CODE ANALYSIS

NFPA 101 Life Safety Code - 2009 & 2015 Editions

Building Classification:	Storage - 9,600 gross sf
Hazard Classification:	Ordinary Hazard
Construction Type:	Type II (000)
Occupant Loads:	9,600 sf @ 500 occupants/sf = 20occupants (Not Applicable in Storage Uses)

Building Uses	Storage
Max. Allowable Travel Distance:	200' - except 150' at Aircraft Hangers
Max. Allowable Common Path:	50'
Max. Dead End Corridor Length:	50'
Minimum Number of Required Exits	2
Minimum Separation of exits:	0.5 diagonal
Minimum Egress Door Width:	36"
Exit Lighting:	Required
Emergency Lighting:	Required
Fire Alarm System:	Required per NFPA 409
Fire Sprinkler System:	Required per NFPA 409
Deluge Foam System	Not Required per NFPA 409
Portable Fire Extinguishers:	Required
Exit Devices/Panic Hardware	Not Required
Additional Requirements	NFPA 409, Standard on Aircraft Hangers

2009 International Building Code

Building Classifications:	Storage - S-1; Aircraft Storage Hanger - 9,600 gross sf
Hanger Classification (Table 412.4.6)	Group III (under 12,000 sf & 28' high door maximum)
Total Fuel Capacity of Stored Aircraft:	3,963 gallons
Construction:	Type IIB - Non-Combustible, Combustible, Unprotected
Occupant Loads:	9,600 sf S-1 @ 500 sf/occupant = 20 occupants

Building Limitations

Construction Type:	IIB Unprotected
Maximum Height:	2 story / 55' at S-1
Maximum Area / Floor:	17,500 sf at S-1

Fire Resistance Ratings

Load Bearing Exterior Walls:	None
Roof Structure:	None

Egress Criteria

Minimum Number of Exits:	2
Maximum Dead End Corridor Length:	20'
Maximum Common Travel Path:	75'
Maximum Travel Distance:	200'

Fire Protection Criteria

Fire Alarm System:	Required with required Sprinkler System
Fire Sprinkler System:	Required (Fuel Capacity of Stored Aircraft exceeds 1,600 gallons)
Deluge Foam System	Not Required (Fuel Capacity of Stored Aircraft does not exceed 7,500 gallons)
Portable Fire Extinguishers:	Required
Exit Lighting	Required
Emergency Lighting	Required
Infrared Heater Height:	10'-0" minimum above upper surface of wing or engine compartment of tallest aircraft.

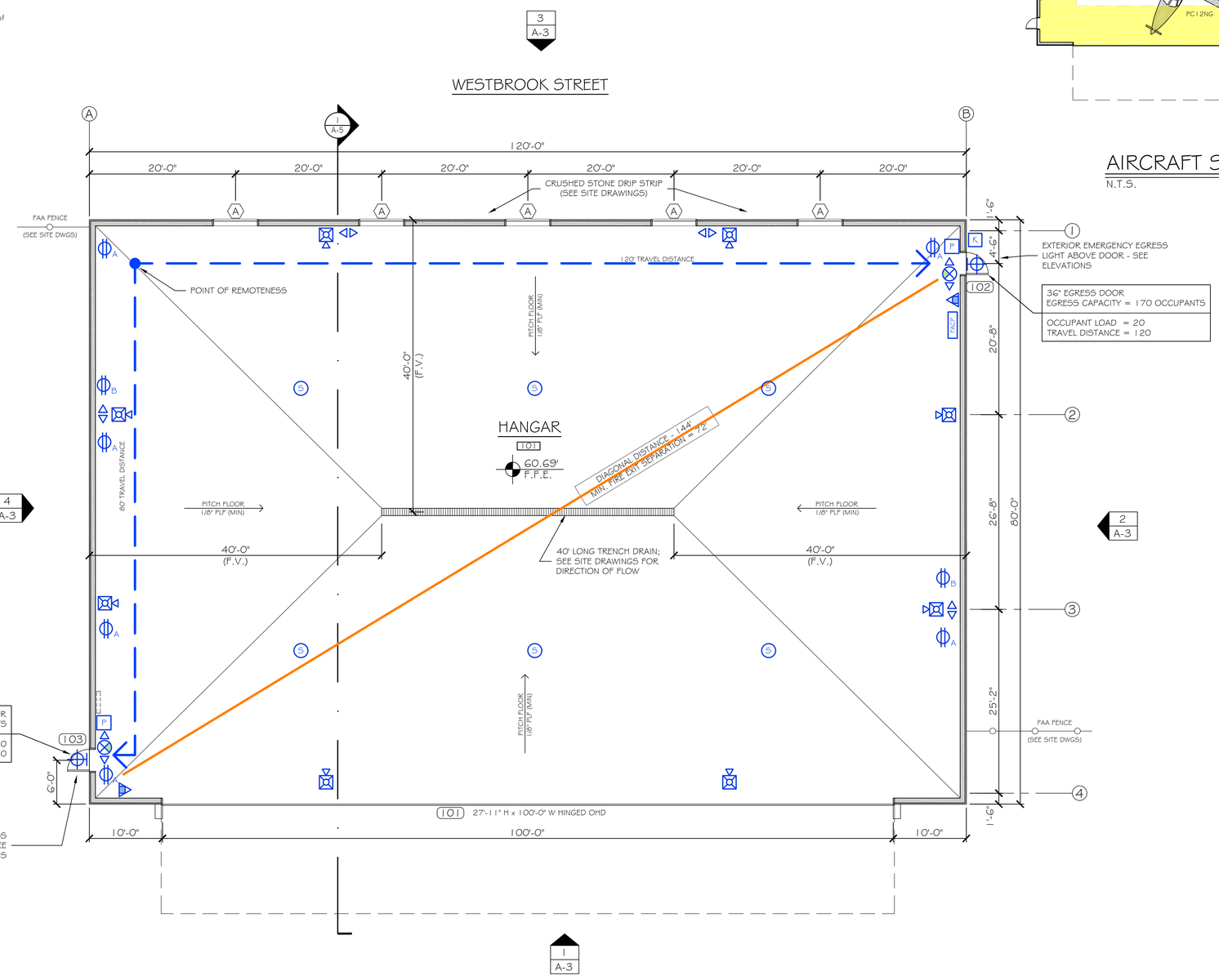
Building Live Loads

Storage:	125 psf @ light; 250 psf @ heavy

MUBEC (Maine Uniform Building Energy Code) MINIMUM INSULATION VALUES
Per 2009 IECC; Table 502.1.2, 502.2(1) and 502.3

ZONE 6A	R-VALUE	U-FACTOR	SHGC
Exterior wall (mtl bldg.)	13.0 +5.6 ci	0.054	NA
Roof (above deck)	20.0 ci	0.045	NA
Slab (24" band)	15.0	0.052	NA
Frost Wall	7.5	0.133	NA
Doors - Opaque	2.0	0.50	NA
Doors - Glazed	1.25	0.80	NR
Windows	2.9	0.35	NR

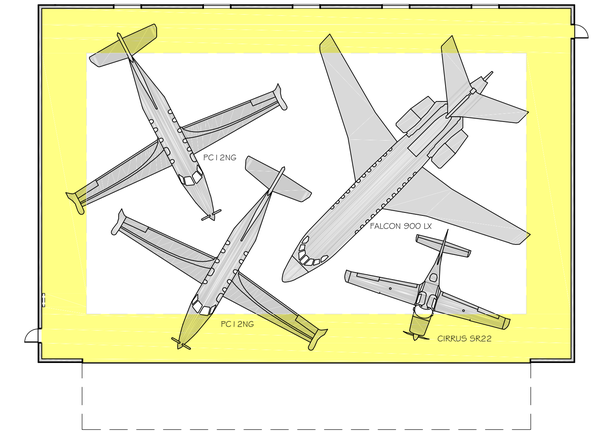
End of Analysis



PROPOSED NEW HANGAR PLAN

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

PLAN NORTH



AIRCRAFT STORAGE KEY PLAN

N.T.S.

SYMBOLS LEGEND

- DIAGONAL
- EGRESS PATH w/ DISTANCE
- DUPLEX OUTLET

NFPA LEGEND

SYMBOL	DESCRIPTION
	EXIT LIGHT
S	SMOKE DETECTOR
	ABC FIRE EXTINGUISHER w/ BRACKET
	EMERGENCY LIGHT
	EMERGENCY / EXIT LIGHT
	HORN / STROBE UNIT
P	FIRE ALARM PULL STATION
FACP	FIRE ALARM PANEL
K	KNOX BOX
	EXTERIOR EMERGENCY LIGHT

LIFE SAFETY NOTES

1. THE BUILDING SHALL HAVE AN NFPA 13 FIRE SUPPRESSION SPRINKLER SYSTEM AS REQUIRED. SPRINKLER SYSTEM DESIGN SHALL BE REVIEWED AND APPROVED BY THE STATE OF MAINE FIRE MARSHAL AS WELL AS THE LOCAL AUTHORITY HAVING JURISDICTION. THE SPRINKLER CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR THE DESIGN AND INSTALLATION OF THE SYSTEM FOR OCCUPANCY.
2. THE BUILDING SHALL HAVE A FIRE ALARM SYSTEM AS REQUIRED FOR COMPLIANCE WITH NFPA 101 LIFE SAFETY CODE. COORDINATE WITH SPRINKLER SYSTEM. VERIFY LOCATION OF ALARM AND NOTIFICATION PANELS WITH THE AUTHORITY HAVING JURISDICTION.
3. SEE ACCESSIBILITY DETAILS FOR MOUNTING HEIGHTS OF LIFE SAFETY DEVICES.
4. VERIFY KNOX BOX & FIRE PANEL LOCATIONS WITH AUTHORITY HAVING JURISDICTION.

NOTES
1. PROVIDE AUTO SHUT-OFF OF HEAT SYSTEM AT DOOR 101 OPERATION.
2. SEE SITE DRAWINGS FOR ADDITIONAL INFORMATION.
3. SEE STRUCTURAL DRAWINGS FOR FOUNDATIONS.
4. SEE EXTERIOR ELEVATIONS FOR EXTERIOR BUILDING-MOUNTED LIGHT LOCATIONS (LED FULL CUT-OFF FIXTURES).

GRANT HAYS ASSOCIATES
ARCHITECTURE & INTERIOR DESIGN
P.O. BOX 6179 FALMOUTH MAINE 04105
207.871.5900 www.granthays.com

SEAL

LICENSED ARCHITECT MICHAEL F. HAYS No. 1724 STATE OF MAINE

REVISIONS

PROJECT NAME

NORTHEAST AIR NORTH HANGAR

1071 WESTBROOK STREET - PORTLAND, MAINE 04102

SHEET

CODE COMPLIANCE FLOOR PLAN

DATE: 8 SEP 2017

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

DRAWN: MFH/mgk

JOB NO.: 160350

SHEET: A-1

COPYRIGHT
REPRODUCTION OR REUSE OF THIS DOCUMENT WITHOUT WRITTEN PERMISSION FROM GRANT HAYS ASSOCIATES IS PROHIBITED.