SHEET INDEX:

CS COVER SHEET & INDEX TO DRAWINGS

BCS BUILDING CODE SUMMARY

LS BUILDING LIFE SAFETY – EGRESS PLAN

SP DEFERRED SUBMITTALS BY OTHER

S1 FOUNDATION PLAN & ANCHOR BOLT PLAN

S2 FOUNDATION & FOOTING DETAILS

G1 BUILDING FLOOR PLAN

PROJECT:

HARNETT REGIONAL AIRPORT HANGAR

615 AIRPORT ROAD ERWIN, NORTH CAROLINA 28339

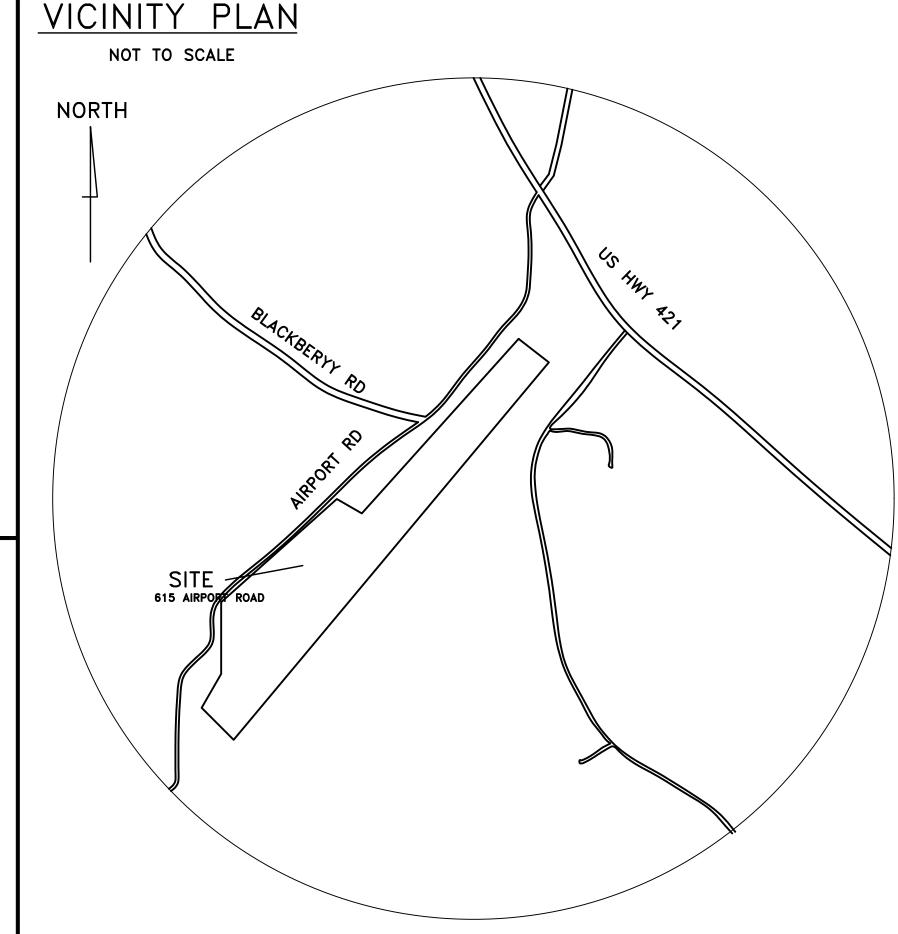
PROJECT TEAM:

BUILDING DEPARTMENT:

HARNETT COUNTY
INSPECTION DEPARTMENT
420 MCKINNEY PARKWAY
LILLINGTON, NC 27546
910-893-2793

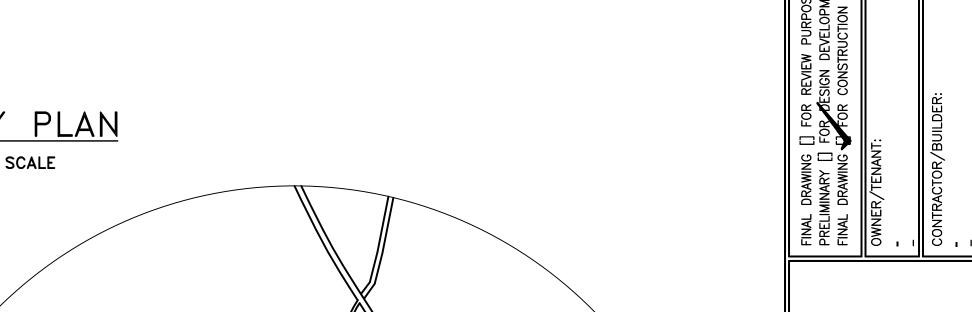
PROJECT DESIGNER:

JENKINS CONSULTING ENGINEERS, P.A. OFFICE in EUREKA SPRINGS, NC KELLY J. DODSON, PE 1606 MCARTHUR ROAD FAYETTEVILLE, NC 28311-1002 910-822-1724



BUILDING DATA:

THE PROJECT SCOPE IS TO CONSTRUCT A
NEW BUILDING FOR USE AS AN AIRCRAFT
HANGAR



INTY AIRPORT HANGA/
RT RD. ERWIN, NC 28339
NDFX TO DRAWINGS

ARNETT COUNTY AIRPO
615 AIRPORT RD. ERWIN, NO

CS

CODE REVIEW:

APPLICABLE CODES INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

BUILDING 2018 NC EXISTING BUILDING CODE

2018 NC BUILDING CODE

FIRE PREVENTION 2018 NC FIRE CODE

ENERGY 2018 NC ENERGY CONSERVATION CODE

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	N/A	N/A	N/A	N/A	N/A
Civil	4D	SCOTT BROWN	NC PE 27452	(910) 426-6777	sbrown@4dsitesolutions.com
Electrical	JCE	DOUGLAS L. JENKINS	NC PE 28803	(910) 822-1724	buddyj@jenkinsce.pro
Fire Alarm	N/A	N/A	N/A	N/A	N/A
Plumbing	JCE	DOUGLAS L. JENKINS	NC PE 28803	(910) 822-1724	buddyj@jenkinsce.pro
Mechanical	JCE	DOUGLAS L. JENKINS	NC PE 28803	(910) 822-1724	buddyj@jenkinsce.pro
Sprinkler-Standpipe	N/A	N/A	N/A	N/A	N/A
Structural :	JCE	KELLY J. DODSON	NC PE 42009	(910) 822-1724	kellyd@jenkinsce.pro
INTERIOR WALLS	N/A	N/A	N/A	N/A	N/A
Retaining Walls >5' High	N/A	N/A	N/A	N/A	N/A
Building	JCE	KELLY J. DODSON	NC PE 42009	(910) 822-1724	kellyd@jenkinsce.pro

2018 NORTH CAROLINA BUILDING CODE: ✓ New Building ☐ Shell / Core ☐ First Time Interior Completions ☐ Phased Construction — Shell Core 2018 NORTH CAROLINA EXISTING BUILDING CODE: □ Prescriptive ☐ Historic Property Alteration Level I ☐ Change of Use Alteration Level II (check all that apply) ☐ Chapter 14 ☐ Alteration Level III CONSTRUCTED: (date) N/A CURRENT USE (S) (Ch. 3): N/A RENOVATED: (date) N/A PROPOSED USE (S) (Ch. 3): AIRCRAFT HANGAR (GROUP III - NFPA 409) OCCUPANCY RISK CATEGORY (Table 1604.5): Current: ____N/A___

BASIC BUILDING DATA □ V–A Construction Type: ■ II–B □ III−B □ I−B (check all that apply) □ NFPA 13R □ NFPA 13D Partial ☐ NFPA 13 Sprinklers: Mo □ || □ ||| □ Wet □ Dry ✓ No ☐ Yes (APPENDIX D) Flood Hazard Area: 🗹 No 🗆 Yes Primary Fire District: ☑ No ☐ Yes Special Inspections Required:

GROSS BUILDING AREA TABLE

FLOOR	EXISTING (sq ft)	NEW (sq ft)	SUBTOTAL
GROUND LEVEL	N/A	9,000	9,000
TOTAL SPACE AREA	N/A	9,000	9,000

			ALLOWABLE	AREA			
Primary Occupancy Classification(s):							
Assembly	A-1		□ A-2		□ A-3	□ A-4	□ A-5
Business							
Educational							
Factory	F-1	Moderate	□ F-2 L	OW			
Hazardous	H-1	Detonate	□ H-2 [)eflagrate	☐ H-3 Combust	☐ H-4 Health	☐ H-5 HPM
Institutional	I - 1		□ I-2		□ I-3	□ I-4	
I-1 Condition	1	□ 2					
I-2 Condition	1	□ 2					
I-3 Condition	1	□ 2	□ 3	□ 4	□ 5		
Mercantile							
Residential	R-1		□ R-2		□ R-3	□ R-4	
Storage	S-1	Moderate		□ S-2 l	Low	☐ High−piled	
	Park	ing Garage	Open	☐ Enclos	sed	Repair Garage	
Utility and Miscellaneous							
Accessory Occupancy Classification(s):			NONE				

Incidental Uses (Table 509): This separation is not exempt as a Non-separated Use (see exceptions). Special Uses (Chapter 4): □ 402 □ 403 □ 404 □ 405 □ 406 □ 407 □ 408 □ 409 □ 410 □ 411 ■ 412 □ 413 □ 414 □ 415 □ 416 □ 417 □ 418 □ 419 □ 420 □ 421 □ 422 □ 423 □ 424 □ 425 □ 426 □ 427 □ 428 □ 429 □ 430 Special Provisions (Chapter 5): □ 510.2 □ 510.3 □ 510.4 □ 510.5 □ 510.6 □ 510.7 □ 510.8 □ 510.9

□ No □ Yes Separation: <u>0 Hr.</u> Exception: □ Non-separated Use (508.3) (508.3.1) □ Separated Use (508.4) --See below for area calculations for each story, the area of the occupancy shall be

such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area of each use shall not exceed 1.

Separated Use Formula 508.4.2:	Actual Area of Occupancy A	- +	Actual Area of Occupancy B	— < 1
	Allowable Area of Occupancy A		Allowable Area of Occupancy B	<u>-</u>
	N/A		N/A	< 1/
	N/A	- т	N/A	> ''

STORY NUMBER	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 4 AREA	(C) Area for Frontage Increase ^{1, 5}	(D) ALLOWABLE AREA PER STORY OR UNLIMITED ^{2, 3}
1	AIRCRAFT HANGAR	9,000	8500	6113	14613

1 Frontage area increases from Section 506.3 are computed thus: a. Perimeter which fronts a public way or open space having 20 feet minimum width = ____120___

b. Total Building Perimeter = ____390____ (P)

c. Ratio (F/P) = ____.31____ (F/P)

d. W = Minimum width (weighted average) of public way = 150 (W) where W=(L 1 X w + L \ x w) \ x/F

e. Percent of frontage increase = | L_f = 100 [F/P - 0.25] x W/30 = 71 (%) (Equation 5-5)

	FRONTAGE INCREASE WORKSHEET for CALCULATIONS:										
EXTERIOR WALL	(F) OPEN LENGTH (feet)	(P) TOTAL LENGTH (feet)	(W) (weighted average) WIDTH OF PUBLIC WAY OR OPEN SPACE (feet)	(%) FROM CALC. ABOVE	(B) FROM TABLE ABOVE	AREA INCREASE FOR COLUMN (C) ABOVE (% * TABLE AREA)					
North	75	390	30								
South	75	390	30								
East	120	390	30								
West	120	390	26								
TOTAL	75	390	240	71	8500	(71*8500 =6113)					
EXAMPLE	75	100	25	42	23,500	(.42*23,500 = 9,870)					

2 Unlimited area applicable under conditions of Sections 507

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

4 The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1

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

BUILDING CODE SUMMARY (continued)

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	65	31' - 0"	N/A
Building Height in Stories (Table 504.4)	3	1	N/A

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

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (feet)	RATING ** (REQ'D III-B	PROVIDED (w/ * REDUCTION	Detail # And Sheet #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET FOR RA JOINT
Structural Frame, including columns, girders, trusses	N/A	0	0	N/A	N/A	N/A	N//
Bearing Walls Exterior	N/A	0	0	N/A	N/A	N/A	N/A
North	N/A	0	0	N/A	N/A	N/A	N/A
East	N/A	0	0	N/A	N/A	N/A	N/A
West	N/A	0	0	N/A	N/A	N/A	N/A
South	N/A	0	0	N/A	N/A	N/A	N/A
Interior	N/A	0	0	N/A	N/A	N/A	N/A
Nonbearing walls and partitions Exterior walls	N/A	0	0	N/A	N/A	N/A	N/A
North	N/A	0	0	N/A	N/A	N/A	N/A
East	N/A	0	0	N/A	N/A	N/A	N/A
West	N/A	0	0	N/A	N/A	N/A	N/A
South	N/A	0	0	N/A	N/A	N/A	N/A
Interior Non-Bearing Walls	N/A	0	0	N/A	N/A	N/A	N/A
Floor construction including supporting beams and joi	sts	0	0	N/A	N/A	N/A	N/A
Floor Ceiling Assembly		0	0	N/A	N/A	N/A	N/A
Columns Supporting Floors		0	0	N/A	N/A	N/A	N/A
Roof construction including supporting beams and joi	sts	0	0	N/A	N/A	N/A	N/A
Roof Ceiling Assembly		0	0	N/A	N/A	N/A	N/A
Columns Supporting Roof		0	0	N/A	N/A	N/A	N/A
Shaft Enclosures — Exit		0	0	N/A	N/A	N/A	N/A
Shaft Enclosures — Other		0	0	N/A	N/A	N/A	N/A
Corridor Separation		0	0	N/A	N/A	N/A	N/A
Occupancy / Fire Barrier Separation		0	0	N/A	N/A	P1	N/A
Party/Fire Wall Separation		0	0	N/A	N/A	N/A	N/A
Smoke Barrier Separation		0	0	,	<u> </u>		
Smoke Partition		0	0	N/A	N/A	N/A	N/A
OWNER/Dwelling Unit/ Sleeping Unit Separation		0	0	N/A	N/A	N/A	N/A
Incidental Use Separation		0	0	N/A	N/A	N/A	N/A

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS

EXTERIOR WALL	FIRE SEPARATION DISTANCE (feet) FROM PROPERTY LINE	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
North	N/A	N/A	N/A	N/A
South	N/A	N/A	N/A	N/A
East	N/A	N/A	N/A	N/A
West	N/A	N/A	N/A	N/A

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting:	Yes	□ No		
Exit Signs:	¥Yes	□ No		
Fire Alarm:	Yes	■ No		
Smoke Detection Systems:	☐ Yes	⊠No	Partial	☐ Duct Detectors
Carbon Monoxide Detection:	☐ Yes	⊠No		
Life Safety Systems Generator:	Yes	⊠No		

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: LS

☐ Fire and/or smoke rated wall locations (Chapter 7)

☐ Assumed and real property line locations (if not on the site plan)

☐ Exterior wall opening area with respect to distance to assumed property lines (705.8) Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)

☑ Occupant loads for each area

Exit access travel distances (1017) ☐ Common path of travel distances [1006.2.1 & 1006.3.2(1)]

☐ Dead end lengths (1020.4) Clear exit widths for each exit door

Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)

Actual occupant load for each exit door

☐ A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation

☐ Location of doors with panic hardware (1010.1.10) □ Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)

☐ Location of doors with electromagnetic egress locks (1010.1.9.9)

☐ Location of doors equipped with hold-open devices ☐ Location of emergency escape windows (1030)

☐ The square footage of each fire area (903)

☐ The square footage of each smoke compartment for Occupancy Classification I—II (407.5) □ Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DWELLING UNITS (SECTION 1107)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	Type a Units Required	Type a Units Provided	Type B Units Required	Type B Units Provided	TOTAL ACCESSIBLE UNITS PROVIDED
NONE REQUIRED							

ACCESSIBLE PARKING (SECTION 1106)

LOT OD	TOTAL # OF PARKING	SPACES	# OF ACCESSIBLE	TOTAL #		
LOT OR Parking Area	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	VAN SPACES 132" ACCESS AISLE	WITH 96" ACCESS AISLE	TOTAL # - ACCESSIBLE - PROVIDED
SEE CIVIL DRAWING						
TOTAL						

BUILDING CODE SUMMARY (continued)

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

USE	W	ATER CLOS	ETS	URINALS		LAVATORIE	S	SHOWERS/	DRINKING F	OUNTAINS	SERVICE
USL	MALE	FEMALE	UNISEX	UNINALS	MALE	FEMALE	UNISEX	TUBS	REGULAR	ACCESSIBLE	SINK
UTILITY (U)	0	0			0	0					0
PROVIDED (TOTAL)	0	0			0	0					0

***NOTE: THIS BUSINESS HAS OCCUPANT LOADS LESS THAN 25. NO HI-LOW DRINKING FOUNTAIN IS REQUIRED.

SPECIAL APPROVALS:

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

ENERGY SUMMARY

ENERGY REQUIREMENTS:

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

Existing building envelope complies with code:

Exempt Building: Provide code or statutory reference:

Climate Zone: 🗹 3A 🔲 4A 🔲 5A HARNETT COUNTY

Energy Code: \square Performance \square Prescriptive ASHRAE 90.1: ☐ Performance ☐ Prescriptive

Value of total assembly: -

THERMAL ENVELOPE: (Prescriptive method only) Roof/ceiling Assembly (each assembly)

METAL BUILDING ROOF PANEL Description of assembly: U-Value of total assembly: R-Value of insulation: R-10 + R-19 FC Skylights in each assembly: U-Value of skylight:

Total square footage of skylights in each assembly: Exterior Walls (each assembly)

METAL BUILDING WALL PANEL WITH R-19 INSULATION Description of assembly: U- Value of total assembly: R— Value of insulation: Openings (windows or doors with glazing) U- Value of assembly:

Solar heat gain coefficient: Projection factor: Door R-Values:

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

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

6" CONCRETE SLAB Description of assembly: U-Value of total assembly: R- Value of insulation: Horizontal/vertical requirement: slab heated:

MECHANICAL SUMMARY (SEE DRAWING SHEET ____M1___)

CUMBERLAND COUNTY BUILDING CODE SUMMARY

for:

HARNETT REGIONAL AIRPORT HANGAR

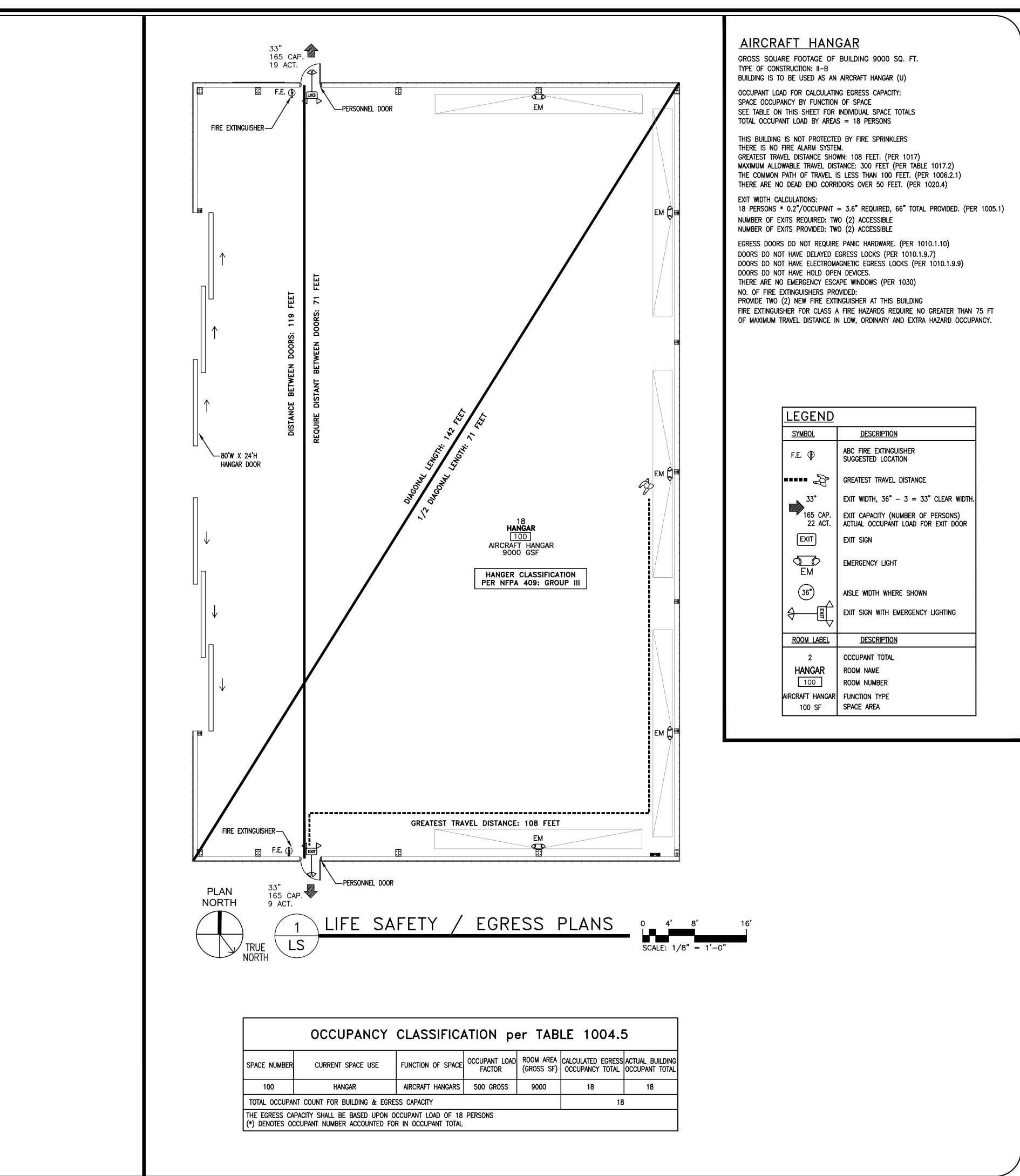
AIRPORT RD ERWIN, NORTH CAROLINA, 28339





HANGAR

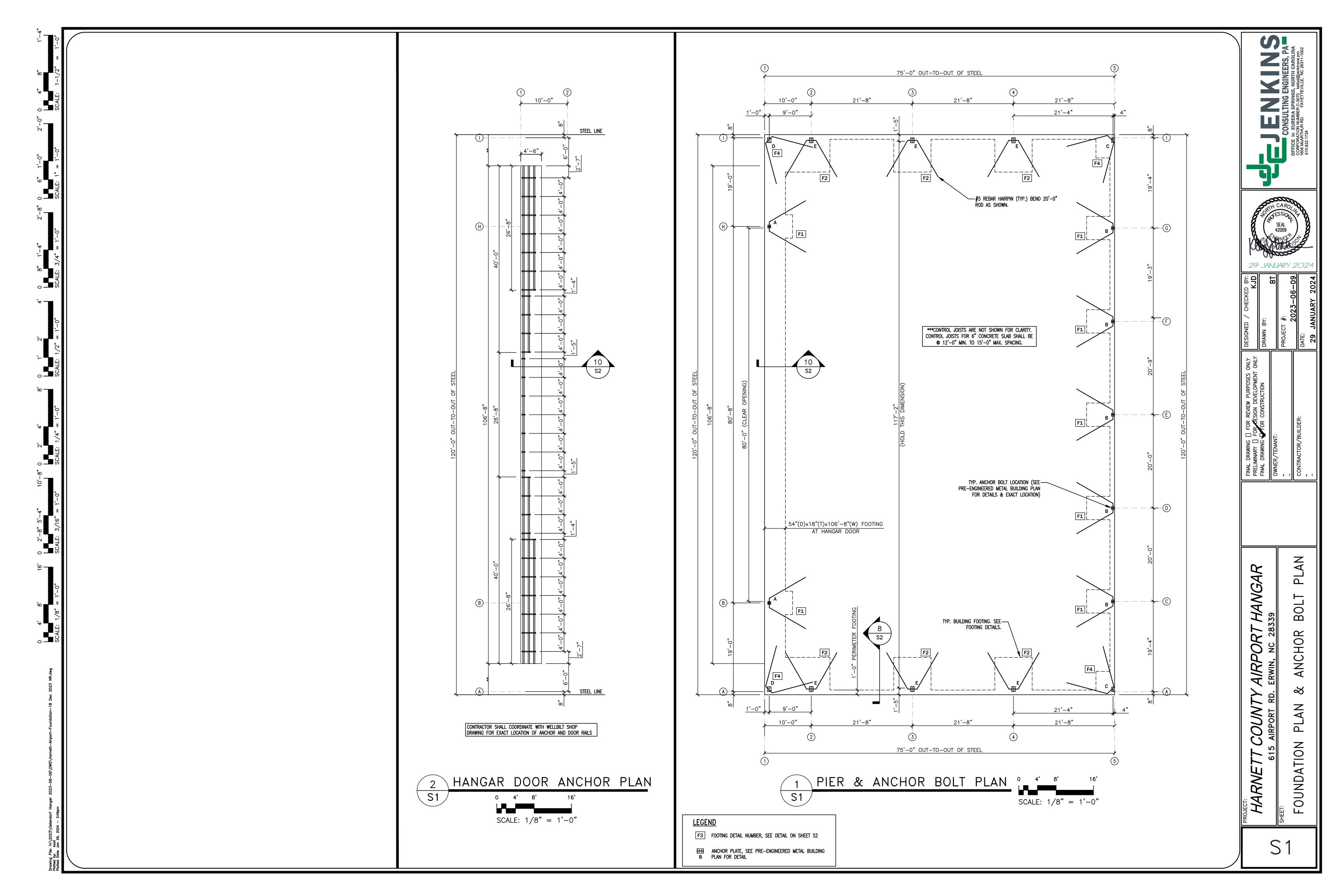
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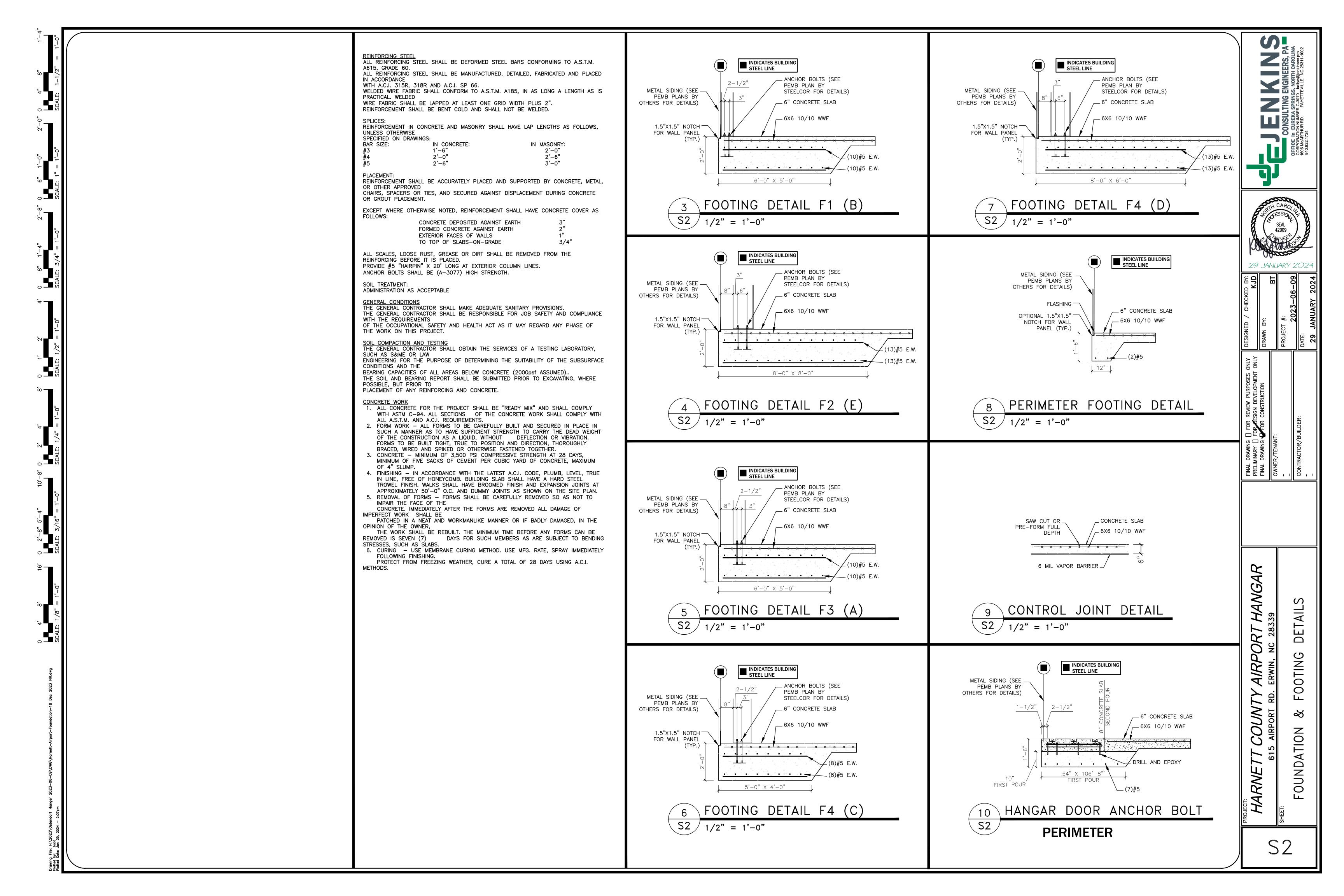


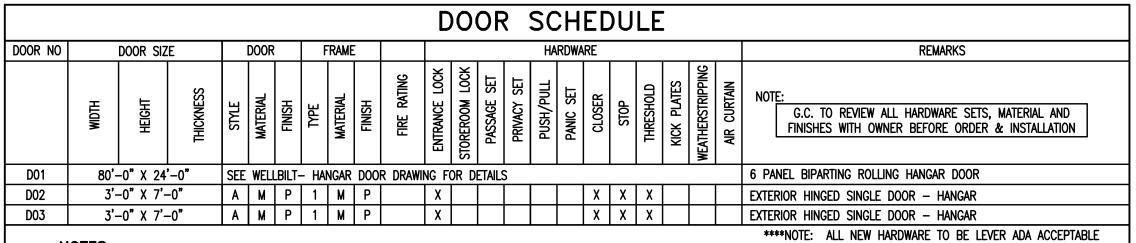
ESTED LOCATION TEST TRAVEL DISTANCE WIDTH, 36" - 3 = 33" CLEAR WIDTH. CAPACITY (NUMBER OF PERSONS) AL OCCUPANT LOAD FOR EXIT DOOR SIGN GENCY LIGHT WIDTH WHERE SHOWN SIGN WITH EMERGENCY LIGHTING LINAL DRAWING (1) FOR OFFICE OWNER/ TENANT:	2023-06-
WIDTH, 36" - 3 = 33" CLEAR WIDTH. CAPACITY (NUMBER OF PERSONS) AL OCCUPANT LOAD FOR EXIT DOOR SIGN GENCY LIGHT VANT:	
WIDTH, 36" – 3 = 33" CLEAR WIDTH. CAPACITY (NUMBER OF PERSONS) AL OCCUPANT LOAD FOR EXIT DOOR SIGN GENCY LIGHT WANT:	
CAPACITY (NUMBER OF PERSONS) AL OCCUPANT LOAD FOR EXIT DOOR SIGN GENCY LIGHT ANNT:	
MG [] FOR REVIEW ANNT:	
GENCA FIGHT	
N G G F G F G F G F G F G F G F G F G F	IILDER
	s/BU
WIDTH WHERE SHOWN	CTOF
FINAL DRAWING [SUITHBIT AND HADIN OWNER/TENANT	CONTRACTOR/BUILDER
DESCRIPTION E E E E O I I	ပ

29 JANUARY 202

BUILDIN







1. APPLY 2 COATS OF SEMI-GLOSS TO ALL WOOD DOORS.

2. ALL EXIT DOORS TO BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY, TOOL, SPECIAL KNOWLEDGE OF EFFORT. ALL HARDWARE MUST BE DIRECT ACTING REQUIRING NOT MORE THAN ONE OPERATION.

3. DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERABLE PARTS ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST TO OPERATE. OPERABLE PARTS OF SUCH HARDWARE SHALL BE 34" MINIMUM AND 48" MAXIMUM ABOVE THE FLOOR PER ICC/ANSI A117.1-2009 SECTIONS 404.2.6& 404.2.7

4. G.C. TO REVIEW ALL HARDWARE SETS WITH OWNER BEFORE INSTALLATION 5. PROVIDE TRANSITION STRIPS AT ALL FLOORING MATERIAL CHANGES

ENTRANCE LOCK:

PASSAGE SET: (CLOSET & HALL) PASSAGE LOCKSETS KEEP DOORS FIRMLY CLOSED, BUT DO NOT ACTUALLY LOCK. BOTH LEVERS ALWAYS TURN FREE WITH NO LOCK CYLINDER OR PROVISION FOR A KEY. PRIVACY SET: (RESTROOM) PRIVACY LOCKSETS ARE LOCKED WITH AN INSIDE PUSH-BUTTON.

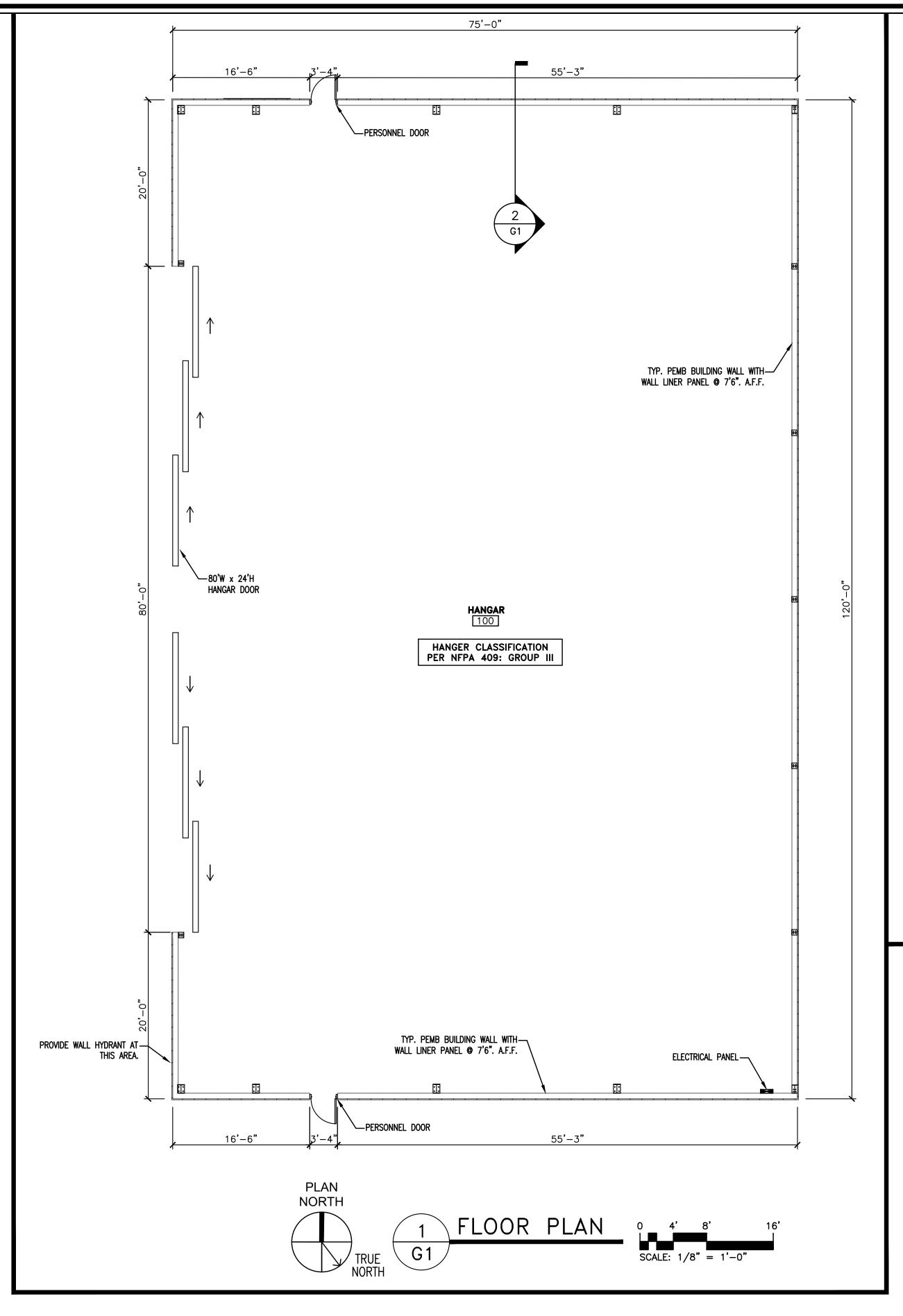
TURNING THE INSIDE KNOB OR LEVER RELEASES THE LOCK. A SMALL SCREWDRIVER CAN BE USED AS AN EMERGENCY KEY, FROM THE OUTSIDE, IF NECESSARY. (ENTRY) ENTRANCE LOCKED BY PUSHING AND TURNING A BUTTON AND UNLOCKED BY THE KEY UNTIL THE INSIDE BUTTON IS MANUALLY UNLOCKED. THEY ARE ALSO AVAILABLE WITH PUSHBUTTON LOCKING, IN WHICH PUSHING THE BUTTON LOCKS THE OUTSIDE KNOB OR LEVER UNTIL IT IS UNLOCKED BY KEY OR BY TURNING THE INSIDE KNOB OR LEVER. THE INSIDE KNOB OR LEVER IS ALWAYS FREE FOR

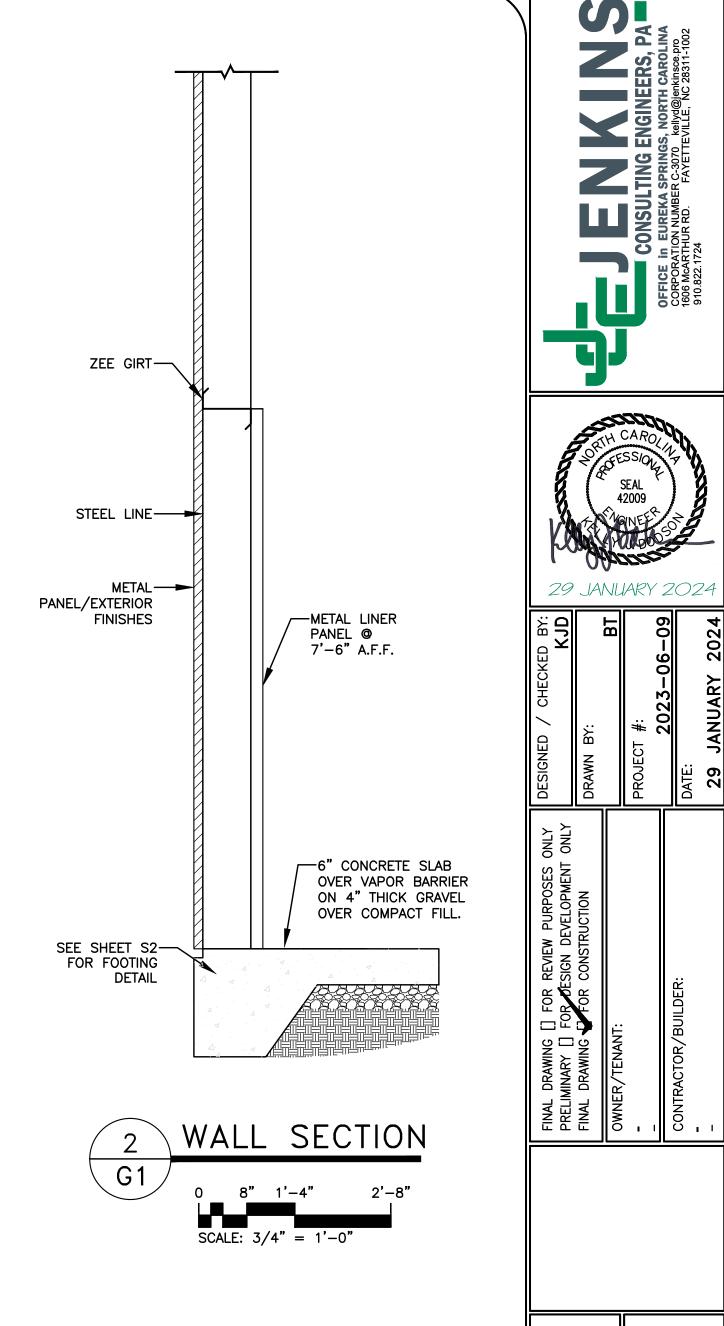
ALL THRESHOLDS TO MEET ADA SPECIFICATIONS

	SCHED WIDTH	S 2"	CHED WIDTH			
SCHED HEIGHT	EXTERIOR	SCHED HEIGHT	EXTERIOR			
	DOOR TYPE D (METAL DOOR)		FRAME TYPE 1 (METAL HINGED)			

DOOR SCHEDULE LEGEND					
Н	HEIGHT	НМ	HOLLOW METAL		
W	WIDE	Р	PAINT		
ALUM	ALUMINUM	S	STAIN		
WD	WOOD-SOLID CORE	М	METAL		
T	THICKNESS	WI	WROUGHT IRON		
		VA/B	VERIFY ANODIZED OR BRONZE		

DOOR & FRAME STYLES





- COUNTY AIRPORT HANGAR 5 AIRPORT RD. ERWIN, NC 28339

HARNET