HENRY MCMASTER, CHAIR GOVERNOR CURTIS M. LOFTIS, JR. STATE TREASURER RICHARD ECKSTROM, CPA COMPTROLLER GENERAL



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Protest Decision

Matter of: Bastion Group, LLC

File No.: 2023-010

Posting Date: March 15, 2023

Contracting Entity: South Carolina Forestry Commission

Project No.: P12-9603-PG

Description: Wee Tee Bridge No. 1 Replacement

DIGEST

Protest of Intent to Award on the grounds that the South Carolina Forestry Commission (Forestry) erred by finding protestant non-responsible denied where Forestry's determination was not clearly erroneous, arbitrary, capricious, or contrary to law.

AUTHORITY

Per S.C. Code Ann. § 11-35-4210, the Chief Procurement Officer for Construction (CPOC) conducted an administrative review of a protest filed by Bastion Enterprises, LLC (Bastion) protesting Forestry's intention to award a contract to Cape Romain Contractor, Inc. (Cape) for replacement of a bridge in the Wee Tee State Forest (Project). Bastion's protest is attached as Exhibit A. This decision is based on materials in the procurement file and applicable law and precedents.

BACKGROUND

The following are facts relevant to this protest:

- On or about January 4, 2023, Forestry published an advertisement for construction services for the Project. [Exhibit B]
- By the deadline for receipt of bids, Forestry received five bids. [Exhibit C]
- Bastion submitted a low bid of \$623,191 and Cape submitted a bid for \$653,500, which was the second lowest bid. [Id.]
- Bastion has a South Carolina contractor's license with the classifications of General Contractor
 Building (BD License), and General Contractor Specialty Pre-Engineered Metal Buildings
 (MB License). [Exhibit D] Bastion does not have any other South Carolina contractor's license

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classification or subclassification. However, Bastion is a Construction Manager and has a certificate of authorization to practice engineering.

- Cape has a South Carolina contractor's license with the classification of General Contractor Highway - Bridges (BR License). [Exhibit E] Cape has other South Carolina contractor license classifications or subclassifications which are not relevant to this decision.¹
- After reviewing the scope of work for the project in the plans and specifications [Exhibit F], Forestry determined that Bastion lacks an appropriate contractor's license to bid the Project as a sole prime contractor.² [Exhibit C]
- Forestry determined that Cape has an appropriate contractor's license to bid the project as a sole prime contractor.
- On February 8, 2023, Forestry posted a notice of its intent to award a contract to Cape for the work of the Project. [Exhibit G] Forestry attached to this notice a copy of the bid tabulation, which contains the following statement regarding Bastion:

Bid non-responsible due to incorrect prime bidder providing bid (SC Law 40-11-340).

• On February 8, 2023, Bastion protested Forestry's intent to award a contract.

DISCUSSION

A determination of responsibility is required by S.C. Code Ann. §11-35-1810, which states "[r]esponsibility of the bidder or offeror shall be ascertained for each contract let by the State." A responsibility determination is a determination that the bidder has the ability to perform. See S.C. Code Ann. Regs. 19-445.2125(A)(1). Possession of the proper contractor license is an issue of responsibility. Protest of Brantley Construction Co., Inc., Panel Case No. 1999-3 (where the State is investigating the bidder's ability to perform it is deciding an issue of responsibility); Protest of Roofco, Inc., Panel Case No. 2000-14(I) ("[T]he lack of a proper license to do the work solicited in a state contract will always render a bidder nonresponsible."); see also S.C. Code Ann. § 40-11-200(B) ("It is a violation of this chapter for an awarding authority ... to consider a bid ... unless the bidder has first obtained the licenses required by this chapter. Bids or contracts submitted by contractors may not be reconsidered or resubmitted to an awarding authority ... if the contractor was not properly licensed at the time the initial bid or contract was submitted.").

A procurement officer's determination of nonresponsibility is final and conclusive unless it is "clearly erroneous, arbitrary, capricious, or contrary to law." S.C. Code Ann. § 11-35-2410(A). To prevail, the protestant must prove the nonresponsibility determination is clearly erroneous, arbitrary, capricious, or contrary to law. *Protest of Brantley Construction Co., Inc.*, Panel Case No. 1999-3. Where Forestry's decision has a rational basis in law and fact, the CPOC will not, indeed cannot, substitute his opinion for that of the Forestry's.

The CPOC has noted in the past that when it comes to the Contractor's Licensing law, determining who is properly licensed to bid a project is often unclear because the laws governing licensing of

¹ Cape's Marine and Concrete Licenses are incorporated into the BR license.

² A contractor is limited to the scope of his license group and classification both in bidding and performing work. S.C. Code Ann. § 40-11-270; *see also* §§ 40-11-30 and 260(A).

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contractors are not clearly written. The language and grammar used in those laws create confusion concerning their proper application to construction projects. This confusion is most apparent when determining the scope of license classifications and subclassifications. Attorneys trained in statutory interpretation find divining the intent of the contractor licensing laws challenging. These same laws place on project owners and others without legal training the burden of properly interpreting them before considering a bid or making an award. Licensed contractors themselves are confused by application of the licensing laws as evidenced by the numerous protests of awards the CPOC receives regarding licensing issues and the ubiquity of contractors or subcontractors bidding outside the scope of their license. This confusion is plain in this case. The fact is, that it is not clear that Bastion has the proper licenses to bid this project as a sole prime contractor.

Forestry structured the solicitation and bid documents to seek bids for a sole prime contractor to construct the Project. A prime contractor "is an entity which contracts directly with an owner to perform general or mechanical construction." S.C. Code Ann. §40-11-20(17). A sole prime contractor is "the prime contractor for a project on which there is only one prime contractor." S.C. Code Ann. §40-11-20(21). A prime contractor may only bid and perform work within the scope of its license(s). S.C. Code Ann. § 40-11-270. However, a sole prime contractor may offer to perform work outside the scope of its license provided a certain percentage of the work falls within the scope of its license.³ In this regard, S.C. Code Ann. §40-11-340 states:

An entity licensed under the classifications or subclassifications in Sections 40-11-410(1), (2), or (3) may act as a sole prime contractor on a project if **forty percent or more of the work as measured by the total cost of construction** falls under one or more of the licensee's license classifications or subclassifications. An entity licensed under the classifications or subclassifications in Section 40-11-410(4) and (5) may act as sole prime contractor if fifty-one percent or more of the work falls under one or more of the licensee's license classifications or subclassifications.

[emphasis supplied]

The Contractor's Licensing Laws define the total cost of construction as:

[T]he actual cost incurred by the owner, all contractors, subcontractors, and other parties for labor, material, equipment, profit, and incidental expenses for the entire project. This does not include the cost of design services **unless** those services are included in a construction contract.

S.C. Code Ann. §40-11-20(23) [emphasis supplied]

One thing in this case is clear, Bastion's BD License falls under S.C. Code Ann. §40-11-410(1). Therefore, Bastion can bid and perform as a sole prime contractor on any project where "forty percent or more of the work as measured by the total cost of construction falls under one or more of [Bastion's] license classifications or subclassifications.

In part of its analysis of whether 40% of the work falls within the scope of S.C. Code Ann. §40-11-340, Bastion seems to rely on the combination of its BD License, its Certificate of Authorization for

³ A sole prime contractor must subcontract any work outside the scope of its license(s).

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Engineering, and its authorization to act as a Construction Manager. Bastion's reliance on the latter two is misplaced. First, the Contractor's licensing law requires that 40% or more of the work fall under "one or more of the licensee's **license classifications or subclassifications**." [Id.] [emphasis supplied] The fact that this provision is in Chapter 40 of Title 11, the law governing construction contractors, suggests that this provision only refers to contractor's license classification or subclassifications, not engineering authorizations which are located in Chapter 22 of Title 11. This conclusion is supported by the fact that Chapter 22 makes no mention of "license classifications or subclassifications." Second, Construction Manager's offering to "perform construction themselves or holding construction contracts in their own name must be treated as general contractors ... rather than construction managers for the purposes of this chapter and must be licensed pursuant to the requirements of this chapter to perform that work." S.C. Code Ann. §40-11-320(D). Therefore, the question before the CPOC is whether 40% of the work clearly falls within Bastion's BD License.

The scope of a BD License includes:

[C]ommercial, industrial, institutional, modular, and all other types of building construction, including residential structures. This license classification includes all work under the subclassifications of Wood Frame Structures-Class II, Interior Renovation, Masonry, Pre-engineered Metal Buildings, General Roofing, and Structural Shapes.

Licensees under this classification may perform ancillary work, including grading, associated with the building or structure which the licensee has been engaged to construct. However, if a project includes work performed under a Mechanical Contractor subclassification or any of these license subclassifications, the licensee must have a license for this work or use a contractor licensed in the appropriate license classification or subclassification to perform the work: Swimming Pools, Bridges, Boring and Tunneling, Water and Sewer Lines, Pipe Lines, Railroad Lines, Specialty Roofing, Marine, Water and Sewer Plants, and Asphalt Paving.

S.C. Code Ann. §11-35-410(1) [emphasis supplied]

The focus of this license is the construction of buildings and work ancillary to the construction of buildings. Because the construction of a vehicular bridge is not the construction of a building and no aspect of the project is associated with a building, Forestry determined that no percentage of the project fell under Bastion's BD License.

Bastion argues that because the second paragraph regarding ancillary work uses the words "building or structure" this license includes all types of structures not just the type that is the focus of this license, buildings. The CPOC rejects this argument and finds the first paragraph which defines the scope of the license limits the license to structures which qualify as buildings. The second paragraph merely

⁴ Even if one were to grant this argument relative to design services, using the numbers Bastion supplies in its protest, design is only 7.6% of the total cost of construction.

⁵ Bastion does not attempt to rely on its MB license.

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addresses work that is ancillary to that scope. It is nonsensical to use a subsidiary paragraph regarding work ancillary to the primary scope to expand the meaning of the primary scope.

In this case, a major component of the project cost is the cost of a prefabricated bridge. Bastion argues that this bridge which will be supplied by a fabricator that is not required to be a licensed contractor can be considered as coming under its BD License or any license since suppliers and supplies are not even mentioned in the Contractor's licensing laws. Bastion takes this line of reasoning further. Bastion argues that -

- profit and overhead should not be allocated to a specific license classification or subclassification;
- the contractor's construction contingency should not be allocated to a specific license classification or subclassification;
- bridge design cost that are the responsibility of the contractor should not be allocated to a specific license classification or subclassification;
- the contractor's site and project management costs should not be allocated to a specific license classification or subclassification;
- the contractor's cost for quality control inspections should not be allocated to a specific license classification or subclassification; and
- the contractor's demolition cost should not be allocated to a specific license classification or subclassification.

Using Bastion's numbers, this means that when these costs are combined with the cost of the prefabricated bridge, 86% of the project cost is not allocable to any particular license classification or subclassification. If 86% is not allocable to a particular license classification or subclassification but is allocable to any, then any licensed contractor can bid this bridge project as a sole prime contractor. Just to name a few, consider an Air Conditioning Licensed contractor, a Glass and Glazing Licensed contractor, or an Electrical Licensed contractor. Bastion's argument would lead to an absurd result and make the licensing laws meaningless.

The Contractor's licensing laws state:

- (A) It is unlawful for an owner, a construction manager, a prime contractor, or another entity with contracting or hiring authority on a construction project to divide work into portions so as to avoid the financial or other requirements of this chapter as it relates to license classifications or subclassifications or license groups, or both. The total cost of construction must be used to determine the appropriate license group for a project.
- (B) An entity or individual engaging in general or mechanical construction on a project without the required license or certificate must immediately withdraw from the construction project and may not act as a subcontractor on that construction project.
- S.C. Code Ann. §40-11-300 [emphasis supplied]

Under this provision, it is unlawful to divide the work of a project into portions to avoid the requirements applicable to license classifications or subclassifications. In other words, one must

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consider the components of the total cost of construction allocable to each license classification or subclassification in order to determine whether a bidder is properly licensed to act as a sole prime contractor on a project. This analysis necessarily includes the cost of supplies and equipment, overhead, contingency, etc. While Bastion argues that the total cost of construction is only applicable to determining licensing groups (i.e., financial capacity), the totality of S.C. Code Ann. §§40-11-300 and 340 compels the application of this term to determining the necessary license classifications and subclassifications.

The CPOC is aware that the Contractor's Licensing Board has issued an interpretation to the effect that demolition does not require a particular Contractor's license. [Exhibit H] Accepting that for purposes of this decision, Bastion is qualified by its BD License to perform demolition on the Project, using Bastion's numbers, this is 5.1 % of the work. However, the remaining categories of work need to be allocated to the appropriate license classification or subclassification in accordance with the requirements of S.C. Code Ann. §40-11-300. Forestry reasonably allocated the prefabricated bridge structure to the work of a BR contractor. Likewise, Forestry reasonably allocated any bridge design, profit and overhead, contingency, site and project management, and quality control to the work of a BR contractor. Similarly, Forestry reasonably concluded that a BD contractor was not qualified to construct a bridge and that none of these categories should be allocated to the work of a BD contractor. Simply put, Forestry's determination was a reasonable interpretation of the Contractor's Licensing Laws and was not clearly erroneous, arbitrary, capricious, or contrary to law, and Bastion has failed to prove otherwise.

In its initial protest, Bastion noted that its BD License includes the work of Structural Shapes (SS License). S.C. Code Ann. §40-11-410(1). The SS License includes:

[T]he installation, repair, or alteration of metal or composite shapes, tubing, pipes and bars, including **minor field fabrication** as may be necessary.

S.C. Code Ann. §11-35-410(4)(k) [emphasis supplied]

Bastion argued that because the word "fabrication" included in the description of the scope of the SS License, it is qualified to provide a prefabricated bridge. Bastion also argues that since this word does not appear in the description of the BR License, a BR Licensed contractor cannot provide a prefabricated bridge. In making this argument, Bastion ignores the fact that the word "fabrication" in the SS License is qualified by the words "minor field." The SS Licensee can only perform minor field fabrication of structural shapes. In essence, this argument is a red herring and seems to be one Bastion drops in its final protest.

Bridges erected over a depression or an obstruction such as water, highway or railway, having a track or passageway designed for carrying vehicular traffic weighing over 2000 pounds requires the "Bridges" license classification.

The Project is for a bridge over a stream. The bridge is to have a minimum H20 load rating. The design criteria for H20 consist of a truck axle loading of 32,000 pounds for a two-axle truck or per wheel load of 16,000 pounds, well over 2,000 pounds.

⁶ This same interpretation includes the following statement regarding bridges:

⁷ The CPOC observes that there is another license subclassification that includes the SS License, Structural Framing (SF). SF is not included within the scope of a BD License. SF is for the "installation, repair, or alteration of metal or

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Finally, Bastion argues that the specifications sections regarding Forestry's inspection obligations convert this bridge project into a building project. In support of its argument, Bastion relies on the following clauses in the specifications:

1. GENERAL SPECIFICATIONS

1.1. REFERENCES

The "Standard Specifications for Highway Construction, Edition of 2007" as published by the South Carolina Department of Transportation shall govern the material and workmanship on this project and is incorporated within this Contract by reference, **except where modified by the Specifications and Special Conditions included within this section**. In addition, the "Standard Drawings for Road Construction" published by the South Carolina Department of Transportation are incorporated within this Contract by reference.

1.2.2. STATEMENT OF SPECIAL INSPECTIONS

The Owner shall provide Special Inspections of the following systems and components in accordance with the International Building Code as listed on the following page(s): ... [emphasis supplied]

Based on this language, Bastion argues that Forestry's inspection obligations supersede all the provisions in the specifications that incorporate the "Standard Specifications for Highway Construction, Edition of 2007" and related standards such as American Association of State Highway and Transportation Officials (AASHTO), American Institute of Steel Construction (AISC), and American Welding Society (AWS) standards. Examples of these standards required by the specifications are:

2.4. MUCK EXCAVATION

Refer to **SCDOT** Standard Specifications for Highway Construction, Section 203 ...

2.5. GEOTEXTILE FABRIC FOR SEPARATION OF SUBGRADE AND SUBBASE OR BASE COURSE MATERIALS

Refer to **SCDOT** Supplemental Technical Specification SC-M-203-1 "Geosynthetic Materials – Separation and Stabilization".

2.6. GEOGRID SOIL REINFORCEMENT

Refer to **SCDOT** Supplemental Technical Specification SC-M-203-2 "Geogrid Soil Reinforcement".

4.1. DESCRIPTION: Bridge #1 plans calls for two concrete approaches 12' x 15' x 1' per notes on Sheet C-501, all work in strict accordance with all **SCDOT** Standards for Concrete Paving.

composite structural members for buildings or structures, including riveting, welding, and rigging." S.C Code Ann. §40-11-410(4)(j). When comparing the SF to the SS license, it is clear that the SS license does not include the installation, repair, or alteration of steel structural members such as are involved here.

6.1. CONCRETE FOR STRUCTURES – CLASS 4000

6.1.2. REFERENCES:

- 6.1.2.1. Refer to **SCDOT** Standard Specifications for Highway Construction Section 701 Portland Cement and Portland Cement Concrete in its entirety 6.1.2.2.Refer to **SCDOT** Supplemental Specifications for Portland Cement and Portland Cement Concrete dated 8/2/2013 and 5/5/2014
- 6.1.2.3.Refer to **SCDOT** Supplemental Specification for Concrete Batching and Mixing dated 4/5/2010
- 6.1.2.4.Refer to **SCDOT** Supplemental Specification for Concrete Entrained Air and Slump Properties dated 2/1/2015
- 6.1.2.5.Refer to **SCDOT** Standard Specifications for Highway Construction Section 702 Concrete Structures in its entirety.
- 6.1.2.6.Refer to **SCDOT** Supplemental Specification for Concrete Structures Preformed Joint Filler dated 4/1/2013

7. REINFORCING STEEL FOR STRUCTURES

7.1. DESCRIPTION: This section lists the required referenced specifications for the materials, equipment, construction, measurement, and payment for furnishing, and placing reinforcing steel consisting of bars wire, wire mesh, bar supports and ties. Construct concrete structures in accordance with the design requirements and details shown on the Plans and in conformity with the requirements of the **SCDOT** Standard Specifications for Highway Construction and these Specifications.

8.2. APPLICABLE CODES AND STANDARDS

8.2.1. GOVERNING CODES AND STANDARDS

The Bridge shall be designed in accordance with current, recognized and accepted specifications for bridge design and construction, including all interims, and as stipulated by the Engineer below. Currently, within the United States, the American Association of State Highway and Transportation Officials (AASHTO) publishes two sets of bridge design and construction specifications: the 1) Standard Specifications for Highway Bridges, 17th Edition (2002), Division I & II and AASHTO LRFD Bridge Design Specifications for Highway Bridges, 6th Edition (2012) and 2) AASHTO LRFD Bridge Construction Specifications 3rd Edition (2010). The Specifier shall select the governing Section 8.4.2.

Additionally, a live load basis such as HL93 (**AASHTO** LRFD), or HS20 (**AASHTO** Std. Spec.) shall also be specified by the Engineer. The Owner's designation of the specification should be consistent in its application to other parts of the project such as the substructure and foundations. The Specifier shall select the governing live load in Section 8.4.2.

8.2.2. REFERENCE CODES AND STANDARDS

American Institute of Steel Construction (AISC), Steel Construction Manual, Thirteenth Edition.

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American Welding Society (**AWS**) D1.5 Bridge Welding Code (Use **AWS** D1.1 for welding not covered in AWS D1.5).

8.6. MANUFACTURING AND QUALITY CONTROL

8.6.1. CERTIFICATION MANUAL: A current copy of **the AISC** Program Manual describing the Bridge Contractor's operations and practices shall be maintained by the quality Control Manager for review by designated quality control inspectors. Copies of the AISC Certification Manual shall be made available to customers and their representatives, upon requests.

8.6.4. WELDING: All welding shall conform to the **AASHTO/AWS** D1.5 Bridge Welding Code. Welding of tubular connections is covered in the **AWS** D1.1 Welding Code. All welding shall utilize E70 or E80 series electrodes. The weld process used shall be Flux Core Arc Welding (FCAW) or Shielded Manual Arc Welding (SMAW) per ANSI/**AASHTO/AWS** D1.5 "Bridge Welding Code."

8.6.9. SHOP ASSEMBLY: Shop assembly shall conform to **AASHTO** Construction Specifications and **AASHTO**/NSBA S2.1 Guide Specifications.

Bastion argues that Forestry's inspection obligations make all these design and construction requirements void and binds the contractor to construct the bridge in accordance with the International Building Code (IBC). A contract interpretation that renders significant portions of the contract requirements void is unreasonable and violates all tenants of contract interpretation. *See Ecclesiastes Production Ministries v. Outparcel Associates, LLC*, 374 S.C. 483, 498, 649 S.E.2d 494, 502 ("The purpose of the rules of contract construction is to ascertain the intention of the parties as gathered from the contents of the entire document and not from any particular provision within the contract."); *Koon v. Fares*, 379 S.C. 150, 155, 666 S.E.2d 230, 233 (2008) ("An interpretation which establishes the more reasonable and probable agreement of the parties should be adopted while an interpretation leading to an absurd result should be avoided.")

DECISION

Based on the foregoing, the CPOC denies Bastion's protest.

John St. C. White, PE

Chief Procurement Officer for Construction

Columbia, South Carolina

STATEMENT OF RIGHT TO FURTHER ADMINISTRATIVE REVIEW

Protest Appeal Notice (Revised July 2022)

The South Carolina Procurement Code, in Section 11-35-4210, subsection 6, states:

(6) Finality of Decision. A decision pursuant to subsection (4) is final and conclusive, unless fraudulent or unless a person adversely affected by the decision requests a further administrative review by the Procurement Review Panel pursuant to Section 11-35-4410(1) within ten days of posting of the decision in accordance with subsection (5). The request for review must be directed to the appropriate chief procurement officer, who shall forward the request to the panel or to the Procurement Review Panel, and must be in writing, setting forth the reasons for disagreement with the decision of the appropriate chief procurement officer. The person also may request a hearing before the Procurement Review Panel. The appropriate chief procurement officer and an affected governmental body shall have the opportunity to participate fully in a later review or appeal, administrative or judicial.

Copies of the Panel's decisions and other additional information regarding the protest process is available on the internet at the following web site: http://procurement.sc.gov

FILING FEE: Pursuant to Proviso 111.1 of the 2022 General Appropriations Act, "[r]equests for administrative review before the South Carolina Procurement Review Panel shall be accompanied by a filing fee of two hundred and fifty dollars (\$250.00), payable to the SC Procurement Review Panel. The panel is authorized to charge the party requesting an administrative review under the South 11-35-4210(6), Carolina Sections 11-35-4220(5), 11-35-4230(6) 4410...Withdrawal of an appeal will result in the filing fee being forfeited to the panel. If a party desiring to file an appeal is unable to pay the filing fee because of financial hardship, the party shall submit a completed Request for Filing Fee Waiver form at the same time the request for review is filed. [The Request for Filing Fee Waiver form is attached to this Decision.] If the filing fee is not waived, the party must pay the filing fee within fifteen days of the date of receipt of the order denying waiver of the filing fee. Requests for administrative review will not be accepted unless accompanied by the filing fee or a completed Request for Filing Fee Waiver form at the time of filing." PLEASE MAKE YOUR CHECK PAYABLE TO THE "SC PROCUREMENT REVIEW PANEL."

LEGAL REPRESENTATION: In order to prosecute an appeal before the Panel, business entities organized and registered as corporations, limited liability companies, and limited partnerships must be represented by a lawyer. Failure to obtain counsel will result in dismissal of your appeal. *Protest of Lighting Services*, Case No. 2002-10 (Proc. Rev. Panel Nov. 6, 2002) and *Protest of The Kardon Corporation*, Case No. 2002-13 (Proc. Rev. Panel Jan. 31, 2003); and *Protest of PC&C Enterprises*, *LLC*, Case No. 2012-1 (Proc. Rev. Panel April 2, 2012). However, individuals and those operating as an individual doing business under a trade name may proceed without counsel, if desired.

South Carolina Procurement Review Panel Request for Filing Fee Waiver 1205 Pendleton Street, Suite 367, Columbia, SC 29201

Name of I	Requestor		Address	
City	State	Zip	Business Phone	_
1. What is	your/your comp	any's monthly inco	ome?	
2. What an	re your/your com	pany's monthly exp	penses?	
3. List any	other circumstan	nces which you thin	nk affect your/your company's ability to pay	the filing fee:
misrepreso administra Sworn to l	ent my/my comp tive review be w	pany's financial co	ion above is true and accurate. I have made ondition. I hereby request that the filing fee	
Notary Pu	blic of South Car	rolina	Requestor/Appellant	
My Comn	nission expires: _			
For officia	al use only:	Fee Waived	Waiver Denied	
Chairman	or Vice Chairma	n, SC Procurement	t Review Panel	
This	_ day of South Carolina	, 20		

NOTE: If your filing fee request is denied, you will be expected to pay the filing fee within fifteen (15) days of the date of receipt of the order denying the waiver.

Exhibit A

From: <u>keane@bastiongroupllc.com</u>

To: <u>Protest-OSE</u>

Cc: "Claire Cole"; "Gene Haskins"; "David Owen"; "Lenora Stukes"; conner@bastiongroupllc.com

Subject: [External] SC Forestry Commission Project #P129603-PG

Date: Wednesday, February 8, 2023 4:53:43 PM

Attachments: <u>image001.png</u>

SE-370 2-8-23.pdf

RE Wee Tee Bridge No.1 Replacement RFP P12-9603-PG.msg

RE: SC Forestry Commission Project #P129603-PG - Notice of Intent to Award - Protest

Please accept this as official written notice to protest the intent to award sent to bidders form Dennis Corporation (see SE-370 2-8-23.pdf attached).

We were low bidder at public bid opening on 1/31. On 2/8/23 David Owen (SC Forestry Commission) communicated stating that believed our work did not exceed the 40% total cost threshold to be qualified under our current licensure. We responded to Mr. Owens less than 3 hours after detailing how the 40% threshold was met – through a prefabricated structure accounting for >50% of total construction cost (see email attached).

Please advise what additional information (if any) would be required for the official protest per SC Code 11-35-4210.

Thank you,

Keane Steele, PE



412 N Gum Street, Suite B, Summerville, SC 29483 Direct Mobile I 843-708-5534 From: <u>keane@bastiongroupllc.com</u>

To: "David Owen"

Cc: "Lenora Stukes"; conner@bastiongroupllc.com

Subject: RE: Wee Tee Bridge No.1 Replacement RFP P12-9603-PG

Date: Wednesday, February 8, 2023 12:16:34 PM

Attachments: <u>image001.png</u>

David,

As stated earlier this morning we believe that the nature of this project and the bid documents do not point to the same conclusion of qualifications in which you have arrived.

Due to the total cost of actual on-site work required for this project being minimal as compared to total bid cost, the 40% threshold for The Bastion Group as qualified prime contractor is easy to meet. While the project was bid as "design-bid-build" the entire design other than elevations and location is by contractor — we hold an engineering license and COA and are therefore qualified for the engineering and design portion required. The project manual refers to the structure as "prefabricated" — the steel framing and decking is nearly 50% of the total cost of the project. Our BD license per state code Section 40-11-410 (1) includes all work under the subclassification of "structural shapes" which the fabrication of the steel falls under. Therefore, our BD license (bridge fabrication) and engineering licensure (bridge design) exceeds the required 40% minimum threshold.

SC law Section 40-11-410 2-a states that "Bridges" which include bridge construction and repair — this section does not specifically include fabrication. In fact, the only place the word "fabrication" appears in SC 40-11 is under the structural shapes section. Having reviewed licenses for Tindall (large precast bridge manufacturer), Contech (basis of Dennis design), and Owen Steel Company (large local steel bridge fabricator) none have South Carolina BR state licenses, while they have do have certifications for bridges from their respective professional organizations (PCI and AISC, et al.) — which illustrates that SC BR state license is not required for fabrication and delivery.

Furthermore, the project manual section 1.2.2 lists the schedule of special inspections – from 2018 International Building Code chapter 17. The required inspections include grout, structural steel, concrete, deep foundations, and soils. The special inspections listed for structural steel construction (section 1705.2.1) – reference AISC 360 which is the Specification for Structural Steel Buildings. This further confirms that the cost of the fabrication of the steel should count towards the 40% minimum required by SC Law 40-11-340. The inclusion of required IBC inspections in the project manual would point to the required licensure for this project to include the BD state designation – a designation that the next lowest bidder does not have. If both BD and BR (or HY) are required for qualification, then of all 5 bidders only Republic Contracting Corporation has both active licenses. I believe their pricing was the highest at \$73,200 above next lowest and \$325,069 above lowest and was 52% over the published project budget maximum.

I understand that the licensure and building code rabbit hole can be quite confusing as I have been down it multiple times. I can assure you that if we did not have confidence that we could perform the project successfully and were not qualified for the project we would not have bid the work. We definitely would not have included the required bid security which met in the form of a certified

cashier's check of >\$30,000. The same team we are using on this project were used on a similar bridge in 2021 in Williamsburg County (10 miles away as the crow flies). That project was on a Williamsburg county Right of way and would fall under the same building official as the Wee Tee project (as referenced in IBC chapter 17 in the project manual). See link for picture of that finished project: https://bastiongroup.egnyte.com/dl/41Lci2fAaE.

Please let us know if you have any further questions or clarifications. We are confident the BD (and thus SS) licensure meets the 40% threshold you referenced from SC Law 40-11-340.

We look forward to working with you and the SC Forestry commission on this project and providing the state taxpayers with a safe usable structure (at the lowest bid price).

Thanks,

Keane Steele, PE



412 N Gum Street, Suite B, Summerville, SC 29483 Direct Mobile I 843-708-5534

From: David Owen <DOwen@scfc.gov>
Sent: Wednesday, February 8, 2023 9:21 AM

To: 'keane@bastiongroupllc.com' <keane@bastiongroupllc.com>

Cc: Lenora Stukes <LStukes@scfc.gov>

Subject: Wee Tee Bridge No.1 Replacement RFP P12-9603-PG

Dear Keane.

We have reviewed your bid submitted on 31 January 2023 for the installation of a bridge in Wee Tee forest. Besides price, another factor for award is the bidder must be properly licensed. We have reviewed your firm's ability to bid as prime contractor in accordance with SC Law 40-11-340. The law indicates a contractor "...may act as a sole prime contractor on a project if forty percent or more of the work as measured by the total cost of construction falls under one or more of the licensee's license classifications or subclassifications....".

As we review the scope, we find the bridge and concrete work (both included in a Bridge (BR) license) to well exceed the minimum 40% required by law. Unfortunately, we are not able to justify items of construction that would require a Building license (BD) to submit a bid as prime. Therefore, we must consider your bid as "non-responsible" since you do not have a BR license. This is not a reflection on your company to bid and construct buildings in accordance with your BD license, and we hope that you will submit bids for future SC Forestry Commission projects."

David P. Owen
Construction & Property Manager
SC Forestry Commission
5500 Broad River Rd.
Columbia, SC 29212
803-896-8829 Office
864-637-8519 Cell



Tuesday, February 21, 2023

State Engineer and Chief Procurement Officer for Construction Office of State Engineer

1201 Main Street, Suite 600 Columbia, SC 29201 Ladson, SC 29456

Re: SC Forestry Commission Project #P129603-PG – Protest

Please accept this as part of the official protest in addition to emails and information previously sent when notice of intent to protest was sent on February 8th, 2023.

Based upon correspondence from SC Forestry and documents received from subsequent FOIA request, The Bastion Group was deemed a non-responsible bidder due to SC Code 40-11-340 [Exhibit A]. The Bastion Group was low bidder at public bid opening on January 31st, 2023, however, after being deemed non-responsible the Notice of Intent to Award was posted with Cape Romain Contractors (second lowest bidder). From review South Carolina law, we understand that as the protestor we have the burden of proving upon the preponderance of evidence that the determination of non-responsibility is "clearly erroneous, arbitrary, capricious, or contrary to law." (SC Code 11-35-2410 (A)).

As our bid was marked as non-responsible due to SC Law 40-11-340; our protest outlined in this document will speak to this section of the law specifically and how the 40% minimum threshold is clearly exceeded under our current licenses. If any additional interpretation for a determination that The Bastion Group should be deemed a non-responsible bidder is provided, we reserve the right to expand upon this protest.

Correspondence from Mr. Owen of the SC Forestry commission further stated [Exhibit B] that:

As we review the scope, we find the bridge and concrete work (both included in a Bridge (BR) license) to well exceed the minimum 40%¹ required by law.

Unfortunately, we are not able to justify items of construction that would require a Building license (BD) to submit a bid as prime. Therefore, we must consider your bid as "non-responsible" since you do not have a BR license."

1 – We assume this was misstated as 40-11-340 explains how the total cost of construction not specifically licensed must

1 – We assume this was misstated as 40-11-340 explains how the total cost of construction not specifically licensed must exceed 60% for sole contractor to be deemed unresponsible.

At the time of bidding the licenses applicable to this project held by The Bastion Group from South Carolina Department of Labor, Licensing and Regulations are [Exhibit C & E]:

Engineering - COA #6227 General Contractor – Building Group 4 - License #123168 Construction Manager – Group 4 – License #1142 The project description as stated on form SE-310 is [Exhibit D]:

This project consists of the **removal and disposal** of an existing single span concrete bridge deck, 2 end bents and replacement with a single span, **pre-fabricated** steel bridge superstructure with open-grate decking and modified concrete end bents with backwalls and timber pilings / approach slabs.

From a review of SC Code 40-11 these pertinent definitions are provided to be referenced:

"General Contractor" means entity which performs or supervises of offers to perform or supervise general construction. (Section 40-11-20(9))

"Total cost of construction" means the actual cost incurred by the owner, all contractors, subcontractors, and other parties for labor, material, equipment, profit, and incidental expenses for the entire project. This does not include the cost of design services unless those services are included in a construction contract. (Section 40-11-20(23))

"Supplier" means a person who provides materials, equipment, or other supplies for the construction of a nonresidential property. (Section 40-11-510(9))

"Subcontractor" means an entity who contracts to perform construction services for a prime contractor or another subcontractor. ((Section 40-11-20(22))

While the procurement process was "design-bid-build" the entire design of the superstructure, end bents, and deep foundations were "by contractor." Beyond two elevations for the bridge deck, the design package provided nothing that could be considered an actual engineered set of plans. The four sheets marked "for information only – not for construction" merely provide figures to match the project manual. With the entire structure and demolition engineering to be part of the construction contract, per SC Law Section 40-11-20(23) the engineering cost is to be counted towards the total cost of construction. With an active engineering COA [Exhibit E] The Bastion Group is licensed to perform this design work. As "The state is entitled to rely on the project architect/engineer's estimate of probable cost when determining if a bidder is qualified" (From File No. 2023-001) we offer the cost estimate of bridge No.1 B (Prefabricated Steel Superstructure) which lists design costs as \$47,576.48 [Exhibit F]. This amount accounts for 7.64% of the provided bid.

It could be debated that the "design" numbers presented in the Dennis estimate are artificially low. As this "design" was awarded to Dennis under a "Small Professional Services Contract" which has a maximum of \$50,000 and all 6 design estimates suspiciously come in under \$50,000 (one only \$7.78 below) with no apparent consistent percentage of construction costs. We are currently waiting on additional FOIA requests for amount billed to date for engineering, if amount billed to date is close to the \$47,576.48 in engineering it could be argued that the actual engineering of the bridge to be provided by contractor could easily be 2-5x that figure.

The total cost of construction includes profit and overhead. This is not a portion of the total project costs that would be specific to a required license classification. While profit and overhead are not as clear to show without an engineer breakdown, a reasonable number for a project of this size is 10% (which would be \$62,319.00). (Note this 10% should be taken as percentage of gross)

All prime general contractors would also carry a contingency as a part of the total project cost of construction. On both the 10/15/21 cost estimate and the 12/28/2022 [Exhibits F&G] the engineer recommends a 10% contingency (\$86,502.70 and \$55,190.00 respectively) (Note the engineer cost estimate treated this as a 10% mark-up, which equates to 9.1% gross).

The on-site management, project management, and supervision of the project falls within the licenses held by The Bastion Group. Again, while this number is difficult to verify, it can be reasonably built up using the liquidated damages schedule allowance of 150 days (21 weeks) provided in the bid specification. A conservatively low assumption of management would be a part time project manager (\$90 dollars per hour at 15 hours a week) and an on-site superintendent (\$80 dollars per hour at 55 hours per week for 6 weeks of on-site construction plus \$150 daily for travel and meal expenses). This gives a total of \$59,250.00, which equates to 9.5% of the total cost of construction.

Third party inspections (quality control inspections) were also required in the project manual (Section 1.2.1). Though not in the engineer's budget various inspections are required per project manual 1.2.1 and 10.1.2. In our budget we carried a line item for third party inspections, additional geotechnical testing/consulting, and surveying at a total of \$11,500. This equates to 1.9% of the total cost of construction.

"Demolition does not require a specific contractor's license but maybe performed by any licensed general contractor" (direct quote from file number 2023-001) [Exhibit H]. The Dennis Corp. estimate of the project carried a line item of \$32,000.00 for the demolition and disposal of the existing structure, which equates to 5.1% of the total cost of construction.

Throughout the project manual the structure is repeatedly described as "prefabricated." The nature of this prefabricated structure requires that the majority (if not all) of the fabrication and assembly are to be off site and completed by a supplier. Though marked "for information only" the drawings of this bridge as well as the specifications pointed very closely to a specific premanufactured structure supplier (Contech). This was so evident that it was addressed in Addendum 1 (Pre-bid Clarification #4) as well as almost every email answer (all answers except #6 seem to be specific to a Contech Big R Bridge – Rolled Girder Bridges) [Exhibit I]. This can be further confirmed that as of 1/30/23 the plan holders list consisted of 9 different companies; 5 provided bids, 3 did not provide bids, and the last was Pomona Pipe (who is a distributor/dealer for Contech and lone fabricator plan holder). When pricing this project, we reached out to Contech Engineered Solutions and were directed to Ponoma Pipe who provided the estimate [Exhibits J&K]. The total supply cost of the bridge as quoted by Ponoma Pipe is \$314,355.60, which equates to 50.4% of the total cost of construction.

While the cost of the prefabricated structure supply cannot be divided from construction cost when establishing required group (SC Code 40-11-300), The Bastion Group was not marked unresponsive based on contractor group number, but rather assumed non-compliance with SC Code 40-11-340. SC Code 40-11 provides no classification or subclassification that includes or excludes; supplying, procurement, purchasing, or fabrication of a structure (except "structural shapes" which mentions "minor field fabrication", SC code 40-11-410-4(k)). However, the "Bridges" classification specifically states, "construction and repairs" (SC Code 40-11-410-2(a) – neither of which supply, fabrication, or off-site assembly would fall under. Therefore, any prefabricated structure manufacturer would fall under the category of "supplier" not "subcontractor" as defined in SC Code 40-11.

While no specific license is needed to supply based-on SC Code 40-11 if it were required; based on SC Contractor's Licensing Board Commercial Contractor Candidate Information Bulletin [Exhibit L] and the project manual the most qualified license would be the BD license. The project general specifications section 1.2.2 Statement of Special Inspections – provides the inspections in which the owner is to provide during the project "in accordance with the International Building Code." The section 1.2.2 mention of the International Building Code supersedes the referenced "Standard Specifications for Highway Construction, Edition of 2007" (Section 1.1) as stated in section 1.1

"except where modified by the specifications and special conditions included within this section." Please note section 1.2.2 of the project specification was added after comments from Phil Gerald dated 11/2/23 [Exhibit M] revealing that this specific section had recent review by both Dennis Corporation as well as Office of the State Engineer. Per section 1.2.2; anchors, the structural steel superstructure, concrete, soils, and deep foundations all have required owner supplied inspections in compliance with the International Building Code. SC Code 40-11-230 outlines the requirements of the examination required for licensure the "qualifying party" is an individual who has been issued a certificate to qualify an entity by way of examination (SC Code 40-11-20 (20)). While the code itself does not speak to the specific exams or references, for this information one must refer to the SC Contractor's Licensing Board Commercial Contractor Candidate Information Bulletin [Exhibit L]. The reference books for the bridge license test include "Standard Specifications for Highway Construction, Edition of 2007" however, section 1.2.2 supersedes that specification for the special inspection in accordance with International Building Code. The International Building Code is only a reference in the commercial general building contractor tests, which illustrates that a BD licensed qualifying party is the only license that has been tested on the code under which the required inspections fall. Furthermore, section 1.2.2 inspections for structural steel construction list the specific compliance document and standard as AISC 360 - Specification for Structural Steel Buildings. The table references inspections in accordance with AWS D1.1/D1.1M, this requirement supersedes section 709.4.3.6 Inspection of Welds in "Standard Specifications for Highway Construction, Edition of 2007" which references AASHTO/AWS D1.5 - Bridge Welding Code. Per the project manual the structure is to be specifically fabricated and inspected by codes that only contractors with a BD license classification have been tested on and are therefore qualified for.

To review the percentages of total cost of construction of the project outlined above we have arrived at:

Table 1: Summary of Total Cost of Construction under Bastion Group Licensure.

Design	7.6%
Profit and Overhead	10.0%
Contingency	9.1%
Site and Project Management	9.5%
Quality Control Inspections	1.9%
Demolition	5.1%
Prefabricated Structure ¹	42.8%
Total:	86.0%

^{1) &}quot;Design" cost was deducted from Pomona Pipe proposal, as design was included their pricing

This clearly outlines that The Bastion Group meets and exceeds the 40% threshold required by SC Law 40-11-340.

In addition to the above, SC Law Section 40-11-410 allows for additional scopes to fall under general contractors. Under the "General Contractors – Building" it states, "licensees under this classification <u>may perform ancillary work, including grading</u> associated with the building <u>or structure</u> which the licensee has been engaged to construct." Not only does this show that BD licensed contractors can be engaged to construct structures that are not buildings it also allows that once 40% threshold is attained per SC Law 40-11-340 our BD license allows for ancillary work including grading – only increasing the total above that shown. While "ancillary" is not defined and grading is clearly included it could be assumed that Concrete (CT), Concrete Paving (CP), and Structural framing (SF) are also included in ancillary as they are not specifically excluded whereas 10 other specific subclassifications are excluded.

As the state is entitled to rely on the project architect/engineer's estimate of probable cost when determining if a bidder is qualified, we went through the budget the engineer provided to SC Forestry Commission dated 12.28.23 [Exhibit N]. The budget total was \$607,090 which is only 2.58% below The Bastion Group bid. While the line items do not align precisely, they are surprisingly close. To match our analysis more closely, we deducted \$32,000 from line item 7047299 "prefabricated bridge" to be the installation of the prefabricated structure. We believe that carrying the same cost to remove and dispose of a bridge that's exact construction is not known and installing a bridge that has been specifically designed for quick installation is accurate (if not greater than what would be reasonably anticipated). This leaves \$309,000.00 for the structure fabrication, which is only 1.7% below actual cost (as provided by Pomona Pipe). Using the budget from the engineer, the percentages of cost of total construction that should counted towards the 40% minimum is 75.26%. Please note, as there are no specific line items for overhead and profit, project management and supervision, and quality control it can be reasonably assumed to be distributed throughout all line items. As it has already been proven that the bridge line item has no mark up (already 1.7% below provided quote), if we assume the same overhead and profit and the project management and supervision is distributed across the remaining line items the percentage of total construction costs which we are licensed to perform is 85.22% [Exhibits N&O].

From our complete review of 40-11-340 and the Dennis estimate the portions of work in this project in which The Bastion Group has no appropriate license and therefore licensed subcontractors must complete is:

Installation of Deep Foundation Systems (Marine sub-classification required)
Reinforced Concrete Abutment Construction¹ (Bridge or Concrete license required)
Placement of Prefabricated Bridge² (Bridge Licensed Required)

- 1) This falls under "ancillary" once GC is engaged to construct structure [Exhibit P]
- 2) It could be argued that the Structural Framing or Structural Shapes sub-classifications may also qualify for the placement of this structure, or a large percentage as "rigging" in included in SF [Exhibit P]

If the same line items are taken directly from the Dennis budget, they account for a total percentage of 24.74% of total cost of construction.

 Deep Foundations:
 \$88,000
 14.50%

 Concrete¹:
 \$30,200
 4.97%

 Installation of Prefabricated Bridge¹,²:
 \$32,000
 5.27%

- 1) These fall under "ancillary" once GC is engaged to construct structure [Exhibit P]
- 2) Used same value carried or existing demolition for reasons explained above.

As a percentage of cost of total construction this is less than half the >60% required to not qualify as sole prime contractor in accordance with SC Code 40-11-340.

We believe that this analysis of the scope, project manual, and associated SC Law provided in this protest gives abundant evidence to prove that the determination of non-responsibility was "clearly erroneous, arbitrary, capricious, or contrary to law." Throughout this protest we mentioned a few additional areas in which we believe our protest argument could be made stronger, however as we have provided the preponderance of evidence that the determination of non-responsibility was clearly erroneous, for the sake of brevity we have not expanded on those.

Attached Exhibits

CERTIFIED BID SUMMARY



Wee Tee Bridge No.1 Replacement RFP NO: P12-9603-PG

SC Forestry Commission 5500 Broad River Road Columbia, SC 29510



Tuesday January 31, 2023 at 2:00 PM

<u>Rank</u>	Company Name	Acknowledgement of Addendum 1	Bid Bond Provided	Bid Total	<u>Comment</u>
1	The Bastion Group	Yes	Yes	623,191.00	Bid non-respnsible due to incorrect prime bidder providing bid (SC Law 40-11-340).
2	Cape Romain Contractors	Yes	Yes	653,500.00	Awarded low-bidder
3	CP&G Construction, LLC	Yes	Yes	813.280.00	
4	Ngineering, Inc.	Yes	Yes	875,000.00	
5	Republic Contracting Corporation	Yes	Yes	948,200.00	
6					
7					
8					
9					
10					

EXHIBIT B - #P129603-PG Protest - 02/21/2023

keane@bastiongroupllc.com

From: David Owen <DOwen@scfc.gov>
Sent: Wednesday, February 8, 2023 9:21 AM

To: 'keane@bastiongroupllc.com'

Cc: Lenora Stukes

Subject: Wee Tee Bridge No.1 Replacement RFP P12-9603-PG

Dear Keane,

We have reviewed your bid submitted on 31 January 2023 for the installation of a bridge in Wee Tee forest. Besides price, another factor for award is the bidder must be properly licensed. We have reviewed your firm's ability to bid as prime contractor in accordance with SC Law 40-11-340. The law indicates a contractor "...may act as a sole prime contractor on a project if forty percent or more of the work as measured by the total cost of construction falls under one or more of the licensee's license classifications or subclassifications...".

As we review the scope, we find the bridge and concrete work (both included in a Bridge (BR) license) to well exceed the minimum 40% required by law. Unfortunately, we are not able to justify items of construction that would require a Building license (BD) to submit a bid as prime. Therefore, we must consider your bid as "non-responsible" since you do not have a BR license. This is not a reflection on your company to bid and construct buildings in accordance with your BD license, and we hope that you will submit bids for future SC Forestry Commission projects."

David P. Owen
Construction & Property Manager
SC Forestry Commission
5500 Broad River Rd.
Columbia, SC 29212
803-896-8829 Office
864-637-8519 Cell

EXHIBIT C - #P129603-PG Protest - 02/21/2023 s

Print this page

Board: Commercial Contractors

THE BASTION GROUP LLC

301 HUNDRED OAKS PARKWAY SUMMERVILLE, SC 29483 (843)708-5534

License number: 1142

License type: Engineer Construction Manager

Status: ACTIVE

Expiration: 06/30/2024

CM Limitation: Group 4-\$1,500,000

Click here for Classification definitions and licensee's contract dollar limit

File a Complaint against this licensee

Board Public Action History:

View Orders

View Other License for this Person

No Orders Found

EXHIBIT C - #P129603-PG Protest - 02/21/2023

Print this page

Board: Commercial Contractors

THE BASTION GROUP LLC

412 N GUM STREET SUMMERVILLE, SC 29483 (843) 800-8876

License number: 123168

License type: GENERAL CONTRACTOR

Status: ACTIVE

Expiration: 10/31/2024

First Issuance Date: 12/05/2020

Classification: Building-BD4

Pre-Engineered Metal Buildings-MB4

Qualified By: Financial Statement **President / Owner:** KEANE STEELE

Click here for Classification definitions and licensee's contract dollar limit

Supervised By STEELE KEANE (CQG)

File a Complaint against this licensee

Board Public Action History:

View Orders

View Other License for this Person

No Orders Found

SE-310

INVITATION FOR DESIGN-BID-BUILD CONSTRUCTION SERVICES

AGENCY/OWNER: SC Forestry Commission
PROJECT NAME: Wee Tee Bridge No.1 Replacement Project
PROJECT NUMBER: P12-9603-PG
PROJECT LOCATION: Wee Tee State Forest, Williamsburg County
DESCRIPTION OF PROJECT/SERVICES: This project consists of the removal and disposal of an existing single span
concrete bridge deck, 2-end bents and replacement with a single span, pre-fabricated steel bridge superstructure with open-
grate decking and modified concrete end bents with backwalls and timber piling/approach slabs.
BID/SUBMITTAL DUE DATE: 1/31/2023 TIME: 2:00 PM NUMBER OF COPIES: 1
PROJECT DELIVERY METHOD: Design-Bid-Build
AGENCY PROJECT COORDINATOR: David Owen
EMAIL: DOwen@scfc.gov TELEPHONE: 803-896-8829
DOCUMENTS MAY BE OBTAINED FROM: Dennis Corp., Attn: Gene Haskins, Phone: 803-227-8601, e-mail: ghaskins@denniscorporation.com
BID SECURITY IS REQUIRED IN AN AMOUNT NOT LESS THAN 5% OF THE BASE BID.
PERFORMANCE AND LABOR & MATERIAL PAYMENT BONDS: The successful Contactor will be required to provide Performance and Labor and Material Payment Bonds, each in the amount of 100% of the Contract Price.
DOCUMENT DEPOSIT AMOUNT: $\$$ 0.00 IS DEPOSIT REFUNDABLE Yes \square No \square N/A \boxtimes
Bidders must obtain Bidding Documents/Plans from the above listed source(s) to be listed as an official plan holder. Bidders that rely on copies obtained from any other source do so at their own risk. All written communications with official plan holders & bidders will be via email or website posting. Agency WILL NOT accept Bids sent via email.
All questions & correspondence concerning this Invitation shall be addressed to the A/E.
A/E NAME: Dennis Corporation A/E CONTACT: Gene Haskins
EMAIL: ghaskins@denniscorporation.com TELEPHONE: 803-227-8601
PRE-BID CONFERENCE: Yes ⊠ No □ MANDATORY ATTENDANCE: Yes □ No ⊠
PRE-BID DATE: 1/17/2023 TIME: 2:00 PM
PRE-BID PLACE: 3168 Santee Rd, Andrews SC 29510 (33.4059923, -79.7707061)
BID OPENING PLACE: SC Forestry Commission, 5500 Broad River Rd., Columbia, SC
BID DELIVERY ADDRESSES:
HAND-DELIVERY: MAIL SERVICE:
Attn: 5500 Broad River Rd. Attn: 5500 Broad River Rd.
Columbia, SC 29212 Columbia, SC 29212
Room 144 Room 144
1001111
IS PROJECT WITHIN AGENCY CONSTRUCTION CERTIFICATION? (Agency MUST check one) Yes No No
APPROVED BY: DATE: 1/4/2023

Print this page

Board: Engineers and Land Surveyors

THE BASTION GROUP LLC

412 N GUM ST UNIT B SUMMERVILLE, SC 29483-6830

Business Phone: (843) 708-5534

License number: 6227

License type: Certificate of Authorization

Status: Active

First Issue Date: 11/21/2019 **Expiration:** 03/31/2025

Supervised By

(ELS.31796) STEELE KEANE - Expiration Date: 06/30/2024

Board Public Action History:

View Orders

View Other License for this Person

No Orders Found

File a Complaint against this licensee

Wee Tee Bridges Cost Estimates

P12 9603-PG SE-230 Bridges 1 & P12 9603-PG SE-230 Bridge 3

As of: 10/15/21

	<u>Description</u>	Span Length	TOTAL COST
	BRIDGE NO. 1		
<u>A</u>	Concrete Superstructure	50	\$889,610
	Timber Piling		\$91,553
	SUBTO	ΓAL	\$981,163
	Surveying		\$6,377
	Geothechnical Study		\$19,623
	Special Inspections		\$34,340
	SUBTO	ΓAL	\$1,041,504
	Construction Contigency 1	10%	\$104,150
	DESIGN BRIDGE AND APPROACHES		\$49,992
	TO ¹	ΓAL	\$1,195,647
			+ ,,-
В	Prefabricated Steel Superstructure	50	\$733,357
	Timber Piling		\$81,553
	SUBTO	ΓAL	\$814,910
	Surveying		\$5,296
	Geothechnical Study		\$16,298
	Special Inspections		\$28,521
	SUBTO	ΓAL	\$865,026
	Construction Contigency 1	10%	\$86,502
	DESIGN BRIDGE AND APPROACHES		\$47,576
	TO	ΓAL	\$999,106
_	Dellar Construction	50	\$000.05
<u>C</u>	Railcar Superstructure Timber Piling	50	\$683,357 \$81,553
	SUBTO	FAI -	\$764,910
	Surveying	IAL	\$5,736
	Geothechnical Study		\$15,298
	Special Inspections		\$26,771
	SUBTO	ΓAL	\$812,716
	Construction Contigency 1		\$81,27
	DESIGN BRIDGE AND APPROACHES		\$48,763
	TO	ΓAL	\$942,751

Prepared by:

Date: 10/18/2021

EXHIBIT F - #P129603-PG Protest - 02/21/2023

	BRIDGE NO. 3		
	Consequence Consequence consequence	20	\$004.50
7	Concrete Superstructure	30	\$691,59
	Timber Piling		\$81,55
	SUBTOTAL		\$773,14
	Surveying		\$5,79
	Geothechnical Study		\$15,46
	Special Inspections		\$27,06
	SUBTOTAL		\$821,46
	Construction Contigency 10%		\$82,14
	DESIGN BRIDGE AND APPROACHES		\$47,31
	TOTAL		\$950,93
3	Prefabricated Steel Superstructure	30	\$580,07
-	Timber Piling	İ	\$81,55
	SUBTOTAL		\$661,62
	Surveying		\$4,59
	Geothechnical Study		\$16,54
	Special Inspections		\$23,15
	SUBTOTAL		\$705,92
	Construction Contigency 10%		\$70,59
	DESIGN BRIDGE AND APPROACHES		\$38,82
	TOTAL		\$815,33
2	Railcar Superstructure	30	\$576,55
<u>-</u>	Timber Piling (Assumption 5 per bent @ 40 feet)	30	\$376,55 \$81,55
	SUBTOTAL		
			\$658,10 \$4,27
	Surveying		
	Geothechnical Study		\$16,45
	Special Inspections SUBTOTAL		\$23,03
			\$701,87
	Construction Contigency 10%		\$70,18
	DESIGN BRIDGE AND APPROACHES		\$38,60
	TOTAL		\$810,66
	NOTES		
	If piling is not required the approximate deduct would be (\$94,136)		
	2. Estimates based on 2021 Q4 to 2022 Q4 anticipated costs		



Date: 10/18/2021 Page: 2 of 2

WEE TEE BRIDGE NO. 1 Construction Cost Estimate

As of: 12/28/2022

Construction Cost Estimate					
Item No.	<u>Description</u>	Quantity	<u>Units</u>	Unit Price	Total Price
4004000	IAA-L-D		II O	# 00,000,00	#00.000
1031000	Mobilization	1	LS	\$20,000.00	\$20,000
1050800	Construction Stakes, Lines & Grades	1	LS	\$2,000.00	\$2,000
1071000	Traffic Control (State highway when delivering 51' long beams)	1	LS	\$1,800.00	\$1,800
2028100	Removal & Disposal of Existing Bridge	1	LS	\$32,000.00	\$32,000
2033000	Borrow Excavation	1	LS	\$1,200.00	\$1,200
2034000	Muck Excavation	1	LS	\$1,200.00	\$1,200
2036000	Geotextile for Separation of Subgrade & Subbase / Base CR	1	LS	\$2,100.00	\$2,100
2037010	Geogrid Reinforcement / 57 stone	1	LS	\$9,400.00	\$9,400
2052010	Stone Under Approach Slabs	1	LS	\$6,500.00	\$6,500
3065150	Stone Ballast (At main road for mud mat)	1	LS	\$5,000.00	\$5,000
7011400	Concrete for Structures - Class 4000	1	LS	\$15,500.00	\$15,500
7031100	Reinforcing Steel for Structures	1	LS	\$14,700.00	\$14,700
7047299	Prefabricated Bridge (51 FT Long X 12 FT Wide)	1	LS	\$341,000.00	\$341,000
7110010	Timber Piling including PDA	1	LS	\$88,000.00	\$88,000
8041035	Riprap Class C	1	LS	\$4,800.00	\$4,800
8042800	Geotextile for Erosion Control Under Riprap	1	LS	\$2,800.00	\$2,800
8100001	Permanent Vegetation	1.000	LS	\$500.00	\$500
8153000	Silt Fence	1	LS	\$1,900.00	\$1,900
8153223	Floating Turbidity Barrier	1	LS	\$1,500.00	\$1,500
				Total:	\$551,900
			<mark>10%</mark>	6 Contingency	<mark>\$55,190</mark>

Prepared by:

Date: 2/13/2023 Page: 1 of 2

EXHIBIT G - #P129603-PG Protest - 02/21/2023

Grand Total \$607,090

Prepared by:

Date: 2/13/2023 Page: 2 of 2

EXHIBIT H - #P129603-PG Protest - 02/21/2023

Protest Decision, page 3 File No. 2023-001 August 31, 2022

subclassifications, the licensee must have a license for this work or use a contractor licensed in the appropriate license classification or subclassification to perform the work: Swimming Pools, Bridges, Boring and Tunneling, Water and Sewer Lines, Pipe Lines, Railroad Lines, Specialty Roofing, Marine, Water and Sewer Plants, and Asphalt Paving. [Emphasis added].

This project is not associated with the construction of a building but involves the installation of a concrete slab in an existing building. [Exhibit I] The work of installing a concrete slab is covered by the "General Contractors-Specialty" classification with the subclassification of "Concrete" (CT license). S.C. Code Ann. §40-11-410(4)(b). This subclassification is not one of the named subclassifications which a contractor with a BD license may perform. Moreover, because this work is not associated with the construction of a building by the awarded contractor, a BD licensed contractor may not bid and perform this work as "ancillary work."

A contractor may bid work outside the scope of its license only if the bidder meets the qualifications for bidding as a "sole prime contractor" as set forth in S.C. Code Ann. § 40-11-340. For a contractor with only an BD license, at least 40% of "the work as measured by the total cost of construction falls under" the BD license.

This project involves two components, demolition of a concrete wall and construction of a concrete slab. [Id.] Demolition does not require a specific contractor's license but may be performed by any licensed general contractor. [Exhibit J] Therefore, one might argue if the cost of demolition is 40% or more of the total cost of construction, a contractor with only an BD license may bid the work. Even if one were to accept this argument, it does not help either protestant. The State is entitled to rely on the project architect/engineer's estimate of probable cost when determining if a bidder was qualified to bid as a sole prime contractor. See Appeal by Cannon Construction Co., Inc., Panel Case No. 2012-4 (finding architect's estimate, considerably higher than the protestant's bid, justified investigating the "total cost of construction" to determine if protestant had the proper license). The project engineer for this Project, Davis & Floyd, estimated the demolition to be about 24% of the total cost of construction. Based off this estimate, a contractor with only an BD license is not allowed to bid this project as a sole prime contractor even if the demolition work can be considered for purposes of S.C. Code Ann. § 40-11-340.

The Contractors Licensing Laws preclude an owner or contractor from even considering the bid of an entity or individual that lacks the proper license at the time of bidding. S.C. Code Ann. § 11-40-200(B). Because CGC possesses only a BD license, UofSC's determination that it was not a responsible bidder not only comported with the law but was mandated by the law.⁵

³ One may reasonably argue that it does not make sense that a BD contractor can self-perform extensive concrete work so long as it is associated with the construction of a building but cannot perform similar concrete work when it is stand alone. Nonetheless, the CPOC and state agencies are not free to interpret the law to say what they would like it to say but must do so in accordance with its actual terms.

⁴ This is an argument the CPOC need not decide in this case.

⁵ CGC argues that it is performing similar work for a political subdivision and therefore, should be able to for the State. However, what CGC is doing on another project is not a basis for interpretation of a Statute which is clear. CGC also argues that UofSC had an obligation to tell bidders which licenses they were required to possess to bid the project. No

EXHIBIT I - #P129603-PG Protest - 02/21/2023





www.denniscorporation.com

January 23, 2023

TO: Plan Holders

RE: SOUTH CAROLINA FORESTRY COMMISSION

WEE TEE BRIDGE NO.1 REPLACEMENT PROJECT

PROJECT ID P-12-9603-PG WILLIAMSBURG COUNTY, SC

SUBJECT: Addendum No.1

Prospective Bidders:

The following will amend, modify, and/or clarify the bid documents described above and are hereby part of the same. Please make all necessary corrections. Also, please be reminded to acknowledge the receipt of all Addenda on the Bid Form (SE-330, Page BF-1).

The Non-Mandatory Pre-Bid Meeting was conducted:

Tuesday, January 17, 2023, at 2:00 PM at 3168 Santee Rd., Andrews SC 29510 (33.4059923.-79.7707061)

The following clarifications are provided in response to questions and or comments made at the Pre-Bid Meeting:

- 1. The last day for substitution request is January 21, 2023.
- 2. The last day for an Addendum to be issued is January 26, 2023.
- 3. There was a discussion held noting that due to upstream conditions at various times during the year, the jobsite may be flooded or unreachable. Should time be lost due to inclement or adverse weather conditions or flooding; it was noted that those days will be added back to the Contract Time by change order.
- 4. There was one attendee that noted the premanufactured bridge spec. in the bid documents seemed to indicate one manufacturer. Our Bid Documents may have some references to establish intent and basis of bid but ARE NOT intended to be proprietary in nature but to be open for all equal systems. The documents are intended to establish a basis of bid but be open to all manufacturers, vendors and materialmen that have met the intent and are considered equal regarding the technical specifications.

1800 Huger Street | Columbia | South Carolina | 29201 | Ph 803.252.0991











The following clarifications are provided in response to questions received to-date via emails to Dennis Corporation:

One Email Received Friday, January 20, 2023

- 1) The plans suggest a bolted prefabricated bridge, will a welded weathering steel bridge that conforms to AASHTO/LRFD design be allowed?

 YES
- Will HL-93 loading be acceptable?

 YES

 Contech bridges are designed to HL-93 ando not the HS-20 called for in project manual
- 3) Are the W beam guard rails galvanized or weathering steel? W Beam Guard Rails to be Galvanized
- 4) Can the galvanized grate be welded to the structure at the production facility? **YES**
- 5) Current lead times for prefabricated bridges are 25-35 weeks, will contractors be able to work an aggregate of 150days with multiple mobilizations or delay the start of the project to accommodate supply side constraints?
 The 150 calendar days is approximately 21 weeks. This is definitely a consideration to accommodate supply side constraints should the constraints be similar in all cases when the project bids.
- 6) The 8.6.9 shop assembly clause seems to relate to bolted structures, a welded bridge would eliminate this process. Additionally, there is a provision for shop inspection in section in 8.6.10. This is typically performed by a Q.C. team member on staff at the production facility. Will the "owner" hire a third-party inspector and coordinate the inspection?

 Our Bid Documents may have some references included but ARE NOT intend
 - Our Bid Documents may have some references included but ARE NOT intended to be proprietary in nature. The documents are intended to establish a basis of bid but be open to all manufacturers, vendors and materialmen that have met the intent and are considered equal with regard to common technical specifications. An on-staff QC member may handle those tasks as part of the services for the shop fabrication for that vendor. The Owner will have a 3rd party entity to perform the Chapter 1 and Chapter 17 Special Inspections on site after the work is in place sufficient to perform them.

EXHIBIT I - #P129603-PG Protest - 02/21/2023

Thank you for your interest in this project and good luck.

Sincerely,

Gene Haskins Dennis Corporation 1800 Huger Street Columbia, SC 29201 803-227-8601 DL 803-445-8132 mobile

Attachments: Pre-Bid Sign-In Sheet

End of Addendum No.1

EXHIBIT J - #P129603-PG Protest - 02/21/2023



4611 Dundas Dr., Greensboro, NC 27407 Tel: 336/292-8060 Fax: 336/292-2251 www.pomonapipeproducts.com

QUOTATION

Date	Quotation #
1/31/2023	20709

Name / Address	Ship To
Keane Steele, PE	Wee Tee State Forest Bridge 1
The Bastion Group	Lane, SC
412 N Gum Street, Suite B	
Summerville, SC 29483	
keane@bastiongroupllc.com	

Qty	Unit	Description	Total
1	ea	Contech/Big-R Rolled Girder Bridge Style: Vehicular Girder Loading: HL-93 vehicle live load Width: 12FT Length: 51FT Bridge Finish: Weathering Steel Deck Material: Galvanized 5 3/16" Vehicular RB8.2M Open Grid Grate	291,070.00T
		Additional Notes and Clarifications: 1) AASHTO / LRFD design (HL-93 loading) 2) Standard design and fabrication using welded & standard bolted construction (NOT all bolted). Not in accordance with SPEC 8.3.9	

BY: Maston Boyd	Subtotal
	Sales Tax (8.0%)
maston@pomonapp.com	Total

ACCEPTANCE

SUBJECT TO BEING AWARDED, WE HEREBY ORDER THE MATERIALS DESCRIBED ABOVE, AT THE PRICES SPECIFIED, SUBJECT TO ALL TERMS AND CONDITIONS APPERARING ON THIS QUOTATION.

PRICES QUOTED ARE FOR ACCEPTANC	Έ
WITHIN 30 DAYS OF ISSUANCE.	

Terms: Net- 30 days/ a finance charge of 1 1/2% per month (18% per year) will be added to all past due invoices

COMPANY:	
BY:	
TITI E.	DATE:

TRUCK TO POINT ACCESSIBLE TO EQUIPMENT UNDER ITS OWN POWER TO JOBSITE



4611 Dundas Dr., Greensboro, NC 27407 Tel: 336/292-8060 Fax: 336/292-2251 www.pomonapipeproducts.com

QUOTATION

Date	Quotation #
1/31/2023	20709

Name / Address	Ship To
Keane Steele, PE	Wee Tee State Forest Bridge 1
The Bastion Group	Lane, SC
412 N Gum Street, Suite B	
Summerville, SC 29483	
keane@bastiongroupllc.com	
· ·	

Qty	Unit	Description	Total
		3) Additional future wearing surface allowance of 35 PSF.	
		4) Crash Rails to meet a minimum of 10 Kip capability.	
		5) Exclude Shop assembly requirement. Not in accordance with Spec 8.6.9	
		6) Exclude 35 year warranty on galvanized grate decking – Warranty is 20 years. Not in	
		accordance with Spec 8.6.8	
		7) Using standard bolts for WX steel, not galvanized.	
		8) Anchor bolts are not included in our price.	
		10) All orders must be shipped within 30 days of manufacture. Should you be unable to accept	
		delivery of materials at the agreed upon time, a storage charge equal to a maximum of 5% per month	
		of the selling price of the stored material applies.	
		11) Allowable unloading time for delivery trucks is two (2) hours. Demurrage charges of	
		\$100.00 per hour thereafter will be added.	
		12) In addition to any other procedures outlined or remedies provided, at the time of order,	
		Pomona/Contech will request a desired delivery date for the quoted materials from the purchasing	
		customer. After drawing approval and prior to manufacturing Pomona/Contech may again confirm	
		the requested delivery date with the purchasing customer. If purchasing customer cannot take	
		delivery of finished materials within 30 days after Pomona/Contech has manufactured the product(s),	
		Pomona/Contech will invoice for the total amount of the order with payment due within 30 days.	
		Additionally, Pomona/Contech may also assess fees in the amount of 5% per month of the selling	
		price of the stored materials that are not shipped within 30 days after the requested delivery date for	
		storage and handling. 13) One or more of the products quoted herein is nonstandard and not returnable. A down	
		1 1	
		payment equal to 1/3 of the item(s) total is required and must be received prior to commencement of	
		any performance by Pomona/Contech. 14) This quotation expires 30 days from the date shown.	
		1111s quotation expires 30 days from the date shown.	
		The following are NOT included or performed by Pomona or Contech.	
		The following all the final and of performed by Following	

BY: Maston Boyd Subtotal **Sales Tax (8.0%)** maston@pomonapp.com **Total**

ACCEPTANCE

SUBJECT TO BEING AWARDED, WE HEREBY ORDER THE MATERIALS DESCRIBED ABOVE, AT THE PRICES SPECIFIED, SUBJECT TO ALL TERMS AND CONDITIONS APPERARING ON THIS QUOTATION.

PRICES QUOTED ARE FOR ACCEPTANCE WITHIN 30 DAYS OF ISSUANCE.

Terms: Net- 30 days/ a finance charge of 1 1/2% per month (18% per year) will be added to all past due invoices

COMPANY:		year) will be added to all past due invoices
BY:		TRUCK TO POINT ACCESSIBLE TO EQUIPMENT UNDER ITS
PITI E.	DATE.	OWN POWER TO JOBSITE



4611 Dundas Dr., Greensboro, NC 27407 Tel: 336/292-8060 Fax: 336/292-2251 www.pomonapipeproducts.com

QUOTATION

Date	Quotation #
1/31/2023	20709

Name / Address	Ship To
Keane Steele, PE The Bastion Group 412 N Gum Street, Suite B Summerville, SC 29483 keane@bastiongroupllc.com	Wee Tee State Forest Bridge 1 Lane, SC

Qty	Unit	Description	Total
		1. All construction surveying, including field measurement and verification of abutments and	
		anchor bolt placement.	
		2. Excavation and construction of the bridge foundations.	
		3. Supply and installation of anchor bolts.	
		4. Erection and installation of the bridge structure(s).	
		5. Supply and installation of any expansion joint materials required by the contract.	
		6. Supply	

BY: Maston Boyd

maston@pomonapp.com

ACCEPTANCE

SUBJECT TO BEING AWARDED, WE HEREBY ORDER THE MATERIALS DESCRIBED ABOVE, AT THE PRICES SPECIFIED, SUBJECT TO ALL TERMS AND CONDITIONS APPERARING ON THIS QUOTATION.

Subtotal	\$291,070.00
Sales Tax (8.0%)	\$23,285.60
Total	\$314,355.60

PRICES QUOTED ARE FOR ACCEPTANCE WITHIN 30 DAYS OF ISSUANCE.

Terms: Net- 30 days/ a finance charge	of 1 1/2% per month (18% per
year) will be added to all	past due invoices

TRUCK TO POINT ACCESSIBLE TO EQUIPMENT UNDER ITS OWN POWER TO JOBSITE

keane@bastiongroupllc.com

From: Maston Boyd <Maston@pomonapp.com>
Sent: Tuesday, January 31, 2023 8:36 AM
To: keane@bastiongroupllc.com

To:keane@bastiongroupIlc.comSubject:Wee Tee Bridge 1 Replacement

Attachments: Est_20709_from_Pomona_Pipe_Products_16724BG.pdf; POMONA CONDITIONS OF

SALE.pdf

Keane,

I received your information and request from Jim Campbell at Contech. Please review the attached quote with the Contech product.

Admittedly, we do not conform to the specifications in the plans perfectly. We have tried to identify the areas where our normal manufacturing procedures differ from the specs. We believe that our proposal meets the requirements of the design as alluded to in the addendum.

If you would like to discuss this proposal, please give me a call.

Respectfully Submitted,

Maston Boyd

Area Manager - SC, GA

POMONA PIPE PRODUCTS
4611 Dundas Dr., Greensboro, NC 27407
o.336-292-8060 c.803-722-8786
maston@pomonapp.com
www.pomonapipeproducts.com

- 3. Paving Asphalt Properties and General Uses (10 Items)
- 4. Paving Asphalt Emulsions Uses and Application (6 Items)
- 5. Paving Asphalt Maintenance Applications (8 Items)
- 6. Concrete (8 Items)

Asphalt Paving Reference Books

Construction Planning, Equipment, and Methods, 8th Edition, R.L. Peurifoy, McGraw-Hill Publishing, Inc., PO Box 545, Blacklick, OH 43004-0545

The Contractor's Guide to Quality Concrete Construction, 2005, 3rd Edition, American Concrete Institute, (248) 848-3700, www.concrete.org

Excavation and Grading Handbook, 2006, Craftsman Book Company, PO Box 6500, Carlsbad, CA 92018

Standard Specifications for Highway Construction, 2007, South Carolina Department of Highways & Public Transportation, PO Box 191, Columbia, SC 29202, (803 737-4533). Available online (only):

http://www.scdot.org/doing/doingPDFs/2007_full_specbook.pdf -OR- Standard Specifications for Highway Construction Selections as of 2007 by PSI, (855) 340-3701. (See order form at the end of this bulletin.)

South Carolina 811 Excavator Manual, latest edition, https://sc811.com/excavator-manual/

BOILER INSTALLATION EXAMINATION CONTENT OUTLINE

There are 50 questions in this examination. You will need to answer 35 questions correctly in order to pass. You are allowed 3 hours to complete this examination. **NOTE:** All Boiler Installation - Commercial Contractor candidates are required to pass the Business Management and Law for Contractors Examination and the Boiler Installation Examination.

Boiler Installation Scope of Work

Boiler installation' which includes those who are qualified to install, repair, and service boilers and boiler piping including the boiler auxiliary equipment, controls, and actuated machinery and dryer rolls. To qualify for this subclassification, a person must pass a technical examination administered by the board or must be the holder of the American Society of Mechanical Engineers (ASME) 'S' stamp or hold the National Board of Boiler and Pressure Vessel Inspectors (NBBPVI) 'R' stamp and meet the requirements for licensure according to this chapter.

- 1. Code Compliance (10 Items)
- 2. Boilers Low Pressure (12 Items)
- 3. Boilers High Pressure (8 Items)
- 4. Boilers Steam Traps (5 Items)
- 5. Boilers Safety (5 Items)
- 6. Piping (4 Items)
- 7. Welding (6 Items)

Boiler Installation Reference Books

2018 International Mechanical Code with SC modifications; or 2018 South Carolina Mechanical Code, International Code Council, 800-786-4452, shop.iccsafe.org

2018 International Gas Code with SC modifications; or

2018 South Carolina Fuel Gas Code, International Code Council, 800-786-4452, shop.iccsafe.org

NFPA 85 - Single Burner Boiler Operations, 2011, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471, 800 344-3555, www.nfpa.org

Low Pressure Boilers, Frederick M. Steingress, Daryl R. Walker, 4th Edition, 2019, American Technical Publishers, Inc., (800) 323-3471, www.atplearning.com.

High Pressure Boilers, 5th Edition, 2012, Frederick M. Steingress & Harold J. Frost, American Technical Publishers, Inc., (800) 323-3471, www.atplearning.com

Pipefitter's Handbook, 1967, 3rd Edition, Forest R. Lindsey, Industrial Press, Inc., 200 Madison Avenue, New York, NY 10016

Pipe Welding Procedures, 1973, H. Rampaul, Industrial Press, Inc., 200 Madison Avenue, New York, NY 10016

System Design Manual - Part III: Piping Design, Carrier, 1973, Carrier Air Conditioning Company, Carrier Parkway, Literature Distribution, Bldg. 8, PO Box 4808, Syracuse, NY 13221

BRIDGES EXAMINATION CONTENT OUTLINE

There are 50 questions in this examination. You will need to answer 35 questions correctly in order to pass. You are allowed 3 hours to complete this examination. **NOTE:** All Bridges - Commercial Contractor candidates are required to pass the Business Management and Law for Contractors Examination and the Bridges Examination.

- 1. Concrete (12 Items)
- 2. Concrete Reinforcing Steel (5 Items)
- 3. Concrete Formwork (4 Items)
- 4. Structural Steel (8 Items)
- 5. Pile Driving/Sitework (8 Items)
- 6. Paving (3 Items)
- 7. Safety Code of Federal Regulations (5 Items)
- 8. Estimating (3 Items)
- 9. Business Math (2 Items)

Bridges Reference Books

Code of Federal Regulations - 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or

https://www.osha.gov/pls/oshaweb/owastand.display_standard_group?p_toc_level=1&p_part_number=1926

-OR- Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, www.psionlinestore.com (See order form at the end of the Candidate Information Bulletin.)



Standard Specifications for Highway Construction, 2007, South Carolina Department of Highways & Public Transportation, PO Box 191, Columbia, SC 29202, (803 737-4533). Available online (only):

http://www.scdot.org/doing/doingPDFs/2007_full_specbook.pdf OR Standard Specifications for Highway Construction Selections as of 2007 by PSI, (855) 340-3701. (See order form at the end of this bulletin.)

The Contractor's Guide to Quality Concrete Construction, 2005, 3rd Edition, American Concrete Institute, (248) 848-3700, www.concrete.org

South Carolina 811 Excavator Manual, latest edition, https://sc811.com/excavator-manual/

(LIMITED) BUILDING CONTRACTOR EXAMINATION CONTENT OUTLINE

There are 80 questions in this examination. You will need to answer 56 questions correctly in order to pass. You are allowed 5 hours to complete this examination. NOTE: All Limited Building Contractor candidates are required to pass the Business Management and Law for Contractors Examination and the Limited Building Contractor Examination.

In addition to the number of examination items specified, a small number of "experimental" questions will be administered to candidates during this examination. The use of such questions is an essential step in developing accurate future examinations. These questions will NOT be scored, however, for this examination time to answer them has been added to the time allowed.

(Limited) Building Contractor Scope of Work

For Group #1, #2, and #3 limitations to construct or remodel commercial or residential buildings. Construction is limited to 3 stories in height.

Licensees under this classification may perform ancillary work, including grading, associated with the building or structure which the licensee has been engaged to construct. However, if a project includes work performed under a Mechanical Contractor sub-classification or any of these license subclassifications, the licensee must have a license in the appropriate license classification or subclassification to perform the work: Swimming Pools, Bridges, Boring and Tunneling, Water and Sewer Lines, Pipe Lines, Railroad Lines, Specialty Roofing, Marine, Water and Sewer Plants, and Asphalt Paving.

(Limited) Building Contractor Examination Content

- 1. Sitework (7 Items)
- 2. Concrete (10 Items)
- 3. Masonry (10 Items)
- 4. Metals (10 Items)
- 5. Carpentry (12 Items)
- 6. Thermal and Moisture Protection (9 Items)
- 7. Doors and Windows (2 Items)
- 8. Finishes (2 Items)

- 9. Safety (5 Items)
- 10. General Code, Plan Reading and Estimating (13 Items)

(Limited) Building Contractor Reference Books

2018 or 2021 International Building Code with SC modifications; or the 2018 or 2021 South Carolina Building Code, International Code Council, 800-786-4452, shop.iccsafe.org

Code of Federal Regulations - 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or

https://www.osha.gov/pls/oshaweb/owastand.display_standard_group?p_toc_level=1&p_part_number=1926

-OR- Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, (866) 589-3088, www.psionlinestore.com (See order form at the end of the Candidate Information Bulletin.)

Modern Masonry - Brick, Block, Stone, Clois E. Kicklighter, 8th edition (2015). The Goodheart-Willcox Company, (800) 323-0440, www.g-w.com

Technical Digest No. 9 - Handling and Erection of Steel Joists and Joist Girders, 3rd Edition, 2008, Steel Joint Institute, 234 W. Cheves Street, Florence, SC 29501, Phone: (843) 407-4091, Fax (843) 407-4044, www.steeljoist.org.

Carpentry and Building Construction, 2010 or 2016 (Student Edition), John L. Feirer and Mark D. Feirer, McGraw-Hill, www.mheducation.com

Roofing Construction and Estimating, 1995, Daniel Atcheson, Craftsman Book Company, PO Box 6500, Carlsbad, CA 92018

Contractor's Guide to Quality Concrete Construction, 2nd Edition, 1998; American Concrete Institute, POB 9094, Farmington Hills, MI 48333 248/848-3700, www.aci-int.org

Pipe and Excavation Contracting, 2011; Dave Roberts, Craftsman Book Company, P.O. Box 6500, Carlsbad, CA 92018, 800/829-8123, www.craftsman-book.com/cbcstore/

South Carolina 811 Excavator Manual, latest edition, https://sc811.com/excavator-manual/

NASCLA-ACCREDITED EXAMINATION - COMMERCIAL GENERAL BUILDING CONTRACTOR

The NASCLA Accredited Examination Program was designed to assist contractors who wish to be licensed in multiple jurisdictions by offering a streamlined test taking option for the trade portion of the contractor examination. The NASCLA Accredited Examination for Commercial General Building Contractors was designed to assist candidates applying within individual state agencies for the general commercial building contractor classification or similar to.

Candidates who take and pass the NASCLA Accredited Examination can access NASCLA's National Examination Database (NED) located on https://ned.nascla.org to electronically send their transcripts to jurisdictions that accept the examination in lieu of their state specific trade portion, thereby reducing redundant licensing requirements. Candidates are expected to follow individual state agency applications to become licensed, in addition to taking a



business and law examination, etc. If you are unsure if this examination will meet your specific license requirements in a participating state agency, please contact the state agency directly to confirm. A complete list of participating state agencies can be found on NASCLA's website by visiting: www.nascla.org/page/ParticipatingStateAg

Licensees under this classification may perform ancillary work, including grading, associated with the building or structure which the licensee has been engaged to construct. However, if a project includes work performed under a Mechanical Contractor sub-classification or any of these license subclassifications, the licensee must have a license in the appropriate license classification or subclassification to perform the work: Swimming Pools, Bridges, Boring and Tunneling, Water and Sewer Lines, Pipe Lines, Railroad Lines, Specialty Roofing, Marine, Water and Sewer Plants, and Asphalt Paving.

For questions regarding the examination, please contact NASCLA via email to info@nascla.org or by phone at (623) 587-9354.

There are 115 questions in this examination. You will need to answer 81 questions correctly in order to pass. You are allowed 330 minutes to complete this examination.

- 1. General Requirements (25 items)
- 2. Site Construction (15 items)
- 3. Concrete (6 items)
- 4. Masonry (4 items)
- 5. Metals (6 items)
- 6. Wood (5 items)
- 7. Thermal and Moisture Protection (5 items)
- 8. Doors, Windows, and Glazing (4 items)
- 9. Finishes (5 items)
- 10. Mechanical and Plumbing Systems (6 items)
- 11. Electrical Systems (3 items)
- 12. Procurement and Contracting Requirements (31 items)

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. Except for Code books, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based only on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

This examination is OPEN BOOK.

The following reference materials <u>are</u> allowed in the examination center.

ICC A117.1-2017 Standard for Accessible and Usable Buildings and Facilities; International Code Council; 500 New Jersey Avenue, NW 6th Floor, Washington, DC 20001; [P] 888-ICC-SAFE (888-422-7233); [F] (202) 783-2348; International:

(202) 370-1800; https://shop.iccsafe.org/icc-a117-1-2017-standard-and-commentary-accessible-and-usable-buildings-and-facilities-1.html

BCSI: Guide to Good Practice for Handling, Installing, Restraining, and Bracing of Metal Plate Connected Wood Trusses, 2018 (Updated March 2020), Structural Building Components Association and Truss Plate Institute, (608) 274-4849, https://www.sbcindustry.com/building-component-safety-information-bcsi

Carpentry and Building Construction, 2016 edition, John L. Feirer and Mark D. Feirer, Publisher: McGraw-Hill, http://www.contractorsseminars.com, 828-277-3999

Code of Federal Regulations - 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800. Online version:

https://www.osha.gov/laws-

regs/regulations/standardnumber/1926; This may also be purchased from various vendors including Amazon.
OR

Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, 3210 E Tropicana, Las Vegas, NV 89121, (855) 340-3701, https://test-takers.psiexams.com/sccon

Construction Jobsite Management, 4th Edition, 2017, William R. Mincks, Hal Johnston, Delmar/Thomson Learning, PO Box 6904, Florence, KY 41022-6904, Phone (800) 347-7707, Fax (800) 487-8488, https://www.amazon.com/Construction-Jobsite-Management-William-Mincks/dp/130508179X

Construction Project Management, 2014, 4th Edition, Frederick Gould, Nancy Joyce, Pearson Education, Inc. publishing as Prentice Hall, One Lake Street, Upper Saddle River NJ, 07458, 800-848-9500,

https://www.amazon.com/Construction-Project-Management-Frederick-Gould/dp/0132877244

NASCLA Contractors' Guide to Business, Law and Project Management, Basic 13th Edition or Basic 13th Edition National Association of State Contractors Licensing Agencies (NASCLA), 23309 N. 17th Drive, Phoenix, Arizona 85027, Telephone: (623) 587-9519, Fax: (623) 587-9625, www.nascla.org

Erectors' Manual - Standards and Guidelines for the Erection of Pre-Cast Concrete Products, 1999, 2nd Edition, Publisher- Precast/Prestressed Concrete Institute (PCI), 209 W. Jackson Blvd, Chicago, IL 60606-6938, Phone (312) 786-0300, https://www.amazon.com/Erectors-manual-Standards-guidelines-erection/dp/0937040568

Green Building Fundamentals, Michael Montoya, 2011, 2nd edition, Pearson Education Publishing, IBSN-10: 0-13-511108-0, Pearson Publishing, https://www.amazon.com/Green-Building-Fundamentals-Mike-Montoya/dp/0135111080

Gypsum Construction Handbook, 7th edition, 2014, United States Gypsum Company (USG), RS Means Publishing, 700 Longwater Drive, Norwell, MA 02061, 800-334-3509, Fax: 800-632-6732,

https://www.rsmeans.com/products/books/reference-books/commercial-construction/the-gypsum-construction-handbook-7th-

edition.aspx?gclid=EAlalQobChMlh5Pn_byG6AlVlONkCh1TzgUQ
EAQYBCABEgLAbvD_BwE



Technical Digest No. 9 - Handling and Erection of Steel Joists and Joist Girders, 3rd Edition, 2008, Steel Joint Institute, 234 W. Cheves Street, Florence, SC 29501, Phone: (843) 407-4091, Fax (843) 407-4044, www.steeljoist.org

International Building Code, 2018 or 2021 Edition, International Code Council, (800) 786-4452, www.iccsafe.org

ACI 318-14 (2014): Building Code Requirements for Structural Concrete and Commentary, American Concrete Institute, (248) 848-3700,

https://www.concrete.org/store/productdetail.aspx?ItemID= 318U14&Language=English

Training and Certification of Field Personnel for Unbonded Post-Tensioning - Level 1 Field Fundamentals, 2003, 3rd Edition, Post-Tensioning Institute, 1717 W. Northern Avenue, Suite 114, Phoenix, AZ 85021, Phone (602) 870-7540, Fax (602) 870-7541, www.post-tensioning.org

Modern Masonry - Brick, Block, Stone, Clois E. Kicklighter, 8th edition (2015). The Goodheart-Willcox Company, (800) 323-0440, www.g-w.com

Pipe and Excavation Contracting, 2011, Dave Roberts, Craftsman Book Company, P.O. Box 6500, Carlsbad, CA 92018, Phone (800) 829-8123, Fax (631) 924-6580, www.craftsman-book.com.

Principles and Practices of Commercial Construction, the 2019 10th Edition thru November 4, 2020. Cameron K. Andres and Ronald C. Smith, Pearson Education, Inc., One Lake Street, Upper Saddle River, NJ 07458, Phone (201) 236-7000 https://www.amazon.com/Principles-Practices-Commercial-Construction-

Technology/dp/0134704665/ref=sr_1_1?crid=PXVLRERQS7AE&dchild=1&keywords=principles+and+practices+of+commercial+construction%2C+10th+edition&qid=1600246909&sprefix=principles+and+practices+of+commer%2Caps%2C216&sr=8-1

Roofing Construction and Estimating, Daniel Atcheson, 1995, Craftsman Book Company, (800) 829-8123, www.craftsman-book.com/products

Placing Reinforcing Bars, Recommended Practices, 2011 or later printing, 9th edition, Concrete Reinforcing Steel Institute, Publisher- Concrete Reinforcing Steel Institute, 933 North Plum Grove Rd, Schaumburg, IL 60173, Phone (800) 328-6306, http://www.crsi.org/

SDI (Steel Deck Institute) Manual of Construction with Steel Deck, 2016, 3rd Edition, Publisher-Steel Deck Institute, PO Box 25, Fox River Grove, IL 60021, Phone (847) 458-4647, Fax (847) 458-4648, https://www.sdi.org/publications-2/publications/

The Contractor's Guide to Quality Concrete Construction, 2018, 4th Edition, American Concrete Institute, (248) 848-3700, https://www.amazon.com/Contractors-Guide-Quality-Concrete-Construction/dp/1641950471

Developing Your Stormwater Pollution Prevention Plan - A Guide for Construction Sites, United States Environmental Protection Agency, 2007; EPA Document number 833R06004;

EPA National Service Center for Environmental Publications, PO Box 42419 Cincinnati, OH 45242-3408; 800-490-9198 This document can be downloaded as a pdf for free or it can be ordered as a hard copy through the EPA for free.

To order online for free, do a Google search for the EPA document number 833R06004. Enter into the search bar ONLY the document number 833R06004 and no other characters.

Then select the website option: <a href="negrico-negri

ANSI/EIMA 99-A-2017: Standard for Exterior Insulation and Finish Systems (EIFS) and EIFS with Drainage, 2017, ANSI/EIMA,

https://www.mycontractorslicense.com/ANSI-EIMA-99-A-2017-p/ansi-eima-1book.htm

BURGLAR ALARM EXAMINATION CONTENT OUTLINE

There are 50 questions in this examination. You will need to answer 35 questions correctly in order to pass. You are allowed 3 hours to complete this examination. **NOTE:** All Burglar Alarm candidates are required to pass the Alarm Code of Laws Examination and the Burglar Alarm Examination.

- General Electrical Knowledge (14 Items)
- 2. Low Voltage (9 Items)
- 3. Intrusion Detection and Alarm Systems (10 Items)
- 4. Alarm Technology (17 Items)

2017 National Electrical Code (NEC) with SC modifications or National Electrical Code Handbook, 2017 edition, National Fire Protection Association, (800) 344-3555, www.nfpa.org

Understanding and Servicing Alarm Systems, 1999, 3rd Edition, H. William Trimmer, Butterworth-Heinemann, 225 Wildwood Avenue, Attn: Order Processing Department, Woburn, MA 01801.

Security: A Guide to Security System Design and Equipment Selection and Installation, 1994, Neil Cumming, Butterworth-Heinemann, 225 Wildwood Avenue, Attn: Order Processing Department, Woburn, MA 01801.

Certified Alarm Technician Level 1 Student Manual, National Burglar and Fire Alarm Association (NBFAA), National Training School (Contact Ann Dowdy, NBFAA/NTS Education & Standards Coordinator), Tel. (866) 636-1687, Fax (985) 626-8128, nts@alarm.org

NTC Blue Book - Low Voltage Systems Handbook, 2020, National Training Center http://www.nationaltrainingcenter.net/index.xml

Ugly's Electrical References, George V. Hart, 2020, Jones and Bartlett, (800) 832-0034, www.uglys.net

psi

11

To: Ms. Claire Cole From: Mr. Phil Gerald, PE Wee Tee Forest Bridge #1 Project Number P12-9603-PG November 2, 2022 Page 1

No.	Sheet/ Specification	Review Comment	Response
1	Project Manual, SE-310	Page 1: Submit the Word version of the SE-310 in order for me to advertise in SCBO.	-moved to December dropbox folder as a doc
		Page 1: The description of the Work notes a 61' long bridge, which is incorrect. The description does not need to be that specific incase it conflicts with the plans and specifications.	-deleted last sentence with bridge specifics
		Page 1, Prebid Location: We would usually have the prebid at the site so contractors can see the site. The meeting will not be mandatory.	-in the email chain, it was decided to have a non-mandatory pre-bid at the site
		Page 1, Pre-bid date and bid opening date: What are the dates and times requested? Typically, the pre bid will be held about one week after the advertisement, and the bid opening two to three weeks after the pre-bid.	-awaiting Phil and David's decision
		Page 1: The Agency Project Coordinator is David Owens. Remove Phil Gerald's name, email, and phone number and replace with David's.	-updated
		Page 1: Within Agency Certification? Please check the "NO" box.	-updated
		Page 2: Page 2 is NEVER placed in the Project Manual (see the top of the form). It is to be signed by the agency coordinator and a copy sent to Phil Gerald.	-removed page
2	Project Manual, SE-330	Section 6.1: The description of the Work should be exactly the modified description listed on the SE-310. Please revise.	-updated
3	Project Manual, SE-355 & SE- 357	The description of the Work should be exactly the modified description listed on the SE-310. Please revise.	-updated
4	Project Manual, SE-510	The SE-510 is not to be included in the Project Manual. Please remove.	-updated
5	Project Manual, Spec section 1.2.2	The sentence indicates the Owner will provide special inspections as listed on the following pages, and then no pages are listed. I note the Schedule of Special Inspections is not included. They are to be included at this location?	-are they to be included at this location?
6	Project Manual, Schedule of Special Inspections	Has the Schedule of Inspections been modified to be in accordance with the scope of work?	-met with Rick (inspections manager, awaiting his notes)
7	Project Manual, Report of Subsurface Exploration	Section 3: The soils report, in its entirety, is to be included in the Project Manual.	-moved to project manual folder

To: Ms. Claire Cole From: Mr. Phil Gerald, PE Wee Tee Forest Bridge #1 Project Number P12-9603-PG

November 2, 2022 Page 2

No.	Sheet/ Specification	Review Comment	Response
8	Project Manual, Spec section 10.1.12	Isn't the manufacture of the bridge by a subcontractor and thus the heading should be Subcontractor? There are too many references to "contractor" in this paragraph. The "Contractor" is the prime contractor that holds the contract with the Owner.	-updated
9	Sheet C-101	Do not list the bridge as being "designed by others". It is being design either by the prime contractor or one of its subs. Please change the note to "Install prefabricated 51'x12' steel open grate deck bridge".	-updated
10	Cost Estimate	I have not seen a cost estimate provided by Dennis Corp. Are you comfortable that the winning bid will be within \$525K and \$625K?	-where should we list the cost estimation?

This review does not relieve the Architect/Engineer (Designers) of their individual and collective responsibilities to comply with the applicable codes and regulations. The design is the responsibility of the Architectural/Engineering firm and all code items related to the design shall be the responsibility of the designer. This review provided by the OSE is not to provide design solutions or be responsible for design decisions. All quality control for project coordination is the responsibility of the Agency and A/E.

END OF COMMENTS

Extra Comments:

- -submit: project manual, drawings, word doc SE-310, and technical spec-completed
- -send Phil SE-271-completed
- -re-combine project manual-completed
- -check over table of contents for all docs-completed

Percentages of total of this estimate

WEE TEE BRIDGE NO. 1

Construction Cost Estimate

As of: 12/28/2022

E					Construction Cost Estimate
1	Total Price	<u>Unit Price</u>	<u>Units</u>	Quantity	<u>Description</u>
5.2	32,000				Prefabricated Bridge Installation
3.2	\$20,000	\$20,000.00	LS	1	Mobilization
0.3	\$2,000	\$2,000.00	LS	1	Construction Stakes, Lines & Grades
0.3	\$1,800	\$1,800.00	LS	1	Traffic Control (State highway when delivering 51' long beams)
5.2	\$32,000	\$32,000.00	LS	1	Removal & Disposal of Existing Bridge
0.2	\$1,200	\$1,200.00	LS	1	Borrow Excavation
0.2	\$1,200	\$1,200.00	LS	1	Muck Excavation
0.3	\$2,100	\$2,100.00	LS	1	Geotextile for Separation of Subgrade & Subbase / Base CR
1.5	\$9,400	\$9,400.00	LS	1	Geogrid Reinforcement / 57 stone
1.0	\$6,500	\$6,500.00	LS	1	Stone Under Approach Slabs
0.8	\$5,000	\$5,000.00	LS	1	Stone Ballast (At main road for mud mat)
2.5	\$15,500	\$15,500.00	LS	1	Concrete for Structures - Class 4000
2.4	\$14,700	\$14,700.00	LS	1	Reinforcing Steel for Structures
50	\$309,000	\$341,000.00	LS	1	Prefabricated Bridge (51 FT Long X 12 FT Wide)
14.	\$88,000	\$88,000.00	LS	1	Timber Piling including PDA
0.7	\$4,800	\$4,800.00	LS	1	Riprap Class C
0.4	\$2,800	\$2,800.00	LS	1	Geotextile for Erosion Control Under Riprap
80.	\$500	\$500.00	LS	1.000	Permanent Vegetation
.3	\$1,900	\$1,900.00	LS	1	Silt Fence
.25	\$1.500	\$1,500.00	LS	1	Floating Turbidity Barrier
	\$551,900	Total:	-		Line Item reduced by same cost as removal of
9.0	\$55,190	Contingency	10%		existing bridge to split up fabrication and supply
Ĭ	\$607,090	Grand Total		_	and installation.

Prepared by:

DENNI

Installation = \$32,000 (5.27%) Prefabricated Bridge = \$309,000 (50.90%)

	De	nnis Construction Co	ost Estimate	Ma	anagement and OH&P	Removed
Profit and Overhead		-	-	\$	60,709.00	10.00%
Project Management and Supervision		-	-	\$	59,250.00	9.76%
Engineering	\$	47,576.48	7.84%	\$	47,576.48	7.84%
Mobilization	\$	20,000.00	3.29%	\$	11,951.49	1.97%
Construction Stakes, Lines and Grades	\$	2,000.00	0.33%	\$	1,195.15	0.20%
Traffic Control	\$	1,800.00	0.30%	\$	1,075.63	0.18%
Removal & Disposal of Existing Bridge	\$	32,000.00	5.27%	\$	19,122.39	3.15%
Instllation of Prefabricated Bridge (1)	\$	32,000.00	5.27%	\$	19,122.39	3.15%
Borrow Excavation	\$	1,200.00	0.20%	\$	717.09	0.12%
Much Excavation	\$	1,200.00	0.20%	\$	717.09	0.12%
Geotextile for Seperated of Subgrade	\$	2,100.00	0.35%	\$	1,254.91	0.21%
Geogrid Reinforcement	\$	9,400.00	1.55%	\$	5,617.20	0.93%
Stone under Approach Slab	\$	6,500.00	1.07%	\$	3,884.23	0.64%
Stone Ballast	\$	5,000.00	0.82%	\$	2,987.87	0.49%
Concrete for Structures (2)	\$	15,500.00	2.55%	\$	9,262.41	1.53%
Reinforcing Steel for Structures (2)	\$	14,700.00	2.42%	\$	8,784.35	1.45%
Prefabricated Bridge Supply (4)	\$	261,423.52	43.06%	\$	261,423.52	43.06%
Timber Pilings (3)	\$	88,000.00	14.50%	\$	52,586.56	8.66%
Riprap	\$	4,800.00	0.79%	\$	2,868.36	0.47%
Geotextile for Erosion Control	\$	2,800.00	0.46%	\$	1,673.21	0.28%
Permanent Vegetation	\$	500.00	0.08%	\$	298.79	0.05%
Silt Fence	\$	1,900.00	0.31%	\$	1,135.39	0.19%
Floating Turbity Barrier	\$	1,500.00	0.25%	\$	896.36	0.15%
Contingency	\$	55,190.00	9.09%	\$	32,980.14	5.43%
_	\$	607,090.00	92.16%	\$	607,090.00	100.00%

Precentage of Total Construction Costs Licensed to Perform

75.26%

85.22%

¹⁾ BR Licensed Required

²⁾ CT Licensed Required

³⁾ Marine Licensed Required

⁴⁾ Engineering broken out from Prefabricated Bridge Supply

SOUTH CAROLINA CONTRACTOR'S LICENSING BOARD

Synergy Business Park, Kingstree Building
110 Centerview Drive, Kingstree Building, Room 108
Columbia, South Carolina 29210
Minutes

Thursday, January 21, 2016

10:00 a.m.

Approval of Minutes:

Thursday, October 15, 2015

MOTION:

Mr. Walker made a motion to approve the October 15, 2015, meeting minutes. Mr. Richardson seconded the motion, which carried unanimously.

Chairman's Remarks:

Lewis M. Caswell

Mr. Caswell thanked the Board for electing him as Chairman.

Old Business:

Sign Study Committee Recommendation

Chairman Caswell read the Sign Study Committee's recommendation to the Board: It is recommended to the Contractors' Board that a specialty license be required for erection and installation of on-site and off premise signs in accordance with 40-11-410(4)(B) Concrete and 40-11-410(4)(J) Structural Framing. The Board discussed the recommendation.

MOTION:

Mr. Richardson made a motion to accept the recommendation of the Sign Study Committee with the clarification that the recommendation does not make any changes in regulation of the electrical portion of sign erection and installation. Mr. Walker seconded the motion which carried unanimously. Staff was instructed the change is effective immediately.

Ancillary Committee Recommendation

Chairman Caswell read the Ancillary Committee's recommendation to the Board: If the work in any of the individual ancillary classifications of § 40-11-410(1) - Concrete Paving; Grading; Highway Incidental; Concrete; Structural Framing; Public Electrical Utility; Boiler Installation; or Glass and Glazing - is 41% or higher of the total cost of construction then this work is not generally construed as ancillary. The licensee must have a license for this work or use a contractor licensed in the appropriate license classification or sub-classification to perform the work. The Board discussed the recommendation.

MOTION:

Mr. Richardson made a motion to strike the word "generally" from the recommendation and accept the recommendation with that change. Mr. White seconded the motion, which carried unanimously. Staff was instructed the change is effective immediately.

Application Reviews:

John F. Busche DBA: Old South Electric

The mechanical contractor's license application could not be approved at staff level. Mr. John Busche appeared before the Board, waived his right to counsel, and was sworn in. Mr. Busche answered questions from the Board.

MOTION:

Mr. Walker made a motion to approve the mechanical contractor's license application. Mr. Lady seconded the motion, which carried unanimously.

2/17/23, 10:43 AM SCBO - Procurement Services



South Carolina Business Opportunities

Published by Division of Procurement Services - Delbert H. Singleton, Jr., Division Director

Ad Category: Construction

Ad Start Date: January 4, 2023

Agency/Owner: SC Forestry Commission

Project Name: Wee Tee Bridge No.1 Replacement Project

Project Number: P12-9603-PG

Construction Cost Range: \$525,000 to \$625,000

Project Location: Wee Tee State Forest, Williamsburg County

Description of Project/Services:

This project consists of the removal and disposal of an existing single span concrete bridge deck, 2-end bents and replacement with a single span, pre-fabricated steel bridge superstructure with open-grate decking and modified concrete end bents with backwalls and timber piling/approach slabs.

Bid/Submittal Due Date & Time: January 31, 2023 - 2:00pm

Number of Bid/Submittal Copies: 1

Project Delivery Method: Design-Bid-Build

Agency Project Coordinator: David Owen

Email: DOwen@scfc.gov Telephone: 803-896-8829

Documents May Be Obtained From: Dennis Corp., Attn: Gene Haskins, Phone: 803-227-8601, e-mail: ghaskins@denniscorporation.com

Project Details: https://scbo.sc.gov/files/scbo/SE-310%20PG1%2C%20P12-9603-PG.pdf

South Carolina Business Opportunities • SCBO Team • 1201 Main Street, Suite 600 • Columbia, SC 29201 803-737-0600 • scbo@mmo.sc.gov • https://scbo.sc.gov • https://procurement.sc.gov





CERTIFIED BID SUMMARY



Wee Tee Bridge No.1 Replacement RFP NO: P12-9603-PG

SC Forestry Commission 5500 Broad River Road Columbia, SC 29510



Tuesday January 31, 2023 at 2:00 PM

Rank	Company Name	Acknowledgement of Addendum 1	Bid Bond Provided	Bid Total	Comment
1	The Bastion Group	Yes	Yes	623,191.00	Bid non-responsible due to incorrect prime bidder providing bid (SC Law 40- 11-340).
2	Cape Romain Contractors	Yes	Yes	653,500.00	Awarded low-bidder, bidder only has BD license.
3	CP&G Construction, LLC	Yes	Yes	813.280.00	Bid non-responsible due to lack of a BR license.
4	Ngineering, Inc.	Yes	Yes	875,000.00	
5	Republic Contracting Corporation	Yes	Yes	948,200.00	
6					
7					
8					
9					
10					

Print this page

Board: Commercial Contractors

THE BASTION GROUP LLC

412 N GUM STREET SUMMERVILLE, SC 29483 (843) 800-8876

License number: 123168

License type: GENERAL CONTRACTOR

Status: ACTIVE

Expiration: 10/31/2024

First Issuance Date: 12/05/2020

Classification: Building-BD4

Pre-Engineered Metal Buildings-MB4

Qualified By: Financial Statement
President / Owner: KEANE STEELE

Click here for Classification definitions and licensee's contract dollar limit

Supervised By STEELE KEANE (CQG)

File a Complaint against this licensee

Board Public Action History:

View Orders

View Other License for this Person

No Orders Found

3/2/23, 5:01 PM Contractors

Print this page

Board: Commercial Contractors

THE BASTION GROUP LLC

301 HUNDRED OAKS PARKWAY SUMMERVILLE, SC 29483 (843)708-5534

License number: 1142

License type: Engineer Construction Manager

Status: ACTIVE

Expiration: 06/30/2024

CM Limitation: Group 4-\$1,500,000

Click here for Classification definitions and licensee's contract dollar limit

File a Complaint against this licensee

Board Public Action History:

View Orders

View Other License for this Person

No Orders Found

Print this page

Board: Engineers and Land Surveyors

THE BASTION GROUP LLC

412 N GUM ST UNIT B SUMMERVILLE, SC 29483-6830

Business Phone: (843) 708-5534

License number: 6227

License type: Certificate of Authorization

Status: Active

First Issue Date: 11/21/2019 **Expiration:** 03/31/2025

Supervised By

(ELS.31796) STEELE KEANE - Expiration Date: 06/30/2024

Board Public Action History:

View Orders View Other License for this Person

No Orders Found

File a Complaint against this licensee

Print this page

Board: Commercial Contractors

CAPE ROMAIN CONTRACTORS INC

612 CAPE ROMAIN ROAD WANDO, SC 29492 (843) 884-5167

License number: 11073

License type: GENERAL CONTRACTOR

Status: ACTIVE

Expiration: 10/31/2024

First Issuance Date: 01/01/1992

Classification:

Water & Sewer Lines-WL5

Marine-MR5 Concrete-CT5

Water & Sewer Plants-WP5

Bridges-BR5

Qualified By: Financial Statement

President / Owner: ANDREW G DUPRE

Click here for Classification definitions and licensee's contract dollar limit

Supervised By DUPRE ANDREW (CQG)

File a Complaint against this licensee

Board Public Action History:

View Orders

View Other License for this Person

No Orders Found

WEE TEE STATE FOREST BRIDGE 1 FOR SC FORESTRY COMMISSION

Exhibit F

Project

Location

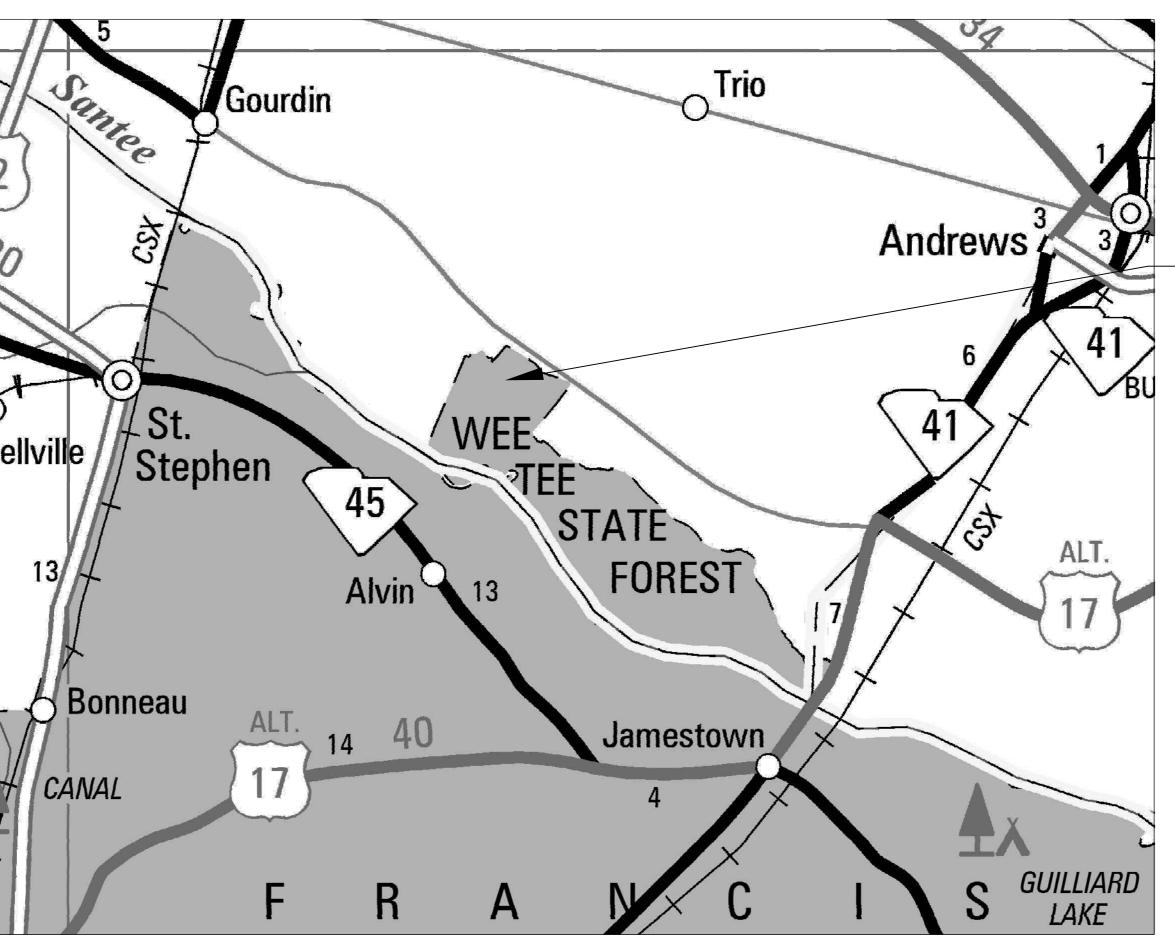
	SHEET INDEX	
SHEET NO.	DESCRIPTION	TOTAL
G-001	COVER	1
EX-101	EXISTING CONDITIONS	1
C-101	SITE PLAN	1
C-501 - C-504	BRIDGE DETAILS	4



CONTACT SC811

AT LEAST 3 BUSINESS DAYS
PRIOR TO BEGINNING CONSTRUCTION
NOT INCLUDING THE DAY OF THE CALL

PHONE: DIAL 811 (IN SC) OR 888-721-7877
WEB PORTAL: WWW.SC811.COM



NPDES PERMIT INFORMATION

Disturbed Area = 0.05 Acre(s)

Approximate Location of Project is

Latitude 33° 23' 53" Longitude 79° 47' 15"

Vicinity Map
Scale: 1" = 2 miles

SC Forestry Commission 5500 Broad River Road Columbia, SC 29212 Phone: (803)-8966-8829 Contact Person: David Owen Email:dowen@scfc.gov

OWNER

CIVIL ENGINEERS
Dennis Corporation
1800 Huger Street
Columbia, SC 29201
Phone: (803) 252-0991
Contact Person: Matt Hines
Phone: (803) 227-8558

Email: mhines@denniscorporation.com

BRIDGE 1

C C R P C R T I C N. HINES

C C R P C R T I C N. HINES

ENGINEERING | SURVEYING | CONSTRUCTION SERVICES

WWW.DennisCorporation.com

1800 Huger Street Office: (803) 252-0991

Columbia. SC 29201

Fax: (803) 733-6787

WEE TEE

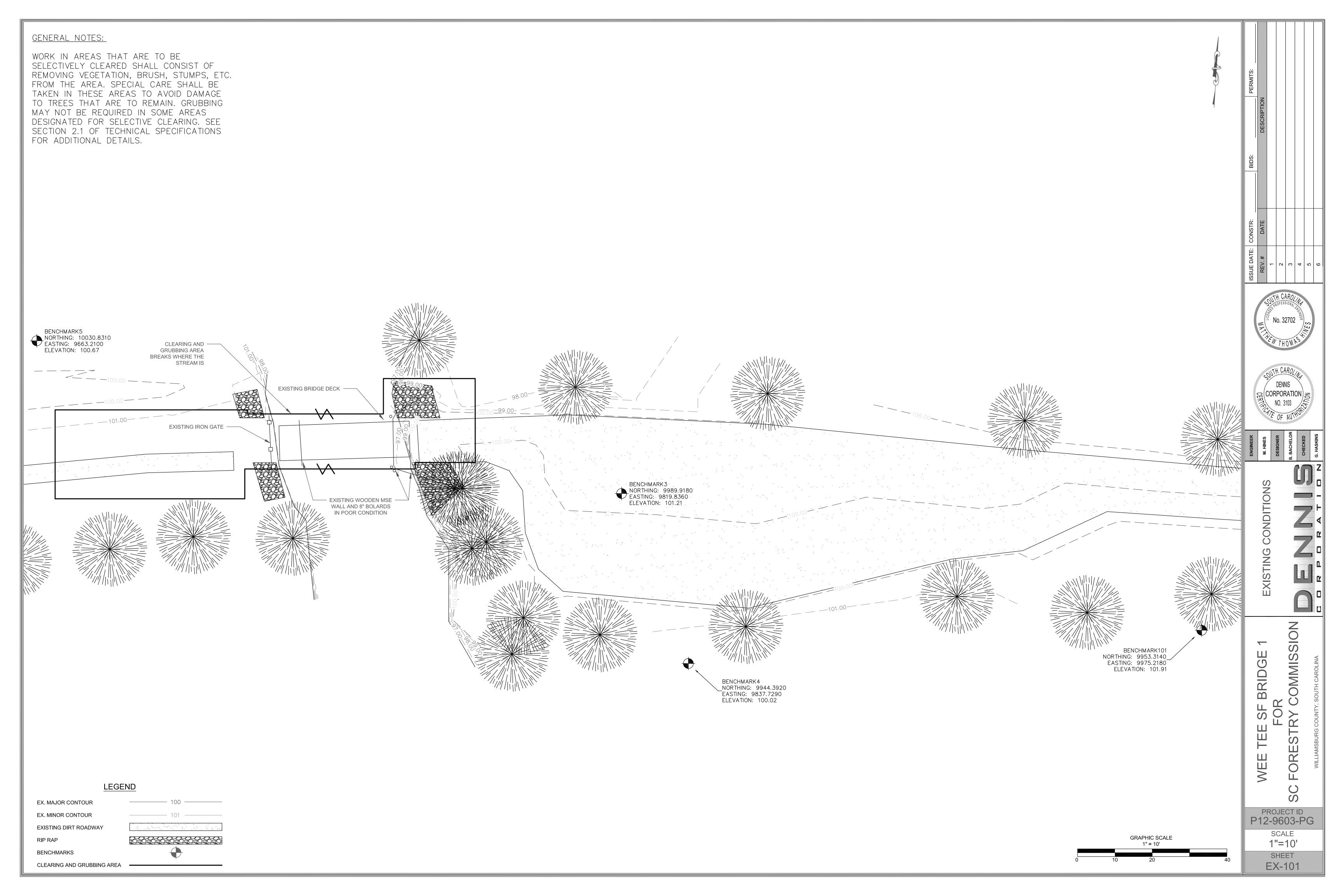
PROJECT ID P12-9603-PG

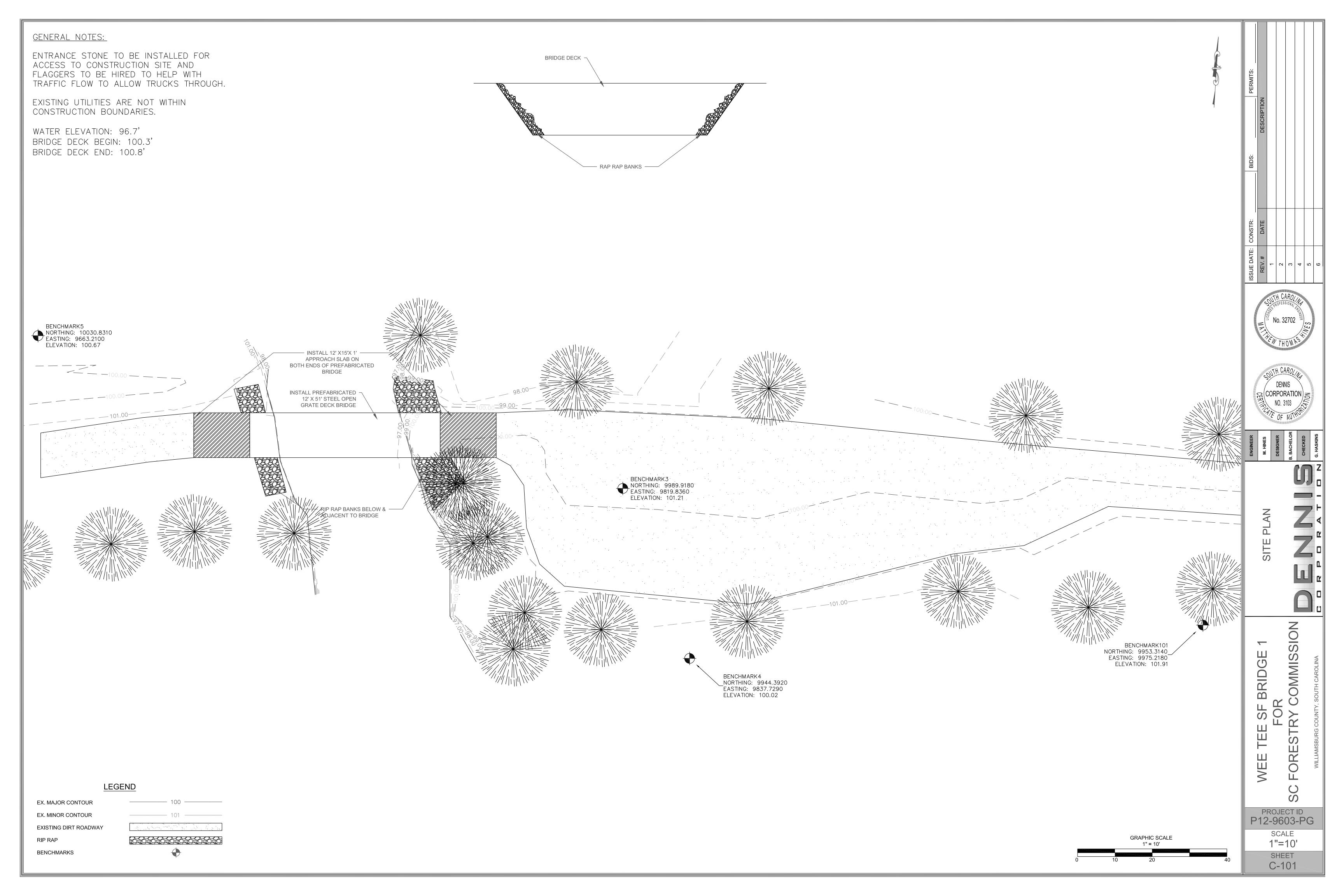
SCALE AS SHOWN

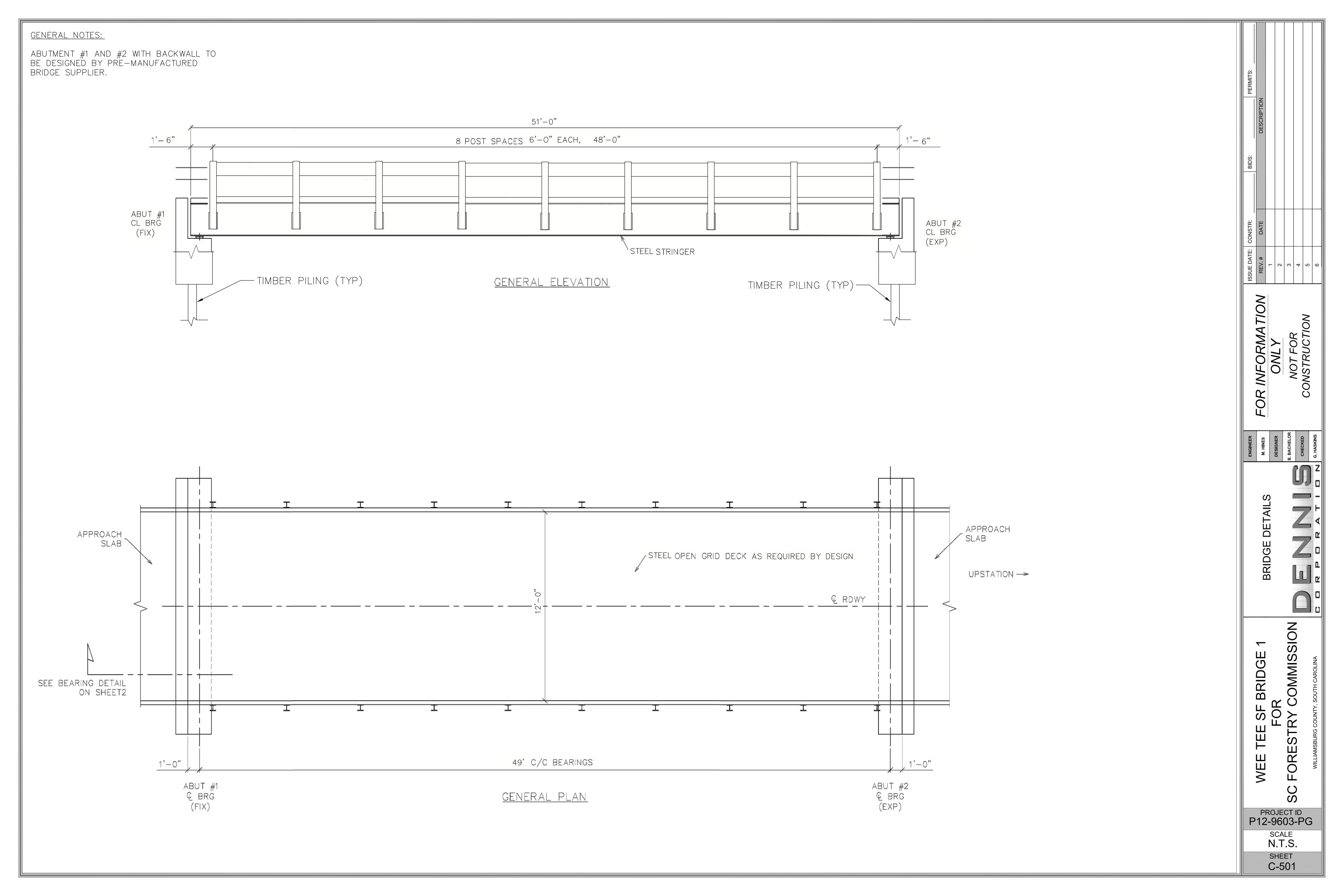
SHEET

G-001

I HAVE PLACED MY SIGNATURE AND SEAL ON THE DESIGN DOCUMENTS SUBMITTED SIGNIFYING THAT I ACCEPT RESPONSIBILITY FOR THE DESIGN OF THE SYSTEM. FURTHER, I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE DESIGN IS CONSISTENT WITH THE REQUIREMENTS OF TITLE 48, CHAPTER 14 OF THE CODE OF LAWS OF SC, 1976 AS AMENDED, PURSUANT TO REGULATION 72-300 ET SEQ. (IF APPLICABLE), AND IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF SCR100000.

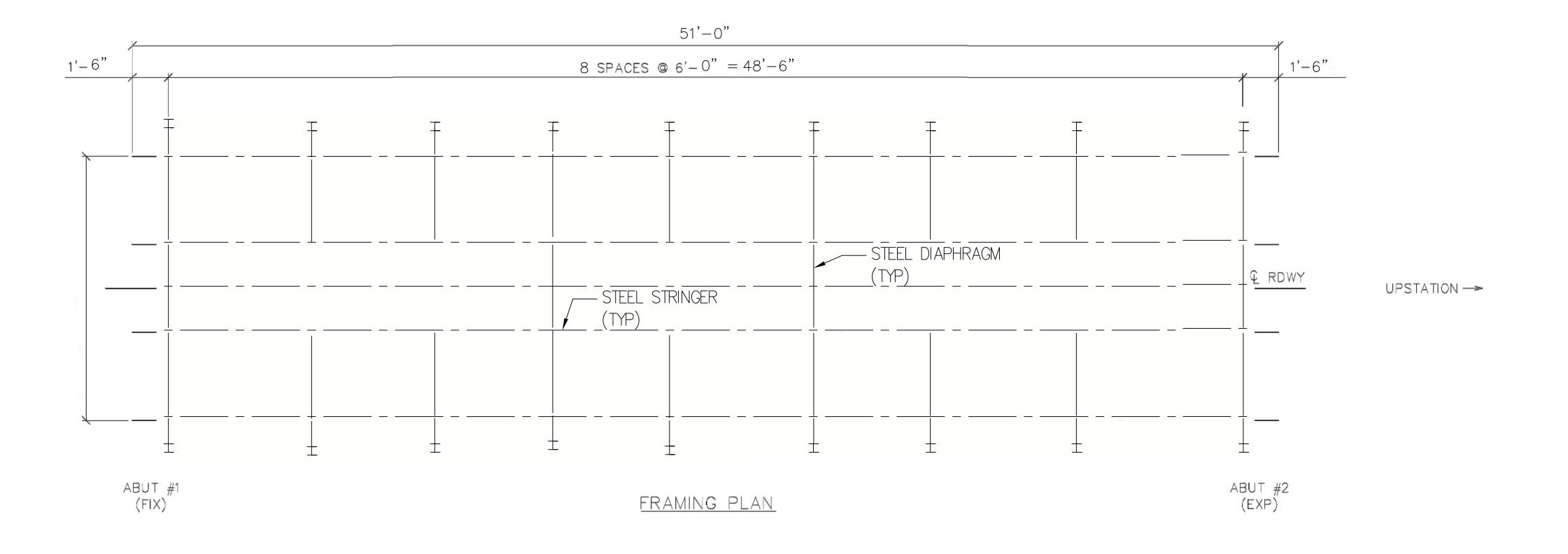


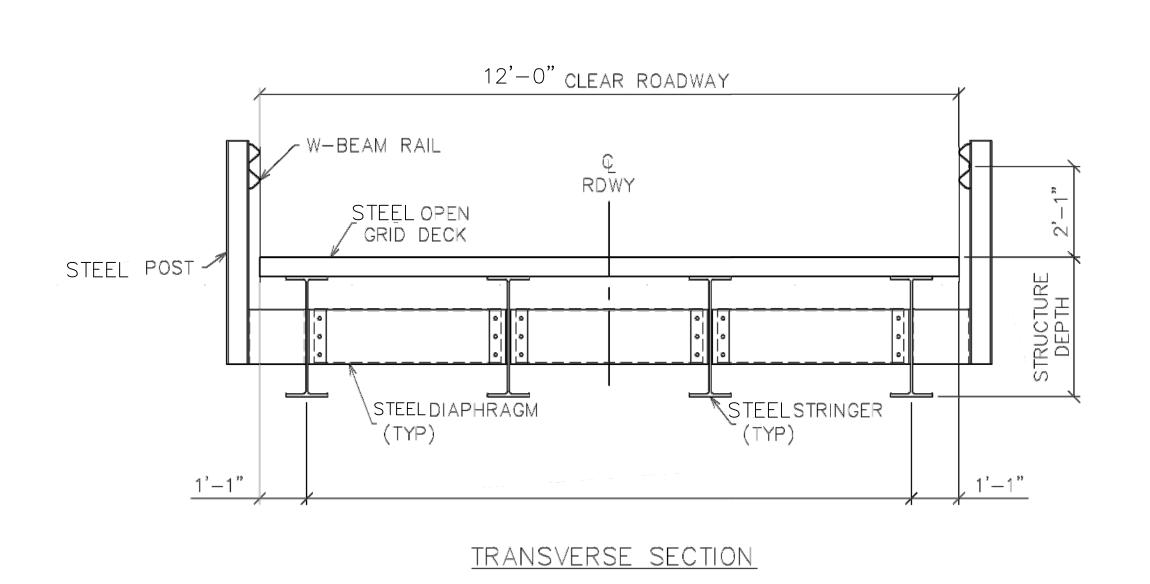


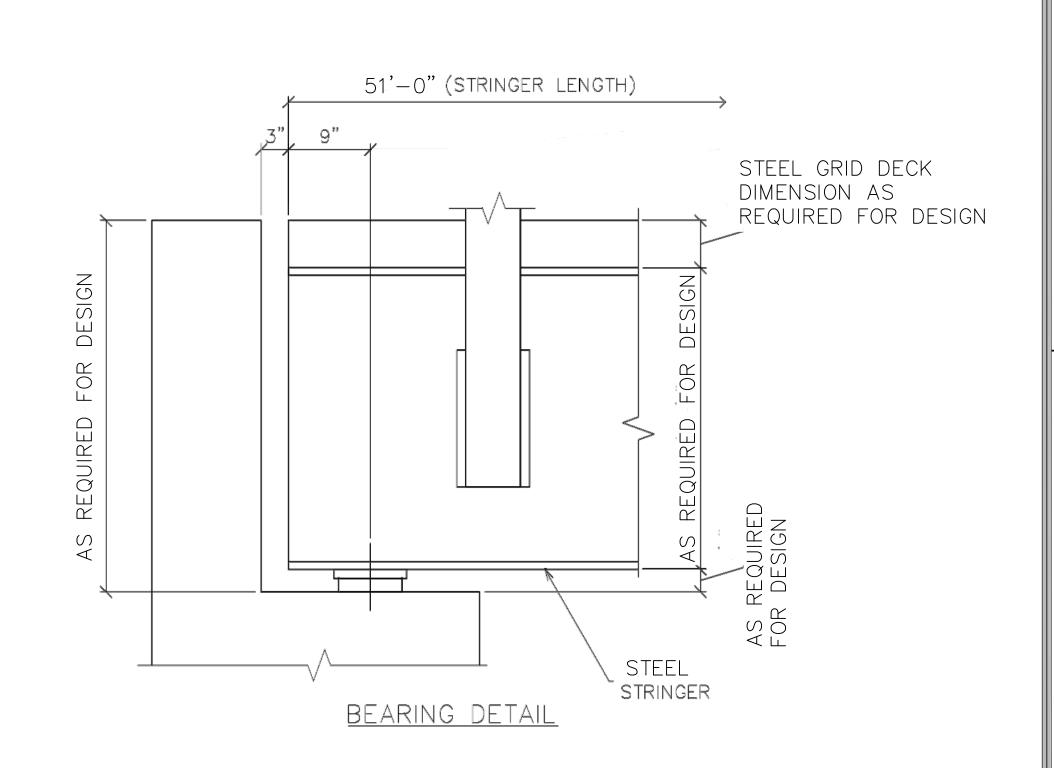




NUMBER OF STEEL STRINGERS AS REQUIRED FOR DESIGN WITH ASSOCIATED STEEL DIAPHRAGMS







FOR INFORMATION ONLY

DETAILS

BRIDGE

OMMISSION

WEE TEE SF BRIDGE 1 FOR FORESTRY COMMISSI

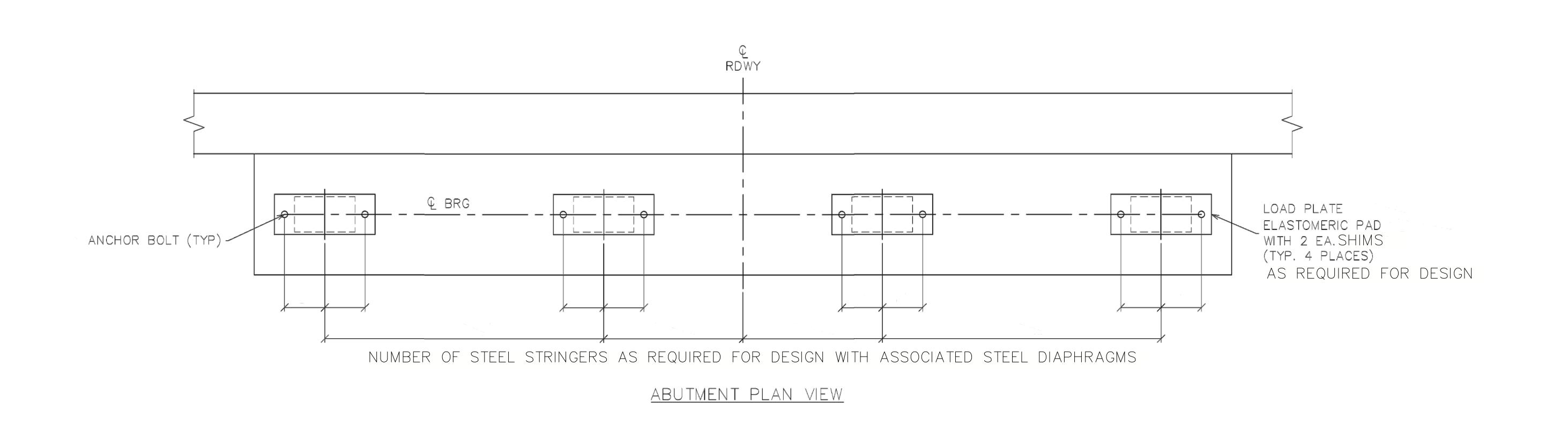
PROJECT ID P12-9603-PG

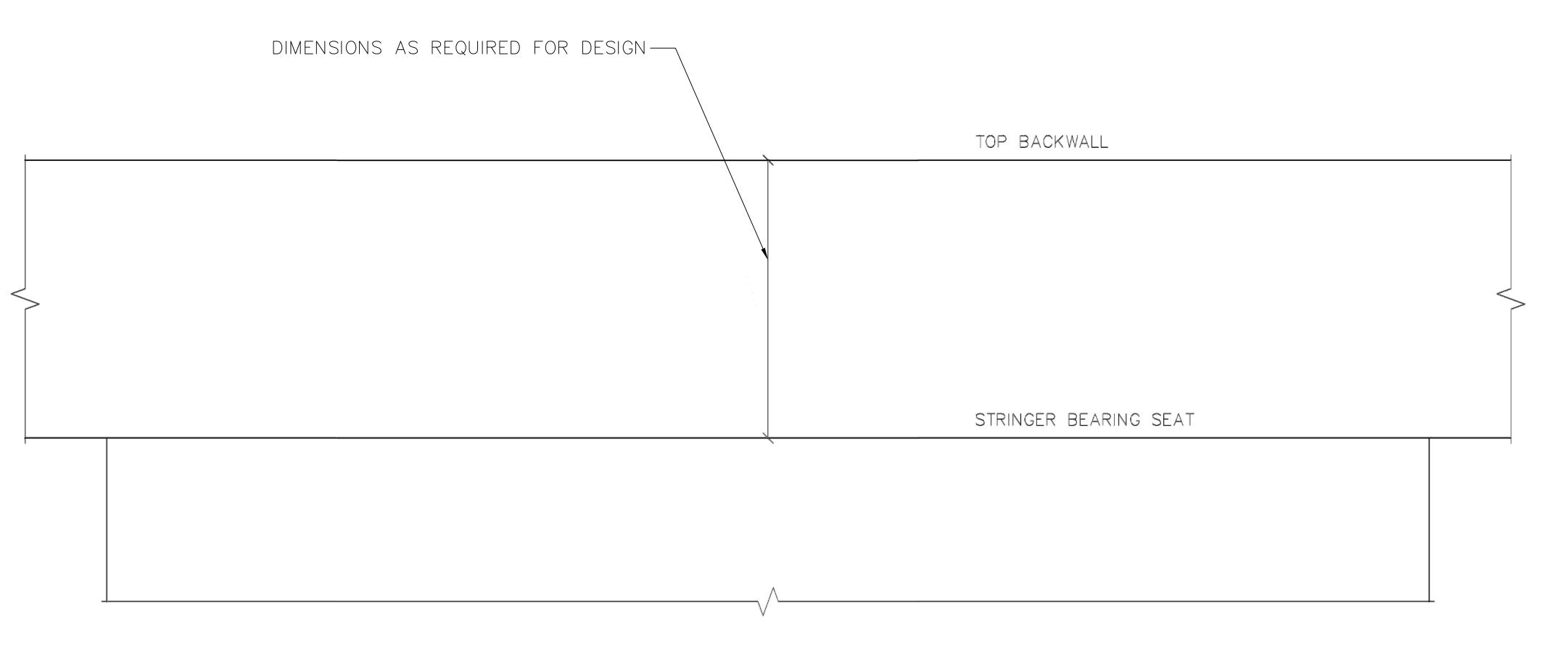
SCALE N.T.S.

SHEET

C-502

WEE





<u>ABUTMENT ELEVATION VIEW</u>

 NRMATION
 REV. #
 DATE
 BIDS:
 PERMITS:

 1
 2
 3
 4
 4

 4 CUCTION
 5
 6
 6
 6

HINES FOR INFORM ONLY ONLY NOT FOR

M. HINES
DESIGNER
B. BACHELOR

RIDGE DETAILS

GE 1
BRIDGE

WEE TEE SF BRIDGE 1
FOR
FOR
SFORESTRY COMMISSION

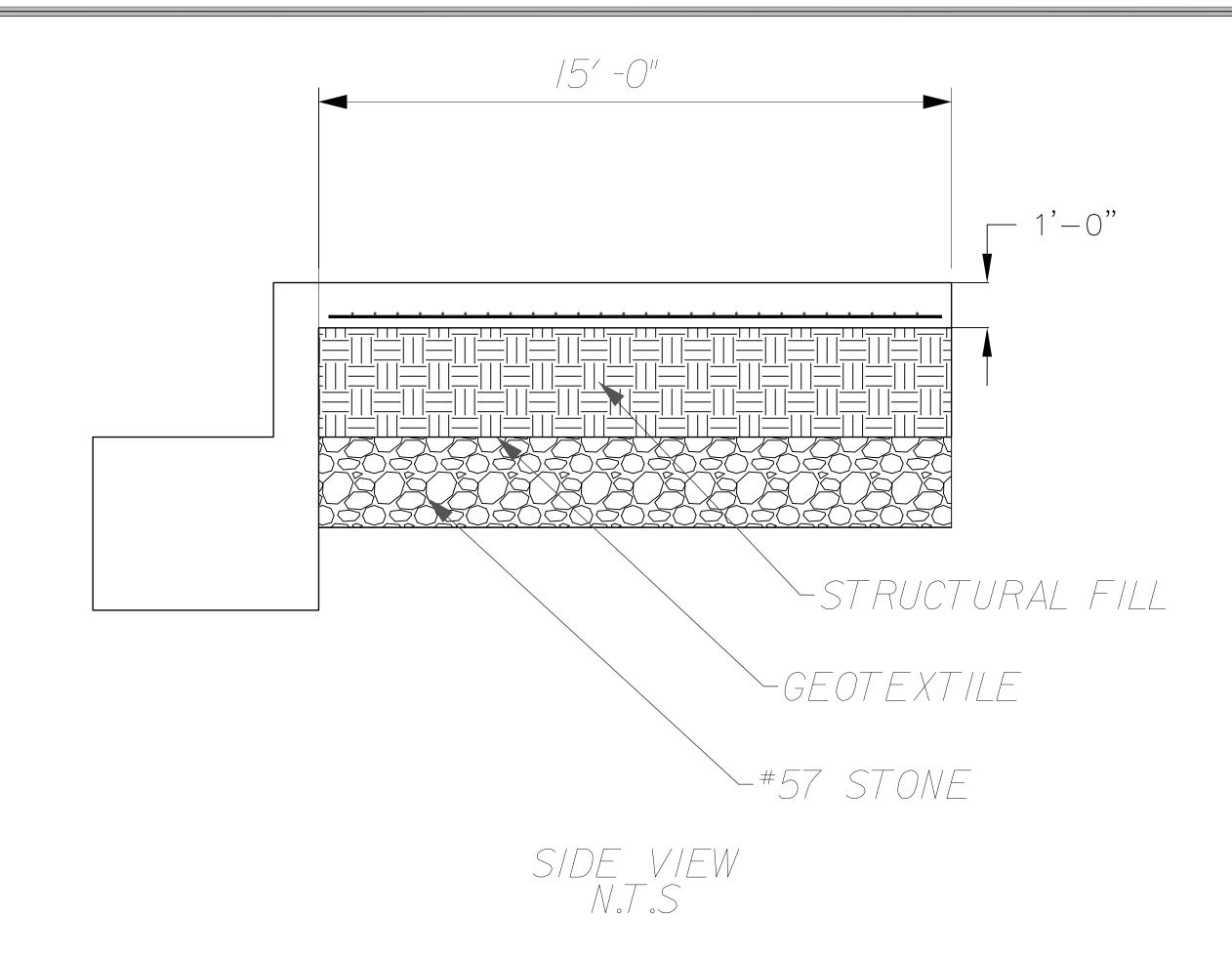
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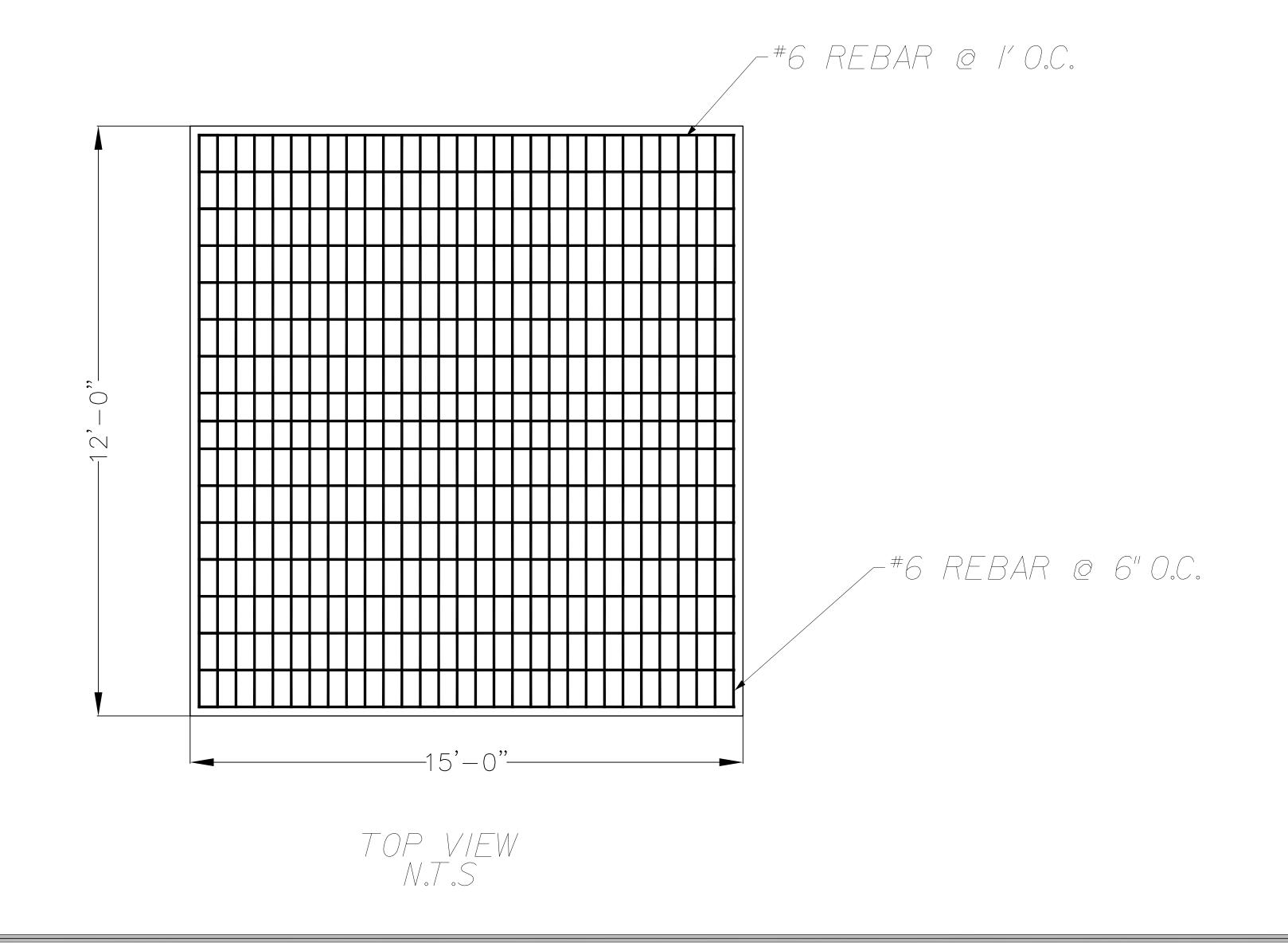
SCALE N.T.S. SHEET

C-503

GENERAL NOTES:

- 1. THE COMPLETE DESIGN OF THE TWO END BENTS IS TO BE PROVIDED BY THE CONTRACTOR AS PART OF THE SUPPLIER'S PRE-ENGINEERED STEEL BRIDGE PACKAGE.
- 2. THE GEOTECHNICAL SUBSURFACE REPORT AND RECOMMENDATIONS FROM SUMMIT ALONG WITH THEIR CONTACT INFORMATION ARE INCLUDED IN THE PROJECT MANUAL AND THE CONTRACTOR AND ITS SUPPLIER ARE TO COORDINATE AND INCLUDE THE (PDA) PILING DESIGN AND INSTALLATION WITH THE END BENT DESIGN.
- 3.CONCRETE DESIGN STRENGTH IS TO BE 4000 PSI IN ACCORDANCE WITH THE SCDOT REGULATIONS.
- 4.REINFORCING STEEL IS TO BE GRADE 60 IN ACCORDANCE WITH THE SCDOT REGULATIONS.
- 5. THE TWO CONCRETE APPROACH SLABS ARE DETAILED AND SHOWN ON SHEET C-504 AND WHERE THEY ADJOIN THE END BENT BACKWALL, REINFORCING STEEL FROM THE BACKWALL IS TO BE DESIGNED TO TURN WITH BENT BARS (90 DEGREES) INTO THE APPROACH SLABS TO SUFFICIENTLY TIE THE STRUCTURES TOGETHER TO AVOID MOVEMENT OR CRACKING. CONTRACTOR OPTION: DESIGN END BENTS, TIE REBAR, SET AND HANG FORMWORK AND POUR ENTIRE STRUCTURE MONOLITHICALLY ALLOWING FOR ANY JOINERY AS MAY BE NECESSARY.





FOR INFORMATION
ONLY
NOT FOR
CONSTRUCTION

OMMISSION

BRIDGE

WEE

PROJECT ID P12-9603-PG

SCALE

N.T.S.

SHEET

C-504

PROJECT MANUAL

WEE TEE BRIDGE #1 REPLACEMENT PROJECT

PROJECT NUMBER P12-9603-PG

Owner Contact:
South Carolina Forestry Commission
David Owen
5500 Broad River Road
Columbia SC 29212
803-896-8829

Engineer Contact:
Dennis Corporation
Gene Haskins
1800 Huger Street
Columbia SC 29201
803-227-8601

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PROJECT NUMBER: P12-9603-PG
SECTION NUMBER OF PAGES
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AIA A701-1997 Instructions to Bidders South Carolina Division of Procurement Services, Office of State Engineer Version
Bid Bond (AIA A310 reference)
SE-330, Lump Sum Bid Form
AIA Document A101 Standard Form of Agreement between Owner and Contractor (Including Exhibit A) South Carolina Division of Procurement Services, Office of State Engineer Version
AIA Document A201 General Conditions of the Contract for Construction South Carolina Division of Procurement Services, Office of State Engineer Version
SE-355, Performance Bond
SE-357, Labor & Material Payment Bond
SE-380, Change Order to Construction Contract
Report of Subsurface Exploration (Summit Engineering)

TECHNICAL SPECIFICATIONS (PAGE 101)

- 1. General Specifications
- 2. Demolition and Earthwork
- 3. Bases and Sub-Bases
- 4. Concrete Paving
- 5. Maintenance and Control of Traffic
- 6. Structures and Storm Drainage
- 7. Reinforcing Steel for Structures
- 8. Prefabricated Bridge
- 9. Incidental Construction and Erosion Control
- 10. Sediment and Erosion Control

SE-310

INVITATION FOR DESIGN-BID-BUILD CONSTRUCTION SERVICES

AGENCY/OWNER: SC Forestry Commission	
PROJECT NAME: Wee Tee Bridge No.1 Replacement Proj	ect
PROJECT NUMBER: P12-9603-PG CONSTRUC	CTION COST RANGE: \$525,000.00 to \$625,000.00
PROJECT LOCATION: Wee Tee State Forest, Williamsbu	rg County
DESCRIPTION OF PROJECT/SERVICES: This project	ct consists of the removal and disposal of an existing 1-span
concrete bridge deck, 2-end bents and replacement by a single	e span, Pre-fabricated steel bridge superstructure with open-grate
decking and modified concrete end bents with backwalls and t	
BID/SUBMITTAL DUE DATE: T	TIME: NUMBER OF COPIES: 1
PROJECT DELIVERY METHOD: Design-Bid-Build	
AGENCY PROJECT COORDINATOR: David Owen	
EMAIL: DOwen@scfc.gov	TELEPHONE: (803) 896-8829
DOCUMENTS MAY BE OBTAINED FROM: South Care Road, Columbia, SC 29212, Phone No. 803-896-8829, e-mail	olina Forestry Commission Attn: David Owen,5500 Broad River DOwen@scfc.gov
BID SECURITY IS REQUIRED IN AN AMOUNT NOT I	LESS THAN 5% OF THE BASE BID.
PERFORMANCE AND LABOR & MATERIAL PAYM provide Performance and Labor and Material Payment Bonds,	IENT BONDS: The successful Contactor will be required to each in the amount of 100% of the Contract Price.
· ———	IS DEPOSIT REFUNDABLE Yes \square No \square N/A \boxtimes
Bidders must obtain Bidding Documents/Plans from the above listed source(s any other source do so at their own risk. All written communications with off	to be listed as an official plan holder. Bidders that rely on copies obtained from
Agency WILL NOT accept Bids sent via email.	teral plan horders & bluders will be via chian of website posting.
All questions & correspondence concerning this Invitation shall be addressed	to the A/E.
A/E NAME: Dennis Corporation	A/E CONTACT: Gene Haskins
EMAIL: ghaskins@denniscorporation.com	TELEPHONE: 803-227-8601
PRE-BID CONFERENCE: Yes No PRE-BID DATE:	MANDATORY ATTENDANCE: Yes ☐ No ⊠
PRE-BID PLACE: SC Forestry Commission	
BID OPENING PLACE: SC Forestry Commission	
BID DELIVERY ADDRESSES:	
HAND-DELIVERY:	MAIL SERVICE:
Attn: 5500 Broad River Rd.	Attn: 5500 Broad River Rd.
Columbia, SC 29212	Columbia, SC 29212
Room 144	Room 144
IS PROJECT WITHIN AGENCY CONSTRUCTION CERTIFIC	CATION? (Agency MUST check one) Yes \(\subseteq \text{No } \subseteq \)
APPROVED BY: (OSE Project Manager)	DATE:
(OSE Project Manager)	

South Carolina Division of Procurement Services, Office of State Engineer Version of MAIA® Document A701™ – 2018

Instructions to Bidders

This version of AIA Document A701™–2018 is modified by the South Carolina Division of Procurement Services, Office of State Engineer ("SCOSE"). Publication of this version of AIA Document A701–2018 does not imply the American Institute of Architects' endorsement of any modification by SCOSE. A comparative version of AIA Document A701–2018 showing additions and deletions by SCOSE is available for review on the SCOSE Web site.

Cite this document as "AIA Document A701™ – 2018, Instructions to Bidders — SCOSE Version," or "AIA Document A701™ –2018 — SCOSE Version."

South Carolina Division of Procurement Services, Office of State Engineer Version of MAIA Document A701™ – 2018

Instructions to Bidders

for the following Project:
(Name, State Project Number, location, and detailed description)
Wee Tee Bridge #1 Replacement Project
P12-9603-PG
Williamsburg, South Carolina

THE OWNER:

(Name, legal status, address, and other information)
South Carolina Forestry Commission
5500 Broad River Road
Columbia, SC 29212

The Owner is a Governmental Body of the State of South Carolina as defined by S.C. Code Ann. § 11-35-310.

THE ARCHITECT:

(Name, legal status, address, and other information)
Dennis Corporation
1800 Huger St
Columbia, SC 29201

This version of AIA Document A701-2018 is modified by the South Carolina Division of Procurement Services, Office of State Engineer. Publication of this version of AIA Document A701 does not imply the American Institute of Architects' endorsement of any modification by South Carolina Division of Procurement Services, Office of State Engineer. A comparative version of AIA Document A701-2018 showing additions and deletions by the South Carolina Division of Procurement Services, Office of State Engineer is available for review on South Carolina state Web site.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

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- 1 DEFINITIONS
- 2 BIDDER'S REPRESENTATIONS
- 3 BIDDING DOCUMENTS
- 4 BIDDING PROCEDURES
- 5 CONSIDERATION OF BIDS
- 6 POST-BID INFORMATION
- 7 PERFORMANCE BOND AND PAYMENT BOND
- 8 ENUMERATION OF THE PROPOSED CONTRACT DOCUMENTS

ARTICLE 1 DEFINITIONS

- § 1.1 Bidding Documents include the Bidding Requirements and the Proposed Contract Documents. The Bidding Requirements consist of the advertisement or invitation to bid, Instructions to Bidders, supplementary instructions to bidders, the bid form, and any other bidding forms. The Proposed Contract Documents consist of the unexecuted form of Agreement between the Owner and Contractor and that Agreement's Exhibits, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, all Addenda, and all other documents enumerated in Article 8 of these Instructions.
- § 1.1.1 Any reference in this document to the Agreement between the Owner and Contractor, AIA Document A101, or some abbreviated reference thereof, shall mean the AIA Document A101-2017 Standard Form of Agreement Between Owner and Contractor, SCOSE Version. Any reference in this document to the General Conditions of the Contract for Construction, AIA Document A201, or some abbreviated reference thereof, shall mean the AIA Document A201-2017 General Conditions of the Contract for Construction, SCOSE Version.
- § 1.2 Definitions set forth in the General Conditions of the Contract for Construction, or in other Proposed Contract Documents apply to the Bidding Documents.
- § 1.3 Addenda are written or graphic instruments issued by the Architect, which, by additions, deletions, clarifications, or corrections, modify or interpret the Bidding Documents.
- § 1.4 A Bid is a complete and properly executed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.
- § 1.5 The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents, to which Work may be added or deleted by sums stated in Alternate Bids.
- § 1.6 An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from, or that does not change, the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.
- § 1.7 A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, as described in the Bidding Documents.
- § 1.8 A Bidder is a person or entity who submits a Bid.
- § 1.9 A Sub-bidder is a person or entity who submits a bid to a Bidder for materials, equipment, or labor for a portion of the Work.

ARTICLE 2 BIDDER'S REPRESENTATIONS

- § 2.1 By submitting a Bid, the Bidder represents that:
 - .1 the Bidder has read and understands the Bidding Documents;
 - .2 the Bidder understands how the Bidding Documents relate to other portions of the Project, if any, being bid concurrently or presently under construction;
 - .3 the Bid complies with the Bidding Documents;
 - .4 the Bidder has visited the site, become familiar with local conditions under which the Work is to be performed, has correlated the Bidder's observations with the requirements of the Proposed Contract Documents, and accepts full responsibility for any pre-bid existing conditions that would affect the Bid that could have been ascertained by a site visit. As provided in S.C. Code Ann. Reg. 19-445.2042(B), a bidder's failure to attend an advertised pre-bid conference will not excuse its responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the State;
 - .5 the Bid is based upon the materials, equipment, and systems required by the Bidding Documents without exception;
 - .6 the Bidder has read and understands the provisions for liquidated damages, if any, set forth in the form of Agreement between the Owner and Contractor; and
 - .7 the Bidder understands that it may be required to accept payment by electronic funds transfer (EFT).

§ 2.2 Certification of Independent Price Determination

License Agreement. To report copyright violations, e-mail copyright@aia.org.

§ 2.2.1 GIVING FALSE, MISLEADING, OR INCOMPLETE INFORMATION ON THIS CERTIFICATION MAY RENDER YOU SUBJECT TO PROSECUTION UNDER SC CODE OF LAWS §16-9-10 AND OTHER APPLICABLE LAWS.

is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents* Documents-on-Demand - End User

§ 2.2.2 By submitting a Bid, the Bidder certifies that:

- .1 The prices in this Bid have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other bidder or competitor relating to:
 - .1 those prices;
 - .2 the intention to submit a Bid; or
 - .3 the methods or factors used to calculate the prices offered.
- .2 The prices in this Bid have not been and will not be knowingly disclosed by the Bidder, directly or indirectly, to any other bidder or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and
- No attempt has been made or will be made by the Bidder to induce any other concern to submit or not to submit a Bid for the purpose of restricting competition.
- § 2.2.3 Each signature on the Bid is considered to be a certification by the signatory that the signatory:
 - 1 Is the person in the Bidder's organization responsible for determining the prices being offered in this Bid, and that the signatory has not participated and will not participate in any action contrary to Section 2.2.2 of this certification; or
 - .2 Has been authorized, in writing, to act as agent for the Bidder's principals in certifying that those principals have not participated, and will not participate in any action contrary to Section 2.2.2 of this certification [As used in this subdivision, the term "principals" means the person(s) in the Bidder's organization responsible for determining the prices offered in this Bid];
 - .3 As an authorized agent, does certify that the principals referenced in Section 2.2.3.2 of this certification have not participated, and will not participate, in any action contrary to Section 2.2.2 of this certification; and
 - 4 As an agent, has not personally participated, and will not participate, in any action contrary to Section 2.2.2 of this certification.
- § 2.2.4 If the Bidder deletes or modifies Section 2.2.2.2 of this certification, the Bidder must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

§ 2.2.5 Drug Free Workplace Certification

By submitting a Bid, the Bidder certifies that, if awarded a contract, Bidder will comply with all applicable provisions of The Drug-free Workplace Act, S.C. Code Ann. 44-107-10, et seq.

§ 2.2.6 Certification Regarding Debarment and Other Responsibility Matters

- § 2.2.6.1 By submitting a Bid, Bidder certifies, to the best of its knowledge and belief, that:
 - .1 Bidder and/or any of its Principals-

License Agreement. To report copyright violations, e-mail copyright@aia.org.

- .1 Are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any state or federal agency;
- .2 Have not, within a three-year period preceding this Bid, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of bids; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and
- .3 Are not presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in Section 2.2.6.1.1.2 of this provision.
- .2 Bidder has not, within a three-year period preceding this Bid, had one or more contracts terminated for default by any public (Federal, state, or local) entity.
- .3 "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).
- § 2.2.6.2 Bidder shall provide immediate written notice to the Procurement Officer if, at any time prior to contract award, Bidder learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

- § 2.2.6.3 If Bidder is unable to certify the representations stated in Section 2.2.6.1, Bidder must submit a written explanation regarding its inability to make the certification. The certification will be considered in connection with a review of the Bidder's responsibility. Failure of the Bidder to furnish additional information as requested by the Procurement Officer may render the Bidder non-responsible.
- § 2.2.6.4 Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by Section 2.2.6.1 of this provision. The knowledge and information of a Bidder is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- § 2.2.6.5 The certification in Section 2.2.6.1 of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Bidder knowingly or in bad faith rendered an erroneous certification, in addition to other remedies available to the State, the Procurement Officer may terminate the contract resulting from this solicitation for default.

§ 2.2.7 Ethics Certificate

By submitting a Bid, the Bidder certifies that the Bidder has and will comply with, and has not, and will not, induce a person to violate Title 8, Chapter 13 of the SC Code of Laws, as amended (Ethics Act). The following statutes require special attention: S.C. Code Ann. §8-13-700, regarding use of official position for financial gain; S.C. Code Ann. §8-13-705, regarding gifts to influence action of public official; S.C. Code Ann. §8-13-720, regarding offering money for advice or assistance of public official; S.C. Code Ann. §8-13-755 and §8-13-760, regarding restrictions on employment by former public official; S.C. Code Ann. §8-13-775, prohibiting public official with economic interests from acting on contracts; S.C. Code Ann. §8-13-790, regarding recovery of kickbacks; S.C. Code Ann. §8-13-1150, regarding statements to be filed by consultants; and S.C. Code Ann. §8-13-1342, regarding restrictions on contributions by contractor to candidate who participated in awarding of contract. The State may rescind any contract and recover all amounts expended as a result of any action taken in violation of this provision. If the contractor participates, directly or indirectly, in the evaluation or award of public contracts, including without limitation, change orders or task orders regarding a public contract, the contractor shall, if required by law to file such a statement, provide the statement required by S.C. Code Ann. §8-13-1150 to the Procurement Officer at the same time the law requires the statement to be filed.

§ 2.2.8 Restrictions Applicable To Bidders & Gifts

Violation of these restrictions may result in disqualification of your Bid, suspension or debarment, and may constitute a violation of the state Ethics Act.

- § 2.2.8.1 After issuance of the solicitation, Bidder agrees not to discuss this procurement activity in any way with the Owner or its employees, agents or officials. All communications must be solely with the Procurement Officer. This restriction may be lifted by express written permission from the Procurement Officer. This restriction expires once a contract has been formed.
- § 2.2.8.2 Unless otherwise approved in writing by the Procurement Officer, Bidder agrees not to give anything to the Owner, any affiliated organizations, or the employees, agents or officials of either, prior to award.
- § 2.2.8.3 Bidder acknowledges that the policy of the State is that a governmental body should not accept or solicit a gift, directly or indirectly, from a donor if the governmental body has reason to believe the donor has or is seeking to obtain contractual or other business or financial relationships with the governmental body. SC Regulation 19-445.2165(C) broadly defines the term donor.

§ 2.2.9 Open Trade Representation

By submitting a Bid, the Bidder represents that Bidder is not currently engaged in the boycott of a person or an entity based in or doing business with a jurisdiction with whom South Carolina can enjoy open trade, as defined in S.C. Code Ann. §11-35-5300.

ARTICLE 3 BIDDING DOCUMENTS

License Agreement. To report copyright violations, e-mail copyright@aia.org.

§ 3.1 Distribution

§ 3.1.1 Bidders shall obtain complete Bidding Documents from the issuing office designated in the advertisement or invitation to bid, for the deposit sum, if any, stated therein.

§ 3.1.2 Any required deposit shall be refunded to all plan holders who return the paper Bidding Documents in good condition within ten (10) days after receipt of Bids. The cost to replace missing or damaged paper documents will be deducted from the deposit. A Bidder receiving a Contract award may retain the paper Bidding Documents, and the Bidder's deposit will be refunded.

§ 3.1.3 Reserved

- § 3.1.4 Bidders shall use complete Bidding Documents in preparing Bids. Neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete Bidding Documents.
- § 3.1.5 The Bidding Documents will be available for the sole purpose of obtaining Bids on the Work. No license or grant of use is conferred by distribution of the Bidding Documents.
- § 3.1.6 All persons obtaining Bidding Documents from the issuing office designated in the advertisement shall provide that office with Bidder's contact information to include the Bidder's name, telephone number, mailing address, and email address.

§ 3.2 Modification or Interpretation of Bidding Documents

License Agreement. To report copyright violations, e-mail copyright@aia.org.

- § 3.2.1 The Bidder shall carefully study the Bidding Documents, shall examine the site and local conditions, and shall notify the Architect of errors, inconsistencies, or ambiguities discovered and request clarification or interpretation pursuant to Section 3.2.2. Failure to do so will be at the Bidder's risk. Bidder assumes responsibility for any patent ambiguity that Bidder does not bring to the Architect's attention prior to Bid Opening.
- § 3.2.2 Requests for clarification or interpretation of the Bidding Documents shall be submitted by the Bidder in writing and shall be received by the Architect at least ten (10) days prior to the date for receipt of Bids.
- § 3.2.3 Modifications, corrections, changes, and interpretations of the Bidding Documents shall be made by Addendum. Modifications, corrections, changes, and interpretations of the Bidding Documents made in any other manner shall not be binding, and Bidders shall not rely upon them.
- § 3.2.4 As provided in S.C. Code Ann. Reg. 19-445.2042(B), nothing stated at the Pre-bid conference shall change the Bidding Documents unless a change is made by Addendum.

§ 3.3 Substitutions

§ 3.3.1 The materials, products, and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance, and quality to be met by any proposed substitution. Where "brand name or equal" is used in the Bidding Documents, the listing description is not intended to limit or restrict competition.

§ 3.3.2 Substitution Process

- § 3.3.2.1 Written requests for substitutions shall be received by the Architect at least ten (10) days prior to the date for receipt of Bids. Requests shall be submitted in the same manner as that established for submitting clarifications and interpretations in Section 3.2.2.
- § 3.3.2.2 Bidders shall submit substitution requests on a Substitution Request Form if one is provided in the Bidding Documents.
- § 3.3.2.3 If a Substitution Request Form is not provided, requests shall include (1) the name of the material or equipment specified in the Bidding Documents; (2) the reason for the requested substitution; (3) a complete description of the proposed substitution including the name of the material or equipment proposed as the substitute, performance and test data, and relevant drawings; and (4) any other information necessary for an evaluation. The request shall include a statement setting forth changes in other materials, equipment, or other portions of the Work, including changes in the work of other contracts or the impact on any Project Certifications (such as LEED), that will result from incorporation of the proposed substitution.
- § 3.3.2.4 No request to substitute materials, products, or equipment for materials, products, or equipment described in the Bidding Documents and no request for addition of a manufacturer or supplier to a list of approved manufacturers or suppliers in the Bidding Documents will be considered prior to receipt of Bids unless written request for approval has been received by the Architect at least ten (10) days prior to the date for receipt of Bids established in the invitation to bid.

Any subsequent extension of the date for receipt of Bids by addendum shall not extend the date for receipt of such requests unless the addendum so specifies. A statement setting forth changes in other materials, equipment or other portions of the Work, including changes in the Work of other contracts that incorporation of the proposed substitution would require, shall be included.

- § 3.3.3 The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval of a proposed substitution shall be final.
- § 3.3.4 If the Architect approves a proposed substitution prior to receipt of Bids, such approval shall be set forth in an Addendum. Approvals made in any other manner shall not be binding, and Bidders shall not rely upon them.
- § 3.3.5 No substitutions will be considered after the Contract award unless specifically provided for in the Contract Documents.

§ 3.4 Addenda

- § 3.4.1 Addenda will be transmitted to Bidders known by the issuing office to have received complete Bidding Documents.
- § 3.4.2 Addenda will be available where Bidding Documents are on file.
- § 3.4.3 Addenda will be issued at least five (5) business days before the day of the Bid Opening, except an Addendum withdrawing the request for Bids or one which includes postponement of the date for receipt of Bids. A business day runs from midnight to midnight and excludes weekends and state and federal holidays.
- § 3.4.4 Prior to submitting a Bid, each Bidder shall ascertain that the Bidder has received all Addenda issued, and the Bidder shall acknowledge their receipt in the Bid.
- § 3.4.5 When the date for receipt of Bids is to be postponed and there is insufficient time to issue an Addendum prior to the original Bid Date, the Owner will notify prospective Bidders by telephone or other appropriate means with immediate follow up with an Addendum. This Addendum will verify the postponement of the original Bid Date and establish a new Bid Date. The new Bid Date will be no earlier than the fifth (5th) business day after the date of issuance of the Addendum postponing the original Bid Date.
- § 3.4.6 If an emergency or unanticipated event interrupts normal government processes so that Bids cannot be received at the government office designated for receipt of Bids by the exact time specified in the solicitation, the time specified for receipt of Bids will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal government processes resume. In lieu of an automatic extension, an Addendum may be issued to reschedule Bid Opening. If state offices are closed in the county in which Bids are to be received at the time a pre-bid or pre-proposal conference is scheduled, an Addendum will be issued to reschedule the conference. Bidders shall visit https://www.scemd.org/closings/ for information concerning closings.

ARTICLE 4 BIDDING PROCEDURES

- § 4.1 Preparation of Bids
- § 4.1.1 Bids shall be submitted on the forms included with or identified in the Bidding Documents.
- § 4.1.2 All blanks on the Bid Form shall be legibly executed. Paper bid forms shall be executed in a non-erasable medium.
- § 4.1.3 Sums shall be expressed in numbers.
- § 4.1.4 Interlineations, alterations and erasures must be initialed by the signer of the Bid. Bidder shall not make stipulations or qualify his Bid in any manner not permitted on the Bid Form. An incomplete Bid or information not requested that is written on or attached to the Bid Form that could be considered a qualification of the Bid, may be cause for rejection of the Bid.
- § 4.1.5 All requested Alternates shall be bid. The failure of the Bidder to indicate a price for an Alternate shall render the Bid non-responsive. Indicate the change to the Base Bid by entering the dollar amount and marking, as appropriate, the box for "ADD TO" or "DEDUCT FROM". If no change in the Base Bid is required, enter "ZERO" or "No Change".

- § 4.1.6 Pursuant to S.C. Code Ann. § 11-35-3020(b)(i), as amended, Section 7 of the Bid Form sets forth a list of proposed subcontractors for which the Bidder is required to identify those subcontractors the Bidder will use to perform the work listed. Bidder must follow the instructions in the Bid Form for filling out this section of the Bid Form. Failure to properly fill out Section 7 may result in rejection of Bidder's bid as non-responsive.
- § 4.1.7 Contractors and subcontractors listed in Section 7 of the Bid Form who are required by the South Carolina Code of
 Laws to be licensed, must be licensed as required by law at the time of bidding.
- § 4.1.8 Each copy of the Bid shall state the legal name and legal status of the Bidder. Each copy of the Bid shall be signed by the person or persons legally authorized to bind the Bidder to a contract.
- § 4.1.9 A Bidder shall incur all costs associated with the preparation of its Bid.

§ 4.2 Bid Security

- § 4.2.1 If required by the invitation to bid, each Bid shall be accompanied by a bid security in an amount of not less than five percent of the Base Bid. The bid security shall be a bid bond or a certified cashier's check.
- § 4.2.2 The Bidder pledges to enter into a Contract with the Owner on the terms stated in the Bid and shall, if required, furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds if required, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty.
- § 4.2.3 If a surety bond is required as bid security, it shall be written on AIA Document A310TM, Bid Bond and the attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of an acceptable power of attorney. The Bid Bond shall:
 - .1 be issued by a surety company licensed to do business in South Carolina;
 - .2 be issued by a surety company having, at a minimum, a "Best Rating" of "A" as stated in the most current publication of "Best's Key Rating Guide, Property-Casualty", which company shows a financial strength rating of at least five (5) times the contract price.
 - .3 be enclosed in the bid envelope at the time of Bid Opening, either in paper copy or as an electronic bid bond authorization number provided on the Bid Form and issued by a firm or organization authorized by the surety to receive, authenticate and issue binding electronic bid bonds on behalf the surety.
- § 4.2.4 The Owner will have the right to retain the bid security of Bidders to whom an award is being considered until either (a) the Contract has been executed and performance and payment bonds, if required, have been furnished; (b) the specified time has elapsed so that Bids may be withdrawn; or (c) all Bids have been rejected.
- § 4.2.5 By submitting a Bid Bond via an electronic bid bond authorization number on the Bid Form and signing the Bid Form, the Bidder certifies that an electronic bid bond has been executed by a Surety meeting the standards required by the Bidding Documents and the Bidder and Surety are firmly bound unto the State of South Carolina under the conditions provided in this Section 4.2.

§ 4.3 Submission of Bids

- § 4.3.1 A Bidder shall submit its Bid as indicated below:
- § 4.3.2 All paper copies of the Bid, the bid security, and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall, unless hand delivered by the Bidder, be addressed to the Owner's designated purchasing office as shown in the invitation to bid. The envelope shall be identified with the Project name, the Bidder's name and address, and, if applicable, the designated portion of the Work for which the Bid is submitted. If the Bid is sent by mail, or special delivery service (UPS, Federal Express, etc.), the sealed envelope shall be labelled "SEALED BID ENCLOSED" on the face thereof. Bidders hand delivering their Bids shall deliver Bids to the place of the Bid Opening as shown in the invitation for bids. Whether or not Bidders attend the Bid Opening, they shall give their Bids to the Owner's Procurement Officer or his/her designee as shown in the invitation to bid prior to the time of the Bid Opening.
- § 4.3.3 Bids shall be submitted by the date and time and at the place indicated in the invitation to bid. Bids submitted after the date and time for receipt of Bids, or at an incorrect place, will not be accepted.

- § 4.3.4 The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.
- § 4.3.5 A Bid submitted by any method other than as provided in this Section 4.3 will not be accepted. Oral, telephonic, telegraphic, facsimile or other electronically transmitted bids will not be considered.
- § 4.3.6 The official time for receipt of Bids will be determined by reference to the clock designated by the Owner's Procurement Officer or his/her designee. The Procurement Officer conducting the Bid Opening will determine and announce that the deadline has arrived and no further Bids or bid modifications will be accepted. All Bids and bid modifications in the possession of the Procurement Officer at the time the announcement is completed will be timely, whether or not the bid envelope has been date/time stamped or otherwise marked by the Procurement Officer.

§ 4.4 Modification or Withdrawal of Bid

- § 4.4.1 Prior to the date and time designated for receipt of Bids, a Bidder may submit a new Bid to replace a Bid previously submitted, or withdraw its Bid entirely, by notice to the party designated to receive the Bids. Such notice shall be received and duly recorded by the receiving party on or before the date and time set for receipt of Bids. The receiving party shall verify that replaced or withdrawn Bids are removed from the other submitted Bids and not considered. Notice of submission of a replacement Bid or withdrawal of a Bid shall be worded so as not to reveal the amount of the original Bid.
- § 4.4.2 Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids in the same format as that established in Section 4.3, provided they fully conform with these Instructions to Bidders. Bid security shall be in an amount sufficient for the Bid as resubmitted.

ARTICLE 5 CONSIDERATION OF BIDS

§ 5.1 Opening of Bids

Bids received on time will be publicly opened and read aloud. The Owner will not read aloud Bids that the Owner determines, at the time of opening, to be non-responsive.

- § 5.1.1 At Bid Opening, the Owner will announce the date and location of the posting of the Notice of Intend to Award. If the Owner determines to award the Project, the Owner will, after posting a Notice of Intend to Award, send a copy of the Notice to all Bidders.
- § 5.1.2 The Owner will send a copy of the final Bid Tabulation to all Bidders within ten (10) working days of the Bid Opening.
- § 5.1.3 If only one Bid is received, the Owner will open and consider the Bid.

§ 5.2 Rejection of Bids

- § 5.2.1 The Owner shall have the right to reject any or all Bids. A Bid not accompanied by a required bid security or by other data required by the Bidding Documents, or a Bid which is in any way incomplete or irregular is subject to rejection.
- § 5.2.2 The reasons for which the Owner will reject Bids include, but are not limited to:
 - .1 Failure by a Bidder to be represented at a Mandatory Pre-Bid Conference or site visit;
 - .2 Failure to deliver the Bid on time;
 - .3 Failure to comply with Bid Security requirements, except as expressly allowed by law;
 - .4 Listing an invalid electronic Bid Bond authorization number on the Bid Form;
 - .5 Failure to Bid an Alternate, except as expressly allowed by law;
 - .6 Failure to list qualified subcontractors as required by law;
 - .7 Showing any material modification(s) or exception(s) qualifying the Bid;
 - .8 Faxing a Bid directly to the Owner or Owner's representative; or
 - .9 Failure to include a properly executed Power-of-Attorney with the Bid Bond.
- § 5.2.3 The Owner may reject a Bid as nonresponsive if the prices bid are materially unbalanced between line items or sub-line items. A Bid is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated in relation to cost for other work, and if there is a reasonable doubt that the Bid

will result in the lowest overall cost to the Owner even though it may be the low evaluated Bid, or if it is so unbalanced as to be tantamount to allowing an advance payment.

§ 5.3 Acceptance of Bid (Award)

§ 5.3.1 It is the intent of the Owner to award a Contract to the lowest responsive and responsible Bidder, provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed available funds. The Owner shall have the right to waive informalities and irregularities in a Bid received and to accept the Bid which, in the Owner's judgment, is in the Owner's best interests.

§ 5.3.2 The Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents, and to determine the lowest responsive and responsible Bidder on the basis of the sum of the Base Bid and Alternates accepted.

ARTICLE 6 POST-BID INFORMATION

§ 6.1 Contractor's Responsibility

Owner will make a determination of Bidder's responsibility before awarding a contract. Bidder shall provide all information and documentation requested by the Owner to support the Owner's evaluation of responsibility. Failure of Bidder to provide requested information is cause for the Owner, at its option, to determine the Bidder to be non-responsible.

§ 6.2 Reserved

§ 6.3 Submittals

- § 6.3.1 After notification of selection for the award of the Contract, the Bidder shall, as soon as practicable or as stipulated in the Bidding Documents, submit in writing to the Owner through the Architect:
 - .1 a designation of the Work to be performed with the Bidder's own forces;
 - .2 names of the principal products and systems proposed for the Work and the manufacturers and suppliers of each; and
 - .3 names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the Work.

§ 6.4 Posting of Intent To Award

The Notice of Intent to Award will be posted at the following location:

Room or Area of Posting: Room 144

Building Where Posted: SC Forestry Commission

Address of Building: 5500 Broad River Road, Columbia, SC 29212

WEB site address (if applicable):

Posting date will be announced at Bid Opening. In addition to posting the Notice, the Owner will promptly send all responsive Bidders a copy of the Notice of Intent to Award and the final bid tabulation

§ 6.5 Protest of Solicitation or Award

§ 6.5.1 If you are aggrieved in connection with the solicitation or award of a contract, you may be entitled to protest, but only as provided in S.C. Code Ann. § 11-35-4210. To protest a solicitation, you must submit a protest within fifteen (15) days of the date the applicable solicitation document is issued. To protest an award, you must (i) submit notice if your intent to protest within seven (7) business days of the date the award notice is posted, and (ii) submit your actual protest within fifteen (15) days of the date the award notice is posted. Days are calculated as provided in Section 11-35-310(13). Both protests and notices of intent to protest must be in writing and must be received by the State Engineer within the time provided. The grounds of the protest and the relief requested must be set forth with enough particularity to give notice of the issues to be decided.

- § 6.5.2 Any protest must be addressed to the CPO, Office of State Engineer, and submitted in writing:
 - .1 by email to protest-ose@mmo.sc.gov,

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- .2 by facsimile at 803-737-0639, or
- 3 by post or delivery to 1201 Main Street, Suite 600, Columbia, SC 29201.

By submitting a protest to the foregoing email address, you (and any person acting on your behalf) consent to receive communications regarding your protest (and any related protests) at the e-mail address from which you sent your protest.

ARTICLE 7 PERFORMANCE BOND AND PAYMENT BOND

- § 7.1 Bond Requirements
- § 7.1.1 If stipulated in the Bidding Documents, the Bidder shall furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder.
- § 7.1.2 If the furnishing of such bonds is stipulated in the Bidding Documents, the cost shall be included in the Bid.
- § 7.1.3 The Bidder shall provide surety bonds from a company or companies lawfully authorized to issue surety bonds in the state of South Carolina.
- § 7.1.4 Unless otherwise indicated below, the Penal Sum of the Payment and Performance Bonds shall be the amount of 100% of the Contract Sum.
- § 7.2 Time of Delivery of Contract, Certificates of Insurance, and Form of Bonds
- § 7.2.1 Following expiration of the protest period, the Owner will forward the Contract for Construction to the Bidder for signature. The Bidder shall return the fully executed Contract for Construction to the Owner within seven (7) days. The Bidder shall deliver the required bonds and certificate of insurance to the Owner not later than three (3) days following the date of execution of the Contract. Failure to deliver these documents as required shall entitle the Owner to consider the Bidder's failure as a refusal to enter into a contract in accordance with the terms and conditions of the Bidder's Bid and to make claim on the Bid Security for re-procurement cost.
- § 7.2.2 Unless otherwise provided, the bonds shall be written on the Performance Bond and Payment Bond forms included in the Bid Documents.
- § 7.2.3 The bonds shall be dated on or after the date of the Contract.

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§ 7.2.4 The Bidder shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix to the bond a certified and current copy of the power of attorney.

ENUMERATION OF THE PROPOSED CONTRACT DOCUMENTS

- § 8.1 Copies of the proposed Contract Documents have been made available to the Bidder and consist of the following documents:
 - .1 AIA Document A101TM_2017, Standard Form of Agreement Between Owner and Contractor, SCOSE
 - .2 AIA Document A101TM_2017, Exhibit A, Insurance and Bonds, SCOSE Version.
 - .3 AIA Document A201TM_2017, General Conditions of the Contract for Construction, SCOSE Version.

.4 Drawings

	Number	Title	Date	
8				
.5	Specifications			
	Section	Title	Date	Pages

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.6	Adder	ıda:		
	Numb	er	Date	Pages
.7		Exhibits:		
	(Checi			dentifying the exhibit where required.)
		AIA Document E203 TM —2013 indicated below:	B, Building Information Mod	leling and Digital Data Exhibit, dated as
		AIA Document E204TM_2017	, Sustainable Projects Exhib	it, dated as indicated below:
		The Sustainability Plan:		
		Supplementary and other Con	ditions of the Contract:	
.8		documents listed below: ere any additional documents th	nat are intended to form part	of the Proposed Contract Documents.)

ARTICLE 9 Miscellaneous

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§ 9.1 Nonresident Taxpayer Registration Affidavit Income Tax Withholding Important Tax Notice - Nonresidents Only § 9.1.1 Withholding Requirements for Payments to Nonresidents: SC Code of Laws §12-8-550 requires persons hiring or contracting with a nonresident conducting a business or performing personal services of a temporary nature within South Carolina to withhold 2% of each payment made to the nonresident. The withholding requirement does not apply to (1) payments on purchase orders for tangible personal property when the payments are not accompanied by services to be performed in South Carolina, (2) nonresidents who are not conducting business in South Carolina, (3) nonresidents for contracts that do not exceed \$10,000 in a calendar year, or (4) payments to a nonresident who (a) registers with either the S.C. Department of Revenue or the S.C. Secretary of State and (b) submits a Nonresident Taxpayer Registration Affidavit - Income Tax Withholding, Form I-312 to the person letting the contract.

§ 9.1.2 For information about other withholding requirements (e.g., employee withholding), contact the Withholding Section at the South Carolina Department of Revenue at 803-898-5383 or visit the Department's website at: www.sctax.org

§ 9.1.3 This notice is for informational purposes only. This Owner does not administer and has no authority over tax issues. All registration questions should be directed to the License and Registration Section at 803-898-5872 or to the South Carolina Department of Revenue, Registration Unit, Columbia, S.C. 29214-0140. All withholding questions should be directed to the Withholding Section at 803-898-5383.

PLEASE SEE THE "NONRESIDENT TAXPAYER REGISTRATION AFFIDAVIT INCOME TAX WITHHOLDING" FORM (Available through SC Department of Revenue).

§ 9.2 Submitting Confidential Information

- § 9.2.1 For every document the Bidder submits in response to or with regard to this solicitation or request, the Bidder must separately mark with the word "CONFIDENTIAL" every page, or portion thereof, that the Bidder contends contains information that is exempt from public disclosure because it is either (a) a trade secret as defined in Section 30-4-40(a)(1), or (b) privileged & confidential, as that phrase is used in SC Code of Laws §11-35-410.
- § 9.2.2 For every document the Bidder submits in response to or with regard to this solicitation or request, the Bidder must separately mark with the words "TRADE SECRET" every page, or portion thereof, that the Bidder contends contains a trade secret as that term is defined by SC Code of Laws §39-8-20.
- § 9.2.3 For every document the Bidder submits in response to or with regard to this solicitation or request, the Bidder must separately mark with the word "PROTECTED" every page, or portion thereof, that the Bidder contends is protected by SC Code of Laws §11-35-1810.
- § 9.2.4 All markings must be conspicuous; use color, bold, underlining, or some other method in order to conspicuously distinguish the mark from the other text. Do not mark your entire Bid as confidential, trade secret, or protected! If your Bid, or any part thereof, is improperly marked as confidential or trade secret or protected, the State may, in its sole discretion, determine it nonresponsive. If only portions of a page are subject to some protection, do not mark the entire page.
- § 9.2.5 By submitting a response to this solicitation, Bidder (1) agrees to the public disclosure of every page of every document regarding this solicitation or request that was submitted at any time prior to entering into a contract (including, but not limited to, documents contained in a response, documents submitted to clarify a response, & documents submitted during negotiations), unless the page is conspicuously marked "TRADE SECRET" or "CONFIDENTIAL" or "PROTECTED", (2) agrees that any information not marked, as required by these bidding instructions, as a "Trade Secret" is not a trade secret as defined by the Trade Secrets Act, & (3) agrees that, notwithstanding any claims or markings otherwise, any prices, commissions, discounts, or other financial figures used to determine the award, as well as the final contract amount, are subject to public disclosure.
- § 9.2.6 In determining whether to release documents, the State will detrimentally rely on the Bidders' marking of documents, as required by these bidding instructions, as being either "Confidential" or "Trade Secret" or "PROTECTED".
- § 9.2.7 By submitting a response, the Bidder agrees to defend, indemnify & hold harmless the State of South Carolina, its officers & employees, from every claim, demand, loss, expense, cost, damage or injury, including attorney's fees, arising out of or resulting from the State withholding information that Bidder marked as "confidential" or "trade secret" or "PROTECTED".

§ 9.3 Solicitation Information From Sources Other Than Official Source

South Carolina Business Opportunities (SCBO) is the official state government publication for State of South Carolina solicitations. Any information on State agency solicitations obtained from any other source is unofficial and any reliance placed on such information is at the Bidder's sole risk and is without recourse under the South Carolina Consolidated Procurement Code.

§ 9.4 Builder's Risk Insurance

Bidders are directed to Exhibit A of the AIA Document A101, 2017 SCOSE Version, which, unless provided otherwise in the Bid Documents, requires the contractor to provide builder's risk insurance on the project.

§ 9.5 Tax Credit For Subcontracting With Minority Firms

§ 9.5.1 Pursuant to S.C. Code Ann. §12-6-3350, taxpayers, who utilize certified minority subcontractors, may take a tax credit equal to 4% of the payments they make to said subcontractors. The payments claimed must be based on work performed directly for a South Carolina state contract. The credit is limited to a maximum of fifty thousand dollars annually. The taxpayer is eligible to claim the credit for 10 consecutive taxable years beginning with the taxable year in which the first payment is made to the subcontractor that qualifies for the credit. After the above ten consecutive taxable years, the taxpayer is no longer eligible for the credit. The credit may be claimed on Form TC-2, "Minority Business Credit." A copy of the subcontractor's certificate from the Governor's Office of Small and Minority Business (OSMBA) is to be attached to the contractor's income tax return.

- § 9.5.2 Taxpayers must maintain evidence of work performed for a State contract by the minority subcontractor. Questions regarding the tax credit and how to file are to be referred to: SC Department of Revenue, Research and Review, Phone: (803) 898-5786, Fax: (803) 898-5888.
- § 9.5.3 The subcontractor must be certified as to the criteria of a "Minority Firm" by the Governor's Office of Small and Minority Business Assistance (OSMBA). Certificates are issued to subcontractors upon successful completion of the certification process. Questions regarding subcontractor certification are to be referred to: Governor's Office of Small and Minority Business Assistance, Phone: (803) 734-0657, Fax: (803) 734-2498. Reference: S.C. Code Ann. §11-35-5010 Definition for Minority Subcontractor & S.C. Code Ann. §11-35-5230 (B) Regulations for Negotiating with State Minority Firms.
- § 9.6 Other Special Conditions Of The Work

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Replacement Page

Bid Bond must be provided in the form of

AIA Document A310

Which is available for Review in the Agency's Office

South Carolina Forestry Commission 5500 Broad River Road Columbia, SC 29212

Telephone (803) 896-8829

Bidders shall submit bids on only Bid Form SE-330.

BID	SUBMITTED BY: (Bidder's Name)
DID	
DID	SUBMITTED TO: South Carolina Forestry Commission (Agency's Name)
EOD	
FOR	
	PROJECT NUMBER: P12-9603-PG
OFF	<u>ER</u>
§ 1.	In response to the Invitation for Construction Services and in compliance with the Instructions to Bidders for the above- named Project, the undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into a Contract with the Agency on the terms included in the Bidding Documents, and to perform all Work as specified or indicated in the Bidding Documents, for the prices and within the time frames indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.
§ 2.	Pursuant to SC Code § 11-35-3030(1), Bidder has submitted Bid Security in the amount and form required by the Bidding Documents.
§ 3.	Bidder acknowledges the receipt of the following Addenda to the Bidding Documents and has incorporated the effects of said Addenda into this Bid: (Bidder, check all that apply. Note, there may be more boxes than actual addenda. Do not check boxes that do not apply) ADDENDA: #1 #2 #3 #4 #5
§ 4.	Bidder accepts all terms and conditions of the Invitation for Bids, including, without limitation, those dealing with the disposition of Bid Security. Bidder agrees that this Bid, including all Bid Alternates, if any, may not be revoked or withdrawn after the opening of bids, and shall remain open for acceptance for a period of <u>60</u> Days following the Bid Date, or for such longer period of time that Bidder may agree to in writing upon request of the Agency.
§ 5.	Bidder herewith offers to provide all labor, materials, equipment, tools of trades and labor, accessories, appliances, warranties and guarantees, and to pay all royalties, fees, permits, licenses and applicable taxes necessary to complete the following items of construction work:
§ 6.1	BASE BID WORK (as indicated in the Bidding Documents and generally described as follows): This project consists of the removal and disposal of an existing 1-span concrete bridge deck, 2-end bents and replacement by a single span, Prefabricated steel bridge superstructure with open-grate decking and modified concrete end bents with backwalls and timber piling/approach slabs.
	\$, which sum is hereafter called the Base Bid. (Bidder to insert Base Bid Amount on line above)

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§ 7. LISTING OF PROPOSED SUBCONTRACTORS PURSUANT TO SECTION 3020(b)(i), CHAPTER 35, TITLE 11 OF THE SOUTH CAROLINA CODE OF LAWS, AS AMENDED

(See Instructions on the following page BF-2A)

Bidder shall use the below-listed Subcontractors in the performance of the Subcontractor Classification work listed:

(A) SUBCONTRACTOR LICENSE CLASSIFICATION or SUBCLASSIFICATION NAME (Completed by Agency)	(B) LICENSE CLASSIFICATION or SUBCLASSIFICATION ABBREVIATION (Completed by Agency)	(C) SUBCONTRACTOR and/or PRIME CONTRACTOR (Required - must be completed by Bidder)	(D) SUBCONTRACTOR'S and/or PRIME CONTRACTOR'S SC LICENSE NUMBER (Requested, but not Required)
	BA	ASE BID	
N/A	N/A		
	ALTI	ERNATE #1	
N/A	N/A		
	ALTI	ERNATE #2	
N/A	N/A		
	ALTI	ERNATE #3	
N/A	N/A		
			•

If a Bid Alternate is accepted, Subcontractors listed for the Bid Alternate shall be used for the work of both the Alternate and the Base Bid work.

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INSTRUCTIONS FOR SUBCONTRACTOR LISTING

- 1. Section 7 of the Bid Form sets forth an Agency-developed list of subcontractor license classifications or subclassifications for which Bidder is required to identify the entity (subcontractor(s) and/or himself) Bidder will use to perform this work.
 - **a.** Columns A & B: The Agency fills out these columns to identify the subcontractor license classification/subclassification and related license abbreviation for which the Bidder must list either a subcontractor or himself as the entity that will perform this work. In Column A, the subcontractor license classification/subclassification is identified by name and in Column B, the related contractor license abbreviation (per Title 40 of the SC Code of Laws) is listed. Abbreviations of licenses can be found at: https://llr.sc.gov/clb/PDFFiles/CLBClassificationAbbreviations.pdf. If the Agnecy has not identified a subcontractor license classification/subclassification, the Bidder does not list a subcontractor.
 - b. Columns C and D: In these columns, the Bidder identifies the subcontractors it will use for the work of each license listed by the Agency in Columns A & B. Bidder must identify only the subcontractor(s) who will perform the work and no others. Bidders must make sure that their identification of each subcontractor is clear and unambiguous. A listing that could be any number of different entities may be cause for rejection of the bid as non-responsive. For example, a listing of M&M without additional information may be problematic if there are multiple different licensed contractors in South Carolina whose names start with M&M.
- 2. Subcontractor Defined: For purposes of subcontractor listing, a subcontractor is an entity who will perform work or render service to the prime contractor to or about the construction site pursuant to a contract with the prime contractor. Bidder should not identify sub-subcontractors in the spaces provided on the bid form but only those entities with which Bidder will contract directly. Likewise, do not identify material suppliers, manufacturers, and fabricators that will not perform physical work at the site of the project but will only supply materials or equipment to the Bidder or proposed subcontractor(s).
- **3. Subcontractor Qualifications:** Bidder must only list subcontractors who possess a South Carolina contractor's license that includes the license classification and/or subclassification identified by the Agency in Columns A & B. The subcontractor license must also be within the appropriate license group for the work. If Bidder lists a subcontractor who is not qualified to perform the work, the Bidder will be rejected as non-responsible.
- **4. Use of Own forces:** If, under the terms of the Bidding Documents and SC Contractor Licensing laws, Bidder is qualified to perform the work of a listed subcontractor classification or subclassification and Bidder does not intend to subcontract such work but to use Bidder's own employees to perform such work, the Bidder must insert itself in the space provided.

5. Use of Multiple Subcontractors:

- **a.** If Bidder intends to use multiple subcontractors to perform the work of a single license classification/subclassification, Bidder must insert the name of each subcontractor Bidder will use, preferably separating the name of each by the word "and". If Bidder intends to use both his own employees to perform a part of the work of a single license classification/subclassification and to use one or more subcontractors to perform the remaining work, Bidder must insert itself and each subcontractor, preferably separating them with the word "and". Bidder must use each entity listed for the work of a single license classification/subclassification in the performance of that work.
- b. Optional Listing Prohibited: Bidder may not list multiple subcontractors for a license classification/subclassification in a form that provides the Bidder the option, after bid opening or award, to choose one or more but not all the listed subcontractors to perform the work for which they are listed. A listing, which on its face requires subsequent explanation to determine whether it is an optional listing, is non-responsive. If Bidder intends to use multiple entities to perform the work for a single listing, Bidder must clearly set forth on the bid form such intent. Bidder may accomplish this by simply inserting the word "and" between the names of each entity listed. Agency will reject as non-responsive a listing that contains the names of multiple subcontractors separated by a blank space, the word "or", a virgule (that is a /), or any separator that the Agency may reasonably interpret as an optional listing.
- **6.** If Bidder is awarded the contract, Bidder must, except with the approval of the Agency for good cause shown, use the listed entities to perform the work for which they are listed.
- 7. If Bidder is awarded the contract, Bidder will not be allowed to substitute another entity as subcontractor in place of a subcontractor listed in Section 7 of the Bid except for one or more of the reasons allowed by the SC Code of Laws.
- **8.** Bidder's failure to identify an entity (subcontractor or himself) to perform the work of a subcontractor listed in Columns A & B will render the Bid non-responsive.

BF – 2A SE-330

SIGNATURE AND TITLE:____

§ 8. LIST OF MANUFACTURERS, MATERIAL SUPPLIERS, AND SUBCONTRACTORS OTHER THAN SUBCONTRACTORS LISTED IN SECTION 7 ABOVE (FOR INFORMATION ONLY):

Pursuant to instructions in the Invitation for Construction Services, if any, Bidder will provide to Agency upon the Agency's request and within 24 hours of such request, a listing of manufacturers, material suppliers, and subcontractors, other than those listed in Section 7 above, that Bidder intends to use on the project. Bidder acknowledges and agrees 91.915

§ 9.

	req	uirements of SC Code § 11-35-3020(b)(i).
§ 9.	TI	ME OF CONTRACT PERFORMANCE AND LIQUIDATED DAMAGES
	a)	CONTRACT TIME
		Bidder agrees that the Date of Commencement of the Work shall be established in a Notice to Proceed to be issued
		by the Agency. Bidder agrees to substantially complete the Work within Calendar Days
		from the Date of Commencement, subject to adjustments as provided in the Contract Documents.
	b)	LIQUIDATED DAMAGES
		Bidder further agrees that from the compensation to be paid, the Agency shall retain as Liquidated Damages the amount of \$ for each Calendar Day the actual construction time required to achieve
		Substantial Completion exceeds the specified or adjusted time for Substantial Completion as provided in the
		Contract Documents. This amount is intended by the parties as the predetermined measure of compensation for
		actual damages, not as a penalty for nonperformance.
§ 10.	AC	GREEMENTS
	a)	Bidder agrees that this bid is subject to the requirements of the laws of the State of South Carolina.
	b)	Bidder agrees that at any time prior to the issuance of the Notice to Proceed for this Project, this Project may be canceled for the convenience of, and without cost to, the State.
	c)	Bidder agrees that neither the State of South Carolina nor any of its agencies, employees or agents shall be
		responsible for any bid preparation costs, or any costs or charges of any type, should all bids be rejected or the
		Project canceled for any reason prior to the issuance of the Notice to Proceed.
§ 11.	EL	ECTRONIC BID BOND
	Ву	signing below, the Principal is affirming that the identified electronic bid bond has been executed and that the
	Pri	ncipal and Surety are firmly bound unto the State of South Carolina under the terms and conditions of the AIA
	Do	cument A310, Bid Bond, referenced in the Bidding Documents.
	EL	ECTRONIC BID BOND NUMBER:

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CONTRACTOR'S CLASSIFICATIONS AND SUBCLASSIFICATIONS WITH LIMITATION SC Contractor's License Number(s): Classification(s) & Limits: Subclassification(s) & Limits:______ By signing this Bid, the person signing reaffirms all representation and certification made by both the person signing and the Bidder, including without limitation, those appearing in Article 2 of the SCOSE Version of the AIA Document A701, Instructions to Bidders, is expressly incorporated by reference. BIDDER'S LEGAL NAME:_____ ADDRESS:_____ TELEPHONE: EMAIL: SIGNATURE: DATE: PRINT NAME:

BF 4 SE-330

South Carolina Division of Procurement Services, Office of State Engineer Version of MAIA® Document A101® – 2017

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum

This version of AIA Document A101°–2017 is modified by the South Carolina Division of Procurement Services, Office of State Engineer ("SCOSE"). Publication of this version of AIA Document A101–2017 does not imply the American Institute of Architects' endorsement of any modification by SCOSE. A comparative version of AIA Document A101–2017 showing additions and deletions by SCOSE is available for review on the SCOSE Web site.

Cite this document as "AIA Document A101°-2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum — SCOSE Version," or "AIA Document A101°-2017 — SCOSE Version."

South Carolina Division of Procurement Services, Office of State Engineer Version of AIA Document A101®– 2017

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum

AGREEMENT made as of the day of in the year (In words, indicate day, month and year.)

BETWEEN the Owner:
(Name, legal status, address and other information)

South Carolina Forestry Commission 5500 Broad River Road Columbia, SC 29212

The Owner is a Governmental Body of the State of South Carolina as defined in S.C. Code Ann. § 11-35-310.

and the Contractor: (Name, legal status, address and other information)

for the following Project:
(Name, State Project Number, location and detailed description)
Wee Tee Bridge #1 Replacement Project
P12-9603-PG
Williamsburg, South Carolina

The Architect: (Name, legal status, address and other information)
Dennis Corporation
1800 Huger St
Columbia, SC 29201

This version of AIA Document A101-2017 is modified by the South Carolina Division of Procurement Services, Office of State Engineer. Publication of this version of AIA Document A101 does not imply the American Institute of Architects' endorsement of any modification by South Carolina Division of Procurement Services, Office of State Engineer. A comparative version of AIA Document A101-2017 showing additions and deletions by the South Carolina Division of Procurement Services, Office of State Engineer is available for review on South Carolina state Web site.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

The Owner and Contractor agree as follows.

TABLE OF ARTICLES

- 1 THE CONTRACT DOCUMENTS
- 2 THE WORK OF THIS CONTRACT
- 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
- 4 CONTRACT SUM
- 5 PAYMENTS
- 6 DISPUTE RESOLUTION
- 7 TERMINATION OR SUSPENSION
- 8 MISCELLANEOUS PROVISIONS
- 9 ENUMERATION OF CONTRACT DOCUMENTS

EXHIBIT A INSURANCE AND BONDS

ARTICLE 1 THE CONTRACT DOCUMENTS

§ 1.1 The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9.

§ 1.2 Any reference in this document to the Agreement between the Owner and Contractor, AIA Document A101, or some abbreviated reference thereof, shall mean the AIA A101-2017 Standard Form of Agreement Between Owner and Contractor, SCOSE Version. Any reference in this document to the General Conditions of the Contract for Construction, AIA Document A201, or some abbreviated reference thereof, shall mean the AIA A201-2017 General Conditions of the Contract for Construction, SCOSE Version.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The Date of Commencement of the Work shall be the date fixed in a Notice to Proceed issued by the Owner. The Owner shall issue the Notice to Proceed to the Contractor in writing, no less than seven (7) days prior to the Date of Commencement. Unless otherwise provided elsewhere in the Contract Documents and provided the Contractor has secured all required insurance and surety bonds, the Contractor may commence work immediately after receipt of the Notice to Proceed.

§ 3.2 The Contract Time as provided in the Notice to Proceed for this project shall be measured from the Date of Commencement of the Work to Substantial Completion.

§ 3.3 Substantial Completion

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work within the Contract Time indicated in the Notice to Proceed.

§ 3.3.2 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, liquidated damages, if any, shall be assessed as set forth in Section 4.5.

1

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum, including all accepted alternates indicated in the bid documents, in current funds for the Contractor's performance of the Contract. The Contract Sum shall be

(\$), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 Alternates

§ 4.2.1 Alternates that are accepted, if any, included in the Contract Sum: (Insert the accepted Alternates.)

Item

Price

§ 4.3 Allowances, if any, included in the Contract Sum: (Identify each allowance.)

Item

Price

§ 4.4 Unit prices, if any:

(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)

Item

Units and Limitations

Price per Unit (\$0.00)

§ 4.5 Liquidated damages

§ 4.5.1 Contractor agrees that from the compensation to be paid, the Owner shall retain as liquidated damages the amount indicated in Section 9(b) of the Bid Form for each calendar day the actual construction time required to achieve Substantial Completion exceeds the specified or adjusted time for Substantial Completion as provided in the Contract Documents. The liquidated damages amount is intended by the parties as the predetermined measure of compensation for actual damages, not as a penalty.

§ 4.6 Other:

(Insert provisions for bonus or other incentives, if any, that might result in a change to the Contract Sum.)

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments

- § 5.1.1 Based upon Applications for Payment submitted to the Architect and Owner by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.
- § 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:
- § 5.1.3 The Owner shall make payment of the certified amount to the Contractor not later than twenty-one (21) days after receipt of the Application for Payment.
- § 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.
- § 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.
- § 5.1.6 Subject to S.C. Code Ann. § 12-8-550 (Withholding Requirements for Payments to Non-Residents), in accordance with AIA Document A201®–2017, General Conditions of the Contract for Construction, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:
- § 5.1.6.1 The amount of each progress payment shall first include:
 - .1 That portion of the Contract Sum properly allocable to completed Work;
 - .2 That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and
 - .3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.
- § 5.1.6.2 The amount of each progress payment shall then be reduced by:
 - .1 The aggregate of any amounts previously paid by the Owner;
 - .2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201–2017;
 - .3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
 - .4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A201–2017; and
 - .5 Retainage withheld pursuant to Section 5.1.7.

§ 5.1.7 Retainage

e-mail copyright@aia.org.

- § 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold three and one-half percent (3.5%), as retainage, from the payment otherwise due.
- § 5.1.7.2 When a portion, or division, of Work as listed in the Schedule of Values is 100% complete, that portion of the retained funds which is allocable to the completed division must be released to the Contractor. No later than ten (10) days after receipt of retained funds from the Owner, the Contractor shall pay to the subcontractor responsible for such completed work the full amount of retainage allocable to the subcontractor's work.
- § 5.1.7.3 Upon Substantial Completion of the Work, the Contractor may submit an Application for Payment that includes the retainage withheld from prior Applications for Payment pursuant to this Section 5.1.7.

may only be used in accordance with the AIA Contract Documents® Documents-on-Demand - End User License Agreement. To report copyright violations,

§ 5.1.8 If final completion of the Work is materially delayed through no fault of the Contractor, the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A201–2017.

§ 5.1.9 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 Final Payment

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Article 12 of AIA Document A201–2017, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner's final payment to the Contractor shall be made no later than twenty-one (21) days after the issuance of the Architect's final Certificate for Payment.

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 Claims and disputes shall be resolved in accordance with Article 15 of AIA Document A201-2017.

ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–2017.

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2017.

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 The Owner's representative:

§ 8.2.1 The Owner designates the individual listed below as its Senior Representative ("Owner's Senior Representative"), which individual has the responsibility for and, subject to Section 7.2.1 of the General Conditions, the authority to resolve disputes under Section 15.6 of the General Conditions:

Name: David Owen

Title: Construction & Property Manager

Address: 5500 Broad River Road, Columbia, SC 29212

Telephone: (803) 896-8829 Email: DOwen@scfc.gov

§ 8.2.2 The Owner designates the individual listed below as its Owner's Representative, which individual has the authority and responsibility set forth in Section 2.1.1 of the General Conditions:

Name: Gene Haskins

Title: Sr. Engineer & Construction Manager Address: 1800 Huger Street, Columbia, SC 29201

Telephone: (803) 227-8601

Email: ghaskins@denniscorporation.com

§ 8.3 The Contractor's representative:

§ 8.3.1 The Contractor designates the individual listed below as its Senior Representative ("Contractor's Senior Representative"), which individual has the responsibility for and authority to resolve disputes under Section 15.6 of the General Conditions:

Name:

Title:

Address:

Telephone:

Email:

§ 8.3.2 The Contractor designates the individual listed below as its Contractor's Representative, which individual has the authority and responsibility set forth in Section 3.1.1 of the General Conditions:

Name:

Title:

Address:

Telephone:

Email:

§ 8.4 Neither the Owner's nor the Contractor's representative shall be changed without ten days' prior notice to the other party.

§ 8.5 The Architect's representative: Dennis Corporation

Name: Gene Haskins

Title: Sr. Engineer & Construction Manager **Address:** 1800 Huger Street, Columbia, SC 29201

Telephone: (803) 227-8601

Email: ghaskins@denniscorporation.com

§ 8.6 Insurance and Bonds

§ 8.6.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A101®—2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents.

§ 8.6.2 The Contractor shall provide bonds as set forth in AIA Document A101°-2017 Exhibit A, and elsewhere in the Contract Documents.

§ 8.7 Notice in electronic format, pursuant to Article 1 of AIA Document A201–2017, may be given in accordance with AIA Document E203TM–2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below:

(If other than in accordance with AIA Document E203–2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

§ 8.8 Other Provisions:

§ 8.8.1 Additional requirements, if any, for the Contractor's Construction Schedule are as follows:

(Check box if applicable to this Contract)

The Construction Schedule shall be in a detailed precedence-style critical path management (CPM) or primaveratype format satisfactory to the Owner and the Architect that shall also (1) provide a graphic representation of all activities and events that will occur during performance of the Work; (2) identify each phase of construction and occupancy; and (3) set forth milestone dates that are critical in ensuring the timely and orderly completion of the Work in accordance with the requirements of the Contract Documents.

.1 Upon review by the Owner and the Architect for conformance with milestone dates and Construction Time given in the Bidding Documents, with associated Substantial Completion date, the Construction Schedule shall be deemed part of the Contract Documents and attached to the Agreement as an Exhibit. If returned for non-conformance, the Construction Schedule shall be promptly revised by the Contractor in accordance with the recommendations of the Owner and the Architect and resubmitted.

Init.

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- .2 The Contactor shall monitor the progress of the Work for conformance with the requirements of the Construction Schedule and shall promptly advise the Owner of any delays or potential delays. Whenever the Construction Schedule no longer reflects actual conditions and progress of the Work or the Contract Time is modified in accordance with the terms of the Contract Documents, the Contractor shall update the Construction Schedule to reflect such conditions.
- .3 In the event any progress report indicates any delays, the Contractor shall propose an affirmative plan to correct the delay, including overtime and/or additional labor, if necessary.
- .4 In no event shall any progress report constitute an adjustment in the Contract Time, any milestone date, or the Contract Sum unless any such adjustment is agreed to by the Owner and authorized pursuant to Change Order.

§ 8.8.2 The Owner's review of the Contractor's schedule is not conducted for the purpose of either determining its accuracy, completeness, or approving the construction means, methods, techniques, sequences or procedures. The Owner's review shall not relieve the Contractor of any obligations.

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

Drawings

Specifications

.6

§ 9.1 This Agreement is comprised of the following documents:

- .1 AIA Document A101®–2017, SCOSE Version Standard Form of Agreement Between Owner and Contractor
- .2 AIA Document A101°-2017, Exhibit A, Insurance and Bonds
- .3 AIA Document A201®-2017, SCOSE Version General Conditions of the Contract for Construction
- .4 Form SE-390, Notice to Proceed Construction Contract
 - Number Title Date

	Section	Title	D-4	В
	Section	Title	Date	Pages
.7	Addenda, if any:			
	Number	Date	Pages	

Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

.8	Other E	xhibits: all boxes that apply and include a	ppropriate information iden	ifying the exhibit	where required.)
		AIA Document E204 TM –2017, S (Insert the date of the E204-2017)			below:
		The Sustainability Plan:			
	Title		Date	Pages	
		Supplementary and other Condit	ions of the Contract:		
	Docu	ment	Title	Date	Pages

.9 Other documents, if any, listed below:

(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201®–2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)

Form SE-310, Invitation for Construction Services

Instructions to Bidders (AIA Document A701-2018 OSE Version)

Form SE-330, Contractor's Bid (Completed Bid Form)

Form SE-370, Notice of Intent to Award

Certificate of Procurement Authority issued by the State Fiscal Accountability Authority

This Agreement entered into as of the day and	d year first written above.
OWNER (Signature)	CONTRACTOR (Signature)
(Printed name and title)	(Printed name and title)

South Carolina Division of Procurement Services, Office of State Engineer Version of MATA Document A101® – 2017 Exhibit A

Insurance and Bonds

This Insurance and Bonds Exhibit is part of the Agreement, between the Owner and the Contractor, dated the day of in the year (In words, indicate day, month and year.)

for the following PROJECT:

(Name, State Project Number, and location or address)

Wee Tee Bridge #1 Replacement Project P12-9603-PG Williamsburg, South Carolina

THE OWNER:

(Name, legal status and address)

South Carolina Forestry Commission 5500 Broad River Road Columbia, SC 29212

This version of AIA Document A101-2017 Exhibit A is modified by the South Carolina Division of Procurement, Office of State Engineer. Publication of this version of AIA Document A101 Exhibit A does not imply the American Institute of Architects' endorsement of any modification by the South Carolina Division of Procurement, Office of State Engineer.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

The Owner is a Governmental Body of the State of South Carolina as defined by Title 11, Chapter 35 of the South Carolina Code of Laws, as amended.

THE CONTRACTOR:

(Name, legal status and address)

TABLE OF ARTICLES

A.1 **GENERAL**

A.2 **OWNER'S INSURANCE**

A.3 CONTRACTOR'S INSURANCE AND BONDS

SPECIAL TERMS AND CONDITIONS A.4

ARTICLE A.1 GENERAL

The Owner and Contractor shall purchase and maintain insurance, and provide bonds, as set forth in this Exhibit. As used in this Exhibit, the term General Conditions refers to AIA Document A201®-2017, General Conditions of the Contract for Construction, SCOSE Version.

ARTICLE A.2 OWNER'S INSURANCE

§ A.2.1 General

Prior to commencement of the Work, the Owner shall secure the insurance, and provide evidence of the coverage, required under this Article A.2 and, upon the Contractor's request, provide a copy of the policies required by Section A.2.3. The copy of the policy or policies provided shall contain all applicable conditions, definitions, exclusions, and endorsements.

§ A.2.2 Liability Insurance

The Owner shall be responsible for purchasing and maintaining the Owner's usual general liability insurance.

§ A.2.3.1 Reserved

§ A.2.3.1.1 Reserved

§ A.2.3.1.2 Reserved

§ A.2.3.1.3 Reserved

§ A.2.3.1.4 Reserved

§ A.2.3.2 Reserved

§ A.2.3.2 Reserved

§ A.2.3.1 Reserved

§ A.2.3.1 Reserved

§ A.2.3.2 Reserved

§ A.2.3.1 Reserved

§ A.2.3.2 Reserved

§ A.2.3.3 Reserved

§ A.2.4.1 Optional Insurance.

The Owner shall purchase and maintain any insurance selected below.

§ A.2.4.1 Other Insurance

(List below any other insurance coverage to be provided by the Owner and any applicable limits.)

Limits

ARTICLE A.3 CONTRACTOR'S INSURANCE AND BONDS

Demand - End User License Agreement. To report copyright violations, e-mail copyright@aia.org.

§ A.3.1 General

Coverage

§ A.3.1.1 Certificates of Insurance. The Contractor shall provide certificates of insurance acceptable to the Owner evidencing compliance with the requirements in this Article A.3 at the following times: (1) prior to commencement of the Work; (2) upon renewal or replacement of each required policy of insurance; and (3) upon the Owner's written request. An additional certificate evidencing continuation of commercial liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment and thereafter upon renewal or replacement of such coverage until the expiration of the periods required by Section A.3.2.1 and Section A.3.3.1. The certificates will show the Owner as an additional insured on the Contractor's Commercial General Liability and excess or umbrella liability policy or policies. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness.

§ A.3.1.2 Deductibles and Self-Insured Retentions. The Contractor shall disclose to the Owner any deductible or self-insured retentions applicable to any insurance required to be provided by the Contractor.

§ A.3.1.3 Additional Insured Obligations. To the fullest extent permitted by law, the Contractor shall cause the commercial general liability coverage to include (1) the Owner, the Architect, and the Architect's consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the

Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions for which loss occurs during completed operations. The additional insured coverage shall be primary and non-contributory to any of the Owner's general liability insurance policies and shall apply to both ongoing and completed operations, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. To the extent commercially available, the additional insured coverage shall be no less than that provided by Insurance Services Office, Inc. (ISO) forms CG 20 10 07 04, CG 20 37 07 04, and, with respect to the Architect and the Architect's consultants, CG 20 32 07 04.

§ A.3.1.4 A failure by the Owner to either (i) demand a certificate of insurance or written endorsement required by Section A.3, or (ii) reject a certificate or endorsement on the grounds that it fails to comply with Section A.3, shall not be considered a waiver of Contractor's obligations to obtain the required insurance.

§ A.3.2 Contractor's Required Insurance Coverage

§ A.3.2.1 The Contractor shall purchase and maintain the following types and limits of insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Contractor shall maintain the required insurance until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, for such other period for maintenance of completed operations coverage as specified in the Contract Documents, or unless a different duration is stated below:

(If the Contractor is required to maintain insurance for a duration other than the expiration of the period for correction of Work, state the duration.)

§ A.3.2.2 Commercial General Liability

§ A.3.2.2.1 Commercial General Liability insurance for the Project written on an occurrence form with policy limits of not less than \$1,000,000 each occurrence, \$1,000,000 general aggregate, \$1,000,000 aggregate for products-completed operations hazard, \$1,000,000 personal and advertising injury, \$50,000 fire damage (any one fire), and \$5,000 medical expense (any one person) providing coverage for claims including

- .1 damages because of bodily injury, sickness or disease, including occupational sickness or disease, and death of any person;
- .2 personal injury and advertising injury;
- .3 damages because of physical damage to or destruction of tangible property, including the loss of use of such property;
- .4 bodily injury or property damage arising out of completed operations; and
- .5 the Contractor's indemnity obligations under Section 3.18 of the General Conditions.

§ A.3.2.2.2 The Contractor's Commercial General Liability policy under this Section A.3.2.2 shall not contain an exclusion or restriction of coverage for the following:

- Claims by one insured against another insured, if the exclusion or restriction is based solely on the fact that the claimant is an insured, and there would otherwise be coverage for the claim.
- .2 Claims for property damage to the Contractor's Work arising out of the products-completed operations hazard where the damaged Work or the Work out of which the damage arises was performed by a Subcontractor.
- .3 Claims for bodily injury other than to employees of the insured.
- .4 Claims for indemnity under Section 3.18 of the General Conditions arising out of injury to employees of the insured.
- 5 Claims or loss excluded under a prior work endorsement or other similar exclusionary language.
- .6 Claims or loss due to physical damage under a prior injury endorsement or similar exclusionary language.
- .7 Claims related to residential, multi-family, or other habitational projects, if the Work is to be performed on such a project.
- .8 Claims related to roofing, if the Work involves roofing.

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- .9 Claims related to exterior insulation finish systems (EIFS), synthetic stucco or similar exterior coatings or surfaces, if the Work involves such coatings or surfaces.
- .10 Claims related to earth subsidence or movement, where the Work involves such hazards.
- .11 Claims related to explosion, collapse and underground hazards, where the Work involves such hazards.

§ A.3.2.3 Automobile Liability covering vehicles owned, and non-owned vehicles used, by the Contractor, with policy limits of not less than \$1,000,000 per accident, for bodily injury, death of any person, and property damage arising out of the ownership, maintenance and use of those motor vehicles along with any other statutorily required automobile coverage.

§ A.3.2.4 The Contractor may achieve the required limits and coverage for Commercial General Liability, Employers Liability, and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided such primary and excess or umbrella insurance policies result in the same or greater coverage as the coverages required under Section A.3.2.2 and A.3.2.3, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require the exhaustion of the underlying limits only through the actual payment by the underlying insurers. The umbrella policy limits shall not be less than \$3,000,000.

§ A.3.2.5 Workers' Compensation at statutory limits.

§ A.3.2.6 Employers' Liability with policy limits not less than \$100,000 each accident, \$100,000 each employee, and \$500,000 policy limit for claims, disability benefit and other similar employee benefit acts that are applicable to the Work to be performed.

§ A.3.2.7 Jones Act, and the Longshore & Harbor Workers' Compensation Act, as required, if the Work involves hazards arising from work on or near navigable waterways, including vessels and docks.

§ A.3.2.8 Insurance for maritime liability	risks associated with the or	eration of a vesso	el, if the Work requires such
activities, with policy limits of not less t	han	(\$) per claim and
(\$) in the aggregate.		W 8 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
§ A.3.2.9 Insurance for the use or operation	on of manned or unmanned	aircraft, if the W	ork requires such activities, with
policy limits of not less than	(\$) per claim	and
(\$) in the aggregate.		

§ A.3.3 Required Property Insurance

§ A.3.3.1 The Contractor shall purchase and maintain, from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located, property insurance written on a builder's risk "all-risks" completed value or equivalent policy form and sufficient to cover the total value of the entire Project on a replacement cost basis. The Contractor's property insurance coverage shall be no less than the amount of the initial Contract Sum, plus the value of subsequent Modifications and labor performed and materials or equipment supplied by others. The property insurance shall be maintained until Substantial Completion and thereafter as provided in Section A.3.3.1.3, unless otherwise provided in the Contract Documents or otherwise agreed in writing by the parties to this Agreement. This insurance shall include the interests of the Owner, Contractor, Subcontractors, and Sub-subcontractors in the Project as insureds.

§ A.3.3.1.1 Causes of Loss. The insurance required by this Section A.3.3.1 shall provide coverage for direct physical loss or damage and shall include the risks of fire (with extended coverage), explosion, theft, vandalism, malicious mischief, collapse, earthquake, flood, or windstorm. The insurance shall also provide coverage for ensuing loss or resulting damage from error, omission, or deficiency in construction methods, workmanship, or materials. (Indicate below the cause of loss and any applicable sub-limit.)

Causes of Loss Sub-Limit

§ A.3.3.1.2 Specific Required Coverages. The insurance required by this Section A.3.3.1 shall provide coverage for loss or damage to falsework and other temporary structures, and to building systems from testing and startup. The insurance shall also cover debris removal, including demolition occasioned by enforcement of any applicable legal requirements, and reasonable compensation for the Architect's and Contractor's services and expenses required as a result of such insured loss, including claim preparation expenses. (Indicate below the cause of loss and any applicable sub-limit.)

Causes of Loss Sub-Limit

§ A.3.3.1.3 Unless the parties agree otherwise, upon Substantial Completion, the Owner shall replace the insurance policy required under Section A.3.3.1 with property insurance written for the total value of the Project.

§ A.3.3.1.4 Deductibles and Self-Insured Retentions. If the insurance required by this Section A.3.3 is subject to deductibles or self-insured retentions, the Contractor shall be responsible for all loss not covered because of such deductibles or retentions.

§ A.3.2 Occupancy or Use Prior to Substantial Completion. The Owner's occupancy or use of any completed or partially completed portion of the Work prior to Substantial Completion shall not commence until the insurance company or companies providing the insurance under Section A.3.3.1 have consented in writing to the continuance of coverage. The Owner and the Contractor shall take no action with respect to partial occupancy or use that would cause cancellation, lapse, or reduction of insurance, unless they agree otherwise in writing.

§ A.3.3.3 If the Owner requests in writing that insurance for risks other than those described herein or other special causes of loss be included in the property insurance policy, the Contractor shall, if possible, include such insurance, and the cost thereof shall be charged to the Owner by appropriate Change Order.

§ A.3.3.4 Before an exposure to loss may occur, the Contractor shall file with the Owner a copy of each policy that includes insurance coverages required by this Section A.3.3. Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to this Project.

§ A.3.4 Contractor's Other Insurance Coverage

Init.

§ A.3.4.1 Insurance selected and described in this Section A.3.4 shall be purchased from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Contractor shall maintain the required insurance until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, unless a different duration is stated below:

(If the Contractor is required to maintain any of the types of insurance selected below for a duration other than the expiration of the period for correction of Work, state the duration.)

§ A.3.4.2 The Contractor shall purchase and maintain the following types and limits of insurance in accordance with Section A.3.4.1.

(Select the types of insurance the Contractor is required to purchase and maintain by placing an X in the box(es) next to the description(s) of selected insurance. Where policy limits are provided, include the policy limit in the appropriate fill point.)

§ A.3.4.2.1 Reserved
§ A.3.4.2.2 Insurance for physical damage to property while it is in storage and in transit to the construction site on an "all-risks" completed value form.
§ A.3.4.2.3 Property insurance on an "all-risks" completed value form, covering property owned by the Contractor and used on the Project, including scaffolding and other equipment.
§ A.3.4.2.4 Boiler and Machinery Insurance The Contractor shall purchase and maintain boiler and machinery insurance as required, which shall specifically cover such insured objects during installation and until final acceptance by the Owner: this

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insurance shall include interests of the Owner, Contractor, Subcontractors and Sub-subcontractors in the Work, and the Owner and Contractor shall be named insureds.

§ A.3.5 Performance Bond and Payment Bond

The Contractor shall provide surety bonds, from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located, as follows: (Specify type and penal sum of bonds.)

Type Penal Sum (\$0.00)

Payment Bond Performance Bond

§ A.3.5.1 Before commencing any services hereunder, the Contractor shall provide the Owner with Performance and Payment Bonds, each in an amount not less than the Contract Price set forth in Article 4 of the Agreement. The Surety shall have, at a minimum, a "Best Rating" of "A" as stated in the most current publication of "Best's Key Rating Guide, Property-Casualty". In addition, the Surety shall have a minimum "Best Financial Strength Category" of "Class V", and in no case less than five (5) times the contract amount. The Performance Bond shall be written on Form SE-355, "Performance Bond" and the Payment Bond shall be written on Form SE-357, "Labor and Material Payment Bond", and both shall be made payable to the Owner.

§ A.3.5.2 The Performance and Labor and Material Payment Bonds shall:

- .1 be issued by a surety company licensed to do business in South Carolina;
- .2 be accompanied by a current power of attorney and certified by the attorney-in-fact who executes the bond on the behalf of the surety company; and
- .3 remain in effect for a period not less than one (1) year following the date of Substantial Completion or the time required to resolve any items of incomplete Work and the payment of any disputed amounts, whichever time period is longer.

§ A.3.5.3 Any bonds required by this Contract shall meet the requirements of the South Carolina Code of Laws and Regulations, as amended.

ARTICLE A.4 SPECIAL TERMS AND CONDITIONS

Special terms and conditions that modify this Insurance and Bonds Exhibit, if any, are as follows:

South Carolina Division of Procurement Services, Office of State Engineer Version of MAIA® Document A201® – 2017

General Conditions of the Contract for Construction

This version of AIA Document A201°–2017 is modified by the South Carolina Division of Procurement Services, Office of State Engineer ("SCOSE"). Publication of this version of AIA Document A201–2017 does not imply the American Institute of Architects' endorsement of any modification by SCOSE. A comparative version of AIA Document A201–2017 showing additions and deletions by SCOSE is available for review on the SCOSE Web site.

Cite this document as "AIA Document A201®–2017, General Conditions of the Contract for Construction—SCOSE Version," or "AIA Document A201®–2017—SCOSE Version."

South Carolina Division of Procurement Services, Office of State Engineer Version of MAIA Document A201® – 2017

General Conditions of the Contract for Construction

for the following PROJECT:

(Name, State Project Number, and location or address)
Wee Tee Bridge #1 Replacement Project

P12-9603-PG

Williamsburg, South Carolina

THE OWNER:

(Name, legal status, and address)

South Carolina Forestry Commission 5500 Broad River Road Columbia, SC 29212

The Owner is a Governmental Body of the State of South Carolina as defined in S.C. Code Ann.§ 11-35-310.

This version of AIA Document A201-2017 is modified by the South Carolina Division of Procurement, Office of State Engineer. Publication of this version of AIA Document A201 does not imply the American Institute of Architects' endorsement of any modification by South Carolina Division of Procurement, Office of State Engineer, A comparative version of AIA Document A201-2017 showing additions and deletions by the South Carolina Division of Procurement, Office of State Engineer is available for review on the State of South Carolina Web site.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

THE ARCHITECT:

(Name, legal status, and address)

Dennis Corporation 1800 Huger St Columbia, SC 29201

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GENERAL PROVISIONS ARTICLE 1

§ 1.1 Basic Definitions

§ 1.1.1 The Contract Documents

- The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract.
- .2 A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect.
- Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding or proposal requirements.
- Any reference in this document to the Agreement between the Owner and Contractor, AIA Document A101, or some abbreviated reference thereof, shall mean the AIA A101-2017, Standard Form of Agreement Between Owner and Contractor, SCOSE Version.
- .5 Any reference in this document to the General Conditions of the Contract for Construction, AIA Document A201, or some abbreviated reference thereof, shall mean the AIA A201-2017, General Conditions of the Contract for Construction, SCOSE Version.

§ 1.1.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants, or (4) between any persons or entities other than the Owner and the Contractor.

§ 1.1.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 1.1.4 The Project

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by Separate Contractors.

§ 1.1.5 The Drawings

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

§ 1.1.6 The Specifications

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials. equipment, systems, standards and workmanship for the Work, and performance of related services.

§ 1.1.7 Instruments of Service

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.1.8 Reserved

Init.

§ 1.1.9 Notice to Proceed

The Notice to Proceed is a document issued by the Owner to the Contractor directing the Contractor to begin prosecution of the Work in accordance with the requirements of the Contract Documents. The Notice to Proceed shall fix the date on which the Contract Time will commence and establish the initial date of the Substantial Completion.

§ 1.1.10 State Engineer

"State Engineer" means the person holding the position as head of the State Engineer's Office. The State Engineer's Office is created by S.C. Code Ann. § 11-35-830, and is sometimes referred to in the Contract Documents as "Office of State Engineer" or "OSE." The State Engineer is also the Chief Procurement Officer for Construction, sometimes referred to in the Contract Documents as "CPOC".

§ 1.2 Correlation and Intent of the Contract Documents

- § 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results. In the event of patent ambiguities within or between parts of the Contract Documents, the Contractor shall 1) provide the better quality or greater quantity of Work, or 2) comply with the more stringent requirement, either or both in accordance with the Architect's interpretation.
- § 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, such determination shall not impair or otherwise affect the validity, legality, or enforceability of the remaining provision or parts of the provision of the Contract Documents, which shall remain in full force and effect as if the unenforceable provision or part were deleted.
- § 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.
- § 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.3 Capitalization

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles, or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 Interpretation

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

- § 1.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as a violation of the Architect's or Architect's consultants' reserved rights.
- § 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.

§ 1.6 Notice

§ 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to

whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.

- § 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.
- § 1.6.3 Notice to Contractor shall be to the address provided in Section 8.3.2 of the Agreement. Notice to Owner shall be to the address provided in Section 8.2.2 of the Agreement. Either party may designate a different address for notice by giving notice in accordance with Section 1.6.1.

§ 1.7 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation, including in digital form. The parties will use AIA Document E203TM-2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

§ 1.8 Building Information Models Use and Reliance

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203TM-2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202TM-2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 2 OWNER

§ 2.1 General

- § 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization, except as provided in Section 7.1.7. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's Representative noted in the Agreement.
- § 2.1.2 The Owner shall furnish to the Contractor, within fifteen (15) days after receipt of a written request, information necessary and relevant for the Contractor to post Notice of Project Commencement pursuant to S.C. Code Ann. § 29-5-23.

§ 2.2 Reserved

§ 2.3 Information and Services Required of the Owner

- § 2.3.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.
- § 2.3.2 The Owner shall retain a design professional lawfully licensed to practice, or an entity lawfully practicing, in the jurisdiction where the Project is located. The person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.
- § 2.3.3 If the employment of the Architect terminates, the Owner shall employ a successor to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.
- § 2.3.4 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. Subject to the Contractor's obligations, including those in Section 3.2, the Contractor shall be entitled to rely on the accuracy of information furnished by the Owner pursuant to this Section but shall exercise proper precautions relating to the safe performance of the Work.

- § 2.3.5 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services. However, the Owner does not warrant the accuracy of any such information requested by the Contractor that is not otherwise required of the Owner by the Contract Documents. Neither the Owner nor the Architect shall be required to conduct investigations or to furnish the Contractor with any information concerning subsurface characteristics or other conditions of the area where the Work is to be performed beyond that which is provided in the Contract Documents.
- § 2.3.6 The Owner shall furnish the Contract Documents to the Contractor in digital format.

§ 2.4 Owner's Right to Stop the Work

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

§ 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect, including but not limited to providing necessary resources, with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

ARTICLE 3 CONTRACTOR

- § 3.1 General
- § 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's Representative noted in the Agreement,
- § 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.
- § 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.2 Review of Contract Documents and Field Conditions by Contractor

- § 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.
 - The Contractor acknowledges that it has investigated and satisfied itself as to the general and local conditions which can affect the Work or its cost, including but not limited to (a) conditions bearing upon transportation, disposal, handling, and storage of materials; (b) the availability of labor, water, electric power, and roads; (c) uncertainties of weather, river stages, tides, or similar physical conditions at the site; (d) the conformation and conditions of the ground; and (e) the character of equipment and facilities needed preliminary to and during work performance.
 - The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is

- reasonably ascertainable from an inspection of the site, including all exploratory work done by the Owner, as well as from the drawings and specifications made a part of this Contract.
- Any failure of the Contractor to take the actions described and acknowledged in this Section will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the Work, or for proceeding to successfully perform the Work without additional expense to the Owner.
- § 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.4, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.
- § 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.
- § 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from latent errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.
- § 3.2.5 The Owner is entitled to reimbursement from the Contractor for amounts paid to the Architect for evaluating and responding to the Contractor's requests for information that are not prepared in accordance with the Contract Documents or where the requested information is available to the Contractor from a careful study and comparison of the Contract Documents, field conditions, other Owner-provided information, Contractor-prepared coordination drawings, or prior Project correspondence or documentation.

§ 3.3 Supervision and Construction Procedures

- § 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner and Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction and provide its findings to the Owner. Unless the Owner objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.
- § 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.
- § 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.4 Labor and Materials

- § 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.
- § 3.4.2 Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.
- § 3.4.2.1 After the Contract has been executed, the Owner and Architect may consider requests for the substitution of products in place of those specified. The Owner and Architect may, but are not obligated to, consider only those substitution requests that are in full compliance with the conditions set forth in the General Requirements (Division 1 of the Specifications). By making requests for substitutions, the Contractor:
 - represents that it has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to the product specified:
 - .2 represents that it will provide the same warranty for the substitution as it would have provided for the product specified:
 - .3 certifies that the cost data presented is complete and includes all related costs for the substituted product and for Work that must be performed or changes as a result of the substitution, except for the Architect's re-design costs, and waives all claims for additional costs related to the substitution that subsequently become apparent;
 - agrees that it shall, if the substitution is approved, coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects; and
 - .5 represents that the request includes a written representation identifying any potential effect the substitution may have on Project's achievement of a Sustainable Measure or the Sustainable Objective.
- § 3.4.2.2 The Owner shall be entitled to reimbursement from the Contractor for amounts paid to the Architect for reviewing the Contractor's proposed substitutions and making agreed-upon changes in the Drawings and Specifications resulting from such substitutions.
- § 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.5 Warranty

- § 3.5.1 The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements shall be considered defective. Unless caused by the Contractor or a subcontractor at any tier, the Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.
- § 3.5.2 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 9.8.4.

§ 3.6 Taxes

The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect. The Contractor shall comply with the requirements of S.C Code Ann. Title 12, Chapter 8, regarding withholding tax for nonresidents, employees, contractors and subcontractors.

§ 3.7 Permits, Fees, Notices and Compliance with Laws

- § 3.7.1 Pursuant to S.C. Code Ann. § 10-1-180, no local general or specialty building permits are required for state buildings. Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for all other permits, fees, and licenses by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.
- § 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.
- § 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 Concealed or Unknown Conditions

If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may submit a Claim as provided in Article 15.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 Allowances

- § 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.
- § 3.8.2 Unless otherwise provided in the Contract Documents,
 - .1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
 - .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
 - 3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect the difference between actual costs, as documented by invoices, and the allowances under Section 3.8.2.1.
- § 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

§ 3.9 Superintendent

§ 3.9.1 The Contractor shall employ a competent superintendent, acceptable to the Owner, and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

- § 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Owner may notify the Contractor, stating whether the Owner has reasonable objection to the proposed superintendent. Failure of the Owner to provide notice within the 14-day period shall constitute notice of no reasonable objection.
- § 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner has made reasonable and timely objection. The Contractor shall notify the Owner of any proposed change in the superintendent, including the reason therefore, prior to making such change. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.10 Contractor's Construction and Submittal Schedules

- § 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. Subject to any additional requirements in the Contract Documents, the schedule shall contain detail appropriate for the Project, including at a minimum (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project.
- § 3.10.2 The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Architect's approval. The Architect's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.
- § 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

§ 3.11 Documents and Samples at the Site

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be in electronic form or paper copy, available to the Architect and Owner, and delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 Shop Drawings, Product Data and Samples

- § 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.
- § 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.
- § 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.
- § 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

- § 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors.
 - .1 The fire sprinkler shop drawings shall be prepared by a licensed fire sprinkler contractor and shall accurately reflect actual conditions affecting the required layout of the fire sprinkler system. The fire sprinkler contractor shall certify the accuracy of his shop drawings prior to submitting them for review and approval.
 - .2 The fire sprinkler shop drawings shall be reviewed and approved by the Architect's engineer of record (EOR) prior to submittal to the State Fire Marshal. The EOR will complete the Office of State Fire Marshal (OSFM) form "Request for Fire Sprinkler System Shop Review for State Construction Projects" and submit it to OSE for signature.
 - .3 OSE will sign the form and return it to the Architect's EOR. The EOR will submit a copy of the signed form with the approved shop drawings to OSFM for review and approval; and, forward a copy of each to OSE.
 - .4 Upon receipt of the OSFM approval letter, the EOR will forward a copy of the letter to the Owner, Contractor, Architect, and OSE.
 - .5 Unless authorized in writing by OSE, neither the Contractor nor subcontractor at any tier shall submit the fire sprinkler shop drawings directly to OSFM.
- § 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.
- § 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been approved by the Architect.
- § 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Architect of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof.
- § 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.
- § 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.
- § 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, who shall comply with reasonable requirements of the Owner regarding qualifications and insurance and whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to

the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 3.12.10.2 The Contractor shall not be responsible for the adequacy of the performance and design criteria specified in the Contract Documents.

§ 3.13 Use of Site

- § 3.13.1 The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.
- § 3.13.2 The Contractor and any entity for which the Contractor is responsible shall not erect any sign on the Project site without the prior written consent of the Owner.

§ 3.14 Cutting and Patching

- § 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.
- § 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, its consent to cutting or otherwise altering the Work.

§ 3.15 Cleaning Up

- § 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.
- § 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to reimbursement from the Contractor.

§ 3.16 Access to Work

The Contractor shall provide the Owner and Architect with access to the Work in preparation and progress wherever located.

§ 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner or Architect. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Architect.

§ 3.18 Indemnification

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including loss of use resulting therefrom, but

only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

ARTICLE 4 ARCHITECT

- § 4.1 General
- § 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.
- § 4.1.2 Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

§ 4.2 Administration of the Contract

- § 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents. Any reference in the Contract Documents to the Architect taking action or rendering a decision with a "reasonable time" is understood to mean no more than ten (10) days, unless otherwise specified in the Contract Documents or otherwise agreed to by the parties.
- § 4.2.2 The Architect will visit the site as necessary to fulfill its obligation to the Owner for inspection services, if any, and, at a minimum, to assure conformance with the Architect's design as shown in the Contract Documents and to observe the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.
- § 4.2.3 On the basis of the site visits, the Architect will keep the Owner informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) deviations from the Contract Documents, (2) deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.4 Communications

The Owner and Contractor shall include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Contractor otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.5 Based on the Architect's evaluations of the Work completed and correlated with the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

- § 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.
- § 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.
- § 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may order minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.
- § 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.
- § 4.2.10 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Contractor of any change in the duties, responsibilities and limitations of authority of the Project representatives.
- § 4.2.11 The Architect will, in the first instance, interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. Upon receipt of such request, the Architect will promptly provide the other party with a copy of the request. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.
- § 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, and will not show partiality to either. Except in the case of interpretations resulting in omissions, defects, or errors in the Instruments of Service or perpetuating omissions, defects or errors in the Instruments of Service, the Architect will not be liable for results of interpretations or decisions rendered in good faith. If either party disputes the Architect's interpretation or decision, that party may proceed as provided in Article 15. The Architect's interpretations and decisions may be, but need not be, accorded any deference in any review conducted pursuant to law or the Contract Documents.
- § 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.
- § 4.2.14 The Architect will review and respond to requests for information about the Contract Documents so as to avoid delay to the construction of the Project. The Architect's response to such requests will be made in writing with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information. Any response to a request for information must be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings.

Unless issued pursuant to a Modification, supplemental Drawings or Specifications will not involve an adjustment to the Contract Sum or Contract Time.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

- § 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a Separate Contractor or the subcontractors of a Separate Contractor.
- § 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

- § 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, within fourteen (14) days after posting of the Notice of Intent to Award the Contract, shall notify the Owner and Architect of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Owner may notify the Contractor whether the Owner has reasonable objection to any such proposed person or entity. Failure of the Owner to provide notice within the 14-day period shall constitute notice of no reasonable objection.
- § 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner has made reasonable and timely objection. The Owner shall not direct the Contractor to contract with any specific individual or entity for supplies or services unless such supplies and services are necessary for completion of the Work and the specified individual or entity is the only source of such supply or service.
- § 5.2.3 If the Owner has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.
- § 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner makes reasonable objection to such substitution. The Contractor's request for substitution must be made to the Owner in writing, accompanied by supporting information.
- § 5.2.5 A Subcontractor identified in the Contractor's Bid pursuant to the subcontractor listing requirements of Section 7 of the Bid Form may only be substituted in accordance with and as permitted by the provisions of S.C. Code Ann. § 11-35-3021. A proposed substitute for a listed subcontractor shall also be subject to the Owner's approval as set forth in Section 5.2.3.
- § 5.2.6 A Contractor may substitute one prospective subcontractor for another, with the approval of the Owner as follows:
 - .1 If the Contractor requests the substitution, the Contractor is responsible for all costs associated with the substitution.
 - .2 If the Owner requests the substitution, the Owner is responsible for any resulting increased costs to the Contractor.

§ 5.3 Subcontractual Relations

§ 5.3.1 By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work that the Contractor, by these Contract Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not

prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise herein, or in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

- § 5.3.2 Without limitation on the generality of Section 5.3.1, each Subcontract agreement and each Sub-subcontract agreement shall include, and shall be deemed to include, the following Sections of these General Conditions: 3.2, 3.5, 3.18, 5.3, 5.4, 6.2.2, 7.1.6, 7.3.3, 7.5, 13.1, 13.9, 14.3, 14.4, and 15.1.7.
- § 5.3.3 Each Subcontract Agreement and each Sub-subcontract agreement shall exclude, and shall be deemed to exclude, Sections 13.2 and 13.5 and all of Article 15, except Section 15.1.7, of these General Conditions. In the place of these excluded sections of the General Conditions, each Subcontract Agreement and each Sub-subcontract may include Sections 13.2 and 13.5 and all of Article 15, except Section 15.1.7, of AIA Document A201-2007, Conditions of the Contract, as originally issued by the American Institute of Architects.
- § 5.3.4 The Contractor shall assure the Owner that all agreements between the Contractor and its Subcontractor incorporate the provisions of Section 5.3.1 as necessary to preserve and protect the rights of the Owner and the Architect under the Contract Documents with respect to the work to be performed by Subcontractors so that the subcontracting thereof will not prejudice such rights. The Contractor's assurance shall be in the form of an affidavit or in such other form as the Owner may approve. Upon request, the Contractor shall provide the Owner or Architect with copies of any or all subcontracts or purchase orders.

§ 5.4 Contingent Assignment of Subcontracts

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- § 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that
 - .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and
 - .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.
- § 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.
- § 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.
- § 5.4.4 Each subcontract shall specifically provide that the Owner shall only be responsible to the subcontractor for those obligations of the Contractor that accrue subsequent to the Owner's exercise of any rights under this conditional assignment.
- § 5.4.5 Each subcontract shall specifically provide that the Subcontractor agrees to perform portions of the Work assigned to the Owner in accordance with the Contract Documents.
- § 5.4.6 Nothing in this Section 5.4 shall act to reduce or discharge the Contractor's payment bond surety's obligations to claimants for claims arising prior to the Owner's exercise of any rights under this conditional assignment.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 Owner's Right to Perform Construction and to Award Separate Contracts

§ 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to

those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.

- § 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.
- § 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.

§ 6.1.4 Reserved

§ 6.2 Mutual Responsibility

- § 6.2.1 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.
- § 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.
- § 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.
- § 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.
- § 6.2.5 The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

- § 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.
- § 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone.

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- § 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.
- § 7.1.4 If a change in the Work provides for an adjustment to the Contract Sum, the amount of such adjustment must be computed and documented in writing. In order to facilitate evaluation of proposals or claims for increases and decreases to the Contract Sum, all proposals or claims, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs including labor, materials and subcontracts. Labor and materials shall be itemized. Where major cost items are subcontracts, they shall be itemized also. The amount of the adjustment must approximate the actual cost to the Contractor and all costs incurred by the Contractor must be justifiably compared with prevailing industry standards. Except as provided in Section 7.1.5, all adjustments to the Contract Sum shall be limited to job specific costs and shall not include indirect costs, home office overhead or profit.
- § 7.1.5 The combined overhead and profit included in the total cost to the Owner for a change in the Work shall be based on the following schedule:
 - .1 For the Contractor, for Work performed by the Contractor's own forces, not to exceed seventeen (17%) percent of the Contractor's actual costs.
 - .2 For the Contractor, for Work performed by the Contractor's Subcontractors, not to exceed ten (10%) percent of each Subcontractor's actual costs (not including the Subcontractor's overhead and profit).
 - .3 For each Subcontractor involved, for Work performed by that Subcontractor's own forces, not to exceed seventeen (17%) percent of the Subcontractor's actual costs.
 - .4 Cost to which overhead and profit is to be applied shall be determined in accordance with Section 7.3.4.

The percentages cited above shall be considered to include all indirect costs including, but not limited to field and office managers, supervisors and assistants, incidental job burdens, small tools, and general overhead allocations.

- § 7.1.6 The procedures described in Sections 7.1.4 and 7.1.5 shall be used to calculate any adjustment in the Contract Sum, including without limitation an adjustment permitted under Articles 7, 9, 14, or 15.
- § 7.1.7 If a change in the Work requires an adjustment to the Contract Sum that exceeds the limits of the Owner's Construction Change Order Certification (reference Section 9.1.9 of the Agreement), then the Owner's agreement is not effective, and Work may not proceed until approved in writing by the OSE.
- § 7.1.8 Any change in the Work initiated after the declaration of Substantial Completion must be approved in writing by the OSE regardless of the amount of the change or the Owner's Construction Change Order Certification.

§ 7.2 Change Orders

- § 7.2.1 A Change Order is a written instrument, using the OSE Construction Change Order form, prepared by the Architect and signed by the Owner, Contractor, and Architect stating their agreement upon all of the following:
 - .1 The change in the Work;
 - .2 The amount of the adjustment, if any, in the Contract Sum; and
 - .3 The extent of the adjustment, if any, in the Contract Time.

Agreement on any Change Order shall constitute a final settlement of all matters relating to the change in the Work that is the subject of the Change Order, including, but not limited to, any adjustments to the Contract Sum or the Contract Time.

- § 7.2.2 At the Owner's request, the Contractor shall prepare a proposal to perform the work of a proposed Change Order setting forth the amount of the proposed adjustment, if any, in the Contract Sum; and the extent of the proposed adjustment, if any, in the Contract Time. Any proposed adjustment in the Contract Sum shall be prepared in accordance with Section 7.1.4 and 7.1.5. The Owner's request shall include any revisions to the Drawings or Specifications necessary to define any changes in the Work. Within fourteen (14) days of receiving the request, the Contractor shall submit the proposal to the Owner and Architect along with all documentation required by Section 7.5.
- § 7.2.3 If the Contractor requests a Change Order, the request shall set forth the proposed change in the Work and shall be prepared in accordance with Section 7.2.2. If the Contractor requests a change to the Work that involves a revision

to either the Drawings or Specifications, the Contractor shall reimburse the Owner for any expenditure associated with the Architects' review of the proposed revisions, except to the extent the revisions are accepted by execution of a Change Order.

§ 7.3 Construction Change Directives

- § 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.
- § 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.
- § 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:
 - .1 Mutual acceptance of a lump sum if properly itemized and substantiating data is not available to permit evaluation;
 - .2 Unit prices specified in the Contract Documents or subsequently agreed upon, subject to adjustment if any, as provided in Section 9.1.2;
 - .3 Cost and a percentage fee, calculated as described in Sections 7.1.4 and 7.1.5;
 - .4 in another manner as the parties may agree; or
 - .5 As provided in Section 7.3.4.
- § 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall make an initial determination, consistent with Section 7.3.3, of the method and the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in Section 7.1.5. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:
 - .1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Architect;
 - Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;
 - .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others; and
 - .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change.
- § 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15.
- § 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.
- § 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.
- § 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual cost including overhead and profit as confirmed by the Architect from the Schedule of Values.
- § 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The

Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.4 Minor Changes in the Work

The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Architect and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Architect that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time.

§ 7.5 Pricing Data and Audit

§ 7.5.1 Cost or Pricing Data

Upon request of the Owner or Architect, Contractor shall submit cost or pricing data prior to execution of a Modification which exceeds \$500,000 [Reference S.C. Code Ann. §§ 11-35-1830 and 11-35-2220, and SC Code Ann. Reg 19-445.2120]. Contractor shall certify that, to the best of its knowledge and belief, the cost or pricing data submitted is accurate, complete, and current as of a mutually determined specified date prior to the date of pricing the Modification. Contractor's price, including profit, shall be adjusted to exclude any significant sums by which such price was increased because Contractor furnished cost or pricing data that was inaccurate, incomplete, or not current as of the date specified by the parties. Notwithstanding Subparagraph 9.10.4, such adjustments may be made after final payment to the Contractor.

§ 7.5.2 Cost or pricing data means all facts that, as of the date specified by the parties, prudent buyers and sellers would reasonably expect to affect price negotiations significantly. Cost or pricing data are factual, not judgmental; and are verifiable. While they do not indicate the accuracy of the prospective contractor's judgment about estimated future costs or projections, they do include the data forming the basis for that judgment. Cost or pricing data are more than historical accounting data; they are all the facts that can be reasonably expected to contribute to the soundness of estimates of future costs and to the validity of determinations of costs already incurred.

§ 7.5.3 Records Retention

As used in Section 7.5, the term "Records" means any books or records that relate to cost or pricing data of a Change Order that Contractor is required to submit pursuant to Section 7.5.1. Contractor shall maintain records for three years from the date of final payment, or longer if requested by the chief procurement officer. The Owner may audit Contractor's records at reasonable times and places.

ARTICLE 8 TIME

§ 8.1 Definitions

- § 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.
- § 8.1.2 The date of commencement of the Work is the date established in the Agreement.
- § 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.
- § 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 Progress and Completion

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

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- § 8.2.2 The Contractor shall not knowingly commence the Work prior to the effective date of surety bonds and insurance required to be furnished by the Contractor and Owner.
- § 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3 Delays and Extensions of Time

- § 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor's control; (4) by delay authorized by the Owner pending dispute resolution; or (5) by other causes that the Contractor asserts, and the Architect determines, justify delay, then to the extent such delay will prevent the Contractor from achieving Substantial Completion within the Contract Time, the Contract Time shall be extended for such reasonable time as the Architect may determine, provided the delay:
 - .1 is not caused by the fault or negligence of the Contractor or a subcontractor at any tier, and
 - is not due to unusual delay in the delivery of supplies, machinery, equipment, or services when such supplies, machinery, equipment, or services were obtainable from other sources in sufficient time for the Contractor to meet the required delivery.
- § 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.
- § 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

ARTICLE 9 PAYMENTS AND COMPLETION

- § 9.1 Contract Sum
- § 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.
- § 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

§ 9.2 Schedule of Values

- § 9.2.1 The Contractor shall submit a schedule of values to the Architect within ten (10) days of full execution of the Agreement, allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Architect. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. Any changes to the schedule of values shall be submitted to the Architect and supported by such data to substantiate its accuracy as the Architect may require, and unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment.
- § 9.2.2 As requested by the Architect, the Contractor and each Subcontractor shall prepare a trade payment breakdown for the Work for which each is responsible. The breakdown, being submitted on a uniform standardized format approved by the Architect and Owner, shall be divided in detail, using convenient units, sufficient to accurately determine the value of completed Work during the course of the Project. The Contractor shall update the schedule of values as required by either the Architect or Owner as necessary to reflect:
 - .1 the description of Work (listing labor and material separately);
 - .2 the total value of the Work;
 - .3 the percent and value of the Work completed to date;
 - .4 the percent and value of previous amounts billed; and
 - .5 the current percent completed, and amount billed.

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§ 9.2.3 Any schedule of values or trade breakdown that fails to provide sufficient detail, is unbalanced, or exhibits "front-loading" of the value of the Work shall be rejected. If a schedule of values or trade breakdown is used as the basis for payment and later determined to be inaccurate, sufficient funds shall be withheld from future Applications for Payment to ensure an adequate reserve (exclusive of normal retainage) to complete the Work.

§ 9.3 Applications for Payment

- § 9.3.1 Monthly, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner or Architect require (such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers), and shall reflect retainage as provided for in the Contract Documents.
- § 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.
- § 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.
- § 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing, provided such materials or equipment will be subsequently incorporated in the Work. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site. The Contractor shall 1) protect such materials from diversion, vandalism, theft, destruction, and damage, 2) mark such materials specifically for use on the Project, and 3) segregate such materials from other materials at the storage facility. The Architect and the Owner shall have the right to make inspections of the storage areas at any time.
- § 9.3.3 The Contractor warrants that title to all-Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials, and equipment relating to the Work.

§ 9.4 Certificates for Payment

- § 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Application for Payment, and notify the Contractor and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1.
- § 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated in both the Application for Payment and, if required to be submitted, the accompanying current construction schedule, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means,

methods, techniques, sequences, or procedures; or (3) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 Decisions to Withhold Certification

- § 9.5.1 The Architect shall withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. The Architect shall withhold a Certificate of Payment if the Application for Payment is not accompanied by the current construction schedule required by Section 3.10.1. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of
 - .1 defective Work not remedied:
 - .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
 - .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
 - .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
 - .5 damage to the Owner or a Separate Contractor;
 - .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
 - .7 repeated failure to carry out the Work in accordance with the Contract Documents.
- § 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.
- § 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.
- § 9.5.4 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Contractor shall reflect such payment on its next Application for Payment.

§ 9.6 Progress Payments

- § 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.
- § 9.6.2 Pursuant to S.C. Ann. §§ 29-6-10 through 29-6-60, the Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.
- § 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.
- § 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

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- § 9.6.5 The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.
- § 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.
- § 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors or provided by suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, create any fiduciary liability or tort liability on the part of the Contractor for breach of trust, or entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.
- § 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

§ 9.7 Failure of Payment

If the Architect does not issue a Certificate for Payment to the Owner, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the time established in the Contract Documents, the amount certified by the Architect or awarded by final dispute resolution order, then the Contractor may, upon seven additional days' notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided for in the Contract Documents.

§ 9.8 Substantial Completion

- § 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.
- § 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive written list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.
- § 9.8.3 Upon receipt of the Contractor's list, the Architect, the Owner, and any other party the Architect or the Owner choose, will make an inspection on a date and at a time mutually agreeable to determine whether the Work or designated portion thereof is substantially complete. The Contractor shall furnish access for the inspection and testing as provided in this Contract. The inspection shall include a demonstration by the Contractor that all equipment, systems and operable components of the Work function properly and in accordance with the Contract Documents.
 - If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.
 - .2 If more than one Substantial Completion inspection is required, the Contractor shall reimburse the Owner for all costs of re-inspections or, at the Owner's option, the costs may be deducted from payments due to the Contractor.
 - .3 Representatives of the State Fire Marshal's Office and other authorities having jurisdiction may be present at the Substantial Completion inspection or otherwise inspect the completed Work and advise the Owner whether the Work meets their respective requirements for the Project.

- § 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.
- § 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner for its written acceptance of responsibilities assigned in the Certificate and a copy of the signed Certificate shall be delivered to the Contractor. Upon such acceptance, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.
- § 9.8.6 If the Architect and Owner concur in the Contractor's assessment that the Work or a portion of the Work is safe to occupy, the Owner and Contractor may arrange for a Certificate of Occupancy inspection by OSE. The Owner, Architect, and Contractor shall be present at OSE's inspection. Upon verifying that the Work or a portion of the Work is substantially complete and safe to occupy, OSE will issue, as appropriate, a Full or Partial Certificate of Occupancy.
- § 9.8.7 The Owner may not occupy the Work until all required occupancy permits, if any, have been issued and delivered to the Owner.

§ 9.9 Partial Occupancy or Use

- § 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.
- § 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.
- § 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 Final Completion and Final Payment

- § 9.10.1 Unless the parties agree otherwise in the Certificate of Substantial Completion, the Contractor shall achieve Final Completion within thirty days after Substantial Completion. Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect, the Owner, and any other party the Architect or the Owner choose will make an inspection on a date and at a time mutually agreeable. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.
 - .1 If more than one Final Completion inspection is required, the Contractor shall reimburse the Owner for all costs of re-inspections or, at the Owner's option, the costs may be deducted from payments due to the Contractor.
 - .2 If the Contractor does not achieve Final Completion within thirty days after Substantial Completion or the timeframe agreed to by the parties in the Certificate of Substantial Completion, whichever is

- greater, the Contractor shall be responsible for any additional Architectural fees resulting from the delay.
- .3 If OSE has not previously issued a Certificate of Occupancy for the entire Project, the Parties shall arrange for a representative of OSE to participate in the Final Completion inspection.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect:

- an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied.
- 2 a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect,
- .3 a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents,
- .4 consent of surety, if any, to final payment,
- .5 documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties,
- .6 if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner,
- .7 required Training Manuals,
- .8 equipment Operations and Maintenance Manuals,
- .9 any certificates of testing, inspection or approval required by the Contract Documents and not previously provided, and
- 10. one copy of the Documents required by Section 3.11.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is delayed 60 days through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect-prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

- § 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from
 - 1 liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled:
 - .2 failure of the Work to comply with the requirements of the Contract Documents;
 - .3 terms of special warranties required by the Contract Documents; or
 - .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those specific claims in stated amounts that have been previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract.

§ 10.2 Safety of Persons and Property

- § 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to
 - .1 employees on the Work and other persons who may be affected thereby;
 - .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and

- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.
- § 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.
- § 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.
- § 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.
- § 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.
- § 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.
- § 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 Injury or Damage to Person or Property

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 Hazardous Materials and Substances

- § 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance which was not discoverable as provided in Section 3.2.1 and not addressed in the Contract Documents, and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons or serious loss to real or personal property resulting from such a material or substance encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the condition. Hazardous materials or substances are those hazardous, toxic, or radioactive materials or substances subject to regulations by applicable governmental authorities having jurisdiction, such as, but not limited to, the S.C. Department of Health and Environmental Control, the U.S. Environmental Protection Agency, and the U.S. Nuclear Regulatory Commission.
- § 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor and the Architect will

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promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up. In the absence of agreement, the Architect will make an interim determination regarding any delay or impact on the Contractor's additional costs. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the rights of either party to disagree and assert a Claim in accordance with Article 15.

- § 10.3.3 The Work in the affected area shall be resumed immediately following the occurrence of any one of the following events: (a) the Owner causes remedial work to be performed that results in the absence of hazardous materials or substances; (b) the Owner and the Contractor, by written agreement, decide to resume performance of the Work; or (c) the Work may safely and lawfully proceed, as determined by an appropriate governmental authority or as evidenced by a written report to both the Owner and the Contractor, which is prepared by an environmental engineer reasonably satisfactory to both the Owner and the Contractor.
- § 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.
- § 10.3.5 In addition to its obligations under Section 3.18, the Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 Reserved

§ 10.4 Emergencies

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7. The Contractor shall immediately give the Owner and Architect notice of the emergency. This initial notice may be oral followed within five (5) days by a written notice setting forth the nature and scope of the emergency. Within fourteen (14) days of the start of the emergency, the Contractor shall give the Architect a written estimate of the cost and probable effect of delay on the progress of the Work.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

- § 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.
- § 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.
- § 11.1.3 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.
- § 11.1.4 Failure to Purchase Required Property Insurance. If the Contractor fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the

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Contract Documents, the Contractor shall inform the Owner in writing prior to commencement of the Work. Upon receipt of notice from the Contractor, the Owner may delay commencement of the Work and may obtain insurance that will protect the interests of the Owner in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall not be equitably adjusted. In the event the Contractor fails to procure coverage, the Contractor waives all rights against the Owner to the extent the loss to the Contractor (including Subcontractors and Sub-subcontractors) would have been covered by the insurance to have been procured by the Contractor. The cost of the insurance shall be charged to the Contractor by a Change Order. If the Contractor does not provide written notice, and the Owner is damaged by the failure or neglect of the Contractor to purchase or maintain the required insurance, the Contractor shall reimburse the Owner for all reasonable costs and damages attributable thereto.

§ 11.1.5 Notice of Cancellation or Expiration of Contractor's Required Insurance. Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner and all additional insureds of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Owner: (1) the Owner, upon receipt of notice from the Contractor, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall not be equitably adjusted; and (3) the Contractor waives all rights against the Owner to the extent any loss to the Contractor, Subcontractors, and Sub-subcontractors would have been covered by the insurance had it not expired or been cancelled. If the Owner purchases replacement coverage, the cost of the insurance shall be charged to the Contractor by an appropriate Change Order. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.2 Owner's Insurance

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 Reserved

§ 11.2.3 Reserved

§ 11.3 Waivers of Subrogation

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

§ 11.3.3 Limitation on the Owner's Waiver of Subrogation

South Carolina law prohibits the State from indemnifying a private party. Accordingly, and notwithstanding anything in the Agreement to the contrary, including but not limited to Sections 11.3.1, 11.3.2, and 11.4, the Owner cannot and

does not waive subrogation to the extent any losses are covered by insurance provided by the South Carolina Insurance Reserve Fund.

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused.

§ 11.5 Adjustment and Settlement of Insured Loss

- § 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Contractors as fiduciary and made payable to the Contractor as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Contractor shall pay the Architect and Owner their just shares of insurance proceeds received by the Contractor, and by appropriate agreements the Architect and Owner shall make payments to their consultants and separate contractors in similar manner.
- § 11.5.2 Prior to settlement of an insured loss, the Contractor shall notify the Owner of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Owner shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Owner does not object, the Contractor shall settle the loss and the Owner shall be bound by the settlement and allocation. Upon receipt, the Contractor shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Owner timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Contractor may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.
- § 11.5.3 If required in writing by a party in interest, the Contractor as fiduciary shall, upon occurrence of an insured loss, give bond for proper performance of the Contractor's duties. The cost of required bonds shall be charged against proceeds received as fiduciary. The Contractor shall deposit in a separate account proceeds so received, which the Contractor shall distribute in accordance with such agreement as the parties in interest may reach. If after such loss no other special agreement is made and unless the Owner-terminates the Contract for convenience, replacement of damaged property shall be performed by the Contractor.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

- § 12.1.1 If a portion of the Work is covered contrary to the requirements specifically expressed in the Contract Documents, including inspections of work-in-progress required by all authorities having jurisdiction over the Project, it must, upon demand of the Architect or authority having jurisdiction, be uncovered for observation/inspection and be replaced at the Contractor's expense without change in the Contract Time.
- § 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense unless the condition was caused by the Owner or a Separate Contractor in which event the Owner shall be responsible for payment of such costs.

§ 12.2 Correction of Work

§ 12.2.1 Before Substantial Completion

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, discovered before Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

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.1 If the Contractor, a Subcontractor, or anyone for whom either is responsible, uses or damages any portion of the Work, including, without limitation, mechanical, electrical, plumbing, and other building systems, machinery, equipment, or other mechanical device, the Contractor shall cause such item to be restored to "like new" condition at no expense to the Owner.

§ 12.2.2 After Substantial Completion

- § 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.5.
- § 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.
- § 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2 unless otherwise provided in the Contract Documents.
- § 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.
- § 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.
- § 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 Acceptance of Nonconforming Work

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 Governing Law

- § 13.1.1 The Contract, any dispute, claim, or controversy relating to the Contract, and all the rights and obligations of the parties shall, in all respects, be interpreted, construed, enforced and governed by and under the laws of the State of South Carolina, except its choice of law rules.
- § 13.1.2 This Contract is formed pursuant to and governed by the South Carolina Consolidated Procurement Code and is deemed to incorporate all applicable provisions thereof and the ensuing regulations.

§ 13.2 Successors and Assigns

The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract as a whole, or in part, without written consent of the other and then only in accordance with and as permitted by Regulation 19-445.2180 of the South Carolina Code of Regulations, as amended. If either party attempts

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to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.3 Rights and Remedies

- § 13.3.1 Unless expressly provided otherwise, duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.
- § 13.3.2 No action or failure to act by the Owner, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.
- § 13.3.3 Notwithstanding Section 9.10.4, the rights and obligations which, by their nature, would continue beyond the termination, cancellation, rejection, or expiration of this contract shall survive such termination, cancellation, rejection, or expiration, including, but not limited to, the rights and obligations created by the following clauses:
 - 1.5 Ownership and Use of Drawings, Specifications and Other Instruments of Service;
 - 3.5 Warranty
 - 3.17 Royalties, Patents and Copyrights
 - 3.18 Indemnification
 - 7.5 Pricing Data and Audit
 - A.3.2.2 Contractor's Liability Insurance (A101, Exhibit A)
 - A.3.5 Performance and Payment Bond (A101, Exhibit A)
 - 15.1.7 Claims for Listed Damages
 - 15.1.8 Waiver of Claims Against the Architect
 - 15.6 Dispute Resolution
 - 15.6.5 Service of Process

§ 13.4 Tests and Inspections

- § 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Owner and Architect timely notice of when and where tests and inspections are to be made so that they may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.
 - .1 Inspection, Special Inspections, and testing requirements, if any, as required by the ICC series of Building Codes shall be purchased by the Owner.
 - .2 Contractor shall schedule and request inspections in an orderly and efficient manner and shall notify the Owner whenever the Contractor schedules an inspection. Contractor shall be responsible for the cost of inspections scheduled and conducted without the Owner's knowledge and for any increase in the cost of inspections resulting from the inefficient scheduling of inspections.
- § 13.4.2 If the Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Owner and Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.
- § 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Architect's services and expenses, shall be at the Contractor's expense and shall be deducted from future Applications of Payment.

- § 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.
- § 13.4.5 If the Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.
- § 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.5 Interest

Payments due to the Contractor and unpaid under the Contract Documents shall bear interest only if and to the extent allowed by S.C. Code Ann. §§ 29-6-10 through 29-6-60. Amounts due to the Owner shall bear interest at the rate of one percent a month or a pro rata fraction thereof on the unpaid balance as may be due.

§ 13.6 Procurement of Materials by Owner

The Contractor accepts assignment of all purchase orders and other agreements for procurement of materials and equipment by the Owner that are identified as part of the Contract Documents. The Contractor shall, upon delivery, be responsible for the storage, protection, proper installation, and preservation of such Owner purchased items, if any, as if the Contractor were the original purchaser. The Contract Sum includes, without limitation, all costs and expenses in connection with delivery, storage, insurance, installation, and testing of items covered in any assigned purchase orders or agreements. Unless the Contract Documents specifically provide otherwise, all Contractor warranty of workmanship and correction of the Work obligations under the Contract Documents shall apply to the Contractor's installation of and modifications to any Owner purchased items.

§ 13.7 Interpretation of Building Codes

As required by S.C. Code Ann. § 10-1-180, OSE shall determine the enforcement and interpretation of all building codes and referenced standards on state buildings. The Contractor shall refer any questions, comments, or directives from local officials to the Owner and OSE for resolution.

§ 13.8 Minority Business Enterprises

Contractor shall notify Owner of each Minority Business Enterprise (MBE) providing labor, materials, equipment, or supplies to the Project under a contract with the Contractor. Contractor's notification shall be via the first monthly status report submitted to the Owner after execution of the contract with the MBE. For each such MBE, the Contractor shall provide the MBE's name, address, and telephone number, the nature of the work to be performed or materials or equipment to be supplied by the MBE, whether the MBE is certified by the South Carolina Office of Small and Minority Business Assistance, and the value of the contract.

§ 13.9 Illegal Immigration

Contractor certifies and agrees that it will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina Code of Laws and agrees to provide to the State upon request any documentation required to establish either: (a) that Title 8, Chapter 14 is inapplicable both to Contractor and its subcontractors or sub-subcontractors; or (b) that Contractor and its subcontractors or sub-subcontractors are in compliance with Title 8, Chapter 14. Pursuant to Section 8-14-60, "A person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony and, upon conviction, must be fined within the discretion of the court or imprisoned for not more than five years, or both." Contractor agrees to include in any contracts with its subcontractor's language requiring its subcontractors to (a) comply with the applicable requirements of Title 8, Chapter 14, and (b) include in their contracts with the sub-subcontractor's language requiring the sub-subcontractors to comply with the applicable requirements of Title 8, Chapter 14. (An overview is available at www.procurement.sc.gov)

§ 13.10 Drug-Free Workplace

The Contractor must comply with the Drug-Free Workplace Act, S.C. Code Ann. §§ 44-107-10, et seq. The Contractor certifies to the Owner that Contractor will provide a Drug-Free Workplace, as defined by S.C. Code Ann. § 44-107-20(1).

§ 13.11 False Claims

Init.

According to S.C. Code Ann. § 16-13-240, "a person who by false pretense or representation obtains the signature of a person to a written instrument or obtains from another person any chattel, money, valuable security, or other property, real or personal, with intent to cheat and defraud a person of that property is guilty" of a crime.

§ 13.12 Prohibited Acts

It is unlawful for a person charged with disbursements of state funds appropriated by the General Assembly to exceed the amounts and purposes stated in the appropriations. (§ 11-9-20) It is unlawful for an authorized public officer to enter into a contract for a purpose in which the sum is in excess of the amount appropriated for that purpose. It is unlawful for an authorized public officer to divert or appropriate the funds arising from any tax levied and collected for any one fiscal year to the payment of an indebtedness contracted or incurred for a previous year. (§ 11-1-40)

§ 13.13 Open Trade (Jun 2015)

During the contract term, including any renewals or extensions, Contractor will not engage in the boycott of a person or an entity based in or doing business with a jurisdiction with whom South Carolina can enjoy open trade, as defined in S.C. Code Ann. § 11-35-5300.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

- § 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 45 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:
 - .1 Issuance of an order of a court or other public authority having jurisdiction that requires substantially all Work to be stopped; or
 - .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
 - .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents and the Contractor has stopped work in accordance with Section 9.7.
- § 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.
- § 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit, and costs incurred by reason of such termination.
- § 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor, a Sub-subcontractor, or their agents or employees or any other persons or entities performing portions of the Work because the Owner has persistently failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

§ 14.2 Termination by the Owner for Cause

- § 14.2.1 The Owner may terminate the Contract if the Contractor
 - .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials, or otherwise fails to prosecute the Work, or any separable part of the Work, with the diligence, resources and skill that will ensure its completion within the time specified in the Contract Documents, including any authorized adjustments;
 - .2 fails to make payment to Subcontractors or suppliers in accordance with the Contract Documents and the respective agreements between the Contractor and the Subcontractors or suppliers;
 - .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
 - .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.
- § 14.2.2 When any of the reasons described in Section 14.2.1 exist, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor:
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.
- § 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.
- § 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Architect, upon application, and this obligation for payment shall survive termination of the Contract.
- § 14.2.5 If, after termination for cause, it is determined that the Owner lacked justification to terminate under Section 14.2.1, or that the Contractor's default was excusable, or that the termination for cause was affected by any other error, then Owner and Contractor agree that the termination shall be conclusively deemed to be one for the convenience of the Owner, and the rights and obligations of the parties shall be the same as if the termination had been issued for in Section 14.4.
- § 14.3 Suspension by the Owner for Convenience
- § 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.
- § 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. No adjustment shall be made to the extent
 - .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
 - .2 that an equitable adjustment is made or denied under another provision of the Contract.
- § 14.4 Termination by the Owner for Convenience
- § 14.4.1 The Owner may, at any time, terminate the Contract in whole or in part for the Owner's convenience and without cause. The Owner shall give notice of the termination to the Contractor specifying the part of the Contract terminated and when termination becomes effective.
- § 14.4.2 Upon receipt of notice from the Owner of such termination for the Owner's convenience, the Contractor shall
 - .1 cease operations as directed by the Owner in the notice;
 - 2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work;
 - 3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders; and
 - .4 complete the performance of the Work not terminated, if any.
- § 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed; costs incurred by reason of the termination, including costs attributable to termination of Subcontracts; and any other adjustments otherwise set forth in the Agreement.
- § 14.4.4 Contractor's failure to include an appropriate termination for convenience clause in any subcontract shall not (i) affect the Owner's right to require the termination of a subcontract, or (ii) increase the obligation of the Owner beyond what it would have been if the subcontract had contained an appropriate clause.
- § 14.4.5 Upon written consent of the Contractor, the Owner may reinstate the terminated portion of this Contract in whole or in part by amending the notice of termination if it has been determined that:
 - .1 the termination was due to withdrawal of funding by the General Assembly, Governor, or State Fiscal Accountability Authority or the need to divert project funds to respond to an emergency as defined by Regulation 19-445.2110(B) of the South Carolina Code of Regulations, as amended;

- .2 funding for the reinstated portion of the Work has been restored;
- .3 circumstances clearly indicate a requirement for the terminated Work; and
- .4 reinstatement of the terminated work is advantageous to the Owner.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. A voucher, invoice, payment application or other routine request for payment that is not in dispute when submitted is not a Claim under this definition. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents.

§ 15.1.2 Reserved

§ 15.1.3 Notice of Claims

- § 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Architect. Such notice shall include sufficient information to advise the Architect and other party of the circumstances giving rise to the Claim, the specific contractual adjustment or relief requested and the basis of such request. Claims by either party under this Section 15.1.3.1 shall be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later except as stated for adverse weather days in Section 15.1.6.2. By failing to give written notice of a Claim within the time required by this Section, a party expressly waives its Claim.
- § 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Architect is required.

§ 15.1.4 Continuing Contract Performance

- § 15.1.4.1 Pending final resolution of a Claim, including any administrative review allowed under Section 15.6, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.
- § 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Architect's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

§ 15.1.5 Claims for Additional Cost

If the Contractor wishes to make a Claim for an increase in the Contract Sum, notice as provided in Section 15.1.3 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.6 Claims for Additional Time

- § 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary. Claims for an increase in the Contract Time shall be based on one additional calendar day for each full calendar day that the Contractor is prevented from working.
- § 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction.
 - .1 Claims for adverse weather shall be based on actual weather conditions at the job site or other place of performance of the Work, as documented in the Contractor's job site log.

1

- .2 For the purpose of this Contract, a total of five (5) days per calendar month (non-cumulative) shall be anticipated as "adverse weather" at the job site, and such time will not be considered justification for an extension of time. If, in any month, adverse weather develops beyond the five (5) days, the Contractor shall be allowed to claim additional days to compensate for the excess weather delays only to the extent of the impact on the approved construction schedule and days the Contractor was already scheduled to work. The remedy for this condition is for an extension of time only and is exclusive of all other rights and remedies available under the Contract Documents or imposed or available by law.
- The Contractor shall submit monthly with their pay application all Claims for adverse weather conditions that occurred during the previous month. The Architect shall review each monthly submittal in accordance with Section 15.5 and inform the Contractor and the Owner promptly of its evaluation. Approved days shall be included in the next Change Order issued by the Architect. Adverse weather conditions not claimed within the time limits of this Subparagraph shall be considered to be waived by the Contractor. Claims will not be allowed for adverse weather days that occur after the scheduled (original or adjusted) date of Substantial Completion.
- § 15.1.6.3 Claims for increase in the Contract Time shall set forth in detail the circumstances that form the basis for the Claim, the date upon which each cause of delay began to affect the progress of the Work, the date upon which each cause of delay ceased to affect the progress of the work, and the number of days increase in the Contract Time claimed as a consequence of each such cause of delay. The Contractor shall provide such supporting documentation as the Owner may require including, where appropriate, a revised construction schedule indicating all the activities affected by the circumstances forming the basis of the Claim.
- § 15.1.6.4 The Contractor shall not be entitled to a separate increase in the Contract Time for each one of the number of causes of delay which may have concurrent or interrelated effects on the progress of the Work, or for concurrent delays due to the fault of the Contractor.

§ 15.1.7 Claims for Listed Damages

Notwithstanding any other provision of the Contract Documents, including Section 1.2.1, but subject to a duty of good faith and fair dealing, the Contractor and Owner waive Claims against each other for listed damages arising out of or relating to this Contract.

- § 15.1.7.1 For the Owner, listed damages are (i) lost revenue and profit, (ii) losses resulting from injury to business or reputation, (iii) additional or escalated overhead and administration expenses, (iv) additional financing costs, (v) costs suffered by a third party unable to commence work, (vi) attorney's fees, (vii) any interest, except to the extent allowed by Section 13.5 (Interest), (viii) lost revenue and profit for lost use of the property, (ix) costs resulting from lost productivity or efficiency.
- § 15.1.7.2 For the Contractor, listed damages are (i) lost revenue and profit, (ii) losses resulting from injury to business or reputation, (iii) additional or escalated overhead and administration expenses, (iv) additional financing costs, (v) attorney's fees, (vi) any interest, except to the extent allowed by Section 13.5 (Interest); (vii) unamortized equipment costs; and, (viii) losses incurred by subcontractors for the types of damages the Contractor has waive as against the Owner. Without limitation, this mutual waiver is applicable to all damages due to either party's termination in accordance with Article 14.
- § 15.1.7.3 Nothing contained in this Section shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents. This mutual waiver is not applicable to amounts due or obligations under Section 3.18 (Indemnification).

§ 15.1.8 Waiver of Claims Against the Architect

Notwithstanding any other provision of the Contract Documents, including Section 1.2.1, but subject to a duty of good faith and fair dealing, the Contractor waives all claims against the Architect and any other design professionals who provide design and/or project management services to the Owner, either directly or as independent contractors or subcontractors to the Architect, for listed damages arising out of or relating to this Contract. The listed damages are (i) lost revenue and profit, (ii) losses resulting from injury to business or reputation, (iii) additional or escalated overhead and administration expenses, (iv) additional financing costs, (v) attorney's fees, (vi) any interest; (vii) unamortized equipment costs; and, (viii) losses incurred by subcontractors for the types of damages the Contractor has waive as against the Owner. This mutual waiver is not applicable to amounts due or obligations under Section 3.18 (Indemnification).

Init.

- § 15.2 Reserved
- § 15.3 Reserved
- § 15.4 Reserved
- § 15.5 Claim and Disputes Duty of Cooperation, Notice, and Architects Initial Decision
- § 15.5.1 Contractor and Owner are fully committed to working with each other throughout the Project to avoid or minimize Claims. To further this goal, Contractor and Owner agree to communicate regularly with each other and the Architect at all times notifying one another as soon as reasonably possible of any issue that if not addressed may cause loss, delay, and/or disruption of the Work. If Claims do arise, Contractor and Owner each commit to resolving such Claims in an amicable, professional, and expeditious manner to avoid unnecessary losses, delays, and disruptions to the Work.
- § 15.5.2 Claims shall first be referred to the Architect for initial decision. An initial decision shall be required as a condition precedent to resolution pursuant to Section 15.6 of any Claim arising prior to the date of final payment, unless 30 days have passed after the Claim has been referred to the Architect with no decision having been rendered, or after all the Architect's requests for additional supporting data have been answered, whichever is later. The Architect will not address Claims between the Contractor and persons or entities other than the Owner.
- § 15.5.3 The Architect will review Claims and within ten days of the receipt of a Claim (1) request additional supporting data from the claimant or a response with supporting data from the other party or (2) render an initial decision in accordance with Section 15.5.5.
- § 15.5.4 If the Architect requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of such request, and shall either (1) provide a response on the requested supporting data, (2) advise the Architect when the response or supporting data will be furnished or (3) advise the Architect that all supporting data has already been provided. Upon receipt of the response or supporting data, the Architect will render an initial decision in accordance with Section 15.5.5.
- § 15.5.5 The Architect will render an initial decision in writing; (1) stating the reasons therefor; and (2) notifying the parties of any change in the Contract Sum or Contract Time or both. The Architect will deliver the initial decision to the parties within two weeks of receipt of any response or supporting data requested pursuant to Section 16.4 or within such longer period as may be mutually agreeable to the parties. If the parties accept the initial decision, the Architect shall prepare a Change Order with appropriate supporting documentation for the review and approval of the parties and the Office of State Engineer. If either the Contractor, Owner, or both, disagree with the initial decision, the Contractor and Owner shall proceed with dispute resolution in accordance with the provisions of Section 15.6.
- § 15.5.6 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.6 Dispute Resolution

- § 15.6.1 If a Claim is not resolved pursuant to Section 15.5 to the satisfaction of either party, both parties shall attempt to resolve the dispute at the field level through discussions between Contractor's Representative and Owner's Representative. If a dispute cannot be resolved through Contractor's Representative and Owner's Representative, then the Contractor's Senior Representative and the Owner's Senior Representative, upon the request of either party, shall meet as soon as conveniently possible, but in no case later than twenty-one (21) days after such a request is made, to attempt to resolve such dispute. Prior to any meetings between the Senior Representatives, the parties will exchange relevant information that will assist the parties in resolving their dispute. The meetings required by this Section are a condition precedent to resolution pursuant to Section 15.6.2.
- § 15.6.2 If after meeting in accordance with the provisions of Section 15.6.1, the Senior Representatives determine that the dispute cannot be resolved on terms satisfactory to both the Contractor and the Owner, then either party may submit the dispute by written request to South Carolina's Chief Procurement Officer for Construction (CPOC). Except as otherwise provided in Article 15, all Claims, or controversies relating to the Contract shall be resolved exclusively by the appropriate Chief Procurement Officer in accordance with Title 11, Chapter 35, Article 17 of the

South Carolina Code of Laws, or in the absence of jurisdiction, only in the Court of Common Pleas for, or in the absence of jurisdiction a federal court located in, Richland County, State of South Carolina. Contractor agrees that any act by the State regarding the Contract is not a waiver of either the State's sovereign immunity or the State's immunity under the Eleventh Amendment of the United States Constitution.

- § 15.6.3 If any party seeks resolution to a dispute pursuant to Section 15.6.2, the parties shall participate in non-binding mediation to resolve the Claim. If the Claim is governed by Title 11, Chapter 35, Article 17 of the South Carolina Code of Laws as amended and the amount in controversy is \$100,000.00 or less, the CPOC shall appoint a mediator, otherwise, the mediation shall be conducted by an impartial mediator selected by mutual agreement of the parties, or if the parties cannot so agree, a mediator designated by the American Arbitration Association ("AAA") pursuant to its Construction Industry Mediation Rules. The mediation will be governed by and conducted pursuant to a mediation agreement negotiated by the parties or, if the parties cannot so agree, by procedures established by the mediator.
- § 15.6.4 Without relieving any party from the other requirements of Sections 15.5 and 15.6, either party may initiate proceedings in the appropriate forum prior to initiating or completing the procedures required by Sections 15.5 and 15.6 if such action is necessary to preserve a claim by avoiding the application of any applicable statutory period of limitation or repose.

§ 15.6.5 Service of Process

Init.

Contractor consents that any papers, notices, or process necessary or proper for the initiation or continuation of any Claims, or controversies relating to the Contract; for any court action in connection therewith; or for the entry of judgment on any award made, may be served on Contractor by certified mail (return receipt requested) addressed to Contractor at the address provided for the Contractor's Senior Representative or by personal service or by any other manner that is permitted by law, in or outside South Carolina. Notice by certified mail is deemed duly given upon deposit in the United States mail.

ARTICLE 16 PROJECT-SPECIFIC REQUIREMENTS AND INFORMATION

SE-355

PERFORMANCE BOND

KNOW ALL Name:			name or legal title and address of Contractor)
Address:			
11001055			
hereinafter refe	erred to as "Contractor",	and (Insert full name and a	uddress of principal place of business of Surety)
Name:			
Address:			
	-		
hereinafter cal	• • •	•	and firmly bound unto (Insert full name and address of Agency)
Name:	-		
Address:			
	Columbia, SC 29212		
of the Bond to	erred to as "Agency", or o which payment to be vo, successors and assigns,	vell and truly made, th	ns, the sum of(\$), being the sum ne Contractor and Surety bind themselves, their heirs, executors, firmly by these presents.
WHEREAS, O	Contractor has by written	agreement dated	entered into a contract with Agency to construct
			idge Project
•	ect Number: <u>P12-9603-P</u>	-	
<u>bridg</u>	e deck, 2-end bents and	replacement by a singl	ists of the removal and disposal of an existing 1-span concrete e span, Pre-fabricated steel bridge superstructure with open-grate valls and timber piling/approach slabs.
· · · · · · · · · · · · · · · · · · ·	-		(Insert full name and address of A/E)
Name:	Dennis Corporation, Ge		
Address:			
	Columbia, SC 29201		
which agreeme	ent is by reference made	a part hereof, and is he	reinafter referred to as the Contract.
			g to be legally bound hereby, subject to the terms stated herein, do behalf by its authorized officer, agent or representative.
DATED this	day of	, 2	BOND NUMBER _
(sh	nall be no earlier than Date of (Contract)	
CONTRACT	OR		SURETY
By:			By:
•		(Seal)	(Seal)
Print Name:			Print Name:
Print Title:			Print Title:
			(Attach Power of Attorney)
Witness:			Witness:

 $(Additional\ Signatures,\ if\ any,\ appear\ on\ attached\ page)$

PERFORMANCE BOND

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT:

- 1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Agency for the full and faithful performance of the contract, which is incorporated herein by reference.
- 2. If the Contractor performs the contract, the Surety and the Contractor have no obligation under this Bond, except to participate in conferences as provided in paragraph 3.1.
- 3. The Surety's obligation under this Bond shall arise after:
- 3.1 The Agency has notified the Contractor and the Surety at the address described in paragraph 10 below, that the Agency is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If the Agency, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the Agency's right, if any, subsequently to declare a Contractor Default; or
- **3.2** The Agency has declared a Contractor Default and formally terminated the Contractor's right to complete the Contract.
- **4.** The Surety shall, within 15 days after receipt of notice of the Agency's declaration of a Contractor Default, and at the Surety's sole expense, take one of the following actions:
- **4.1** Arrange for the Contractor, with consent of the Agency, to perform and complete the Contract; or
- **4.2** Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
- 4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Agency for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the Agency and the contractor selected with the Agency's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the Bonds issued on the Contract, and pay to the Agency the amount of damages as described in paragraph 7 in excess of the Balance of the Contract Sum incurred by the Agency resulting from the Contractor Default; or
- **4.4** Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and:
 - **4.4.1** After investigation, determine the amount for which it may be liable to the Agency and, within 60 days of waiving its rights under this paragraph, tender payment thereof to the Agency; or
 - **4.4.2** Deny liability in whole or in part and notify the Agency, citing the reasons therefore.
- **5.** Provided Surety has proceeded under paragraphs 4.1, 4.2, or 4.3, the Agency shall pay the Balance of the Contract Sum to either:
- **5.1** Surety in accordance with the terms of the Contract; or
- **5.2** Another contractor selected pursuant to paragraph 4.3 to perform the Contract.
- **5.3** The balance of the Contract Sum due either the Surety or another contractor shall be reduced by the amount of damages as described in paragraph 7.
- **6.** If the Surety does not proceed as provided in paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond 15 days after receipt of written notice from the Agency to the Surety demanding that the Surety perform its obligations under this Bond, and the Agency shall be entitled to enforce any remedy available to the Agency.

- **6.1** If the Surety proceeds as provided in paragraph 4.4 and the Agency refuses the payment tendered or the Surety has denied liability, in whole or in part, then without further notice the Agency shall be entitled to enforce any remedy available to the Agency.
- **6.2** Any dispute, suit, action or proceeding arising out of or relating to this Bond shall be governed by the Dispute Resolution process defined in the Contract Documents and the laws of the State of South Carolina.
- 7. After the Agency has terminated the Contractor's right to complete the Contract, and if the Surety elects to act under paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Agency shall be those of the Contractor under the Contract, and the responsibilities of the Agency to the Surety shall those of the Agency under the Contract. To a limit of the amount of this Bond, but subject to commitment by the Agency of the Balance of the Contract Sum to mitigation of costs and damages on the Contract, the Surety is obligated to the Agency without duplication for:
- 7.1 The responsibilities of the Contractor for correction of defective Work and completion of the Contract; and
- **7.2** Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under paragraph 4; and
- 7.3 Damages awarded pursuant to the Dispute Resolution Provisions of the Contract. Surety may join in any Dispute Resolution proceeding brought under the Contract and shall be bound by the results thereof; and
- **7.4** Liquidated Damages, or if no Liquidated Damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the Contractor.
- **8.** The Surety shall not be liable to the Agency or others for obligations of the Contractor that are unrelated to the Contract, and the Balance of the Contract Sum shall not be reduced or set-off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Agency or its heirs, executors, administrators, or successors.
- **9.** The Surety hereby waives notice of any change, including changes of time, to the contract or to related subcontracts, purchase orders and other obligations.
- **10.** Notice to the Surety, the Agency or the Contractor shall be mailed or delivered to the address shown on the signature page.
- 11. Definitions
- 11.1 Balance of the Contract Sum: The total amount payable by the Agency to the Contractor under the Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts to be received by the Agency in settlement of insurance or other Claims for damages to which the Contractor si entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Contract.
- 11.2 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform the Contract or otherwise to comply with the terms of the Contract.

SE-357

LABOR & MATERIAL PAYMENT BOND

KNOW ALL	MEN BY THESE PRESENTS, that (Insert full	l name or legal title and address of Contractor)			
Name:					
Address:					
hereinafter ref	ferred to as "Contractor", and (Insert full name and	address of principal place of business of Surety)			
Name:					
Address:					
hereinafter cal	lled the "surety", are jointly and severally held	and firmly bound unto (Insert full name and address of Agency)			
Name:	South Carolina Forestry Commission				
Address:	5500 Broad River Road				
	Columbia, SC 29212				
of the Bond t	ferred to as "Agency", or its successors or assig o which payment to be well and truly made, to s, successors and assigns, jointly and severally,	ns, the sum of(\$), being the sum the Contractor and Surety bind themselves, their heirs, executors, firmly by these presents.			
		entered into a contract with Agency to construct			
	·	ridge Project			
•	ject Number: P12-9603-PG	sists of the removal and disposal of an existing 1-span concrete			
<u>bridg</u>		tle span, Pre-fabricated steel bridge superstructure with open-grate			
in accordance	with Drawings and Specifications prepared by	(Insert full name and address of A/E)			
Name:	Dennis Corporation, Gene Haskins				
Address:	800 Huger Street				
	Columbia, SC 29201				
which agreem	ent is by reference made a part hereof, and is he	ereinafter referred to as the Contract.			
each cause the representative	nis Labor & Material Payment Bond to be	ng to be legally bound hereby, subject to the terms stated herein, do duly executed on its behalf by its authorized officer, agent or			
	day of, 2hall be no earlier than Date of Contract)	BOND NUMBER			
CONTRACT	OR	SURETY			
By:		Ву:			
	(Seal)	(Seal)			
Print Name:		Print Name:			
Print Title: _		Print Title:			
		(Attach Power of Attorney)			
Witness:		Witness:			
(Additional Sign	natures, if any, appear on attached page)				

LABOR & MATERIAL PAYMENT BOND

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT:

- 1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Agency to pay for all labor, materials and equipment required for use in the performance of the Contract, which is incorporated herein by reference.
- 2. With respect to the Agency, this obligation shall be null and void if the Contractor:
- 2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants; and
- 2.2 Defends, indemnifies and holds harmless the Agency from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Contract.
- 3. With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.
- **4.** With respect to Claimants, and subject to the provisions of Title 29, Chapter 5 and the provisions of §11-35-3030(2)(c) of the SC Code of Laws, as amended, the Surety's obligation under this Bond shall arise as follows:
- 4.1 Every person who has furnished labor, material or rental equipment to the Contractor or its subcontractors for the work specified in the Contract, and who has not been paid in full therefore before the expiration of a period of ninety (90) days after the date on which the last of the labor was done or performed by him or material or rental equipment was furnished or supplied by him for which such claim is made, shall have the right to sue on the payment bond for the amount, or the balance thereof, unpaid at the time of institution of such suit and to prosecute such action for the sum or sums justly due him.
- 4.2 A remote claimant shall have a right of action on the payment bond upon giving written notice by certified or registered mail to the Contractor within ninety (90) days from the date on which such person did or performed the last of the labor or furnished or supplied the last of the material or rental equipment upon which such claim is made.
- 4.3 Every suit instituted upon a payment bond shall be brought in a court of competent jurisdiction for the county or circuit in which the construction contract was to be performed, but no such suit shall be commenced after the expiration of o ne year after the day on which the last of the labor was performed or material or rental equipment was supplied by the person bringing suit.
- **5.** When the Claimant has satisfied the conditions of paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:
- 5.1 Send an answer to the Claimant, with a copy to the Agency, within sixty (60) days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
- **5.2** Pay or arrange for payment of any undisputed amounts.
- 5.3 The Surety's failure to discharge its obligations under this paragraph 5 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a claim. However, if the Surety fails to discharge its obligations under this paragraph 5, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs to recover any sums found to be due and owing to the Claimant.

- **6.** Amounts owed by the Agency to the Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any Performance Bond. By the Contractor furnishing and the Agency accepting this Bond, they agree that all funds earned by the contractor in the performance of the Contract are dedicated to satisfy obligations of the Contractor and the Surety under this Bond, subject to the Agency's prior right to use the funds for the completion of the Work.
- 7. The Surety shall not be liable to the Agency, Claimants or others for obligations of the Contractor that are unrelated to the Contract. The Agency shall not be liable for payment of any costs or expenses of any claimant under this bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
- **8.** The Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.
- 9. Notice to the Surety, the Agency or the Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, the Agency or the contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.
- 10. By the Contractor furnishing and the Agency accepting this Bond, they agree that this Bond has been furnished to comply with the statutory requirements of the South Carolina Code of Laws, as amended, and further, that any provision in this Bond conflicting with said statutory requirements shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.
- **11.** Upon request of any person or entity appearing to be a potential beneficiary of this bond, the Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.
- 12. Any dispute, suit, action or proceeding arising out of or relating to this Bond shall be governed by the laws of the State of South Carolina.

13. DEFINITIONS

- 13.1 Claimant: An individual or entity having a direct contract with the Contractor or with a Subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of the Contractor and the Contractor's Subcontractors, and all other items for which a mechanic's lien might otherwise be asserted.
- **13.2** Remote Claimant: A person having a direct contractual relationship with a subcontractor of the Contractor or subcontractor, but no contractual relationship expressed or implied with the Contractor.
- **13.3** Contract: The agreement between the Agency and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

SE-380 CHANGE ORDER NO.:

CHANGE ORDER TO DESIGN-BID-BUILD CONT	CRACT	
AGENCY: South Carolina Forestry Commission		
PROJECT NAME: Wee Tee Bridge #1 Replacement Bridge Project	:t	
PROJECT NUMBER: P12-9603-PG		
CONTRACTOR:	CONTRACT	DATE:
This Contract is changed as follows: (Insert description of change in space provided below.)		
ADJUSTMENTS IN THE CONTRACT SUM:		
1. Original Contract Sum:		\$
2. Change in Contract Sum by previously approved Change Orders:		
3. Contract Sum prior to this Change Order:		\$ 0.00
4. Amount of this Change Order:		
5. New Contract Sum, including this Change Order:	•	\$ 0.00
ADJUSTMENTS IN THE CONTRACT TIME:		
1. Initial Date for Substantial Completion:		
2. Sum of previously approved increases and decreases in Days:		Days
3. Change in Days for this Change Order:		Days
4. Total Number of Days added to this Contract including this Change Order:		0 Days
5. New Date for Substantial Completion:		
AGENCY ACCEPTANCE AND CERTIFICATION:		
I certify that the Agency has authorized, unencumbered funds available for obligation to this contract.		
BY:	Date:	
(Signature of Representative) Print Name of Representative:		
Change is within Agency Construction Contract Change Order Certification of: \$		Yes
APPROVED BY:	DATE:	
(OSE Project Manager)		

- SUBMIT THE FOLLOWING TO OSE

 1. SE-380, completed and signed by the Agency.
 2. SE-380, Page 2, completed and signed by the Contractor, A/E and Agency, with back-up information to support request.

CHANGE ORDER REQUEST SUMMARY – DESIGN-BID-BUILD

_	Wee T	Cee Bridge #1 Replacement Brid	lge Project		
			hange in space prov	ided below.)	
ADJUSTMENTS IN THE (CONTE	RACT TIME: Requested Change	in Days for this Cha	ange Order:	Days
			(1) Contractor	(2) Subcontractor	(3) TOTAL
D G .	1.	Labor			
	2.	Materials (including Sales Tax)			
Direct Costs (provide back-up, including hourly rates, invoices, manhours, etc.) Contractor Markup (per AIA A201, Section 7.1.5) Additional Bonding, Insurance and Permit Costs Associated with Change Order Direct Costs (provide back-up, including Sales Tax) Additional Bonding, Insurance and Permit Change Order 1. Labor 2. Materials (including Sales Tax) 3. Rental Charges Subtotal Direct Costs (sum lines 1 – 3) Contractor OH&P (Not to Exceed 17% of line 4, col 1) Subcontractor's OH&P (Not to Exceed 17% of line 4, col 2) Total Contractor markup on Subcontractor (Not to Exceed 10% of line 4, col 2) Bonds 10. Insurance 11. Permits, Licenses or Fees	3.				
	\$ 0.00	\$ 0.00	\$ 0.00		
	5.	Contractor OH&P (Not to Exceed 17% of line 4, col 1)			
	6.				
	7.	Contractor markup on Subcontractor			
		Total Contractor Markup	\$ 0.00	\$ 0.00	\$ 0.00
Additional Bonding.	9.	Bonds			
Insurance and Permit	10.	Insurance			
	11.	Permits, Licenses or Fees			
Change Order	12.	•	\$ 0.00	\$ 0.00	\$ 0.00
TOTAL	13.				\$ 0.00
ADJUSTMENTS IN THE (CONTR	RACT SUM: Amount of this Ch	ange Order Request	\$	
CONTRACTOR ACCEPTA	ANCE:				
BY:	/C:-	The second section of			
Print Name of Represent		,			
A/E RECOMMENDATION	FOR	ACCEPTANCE:			
BY:				_ Date:	
BY:					
		nature of Representative)			

Instruction to Contractor: Attach documentation as needed to justify the requested change to the contract and submit to A/E or Agency.



February 14, 2022

Mr. Gene Haskins Dennis Corporation CEI Division Manager 1800 Huger Street Columbia, South Carolina 29201

Subject: Report of Subsurface Exploration and Engineering Evaluation

Wee Tee State Forest Bridge Crossing - Bridge #1

Santee Road

Andrews, South Carolina

SUMMIT Project No. 1359.G0011

Dear Mr. Haskins:

SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. (SUMMIT) is pleased to submit our Report of Subsurface Exploration and Engineering Evaluation for the proposed bridge replacement for bridge #1 at the Wee Tee State Forest located off of Santee Road, Andrews, South Carolina. Our services were performed in general accordance with our Proposal 1359.G0011 dated December 8, 2021. The purpose of our services was to explore the subsurface conditions at the subject site pertinent to site preparation and foundation support. This report contains a brief description of the project information provided to us, general site and subsurface conditions revealed during our geotechnical exploration and our general recommendations based on subsurface conditions for the proposed development.

SUMMIT appreciates the opportunity to be of service to you on this project. If you have any questions concerning the information presented herein or if we can be of further assistance, please feel free to call us at (843) 606-6268.

Sincerely, SUMMIT Engineering, Laboratory & Testing, Inc.



Ross Deaver, P.E. SC Regional Manager



Robert L. Price, P.E., D. GE Senior Engineer

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Test Location Plan (Figure 2)

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CPT Soil Classification Legend

CPT Sounding Logs

USCS Soil Classification Chart Hand-Auger Boring Logs

EXECUTIVE SUMMARY

SUMMIT Project No. 1359.G0011

February 14, 2022

SUMMIT has completed the Subsurface Exploration for the proposed bridge replacement for bridge #1, at the Wee Tee State Forest, Santee Road, Andrews, South Carolina.

A total of two (2) Cone Penetrometer Test (CPT) soundings (S-1 through S-2) and three (3) hand augers borings (HA-1 to HA-3) were performed at the approximate locations shown on the attached "Test Location Plan," Figure 2 included in Appendix I. The soundings were performed on the accessible northeastern side of the bridge. The southwestern side of the bridge was not accessible to the drill rig. The testing locations were established in the field by SUMMIT personnel by estimating distances from existing surface features. The indicated testing locations should therefore be considered approximate. For more detailed information, the CPT sounding logs and hand-auger boring logs in Appendix II of this report should be reviewed.

The CPT soundings were advanced to depths of 25 feet and 38 feet below the existing grade on the northeastern side of the proposed bridge and hand augers were advanced to depths of 4 feet below grade on both the northeastern and southwestern side of the proposed bridge. The deeper sounding refused at a depth of 38 feet in a very dense sand layer. Groundwater was not encountered in any of the hand augers. The groundwater depths were estimated around 5 feet based on porewater pressure measurements from the soundings and observations of the water levels.

The soundings encountered a soft to very soft clay layer in the upper 13 to 14 feet and from 20 to 27 feet. Due to the soft upper soils and long-term scour/slope erosion considerations due to the shallow groundwater and apparent flooding in the area, we recommend that the proposed bridge be supported on a deep foundation system consisting of driven timber piles with a pile cap designed by the Structural Engineer. We recommend that lateral and vertical soil support be excluded for pile support calculations within the upper 5 feet below pile cap bottom. The timber piles should be driven to a minimum depth of 30 feet. A pile capacity table is provided in the Foundation section of the report.

This summary should be used in conjunction with the entire report for design purposes. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein. The section titled "Qualifications of Report" should be read for an understanding of the report limitations.

1.0 INTRODUCTION

SUMMIT Project No. 1359.G0011

February 14, 2022

1.1 Project Description

The project will include the removal and replacement of an existing bridge, identified as Bridge #1 as shown on the Wee Tee State Forest mapping. The existing bridge structure is a single span bridge and is approximately 51 feet long and 10 feet wide and spans across a tributary to the Santee River. The existing bridge structure is damaged and impassable for vehicles. The northeastern side of the bridge is accessible via an unimproved access road that intersects with Santee Road.

The structural loading information for the bridge has not been provided.

Should any of the above loading and bearing grade information or assumptions made by SUMMIT be inconsistent with the planned construction, we request that you contact us immediately to allow us to make any necessary modifications to this report.

1.2 Site Description

The project is located within the Wee Tee State Forest in Andrews, South Carolina. The site is identified as Williamsburg County Map Number 45-213-004. The majority of the State Forest is heavily wooded with numerous unimproved access roads traversing the property. The northeastern side of the bridge is accessible via an unimproved access road that intersects with Santee Road. The site is bounded by Santee Road to the northeast and the Santee River to the Southwest. The site is subject to seasonal flooding as well as flooding due to water releases at the upstream dam.

Please refer to the "Site Vicinity Map," Figure 1 included in Appendix I for the approximate location of the site.

1.3 Purpose of Study

The purpose of this report is to summarize findings from our subsurface exploration and provide preliminary site preparation, general construction, and foundation recommendations with respect to the proposed bridge design. The following services were provided in order to achieve the preceding objectives:

- Execute a program of subsurface exploration consisting of two (2) CPT soundings and three (3) hand augers.
- Visually classify and stratify the soils samples using the Unified Soil Classification System (USCS). Visual field classifications were performed in general accordance with ASTM D-2488, "Description and Visual Evaluation of Soils";
- Measure groundwater at the time of drilling;
- Analyze field data with respect to the proposed development;
- Prepare a formal engineering report which summarizes subsurface conditions and provides geotechnical and construction recommendations for the planned site development.

2.0 FIELD EVALUATION PROCEDURES

SUMMIT Project No. 1359.G0011

February 14, 2022

Our exploration included a site reconnaissance by a geotechnical engineer and the performance of two (2) Cone Penetration Test (CPT) soundings (S-1 and S-2) which were advanced on the northeastern side of the existing bridge to depths of 25 feet and 38 feet below the existing grade. Sounding S-2 refused in a very dense sand layer at a depth of 38 feet. One (1) hand-auger borings were performed adjacent to CPT S-2, and two (2) hand augers were performed on the southwestern side of the existing bridge. The hand augers were advanced to depths of 4 feet below the existing grade.

In a CPT sounding (ASTM D 5778), an electronically instrumented cone penetrometer is hydraulically pushed through the soil to measure point stress, pore water pressure, and sleeve friction. The CPT data is used to determine soil stratigraphy and to estimate soil parameters such as pre-consolidation stress, friction angle, and undrained shear strength.

The near-surface soils were further evaluated with hand-auger borings by manually turning a steel auger into the ground, and the soils were visually classified in the field using the Unified Soil Classification System (USCS).

The testing locations were established in the field by SUMMIT personnel by estimating distances from existing surface features. The indicated testing locations should therefore be considered approximate. The approximate testing locations are shown on the attached "Test Location Plan," included in Figure 2 in Appendix I. A more detailed description of our field-testing procedures, the CPT logs, and Hand-Auger Boring Logs are included in Appendix II.

3.0 AREA GEOLOGY AND SUBSURFACE CONDITIONS

3.1 Physiography and Area Geology

According to the Generalized Geologic Map of South Carolina (1997), the project site is located within the lower Atlantic Coastal Plain Physiographic Province of South Carolina. This province is characterized by sedimentary deposits of varying age and thickness. Generally, the deposits in this province consist of interceded mixtures of sands, silts, and clays. These materials were laid down in layers during successive advances and retreats of the ocean and generally dip gently toward the sea at a rate of a few feet per mile. However, during previous periods of low ocean levels, they were partially eroded by streams.

3.2 Generalized Subsurface Stratigraphy

General subsurface conditions encountered during our geotechnical exploration are described herein. Details of the subsurface conditions encountered by the soundings and hand-auger borings are located in Appendix II. These logs represent our interpretation of the subsurface conditions based upon field data. Stratification lines on the logs represent approximate boundaries between soil types; however, the actual transition may be gradual. Material descriptions are based on visual classification from hand-auger boring samples and correlations with CPT data. The general

SUMMIT Project No. 1359.G0011 February 14, 2022

subsurface conditions and their pertinent characteristics can be generalized as follows.

The soundings and hand auger borings generally encountered minimal topsoil as the surface was used as an access road and parking area. Topsoil depths should be expected to vary around the site. The near surface soils may have been previously placed fill material in areas around the site. In general, soft to very soft clays were encountered in the upper 13 to 14 feet underlain by a medium dense sand to a depth of approximately 18 feet. In sounding S-1, a stiff to very stiff sandy silty and medium dense silty sand was encountered from a depth around 17 feet to the termination depth at 25 feet. In sounding S-2, a very soft clay layer was encountered from around 20 to 27 feet underlain by a dense to very dense sand and silty sand layer to the refusal depth at 38 feet.

3.3 Subsurface Water

Groundwater was not encountered in the shallow hand augers. The groundwater depths were estimated around 5 feet based on porewater pressure measurements from the soundings and observations of the water levels. The groundwater depths may be slightly higher due to the slow infiltration rates in the upper clayey soils. The site is subject to seasonal flooding as well as flooding due to water releases at the upstream dam. Each of the hand auger borings were backfilled with soil cuttings following subsurface water readings. Longer term groundwater measurements were not performed.

It should be noted that regional groundwater levels will fluctuate with seasonal and climatic changes and may be different at other times. The highest groundwater observations are normally encountered in late winter early spring. Additionally, the near surface soils can be conducive to the development of a temporarily high groundwater conditions (water ponding at the surface) following periods of inclement weather. If longer term water levels are crucial to the development of this site, it would be prudent to track water levels with the use of piezometers.

4.0 CONCLUSIONS AND RECOMMENDATIONS

SUMMIT Project No. 1359.G0011

February 14, 2022

4.1 General

Our recommendations are based on the project information outlined previously, our past experience on similar type projects, and on the data obtained from the field-testing program. Determination of an appropriate foundation system for a given structure is dependent on the proposed structural loads, soil conditions, and construction constraints such as proximity to other structures, etc. The subsurface exploration aids the geotechnical engineer in determining the soil stratum appropriate for structural support. This determination includes considerations with regard to both allowable bearing capacity and compressibility of the soil strata. In addition, since the method of construction greatly affects the soils intended for structural support, consideration must be given to the implementation of suitable methods of site preparation, fill compaction, and other aspects of construction. If the structural loading, geometry, or proposed building and driveway locations are changed or significantly differ from those outlined, or if subsurface conditions encountered during construction vary greatly from the soil test boring information, SUMMIT requests the opportunity to review our recommendations based on the new information and make the necessary changes in writing.

4.2 Foundation Support

Due to the soft upper soils and long-term scour/slope erosion considerations due to the shallow groundwater and apparent flooding in the area, we recommend that the proposed bridge be supported on a deep foundation system consisting of driven timber piles with a pile cap designed by the Structural Engineer. As a contingency for long-term scour potential, we recommend that the design engineer exclude pile lateral and vertical soil support from the upper 5 feet below pile cap elevation.

We have performed a preliminary static analysis for timber piles at various sizes and depths based on the existing subsurface soil conditions encountered in the soundings. A factor of safety of 2.5 has been used for these allowable capacities. Based upon our understanding of the proposed construction and our test data, the following table summarizes soil parameters associated with the timber piles.

Table 1: Driven Timber Pile Axial Capacity

Pile Tip Dimension (inches) Pile Tip Below Existing Grade (feet)		Allowable Downward Capacity (kips)	Allowable Upward Capacity (kips)	
8	30	15	10	
8	35	20	15	
10	30	25	16	
10	35	30	20	

The allowable pile capacities are based upon a soil/pile interaction (geotechnical capacity) and do not consider the structural aspects of the pile. We recommend that piles be sufficiently reinforced for lateral stability should scour occur around the piles. Pile penetration depths are below existing grade.

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February 14, 2022

The hammer size, operating efficiency and cushion properties should be provided by the contractor. The size and type of the pile hammer should be able to deliver consistently effective dynamic energy, suitable to the piles to be driven and to the subgrade material into which they are to be driven. The pile hammer shall be in sound mechanical condition and be operated at the manufacture's rated speed and pressure. Pile spacing measured center-to-center should not be less than three times the pile diameter. If a vibratory hammer is used for the pile driving, the contractor should provide sufficient information to help determine an equivalent practical refusal definition for the vibratory hammer.

We recommend that all pile load tests and driving be monitored by a geotechnical engineer or his qualified representative. This should be done to keep driving records and determine that the piles have been driven to adequate resistance in the appropriate strata. We also recommend that the piles be monitored for heave due to driving of adjacent piles. Should heave occur, the pile should be re-driven to its original depth.

SUMMIT would recommend performing a pile load test program on at least one timber pile. The pile should be loaded to twice the design pile capacity in accordance with ASTM D-1143, using the standard loading procedure. Adjustments in the pile capacities or lengths may be required depending upon the results of the load test program.

4.3 Operations and Maintenance Considerations

We recommend that the foundation/end bent locations be inspected by a Geotechnical or Structural Engineer at a frequency of every five (5) years upon completion of construction. Any encroachment due to local scour or erosion should be noted and remedial recommendations made to promote performance of the foundation system.

4.4 Site Preparation

Site preparation recommendations for this project are dependent upon the deep foundation system selected and the effect that the deep foundation system may have on the proposed construction. It is strongly recommended that once the deep foundation system is selected that SUMMIT be afforded the opportunity to review any modifications to construction plans that may be incurred so that we can provide specific construction recommendations including those for site preparation and any fill placement that may be required.

5.0 QUALIFICATIONS OF REPORT

SUMMIT Project No. 1359.G0011

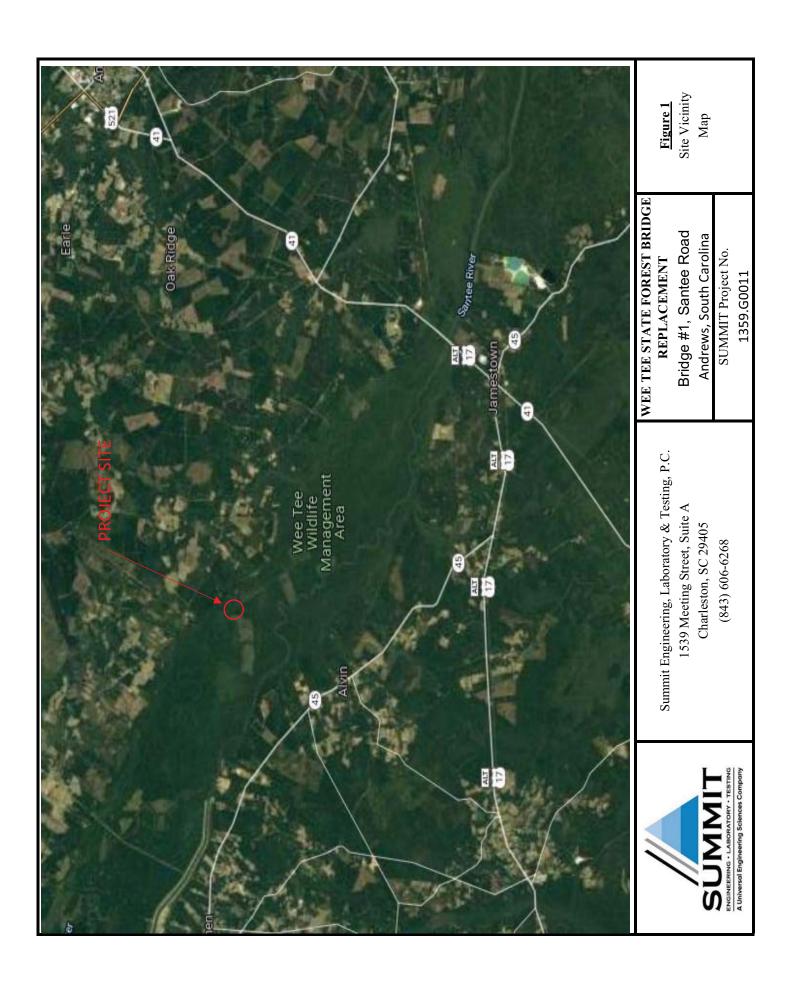
February 14, 2022

The analyses and recommendations submitted in this report were based, in part, on data obtained from the subsurface exploration. If the above-described project conditions are incorrect or changed after the issuing of this report, or subsurface conditions encountered during construction are different from those reported, SUMMIT should be notified and these recommendations should be re-evaluated based on the changed conditions to make appropriate revisions. We have prepared this report according to generally accepted geotechnical engineering practices. No warranty, express or implied, is made as to the professional advice included in this report.

The engineering recommendations provided in this report are based on the information obtained from the subsurface exploration. However, unlike other engineering materials like steel and concrete, the extent and properties of geologic materials (soil) may vary significantly. Regardless of the thoroughness of a geotechnical engineering exploration, there is always a possibility that conditions between borings will be different from those at the boring locations, that conditions are not as anticipated by the designers, or that the construction process has altered the subsurface conditions. This report does not reflect variations that may occur between the boring locations. Therefore, conditions on the site may vary between the discrete locations observed at the time of our subsurface exploration.

APPENDIX I

Site Vicinity Map (Figure 1) Test Location Plan (Figure 2)





APPENDIX II

Field Testing Procedures

CPT Soil Classification Legend

CPT Sounding Logs

USCS Soil Classification Chart

Hand Auger Logs

FIELD TESTING PROCEDURES

Cone Penetrometer Test (CPT) Sounding

The cone penetrometer test soundings (ASTM D 5778) were performed by hydraulically pushing an electronically instrumented cone penetrometer through the soil at a constant rate. As the cone penetrometer tip was advanced through the soil, nearly continuous readings of point stress, sleeve friction and pore water pressure were recorded and stored in the on-site computers. Using theoretical and empirical relationships, CPT data can be used to determine soil stratigraphy and estimate soil properties and parameters such as effective stress, friction angle, Young's Modulus and undrained shear strength.

The consistency and relative density designations, which are based on the cone tip resistance, q_t for sands and cohesive soils (silts and clays) are as follows:

SAND	<u>S</u>	SILTS AND CLAYS			
Cone Tip Resistance, q _t (tsf) Relative Density		Cone Tip Resistance, q _t (tsf)	Consistency		
<20	Very Loose	<5	Very Soft		
20 - 40	Loose	5 – 10	Soft		
40 – 120	Medium Dense	10 - 15	Firm		
		15 – 30	Stiff		
120 – 200	Dense	30 -60	Very Stiff		
>200	Very Dense	>60	Hard		

CPT Correlations

References are in parenthesis next to the appropriate equation.

General

```
p_a = atmospheric pressure (for unit normalization)
q<sub>t</sub> = corrected cone tip resistance (tsf)
```

f_s = friction sleeve resistance (tsf)

 $R_f = 100\% * (f_s/q_t)$

 u_2 = pore pressure behind cone tip (tsf)

 u_0 = hydrostatic pressure

 $B_{\alpha} = (u_2-u_0)/(q_t-\sigma_{v0})$

 $Q_t = (q_t - \sigma_{v0}) / \sigma'_{v0}$

 $F_r = 100\% * f_s/(q_t - \sigma_{v0})$ $I_c = ((3.47 - \log Q_t)^2 + (\log F_r + 1.22)^2)^{0.5}$

N-Value

$$N_{60} = (q_t/p_a)/[8.5(1-l_c/4.6)]$$
 (6)

(6) Jefferies, M.G. and Davies, M.P., (1993), "Use of CPTu to estimate equivalent SPT N60", ASTM Geotechnical Testing Journal, Vol. 16, No. 4

CPT Soil Classification Legend

Zone	Qt/N	Description
1	2	Sensitive, Fine Grained
2	1	Organic Soils-Peats
3	1.5	Clays-Clay to Silty Clay
4	2	Silt Mixtures-Clayey Silt to Silty Clay
5	3	Sand Mixtures-Silty Sand to Sandy Silt
6	4.5	Sands-Clean Sand to Silty Sand
7	6	Gravelly Sand to Sand
8	1	Very Stiff Clay to Clayey Sand*
9	2	Very Stiff, Fine Grained*

	Robertson's Soil Behavior Type (SBT), 1990							
Group #	Description	lc						
Group #	Description	Min	Max					
1	Sensitive, fine grained	N	/A					
2	Organic soils - peats	3.60	N/A					
3	Clays - silty clay to clay	2.95	3.60					
4	Silt mixtures - clayey silt to silty clay	2.60	2.95					
5	Sand mixtures - silty sand to sandy silt	2.05	2.60					
6	Sands - clean sand to silty sand	1.31	2.05					
7	Gravelly sand to dense sand	N/A	1.31					
8	Very stiff sand to clayey sand (High OCR or cemented)	N/A						
9	Very stiff, fine grained (High OCR or cemented)	N	/A					

Soil behavior type is based on empirical data and may not be representative of soil classification based on plasticity and grain size distribution.

Relative Density and Consistency Table					
SANDS		SILTS and CL	AYS		
Cone Tip Stress, qt (tsf)	Relative Density	Cone Tip Stress, qt (tsf)	Consistency		
Less than 20	Very Loose	Less than 5	Very Soft		
20 - 40	Loose	5 - 15	Soft to Firm		
40 - 120	Medium Dense	15 - 30	Stiff		
120 - 200	Dense	30 - 60	Very Stiff		
Greater than 200	Very Dense	Greater than 60	Hard		

Summit Engineering, Laboratory & Testing, Inc.

1539 Meeting Street, Suite A

Charleston, SC 29405 843-606-6268

Wee Tee State Forest Bridge Replacements Project:

Cone Type: DDG2190

Total depth: 24.93 ft, Date: 1/25/2022

CPT: S-1

Location: Williamsburg County, SC

Cone Operator: D. Geriner 20 40 0 20 30 4 N60 (blows/ft) SPT N60 10 Depth (ft) 10-22-6 14 15. 16. 17. 18. 19. 20. 21. 23. 24. 4 6 8 10 12 14 16 18 Sand & silty sand
Clay
Clay & silty clay
Silty sand & sandy s SBT (Robertson, 2010) Soil Behaviour Type Silty sand & sandy Clay & silty clay Silty sand & sandy Silty sand & sandy Silty sand & sandy Silty sand & sandy Sand & silty sand Sand & silty sand Sand & silty sand Sand & silty sand Clay & silty clay Clay Clay 5 Depth (ft) $\overline{}$ 7 4 9 œ 14 18 20 21 22 23 25 0 $^{\circ}$ \sim 6 10 1 15 16 17 19 24 200 Pore pressure u Pressure (psi) 8 6 Depth (ft) 10-111-17-24-14 15-16-18-19-20. 21. 22. 23. 25 Sleeve friction 0.5 1 1.5 Friction (tsf) 9 9 8 5 Depth (ft) 7 6 10-15 19. 14 16 18 20 21 23 17 22 Tip resistance (tsf) Cone resistance 6 Depth (ft) 18-21-8 10-14 16-19-20-22-24-17. 23. 25. 15 1

CPET-IT v.2.3.1.9 - CPTU data presentation & interpretation software - Report created on: 2/14/2022, 10:24:42 AM Project file: W:\- 2020 GEO Deltek Set-up Projects -\1359.G0011 Wee Tee State Forest Bridge Replacements - Williamsburg County, SC\Soundings\Wee Tee CPT Data.cpt

Summit Engineering, Laboratory & Testing, Inc.

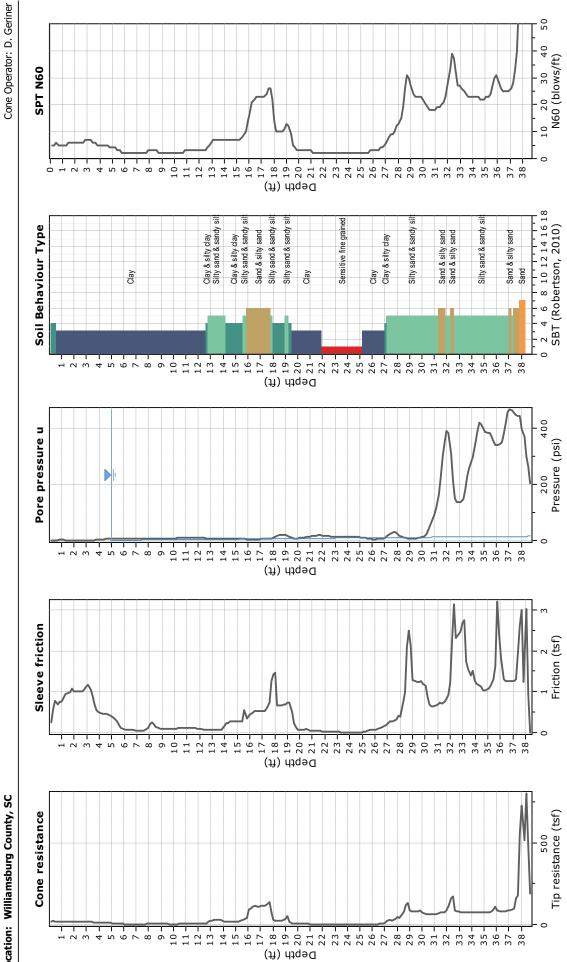
1539 Meeting Street, Suite A Charleston, SC 29405 843-606-6268 Wee Tee State Forest Bridge Replacements Project:

Cone Type: DDG2190

Total depth: 38.71 ft, Date: 1/25/2022

CPT: S-2

Williamsburg County, SC Location:



Project file: W:\- 2020 GEO Deltek Set-up Projects -\1359.G0011 Wee Tee State Forest Bridge Replacements - Williamsburg County, SC\Soundings\Wee Tee CPT Data.cpt CPeT-IT v.2.3.1.9 - CPTU data presentation & interpretation software - Report created on: 2/14/2022, 10:25:37 AM



Unified Soil Classification System

MAJ	OR DIVISIONS		GROUP SYMBOLS	TYPICAL NAMES
	GRAVEL & GRAVELLY	CLEAN GRAVEL	GW	Well-graded gravels, gravel-sand mixtures, little or no fines.
	SOILS More than half of	(Little or no fines)	GP	Poorly graded gravels, gravel-sand mixtures, little or no fines.
COARSE	coarse fraction is larger than No. 4	GRAVELS WITH FINES	GM	Silty gravels, gravel-sand-silt mixtures.
GRAINED SOILS More than half of	sieve size (4.75 mm).	(Appreciable amount of fines)	GC	Clayey gravels, gravel-sand-clay mixtures
material is larger than No. 200 (+) sieve size $(75 \mu m)$.	SAND AND SANDY SOILS	CLEAN SAND	sw	Well graded sands, gravelly sands, little or no fines.
	More than half of coarse fraction is smaller than No. 4 sieve size (4.75 mm).	(Little or no fines)	SP	Poorly graded sands, gravelly sands, little or no fines.
		SANDS WITH	SM	Silty sands, sand-silt mixtures.
		FINES (Appreciable amount of fines)	sc	Clayey sands, sand-clay mixtures.
			ML	Inorganic silts & very fine sands, rock flour, silty or clayey fine sands or clayey silts w. slight plasticity.
FINE GRAINED SOILS	SILTS ANI Liquid Limit L		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
More than half of material is smaller			OL	Organic silts and organic clays of low plasticity.
than the No. 200 sieve size (75 μ m).			МН	Inorganic silts, micaceous or diatomaceous fine sand or sitly soils.
	SILTS AND (Liquid Limit Gre		СН	Inorganic clays of high plasticity, fat clays.
			ОН	Organic clays of medium to high plasticity, organic silts.
HIGH	LY ORGANIC SOILS	3	PT	Peat, humus swamp soils with highly organic contents.

Note: All sieve sizes on this chart are based the U.S. Standard.

Reference: After U.S. Army Engineers Waterways Experiment Station (1967) and Das (1985).

^{*} Dual group symbol classification may be required for soil possessing characteristics of two soil groups.

		1/_	PROJECT NAME: Wee Tee Replacement	State Fo	orest Bridge	PROJECT	Γ NO.: 1359.0	G0011
			SITE ADDRESS: Bridge #1,	Santee	Road, Andrews, SC	HAND A	UGER NO.:	HA-1
		SUMMIT	PREPARED BY: DG		DATE: 1/27/22	SURFAC	E ELEVATION	۱:
		A Universal Engineering Sciences Company	LATIT	ΓUDE:	!	LONGIT	JDE:	
			HAND AUGER LOG			•		
DEPTH (FT)	WATER LEVELS		RIPTION OF MATERIAL			SAMPLE NUMBER	EXCAVATION EFFORT	DCP VALUES
		Surface Material and Thickness:	exposed soil, no ground c	over			-	
4		Brown/Orange Clayey Sand, SC					-	
1		Brown/Orange Clayey Sand, SC						
		Brown, Grange clayey Sand, Sc						
2							-	
		Brown/Orange and Grey, Clayey Sand,	CL					
3								
		Brown/Orange and Grey Sandy Clay, Cl	L				-	
4							-	
		EOB 4'-0"				_		
							-	
5							-	
6						-		
7								
8								
							-	
9						1		
СОМИ	ΛΕΝΤS:	1						
			1		EVO	AVATION I	FEFORT:	
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		//	PROJECT NAME: Wee Tee S Replacement	State Fo	orest Bridge	PROJEC	Г NO.: 1359.(G0011
			SITE ADDRESS: Bridge #1, S	antee F	Road, Andrews, SC	HAND A	UGER NO.:	HA-2
		SUMMIT	PREPARED BY: DG		DATE: 1/27/22	SURFAC	E ELEVATION	l:
		A Universal Engineering Sciences Company	LATITU	JDE:	<u> </u>	LONGIT	JDE:	
			HAND AUGER LOG					
DЕРТН (FT)	WATER LEVELS		CRIPTION OF MATERIAL			SAMPLE NUMBER	EXCAVATION	DCP VALUES
_		Surface Material and Thickness:	exposed soil, no ground co	ver				
1		Brown/Orange Clayey Sand, SC					-	
		Brown/Orange Clayey Sand, SC					-	
2								
		Brown/Orange Clayey Sand, SC						
							-	
3		Brown/Orange with Gray mottling, Silt	ty Clay Cl					
			.,,,					
4								
		EOB 4'-0"					-	
5							-	
6						+		
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		1/_	PROJECT NAME: Wee Tee Replacement	State Fo	orest Bridge	PROJECT	Γ NO.: 1359.0	G0011
			SITE ADDRESS: Bridge #1,	Santee I	Road, Andrews, SC	HAND A	UGER NO.:	HA-3
		SUMMIT	PREPARED BY: DG		DATE: 1/27/22	SURFAC	E ELEVATION	۱:
		A Universal Engineering Sciences Company	LATI	TUDE:	•	LONGIT	JDE:	
			HAND AUGER LOG			•		
DEPTH (FT)	WATER LEVELS		RIPTION OF MATERIAL			SAMPLE NUMBER	EXCAVATION EFFORT	DCP VALUES
		Surface Material and Thickness:	exposed soil, no ground o	over			-	
		Brown/Orange Clayey Sand, SC					-	
1		Brown/Orange Sandy Clay, CL						
		brown, Grange Sarray Clay, CE						
2							-	
		Brown/Orange and Grey Sandy Clay, Cl	L					
							-	
3		/0 10 0 10						
		Brown/Orange and Grey, Sandy Clay, C	L					
4								
		EOB 4'-0"						
5							-	
6								
							-	
7							-	
8								
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СОМЛ	ΛΕΝΤS:	1				1	<u> </u>	
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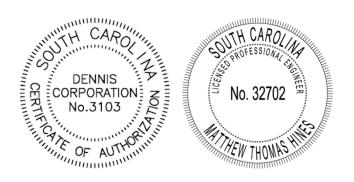
Technical Specifications For Wee Tee Bridge Replacement Project

SC Project Number P12-9603-PG

Prepared for:

South Carolina Forestry Commission





Report Date: <u>As Sealed</u> Revision Date: _____

INDEX TO TECHNICAL SPECIFICATIONS

- 1. General Specifications
- 2. Demolition and Earthwork
- 3. Bases and Sub-Bases
- 4. Concrete Paving
- 5. Maintenance and Control of Traffic
- 6. Structures and Storm Drainage
- 7. Reinforcing Steel for Structures
- 8. Prefabricated Bridge
- 9. Incidental Construction and Erosion Control
- 10. Sediment and Erosion Control

1. GENERAL SPECIFICATIONS

1.1. REFERENCES

The "Standard Specifications for Highway Construction, Edition of 2007" as published by the South Carolina Department of Transportation shall govern the material and workmanship on this project and is incorporated within this Contract by reference, except where modified by the Specifications and Special Conditions included within this section. In addition, the "Standard Drawings for Road Construction" published by the South Carolina Department of Transportation are incorporated within this Contract by reference.

The following are SCDOT Supplemental Specifications that pertain specifically to the project. Additional Supplemental Specifications, not included but which may be required for the Project, are on file with SCDOT and are available on the SCDOT website: http://www.scdot.org/doing/road_SupSpec.aspx

The list of the SCDOT Supplemental Specifications provided is as follows:

•	(06-01-01)	Bases and Subbases Quality Control/Quality Assurance
_	(04.05.10)	Congrete Databine and Mining

- (04-05-10) Concrete Batching and Mixing
- (04-01-13) Concrete Structures Performed Joint Filler
- (01-01-15) Erosion Control Measures
- (05-04-09) Errata to Standard Specifications for Highway Construction
- (03-20-03) South Carolina Mining Act
- (08-01-13) Crane Safety
- (03-01-07) Critical Path Construction Schedules
- (07-01-17) Prompt Payment Clause
- (05-05-14) Portland Cement and Portland Cement Concrete
- (01-01-15) Erosion Control
- (02-01-15) Concrete Entrained Air and Slump Properties
- (08-03-15) Reinforcing Steel
- (07-01-17) Muck Excavation
- (09-01-08) Adhesively Bonded Anchors and Dowels

The list of some of the Supplemental Technical Specifications that pertain are as follows:

- SC-M-203-1 (07/17) Geosynthetic Materials Separation & Stabilization
- SC-M-203-2 (07/17) Geogrid Soil Reinforcement
- SC-M-203-3 (07/17) Geotextile Soil Reinforcement
- SC-M-815-17 (08/13) Perimeter Control
- SC-M-815-15 (11/11) Dewatering Bags
- SC-M-815-9 (07/17) Rolled Erosion Control Products (RECP)
- SC-M-810-4 (07/17) Seeding
- SC-M-815-2 (03/08) Silt Fence Systems

1.2. SPECIAL CONDITIONS

- 1. The project **Owner** is South Carolina Forestry Commission.
- 2. The project **Engineer** is Dennis Corporation

1.2.1. CONSTRUCTION QUALITY CONTROL AND ASSURANCE

The Contractor shall provide construction quality control inspections and testing and the Owner shall provide quality assurance inspections and testing as well as any required Special Inspections for this project, except for CONTRACTORS MATERIALS CERTIFICATIONS AND CERTIFIED TEST REPORTS as required by the specifications included herein. It is the responsibility of the Contractor to coordinate and schedule the required special inspections and testing.

Costs associated with retesting or reinspection of work that was rejected or otherwise failed to comply with the Contract Documents will be the responsibility of the Contractor.

1.2.2. STATEMENT OF SPECIAL INSPECTIONS

The Owner shall provide Special Inspections of the following systems and components in accordance with the International Building Code as listed on the following page(s):

-Remainder of Page Intentionally Left Blank-

SCHEDULE OF SPECIAL INSPECTIONS 2018 IBC SECTION 1704.3

Project: Wee Tee Bridge #1 Replacement Engineer: Dennis Corporation, Gene Haskins

Category	item #	Verification & Inspection	continuou	Periodic	Req. Y/N	Reference Standard or Compliance Document	IBC Reference	Special Inspector
1704.	2.4 Re	eport Requirement - N/A			-			
1704.	2.5 ln	spection of Fabricated Items - N/A						
1704.	3 Stat	ement of Special Inspections - N/A						
1704	4 Con	tractor Responsibility - N/A						
1704.	5 Sub	mittals to the Building Official - N/A						
1704	6 Stru	ctural Observation - N/A						
1705.	1.1 Sp	pecial Cases						
Spc	1	Inspection of anchors post-installed in solid grouted masonry: Per research reports including verification of anchor type, anchor dimensions, hole dimensions, hole cleaning procedures, anchor spacing, edge distances, masonry unit, grout, masonry compressive strength, anchor embedment and tightening torque	8	1	Y		1705.1.1	
705.2	1 Str	uctural Steel Construction		(C) - 5				12
Sti	1	Fabricator and erector documents (Verify reports and certifications as listed in AISC 360, Section N 3.2 for compliance with construction documents)	9		Y	AISC 360, Table N 3.2	1705.2.1	
Stl	2	Material verification of structural steel	25	1	Y		1705.2.1	.5
Sel	3	Structural steel welding:				*	3	E
Sti	32	Inspection tasks Prior to Welding (Observe, or perform for each welded joint or member, QA tasks listed in AISC 360, Table N 5.4-1)	25		Y	AISC 360, Table N 5.4-1	1705.2.1	
Sti	3b	Inspection tasks During to Welding (Observe, or perform for each welded joint or member, QA tasks listed in AISC 360, Table N 5.4-2)	ă	V255	Y	AISC 360, Table N 5.4-2	1705.2.1	
Stl	3с	Inspection tasks During to Welding (Observe, or perform for each welded joint or member, QA tasks listed in AISC 360, Table N 5.4-2)	8	-4	Y	AISC 360, Table N 5.4-3	1705.2.1	19
Stl	3.1	Complete penetration groove welds 5/16" or greater in risk category III or IV	32	1	Y		1705.2.1	
Stl	3.2	Complete penetration groove welds 5/16" or greater in risk category II	:5	1	Y		1705.2.1	
Sti	3.3	Welded joints subject to fatigue when required by AISC 360, Appendix 3, Table A-3.1	35	1	Y	AISC 360, Appendix 3, Table A- 3.1	1705.2.1	-
Stl	3.4	Fabricator's NDT reports when fabricator performs NDT	W.	(S#1)	Y		1705.2.1	45
Sti	4	Structural steel bolting:				'		
Stl	42	Inspection tasks Prior to Bolting (Observe, or perform tasks for each bolted connection in accordance with QA tasks listed in AISC 360, Table N 5.6-1)	92	1	Y	AISC 360, Table N 5.6-1	1705.2.1	90 90
1705.	3 Con	crete Construction						(V
Conc	1	Inspection and placement verification of reinforcing steel and prestressing tendons	25	1	Y		Table 1705.3	
Conc	2	Reinforcing bar welding:		100	1		0 /	19

789		Inspection of anchors post-installed in hardened concrete members per research reports, or, if no specific requirements are provided, requirements				
Conc	4	shall be provided by the registered design professional and approved by the building official, including verification of anchor type, anchor dimensions, hole dimensions, hole cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment and tightening torque	1928	✓	Y	Table 1705.3
Conc	5	Verify use of approved design mix	57.55	1	Y	Table 1705.3
Conc	6	Prior to placement, fresh concrete sampling, perform slump and air content tests and determine temperature of concrete and perform any other tests as specified in construction documents.	√	S.	Y	Table 1705.3
Conc	12	Inspection of formwork for shape, lines, location and dimensions	25	1	Y	Table 1705.3
Conc	13	Concrete strength testing and verification of compliance with construction documents	200	1	Y	Table 1705.3
1705.4	Mas 4	onry Construction - N/A				
1705.5	Woo	d Construction - N/A				
1705.6	Soils					
Soil	1	Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	828	1	Y	Table 1705.6
Soil	2	Verify excavations are extended to proper depth and have reached proper material.	878	1	Y	Table 1705.6
Soil	3	Perform classification and testing of compacted fill materials.	PER	1	Y	Table 1705.6
Soil	4	Verify use of proper materials, densities, and lift thicknesses during placement and compaction of ✓ - Y Table 1705.6 controlled fill.		Table 1705.6		
Soil	5	Prior to placement of coontrolled fill, inspect		Table 1705.6		
1705.7	Drive	en Deep Foundations				
Drv	3	Inspect driving operations and maintain complete and accurate records for each element.	1	2	Y	Table 1705.7
1705.8	Cast	In-Place Deep Foundations - N/A			160	* *
1705.9	Helio	al Pile Foundations - N/A				
1705.1	0 Spe	cial Inspections of Fabricated Items - N/A				
1705.1	1 Spe	cial Inspection for Wind Resistance - N/A				
	500	ial Inspection for Seismic Resistance - N/A				
1705.1	3 Tes	ting for Seismic Resistance - N/A				
		ayed Fire Resistant Materials - N/A				
1705.1	5 Ma	stic and Intumescent Fire Resistant Coatings - NA				
1705.1	6 Ext	erior Insulation and Finish Systems (EIFS) - N/A				
	0.00	-Resistant Penetrations and Joint - N/A				
		oke Control - N/A				

1.2.3. MANUFACTURERS MATERIALS CERTIFICATIONS AND CERTIFIED TEST REPORTS

The Contractor shall supply the Engineer with all required materials certifications and manufacturers test reports for items to be permanently incorporated into the project, prior to their use. The Owner (or his designee) must approve these certifications and reports before payment can be made to the Contractor for these items.

1.2.4. COORDINATION OF UTILITY RELOCATION WORK

The construction site does not have local over head power or utilities within the site boundaries. As it is not economically feasible to complete the rearrangement of all utility conflicts in advance of the construction, it shall be the responsibility of the contractor to inspect the site for potential utility conflicts and coordinate utility relocations during construction. It is the responsibility of the Contractor to call Palmetto Utility Protection Service (1-888-721-7877 or 811) and the non-PUPS member utilities three (3) days prior to work so that existing utilities can be properly marked.

1.2.5. MOBILIZATION:

Mobilization consists of the preparatory operations including: moving personnel and equipment to the project site; paying bond and insurance premiums; establishing offices, buildings, and other facilities necessary for work on the project; and all other preparatory work or costs incurred before beginning work on the project. Moving Items will not be measured for payment, but shall be considered incidental to the mobilization pay item associated with the work.

1.3. CONSTRUCTION STAKES, LINES AND GRADES

1.3.1. DESCRIPTION: This work shall consist of all labor and materials necessary to provide the layouts required to construct the elements of the project and accommodate all utility relocations.

Provide field personnel and set all stakes for the project which are needed to establish offset stakes, reference points, and any other horizontal or vertical controls, including supplementary bench marks necessary to secure a correct layout of the work.

Ensure that all computations of survey work required in the execution of this project are performed by a Land Surveyor or Professional Engineer registered in South Carolina. Make certain that these computations are accompanied by the designated LS or PE seal and signature.

The Contractor is responsible for ensuring that the finished work substantially conforms to the lines, grades, elevations, and dimensions called for in the Plans or as provided by the Engineer. Any inspection or checking of the Contractor's layout by the Engineer and the acceptance of all or part of it does not relieve the Contractor of the responsibility to secure the proper dimensions, grades, and elevations of the several parts of the work. Exercise care in the preservations of stakes and benchmarks and have them reset at no additional expense when any are damaged, lost, displaced, or prematurely removed. Use competent personnel and suitable equipment for the layout work required.

The Engineer may make random checks of the Contractor's staking to determine if the work is in substantial conformance with the Plans. Where the Contractor's work ties into work that is being done or will be done by others, checks will be made to determine if the work is in conformance with the proposed overall grade and alignment.

If during the course of staking or construction work unforeseen utilities, and/or field conditions arise, which conflict with construction as shown in the Plans, notify the Engineer immediately. The Engineer will review the Contractor's findings and adjust the lines and grades accordingly or assist the Owner in arranging for the utility to relocate its facilities. The resulting adjustments will be provided to the Contractor so that its survey crew can adjust the staking. Adjusted staking as described above is considered a normal consequence of construction. No additional compensation is due to the Contractor for this work or for any delays due to adjustments to the staking.

2. <u>DEMOLITION AND EARTHWORK</u>

2.1. CLEARING AND GRUBBING WITHIN ROADWAY SELECTED CLEARING OF MARKED TREES

- **2.1.1. DESCRIPTION:** This section contains specifications for the materials, equipment, construction, measurement, and payment for clearing and grubbing of all vegetation, debris, and obstructions within the limits of the roadway, right of way, ditch and channel change areas, or other easement areas, except for such objects that are designated to remain, or are to be otherwise removed in accordance with the plans or other sections of these specifications.
- **2.1.2. EQUIPMENT:** Ensure that the equipment necessary for the proper construction of the work is on site, in acceptable working condition, and approved by the Contractor as to both type and condition before commencement of work.
- **2.1.3. CONSTRUCTION:** Contractor shall clear and grub all areas as shown on the plans where new construction is taking place. Drawings show tree canopies are not interfering with the construction site.

Additionally, selective clearing as directed by the Engineer may be required in order to complete work described in other subsections of these Specifications. Work in areas that are to be selectively cleared shall consist of removing vegetation, brush, stumps, etc. from the area. Special care shall be taken in these areas to avoid damage to trees that are to remain. Grubbing may not be required in some areas designated for selective clearing. If the need were to arise, it would be handled as a change order.

The Contractor must obtain approval from the Engineer prior to the removal of any tree larger than 8" in caliper unless designated as to be removed on the Plans. Trees that are to remain in place will need to be protected as necessary from damage due to the work being performed in the vicinity.

All trees that are to be removed are to be felled in such a way as to avoid damage to any other tree or feature that is to remain. All parts of the trees being removed are to be

completely taken from the site and properly disposed of. Any shrubs or small trees that are deemed undesirable by the Engineer may be selectively removed as directed.

Stumps and roots larger than two (2) inches in diameter shall be completely removed by grubbing except in areas of building or foundation construction or paving operations. Stumps and roots in these areas are to be cut off no less than 18 inches below the subgrade. The area of operation then shall be cleared of resulting debris and roots, weeds, and other organic matter shall be completely removed from the site and properly disposed of.

2.2. REMOVAL AND DISPOSAL OF EXISTING BRIDGE

- **2.2.1. DESCRIPTION:** This section contains specifications for the materials, equipment, construction, measurement for the removal of, wholly or in part, and satisfactory disposal of existing structures and obstructions that are not designated or permitted to remain, except as provided under other items in the Contract. This section also contains specifications for the salvaging of all materials and backfilling of the trenches, holes and pits associated with this work.
- **2.2.2. EQUIPMENT:** Ensure that the equipment necessary for the proper construction of the work is on site, in acceptable working condition, and approved by the Contractor as to both type and condition before commencement of work.

2.2.3. CONSTRUCTION:

- **2.2.3.1.** Submit to the Engineer, a Demolition Plan for review and acceptance at least 14 days prior to the beginning of work.
- **2.2.3.2.** Blasting is not expected to be required for this project and may not be performed without the Owner's prior written authorization. If so authorized, the Contractor shall obtain all required permits including permits required by the South Carolina Fire Marshal.
- **2.2.3.3.** Unless otherwise directed, remove the substructures of existing structures within the stream down to the natural stream bottom. Remove elements outside of the stream down 2 feet below natural ground surface. Remove existing structures as necessary to accommodate the construction of the new structure.
- **2.2.3.4.** Backfill any cavities left by the structure as directed with material approved by the Engineer and compact in accordance with Section 205.4.6 of the Standard Specifications for Highway Construction unless otherwise directed.
- **2.2.3.5.** Unless otherwise specified, the material in the structure removed becomes the property of the Contractor. Remove this material from the work site before completion of the work, and take proper allowance for its salvage value in the price bid for the item involved. If specified that existing material removed is to remain the property of the Owner, carefully dismantle without unnecessary damage, match mark members and elements, and store as directed by the Owner or Engineer.

- **2.2.3.6.** Complete blasting or other operations necessary for the removal of an existing structure that may damage the new construction before placing any new work.
- **2.2.3.7.** Comply with all federal, state, and local requirements for hazardous materials that may be present in the removed components.

2.3. BORROW EXCAVATION

2.3.1. DESCRIPTION: Borrow Excavation consists of material required for the construction of embankments or for other portions of the work where the elevation of the existing subgrade is less that the subgrade elevation required on the Plans or directed by the Engineer. For this project, excavation of in-situ material, when not covered under other items of work is considered incidental to the project, and will not be measured for payment. When it is necessary to bring borrow material from outside of the project area, the work is covered by the item Borrow Excavation. Borrow Excavation includes hauling, clearing and grubbing pits, securing necessary permits, haul roads and all other incidental related costs. Restore pits and haul roads to a condition satisfactory to property owners. All work shall be in compliance with the South Carolina Mining Act (refer to the SCDOT Supplemental Specification dated 03-20-2003).

2.3.2. MATERIALS:

2.3.2.1. GENERAL:

- **2.3.2.1.1.** Where the term suitable material is used in specification sections pertaining to earthwork, it means earth or materials designated as being suitable for their intended use by soil technicians or the Engineer. Suitable material shall be designated as meeting the requirements of the Unified Soil Classification System types SW, GW, GC, SC, SM, ML, CL or as designated in these specifications.
- **2.3.2.1.2.** Soil material used as fill, backfill, subgrade for structures or pavements, embankments, or site grading shall consist of suitable material as found available on site until such supply of on-site material is depleted.
- **2.3.2.1.3.** Provide suitable material free from organic matter and deleterious substances, containing no rocks or lumps over 6" in greatest dimension, and with not more than 15% of the rocks or lumps larger than 2-1/2" in their greatest dimension.
- **2.3.2.1.4.** Do not permit rocks having a dimension greater than 1" in the upper 6" of fill or embankment.
- **2.3.2.1.5.** Should the quantity of suitable on-site material be insufficient to complete the work, suitable borrow material as approved by the Engineer shall be provided by the Contractor at no additional expense to the Owner.
- **2.3.2.1.6.** Select material is defined as granular material to be used where indicated on the drawings or where specified herein consisting of soils conforming to the Unified Soil Classification types SW, SM,

- GW or GM or as otherwise approved by the Engineer as select fill. Select material shall contain no stones or rubble larger than 1-1/2" in diameter.
- **2.3.2.1.7.** Select materials may be provided from on-site if acceptable material as approved by the Engineer is available on site. Otherwise approved select material shall be provided by the Contractor from an off-site source

2.3.2.2. **TOPSOIL**:

- **2.3.2.2.1.** Use topsoil consisting of material removed from the top 3" to 6" of existing on-site soils.
- **2.3.2.2.2.** Use topsoil containing no stones, roots or large clods of soil.
- **2.3.2.2.3.** Stockpile topsoil separate from other excavated material.
- **2.3.2.2.4.** Borrowed topsoil shall adhere to the requirements of SCDOT 2007 *Standard Specifications for Highway Construction* Section 209.2.
- **2.3.3. EQUIPMENT:** Ensure that the equipment necessary for the proper construction of the work is on site, in acceptable working condition, and approved by the Contractor as to both type and condition before commencement of work.

2.3.4. CONSTRUCTION:

2.3.4.1. EXAMINATION

- **2.3.4.1.1.** Verify that survey bench mark and intended elevations for the Work are as indicated.
- **2.3.4.1.2.** Surface Conditions: Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

2.3.4.2. PREPARATION

- **2.3.4.2.1.** Identify required lines, levels, contours, and datum.
- **2.3.4.2.2.** Stake and flag locations of known utilities.
- **2.3.4.2.3.** Locate, identify, and protect utilities that remain, from damage.
- **2.3.4.2.4.** Notify utility company to remove and relocate utilities.
- **2.3.4.2.5.** Clearing and grubbing: Clear and grub areas to be graded prior to commencement of the grading operations.
- **2.3.4.2.6.** In compliance to the drawings, protect and leave standing designated desirable trees.
- **2.3.4.2.7.** Complete any demolition and/or removal work as may be required prior to grading operations.
- **2.3.4.2.8.** Dispose of all clearing, grubbing and demolition debris and other deleterious material off the project site. Vegetation, roots, brush, rubbish, stumps, etc. may be burned on-site where permitted by local authorities and regulations and approved by the Engineer.
- **2.3.4.2.9.** Topsoil: Strip topsoil to a depth of 3" to 6" without

contamination from the subsoil and stockpile topsoil separate from other excavated materials. Transport and deposit topsoil in storage piles convenient to areas that are to receive topsoil or in other locations as indicated or approved by the Engineer. Deposit topsoil in areas that are already graded and will not be disturbed by on-going construction. Dispose of unsuitable or unusable stripped material off-site or as otherwise directed by the Engineer.

2.3.4.2.10. Sampling and preliminary testing: Prior to beginning the grading operations, the Contractor shall submit to the Engineer his proposed sequence of excavation operations. Based upon the sequence of excavation, samples of the fill materials will be obtained as excavation proceeds and tested for grain size permeability and moisture density relationship using the Standard Proctor Method (ASTM D698, Method A). Allow sufficient time for completion of laboratory tests before any fill operations begin, using the soils being tested.

2.3.4.3. ROUGH GRADING

- **2.3.4.3.1.** Remove topsoil from areas to be further excavated, re-landscaped, or re-graded, without mixing with foreign materials.
- **2.3.4.3.2.** Remove subsoil from areas to be further excavated, relandscaped, or re-graded.
- **2.3.4.3.3.** Do not remove wet subsoil, unless it is subsequently processed to obtain optimum moisture content.
- **2.3.4.3.4.** When excavating through roots, perform work by hand and cut roots with sharp axe.
- **2.3.4.3.5.** Perform excavating of every type of material encountered within the limits of the Work to the lines, grades and elevations indicated and specified herein.
- **2.3.4.3.6.** Suitable excavated materials: Use all suitable materials removed from the excavation as far as practicable in the formation of the embankments, subgrades, shoulders, building sites and other places as directed. Unless otherwise indicated on the drawings or approved by the Engineer, surplus suitable material shall be removed from the site and disposed of by the Contractor.
- **2.3.4.3.7.** Unsuitable excavated material: Remove from the site and dispose of all unsuitable material unless otherwise approved by the Engineer.
- **2.3.4.3.8.** Rock excavation: Notify the Engineer upon encountering rock or similar material which cannot be removed or excavated by conventional earth moving or ripping equipment. Do not use explosives without written permission from the Engineer. When explosives are permitted, use only experienced powdermen or persons who are licensed or otherwise authorized to use explosives. Store, handle and use explosives in strict accordance with all regulatory bodies and the "Manual of Accident Prevention in Construction" of the Associated General

- Contractors of America, Inc. The Contractor shall be solely responsible for any damage resulting from the use of explosives. The Contractor is responsible for securing all permits required in performing this work.
- **2.3.4.3.9.** Unauthorized excavation: Excavation of material to depths below the grades indicated unless so directed by the Engineer will be deemed unauthorized excavation. Unauthorized overexcavation shall be backfilled and compacted without any additional expense to the Owner. In the event that it is necessary to remove unsuitable material to a depth greater than that shown on the drawings or otherwise specified, the Contractor, upon receiving direction from the Engineer, shall remove, replace and compact such material as directed by the Engineer at no additional expense by the Owner.
- **2.3.4.3.10.** Filling and Backfilling: Use fills formed of suitable material placed in layers of not more than 8" in depth measured loose and rolled and/or vibrated with suitable equipment until compacted. Do not place rock that will not pass through a 6-inch diameter ring within the top 12-inch of the surface of the completed fill or rock that will not pass through a 3-inch diameter ring within the top 6-inches of the completed fill. Do not use broken concrete or asphaltic pavement in fills.
- **2.3.4.3.11.** Selection of borrow material: Material in excess of that available on the site shall be suitable material furnished by the Contractor from private sources selected by the Contractor. The material shall be approved by the Engineer before use. All expenses involved in securing, developing, transporting and placing the material shall be borne by the Contractor.
- **2.3.4.3.12.** Placing and compacting: Place backfill and fill materials in layers not more than 8" in loose depth. Before compacting, moisten or aerate each layer as necessary to provide the optimum moisture content. Compact each layer to required percentage of maximum density for the area. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice. Place backfill and fill materials evenly adjacent to structures, to required elevations. Take care to prevent wedging action of backfill against structures by carrying the material uniformly around the structures to approximately the same elevation in each lift.
- **2.3.4.3.13.** Moisture control: Do not use soil material that is either too dry or too wet to achieve proper compaction. Where subgrade or layer of soil material is too dry to achieve proper compaction, uniformly apply water to surface of soil material such that free water does not appear on the surface during or subsequent to compacting operations. Remove and replace, or scarify and air dry, soil material that is too wet to permit compacting to the specified density. Soil material that has been removed because it is too wet to permit compacting may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing, or pulverizing until

moisture content is reduced to a satisfactory value as determined by moisture-density relation tests approved by the Engineer.

2.3.4.3.14. Compaction requirements: Compact soils to not less than the following percentages of maximum dry density as determined in accordance with ASTM D698, Method A (Standard Proctor).

Fill beneath structures and beneath an area extending 10 feet beyond the limits of the foundation:

Top 12-inches of Subgrade	100%
All other fill material	98%
Beneath Roadways:	
Top 12-inches of Subgrade	100%
All other fill material	98%
Embankments:	
Top 12-inches of Subgrade	98%
All other fill material	95%
Beneath Non-Vehicular Pavements:	
Top 12-inches of Subgrade	98%
All other fill material	90%
Lawns and unpaved areas:	
All other fill material	95%

2.3.4.3.15. Stability: Replace damaged or displaced subsoil to same requirements as for specified fill.

2.3.4.4. SOIL REMOVAL

- **2.3.4.4.1.** Stockpile excavated topsoil on site.
- **2.3.4.4.2.** Stockpile subsoil to be re-used on site; remove remainder from site.
- **2.3.4.4.3.** Stockpiles: Use areas designated on site; pile depth not to exceed 8 feet (2.5 m); protect from erosion.

2.3.4.5. FINISH GRADING

2.3.4.5.1. Uniformly grade the areas within limits of grading under this Section, including adjacent transition areas. Smooth the finished surfaces within specified tolerance. Grade with uniform levels or slopes between points where elevations are shown on the drawings, or between such points and existing grades. Where a change of slope is indicated on the drawings, construct a rolled transition section having a minimum radius of approximately 8 feet, unless adjacent construction will not permit such a transition, or if such a transition defeats positive control of drainage. Before

- Finish Grading, verify subgrade has been contoured and compacted.
- **2.3.4.5.2.** Remove debris, roots, branches, and stones in excess of 1/2 inch in size. Remove soil contaminated with petroleum products.
- **2.3.4.5.3.** Grading adjacent to structures: Grade areas adjacent to buildings to achieve drainage away from the structures and to prevent ponding.
- **2.3.4.5.4.** Ditches and gutters and swales: Cut accurately to the cross sections, grades and elevations shown. Maintain excavations free from detrimental quantities of leaves, sticks, trash and other debris until completion of the work. Dispose of excavated materials as specified herein; do not in any case deposit materials within 3'0" of the edge of a ditch.
- **2.3.4.5.5.** Upon completion of site grading and other related site work, topsoil shall be uniformly spread over the graded or improved areas. Topsoil shall be evenly distributed to conform to final grade elevations shown on the plans.
- **2.3.4.5.6.** Where topsoil is to be placed, scarify surface to depth of 3 inches (75 mm).
- **2.3.4.5.7.** In areas where vehicles or equipment have compacted soil, scarify surface to depth of 3 inches (75 mm).
- **2.3.4.5.8.** Place topsoil in areas where seeding are indicated.
- **2.3.4.5.9.** Place topsoil to the following compacted thicknesses:
- **2.3.4.5.10.** Areas to be seeded with grass not less than: 4 inches (75 mm).
- **2.3.4.5.11.** Place topsoil during dry weather.
- **2.3.4.5.12.** Remove roots, weeds, rocks, and foreign material while spreading topsoil.
- **2.3.4.5.13.** Near plants spread topsoil manually to prevent damage.
- **2.3.4.5.14.** Fine grade topsoil to eliminate uneven areas and low spots. Maintain profiles and contour of subgrade.
- **2.3.4.5.15.** Lightly compact placed topsoil.
- **2.3.4.5.16.** Any surplus topsoil materials shall be disposed of in approved areas on the site.

2.3.4.6. SHOULDERS AND SLOPES

- **2.3.4.6.1.** Selected material for shoulders or slopes consists of a friable material such as topsoil, etc. containing grass roots and having the properties of being in comparatively porous, capable of growing grass, and of a stable nature in that when compacted resists erosion and is capable of supporting vehicles when relatively wet.
- **2.3.4.6.2.** Shape, trim and compact the shoulders and slopes in proper sequence for the type of base or surfacing being constructed. For graded aggregate base and asphalt surface courses, perform the shoulder work prior to or during the construction of these courses or as soon thereafter as directed by the Engineer. Perform this work so that the shoulders, adjacent ditches and slopes are adequately drained at all times.

2.3.4.6.3. Maintain the shoulders, slopes and other designated areas by preserving, protecting, replacing and doing such other work as may be necessary to keep the work in satisfactory condition until the project is accepted.

2.3.4.7. TOLERANCES

- **2.3.4.7.1.** Top Surface of Subgrade: Plus or minus 1/10 foot (30 mm) from required elevation.
- **2.3.4.7.2.** Top Surface of Finish Grade: Plus or minus 1/2 inch (13 mm).
- **2.3.4.7.3.** Construct areas outside of building or structure lines true to grades shown. Where no grade is indicated, shape finish surface to drain away from buildings or structures, as approved by the Engineer.
- **2.3.4.7.4.** Degree of finish shall be that ordinarily obtainable from blade grader, supplemented with hand raking and finishing.

2.3.4.8. FIELD QUALITY CONTROL

- **2.3.4.8.1.** Secure the Engineer's construction observation and approval of subgrades and fill layers before subsequent construction is permitted thereon.
- **2.3.4.8.2.** Perform compaction density testing on compacted fill in accordance with ASTM D1556, ASTM D2167, ASTM D2922, or ASTM D3017.
- **2.3.4.8.3.** Evaluate results in relation to compaction curve determined by testing uncompacted material in accordance with ASTM D 698 ("standard Proctor"), ASTM D 1557 ("modified Proctor"), or AASHTO T 180.
- **2.3.4.8.4.** If tests indicate work does not meet specified requirements, remove work, replace and retest.
- **2.3.4.8.5.** Frequency of Tests:
 - At areas to receive paving, at least one field density test for every 5000 sq.ft. of subgrade area, but not less than three tests,
 - In each compacted fill layer, one field density test for every 5000 sq.ft. of overlaying paved area, but not less than three tests,
 - In fill beneath structures, one field density test for every 2500 sq.ft. in each layer,
 - Other tests as deemed necessary by the Engineer.
- **2.3.4.8.6.** Field density determinations will be made, at no cost to the Contractor, to ensure that the specified densities are being obtained. Field density tests will be performed as determined by the Engineer, considering the following:
- **2.3.4.8.7.** If, in the Engineer's opinion based on reports of the testing laboratory, subgrade or fills which have been placed are below specified density, provide additional compacting and testing until specified requirements are met. Additional testing will be provided by the Owner's selected testing laboratory and all costs for the additional testing will be borne by the Contractor.

2.3.4.8.8. Proofrolling: The Contractor shall proofroll subgrade of areas to receive paving, structures on fill or impervious lining material. Make no less than 3 passes of a 25 to 50 ton rubber tired roller over the full area. Unstable, soft or otherwise unsuitable materials revealed by the proofrolling shall be removed and replaced with satisfactory materials and compacted as specified herein.

2.3.4.9. DEWATERING

- **2.3.4.9.1.** Remove all surface and subsurface waters from excavations and maintain the excavation in a dry condition during construction operations.
- **2.3.4.9.2.** Maintain the water level below the excavation subgrade during excavation and construction.
- **2.3.4.9.3.** Material disturbed below the foundation subgrade due to improper dewatering shall be removed and replaced with crushed stone or lean concrete at no expense to the Owner.
- **2.3.4.9.4.** Use sumps, pumps, drains, trenching or well point system as necessary to maintain a dry excavation.
- **2.3.4.9.5.** Dewatering by trench pumping will not be permitted if migration of fine grained natural material (running sand) from bottom, side walls or bedding material will occur.
- **2.3.4.9.6.** Dispose of water pumped from excavations in storm drains having capacity, canals, trenches or other approved locations.
- **2.3.4.9.7.** Contractor is responsible for acquiring all permits required to discharge the water and shall protect waterways from turbidity during the operation.
- **2.3.4.9.8.** Prevent flooding of streets, roadways, or private property.
- **2.3.4.9.9.** Provide engines driving dewatering pumps with residential type mufflers.

2.3.4.10. CLEANING AND PROTECTION

- **2.3.4.10.1.** Remove unused stockpiled topsoil and subsoil. Grade stockpile area to prevent standing water.
- 2.3.4.10.2. Leave site clean and raked, ready to receive landscaping.
- **2.3.4.10.3.** Existing utilities:
 - Referring to the drawings show that the construction site does not have local over head power or utilities within the site boundaries.
 - Unless shown to be removed, locate and protect active utility lines shown on the drawings or otherwise made known to the Contractor prior to excavating. If damaged, repair or replace at no additional cost to the Owner.
 - If active utility lines are encountered and are not shown on the drawings or otherwise made known to the Contractor, promptly notify the Engineer and take necessary steps to assure that service is not interrupted.

- If service is interrupted as a result of work under this Section, immediately restore service by repairing the damaged utility at no additional cost to the Owner.
- If existing utilities are found to interfere with the permanent facilities being constructed under this Section, immediately notify the Engineer and secure his instructions.
- Do not proceed with permanent relocation of utilities until written instructions are received from the Engineer.
- **2.3.4.10.4.** Protection of persons and property:
 - Barricade open holes and depressions occurring as part of this Work, and post warning lights on property adjacent to or with public access.
 - Operate warning lights during hours from dusk to dawn each day and as otherwise required.
 - Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, washout and other hazards created by operations under this Section.
- **2.3.4.10.5.** Use means necessary to prevent dust becoming a nuisance to the public, to neighbors, and to other work being performed on or near the site.
- **2.3.4.10.6.** Maintain access to adjacent areas at all times.
- **2.3.4.10.7.** Excavate and backfill in a manner and sequence that will provide proper drainage at all times.

2.3.4.11. MAINTENANCE

- **2.3.4.11.1.** Protection of newly graded areas: Protect newly graded areas from traffic and erosion, and keep free from trash and weeds. Repair and re-establish grades in settled, eroded and rutted areas to the specified tolerances.
- **2.3.4.11.2.** Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify the surface, reshape, and compact to the required density prior to further construction.

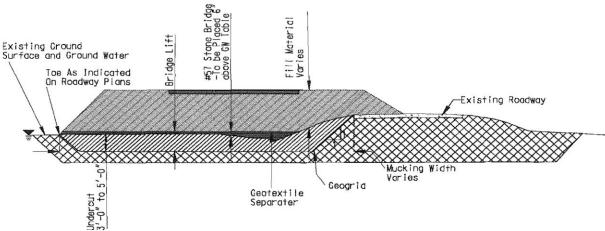
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2.4. MUCK EXCAVATION

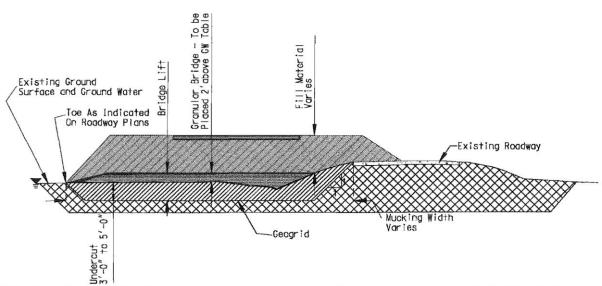
Refer to SCDOT Standard Specifications for Highway Construction, Section 203 and the following:

2.4.1. MUCK EXCAVATION

Any areas identified on the plans and any additional areas defined by the Engineer that are discovered to deflect or settle may require corrective action by the Contractor. This may include undercutting, placing granular aggregate, placing stone aggregate that is separated from other fine aggregate materials by a geotextile for separation of sub-grade and sub-base, and/or additional compacting to the approval of the Engineer.



UNDERCUT, GEOGRID, AND STONE BRIDGE LIFT



UNDERCUT, GEOGRID, AND GRANULAR BRIDGE LIFT

In areas that require mucking or undercutting, borrow excavation soil may be placed as a

bridge lift as long as the grade on which the material is being placed is at least 2 feet above ground water level. In the event that groundwater does not allow backfilling with a borrow excavation soil, a stone or granular material shall be used as the bridge lift material This stone or granular material shall be in accordance with the Bridge Lift Materials Specification included herein. Stone bridge lift materials shall have a thickness of 2 feet and shall extend a minimum of 6 inches above the ground/surface water level. Granular lift materials shall also have a thickness of 2 feet, but shall extend a minimum of 2 feet above ground/surface water level. Individual granular bridge lifts shall not exceed a 2-foot thickness without some type of limited compactive/tamping effort. The depth at which mucking or undercutting shall take place is dependent upon encountering a suitable bearing material within the excavation or a predetermined elevation or depth. In most cases, undercutting shall not exceed 3 to 5 feet in depth, but the final mucking or undercutting thickness shall be based on the decision of the Engineer, unless otherwise specified in the project plans and/or specifications. If a suitable bearing soil is not encountered within this depth range or unless otherwise specified in the plans and/or specifications, a biaxial geogrid with an aperture size of less than or equal to 1 inch shall be placed beneath the stone or granular bridge lift material. The geogrid shall be placed in the bottom of the excavation and up the excavation side slopes. If additional compacted borrow excavation soil is needed to reach grade, a geotextile for separation of sub-grade and sub-base shall be placed between any stone bridge lift material and the overlying compacted soil. A bridge lift consisting of borrow excavation soil or granular bridge lift material should not be placed within 3 feet of the base of any pavement section. Only compacted borrow excavation soil or stone bridge lift material shall be placed within this zone. The biaxial geogrid shall be in accordance with the Contract.

The quantities associated with mucking and undercutting, i.e. mucking, stone and granular bridge lift materials, geogrid, and geotextile for separation of sub-grade and sub-base, are for bid estimation purposes only. These bid items shall not be purchased and stockpiled on site without written approval from the Engineer unless specific areas and details are defined in the plans.

2.5. GEOTEXTILE FABRIC FOR SEPARATION OF SUBGRADE AND SUBBASE OR BASE COURSE MATERIALS

Refer to SCDOT Supplemental Technical Specification SC-M-203-1 "Geosyntheitc Materials – Separation and Stabilization".

2.6. GEOGRID SOIL REINFORCEMENT

Refer to SCDOT Supplemental Technical Specification SC-M-203-2 "Geogrid Soil Reinforcement".

2.7. BRIDGE LIFT MATERIAL

2.7.1. DESCRIPTION

The requirements of this specification shall consist of furnishing all necessary submittals and materials for providing bridge lift materials in accordance with the details shown on the plans and the requirements of the Specifications. The bridge lift materials shall be installed at locations shown on the plans, unless otherwise directed by the Engineer.

2.7.2. MATERIALS

The materials provided for under this specification shall be used for bridge lifts. Bridge lift materials shall consist of two general types, first materials that can be placed through water and those materials that are placed over soft exposed subgrades without water being present. The materials placed through water shall consist of either stone or coarse granular materials. The materials placed on soft exposed subgrades may consist of borrow excavation, stone or coarse granular materials.

2.7.2.1. STONE MATERIALS: The stone materials shall meet the specification requirements of No. 57 or No. 67 Coarse Aggregate (stone) as described in the current edition of the SCDOT Standard Specifications for Highway Construction. The stone shall consist of durable particles that are comprised of naturally occurring materials including marine limestone or man-made materials. The man-made materials are limited to light weight materials that meet the gradation requirements previously indicated and have a unit weight of at least 65 pounds per cubic foot. The natural materials shall have a dry unit weight of at least 120 pounds per cubic foot. Recycled materials may not be used.

2.7.2.2. GRANULAR MATERIALS: The granular materials shall meet the specification requirements for an A-1-a (AASHTO M-145) as indicated in the following table.

Sieve Analysis	Percent Passing
No. 10	50 max.
No. 40	30 max.
No. 200	15 max.
Plasticity Index	6 max.
Organics	1 max.

The granular materials shall consist of durable, naturally occurring particles. The granular materials shall have a dry unit weight of at least 110 pounds per cubic foot. Recycled materials may not be used.

- **2.7.2.3. BORROW EXCAVATION MATERIALS:** Borrow excavation materials used as a bridge lift shall be limited to A-1, A-2 and A-3 materials (AASHTO M-145). The borrow excavation materials shall meet the requirements as described in the current edition of the SCOOT Standard Specifications for Highway Construction.
- **2.7.2.4. SUBMITTALS:** The contractor is required to submit copies of gradation testing to the Engineer prior to delivery of the material to the site and at the discretion of the Engineer as placement proceeds, if in the opinion of the Engineer additional verification of the gradation is required.

3. BASES AND SUB-BASES

3.1. STONE BALLAST FOR ROADWAY SURFACE

- **3.1.1. DESCRIPTION:** This section contains specifications for the materials, equipment, construction, measurement, and payment for construction of a roadway driving surface composed of the aggregate materials specified herein on a properly prepared foundation (sub-grade or sub-base) in conformance with the lines, grades, dimensions, and cross-sections shown on the Plans or as directed by the Engineer.
- **3.1.2. MATERIALS:** Use railroad ballast stone. Submit to the Engineer the material specifications from the supplier for approval prior to purchase and placement.
- **3.1.3. EQUIPMENT:** Ensure that the equipment necessary for the proper construction of the work is on site, in acceptable working condition, and approved by the Contractor as to both type and condition before commencement of work. Use sufficient equipment to enable prosecution of the work in accordance with the project schedule and completion of the work in the specified time.

3.1.4. CONSTRUCTION:

3.1.4.1. PREPARATION OF SUBGRADE

Construct the foundation for the base course in accordance with the requirements as specified in Section 2. Proofroll all areas to receive crushed stone paving; make not less than three passes over the full area, using a 35 to 50 ton rubber tired roller. Remove all soft, unstable or unsuitable material that will not compact readily to full depth of unsuitable material, or to a depth of 30 inches, whichever is less, and replace with satisfactory materials. Fill all holes, ruts or depressions which develop in the subgrade with approved on-site material, bringing subgrade to indicated line and grades. Roll and compact the subgrade for at least 500 feet ahead of the placing of base course materials where feasible. Construct shoulders in accordance with the requirements of the Contract, SCDOT Standard Specifications of Highway Construction, and related, accurately trimmed to the alignment and grade as prescribed in the Plans.

3.1.4.2. PLACING OF MATERIAL

- **3.1.4.2.1.**Place the aggregate on the prepared foundation. Perform the spreading so that the finished base course conforms to the lines, grades, dimensions and the typical cross-sections shown on the Plans or as directed by the Engineer.
- **3.1.4.2.2.**When the required compacted thickness is 10 inches or less, construct the base course in one layer. Where the required compacted thickness is more than 10 inches, construct the base course in two or more layers of approximately equal thickness, and ensure that the maximum compacted thickness of any one layer does not exceed 10 inches. Construct and compact each layer as specified before placing the succeeding layer.
- **3.1.4.2.3.** Take care to prevent segregation of the fines from the coarse aggregates during handling, spreading and shaping of the materials, and correct all areas of segregation before subsequent placement of overlying lifts.
- **3.1.4.2.4.**If the foundation becomes unstable after the base course has been placed, repair the section by removing the base course material and unsatisfactory foundation material, replace the foundation material and reconstruct the foundation as described in these Specifications, and replace the base material at the required cross-section, grade and compaction.

3.1.4.3. COMPACTION, ROLLING AND FINISHING

3.1.4.3.1. After the base course material is spread, continually machine it with motor graders or other suitable equipment and maintain the required section until the base course is thoroughly compacted. Compact each layer by the use of appropriate equipment. If the foundation becomes unstable after the base course has been placed, repair the section by

- removing the base course material and unsatisfactory foundation material, replace the foundation material and reconstruct the foundation as described in these Specifications, and replace the base material at the required cross-section, grade and compaction.
- **3.1.4.3.2.**Start rolling the base course at the edge and proceed toward the center, except on superelevated curves where rolling operations proceed from the lower to the upper side. On areas not accessible for the operation of standard rollers, perform compaction using Engineer approved rollers. Continue rolling until the layer is satisfactorily compacted for the full width and depth. Wet the base course when necessary. Extend rolling over the edges of each layer of base course materials for a distance of two (2) feet on the shoulders. Continue blading and rolling until a dense, smooth, unyielding, and well-bonded base course is obtained.
- **3.1.4.3.3.**If initial compaction has been performed and the voids are not filled, place fine aggregate on the base course in an amount only sufficient to fill the voids. Broom, wet and roll the base course until the coarse aggregate is firmly set bonded, and the base course is thoroughly compacted for the full width and depth. Continue the rolling until the entire base course is compact to not less than 98% of maximum dry density as determined in accordance with ASTM D698, Method A (Standard Proctor). Determine the in-place density and moisture content of the graded aggregate base course with a nuclear moisture-density gauge or by other approved means.
- **3.1.4.3.4.**On shoulder work or other applicable construction, do not use steel wheel rollers on finished pavements, except at locations necessary for turning around. During all phases of work take extreme care to protect structures.
- **3.1.4.4. SURFACE SMOOTHNESS:** Ensure that the finished surface of the base course varies neither more than 3/8 inch from a straight edge 10 feet long when applied parallel to the centerline of the road, nor more than 1/2 inch from the typical cross-section shown on the Plans. Provide necessary materials and perform such corrective work to repair any deviations exceeding the limits given without additional compensation.

4. <u>CONCRETE PAVING</u>

4.1. **DESCRIPTION:** Bridge #1 plans calls for two concrete approaches 12' x 15' x 1' per notes on Sheet C-501, all work in strict accordance with all SCDOT Standards for Concrete Paving. Concrete design strength is to be 4000 psi in accordance with the SCDOT regulations. Reinforcing steel is to be Grade 60 in accordance with the SCDOT regulations. The two concrete approach slabs are detailed and shown on SHEET C-504 and where they adjoin the end bent backwall, reinforcing steel from the backwall is to be designed to turn with bent bars (90 degrees) into the approach slabs to sufficiently tie the structures together to avoid movement or cracking. Contractor Option: Design end bents, tie rebar, set and hang

formwork and pour entire structure monolithically allowing for any joinery as may be necessary.

5. MAINTENANCE AND CONTROL OF TRAFFIC

5.1. DESCRIPTION: The Contractor is hereby notified that the Owner shall coordinate with the Contractor to provide controlled access to the site during construction. This coordination will not relieve the Contractor from taking reasonable steps to protect the public within and approaching the site from the inherent dangers of construction operations. Any necessary traffic control required is considered incidental to the project.

No Nighttime work shall be permitted for this project.

6. <u>STRUCTURES AND STORM DRAINAGE</u>

6.1. CONCRETE FOR STRUCTURES – CLASS 4000

6.1.1. DESCRIPTION: This section lists the required referenced specifications for the materials, construction, measurement, and payment for furnishing, storing, and handling of the materials, and the proportioning, mixing and delivery of Portland Cement Concrete for structures and the construction of structures involving the use of structural concrete. Construct concrete structures in accordance with the design requirements and details shown on the Plans and in conformity with the requirements of the SCDOT Standard Specifications for Highway Construction and these Specifications.

6.1.2. REFERENCES:

- **6.1.2.1.** Refer to SCDOT Standard Specifications for Highway Construction Section 701 Portland Cement and Portland Cement Concrete in its entirety
- **6.1.2.2.**Refer to SCDOT Supplemental Specifications for Portland Cement and Portland Cement Concrete dated 8/2/2013 and 5/5/2014
- **6.1.2.3.**Refer to SCDOT Supplemental Specification for Concrete Batching and Mixing dated 4/5/2010
- **6.1.2.4.**Refer to SCDOT Supplemental Specification for Concrete Entrained Air and Slump Properties dated 2/1/2015
- **6.1.2.5.**Refer to SCDOT Standard Specifications for Highway Construction Section 702 Concrete Structures in its entirety.
- **6.1.2.6.**Refer to SCDOT Supplemental Specification for Concrete Structures Preformed Joint Filler dated 4/1/2013
- **6.1.2.7.**Refer to SCDOT Supplemental Specification for Crane Safety dated 8/1/2013

7. REINFORCING STEEL FOR STRUCTURES

7.1. DESCRIPTION: This section lists the required referenced specifications for the materials, equipment, construction, measurement, and payment for furnishing, and placing reinforcing steel consisting of bars wire, wire mesh, bar supports and ties. Construct concrete structures in accordance with the design requirements and details shown on the Plans and in conformity with the requirements of the SCDOT Standard Specifications for Highway Construction and these Specifications.

7.1.2. REFERENCES:

- **7.1.2.1.** Refer to SCDOT Standard Specifications for Highway Construction Section 703 Reinforcing Steel in its entirety.
- **7.1.2.2.** Refer to SCDOT Supplemental Specifications for Reinforcing Steel dated 8/3/2015

8. PREFABRICATED BRIDGE – 51 FT LONG X 12 FT WIDE

8.1. GENERAL

8.1.2. DEFINITIONS:

- **8.1.3. AASHTO:** The American Association of State Highway and Transportation Officials (see their website at www.transportation.org)
- **8.1.4. BRIDGE:** The prefabricated steel bridge superstructure supplied to the Contractor or Owner by the supplier and/or manufacturer. For purposes of these specifications, "Bridge" does not include any abutments, piers, or other substructure components or foundations, nor does it include any part of the roadway to be located directly upon the bridge superstructure.
- **8.1.5. CALCULATIONS:** Documentation related to the analysis, design, and load rating (when requested) in the form of hand computations, computer output, diagrams and summary tables in either hard copy or electronic portable document format (.pdf) files.
- **8.1.6. DESIGN LOADING:** The specified minimum live loads governing the bridge's design.
- **8.1.7. ENGINEERING DRAWINGS:** Drawings prepared by the Contractor that represent the intended engineering design including criteria and general notes. These drawings typically depict the Bridge's framing plan, elevation, member sizes, transverse section(s), end-of-bridge section(s), field assemblies, and installation notes.
- **8.1.8. LOAD RATING:** The live load capacity of the Bridge pursuant to Applicable Codes, Standards, and statutes of the state in which the bridge is located. Load ratings shall be reported as inventory or operating.
- **8.1.9. LRFD:** Load & Resistance Factor Design
- **8.1.10. PERMANENT:** Intended and commonly sold, offered or purchased for use in the original location for more than twenty (20) years.
- **8.1.11. SHOP DRAWINGS:** Drawings prepared by the Contractor that represent the intended fabrication of pieces and supplied items. These drawings include

instructions for forming, fabricating, connecting and finishing the pieces, in the form of labels, symbols, notes, and dimensions.

- **8.1.12. STATION:** An increasing increment along the roadway centerline that defines the orientation of the bridge with respect to beginning and end and left and right of the project. Stations may be surveyed or arbitrarily set depending on the complexity of the project. Upstation is forward and toward the end of the project. Downstation is rearward and toward the beginning of the project. Left and right are oriented while looking upstation.
- **8.1.13. SUBCONTRACTOR:** An agent for the Contractor, engaged by agreement to promote and sell pre-fabricated bridges made by the Subcontractor and to represent the Contractor during all activities from the pre-bid phase through construction.
- **8.1.14. CONTRACTOR'S RESPONSIBILITIES:** The Contractor will convey all documents to- and all approval actions from the Owner and/or Owner's designated contact, as described above, to the Contractor in an expeditious and timely manner. The Contractor will also work to communicate any changes or changed conditions by the Owner and/or Owner's designated contact, to the Contractor, and any questions or clarifications from the Contractor to the Owner and/or Owner's designated contact, in an expeditious and timely manner.
- **8.1.15. TIMELY:** In compliance with the time parameters of the agreement.

APPLICABLE CODES AND STANDARDS 8.2.

8.2.1. GOVERNING CODES AND STANDARDS

The Bridge shall be designed in accordance with current, recognized and accepted specifications for bridge design and construction, including all interims, and as stipulated by the Engineer below. Currently, within the United States, the American Association of State Highway and Transportation Officials (AASHTO) publishes two sets of bridge design and construction specifications: the 1) Standard Specifications for Highway Bridges, 17th Edition (2002), Division I & II and AASHTO LRFD Bridge Design Specifications for Highway Bridges, 6th Edition (2012) and 2) AASHTO LRFD Bridge Construction Specifications 3rd Edition (2010). The Specifier shall select the governing Section 8.4.2.

Additionally, a live load basis such as HL93 (AASHTO LRFD), or HS20 (AASHTO Std. Spec.) shall also be specified by the Engineer. The Owner's designation of the specification should be consistent in its application to other parts of the project such as the substructure and foundations. The Specifier shall select the governing live load in Section 8.4.2.

8.2.2. REFERENCE CODES AND STANDARDS

American Institute of Steel Construction (AISC), Steel Construction Manual, Thirteenth Edition.

ANSI/AF&PA National Design Specification (NDS) for Wood Construction 2005 Edition.

American Welding Society (AWS) D1.5 Bridge Welding Code (Use AWS D1.1 for welding not covered in AWS D1.5).

Research Council on Structural Connections (RCSC) Specifications for Structural Joint Using A325 or A490 Bolts (2004).

AASHTO/NSBA S2.1 Steel Bridge Fabrication Guide Specifications, 2nd Edition.

8.3. **BRIDGE CHARACTERISTICS**

8.3.1. SPAN(S): The Bridge shall be composed of the following number of spans and span lengths. Span shall mean the center-to-center distance between bearing centerlines of the primary members.

Additionally, the bridge shall be capable of re-configurations into smaller span groups based on the panel spacings of the supplied span and the addition of corresponding accessories such as end posts and bearings.

8.3.2. WIDTH: The proposed width shall be the clear roadway width between bridge railings or curb elements shall be:

> 12 ft. rail/rail

8.3.3. FINISH: The finished surface of the fabricated steel shall be:

Weathering Steel

8.3.4. FLOORING/DECK: The bridge shall utilize the following floor system:

Open Grid Steel Decking

8.3.5. BRIDGE RAILINGS: The bridge shall utilize the following railing system:

Stringer Supported Post & Rail

8.3.6. BEARINGS: The bridge shall utilize the following bridge bearings:

Cotton Duck Pads (PTFE & Stainless Steel) on Steel Base & Load Plates

8.3.7. EXPANSION JOINTS: The bridge shall utilize the following expansion joint:

Neoprene Compression Seal

- **8.3.8. BRIDGE STYLE IN ELEVATION:**
- **8.3.9. SHORT SPAN BEAM BRIDGE:** The design shall be an all-bolted beam bridge configured in the style as manufactured by vendors and as further described in these specifications. The bridge shall resemble what is shown on the plans:

The beams will be provided full length with no splices, and with bolted transverse diaphragms and offset supports for the guiderail system. Owner approved bearings with anchor bolts, expansion joint systems, guardrail systems as specified in the Contract Documents, and all bolts and hardware required for installation, shall be included.

8.4. ENGINEERING

- **8.4.1. LICENSURE:** The engineering design of the Bridge shall be performed by, or under the direct supervision of a Licensed Professional Engineer in the State in which the Bridge will be erected. The design shall be completed in accordance with recognized engineering principles and design practices and with a standard of care commensurate with the Contractor's role in the project.
- **8.4.2. DESIGN SPECIFICATIONS:** The Bridge shall be designed in accordance with:

AASHTO Standard Specifications for Highway Bridges, 17th Edition (2002)

Division I including all interims

Additionally, the live load shall be specified as: HS20 (AASHTO Std. Spec.)

8.4.3. ANALYSIS: The structural analysis for the Bridge shall include, at a minimum, a two dimensional analysis for gravity dead loads and moving live (truck) loads on transverse and longitudinal members, as applicable. Location of axle loads, lane loads, wheel loads; and the distribution of wheel loads shall be applied as such to produce the maximum stress (or applied force) in the member or members under consideration.

Due to their configuration, a U-frame analysis is required for half-through trusses, to confirm the top chord's stability by computing the relative stiffness of the Bridge's cross sectional members to determine the resistance of the top chord members to buckling. The analysis shall follow E. C. Holt, Jr. and R. M. Barnoff's research performed for the Column Research Council, (1950-1957).

- **8.4.4. BRIDGE INFORMATION MODEL (BriM):** The Contractor shall utilize three-dimensional CAD software with integrated model-data-CNC file transfer of the Bridge components and assemblies to prepare Engineering and Shop Drawings. This is to promote efficiency during plan development and to improve quality of the delivered Bridge order.
- **8.4.5. LOAD RATING:** A load rating of the Bridge's superstructure shall be supplied to the Owner upon written request, after the bridge's fabrication is complete. Requirements for the Load Rating shall be conveyed to the Contractor at the time of request. The load criteria for the replacement bridge is HS-20.
- **8.4.6. LOADS & LOAD COMBINATIONS:** All applicable dead and live loads shall be applied and combined as specified in the Design Specification. A future wearing surface of 35 psf shall be applied as a dead load in anticipation of possible future paving overlays. Longitudinal forces from thermal expansion and contraction, and vehicles; along with lateral forces from wind, flood or seismic events shall be computed and combined as applicable and in accordance with the Design Specification.

- **8.4.7. CAMBER & DEFLECTION:** Calculation of the Bridge's dead and live load deflection is required. Live load deflection of the primary members should be limited to the span-to-deflection ratio of L/600 unless otherwise specified. Dead load deflection shall be accommodated by forming camber into the unloaded geometry of the members. Profile grade curvature shall also be taken into account when determining the fabricated (or induced) camber of the members. No camber adjustment is required for spans of less than 50 ft., except that they be fabricated with their natural mill camber as "up".
- **8.4.8. RAILINGS:** Railings shall be designed to provide a continuous, snag-free alignment along the bridge's edge of roadway. Additionally they shall transition smoothly to a ground mounted railing system eventually terminating as directed or planned by the Owner, unless otherwise stipulated in the Agreement. The railing system shall be designed to meet the dimensional requirements of the Design Specification and to resist vehicular impact loads in accordance with the Design Specification: 10 kip (AASHTO Std. Spec.)
- **8.4.9. DRAWING SUBMITALS:** The Contractor shall design the prefabricated bridge(s) and prepare Drawings in accordance with the following minimum requirements. Engineering Drawings and Calculations, sealed by a Registered Professional Engineer in the state where the Bridge is to be erected, will be submitted to the Owner's designated contact for Approval. Shop Drawings shall be supplied to the Owner' designated contact..

Unless otherwise requested, an electronic version of the Shop Drawings will be submitted in portable document format (.PDF) via email to the Owner or the Owner's designated contact. After final approval by the Owner, the Contractor shall provide the Owner with two 24" x 36" paper copies of the Engineering Drawings. Three (3) sets of the As-Fabricated Drawings (11" x 17") shall be transmitted to the Contractor at the time of Bridge Delivery.

8.5. MATERIALS & COMPONENTS

- **8.5.1. STEEL:** Members for vehicular bridges shall be fabricated from domestically produced, wide flange beam and/or channel shapes designated ASTM A709 Grade 50 and structural steel plate designated ASTM A709 Grade 50, all provided by an AISC recognized supplier. When tubular members are needed as secondary members, the shapes shall be designated as ASTM A500 Grade B (46 ksi) and shall also be domestically produced and provided by an AISC recognized supplier.
- **8.5.2. WEATHERING STEEL:** Bridges specified as 'weathering' shall be fabricated from rolled beam or wide flange shapes designated ASTM A709 Grade 50W. Secondary weathering members may be tubular shapes carrying the ASTM A847 (50 ksi) designation; all domestically produced and provided by an AISC recognized supplier.

- **8.5.3. STRUCTUAL FASTENERS:** All bolted connections shall utilize ASTM A-325 High Strength Bolts. All bolts for weathering steel components shall be ASTM A325 Type 3. Galvanized bolts shall be A325 Type 1, hot dip galvanized in accordance with ASTM A-153 specifications.
- **8.5.4. ANCHOR BOLTS:** The anchor bolts supplied with all bridge systems shall be ASTM A449 Full Thread Studs Hot Dip Galvanized as per ASTM A153. Each anchor bolt shall be provided with one A563 Galvanized Heavy Hex Nut and one F436 Galvanized Flat Washer.
- **8.5.5. OPEN GRID STEEL DECK:** The Open Grid Decking shall be 5" deep (nominal) made from 5 3/16" rolled main bars spaced at 8" on center, ½" x 2" interlocking cross bars at 4" on center and 5/16" x 1" supplemental bars evenly spaced between main bars. Panels shall be fabricated for the full roadway width and designed for field-welded attachment to stringers. The top of the decking is to be serrated as per BGFMA industry standards. Flooring to be fabricated using ASTM A709 Grade 50 steel and will be hot dip galvanized as per ASTM A123. Attachment details shall be shown in the Grid Contractor's installation drawings.

8.6. MANUFACTURING AND QUALITY CONTROL

- **8.6.1. CERTIFICATION MANUAL:** A current copy of the AISC Program Manual describing the Bridge Contractor's operations and practices shall be maintained by the quality Control Manager for review by designated quality control inspectors. Copies of the AISC Certification Manual shall be made available to customers and their representatives, upon requests.
- **8.6.2. CLEANING AND SURFACE PREPARATION:** Steel that is to be fabricated shall be cleaned by solvent or hand tools, or shot blasted, as needed to clean and remove rust and mill scale that might impede accuracy of fit-up or quality of fabrication prior to processing. Weathering steel shall be blasted to provide a uniform surface appearance. Steel to be galvanized shall be prepared in accordance with the galvanizers recommendations. Steel that is to be painted shall follow the Contract Documents and paint Contractor's recommendations and as specified below.
- **8.6.3. CAMBERING:** The Bridge shall be cambered in accordance with the Contract Documents and the design computations to offset the predicted total dead load deflection and to accommodate the profile grade indicated in the Contract Documents. Mechanical (cold) cambering may be used where permitted by the applicable construction specifications and the Owner's customary practices. Heat cambering by experienced workers may be employed, as an optional method.
- **8.6.4. WELDING:** All welding shall conform to the AASHTO/AWS D1.5 Bridge Welding Code. Welding of tubular connections is covered in the AWS D1.1 Welding Code. All welding shall utilize E70 or E80 series electrodes. The weld process used shall be Flux Core Arc Welding (FCAW) or Shielded Manual Arc Welding (SMAW) per ANSI/AASHTO/AWS D1.5 "Bridge Welding Code."

Welding operators shall be properly accredited and experienced. Qualifications of welders shall be made available upon request.

- 8.6.5. PLATE & SHAPE CUTTING: Plate and shape cutting shall conform to methods specified in AASHTO/AWS D1.5 Bridge Welding Code Section 3 Workmanship. Computer Numerically Controlled (CNC) cutting equipment shall be utilized as a manufacturing method as it allows for highly accurate dimensional cutting along with precise and rapid shop operations. Exceptions to CNC processing should be submitted in writing to the owner for approval, prior to commencing fabrication.
- **8.6.6. BOLT HOLES:** All bolt hole fabrication for high strength, slip critical bolted connections shall conform to the workmanship requirements of the Research Council on Structural Connections (RCSC) Specifications for Structural Joint Using A325 or A490 Bolts. Computer Numerically Controlled (CNC) drilling equipment shall be utilized as a manufacturing method as it allows for highly accurate hole location along with precise and rapid shop operations. Exceptions to CNC processing should be submitted in writing to the owner for approval, prior to commencing fabrication.
- **8.6.7. BOLTING:** All shop and field bolting shall comply with the AASHTO Construction Specifications, Section 11 and the Research Council on Structural Connections (RCSC) Specifications for Structural Joints Using A325 or A490 Bolts. Nuts shall be ASTM A563 grade DH and washers shall be ASTM F436, of corresponding finish. Shop and field bolts shall be tightened using the Turn-of-Nut Installation Method (AASHTO 11.5.6.4.4 or RCSC 8.2.1); or by a tension controlled (TC) wrench and bolt system (ASTM F1852); or by use of Direct Tension Indicating (DTI) washers.
- 8.6.8. GALVANIZED STEEL COMPONENTS: Fabricated truss elements and bolted beam connections shall be individually hot dip galvanized prior to assembly to ensure corrosion protection has been achieved between assembled elements and within truss joint plies. The only exception to this shall be floor beam end-plate assemblies which, if welded, shall require supplemental seal welds to prevent pickling acid leakage after galvanizing.

All hot-dip galvanizing shall be in accordance with ASTM A-123. Damage to hot dip galvanized coatings resulting from welding, handling, or other factors shall be repaired in accordance with ASTM Standard Practice A-780. All bolts and fasteners shall be galvanized in accordance with ASTM specification A-153. The steel galvanizer of the bridge elements (other than bridge flooring) shall be a member of the American Galvanizer's Association and shall provide the Bridge Owner a written limited warranty against corrosion of the superstructure components for a period of not less than 35 years.

8.6.9. SHOP ASSEMBLY: Shop assembly shall conform to AASHTO Construction Specifications and AASHTO/NSBA S2.1 Guide Specifications. The Contractor shall shop assemble the entire span, to conform to the camber and blocking requirements shown in the Engineering Drawings in an unloaded, laydown process. If the span is too long for a complete shop assembly, the Contractor shall check-assemble a minimum of three adjacent shippable units of the bridge, in a sequential manner, to ensure that an accurate fit-up of assemblies are possible in the field. Complex framing members such as skewed floor beams shall also be check -assembled in the shop, to ensure geometric accuracy and fit-up has been achieved. Stringers beams, transverse bracing and accessory pieces are not required to be check-assembled to their primary members unless specified in the Contract Documents.

- **8.6.10. SHOP INSPECTION:** Each Bridge shall be inspected by a qualified shop inspector. For all welded assemblies the inspector shall be a Certified Weld Inspector that is qualified under the AWS QC-1 program. Each inspection shall include as a minimum requirement the following: review of Shop Drawings, weld procedures, welder qualifications and weld testing reports, visual inspection of welds and verification of overall dimensions and geometry of the Bridge. Non destructive testing of welds shall be performed both prior to and after galvanizing. All welds shall be visually inspected 100%. All welds shall be magnetic particle tested for a minimum length or 12". Welds over 12" long shall be magnetic particle tested at least 12" for every 10' of length. A report of these inspections shall be provided.
- **8.6.11. MATERIAL CERTIFICATION:** The Contractor shall maintain a program to receive, inspect, record and trace materials used in the Bridge. Material Test Reports shall be used to prove domesticity, and document chemistry and physical test records. Certificates of Conformance shall be used to document compliance with specifications. Traceability shall be met by heat and lot numbers records from the producing mill or supplier. This program shall be in evidence by the Contractor's AISC Certification and a written copy found in the Contractor's AISC Certification Manual.

8.7. SITE, DELIVERY & ERECTION

- 8.7.1. CONTRACTOR RESPONSIBILITY: The Contractor shall construct the Bridge abutments, piers and /or footings as shown on the plans. Contractor shall submit additional soils information, calculations and drawings for proposed alternatives. Pertinent information related to the design and performance of the bridge superstructure shall be made available to the Bridge Contractor upon execution of the agreement. The Contractor shall install the anchor bolts in accordance with the Bridge Contractor's Engineering Drawings and recommendations. All roadway approach work and paving of the Bridge's roadway shall be the responsibility of the Contractor. All electrical grounding and lightning protection shall be the responsibility of the Contractor.
- **8.7.2. DELIVERY:** Delivery of the Bridge will be within an agreed period of time after approval of Engineering Drawings. Bearing plates, anchor bolts and expansion joints can be furnished in advance of the Bridge for incorporation into the abutment construction, upon receipt of a timely request by the Contractor to meet project schedule requirements. Delivery of the bridge shall be coordinated

between the Contractor or their Supplier and the Contractor. The Supplier shall communicate this information to the Contractor depending on the agreement and subsequent responsibilities.

8.7.3. ERECTION: The Contractor will advise the Contractor of the attachment points and other necessary information required to install the bridge. The method and sequence of erection shall be the responsibility of the Contractor unless otherwise included in the agreement. Unloading, stabilization, splicing, bolting, and proper rigging and lifting are the responsibility of the Contractor.

8.8. TECHNICAL ASSISTANCE

The successful bidder through the Contractor and/or Supplier shall provide a qualified Technical Assistant at the jobsite while the primary structure components are installed. The Contractor shall notify the owner or their representative at least two weeks in advance of the planned installation. The Technical Assistant shall have at least five (5) years experience in the installation of similar bridges.

The Contractor shall provide at the time of original shipment, a Reinstallation Manual for the Owner detailing the disassembly and inspection requirements of members, connections and fasteners and the recommendations for reuse based on conditions assessed after disassembly. The manual shall include condition logs for recording member and connection conditions once disassembled.

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9. INCIDENTAL CONSTRUCTION AND EROSION CONTROL

9.1. RIPRAP

9.1.1. RIPRAP CLASS C

- **9.1.2. DESCRIPTION:** This section contains specifications for the materials, equipment, construction for the construction of the protective layer of broken stone for slope protection in conformity with the Plans and the Specifications or as directed by the Engineer.
- **9.1.3. MATERIALS:** Provide hard quarry stone or fieldstone that does not disintegrate on exposure to water or weathering. Ensure that stone has a sodium sulfate content less than or equal to 15% as tested in accordance with AASHTO T 104. Use stone that is suitable in all respects for the purpose intended and obtained from a source listed on the most recent edition of *SCDOT Qualified Product List*.

Use Class C Riprap conforming to the following gradation:

Rock Size (Feet)	Rock Size (Lbs.)	% of Riprap Smaller Than
1.80	500	100
0.40	200	50
0.40	5	10

9.1.4. CONSTRUCTION: See Section 9.1.2.4 below.

9.2. GEOTEXTILE FABRIC FOR EROSION CONTROL UNDER RIPRAP CLASS 1 – TYPE B

- **9.2.1. DESCRIPTION:** This section contains specifications for the materials, equipment, construction, for the construction of the protective layer of broken stone for slope protection in conformity with the Plans and the Specifications or as directed by the Engineer.
- **9.2.2. MATERIALS:** Provide an engineered fabric capable of reducing soil erosion. Use fabrics appearing on the most recent edition of *SCDOT Qualified Product List*. Submit the Contractor's literature concerning the proposed product and proof of satisfactory performance to the Engineer before use.

For Geotextile Fabric for Erosion Control Under Riprap, provide Class 2, Type B geotextiles that conform to the following physical requirements:

Grab Strength	200 lbs.	ASTM D 4632
Seam Strength (Value applies to both field for inspection.)	180 lbs. and manufactured sear	ASTM D 4632 ns. Sew seams upward

Puncture Strength 80 lbs. ASTM D 4833

Burst Strength	250 psi	ASTM D 3786	
Trapezoid Tear Strength	80 lbs.	ASTM D 4533	
Elongation at Failure	15% Maximum	ASTM D 4632	
Ultraviolet Degradation (500 hrs)	50% Strength RetainedASTM D 4355		
AOS	\geq No. 40 Std. Sieve	ASTM D 4751	
Permittivity	> 0.2 per sec	ASTM D 4491	

9.2.3. EQUIPMENT: Ensure that the equipment necessary for the proper construction of the work is on site, in acceptable working condition, and approved by the Contractor as to both type and condition before the start of work under this section. Provide sufficient equipment to enable prosecution of the work in accordance with the project schedule and completion of the work in the specified time.

9.2.4. CONSTRUCTION:

9.2.4.1.Shape and grade the slope or area on which riprap is placed to the lines, grades, thickness, or typical sections shown on the Plans or as directed by the Engineer. Install a fabric as specified on the Plans. Place geotextile fabric for slope protection in accordance with the Plans or as directed by the Engineer. Place the fabric on a slope that conforms to the Plans and in a relatively smooth condition free from obstructions, debris, or sharp objects that could puncture the fabric. Do not operate construction equipment directly on the fabric. Place fabric with the long dimension parallel to the toe of the slope and lay smooth and free of tension, stress, folds, wrinkles, or creases. If more than one strip is necessary, overlap the strips a minimum of 18 inches. Place transverse laps with the upstream strip overlapping the downstream strip. Place horizontal laps with the lower strip overlapping the upper strip. Laps may be eliminated if the joint is sewn using an approved method. Install approved fastener pins through both strips of overlapped fabric at no less than 5-foot intervals along a line through the midpoint of the overlap and at any other locations as necessary to prevent any slippage of the fabric. When placing material on the fabric, limit the height of the drop in order to prevent damage to the fabric. Demonstrate to the satisfaction of the Engineer that the placement technique prevents damage to the fabric. Begin placement of the material at the toe of the slope and proceed upward. Repair or replace any fabric damaged during installation or during placement of filter materials, slope protection, or other materials. Remove and replace extensively damaged fabric as directed by the Engineer. Repair individual isolated cuts, tears, or punctures by placing a patch of geotextile fabric over the damaged areas. Extend patch at least 18 inches beyond the damage in all directions or fasten the entire perimeter of

the patch by a sewing method approved by the Engineer. Cover the fabric with the specified material before damage or deterioration from ultraviolet light occurs. Remove and replace fabric not covered within 30 calendar days after placement. If damage or deterioration is evident before 30 days after placement, as determined by the Engineer, remove and replace the fabric.

9.2.4.2.If indicated by the Plans or directed by the Engineer, place a layer of sand over the fabric to prevent puncture by large size riprap. Place riprap to the thickness equal to the maximum stone diameter or the thickness specified in the Plans, whichever is greater. Place riprap either mechanically or by hand in a manner such that the larger stones are well distributed, and the entire mass of stone conforms to the specified gradation. Place riprap with the percentage of voids is as small as practical. Place riprap to its full thickness in one operation and in a manner that avoids displacing the underlying material. Hand place or re-arrange individual stones by mechanical equipment to the extent necessary to secure the results specified. Place the stone by dumping such that the smaller stone is uniformly distributed throughout the mass. Place stone to the required thickness on approved slopes at locations designated on the Plans or at other locations designated by the Engineer.

10. <u>SEDIMENT AND EROSION CONTROL, PERMANENT VEGETATION, SILT FENCE, & FLOATING TURBIDITY BARRIER</u>

- **10.1. DESCRIPTION:** This section contains specifications for the materials, equipment, construction for the placement of temporary erosion control measures, as well as permanent stabilization of the site through seeding, to prevent erosion and water pollution through the use of best management practices (BMPs) including the use of silt fences, sediment tubes, stabilized construction entrances as well as permanent seeding and sodding in conformity with the Plans, the Specifications, *SCDHEC Best Management Practices*, or as directed by the Engineer. Prior to any land disturbing activities, the Contractor shall submit an Erosion Control Plan (ECP) to the Engineer for approval that will serve as the plan for temporary erosion control throughout the project. The Contractor shall exercise every reasonable precaution, throughout the life of the project, to prevent the eroding of soil and the silting of rivers, streams, lakes, reservoirs, other water impoundments, ground or roadway surfaces, or other property. Erosion control practices to be used for this project are shown on the drawings and are to conform to South Carolina Department of Health and Environmental Control regulations.
 - **10.1.1. REFERENCES:** Refer to SCDOT Supplemental Specifications for Erosion Control (dated 1/1/2015) and for Erosion Control Measures (dated 1/1/2015).
 - **10.1.2. INSPECTIONS:** All sediment and erosion control devices shall be inspected once every calendar week by responsible staff that has been specifically trained and certified to inspect and evaluate the effectiveness of SCDHEC Best Management Practices (BMPs). If periodic inspection or other information indicates that existing BMPs require maintenance, need to be modified, or if additional BMPs are necessary to comply with SC Water Quality Standards, implementation must be

completed before the next storm event whenever practicable. If implementation before the next storm event is impracticable, the situation must be documented and alternative BMPs must be implemented as soon as reasonably possible. Inspection reports shall be maintained onsite with the Plans during all phases of construction and will be submitted monthly to the Owner.

10.1.3. APPLICATIONS:

- **10.1.3.1. Silt Fence** is used as a perimeter control to trap sediment and keep silt, sediment, and construction debris from entering adjacent water bodies, adjoining properties, or areas not to be impacted by construction. Silt fence shall be installed downstream from all grading operations or areas where earth will be exposed due to construction or stockpiling. Additionally, a double row of silt fence shall be installed between areas of exposed soils and adjacent water bodies where a minimum 35 foot undisturbed and natural buffer cannot be maintained.
- **10.1.3.2. Turbidity Curtain** (or Floating Turbidity Barrier) is used to provide protection from sediment migration caused by excavation or fill in or near water, and in areas that are influenced by tidal flows. Floating turbidity barriers are to be installed as shown on the plans and in accordance with the contractor's recommendations.
- **10.1.3.3. Seeding** of all disturbed areas, unless designated by the Plans or the Engineer to be sodded, where construction activities have concluded shall be initiated as soon as practicable. Also, in areas where construction activities have temporarily ceased, temporary seeding of the disturbed areas shall be performed as soon as practicable unless land disturbing work will be resumed in the area within fourteen (14) days. In either case, stabilization shall be initiated within fourteen (14) days of the work in the area having temporarily or permanently ceased.

10.1.4. MATERIALS:

- **10.1.4.1. STEEL POSTS:** Provide steel posts for use with inlet structure filters and silt fences meeting the following minimum physical requirements: Minimum 60 inches long. In areas where conditions warrant, larger posts or reduced post spacing may be required to provide an adequate fence to handle the stress from sediment loading. Composed of high strength steel with minimum yield strength of 50,000 psi. Standard "T" cross-section with a nominal face width of 1.38 inches and nominal "T" length of 1.48 inches. Weighs 1.25 pounds per foot (± 8%) painted with water based baked enamel paint.
- **10.1.4.2. FILTER FABRIC:** Provide a filter fabric for inlet structure filter and silt fence from the most recent edition of *SCDOT Qualified Product List*.

- **10.1.4.3. TURBIDITY CURTAIN**: Provide floating turbidity curtain that meets or exceeds the requirements for Medium Duty Floating Turbidity Barrier as defined in SCDOT 2007 Standard Specifications for Highway Construction Section 815.2.6.
- 10.1.4.4. SEED: Ensure that seed conforms to state laws and the requirements and regulations of the South Carolina Department of Agriculture (SCDA). Seeds containing species designated by the State Crop Pest Commission as a plant pest (i.e., noxious weeds) are not permitted. Provide individually packaged or bagged and tagged varieties of seed that show the common and botanical name of seed with variety, net weight, origin, grower name and lot number, percentages of germination and purity, percentages of other crop seed, inert matter, and weed seed (provide a list of species by botanical name) and other information required by the SCDA. The Owner reserves the right to test and reject or approve any or all seed before application of the seed. For mixtures of different types of seed called for in the seeding schedule, the Contractor may use pre-blended mixtures that are individually packaged or bagged and tagged with the tag specifying the botanical and common name of each species contained in the blend along with the percentages of each species. When pre-blended seed mixtures are not used, each species shall be weighed and mixed in the proper proportions at the site of the work in the presence of the Engineer.
- 10.1.4.5. LIME: Use agricultural granular lime at the prescribed rate for all permanent cover applications that is agricultural grade, standard ground limestone conforming to the current *Rules*, *Regulations*, *and Standards of the Fertilizer Board of Control* issued by the Fertilizer Board of Control at Clemson University. Ensure that each bag has affixed in a conspicuous manner a tag or label showing brand or trade name, calcium carbonate equivalent, percent by weight passing prescribed US Standard Sieves, and other pertinent information to identify lime as being agricultural grade, standard ground limestone. Use fast acting liquid or dry forms of lime a the prescribed rate for all temporary cover applications that meet all of the requirements of agricultural grade granular lime specified herein, except percent by weight passing prescribed US Standard Sieves.
- 10.1.4.6. GRANULAR FERTILIZER: Use granular fertilizer at the prescribed rate for all permanent cover applications that complies with state fertilizer laws. In a mixed fertilizer, such as 10-10-10, the first number represents the percent of nitrogen required, the second number represents the percent of available phosphoric acid required, and the third number represents the percent of water soluble potash required in the fertilizer. Use fertilizer that incorporates a minimum of 50% water insoluble (slow release) nitrogen. Use fertilizer that has a package slip clearly stating the percentages of nitrogen, water insoluble nitrogen, phosphoric acid and potash and the weight in pounds of nitrogen,

phosphoric acid and potash. Animal by-product or municipal waste fertilizers are not acceptable under this Specification.

- **10.1.4.7. BIOLOGICAL GROWTH STIMULANTS:** Provide biological growth stimulants for all permanent cover and temporary cover seeding applications at prescribed rate from a contractor listed on the most recent addition of the *SCDOT Qualified Product List*. Animal by-product, municipal waste, or liquid fertilizers are not acceptable as biological growth stimulants under this Specification.
- **10.1.4.8. SEEDING SCHEDULE:** Contractor shall adhere to the seeding requirements of SCDOT *Supplemental Technical Specification* SC-M-810-2 for temporary and permanent seeding operations.
- **10.1.5. EQUIPMENT:** Ensure that the equipment necessary for the proper construction of the work is on site, in acceptable working condition, and approved by the Contractor as to both type and condition before the start of work under this section. Provide sufficient equipment to enable prosecution of the work in accordance with the project schedule and completion of the work in the specified time.

10.1.6. CONSTRUCTION:

- **10.1.6.1. GENERAL:** Prior to any land disturbing activities, the Contractor shall submit an Erosion Control Plan (ECP) to the Engineer for approval. Upon written approval of the ECP, promptly install temporary erosion control measures when problem conditions exist or when potential problems are anticipated in certain areas in order to minimize soil erosion and siltation. Properly maintain the temporary erosion control measures until permanent erosion control features are functioning properly. Coordinate the temporary erosion control provisions with the permanent erosion control features provided elsewhere in these specifications to the extent practical to assure economical, effective, and continuous erosion control during construction. Permanent seeding, sodding, riprap, concrete gutter, asphalt gutter, slope drains, and concrete slope protection are considered permanent erosion control items and are covered in other sections of these specifications where applicable. Coordinate erosion control measures with the grading operations throughout the duration of the project. Use temporary erosion control measures to correct conditions where problems are anticipated or to correct conditions that develop during construction. Remove temporary erosion control items if no longer needed in an area after establishment of permanent vegetation and completion and proper functioning of other permanent erosion control items as directed by the Engineer. Restore these areas to a condition similar to the surrounding areas after removal.
- **10.1.6.2. SILT FENCE:** Construct the silt fence in accordance with the Plans or as approved by the Engineer. Place silt fences before the major

construction in an area is started. Maintain the silt fence until its capacity has been reached or erosion activity in the area has stabilized. Remove sediment accumulated along the fence when it reaches approximately one-third of the height of the fence, especially if heavy rains are expected. Remove trapped sediment or stabilize on site. Inspect the silt fence every 7 days. Immediately correct any deficiencies. Remove filter fabric and replace whenever it has deteriorated to such extent that it reduces the effectiveness of the silt fence. In addition, review daily the location of silt fences in areas where construction activities have changed the natural contour and drainage runoff to ensure that the silt fences are properly located for effectiveness. Install additional silt fences as directed by the Engineer where deficiencies exist. If a silt fence or portion of a fence is located in an area where removing the sediment is not possible, then install a second silt fence, if necessary, at the discretion of the Engineer. In this case, payment for both silt fences and portions involved is made at the unit price for silt fence. Remove silt fence within 30 days after final stabilization is achieved or after temporary Best Management Practices (BMP) are no longer needed. Permanently stabilize disturbed areas resulting from fence removal. The fence materials remains the property of the Contractor and may be used at other locations provided the materials meet the appropriate requirements contained in this specification and/or on the Plans.

10.1.6.3. TURBIDITY CURTAIN: Place floating turbidity barrier as shown on the Plans and in accordance with the Contractor's recommendations. Anchor the ends on the undisturbed shoreline with sufficient support to secure the barrier in place during turbulent conditions. Place vertical supports and/or anchors along the barrier as needed to prevent the barrier from drifting. Maintain the floating turbidity barrier until all disturbed areas have stabilized sufficiently to control erosion.

10.1.6.4. **SEEDING:**

- **10.1.6.4.1.** Perform seeding work during the periods and at the rates specified in the seeding tables of this specification. Do not seed when the ground is frozen and/or when the 10-day forecasted low temperature remains below 35 degrees Fahrenheit. Do not seed when the ground is excessively wet. Do not seed when the ground is excessively dry (periods of drought) unless watering is specified in the Contract or directed by the Engineer.
- **10.1.6.4.2.** Prepare the seedbed by ensuring that the areas to be seeded are uniform and conform to the finished grade and cross-section shown on the Plans or as otherwise directed by the Engineer. Perform minor shaping and evening of uneven and rough areas outside of graded sections as directed by the Engineer in order to provide for more effective erosion control and for ease of subsequent mowing and maintenance. Loosen the seedbed

(including cut slopes) with suitable and accepted equipment to a minimum of three (3) inches before compost, lime, fertilizer, mulch or seed is applied. Remove stones larger than 2-1/2 inches in any dimension, large clots, roots or other debris brought to the surface.

- 10.1.6.4.3. For permanent grassing applications, agricultural granular lime is not required for this Project. For temporary seeding applications, apply fast acting liquid lime at a rate of 5 gallons per acre (or per the Contractor's recommendations) or apply fast acting dry lime at a rate of 100 lbs per acre (or per the Contractor's recommendations). Lime may be applied by approved mechanical spreaders or by hydraulic methods as a mixture of lime and seed. Uniformly spread lime over the designated areas and thoroughly mix granular lime with the soil to a depth of approximately two (2) inches. Mixing is not required when spreading lime with hydraulic measures.
- **10.1.6.4.4.** Apply biological growth stimulants strictly at the Contractor's recommended rates and ensure that all biological growth stimulant applications strictly follow the Contractor's recommendations to avoid damage of the seedbed. Apply using an approved hydraulic method. Deliver materials and products sealed in factory labeled packages. Store and handle in strict compliance with the Contractor's instructions and recommendations. Protect from damage from weather, excessive temperatures and construction operations. Reapplication may be required due to degradation as a result of soil disturbance or turbidity. The necessity of reapplication will be determined by the Engineer.
- 10.1.6.4.5. Temporary seeding of the disturbed areas shall be performed as soon as practicable and within fourteen (14) days of the work in the area having temporarily ceased unless land disturbing work will be resumed in the area within fourteen (14) days. Using the seed specified in the seeding tables, uniformly sow seed at the rate specified by the use of approved mechanical seed drillers, rotary hand seeders, hydraulic equipment or any other type of equipment that produces a uniform seed application. On small areas inaccessible to equipment, seed may be covered by hand rakes or other methods satisfactory to the Engineer. Temporary cover will be accepted upon sufficient coverage to control erosion for a given area and length of time before the next phase of construction.
- 10.1.6.4.6. Permanent seeding of the disturbed areas shall be performed as soon as practicable and within fourteen (14) days of the work in the area having permanently ceased. Using the seed specified in the seeding tables, uniformly sow seed at the rate specified by the use of approved mechanical seed drillers, rotary hand seeders, hydraulic equipment or any other type of equipment that produces a uniform seed application. On small areas inaccessible to equipment, seed may be covered by hand rakes or other methods satisfactory to the Engineer. Permanent cover will be accepted

upon the establishment of a uniform perennial vegetative cover with a density of 70% of each square yard of the seeded area. A well developed root system must be established to sufficiently survive dry periods and winter weather and be capable of reestablishment in the spring.

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January 23, 2023

TO: Plan Holders

RE: SOUTH CAROLINA FORESTRY COMMISSION

WEE TEE BRIDGE NO.1 REPLACEMENT PROJECT

PROJECT ID P-12-9603-PG WILLIAMSBURG COUNTY, SC

SUBJECT: Addendum No.1

Prospective Bidders:

The following will amend, modify, and/or clarify the bid documents described above and are hereby part of the same. Please make all necessary corrections. Also, please be reminded to acknowledge the receipt of all Addenda on the Bid Form (SE-330, Page BF-1).

The Non-Mandatory Pre-Bid Meeting was conducted:

Tuesday, January 17, 2023, at 2:00 PM at 3168 Santee Rd., Andrews SC 29510 (33.4059923.-79.7707061)

The following clarifications are provided in response to questions and or comments made at the Pre-Bid Meeting:

- 1. The last day for substitution request is January 21, 2023.
- 2. The last day for an Addendum to be issued is January 26, 2023.
- 3. There was a discussion held noting that due to upstream conditions at various times during the year, the jobsite may be flooded or unreachable. Should time be lost due to inclement or adverse weather conditions or flooding; it was noted that those days will be added back to the Contract Time by change order.
- 4. There was one attendee that noted the premanufactured bridge spec. in the bid documents seemed to indicate one manufacturer. Our Bid Documents may have some references to establish intent and basis of bid but **ARE NOT** intended to be proprietary in nature but to be open for all equal systems. The documents are intended to establish a basis of bid but be open to all manufacturers, vendors and materialmen that have met the intent and are considered equal regarding the technical specifications.

1800 Huger Street | Columbia | South Carolina | 29201 | Ph 803.252.0991











The following clarifications are provided in response to questions received to-date via emails to Dennis Corporation:

One Email Received Friday, January 20, 2023

- 1) The plans suggest a bolted prefabricated bridge, will a welded weathering steel bridge that conforms to AASHTO/LRFD design be allowed? YES
- 2) Will HL-93 loading be acceptable? **YES**
- 3) Are the W beam guard rails galvanized or weathering steel? W Beam Guard Rails to be Galvanized
- 4) Can the galvanized grate be welded to the structure at the production facility? **YES**
- 5) Current lead times for prefabricated bridges are 25-35 weeks, will contractors be able to work an aggregate of 150days with multiple mobilizations or delay the start of the project to accommodate supply side constraints?
 The 150 calendar days is approximately 21 weeks. This is definitely a consideration to accommodate supply side constraints should the constraints be similar in all cases when the project bids.
- 6) The 8.6.9 shop assembly clause seems to relate to bolted structures, a welded bridge would eliminate this process. Additionally, there is a provision for shop inspection in section in 8.6.10. This is typically performed by a Q.C. team member on staff at the production facility. Will the "owner" hire a third-party inspector and coordinate the inspection?
 - Our Bid Documents may have some references included but ARE NOT intended to be proprietary in nature. The documents are intended to establish a basis of bid but be open to all manufacturers, vendors and materialmen that have met the intent and are considered equal with regard to common technical specifications. An on-staff QC member may handle those tasks as part of the services for the shop fabrication for that vendor. The Owner will have a 3rd party entity to perform the Chapter 1 and Chapter 17 Special Inspections on site after the work is in place sufficient to perform them.

Thank you for your interest in this project and good luck.

Sincerely,

Gene Haskins Dennis Corporation 1800 Huger Street Columbia, SC 29201 803-227-8601 DL 803-445-8132 mobile

Attachments: Pre-Bid Sign-In Sheet

End of Addendum No.1

SE-370

AGENCY: SC Forestry Commission				
PROJECT NAME: Wee Tee Bridge No.1 Replacement Project PROJECT NUMBER: P12-9603-PG				
PROJECT NUMBER	CK	: <u>P12-9003-PG</u>		
		POSTING DATE:	2/8/2023	
TO ALL BIDDERS:				
accepted, and the contra	ct fo	rmed by execution of the contract	enter into a contract as noted below. The successful bid will be documents. All bid bonds remain in effect for the bid acceptance erwise provided in the Instructions to Bidders.	
NAME OF BIDDER:_	Cap	e Romain Contractors		
DATE BIDS WERE O	PEN	NED: January 31, 2023 at 2:00pm		
BID INFORMATION:				
BASE BID AMOU			\$ <u>653,500.00</u>	
ALTERNATES:				
		ACCEPTED \(\bigs\) \(\bigs\)		
TOTAL BID AMOUN	T:		\$ <u>653,500.00</u>	
TOTAL CONTRACT			\$ <u>653,500.00</u>	
(If the Total Contract Awa	ırd i	s different from the Total Bid Amoun	t, explain any negotiations that resulted in the change.)	
REMARKS: (If "No Co	ontro	act to Be Awarded" was entered abov	e, indicate the reason.)	
		y costs associated with the contract perfore receipt of the Agency's written I	rior to receipt of a contract from the Agency for execution. Contractor Notice to Proceed.	
RIGHT TO PROTEST (SC	Code § 11-35-4210)		
be entitled to protest. To paward notice is posted, and	orote 1 (ii) 35-3	st an award, you must (i) submit notice submit your actual protest within fifte 10(13). Both protests and notices of in	ved in connection with the intended award or award of this contract may be of your intent to protest within seven (7) business days of the date the een (15) days of the date the award notice is posted. Days are calculated tent to protest must be in writing and must be received by the appropriate	
Engineer, and submitted i Columbia, SC 29201. By	n wi subr	riting (a) by email to: protest-ose@n riting a protest to the foregoing emailting a protest to the foregoing emailting a protest to the foregoing emailting a protest to the foregoing email to:	sed to the Chief Procurement Officer for Construction, Office of State mo.sc.gov , or (b) by post or delivery to 1201 Main Street, Suite 600, 1 address, you (and any person acting on your behalf) consent to receive he email address from which you sent your protest.	
10PP (Q	~		David P. Owen	
(Agency Pr	ocur	ement Officer Signature)	(Print or Type Name)	

INSTRUCTIONS TO THE AGENCY:

- Post a copy of the SE-370 at the location specified by the Instructions to Bidders and announced at the Bid Opening.
 Send the SE-370 and the final Bid Tabulation electronically to all Bidders and OSE (if required) the same day it is posted.



South Carolina Department of Labor, Licensing and Regulation

Exhibit H

South Carolina Contractor's Licensing Board

110 Centerview Dr. • Columbia • SC • 29210 P.O. Box 11329 • Columbia • SC • 29211

Phone: 803-896-4686 • Contact.CLB@llr.sc.gov • Fax: 803-896-4814 llr.sc.gov/clb

NO SPECIFIC LICENSE REQUIRED

ALTHOUGH NO SPECIFIC LICENSE IS REQUIRED TO PERFORM THE FOLLOWING WORK LISTED BELOW, PORTIONS OF THE WORK THAT ARE REGULATED BY THIS BOARD MAY REQUIRE A GENERAL CONTRACTOR OR MECHANICAL CONTRACTOR LICENSE WITH THE APPROPRIATE CLASSIFICATION(S) PURSUANT TO SC CODE ANN. §40-11-410 WHEN THE TOTAL COST OF CONSTRUCTION FOR THE REGULATED WORK IS GREATER THAN \$5000.

- ASBESTOS REMOVAL (SC-DHEC)
- BILLBOARDS / SIGNS¹
- COMMERCIAL CARPET INSTALLATION
- CLEANING DUCTS²
- CLEANING STORM DRAINS²
- CLEANING WATER / SEWER LINES²
- CLEANING TANKS²
- COMMUNICATIONS (telephone/computers)³
- CRANES (temporary, assembly, maintenance, and transporting)
- DEBRIS REMOVAL
- DEMOLITION (SC-DHEC)
- ELEVATORS (LLR-Elevators)
- NON-REGULATED EQUIPMENT (assembly and setting only)⁷
- EXTERIOR RECREATIONAL SURFACES⁵
- EXTERIOR SIDING (commercial)⁶
- FENCING (except Concrete, Masonry or Electric)¹⁰

- FIRE SUPPRESSION SYSTEMS⁴
- HAULING
- HOOD SYSTEMS⁸
- IRRIGATION (except back flow device)
- LAND CLEARING / GRUBBING
- LANDSCAPING
- LOW VOLTAGE CABLE WIRING AND INSTALLATION (except Boring & Tunneling)
- PEDESTRIAN BRIDGES⁹
- PILE DRIVING (unless water activity)
- PLAYGROUND EQUIPMENT
- PRESSURE VESSELS (except Boilers)
- SCALES (SC Dept. of Agriculture)
- SCAFFOLDING (non-permanent)
- SCORE BOARDS¹
- SEPTIC TANKS (SC-DHEC)
- WELL DRILLING (LLR-Environmental Board)

A license is required for any regulated work listed below if the total cost of construction is greater than \$5000:

- 1. Internal electrical work does not require a license; however, the final connection to the power source requires the "Electrical" license classification.
- 2. Cleaning only. Disassembly/modification/repair/replacement requires licensure: Ductwork = "Air Conditioning" or "Packaged Equipment" license classification. Storm Drains/Water/Sewer Lines = "Water & Sewer Lines" license classification. Tanks (depends on type of tank): "Pipelines", "A/C" or "PK", "Plumbing", "Refrigeration", or "Water & Sewer Lines" license classification.
- 3. Communication Towers require a "Structural Framing" license classification. A communications building requires a "Building" license classification. A concrete slab or foundation requires a "Concrete" license classification.
- 4. Non-water based systems only. Water-based systems requires a "Fire Sprinkler" license.
- 5. Asphalt or concrete surface work requires the "Asphalt Paving" or "Concrete Paving" license classification.
- **6.** If related repair work performed affects the structural integrity of the commercial structure, a "Building" license classification is required.
- 7. Connections to utilities, structural modifications and concrete work requires the "Electrical", "Building", and/or "Concrete" license classification.
- **8.** Ductwork requires the "Air Conditioning" or "Packaged Equipment" license classification.
- 9. Bridges erected over a depression or an obstruction such as water, highway or railway, having a track or passageway designed for carrying vehicular traffic weighing over 2000 pounds requires the "Bridges" license classification.
- 10. Electric Fencing requires obtaining a Burglar Alarm license. See: https://llr.sc.gov/clb/licensure.aspx

Resources:

- SC-DHEC (SC Dept. of Health and Environmental Control) (803) 898-3630
- LLR Office of Elevators and Amusement Rides (803) 896-7630
- SC Department of Agriculture (803) 734-2210
- LLR Environmental Certification Board (803)896-4430

General and Mechanical Contracting Practice Act:

 See SC Code Ann. §40-11-410 for all regulated classifications of work requiring a license www.scstatehouse.gov/code/t40c011.php