

BUILDING CODE SUMMARY

2018 North Carolina State Building Code (IBC 2015 base) — existing building, Level 2 alteration

PROJECT	New interior mezzanine in an existing aircraft hangar
ADDRESS	559 Airport Road, Erwin, NC 28339 — PIN 0579-93-1541.000
OWNER OF RECORD	Harnett County, PO Box 759, Lillington, NC 27546
APPLICANT / TENANT	Veloce Planes LLC, Jamie Fettig, (773) 620-9500
ZONING	Industrial — Harnett County jurisdiction
OCCUPANCY (NCBC 302)	F-1 Moderate-hazard factory — aircraft manufacturing, NCBC 306.2
CONSTRUCTION TYPE	Existing pre-engineered metal building — type to be confirmed at review
SPRINKLERED	No
EXISTING FLOOR AREA	8,000 sq ft (100 ft x 80 ft)
NEW MEZZANINE AREA	2,464 sq ft (44 ft x 56 ft)
MEZZANINE — NCBC 505.2.1	Aggregate mezzanine area shall not exceed 1/3 of the room floor area.
Room floor area	8,000 sq ft less 336 sq ft enclosed office = 7,664 sq ft
One-third limit	2,555 sq ft
Provided	2,464 sq ft — COMPLIES
MEZZANINE — NCBC 505.2	Clear height 7 ft min above and below. Provided: 9 ft 9 in below, 7 ft 0 in to 10 ft 4 in above. COMPLIES
MEZZANINE — NCBC 505.2.3	Mezzanine open to the room below. No enclosure proposed. COMPLIES
DESIGN LOADS	Mezzanine live load 100 psf + dead load 15 psf Guards designed for 50 plf and 200 lb concentrated per NCBC 1607.8
STRUCTURE	Wood-framed deck on 3-ply 1-3/4 in x 16 in LVL beams, 20 posts, new spread footings saw-cut into the existing slab
SCOPE OF WORK	Interior only. No change to building footprint, exterior walls, roof, the 60 ft hydraulic aircraft door, the 12 ft x 14 ft rear roll-up door, or the existing 28 ft x 12 ft two-story office.
UTILITIES	Existing county water and sewer. No new fixtures under this permit.
ESTIMATED JOB COST	\$34,400 — materials, footings and sealed structural drawings

DRAWING INDEX

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S-2	Mezzanine framing plan
S-3	Sections and typical details
LS-1	Life safety plan

GENERAL NOTES

- All work to comply with the 2018 NC State Building Code and all applicable Harnett County ordinances.
- Contractor to verify all existing dimensions in the field before fabrication or ordering material.
- Existing slab thickness and reinforcement to be confirmed by core sample or original construction drawings before footings are set.
- Structural members and connections to be sized and sealed by a North Carolina licensed professional engineer.
- Lumber: No. 2 Southern Yellow Pine or better, 19% max moisture.
- LVL: 2.0E minimum, Fb = 2,600 psi.
- All hangers, post bases and caps to be Simpson Strong-Tie or approved equal, installed per manufacturer instructions.
- Anchors into existing slab to be adhesive or wedge type, embedded per manufacturer requirements.
- Guards 42 in high; opening limited so a 4 in sphere cannot pass.
- Stairs: 7 in max rise, 11 in min tread, handrails both sides.

VELOCE PLANES LLC — HANGAR MEZZANINE

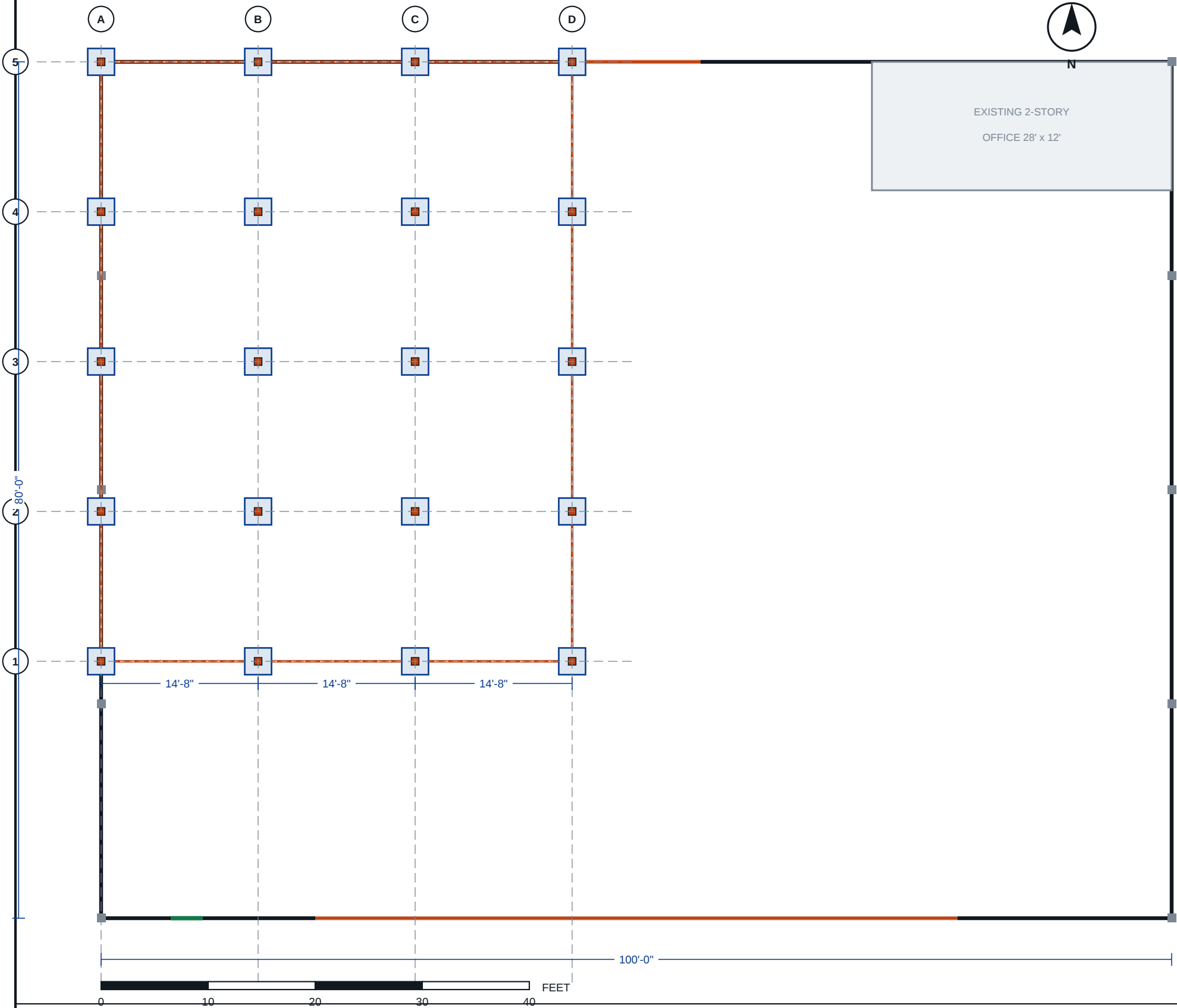
559 Airport Road, Erwin, NC 28339 | PIN 0579-93-1541.000 | Harnett Regional Jetport | Zoning: Industrial
Owner of record: Harnett County | Applicant: Jamie Fettig, Veloce Planes LLC | (773) 620-9500

SCALE NONE
DATE 15 AUG 2026
ISSUED FOR PERMIT REVIEW
DRAWN VELOCE PLANES LLC

G-1
BUILDING CODE SUMMARY

FOUNDATION & FOOTING PLAN

New spread footings saw-cut into the existing slab at each new post location.



FOOTING SCHEDULE

MARK F1 — 20 REQUIRED
SIZE 2'-6" x 2'-6" x 1'-6" deep
REINF (3) #4 each way, 3 in clear at bottom
CONC 3,000 psi minimum at 28 days
BEARING Presumed 2,000 psf — Norfolk loamy sand
Design load per post: 12.3 kips
Bearing pressure: 12,300 / 6.25 sq ft = 1,968 psf

FOUNDATION NOTES

- 1. Saw-cut and remove existing slab at each footing. Cut square, do not break out beyond the footing dimension.
- 2. Confirm existing slab thickness and reinforcement before any cutting. Report findings to the engineer of record.
- 3. Excavate to undisturbed soil. Notify the engineer if the bearing material differs from that assumed above.
- 4. Do not cut existing wall footings, piers, or the aircraft door track.
- 5. Dowel new footings to the existing slab with #4 x 18 in at 12 in on centre, epoxy set 4 in minimum embedment.
- 6. Patch slab flush with a 4,000 psi non-shrink topping.
- 7. Locate all underground utilities before cutting. Call 811.

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MEZZANINE FRAMING PLAN

Deck at 11'-0" above the slab. 2,464 sq ft.



EXISTING 2-STORY
OFFICE 28' x 12'

FRAMING SCHEDULE

BEAMS	3-ply 1-3/4" x 16" LVL, 2.0E	— 5 lines at 14'-0" o.c. spanning 14'-8" between posts
JOISTS	2x12 No.2 SYP at 12" o.c., spanning 14'-0"	
DECK	3/4" T&G plywood, glued and screwed	
POSTS	6x6 PT No.2, 20 total, 9'-9" clear height	
HANGERS	Simpson LUS212 at each joist end	
POST CAP	Simpson CC or ECC at each beam-to-post	
POST BASE	Simpson ABU66 on new footing	
LOADS	100 psf live + 15 psf dead	
BEAM	w = 1,610 plf, M = 24,351 ft-lb	
	S required = 112 in3, S provided = 114 in3	
DEFLECTION	L/360 = 0.49 in allowed, 0.33 in calculated	

FRAMING NOTES

1. All framing to be verified and sealed by a NC licensed PE prior to permit issue.
2. Provide solid blocking at all beam bearings and at mid-span of joists exceeding 12 ft.
3. Laminate LVL plies per manufacturer nailing schedule.
4. Posts to be continuous full height, no splices.
5. Provide 2x12 rim joist at all open edges.
6. Do not attach new framing to the existing metal building frame without the engineer's written approval.

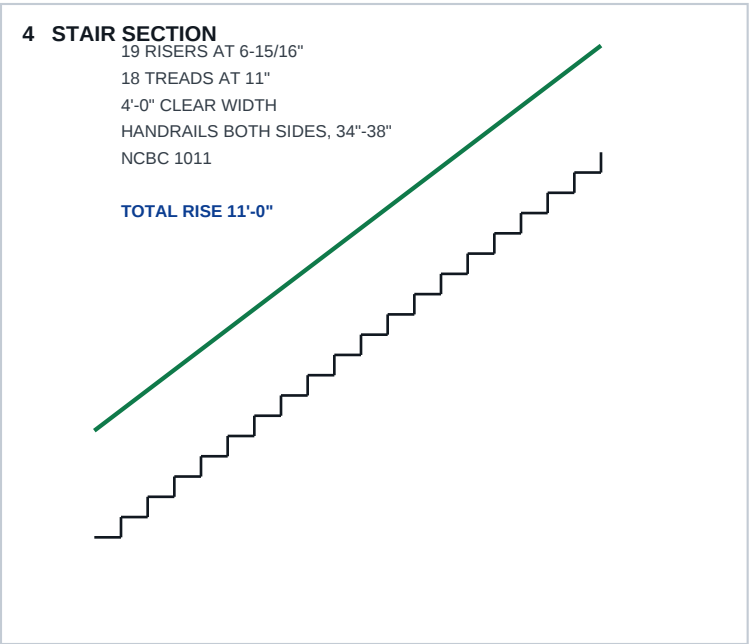
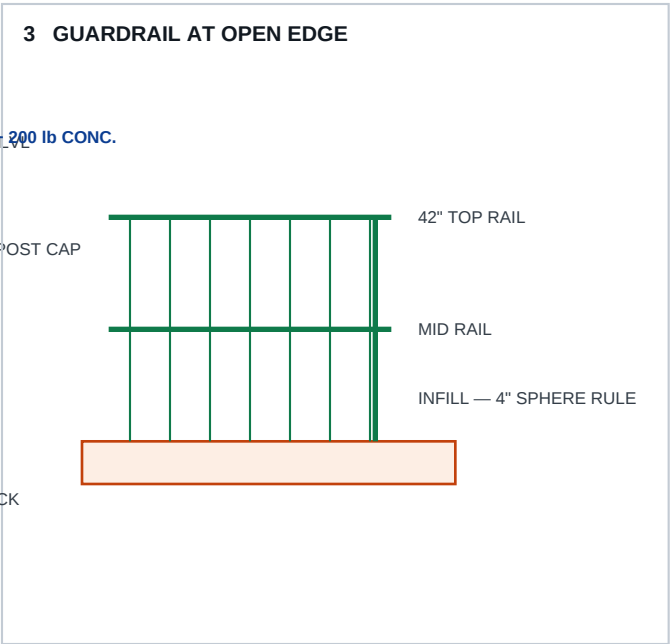
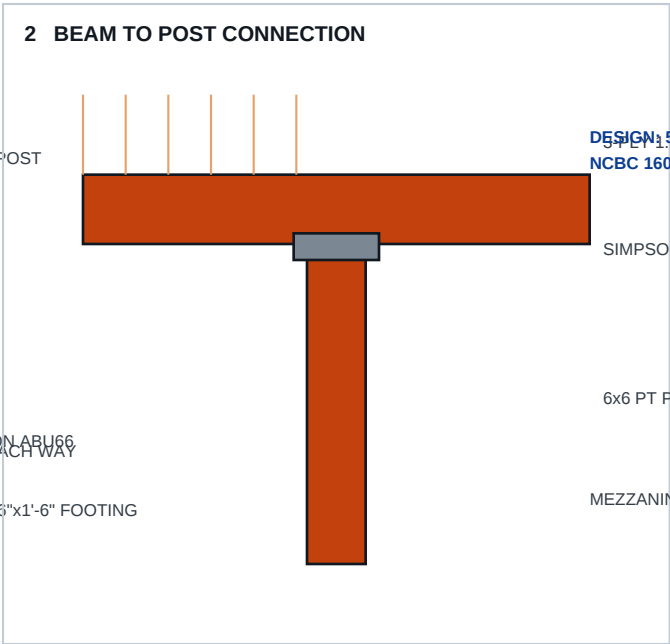
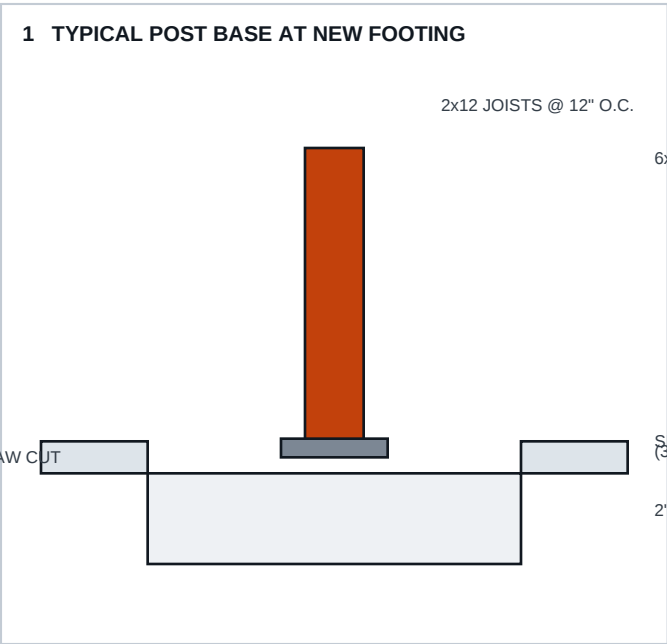
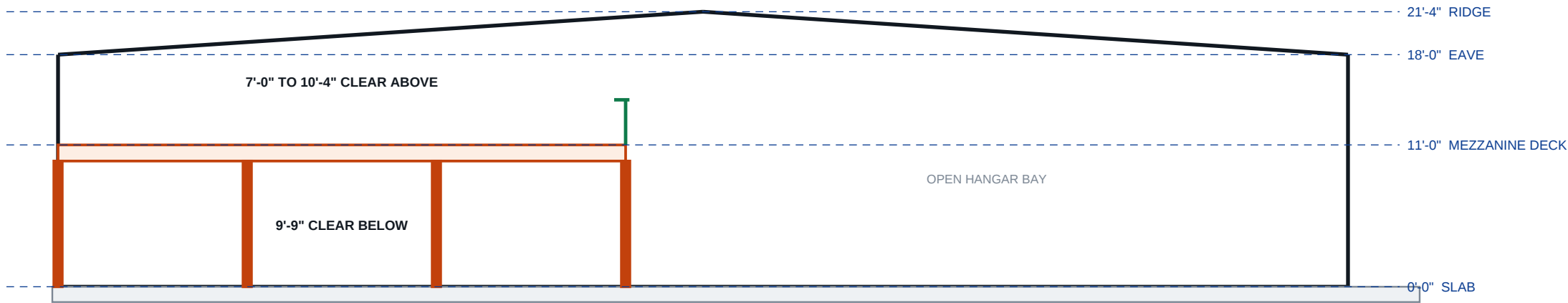
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SCALE 3/32" = 1'-0"
DATE 15 AUG 2026
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BUILDING SECTION — LOOKING NORTH

Scale 3/32" = 1'-0"



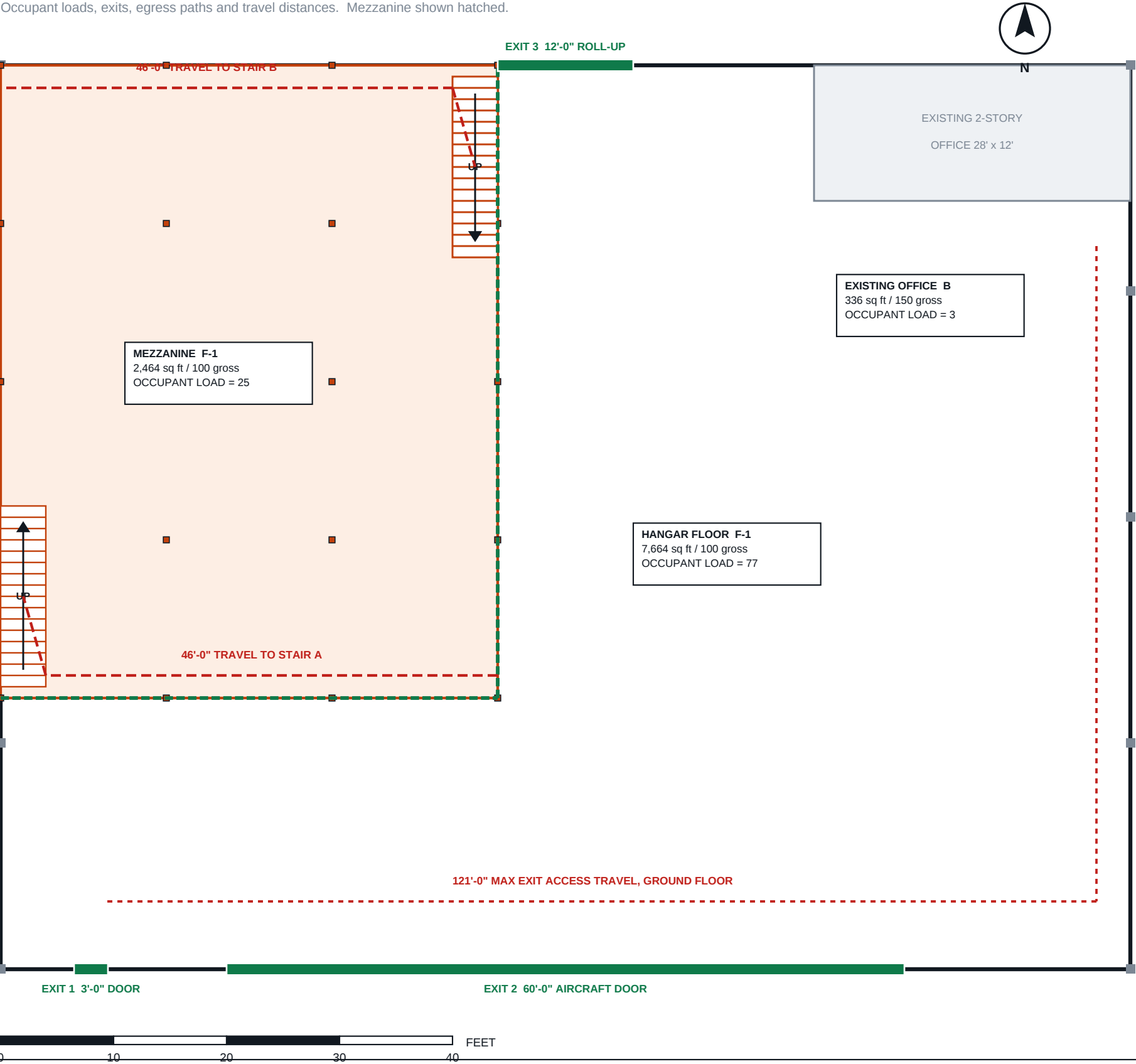
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LIFE SAFETY PLAN

Occupant loads, exits, egress paths and travel distances. Mezzanine shown hatched.



LEGEND

- Exit / exit door
- Exit access travel path
- 42 in guard at open edge
- New mezzanine structure

OCCUPANT LOAD — NCBC TABLE 1004.5

Hangar floor, F-1 industrial	7,664 sq ft / 100 gross	= 77
New mezzanine, F-1 industrial	2,464 sq ft / 100 gross	= 25
Existing office, B business	336 sq ft / 150 gross	= 3
TOTAL BUILDING OCCUPANT LOAD		105

EGRESS — NCBC CHAPTER 10

Exits required, OL 105 (Table 1006.3.2)	2
Exits provided	3
Egress width required, level 105 x 0.2 in	= 21.0 in
Egress width required, stairs 25 x 0.3 in	= 7.5 in
Stair width provided	2 at 48 in = 96.0 in
Common path of egress travel, F-1 unsprinklered	100 ft max
Longest common path, mezzanine	46 ft
Exit access travel distance, F-1 unsprinklered	200 ft max
Longest travel, ground floor	121 ft
Longest travel, mezzanine	46 ft
Two remote stairs provided at opposite ends of the mezzanine. Separation exceeds one-third of the maximum diagonal per NCBC 1007.1.1.	

FIRE PROTECTION

Building is not sprinklered. Portable fire extinguishers to be provided per NC Fire Code 906 — maximum 75 ft travel distance, including one at the head of each stair.
Exit signs and emergency lighting per NCBC 1013 and 1008.
Spray finishing is performed within a listed spray booth.

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LIFE SAFETY PLAN