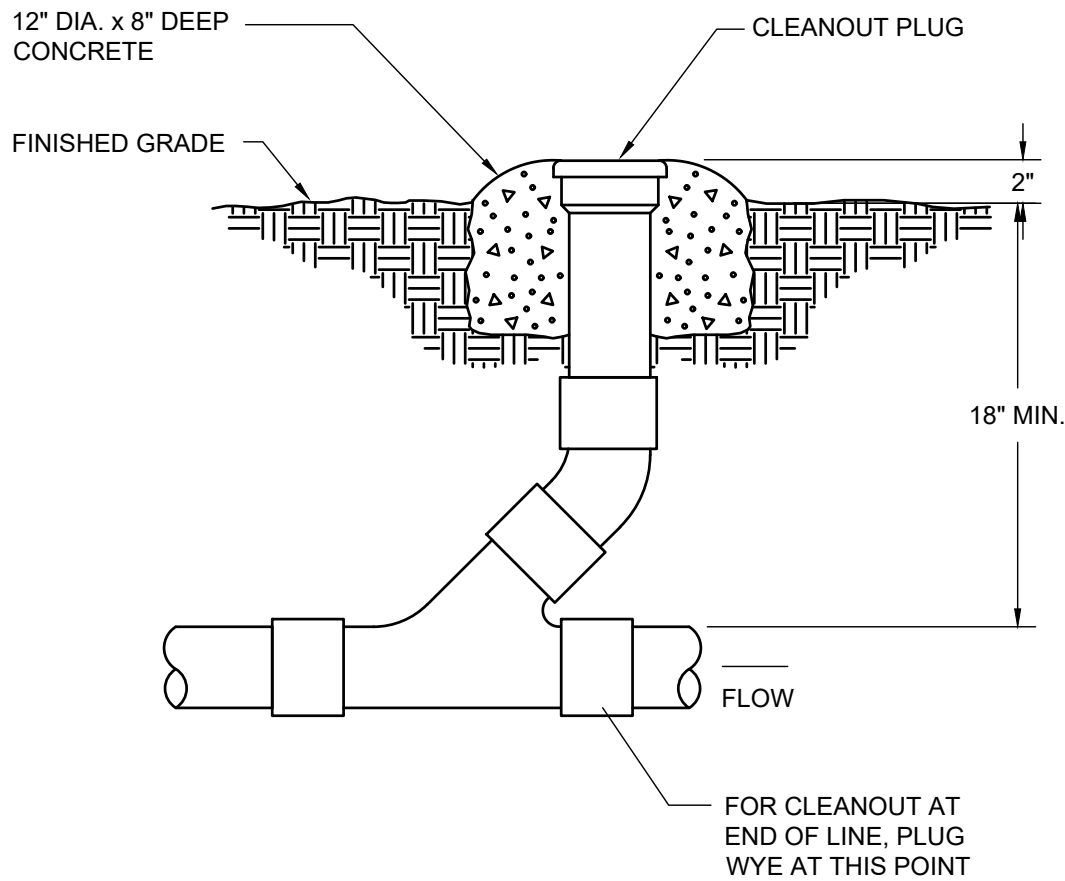
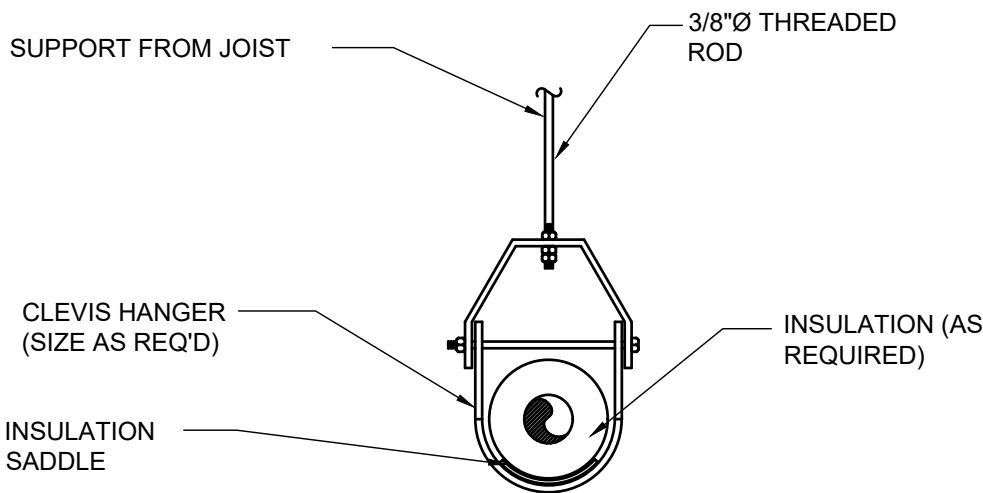


PLUMBING FIXTURE SCHEDULE								
MARK	DESCRIPTION	MFR	MODEL	USE				NOTES
				CW	HW	WASTE	VENT	
P1	ADA WATER CLOSET TANK TYPE	KOHLER	HIGHLINE CLASS 5 K-3999	1/2"	-	3"	2"	COMFORT HEIGHT COMBINATION ELONGATED TOILET, VITREOUS CHINA, 1.28 GPF WITH K-4650 LUSTRA SEAT AND COVER
P2	ADA LAVATORY WALL HUNG	KOHLER	PINOIR K-2028-4	1/2"	1/2"	1 1/2"	1 1/2"	INCLUDE KOHLER CORALAIS K-15583-4RA FAUCET AND DRAIN
GCO	GRADE CLEANOUT	ZURN	Z1400-NL	-	-	3"	-	

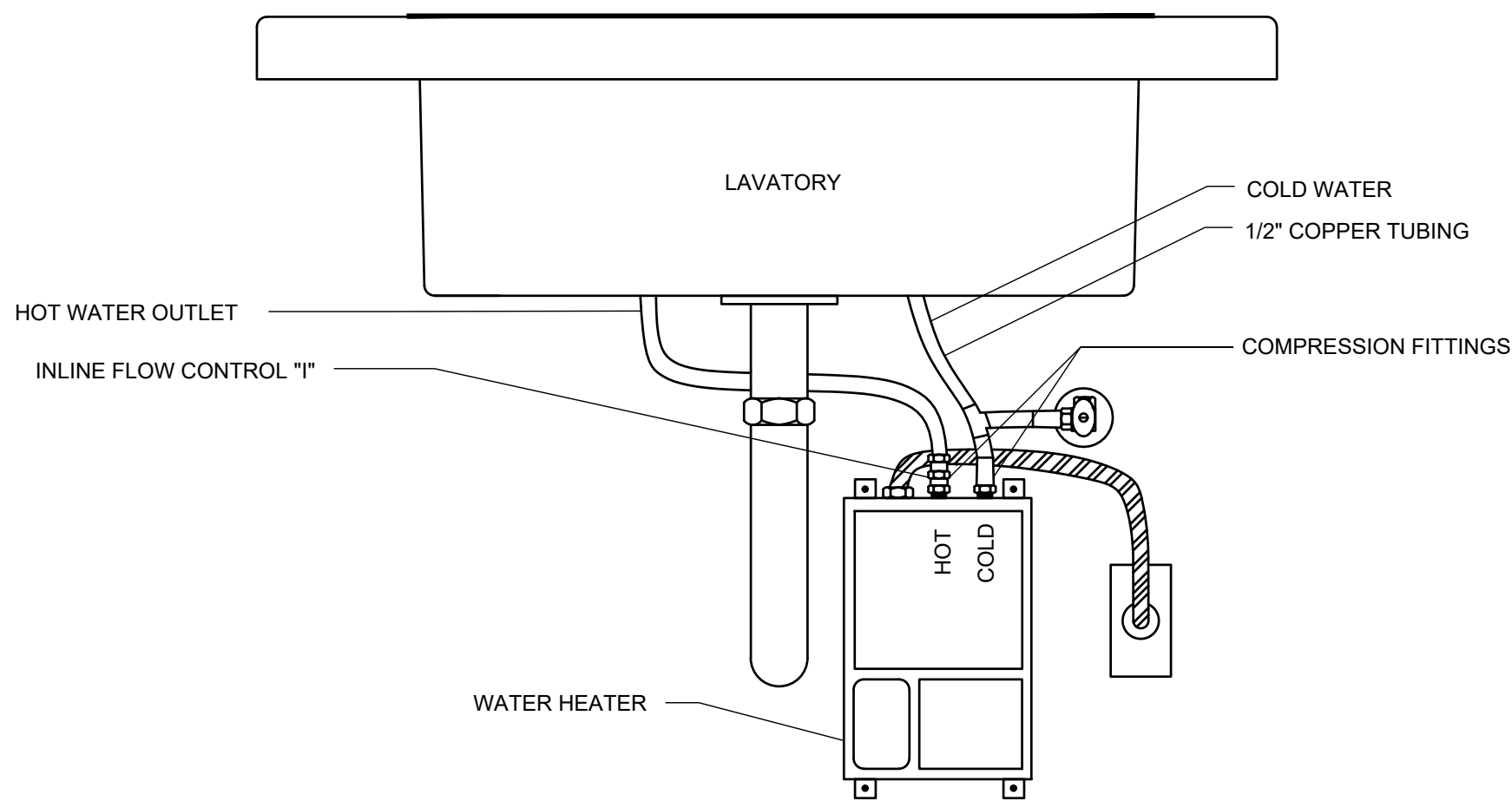
ELECTRIC WATER HEATER SCHEDULE							
MARK	MFR	MODEL	VOLTS	PHASE	WATTS	STORAGE (GALLONS)	NOTES
EWH-1	EEMAX	EMT1	120V	1	1440	1.5 MINI-TANK	1. ELEMENT SHALL BE REPLACEMENT CARTRIDGE INSERT TYPE 2. REPLACEABLE FILTER IN INLET CONNECTION 3. FLOW REGULATOR IN OUTLET CONNECTION 4. COORDINATE WITH ELECTRICIAN FOR POWER REQUIREMENTS



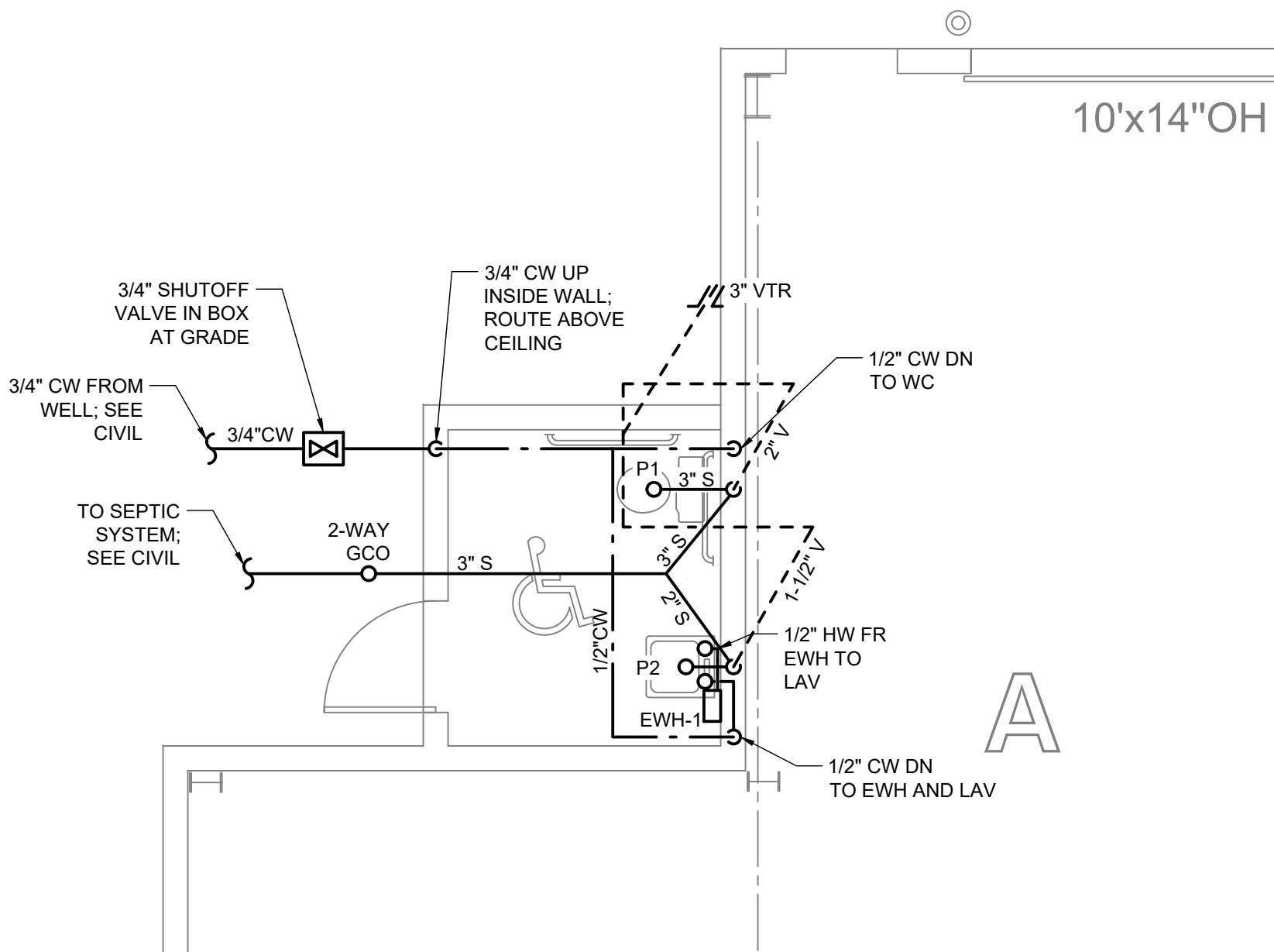
B1 GRADE CLEANOUT DETAIL
NO SCALE



B2 PIPE SUPPORT DETAIL
NO SCALE

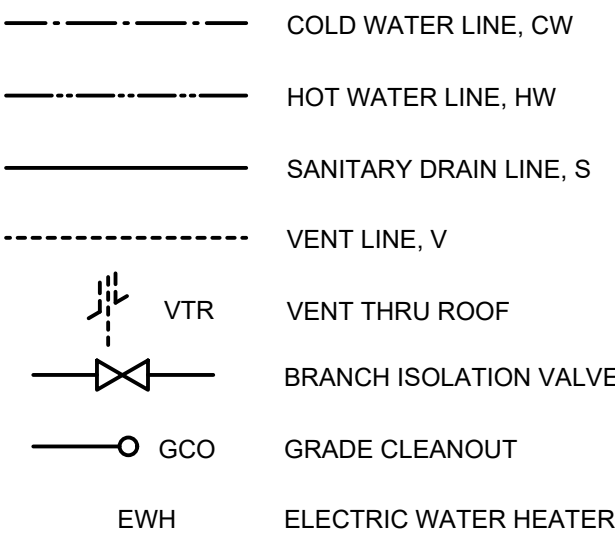


A1 WATER HEATER DETAIL
NO SCALE



A3 PLUMBING PLAN
1/8" = 1'-0"

LEGEND



GENERAL NOTES

- PROVIDE LABOR, EQUIPMENT AND MATERIALS TO COMPLETE THE PLUMBING WORK INDICATED ON THESE DRAWINGS AS REQUIRED BY LOCAL CODE AND ORDINANCES.
- INCLUDE WASTE, VENT, DOMESTIC COLD & HOT WATER PIPING, AS INDICATED ON THESE DRAWINGS, AS WELL AS HOOKUP OF FIXTURES AND INSULATION OF PIPING.
- INCLUDE ITEMS, SUCH AS FITTINGS, ETC. NOT MENTIONED BUT UNDERSTOOD TO BE NECESSARY TO COMPLETE THE PLUMBING SYSTEM.
- SOIL, WASTE, VENT AND WATER PIPING MATERIALS MUST MEET OR EXCEED LOCAL CODES.
- PROVIDE CLEANOUTS FOR SOIL AND WASTE LINES THAT MEET OR EXCEED LOCAL CODES.
- CAP STUBS FOR THE DRAINAGE SYSTEM UNTIL FINISHED WORK IS INSTALLED.
- LOCATE PLUMBING FIXTURES PER ARCHITECTURAL DRAWINGS. PIPING IS SHOWN IN GENERAL LOCATION. EXACT LOCATION WILL BE DETERMINED BY JOB CONDITIONS.
- COMPLETE WORK IN ACCORDANCE WITH 2021 SOUTH CAROLINA BUILDING CODE, 2021 SOUTH CAROLINA PLUMBING CODE, 2021 SOUTH CAROLINA FUEL GAS CODE AND LOCAL ORDINANCES. SEE SPECIFICATIONS FOR PRODUCT AND INSTALLATION REQUIREMENTS.
- GUARANTEE WORK UNDER THIS CONTRACT TO BE FREE FROM DEFECTIVE WORKMANSHIP, MATERIALS AND EQUIPMENT FOR ONE YEAR AFTER ACCEPTANCE OF THE BUILDING BY THE OWNER. SHOULD SUCH DEFECTS OCCUR DURING THE ONE YEAR PERIOD, REPAIR AND/OR REPLACE DEFECTIVE ITEMS AND DAMAGE RESULTING FROM THE FAILURE OF THESE ITEMS AT NO EXPENSE WHATSOEVER TO THE OWNER.

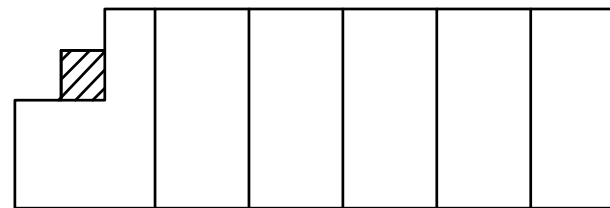
PLUMBING SPECIFICATIONS

- COMMON PIPING REQUIREMENTS
- SUPPORTING DEVICES
 - Hanger and Pipe Attachments: Factory fabricated with galvanized coatings; nonmetallic coated for hangers in direct contact with copper tubing.
 - INSTALLATION
 - Install piping free of sags and bends.
 - Install fittings for changes in direction and branch connections.
 - Install sleeves pipes passing through walls, gypsum-board partitions and concrete floor.
 - Exterior Wall, Pipe Penetrations: Mechanical sleeve seals installed in steel or cast-iron pipes for wall sleeves.
 - Install dielectric coupling and nipple fittings to connect piping materials of dissimilar metals in waster piping.
 - HANGERS AND SUPPORTS
 - Install building attachments within concrete or to structure. Install additional attachments at concentrated loads, and at changes in direction of piping.
 - Load Distribution: Install hangers and supports so piping live and dead loading and stresses from movement will not be transmitted to connected equipment.
- DOMESTIC WATER PIPING
- PIPES AND TUBES
 - Hard Copper Tube: ASTM B 88, Type L, water tube, drawn temper.
 - Soft Copper Tube: ASTM B 88, Type K, water tube, annealed temper.
 - Cross Linked Polyethylene: PEX Type-A.
 - FITTINGS
 - Wrought-Copper, Solder-Joint Pressure Fittings: ASME B16.22.
 - Cast-Copper-Alloy, Solder-Join Pressure Fittings: ASME b16.18.
 - Copper Unions: ASME B16.18, cast-copper-alloy body, hexagonal stock, with ball-and-socket joint, metal-to-metal seating surfaces, and solder-joint, threaded, or solder-joint and threaded ends. Threads complying with ASME B1.20.1.
 - Ductile- and Gray-Iron Gasketed Fittings: AWWA C110 standard pattern or ductile-iron AWWA C153 compact pattern, 250-psig minimum pressure rating, with AWWA C104 cement-mortar lining and AWWA C111 rubber gaskets.
 - JOINING MATERIALS
 - Solder Filler Metal: ASTM B 32, alloys to suit system requirements.
 - Brazing Filler Metals: AWS A5.8, alloys to suit system requirements.
 - INSPECTING AND CLEANING
 - Inspect and test piping systems following procedures of authorities having jurisdiction.
 - Clean and disinfect water distribution piping following procedures of authorities having jurisdiction.
 - PIPE INSULATION
 - Cold water: 1/2-inch elastomeric, closed cell type (copper only).
 - Hot water: 3/4-inch elastomeric, closed cell type.

- SANITARY WASTE AND VENT PIPING
- PIPES AND TUBES
 - PVC Plastic, DWV Pipe: ASTM D 2665, Schedule 40, plain ends.
 - FITTINGS
 - PVC Plastic, DWV Pipe Fittings: ASTM D 2665, made to ASTM D 3311; socket-type; drain, waste, and vent pipe patterns.
 - PIPE APPLICATIONS
 - PVC Plastic, DWV Pipe; PVC socket-type drain, waste, and vent pipe pattern fittings; and solvent-cemented joints.
 - PIPING INSTALLATION
 - Install cleanout and extension to grade at connection of building sanitary drain and building sanitary sewer.
 - Locate drainage piping runouts as close as possible to bottom of floor slab supporting fixtures or drains.
 - ALL Buried plastic pipe and fittings shall be installed per ASTM D 2321.
 - INSPECTION
 - Inspect and test piping systems following procedures of authorities having jurisdiction.

- PLUMBING FIXTURES
- SECTION REQUIREMENTS
 - Submit Product Data for each type of plumbing fixture.
 - Comply with requirements of Public Law 102-486, "Energy Policy Act," regarding water flow rate and water consumption of plumbing fixtures.
 - See schedule, This Sheet .
 - INSTALLATIONS
 - Install fitting insulation kits on handicap-accessible fixtures.
 - Install fixtures with flanges and gasket seals.
 - Install tanks for accessible, tank-type water closets with lever handle mounted on wide side of compartment.
 - Fasten wall-hanging plumbing fixtures securely to supports attached to building substrate when supports are specified, and to building wall construction where no support is indicated.
 - Fasten floor-mounted fixtures to substrate. Fasten fixtures having holes for securing fixture to wall construction, to reinforcement built into walls.
 - Fasten wall-mounted fittings to reinforcement built into walls.
 - Secure supplies to supports or substrate within pipe space behind fixture.
 - Install individual supply inlets, supply stops, supply risers, and tubular brass traps with cleanouts at fixture.
 - Install water-supply stop valves in accessible locations.
 - Install traps on fixture outlets. Omit traps on fixtures having integral traps. Omit traps on indirect wastes, unless otherwise indicated.
 - Install escutcheons at wall, floor, and ceiling penetrations in exposed, finished locations. Use deep-patter escutcheons where required to conceal protruding pipe fittings.
 - Seal joints between fixtures and walls, floors, and counters using sanitary-type, one-part, mildew-resistant, silicone sealant. Match sealant color to fixture color.
 - Install piping connections between plumbing fixtures and piping systems and plumbing equipment. Install insulation on supplies and drains of handicap-accessible fixtures.
 - Ground equipment. Tighten electrical connectors and terminals according to UL 486A and UL486B.

- DOMESTIC WATER HEATERS.
- SECTION REQUIREMENTS
 - Submit Product Data.
 - Comply with performance efficiencies prescribed in ASHRAE 90.
 - ELECTRIC WATER HEATERS
 - See schedule, This Sheet.
 - INSTALLATION
 - Install shutoff valves and unions at hot- and cold-water piping connections.
 - Make piping connections with dielectric fittings where dissimilar piping materials are joined.
 - Electrically ground units according to authorities having jurisdiction.



KEY PLAN

CONSTRUCTION DOCUMENTS

REVISIONS:

DESIGNED BY: CJC
DRAWN BY: JZK
CHECKED BY: DDF
DATE: 07/26/2023

JOB NUMBER

23-061

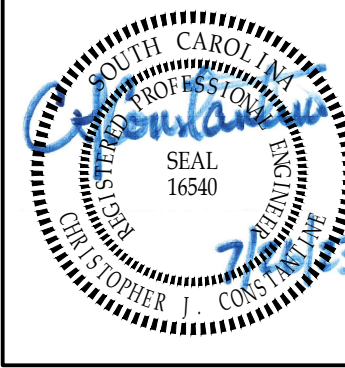
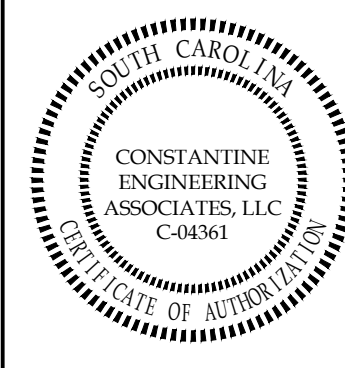
SHEET NUMBER

P1

IMPERIAL STORAGE UNITS

7121 SAVANNAH HIGHWAY 17, RAVENEL, SOUTH CAROLINA

PLUMBING PLAN

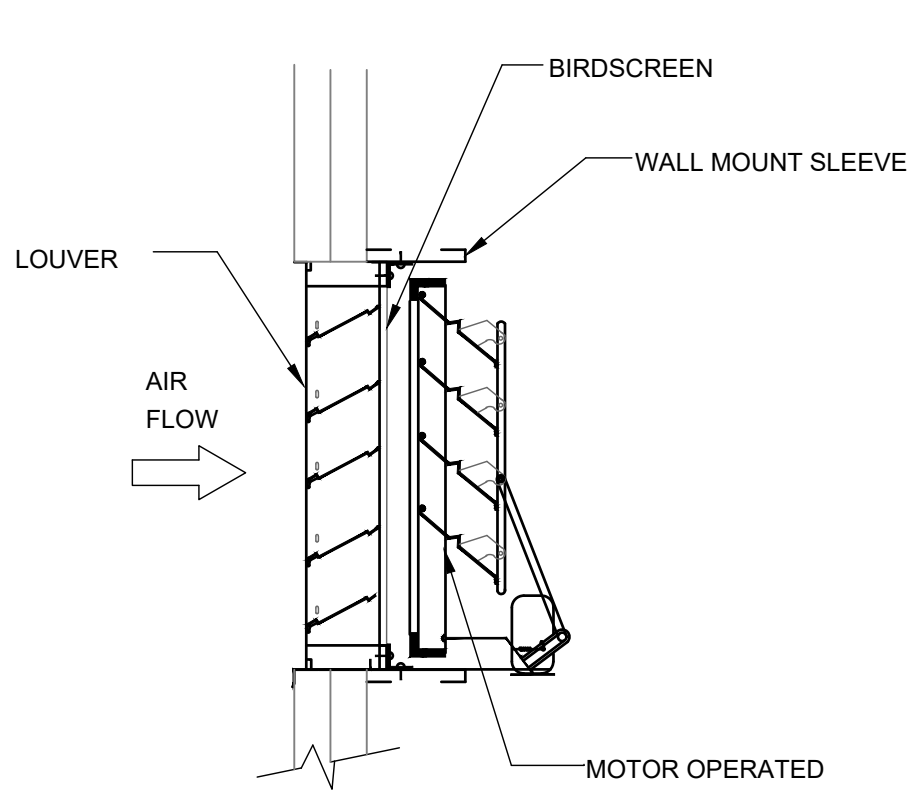


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ELECTRIC WALL HEATER SCHEDULE								
SYMBOL	TYPE	MFR	MODEL	WATTAGE OUTPUT	VOLTAGE	PHASE	ROUGH-IN H x W x D INCHES	CONTROL
EH-1	RECESSED MOUNTED	CADET	CBC103TW	1,000	120/240 VAC	1	10-1/8 X 8 X 4	BUILT-IN THERMOSTAT

LOUVER SCHEDULE										
SYMBOL	TYPE	MFR	MODEL	WIDTH X HEIGHT (INCHES)	EXT. SILL DIM. (INCHES)	ACTUATOR				
						MODEL	VOLTAGE	FAILURE POSITION	MOUNTING	NEMA ENCLOSURE
L-A,B,C,D,E,F	CHANNEL W/ ACTUATOR	GEENHECK	EAC-401	24 X 24	4	TFB120	120 VAC	CLOSED	IN AIRSTREAM, TOP-LEFT	1

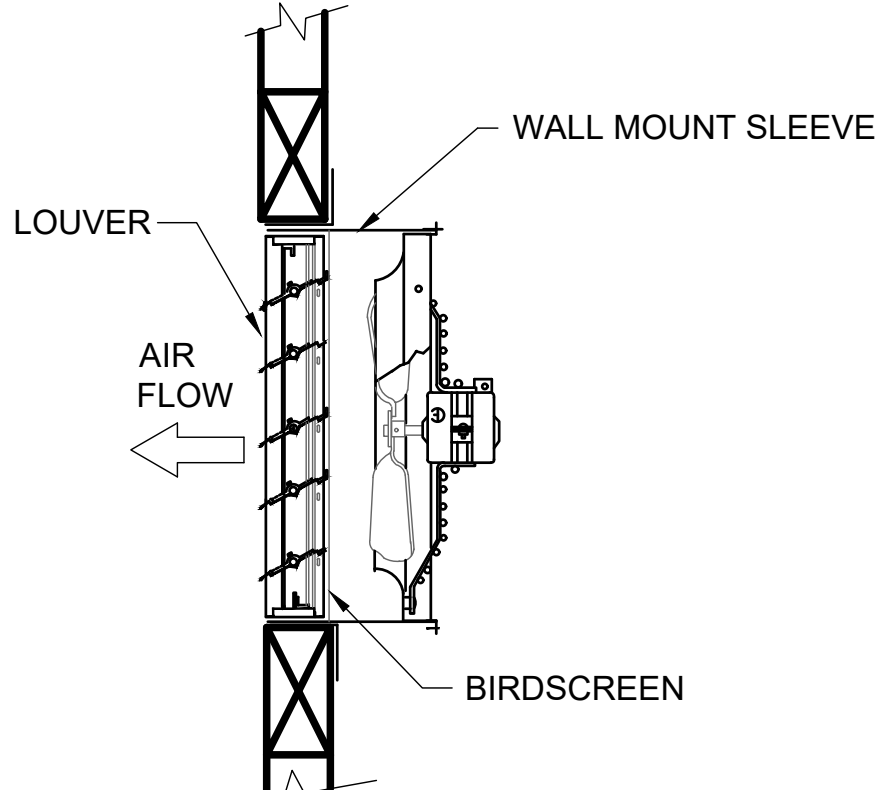
EXHAUST FAN SCHEDULE											
SYMBOL	MFR	TYPE	MODEL	CFM	ST PR (IWG)	DRIVE	FAN RPM	MOTOR	SYS. VOLTS		NOTES
								W			
EF-1	LOREN COOK	CEILING CABINET	GC-146	70	0.250	DIRECT	778	30	120/1/60		1. CONTROLLED BY LIGHT SWITCH, SEE ELECTRICAL.
EF-A,B,C,D,E,F	GREENHECK	WALL MOUNTED	AER-20	1000	0.507	DIRECT	1,160	186	115/1/60		1. PROPELLER GUARD 2. GRAVITY DAMPER 3. INTERLOCK WITH MOTORIZED INTAKE LOUVER (EAC-401), 120V ACTUATOR. 4. CONTROLLED BY WALL SWITCH



INTAKE LOUVER WITH MOTORIZED DAMPER

B2

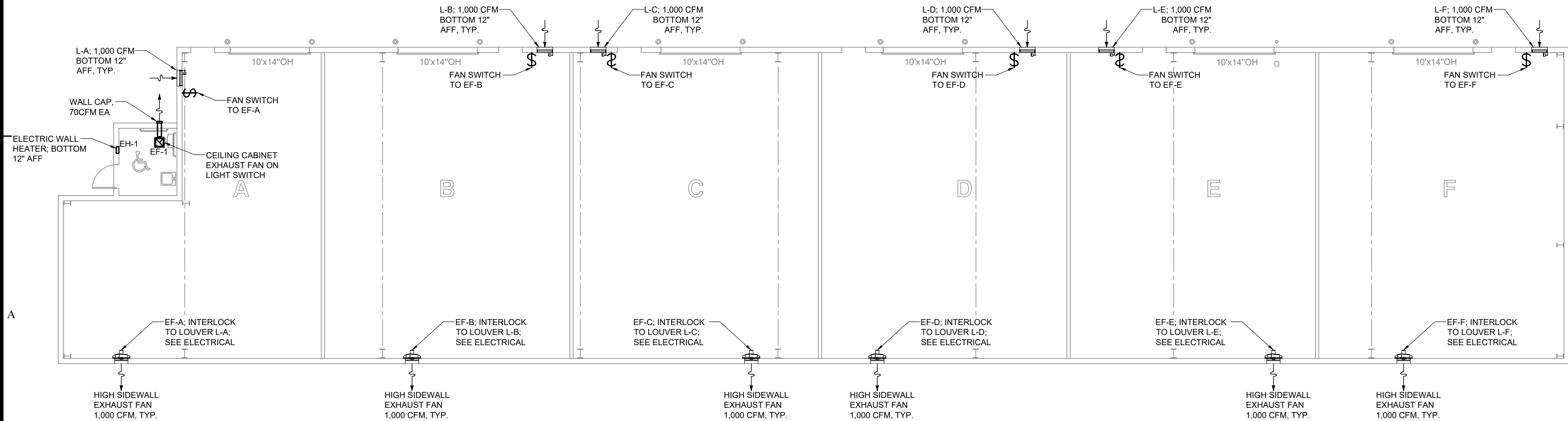
SCALE: NOT TO SCALE



SIDEWALL PROPELLER FAN

B4

SCALE: NOT TO SCALE



MECHANICAL PLAN

A1

1/8" = 1'-0"

0 4' 8' 16'

LEGEND

AFF	ABOVE FINISHED FLOOR
CFM	CUBIC FEET PER MINUTE
EA	EXHAUST AIR
EF	EXHAUST FAN
EH	ELECTRIC HEATER
OA	OUTDOOR AIR
RD	ROUND DUCT

GENERAL NOTES

- PROVIDE LABOR, MATERIALS AND EQUIPMENT TO COMPLETE THE HVAC WORK INDICATED ON THE DRAWINGS AND AS REQUIRED BY LOCAL CODES AND ORDINANCES.
- FURNISH AND INSTALL EQUIPMENT AS INDICATED ON THE DRAWINGS.
- INSTALL CONTROL SYSTEM COMPLETE WITH WIRING, COMPONENTS, ETC., TO PERFORM CONTROL SEQUENCE AS PER FACTORY RECOMMENDATIONS.
- INSTALL AND CONNECT THE HVAC SYSTEM IN STRICT ACCORDANCE WITH LOCAL CODES, ORDINANCES, 2021 SOUTH CAROLINA BUILDING CODE AND 2021 SOUTH CAROLINA MECHANICAL CODE.
- ADJUST CONTROLS AND EQUIPMENT FOR PROPER OPERATION. LUBRICATE AND CLEAN EQUIPMENT PRIOR TO ACCEPTANCE OF BUILDING BY OWNER.
- COORDINATE WORK WITH THE ELECTRICAL INSTALLER.
- FURNISH THE OWNER WITH OPERATING MANUALS AND MAINTENANCE INSTRUCTIONS FOR EQUIPMENT INSTALLED.
- GUARANTEE WORK INSTALLED UNDER THE CONTRACT TO BE FREE FROM DEFECTIVE WORKMANSHIP AND MATERIALS, USUAL WEAR EXPECTED. SHOULD SUCH DEFECTS DEVELOP WITHIN A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF THE BUILDING BY THE OWNER, REPAIR AND/OR REPLACE DEFECTIVE ITEMS AND DAMAGE, RESULTING FROM FAILURE OF THESE ITEMS, AT NO EXPENSE WHATSOEVER TO THE OWNER.

MECHANICAL SPECIFICATIONS

- DUCTS AND ACCESSORIES
- SECTION REQUIREMENTS
 - Summary: Metal and nonmetal ducts and accessories in pressure classes 2 inch wg (500 Pa) or less.
 - Comply with 90A.
 - DUCTS
 - Galvanized Sheet Steel: Lock-forming quality, ASTM A 653, G90 (ASTM A 653M, Z275).
 - Joint and Seam Tape: Comply with UL 181A.
 - Joint and Seam Sealant: Comply with UL 181A.
 - ACCESSORIES
 - Flexible Connectors: Flame-retarded or noncombustible fabrics, coatings, and adhesives complying with UL 181, class 1.
 - INSTALLATION
 - Duct System Pressure Class: Construct and install each duct system for low pressure duct classification.
 - Conceal ducts from view in finished and occupied spaces, unless noted otherwise on the drawings.
 - Support and connect metal ducts according to SMACNA's "HVAC Duct Construction Standard".
 - Install duct accessories according to applicable portions of details of construction as shown in SMACNA standards.

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IMPERIAL STORAGE UNITS

7121 SAVANNAH HIGHWAY 17, RAVENEL, SOUTH CAROLINA

MECHANICAL PLAN

REVISIONS:

DESIGNED BY: CJC
DRAWN BY: DDF, ARS
CHECKED BY: CJC
DATE: 07/26/2023

JOB NUMBER

23-061

SHEET NUMBER

M1

CONSTRUCTION DOCUMENTS

GENERAL NOTES

1. FURNISH ALL MATERIALS AND LABOR NECESSARY TO PROVIDE COMPLETE AND PROPERLY OPERATING ELECTRICAL SYSTEMS. FURNISH ALL MATERIALS AND LABOR NECESSARY TO DEMONSTRATE TO THE OWNER AND TO THE ENGINEER THAT ALL SYSTEMS ARE OPERATING PROPERLY AND AS SPECIFIED. WARRANTY ALL WORK AND ALL MATERIALS, EQUIPMENT AND DEVICES FOR A PERIOD OF ONE YEAR AFTER OWNER'S ACCEPTANCE.

2. ENSURE THAT ALL WORK CONFORMS TO:

2.1. 2017 A117.1 ANSI

2.2. 2020 NATIONAL ELECTRICAL CODE (NFPA 70) WITH SC MODIFICATIONS

2.3. 2021 SOUTH CAROLINA BUILDING CODE

2.4. 2009 SOUTH CAROLINA ENERGY CONSERVATION CODE

2.5. ALL FEDERAL, STATE AND LOCAL CODES AND ORDINANCES

2.6. LOCAL UTILITY COMPANY REGULATIONS

3. ALL MATERIALS, EQUIPMENT AND DEVICES AS A MINIMUM SHALL MEET THE REQUIREMENTS OF U.L. (WHERE U.L. STANDARDS ARE ESTABLISHED FOR THOSE ITEMS) AND THE REQUIREMENTS OF THE NFPA 70. ALL ITEMS SHALL BE CLASSIFIED BY U.L. AS SUITABLE FOR THE PURPOSE USED.

4. COORDINATE LOCATION OF ELECTRICAL DEVICES AND ELECTRICAL WORK WITH OTHER TRADES TO AVOID CONFLICTS AND INTERFERENCES. NUMBERS ADJACENT TO DEVICES ARE NOMINAL MOUNTING HEIGHTS.

5. PROVIDE ALL THE INTERCONNECTING POWER WIRING AND CONDUIT, CONTROL WIRING (RATED 120 VOLTS (NOMINAL) AND CONDUIT, AND THE ELECTRICAL POWER CIRCUITS FOR ALL EQUIPMENT PROVIDED BY OTHER TRADES.

6. COORDINATE WITH AND OBTAIN PERMITS AND INSPECTIONS FROM THE AUTHORITY HAVING JURISDICTION. INCLUDE ALL FEES IN BID.

7. PROVIDE A LAMINATED PLASTIC NAMEPLATE FOR EACH MAJOR ITEM OF ELECTRICAL EQUIPMENT (E.G. PANELBOARDS, DISCONNECT SWITCHES, TRANSFORMERS, ETC.). ATTACH WITH SCREWS, BOLTS OR RIVETS. LABEL ALL SERVICE METERS AND DISCONNECTS WITH NAME AND IDENTIFY SPACE/AREA SERVED.

8. BOND THE NEUTRAL AND GROUND BUS TOGETHER AT THE SERVICE EQUIPMENT ONLY. BOND THE GROUNDING CONDUCTOR TO THE GROUNDING ELECTRODE SYSTEM (WHICH IS COMPRISED OF A 3/4"x10' DRIVEN GROUND ROD AND CONNECTIONS TO METALLIC PIPING, BUILDING STEEL, ETC.). PROVIDE INSULATED NEUTRALS FOR ALL SUBPANELS PER N.E.C. ARTICLE 250.

9. PROVIDE MINIMUM SIZE OF #12 CONDUCTOR FOR 20A POWER CIRCUITS LESS THAN 75'-0" IN LENGTH. OTHERWISE, PROVIDE MINIMUM CONDUCTOR SIZE OF #10. PROVIDE MINIMUM SIZE OF #12 AWG FOR LIGHTING CIRCUITS AND #16 FOR CONTROL CIRCUITS UNLESS NOTED OTHERWISE. INSTALL ALL WIRING IN CONDUIT UNLESS NOTED OTHERWISE.
10. PROVIDE ALL MOUNTING BRACKETS, HANGERS, CLIPS, ETC. AS NECESSARY TO MOUNT AND SECURE LIGHT FIXTURES IN LOCATIONS SHOWN AND AS RECOMMENDED BY THE MANUFACTURER FOR THE APPLICATION INTENDED.

11. PROVIDE TYPEWRITTEN DIRECTORY FOR ALL CIRCUITS. DIRECTORY SHALL IDENTIFY PANELBOARD AND INDICATE EACH CIRCUIT NUMBER, DESCRIPTION AND LOCATION.

12. THE CLEARANCE AROUND PANELS SHALL COMPLY WITH NEC AND SCFC 603.4 WORKING SPACE AND CLEARANCE. A WORKING SPACE OF NOT LESS THAN 30 INCHES (762 MM) IN WIDTH, 36 INCHES (914 MM) IN DEPTH AND 78 INCHES (1981 MM) IN HEIGHT SHALL BE PROVIDED IN FRONT OF ELECTRICAL SERVICE EQUIPMENT. WHERE THE ELECTRICAL SERVICE EQUIPMENT IS WIDER THAN 30 INCHES (762 MM), THE WORKING SPACE SHALL NOT BE LESS THAN THE WIDTH OF THE EQUIPMENT. NO STORAGE OF ANY MATERIALS SHALL BE LOCATED WITHIN THE DESIGNATED WORKING SPACE. PROVIDE STRIPING ON THE FLOOR AROUND ELECTRICAL PANELS TO CLEARLY IDENTIFY/INDICATE CLEARANCE AREA/NO STORAGE AREA.

13. MAKE ARRANGEMENTS WITH THE POWER COMPANY TO OBTAIN PERMANENT POWER AND PROVIDE TEMPORARY ELECTRICAL SERVICE TO THE PROJECT FOR CONSTRUCTION POWER. PROVIDE SERVICE ENTRANCE AND PROVISION FOR METERING IN ACCORDANCE WITH THE POWER COMPANY'S REQUIREMENTS. INCLUDE ALL FEES IN BID.

14. MECHANICAL EQUIPMENT SHOWN FOR REFERENCE PURPOSES ONLY. COORDINATE EXACT LOCATION OF EQUIPMENT WITH MECHANICAL DRAWINGS.

DISCONNECT SCHEDULE						
SYM.	POLE	NEMA RATING	SIZE (AMPS)	FUSE (AMPS)	FEEDER SIZE:	NOTES:
S	3	3R	1200	1200	4 RUNS (4#350 KCML,3"C) EACH	TIME DELAY FUSE
A	1	1	30	15	2#12, #12G, 1/2"C	TIME DELAY FUSE

ELECTRICAL PANEL "H" SCHEDULE													
VOLTS/PHASE/WIRE:		PANEL SIZE & TYPE:		MAIN SIZE & TYPE:			CABINET:			MIN SCC:	FED FROM:	NOTES:	
120-208/3/4		125A NEMA 3R		MLO			SURFACE			22KAIC	METER	-	
NO	TRIP	AREA SERVED				A	B	C	A	B	C	AREA SERVED	
1	20	SITE FACADE LIGHTING				195			199			RESTROOM LIGHTING AND RECEPTACLE	
3	15	RESTROOM HEATER					1000			1440		EWH-1	
5	20	MONUMENT SIGN						500			1080	TENANT RECEPTACLES	
7	20	TENANT LIGHTING				851			558			EXHAUST FAN UNITS A,B,C	
9	20	EXHAUST FAN UNITS D,E,F					558			X		SPARE	
11	20	SPARE						X			X	SPARE	
13	-	SPACE				X			X			SPACE	
15	-	SPACE					X			X		SPACE	
17	-	SPACE						X			X	SPACE	
19	-	SPACE				X			X			SPACE	
21	-	SPACE					X			X		SPACE	
23	-	SPACE						X			X	SPACE	
25	-	SPACE				X			X			SPACE	
27	-	SPACE					X			X		SPACE	
29	-	SPACE						X			X	SPACE	
TOTAL CONNECTED LOAD =		6381		VA		TOTAL DEMAND =		6381		VA		TOTAL DEMAND =	
												18	
												AMPS	

LEGEND

- A-1.3

HOMERUN OF CIRCUIT TO PANEL - CIRCUIT NUMBERS INDICATED.
- 125V, 20A DUPLEX RECEPTACLE AT 18" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED
- 125V, 20A DUPLEX RECEPTACLE WITH GFI
- "C"

INDICATES 42" AFF MOUNTING HEIGHT
- #

DISCONNECT SWITCH - SEE DISCONNECT SCHEDULE
- J

JUNCTION BOX
- RESTROOM EXHAUST FAN, EF
- VENTILATION LOUVER, SEE MECHANICAL
- VENTILATION FAN, SEE MECHANICAL
- ELECTRICAL METER, WEATHERPROOF ENCLOSURE
- PANELBOARD, SURFACE MOUNTED. HATCHING INDICATES CLEAR SPACE IN FRONT.
- ELECTRICAL EARTH GROUND
- \$

WALL SWITCH, 20A, 125V
- \$F

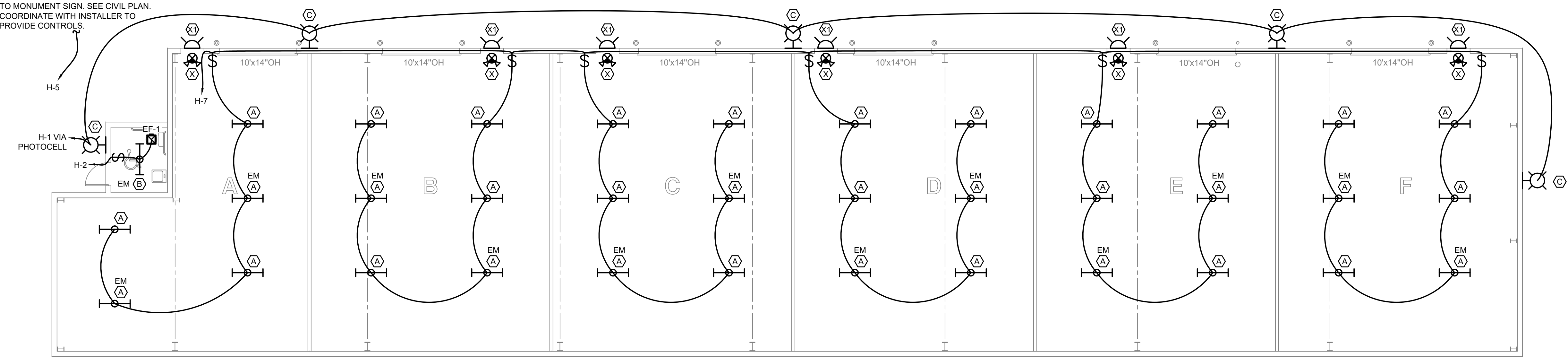
FAN SWITCH WITH SPEED CONTROL, 20A, 125V
- #"

INDICATES AFF MOUNTING HEIGHT
- AFF

ABOVE FINISHED FLOOR
- BOD

BASIS OF DESIGN
- EWH

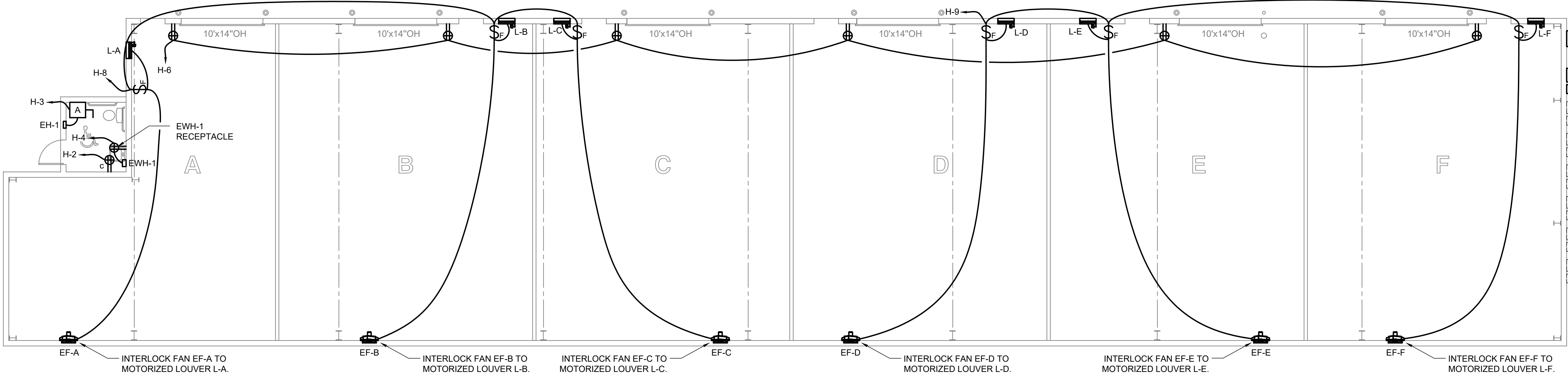
ELECTRIC WATER HEATER



B1 LIGHTING PLAN

1/8" = 1'-0"

0 4' 8' 16'



A1 POWER PLAN

1/8" = 1'-0"

0 4' 8' 16'

CONSTRUCTION DOCUMENTS

REVISIONS:

DESIGNED BY: WFO
DRAWN BY: WFO
CHECKED BY: JCM
DATE: 07/26/2023

JOB NUMBER

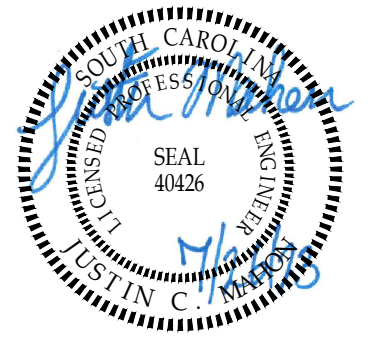
23-061

SHEET NUMBER

E1

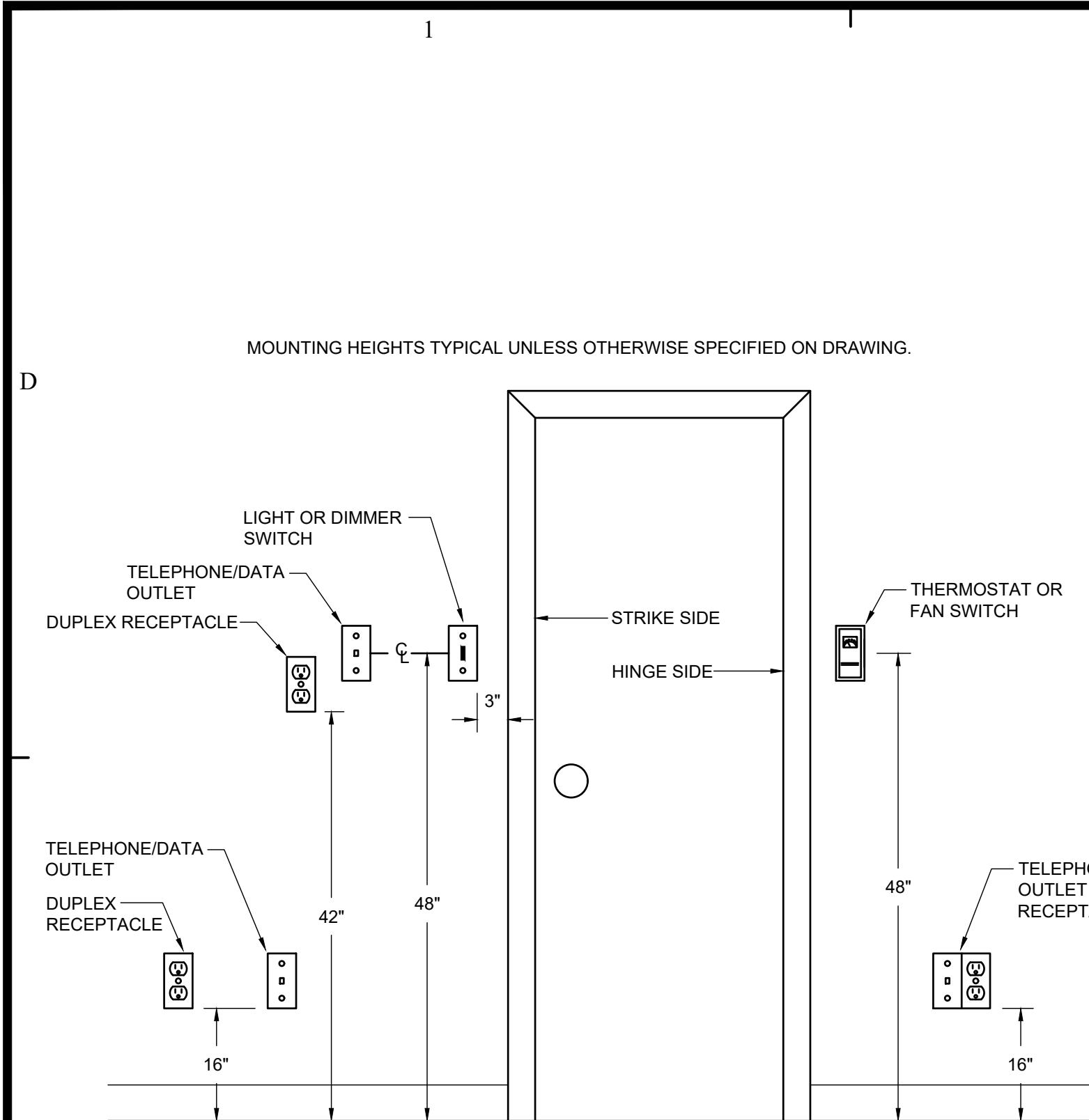
CONSTANTINE
ENGINEERING
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1638 Savannah Hwy, #181, Charleston, SC 29407
Phone: 843.628.7878, Fax: 843.628.7881

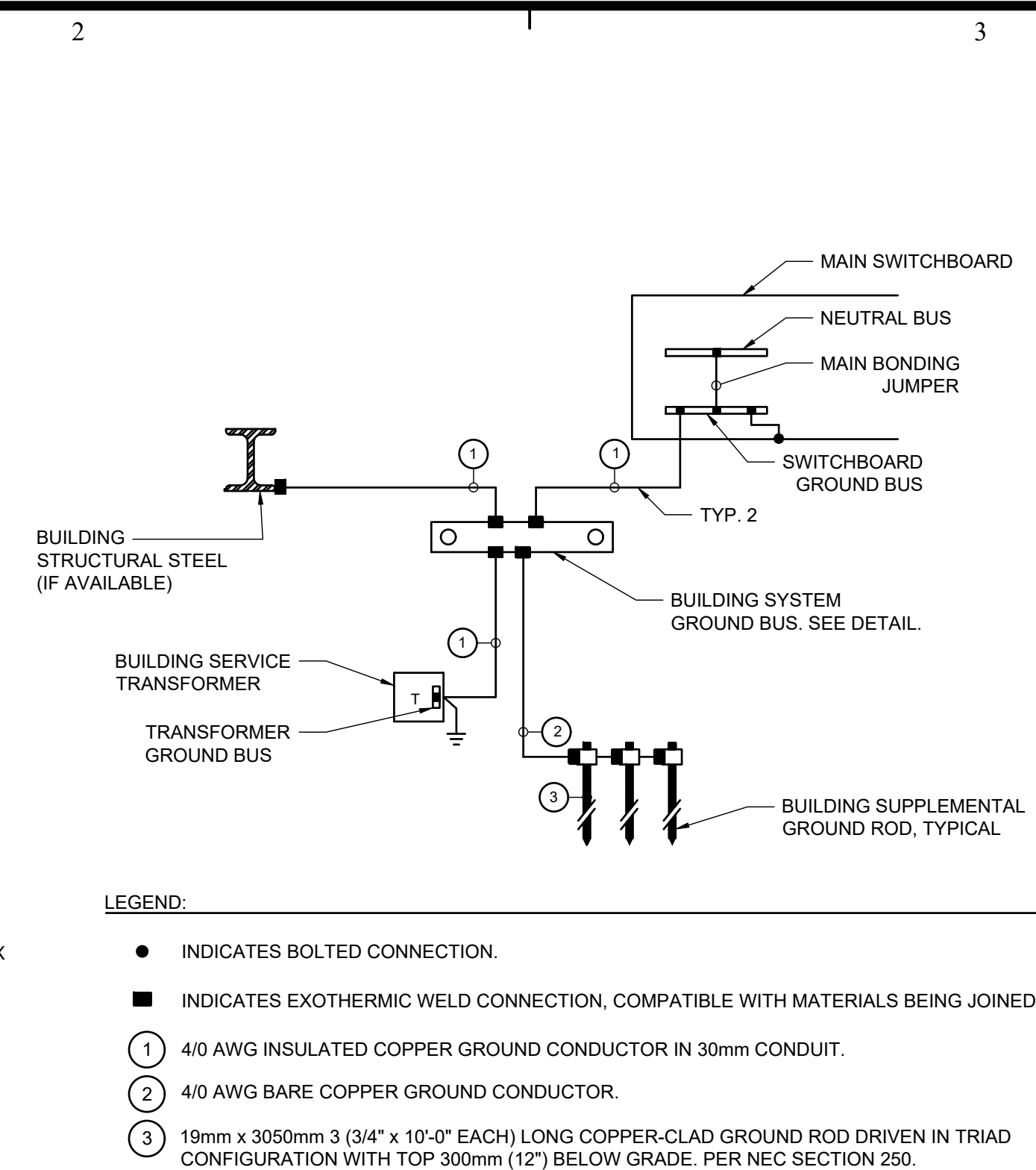


IMPERIAL STORAGE UNITS
7121 SAVANNAH HIGHWAY 17, RAVENEL, SOUTH CAROLINA

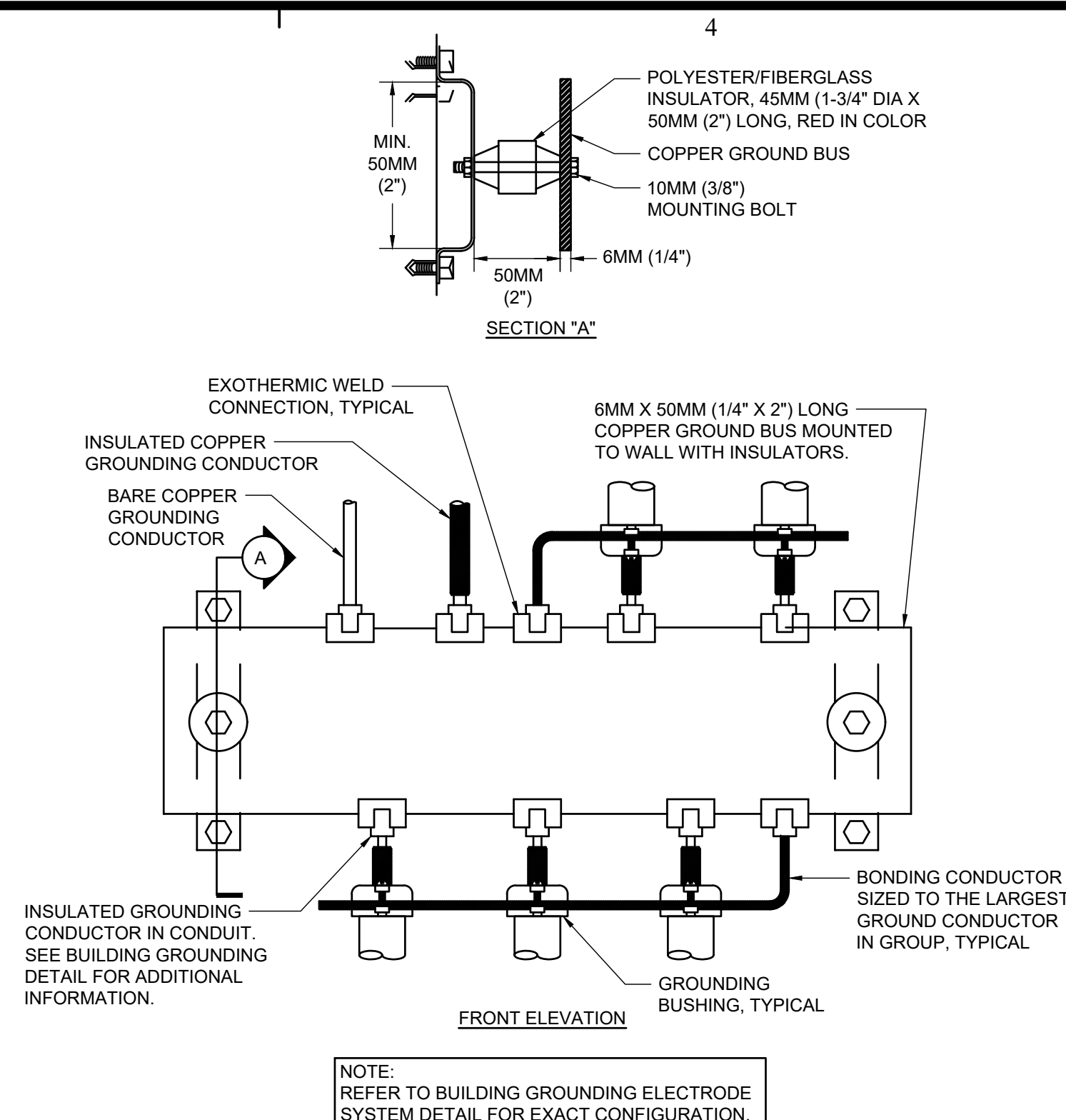
ELECTRICAL PLAN



C1 MOUNTING HEIGHTS

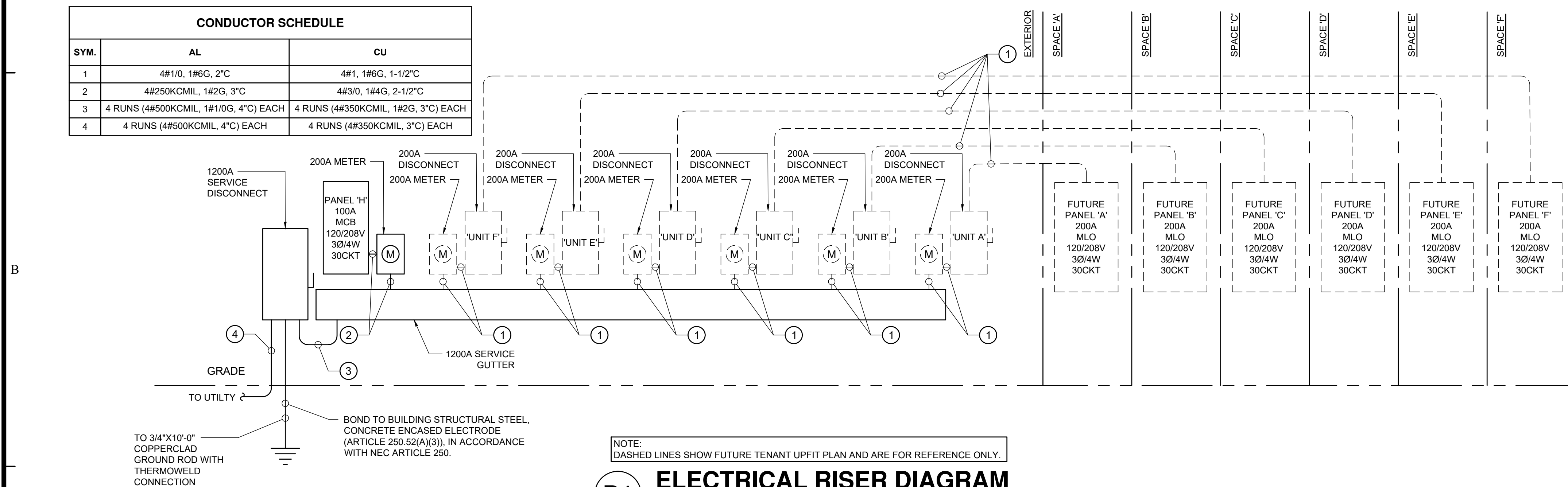


C2 BUILDING GROUNDING ELECTRODE SYSTEM



C3 **SYSTEM GROUND BUS**
NO SCALE

CONDUCTOR SCHEDULE		
SYM.	AL	CU
1	4#1/0, 1#6G, 2°C	4#1, 1#6G, 1-1/2°C
2	4#250KCMIL, 1#2G, 3°C	4#3/0, 1#4G, 2-1/2°C
3	4 RUNS (4#500KCMIL, 1#1/0G, 4°C) EACH	4 RUNS (4#350KCMIL, 1#2G, 3°C) EACH
4	4 RUNS (4#500KCMIL, 4°C) EACH	4 RUNS (4#350KCMIL, 3°C) EACH



B1 ELECTRICAL RISER DIAGRAM

LUMINAIRE SCHEDULE									
MARK	SYMBOL	DESCRIPTION	CATALOG NUMBER	VOLTAGE	LUMENS	CCT	WATTS	CONTROLS	NOTES
A		4' LINEAR INDUSTRIAL STRIP LIGHT	LITHONIA LIGHTING CLX CLX L48 3000LM SEF RDL 120 GZ10 40K 80CRI WH	UNV	3000	4000K	19	-	INCLUDE OPTION 'E10WLCF' FOR FIXTURES MARKED "EM"
B		3' LINEAR INDUSTRIAL STRIP LIGHT	LITHONIA LIGHTING CLX CLX L36 2250LM SEF RDL 120 GZ10 40K 80CRI WH	UNV	2250	4000K	16	-	INCLUDE OPTION 'E10WLCF' FOR FIXTURES MARKED "EM"
C		EXTERIOR, WALL-MOUNTED SITE LIGHT	LITHONIA LIGHTING TWPX2 LED P3 40K MVOLT PE DOBXD	UNV	5050	4000K	39	INTEGRAL PHOTOCELL	
X		WHITE, THERMOPLASTIC LED EXIT SIGN / EGRESS LIGHT COMBO WITH RED LETTERS AND A 90-MINUTE BATTERY BACKUP	LITHONIA LIGHTING QUANTUM SERIES LHOM LED R H0	UNV	-	-	4.3	-	CONNECT TO LOCAL LIGHTING CIRCUIT AHEAD OF CONTROLS
X1		EXTERIOR, WALL-MOUNTED LED EMERGENCY EGRESS LIGHT WITH 90 MIN BATTERY BACKUP	LITHONIA LIGHTING WEDGE2 WDGE2 LED P3 40K 80CRI T1S MVOLT SRM E10WH PE	UNV	1981	4000K	32	INTEGRAL PHOTOCELL	CONNECT TO LOCAL LIGHTING CIRCUIT AHEAD OF CONTROLS
FINAL LIGHT SELECTIONS BY OWNER/ARCHITECT. COORDINATE PRIOR TO PURCHASE. FIXTURES SHOWN ARE USED FOR DESIGN PURPOSES AND PERFORMANCE ONLY. ALTERNATE MANUFACTURERS ARE ACCEPTABLE UPON WRITTEN APPROVAL BY ENGINEER. PRODUCTS SHALL BE EQUIVALENT TO OR BETTER THAN DESIGN BASIS INDICATED IN THIS SCHEDULE.									

ELECTRICAL SPECIFICATIONS

WIRING METHODS

- ## 1. SECTION REQUIREMENTS
- 1.A. Summary: Building wires and cables and associated splices, connectors, and terminations for wiring systems rated 600 V and less, and twisted-pair cable; and raceways and boxes.
 2. WIRES AND CABLES
 - 2.A. Service Entrance Wires and Cables: Type THHN/XTHH copper/aluminum conductors rated for operation at 90°C.
 - 2.B. Building Interior Wires and Cables: Type THHN/XTHH copper conductor rated for operation at 90°C.
 - 2.C. Connectors and Splices: Wiring connectors of size, ampacity rating, material, and type and class for application and for service indicated. Terminals to be rated for operation at 75°C.
 - 2.D. Use of type MC Cable is permitted in accordance with NEC.
 3. RACEWAYS
 - 3.A. Conduit: Comply with the following:
 - 3.A.1. Rigid Steel Conduit: ANSI C80.1.
 - 3.A.2. Intermediate Metal Conduit: ANSI C80.6.
 - 3.A.3. Electrical Metallic Tubing: ANSI C80.3.
 - 3.A.4. Rigid Nonmetallic Conduit: NEMA TC 2, Schedule 40.
 - 3.B. Wireways: Hinged type, with manufacturer's standard finish.
 - 3.C. Outlet and Device Boxes: UL Listed and labeled sheet metal boxes.
 - 3.D. Pull and Junction Boxes: Small sheet metal boxes.
 4. INSTALLATION
 - 4.A. Install wires and cables according to the NECA's "Standard of Installation."
 - 4.B. Wiring at Outlets: Install with at least 12 inches of slack conductor at each outlet.
 - 4.C. Outdoors Wiring Methods: As follows:
 - 4.C.1. Exposed: Rigid or intermediate metal conduit.
 - 4.C.2. Concealed: Rigid or intermediate metal conduit.
 - 4.C.3. Underground, Single Run: Rigid nonmetallic conduit.
 - 4.C.4. Underground, Grouped: Rigid nonmetallic conduit.
 - 4.D. Connection to Vibrating Equipment (Including Electric Solenoid or Motor-Driven Equipment): Liquid tight flexible metal conduit.
 - 4.E. Indoors Wiring Methods: As follows:
 - 4.E.1. Connection to vibrating Equipment (Including Electric Solenoid or Motor-Driven Equipment): Flexible metal conduit, except in wet or damp locations use liquid tight flexible metal conduit.
 - 4.E.2. Damp or Wet Locations: Steel steel conduit.
 - 4.E.3. Exposed: Electrical metallic tubing.
 - 4.E.4. Concealed: Electrical metallic tubing.
 - 4.E.5. Boxes and Enclosures: NEMA 250, Type 1, except in damp or wet locations use NEMA 250, Type 4, stainless steel.
 - 4.E.6. Install raceways, boxes, enclosures, and cabinets as indicated, according to manufacturer's written instructions.
 - 4.E.7. Conceal conduit and electrical metallic tubing, unless otherwise indicated, within finished walls, ceilings, and floors.
 - 4.E.8. Cable electrical conductors may be utilized where permitted by NEC and local jurisdiction ordinances, except on medical facility patient area receptacles.
 - 4.F. Use Raceway fittings compatible with raceway and suitable for use and location. For intermediate steel conduit, use threaded rigid steel conduit fittings, unless otherwise indicated.
 - 4.G. Raceways Embedded in Slabs: Install in middle third of the slab thickness where practical, and leave at least 1-inch concrete cover.
 - 4.H. Install exposed raceways parallel to or at right angles to nearby surfaces or structural members, and follow the surface contours as much as practical.
 - 4.I. Join raceways with fittings designed and approved for the purpose and make joints tight. Use bonding bushings or wedges at connections subject to vibration. Use bonding jumpers where joints cannot be made tight. Use insulating bushings to protect conductors.
 - 4.J. Install pull wires in conduits for use with cable. Use 1/8" A193 zinc-coated steel or monofilament plastic line having not less than 200-lb tensile strength. Leave not less than 12 inches of slack at each end of the pull wire.
 - 4.K. Stub-up Connections: Extend conductors to equipment with rigid steel conduit; flexible metal conduit may be used 6 inches above the floor.
 - 4.L. Flexible Connections: Use maximum of 72 inches of flexible conduit for recessed and semirecessed lighting fixtures, for equipment subject to vibration, noise transmission, or movement; and for all motors. Use liquid tight flexible conduit in wet or damp locations. Install separate ground conductor across flexible connections.
 - 4.M. Install a separate green ground conductor in all raceways.

WIRING DEVICES

1. SECTION REQUIREMENTS
 - 1.A. Submit Product Data
2. DEVICES
 - 2.A. General Purpose Wiring Devices: Comply with NEMA WD1.
 - 2.B. Color: White.
 - 2.C. Receptacles: UL 498, general-use grade except as indicated otherwise.
 - 2.D. Ground-Fault Circuit Interrupter Receptacles: UL 943, feed-through type, with integral NEMA 5-20 duplex receptacle; for installation in a 2-3/4 inch deep box without an adapter.
 - 2.E. Snap Switches: Quiet-type ac switches, 120/277V, 20A, complying with UL 20.
 - 2.F. Wall Plates, Finished Areas: Smooth plastic, fastened with metal screws having heads matching plate color.
 - 2.G. Wall Plates, Unfinished Areas: Galvanized steel with metal screws.
3. INSTALLATION
 - 3.A. Install devices and assemblies plumb and secure.
 - 3.B. Mount devices flush with long dimension vertical, and grounding terminal of receptacles on top. Group adjacent switches under single, multi gang wall plates.
 - 3.C. Protect devices and assemblies during painting.
 - 3.D. Install wall plates when painting is complete.

SAFETY SWITCHES AND CIRCUIT BREAKERS

1. SWITCHES
 - 1.A. Enclosed, Nonfusible Switch: NEMA KS 1, Type HD, with lockable handle.
 - 1.B. Enclosed, Fusible Switch, 800A and Smaller: NEMA KS 1, Type HD, clips to accommodate specified fuses, enclosure consistent with environment where located, handle lockable with 2 padlocks, and interlocked with cover in closed position.

PANELBOARDS

1. SECTION REQUIREMENTS
- 1.A. Submit Product Data.
2. PANELBOARDS AND LOAD CENTERS
- 2.A. Surface-mounted, NEMA PB 1, Type 3R.
 - 2.A.1. Front: Secured to box with concealed trim clamps.
 - 2.A.2. Bus: Hard drawn copper of 98 AB conductivity.
- 2.B. Molded-Case Circuit Breaker: NEMA AB 1; no tandem circuit breakers; single handle for multiple circuit breakers.
3. INSTALLATION
- 3.A. Install panelboards and accessory items according to NEMA PB 1.1. Indicate installed circuit loads on a typed circuit directory, after balancing panelboard loads, showing as-built conditions.
- 3.B. Wiring in Panelboard Gutters: Arrange conductors into groups, bundle and wrap with wire ties.

LIGHTING

1. SECTION REQUIREMENTS
 - 1.A. Submit Product Data for each luminaire, including lamps.
 - 1.B. Coordinate ceiling-mounted luminaires with ceiling construction.
2. LUMINAIRES
 - 2.A. As shown on contract drawings.
3. INSTALLATION
 - 3.A. Set units plumb, square, and level with ceiling and walls, and secure.
 - 3.B. Lamping: Where specific lamp designations are not indicated, lamp units according to manufacturer's written instructions.

REVISIONS:

DESIGNED BY:	WFQ
DRAWN BY:	WFQ
CHECKED BY:	JCM
DATE:	07/26/2023

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