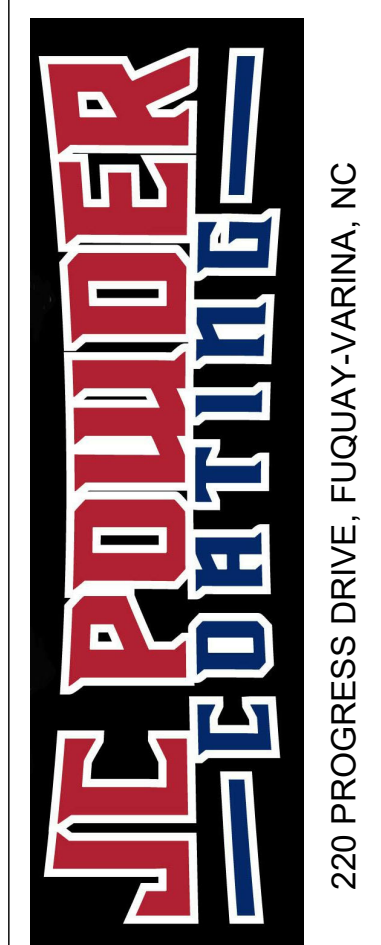


REVISIONS	
NUMBER	DATE



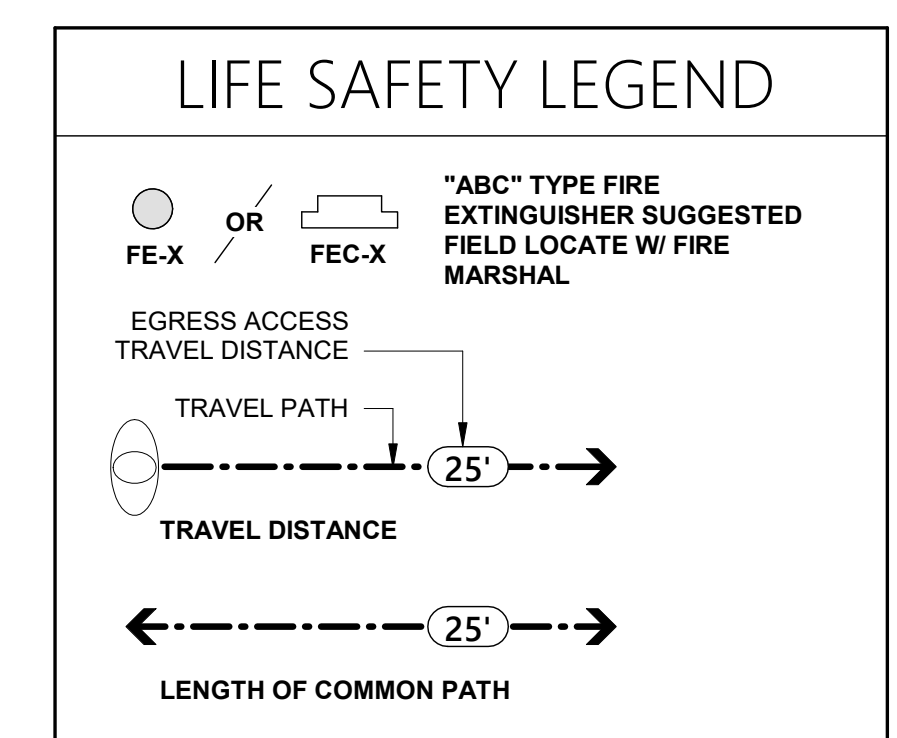
220 PROGRESS DRIVE, FUQUAY-VARINA, NC

919-550-7717
 Tony@TonyJohnsonArchitect.com
 104 North Lumbard St
 Clayton, NC 27520
 TonyJohnsonArchitect.com



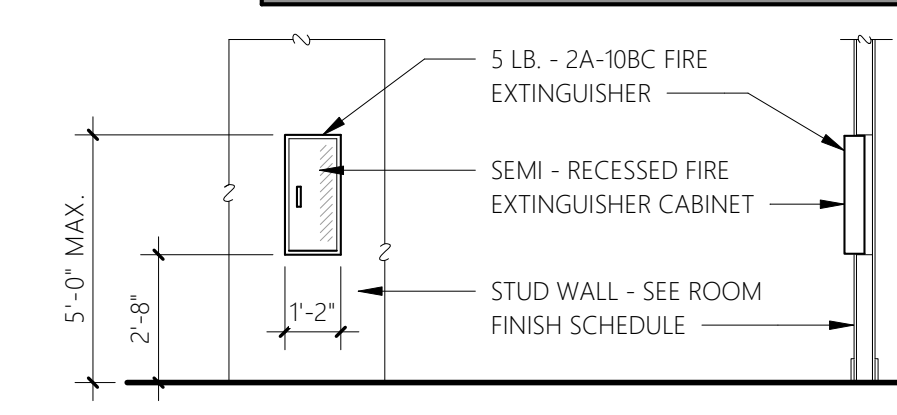
DATE	7/23/2020
TIME	11:16:47 AM
PROJECT #	2020.021
LIFE SAFETY PLAN	
SHEET	A-0.2

- F-1: 8,768 SQFT / 100 = 88 PERSONS
 - F-1 (STORAGE): 260 SQFT / 300 = 1 PERSON
 - B: 627 SQFT / 100 = 7 PERSONS
-
- TOTAL OCCUPANTS: 96**



② LIFE SAFETY LEGEND
 1/8" = 1'-0"

NOTE:
 1. SURFACE MOUNTED FIRE EXTINGUISHER, IF APPLICABLE, SHALL BE MOUNTED SAME HEIGHT AS THE FLUSH CABINET.
 2. PROVIDE BLOCKING FOR SURFACE MOUNTED FIRE EXTINGUISHERS.
 3. ALL FIRE EXTINGUISHERS TO BE MOUNTED WITHIN A 75' MAXIMUM DISTANCE FROM ANY POINT.

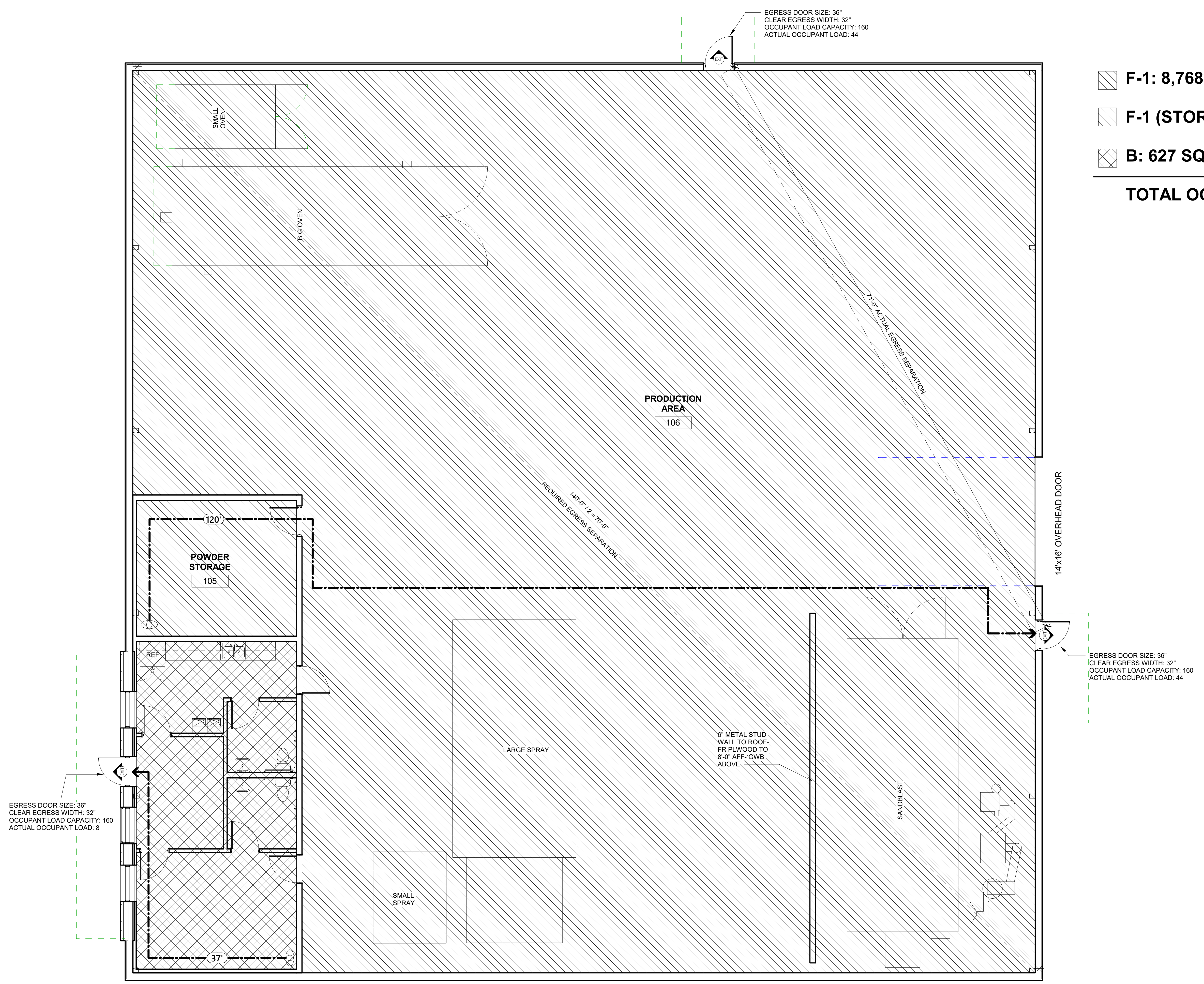
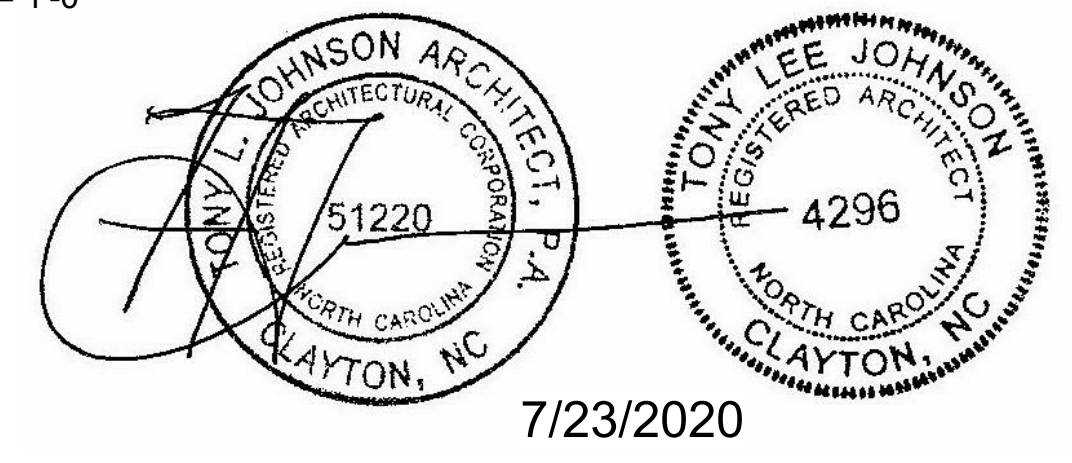


③ TYPICAL "ABC" FIRE EXTINGUISHER
 1/4" = 1'-0"

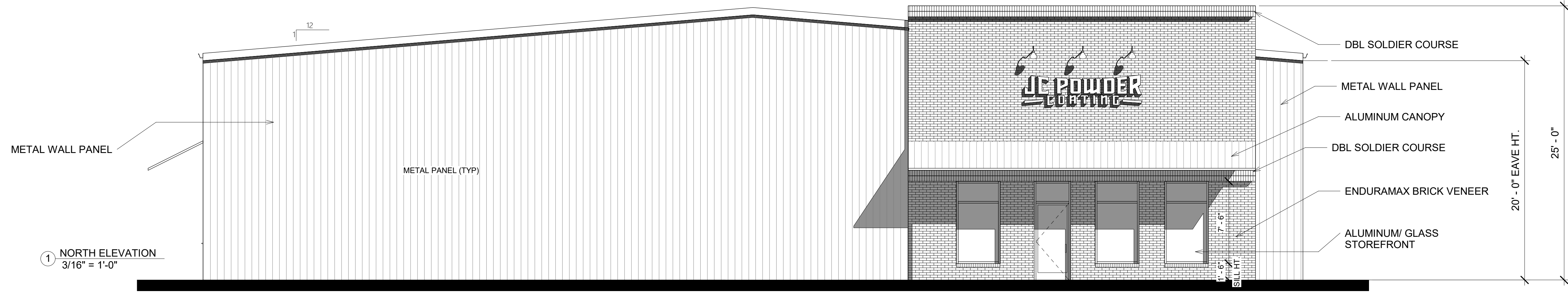
Floor, Room or Space	MINIMUM NUMBER OF EXITS		TRAVEL DISTANCE (Feet)	
	Required (Table - 1006.3.1)	Shown on Plans	Allowable Travel Distance (Table - 1017.2)	Actual Travel Distance Shown on Plans
BUSINESS	1	1	100'	37' - 0"
PRODUCTION	2	2	200'	120' - 0"

Notes
 1. Corridor dead ends (section 1020.4)
 2. Building with single exits (Tables 1006.2.1). Spaces with one means of egress (Table - 1009.1)
 3. Common Path of Travel (Section 1006.2.1)

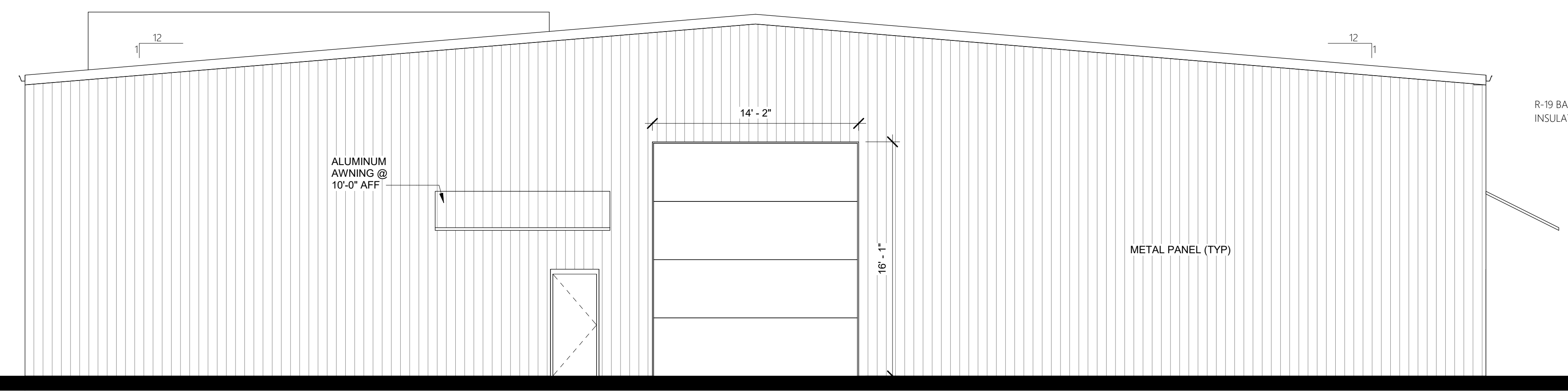
④ LEGEND REQUIREMENTS
 1/4" = 1'-0"



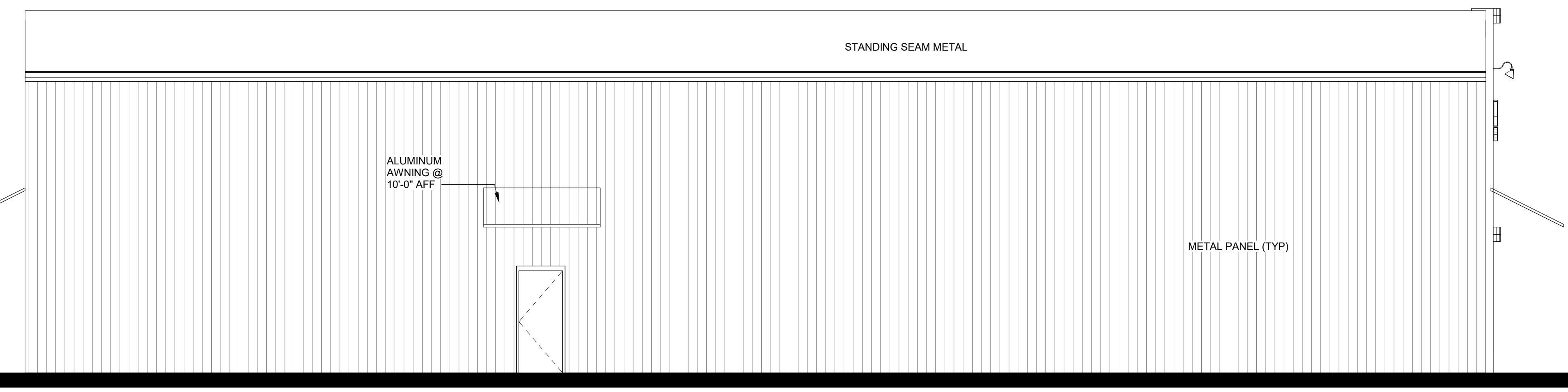
① LIFE SAFETY PLAN
 3/16" = 1'-0"



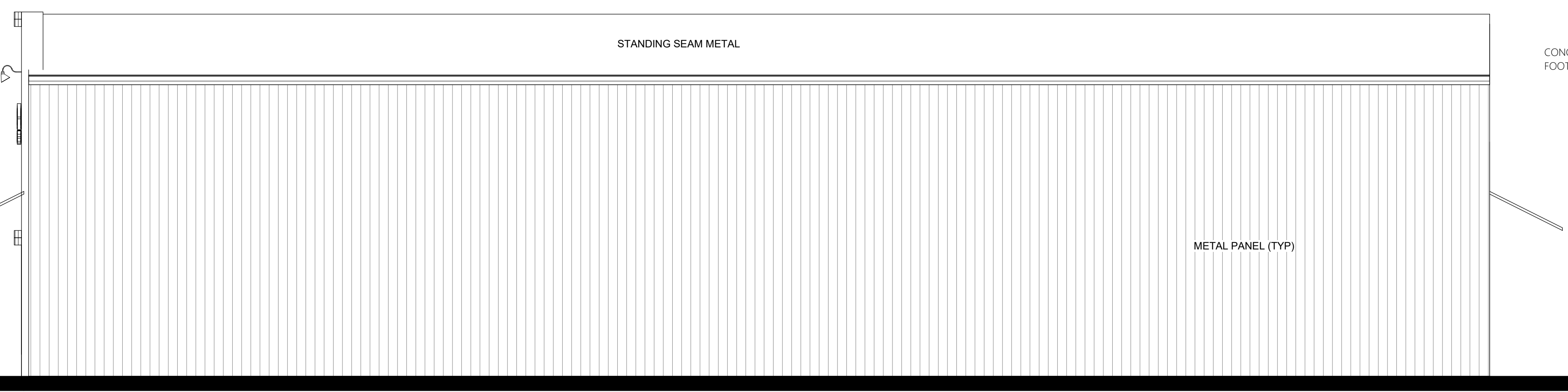
1 NORTH ELEVATION
3/16" = 1'-0"



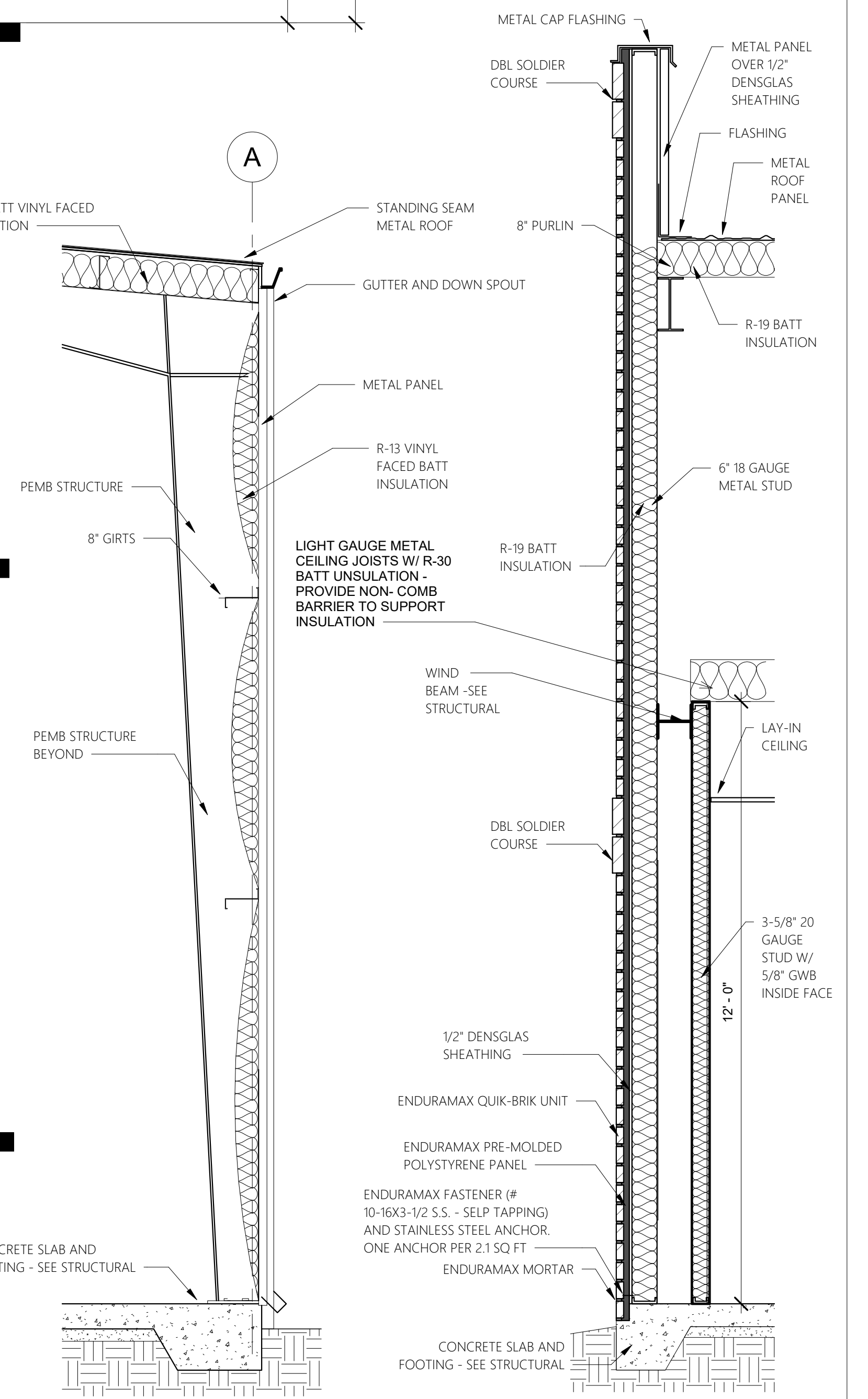
2 SOUTH ELEVATION
3/16" = 1'-0"



3 EAST ELEVATION
3/16" = 1'-0"



4 WEST ELEVATION
3/16" = 1'-0"



5 SECTION ONE
1/2" = 1'-0"

6 SECTION TWO
1/2" = 1'-0"

7/23/2020
11:16:50 AM
PROJECT # 2020.021
ELEVATIONS
SHEET
A-1

TONY JOHNSON ARCHITECTURE
ARCHITECTURE

919-550-7717
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TONY JOHNSON ARCHITECTURE
ARCHITECTURAL CORPORATION
REGISTERED ARCHITECT
51220
NORTH CAROLINA
CLAYTON, NC

TONY LEE JOHNSON
REGISTERED ARCHITECT
4296
NORTH CAROLINA
CLAYTON, NC

7/23/2020

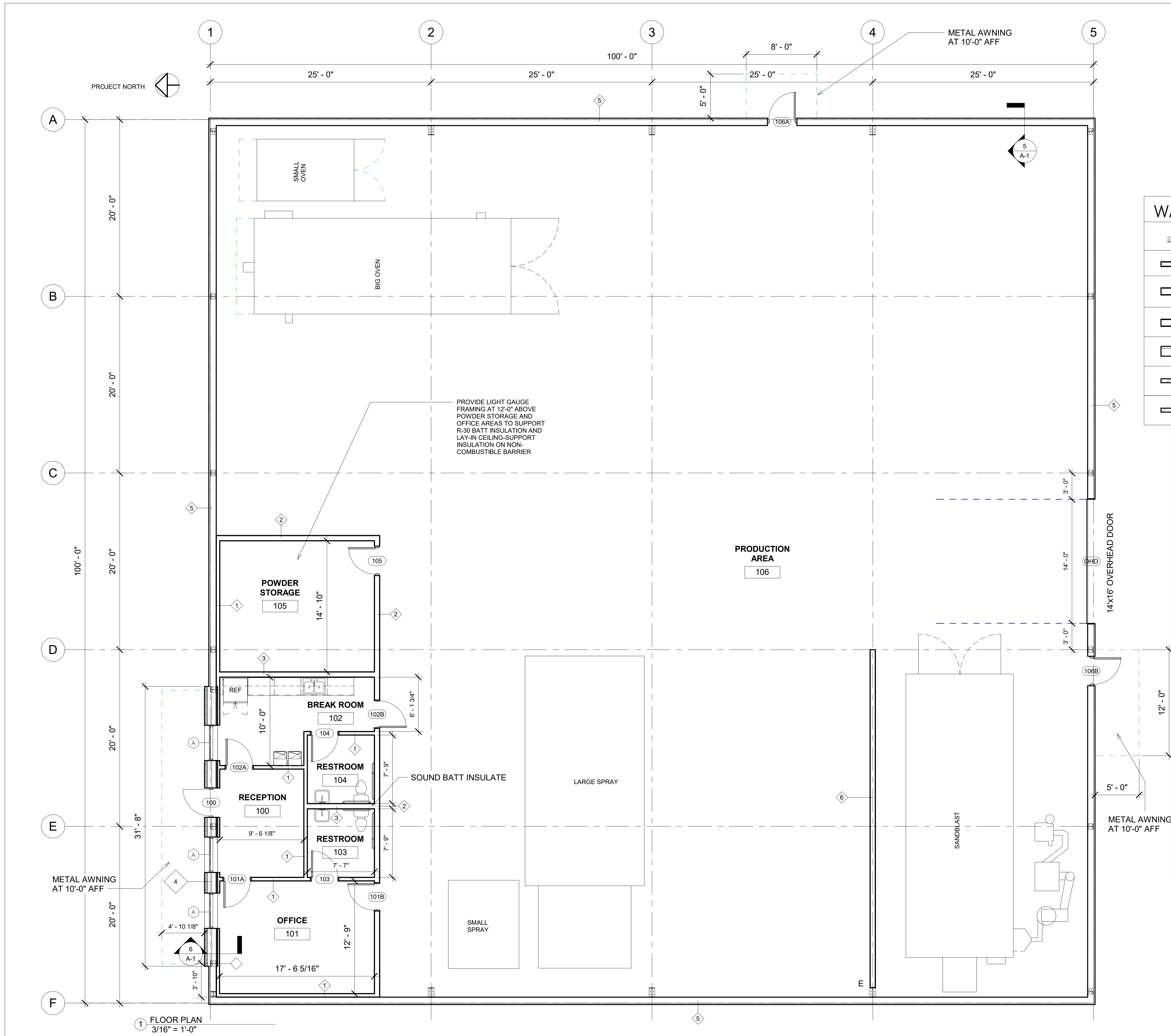
REVISIONS	
NUMBER	DATE

JC POWDER COATING

220 PROGRESS DRIVE, FUQUAY-VARINA, NC

TONY JOHNSON ARCHITECTURE

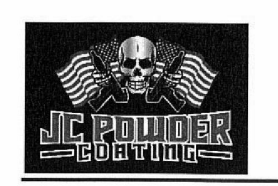
DATE	7/23/2020
TIME	11:16:50 AM
PROJECT #	2020.021
ELEVATIONS	
SHEET	A-1



- ### FLOOR PLAN NOTES
1. FIELD VERIFY ALL EXISTING CONDITIONS BEFORE CONSTRUCTION BEGINS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES. DIMENSIONS SHOWN ARE FROM WALL FACE TO WALL FACE. U.N.O. - ALL DIMENSIONS REFERENCED HEREIN ARE IMPERIAL STANDARD. U.N.O.
 2. ALL INTERIOR WALLS TO RECEIVE BATT INSULATION. PROVIDE SOUND BATT INSULATION @ RESTROOM.
 3. PROVIDE WATER RESISTANT GYPSUM WALL BOARD AT ALL WET WALLS INCLUDING, BUT NOT LIMITED TO, WALLS AT BATHROOMS AND BREAK ROOM.
 4. PROVIDE SUPPLEMENTAL FRAMING, METAL BLOCKING / STRAPPING AND BRACING AS REQ'D FOR SUPPORT OF FIXTURES, EQUIPMENT, TOILET ACCESSORIES, FURNISHINGS, FURNITURE / EQUIPMENT, AND SIMILAR CONSTRUCTION.

WALL TYPES

SYMBOL	TAG	DESCRIPTION
	1	INTERIOR - 3-5/8" 20 GAUGE METAL STUD @ 16" O.C. 5/8" GYPSUM WALL BOARD BOTH SIDES, BATT INSULATION, 12'-0" HGT. U.N.O.
	2	INTERIOR - 6" 20 GAUGE METAL STUD @ 16" O.C. 5/8" GYPSUM WALL BOARD BOTH SIDES, R-19 BATT INSULATION TO 12'-0", EXTEND STUDS AND FACTORY SIDE GWB TO TO UNDERSIDE OF DECKING.
	3	INTERIOR - 6" 20 GAUGE METAL STUD @ 16" O.C. 5/8" GYPSUM WALL BOARD BOTH SIDES, R-19 BATT INSULATION TO 12'-0", EXTEND TO 12'-0" HGT. U.N.O.
	4	EXTERIOR - PEMB WALL W/ ENDURAMAX QUIK-BRIK SYSTEM. SEE WALL DETAIL A-3.
	5	EXTERIOR - PEMB WALL.
	6	INTERIOR - 6" 20 GAUGE METAL STUD @ 16" O.C. W/ FR PLYWOOD TO 8'-0" AFF AND GYPSUM BOARD ABOVE ON EACH SIDE. EXTEND TO ROOF.



June 1, 2020

To Whom It May Concern:

Our Architect has informed us that, based on the occupant load of the building and the requirements of the 2018 NC Plumbing Code, the fixture count of the building we are planning to build would be far greater than what we need. The calculated occupant load is 88 persons in the Factory-Industrial area, 7 persons in the Business area, and 1 person in the F-1 Storage area for a total calculated occupant load of 96 persons. This is a significantly higher occupant load than we ever anticipate having in the space. We currently employ 2 persons, and do not anticipate ever having more than 10 employees and/or customers at this location at any time. **Per Section 403.6 of the 2018 North Carolina Plumbing Code, we respectfully request that the occupant load be adjusted to reflect a count of no more than 10 persons as it relates to plumbing fixture count.** We will certify that at no time will more than 10 persons be in the Building

Sincerely:
Carla Trepper
 Carla Trepper
 JC Powder Coating

919-375-2930
 jcpowdercoating922@gmail.com



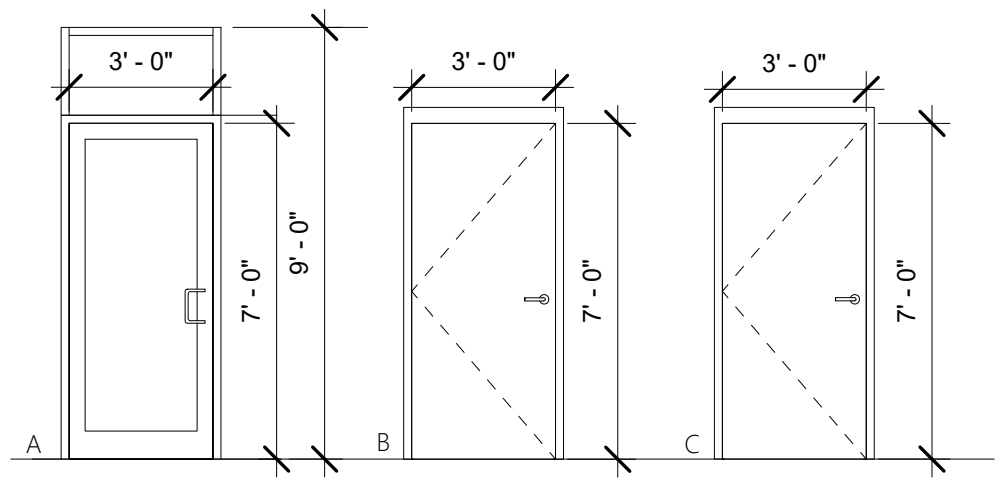
REVISIONS	
NUMBER	DATE



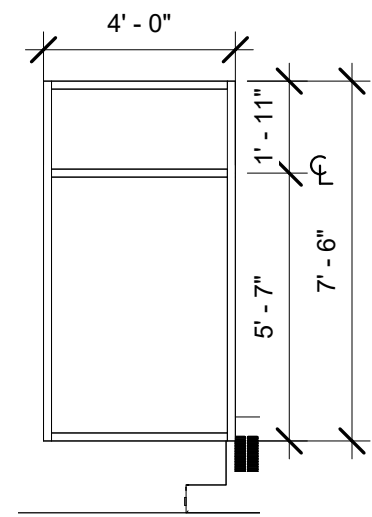
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 104 North Lumbard St
 Clayton, NC 27520
 TonyJohnsonArchitect.com



DATE	7/23/2020
TIME	11:16:54 AM
PROJECT #	2020.021
FLOOR PLAN	
SHEET	A-2



DOOR TYPES
1/4" = 1'-0"

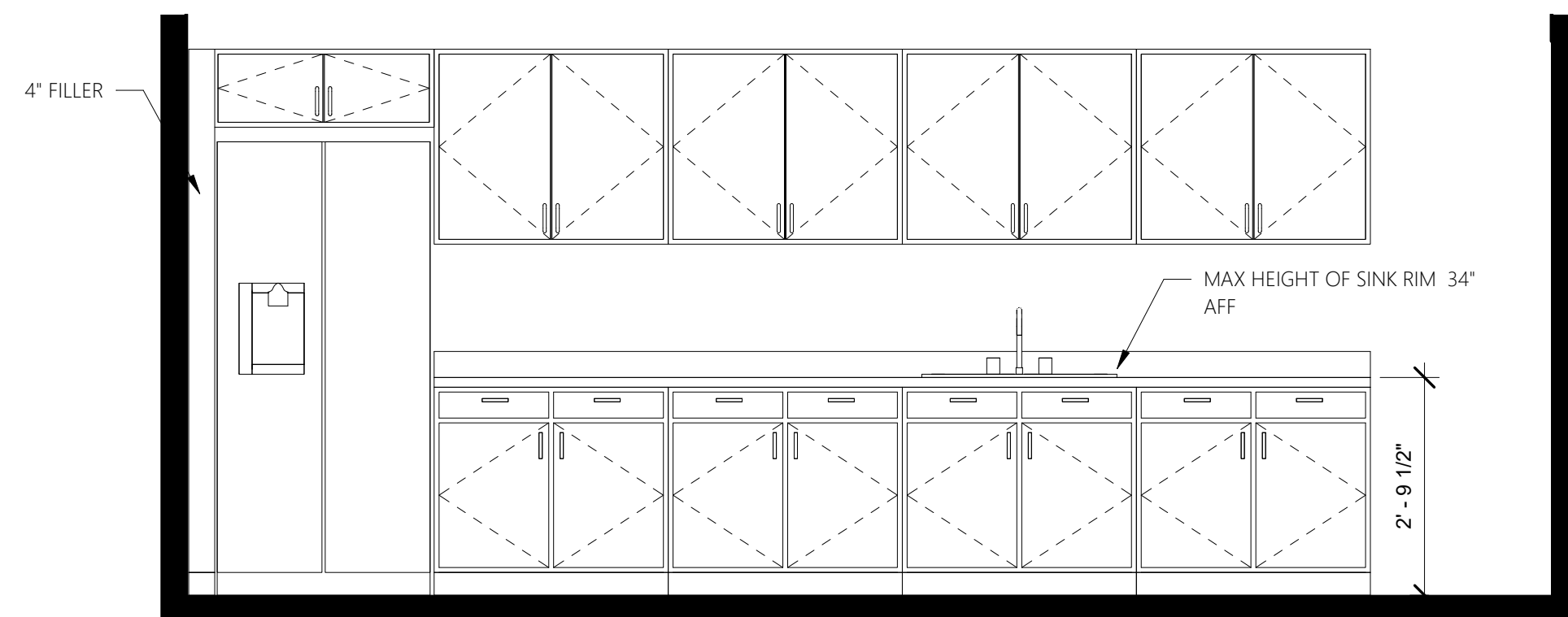


WINDOW TYPES
1/4" = 1'-0"

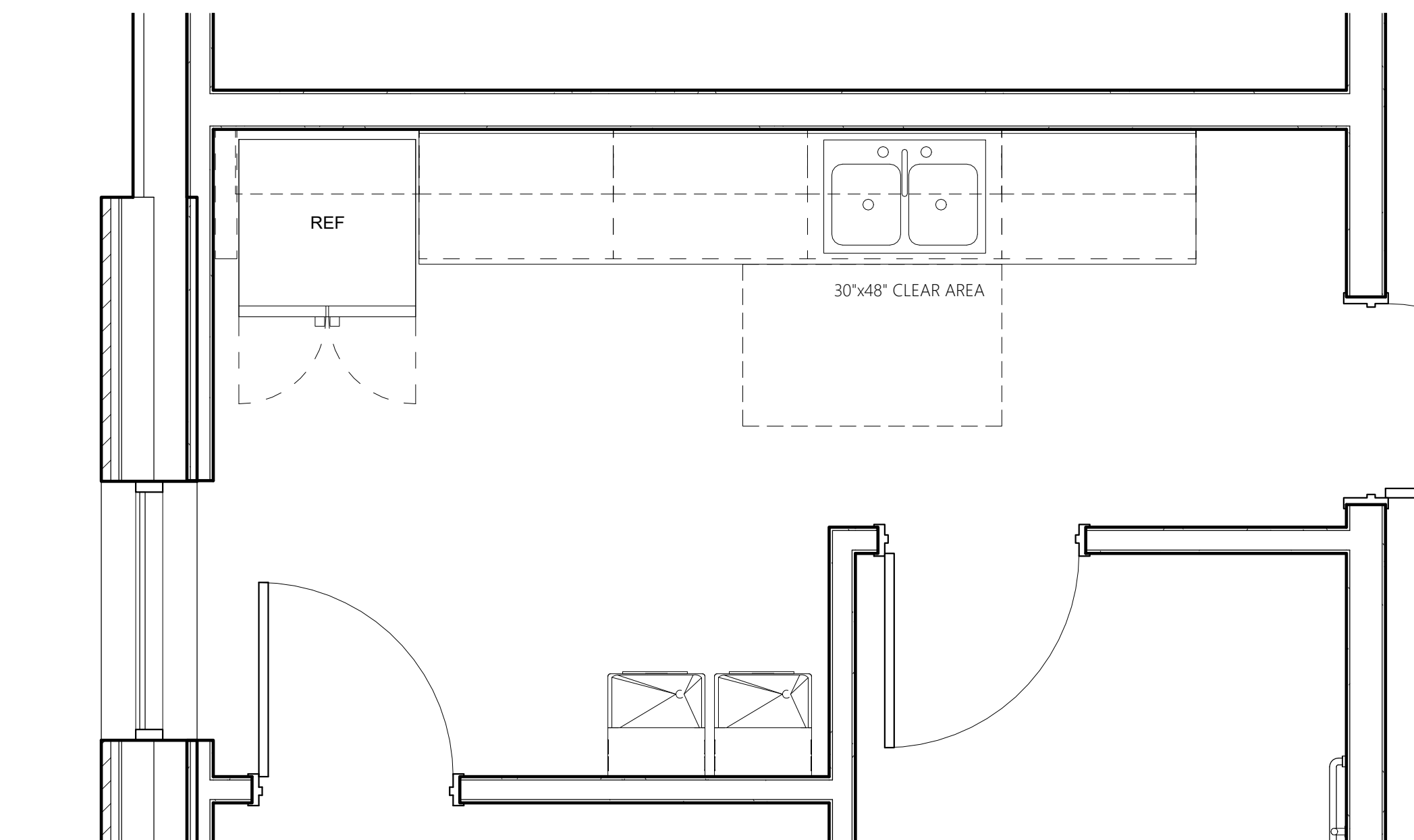
MARK	DOOR		ELEVATIONS	DOOR TYPE	DOOR			CLOSER	HARDWARE	COMMENTS
	W	H			FINISH	FRAME	FRAME FINISH			
100	3'-0"	7'-0"	A	STOREFRONT ALUMINUM / GLASS	ANODIZED	ALUMINUM	ANODIZED	YES	MANUFACTURERS STANDARD PUSH/PULL W/ DEADBOLT	TRANSOM ABOVE
101A	3'-0"	7'-0"	B	SOLID CORE WOOD	STAIN	METAL	PAINTED	NO	LEVER HANDLE	
101B	3'-0"	7'-0"	B	SOLID CORE WOOD	STAIN	METAL	PAINTED	YES	LEVER HANDLE	
102A	3'-0"	7'-0"	B	SOLID CORE WOOD	STAIN	METAL	PAINTED	NO	LEVER HANDLE	
102B	3'-0"	7'-0"	B	SOLID CORE WOOD	STAIN	METAL	PAINTED	YES	LEVER HANDLE	
103	3'-0"	7'-0"	B	SOLID CORE WOOD	STAIN	METAL	PAINTED	NO	LEVER HANDLE / PRIVACY LOCKSET	
104	3'-0"	7'-0"	B	SOLID CORE WOOD	STAIN	METAL	PAINTED	NO	LEVER HANDLE / PRIVACY LOCKSET	
105	3'-0"	7'-0"	C	INSULATED METAL	PAINT	METAL	PAINTED	NO	LEVER HANDLE	
106A	3'-0"	7'-0"	C	INSULATED METAL	PAINT	METAL	PAINTED	YES	LEVER HANDLE	
106B	3'-0"	7'-0"	C	INSULATED METAL	PAINT	METAL	PAINTED	YES	LEVER HANDLE	
OHD	14'-0"	16'-0"	-					N/A		OVERHEAD DOOR

WINDOW SCHEDULE				
MARK	WIDTH	HEIGHT	OPERATION	NOTES
A	4'-0"	7'-6"	FIXED	STOREFRONT WINDOW

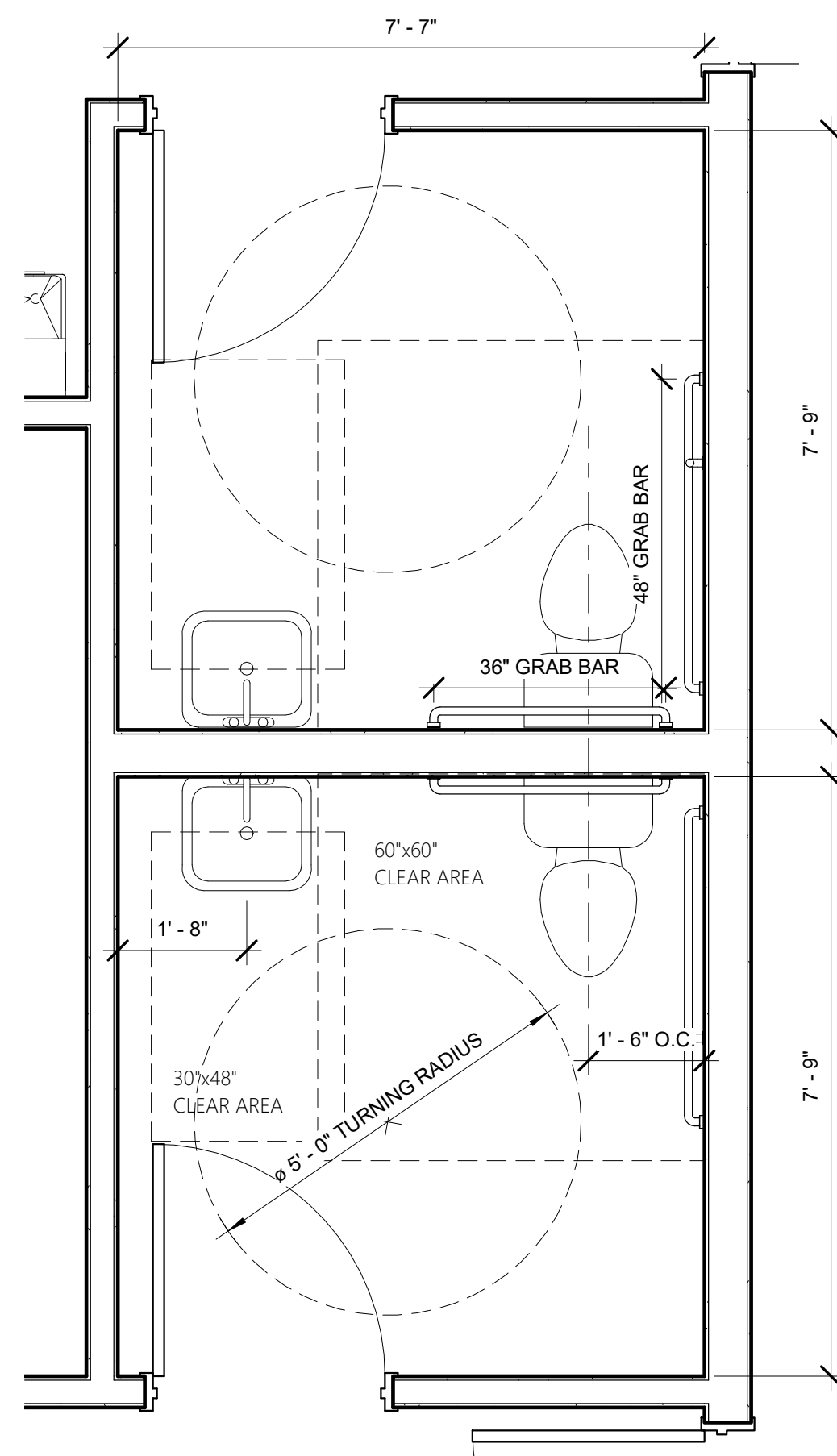
FINISH SCHEDULE							
#	ROOM NAME	FLOOR FINISH	BASE FINISH	WALL FINISH	CEILING FINISH	CEILING HEIGHT	COMMENTS
100	RECEPTION	SEALED CONCRETE	RUBBER COVE BASE	PAINT	LAY-IN	10'-0"	
101	OFFICE	SEALED CONCRETE	RUBBER COVE BASE	PAINT	LAY-IN	10'-0"	
102	BREAK ROOM	SEALED CONCRETE	RUBBER COVE BASE	PAINT	LAY-IN	10'-0"	
103	RESTROOM	SEALED CONCRETE	RUBBER COVE BASE	EPOXY PAINT	LAY-IN	10'-0"	
104	RESTROOM	SEALED CONCRETE	RUBBER COVE BASE	EPOXY PAINT	LAY-IN	10'-0"	
105	POWDER STORAGE	SEALED CONCRETE	RUBBER COVE BASE	PAINT	LAY-IN	10'-0"	
106	PRODUCTION AREA	SEALED CONCRETE					



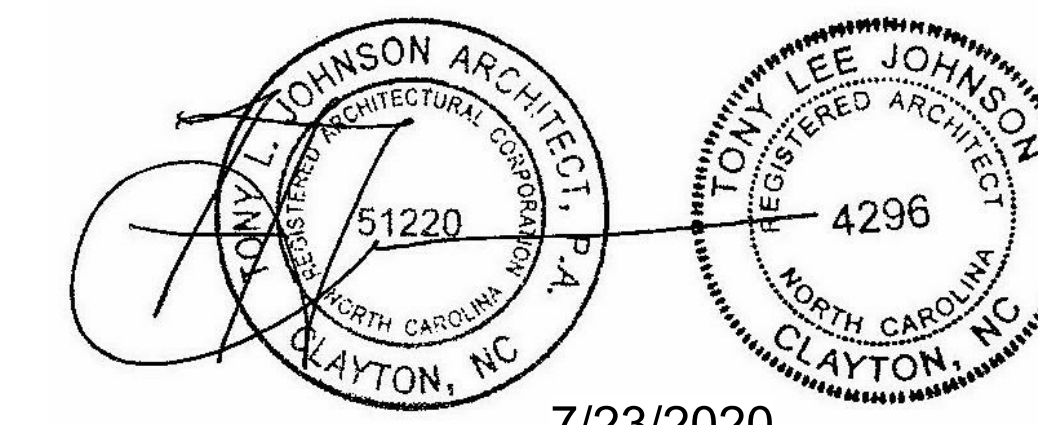
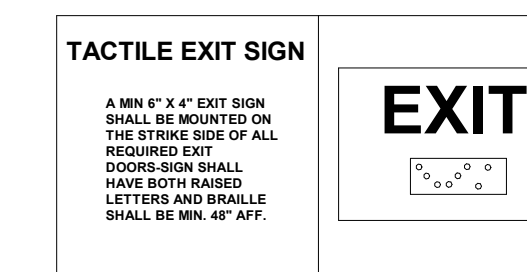
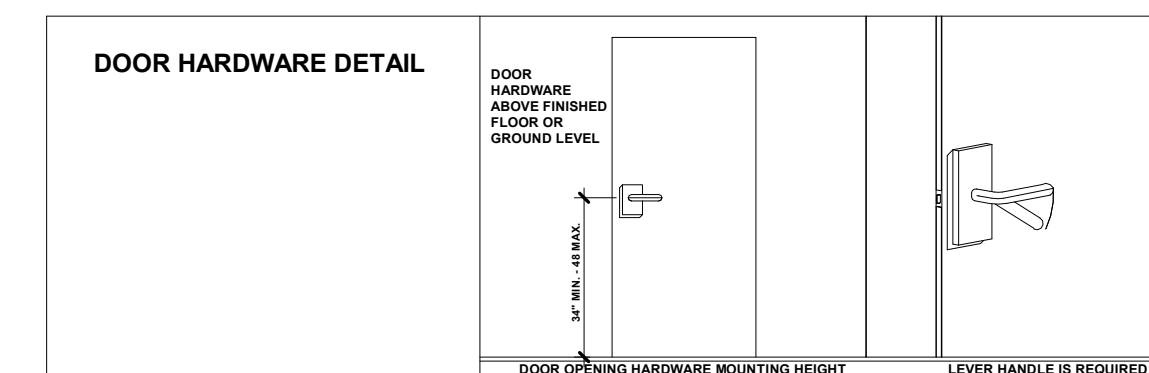
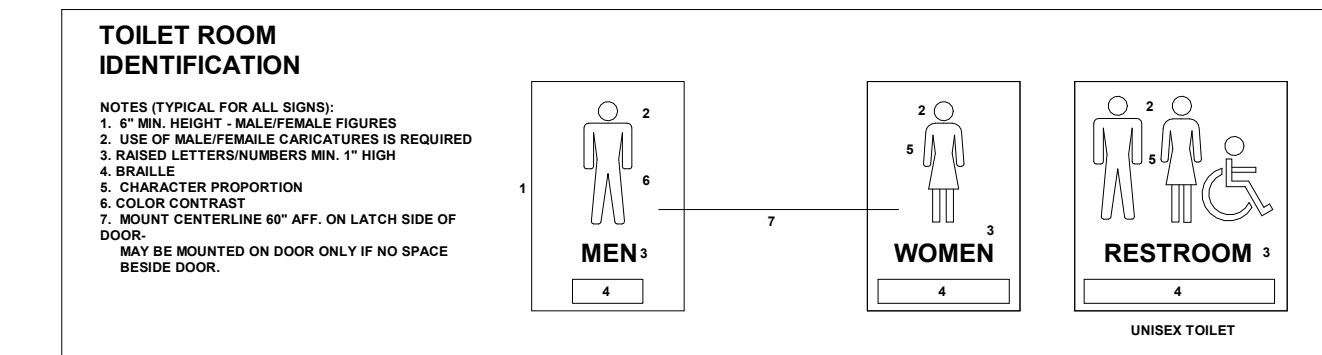
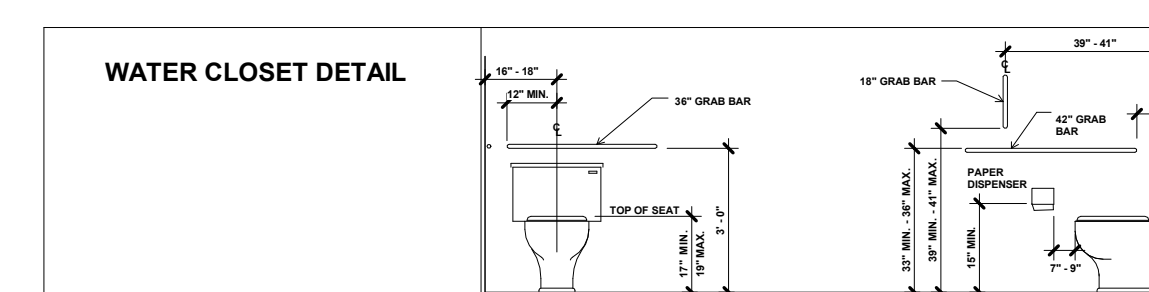
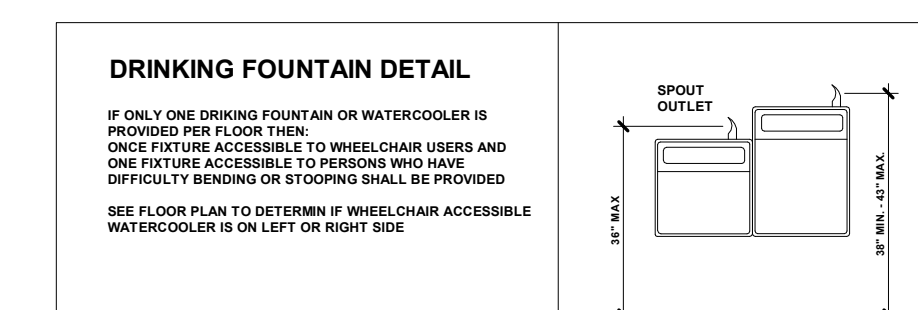
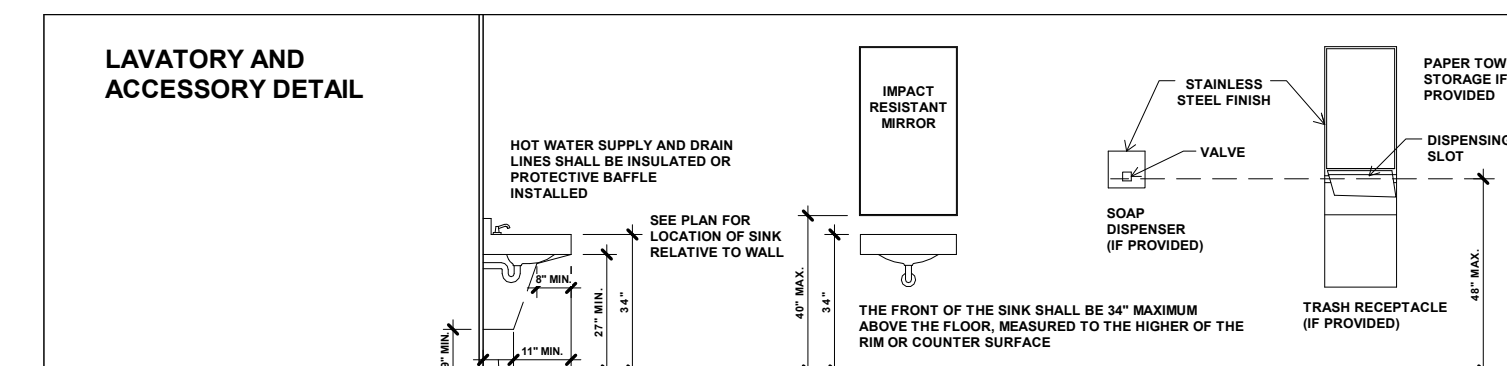
BREAK ROOM ELEVATION
1/2" = 1'-0"



ENLARGED BREAKROOM PLAN
1/2" = 1'-0"



ENLARGED RESTROOM PLANS
1/2" = 1'-0"



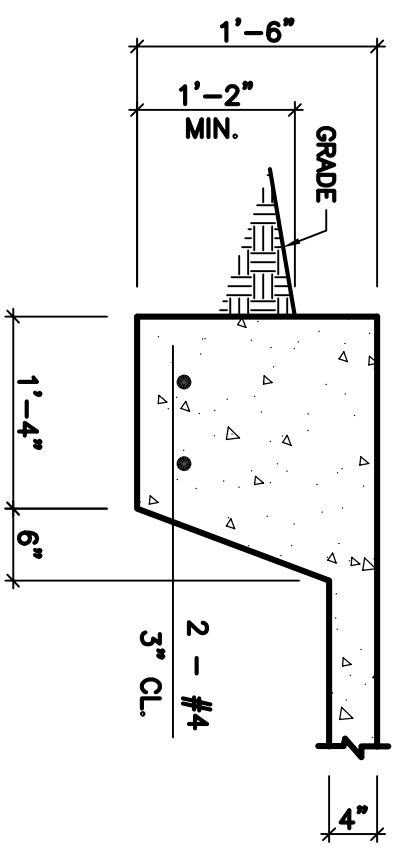
REVISIONS	
NUMBER	DATE



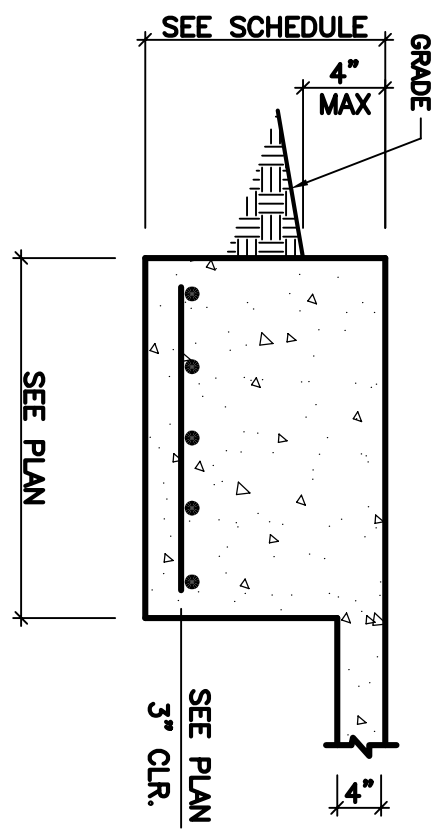
919-550-7717
Tony@TonyJohnsonArchitect.com
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Clayton, NC 27520
TonyJohnsonArchitect.com



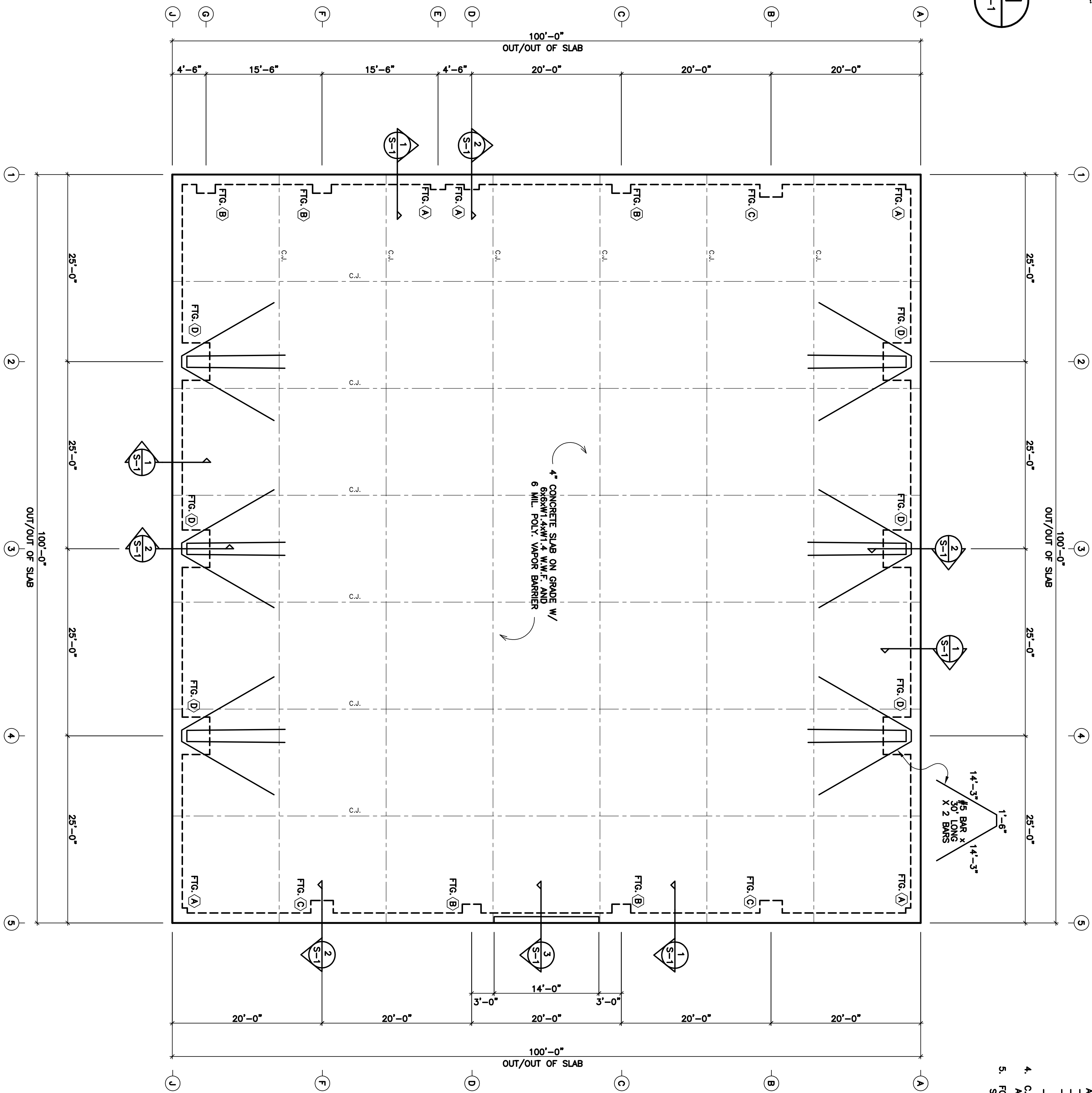
DATE	7/23/2020
PROJECT #	2020.021
DETAILS	
SHEET	A-3



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



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

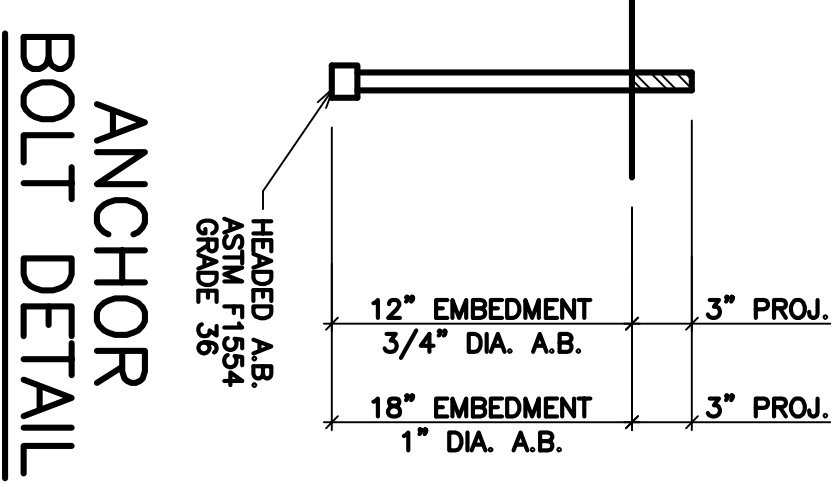


FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

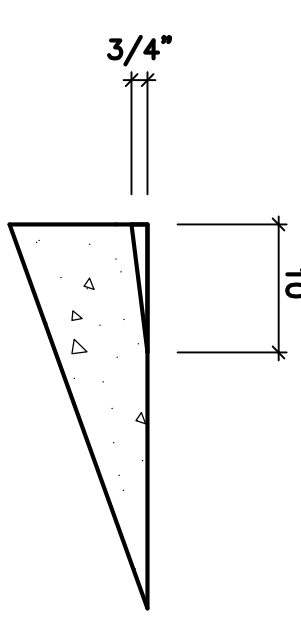
GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR BRACING ALL WORK DURING CONSTRUCTION.
2. FOOTINGS ARE DESIGNED FOR AN ALLOWABLE BEARING CAPACITY OF 2000 P.S.F.
3. 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.
4. REINFORCING STEEL SHALL BE ASTM A-615 GRADE 60 (TIES MAY BE GRADE 40) WITH A MINIMUM LAP OF 4'-28".
5. MINIMUM COVER: 3" UNO.
6. 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.
7. FOUNDATION BASED ON REACTIONS FURNISHED BY PEAK STEEL BUILDINGS. DRAWING NO. S200B243A DATED 7/1/20

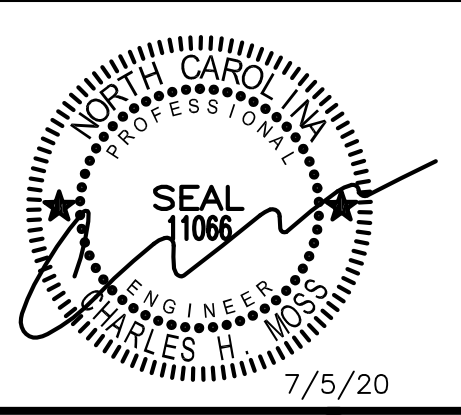
TYPE	SIZE	REINFORCING
FIG. (A)	2'-0" x 2'-0" x 1'-6"	3 - #4 E.W.
FIG. (B)	2'-6" x 2'-6" x 1'-6"	4 - #4 E.W.
FIG. (C)	3'-0" x 3'-0" x 1'-6"	4 - #4 E.W.
FIG. (D)	5'-0" x 5'-0" x 2'-0"	6 - #4 E.W.



ANCHOR BOLT DETAIL



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



C.H. MOSS, P.E.
SOLE PROPRIETOR
928 BLACKLAWN RD.
CONYERS, GA 30094
PH: (770) 786-3163

NO	DATE	REVISION	BY

FOUNDATION PLAN FOR:
JC POWDER COATING
FUQUAY-VARINA, NC

DRAWING NUMBER
2252
SHEET OF
S-1 1



PROJECT NUMBER: S2008243A

PROJECT NAME: JC Powder Coating

PROJECT LOCATION: Fuquay-Varina, NC 27526

CUSTOMER: JC Powder Coating

Notes and Specifications

Building Erection Notes

1) The general contractor and/or erector is responsible to safely and properly erect the metal building system in conformance with these drawings, OSHA requirements and metal building system in conformance with these drawings, OSHA requirements and either MBMA or CSA S16 standards pertaining to proper erection. This includes, but is not limited to, the correct use of temporary guys and bracing when needed for squaring, plumbing, and securing the structural and secondary framing. Secondary wall framing members (girts or bar joists) are not designed to function as a work platform or provide safety tie-off attachment in accordance with OSHA requirements. Secondary roof framing members (purlins or bar joists) are not designed to provide safety tie-off attachment in accordance with OSHA requirements.

2) A325 & A490 Bolt tightening requirements: It is the responsibility of the erector to ensure proper bolt tightness in accordance with applicable regulations. See the RSCC Specification for Structural Joints Using A325 or A490 Bolts for more information.

The following criteria may be used to determine the bolt tightness (i.e., "snug-tight" or "fully-pretensioned"), unless required otherwise by local jurisdiction or contract requirements:

- A) All A490 bolts shall be "fully-pretensioned".
- B) All A325 bolts in primary framing (rigid frames and bracing) may be "snug-tight", except as follows:
 - "Fully-pretension" A325 bolts if:
 - a) Building supports a crane system with a capacity greater than 5 tons.
 - b) Building supports machinery that creates vibration, impact or stress-reversals on the connections. The Engineer-of-Record for the project should be consulted to evaluate for this condition.
 - c) The project site is located in a high seismic area. For IBC-based codes, "High Seismic Area" is defined as "Seismic Design Category" of "D", "E", or "F". See the "Building Loads" section of this page for the defined seismic design category for this project.
 - d) Any connection designated in these drawings as "A325-SC". "Slip-Critical (SC)" connections must be free of paint, oil, or other materials that reduce friction at contact surfaces. Galvanized or lightly rusted surfaces are acceptable.
- C) In Canada, all A325 and A490 bolts shall be "fully pre-tensioned", except for secondary members (purlins, girts, opening framing, etc.) and flange braces.
- D) Secondary members (purlins, girts, opening framing, etc.) and flange brace connections may always be "snug-tight", unless indicated otherwise in these drawings.

3) The metal building supplier shall be notified prior to any field modifications. Modifications shall be approved by the metal building supplier before work is undertaken.

- 4) Common Abbreviations:
- | | |
|---|----------------------------------|
| a) TYP UNO - Typical Unless Noted Otherwise | f) SIM - Similar |
| b) SLV - Short Leg Vertical | g) NIC - Not in Contract |
| c) LLV - Long Leg Vertical | h) SL - Steel Line |
| d) NS & FS - Near Side and Far Side | i) N/A - Not Applicable |
| e) O.A.L. - Overall Length | j) MBS - Metal Building Supplier |

- 5) Construction loads shall not be placed on any structural steel framework unless such framework is safely bolted, welded, or otherwise adequately secured.
- 6) Purlins and girts shall not be used as an anchorage point for a fall arrest system unless written approval is obtained from the metal building supplier.
- 7) Purlins may only be used as a walking/working surface when installing safety systems, after all permanent bridging has been installed and fall protection is provided.
- 8) Construction loads may be placed only within a zone that is within 8 feet of the center line of the primary support member. CFR bundles should be placed directly over the rigid frames.
- 9) All lifting devices must meet OSHA or MSHA standards and in no case is it acceptable to use structural members supplied by the MBS as a spreader bar or lifting device.

General Design Notes

- 1) All structural steel sections and welded plate members are designed in accordance with ANSI/AISC 360 "Specifications for Structural Steel Buildings" or the CAN/CSA S16 "Limit States Design of Steel Structures", as required by the specified building code.
- 2) All welding of structural steel is based on either AWS D1.1 "Structural Welding Code - Steel" or CAN/CSA W59 "Welded Steel Construction (Metal Arc Welding)", as required by the specified building code.
- 3) All cold formed members are designed in accordance with ANSI/AISI S100 or CAN/CSA S136 "Specifications for the Design of Cold Formed Steel Structural Members", as required by the specified building code.
- 4) All welding of cold formed steel is based on AWS D1.3 "Structural Welding Code - Sheet Steel" or CAN/CSA W59 "Welded Steel Construction (Metal Arc Welding)", as required by the specified building code.
- 5) This Metal Building Supplier facility is IAS AC-472 Accredited and CAN/CSA A660 and W47.1 Certified (if applicable) for the design and manufacturing of Metal Building Systems.
- 6) If joints are included with this project, they are supplied as a part of the systems engineering and are fabricated in accordance with the requirements of Section 1928.758 of the OSHA safety standards for steel erection, dated January 18, 2001.

Material Specifications

Plate and Flange Material:
 5" - 12" Wide, to 1 1/4" Th.

Others	A529 Grade 55
Built-Up Structural Web	A572 Grade 50
Hot-Rolled Structural	A1011 SS (or HSLAS Class 1) Grade 55
Structural Tube	A36 or A572 Grade 50 or A992 Grade 50
Structural Pipe	A500 Grade B (46 KSI)
Cold-Formed Structural	A500 Grade B (42 KSI)
Thru-Fastened Roof Panel	A1011 or A1039 SS (or HSLAS Class 1) or A653 Grade 55
Standing Seam Roof Panel	A792 Grade 80
All Wall Panel Profiles	A792 Grade 50, Class 1
Roof Bracing	A653 Grade 80, Class 1 or A792 Grade 80, Class 1
Welds	A529 Grade 50
High-Strength Bolts	AWS D1.1/D1.3 or CSA W59 per Building Code
Machine Bolts	A325 Type 1 or A490 Type 1 Heavy Hex
	A307 Grade A Hex

PRIMARY AND SECONDARY STEEL PRIMER COLOR: <u>RED</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
ROOF SHEETING, TYPE: <u>SS 24 GAUGE, FINISH: Galvalume Plus</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
ROOF PANEL CLIP TYPE: <u>Tall</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
THERMAL BLOCKS: <u>Yes</u> EPS FOAM SPACER: <u>No</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
COMPOSITE CFR DECK, TYPE: <u>N/A</u> GAUGE, FINISH: _____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
ROOF LINE TRIM, PAINTED: <u>Dark Bronze PVDF</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
EXTERIOR WALL SHEETING, TYPE: <u>CW 26 GAUGE, FINISH: Desert Sand PVDF</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
EXTERIOR WALL CORNER TRIM FINISH: <u>Dark Bronze PVDF</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
EXTERIOR BASE TRIM, PAINTED: <u>Desert Sand PVDF</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
FRAMED OPENING TRIM, PAINTED: <u>Desert Sand PVDF</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
WALL FRAMED OPENING, SIZES: <u>FSW none</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
BSW <u>(1)3'-0" X 7'-0"</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
LEW <u>(2) Open Bay</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
REW <u>(1)3'-0" X 7'-0" (1)14'-0" X 16'-0"</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
INTERIOR WALL SHEETING, TYPE: _____ GAUGE, FINISH: _____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
INTERIOR CEILING LINER, TYPE: _____ GAUGE, FINISH: _____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
INTERIOR WALL TRIM, PAINTED: _____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<input checked="" type="checkbox"/> DOWNSPOUTS PAINTED: <u>Dark Bronze PVDF</u> GUTTERS PAINTED: <u>Dark Bronze PVDF</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<input checked="" type="checkbox"/> WALKDOORS, QUANTITY: <u>2</u> PAINTED: <u>3070KD</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<input type="checkbox"/> WINDOWS: _____ PAINTED: _____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<input checked="" type="checkbox"/> INSULATION (NOT BY MBS), ROOF: <u>6 INCH</u> WALLS: <u>4 INCH</u>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<input type="checkbox"/> CRANES (SEE CRANE PLAN FOR ADDITIONAL CRANE INFORMATION)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<input type="checkbox"/> MEZZANINE (SEE MEZZANINE PLAN FOR ADDITIONAL MEZZANINE INFO)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<input type="checkbox"/> WALL TRANSLUCENT PANELS: _____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<input type="checkbox"/> ROOF TRANSLUCENT PANELS: _____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
INSULATED PANELS YES <input type="checkbox"/> NO <input type="checkbox"/>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<input type="checkbox"/> PIPE JACKS, SIZE: _____ QUANTITY: _____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<input type="checkbox"/> ROOF FRAMED OPENINGS, SEE ROOF FRAMING PLAN FOR SIZES	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<input checked="" type="checkbox"/> RIDGE VENTS, 10'-0" LONG X 9" THROAT. QUANTITY: _____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

FOR OCCUPANCY (RISK) CATEGORY I OR II IBC PROVISIONS INDICATE THAT SINGLE-STORY BUILDINGS SHALL HAVE "NO DRIFT LIMIT" PROVIDED THAT INTERIOR WALLS, PARTITIONS, CEILINGS OR EXTERIOR WALL SYSTEMS HAVE BEEN DESIGNED TO ACCOMMODATE THE SEISMIC STORY DRIFTS. INTERIOR WALLS, PARTITIONS, CEILINGS, OR EXTERIOR WALL SYSTEMS NOT PROVIDED BY THE METAL BUILDING MANUFACTURER SHALL BE DESIGNED AND DETAILED BY OTHERS TO ACCOMMODATE THE STORY DRIFTS. SEISMIC DRIFT VALUES MAY BE OBTAINED FROM THE METAL BUILDING MANUFACTURER.

IF SNOW GUARDS OR OTHER DEVICES INTENDED TO HOLD SNOW AND/OR ICE ACCUMULATION ON THE ROOF SYSTEM ARE TO BE USED ON THIS PROJECT, THEY MUST BE INSTALLED UNDER THE GUIDANCE OF THE PROJECT "ENGINEER OF RECORD" (EOR), NOT THE METAL BUILDING MANUFACTURER, SO AS NOT TO EXCEED THE DESIGN SNOW LOAD ON THIS PROJECT.

THE SPANDREL BEAMS AND/OR SPANDREL CHANNELS SUPPORTING THE TOP OF THE MASONRY WALLS MUST BE ATTACHED TO THE WALLS WITH A SPACING NOT TO EXCEED 4'-0" O.C. (MAX.). THE SPANDRELS MUST ALSO BE RIGIDLY ATTACHED TO THE WALL NO MORE THAN 6" AWAY FROM EACH PAIR OF INTERMEDIATE STIFFENERS. THIS ATTACHMENT IS DESIGNED AND PROVIDED BY OTHERS (NOT BY THE METAL BUILDING MANUFACTURER). FIELD DRILLING OF THE SPANDRELS FOR A BOLTED CONNECTION (IF USED) WILL BE REQUIRED.

ACCESSORIES (DOORS, WINDOWS, ETC.) NOT PROVIDED BY THE METAL BUILDING MANUFACTURER MUST BE DESIGNED AS "COMPONENTS AND CLADDING" IN ACCORDANCE WITH THE SPECIFIC WIND PROVISIONS OF THE REFERENCED BUILDING CODE DISPLAYED ON THE COVER PAGE OF THIS DRAWING PACKET.

THE BUILDING CODE REQUIRES CONSIDERATION OF SNOW SURCHARGES FOR ANY LOWER ROOF OF A STRUCTURE LOCATED WITHIN 20 FT. OF A HIGHER STRUCTURE. INFORMATION PROVIDED TO THE METAL BUILDING MANUFACTURER DOES NOT INDICATE THE PRESENCE OF A SHADOWING STRUCTURE WITHIN THIS 20 FT. ENVELOPE, THEREFORE SNOW SURCHARGES HAVE NOT BEEN CONSIDERED IN THE DESIGN.

THE WALL SYSTEM BY OTHERS MUST WEIGH NO MORE THAN 45 PSF.

BUILDING LOADS

DESIGN CODE: NCBC 18

ROOF LIVE LOAD: 20.00 PSF MBMA OCC. CLASS: II

LIVE LOAD REDUCIBLE Yes

GROUND SNOW LOAD: 15.0 PSF SNOW EXP. FACTOR, Ce: 1.0000

SNOW IMPORTANCE FACTOR, Is: 1.00

WIND: 117 / 91 MPH
(Vult) / (Vead)

C & C PRESSURES (PSF): 23 / -30

EXPOSURE: B

UL 90 NO

Classic Roof-Const. No.161 ; Classic Roof w/ Translucent Panel-Const. No.167
 CFR Roof-Const. No.552 ; CFR Roof w/ Translucent Panel-Const. No.590 ;
 Composite CFR Roof-Const. No.552A ; VR16 II Roof-Const. No.332 .

SEISMIC INFORMATION Ss: 0.175 S1: 0.084

Design Sds/Sd1: 0.187 / 0.134 Site Class: D

Seismic Imp. Factor: 1.00 Seismic Design Category: C

Analysis Procedure: Equivalent Lateral Force Method

Basic SFRS: Not Detailed for Seismic

- NOTES:
- 1) COLLATERAL DEAD LOADS, UNLESS OTHERWISE NOTED, ARE ASSUMED TO BE UNIFORMLY DISTRIBUTED. WHEN SUSPENDED SPRINKLER SYSTEMS, LIGHTING, HVAC EQUIPMENT, CEILINGS, ETC., ARE SUSPENDED FROM ROOF MEMBERS, CONSULT THE M.B.S. IF THESE CONCENTRATED LOADS EXCEED 500 POUNDS (USING THE WEB MOUNT DETAIL) OR 200 POUNDS (USING THE FLANGE MOUNT DETAIL), OR IF INDIVIDUAL MEMBERS ARE LOADED SIGNIFICANTLY MORE THAN OTHERS.
 - 2) THE DESIGN OF STRUCTURAL MEMBERS SUPPORTING GRAVITY LOADS IS CONTROLLED BY THE MORE CRITICAL EFFECT OF ROOF LIVE LOAD OR ROOF SNOW LOAD, AS DETERMINED BY THE APPLICABLE CODE.
 - 3) Pm IS BASED ON THE MINIMUM ROOF SNOW LOAD CALCULATED PER BUILDING CODE OR THE CONTRACT SPECIFIED SNOW LOAD, WHICHEVER IS GREATER. THIS VALUE, Pm, IS ONLY APPLIED IN COMBINATION WITH THE DEAD AND COLLATERAL LOADS. ROOF SNOW IN OTHER LOADING CONDITIONS IS DETERMINED PER THE SPECIFIED BUILDING CODE.

BUILDING	
ROOF DEAD (PSF):	<u>3.00</u>
PRJ. COL (PSF):	<u>3.00</u>
SEC. COL (PSF):	<u>3.00</u>
SNOW Ct:	<u>1.00</u>
SNOW Cs:	<u>1.00</u>
ROOF SNOW Ps (PSF):	<u>10.50</u>
ROOF SNOW Pm (PSF):	<u>15.00</u>
WIND ENCLOSURE:	<u>Closed</u>
Gcpi:	<u>0.18</u>
SEISMIC R:	<u>3</u>
SEISMIC Cs:	<u>0.062</u>
BASE SHEAR (KIPS):	<u>7.00</u>

ERECTION MANUALS REQUIRED
 (ERECTION MANUALS ARE SHIPPED WITH THE BUILDING IN A WAREHOUSE PACKING CRATE)

<input type="checkbox"/> CFR ROOF	<input type="checkbox"/> H9600 OR <input type="checkbox"/> H8250	<input type="checkbox"/> SINGLE CURB (H9850)
<input checked="" type="checkbox"/> CLASSIC ROOF	<input type="checkbox"/> H9420 OR <input checked="" type="checkbox"/> H8201	<input type="checkbox"/> DOUBLE CURB (H9800)
		<input type="checkbox"/> VR16 II (H9925)

DRAWING INDEX

COVERSHEET	<u>C1</u>
ANCHOR BOLT DRAWINGS	<u>F1, F2</u>
COLUMN BASE REACTIONS	<u>R1</u>
STRUCTURAL/SHEETING DRAWINGS	<u>E1 - E7</u>
DETAILS	

PROJECT NAME: **JC POWDER COATING**
 220 PROGRESS DRIVE, FUQUAY-VARINA, NC 27526

CUSTOMER NAME: **JC POWDER COATING**
 NEW HILL, NC 27562

PROJECT NUMBER: **S2008243A**

DATE: 7/1/2020

ISSUE: JDB

PERMITS: MBS, DAW, KI

PEAK STEEL BUILDINGS

PO BOX 1275
 MADISON, GA 30650
 PHONE: (944) 333-PEAK
 FAX: (706) 343-1988

SHEET TITLE: **JC POWDER COATING**

SHEET NUMBER: **S2008243A**

SEAL: 044221

DATE: 07/01/2020

Signature: JEFFREY D. BOY

Professional Engineer License: NORTH CAROLINA PROFESSIONAL ENGINEER

Scale: 1" = 1'

Sheet: C1 of 1

ANCHOR BOLT SUMMARY

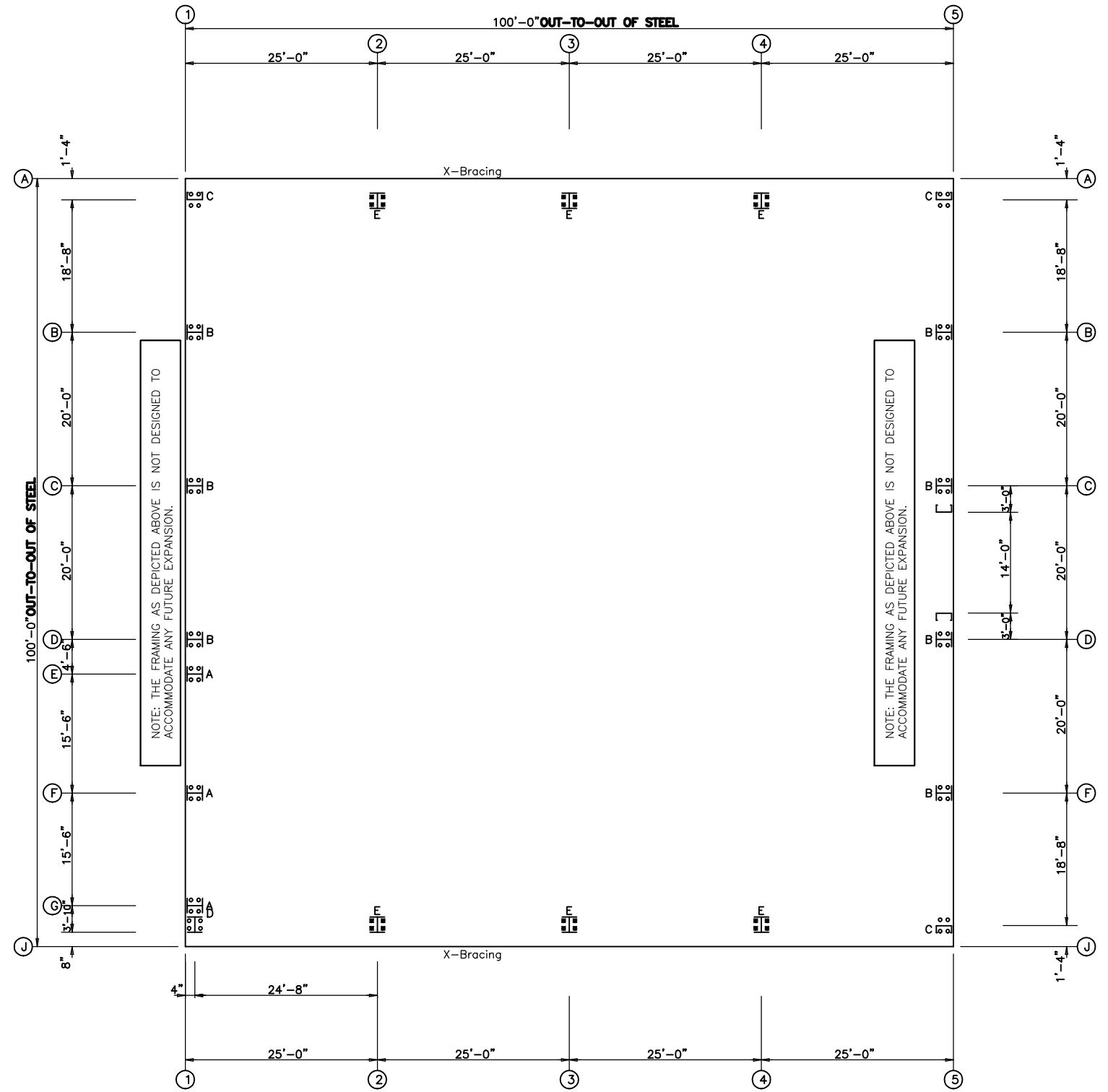
Qty	Locate	Dia (in)	Type	Proj (in)
○ 56	Endwall	3/4"	F1554	3.00
⊗ 24	Frame	1"	F1554	3.00

DATE	ISSUE	PERMITS
7/1/2020		

ANCHOR BOLT PLAN

GENERAL NOTES

1. THE SPECIFIED ANCHOR ROD DIAMETER ASSUMES F1554 GRADE 36 UNLESS NOTED OTHERWISE. ANCHOR ROD MATERIAL OF EQUAL DIAMETER MEETING OR EXCEEDING THE STRENGTH REQUIREMENTS SET FORTH ON THESE DRAWINGS MAY BE UTILIZED AT THE DISCRETION OF THE FOUNDATION DESIGN ENGINEER. ANCHOR ROD EMBEDMENT LENGTH SHALL BE DETERMINED BY THE FOUNDATION DESIGN ENGINEER.
2. METAL BUILDING MANUFACTURER IS NOT RESPONSIBLE FOR PROJECT FOUNDATION DESIGN. THE FOUNDATION DESIGN IS THE RESPONSIBILITY OF A REGISTERED PROFESSIONAL ENGINEER, FAMILIAR WITH LOCAL SITE CONDITIONS.
3. ALL ANCHOR RODS, FLAT WASHERS FOR ANCHOR RODS, EXPANSION BOLTS, AS WELL AS ALL CONCRETE/MASONRY EMBEDMENT PLATES ARE NOT BY METAL BUILDING MANUFACTURER.
4. THIS DRAWING IS NOT TO SCALE.
5. FINISHED FLOOR ELEVATION = 100'-0" UNLESS NOTED OTHERWISE.
6. "SINGLE" CEE COLUMNS SHALL BE ORIENTED WITH THE "TOES" TOWARD THE LOW EAVE UNLESS NOTED OTHERWISE.
7. ANCHOR RODS ARE REQUIRED ONLY IN THE QUANTITIES SPECIFIED. BASEPLATES MAY BE FABRICATED WITH MORE HOLES THAN NEEDED FOR THIS PROJECT.
8. THE ANCHOR BOLT LOCATIONS PROVIDED BY METAL BUILDING MANUFACTURER SATISFY PERTINENT REQUIREMENTS FOR THE DESIGN OF THE MATERIALS SUPPLIED BY THE METAL BUILDING MANUFACTURER. PLEASE NOTE THAT THESE REQUIREMENTS MAY NOT SATISFY ALL ANCHOR BOLT CONCRETE EDGE DISTANCE REQUIREMENTS DEPENDING ON THE DETAILS OF THE FOUNDATION DESIGN. BECAUSE FOUNDATION DESIGN IS NOT WITHIN THE METAL BUILDING MANUFACTURER'S SCOPE OF WORK, IT IS THE RESPONSIBILITY OF THE QUALIFIED PROFESSIONAL DESIGNING THE FOUNDATION TO MAKE CERTAIN THAT SUFFICIENT CONCRETE EDGE DISTANCE IS PROVIDED FOR THE ANCHOR BOLTS IN THE DETAILS OF THE FOUNDATION DESIGN.



ANCHOR BOLT PLAN
NOTE: All Base Plates @ 100'-0" (U.N.)

○ Dia = 3/4"
⊗ Dia = 1"

PEAK STEEL BUILDINGS
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MADISON, GA 30650
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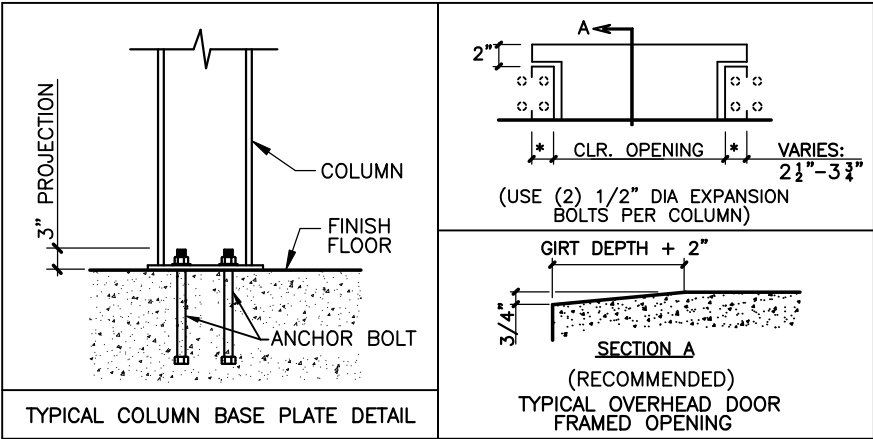
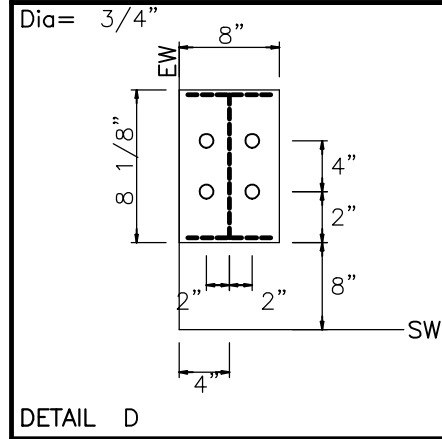
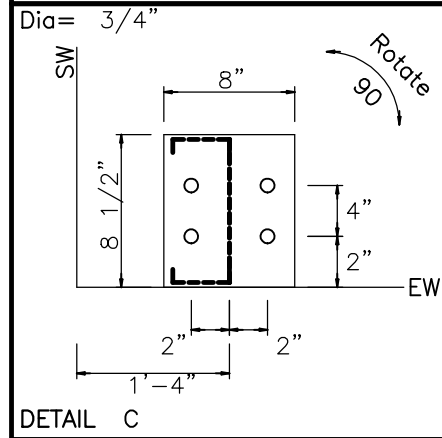
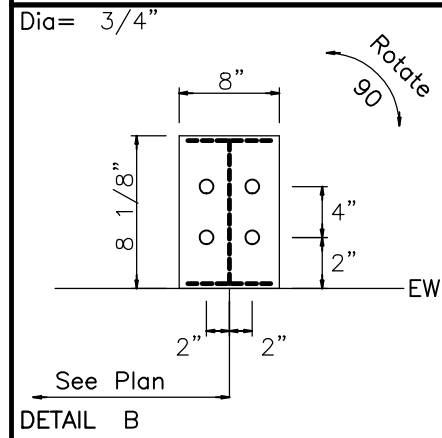
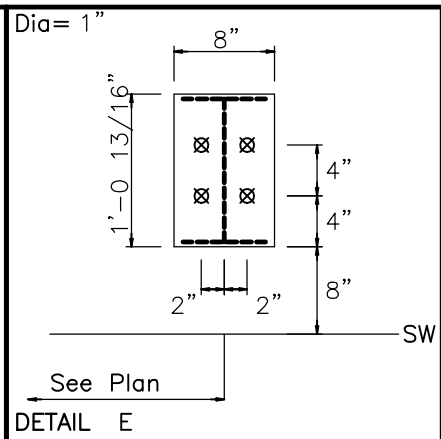
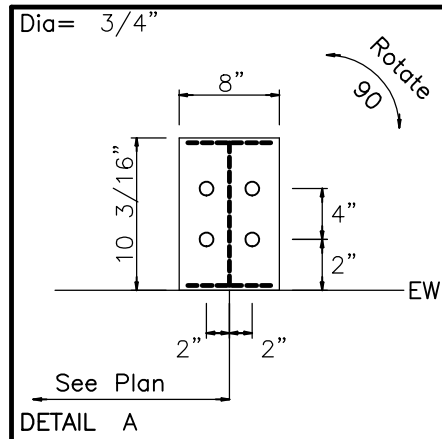
PROJECT NAME
JC POWDER COATING
220 PROGRESS DRIVE, FUQUAY-VARINA, NC 27526

CUSTOMER NAME
JC POWDER COATING
NEW HILL, NC 27562

JOB NUMBER
S2008243A

PROFESSIONAL ENGINEER SEAL
NORTH CAROLINA
SEAL
044221
JEFFREY D. BOY
07/01/2020

This seal certifies only the work performed by the registered professional engineer or architect whose name and title are inscribed thereon. It does not constitute a recommendation or endorsement of the work or the quality of the work by the State Board of Engineering and Architecture. The registered professional engineer or architect whose name and title are inscribed thereon shall not be construed as such.



FOUNDATION DESIGN NOTES:

1. THE ORIENTATION OF THE ANCHOR BOLT DETAILS SHOWN ON THIS PAGE MAY NOT COINCIDE WITH THE ACTUAL COLUMN ORIENTATION SHOWN ON THE ANCHOR BOLT DRAWING. PLEASE REFERENCE THE SIDEWALL (SW) AND ENDWALL (EW) STEEL LINES SHOWN ON THE ANCHOR BOLT DETAILS WITH THE ANCHOR BOLT PLAN DURING LAYOUT OF COLUMN AND ANCHOR BOLT LOCATIONS.
2. COLUMN BASE PLATES MAY HAVE MORE HOLES THAN ARE REQUIRED DUE TO PRODUCTION LIMITATIONS. PLEASE FOLLOW ANCHOR BOLT DETAILS FOR QUANTITY OF ANCHOR BOLTS REQUIRED. EXTRA BASE PLATE HOLES DO NOT NEED INFILLED PER THE MBS DESIGN SPECIFICATIONS.

DATE	7/1/2020
PE	JDB
ENGR	KI
CHK	DAW
ISSUE	MBS
PERMITS	

PROJECT NAME
PEAK STEEL BUILDINGS

CUSTOMER NAME
JC POWDER COATING
NEW HILL, NC 27562

PO BOX 1275
MADISON, GA 30650
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220 PROGRESS DRIVE, FUQUAY-VARINA, NC 27526

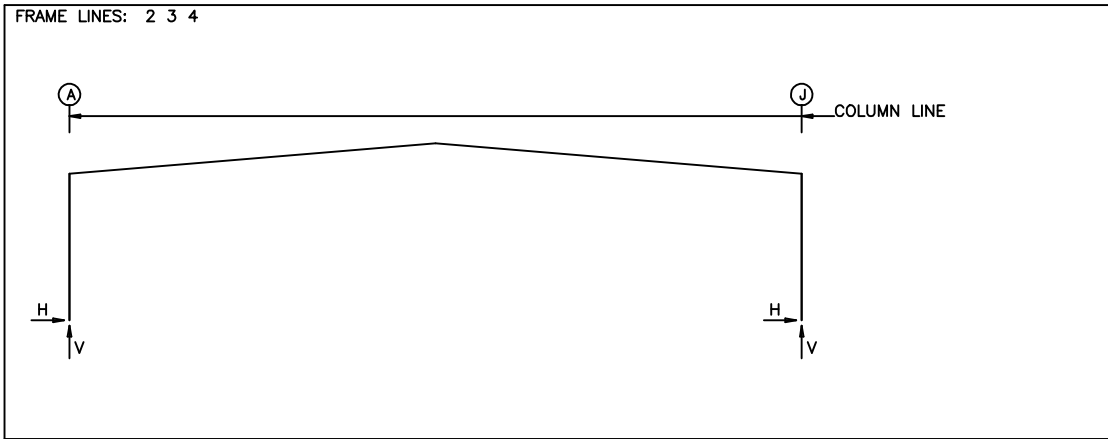
CUSTOMER NAME
JC POWDER COATING
NEW HILL, NC 27562

JOB NUMBER
S2008243A



THIS SEAL IS VALID ONLY FOR THE PROJECTS SPECIFICALLY LISTED ON THE BACK OF THIS SEAL. THE SEAL IS THE PROPERTY OF THE BOARD OF PROFESSIONAL ENGINEERS AND SURVEYORS OF NORTH CAROLINA. IT IS TO BE USED ONLY BY THE REGISTERED PROFESSIONAL ENGINEER OR SURVEYOR WHOSE NAME IS ON THE SEAL. IT IS TO BE USED ONLY FOR THE PROJECTS SPECIFICALLY LISTED ON THE BACK OF THIS SEAL. IT IS TO BE USED ONLY BY THE REGISTERED PROFESSIONAL ENGINEER OR SURVEYOR WHOSE NAME IS ON THE SEAL.

SHEET
F2 of 2



RIGID FRAME: ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc. Bolt Qty	Anc. Dia	Base Plate (in)			Elev. (in)
				Width	Length	Thick	
2*	A	4	1.000	8.000	12.81	0.375	0.0
2*	J	4	1.000	8.000	12.81	0.375	0.0
2* Frame lines: 2 3 4							

ENDWALL COLUMN: ANCHOR BOLTS & BASE PLATES

Frm Line	Col Line	Anc. Bolt Qty	Anc. Dia	Base Plate (in)			Elev. (in)
				Width	Length	Thick	
1	A	4	0.750	8.000	8.500	0.375	0.0
1	B	4	0.750	8.000	8.125	0.375	0.0
1	C	4	0.750	8.000	8.125	0.375	0.0
1	D	4	0.750	8.000	8.125	0.375	0.0
1	E	4	0.750	8.000	10.19	0.375	0.0
1	F	4	0.750	8.000	10.19	0.375	0.0
1	G	4	0.750	8.000	10.19	0.375	0.0
1	J	4	0.750	8.000	8.125	0.375	0.0
5	J	4	0.750	8.000	8.500	0.375	0.0
5	F	4	0.750	8.000	8.125	0.375	0.0
5	D	4	0.750	8.000	8.125	0.375	0.0
5	C	4	0.750	8.000	8.125	0.375	0.0
5	B	4	0.750	8.000	8.125	0.375	0.0
5	A	4	0.750	8.000	8.500	0.375	0.0

GENERAL NOTES

- ALL LOADING CONDITIONS ARE EXAMINED. THE MAXIMUM AND MINIMUM HORIZONTAL (H) AND VERTICAL (V) REACTIONS AND THE CORRESPONDING VERTICAL (V) OR HORIZONTAL (H) REACTIONS ARE REPORTED.
- REACTIONS ARE PROVIDED BY LOAD CASE IN ORDER TO AID THE FOUNDATION ENGINEER IN DETERMINING THE APPROPRIATE LOAD FACTORS AND COMBINATION TO BE USED WITH EITHER WORKING STRESS OR ULTIMATE STRENGTH DESIGN METHODS. WIND LOAD CASES ARE GIVEN FOR EACH PRIMARY WIND DIRECTION.
- FOR ASCE7-10 AND LATER BASED BUILDING CODES THE UNFACTORED LOAD CASE REACTIONS DUE TO WIND ARE GENERATED USING ULTIMATE DESIGN WIND SPEEDS (Vult).
- POSITIVE (+) REACTIONS ARE AS SHOWN ABOVE. FOUNDATION LOADS ARE IN OPPOSITE DIRECTIONS.
- BRACING REACTIONS ARE IN THE PLANE OF THE BRACE WITH THE HORIZONTAL REACTION (H) ACTING AWAY FROM THE BRACED BAY AND THE VERTICAL REACTION (V) ACTING DOWNWARD.

***** RIGID FRAME LOAD CASE ABBREVIATIONS: *****
 Wind_L1/Wind_R1: LATERAL WIND FROM THE LEFT/RIGHT, CASE 1
 Wind_L2/Wind_R2: LATERAL WIND FROM THE LEFT/RIGHT, CASE 2
 Wind_Ln1/Wind_Ln2: LONGITUDINAL WIND, CASE 1/2
 Seismic_L/Seismic_R: LATERAL SEISMIC LOAD FROM LEFT/RIGHT
 L#WIND#/L#E/L#WIND#_R#: LONGITUDINAL WIND EDGE ZONES
 F#UNB_SL_L/F#UNB_SL_R: UNBALANCED ROOF SNOW WITH WIND FROM LEFT/RIGHT
 F#PAT_LL #/F#PAT_SL #: PARTIAL LIVE/SNOW LOADING FOR CONTINUOUS BEAM SYSTEMS

***** ENDWALL COLUMN LOAD CASE ABBREVIATIONS: *****
 Collat: COLLATERAL LOAD
 Rafter Wind_L/Rafter Wind_R: LATERAL WIND FROM THE LEFT/RIGHT
 Brace Wind_L/Brace Wind_R: LATERAL WIND FROM THE LEFT/RIGHT
 Wind_P/Wind_S: LONGITUDINAL WIND PRESSURE/SUCTION ON COLUMNS
 Wind_Ln: LONGITUDINAL WIND SUCTION ON ROOF
 Seis_L/Seis_R: LATERAL SEISMIC LOAD FROM LEFT/RIGHT
 E#UNB_SL_L/E#UNB_SL_R: UNBALANCED ROOF SNOW WITH WIND FROM LEFT/RIGHT
 E#PAT_LL #/E#PAT_SL #: PARTIAL LIVE/SNOW LOADING FOR CONTINUOUS BEAM SYSTEMS

RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Column	Dead Horiz	Dead Vert	Collateral Horiz	Collateral Vert	Live Horiz	Live Vert	Snow Horiz	Snow Vert	Wind_Left1 Horiz	Wind_Left1 Vert	Wind_Right1 Horiz	Wind_Right1 Vert
2*	A	4.6	6.3	3.2	4.0	12.9	15.7	11.3	13.8	-20.9	-23.0	-9.0	-15.8
2*	J	-4.6	6.3	-3.2	4.0	-12.9	15.7	-11.3	13.8	9.0	-15.8	20.9	-23.0

Frame Line	Column	Wind_Left2 Horiz	Wind_Left2 Vert	Wind_Right2 Horiz	Wind_Right2 Vert	Wind_Long1 Horiz	Wind_Long1 Vert	Wind_Long2 Horiz	Wind_Long2 Vert	Seismic_Left Horiz	Seismic_Left Vert	Seismic_Right Horiz	Seismic_Right Vert
2*	A	-15.5	-13.2	-3.6	-6.0	-12.0	-21.5	-12.8	-17.3	-1.4	-0.5	1.4	0.5
2*	J	3.6	-6.0	15.5	-13.2	12.8	-17.3	12.0	-21.5	-1.4	0.5	1.4	-0.5

Frame Line	Column	MIN_SNOW Horiz	MIN_SNOW Vert	F1UNB_SL_L Horiz	F1UNB_SL_L Vert	F1UNB_SL_R Horiz	F1UNB_SL_R Vert
2*	A	16.1	19.7	10.2	14.2	10.2	8.4
2*	J	-16.1	19.7	-10.2	8.4	-10.2	14.2

2* Frame lines: 2 3 4

ENDWALL COLUMN: BASIC COLUMN REACTIONS (k)

Frm Line	Col Line	Dead Vert	Collat Vert	Live Vert	Snow Vert	Wind_Left1 Vert	Wind_Right1 Vert	Wind_Left2 Vert	Wind_Right2 Vert	Wind Press Horiz	Wind Suct Horiz	Wind Long1 Vert	Wind Long2 Vert
1	A	0.5	0.3	2.2	1.2	-2.6	-2.1	-1.7	-1.1	-1.8	2.2	-3.1	-1.6
1	B	1.3	0.8	5.6	2.9	-8.0	-4.2	-5.7	-2.0	-3.8	4.2	-7.5	-4.8
1	C	1.3	0.8	5.4	2.8	-5.9	-3.6	-4.1	-1.8	-4.2	4.6	-5.9	-3.6
1	D	1.4	0.9	6.1	3.2	-2.8	-4.1	-1.5	-2.7	-2.6	2.8	-2.9	-3.9
1	E	0.3	0.0	-0.3	-0.2	-1.0	-2.3	-0.4	-1.7	-0.5	0.5	-0.9	-2.4
1	F	1.3	0.7	4.6	2.4	-3.2	-5.6	-1.6	-3.9	0.0	0.0	-3.3	-5.6
1	G	1.0	0.5	3.4	1.8	-2.5	-4.9	-1.2	-3.6	-0.3	0.4	-3.0	-4.4
1	J	0.1	-0.1	-0.3	-0.2	-0.2	0.6	-0.2	0.5	-0.5	0.6	0.3	0.0

Frm Line	Col Line	Seis Left Vert	Seis Right Vert	MIN_SNOW Horiz	MIN_SNOW Vert	E1UNB_SL_L Horiz	E1UNB_SL_L Vert	E1UNB_SL_R Horiz	E1UNB_SL_R Vert
1	A	0.0	0.1	0.0	1.7	0.0	1.1	0.0	0.7
1	B	-0.1	0.0	0.0	4.2	0.0	3.6	0.0	0.8
1	C	0.0	0.0	0.0	4.1	0.0	4.3	0.0	1.0
1	D	0.0	0.0	0.0	4.5	0.0	1.2	0.0	3.3
1	E	0.0	0.0	0.0	-0.2	0.0	-0.2	0.0	1.2
1	F	0.0	0.0	0.0	3.4	0.0	0.7	0.0	2.3
1	G	0.0	-0.1	0.0	2.6	0.0	0.5	0.0	2.1
1	J	0.1	0.0	0.0	-0.3	0.0	0.2	0.0	-0.2

Frm Line	Col Line	Dead Vert	Collat Vert	Live Vert	Snow Vert	Wind_Left1 Vert	Wind_Right1 Vert	Wind_Left2 Vert	Wind_Right2 Vert	Wind Press Horiz	Wind Suct Horiz	Wind Long1 Vert	Wind Long2 Vert
5	J	0.5	0.3	2.0	1.2	-2.7	-1.9	-1.7	-1.0	-1.8	2.2	-3.0	-1.6
5	F	1.3	0.8	5.2	2.9	-7.8	-4.2	-5.6	-2.0	-3.7	4.1	-7.4	-4.5
5	D	1.3	0.8	5.3	2.9	-6.0	-3.7	-4.2	-1.8	-4.1	4.5	-6.0	-3.7
5	C	1.3	0.8	5.3	2.9	-3.7	-6.0	-1.8	-4.2	-4.1	4.5	-3.7	-6.0
5	B	1.3	0.8	5.2	2.9	-4.2	-7.8	-2.0	-5.6	-3.7	4.1	-4.5	-7.4
5	A	0.5	0.3	2.0	1.2	-1.9	-2.7	-1.0	-1.7	-1.8	2.2	-1.6	-3.0

Frm Line	Col Line	Seis Left Vert	Seis Right Vert	MIN_SNOW Horiz	MIN_SNOW Vert	E2UNB_SL_L Horiz	E2UNB_SL_L Vert	E2UNB_SL_R Horiz	E2UNB_SL_R Vert	E2PAT_LL_1 Horiz	E2PAT_LL_1 Vert	E2PAT_LL_2 Horiz	E2PAT_LL_2 Vert
5	J	0.0	0.0	0.0	1.7	0.0	1.1	0.0	0.6	0.0	2.5	0.0	-0.3
5	F	0.0	0.0	0.0	4.1	0.0	3.4	0.0	0.8	0.0	2.1	0.0	3.2
5	D	0.0	0.0	0.0	4.2	0.0	4.4	0.0	1.0	0.0	2.9	0.0	2.2
5	C	0.0	0.0	0.0	4.2	0.0	1.0	0.0	4.4	0.0	2.9	0.0	2.2
5	B	0.0	0.0	0.0	4.1	0.0	0.8	0.0	3.4	0.0	2.1	0.0	3.2
5	A	0.0	0.0	0.0	1.7	0.0	0.6	0.0	1.1	0.0	2.5	0.0	-0.3

Frm Line	Col Line	E2PAT_LL_3 Horiz	E2PAT_LL_3 Vert	E2PAT_LL_4 Horiz	E2PAT_LL_4 Vert	E2PAT_LL_5 Horiz	E2PAT_LL_5 Vert	E2PAT_LL_6 Horiz	E2PAT_LL_6 Vert
5	J	0.0	2.0	0.0	-0.1	0.0	2.4	0.0	-0.6
5	F	0.0	5.8	0.0	1.9	0.0	2.3	0.0	2.9
5	D	0.0	2.3	0.0	6.3	0.0	2.3	0.0	2.9
5	C	0.0	2.9	0.0	2.3	0.0	6.3	0.0	2.3
5	B	0.0	2.9	0.0	2.3	0.0	1.9	0.0	5.8
5	A	0.0	-0.6	0.0	2.4	0.0	-0.1	0.0	2.0

BUILDING BRACING REACTIONS

Wall Loc	Col Line	± Reactions(k)	Panel_Shear (lb/ft)	Note				
		Wind Horiz	Wind Vert	Seismic Horiz	Seismic Vert	Wind	Seis	
L_EW	1							(i)
F_SW	J	2,3	9.0	6.4	3.7	2.6		
R_EW	5							(i)
B_SW	A	3,2	9.0	6.4	3.7	2.6		

(i) Bracing in roof to rigid frame

DATE	7/1/2020
ISSUE	
PERMITS	
DRAWN	MBS
CHECKED	DAW
DESIGNED	KI
BY	JDB

PEAK STEEL BUILDINGS

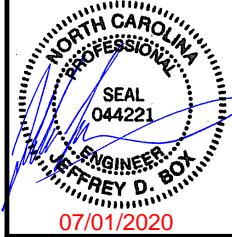
PO BOX 1275
MADISON, GA 30650
PHONE: (944) 333-PEAK
FAX: (706) 343-1988

PROJECT NAME
JC POWDER COATING
220 PROGRESS DRIVE, FUQUAY-VARINA, NC 27526

CUSTOMER NAME
JC POWDER COATING
NEW HILL, NC 27562

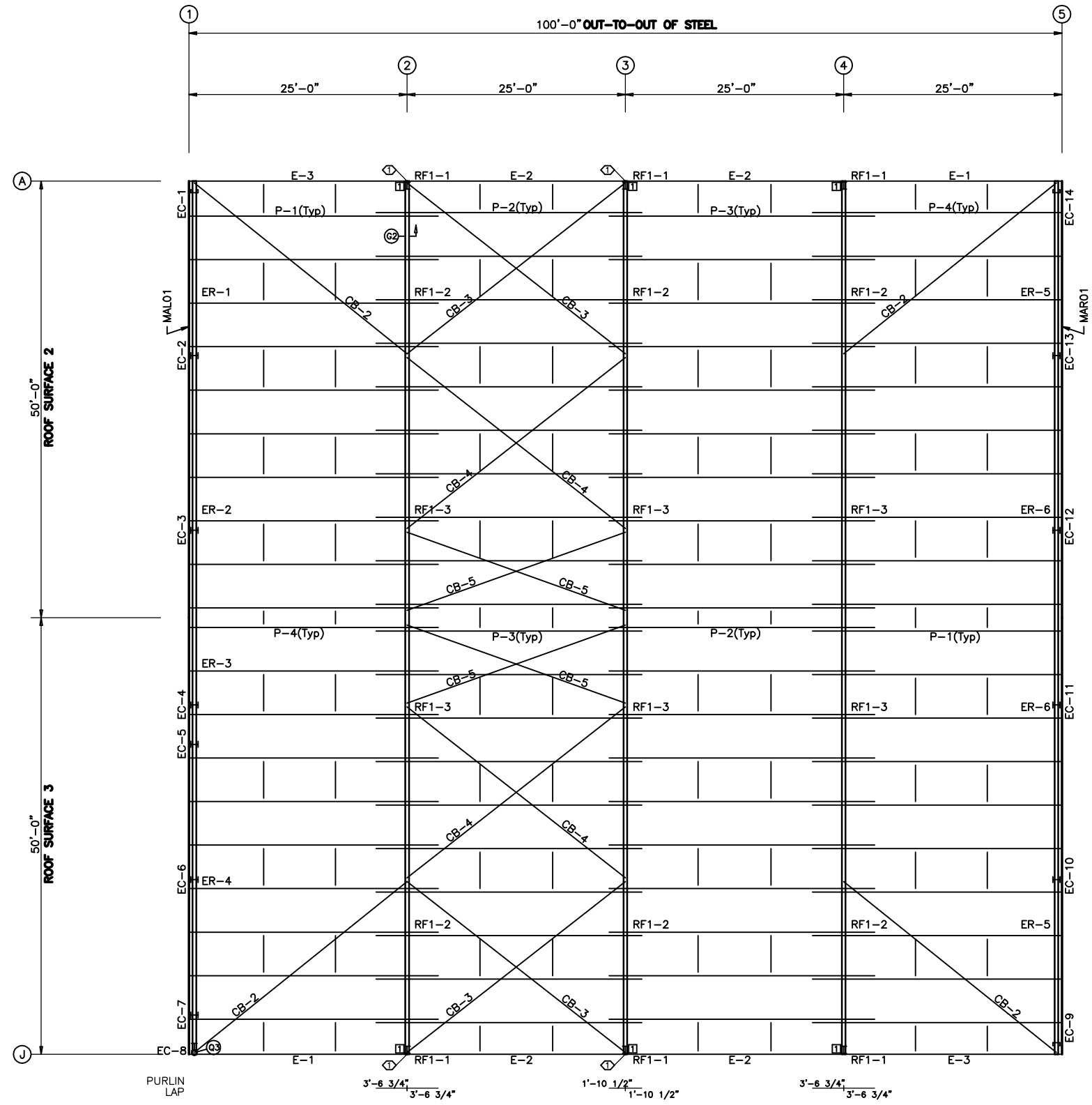
JOB NUMBER
S2008243A

SHEET TITLE



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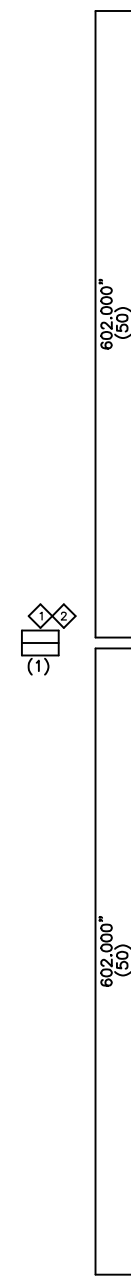
ROOF FRAMING PLAN

SPECIAL BOLTS				
ROOF PLAN				
Ø ID	QUAN	TYPE	DIA	LENGTH WASH
1	4	A325	1/2"	2" 1

TRIM TABLE			
ROOF PLAN			
◇ ID	PART	LENGTH	DETAIL
1	RGB01	121.000	TRIM_953
2	RGB02	242.000	TRIM_953

MEMBER TABLE		
ROOF PLAN		
MARK	PART	LENGTH
P-1	10Z060	342.500
P-2	10Z060	365.250
P-3	10Z060	365.250
P-4	10Z060	342.500
E-1	10E060	299.625
E-2	10E060	299.750
E-3	10E060	299.625
CB-2	RDB-	370.000
CB-3	RDB-	376.000
CB-4	RDB-	381.000
CB-5	RDB-	324.000

CONNECTION PLATES	
ROOF PLAN	
□ ID	MARK/PART
1	ESC02



ROOF SHEETING
 PANELS: 24 Ga. SS
 Galvalume Plus

ROOF FRAMING PLAN

GENERAL NOTES

- PLACE TAGGED END OF RAFTERS TOWARDS THE LOW EAVE.
- STD. ROD/CABLE SIZES PER PART PREFIX ARE:

ROD	CABLE
RDB- = 5/8" ROD	CAA- = 1/4" CABLE
RDC- = 3/4" ROD	CAB- = 3/8" CABLE
RDD- = 7/8" ROD	CAC- = 1/2" CABLE
RDE- = 1" ROD	
RDF- = 1 1/8" ROD	
RDG- = 1 1/4" ROD	
- PURLIN AND EAVE STRUT CONNECTIONS UTILIZE BOTH A307 AND A325 BOLTS. REFER TO THE DETAILS FOR SPECIFIC USAGE REQUIREMENTS.
- THIS DRAWING IS NOT TO SCALE.

DATE	ISSUE	BY	CHK	APP
7/1/2020	PERMITS	JDB	PE	

PEAK STEEL BUILDINGS
 PO BOX 1275
 MADISON, GA 30650
 PHONE: (944) 333-PEAK
 FAX: (706) 343-1988

PROJECT NAME
 JC POWDER COATING
 220 PROGRESS DRIVE, FUQUAY-VARINA, NC 27526

CUSTOMER NAME
 JC POWDER COATING
 NEW HILL, NC 27562

JOB NUMBER
 S2008243A

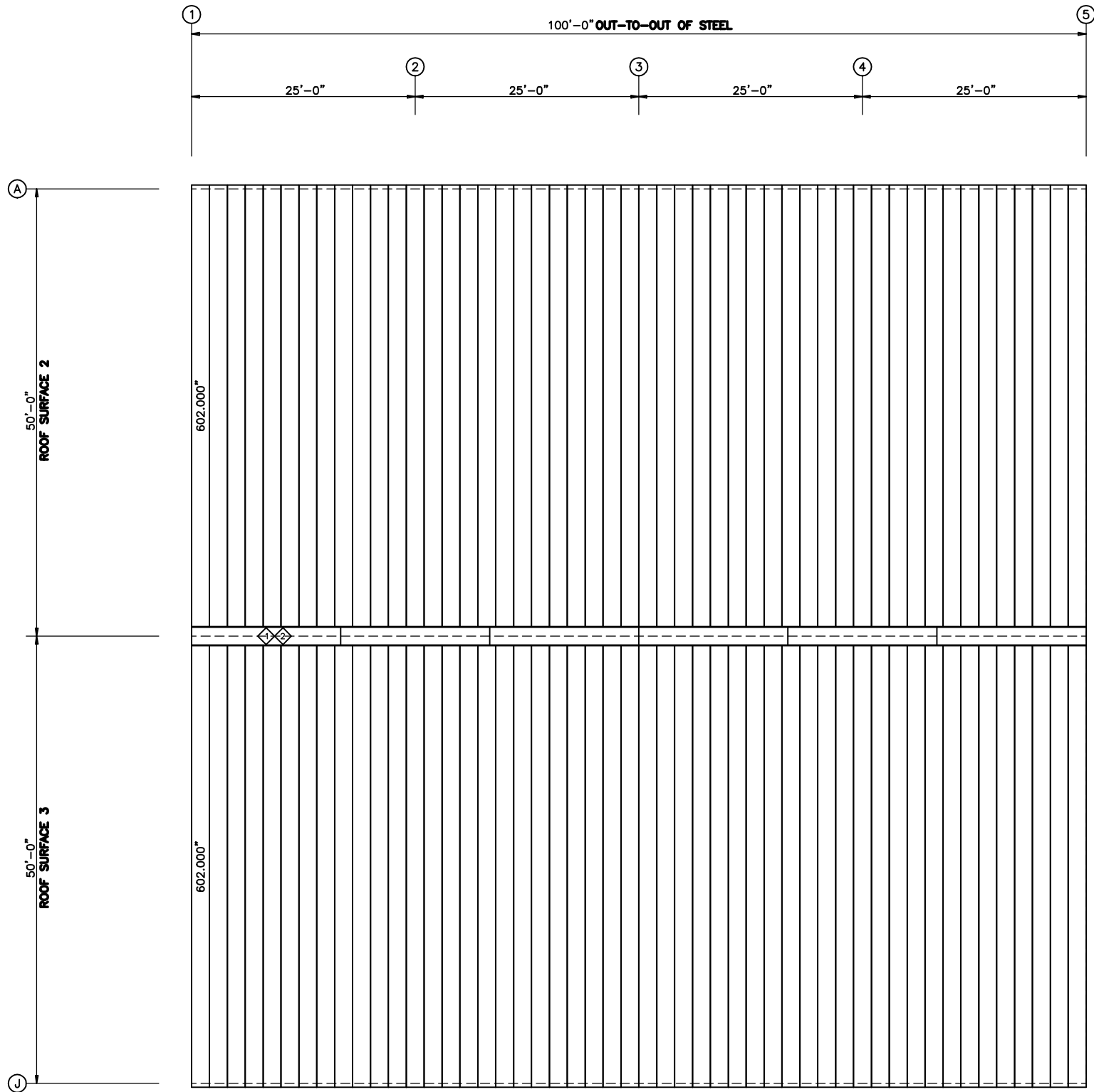
SHEET TITLE
 ROOF FRAMING PLAN



07/01/2020

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E1 of 7



ROOF SHEETING PLAN
PANELS: 24 Ga. SS - Galvalume Plus

TRIM TABLE			
ROOF PLAN			
ID	PART	LENGTH	DETAIL
1	RGB01	121.000	TRIM_953
2	RGB02	242.000	TRIM_953

ISSUE	DATE	BY	CHK	REV
PERMITS	7/1/2020	JDB	MBS	1

PEAK STEEL BUILDINGS
 PO BOX 1275
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 PHONE: (944) 333-PEAK
 FAX: (706) 343-1988

PROJECT NAME
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 220 PROGRESS DRIVE, FUQUAY-VARINA, NC 27526

CUSTOMER NAME
 JC POWDER COATING
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JOB NUMBER
 S2008243A

SHEET TITLE



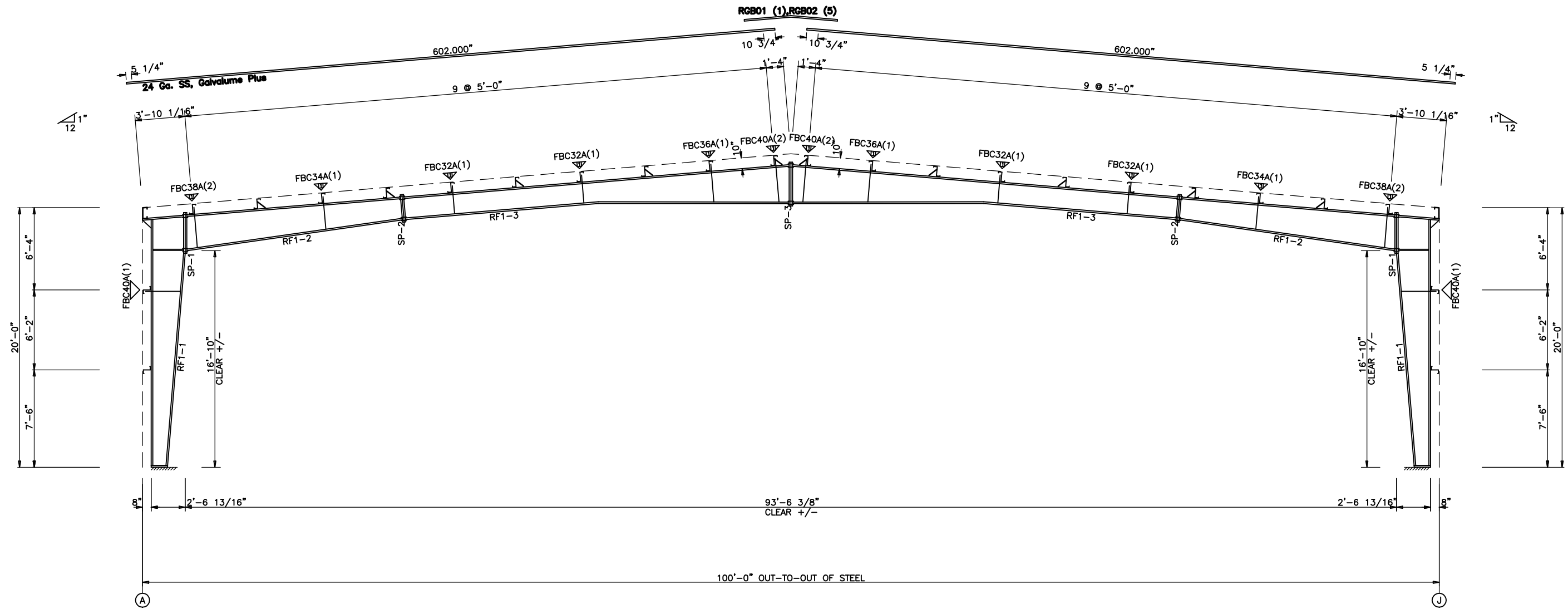
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E2 of 7

SPLICE PLATE & BOLT TABLE									
Mark	Qty		Int	Type	Dia	Length	Width	Thick	Length
	Top	Bot							
SP-1	4	4	0	A325	1.000	3.25	8"	1"	3'-3"
SP-2	4	4	0	A325	0.625	2.25	6"	1/2"	2'-0 3/4"
SP-3	4	4	0	A325	0.625	2.25	6"	1/2"	3'-3 3/8"

MEMBER TABLE						
Mark	Web Depth		Web Plate		Outside Flange	Inside Flange
	Start/End	Thick	Thick	Length	W x Thk x Length	W x Thk x Length
RF1-1	12.0/30.0	0.220	0.313	197.7	8 x 5/16" x 229.6	8 x 1/2" x 198.4
	30.0/30.0	0.313		34.5	8 x 5/8" x 38.1	
RF1-2	30.0/18.0	0.220		202.6	6 x 1/2" x 200.1	6 x 5/8" x 202.9
RF1-3	18.0/18.0	0.164		180.0	6 x 1/2" x 360.0	6 x 1/4" x 180.0
	18.0/32.8	0.164		180.0		6 x 1/4" x 177.9

CONNECTION PLATES	
ID	Mark/Part
1	FBL&N01



RIGID FRAME ELEVATION: FRAME LINE 2 3 4

GENERAL NOTES

- ▽ INDICATES FLANGE BRACING LOCATIONS. (1) = ONE SIDE; (2) = TWO SIDES.
- IF FLANGE BRACING IS REQUIRED ON BOTH SIDES OF AN EXPANDABLE RIGID FRAME, THE OPPOSITE SIDE FLANGE BRACES WILL HAVE TO BE INSTALLED AT THE TIME OF FUTURE EXPANSION. THESE FLANGE BRACES HAVE BEEN PROVIDED, AS REQUIRED, FOR THIS FUTURE CONDITION.
- RIGID FRAMES SHALL HAVE 50% OF THEIR BOLTS INSTALLED AND TIGHTENED ON BOTH SIDES OF THE WEB ADJACENT TO EACH FLANGE BEFORE THE HOISTING EQUIPMENT IS RELEASED.
- INTERIOR COLUMN METAL TAG IS ORIENTED TOWARD THE LOW EAVE OF THE BUILDING.

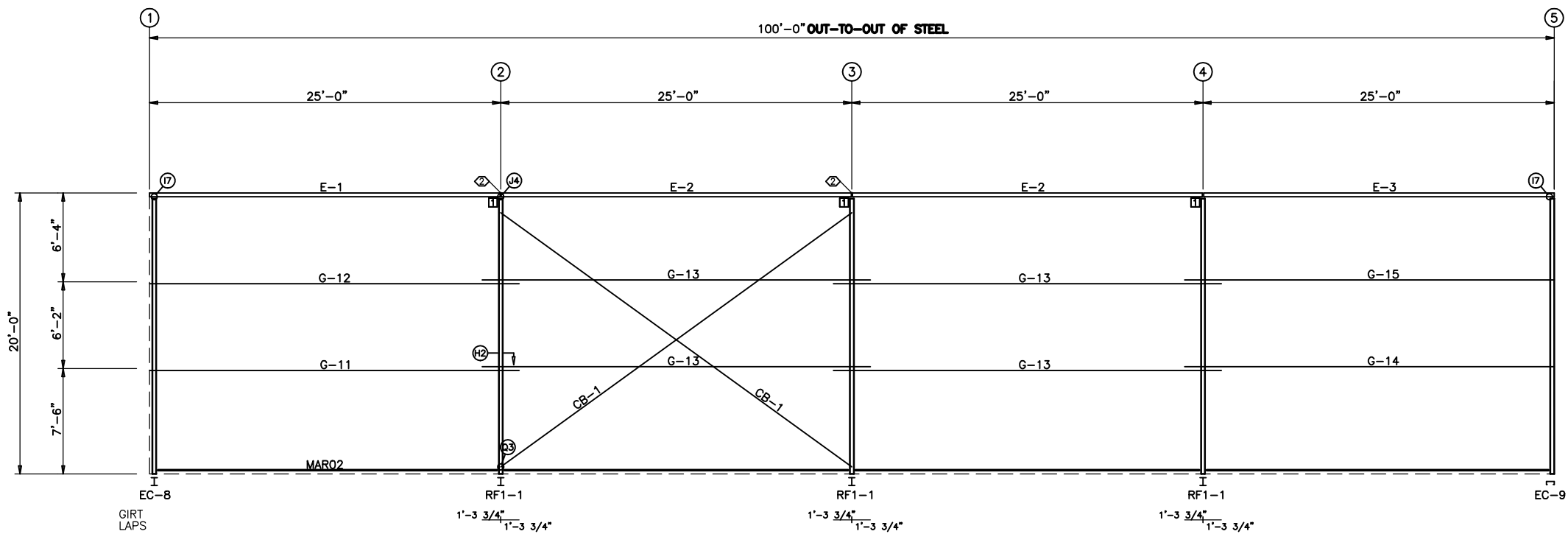
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 FAX: (706) 343-1988

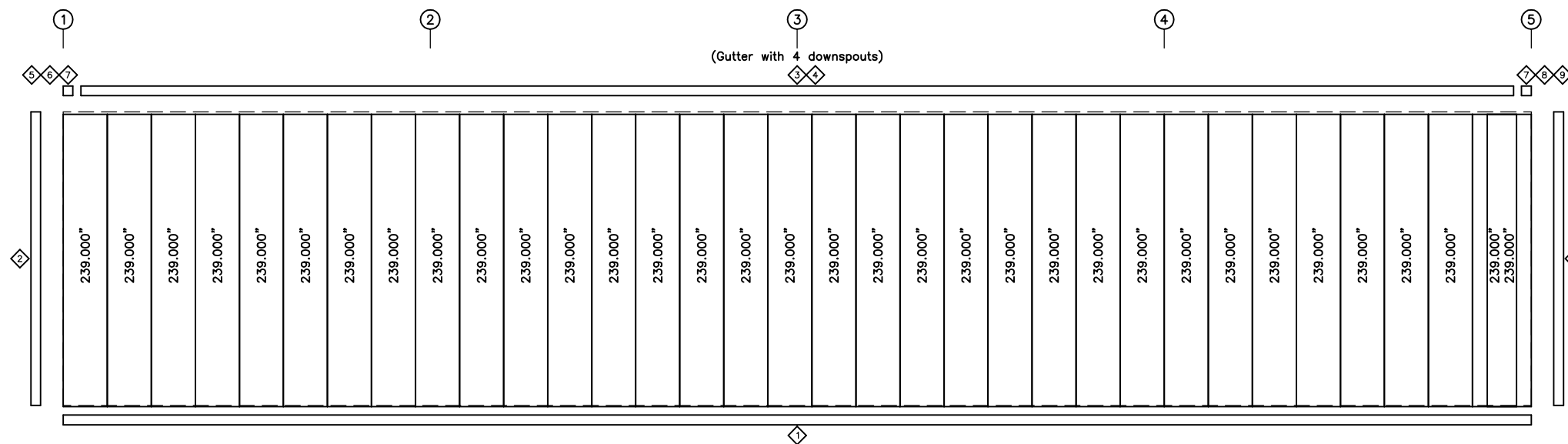
PROJECT NAME
 JC POWDER COATING
 220 PROGRESS DRIVE, FUQUAY-VARINA, NC 27526
 CUSTOMER NAME
 JC POWDER COATING
 NEW HILL, NC 27562
 JOB NUMBER
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 SHEET
 E3 of 7



SIDEWALL FRAMING: FRAME LINE J



SIDEWALL SHEETING & TRIM: FRAME LINE J
 PANELS: 26 Ga. CW - Desert Sand PVDF

TRIM TABLE FRAME LINE J			
ID	PART	LENGTH	DETAIL
1	BSD01	122.000	TRIM_200
2	OCA01	242.000	TRIM_79
3	GTA01	121.000	TRIM_951
4	GTA02	242.000	TRIM_951
5	H4000	5.000	TRIM_21
6	RCA01	9.250	
7	GRA01	8.000	
8	H4000	5.000	
9	RCA02	9.250	

SPECIAL BOLTS				
ID	QUAN	TYPE	DIA	LENGTH WASH
2	4	A325	1/2"	2" 1

MEMBER TABLE FRAME LINE J		
MARK	PART	LENGTH
E-1	10E060	299.625
E-2	10E060	299.750
E-3	10E060	299.625
G-11	08Z067	315.500
G-12	08Z060	315.500
G-13	08Z060	331.500
G-14	08Z067	315.500
G-15	08Z060	315.500
CB-1	RDB-	379.000

CONNECTION PLATES FRAME LINE J	
ID	MARK/PART
1	ESC02

SIDEWALL FRAMING PLAN

GENERAL NOTES

- STD. ROD/CABLE SIZES PER PART PREFIX ARE:
 ROD: RDB- = 5/8" ROD, RDC- = 3/4" ROD, RDD- = 7/8" ROD, RDE- = 1" ROD, RDF- = 1 1/8" ROD, RDG- = 1 1/4" ROD
 CABLE: CAA- = 1/4" CABLE, CAB- = 3/8" CABLE, CAC- = 1/2" CABLE
- ROD/CABLE BRACING THAT OCCURS IN FLUSH OR INSET GIRTS WILL REQUIRE FIELD SLOTTING OF GIRT WEBS TO ALLOW FOR BRACING.
- FRAMED OPENINGS WHICH ARE FIELD LOCATED WILL REQUIRE FIELD CUTTING OF GIRTS AND SHEETING.
- THIS DRAWING IS NOT TO SCALE.

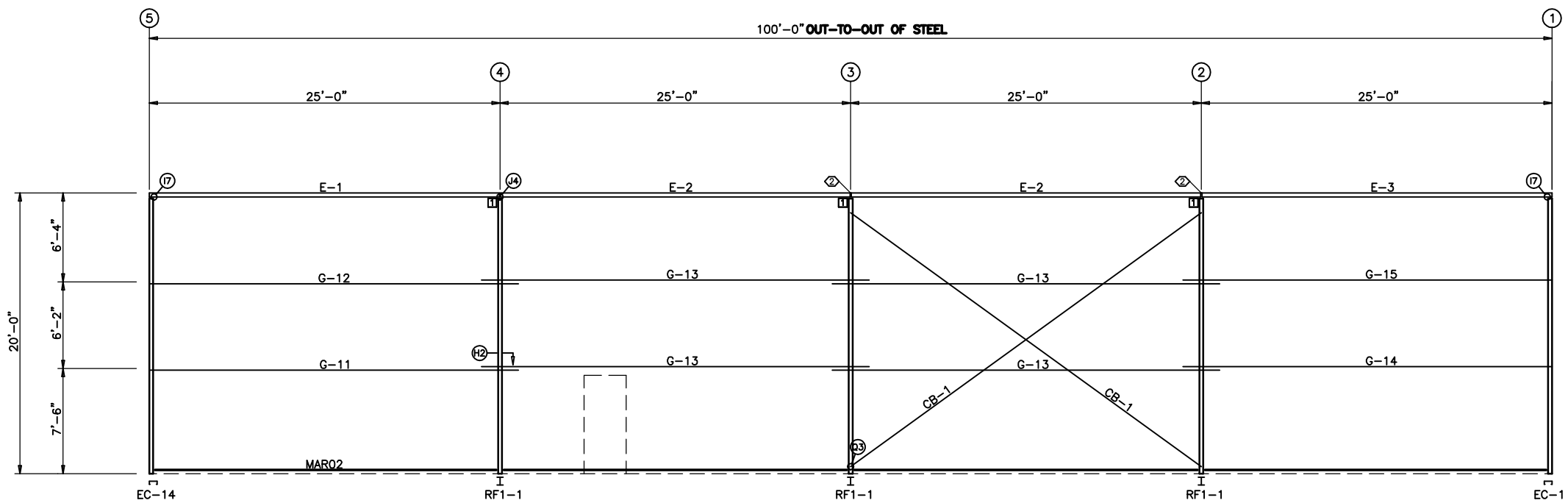
DATE	ISSUE	PERMITS
7/1/2020		

PEAK STEEL BUILDINGS
 PO BOX 1275
 MADISON, GA 30650
 PHONE: (944) 333-PEAK
 FAX: (706) 343-1988

PROJECT NAME
JC POWDER COATING
 220 PROGRESS DRIVE, FUQUAY-VARINA, NC 27526
 CUSTOMER NAME
JC POWDER COATING
 NEW HILL, NC 27562
 JOB NUMBER
S2008243A



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TRIM TABLE FRAME LINE A			
ID	PART	LENGTH	DETAIL
1	BSD01	122.000	TRIM_200
2	OCA01	242.000	TRIM_79
3	GTA02	242.000	TRIM_951
4	H4000	5.000	TRIM_21
5	RCA01	9.250	
6	GRA01	8.000	
7	H4000	5.000	
8	RCA02	9.250	

SPECIAL BOLTS					
ID	QUAN	TYPE	DIA	LENGTH	WASH
2	4	A325	1/2"	2"	1

MEMBER TABLE FRAME LINE A		
MARK	PART	LENGTH
E-1	10E060	299.625
E-2	10E060	299.750
E-3	10E060	299.625
G-11	08Z067	315.500
G-12	08Z060	315.500
G-13	08Z060	331.500
G-14	08Z067	315.500
G-15	08Z060	315.500
CB-1	RDB-	379.000

CONNECTION PLATES FRAME LINE A		
ID	MARK/PART	
1	ESC02	

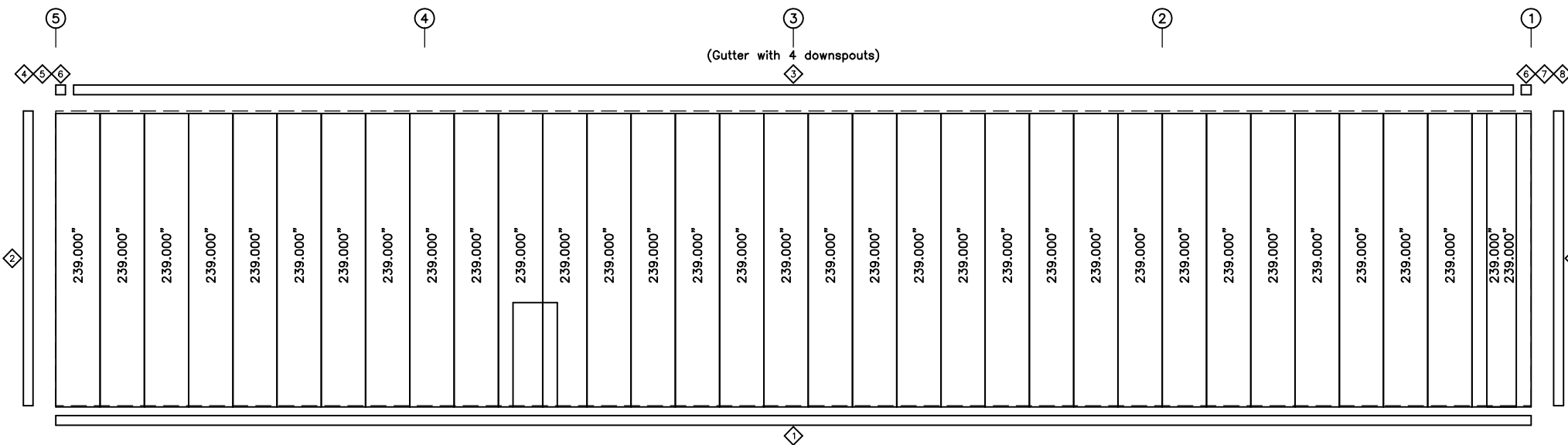
SIDEWALL FRAMING: FRAME LINE A

GIRT LAPS

1'-3 3/4" / 1'-3 3/4"

1'-3 3/4" / 1'-3 3/4"

1'-3 3/4" / 1'-3 3/4"



SIDEWALL SHEETING & TRIM: FRAME LINE A
PANELS: 26 Ga. CW - Desert Sand PVDF

SIDEWALL FRAMING PLAN

GENERAL NOTES

- STD. ROD/CABLE SIZES PER PART PREFIX ARE:

ROD	CABLE
RDB- = 5/8" ROD	CAA- = 1/4" CABLE
RDC- = 3/4" ROD	CAB- = 3/8" CABLE
RDD- = 7/8" ROD	CAC- = 1/2" CABLE
RDE- = 1" ROD	
RDF- = 1 1/8" ROD	
RDG- = 1 1/4" ROD	
- ROD/CABLE BRACING THAT OCCURS IN FLUSH OR INSET GIRTS WILL REQUIRE FIELD SLOTTING OF GIRT WEBS TO ALLOW FOR BRACING.
- FRAMED OPENINGS WHICH ARE FIELD LOCATED WILL REQUIRE FIELD CUTTING OF GIRTS AND SHEETING.
- THIS DRAWING IS NOT TO SCALE.

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7/1/2020		

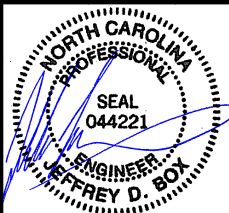
PEAK STEEL BUILDINGS

PO BOX 1275
MADISON, GA 30650
PHONE: (944) 333-PEAK
FAX: (706) 343-1988

PROJECT NAME
JC POWDER COATING
220 PROGRESS DRIVE, FUQUAY-VARINA, NC 27526

CUSTOMER NAME
JC POWDER COATING
NEW HILL, NC 27562

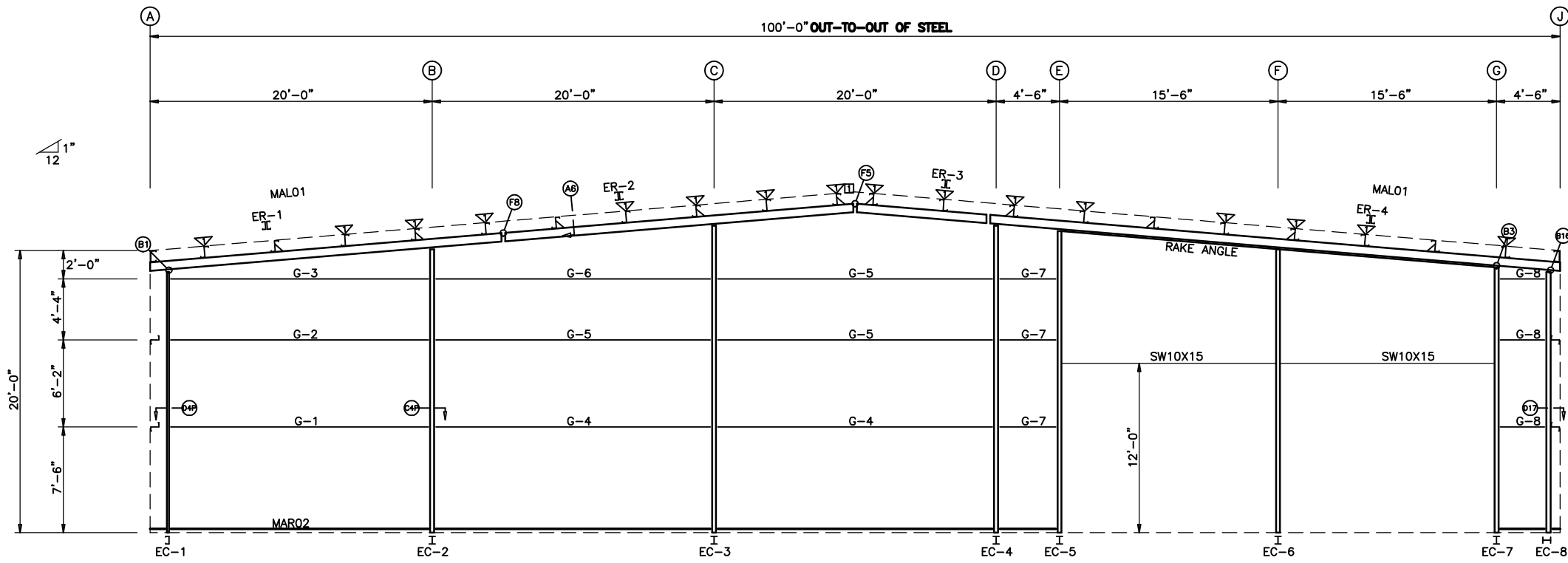
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SHEET
E5 of 7



ENDWALL FRAMING: FRAME LINE 1

NOTE: THE FRAMING AS DEPICTED ABOVE IS NOT DESIGNED TO ACCOMMODATE ANY FUTURE EXPANSION.

BOLT TABLE
FRAME LINE 1

LOCATION	QUAN	TYPE	DIA	LENGTH
ER-1/ER-2	8	A325	5/8"	2 1/4"
ER-2/ER-3	4	A325	1/2"	2"
ER-3/ER-4	8	A325	5/8"	2 1/4"
EC-1/ER-1	6	A325	1/2"	2"
Int_Column/Raf	4	A325	1/2"	2"
EC-8/ER-4	4	A325	1/2"	2"

TRIM TABLE
FRAME LINE 1

ID	PART	LENGTH	DETAIL
1	BSD01	122.000	TRIM_200
2	BSD01	Use Drop	TRIM_200
3	OCA01	242.000	TRIM_79
4	RTA02	242.000	TRIM_952
5	RRA01	121.000	TRIM_952
6	LEE10	121.000	
7	RRA01	121.000	
8	RTA02	242.000	TRIM_902
9	MPB01	26.440	
10	MPP01	14.380	
11	JTA145	145.000	TRIM_98
12	JTA121	121.000	TRIM_98

MEMBER TABLE
FRAME LINE 1

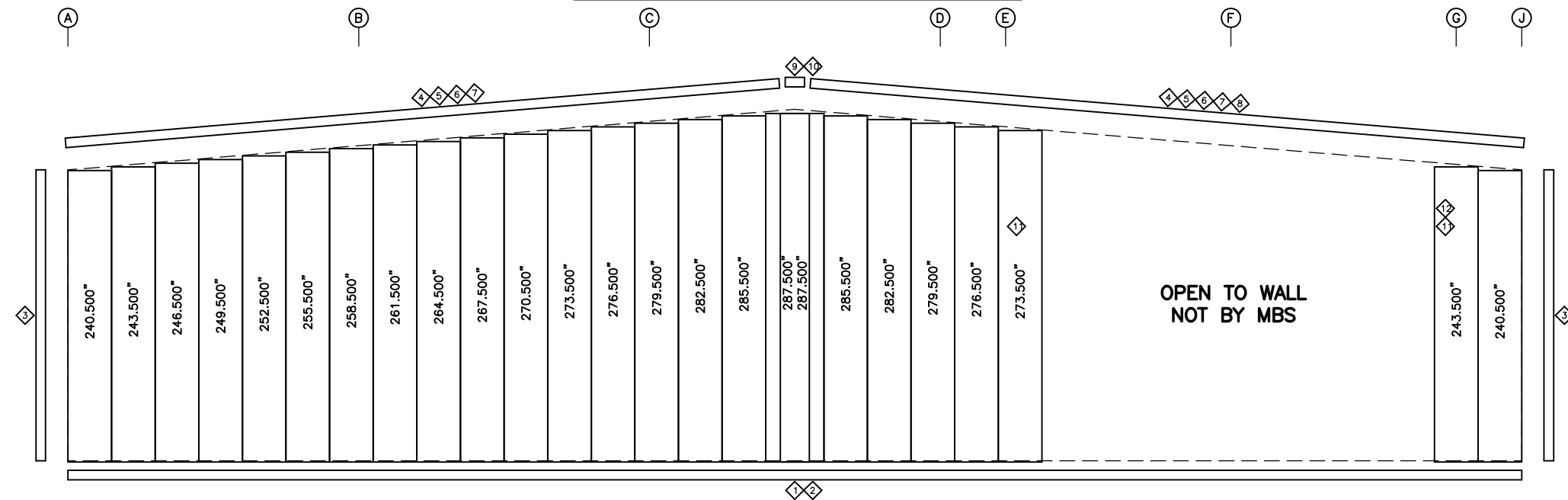
MARK	PART	LENGTH
EC-1	W08S075	223.250
EC-2	W8x10	242.125
EC-3	W8x10	262.125
EC-4	W8x10	262.125
EC-5	W10x15	257.625
EC-6	W10x22	242.188
EC-7	W10x15	226.625
EC-8	W8x10	223.250
ER-1	W08SD099	301.438
ER-2	W08SD099	299.500
ER-3	W08SD099	103.500
ER-4	W08SD099	497.438
G-1	08Z075	215.500
G-2	08Z060	215.500
G-3	08Z054	215.500
G-4	08Z075	231.500
G-5	08Z060	231.500
G-6	08Z054	231.500
G-7	08Z054	45.500
G-8	08Z054	33.375

FLANGE BRACE TABLE
FRAME LINE 1

ID	#	MARK	CLIP
1	1	FBE01	FBL&N01

CONNECTION PLATES
FRAME LINE 1

ID	MARK/PART
1	NCR03



ENDWALL SHEETING & TRIM: FRAME LINE 1

PANELS: 26 Ga. CW - Desert Sand PVDF

ENDWALL FRAMING PLAN

GENERAL NOTES

- STD. ROD/CABLE SIZES PER PART PREFIX ARE:

ROD	CABLE
RDB- = 5/8" ROD	CAA- = 1/4" CABLE
RDC- = 3/4" ROD	CAB- = 3/8" CABLE
RDD- = 7/8" ROD	CAC- = 1/2" CABLE
RDE- = 1" ROD	
RDF- = 1 1/8" ROD	
RDG- = 1 1/4" ROD	
- ROD/CABLE BRACING THAT OCCURS IN FLUSH OR INSET GIRT CONDITIONS WILL REQUIRE FIELD SLOTTING OF GIRT WEBS TO ALLOW FOR BRACING.
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 220 PROGRESS DRIVE, FUQUAY-VARINA, NC 27526
 CUSTOMER NAME: JC POWDER COATING
 NEW HILL, NC 27562

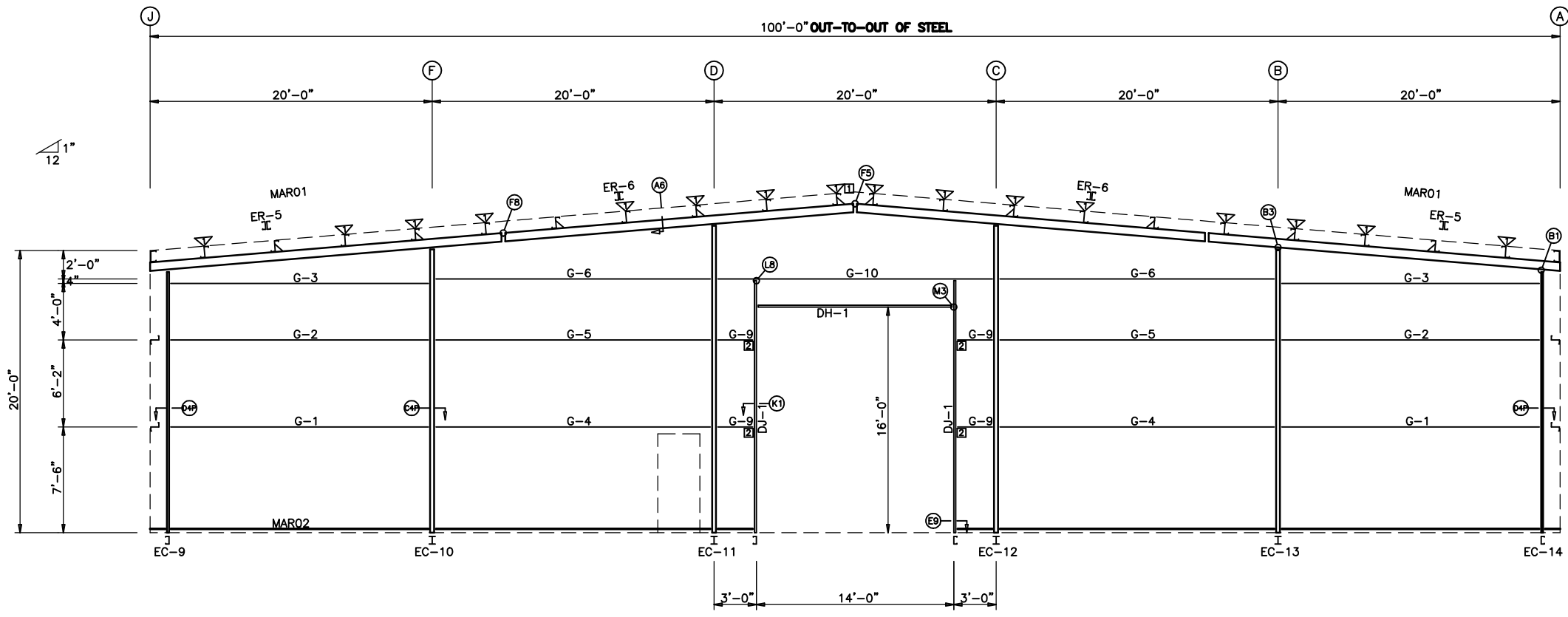
DATE: 7/1/2020
 DRAWN: MBS
 CHECKED: DAW
 PERMITTED: MBS

PEAK STEEL BUILDINGS
 PO BOX 1275
 MADISON, GA 30650
 PHONE: (944) 333-PEAK
 FAX: (706) 343-1988

JOB NUMBER: S2008243A
 SHEET TITLE: ENDWALL FRAMING PLAN

SEAL: 044221
 ENGINEER: JEFFREY D. BOY
 07/01/2020

E6 of 7



ENDWALL FRAMING: FRAME LINE 5

NOTE: THE FRAMING AS DEPICTED ABOVE IS NOT DESIGNED TO ACCOMMODATE ANY FUTURE EXPANSION.

**BOLT TABLE
FRAME LINE 5**

LOCATION	QUAN	TYPE	DIA	LENGTH
ER-5/ER-6	8	A325	5/8"	2 1/4"
ER-6/ER-6	4	A325	1/2"	2"
Cor_Column/Raf	6	A325	1/2"	2"
Int_Column/Raf	4	A325	1/2"	2"

**TRIM TABLE
FRAME LINE 5**

ID	PART	LENGTH	DETAIL
1	BSD01	122.000	TRIM_200
2	OCA01	242.000	TRIM_79
3	RTA02	242.000	TRIM_952
4	RRA01	121.000	TRIM_952
5	MPB01	26.440	
6	MPP01	14.380	
7	CCA193	193.000	TRIM_19
8	JTA193	193.000	TRIM_98
9	CCA169	169.000	TRIM_19
10	HTA172	172.000	TRIM_98

**MEMBER TABLE
FRAME LINE 5**

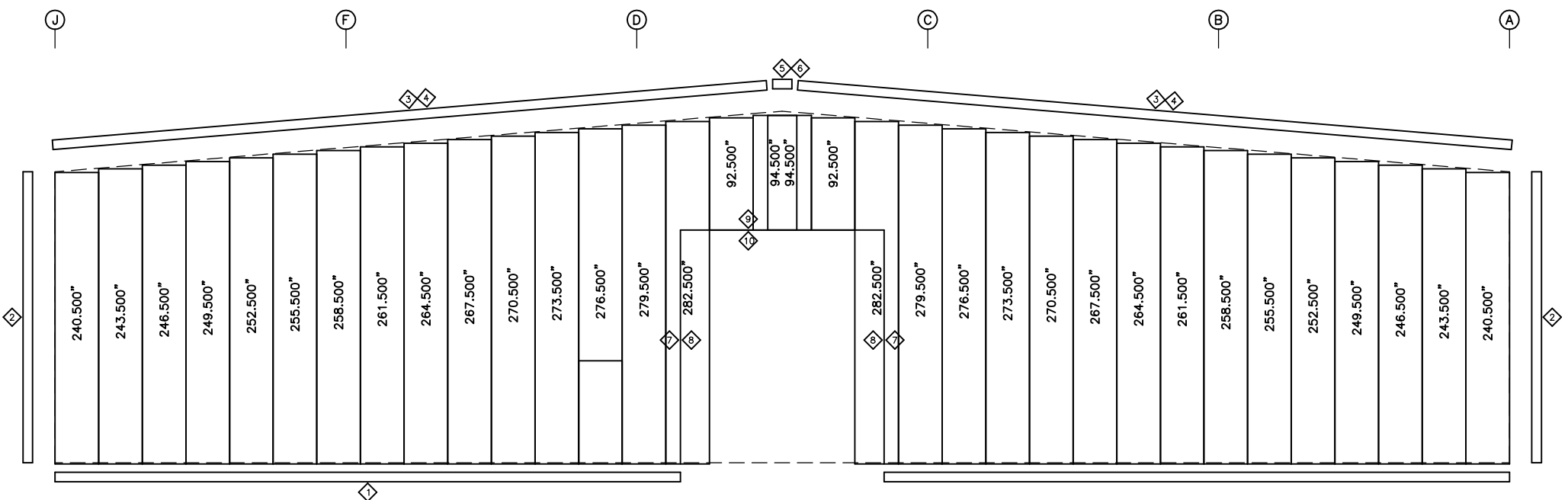
MARK	PART	LENGTH
EC-9	W08S075	219.250
EC-10	W8x10	238.063
EC-11	W8x10	258.063
EC-12	W8x10	258.063
EC-13	W8x10	238.063
EC-14	W08S075	219.250
ER-5	W12SD089	301.438
ER-6	W12SD089	299.188
DJ-1	J08C060	216.000
DH-1	J08C060	168.000
G-1	08Z075	215.500
G-2	08Z060	215.500
G-3	08Z054	215.500
G-4	08Z075	231.500
G-5	08Z060	231.500
G-6	08Z054	231.500
G-9	08Z054	28.500
G-10	08Z089	231.500

**FLANGE BRACE TABLE
FRAME LINE 5**

ID	#	MARK	CLIP
1	1	FBE01	FBL&N01

**CONNECTION PLATES
FRAME LINE 5**

ID	MARK/PART
1	NCRO3
2	JCA&P02



ENDWALL SHEETING & TRIM: FRAME LINE 5

PANELS: 26 Ga. CW - Desert Sand PVDF

ENDWALL FRAMING PLAN

GENERAL NOTES

- STD. ROD/CABLE SIZES PER PART PREFIX ARE:
 ROD = 5/8" ROD, 3/4" ROD, 7/8" ROD, 1" ROD, 1 1/8" ROD, 1 1/4" ROD
 CABLE = 1/4" CABLE, 3/8" CABLE, 1/2" CABLE
- ROD/CABLE BRACING THAT OCCURS IN FLUSH OR INSET GIRT CONDITIONS WILL REQUIRE FIELD SLOTTING OF GIRT WEBS TO ALLOW FOR BRACING.
- FRAMED OPENINGS WHICH ARE FIELD LOCATED WILL REQUIRE FIELD CUTTING OF GIRTS AND SHEETING.
- THIS DRAWING IS NOT TO SCALE.

DATE	ISSUE	BY	CHK	APP
7/1/2020		JDB		

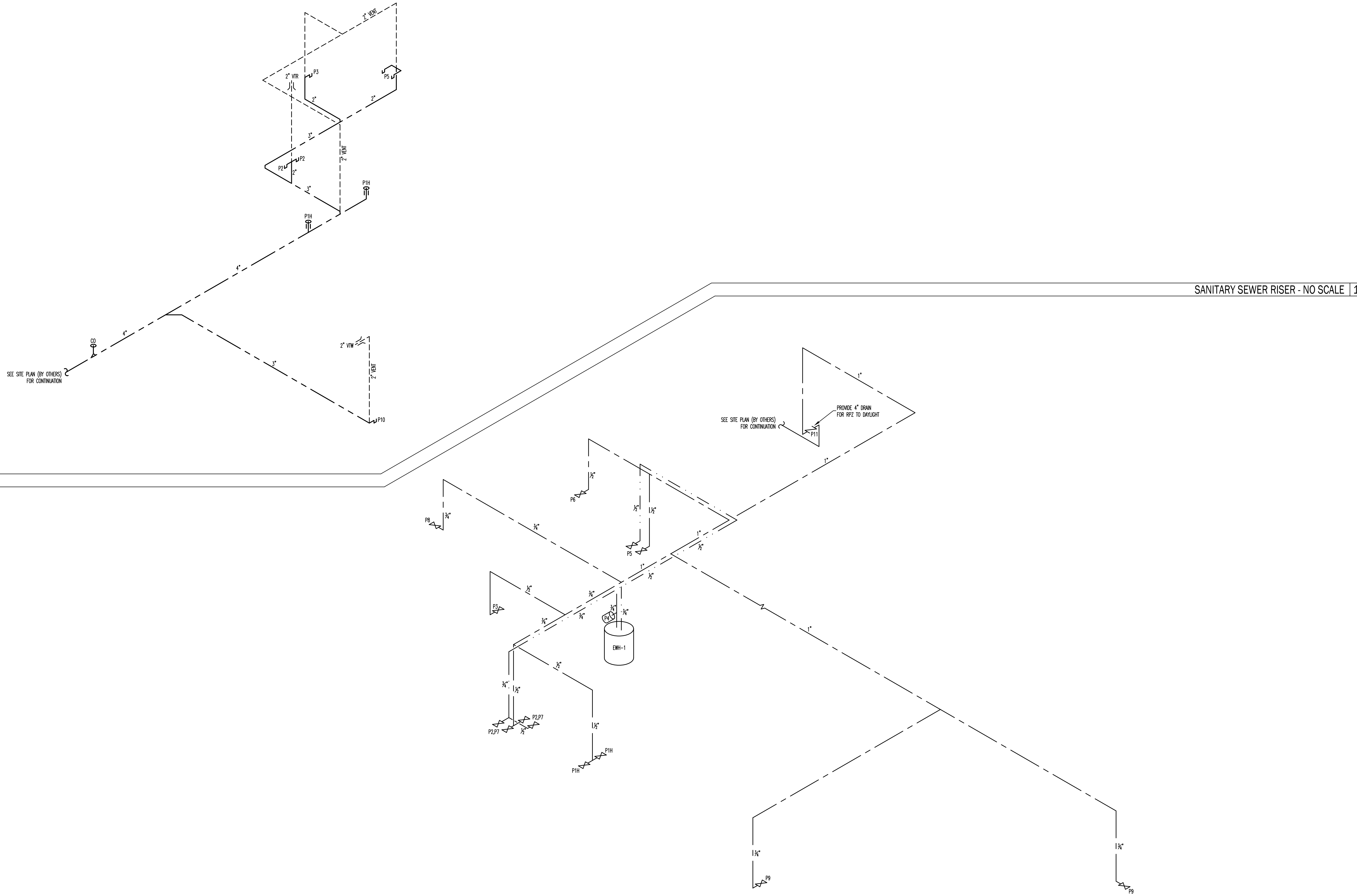
PROJECT NAME: PEAK STEEL BUILDINGS
 CUSTOMER NAME: JC POWDER COATING
 ADDRESS: 220 PROGRESS DRIVE, FUQUAY-VARINA, NC 27526
 PHONE: (919) 333-PEAK
 FAX: (706) 343-1988

PROJECT NAME: JC POWDER COATING
 CUSTOMER NAME: JC POWDER COATING
 ADDRESS: 220 PROGRESS DRIVE, FUQUAY-VARINA, NC 27526
 PHONE: (919) 333-PEAK
 FAX: (706) 343-1988



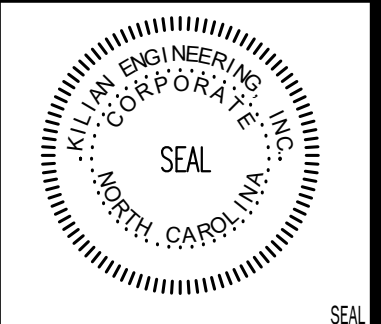
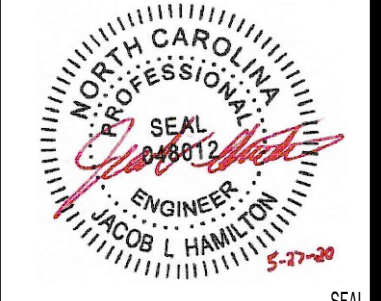
THIS DRAWING IS THE PROPERTY OF THE MANUFACTURER. THE DRAWINGS AND THE METAL BUILDINGS WHICH THEY REPRESENT ARE THE PRODUCT OF THE METAL BUILDING MANUFACTURER. THE REGISTERED PROFESSIONAL ENGINEER WHOSE SEAL APPEARS ON THESE DRAWINGS IS EMPLOYED BY THE METAL BUILDING MANUFACTURER AND DOES NOT SERVE AS OR REPRESENT THE PROJECT ENGINEER OF RECORD AND SHALL NOT BE CONSIDERED AS SUCH.

SHEET NUMBER: S2008243A
 SHEET TITLE: ENDWALL FRAMING PLAN
 SHEET: E7 of 7



SANITARY SEWER RISER - NO SCALE 1

DOMESTIC SUPPLY RISER - NO SCALE 2



NEW BUILDING FOR:
JC POWDERCOATING
 FLOQUA VILLAGE, NORTH CAROLINA

REVISION:

ISSUED:

DRAWN BY: JLP
 CHECKED BY: MMW/CML
 PLUMBING RISERS

SHEET NO.
P-4

PROJECT NO: 20139

GENERAL MECHANICAL NOTES:

ABBREVIATIONS:

- THE FOLLOWING ABBREVIATIONS SHALL APPLY TO NOTES AND PLANS:
PC - PLUMBING CONTRACTOR, EC - ELECTRICAL CONTRACTOR,
MC - MECHANICAL CONTRACTOR, GC - GENERAL CONTRACTOR,
FASC - FIRE ALARM SYSTEM CONTRACTOR.
- "PROVIDE" MEANS TO FURNISH AND INSTALL. MC SHALL ALSO INSTALL MATERIALS FURNISHED BY OTHERS AND GENERAL CONTRACTOR AS SHOWN ON THE PLANS OR NECESSARY FOR A COMPLETE INSTALLATION.
- THE MC SHALL BE RESPONSIBLE FOR A COMPLETE AND OPERATING SYSTEM AS DESCRIBED BY THESE PLANS AND SPECIFICATIONS.
- ALL MATERIALS AND EQUIPMENT SHALL BE DELIVERED TO THE SITE AND UNLOADED BY THE CONTRACTOR AT AN APPROVED LOCATION. THE MC SHALL PROTECT ALL MATERIALS AND EQUIPMENT FROM BREAKAGE, THEFT, AND THE ELEMENTS. ALL MATERIALS AND EQUIPMENT SHALL TURN THE PROPERTY OF THE MC UNTIL THE PROJECT HAS BEEN COMPLETED AND REMOVED OVER TO THE OWNER.
- THE MC SHALL INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH THE 2018 NORTH CAROLINA MECHANICAL AND BUILDING CODES AND ANY APPLICABLE LOCAL CODES. WHERE A CONFLICT EXISTS BETWEEN THE ABOVE REQUIREMENTS, THE MC SHALL OBTAIN CLARIFICATION FROM THE ENGINEER OR IN THE EVENT ANY PART OF THESE PLANS CONFLICT WITH THE ABOVE REQUIREMENTS.
- THE MC SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS NECESSARY FOR THE COMPLETION OF THE WORK UNDER THIS CONTRACT.
- DO NOT SCALE THESE DRAWINGS-REFER TO ARCHITECTURAL SHEETS FOR DIMENSIONS.
- 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.
- ALL MECHANICAL MATERIALS SHALL BE NEW AND FREE OF DEFECT AND LISTED AND LABELED BY UL OR AN APPROVED THIRD PARTY AGENCY. ANY MATERIALS FOUND TO BE DEFECTIVE SHALL BE REPLACED BY THE MC WITHOUT ADDITIONAL COST TO THE OWNER. WHERE A MANUFACTURER AND MODEL NUMBER IS GIVEN, THE CITED EXAMPLE IS INTENDED TO ESTABLISH A STANDARD OF QUALITY AND NOT TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. SUCH EXAMPLES ARE USED TO CONVEY A GENERAL STYLE, TYPE, CHARACTER, AND QUALITY OF THE PRODUCT DESIRED; PRODUCTS DETERMINED TO BE EQUAL BY THE ENGINEER WILL BE ACCEPTED.
- THESE PLANS ARE DIAGRAMMATIC. THE MC SHALL ADJUST THE LOCATIONS OF EQUIPMENT, DUCTS, REGISTERS, GRILLES, ETC. TO ACCOMMODATE PLANNED AND ENCOUNTERED INTERFERENCES. THE DRAWINGS DO NOT SHOW ALL BENDS, OFFSETS, AND FITTINGS THAT MAY BE REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THE MC SHALL MAKE ALLOWANCES FOR SUCH DEVIATIONS AND CONTINGENCIES IN BID TO IMPLEMENT THEM WITHOUT ADDITIONAL COST TO THE OWNER.
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER CONNECTIONS TO THE MECHANICAL EQUIPMENT. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONTROL WIRING.
- IT IS THE MC'S RESPONSIBILITY TO VERIFY THAT ITEMS FURNISHED FOR THIS CONTRACT WILL FIT IN THE SPACE AVAILABLE. THE MC SHALL MAKE FIELD MEASUREMENTS AS NECESSARY TO DETERMINE SPACE REQUIREMENTS. IF THE MC MUST ALTER EQUIPMENT DUE TO SPACE CONSIDERATIONS, THE MC SHALL PROVIDE SIZES AND SHAPES THAT FIT THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS.
- MC SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR REGARDING THE ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT BEING PROVIDED.
- MAINTAIN CLEARANCES FOR ALL EQUIPMENT ACCORDING TO MANUFACTURER'S RECOMMENDATIONS FOR SERVICEABILITY. ALL ROOFTOP EQUIPMENT MUST BE A MINIMUM OF 10 FEET FROM ROOF EDGE.
- MC SHALL FURNISH A BOUND SET OF OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT TO THE OWNER UPON COMPLETION OF THE PROJECT. MC SHALL PROVIDE ALL DOCUMENTATION TO THE OWNER AS NECESSARY TO SUBMIT FOR FACTORY WARRANTIES.
- CONTRACTOR SHALL PROTECT ALL HVAC EQUIPMENT FROM CONSTRUCTION AND SHEET ROCK DUST DURING CONSTRUCTION. ALL FILTERS SHALL BE REPLACED WITH NEW AT THE COMPLETION OF THE PROJECT.
- ALL EQUIPMENT INSTALLED ON ROOF MUST BE WITHIN THE ROOF SCREEN.
- IF A ROOF PENETRATION IS REQUIRED AND THE ROOF IS UNDER WARRANTY, USE THE AUTHORIZED ROOFER'S DOCUMENTATION.
- ALL PIPING, WIRING, CONDUIT, INSULATION, EQUIPMENT, SUPPORTS, ETC. SHALL BE SUITABLE FOR INSTALLATION IN A RETURN PLENUM AS NECESSARY. COORDINATE WITH OTHER TRADES ON LOCATIONS OF ALL PLENUMS.
- MC SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ENSURE ALL APPLICABLE CONSTRUCTION WASTE IS RECYCLED DURING THE CONSTRUCTION PHASE OF THE PROJECT.

MATERIALS:

- THE MC SHALL PROVIDE ALL DX UNITARY HEATING AND COOLING EQUIPMENT AS SCHEDULED ON THE DRAWINGS. AIR-COOLED SPLIT SYSTEM HEAT PUMPS AND AIR-CONDITIONERS SHALL BE BY TRANE, CARRIER, OR YORK. AIR-COOLED ROOFTOP PACKAGE HEAT PUMPS, GAS-ELECTRIC UNITS, AND AIR-CONDITIONERS SHALL BE BY TRANE, CARRIER, OR YORK. GAS FURNACES SHALL BE BY TRANE, CARRIER, OR YORK. THE MC SHALL PROVIDE FACTORY AND FIELD INSTALLED ACCESSORIES AS SCHEDULED OR AS NECESSARY FOR A COMPLETE AND OPERATIONAL HVAC SYSTEM.
- THE MC SHALL PROVIDE ALL EXHAUST AND SUPPLY FANS AS SCHEDULED. FANS SHALL BE BY GREENECK, LOREN COOK, TWIN CITY, OR PENNBARRY.
- DUCTWORK IS SHOWN WITH FREE AREA DIMENSIONS. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA LOW PRESSURE DUCT STANDARD, 2 INCH S.P.
- EXTERNAL DUCT INSULATION AND FACTORY-INSULATED FLEXIBLE DUCT SHALL BE LESBLY PRINTED OR IDENTIFIED AT INTERVALS NOT GREATER THAN 36 INCHES WITH THE NAME OF THE MANUFACTURER, THE THERMAL RESISTANCE R-VALUE AT THE SPECIFIED INSTALLED THICKNESS AND THE FLAME SPREAD AND SMOKE-DEVELOPED INDEXES OF THE COMPOSITE MATERIALS. ALL DUCT INSULATION PRODUCT R-VALUES SHALL BE BASED ON INSULATION ONLY, EXCLUDING AIR FILMS, VAPOR RETARDERS OR OTHER DUCT COMPONENTS, AND SHALL BE BASED ON TESTED C-VALUES AT 75°F MEAN TEMPERATURE. AT THE INSTALLED THICKNESS IN ACCORDANCE WITH RECOGNIZED INDUSTRY PROCEDURES, THE INSTALLED THICKNESS OF DUCT INSULATION USED TO DETERMINE ITS R-VALUES SHALL BE DETERMINED AS FOLLOWS:
4.1. FOR DUCT BOARD, DUCT LINER AND FACTORY-MADE RIGID DUCTS NOT NORMALLY SUBJECTED TO COMPRESSION, THE NOMINAL INSULATION THICKNESS SHALL BE USED.
4.2. FOR DUCT WRAP, THE INSTALLED THICKNESS SHALL BE ASSUMED TO BE 75 PERCENT (25-PERCENT COMPRESSION) OF NOMINAL THICKNESS.
4.3. FOR FACTORY-MADE FLEXIBLE AIR DUCTS, THE INSTALLED THICKNESS SHALL BE DETERMINED BY DIVIDING THE DIFFERENCE BETWEEN THE ACTUAL OUTSIDE DIAMETER AND NOMINAL INSIDE DIAMETER BY TWO.
- ALL INSULATION CONTAINING FIBROUS MATERIALS EXPOSED TO AIRFLOW SHALL BE RATED FOR THAT EXPOSURE, OR SHALL BE ENCAPSULATED INSULATING PROPERTIES FOR ALL MATERIALS SHALL MEET OR EXCEED INDUSTRY STANDARDS. POLYSTYRENE PRODUCTS SHALL MEET ASTM C578. ALL INSULATION SHALL HAVE FORMALDEHYDE EMISSIONS NOT GREATER THAN 0.05 PPM. THE MAXIMUM FLAME SPREAD AND SMOKE DEVELOPED INDEX FOR INSULATION SHALL MEET THE REQUIREMENTS OF THE LOCAL CODES AND ORDINANCES ADOPTED BY THE JURISDICTION IN WHICH THE BUILDING IS LOCATED.
- WASTIC USED TO SEAL DUCTWORK SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A-95 OR UL 181B-96. MAINTAIN AMBIENT TEMPERATURES AND CONDITIONS REQUIRED BY MANUFACTURER OF ADHESIVES, MASTICS, AND INSULATION CEMENTS. DO NOT INSTALL DUCT SEALANT WHEN TEMPERATURES ARE LESS THAN THOSE RECOMMENDED BY THE SEALANT MANUFACTURER.
- ALL ADHESIVES AND SEALANTS SHALL HAVE VOC CONTENT BELOW 20 GRAMS PER LITER AND WHICH MEET THE REQUIREMENTS OF THE MANUFACTURER OF THE PRODUCTS BEING ADHERED OR INVOLVED. ADHESIVES AND SEALANTS SHALL CONTAIN NO HEAVY METALS OR FORMALDEHYDE.
- FACTORY-MADE AIR DUCTS AND CONNECTORS SHALL COMPLY WITH UL 181-96. FLEXIBLE DUCT SHALL BE UL LISTED CLASS 0 OR CLASS 1, INSULATED, AND COMPLY WITH UL 151. FLEXIBLE DUCT SHALL BE FACTORY FORMED OR COMPOSED OF SPIRAL WOUND CORROSION RESISTANT WIRE BONDED TO AN INNER FABRIC LINER. DUCT SHALL BE FACTORY INSULATED WITH A FOIL VAPOR BARRIER JACKET. CONNECT TO RIGID DUCT WITH SPIN-IN FITTING AND DAMPER. FLEXIBLE DUCTS AND AIR CONNECTORS SHALL NOT PASS THROUGH ANY FIRE RESISTANCE RATED ASSEMBLY.

- THE MC SHALL PROVIDE ALL DIFFUSERS GRILLES, LOUVERS, AND OTHER AIR DISTRIBUTION OUTLETS AND INLETS. LOUVERS, GRILLES, AND DIFFUSERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. FOR LAT-IN CEILING, INSTALL SUPPORT FROM THE STRUCTURE FOR EACH DIFFUSER OR DAMPER. AIR DISTRIBUTION OUTLETS AND INLETS SHALL BE BY HART & COOLEY, PRICE, METAL-AIRE, NALOR, OR CARNES.
- AIR FILTERS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 605 OF THE 2018 NC MECHANICAL CODE.
- THE MC SHALL PROVIDE ALL REFRIGERATION PIPING, ALL PIPE AND FITTINGS SHALL BE TYPE ACR HARD COPPER TUBING WITH SWEAT FITTINGS. REFRIGERATION LINES SHALL BE RUN NEARLY WHERE A GROUP OF LINES ARE RUN, TRAP/TEE HANGERS MAY BE USED. DO NOT USE CHAIN OR WIRE HANGERS. WRAP TUBING WITH RUBBER TAPE AT EACH CLAMP OR HANGER. FOR COVERED PIPES, HANGERS SHALL FIT AROUND THE OUTSIDE OF THE COVERING WITH 12 GAUGE GALVANIZED STEEL SHIELDS OF A LENGTH EQUAL TO THE OUTSIDE DIAMETER OF THE INSULATION AND COVERING 3/4 OF THE CIRCUMFERENCE OF THE INSULATION. GAS SHALL NOT BE PERMISSIBLE. HORIZONTAL LINES SHALL BE RUN WITH NO MORE THAN 1 INCH IN 40 FEET. INSULATE WITH 1 INCH CLOSED CELL ARMAFLEX TYPE INSULATION WITH A FLAME DENSITY RATING LESS THAN 25 AND A SMOKE DENSITY RATING LESS THAN 50. ALL JOINTS AND SPLICES IN INSULATION SHALL BE TAPED AND AIR TIGHT. SOLDER REFRIGERATION LINES USING 15 PERCENT SILVER SOLDER AND EVACUATE LINES TO 300 MICRONS. PROVIDE MOISTURE INDICATING SIGHT GLASS AND FILTER DRYER IN LIQUID LINE. PROVIDE OIL TRAPS AND DOUBLE RESERS IN REFRIGERANT SUCTION AND HOT GAS LINES. WHERE REQUIRED TO PREVENT OIL SLUGGING AT THE COMPRESSOR AND INSURE PROPER LUBRICATION. MC SHALL BE RESPONSIBLE FOR SEALING LINE SET PENETRATIONS OF ANY RATED ASSEMBLIES IN ACCORDANCE WITH A SYSTEM LISTED IN THE UL DIRECTORY FOR THE SPECIFIC ASSEMBLY BEING PENETRATED. SEE ARCHITECTURAL PLANS FOR A LIST OF ALL UL FIRE RATED ASSEMBLIES.

METHODS:

- INSULATE DUCTWORK WITH FIBERGLASS DUCT WRAP; INSTALLED R-VALUE SHALL BE A MINIMUM R-6. COVERINGS AND LININGS, INCLUDING ADHESIVES WHEN USED, SHALL HAVE A FLAME SPREAD INDEX NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84. ALL NEW DUCTWORK SHALL RECEIVE INSULATION ON THE OUTSIDE. INSTALL DUCT WRAP INSULATION WITH FACING OUTSIDE SO THAT TAPE FLAP OVERLAPS INSULATION AND FACING OF ADJACENT PIECE OF DUCT WRAP. INSULATION SHALL BE TIGHTLY BUTTED. FOR RECTANGULAR DUCTS, INSTALL SO INSULATION IS NOT EXCESSIVELY COMPRESSED AT DUCT CORNERS. STAPLE SEAMS APPROXIMATELY 6 INCHES ON CENTER WITH OUTWARD CLINCHING STAPLES. SEAL SEAMS WITH PRESSURE SENSITIVE TAPE MATCHING THE FINISH OF RECTANGULAR DUCTS 24 INCHES IN WIDTH OR GREATER. SECURE DUCT WRAP TO THE BOTTOM OF THE DUCT WITH MECHANICAL FASTENERS SPACED 18 INCHES ON CENTER TO PREVENT SAGGING OF INSULATION. ADJACENT SECTIONS OF DUCT WRAP SHALL BE TIGHTLY BUTTED WITH THE 2 INCH TAPE FLAP OVERLAPPING ALL TEARS, FRACTURES, ETC. OF THE DUCT WRAP INSULATION SHALL BE SEALED WITH TAPE OR MASTIC TO PROVIDE A VAPOR TIGHT SYSTEM. INSULATION SHALL BE BY KNAUF INSULATION, OWENS CORNING CORP, OR CERTAINTED CORPORATION.
- VERIFY THAT DUCTS HAVE BEEN TESTED BEFORE APPLYING INSULATION MATERIALS. VERIFY THAT DUCT SURFACES ARE CLEAN, DRY AND FREE OF FOREIGN MATERIAL PRIOR TO INSULATING. DUCT COVERINGS SHALL NOT PENETRATE A WALL OR FLOOR REQUIRED TO HAVE A FIRE-RESISTANCE RATING OR REQUIRED TO BE FIRE BLOCKED.
- WHERE DUCTS ARE CONNECTED TO EXTERIOR WALL LOUVERS AND DUCT OUTLET IS SMALLER THAN LOUVER FRAME, PROVIDE BLANK-OUT PANELS SEALING LOUVER AREA AROUND DUCT. USE SAME MATERIAL AS DUCT, PAINTED BLACK ON EXTERIOR SIDE; SEAL TO LOUVER FRAME AND DUCT.
- PROVIDE DUCT ACCESS DOORS FOR INSPECTION AND CLEANING BEFORE AND AFTER FILTERS, COILS, FANS, AUTOMATIC DAMPERS, AT FIRE DAMPERS, COMBINATION FIRE AND SMOKE DAMPERS.
- CONSTRUCT T's, BENDS, AND ELBOWS WITH RADIUS OF NOT LESS THAN 1-1/2 TIMES THE WIDTH OF THE DUCT ON CENTERLINE. WHERE NOT POSSIBLE AND WHERE RECTANGULAR ELBOWS MUST BE USED, PROVIDE TURNING VANGES. INCREASE DUCT SIZES GRADUALLY, NOT EXCEEDING 15 DEGREES DIVERGENCE; MAXIMUM OF 30 DEGREES DIVERGENCE UPSTREAM OF EQUIPMENT AND 45 DEGREES CONVERGENCE DOWNSTREAM.
- IT SHALL BE THE RESPONSIBILITY OF THE MC TO SUSPEND AND SUPPORT ALL EQUIPMENT, DUCTWORK, DIFFUSERS, AND OTHER MATERIALS FOLLOWING RECOGNIZED ENGINEERING PRACTICES AND USING STANDARD, COMMERCIALY ACCEPTED HANGERS AND SUSPENSION EQUIPMENT. ALL HVAC EQUIPMENT SHALL BE SECURELY MOUNTED TO THE BUILDING STRUCTURE AND SHALL NOT RELY ON CEILING OR WALL SURFACES FOR SUPPORT. THE SUPPORT ATTACHMENT SHALL SUPPORT THE WEIGHT OF THE EQUIPMENT PLUS THE WEIGHT OF THE SUPPORT ATTACHMENT ITSELF. SUPPORT FROM THE TOP CHORD OF THE ROOF JOISTS, GIRDERS, AND BEAMS. THE BOTTOM CHORD IS NOT TO BE USED FOR EQUIPMENT OR PIPING SUPPORT. HANGERS SHALL NOT BE ATTACHED TO CORRUGATED STEEL BEAMS.
- DUCTS SHALL BE SUPPORTED IN ACCORDANCE WITH SMACNA AT INTERVALS NOT EXCEEDING 10 FEET. DUCTS 36 INCHES OR LARGER SHALL HAVE TRAPEZE TYPE HANGERS SUSPENDED WITH THREADED ROD. SUPPORT DUCTS FROM BAR JOISTS, GIRDERS, OR BEAMS.
- CHECK LOCATIONS OF AIR OUTLETS AND INLETS AND MAKE NECESSARY ADJUSTMENTS IN POSITION TO CONFORM WITH ARCHITECTURAL FEATURES, SYMMETRY, AND LIGHTING ARRANGEMENT. COORDINATE WITH SPRINKLER CONTRACTOR IF APPLICABLE.
- PROVIDE BALANCING DAMPERS AT POINTS ON SUPPLY WHERE BRANCHES ARE TAKEN FROM LARGER DUCTS AS REQUIRED FOR AIR BALANCING. INSTALL MINIMUM 2 DUCT WIDTHS FROM DUCT TAKE-OFF. PROVIDE BALANCING DAMPERS ON DUCT TAKE-OFFS TO DIFFUSERS, AND REGISTERS, REGARDLESS OF WHETHER DAMPERS ARE SPECIFIED AS PART OF THE DIFFUSER OR REGISTER ASSEMBLY. ADJUST AIR HANDLING AND DISTRIBUTION SYSTEMS TO PROVIDE DESIGN SUPPLY, RETURN, AND EXHAUST AIR QUANTITIES AT SITE ALTITUDE.
- MC SHALL INSTALL FIRE DAMPERS AT EACH PENETRATION OF A RATED WALL AS INDICATED ON THE DRAWINGS OR AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. FIRE DAMPERS SHALL BE UL LABELED (UL 555), CURTAIN TYPE, WITH INTEGRAL FACTORY SLEEVE AND BLADES LOCATED OUTSIDE THE AIR STREAM. INSTALLATION OF ALL FIRE DAMPERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND SECTION 607 OF THE 2018 NC MECHANICAL CODE. PROVIDE ACCESS PANELS FOR TESTING AND SERVICE AS NECESSARY. MC SHALL PROVIDE RADATION DAMPERS AND THERMAL BLANKETS FOR ALL PENETRATIONS OF RATED CEILING ASSEMBLIES. RADATION DAMPERS SHALL BE UL LABELED (UL 555C) AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFIC INSTALLATION INSTRUCTIONS. FIRE DAMPERS, COMBINATION FIRE/SMOKE DAMPERS, AND CEILING RADATION DAMPERS SHALL BE BY RUSKIN, NALOR, OR LLOYD INDUSTRIES.
- MC SHALL INSTALL A SMOKE DETECTOR-UL LISTED FOR DUCT INSTALLATION (UL 268A) IN EACH UNIT'S RETURN UPSTREAM OF ANY FILTERS, OUTSIDE AIR CONNECTIONS, OR DECONTAMINATION EQUIPMENT. DUCT SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72. DUCT SMOKE DETECTOR SUPERVISION SHALL COMPLY WITH 906.4.1 OF THE 2018 NC MECHANICAL CODE. IF THE BUILDING IS (10) EQUIPPED WITH A FIRE ALARM SYSTEM, THE FIRE ALARM SYSTEM CONTRACTOR SHALL FURNISH AND WIRE ALL DUCT SMOKE DETECTORS. IF THE BUILDING IS NOT PROVIDED WITH A FIRE ALARM SYSTEM, THE MC SHALL FURNISH AND WIRE THE DUCT SMOKE DETECTORS AND A DEVICE. IT SHALL BE THE RESPONSIBILITY OF THE MC TO INSTALL ALL SMOKE DUCT DETECTORS PER NFPA AND MFG'S INSTALLATION INSTRUCTIONS REGARDLESS OF WHO FURNISHES THE DEVICES.
- MC SHALL INSTALL PROGRAMMABLE THERMOSTATS AS SHOWN ON THE PLANS. THERMOSTAT SHALL BE MOUNTED AT 48 INCHES AFF. THERMOSTATS SHALL MEET THE REQUIREMENTS OF SECTION C403.2.4 OF THE 2018 NORTH CAROLINA ENERGY CONSERVATION CODE.
- FRESH AIR INTAKES SHALL BE INSTALLED ON ALL UNITS AS SHOWN ON DRAWINGS. MAINTAIN 10 FEET OF DISTANCE BETWEEN FRESH AIR INTAKES AND ALL EXHAUST TERMINATIONS AND PLUMBING THRU ROOFS.
- MC SHALL INSTALL ALL EXHAUST FANS AND VENT TO THE BUILDING'S EXTERIOR. EC SHALL SWITCH FANS WITH LIGHTS OR ON SEPARATE SWITCH AS SHOWN.
- P-TRAPS MUST BE INSTALLED ON ALL UNITS. MC SHALL INSTALL AUDIARY DRAIN PANS UNDER OVERHEAD AIR HANDLERS AND AN AUTOMATIC OIL-OFF FLOAT SWITCH FOR EACH P-TRAP AND CONDENSATE LINES SHALL BE 1 INCH. P-TRAPS AND CONDENSATE LINES MAY BE PVC WHERE NOT LOCATED IN PLENUMS; OTHERWISE, THEY SHALL BE TYPE M COPPER.
- INSTALL BACKDRAFT DAMPERS ON FRESH AIR AND EXHAUST DUCTS WHERE THEY PENETRATE THE THERMAL ENVELOPE PER NORTH CAROLINA ENERGY CONSERVATION CODE C402.5.5

MARK	MFG / MODEL #	NOMINAL CAPACITY TONS	REF LINES		MOTORS		EFFICIENCIES				ELECTRICAL			WEIGHT LBS	REMARKS
			GAS	L1Q	COMPRESSOR	COND. FAN	SEER	COP @ 17"	HSPF	V/PH	MCA	MDCP			
HP-1	TRANE 4TRV02441	2	5/8	3/8	1	1	17.25/13.5	2.70	9.0	208/1	15	25	236	1-9	

MARK	MFG / MODEL #	NOMINAL CAPACITY TONS	AIR FLOW		FAN MOTORS		HEATING CAPACITY		COOLING CAPACITY		ELECTRICAL			WEIGHT LBS	REMARKS		
			SUPPLY CFM	MIN. DA	SUPPLY	ESP	OUTPUT	AUX ELEC HEAT	EAT WB/DB	TOTAL	SENSIBLE	V/PH	MCA			MDCP	
AHU-1	TRANE TAMB0303V31	2.5	800	100	1	0.25	15.0	2.88	1	67/80	24.5	18.7	208/1	22	25	138	2-10

- PROVIDE CONCRETE PAD FOR UNIT TO SIT ON
- 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°F.
- REPLACE ALL FILTERS AT PROJECT'S COMPLETION
- PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT WITH NIGHT-TIME SET BACK
- CONSULT MANUFACTURER ON LINE SET LENGTHS EXCEEDING 60FT
- HEATER RATED AT 208V
- OR EQUAL BY CARRIER, LENNIX, OR YORK
- ANY EQUIPMENT SUBSTITUTIONS MUST EQUAL OR EXCEED EFFICIENCIES LISTED (RATINGS PER AIR)
- MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES
- AIR HANDLER UPSIZED TO MEET MIN ENERGY REQUIREMENTS, AHU MAY BE SUBSTITUTED FOR 2-TON UNIT WITH EQUAL EFFICIENCIES (SEE NOTE 8).

MARK	OUTSIDE UNIT MFG / MODEL #	INSIDE UNIT MODEL #	NOM CAPACITY TONS	SUPPLY AIR CFM	HEATING @ 17°F MBH	TOT COOLING MBH	SEN COOLING MBH	VOLT/PH	SEER	HSPF	MCA	MDCP	NOTE

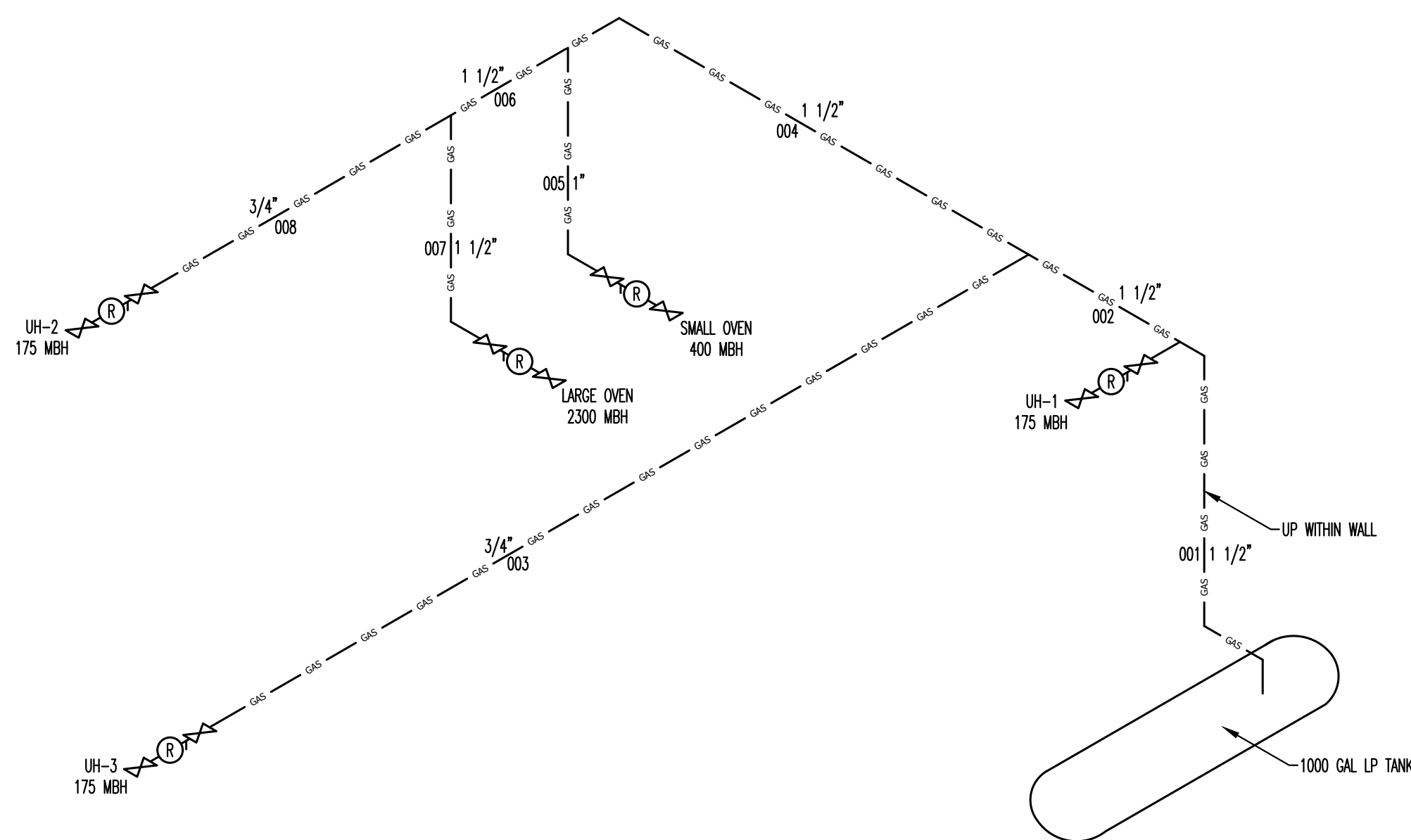
- PROVIDE CONCRETE PAD FOR OUTDOOR UNIT TO SIT ON
- PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT WITH NIGHT-TIME SET BACK
- HEATER RATED AT 208V
- OR EQUAL BY DAIKIN, LG, OR SAMSUNG
- ANY EQUIPMENT SUBSTITUTIONS MUST EQUAL OR EXCEED EFFICIENCIES LISTED (RATINGS PER AIR)
- MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES

Room Name(s)	Zone Type	Area (sq.ft.)	Rp	Ra	Default Occupancy	Pz	Ez	Airflow to Zone (cfm)	Required Exhaust (cfm)
Office Area	Office Space	630	5	0.06	5	3.15	0.8	800	0
	N/A		0	0	0	0.00	0.8	0	0
	N/A		0	0	0	0.00	0.8	0	0
	N/A		0	0	0	0.00	0.8	0	0
	N/A		0	0	0	0.00	0.8	0	0
K-12 School?	No				Maximum Zp: 0.083672				
					Ev: 1				
					Actual System Population: 5				
Uncorrected Intake	63 cfm								
Outdoor Air Intake	63 cfm								
Percent of Unit Air	8%								

Room Name(s)	Zone Type	Area (sq.ft.)	Rp	Ra	Default Occupancy	Pz	Ez	Airflow to Zone (cfm)	Required Exhaust (cfm)
Workshop	Wood/Metal Shop	9050	10	0.18	20	181.00	0.8	5600	4525
	N/A		0	0	0	0.00	0.8	0	0
	N/A		0	0	0	0.00	0.8	0	0
	N/A		0	0	0	0.00	0.8	0	0
	N/A		0	0	0	0.00	0.8	0	0
K-12 School?	No				Maximum Zp: 0.767634				
					Ev: 0.3				
					Actual System Population: 5				
Uncorrected Intake	1679 cfm								
Outdoor Air Intake	5597 cfm								
Percent of Unit Air	100%								

PER 2018 NC FUEL GAS CODE TABLE 402.4 (27)				
SECTION	GAS LOAD MBTU/H	LINE SIZE INCHES	CAPACITY CFH	PRESSURE PSI
001	3225	1 1/2	6410	2
002	3050	1 1/2	6410.0	2
003	175	3/4	1110	2
004	2875	1 1/2	6410.0	2
005	400	1	2080	2
006	2475	1 1/2	6410.0	2
007	2300	1 1/2	6410.0	2
008	175	3/4	1110	2

EQUIVALENT LENGTH 200FT



MARK	MFG / MODEL #	TYPE	ESP (in WD)	CFM	VOLT/PH	FLA	SONES	NOTES
EF-1,2	COOK - GC-148	CELLING	0.40	100	277/1	0.8	2.5	1-3
EF-3	COOK - 330ACEB	ROOF	0.10	6000	480/3	7.6	4.8	1-3

- PROVIDE WITH PITCHED ROOF CURB & CAP FOR FLAT OR SLOPED ROOF, OR HEMMED WALL WITH BACKDRAFT DAMPER CAP AS APPLICABLE.
- PROVIDE WITH SQUARE TO ROUND DUCT ADAPTER AS NECESSARY
- OR EQUAL BY GREENECK OR PENNBARRY OR TWIN CITY

MARK	MFG	MODEL #	SIZE	MOUNTING	DESCRIPTION	NOTES
A	HART & COOLEY	HVS	24X24	LAY-IN	4-WAY DIFFUSER, BRIGHT WHITE	1,2
R	HART & COOLEY	94AT	24X24	LAY-IN	STEEL, LAY IN, RETURN GRILLE	1

- OR EQUAL BY PRICE, METAL-AIRE, CARNES, TITUS OR NALOR.
- PROVIDE WITH FOIL LINED, MOLDED INSULATION BLANKET.

MARK	MFG / MODEL #	INPUT MBH	HEAT OUTPUT MBH	AIR FLOW CFM	VOLT/PH	FLA	MDCP	WEIGHT LBS	NOTES
UH-1,2,3	TRANE / GYPE-175	175.0	145.2	2000	120V/1	14.2	20.0	250.0	1

- PROVIDE REMOTE THERMOSTAT.

MARK	MFG	MODEL #	SIZE	DESCRIPTION	NOTES
L	RUSKIN	ELM6375DX	60X60	ALL ALUMINUM DRAINABLE LOUVER	1-3

- OR APPROVED EQUAL.
- PROVIDE BIRD/INSECT SCREEN.
- PRESSURE RELIEF OPEN WITH SPRING CLOSE.

MECHANICAL SYSTEM, SERVICE SYSTEMS, AND EQUIPMENT

METHOD OF COMPLIANCE	PRESCRIPTIVE
THERMAL ZONE	ZONE 4A
EXTERIOR DESIGN CONDITIONS:	
HEATING DESIGN DRY BULB	23.1°F
COOLING DESIGN DRY BULB	91.7°F
COOLING DESIGN WET BULB	75.6°F
INTERIOR DESIGN CONDITIONS:	
HEATING DESIGN DRY BULB	70°F
COOLING DESIGN DRY BULB	75°F
COOLING RELATIVE HUMIDITY	50%
OFFICE AREA:	
HEATING LOAD	11,000 BTU/H
SENSIBLE COOLING LOAD	8,750 BTU/H
LATENT COOLING LOAD	4,000 BTU/H
WORKSHOP AREA:	
HEATING LOAD	405,000 BTU/H
MECHANICAL SPACING CONDITIONING SYSTEM:	
UNITARY	AIR COOLED DX SPLIT SYSTEMS
DESCRIPTION OF UNIT(S)	N/A
BOILER	N/A
TOTAL BOILER OUTPUT	N/A
CHILLER	N/A
TOTAL CHILLER CAPACITY	N/A
EQUIPMENT EFFICIENCIES:	
SEE SCHEDULES	
EQUIPMENT SCHEDULES WITH MOTORS (MECHANICAL SYSTEMS):	
SEE SCHEDULES	

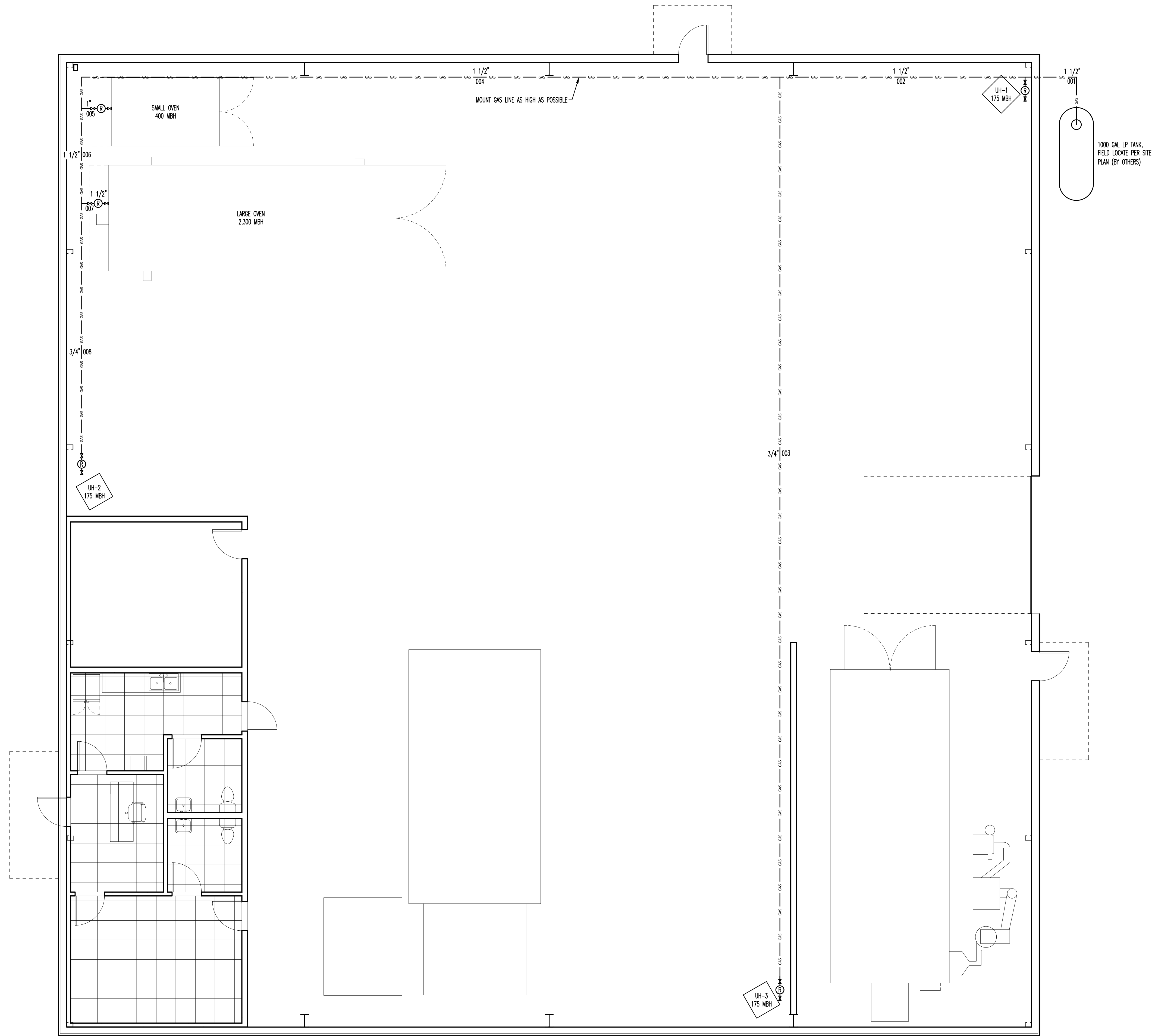
GENERAL GAS LINE PIPING NOTES

- THE GAS PIPING CONTRACTOR (GPC) SHALL PROVIDE ALL MATERIALS AND LABOR AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM AS DESCRIBED BY THESE PLANS AND SPECIFICATIONS.
- THE GPC SHALL INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH THE 2018 NORTH CAROLINA FUEL GAS CODE AND ANY APPLICABLE LOCAL CODES. WHERE A CONFLICT EXISTS BETWEEN THE ABOVE REQUIREMENTS, THE MORE STRINGENT SHALL BE USED. THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE ENGINEER IN THE EVENT ANY PART OF THESE PLANS CONFLICTS WITH THE ABOVE REQUIREMENTS.
- THE GPC SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS NECESSARY FOR THE COMPLETION OF THE WORK UNDER THIS CONTRACT.
- DO NOT SCALE THESE DRAWINGS—REFER TO ARCHITECTURAL SHEETS FOR DIMENSIONS.
- THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS. CONTRACTOR SHALL CONTACT THE ENGINEER TO RESOLVE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS.
- THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL INSTALL HIGH PRESSURE REGULATORS AT EACH PIECE OF EQUIPMENT AS NECESSARY.
- INSTALL A TRIP LEAS IN GAS LINE AT EACH POINT WHERE CONDENSATE COULD COLLECT. ALL TRIP LEAS SHALL BE READILY ACCESSIBLE FOR CLEANING OR EMPTYING.
- PIPING SHALL BE SCHEDULE 40 STEEL OR WROUGHT IRON AND COMPLY WITH ANSI/ASME B36.10, ASTM A 53, OR ASTM A 106. ALL PIPES AND FITTINGS SHALL BE NEW, FREE OF DEFECTS, AND RATED FOR THE APPLICATION.
- ALL PIPING SHALL BE INSTALLED SO AS NOT TO BE SUBJECT TO PHYSICAL DAMAGE.
- PVC VENT PIPING SHALL NOT BE INSTALLED INDOORS.
- THE TYPE OF PIPING JOINT USED SHALL BE SUITABLE FOR THE PRESSURE-TEMPERATURE CONDITIONS AND SHALL BE SELECTED CONSIDERING JOINT TIGHTNESS AND MECHANICAL STRENGTH UNDER THE SERVICE CONDITIONS.
- PIPE JOINTS SHALL BE THREADED, FLANGED, BRAZED, OR WELDED.
- FLEXIBILITY SHALL BE PROVIDED BY THE USE OF BENDS, LOOPS, OFFSETS, OR COUPLINGS OF THE SLIP TYPE. PROVISIONS SHALL BE MADE TO ABSORB THERMAL CHANGES BY THE USE OF EXPANSION JOINTS OF THE BELLOWS TYPE OR BY THE USE OF "BALL" OR "SMELT" JOINTS. DO NOT USE EXPANSION JOINTS OF THE SLIP TYPE INSIDE THE BUILDING. PIPE ALIGNMENT GUIDES SHALL BE USED WITH EXPANSION JOINTS PER THE MFG.
- ALL GAS PIPING SHALL BE LABELED TO INDICATE THE PRESSURE.
- PIPE HANGERS AND SUPPORTS SHALL CONFORM TO ANSI/MSS SP-58.
- BENDS SHALL BE MADE ONLY WITH BENDING TOOLS AND PROCEDURES INTENDED FOR THAT PURPOSE. DO NOT BEND PIPE THROUGH AN ARC OF MORE THAN 90°. ALL BENDS SHALL BE SMOOTH AND FREE OF CRACKS, BUCKLING, OR OTHER EVIDENCE OF DAMAGE.
- INSTALL GAS SHUTOFF VALVES UPSTREAM OF EACH GAS REGULATOR. VALVES SHALL BE READILY ACCESSIBLE AND NOT SUBJECT TO PHYSICAL DAMAGE.
- WHERE A SEDIMENT TRAP IS NOT INCORPORATED AS PART OF THE APPLIANCE, A SEDIMENT TRAP SHALL BE INSTALLED DOWNSTREAM OF THE APPLIANCE SHUTOFF VALVE AS CLOSE TO THE INLET OF THE APPLIANCE AS PRACTICAL.
- PRIOR TO ACCEPTANCE BY THE OWNER, ALL GAS PIPING INSTALLATIONS SHALL BE INSPECTED AND PRESSURE TESTED IN ACCORDANCE WITH SECTION 406 OF THE NC FUEL GAS CODE.

GAS LINE SIZING VERIFICATION TABLE				
PER 2018 NC FUEL GAS CODE TABLE 402.4 (27)				
SECTION	GAS LOAD MBTU/H	LINE SIZE INCHES	CAPACITY CFH	PRESSURE PSI
001	3225	1 1/2	6410	2
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006	2475	1 1/2	6410.0	2
007	2300	1 1/2	6410.0	2
008	175	3/4	1110	2

EQUIVALENT LENGTH= 200FT

NO FIRE RATED ASSEMBLIES



REVISION:

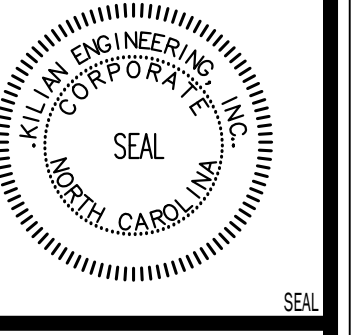
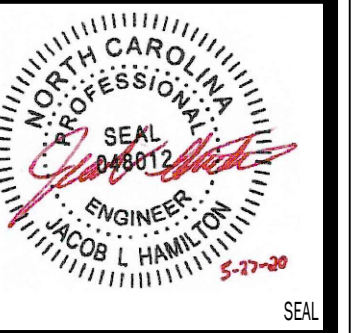
ISSUED:

DRAWN BY: JAH
 CHECKED BY: MMW, DJL

LP GAS PLAN

SHEET NO.

M-3



NEW BUILDING FOR:
JC POWDERCOATING
FLOUQUA, VIRGINIA, NORTH CAROLINA

REVISION:

NO.	DATE	DESCRIPTION

ISSUED:

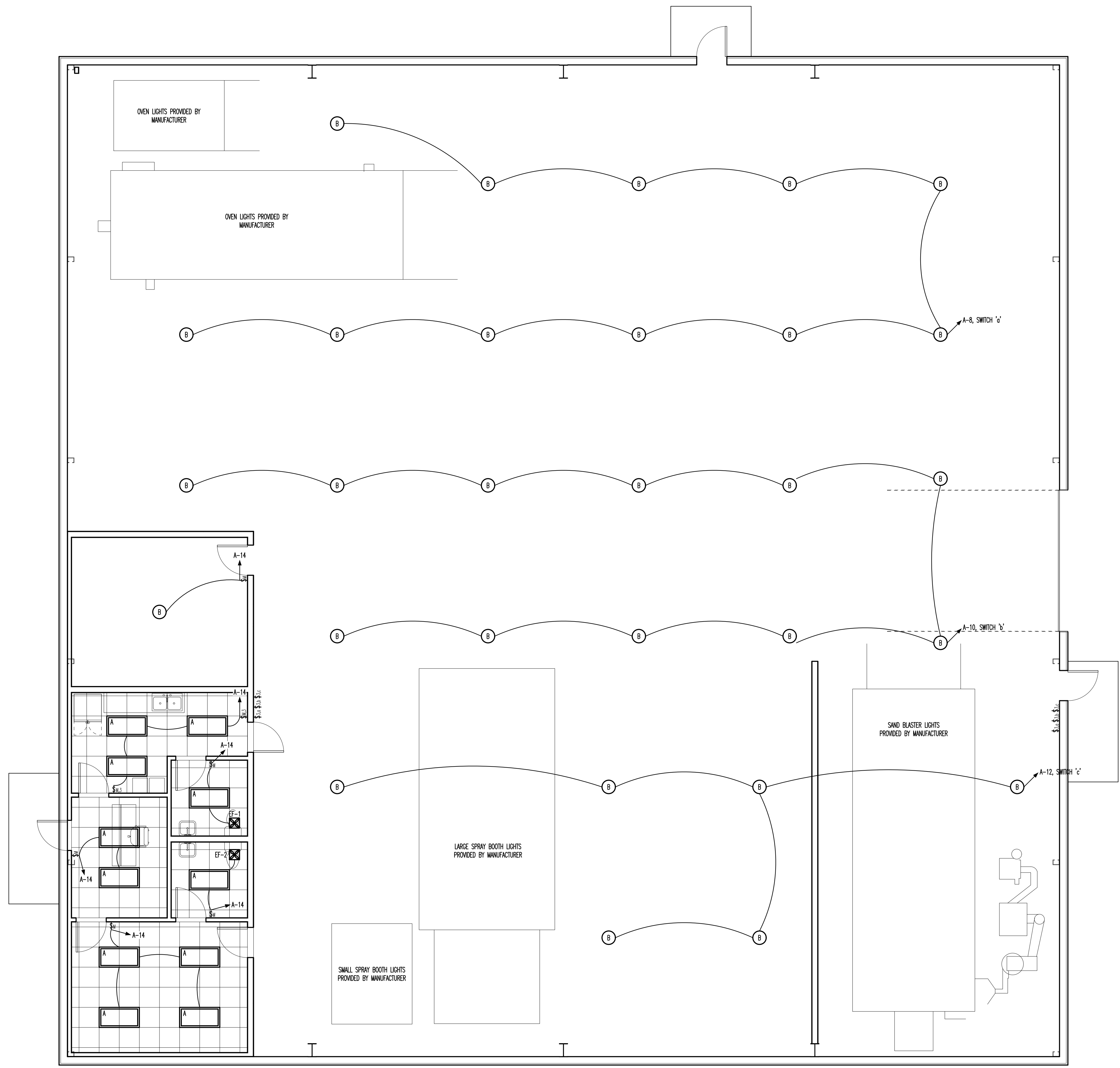
NO.	DATE	DESCRIPTION

DRAWN BY: JAH
CHECKED BY: MMW/CML

LIGHTING PLAN

SHEET NO.

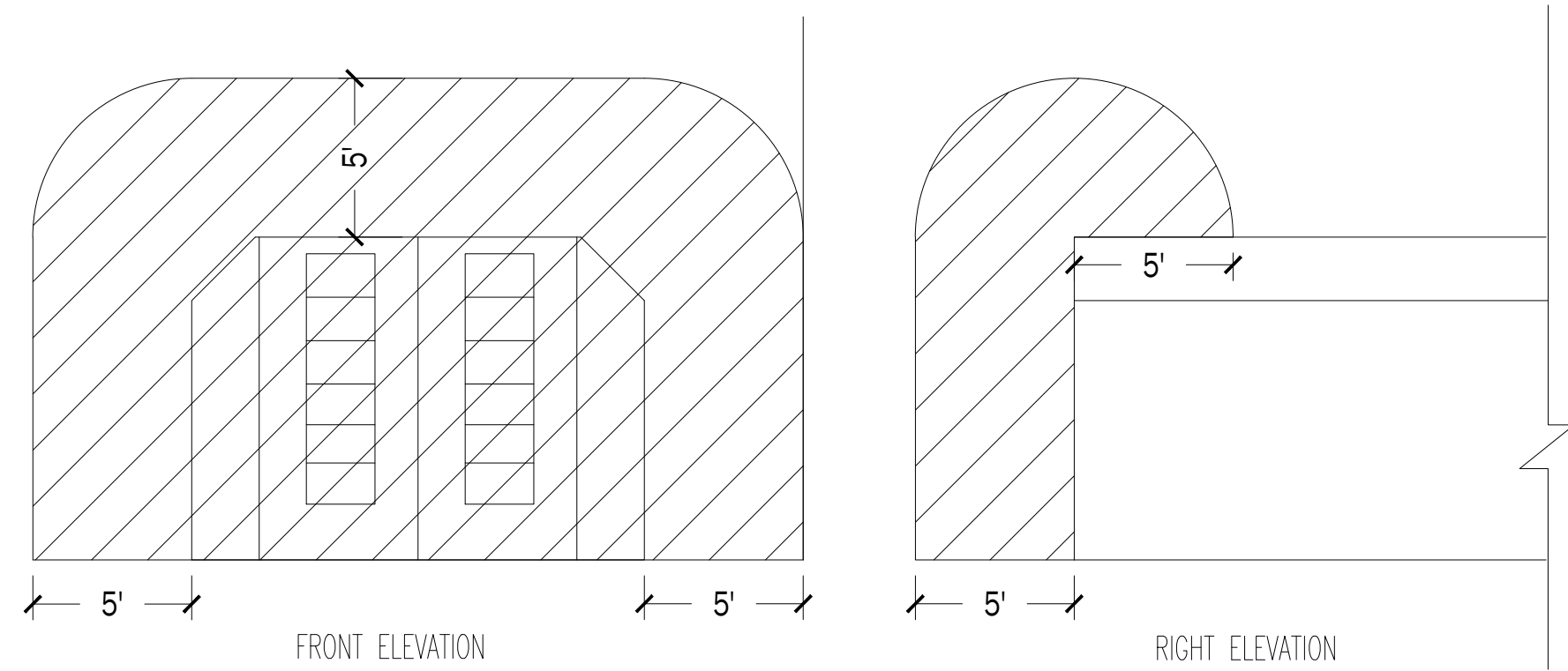
E-2



NO FIRE RATED ASSEMBLIES

PAINT BOOTH NOTES

- INSIDE OF PAINT BOOTH IS CLASS 1. INSIDE OF EXHAUST DUCT FOR PAINT BOOTH IS CLASS 1, DIVISION 1.
- THE DIVISION 2 LOCATION SHALL EXTEND 5 FEET HORIZONTALLY AND 3 FEET VERTICALLY FROM THE OPEN FACE OR OPEN FRONT OF THE BOOTH. SEE NEC FIGURE 516.3(C)(2).
- WIRING METHODS WITHIN THESE ZONES SHALL COMPLY WITH NEC 501. THREADED RIGID METAL CONDUIT OR THREADED INTERMEDIATE METAL CONDUIT, TYPE MI CABLE WITH TERMINATION FITTINGS LISTED FOR THE LOCATION ARE PERMITTED. WHERE FLEXIBLE CONNECTIONS ARE REQUIRED, FLEXIBLE FITTINGS LISTED FOR CLASS 1, DIVISION 1 IS PERMITTED.
- CONDUIT SEALS SHALL BE PROVIDED IN ACCORDANCE WITH 501.15. IN PARTICULAR, ALL CONDUITS ENTERING ENCLOSURES MUST HAVE A SEAL FITTING WITHIN 18" OF SAID ENCLOSURE. CONDUITS LEAVING A CLASS 1, DIVISION 1 BOUNDARY AND A CLASS 1, DIVISION 2 BOUNDARY SHALL HAVE A SEAL FITTING INSTALLED ON EITHER SIDE OF THE BOUNDARY WITHIN 10 FEET.
- PORTABLE ELECTRIC LUMINAIRES OR OTHER UTILIZATION EQUIPMENT SHALL NOT BE USED IN A SPRAY AREA DURING SPRAY OPERATIONS.
- ALL ELECTRICALLY CONDUCTIVE OBJECTS IN THE SPRAY AREA SHALL BE ADEQUATELY GROUNDED. SEE NEC 516 FOR MORE DETAILS.
- SIGNAGE SHALL BE POSTED AROUND THE SPRAY BOOTH TO INDICATE THE FOLLOWING:
 - DESIGNATE THE PROCESS ZONE AS DANGEROUS WITH REGARD TO FIRE AND ACCIDENT.
 - IDENTIFY THE GROUNDING REQUIREMENTS FOR ALL ELECTRICALLY CONDUCTIVE OBJECTS IN THE SPRAY AREA.
 - RESTRICT ACCESS TO QUALIFIED PERSONNEL ONLY.
- SPRAY APPARATUS MUST BE INTERLOCKED WITH EXHAUST FAN OPERATION—EXHAUST FAN MUST BE RUNNING FOR SPRAY APPLICATION EQUIPMENT TO OPERATE.
- ALL FIXED WIRING ABOVE THE CLASS 1 LOCATION SHALL BE IN METAL RACEWAYS, TYPE MC, TYPE MI, OR TYPE TC CABLE.
- EQUIPMENT THAT MAY PRODUCE SPARKS, ARCS, OR PARTICLES OF HOT METAL THAT ARE LOCATED ABOVE CLASS 1 LOCATIONS SHALL COMPLY WITH 516.7(B). THIS MAY NECESSITATE RELOCATED OR ELIMINATE SOME FIXED LIGHTING ABOVE THE PAINT BOOTH. (NEC 516.7 WIRING AND EQUIPMENT NOT WITHIN CLASS I AND II LOCATIONS (A) ALL FIXED WIRING ABOVE THE CLASS I AND II LOCATIONS SHALL BE IN METAL RACEWAYS, RIGID NONMETALLIC CONDUIT, OR ELECTRICAL NONMETALLIC TUBING, OR SHALL BE TYPE MI, TC, OR MC CABLE. CELLULAR METAL FLOOR RACEWAYS SHALL BE PERMITTED ONLY FOR SUPPLYING CEILING OUTLETS OR EXTENSIONS TO THE AREA BELOW THE FLOOR OF A CLASS I OR II LOCATION, BUT SUCH RACEWAYS SHALL HAVE NO CONNECTIONS LEADING INTO OR THROUGH THE CLASS I OR II LOCATION ABOVE THE FLOOR UNLESS SUITABLE SEALS ARE PROVIDED. (B) EQUIPMENT THAT MAY PRODUCE ARCS, SPARKS, OR PARTICLES OF HOT METAL SUCH AS LAMPS AND LAMP HOLDERS FOR FIXED LIGHTING, CUTOUTS, SWITCHES, RECEPTACLES, MOTORS, OR OTHER EQUIPMENT HAVING MAKE-AND-BREAK OR SLIDING CONTACTS, WHEN INSTALLED ABOVE A CLASS I OR II LOCATION OR ABOVE A LOCATION WHERE FRESHLY FINISHED GOODS ARE HANDLED, SHALL BE OF THE TOTALLY ENCLOSED TYPE OR BE CONSTRUCTED SO AS TO PREVENT THE ESCAPE OF SPARKS OR HOT METAL PARTICLES.)



NO FIRE RATED ASSEMBLIES

