

**2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)**
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: NATIONAL GUARD AASF2 - ENERGY SECURITY GENERATOR - FIRE STATION
Address: 1235 NATIONAL GUARD RD, SALISBURY, NC Zip Code 28142
Owner/Authorized Agent: NCNG / Matt Dobson Phone # (284) 664-6432 E-Mail: mattdobson@ncng.com
Owned By: State
Code Enforcement Jurisdiction: State

CONTACT:

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural					
Civil					
Electrical	PDC, LTD.	Mahmoud Rishi	046504	(919) 790-9989	M.Rishi@pdcengineers.com
Fire Alarm					
Plumbing					
Mechanical					
Sprinkler Standpipe					
Structural					
Retaining Walls					
6" High					
Other					

2018 NC BUILDING CODE: Renovation
2018 NC EXISTING BUILDING CODE: N/A
CONSTRUCTED: (date) 2009 CURRENT OCCUPANCY(S) (Ch. 3): BUSINESS
RENOVATED: (date) PROPOSED OCCUPANCY(S) (Ch. 3): BUSINESS
RISK CATEGORY (Table 1604.5): Current: Select one Proposed: Select one

BASIC BUILDING DATA
Construction Type: II-B
Standpipes: No
Primary Fire District: STATE Flood Hazard Area: No
Special Inspections Required: No

Gross Building Area Table

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3rd Floor			
2nd Floor			
Mezzanine			
1st Floor	6430		6430
Basement			
TOTAL	6430		6430

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FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENTS	FIRE RESISTANCE DISTANCE (FEET)	REQUIREMENT	REMARKS
Structural Frame, including columns, girders, beams	0		
Interior Walls	0		
Exterior Walls	0		
North	0		
East	0		
West	0		
South	0		
Roof	0		
Nonbearing Walls and Partitions	0		
Exterior walls	0		
North	0		
East	0		
West	0		
South	0		
Interior walls and partitions	0		
Floor Construction	0		
Including supporting beams and joists	0		
Floor Ceiling Assemblies	0		
Columns Supporting Floors	0		
Roof Construction, including supporting beams and joists	0		
Shed Enclosure - Other	0		
Shed Enclosure - Other	0		
Corridor Separation	2	EXISTING - EXISTING	
Occupancy/Use Barrier Separation	2		
Party/Fire Wall Separation			
Smoke Barrier Separation			
Smoke Partition			
Tenant Dwellings Unit Separation			
Storage Unit Separation			
Incidental Use Separation			

* Indicate section number pertaining to reduction

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ACCESSIBLE DWELLING UNITS (SECTION 1107)

TYPE OF UNIT	ACCESSIBLE	TYPE A	TYPE B	TOTAL
EXISTING	3			3
TOTAL	3			3

ACCESSIBLE PARKING (SECTION 1109)

TYPE OF PARKING	EXISTING	NEW	TOTAL
EXISTING	3		3
TOTAL	3		3

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

SPACE	EXIST'G	NEW	TOTAL
EXIST'G			
NEW			
TOTAL			

SPECIAL APPROVALS

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

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STRUCTURAL DESIGN**
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:
Importance Factors: Snow (Is) Select one
Seismic (Ie) Select one
Live Loads: Roof _____ psf
Mezzanine _____ psf
Floor _____ psf
Ground Snow Load: _____ psf
Wind Load: Ultimate Wind Speed _____ mph (ASCE-7)
Exposure Category Select one

SEISMIC DESIGN CATEGORY: Select one
Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5) Select one
Spectral Response Acceleration Select one
Site Classification (ASCE 7) Select one
Data Source: Select one

LATERAL DESIGN CONTROL: Select one
SOIL BEARING CAPACITY: Select one
Pile size, type, and spacing _____ psf

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ALLOWABLE AREA

Primary Occupancy Classification(s) (Business) Select one
Accessory Occupancy Classification(s): S2
Incidental Uses (Table 509): N/A
Special Uses (Chapter 4 - List Code Sections): EXISTING VEHICLE STORAGE BAYS 406.3.5
Special Provisions (Chapter 5 - List Code Sections): N/A
Mixed Occupancy: Yes Separation: 2 Hr. Exception: _____
Select one
Actual Area of Occupancy A + Actual Area of Occupancy B ≤ Allowable Area of Occupancy A + Allowable Area of Occupancy B
3748 (BUSINESS) + 3178 (STORAGE) = 6926 ≤ 6926

STORY	DISCREPANCY AND CORRECTION	(A)	(B)	(C)	(D)
1	BUSINESS STORAGE	6430	23000	26000	

Frontage area increases from Section 506.3 are computed as:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = (F)
b. Total Building Perimeter = (P)
c. Ratio (F/P) = (F/P)
d. W = Minimum width of public way = (W)
e. Percent of frontage increase $I_f = 100(F/P - 0.25) / W$ = (%)
2. Unlimited area applicable under conditions of Section 507.
3. Maximum Building Area = total number of stories in the building x D (maximum Libraries) (506.2).
4. The maximum area of open parking garages must comply with Table 406.5.4.
5. Frontage increase is based on the unspinkered area value in Table 506.2.

ALLOWABLE HEIGHT

Building Height in Feet (Table 504.3) ¹	Maximum Building Area (Table 504.4) ²	Maximum Building Area (Table 504.4) ³
55	28	28
4	1	1

¹ Provide code reference if the "Shown on Plans" quantity is not listed in Table 504.3.
² The maximum height of air traffic control towers must comply with Table 504.3.4.
³ The maximum height of open parking garages must comply with Table 406.5.

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PERCENTAGE OF WALL OPENING CALCULATIONS

TYPE OF WALL	PERCENTAGE OF WALL OPENING
EXISTING	
NEW	
TOTAL	

LIFE SAFETY SYSTEM REQUIREMENTS - EXISTING

Emergency Lighting: Yes
Exit Signs: Yes
Fire Alarm: Yes
Smoke Detection Systems: Yes
Carbon Monoxide Detection: Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #:
a. Exit and smoke rated wall openings (Section 7)
b. Egress and travel paths (if not on the site plan)
c. Exit door width and height (1010.1.10)
d. Exit door swing and clearances (1010.1.10.1)
e. Common paths of travel distances (Tables 1006.2.1 & 1006.3.2.1)
f. Exit door lengths (1020.4)
g. Exit door clearances (1020.4)
h. Exit door widths for each exit door
i. Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
j. Actual occupant load for each exit door
k. A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
l. Location of doors with panic hardware (1010.1.10)
m. Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
n. Location of doors with electromagnetic egress locks (1010.1.9.9)
o. Location of doors equipped with hold-open devices
p. Location of emergency escape windows (1030)
q. The square footage of each fire area (202)
r. The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
s. Note any code exceptions or table notes that may have been utilized regarding the items above

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ENERGY SUMMARY - EXISTING

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 proposed design.
Existing building envelope complies with code: Yes (The remainder of this section is not applicable)

Exempt Building: Select one Provide code or statutory reference:
Climate Zone: 3A
Method of Compliance: Energy Code - Prescriptive (If "Other" specify source here)
THERMAL ENVELOPE (Prescriptive method only)

Roof/Ceiling Assembly (each assembly)
Description of assembly: METAL ROOF, SHEATING, INSULATION, METAL FRAME
U-Value of total assembly: 0.053
R-Value of insulation: R30 (MIN.)
Skylights in each assembly: N/A
U-Value of skylight: N/A
total square footage of skylight in each assembly: N/A

Exterior Walls (OFFICES)
Description of assembly: BRICK, BATT INSULATION, METAL STUDS & GWB
U-Value of total assembly: 0.053
R-Value of insulation: R19
Openings (windows or doors with glazing) INSULATING GLAZING W/ METAL FRAME
U-Value of assembly: 0.59
Solar heat gain coefficient: 0.59
projection factor: 0.15
Door R-Values: 5.26

Exterior Walls (TRUCK BAYS)
Description of assembly: MASONRY CAVITY INSULATION & METAL FRAME
U-Value of total assembly: 0.10
R-Value of insulation: R10
U-Value of assembly: N/A
Solar heat gain coefficient: N/A
projection factor: N/A
Door R-Values: 5.26

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

Floors slab on grade
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Horizontal/vertical requirement: _____
slab detail: _____

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ELECTRICAL DESIGN**
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Energy Code - Prescriptive
Lighting schedule (each fixture type)
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 exterior wattage specified vs. allowed (whole building or space by space)
total interior wattage specified vs. allowed

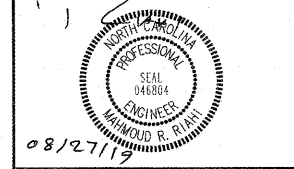
Additional Efficiency Package Options (When using the 2018 NCECC, not required for ASHRAE 90.1)
 C406.2 More Efficient HVAC Equipment Performance
 C406.3 Reduced Lighting Power Density
 C406.4 Enhanced Digital Lighting Controls
 C406.5 On-Site Renewable Energy
 C406.6 Dedicated Outdoor Air System
 C406.7 Reduced Energy Use in Service Water Heating

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DRAWN BY: MRR CHECKED BY: MRR

PDC 19039 08/27/2019

REVISIONS

NUMBER	DATE	DESCRIPTION

BID SET

**DEPARTMENT OF PUBLIC SAFETY
NATIONAL GUARD - SALISBURY AASF2
ENERGY SECURITY GENERATOR INSTALLATION
SCO# 18-19692-01A**

NORTH CAROLINA NATIONAL GUARD
1235 NATIONAL GUARD RD, SALISBURY, NC 28147

BUILDING CODE SUMMARY
FIRE STATION

BCS3