

2012 APPENDIX B FOR ALL COMMERCIAL PROJECTS

Name of Project: CAMPBELL DAY HALL RENOVATIONS
Address: CAMPBELL UNIVERSITY, BUIES CREEK, NC
Proposed Use: BUSINESS
Owner or Authorized Agent: LITTLE / SHANE WEBSTER
Code Enforcement Jurisdiction: City/County

LEAD DESIGN PROFESSIONAL: LITTLE Diversified Architectural Consulting
DESIGNER: LITTLE, Shane Webster
FIRM: LITTLE
NAME: Shane Webster
LICENSE #: 6452
PHONE #: 919-474-2524
E-MAIL: swebster@littleonline.com

2012 EDITION OF NC CODE FOR:
New Construction, Renovation (Existing Bldg), Addition, Upfit, Alteration, Reconstruction, Repair
CONSTRUCTED (date): 1937
ORIGINAL USE(S): (ch.3) RESIDENTIAL
PROPOSED USE(S): (ch.3) BUSINESS
RENOVATED (date): AUG. 1959
CURRENT USE(S): (ch.3) NOT OCCUPIED

BASIC BUILDING DATA
Construction Type: I-A, I-B, II-A, II-B, III-A, III-B, IV, V-A, V-B
Sprinklers: No, Partial, Yes
NFPA 13, NFPA 13R, NFPA 13D
Standpipes: No, Yes
Class: I, II, III, Wet, Dry
Fire District: No, Yes (Primary)
Flood Hazard Area: No, Yes
Building Height: 40'

Table with columns: FLOOR, EXISTING, NEW, RENO/UPFIT, FLOOR, EXISTING, NEW, RENO/UPFIT. Rows include 8th Floor, 7th Floor, 6th Floor, 5th Floor, 4th Floor, 3rd Floor, 2nd Floor, 1st Floor, Basement, TOTAL.

ALLOWABLE AREA
Primary Occupancy: Assembly, Business, Educational, Factory, Hazardous, Institutional, I-3 Use Condition, Mercantile, Storage, Utility and Miscellaneous
Accessory Occupancy: Assembly, Business, Educational, Factory, Hazardous, Institutional, I-3 Use Condition, Mercantile, Storage, Utility and Miscellaneous

Incidental Uses: (Table 508.2.5)
Furnace room where any piece of equipment is over 400,000 Btu per hour input
Rooms 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 occupancies other than Group F
Laboratories and vocational shops, not classified as Group H, located in a Group E or I-2 occupancy
Laundry rooms over 100 square feet
Group I-3 calls equipped with padded surfaces
Group I-2 waste and linen collection rooms over 100 square feet
Waste and linen collection rooms over 100 square feet
Stationary storage battery 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 or uninterrupted power supplies
Rooms containing fire pumps
Group I-2 storage rooms over 100 square feet
Group I-2 commercial kitchens
Group I-2 handrails equal to or less than 100 square feet
Group I-2 rooms 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, 428, 429, 430

Special Provisions: 509.2, 509.3, 509.4, 509.5, 509.6, 509.7, 509.8, 509.9
Mixed Occupancy: No, Yes
Separation: Hr, Exception:
Incidental Use Separation (508.2.5): This separation is not exempt as a Non-Separated Use (see exceptions)
Non-Separated Mixed Occupancy (508.3): The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.
Separated Mixed Occupancy (508.4): See below for area calculations
For each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

Actual Area of Occupancy A / Allowable Area of Occupancy A + Actual Area of Occupancy B / Allowable Area of Occupancy B = < 1

Table with columns: STORY NO., DESCRIPTION AND USE, (A) BLDG AREA PER STORY (ACTUAL), (B) TABLE 509 AREA, (C) AREA FOR OPEN SPACE INCREASE, (D) AREA FOR SPRINKLER INCREASE, (E) ALLOWABLE AREA OR UNLIMITED, (F) MAXIMUM BUILDING AREA.

- 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 = (P)
b. Total Building Perimeter = (P)
c. Ratio (F/P) = (F/P)
d. W = Minimum width of public way = (W)
e. Percent of frontage increase 1 = 100 [(F/P) - 0.25] x W/30 = (%)
2 The sprinkler increase per Section 506.3 is as follows:
a. Multi-story building = 200 percent
b. Single story building = 300 percent
3 Unlimited area applicable under conditions of Section 507
4 Maximum Building Area = total number of stories in the building x E (506.4)
5 The maximum area of parking garages must comply with 406.3.5. The maximum area of air traffic control towers must comply with 412.1.2.

ALLOWABLE HEIGHT
Table with columns: Type of Construction, Type, Increase for Sprinklers, Shown on Plans, Code Reference.

FIRE PROTECTION REQUIREMENTS (EXISTING)

Table with columns: BUILDING ELEMENT, FIRE SEPARATION DISTANCE (FEET), RATING, DETAIL # AND SHEET #, DESIGN # FOR RATED ASSEMBLY, DESIGN # FOR RATED PENETRATED JOINTS, DESIGN # FOR RATED JOINTS. Rows include Structural Frame, Beating Walls, Nonbearing walls and Partitions, Floor Construction, Roof Construction, Shafts - Exit, Corridor Separation, Occupancy Separation, Parity-Fire Wall Separation, Smoke Barrier Separation, Tenant Separation, Incidental Use Separation.

*PER 508.2.5 ** Ceiling panels are not a part of floor assembly.
N.C. = Non Combustible
N.R. = Not Required
N/A = Not Applicable
S = Section
T = Table

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: No, Yes
Exit Signs: No, Yes
Fire Alarm: No, Yes
Smoke Detection Systems: No, Yes, Partial
Panic Hardware: No, Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #
Fire and/or smoke rated wall locations (chapter 7)
Assumed and real property line locations
Exterior wall opening area with respect to distance to assumed property lines (706.8)
Existing Structures within 30' of the proposed building
Occupancy types for each area as it related to occupant load calculation (Table 1004.1.1)
Occupant loads for each area
Exit access travel distances (1014.3 & 1028.8)
Dead end lengths (1018.4)
Clear exit widths for each exit door
Maximum calculated occupant load capacity each exit door accommodate based on egress width (1005.1)
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 (1008.1.10)
Location of doors with delayed egress locks and the amount of delay (1008.1.9.7)
Location of doors with electromagnetic egress locks (1008.1.9.8)
Location of doors with hold-open devices
Location of emergency escape windows (1029)
The square footage of each smoke compartment (407.4)
Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DWELLING UNITS (SECTION 1107)

Table with columns: 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. Rows include NA, Business, TOTAL.

ACCESSIBLE PARKING

Table with columns: LOT OR PARKING AREA, TOTAL # OF PARKING SPACES REQUIRED, # OF ACCESSIBLE SPACES PROVIDED, TYPE A UNITS PROVIDED, TYPE B UNITS PROVIDED, TOTAL ACCESSIBLE UNITS PROVIDED. Rows include Business, TOTAL.

STRUCTURAL DESIGN

DESIGN LOADS:
Importance Factors: Wind (V), Snow (S), Seismic (E)
Live Load: Roof, Mezzanine, Floor
Ground Snow Load:
Wind Load: Basic Speed, Exposure Category, Wind Base Shears (for MWFRS)
SEISMIC DESIGN CATEGORY: A, B, C, D
Provide the following Seismic Design Parameters: Occupancy Category, Spectral Response Acceleration, Site Classification, Data Source, Basic Structural System (check one), Seismic Base Shear, Analysis Procedure, Architectural, Mechanical, Components anchored?

SOIL BEARING CAPACITIES:

Field Test (provide copy of test report)
Presumptive Bearing Capacity
Pile size, type, and capacity

SPECIAL INSPECTIONS REQUIRED:

Yes, No

PLUMBING FIXTURE REQUIREMENTS (Table 2902.1)

Table with columns: USE, WATER CLOSETS, URINALS, LAVATORIES, SHOWERS/TUBS, DRINKING FOUNTAINS, MALE, FEMALE, REGULAR, ACCESSIBLE. Rows include EXISTING, NEW, REQUIRED.

- 1. FIXTURE COUNT BASED ON BUSINESS OCCUPANCY - 19,616 GSF/100 = 196.1 OCCUPANTS.
2. FIXTURE COUNT BASED ON OCCUPANT LOAD CONSISTING OF 50% MALE / 50% FEMALE. OWNER PROVIDED FILTERED WATER STATION TO BE PROVIDED ON LEVELS 1, 2 AND 3.

SPECIAL APPROVALS

Special Approval: (Local Jurisdiction, Department of Insurance, 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 reference design vs. annual energy cost for the proposed design.

Climate Zone:

Method of Compliance: No Change to Building Envelope, Prescriptive (Energy Code), Performance (Energy Code), Prescriptive (ASHRAE 90.1), Performance (ASHRAE 90.1)

THERMAL ENVELOPE (ADDITION / EXISTING NO CHANGE)

Roof/Ceiling Assembly (each assembly)
Description of assembly: Membrane roof on Polyiso on metal deck
U-Value of total assembly:
R-Value of insulation: R-30
 Skylights in each assembly: n/a
U-Value of skylight: n/a
total square footage of skylights in each assembly: n/a

Exterior Walls

Description of assembly: Brick Veneer over airspace over weather barrier over 2" Rigid Insulation over CMU
U-Value of total assembly:
R-Value of insulation: R-15
Openings (windows or doors with glazing): n/a
U-Value of assembly:
solar heat gain coefficient:
projection factor:
low-e required, if applicable:
Door R-Value:

Walls below grade (each assembly)

Description of assembly: Brick/CMU Veneer over air space over weather barrier over 2" Rigid Insulation over CMU
U-Value of total assembly:
R-Value of insulation: R-15

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: 5" Slab on Grade
U-Value of total assembly:
R-Value of insulation: R-15
Horizontal/vertical requirement: Vertical
Slab heated: n/a

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone:
winter dry bulb:
summer dry bulb:
relative humidity:

Interior dwelling 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

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: No Change to Building System, Energy Code, Prescriptive, Performance, ASHRAE 90.1, Prescriptive, Performance

Lighting schedule (each fixture type)

Lamp type required in future
number of lamps in future
ballast type used in the future
number of ballasts in future
total wattage per fixture
total interior wattage specified vs. allowed (whole building space by space)
total exterior wattage specified vs. allowed

Additional Prescriptive Compliance

- 506.2.1 More efficient mechanical equipment
506.2.2 Reduced lighting power density
506.2.3 Energy Recovery Ventilation Systems
506.2.4 Higher efficiency service water heating
506.2.5 On-site supply of renewable energy
506.2.6 Automatic daylighting control systems



410 Blackwell Street, Suite 10
Durham, NC 27701
1.919.474.2520

www.littleonline.com

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ISSUE FOR PERMIT SET

ISSUE DATE: 09.11.2018

REVISIONS: NO. 1, REASON: AV Revisions by Owner and Quality Control, DATE: 08.20.18

REVISIONS: NO. 2, REASON: Revisions by Owner, DATE: 09.11.18; NO. 3, REASON: Permit Review Comments, DATE: 01.07.19

PROJECT TEAM: PRINCIPAL IN CHARGE: ROB KLINEDINST, AIA; PROJECT MANAGER: SHANE WEBSTER, AIA

DESIGN TEAM: LITTLE

CAMPBELL UNIVERSITY DAY HALL RENOVATIONS

PROJECT NO.: 513.9660.00

SHEET TITLE: BUILDING CODE SUMMARY

SHEET NUMBER: G002

UPDATED BUILDING CODE SUMMARY

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A

B

C

D

E

F