



# **34<sup>th</sup> Annual State Construction Conference**

March 26<sup>th</sup>, 2015



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# WELCOME

Final Four  
April 4 & 6

NOTRE DAME

Final Four  
April 4 & 6

NC STATE

EDAME

FINAL  
April 6

OKLAH

NC STATE

NATIONAL  
CHAMPION  
\* NC STATE \*  
WOLFPACK

UNC

IC

DUKE

UNC

DUKE



# **34<sup>th</sup> Annual State Construction Conference**

March 26<sup>th</sup>, 2015

## **REPORT STATE BUILDING COMMISSION**



# **34<sup>th</sup> Annual State Construction Conference**

March 26<sup>th</sup>, 2015

## **UPDATE NC CONSTRUCTION MANUAL**

# Construction Manual

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Department of Administration

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*Fifth Edition*

*January 1982*

00209



# Prequalification

# History

- 1995 General Assembly passed legislation that established §143-135.8
- Legislation read:
  - *“Bidders may be prequalified for any public construction project.”*
- Owner/Designer/Contractor Concerns over varied prequals
- Committee established and wrote 1<sup>st</sup> State Prequalification Guidelines – 2009
- Took comments for 1 year and revised 3/2011

# History

- 2013 General Assembly Session established Joint Purchase and Contract Study Committee to study prequalification.
- 2014 General Assembly Session enacted changes to §143-135.8.
- Committee established to establish policy, revise form and matrix. Effective October 1, 2014.

# Prequal – Do I have to?

- Single Prime, Separate Prime, Dual Bidding, Design Build & Design Build Bridging:
  - NO!
- Construction Manager at Risk (CMR):
  - YES!
  - §143-128.1(c) says “shall prequalify and accept bids from first-tier subcontractors”

# Prequalification Policy

- §143-135.8 requires the governmental entity to “adopt an objective prequalification policy applicable to all construction or repair work prior to advertisement of the contract for which the governmental entity intends to prequalify bidders.”

# Policy Requirements

- Uniform, consistent, and transparent in its application to all bidders.
- All bidders who meet the prequalification criteria to be prequalified are allowed to bid on the construction or repair work project.
- Criteria must be rationally related to construction or repair work.
- The bidder is not required to have been previously awarded a construction or repair project by the governmental entity.

# Policy Requirements

- Bidders are permitted to submit history or experience with projects of similar size, scope, or complexity
- Assessment process of prequalification is stated in this policy.
- A process for a denied bidder to protest is stated below in this policy.
- A process for notifying a denied prequalified bidder is stated below in this policy.

# Prequalifications Review

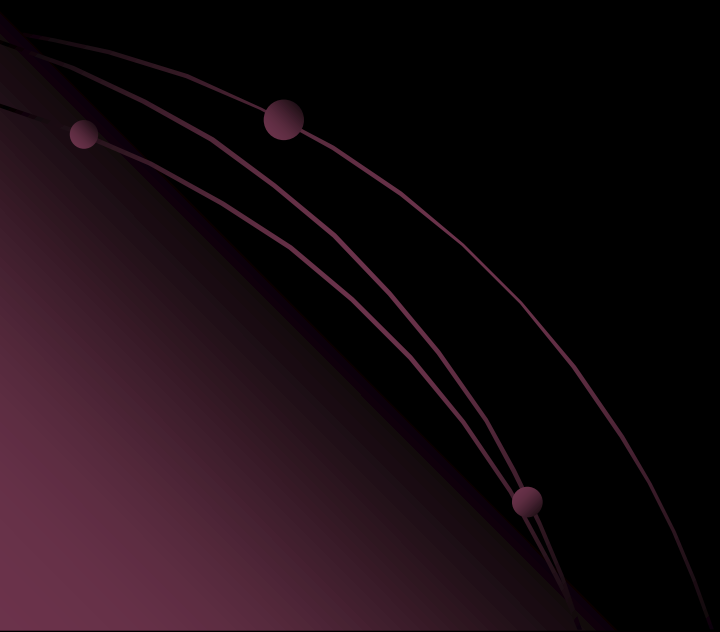
- Establish Prequalification Committee (PC)
- Prequalification Official cannot be on Committee
  - State Agencies – Director of SCO
  - Universities – CFO of campus for projects < \$500K; \$500K < project < \$2M Associate VP for Finance and Capital Planning with UNCGA; > \$2M Director of SCO
  - Community Colleges - < \$500K Director of Administrative & Facility Services with CC System Office; > \$500K Director of SCO

# Prequalifications Review

- PC will review applications with matrix scoring and determined the prequalified
- All firms will be notified of PC's decision via email.
- Upon denial, applicant may request informal meeting to receive feedback and suggestions for improvement. Owner or CMR shall hold session within 2 weeks of request.

# Prequalifications Review

- Firms wishing to appeal the decision of PC shall follow the appeals procedure.



# Appeals Procedure

- **Initial Protest** – firm files a written appeal within 3 business days of emailed notice of being denied prequalification.
- Written appeal must clearly articulate why they are contesting the denial and must have all supporting documents attached.
- PC should review within 5 business days.

# Appeals Procedure

- If PC decides firm should be prequalified then firm shall be notified.
- If PC upholds its denial the firm shall be notified in writing via email.
- **Appeal** – Within 3 business days of emailed notice of PC decision on Initial Protest, the denied firm may appeal to Prequalification Official in writing.

# Appeals Procedure

- Prequalification Official should review within 5 days.
- Prequalification Official may appoint a representative that is not a member of PC to handle the appeal.
- Prequalification Officials decision is final and firm shall be notified.

# Appeals Procedure

- General Rules

- Firms submitting prequalifications shall provide 2 email addresses for use by the owner or CMR.
- If Prequalification Official is unable to render a decision prior to bid date then firm shall be allowed to submit a bid on the project subject to a final decision.
- If firm's bid is opened prior to a final decision and the bid is not lowest the appeal is terminated and rendered moot.

# Appeals Procedure

- General Rules
  - Bids received from firms who have been ruled disqualified to bid shall not be opened.
  - A firm's failure to comply with any requirements of the appeals procedure results in appeal being terminated and rendered moot.



# 34<sup>th</sup> Annual State Construction Conference

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## ***UPDATE*** **NC CONSTRUCTION MANUAL**

**Chapter 200 – Capital Improvement Process**

*Formerly Sections 106 – 111*

**Chapter 300 – Design Services**

*Formerly Section 112*

Presented By: Cindy Register, P.E.

# Chapter 200 – Capital Improvement Process

Formerly Sections 106 - 111



# Capital Improvement Process

- Chapter 200 provides overview of Capital Improvement (CI) process
- Defines capital projects
- Identifies limitations on Repair and Renovation (R&R) projects
- Identifies capital funding sources
- Defines role of Capital Projects Coordinator (CPC)

# GS 143C : State Budget Act

- GS 143C-1-3: Identifies Fund Types
  - Capital project funds
  - Debt service
  - General Fund
  - Special Revenues
  - Enterprise Funds
  - Trust Funds

# What are CI Projects?

Referenced in GS 143C-3-3

- New Construction
- Expansion of Building Area of Existing Facility
- Rehabilitation of Existing Facility to Accommodate New or Expanded Uses
- Real Property Acquisitions
  - Undeveloped Land Purchase or Transfers
  - “Gift in Place” Structures & Buildings

# What is the R&R Reserve?

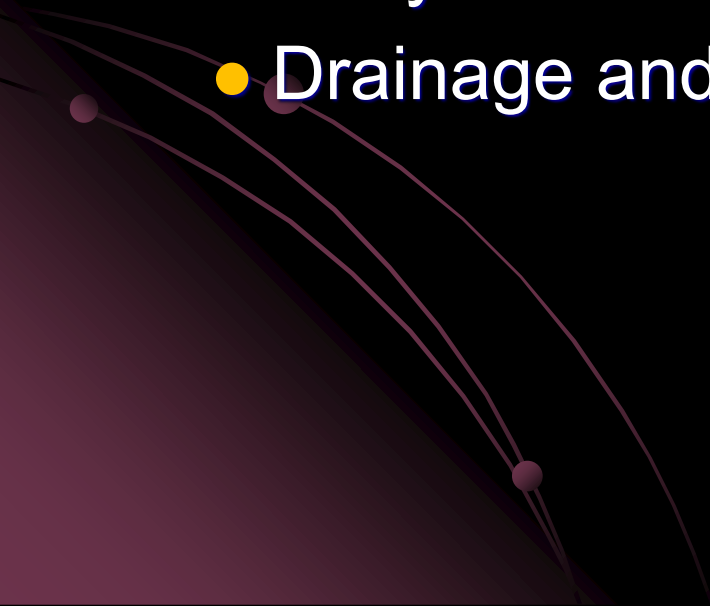
Referenced in GS 143C-4-3:

- Special Reserve established in General Fund to address specific type projects, including:
  - Roof repairs & replacements
  - Structural repairs
  - Repairs and renovations to meet federal and State standards
  - Improvements to meet requirements of Americans with Disabilities Act

# R&R Reserve Project Types

- R&R Projects, cont.
  - Improvements to meet life safety needs
  - Improvements to existing facilities to meet energy improvements
  - Improvements to remove asbestos, lead paint, and other contaminants, including removal and replacement of underground storage tanks
  - Historical restoration

# R&R Reserve Project Types

- R&R Projects, cont.
    - Improvements and renovations to improve use of existing space
    - Improvements to roads, walks, drives, and utility infrastructure
    - Drainage and landscape improvements
- 

# R&R Projects – Special Rules

- Limited to:
  - State facilities and related infrastructure that are supported from the General Fund
  - State Information Technology Services facilities and related infrastructure
- Building area can only be increased if that is only method for complying with Federal or State codes and standards.

# What is a CPC?

- Individual authorized to coordinate duties and responsibilities related to Capital Improvement Process – Interscope term is “OWNER”
- Agencies may delegate this role to multiple persons and may often segregate financial and project management responsibilities

# CPC to Establish CI Project Needs & Prepare OC-25

- Establish Capital Project Needs
  - Identify and justify the need
    - Reference FCAP reports from SCO
  - Define scope, budget, and proposed funding source
  - Establish project schedule
- Prepare and submit Cost Estimate using OC-25 form in Interscope

# OC-25

- Very important budgeting tool
- GS 143C-3-3 requires:
  - Submission of OC-25 certified by SCO
  - For R&R projects, submission of the FCAP report
- Certification by SCO requires CPC to provide detailed cost and well defined scope and justification

# CI Budget Requests

Reference GS 143C-8

- Capital Budgeting Process
  - 6-Yr Capital Improvement Request
  - Biennium Capital Request (Worksheet III-C)
  - Biennium R&R Request (Worksheet III-R)
- Submitted to OSBM for review and inclusion in the Capital Budget Request
- Once approved, CPC will work with OSBM to establish cost centers and fund transfers

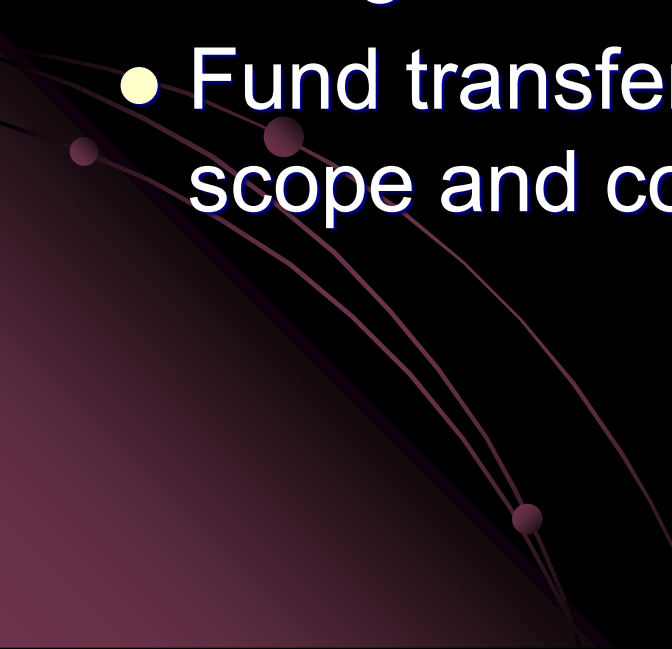
# Changes in Project Authorizations

- Increase in Projects Cost – OSBM can increase project cost if determined to be in the best interest of the State and if additional funds are available. Requires reporting to Gov Ops
- Increase in Project Scope – Requires approval by General Assembly as stated in GS 143C-8-9.

# CPC Duties – Design Phase

- Participates in designer selection process
- Program liaison between design team and occupancy group
- Represents concerns and needs of the Facility Maintenance group
- Provides Owner review comments for each design submittal

# CPC Duties – Construction Phase

- Request for Award Letter
  - Change order approval, including contingency verification
  - Design amendment requests
  - Fund transfer requests, related to project scope and cost changes
- 

# CPC Duties – Construction Phase

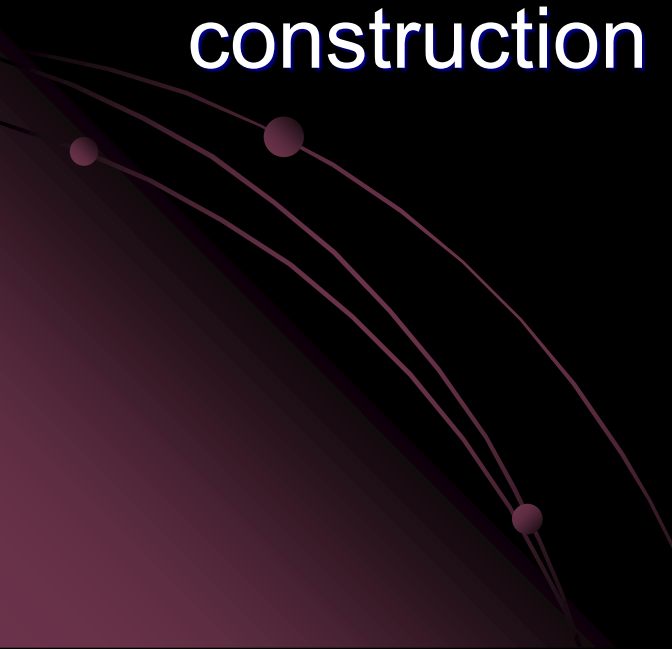
- Review and approval of payment requests
- Participation in final inspection
- Project closeout
  - Collection of Certificates of Compliance for University projects  $\leq \$2M$  and Community College projects  $\leq \$5K$
  - Reporting of remaining funds to OSBM per GS 143C-8-11 for transfer to appropriate fund

# Sustainability Energy Legislation

Reference GS 143-135.37

- Legislation applies to buildings 20,000 SF or greater
- Requires independent Commissioning Agent that holds direct contract with Owner
- Following building occupancy, energy and water usage data must be collected and provided to SCO on annual basis

# HUB Responsibilities

- Develop and implement policy and programs to encourage minority participation
  - Reporting of actual HUB participation in construction projects
- 

# State Property Disposition

- Disposition of Property by:
  - Easements – Required when utilities are placed on State property
  - Demolition of buildings or structures
  - Deed – Results if real property is sold
  - Leases of State–owned real estate.  
Sometimes used to provide ground lease for construction with non-State funds

# Disposition Process

- Required:
  - PO-2 Form submitted to State Property
  - Presentation to Council of State for Approval
  - Review by AG's Office and development of any legal documents
  - Typically, signature by Governor is required
- This can be very lengthy process, so plan accordingly

# Demolition of Existing Structures

- Prior to demolition, must have approval from State Property disposition process
- Must be surveyed for asbestos and other hazardous materials. If present, must be properly abated prior to demolishing.
- Historical properties must be addressed through DCR – State Historic Preservation Office

# Property Acquisition

- Request must be submitted to State Property on PO-1Form
- Approval from OSBM to evaluate budget impacts
- Inspection and evaluation by SCO team, resulting in report of suitability for use and cost estimates for any needed repairs
- Approval from Council of State and Governor

# Chapter 300 – Design Services

Formerly Section 112



# When is Design Professional Required?

| Public Project Owner                    | Project Type   | Project Budget |
|---|--|----------------|
| Agency & Community College              | Public building repair, no major structural change                                     | >\$300,000     |
| University                              | Public building repair, no major structural change                                     | >\$500,000     |
| Agency, Community College, & University | Public building repair, affecting life safety systems                                  | >\$100,000     |
| Agency, Community College, & University | Public building repair, includes major structural change                               | >\$135,000     |
| Agency, Community College, & University | New construction or addition to public buildings or State-owned and operated utilities | >\$135,000     |

# Designer Responsibilities

Reference GS 133-1.1

- Frequent and regular *inspections* of work
- Issue signed and sealed Certificate of Compliance
  - Required of each designer providing sealed drawings
  - Final payment to designer is released only after this document is provided to the awarding authority

# Certificate of Compliance Requirements

| Awarding Authority        | Project Type (Budget)                          | Documentation                 |
|---------------------------|--|-------------------------------|
| State Construction Office | Agency – Major (>\$500,000)                    | Upload into Interscope        |
| State Construction Office | Agency – Minor (<=\$500,000)                   | Upload into Interscope        |
| State Construction Office | University – SCO Oversight (>\$2,000,000)      | Upload into Interscope        |
| State Construction Office | Community College – SCO Oversight (>\$500,000) | Upload into Interscope        |
| University                | University – Download (<=\$2,000,000)          | Provide to Awarding Authority |
| Community College         | Community College – Download (<=\$500,000)     | Provide to Awarding Authority |

# Major Project Requirements

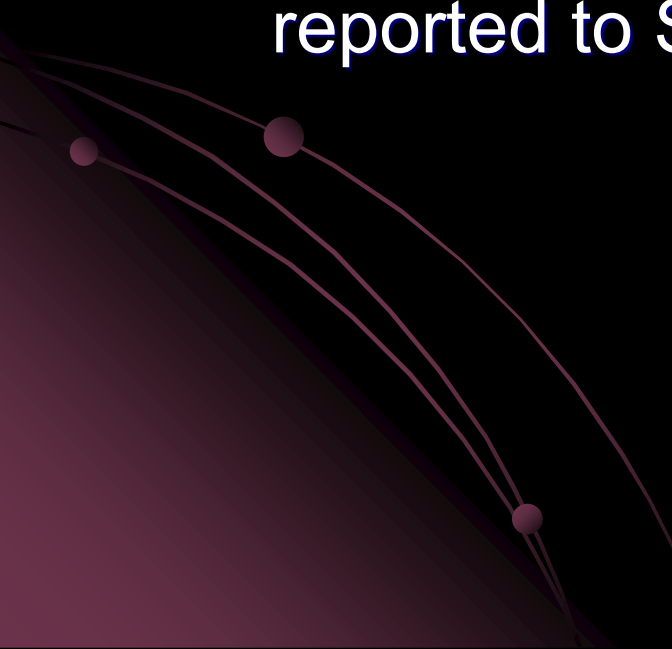
Reference GS 143-64.34

- Total budgets >\$500,000 must be:
  - Public Advertisement (IPS Website) for minimum of 15 days
  - Qualifications based selection – followed by fee negotiations
  - Good faith effort by Owner (CPC) to notify minority firms
  - NC resident firm has preference over non-resident firm

# CPC Role in Major Projects

- Complete Designer Advertisement Form and send to [scoads@doa.nc.gov](mailto:scoads@doa.nc.gov)
- Create pre-selection committee to include at least one licensed design professional
- Following designer interviews, prepare information packet for presentation to State Building Commission or Institution Board of Trustees

# Minor Project Requirements

- Projects exempted from GS 143-64.34:
    - Total project budget  $\leq$  \$500,000
    - Total design fee  $\leq$  \$50,000
    - Emergency projects – These must still be reported to SBC
- 

# Design Contracts

- Before negotiating design fee, SCO must have:
  - Certified OC-25, unless project budget is less than \$100,000
  - Funding source, typically cost center assignment
  - Total funding amount available
  - Design proposal from selected designer
  - Other “Owner” project cost provided by CPC

# Designer Proposal Letter Contents

- Design fee
- Estimated construction cost
- Production and project schedule
- Project consultants
- Any additional services must be clearly defined

# Design Contract Types

- Advance Planning/Programming
  - Typically used for larger projects to develop scope and budget
  - Required energy modeling for projects that trigger the Sustainability Energy Legislation, buildings 20,000SF or larger
  - Master Planning

***For clarification** – not to be confused with term “Advance Planning Only – No Construction Funds Available”*

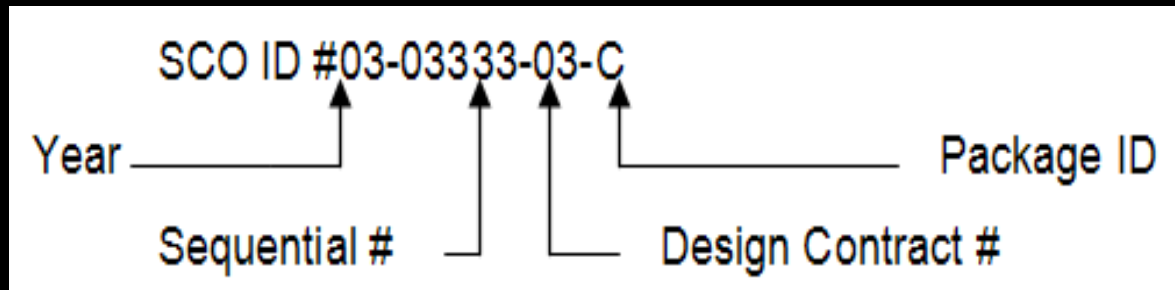
# Design Contract Types

- Basic Design Services, Form OC-22
- Commissioning
  - Required by GS 143-135.35-40, typically for buildings 20,000 SF or larger
  - Selected based on anticipated design fee not total project budget
  - Must be engineering firm licensed to practice engineering in NC

# Design Contract Types

- Special Inspections
  - Detailed inspections of materials, installations, fabrication, erection of components and connections as required by Section 1704 of NC Building Code
  - Can be performed by Structural Engineer of Record, or by independent firm
  - If using independent firm, designer selection process must be followed

# SCO ID – How can one number create so much confusion



# Thank you!

Cindy Register, P.E.  
Design & Construction Services

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## UPDATE NC CONSTRUCTION MANUAL

Chapter 400: Regulatory Review Agencies  
Chapter 500: Project Submittal Guidelines

# Chapter 400

## Regulatory Review Agencies

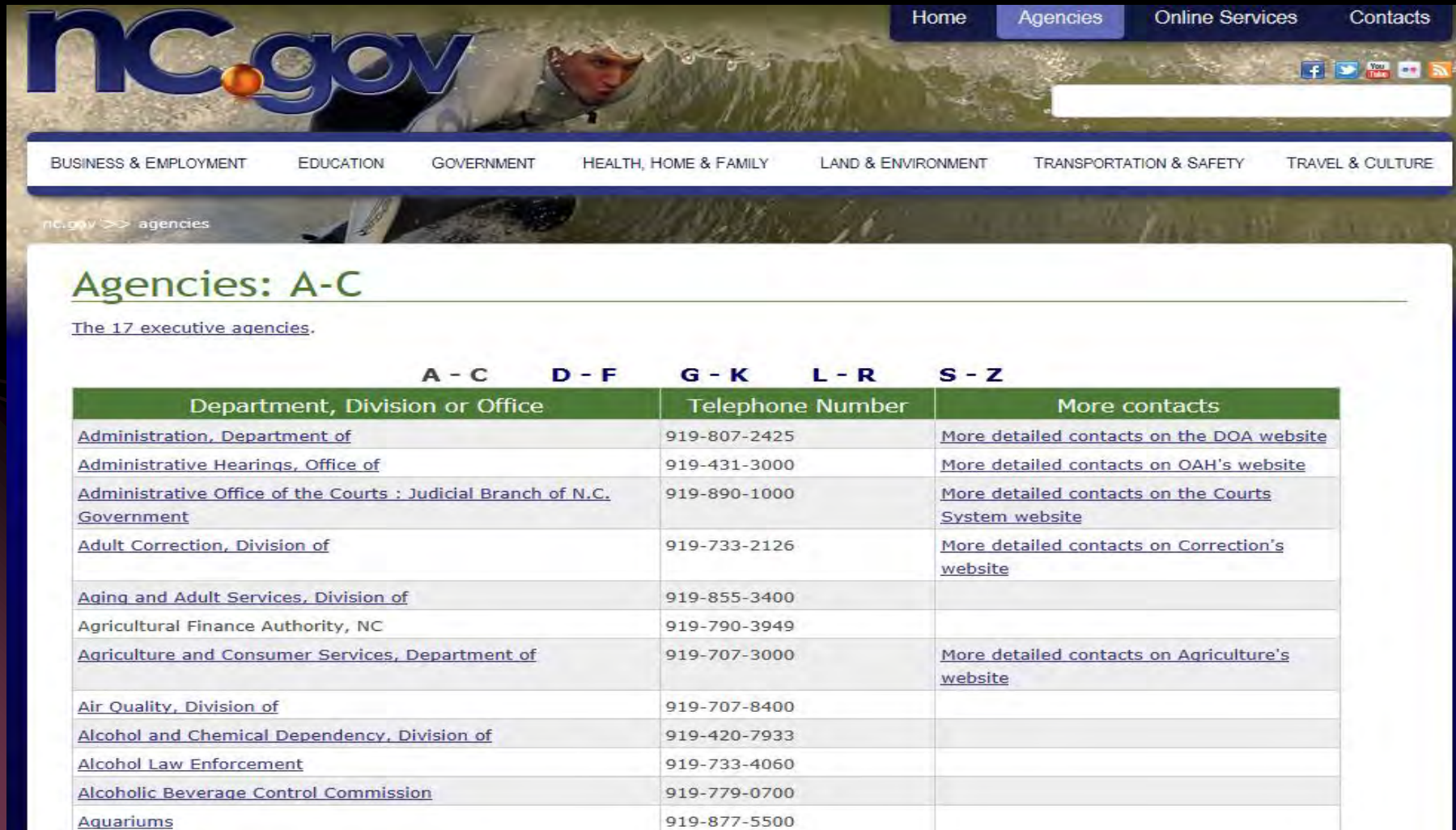
1. Changes since the last edition
2. Highlight on topics needed to be refreshed
3. Not all agencies reviews are pre-construction, some are during construction.
4. All hyperlinks have been updated

# Chapter 400: Regulatory Review Agencies

1. Owners
2. Department of Administration
3. Department of Labor
4. Dep't of Health & Human Resources
5. Dep't of Cultural Resources
6. Department of Environment & Natural Resources
7. Department of Agriculture
8. Dep't of Transportation
9. ITS (Information Technology System)

# Comprehensive list to all NC Government Agencies and the contact information:

<http://ncgov.com/government/agencies>



| A - C  |  |  | D - F            |  |  | G - K   |  |  | L - R |  |  | S - Z |  |  |
|--|--|--|------------------|--|--|---|--|--|-------|--|--|-------|--|--|
| Department, Division or Office   |  |  | Telephone Number |  |  | More contacts   |  |  |       |  |  |       |  |  |
| <a href="#">Administration, Department of</a>  |  |  | 919-807-2425     |  |  | <a href="#">More detailed contacts on the DOA website</a>           |  |  |       |  |  |       |  |  |
| <a href="#">Administrative Hearings, Office of</a>                                       |  |  | 919-431-3000     |  |  | <a href="#">More detailed contacts on OAH's website</a>             |  |  |       |  |  |       |  |  |
| <a href="#">Administrative Office of the Courts : Judicial Branch of N.C. Government</a> |  |  | 919-890-1000     |  |  | <a href="#">More detailed contacts on the Courts System website</a> |  |  |       |  |  |       |  |  |
| <a href="#">Adult Correction, Division of</a>  |  |  | 919-733-2126     |  |  | <a href="#">More detailed contacts on Correction's website</a>      |  |  |       |  |  |       |  |  |
| <a href="#">Aging and Adult Services, Division of</a>                                    |  |  | 919-855-3400     |  |  |   |  |  |       |  |  |       |  |  |
| <a href="#">Agricultural Finance Authority, NC</a>                                       |  |  | 919-790-3949     |  |  |   |  |  |       |  |  |       |  |  |
| <a href="#">Agriculture and Consumer Services, Department of</a>                         |  |  | 919-707-3000     |  |  | <a href="#">More detailed contacts on Agriculture's website</a>     |  |  |       |  |  |       |  |  |
| <a href="#">Air Quality, Division of</a>   |  |  | 919-707-8400     |  |  |   |  |  |       |  |  |       |  |  |
| <a href="#">Alcohol and Chemical Dependency, Division of</a>                             |  |  | 919-420-7933     |  |  |   |  |  |       |  |  |       |  |  |
| <a href="#">Alcohol Law Enforcement</a>  |  |  | 919-733-4060     |  |  |   |  |  |       |  |  |       |  |  |
| <a href="#">Alcoholic Beverage Control Commission</a>                                    |  |  | 919-779-0700     |  |  |   |  |  |       |  |  |       |  |  |
| <a href="#">Aquariums</a>  |  |  | 919-877-5500     |  |  |   |  |  |       |  |  |       |  |  |

## ● 401: General Requirements:

1. Other agencies such as OSHA, who are not involved in the review process but may be involved during construction.
2. Although State facilities are exempt from local Building Authority inspections or codes (NCGS 143-135.1) designers are required to check and comply with their zoning ordinances and any environmental regulation such as storm water management.
3. NC Administrative code & many agencies approvals expires after 6 months if not Bid.

## ● 402: Review Times:

### 1. State Building Commission adopted review times based on design phases:

#### a) Full SCO oversight projects: Calendar days

- |                                 |         |
|---------------------------------|---------|
| i. Advance Planning (AP)        | 15 days |
| ii. Schematic Design(SD)        | 30 days |
| iii. Design Development (DD)    | 30 days |
| iv. Construction Documents (CD) | 60 days |
| v. Final Design (FD)            | 15 days |

#### b) Limited oversight projects:

- |                                   |         |
|-----------------------------------|---------|
| I. Code enforcement review        | 15 days |
| II. 6 months expiration re-review | 15 days |

### 2. These times are contingent upon the submittals issued for review are complete.

## ● 403: Owners Review:

1. Owner review is crucial to the process:
  - a) Entrusted with the public funding of the project
  - b) Most familiar with the program needs
  - c) Hold the design contract
  - d) Responsibility to operate and maintain a building
  - e) Last step of a project - Final payment to designer
2. Capital Project Coordinator (CPC): In driver seat of a construction project
  - a) Designer selection
  - b) Involves facility personnel with the review
  - c) Approves change orders
  - d) Approves payment to contractors & designers
  - e) Responsible for numerous milestones

## ● 404: Dep't of Administration:

1. State Construction Office: See chapter 100

2. State Environmental Clearinghouse:

a) Environmental Policy Act NCGS 113A, Article 1

b) Projects with Public fund or Public land.

c) Projects not subject to this act:

i. Federally funded projects

ii. Interior renovations projects

3. State Property Office: See Section 204

a) Demolition of State buildings (Council of State approval)

b) Acquisition of Property: Gift or existing (Buy or lease)

- 405: Dep't of Labor:

1. Elevator and Amusement Device Bureau:

- a) Inspect and approve installations of all elevators, dumbwaiters, escalators, inclines and vertical wheelchair lifts...

2. Boiler and Pressure Vessel Division:

- a) Inspect all boilers, hot water storage tank and fired and unfired pressure vessels (NCGS 95 Article 7A & 7B)
- b) Jurisdiction span to all new or existing installations except as exempt under NCGS 95-69.10

3. Inspection and approval prior to building occupancy

## ● 406: Dep't of Health & Human Services:

1. Review and approval by Division Of Health Service Regulation (DHSR):
  - a) Acute general hospital (more than 2 beds)
  - b) State owned nursing homes
  - c) State owned mental health facilities
2. DHSR review shall be made at each design phase described in Chapter 500
3. Review is for compliance:
  - a) Minimum standard for licensure
  - b) Minimum federal standard for life safety

## ● 407: Dep't of Cultural Resource:

1. State Historic Preservation Office:
  - a) Review prior to any demolition or renovation
  - b) Review at each design phase described in chapter 500
2. Approval of Schematic Design phase by SCO is contingent on the approval by the NC Historic Preservation Commission
3. Source for current listing of properties can be found in the National Register of Historic Places

## ● 409: Dep't of Environment & Natural Resources:

1. Division of Air Quality: Permit is required
  - a) On equipment with air emission contaminants
  - b) Parking lots and decks (1500 & 750 spaces respectively)
  - c) Stadiums or sports arenas w/ 25,000+ capacity
  - d) EPA could have partial delegation
2. Division of Water Quality
3. Division of Coastal Management

## ● 411: Dep't Agriculture & Consumer Services:

1. LP gas installations in excess of 4,000 gallons of water capacity

# Chapter 500

## Project Submittal Guidelines

# Chapter 500: Project Submittal Guidelines

## 1. Full SCO Oversight Projects:

- a) University greater than \$2M
- b) Community Colleges, greater than \$1/2M
- c) State Agencies, greater than \$30,000

## 2. Limited SCO Oversight Projects:

- a) Code compliance + Field electrical inspections:
  - i. UNC Hospital System, no \$ limit
  - ii. Federally funded on state land i.e. Highway Rest Areas, no \$ limit
  - iii. Special legislation i.e. GTP, no \$ limit
  - iv. University, \$2M or less

## 3. Courtesy Oversight Projects, private land & funding

## 4. Exempt Projects, when granted:

- a) Small, minor scope of work
- b) No code or life safety modifications
- c) No structural elements involvement

# Chapter 500: Project Submittal Guidelines

## 5. Delegated Designs:

### a) Preapproved and allowed to be used on SCO projects:

- ✓ Pre-engineered Roof Trusses
- ✓ Precast Concrete
- ✓ Pre-engineered Metal/Wood Buildings
- ✓ Pre-engineered Pedestrian Bridges
- ✓ Modular Block Retaining Walls
- ✓ Shoring Systems
- ✓ Shear & Bracing Connections for Structural Steel
- ✓ Seismic Restraints for Non-structural Bldg components
- ✓ Modular Buildings
- ✓ Pre-engineered canopies
- ✓ Curtain walls and Storefronts
- ✓ Pre-engineered pre-insulated thermal utility piping
- ✓ Fire Sprinkler System

### b) Other delegated designs may be allowed with prior written approval from the SCO

### c) A Link will be available to the above list & other future inclusions

### d) All delegated designs will have to be submitted to SCO for review

## 501: General:

- a) Designers are required to visit and inspect sites
- b) Designers to thoroughly perform a check before each submittal
- c) Designers to be knowledgeable on the Sustainable Energy legislation
- d) Executive Order on preference for use of NC manufactured materials

## 501.2: Professional seals:

- a) Seals are required on all drawings unless exempt by Statute
- b) No signature or date is required until final bid document

## 501.3: NCGS 133:

- a) It is unlawful for Designers to spec for self financial interest
- b) It is unlawful for Designers to copy manufacturer's information
- c) Must Use the 3 competitive brand names or performance specs
- d) Deviation from any one of the above is a Class 3 misdemeanor

## 501.4 Design phases:

- |                              |         |
|------------------------------|---------|
| a) Advance Planning          | 15 days |
| b) Schematic Design          | 30 days |
| c) Design development        | 30 days |
| d) Construction Documents    | 60 days |
| e) Final Approval            | 15 days |
| f) Code only review          | 15 days |
| g) VE, Add, COP, Shop dwg... | 15 days |

## Review turnaround

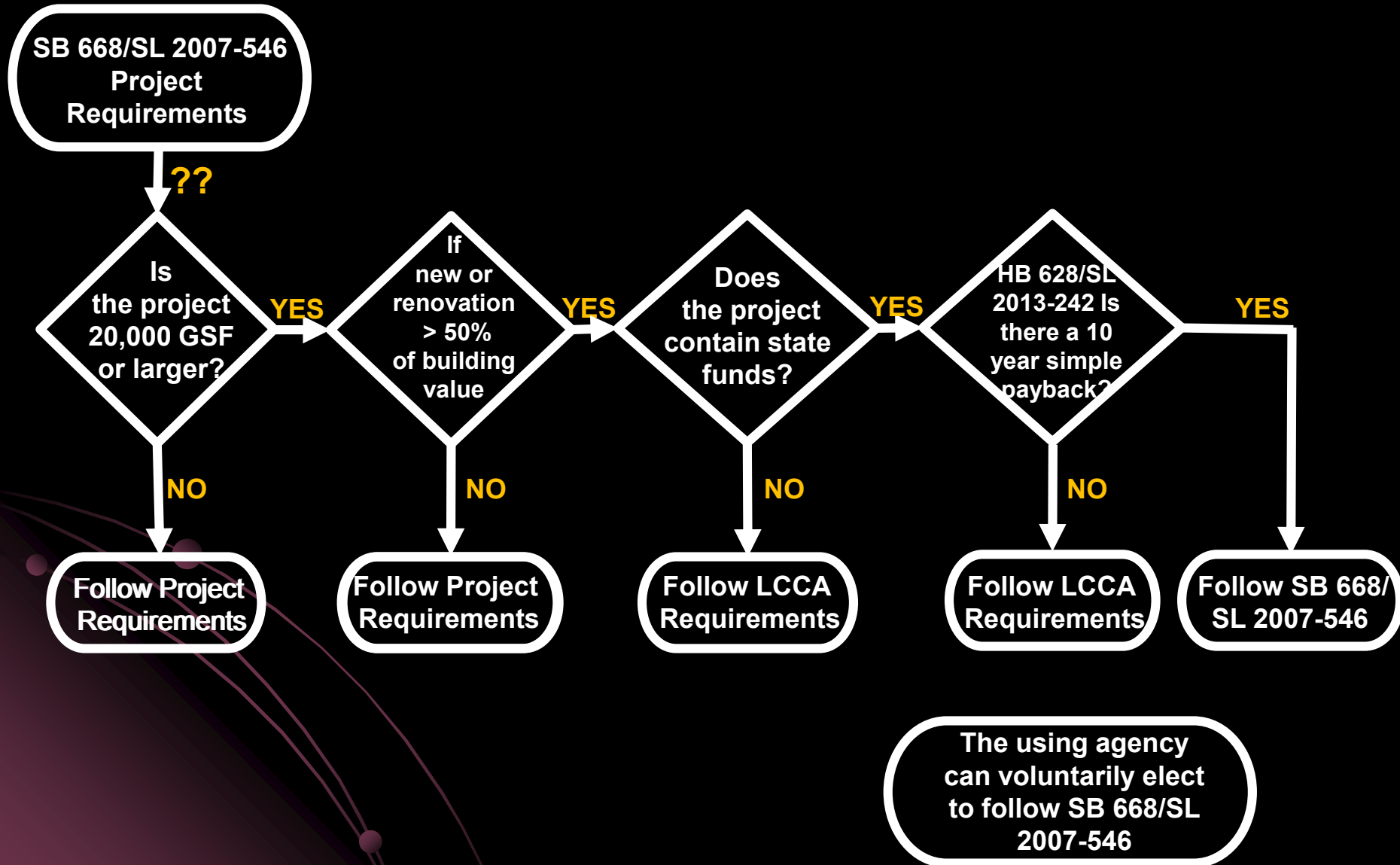
## 502 Forms and Guidelines:

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

## 503: Advance Planning Phase:

- a) Required on full oversight projects subject to Sustainability & Energy Efficiency compliance
- b) Standard Form of Agreement between Owner and Designer
- c) Sustainability & Energy Efficiency compliance start at this phase
- d) If Sustainability & Energy Efficiency is not desired compliance with session law 2013-242 may be applied at this phase

# Sustainability & Energy Efficiency Design Selection



# HB 628/SL 2013-242 Compliance (Net Savings Required)

1. Submit two LCCA's with the Advance Planning Phase submission
  - a) Each LCCA is for a 10 year period:
    - i. LCCA for a SB 668 building
    - ii. LCCA for a non SB 668 building
  - b) Building with lowest LCC wins

OR

2. Voluntary Compliance with SB 668/SL 2007-546

## 504: Schematic Design Phase

1. Submit program or written narrative & general description of the project
2. FCAP report or recommendation with all renovation projects
3. Statement of probable cost
4. Site Survey
5. Soils/Geotechnical report, when involving structural & foundation design
6. LCCA (GS143-64.10-15) and Sustainability & Energy Efficient Buildings (GS 143-135.35-40) if required. LCCA to be updated with each submittal to reflect any changes
7. Schematic Design drawings, minimum:
  - a) Drawing sizes: 24"x36" or 30"x42", entire set to be same size
  - b) Scaled site plan showing building orientation
  - c) Single line floor plan
8. "Approval-to-proceed" shall be documented from both Owner and SCO

## 505: Design Development Phase:

1. Written responses to Schematic Design Comments on Firm's letterhead
2. Statement of probable cost, to be within budget
3. LCCA based on Schematic Design review comments
  - a) Final energy model
  - b) Selection rational resultant from LCCA to be used for final design
4. Chemical and/or hazardous material analysis used or stored
5. Soils report *(if not included in Schematic Design submittal)*
6. Design Development drawings, minimum:
  - a) Drawing sizes: 24"x36" or 30"x42", entire set to be same size
  - b) Building Code Summary, Appendix B
  - c) Scaled site plan showing building orientation with floodplain evaluation & utility connections
  - d) Scaled architectural floor plan, cross sections, elevations
  - e) PME plans with general space layout, major equipment, diagrams
7. "Approval-to-proceed" shall be documented from both Owner and SCO

# 506: Combined SD & DD

1. Concurrent with Design Contract
2. Architectural:
  - a) Minor Renovations/up-fits
  - b) Small or metal buildings
  - c) Roofing or waterproofing
3. Civil/Structural
  - a) Utility infrastructure
  - b) Grading, paving, on-grade parking
4. Mechanical
  - a) Equipment replacement
  - b) fire sprinkler upgrade
  - c) life safety code renovations
5. Electrical
  - a) Equipment upgrades/replacement
  - b) Lighting renovations
  - c) Fire alarm and life safety code renovations

## 507: Construction Document Phase

1. Written responses to Design Development Comments on Firm's letterhead
2. Owners, commissioning and other regulatory agencies comments
3. Bid Documents & Forms
  - a) Notice to bidders
  - b) General Conditions (OC-15 or OC-15/CM) – Informal Contract GC
  - c) Supplementary General Conditions (limited to addition or revisions of GC)
  - d) Division 1: Specifics to project ie. Parking rules, security, working hours...
4. Minority Business Enterprise (MBE) Forms
5. LCCA based on Design Development review comments. Copy to be sealed, signed and dated

## 6. Cost estimate

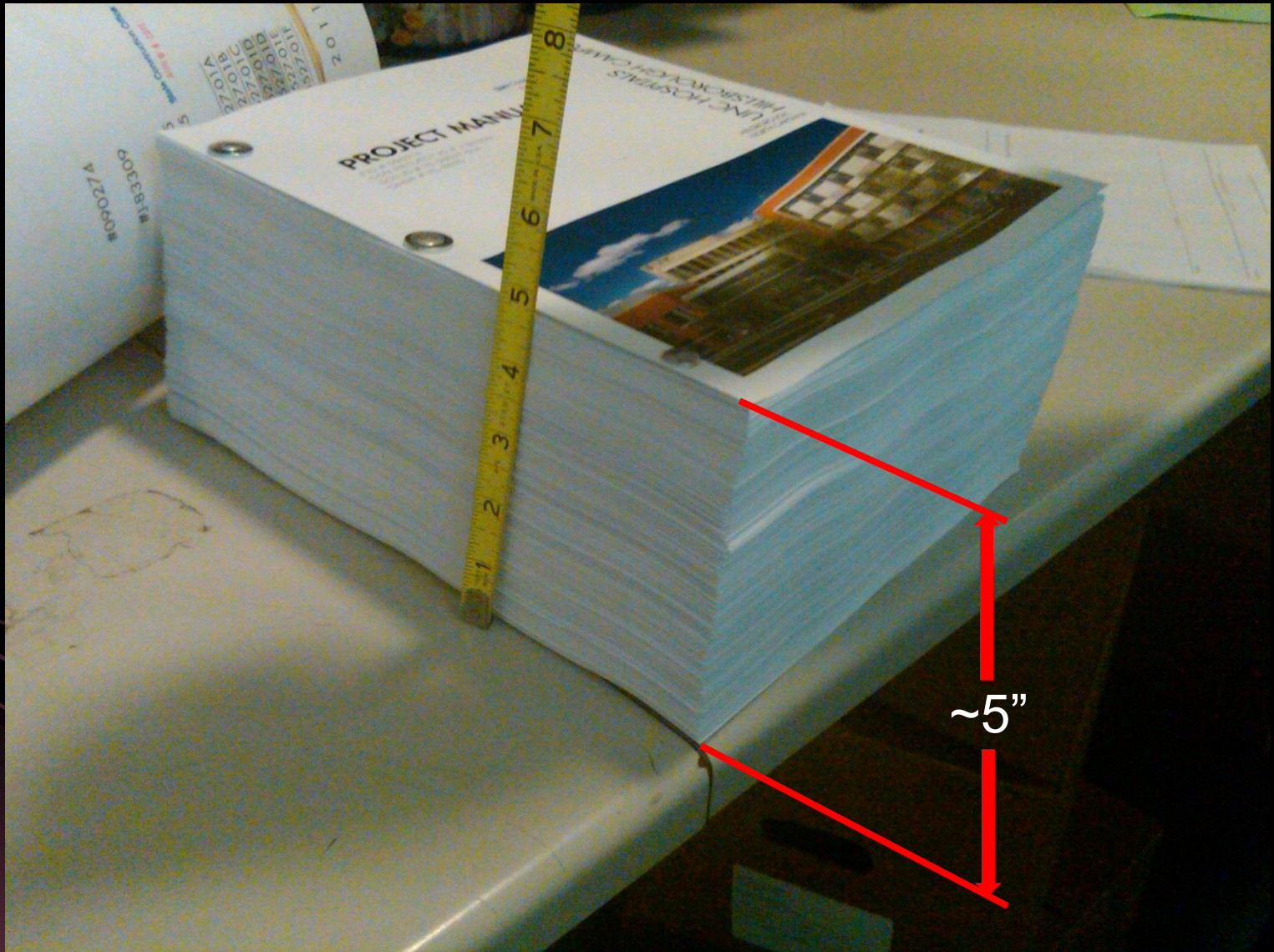
- a) Estimates considerably over budget will result in a “Not-approved” to bid.
- b) A 10% over budget is acceptable to move forward with the use of “Add Alternates”

## 7. Owner preferred alternates

- a) Strict adherence with NCGS 133-3
- b) Use of preferred brand is limited to components

## 8. Technical Specifications

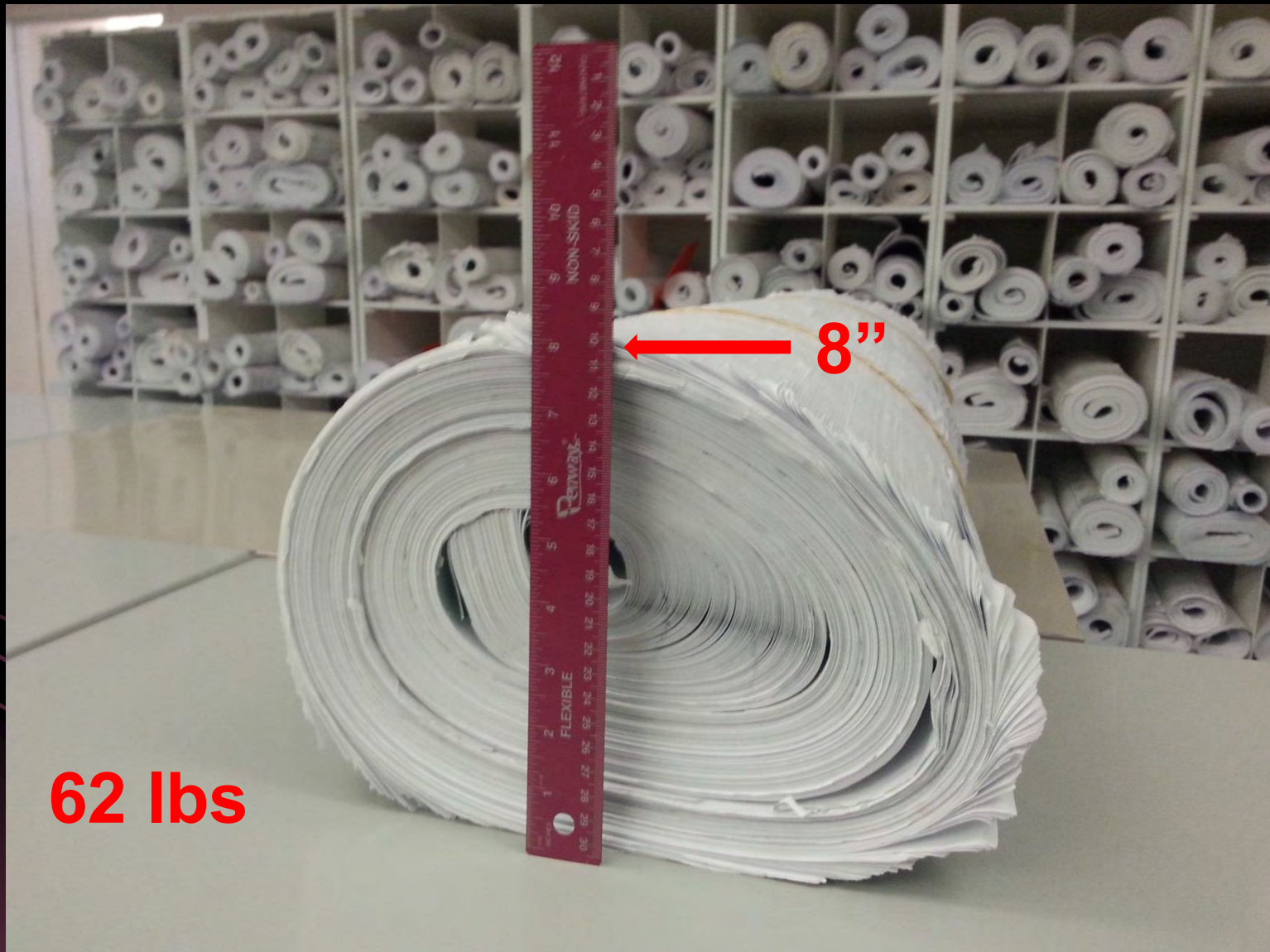
- a) Refer to section 509.3 for details on the project manual organization
- b) Manual cover w/ project headlines, SCO ID # and all professional seals
- c) Same CSI Master format to be used by all consultants
- d) Bound and limited to 1” thick maximum.



## 9. Drawings

- a) Drawing sizes: 24"x36" or 30"x42", entire set to be same size
- b) Large projects should use separate volumes preferably by discipline
- c) Partial drawings or submitted separately by consultants will not be accepted
- d) All plan sheet shall illustrate the same orientation of the building
- e) Cover/Title sheet w/ table of content even on small scope projects
- f) Seals of all major disciplines to be correlated with BCS
- g) Specialty disciplines such as AV systems and kitchens shall be sealed
- h) Securely Bound and limit a set thickness to 1" due to weight

10. "Approval-to-proceed" or "Approval-to-bid" shall be documented from both Owner and SCO



**62 lbs**

**8"**

# 510: Final Document Phase

1. It is not intended to be another review phase, it is a compliance check and verification with CD issued comments from all (Owner, SCO and other regulatory agencies)
2. Written responses to CD Comments on Firm's letterhead to issued on both **hardcopy and PDF format** (via email) for incorporating into INTERSCOPE
3. "Approval-to-proceed" from owner and any regulatory agency shall be either on file or submitted with this phase
4. "Approval-to-bid" will be issued as an e-copy PDF format letter requesting a coordination of the bid dates with the owner and SCO
5. Project is not released to construction until the bid dates have been coordinated except on Code only review or privately funded projects

## 512: Type of projects

1. **Formal Construction Contract:** All projects \$1/2M and over to follow the formal process
2. **Informal Construction Contract:** All projects less than \$1/2M but higher than \$30,000
3. **Code-only review**
4. **NC Community College projects < \$1/2M:** Exempt from SCO oversight unless requested in writing
5. **Privately funded projects on State owned or leased land:** same as Formal Construction Project and:
  - a) Bid documents will not be reviewed
  - b) Acceptance of project at end of construction is contingent on a final inspection with a full life safety verification

## 6. Privately funded projects on private land:

- a) Review is required on all projects connected to the State's utilities
- b) Courtesy oversight basis but includes compliance w/ Sustainability, Energy Efficient Building legislation
- c) Bid documents will not be reviewed
- d) Acceptance of project contingent on a courtesy CA and final inspection or a compliance with a comprehensive FCAP inspection if and when property is turn over to the state

## 7. Privately funded projects on NCCC land:

- a) Courtesy oversight including compliance w/ Sustainability, Energy Efficient Building legislation & SCO guidelines
- b) Bid documents will not be reviewed
- c) Acceptance of project at end of construction is contingent on a final inspection with a full life safety verification

## 8. Energy Performance Contract projects

## 8. Exempt projects:

- a) Small minor scope projects where no licensed professional designer is required and where no NCBC, life safety or structural elements are involved
- b) Exemption will not be granted when a licensed designer has been retained
- c) Compliance with the Informal construction process to be by owner if work is performed by other than owner forces
- d) A Certificate of Compliance (per NCBC) to be provided by owner w/ copy to SCO
- e) See section 512.8 for other exempt projects

## 9. Emergency projects:

- a) Emergency Declaration letter
- b) Approval to retain a designer and a contractor can take place as soon the owner has acquired funding
- c) Plans review is required, for code compliance, when made available

# Types of Reviews

| Entity/Funding   | SCO         |        |           |            |                |       | HUB Doc | Local AHJ Code Insp | Other Requirement   |
|--|-------------|--------|-----------|------------|----------------|-------|---------|---------------------|---|
|  | Code Review | Review | Forms/Doc | Elect Insp | Full oversight | Bonds |         |                     |   |
| State Agencies <\$500,000 Informal                           | ✓           | ✓      | ✓         | ✓          |                | ✓     | ✓       |                     | Note 1 & 3  |
| State Agencies >\$500,000 Formal                             | ✓           | ✓      | ✓         | ✓          | ✓              | ✓     | ✓       |                     | Note 2  |
| University <\$500,000 - Informal                             | ✓           |        | ✓         | ✓          |                |       |         |                     | Note 1 & 3  |
| University <\$2M Download                                    | ✓           |        | ✓         | ✓          |                | ✓     | ✓       |                     |   |
| University >\$2M Formal                                      | ✓           | ✓      | ✓         | ✓          | ✓              | ✓     | ✓       |                     | Note 2  |
| Community College <\$500,000 Informal                        |             |        |           |            |                |       | ✓       | ✓                   | Note 1 & 3  |
| Community College >\$500,000 Formal                          |             | ✓      | ✓         |            | ✓              | ✓     | ✓       | ✓                   | Note 2  |
| Fed Funded DOT Visit Ctr/Rest Stop                           | ✓           |        |           | ✓          |                |       |         |                     | Note 3  |
| UNC Hospital   | ✓           |        |           | ✓          |                |       | ✓       |                     |   |
| Global TransPark   | ✓           |        |           | ✓          |                |       |         |                     | Note 3  |
| Privately Funded on State Land                               | ✓           | ✓      | ✓         | ✓          | ✓              |       | ✓       |                     | Note 2 & 3  |
| Privately Funded on Private Land (Courtesy review oversight) | ✓           | ✓      |           |            | ✓              |       |         | ✓                   | Consider design to State std if project is turned over to State at completion. Notes 2, 3 & 4 |
| Privately Funded on Comm. Co. Land                           |             | ✓      |           |            | ✓              |       | ✓       | ✓                   | Notes 3 & 4   |
| Energy Performance Contract                                  | ✓           | ✓      |           | ✓          | ✓              |       |         |                     |   |
| Emergency Declared   | ✓           | ✓      | ✓         | ✓          | ✓              | ✓     | ✓       |                     | Note 3, reviews required when available   |
| Design Built   | ✓           | ✓      | ✓         | ✓          | ✓              | ✓     | ✓       |                     |   |
| CMR / CM   | ✓           | ✓      | ✓         | ✓          | ✓              | ✓     | ✓       |                     | Note 2  |
| Exempt Projects  |             |        |           | ✓          |                |       |         |                     | Note 3 & 5  |

\*Formal Bids and contracts are required on construction projects that cost \$500,000. Informal bidding may be used for projects of less than \$500,000.

SCO Code Review - Building Code review by the State Construction Office- required for all State and University projects.

SCO Review - review for energy efficiency and State Construction Guidelines by the State Construction Office.

Local AHJ Code Review - Permitting and code reviews are required to be performed by the local authority having jurisdiction.

Notes:

1. Bond not req'd but optional
2. Full oversight
3. MBE Compliance is required by owner
4. Courtesy oversight
5. Minor code review



# **34<sup>th</sup> Annual State Construction Conference**

March 26<sup>th</sup>, 2015

## **State Construction Manual Construction Management**

### **Chapter 300**

**Victor Stephenson, P.E.  
Assistant Director  
Construction  
Administration & FCAP**

# Chapter 700 – Construction Management

Jurisdiction

Project Monitor (SCO PM) Responsibilities

**Designer Responsibilities**

Commissioning Authority

Electrical Inspections

Special Inspections

Beneficial Occupancy

**Final Inspection**

Owner Insurance Coverage

Claims

Designer Evaluation

Contractor Evaluation

Project Close-out & Documents of Record

# Chapter 700 – Construction Management

## Preconstruction Meeting (PRECON) Formal Projects

- Shall be scheduled by the Designer.....  
... in accord with owner, contractor, SCO PM.
- Cannot be held until all contracts are fully executed ...  
... by all Departments including the Attorney General.
- Is not valid if not attended by SCO Project Monitor.

The Project Monitor must be present at the PRECON to ensure that all required documentation and notices are presented to the Contractor and project team.

# Chapter 700 – Construction Management

## Notice to Proceed (NTP) Formal Projects

- Designer shall issue written letter of NTP ....  
... including beginning date....  
... and required completion date.
- NTP shall be issued only after:
  - ❖ Receipt of fully executed contracts ...  
... and that includes AG's Office Approval
  - ❖ Completion of the PRECON requirements

# Monthly SCO Project Meetings

PRIME: Designer shall establish and conduct

CMR: Construction Manager shall establish and conduct

All in-house consultants and contract consultants whose design is under current active construction shall be present at the job site for the SCO monthly meeting.

These meetings shall be open to subcontractors, material suppliers and any others who contribute to the progress of the project.

# Monthly SCO Project Reports

What good is a monthly meeting without a report?

The Designer shall provide written copies of monthly construction progress reports.

These reports shall be submitted in accordance with the Monthly Progress Report document.

The Monthly Reports shall be uploaded into the State Construction Office InterSCOPE database as Package Documents.

Reports shall be uploaded by the 10th of each month and shall include copies of weekly inspection reports.

# Change Orders

Change Orders shall be filed electronically using the State Construction Office InterSCOPE project environment.

No change in the construction from approved plans and specifications shall be made until a change order or field order has been prepared and approved, except in the case of emergency, as covered in the General Conditions.

Change orders shall be accompanied by a complete breakdown showing computation of the cost, together with a written explanation of the change.

# Change Orders

The Designer, by his submission of the change order to the Owner, through InterSCOPE, certifies that he has examined and analyzed the change order and has found it to be in order and reasonable.

# SCO Final Inspections

The term “final inspection” no longer exists in the State Construction process.

These are valid terms:

Designer final inspection

SCO Beneficial Occupancy inspection

SCO final inspection

# SCO Final Inspections

Upon notification from the contractor(s) that the project is complete and ready for inspection, the designer shall make a **Designer final inspection** to verify that the project is complete and ready for SCO final inspection.

Prior to **SCO final inspection**, the contractor(s) shall complete all items requiring corrective measures noted at the **Designer final inspection**.

The Designer shall certify in writing that all punch list items from the *Designer final inspection* have been completed prior to scheduling the **SCO final inspection**.

# SCO Final Inspections

## Scheduling SCO Final Inspections

The Designer shall certify in writing that all punch list items from the Designer final inspection have been completed prior to scheduling the SCO final inspection.

The date and time of the SCO final inspection shall be set by the Designer in consultation with the Owner, Contractor and approved by the SCO PM.

The Designer shall furnish written notice of the SCO final inspection not less than seven (7) days prior to the inspection date.

# SCO Final Inspections

## Attendance

All Prime Contractors and sub-contractors which performed any work on the project shall be present at the time of Beneficial and/or SCO final Inspection.

No SCO final inspection shall be scheduled without the completion of the Final Electrical Certificate by the SCO Electrical Inspector.

# Thank you!

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



# **34<sup>th</sup> Annual State Construction Conference**

March 26<sup>th</sup>, 2015

**Dan Tingen**  
**Chairman**  
**NC Building Code Council**



# **34<sup>th</sup> Annual State Construction Conference**

March 26<sup>th</sup>, 2015

## **Break Time!**

## **Start Back at 10:15**



# **34<sup>th</sup> Annual State Construction Conference**

March 26<sup>th</sup>, 2015

**Christopher Chung**  
**Chief Executive Officer**  
**Economic Development Partnership of NC**

