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 & 2)

Name of Project: MARSHBAN	NKS CLASSROOMS				
Address: 234 DAY DORM ROA	D, LILLINGTON, NC			Zip Code	27546
Dwner/Authorized Agent: BRET1	STRICKLAND	Phone# 919-805-0664	E-Mail BRETTS	@SI-NC.COM	
Owned By:	□City/County	▼ Private		☐ State	
Code Enforcement Jurisdiction:	□City	🔀 County	HARNETT	🗆 State	

CONTACT:

DESIGNER	FIRM	NAME	LICENSE#	TELEPHONE#	EMAIL
Architectural	Tony Johnson Architect	Tony Johnson	4296	919-550-7717	tony@tonyjohnsonarchitect.com
Civil					
Electrical					
Fire Alarm					
Plumbing					
Mechanical					
Sprinkler-Standpipe					
Structural					
Retaining Walls>5' high					
Other					

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

2018 NC BUILDING CODE EDITION:

☐ New building ☐ Rennovation ☐ First time interior completion (upfit) ☐ Shell/Core ☐ Addition ☐ Phased Construction

2018 EXISTING BUILDING CODE:

Check all that apply:

 ■ Prescriptive Compliance

 □ Work Area Compliance

 □ Performance Compliance

Proposed: ☐ | X || ☐ || ☐ |V

Current Occupancy (S) (Ch. 3): Constructed: (date) Renovated: (date) Proposed Occupancy (S) (Ch. 3):

Risk Category (Table 1604.5): Current: 🗌 I 🔀 II 🔲 III 🔲 IV

BASIC BUILDING DATA:

Mixed construction:

▼ No □ Yes Types ■ No □ Yes □ Partial □ NFPA 13-07 □ NFPA 13R-07 □ NFPA 13D-07 Class: ☐ I ☐ III ☐ Wet ☐ Dry NFPA 14-07 Standpipes: 🛛 No 🔲 Yes Flood Hazard Area: ▼No ☐ Yes Primary Fire District: **☒** No ☐ Yes Special Inspections Required: ☒ No ☐ Yes

GROSS BUILDING AREA TABLE:

Floor	Existing (sq.ft.)	New (sq.ft.)	Renovated (sq.ft.)	Sub-Total
3 rd Floor				
2 nd Floor				
Mezzanine				
1 st Floor	16, 908			
Basement				
Total				

ALLOWABLE AREA: CHAPTER 5

OCCUPANCY

Primary Occupancy: Assembly 303 \square A-1 \square A-2 \square A-3 \square A-4 \square A-5 Business 304 🔀 B Educational 305 🔲 E Factory 306 □ F-1 Moderate □ F-2 Low Hazardous 307 ☐H-1 Detonate ☐H-2 Deflagrate ☐H-3 Combust ☐H-4 Health ☐H-5 HPM I-3 Use Condition \Box 1 \Box 2 \Box 3 \Box 4 \Box 5 Mercantile 309 ☐ M Residential 310 ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4 Storage 311 □S-1 Moderate □S-2 Low □High-piled ☐ Parking Garage ☐ Open ☐ Enclosed ☐ Repair Garage Utility and Miscellaneous 312 🔲 U Accessory Occupancies (<- 10%): Assembly 303 \square A-1 \square A-2 \square A-3 \square A-4 \square A-5 Business 304 ☐ B Educational 305 🔲 E Factory 306 ☐ F-1 Moderate ☐ F-2 Low Hazardous 307 ☐H-1 Detonate ☐H-2 Deflagrate ☐H-3 Combust ☐H-4 Health ☐H-5 HPM Institutional 308 □I-1 □ I-2 □I-3 □I-4 Day Care I-3 Use Condition \square 1 \square 2 \square 3 \square 4 \square 5 Mercantile 309 ☐ M Residential 310 \square R-1 \square R-2 \square R-3 \square R-4

☐ Parking Garage ☐ Open ☐ Enclosed ☐ Repair Garage

Storage 311 □S-1 Moderate □S-2 Low □High-piled

Utility and Miscellaneous 312 🔲 U

INCIDENTAL USES:

☐ Furnace room where any piece of equipment is over 400,000 Btu per hour input

☐ Room with boilers where the largest piece of equipment is over 15 psi and 10 horsepower

☐ Refrigerant machine room

☐ Hydrogen cutoff rooms, not classified as Group H

☐ Incinerator rooms

☐ Paint shops, not classified as Group H, located in occupanices other than Group F

☐ Laboratories and vocational shops, not classified as Group H, located in a Group E or I-2 occupancy

☐ Laundry room over 100 square feet

☐ Group I-3 cells equipped with padded surfaces

☐ Group I-2 waste and linen collection rooms

☐ Waste and linen collection rooms over 100 square feet ☐ Stationary storage batter systems having a liquid electrolyte capacity of more than 50 gallons, or a lithium-ion

capacity of 1,000 pounds used for facility standby power, emergency power, or uninterrupted power supplies

☐ Rooms containing fire pumps ☐ Room containing Life-Safety generator

☐ Room containing primary transformers

☐ Group I-2 storage rooms over 100 square feet

☐ Group I-2 commercial kitchens

☐ Group I-2 laundries equal to or less than 100 square feet ☐ Group I-2 room or spaces that contain fuel-fired heating equipment

Special Uses: □402 □403 □404 □405 □406 □407 □408 □409 □410 □411 □412
 □413
 □414
 □415
 □416
 □417
 □418
 □419
 □420
 □421
 □422
 □423
 □424
 □425

Special Provisions: | 510.2 | 510.3 | 510.4 | 510.5 | 510.6 | 510.7 | 510.8 | 510.9

Mixed Occupancy:

No
Separation:
Hr. Exception:

Actual Area of Occupancy A

Allowable Area of Occupancy A

Allowable Area of Occupancy B

Allowable Area of Occupancy B

Allowable Area of Occupancy B

+ < <1.00

OWABLE AREA	
	Γ

		Α	В	С	D	Е	F
			T 11 5060	Area for	Area for	Allowable	Maximum
		Per Story	Table 506.2	Frontage	Sprinkler	Area or	Building
Story Number	Description and Use	(Actual)	Area	Increase	Increase	Unlimited	Area
1	CLASSROOMS / OFFICES	16,908	19,000				

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=

b. Total Building Perimeter=
c. Ratio (F/P)=
(F/P)

d. W=Minimum width of public way= e. Percent of frontage increase $I(f) = [F/P-0.\overline{25}]x W/30 =$

2. The sprinkler increase per Section 506.3 is as follows:

a. Multi-story building I(s)=200 percent

b. Single story building l(s)=300 percent 3. Unlimited area applicable under conditions of Sections Group B, F, M, S, A-4 (507.3), A-3 (507.6);

Group A motion picture (507.11); Covered Mall Buildings (507.12); and H-2 aircraft paint hangers (507.9).

4. Maximum Building Area=total number of stories in the building x E, But not greater than 3xE (506.4.1). 5. The maximum area of a single-use parking garage shall be permitted to comply with Table 406.3.5.

The maximum area of air traffic control towers must comply with table 412.3.2. ALLOWABLE HEIGHT: CHAPTER 5

Allowable (Table 504.3)	Increased for Sprinklers (506.3)	Shown on Plans	Code Reference
Type:		Type:	
Feet= 75'	Feet= H + 20'=	Feet= <75'	
Stories= 3	Stories + 1=	Stories= 2	
	(Table 504.3) Type: Feet= 75'	(Table 504.3) (506.3) Type: Feet= 75' Feet= H + 20'=	(Table 504.3) (506.3) Shown on Plans Type: Type: Feet= 75' Feet= H + 20'= Feet= <75'

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

FIRE PROTECTION REQUIREMENTS: CHAPTER 6 (TAB	LE 60 ⁻

	Fire	Rating*					
Building Element	Separation Distance (Feet)	Required	Provided (w/ * Reduction)	Detail # and Sheet #	Design # for Rated Assembly	Design # for Rated Penetration	Design # for Rated Joints
Structural frame, including	>30						
columns, airders, trusses	>30						
columns, girders, trusses Bearing Walls							
Exterior							
North							
East							
West							
South							
Interior							
Nonbearing walls and partitions							
Exterior walls (T602)							
North	>30						
East	>30						
West	>30						
South	>30						
Interior walls and partitions							
Floor Construction***							
***including supporting beams							
and joists							
Roof Construction including							
supporting beams and joists							
Shaft Enclosures- Exit							
Shaft Enclosures- Other							
Corridor Separation		0					
Occupancy/ Fire Barrier Separation							
Party/ Fire Wall Separation							
Smoke Barrier Separation							
Tenant/ Dwelling Unit Separation							
Incidental Use Separation							

PERCENTAGE OF WALL OPENING CALCULATIONS: NA

Fire Separation Distance	Degree of Openings	Allowable Area	Actual Shown on Plans
(Feet) From Property Lines	Protection (Table 705.8)	(%)	(%)

LIFE SAFETY SYSTEM REQUIREMENTS: Chapters 9 and 10

Emergency Lighting: S1006 Exit Signs: S1011 □No Fire Alarm: S907, NFPA 72-07 □No Smoke Detection Systems: S907 **X** No □Yes □Partial ___ Carbon Monoxide Detection:

LIFE SAFETY PLAN REQUIREMENTS:

Life Safety Plan Sheet #, if Provided:

 \Box Fire and/or smoke rated wall locations (Chapter 7) ☐ Assumed and real property line locations (If not on

☐ Exterior wall opening area with respect to distance to assumed property lines (705.8)

☐ Existing structures within 30′ of the proposed building ▼Occupancy types for each area as it relates to

occupant load calculation (Table 1004.1.2)

⋉ Exit access travel distances (1017)

▼Common path of travel distances (1006.2.1 & 1006.3.2(1)) ☐ Dead end lengths (1020.4)

 ■ 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

 \Box 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

☐ Location of doors equipped with hold-open devices

☐ Location of emergency escape windows (1030)

 \Box 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 Req'd	''	Type A Units Provided	Type B Units Req'd	, i	Total Accessible Units Provided

ACCESSIBLE PARKING REQUIREMENTS: (Section 1106)

Lot or Parking Area	Total Number o	of Parking Spaces	# of Accessi	of Accessible Spaces Provided				
	Required Provided		Regular with 5'	Van Space	Provided			
			Access Aisle	132" Access	8' Access			
TOTAL								
TOTAL								

PLUMBING FIXTURE REQUIREMENTS: Chapter 29 (Table 2902.1)

Occupancy Use Group and/or Space Designation			Waterclose	ets	Urinals Plum-Sec.		Lavatories	;	Showers/	Drinking Plum-S	Fountains Sec. (410)
ariu/or	space Designation	Male	Female	Unisex	(419.2)	Male	Female	Unisex	Tubs	Regular	Accessible
Space	Existing	4	10		3	5	4			1	1
	New										
	Req'd										
	1										

SPECIAL APPROVAL: 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 design vs annual energy cost for the proposed design.

Existing building envelope complies with code: ☐ No ☒ Yes

Exempt Building: ☐ No ☐ Yes

Climate Zone: ☐ 3A ☐ 4A ☐ 5A

Method of Compliance:

☐ Prescriptive (Energy Code) ☐ Prescriptive (ASHRAE 90.1) ☐ Performance (Energy Code) Performance (ASHRAE 90.1)

THERMAL ENVELOPE:

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 skylight 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-Value:

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)

DESIGNS LOADS:

Importance Factors:	Snow (I _s)		□ .80	□ 1.0	<u> </u>	1 🗆 1.2
	Seismic (I_E)		□ 1.0	□ 1.2	5 🔲 1.	5
Live Loads:	Roof (live & snow)					(psf
	Mezzanine					(psf
	Floor					(psf
Ground Snow Load:		(psf)				
Wind Load:	Basic Wind Speed					(mph ASCE 7
	Exposure Category		□В	□ C	□ D	

SEISMIC DESIGN CATEGORY:

Provide the following Seismic Design Parameters: Risk Category (Table 1604.5) Spectral Response Acceleration S₅ ______%g S₁ _____%g Site Classification (ASCE 7) Data Source: ☐ Field Test ☐ Presumptive ☐ Historical Data

Basic Structural System: (check one)

☐ Bearing Wall ☐ Dual w/ Special Moment Frame ☐ Building Frame ☐ Dual w/ Intermediate R/C or Special Steel ☐ Moment Frame ☐ Inverted Pendulum

Analysis Procedure: ☐ Simplified ☐ Modal ☐ Equivalent Lateral Force Architectural, Mechanical, Components Anchored?

Yes

No

LATERAL DESIGN CONTROL: ☐ Earthquake ☐ Wind **SOIL BEARING CAPACITIES:** Field Test (provide copy of test report)

Presumptive Bearing Capacity Pile Size, Type, and Capacity SOIL BEARING CAPACITIES: ☐ Yes ☐ No

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: 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)

Size category. If oversized, state reason:

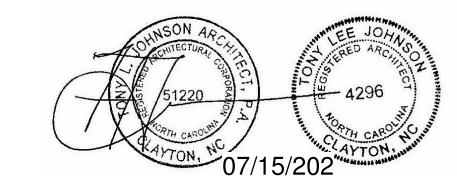
ELECTRICAL SUMMARY ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Lighting schedule (each fixture type)

lamp type required in fixture; number of lamps in fixture; ballast type used in the fixture; number of ballast 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-Stie Renewable Energy ☐ C406.6 Dedicated Outdoor Air System ☐ C406.7 Reduced Energy Use in Service Water Heating



REVISIONS

NUMBER | DATE

07-15-2020 2020-078

APPENDIX B

