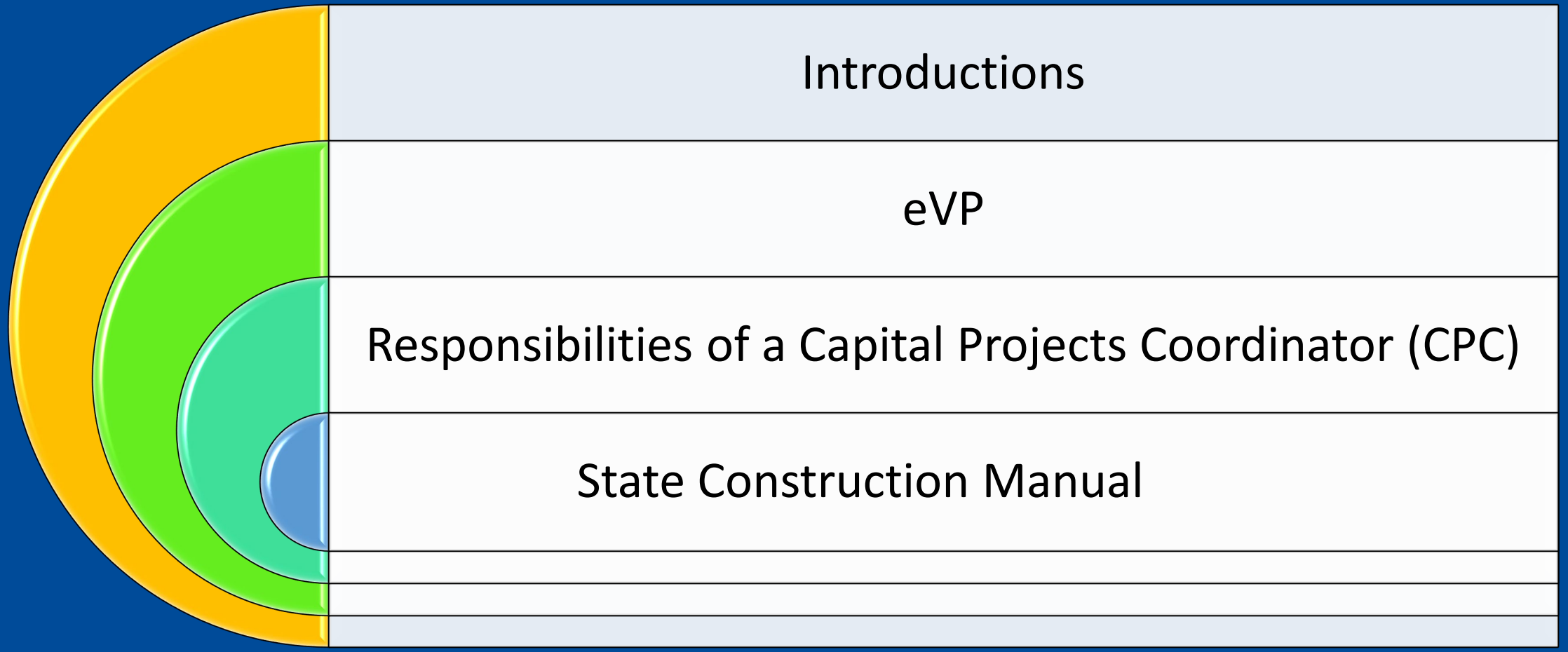
CPC Training

2026



NC DOA
Department of Administration
State Construction Office

AGENDA


Introductions
eVP
Responsibilities of a Capital Projects Coordinator (CPC)
State Construction Manual

INTRODUCTIONS

Michael Shumsky, PE

- Director of State Construction

Michael Ali, PE

- Asst. Director of Construction Management/Facility Conditions Assessment Program (FCAP)

Vibha Goel, RA

- Asst. Director of Design Review

Robert Talley, PE

- Asst. Director of Consulting Services Section (Downtown Complex)

Ryan Scruggs

- Design Contracts Coordinator

Aaron Lumpe, PE

- Construction Contracts Coordinator

Azim Sabouri

- Interscope System Administrator

eVP Electronic Vendor Portal



What is eVP

eVP

- Electronic Vendor Portal

Must be registered in eVP to be in Interscope

Free email notifications for bidding opportunities

eVP advertises solicitations from

- all state agencies
- Community Colleges
- Universities
- Public schools
- Some local governments

Who Participates in E-Procurement

State Agencies

K-12 schools

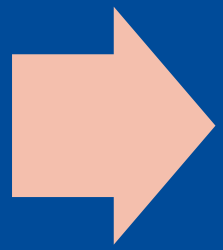
Community Colleges

Local Governments

- Counties
- Municipalities

What else is in eVP

eQuote



HUB

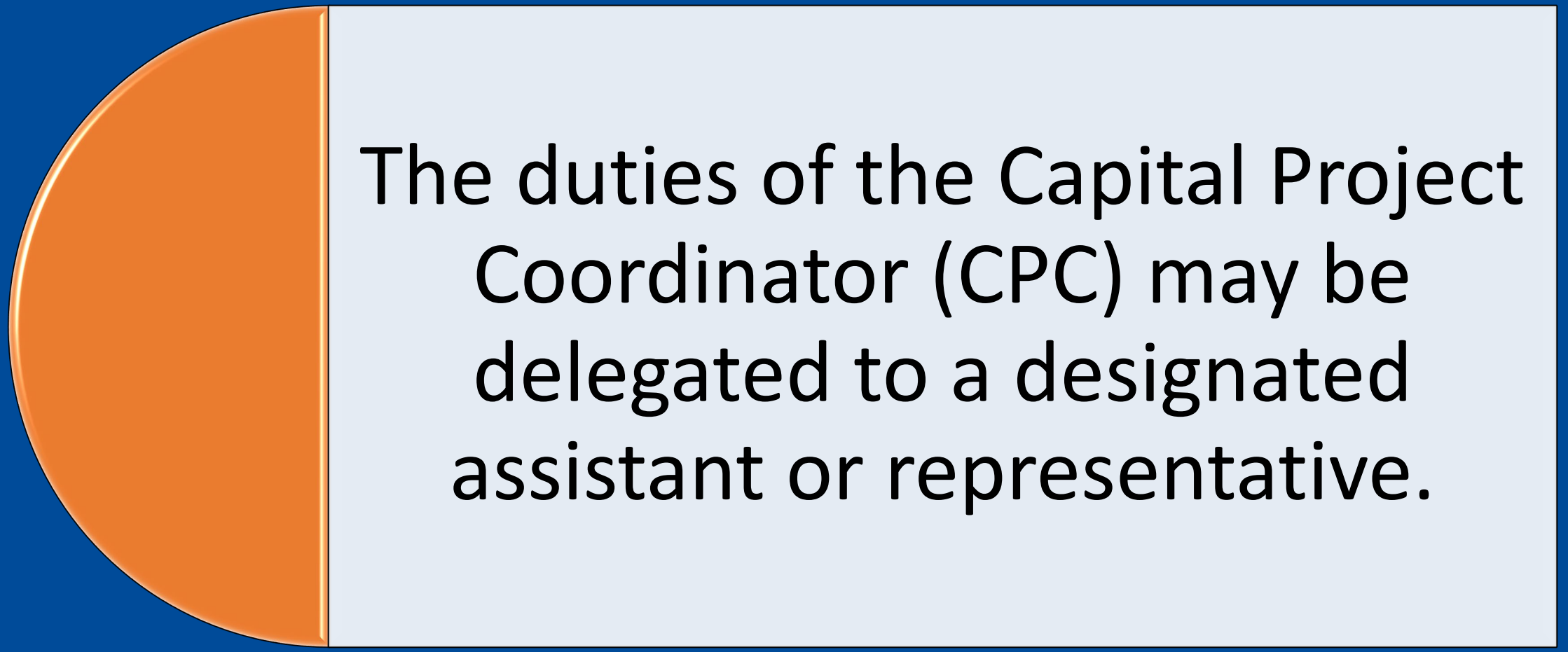
RESPONSIBILITIES OF A CPC



RESPONSIBILITIES OF A CPC

This individual may have other titles and responsibilities within his or her institution, but shall carry out the duties assigned as Capital Project Coordinator (CPC).

RESPONSIBILITIES OF A CPC



State Construction Manual

State of North Carolina

Josh Stein, Governor

Department of Administration

Gabriel J. Esparza, Secretary

State Construction Office

Michael J. Shumsky, P.E., Director

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NC DOA
Department of Administration
State Construction Office

CHAPTER 100 State Construction Office

CHAPTER 200 Agencies and Institution Capital Projects

CHAPTER 300 Procurement of Design Services

CHAPTER 400 Regulatory Review Agencies

CHAPTER 500 Design Guidelines

CHAPTER 600 Construction Contracts and Bidding

CHAPTER 700 Construction Management

Chapter 100

State Construction Office

Section 101

Jurisdiction

Definition of “State Buildings”

“State buildings,” as defined by General Statute General Statute (GS) 143-336, refers to *all State buildings, utilities, and other property developments except the State Legislative Building, railroads, highway structures, bridge structures, and any buildings, utilities, or property owned or leased by the North Carolina Global TransPark Authority.*

The definition of construction and renovation work, for which the State Construction Office has oversight on State buildings, is defined in the Permits Section of the General Statute (GS) 160D-1110 and the State Building Code.

This also includes the installation, extension or general repair of any plumbing, heating, cooling or electrical systems.

Building Code Enforcement

All State and University projects which construct, alter, renovate or add to State buildings or property, or are affected by any of the North Carolina Building Codes shall be submitted for code review and approval prior to the start of construction.

This includes the UNC Healthcare system and ECU Medical Faculty Practice Plan. For all state buildings, the Department of Administration, through the State Construction Office, is the Authority Having Jurisdiction (AHJ) over the administration and enforcement of all sections of the North Carolina State Building Code as described in GS 143-139(e).

University Project Exemptions

University projects with total project expenditure (budget) of four million dollars ($4,000,000) or less, as defined in GS 116-31.11, are exempt from State Construction architectural and engineering oversight required by GS 143-341.

However, these projects are not exempt from State Construction code enforcement required by GS 143-139(e).

In addition, designer selection and construction administration for these projects is the responsibility of the owner.

Community College Project Exemptions

All community college projects with an estimated total project expenditure (budget) below the public bidding threshold of five hundred thousand dollars ($500,000) or less are exempt from State Construction oversight, as required in GS 143-129.

The building code is enforced through the local Authority Having Jurisdiction (AHJ), which is usually a county, town or city inspections department.

Community College Project Exemptions

Four Valid delegations by the State Board of Community Colleges (SBCC)

- Wake Technical Community College
- Central Piedmont Community College
- Guilford Technical Community College
- Fayetteville Technical Community COllege

HB 243 (SL 2022-06) "Technical Corrections Act"

Other Facility Exemptions

Exemptions exist, with no dollar limit, for UNC HealthCare Systems and ECU Medical Faculty Practice Plan, GS 116-350.50 and GS 116-360.35 respectively.

Department of Transportation 'Right-of-Way' construction is exempt according to GS 143-341(4)k.

NC State Legislative Building and property owned/leased by the NC global TransPark Authority are exempt by definition, GS 143-336

Privately Funded Projects on State Owned Land

All projects, regardless of land, ground or other lease arrangements, shall be submitted to the State Construction Office for code review and approval.

For projects with a total project expenditure (budget) of more than two million dollars ($2,000,000), reviews for energy efficiency, Performance Standards for Sustainable Energy-Efficient Public Buildings Article 8C and State Construction Guidelines will also be performed.

Acceptance of the project at completion will be subject to a complete State Construction Office final inspection with all life safety systems tested.

Privately Funded Projects on Private Land

For all projects constructed with private funds on private land for use by the State or any State institution, or connected to the State's utilities, reviews for energy efficiency, Performance Standards for Sustainable Energy-Efficient Public Buildings Article 8C and State Construction Guidelines will be performed.

Permitting and code compliance review will be conducted by the local Authority Having Jurisdiction (AHJ).

The State Construction Office will not be involved in contractual matters or construction administration.

A complete facility assessment and inspection shall be conducted prior to the building being donated and/or purchased by the State.

To expedite the transfer of the private property to the State's inventory, the State Construction Office should review and inspect during the construction phase of the project.

Privately Funded Projects on Community College Land

All privately funded projects with total project expenditure (budget) of five hundred thousand dollars ($500,000) or larger, constructed on Community College land shall be submitted to the State Construction Office review of energy efficiency, Performance Standards for Sustainable Energy-Efficient Public Buildings Article 8C and State Construction Guidelines.

Permitting and code compliance reviews are required to be conducted by the local Authority Having Jurisdiction (AHJ).

The State Construction Office will inspect, observe and assist with construction administration.

Acceptance of the project at completion will be subject to a complete State Construction Office Final Inspection with all life safety systems tested, and issuance of the local Authority Having Jurisdiction (AHJ) Certificate of Occupancy.

Section 102

Responsibility of State Construction Office

Certification of State of Needs (OC-25) according to GS 143-341(3)b1	• Form OC-25
Procurement of Design Services	• State Construction Office and State Building Commission Rules are in North Carolina Administrative Code (NCAC) 30 of the NC Administrative Code
Review and Approval of Plans and Specs	• General Statute GS 143-341(3)a • General Statute GS 143-139(e)

Management of Bidding and Construction Contracting	General Statute GS 143-128	General Statute GS 143-129
The State Construction Office is the awarding authority for construction contracts except as noted in Section 101 of the State Construction Manual.		
Supervision and Inspection of Construction Work	GS 143-341(3)d except as noted in Section 101 of the State Construction Manual	

Facilities Condition Assessment Program (FCAP)

The FCAP was established to meet the requirements of GS 143C-8-4, which gives the DOA responsibility for providing a condition assessment of State owned facilities every three years.

Assessment for Purchase of Buildings:

The Department of Administration is responsible for Real Property Control, including the purchase of buildings, under Council of State oversight.

The Facility Condition Assessment Program (FCAP) supports this statutory responsibility of the Department by inspecting buildings prior to purchase and providing cost estimates on needed repairs to aid in purchase price negotiations.

This helps the Department ensure purchased buildings are safe and economical to operate and maintain.

Section 103

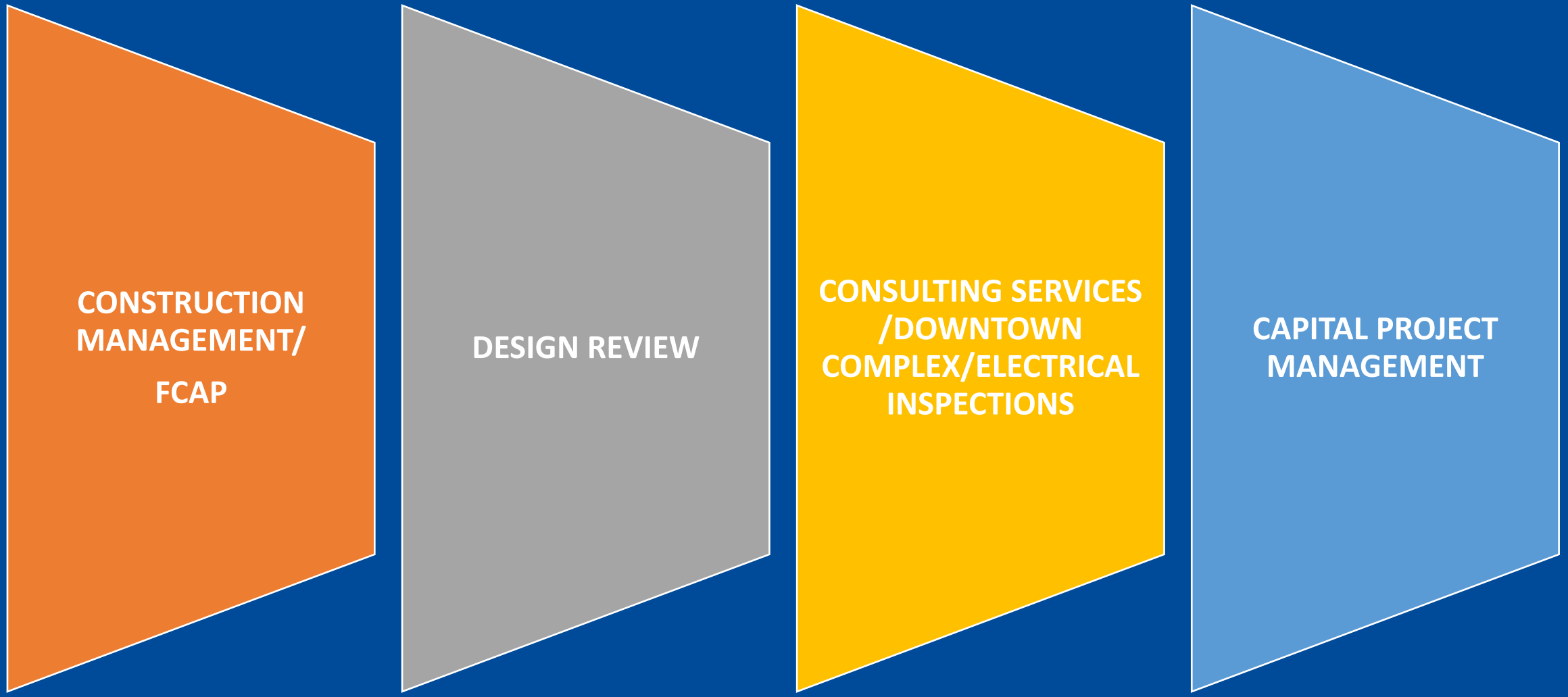
Other Responsibilities

Administration of Flood Plain Guidelines	Executive Order 123	Flood Plain Management Documents
Allocation of Energy Efficiency Tax Deduction	General Statute GS 143-341(3)f	

Section 104

Organization of State Construction Office

Office Organization



A staff listing is available on the State Construction website under Contact Us-SCO Staff Listing.

Design Review

Examination and approval of all plans and specifications for construction or renovation of State buildings throughout the state, including building code enforcement

Contracts for design.

Construction Management

- Supervision and inspection of all work done and materials used in construction or renovation of State buildings
- Acting as the official electrical inspector through Consulting Services Section
- Acceptance of constructed buildings on behalf of the State
- Management of State buildings in Wake County through Consulting Services Section
- Assessment of State and private buildings
- Certification that statements of need are feasible

Design and Construction Services

Provide in-house design services for Department of Administration projects through Consulting Services Section

Examination and approval of all plans and specifications for construction or renovation of Department of Administration projects throughout the Downtown Complex,

Monitor all project construction for the downtown government complex

Section 105

State Building Commission

Created in July 1987 by the Legislature, GS 143-135.25 established the State Building Commission as the successor to the previous Capital Building Authority.

Nine members are appointed by the Governor and the General Assembly, representing owners, designers, contractors, local governments and the public.

Members serve three-year terms with each member limited to two consecutive terms.

The Commission is only required to meet four times annually but, typically, meets monthly in the State Construction Office.

The State Construction Office and State Building Commission Rules are in North Carolina Administrative Code (NCAC) 30 of the NC Administrative Code

CHAPTER 200

Agencies and Institution Capital Projects

Section 201

Definitions

Section 202

Responsibilities of Owning Agencies

Appointment of Capital Project Coordinator (CPC)

Agencies, Community Colleges or Universities shall name staff members as Capital Projects Coordinators (CPC's) responsible for all capital project.

The term "Owner" typically refers to the owning agency Capital Projects Coordinator (CPC) or designee.

The State Construction Office will periodically, and based on demand, conduct a course of instruction on the role and duties of the Capital Project Coordinator (CPC), as well as topics pertinent to the state construction process. GS 143-135.26(4) and NCAC-30E &30F.

Establishment of Needs, Scope and Budget

State agencies, institutions, and community colleges (owners) shall establish needs, scope, schedule and budgets for new physical facilities as well as repair and renovation needs.

The owner shall request legislative funding by describing the proposed capital project on Form OC-25 Cost Estimate. The Form OC-25 Cost Estimate can be completed online in the State Construction Office InterScope database as a Cost Estimate.

The State Construction Office Facility Condition Assessment Program (FCAP) reports can assist owners in prioritizing needs and preparing cost estimates, and should be included with each renovation funding request.

Once the Form OC-25 Cost Estimate is complete and certified by the State Construction Office, the owner submits the request to the Office of State Budget and Management for possible inclusion in a budget request for funding project.

Community Colleges are exempt from OC-25 process.

Capital Improvement Funding Categories have typically included:

Appropriations/ Bonds: Funding authorized by legislation with funds provided by the State for specific projects.

COPS: Funding authorized by legislation with funds provided by borrowing under a "Certificates of Participation" debt mechanism. COPS funding may be for specific projects or for repairs and renovations.

Repairs and Renovations: Funding authorized and provided by the State for repairs and renovations necessary to maintain existing facilities.

Self Liquidating: Funding authorized by legislation for specific projects with funds provided from debt where proceeds generated from the sale of goods or services, such as Housing, Bookstore, Dining, Athletics, etc. are used to retire the debt.

Other Non-Appropriated: Funding from other sources such as gifts, grants, donations, or other non-State sources.

Certification of Form OC-25 (Cost Estimate)

State institutions and agencies planning a capital project request shall use Form OC-25 Cost Estimate Proposed Repair and Renovation Capital Improvement Project for verification of scope, schedule and cost estimate.

This form is available on the State Construction Office InterScope Project Environment under the heading Cost Estimate, and can be completed on-line once the Capital Project Coordinator has obtained a log-in password.

The Form OC-25 Cost Estimate shall fully describe the proposed project and justification for need.

Each form shall be completed by an authorized representative of the institution or agency.

The State Construction Office is to certify the statements of need submitted as Form OC-25 Cost Estimate are feasible, or sufficiently defined in overall scope; building program; site development; construction and equipment budgets; and comprehensive project scheduling so as to reasonably ensure completion within the amount of funds requested. GS 143-341(3)b1.

Owner Responsibility for Design and Construction

Projects are authorized by the legislature.

The Owner will expeditiously follow all procedures and actively participate in the designer selection, commissioning and contracting processes.

The Owner will also provide all programming and information needed for the designer to prepare an appropriate scope of design work, schedule and design fee to meet the requirements established in the authorization.

Owner Responsibility for Design and Construction

For design and construction of Capital Projects, the owner shall ensure that the performance of building systems meets the design intent.

Section 203

Emergency Projects

Emergency situations are addressed in Administrative Code NCAC 30D.0302(e) for Special Procedures for Emergency Projects and reads as follows:

On occasion, emergency design or consultation services may be required for restoration or correction of a facility condition which by its nature poses a hazard to persons or property, or when an emergency exists.

Should this situation occur, in all likelihood there will not be sufficient time to follow the normal procedures described in this Rule.

The Capital Project Coordinator on these occasions may declare an emergency, notify the State Construction Office and then obtain the services of a designer or consultant for consultation or design of the corrective action.

In all cases, such uses of these emergency powers shall involve a written description of the condition and rationale for employing this special authority signed by the head of the agency and presented to the SBC at its next normal meeting.

Timeliness for obligation of funds or other non-hazardous or non-emergency situations do not constitute sufficient grounds for invoking this special authority.

Section 204

Real Property

Demolition of Buildings

Request for authority to raze or demolish any building or structure as defined above shall be made to the State Property Office on Form PO-2, Disposition of Real Property.

No building or structure owned by the State of North Carolina, with the exception of highways, bridges and railroads, demolished or otherwise disposed of unless and until authority for such disposition has been approved by the Council of State and given in writing by the Department of Administration, State Property Office according to the conditions of GS 143-341(4) and other applicable statutes.

All buildings to be razed or demolished shall be surveyed for asbestos-containing materials or other hazardous materials that shall be properly removed in accordance with environmental regulations and legally disposed of prior to demolition.

Acquisition of Property – Gift of Existing Real Estate to the State

For the State to accept a gift of land, buildings or other structures, proposals shall be submitted by the recipient institution to the State Property Office.

CHAPTER 300

Procurement of Design Services

Section 302

Designer Selection – Basic Requirements

Procurement of design services for architectural, engineering (which includes commissioning), and surveying are governed by “Article 3D - Procurement of Architectural, Engineering, and Surveying Services” in GS 143-64.31-.34 and the “State Building Commission Designer and Consultant Selection Policy” in 01 NCAC 30D.

1. GS 143-64.31(a) exempts special emergency projects involving the health and safety of people or property and

2. GS 143-64.34 exempts Capital Improvement Projects under the jurisdiction of the State Building Commission, University of North Carolina, and Community Colleges with an estimated total project budget of less than $500,000.

"Major" projects with an estimated total project budget greater than $500,000 must meet all the requirements of GS 143-64.31-.34 which are:

Public advertisement on the State of North Carolina electronic Vendor Portal (eVP) website for a period of at least 15 calendar days.

Qualifications based selection process without regard for fee.

Good faith efforts by the Owner to notify minority firms of the opportunity to submit qualifications for consideration.

Preference of North Carolina resident firm over non-resident firm.

Section 303

Roles in Designer Selection Process

Owner	Project Type (Total Project Budget)	Public Advertisement	Designer Selection Approval	Design Contract Negotiation
State Agency	Minor - SCO Oversight (<=$500,000)	Not Required	State Construction Office	SCO
State Agency	Major - SCO Oversight (>$500,000)	eVP Website for minimum of 15 calendar days	State Building Commission	SCO
State Agency	Emergency	Not Required	Agency Reporting to SBC	SCO
University	Download - Minor(<= $500K)	Not Required	University	University
University	Download Major- ($500K and $4,000,000)	UNC Website & IPS Website for 15 calendar days	University	University
University	Major (>$4,000,000)	UNC Website & IPS Website for 15 calendar days	University	SCO
University	Emergency	Not Required	University with Reporting to SBC	SCO (If >$4,000,000)
Community College	Minor(<=$500K)	Not Required [RC1]	Community College	Community College
Community College	Major - SCO Oversight (This varies *)	eVP Website for minimum 15 calendar days	Community College	SCO
Community College	Emergency	Not Required	Community College with Reporting to SBC	SCO (If >$500,000)

* (1) $500,000, (2) $2,000,000, (3) $4,000,000

SCO Oversight for CC Projects

SBCC Requests Continued SCO Supervision	
ALAMANCE	PITT
BEAUFORT	RANDOLPH
BRUNSWICK	ROANOKE-CHOWAN
CENTRAL CAROLINA	ROBESON
COASTAL CAROLINA	ROCKINGHAM
CRAVEN	SAMPSON
DURHAM	SOUTHEASTERN
EDGECOMBE	SOUTHWESTERN
GASTON	STANLY
HALIFAX	SURRY
ISOTHERMAL	VANCE
JAMES SPRUNT	WILKES
MONTGOMERY	WILSON
PAMLICO	
PIEDMONT	

C1=CC
C2=SC

Approved $4M Delegation
CENTRAL PIEDMONT
FAYETTEVILLE TECH
GUILFORD TECH
WAKE TECH

C3=CC
C4=SCO
C5=CC

Approved less than $2M	
ASHEVILLE-BUNCOMBE	MCDOWELL
BLADEN	MITCHELL
BLUE RIDGE	NASH
CALDWELL	RICHMOND
CAPE FEAR	ROWAN CABARRUS
CARTERET	SANDHILLS
CATAWBA VALLEY	SOUTH PIEDMONT
CLEVELAND	TRI-COUNTY
COLLEGE OF THE ALBEMARLE	WAYNE
DAVIDSON-DAVIE	WESTERN PIEDMONT
FORSYTH	
HAYWOOD	
JOHNSTON	
LENOIR	
MARTIN	
MAYLAND	

C6=CC
C7=SCO

Section 304

Designer Selection for Major Projects (>$500,000)

For State Agency projects, the Owner's Capital Projects Coordinator (CPC) should complete the Advertisement for Design Services form from the SCO website and email the completed form to scoads@doa.nc.gov for posting on the State of North Carolina Electronic Vendor Portal (eVP)

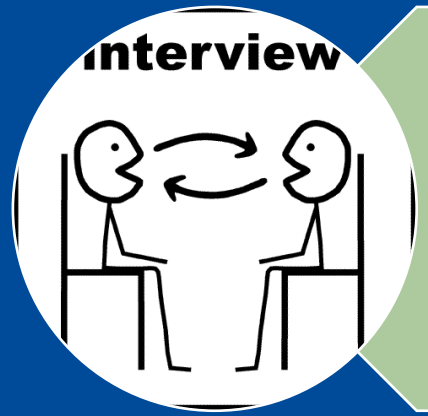
For University projects, the University should publicly advertise using the standard University procedures.

For Community College projects, the Community College should publicly advertise using their own procedures appropriate to their respective Board of Trustees. Community Colleges may use the Advertisement for Design Services form from the SCO website but should post their completed form to the State of North Carolina electronic Vendor Portal (eVP) website on their own.

Pre-Selection

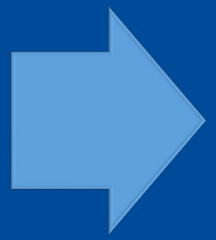


For State Agency projects, the CPC will coordinate with SCO to create a pre-selection committee of interested parties to include a minimum of two representatives from State Construction Office with at least one member of the pre-selection committee being a licensed professional.



The pre-selection committee will review the responsive qualification packages submitted in response to the Advertisement for Design Services and determine the most qualified firms to be interviewed by the pre-selection committee.

This list of most qualified firms should include at least three firms but no more than six firms to be interviewed and evaluated.



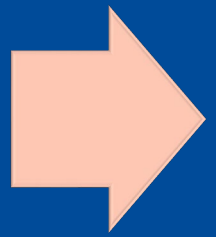
The pre-selection of the most qualified firms should include review of designer evaluations from InterScope.

The firms to be interviewed will be notified by the State Construction Office. Firms should prepare a presentation of their qualifications and experience to the pre-selection committee.

Interviews are typically performed using Microsoft Teams video meetings which are scheduled by the State Construction Office.

Interviews for most projects are typically 30 minutes in total duration with time shared between a presentation session and a questions and answers session.

Interviews for larger scale projects may be as long as 45 minutes in total duration with time shared between a presentation session and a questions and answers session.



Any specific issues that designers need to address in their presentation should be identified in advance of the interview.

Following the interviews, the pre-selection committee should determine the three most qualified firms for the particular project and rank the three firms in priority order. In selecting the three firms to be presented to the SBC, the pre-selection committee should take into consideration the following ten factors identified in 01 NCAC 30D as:

1. Specialized or appropriate expertise in the type of project.
2. Past performance on similar projects.
3. Adequate staff and proposed design or consultant team for the project.
4. Current workload and State projects awarded.
5. Proposed design approach for the project including design team and consultants.
6. Recent experience with project costs and schedules.
7. Construction administration capabilities.
8. Proximity to and familiarity with the area where project is located.
9. Record of successfully completed projects without major legal or technical problems.
10. Other factors that may be appropriate for the project.

Universities should follow procedures based on guidance from the

UNC System Office.

Community Colleges should follow their own procedures appropriate to their respective Board of Trustees.

Selection

For State Agency projects, the Pre-Selection committee members should understand that the final approval of a designer selection is the responsibility and authority of the State Building Commission.

As such, no pre-selection committee members shall divulge any information about discussions or decisions made by the pre-selection committee.

Designers and other interested parties should not contact any member of the pre-selection committee prior to final action by the State Building Commission.

Universities should follow procedures based on guidance from the UNC System Office

Community Colleges should follow their own procedures appropriate to their respective Board of Trustees.

Notification

The selected designer will be notified by the Owner or the State Construction Office.

Following notification of the selected designer, the CPC should contact the selected designer to share all necessary project information and obtain a design fee proposal for the project.

Upon review and approval of the information contained in the designer's proposal, the CPC will forward the design fee proposal along with all appropriate project information to the SCO Design Contracts Coordinator to allow for negotiation of a design contract.

Section 305

Designer Selection for Minor Projects (<= $500,000)

Public Announcement

Projects with an estimated total project budget less than or equal to $500,000 are considered to be “Minor” projects and are not required to be publicly advertised.

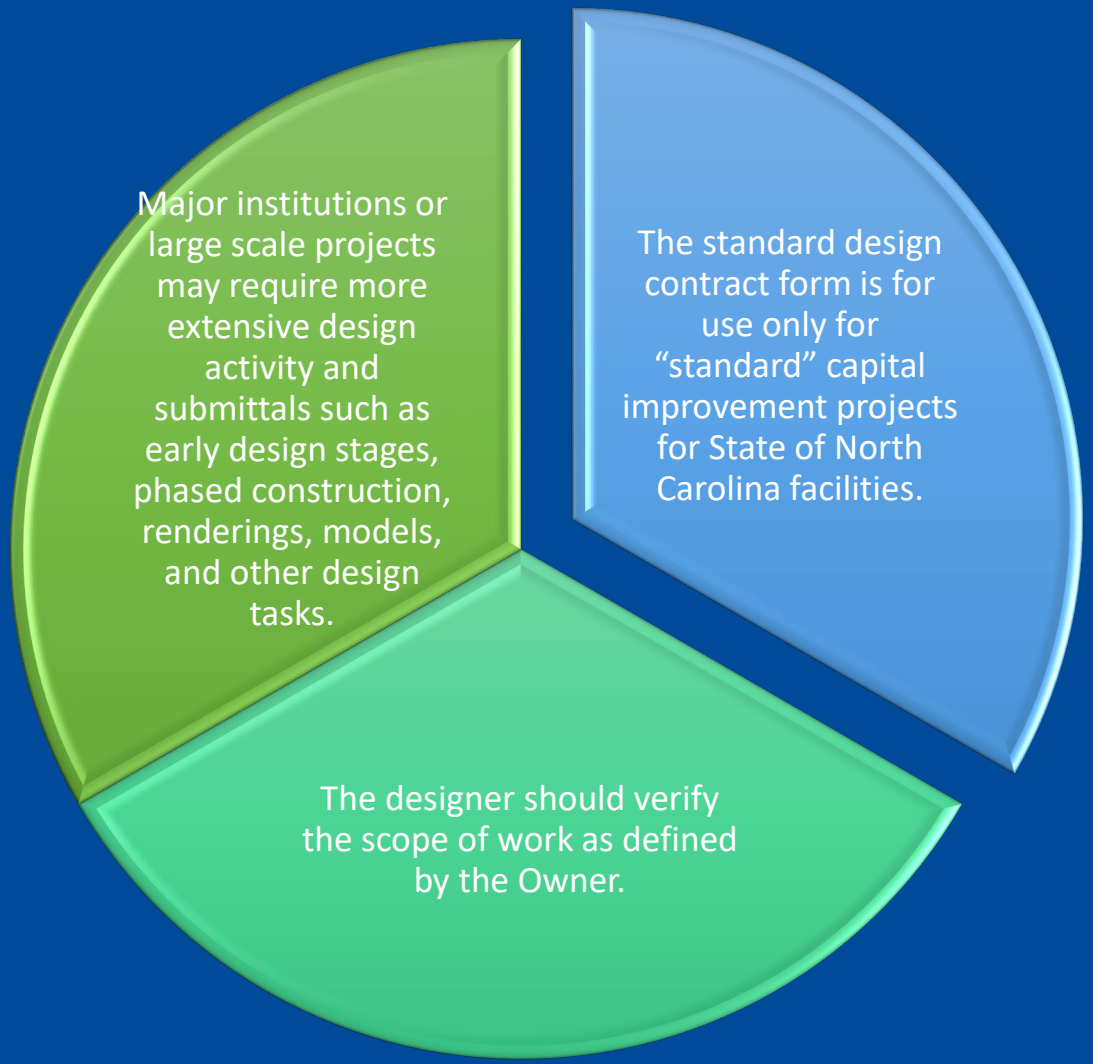
There are no General Statute requirements for public advertisement for design services on projects where the estimated expenditure of public money is less than $500,000.

- The designer selection process for Major projects may be used for any Minor project if desired but is strictly optional.

Per GS 143-341(3)b1, an SCO approved Estimated Project Cost Estimate (OC-25) is required for any State Agency project with an estimated total project budget greater than $100,000.

Section 306

Standard Design Contract


Major institutions or large scale projects may require more extensive design activity and submittals such as early design stages, phased construction, renderings, models, and other design tasks.
The standard design contract form is for use only for “standard” capital improvement projects for State of North Carolina facilities.
The designer should verify the scope of work as defined by the Owner.

Negotiation of Design Agreement

The selected designer will be notified by the Owner or the State Construction Office. Following notification of the selected designer, the CPC should contact the selected designer to share all necessary project information and obtain a design fee proposal for the project.

Upon review and approval of the information contained in the designer's proposal, the CPC will forward the design fee proposal along with all appropriate project information to the SCO Design Contracts Coordinator to allow for negotiation of a design contract.

The selected Designer will receive a written request to submit a design fee proposal for consideration.

The Designer shall carefully review scope, budget, site, special requirements and regulatory time frames of the project with Consultants and the Owner.

The design contract fees will be negotiated with the State Construction Office on an individual project basis with input from the Owner.

The Designer should consult with the Owner as to the number of submittal copies the Owner requires for each stage of review and for record drawings, including facility management needs.

Section 307

Other Types of Design Contracts

Advance Planning Phase or Preliminary Design

Owners are encouraged to engage designers as necessary to assist in programming, scope and budget analysis, site selection, studies, master planning, and other strategic project decisions.

Typically, these preliminary design services are performed independently from the design contract for Basic Services that includes Schematic Design, Design Development, Construction Documents, Bidding, Construction Administration, and Closeout services required by the Standard Form of Agreement between Owner and Designer (Form OC-22).

Certain projects require compliance with the Performance Standards for Sustainable, Energy-Efficient Public Buildings (Article 8C) per GS 143-135.35-.40 and, therefore, would require an Advance Planning Phase submittal to SCO for review and approval based on confirmation that the project qualifies as a Major Facility Construction Project or a Major Facility Renovation Project per the definitions in GS 143-136.36.

Commissioning

Per the NC Board of Examiners for Engineers and Surveyors, Commissioning of engineered systems falls under the practice of Engineering and must be performed under the responsible charge of a Professional Engineer.

Required Forms of Commissioning for SCO Oversight Projects include:

"System Commissioning" required by Section C408 of the 2018 NC Energy Conservation Code

and

"Electrical Commissioning" per the SCO Electrical Guidelines and Policies (2020)

CHAPTER 400

Regulatory Review Agencies

Section 401

General Requirements

This chapter is intended to provide the Designer a listing of the possible regulatory review or permitting agencies that may impact the project.

There are other agencies exercising inspection authority such as OSHA, who are not involved in the review process but may be involved during construction.

According to the Standard Form of Agreement between Owner and Designer, Article 1 “Basic Services of the Designer” Paragraphs 1-12 shall be the responsibility of the Designer except where noted otherwise.

The Designer is to file all applicable permits and submit plans, specifications and other required documents directly to any local, state or federal agency having jurisdiction over any part of the project.

Review comments and approval from all agencies having jurisdiction shall be provided directly to the Designer with copies to the State Construction Office.

All reviews and approvals shall be obtained by the Designer prior to establishing a bid date.

While a county or city cannot restrict the use of land for State use, under the provisions of GS 153A Article 18, and under GS 160A Article 19, respectively, they may regulate and restrict the following:

- **The height, number of stories, and size of buildings and other structures**
- **The percentage of a lot that may be occupied**
- **The size of yards, courts and other open spaces**
- **The density of population**
- **The location and use of buildings, structures, and land for trade, industry, residence, or other purposes, except farming.**

It shall be the Designer's responsibility to submit the necessary plans, specifications and other information as may be required to obtain zoning approval from the city or county.

Copies of the city or county approval shall be forwarded by the Designer to the Owner and to the State Construction Office.

The Designer shall also obtain required local approvals (city, county, utility authority) for tie-ins for water, sanitary sewer, storm sewers and other utilities, as well as modifications and/or improvements to streets, curbs and sidewalks on public right-of-way.

Under GS143-135.1, State owned facilities are exempt from local building authority inspections or local codes when plans and specifications are approved by the Department of Administration.

It is the responsibility of the Designer to determine federal requirements that may impact the project.

The Designer should confer with the Owner, the State Construction Office, other State agencies, and federal authorities regarding this process.

The State of North Carolina web site provides access to all State departments, agencies and institutions and should be used as a source of information.

Website addresses and phone numbers change quite often, which means accessing the main State Website may be easier for first time users.

Agencies are listed in a drop down list under "Government" tab at:
http://ncgov.com/government/agencies

The NC Administrative Code requires projects to be resubmitted for review if they have not been bid within six (6) months of final approval by the State Construction Office.

This ensures code and/or regulation changes are current as possible.

Section 402

Agency Review Times

The State Building Commission has adopted rules to provide for consistent, concurrent and expeditious reviews for State and Community College capital improvement projects.

The times given are calendar days from receipt of submittal until completion of the review for each discipline of review required.

These times should be used by Owners and Designers when estimating project schedules.

The review times for each design phase are:

FULL SCO OVERSIGHT PROJECTS (*including courtesy review oversight)*

Advance Planning	15 calendar days
Schematic Design	30 calendar days
Design Development	30 calendar days
Construction Documents	60 calendar days
Final Approval	15 calendar days

LIMITED SCO OVERSIGHT PROJECTS

(project subject to Code Review only – CD phase only)

Code Enforcement Review	15 calendar days
Six (6) Month Expiration Re-Review	15 calendar days

Other statutory timeframes, such as Department of Environment and Natural Resources regulations, may override this schedule.

Meeting these timeframes will be contingent upon the Owner and Designer providing finished, complete submittals as defined by this Manual for each stage of design.

New Design Review Guidelines

- Advanced Planning (AP) reviews stay at 15 days, but SCO will provide an option for 1 day review meetings conducted in-person or virtually.
- Schematic Design (SD) reviews stay at 30 days, but SCO will provide an option for 1 day review meetings conducted in-person or virtually.
- Projects costing less than 10 million dollars will be allowed to combine SD and DD submittals into a single submittal with a 30-day review period.
- Construction Document (CD) reviews periods will change from 60 days to 45 days.
- Construction Document (CD) reviews for Agency projects costing less than 4 million dollars will have a documented review time of 15 days.
- Final Document (FD) reviews will remain at 15 days except FD reviews required beyond FD1 (initial review) will be conducted during a 1-day in person review meeting.

Section 403

Owner Review

The owning agency or institution of a capital project may not be a regulatory Agency, but their review and approval is the most important in the process.

- The public funds were appropriated to the owning Agency for facilities to support a program or service provided by the State or Community College.
- It is important that the Owner approve all plans submitted prior to their transmittal to the State Construction Office and other review entity.

The Owner is the most familiar with the program, staff, spaces and overall operation, and needs to ensure that the design, materials, equipment and systems meet those needs and that the project is within the scope and funds established by the appropriation or budget.

The Facilities Management department of each owning agency or institution must, by State Building Commission Rules, be a major participant in the design, review and approval of any capital project to ensure that not only the scope and program are addressed, but that the maintenance, serviceability, life safety and environmental support systems operate safely, effectively and efficiently over the life of the building.

The Capital Project Coordinator (CPC) shall be responsible for ensuring that facilities maintenance personnel are fully involved in the review and input provided to the Designer.

Their comments should also be included with the Owner's review and approval letter to the State Construction.

Section 404

Department of Administration

State Construction Office

984-236-5400

The State Construction Office has jurisdiction and responsibilities as described in Chapter 100 of this Manual.

State Environmental Clearinghouse: 984-236-0023

The North Carolina Environmental Policy Act, as set forth in GS113A, involving construction of structures, grading, land/air/water-disturbing activities, or the construction of water distribution or sewer collection systems or extensions be subject to the provisions of this Act.

The Act is applicable to projects involving the expenditure of public funds or use of public land where there is a state approval action.

Projects funded in part or wholly by federal funds are not subject to review under the North Carolina Environmental Policy Act if, as of the federal environmental policy requirements, the necessary environmental documents were submitted to the State Clearinghouse.

Projects involving only interior renovations, except those projects involving a state or national historic site, are not required to be reviewed under the Environmental Policy Act. Other projects may also fall into the category of not having to be reviewed under the Environmental Policy Act if the Agency has established "minimum criteria" with the State Clearinghouse. For those projects subject to the Environmental Policy Act. The requirements of the Act may be fulfilled by filing one or more of the following with the State Clearinghouse:

- a) Environmental Assessment (EA)
- b) A Finding of No Significant Impact (FONSI)
- c) Environmental Impact Statement (EIS)

State Clearinghouse, Department of Administration, 1301 Mail services Center

Raleigh, NC 27699-1301.

- **Submission instructions may be obtained directly from the State Clearinghouse. Submissions must include the following:**

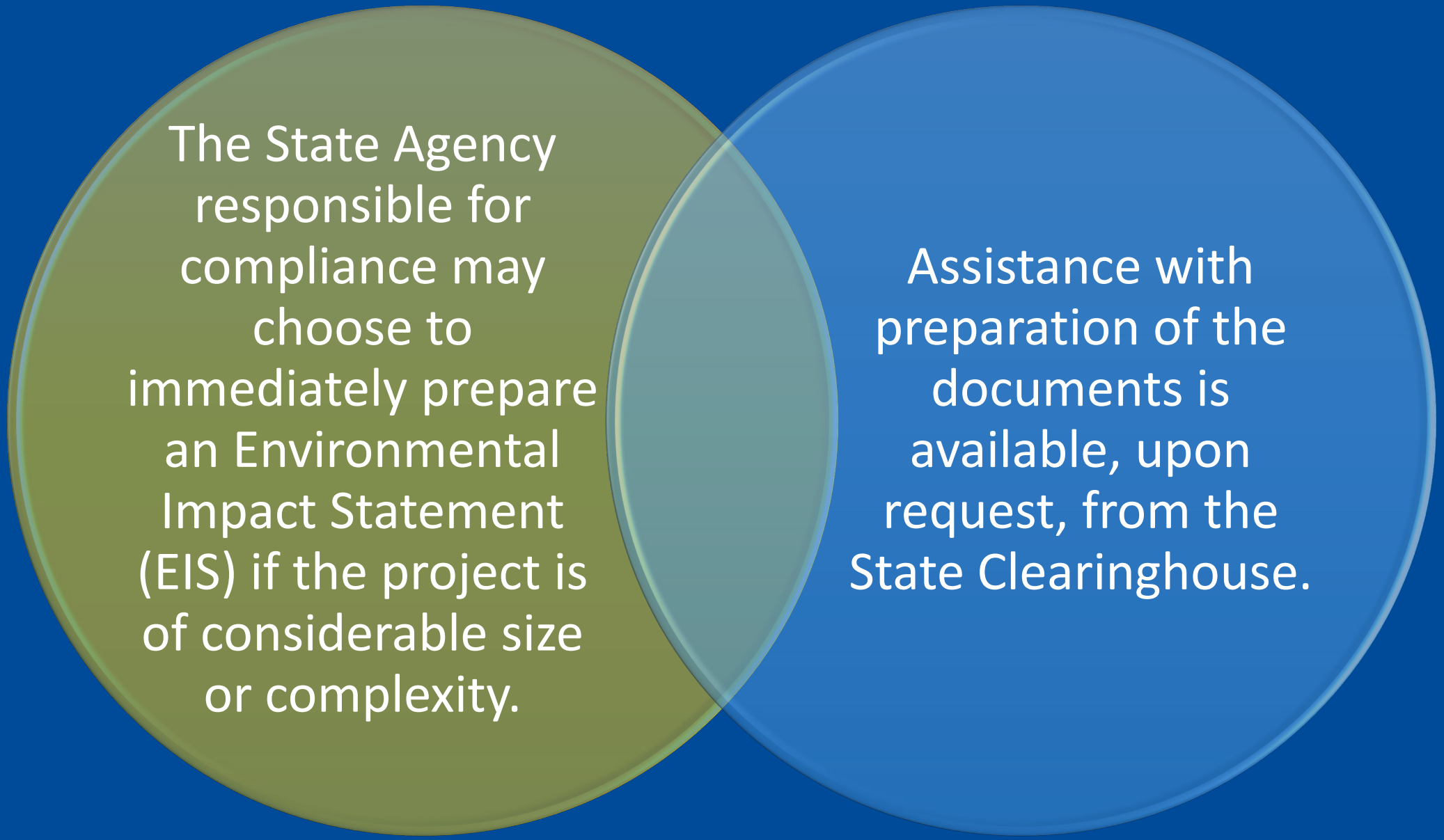
a) Sixteen (16) copies of a clear readable map

b) A summary of the proposed action (to be published in the *North Carolina Environmental Bulletin)*

c) Identification of the State Agency (Owner) responsible for the project

d) Contact person for the project

e) Source of funding (budget code and item numbers)


The State Agency responsible for compliance may choose to immediately prepare an Environmental Impact Statement (EIS) if the project is of considerable size or complexity.
Assistance with preparation of the documents is available, upon request, from the State Clearinghouse.

State Property Office

984-236-0270

The primary mission of State Property Office is to administer the acquisition and disposition of all state-owned land or any interest by deed, lease, easement, or allocation; manage the State's submerged lands, and maintain an accurate inventory of state lands and buildings.

Section 405

Department of Labor


The Department of Labor
no longer reviews plans and specifications during
design phase

Elevator and Amusement Device Bureau
800-625-2267

The Department of Labor will inspect and approve installations on all projects involving elevators, dumbwaiters, escalators, moving walks, stairway inclined lifts, and vertical wheelchair lifts.

Inspection and approval must be obtained prior to building occupancy and inspections are made annually thereafter.

Elevator design and installation shall be in accordance with the North Carolina Building Code, Chapter 30 – Elevators and Conveying Systems.

Boiler and Pressure Vessel Division
919-707-7918

The Department of Labor will inspect and approve installations of all pressure vessels. Copies of the Uniform Boiler and Pressure Vessel Act of North Carolina may be obtained directly from the Department of Labor website or from the NCGS 95 Article 7A and 7B.

Inspection and approval must be obtained prior to building occupancy and inspections are made annually thereafter.

Section 406

Department of Health Human Services

Division of Health Service Regulation Construction Section 919-855-3893

Construction or renovation of any state-owned facility, which is licensed in whole or in part as an acute general hospital (more than two beds), must be reviewed and approved by the DHHS Construction section.

The review is for compliance with minimum standards for facility licensure (copies available from the Division of Health Service Regulation).

Plan review by the Division of Health Service Regulation will be made at each design phase described in Chapter 500 of the State Construction Manual.

One set of plans and specifications are to be forwarded directly to the Division, simultaneous with the submission to the State Construction Office.

Section 407

Department of Natural and Cultural Resources

State Historic Preservation Office
919-807-6570



Division of Parks and Recreation 919-707-9300

The Division of Parks and Recreation is required to issue a state lakes construction permit prior to the construction of any pier, boat ramp, seawall, boat stall, pavilion, platform, patio or other structure upon the floor of any state lake. (GS 113-35).

The application shall be made to the Division of Parks and Recreation prior to the initiation of the project.

Three sets of plans and specifications shall be submitted at each design stage to the Division of Parks and Recreation.

Normal review time is 15 to 20 days.

Section 408

Information Technology Services

Information Technology Services 919-981-5555

- ITS under GS147-33.82 is a receipts supported agency providing design consulting and procurement for information technology systems for state agencies, except constituent institutions of the UNC system.
- The Designer should consult and cooperate with the Owner about his information technology systems needs and the role of ITS as the Owner's consultant and provider.
- ITS may be the Owner's consultant and provider of equipment and cabling.

Section 409

Department of Environmental Quality

The DENR Contacts tab on the Department of Environment and Natural Resources website provides the locations of the regional offices and contacts for many of their programs.

- The website also has a Customer Service Center to assist in review and permit requirements.

Division of Waste Management: 877-623-6748

Plans and specifications relating to the construction, renovation or alterations to hazardous waste management facilities and, including solid waste incinerators, underground storage tanks (UST's), Brownfields, Superfund sites, etc. may need to be reviewed and approved and permits issued

Division of Air Quality:877-623-6748

The Division of Air Quality, under the provisions of GS143-215.108 and GS143-215.109, is required to issue an air quality permit prior to the construction or operation of any air contaminant source, any equipment which may result in emissions of air contaminants or is likely to cause air pollution, and any construction or installation of any air-cleaning device.

Some activities have been designated by the Environmental Management Commission as not likely to contravene air quality standards and therefore do not require a permit.

A permit is required for the construction or modification of any facility that would result in:

a) Open parking lots, including shopping center lots having 1,500 or more vehicle capacity, and parking decks, including shopping center decks and parking garages having capacity for 750 or more vehicles.

b) Subdivisions, housing developments, apartment complexes and trailer courts having 500 or more units resulting in a population density of 7,680 per square mile (12 persons per acre) or more.

c) Stadiums and sport arenas having a seating capacity of 25,000 or more, or 8,000 vehicle parking spaces or more.

d) Drive-in theaters having 700 or more parking spaces.

e) Amusement parks and recreation areas designed to serve 25,000 persons per day or more, or to accommodate parking of 8,000 vehicles or more.

Division of Energy, Mineral Land Resources: 919-707-9200

Prior to the commencement of any land-disturbing activity on any state construction project that involves earth moving (grading, filling, excavating, etc.) of more than 1.0 contiguous acre an erosion control plan must be submitted to and approved by the **Land Quality Section** regional engineer.

One set of plans is required for the review process. Plans shall be submitted directly to the regional engineer by the Designer.

A copy of the letter of approval shall be submitted by the Designer to the State Construction Office.

Project construction will not be commenced without this letter of approval.

Division of Water Resources: 877-623-6748

The goal is to maintain, restore and improve an aquatic environment able to protect the existing or best intended uses of North Carolina's surface waters and to ensure compliance with state and federal water quality standards.

Those uses include drinking water, recreational activities, agricultural and other purposes and the protection and maintenance of aquatic life.

The Water Quality Section is required to review and approve plans and specifications, and a National Pollutant Discharge Elimination System (NPDES) permit must be issued prior to the construction or operation of any treatment works, or disposal system which would result in a discharge into surface waters.

Division of Coastal Management: 252-515-5400

A Coastal Area Management Act (CAMA) permit for your project may be required if it meets all of the following conditions:

- It is in one of the 20 counties covered by CAMA (see list in the manual).
- It is considered "development" under CAMA
- it is in, or it affects, an Area of Environmental Concern (AEC) established by the Coastal Resources Commission.
- It does not qualify for an exemption.

If your project is in one of these areas, contact the Division of Coastal Management office nearest you.

in or on navigable waters within the 20 CAMA counties

on a marsh or wetland

within 75 feet of the mean high water line along an estuarine shoreline

near the ocean beach

near an inlet

within 30 feet of the normal high water level of areas designated as inland fishing waters by the North Carolina Marine Fisheries Commission

near a public water supply.

A CAMA permit is required for any person (agency) who undertakes any major development in an area of environmental concern in any of the 20 counties of the coastal zone. The 20 counties of the coastal zone are:

Beaufort	Chowan	Hertford	Pasquotank
Bertie	Craven	Hyde	Pender
Brunswick	Currituck	New Hanover	Perquimans
Camden	Dare	Onslow	Tyrrell
Carteret	Gates	Pamlico	Washington

Division of Environmental Health

Food Protection Branch Division of Air Quality

919-707-5854

Is required to review and approve plans and specifications for new construction and renovation of educational institutions, hospitals, nursing and rest homes, sanitariums, orphanages, residential care, and confinement institutions where lodging is provided or food is handled.

On-Site Waste Water Section

919-707-5854

Projects with on-site waste water systems (septic tanks, etc.) shall make application and submit plans and specifications to the local health department having jurisdiction in the project area.



State review and approval is prerequisite for any subsurface system designed for the collection, treatment and disposal of industrial process water.

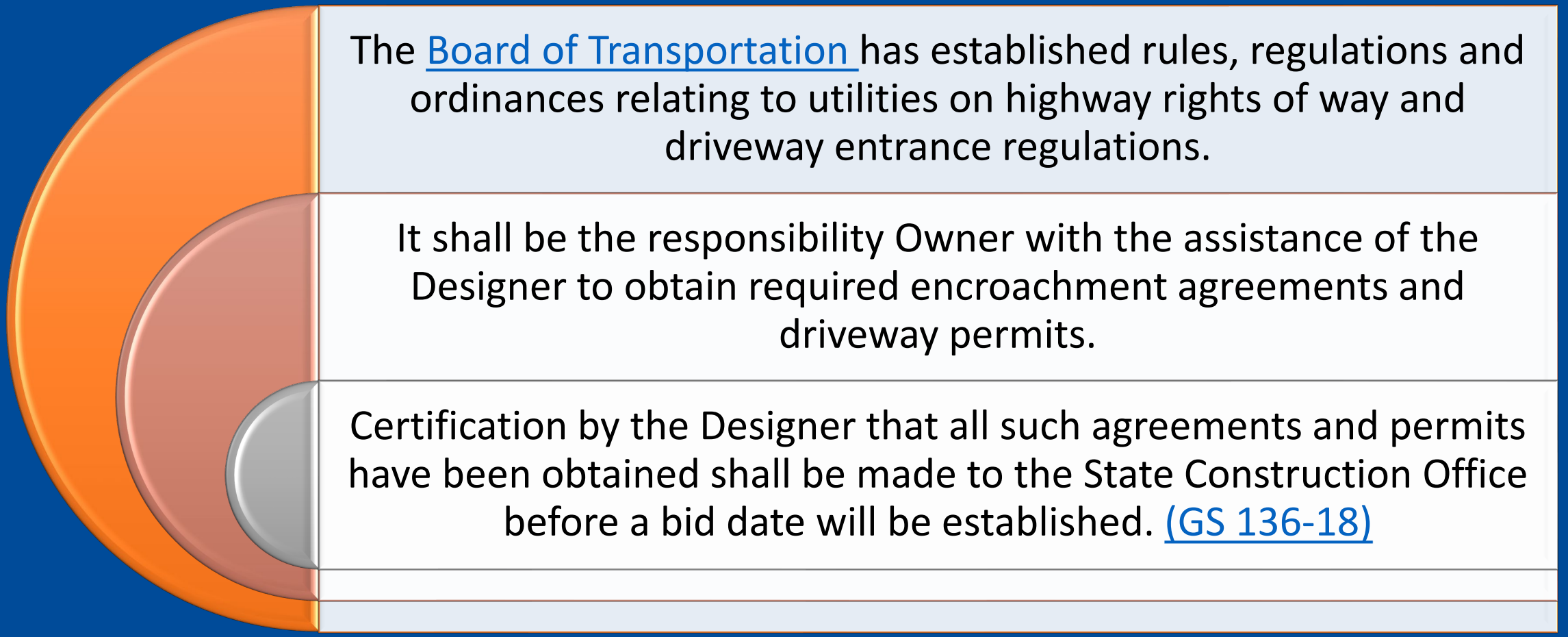


Prior to local approval, projects with subsurface wastewater systems exceeding 3000 gallons per day shall have plans and specifications submitted for review and approval by the Section's Engineering Team.

Section 410

Department of Transportation

The North Carolina Department of Transportation website provides locations of all Division and District Offices, addresses and phone numbers.



Section 411

Department of Agriculture & Consumer Services

Standards Division - LP Gas: 919-707-3225

National Fire Protection Association Pamphlet No. 58 has been adopted by GS 119-49 and authority has been granted to the commissioner of Agriculture by this statute to approve plans for LP gas installations that use in excess of 4000 gallons water capacity.

Inspection of LP gas installations by the Department of Agriculture and Consumer Services is also required to ensure compliance with the LP gas law.

For installations subject to the State Building Code, inspection responsibility of the Department of Agriculture and Consumer Services ends at the outlet of the first stage pressures regulator.

Plans and specifications shall be submitted at each design stage to the Division.

CHAPTER 500
Design Guidelines

Section 501

General

TABLE 500

TYPES OF REVIEWS

Owner	Project Type	SCO Code Review[7]	SCO Tech Review	Local AHJ Code Review[9]	SCO Forms Documents Required	
State Agencies	Minor (<$500K)	X	X		X	Notes 1, 2, 5
State Agencies	Major (>=$500K)	X	X		X	
State Agencies	Emergency	X	X			Note 6
University	Download-Minor (<$500K)	X				Notes 2, 5
University	Download-Major (>$500K and <$4M)	X				
University	Major (>$4M)	X	X		X	
University	Emergency	X	X			Note 6
Community College	Minor (<$500K)			X		Notes 2,5
Community College	Major (this varies *)		X	X	X	
Community College	Emergency		X	X		Note 6
Fed Funded - State Land	DOT Highway Visitor Center	X				Notes 2,4,5
UNC Hospitals		X				Notes 2,4,5
Global Transpark		X				Notes 2,4,5,10
Privately Funded	State Land	X	X			Notes 2,4,5
Privately Funded	Private Land		X	X		Notes 2, 3,
Privately Funded	Community College Land		X	X		Notes 2,4,5

* (1) $500,000, (2) $2,000,000, (3) $4,000,000

Notes:

1 - May be exempt from SCO technical review on request.
2 - HUB Documentation for projects that cost <$300K is the responsibility of the owner. Comply with Agency HUB.
3 - SCO Courtesy Review.
4 - Formal Bids and contracts are required on construction projects that have a total project cost of $500,000 or more. (Major)
5 - Informal bidding may be used for projects with a total project cost less than $500,000 (Minor).
6 - Emergency designation requires approval of SCO. Emergency projects may begin construction prior to completion of SCO review.
7 - Building Code review by the State Construction Office is required for all State and University projects by GS143-139.
8 - Review for energy efficiency GS143-135.35 to .40 and State Construction Guidelines by the State Construction Office jurisdiction.
9- Local Authority Having Jurisdiction Code review and permitting are required.
10- Does not include buildings, facilities, or projects that are (1) privately owned (2) located within the North Carolina global trans park.

Since all work on public projects must be competitively bid, “Cash allowances” for work not fully defined are not permitted.

Narrative descriptions in the project manual requiring the bidder to visit the site and inspect the conditions are not substitutes for graphic drawings detailing the work.

The State Construction Office Project ID#, contact name, phone number, and e-mail address must be on all documents and correspondence.

The Designer shall perform a thorough job check and design team coordination of documents prior to each submittal.

It is not the role of State Construction Office review staff to resolve errors and omissions in the Designer's work.

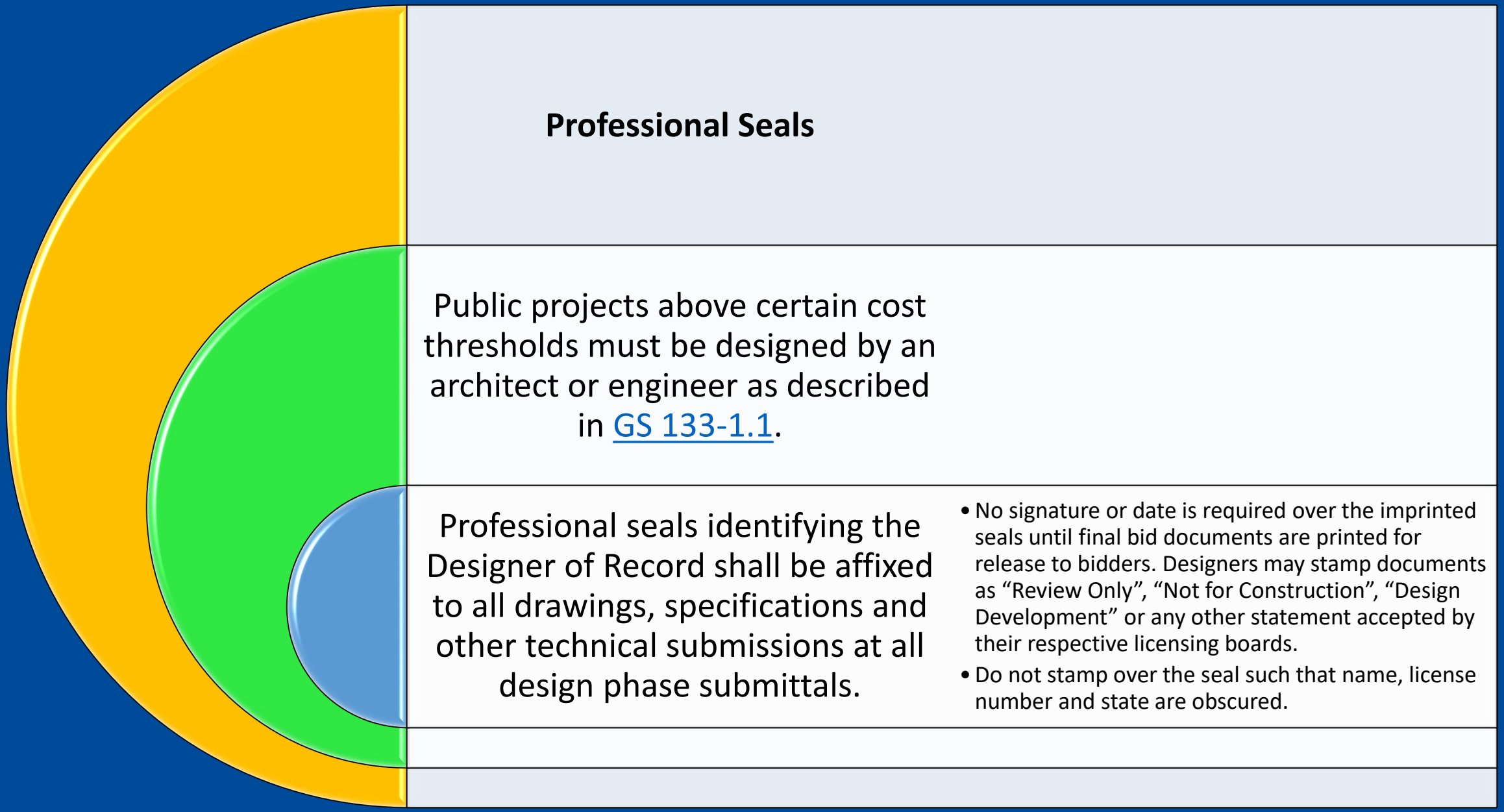
On projects to be delivered by CM at Risk method, the design team shall include the CM.

- It is expected that the CM will attend design meetings and will be involved with decisions regarding the use of materials, constructability issues, schedule and cost estimating.

A Sustainable Energy Efficient Buildings Deliverables Checklist is available on the SCO website at http://ncadmin.nc.gov/businesses/construction/forms-documents, to assist the design team with requirements of energy and water efficient buildings.

- The standards are based on GS.143-135.35 40.

Executive Order 50 requires preference for use of North Carolina manufactured materials shall be followed.


Professional Seals
Public projects above certain cost thresholds must be designed by an architect or engineer as described in GS 133-1.1.
Professional seals identifying the Designer of Record shall be affixed to all drawings, specifications and other technical submissions at all design phase submittals.
• No signature or date is required over the imprinted seals until final bid documents are printed for release to bidders. Designers may stamp documents as “Review Only”, “Not for Construction”, “Design Development” or any other statement accepted by their respective licensing boards.
• Do not stamp over the seal such that name, license number and state are obscured.

The State Construction Office follows the NC Architecture and Engineering licensing board rules.

Professional seals are required on the following documents:

All consultants' drawings and specifications including Architecture, Civil/Structural, Landscape Architecture, Electrical, Mechanical, plumbing, gas, and Fire Protection.

Other consultant drawings and specification that may include but limited to; kitchen, theater lighting, low-voltage, communications, security, audio visual, building automation, CCTV etc.

Legislative Requirements for the Design of Public Works:

1. GS133-1.1 states that public projects above certain Legislative cost thresholds must be designed by an Architect or Engineer.

2. GS133-1 states it is unlawful for Designers to specify products or materials in which they have a financial interest.

3. GS133-2 states it is unlawful for Designers of public work to employ or allow any manufacturer or representative to write, plan or draw any part thereof.

4. GS133-3 states specifications shall be competitive by using performance specifications or specifying three or more brand names. Owner preferred alternates are permitted in limited circumstances that will provide cost savings, maintain or improve the functioning of any process or system affected by the preferred item or items.

- A justification for the preferred alternate must be available to the public, in writing, and explained in an open meeting prior to bid.
- Substitutions are allowed prior to bid with Designer approval.

5. GS133-4 states any person, firm or corporation violating GS 133-3 shall be guilty of a Class 3 Misdemeanor - loss of license to practice profession for 1 year and subject to $500 fine.

Section 502

Forms and Guidelines

The State Construction Office has specific Bidding and Contract Forms, Design Review Forms, and Design Guidelines that must be incorporated into State projects where appropriate.



These Forms and Guidelines are available for download on the State Construction Office website at www.nc-sco.com.

Section 503

Drawings

Sizes

- Drawing sheet size shall be consistent throughout the set. 24”x36”, 30”x42” and 36”x48” are common sizes.
- Use of oversize sheets must be approved by State Construction Office prior to start of work.
- Do not mix drawing sizes within the same project documents.
- Drawing shall be edge bound.
- For convenience and handing, each bound set shall not exceed 1 inch in thickness.
- Large project may require multiple volumes.

Complete sets must be provided with each submittal or re-submittal. No single sheets or partial sets are acceptable.

If review comments are minor or limited, with approval from State Construction Office, corrected sheets may be submitted for review compliance verification with a complete bid set provided later when the project is issued for bids.

Cover Sheet and Title

Cover Sheet and all drawings shall have project name, agency/institution, Designer and Consultants, the SCO Project ID number and drawing index.

The SCO project ID number is on the Owner/Designer Agreement.

The current North Carolina State Building Code summary Sheet, Appendix B, shall follow the cover sheet.

This form is required by the North Carolina State Building Code to identify all code decisions and information for the project.

An electronic template is available from the State Construction Office website at www.nc-sco.com.

Arrangement of Drawings

The following drawing order is recommended but can be modified by the Designer to fit the specific project:

Cover Sheet, Drawing Index, Vicinity and Location Maps. General “G” series.
Building Code Summary, Appendix B
Life Safety Plans
Reprint of Test Reports such as UL Design
Civil “C” Series
Landscape “LS” Series
Architecture “A” Series
Structure “S” Series
Mechanical “M” Series
Plumbing “P” Series
Fire Protection “FP” Series
Other specialty drawings may include
Kitchen “K” Series
Theatre Lighting “TL” Se
Demolition drawing such as Arch Demo “AD” etc. should precede their respective discipline.

Section 504

Programming and Advance Planning

The project scope, complexity and/or the Owner's need for clarification and definition of the program, budget, space needs, site considerations, etc., may necessitate or benefit from pre-design or Advance Planning effort.

Such effort should occur prior to preparation of Form OC-25 cost estimate.

The Advance Planning contract may be a letter agreement or limited scope design contract.

Advance Planning documents can be a cost-effective approach for creating a realistic program and budget.

At a minimum, the Advance Planning document should:

Establish Components of the Project Budget:	Owner Construction Contingency for change orders, testing, soils, survey, to be used at the discretion of the Owner.	Design Fees for basic services, additional services – programming, models, presentations, etc.
• Reserves funds for furniture, equipment, utilities, landscaping, communications, special inspections, etc. • Some of these items may not be in design or construction contracts.	• This contingency is not part of construction cost estimate.	

Construction Funds Available (CFA) is the remaining funds available to award a construction contract.

- The Designer should use this as the construction cost estimate target.

Construction Procurement Method:

- The Owner and Designer should review Chapter 600, Construction Contracts and Bidding, to determine the procurement method proposed for the project.
- The plans and specification shall be properly prepared to reflect the construction procurement method selected.

Special Owner/User Requirements

Special requirements from the Owner such as guidelines for energy conservation, sustainable design and construction, life cycle cost evaluations, hazardous materials used, asbestos and lead paint.

For research, laboratory and other building types where hazardous materials are used or stored, the Designer shall discuss with the Owner the chemicals that will be used within the facility.

Development of the Hazardous Material Analysis takes time that must be accounted for the Designer's schedule.

The Analysis is to be submitted no later than the Design Development phase.

Site Evaluation

Evaluate each site for regulatory zoning constraints, physical characteristics, historic and environmental issues, subsurface investigations, flood plain, and any other requirement information.

Space Program

Provide a space program to identify the primary users and spaces planned for the facility.

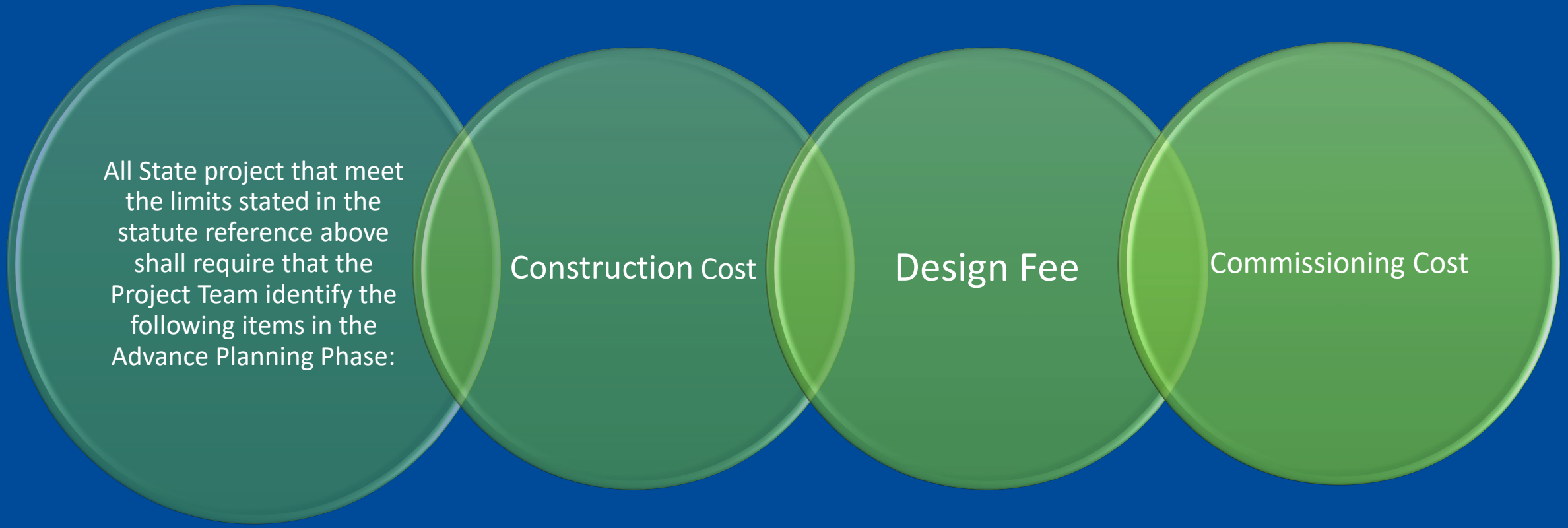
The program will allow an early test of the project budget assumptions allowing adjustments to be made prior to starting the design phase.

The space program should include individual room square footages, primary adjacencies and special space requirements for building equipment such as mechanical, electrical, plumbing and structural systems.

Facilities Condition Assessment Program Recommendations

If available for existing building, integrate Facilities Condition Assessment Program recommendations and Department of Insurance inspections reports for code compliance and life safety.

Sustainable, Energy Efficient Buildings (GS 143-135.35-40):



Section 505

Schematic Design Phase

Schematic Plan Overview

The Designer shall prepare Schematic Design drawings and documents illustrating the recommended implementation of the program and project requirements.



It is essential that consultants for site work, structural, mechanical, plumbing, electrical, and fire protection be involved in the early design process.



The Owner and regulatory agencies shall forward copies of the review comments to the State Construction Office.

Project Scope and Budget

The Designer shall consult with the Owner to review the program and establish or verify the project scope and budget requirements.

The State Construction Office recommends the base bid scope be established at approximately 90% of the available Construction Funding.

The program shall include the Owner's goal for energy conservation and energy use; sustainable design and construction including life cycle cost evaluations and the application and suitability of these goals for the particular project.

The Designer shall confirm in writing such requirements to the Owner with a copy included in the Schematic Design submittal to the State Construction Office.

If hazardous chemicals will be used or stored in the building, the Designer should begin discussions with the Owner to determine the impact such materials may have on the design.

Integrate into the project the State Construction Office Facility Condition Assessment Program (FCAP) recommendations and for required code for life safety improvements.

For building renovation projects or projects that require the demolition of existing structures, abatement of hazardous materials such as asbestos and lead paint shall be considered.

Additional Design Scope

The Designer should verify any additional scope of work or submittals required by the Owner.

Examples include documents required for presentations to other interested groups or stakeholders, phased construction, or CMR involvement.

Minimum Requirements for Schematic Design Submittal

A written narrative and general description of the project based on the Designer's studies and program describing the proposed construction materials, structural, mechanical, plumbing, and electrical systems. Outline or narrative specifications are acceptable and desired.

Full specifications will not be reviewed at this phase. If a numbering system is used, then CSI Master Format 1995 or 2004 should be used throughout by all design disciplines and at each submittal phase.

A statement of probable construction cost based upon gross area, volume or other appropriate units.

Separate line items shall be provided for site work, utility extensions and other items outside the structure.

Provide a complete budget summary showing the breakdown of total appropriated funds and all line item funds reflected in the design contract.

This is to verify the Designer has a clear understanding of the design contract line items and the cost estimate summary.

The Designer and consultants shall confer jointly with the Owner on the most economical and appropriate location and orientation of the facility on the proposed site.

This effort shall consider site conditions and the implications for various building systems. Energy Modeling and LCCA results (civil/structural, general and PM&E) should be considered, as well as space requirements, functionality and special conditions, when determining the most effective building design and location.

When the scope involves site modifications, a current site survey is necessary.

The Designer shall define the scope of the survey as appropriate to the project requirements.

The Owner will contract with the surveyor for these services directly and will pay the costs from the Owner's project contingency.

Surveying activities are professional services that cannot be bid competitively and must use appropriate Qualification Based Selection procedures.

When the scope of the project requires a structural and foundation design, the Designer shall initiate a basic soils investigation program.

The contract for the Geotechnical service shall include review of the Design's plans and specifications.

The Owner shall select a geotechnical engineering consultant using Qualification Based Selection procedures. Subsurface investigation shall be provided in a formal report and a copy provided to the State Construction Office with the Design Development submittal.

A copy of the report shall be included in the bid documents and noted as for the bidder's information only.

A Life Cycle Cost Analysis (GS 143-64.10-15) with preliminary calculations of the cost to construct the ASHRAE 90.1 baseline and alternate buildings, along with their projected payback.

The Life Cycle Cost Analysis (LCCA) shall be submitted to ensure preliminary decisions regarding site characteristics and building orientation (including internal room arrangements and fenestration) are optimized relative to life cycle cost decisions for building systems.

The LCCA shall be sealed, signed and dated, and then updated at each future submittal to reflect any changes to the project.

The Designer shall consider the results of the LCCA throughout the design of the project.

Submittals without the appropriate LCCA report will not be approved to proceed to the next phase.

Energy strategies for variable building elements that investigate each of the following:

- Building Envelope
- Lighting control and lighting design
- HVAC system control and design
- Service water heating systems

Approval to Proceed

The Designer should secure from the Owner and the State Construction Office written approval of the Schematic Design submittal before proceeding to the next phase. If the submittal does not sufficiently address the basic elements of the project, it will be returned “Not Approved” and a re-submittal showing further development will be required.

Section 506

Combined Schematic and Design Development

Combining Schematic Design and Design Development submittals is acceptable for specific project types with the concurrence of the State Construction Office.

Types of projects that could be considered for a combined SD/DD submittal include.

Architecture: Minor Renovations/upfit, Small Metal Buildings, Window Replacement, Roofing Repair/Replacement, Waterproofing, etc.

Civil/Structure: Sitework/Utility Infrastructure, Repair/Renovation of Structural Elements, Grading, Paving and on-grade parking.

Mechanical: Mechanical Equipment replacement, Fire Sprinkler Upgrade, Life safety Code Renovations, Mechanical Systems Upfit/Retrofit.

Electrical: Electrical Equipment Upgrades/Replacements, Fire Alarm Systems, Telecommunication Systems, Lighting Renovations, etc.

Section 507

Design Development Phase

Design Development Overview

Based on the approved Schematic Design submittal, the Designer shall prepare the Design Development documents, which shall set forth in writing and drawings all basic program elements, systems and materials to be used in the project.

The Designer and their consultants shall have completed a Life Cycle Cost Analysis of various building orientations, materials, finishes, and PME system alternatives.

The Designer shall select the systems and materials that are the best value for the project over the life of the building.

Life Cycle Cost Analysis (LCCA) guidelines are available at http://ncadmin.nc.gov/businesses/construction/forms-documents.

Minimum Requirements of Design Development Submittal

- A written response to Schematic Design review comments on the design firm's letterhead.
- The letter shall include the name of respondents for each discipline.
- The response must detail how and where the comments have been addressed.
- An electronic copy (pdf) of the review letter, copied to the Owner, will be provided to the Designer.

A statement of probable construction cost using the CSI Master Format Division, 1995 or 2004, with appropriate units of measure such as area, volume, linear feet, tons BTU/hour, etc.

The Designer shall carefully consider the cost estimate at this phase and whether the project is within budget.

Take into consideration the actual systems and materials proposed. Provide a complete budget tabulation summary showing the breakdown of total appropriated funds and line items from the design contract.

Site work and utility services shall be shown as separate items.

If the scope and budget are not aligned at this point, making the necessary adjustments in scope or funding later could be costly in time and dollars to both the Owner and the Designer.

If applicable, a Hazardous Materials Analysis formatted in accordance with the requirements of Chapters 3 and 4 of the North Carolina State Building Code is required at this submittal to verify types and quantities of hazardous chemicals, and the number and placement of control areas relative to the allowances and limitations of the Building Code.

The Analysis must be included with the Design Development submittal to ensure approval to proceed to the next design phase. If the Analysis is not submitted until the Construction Document phase, it may require re-design and result in significant delays for the Owner

Drawings at the Design Development phase shall clearly show the locations of all rated walls.

- Plans shall a common compass orientation with north at the top of the sheet, and include a north arrow, numeral scale, and graphic scale. Up/down direction of all stairs and ramps is required.

Discipline specific drawing requirements for Design Development submittals shall include all requirements of Schematic Design drawings (see Section 505) and the following:

- Building Code Summary (Appendix B) to include all preliminary code information needed to support the proposed design including but not limited to occupancy group, construction type, building height, number of stories, floor area, and sprinkler protection. The Building Code Summary is available for download from the State Construction Office website at www.nc-sco.com.
- Life Safety Plans showing the occupancy group, area in square feet, and occupant load of each room or space, dead ends corridors, common paths of travel, travel distances, dimensions to show remoteness of exits, exit widths at each exit and stair, actual and allowable occupant load at each exit and stair, and doors equipped with panic hardware.

Fire Resistance Construction Plans to show areas of fire rated floor assemblies, and the fire rated columns and beams required to support them.

Civil Drawings. Civil plans showing proposed grading, benchmarks, site drainage and sedimentation control; utility infrastructure, roads, parking, adjacent structures and site data as furnished on previous submittals. All plans shall include information relative to flood plain involvement of this project. (See Floodplain Evaluation Procedures on the State Construction Office website at www.nc-sco.com).

Architectural Drawings

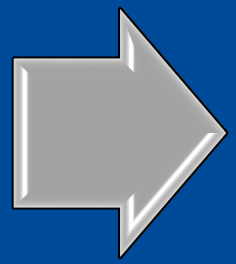
Scaled Architectural Site Plan: Show adjacent structures, separation distances between structures and all real and assumed property lines, parking, accessible routes, and identify all building entrances/exits.

Floor Plans at 1/8” or ¼” scale: Show all fire rated wall construction. The plans shall clearly reflect the requirements of the building code analysis for the building type.

Structural Drawings

- Identify allowable soil bearing pressures and live loads used in the design.
- Provide a foundation plan showing the basic elements of the foundation and additional details and information as necessary to delineate the size, type and probable depth of special foundations such as piles or caissons.
- Provide floor and roof framing plans showing size, spacing and type of primary members. Show locations of shear walls and/or bracing with such additional details and information as necessary to describe the method of lateral load resistance.

Mechanical Drawings



At a minimum, mechanical drawings shall include the following: major HVAC equipment rooms and the basic layout of the heating, ventilating and air conditioning distribution system, a diagram of the temperature control systems; schematic diagram of air, hot water and/or steam systems, chilled water and condenser water systems. Rated walls shall be shown on all plans.

Plumbing Drawings

At a minimum, plumbing drawings shall include the general development of the plumbing system. The drawing shall show source of water supply and waste disposal termination; water distribution and waste collection plan diagrams, including fixtures.

Electrical Drawings

At a minimum, electrical drawings shall include the following: basic electrical service equipment and its location to include the electrical power distribution components, primary service switches, transformers, generators, main switchgear, motor control centers, and the locations of the electrical and telecommunication rooms

- Provide single line diagrams of the power distribution systems including primary, secondary and emergency power.
- Provide similar diagrams for fire alarm, telecommunications, security and all other systems included in the electrical scope of work.
- An estimated load summary in KVA rating, the connected load, the demand load and the DF are required with this submittal.
- Electrical floor plans shall show the basic layout of the lighting, emergency lighting, power receptacles, smoke and heat detectors, data/telecommunications outlets or other systems in the project. The plans shall show location of all fire rated construction.

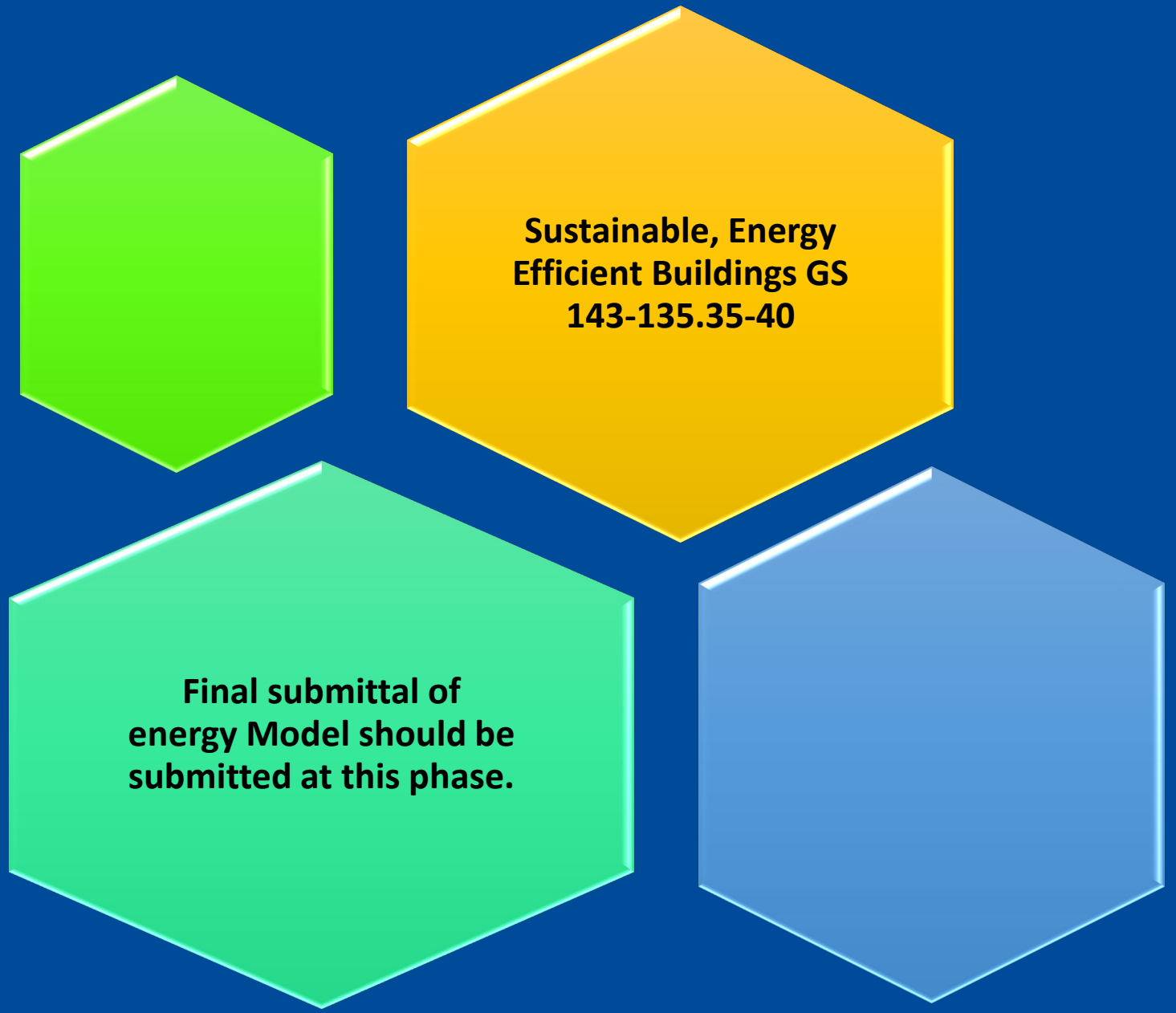
Fire Protection



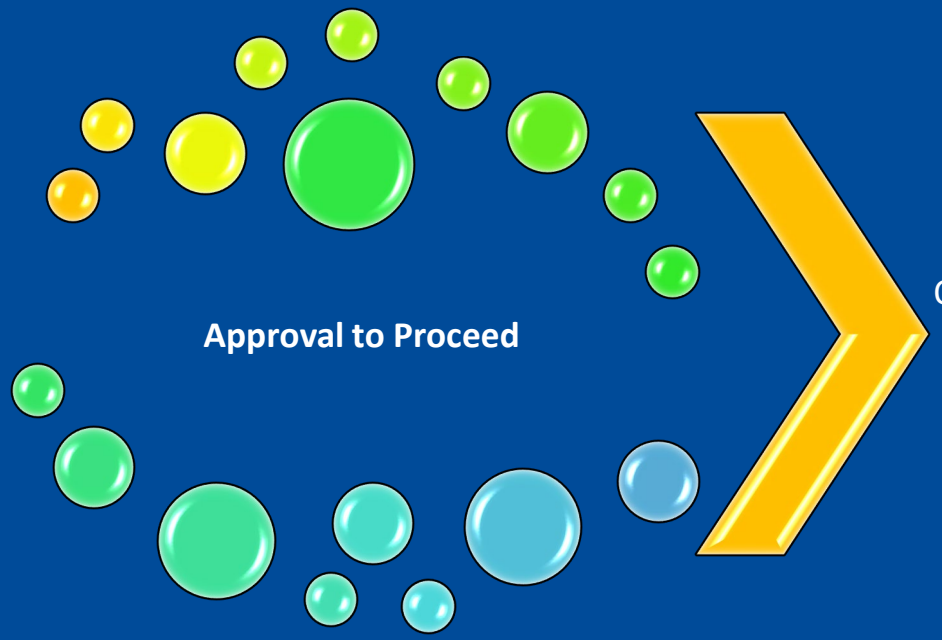
At a minimum, fire protection drawings shall clearly reflect compliance with NFPA 13, 13R, 14, 20, and 24, the NC State Fire Code, the NC State Building Code, and applicable State Construction Office Guidelines.

Energy Code Compliance

For all State buildings, the Designer shall comply with the NC Energy Conservation Code and State Construction Office procedures for Implementation of Life Cycle Cost Analysis for State Buildings. Compliance may be demonstration by using the appropriate forms from ASHRAE/IESNA Standard 90.1 User's Manual or other methods approved by the State Construction Office. The Life Cycle Cost Analysis shall be sealed, signed and dated by the designer. Use only the methods and forms provided in the guidelines.


Sustainable, Energy Efficient Buildings GS 143-135.35-40
Final submittal of energy Model should be submitted at this phase.

The Commissioning Authority shall review the DD design package against the modeling assumptions and shall make recommendations for incorporation into the project by the design team. Refer to "Building Commissioning" in the drop down menu under "Guidelines" on the State Construction Office website. (Sustainable, Energy Efficient Buildings Advanced Planning Flowchart, GS 143-135.35-40.



The Designer should secure from the Owner and the State Construction Office written approval of the Design Development submittal before proceeding to the next phase.

If the submittal does not sufficiently address the basic elements of the project, it will be returned “Not Approved” and a re-submittal showing further development will be required.

Section 507

Construction Documents Phase

Construction Document Overview

Based upon the approved Design Development, the Designer shall prepare construction drawings and specifications setting forth all the work in detail and describing the work to be performed, including: materials, products, and finishes: workmanship; finishes; plumbing, mechanical, electrical, and fire protection systems; special equipment; site work; and utility connections.

Complete bidding information including the Proposal, Contract, Bond Forms, General and Supplementary General Conditions of the Contract, and all other information, forms, and documents required to effectively bid the project and receive competitive bids shall be provided.

Owner/Other Agency Reviews

Submittal of the Construction Document phase shall be reviewed and approved by the Owner prior to submission to the State Construction Office and other regulatory agencies having jurisdiction such that all agency reviews are concurrent. The Designer shall forward a copy of any review comments to the State Construction Office.

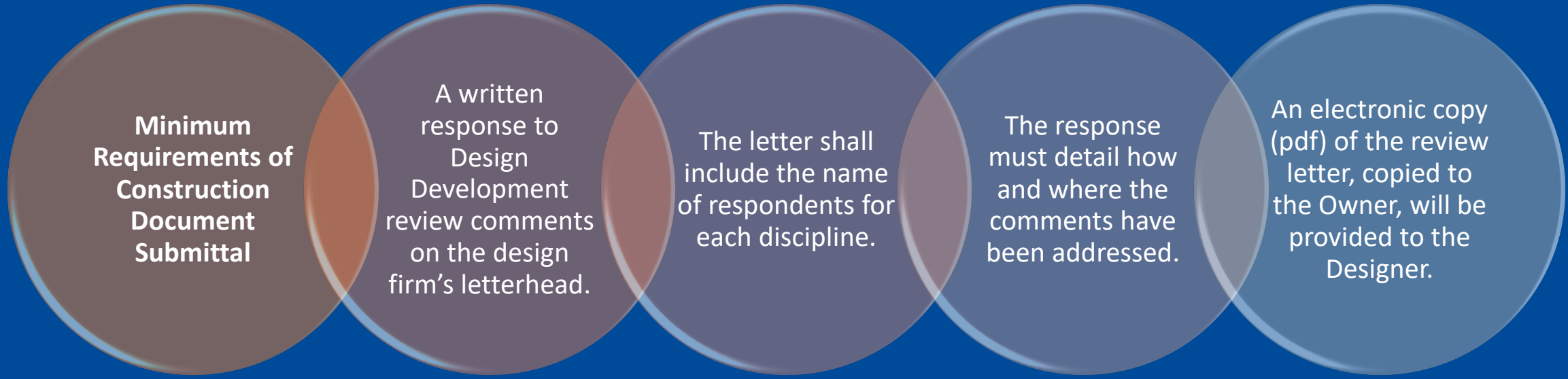
The transmittal letter shall indicate any other reviewing agencies receiving copies for review.

See Chapter 400 for the number of copies to be submitted by regulatory review agencies and the Owner. The State Construction Office will typically require only one set of complete documents. On large projects where drawings and specifications must be printed in 2 or more large volumes, 2 complete sets may reduce time in review. In addition, 2 sets of reduced drawings may assist the Design Review Staff in conducting concurrent reviews and cross referencing information.

Design Calculations

The Designer and his consultants shall retain design calculations for all systems, including roofing, structural, special foundations, and mechanical and electrical designs.

Calculations shall be submitted to the State Construction Office upon request.


Minimum Requirements of Construction Document Submittal
A written response to Design Development review comments on the design firm's letterhead.
The letter shall include the name of respondents for each discipline.
The response must detail how and where the comments have been addressed.
An electronic copy (pdf) of the review letter, copied to the Owner, will be provided to the Designer.

The Designer shall provide a construction cost estimate using quantity take-offs of major sections within Master Format Division.

Overhead, profit, taxes, insurance, bonds, contractor's contingency, etc., shall be included. Estimate shall be escalated to the midpoint of construction time. Estimate must be prepared for all bid items, including alternates as a separate line item.

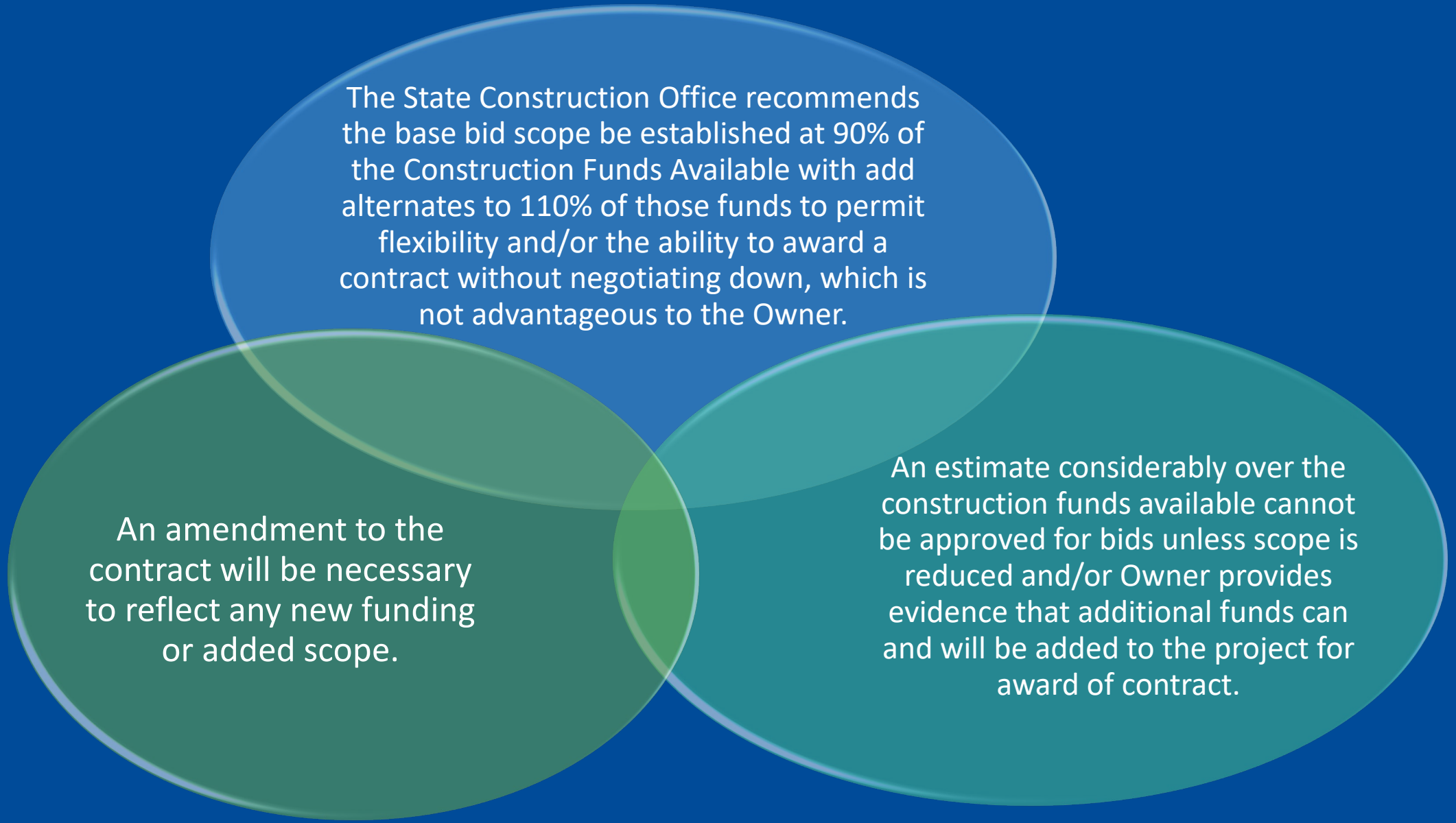
A summary tabulation shall be furnished showing the current design contract total budget and line items for reserves, owner contingency, and design fee.

The remaining funds are available for construction bids and award.

Owner contingency should not be used to award a construction contract.

The Designer is responsible for bringing the project within the Construction Funds Available as set forth in the design contract.

It is essential that accurate and proper construction estimates be developed at this stage to avoid delays and added cost to the state resulting from bids that exceed the construction funds available.


The State Construction Office recommends the base bid scope be established at 90% of the Construction Funds Available with add alternates to 110% of those funds to permit flexibility and/or the ability to award a contract without negotiating down, which is not advantageous to the Owner.
An amendment to the contract will be necessary to reflect any new funding or added scope.
An estimate considerably over the construction funds available cannot be approved for bids unless scope is reduced and/or Owner provides evidence that additional funds can and will be added to the project for award of contract.



If the low bid(s) are over the construction funds available for the project and additional funds are not available, negotiations in consultation with the State Construction Office may be successful in bringing the project within the available budget.

Bids exceeding the construction funds by 15% or more will be difficult to resolve.

It is generally viewed as a better value to reduce scope and re-bid than to negotiate more than 15%.

The Project Manual shall be complete and contain all the required SCO bidding and contract forms and documents, as listed below and available on the State Construction Office website at www.nc-sco.com, and includes the following

The format shall be 8½ x 11 securely left side bound in the following order.

Single Volume Project Manual:

- Manual Cover – State Construction Office Project ID number and Professional Seals affixed. [Professional Seals may be on a flysheet following the cover]
- Newspaper Advertisement formatted and edited for the project.

Notice to Bidders formatted and edited for the project

Table of Contents

Instructions to Bidders and General Conditions of the Contract

Supplementary General Conditions prepared by the Designer, formatted and edited specifically for the project

Guidelines for MBE Participation

Special Conditions if any by agency/institution

Subsurface Investigation report, hazardous materials surveys, etc.

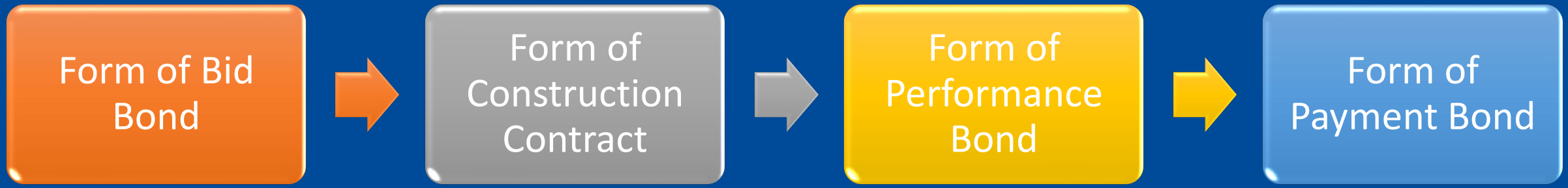
Statement of Special Inspections (if required by the State Construction Office in DD Phase review or earlier)

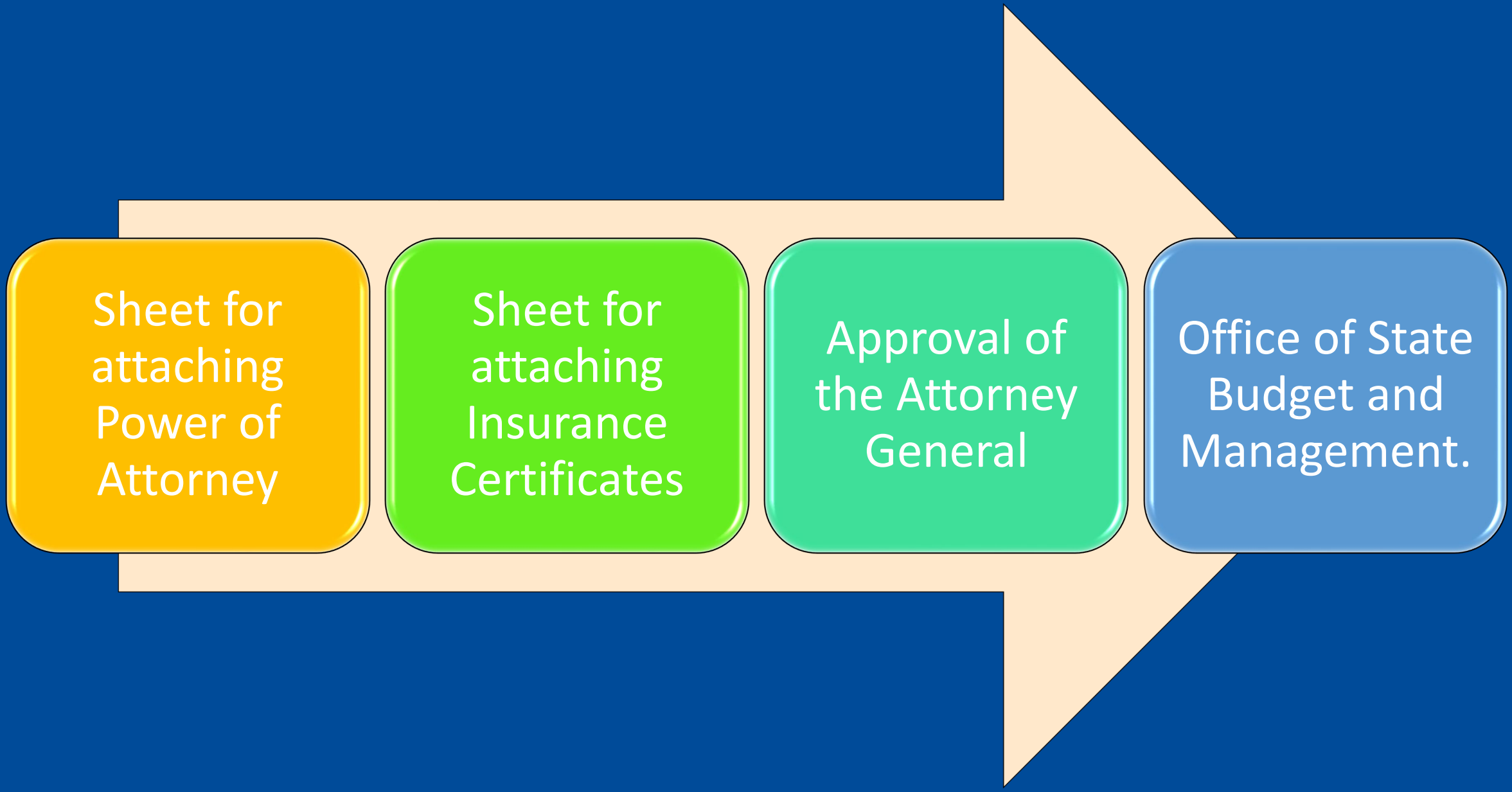
Statement of Contractor's Responsibility (if required by wind and/or seismic conditions.)

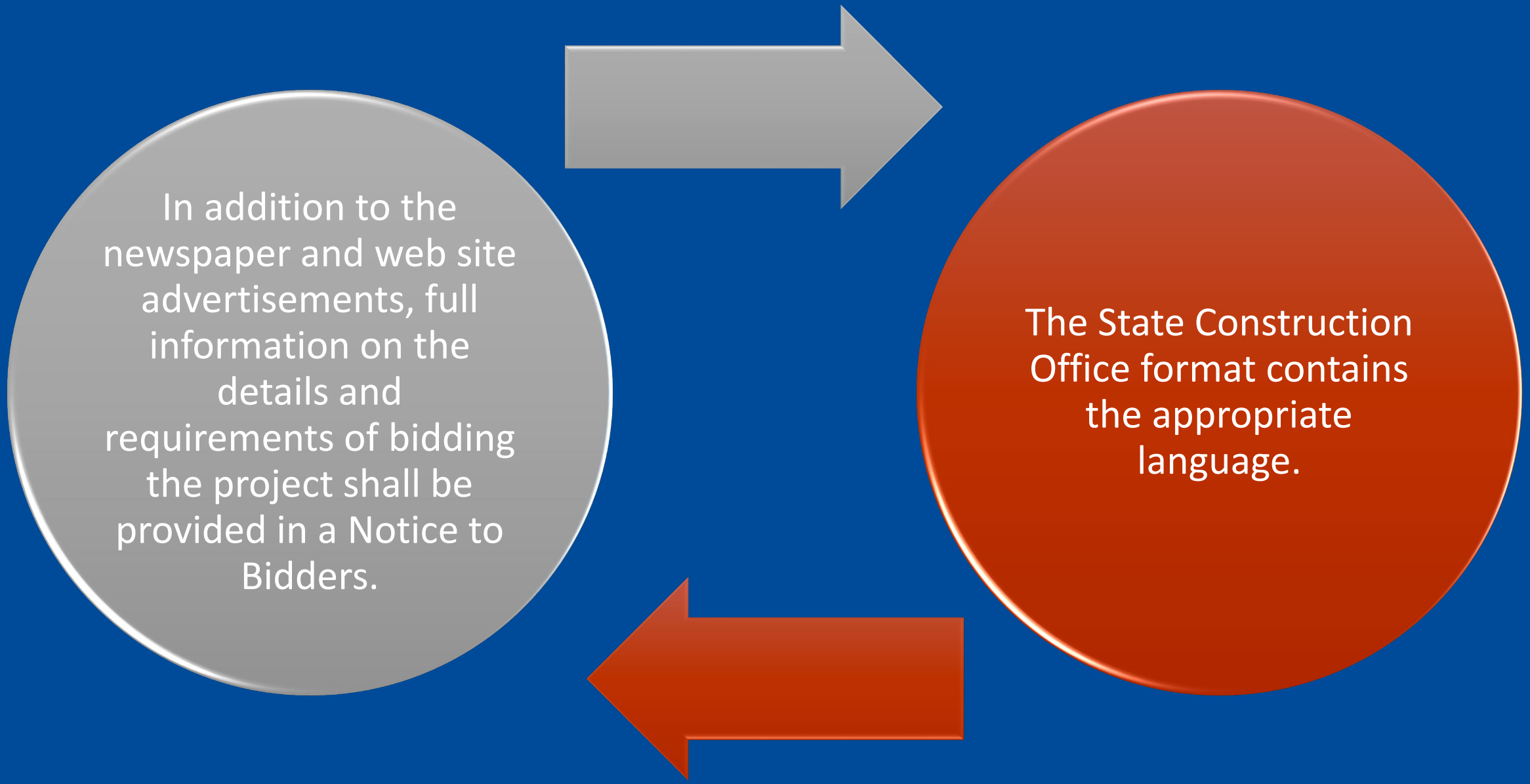
Technical Specification Divisions, CSI 1995 or 2004 version

Form of Proposal formatted and edited for the project

MBE Contractor List and Affidavits A through D


Form of Bid Bond
Form of Construction Contract
Form of Performance Bond
Form of Payment Bond


Sheet for attaching Power of Attorney
Sheet for attaching Insurance Certificates
Approval of the Attorney General
Office of State Budget and Management.


In addition to the newspaper and web site advertisements, full information on the details and requirements of bidding the project shall be provided in a Notice to Bidders.
The State Construction Office format contains the appropriate language.

Items to be edited by the Designer include:

Identify the “Owner as the State of North Carolina (or Trustees of ___ Community College) through the using agency, department, institution, etc. including the location of the project.

Identify the specific physical location where bids will be received including the building name, floor, and room/room number, and the name of the person to receive bids.

The bid opening must be held in a “public place” meaning publicly owned facility and not a private facility or office.

There must be a “physical address” for use by delivery services or postal service (NO P.O. Box).

Many state facilities have centralized mail service that can be problematic in timely delivery of bids.

If the pre-bid location is the same as the bid opening, then bidders are less likely to have delivery problems on bid day.

The bid opening and bid receiving location must be the same to avoid confusion.

The prospective bidder is responsible for on-time delivery of his bid at the proper location and time.

The AIA/AGC Joint Cooperative Committee recommendation for bid openings is Tuesday through Thursday 1:00 to 4:00 pm with 3:00 pm being traditional.

- Dual bidding is required to be separated by 1 hour. (Note: AIA/AGC recommendations may not agree with State requirements in some instances. In such cases, SCO requirements will govern and shall be followed).

Identify the project contract type being bid – Single Prime, Separate, Dual, etc.

Instructions to Bidders and General Conditions of the Contract:

Form OC-15: This document is to be used for single and multi-prime bidding on State capital construction projects and Community College projects that are reviewed, approved, and inspected by the State Construction Office.

For projects less than $2 million, constituent institutions of UNC system use a modified version of the OC-15, the Instructions to Bidders, and the General Conditions of the Contract Standard Form for Construction Projects.

Supplementary General Conditions shall be prepared by the Designer.

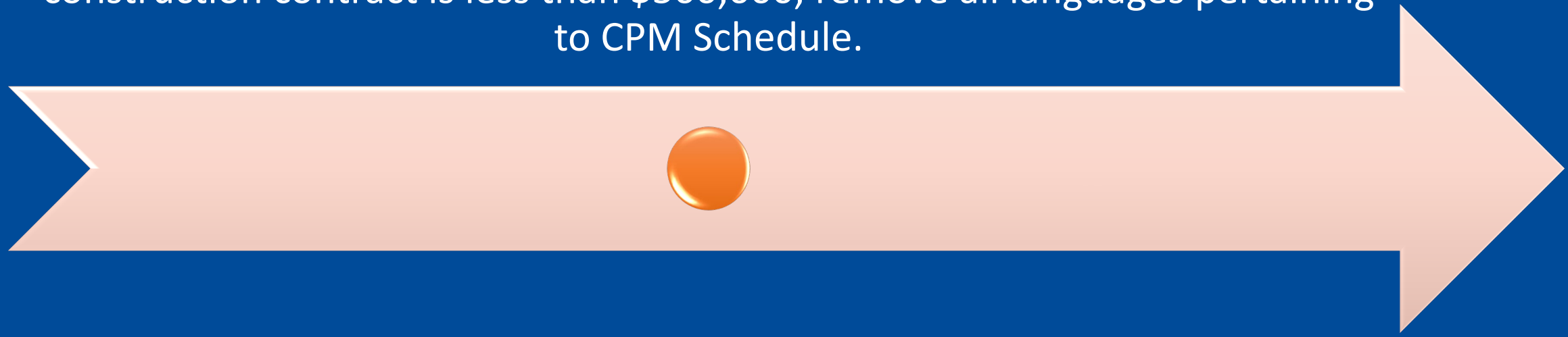
Editing of the General Conditions beyond the items described below is strongly discouraged.

Excessive editing may result in delay and creates legal/contractual conflicts and situations that may make legal defense of the contract documents problematic and costly.

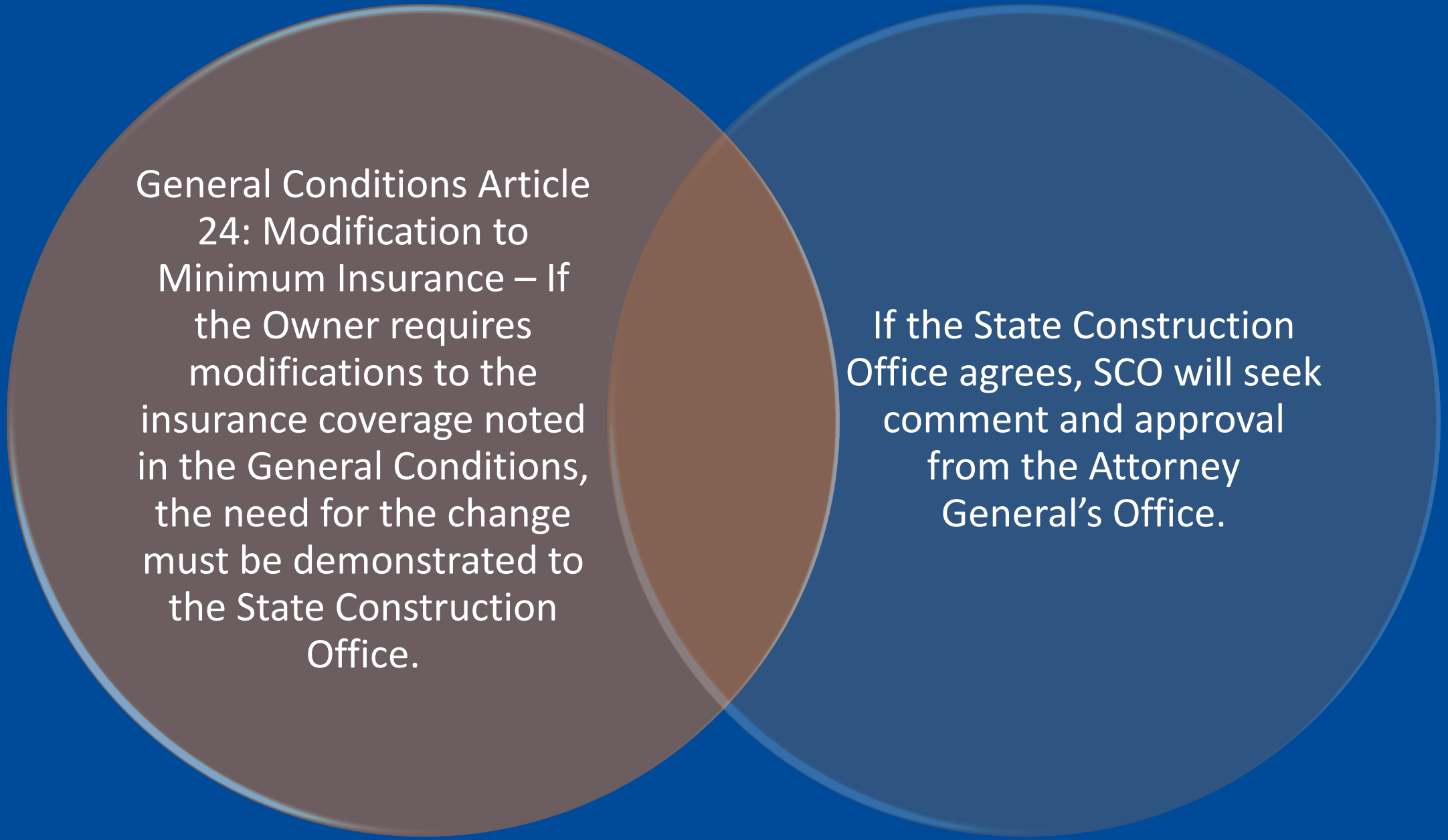
Supplementary General Conditions shall be prepared by the Designer and are reserved for additions or modifications as indicated below:

- General Conditions Article 1.b: Owner may be Trustee of a Community College.
- General Conditions Article 14.e: If the service of a surveyor is required for bench marks, elevations, layout, and utilities.
- General Conditions Article 14.f: If the project is a single prime construction contract, the single prime contractor by default is the project expeditor. See General Conditions Article 1.i.

General Conditions Article 14.g and 14.j: If the construction contract is over $500,000, remove all languages pertaining to Bar Chart Schedule. If the construction contract is less than $500,000, remove all languages pertaining to CPM Schedule.



General Conditions Article 23.b: Liquidated damages, where required, shall be estimated on a per day basis to cover any loss or damages to the Owner should there be delay in completion or occupancy of the project.


General Conditions Article 24: Modification to Minimum Insurance – If the Owner requires modifications to the insurance coverage noted in the General Conditions, the need for the change must be demonstrated to the State Construction Office.
If the State Construction Office agrees, SCO will seek comment and approval from the Attorney General's Office.

Other

Owner prepared Supplementary General Conditions or Special Conditions are not an acceptable substitution for the required Designer prepared Supplementary General Conditions unless prior approval have been obtained from the State Construction Office (GS 116-31.11(b)).

Many Owner requirements can be effectively addressed within Division 1 of the specifications rather than being incorporated into the General Conditions.

Minority Business Enterprise Guidelines, a contractor list form, Affidavits A, B, C, D, and Appendix E are available on State Construction Office website and require no editing.

- The Guidelines and Appendix E should follow the Supplementary General Conditions in the manual.
- The List and Affidavits A-D should follow the Proposal Form.
- The MBE guidelines and MBE forms provide all necessary instructions for use and are available on the State Construction Office website.

Division 1 Specifications – General Requirements

Temporary Utilities: Many State institutions have their own utility systems. Clarify with the Owner whether any Owner utilities may be used and how, especially on renovations/additions projects. Include any charges to be assessed.

Alternates: List and describe Alternates to be used.

Limit the use of alternates and “Owner-preferred” alternates.

An excessive number of alternates can discourage bidders, over complicate design and construction, and be misconstrued as “price shopping”.

Keep alternates simple and clearly identified in scope and details.

If the “base bid” is set at 90% of the project construction funds with add alternates adding up to 110% of funds available, then award of contract may be expedited without time lost on negotiations or “value engineering”.

Bid Alternates – Bid Alternates are line item components of the project that are set aside on the Proposal Form for separate bids to give the Owner control and flexibility over how budgeted funds can best be used to adjust scope or meet budget limitations.

It is State Construction Office policy to only use ADD alternates and not DEDUCT alternates to control project costs.

The construction industry consensus is that deleting work on a bid project returns only a portion of the true value of the alternate scope.

Owner Preferred Alternates – Owner preferred Alternates were established by GS 133-3 in 2002.

The Owner may bid an alternate for a preferred ‘brand’ of product under the conditions and procedures described in the statute.

Such preferred alternates should be limited to equipment and components of building control systems, fire alarm systems, energy management systems, building security systems, (including door hardware), and central utility systems.

Appearance and color, while important, are not a performance standard. If a particular item must match an existing element, color, or texture, it is sufficient to specify that as a requirement and let other manufacturers meet those requirements. Procedures to comply with GS 133-3 are available at the State Construction Office website under Guidelines.

Cash Allowances are not used in public work as there is no "competitive bidding" process as required by statute.

- Estimated quantity allowances are acceptable with a unit price solicitation on the Proposal Form.
- Quantity Allowances can be used to adjust the cost up or down after the actual quantity has been established and verified.
- Base bid quantities should be carefully estimated to ensure project contingency is not critically depleted.

Unit prices are not considered in determining the low bidder and may be negotiated with the low bidder if prices are out of line compared to other bids.

The Designer shall estimate and provide a “quantity allowance” in the bid documents for the bidder to include in the base bid.

The bid Proposal Form shall request a single unit price from the bidder that will be used to adjust the actual quantity or scope up or down.

Owner supplied items or work should be fully identified and explained to eliminate duplication and confusion during bidding.

In renovation/remodeling projects, items to be salvaged and turned over to the Owner, and items to be removed, stored, and reinstalled must be identified.

Technical Specifications

Divisions: The CSI Master Format should be used for uniformity and consistency in all State projects.

- Designer may use either the CSI 1995 or 2004 version. However, it is recommended the CSI 2004 be used since the 1995 version is no longer supported by CSI.

Format for all specifications shall be in narrative or “imperative” form. So-called “streamline”, “short form” or “outline” specification are not acceptable for a Construction Document submittal.

Specifications shall be complete and concise, in simple language known to the construction trades.

- Specification content shall relate only to the specific project requirements.
- The division of responsibility between prime contracts (such as between food service equipment and plumbing or electrical and mechanical) shall be carefully coordinate and noted. The specifications shall be customized and tailored to the project.

Do not mix CSI 1995 and CSI 2004 version of the specification in the construction manual.

The two formats are not consistent with each other.

Specifications shall be created via electronic word processor.

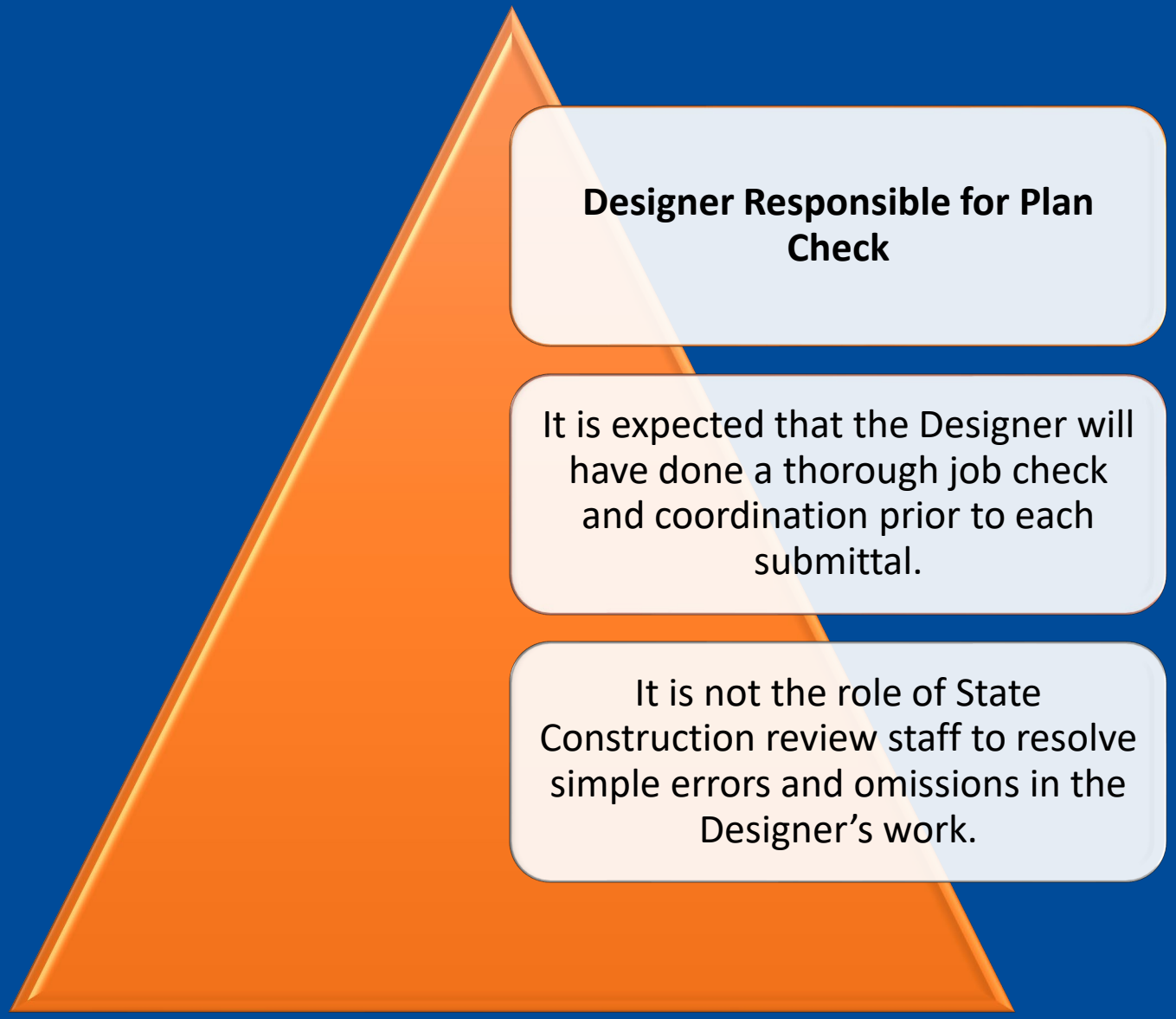
Copies shall be legible and securely bound.

Review sets shall be complete and fully edited for the project.

Neither Federal Specification (FS) nor Military Specification (MS) are to be used or referenced.

The State Construction Office and many contractors do not have those specifications.

Reference standards such as UL, FM, NFPA, etc. are appropriate.


Designer Responsible for Plan Check
It is expected that the Designer will have done a thorough job check and coordination prior to each submittal.
It is not the role of State Construction review staff to resolve simple errors and omissions in the Designer’s work.

Approval to Proceed

The Designer should secure from the Owner and the State Construction Office written approval of the Construction Document submittal before proceeding to the next phase.

If the submittal does not sufficiently address the basic elements of the project, it will be returned “Not Approved” and a re-submittal showing further development will be required.

Section 508

Final Submittal

Final Submittal for Bid

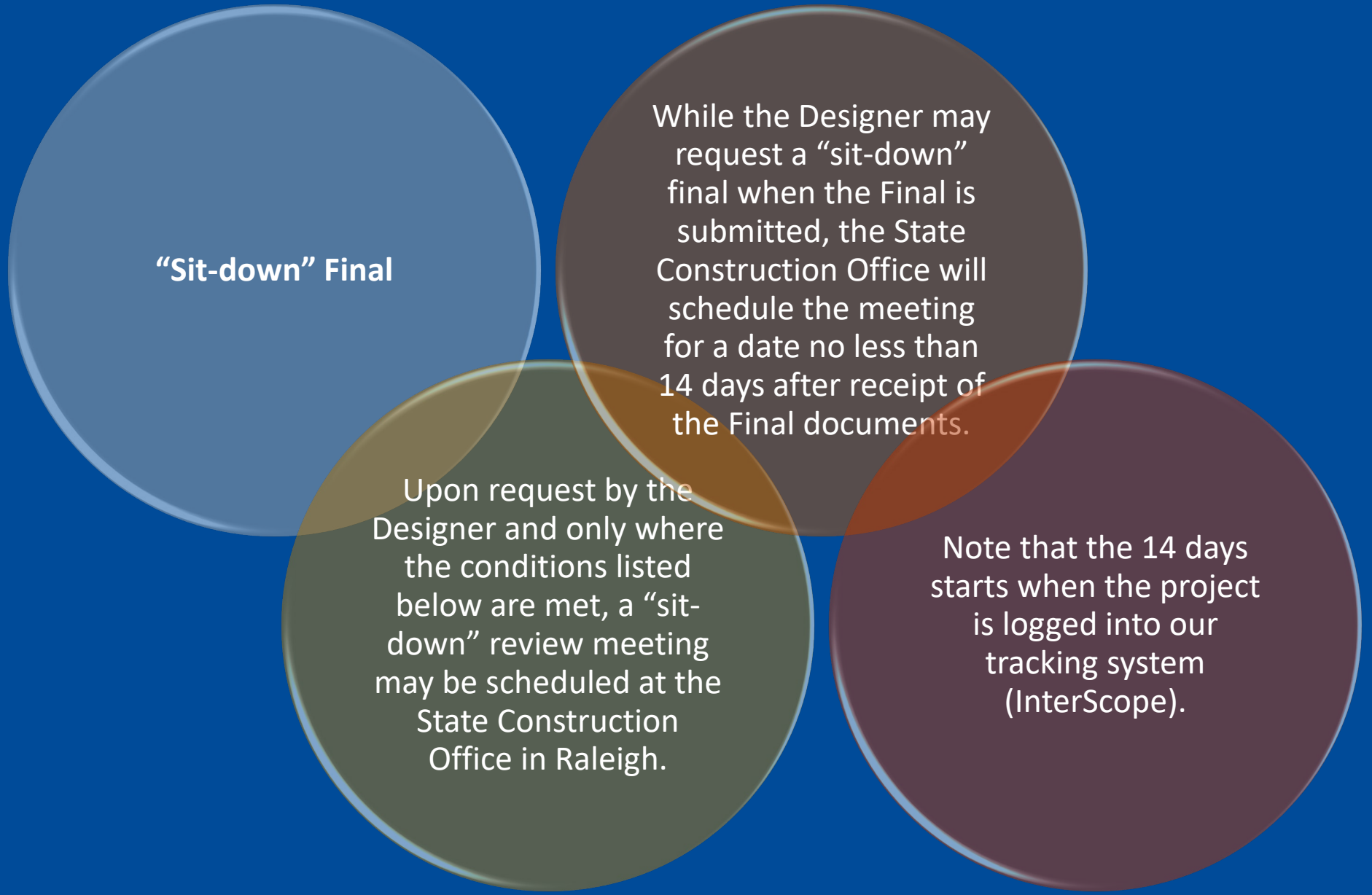
The Final Submittal is not intended to be another project review.

Final submittal is to verify the Designer's written responses to the State Construction Office Construction Document review comments and verify the required revisions have been made to the project documents.

If the Construction Document submittal was incomplete, the Designer's responses or the Final submittal may generate additional questions or comments. If the Final submittal shows non-compliance with previous CD review comments or has generated more comments, the submittal is considered "Not Approved for Bid" and another submittal will be necessary.

An e-copy of the Final Review/Approval letter will be e-mailed, copied to the Owner, to the Designer to facilitate a response letter.

Final project approval letters from the Owner and all regulatory agencies having jurisdiction must be on file with the State Construction


“Sit-down” Final
While the Designer may request a “sit-down” final when the Final is submitted, the State Construction Office will schedule the meeting for a date no less than 14 days after receipt of the Final documents.
Upon request by the Designer and only where the conditions listed below are met, a “sit-down” review meeting may be scheduled at the State Construction Office in Raleigh.
Note that the 14 days starts when the project is logged into our tracking system (InterScope).

1. The Final submittal resolves all code issues identified at the CD.

2. The Final submittal satisfactorily addresses all CD review comments.

3. Other regulatory approvals are provided.

4. Approval letter from the Owner.

If the submittal is complete, all comments satisfactorily addressed, and other regulatory approvals are provided, the project may be approved to bid the day of the sit down review.

Approved for Bid

The State Construction Office Final Review letter states that the project is Approved for Bids subject to approval of involved regulatory agencies. Coordinate a bid date with State Construction Office when all approvals have been obtained.

Email approval letters to scoreview@doa.nc.gov

Section 509

Bid Date

Setting Bid Date

Upon approval of all regulatory agencies, the Owner and Designer in consultation with the State Construction Office, shall establish the date of receipt of bids.

When the bid date is established, email State Construction Office at scoads@doa.nc.gov, a copy of the completed Notice to Bidders to State Construction Office for posting on the State eVP website for public advertisements.

Section 510

Addenda/Proposed Change Order

Addenda

Design Review Section at the State Construction Office will continue to assist the Designer and Owner in the review of Addenda that affect Life Safety, Structural and Code changes during the bid period.

The submitted Addendum or Addenda shall include a Transmittal Letter, A letter explaining the change, full size drawing sheet(s) with change(s) highlighted.

Proposed Change Order

Design Review Section will continue to assist the Designer and Owner in the review of Proposed Change Order (PCO) that affect Life Safety, Structural and Code changes during construction.

The submitted PCO shall include a Transmittal Letter, A letter explaining the change, full size drawing sheet(s) with change(s) highlighted.

Section 511

Electronic Submittal Requirements

ALL PROJECTS SUBMITTED ELECTRONICALLY NOW.

The following project types can be submitted electronically:

1. University Download project less than $4 million for Code Review Only.
2. Small projects such as informal.
3. Other projects requiring “Code Only” reviews.

Additional information for specifications and drawings include seal of the design firm and designer on the specification and on each drawing sheet. See Chapter 500 Design Guidelines in the State Construction Manual.

Electronic submittals should be emailed to our General Email address at scoreview@doa.nc.gov. Your email subject should indicate this as a “REVIEW SUBMITTAL.”

Section 512

Electronic/Digital Submittal Requirements

Digital Files

The State Construction Office is currently accepting digital files for review in Bluebeam through “InterScope.”

Each new digital submission shall be via same media from beginning of project to final punch out.

If project was submitted initially as hard copy (paper) continue to do so for the duration of the project to facilitate filing for State Construction Office.

Complete sets must be submitted for every phase. If both hard copy and digital are submitted must remain both throughout, including Bid Set.

Preparing Documents For Submission

1. Drawings

a) Submitted PDF drawing files shall be converted directly from drawing files.

- Complete set of one continuous file with one exception, large submittals may be divided by discipline.
- All Drawings shall have electronically recognized page labels based on the numbering convention shown in the bottom right hand corner of the drawing (i.e. G001, etc.) See Appendix A.
- Providing these electronically recognized labels are not required for the Project Manual/Specifications but is encouraged as it can help with clarity in the SCO comment letter.

b) All drawings shall be labeled (page numbered) and titled (i.e. Plan) in Bluebeam.

c) All drawings shall be flattened such that the document appears as one layer with no markups in a PDF viewer.

d) If the Designer has the “Extreme” version of Bluebeam, please batch hyperlink for details/sections etc.

2. Submittal shall include the following files:

a) A transmittal letter with SCO project ID number, contact information - name of person, email address and phone number, list of items included, and a brief description of the project.

b) A complete cost estimate for every phase and/or other documents such as LCCA, calculations etc.

c) Documents (project manual/specification and drawings). d) Additional information such as cut sheets etc. can should be in a different file.

3. Files

Files for submitting shall be labelled following the SCO convention.

State ID – Agency – Current submittal – phase – document

Ex: XX-XXXXX-XX-UNC-CD-DWG (First submission)

Ex: XX-XXXXX-XX-UNC-CD2-DWG (Second submission)

Ex: XX-XXXXX-XX-UNC-CD-CE (Cost Estimate)

For listing of all labelling convention, see Appendix B.

4. Seals

Seals are required on all drawings and project manual in all submissions without exception to identify the author.

The bid set shall include seals, signatures and dates on all drawing sheets and project manual.

This set may be “locked” due to digitized signature security.

Designer should keep a bid set without signature for field construction.

It will be shared by contractors, owners, inspectors, project managers etc.

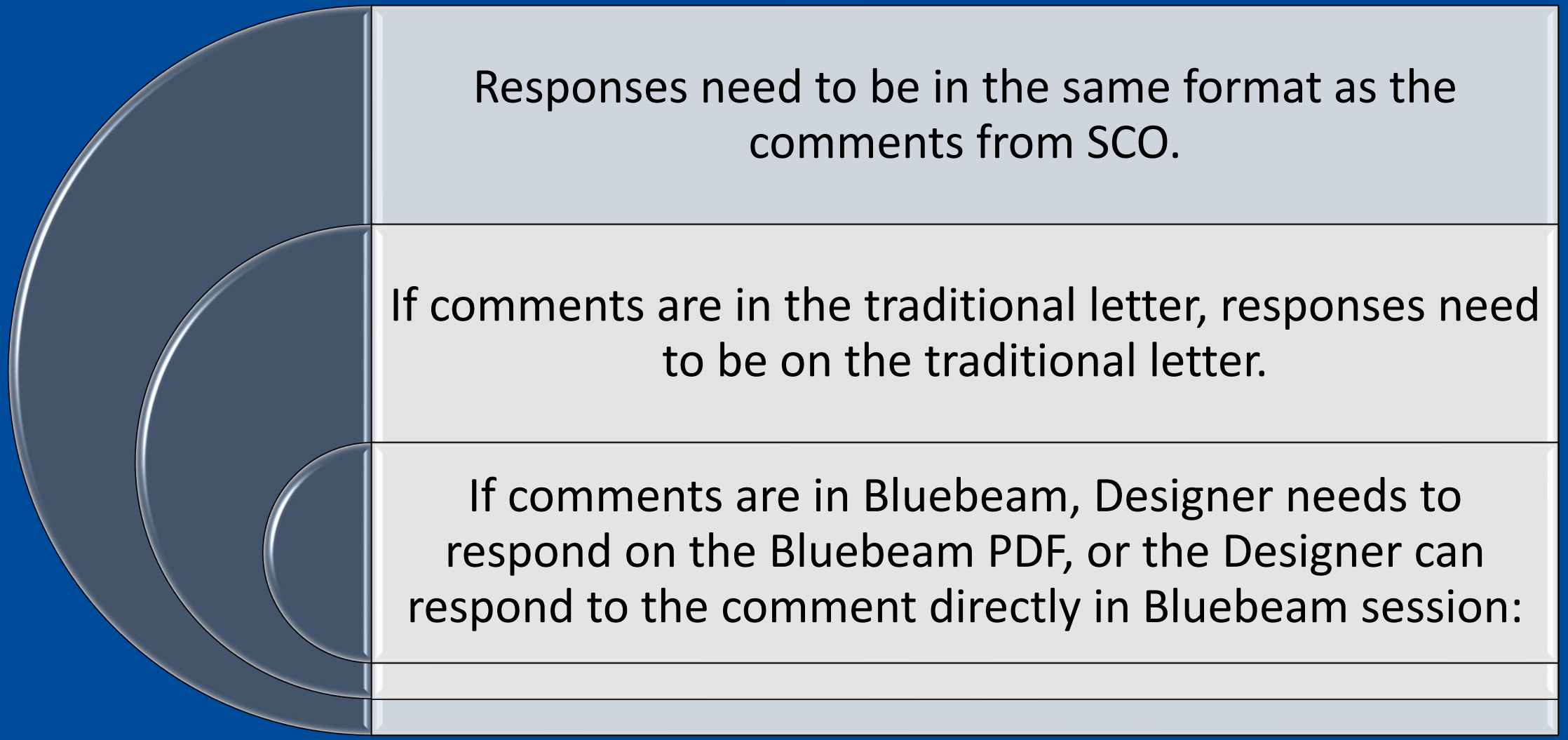
Submission

1. Digital submission shall be submitted by logging in through “Interscope.”

2. As SCO reviewers are still in the transition stage, a paper (hardcopy) set is still required for those who need it.

For instructions on How-To, go to “Help” after login, “User Training”, “Designer Submittal” to walk through the process.

D. Designer Responses



1. To do so, click on the comment response and select “reply” while in the “studio session.” There you can type your comment.

We request that a printed (PDF) copy of the reply to accompany your resubmission or response since we are still in the transition period.

2. To create a PDF copy of your response in Bluebeam Revu: Open all the files in this phase of the project (and only these files), click Batch -> Summary, at the top of the new window select the “Add” dropdown and choose “open files”.

3. Next scroll to the bottom and click “Load Config”, then find the configuration provided [here].

Change the title field based on the convention stated in 512 (B)(3). Change the “Export to” field to the location you intend to save the file and click “OK”.

If you respond without using Bluebeam just add your responses beneath the comment.

E. Bid Set

The bid set shall include seals, signatures and dates on all drawing sheets and project manual.

This set may be “locked” due to digitized signature security.

Designer should keep a bid set without signature for field construction to be shared by contractors, owners, inspectors, project managers etc.

CHAPTER 600
Construction Contracts and Bidding

Section 601

Formal & Informal Contract Definitions

GS 143-128 and 129 govern construction contracting for public work in North Carolina.

The terms formal and informal are not clearly established in the statutes except to prescribe dollar limit classifications for public contracting and bidding.

The total construction contracting value is used to determine if a project is informal or formal.

The current threshold is $500,000, above which projects are formal, and below informal.

This classification impacts how the project construction documents and contracts are written and organized as well as the method and procedures for bidding and award of a public project.

A project may not be subdivided or phased with the purpose or the intent to evade the formal contract requirements, according to GS143-133.

Section 602

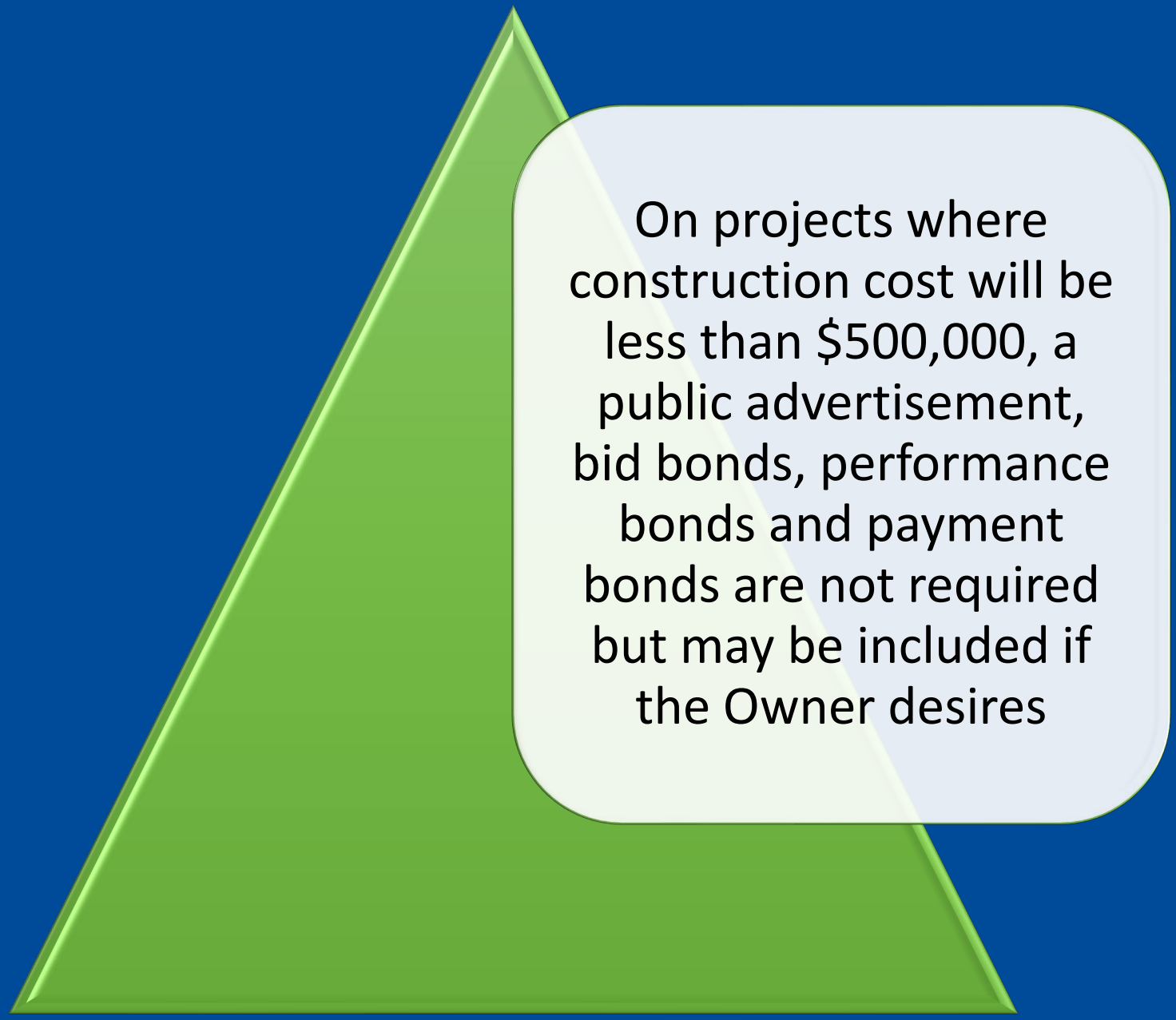
Informal Contacts, Bidding Procedures & Award

An SCO Informal Contract format is available on the SCO Website.

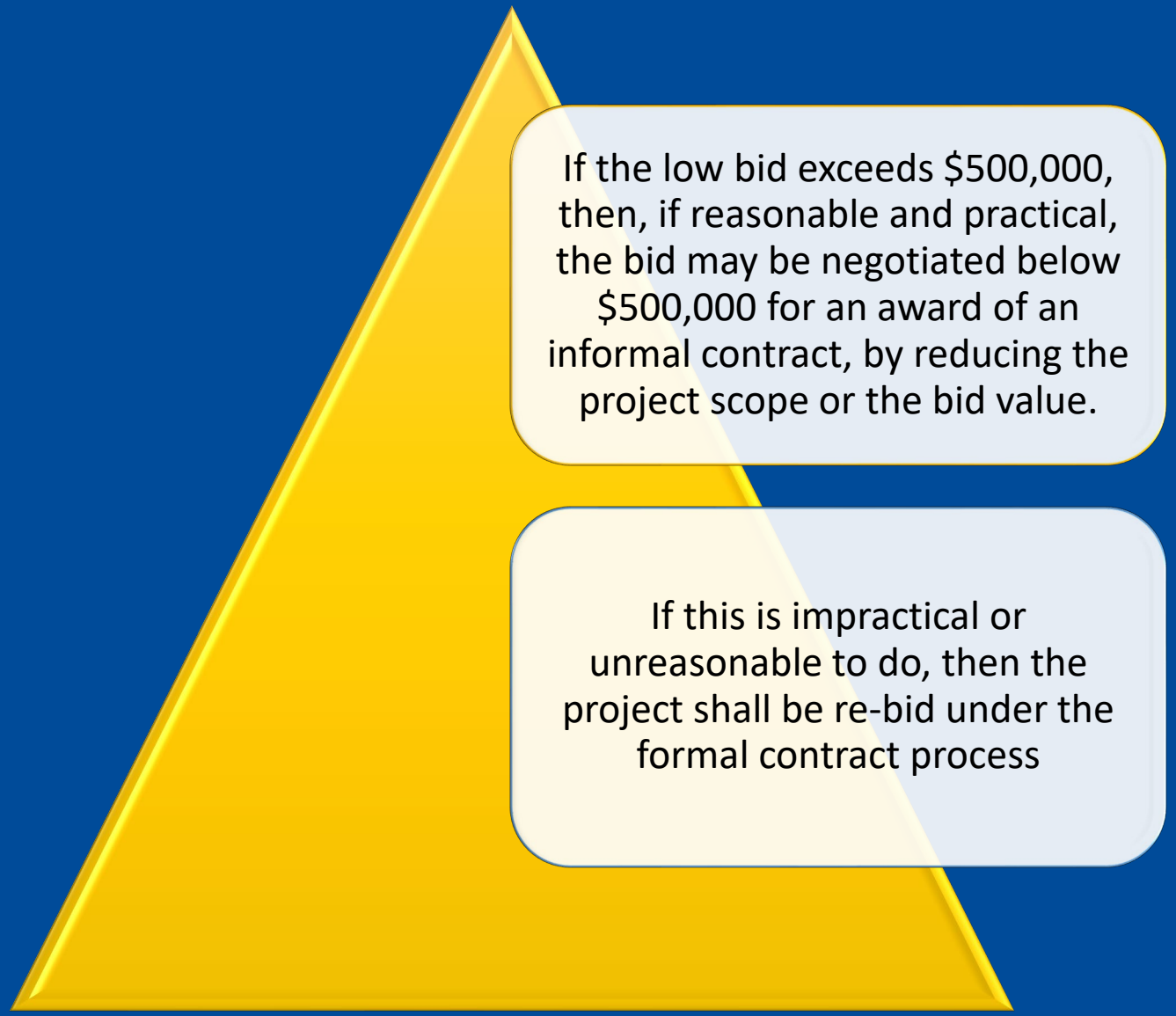
It is a simplified and condensed form with a Notice to Bidders, abbreviated OC-15 General Conditions of the Contract, a Supplementary General Conditions page for Designer edits and a simplified combination proposal and contract form.

An Informal Contract in no way implies that plans and specifications may be less than fully developed or inadequately describe the work to be done.

Constituent institutions of the UNC system may use the SCO format or develop their own.


On projects where construction cost will be less than $500,000, a public advertisement, bid bonds, performance bonds and payment bonds are not required but may be included if the Owner desires

The receipt of three (3) bids is not required to open bids. But, for the advantages of competitive bids, at least three (3) bids should be solicited. Bids may be faxed or sent electronically to the Owner.


If the low bid exceeds $500,000, then, if reasonable and practical, the bid may be negotiated below $500,000 for an award of an informal contract, by reducing the project scope or the bid value.
If this is impractical or unreasonable to do, then the project shall be re-bid under the formal contract process

MBE requirements and 10% goal also apply on informal contracts BUT the Owner has the responsibility to make a good faith effort to solicit minority bids and to attain the goal.

(GS 143-131 (b)). Documentation and data on MBE participation is required for informal projects and must be reported annually to the Department of Administration – HUB Office.

A reporting form is now done under INTERSCOPE.

Section 603

Formal Contracts Bidding Procedures & Award

GS143-129 **establishes considerable requirements for the public bidding process and is the basis for many of the rules and forms created for this most important part of the capital construction process.**

Construction bidding involves:

Advertisement

Newspaper/Electronic Advertising: Where the contract is to be let by a board or governing body of the State government or of a State institution, proposals shall be invited by advertisement in a newspaper having general circulation in the State of North Carolina."

(GS 143-129 (b)) The Sunday editions of the major newspapers in the State are usually selected for their larger circulation.

Other days are not excluded but may be less effective in attracting bidders.

In addition to the newspapers, the State Electronic Vendor Portal (eVP) is the electronic notification system for all State purchasing, designer solicitations and construction bidding.

Upon approval to bid by SCO for State agencies and Community Colleges, provide an e-copy of the final completed Notice to Bidders to the State Construction Office at scoads@doa.nc.gov for posting on eVP.

Constituent institutions of the UNC system submit advertisements electronically through the UNC web site which are then also placed on the State eVP site.

Elapsed Time from Advertisement to Bid Opening

"Bids may not be received until at least seven (7) days have lapsed from the date of advertisement," according to GS143-129 (b).

The statute requires a minimum of at least seven (7) full days elapsed time between the date of publication and the date of the opening of bids.

There are numerous requirements for more time such as the MBE program which requires 21 days elapsed time.

Pre-bid conferences or the issuance of addendums may also extend the bid time.

A period of three (3) to six (6) weeks between advertising and receipt of bids should be provided as a matter of general policy.

Seven-day bid times are only used in re-bid situations A copy of the actual advertisement shall be furnished with affidavit of publication to the Owner.

Payment for advertisement shall be by the Owner.

All contractors who desire to bid shall be furnished complete sets of plans and specifications upon payment of a plan deposit when required.

Plan deposit amount shall reflect the cost of replacement should the documents not be returned in good usable condition.

Plan deposit shall be returned in accordance with the Notice to Bidders.

Cost of mailing plans and specifications to the bidder shall be borne by the Designer.

The Designer shall take into consideration the fact that it is necessary for a bidder to mark-up plans on those portions of the work for which he is submitting a bid.

Plan Rooms

Plans are to be made broadly accessible to prospective bidders with physical and electronic plan rooms providing support.

The full plan deposit will be returned to those bidders provided all documents are returned in good, usable condition within ten (10) days after the bid date.

Projects within the following counties:

Buncombe, Haywood, Henderson, Jackson, Madison and Swain shall have bid documents (Plans and Specifications) submitted to the Asheville Business Development Center, 70 Woodfin Place, Suite 305, Asheville, NC 28801, Phone: 828-252 2516.

Projects within the following counties:

Durham, Person , Orange, Chatham and Wake shall have bid documents submitted to NC Institute of Minority Economic Development, Inc. at MCTAP/NCIMED, Inc., 114 West Parrish Street, 4th Floor, Durham, NC. 27701.(919-956-8889).

Projects within the following counties:

Mecklenburg, Cabarrus, Iredell, Union, Gaston, Anson, Rowan and Lincoln shall have bid documents submitted to Minority Contractors Resource Center, 418 W. Trade St., Charlotte, NC 28202. Ph. (704)-332-5746 Fax (704)-332-5990.

Projects in the Greenville/Eastern NC areas:

shall have bid documents submitted to **East Coast Digital (ECD) Plan Room, Minority Plan Room Provider,** 210 E 14th. St., STE. D, Greenville, NC 27858, Tel. 252-758-1616, Fax 252-758-7311.

Prequalification (See Section 605):

When prime contractors are pre-qualified, the Advertisement for Bidders shall be published as described but shall include a listing of the pre-qualified prime contractors.

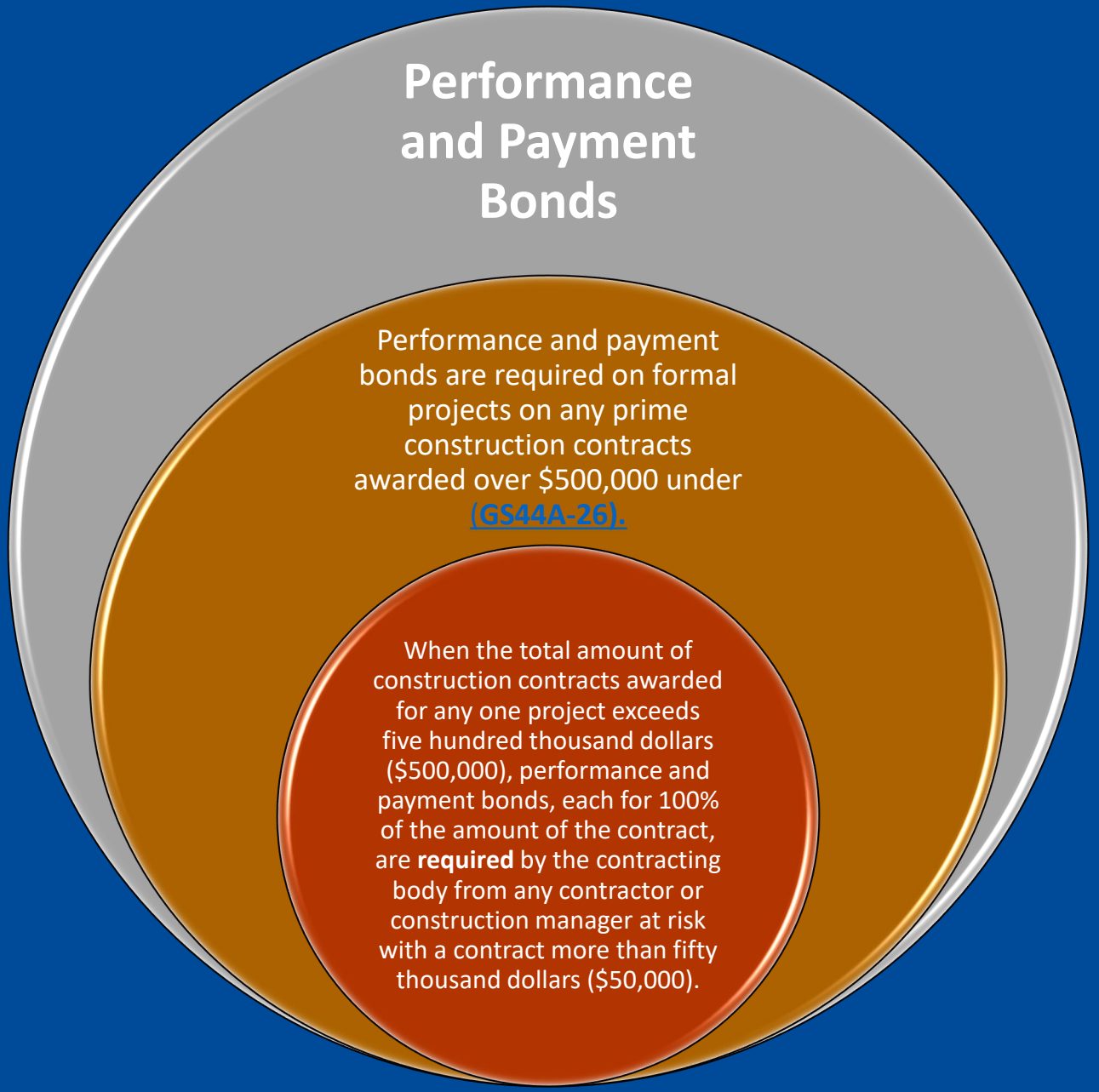
Subcontractors will know who the prime bidders are and plans and specifications shall be made available as described in the Notice to Bidders.

Bid Bonds

Bid security, bid bond or cash, in the amount of 5% of the total bid is required with the bid.

Bid bonds are required with the bid at the bid opening. According to GS 143-129(b), “No proposal for construction or repair work may be considered or accepted by said board or governing body unless at the time of its filing the same shall be accompanied by a deposit with said board or governing body of cash, or a cashier's check, or a certified check on some bank or trust company insured by the Federal Deposit Insurance Corporation in an amount equal to not less than five percent (5%) of the proposal.

No AIA Bid bond cab be used. Has to be State Construction Bid bond. See SCO website for the form.


Performance and Payment Bonds
Performance and payment bonds are required on formal projects on any prime construction contracts awarded over $500,000 under (GS44A-26).
When the total amount of construction contracts awarded for any one project exceeds five hundred thousand dollars ($500,000), performance and payment bonds, each for 100% of the amount of the contract, are **required** by the contracting body from any contractor or construction manager at risk with a contract more than fifty thousand dollars ($50,000).

The performance bond shall be solely for the protection of the contracting body that is constructing the project.

- The payment bond shall be solely for the protection of the persons furnishing materials or performing labor for which a contractor, subcontractor, or construction manager at risk is liable.
- In the discretion of the contracting body, performance and payment bonds may be required on any construction contract.

The performance bond and the payment bond shall be executed by one or more surety companies legally authorized to do business in the State of North Carolina and shall become effective upon the awarding of the construction contract.

- The prescribed forms are available on the SCO Website.

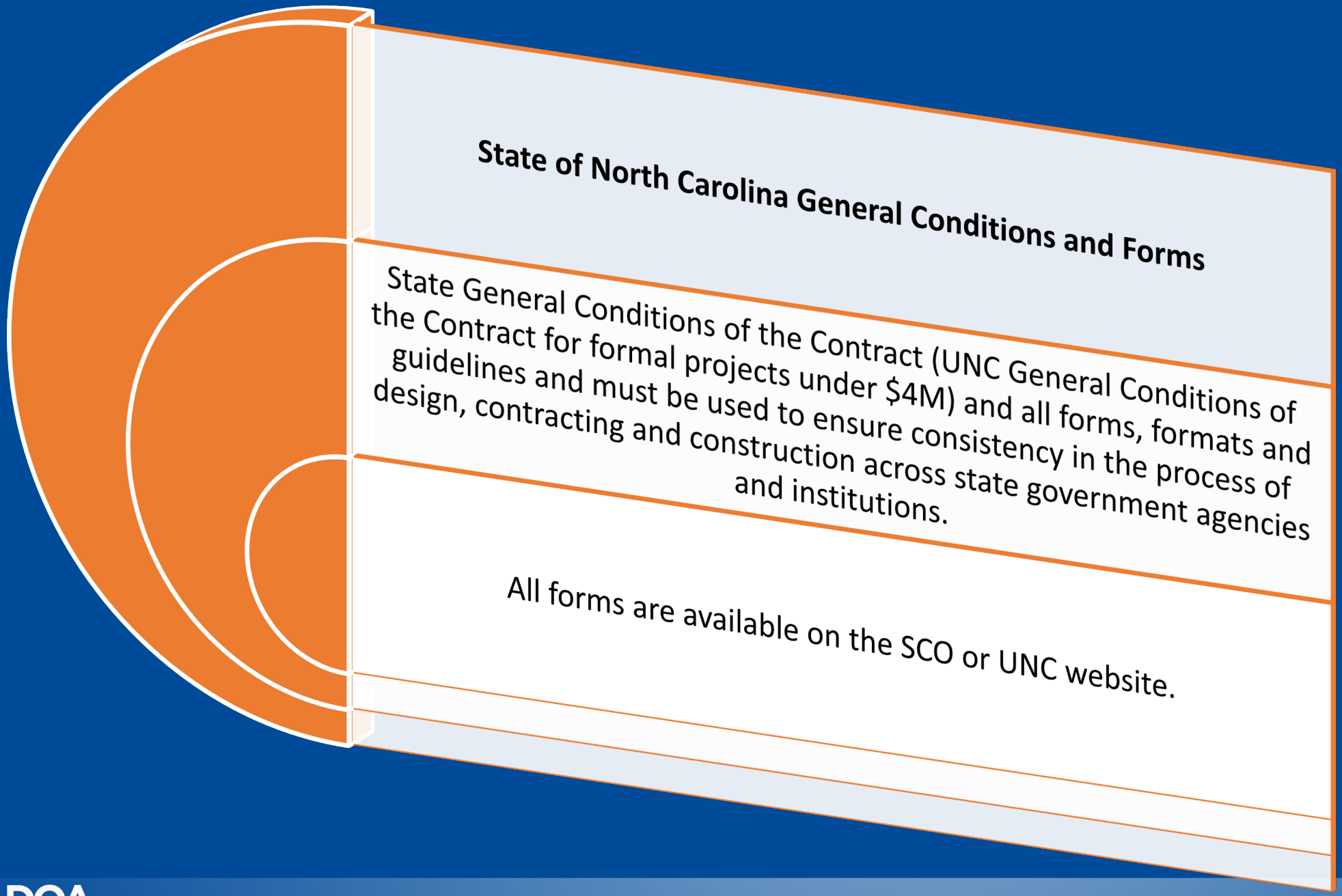
Number of Bids

Receipt of three bids on any formal contract is required to open bids on the first advertisement.

If an insufficient number of bids are received, then bids shall not be opened and the project shall be re-advertised and bids received again in no less than 7 days from re-advertisement.

Do not make any changes to the bid documents between 1st and 2nd opening.

Whatever number of bids received at the second opening may be opened and read, if desired, or the project may be bid again at a later time. (GS143-132).


State of North Carolina General Conditions and Forms
State General Conditions of the Contract (UNC General Conditions of the Contract for formal projects under $4M) and all forms, formats and guidelines and must be used to ensure consistency in the process of design, contracting and construction across state government agencies and institutions.
All forms are available on the SCO or UNC website.

State of North Carolina MBE Requirements

MBE Requirements (GS143-128 (f)) – The State has a 10% goal for minority participation in State projects.

MBE Guidelines and Affidavit forms are described in the project manual which also provides MBE program information and instructions for MBE Forms.

Department of Administration HUB website has additional HUB program information, as well as listing HUB certified MBE firms.

Bids Under or Over Formal Threshold

Should the low bid in a formal project be <$500,000 the formal award process would still apply.

If a project is bid as a formal project, it cannot be changed and awarded as an informal one.

Section 604

Formal Bidding Methods and Contracting

The State under GS143-128 has required, since the 1930's, that public construction contracts be competitively bid in at least 4 subdivisions or branches of work – General, Plumbing, HVAC and Electrical contracts. "Separate plans and specifications" are required, and the Designer shall identify the scope of work required for each category in the specifications and on the drawings.

Following are the 7 major methods of bidding and contracting public work currently available for public entities.

Single Prime Contracting

A single prime bid and contract with the Owner is permitted for any construction contracts of any dollar amount. GS143-128 requires a single prime bidder to identify on the proposal form the sub-contractors selected for the subdivisions or branches of work for:(1) General construction; (2) HVAC; (3) Plumbing; and (4) Electrical.

The sub's license number is not required by statute but may be requested. The subcontractor bid quote to the prime bidder shall not be requested.

The single prime contractor whose bid is accepted shall not substitute any person as subcontractor in the place of the subcontractor listed in the original bid, except by permission of the Owner and in accordance with the statute. (See the Proposal Form format for listing of subcontractors.)

Under GS 87-1, a contractor that superintends or manages construction of any building, highway, public utility, grading, structure or improvement shall be deemed a "general contractor" and shall be so licensed.

A 2004 revision to GS87.1.1 allows a PM or E contractor under GS 87 to contract directly (as single prime) with a public Owner and subcontract to other contractors provided the total general construction work does not exceed 25% of the total construction costs. (See GS 87-1 and NCLB GC Rules 0200.0210.)

Separate Prime Contracting

Separate prime bids and contracts are still an option for the Owner. GS 143-128 has established the basic subdivisions of work as General, Plumbing, HVAC, and Electrical contracts.

The Owner signs separate prime construction contracts with each subdivision contractor.

Project documents shall have “separate specifications and drawings” prepared for each subdivision.

The Owner shall designate one contractor, typically the General or the contractor having the largest contract, as the “Project Expediter” to coordinate and schedule the work.

The project expeditor has no contract with the other primes so the general contractor definition in GS 87-1 does not apply.

Dual Bidding

Dual Bidding, defined in GS143-128 (d1), is a combination of bidding that permits both single prime and separate prime bids to be received together on one project and permits the Owner to contract with the lowest separate prime bids OR the lowest single prime bid.

In determining the award, consideration may be given to the cost of construction oversight, time for completion, and other factors as appropriate.

The lowest bid overall does not have to be accepted but, awarding to other than the low bidder should have reasonable justification.

Separate drawings and specifications shall be prepared for the dual method as well.

- Dual bids are to be received one hour apart.
- Separate prime bids are received on the first hour but not opened. Then single prime bids are received on the second hour and all bids received are then opened and read.
- Ex: 2:00 - Separate prime bids received but not opened. 3:00 - Single prime received.
- If sufficient bids are received per SBC procedures, then all bids may be opened. (A bidder may withdraw or change his bid up until the first bid is opened.)

Construction Manager at Risk and as Agent

Construction Management at Risk is an authorized contracting method. The procedures for selecting a "Construction Manager at Risk" (CMR) are posted on the State Construction Office web site.

The Request for Proposals (RFP) to be used in soliciting prospective Construction Managers is also on the web site.

The CMR is selected on a qualification-based solicitation typically at the beginning of the design process and, working with the Owner and Designer, provides constructability input and cost estimating advice during design.

When the construction documents are reviewed and approved by regulatory agencies, the CMR provides a GMP (guaranteed maximum price) acting as a construction manager to deliver the project. The GMP will be presented as either a pre-bid GMP (Final) or post-bid GMP (Preliminary). As suggested by the titles, a preliminary GMP is subject to adjustment after the bids are received, while the final GMP is a fixed price.

The Owner may accept, negotiate or decline the GMP offering and bid the work under another construction delivery method.

If the GMP is accepted, the CMR is required by GS143-128.1 (a-d) to act as a fiduciary of the Owner in the bid process.

The CMR shall publicly advertise for and pre-qualify all “first tier subcontractors,” shall comply with the state MBE program requirements and open all bids in a public venue.

All bids become public records.

The CMR may self-perform work only under limited circumstances.

The Designer should familiarize himself with the scope of his work under this delivery method and address this in his design contract if necessary.

SCO Design Review Section reviews and approves the construction document plans and specifications for GMP.

The CMR prepares the bid forms and bid packages.

The Designer interprets the documents, approves products, issues addenda, change orders, etc. and performs contract administration.

A Construction Manager (CMA) as Agent is not a construction contracting method.

The CM is an “agent” of the Owner similar to the Designer and is selected on a qualification-based solicitation and has a negotiated contract.

The CM prepares the trade packages and solicits the bids for the Owner and then provides scheduling and construction administration.

However, all construction contracts are with the Owner, not the CM.

This is separate prime contracting, but may involve many more construction trade contracts with the Owner than just the P, M & E contracts.

Design Build

The Design Build is an authorized contracting method. The procedures for selecting a Builder are posted on the State Construction Office web site. GS 143-128.1A

The Request for Proposals (RFP) to be used in soliciting prospective Design Builder is also on the web site.

Design Build Bridging

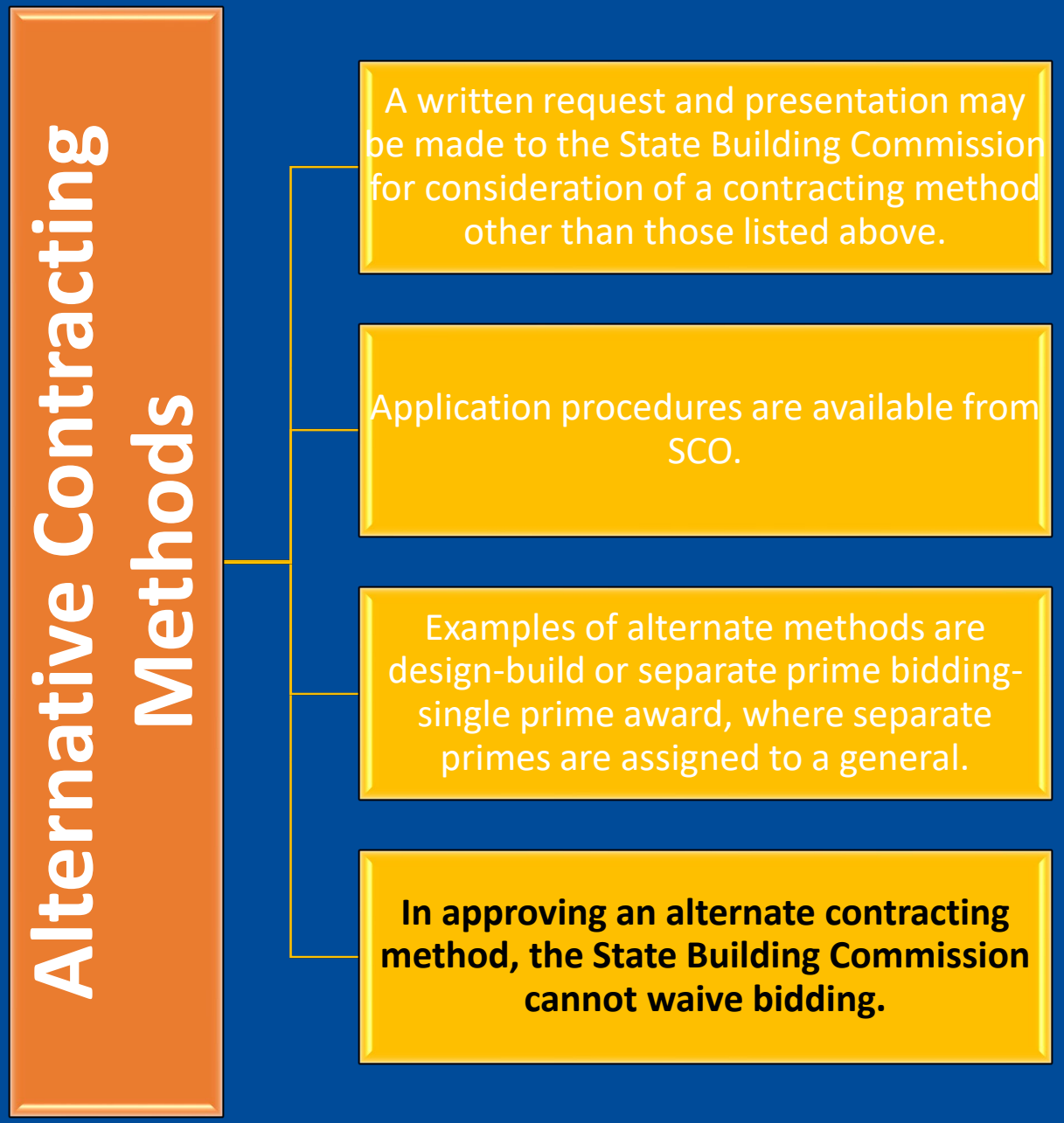
The Design Build is an authorized contracting method. The procedures for selecting a Builder are posted on the State Construction Office web site. GS 143-128.1B

The Request for Proposals (RFP) to be used in soliciting prospective Design Builder is also on the web site.

Public Private Partnership

The P3 is an authorized contracting method. The procedures for selecting this method is still under evaluation. GS 143-128.1C

This method is a financial mean. It can use any of the major deliveries mentioned earlier.


Alternative Contracting Methods
A written request and presentation may be made to the State Building Commission for consideration of a contracting method other than those listed above.
Application procedures are available from SCO.
Examples of alternate methods are design-build or separate prime bidding-single prime award, where separate primes are assigned to a general.
In approving an alternate contracting method, the State Building Commission cannot waive bidding.

Section 605

Prequalification of Bidders

GS143-135.8. Pre-qualification - Bidders may be pre-qualified for any public construction project.

Under the CMR contracting method, first tier subcontractors must be prequalified. Forms for prequalification are on the SCO Website.

If the Owner wishes to pre-qualify bidders under single-prime or multi-prime contracting prior to issuing bid documents, the forms and procedures prescribed by the State Building Commission as available on the SCO web site under "Prequalification of General Contractor" are to be used.

Advertising to prequalify should follow the same procedures as advertising for bids.

Section 606

Proposal Form

A Proposal Form in MSWord format is available on the SCO Website.

The proposal form will require important editing for a project. Maintain the existing text and edit the material in red or italics.

Delete portions of the form not used on a specific project such as separate primes, alternates and unit prices, etc.

Section 607

Bidder Proposed Substitutions

Bidder proposed substitutions should be submitted no later than 10 days prior to bid date for Designer evaluation and inclusion in the last addenda that may be issued no later than 7 days prior to bid date. GS133-3 requires bidder proposed substitutions be submitted and approved prior to bid receipt.

These would be bidder's "desired or voluntary" substitutions. Necessary or required substitutions can occur later when specified products are not available, late delivery, model changes, etc. then substitutions can be made after contract award per usual procedure in the General Conditions of the Contract.

Section 608

Pre-Bid Meetings

Prebid meetings should be scheduled no less than 7 days after posting of the bid advertisement and no later than 10 days prior to the bid opening to allow sufficient time for the Designer to prepare pre-bid minutes and any addenda that may need to be issued as a result of the meeting work and locating the place to receive bids.

Project requirements may be explained and discussed and questions asked.

Attendance sign-in sheets should be provided and questions and answers recorded for use in minutes and in any Addenda.

Mandatory attendance may be required in the Notice to Bidders if desired by the Owner but it can be problematic to the bid process.

An attendance record must be made and it must be made clear in the notice to bidders and at the pre-bid meeting that any prospective bidder not attending will not be permitted to submit a bid on the project.

MBE Guidelines, bid forms and affidavits shall be discussed and clarified.

Owner Preferred Alternate(s) may be presented at the pre-bid meeting as it meets the requirements for a publicly advertised, open meeting as required by GS133-3. See GS133-3 Recommended Procedures under Guidelines on the SCO website.

Prebid meetings should be scheduled no later than 10 days prior to the bid opening to allow sufficient time for the Designer to prepare pre-bid minutes and any addenda that may need to be issued as a result of the meeting.

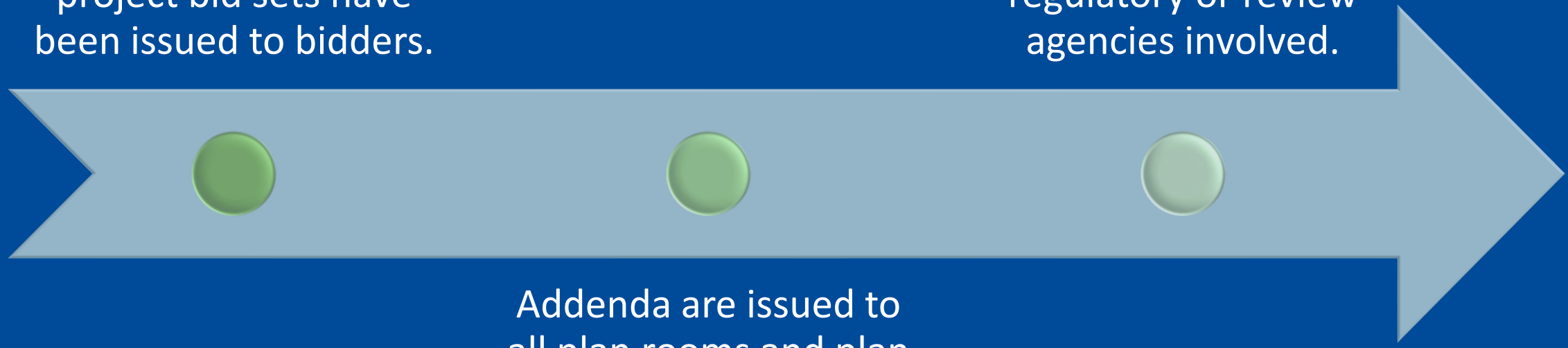
Section 609

Addenda

Addenda are changes made to the construction documents after project bid sets have been issued to bidders.

Addenda are issued to all plan rooms and plan holders.

Copies shall also be provided to the Owner, the State Construction Office and any other regulatory or review agencies involved.



No addenda shall be issued later than 7 days prior to bid opening. Should significant changes or issues arise prior to or after that time, an addendum may be issued to delay or postpone the bid opening as necessary to resolve and then properly inform bidders of such changes.

In the case of the CM at Risk delivery method, designers should put any addenda in the hands of the CM no later than 10 days prior to first-tier subcontractor bid opening.

Addenda should be kept to a minimum, both as to number and content.

Section 610

Bid Opening time and Location

Location and Time

Bid openings must be in a “public place” such as the owner’s facility, a public library or similar publicly owned and readily accessible facility.

Not a private office such as Designer’s office or privately owned facility.

Dual Bidding

Under dual bidding method, separate prime and single prime split bidding time is required in public projects.

Separate prime bids are received one hour prior to single prime bids to allow time for single prime bidders to receive quotes from the other bidders and subcontractors.

All bids may be opened and read only after receipt of the single prime bids.

No bids may be withdrawn after any bid is opened.

Bid tabulation forms shall be provided by the Designer to all parties present at the bid opening for all single and multi-prime bids with adequate space and spaces to record base bids, all alternates, license numbers and bid bonds that may affect the bid award.

Bid tabulations shall be provided by the CM at Risk on projects delivered by that construction method.

Bid clock time shall be determined as accurately as possible by the Owner/Designer.

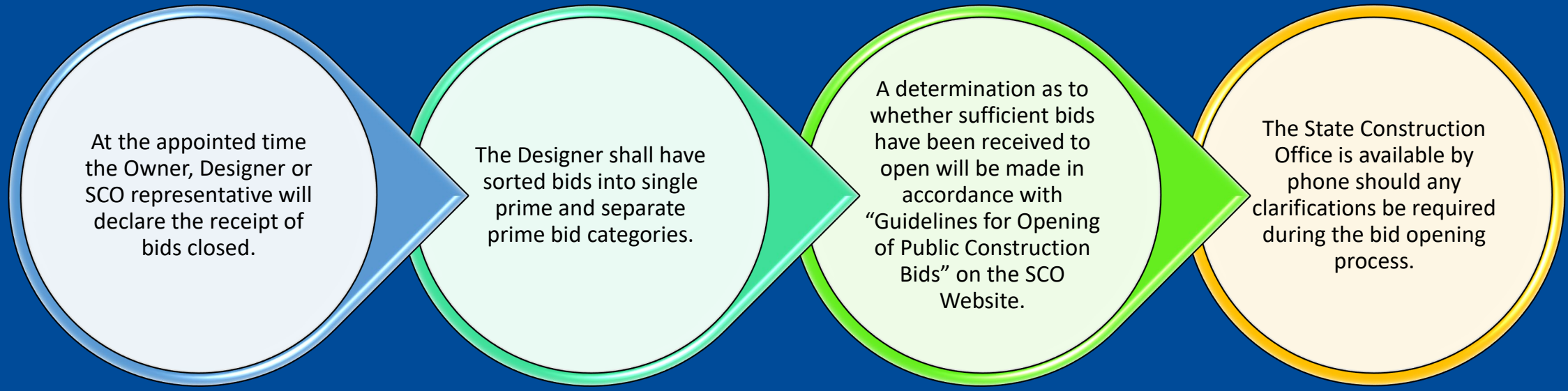
No further bids will be received after the designated time.

If there is a “serious” event beyond the control of bidders and that is impacting a significant number of bidders being able to meet the bid deadline, then the Designer may postpone the opening a short time to allow the problem to be resolved.

Example: Phone outage, fire alarm, traffic jam, Designer missing, etc.

Section 611

Close of Bidding


At the appointed time the Owner, Designer or SCO representative will declare the receipt of bids closed.
The Designer shall have sorted bids into single prime and separate prime bid categories.
A determination as to whether sufficient bids have been received to open will be made in accordance with “Guidelines for Opening of Public Construction Bids” on the SCO Website.
The State Construction Office is available by phone should any clarifications be required during the bid opening process.

If sufficient bids are available to proceed with the bid opening, then the following will be asked:

Whether bidders (present) have received all addenda issued.

Whether anyone was denied the right to bid.

Whether there are any objections to proceeding with the bid opening

If there is an objection to the opening of bids then the Designer/Owner shall determine the merits and implications of the objection and shall:

- Attempt to address and satisfy the objection; or
- Secure complete information as to the objection and proceed with opening of bids under protest, for later disposition by proper authority; or
- Postpone the bid opening to a later date to allow sufficient time for the objection to be addressed; or
- Rule the objection as an informality and proceed with the opening of bids.

Section 612

Change or Withdrawal of Bid

Prior to the opening of any bids, a bid may be changed or withdrawn.

Example: Should a bidder not have received an addendum, he will have an opportunity to read the addenda to determine the impact on his work or bid.

- Then, he may change his bid, leave his bid as is or withdraw his bid.

Once any bid is opened, there shall be no changes or withdrawal of any bids by any bidder, nor bids returned to any bidders.

After the bid opening, a bidder may withdraw his bid from consideration without forfeiture of his bid security when the provisions of GS143-129.1 are followed and applicable.

A written request must be made to the Owner or Designer prior to award of contract and no later than 72 hours after the bid opening.

The Owner or Designer will contact the State Construction Office.

A hearing will be held to determine if GS143-129.1 is applicable and whether the bid security may be returned.

Once a letter requesting withdrawal is received, the bidder may no longer participate in the project in any manner.

He may not be a supplier of materials or labor, subcontractor at any level or bid the project should it be re-bid, without the prior written approval of the Owner. GS143-129.1

Section 613

Formal Opening of Bids

All bids shall be read aloud.

- The Designer/Owner/CM shall state the name of bidder, license number if applicable, bid security, base bid and all alternates.
- Unit prices are not typically read as they are not considered in the award of the contract.
- Any irregularities noted should also be stated during the reading of bids.

No announcements on low bidder(s) or decisions on irregularities should be made at the bid opening.

- State that bids will be reviewed and validated and decisions will be made public at a later time.

Section 614

Formal Re-Advertisement

If insufficient bids are received at the first bid opening, a new bid date may be set as early as possible; however, the minimum advertising period shall be seven (7) days.

Note that this period must be 7 days elapsed time after reposting the advertisement, not necessarily 7 days from the initial bid opening date.

At the re-bid, any number of bids received may be opened.

This is the only occasion, insufficient number of bids at first opening, that less than 3 bids may be opened.

Bid Postponement by addendum, cancellation or rejection of bids, and a second bidding after a scope change are not considered a re-bids.

Section 615

Negotiations

GS143-129 states “In the event the lowest responsible bids are in excess of the funds available for the project or purchase, the responsible board or governing body is authorized to enter into negotiations with the lowest responsible bidder above mentioned, making reasonable changes in the plans and specifications as may be necessary to bring the contract price within the funds available…”

The State Construction Office considers a 10-15% reduction of the bid price as being “reasonable changes” to the project.

In general, if negotiation requires more than a 15% reduction, a better value may be received by making changes to the project and re-bidding.

Section 616

Form of Formal Construction Contracts

The format for the standard Construction Contract is available on the SCO Website.

The same form is used for constituent institutions of the UNC system.

Selecting the form will also download the following associated documents and forms.

This package of forms may be incorporated into the project manual without editing.

After award, SCO will draft your contract and send for electronic signatures.

A Construction Contract Checklist for use by Designer and contractor for formal contract preparation is attached to the documents on the SCO Website but should not be included in the bid documents.

Standard Construction Contract for formal bid projects.

Performance Bond form

Payment Bond form

Sheet reminder for attaching Power of Attorney

Sheet reminder for attaching Insurance Certificates

Attachment page for Approval of the Attorney General

Construction Contract, Performance and Payments Bonds, Insurance Page, Power of Attorney and the Attorney General Approval/Budget Office Approval are all “bundled under “Construction Contract” under “Forms, on the SCO Website.

- Standard Construction Manager at Risk (CMR) Contract- The formats for the standard Construction Manager at Risk contracts are available on the SCO Website.
- The CMR preconstruction services agreement is typically negotiated and executed prior to or during the early phases of design and terminates with the acceptance by the Owner of the GMP.
- The CMR provides a guaranteed maximum contract price (GMP) based on the Final approved set of construction drawings and specifications.
- If accepted by the Owner, the construction services contract is executed.
- A Construction Manager at Risk Checklist for contract preparation is available on the SCO Website.

Section 617

Formal Construction Contract Award

The following procedures will be followed in the award of construction contracts: (Checklist)

The Designer shall provide the Owner with a certified bid tabulation, a Bid Summary Sheet, a copy of the recommended bidder's Proposal Form, an Affidavit of MBE participation and the Designer's recommendations concerning disposition of bids.

The certified bid tabulation sheet should indicate the project name, SCO #, each contractor's name (as listed with the Secretary of State or local county), each contractor's contractor license number, base bids, price of alternates, total price of each bid, and indicate the apparent low bidder.

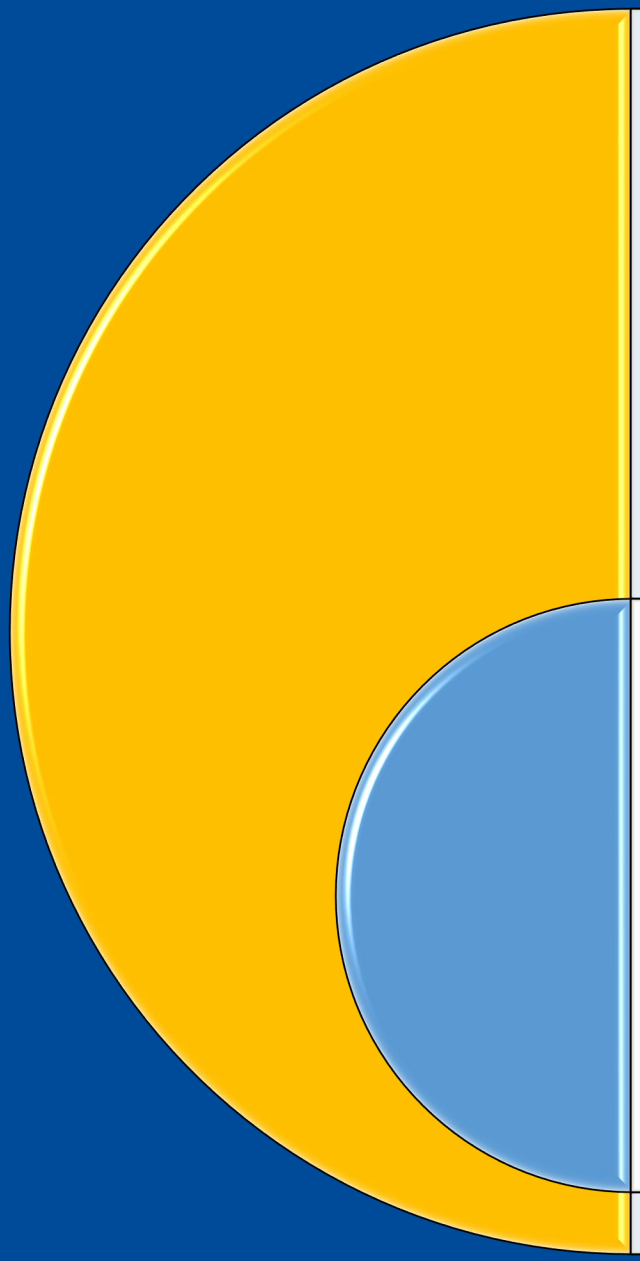
The Bid Summary Sheet shall include the gross square footage of the new or renovated project, and/or other pertinent information of the project that will enable the State Construction Office to develop realistic cost data.

If bids are in excess of funds available, the Designer shall redesign and rebid the project or under provisions of G.S. 143-129 bring the project within the authorized budget.

All negotiations are subject to approval of the State Construction Office.

Negotiations shall show complete price breakdowns, including quantities of materials, material cost, labor, etc.

Proposed negotiations shall be submitted to the State Construction Office for evaluation not less than ten (10) days prior to bid expiration date.



The Owner shall provide the State Construction Office with a copy of the certified bid tabulation, a Bid Summary Sheet, a copy of the recommended bidder's Proposal Form, an Affidavit of MBE participation and the Owner's recommendations concerning disposition of bids. This is submitted in Interscope.

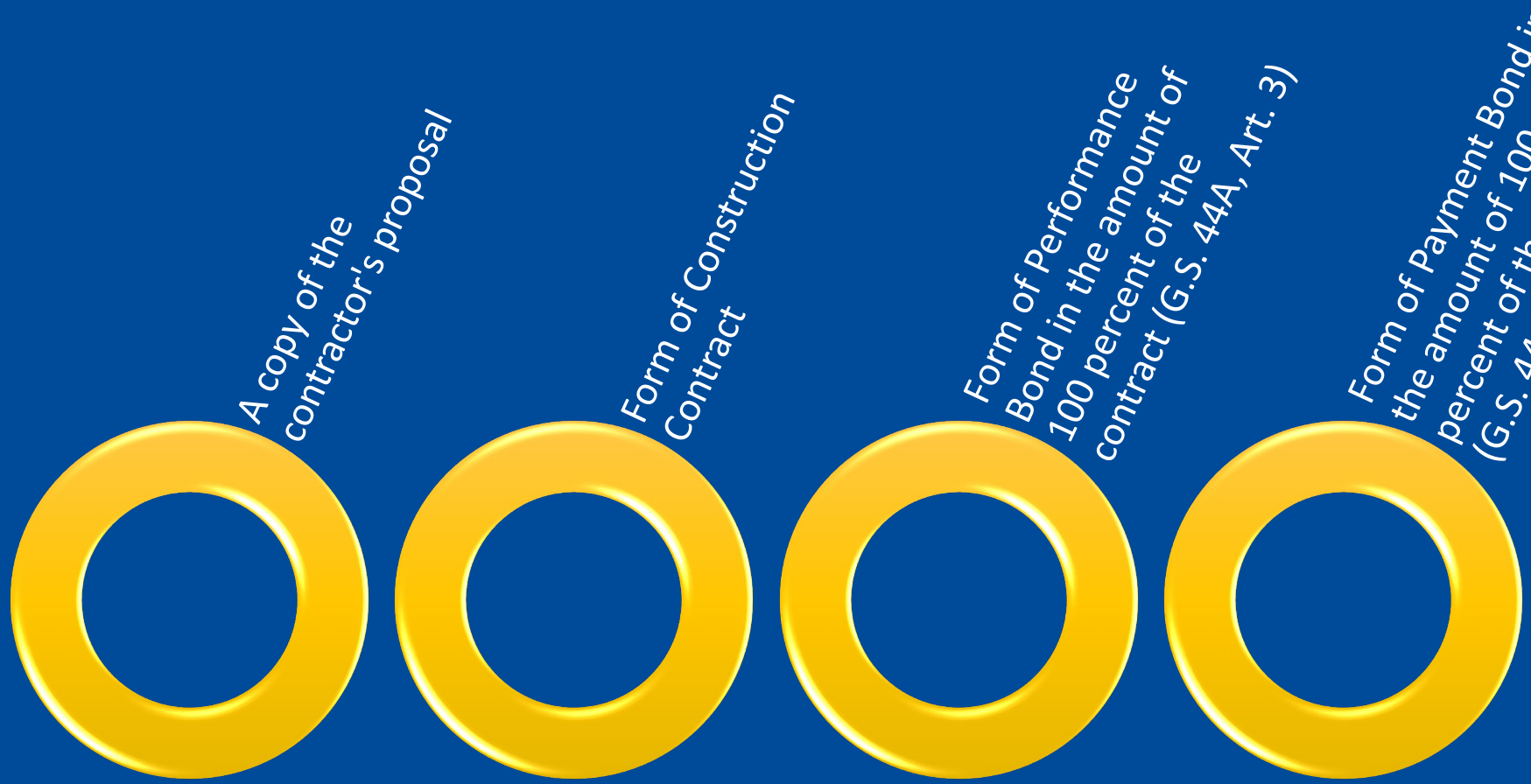
The State Construction Office will review the documents for completeness and correctness and provide them to the Office of State Budget and Management.

Upon approval of the Office of State Budget and Management the State Construction Office shall issue an award letter to the Owner which shall detail the complete budget for the project including construction cost, Designer's fee, contingency reserve, movable equipment and any other specific reserves.

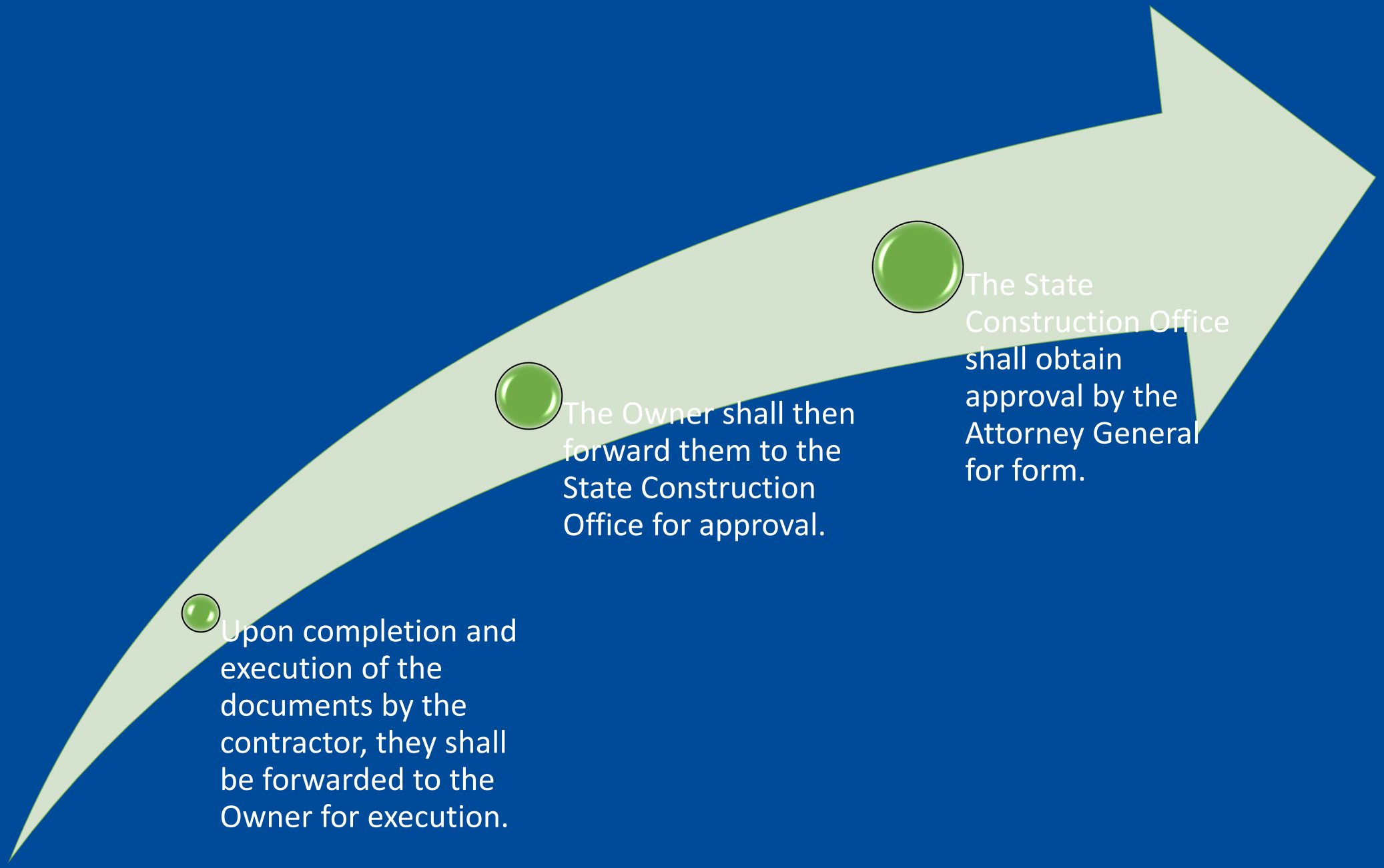
The State Building Commission may delegate to the Department of Administration authority to award contracts for construction of buildings and other projects, which are not required by GS143-129 to be publicly advertised for proposals.

The Designer, upon receipt of the notification of award, shall notify the responsible low bidder(s) in writing.

SCO, in conjunction with the Designer and Owner will prepare the contract documents. These shall include:


A copy of the contractor's proposal
Form of Construction Contract
Form of Performance Bond in the amount of 100 percent of the contract (G.S. 44A, Art. 3)
Form of Payment Bond in the amount of 100 percent of the contract (G.S. 44A, Art. 3)


Power of attorney (an instrument of a surety indicating that the person signing the performance and payment bonds is authorized to act in its behalf)
Public liability and property damage insurance and builder's risk policy, as required in the General Conditions of the Contract; and
Approval of the Attorney General and certification by the Office of State Budget and Management.


Upon completion and execution of the documents by the contractor, they shall be forwarded to the Owner for execution.
The Owner shall then forward them to the State Construction Office for approval.
The State Construction Office shall obtain approval by the Attorney General for form.

Approved contract documents shall be returned to the Designer by the State Construction Office for distribution.

The Designer shall coordinate with the State Construction Office the date of the pre-construction conference.

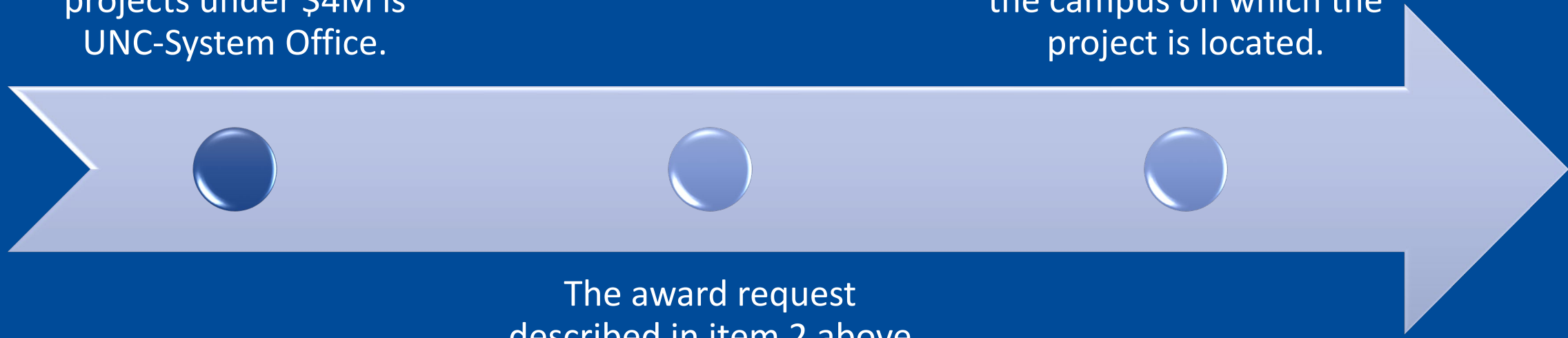
No pre-construction conference or starting date will be scheduled until all contracts have been approved and distributed.

Upon award of the project construction contract(s), the SCO Construction Administration Section will assign a project monitor to represent the State Construction Office at the project during construction until completion and acceptance.

Note that for UNC institutions the awarding authority for formal projects under $4M is UNC-System Office.

The award request described in item 2 above is prepared as described and submitted to General Administration for approval.

The awarding authority for informal projects in the UNC institutions is the campus on which the project is located.

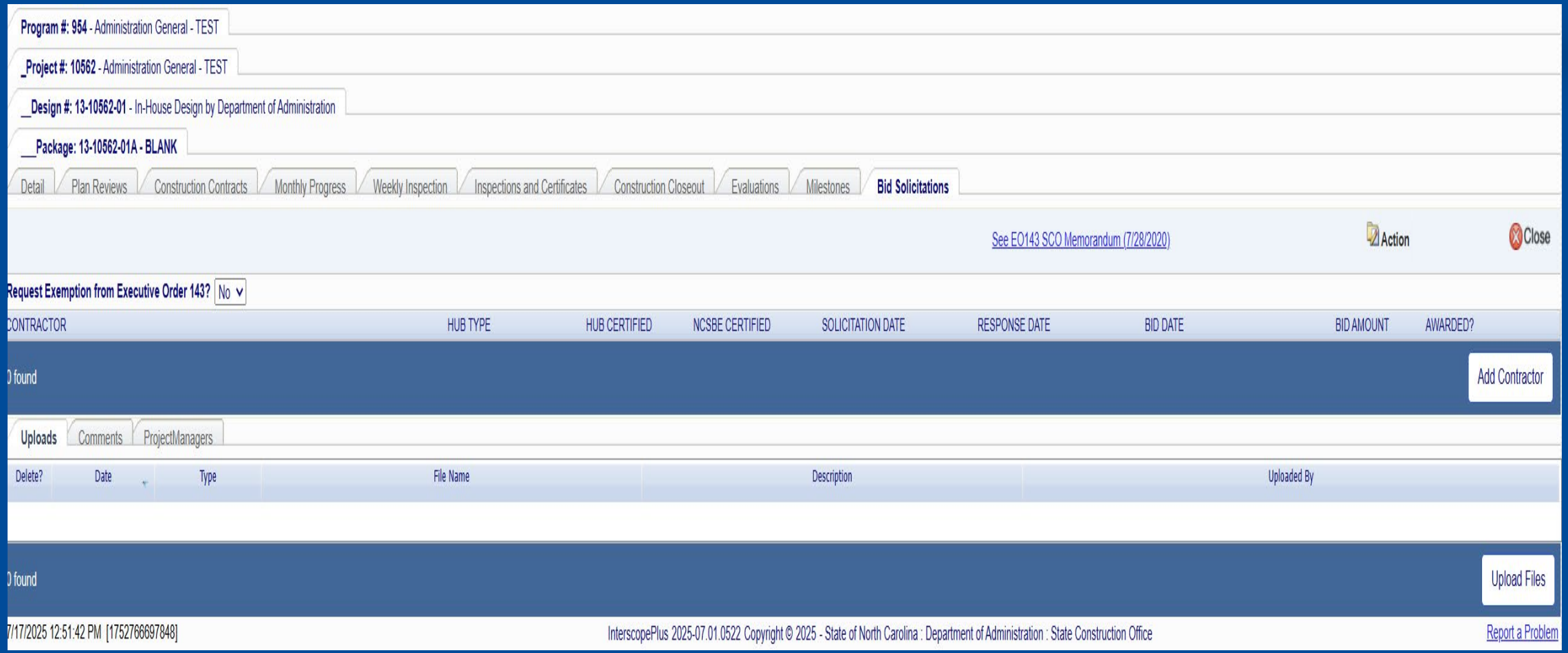


Electronic Request to Award



NC DOA
Department of Administration
State Construction Office

Bid Solicitations are Required Entries Prior to Construction Contract Entry



Package and Contract Status

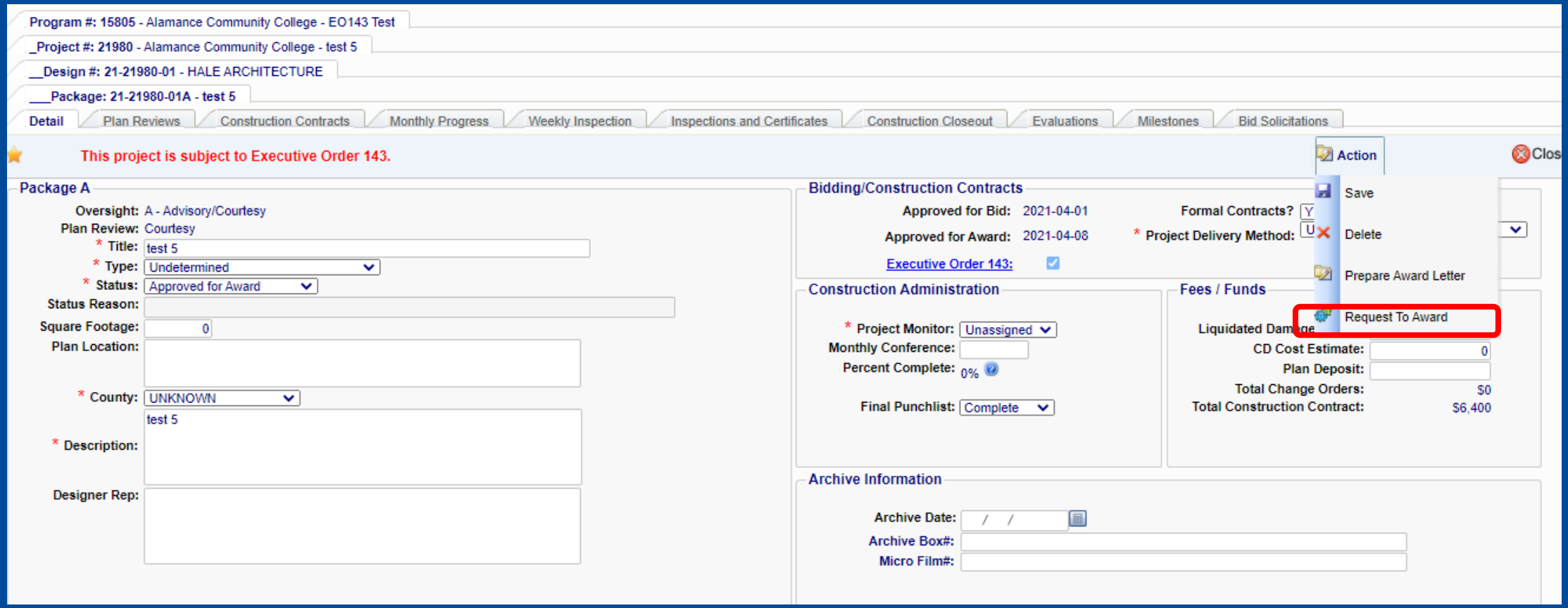
Package Status

- "Approve to Bid"

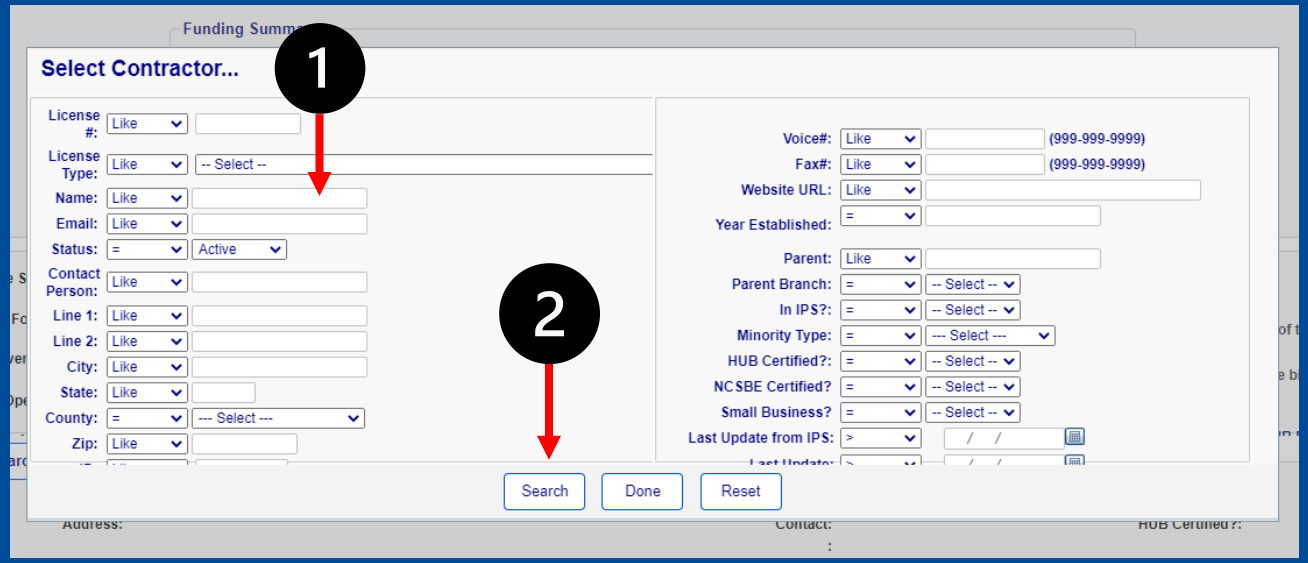
Construction Contract Status

- "Request to Award"

Request to Award



Select Contractor



Select contractor in pop up window.

Search by contractor's name.

Select appropriate contractor profile.

Status should be active and listed as in eVP ideally. Contact SCO if contractor does not have a profile in Interscope.

Change Contract Type (if needed)

- Change Contract Type if needed.
- Use General Contract if contract is single prime.
- If doing a Construction Manager at Risk contract, select General Management Contract.
- Action > Save.

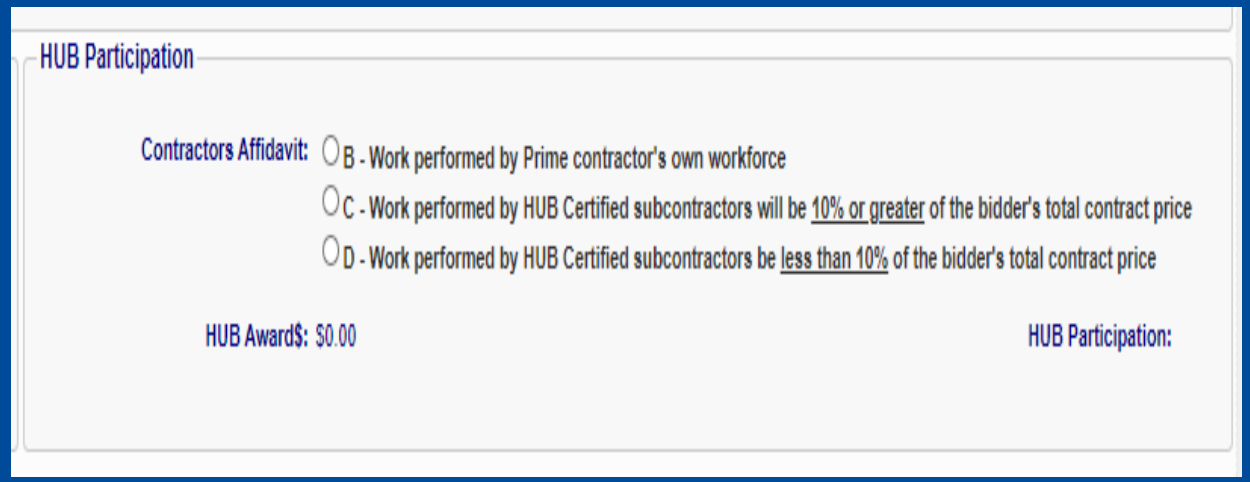


HUB Participation
New Construction Award Request Tab

Under HUB Participation

Select Which Affidavit Contractor Submitted.

Click Action > Save.



Program #: 15805 - Alamance Community College - EO143 Test

_Project #: 21980 - Alamance Community College - test 5

__Design #: 21-21980-01 - HALE ARCHITECTURE

___Package: 21-21980-01A - test 5

____Construction Contract #: 21-21980-01A-1 - Armen Construction LLC

Award Request | Documents | Good Faith Efforts (Affidavits) | Project Funding and Costs | Bid Items | HUB Participation | Bid Solicitations

This project is subject to Executive Order 143.

See Required Documentation by Contract type

Action | Close

Project Financial Worksheet

Funding Source	Original C-I-C	Current C-I-C	Assigned Amount
NGF	12345-1234	12345-1234	$175,000.00

Funding Summary

Assigned Amount:	$175,000.00
Committed:	$14,400.00
Available to Commit:	$160,600.00
This Contract:	$6,400.00
Available After Commitment:	$154,200.00

Award Data

Package Status: Approved for Award
Approved For Bid: 4/1/2021
Bid Advertised:
Bid Opening: 4/1/2021
Approved for Award: 4/8/2021

Award Type: Unknown
Formal Contract: Y
* Contract Type: General Contract
Negotiation (VE)? N

Contract Amount: $6,400.00

HUB Participation

Contractors Affidavit:
- B - Work performed by Prime contractor's own workforce
- C - Work performed by HUB Certified subcontractors will be 10% or greater of the bidder's total contract price
- D - Work performed by HUB Certified subcontractors be less than 10% of the bidder's total contract price

HUB Award$: $6,400

HUB Participation: 100.0%

Contractor

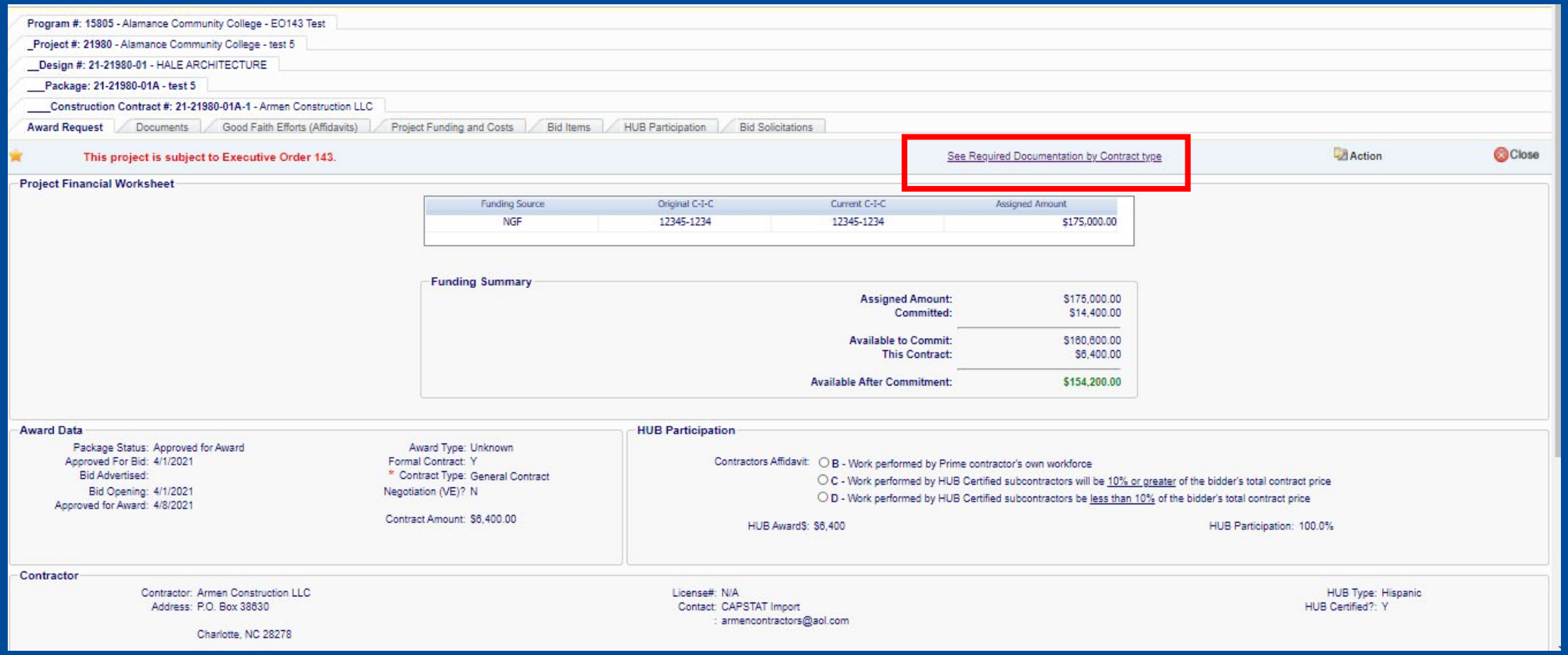
Contractor: Armen Construction LLC
Address: P.O. Box 38830

Charlotte, NC 28278

License#: N/A
Contact: CAPSTAT Import
: armencontractors@aol.com

HUB Type: Hispanic
HUB Certified?: Y

Required Documents by Contract Type



Construction Contract Request For Award

Required Documents	Single Prime		CMR	Design-Build		In-House Design	
	Formal	Informal	Formal	Formal	Informal	Formal	Informal
Request To Award							
Designer Recommendation							
Bid Tab							
Bid Proposal							
Bid Solicitations							
State Bid Bond							
Power of Attorney Bid Bond							
HUB Documentation (inc certification)							
Cost Proposal, General Conditions and Fees							
Bid Acceptance Form							
Certificate of Insurance							
Design-Build Cost Proposal							
Design-Build Contractor RFP Response							
Design-Build SCO Approval							
State Building Commission Approval (State Agencies Only)							
Bid Summary Sheet							
Project Costs Sheet							

(May 2021)

Required

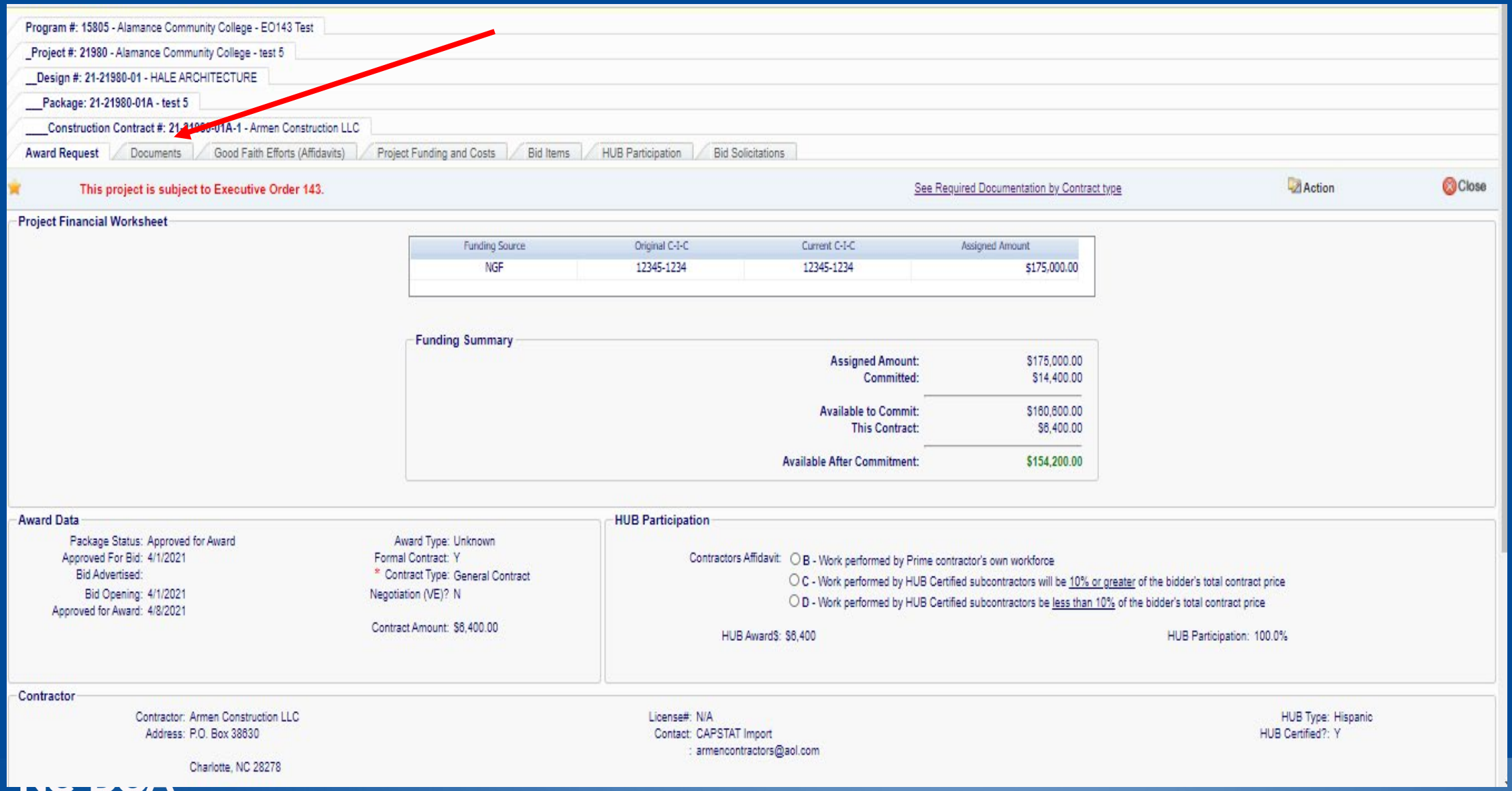
Optional

Not Required for Emergency Projects

Required for EO 143

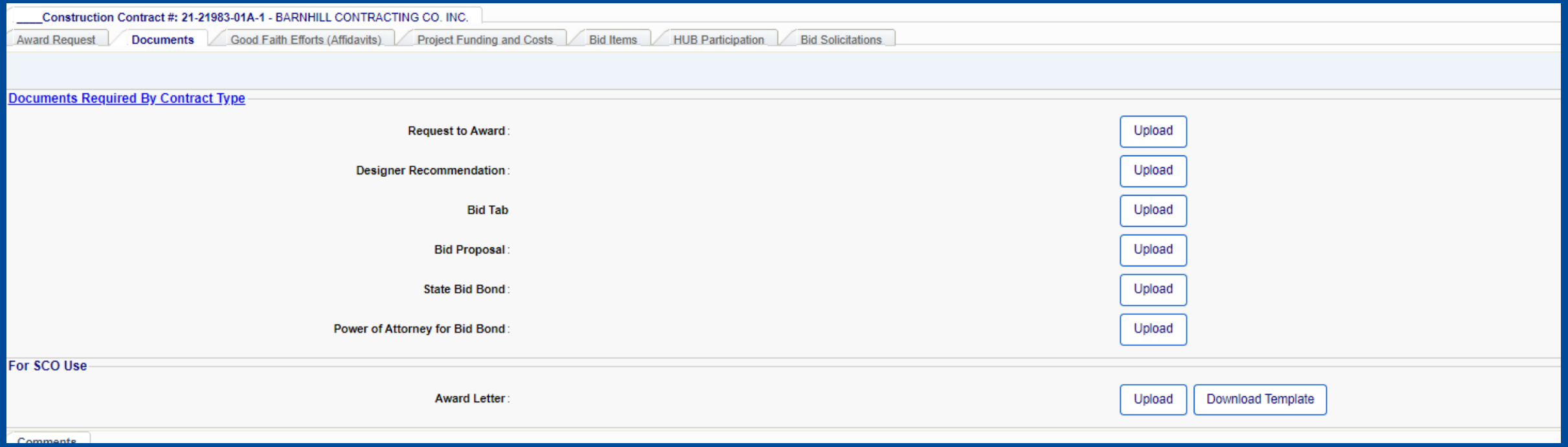
Not Required for EO 143

Documents Tab



Bid Documents

Upload documents required according to contract type.



Go through each tab and upload required documents and enter information where required.

- Bid Documents: Upload documents required according to contract type.
- Good Faith Efforts (Affidavits): Upload appropriate affidavits and enter information as needed.
- Project Funding and Costs: Download workbook and complete sheet to detail construction contract bid prices and other anticipated project costs. Upload sheet.
- Bid Items: This is auto populated from the Project Costs sheet to display the Base Bid, all alternates and any VE items.
- HUB Participation: Good Faith Efforts must be populated before this tab works. Add any HUB subcontractors identified on the contractor's Affidavit C or D. Look up by contractor name. In cases where there are multiple profiles for the contractor, be sure to choose one that is marked as HUB certified. Fill in CSI Division, Work and Awarded amount.
- Bid Summary Sheet: Download sheet and complete. If single prime, only the general section needs to be completed. Upload sheet.

Click Action > Save as needed.

When all required documentation uploaded and completed, click Workflow > Submit.

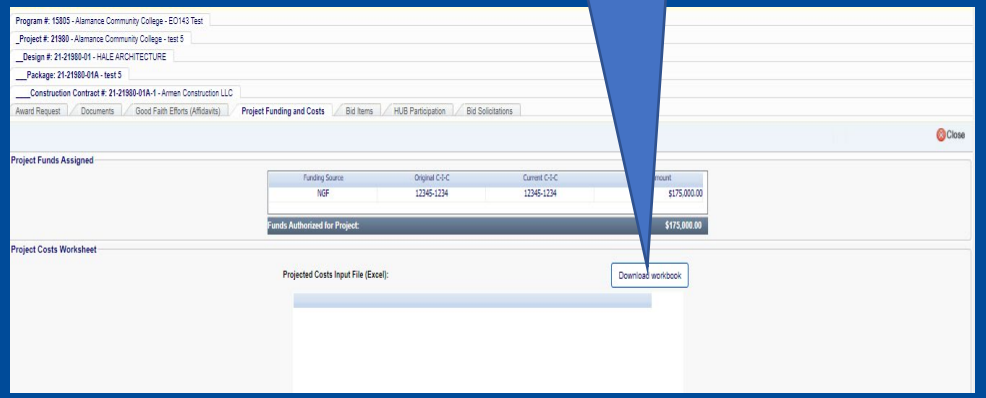
Good Faith Efforts Tab



NC DOA

Project Funding and Cost Tab

Download Worksheet



Download workbook and complete sheet to detail construction contract bid prices and other anticipated project costs.

Upload sheet.

Project Cost Worksheet

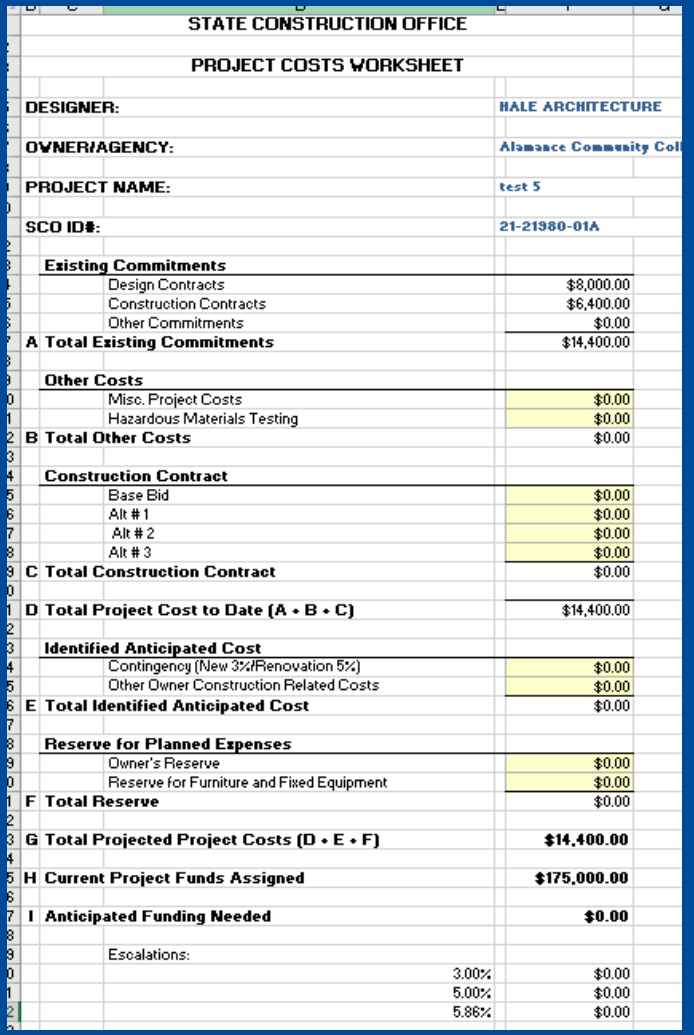
Detail Construction Contract Bid Prices And Other Anticipated Project Costs

Add or delete lines as needed.

This should match the Request for Award letter.

Items under Construction Contract will populate the Bid Items tab and must start with Base Bid, Alt or VE (Value Engineered)

Only accepted alternates are to be entered.

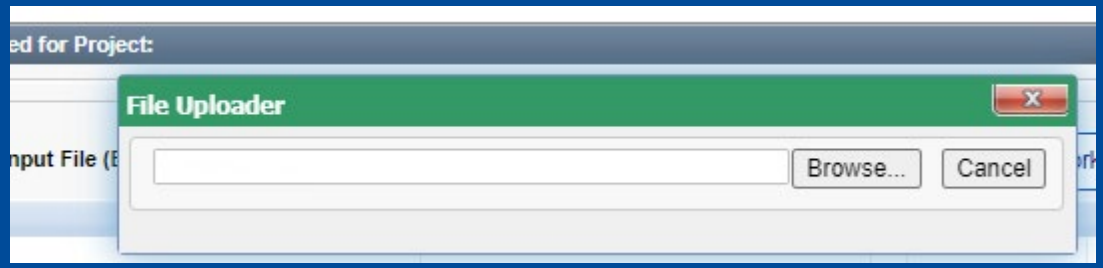


STATE CONSTRUCTION OFFICE

PROJECT COSTS WORKSHEET

		DESIGNER:	HALE ARCHITECTURE
		OWNER/AGENCY:	Alamance Community Coll
		PROJECT NAME:	test 5
		SCO ID#:	21-21980-01A
		Existing Commitments	
		Design Contracts	$8,000.00
		Construction Contracts	$6,400.00
		Other Commitments	$0.00
	A	**Total Existing Commitments**	$14,400.00
		Other Costs	
		Misc. Project Costs	$0.00
		Hazardous Materials Testing	$0.00
	B	**Total Other Costs**	$0.00
		Construction Contract	
		Base Bid	$0.00
		Alt # 1	$0.00
		Alt # 2	$0.00
		Alt # 3	$0.00
	C	**Total Construction Contract**	$0.00
	D	**Total Project Cost to Date (A + B + C)**	$14,400.00
		Identified Anticipated Cost	
		Contingency (New 3%/Renovation 5%)	$0.00
		Other Owner Construction Related Costs	$0.00
	E	**Total Identified Anticipated Cost**	$0.00
		Reserve for Planned Expenses	
		Owner's Reserve	$0.00
		Reserve for Furniture and Fixed Equipment	$0.00
	F	**Total Reserve**	$0.00
	G	**Total Projected Project Costs (D + E + F)**	**$14,400.00**
	H	**Current Project Funds Assigned**	**$175,000.00**
	I	**Anticipated Funding Needed**	**$0.00**
		Escalations:	
		3.00%	$0.00
		5.00%	$0.00
		5.86%	$0.00

Upload Worksheet



-01A - Training 9/8/2021

tract #: 21-21356-01A-1 - Triad Road Maintenance Co., Inc.

ocuments | Good Faith Efforts (Affidavits) | Project Funding and Costs | Bid Items | HUB Participation | Bid Summary

ed

Funding Source	Original C-I-C	Current C-I-C	Assigned Amount
NGF	46001-6548	46001-6548	$250,000.00

Funds Authorized for Project: **$250,000.00**

eet

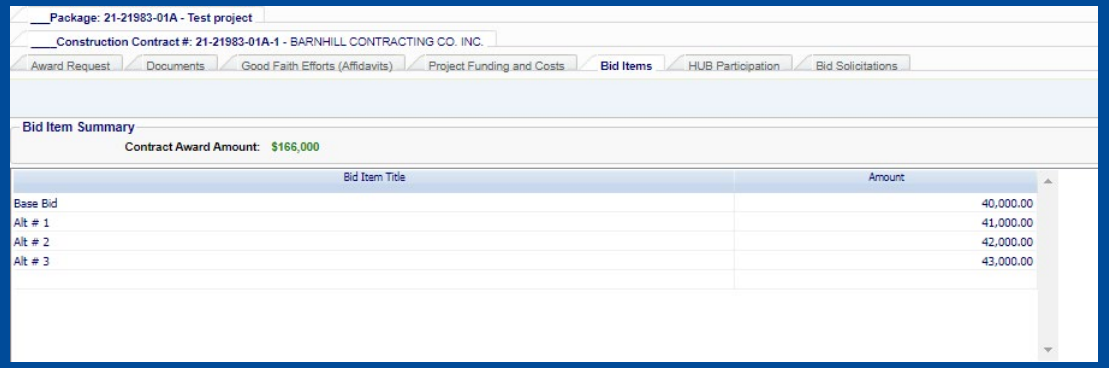
Projected Costs Input File (Excel): AWARD_21-21356-01A_worksheet_637661870169201545.xlsx

Download workbook | Change

Changes can be made if needed

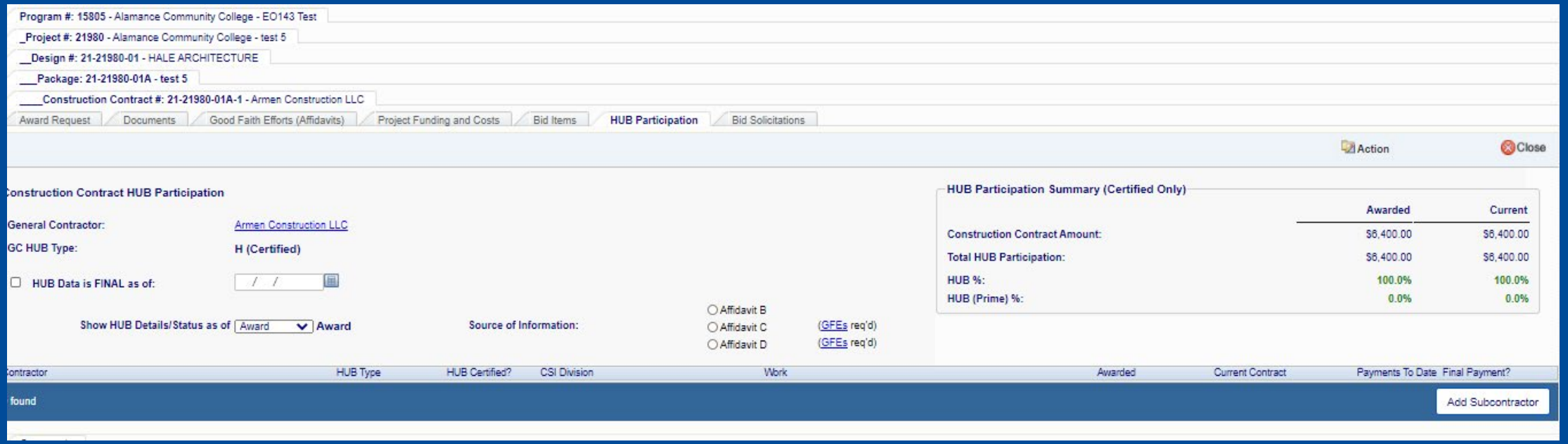
	Existing Commitments		
		Design Contracts	$25,000.00
		Construction Contracts	$0.00
		Other Commitments	$0.00
A	**Total Existing Commitments**		$25,000.00
	Other Costs		
		Misc. Project Costs	$0.00
		Hazardous Materials Testing	$0.00
B	**Total Other Costs**		$0.00
	Construction Contract		
		Base Bid	$221,000.00
		Alt # 1	$264,000.00
		Alt # 2	$240,000.00
		Alt # 3	$0.00
C	**Total Construction Contract**		$725,000.00

Bid Items Tab



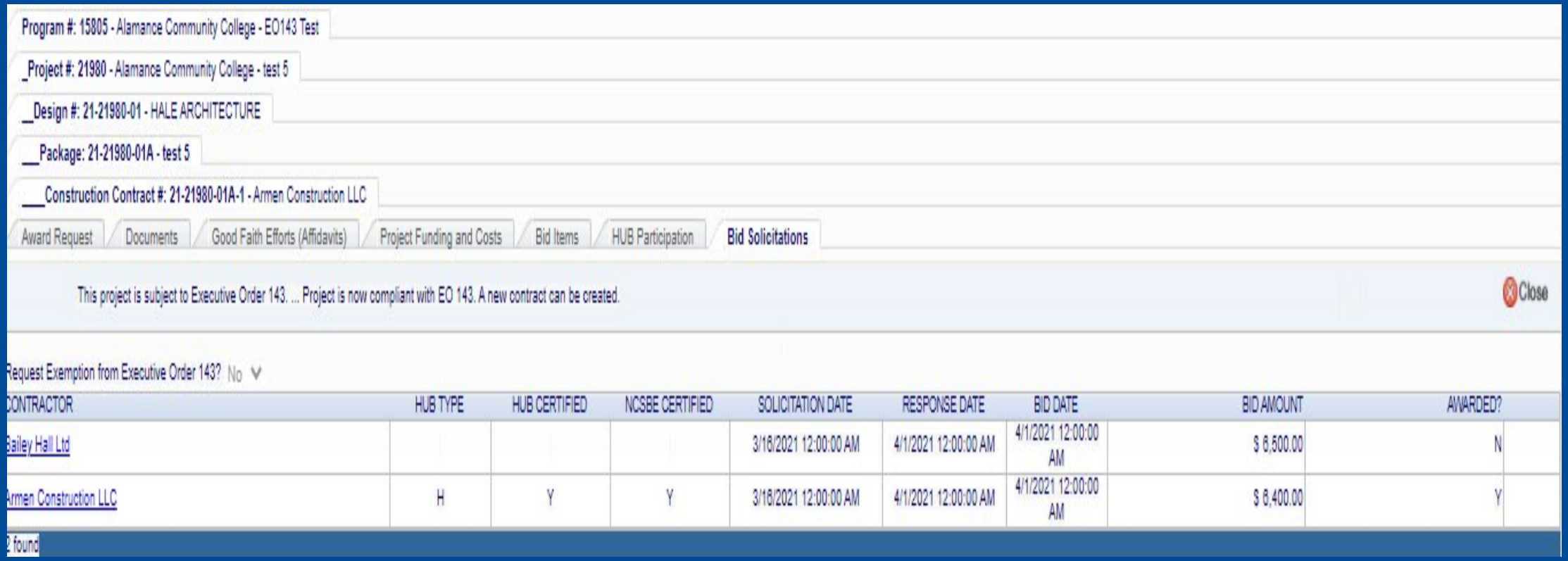
This is auto populated from the Project Costs sheet to display the Base Bid, all alternates and any VE items.

Hub Participation Tab



NC DOA

Bid Solicitation Tab

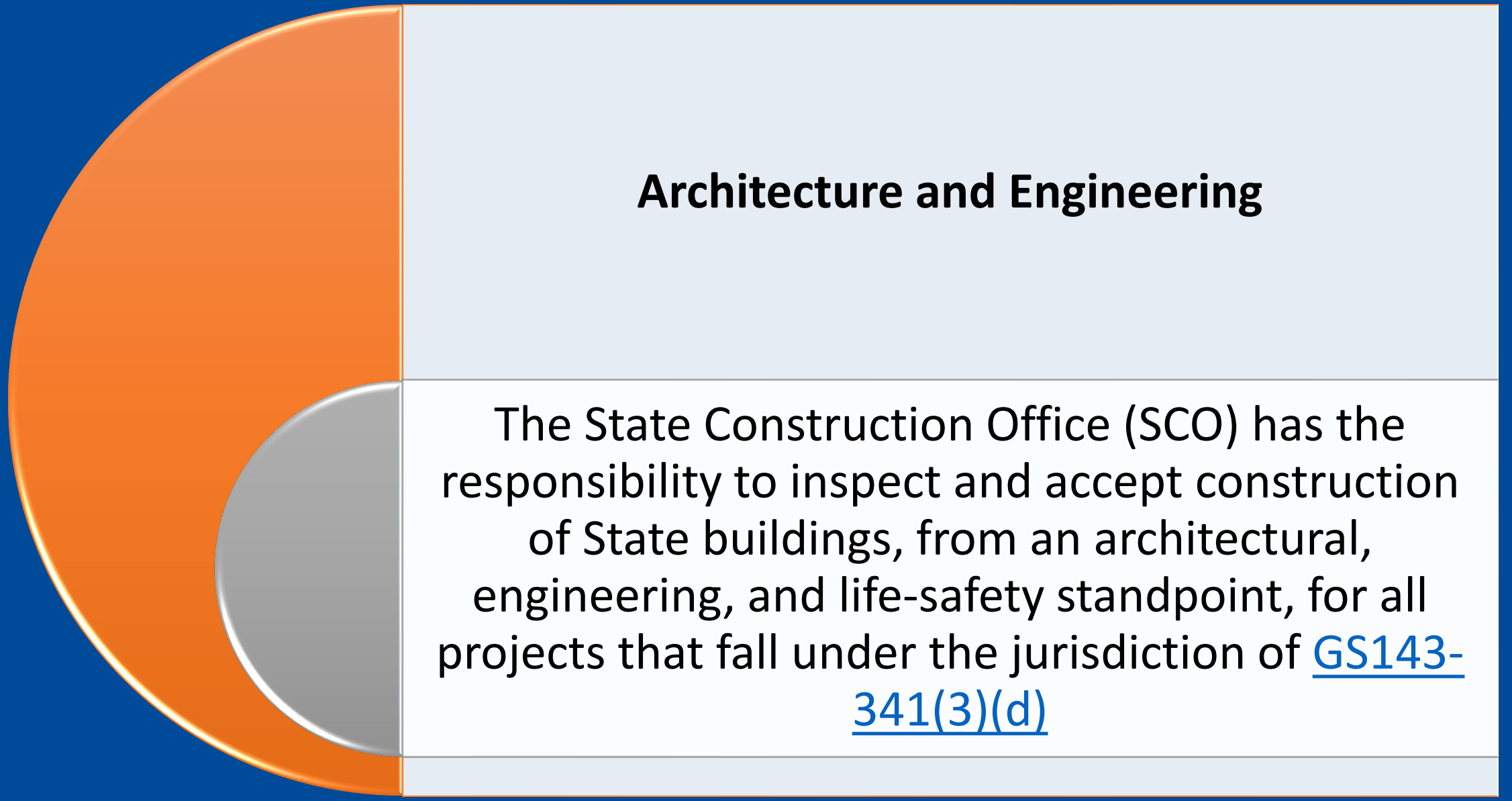


CHAPTER 700

Construction Management

Section 701

Construction Management Section Responsibilities



Architecture and Engineering

The State Construction Office (SCO) has the responsibility to inspect and accept construction of State buildings, from an architectural, engineering, and life-safety standpoint, for all projects that fall under the jurisdiction of GS143-341(3)(d)

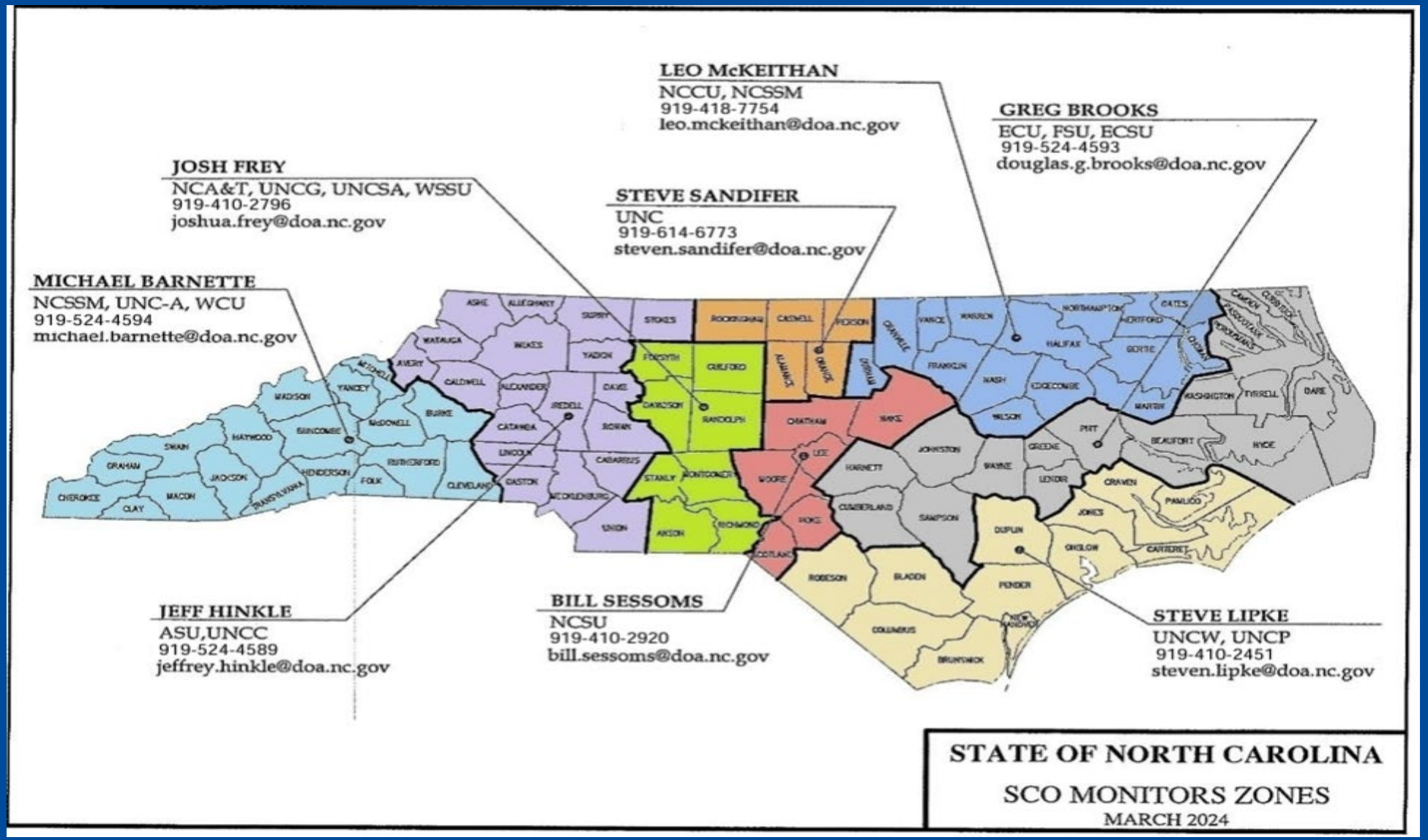
Jurisdiction

GS 143-139(e) gives SCO responsibility for enforcing the building code on State Buildings. SCO staff in the Construction Management Section will confirm that adequate on-site inspections have been performed for code compliance, and that Certificates of Compliance have been issued when the project is complete, including University Download Projects GS 116-31.11, and Community College projects.

GS 143-341(d) gives the Department of Administration responsibility for electrical wiring inspections described in GS 143-143.2.

SCO Electrical Inspectors provide these electrical inspections on all State projects where SCO is the Authority Having Jurisdiction.

SCO Electrical Inspectors are assigned specific geographic areas of the State and a territory assignment map can be accessed under the "Contact US" tab of the SCO website. (Electrical inspector map)


LEO McKEITHAN
NCCU, NCSSM
919-418-7754
leo.mckeithan@doa.nc.gov
GREG BROOKS
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919-524-4593
douglas.g.brooks@doa.nc.gov
JOSH FREY
NCA&T, UNCG, UNCSA, WSSU
919-410-2796
joshua.frey@doa.nc.gov
STEVE SANDIFER
UNC
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steven.sandifer@doa.nc.gov
MICHAEL BARNETTE
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JEFF HINKLE
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919-524-4589
jeffrey.hinkle@doa.nc.gov
BILL SESSOMS
NCSU
919-410-2920
bill.sessoms@doa.nc.gov
STEVE LIPKE
UNCW, UNCP
919-410-2451
steven.lipke@doa.nc.gov
STATE OF NORTH CAROLINA
SCO MONITORS ZONES
MARCH 2024

SUPPLEMENTAL INSPECTOR STAFF
Stanley Frazier
919-208-0057
stanley.frazier@doa.nc.gov

UPPER EAST SECTION
Randy "Scott" Jones
919-214-1010
randy.jones@doa.nc.gov

EAST SECTION
Joe Peszko
984-297-1030
joseph.peszko@doa.nc.gov

ECU

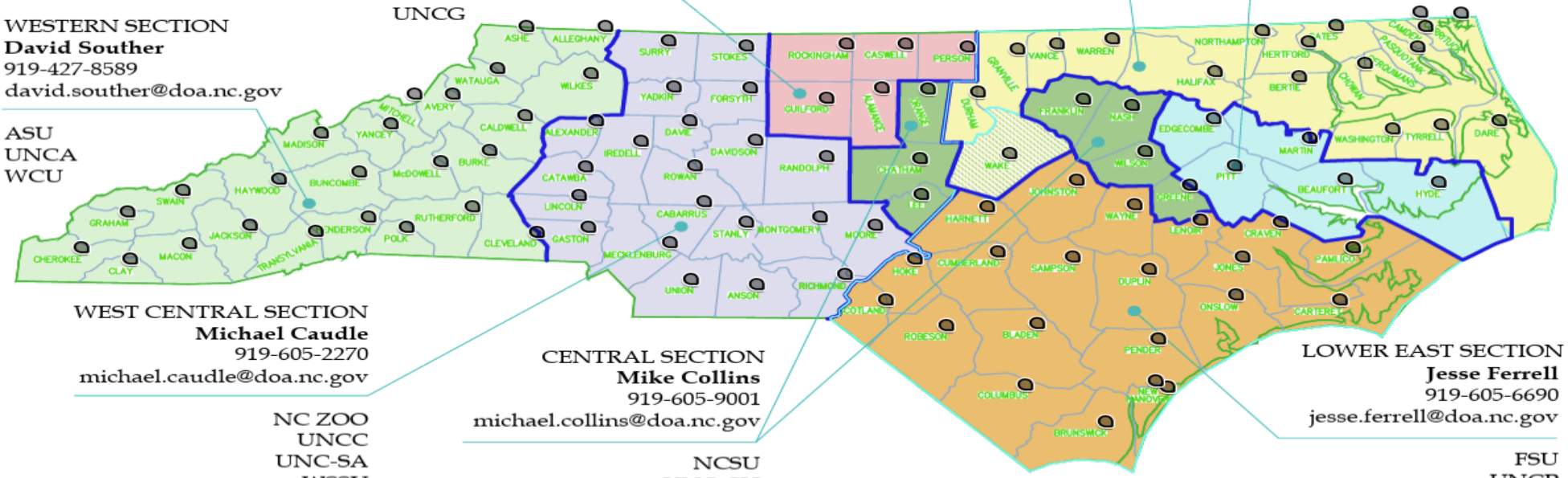
DOWNTOWN COMPLEX
NCCU
NCSSM
BUTNER
ECSU

UPPER CENTRAL SECTION
Mitch Bryant
919-605-4272
garry.bryant@doa.nc.gov

NCA&T
UNCG

WESTERN SECTION
David Souther
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david.souther@doa.nc.gov

ASU
UNCA
WCU



WEST CENTRAL SECTION
Michael Caudle
919-605-2270
michael.caudle@doa.nc.gov

NC ZOO
UNCC
UNC-SA
WSSU

CENTRAL SECTION
Mike Collins
919-605-9001
michael.collins@doa.nc.gov

NCSU
UNC CH
UNC HOSPITAL
UNC HOSPITAL HILLSBOROUGH

LOWER EAST SECTION
Jesse Ferrell
919-605-6690
jesse.ferrell@doa.nc.gov

FSU
UNCP
UNCW

STATE OF NORTH CAROLINA

SCO Electrical Inspectors Territory
December 2025

Section 702

Project Monitor Responsibilities

Assignment of Project Monitor

Upon receiving notification of the award of the construction contract, the Construction Management Section will assign a Project Monitor to represent the State Construction Office at the project site.

Contracts within the State Government Center, in downtown Raleigh and Department of Administration projects will be administered and monitored by the Construction Management Section of the State Construction Office.

Project monitors are not assigned to University Download Projects as defined by GS 116-31.11, Department of Transportation building construction projects located within a State or Federal Highway right-of-way (welcome centers, visitor centers and rest-stops), or any property owned by the North Carolina Global Transpark.

Supervision Responsibilities

- The Project Monitor must be present at the pre-construction meeting to ensure that all required documentation throughout the duration of the project is presented to the project team.
  - Any State Construction project pre-construction meeting held without the Project Monitor is not valid and must be re-held with the Monitor in attendance.
- The Project Monitor will attend the monthly construction meetings at the site and other meetings as needed to facilitate progress of the project.
- The project monitor will verify that all project documentation is complete as listed on the "final inspection checklist"

The Project Monitor will confirm that each project has been adequately inspected for code enforcement.

The Project Monitor will verify that the Certificates of Compliance have been issued by each designer on the project.

Code Enforcement

Section 703

Designer Responsibilities

Pre-Construction Conference

The Designer shall coordinate with the Owner and assigned State Construction Office Project Monitor to schedule a pre-construction conference.

The Designer shall then give written notice to all contractors, the Owner and the State Construction Office as to the time and place of this conference.

The purpose of this meeting is to review and confirm the requirements of the contract and the requirements of the State Construction Office and to coordinate activities for all construction, as described in the Pre-Construction Meeting Requirements & Agenda.

The Designer shall send copies of the minutes of this conference to all contractors, the Owner, the State Construction Office Project Monitor and any other interested parties.

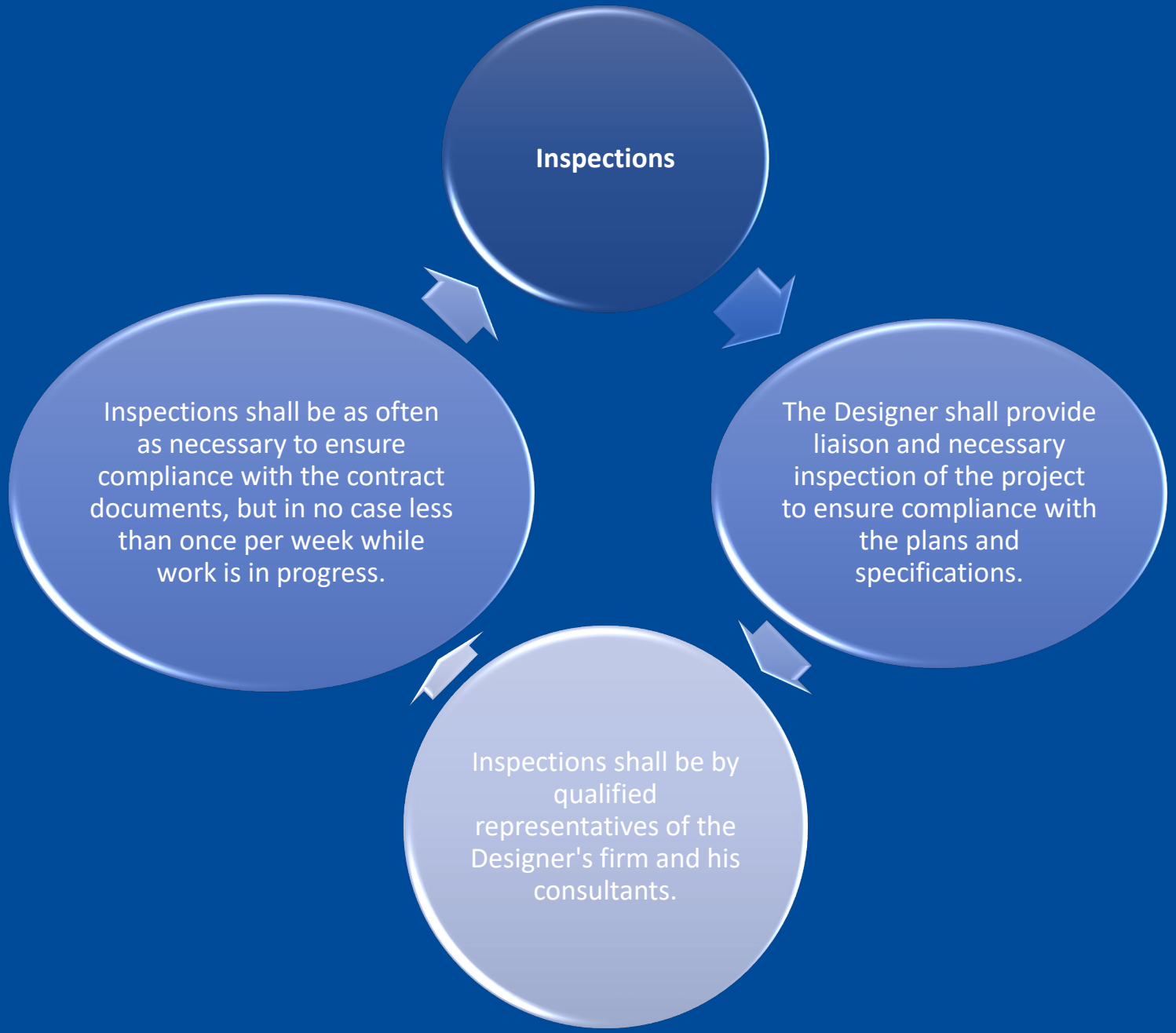
No pre-construction conference will be scheduled, or starting date established, until all contracts have been signed, fully executed by all Departments (including the Attorney General's Office) and distributed to all parties.

Designer shall issue letters of Notice to Proceed to all prime contractors. This letter shall establish the beginning date for each prime contract, and the required completion date.

Copies of each letter issued by the Designer shall be furnished to the Owner Capital Project Coordinator and to the State Construction Office Project Monitor assigned to the project.

The Notice to Proceed shall be issued only after receipt of fully executed contracts.

Notice to Proceed


Inspections
The Designer shall provide liaison and necessary inspection of the project to ensure compliance with the plans and specifications.
Inspections shall be by qualified representatives of the Designer's firm and his consultants.
Inspections shall be as often as necessary to ensure compliance with the contract documents, but in no case less than once per week while work is in progress.

The Designer shall establish and conduct a regularly scheduled monthly meeting to be held at the job site for all single and multi-prime projects.

Under CM at Risk, the construction manager shall establish and conduct the regularly scheduled monthly meetings.

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

The consultants shall be available to answer questions and resolve all problems within their discipline.

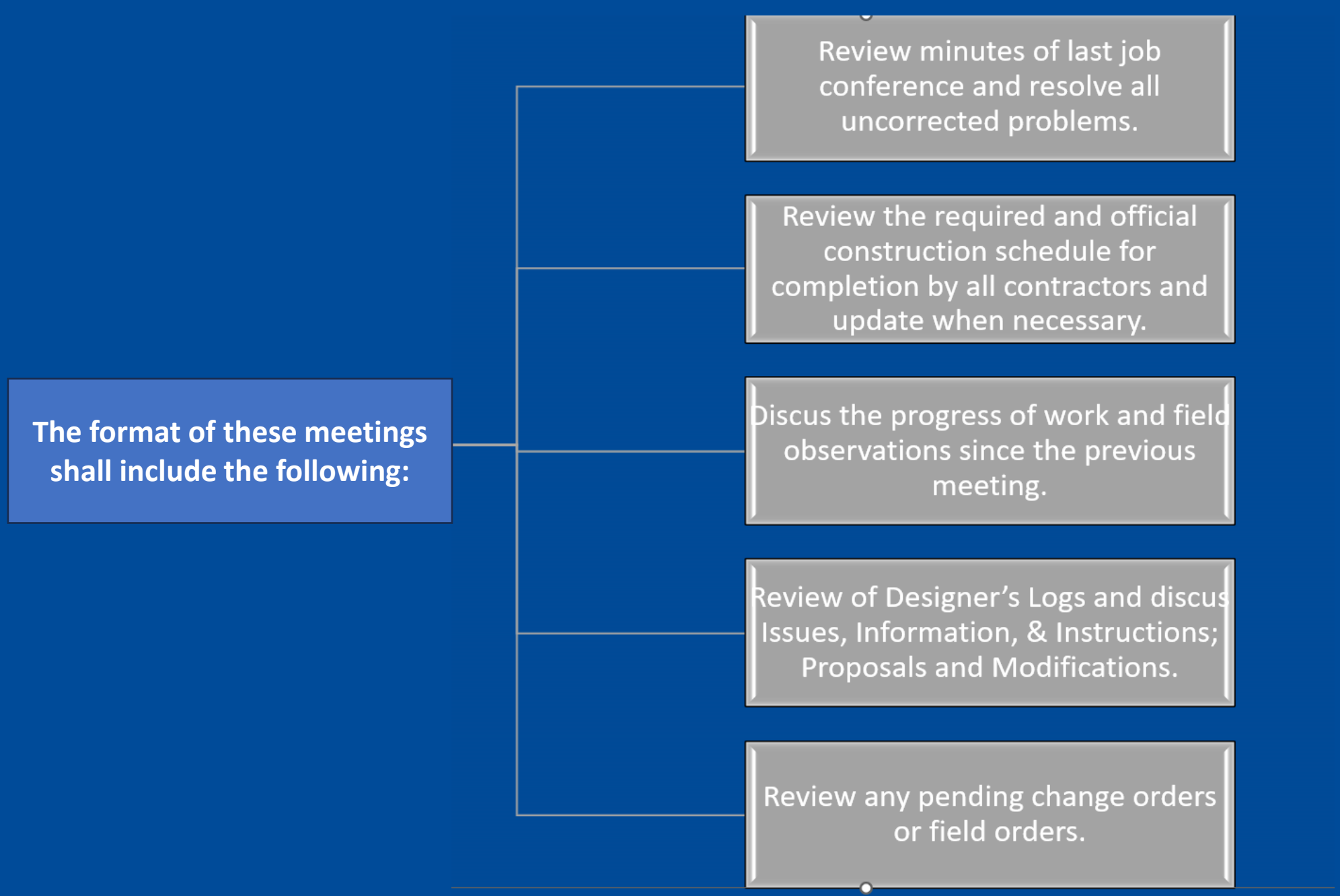
Monthly Meetings

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

Designer shall request that each prime contractor, or in the case of CM, each first tier subcontractor be represented by appropriately authorized project personnel.

These representatives shall have authority to act on behalf of the contractor.

It shall be the purpose of these meetings to effect coordination, cooperation and assistance in maintaining progress of the project on schedule in order to complete the project within the contract time.


The format of these meetings shall include the following:
Review minutes of last job conference and resolve all uncorrected problems.
Review the required and official construction schedule for completion by all contractors and update when necessary.
Discus the progress of work and field observations since the previous meeting.
Review of Designer's Logs and discus Issues, Information, & Instructions; Proposals and Modifications.
Review any pending change orders or field orders.

Monthly Reports

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 can be uploaded into the State Construction Office InterScope database as Package Documents, with a copy or email notice sent to the Owner's designated representative and the State Construction Office Project Monitor.	Reports shall be submitted by the 10th of each month.	These reports shall include copies of weekly inspection reports by the Designer and by all consultants involved, consistent with work in progress. A sample form for a weekly inspection report is on the SCO web site.

Shop Drawings

The Designer shall process shop drawings, provide details, clarifications, interpretations, process material lists and other data with sufficient dispatch to avoid delay in the progress of construction.

The Design Team shall also review shop drawings to verify compliance with energy conservation options.

Progress Payments

The Designer shall provide general administration for construction contract processing, as well as payment request processing.

Requests from contractors, including Construction Managers, shall be submitted to the Designer for approval.

After payment requests have been approved by the Designer, the Designer's signature shall be affixed and the payment request forwarded to the Owner (with sufficient copies) for payment.

Designer's certificate shall reflect each of the following:

- Total amount of contract
- Extra work
- Credits
- Total contract plus or minus any changes
- Value of work performed to date
- Retainage
- Amount previously paid
- Amount of present certificates
- Balance of contract sum

Field Testing and Delegated Authority Having Jurisdiction (AHJ)

The Designer shall approve results of all field testing on the project; and observe the operations of all building systems for determining compliance with specification requirements.

The Designer shall observe and approve life-safety tests, as well as provide all documents required by the National Fire Protection Association (NFPA) guidelines.

For the purpose of completing NFPA testing and inspection reports, the SCO delegates to the Designer of Record the responsibility of signing the forms as the Authority Having Jurisdiction (AHJ) for the Designer's specific area of expertise and professional license.

Change Orders and Field Orders

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

Field orders may be issued to the contractors when necessary, so as not to delay the progress of construction.

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

Under CM at Risk, changes in the work that are funded by the CM Contingency or project reserve that are part of the GMP contract must be documented in the same manner as a change order and authorized in writing by the Designer and Owner as a field change.

Section 704

Commissioning Authority

Requirement for Commissioning

Commissioning is required on State projects according to GS 143-135.37(d) and the State Construction Building Commissioning Guidelines.

In general, the Commissioning Authority will be under a separate contract with the Owner, but projects under the 20,000 square footage threshold of GS 143-135.37, with some exceptions, may be commissioned by the Designer.

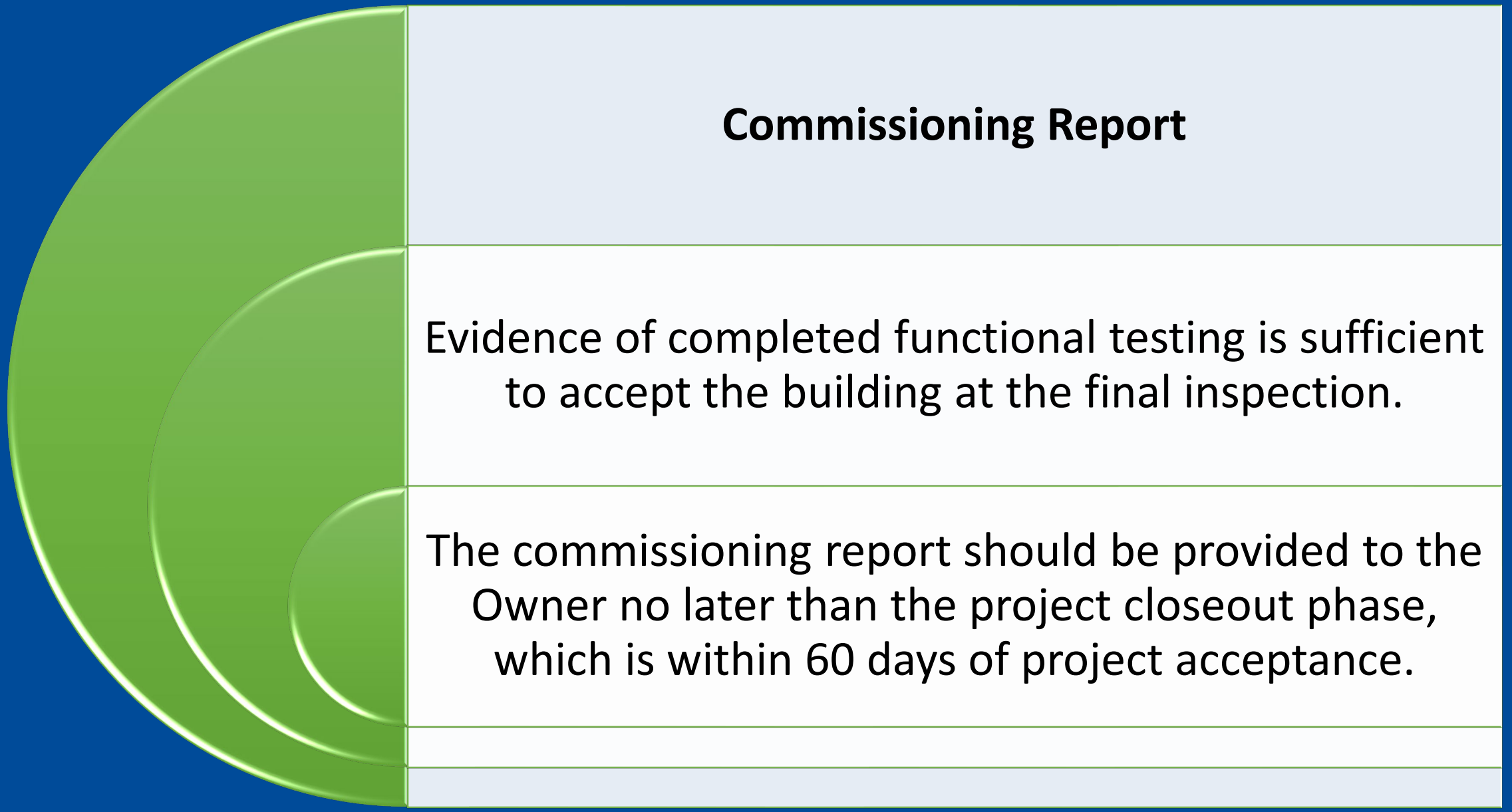
Responsibilities of Commissioning Authority

The Commissioning Authority responsibilities will include review of component and equipment submittals by contractors, review of systems to be commissioned, and review the contractor's pre-functional/start-up check lists.

The Commissioning Authority will provide the projects functional testing procedures, validate the Test, Adjust, and Balance effort, and lead functional acceptance testing of commissioned systems.

The Commissioning Authority will also review and approve training agendas, operation and maintenance manuals, project as-built documentation and record documents.

Functional testing must be completed satisfactorily prior to final acceptance of the project.


Commissioning Report
Evidence of completed functional testing is sufficient to accept the building at the final inspection.
The commissioning report should be provided to the Owner no later than the project closeout phase, which is within 60 days of project acceptance.

Section 705

Electrical Inspection

Electrical wiring inspections are required in GS 143-143.2, by the appropriate official electrical inspector or inspection department.

For State buildings, the State Construction Office has that inspection responsibility for ALL projects as noted in GS 143-341(3)(d).

General

Scope of Electrical Inspection

- Electrical inspectors will perform periodic electrical inspections for ALL State projects, regardless of dollar value.

Periodic electrical inspections coincide with the following construction phases as detailed in Building Code - Administration Code and Policies section 107:

Construction site power system	Trench and duct bank rough-ins	Under slab and in slab rough-ins	Wall rough-ins	Above ceiling	Conditional premises power	Final inspection (after a final inspection, an electrical certificate will be issued to describe permission for electrical power to be supplied to the building.)

Section 706

Special Inspection

Since 2009, the NC Building Code has required mandatory special inspections based upon specific building categories and components.

Special inspections are no longer conducted at the discretion of the Building Code Official.

The State Construction Office has published thorough Special Inspections Requirements and Guidelines which must be adhered to in the construction process.

Section 708

Beneficial Occupancy

The Owner, with the approval of State Construction Office, may use a specified part of the project without significant interference with construction of the other parts of the project.

Permission to use part of the project by the Owner shall be obtained from the prime contractors.

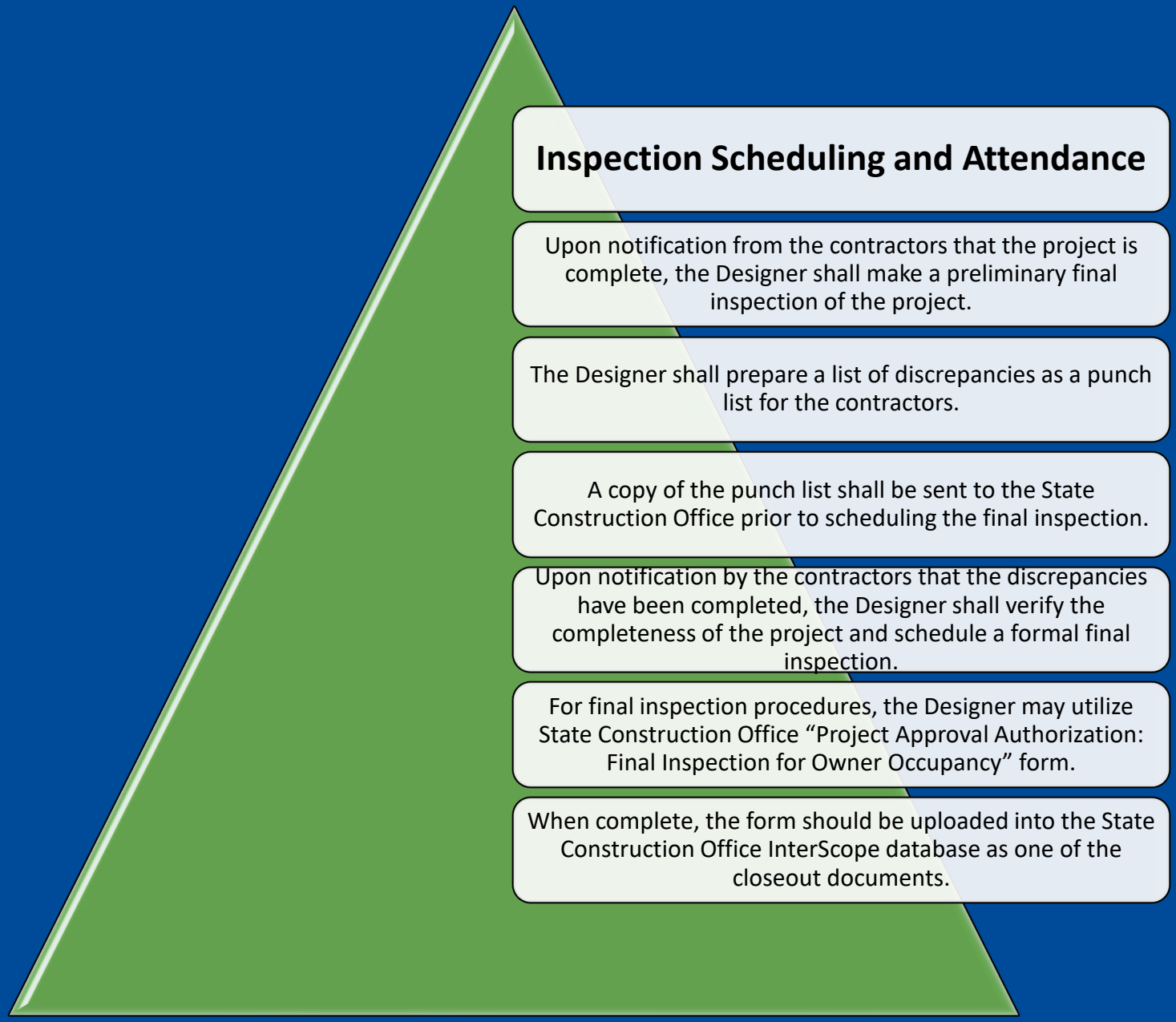
The Designer shall schedule and conduct a beneficial occupancy inspection, with the approval of State Construction Office.

Beneficial occupancy or partial utilization of the project shall not be permitted until all life safety is satisfactorily inspected by the Designers, and supporting documentation provided including National Fire Protection Association forms.

The Designer must complete the State Construction Office “Project Approval Authorization: Partial Utilization (Beneficial Occupancy)” form. Refer to General Conditions, Article 24, for more information.

Section 709

Final Inspection


Inspection Scheduling and Attendance
Upon notification from the contractors that the project is complete, the Designer shall make a preliminary final inspection of the project.
The Designer shall prepare a list of discrepancies as a punch list for the contractors.
A copy of the punch list shall be sent to the State Construction Office prior to scheduling the final inspection.
Upon notification by the contractors that the discrepancies have been completed, the Designer shall verify the completeness of the project and schedule a formal final inspection.
For final inspection procedures, the Designer may utilize State Construction Office “Project Approval Authorization: Final Inspection for Owner Occupancy” form.
When complete, the form should be uploaded into the State Construction Office InterScope database as one of the closeout documents.

Punch-list

The Designers, including all in-house and contract consultants, shall be responsible for conducting the inspection in the presence of the above listed parties, and shall tabulate a punch list of any defects or discrepancies for correction by the responsible prime contractors.

A scheduled time for completion of the punch-list items shall be established as required by contract, typically 30 days.

Copies of the list will be furnished to all parties concerned.

On completion of this final punch list, the Designer shall issue a letter stating that these final punch list items are complete, and upload the letter into the State Construction InterScope database as a project closeout document.

Completion Date and Liquidated Damages

Upon completion of the project, the Designer shall compute the total time for completion as allow in the contract, plus any time extensions granted and determine the number of days, if any, in excess of the contract construction time for which the prime contractors appear liable for liquidated damages.

The Designer shall then notify the affected contractors of any proposed assessments of liquidated damages and allow the contractors time to respond.

The Designer shall then prepare recommendations to the Owner and to the State Construction Office as to the amount of liquidated damages, if any, to be assessed and the portion of such assessment attributed to each prime contractor.

Maintain Builders Risk Insurance

The contractors shall not cancel their builder's risk insurance until final acceptance of the project.

The contractor shall forward cancellation notice to the Designer and the Owner.

Contractor and Designer Affidavits

Upon acceptance of the project, the Designer shall assemble written guarantees, affidavits, and materials of instruction for operation, and other closeout documents from contractors; issue certificates of final completion and certificates of compliance as required by GS 133-1.1b which requires that:

The inspections of the construction, repairs or installations have been conducted with the degree of care and professional skill and judgment ordinarily exercised by a member of my (our) profession; and

To the best of my (our) knowledge, and in my (our) professional opinion as an architect or engineer, the contractor has fulfilled the obligations of such plans, specifications and contract; final certificates for payment; set the date for the beginning of the guarantee period; and forward all closing papers to the Owner



Certificates of Compliance

Within 15 days of the acceptance of the project, or within 15 days of verifying completion of the punch list items, the Designer shall provide certificates of compliance to the Owner, the State Construction Office and to the surety company.

Also, Certificates of Compliance shall be provided by various in-house and contract consultants as required by law.

The Certificates of Compliance should be uploaded into the State Construction Office InterScope database, as a closeout document.

Section 710

Owner Insurance Coverage

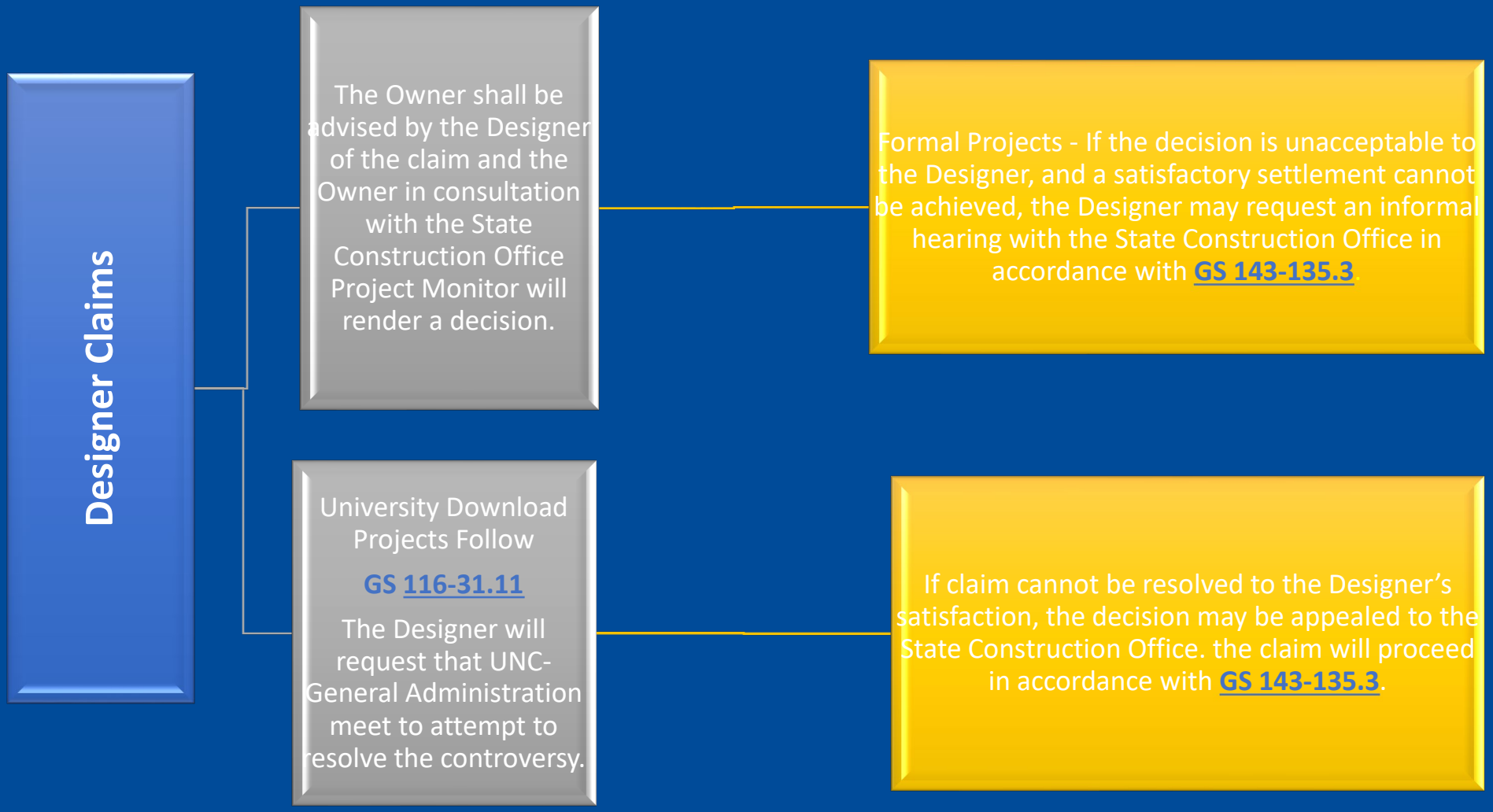
The Owner shall notify the State Property Office and Department of Insurance of notice of either Beneficial Occupancy and/or Final Acceptance of a project and complete and submit the “Property Reporting Form (Building Update Form)”

Section 711

Construction Claims

Contractor Claims

The Designer shall be advised of the dispute and, in consultation with the Owner, render a decision.	If the Designer's decision is unacceptable to the contractor, the Designer will request that the State Construction Office Project Monitor meet with the contractor and the Designer to attempt to resolve the dispute.	On failing to reach a satisfactory settlement, the claim will proceed in accordance with GS 143-135.3.	For University Download projects GS 116-31.11 the Designer will request that UNC-General Administration meet to attempt to resolve the controversy.	If it cannot be resolved to the contractor's satisfaction, the decision may be appealed to the State Construction Office.


Designer Claims
The Owner shall be advised by the Designer of the claim and the Owner in consultation with the State Construction Office Project Monitor will render a decision.
Formal Projects - If the decision is unacceptable to the Designer, and a satisfactory settlement cannot be achieved, the Designer may request an informal hearing with the State Construction Office in accordance with GS 143-135.3.
University Download Projects Follow
GS 116-31.11
The Designer will request that UNC-General Administration meet to attempt to resolve the controversy.
If claim cannot be resolved to the Designer's satisfaction, the decision may be appealed to the State Construction Office. the claim will proceed in accordance with GS 143-135.3.

Section 712

Designer Evaluation

The Capital Projects Coordinator is required to follow the procedures established by the State Building Commission, under NCAC-30F, to evaluate the Designer at the completion of the project. nterim evaluation of the Designer is allowed under the State Building Commission rule.

Specific requirements and guidelines for entering Designer Evaluations into InterScope are found at: Designer Electronic Evaluations.

Section 713

Contractor Evaluation

The Capital Projects Coordinator is required to follow the procedures established by the State Building Commission, under NCAC-30F to evaluate the contractor at the completion of the project.

Interim evaluation of the Contractor is allowed under the State Building Commission rules.

Specific requirements and guidelines for entering Contractor Evaluations into InterScope are found at: Contractor Electronic Evaluations.

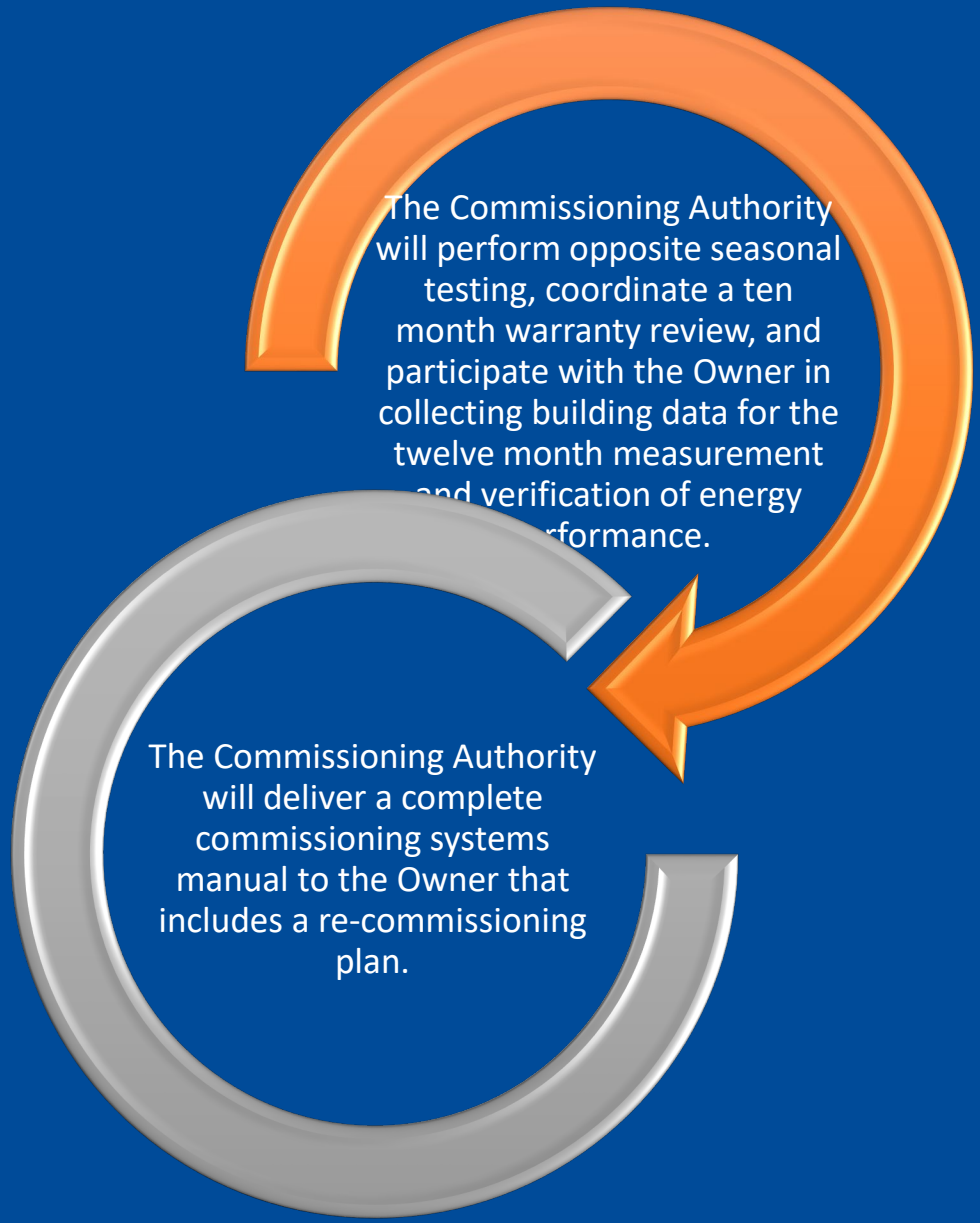
Section 714

Post Occupancy Phase

Starting with the first month of operation of a building, the public agency shall compare data obtained from the building energy usage (via meters installed on-site) with the final energy model results.

At the completion of the first twelve months of building operations, the Owner is required by GS 143-135,37(e) to compare the actual energy and water use data with the energy model results and assumptions.

If energy and/or water usage exceeds the model projections by 15% or more, the Owner will further investigate and resolve any issues found, or recommend further corrections or modifications to meet efficiency standards.


The Commissioning Authority will perform opposite seasonal testing, coordinate a ten month warranty review, and participate with the Owner in collecting building data for the twelve month measurement
nd verification of energy
rformance.
The Commissioning Authority will deliver a complete commissioning systems manual to the Owner that includes a re-commissioning plan.

Section 715

Project Closeout and Record Documents

Final Payment to Designer

Final payment to the Designer will not be made until all closeout documents listed below have been provided to and approved by the Owner and the State Construction Office.

Contractor As-Built Drawings

The contractor shall provide marked-up drawings, specifications and other material that reflect actual final conditions of the project in compliance with the Article 32 (d) of the General Conditions of the Contract.

The contractor should forward the marked-up drawings and material to the designer for editing of the record documents, and the original marked-up plans should be given to the owner to document details of the actual conditions that may not be completely shown on the electronic Record Drawing files.

Approval of Final Project Closeout Documents

The closeout documents, required upon acceptance of the project, should be uploaded by the Designer into the State Construction Office InterScope database and provided to the Owner.

The Project Monitor will verify that all required closeout documents have been uploaded and approved prior to authorizing final payment to the Designer.

All closeout documents should be provided within 60 days of project acceptance, unless required earlier by the contract.

Closeout documents uploaded into the State Construction InterScope database are considered to be the Final Report on the project.

A separate Final Report, a past requirement of the State Construction Office, does not need to be submitted.

Final Inspection Checklist

- The Designer shall provide a completed, signed copy of the Final Inspection for Owner Occupancy form, which should have been available at the time of final inspection.

Verification of Punch List Completion

- The Designer shall provide written confirmation that the final punch list items are complete.

Unsettled Claim Verification

- The Designer shall confirm that no unsettled claims exist on the project.

Record Documents

- Record drawings shall be provided for the project.
- Two files should be made available for each drawing.
- One file type should be computer-aided design (CAD) drawing files, with or without designer seals, for the owner to use as a basis for future project drawings.
- A full set of these CAD drawing files should be provided to the owner, in a digital media acceptable to the owner such as a compact disk.
- Printed copies of record drawings may be provided at the owner's request.
- The building summary sheet and the architectural floor plans should be given to the State Property Office as CAD drawing files, in the same digital media as the owner drawing files.

Pdf files should also be provided as permanent drawings, with Designer seals, that cannot be electronically edited.

The pdf files can either be uploaded into the State Construction Office InterScope database, which is prefered, or for extremely large files, another digital media such as a compact disk can be provided. For any record drawing digital media delivered to State Construction, identical files should be given to the owner.

Final Pay Application

- Minority Business Enterprise Final Documentation
- Consent of Surety of Final Payment
- Contractor's Affidavit of Release of Liens
- Contractor's Affidavit of Payment of Debts and Claims

Certificates of Compliance

A Certificate of Compliance from every Designer or consultant sealing drawings on the project shall be uploaded onto the State Construction InterScope database.

On University Download Projects GS 116-31.11 this certificate should be uploaded into InterScope and provided to the Owner.

Certificate of Completion

One Certificate of Completion shall be issued for each project by the lead Designer and uploaded into the State Construction Office InterScope database.

On University Download Projects GS 116-31.11 this certificate should be uploaded into InterScope and provided to the Owner.

NC DOA
Department of Administration
State Construction Office

Thank you

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