

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: Harnett County Schools (125 Alexander Dr.)
 Address: PO Box 1029 Lillington Zip Code 27526
 Owner/Authorized Agent: Harnett County Schools Phone # (910) 814 - 3451 E-Mail gmcowell@harnett.k12.nc.us
 Owned By: City/County Private State
 Code Enforcement Jurisdiction: City Lillington County Harnett State

CONTACT:

| DESIGNER | FIRM | NAME | LICENSE # | TELEPHONE # | E-MAIL |
|--------------------------|-----------------------------------|--------------------------|-----------------|-----------------------|-------------------------------------|
| Architectural | | | | () | |
| Civil | | | | () | |
| Electrical | <u>Harnett County Schools</u> | <u>Billy Wester</u> | <u>L29742</u> | <u>(910) 890-3418</u> | <u>bwester@harnett.k12.nc.us</u> |
| Fire Alarm | <u>Gill Security</u> | <u>Christopher Meier</u> | <u>00675PIM</u> | <u>(910) 584-4740</u> | <u>christopher@gillsecurity.com</u> |
| Plumbing | | | | () | |
| Mechanical | | | | () | |
| Sprinkler-Standpipe | <u>Crossroads Fire Protection</u> | <u>John Pitcher</u> | <u>6330</u> | <u>(919) 207-3855</u> | <u>jpitcher@crossroadsfire.net</u> |
| Structural | <u>Harnett County Schools</u> | <u>Garland McDowell</u> | | <u>(910) 985-7428</u> | <u>gmcowell@harnett.k12.nc.us</u> |
| 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 Addition Renovation
 1st Time Interior Completion
 Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements
 Phased Construction - Shell/Core- Contact the local inspection jurisdiction for possible additional procedures and requirements

2018 NC EXISTING BUILDING CODE: EXISTING: Prescriptive Repair Chapter 14
 Alteration: Level I Level II Level III
 Historic Property Change of Use

CONSTRUCTED: (date) 2002 CURRENT OCCUPANCY(S) (Ch. 3):
 RENOVATED: (date) JAN 2022 PROPOSED OCCUPANCY(S) (Ch. 3): 50

RISK CATEGORY (Table 1604.5): Current: I II III IV
 Proposed: I II III IV

BASIC BUILDING DATA

Construction Type: I-A II-A III-A IV V-A
 (check all that apply) I-B II-B III-B 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 Flood Hazard Area: No Yes
 Special Inspections Required: No Yes (Contact the local inspection jurisdiction for additional procedures and requirements.)

Gross Building Area Table

| FLOOR | EXISTING (SQ FT) | NEW (SQ FT) | SUB-TOTAL |
|-----------------------|------------------|-------------|-----------|
| 3 rd Floor | | | |
| 2 nd Floor | | | |
| Mezzanine | | | |
| 1 st Floor | 15,000 | 1021.6 | 15000 |
| Basement | | | |
| TOTAL | | | |

ALLOWABLE AREA

Primary Occupancy Classification(s):

- Assembly A-1 A-2 A-3 A-4 A-5
- Business
- Educational
- Factory F-1 Moderate F-2 Low
- Hazardous H-1 Detonate H-2 Deflagrate H-3 Combust H-4 Health H-5 HPM
- Institutional I-1 Condition 1 2
 I-2 Condition 1 2
 I-3 Condition 1 2 3 4 5
 I-4
- Mercantile
- Residential R-1 R-2 R-3 R-4
- Storage S-1 Moderate S-2 Low High-piled
 Parking Garage Open Enclosed Repair Garage
- Utility and Miscellaneous

Accessory Occupancy Classification(s): Groups: A, B, S-1, S-2

Incidental Uses (Table 509): _____

Special Uses (Chapter 4 – List Code Sections): _____

Special Provisions: (Chapter 5 – List Code Sections): _____

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

Non-Separated Use (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 Use (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.

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

_____ + _____ + = _____ ≤ 1.00

| STORY NO. | DESCRIPTION AND USE | (A) BLDG AREA PER STORY (ACTUAL) | (B) TABLE 506.2 ¹ AREA | (C) AREA FOR FRONTAGE INCREASE ^{1,5} | (D) ALLOWABLE AREA PER STORY OR UNLIMITED ^{2,3} |
|-----------|---------------------|-------------------------------------|---|--|---|
| | | | | | |
| | | | | | |
| | | | | | |

¹ Frontage area increases from Section 506.3 are computed thus:

- Perimeter which fronts a public way or open space having 20 feet minimum width = _____ (F)
- Total Building Perimeter = _____ (P)
- Ratio (F/P) = _____ (F/P)
- W = Minimum width of public way = _____ (W)
- 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 (maximum 3 stories) (506.2).

⁴ The maximum area of open parking garages must comply with Table 406.5.4.

⁵ Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

| | ALLOWABLE | SHOWN ON PLANS | CODE REFERENCE ¹ |
|---|-----------|----------------|-----------------------------|
| Building Height in Feet (Table 504.3) ² | | | |
| Building Height in Stories (Table 504.4) ³ | | | |

¹ Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

² The maximum height of air traffic control towers must comply with Table 412.3.1.

³ The maximum height of open parking garages must comply with Table 406.5.4.

Existing Warehouse

FIRE PROTECTION REQUIREMENTS

| BUILDING ELEMENT | FIRE SEPARATION DISTANCE (FEET) | RATING | | DETAIL # AND SHEET # | DESIGN # FOR RATED ASSEMBLY | SHEET # FOR RATED PENETRATION | SHEET # FOR RATED JOINTS |
|--|---------------------------------|--------|----------------------|----------------------|-----------------------------|-------------------------------|--------------------------|
| | | REQ'D | PROVIDED (W/ _____)* | | | | |
| Structural Frame, including columns, girders, trusses | | | | | | | |
| Bearing Walls | | | | | | | |
| Exterior | | | | | | | |
| North | | | | | | | |
| East | | | | | | | |
| West | | | | | | | |
| South | | | | | | | |
| Interior | | | | | | | |
| Nonbearing Walls and Partitions | | | | | | | |
| Exterior walls | | | | | | | |
| North | | | | | | | |
| East | | | | | | | |
| West | | | | | | | |
| South | | | | | | | |
| Interior walls and partitions | | | | | | | |
| Floor Construction | | | | | | | |
| Including supporting beams and joists | | | | | | | |
| Floor Ceiling Assembly | | | | | | | |
| Columns Supporting Floors | | | | | | | |
| Roof Construction, including supporting beams and joists | | | | | | | |
| Roof Ceiling Assembly | | | | | | | |
| Columns Supporting Roof | | | | | | | |
| Shaft Enclosures - Exit | | | | | | | |
| Shaft Enclosures - Other | | | | | | | |
| Corridor Separation | | | | | | | |
| Occupancy/Fire Barrier Separation | | | | | | | |
| Party/Fire Wall Separation | | | | | | | |
| Smoke Barrier Separation | | | | | | | |
| Smoke Partition | | | | | | | |
| Tenant/Dwelling Unit/ Sleeping Unit Separation | | | | | | | |
| Incidental Use Separation | | | | | | | |

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS

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

LIFE SAFETY SYSTEM REQUIREMENTS

- Emergency Lighting: No Yes
- Exit Signs: No Yes
- Fire Alarm: No Yes
- Smoke Detection Systems: No Yes Partial _____
- Carbon Monoxide Detection: 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 (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 sign locations (1013)
- 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)**

| UNIT CLASSIFICATION | 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 | | # OF ACCESSIBLE SPACES PROVIDED | | TOTAL # ACCESSIBLE PROVIDED |
|---------------------|---------------------------|----------|---------------------------------|-------------|-----------------------------|
| | REQUIRED | PROVIDED | 96" SPACES | 132" SPACES | |
| Existing | | 21 | 21 | | 21 |
| New | | 14 | 14 | | 14 |
| | | | | | |
| | | | | | |
| TOTAL | | | | | 35 |

**PLUMBING FIXTURE REQUIREMENTS
(TABLE 2902.1)**

| USE | SPACE | WATER CLOSETS | | | URINALS | LAVATORIES | | | SHOWERS /TUBS | DRINKING FOUNTAINS | |
|---------|-------|---------------|--------|--------|---------|------------|--------|--------|---------------|--------------------|------------|
| | | MALE | FEMALE | UNISEX | | MALE | FEMALE | UNISEX | | REGULAR | ACCESSIBLE |
| EXIST'G | | 1 | 1 | | 1 | 1 | 1 | -NA- | 1 | 1 | |
| NEW | | | | | | | | | | | |
| REQ'D | | | | | | | | | | | |

SPECIAL APPROVALS

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

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: _____

** Please see compliance report 9+M for 1021.6 sqft of additional office space. Heating & cooling*

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) _____
Seismic (I_E) _____

Live Loads: Roof _____ psf
Mezzanine _____ psf
Floor _____ psf

Ground Snow Load: _____ psf

Wind Load: Ultimate Wind Speed _____ mph (ASCE-7)
Exposure Category _____

Existing Warehouse

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

Analysis Procedure: Simplified Equivalent Lateral Force Dynamic

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 _____

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: Energy Code Performance Prescriptive
ASHRAE 90.1 Performance 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 interior wattage specified vs. allowed (whole building or space by space)
total exterior wattage specified vs. allowed

*→ Please see
Electrical
Sheet*

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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