

## **MIKE CAUSEY**

## INSURANCE COMMISSIONER & STATE FIRE MARSHAL

**BRIAN TAYLOR, CHIEF STATE FIRE MARSHAL** 

October 21, 2022

Mr. Matthew Conte Eleven18 Architecture 424 East Central Boulevard, Suite 542 Orlando, FL 32801

BCOM 2302-0007

RE: The Springs of Ballentine

Hectors Creek, NC - Harnett County

Dear Mr. Conte,

Construction documents received on 10-17-2022 relative to the above-named project have been reviewed for a schematic design in general compliance with the 2018 edition of the North Carolina State Building Code with the following comments. This review does not replace the plan review of the local Authority Having Jurisdiction (AHJ). This review is in addition to the plan review of the local AHJ. This plan review may contain comments related to Accessibility, Plumbing, Mechanical, Electrical, and Fire Codes.

Please provide a written response to the review comments and <u>submit clouded revised</u> signed, sealed plans as necessary. The comments shall describe which items are being addressed with the document set as well as where they are being addressed. Please also <u>provide an electronic version</u> of these updated plans, geotechnical reports and any other documents on a thumb drive or via a download link as we are transitioning to electronic plans review, no CDs please.

- 1. Please provide a copy of the site geotechnical report per NC Building Code, Section 1803.1.
- 2. Provide the specific street address for this project. Hector's Creek is not an actual town and does not have a recognized zip code and apply corrections to all address blocks.
- 3. Provide a full set of civil drawings. Include the following but not limited to: heavy-duty detail and pavement routes, inside and outside turning radii, fire hydrant locations, water main sizes and material types, FDC connection location and detail, ADA parking space striping details and signage, backflow preventor locations and details, gas lines, underground electric lines, Knox box location at riser room door and main entry doors, etc.
- 4. Provide copies of any specification book(s) in electronic and hard copy formats, if applicable. Key areas include but are not limited to listing information for generator, automatic transfer switch, diesel fuel tank, Bi-directional amplification to be included.
- 5. Structural, Mechanical, Electrical, Fire Alarm and Plumbing sheets have an incorrect Project name on all pages. Please update.
- Appendix B Page 1, Complete Risk Category for this project. 2018 NC Building Code, Table 1604.5

- 7. Appendix B Page 1, Special Inspections is required for this project. 2018 NC Building Code, section 1705.1.3 #2
- 8. Appendix B Life Safety Section, Emergency responder radio coverage shall have radio coverage based on existing coverage levels of the public safety communications system. Provide a written statement of how the path to compliance to achieve this safety feature will move forward to meet the needs of the jurisdiction. 2018 NC Fire Code, section 510.
- 9. Appendix B Page 6, Special Approvals section to list North Carolina Department of Insurance, Harnett County Health Department and Department of Health and Human Services, Division of Health Service Regulation. The NC Department of Transportation may also be required but no civil plans were provided to confirm this.
- 10. Page A002 Life Safety Summary Chart, Area square footage for Assembly and Kitchen doesn't match the square footages listed in the Code Review section.
- 11. Page A002 the Minimum Egress Width calculation doesn't add up for the required egress width line. The maximum number of people doesn't match the Total Occupancy provided.
- 12. Page A002 Life Safety Plan Note #4, this note states that ratings of structural elements shall be found on Page A000. Unable to locate this information on Page A000.
- 13. Page A002 Life Safety Plan Note #9, this note states that assembly room occupancy loads shall be posted per NCPC 1004.3. Confirm code reference.
- 14. Page A002 Exterior egress calculations do not match for all five exit doors for the egress capacity factor of 0.2. All doors are low on capacity shown.
- 15. Page A002 Courtyard Area A, square footage and occupant load numbers do not appear accurate as if some of the calculations were copied from Area B. Please update.
- 16. Page A002 Guest rooms, the "travel lines" shown are not drawn correctly: The Code contemplates right angle (not 45 or 60 degree) turns since the former produces the most conservative (i.e., longest) Travel Distance To An Exit; please revise the Plans accordingly to extend to most remote area of room for most accurate distance.
- 17. Page A002 Unable to locate the door location for 002. The door symbol is in the middle of the front lobby but no door could be identified.
- 18. Page A002 Data Room 104, fire extinguisher required inside this room if actual computer equipment is stored inside. 2018 NC Fire Code, section 906.1 #6.
- 19. Life Safety Sheet Provide full building diagonal length. Provide similar dimensions for any assembly rooms/areas/courtyards.
- 20. Life Safety Sheet Identify all doors requiring panic hardware including Electric Room doors if they have electrical equipment meeting or exceeding 800 amps. Please add "PH" symbols or similar identifier for these doors.
- 21. Life Safety Sheet All interior and exterior emergency lights shall be shown on the Life Safety Plan.
- 22. Submit manufacturers signed, sealed and dated pre-engineered truss drawings including layout.
- 23. Pages A301 and A803 Porte Cochere required to have a minimum of 13 feet 6 inches of clearance. 2018 NC Fire Code, section 503.2.1
- 24. Pages A404, A006 and A007 UL Designs details for U305 and U356 were not provided in the UL Details section. Please include it in the UL details section and in the Fire Protection Requirements table on the Appendix B. Please include any other additional UL designs in the submittal as well.
- 25. Page A701 Doors 025, 036 and 042 all have panic hardware assigned to them. Please confirm these three hardware sets. Identify each door with panic hardware in "Comments" column along with any doors that may be listed for UL 1784 Air Leakage Tests of Door Assemblies.

- 26. Page A701 Door Hardware sets J, K and M are listed but unable to locate on hardware schedule. If these aren't to be used for this project, please remove to reduce confusion.
- 27. Page A701 Doors 033, 034, 037, 038 and 053 are all in a one hour rated wall and shall be fire rated accordingly.
- 28. Page A201 Doors 025 and 042 shown at Beauty and Kitchen respectively are listed to have panic hardware but swings the incorrect direction for egress.
- 29. Attic or roof access provide detail(s) (front and side views with dimensions) of proposed attic/roof access per 2018 NC Building Code Section 1011.12.
- 30. Interior finishes All new interior finishes to comply with Chapter 8 of the 2018 NC Building and Fire codes. Provide Class ratings on Finish schedules for each material referenced.
- 31. Page S100 Risk Category for this project is incorrect. 2018 NC Building Code Table 1604.5
- 32. Page S100 Wind Speed for this project is not listed correctly. 2018 NC Building Code Figure 1609.3(2). May impact page S110 as well.
- 33. Page S200 Footing marker missing bottom right corner (southwest) near door 017.
- 34. Provide a schedule of special inspections. Refer to tables listed under section 1704 for further guidance regarding the layout of the schedule. Schedules are in table format and provide information regarding inspection frequency and referenced standards.
- 35. Page M203 Job name on left hand side of sheet doesn't match this project. Please update. Similar issue on Pages M204 and M205, top left of sheet.
- 36. Mechanical sheets No duct detectors locations were found for any HVAC units. Provide locations and an installation detail.
- 37. Provide a certification from the design professional shall be signed and dated that the building meets or exceeds current energy code. You can use COMCheck based on 2015 ICC or ASHRAE 90.1-2013, Prescriptive OR Performance (Compliance options)
- 38. Page E101 Project name and location is listed incorrect in the top left of the General Requirements for electrical.
- 39. Page E204 Emergency light(s) required in electrical rooms 109 and 193.
- 40. Page E205 Emergency light(s) required in electrical rooms 155 and 169. 2018 NC Building Code section 1008.3.3 #1
- 41. Page E205 Exit sign needed at hallway door 042 from inside Kitchen 163.
- 42. Page E205 Exit signs needed on both sides of door 030.
- 43. Page E205 Directional exit sign in hallway to be changed to point towards the outside from Courtyard B Door 018. It currently shows occupants to exit into the courtyard instead of to the exterior of the building.
- 44. Page E205 Directional exit sign needed outside of exit door 022 in the hallway.
- 45. Pages E204 and E205 Electrical panels that are located in storage rooms 155 and 193, Can an electrical sheet note be added for these panels to paint or tape an area in front of these panels to ensure the minimum required working clearances are maintained in the future? 2020 NC Electrical Code, article/table 110.26(A)(1)
- 46. Pahe FA101 Front entry fire alarm remote annunciator will require protection at the panel, if it has control functions. 2018 NC Fire Code section 907.4.1
- 47. Fire Alarm sheets No duct detectors locations were found. Provide locations of each.
- 48. Circuit directories shall reference the 2020 NC Electric Code to include specific emergency and exit light circuits per 700.12 (f) and NC Fire Code 605.3.1. A note, an asterisk or EM (or similar)

- are acceptable identifiers for the circuits that serve these emergency circuits. If generator picks up all emergency circuits for the building, then just a note that states that it does will suffice.
- 49. The fire flow minimum for this project is 3,250 gpm for 3-hours per the 2018 NC Fire Code. The flow must meet or exceed the requirements found in the 2018 NC Fire Code Appendix B, or ISO Fire Suppression Rating Schedule or NFPA 1142 or other approved method. If this flow is short of meeting these criteria, a letter from the AHJ will be required confirming they can protect this structure using other methods.
- 50. Provide three compartment sink discharge detail per 2018 NC Plumbing Code, section 802.1.1.
- 51. Provide a Hazardous Materials Disclosure Inventory Statement formatted in accordance with Table 307.1 of the North Carolina Building Code that includes the volume of alcohol hand cleaning chemicals, aerosols, oxygen, paints and diesel fuel planned for this institutional project with regard to what would be on-site when open. These shall be identified as a solid, liquid or gas and be identified in pounds, gallons or cubic feet. Please provide a breakdown of the amounts being used and whether they are being used in an open or closed system. Control area may need to be identified as well.
- 52. Provide Detail/Riser Diagram Emergency responder radio coverage shall have radio coverage based on existing coverage levels of the public safety communications system. 2018 NC Fire Code, section 510.

Further reviews will follow when the above issues have been addressed.

We will await further information from you concerning this project.

Sincerely,

Building and Fire Code Consultant

Trais of Culton

TLC/ks

CC: Harnett County