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: My Storage Unit
Address: Lillington, NC Zip Code 27546
Owner/Authorized Agent: Joe Gardner Phone # (910) 891-9600 E-Mail:
Owned By: Private
Code Enforcement Jurisdiction: County

CONTACT: _____

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural				(__)	
Civil				(__)	
Electrical				(__)	
Fire Alarm				(__)	
Plumbing				(__)	
Mechanical				(__)	
Sprinkler-Standpipe				(__)	
Structural	Betco	Self	27355	(704)872-2999	reedo@betcoinc.com
Retaining Walls >5' High				(__)	
Other				(__)	

("Other" should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

2018 NC BUILDING CODE: New Building

2018 NC EXISTING BUILDING CODE: N/A N/A N/A
CONSTRUCTED: (date) _____ **CURRENT OCCUPANCY(S)** (Ch. 3): _____
RENOVATED: (date) _____ **PROPOSED OCCUPANCY(S)** (Ch. 3): _____
OCCUPANCY CATEGORY (Table 1604.5): **Current:** N/A **Proposed:** I

BASIC BUILDING DATA
Construction Type: II-B
Sprinklers: Select one Select one
Standpipes: Select one
Primary Fire District: Select one **Flood Hazard Area:** Select one
Special Inspections Required: Select one

Gross Building Area Table

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
Building 1		5000	5000
Building 2		2600	2600
TOTAL		7600	7600

ALLOWABLE AREA
Primary Occupancy Classification(s): Storage - S-1 N/A N/A N/A N/A N/A
Accessory Occupancy Classification(s):

Incidental Uses (Table 509): _____
Special Uses (Chapter 4 – List Code Sections): _____
Special Provisions: (Chapter 5 – List Code Sections): _____
Mixed Occupancy: No Separation: Select one Exception: _____

Select one

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$

_____ + _____ + ... = _____ ≤ 1.00

STORY NO.	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]
Bldg 1	S-1	2600	17500	0	17500
Bldg 2	S-1	5000	17500	0	17500

[1] Frontage area increases from Section 506.2 are computed thus:
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 $I_f = 100[F/P - 0.25] \times W/30$ = _____ (%)
[2] Unlimited area applicable under conditions of Section 507.
[3] Maximum Building Area = total number of stories in the building x D (maximum3 stories) (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.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	55 ft	8.5 ft	
Building Height in Stories (Table 504.4)	2	1	

[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	RATING PROVIDED (W/ * REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		NC					
Bearing Walls							
Exterior	>= 10 ft						
North	>= 10 ft						
East	>= 10 ft						
West	>= 10 ft						
South	>= 10 ft						
Interior							
Nonbearing Walls and Partitions	N/A						
Exterior walls							

North	N/A						
East	N/A						
West	N/A						
South	N/A						
Insetior walls and partitions	N/A						
Floor Construction Including supporting beams and joists	N/A						
Floor Ceiling Assembly	N/A						
Columns Supporting Floors							
Roof Construction, including supporting beams and joists							
Roof Ceiling Assembly	N/A						
Columns Supporting Roof	N/A						
Shaft Enclosures - Exit	N/A						
Shaft Enclosures - Other	N/A						
Corridor Separation	N/A						
Occupancy/Fire Barrier Separation	N/A						
Party/Fire Wall Separation	N/A						
Smoke Barrier Separation	N/A						
Smoke Partition	N/A						
Tenant/Dwelling Unit/ Sleeping Unit Separation	N/A						
Incidental Use Separation	N/A						

* Indicate section number permitting reduction NC=Non-combustible

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENING PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)

LIFE SAFETY SYSTEM REQUIREMENTS

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

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: _____

- ☐ 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 (Tables 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 (202)
- ☐ The square footage of each smoke compartment for Occupancy Classification I-2 (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

ACCESSIBLE PARKING
(SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED: REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	E ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
TOTAL						

PLUMBING FIXTURE REQUIREMENTS
(TABLE 2902.1)

USE		WATERCLOSETS MALE	WATERCLOSETS FEMALE	WATERCLOSETS UNISEX	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	LAVATORIES UNISEX	SHOWERS/ TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
SPACE	EXIST'G										
	NEW										
	REQ'D										

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, 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 proposed design.

Existing building envelope complies with code: Select one

Exempt Building: Yes Provide code or statutory reference: N.C.G.S 143-138

Climate Zone: Select one

Method of Compliance: Select one
(If "Other" specify source here)_____

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Skylights in each assembly: _____
U-Value of skylight: _____
total square footage of skylights in each assembly: _____

Exterior Walls (each assembly)
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: _____

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

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
STRUCTURAL DESIGN
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:

Importance Factors: Snow (I_S) 0.80
Seismic (I_E) 1.0

Live Loads: Roof 20 psf
Mezzanine N/A psf
Floor 125 psf

Ground Snow Load: 15 psf

Wind Load: Design Wind Speed V(ultimate)= 110 mph (ASCE 7-10)
Exposure Category B
Wind Base Shear (MWFRS): Bldg 1; Vx=34.9 k Vy=78.9 k
Bldg 2; Vx=18.6 k Vy=41.0 k

SEISMIC DESIGN CATEGORY: C
Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5) I
Spectral Response Acceleration S_S =18.3 %g S_1 =8.6 %g
Site Classification (ASCE 7) D
Data Source: Presumptive
Basic structural system Building Frame
Seismic Base Shear: Bldg 1; Vx=0.700 k Vy=0.700 k
Bldg 2; Vx=0.364 k Vy=0.364 k

Analysis Procedure: Equivalent Lateral Force
Architectural, Mechanical, Components anchored? Yes

LATERAL DESIGN CONTROL: Wind

SOIL BEARING CAPACITIES:
Presumptive Bearing Capacity 3000 psf
File size, type, and capacity _____

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone
winter dry bulb: _____
summer dry bulb: _____

Interior design conditions
winter dry bulb: _____
summer dry bulb: _____
relative humidity: _____

Building heating load: _____

Building cooling load: _____

Mechanical Spacing Conditioning System
Unitary
description of unit: _____
heating efficiency: _____
cooling efficiency: _____
size category of unit: _____
Boiler
Size category. If oversized, state reason.: _____
Chiller
Size category. If oversized, state reason.: _____

List equipment efficiencies: _____

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
ELECTRICAL DESIGN
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Select one

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 interior wattage specified vs. allowed (whole building or space by space)
total exterior 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

BETCO, Inc.
228 Commerce Blvd.
Statesville, NC 28625
Limited Engineering License # D-0140

REVISIONS	DATE	BY

DATE: 11/05/20
DRAWN BY: K. MACLAY
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

PROJECT NAME: MY STORAGE UNIT
PROJECT ADDRESS: LILLINGTON, NORTH CAROLINA
OWNER: MY STORAGE UNIT, LLC.
PROJECT NO.: NC20251
SHEET TITLE: APPENDIX "B"
DRAWING NUMBER: CS3 OF 3

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