT TEMPERATURE BELOW THE FREEZER OR COOLER SPACE OPERATING TEMPERATURE.

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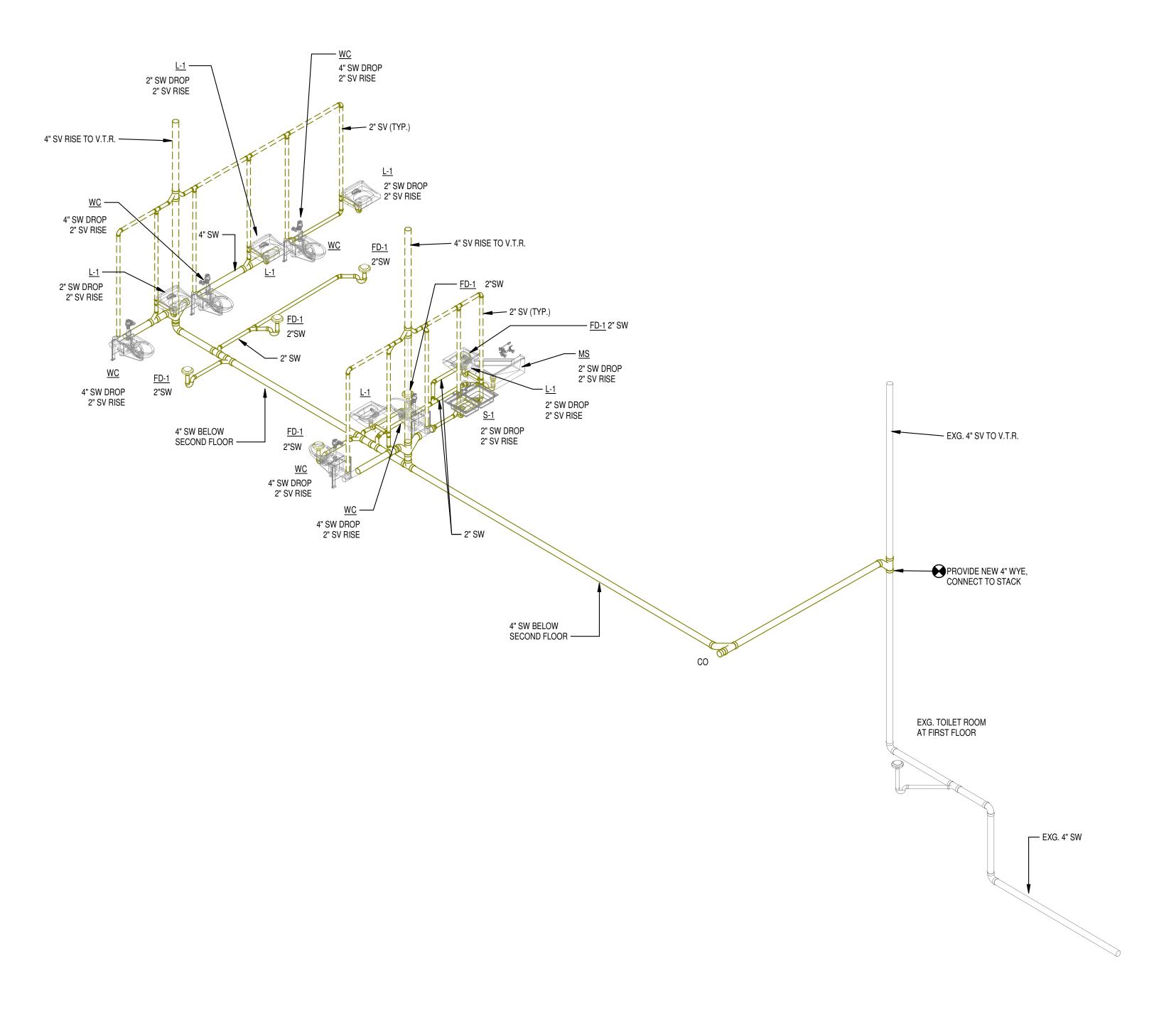
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					PLUMBIN	IG DRAINAGE PIF	PE SCHEDULE	
SYSTEM	DRAWING SYMBOL	DESIGN PRESSURE	SLOPE	SYSTEM DESCRIPTION	PIPE SPECIFICATION	JOINTS AND FITTINGS	TESTING	NOTES
SANITARY WASTE AND VENT PIPING	SW, SV	GRAVITY	LESS THAN 3": 1/4" PER FT. 3" AND LARGER: 1/8" PER FT.	PVC	SCHEDULE 40 PVC TYPE DWV PIPE AND FITTINGS CONFORMING TO ASTM D-1784, ASTM D-1785, ASTM D-2665	SOLVENT WELD WITH PRIMER CONFORMING TO ASTM STANDARDS. SOLVENT CEMENT SHALL SHALL CONFORM TO ASTM D-2564.	TEST PIPING PER LOCAL OR STATE CODE OR BY MEANS OF WATER TEST WITH 10 FT. HEIGHT OR 4.3 PSI	 BEDDING, COMPACTION AND BACKFILL SHALL CONFORM TO LOCAL AND STATE CODES AND MANUFACTURERS RECOMMENDATIONS. THE USE OF FOAM CORE TYPE PIPE AND FITTINGS IS NOT PERMITTED. THE USE OF PVC DWV PIPING IN PLENUM AREAS IS PROHIBITED UNLESS PIPING IS INSULATED TO MEET OR EXCEEDS SMOKE AND FLAME SPREAD REQUIREMENTS AS DETAILED IN NOTES 3 AND 4 BELOW INSULATE ALL HORIZONTAL DRAINS IN PLENUM CEILINGS WITHIN BUILDING WITH PREFORMED FLEXIBLE ELASTOMERIC PIPE INSULATION: COMPLY WITH ASTM C-534, TYPE I, AND ASTM E-84 FOR FLAME SPREAD RATE OF 25 OR LESS AND SMOKE DEVELOPED RATING OF 50 OR LESS, FOR 1" THICKNESS. K VALUE OF 0.30 AT 75 °F MEAN TEMPERATURE; EQUAL TO AP ARMAFLEX, CLOSED CELL TUBE AND PIPE INSULATION. UTILIZE ADHESIVE RECOMMENDED BY INSULATION MANUFACTURER FOR JOINTS AND SEAMS. PROVIDE A PVC JACKET OVER INSULATION IN NOTE 5 AS FOLLOWS : PVC JACKET 30 MIL THICK, UV RESISTANT WHITE IN COLOR. PREFABRICATED SHAPES FOR FITTINGS, JOINTS, VALVES, ETC. USE ADHESIVE RECOMMENDED BY THE JACKET MANUFACTURER. SOLVENT WELD ALL JOINTS AND SEAMS. LAP SEAMS 1-1/2", LAP JOINTS 3". INSTALL IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.COMPLY WITH ASTM C-534, TYPE I, AND ASTM E-84 FOR FLAME SPREAD RATE OF 25 OR LESS AND SMOKE DEVELOPED RATING OF 50 OR LESS
PROCESS WASTE AND VENT PIPING	PW, PV	GRAVITY	LESS THAN 3": 1/4" PER FT. 3" AND LARGER: 1/8" PER FT.	CPVC	CPVC SCHEDULE 40 PIPE AND FITTINGS CONFORMING TO ASTM D-2618, ASTM F-441, ASTM D-3311 AND NSF STANDARD 14.	SOLVENT WELD WITH PRIMER CONFORMING TO ASTM SOLVENT CEMENT SHALL CONFORM TO ASTM F-493 ST. STL. TO CPVC HEAVY DUTY NO-HUB COUPLING (IPS x IPS CLAMP JOINT) WITH SHIELDED FKM (FLUROCARBON AND VITON) ELASTOMER SUCH AS: LABWASTE P093, SPEARS PIPE LAB WASTE OR EQUAL. EXAMPLES OF ELASTOMERS NOT ACCEPTABLE (BUT NOT LIMITED TO) NEOPRENE AND EPDM.	TEST PIPING USING REQUIREMENTS OF LOCAL OR STATE CODE OR BY MEANS OF THE WATER TEST WITH A WATER HEIGHT OF 10'-0" OR 4.3 PSI.	 BEDDING, COMPACTION AND BACKFILL SHALL CONFORM TO LOCAL AND STATE CODES AND MANUFACTURERS RECOMMENDATIONS. FOR ABOVE GROUND WASTE AND VENTS IN PROCESS AREAS PIPE SPECIFICATION PS-7h(2) SHALL BE USED. THE USE OF CPVC PIPING IN PLENUM AREAS IS PROHIBITED UNLESS PIPING MEETS OR EXCEEDS SMOKE AND FLAME SPREAD REQUIREMENTS. USE CAST IRON WASTE AND VENT PIPING LOCATED IN RETURN AIR PLENUMS. NON-PRESSURIZED DRAINING SERVICE RATE TO 220F DEGREES.

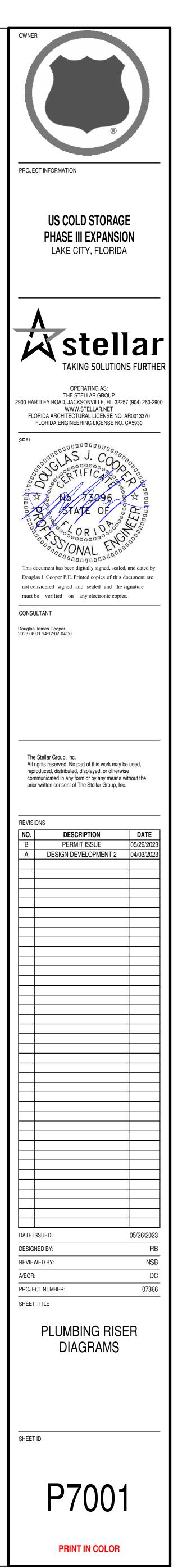


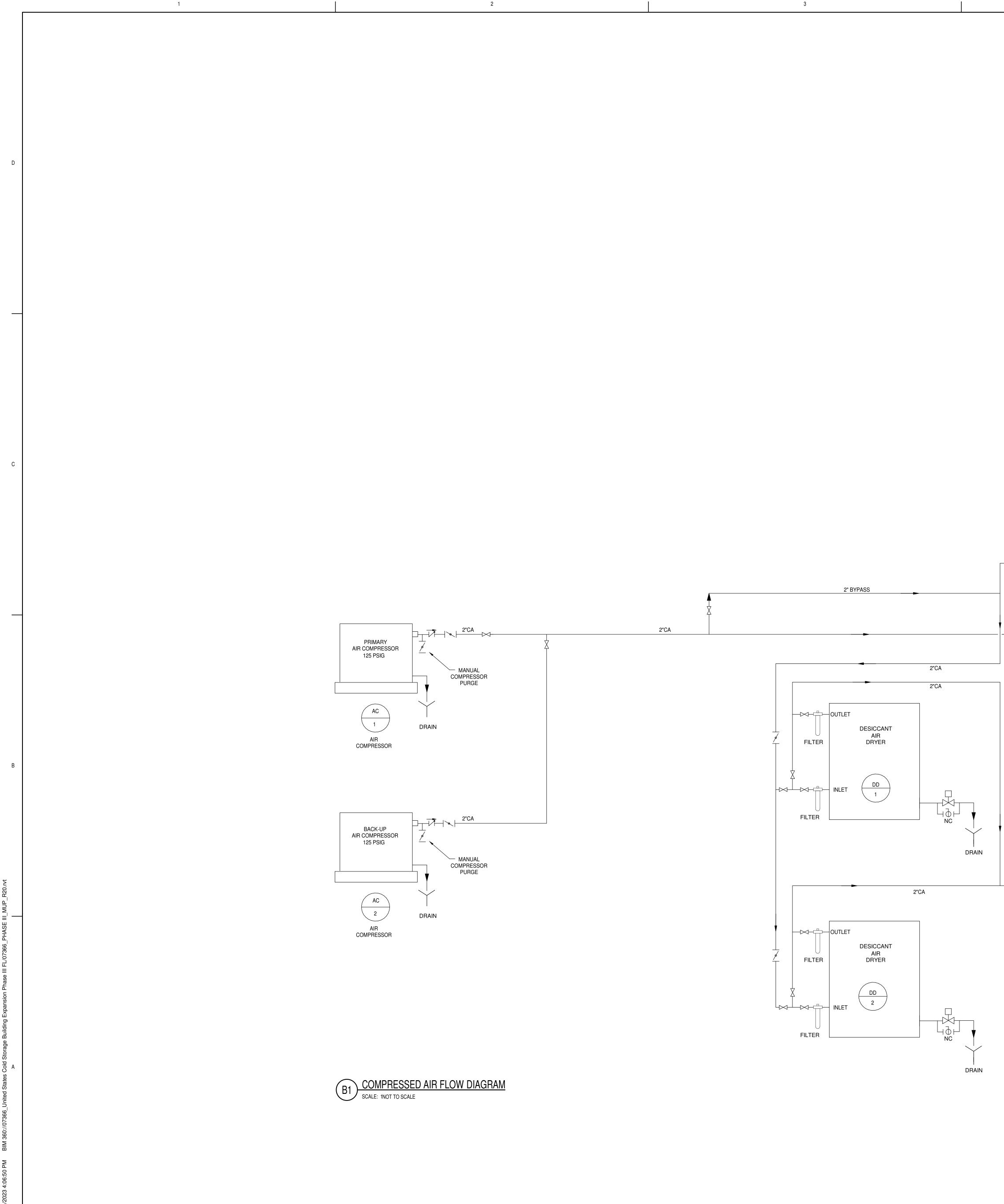
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A3 DRAINAGE WASTE VENT RISER DIAGRAM - AREA 2 SCALE: NOT TO SCALE





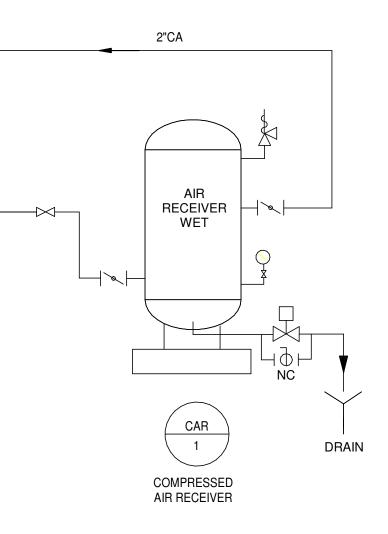
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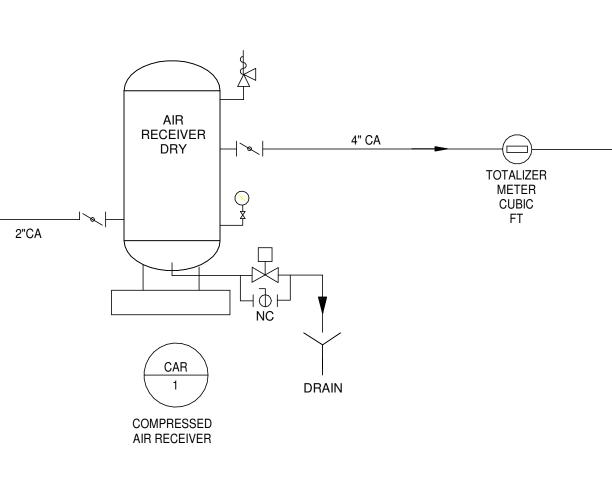
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NORMALIZED* COMPRESSED AIR DEMAND TABLE									
ZONE TYPE	EQUIP. QTY	AIR USAGE (scfm)	CONNECT- DROPS QTY	% SIMULT. SYSTEM USAGE	TOTAL (SCFM)				
3 STRANDLIFT @ SQUARING ARMS	3	10.64	3	6.94%	31.91 SCFM				
AIR CHAIN BRAKE	5	2.31	5	2.51%	11.54 SCFM				
CDLRS SQUARING ARMS	2	5.32	2	2.31%	10.63 SCFM				
RAT	19	0.01	19	.04%	.19 SCFM				
SHUTTLE	1	0.24	1	.05%	.24 SCFM				
WRAPPER	3	8.33	3	5.44%	25.00 SCFM				
LABELLER	5	35	5	38.08%	175.00 SCFM				
FIRE PROTECTION PREACTION VALVE	8	20		34.81%	160.00 SCFM				
FIRE PROTECTION DRY VALVE	1	45	1	9.79%	45.00 SCFM				
SYSTEM TOTAL 459.51 SCF									

EQUIPMENT REQUIRES A MAX. OF 90 PSI VALUES AT LOCATIONS ARE NOT INSTANTANEOUS PEAK FLOW

* - NORMALIZED - THE INDIVIDUAL EQUIPMENT FLOW REQUIREMENT OVER A MINUTE TOTAL ESTIMATE USAGE 71.88 SCFM @ 80 psig





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COMPRESSED AIR 125 PSIG -70 °F DEWPOINT COMPRESSED 475 SCFM COMPRESSED AIR (FUTURE) 125 SCFM

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4"CA

475 SCFM



SHEET ID

COMPRESSED AIR FLOW DIAGRAM

P7002

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A	DESIGN DEVELOPMENT 2	04/03/2023
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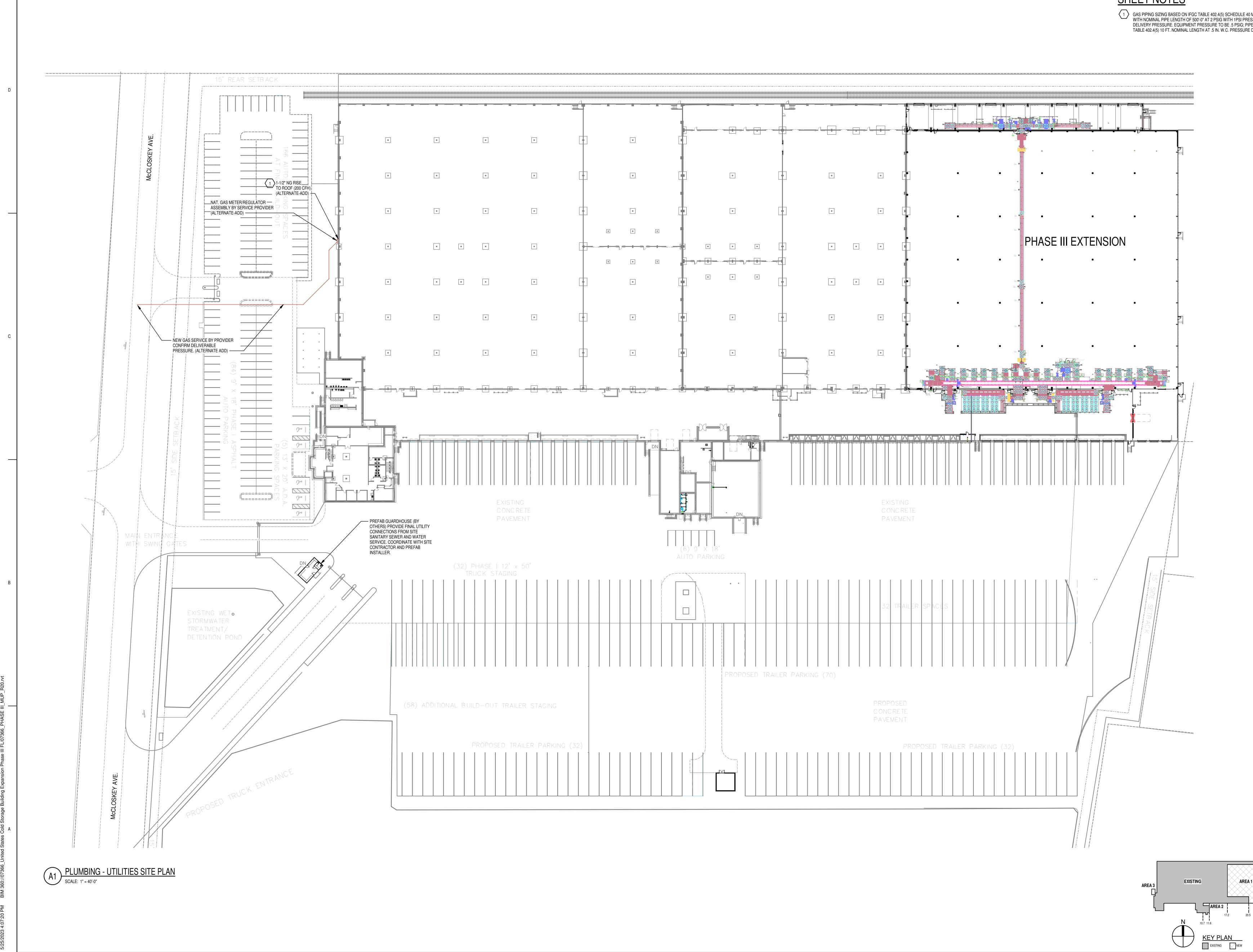
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SHEET NOTES (1) GAS PIPING SIZING BASED ON IFGC TABLE 402.4(5) SCHEDULE 40 METALLIC PIPE WITH NOMINAL PIPE LENGTH OF 500'-0" AT 2 PSIG WITH 1PSI PRESSURE DROP DELIVERY PRESSURE. EQUIPMENT PRESSURE TO BE .5 PSIG; PIPE SIZING PER IFGC TABLE 402.4(5) 10 FT. NOMINAL LENGTH AT .5 IN. W.C. PRESSURE DROP. PROJECT INFORMATION

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SHEET ID

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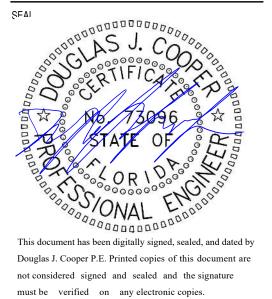
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US COLD STORAGE

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	RAL NOTES		
	NG SHALL BE INTERPRETED TO ALLOW WORK NOT CONFORM	MING	
WITH THE SPECIFICATIONS. IF ALTERNATE EQUIPMENT (PTABLE IF EQUIPMENT MEETS THE SCHEDULED PERFORMAN DTHER THAN SCHEDULED IS UTILIZED, THEN THE CONTRACTO	ICE AND COMPLIE OR SHALL BE	
PROVISIONS FOR INSTALLATION OF THE FURNISHED UNIT	ONTRACTOR AND/OR ALL AFFECTED SUBCONTRACTORS TO E THIS COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED (ER REQUIREMENTS, WIRE/CONDUIT AND OVER CURRENT PR	TO, THE	
PIPE SIZES, AND CONNECTION LOCATIONS. THE CONTRAC	TOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED BY SULTANTS TO MODIFY THE PROJECT TO ACCEPT THE ALTERN	THE GENERAL	
4. ALL WELDERS/WELDING OPERATORS SHALL BE QUALIFIE	E SUITABLE FOR REFRIGERATION SERVICE AND INSTALLED P ED AND CERITIFIED BY THE CONTRACTOR IN ACCORDANCE W RIOR TO PERFORMING ANY WELDING. CERTIFICATION DOCU	VITH ASME SECTI	
MAINTAINED BY THE CONTRACTOR THROUGHOUT THE COM PROCEDURES SHALL BE IN COMPLIANCE WITH ASME SEC 5. WELDER SHALL STAMP PIPE NEXT TO EACH WELD WITH.			
 WELDERS AND THEIR RESPECTIVE STAMP MARKS. 6. INSTALL PIPING AND DUCTWORK TO PROVIDE THE MAXIM BELOW 7'-3" CLEARANCE WITHOUT APPROVAL. 	UM POSSIBLE CLEAR HEIGHT UNLESS OTHERWISE NOTED. D	OO NOT RUN EITH	
 INSTALL PIPING AND EQUIPMENT MINIMUM 18 FEET FROM THE DESIGN DRAWINGS. 			
 ALL VALVES, HORIZONTAL PIPING, INCLUDING INSULATION FINISHED ROOF TO ALLOW CLEARANCE FOR ROOF FLASH ALL VALVES, HORIZONTAL PIPING, INCLUDING INSULATION 	ING. VERIFY WITH ROOFING CONTRACTOR. I, ETC. TO BE LOCATED TO PROVIDE A MINIMUM 12" OF CLEA		
FINISHED FLOOR TO ALLOW CLEARANCE FOR FLOOR MAI 10. EQUIPMENT AND VALVES TO BE INSTALLED WITH CONSID KEPT ENTIRELY FREE FROM OBSTRUCTIONS INCLUDING P	ERATION FOR ALL SERVICE CLEARANCES. SERVICE CLEAR	ANCES ARE TO B	
11. PIPING IS NOT TO BE SUPPORTED BY EQUIPMENT CONNECT. 12. CONDUIT DROPPING DOWN FROM THE CEILING SHALL NO 13. THE CONTRACTOR SHALL VERIES ALL DIMENSIONS DUPIN	T BLOCK REQUIRED SERVICE CLEARANCES.		
14. THE CONTRACTOR SHALL VERIFY THE REFRIGERATION SY	ONS. IMMEDIATELY NOTIFY ENGINEER OF ANY CONFLICTS.		
OPFRATIONAL 15. ALL VALVES AND STRAINERS TO MATCH LINE SIZE, UNLES 16. ALL INSULATION WORK SHALL BE COMPLETED PER DETA			
17. ALL DETAILS ON DETAIL SHEETS APPLY, UNLESS OTHERV 18. ALL FUTURE VALVES TO BE CAPPED AND HAVE 1/4" MPT,	VISE INDICATED. OR LARGER, BLEED VALVES WITH PLUGS.		
 ALL REFRIGERANT GLYCOL AND OIL CHARGES TO BE PRO REFRIGERATION CONTRACTOR SHALL PROVIDE AND INST ALL PRESSURE GAUGES INSTALLED ON THE HIGH SIDE OIL 	ALL VALVE TAGS AND LABELS PER IIAR BULLETIN 114, 2019.		
PSIG FOR NH3 AND 705 PSIG FOR CO2. 22. REFRIGERATION CONTRACTOR TO INCLUDE ALL PIPE CRO			
 23. ESTIMATED AMMONIA CHARGE = 0 LBS 24. ESTIMATED CO2 CHARGE = 4,679 LBS 25. MANUALLY OPERATED VALVES THAT ARE NOT ACCESSIBILITY 	E FROM A PORTABLE PLATFORM OR LADDER SHALL BE FOU	IPPED WITH CHA	
WHEEL OPERATORS. 26. MANUALLY OPERATED ISOLATION VALVES IDENTIFIED IN		1111 - Tani 1972 Mala 1975	
FLOOR OR EQUIPPED WITH CHAIN WHEEL OPERATORS. 27. ALL REFRIGERATION SYSTEM ACCESS PORTS LOCATED O TYPE TAMPER-RESISTANT CAPS, OR SHALL BE OTHERWIS	SE SECURED TO PREVENT UNAUTHORIZED ACCESS.		
 THE REFRIGERATION CONTRACTOR IS RESPONSIBLE FOR PIPE STANDS CONFORM TO ALL WIND, GRAVITY AND SEIS PIPING AND DUCTWORK SHALL BE SEISMICALLY BRACED 	MIC LOADING. THIS IS TO INCLUDE ALL ASCE7 DOCUMENTA	TION.	
THE LATEST EDITION OF SMACNA SEISMIC RESTRAINT MA 30. GLYCOL SYSTEM IS REQUIRED TO HAVE AIR VENTS AT AL			
POLITING ADDITIONAL VENTS AND DRAIN VALVES MAY BE			
	E REQUIRED BEYOND WHAT IS SHOWN ON THE DESIGN DRAW VALVES AS REQUIRED. AIR VENTS ARE TO BE INSTALLED W ES TO REMAIN. IDITIONS ARE TO BE FIELD VERIFIED.	WINGS.	
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UNITED STATES COLD STORAGE PHASE III EXPANSION LAKE CITY, FLORIDA

		MATERIALS	•			DRAWING LIST	
			·				
PIPING MATERIAL SERVICE	TEMP PIPE DESIGN	I TEST TEST	CORROSION INSULATION	NOTES	DWG	DESCRIPTION	
TYPE	RANGE SPEC PRESSUR	RE PRESSURE SPEC	INHIBITOR TYPE		R0001	REFRIGERATION COVER SHEET	
CO2 CO2	 < -20°F SS600 600 > -20°F SS600 600 	660 PNEUMATIC 660 PNEUMATIC	NO EXTRUDED-ITW NO EXTRUDED-ITW	-	R0002 R1000	REFRIGERATION SYMBOLS REFRIGERATION PLAN PIPE & EQUIPMENT UNDERGROUND	
CO2: CONTROL GROUPS GLYCOL	ALL SS600 600 ALL CS150 150	660 PNEUMATIC 225 HYDRO	NO EXTRUDED-ITW NO EXTRUDED-ITW	-	R1110 R1140 R4110 R5000	REFRIGERATION PLAN PIPE & EQUIPMENT FLOOR OVERALL REFRIGERATION PLAN PIPE & EQUIPMENT ROOF OVERALL REFRIGERATION MACHINE ROOM PIPE & EQUIPMENT OVERALL REFRIGERATION DETAILS GENERAL	
	ROOM ENVIRONMENTAL TAB	BLE			R5001 R5010	REFRIGERATION DETAILS GENERAL REFRIGERATION DETAILS GENERAL	
ROOM / UNIT	ENVIRON	CONDENSATE DRAINS			R5011 R5012	REFRIGERATION DETAILS GENERAL REFRIGERATION DETAILS GENERAL	
TYPE	PLAN PIPE INSULATIO SPEC (INCH)		NOTES		R5013	REFRIGERATION DETAILS GENERAL	
ROOF	B CS150G 1.5"	YES NO	3		R5100 R5101	REFRIGERATION DETAILS PIPE AND EQUIPMENT REFRIGERATION DETAILS PIPE AND EQUIPMENT	
FREEZER DOCK	D CS150G 1.5" D CS150G 1.5"	YES NO NO YES	1,4		R5103	REFRIGERATION DETAILS PIPE AND EQUIPMENT	
CONDENSATE DRAIN NOTE	S.				R5200 R5210	REFRIGERATION DETAILS SUPPORTS REFRIGERATION DETAILS SUPPORTS	
	 PVC JACKET TO BE 20 MIL, WITH UV INF STAINLESS STEEL JACKET TO BE 16 MIL PIPE STAND SLEEPERS ON ROOF SHALI BREAK AWAY DRAIN DETAIL ON SHEET 	L, SMOOTH, WITH SAFETY HEM L BE LUMBER/SYNTHETIC LUMBE	R		R5211 R5220 R5221 R5222 R5400 R6000 R7000	REFRIGERATION DETAILS SUPPORTS REFRIGERATION DETAILS SUPPORTS REFRIGERATION DETAILS SUPPORTS REFRIGERATION DETAILS SUPPORTS REFRIGERATION DETAILS SAFETY REFRIGERATION SCHEDULES REFRIGERATION BLOCK FLOW	
ENVIRONMENTAL PLAN					R7001	REFRIGERATION P&ID	
ROOM / UNIT TYPE	JACKET SADDLE HANGER MATERIAL MATERIAL MATERIAL		STANDOFF HPL HGD/HSD REQUIRED INSULATED INSULATED	NOTES			
В	ALUMINUM GALVANIZED GALVANIZE	ED N/A N/A	N/A N/A N/A	2			
D	PVC GALVANIZED GALVANIZE	ED THREADED N/A	N/A N/A N/A	2			
	<u>S:</u> 1. Where smooth rod is indicated, ro 2. Pipe tites not required for insula						
TAGS AND LABELS							
TAGS AND LABELS	MATERIAL TYPE DETAIL	COMMENT					
VALVE TAGS	PLASTIC SQUARE 1	_					
VALVE TAGS	STAINLESS ROUND 2						
VALVE TAGS VALVE TAGS	BRASS ROUND 3 PLASTIC RECTANGLE 4	QR CODE					
VALVE TAGS PIPE LABELS - INSULATED	PLASTIC SQUARE 5 - ADHESIVE 6	BAR CODE					
PIPE LABELS - INSULATED PIPE LABELS - INSULATED	- STRAP ON 7 - COIL 8	-					
PIPE LABELS - UNINSULATED	- ADHESIVE 6	-					
PIPE LABELS - UNINSULATED PIPE LABELS - UNINSULATED	- STRAP ON 7 - COIL 8	-					
COMPONENT LABELS COMPONENT LABELS	- ADHESIVE 9 - ADHESIVE 10	 QR CODE					
MULTI-VALVE TAGS MULTI-VALVE TAGS	PLASTIC RECTANGLE 11 PLASTIC RECTANGLE 12	- QR CODE					
		QRCODE					
TAG AND LABEL NOTE	<u>S:</u> 1. DETAILS ON SHEET R5400						
							SERIES IDENTIFIER CONTENT IDENTIFIER
							RXXXX SERIES CONTENT LEVEL UNIT
							0 UNDERGROUND GENERAL UNDERGROUND OVERALL 1 PLAN PIPE AND EQUIPMENT FLOOR UNIT 1
							2 PRS SUPPORTS MEZZANINE UNIT 2
-							3 ELEVATION DUCT INTERSTITIAL UNIT 3 4 MACHINE ROOM SAFETY ROOF UNIT 4
							5 DETAILS RELIEF PIPE ROOF PLATFORM UNIT 5 6 SCHEDULES DEMOLITION - UNIT 6
							7 P&ID UNIT 7
							8 SEQUENCE OF OPERATION - - UNIT 8 9 ISOMETRIC - - UNIT 9

4

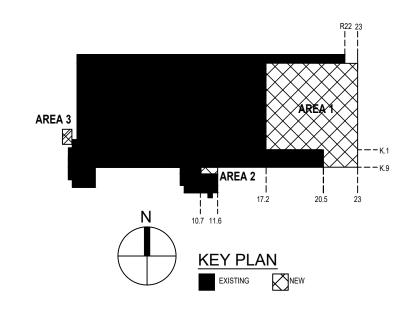
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ROOM / UNIT	UNIT ENVIRON CONDENSA						
TYPE	PLAN	PIPE	INSULATION	HEAT	BREAK	NOTES	
		SPEC	(INCH)	TRACE	AWAY		
ROOF	В	CS150G	1.5"	YES	NO	3	
FREEZER	D	CS150G	1.5"	YES	NO	1	
DOCK	D	CS150G	1.5"	NO	YES	1,4	

MATERIALS	DRAWING LIST	
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VALVE TAGS	STAINLESS	ROUND	2	-
VALVE TAGS	BRASS	ROUND	3	-
VALVE TAGS	PLASTIC	RECTANGLE	4	QR CODE
VALVE TAGS	PLASTIC	SQUARE	5	BAR CODE
PIPE LABELS - INSULATED	-	ADHESIVE	6	-
PIPE LABELS - INSULATED	0 6	STRAP ON	7	
PIPE LABELS - INSULATED	240	COIL	8	-
PIPE LABELS - UNINSULATED	(_)	ADHESIVE	6	-
PIPE LABELS - UNINSULATED	2.5	STRAP ON	7	
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COMPONENT LABELS	12	ADHESIVE	9	23
COMPONENT LABELS		ADHESIVE	10	QR CODE
MULTI-VALVE TAGS	PLASTIC	RECTANGLE	11	
MULTI-VALVE TAGS	PLASTIC	RECTANGLE	12	QR CODE

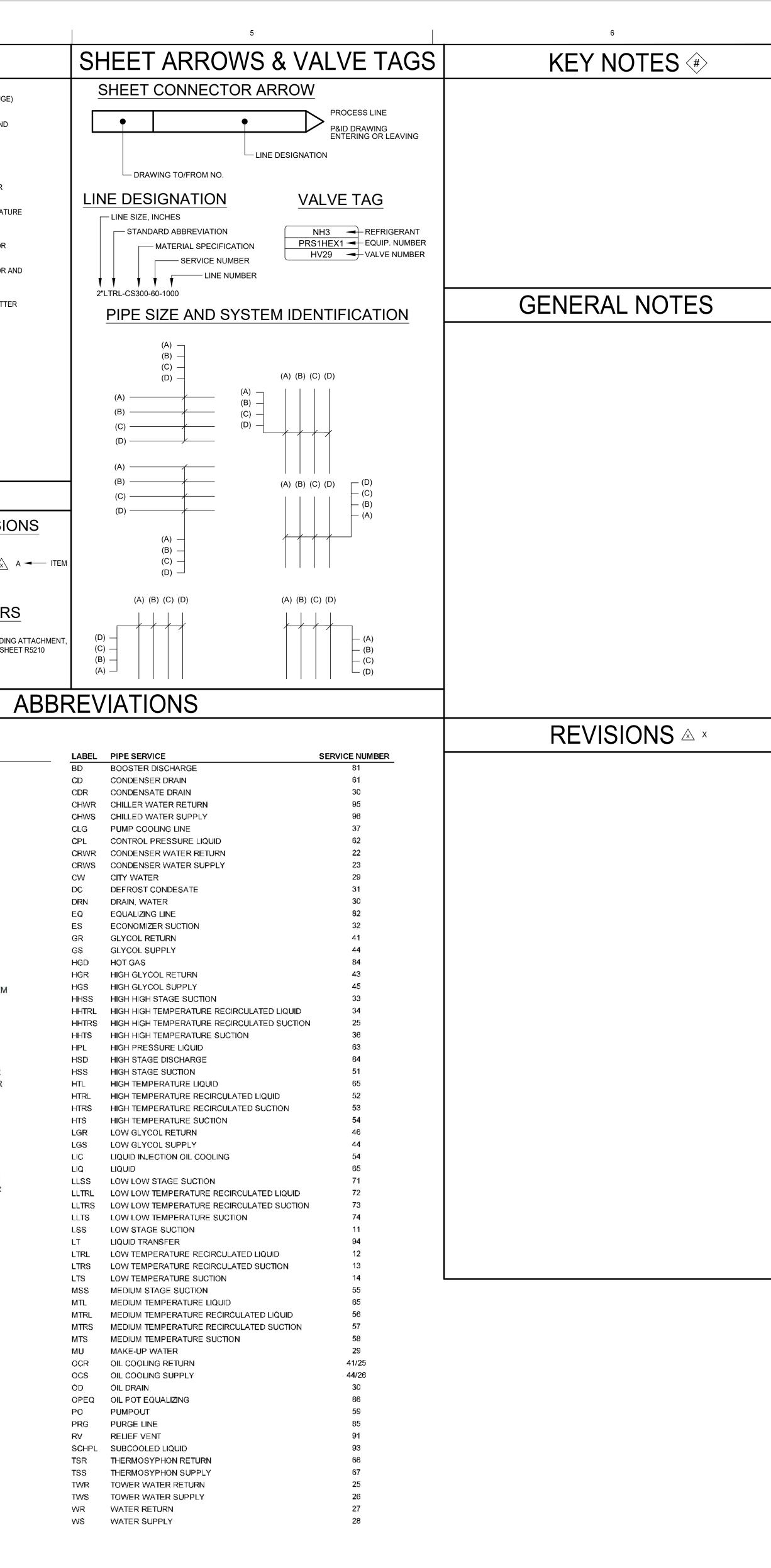
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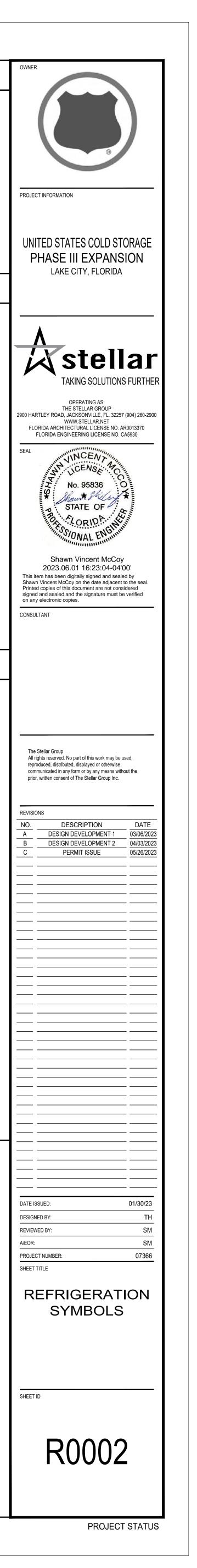


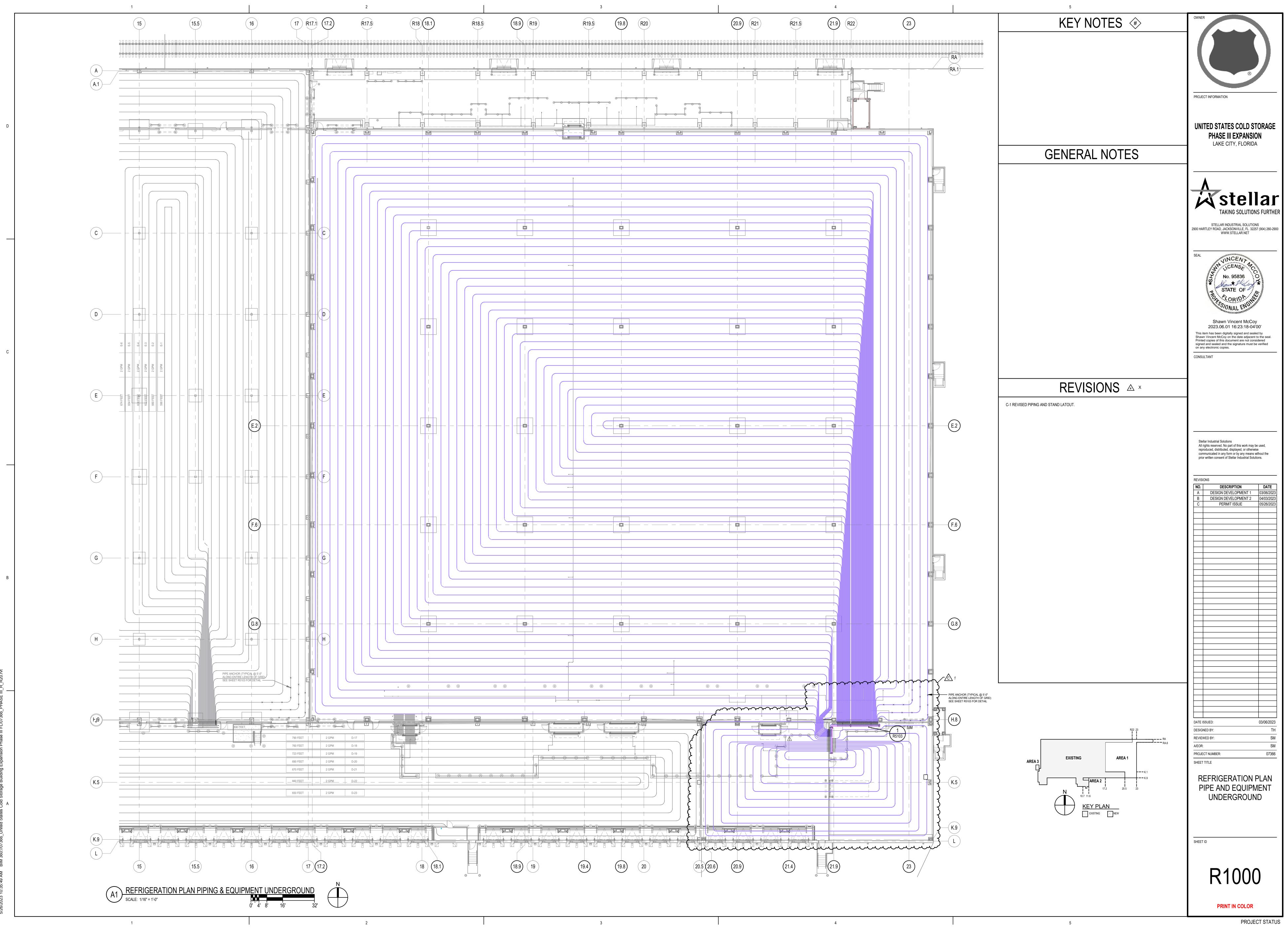
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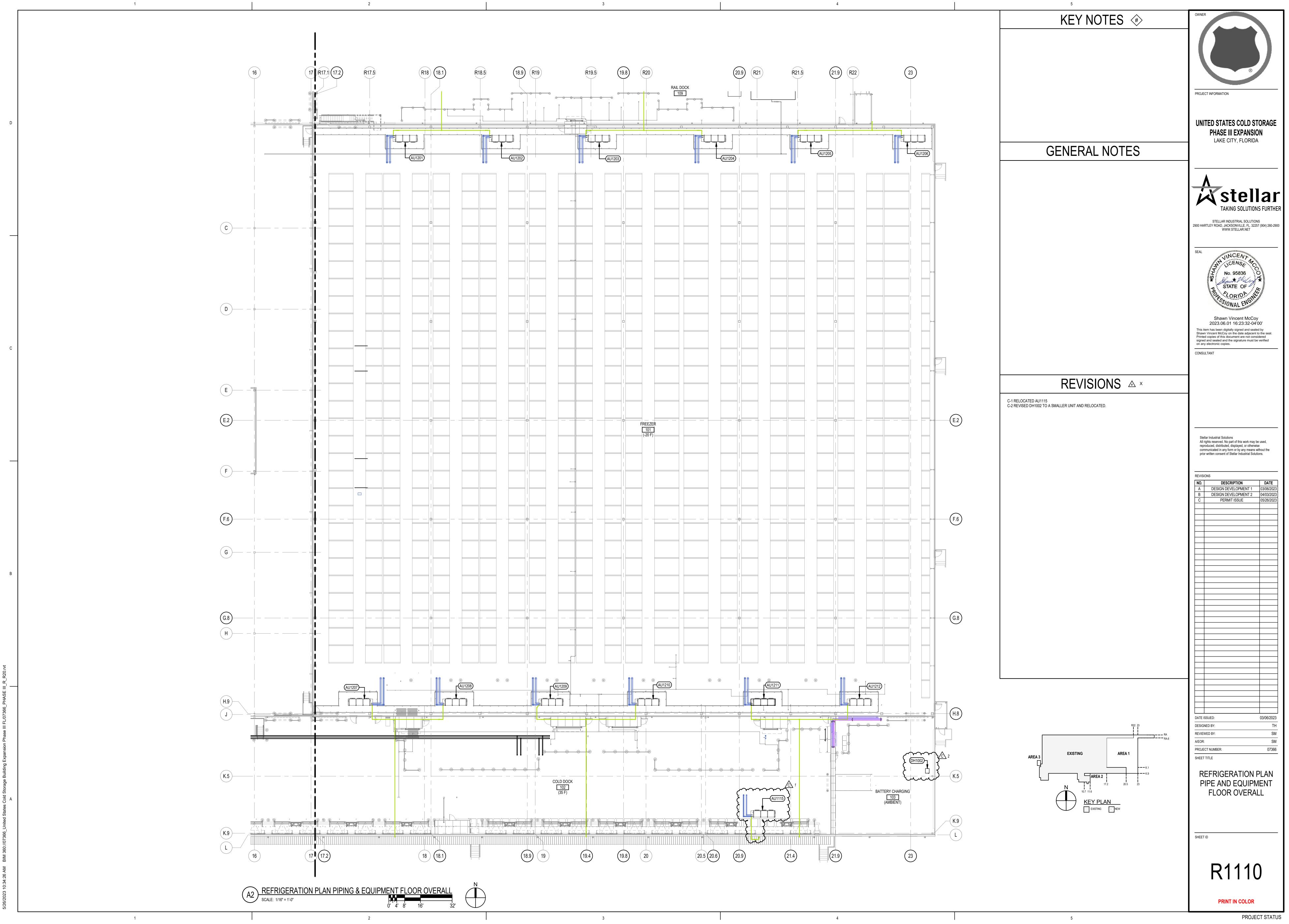
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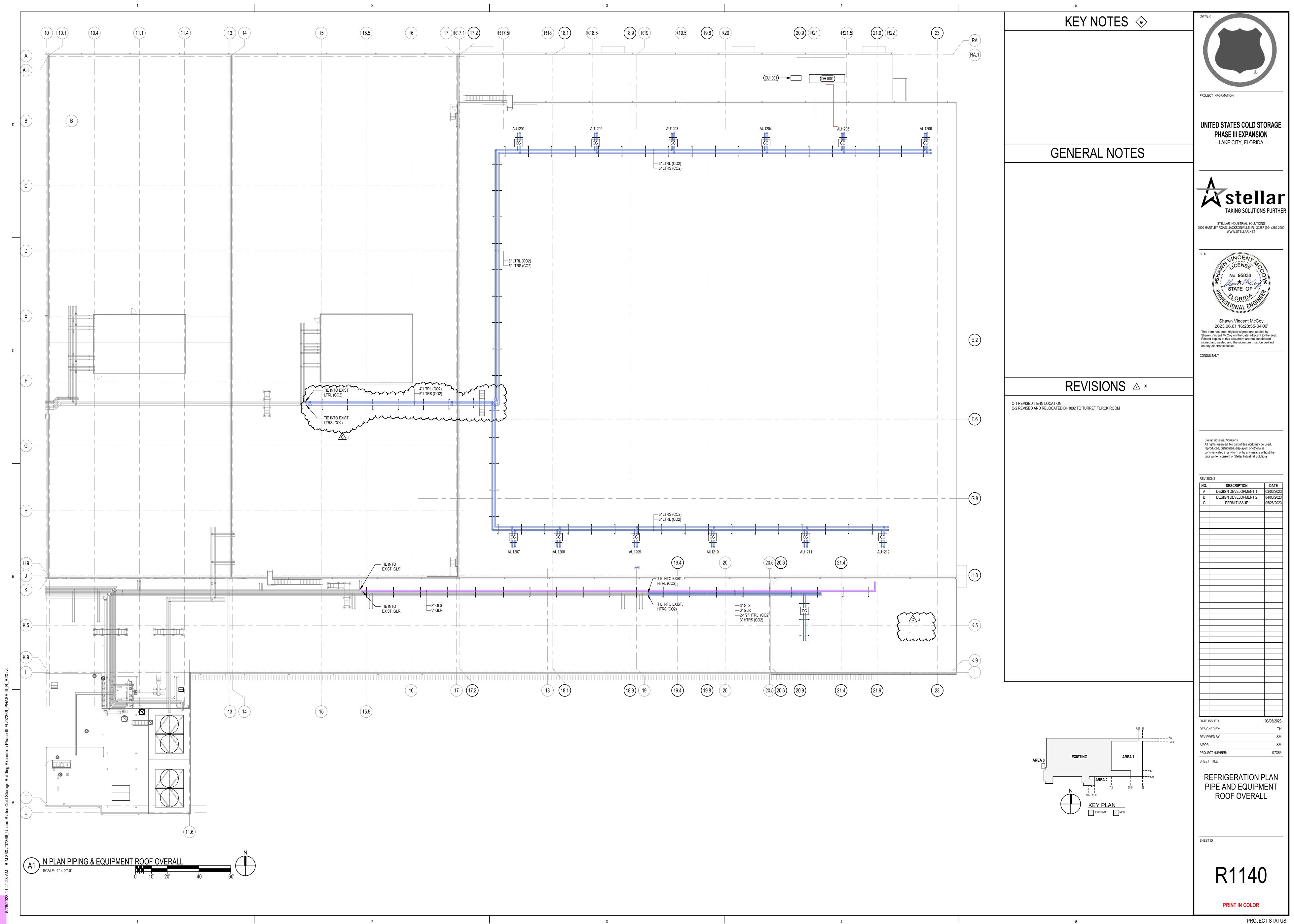
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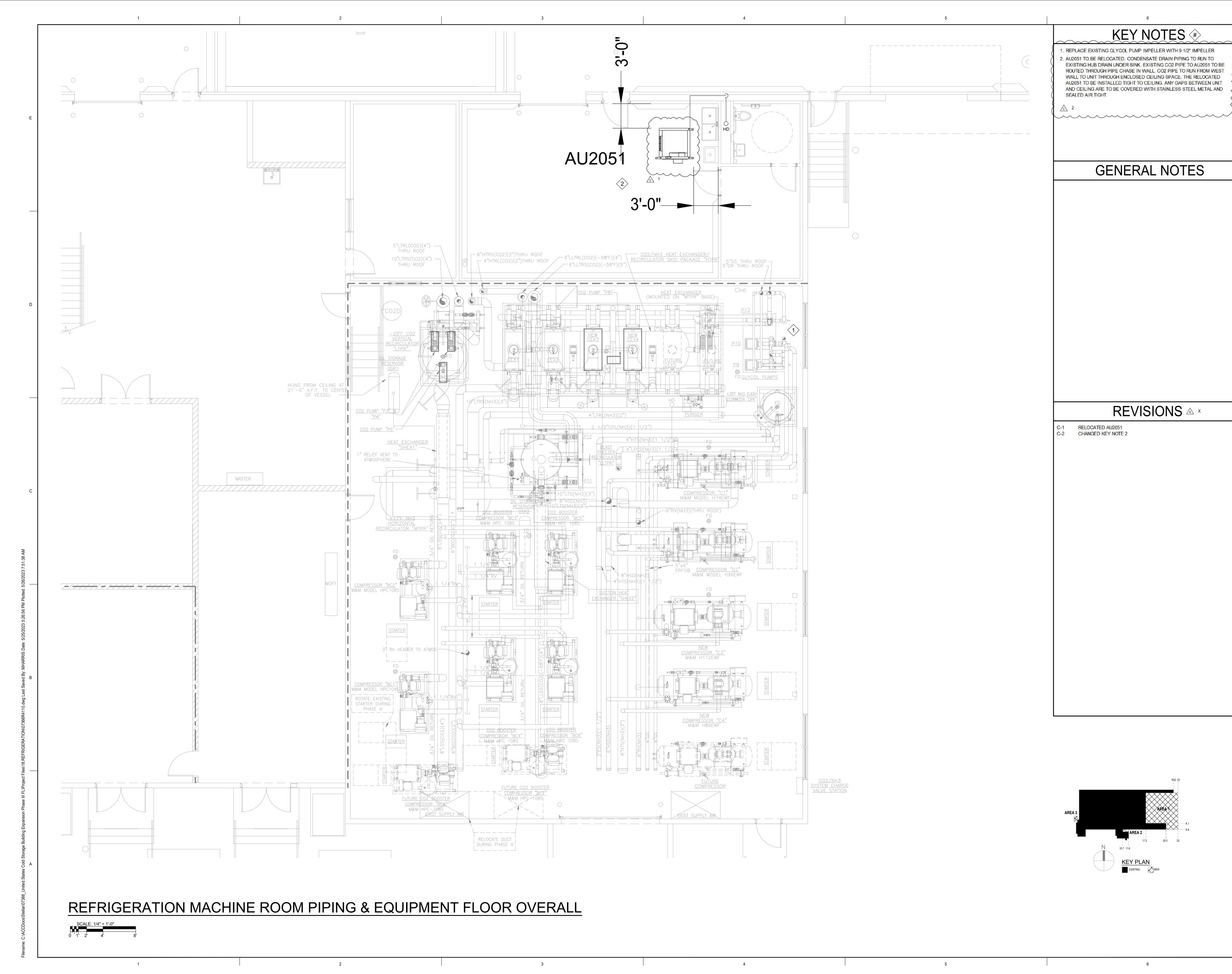


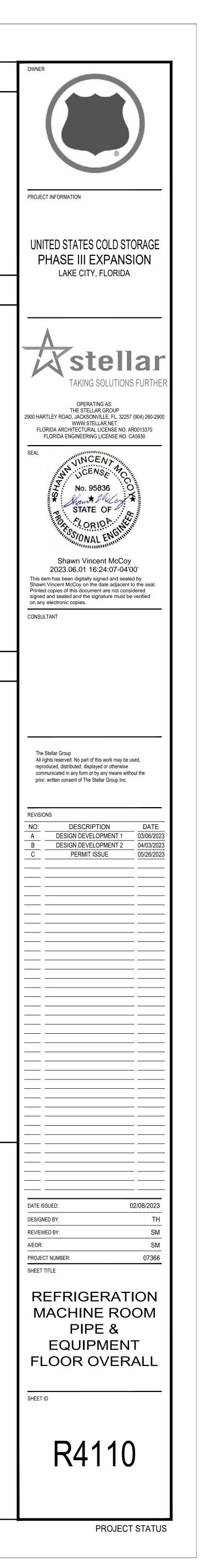


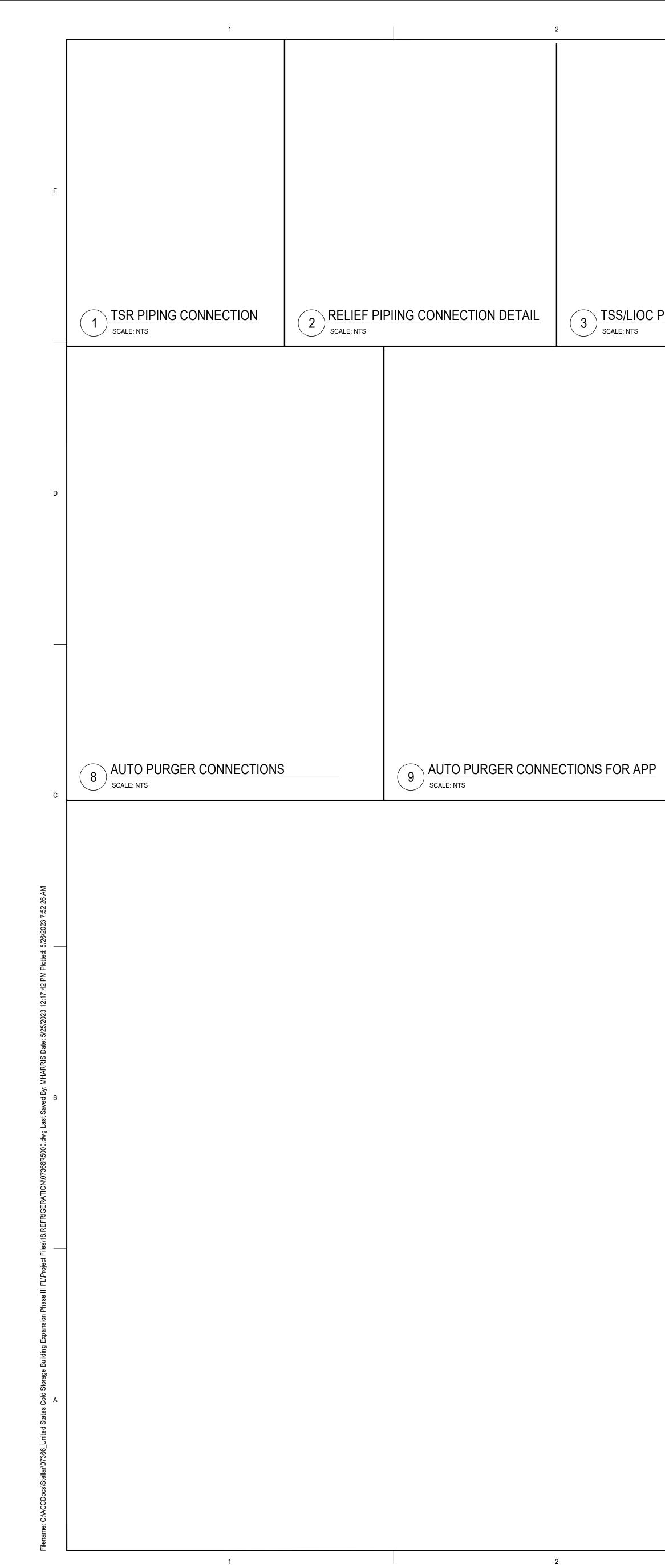




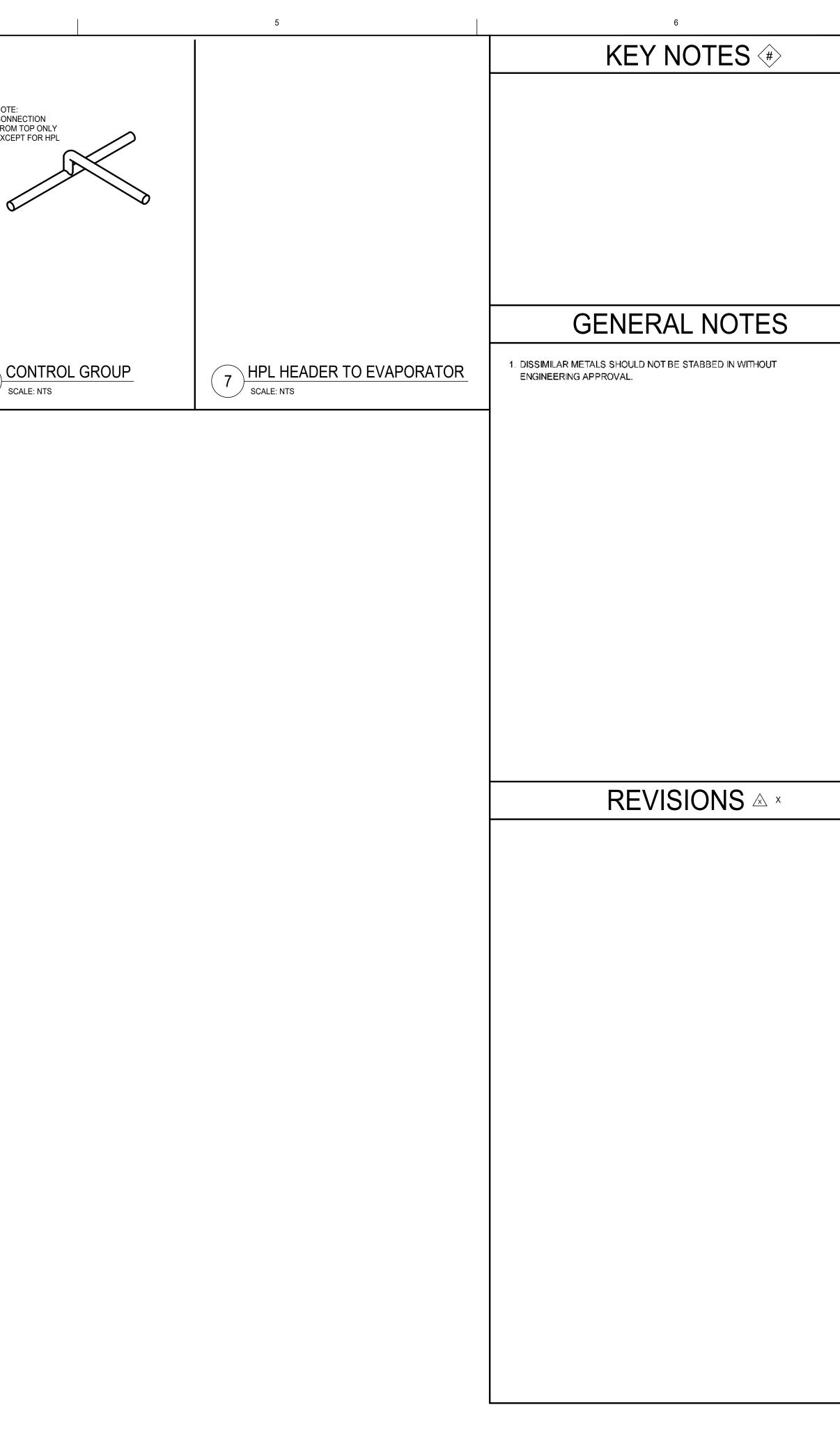


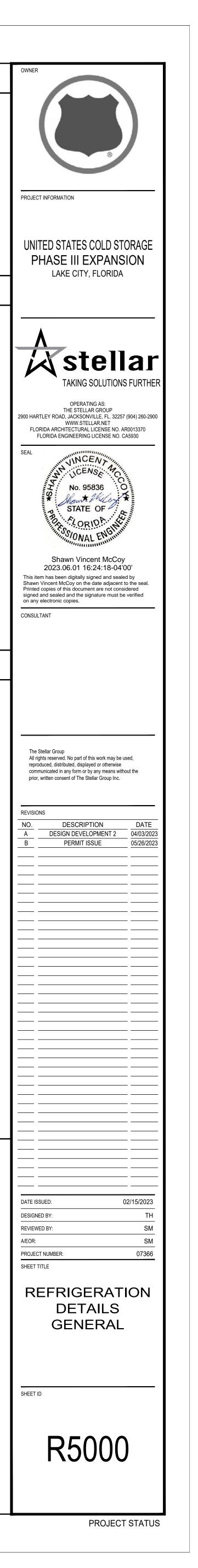


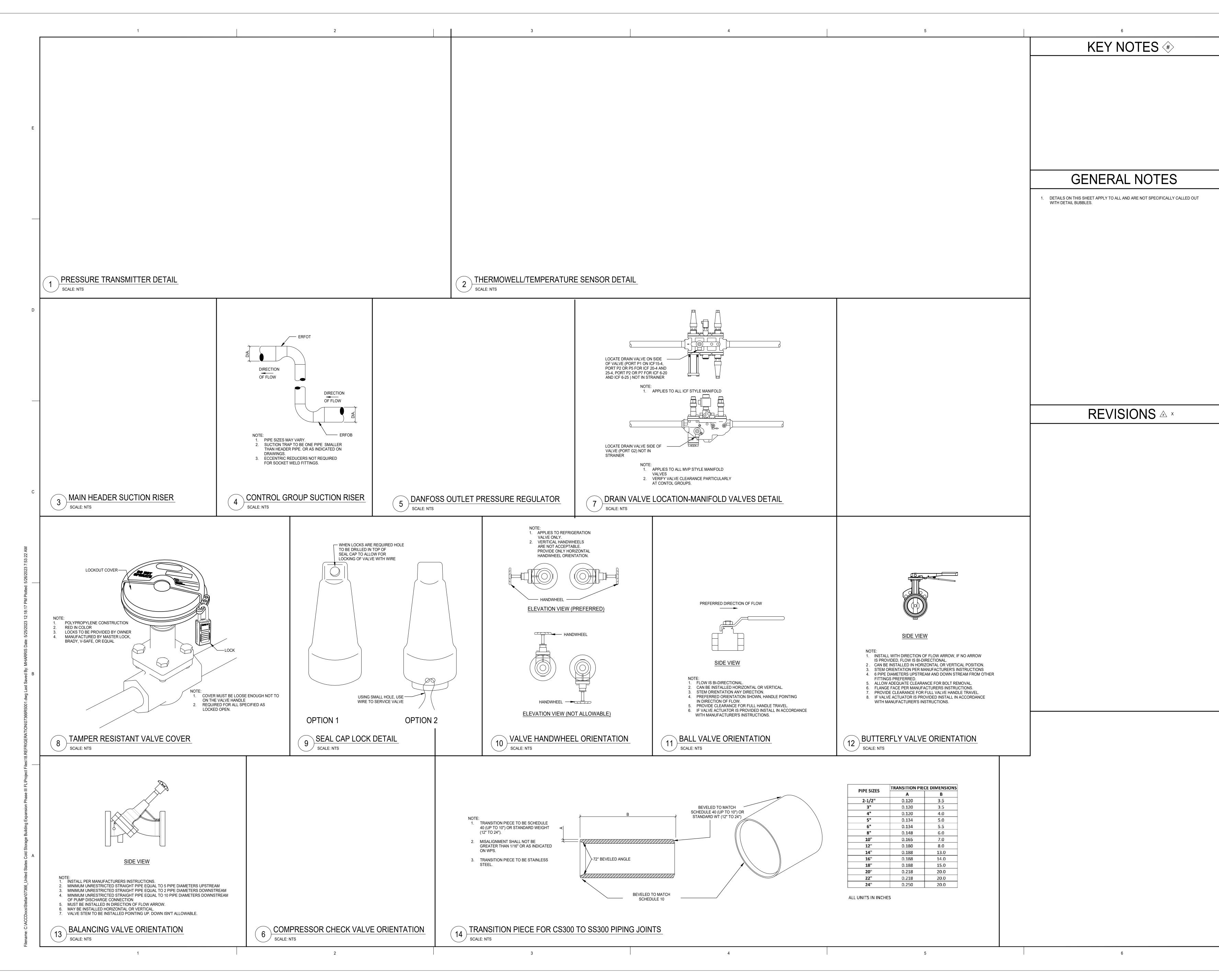


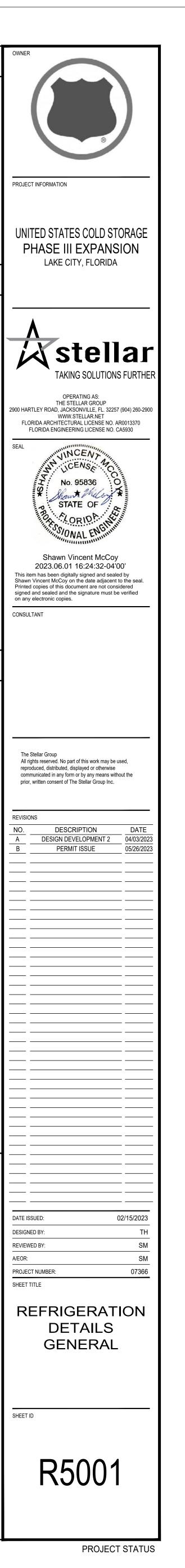


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				6
OC PIPING (CONNECTION	4 SUCTION TO COMPRESSOR SCALE: NTS	5 HSD (HIGH STAGE DISCHARGE) SCALE: NTS	6 <u>6</u>









INDOOR PIPE INSULATION (MACHINE ROOM) IN INCHES AMBIENT TEMPERATURE: 104°F

AMBIENT RELATIVE HUMIDITY: 80%

OUTER SURFACE: SARAN, ASJ, MASTIC, ORPVC JACKET (E=.9) WIND VELOCITY: 0 MPH

1

THICKNESS DETERMINED BY GREATER OF CONDENSATION CONTROL OR LIMIT HEAT GAIN TO 8 BTU/HR-FT2 ARMACELL THICKNESS FOR CONDENSATION CONTROL ONLY

PIPE SIZE	-60°F TO -41°F	-40°F TO -21°F	-20°F TO -1°F	0°F TO 19°F	20°F TO 40°F	40°F AND ABOVE
0.5	2.5	2.5	2.0	2.0	1.5	1.5
0.75	2.5	2.5	2.5	2.0	2.0	1.5
1	2.5	2.5	2.5	2.0	2.0	1.5
1.25	3.0	2.5	2.5	2.5	2.0	1.5
1.5	3.0	2.5	2.5	2.5	2.0	1.5
2	3.0	2.5	2.5	2.5	2.0	1.5
2.5	3.0	3.0	2.5	2.5	2.0	1.5
3	3.5	3.0	3.0	2.5	2.0	1.5
4	3.5	3.0	3.0	2.5	2.0	2.0
5	3.5	3.5	3.0	2.5	2.5	2.0
6	3.5	3.5	3.0	3.0	2.5	2.0
8	4.0	3.5	3.0	3.0	2.5	2.0
10	4.0	3.5	3.5	3.0	2.5	2.0
12	4.0	4.0	3.5	3.0	2.5	2.0
14	4.5	4.0	3.5	3.0	2.5	2.0
16	4.5	4.0	3.5	3.0	2.5	2.0
18	4.5	4.0	3.5	3.0	2.5	2.0
20	4.5	4.0	3.5	3.0	2.5	2.0
VESSEL SIDE	5.5	5.0	4.0	3.5	3.0	2.5
VESSEL TOP	5.5	5.0	4.0	3.5	3.0	2.5
ESSEL BOTTOM	5.5	5.0	4.0	3.5	3.0	2.5



1

2

INSULATION THICKNESS

3

OUTDOOR PIPE INSULATION IN INCHES

AMBIENT TEMPERATURE: 100°F AMBIENT RELATIVE HUMIDITY: 85%

OUTER SURFACE: OXIDIZED ALUMINUM JACKET (E=.1)

WIND VELOCITY: 7.5 MPH THICKNESS DETERMINED BY GREATER OF CONDENSATION CONTROL OR LIMIT HEAT GAIN TO 8 BTU/HR-FT2 ARMACELL THICKNESS FOR CONDENSATION CONTROL ONLY

EXTRUDED POLYSTYRENE - ITW

PIPE SIZE	-60°F TO -41°F	-40°F TO -21°F	-20°F TO -1°F	0°F TO 19°F	20°F TO 40°F	40°F AND ABOVE
0.5	2.5	2.5	2.0	2.0	1.5	1.5
0.75	2.5	2.5	2.5	2.0	2.0	1.5
1	2.5	2.5	2.5	2.0	2.0	1.5
1.25	3.0	2.5	2.5	2.0	2.0	1.5
1.5	3.0	2.5	2.5	2.0	2.0	1.5
2	3.0	3.0	2.5	2.0	2.0	1.5
2.5	3.0	3.0	2.5	2.0	2.0	1.5
3	3.5	3.0	3.0	2.5	2.0	1.5
4	3.5	3.0	3.0	2.5	2.0	2.0
5	3.5	3.0	3.0	2.5	2.5	2.0
6	3.5	3.5	3.0	2.5	2.5	2.0
8	4.0	3.5	3.0	2.5	2.5	2.0
10	4.0	3.5	3.5	3.0	2.5	2.0
12	4.0	3.5	3.5	3.0	2.5	2.0
14	4.5	4.0	3.5	3.0	2.5	2.0
16	4.5	4.0	3.5	3.0	2.5	2.0
18	4.5	4.0	3.5	3.0	2.5	2.0
20	4.5	4.0	3.5	3.0	2.5	2.0
VESSEL SIDE	6.5	5.5	5.0	4.0	3.5	2.5
VESSEL TOP	6.5	5.5	5.0	4.0	3.5	2.5
ESSEL BOTTOM	6.5	5.5	5.0	4.0	3.5	2.5

3

INDOOR PIPE INSULATION (COLD ROOM) IN INCHES AMBIENT TEMPERATURE: 40°F AMBIENT RELATIVE HUMIDITY: 90% OUTER SURFACE: PVC JACKET (E=.9) WIND VELOCITY: 0 MPH

4

4

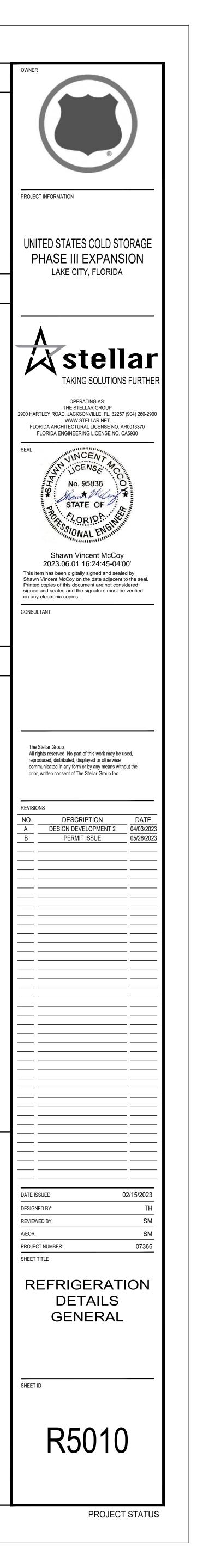
PIPE SIZE	-60°F TO -41°F	-40°F TO -21°F	-20°F TO -1°F	0°F TO 19°F	20°F TO 40°F	40°F AND ABOVE
0.5	3.0	2.5	2.5	2.0	1.5	1.5
0.75	3.5	3.0	2.5	2.0	1.5	1.5
1	4.0	3.0	2.5	2.0	1.5	1.5
1.25	4.0	3.5	2.5	2.0	1.5	1.5
1.5	4.0	3.5	2.5	2.0	2.0	2.0
2	4.5	4.0	3.0	2.0	2.0	2.0
2.5	4.5	4.0	3.0	2.0	2.0	2.0
3	5.0	4.0	3.5	2.5	2.0	2.0
4	5.0	4.5	3.5	2.5	2.0	2.5
5	5.5	4.5	3.5	2.5	2.0	2.5
6	5.5	4.5	4.0	3.0	2.0	2.5
8	6.0	5.0	4.0	3.0	2.5	2.5
10	6.5	5.0	4.0	3.0	2.5	2.5
12	6.5	5.5	4.5	3.0	2.5	3.0
14	6.5	5.5	4.5	3.0	2.5	3.0
16	7.0	5.5	4.5	3.5	2.5	3.0
18	7.0	6.0	4.5	3.5	2.5	3.0
20	7.0	6.0	5.0	3.5	2.5	3.0

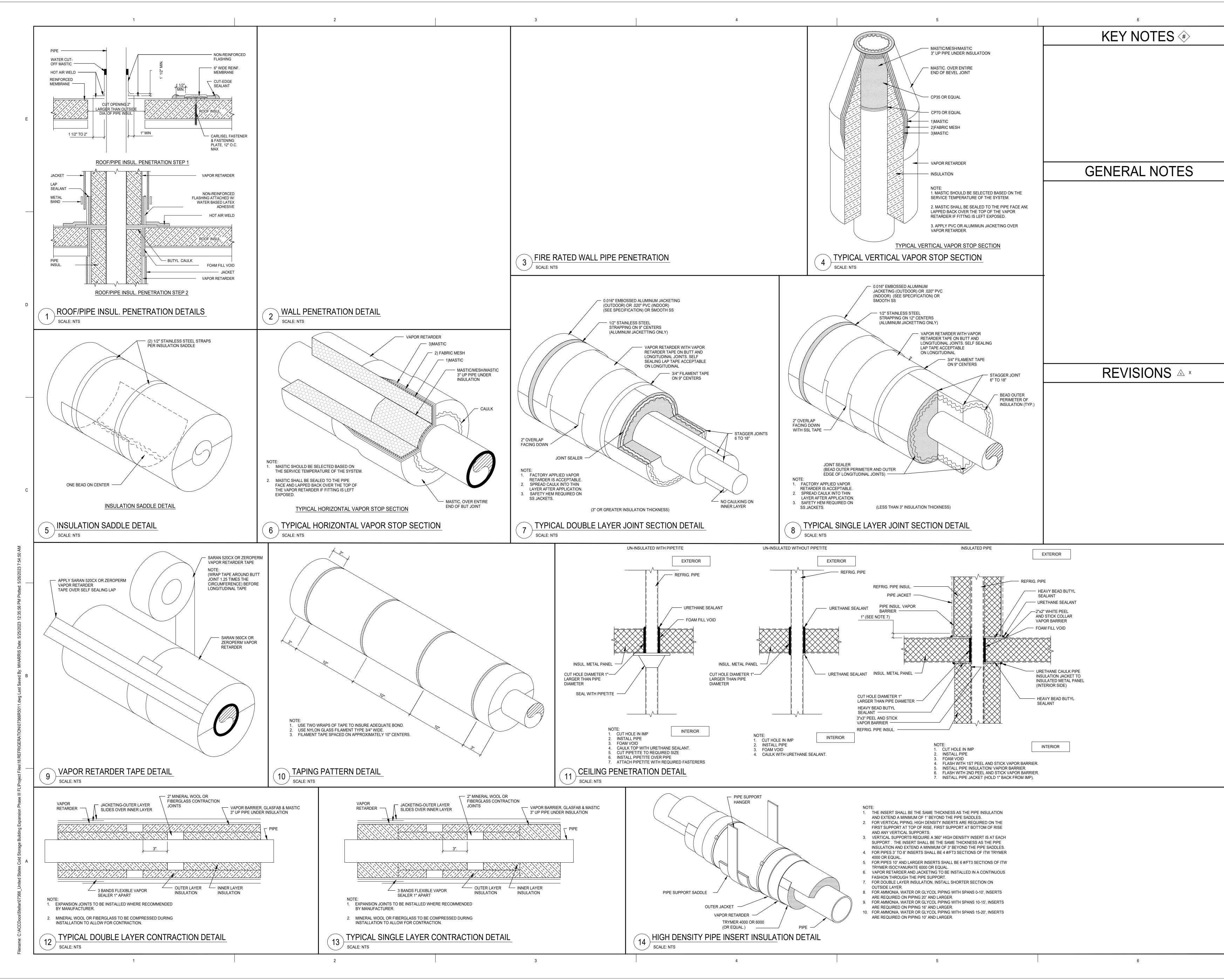
KEY NOTES 🚸

6

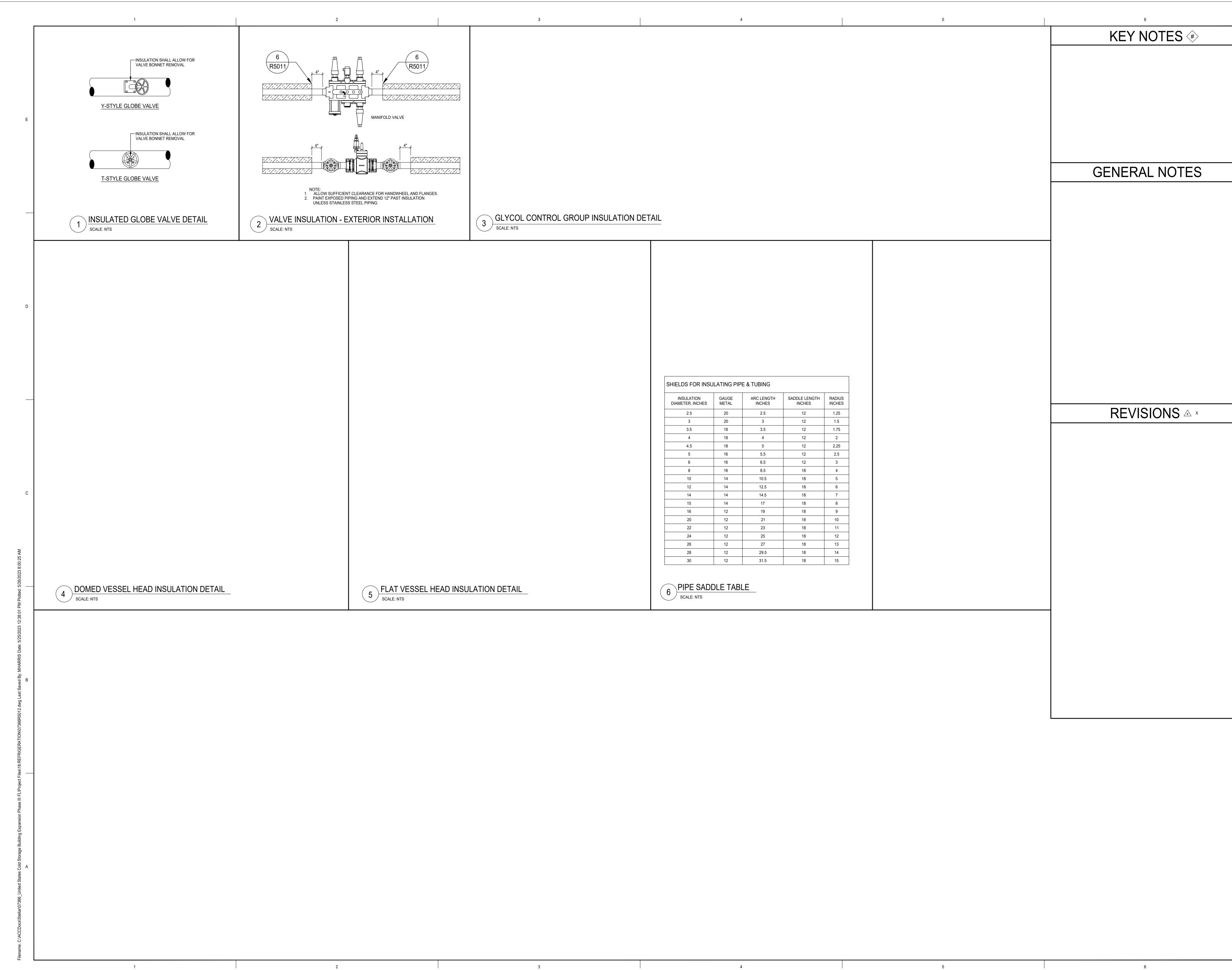
THICKNESS DETERMINED BY GREATER OF CONDENSATION CONTROL OR LIMIT HEAT GAIN TO 8 BTU/HR-FT2 ARMACELL THICKNESS FOR CONDENSATION CONTROL ONLY

GENERAL NOTES

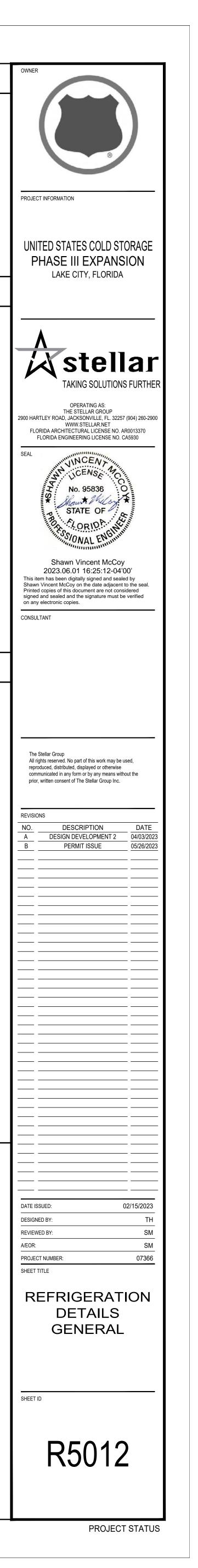


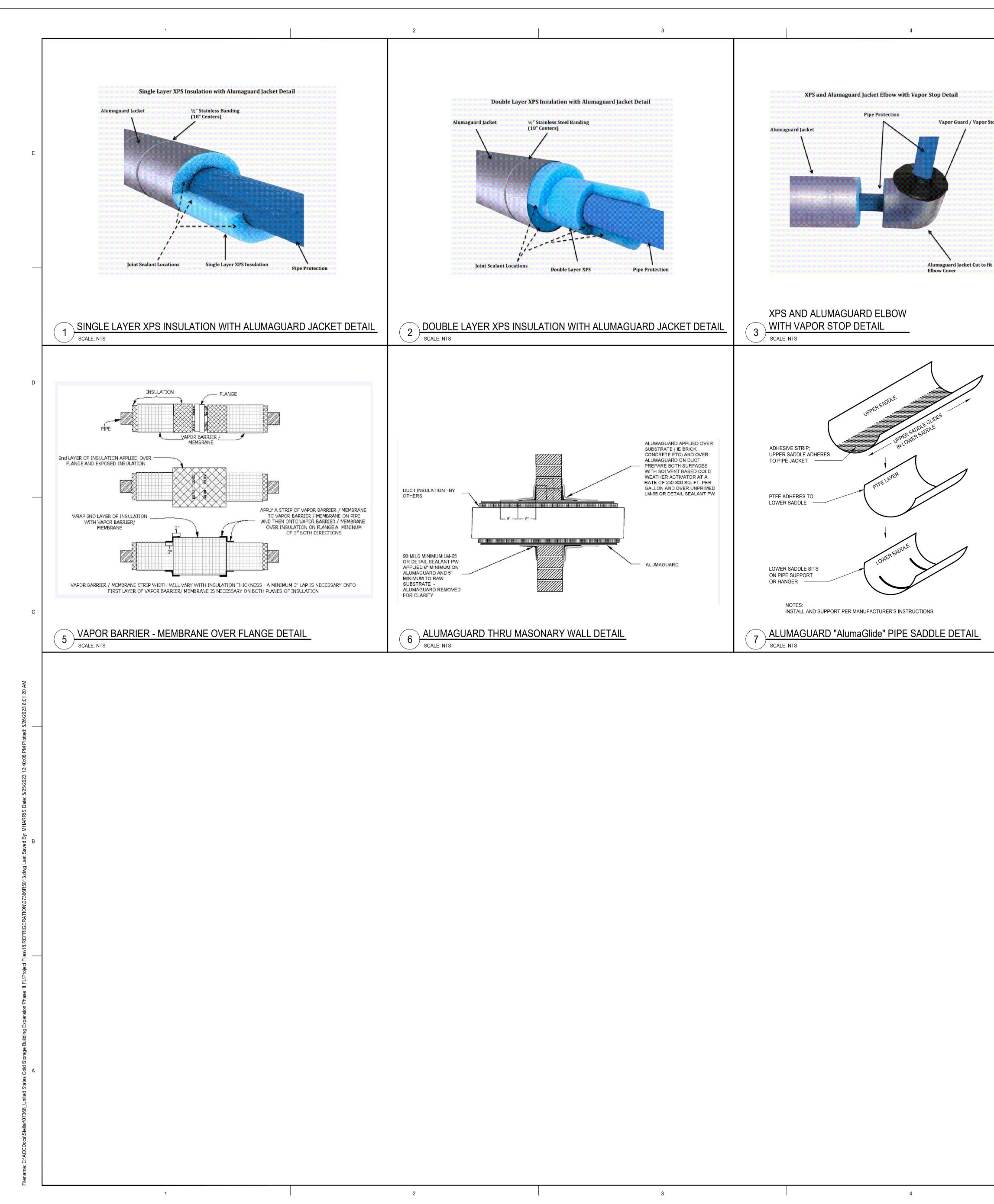


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	No. 95836 No. 95836 State OF State OF State OF Shawn Vincent McC	
This item Shawn Vi Printed co signed an	2023.06.01 16:24:58-0 has been digitally signed and s ncent McCoy on the date adjac opies of this document are not of d sealed and the signature must ectronic copies.	04'00' ealed by eent to the seal. considered
All rights reproduc commun	lar Group reserved. No part of this work may xed, distributed, displayed or otherw icated in any form or by any means tten consent of The Stellar Group In	ise without the
REVISIONS NO. A B	DESCRIPTION DESIGN DEVELOPMENT 2 PERMIT ISSUE	DATE 04/03/2023 05/26/2023
DATE ISSUE DESIGNED REVIEWED	BY:	02/15/2023 TH SM
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SHEET ID		
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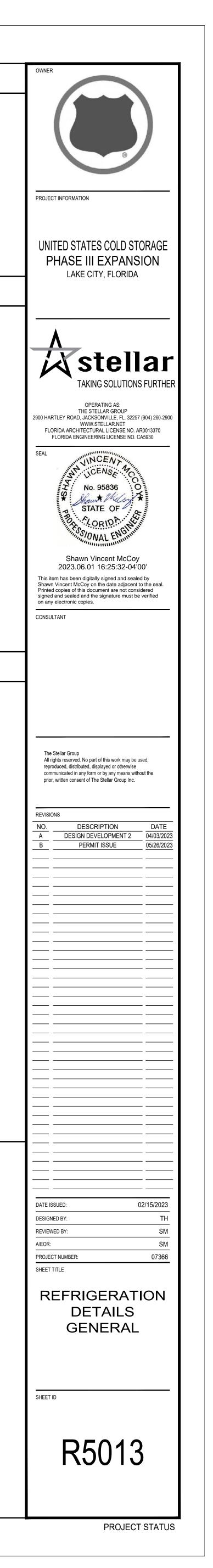


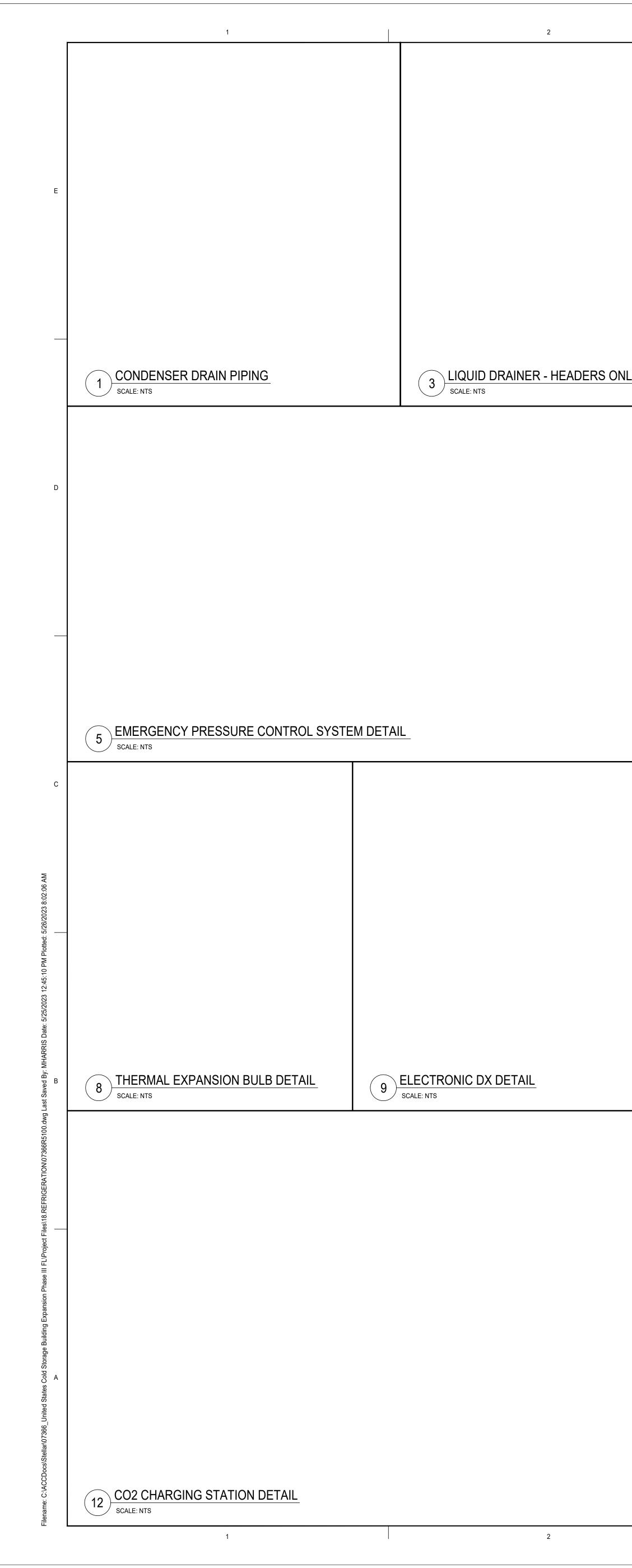
INSULATION DIAMETER, INCHES	GAUGE METAL	ARC LENGTH INCHES	SADDLE INCH
2.5	20	2.5	12
3	20	3	12
3.5	18	3.5	12
4	18	4	1:
4.5	18	5	1:
5	16	5.5	1:
6	16	6.5	1:
8	16	8.5	18
10	14	10.5	1
12	14	12.5	18
14	14	14.5	1
15	14	17	1
16	12	19	1
20	12	21	1
22	12	23	1
24	12	25	1
26	12	27	1
28	12	29.5	1
30	12	31.5	1



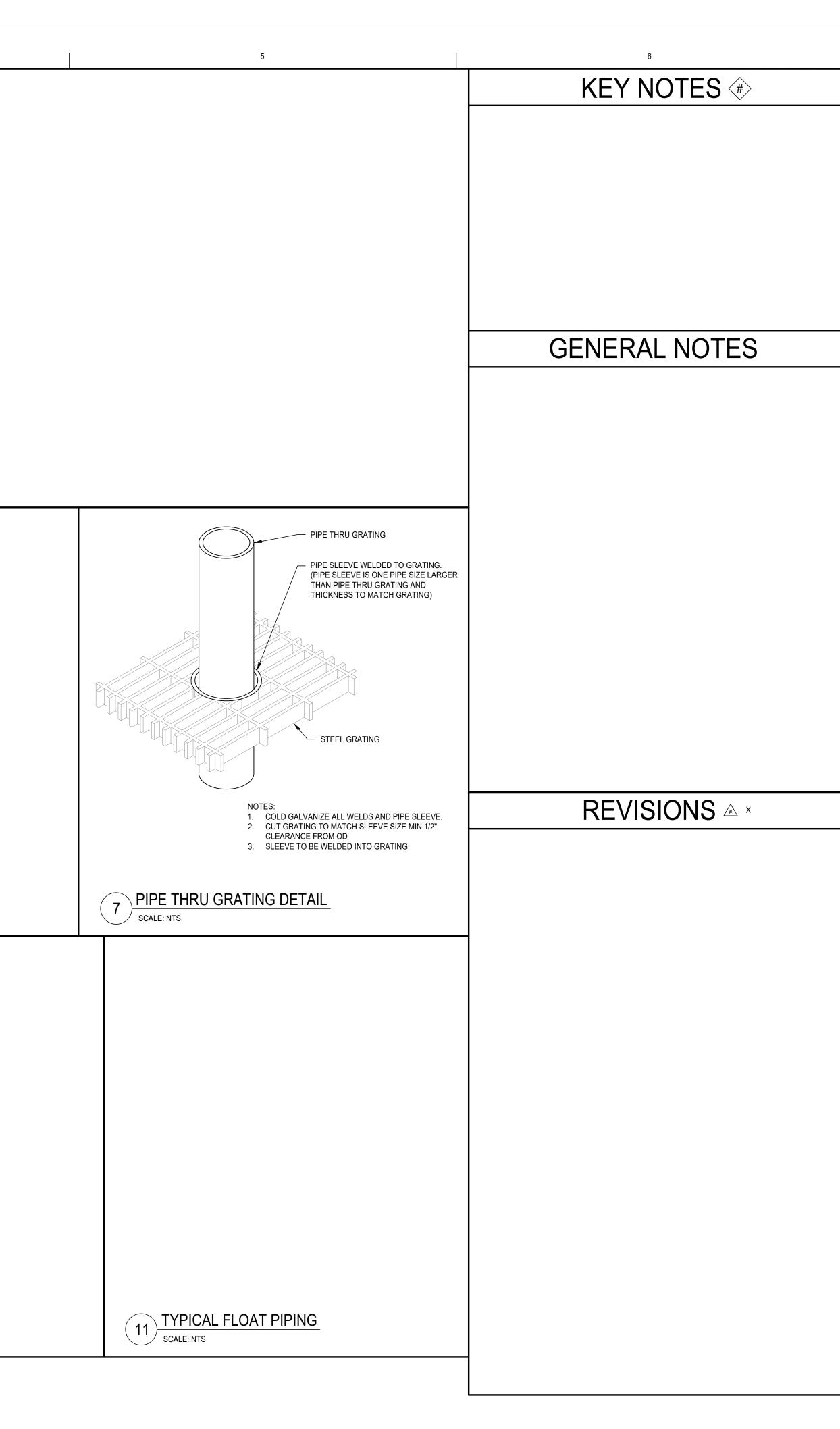


NUMBER OF VOTRICE 128 MARKANG ALEXANDE SU/NOTRICE 128 MARKANG INSULATION DETAIL SCALE INTS	INSULRAP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL SCIENTS	INSULATION BRANCH OF THE TAXES INSULARP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL SCALE NTE INSULARP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL SCALE NTE SCALE NTE INSULARP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL SCALE NTE SCALE NTE REVISIONS ©	INSULRAP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL SCIENTS	INSULRAP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL INSULRAP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL INSULRAP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL Insular 2000 1000	INSULRAP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL OWLE MT MOULTION VERTOR Solic MT Solic MT INSULRAP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL OWLE MT Solic MT INSULRAP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL Solic MT Solic MT INSULRAP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL Solic MT Solic	INSULRAP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL TORONG NOTICE 125 THROUGH WALL PENETRATION DETAIL SAUCE ME SOUTH NOTICE 125 THROUGH WALL PENETRATION DETAIL TORONG NOTICE 125 THROUGH WALL PENETRATION DETAIL SOULE ME REVISIONS IN SOUTH NOTICE 125 THROUGH WALL PENETRATION DETAIL SOULE ME SOUTH NOTICE 125 THROUGH WALL PENETRATION DETAIL SOULE ME SOUTH NOTICE 125 THROUGH WALL PENETRATION DETAIL SOULE ME SOUTH NOTICE 125 THROUGH WALL PENETRATION DETAIL SOUTH NOTICE 125 THROUGH WALL PENETRATION DETAIL SOUTH NOTICE 125 THROUGH WALL <	INSULRAP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL Source is served at a served	INSULTAP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL SOLE NIS	INSULRAP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL Source is served at a served	INSULTAP 50 - NO TORCH 125 THROUGH WALL PENETRATION DETAIL 2 11/2 12/2 12/2 13/2 12/2 13/2 12/2 13/2 13/2 13/2 12/2 13/2 12/2 12/2 13/2 12/2 12/2 12/2 12/2 12/2 12/2 12/2 13/2 12/2					KEY NOTES (#)
PENETRATION DETAIL SCALE: NTS INSULATION UPPER LOWER GAUGE 3.112* 12* 8* 18 4.12* 12* 8* 18 4.12* 12* 8* 18 5* 12* 8* 18 6.56* 12* 8* 18 5.56* 12* 8* 18 7.58* 18* 14* 18 9.58* 18* 14* 16 11.34* 24* 14* 16 15* 24* 14* 16 16* 24* 14* 16 17* 24* 14* 16 16* 24* 14* 16 19* 24* 14* 12 19* 24* 14* 12 19* 24* 14* 12 19* 24* 14* 12 19* 24* 14* 12 19* 24* 14* 12	PENETRATION DETAIL SCALE: NTS INSULATION UPPER LOWER GAUGE 0.0 ILENGTH SADDLE SADDLE GAUGE 12' 12' 8' 18 12' 12' 4 1/2' 12' 8' 18 16 50'' 12'' 8'' 18 5 50'' 12'' 8'' 18 16'' 13'' 14'' 18 5 50'' 12'' 8'' 18 16'' 10'' 14'' 18'' 10 34'' 18'' 14'' 16'' 11''' 14''' 16''''' 11 34'' 24''' 14''' 16''''''''''''''''''''''''''''''''''''	PENETRATION DETAIL SCALE: NTS INSULATION UPPER SADDLE DENGTH LOWER SADDLE LENGTH GAUGE 3 1/2* 12* 8* 18 4 1/2* 12* 8* 18 5* 12* 8* 18 6 5/8* 12* 8* 18 6 5/8* 12* 8* 18 7 5/8* 18* 14* 16 10 3/4* 18* 14* 16 11 3/4* 24* 14* 16 15* 24* 14* 16 16* 24* 14* 16 16* 24* 14* 16 19* 24* 14* 12 20* 24* 14* 12 19* 24* 14* 12 19* 24* 14* 12 20* 24* 14* 12 22* 24* 14* 12 23* 24* 14* 12 23* 24* 14* 12 </th <th>PENETRATION DETAIL SCALE: NTS INSULATION UPPER LOWER 0.0. ISADDLE SADDLE 12' 12' 8'' 18 4 12' 8'' 18 5' 12' 8'' 18 5' 12' 8'' 18 5'si8' 12'' 8'' 18 5'si8' 12'' 8'' 18 5'si8' 12'' 8'' 18 5'si8' 12'' 8'' 18 10'34'' 12'' 8'' 18 10'34'' 14'' 16 11'34'' 24'' 14'' 16 15'' 24'' 14'' 16 16'' 24'' 14'' 16 17'' 24'' 14'' 12 19'' 24'' 14'' 12 19'' 24'' 14'' 12 19'' 24'' 14'' 12 19'' 24'' 14'' 12</th> <th>PENETRATION DETAIL SCALE: NTS INSULATION UPPER SADDLE LOWER SADDLE 10 0.0 LENGTH GAUGE 112' 12' 8'' 18 4' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 6:08'' 12'' 8'' 18 5:09'' 18'' 14'' 18 9:098'' 18'' 14'' 18 9:098'' 18'' 14'' 18 10:044'' 16'' 16'' 11:34'' 24'' 14'' 16 11:32'' 14''' 16'' 16'' 15'' 24'' 14'' 16'' 16'' 24'' 14'' 16'' 19'' 24'' 14'' 12'' 19'' 24'' 14'' 12'' 19'' 24''' 14''' 12''' 19''' 24'''' 14'''' 12'''' 20'''' 24'''''' 14'''</th> <th>PENETRATION DETAIL SCALE: NTS INSULATION UPPER SADDLE 0.0. LOWER SADDLE LENGTH GAUGE BAUGE 3 1/2' 12' 8'' 18 4 1/2' 12' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 10'34'' 14'' 16 11'2' 24'' 14'' 16 15'' 24'' 14'' 16 16'' 24'' 14'' 16 16''' 24'' 14'' 12 20'' 24'' 14'' 12 20'' 24'' 14'' 12 20'' 24'' 14'' 12<!--</th--><th>PENETRATION DETAIL SCALE: NTS INSULATION UPPER LOWER GAUGE 0.0 IENGTH SADDLE GAUGE 1/2' 12' 8'' 18 4 12' 12'' 8'' 18 4 12'' 8'' 18 15'' 4 12'' 8'' 18 16'' 5'' 12'' 8'' 18 16''' 566'' 12'' 8'' 18''' 18''''''''''''''''''''''''''''''''''''</th><th>PENETRATION DETAIL SCALE: NTS INSULATION UPPER SADDLE 0.0. LOWER SADDLE LENGTH GAUGE BADDLE LENGTH 3 1/2' 12' 8'' 18 4 1/2' 12' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 14'' 18 9 58'' 19'' 14'' 18 10 34'' 16'' 14'' 16 11 34'' 24'' 14'' 16 15'' 24'' 14'' 16 16'' 24'' 14'' 12 20'' 24'' 14'' 12 20'' 24'' 14'' 12 21'' 24'' 14'' 12 22'' 24'' 14'' 12 23'' 24'''<th>PENETRATION DETAIL SCALE: NTS INSULATION UPPER SADDLE SADDLE DENGTH LOWER SADDLE LENGTH GAUGE SADDLE LENGTH 3 1/2' 12' 8'' 18 4 1/2' 12' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 13'' 14'' 18 9 58'' 19'' 14'' 18 10'34'' 12'' 14'' 16 11'' 24'' 14'' 16 15'' 24'' 14'' 16 16'' 24'' 14'' 12 20'' 24'' 14'' 12 20'' 24'' 14'' 12 22'' 24'''<</th><th>PENETRATION DETAIL SCALE: NTS INSULATION UPPER SADDLE 0.0. LOWER SADDLE LENGTH GAUGE BADDLE LENGTH 3 1/2' 12' 8'' 18 4 1/2' 12' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 14'' 18 9 58'' 19'' 14'' 18 10 34'' 16'' 14'' 16 11 34'' 24'' 14'' 16 15'' 24'' 14'' 16 16'' 24'' 14'' 12 20'' 24'' 14'' 12 20'' 24'' 14'' 12 21'' 24'' 14'' 12 22'' 24'' 14'' 12 23'' 24'''<th>PENETRATION DETAIL SCALE: NTS</th><th>EURED DETAIL S</th><th>125 ACPLIED OVER EALANT PW</th><th></th><th>(BY OTHERS)</th><th>GENERAL NOTES</th></th></th></th>	PENETRATION DETAIL SCALE: NTS INSULATION UPPER LOWER 0.0. ISADDLE SADDLE 12' 12' 8'' 18 4 12' 8'' 18 5' 12' 8'' 18 5' 12' 8'' 18 5'si8' 12'' 8'' 18 5'si8' 12'' 8'' 18 5'si8' 12'' 8'' 18 5'si8' 12'' 8'' 18 10'34'' 12'' 8'' 18 10'34'' 14'' 16 11'34'' 24'' 14'' 16 15'' 24'' 14'' 16 16'' 24'' 14'' 16 17'' 24'' 14'' 12 19'' 24'' 14'' 12 19'' 24'' 14'' 12 19'' 24'' 14'' 12 19'' 24'' 14'' 12	PENETRATION DETAIL SCALE: NTS INSULATION UPPER SADDLE LOWER SADDLE 10 0.0 LENGTH GAUGE 112' 12' 8'' 18 4' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 6:08'' 12'' 8'' 18 5:09'' 18'' 14'' 18 9:098'' 18'' 14'' 18 9:098'' 18'' 14'' 18 10:044'' 16'' 16'' 11:34'' 24'' 14'' 16 11:32'' 14''' 16'' 16'' 15'' 24'' 14'' 16'' 16'' 24'' 14'' 16'' 19'' 24'' 14'' 12'' 19'' 24'' 14'' 12'' 19'' 24''' 14''' 12''' 19''' 24'''' 14'''' 12'''' 20'''' 24'''''' 14'''	PENETRATION DETAIL SCALE: NTS INSULATION UPPER SADDLE 0.0. LOWER SADDLE LENGTH GAUGE BAUGE 3 1/2' 12' 8'' 18 4 1/2' 12' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 10'34'' 14'' 16 11'2' 24'' 14'' 16 15'' 24'' 14'' 16 16'' 24'' 14'' 16 16''' 24'' 14'' 12 20'' 24'' 14'' 12 20'' 24'' 14'' 12 20'' 24'' 14'' 12 </th <th>PENETRATION DETAIL SCALE: NTS INSULATION UPPER LOWER GAUGE 0.0 IENGTH SADDLE GAUGE 1/2' 12' 8'' 18 4 12' 12'' 8'' 18 4 12'' 8'' 18 15'' 4 12'' 8'' 18 16'' 5'' 12'' 8'' 18 16''' 566'' 12'' 8'' 18''' 18''''''''''''''''''''''''''''''''''''</th> <th>PENETRATION DETAIL SCALE: NTS INSULATION UPPER SADDLE 0.0. LOWER SADDLE LENGTH GAUGE BADDLE LENGTH 3 1/2' 12' 8'' 18 4 1/2' 12' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 14'' 18 9 58'' 19'' 14'' 18 10 34'' 16'' 14'' 16 11 34'' 24'' 14'' 16 15'' 24'' 14'' 16 16'' 24'' 14'' 12 20'' 24'' 14'' 12 20'' 24'' 14'' 12 21'' 24'' 14'' 12 22'' 24'' 14'' 12 23'' 24'''<th>PENETRATION DETAIL SCALE: NTS INSULATION UPPER SADDLE SADDLE DENGTH LOWER SADDLE LENGTH GAUGE SADDLE LENGTH 3 1/2' 12' 8'' 18 4 1/2' 12' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 13'' 14'' 18 9 58'' 19'' 14'' 18 10'34'' 12'' 14'' 16 11'' 24'' 14'' 16 15'' 24'' 14'' 16 16'' 24'' 14'' 12 20'' 24'' 14'' 12 20'' 24'' 14'' 12 22'' 24'''<</th><th>PENETRATION DETAIL SCALE: NTS INSULATION UPPER SADDLE 0.0. LOWER SADDLE LENGTH GAUGE BADDLE LENGTH 3 1/2' 12' 8'' 18 4 1/2' 12' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 14'' 18 9 58'' 19'' 14'' 18 10 34'' 16'' 14'' 16 11 34'' 24'' 14'' 16 15'' 24'' 14'' 16 16'' 24'' 14'' 12 20'' 24'' 14'' 12 20'' 24'' 14'' 12 21'' 24'' 14'' 12 22'' 24'' 14'' 12 23'' 24'''<th>PENETRATION DETAIL SCALE: NTS</th><th>EURED DETAIL S</th><th>125 ACPLIED OVER EALANT PW</th><th></th><th>(BY OTHERS)</th><th>GENERAL NOTES</th></th></th>	PENETRATION DETAIL SCALE: NTS INSULATION UPPER LOWER GAUGE 0.0 IENGTH SADDLE GAUGE 1/2' 12' 8'' 18 4 12' 12'' 8'' 18 4 12'' 8'' 18 15'' 4 12'' 8'' 18 16'' 5'' 12'' 8'' 18 16''' 566'' 12'' 8'' 18''' 18''''''''''''''''''''''''''''''''''''	PENETRATION DETAIL SCALE: NTS INSULATION UPPER SADDLE 0.0. LOWER SADDLE LENGTH GAUGE BADDLE LENGTH 3 1/2' 12' 8'' 18 4 1/2' 12' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 14'' 18 9 58'' 19'' 14'' 18 10 34'' 16'' 14'' 16 11 34'' 24'' 14'' 16 15'' 24'' 14'' 16 16'' 24'' 14'' 12 20'' 24'' 14'' 12 20'' 24'' 14'' 12 21'' 24'' 14'' 12 22'' 24'' 14'' 12 23'' 24''' <th>PENETRATION DETAIL SCALE: NTS INSULATION UPPER SADDLE SADDLE DENGTH LOWER SADDLE LENGTH GAUGE SADDLE LENGTH 3 1/2' 12' 8'' 18 4 1/2' 12' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 12'' 8'' 18 5'' 13'' 14'' 18 9 58'' 19'' 14'' 18 10'34'' 12'' 14'' 16 11'' 24'' 14'' 16 15'' 24'' 14'' 16 16'' 24'' 14'' 12 20'' 24'' 14'' 12 20'' 24'' 14'' 12 22'' 24'''<</th> <th>PENETRATION DETAIL SCALE: NTS INSULATION UPPER SADDLE 0.0. 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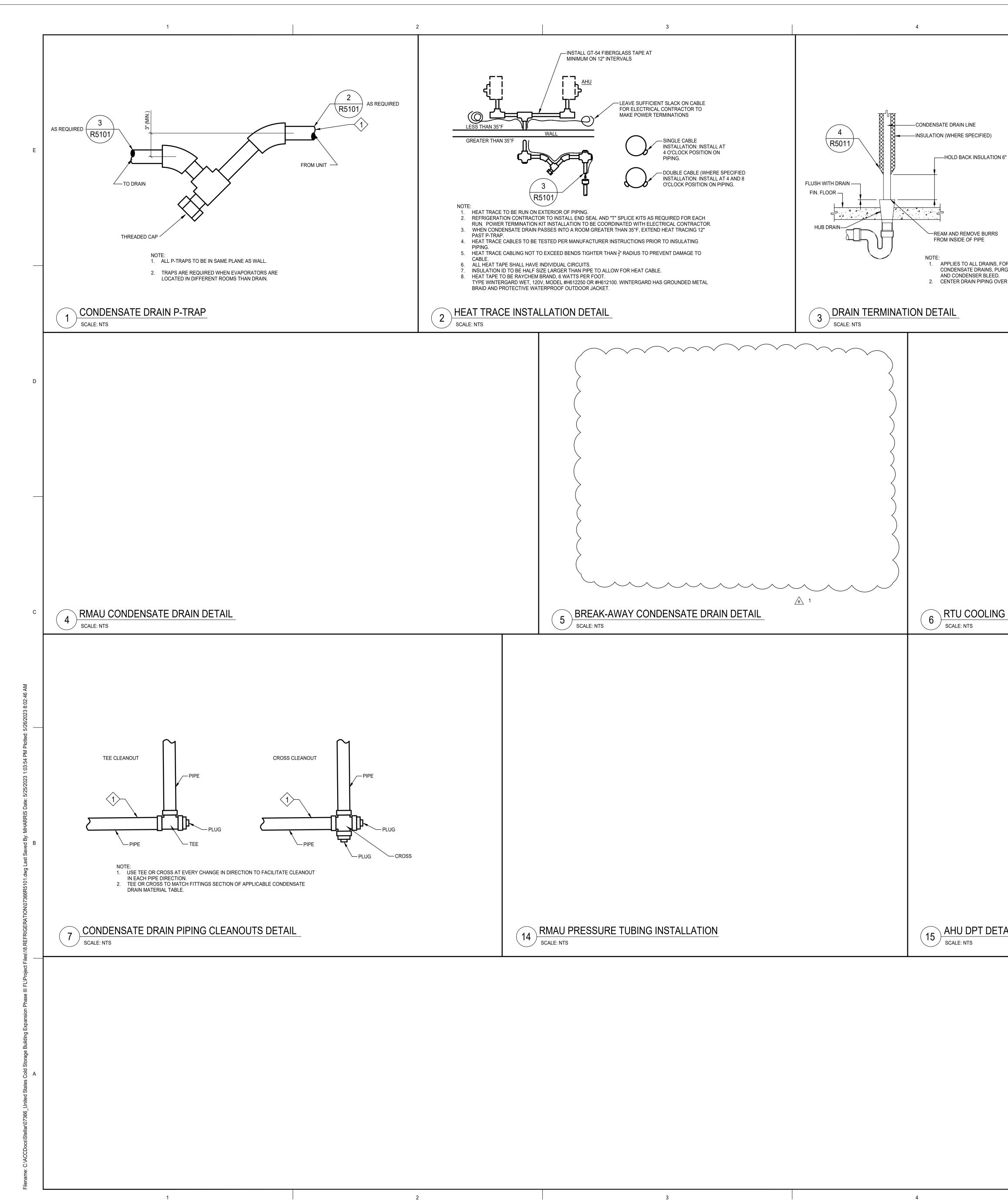




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ILY_	4 REHEAT CONDE SCALE: NTS	NSATE DRAINER	13 AMMC SCALE: NT	ONIA CHARGING STATION DETAIL	
				6 SCALE: NTS	
		10 DX DETAIL SCALE: NTS			
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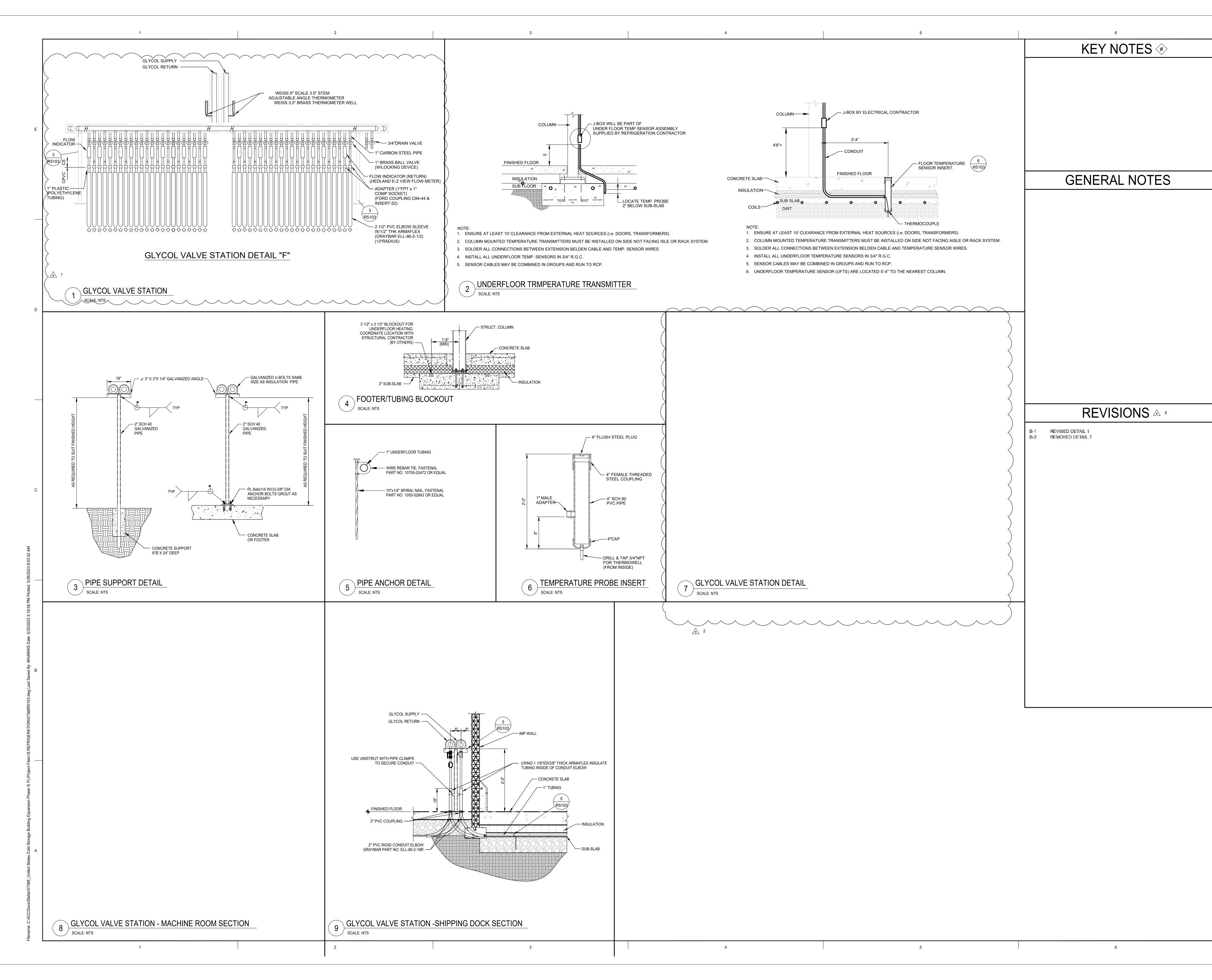


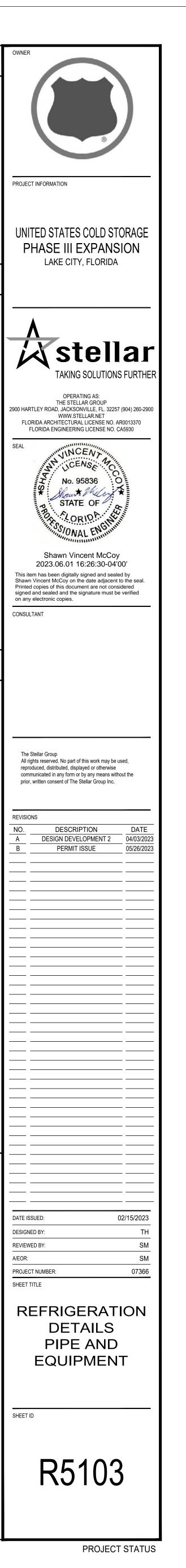
OWNER		
	INFORMATION	
	ED STATES COLD ST HASE III EXPANS Lake CITY, FLORIDA	SION
Ĭ	Stell TAKING SOLUTION	
FLOF	THE STELLAR GROUP LEY ROAD, JACKSONVILLE, FL. 3225 WWW.STELLAR.NET IDA ARCHITECTURAL LICENSE NO. 4 ORIDA ENGINEERING LICENSE NO. 0	AR0013370
Shawn Printed signed a	No. 95836 No. 95836 STATE OF STATE OF CORIDA ONAL ENGINE Shawn Vincent McCoy 2023.06.01 16:25:47-04 In has been digitally signed and seal Vincent McCoy on the date adjacent copies of this document are not com- and sealed and the signature must b electronic copies.	00' ed by to the seal. sidered
CONSULT	ANT	
All rig reprod comm	tellar Group ts reserved. No part of this work may be uced, distributed, displayed or otherwise unicated in any form or by any means with vritten consent of The Stellar Group Inc.	
REVISION NO. A B	IS DESCRIPTION DESIGN DEVELOPMENT 2 PERMIT ISSUE	DATE 04/03/2023 05/26/2023
DATE ISS DESIGNE REVIEWE A/EOR: PROJECT	D BY:	02/15/2023 TH SM SM 07366
RE	THE FRIGERAT DETAILS PIPE AND EQUIPMEN	
SHEET ID		
	R5100)
	PROJEC	T STATUS

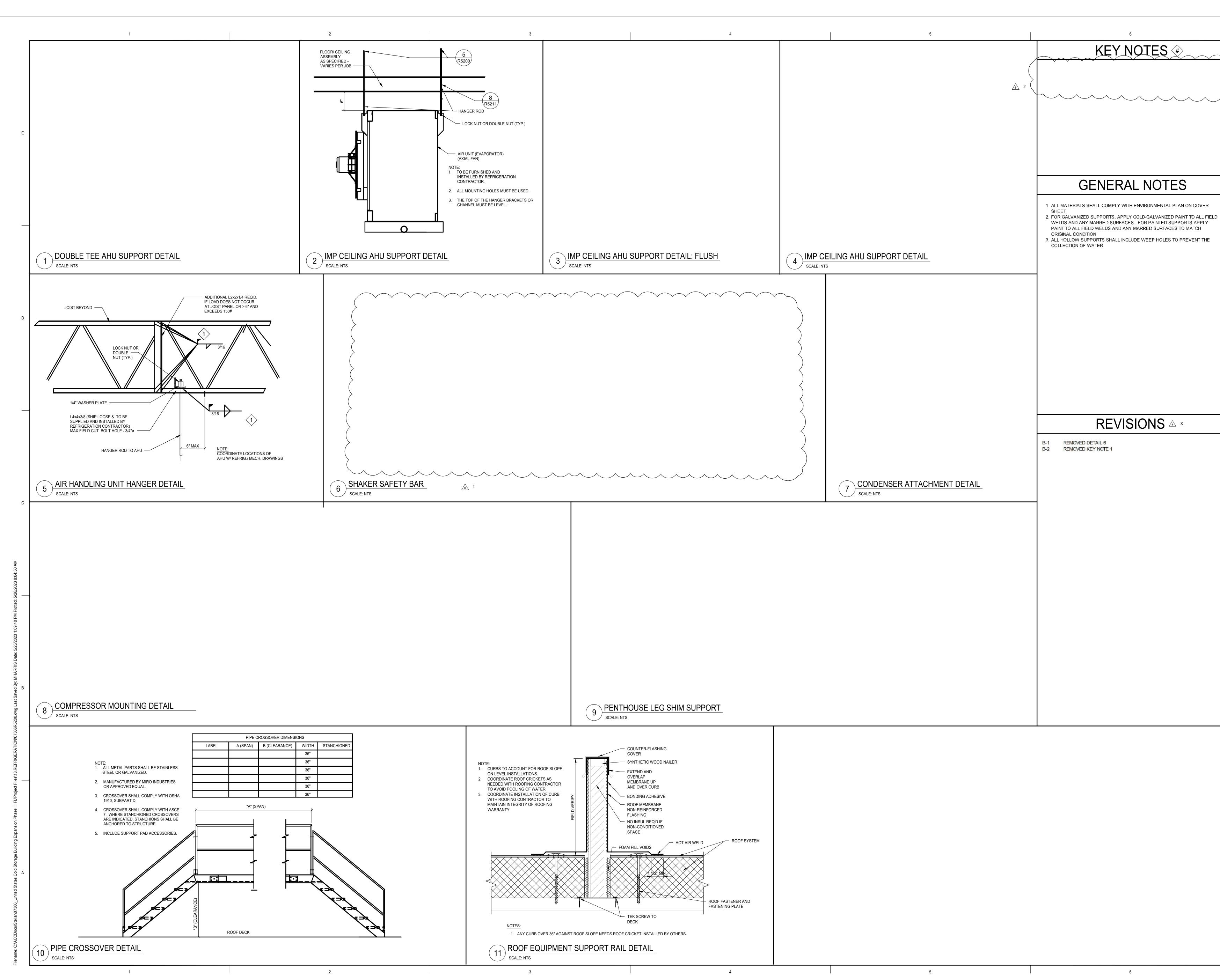


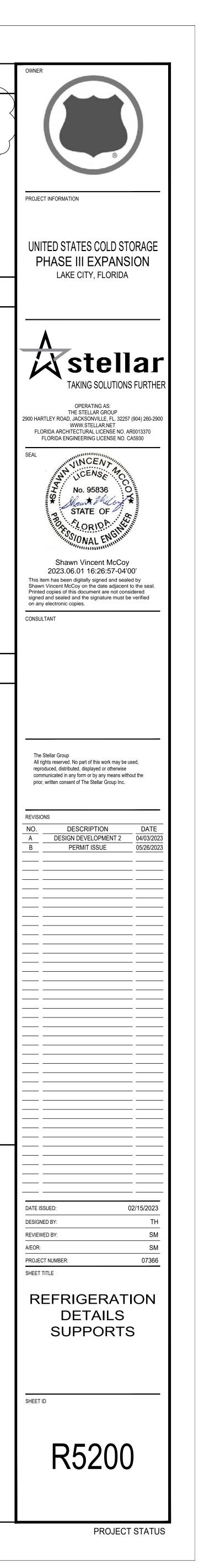
5	6
	KEY NOTES 🚸
	1. ALL DRAIN LINES TO SLOPE MINIMUM 1/8" PER FOOT TOWARD DRAIN
6"	
	GENERAL NOTES
FOR EXAMPLE RGER DRAINS	
ER HUB DRAIN	
	B-1 REMOVED DETAIL 5
G COIL CONDENSATE DRAIN	
<u>FAIL</u>	
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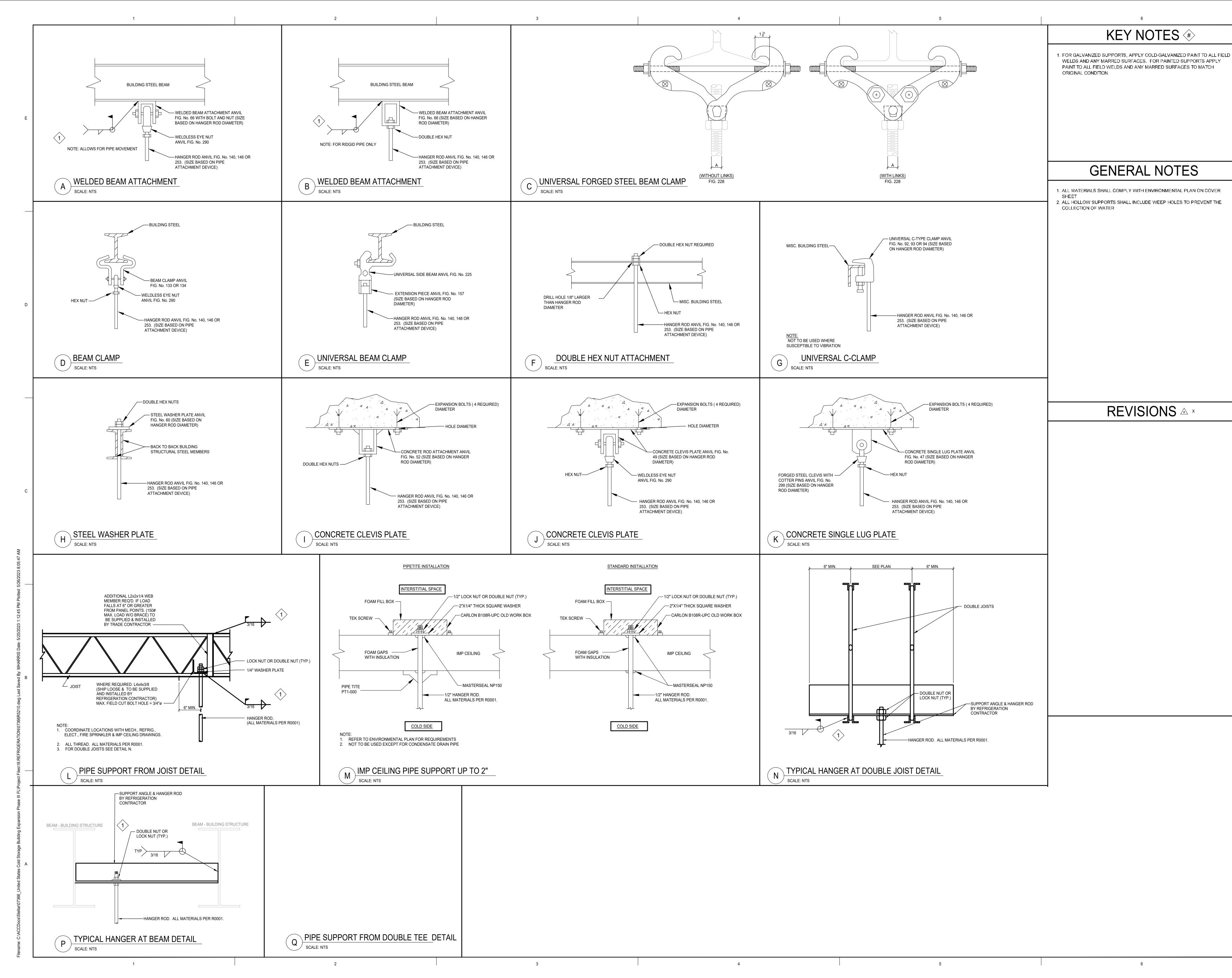
OWNER
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PROJECT INFORMATION
UNITED STATES COLD STORAGE
PHASE III EXPANSION LAKE CITY, FLORIDA
A Stellar
TAKING SOLUTIONS FURTHER
OPERATING AS: THE STELLAR GROUP 2900 HARTLEY ROAD, JACKSONVILLE, FL. 32257 (904) 260-2900 WWW.STELLAR.NET FLORIDA ARCHITECTURAL LICENSE NO. AR0013370 FLORIDA ENGINEERING LICENSE NO. CA5930
SEAL NINCENT
T No. 95836 Showt Miller STATE OF
SONAL ENGINE
Shawn Vincent McCoy 2023.06.01 16:25:59-04'00' This item has been digitally signed and sealed by Shawn Vincent McCoy on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified
on any electronic copies.
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REVISIONS
NO.DESCRIPTIONDATEADESIGN DEVELOPMENT 204/03/2023BPERMIT ISSUE05/26/2023
DESIGNED BY: TH REVIEWED BY: SM A/EOR: SM
PROJECT NUMBER: 07366 SHEET TITLE
REFRIGERATION DETAILS
PIPE AND EQUIPMENT
SHEET ID
R5101
 PROJECT STATUS

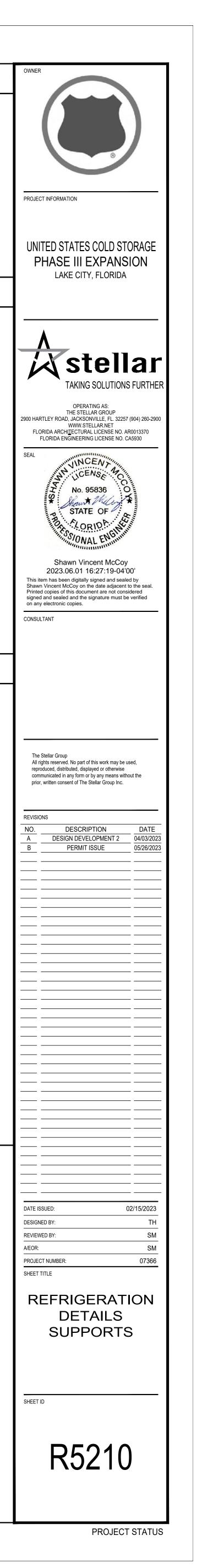


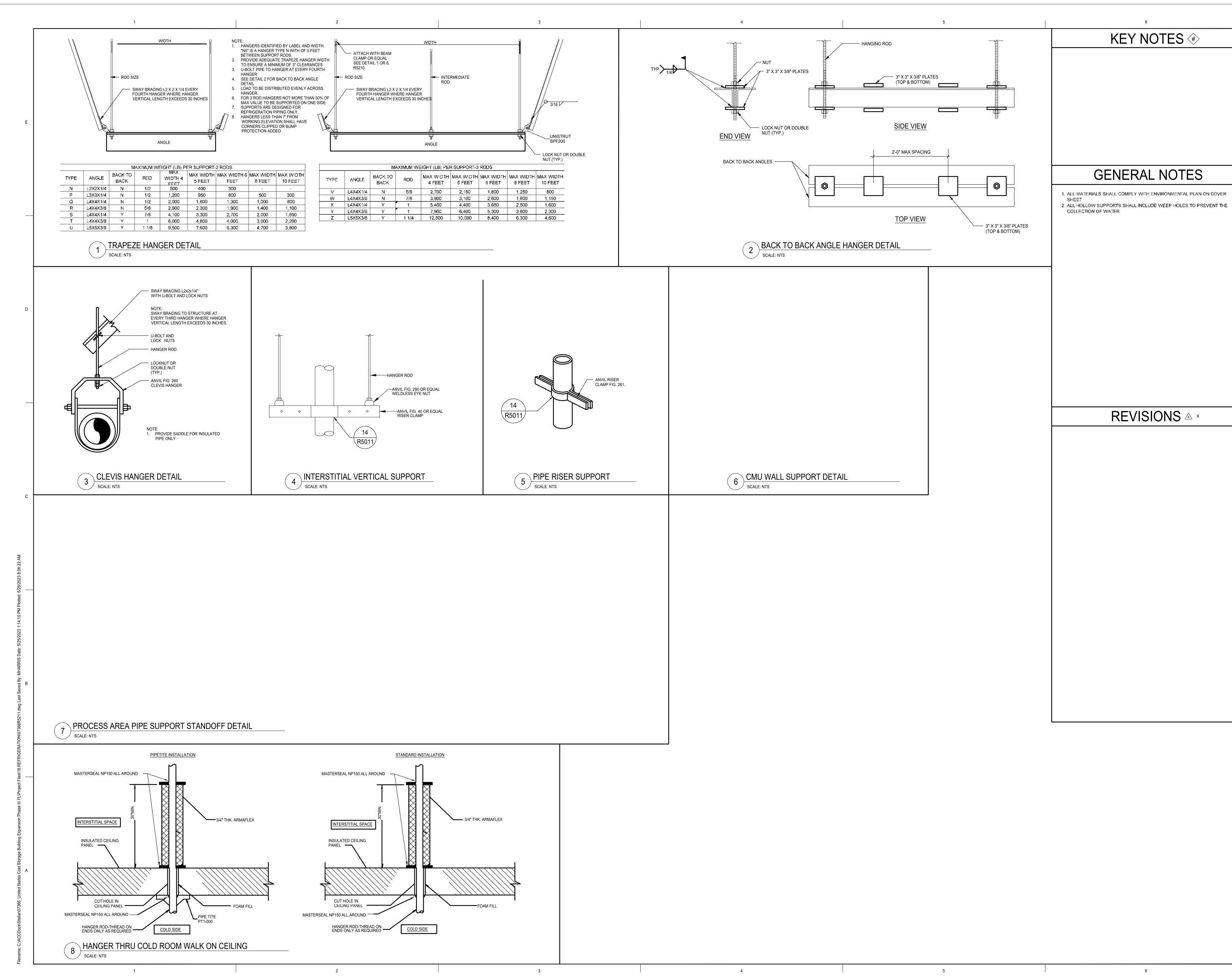


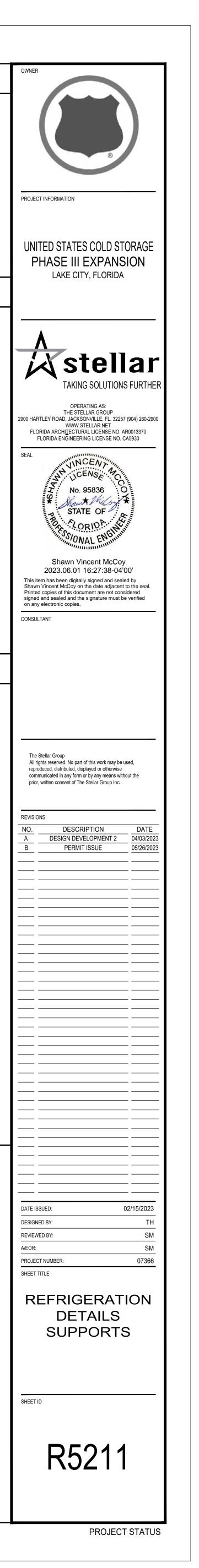


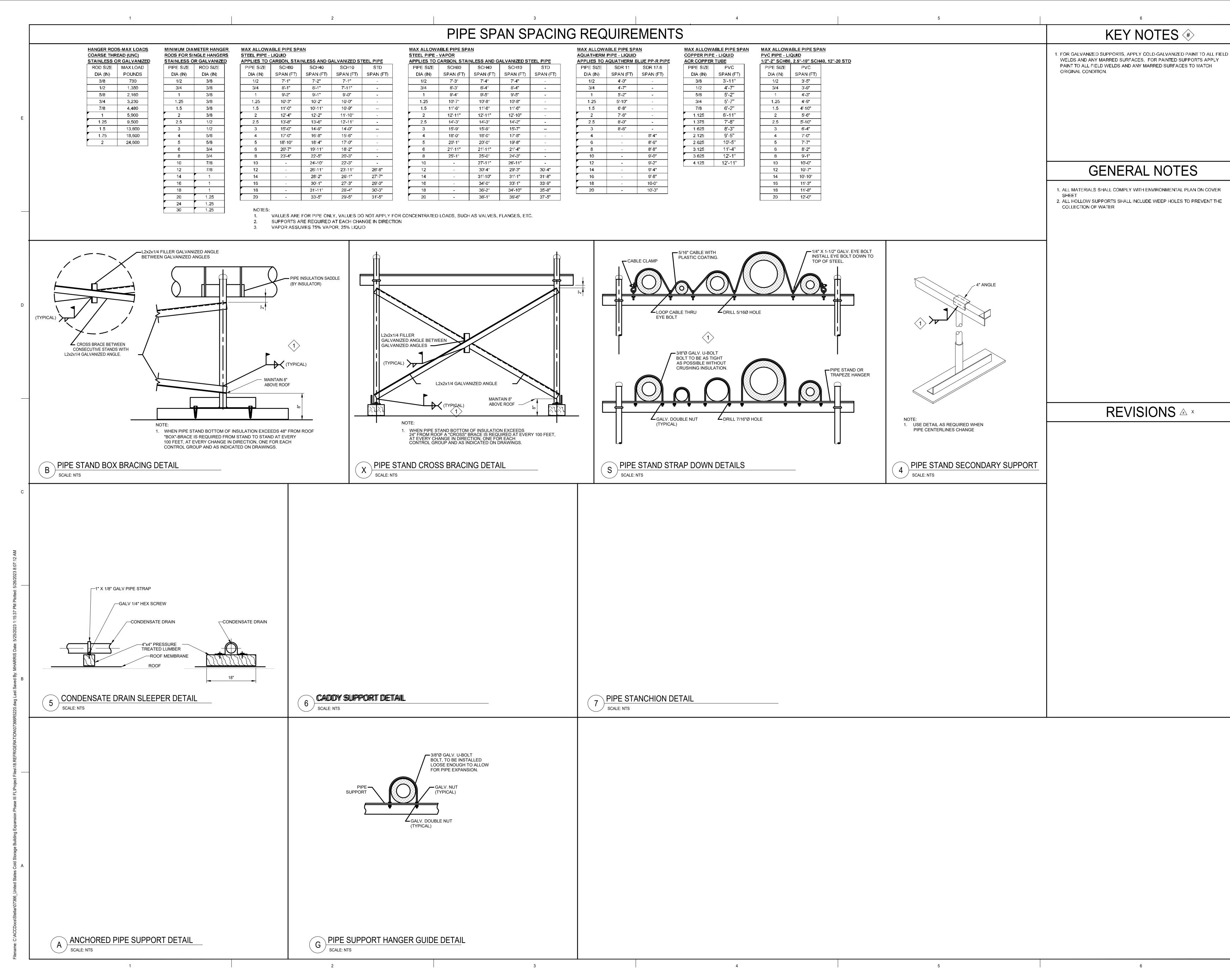








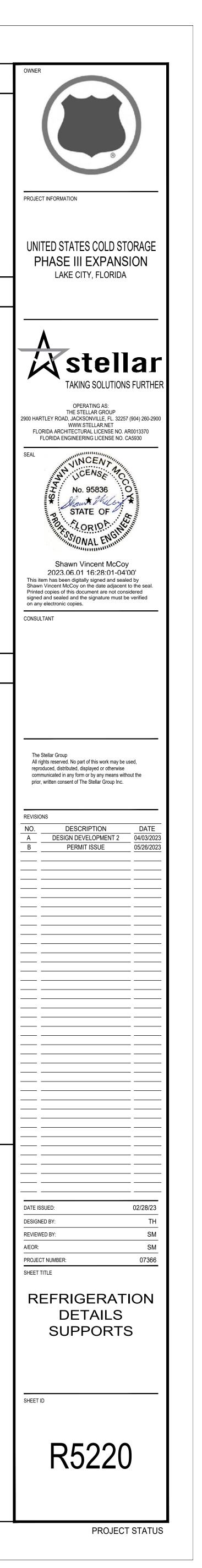


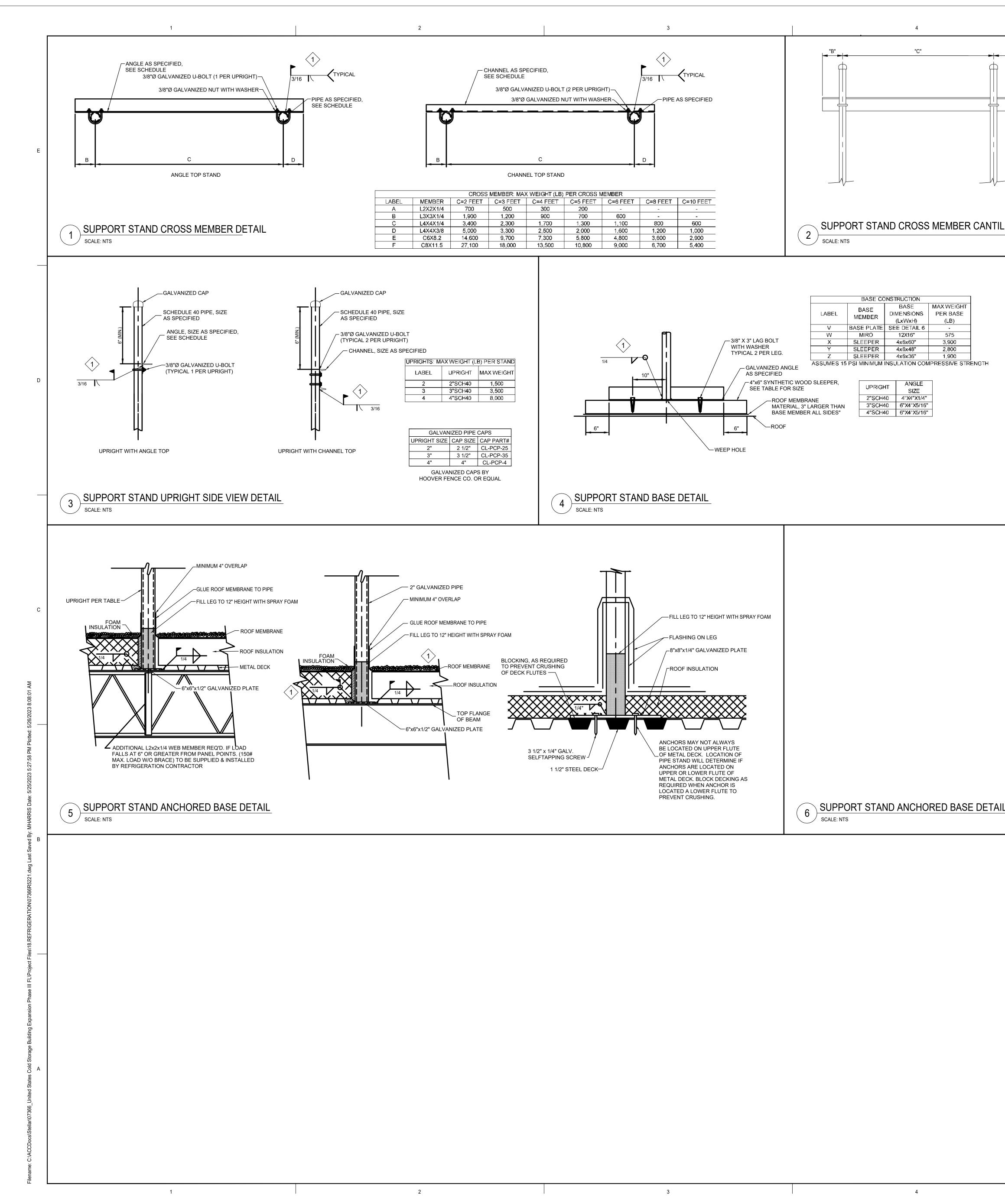


	MAX ALLOWA	MAX ALLOWABLE PIPE SPAN								
	STEEL PIPE -	VAPOR								
<u>'E</u>	APPLIES TO C	APPLIES TO CARBON, STAINLESS AND GALVANIZED STEEL PIPE								
D	PIPE SIZE	SCH80	SCH40	SCH10	STD					
(FT)	DIA (IN)	SPAN (FT)	SPAN (FT)	SPAN (FT)	SPAN (FT)					
	1/2	7'-3"	7'-4"	7′-4"	-					
	3/4	8'-3"	8'-4"	8'-4"	-					
	1	9'-4"	9'-5"	9'-5"	-					
	1.25	10'-7"	10'-8"	10'-8"	-					
	1.5	11'-6"	11'-6"	11′-6"						
	2	12'-11"	12'-11"	12'-10"	-					
	2.5	14'-3"	14'-3"	14'-2"	-					
	3	15'-9"	15'-9"	15'-7"						
	4	18'-0"	18'-0"	17'-8"	-					
	5	20'-1"	20'-0"	19′-8"	-					
	6	21'-11"	21'-11"	21'-4"	-					
	8	25'-1"	25'-0"	24'-3"	-					
	10	-	27'-11"	26'-11"	-					
8″	12	-	30'-4"	29'-3"	30'-4"					
7"	14	-	31'-10"	31'-1"	31'-8"					
0″	16	-	34'-0"	33'-1"	33'-9"					
3″	18	-	36'-2"	34'-10"	35'-8"					
5″	20	-	38'-1"	36'-6"	37'-5"					

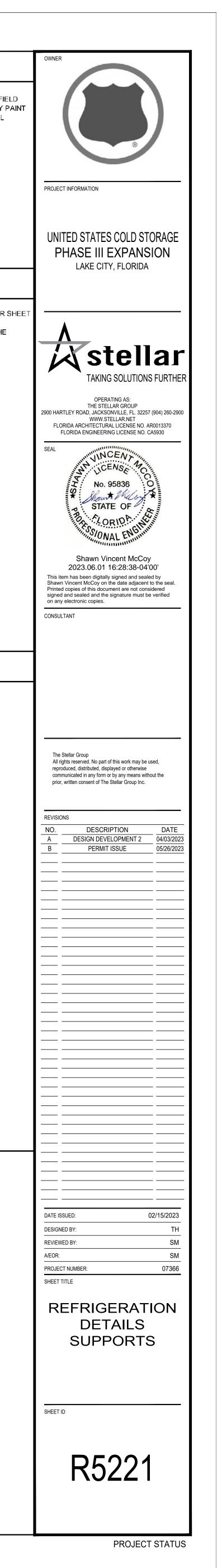
APPLIES TO A	AQUATHERM E	<u>ILUE PP-R P</u>					
PIPE SIZE	SDR 11	SDR 17.6					
DIA (IN)	SPAN (FT)	SPAN (FT)					
1/2	4'-0"	-					
3/4	4'-7"	-					
1	5'-2"	-					
1.25 5'-10" -							
1.5	6'-8"	-					
2	7'-6″	-					
2.5	8'-0"	-					
3	8'-6"	-					
4	-	8'-4"					
6	-	8'-6"					
8	-	8'-8"					
10	-	9'-0"					
12	-	9'-2"					
14	-	9'-4"					
16	-	9'-8"					
18	-	10-0"					
20	-	10'-3"					

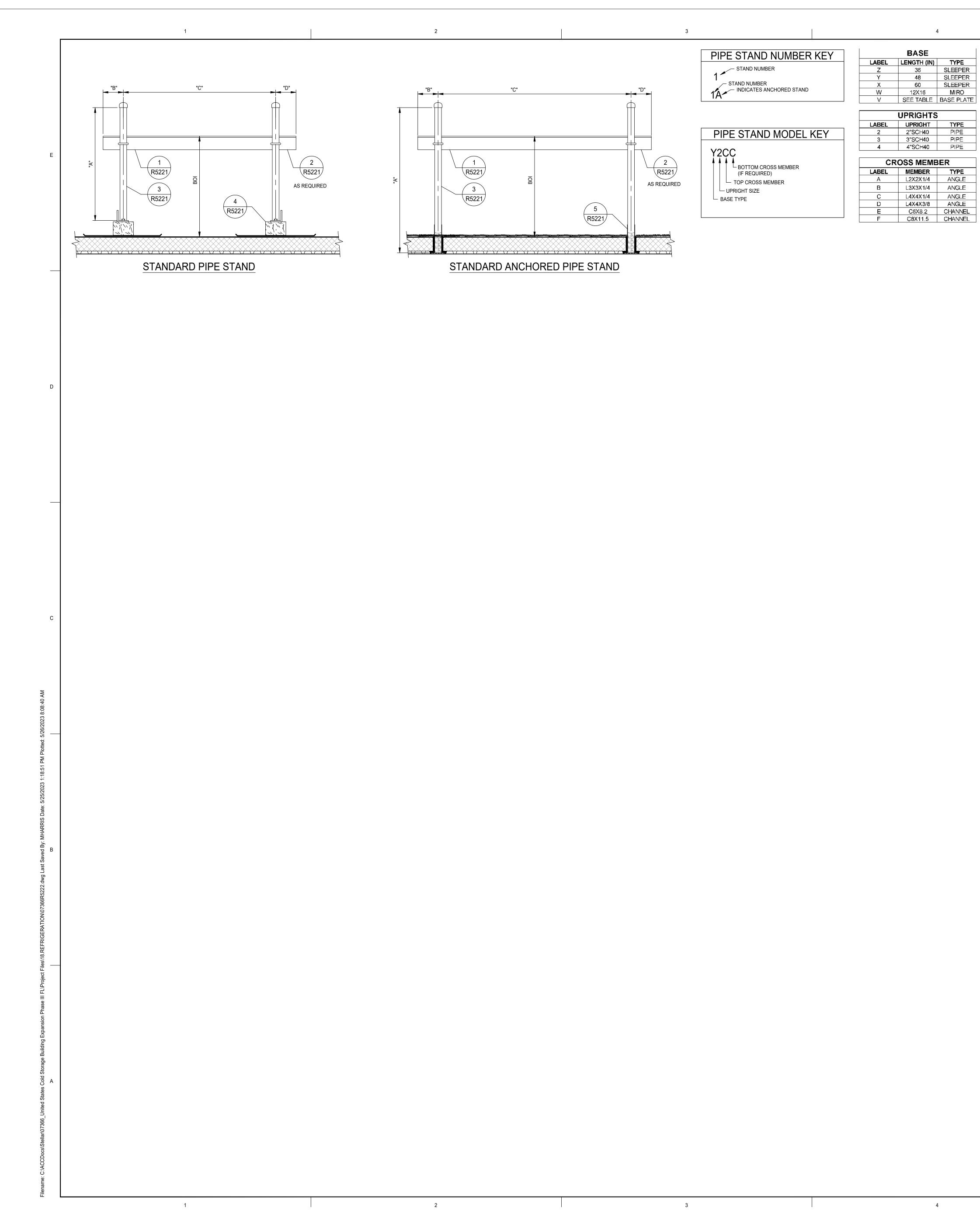
VI / / / /		
	PVC PIPE - LI	QUI
	1/2"-2" SCH80	<u>, 2.5</u>
	PIPE SIZE	
T)	DIA (IN)	SI
	1/2	
	3/4	
	1	
	1.25	
	1.5	
	2	
	2.5	
	3	
	4	
	5	
	6	
	8	
1	10	
	12	
	14	
	16	
	18	
	20	





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"D"	KEY NOTES 🚸
2" X 2" X 1/4", 2" LONG 1 3/16 CROSS MEMBER: MAX WEIGHT (LB) PER CROSS MEMBER 36" CANTILEVER "B" OR "D" LABEL MEMBER MAX WEIGHT A L2X2X1/4 100 B L3X3X1/4 300 C L4X4X3/8 1,000 E C6X8.2 2,900 F C8X11.5 5,400	 FÖR GALVANIZED SUPPORTS, APPLY COLD-GALVANIZED PAINT TO ALL FIELD WELDS AND ANY MARRED SURFACES. FOR PAINTED SUPPORTS APPLY PA TO ALL FIELD WELDS AND ANY MARRED SURFACES TO MATCH ORIGINAL CONDITION.
IS DESIGNED TO SUPPORT ANY PIPE A CLIP IS REQUIRED.	GENERAL NOTES
	 ALL MATERIALS SHALL COMPLY WITH ENVIRONMENTAL PLAN ON COVER SH ALL HOLLOW SUPPORTS SHALL INCLUDE WEEP HOLES TO PREVENT THE COLLECTION OF WATER
AIL-CONCRETE DOUBLE TEE	





KEY NOTES 🚸

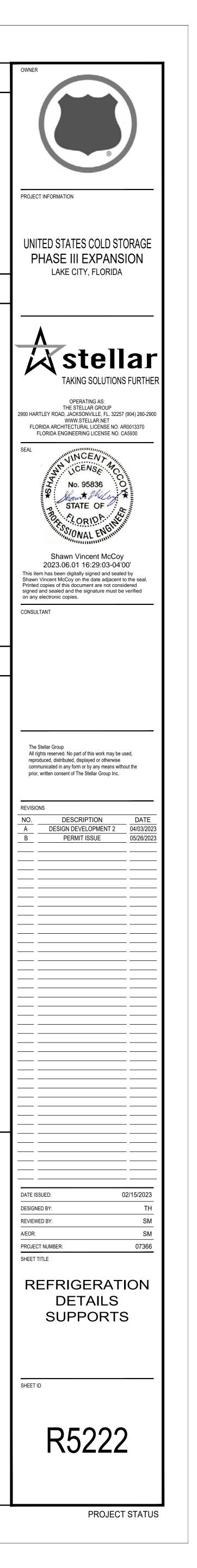
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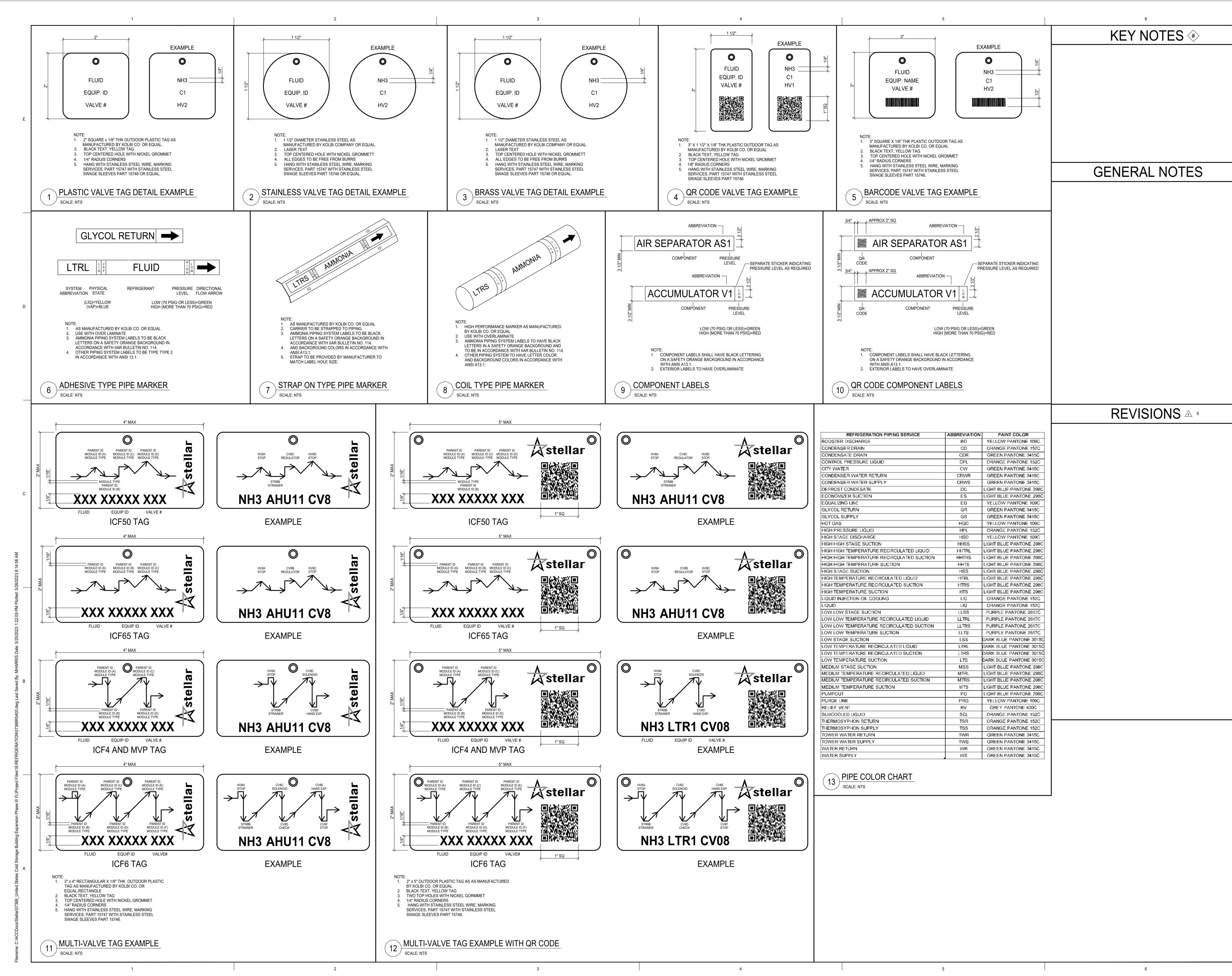
GENERAL NOTES

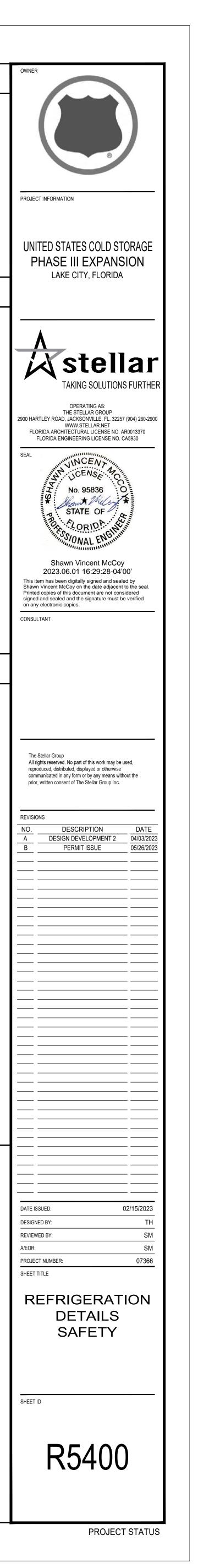
1. ALL MATERIALS SHALL COMPLY WITH ENVIRONMENTAL PLAN ON COVER SHEET 2. ALL HOLLOW SUPPORTS SHALL INCLUDE WEEP HOLES TO PREVENT THE COLLECTION OF WATER

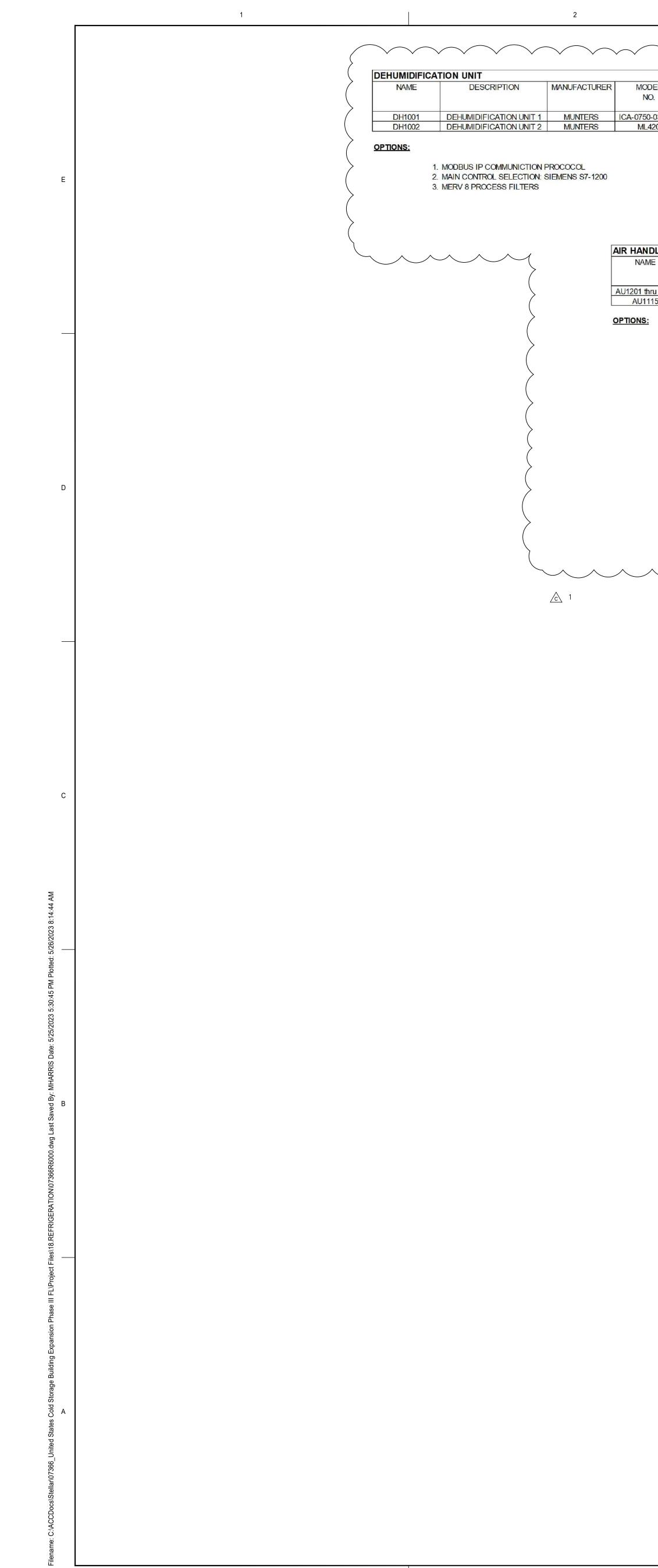
$\mathsf{REVISIONS} \triangleq \mathsf{X}$

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	3		2	4	5	5	6
							KEY NOTES (#>
MODELREFRIGERANTPRE COOL COILCOONO.TEMPCAPA(°F)(T750-031-DGR404A35°F1ML420	ACITY OF CAPACITY MEDIU	JM AIR FLOW PRESSURE (SCFM) (IN H20) 7,840 4.39	E AIR AIR MOTOR	ACTIVATION AIRTOTAL STATICINLETAIR FLOWPRESSUREAIR(SCFM)(IN H20)TEMP (°F)4933.04122910.80-	AIR FAN MOTOR (V/PH/HZ) OPER TEMP (°F) HP WEIGH 130 3 460/3/60 4,	PROX. OPTIONS RATING (SEE LIST) HT (LBS) ,951 1,2,3 310 -	
ANDLING UNIT AME DESCRIPTION MANUFACTURER	MODEL QTY ROOM COIL	L BASIC CAPACITY TYPE	E RECIRC FINS COIL NO.	FAN POWER TYPE COIL /	PAN CASING APPROX. FACI		GENERAL NOTES
	NO. TEMP TEMP (°F) (°F)	IP RATING (TR) OF) (BTU/F TD) FEED	RATE PER VOLUME OF INCH (FT3) FANS	MOTOR (V/PH/HZ) OF FIN B HP DEFROST MATERIAL	WEIGHT (LBS) ARE (THE CONN. (SEE LIST)	GENERAL NOTES
1 thru 1212 FREEZER EVAPCO J1115 TRUCK DOCK EVAPCO	SSTME3 12 -20°F -30°F SSTME2 1 35°F 20°F			5 460/3/60 62.6 KW SS/AL 1 460/3/60 23.0 KW SS/AL		H; (7) LH 1,2,3,4,5 LH 1,2,5,6	1. MANUFACTURERS: THE DESIGN SHOWN ON THE DRAWINGS ARE BASED
IS: 1. PROVIDE PREMIUM EFFICIENCY, INVERT 2. PREWIRED TO A FACTORY MOUNTED NO 3. 110V HEATED DRAIN PAN COVER 4. LONG THROW ADAPTERS 5. EVAPORATOR TO BE VFD CONTROLLED, 6. NO HIGHER THAN 75 DBA IS PERMISSIBL	TER DUTY FAN MOTORS ONFUSED DISCONNECT DRIVES BY ELECTRICAL CONTRACTOR						 UPON PRODUCTS OF THE MANUFACTURERS SCHEDULED. ALTERNATE EQUIPMENT MANUFACTURERS MAY BE ACCEPTABLE IF EQUIPMENT MEETS THE SCHEDULE PERFORMANCE AND COMPLIES WITH THE SPECIFICATIONS. IF ALTERNATE EQUIPMENT OTHER THAN SCHEDULED IS UTILIZED, THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE GENERAL CONTRACTOR AND/OR ALL AFFECTED SUBCONTRACTORS TO ENSURE PROPER PROVISIONS FOR INSTALLATION OF THE FURNISHED UNIT. THIS COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: STRUCTURAL SUPPORTS, ELECTRICAL POWER REQUIREMENTS, WIRE/CONDUIT AND OVER CURRENT PROTECTION SIZES, PIPE SIZES, AND CONNECTION LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED BY THE GENERAL CONTRACTOR, SUBCONTRACTORS, ENGINEERS AND CONSULTANTS TO MODIFY THE PROJECT TO ACCEPT THE ALTERNATE FURNISHED UNITS. ALL REFRIGERATION EQUIPMENT TO INCLUDE CERTIFICATION OF SEISMIC COMPLIANCE WITH SUBMITTALS, COMPLYING TO INFORMATION BELOW
	NAME DESCRIP	TION MANUFACTURER	MODEL CAPACITY	and the second		STARTER COMMENTS	3. ALL AMMONIA EQUIPMENT TO HAVE AN IMPORTANCE FACTOR OF 1.5
			NO. (TR) RE	EQUIRED MEDIUM NO. OF FAN SIZE FANS (HP)	ENTERING OPERATING (V/PH/HZ) (°F) WEIGHT (LB)	TYPE	
	CU1001 DEHUM. CC	OOLING -	- 11.8	12 R404A	95 1100 460/3/60	SS -	

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\frown			\sim	\frown	\checkmark	\sim	\sim		\sim				\sim		\frown		\checkmark		$\frown \frown \frown$			KEY NOTES 🚸
IODEL NO. 750-031-DG 1L420		PRE COOL COIL TEMP (°F) 35°F -	COOLING CAPACITY (TR) 10 -		HEATING CAPACITY (BTU) 200,000 4.2 KW	HEATING MEDIUM NG ELECTRIC	AIR FLOW (SCFM) 7,840		E AIR	AIR	PROCESS FA MOTOR HP 20 0.37 KW	AIR (S	VATION AIR R FLOW CFM) 493 91	TOTAL STA PRESSUR (IN H20) 3.04 0.80	E AIR	AIR °F) TEMP (°F)	FAN MC		WEIGHT (LBS) 4,951	OPTIONS (SEE LIST) 1,2,3 -		
NDLING																						
AME	DESCRIPTION	MANUFACTUR	ER MODE NO.		ROOM		BASIC CA RATING (BTU/F TD)	PACITY TYPE (TR) OF	RATE	FINS PER INCH	COIL VOLUME (FT3)		Fan Po Notor (V/F	PH/HZ) C	YPE COI DF FIN ROST MATEI	MATERIA	CASING	APPROX. OPERATING WEIGHT (LBS)	FACING THE FANS THE CONN. ARE ON THE:	OPTIONS (SEE LIST)		GENERAL NOTES
2. 3. 4. 5.	TRUCK DOCK PROVIDE PREMI PREWIRED TO A 110V HEATED DF LONG THROW AI EVAPORATOR TO	IUM EFFICIENCY, A FACTORY MOUN RAIN PAN COVER	TED NONFUSED OLLED, DRIVES /IISSIBLE	Y FAN MOTO D DISCONNE	ECT RICAL CONTR	-30°F 20°F	30,600	25.5 LRB 14.0 LRB	1.2	3.3 4.3	5.16 2.08	3 2	5 46	0/3/60 62.6	KW SS/	AL GALV AL GALV		2,840 1,440	(5) RH; (7) LH LH	1,2,3,4,5 1,2,5,6		 MANUFACTURERS: THE DESIGN SHOWN ON THE DRAWINGS ARE BASED UPON PRODUCTS OF THE MANUFACTURERS SCHEDULED. ALTERNATE EQUIPMENT MANUFACTURERS MAY BE ACCEPTABLE IF EQUIPMENT MEETS THE SCHEDULE PERFORMANCE AND COMPLIES WITH THE SPECIFICATIONS. IF ALTERNATE EQUIPMENT OTHER THAN SCHEDULED IS UTILIZED, THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE GENERAL CONTRACTOR AND/OR ALL AFFECTED SUBCONTRACTORS TO ENSURE PROPER PROVISIONS FOR INSTALLATION OF THE FURNISHED UNIT. THIS COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: STRUCTURAL SUPPORTS, ELECTRICAL POWER REQUIREMENTS WIRE/CONDUIT AND OVER CURRENT PROTECTION SIZES, PIPE SIZES, AND CONNECTION LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED BY THE GENERAL CONTRACTOR, SUBCONTRACTORS, ENGINEERS AND CONSULTANTS TO MODIFY THE PROJECT TO ACCEPT THE ALTERNATE FURNISHED UNITS. ALL REFRIGERATION EQUIPMENT TO INCLUDE CERTIFICATION OF SEISMIC COMPLIANCE WITH SUPPORTS OMED YING TO INFORMATION DELOW
			C	NAME	and the second	DESCRIPTIO	N MAN	UFACTURER	MC	DEL	CAPACIT	ry HP			CON	DENSER	201 (101-107-100)	POWER	STARTER	COMMENT	rs 🖉	COMPLIANCE WITH SUBMITTALS, COMPLYING TO INFORMATION BELOW ^{3.} ALL AMMONIA EQUIPMENT TO HAVE AN IMPORTANCE FACTOR OF 1.5

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\frown			\sim	\frown		\sim		\frown		\frown		\sim		\frown		\frown				$\frown \frown \frown$	\frown		KEY NOTES 🚸
10DEL NO. 750-031-D0	REFRIGERANT I	PRE COOL COIL TEMP (°F) 35°F	COOLING CAPACITY (TR) 10		HEATING CAPACITY (BTU) 200,000	HEATING MEDIUM NG		M) (IN	SSURE AI I H20) TEMF	LET LEAVIN IR AIR P (°F) TEMP (° 0 45	IG PROCESS MOTOF F) HP 20	2	CTIVATION AIR FLOW (SCFM) 493	PRES (IN I	SURE	INLET L AIR IMP (°F) TI 122	AIR	REACTIVATI FAN MOT HP 3	ON AIR POWER FOR (V/PH/HZ) 460/3/60	WEIGHT (LBS)	OPTIONS (SEE LIST) 1,2,3		
<u>/IL420</u>	-	-	-	-	4.2 KW	ELECTRIC).80 -		0.37 KV	V	91		80	-	-	-	460/3/60				
NDLING	State File	1																					
AME	DESCRIPTION	MANUFACTUR	RER MODI NO		QTY ROC TEM (°F	P TEMP	BASIC RATING (BTU/F TD)	(TR)		CIRC FINS ATE PER INCH	VOLUME	NO. OF FANS	FAN MOTOR HP	POWER (V/PH/HZ)	TYPE OF DEFROST M	COIL / FIN N MATERIAL	PAN MATERIAL	CASING	APPROX. OPERATING WEIGHT (LBS)	FACING THE FANS THE CONN. ARE ON THE:	OPTIONS (SEE LIST)	$\left \right\rangle$	GENERAL NOTES
2 3 4 5	FREEZER TRUCK DOCK PROVIDE PREMIU PREWIRED TO A 110V HEATED DR LONG THROW AD EVAPORATOR TO NO HIGHER THAN	FACTORY MOUN AIN PAN COVER APTERS BE VFD CONTR	INVERTER DUT ITED NONFUSED OLLED, DRIVES	/IE2	ECT	= 20°F	<u>30,600</u> 11,200	25.5 14.0		<u>.2</u> <u>3.3</u> <u>.2</u> <u>4.3</u>	0.10	3	5	460/3/60 460/3/60	62.6 KW 23.0 KW			GALV GALV	<u>2,840</u> 1,440	<u>(5) RH; (7) LH</u> LH	<u>1,2,3,4,5</u> 1,2,5,6		 MANUFACTURERS: THE DESIGN SHOWN ON THE DRAWINGS ARE BASED UPON PRODUCTS OF THE MANUFACTURERS SCHEDULED. ALTERNATE EQUIPMENT MANUFACTURERS MAY BE ACCEPTABLE IF EQUIPMENT MEETS THE SCHEDULE PERFORMANCE AND COMPLIES WITH THE SPECIFICATIONS. IF ALTERNATE EQUIPMENT OTHER THAN SCHEDULED IS UTILIZED, THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE GENERAL CONTRACTOR AND/OR ALL AFFECTED SUBCONTRACTORS TO ENSURE PROPER PROVISIONS FOR INSTALLATION OF THE FURNISHED UNIT. THIS COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: STRUCTURAL SUPPORTS, ELECTRICAL POWER REQUIREMENTS WIRE/CONDUIT AND OVER CURRENT PROTECTION SIZES, PIPE SIZES, AND CONNECTION LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED BY THE GENERAL CONTRACTOR, SUBCONTRACTORS, ENGINEERS AND CONSULTANTS TO MODIFY THE PROJECT TO ACCEPT THE ALTERNATE FURNISHED UNITS. ALL REFRIGERATION EQUIPMENT TO INCLUDE CERTIFICATION OF SEISMIC
			C	CONDENS NAM	and the state of the state of the	DESCRIPTI	ON M	ANUFACTUR	ER	MODEL	CAPAG		HP	1		CONDENSE	ER		POWER	STARTER	COMMEN	TS	 2. ALL REPRODUCTION EQUILIBRITIALS, COMPLYING TO INFORMATION BELOW 3. ALL AMMONIA EQUIPMENT TO HAVE AN IMPORTANCE FACTOR OF 1.5
											2			and the state of the			Charles and the second s	and the second se			1		

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NAME	DESCRIPTION	MANUFACTURER	MODEL	CAPACITY	HP		
			NO.	(TR)	REQUIRED	MEDIUM	NO. OF
						111-111	FANS
CU1001	DEHUM. COOLING		-	11.8	12	R404A	24

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C-1 REVISED EQUIPMENT SCHEDULES

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