

Code Summary

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS (EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES) (Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: Building S1 Baucum Business Plaza
 Address: 11132 US 401 N., Fuquay-Varina, NC Zip Code 27526
 Owner/Authorized Agent: Thaddeus C. McLean Phone # 919-601-1402 E-Mail tmclean0520@gmail.com
 Owned By: City/County Private State
 Code Enforcement Jurisdiction: City County Harnett State

CONTACT: Steve Hall, AIA

DESIGNER FIRM	NAME	LICENSE	TELEPHONE	E-MAIL
Architectural	Steve Hall Architecture	Steve Hall	919-685-7874	steve@stevhallarchitecture.com
Civil	ECL&S Civil, Inc.	Jack Hobbs	919-877-3277	jack@eclandcivil.com
Electrical	Sharpe Engineering & Cons.	Daniel Sharpe	336-425-5815	dsharpe@sharpeengineers.com
Fire Alarm	Sharpe Engineering & Cons.	Daniel Sharpe	336-425-5815	dsharpe@sharpeengineers.com
Plumbing	Sharpe Engineering & Cons.	Daniel Sharpe	336-425-5815	dsharpe@sharpeengineers.com
Mechanical	Sharpe Engineering & Cons.	Daniel Sharpe	336-425-5815	dsharpe@sharpeengineers.com
Sprinkler-Standpipes	Centerline Structural Engineering	Coleman D. Larsen	402-429-4347	cole.larsen@centerlineinc.com
Structural	Centerline Structural Engineering	Coleman D. Larsen	402-429-4347	cole.larsen@centerlineinc.com
Retaining Walls >5' High				
OTHER _____				

*Other should include firms and individuals such as, truss, precast, pre-engineered, interior designers, etc.)

2018 NC BUILDING CODE: New Building Addition Renovation
 1st Time Interior Completion
 Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements
 Phased Construction - Shell/Core - Contact the local inspection jurisdiction procedures and requirements

2018 NC EXISTING BUILDING CODE: Prescriptive Repair Chapter 14
 Alteration: Level I Level II Level III
 Alteration: Historic Property Change of Use

CONSTRUCTED: (new) **CURRENT OCCUPANCY(S)** (Ch. 3): Storage

RENOVATED: **PROPOSED OCCUPANCY(S)** (Ch. 3): _____

RISK CATEGORY (Table 1604.5): **Current:** I II III IV
Proposed: I II III IV

BASIC BUILDING DATA

Construction Type: I-A II-A III-A IV V-A
 I-B II-B III-B V-B
 (check all that apply)

Sprinklers: No Partial Yes NFPA 13 NFPA 13R NFPA 13D

Standpipes: No Yes **Class:** I II III Wet Dry

Fire District: No Yes **Flood Hazard Area:** No Yes

Special Inspections Required: No Yes (Contact the local inspection jurisdiction for additional procedures and requirements.)

Ground Building Area Table

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
2nd		23,505	
1st Floor		23,505	

2018 NC Administrative Code and Policies

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
2nd		23,505	
1st Floor		23,505	
TOTAL		47,010	

ALLOWABLE AREA

Primary Occupancy Classification(s):

Assembly A-1 A-2 A-3 A-4 A-5
 Business
 Educational
 Factory F-1 Moderate F-2 Low
 Hazardous H-1 Detonate H-2 Deflagrate H-3 Combust H-4 Health H-5 HPM
 Institutional I-1 Condition 1 2
 I-2 Condition 1 2
 I-3 Condition 1 2 3 4 5
 I-4
 Mercantile
 Residential R-1 R-2 R-3 R-4
 Storage S-1 Moderate S-2 Low High-piled
 Parking Garage Open Enclosed Repair Garage
 Utility and Miscellaneous

Accessory Occupancy Classification(s):

Incidental Uses (Table 509): _____

Special Uses (Chapter 4 – List Code Sections): _____

Special Provisions: (Chapter 5 – List Code Sections): _____

Mixed Occupancy: No Yes Separation: _____ Hr. Exception: _____

Non-Separate Use (508.3) - The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building. See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.
 Separated Use (508.4) -

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1.00$$

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2* AREA	(C) AREA FOR FRONTAGE INCREASE ^{1,5}	(D) ALLOWABLE AREA PER STORY OR UNLIMITED ²
Level 1	Storage	23,505	52,500	39,375	91,875
Level 0	Storage	23,505	52,500	39,375	91,875
TOTAL		47,010	105,000	78,750	183,750

¹ Frontage area increases from Section 506.3 are computed thus:

- a. Perimeter which fronts a public way or open space having 20 feet minimum width = $\frac{640}{W}$ (F)
 b. Total Building Perimeter = $\frac{640}{P}$ (P)
 c. Ratio (F/P) = $\frac{1}{P}$ (F/P)
 d. W = Minimum width of public way = $\frac{30}{W}$ (W)
 e. Percent of frontage increase $I = 100[F/P - 0.25] \times W/30 = \frac{75}{W}$ (%)

² Unlimited area applicable under conditions of Section 507.

³ Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).

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⁴ The maximum area of open parking garages must comply with Table 406.5.4.

⁵ Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3) ¹	75'	30'-2"	
Building Height in Stories (Table 504.4) ²	3	2 (both on-grade exits)	

¹ Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

² The maximum height of air traffic control towers must comply with Table 412.3.1.

³ The maximum height of open parking garages must comply with Table 406.5.4.

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	REQ'D	RATING PROVIDED (W/ REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		0					
Bearing Walls		0					
Exterior							
North							
East							
West							
South							
Interior							
Nonbearing Walls and Partitions		0					
Exterior walls							
North							
East							
West							
South							
Interior walls and partitions							
Floor Construction including supporting beams and joists		0					
Floor Ceiling Assembly		0					
Columns Supporting Floors		0					
Roof Construction, including supporting beams and joists		0					
Roof Ceiling Assembly		0					
Columns Supporting Roof		0					
Shaft Enclosures - Exit		N/A					
Shaft Enclosures - Other		N/A					
Corridor Separation		N/A					
Occupancy/Fire Barrier Separation		N/A					
Party/Fire Wall Separation		N/A					
Smoke Barrier Separation		N/A					
Smoke Partition		N/A					
Tenant/Dwelling Unit/Sleeping Unit Separation		N/A					
Incidental Use Separation		N/A					

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: No Yes
 Exit Signs: No Yes
 Fire Alarm: No Yes
 Smoke Detection Systems: No Yes Partial _____
 Carbon Monoxide Detection: No Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: A1

- Fire and/or smoke rated wall locations (Chapter 7)
- Assumed and real property line locations (if not on the site plan)
- Exterior wall opening area with respect to distance to assumed property lines (705.8)
- Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
- Occupant loads for each area
- Exit access travel distances (1017)
- Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
- Dead end lengths (1020.4)
- Clear exit widths for each exit door
- Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
- Actual occupant load for each exit door
- A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
- Location of doors with panic hardware (1010.1.10)
- Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
- Location of doors with electromagnetic egress locks (1010.1.9.9)
- Location of doors equipped with hold-open devices
- Location of emergency escape windows (1030)
- The square footage of each fire area (202)
- The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
- Note any code exceptions or table notes that may have been utilized regarding the items above

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ACCESSIBLE DWELLING UNITS (SECTION 1107)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	PROVIDED	# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
			REGULAR WITH 5' ACCESS AISLE	132" ACCESS AISLE	8' ACCESS AISLE	
TOTAL						

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

Not required: NC Plumbing Code table 403.1 notes
 m. Self-service mini-storage facilities without an office area are exempt.
 n. Unheated storage buildings that are used periodically are not required to have toilet rooms.

USE	WATERCLOSETS			URINALS	LAVATORIES			SHOWERS	DRINKING FOUNTAINS	
	MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX	TUBS	REGULAR	ACCESSIBLE
SPACE										
EXIST'G										
NEW										
REQ'D										

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)

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ENERGY SUMMARY

ENERGY REQUIREMENTS:
 The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: No Yes Provide code or statutory reference: _____

Exempt Building: No Yes Provide code or statutory reference: _____

Climate Zone: 3A 4A 5A

Method of Compliance: Energy Code Performance Prescriptive
 ASHRAE 90.1 Performance Prescriptive
 (If "Other" specify source here) _____

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly)

Description of assembly: _____
 U-Value of total assembly: _____
 R-Value of insulation: _____
 Skylights in each assembly: _____
 U-Value of skylight: _____
 total square footage of skylights in each assembly: _____

Exterior Walls (each assembly)

Description of assembly: _____
 U-Value of total assembly: _____
 R-Value of insulation: _____
 Openings (windows or doors with glazing)
 U-Value of assembly: _____
 Solar heat gain coefficient: _____
 projection factor: _____
 Door R-Values: _____

Walls below grade (each assembly)

Description of assembly: _____
 U-Value of total assembly: _____
 R-Value of insulation: _____

Floors over unconditioned space (each assembly)

Description of assembly: _____
 U-Value of total assembly: _____
 R-Value of insulation: _____

Floors slab on grade

Description of assembly: _____
 U-Value of total assembly: _____
 R-Value of insulation: _____
 Horizontal/vertical requirement:
 slab heated: _____

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2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS STRUCTURAL DESIGN (PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:

Importance Factors: Snow (I_s) Select one
 Seismic (I_e) Select one

Live Loads: Roof _____ psf
 Mezzanine _____ psf
 Floor _____ psf

Ground Snow Load: _____ psf

Wind Load: Ultimate Wind Speed _____ mph (ASCE-7)
 Exposure Category Select one

SEISMIC DESIGN CATEGORY: Select one

Provide the following Seismic Design Parameters:

Risk Category (Table 1604.5) Select one

Spectral Response Acceleration S_s _____ %g S₁ _____ %g

Site Classification (ASCE 7) Select one

Data Source: Select one

Basic structural system Select one

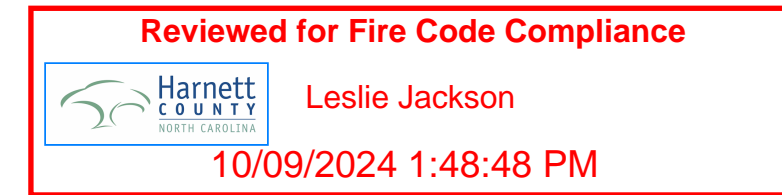
Analysis Procedure: Select one

Architectural, Mechanical, Components anchored? Select one

LATERAL DESIGN CONTROL: Select one

SOIL BEARING CAPACITIES: _____ psf

Select one
 Pile size, type, and capacity _____



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2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS MECHANICAL DESIGN (PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

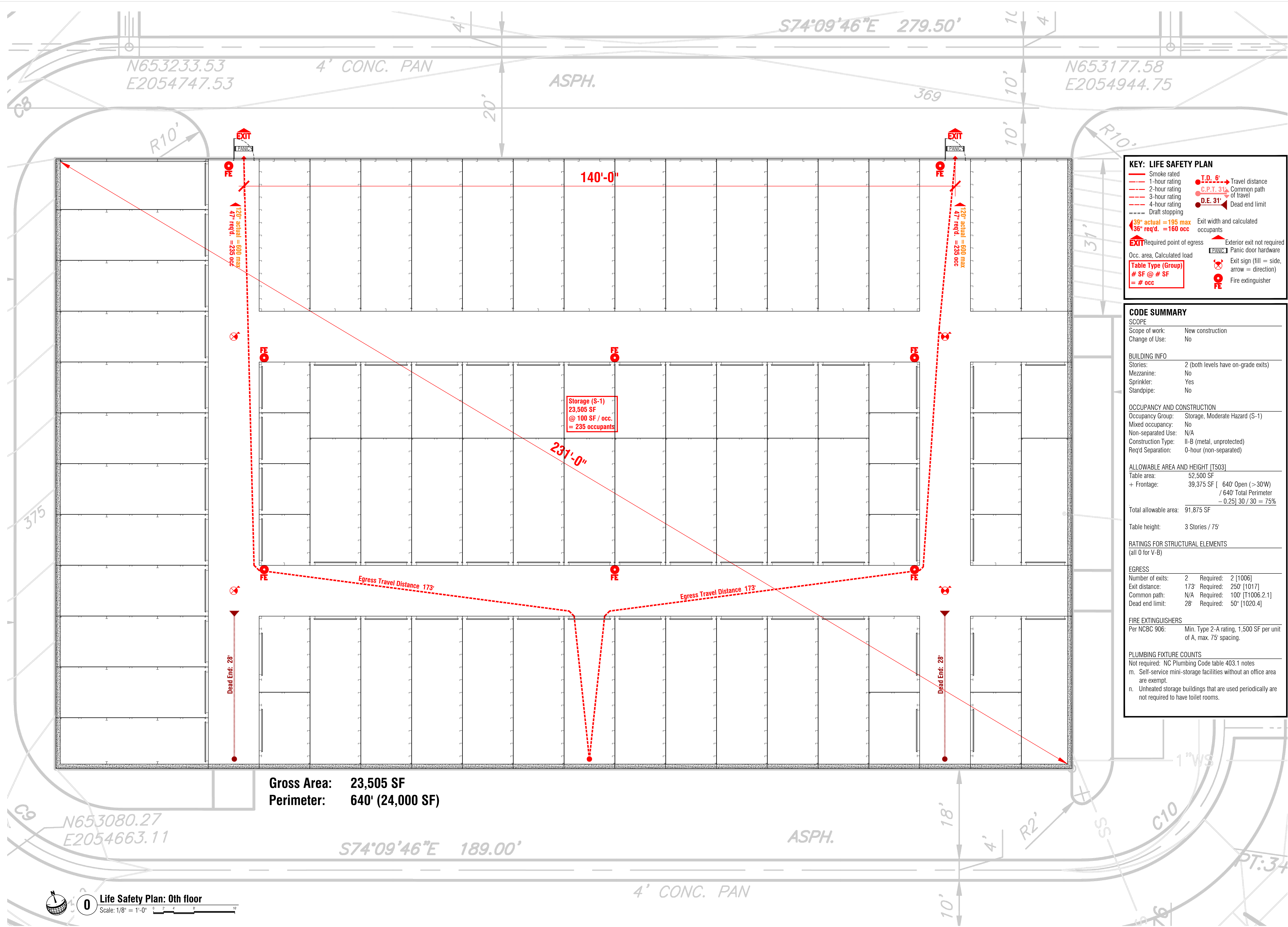
MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone

winter dry bulb: _____
 summer dry bulb: _____



465 Cedar Rock Trl
Fuquay Varina, NC 27526



KEY: LIFE SAFETY PLAN

- Smoke rated
- 1-hour rating
- 2-hour rating
- 3-hour rating
- 4-hour rating
- Draft stopping
- 39" actual = 195 max req'd. = 160 occ
- EXIT Required point of egress
- Occ. area, Calculated load
- Table Type (Group)
SF @ # SF
= # occ
- T.D. 6'
- C.P.T. 31'
- D.E. 31'
- Exit width and calculated occupants
- Exterior exit not required
- Panic door hardware
- Exit sign (fill = side, arrow = direction)
- Fire extinguisher

CODE SUMMARY

SCOPE
Scope of work: New construction
Change of Use: No

BUILDING INFO
Stories: 2 (both levels have on-grade exits)
Mezzanine: No
Sprinkler: Yes
Standpipe: No

OCCUPANCY AND CONSTRUCTION
Occupancy Group: Storage, Moderate Hazard (S-1)
Mixed occupancy: No
Non-separated Use: N/A
Construction Type: II-B (metal, unprotected)
Req'd Separation: 0-hour (non-separated)

ALLOWABLE AREA AND HEIGHT [T503]
Table area: 52,500 SF
+ Frontage: 39,375 SF [640' Open (>30W) / 640' Total Perimeter - 0.25] 30 / 30 = 75%
Total allowable area: 91,875 SF

Table height: 3 Stories / 75'

RATINGS FOR STRUCTURAL ELEMENTS
(all 0 for V-B)

EGRESS
Number of exits: 2 Required: 2 [1006]
Exit distance: 173' Required: 250' [1017]
Common path: N/A Required: 100' [1006.2.1]
Dead end limit: 28' Required: 50' [1020.4]

FIRE EXTINGUISHERS
Per NCBC 906: Min. Type 2-A rating, 1,500 SF per unit of A, max. 75' spacing.

PLUMBING FIXTURE COUNTS
Not required: NC Plumbing Code table 403.1 notes
m. Self-service mini-storage facilities without an office area are exempt.
n. Unheated storage buildings that are used periodically are not required to have toilet rooms.

Gross Area: 23,505 SF
Perimeter: 640' (24,000 SF)

Building S1
Baucum Business Plaza

11132 US 401 N
Fuquay-Varina, NC 27526
ARCHITECT'S SCOPE OF WORK
The architect's scope of work is limited to the life safety plan and building code summary "Appendix B", and was not employed for any portions of design, documentation, coordination, or activities during construction beyond this scope.



Revisions

Issued 2024-10-05
for Construction

Project Number 11560
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• Life Safety Plan: 0th Floor



465 Cedar Rock Trl
Fuquay Varina, NC 27526

Building S1
Baucum Business Plaza

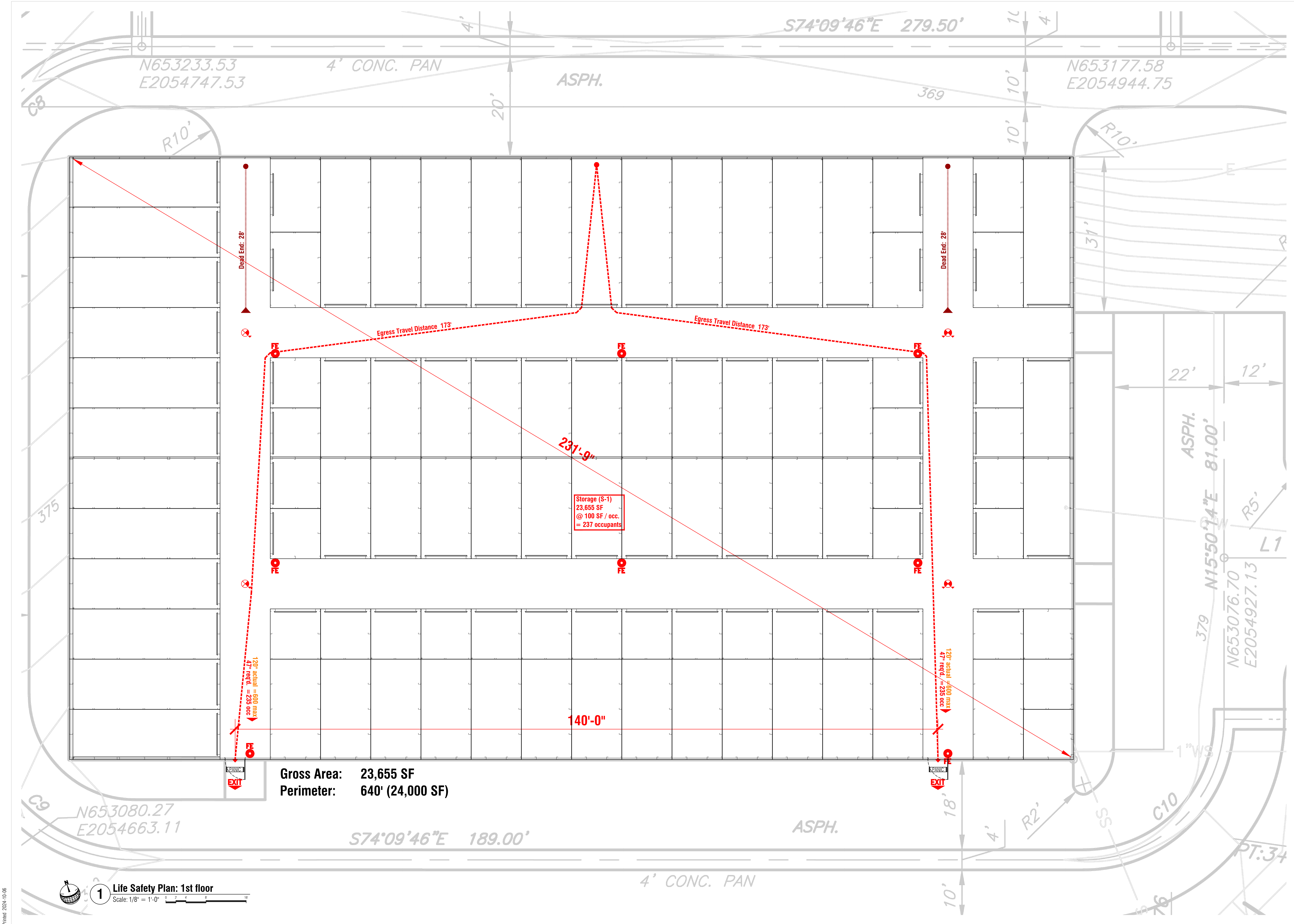
11132 US 401 N
Fuquay-Varina, NC 27526
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Revisions

Issued 2024-10-05
for Construction

Project Number 11560
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• Life Safety Plan: 1st Floor



Gross Area: 23,655 SF
Perimeter: 640' (24,000 SF)

Storage (S-1)
23,655 SF
@ 100 SF / occ.
= 237 occupants

1 Life Safety Plan: 1st floor
Scale: 1/8" = 1'-0"

Code Summary

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DESIGNER FIRM	NAME	LICENSE	TELEPHONE	E-MAIL
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 Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements
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 Alteration: Level I Level II Level III
 Alteration: Historic Property Change of Use

CONSTRUCTED: (new) CURRENT OCCUPANCY(S) (Ch. 3): Storage

RENOVATED: _____ PROPOSED OCCUPANCY(S) (Ch. 3): _____

RISK CATEGORY (Table 1604.5): Current: I II III IV
 Proposed: I II III IV

BASIC BUILDING DATA

Construction Type: I-A II-A III-A IV V-A
 I-B II-B III-B V-B
 (check all that apply)

Sprinklers: No Partial Yes NFPA 13 NFPA 13R NFPA 13D

Standpipes: No Yes Class I II III Wet Dry

Fire District: No Yes Flood Hazard Area: No Yes

Special Inspections Required: No Yes (Contact the local inspection jurisdiction for additional procedures and requirements.)

Gross Building Area Table

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
2nd		23,505	
1st Floor		23,505	

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TOTAL 47,010

ALLOWABLE AREA

Primary Occupancy Classification(s):

Assembly A-1 A-2 A-3 A-4 A-5
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 Educational
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 Hazardous H-1 Detonate H-2 Deflagrate H-3 Combust H-4 Health H-5 HPM
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 I-2 Condition 1 2
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 Mercantile
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 Parking Garage Open Enclosed Repair Garage
 Utility and Miscellaneous

Accessory Occupancy Classification(s):

Incidental Uses (Table 509): _____

Special Uses (Chapter 4 - List Code Sections): _____

Special Provisions: (Chapter 5 - List Code Sections): _____

Mixed Occupancy: No Yes Separation: _____ Hr. Exception: _____

Non-Separate Use (508.3) - The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.

Separated Use (508.4) - See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$

_____ + _____ + _____ = _____ ≤ 1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2* AREA	(C) AREA FOR FRONTAGE INCREASE ^{1,5}	(D) ALLOWABLE AREA PER STORY OR UNLIMITED ²
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 c. Ratio (F/P) = $\frac{1}{P}$ (F/P)
 d. W = Minimum width of public way = $\frac{30}{W}$ (W)
 e. Percent of frontage increase $I = 100[F/P - 0.25] \times W/30 = \frac{75}{P}$ (%)

² Unlimited area applicable under conditions of Section 507.

³ Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).

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⁴ The maximum area of open parking garages must comply with Table 406.5.4.

⁵ Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3) ¹	75'	30'-2"	
Building Height in Stories (Table 504.4) ²	3	2 (both on-grade exits)	

¹ Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

² The maximum height of air traffic control towers must comply with Table 412.3.1.

³ The maximum height of open parking garages must comply with Table 406.5.4.

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	REQ'D	RATING PROVIDED (W/ REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		0					
Bearing Walls		0					
Exterior							
North							
East							
West							
South							
Interior							
Nonbearing Walls and Partitions		0					
Exterior walls							
North							
East							
West							
South							
Interior walls and partitions							
Floor Construction		0					
Including supporting beams and joists							
Floor Ceiling Assembly		0					
Columns Supporting Floors		0					
Roof Construction, including supporting beams and joists		0					
Roof Ceiling Assembly		0					
Columns Supporting Roof		0					
Shaft Enclosures - Exit		N/A					
Shaft Enclosures - Other		N/A					
Corridor Separation		N/A					
Occupancy/Fire Barrier Separation		N/A					
Party/Fire Wall Separation		N/A					
Smoke Barrier Separation		N/A					
Smoke Partition		N/A					
Tenant/Dwelling Unit/Sleeping Unit Separation		N/A					
Incidental Use Separation		N/A					

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: No Yes
 Exit Signs: No Yes
 Fire Alarm: No Yes
 Smoke Detection Systems: No Yes Partial _____
 Carbon Monoxide Detection: No Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: A1

Fire and/or smoke rated wall locations (Chapter 7)
 Assumed and real property line locations (if not on the site plan)
 Exterior wall opening area with respect to distance to assumed property lines (705.8)
 Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
 Occupant loads for each area
 Exit access travel distances (1017)
 Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
 Dead end lengths (1020.4)
 Clear exit widths for each exit door
 Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
 Actual occupant load for each exit door
 A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
 Location of doors with panic hardware (1010.1.10)
 Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
 Location of doors with electromagnetic egress locks (1010.1.9.9)
 Location of doors equipped with hold-open devices
 Location of emergency escape windows (1030)
 The square footage of each fire area (202)
 The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
 Note any code exceptions or table notes that may have been utilized regarding the items above

2018 NC Administrative Code and Policies

ACCESSIBLE DWELLING UNITS (SECTION 1107)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	PROVIDED	# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
			REGULAR WITH 5' ACCESS AISLE	132" ACCESS AISLE	8' ACCESS AISLE	
TOTAL						

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

Not required: NC Plumbing Code table 403.1 notes
 m. Self-service mini-storage facilities without an office area are exempt.
 n. Unheated storage buildings that are used periodically are not required to have toilet rooms.

SPACE	USE	WATERCLOSETS			URINALS			LAVATORIES			SHOWERS		DRINKING FOUNTAINS	
		MALE	FEMALE	UNISEX	MALE	FEMALE	UNISEX	TUBS	REGULAR	ACCESSIBLE				
EXIST'G														
NEW														
REQ'D														

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)

2018 NC Administrative Code and Policies

ENERGY SUMMARY

ENERGY REQUIREMENTS:
 The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: No Yes

Exempt Building: No Yes Provide code or statutory reference: _____

Climate Zone: 3A 4A 5A

Method of Compliance: Energy Code Performance Prescriptive
 ASHRAE 90.1 Performance Prescriptive
 (If "Other" specify source here) _____

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly)
 Description of assembly: _____
 U-Value of total assembly: _____
 R-Value of insulation: _____
 Skylights in each assembly:
 U-Value of skylight: _____
 total square footage of skylights in each assembly: _____

Exterior Walls (each assembly)
 Description of assembly: _____
 U-Value of total assembly: _____
 R-Value of insulation: _____
 Openings (windows or doors with glazing)
 U-Value of assembly: _____
 Solar heat gain coefficient: _____
 projection factor: _____
 Door R-Values: _____

Walls below grade (each assembly)
 Description of assembly: _____
 U-Value of total assembly: _____
 R-Value of insulation: _____

Floors over unconditioned space (each assembly)
 Description of assembly: _____
 U-Value of total assembly: _____
 R-Value of insulation: _____

Floors slab on grade
 Description of assembly: _____
 U-Value of total assembly: _____
 R-Value of insulation: _____
 Horizontal/vertical requirement:
 slab heated: _____

2018 NC Administrative Code and Policies

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS STRUCTURAL DESIGN (PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:

Importance Factors: Snow (Is) Select one
 Seismic (Ie) Select one

Live Loads: Roof _____ psf
 Mezzanine _____ psf
 Floor _____ psf

Ground Snow Load: _____ psf

Wind Load: Ultimate Wind Speed _____ mph (ASCE-7)
 Exposure Category Select one

SEISMIC DESIGN CATEGORY: Select one

Provide the following Seismic Design Parameters:

Risk Category (Table 1604.5) Select one

Spectral Response Acceleration S_s _____ %g S_1 _____ %g

Site Classification (ASCE 7) Select one

Data Source: Select one

Basic structural system Select one

Analysis Procedure: Select one

Architectural, Mechanical, Components anchored? Select one

LATERAL DESIGN CONTROL: Select one

SOIL BEARING CAPACITIES: _____ psf

Select one
 Pile size, type, and capacity _____

2018 NC Administrative Code and Policies

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS MECHANICAL DESIGN (PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone
 winter dry bulb: _____
 summer dry bulb: _____

Interior design conditions
 winter dry bulb: _____
 summer dry bulb: _____
 relative humidity: _____

Building heating load: _____

Building cooling load: _____

Mechanical Spacing Conditioning System

Unitary
 description of unit: _____
 heating efficiency: _____
 cooling efficiency: _____
 size category of unit: _____

Boiler
 Size category. If oversized, state reason: _____

Chiller
 Size category. If oversized, state reason: _____

List equipment efficiencies: _____

NOTICE TO CONTRACTOR:
 All construction must comply with current NC Building Codes and is subject to field inspection and verification.

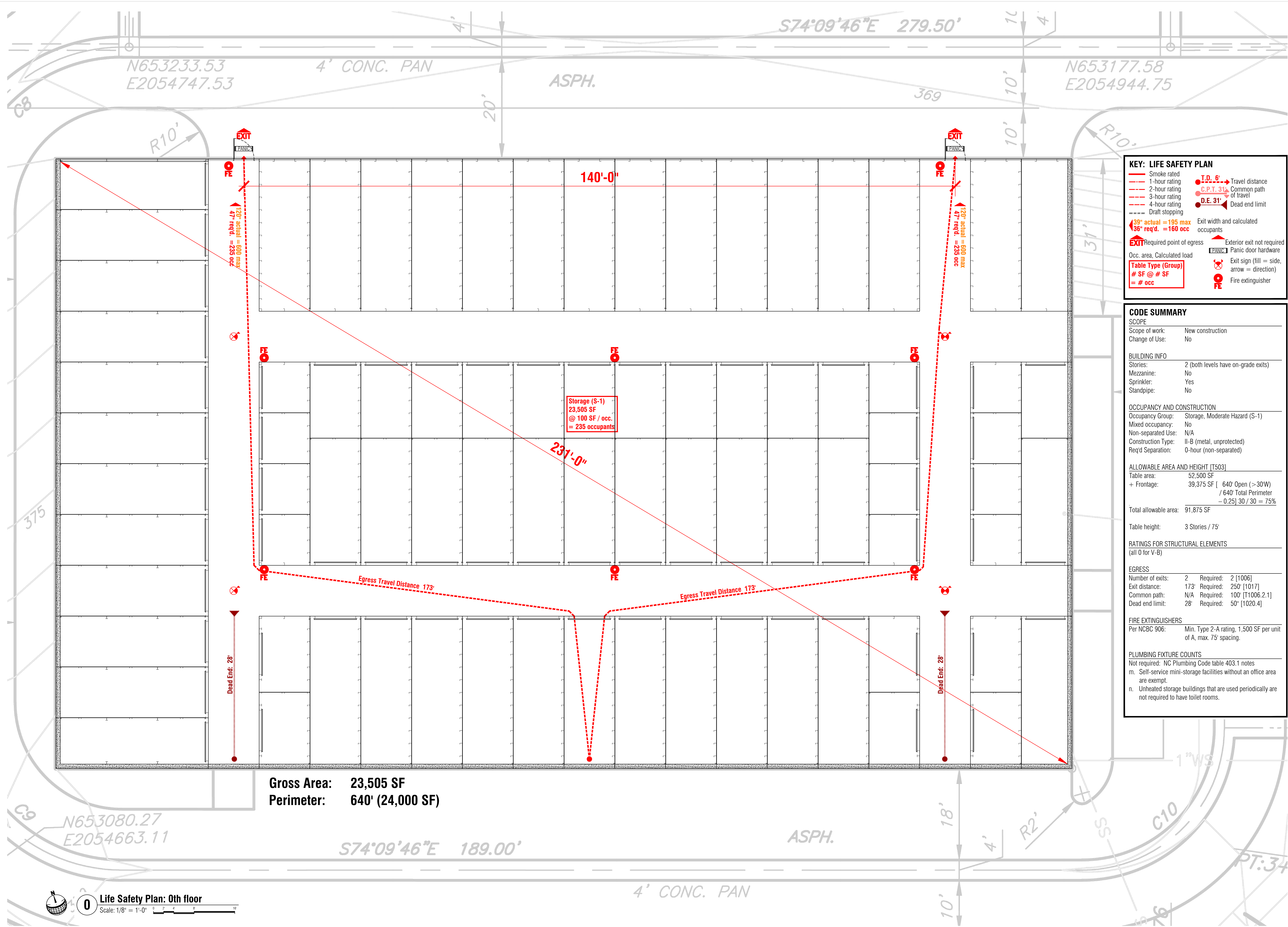
Reviewed for Code Compliance

10/07/2024






465 Cedar Rock Trl
Fuquay Varina, NC 27526



KEY: LIFE SAFETY PLAN

- Smoke rated
- 1-hour rating
- 2-hour rating
- 3-hour rating
- 4-hour rating
- Draft stopping
- 39" actual = 195 max req'd. = 160 occ
- EXIT Required point of egress
- Occ. area, Calculated load
- Table Type (Group)
SF @ # SF
= # occ
- T.D. 6'
- C.P.T. 31'
- D.E. 31'
- Exit width and calculated occupants
- Exterior exit not required
- Panic door hardware
- Exit sign (fill = side, arrow = direction)
- Fire extinguisher

CODE SUMMARY

SCOPE
Scope of work: New construction
Change of Use: No

BUILDING INFO
Stories: 2 (both levels have on-grade exits)
Mezzanine: No
Sprinkler: Yes
Standpipe: No

OCCUPANCY AND CONSTRUCTION
Occupancy Group: Storage, Moderate Hazard (S-1)
Mixed occupancy: No
Non-separated Use: N/A
Construction Type: II-B (metal, unprotected)
Req'd Separation: 0-hour (non-separated)

ALLOWABLE AREA AND HEIGHT [T503]
Table area: 52,500 SF
+ Frontage: 39,375 SF [640' Open (>30W) / 640' Total Perimeter - 0.25] 30 / 30 = 75%
Total allowable area: 91,875 SF

Table height: 3 Stories / 75'

RATINGS FOR STRUCTURAL ELEMENTS
(all 0 for V-B)

EGRESS
Number of exits: 2 Required: 2 [1006]
Exit distance: 173' Required: 250' [1017]
Common path: N/A Required: 100' [1006.2.1]
Dead end limit: 28' Required: 50' [1020.4]

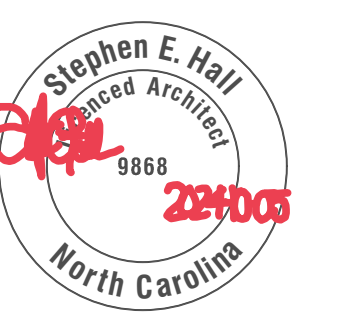
FIRE EXTINGUISHERS
Per NCBC 906: Min. Type 2-A rating, 1,500 SF per unit of A, max. 75' spacing.

PLUMBING FIXTURE COUNTS
Not required: NC Plumbing Code table 403.1 notes
m. Self-service mini-storage facilities without an office area are exempt.
n. Unheated storage buildings that are used periodically are not required to have toilet rooms.

Gross Area: 23,505 SF
Perimeter: 640' (24,000 SF)

Building S1
Baucum Business Plaza

11132 US 401 N
Fuquay-Varina, NC 27526
ARCHITECT'S SCOPE OF WORK
The architect's scope of work is limited to the life safety plan and building code summary "Appendix B", and was not employed for any portions of design, documentation, coordination, or activities during construction beyond this scope.



Revisions

Issued 2024-10-05
for Construction

Project Number 11560
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• Life Safety Plan: 0th Floor



465 Cedar Rock Trl
Fuquay Varina, NC 27526

Building S1
Baucom Business Plaza

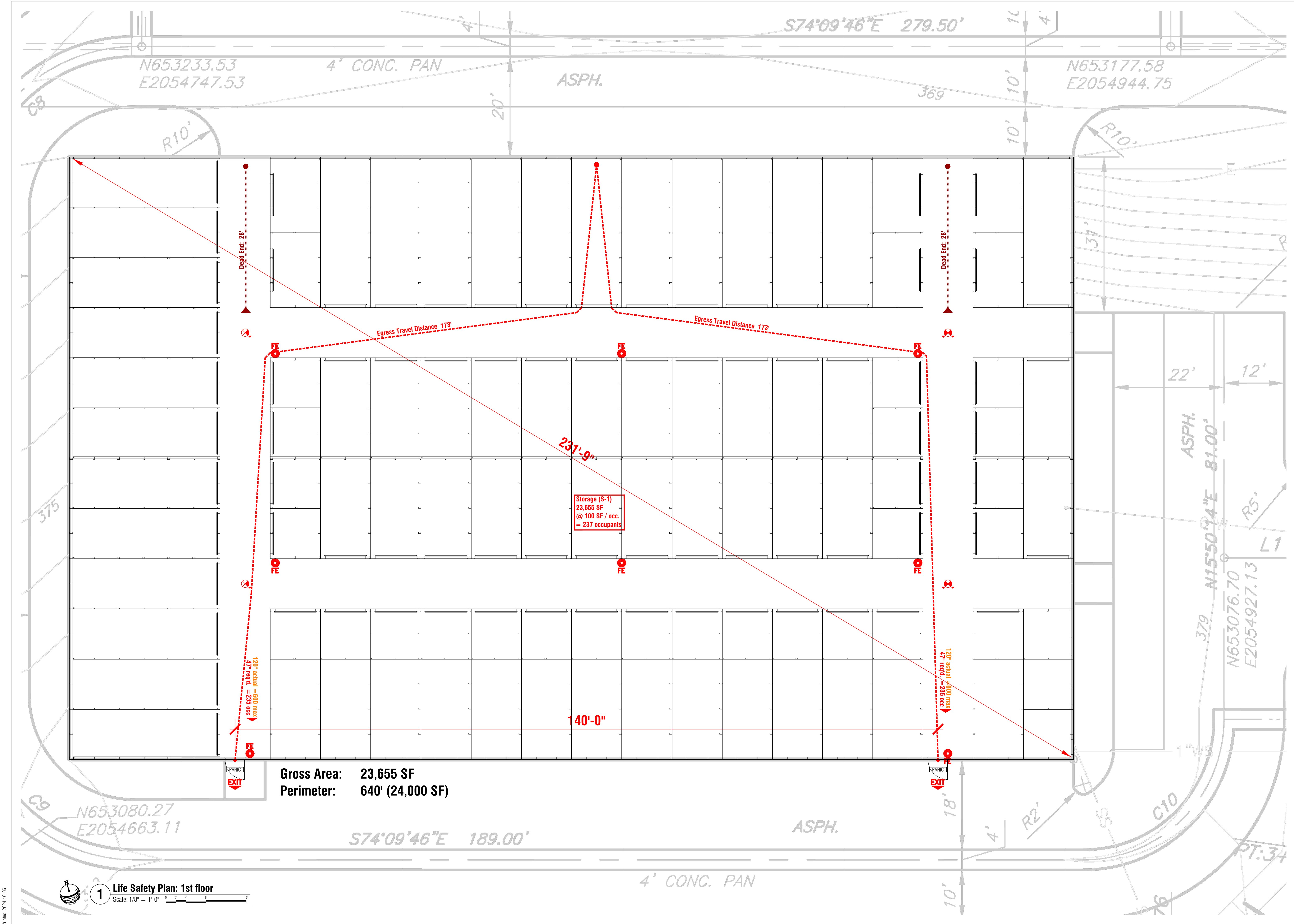
11132 US 401 N
Fuquay-Varina, NC 27526
ARCHITECT'S SCOPE OF WORK
The architect's scope of work is limited to the life safety plan and building code summary "Appendix B", and was not employed for any portions of design, documentation, coordination, or activities during construction beyond this scope.



Revisions

Issued 2024-10-05
for Construction

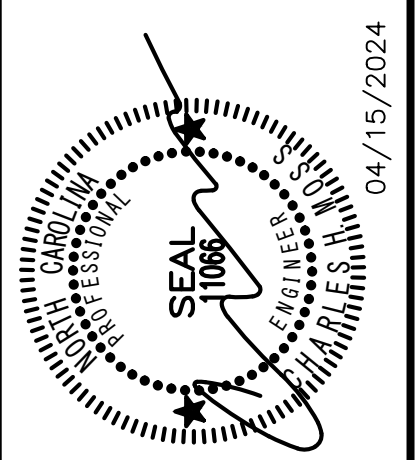
Project Number 11560
© Copyright SteveHallArchitecture 2024
• Life Safety Plan: 1st Floor



Gross Area: 23,655 SF
Perimeter: 640' (24,000 SF)

Storage (S-1)
23,655 SF
@ 100 SF / occ.
= 237 occupants

1 Life Safety Plan: 1st floor
Scale: 1/8" = 1'-0"

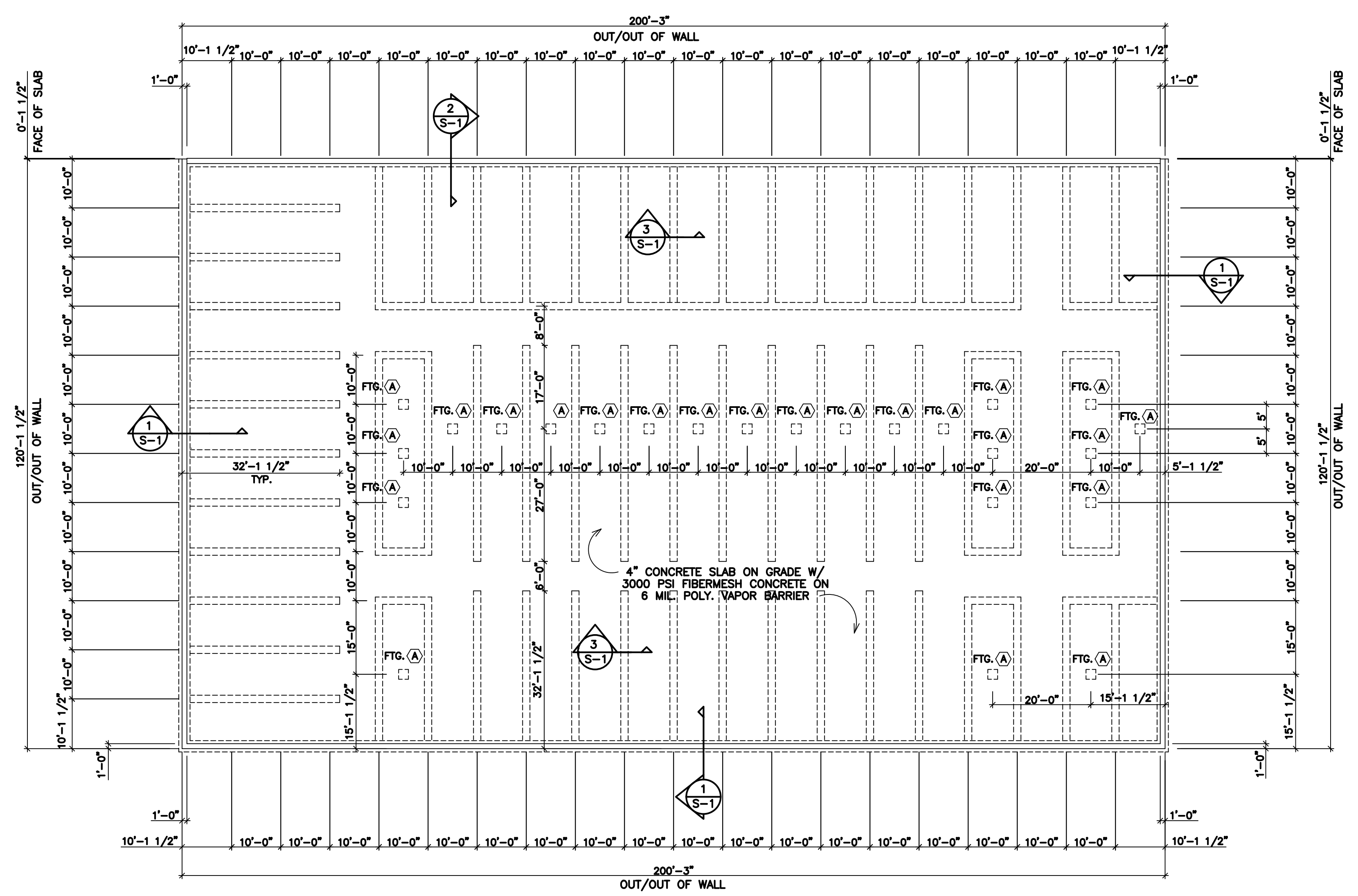


C.H. MOSS, P.E.
 SOLE PROPRIETOR
 P.O. BOX 28
 COVINGTON, GA 30015
 (770)-786-3163

NO	DATE	REVISION	BY

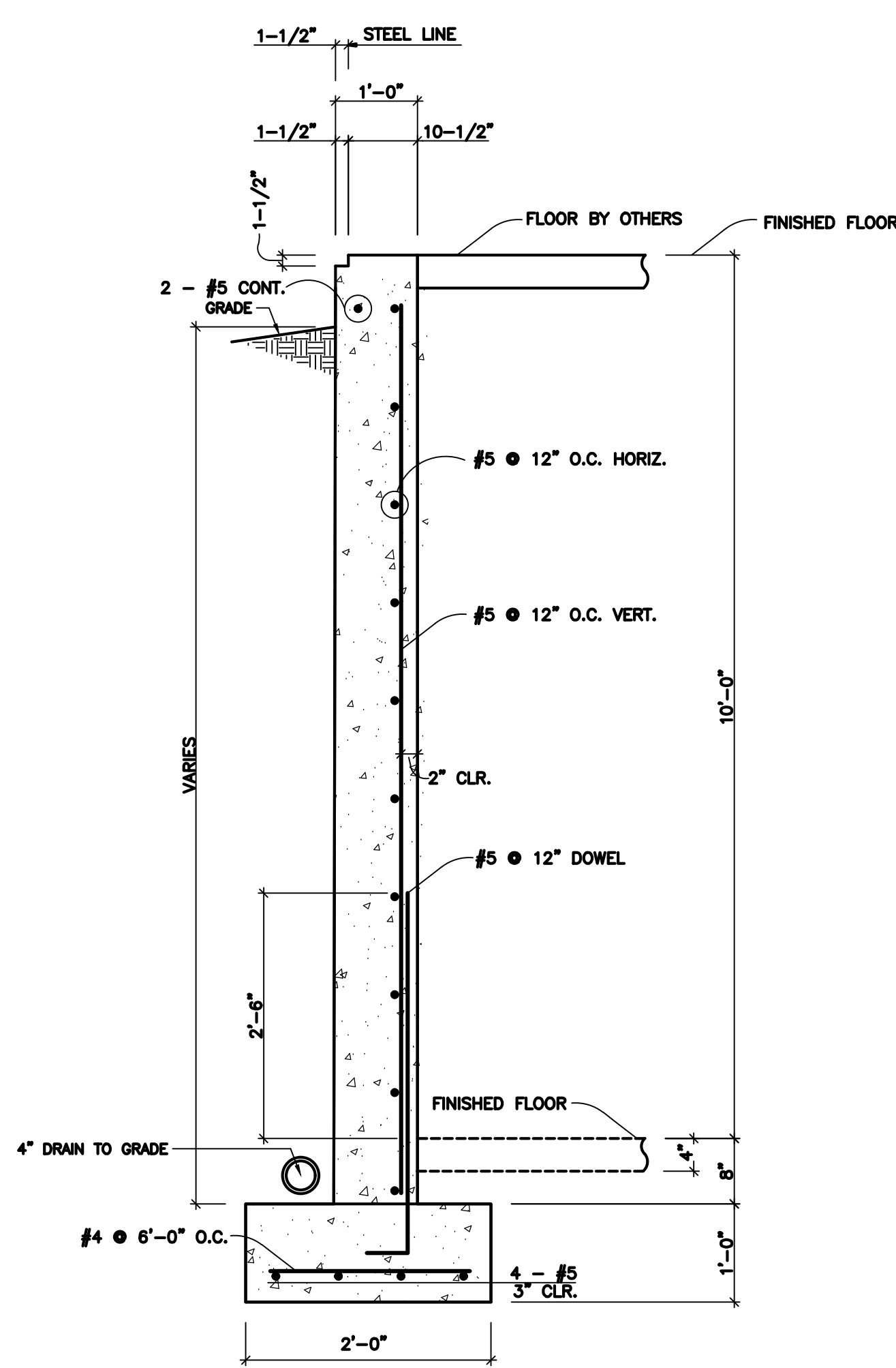
FOUNDATION PLAN FOR:
BAUCOM BUSINESS PLAZA
CLIMATE CONTROL BLDG
 FUYQUAY VARINA, NC

DRAWING NUMBER	
3843	
SHEET	OF:
S-1	1

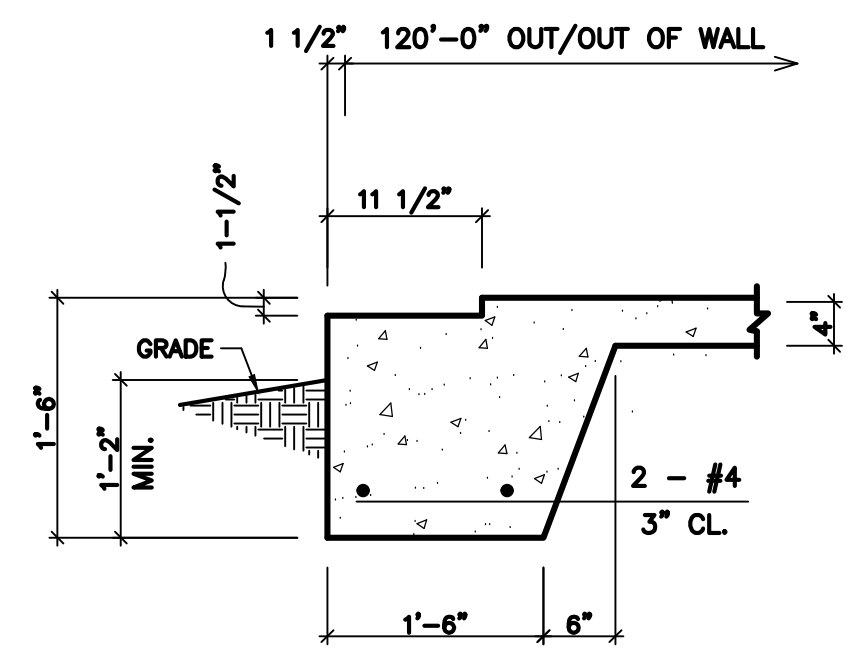


FOUNDATION PLAN
 SCALE: 1/16" = 1'-0"

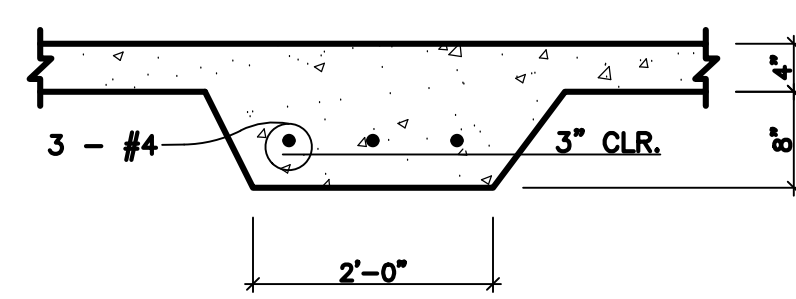
NOTE:
 PROVIDE CONTROL JOINTS AT 15'-0" O.C. MAX.
 EACH WAY NOT TO COINCIDE WITH THICKENED SLAB.



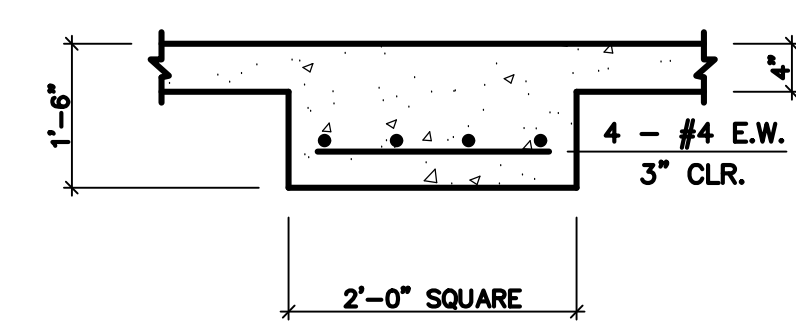
SECTION 1
 SCALE: 3/4" = 1'-0"



SECTION 2
 SCALE: 3/4" = 1'-0"



SECTION 3
 SCALE: 3/4" = 1'-0"



FOOTING "A" DETAIL
 SCALE: 3/4" = 1'-0"

GENERAL NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR BRACING ALL WORK DURING CONSTRUCTION.
- FOOTINGS ARE DESIGNED FOR AN ALLOWABLE BEARING CAPACITY OF 2000 P.S.F.
- CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 P.S.I. WITH A 4" MAXIMUM SLUMP. DETAILS NOT SHOWN SHALL BE ACCORDING TO ACI 318 AND ACI 301 SPECIFICATIONS FOR CONCRETE CONSTRUCTION.
 - REINFORCING STEEL SHALL BE ASTM A-615 GRADE 60 (TIES MAY BE GRADE 40)
 - W.W.F. SHALL BE ASTM A-185
 - MINIMUM LAP: #4 - 28"
 - #5 - 32"
 - MINIMUM COVER: 3" U.N.O.
- C.I. ON PLANS INDICATE CONTROL JOINT 1/8" x 1" DEEP SAWN WITHIN 24 HOURS AFTER PLACING CONCRETE. METAL JOINT MATERIAL MAY BE USED.
- FOUNDATION BASED ON REACTIONS FURNISHED BY PEAK STEEL BUILDINGS INC., JOB NO. 12227-33774, DATED 04/16/2021.

DRAWING NOTE

APPROVAL OF THESE DRAWINGS INDICATES THAT THEY HAVE BEEN INTERPRETED CORRECTLY AND HAVE APPLIED THE REQUIREMENTS OF THE CONTRACTS DRAWINGS AND SPECIFICATIONS.
WHERE DISCREPANCIES EXIST BETWEEN THESE DRAWINGS AND THE DRAWINGS FOR OTHER TRADES, THE STRUCTURAL STEEL DRAWINGS SHALL GOVERN.

DESIGN NOTE

DESIGN OF ANY MATERIALS IN THE STRUCTURE, WHICH ARE NOT FURNISHED BY THE MANUFACTURER, ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ENGINEERS OTHER THAN THE MANUFACTURER, UNLESS SPECIFICALLY INDICATED.

INSTALLATION NOTES

- * FIELD CUTTING OF COMPONENTS IS REQUIRED FOR FITMENT.
- * ROOF PANEL LAPS MUST BE SEALED WITH MASTIC TAPE (PROVIDED).
- * PANELS AND TRIM ARE RECOMMENDED TO BE SET 1/8" ABOVE CONCRETE SURFACE.
- * FLASHING MUST BE LAPPED A MINIMUM 2" AND SEALED AS NEEDED FOR WATER RESISTANCE.
- * ALLOW 1/2" TOLERANCE FOR GIRTS AND HEADERS

BUILDING LAYOUT

WIDTH (ft.): 120
LENGTH (ft.): 200
EAVE HEIGHT (ft.): 20'-0" L.S
ROOF SLOPE (Rise/12): 2 / 2

PANEL SELECTION

ROOF: SSR 24ga. Steel Gray
DECK: 22ga. 1.5 Composite B-Deck
WALL: SSX 26GA. Hawaiian Blue
WAINSCOT: SSX 26GA. Steel Gray
PARTITION: HORI. Rev.LRX 29ga. Galvalume
LINER: HORI. Rev.LRX 29ga. Galvalume
HALLWAY: Verti. Rev. 26ga. LRX. Cool White

DRAWING SCHEDULE

1	LEAD SHEET, GENERAL NOTES, SCHEDULES
2	EXTERIOR ELEVATION PLAN
2.1	INTERIOR ELEVATION PLAN
2.2	INTERIOR ELEVATION PLAN
2.3	INTERIOR ELEVATION PLAN
3	SLAB PLAN (BOTTOM FLOOR)
3A	SLAB PLAN (TOP FLOOR)
3.1	SLAB DETAILS
4	FLOOR PLAN (BOTTOM FLOOR)
4A	FLOOR PLAN (TOP FLOOR)
4.1	FLOOR DETAILS
5	FRAMING PLAN (BOTTOM FLOOR)
5A	FRAMING PLAN (TOP FLOOR)
5.1	FRAMING DETAILS
5.2	FRAMING DETAILS
5.3	FRAMING DETAILS
5.4	FRAMING DETAILS
6	PARTITION PLAN (BOTTOM FLOOR)
6A	PARTITION PLAN (TOP FLOOR)
6.1	PARTITION DETAILS
7	RAFTER PLAN (BOTTOM FLOOR)
7A	RAFTER PLAN (TOP FLOOR)
7.1	RAFTER DETAILS
7.2	RAFTER DETAILS
8	DECK PLAN
8A	ROOF PLAN

BUILDING LOADS

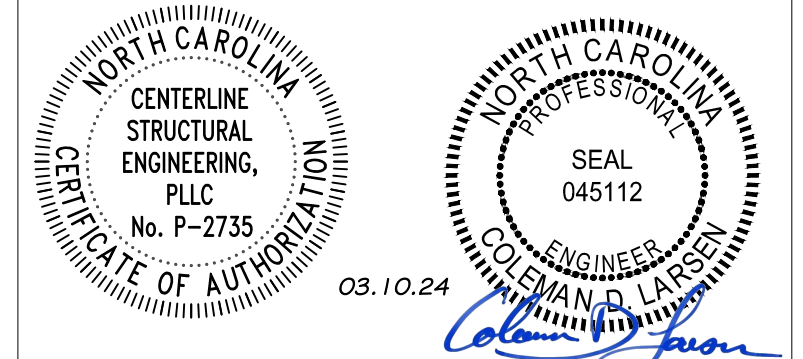
CODE: NCBC-18
DEAD LOAD: 2.0 psf.
COLLATERAL LOAD: 1.0 psf.
LIVE LOAD: 20.0 psf. (MAX)
GROUND SNOW LOAD: 15.0 psf. (MAX)
ROOF SNOW LOAD: 10.5 psf. (MAX)
WIND SPEED: 117 mph.
CLOSED / OPEN: Closed
EXPOSURE: C
IMPORTANCE - WIND: 1.00
IMPORTANCE - SEISMIC: 1.00
IMPORTANCE - SNOW: 1.00
SEISMIC CATEGORY: C
SEISMIC COEFFICIENT: 0.28
SEISMIC S1: 0.084
SEISMIC Sds: 0.187
SEISMIC Sd1: 0.134
SEISMIC BASE SHEAR: 0.667*le*Fa*Ss*W/R
INTERNAL WIND COEFFICIENT: -0.18 / +0.18
OCCUPANCY: II-NORMAL
FLOOR DEAD LOAD: 35 PSF (4" CONCRETE+DECK)
FLOOR COLLATERAL LOAD: 1.0 PSF
FLOOR LIVE LOAD: 125 PSF (LIGHT STORAGE)

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Notes:

BAUCOM BUSINESS PLAZA / JIM MOORE FUQUAY VARINA, NC 27526



REV: DESCRIPTION: BY: DATE:
STATUS: CONSTRUCTION ISSUE

12227-33774-S1



CLIENT: P.O. BOX 1275
Madison, GA 30650
Phone: (844) 333-7325
Fax: (706) 343-1968

SITE: FUQUAY VARINA
NC 27526
TITLE: 120'x200'x20'-0" LS Gable
SIZE: DATE: 03/06/24 DRAWN: NMB CHECKED: ALI
SHEET NO: 1 of 8 DRAWING NO: 12227-33774-S1 REVISION:

STANDARD ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	EOS	EDGE OF SLAB	OA	OVERALL
APPR	APPROXIMATE	FBO	FURNISHED BY OTHERS	OC	ON CENTER
BLDG	BUILDING	FND	FOUNDATION	OD	OUTSIDE DIAMETER
BLK	BLOCK	FOB	FACE OF BLOCK / BRICK	OPP	OPPOSITE
BM	BEAM	FOS	FACE OF STEEL	PTN	PARTITION
BOT	BOTTOM	FT	FOOT / FEET	RAD	RADIUS
BLK	BLOCK	FTG	FOOTING	REF	REFERENCE
C/L	CENTERLINE	GA	GAUGE	REQD	REQUIRED
CJ	CAULK JOINT	GALV	GALVANIZED	REIN	REINFORCED
CLG	CEILING	GC	GENERAL CONTRACTOR	RO	ROUGH OPENING
COL	COLUMN	GRND	GROUND	SECT	SECTION
CONC	CONCRETE	GR	GRADE	SF	SQUARE FOOTAGE
CTR	CENTER	GYP	GYP SUM WALL BOARD	SIM	SIMILAR
DBL	DOUBLE	HORIZ	HORIZONTAL	SQ	SQUARE
DET	DETAIL	HT	HEIGHT	STD	STANDARD
DIA	DIAMETER	INS	INSULATION	STL	STEEL
DWG	DRAWING	INT	INTERIOR	TOB	TOP OF BEAM
DIM	DIMENSION	INFO	INFORMATION	TOC	TOP OF CONCRETE
DR	DOOR	JT	JOINT	TOS	TOP OF STEEL
EA	EACH	MAX	MAXIMUM	TOW	TOP OF WALL
ET	ERECTION TOLERANCE	MIN	MINIMUM	TYP	TYPICAL
EJ	EXPANSION JOINT	MISC	MISCELLANEOUS	UNO	UNLESS NOTED OTHERWISE
EL	ELEVATION	MTL	METAL	VAR	VARIABLES
EXIST	EXISTING	NIC	NOT IN CONTRACT	VERT	VERTICAL
EXP	EXPANSION	NTS	NOT TO SCALE	VIF	VERIFY IN FIELD
EXT	EXTERIOR	NA	NOT APPLICABLE	WO	WITHOUT
		NO	NUMBER	WT	WEIGHT

STRUCTURAL ABBREVIATIONS

BA	BASE ANGLE	L4216 - 4" x 2" x 16 Ga. Angle
BC	BASE CHANNEL	U42516 - 4 1/8" x 2 5/8" x 16 Ga. Channel
C	4" COLUMN	C4216 - 4" x 2" x 16 Ga. Cee
C64	6" COLUMN	C6416 - 6" x 4" x 16 Ga. Cee
DH	DOOR HEADER	C4216 - 4" x 2" x 16 Ga. Cee
DJ	DOOR JAMB	C43516 - 4" x 3 1/2" x 16 Ga. Cee
EC	EAVE CHANNEL	U42514 - 4 1/8" x 2 5/8" x 14 Ga. Channel
HEC	HIGH EAVE CHANNEL	U42514 - 4 1/8" x 2 5/8" x 14 Ga. Channel
ES	EAVE STRUT	ES6416 - 6" x 4" x 16 Ga. Strut
FC	FLOOR CLIP	Manufactured Part
G	GIRT	C4216 - 4" x 2" x 16 Ga. Cee
HA	HALL ANGLE	L4216 - 4" x 2" x 16 Ga. Angle
JR	JACK RAFTER	C62516 - 6" x 2 1/2" x 16 Ga. Cee
M	MULLION	C12416 - 12" x 4" x 16 Ga. Cee
MCLP	MINI CLIP	Manufactured Part
PA	PARTITION ANGLE	L4216 - 4" x 2" x 16 Ga. Angle
PC	PARTITION CEE	C2218 - 2" x 2" x 18 Ga. Cee
RA	RAKE ANGLE	L4216 - 4" x 2" x 16 Ga. Angle
RC	RAKE CLIP	Manufactured Part
RS	RIDGE STRUT	RS6416 - 6" x 4" x 16 Ga. Strut
SPD	BASE ANGLE	SPD42216 - 4" x 2" x 1 1/2" Angle
Z4	4" Z PURLIN	Z42516 - 4" x 2 1/2" x 16 Ga. Zee
Z6	6" Z PURLIN	Z62516 - 6" x 2 1/2" x 16 Ga. Zee
Z64	6" Z PURLIN	Z62514 - 6" x 2 1/2" x 14 Ga. Zee
Z8	8" Z PURLIN	Z82516 - 8" x 2 1/2" x 16 Ga. Zee
Z10	10" Z PURLIN	Z102516 - 10" x 2 1/2" x 16 Ga. Zee
Z12	12" Z PURLIN	Z122516 - 12" x 2 1/2" x 16 Ga. Zee

SHEET ABBREVIATIONS

RL	29 Ga. SSX LINER PANEL
RR	26 Ga. SSX ROOF PANEL
RW	26 Ga. SSX WALL PANEL
ML	29 Ga. LRX LINER PANEL
MW	26 Ga. REV. LRX WALL PANEL
RML	29 Ga. REVERSE LRX LINER PANEL
RMW	26 Ga. REVERSE LRX WALL PANEL
SSR	SSII 24 Ga. SSR PANEL
RMH	26 Ga. REVERSE LRX HALLWAY PANEL

SSR ABBREVIATIONS

SS2BUP	BACK UP PLATE
SS2ED	OUTSIDE CLOSURE
EP7600	EAVE PLATE - LOW
HW-7616	EAVE PLATE - HIGH
FC200	FIXED CLIP - LOW
HW-204	FIXED CLIP - HIGH
HW-426	INSIDE CLOSURE
CS324	CINCH STRAP
GS501	GUTTER STRAP
RP7710	RAKE PLATE - LOW
SS2RSLG	RAKE PLATE - HIGH

TRIM ABBREVIATIONS

DFR	DIE FORMED RIDGE CAP
DJC	DOOR JAMB COVER
DS-101	DOWNSPOUT WITH DIVERTER
DSS-105	DOWNSPOUT STRAP
MT-134	DOOR HEADER COVER
ET-80	EAVE TRIM
FL-16A	RAKE END
GS-121	GUTTER STRAP
CM-406	HALF MULLION COVER
FL-17	HIGH SIDE EAVE TRIM
FL-26	HEAD TRIM
IA	INSIDE ANGLE
IC	INSIDE CORNER
ICB	INSIDE CORNER BOX
ISCL	INSIDE CLOSURE
JT-101	JAMB TRIM
MU-412	12" MULLION COVER
MU-424	24" MULLION COVER
FL-16C	OUTSIDE ANGLE
OSCL	OUTSIDE CLOSURE
FL-16B	OUTSIDE CORNER BOX
OSCL	OUTSIDE CORNER
FL-16A	OUTSIDE CORNER BOX
MT-139	OUTSIDE CLOSURE
FL-18D	PEAK BOX
FL-16	PARTITION TOP TRIM
SSC	GUTTER
MT-101	RAKE TRIM
WT	SILICONE SEALANT CAULK
	SIDEWALL FLASHING
	WAINSCOT TRIM

FASTENER ABBREVIATIONS

SB	1/2" x 3" SCREW BOLT - DeWalt SCREW-BOLT * (PFM1411380)	BASE TO SLAB CONNECTIONS
DP	1/4" x 1 1/4" DRIVE PIN	BASE TO SLAB CONNECTIONS
MFS100	"10 x 5/8" SD NO WASHER	SPECIAL TRIM CONNECTIONS
MFS114	"12 x 1" SD	STRUCTURAL STEEL CONNECTIONS
MFSZAC114	"12 x 1 1/4" SD	WALL SHEETING
LSO78	"12 x 1 1/4" LONG LIFE SD	ROOF SHEETING
LSZAC078	"14 x 7/8" LAP SCREW	WALL PANEL LAP
PR	"14 x 7/8" LONG LIFE LAP SCREW	ROOF PANEL LAP
MFS0100	1/8" POP RIVET	TRIM CONNECTIONS
MFS0112	"17-14 x 1" SELF TAPPING	TS324 END LAP ATTACHMENT
	1/4"-14 x 1 1/2" SD	TS324 CLIP ATTACHMENT

CONFIDENTIAL AND PROPRIETARY INFORMATION

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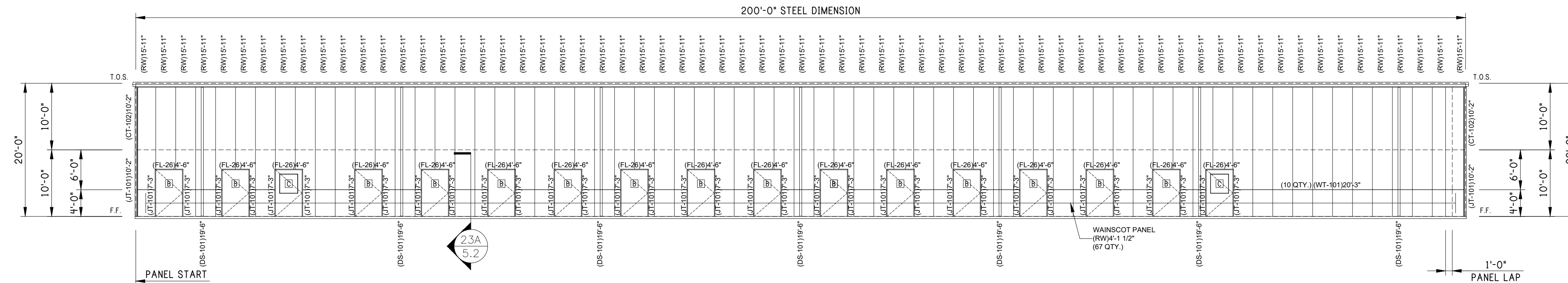
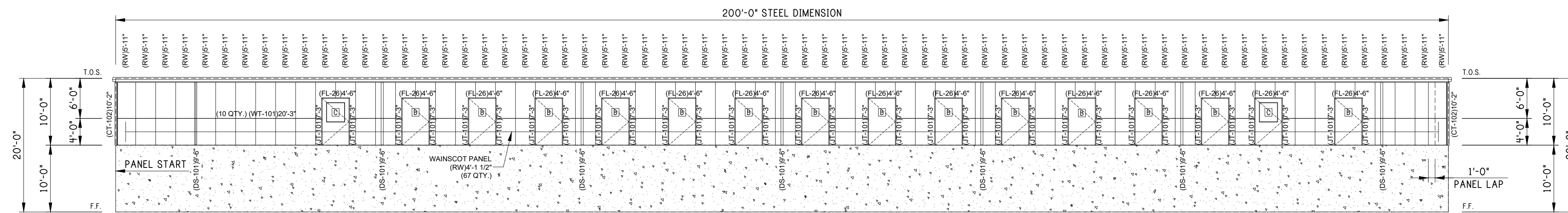
Notes:

EXTERIOR DOOR SCHEDULE (1ST FLOOR)

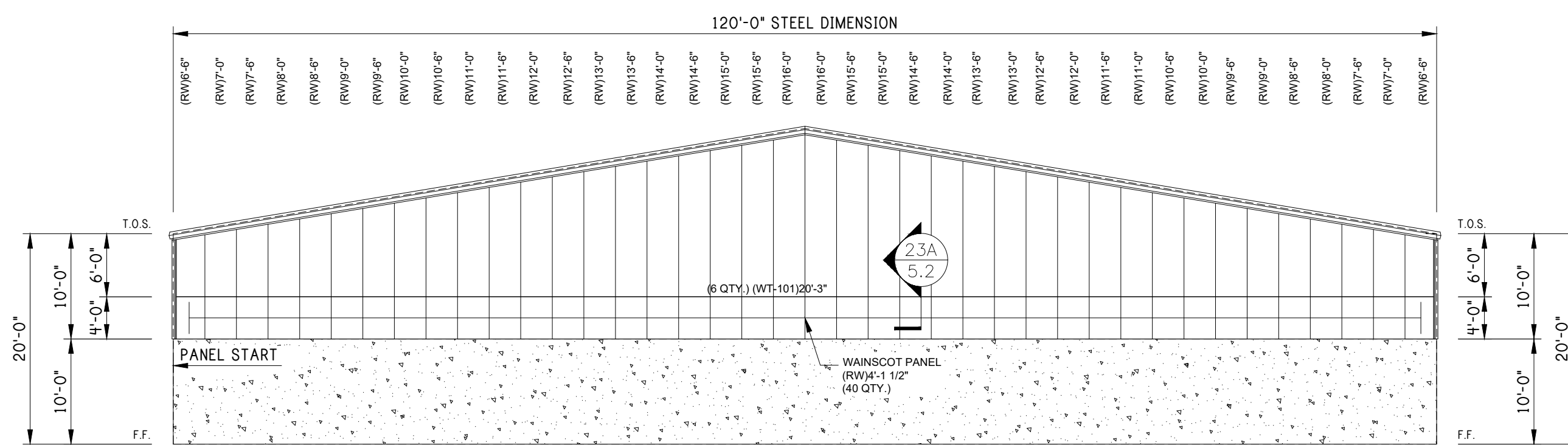
- B (15) 4070 SOLID W/ LEVER LK
- C (2) 4070 1/26 W/ PANIC. LEVER LK & CLOSURE

EXTERIOR DOOR SCHEDULE (2ND FLOOR)

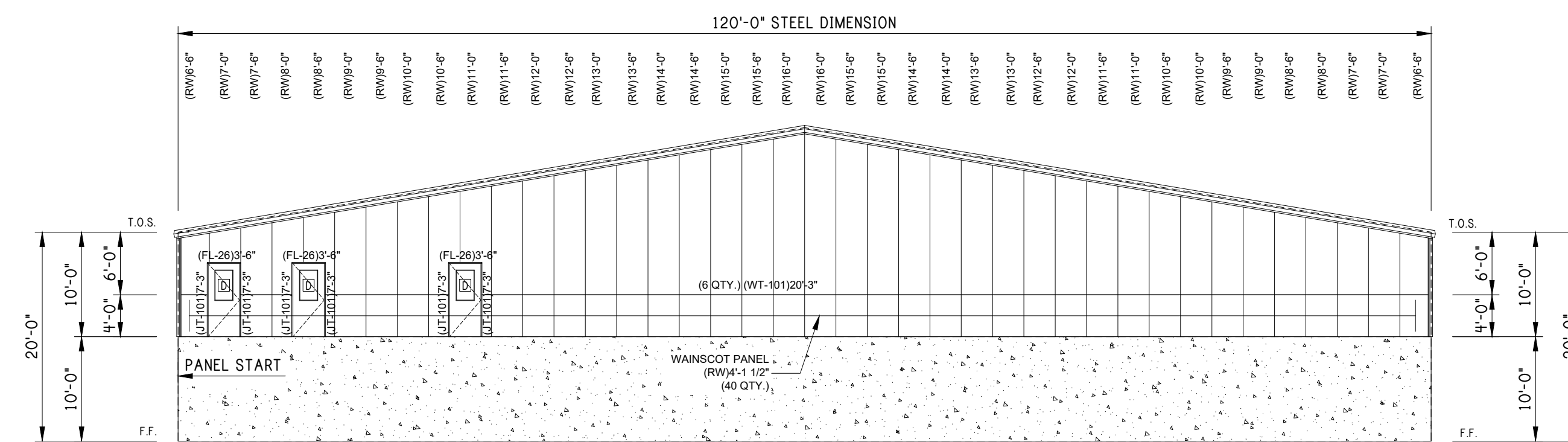
- B (14) 4070 SOLID W/ LEVER LK
- C (2) 4070 1/26 W/ PANIC. LEVER LK & CLOSURE
- D (3) 3070 SOLID



REAR ELEVATION

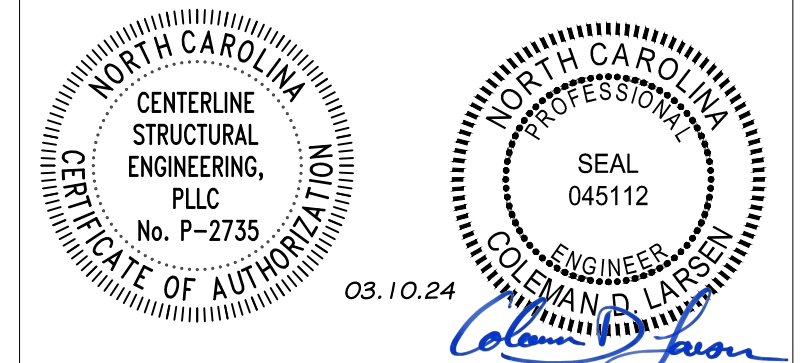


LEFT ELEVATION



RIGHT ELEVATION

EXTERIOR ELEVATIONS



REV: DESCRIPTION: BY: DATE:
STATUS: CONSTRUCTION ISSUE

12227-33774-S1



CLIENT: P.O. BOX 1275
Madison, GA 30650
Phone: (844) 333-7325
Fax: (706) 343-1968

SITE: FUQUAY VARINA
NC 27526

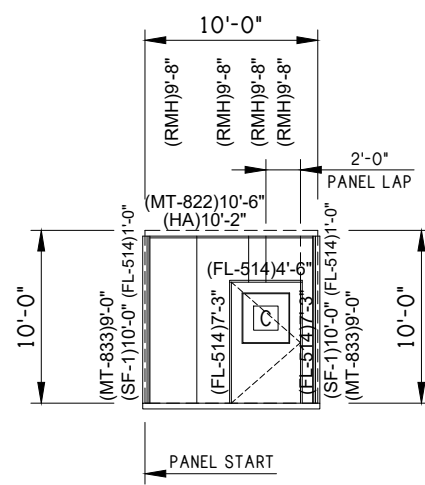
TITLE: 120'x200'x20'-0" LS Gable

SIZE: DATE: 03/06/24 DRAWN: NMB CHECKED: ALI
SHEET NO: 2 of 8 DRAWING NO: 12227-33774-S1 REVISION:

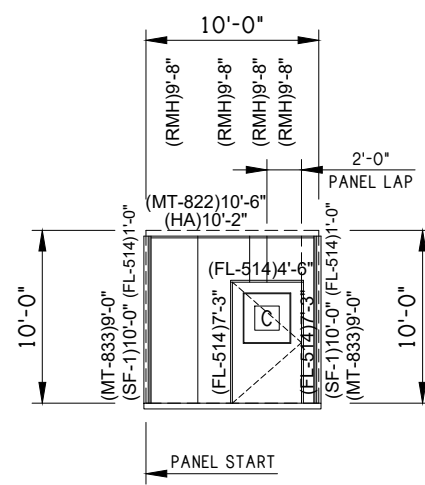
Notes:

INTERIOR DOOR SCHEDULE (BOTTOM FLOOR)

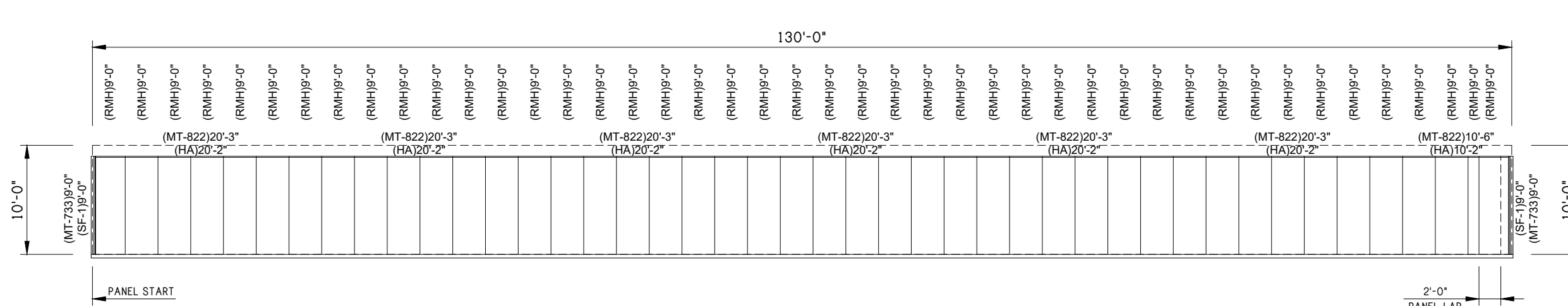
- A (62) 8X7 FRAMED OPENING
- C (2) 4070 1/2G W/ PANIC LEVER LK & CLOSURE
- D (4) 7-6X7 FRAMED OPENING



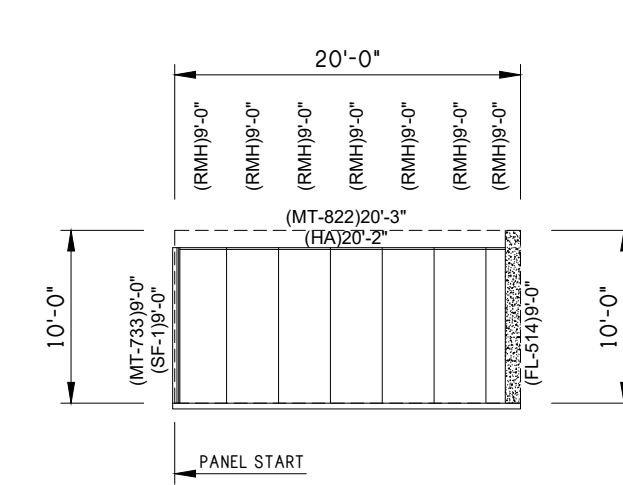
1 INTERIOR ELEVATION



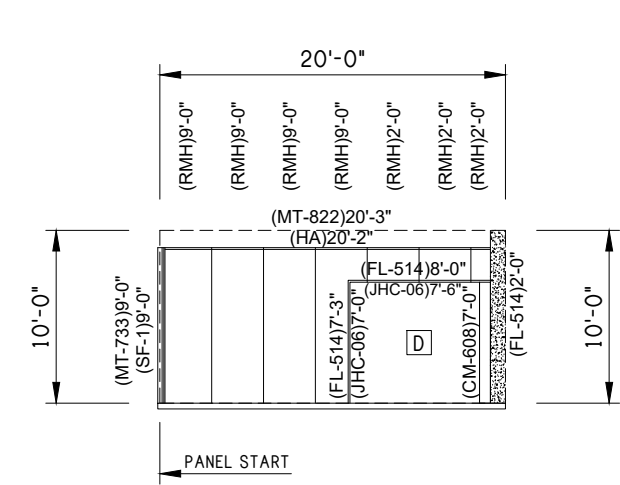
2 INTERIOR ELEVATION



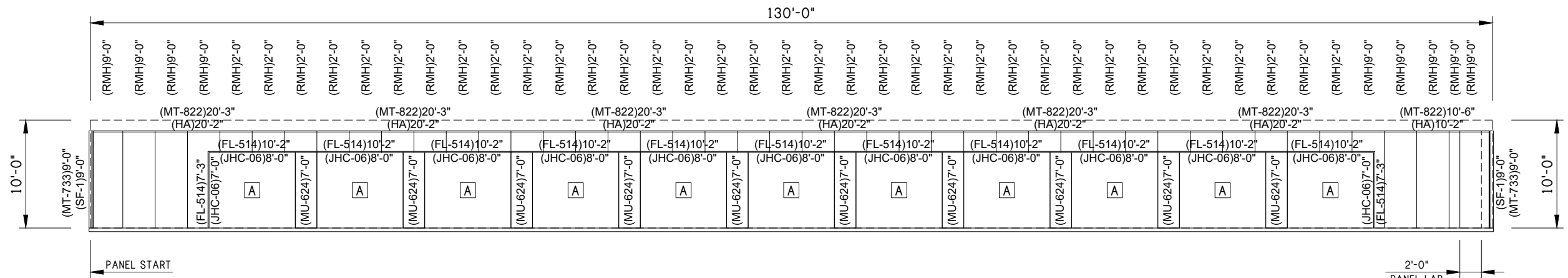
3 INTERIOR ELEVATION



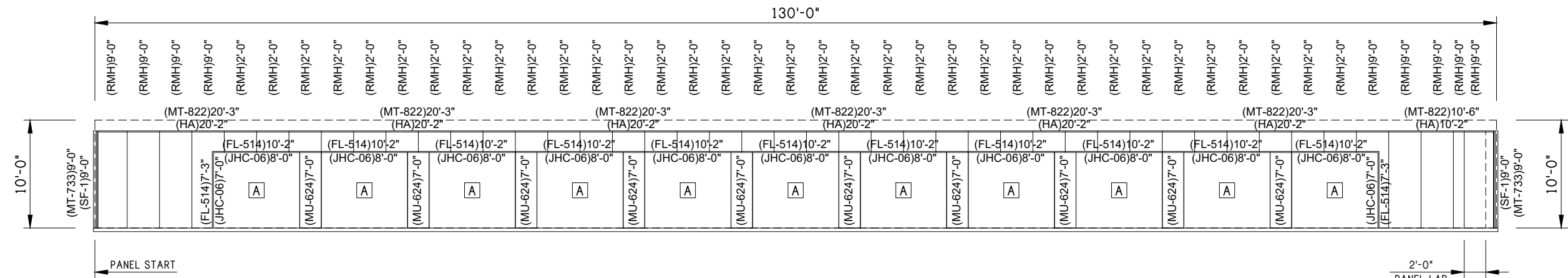
4 INTERIOR ELEVATION



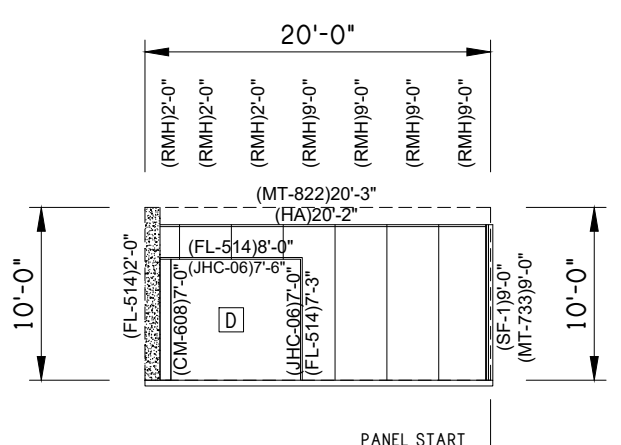
6 INTERIOR ELEVATION



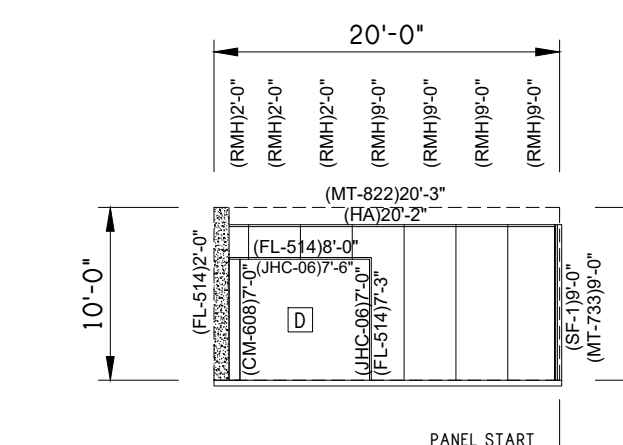
5 INTERIOR ELEVATION



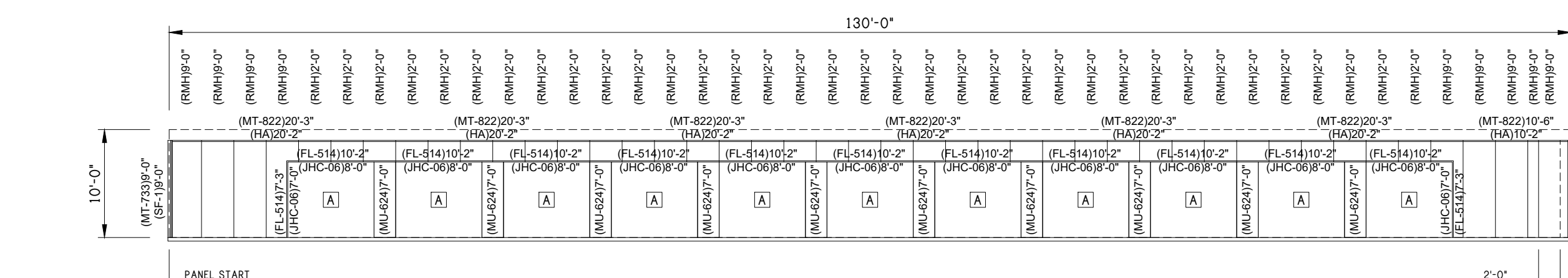
8 INTERIOR ELEVATION



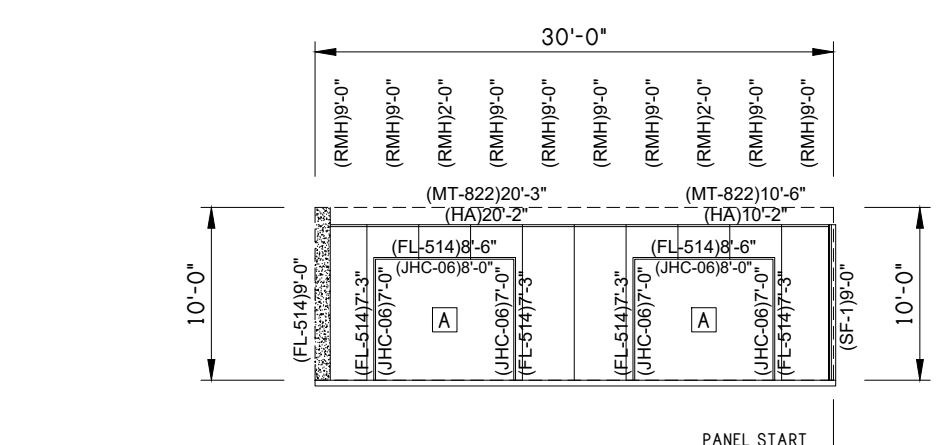
7 INTERIOR ELEVATION



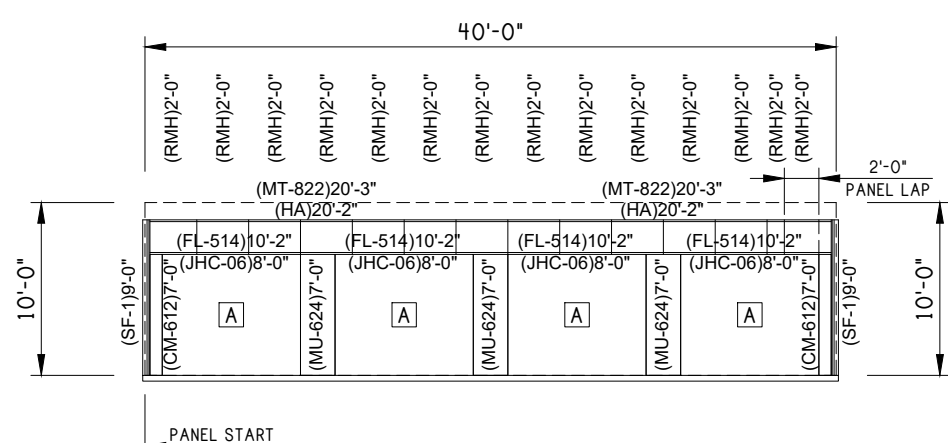
9 INTERIOR ELEVATION



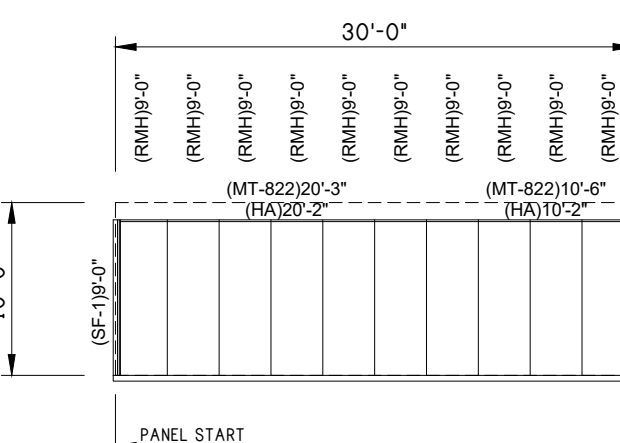
10 INTERIOR ELEVATION



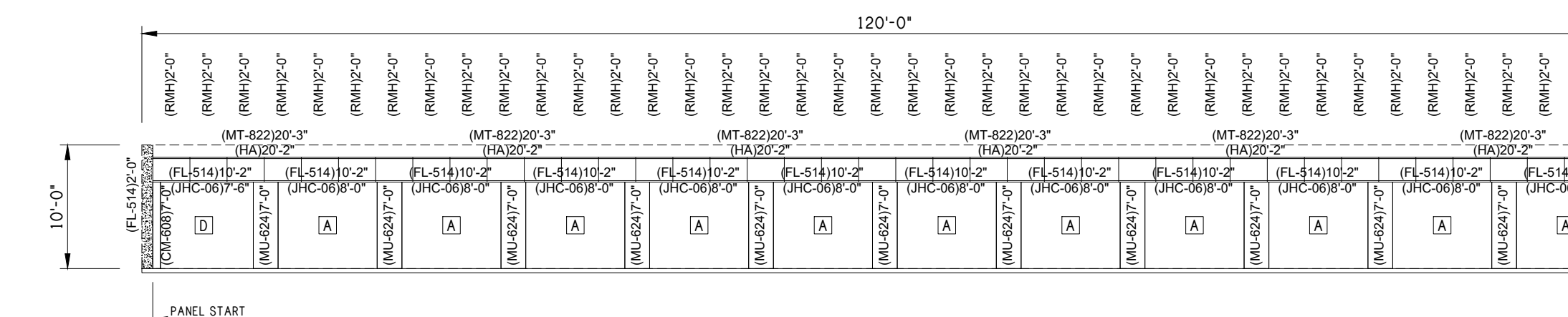
11 INTERIOR ELEVATION



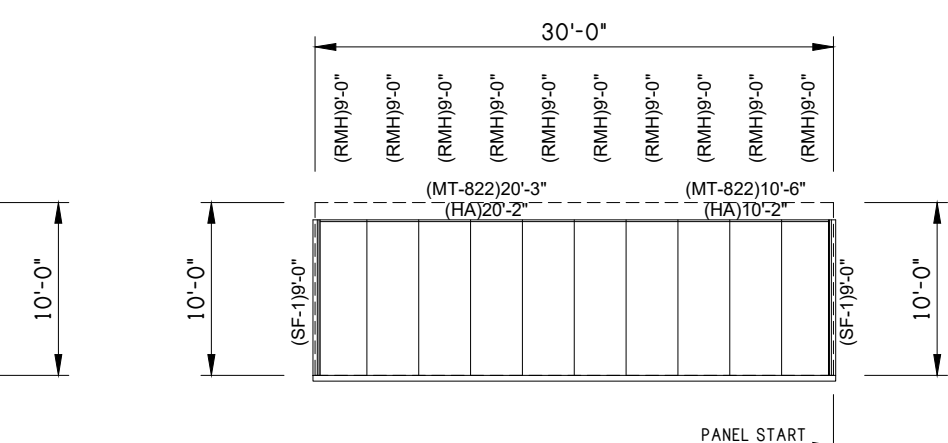
12 INTERIOR ELEVATION



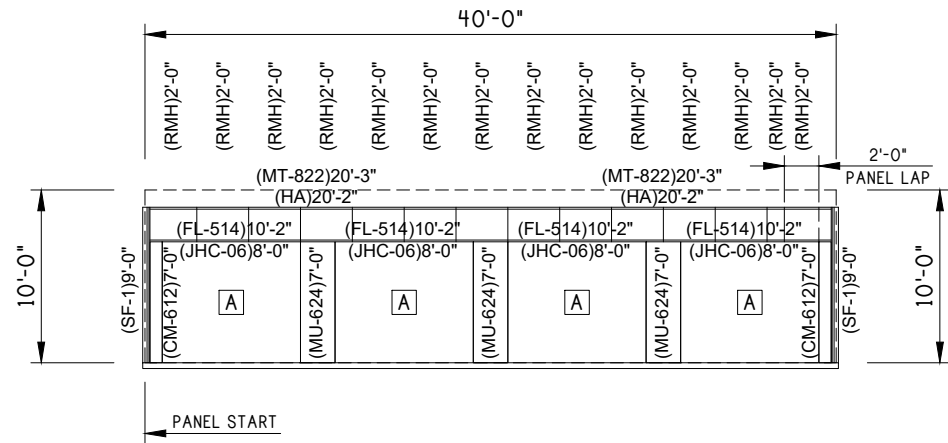
13 INTERIOR ELEVATION



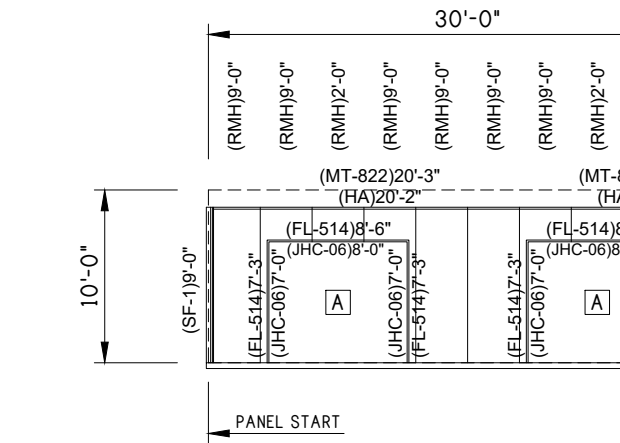
14 INTERIOR ELEVATION



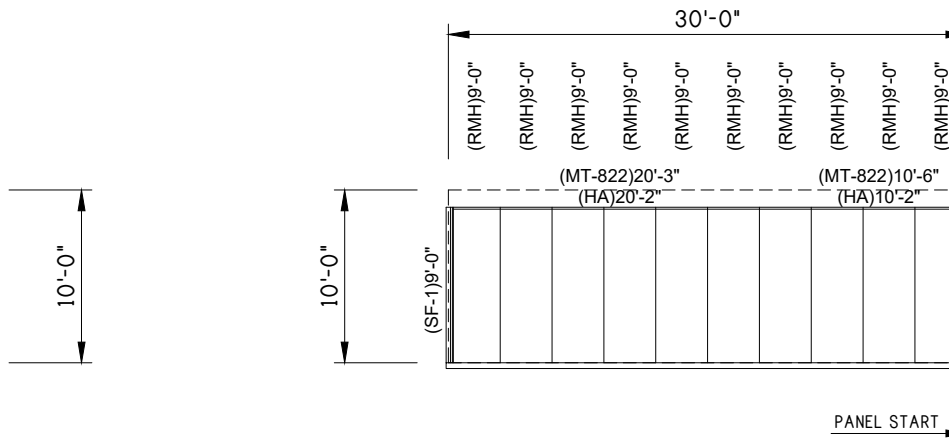
15 INTERIOR ELEVATION



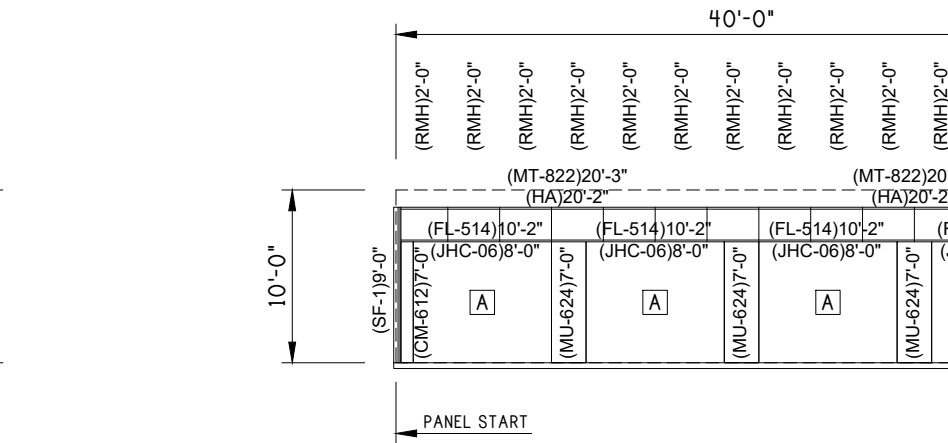
16 INTERIOR ELEVATION



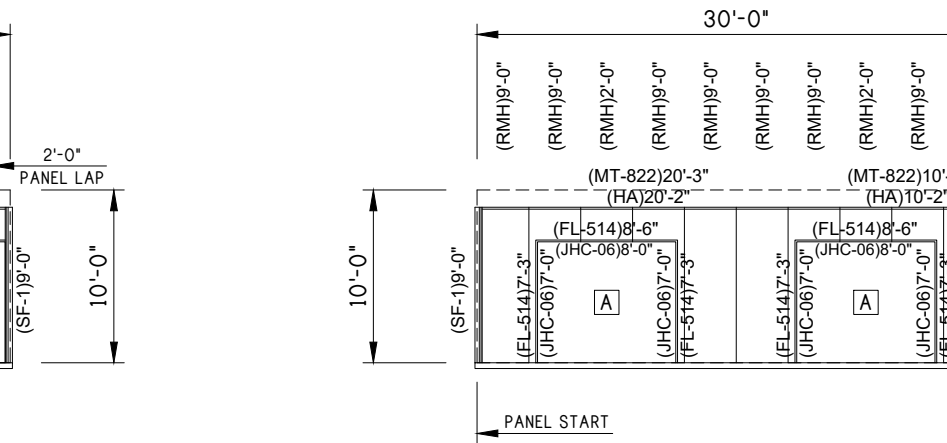
17 INTERIOR ELEVATION



18 INTERIOR ELEVATION



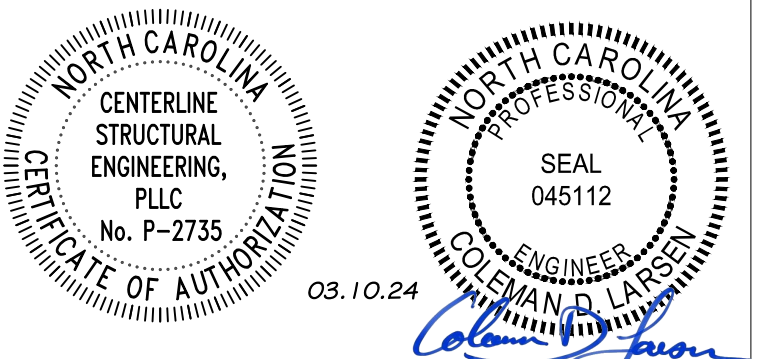
19 INTERIOR ELEVATION



20 INTERIOR ELEVATION

INTERIOR ELEVATION
BOTTOM FLOOR

NOTE: (1) FIELD CUT PANELS AS REQUIRED.
(2) ALL ELEVATIONS VIEWED INSIDE OF THE BUILDING.



REV: DESCRIPTION: BY: DATE:
STATUS: CONSTRUCTION ISSUE

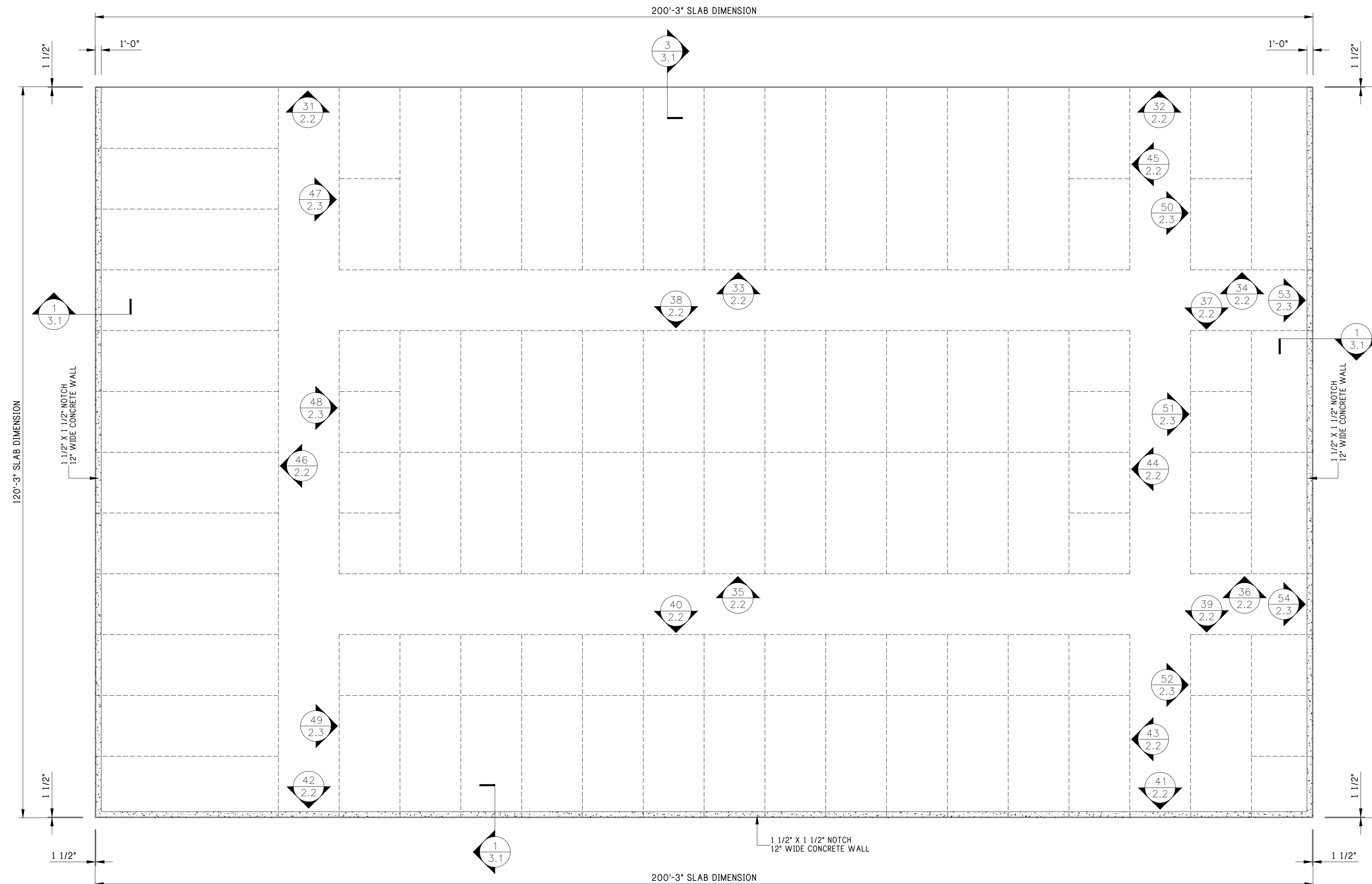
12227-33774-S1



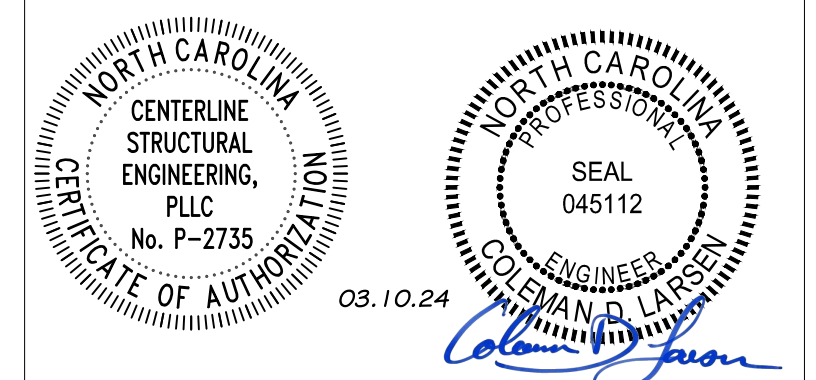
SITE: FUQUAY VARINA
NC 27526
TITLE: 120'x200'x20'-0" LS Gable
SIZE: DATE: 03/06/24 DRAWN: NMB CHECKED: ALI
SHEET NO: 2.1 of 8 DRAWING NO: 12227-33774-S1 REVISION:

Notes:

1. FOUNDATION DESIGN AND CONSTRUCTION ARE NOT THE RESPONSIBILITY OF THE BUILDING MANUFACTURER.
2. THE BUILDING REACTION DATA REPORTS THE LOADS WHICH THIS BUILDING PLACES UPON THE FOUNDATION.



SLAB PLAN
TOP FLOOR



REV:	DESCRIPTION:	BY:	DATE:
STATUS: CONSTRUCTION ISSUE			

12227-33774-S1

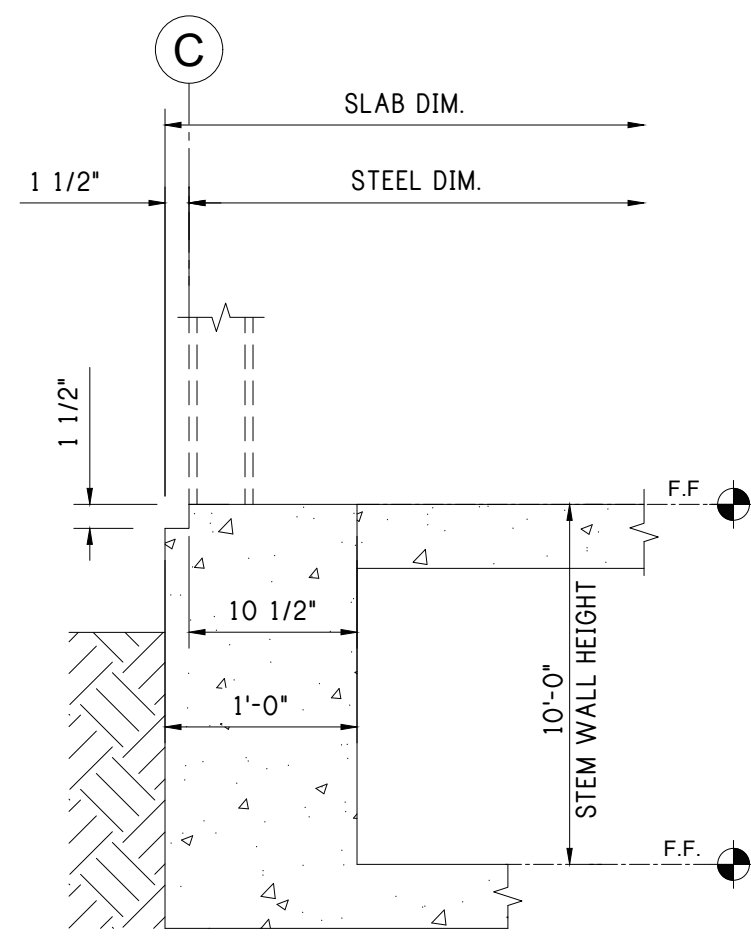


CLIENT: P.O. BOX 1275
Madison, GA 30650
Phone: (844) 333-7325
Fax: (706) 343-1968

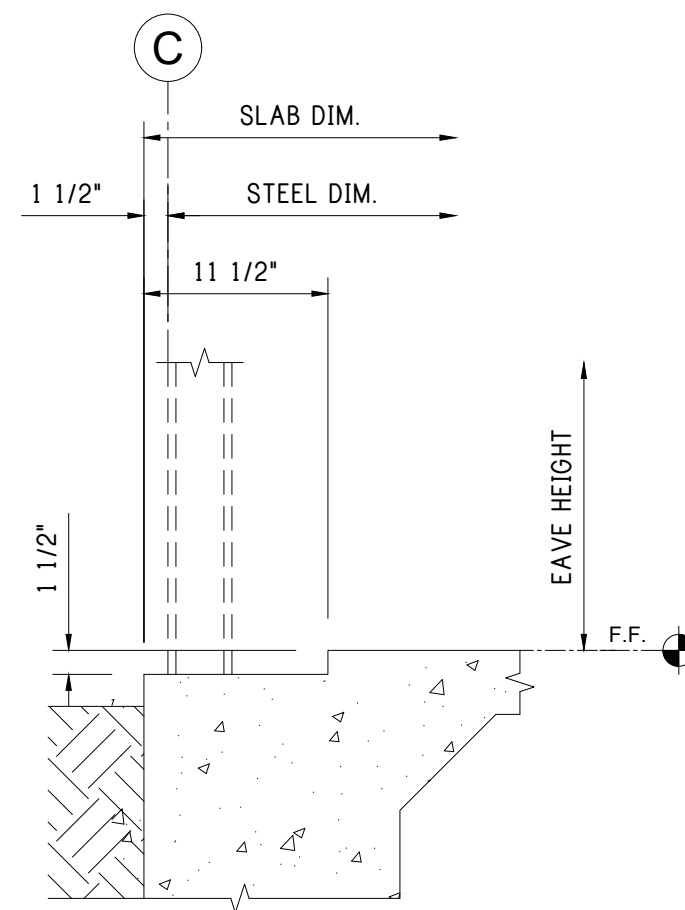
SITE: FUQUAY VARINA
NC 27526

TITLE: 120'x200'x20'-0" LS Gable

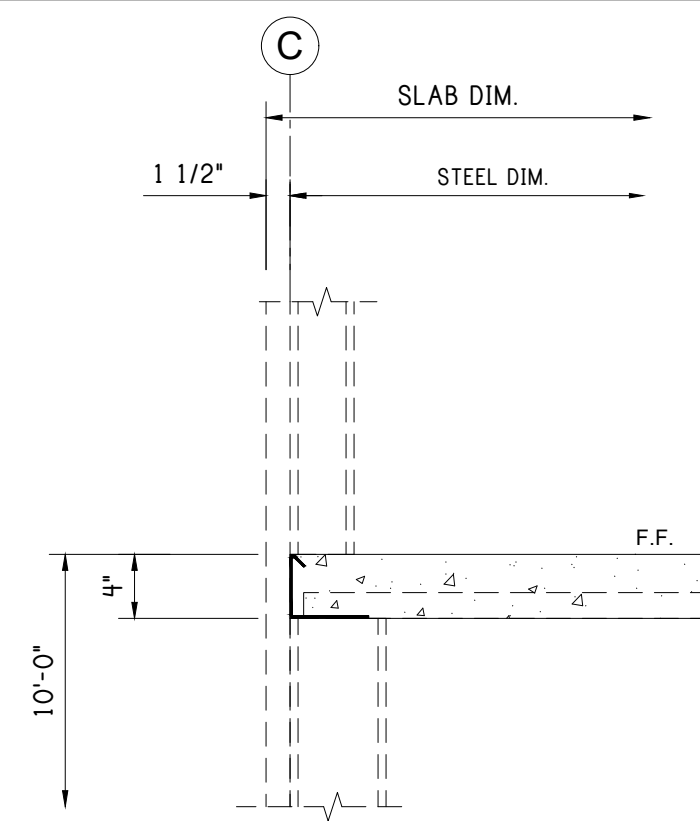
SIZE:	DATE:	DRAWN:	CHECKED:
	03/06/24	NMB	ALI
SHEET NO:	DRAWING NO:	REVISION:	
3A of 8	12227-33774-S1		



1 SLAB - STEM WALL



2 SLAB NOTCH - DOOR EDGE
1-1/2" x 11 1/2" NOTCH

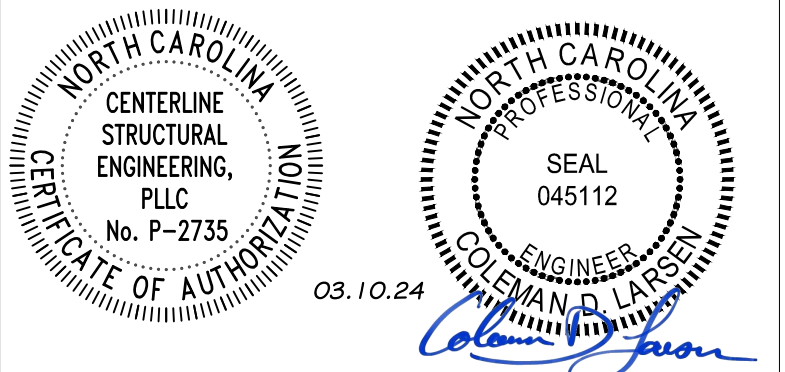


3 UPPER LEVEL SLAB EDGE

CONFIDENTIAL AND PROPRIETARY INFORMATION

THE INFORMATION AND DESIGNS CONTAINED IN THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. NEITHER THIS DESIGN NOR ANY INFORMATION CONTAINED IN THIS DRAWING MAY BE REPRODUCED OR DISCLOSED TO OTHERS WITHOUT EXPRESS WRITTEN CONSENT.

Notes:



REV:	DESCRIPTION:	BY:	DATE:
STATUS: CONSTRUCTION ISSUE			

12227-33774-S1

PEAK STEEL
 CLIENT: P.O. BOX 1275
 Madison, GA 30650
 Phone: (844) 333-7325
 Fax: (706) 343-1968

SITE: FUQUAY VARINA
 NC 27526

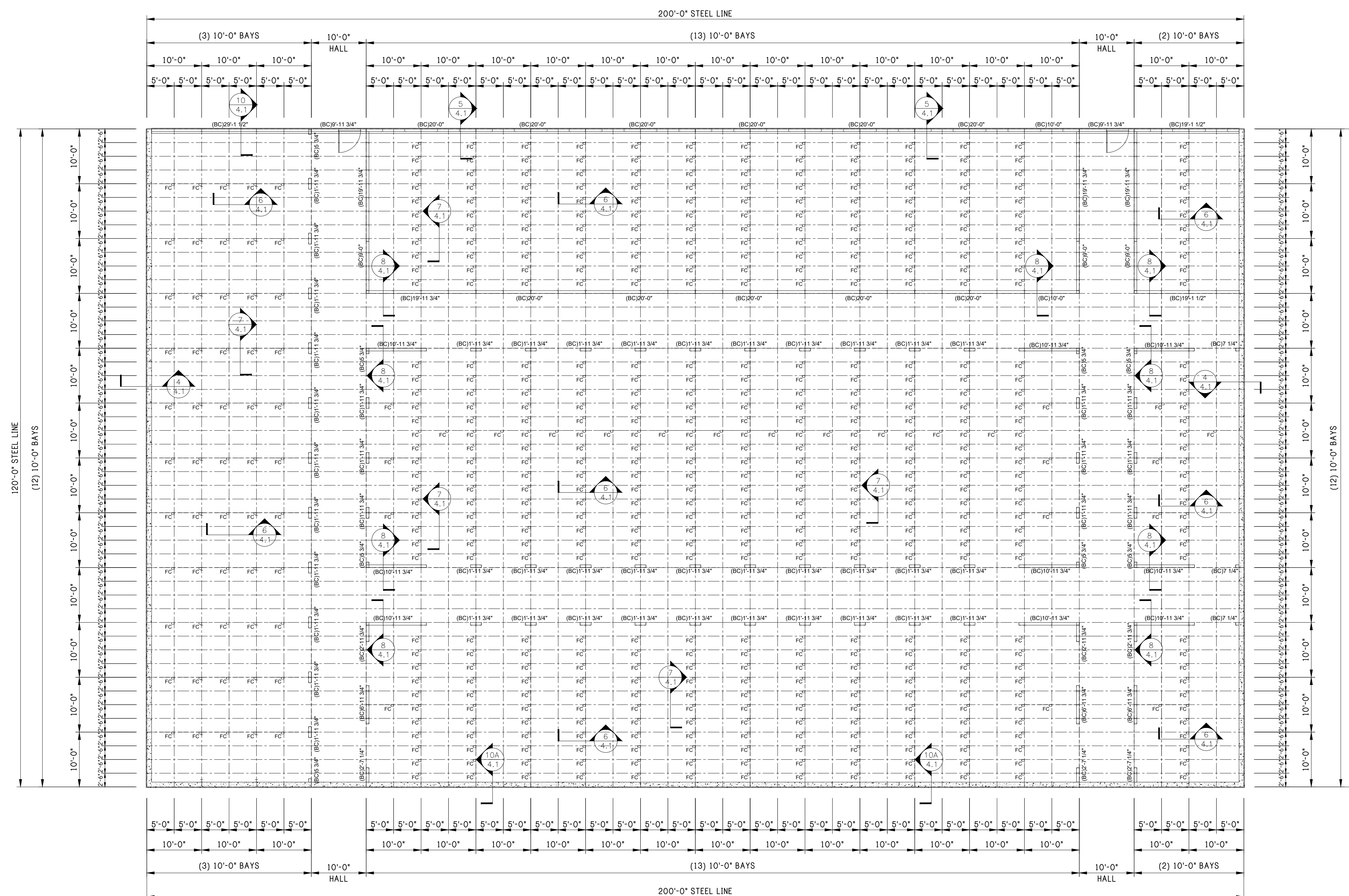
TITLE: 120'x200'x20'-0" LS Gable

SIZE:	DATE: 03/06/24	DRAWN: NMB	CHECKED: ALI
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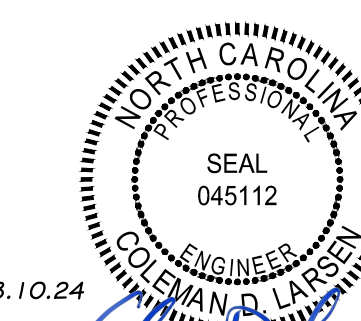
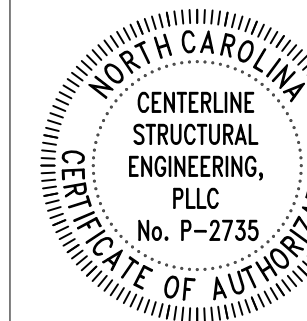
SHEET NO: 3.1 of 8	DRAWING NO: 12227-33774-S1	REVISION:
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SLAB DETAILS

Notes:



FLOOR PLAN
BOTTOM FLOOR



REV: DESCRIPTION: BY: DATE:
STATUS: CONSTRUCTION ISSUE

12227-33774-S1

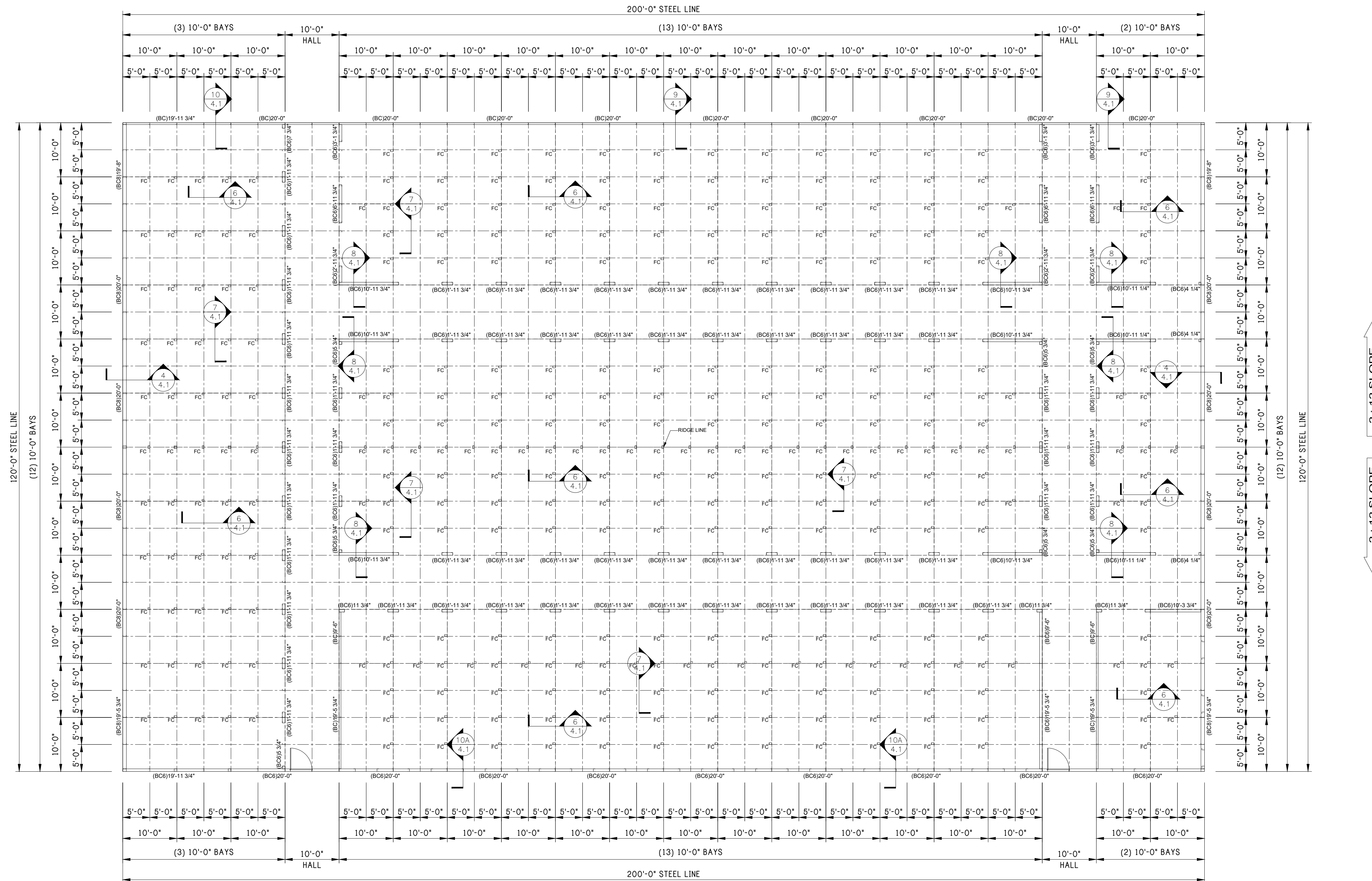


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Madison, GA 30650
Phone: (844) 333-7325
Fax: (706) 343-1968

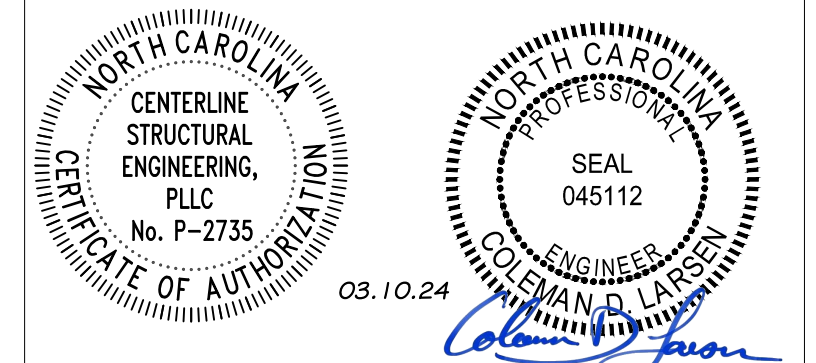
SITE: FUQUAY VARINA
NC 27526
TITLE: 120'x200'x20'-0" LS Gable

SIZE:	DATE:	DRAWN:	CHECKED:
SHEET NO:	DATE:	DRAWING NO:	REVISION:
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	12227-33774-S1		

Notes:



FLOOR PLAN
TOP FLOOR



REV:	DESCRIPTION:	BY:	DATE:
	CONSTRUCTION ISSUE		

12227-33774-S1



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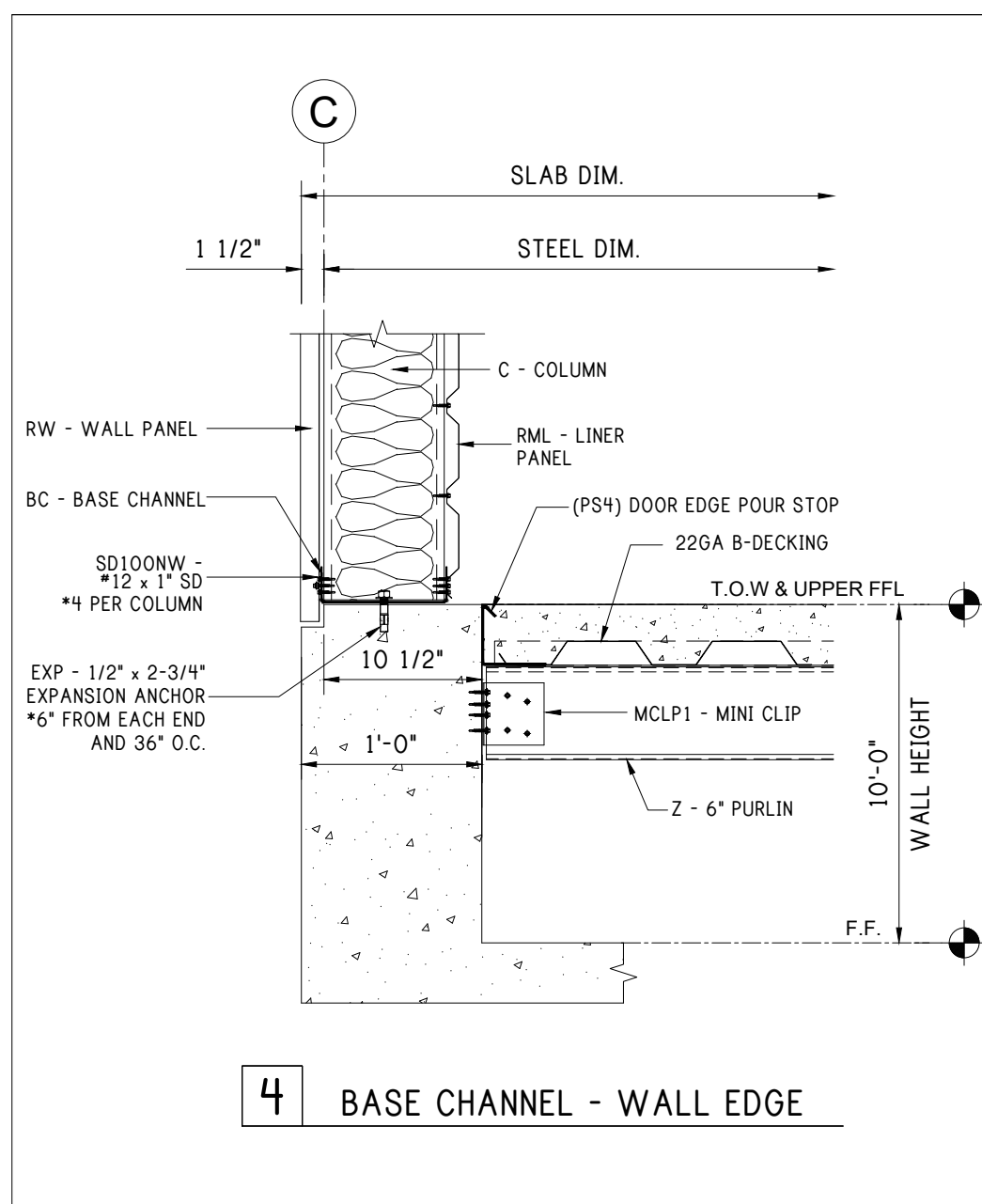
SITE: FUQUAY VARINA
NC 27526

TITLE: 120'x200'x20'-0" LS Gable

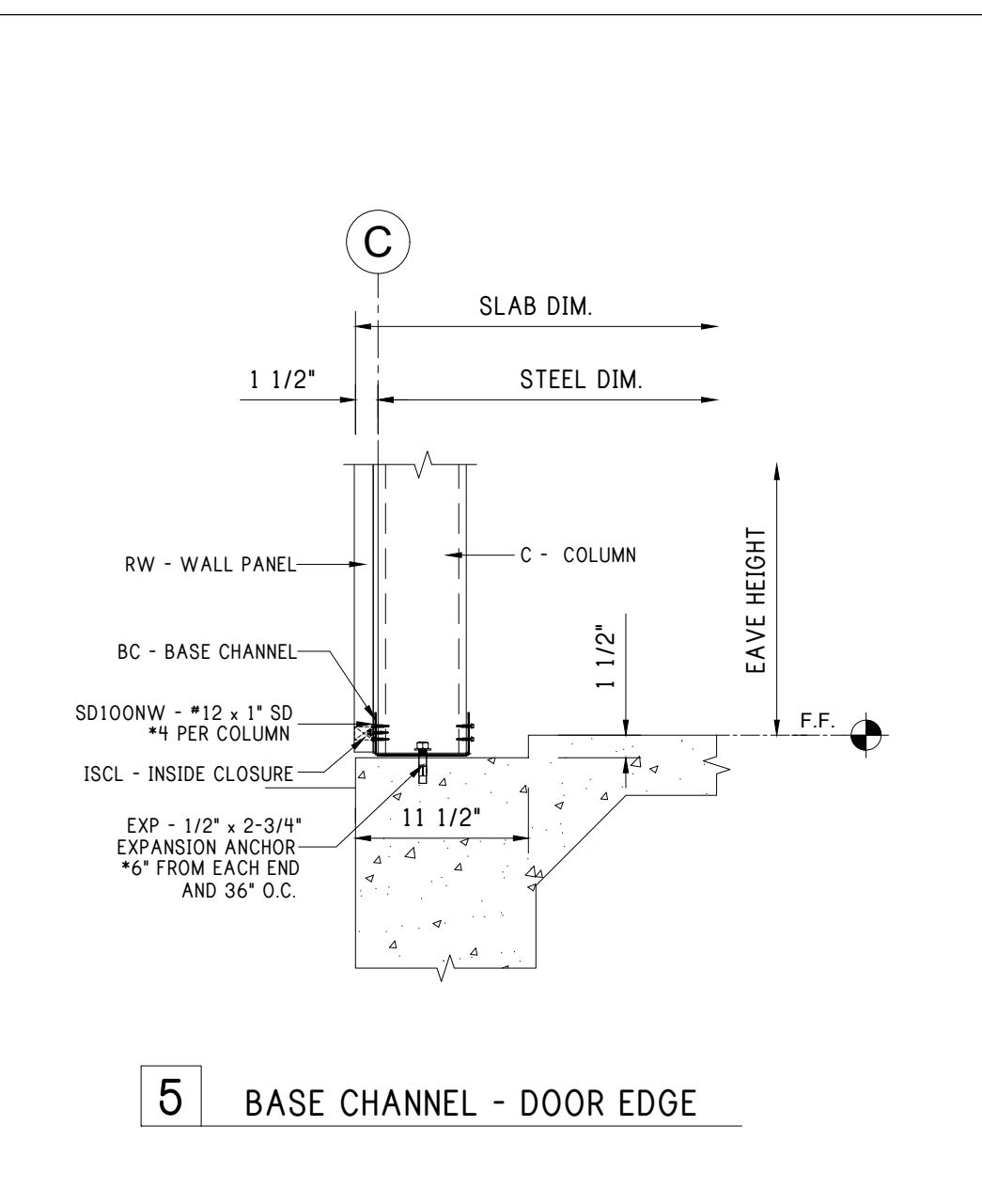
SIZE:	DATE:	DRAWN:	CHECKED:
	03/06/24	NMB	ALI

SHEET NO:	DRAWING NO:	REVISION:
4A of 8	12227-33774-S1	

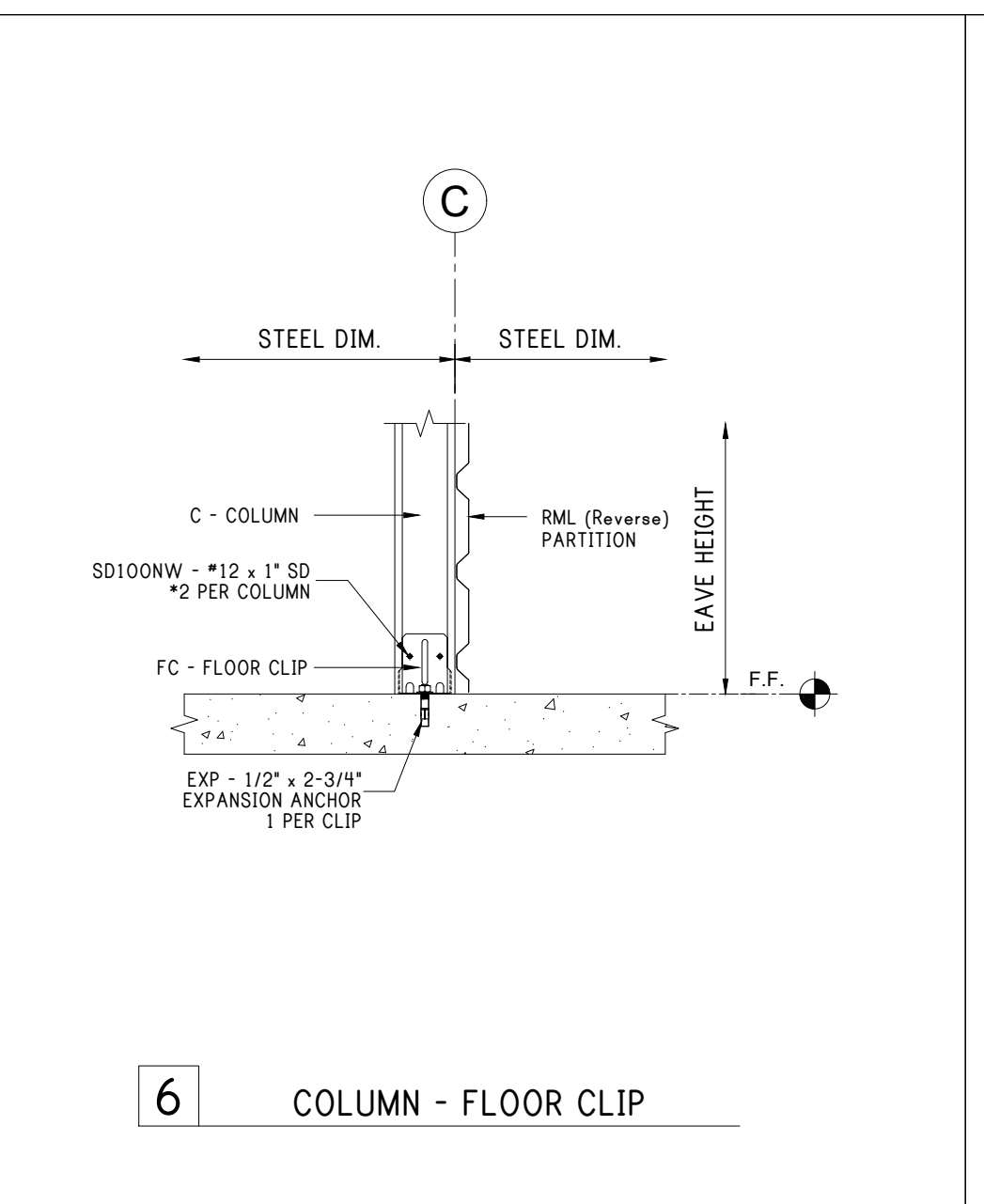
Notes:



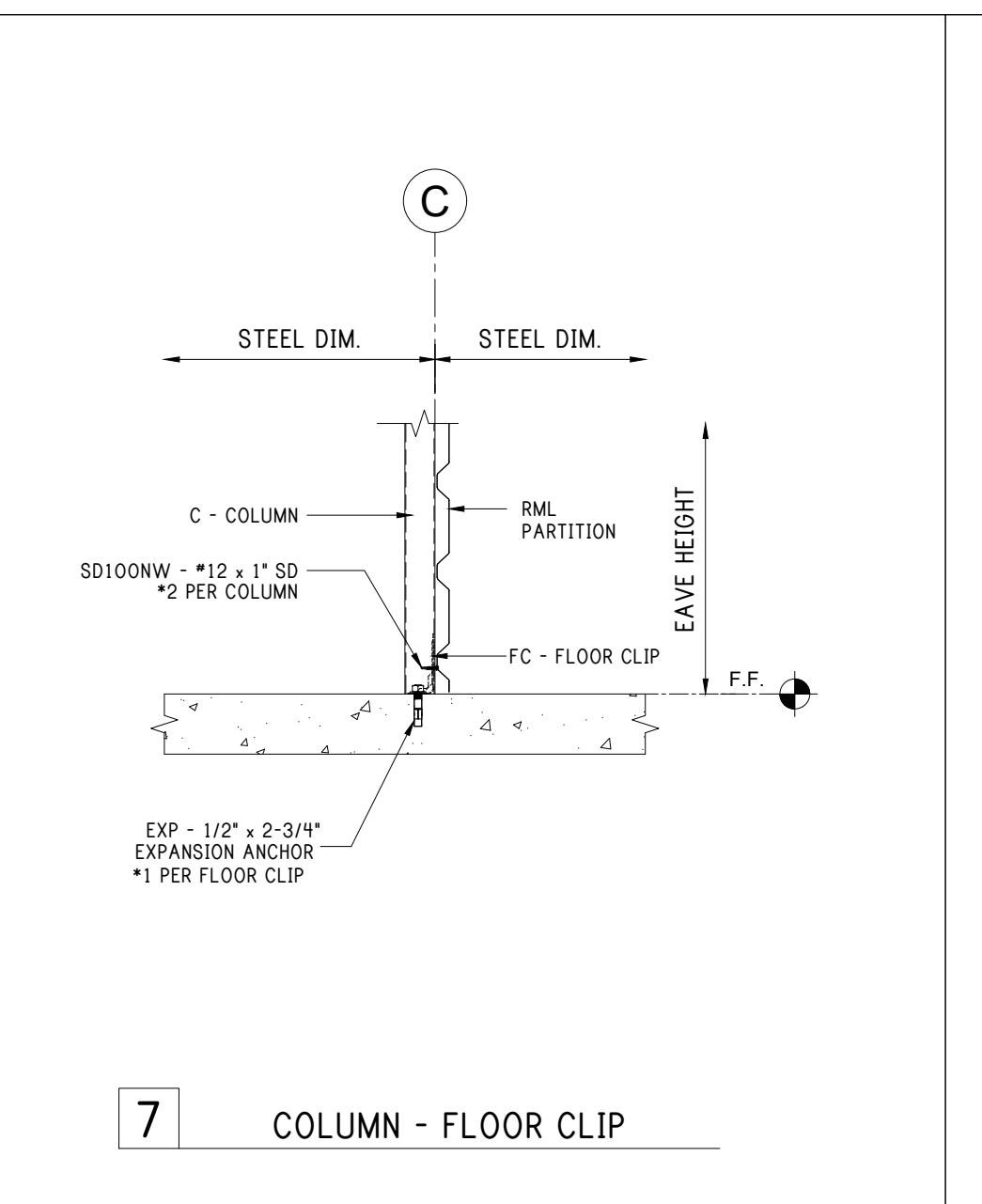
4 BASE CHANNEL - WALL EDGE



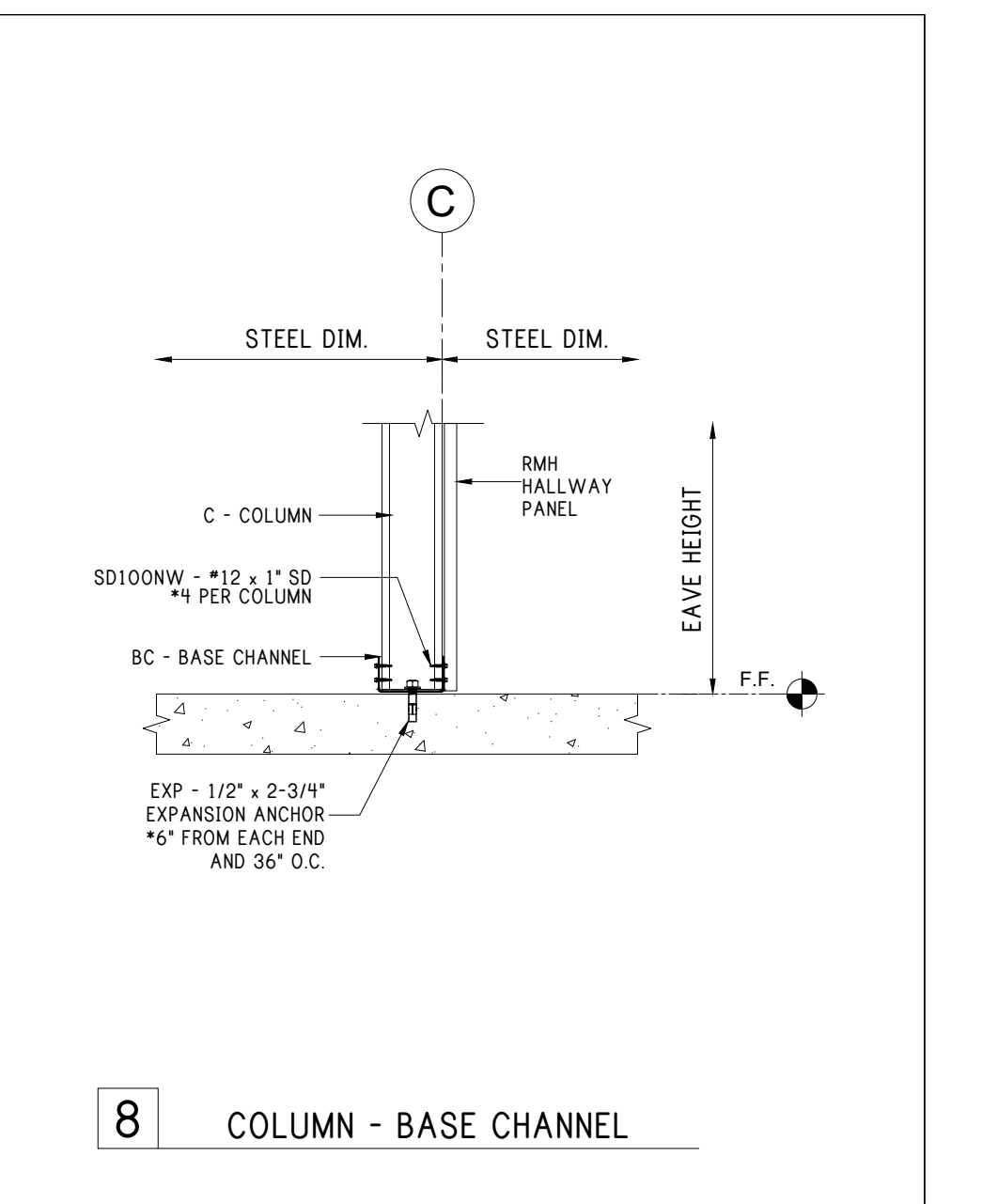
5 BASE CHANNEL - DOOR EDGE



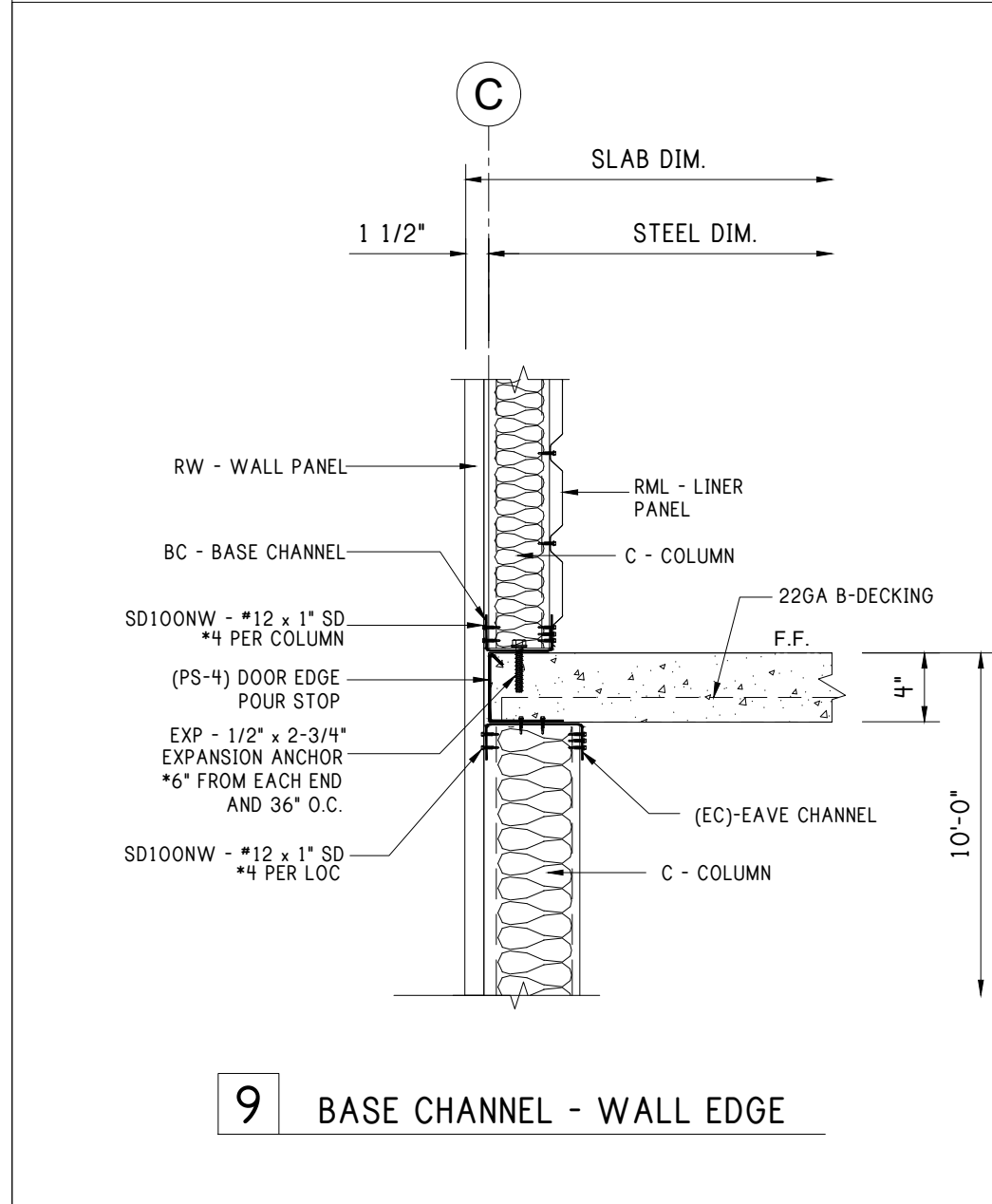
6 COLUMN - FLOOR CLIP



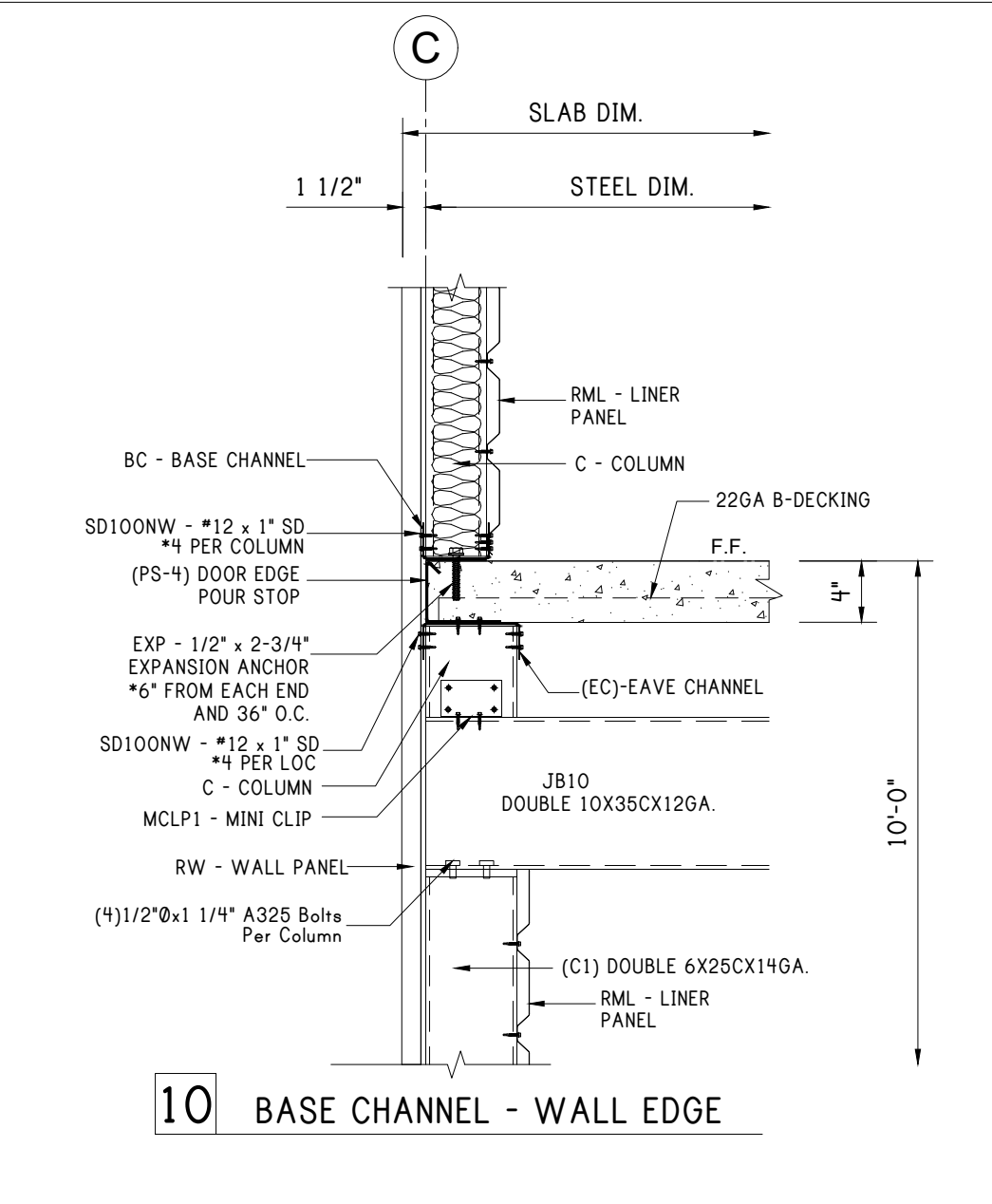
7 COLUMN - FLOOR CLIP



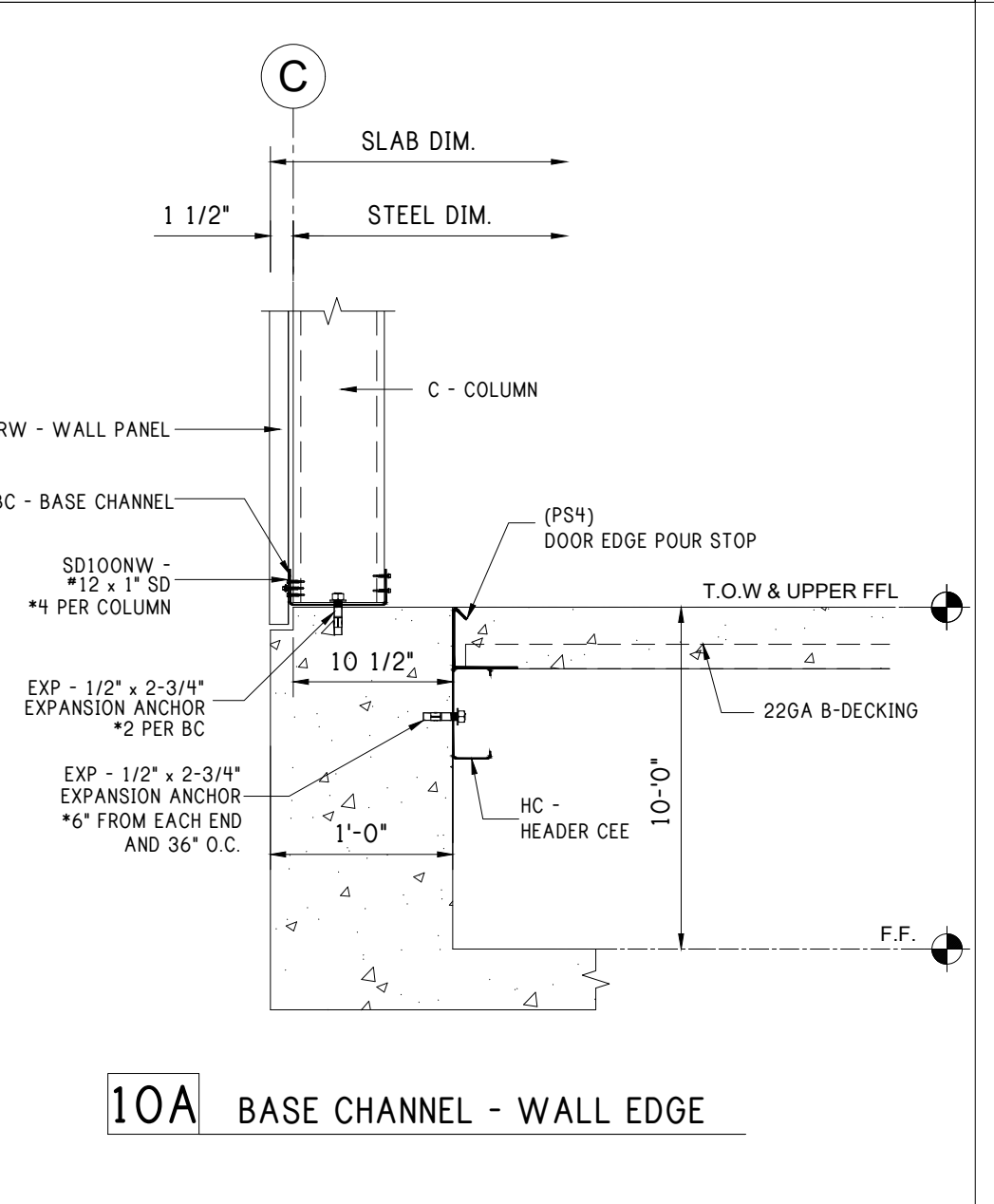
8 COLUMN - BASE CHANNEL



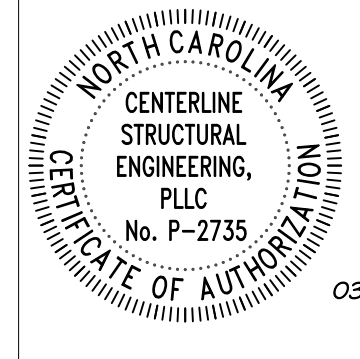
9 BASE CHANNEL - WALL EDGE



10 BASE CHANNEL - WALL EDGE



10A BASE CHANNEL - WALL EDGE



REV:	DESCRIPTION:	BY:	DATE:
STATUS:	CONSTRUCTION ISSUE		

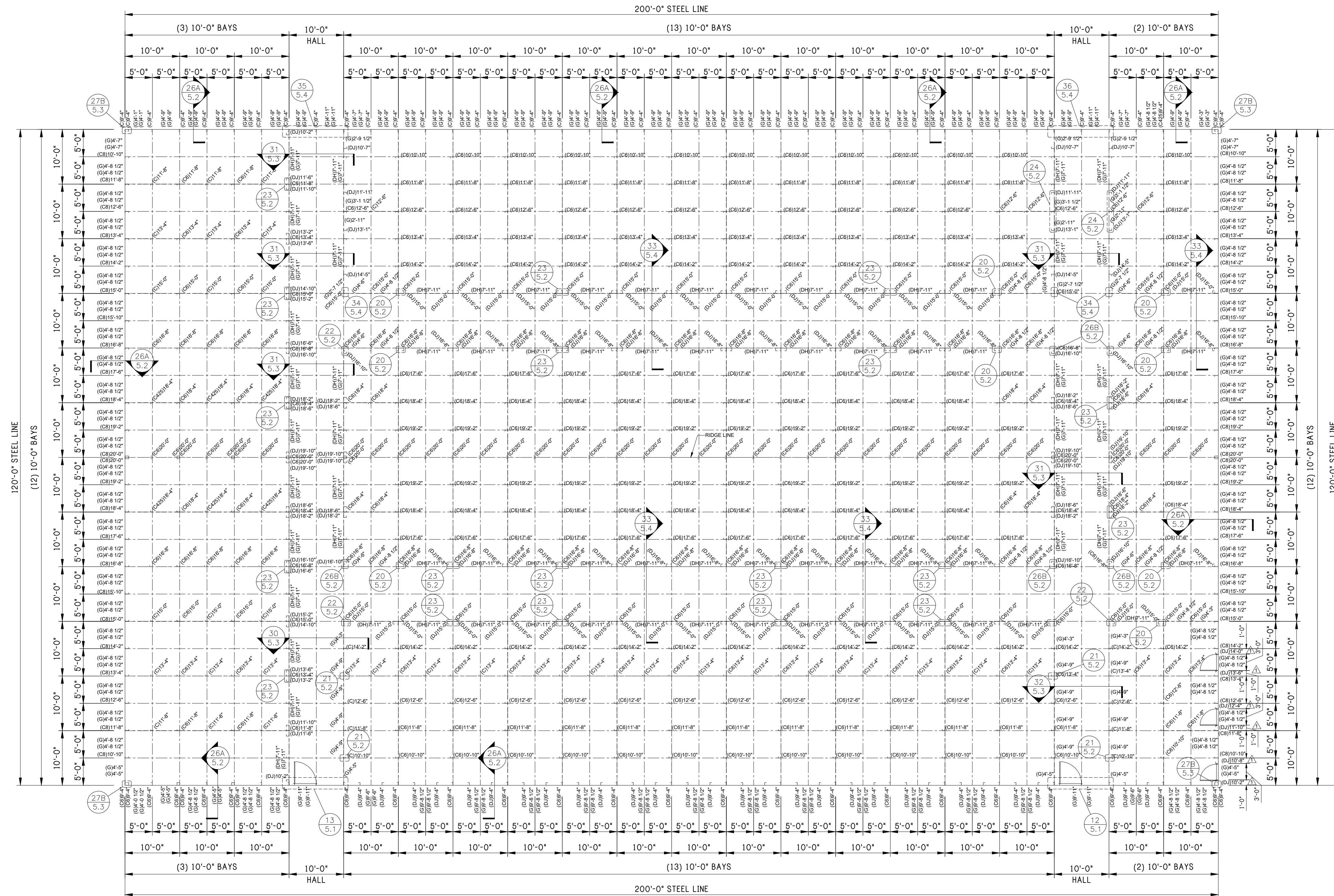
12227-33774-S1

PEAK STEEL
 CLIENT: P.O. BOX 1275
 Madison, GA 30650
 Phone: (844) 333-7325
 Fax: (706) 343-1968

SITE: FUQUAY VARINA
 NC 27526
 TITLE: 120'x200'x20'-0" LS Gable
 SIZE: DATE: 03/06/24 DRAWN: NMB CHECKED: ALI
 SHEET NO: 4.1 of 8 DRAWING NO: 12227-33774-S1 REVISION:

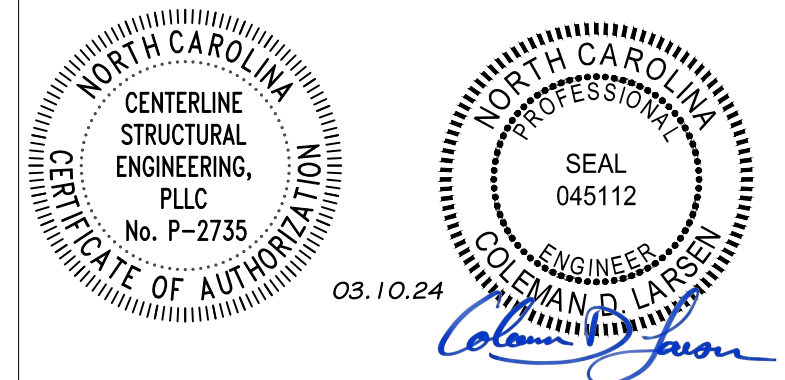
FLOOR DETAILS

Notes:



REVISION 1 03/06/2024 (DOOR JAMB ADDED)

FRAMING PLAN
TOP FLOOR



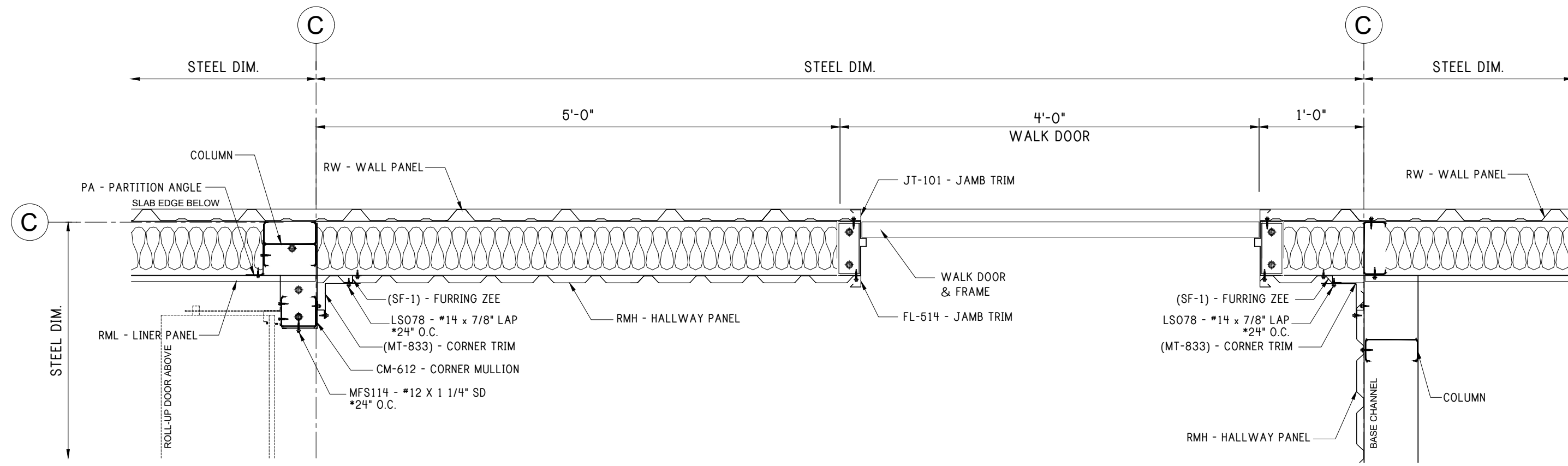
REV: DESCRIPTION: BY: DATE:
STATUS: CONSTRUCTION ISSUE

12227-33774-S1

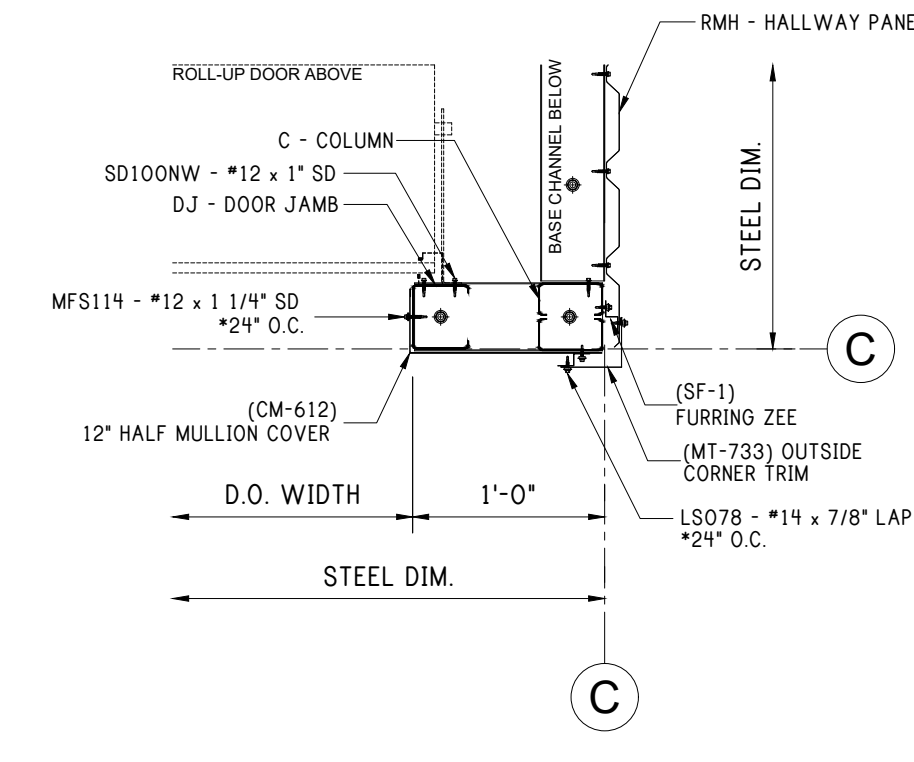


SITE: FUQUAY VARINA
NC 27526
TITLE: 120'x200'x20'-0" LS Gable
SIZE: DATE: 03/06/24 DRAWN: NMB CHECKED: ALI
SHEET NO: 5A of 8 DRAWING NO: 12227-33774-S1 REVISION:

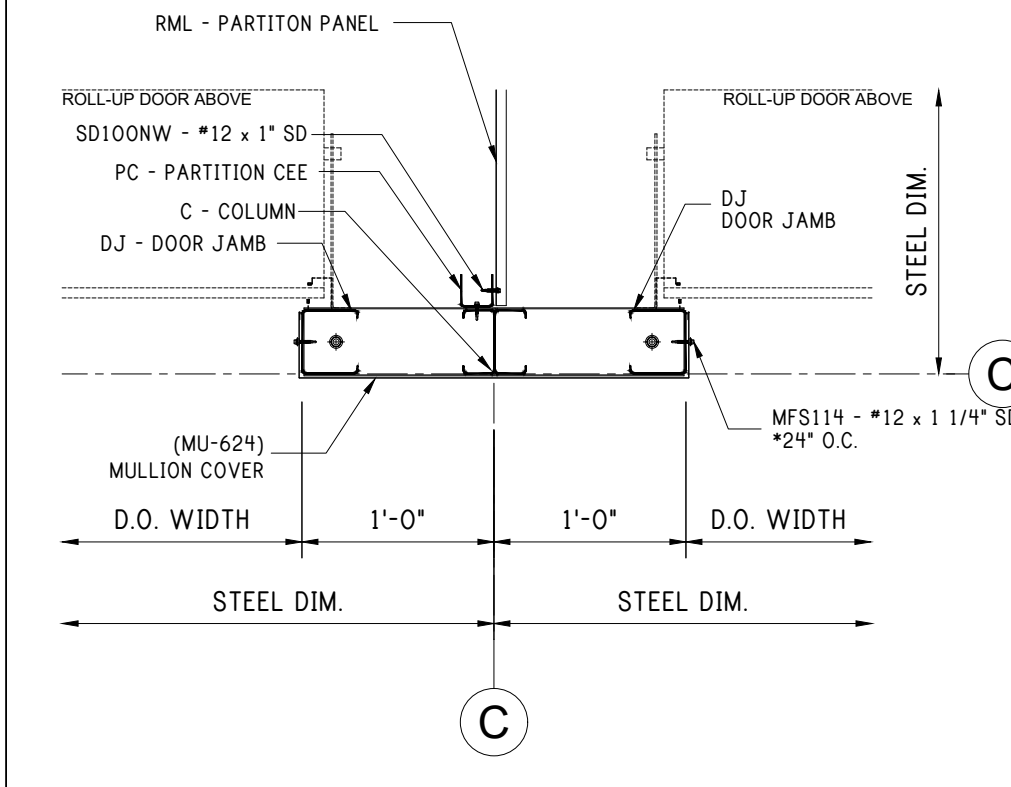
Notes:



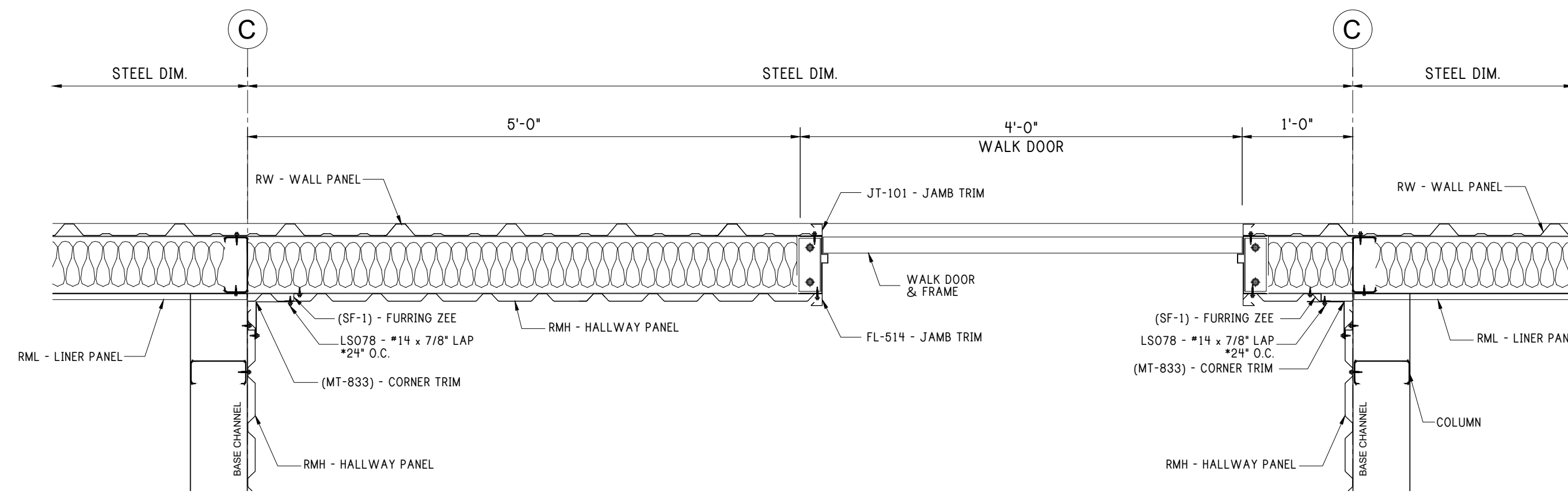
12 WALK DOOR JAMB AT CLIMATE CONTROL WALL



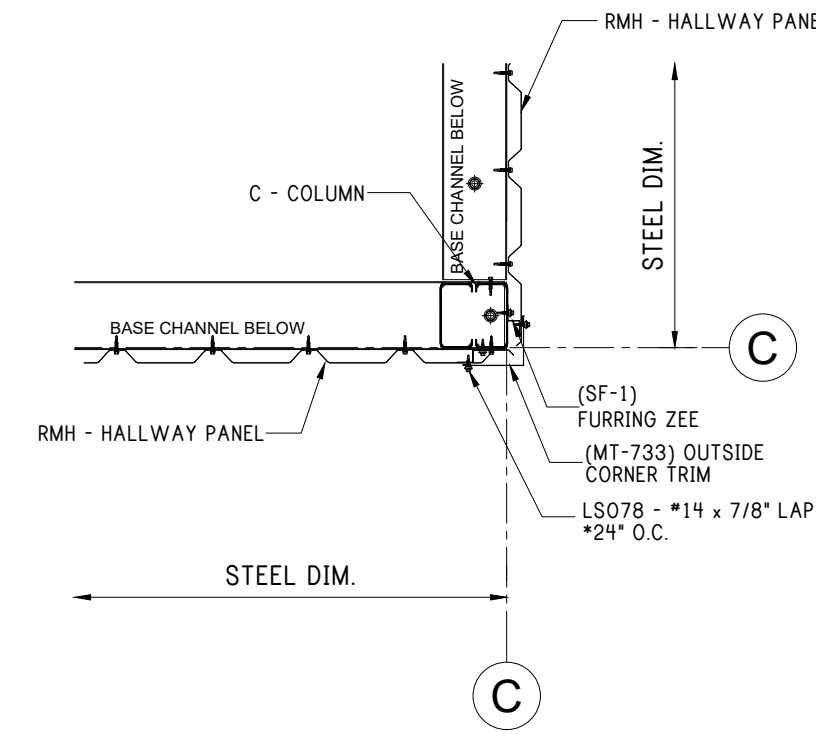
14 12" DOOR JAMB AT INTERIOR CORNER



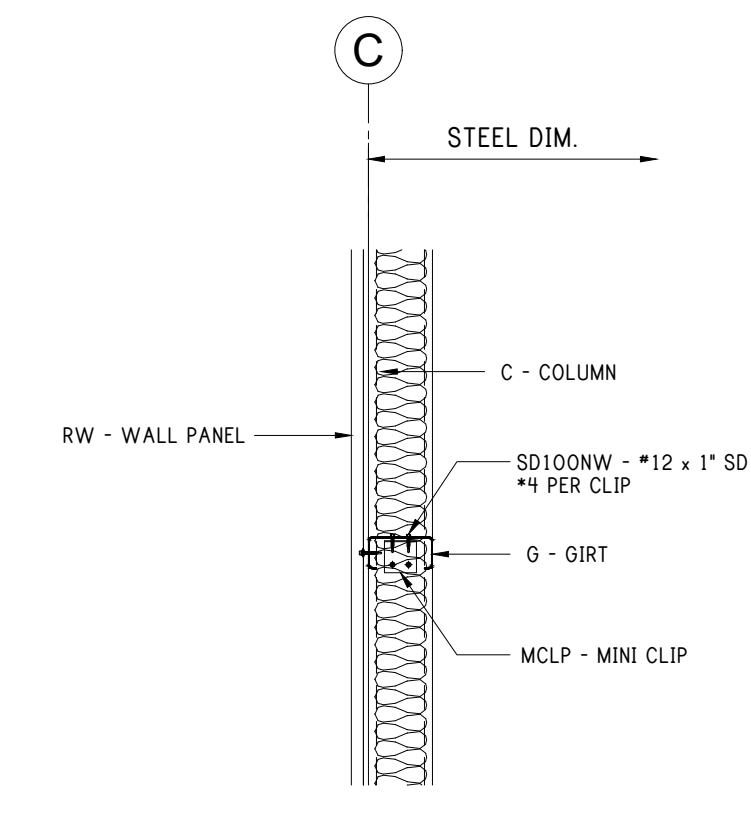
15 24" DOOR MULLION AT INTERIOR



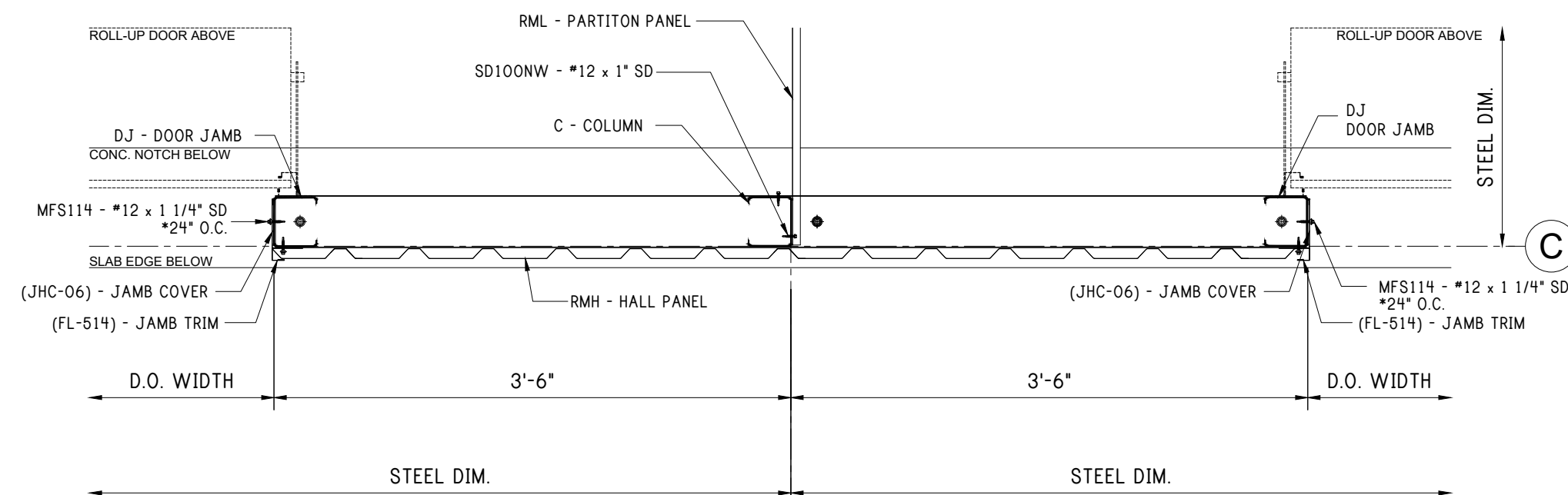
13 WALK DOOR JAMB AT CLIMATE CONTROL WALL



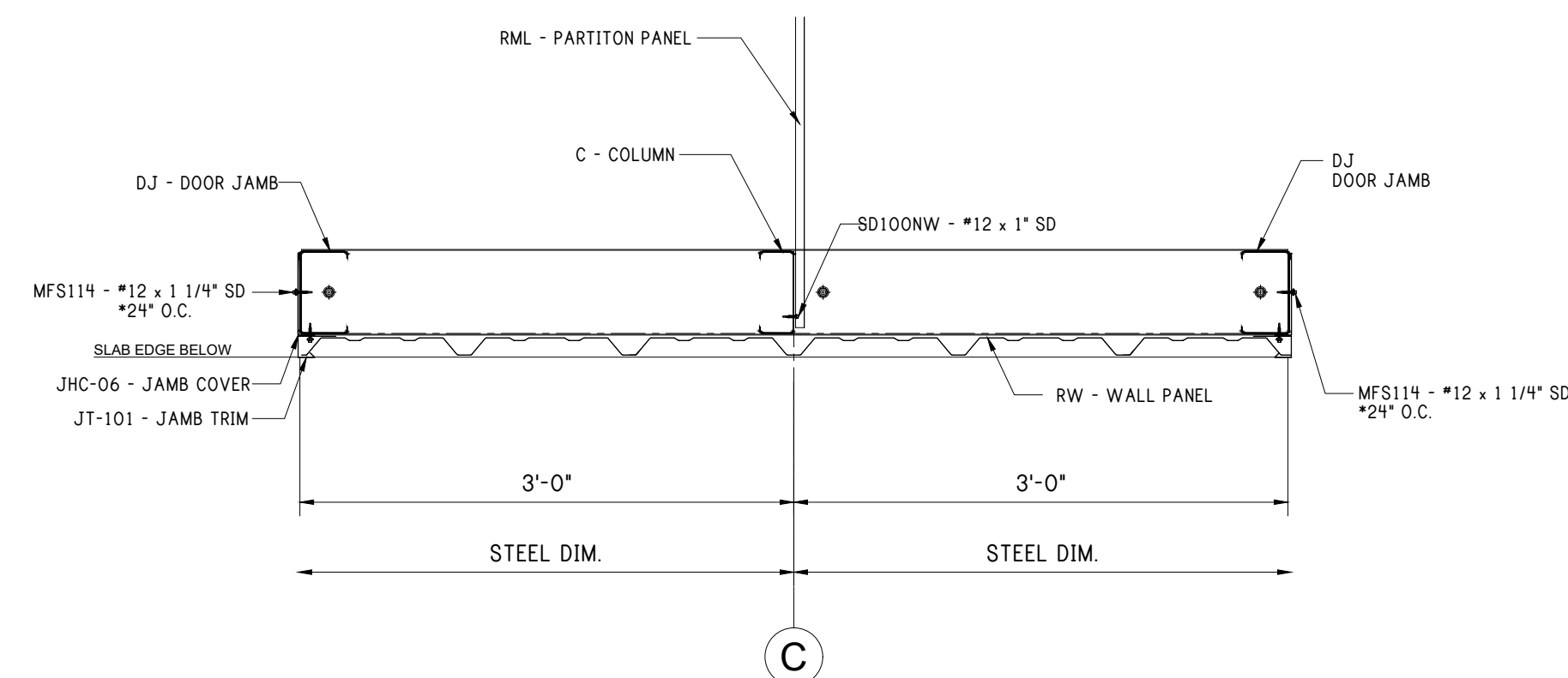
16 12" DOOR JAMB AT INTERIOR CORNER



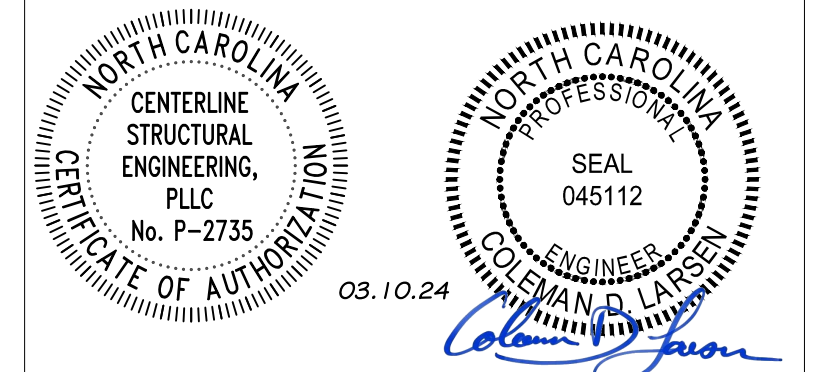
17 GIRT - TYPICAL



18 8" DOOR MULLION



19 72" DOOR MULLION



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STATUS: CONSTRUCTION ISSUE

12227-33774-S1



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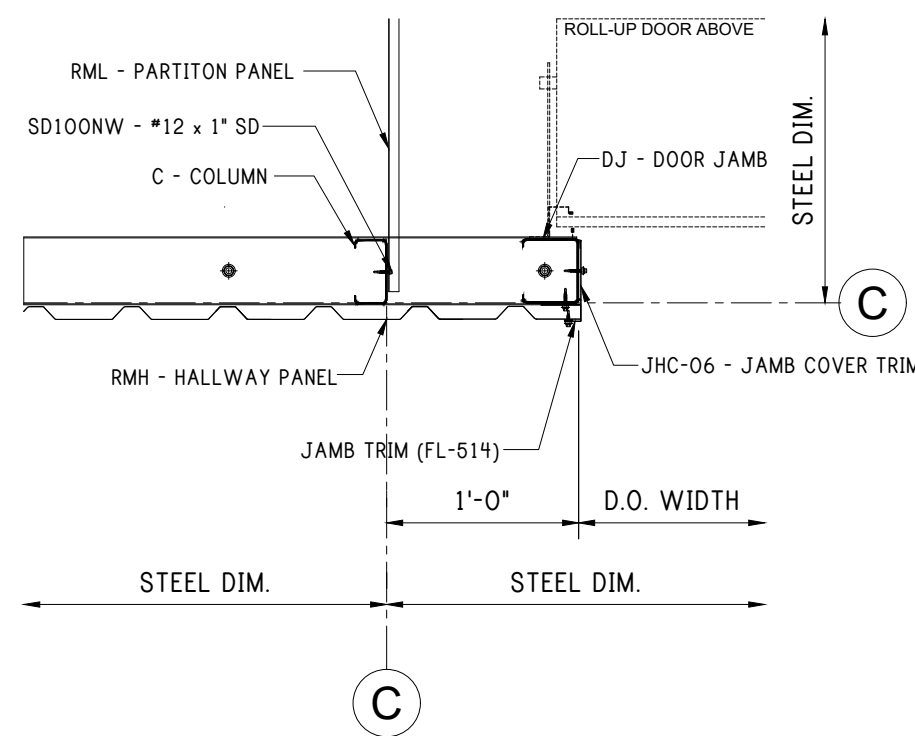
SITE: FUQUAY VARINA
NC 27526

TITLE: 120'x200'x20'-0" LS Gable

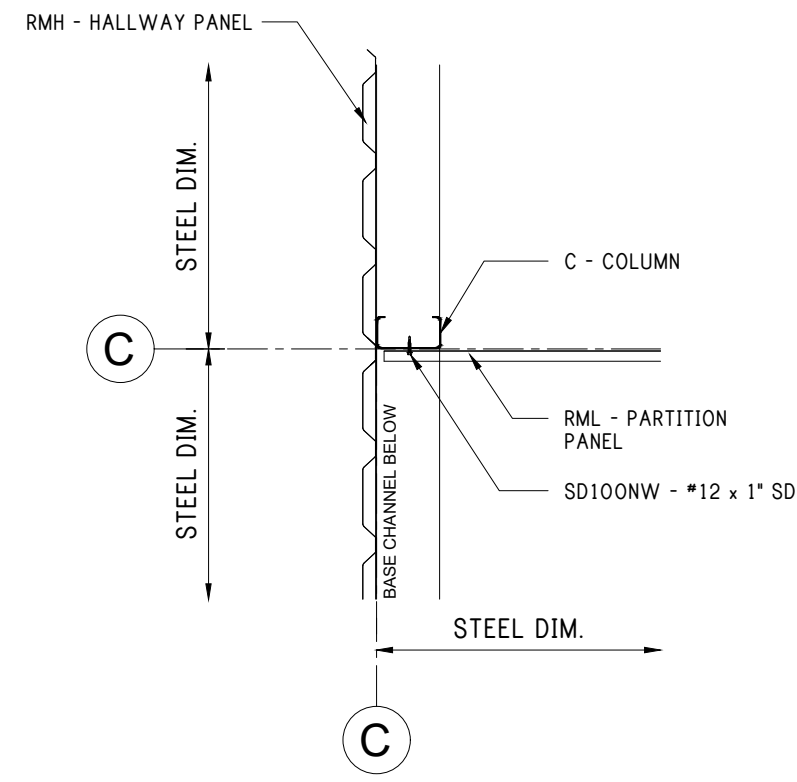
SIZE: DATE: 03/06/24 DRAWN: NMB CHECKED: ALI

SHEET NO: 5.1 of 8 DRAWING NO: 12227-33774-S1 REVISION:

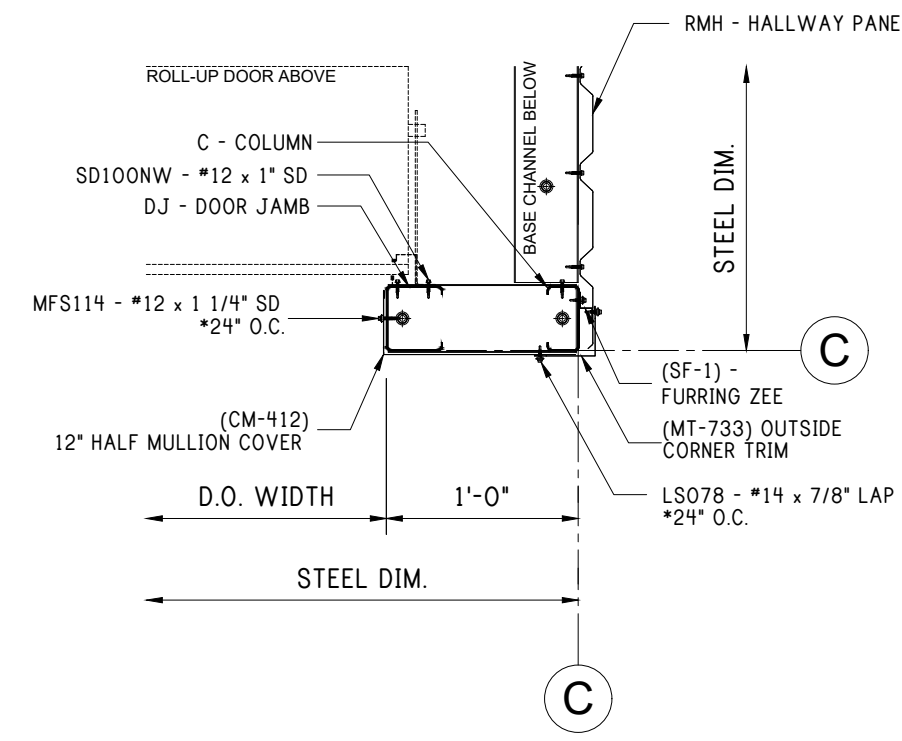
Notes:



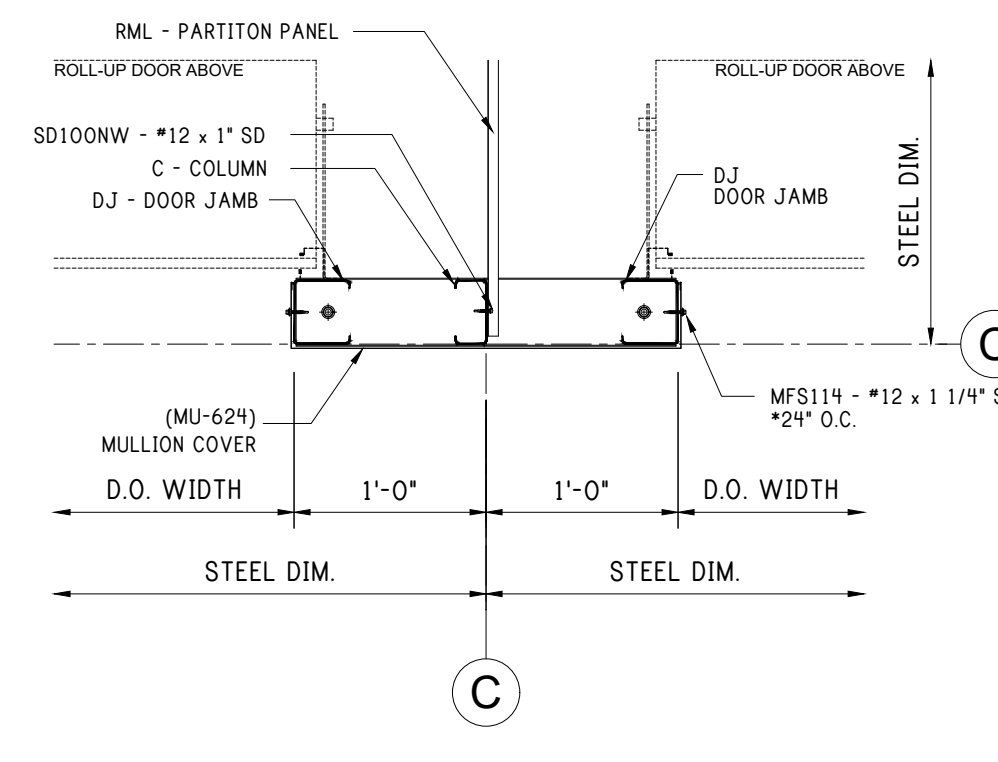
20 12" DOOR MULLION



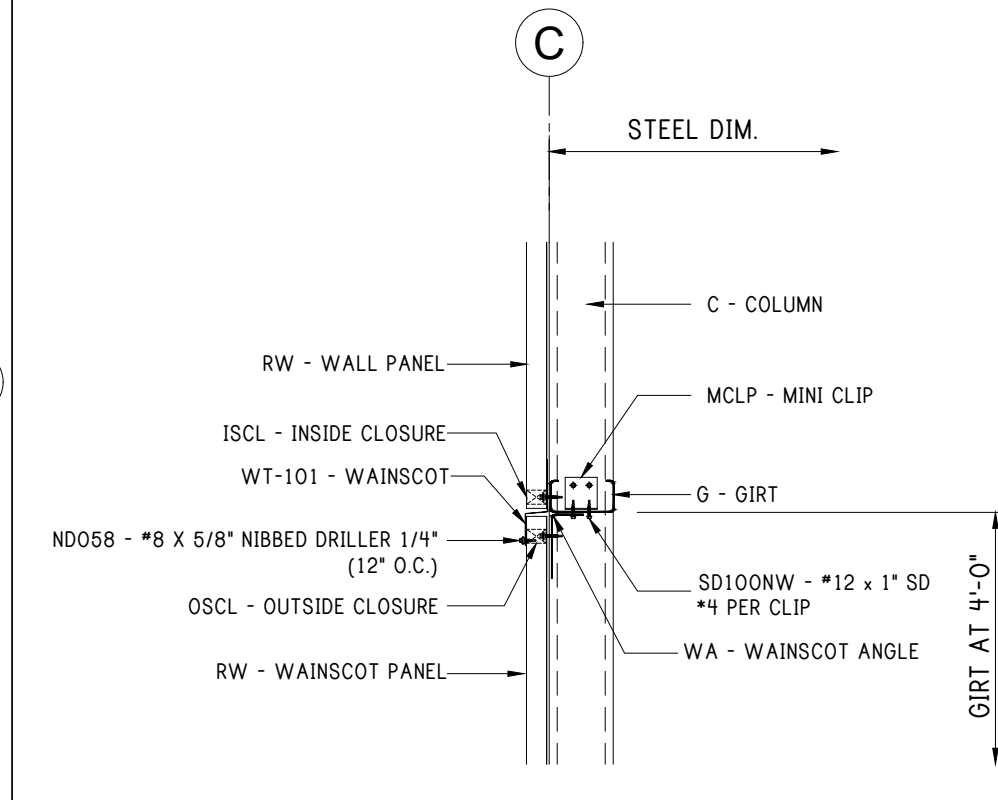
21 PARTITION AT HALLWAY



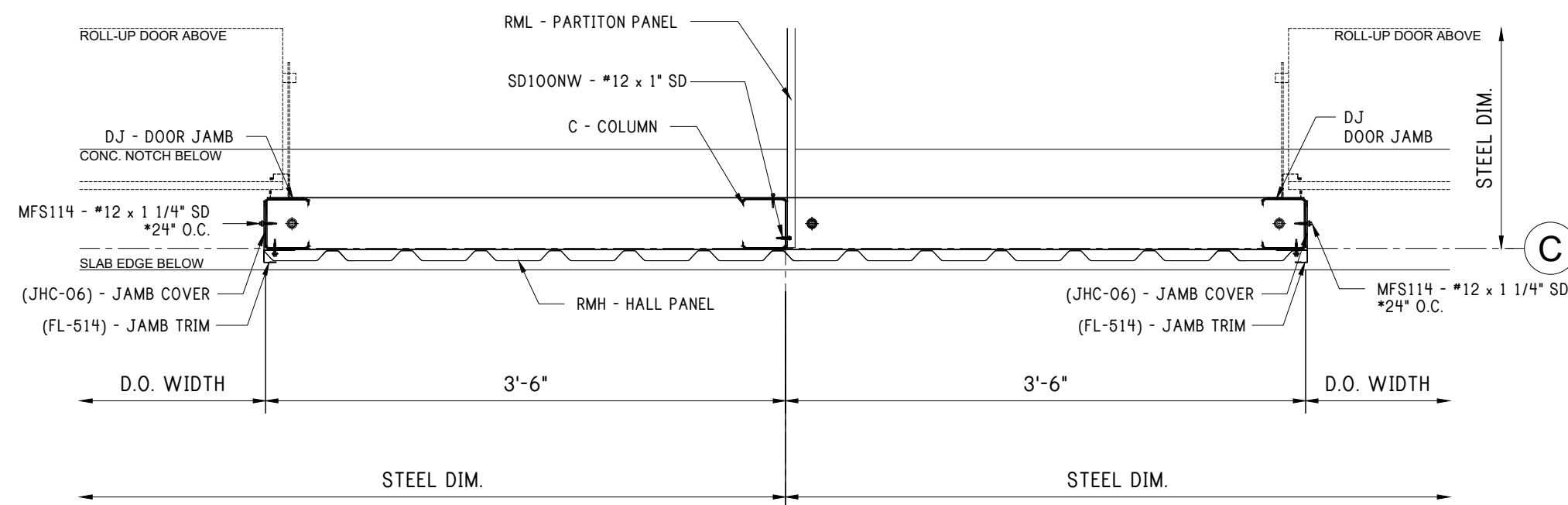
22 12" DOOR JAMB AT INTERIOR CORNER



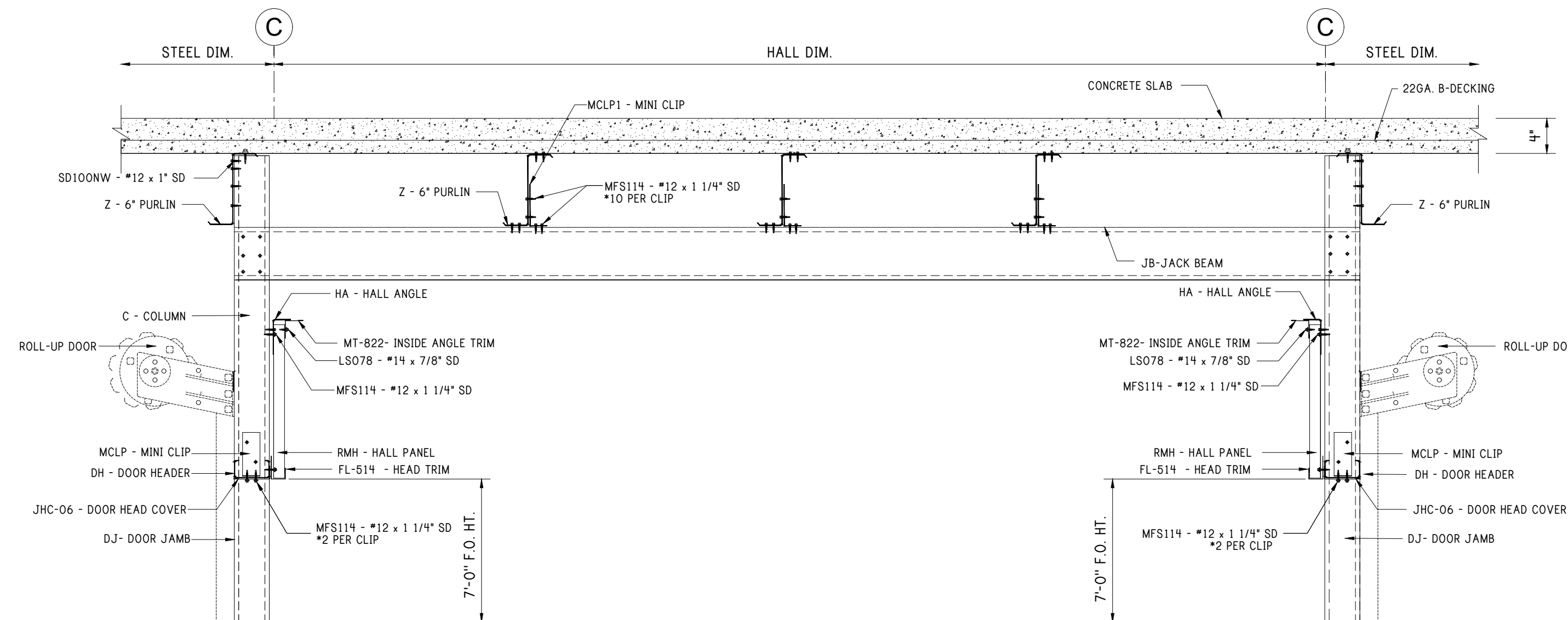
23 24" DOOR MULLION AT INTERIOR



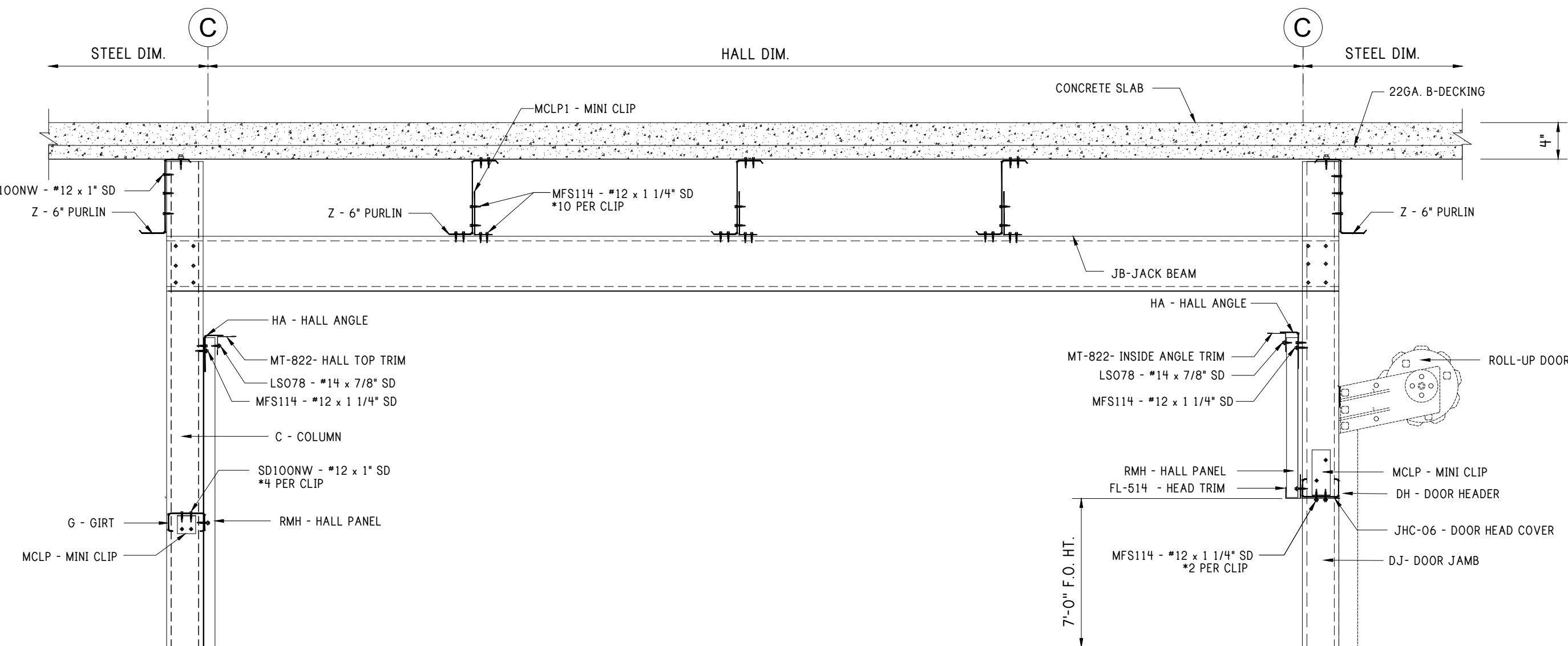
23A WAINSCOT TRANSITION



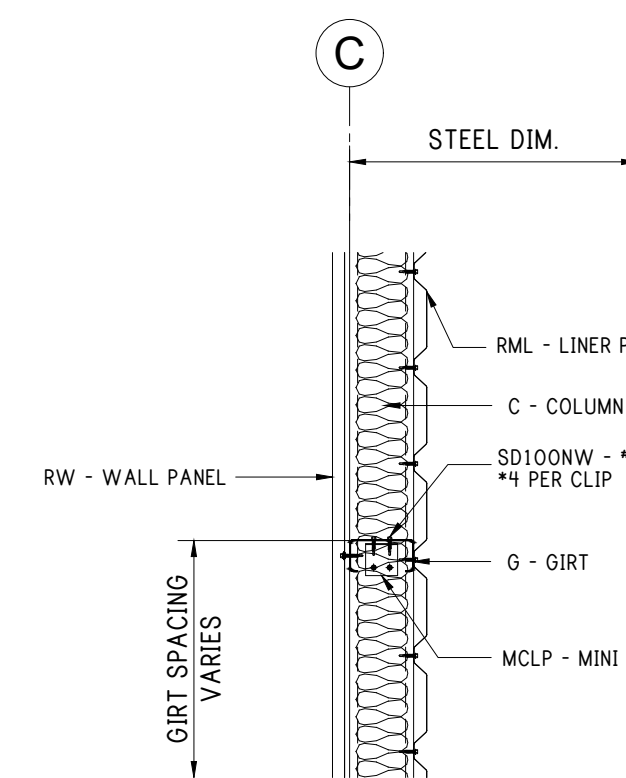
24 84" DOOR MULLION



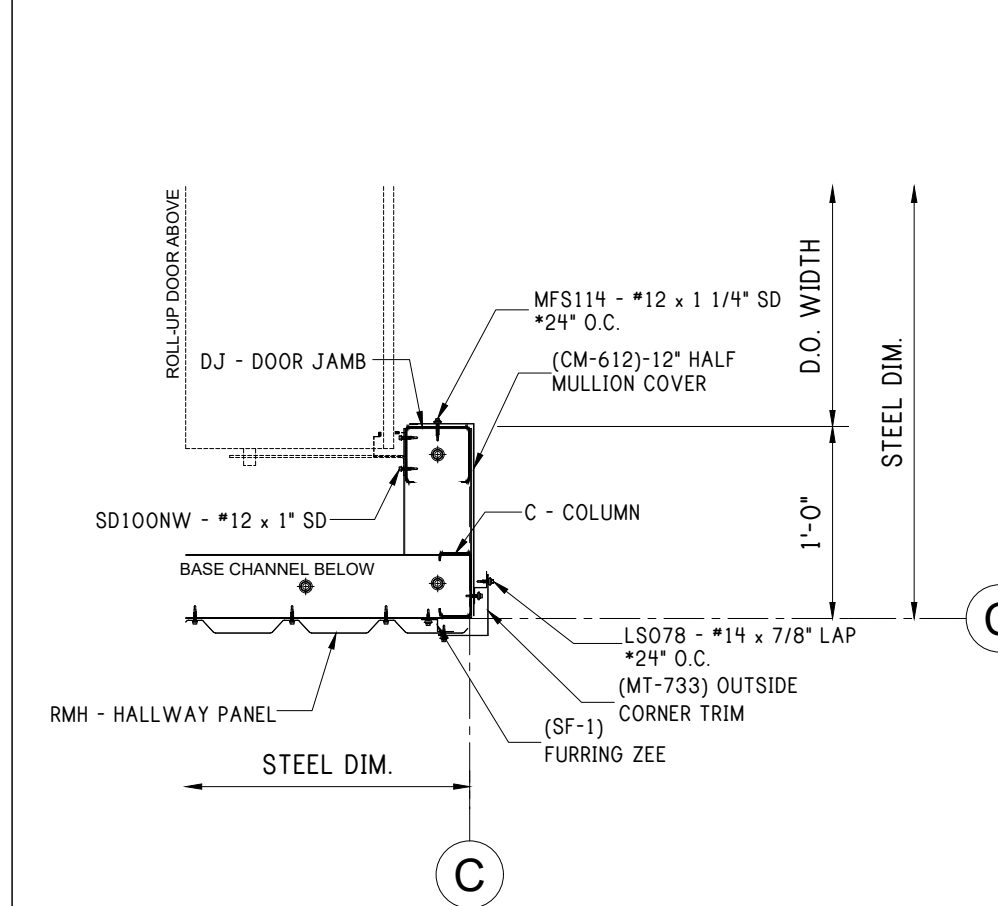
25 HALL SECTION AT TRANSVERSE HALLWAY



26 HALL SECTION AT TRANSVERSE HALLWAY

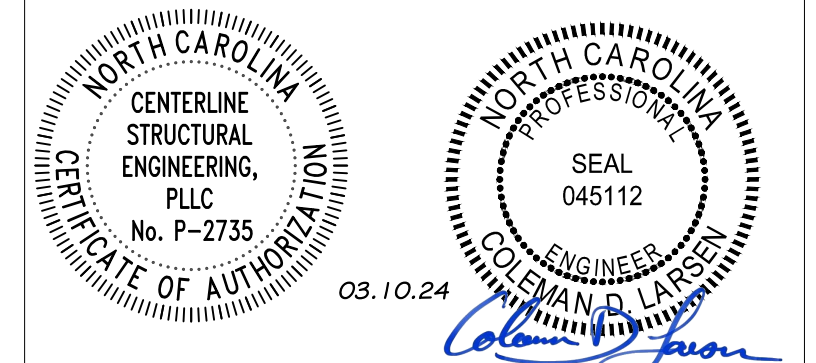


26A GIRT - TYPICAL



26B 12" DOOR JAMB AT INTERIOR CORNER

FRAMING DETAILS



REV: DESCRIPTION: BY: DATE: STATUS: CONSTRUCTION ISSUE

12227-33774-S1



CLIENT: P.O. BOX 1275
Madison, GA 30650
Phone: (844) 333-7325
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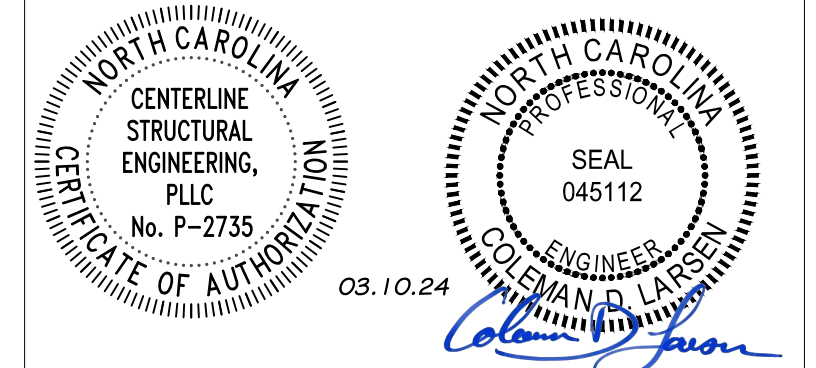
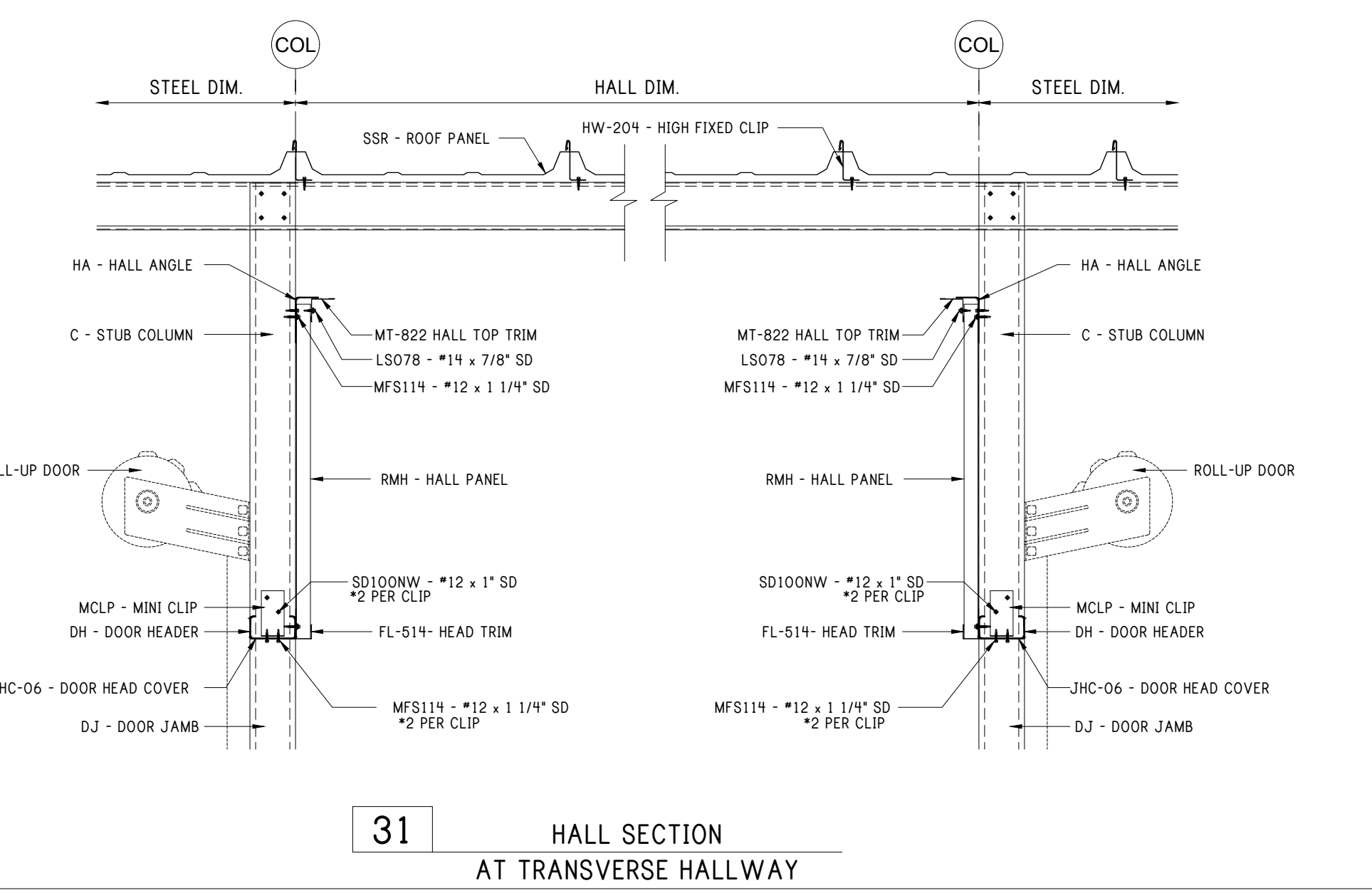
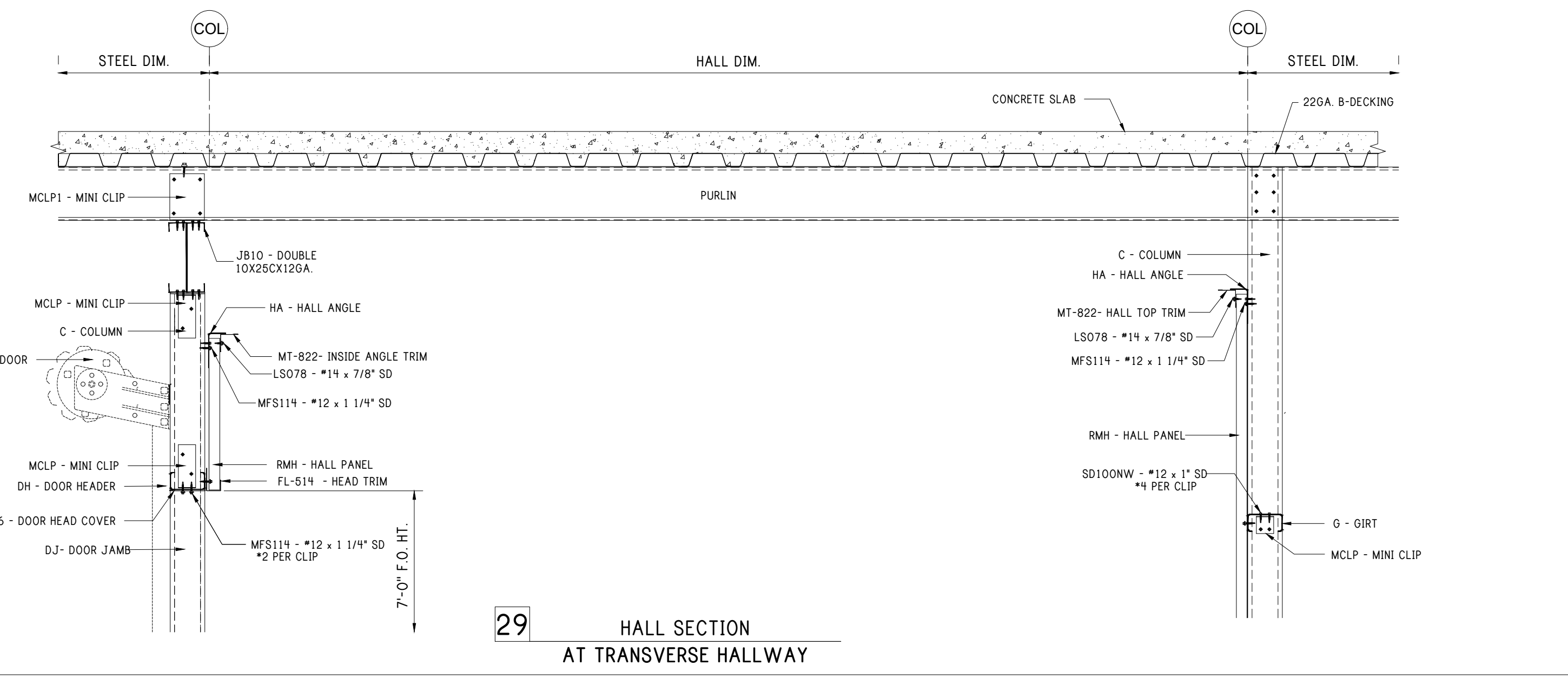
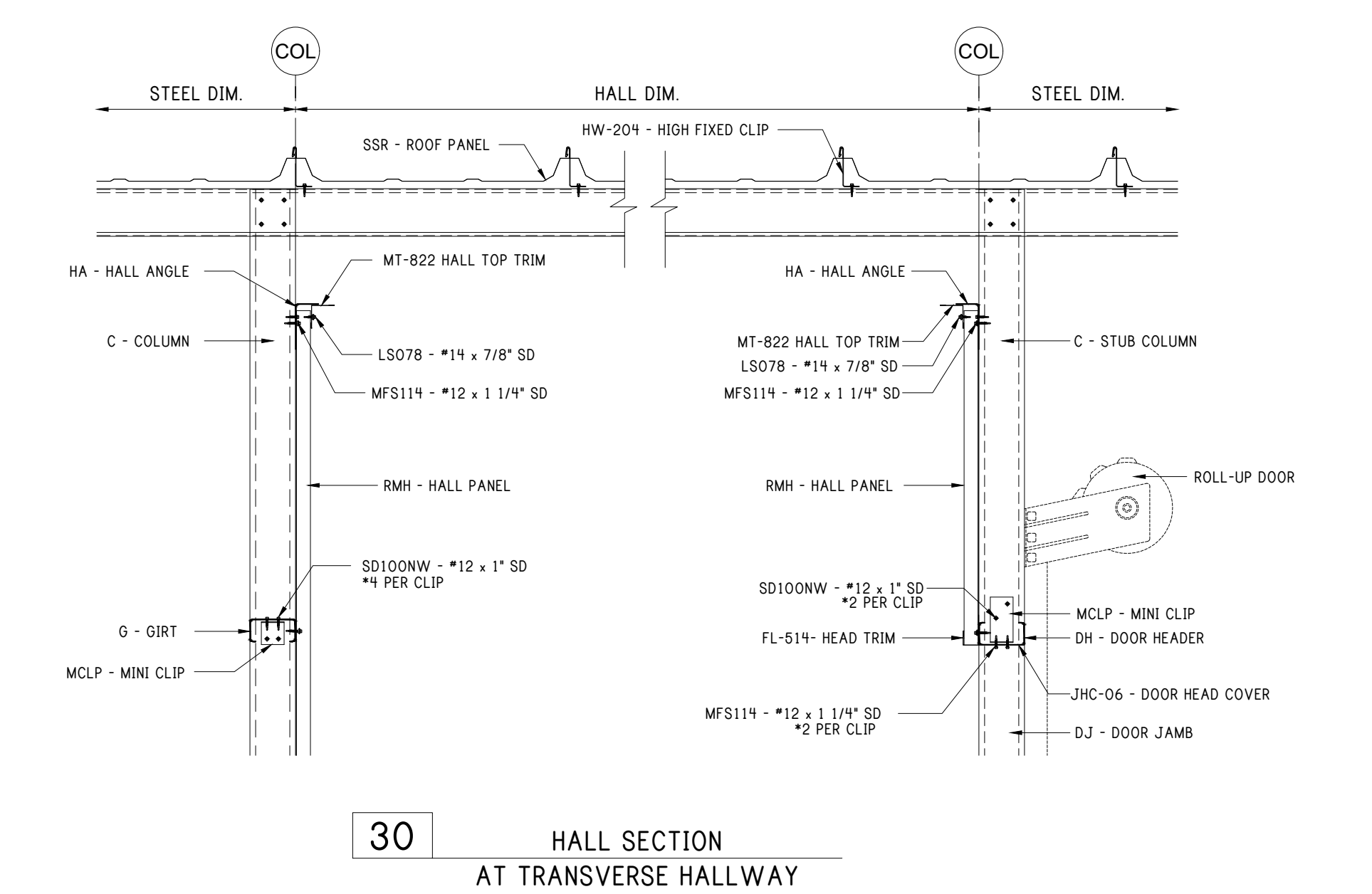
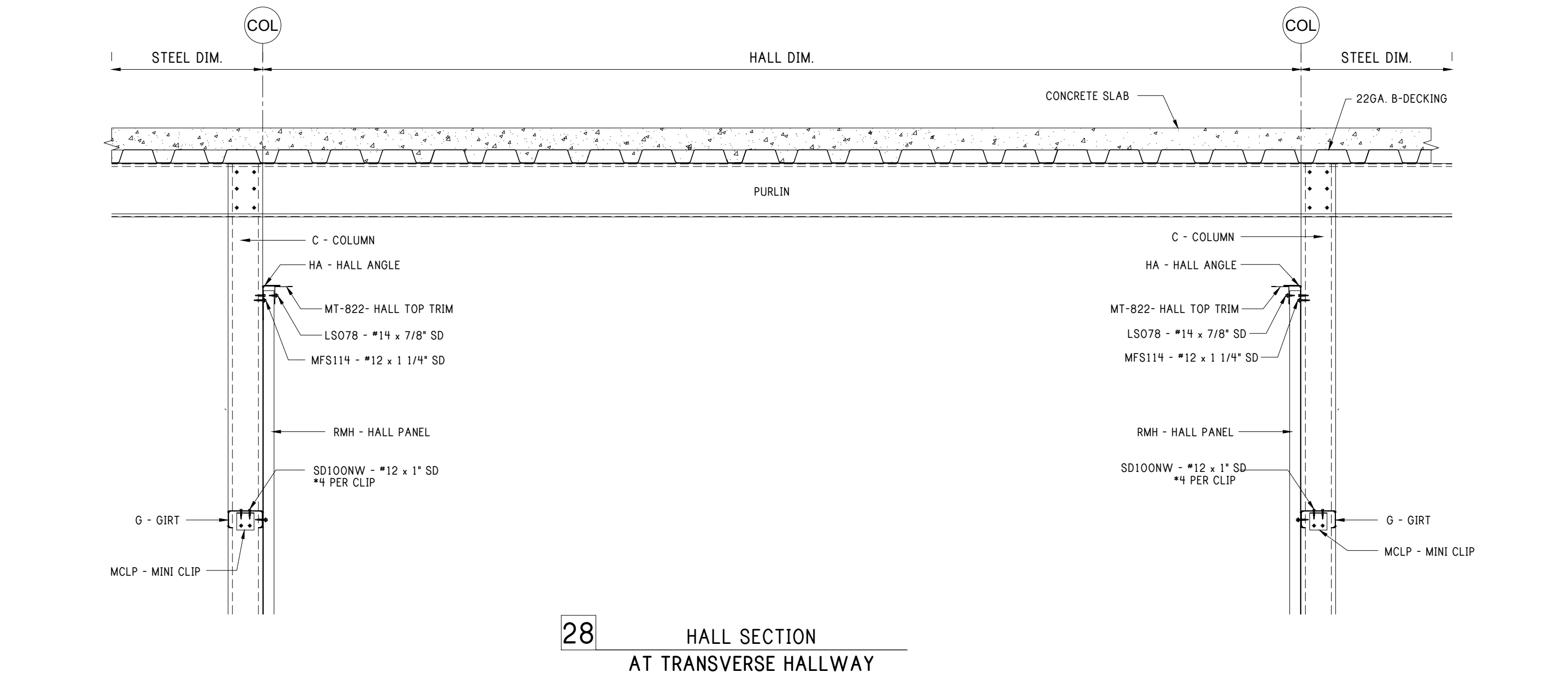
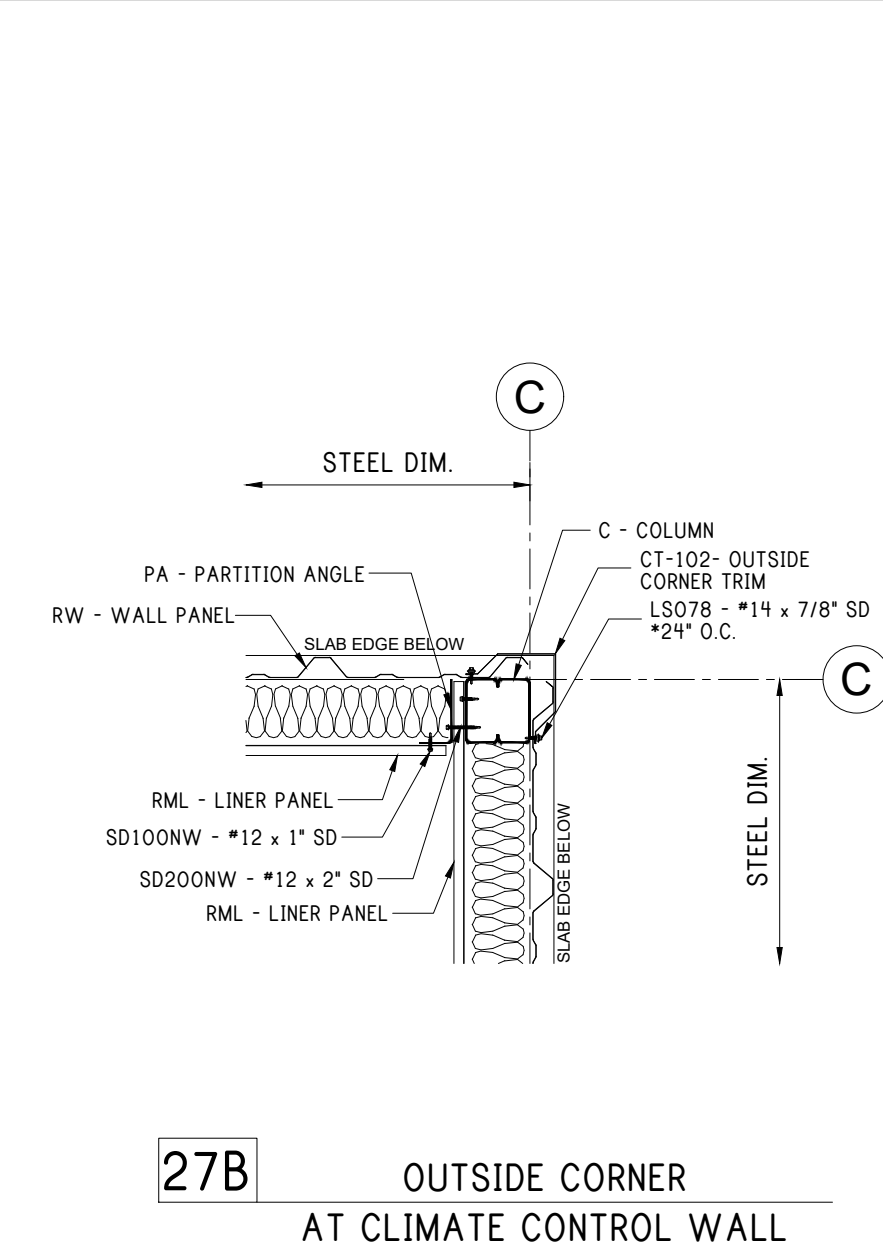
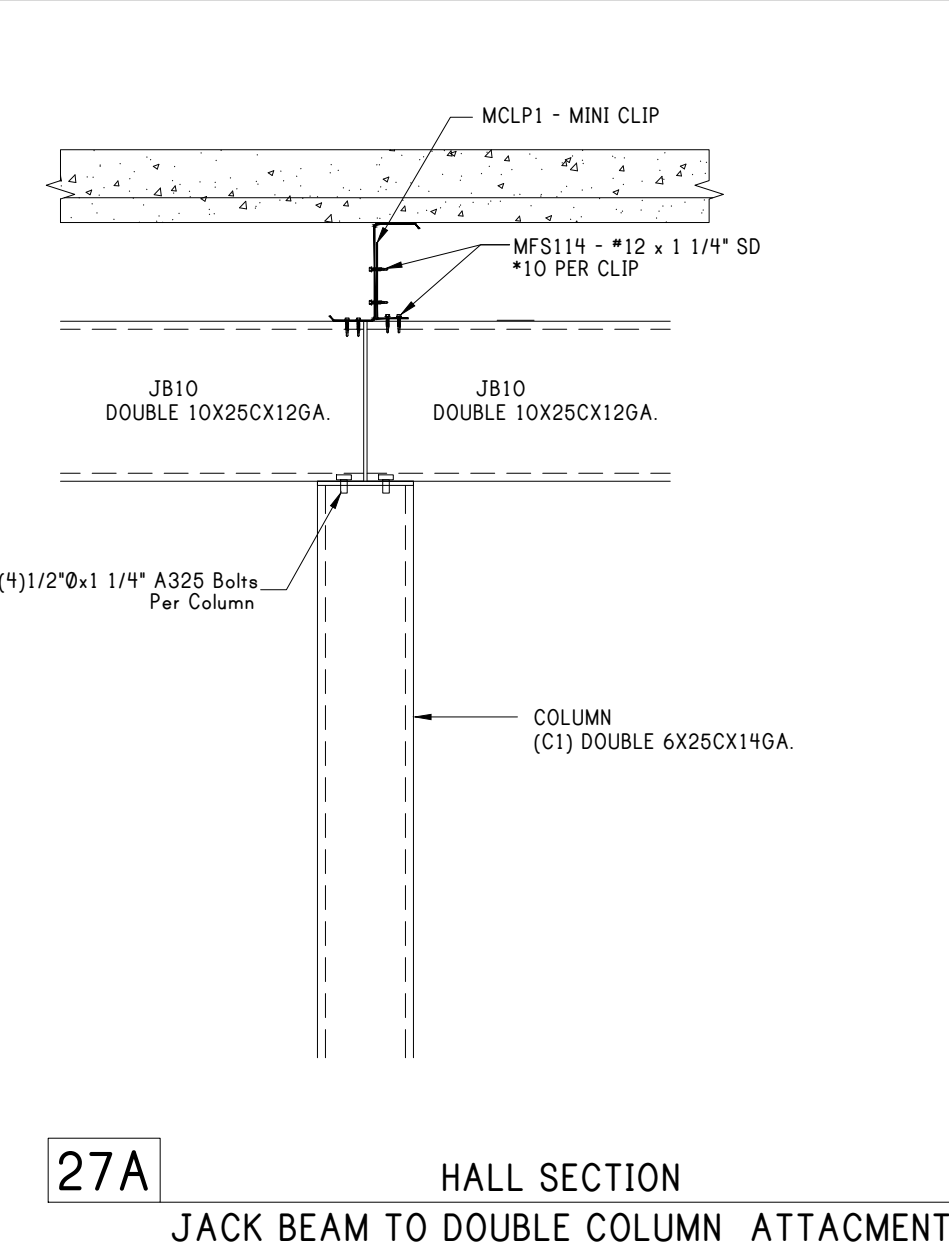
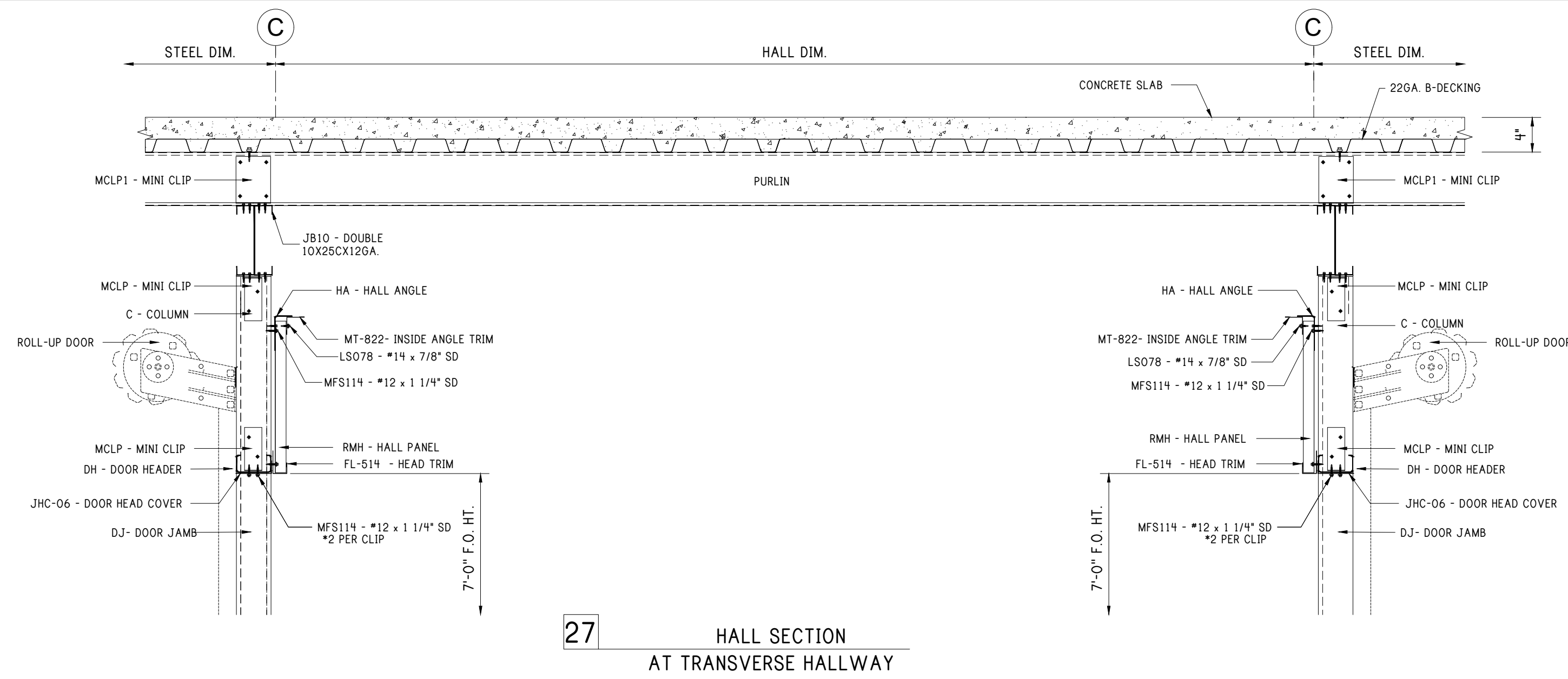
SITE: FUQUAY VARINA
NC 27526

TITLE: 120'x200'x20'-0" LS Gable

SIZE: DATE: 03/06/24 DRAWN: NMB CHECKED: ALI

SHEET NO: 5.2 of 8 DRAWING NO: 12227-33774-S1 REVISION:

Notes:



REV:	DESCRIPTION:	BY:	DATE:
STATUS: CONSTRUCTION ISSUE			

12227-33774-S1

PEAK STEEL

CLIENT: P.O. BOX 1275
Madison, GA 30650
Phone: (844) 333-7325
Fax: (706) 343-1968

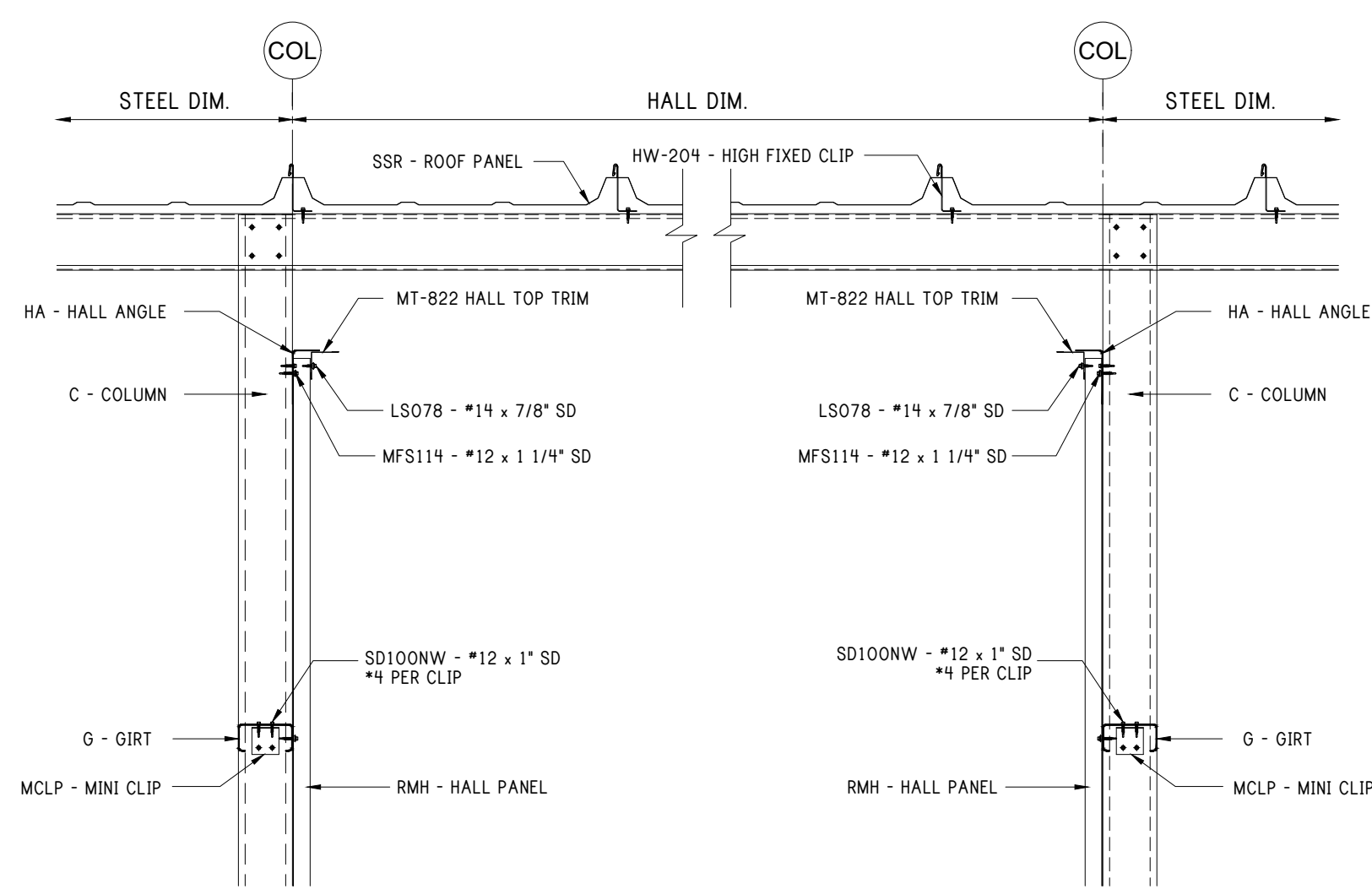
SITE: FUQUAY VARINA NC 27526

TITLE: 120'x200'x20'-0" LS Gable

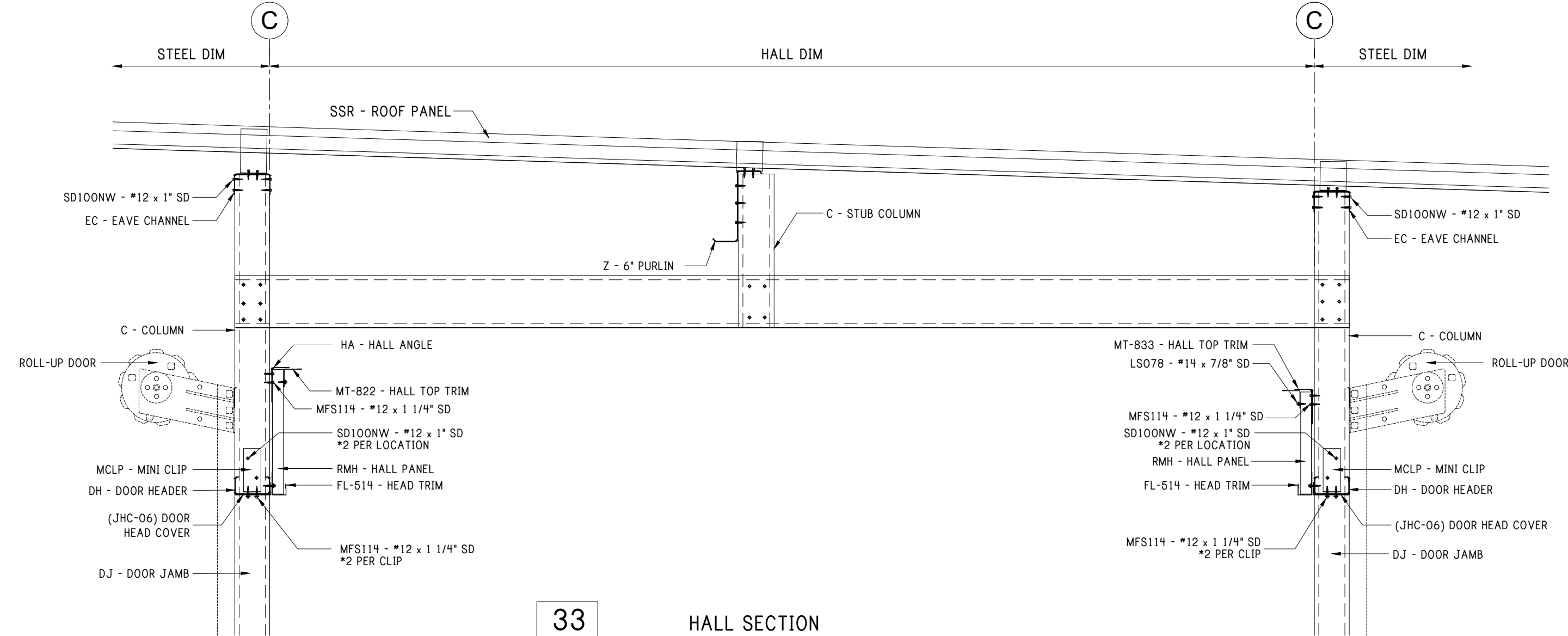
SIZE:	DATE: 03/06/24	DRAWN: NMB	CHECKED: ALI
SHEET NO: 5.3 of 8	DRAWING NO: 12227-33774-S1	REVISION:	

FRAMING DETAILS

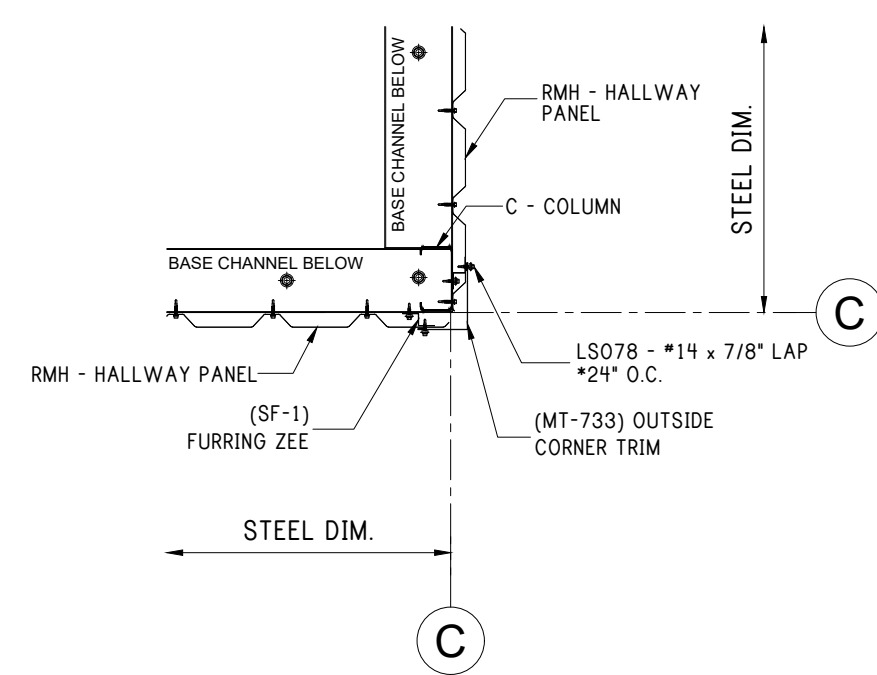
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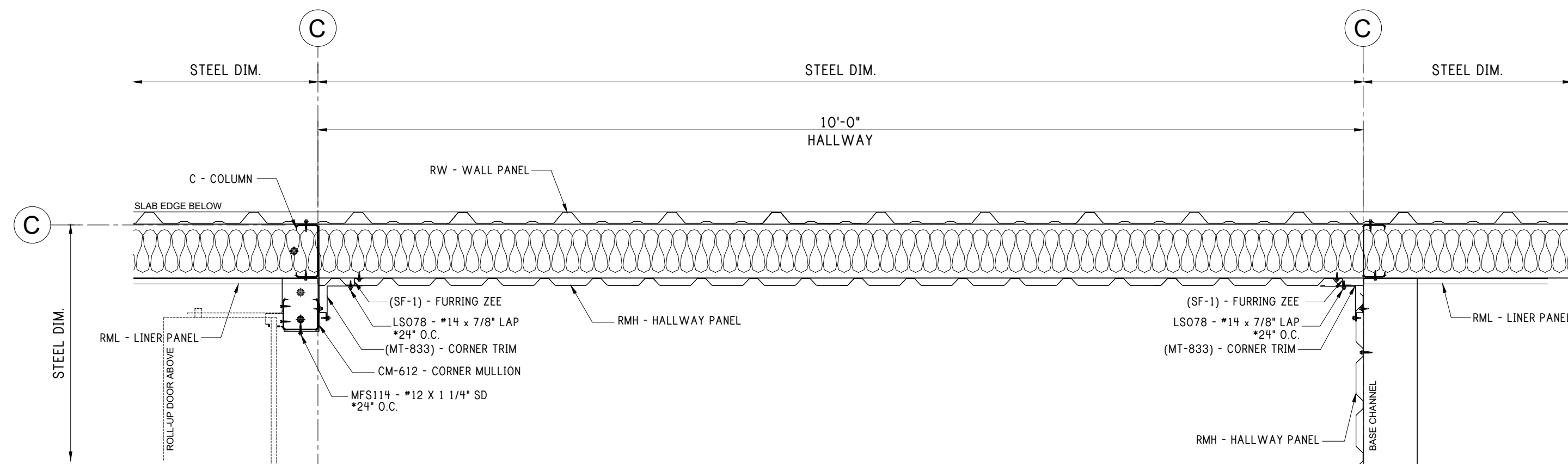
32 HALL SECTION AT TRANSVERSE HALLWAY



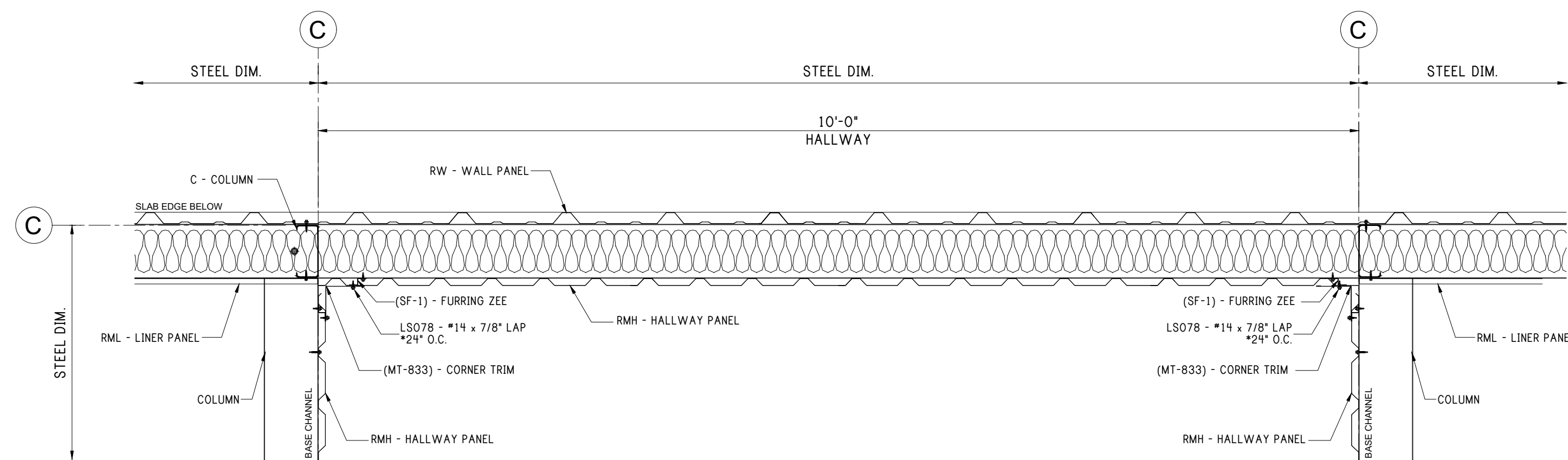
33 HALL SECTION AT ROOF



34 CORNER TRIM AT INTERIOR CORNER

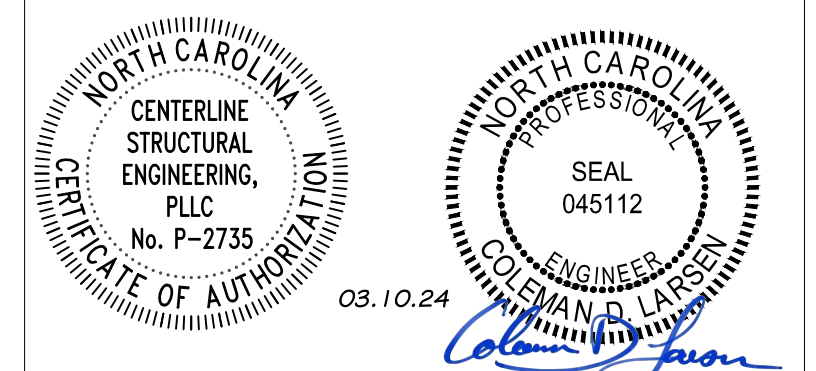


35 WALK DOOR JAMB AT CLIMATE CONTROL WALL



36 WALK DOOR JAMB AT CLIMATE CONTROL WALL

FRAMING DETAILS



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STATUS: CONSTRUCTION ISSUE			

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Fax: (706) 343-1968

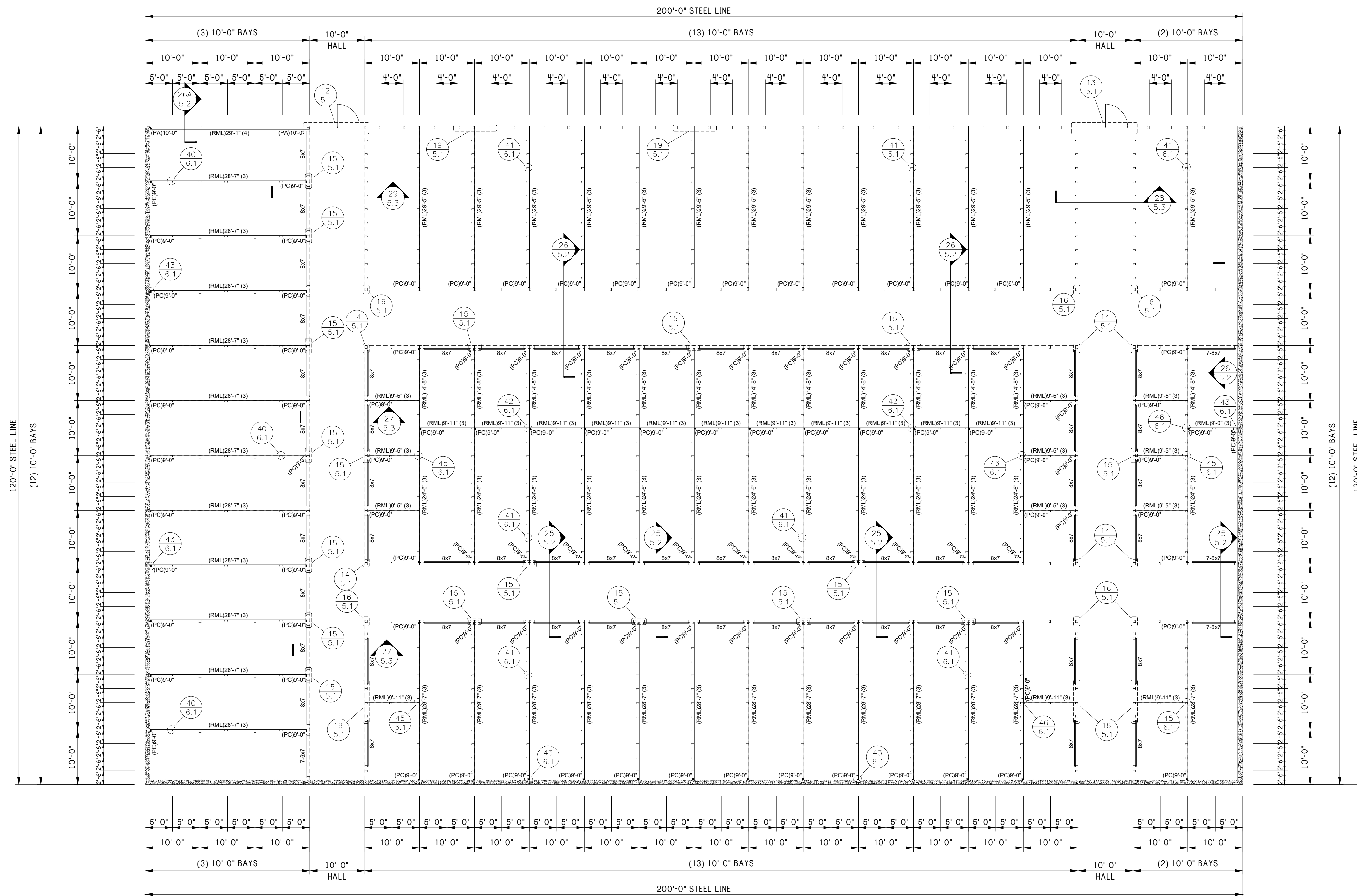
SITE: FUQUAY VARINA
NC 27526

TITLE: 120'x200'x20'-0" LS Gable

SIZE:	DATE:	DRAWN:	CHECKED:
	03/06/24	NMB	ALI

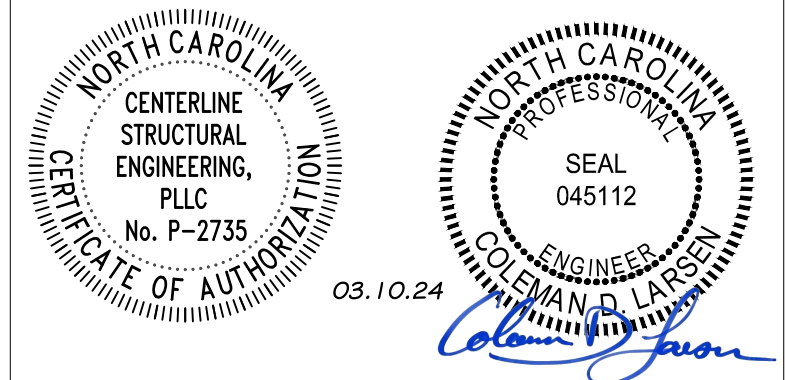
SHEET NO:	DRAWING NO:	REVISION:
5.4 of 8	12227-33774-S1	

Notes:



HORIZONTAL LINER PANEL INSTALLATION NOTE:
 (STEP-1) : INSTALL LINER PANEL ON THE BUILDING PERIMETER FIRST.
 (STEP-2) : SEE MARKED DETAILS FOR PARTITION ANGLE (PA) ATTACHMENT AT CORNERS AND PARTITION CEE (PC) ATTACHMENT AT PERIMETER WALLS.
 (STEP-3) : INSTALL PARTITION WALLS TO PARTITION ANGLE (PA) AND PARTITION CEE (PC) TO PERIMETER LINER PANELS BY MARKED DETAILS.

PARTITION PLAN
 BOTTOM FLOOR



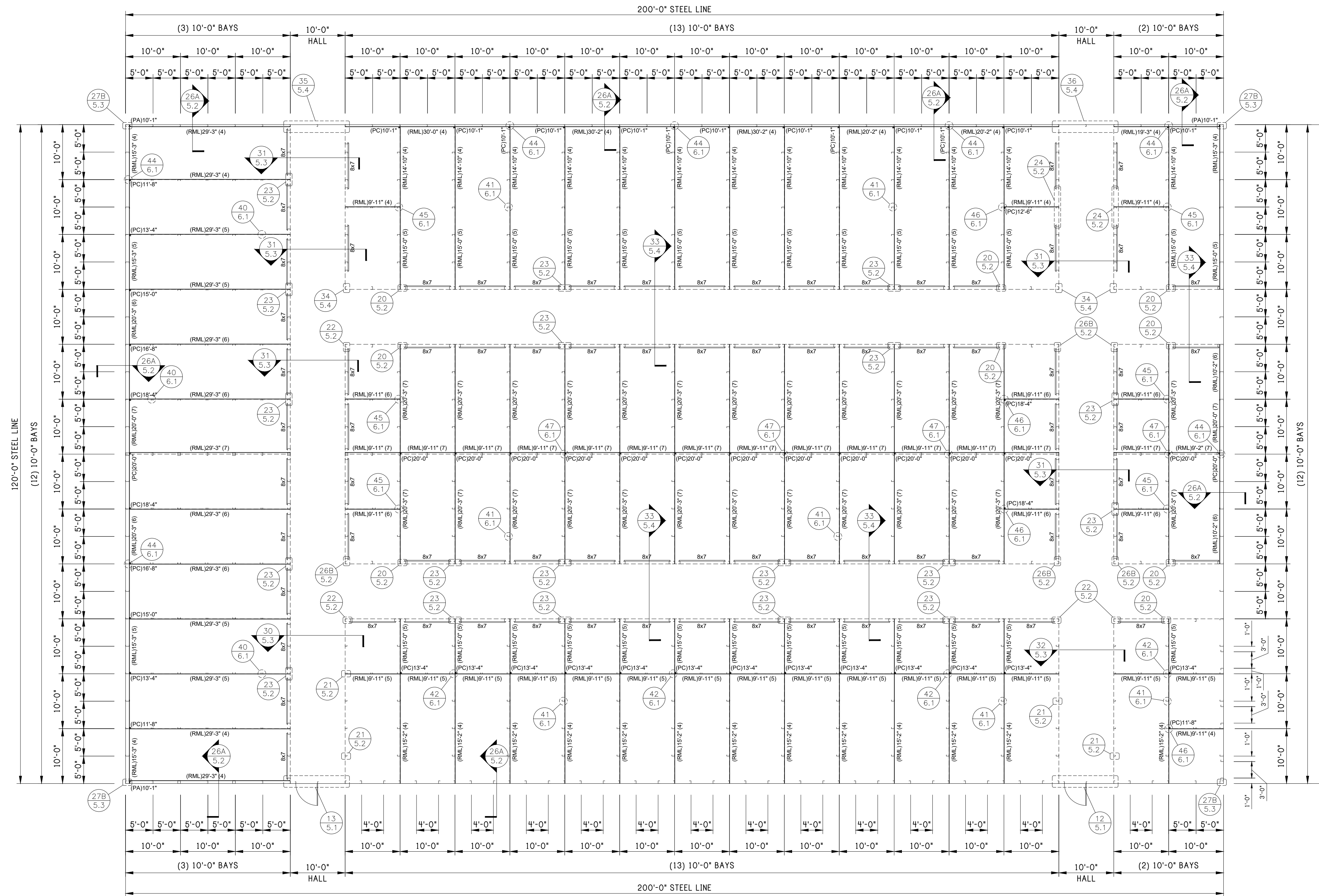
REV: DESCRIPTION: BY: DATE:
 STATUS: CONSTRUCTION ISSUE

12227-33774-S1

PEAK STEEL
 CLIENT: P.O. BOX 1275
 Madison, GA 30650
 Phone: (844) 333-7325
 Fax: (706) 343-1968

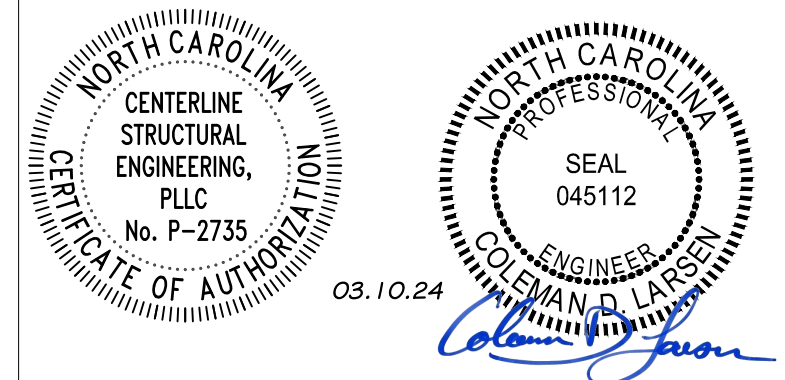
SITE: FUQUAY VARINA
 NC 27526
 TITLE: 120'x200'x20'-0" LS Gable
 SIZE: 03/06/24 DRAWN: NMB CHECKED: ALI
 SHEET NO: 6 of 8 DRAWING NO: 12227-33774-S1 REVISION:

Notes:



HORIZONTAL LINER PANEL INSTALLATION NOTE:
 (STEP-1) : INSTALL LINER PANEL ON THE BUILDING PERIMETER FIRST.
 (STEP-2) : SEE MARKED DETAILS FOR PARTITION ANGLE (PA) ATTACHMENT AT CORNERS AND PARTITION CEE (PC) ATTACHMENT AT PERIMETER WALLS.
 (STEP-3) : INSTALL PARTITION WALLS TO PARTITION ANGLE (PA) AND PARTITION CEE (PC) TO PERIMETER LINER PANELS BY MARKED DETAILS.

PARTITION PLAN
 TOP FLOOR



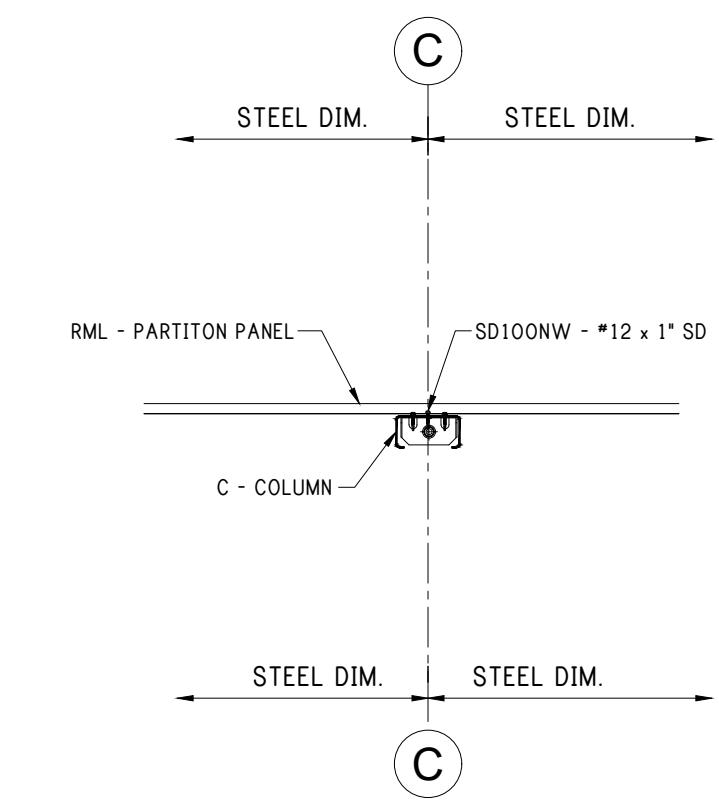
REV: DESCRIPTION: BY: DATE:
 STATUS: CONSTRUCTION ISSUE

12227-33774-S1

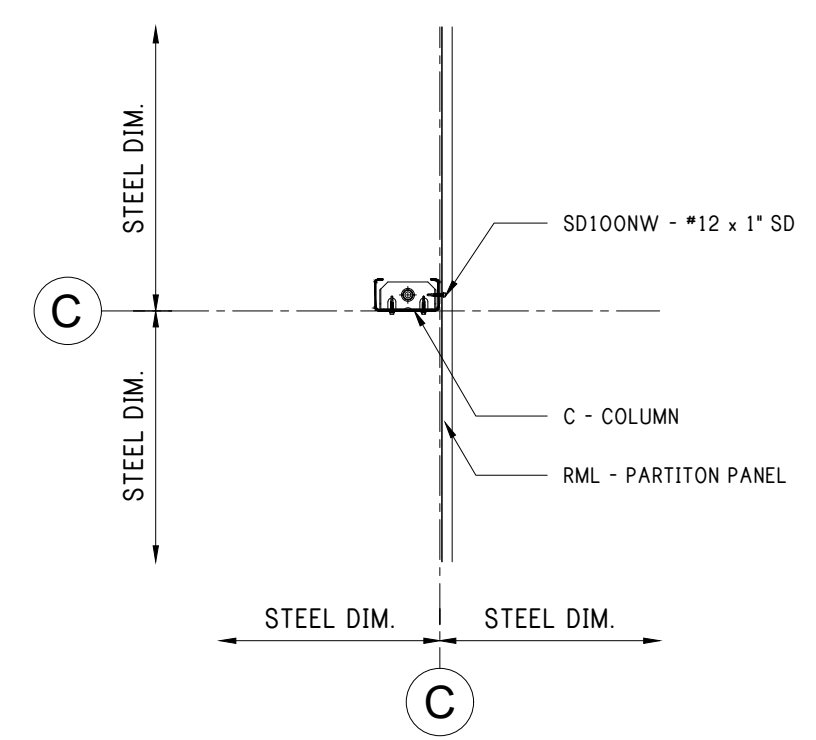
PEAK STEEL
 CLIENT: P.O. BOX 1275
 Madison, GA 30650
 Phone: (844) 333-7325
 Fax: (706) 343-1968

SITE: FUQUAY VARINA
 NC 27526
 TITLE: 120'x200'x20'-0" LS Gable
 SIZE: DATE: 03/06/24 DRAWN: NMB CHECKED: ALI
 SHEET NO: DRAWING NO: 6A of 8 12227-33774-S1 REVISION:

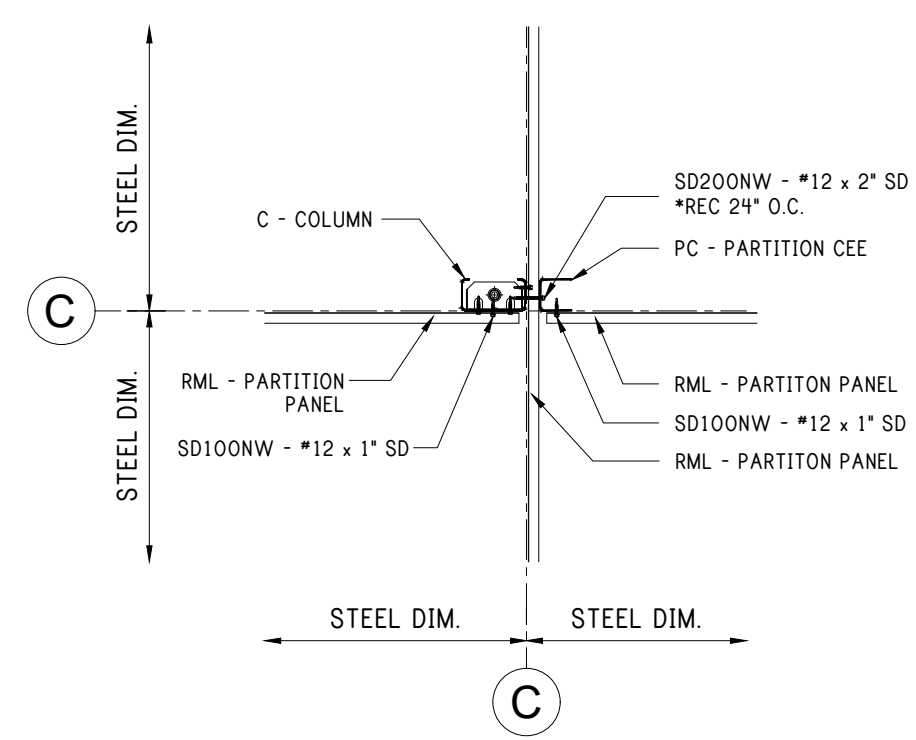
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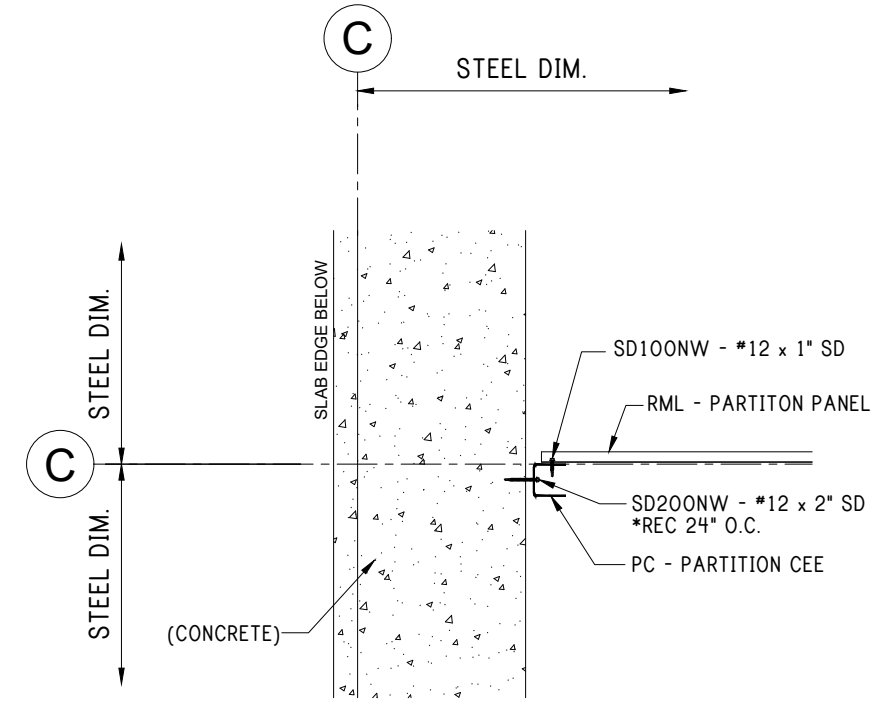
40 CLIP AT COLUMN



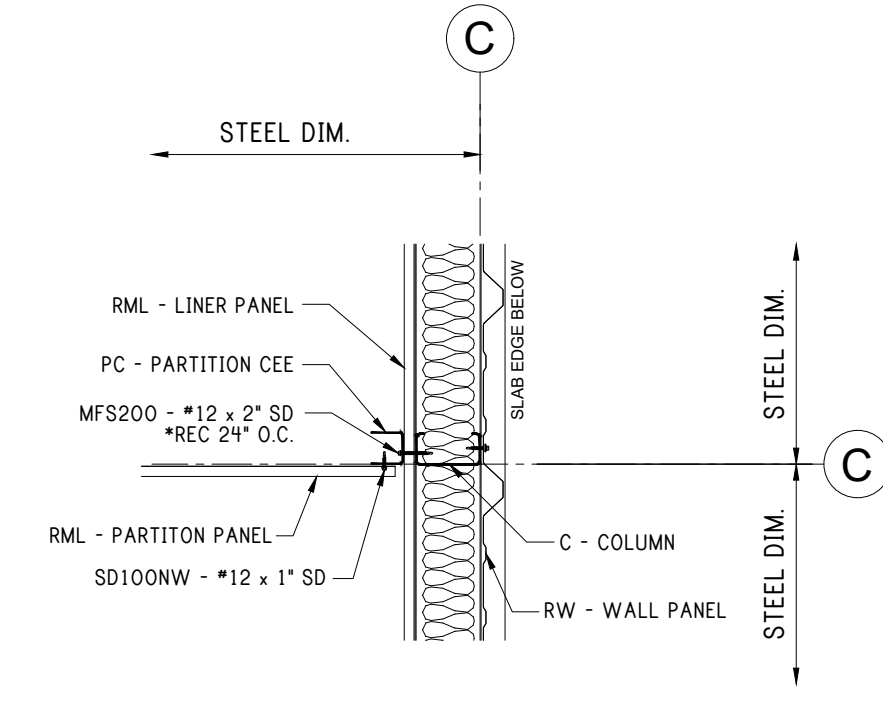
41 CLIP AT COLUMN



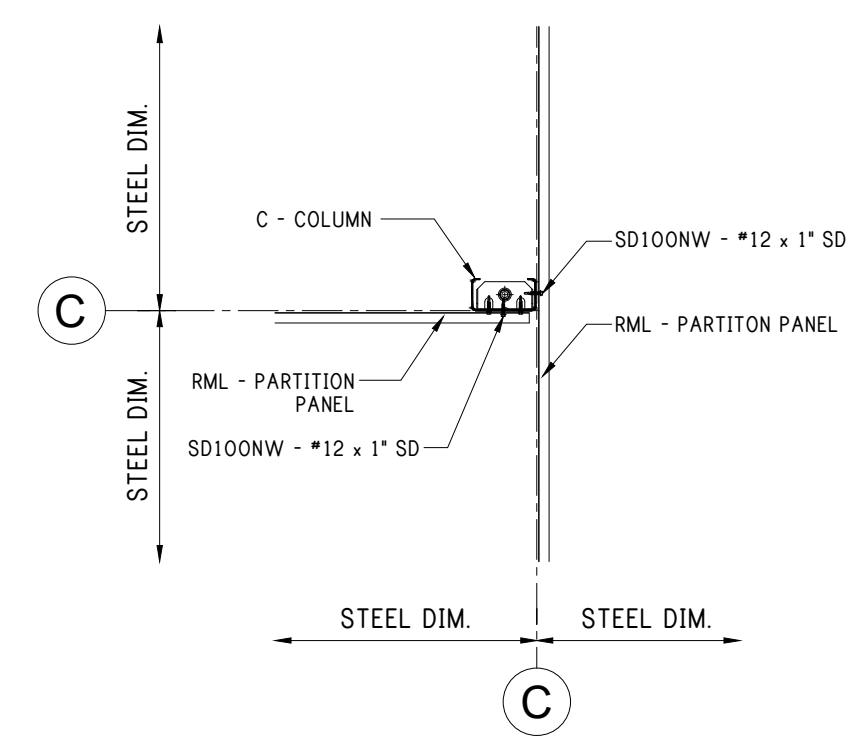
42 PARTITION TEE



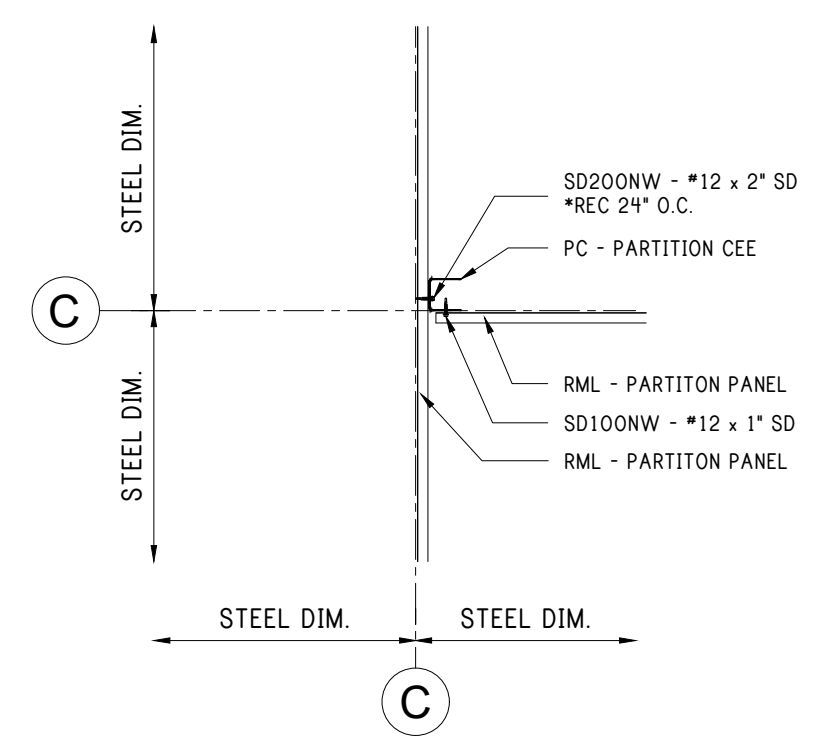
43 PARTITION AT WALL AT CLIMATE CONTROL WALL



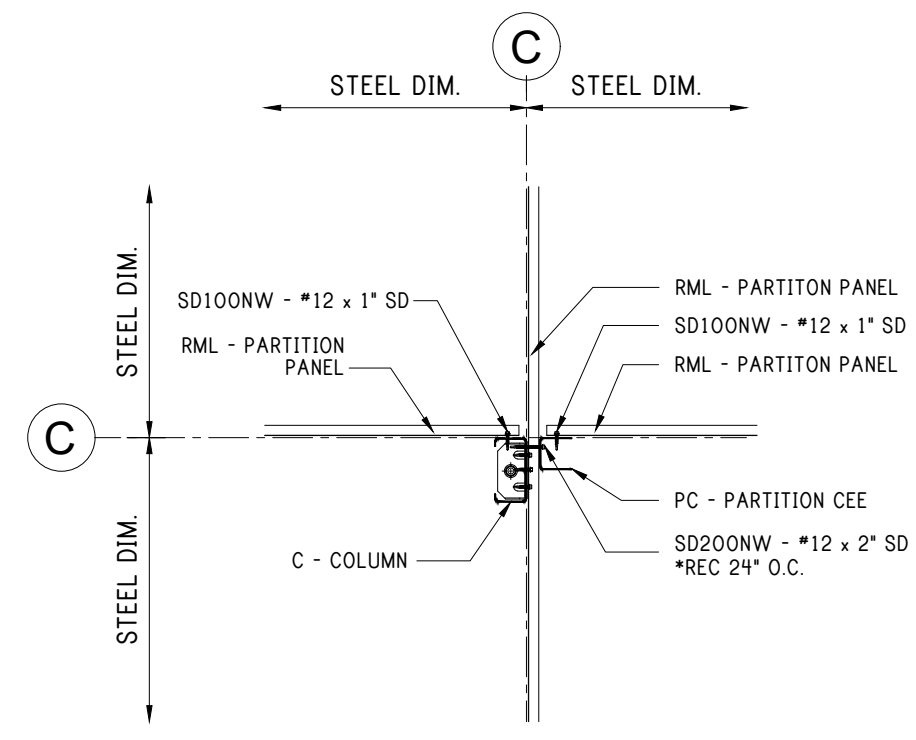
44 PARTITION AT WALL AT CLIMATE CONTROL WALL



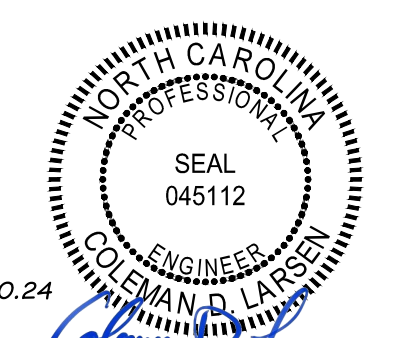
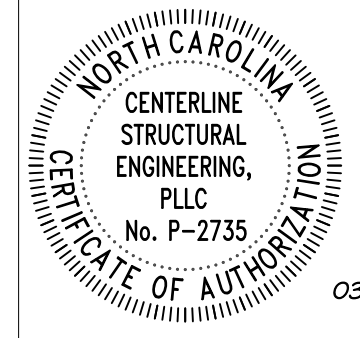
45 PARTITION TEE



46 PARTITION TEE



47 PARTITION TEE



03.10.24

REV:	DESCRIPTION:	BY:	DATE:
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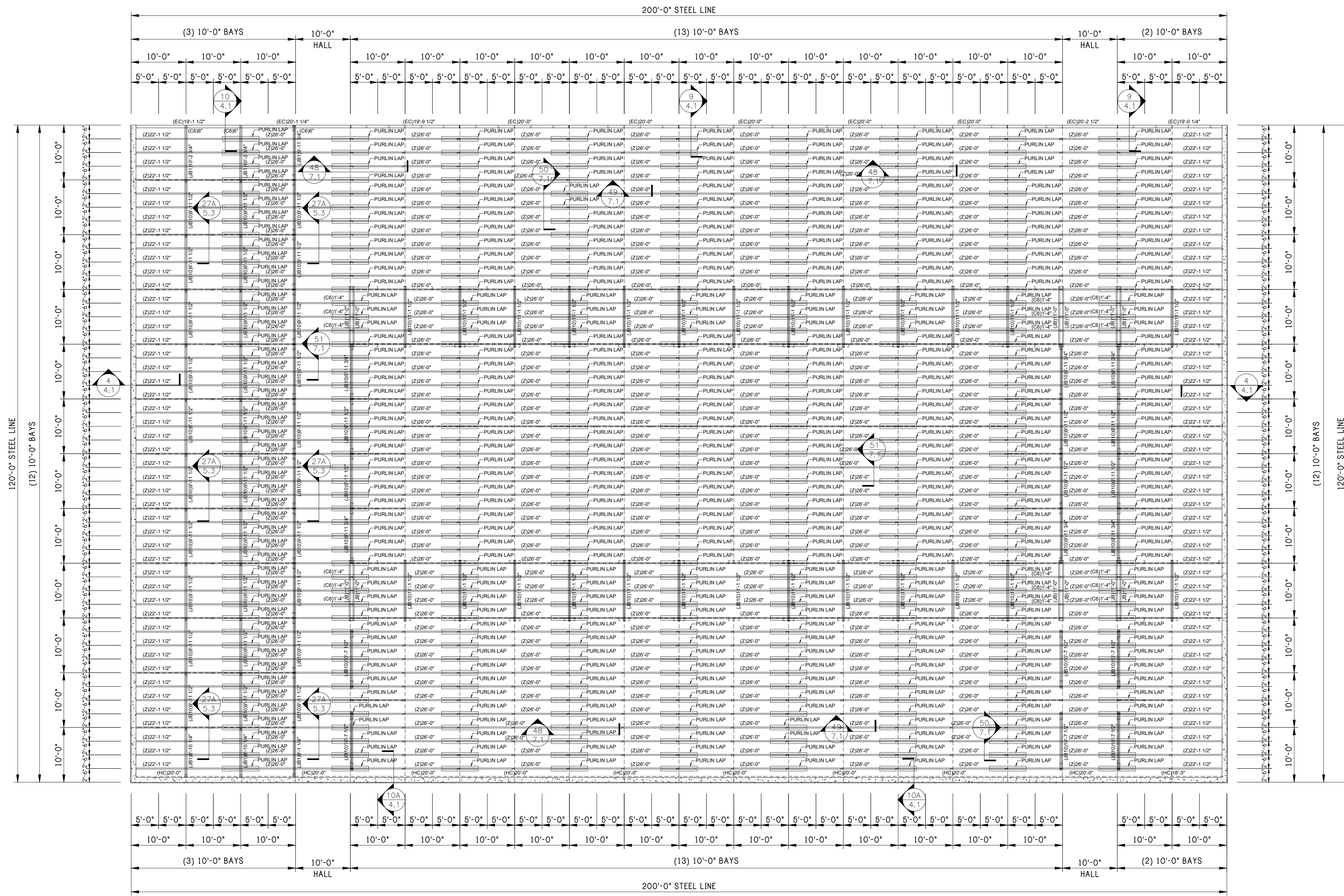
SITE: FUQUAY VARINA
NC 27526

TITLE: 120'x200'x20'-0" LS Gable

SIZE:	DATE:	DRAWN:	CHECKED:
	03/06/24	NMB	ALI
SHEET NO:	DRAWING NO:	REVISION:	
6.1 of 8	12227-33774-S1		

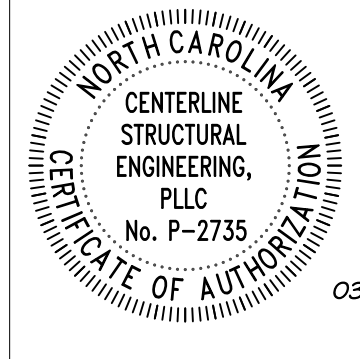
PARTITON DETAILS

Notes:



REVISION 1 03/06/2024 (ALL PURLIN GAUGE CHANGED 12GA.)

RAFTER PLAN
BOTTOM FLOOR



REV: DESCRIPTION: BY: DATE:
 STATUS: CONSTRUCTION ISSUE

12227-33774-S1



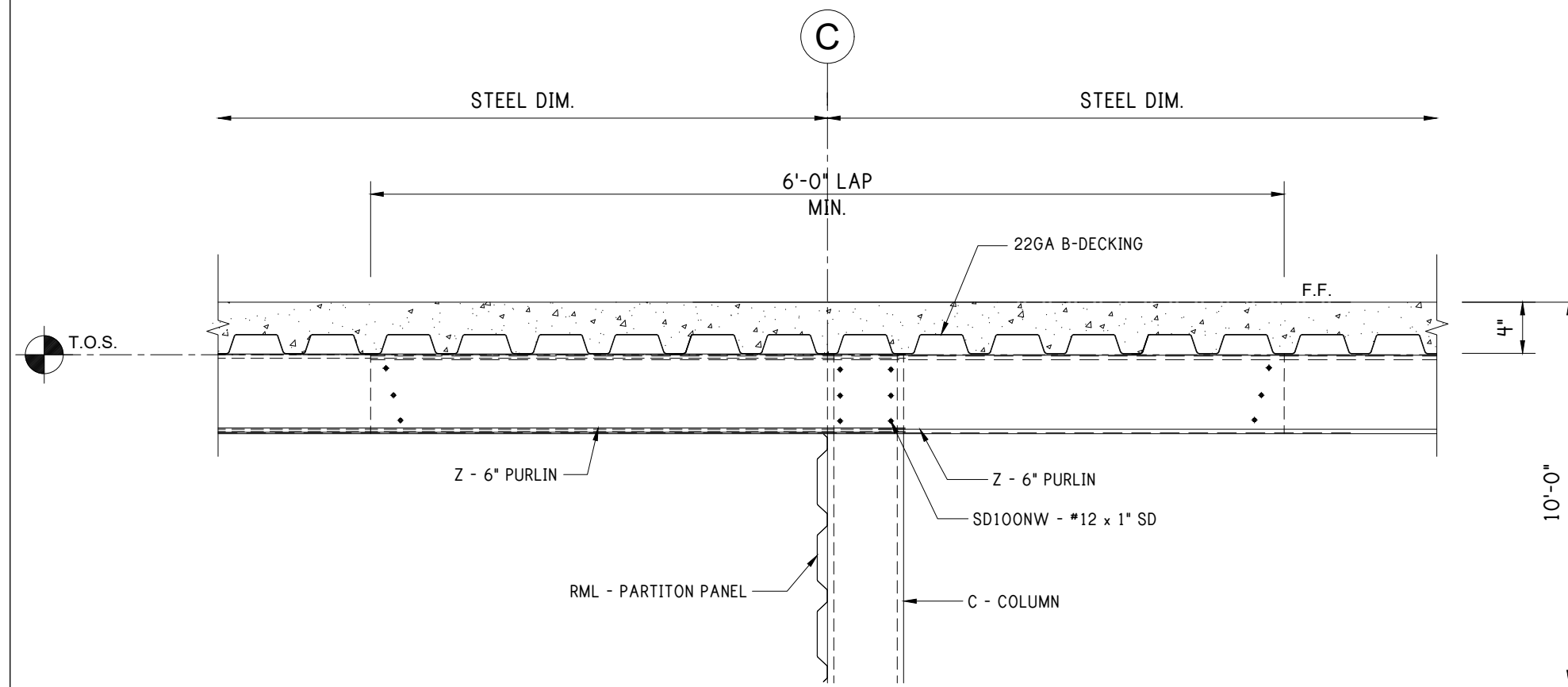
CLIENT: P.O. BOX 1275
 Madison, GA 30650
 Phone: (844) 333-7325
 Fax: (706) 343-1968

SITE: FUQUAY VARINA
 NC 27526

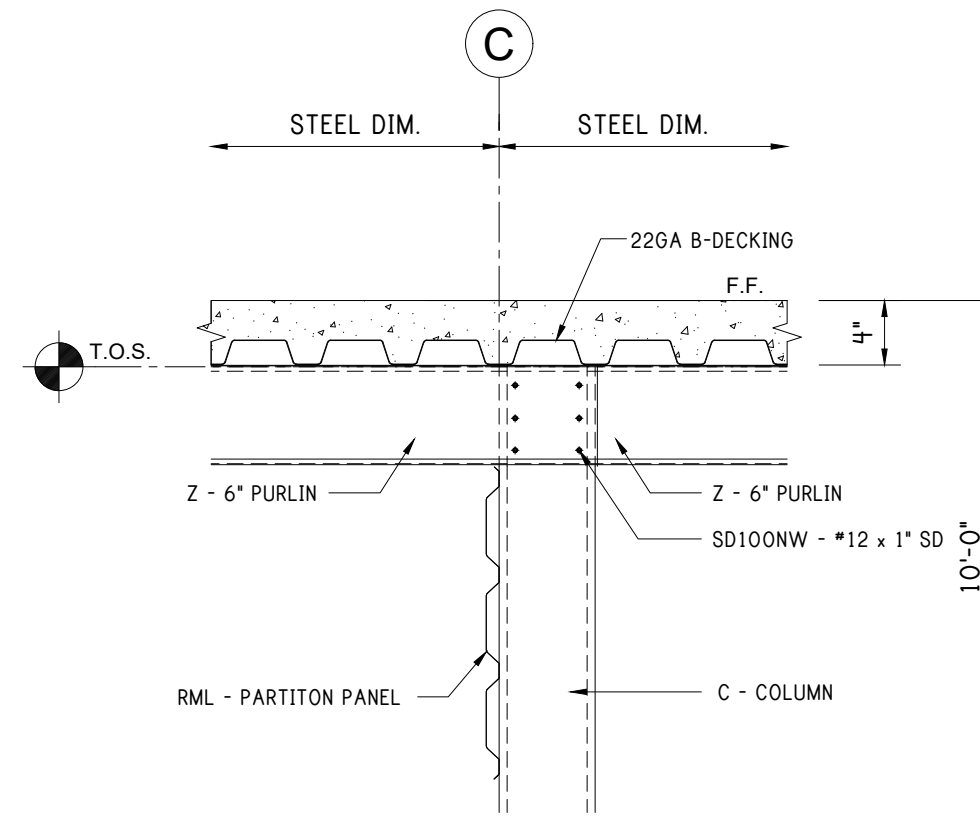
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SIZE: DATE: 03/06/24 DRAWN: NMB CHECKED: ALI
 SHEET NO: 7 of 8 DRAWING NO: 12227-33774-S1 REVISION:

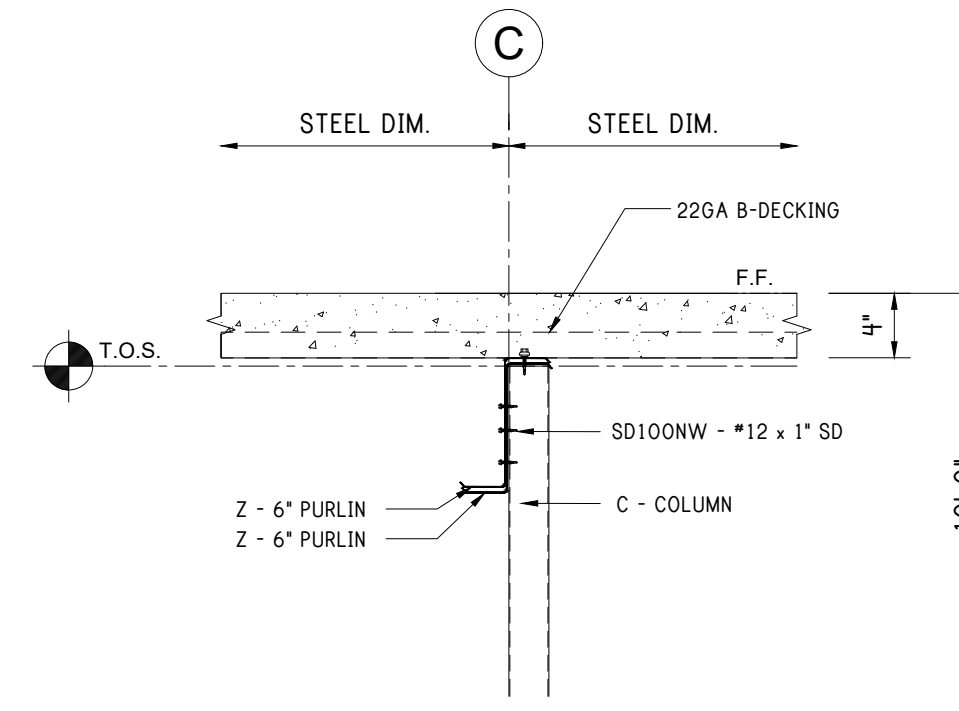
Notes:



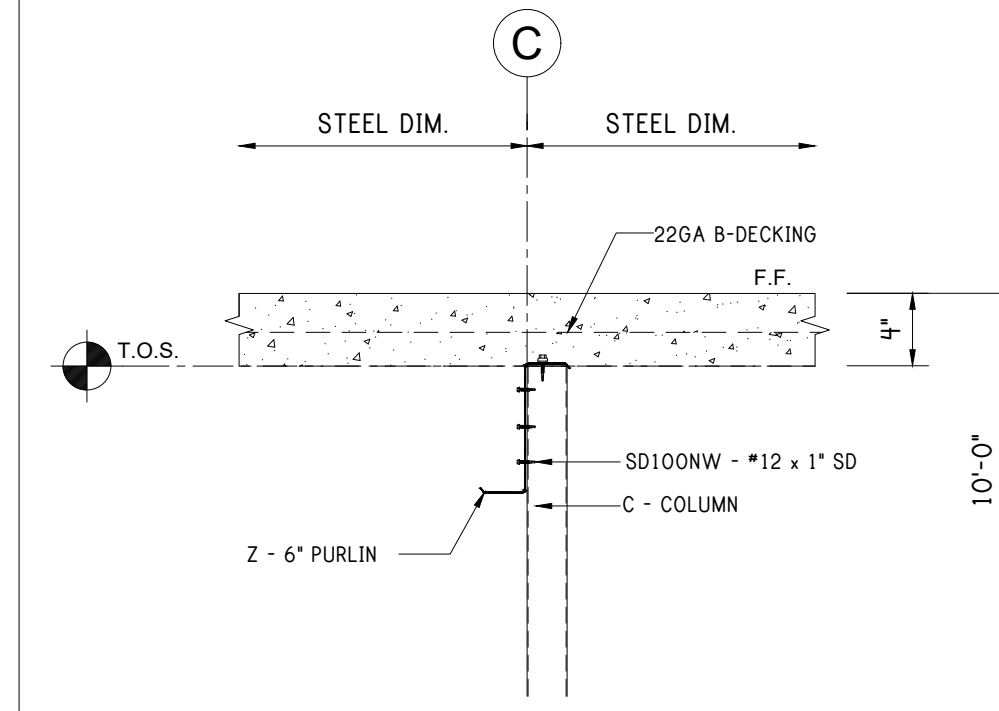
48 6" PURLIN LAP



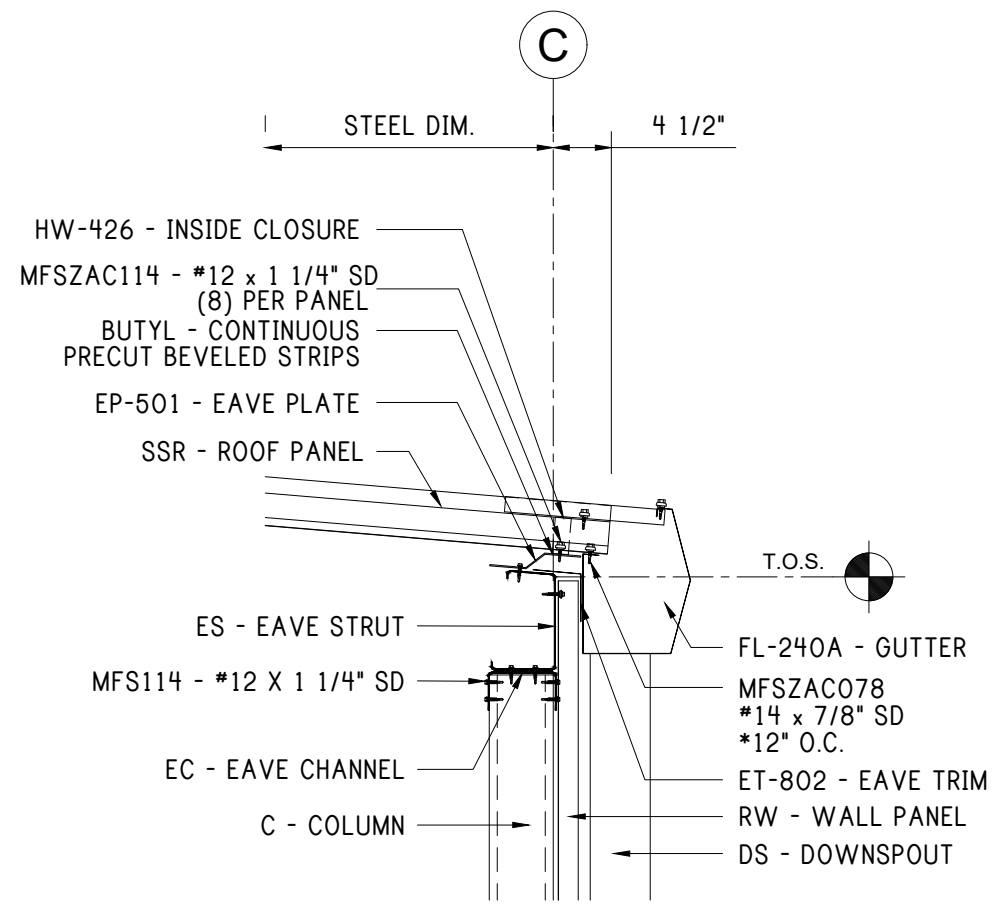
49 8" PURLIN



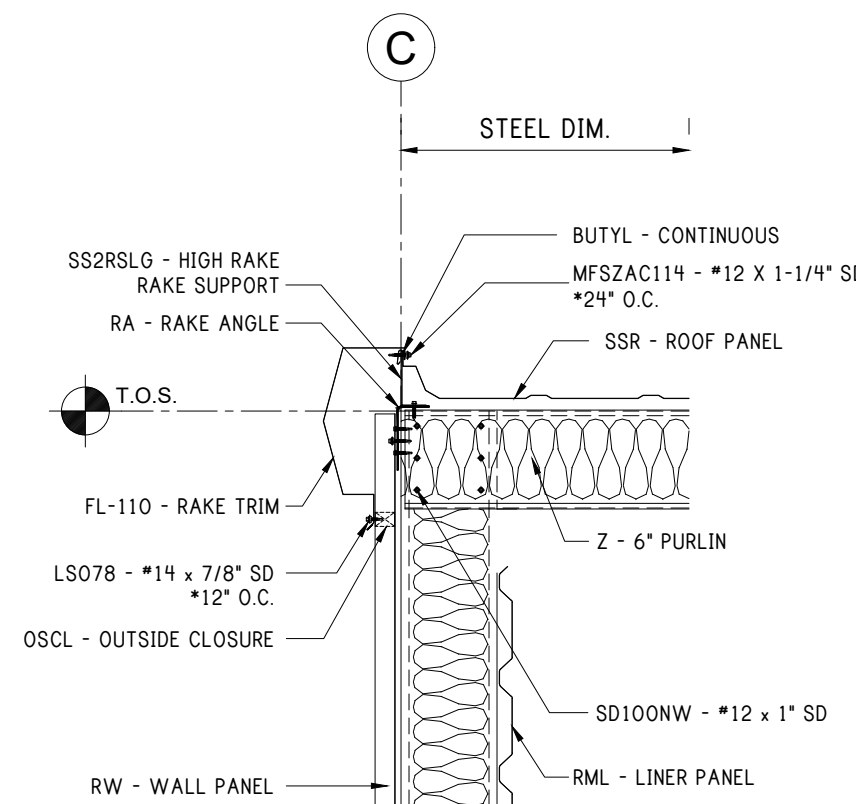
50 8" PURLIN LAP



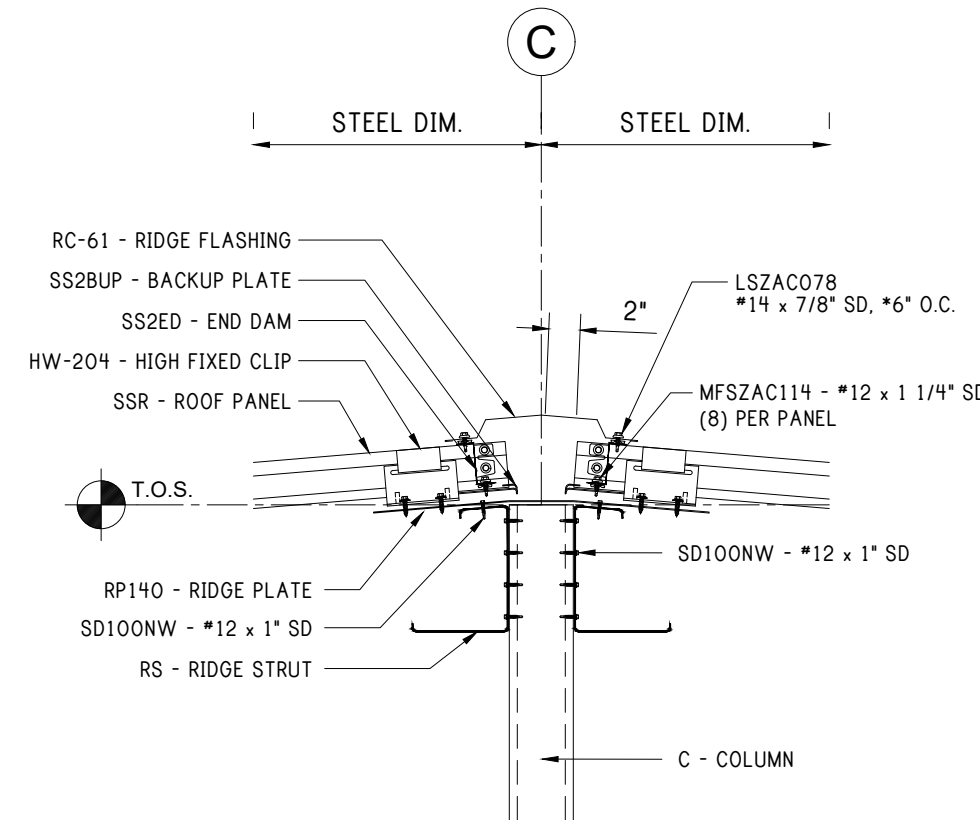
51 8" PURLIN LAP SECTION VIEW



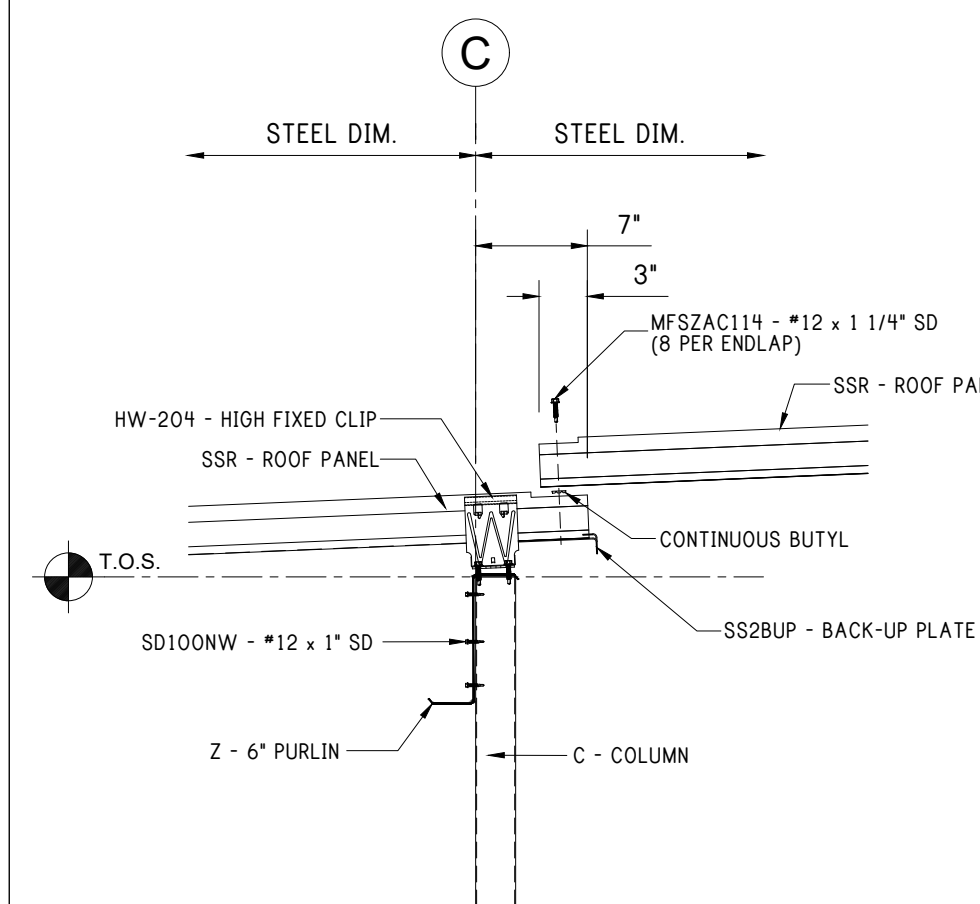
52 LOW EAVE w/ GUTTER



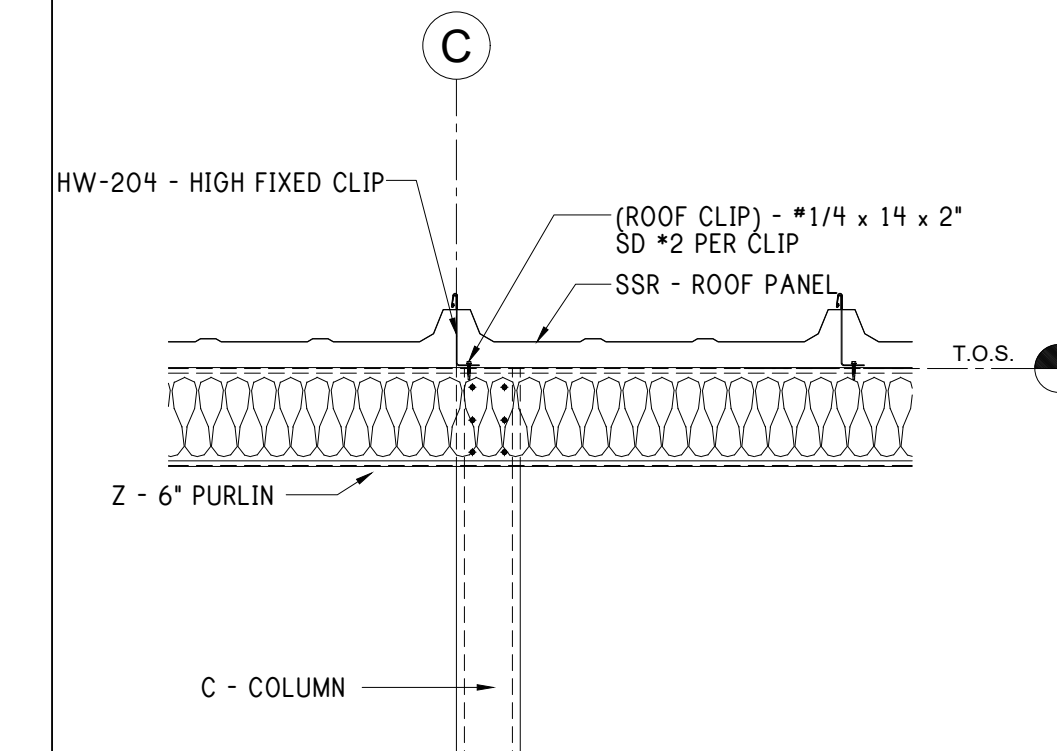
53 RAKE AT 6" PURLIN



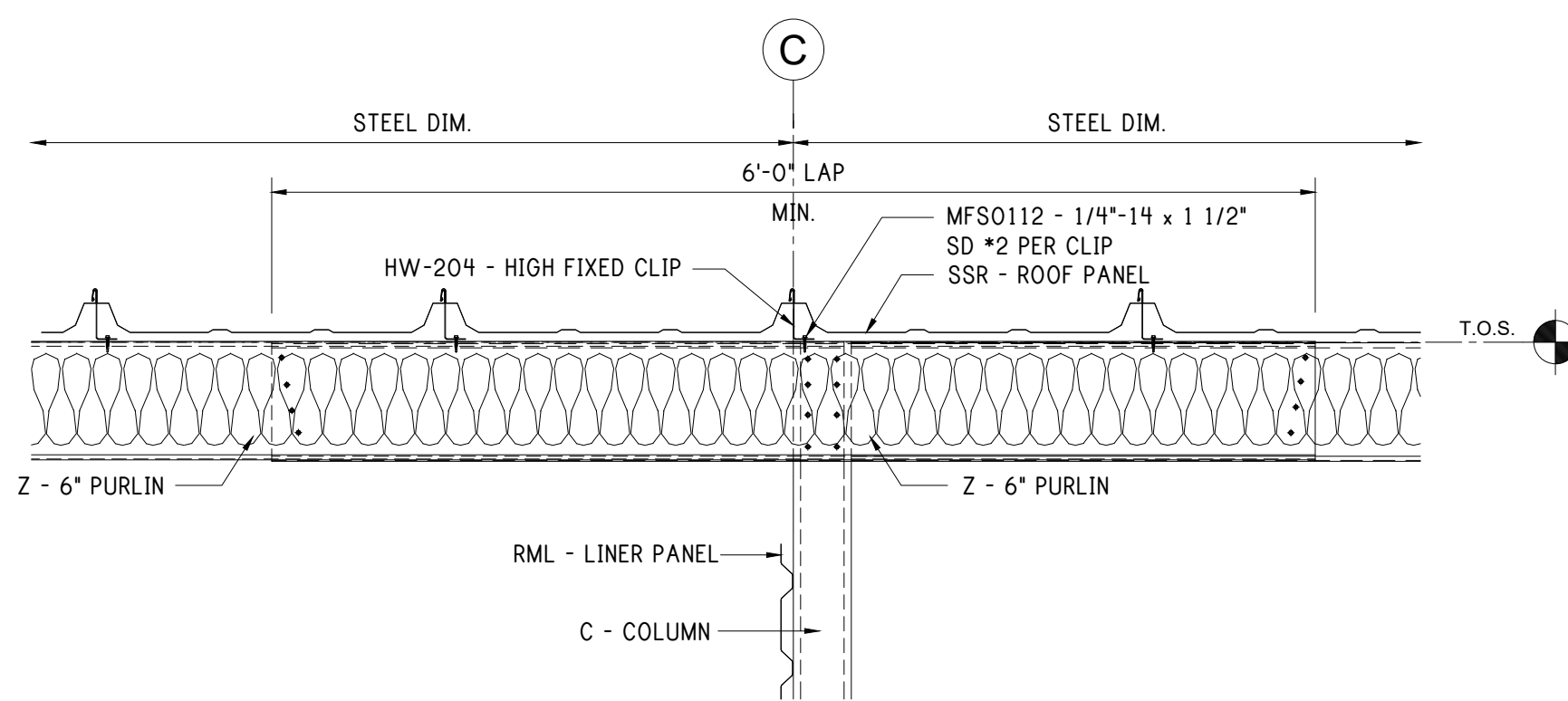
54 RIDGE STRUT @ SPLICE SECTION VIEW



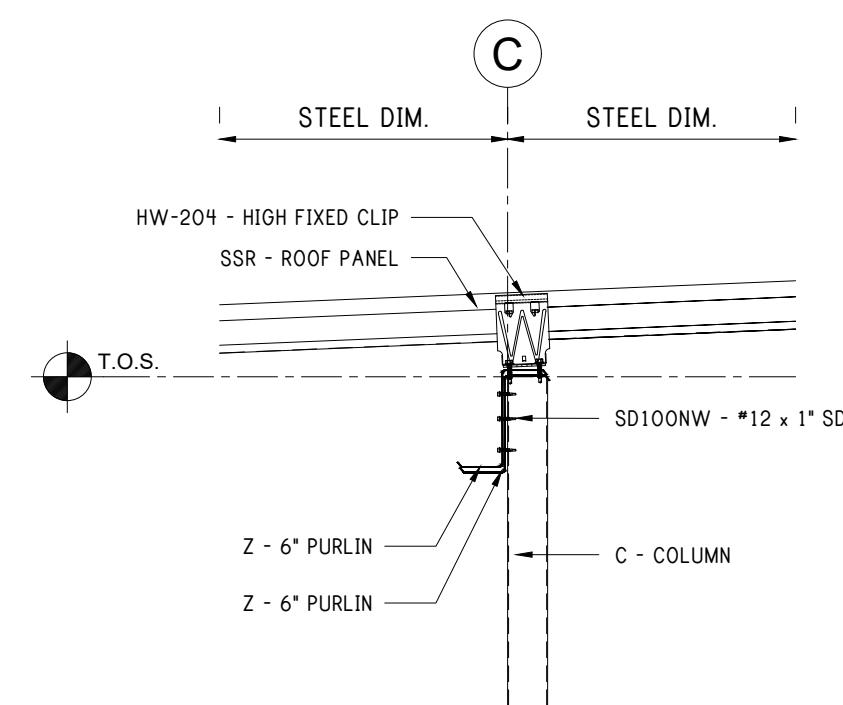
55 ROOF PANEL ENDLAP DETAIL



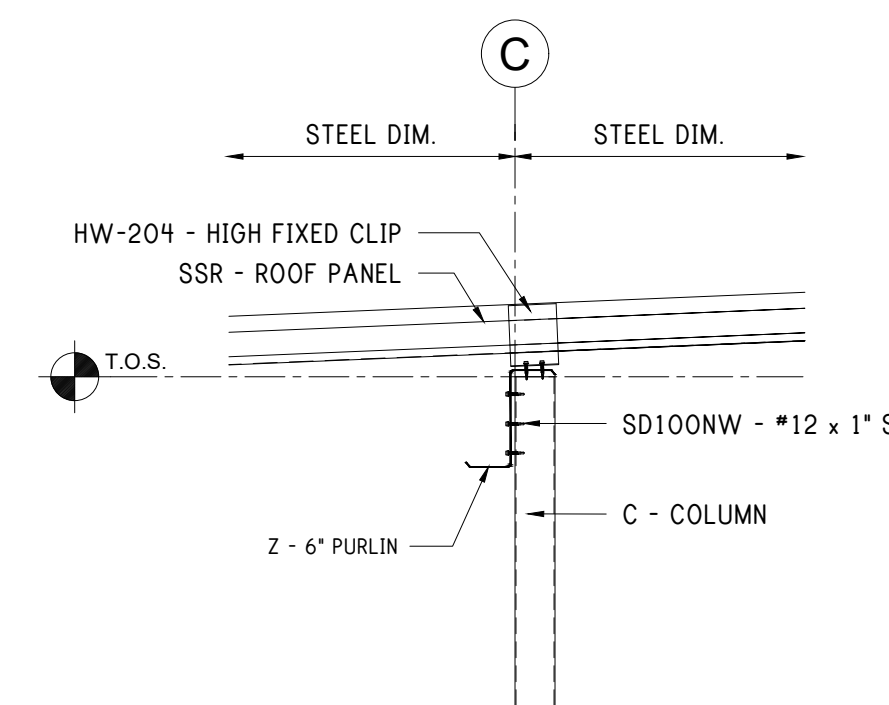
56 6" PURLIN SIDE VIEW



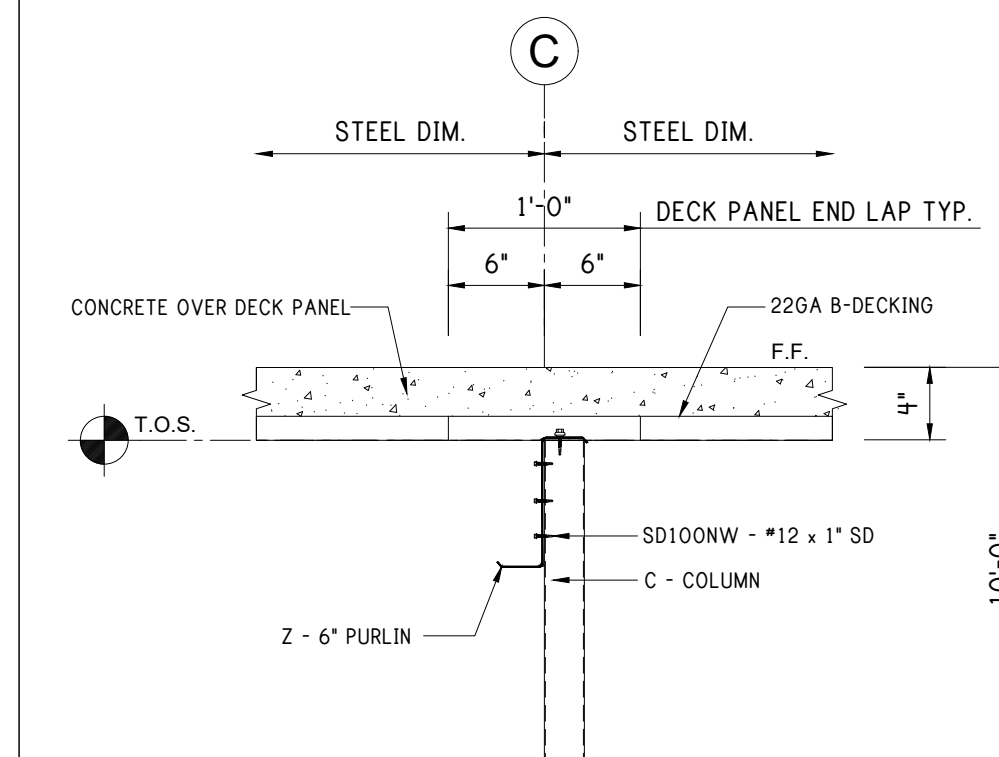
57 6" PURLIN LAP SIDE VIEW



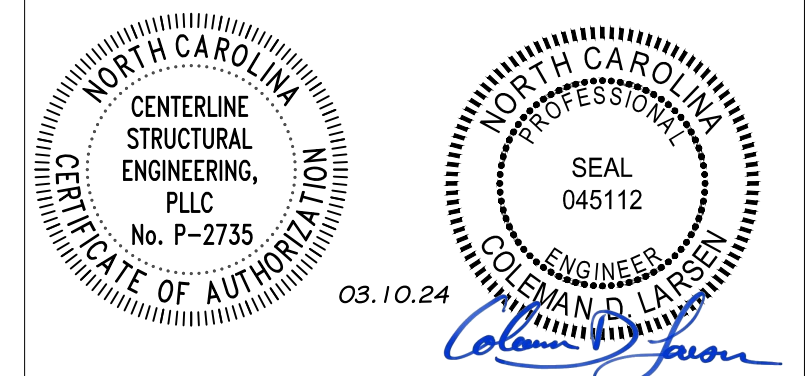
58 6" PURLIN LAP SECTION VIEW



59 6" PURLIN SECTION VIEW



60 DECK PANEL LAP



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PEAK STEEL

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Madison, GA 30650
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Fax: (706) 343-1968

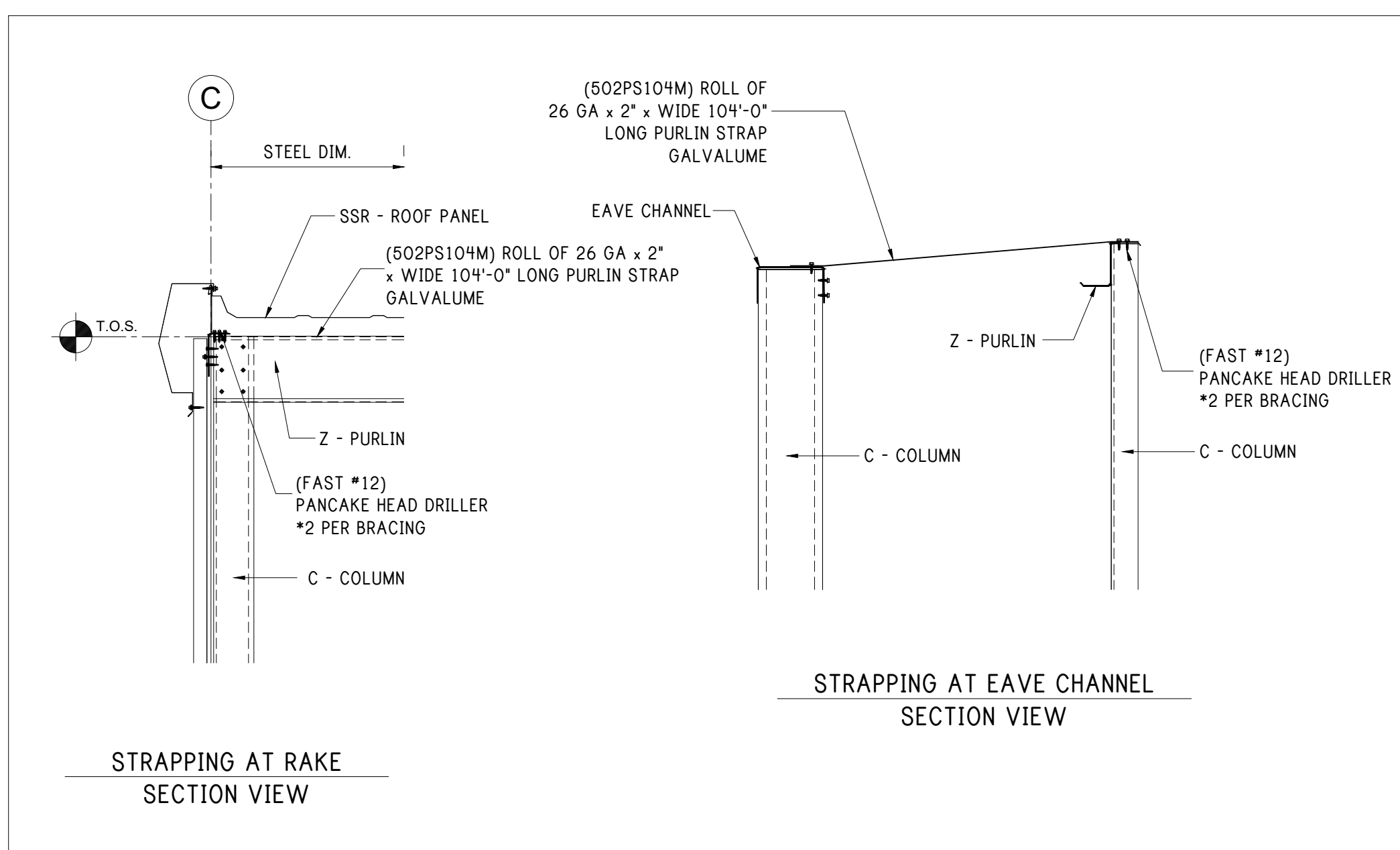
SITE: FUQUAY VARINA
NC 27526

TITLE: 120'x200'x20'-0" LS Gable

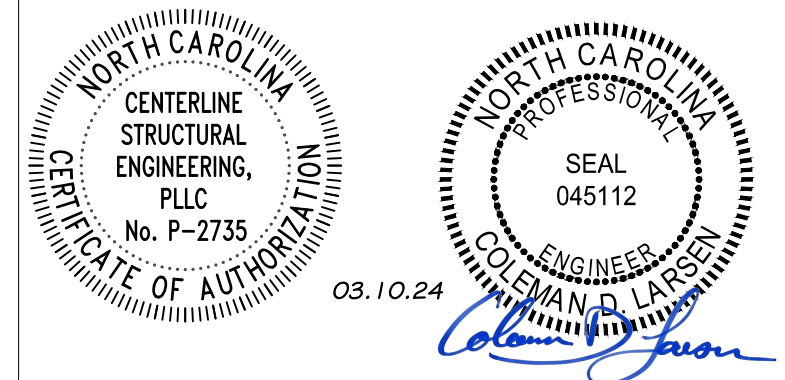
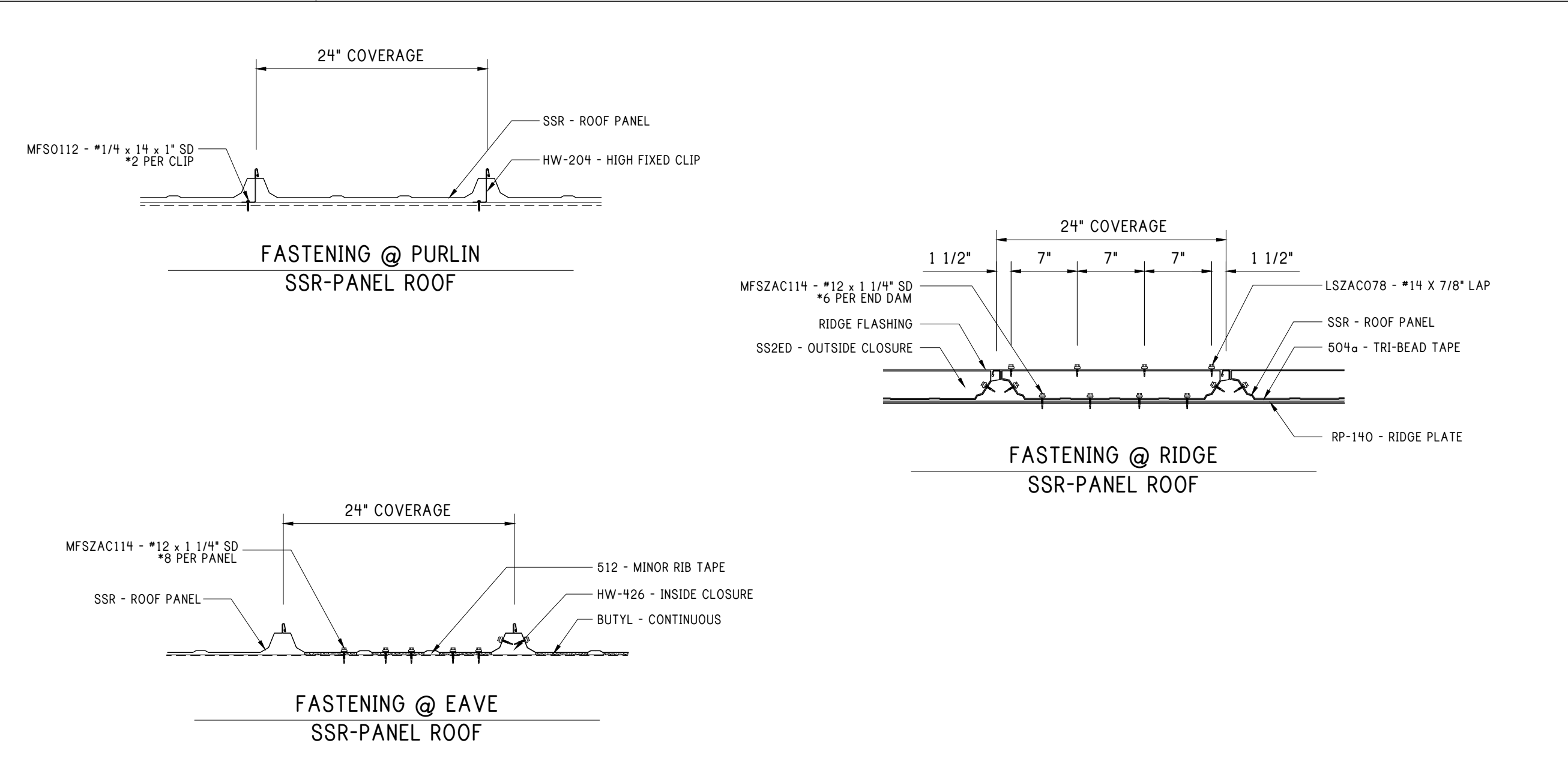
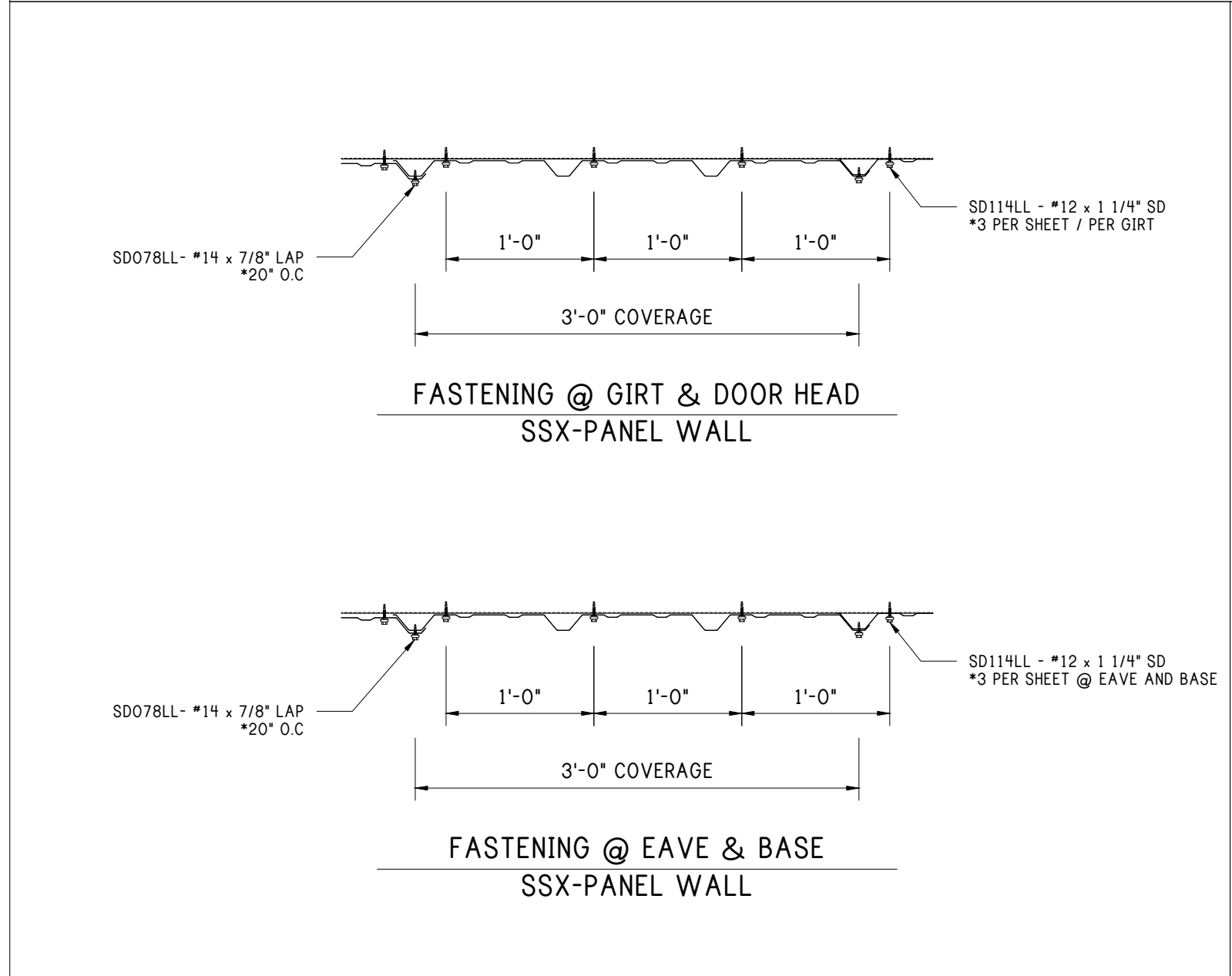
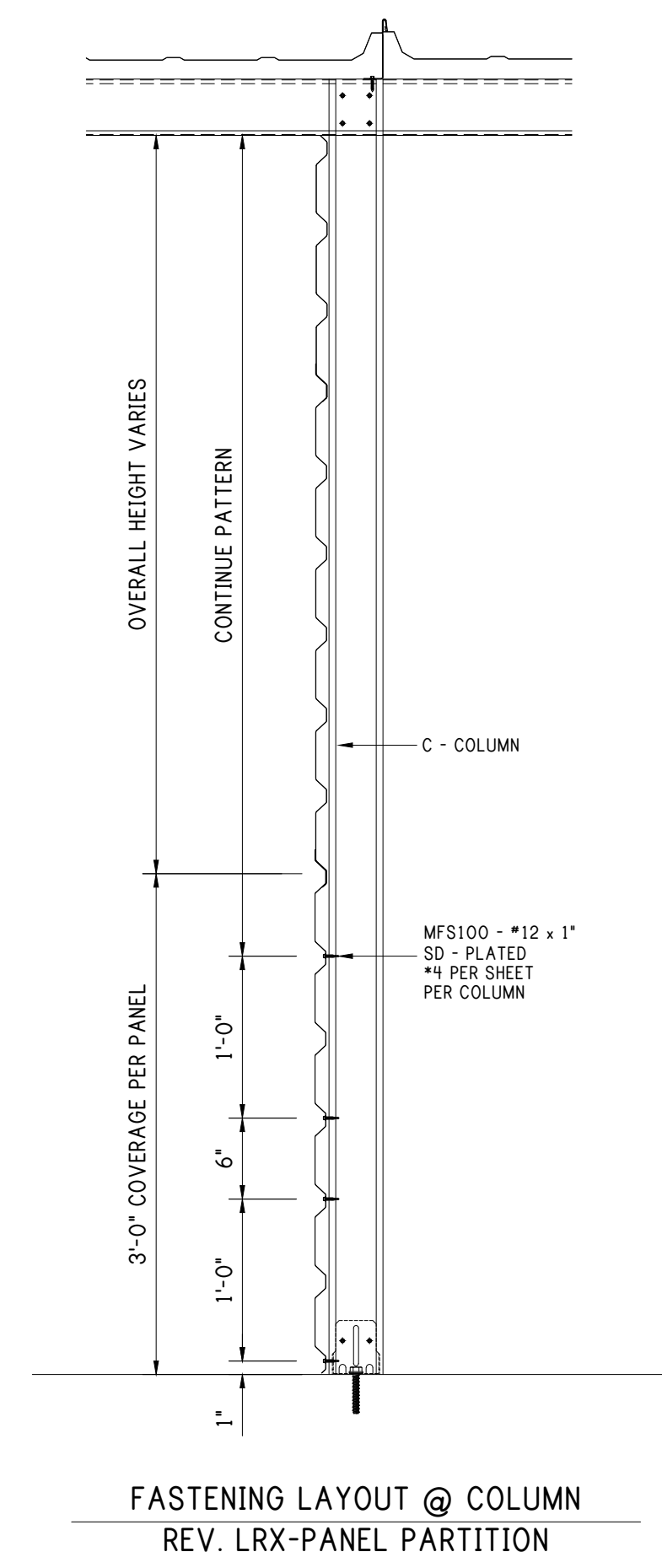
SIZE:	DATE:	DRAWN:	CHECKED:
SHEET NO:	03/06/24	NMB	ALI
7.1 of 8	DRAWING NO:	12227-33774-S1	REVISION:

RAFTER & ATTACHMENT DETAILS

Notes:



ERECTOR NOTE
TOP PARTITION PANEL MAY BE BACK LAPPED AS NEEDED.



REV:	DESCRIPTION:	BY:	DATE:
STATUS:	CONSTRUCTION ISSUE		

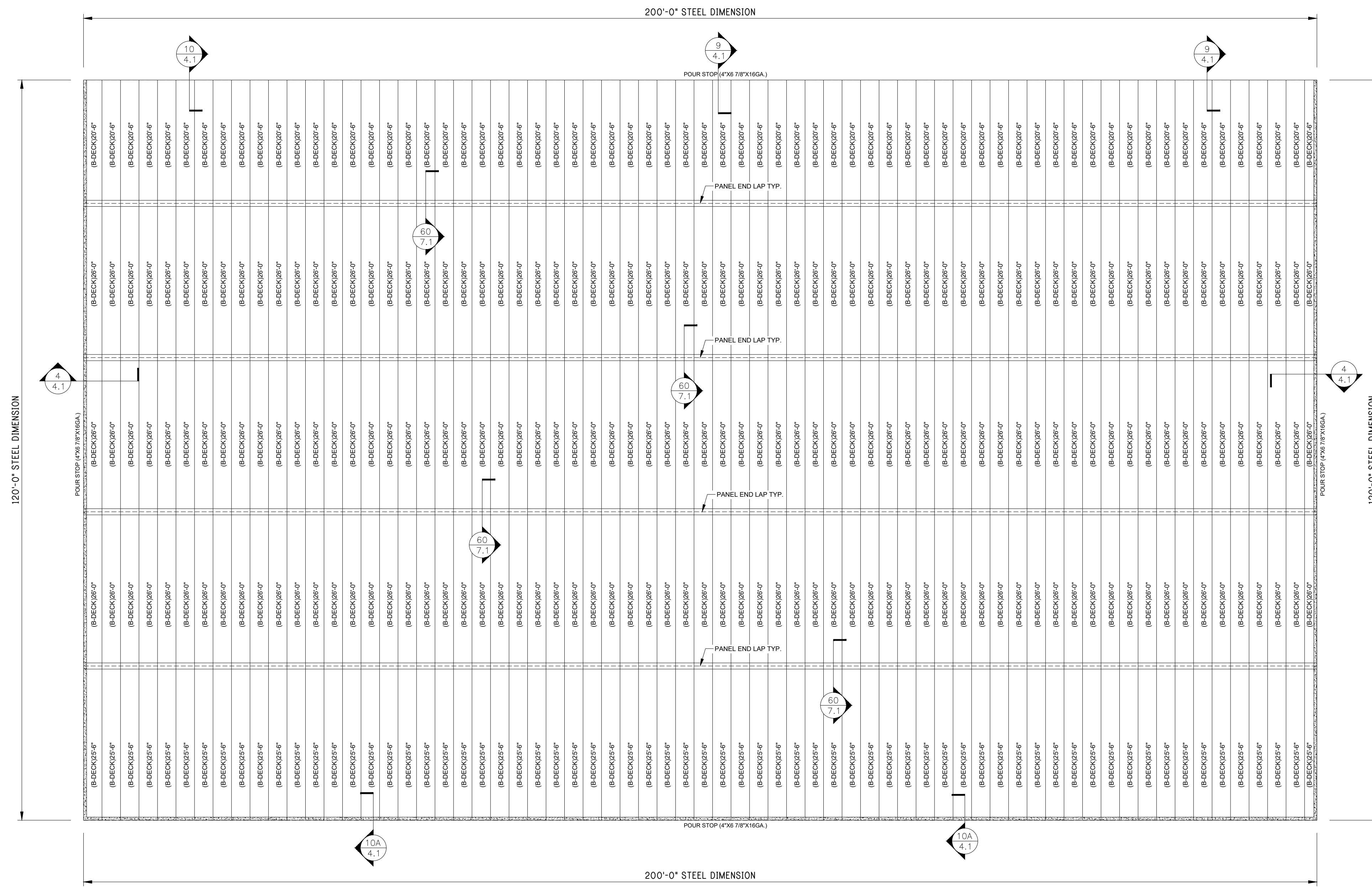
12227-33774-S1



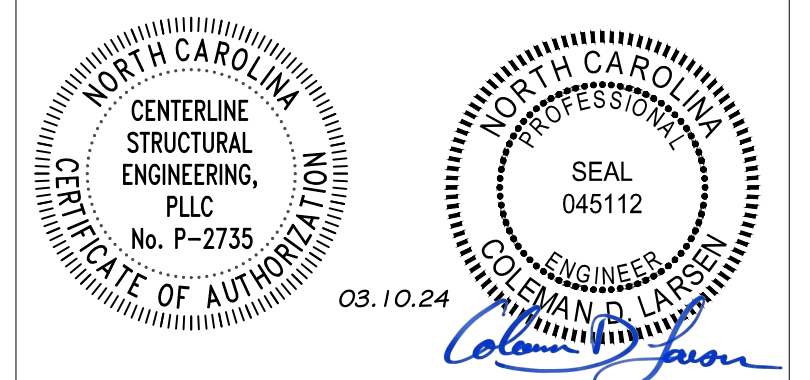
SITE: FUQUAY VARINA NC 27526			
TITLE: 120'x200'x20'-0" LS Gable			
SIZE:	DATE: 03/06/24	DRAWN: NMB	CHECKED: ALI
SHEET NO: 7.2 of 8	DRAWING NO: 12227-33774-S1	REVISION:	

RAFTER & ATTACHMENT DETAILS

Notes:



DECK PLAN



REV: DESCRIPTION: BY: DATE:
 STATUS: CONSTRUCTION ISSUE

12227-33774-S1



CLIENT: P.O. BOX 1275
 Madison, GA 30650
 Phone: (844) 333-7325
 Fax: (706) 343-1968

SITE: FUQUAY VARINA
 NC 27526

TITLE: 120'x200'x20'-0" LS Gable

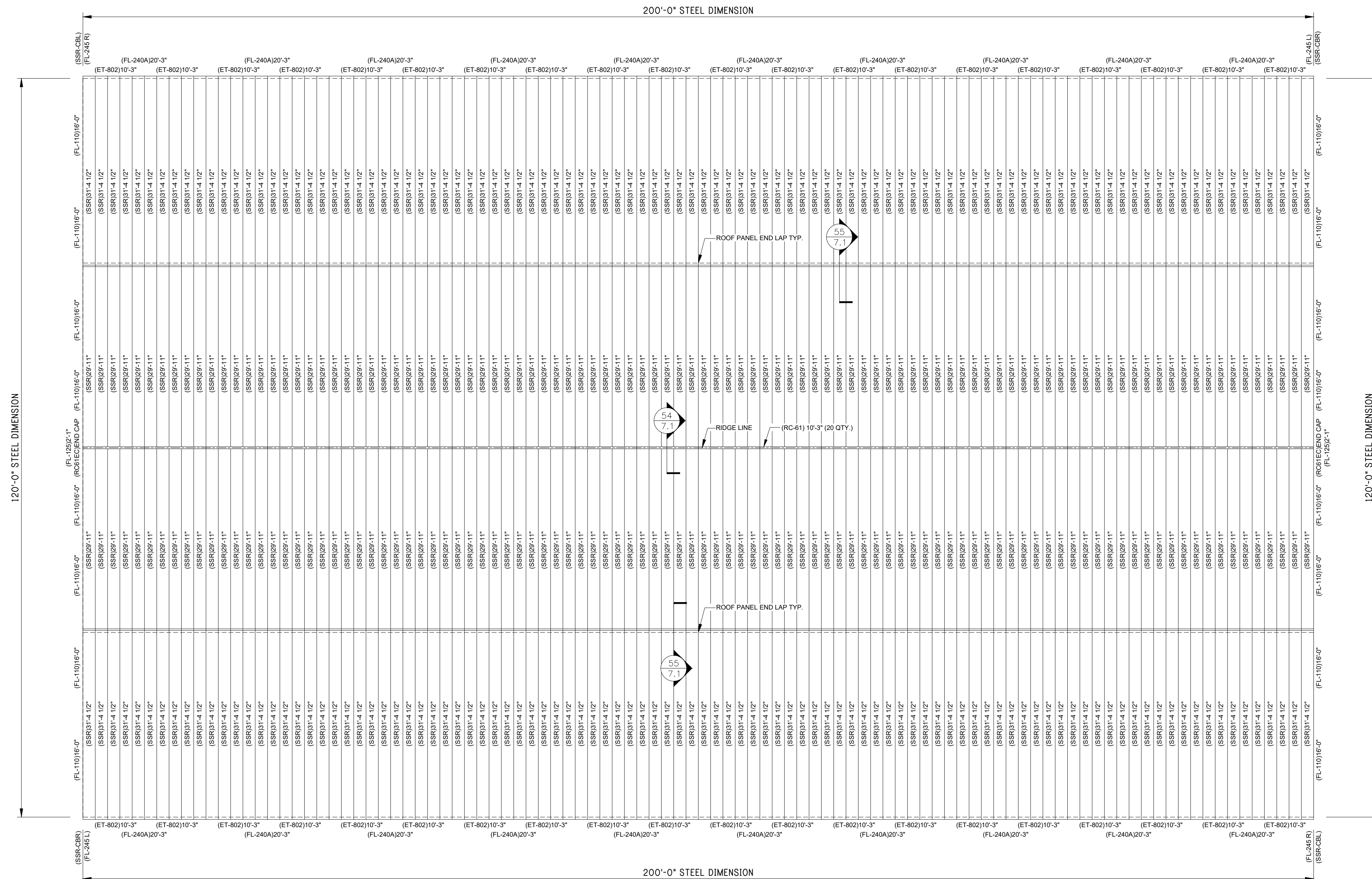
SIZE:	DATE:	DRAWN:	CHECKED:
	03/06/24	NMB	ALI
SHEET NO:	DRAWING NO:	REVISION:	
8 of 8	12227-33774-S1		

Notes:

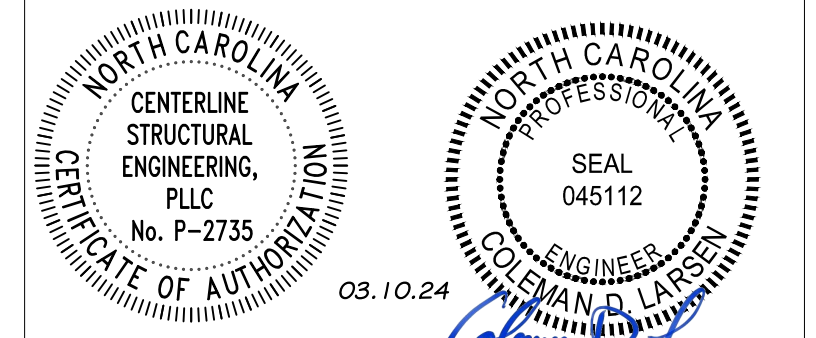
- REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR SS-II ROOF INFORMATION AND INSTALLATION INSTRUCTIONS.

CLOSURES

- (214) INSIDE CLOSURES INCLUDED FOR BASE OF EXTERIOR WALL PANELS.
- (214) INSIDE CLOSURES INCLUDED FOR WAINSCOT OF EXTERIOR WALL PANELS.
- (80) OUTSIDE CLOSURES INCLUDED FOR RAKE.
- (214) OUTSIDE CLOSURES INCLUDED FOR WAINSCOT.



ROOF PLAN



REV: DESCRIPTION: BY: DATE:
STATUS: CONSTRUCTION ISSUE

12227-33774-S1



CLIENT: P.O. BOX 1275
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Fax: (706) 343-1968

SITE: FUQUAY VARINA
NC 27526

TITLE: 120'x200'x20'-0" LS Gable

SIZE: DATE: 03/06/24 DRAWN: NMB CHECKED: ALI

SHEET NO: 8A of 8 DRAWING NO: 12227-33774-S1 REVISION:

PLUMBING GENERAL NOTES

GENERAL REQUIREMENTS:

- GENERAL AND SPECIAL CONDITIONS: GENERAL AND SPECIAL CONDITIONS ARE HEREBY MADE AN INTEGRAL PART OF THIS DIVISION OF THE SPECIFICATIONS INsofar AS SAME ARE APPLICABLE TO THE WORK UNDER THIS DIVISION AND UNLESS OTHERWISE SPECIFIED.
- SCOPE: PROVIDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED FOR THE COMPLETION AND OPERATION OF ALL SYSTEMS IN THIS SECTION OF WORK IN ACCORDANCE WITH ALL APPLICABLE CODES.
- PERMITS: APPLY FOR AND PAY FOR ALL NECESSARY PERMITS, FEES, AND INSPECTIONS REQUIRED BY ANY PUBLIC AUTHORITY HAVING JURISDICTION.
- WARRANTY: PROVIDE ALL MATERIALS AND EQUIPMENT UNDER THIS SECTION OF THE SPECIFICATIONS WITH A ONE YEAR WARRANTY FROM THE DATE OF ACCEPTANCE OF WORK BY THE OWNER.
- COORDINATION: VERIFY ALL ROUGH-IN LOCATIONS AND COORDINATE PIPING AND EQUIPMENT LOCATIONS WITH WORK UNDER OTHER DIVISIONS OF THE SPECIFICATIONS TO AVOID CONFLICTS. CONTRACTOR MUST COORDINATE WITH OTHER TRADES FOR ALL STRUCTURES, PIPING, CONDUIT, DUCTWORK, LIGHTING, ETC. TO PROPERLY BE INSTALLED. ANY CONFLICTS SHALL BE RESOLVED AT NO CHARGE TO THE OWNER. COORDINATE INSTALLATION OF ALL PLUMBING LINES AT CMU WALLS SO THAT PLUMBING LINES ARE PLACED IN WALL DURING CMU WALL CONSTRUCTION. CUTTING AND PATCHING OF CMU WALLS IN PLACE WILL NOT BE PERMITTED.
- FIELD VERIFICATION: FIELD VERIFY EXISTING CONDITIONS BEFORE STARTING CONSTRUCTION AND NOTIFY THE ARCHITECT/ENGINEER OF RECORD OF ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND EXISTING CONDITIONS AND/OR ANY POTENTIAL PROBLEMS OBSERVED BEFORE CONTINUING WORK IN THE EFFECTED AREAS.
- PLUMBING SYSTEMS INCLUDE, BUT ARE NOT LIMITED TO:
 - PLUMBING FIXTURES AND EQUIPMENT
 - FIRE STOPPING
 - DOMESTIC WATER SYSTEM
 - SANITARY WASTE AND VENT SYSTEM
 - GAS SYSTEM
 - STORM DRAIN/SEWER SYSTEM

FIXTURES:

- PROVIDE COMPLETE FIXTURES AND INCLUDE SUPPLIES, STOPS, VALVES, FAUCETS, DRAINS, TRAPS, TAIL PIECES, ESCUTCHEONS, ETC.

FIRE STOPPING:

- FIRE STOP ALL PENETRATIONS, BY PIPING OR CONDUITS, OF FIRE RATED WALLS, FLOORS AND PARTITIONS, PROVIDE A DEVICE(S) OR SYSTEM(S) WHICH HAS BEEN TESTED AND LISTED AS COMPLYING WITH ASTM E-814 AND INSTALL IN ACCORDANCE WITH THE CONDITIONS OF THEIR LISTING. PROVIDE A DEVICE(S) OR SYSTEM(S) WITH AN "F" RATING EQUAL TO THE RATING OF THE ASSEMBLY BEING PENETRATED.

DOMESTIC WATER:

- FURNISH AND INSTALL A COMPLETE SYSTEM OF HOT AND COLD WATER, AND WASTE PIPING FROM EXISTING SUPPLIES TO ALL FIXTURES AND/OR EQUIPMENT REQUIRING THIS SERVICE. VERIFY LOCATION OF BEGINNING POINTS.
- DOMESTIC WATER PIPING BELOW GRADE: SOFT ANNEALED SEAMLESS COPPER TUBING, TYPE "K" WITH NO JOINTS BELOW GRADE (ASTM B 88).
- DOMESTIC WATER PIPING AND JOINTS ABOVE GRADE: HARD DRAWN SEAMLESS COPPER TUBING, TYPE "L" WITH 95-5 SILVER SOLDERED JOINTS (ASTM B 88), CPVC AND OR CROSS-LINKED POLYETHYLENE (PEX TYPE A) (ASTM F876). PLASTIC HOT AND COLD WATER DISTRIBUTION IS ALLOWED WHERE PERMISSIBLE AND PRE-APPROVED.
- STERILIZE DOMESTIC WATER PIPING IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION'S SPECIFICATIONS AND LOCAL HEALTH DEPARTMENT REGULATIONS.
- INSULATE DOMESTIC WATER PIPING ABOVE GRADE (EXCEPT EXPOSED CONNECTIONS TO PLUMBING FIXTURES) WITH ENGINEERED POLYMER FOAM INSULATION OR FIBERGLASS WITH FITTING INSERTS AND PVC COVERS. FOLLOW THIS SCHEDULE:

SERVICE	PIPE SIZE	INS. THICKNESS
DOMESTIC HOT WATER (105-140 DEG F)	1/2" - 1-1/2"	1/2"
DOMESTIC HOT WATER (105-140 DEG F)	2" AND UP	3/4"
DOMESTIC HOT WATER (140-160 DEG F)	ALL	1"
DOMESTIC HOT WATER CIRCULATION	ALL	1/2"
DOMESTIC COLD WATER	ALL	1/2"
- DOMESTIC WATER PIPING INSULATION, JACKETS, COVERINGS, SEALERS, MASTICS AND ADHESIVES ARE REQUIRED TO MEET A FLAME-SPREAD RATING OF 25 OR LESS AND A SMOKE-DEVELOPED RATING OF 50 OR LESS, AS TESTED BY ASTM E84 (NFPA 255) METHOD.
- DO NOT INSTALL DOMESTIC WATER PIPING IN AREAS SUBJECT TO FREEZING TEMPERATURES. INSTALL WATER PIPING IN EXTERIOR WALLS ON THE CONDITIONED SIDE OF THE WALL INSULATION.
- SHUT OFF VALVES: PROVIDE FULL PORT, BALL TYPE, AND INSTALL IN A LOCATION THAT PERMITS ACCESS FOR SERVICE WITHOUT DAMAGE TO THE BUILDING OR FINISHED MATERIALS. PROVIDE ACCESS DOORS IF REQUIRED.
- PROTECT COPPER PIPING AGAINST CONTACT WITH DISSIMILAR METALS. ALL HANGERS, SUPPORTS, ANCHORS, AND CLIPS SHALL BE COPPER OR COPPER PLATED. WHERE COPPER PIPING IS CARRIED ON IRON TRAPEZE HANGERS WITH OTHER PIPING, PROVIDE A PERMANENT ELECTROLYTIC ISOLATION MATERIAL TO PREVENT CONTACT WITH OTHER METALS.
- PROTECT COPPER PIPING AGAINST CONTACT WITH ALL MASONRY. WHERE COPPER IS SLEEVED THROUGH MASONRY, PROVIDE COPPER OR RED BRASS SLEEVES. WHERE COPPER MUST BE CONCEALED IN OR AGAINST MASONRY PARTITIONS, PROVIDE A HEAVY COATING OF ASPHALTIC ENAMEL ON THE COPPER PIPING AND 1# ASPHALT SATURATED FELT BETWEEN THE PIPING AND THE MASONRY PARTITION.
- HOSE BIBS SHALL BE PROVIDED WITH A NON-REMOVABLE VACUUM BREAKER.
- FURNISH BURST PROOF BRAIDED FLEXIBLE CONNECTORS FOR SINK CONNECTIONS AND CONNECTIONS TO EQUIPMENT.

- PROVIDE ZURN WILKINS MODEL 740 (OR EQUAL) BACKFLOW PREVENTION TYPE VACUUM BREAKER FOR ICE MACHINE, CARBONATOR AND OTHER EQUIPMENT AS REQUIRED BY CODE.
- P.C. SHALL VERIFY THE INCOMING WATER PRESSURE AND PROVIDE A PRESSURE REDUCING VALVE IF PRESSURE IS 80 PSI OR GREATER.
- P.C. SHALL INSTALL HAMMER ARRESTORS ON PROJECTS THAT USE QUICK CLOSING DEVICES SUCH AS FLUSH VALVES, ICE MAKER, WASHER MACHINES, ETC., SIZED PER MANUFACTURER RECOMMENDATIONS.
- P.C. SHALL PROVIDE ALL WATER HEATERS (WATTAGE/INPUT AND CAPACITY AS NOTED IN SCHEDULE), ALL WATER HEATERS SHALL BE THIRD PARTY CERTIFIED; PROVIDE PANS FOR WATER HEATERS IN ACCORDANCE WITH 504.7 OF THE NC PLUMBING CODE. ELECTRICAL CONNECTIONS SHALL BE BY ELECTRICAL CONTRACTOR, P.C. SHALL COORDINATE WITH EC ON ELECTRICAL CHARACTERISTICS OF THE EQUIPMENT PROVIDED.
- ALL PUMPS SHALL BE RATED FOR TRANSPORT OF POTABLE WATER. PUMPS IN AN INDIVIDUAL WATER SUPPLY SYSTEM SHALL BE CONSTRUCTED AND INSTALLED SO AS TO PREVENT CONTAMINATION FROM ENTERING THE WATER SUPPLY SYSTEM.

SANITARY WASTE AND VENT PIPING:

- FURNISH AND INSTALL COMPLETE SYSTEMS OF SOIL, WASTE, AND VENT PIPING FROM ALL PLUMBING FIXTURES, AND/OR OTHER EQUIPMENT. ALL SOIL, WASTE AND VENT LINES SHALL BE CONCEALED IN THE BUILDING CONSTRUCTION WHERE POSSIBLE.
- INVERT ELEVATIONS SHALL BE ESTABLISHED AND VERIFIED BEFORE WASTE PIPING IS INSTALLED IN ORDER THAT PROPER SLOPES WILL BE MAINTAINED.
- SANITARY WASTE AND VENT PIPING AND FITTINGS: SERVICE WEIGHT CAST IRON, HUB AND SPIGOT TYPE WITH COMPRESSION JOINTS (ASTM A 74) OR NO-HUB PIPING WITH COUPLINGS (CISPI 301).
 - IF PERMITTED BY LOCAL CODES, SCHEDULE 40 PVC (ASTM D 2665) WITH SCHEDULE 40 SOCKET-TYPE PIPE FITTINGS (ASTM D 3311) MAY BE USED. DO NOT INSTALL PVC PIPING IN RETURN AIR PLENUMS. PVC FOAM CORE DWV PIPING NOT PERMITTED.
- SLOPE SANITARY WASTE PIPING 2-1/2" AND SMALLER AT 1/4" PER FOOT MIN. SLOPE SANITARY WASTE PIPING 3" AND LARGER AT 1/8" PER FOOT MINIMUM.
- WHERE WASTE PIPING IS EXPOSED IN REST ROOM AREAS, PROVIDE CHROME PLATED BRASS PIPING, WITH MATCHING STOPS AND ESCUTCHEONS. PROVIDE REMOVABLE TRAPS WITH INTEGRAL CLEAN-OUT PLUG FOR ALL LAVATORIES.
- INSTALL CLEAN-OUTS IN A LOCATION THAT PERMITS ACCESS FOR SERVICE WITHOUT DAMAGE TO THE BUILDING OR FINISHED MATERIALS. PROVIDE CLEAN-OUTS AT THE BASE OF ALL WASTE STACKS, AT ALL CHANGE IN DIRECTION OF PIPING IN EXCESS OF 45 DEGREES AND EVERY 100 FEET.
- ALL INDIRECT WASTE CONNECTIONS TO BE INSTALLED WITH AN AIR GAP BETWEEN INDIRECT WASTE PIPE AND THE FLOOD RIM OF THE WASTE RECEPTOR SHALL BE MINIMUM OF TWICE THE EFFECTIVE OPENING OF THE INDIRECT WASTE PIPE.
- ROOF PENETRATIONS SHALL MAINTAIN A MINIMUM CLEARANCE OF 16" BETWEEN PENETRATIONS.
- PLUMBING VENTS SHALL BE INSTALLED WITH MINIMUM HEIGHTS AS REQUIRED BY LOCAL JURISDICTION HAVING AUTHORITY.

BACKFLOW PREVENTION:

- VERIFY BACKFLOW PREVENTOR REQUIREMENTS OF LOCAL AUTHORITY AND PROVIDE BACKFLOW PREVENTION DEVICES AS REQUIRED. COORDINATE LOCATION WITH OTHER TRADES.

WATER METER:

- VERIFY DOMESTIC WATER METER REQUIREMENTS OF LOCAL AUTHORITY AND PROVIDE DOMESTIC WATER METER AS REQUIRED. COORDINATE LOCATION WITH OTHER TRADES.

SEISMIC REQUIREMENTS:

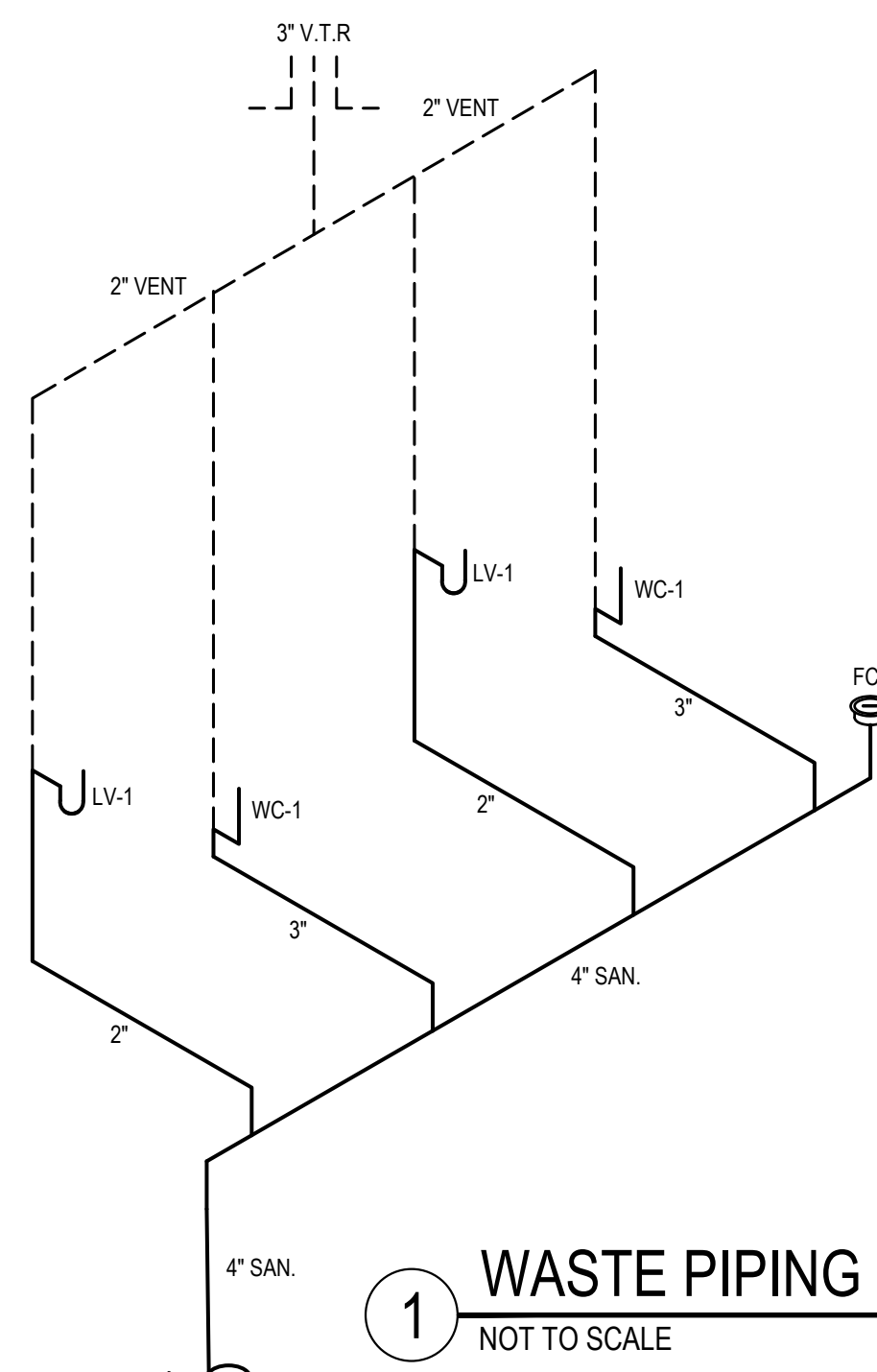
- PROPERLY SUPPORT AND BRACE VERTICALLY AND HORIZONTALLY ALL PIPING, APPARATUS, EQUIPMENT, ETC. IN ACCORDANCE WITH APPLICABLE CODES TO PREVENT EXCESSIVE MOVEMENT DURING SEISMIC CONDITIONS.

GAS PIPING:

- WORK TO INCLUDE PIPING FROM GAS METER TO GAS FIRED EQUIPMENT. PLUMBING CONTRACTOR TO PROVIDE SHUT-OFF VALVE, DIRT TRAP AND PRESSURE REGULATOR AT THE GAS FIRED EQUIPMENT.
- ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL CODE REQUIREMENTS AND THE PROVISIONS OF NFPA-54 AND NFPA-58.
- THE CONTRACTOR SHALL SUPPLY ALL PERMITS, FEES AND LICENSES REQUIRED FOR THE WORK AND FOR ALL INSPECTIONS REQUIRED.
- PIPE 3" AND SMALLER SHALL BE SCHEDULE 40 STEEL WITH THREADED MALLEABLE FITTINGS.
- VALVES SHALL BE GAS COCKS MANUFACTURED BY NIBCO.
- ALL PIPING EXPOSED TO THE OUTDOORS OR RUN IN UNCONDITIONED SPACES SHALL BE PAINTED WITH TWO COATS OF RUST RESISTANT ENAMEL.
- ALL GAS PIPING WITH A SERVICE PRESSURE GREATER THAN 0.5PSI MUST BE IDENTIFIED PER NCFGC 410.2.
- PRESSURE TEST PORTS MUST BE PROVIDED AT ALL MP REGULATORS IN ACCORDANCE TO NCFGC 410.2.
- ALL GAS PIPING MUST COMPLY WITH NCFGC T.415.1.

SEE ARCHITECTURAL PLANS FOR MINIMUM FACILITIES CALCULATIONS

CONNECTED LOADS	DFU
SOIL AND WASTE	DFU
COLD WATER	WFSU
DEMAND	GPM



1 WASTE PIPING RISER DIAGRAM
NOT TO SCALE

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	REMARKS	FIXTURE CONNECTIONS			
			CW	HW	WASTE	VENT
FCO	FLOOR CLEANOUT	ZURN MODEL ZN-1400 "LEVEL-TROL" ADJUSTABLE FLOOR CLEANOUT WITH NICKEL BRONZE TOP. CLEANOUT SIZE SHALL MATCH LINE SIZE. PROVIDE ANY NECESSARY MODIFICATIONS OR ACCESSORIES SUCH AS CARPET MARKER, TILE OR SQUARE TOP AS REQUIRED TO BE FLUSH WITH AND MATCH FLOOR FINISH. PROVIDED AND INSTALLED BY PLUMBING CONTRACTOR.	-	-	4"	-
WC-1	WATER CLOSET - TANK TYPE (ADA)	AMERICAN STANDARD - CHAMPION PRO (1.28 GPF) # 211AA004.020. TWO PIECE FLOOR MOUNTED WATER CLOSET. ADA HEIGHT. COLOR: WHITE. PRO-FLOW PFTSC02000WH ELONGATED BOWL SEAT, COLOR: WHITE. PROVIDED AND INSTALLED BY PLUMBING CONTRACTOR.	1/2"	-	3"	2"
LV-1	LAVATORY (ADA) - WALL HUNG	WALL HUNG LAVATORY (AMERICAN STANDARD "LUCERNE," 0355012020) WITH CONCEALED ARM CARRIER MOUNTING. PROVIDE PROFLO PFW52840CP FAUCET. HANDICAP DRAIN OFFSET W/GRID DRAIN (ZURN Z8748-PC) AND CHROME PLATED P-TRAP (ZURN Z8701-PC). MCGUIRE MODEL LF2165, CHROME PLATED BRASS ANGLE SUPPLY STOPS WITH BRASS STEMS, WHEEL HANDLES, 1/2" IPS INLETS, 3/8" COMPRESSION OUTLETS, 12" CHROME PLATED FLEXIBLE SUPPLY RISERS. INSULATE TRAP AND SUPPLY LINES (TRUEBRO "LAVGUARD" #103 E-Z). PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL AN ASSE 1070 COMPLIANT THERMOSTATIC MIXING VALVE SET AT 105 DEGREES.	1/2"	1/2"	2"	2"

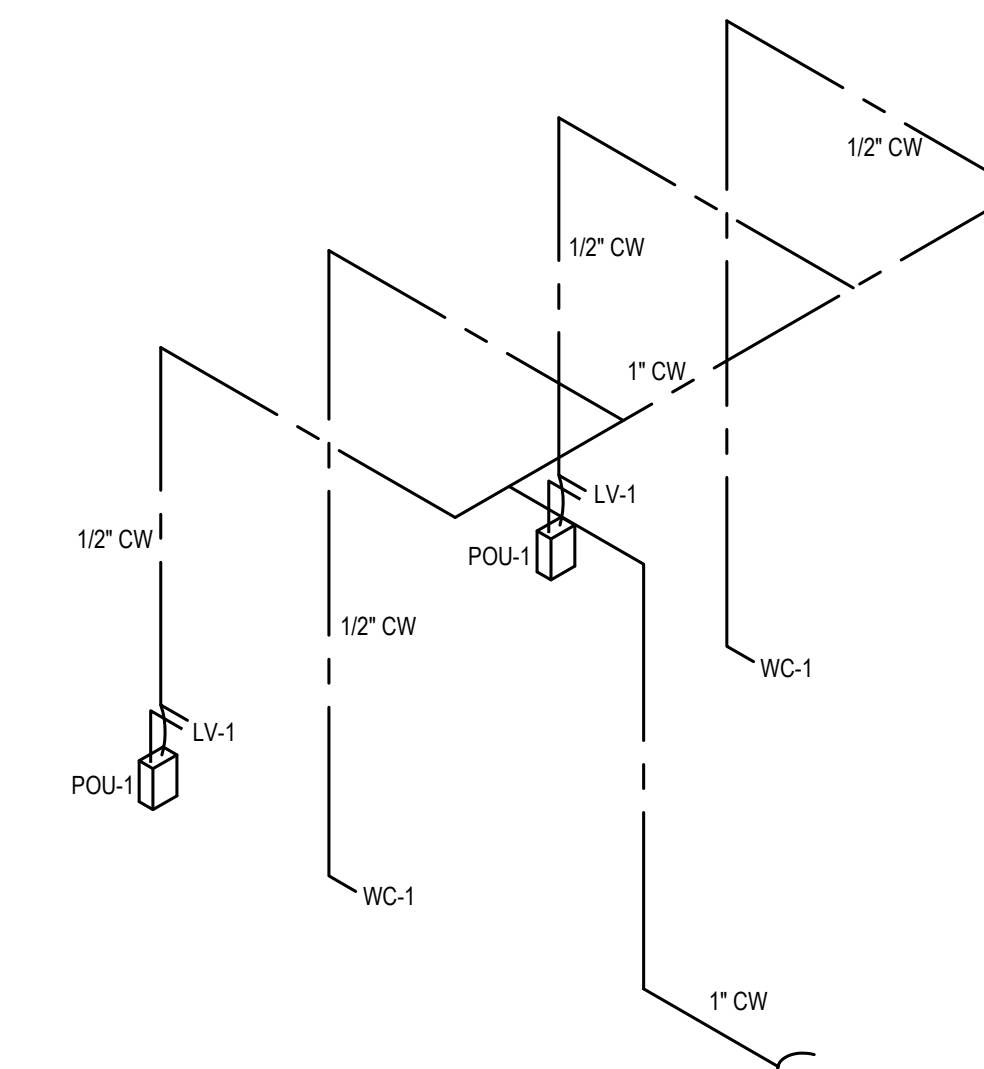
NOTE: CONTRACTOR SHALL COORDINATE FINAL FIXTURE SELECTIONS WITH OWNER AND ARCHITECT PRIOR TO PURCHASE AND INSTALLATION

PLUMBING LEGEND

	DOMESTIC COLD WATER PIPING (CW)
	DOMESTIC HOT WATER PIPING (HW)
	SANITARY PIPING
	GREASE PIPING
	VENT PIPING
	FLOOR CLEANOUT
	PIPE CONTINUES
	PIPE DOWN
	PIPE UP
	BALL VALVE
	PRESSURE REDUCING VALVE
	METER
	PLUMBING CONTRACTOR
	DOMESTIC COLD WATER PIPING
	DOMESTIC HOT WATER PIPING
	DOMESTIC HOT WATER RECIRCULATING
	SANITARY WASTE PIPING
	VENT THROUGH ROOF

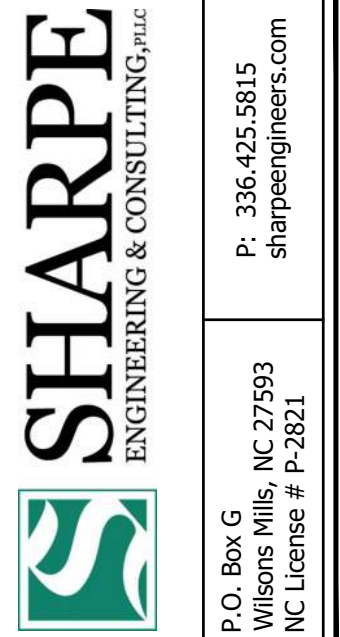
PLUMBING EQUIPMENT SCHEDULE

MARK	DESCRIPTION	LOCATION	MANUFACTURER	MODEL	SPECIFICATIONS
POU-1	POINT-OF-USE WATER HEATER	BATHROOMS	EEMAX	SPEX2412	TANKLESS POINT-OF-USE WATER HEATER. UNIT SHALL HAVE ABS UL 94 5VA RATED COVER. UNIT SHALL ALLOW MOUNTING IN ANY ORIENTATION. ELEMENT SHALL BE REPLACEABLE CARTRIDGE INSERT. ELEMENT SHALL BE IRON-FREE, NICKEL-CHROME MATERIAL. UNIT SHALL HAVE REPLACEABLE FILTER IN THE INLET CONNECTOR. UNIT SHALL INCLUDE AN INTEGRATED FLOW METER TO ENSURE ACCURATE TURN-ON / TURN-OFF FLOW RATE. HEATER SHALL BE FITTED WITH 3/8" COMPRESSION FITTINGS TO ELIMINATE THE NEED FOR SOLDERING. MAXIMUM OPERATING PRESSURE OF 150 PSI. DIAGNOSTIC FEATURES TO INCLUDE LED ERROR/FAULT INDICATOR. HEATER SHALL EMPLOY TECHNOLOGY THAT ENGAGES UPON START-UP TO AVOID DRY-FIRE OCCURRENCE. HOT WATER STORAGE TANKS PROHIBITED. UNIT SHALL BE EEMAX OR APPROVED EQUAL.



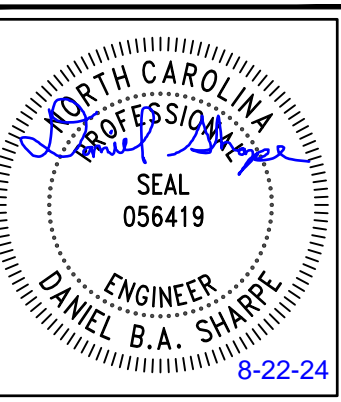
2 WATER PIPING RISER DIAGRAM
NOT TO SCALE

PLUMBING DRAWING INDEX	
P0.1	PLUMBING LEGENDS AND NOTES
P1.1	WASTE PIPING PLAN - TOP FLOOR
P1.2	WATER PIPING PLAN - TOP FLOOR



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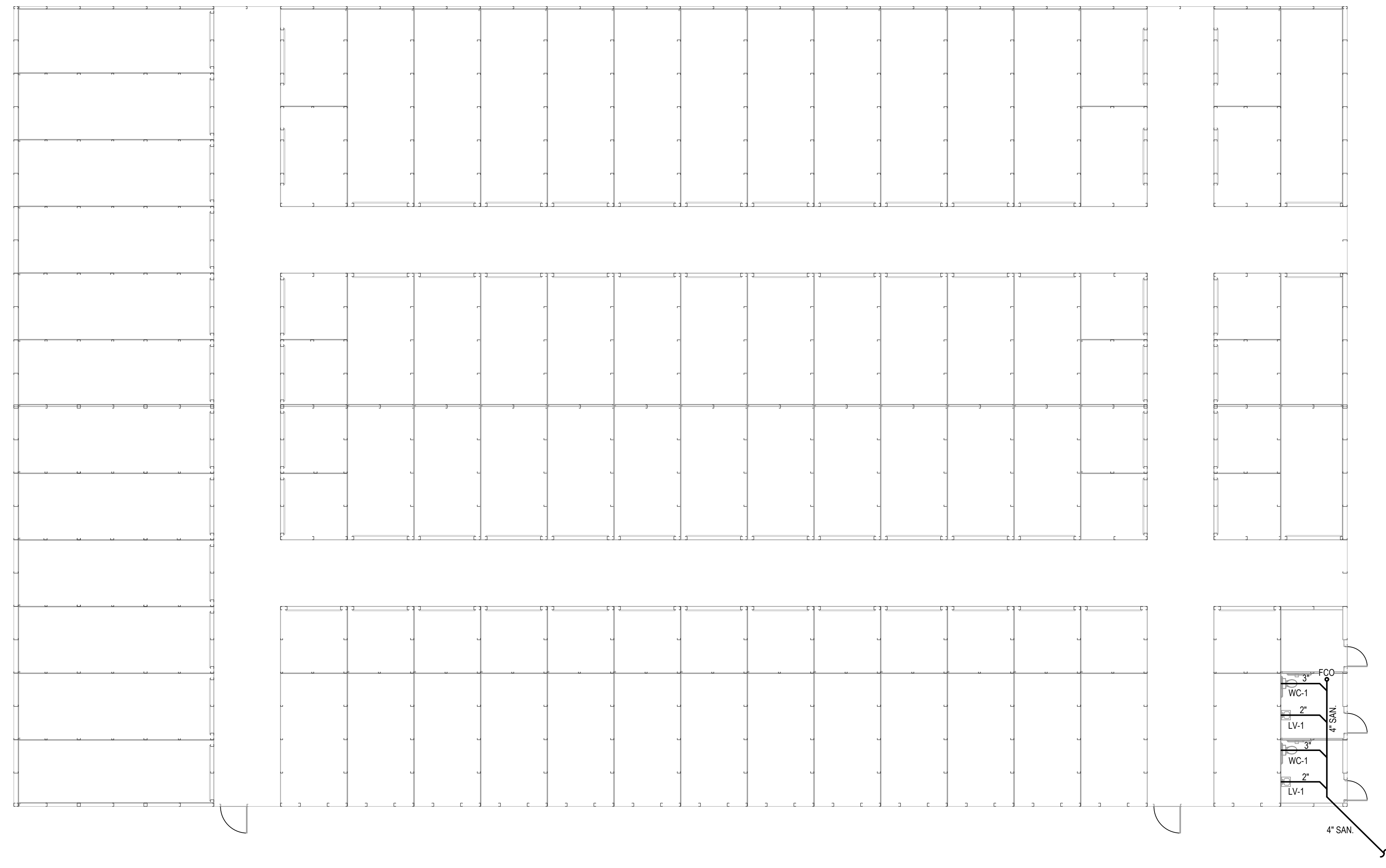
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PROJECT NO.: 24-029
DRAWN BY: DBAS
CHECKED BY: DBAS

PLUMBING LEGENDS AND NOTES

P0.1

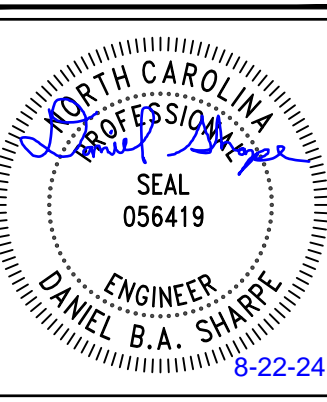
WASTE KEYNOTE LEGEND	
KEY VALUE	KEYNOTE TEXT
1	CONTINUES TO SANITARY SEWER TIE IN ON SITE. SEE SITE PLANS BY OTHERS FOR EXACT TIE-IN LOCATION.



1 WASTE PLAN - TOP FLOOR
SCALE - 3/32" = 1'0"



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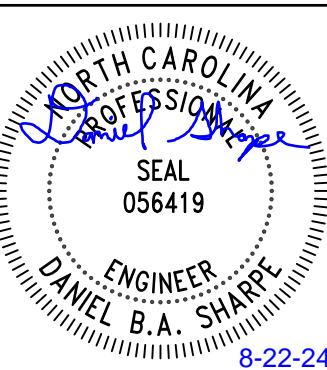
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PROJECT NO.: **24-029**
DRAWN BY: **OSAS**
CHECKED BY: **OSAS**
WASTE PIPING PLAN - TOP FLOOR

P1.1

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PROJECT NO.: 24-029
DRAWN BY: OSAS
CHECKED BY: OSAS
WATER PIPING PLAN - TOP FLOOR

P1.2

WATER KEYNOTE LEGEND	
KEY VALUE	KEYNOTE TEXT
1	CONTINUES TO CW TIE IN ON SITE. SEE SITE PLANS BY OTHERS FOR EXACT TIE-IN LOCATION AND LOCATION OF MAIN SHUT-OFF VALVE.

ALL REQUIRED VALVES NOT SHOWN.
INSTALL FULL OPEN VALVES PER 2018 PC CODE 606.1.5 AND 606.1.8
INSTALL SHUT OFF VALVES PER 2018 NC PLUMBING CODE 606.2 AND 606.2.1



1 WATER PLAN - TOP FLOOR
SCALE - 3/32" = 10"

HVAC GENERAL NOTES

- MECHANICAL CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED FOR THE COMPLETE INSTALLATION AND OPERATION OF ALL SYSTEMS IN THIS SECTION OF WORK IN ACCORDANCE WITH RECOMMENDED PRACTICE, 2018 NORTH CAROLINA MECHANICAL CODE AND ALL APPLICABLE CODES ADOPTED BY THE AUTHORITY HAVING JURISDICTION.
- DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF WALLS, DOORS, WINDOWS, FURNITURE, LIGHTS, CEILING DIFFUSERS, ETC.
- ALL MECHANICAL PERMITS AND INSPECTION FEES SHALL BE OBTAINED AND PAID FOR BY THE MECHANICAL CONTRACTOR.
- MECHANICAL CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR ONE YEAR. REFRIGERANT COMPRESSORS SHALL BE GUARANTEED FOR FIVE YEARS. WARRANTY PERIOD SHALL BE EFFECTIVE THE DAY THE PROJECT IS ACCEPTED BY THE OWNER.
- DRAWINGS ARE DIAGRAMMATIC AND MAY NOT SHOW ALL REQUIRED FITTINGS. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE TYPE, SIZE AND LOCATION OF ALL AIR DEVICES, DUCTWORK, PIPING AND EQUIPMENT WITH THE CEILING PLAN, LIGHTS, STRUCTURAL ELEMENTS AND OTHER TRADES. MECHANICAL CONTRACTOR TO FURNISH AND INSTALL ALL BENDS, OFFSETS, ELBOWS, ETC. AS REQUIRED. VERIFY ALL CLEARANCES PRIOR TO FABRICATING DUCTWORK, OR ORDERING ANY EQUIPMENT, PIPING, ETC.
- MECHANICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING MATERIALS AND INSTALLING THE WORK IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES ADOPTED BY THE AUTHORITY HAVING JURISDICTION.
- THE MC SHALL VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS. THE MC SHALL CONTACT THE ENGINEER TO RESOLVE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS. THE MC SHALL COORDINATE WITH OTHER TRADES PRIOR TO THE START OF CONSTRUCTION.
- THE MC SHALL VERIFY THE FUNCTIONALITY AND OPERATION OF ALL EXISTING MECHANICAL EQUIPMENT IN THE AREA OF WORK. REPLACE FILTERS, LEAK TEST AND RECHARGE REFRIGERANT LINES, REPLACE OR LUBRICATE BEARINGS, CHECK LINKAGES AND ACTUATORS, AND PERFORM OTHER MAINTENANCE SERVICE AS NECESSARY TO GET THE EQUIPMENT IN PROPER WORKING ORDER.
- DUCTWORK
 - NON-RESIDENTIAL AREAS: ALL DUCTWORK SHALL BE GALVANIZED SHEET METAL CONSTRUCTED IN ACCORDANCE WITH SMACNA STANDARDS WITH A MINIMUM PRESSURE CLASSIFICATION OF 2", SEAL CLASS C, WITH A MAXIMUM LEAKAGE RATE OF 5%. RESIDENTIAL/DWELLING AREAS: ALL DUCTWORK SHALL BE FIBROUS GLASS DUCT BOARD FACED ON THE OUTSIDE WITH A FIRE RETARDANT, REINFORCED FOIL-SCRIM-KRAFT FACING, CONSTRUCTED IN ACCORDANCE WITH SMACNA STANDARDS. DUCT INSULATION IS TO BE MIN. R-6 WHEN LOCATED WITHIN THE CONDITIONED BUILDING ENVELOPE; MIN. R-8 WHEN LOCATED IN THE ATTIC, OUTSIDE THE BUILDING ENVELOPE OR UNCONDITIONED SPACES.
 - ALL SQUARE ELBOWS SHALL HAVE TURNING VANES.
 - ALL DUCT DIMENSIONS SHOWN ARE INTERNAL CLEAR DIMENSIONS.
 - PROVIDE A MANUAL BALANCING DAMPER AT ALL SUPPLY AND RETURN BRANCH TAKEOFFS, AS WELL AS ALL OUTSIDE AIR MAIN & BRANCH DUCTS.
 - FLEXIBLE DUCT, IF SHOWN ON DRAWINGS, SHALL BE INSULATED ROUND DUCT WITH AN OUTER GLASS REINFORCED SILVER MYLAR JACKET ENCLOSING MIN. 1-1/2" THICK GLASS FIBER INSULATION AROUND A CONTINUOUS INNER LINER, AND SHALL CONFORM TO THE REQUIREMENTS OF U.L. 181 FOR CLASS 1 FLEXIBLE AIR DUCTS. MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL BE 6 FEET FOR COMMON AREA SYSTEMS. MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL NOT BE LIMITED FOR DWELLING UNIT SYSTEMS. "R" VALUE TO MEET EXCEED ENERGY CODE (NCECC SECTION C 403.2.9). DUCT INSULATION IS TO BE MIN. R-6 WHEN LOCATED WITHIN THE CONDITIONED BUILDING ENVELOPE; MIN. R-8 WHEN LOCATED IN THE ATTIC, OUTSIDE THE BUILDING ENVELOPE OR UNCONDITIONED SPACES.
 - ALL SHEET METAL DUCTWORK WITHIN 10' OF THE AIR HANDLING UNIT SHALL BE PROVIDED WITH ACOUSTICAL DUCT LINER. THIS IS IN ADDITION TO THERMAL INSULATION REQUIREMENTS.
 - ALL DUCT SYSTEMS ARE TO BE PER U.L. STANDARDS. DUCTS ARE TO BE INSTALLED WITH NO RESTRICTIONS AND AN ABSOLUTE MINIMUM AMOUNT OF AIR LEAKAGE.
 - ALL DUCT INSULATION SHALL BE RUN CONTINUOUSLY THROUGH FLOORS AND PARTITIONS.
- PIPING
 - CONDENSATE DRAINS SHALL BE SCHEDULE 40 PVC OR TYPE L COPPER WITH SOLDERED JOINTS WHEN INSTALLED BELOW CEILING LEVEL. DRAINS INSTALLED IN A RETURN AIR PLENUM SHALL BE TYPE L COPPER WITH SOLDERED JOINTS OR SCHEDULE 40 CPVC.
 - REFRIGERANT PIPING SHALL BE TYPE ACR WROUGHT COPPER WITH WROUGHT COPPER FITTINGS AND BRAZED JOINTS.
 - REFRIGERANT COMPONENTS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH ASHRAE 15.
 - MECHANICAL CONTRACTOR SHALL PROVIDE REFRIGERANT PIPING FOR ALL MECHANICAL SYSTEMS WITHIN THIS SCOPE OF WORK. COORDINATE ROUTING AND INSTALLATION WITH THE GENERAL CONTRACTOR. SIZE REFRIGERANT LINES PER MANUFACTURER'S REQUIREMENTS.
- INSULATION
 - DUCT LINER - FIBROUS GLASS DUCT LINER, WITH COATED SURFACE EXPOSED TO AIR STREAM. APPLY WITH MECHANICAL FASTENERS AND 100% COVERAGE OF ADHESIVE. LINER TO BE COATED WITH AN EPA REGISTERED ANTI-MICROBIAL AGENT. DUCT INSULATION VALUE IS TO BE MIN. R-6 WHEN LOCATED WITHIN THE CONDITIONED BUILDING ENVELOPE; MIN. R-8 WHEN LOCATED IN THE ATTIC, OUTSIDE THE BUILDING ENVELOPE OR UNCONDITIONED SPACES. DUCT LINER USED FOR ACOUSTICAL PURPOSES ONLY SHALL BE 1" THICK.
 - DUCT WRAP - MINERAL FIBER BLANKET, WITH REINFORCED FOIL AND PAPER VAPOR RETARDANT JACKET. APPLY WITH MECHANICAL FASTENERS AND ADHESIVE. DUCT INSULATION IS TO BE MIN. R-6 WHEN LOCATED WITHIN THE CONDITIONED BUILDING ENVELOPE; MIN. R-8 WHEN LOCATED IN THE ATTIC, OUTSIDE THE BUILDING ENVELOPE OR UNCONDITIONED SPACES.
 - INTERIOR CONDENSATE DRAINS - INSULATE CONDENSATE DRAINS LOCATED IN THE ATTIC, EXTERIOR WALLS OR UNCONDITIONED SPACES WITH 1/2" THICK FLEXIBLE ELASTOMERIC PIPE INSULATION.
 - REFRIGERANT SUCTION LINES - INSULATE WITH 1" THICK FLEXIBLE ELASTOMERIC PIPE INSULATION. PROVIDE ALUMINUM JACKET OVER INSULATION FOR ALL EXTERIOR REFRIGERANT PIPING.
 - AIR DISTRIBUTION - INSULATE THE TOP-SIDE OF ALL AIR DISTRIBUTION DEVICES.
- ALL PIPING, DUCTS, VENTS, ETC., EXTENDING THROUGH WALLS & ROOF SHALL BE FLASHED & COUNTER-FLASHED IN A WATERPROOF MANNER.
- EXTEND ALL CONDENSATE DRAINS TO JANITORS SINK, FLOOR DRAIN, SPLASH BLOCK OR AS REQUIRED PER CODE. DRAINS FROM MECHANICAL EQUIPMENT SHALL BE PROVIDED W/ A DEEP SEAL TRAP. SLOPE CONDENSATE DRAIN PIPING AT MIN. 1/8" PER FOOT.
- NON-RESIDENTIAL AREAS: LOCATE ALL THERMOSTATS, SWITCHES AND OTHER CONTROL DEVICES AT 4'-0" ABOVE FINISHED FLOOR. FURNISH A THERMOSTATIC CONTROL DEVICE FOR EVERY DEVICE REQUIRING ONE WHETHER SHOWN ON DRAWINGS OR NOT RESIDENTIAL/DWELLING AREAS: LOCATE ALL THERMOSTATS, SWITCHES AND OTHER CONTROL DEVICES AT 4'-0" TO ABOVE FINISHED FLOOR FOR STANDARD DWELLING UNITS; 4'-0" TO TOP OF DEVICE FOR ACCESSIBLE UNIT TYPES. FURNISH THERMOSTATIC CONTROL DEVICE FOR EVERY DEVICE REQUIRING ONE WHETHER SHOWN ON DRAWINGS OR NOT.
- ALL EQUIPMENT SHALL BE INSTALLED PER CODE & MANUFACTURER'S REQUIREMENTS FOR PROPER OPERATION AND SERVICE/ACCESS CLEARANCES.
- ALL EQUIPMENT SHALL BE U.L. LISTED.
- MECHANICAL CONTRACTOR SHALL BALANCE ALL MECHANICAL SYSTEMS TO AIR QUANTITIES INDICATED ON PLANS. CONTRACTOR SHALL PROVIDE A COMPLETE BALANCING REPORT FOR AT LEAST ONE SYSTEM IN EACH DWELLING UNIT TYPE, AND ALL COMMON AREA SYSTEMS IN ACCORDANCE WITH NEBB OR ABC STANDARDS.
- CONTROL WIRING FOR ALL MECHANICAL SYSTEMS WITHIN THIS SCOPE OF WORK SHALL BE BY THE MECHANICAL CONTRACTOR.
- DUCT SMOKE DETECTORS SHALL BE INSTALLED IN THE RETURN AIR DUCT OR PLENUM UPSTREAM OF ANY FILTERS OR DECONTAMINATION EQUIPMENT UPON ACTIVATION THE SMOKE DETECTOR SHALL SHUT DOWN THE AIR HANDLING UNIT AS REQUIRED BY 2018 NORTH CAROLINA MECHANICAL CODE 806. * IF THERE IS A FIRE ALARM SYSTEM, DETECTORS SHALL BE FURNISHED AND WIRED BY THE ELECTRICAL CONTRACTOR. INSTALLED BY THE MECHANICAL CONTRACTOR. ACTIVATION OF THE DUCT SMOKE DETECTOR SHALL INITIATE A VISIBLE AND AUDIBLE SUPERVISORY SIGNAL AT A CONSTANTLY ATTENDED LOCATION. * IF THERE IS NOT A FIRE ALARM SYSTEM, DETECTORS SHALL BE FURNISHED, WIRED AND INSTALLED BY THE MECHANICAL CONTRACTOR. ACTIVATION OF THE DUCT SMOKE DETECTOR SHALL INITIATE A VISIBLE AND AUDIBLE SUPERVISORY SIGNAL AT A CONSTANTLY ATTENDED LOCATION.

- PROVIDE A CLEAN SET OF FILTERS FOR ALL AIR HANDLING EQUIPMENT AT SUBSTANTIAL COMPLETION.
- MAINTAIN A MINIMUM 10'-0" BETWEEN OUTDOOR AIR INTAKES AND EXHAUST FAN DISCHARGE AND PLUMBING VENTS, ETC. FIELD COORDINATE FINAL LOCATIONS.
- PROVIDE 4" THICK CONCRETE PAD FOR ALL GROUND MOUNTED OUTDOOR MECHANICAL UNITS. PADS SHALL BE MINIMUM 6" LARGER THAN UNIT ON ALL SIDES.
- RUN DUCT UP WITHIN STRUCTURE OR THROUGH JOIST WEBS WHERE POSSIBLE & WHERE REQUIRED TO MAINTAIN CEILING HEIGHTS. PROVIDE OFFSETS AND/OR TRANSITIONS IN DUCT WHERE REQUIRED WITH MAX. 45° DEG. ELBOWS. MAKE BRANCH TAPS OFF TOP, SIDES OR BOTTOM AS REQUIRED. NO BACK TO BACK 90° DEG. ELBOWS ALLOWED.
- REFRIGERANT PIPING SHALL BE SIZED & INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS.
- ALL EQUIPMENT SHALL BE LABELED ACCORDING TO NUMBERING / IDENTIFICATION SYSTEM PER PLANS.
- ALL EQUIPMENT SUPPORTS ARE REQUIRED TO MEET ASCE 9.6.
- MECHANICAL CONTRACTOR SHALL PROVIDE U.L. LISTED FIRE DAMPERS, RADIATION DAMPERS AND/OR FIRE/SMOKE DAMPERS WHERE REQUIRED FOR FIRE PROTECTION AS REQUIRED BY LOCAL CODES. M.C. SHALL PROVIDE A MEANS OF ACCESS TO TEST & RESET ALL SUCH DAMPERS AND/OR ACTUATORS.
- ON MAKING PIPE CONNECTIONS TO EQUIPMENT, CARE SHOULD BE TAKEN TO ARRANGE PIPES SO AS NOT TO INTERFERE WITH OPENING OF ACCESS DOORS.
- ELECTRICAL CONTRACTOR TO PROVIDE ALL HIGH VOLTAGE (120V AND GREATER) ELECTRICAL WIRING, CONDUIT, DISCONNECT SWITCHES, FUSES, ETC. TO ALL MECHANICAL EQUIPMENT WITHIN THIS SCOPE OF WORK. ALL FINAL ELECTRICAL CONNECTIONS ARE BY ELECTRICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL COORDINATE ELECTRICAL REQUIREMENTS FOR ALL APPROVED MECHANICAL EQUIPMENT WITH THE ELECTRICAL CONTRACTOR.
- PRIOR TO BEGINNING ANY WORK, MECHANICAL CONTRACTOR IS RESPONSIBLE TO NOTIFY THE OWNER'S REPRESENTATIVE, ARCHITECT OR ENGINEER IF THE MECHANICAL DESIGN CONFLICTS WITH EXISTING OR UNFORESEEN FIELD CONDITIONS.
- MECHANICAL CONTRACTOR SHALL PROVIDE A MIN. OF FOUR COPIES OF SHOP DRAWINGS TO THE ARCHITECT/ENGINEER FOR ALL INSTALLED EQUIPMENT AND MATERIALS NEEDING APPROVAL PRIOR TO PURCHASING. IN ADDITION, M.C. SHALL PROVIDE THE OWNER WITH TWO COPIES OF OPERATION & MAINTENANCE MANUALS FOR ALL INSTALLED EQUIPMENT, MANUFACTURER'S & INSTALLER'S WARRANTIES AND TRAINING FOR CONTROLS OF ALL SUCH EQUIPMENT.

Mechanical Design Summary

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone: 3A

winter dry bulb: 23.1 °F
summer dry bulb: 91.7 °F
summer wet bulb: 75.6 °F

Interior design conditions

winter dry bulb: 70 °F
summer dry bulb: 75 °F
relative humidity: 50%

Building heating load: 354,500 btu

Building cooling load: 291,700 btu

Mechanical Spacing Conditioning System

Unitary
description of unit: Split System DX
heating efficiency: See Schedules
cooling efficiency: See Schedules
size category of unit: See Schedules

Boiler
Size category: If oversized, state reason: N/A
Chiller
Size category: If oversized, state reason: N/A

List equipment efficiencies: N/A

To the best of my knowledge, the mechanical design for this building complies with mechanical and equipment requirements of the 2018 North Carolina state building code and 2018 North Carolina energy conservation code.

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
	THERMOSTAT (HONEYWELL VISION PRO 8000 OR EQUAL) WITH KEY LOCKING GUARD COVER
	CEILING SUPPLY DIFFUSER
	CEILING RETURN DIFFUSER
	SPIRAL DUCT SUPPLY DIFFUSER
	RECTANGULAR METAL DUCT
	ROUND METAL/SPIRAL DUCT
	MAIN TRUNK AND BRANCH DUCT TAKEOFF WITH VOLUME DAMPER
	FLEX DUCT
	1" DOOR UNDER CUT
	TURNING VANES
SA	SUPPLY AIR
RA	RETURN AIR
EA	EXHAUST AIR
OA	OUTSIDE AIR
CFM	CUBIC FEET PER MINUTE
AH	AIR HANDLER
HP	HEAT PUMP
AC	AIR CONDITIONING UNIT
RTU	ROOFTOP UNIT
BDD	BACK DRAFT DAMPER
REL	RELOCATE
VD	VOLUME DAMPER
AFF	ABOVE FINISHED FLOOR
GC	GENERAL CONTRACTOR
MC	MECHANICAL CONTRACTOR

AIR DISTRIBUTION SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL	FRAME/MOUNTING	FACE SIZE/LENGTH	MAX NC	REMARKS
A	DOUBLE DEFLECTION SUPPLY	TITUS	300FS	SURFACE	18"X6"	20	1,2,3,4
R	ALUMINUM RETURN GRILLE	TITUS	3FS	SURFACE	36"X12"	30	1,2,3

- PROVIDE WITH STANDARD WHITE FINISH
- PROVIDE ALUMINUM CONSTRUCTION
- PROVIDE TRANSITION TO OFFSET GRILLE 45 DEG. TOWARDS FLOOR. SEE DETAIL 3 ON SHEET M2.1.
- OR EQUAL BY HART AND COOLEY, PRICE, OR NAILOR

SPLIT-SYSTEM HEAT PUMP SCHEDULE

TAG	MANUFACTURER / MODEL	NOMINAL CAPACITY (TONS)	COMPRESSOR #	COND. FAN #	SEER	HSPF	VOLT / PHASE / HZ	MCA (AMPS)	MOCP	WEIGHT(LBS)	REMARKS
HP-1 THROUGH HP-8	YORK / YH2E48T21S	4	1	1	14.3	7.5	208/1/60	26.1	45	215	1,2,4,5,6,7,8

SPLIT-SYSTEM AIR HANDLING UNIT SCHEDULE

TAG	MANUFACTURER / MODEL	NOMINAL CAPACITY (TONS)	ELEC. HEAT (KW)	AIRFLOW (CFM)	OUTDOOR AIR (CFM)	E.S.P. IN W.G	SENSIBLE CAPACITY (MBH)	LATENT CAPACITY (MBH)	VOLT / PHASE / HZ	MCA (AMPS)	MOCP	WEIGHT(LBS)	REMARKS
AHU-1 THROUGH AHU-8	YORK / JHETC48GBCS2N1	4	10	1600	320*	0.50	34.7	13.4	208/1/60	50	60	129	2,3,4,6,7,8

- PROVIDE CONCRETE PAD FOR UNIT TO SIT ON
- 7-DAY PROGRAMMABLE THERMOSTAT AND TEMPERATURE SENSOR SHALL MEET REQUIREMENTS OF LATEST ENERGY CODE
- REPLACE ALL FILTERS AT PROJECT COMPLETION
- PROVIDE HEAT STRIP OUTDOOR TEMPERATURE LOCKOUT TO PREVENT SUPPLEMENTAL HEAT OPERATION IN RESPONSE TO THE THERMOSTAT BEING CHANGED TO A WARMER SETTING. SET NO LOWER THAN 35°F AND NO HIGHER THAN 40 DEG. F
- PROVIDE HARD START KIT
- CONSULT MANUFACTURER ON REFRIGERANT LINE SETS EXCEEDING 60'-0" IN DEVELOPED LENGTH
- BASIS OF DESIGN YORK. ACCEPTABLE ALTERNATIVE MANUFACTURERS: TRANE, CARRIER, DAIKIN, LENNOX, BRYANT, HEIL, GOODMAN
- MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES
- *SET OUTSIDE AIR VOLUME TO 320CFM FOR AHU-3,4,5,7

FAN SCHEDULE

TAG	MANUFACTURER	MODEL	AIRFLOW (CFM)	E.S.P. IN W.G	SONES	FAN TYPE	MOUNT	VOLT/PHASE/HZ	MCA (AMPS)	CONTROL	REMARKS
EF-1	GREENHECK	SP-A90	75	0.125	1.4	EXHAUST	CEILING MOUNT	115 / 1 / 60	0.3	WALL SWITCH / OCC. SENSOR	1,2,3
EF-2	GREENHECK	SP-A90	75	0.125	1.4	EXHAUST	CEILING MOUNT	115 / 1 / 60	0.3	WALL SWITCH / OCC. SENSOR	1,2,3

- PROVIDE INTEGRAL BACKDRAFT DAMPER
- PROVIDE FAN SPEED CONTROL IF REQUIRED TO MEET SPECIFIED CFM RATING.
- COORDINATE LINE VOLTAGE AND CONTROL WIRING TERMINATIONS WITH ELECTRICAL CONTRACTOR PRIOR TO ROUGH-IN INSTALLATION

OUTSIDE AIR VENTILATION CALCULATIONS

HVAC Unit	Location	Zone Occupancy	Occupant Density (People/1000 sf)	Outdoor Air CFM/Person (Rp)	Zone Population (Pz)	Outdoor Air CFM' sf (Ra)	Floor Area (Az)	Initial Zone Outdoor Airflow (Vbz)	Zone Area Distribution Effectiveness (Ez)	People Quantity (Ps)	Design Zone Supply Air (CFM)
See Schedule	Corridors	Corridors	0	0	0	0.06	21184	1271.04	0.8	10	12800
										10	12800
Required OA Intake (CFM)											1271

Calculations are based on the 2018 NCMC Table 403.3.1.1

MECHANICAL DRAWING INDEX	
M0.1	MECHANICAL LEGENDS AND NOTES
M1.1	MECHANICAL PLAN - BOTTOM FLOOR
M1.2	MECHANICAL PLAN - TOP FLOOR
M2.1	ALTERNATE MECHANICAL PLAN - BOTTOM FLOOR
M2.2	ALTERNATE MECHANICAL PLAN - TOP FLOOR
M3.1	MECHANICAL DETAILS

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SEAL
056419
ENGINEER
DANIEL B. A. SHARPE
8-22-24

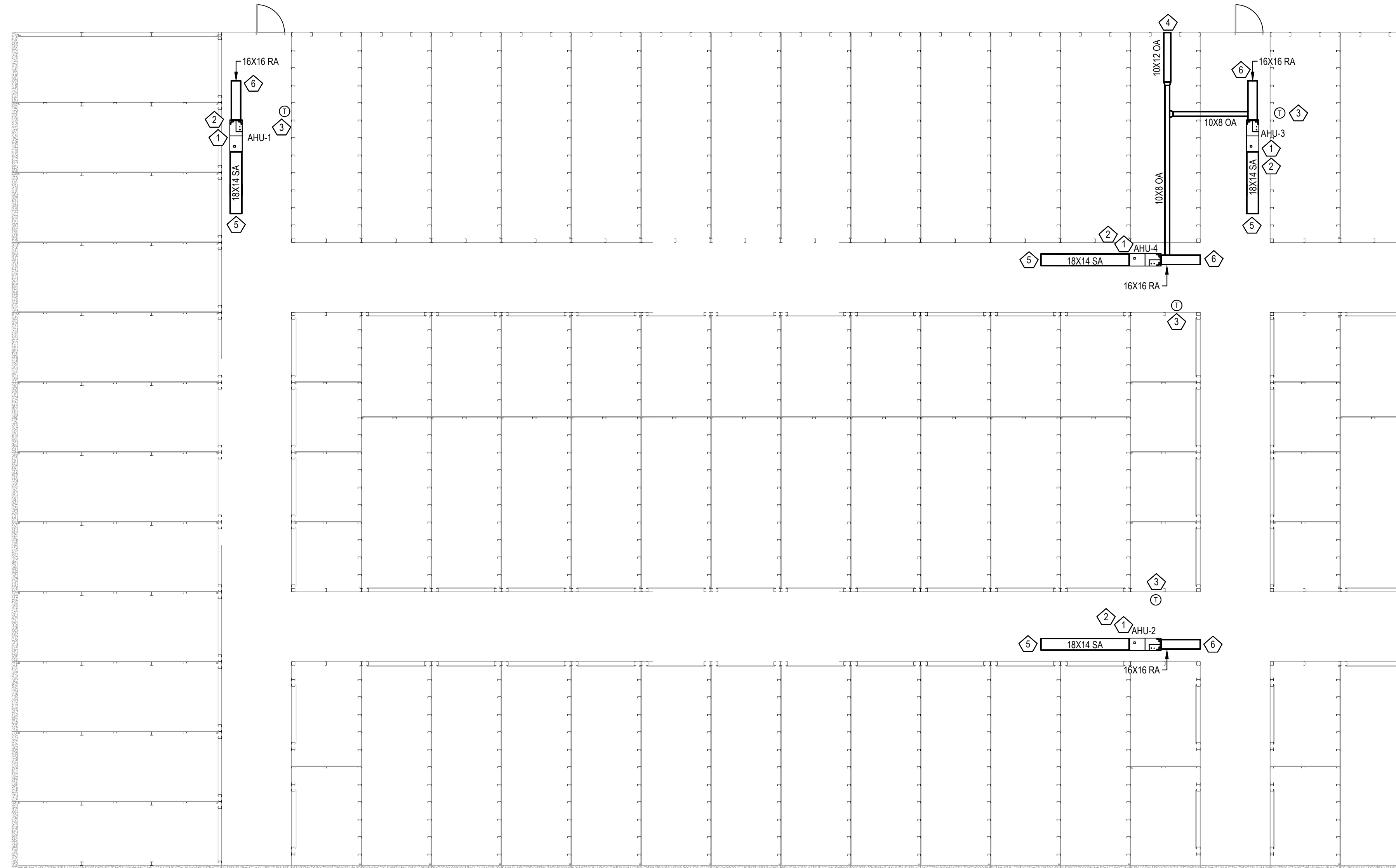
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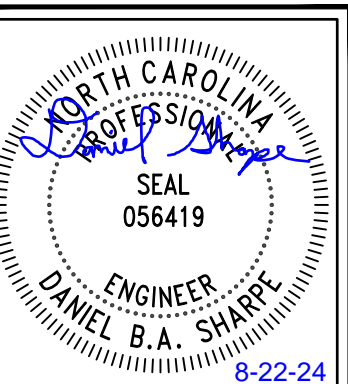
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DRAWN BY: GMS
CHECKED BY: GMS
MECHANICAL LEGENDS AND NOTES
M0.1

MECHANICAL KEYNOTE LEGEND	
KEY VALUE	KEYNOTE TEXT
1	SUSPEND UNIT FROM STRUCTURE ABOVE. COORDINATE EXACT MOUNTING LOCATION WITH OWNER.
2	ROUTE CONDENSATE LINES TO DAYLIGHT. PROVIDE CONDENSATE PUMP FOR UNITS ON BOTTOM FLOOR NOT IN CLOSE PROXIMITY TO DAYLIGHT.
3	COORDINATE EXACT MOUNTING LOCATION OF THERMOSTAT WITH OWNER PRIOR TO ROUGH-IN.
4	MC TO ROUTE OUTSIDE AIR DUCT THROUGH SIDEWALL. PROVIDE WITH WALL CAP. MAINTAIN MINIMUM 10" FROM ALL FORMS OF EXHAUST.
5	MC TO STUB OUT SUPPLY DUCT MINIMUM 36" FROM AIR HANDLER. MC TO LEAVE SUPPLY OPEN ENDED TO CONDITION SPACE. INTERNALLY LINE SUPPLY DUCT.
6	MC TO STUB OUT RETURN DUCT MINIMUM 36" FROM AIR HANDLER. PROVIDE FILTER SECTION IN UNIT. INTERNALLY LINE RETURN DUCT AND PROVIDE WITH SCREEN.



1 MECHANICAL PLAN - BOTTOM FLOOR
SCALE - 3/32" = 1'0"

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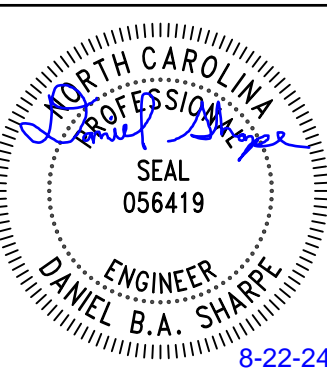
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MECHANICAL PLAN - BOTTOM FLOOR

M2.1

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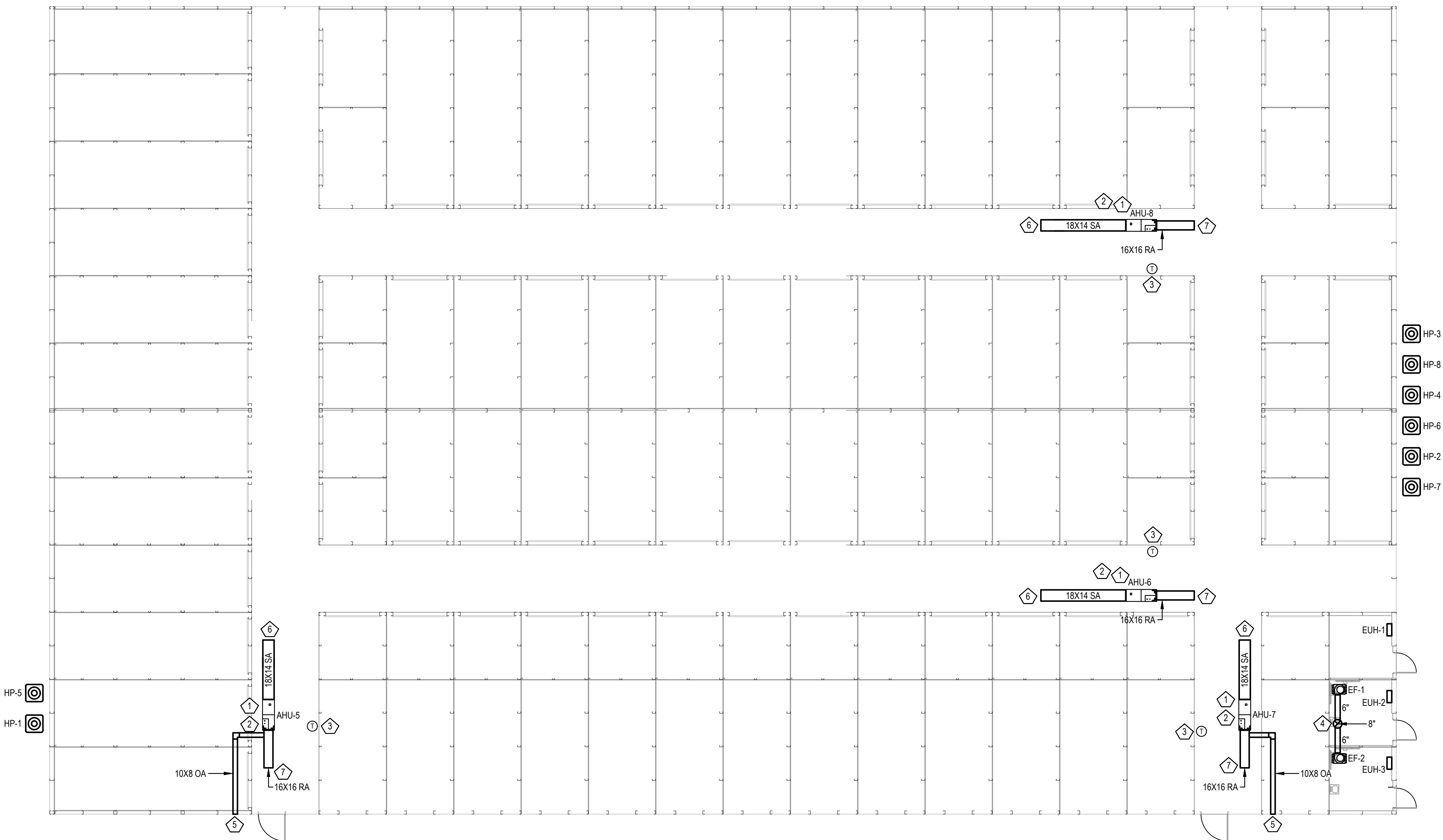
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MECHANICAL PLAN - TOP FLOOR

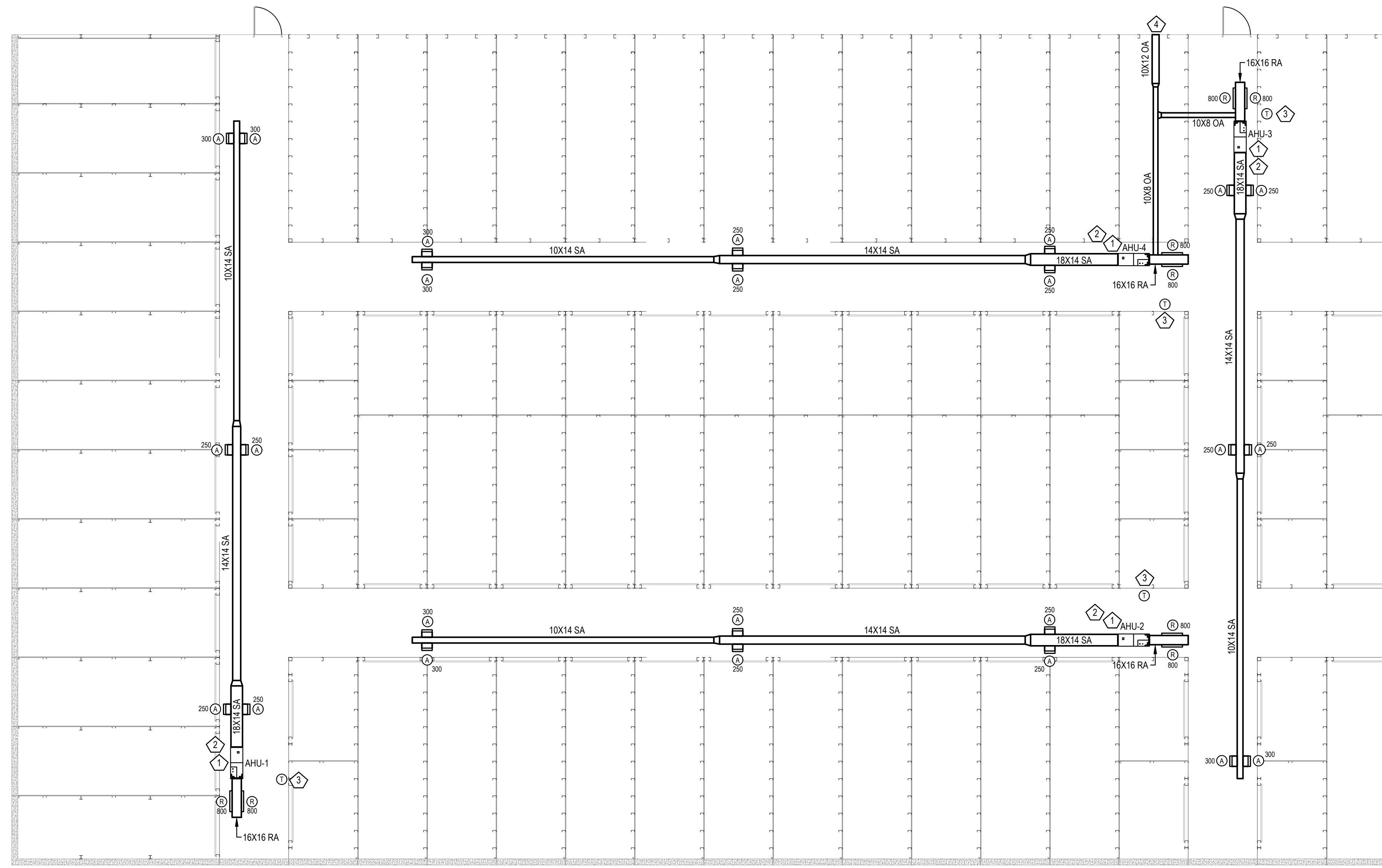
M2.2

MECHANICAL KEYNOTE LEGEND	
KEY VALUE	KEYNOTE TEXT
1	SUSPEND UNIT FROM STRUCTURE ABOVE. COORDINATE EXACT MOUNTING LOCATION WITH OWNER.
2	ROUTE CONDENSATE LINES TO DAYLIGHT.
3	COORDINATE EXACT MOUNTING LOCATION OF THERMOSTAT WITH OWNER PRIOR TO ROUGH-IN.
4	COMBINE EACH 6" Ø EXHAUST DUCT TO SINGLE 8" Ø EXHAUST DUCT THROUGH ROOF WITH ROOF CAP. PROVIDE BACKDRAFT DAMPER FOR EACH EXHAUST FAN UPSTREAM OF COMBINING EXHAUST DUCTS IF NOT INTEGRAL TO FAN FROM MANUFACTURER. MAINTAIN MINIMUM 10'0" FROM ALL OUTSIDE AIR INTAKES.
5	MC TO ROUTE OUTSIDE AIR DUCT THROUGH SIDEWALL. PROVIDE WITH WALL CAP. MAINTAIN MINIMUM 10'0" FROM ALL FORMS OF EXHAUST.
6	MC TO STUB OUT SUPPLY DUCT MINIMUM 36" FROM AIR HANDLER. MC TO LEAVE SUPPLY OPEN ENDED TO CONDITION SPACE. INTERNALLY LINE SUPPLY DUCT.
7	MC TO STUB OUT RETURN DUCT MINIMUM 36" FROM AIR HANDLER. PROVIDE FILTER SECTION IN UNIT. INTERNALLY LINE RETURN DUCT AND PROVIDE WITH SCREEN.



1 MECHANICAL PLAN - TOP FLOOR
SCALE - 3/32" = 1'0"

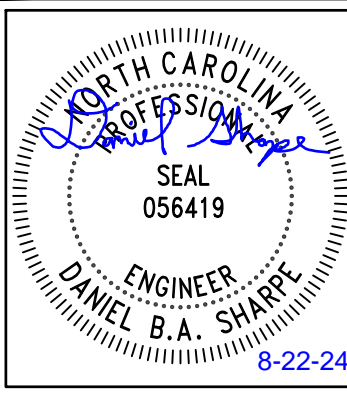
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KEY VALUE	KEYNOTE TEXT
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3	COORDINATE EXACT MOUNTING LOCATION OF THERMOSTAT WITH OWNER PRIOR TO ROUGH-IN.
4	MC TO ROUTE OUTSIDE AIR DUCT THROUGH SIDEWALL. PROVIDE WITH WALL CAP. MAINTAIN MINIMUM 10" FROM ALL FORMS OF EXHAUST.



1 ALTERNATE MECHANICAL PLAN - BOTTOM FLOOR
SCALE - 3/32" = 1'0"

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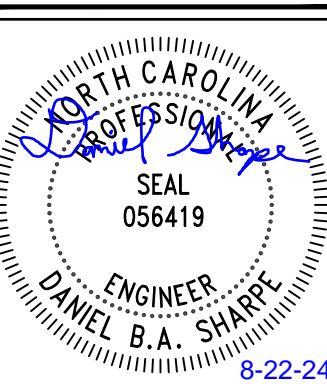
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ALTERNATE MECHANICAL PLAN - BOTTOM FLOOR

M2.1

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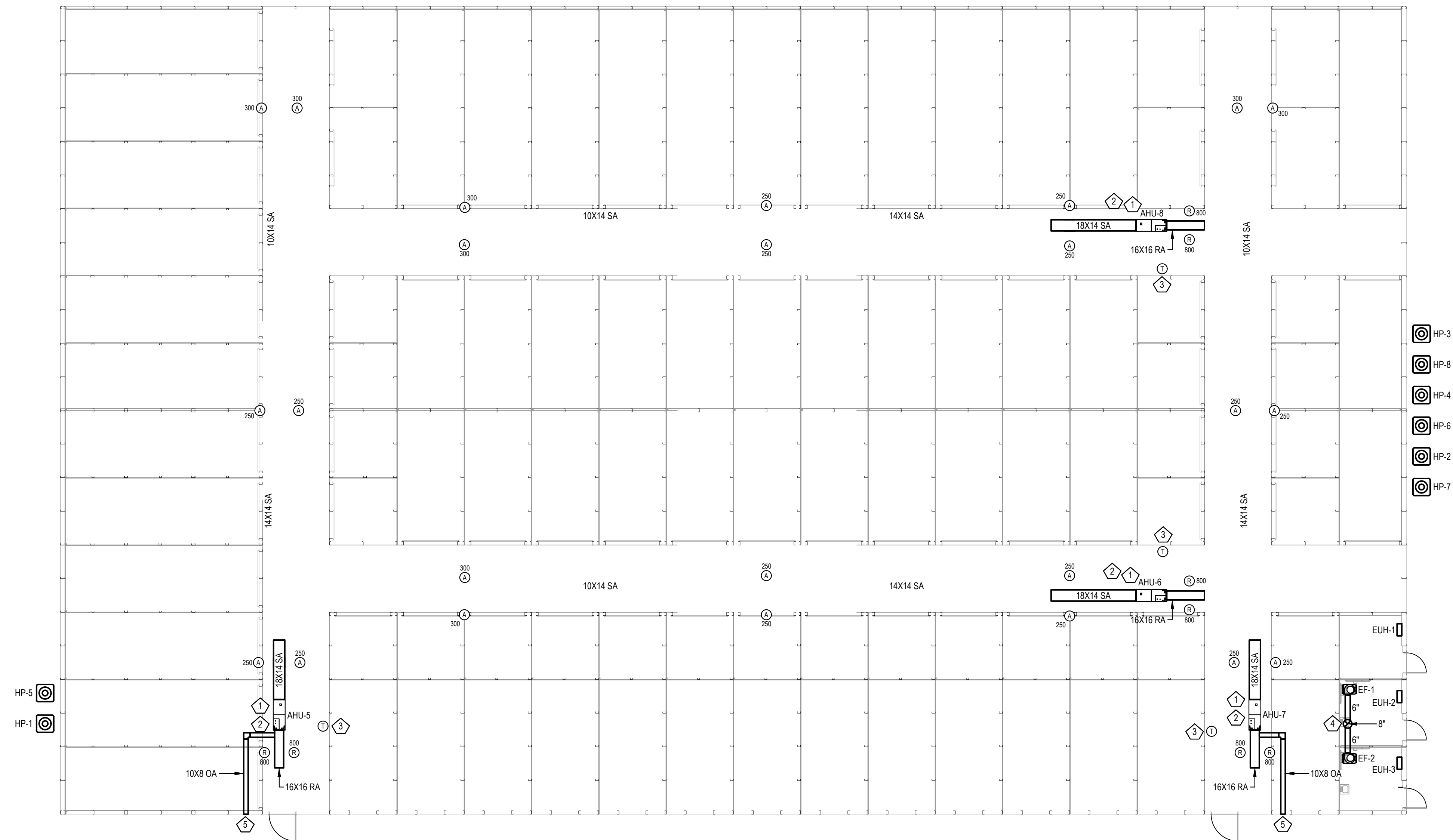
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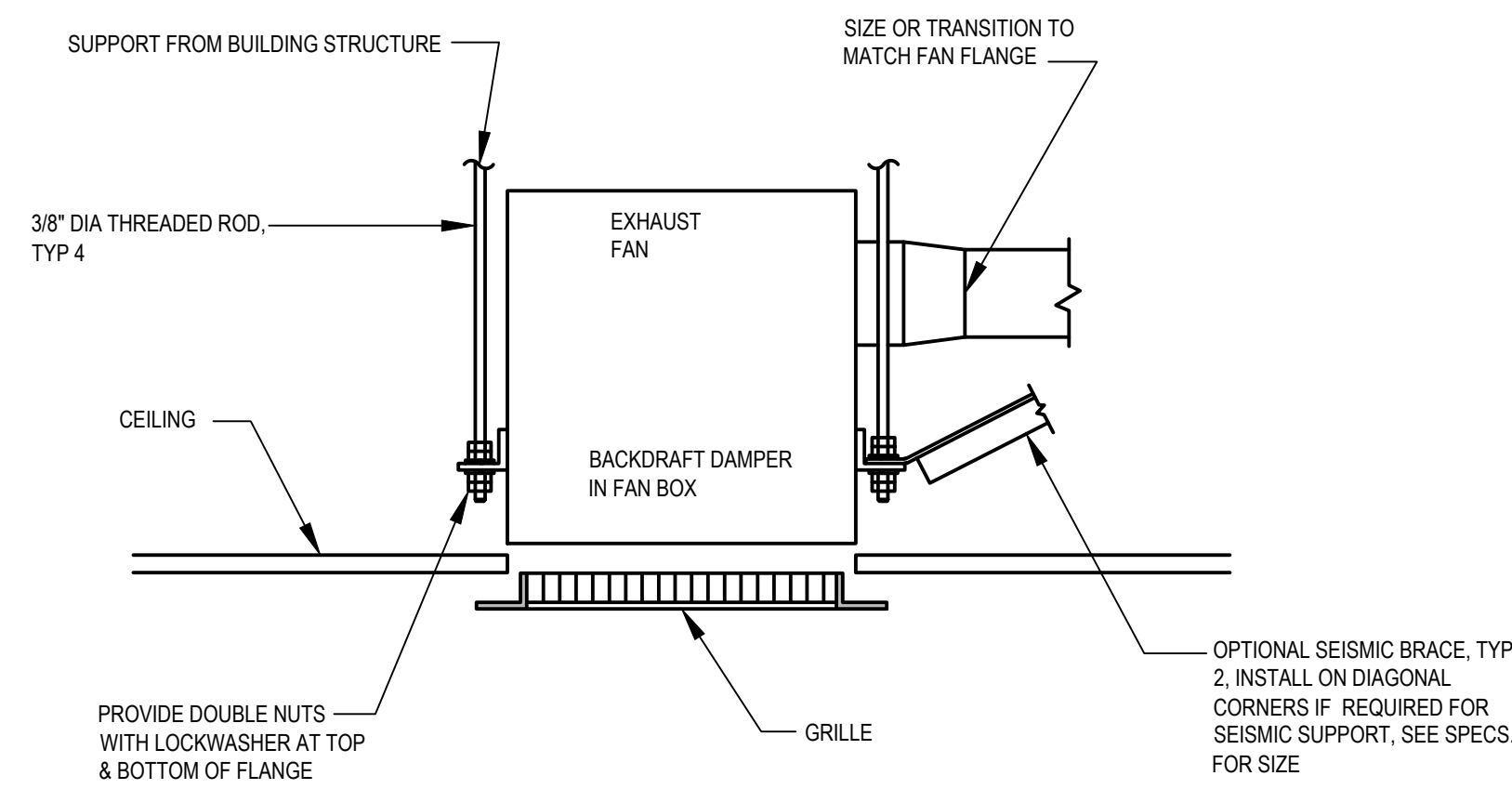
ALTERNATE MECHANICAL PLAN - TOP FLOOR

M2.2

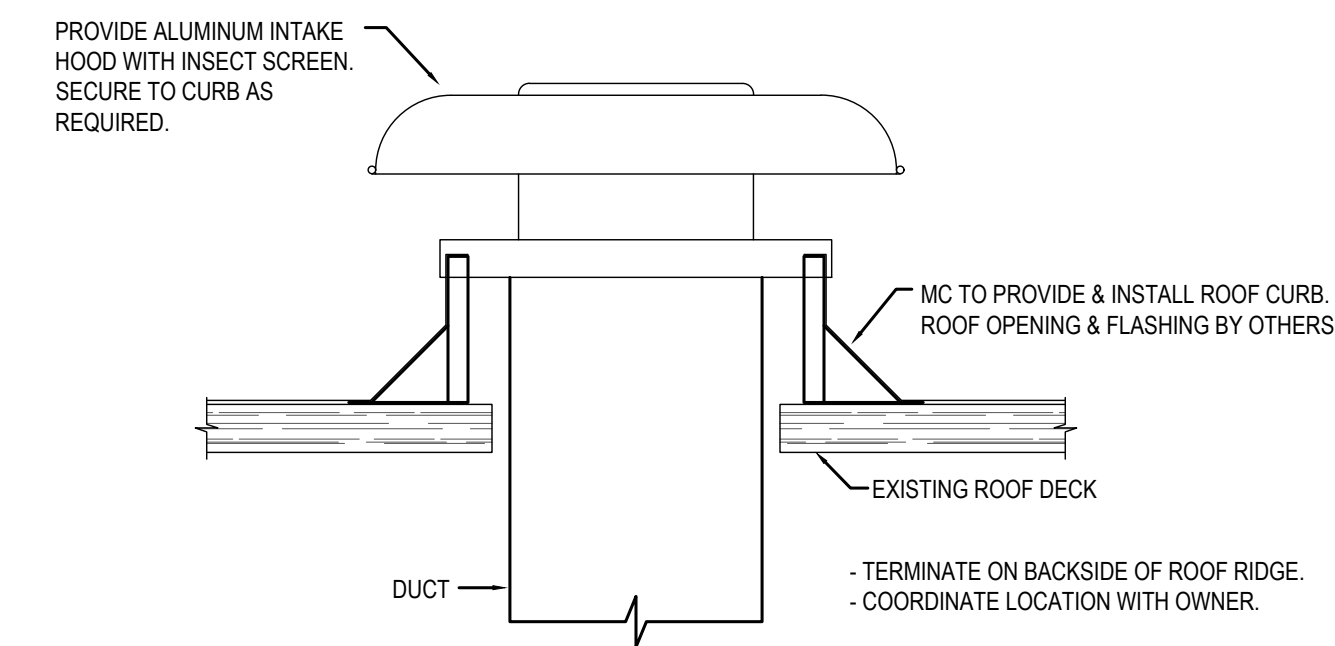
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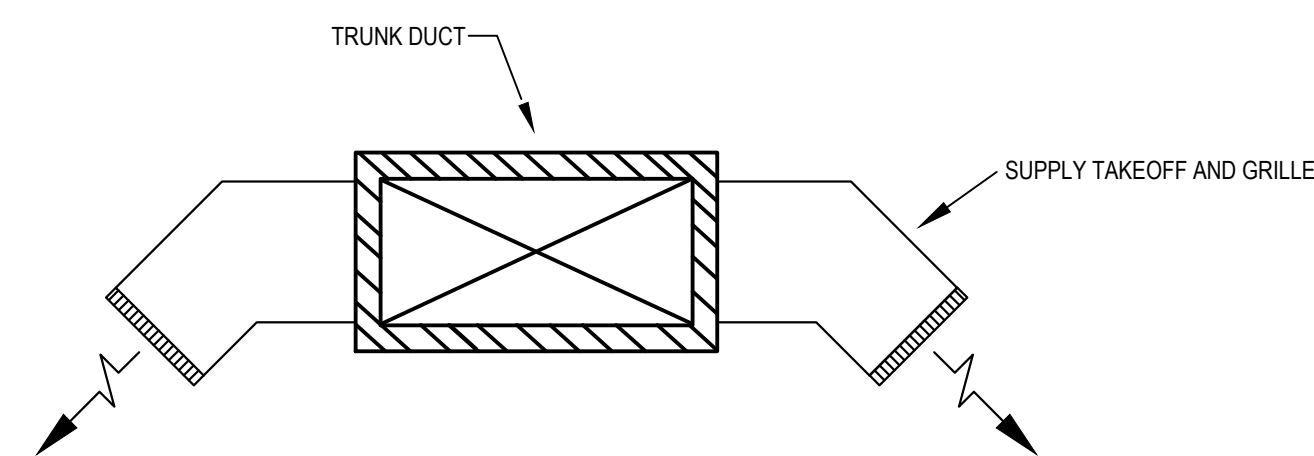
1 ALTERNATE MECHANICAL PLAN - TOP FLOOR
SCALE - 3/32" = 1'0"



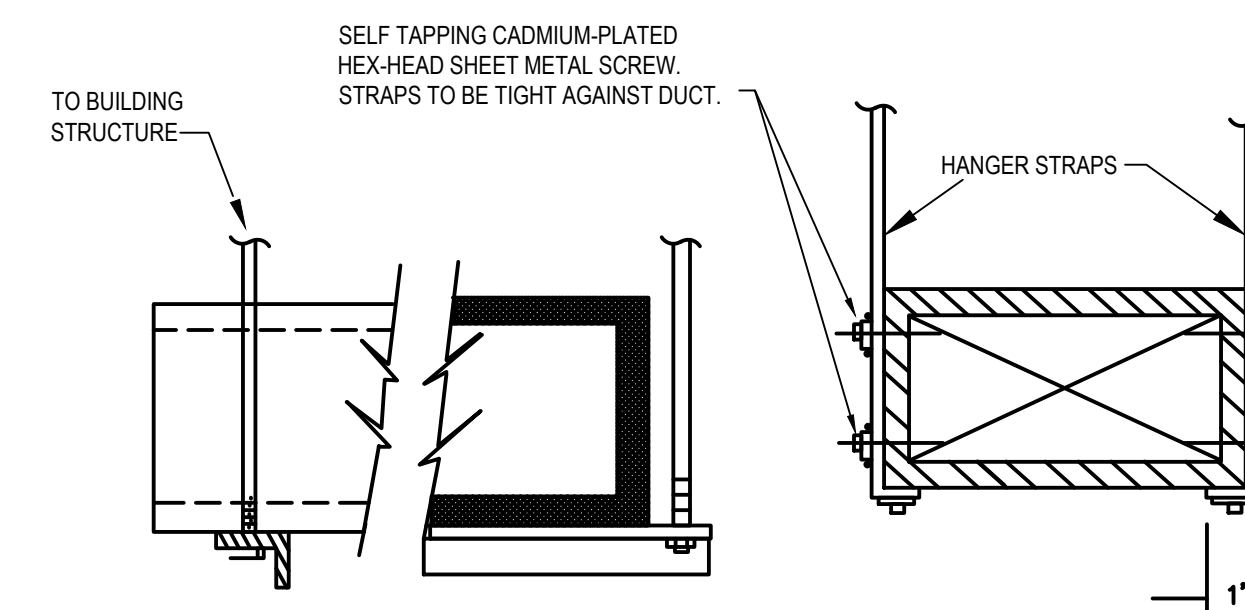
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NOT TO SCALE



2 ROOF CAP DETAIL
NOT TO SCALE



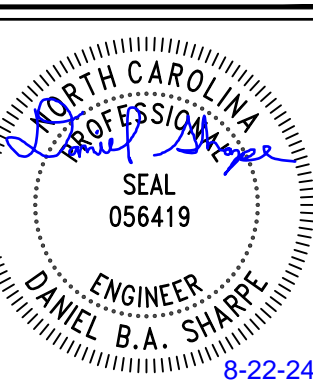
3 SUPPLY GRILLE TAKEOFF DETAIL
NOT TO SCALE



HANGER SIZES FOR RECTANGULAR DUCTS			
MAX. SIDE	HANGER	SUPPORT ANGLE HORIZONTAL	SPACING MAXIMUM
30"	1" x 1/8" GAUGE STRAP	NONE REQUIRED	10'-0"
36"	1/4" ROUND ROD	1-1/2' x 1-1/2' x 1/8"	8'-0"
48"	1/4" ROUND ROD	2' x 2' x 1/8"	8'-0"
60"	5/16" ROUND ROD	2' x 2' x 1/8"	8'-0"
84"	3/8" ROUND ROD	2' x 2' x 1/8"	8'-0"

4 RECTANGULAR DUCT HANGER DETAIL
NOT TO SCALE

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MECHANICAL DETAILS

M3.1

GENERAL ELECTRICAL NOTES

- G1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH 2020 NATIONAL ELECTRICAL CODE WITH N.C. AMENDMENTS AND ALL APPLICABLE LOCAL AND STATE CODES.
- G2. ALL MATERIAL, EQUIPMENT AND APPLIANCES SHALL BE NEW, LABELED AND LISTED FOR ITS INTENDED USE BY A QUALIFIED THIRD-PARTY ELECTRICAL TESTING LABORATORY (I.E. UL, ETL, ETC.) AND THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION PER NEC ARTICLES 90.7, 110.2 AND 110.3. WHERE UNDERWRITERS LABORATORIES LABELING IS AVAILABLE FOR THE CLASS OF MATERIAL INVOLVED, MATERIALS SHALL BE FURNISHED WITH A UL LABEL OR LISTING, OR THE ELECTRICAL CONTRACTOR SHALL PROVE IT IS NOT REQUIRED.
- G3. ALL ELECTRICAL PERMITS AND INSPECTION FEES SHALL BE OBTAINED AND PAID FOR BY THE ELECTRICAL CONTRACTOR.
- G4. ELECTRICAL CONTRACT DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF ELECTRICAL EQUIPMENT. DO NOT SCALE ELECTRICAL PLANS. OBTAIN ALL DIMENSIONS FROM THE ARCHITECT'S DIMENSIONED DRAWINGS AND FIELD MEASUREMENTS. THE CONTRACTOR SHALL REVIEW ARCHITECTURAL PLANS FOR DOOR SWINGS AND BUILT-IN EQUIPMENT, CONDITIONS INDICATED ON THOSE PLANS SHALL GOVERN FOR THIS WORK.
- G5. VERIFY ALL UTILITY REQUIREMENTS FOR ELECTRICAL SERVICE (PRIOR TO STARTING ANY WORK) SUCH AS VOLTAGE, PHASES, FAULT CURRENT, ETC., AND COORDINATE EXACT LOCATION OF INCOMING ELECTRICAL SERVICE WITH LOCAL POWER COMPANY PRIOR TO PROJECT START. NOTIFY ENGINEER OF ANY DIFFERENCES FROM WHAT IS SHOWN ON PLANS.
- G6. ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR ONE YEAR EFFECTIVE FROM THE DATE OF SUBSTANTIAL COMPLETION.
- G7. A COMPLETE GROUNDING SYSTEM SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH ARTICLE 250 OF THE NEC, AND AS SHOWN ON THE DRAWINGS.
- G8. ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF ELECTRICAL EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. DO NOT CUT ANY MATERIAL THAT WILL WEAKEN THE STRUCTURE WITHOUT WRITTEN PERMISSION OF THE ARCHITECT. PATCHING SHALL BE ACCOMPLISHED TO MATCH ADJACENT SURFACES IN EVERY RESPECT. ENGAGE ORIGINAL INSTALLER FOR CUTTING/PATCHING OF ROOFS.
- G9. PROVIDE A TYPED DIRECTORY IN ALL PANELBOARDS CLEARLY DESCRIBING THE LOCATION AND TYPE OF LOAD SERVED FOR ALL CIRCUITS.
- G10. THE ELECTRICAL CONTRACTOR SHALL REQUEST A SELECTIVE BREAKER COORDINATION STUDY FROM THE ELECTRICAL GEAR MANUFACTURER PER NEC 700 REQUIREMENTS.
- G11. PROVIDE ENGRAVED PHENOLIC NAMEPLATES FOR ALL PANELBOARDS AND DISCONNECT SWITCHES, WHITE LETTERS ON BLACK BACKGROUND. NAMEPLATE SHALL CONTAIN EQUIPMENT DESIGNATION, VOLTAGE, FEEDER SOURCE, AIC RATING & DATE INSTALLED.
- G12. PROVIDE "FLASH HAZARD" LABELS FOR ALL PANELBOARDS IN ACCORDANCE WITH NEC REQUIREMENTS.
- G13. ALL TERMINALS/SLUGS SHALL BE 60 DEGREE/75 DEGREE RATED.
- G14. FUSES 0-600 AMPS SHALL BE UL CLASS "RK-5" LOW PEAK DUAL ELEMENT TIME DELAY WITH 200,000 AMPERE INTERRUPTING RATING AS MANUFACTURED BY BUSSMAN UNLESS NOTED OTHERWISE.
- G15. ALL WATER HEATERS SHALL HAVE DISCONNECT SIZED PER 422.11(E)3).
- G16. ELECTRICAL CONTRACTOR SHALL MAKE ALL FINAL ELECTRICAL CONNECTIONS TO EQUIPMENT REGARDLESS OF WHO SUPPLIES THE EQUIPMENT. THIS INCLUDES ALL HVAC, PLUMBING AND OWNER FURNISHED EQUIPMENT CONNECTIONS OF 120V OR HIGHER.
- G17. RACEWAYS SHALL BE INSTALLED CONCEALED IN NEW WALL CONSTRUCTION, ABOVE CEILINGS, BELOW FLOOR, AND IN OTHER CAVITIES TO THE GREATEST EXTENT POSSIBLE. WHERE EXPOSED RACEWAYS MUST BE USED, LAYOUT RACEWAYS TO MINIMIZE THE NUMBER OF VERTICAL RUNS.
- G18. ALL EXPOSED RACEWAY SHALL BE RUN PARALLEL OR PERPENDICULAR TO THE BUILDING SURFACES AND SHALL BE PAINTED AS DIRECTED BY THE ARCHITECT. NO EXPOSED CONDUIT SHALL BE ALLOWED IN FINISHED SPACES EXCEPT AS PERMITTED BY OWNER OR ARCHITECT. EXPOSED RACEWAY IN FINISHED SPACES SHALL BE WIREMOLD TYPE.
- G19. BEFORE COMMENCING WITH ANY ROUGH-IN, COORDINATE THE EXACT LOCATION AND MOUNTING HEIGHT OF ALL WALL MOUNTED DEVICES WITH THE ARCHITECTURAL INTERIOR ELEVATIONS, CASEWORK SHOP DRAWINGS, AND EXISTING CONDITIONS. IF ANY DISCREPANCIES ARE DISCOVERED, NOTIFY THE ARCHITECT FOR FURTHER DIRECTION. MINOR ADJUSTMENTS IN DEVICE LOCATION, I.E. 5/8" IN ANY DIRECTION SHALL BE DONE AT NO ADDITIONAL COST TO THE CONTRACTOR.
- G20. ALL WIRING SHALL BE INSTALLED IN IMC, RMC, EMT OR TYPES AC AND MC FLEXIBLE CABLES. RNC CONDUIT (PVC), SHALL ONLY BE USED UNDERGROUND AND OUTDOORS, WHERE NOT SUBJECT TO PHYSICAL DAMAGE. MINIMUM SIZE CONDUIT SHALL BE 3/4". AC AND MC FLEXIBLE CABLES SHALL BE USED ONLY IN AREAS PERMITTED BY CODE. INDOOR BRANCH CIRCUIT WIRING MAY BE TYPE NM, NMC, OR NMS FOR DWELLING UNITS OR OTHER BUILDINGS PERMITTED TO BE OF TYPES III, IV OR V CONSTRUCTION. DWELLING UNIT SERVICE FEEDERS MAY BE TYPE SE OR USE CABLES IN AREAS PERMITTED BY CODE. AMPACITY FOR SE AND USE CABLES SHOWN ON THE SER FEEDER SCHEDULE INCLUDED IN THESE DRAWINGS IS BASED ON THE 60 C AMPACITY OF TABLE 310.15(B)(16) FOR INSTALLATION IN INSULATION. SHOULD SER CABLE NOT BE IN CONTACT WITH INSULATION CONTACT ENGINEER FOR REVISED FEEDER SIZES (IN INSULATION SHALL BE AS DEFINED IN ARTICLE 310.15(A)(2) AND AS DETERMINED BY THE LOCAL AHJ). ALL SER FEEDERS LOCATED WITHIN TYPE I AND/OR II BUILDING AREAS (NONCOMBUSTIBLE CONSTRUCTION) SHALL BE RUN IN EMT CONDUIT PER NEC. ONCE THE CONDUIT PENETRATES THE TRANSITION SLAB AND ENTER INTO THE TYPE III, IV OR V CONSTRUCTION THE SER CABLE MAY BE RUN FREELY AS ALLOWED PER NEC. ALL OTHER WIRING IN DWELLING UNITS EXCEEDING 50 AMPERES SHALL BE INSTALLED IN EMT INDOORS OR PVC OUTDOORS, WHERE NOT SUBJECT TO PHYSICAL DAMAGE.
- G21. ALL FLEX SHALL BE LIQUID TIGHT FLEXIBLE METAL.
- G22. PROVIDE A PULL WIRE OR FISH TAPE IN ALL EMPTY CONDUITS. PROVIDE A BLANK COVER PLATE OVER ALL UNUSED BOXES INCLUDING DATA/COMM BOXES.
- G23. WHERE A SINGLE HOMERUN IS SHOWN THE CIRCUIT SHALL BE INSTALLED IN A DEDICATED CONDUIT, DO NOT COMBINE WITH OTHER CIRCUITS. WHERE A CIRCUIT HOMERUN IS NOT SHOWN THE CONTRACTOR SHALL COMBINE CIRCUITS AS FOLLOWS AND IN ACCORDANCE WITH THE NEC.
1. A MAXIMUM OF THREE 20A, 1 POLE BRANCH CIRCUITS MAY BE COMBINED IN COMMON HOMERUN SHARING A COMMON NEUTRAL OR WITH SEPARATE NEUTRALS, FOR A TOTAL OF SIX CURRENT CARRYING CONDUCTORS. ALL BRANCH CIRCUITS LARGER THAN 20A SHALL BE SEPARATELY HOMERUN TO PANEL.
 2. EACH MULTIWIRE BRANCH CIRCUIT SHARING A COMMON NEUTRAL SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES.
- G24. CONDUCTORS SHALL BE COPPER, RATED AT NOT LESS THAN 600 VOLTS. MINIMUM SIZE SHALL BE NO. 12 AWG UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL WIRE #8 AWG AND LARGER SHALL BE STRANDED, #10 THRU #12 AWG CONDUCTORS SHALL BE SOLID. ALL INSULATION TYPES SHALL BE THW/THWN. FEEDER CIRCUIT CONDUCTORS MAY BE COPPER OR ALUMINUM.
- G25. 20A/120V BRANCH CIRCUITS EXTENDING UP TO 56" IN LENGTH, FROM PANEL TO FARTHEST DEVICE, SHALL USE AT MINIMUM NO. 12 (CU) CONDUCTORS AND 3/4". FOR 20A/120V BRANCH CIRCUITS EXTENDING UP TO 93" IN LENGTH, FROM PANEL TO FARTHEST DEVICE, SHALL USE NO. 10 (CU) CONDUCTORS AND 3/4". ANY BRANCH CIRCUIT LENGTHS THAT EXCEED 93", THE ELECTRICAL CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY FOR UPDATED CONDUCTOR AND CONDUIT SIZES.
- G26. TO PREVENT UNDER-VOLTAGE, THE FEEDERS SHOWN ON THE VOLTAGE DROP TABLE(S) HAVE BEEN SIZED TO COMPENSATE FOR WHEREVER A MAXIMUM TOTAL VOLTAGE DROP ON BOTH FEEDERS AND BRANCH CIRCUITS TO THE FARTHEST DEVICE DOES NOT EXCEED 5%. FOR FEEDER LENGTHS EXCEEDING THE ONE-WAY DISTANCES PROVIDED ON THE VOLTAGE DROP TABLE(S) THE ELECTRICAL CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER PRIOR TO BIDDING, PURCHASING AND ROUGHING-IN FOR UPDATED CONDUCTOR AND CONDUIT SIZES BASED ON UPDATED VOLTAGE DROP CALCULATIONS.
- G27. FOR EVERY WIRING DEVICE MARK THE BRANCH CIRCUIT TO WHICH IT IS CONNECTED ON THE BACK OF EACH DEVICE PLATE, USING AN INDELEBIL MARKER PEN.
- G28. COORDINATE ALL DEVICE AND DEVICE PLATE COLORS WITH OWNER/ARCHITECT. DEVICES AND DEVICE PLATES LOCATED IN CABINERY SHALL BE A DARK COLOR TO MATCH CABINERY FINISH.
- G29. EXACT LOCATION OF ALL FLOOR-MOUNTED OUTLETS SHALL BE COORDINATED WITH THE OWNER/ARCHITECT BEFORE ROUGH-IN.
- G30. TWO OR MORE ADJACENT POWER OR COMMUNICATION RECEPTACLES SHALL BE GANGED WITH A COMMON FACEPLATE - IF THEY CANNOT BE GANGED THEY SHALL BE INSTALLED WITH A MINIMUM DISTANCE BETWEEN UNITS.
- G31. WALL RECEPTACLES SHOWN BACK TO BACK MAY BE OFFSET BUT SHALL BE INSTALLED DIRECTLY ADJACENT TO ONE ANOTHER.
- G32. LIGHT SWITCHES SHALL BE NO MORE THAN 6" FROM EDGE OF DOOR FRAME.
- G33. WHERE PENETRATIONS ARE MADE THROUGH A REQUIRED FIRE-RESISTIVE WALL, FLOOR, OR PARTITION FOR THE PURPOSE OF RUNNING RACEWAY CARRYING ELECTRICAL, TELEPHONE, TELEVISION, OR LOCAL COMMUNICATION AND/OR SIGNALING CIRCUITS, THE OPENING AROUND THE RACEWAY SHALL BE FIRE STOPPED PER THE STATE BUILDING CODE. COORDINATION WITH THE GENERAL CONTRACTOR SHALL BE MAINTAINED TO ENSURE THAT THIS FIRE STOPPING IS ACCOMPLISHED. USE APPROVED ASSEMBLIES SUCH AS THE FOLLOWING:
- * CONDUIT PENETRATIONS OF 1, 2, 3 & 4 HOUR GYP BOARD WALLS - U.L.#WL1001
 - * CONDUIT PENETRATIONS OF 2, 3 & 4 HOUR CONCRETE OR BLOCK WALLS - U.L.#CAJ1001
 - * CONDUIT PENETRATIONS OF 2, 3 & 4 HOUR CONCRETE FLOORS - U.L.#CAJ1001
 - * CONDUIT PENETRATIONS OF 1 HOUR GYPBOARD CEILING ASSEMBLY - L526
 - * MULT. CONDUIT PENETRATIONS OF 2, 3 & 4 HOUR CONCRETE OR BLOCK WALL OR FLOOR - CAJ1042
- G34. IN REQUIRED FIRE RATED WALLS AND PARTITIONS, OPENINGS FOR INSTALLATION OF BOXES SHALL BE IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS INCLUDED WITH THE BOX LISTING. COORDINATE CLOSELY WITH THE GENERAL CONTRACTOR TO ENSURE THAT THE INTEGRITY OF THE U.L. RATING IS MAINTAINED.
- G35. OUTLET BOXES FOR DEVICES MOUNTED ON OPPOSITE SIDES OF FIRE RATED PARTITIONS SHALL NOT BE MOUNTED IN THE SAME WALL CAVITY. SEPARATE WALL PENETRATIONS BY MOUNTING ON OPPOSITE SIDES OF WALL STUDS OR OTHER VERTICAL STRUCTURAL MEMBER IN THE WALL.
- G36. PRIOR TO ORDERING ANY EQUIPMENT THE ELECTRICAL CONTRACTOR SHALL PROVIDE SHOP DRAWING SUBMITTALS TO THE OWNER, ARCHITECT AND ELECTRICAL ENGINEER FOR THE LIGHTING FIXTURES, ELECTRICAL GEAR, FIRE ALARM SYSTEM AND OTHER SIMILAR SYSTEMS. SHOP DRAWING SUBMITTALS SHALL BE PROVIDED REGARDLESS IF THE EQUIPMENT BEING SUPPLIED IS THE SAME AS WHAT IS SPECIFIED ON THE PLANS.

- G37. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING RESTRAINTS TO RESIST THE EARTHQUAKE EFFECTS ON THE ELECTRICAL SYSTEM. THE REQUIREMENTS FOR THOSE RESTRAINTS ARE FOUND IN THE IBC, THE ANCHORING OF THE EQUIPMENT SHALL COMPLY WITH IBC SECTION 1613.
- G38. IF DURING THE COURSE OF WORK THE ELECTRICAL CONTRACTOR DISCOVERS A PROBLEM WITH THE PERFORMANCE OF THE INSTALLATION RELATIVE TO THE PLANS AND SPECIFICATIONS OR NEC OR OTHER CODES, THE ELECTRICAL CONTRACTOR SHALL IMMEDIATELY BRING THE PROBLEM TO THE ATTENTION OF THE ARCHITECT AND ENGINEER FOR RESOLUTION PRIOR TO THE EXECUTION OF THE WORK.
- G39. SEE PANEL SCHEDULES FOR BRANCH CIRCUIT CONDUCTOR SIZES. THE "WIRE SIZE" COLUMN INDICATES THE SIZE OF THE PHASE (IE HOT) AND NEUTRAL CONDUCTORS. THE EC SHALL SIZE THE EQUIPMENT GROUNDING CONDUCTORS PER NEC TABLE 250.122, THE EC SHALL SIZE THE CONDUIT (IF REQUIRED) PER NEC ANNEX C. THE QUANTITY OF CONDUCTORS IS BASED ON THE "POLE" COLUMN AND FOLLOWS THE PROCESS BELOW, PARALLEL SET QUANTITIES ARE MULTIPLIED BY THE NUMBER OF SETS:
- 120V/277V - 1 POLE
1- PHASE (IE HOT) - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
1- NEUTRAL - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
1- GROUND - PER NEC TABLE 250.122
CONDUIT SIZED PER NEC ANNEX C (IF REQUIRED)
- 208V/240V/480V - 2 POLE
2- PHASE (IE HOT) - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
1- NEUTRAL (EC VERIFY IF REQUIRED FOR INSTALLED EQUIPMENT) - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
1- GROUND - PER NEC TABLE 250.122
CONDUIT SIZED PER NEC ANNEX C (IF REQUIRED)
- 208V/240V/480V - 3 POLE
3- PHASE (IE HOT) - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
1- NEUTRAL (EC VERIFY IF REQUIRED FOR INSTALLED EQUIPMENT) - CONDUCTOR SIZE PER "WIRE SIZE" COLUMN IN PANEL SCHEDULE
1- GROUND - PER NEC TABLE 250.122
CONDUIT SIZED PER NEC ANNEX C (IF REQUIRED)
- G40. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH GEAR MANUFACTURER WHERE THE HIGHEST CONTINUOUS TRIP SETTING FOR WHICH THE ACTUAL DEVICE INSTALLED IN A CIRCUIT BREAKER IS RATED OR CAN BE ADJUSTED IS 1200A OR HIGHER SHALL HAVE ARC ENERGY REDUCTION IN ACCORDANCE WITH NEC 240.87.
- G41. COLOR CODE CONDUCTORS PER NEC. FEEDERS SHALL BE IDENTIFIED IN ACCORDANCE WITH NEC 215.12. USE BLACK, RED, AND BLUE FOR PHASES A, B, AND C RESPECTIVELY ON 208Y/120 VOLT THREE-PHASE Y SYSTEMS AND WHITE FOR THE NEUTRAL. ISOLATED GROUND WIRES SHALL BE GREEN WITH YELLOW BANDS OR STRIPES. THIS IDENTIFICATION SHALL BE MADE AT EACH POINT WHERE A CONNECTION IS MADE. COLORS SHALL BE FACTORY APPLIED FOR CONDUCTORS #6 AWG AND SMALLER. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE GREEN IN COLOR AND MINIMUM #12 AWG. THE EC SHALL PROVIDE PLENUM RATED CABLE FOR ANY ELECTRICAL, TELEPHONE, COMMUNICATION, OR OTHER CABLE THAT ENTERS CEILING RETURN PLENUMS.
- G42. WHERE CONDUCTORS ARE RUN IN PARALLEL, THE EC SHALL COMPLY WITH NEC 310.4.
- G43. ISOLATED-GROUND TYPE RECEPTACLES SHALL BE INSTALLED IN ACCORDANCE WITH 250.146(D). ISOLATED GROUND RECEPTACLES SHALL BE ORANGE IN COLOR.
- G44. IN ASSEMBLY AREAS EXCEEDING 100 PERSONS OCCUPANCY, WIRING METHODS SHALL COMPLY WITH NEC 518.

ELECTRICAL SYSTEM AND EQUIPMENT METHOD OF COMPLIANCE SUMMARY	
ELECTRICAL SYSTEM AND EQUIPMENT	
Method of Compliance: <u>Energy Code - Prescriptive</u>	
Lighting schedule:	
lamp type required in fixture number of lamps in fixture ballast type used in the fixture number of ballasts in fixture total wattage per fixture total interior wattage specified vs. allowed: total exterior wattage specified vs. allowed:	See Light Fixture Schedule on sheet
Additional Efficiency Package Options (When using the 2018 NCECC; not required for ASHRAE 90.1)	
<input type="checkbox"/> C406.2 More Efficient HVAC Equipment Performance <input checked="" type="checkbox"/> C406.3 Reduced Lighting Power Density <input type="checkbox"/> C406.4 Enhanced Digital Lighting Controls <input type="checkbox"/> C406.5 On-Site Renewable Energy <input type="checkbox"/> C406.6 Dedicated Outdoor Air System <input type="checkbox"/> C406.7 Reduced Energy Use in Service Water Heating	
DESIGNER STATEMENT:	
To the best of my knowledge and belief, the design of this building/space complies with the electrical system and equipment requirements of the 2018 North Carolina Energy Conservation Code.	

ELECTRICAL SYMBOL LEGEND

	DIUPLEX RECEPTACLE, 20A, 120 VOLT, +18" A.F.F. (U.N.O.) *GFCI INDICATES GROUND FAULT PROTECTION *WP INDICATES WEATHERPROOF
	QUADPLEX RECEPTACLE, 20A, 120 VOLT, +18" A.F.F. (U.N.O.)
	SIMPLEX RECEPTACLE, 20A, 120 VOLT, +18" A.F.F. (U.N.O.) 208/230 VOLT 1Ø RECEPTACLE
	208/230 VOLT 3Ø RECEPTACLE DIUPLEX RECEPTACLE RECESSED IN FLOOR WITH BRASS COVER
	QUADPLEX RECEPTACLE RECESSED IN FLOOR WITH BRASS COVER
	DIUPLEX RECEPTACLE MOUNTED IN CEILING
	QUADPLEX RECEPTACLE MOUNTED IN CEILING
	JUNCTION BOX
	DISCONNECT SWITCH, FUSED, HEAVY DUTY, NEMA 1 FOR INTERIOR, NEMA 3R FOR EXTERIOR, FUSE ACCORDING TO NAMEPLATE DATA
	NON-FUSED PULL DISCONNECT SWITCH, NEMA 1 FOR INTERIOR, NEMA 3R FOR EXTERIOR.
	TELEPHONE/DATA JACK (JUNCTION BOX WITH 1" CONDUIT STUBBED TO ABOVE CEILING) CONDUCTORS AND TERMINATIONS PROVIDED AND INSTALLED BY COMMUNICATIONS CONTRACTOR
	PASSIVE INFRARED CEILING MOUNTING LINEAR OCCUPANCY SENSOR (WATTSTOPPER CX-100-3 OR EQUAL), TWO-SIDED AISLEWAY OCCUPANCY SENSOR, PROVIDE POWER PACK AS NEEDED FOR OPERATION, WIRE TO LOW VOLTAGE SWITCH FOR MANUAL OVERRIDE. SET OCCUPANCY TIMER TO 15 MINUTES.
	SINGLE POLE SWITCH
	3 WAY SWITCH
	WALL MOUNT INFRARED OCCUPANCY SENSOR WITH UP TO 30 MINUTE TIME-ON SETTING AND MANUAL OVERRIDE, MIN. COVERAGE 500- SQFT. WATTSTOPPER MODEL WS-250 OR EQUAL, 120/277V RATED
	MOTOR RATED SWITCH RATED AT 20 AMPS, VOLTAGE TO MATCH EQUIPMENT
	20 AMP SWITCH IN WEATHERPROOF BOX WITH WEATHERPROOF COVER
	ELECTRICAL PANEL
	DUSK/DAWN PHOTOCCELL
GC	GENERAL CONTRACTOR
EC	ELECTRICAL CONTRACTOR
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
RECEPT	RECEPTACLE
LTS	LIGHTS
IG	ISOLATED GROUND
WP	WEATHER PROOF (DEVICE TO HAVE WEATHERPROOF IN-USE COVER)
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
AFCI	ARC FAULT CIRCUIT INTERRUPTER

LUMINAIRE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	CCT	MOUNTING	MAX WATTS	BALLAST/DRIVER	REMARKS
A	8' LINEAR LED	LITHONIA	CSS-L96-8000LM-UVOLT-35K-80CRI	3500K	SURFACE	75	LED	1
B	4' LINEAR LED	LITHONIA	CSS-L48-4000LM-UVOLT-35K-80CRI	3500K	SURFACE	35	LED	1
C	FLOOD LIGHT	NUVO	65-715	3000K	SURFACE	20	LED	1
D	EXTERIOR GOOSE NECK	NUVO	65-661	VARIABLE	SURFACE	50	LED	1
	EXIT UNIT COMBO LIGHT	EXITRONIX	VLED-1WH-EL90-R	-	VARIABLE	2	LED	1
	EMERGENCY WALL LIGHT	EXITRONIX	LED-90-G2	-	VARIABLE	2	LED	1
	REMOTE LED LAMP HEAD / WP	EXITRONIX	2CLED-WP	-	SURFACE	2	LED	1

1. PROVIDE INTEGRAL MOTION SENSOR.

GENERAL NOTES:

- A. THE CONTRACTOR SHALL VERIFY THE LEAD TIME OF ALL PRODUCTS SPECIFIED IN THIS SCHEDULE AT THE TIME OF PACKAGE QUOTE.
- B. DURING THE BID PROCESS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DELIVERY/SCHEDULING ISSUES.
- C. NO SUBSTITUTIONS WILL BE ALLOWED DUE TO THE LACK OF COORDINATION OF DELIVERY DATES AND CONSTRUCTION SCHEDULE AFTER BID.
- D. ALL EXPEDITED EXPENSES SHALL BE THE RESPONSIBILITY OF THE CONTRACTORS.
- E. FIXTURES TO BE INSTALLED IN CEILINGS, INDICATE ON THE ARCHITECTURAL PLANS AS HAVING INSULATION IN CONTACT WITH THE CEILING SURFACE. SHALL BE IC RATED BY MANUFACTURER.
- F. LIGHTING FIXTURES SHALL MEET THE AESTHETICS, DESCRIPTION AND SPECIFICATIONS, SUBSTITUTIONS SHALL INCLUDE PT. BY PT. CALCULATIONS.
- G. LIGHTING FIXTURES, AS SPECIFIED, HAVE BEEN SO SELECTED TO ACHIEVE REQUIRED/DESIRED FOOTCANDLE LEVELS IN THEIR RESPECTIVE AREA. HENCE SPECIFIC FIXTURE CHARACTERISTICS WHICH MAY CREATE PARTICULAR ILLUMINATION RESULTS ARE ESSENTIAL. ANY DEVIATIONS FROM SPECIFIED FIXTURES SHALL DEEM THE SUBMITTING AGENT AND CONTRACTORS RESPONSIBLE IN PROVIDING/SUCH DEVIATION FOR THE ARCHITECT/ENGINEER AND OWNER TO MAKE AN INFORMED DECISION.
- H. SUBSTITUTIONS APPROVED BY THE ENGINEER PREVIOUS TO BID ARE ACCEPTABLE AS LONG AS THEY ARE EQUAL TO THE FIXTURE SPECIFIED, UNLESS OTHERWISE NOTED. THIS INCLUDES LENS, COLORS, REFLECTORS, PHOTOMETRICS, HOUSING MATERIAL, FINISHES, ETC. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER WITH CUT SHEETS FOR APPROVAL. SUBSTITUTE FIXTURES SHALL BE PRICED WITH THE SPECIFIED FIXTURE AND LISTED SEPARATELY SO THE ARCHITECT, ENGINEER AND OWNER CAN MAKE AN INFORMED DECISION.
- I. ANY FIXTURE WITH THE TEXT "N.L." ADJACENT TO IT SHALL INDICATE THAT THAT FIXTURE IS A NIGHT LIGHT (24HR LIGHT), THE FIXTURE SHALL BE CONNECTED TO THE UNSWITCHED HOT LEG OF THE INDICATED CIRCUIT.
- J. ACRYLIC PRISMATIC LENSES SHALL BE 0.156" NOMINAL MINIMUM THICKNESS.
- K. ALL EXIT AND EMERGENCY FIXTURES SHALL COMPLY WITH NCSB STANDARDS AND HAVE AUTOMATIC TESTING DEVICES.
- L. LED EMERGENCY BATTERY SHALL PROVIDE 1400 MINIMUM LUMENS OUTPUT FROM 1 LAMP FOR 90 MINUTES MINIMUM.
- M. ELECTRICAL CONTRACTOR SHALL CONNECT ALL LED EMERGENCY FIXTURES TO CLOSEST AVAILABLE LIGHTING CIRCUIT UNLESS NOTED OTHERWISE.
- N. LED MODULES SHALL BE REPLACEABLE.
- O. ELECTRICAL CONTRACTOR SHALL RECEIVE APPROVAL FOR ALL LIGHTING FIXTURES FROM ARCHITECT/OWNER PRIOR TO PURCHASE AND ROUGH-IN. THE ABOVE FIXTURE TYPES ARE LISTED AS THE DESIGN BASIS.

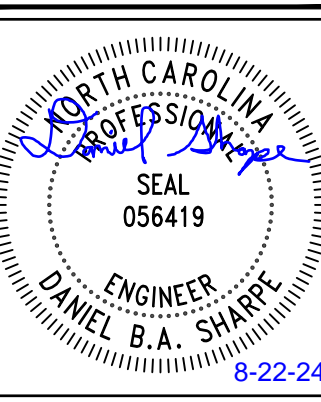
ELECTRICAL DRAWING INDEX	
E0.1	ELECTRICAL LEGENDS AND NOTES
E1.1	LIGHTING PLAN - BOTTOM FLOOR
E1.2	LIGHTING PLAN - TOP FLOOR
E1.3	POWER PLAN - BOTTOM FLOOR
E1.4	POWER PLAN - TOP FLOOR
E2.1	PANEL SCHEDULES AND ONE-LINE DIAGRAM
E3.1	ELECTRICAL DETAILS



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DESIGN FOR:
BAUCOM BUSINESS PLAZA - S1
 11132 U.S. 401 N
 FUQUAY-VARINA, NC 27526

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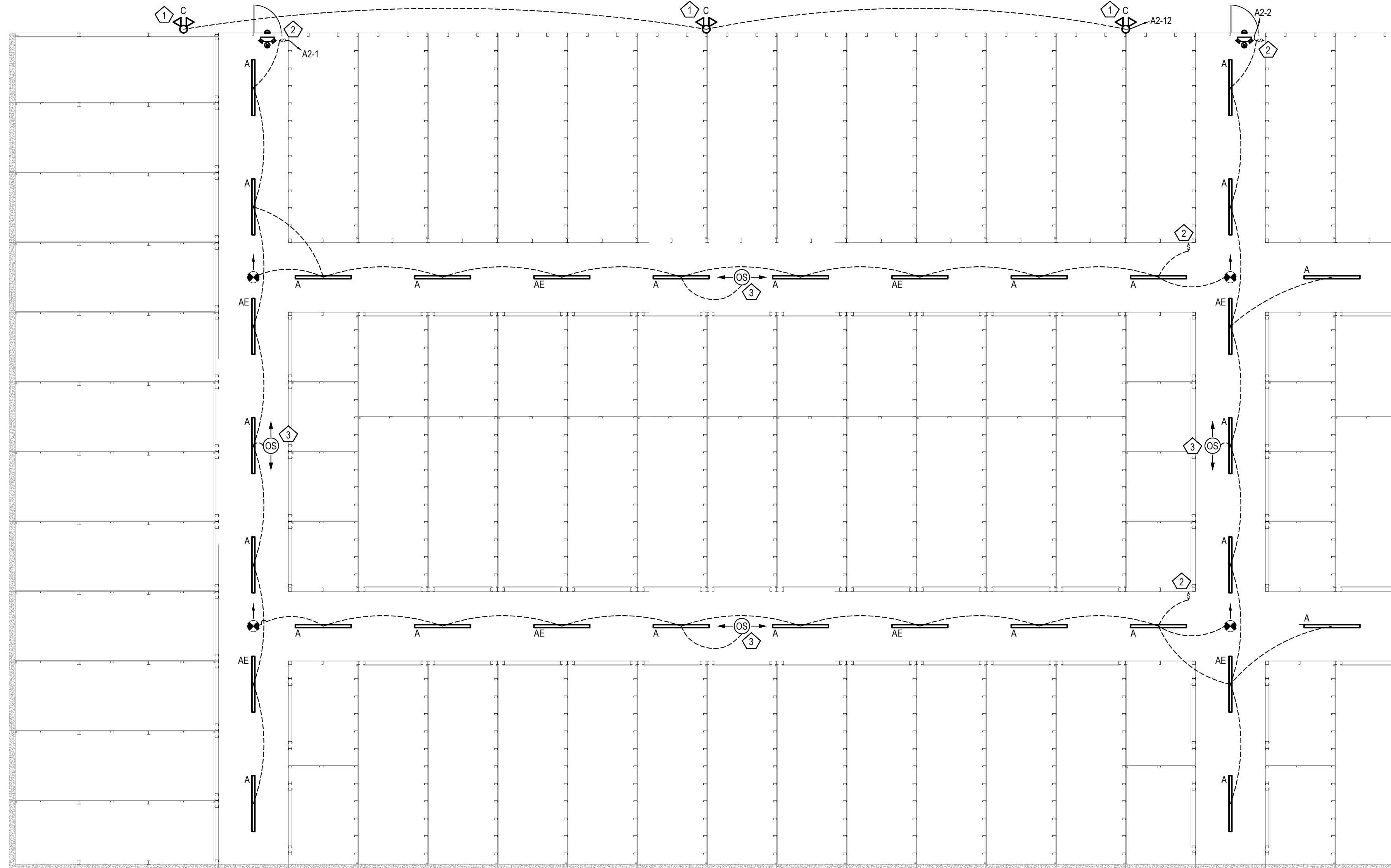
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PROJECT NO.: **24-029**
 DRAWN BY: **DBS**
 CHECKED BY: **DBS**

ELECTRICAL LEGENDS AND NOTES

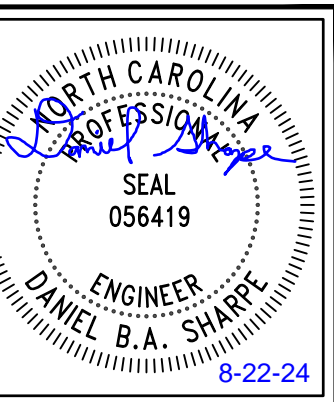
E0.1

LIGHTING KEYNOTE LEGEND	
KEY VALUE	KEYNOTE TEXT
1	LIGHTING TO BE CONTROLLED BY INTEGRAL MOTION SENSORS TO FIXTURES.
2	PROVIDE LOW VOLTAGE SWITCH FOR MANUAL CONTROL OF LIGHTING FIXTURES.
3	VERIFY ANGLE AND MOUNTING LOCATION OF 2-WAY LINEAR MOTION SENSOR TO ENSURE OPERATION IN SPACE.



1 LIGHTING PLAN - BOTTOM FLOOR
SCALE - 3/32" = 1'0"

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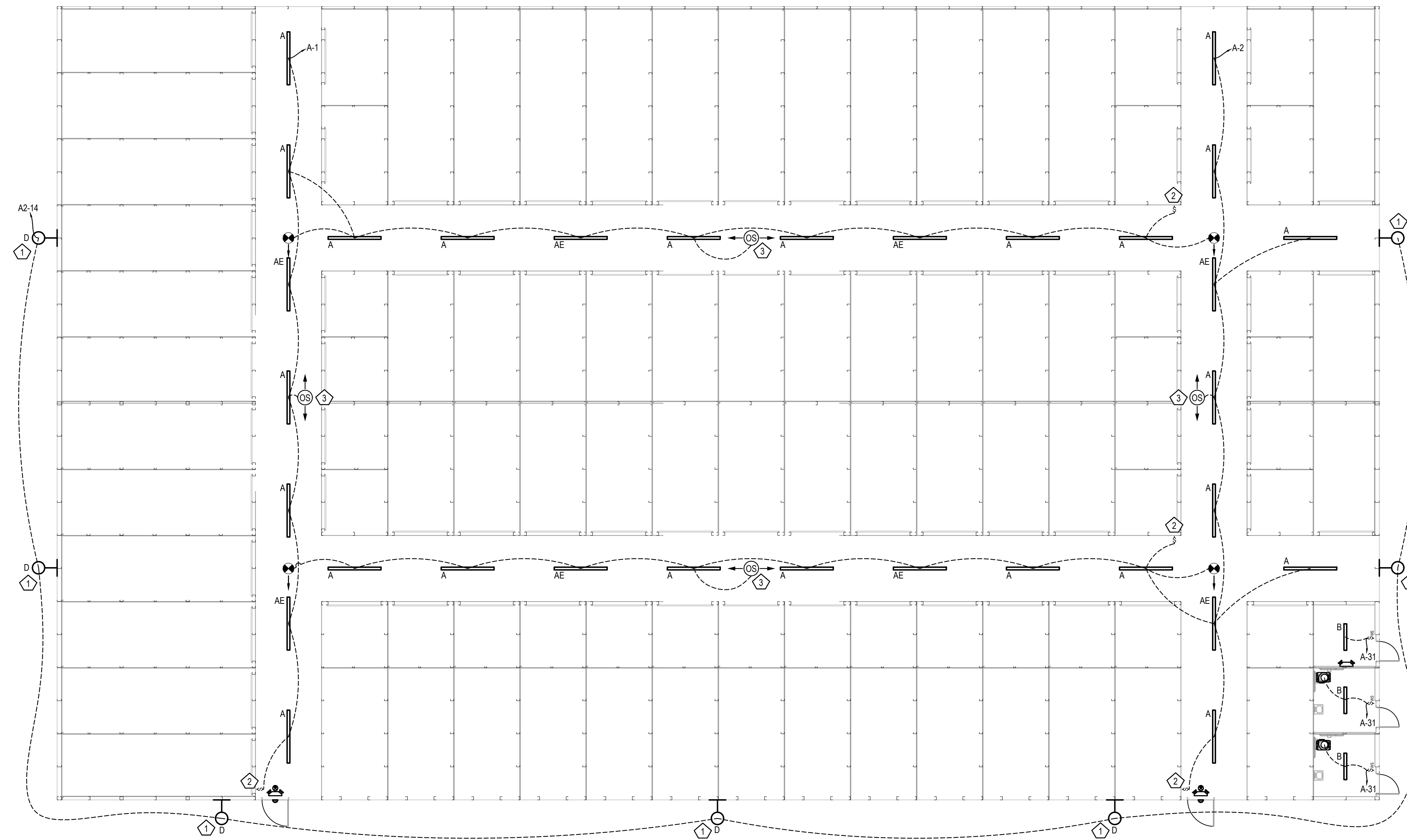
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LIGHTING PLAN - BOTTOM FLOOR

E1.1

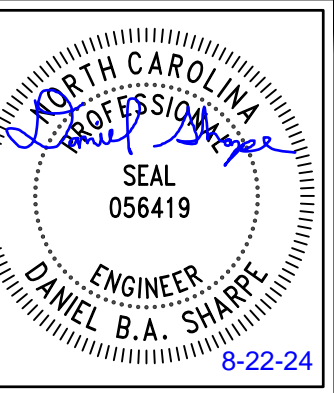
LIGHTING KEYNOTE LEGEND	
KEY VALUE	KEYNOTE TEXT
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2	PROVIDE LOW VOLTAGE SWITCH FOR MANUAL CONTROL OF LIGHTING FIXTURES.
3	VERIFY ANGLE AND MOUNTING LOCATION OF 2-WAY LINEAR MOTION SENSOR TO ENSURE OPERATION IN SPACE.



1 LIGHTING PLAN - TOP FLOOR
SCALE - 3/32" = 1'0"

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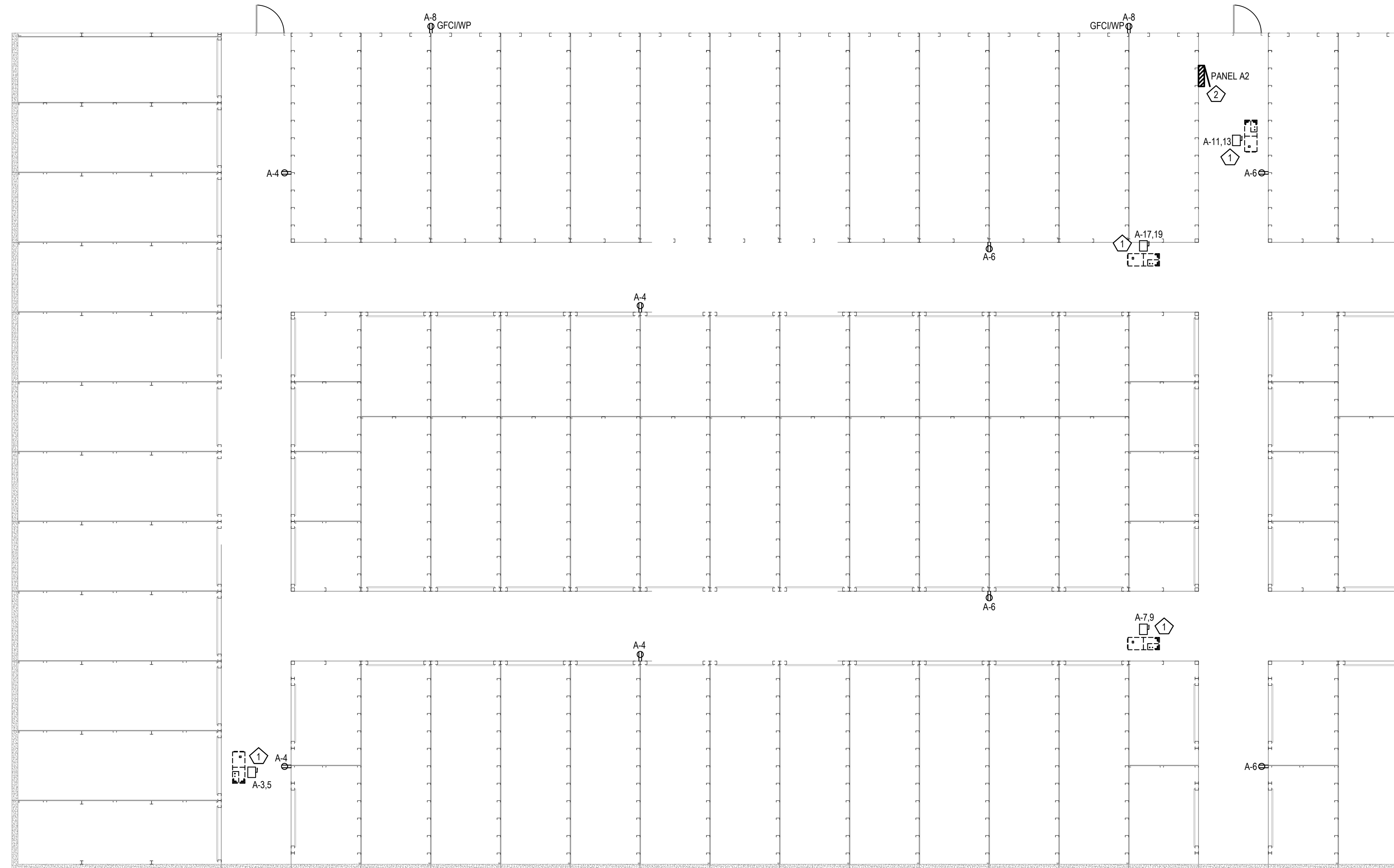
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PROJECT NO.: 24-029
DRAWN BY: DBAS
CHECKED BY: DBAS
LIGHTING PLAN - TOP FLOOR

E1.2

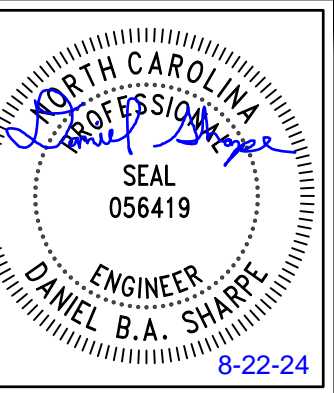
POWER KEYNOTE LEGEND	
KEY VALUE	KEYNOTE TEXT
1	PROVIDE EQUIPMENT DISCONNECT. REFER TO MECHANICAL EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
2	VERIFY EXACT MOUNTING LOCATION OF PANEL PRIOR TO BEGINNING WORK.



1 POWER PLAN - BOTTOM FLOOR
SCALE - 3/32" = 10"

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DESIGN FOR:
BAUCOM BUSINESS PLAZA - S1
11132 U.S. 401 N
FUQUAY-VARINA, NC 27526

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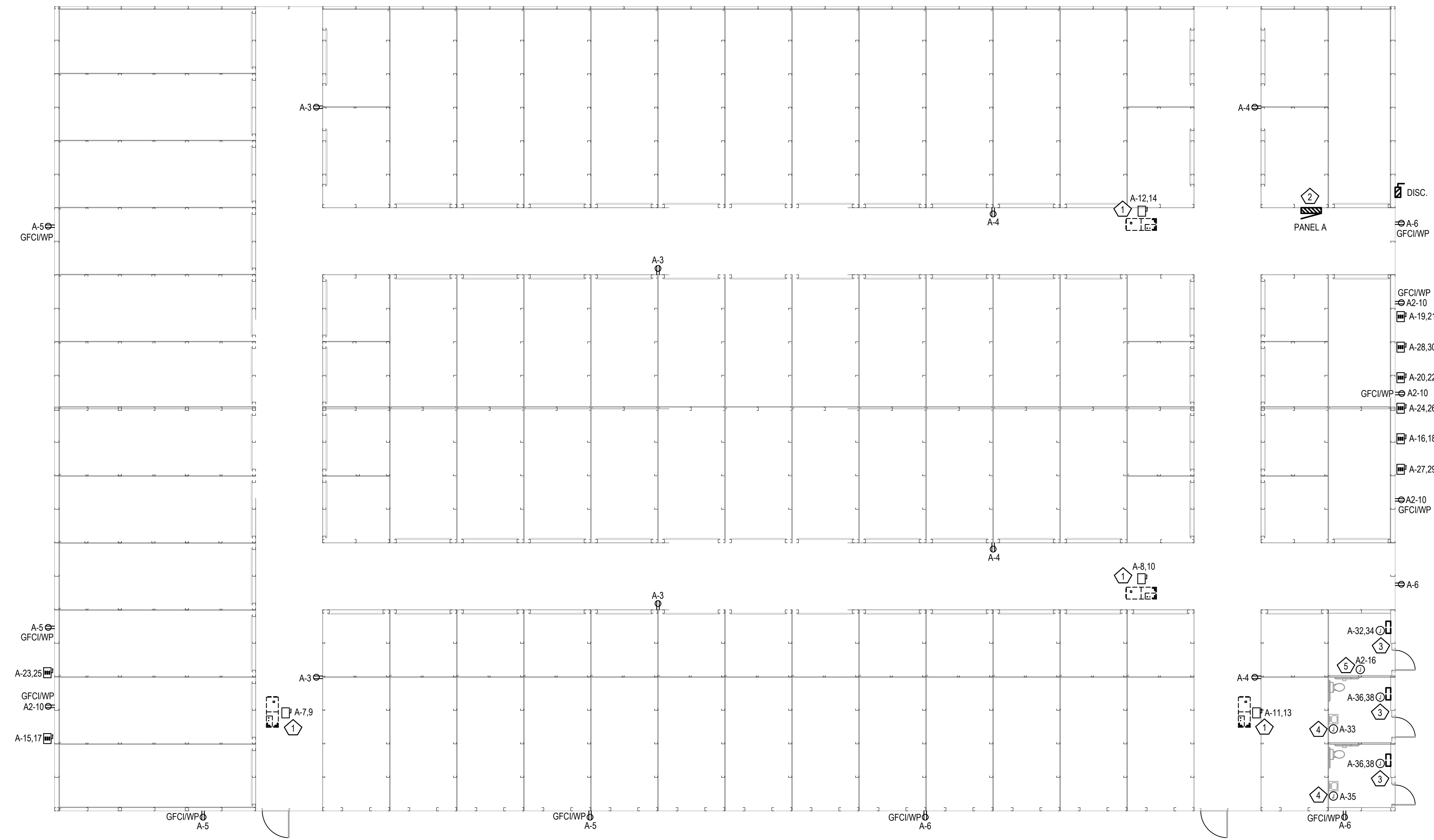
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PROJECT NO.: 24-029
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POWER PLAN - BOTTOM FLOOR

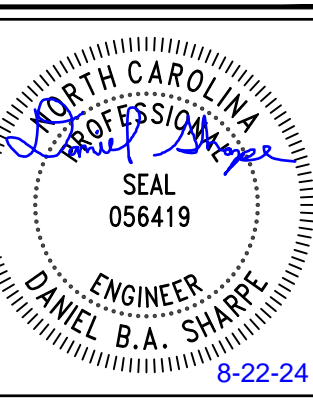
E1.3

POWER KEYNOTE LEGEND	
KEY VALUE	KEYNOTE TEXT
1	PROVIDE EQUIPMENT DISCONNECT. REFER TO MECHANICAL EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
2	VERIFY EXACT MOUNTING LOCATION OF PANEL PRIOR TO BEGINNING WORK.
3	PROVIDE RECESSED JUNCTION BOX FOR UNIT HEATER.
4	PROVIDE JUNCTION BOX FOR POINT OF USE WATER HEATER. PROVIDE MEANS OF DISCONNECT FOR MAINTENANCE.
5	PROVIDE JUNCTION BOX FOR FIRE ALARM CONTROL PANEL.



1 POWER PLAN - TOP FLOOR
SCALE - 3/32" = 10"

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PROJECT NO.: **24-029**
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POWER PLAN - TOP FLOOR

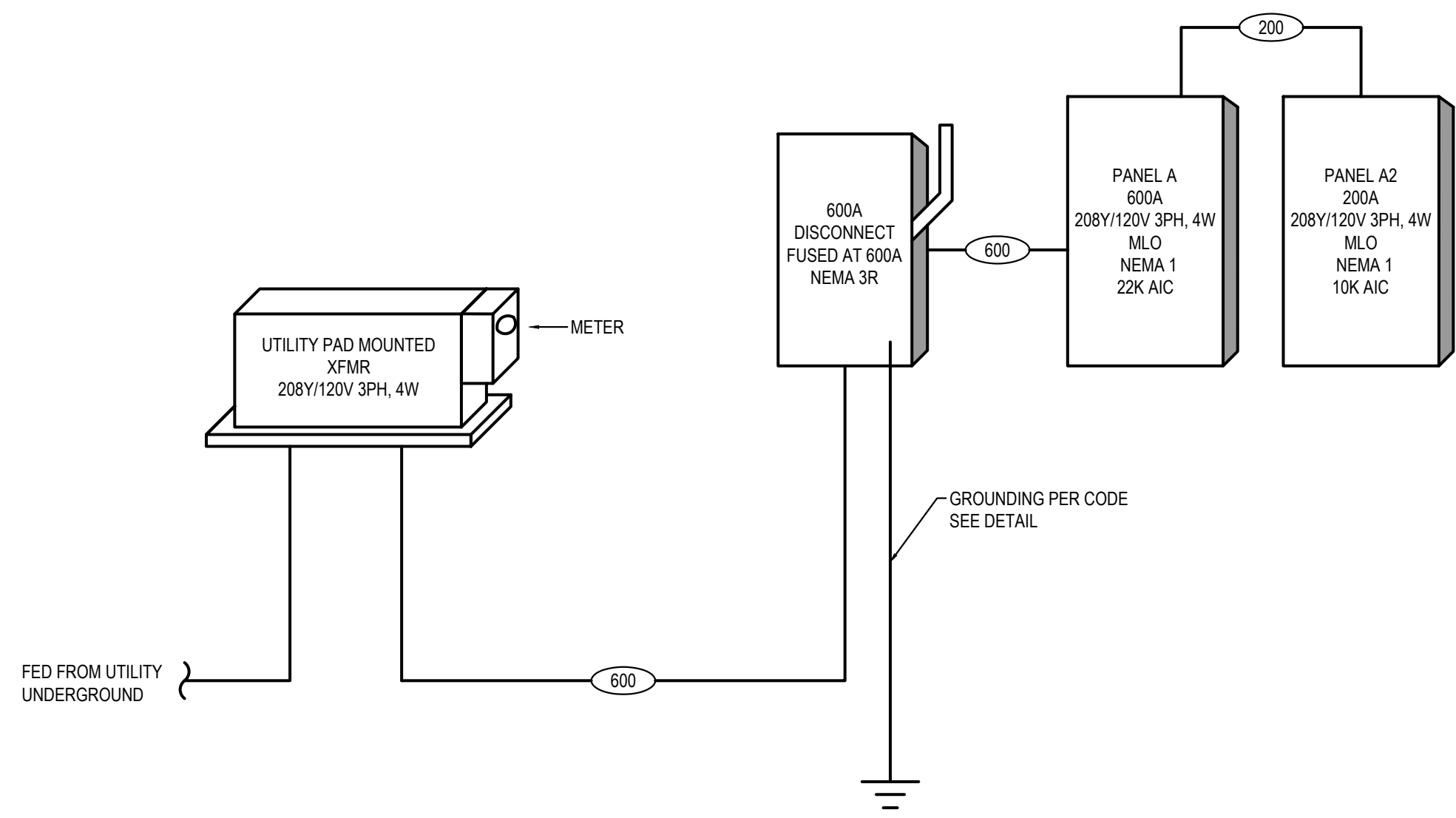
E1.4

600 AMP MAIN LUG ONLY										PANELBOARD A										LOCATION: S1	
600 AMP BUS RATING										42 POLES										ENCLOSURE RATING: NEMA 1	
208Y/120 VOLTS										3 PHASE 4 WIRE 60 HZ										MOUNTING: SURFACE	
CIRCUIT NO.	DESCRIPTION	BREAKER AMPS/POLES	LOAD KVA			BREAKER AMPS/POLES	DESCRIPTION	CIRCUIT NO.	LOAD KVA			BREAKER AMPS/POLES	DESCRIPTION	CIRCUIT NO.							
			PHASE A	PHASE B	PHASE C				PHASE A	PHASE B	PHASE C										
1	TOP FLOOR LIGHTING	20/1	1.31	1.69		20/1	TOP FLOOR LIGHTING	2				20/1	TOP FLOOR LIGHTING	2							
3	GENERAL RECEPTS.	20/1			0.72	0.72	20/1	GENERAL RECEPTS.	4			20/1	GENERAL RECEPTS.	4							
5	EXTERIOR RECEPTS.	20/1					20/1	EXTERIOR RECEPTS.	6			20/1	EXTERIOR RECEPTS.	6							
7	AHU-5	60/2	5.20	5.20			60/2	AHU-6	8			60/2	AHU-6	8							
9					5.20	5.20			10					10							
11	AHU-7	60/2					60/2	AHU-8	12			60/2	AHU-8	12							
13			5.20	5.20					14					14							
15	HP-1	45/2			2.71	2.71	45/2	HP-2	16			45/2	HP-2	16							
17									18					18							
19	HP-3	45/2	2.71	2.71			45/2	HP-4	20			45/2	HP-4	20							
21					2.71	2.71			22					22							
23	HP-5	45/2					45/2	HP-6	24			45/2	HP-6	24							
25			2.71	2.71					26					26							
27	HP-7	45/2			2.71	2.71	45/2	HP-8	28			45/2	HP-8	28							
29									30					30							
31	BATHROOM/SPRINKLER LIGHTING	20/1	0.35	1.50			20/2	EUH-1	32			20/2	EUH-1	32							
33	POINT OF USE WATER HEATER	20/1			2.40	1.50			34					34							
35	POINT OF USE WATER HEATER	20/1					20/2	EUH-2	36			20/2	EUH-2	36							
37			13.76	1.50					38					38							
39	PANEL A2	200/3					20/2	EUH-3	40			20/2	EUH-3	40							
41					16.32	1.50			42					42							
TOTAL PHASE KVA PER PHASE			51.75	49.82		49.82	DEMAND KVA:			180.40											
TOTALCONNECTED KVA			151.39			DEMAND AMPS:			501												
AMPS PER PHASE			431	415		415															

NOTES:
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200 AMP MAIN LUG ONLY										PANELBOARD A2										LOCATION: BOTTOM FLOOR	
225 AMP BUS RATING										30 POLES										ENCLOSURE RATING: NEMA 1	
208Y/120 VOLTS										3 PHASE 4 WIRE 60 HZ										MOUNTING: SURFACE	
CIRCUIT NO.	DESCRIPTION	BREAKER AMPS/POLES	LOAD KVA			BREAKER AMPS/POLES	DESCRIPTION	CIRCUIT NO.	LOAD KVA			BREAKER AMPS/POLES	DESCRIPTION	CIRCUIT NO.							
			PHASE A	PHASE B	PHASE C				PHASE A	PHASE B	PHASE C										
1	BOTTOM FLOOR LIGHTING	20/1	1.50	1.50		20/1	BOTTOM FLOOR LIGHTING	2				20/1	BOTTOM FLOOR LIGHTING	2							
3	GENERAL RECEPTS.	20/1			5.20	0.72	20/1	GENERAL RECEPTS.	4			20/1	GENERAL RECEPTS.	4							
5	AHU-1	60/2					60/2	AHU-2	6			60/2	AHU-2	6							
7			5.20	0.36					8					8							
9	AHU-2	60/2			5.20	0.72	60/2	AHU-3	10			60/2	AHU-3	10							
11									12					12							
13	AHU-3	60/2	5.20	0.35			60/2	AHU-4	14			60/2	AHU-4	14							
15					5.20	0.18			16					16							
17	AHU-4	60/2					60/2	SPACE	18			60/2	SPACE	18							
19	SPACE							SPACE	20					20							
21	SPACE							SPACE	22					22							
23	SPACE							SPACE	24					24							
25	SPACE							SPACE	26					26							
27	SPACE							SPACE	28					28							
29	SPACE							SPACE	30					30							
TOTAL PHASE KVA PER PHASE			14.11	17.22		16.395	DEMAND KVA:			63.59											
TOTALCONNECTED KVA			47.725			DEMAND AMPS:			177												
AMPS PER PHASE			118	144		137															

NOTES:
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1 ONE-LINE DIAGRAM
NOT TO SCALE

FEEDER SCHEDULE - 3 PHASE				
STANDARD OVERCURRENT PROTECTION SIZE	FEEDER WIRE - # SETS (CONDUCTOR SIZE, EQUIP. GND., CONDUIT SIZE)		CONDUCTOR TYPE: THHN - DRY, THWN - WET	
	COPPER WIRE	GEC	ALUMINUM WIRE	GEC
30	1 [4 #10, #10G, 3/4"C]		1 [4 #8, #8G, 3/4"C]	
35	1 [4 #8, #10G, 3/4"C]		1 [4 #6, #8G, 1"C]	
40	1 [4 #8, #10G, 3/4"C]		1 [4 #6, #8G, 1"C]	
45	1 [4 #6, #10G, 1"C]		1 [4 #4, #8G, 1-1/4"C]	
50	1 [4 #6, #10G, 1"C]		1 [4 #4, #8G, 1-1/4"C]	
60	1 [4 #4, #10G, 1-1/4"C]		1 [4 #3, #8G, 1-1/4"C]	
70	1 [4 #4, #8G, 1-1/4"C]		1 [4 #2, #6G, 1-1/4"C]	
80	1 [4 #3, #8G, 1-1/4"C]		1 [4 #1, #6G, 1-1/2"C]	
90	1 [4 #2, #8G, 1-1/4"C]		1 [4 #1/0, #6G, 2"C]	
100	1 [4 #1, #6G, 1-1/2"C]	#8	1 [4 #1/0, #6G, 2"C]	#6
110	1 [4 #1, #6G, 1-1/2"C]	#8	1 [4 #1/0, #4G, 2"C]	#6
125	1 [4 #1, #6G, 1-1/2"C]	#6	1 [4 #2/0, #4G, 2"C]	#4
150	1 [4 #1/0, #6G, 2"C]	#6	1 [4 #3/0, #4G, 2"C]	#4
175	1 [4 #2/0, #6G, 2"C]	#4	1 [4 #4/0, #4G, 2-1/2"C]	#2
200	1 [4 #3/0, #6G, 2"C]	#4	1 [4 #250KCMIL, #4G, 2-1/2"C]	#2
225	1 [4 #4/0, #4G, 2-1/2"C]	#2	1 [4 #300KCMIL, #2G, 3"C]	#1/0
250	1 [4 #250KCMIL, #4G, 2-1/2"C]	#2	1 [4 #350KCMIL, #2G, 3"C]	#1/0
300	1 [4 #300KCMIL, #4G, 3"C]	#2	1 [4 #500KCMIL, #2G, 3"C]	#1/0
350	2 [4 #2/0, #3G, 2"C]	#2	2 [4 #4/0, #1G, 2-1/2"C]	#1/0
400	2 [4 #3/0, #3G, 2"C]	#2	2 [4 #250KCMIL, #1G, 2-1/2"C]	#1/0
450	2 [4 #4/0, #2G, 2-1/2"C]	#1/0	2 [4 #300KCMIL, #1/0G, 3"C]	#3/0
500	2 [4 #250KCMIL, #2G, 2-1/2"C]	#1/0	2 [4 #350KCMIL, #1/0G, 3"C]	#3/0
600	2 [4 #350KCMIL, #1G, 3"C]	#2/0	2 [4 #500KCMIL, #2/0G, 3"C]	#4/0
700	2 [4 #500KCMIL, #1/0G, 3"C]	#2/0	3 [4 #350KCMIL, #3/0G, 3"C]	#4/0
800	3 [4 #300KCMIL, #1/0G, 3"C]	#3/0	3 [4 #400KCMIL, #3/0G, 3"C]	#4/0
1000	3 [4 #400KCMIL, #2/0G, 3"C]	#3/0	4 [4 #350KCMIL, #4/0G, 3"C]	#4/0
1200	4 [4 #350KCMIL, #3/0G, 3"C]	#3/0	4 [4 #500KCMIL, #250KCMIL G, 3"C]	#250 KCMIL
1600	5 [4 #400KCMIL, #4/0G, 3"C]	#3/0	6 [4 #400KCMIL, #350KCMIL G, 3"C]	#250 KCMIL
2000	6 [4 #400KCMIL, #250KCMIL G, 3"C]	#3/0	7 [4 #500KCMIL, #400KCMIL G, 3"C]	#250 KCMIL
2500	7 [4 #500KCMIL, #350KCMIL G, 3"C]	#3/0	9 [4 #500KCMIL, #600KCMIL G, 3"C]	#250 KCMIL
3000	8 [4 #500KCMIL, #400KCMIL G, 3"C]	#3/0	10 [4 #500KCMIL, #600KCMIL G, 3"C]	#250 KCMIL
4000	11 [4 #500KCMIL, #500KCMIL G, 3"C]	#3/0	13 [4 #500KCMIL, #750KCMIL G, 3"C]	#250 KCMIL

FEEDER SCHEDULE NOTES:
1. ALL FEEDER SIZES MAY NOT BE LISTED IN ONE-LINE DIAGRAM
2. ELECTRICAL CONTRACTOR TO VERIFY CONDUIT SIZE REQUIRED IF WIRE TYPES OTHER THAN THOSE LISTED ABOVE ARE USED. REFER TO APPLICABLE TABLE IN ANNEX C OF NEC.
3. IF CONDUIT OTHER THAN EMT IS REQUIRED, BASE BID ON NEXT TRADE SIZE ABOVE THAT INDICATED.
4. 'GEC' DENOTES GROUNDING ELECTRODE CONDUCTOR PER NEC TABLE 250.66.
* EC SHALL VERIFY WITH AUTHORITY HAVING JURISDICTION AND UTILITY COMPANY THAT ALUMINUM CONDUCTORS ARE ACCEPTABLE FOR USE AS UTILITY TRANSFORMER SECONDARIES AND FEEDER CIRCUITS.

SHARPE
ENGINEERING & CONSULTING, PLLC
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P: 336.475.8815
sharpengineers.com
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SEAL
056419
ENGINEER
DANIEL B. A. SHARPE
8-22-24

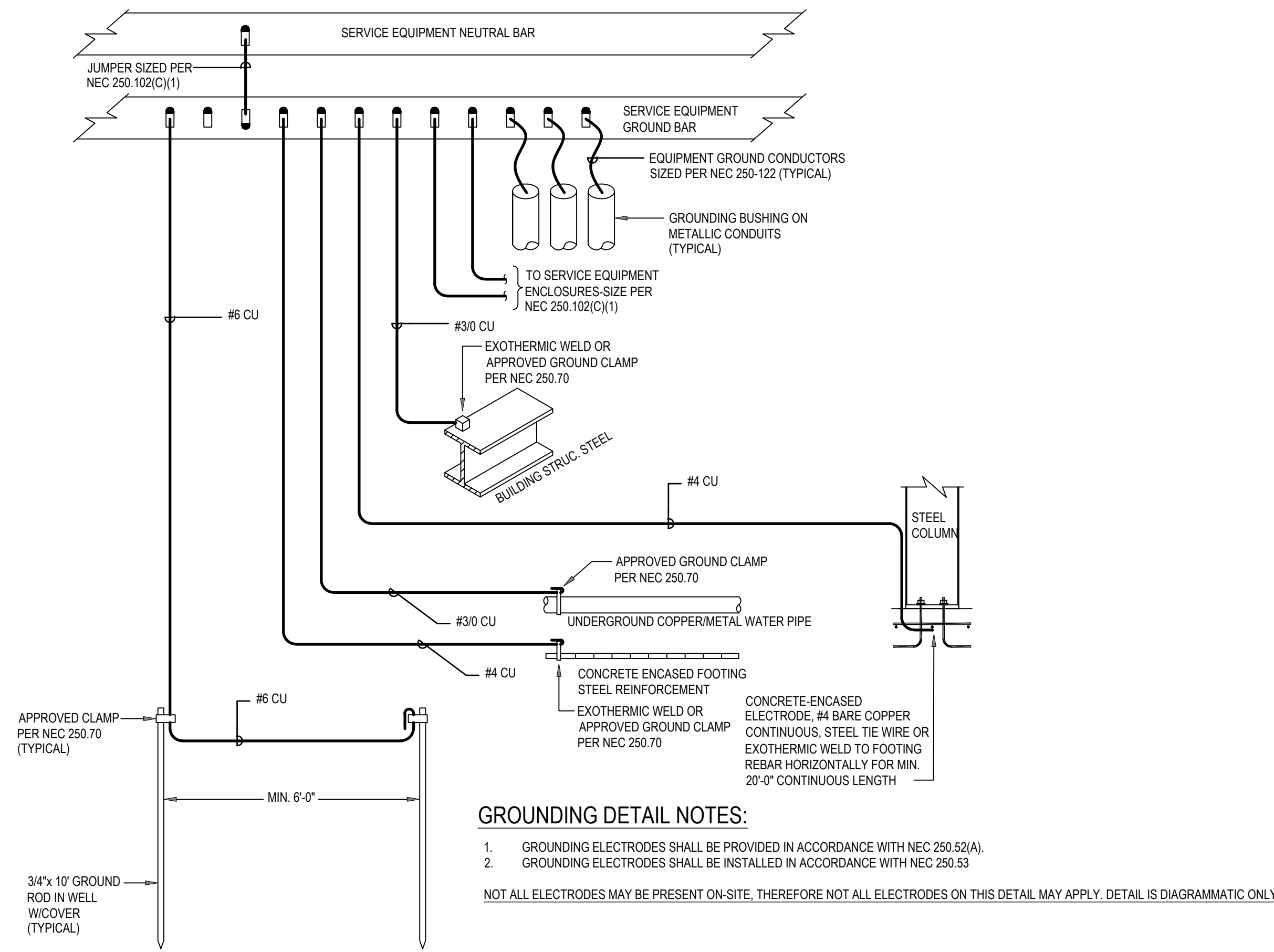
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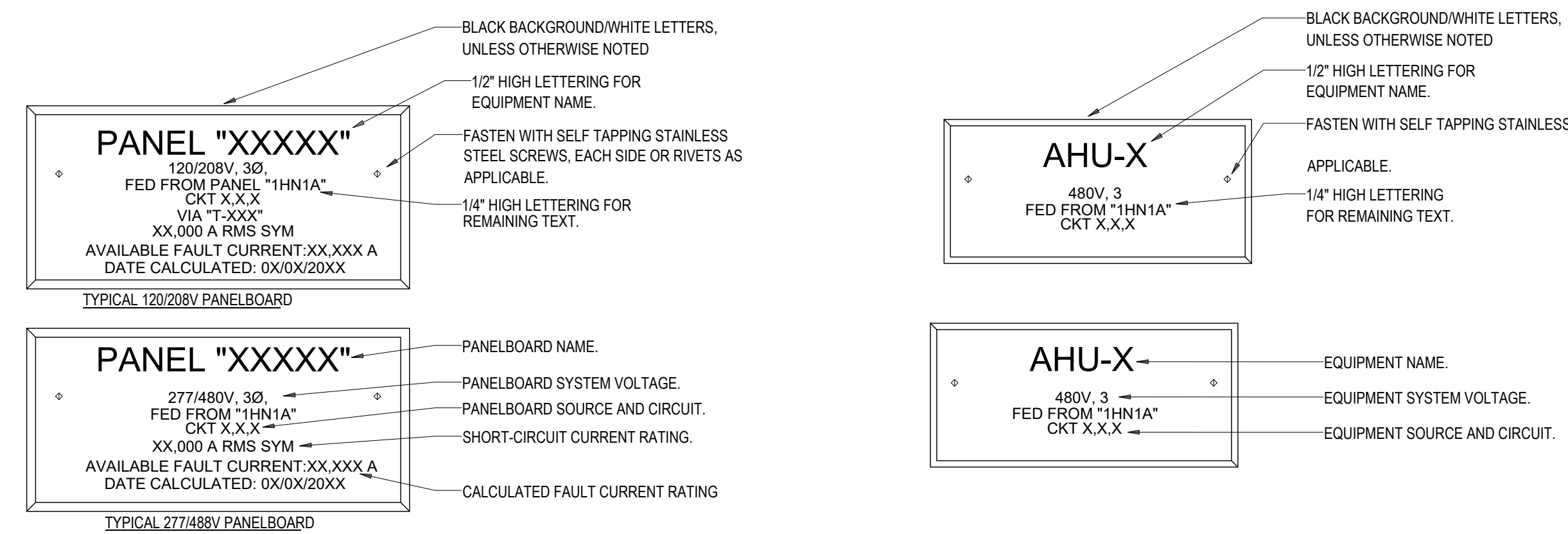
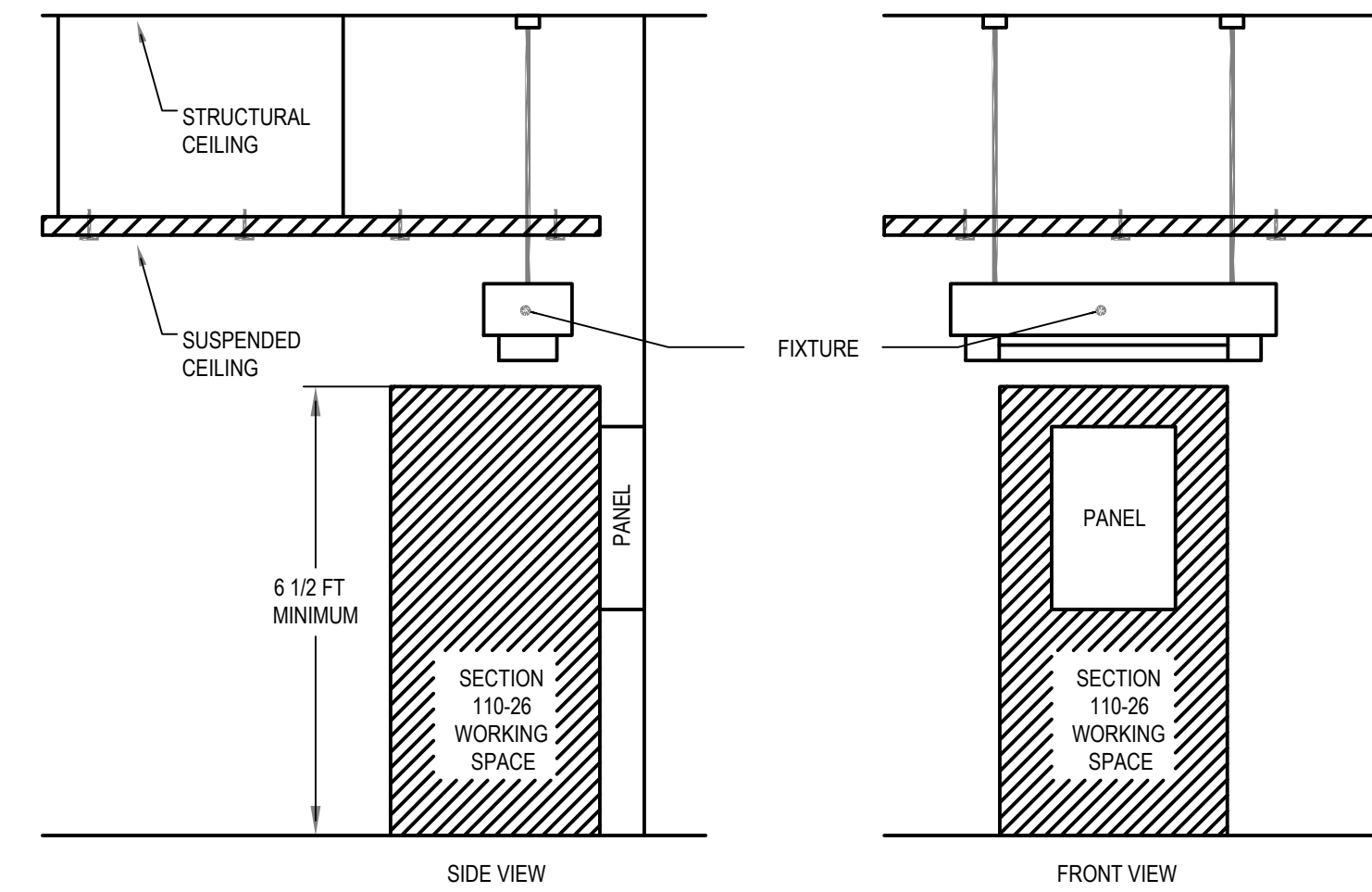
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PANEL SCHEDULES AND ONE-LINE DIAGRAM

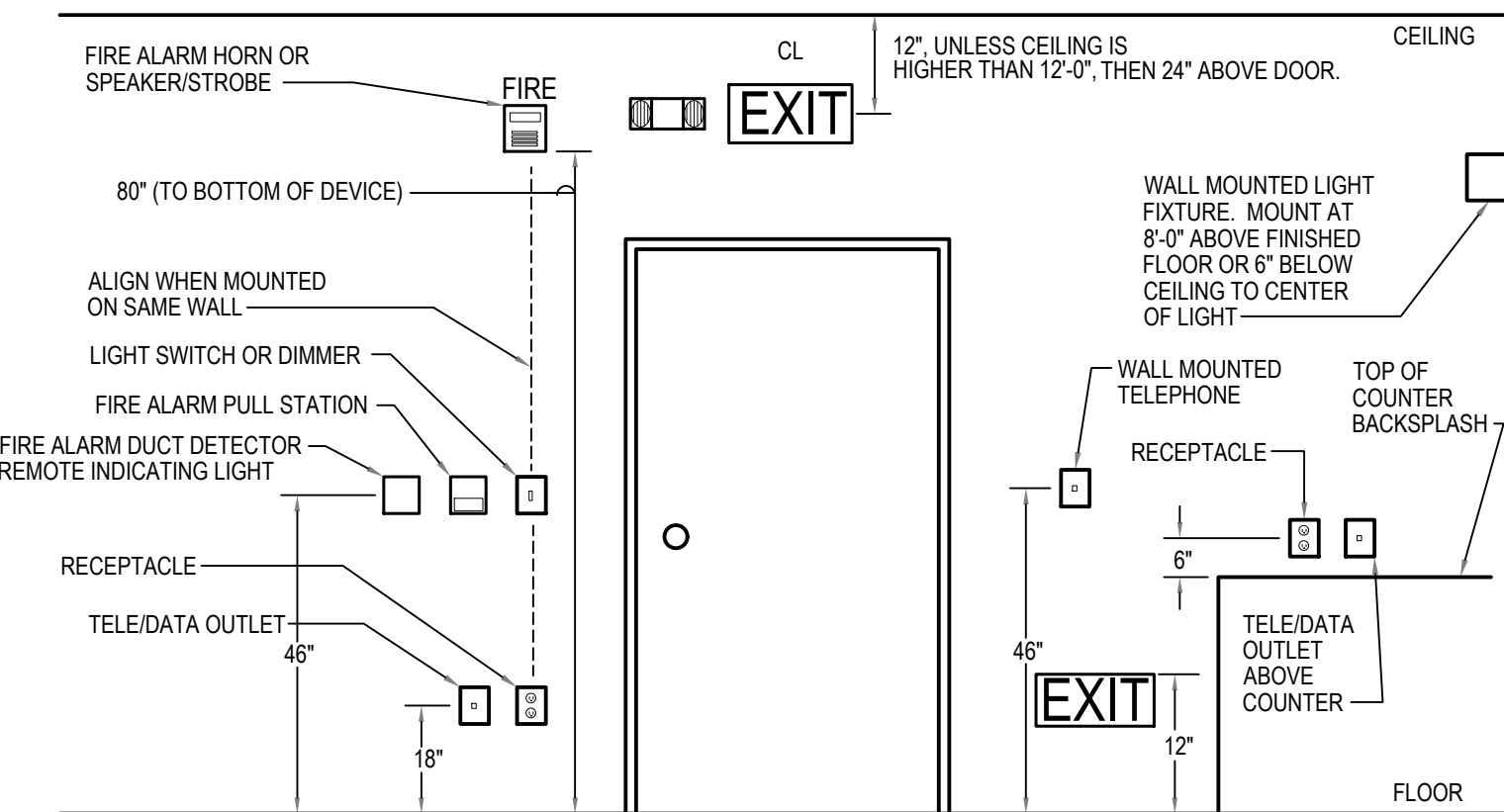
E2.1



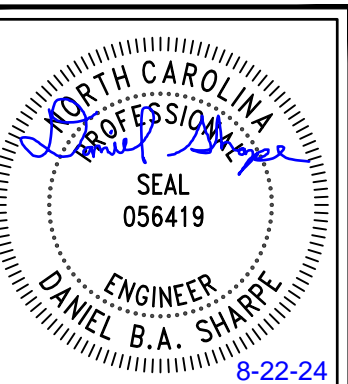
1 SERVICE GROUNDING DETAIL
NOT TO SCALE



3 TYPICAL NAMEPLATE DIAGRAM
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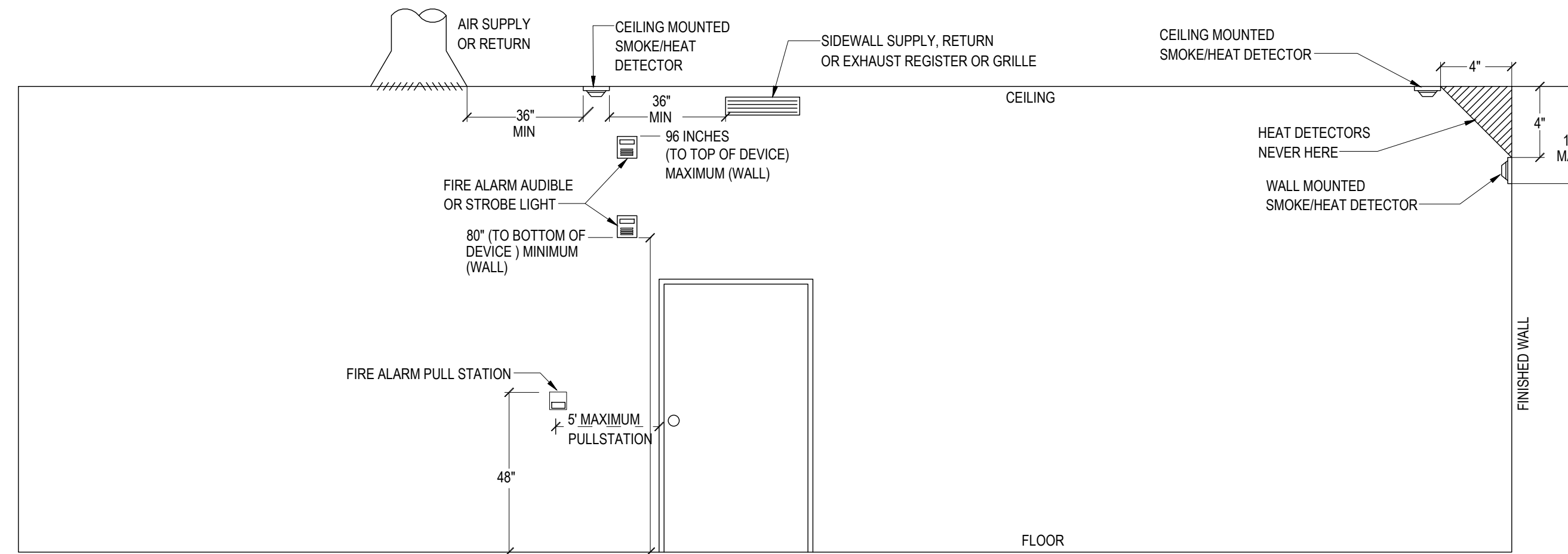
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ELECTRICAL DETAILS

E3.1

FIRE ALARM GENERAL NOTES

- FACP SHALL HAVE A MINIMUM 24HR. BATTERY BACKUP.
- FACP SHALL BE FULLY ANALOG ADDRESSABLE.
- FACP SHALL BE CONNECTED TO A UL APPROVED CENTRAL STATION.
- ZONE PER NFPA 72, 2013 AND MANUFACTURER'S RECOMMENDATIONS WITH NO ONE ZONE EXCEEDING 15,000 S.F. PER FLOOR.
- COORDINATE QUANTITY AND LOCATIONS OF DEVICES WITH CONTRACT DRAWINGS.
- LOCATE SMOKE DETECTOR WITHIN 5' OF THE MAGNETIC HOLD OPEN DOORS. (TYPICAL)
- LOCATE FIRE ALARM PULL STATION WITHIN 5' OF THE EXIT DOOR.
- LOCATE SMOKE/HEAT DETECTOR WITHIN 5' OF THE FA EQUIPMENT (FACP, FATC, NAC).
- LOCATION OF CEILING MOUNTED SMOKE/HEAT DETECTOR SHALL BE FIELD COORDINATED PRIOR TO ROUGH IN. THE DETECTOR SHALL BE A MINIMUM OF 2' AWAY FROM LIGHT FIXTURE AND A MINIMUM OF 3' AWAY FROM AIR DISTRIBUTION DEVICES.
- AUTOMATIC DOOR CLOSING SHALL BE ACCOMPLISHED BY THE ACTIVATION OF THE BUILDING FIRE ALARM SYSTEM. SMOKE DETECTOR ACTIVATION SHALL ALERT THE BUILDING FIRE ALARM SYSTEM. THE FIRE ALARM SYSTEM SHALL CAUSE ALL HOLD OPEN DOORS TO CLOSE UPON ALARM ACTIVATION IN THE BUILDING.
- ACTIVATION OF AN ALARM ZONE SHALL CAUSE ALL AIR HANDLING EQUIPMENT TO SHUT DOWN (ALL DAMPERS, AIR HANDLERS AND EXHAUST FANS MUST STOP).
- ACTIVATION OF KITCHEN HOOD SUPPRESSION SYSTEM PROVIDES SIGNAL TO FACP WHICH IN TURN ACTIVATES ALL ANNUNCIATING ZONES & SHUTS DOWN HOOD SUPPLY AIR. HOOD EXHAUST SHALL CONTINUE TO OPERATE.
- ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF ALL FLOW, PRESSURE, & TAMPER SWITCHES WITH FIRE PROTECTION CONTRACTOR PRIOR TO INSTALLATION.
- ALL VISUAL DEVICES WITHIN THE SAME AREA SHALL BE SYNCHRONIZED.
- ALL FIRE ALARM WIRING SHALL BE IN RED COLORED CONDUIT. FIRE ALARM CABLING SHALL BE PLENUM RATED.
- PROVIDE MULTI-TEMPORAL SOUNDING CAPABILITY AT ALL AUDIO DEVICES FOR EMERGENCY NOTIFICATION FOR NON VOICE SYSTEMS COMPONENTS.
- THE FIRE ALARM SYSTEM MANUFACTURER SHALL PROVIDE NOTIFICATION APPLIANCE CIRCUIT (NAC) POWER EXTENDERS AS REQUIRED.
- THE DUCT SMOKE DETECTORS SHALL COMPLY WITH IFC 907.2.12.1.2 AND 907.3.1.
- PROVIDE DITEK #DTK-DF120S1 SERIES OR EQUAL TVSS FOR 120V SUPPLY TO FIRE ALARM CONTROL PANELS, WITH TVSS DRY CONTACT TO BE MONITORED BY FACP. PROVIDE DITEK, DTK-2MHLP24F-WB OR EQUAL FOR ALL FIRE ALARM CABLES THAT EXIT THE PHYSICAL BUILDING. TAMPER SWITCHES DTK-2MHLP24B-WB AND EACH LUB/EXTENDER FIRE ALARM PANEL. NAC, PIV, IDC SURGE, DTK-2MHLP24B-WB OR EQUAL, DIALER SURGE, DTK-2MHPWB FIBER MEDIA CONVERTER PROTECTOR DTK-PVPIP OR EQUAL.
- THE CIRCUIT FEEDING THE FIRE ALARM PANEL IS DEDICATED FOR THE FIRE ALARM ONLY. BREAKER SHALL BE PROVIDED WITH A LABEL "FIRE ALARM CIRCUIT" AND SHALL BE RED. PROVIDE BREAKER LOCK ON DEVICE.
- PROVIDE REMOTE LIGHT WITH TEST SWITCH FOR DUCT SMOKE DETECTOR ON CEILING WHERE UNIT IS ABOVE CEILING.
- CONTRACTOR SHALL INCLUDE IN BID LABOR AND MATERIAL FOR UP TO (2) DUCT DETECTORS, (5) ANNUNCIATION DEVICES, (2) SMOKE DETECTORS AND (2) PULL STATIONS 100' FROM LOCAL PANEL (IN WALL) AS REQUIRED BY LOCAL AHJ/ENGINEER. INCLUDE ALL PROGRAMMING COSTS.
- CONTRACTOR RESPONSIBLE FOR SHOP DRAWINGS AS REQUIRED BY LOCAL AHJ.
- DUCT DETECTORS SHALL BE VERIFIED WITH THE MECHANICAL DRAWINGS FOR QUANTITY AND LOCATION. TOTAL QUANTITY MINIMUM SHALL BE BASED ON BOTH MECHANICAL SCHEDULES AND MECHANICAL PLAN LOCATIONS AND ELECTRICAL PLANS. WHEN DEVICE QUANTITIES (ELECTRICAL VS. MECHANICAL) ARE IN CONFLICT, PROVIDE THE GREATER QUANTITY OF DETECTORS.
- DIGITAL ALARM COMMUNICATOR TRANSMITTER SHALL BE ACCEPTABLE TO THE REMOTE CENTRAL STATION AND SHALL COMPLY WITH UL 632. CELLULAR LINE - SINGLE MAIN SOURCE. PROVIDE NAPCO STARLINK (SLD-CMDA-FIRE) FIRE ALARM COMMUNICATOR AND SLE-ANTEX50 EXTERNAL ANTENNA TO OR EQUAL AND COORDINATED WITH THE CELLULAR DIAL OUT SERVICE. CELLULAR DIAL OUT SHALL BE BACKED UP AS PART OF BATTERY BACKUP AS WELL AS GENERATOR BACKUP WHERE AVAILABLE. FUNCTIONAL PERFORMANCE UNIT SHALL RECEIVE AN ALARM, SUPERVISORY OR TROUBLE SIGNAL FROM FIRE ALARM CONTROL UNIT AND AUTOMATICALLY CAPTURE A PRESET NUMBER FOR A REMOTE CENTRAL STATION. WHEN CONTACT IS MADE WITH CENTRAL STATION(S), SIGNALS SHALL BE TRANSMITTED. IF SERVICE ON THE CELLULAR LINE IS INTERRUPTED FOR LONGER THAN 45 SECONDS, TRANSMITTER SHALL INITIATE A LOCAL TROUBLE SIGNAL. TRANSMITTER SHALL AUTOMATICALLY REPORT CELLULAR SERVICE RESTORATION TO THE CENTRAL STATION. IF SERVICE IS LOST, TRANSMITTER SHALL INITIATE THE LOCAL TROUBLE SIGNAL.
- SLEEPING AREAS SHALL COMPLY WITH NFPA 72 2013 SECTION 18.4.5.3. WHERE AUDIBLE APPLIANCES ARE PROVIDED TO PRODUCE SIGNALS FOR SLEEPING AREAS, AUDIBLE DEVICE SHALL PRODUCE A LOW FREQUENCY ALARM SIGNAL OF 520HZ SQUAREWAVE ALARM SIGNAL.



- NOTES:
- LOCATIONS WHERE TV MOUNT IS BACK TO BACK ON SAME WALL, AN OFFSET OF 8'-12" WILL BE NEEDED FOR INSTALLATION OF JACK/RECEPTACLE.
 - DEVICES ABOVE COUNTER TOPS SHALL BE A MAXIMUM OF 48" TO TOP OF DEVICE.
 - DEVICES NEXT TO DOOR EXIT SHALL BE WITHIN 8" (MAXIMUM) TYPICAL OF DOOR UNLESS OBSTACLES SUCH AS SIDELITES, ETC.
 - ALL DEVICES ARE TO CENTER LINE OF DEVICE, UNLESS OTHERWISE NOTED.

1 MOUNTING HEIGHTS OF DEVICES-ELEVATION

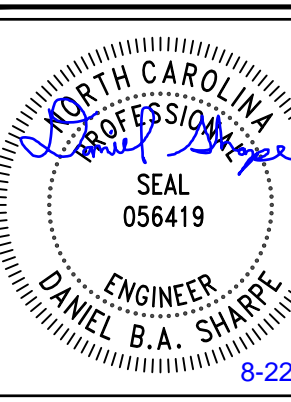
NOT TO SCALE

FIRE ALARM SYSTEM INPUT/OUTPUT MATRIX	SYSTEM OUTPUTS																								
	FACP ANNUNCIATION												NOTIFICATION				REQUIRED FIRE SAFETY CONTROL								
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
1 FIRE ALARM SYSTEM AC POWER FAILURE																									
2 FIRE ALARM SYSTEM LOW BATTERY																									
3 OPEN CIRCUIT																									
4 GROUND FAULT																									
5 NOTIFICATION APPLIANCE CIRCUIT SHORT																									
6 BUILDING MANUAL PULL STATIONS																									
7 CORRIDOR SMOKE DETECTORS																									
8 AREA SMOKE DETECTORS																									
9 HVAC AIR DUCT SMOKE DETECTORS																									
10 AREA HEAT DETECTORS																									
11 HOOD OR ROOF FIRE SUPPRESSION SYSTEM ALARM																									
12 SPRINKLER TAMPER SWITCH																									
13 SPRINKLER WATER FLOW IN BUILDING																									
14 SPRINKLER WATER FLOW IN ELEV EQUIP RM OR SHAFT																									
15 ELEV EQUIP RM AREA SMOKE DETECTOR																									
16 ELEV SHAFT AND ELEV EQUIP RM HEAT DETECTORS																									
17 ELEV LOBBY SMOKE DETECTORS - UPPER FLOORS																									
18 ELEV LOBBY SMOKE DETECTOR - RECALL FLOOR																									
19 ELEV CONTROLLER POWER SHUNT TRIP STATUS																									
20 FIRE PUMP POWER FAILURE/PHASE REVERSAL																									
21 FIRE PUMP RUNNING																									
22 FIRE PUMP SYSTEM NOT IN AUTOMATIC																									
23 LEGALLY REQUIRED GENERATOR SYSTEM LOW FUEL																									
24 LEGALLY REQUIRED GENERATOR NOT IN AUTOMATIC																									
25 AREA OF REFUGE TWO-WAY COMMUNICATIONS STATUS																									
26																									
27																									

NFPA FIRE ALARM LEGEND	
SYMBOL	DESCRIPTION
[FACP]	FIRE ALARM CONTROL PANEL
[TPRN]	FIRE ALARM TERMINAL CABINET (N = TRANSPONDER NUMBER)
[FSCP]	FIRE SUPPRESSION CONTROL PANEL (N DENOTES SUPPRESSION TYPE)
[GAP]	GRAPHIC ANNUNCIATOR PANEL
[DACT]	DIGITAL ALARM COMMUNICATOR TRANSMITTER
[FAA]	FIRE ALARM ANNUNCIATOR
[PRN]	PRINTER
[MIC]	REMOTE VOICE / EVACUATION VOICE / EVACUATION MICROPHONE
[E]	FIRE SERVICE OR EMERGENCY PHONE STATION
[WFS]	WATER FLOW SWITCH
[LTS]	LOW TEMPERATURE SWITCH
[HPS]	HIGH PRESSURE SWITCH
[MR]	MAIN / RESERVE
[PS]	PRESSURE DETECTOR / SWITCH
[VSS]	VALVE SUPERVISORY SWITCH
[AS]	ABORT SWITCH
[MRS]	MANUAL RELEASING STATION
[AIM]	ADDRESSABLE INPUT MONITOR
[AOM]	ADDRESSABLE OUTPUT (RELAY)
[AION]	ADDRESSABLE INPUT/OUTPUT MODULE (N DENOTES NUMBER OF INPUTS AND OUTPUTS)
[ACM]	ADDRESSABLE CONTROL MODULE
[GX]	GAS DETECTOR (X = GAS TYPE, EX. CO FOR CARBON MONOXIDE)
[HX]	HEAT DETECTOR/SENSOR (X = TYPE)
[GXHX]	PROVIDE BOX, AS SHOWN, TO DENOTE COMBINATION DETECTORS
[LH]	HEAT DETECTOR LINE TYPE
[E]	PULL STATION / FIRE ALARM
[GX]	SMOKE DETECTOR/SENSOR (DEFAULT PHOTOELECTRIC TYPE)
[GXION]	SMOKE DETECTOR - IONIZATION TYPE
[SS]	SMOKE ALARM (SINGLE STATION)
[MS]	SMOKE ALARM (MULT. STATION)
[SB]	DETECTOR WITH SOUNDER BASE
[MC]	DETECTOR - MULTI CRITERIA TYPE
[GXGX]	DUCT SMOKE DETECTOR (NFPA 72, SECTION 17.7.5.5)
[GX]	AUDIBLE ONLY APPLIANCE (WALL MOUNTED)
[GXCD]	VISUAL ONLY APPLIANCE (WALL MOUNTED)
[GXGXCD]	AUDIBLE/VISUAL APPLIANCE (WALL MOUNTED)
[GX]	VISUAL ONLY APPLIANCE (CEILING MOUNTED)
[GXGX]	AUDIBLE ONLY APPLIANCE (CEILING MOUNTED)
[GXGXCD]	AUDIBLE/VISUAL APPLIANCE (CEILING MOUNTED)
[R]	END OF LINE RESISTOR

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DESIGN FOR:
BAUCOM BUSINESS PLAZA - S1
11132 U.S. 401 N
FUQUAY-VARINA, NC 27526

REV. NO.	DATE	DESCRIPTION
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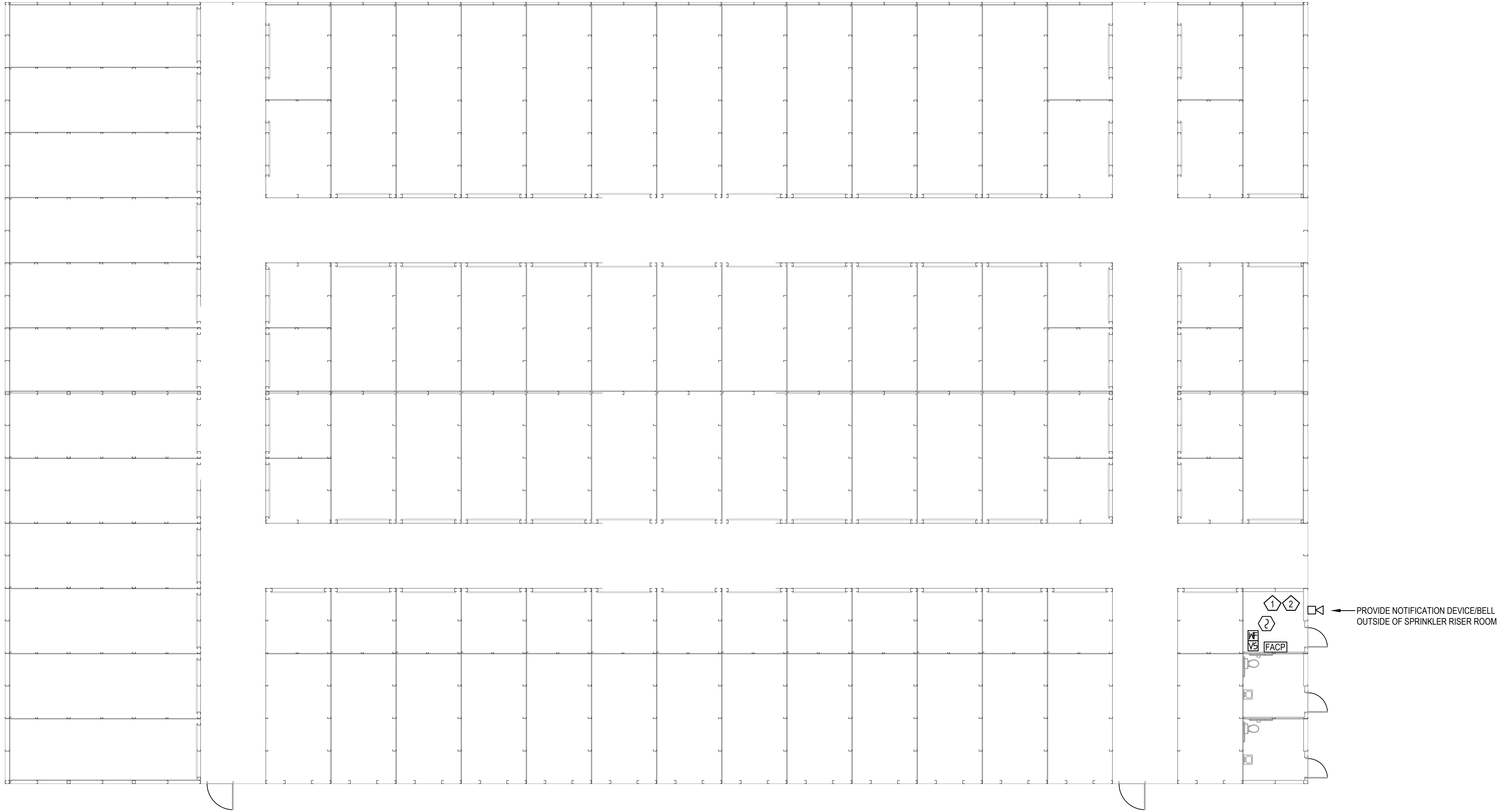
ISS. NO.	DATE	DESCRIPTION
1	8-22-24	FOR PERMITTING
2		
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PROJECT NO.: 24-029
DRAWN BY: OMS
CHECKED BY: OMS
FIRE ALARM LEGENDS AND NOTES

FA0.1

FIRE ALARM KEYNOTE LEGEND	
KEY VALUE	KEYNOTE TEXT
1	FIRE ALARM CONTROL PANEL LOCATED IN SPRINKLER ROOM. SMOKE ALARM TO BE PLACED ABOVE PANEL.
2	FLOW AND TAMPER SWITCHES TO BE INSTALLED WITH SPRINKLER SYSTEM AT RISER AND EACH ZONE CONTROL VALVE. COORDINATE ALL NECESSARY LOCATIONS WITH SPRINKLER CONTRACTOR.

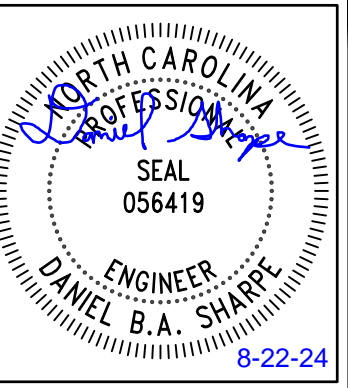
NOTE:
BUILDING IS SPRINKLER MONITORED ONLY



1 FIRE ALARM PLAN - TOP FLOOR
SCALE - 3/32" = 1'0"



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PROJECT NO.: 24-029
DRAWN BY: DBAS
CHECKED BY: DBAS

FIRE ALARM PLAN

FA1.1

