

SHEET INDEX:

- CS COVER AND INDEX TO DRAWINGS
- SPI SITE PLAN
- BC BUILDING CODE SUMMARY
- LS LIFE SAFETY/EGRESS PLAN
- SI FOUNDATION PLAN
- G1 FLOOR PLAN, ELEVATIONS AND SECTION
- M-1 MECHANICAL PLAN
- E-1 POWER PLAN, RISER AND NOTES
- E-2 LIGHTING PLAN

PROJECT:

NEW BUILDING FOR FINAL TOUCH POWER COATING

2016 Ray Road
Spring Lake, North Carolina 27804

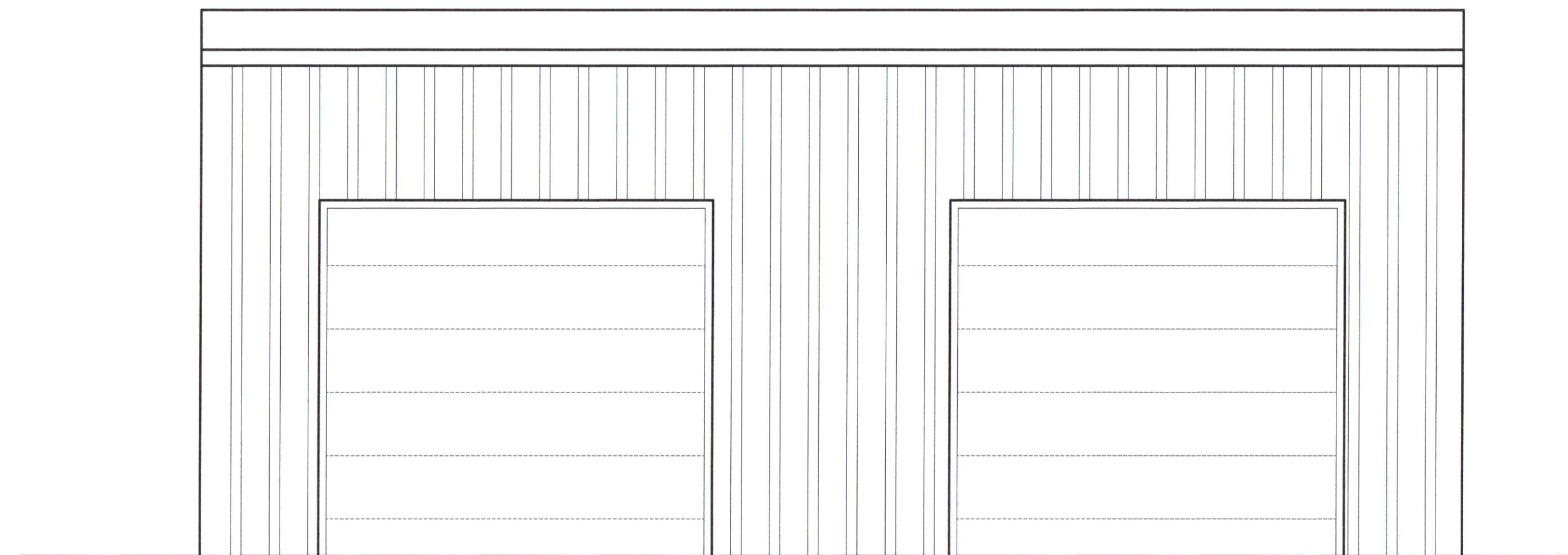
PIN 0514-01-0823.000
HARNETT COUNTY

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

APPROVED

Limited building only review
Permit holder responsible for
full compliance with the code

12/09/2020



EAST ELEVATION
NO SCALE

CODE REVIEW:

APPLICABLE CODES INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

2018 NORTH CAROLINA STATE BUILDING CODE for BUILDING

2018 NORTH CAROLINA STATE BUILDING CODE for MECHANICAL

2017 NATIONAL ELECTRICAL CODE

2017 STANDARD & COMMENTARY ICC/ANSI A117.1-2003 on ACCESSIBILITY

2018 NORTH CAROLINA STATE BUILDING CODE for ENERGY

2018 NORTH CAROLINA STATE BUILDING CODE for FIRE PREVENTION

BUILDING DATA:

THE FACILITY IS A NEW BUILDING USED AS PAINTING/POWDER COATING FACILITY

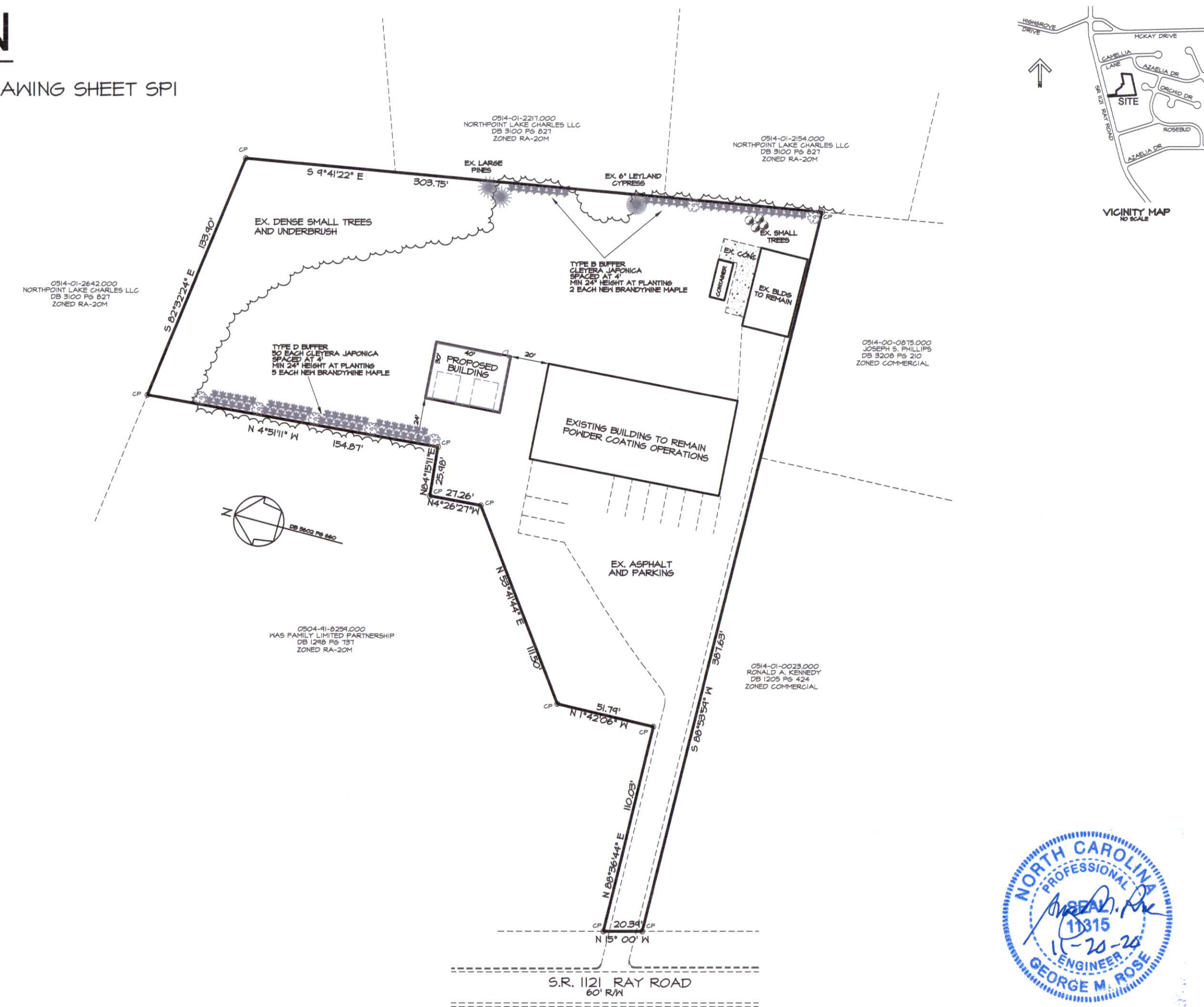
THIS BUILDING IS NOT PROTECTED BY AN AUTOMATIC FIRE SPRINKLER SYSTEM.

SITE MEETS ALL A.D.A. PARKING & RAMP REQUIREMENTS FOR THE BLDG.

SEE BUILDING CODE SUMMARY (SHEET BC) FOR ADDITIONAL INFORMATION.

SITE PLAN

SEE SEPARATE SITE DRAWING SHEET SPI THIS SCALE 1" = 50'

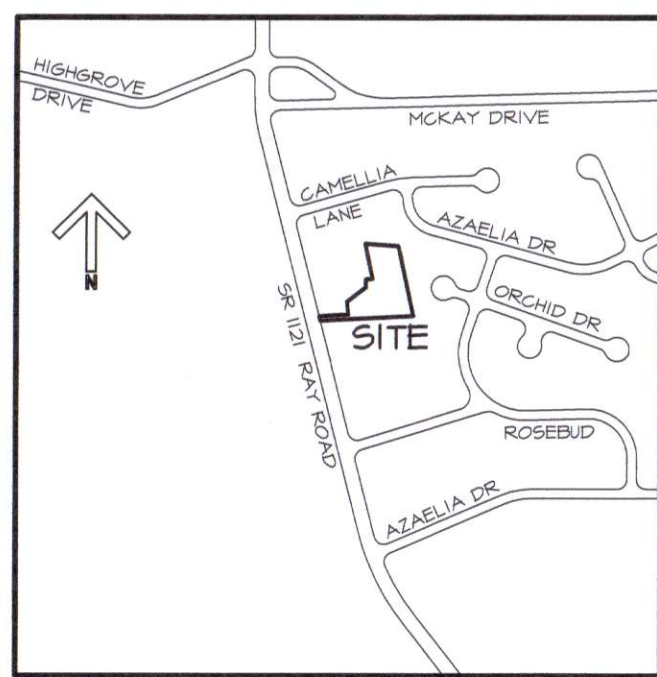


OWNER/DEVELOPER

ROGER BLANCHARD
FINAL TOUCH POWDER COATING
2016 RAY ROAD
SPRING LAKE, NC 28390
910-496-0555
roger@finaltouchpowdercoating.com

PROJECT DESIGNER:

GEORGE M. ROSE, P.E.
P.O. BOX 53441
FAYETTEVILLE, NC 28305
910-977-5822
grose9295@gmail.com



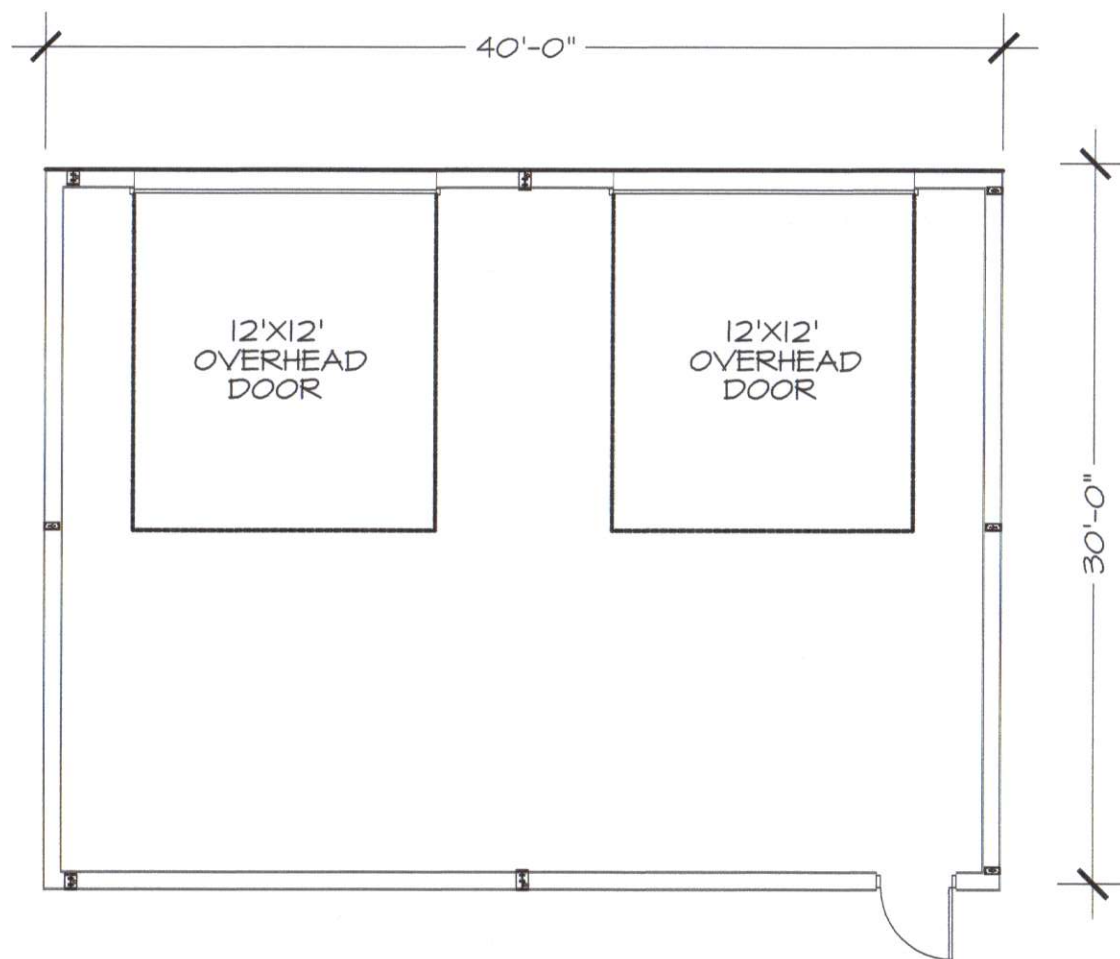
VICINITY MAP
NO SCALE

LEGEND

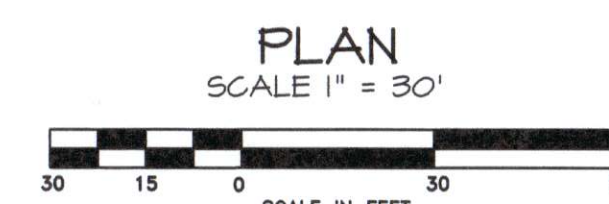
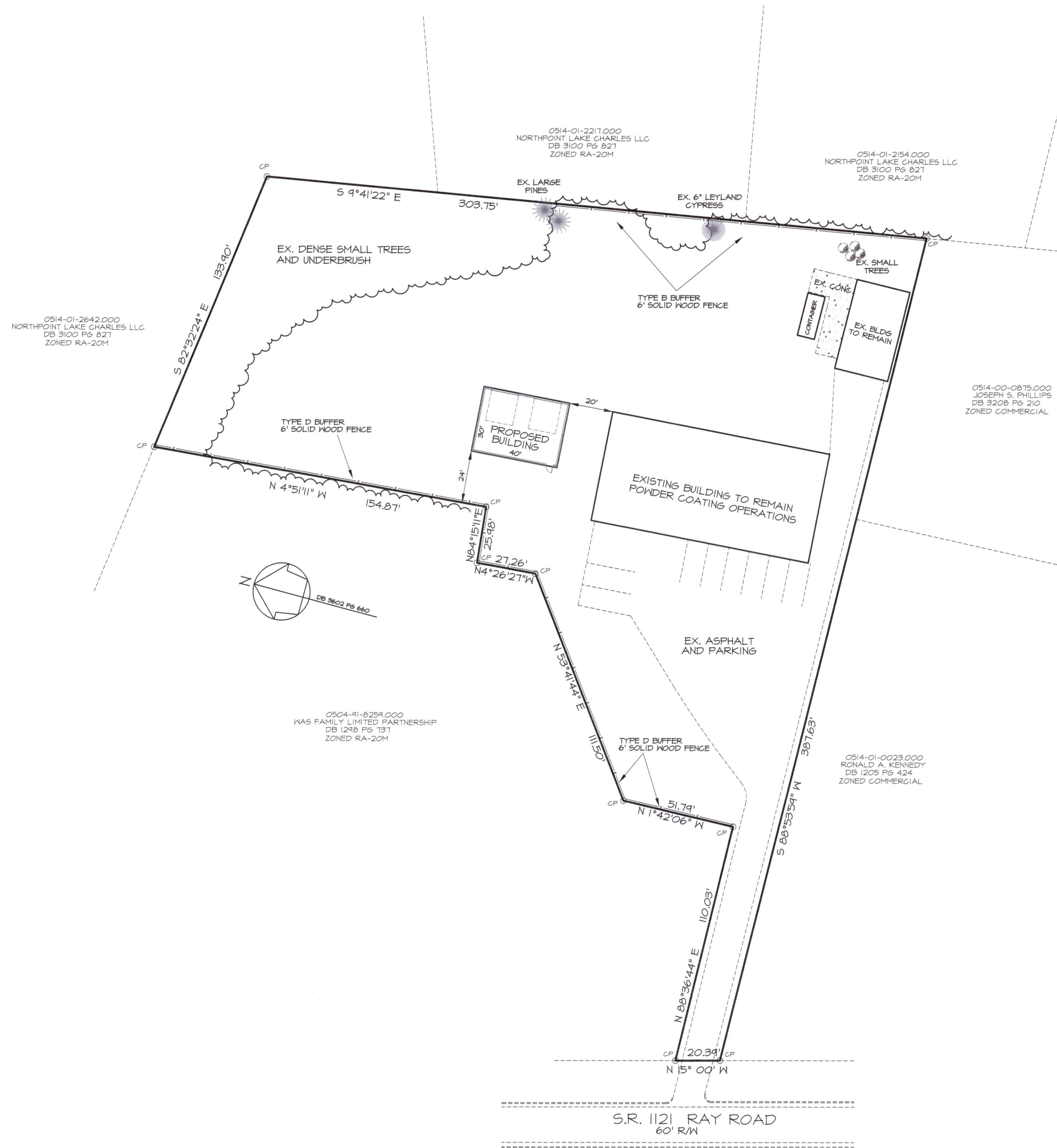
- CP COMPUTED POINT
(PROPERTY CORNER PER DEED DESCR)
- NEW BRANDYWIKE MAPLE
1-1/2" CALIPER, 8' HEIGHT
- NEW CLEYERA JAPONICA SHRUB
MIN. 24" AT PLANTING

NOTES

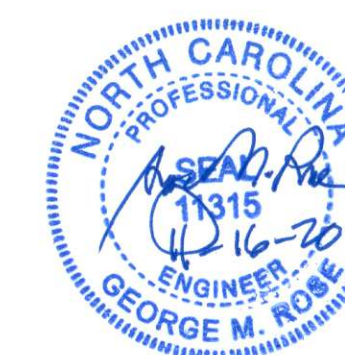
1. TOTAL AREA IN TRACT = 61,047 SF = 1.40 ACRES
2. OWNER/DEVELOPER:
ROGER N. BLANCHARD, II
2016 RAY ROAD
SPRING LAKE, NC 28340
rogern@finaltouchpowdercoating.com
910-416-0295
3. REFERENCE: DB 3602 PG 661, HARNETT COUNTY
ANDERSON CREEK TOWNSHIP
4. PIN NO.: 0514-01-0283.000
5. PROPERTY IS ZONED COMMERCIAL
6. THE PROPOSED BUILDING IS INTENDED TO PROVIDE TWO
ADDITIONAL BAYS FOR POWDER COATINGS OPERATIONS. TWO
OVERHEAD DOORS ARE LOCATED ON THE WEST-FACING WALL.
HOURS OF OPERATION: MONDAY - FRIDAY, 8:00AM - 5:00PM.
7. IMPERVIOUS SURFACES SUMMARY:
EXISTING BUILDINGS = 160 + 1046 + 5192 = 6,338 SF
EXISTING ASPHALT = 11,765 SF
PROPOSED BUILDING = 1,200 SF
TOTAL POST-DEVELOPMENT IMPERVIOUS = 19,303 SF = 0.44 AC
% IMPERVIOUS POST-DEVELOPMENT = 19,303/61,047 = 31.6%
8. TOTAL DISTURBED AREA THIS PROJECT = 20,800 SF = 0.47 AC
9. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL
HARNETT COUNTY STANDARDS AND SPECIFICATIONS.
10. THE CONTRACTOR MUST CONTACT THE NORTH CAROLINA CALL CENTER
AT 800-632-4144 PRIOR TO DIGGING IN ORDER TO LOCATE ALL
EXISTING UTILITIES.



FLOOR PLAN
SCALE 1/8" = 1'-0"



PLAN
SCALE 1" = 30'



REVISIONS

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NEW BUILDING FOR
FINAL TOUCH POWDER COATING
SPRING LAKE, NC
2016 RAY ROAD
EXISTING CONDITIONS AND SITE PLAN

DATE: NOV 2020
DRAWN BY: GMR
CHECKED: GMR
SCALE: NOTED

SHEET NO.
SP1

REVISIONS

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FINAL TOUCH POWDER COATING
SPRING LAKE, NC
2016 RAY ROAD

DATE: NOV 2020
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LS

OCCUPANCY INFORMATION SUMMARY

GROSS SQUARE FOOTAGE = 1,200
TYPE OF CONSTRUCTION: II-B
SPACE OCCUPANCY (INSIDE THE BUILDING) BY NET SF USING TABLE 1004.1.1
TOTAL OCCUPANT LOAD BY AREAS: STORAGE S-2 = 1200/200 = 6 PERSONS
= 3 MALE, 3 FEMALE

MAXIMUM TRAVEL DISTANCE SHOWN: 45 FEET (PER 1016)
MAXIMUM ALLOWABLE TRAVEL DISTANCE: 200 FEET (PER 1016.1)
THE COMMON PATH OF TRAVEL IS LESS THAN 75 FEET. (PER 1014.3)
THERE ARE NO DEAD END CORRIDORS OVER 20 FEET. (PER 1018.4)
MIN. NO. OF EXITS REQ'D: ONE (PER TABLE 1015.1)
NUMBER OF EXITS PROVIDED: THREE (OTHER THAN OVERHEAD DOORS)
MAXIMUM DIAGONAL LENGTH = 49'

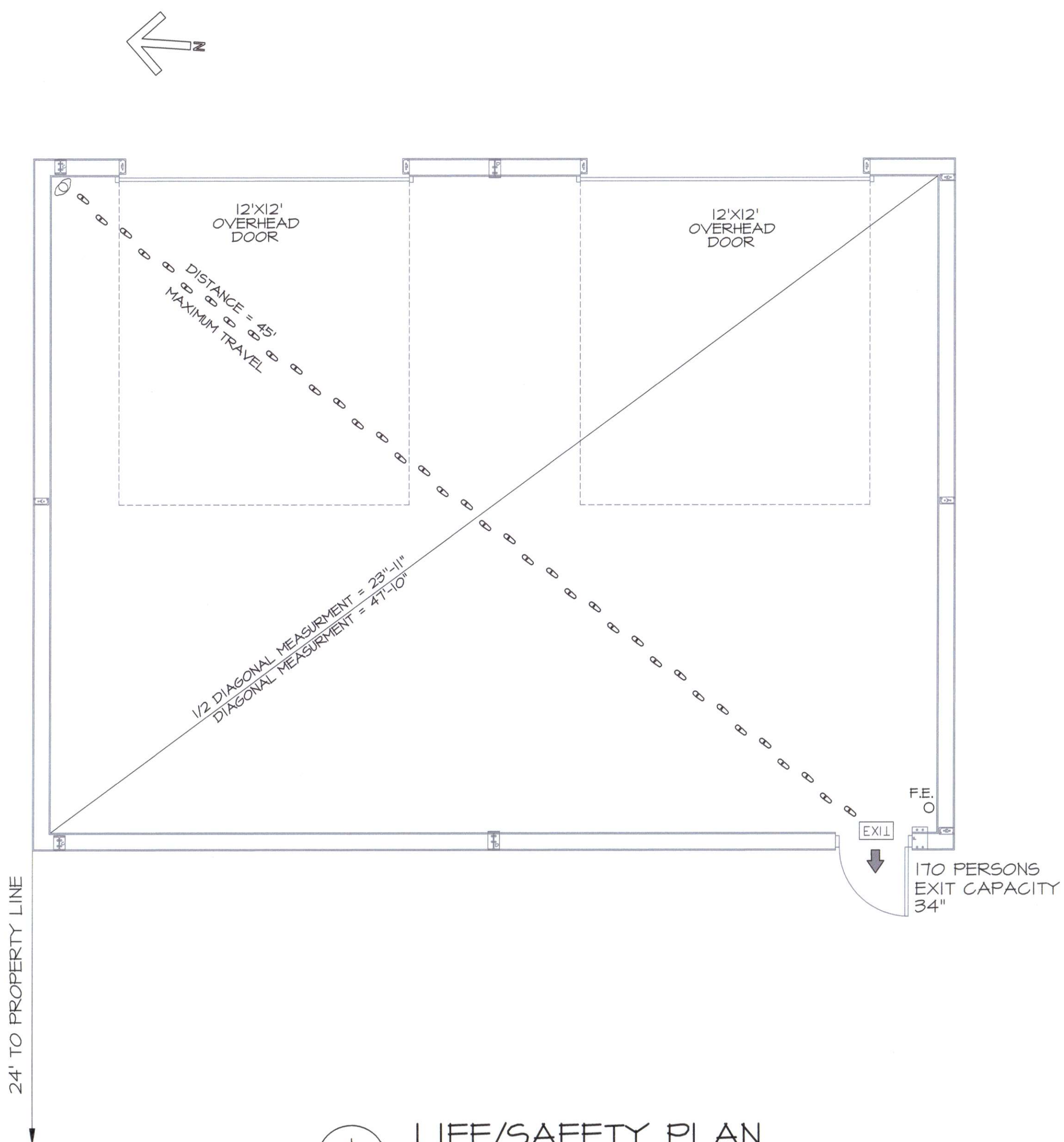
EGRESS DOORS DO NOT REQUIRE PANIC HARDWARE. (PER 1008.1.10)
DOORS DO NOT HAVE DELAYED EGRESS LOCKS (PER 1008.1.9.7)
DOORS DO NOT HAVE ELECTROMAGNETIC EGRESS LOCKS (PER 1008.1.9.8)
DOORS DO NOT HAVE HOLD OPEN DEVICES.
THERE ARE NO EMERGENCY ESCAPE WINDOWS (PER 1029)
THERE ARE NO SLEEPING AREAS (SMOKE COMPARTMENTS) (PER 407.2)
EGRESS ILLUMINATION PROVIDED AT EACH EXIT (PER 1006)

THIS SPACE IS NOT PROTECTED BY FIRE SPRINKLERS.

NO. OF FIRE EXTINGUISHERS PROVIDED: ONE
PROVIDE FIRE EXTINGUISHERS UNDER THE FOLLOWING CONDITIONS:
1. WITHIN 30' OF COMMERCIAL COOKING EQUIPMENT
2. IN AREAS WHERE FLAMMABLE OR COMBUSTIBLE LIQUIDS ARE STORED, USED OR DISPENSED.
3. WHERE REQUIRED BY SECTIONS IN TABLE 906.1, N.C. BUILDING CODE
4. SPECIAL-HAZARD AREAS WHERE REQUIRED BY FIRE CODE OFFICIAL.

THERE ARE NO EXTERIOR BEARING WALLS.

LEGEND	
F.E. O	ABC FIRE EXTINGUISHER SUGGESTED LOCATION
⊙ ⊙ ⊙	EXIT ROUTE
➔ 36"	EXIT WIDTH
⊞	EMERGENCY EGRESS LIGHTING
EXIT	EXIT SIGN



LIFE/SAFETY PLAN
1/4" = 1' - 0"

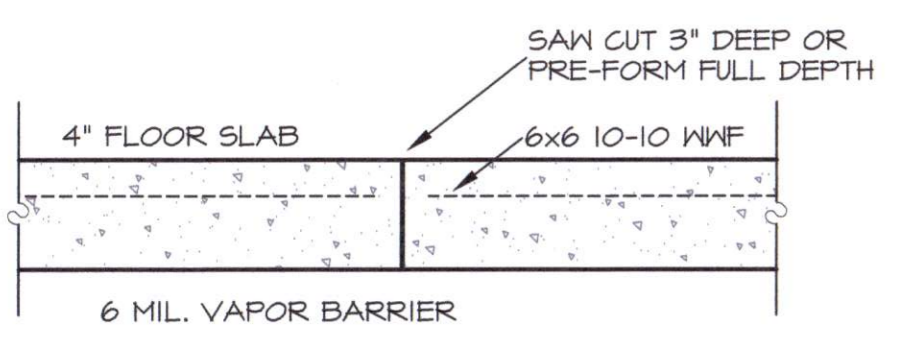


REVISIONS
11-20-20 BLDG ORIENTATION

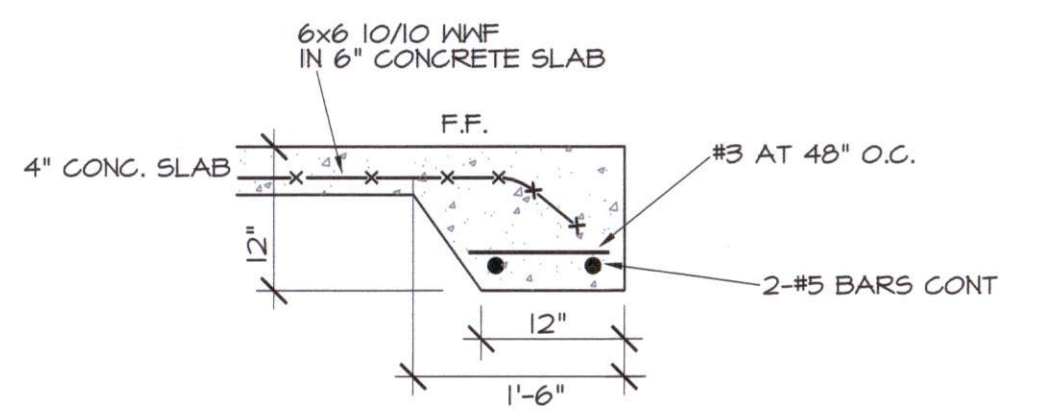
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NEW BUILDING FOR
FINAL TOUCH POWDER COATING
SPRING LAKE, NC
2016 RAY ROAD
SLAB PLAN

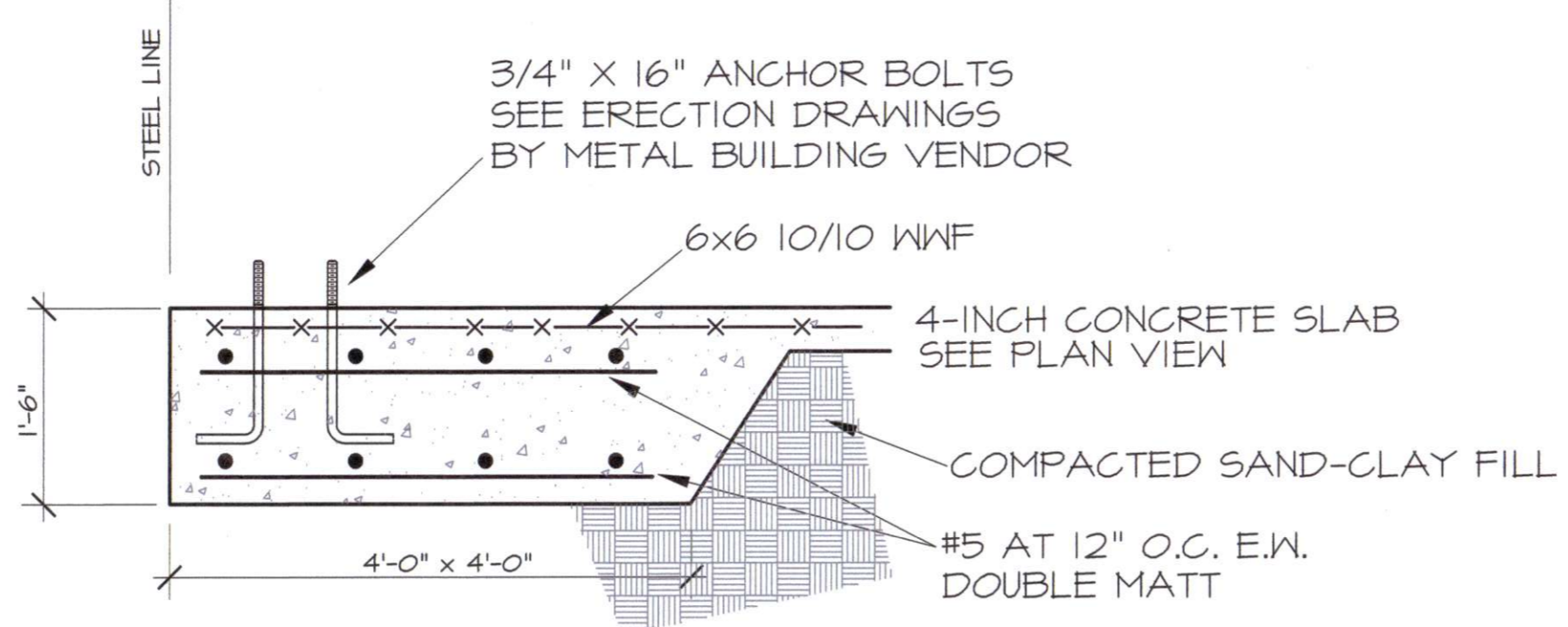
DATE: NOV 2020
DRAWN BY: GMR
CHECKED: GMR
SCALE: NOTED
SHEET NO.
S1



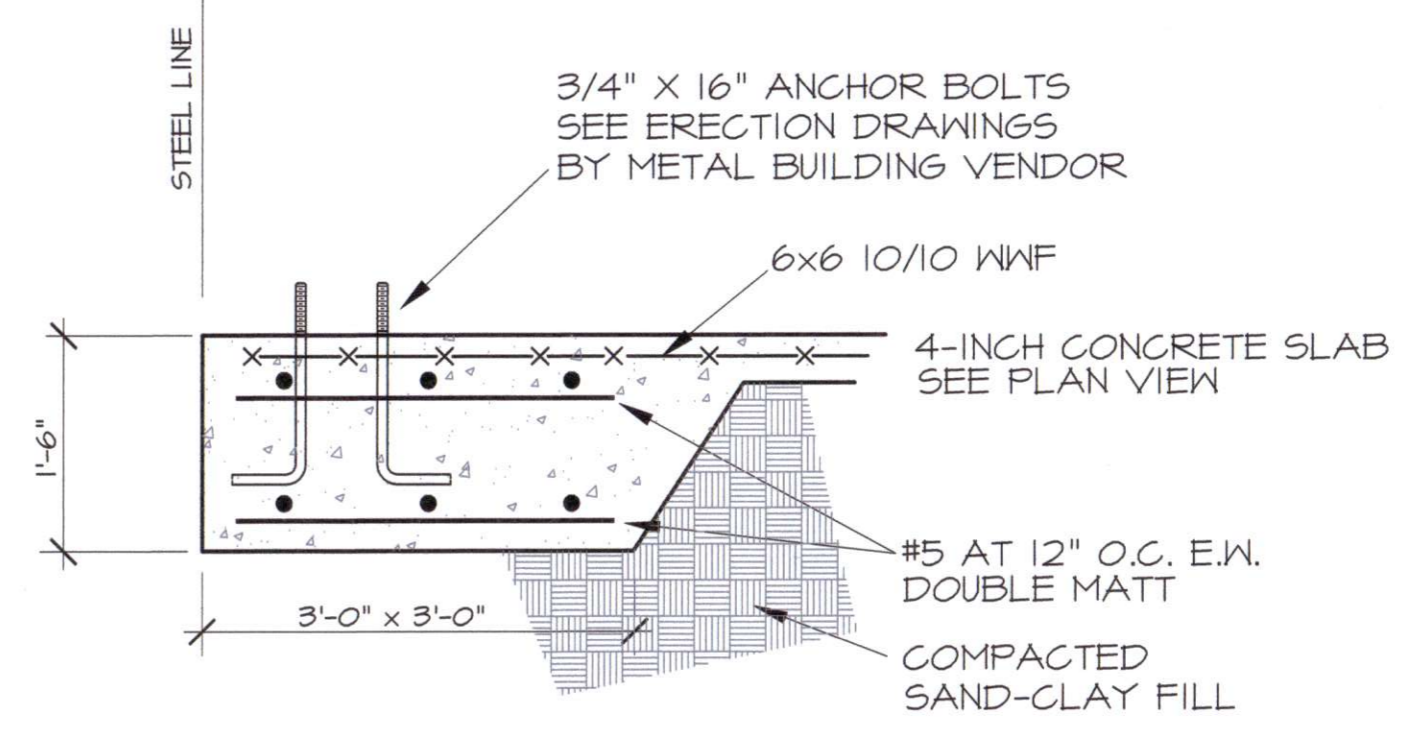
5
SI
CONSTRUCTION JOINT
NO SCALE



2
SI
PERIMETER FOOTING DETAIL
3/4" = 1' - 0"



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



4
SI
FOOTING DETAIL B
3/4" = 1' - 0"

GENERAL CONDITIONS

THE GENERAL CONTRACTOR SHALL MAKE ADEQUATE SANITARY PROVISIONS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SAFETY AND COMPLIANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT AS IT MAY REGARD ANY PHASE OF THE WORK ON THIS PROJECT.

SOIL COMPACTION AND TESTING

THE GENERAL CONTRACTOR SHALL OBTAIN THE SERVICES OF A TESTING LABORATORY, SUCH AS S&ME OR LAW ENGINEERING FOR THE PURPOSE OF DETERMINING THE SUITABILITY OF THE SUBSURFACE CONDITIONS AND THE BEARING CAPACITIES OF ALL AREAS BELOW CONCRETE. THE SOIL AND BEARING REPORT SHALL BE SUBMITTED PRIOR TO EXCAVATING, WHERE POSSIBLE, BUT PRIOR TO PLACEMENT OF ANY REINFORCING AND CONCRETE. SOIL BEARING TO BE MIN. 2,000 PSF.

CONCRETE WORK

1. ALL CONCRETE FOR THE PROJECT SHALL BE "READY MIX" AND SHALL COMPLY WITH ASTM C-94. ALL SECTIONS OF THE CONCRETE WORK SHALL COMPLY WITH ALL ASTM AND ACI REQUIREMENTS.
2. FORM WORK - ALL FORMS TO BE CAREFULLY BUILT AND SECURED IN PLACE IN SUCH A MANNER AS TO HAVE SUFFICIENT STRENGTH TO CARRY THE DEAD WEIGHT OF THE CONSTRUCTION AS A LIQUID, WITHOUT DEFLECTION OR VIBRATION. FORMS TO BE BUILT TIGHT, TRUE TO POSITION AND DIRECTION, THOROUGHLY BRACED, WIRED AND SPIKED OR OTHERWISE FASTENED TOGETHER.
3. CONCRETE - MINIMUM OF 3,000 P.S.I. COMPRESSIVE STRENGTH AT 28 DAYS, MINIMUM OF FIVE SACKS OF CEMENT PER CUBIC YARD OF CONCRETE, MAXIMUM OF 4" SLUMP.
4. FINISHING - IN ACCORDANCE WITH THE LATEST A.C.I. CODE, PLUMB, LEVEL, TRUE IN LINE, FREE OF HONEYCOMB. BUILDING SLAB SHALL HAVE A HARD STEEL TROWEL FINISH. WALKS SHALL HAVE BROOMED FINISH, AND EXPANSION JOINTS AT APPROXIMATELY 50' O.C. AND DUMMY JOINTS AS SHOWN ON THE SITE PLAN.
5. REMOVAL OF FORMS - FORMS SHALL BE CAREFULLY REMOVED SO AS NOT TO IMPAIR THE FACE OF THE CONCRETE. IMMEDIATELY AFTER THE FORMS ARE REMOVED ALL DAMAGE OF IMPERFECT WORK SHALL BE PATCHED IN A NEAT AND WORKMANLIKE MANNER, OR IF BADLY DAMAGED, IN THE OPINION OF THE OWNER, THE WORK SHALL BE REBUILT. THE MINIMUM TIME BEFORE ANY FORMS CAN BE REMOVED IS SEVEN (7) DAYS FOR SUCH MEMBERS AS ARE SUBJECT TO BENDING STRESSES, SUCH AS SLABS.
6. CURING - USE MEMBRANE CURING METHOD, USE MFG. RATE, SPRAY IMMEDIATELY FOLLOWING FINISHING. PROTECT FROM FREEZING WEATHER. CURE A TOTAL OF 28 DAYS USING A.C.I. METHODS.

REINFORCING STEEL

ALL REINFORCING STEEL SHALL BE DEFORMED STEEL BARS CONFORMING TO A.S.T.M. A615, GRADE 60. ALL REINFORCING STEEL SHALL BE MANUFACTURED, DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH A.C.I. 318R, 318R AND A.C.I. 318. WELDED WIRE FABRIC SHALL CONFORM TO A.S.T.M. A105, IN AS LONG A LENGTH AS IS PRACTICAL. WELDED WIRE FABRIC SHALL BE LAPPED AT LEAST ONE GRID WIDTH PLUS 2". REINFORCEMENT SHALL BE BENT COLD AND SHALL NOT BE WELDED.

SPLICES:

REINFORCEMENT IN CONCRETE AND MASONRY SHALL HAVE LAP LENGTHS AS FOLLOWS, UNLESS OTHERWISE SPECIFIED ON DRAWINGS:

BAR SIZE:	IN CONCRETE:	IN MASONRY:
#3	1'-6"	2'-0"
#4	2'-0"	2'-6"
#5	2'-6"	3'-0"

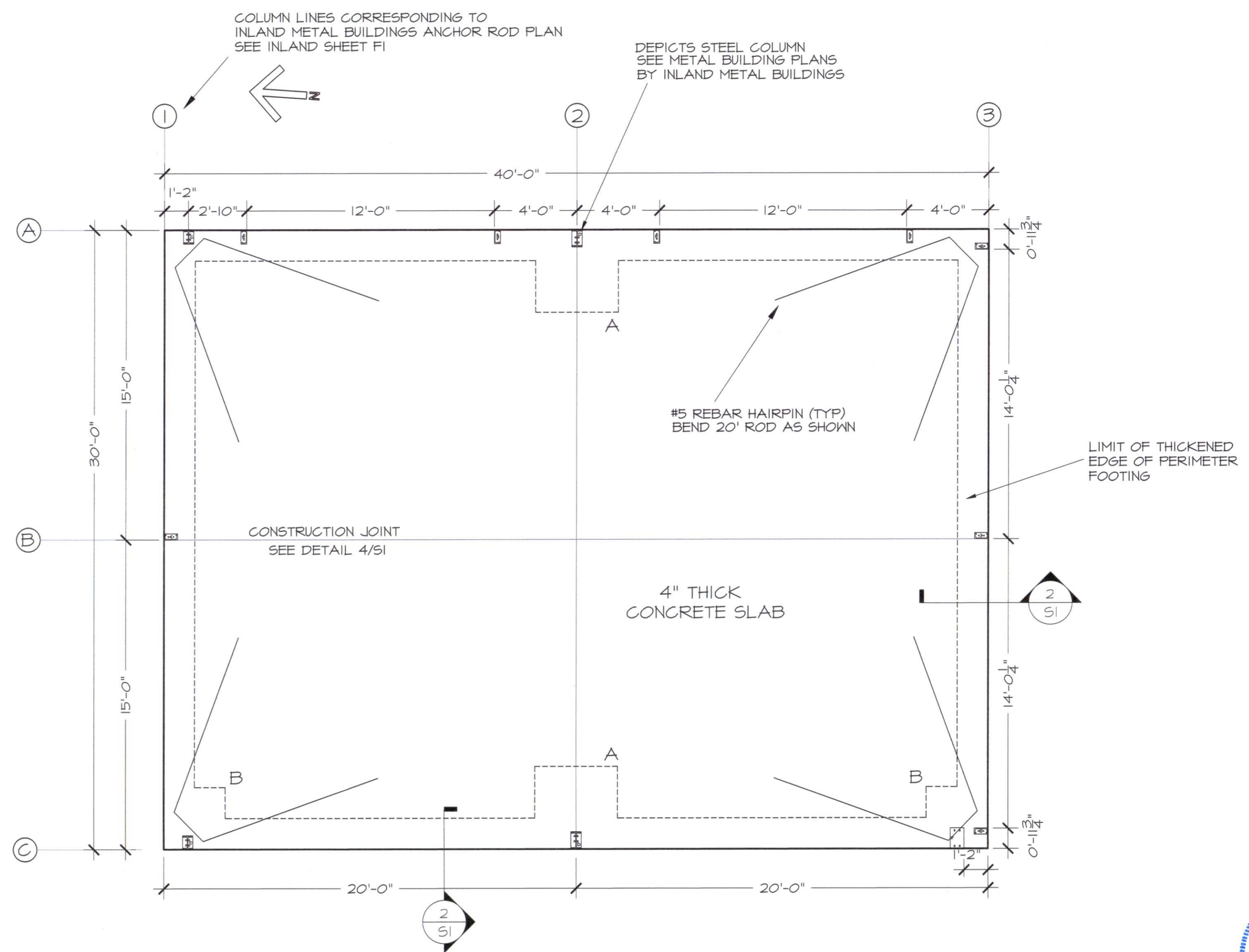
PLACEMENT: REINFORCEMENT SHALL BE ACCURATELY PLACED AND SUPPORTED BY CONCRETE, METAL, OR OTHER APPROVED CHAIRS, SPACERS OR TIES, AND SECURED AGAINST DISPLACEMENT DURING CONCRETE OR GROUT PLACEMENT.

EXCEPT WHERE OTHERWISE NOTED, REINFORCEMENT SHALL HAVE CONCRETE COVER AS FOLLOWS:

CONCRETE DEPOSITED AGAINST EARTH	3"
FORMED CONCRETE AGAINST EARTH	2"
EXTERIOR FACES OF WALLS	1"
TO TOP OF SLABS-ON-GRADE	3/4"

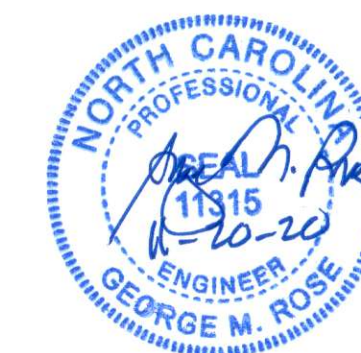
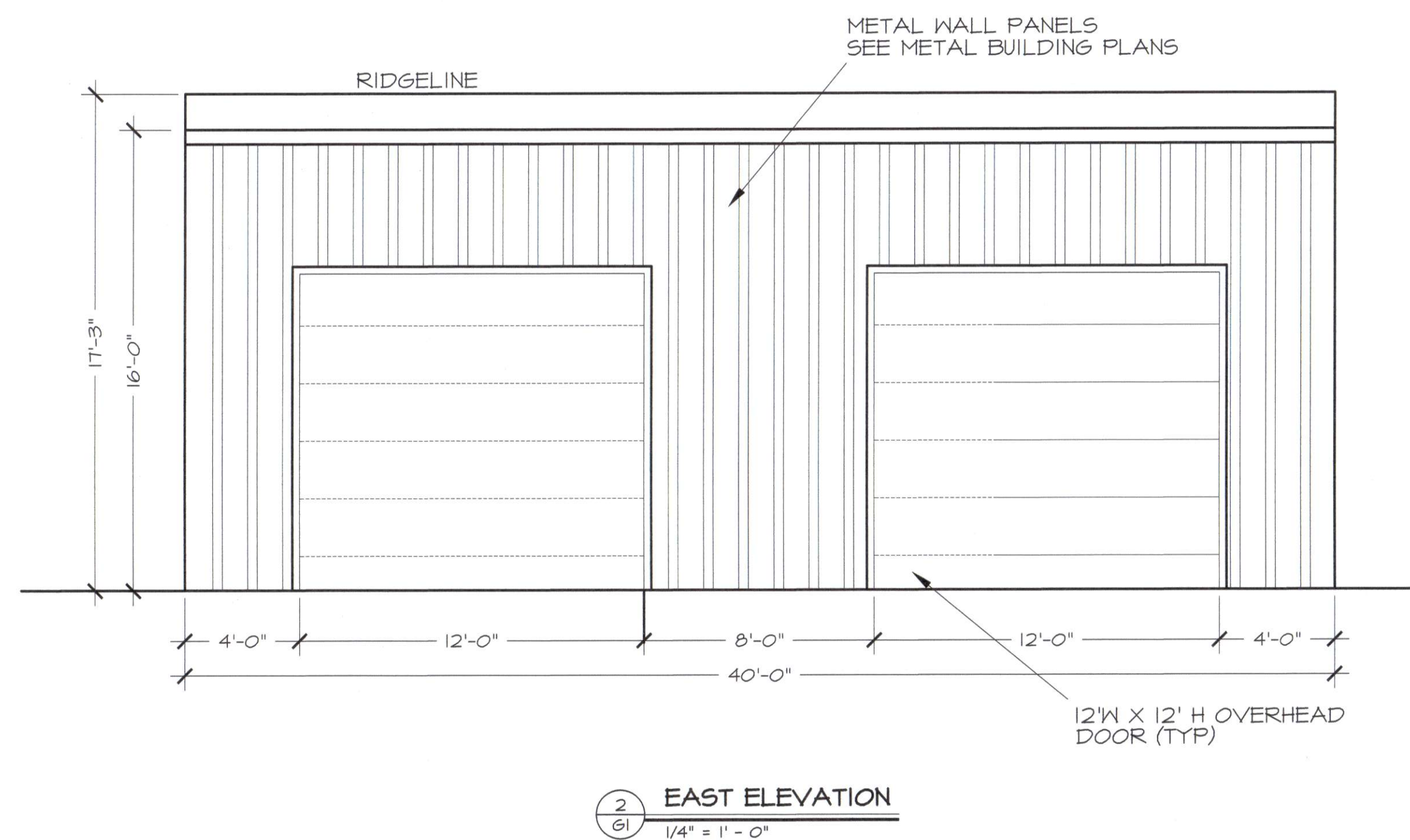
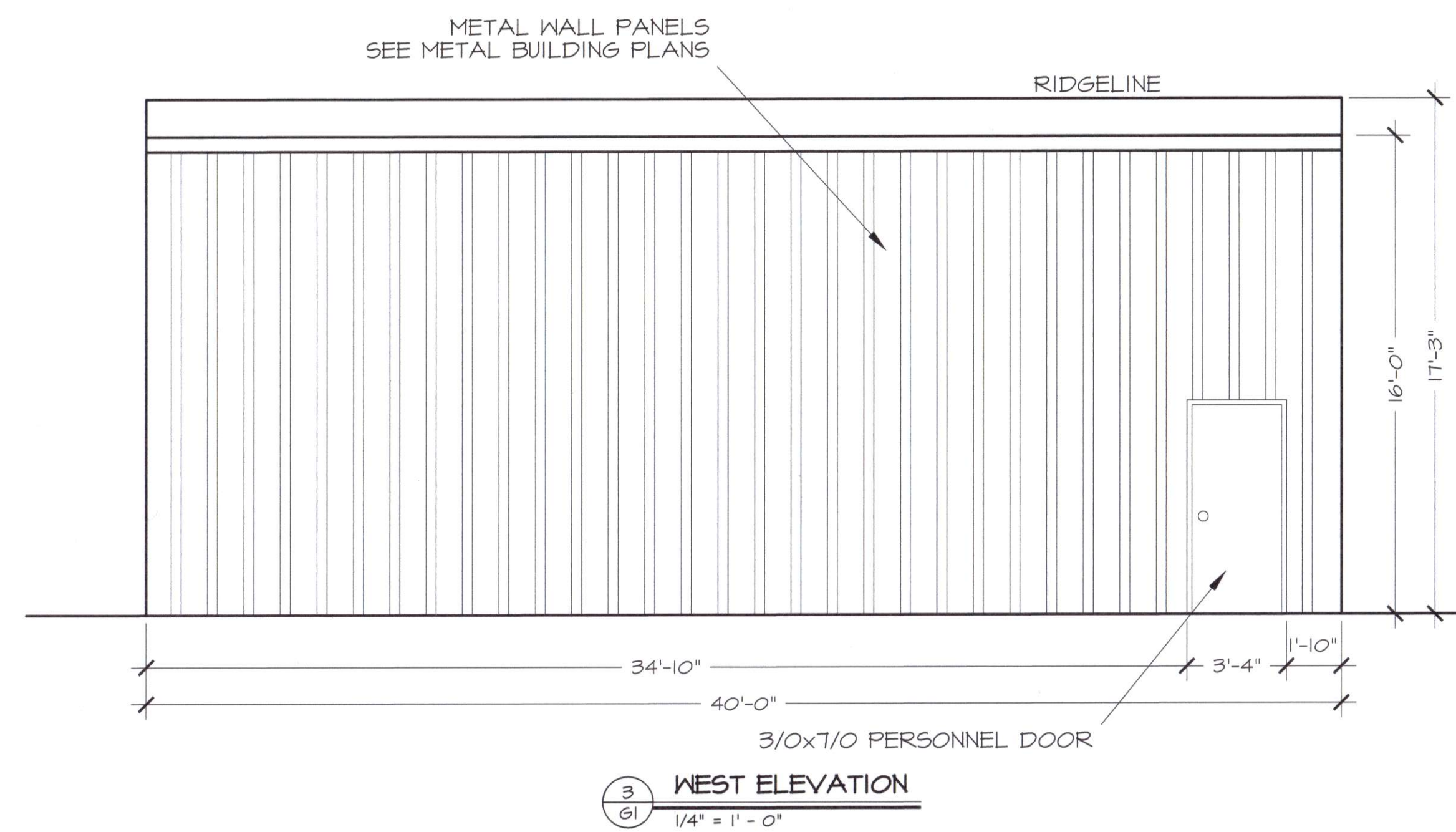
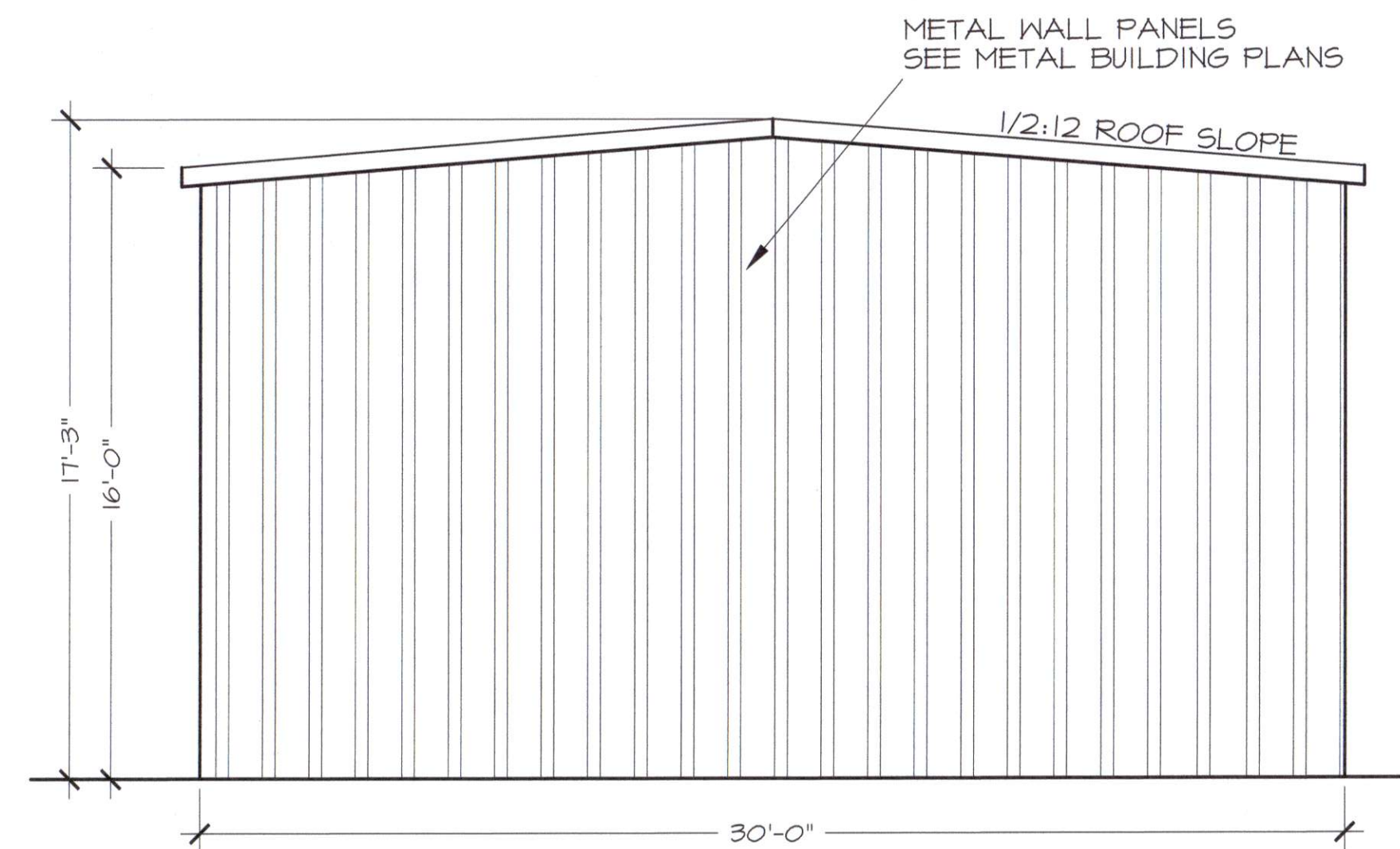
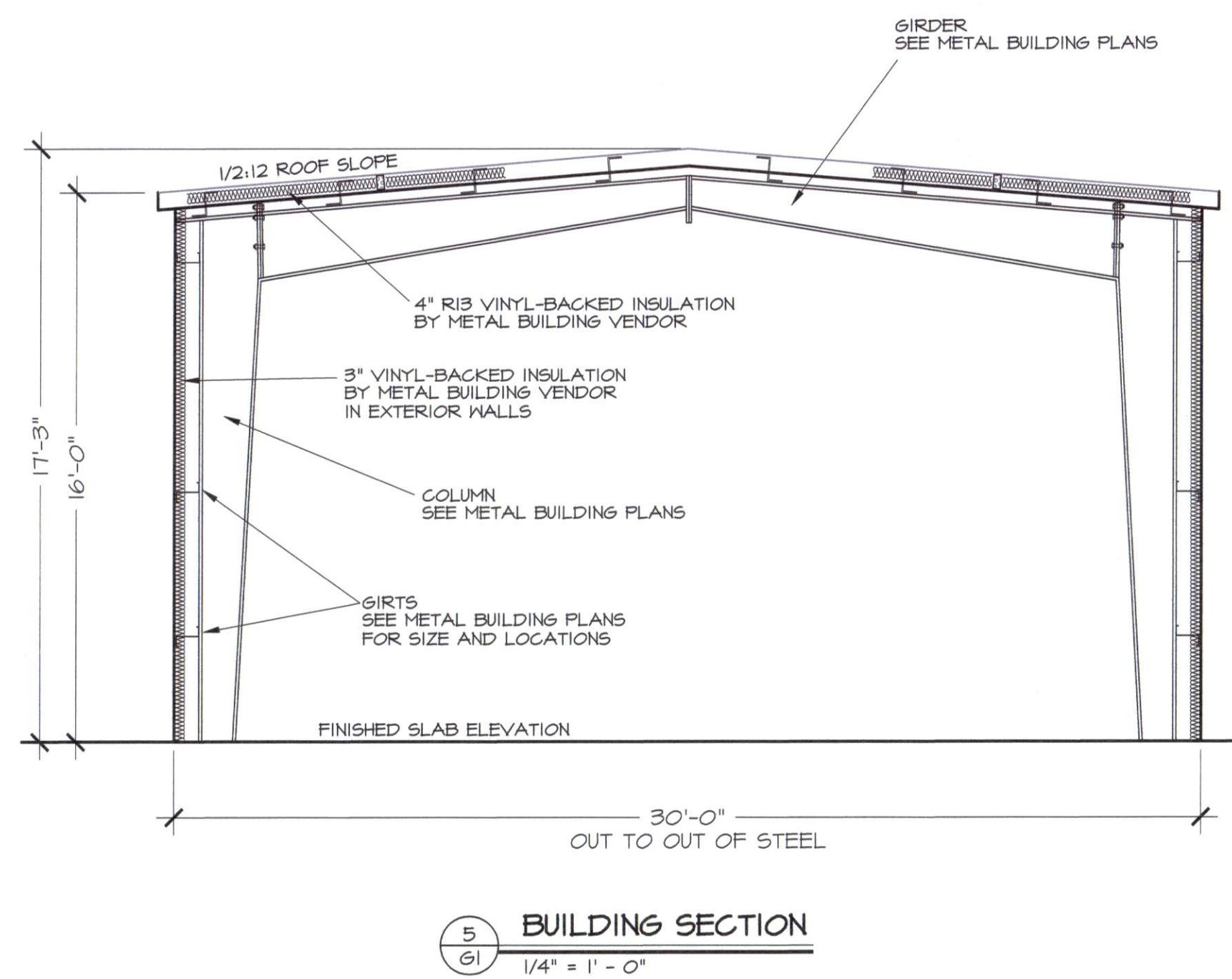
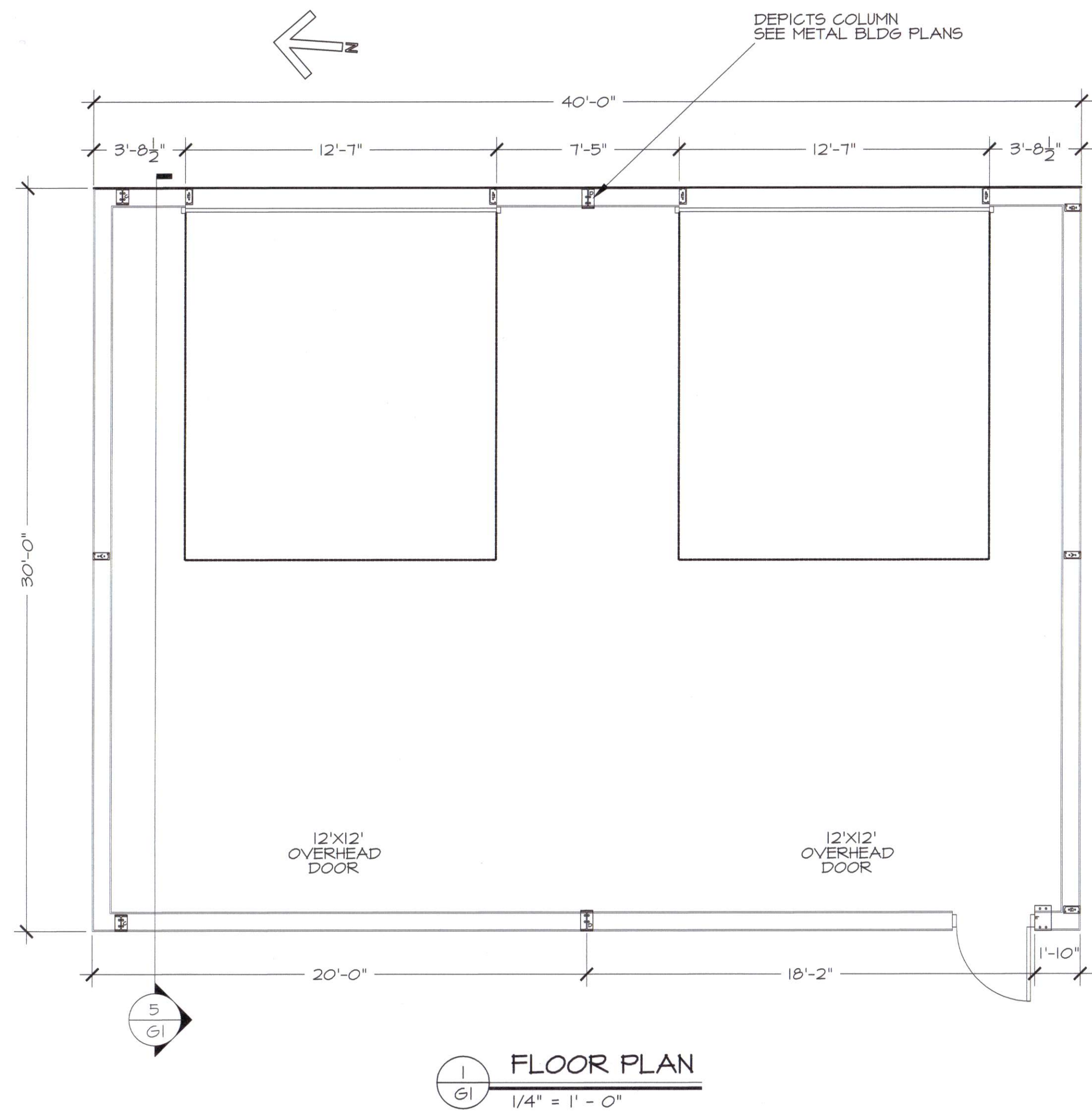
ALL SCALES, LOOSE RUST, GREASE OR DIRT SHALL BE REMOVED FROM THE REINFORCING BEFORE IT IS PLACED. PROVIDE #4 "HAIRPIN" AS SHOWN ON THE SLAB PLAN VIEW. ANCHOR BOLTS SHALL BE (A-3077) HIGH STRENGTH.

SOIL TREATMENT
ADMINISTRATION AS ACCEPTABLE.



1
SI
SLAB PLAN
1/4" = 1' - 0"





REVISIONS

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NEW BUILDING FOR
FINAL TOUCH POWDER COATING
SPRING LAKE, NC

2016 RAY ROAD
FLOOR PLAN, SECTIONS AND ELEVATIONS

DATE: NOV 2020
DRAWN BY: GMR
CHECKED: GMR
SCALE: NOTED

SHEET NO.
G1



Coastal Plains Engineering, P.A.
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 P.O. Box 1111 NC 28572
 Phone: 910-831-7213
 www.coastalplainseng.com

A NEW BUILDING FOR:

FINAL TOUCH POWDER COATING

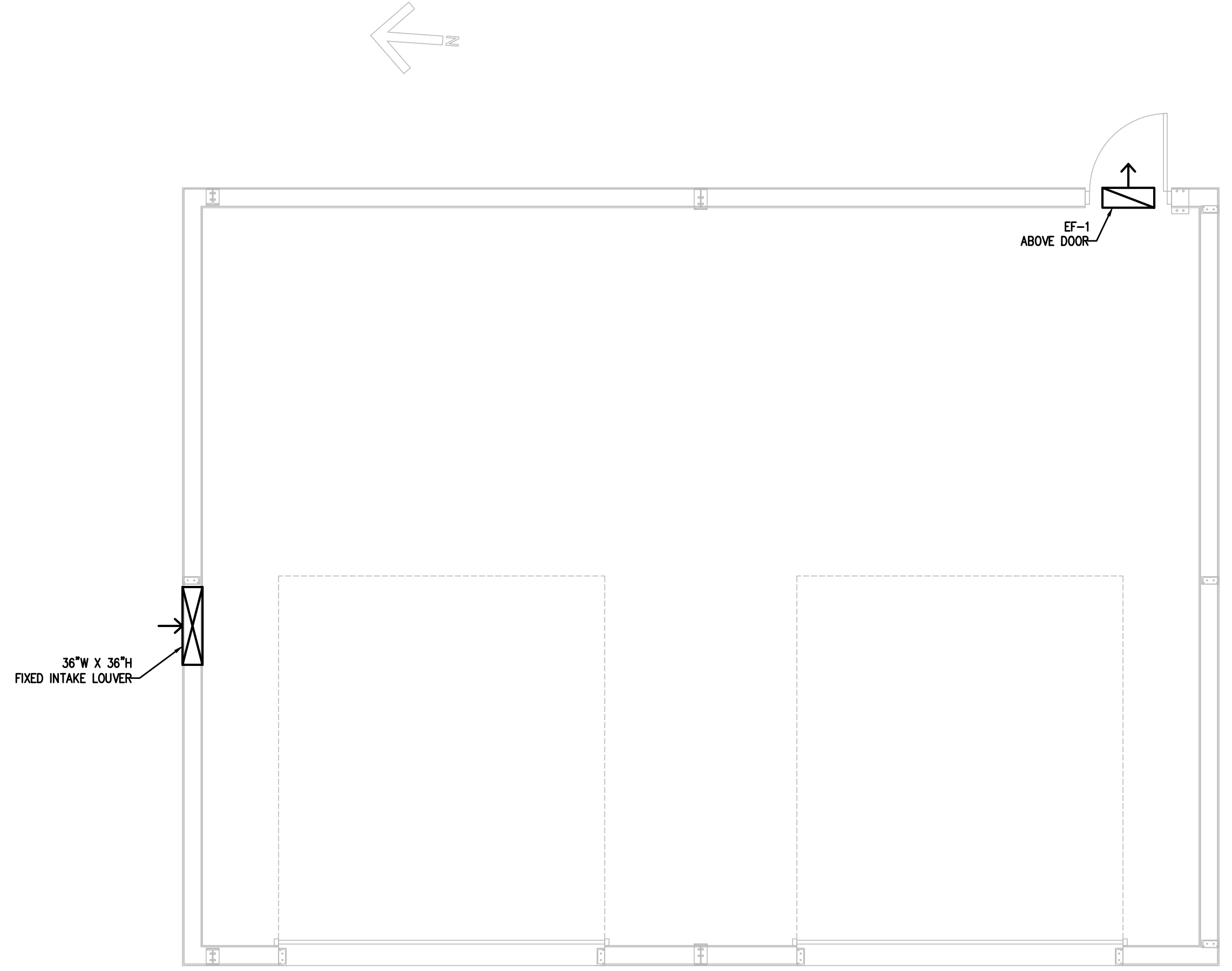
2016 RAY ROAD
 SPRING LAKE, NC

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PROJECT NO: 2020-134
 DRAWN BY: WU
 CHECKED BY: CSL
 DATE: 11-19-20
 REVISIONS:

SHEET NO:
M1



1 HVAC PLAN
 M1 1/4"=1'-0"

ALL WORK SHALL BE IN ACCORDANCE WITH THE 2018 NC MECHANICAL CODE.

ALL DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL IN ACCORDANCE WITH ASHRAE & SMACNA. DUCT SIZES SHOWN ARE NET FREE AREA REQUIRED. ALL SUPPLY AND RETURN DUCTS AND FLEX SHALL BE INSULATED WITH MIN. R-8.0 INSULATION UNLESS OTHERWISE NOTED IN THE DRAWING.

ALL DUCTS SHALL BE AIR TIGHT, RIGID AND FREE FROM VIBRATION AND NOISE. ALL LAP JOINTS SHALL BE IN THE DIRECTION OF FLOW. VOLUME OR SPLITTER DAMPERS SHALL BE INSTALLED WHERE NECESSARY TO GUIDE AND CONTROL THE AIR FLOW. PROVIDE SHEET METAL SLEEVES AND COLLARS WHERE DUCTS PASS THROUGH WALLS.

STRUCTURAL MEMBERS OF THE BUILDING SHALL NOT BE CUT IN ANY MANNER FOR THE INSTALLATION OF ANY EQUIPMENT UNLESS PRIOR APPROVAL IS OBTAINED FROM THE ARCHITECT.

MECHANICAL CONTRACTOR TO CONFIRM BREAKER/DISCONNECT SIZES OF HIS EQUIPMENT WITH THE ELECTRICAL CONTRACTOR.

FURNISH AND INSTALL A DUCT MOUNTED SMOKE DETECTOR IN THE RETURN DUCT OF THE A/C UNIT IN ACCORDANCE WITH 2018 NC MECHANICAL CODE. THE DETECTOR SHALL BE WIRED TO SHUT DOWN THE FAN IN THE EVENT THE DETECTOR IS ACTIVATED. THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL THE DUCT DETECTOR AND RUN THE NECESSARY CONTROL WIRING FROM THE DETECTOR TO HIS EQUIPMENT. SMOKE DETECTORS ARE ONLY REQUIRED FOR UNITS SUPPLYING 2000 CFM OR MORE.

MECHANICAL CONTRACTOR SHALL PROVIDE A TEST AND BALANCE REPORT SYSTEM COMPLIANCE STATEMENT REQUIRES A WRITTEN TAB REPORT. FINAL PROJECT SIGNOFF WILL BE DENIED WITHOUT THIS REPORT.

MECHANICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE LOCATIONS AND ROUTING OF ALL DUCTWORK WITH OTHER TRADES TO AVOID CONFLICTS.

ALL EQUIPMENT MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED TO BE FREE OF DEFECTS FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE OF THE WORK OR IN ACCORDANCE WITH THE PARTICULAR MANUFACTURER'S STANDARD GUARANTEE IF LONGER. ANY FAULTY MATERIAL OR WORKMANSHIP OR FAILURE OF ANY PART OF THE SYSTEM DURING NORMAL OPERATIONS UNDER THIS GUARANTEE SHALL BE CORRECTED WITHOUT COST TO THE OWNER.

ALL THERMOSTATS SHALL BE OF A PROGRAMMABLE TYPE.

BUILDING CONTRACTOR SHALL PROVIDE PERMANENT ACCESS TO ROOF STRUCTURE FOR ACCESS TO MECHANICAL EQUIPMENT WHEN ROOF STRUCTURE IS GREATER THAN 16'-0" HIGH.

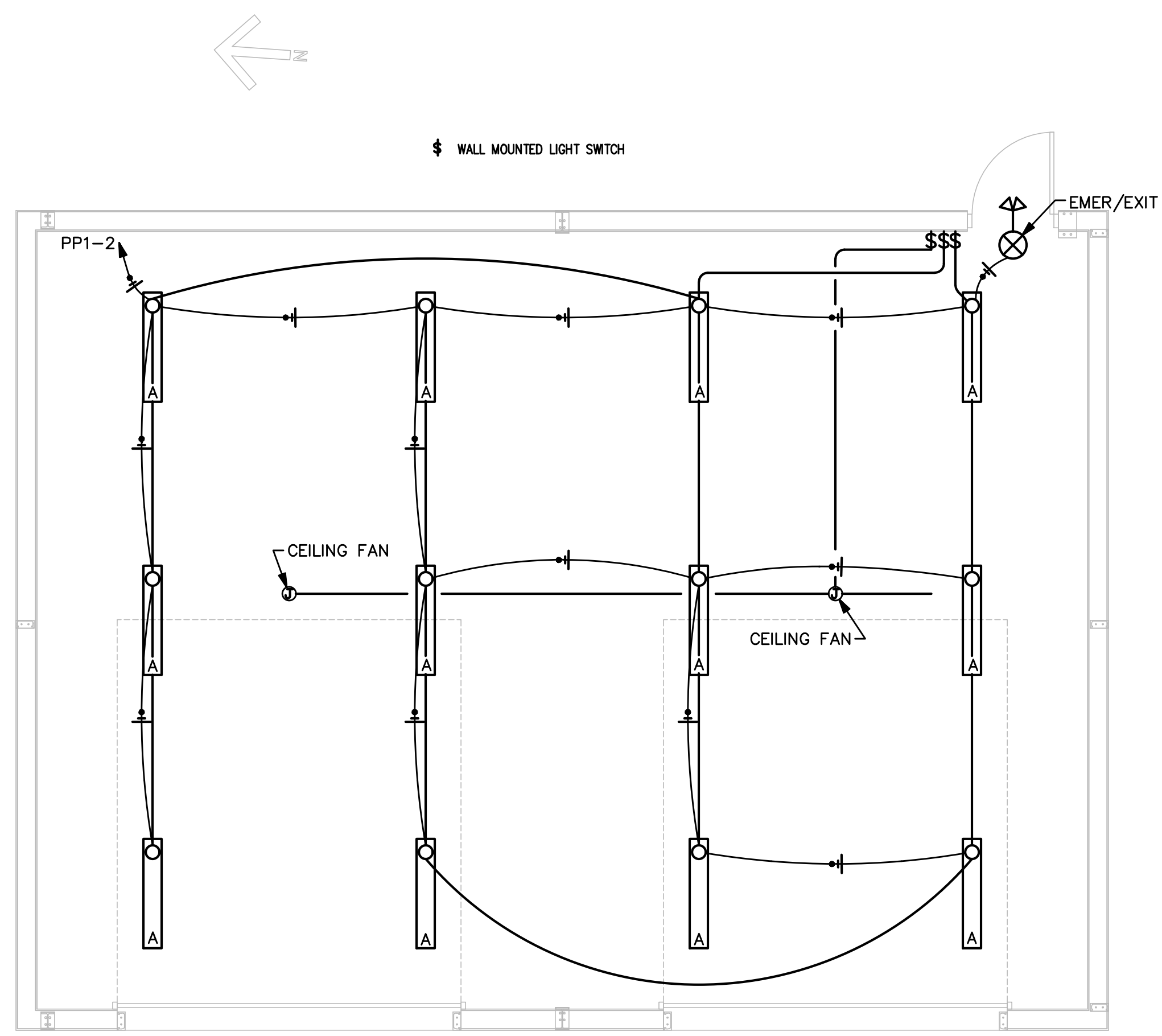
2 HVAC NOTES
 M1 N.T.S.

OUTSIDE AIR CALCULATION - 2018 NC MECHANICAL CODE (TABLE 403.3) $V_{bz} = R_p P_z + R_a A_z$

INTAKE LOUVER	OCCUPANCY TYPE:	SF (Az)	# OF OCCUPANTS (Pz)	O.A. CFM PER PERSON (Rp)	O.A. CFM PER SF (Ra)	O.A. CFM REQUIRED (Vbz)	EXHAUST CFM REQUIRED
	SHOP	1200	-	-	0.06	72	-
	TOTAL CFM REQUIRED					72	TOTAL EXHAUST REQUIRED -
	TOTAL O.A. CFM FURNISHED					4000	TOTAL EXHAUST FURNISHED -

FAN SCHEDULE

MARK	LOCATION	SERVICE	CFM	S.P.	AMPS	RPM	VOLT	PHASE	DRIVE	REMARKS
EF-1	SIDEWALL	SHOP	4000	.125"	1/4 HP	860	120	1	DIRECT	GREENHECK S2-24-615-C4 OR EQ.



ELECTRICAL DESIGN
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Energy Code Performance Prescriptive
 ASHRAE 90.1 Performance Prescriptive

Lighting schedule (each fixture type) SEE LUMINAIRE SCHEDULE SHEET E2
 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 (whole building or space by space) 792 WATTS SPECIFIED 1285 WATTS ALLOWED
 total exterior wattage specified vs. allowed

Additional Efficiency Package Options
 (When using the 2019 NEC C; not required for ASHRAE 90.1)

C406.2 More Efficient HVAC Equipment Performance
 C406.3 Reduced Lighting Power Density
 C406.4 Enhanced Digital Lighting Controls
 C406.5 On-Site Renewable Energy
 C406.6 Dedicated Outdoor Air System
 C406.7 Reduced Energy Use in Service Water Heating

1 LIGHTING PLAN
 E2 1/4"=1'-0"

LUMINAIRE SCHEDULE												
CALLOUT	SYMBOL	LAMP	DESCRIPTION	BALLAST	MOUNTING	MODEL	INPUT WATTS	VOLTS	NOTE 1	NOTE 2	NOTE 3	LUMENS / LAMP
A		(3) LED	THE BOLT 3 LAMP LED SHOP LIGHT	ELECTRONIC	PENDANT/SURFACE	PRIMELIGHT PL-BLT66WCL	66	120V 1P 2W				8550
EMER/EXIT		(2) LED	LED COMBINATION EXIT/EMERGENCY LIGHT	ELECTRONIC	WALL/CEILING	EATON/METALUX APCH7RSQ	3.4	120V 1P 2W	NICKEL CADMIUM 90 MINUTE BATTERY	DAMP LOCATION LISTED	METALUX SRP25DWH DOUBLE LED OUTDOOR REMOTE HEADS WHERE INDICATED ON PLANS	0

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License No: C-5009

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FINAL TOUCH POWDER COATING

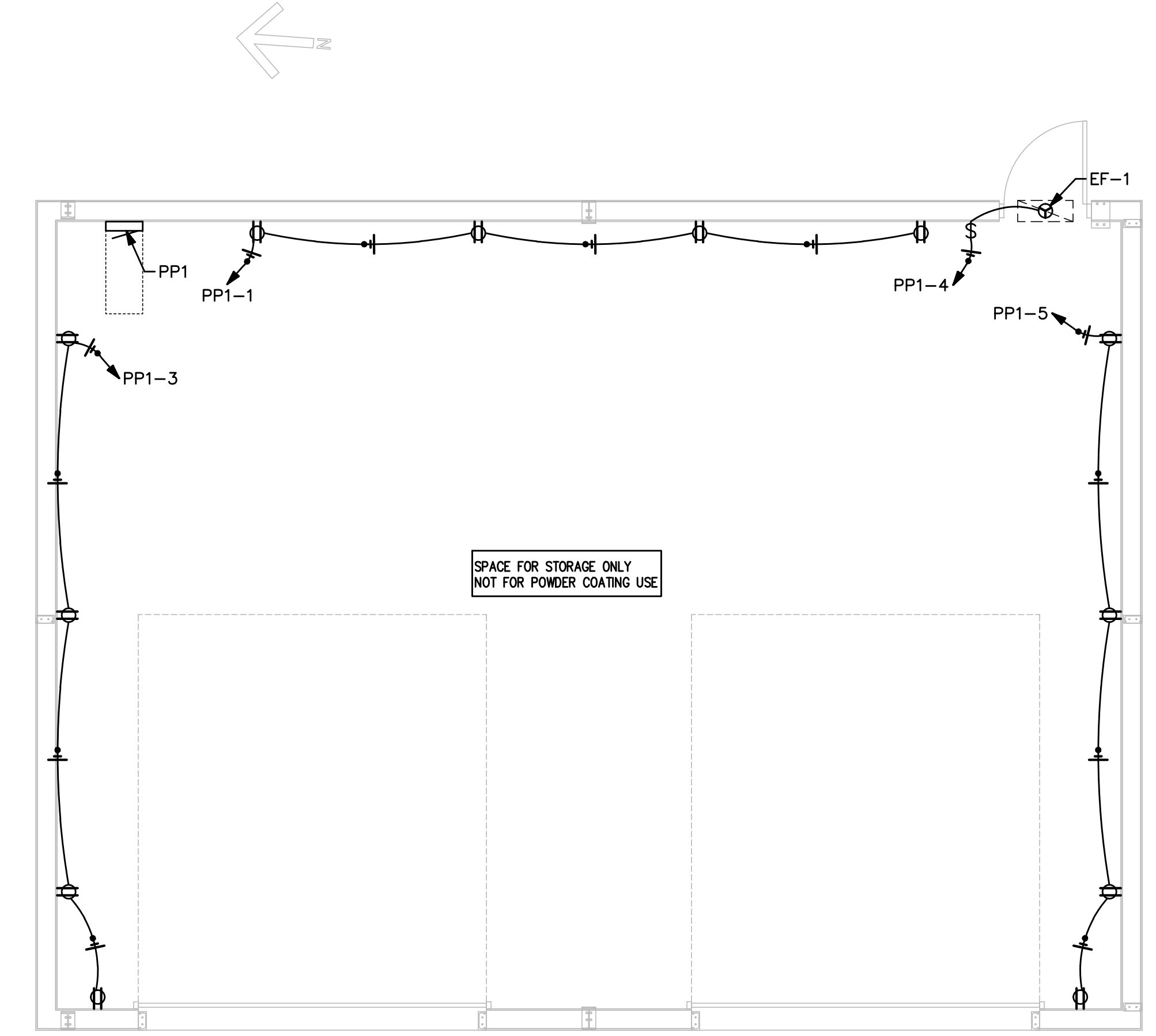
2016 RAY ROAD
 SPRING LAKE, NC

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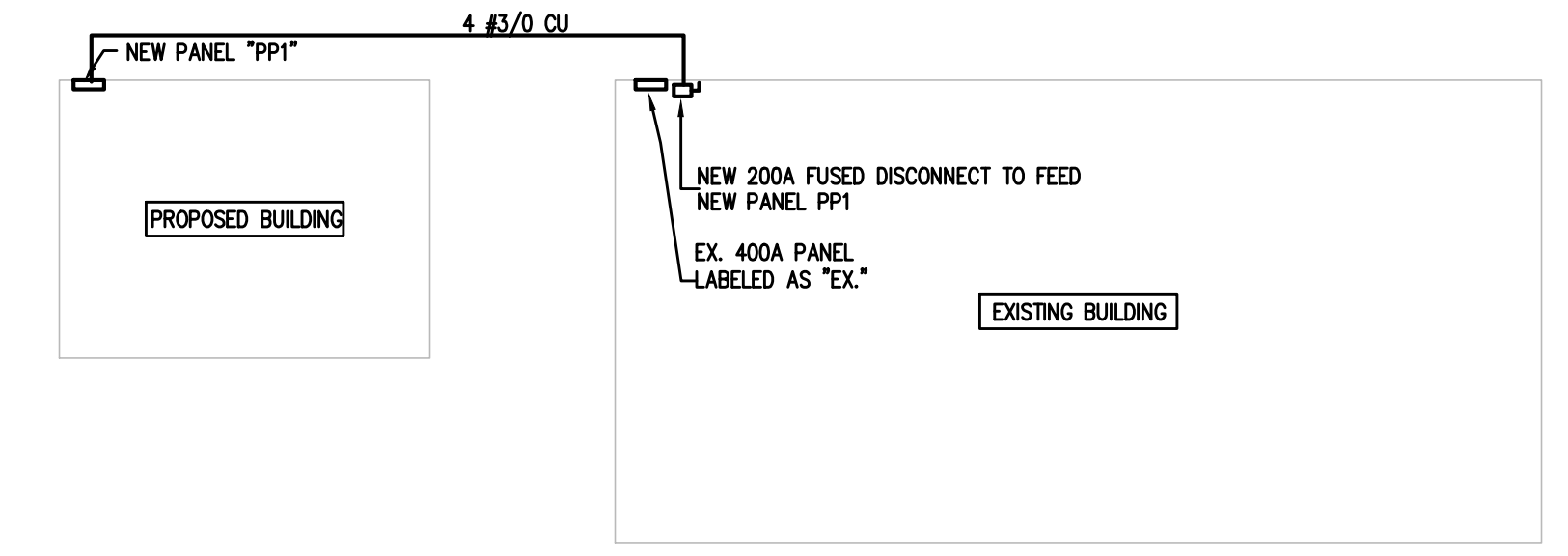
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PROJECT NO: 2020-134
 DRAWN BY: WU
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 DATE: 11-19-20
 REVISIONS:

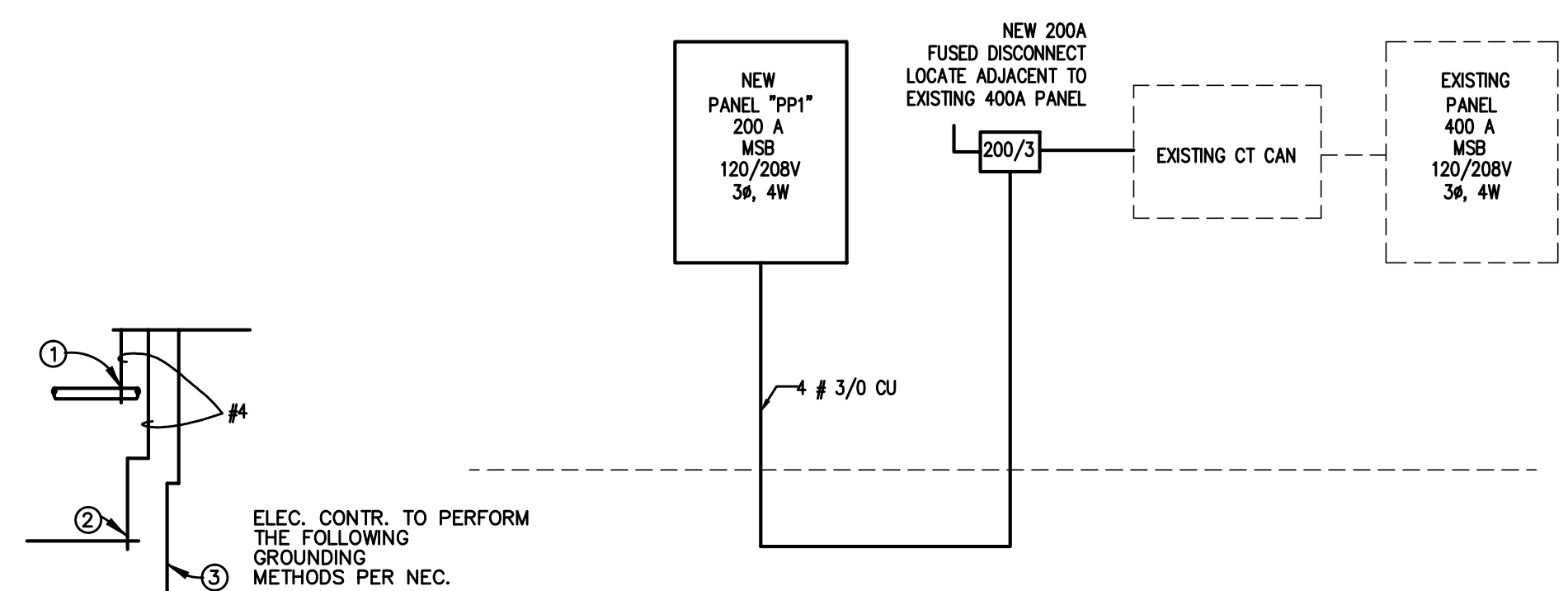
SHEET NO:
E2



1 POWER PLAN
1/4"=1'-0"



2 KEY PLAN
N.T.S.



3 ELECTRIC RISER
N.T.S.

GROUNDING ELECTRODE DETAILS

- GROUNDING ELECTRODE CONDUCTORS SHALL BE #4 BARE COPPER, OTHER MATERIAL AND INSTALLATION PER NEC 250
- ① CONNECT TO METALIC WATER PIPE AS REQ'D.
 - ② #4 COPPER GROUND TO BUILDING STEEL/FOUNDATION REBAR
 - ③ 3/4"x10' LONG COPPER CLAD GROUNDING ROD W/ #6 COPPER GROUND.

4 ELECTRICAL NOTES
N.T.S.

CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY FOR SERVICE. A COMPLETE AND WORKING SYSTEM IS REQUIRED FOR COMPLIANCE WITH THESE DOCUMENTS. DETERMINE THE POINT OF CONNECTION TO THE UTILITY WITH THE UTILITY REPRESENTATIVE AND PROVIDE ACCORDINGLY FOR A COMPLETE WORKING SYSTEM.

WIRE AND CABLE SHALL BE INSULATED, TYPE THWN OR THHN, 600 VOLTS, WITH COPPER CONDUCTORS. CONDUCTOR SIZES NO. 8 AWG AND LARGER MAY BE STRANDED. CONDUCTORS SIZES NO. 10 AWG AND SMALLER MAY BE SOLID OR STRANDED. NO ROMEX PERMITTED.

EMT SHALL BE GALVANIZED STEEL TUBING, 1/2-INCH MINIMUM SIZE, EQUAL TO ELECTRUNITE BRAND OR APPROVED AND USED ONLY WITH HEXAGONAL ALL STEEL COMPRESSION FITTINGS.

PLASTIC CONDUIT SHALL BE RIGID, 3/4-INCH MINIMUM NON-METALLIC, HEAVY DUTY, HIGH IMPACT, POLYVINYLCHLORIDE (PVC), TYPE I WILL BE USED FOR CONCRETE ENCASUREMENT. FITTINGS SHALL BE THE SAME MATERIALS AND MANUFACTURER AS THE PLASTIC CONDUIT.

FLEXIBLE METAL CONDUIT SHALL BE 1/2-INCH MINIMUM SINGLE STRIP, STEEL, HOT DIPPED GALVANIZED INSIDE AND OUTSIDE, MAXIMUM LENGTH 72 INCHES FOR LIGHTING AND 36" FOR MOTORS. FLEXIBLE METAL CONDUIT SHALL BE LIQUIDTIGHT OR WATERIGHT WITH PVC JACKET WHERE USED IN DAMP, WET OR OUTSIDE AREAS, AND LIQUIDTIGHT OR WATERIGHT CONNECTORS SHALL BE USED.

NO RECEPTACLES OR TEL. OUTLETS TO BE MOUNTED BACK TO BACK, KEEP AT LEAST 2 INCHES BETWEEN RECEPTACLES AND TEL. OUTLETS.

ALL CONDUCTOR SHALL BE COPPER WITH A MINIMUM SIZE OF #12 AWG EXCEPT FOR FIRE ALARM. THESE CONDUCTORS SHOULD COMPLY WITH NFPA.

CONTRACTOR SHALL ALIGN FIXTURES, SMOKE DETECTORS, CEILING DIFFUSERS ETC. AS REQUIRED TO PROVIDE A UNIFORM PRESENTATION. AT NO TIME WILL AN IONIZATION DETECTOR BE LOCATED WITHIN 3'-0" OF A SUPPLY OR RETURN AIR GRILLE.

CIRCUIT BREAKERS AND WIRE ARE SIZED FOR SPECIFIC EQUIPMENT. BEFORE ORDERING WIRE, BREAKERS AND CONDUIT FOR THIS PROJECT THE CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS ON THE JOB AND VERIFY THE ELECTRICAL DATA FOR THE EQUIPMENT WHICH WILL ACTUALLY BE INSTALLED, RECOMPUTING WIRE AND BREAKER SIZES IF REQUIRED BY THE NEC.

ALL CONDUIT TERMINATING IN THE CEILING CAVITIES IS TO BE LABELED.

ALL CONDUIT SHALL BE COLOR CODED WITH 1/2" WIDE TAPE, 10'-0" ON CENTER IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICE.

THE MOUNTING HEIGHTS AND LOCATIONS OF ALL WALL MOUNTED OUTLETS AND JUNCTION BOXES SHALL BE REVIEWED AND COORDINATED WITH THE ARCHITECT AND OWNER, PRIOR TO INSTALLATION, FOR USE WITH ACTUAL EQUIPMENT.

EACH CONTRACTOR WILL PROVIDE HIS OWN SUPPORT OF ALL DEVICES AND EQUIPMENT PROVIDED BY HIM AND SHALL SUPPORT SUCH EQUIPMENT PER APPROVED GOVERNING CODES OR PER APPROVAL OF THE ENGINEER/ARCHITECT. UNACCEPTABLE WORKMANSHIP OR MATERIALS SHALL BE REPLACED AT THE REQUEST OF THE ENGINEER/ARCHITECT AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS.

THE CONTRACTOR SHALL COORDINATE ANY AND ALL WORK WITH OTHER TRADES INVOLVED IN THIS PROJECT PRIOR TO THE INSTALLATION OF HIS EQUIPMENT, SO AS TO AVOID CONFLICTS DURING CONSTRUCTION AND ALLOW FOR OPTIMUM WORKING SPACE AND MAINTENANCE.

ALL FUSES DISCONNECT SWITCHES AND BREAKER SIZES SHOWN FOR MECHANICAL EQUIPMENT SHALL BE VERIFIED BEFORE PURCHASE AND INSTALLATION OF SAID EQUIPMENT WITH THE EQUIPMENT SUPPLIER AND MECHANICAL CONTRACTOR.

WHERE EQUIPMENT PENETRATES EXTERIOR WALL OR ROOF, THEY SHALL BE PROPERLY SEALED WITH METHODS APPROVED BY THE ARCHITECT/ENGINEER.

ALL WORK IS TO BE DONE IN STRICT COMPLIANCE WITH THE LATEST VERSION OF THE NEC AND APPLICABLE STATE CODES

RECESSED FIXTURES INSTALLED IN RATED ASSEMBLIES SHALL BE INSTALLED WITH AN ENCLOSURE SO AS TO MAINTAIN THE RATING OF ASSEMBLY

EX.		ROOM			VOLTS 208Y/120V 3P 4W			AIC 22,000			
MOUNTING FLUSH		BUS AMPS 400			MAIN BKR 400						
FED FROM UTILITY		NEUTRAL 100%			LUGS STANDARD						
NOTE											
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	20/1	EX. LIGHTS	0.75			2	20/1	EX. OFFICE/RECEP. OUTLETS	1.08		
3	20/1	EX. WASH AREA LIGHTS		1		4	20/1	EX. PREP ROOM OUTLETS		0.9	
5	20/3	EX. OVEN			1.83	6	20/1	EX. WALL PACKS			1.5
7			1.83			8	20/1	EX. WALL PACKS	1.5		
9				1.83		10	20/2	EX.		1.5	
11	20/1	EX. SPARE			0	12					1.5
13	20/1	EX. POWDER BOOTH LIGHTS	1.5			14	30/1	EX. WATER HEATER	2.5		
15	20/3	EX. POWDER BOOTH			1.83	16	20/1	EX.		0.5	
17					1.83	18	20/1	EX.			0.5
19			1.83			20	70/2	EX. AIR HANDLER	5.38		
21	20/1	EX. GFCI OUTLET		0.18		22				5.38	
23	20/1	EX. LIGHTS			0.5	24	20/1	EX. EXHAUST FAN			1.5
25	20/1	EX. EXIT LIGHTS	0.1			26	40/3	EX. AIR COMPRESSOR	3.33		
27	20/3	EX. SAND BLAST			1.83	28				3.33	
29					1.83	30					3.33
31			1.83			32	20/2	EX. AIR DRYER	1.5		
33	20/3	EX.			1.83	34				1.5	
35					1.83	36	30/3	EX. HEAT PUMP			2
37			1.83			38			2		
39	20/1	EX.		1		40				2	
41	20/1	EX.				42	20/1	EX. SPARE			0
TOTAL CONNECTED KVA BY PHASE									27	24.6	19.2
			CONN KVA	CALC KVA					CONN KVA	CALC KVA	
LIGHTING			6.85	8.56	(125%)	RECEPTACLES			2.16	2.16	(50%>10)
LARGEST MOTOR			10	2.5	(25%)	CONTINUOUS			2.5	3.13	(125%)
MOTORS			21.3	21.3	(100%)	NONCONTINUOUS			28	28	(100%)
						HEATING			10	10	(100%)
						TOTAL LOAD				75.6	
						BALANCED 3-PHASE LOAD				210 A	

EXISTING LOADS ESTIMATED BY ENGINEER

PP1		ROOM			VOLTS 208Y/120V 3P 4W			AIC 22,000			
MOUNTING FLUSH		BUS AMPS 200			MAIN BKR 200						
FED FROM UTILITY		NEUTRAL 100%			LUGS STANDARD						
NOTE											
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	20/1	RECEPTACLE	0.72			2	20/1	LIGHTING	0.795		
3	20/1	RECEPTACLE		0.72		4	20/1	EF-1		0.696	
5	20/1	RECEPTACLE			0.72	6	20/1	SPACE			0
7	20/1	SPACE	0			8	20/1	SPACE	0		
9	20/1	SPACE	0	0		10	20/1	SPACE	0	0	
11	20/1	SPACE	0		0	12	20/1	SPACE	0		0
13	20/1	SPACE	0		0	14	20/1	SPACE	0		0
15	20/1	SPACE	0		0	16	20/1	SPACE	0		0
17	20/1	SPACE	0		0	18	20/1	SPACE	0		0
19	20/1	SPACE	0		0	20	20/1	SPACE	0		0
21	20/1	SPACE	0		0	22	20/1	SPACE	0		0
23	20/1	SPACE	0		0	24	20/1	SPACE	0		0
25	20/1	SPACE	0		0	26	20/1	SPACE	0		0
27	20/1	SPACE	0		0	28	20/1	SPACE	0		0
29	20/1	SPACE	0		0	30	20/1	SPACE	0		0
31	20/1	SPACE	0		0	32	20/1	SPACE	0		0
33	20/1	SPACE	0		0	34	20/1	SPACE	0		0
35	20/1	SPACE	0		0	36	20/1	SPACE	0		0
37	20/1	SPACE	0		0	38	20/1	SPACE	0		0
39	20/1	SPACE	0		0	40	20/1	SPACE	0		0
41	20/1	SPACE	0		0	42	20/1	SPACE	0		0
TOTAL CONNECTED KVA BY PHASE									1.52	1.42	0.72
			CONN KVA	CALC KVA					CONN KVA	CALC KVA	
LIGHTING			0.795	0.994	(125%)	MOTORS			0.696	0.696	(100%)
LARGEST MOTOR			0.696	0.174	(25%)	RECEPTACLES			2.16	2.16	(50%>10)
						TOTAL LOAD				4.02	
						BALANCED 3-PHASE LOAD				11.2 A	

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A NEW BUILDING FOR:
FINAL TOUCH POWDER COATING
2016 RAY ROAD
SPRING LAKE, NC

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