SC CODE EDITION: 2021 ICC CODE EDITION: 2021 ICC A117.1 EDITION: 2017 OSF GUIDE EDITION: 2020 OTHER CODES/STANDARDS & EDITIONS:

PROJECT DESCRIPTION: [Brief Scope of Work & Include project delivery method (i.e. CMR, etc.)]
Cooler & Freezer enclosure modification

BASIC BUILDING CODE INFORMATION										
DESIGNATED AREAS OF BUILDING	Building Code	Area 1	Area 2	Area 3	Area 4	Area 5				
	-	⊠ SCBC	□ SCBC	□ SCBC	□ SCBC	□ SCBC				
		☐ SCEBC	☐ SCEBC	☐ SCEBC	□ SCEBC	☐ SCEBC				
CONSTRUCTION CLASSIFICATION TYPE	Section 602	IIB								
OCCUPANCY GROUP (indicate all)	Section 302	Е								
MOST RESTRICTIVE OCCUPANCY GROUP	Tables 504.3, 504.4 & 506.2	Е								
Does building require Incidental Use Area Separation?	Table 509	□ YES ⊠ NO	□ YES □ NO							
Does building have Accessory Occupancy (ies)?	Section 508.2	☐ YES ☒ NO	□ YES □ NO							
What is the aggregate square footage of the accessory occupancy (ies)?	Section 508.2	0 SF	SF	SF	SF	SF				
What percent of the story is the aggregate of the accessory occupancy (ies)?	Section 508.2	0 %	%	%	%	%				
Mixed Occupancy		☐ YES ☒ NO	□ YES □ NO							

SOUTH CAROLINA STATE DEPARTMENT OF EDUCATION

#### Form F3 – Building Code Analysis

	EXISTING BUILDING CODE INFORMATION [SCEBC]									
DESIGNATED AREAS OF BUILDING	Area 1	Area 2	Area 3							
Method of Compliance: (Check only one Option and all items that apply under that Option.)	<ul> <li>☑ Option 1: Prescriptive Compliance</li> <li>Method (Ch. 3, 5)</li> <li>☐ Alteration</li> <li>☑ Addition</li> <li>☐ Change of Occupancy</li> <li>☐ Historic Building</li> </ul>	☐ Option 1: Prescriptive Compliance  Method (Ch. 3, 5)  ☐ Alteration ☐ Addition ☐ Change of Occupancy ☐ Historic Building	☐ Option 1: Prescriptive Compliance Method (Ch. 3, 5) ☐ Alteration ☐ Addition ☐ Change of Occupancy ☐ Historic Building							
	☐ Option 2: Work Area Compliance  Method (Ch. 3, 6-12)  ☐ Alteration Level 1 ☐ Alteration Level 2 ☐ Alteration Level 3 ☐ Change of Occupancy ☐ Additions ☐ Historic Building  Aggregate area of building: SF  Work area: SF	☐ Option 2: Work Area Compliance Method (Ch. 3, 6-12) ☐ Alteration Level 1 ☐ Alteration Level 2 ☐ Alteration Level 3 ☐ Change of Occupancy ☐ Additions ☐ Historic Building  Aggregate area of building: SF Work area: SF	☐ Option 2: Work Area Compliance Method (Ch. 3, 6-12) ☐ Alteration Level 1 ☐ Alteration Level 2 ☐ Alteration Level 3 ☐ Change of Occupancy ☐ Additions ☐ Historic Building  Aggregate area of building: SF Work area: SF							
	☐ Option 3: Performance Compliance Method (Ch. 3, 13)	☐ Option 3: Performance Compliance Method (Ch. 3, 13)	☐ Option 3: Performance Compliance Method (Ch. 3, 13)							
Original Building Code and Edition Applicable at the time of Construction:	2000									
Existing Sprinkler System?	⊠ YES □ NO	□ YES □ NO	□ YES □ NO							
Existing Fire Alarm System?	☐ Manual ⊠ Auto	☐ Manual ☐ Auto	☐ Manual ☐ Auto							
Seismic Evaluation Required?	□ YES ⊠ NO	□ YES □ NO	□ YES □ NO							

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	Form F3 – Building Code Analysis									
Chan	nge of Occupancy:	☐ YES ☒ NO Existing Occupancy Class(s): New Occupancy Classification(s):	☐ YES ☐ NO Existing Occupancy Class(s): New Occupancy Classification(s):	☐ YES ☐ NO Existing Occupancy Class(s): New Occupancy Classification(s):						
Histo	oric Building:	□ YES ⋈ NO	□ YES □ NO	□ YES □ NO						
		☐ Preservation	☐ Preservation	☐ Preservation						
		☐ Rehabilitation	☐ Rehabilitation	☐ Rehabilitation						
		☐ Restoration	☐ Restoration	☐ Restoration						
		☐ Reconstruction	☐ Reconstruction	☐ Reconstruction						

	_	_	_		_
DESIGNATED AREAS OF BUILDING	Area 1	Area 2	Area 3	Area 4	Area 5
1 <sup>st</sup> FLOOR	1,040				
2 <sup>nd</sup> FLOOR					
3 <sup>rd</sup> FLOOR					
4 <sup>th</sup> FLOOR					
TOTAL:	1040	0	0	0	0

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ALLOWABLE BUILDING AREA										
DESIGNATED AREAS OF BUILDING	Area 1	Area 2	Area 3	Area 4	Area 5					
At Tabular allowable area factor (NS, S1, S13R or SM as applicable) in accordance with IBC Table 506.2	A <sub>t</sub> = 14,500 SF	A <sub>t</sub> = SF	A <sub>t</sub> = SF	$A_t = SF$	A <sub>t</sub> = SF					
Allowable Area Increase (Equations 5-1 through 5-5, as applicable)	☐ YES ☒ NO	□□YES □NO	□ YES □ NO	□ YES □ NO	□ YES □ NO					
IBC Section 506.3.2 Equation 5-4 where: $W = (L_1 \times w_1 + L_2 \times w_2 + L_3 \times w_3 +) / F$	L <sub>n</sub> =	L <sub>a</sub> =	$L_n =$	$L_n =$	L <sub>a</sub> =					
W = Width of public way or open space	$\mathbf{w}_n =$	$\mathbf{w}_{n} =$	$w_n =$	$\mathbf{w}_n =$	$\mathbf{w}_{n} =$					
L <sub>n</sub> Length of a portion of the exterior perimeter wall. w <sub>n</sub> Width (>= 20 feet) of public way or open space associated with that portion of the exterior perimeter wall.	<b>w</b> =	<b>W</b> =	<b>W</b> =	<b>W</b> =	<b>W</b> =					
F Building perimeter that fronts on a public way or open space having a width of 20 feet or more	F =	F =	F =	F =	F =					
IBC Section 506.3.3 Equation 5-5 where: If = [F/P - 0.25] W/30	P =	P =	P =	P =	P =					
$I_{\rm f}\!=\!$ Area factor increase factor due to frontage										
F Building perimeter that fronts on a public way or open space having a width of 20 feet or more.	I <sub>f</sub> =	$I_f =$	$I_f =$	$I_f =$	$\mathbf{I}_{\mathbf{f}} =$					
P Perimeter of entire building (feet).										
W Width of public way or open space in accordance with Equation 5-4										

	Form F3 – Building Code Analysis									
FIRE SERVICE INFORMA	ATION		ENERGY INFO	RMATION						
Service Line Size		6 Inches	INSULATION							
Fire Department Connection	Location		INSULATION							
	Location		Roof	Cavity	20 R					
Backflow	Type			Continuous	R					
	Date	2/2/2023	Walls	Cavity						
	Flow	10660 GPM		Continuous	13 R					
Fire Hydrant Flow Test			Underslab	Underslab						
	Residual	42 PSI	Summary of data j	Summary of data from approved ASHRAE 90.1 compliance						
	Static	58 PSI	sheets.		,					

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For	m F3 – Buildii	ng Code Anal	lysis		
Allowable building area per story in square feet as calculated by Equations 5-1 through 5-3. (Indicated equation used.)	$N_s = N/A$	N <sub>s</sub> =	N <sub>s</sub> –	N <sub>s</sub> –	N <sub>s</sub> =
□ IBC Section 506.2.1 Equation 5-1 $\mathbf{A}_{\mathbf{a}} = \mathbf{A}_{\mathbf{f}} + (\mathbf{N}_{\mathbf{s}} \times \mathbf{I}_{\mathbf{f}})$					
□ IBC Section 506.2.3 Equation 5-2 $\mathbf{A}_{a} = [\mathbf{A}_{t} + (\mathbf{N}_{s} \times \mathbf{I}_{f})] \times \mathbf{S}_{a}$	$S_a = 1$	$S_{ii} =$	$S_n =$	$S_{ii} =$	$S_{ii} =$
□ IBC Section 506.2.4 Equation 5-3 $\mathbf{A}_{a} = [\mathbf{A}_{t} + (\mathbf{N}_{s} \times \mathbf{I}_{f})]$					
N <sub>s</sub> Tabular allowable area factor in accordance with Table 506.2 for a non-sprinklered building (regardless of whether the building is sprinklered)	A <sub>4</sub> = SF	A <sub>a</sub> = SF	A <sub>n</sub> = SF	A <sub>n</sub> = SF	A <sub>s</sub> = SF
S <sub>a</sub> Actual number of building stories above grade plane, not to exceed three (3). For buildings equipped throughout with automatic sprinkler system installed in accordance with SCBC Section 903.3.1.2, use the actual number of building stories above grade plane, not to exceed four (4).					
MAXIMUM AREA PER STORY	14,500 SF	SF	SF	SF	SF
AREA AS DESIGNED PER STORY (Repeat for each story)	1,040 SF	SF	SF	SF	SF

## SOUTH CAROLINA STATE DEPARTMENT OF EDUCATION

#### Form F3 – Building Code Analysis

			BUILDING	HEIGHT			
DESIGNATED AREAS OF BUILDING	Building Code	Area 1		Building Code Area 1 Area 2		Area 3	
HEIGHT	-	DESIGNED	ALLOWED	DESIGNED	ALLOWED	DESIGNED	ALLOWED
In Feet	Table 504.3	14	55				
In Stories	Table 504.4	1	22				
Note: Allowable Buil	ding Height & Nu	mber of Stories	Above Grade Plan	e	•	•	•

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Form F3 – Building Code Analysis										
GENERAL FIRE PROTECTION REQUIREMENTS										
DESIGNATED AREAS OF BUILDING Building Code Area 1 Area 2 Area 3 Area 4 Area 5										
SEPARATIONS										
Fire Wall Required	Section 706	□ YES ⊠ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
Fire Barrier Required	Section 707	□ YES ⊠ NO	□ YES □ NO	□ NO □ YES	□ YES □ NO	□ YES □ NO				
Fire Partition Required	Section 708	□ YES ⊠ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
Smoke Barriers Required	Section 709	□ YES ⊠ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
Smoke Partitions Required	Section 710	□ YES ⊠ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
Fireblocking	Section 718.2	□ YES ⊠ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
Draftstopping	Sections 718.3 & 718.4	□ YES ⊠ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
Incidental Use Area One hour fire barrier Sprinkler system plus smoke resistance	Section 509.4	□ YES ⊠ NO □ YES ⊠ NO	□ YES □ NO □ YES □ NO	□ YES □ NO	□ YES □ NO □ YES □ NO	□ YES □ NO				
ALARM & DETECTION										
Fire Alarm and Detection System Fire Alarm Mass Notification Emergency voice/alarm comm.	SCFC Section 907	<ul> <li>         □ YES □ NO         □ YES □ YES □ YES         □ YES □ YES         □ YES</li></ul>	□ YES □ NO □ YES □ NO □ YES □ NO	□ YES □ NO □ YES □ NO □ YES □ NO	□ YES □ NO □ YES □ NO □ YES □ NO	□ YES □ NO □ YES □ NO □ YES □ NO				
Emergency Alarm System Required	SCFC Section 908	□ YES ⊠ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
SUPPRESSION										
Automatic Sprinkler System Provided Required	SCFC Section 903	⊠ YES □ NO ⊠ YES □ NO	□ YES □ NO □ YES □ NO	□ YES □ NO	□ YES □ NO □ YES □ NO	□ YES □ NO				

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Form F3 – Building Code Analysis										
Alternative Automatic Fire Extinguishing Kitchen Hoods Other	SCFC Section 904	□ YES ⋈ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
Standpipes Required	SCFC Section 905	□ YES ⊠ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
Portable extinguishers required General Building Kitchen Labs	SCFC Section 906	☐ YES ⋈ NO ☐ YES ⋈ NO ☐ YES ⋈ NO	□ YES □ NO □ YES □ NO □ YES □ NO	☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO	□ YES □ NO □ YES □ NO □ YES □ NO	□ YES □ NO □ YES □ NO □ YES □ NO				

Labs	I	LIES MINO								
·										
	OTHER FIR	RE AND LIFE S	SAFETY FEAT	URES						
DESIGNATED AREAS OF BUILDING	Building Code	Area 1	Area 2	Area 3	Area 4	Area 5				
Smoke Control System	Section 909	☐ YES ⊠ NO	□ YES □ NO	☐ YES ☐ NO	☐ YES ☐ NO	□ YES □ NO				
Smoke & Heat Removal Required	SCFC 910	☐ YES ☒ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
Fire Department Connections	Section 912	□ YES ⊠ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
Carbon Monoxide Detection	Section 915	☐ YES ☒ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
Gas Detection Systems	Section 916	☐ YES ☒ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
Emergency Responder Radio Coverage	Section 918	☐ YES ☒ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
Fire Apparatus Access and Water Line	SCFC 503 & 507	□ YES ⊠ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
2-way Communication Required	Section 1009.8	☐ YES ☒ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
Area of Refuge (e.g. Separation, Two-Way Communication, and Instruction)	Sections 1009.6, 1009.9, 1009.10 & 1009.11	□ YES ⊠ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
Exterior Area for Assisted Rescue (e.g. Separation, Openness, and Instruction)	Sections 1009.7, 1009.9, 1009.10 & 1009.11	□ YES ⊠ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				
Safe Dispersal Area	Section 1028.5	☐ YES ⊠ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO				
(Add others as needed)		☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO				
(Add others as needed)		□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO	□ YES □ NO				

	FIF	RE RESISTANCE I	RATING OF E	BUILDING ELI	EMENTS
	TED AREAS OF ILDING	Building Code	Area 1	Area 2	Area :
	As Required, Hrs		0		
Primary Structural	As Designed, Hrs	Table 601	0		
Frame	Testing Agency & Design No.(UL, FM, etc)		N/A		
	Wall/Partition Key Code	Ι Γ	N/A		
Bearing Walls,	As Required, Hrs		0		
	As Designed, Hrs	Table 601	0		
Exterior	Testing Agency & Design No.(UL, FM, etc)		N/A		
	Wall/Partition Key Code	Γ	N/A		
	As Required, Hrs		0		
Bearing Walls,	As Designed, Hrs	Table 601	0		
Interior	Testing Agency & Design No.(UL, FM, etc)		N/A		
	Wall/Partition Key Code	ĺ	N/A		
Nonbearing Walls and Partitions,	As Required, Hrs		0		
	As Designed, Hrs	Table 601	0		
Interior	Testing Agency & Design No.(UL, FM, etc)		N/A		
	Wall/Partition Key Code	i †	N/A		

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Nonbearing Walls and Partitions, Exterior

FIRE RESISTANCE RATING OF BUILDING ELEMEN											
	TED AREAS OF ILDING	<b>Building Code</b>	Area 1	Area 2	Area 3						
	As Required, Hrs		0								
onbearing Walls and Partitions, Exterior	As Designed, Hrs		0								
	Testing Agency & Design No.(UL, FM, etc)	Table 602	N/A								
	Wall/Partition Key Code		N/A								
	As Required, Hrs		0								
oor Construction and associated ondary members	As Designed, Hrs	Table 601	0								
	Testing Agency & Design No.(UL, FM, etc)		N/A								
	Wall/Partition Key Code		N/A								
	As Required, Hrs		0								

Form F3 – Building Code Analysis

	245 Required, 1115		v	
Floor Construction and associated	As Designed, Hrs	Table 601	0	
secondary members	Testing Agency & Design No.(UL, FM, etc)			
	Wall/Partition Key Code		N/A	
	As Required, Hrs		0	
Roof Construction and associated	As Designed, Hrs	Table 601	0	
secondary members	Testing Agency & Design No.(UL, FM, etc)		N/A	
	Wall/Partition Key Code		N/A	
	As Required, Hrs		0	
Fire Walls	As Designed, Hrs	Section 706	0	
	Testing Agency & Design No.(UL, FM, etc)		N/A	
	Wall/Partition Key Code		N/A	

### SOUTH CAROLINA STATE DEPARTMENT OF EDUCATION

		Form F3 – B	uilding Cod	le Analysis								
	FIRE RESISTANCE RATING OF BUILDING ELEMENTS											
	ΓED AREAS OF ILDING	Building Code	Area 1	Area 2	Area 3							
	As Required, Hrs		0									
Fire Barriers	As Designed, Hrs	Section 707	0									
	Testing Agency & Design No.(UL, FM, etc)		N/A									
	Wall/Partition Key Code		N/A									
	As Required, Hrs		0									
Fire Partitions	As Designed, Hrs	[	0									
	Testing Agency & Design No.(UL, FM, etc)	Section 708	N/A									
	Wall/Partition Key Code		N/A									
	As Required, Hrs		0									
Smoke Barriers	As Designed, Hrs	Ι	0									
	Testing Agency & Design No.(UL, FM, etc)	Section 709	N/A									
	Wall/Partition Key Code	Γ	N/A									
	As Required, Hrs		0									
Smoke Partitions	As Designed, Hrs	[	0									
Samuel and	Testing Agency & Design No.(UL, FM, etc)	Section 710	N/A									
	Wall/Partition Key Code		N/A									

				<u> </u>				
	FII	RE RESISTANCE	RATING OF BUILDING ELEMENT					
	TED AREAS OF ILDING	Building Code	Area 1	Area 2	Area 3			
	As Required, Hrs		0					
Horizontal	As Designed, Hrs		0					
Assemblies	Testing Agency & Design No.(UL, FM, etc)	Section 711	N/A					
	Wall/Partition Key Code		N/A					
	As Required, Hrs		0					
Shaft Enclosures	As Designed, Hrs		0					
Silati Eliviosiavo	Testing Agency & Design No.(UL, FM, etc)	Sections 712 & 713	N/A					
	Wall/Partition Key Code	]	N/A					
0	As Required, Hrs		0					
Opening & Protective Listing	As Designed, Hrs		0					
by Category (fire shutters, doors, etc.)	Testing Agency & Design No.(UL, FM, etc)	Section 716	N/A					
	Wall/Partition Key Code	]	N/A					
04	As Required, Hrs		0					
Others (as required by	As Designed, Hrs	]	0					
Designer)	Testing Agency & Design No.(UL, FM, etc)		N/A					
	Wall/Partition Key Code		N/A					

Form F3 – Building Code Analysis

## SOUTH CAROLINA STATE DEPARTMENT OF EDUCATION

			ELECTRICAL INFO	RMATION					
MECHANICA	L INFORM	IATION	CEDITICE	☐ By Utility I	EXISTING				
GENERAL INFORMATION			SERVICE TRANSFORMER	E D. District	KVA P				
Building Location	Fort Mill,	, SC	TRANSPORMER	☐ By District	Voltage				
Climate Zone	3A		ELECTRICALSERVIO	E INFORMATION					
		97 deg F DB	Service Voltage/Phase	480/277V	3000 Ampere				
Outdoor Design Temperature	Summer	78 deg F WB	Service Entrance Conductors Size	EXISTING	Qty per				
		22 deg F DB	Total Connected Load		EXISTING K				
	Winter		Estimated Maximum D		EXISTING K				
	17 deg F WB		Available Fault Current	in Symmetrical	EXISTING				
	C	75 deg F DB	Amperes		EXISTING				
Indoor Design Temperature	Summer	50-60 % RH	Overcurrent Device	Interrupting Capacity of Service Overcurrent Device					
Indoor Design Temperature	Winter	70 deg F DB	Grounding electrode sy	EXISTING					
	Willier	N/A % RH		(NEC 250) EMERGENCY SERVICE INFORMATIO					
OUTSIDE AIR		•			EXISTING K				
Occupied Minimum Outside	<u> </u>		—   <sub>F</sub>	☐ no ⊠ yes	480/277V				
Air	0	cfm per person	Emergency Generator		Voltage/Phase				
CO2 Demand Management		⊠ no □ yes		Fuel	EXISTING				
		,	Exit/Emergency Lights	Rackun Dower	☐ Integral Ba				
Supervised Control System		⊠ no □ yes	- Exit/Emergency Lights	Dackup Fower	□ Generator				
MECHANCIAL SYSTEMS, SI	ERVICE SY	STEMS &		Manual					
EQUIPMENT			Fire Alarm System		☐ Class A				
Briefly describe mechanical system:				☐ Automatic	☐ Class B				
			LIGHTNING PROTEC	TION	□ no ⊠ yes				
			PROVIDED		EXISTING TY				
				☐ Automatic	☐ Class B				
			LIGHTNING PROTEC	TION PROVIDED	□ no □ yes				

## SOUTH CAROLINA STATE DEPARTMENT OF EDUCATION

Fe	orm F3 – Bu	ildi	ng Code	Analysis	
SOILS & SITE			STR	UCTURAL DESIGN INFORMATION, E	BUILDING
SOILS INVESTIGATION REQUIRED? (IBC 1803.2)	⊠ no □ yes			Analysis Procedure (ASCE 7 or SCBC 1609.6)	
SOILS CLASSIFICATION				Ultimate design Wind Speed, MPH (3 sec gust IBC Fig 1609.3)	$119 = V_{ult}$
Seismic Site Class (SCBC Section 1613.3.2)	D		WIND	Exposure Category	
Classes Soil of Materials (UCS System) (SCBC 1803.5.1)			LOADS	Wind Importance Factor (ASCE 7 Table 1.5-2)	= I <sub>w</sub>
Allowable Footing Bearing Pressure	2500 psf			Internal Pressure Coefficient (ASCE 7)	$.18 = GC_{pi}$
MINIMUM DESIGN SOIL BEARING LOAD (SCBC Table 1806.2)	2000 psf	2000 psf		External Pressure Coefficient (ASCE 7)	$= GC_p$
COMPACTION		1		Seismic Importance Factor (ASCE 7)	1.25 = I
Subgrade (ASTM D698, ASTM D1557) or (AASHTO only for paving & roads)	%			Site Class (SCBC Section 1613.3.2)	С
Base (ASTM D698, ASTM D1557) or (AASHTO only for paving & roads)	98 %			Mapped Spectral Response Accelerations	$.218 = S_s$ $.086 = S_1$
Other (ASTM D698, ASTM D1557) or (AASHTO only for paving & roads)	%			Design Spectral Response Acceleration	$.233 = S_{DS}$
MINIMUM DESIGN SOIL LATERAL LOAD	psf	1	CEIO HO	Parameters	$.138 = S_{D1}$
(SCBC 1610.1) FOOTINGS			SEISMIC LOADS/E arthquake	Seismic Use Group (ASCE 7 and Seismic Occupancy Category IBC)	
Undisturbed footings	□ no ⊠ yes		urinquike	Scismic Design Category	С
Compacted Fill Material (SCBC Section 1804.6)	□ no ⊠ yes			SCBC Tables 1613.3.5(1) & 1613.3.5(2)	
ELEVATIONS				Basic Seismic Force Resisting System	
Elevation of Water Table	MSL			Design Base Shear	KIPS
Elevation of lowest footing	602 MSL			Seismic Response Coefficient(s) ASCE 7	$.045 = C_s$
Elevation of lowest floor or basement	604 MSL			Response Modification Factor(s) ASCE 7	6.5 = R
			I	Analysis Procedure	I

### SOUTH CAROLINA STATE DEPARTMENT OF EDUCATION

Form F3 – Building Code Analysis
Per IBC Chapter 16 and ASCE 7 – Structural tables may be shown on initial Structural Sheet of the drawings or on Sheet with other code information. List floor design loads on structural plans.

STRUCTURAL DESIGN INFORMATION, AREA												
		Building Code	Area 1	Area 2	Area 3	Area 4	Area 5					
OCCUPANCY CATEGORY		Table 1604.5	-	-	-	-	-					
	Floor Live Load, F <sub>II</sub>		100 PSF	PSF	PSF	PSF	PSF					
LIVE LOAD FOR EACH CCUPANCY TYPE	Roof Live Load, R <sub>II</sub>	Figure 1608.2 or ASCE 7	20 PSF	PSF	PSF	PSF	PSI					
	Ground Snow Load, pg		10 PSF	PSF	PSF	PSF	PSF					
MISCELLANEOUS LOADS BY SPECIAL USE AREA (ARCHITECTURAL, MECHANICAL, DATA CENTER, ETC.)		ASCE 7	PSF	PSF	PSF	PSF	PSF					

### REQUIRED SPECIAL INSPECTIONS ARE LISTED IN THE SPECIFICATIONS SECTION 01 4001

### **DESIGN AND CONSTRUCTION RELATED PERMITS AND APPROVALS**

#### (2020 SC School Facilities) The following list is not all-inclusive of every permit and standard applicable to each project and not all projects will require all of

Type of Development	SC Law or Reg.	Where to Obtain Permit/Approval	Status
Air pollutant discharge	48-1-100,R61-62.1	SCDHEC - Bureau of Air Quality	
Building construction, Zoning	6-7-830,06-9-110	Local Authority	
Type of Development	SC Law or Reg.	Where to Obtain Permit/Approval	
Fire Department (Local)	Various local & State	Servicing Fire Department	
Fire, Building Automatic Sprinkler System and underground supply	40-10-260, R71- 8300.4	State Fire Marshal	

Jumper

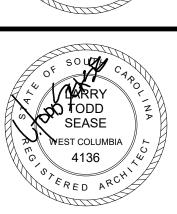
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412 Meeting Street West Columbia South Carolina





CONSTRUCTION DOCS

CHECKED BY: 22004

2/28/23 FORM F3



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GENERAL NOTES

WALL LEGEND

WITH FACE BRICK AND 5/8" GWB ON INTERIOR SIDE. SEE

ALL OUTSIDE CORNERS OF INTERIOR MASONRY WALLS SHALL HAVE BULLNOSE RADIUS CMU, UNLESS SCHEDULED TO RECEIVE CERAMIC

WALL TILE OR OTHER VENEER FINISH. THE FIRST CMU BLOCK ABOVE FINISH FLOOR IS TO BE SQUARE AND THE CMU BLOCK AT THE FINISH

CEILING AND GWB SOFFITS/BULKHEADS ARE TO BE SQUARE. ALL CMU

NOT 90° CORNERS MUST ALSO BE SPECIAL SHAPE AS SINGLE BLOCK WITH EXPOSED OUTSIDE CORNER BULL NOSED. SEE DETAIL ON MISC.

3. C.J. = CONSTRUCTION JOINT AT CMU. SEE TYPICAL DETAILS. SPACE

4. ALL MECHANICAL, PLUMBING, ELECTRICAL AND FIRE PROTECTION ROUGH-INS AT EXPOSED AREAS ARE TO BE REVIEWED WITH THE ARCHITECT PRIOR TO INSTALL. ALL CONDUITS AND PIPING MUST BE

40'-0" MAX. VERIFY LOCATIONS WITH ELEVATIONS OR ARCHITECT IF NOT

2. ALL MASONRY WALL INFILLS SHALL BE TOOTHED-IN.

SHOWN PRIOR TO INSTALLATION.

REQUIREMENT.

RESISTANT GWB EACH SIDE

WALL SECTIONS

3-5/8" METAL STUDS @ 16"oc WITH 5/8" HIGH IMPACT

1' - 2" EXTERIOR WALL WITH 6" METAL STUDS @ 16"oc

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COORDINATED WITH OTHER TRADES AND CONCEALED. RELOCATION OF ROUGH-INS BY ANY TRADE AS DIRECTED BY THE ARCHITECT WILL BE AT NO COST TO OWNER WHEN CONTRACTOR FAILS TO COMPLY WITH THIS CONSTRUCTION WORK IS TO BE PERFORMED DURING THE SUMMER BREAK WHILE THE BUILDING IS UNOCCUPIED BY STUDENTS OR STAFF

CONSTRUCTION DOCS

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2/28/23

DEMO FLOOR PLAN, FLOOR PLAN, ROOF PLAN, & CEILING PLAN

A301

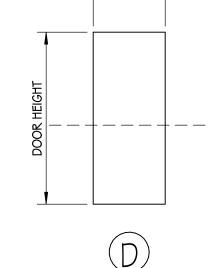
ACOUSTICAL CEILING TILE CONC QFT QTB PNT CONCRETE QUARRY FLOOR TILE QUARRY TILE BASE PAINT

GENERAL FINISH NOTES APPLY TO ALL AREAS OR THOSE GENERAL FINISH NOTES: NOT SPECIFICALLY NOTED ON SCHEDULE.

GI. SEE REFLECTED CEILING PLANS FOR CEILING TYPES AND HEIGHTS. G2. ALL HOLLOW METAL FRAMES TO BE PAINTED. COLOR TO BE SELECTED BY

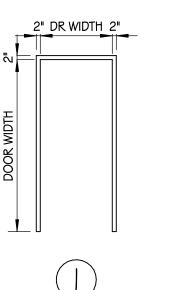
G3. EPOXY PAINT TO BE USED AT DRY STORAGE ROOM AND KITCHEN WALLS G4. ACT-2 = VINYL FACED OR MOISTURE RESISTANT TILE

SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. G5. QUARRY TILE IS TO HAVE EPOXY GROUT. COLOR TO BE SELECTED BY ARCHITECT.



1/4" = 1'-0"

DOOR WIDTH

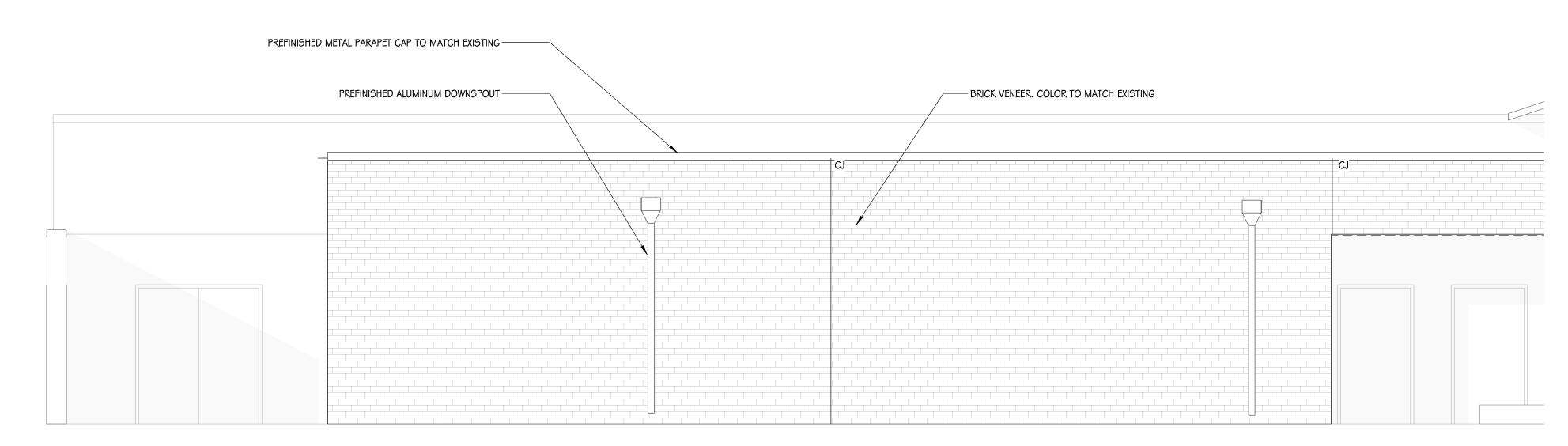


DOOR TYPES

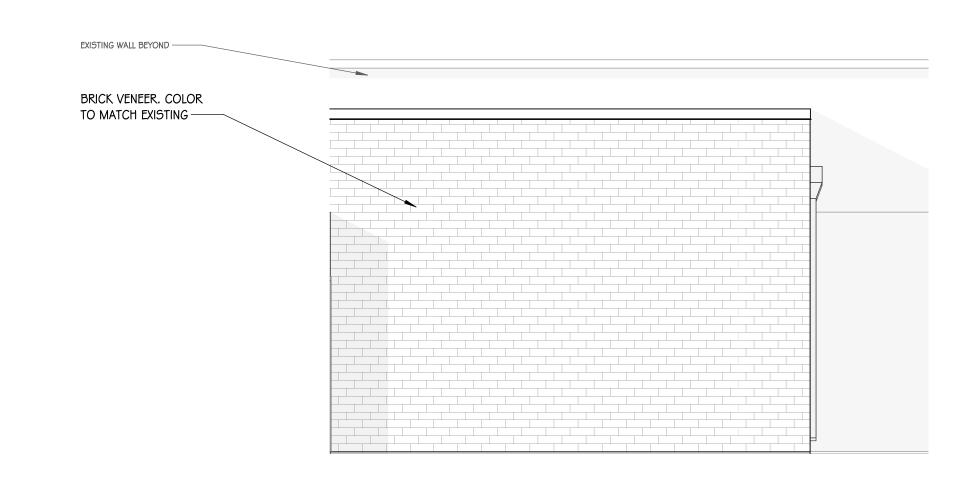
<u> </u>	
FRAN	ME TYPES

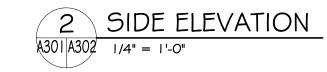
	DOOR SCHEDULE														
DOOR	DOOR DOOR DOOR DOOR DOOR GLASS GLASS FRAME FRAME FRAME														
#	TYPE	WIDTH	HEIGHT	MATERIAL	FINISH	SIZE	TYPE	TYPE	MATERIAL	FINISH	HEAD	JAMB	SILL	RATING	REMARKS
F129.A	D	3' - 4"	7' - 2"	НМ	PAINT			1	НМ	PAINT	H-I	J-I			

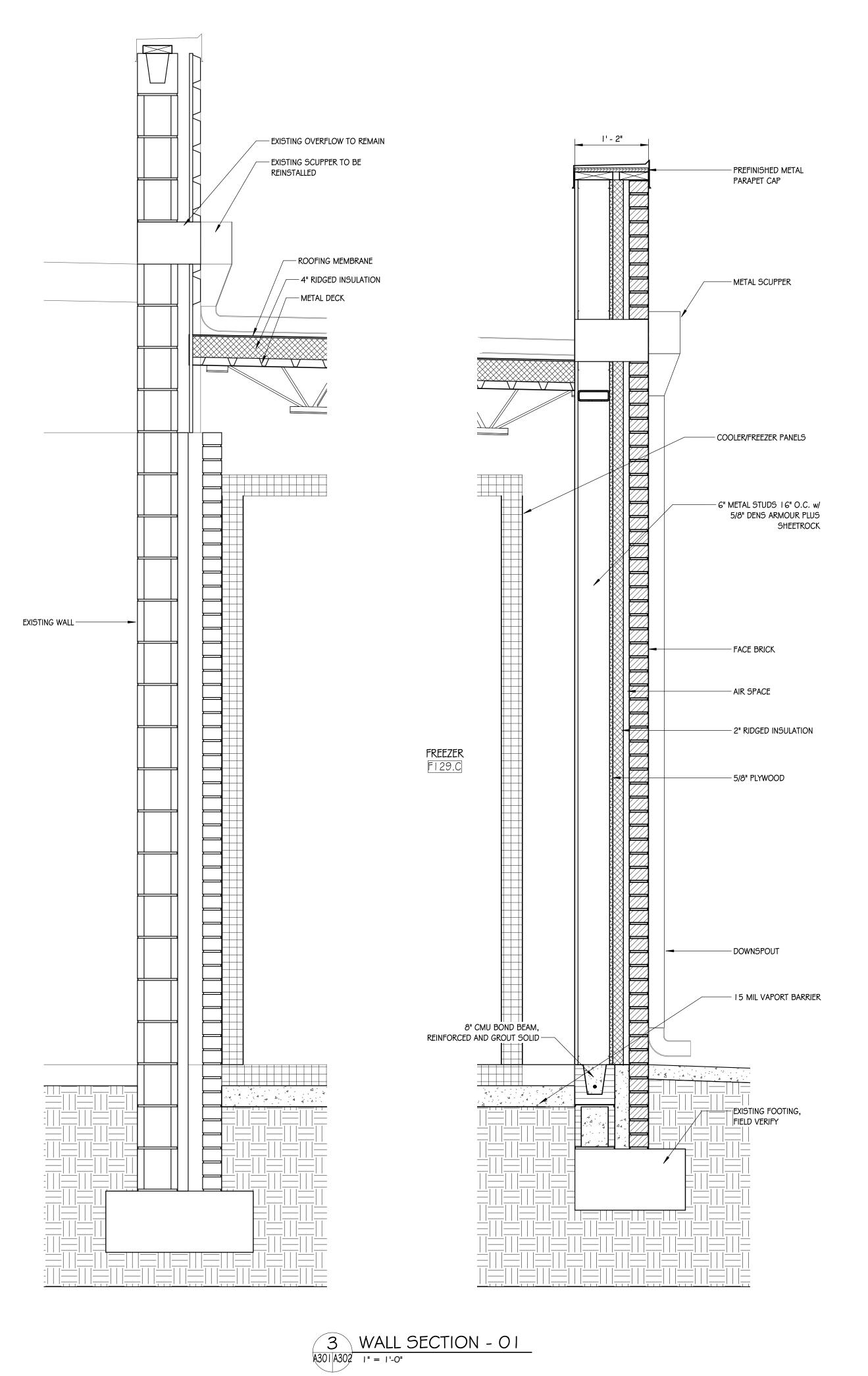
	FINISH SCHEDULE								
ROOM #	FLOOR ROOM NAME FINISH BASE TYPE WALL NORTH WALL SOUTH WALL EAST WALL WEST COMMENTS								
F129.A	DRY STORAGE	QT	QTB	PAINT	PAINT	PAINT	PAINT		
F129.B	COOLER	PREFINISHED		PREFINISHED	PREFINISHED	PREFINISHED	PREFINISHED		
F129.C	FREEZER	PREFINISHED	-	PREFINISHED	PREFINISHED	PREFINISHED	PREFINISHED		



# 

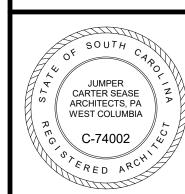


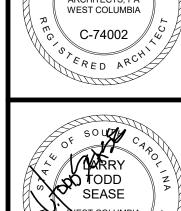




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CONSTRUCTION DOCS							
Date							
Description							
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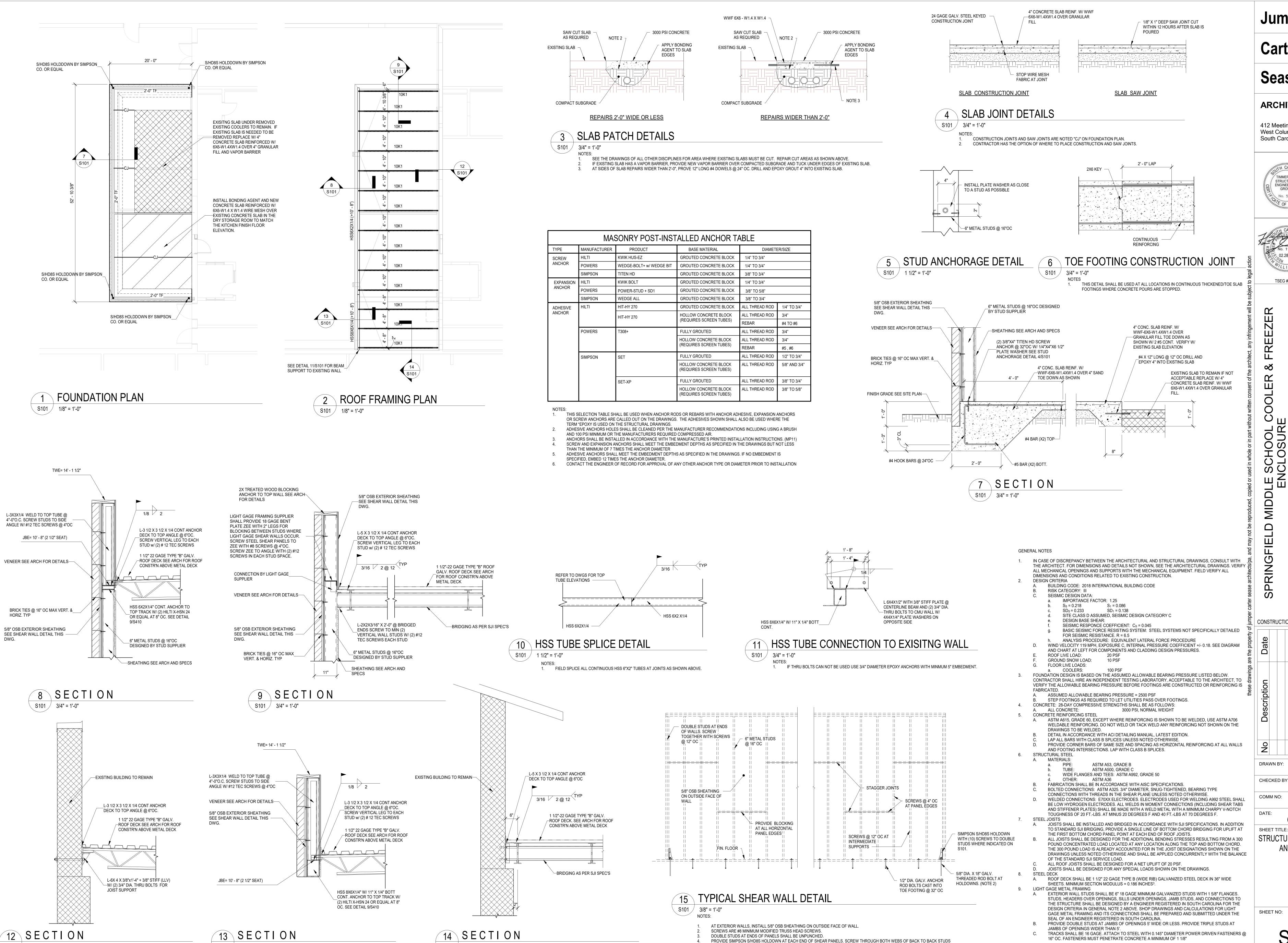
DRAWN BY: CHECKED BY: COMM NO:

22004

2/28/23 SHEET TITLE:

ELEVATIONS, SECTIONS, DOOR SCHEDULE, & FINISH SCHEDULE

A302



BOLT HOLDOWN TO CONCRETE AT EACH END OF SHEAR PANEL WITH 7/8" X 14" DIAMETER THREADED ROD ANCHOR BOLT. DRILL AND GROUT INTO

CONCRETE WITH APPROVED EPOXY

S101 / 3/4" = 1'-0"

S101 / 3/4" = 1'-0"

S101 / 3/4" = 1'-0"

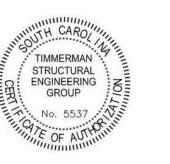
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CONSTRUCTION DOCUMENTS

LWK

02/28/23

STRUCTURAL PLANS AND SECTION

SHEET NO:

DUCTLESS SPLIT SYSTEM HEAT PUMP SCHEDULE									
TAG	DAIKIN MODEL COND. UNIT / DAHU	COOLING CAP MBH @ 80/67/95	HTG. CAP MBH @ 47°F	AIRFLOW CFM	SEER/HSPF	REMARKS			
SHP-1/DAHU-1	RXB09AXVJU/FTXB09AXVJU	8.8	9.4	330	17.0/9.0	1			

PROVIDE WITH HARD WIRED WALL MOUNTED THERMOSTAT CONTROLLER AND INTERNAL CONDENSATE PUMP WITH FLOAT SWITCH WIRED TO SHUT DOWN UNIT IN ORDER TO PREVENT CONDENSATE OVERFLOW.

	DUCTLESS SPLIT SYSTEM HEAT PUMP SCHEDULE								
TAG	DAIKIN MODEL COND. UNIT / DAHU	COOLING CAP MBH @ 80/67/95	HTG. CAP MBH @ 47°F	AIRFLOW CFM	SEER/HSPF	REMARKS			

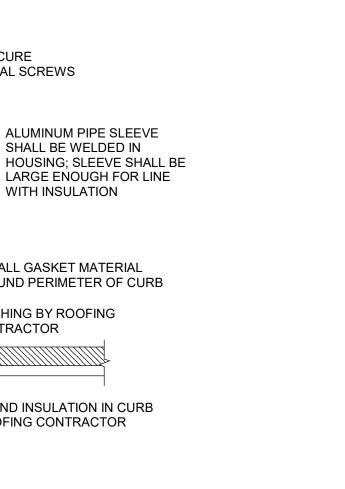
REMARKS	INSTALLATION AND
1	EXISTING ITEMS AN

- VISIT SITE PRIOR TO BIDDING. THIS CONTRACTOR SHALL DETERMINE DIFFICULTY OF ND REFLECT THIS IN HIS BIDDING. THIS CONTRACTOR SHALL VERIFY ALL AND LOCATIONS IN THE FIELD.
- DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL DRAWINGS AND REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF DOORS, WINDOWS, AIR DISTRIBUTION, ETC.

**GENERAL NOTES** 

- ALL PIPING LOCATIONS SHALL BE COORDINATED WITH WORK UNDER OTHER DIVISIONS OF THE SPECIFICATIONS TO AVOID INTERFERENCE.
- 4. ALL PIPING INSULATION SHALL BE RUN CONTINUOUSLY THROUGH ROOFS AND PARTITIONS.
- ALL MECHANICAL ITEMS EXTENDING THROUGH WALLS AND ROOF SHALL BE FLASHED AND COUNTERFLASHED. COORDINATE WITH ROOFING CONTRACTOR.
- 6. ALL PIPING IS SHOWN DIAGRAMMATIC. HOWEVER, THIS CONTRACTOR SHALL PROVIDE ALL REQUIRED FITTINGS, PIPING AND INSULATION FOR ALL OFFSETS AND/OR CHANGES IN
- EXTEND ALL DRAIN LINES TO NEAREST ROOF DRAIN OR GUTTER SO ROUTED AS TO AVOID INTERFERENCE WITH PASSAGEWAYS AND MAINTENANCE.
- PROVIDE FOR ACCESS TO ALL EQUIPMENT REQUIRING CLEANING OR ADJUSTMENT PER MANUFACTURER'S INSTRUCTIONS.
- 9. THIS CONTRACTOR SHALL PROVIDE ALL ITEMS OF MISCELLANEOUS STEEL AS REQUIRED FOR INSTALLATION OF ALL MECHANICAL ITEMS.
- 10. THIS CONTRACTOR SHALL DO ALL CONTROL WIRING. DIVISION 26 WILL DO ALL POWER WIRING. ALL WIRING SHALL BE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE. CONTROL WIRING SHALL BE CONCEALED WITHIN WALL WHERE PRACTICAL OR ROUTED EXPOSED IN APPROVED WIRE MOLD.
- 1. LOCATE ALL SPACE CONTROL INSTRUMENTS 4'-0" ABOVE FINISHED FLOOR TO TOP OF DEVICE IN ACCORDANCE WITH ADA. COORDINATE LOCATIONS TO AVOID ITEMS INCLUDING BUT NOT LIMITED TO CUSTOM FINISHES, FIXED CASEWORK, FURNITURE, AND DOOR SWINGS. IN THE EVENT OF CONFLICTS IN THE FIELD, THE CONTRACTOR SHALL BRING THIS TO THE ATTENTION OF THE A/E FOR FINAL APPROVAL OF LOCATION.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING HVAC SYSTEMS FROM CONSTRUCTION DEBRIS, DUST AND DIRT FOR THE ENTIRE CONSTRUCTION DURATION. DUCT CLEANING AND UNIT/COIL CLEANING SHALL BE PERFORMED AS REQUIRED. PROTECTION SHALL INCLUDE PROVIDING AND MAINTAINING MINIMUM MERV-13 FILTER MEDIA OVER ALL RETURN GRILLES AND RETURN DUCT OPENINGS TO PROTECT DUCTS AND EQUIPMENT. CONTRACTOR MUST INSPECT ALL EXISTING UNITS WITH THE OWNER PRIOR TO START OF WORK AND AT THE COMPLETION OF WORK.

LEGEND					
SYMBOL	SYMBOL DESCRIPTION				
}— R —→					
├── D ───	Comparing the desired control of the desire				
<b>├</b> ── , <b>├</b> ── ;	PIPE TURNS TO, AWAY				
T	THERMOSTAT				
AFF	ABOVE FINISHED FLOOR				
AFF	ABOVE FINISHED FLOOR				



SLOPED TOP; SECURE

WITH SHEET METAL SCREWS

ALUMINUM PIPE SLEEVE

3 LARGE ENOUGH FOR LINE

SHALL BE WELDED IN

WITH INSULATION

INSTALL GASKET MATERIAL

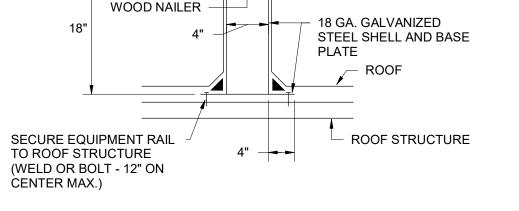
CANT AND INSULATION IN CURB

BY ROOFING CONTRACTOR

FLASHING BY ROOFING

CONTRACTOR

AROUND PERIMETER OF CURB



<u>NOTE:</u> LENGTH AS REQUIRED

TO EXTEND OVER 2

STRUCTURAL MEMBERS MINIMUM.

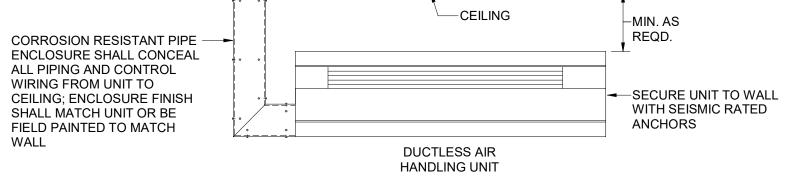
ISOLATOR PADS BY

FLASHING CAP -

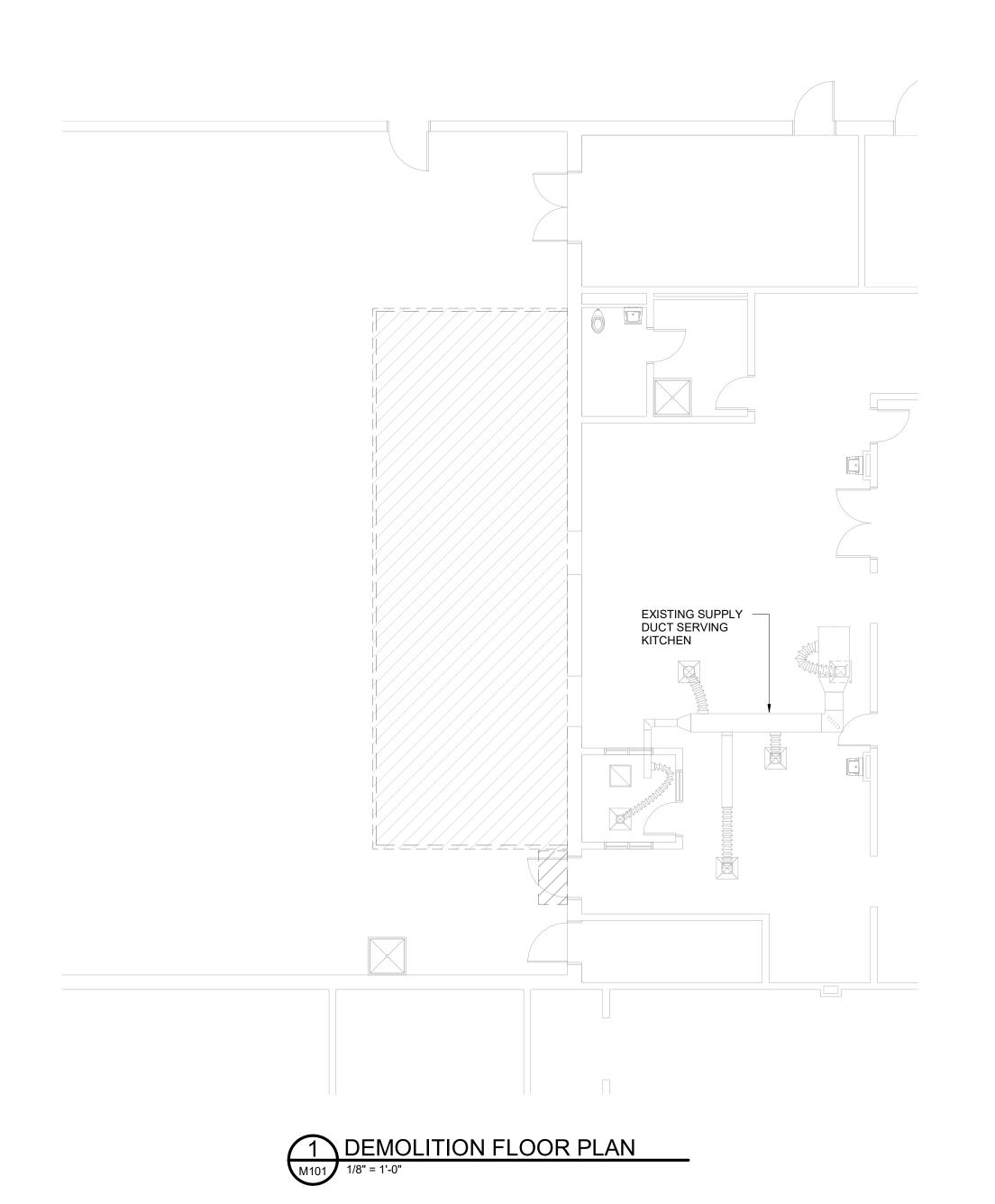
COOLER/FREEZER

INSTALLER





6 DUCTLESS AHU DETAIL



NOTE: SINGLE SLEEVE FOR MUTLIPLE

ENTRY WILL NOT BE ACCEPTED

PROVIDE MULTIPLE SLEEVES.

HOUSING SHALL BE -

WATER TIGHT

SHEET

0.063" THICK ALUMINUM

CAULK AROUND PIPING

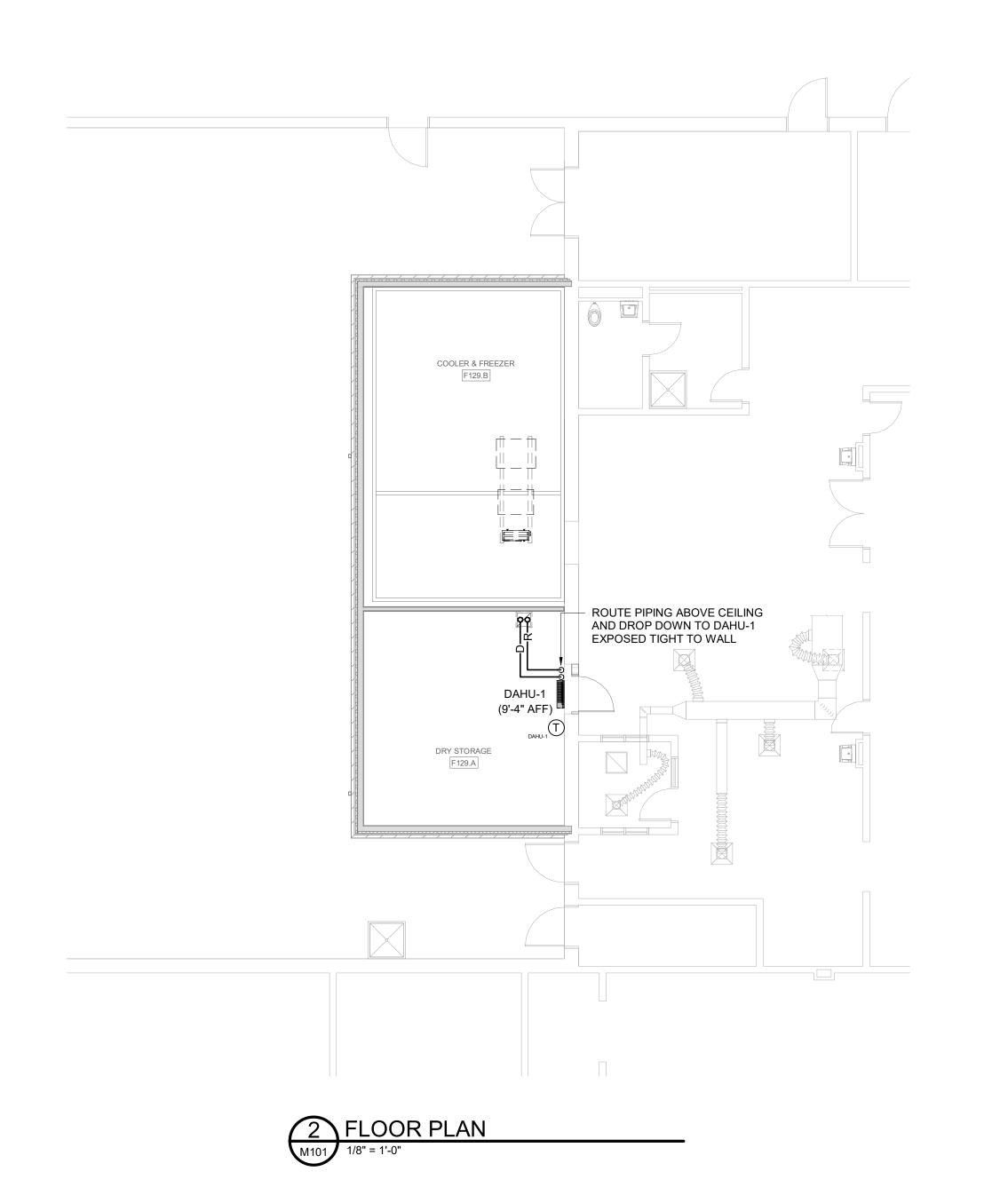
1" INSULATION

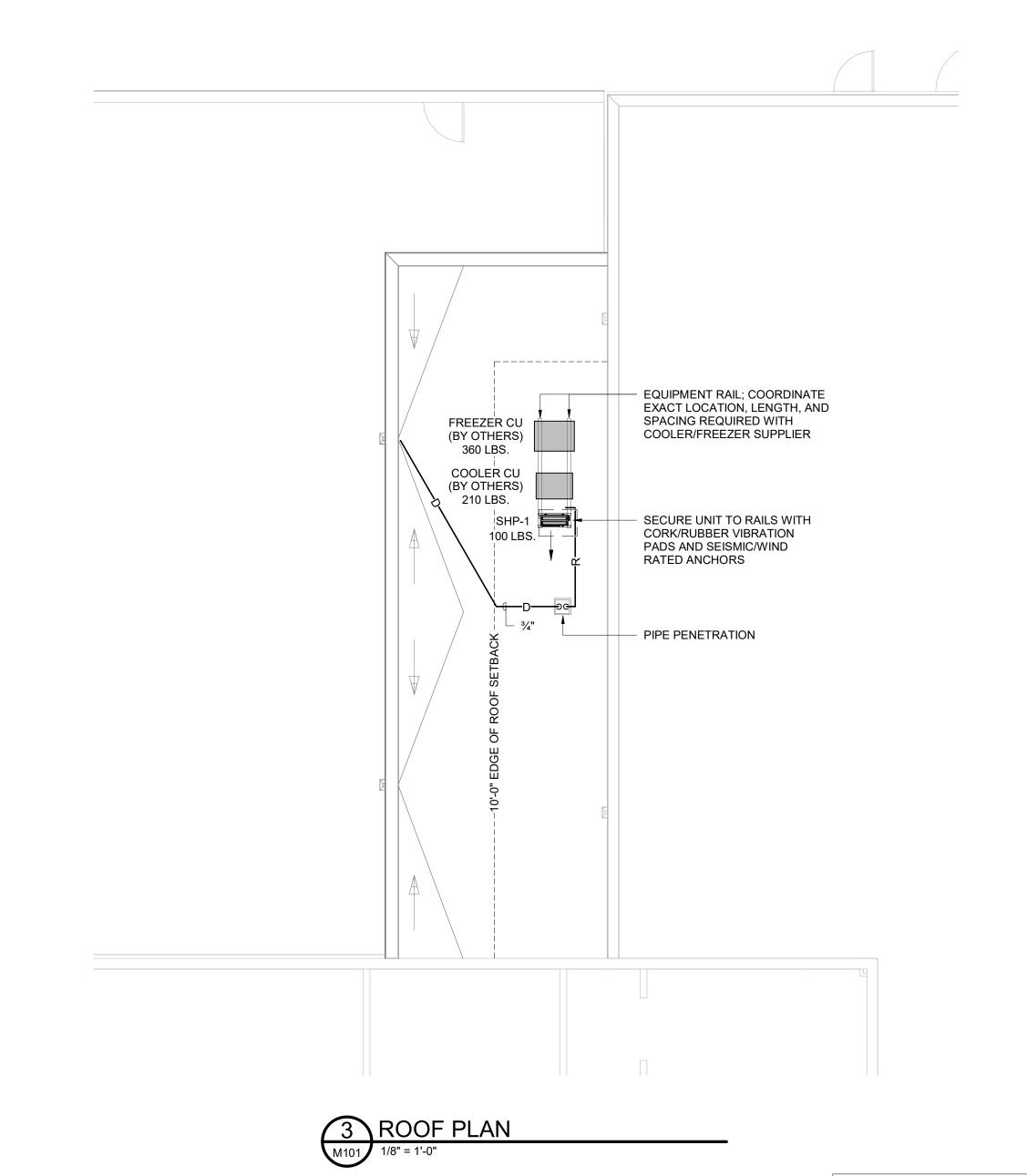
OPENING IN ROOF AND DECK

AND STRUCTURAL SUPPORT

BY GENERAL CONTRACTOR

4 ROOF PIPE PENETRATION DETAIL





Swygert & Associates CONSULTING ENGINEERS DBA Swygert & Assoc., Ltd. Telephone: (803) 791-9300
Post Office Box 11686 Facsimile: (803) 791-0830 Columbia, S.C. 29211 mail@swygert-associates.com

02/28/23

LEGEND

FLOOR PLANS,

DETAILS, NOTES,

SCHEDULE, AND

Construction Documents

DRAWN BY:

CHECKED BY:

SHEET TITLE:

SHEET NO:

Jumper Carter

Sease

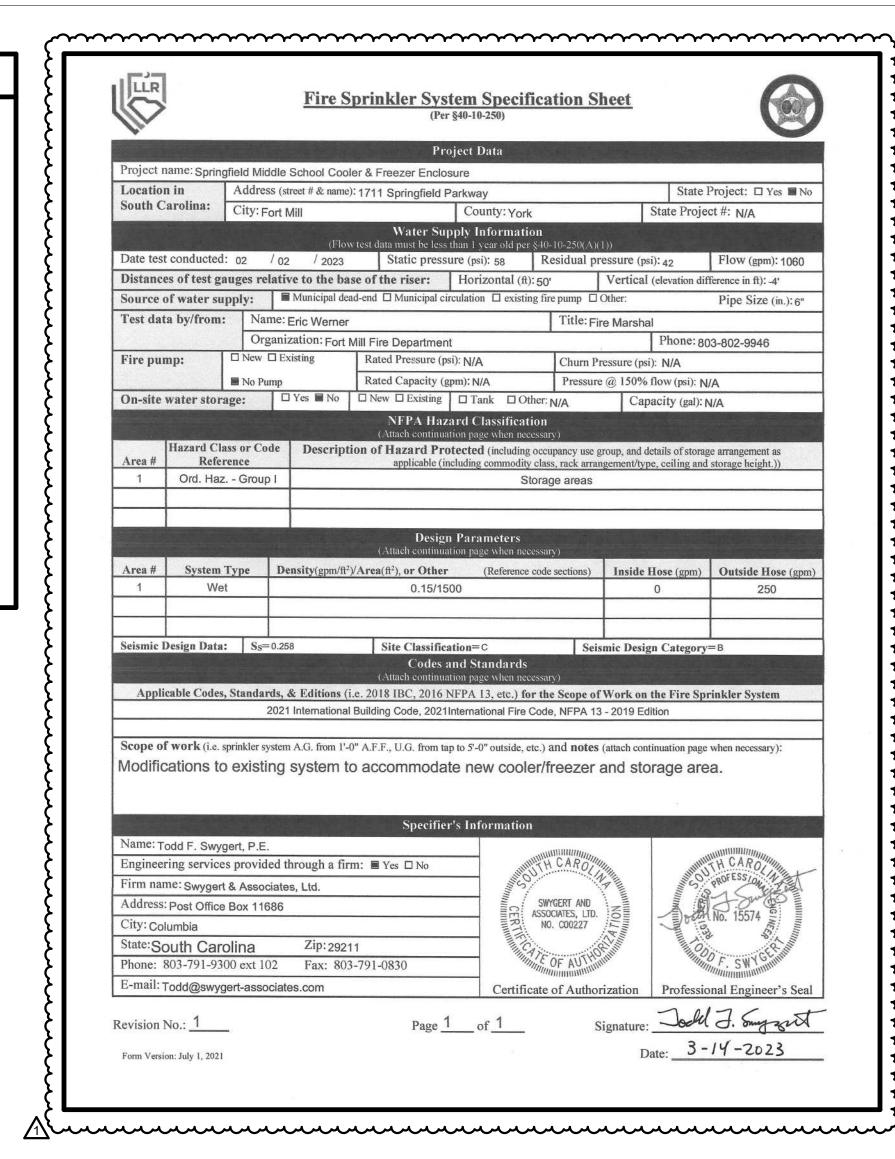
**ARCHITECTS** 

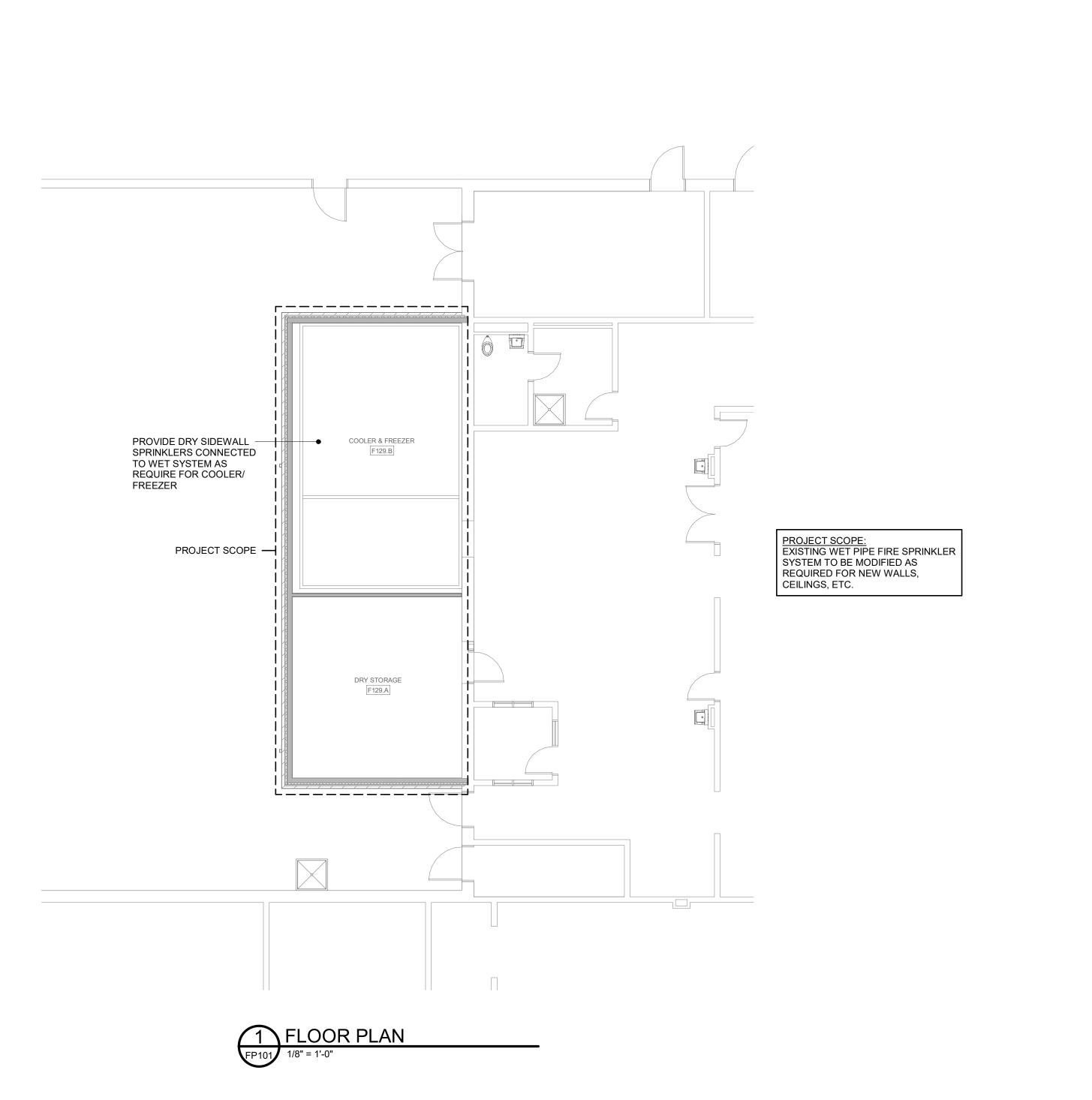
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South Carolina

#### **GENERAL NOTES**

- SUBMIT DRAWINGS INDICATING EXACT LOCATION OF ALL SPRINKLERS FOR ARCHITECT'S REVIEW AND BRING ALL FIELD CONFLICTS AND REQUIRED ADJUSTMENTS TO THE ARCHITECT'S ATTENTION FOR VERIFICATION OF FINAL LOCATION OF ALL SPRINKLERS.
- 2. SPRINKLER DRAWINGS PROVIDED ARE TO ASSIST THE CONTRACTOR. SUCCESSFUL CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF A COMPLETE SYSTEM PER THESE PLANS AND SPECIFICATIONS AND IN COMPLIANCE WITH ALL APPLICABLE CODES. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMISSION TO THE OFFICE OF THE STATE FIRE MARSHAL.
- 3. THE DESIGN TEAM, TO ENSURE COMPATIBILITY WITH THE BUILDING DESIGN INTENT, WILL CAREFULLY REVIEW SPRINKLER PLANS. CORRECTIONS WILL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
- 4. SPRINKLERS SHALL BE LOCATED A MINIMUM OF 6" AWAY FROM CEILING GRID IN ALL ACOUSTICAL CEILING TILES.
- 5. SPRINKLER PIPING SHALL BE INSTALLED TO MEET SEISMIC REQUIREMENTS WITH LATERAL SWAY BRACING, LONGITUDINAL SWAY BRACING, AND FOUR-WAY BRACING AS REQUIRED BY NFPA AND THE INTERNATIONAL BUILDING CODES.
- 6. ALL PIPING 2" AND SMALLER SHALL BE SCHEDULE 40 STEEL PIPING WITH ROLLED GROOVE OR THREADED FITTINGS.
- 7. ALL FIRE SPRINKLER PIPING SHALL BE HYDRAULICALLY SIZED BUT FLUID VELOCITIES SHALL NOT EXCEED 20 FT/SEC.
- 8. FLEXIBLE SPRINKLER DROPS SHALL BE BRAIDED HOSE DESIGN INSTALLED PER THE MANUFACTURER'S PUBLISHED INSTRUCTIONS.
- 9. UPON APPROVAL BY THE STATE FIRE MARSHAL'S OFFICE, THE FIRE SPRINKLER CONTRACTOR
- SHALL PROVIDE THE OFFICE OF SCHOOL FACILITIES WITH A COPY OF THE APPROVED ABOVE GROUND SHOP DRAWINGS.

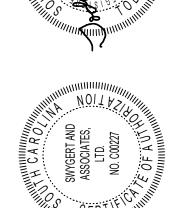




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412 Meeting Street West Columbia South Carolina





Construction Documents

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CHECKED BY:

02/28/23 SHEET TITLE:

FLOOR PLAN AND NOTES

DBA Swygert & Assoc., Ltd. Telephone: (803) 791-9300 Post Office Box 11686 Facsimile: (803) 791-0830

#### ELECTRICAL SYMBOLS

- TAMPER-RESISTANT DUPLEX RECEPTACLE (NEC 406.12), 20A, 120V, NEMA 5/20R, 16" AFF TO BOTTOM OF OUTLET BOX.

   "CR" DENOTES CORROSION-RESISTANT RECEPTACLE, SEE 260500.

   "WP" DENOTES WEATHER-RESISTANT RECEPTACLE [NEC, SECTION 406.9(A)] WITH EXTRA-DUTY RATED "IN-USE" WEATHERPROOF COVER PLATE, SEE 260500.

   "N" DENOTES NON-TAMPER-RESISTANT RECEPTACLE.
- SAME, EXCEPT MOUNTED 3" TO BOTTOM OF OUTLET FROM COUNTER BACKSPLASH, OR 48" AFF TO TOP OF OUTLET, OR AS DETAILED ON DRAWINGS. SEE ELEVATION THIS SHEET.
- GFCI RECEPTACLE, MOUNTING HEIGHTS AS ABOVE, "WP" DENOTES WEATHER-RESISTANT RECEPTACLE [NEC, SECTION 406.9(A)] WITH WEATHERPROOF COVER PLATE, SEE SPECIFICATIONS.
- WALL OR CEILING MOUNTED JUNCTION BOX.
- NON-FUSED SAFETY SWITCH, 3 POLE (AMPS/VOLTS/NF/ENCLOSURE), SEE NOTES ON DRAWINGS.
- SAME, EXCEPT FUSED SAFETY SWITCH (AMPS/VOLTS/FUSE/ENCLOSURE).
- MOTOR CONTROLLER, STARTER, OR VFD FURNISHED WITH EQUIPMENT, INSTALLED AND POWER WIRED BY ELECTRICAL CONTRACTOR.
- MOTOR, NUMERAL DENOTES HORSEPOWER. "F" FOR FRACTIONAL HORSEPOWER.

  MOTORIZED ZONE DAMPER FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR, POWER WIRED
- BY ELECTRICAL CONTRACTOR. PROVIDE 120V CIRCUIT AS NOTED ON THE DRAWINGS.

  PANELBOARD.
- - MULTIWIRE BRANCH CIRCUITS USING A SHARED OR COMMON NEUTRAL ARE NOT PERMITTED ON THIS PROJECT. THE CONTRACTOR SHALL PULL A SEPARATE NEUTRAL FOR ALL 120V AND 277V CIRCUITS. CONDUIT HOMERUNS TO PANELBOARDS SHALL BE 3/4" MINIMUM, OTHERWISE RACEWAYS SHALL BE 1/2" MINIMUM, EXCEPT THAT FLEXIBLE CONDUIT SHALL BE 3/8" MINIMUM.
- \_\_\_\_ SAME, EXCEPT RUN UNDERGROUND OR UNDERFLOOR.
- $-\cdot \cdot \cdot \mid$  SAME, EXCEPT RUN EXPOSED.
- COMMUNICATIONS CONDUIT (OR CONDUIT & WIRING WHERE SPECIFIED), SIZE AS NOTED.

  CONDUIT TO BE EMT RUN OVERHEAD CONCEALED IN WALLS OR CEILING UNLESS NOTED OTHERWISE.

#### LIGHTING SYMBOLS

WALL OR CEILING MOUNTED FIXTURE, PROVIDE AS SCHEDULED.

RECESSED FIXTURE, WIRE THRU GREENFIELD FROM OUTLET BOX ABOVE CEILING, PROVIDE AS

HALF—SHADED FIXTURE DENOTES EMERGENCY LIGHTING FIXTURE. PROVIDE EMERGENCY BALLASTS OR GENERATOR TRANSFER DEVICES WHERE SCHEDULED.

WALL OR CEILING MOUNTED LED EXIT LIGHT, SHADED AREA DENOTES FACE.

WALL OR CEILING MOUNTED LED EXIT LIGHT, SHADED AREA DENOTES FACE.

IN-USE STYLE WEATHERPROOF COVER PLATE. SEE 260500.

WALL MOUNTED EMERGENCY LIGHTING FIXTURE. PROVIDE AS SCHEDULED.

SWP SINGLE POLE SWITCH, 20A, 120/277V, 48" AFF TO TOP OF OUTLET BOX. SUBSCRIPT DENOTES OUTLETS CONTROLLED. WP DENOTES SWITCH WITH LOCKABLE SHALLOW

SCHEDULED. "NL" DENOTES FIXTURE WIRED TO A SEPARATE 24/7 NIGHT LIGHT CIRCUIT.

CEILING MOUNTED 360° DUAL TECHNOLOGY OCCUPANCY SENSOR. FURNISH, INSTALL, AND WIRE POWER PACK(S) PER THE MANUFACTURER'S INSTRUCTIONS. POWER PACKS NOT SHOWN ON DRAWINGS, BUT ARE REQUIRED, SEE OCCUPANCY SENSOR DETAILS AND NOTES FOR ADDITIONAL INFORMATION. WATTSTOPPER DT-300 (1000SF) WITH BZ-150 POWER PACK(S), OR EQUIVALENT OF ACUITY, EATON, CRESTRON, OR LUTRON. "WG" DENOTES WIRE GUARD.

#### FIRE ALARM SYMBOL SCHEDULE

CEILING MOUNTED FIRE ALARM HORN WITH STROBE LIGHT (HS). DEVICE TO BE COMPATIBLE WITH EXISTING FIRE ALARM SYSTEM.

### LIGHTING FIXTURE SCHEDULE

LIC	GHTING	FIXTURE	SCHEDULE			
TYPE	SYMBOL	LAMP	DESCRIPTION	MODEL	WATTS	VOLTS
A50	·	(1) LED	2x4 SPEC GRADE RECESSED LED FIXTURE WITH 0-10V DIMMING CAPABILITY AND THE FOLLOWING MINIMUM CRITERIA: 5000 LUMEN OUTPUT, 125LPW, 80CRI, 4000K.	WILLIAMS LT-24-L52/840-AF-EQCLIPS-DIM-UNV OR EQUIVALENT OF LITHONIA 2BLT4 SERIES, METALUX CRUZE SERIES COLUMBIA LCAT SERIES, OR DAYBRITE EVOGRID SERIES	38	MULTIPLE
A50EL0	O ELC	(1) LED	SAME AS TYPE A50 EXCEPT FIXTURE TO BE WIRED VIA A UL924 EMERGENCY LIGHTING CONTROL DEVICE, SEE ELC NOTES.	ADJUST CATALOG NUMBERS TO ADD EMERGENCY LIGHTING CONTROL DEVICE.	38	MULTIPLE
C20		(1) LED	4-FOOT OUTDOOR RATED RECESSED LED FIXTURE WITH ALUMINUM GASKETED HOUSING AND THE FOLLOWING MINIMUM CRITERIA: 2000 LUMEN OUTPUT, 90LPW, 80CRI, 4000K.	LUMENWERX VIAWETR-TMG-HLO-LED-80- 500-40-4FT-UNV-D1-1-TF-TRL-CFRAL AXIS WBRLED-500-80-40-S-4-C-UNV-DP-1-D OR ACCEPTABLE EQUIVALENT OF SELUX L125 SERIES OR ALW LITEPLANE SERIES	22	MULTIPLE

#### ELECTRICAL SUBMITTALS

ELECTRICAL SHOP DRAWINGS SHALL BE SUBMITTED IN ONE COMPLETE PACKAGE CONTAINING ALL ITEMS REQUIRED BY THE ELECTRICAL DRAWINGS AND THE DIVISION 26–28 SPECIFICATIONS. PARTIAL SHOP DRAWING SUBMITTALS MAY BE REJECTED BY THE ARCHITECT—ENGINEER. REFER TO SECTION 260510 OF THE ELECTRICAL SPECIFICATIONS FOR REQUIRED SUBMITTAL FORMAT AND FOR ADDITIONAL REQUIREMENTS.

#### ABBREVIATIONS

A AMPERES

LTG LIGHTING

AFF ABOVE FINISHED FLOOR

AFG ABOVE FINISHED GRADE

AWG AMERICAN WIRE GAUGE

NEC NATIONAL ELECTRICAL CODE

AHJ AUTHORITY HAVING JURISDICTION

CKT CIRCUIT

NEMA NATIONAL ELECTRICAL
MANUFACTURERS ASSOCIATION

NIC NOT IN CONTRACT

CU COPPER
PH,Ø PHASE

EC EMPTY CONDUIT

EQPT EQUIPMENT

PE DEFER TO

EXST EXISTING

FWE FURNISHED WITH EQUIPMENT

RE: REFER TO

TYP TYPICAL

GFI GROUND FAULT INTERRUPTER V VOLTS
IAW IN ACCORDANCE WITH W WIRE OR WATTS

KVA KILOVOLTAMPERES

KW KILOWATTS

WP WEATHERPROOF

#### **ELECTRICAL DEMOLITION NOTES**

- A. PRIOR TO SUBMITTING BID, THE CONTRACTOR SHALL SURVEY THE EXISTING BUILDING AND MAKE NOTE OF ANY ADDITIONAL DEMOLITION AND/OR ANY ADDITIONAL REMOVAL AND RELOCATION WHICH MAY BE REQ'D IN ORDER TO ACCOMPLISH RENOVATIONS INDICATED IN CONTRACT DOCUMENTS. NO CHANGE ORDER WILL BE ISSUED FOR ADDITIONAL WORK REQUIRED FOR DEMOLITION, REMOVAL, OR RELOCATION WORK NOT INDICATED ON THESE DRAWINGS BUT NECESSARY TO COMPLETE
- B. IN ALL AREAS WHERE EXISTING WALLS ARE BEING REMOVED, NEW WALLS ARE BEING ADDED, AND WHERE OTHER DEMOLITION WORK IS OCCURRING, REMOVE ALL EXISTING RECEPTACLES, LIGHTS, AND OTHER ELECTRICAL DEVICES, AND ALL WIRING AND CONDUIT NOT BEING REUSED. EXISTING CONDUIT RUN CONCEALED IN EXISTING WALLS NOT BEING REMOVED AND/OR REPLACED MAY BE ABANDONED. ALL DEMOLITION MUST BE COORDINATED WITH THE ARCHITECT AND WITH ALL OTHER TRADES TO AVOID CONFLICTS. REFER TO THE ARCHITECTURAL DEMOLITION PLAN.
- C. NO EXISTING ELECTRICAL MATERIALS, EQUIPMENT, WIRING, OR CONDUIT BEING REMOVED MAY BE REUSED ON THIS PROJECT UNLESS SPECIFICALLY NOTED OTHERWISE ON THESE DRAWINGS. ALL EXISTING ELECTRICAL MATERIALS AND EQUIPMENT NOT BEING REUSED SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTES.
- D. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE REMOVAL OF ANY AND ALL EXISTING ELECTRICAL AND TELEPHONE SERVICES FEEDING THE BUILDING WITH THE APPROPRIATE UTILITIES. ALL ASSOCIATED MATERIALS AND EQUIPMENT NOT BEING REUSED OR NOT BEING REMOVED BY THE UTILITIES SHALL BE REMOVED BY THE ELECTRICAL CONTRACTOR. PROVIDE NEW SERVICES AS INDICATED ON THE DRAWINGS.

#### SCOPE OF WORK

THE WORK OF THIS SECTION SHALL PROVIDE COMPLETE ELECTRICAL SYSTEMS WHICH SHALL INCLUDE THE PROVIDING OF ALL CONDUCTORS, RACEWAYS, FITTINGS, CIRCUIT PROTECTIVE DEVICES, LIGHT FIXTURES, BOXES, SUPPORTS, AND ALL ASSOCIATED APPURTENANCES AND MISCELLANEOUS EQUIPMENT NECESSARY, ALL OF WHICH SHALL BE COMPLETELY CONNECTED, TESTED, ADJUSTED AND LEFT IN PROPER OPERATING CONDITION. THE ELECTRICAL SYSTEM TO BE PROVIDED SHALL INCLUDE SERVICE AND DISTRIBUTION FACILITIES POWER FOR MOTOR OPERATED EQUIPMENT, LIGHTING SYSTEMS, AND ALL OUTLETS AS COVERED HEREINAFTER.

#### **GENERAL NOTES:**

- 1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE (NEC), THE 2018 INTERNATIONAL BUILDING CODE (IBC), AND ANY LOCAL CODES, LAWS AND ORDINANCES WHICH MAY APPLY. WHERE DIFFERENCES EXIST BETWEEN THE CODES, THE STRICTER CODE SHALL APPLY.
- 2. ALL CONDUITS SHALL CONTAIN A GROUNDING CONDUCTOR REGARDLESS OF USE.
- 3. THE CONTRACTOR FOR THE WORK UNDER THIS SECTION SHALL PROCURE AND PAY FOR ALL PERMITS, FEES, AND LICENSES REQUIRED FOR THE EXECUTION OF THIS WORK. SATISFACTORY EVIDENCE OF COMPLIANCE WITH THE REQUIREMENT AND ALL CERTIFICATES OF INSPECTION SHALL BE DELIVERED TO THE OWNER PROMPTLY UPON REQUEST.
- 4. TYPE MC CABLE MAY NOT BE USED ON THIS PROJECT EXCEPT THAT MANUFACTURER SUPPLIED METAL CLAD CABLE SHALL BE PERMITTED FOR LIGHT FIXTURE WHIPS (#18 AWG) PROVIDED THEY INCLUDE A GROUND WIRE AND DO NOT EXCEED 6' IN LENGTH.
- 5. ALL LOW VOLTAGE WIRING FOR OCCUPANCY SENSOR APPLICATIONS SHALL BE RUN IN METAL CONDUIT, EXCEPT LOW VOLTAGE WIRING FOR OCCUPANCY SENSORS MAY BE RUN WITHOUT CONDUIT ABOVE ACCESSIBLE ACOUSTICAL GRID CEILINGS PROVIDED THE WIRING IS
- PLENUM RATED AND IS INSTALLED AND SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OF NEC 725.24 AND 300.4(D).

  6. UNLESS OTHERWISE NOTED FOR 120-VOLT, 20-AMP CKTS:
  - #10 AWG SHALL BE USED FOR HOMERUNS LONGER THAN 75 FEET #12 AWG SHALL BE USED FOR HOMERUNS 75 FEET OR SHORTER
- MULTIWIRE BRANCH CIRCUITS USING A SHARED OR COMMON NEUTRAL ARE NOT PERMITTED ON THIS PROJECT. THE CONTRACTOR SHALL PULL A SEPARATE NEUTRAL FOR ALL 120V AND 277V CIRCUITS.
- 8. MOUNT RECEPTACLES 16" AFF UNLESS OTHERWISE NOTED. RECEPTACLES TO BE TAMPER-RESISTANT TYPE UNLESS NOTED OTHERWISE.
- 9. ALL LIGHT SWITCHES AND RECEPTACLES SHALL BE BY THE SAME MANUFACTURER. COVER PLATES SHALL BE JUMBO STAINLESS STEEL. DEVICE COLOR TO BE SELECTED BY THE ARCHITECT UNLESS STATED WITH THE DEVICE SYMBOL.
- 10. ELECTRICAL METALLIC TUBING AND RIGID GALVANIZED STEEL CONDUIT SHALL BE THE ONLY TYPES OF CONDUIT INSTALLED WITHIN THE BUILDING. PVC IS PERMITTED UNDERGROUND.
- 11. BRANCH CIRCUITS SHALL BE RUN CONCEALED WHERE PRACTICAL. BRANCH CIRCUITS RUN EXPOSED TO WEATHER ON EXTERIOR WALLS OR ON ROOFS SHALL BE RUN IN GRC OR IMC WITH SCREWED FITTINGS. BRANCH CIRCUITS RUN CONCEALED IN WALLS OR CEILINGS SHALL BE RUN IN EMT, GRC, OR IMC. BRANCH CIRCUITS RUN EXPOSED IN DRY, FINISHED SPACES SHALL BE RUN IN WIREMOLD SURFACE METAL RACEWAY. BRANCH CIRCUITS RUN EXPOSED IN DAMP LOCATIONS, UNFINISHED SPACES (ATTICS), AND UNOCCUPIED SPACES (STORAGE ROOM, EQUIPMENT ROOMS, JANITOR'S CLOSET, ETC.) MAY BE RUN IN EMT IN LIEU OF WIREMOLD.
- 12. CONDUIT HOMERUNS TO PANELBOARDS AND CONDUITS SHOWN WITH MULTIPLE CIRCUITS SHALL BE 3/4" MINIMUM, OTHERWISE RACEWAYS SHALL BE 1/2" MINIMUM, EXCEPT THAT FLEXIBLE CONDUIT SHALL BE 3/8" MINIMUM.
- 13. INTERIOR CONDUIT HOMERUNS TO PANELBOARDS SHALL BE RUN OVERHEAD IN EMT, GRC, OR IMC UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- 14. FIRE ALARM SYSTEM CONDUITS AND COMMUNICATIONS SYSTEM CONDUITS TO BE EMT RUN OVERHEAD CONCEALED IN WALLS OR CEILING UNLESS NOTED OTHERWISE.
- 15. ALL FIRE RATED WALLS, FLOORS, ETC WHICH HAVE A CONDUIT OR OTHER ELECTRICAL PENETRATION SHALL BE SEALED TO EQUAL THE RATING OF THE WALL, FLOOR, ETC. THAT IS PENETRATED. CONTRACTOR SHALL USE A U.L. RATED AND LISTED ASSEMBLY FOR THE SEALING MATERIAL AND METHOD. COORDINATE MANUFACTURER WITH THE GENERAL CONTRACTOR SO THAT ALL TRADES ON THE PROJECT USE THE SAME MANUFACTURER. THROUGH PENETRATIONS OF CONDUITS AND CABLES OF FIRE RESISTANCE RATED WALLS MUST COMPLY WITH SECTION 714.3.1 OF THE IBC. THROUGH PENETRATIONS OF FIRE RESISTANCE CEILING ASSEMBLIES MUST COMPLY
- 16. ALL OUTLET BOXES 4"x4" OR SMALLER LOCATED ON OPPOSITE SIDES OF A RATED WALL SHALL HAVE A MINIMUM OF 24" HORIZONTAL SPACING OR SHALL BE PROTECTED WITH LISTED PUTTY PADS. ALL OUTLET BOXES LARGER THAN 4"x4" (COMMUNICATIONS OUTLETS, ETC.) LOCATED IN RATED WALLS SHALL BE PROTECTED WITH LISTED PUTTY PADS.
- 17. COMMUNICATIONS OUTLET BOXES TO BE 4"x4"x2 \frac{1}{8}" FOR CONDUIT SIZES 1" AND SMALLER, AND 4 \frac{11}{16}"x4 \frac{11}{16}"x2 \frac{1}{8}" FOR 1 \frac{1}{4}" CONDUIT.
- 18. METALLIC WATER PIPING SHALL BE BONDED TO THE GROUNDING ELECTRODE SYSTEM (SEE NEC 250-104).19. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS, LOCATIONS, CABINETS, ETC.

WITH SECTION 714.4.1.1 OF THE IBC.

- 20. CONCEAL ALL CONDUIT AND FITTINGS EXCEPT WHERE THE ARCHITECT GRANTS SPECIFIC PERMISSION.
- 21. ALL WORK AND MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FROM DATE OF ACCEPTANCE.
- 22. PROVIDE ONE COMPLETE SET OF ELECTRICAL DRAWINGS MARKED UP FOR RECORD DRAWINGS. SHOW ALL LOCATIONS OF EQUIPMENT AND MATERIALS.
- 23. INSTALL ALL MATERIALS PER MANUFACTURER'S INSTRUCTIONS.
- 24. IDENTIFY MAJOR EQUIPMENT INSTALLED WITH LAMICOR LABELS (SEE SPECS). PROVIDE FLASH HAZARD SIGN AT ALL ELECTRICAL PANELS. PROVIDE A TYPED DIRECTORY IN ALL PANEL BOARDS CLEARLY DESCRIBING THE LOCATION OF AND TYPE OF LOAD BEING SERVED FOR ALL CIRCUITS.
- 25. VISIT SITE TO DETERMINE EXISTING CONDITIONS PRIOR TO SUBMITTING BID.
- 26. ALL RACEWAYS, FIXTURES, WIRING, DEVICES, AND EQUIPMENT RENDERED USELESS BY THIS WORK SHALL BE REMOVED AND DELIVERED TO THE OWNER'S STORAGE FACILITY AS DIRECTED. ANY MATERIAL NOT WANTED BY THE OWNER SHALL BE DISPOSED OF BY THE CONTRACTOR.
- 27. ELECTRICAL CONTRACTOR SHALL DO ALL CUTTING AND PATCHING AS REQUIRED TO INSTALL HIS WORK. FINISH PATCHING AND PAINTING WILL BE DONE BY THE GENERAL CONTRACTOR.
- 28. PRIOR TO DIGGING ANY TRENCHES, NOTIFY ALL UTILITIES AND OBTAIN LOCATIONS OF UNDERGROUND UTILITIES. ANY DAMAGES DONE TO UNDERGROUND UTILITIES OR PIPING BY THIS CONTRACTOR WILL BE REPAIRED BY THE OWNER OF THE LINE IN A SATISFACTORY MANNER. THIS CONTRACTOR WILL BEAR ALL COSTS FOR REPAIRS.
- 29. CONDUITS TO BE RUN UNDER WALKWAYS AND PAVINGS SHALL BE INSTALLED BY JACKING OR BORING, UNLESS NOTED. DO NOT CUT WALKWAYS OR PAVEMENTS, UNLESS ACCEPTABLE TO THE ENGINEER. ALLOWED CUTS IN PAVEMENT OR CONCRETE SHALL BE MADE USING A PAVEMENT SAW, AND SHALL BE PATCHED TO MATCH THE EXISTING SURFACE.
- 30. WHERE DISAGREEMENTS EXISTS ON THE DESIGN DOCUMENTS, THE ITEM OR ARRANGEMENTS OF BETTER QUALITY, GREATER QUANTITY, OR HIGHER COST SHALL BE INCLUDED IN THE BASE BID. ANY DISCREPANCIES BETWEEN THE DRAWINGS, SPECIFICATIONS, AND FIELD CONDITIONS SHALL BE RESOLVED WITH THE ENGINEER PRIOR TO COMMENCING WORK. ALL AGREEMENTS SHALL BE VERIFIED IN
- 31. ALL WORK UNDER THIS SECTION SHALL BE COORDINATED WITH OTHER TRADES TO INSURE PROPER LOCATION OF OUTLETS AND EQUIPMENT CONNECTIONS, AND TO MINIMIZE CONFLICTS WITH STRUCTURAL MEMBERS, DUCT WORK, PIPING, ETC. CONFLICTS BETWEEN EQUIPMENT AND/OR MATERIAL LOCATIONS SHALL BE CORRECTED AS DIRECTED BY THE ARCHITECT—ENGINEER AT NO ADDITIONAL COST TO THE OWNER.

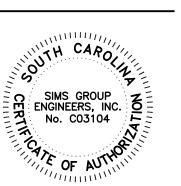
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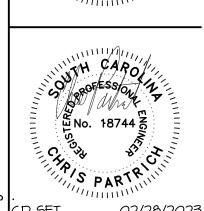
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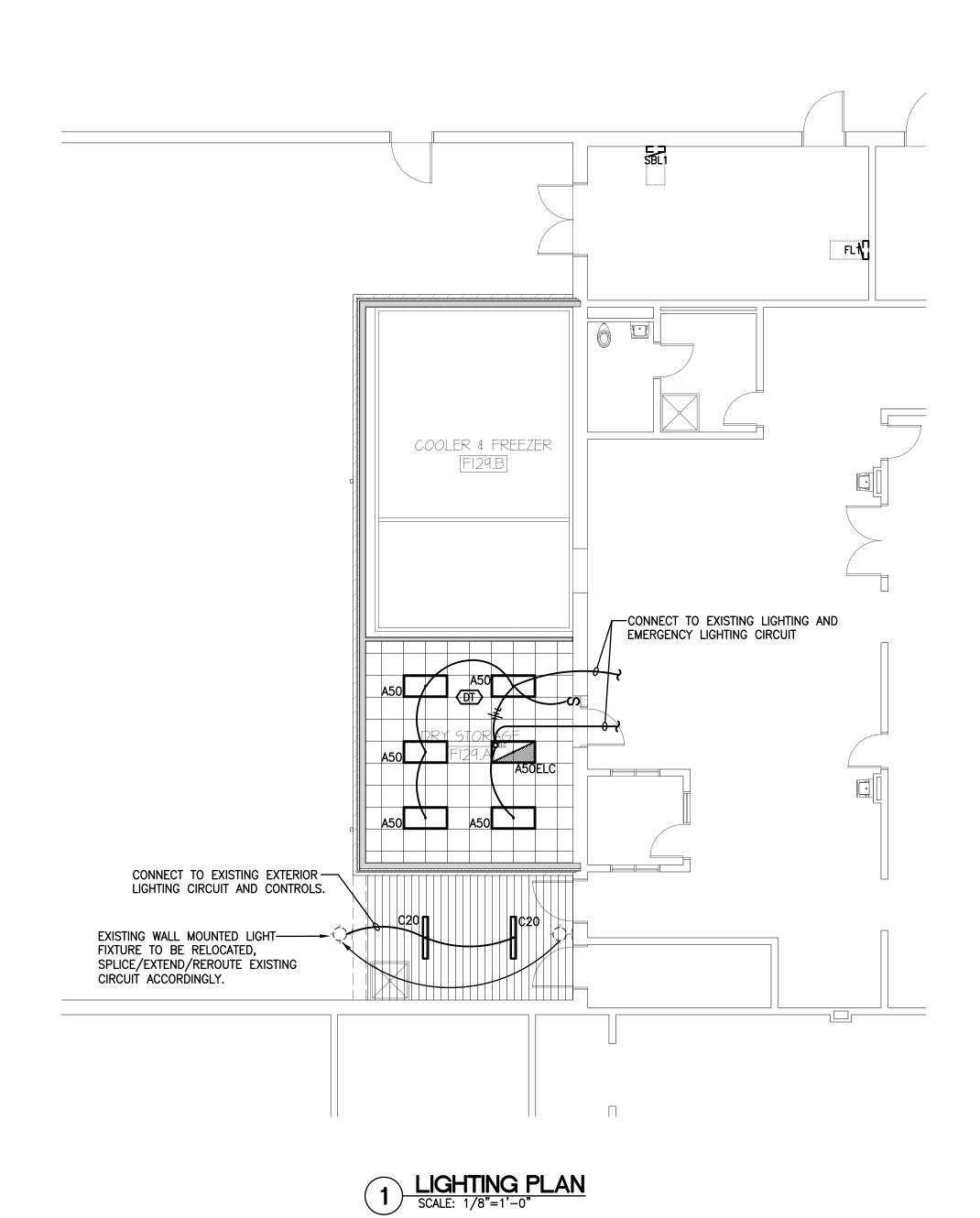
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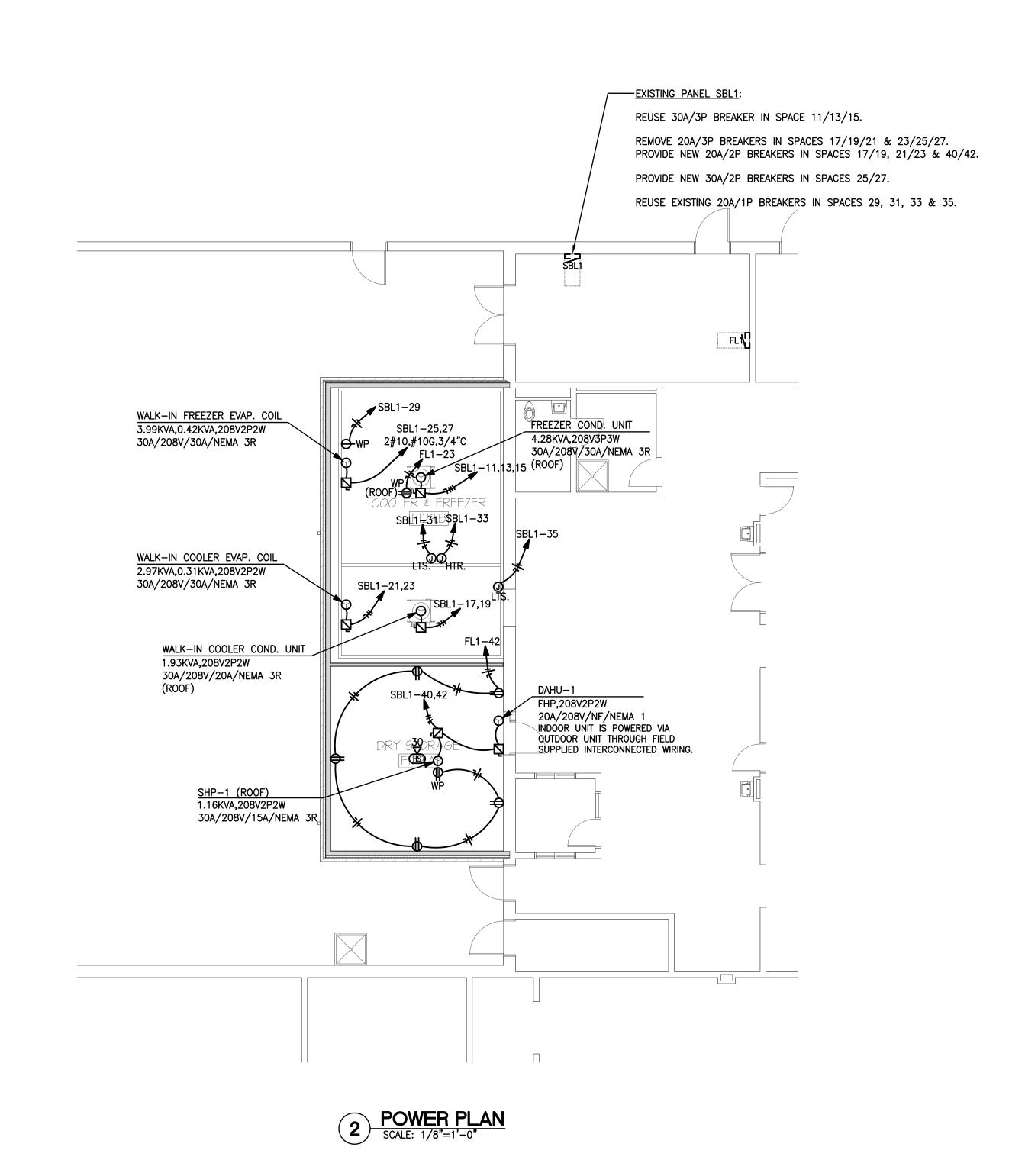
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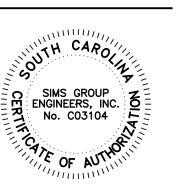
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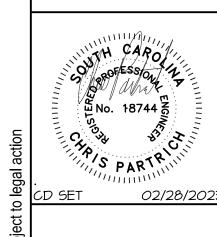
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CONSTRUCTION DOCUMENTS

DRAWN BY: JWB CHECKED BY: CLP COMM NO: 22004

DATE:

02/28/23 SHEET TITLE: ELECTRICAL PLAN

CONSTRUCTION DOCUMENTS

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