



## C-40 – COMMISSIONING (NON-MEP)

### Commissioning and Building Performance Verification

Building commissioning is required for projects as defined in GS 143-135. Refer to *NC SCO Building Commissioning Guideline* for requirements for commissioning. During the warranty phase of the project, the building's energy performance must also be verified per GS 143-135. Refer to *NC SCO Building Performance Guideline* for energy performance verification requirements.

Refer to *NC State Construction Manual* for requirements for how commissioning interfaces with other aspects of the design and construction process.

The UNC Chapel Hill campus has a commissioning group tasked with analyzing and implementing the current state guidelines. Designers, commissioning agents, contractors and other professionals are to contact UNC Facilities Planning for current information on the process.

*NC SCO Building Commissioning Guideline:*

[http://www.nc-sco.com/documents/Guidelines/BLDG\\_COMMISSIONING.pdf](http://www.nc-sco.com/documents/Guidelines/BLDG_COMMISSIONING.pdf)

*NC SCO Building Performance Guideline:*

[http://www.nc-sco.com/documents/Guidelines/Bldg\\_Perf\\_Verification.pdf](http://www.nc-sco.com/documents/Guidelines/Bldg_Perf_Verification.pdf)

*NC State Construction Manual:*

<http://www.nc-sco.com/scomanual.aspx>

### Building Envelope Considerations

The building envelope including the roof and windows and wall structures should be tested for water leakage by using pressure hoses on the outside and inspectors on the inside of the building.

The final building structure should be tested for air leaks by pressurizing the building and measuring the leakage rate. The observed air leakage shall not exceed the design infiltration rate used in sizing the HVAC and humidity control systems.

### Special Considerations for Historic and Old Buildings

An engineering assessment is required during the project programming phase to determine the projected impacts of renovation activities on moisture control within the structure. This assessment should include considerations of below grade, at grade and above grade differences, the tightness of the envelope and the deterioration of or lack of moisture and vapor barriers and retarders. Goals shall be set in coordination with Facilities Planning to establish reasonable measures for improving or maintaining building tightness.

Prior to Beneficial Occupancy the Commissioning Agent shall provide satisfactory evidence to Facilities Planning that the prescribed goals for envelope tightness have been met.