



Listed below are the basic items required for a commercial plan review for compliance with the North Carolina State Building Code, this list is by no means exhaustive. Plan review could be delayed if any of the required items or information is missing. Please note that these are the minimum requirements for **COMMERCIAL PLANS** including those that do not require a design professional (per Section 204.3.5, NC Administrative Code and Policies {NCAC&P}.) Additional drawings, plans or information may be required. Please note that the designer, or permit applicant will be the points of contact during the review process. Not all jobs will require all of the following.

Commercial Plan Review is conducted by all reviewing departments concurrently – Zoning, Fire, Building Services, Environmental Health – FLI or onsite well/septic, other departments are required by jurisdiction. You may apply for Erosion Control prior to submitting for the remainder of the project.

- Approvals from other agencies (city, county, state) as may be required.
- Plan approval from the NCDOT Engineering Division per Table 104.1 of the 2018 NCAC&P. (if applicable)
- Plans submitted for review, in order to be approved, must be finalized drawings.
- Plans must be drawn to scale with sufficient detail to fully indicate the nature and scope of the work to be permitted. Drawings must be legible.
- Provide sealed, signed, and dated plans as required by Section 204.3.5 of the 2018 NCAC&P.
- If plans are not required to be sealed by a NC Registered Design Professional, per 2018 NCAC&P 106.2.1- “All information, drawings, specifications and accompanying data shall bear the name, address, and signature of the person responsible for the design.”
- For new buildings and additions, the site plans **must** be included in the plans. Show all parking, accessible parking and access aisles, accessible parking signage details, walkways, accessible egress, distances to property lines and other structures on the same lot, utility locations, existing and proposed grades, curb openings, landings, ramps, retaining walls, etc.
- All construction within a flood hazard area must be clearly shown and designed per the NC Building Code.
- Include footing/foundation/slab plans with details and dimensions.
- Provide structural plans and details as needed (columns, girders, joists, rafters, beams, headers, lintels, connection details, etc.)
- If the building being constructed is a pre-engineered metal building, submit same number sets of the metal building plans.
- Review Chapter 17 of the NC State Building Code for Special Inspection requirements. If your building falls into one of the categories of Section 1705.1.1 – 1705.1.3, special inspections and testing will be required. Provide a schedule of special inspections with the Commercial Project Code Study and on the structural drawings, along with a completed [Special Inspections Application](#).
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- Provide interior and exterior elevation drawings with dimensions.
- For all buildings provide a floor and life safety plan, with all required information listed on the Commercial Project Code Study's "Life Safety Plan Requirements" section. Identify all fire resistance rated assemblies. Show the calculated occupant load, width, and travel distances for all means of egress including doors, stairways, corridors, exit discharge, etc. for each floor.
 - Provide floor plans of each floor with dimensions and showing room names and uses.
 - Provide wall sections for each type of interior and exterior wall being constructed. Clearly designate existing walls from new wall or demolished walls.
 - If the work involves only a portion of the building, provide an overall plan of the building showing the area of work and the use and occupancy classification of the remaining space(s).
 - Provide designs and details for all fire resistance rated assemblies. Include designs and details for protection of penetrations, copied in completion onto plans.
 - Reflected ceiling plan layout and details.
 - Roof plan layout and details.
- Show how Chapter 11 "Accessibility" of the NC Building Code is being met with regard to accessible route, accessible entrance, accessible exits, areas of refuge, toilet rooms, shower rooms, break rooms, reception areas, cashier and customer service counters, elevated platforms, etc. Detail how the requirements of Chapter 11 of the NCBC are being met using ICC A117.1-09. Include a statement of disproportionality if doing alteration to an area of primary function.
 - Provide door, including hardware, and window schedule.
 - Provide complete stairway/ramp details. (riser, tread, guard, handrail, landing)
 - If appropriate show all hazardous locations and submit data on the type and quantities of hazardous materials being stored, processed, manufactured, or used in the building.
 - Electrical: complete plans for proposed work and any demo of existing system, one-line diagram of service/feeder riser, panel schedule, load calculations, fault current data, location of service(s), conductor type and size, conduit size, trough size, power and lighting plans, location of any hazardous locations. For PV installations include a three-line diagram and specification sheets for new equipment including but not limited to Modules, Inverters, Combiners, etc.
 - Plumbing: location of water service entry, sewer or septic tank connection, Fixture count calculations based on occupant load, toilet stall dimensions, length and width, Isometric riser/venting diagram, trap primers as required, clear floor spaces (accessibility), fixture elevations with heights and width dimensions (accessibility), drinking fountains, service sinks, water heaters, materials of water and sewer piping.
 - Mechanical: dryer vent length, fire damper location with proper rating for assembly penetrated, clearly list rated assemblies on plans, outside air/ventilation calculations, Correct UL assembly details on plans, detailed plans for Type 1 hoods and related ductwork as applicable, gas piping diagrams (total Btus on system, piping material, system pressure, location of regulators, distances of piping), louver and fan locations, ductwork, duct detector locations, air distribution devices indicating locations and cfm for fresh air, supply, return, and exhaust, permanent roof access on buildings > 16', location all HVAC equipment, provide detailed schedule of all HVAC equipment.