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: MARSHBANKS CLASSROOMS
Address: 234 DAY DORM ROAD, LILLINGTON, NC Zip Code 27546
Owner/Authorized Agent: BRETT 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: ☐ 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
☒ Change of Use ☐ Historic Property ☐ Addition ☐ Repair ☐ Relocated
Alteration: ☐ Level I (Renovation) ☒ Level II (Alteration) ☐ Level III (Reconstruction)

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

Risk Category (Table 1604.5): Current: ☐ I ☒ II ☐ III ☐ IV
Proposed: ☐ I ☒ II ☐ III ☐ IV

BASIC BUILDING DATA:

Construction Type: ☐ I-A ☐ I-B ☐ II-A ☐ II-B ☐ III-A ☒ III-B ☐ IV ☐ V-A ☐ V-B

Mixed construction: ☒ No ☐ Yes Types
Sprinklers: ☒ No ☐ Yes ☐ Partial ☐ NFPA 13-07 ☐ NFPA 13R-07 ☐ NFPA 13D-07
Standpipes: ☒ No ☐ Yes Class: ☐ I ☐ II ☐ III ☐ Wet ☐ Dry NFPA 14-07
Primary Fire District: ☒ No ☐ Yes Flood Hazard Area: ☒ No ☐ Yes
Special Inspections Required: ☒ No ☐ Yes

GROSS BUILDING AREA TABLE:

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

ALLOWABLE AREA: CHAPTER 5

OCCUPANCY

Primary Occupancy:
Assembly 303 ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ 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 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 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 ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ 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 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 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

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 and10 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 ☐ 426 ☐ 427

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

Mixed Occupancy: ☐ No ☐ Yes Separation: _____ Hr. Exception: _____

Select one

(Actual Area of Occupancy A / Allowable Area of Occupancy A) + (Actual Area of Occupancy B / Allowable Area of Occupancy B) + ____ + ____ ≤ 1 or < 1.00

ALLOWABLE AREA

Story Number	Description and Use	A Building Area Per Story (Actual)	B Table 506.2 Area	C Area for Frontage Increase	D Area for Sprinkler Increase	E Allowable Area or Unlimited	F Maximum Building 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= _____(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)= [F/P-0.25]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 I(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 of Construction	Type:		Type:	
Building Height in Feet	Feet= 75'	Feet= H + 20'=	Feet= <75'	
Building Height in Stories	Stories= 3	Stories + 1=	Stories= 2	

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

FIRE PROTECTION REQUIREMENTS: CHAPTER 6 (TABLE 601)

Building Element	Fire Separation Distance (Feet)	Rating* Required	Rating* Provided (w/ * Reduction)	Detail # and Sheet #	Design # for Rated Assembly	Design # for Rated Penetration	Design # for Rated Joints
Structural frame, including columns, girders, trusses	>30						
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							

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS: NA

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

LIFE SAFETY SYSTEM REQUIREMENTS: Chapters 9 and 10

Emergency Lighting: S1006	☐ No	☒ Yes
Exit Signs: S1011	☐ No	☒ Yes
Fire Alarm: S907, NFPA 72-07	☐ No	☒ Yes
Smoke Detection Systems: S907	☒ No	☐ Yes ☐ Partial _____
Carbon Monoxide Detection:	☒ No	☐ Yes

LIFE SAFETY PLAN REQUIREMENTS:

Life Safety Plan Sheet #, if Provided: _____

☐ Fire and/or smoke rated wall locations (Chapter 7)
☐ Assumed and real property line locations (If not on site plan)
☐ 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)
☒ Occupant loads for each area
☒ Exit access travel distances (1017)
☒ Common path of travel distances (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 Req'd	Type A Units Req'd	Type A Units Provided	Type B Units Req'd	Type B Units Provided	Total Accessible Units Provided

ACCESSIBLE PARKING REQUIREMENTS: (Section 1106)

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

Note: one out of every six accessible parking spaces shall be for van accessible parking.

PLUMBING FIXTURE REQUIREMENTS: Chapter 29 (Table 2902.1)

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

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: _____

Remainder of building to remain vacant/unused.

NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.
APPROVED
Limited building only review
Permit holder responsible for full compliance with the code
07/22/2020
Harnett COUNTY NORTH CAROLINA

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 ☐ 1.1 ☐ 1.2
Seismic (I_E) ☐ 1.0 ☐ 1.25 ☐ 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 ☐ B ☐ C ☐ D

SEISMIC DESIGN CATEGORY: ☐ A ☐ B ☐ C ☐ D

Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5) ☐ I ☐ II ☐ III ☐ IV
Spectral Response Acceleration S_S _____ %g S_1 _____ %g
Site Classification (ASCE 7) ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F
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) _____ (psf)
Presumptive Bearing Capacity _____ (psf)
Pile Size, Type, and Capacity _____ (psf)

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: _____
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: _____
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

TONY L. JOHNSON ARCHITECT P.A. 51220 NORTH CAROLINA REGISTERED ARCHITECTURAL CORPORATION CLAYTON, NC
TONY LEE JOHNSON REGISTERED ARCHITECT 4296 NORTH CAROLINA CLAYTON, NC
07/15/202

REVISIONS

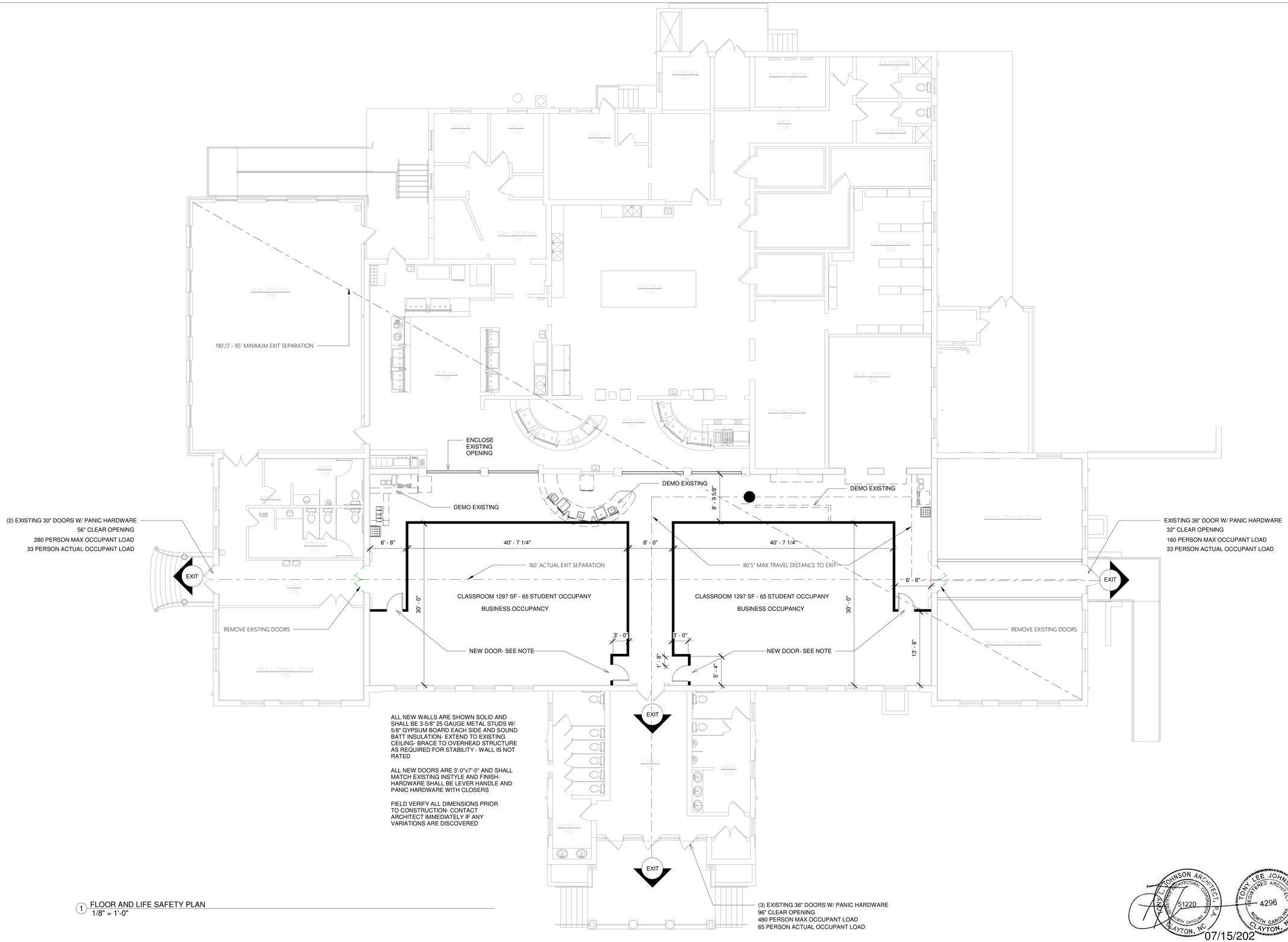
NUMBER	DATE

MARSHBANKS CLASSROOMS
CAMPBELL UNIVERSITY

919-550-7717
Tony@TonyJohnsonArchitect.com
104 North Lombard St
Clayton, NC 27520
TonyJohnsonArchitect.com

TONY JOHNSON ARCHITECTURE

DATE 07-15-2020
PROJECT # 2020-078
APPENDIX B
SHEET A-01



ALL NEW WALLS ARE SHOWN SOLID AND SHALL BE 3-5/8" 25 GAUGE METAL STUDS W/ 5/8" GYPSUM BOARD EACH SIDE AND SOUND BATT INSULATION- EXTEND TO EXISTING CEILING- BRACE TO OVERHEAD STRUCTURE AS REQUIRED FOR STABILITY - WALL IS NOT RATED

ALL NEW DOORS ARE 3'-0"x7'-0" AND SHALL MATCH EXISTING INSTYLE AND FINISH- HARDWARE SHALL BE LEVER HANDLE AND PANIC HARDWARE WITH CLOSERS

FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION- CONTACT ARCHITECT IMMEDIATELY IF ANY VARIATIONS ARE DISCOVERED

1 FLOOR AND LIFE SAFETY PLAN
1/8" = 1'-0"

REVISIONS	
NUMBER	DATE

MARSHBANKS CLASSROOMS

CAMPBELL UNIVERSITY
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DATE
07-15-2020

PROJECT #
2020-078

FLOOR/ LIFE SAFETY PLAN

SHEET
A-1