

# INVITATION To BID

**ITB 2025-01-001**

**Abel Road/Curtis Circle Sidewalk Improvement Project**

**Grant Number :: 4-CE-23-001**



CITY OF  
**Clemson**  
SOUTH CAROLINA



## City of Clemson

# INVITATION TO BID

ITB 2025-01-001

## ABEL ROAD/CURTIS CIRCLE SIDEWALK IMPROVEMENT

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<b>ISSUE DATE</b>	<b>January 13, 2025</b>
<b>CLOSING DATE &amp; TIME</b>	<b>February 14, 2025 at 2:00 PM</b>
	Clemson City Hall Engineering Conference Room 1250 Tiger Blvd, Suite 5 Clemson, South Carolina 29631
<b>SOLICITATION NUMBER</b>	2025-01-001
<b>ACCEPTANCE PLACE/AGENCY</b>	City of Clemson Finance Department Procurement Coordinator 1250 Tiger Blvd, Suite 2 Clemson, South Carolina 29631

**\*BID SUBMISSIONS THAT ARE HAND DELIVERED MUST BE RECEIVED AND INITIALED BY THE FINANCE DEPARTMENT.**

<b>QUESTIONS &amp; RESPONSES</b>	Questions regarding this solicitation shall be received in writing via email no later than <b>5:00 PM on January 31, 2025.</b>
	Responses will be provided via addenda no later than <b>5:00 PM on February 3, 2025.</b>
<b>CONTACT</b>	Brandon Burton, Procurement Coordinator  <b><a href="mailto:bburton@cityofclemson.org">bburton@cityofclemson.org</a></b>

Documents can be downloaded from our website: [clemsoncity.org](http://clemsoncity.org)



**Clemson City Hall  
1250 Tiger Blvd, Suite 2  
Clemson, South Carolina 29631**

**Invitation to Bid  
ITB 2025-01-001  
Abel Road/Curtis Circle Sidewalk Improvement  
Issue Date: January 13, 2025**

The City of Clemson is seeking the service of a firm to install approximately 3000 LF of curb and Gutter, 2500 LF of sidewalk with associated pedestrian ramp and ADA requirements, 1200 LF of storm drainage and associated structures, 1200 LF drinking water distribution lines with associated distribution and service connections, installation of fire hydrants, and replacement of asphalt pavement, tree removal, pavement markings and erosion control for sidewalk installation. Please see Section III of the solicitation documents for full scope of work.

Sealed responses will be accepted by the Clemson Finance Department located at Clemson City Hall until **2:00 PM February 14, 2025**. Submissions that are hand delivered **must** be received and initialed by the Finance Department. Submissions that are mailed in should be sent to City of Clemson Finance Department 1250 Tiger Blvd, Suite 2. At the time and date above, sealed responses will be publicly opened and the names read aloud at the City of Clemson conference room located at 1250 Tiger Blvd Suite 5, Clemson SC 29631. Submissions received after this time will not be accepted.

Each sealed envelope must be marked on the outside as **“Abel Road/Curtis Circle Sidewalk Improvement ITB 2025-01-001”** and should include the respondent’s name and address.

Questions regarding this solicitation should be directed to Mr. Brandon Burton, Procurement Coordinator via email at [bburton@cityofclemson.org](mailto:bburton@cityofclemson.org) and shall be received no later than **5:00 PM, January 31, 2025**.

**There will be two opportunities for a non-mandatory pre-bid meeting for this project. Location will be**

**Rotary Park, 139 Abel Rd., Clemson SC 29631:**

**Tuesday, January 21, 2025 at 10:00 AM**

**Thursday, January 23, 2025 at 2:00 PM**

**Contract documents, including drawings and technical specifications are on file at City of Clemson City Hall, 1250 Tiger Blvd, Clemson SC 29631. Copies of the documents may be obtained at [www.clemsoncity.org](http://www.clemsoncity.org). Documents are available in electronic PDF format free of charge.**

This project is being funded in whole or in part by the Community Development Block Grant Program (CDBG). All federal CDBG requirements will apply to the contract. All contractors are required to be registered in the federal System for Award Management (SAM). Bidders on this work will be required to comply with the President's Executive Order No. 11246 & Order No. 11375 which prohibits discrimination in employment regarding race, creed, color, sex, or national origin. Bidders must comply with Title VI of the Civil Rights Act of 1964, the Davis-Bacon Act, the Anti-Kickback Act, the Contract Work Hours and Safety Standards Act, and 40 CFR 33.240, and Build America, Buy America Act (BAP), imposed by the Build America, Buy America Act (BABA), enacted under Division G, Title IX of the Infrastructure Investment and Jobs Act (IIJA, Pub. L. No. 117-58) signed into law on November 15, 2021. The CDBG application, including the cost estimate, is available for review by contacting Nathan Hinkle at 864-624-1126.

Bidders must also make positive efforts to use small and minority-owned business and to offer employment, training and contracting opportunities in accordance with Section 3 of the Housing and Urban Development Act of 1968. Attention of bidders is particularly called to the requirements as to conditions of employment to be observed and minimum wage rates to be paid under the contract.

The City of Clemson reserves the right to cancel this solicitation and/or reject any and all bids in whole or in part if the City of Clemson determines that cancellation and/or rejections are advantageous to the City. Bids are legal and binding upon the Respondent when submitted. It will also be the responsibility of each respondent to obtain any addenda issued from the Procurement Office. The written solicitation documents supersede any verbal or written prior communications between the parties.

David A. Blondeau, City Administrator  
City of Clemson

# SECTION I- GENERAL INSTRUCTIONS

ITB 2025-01-001

**Abel Road/Curtis Circle Sidewalk Improvement Project**

**Grant Number :: 4-CE-23-001**



CITY OF  
**Clemson**  
SOUTH CAROLINA

**CITY OF CLEMSON, SOUTH CAROLINA**  
**GENERAL INFORMATION**

**GENERAL INFORMATION**

The City of Clemson is seeking the service of a firm to install approximately 3000 LF of curb and Gutter, 2500 LF of sidewalk with associated pedestrian ramp and ADA requirements, 1200 LF of storm drainage and associated structures, 1200 LF drinking water distribution lines with associated distribution and service connections, installation of fire hydrants, and replacement of asphalt pavement, tree removal, pavement markings and erosion control for sidewalk installation. Please see Section III of the solicitation documents for full scope of work.

**EXAMINATION OF BID DOCUMENTS AND SITE**

Before submitting an offer, each offeror shall: examine the solicitation document package thoroughly; become familiar with local conditions affecting cost and work progress or performance; become familiar with federal, state, and local laws, ordinances, rules, regulations affecting cost and work progress or performance; study and carefully correlate offeror's observations with the solicitation document package; and notify the city concerning conflicts, errors, or discrepancies in the solicitation document package.

Offer submission will constitute indisputable representation that offeror understands and has complied with requirements contained in this article, and that offeror has read and understood the solicitation document package and hereby stipulates that the documents are sufficient in scope and detail to indicate and convey understanding for terms and conditions in order to perform work.

**SOLICITATION DOCUMENTS**

The solicitation document package includes the Advertisement, Sections I-IV, all attachments, exhibits, and addenda issued during the solicitation period.

Complete sets of the solicitation document package shall be used in preparing offers. The city assumes no responsibility for errors or misinterpretations resulting from using incomplete sets of the solicitation document package.

The city, in making the solicitation document package available on the above terms, does so only to obtain bids on work and does not confer license or grant for any other use.

Any part of the solicitation document package may be modified by addenda. See Section II for more detailed terms.

**CONTACT PERSON**

Respondents are encouraged to contact Brandon Burton, Procurement Coordinator by email at [bburton@cityofclemson.org](mailto:bburton@cityofclemson.org) to clarify any part of these requirements. All questions that arise prior to the DEADLINE FOR QUESTIONS due date shall be directed to the contact person in writing via email. Any unauthorized contact shall not be used as a basis for responding to this solicitation and also may result in the disqualification of the contractor's submittal.

Contractors may not contact any elected official or other city employee to discuss the procurement process or bid opportunities except through the procurement coordinator named herein or as provided

by existing work agreement(s). This policy shall be strictly enforced and the city reserves the right to reject the submittal of any vendor violating this provision.

### **SUBMISSIONS**

One (1) unbound, printed and signed original and supporting documents must be submitted in response to the solicitation and must be received no later than **2:00 PM on February 14, 2025**. Bids must be submitted in a sealed envelope with the following clearly labeled on the outside **“Abel Road/Curtis Circle Sidewalk Improvement ITB 2025-01-001”** and should include the respondent’s name and address. Each envelope should be addressed to:

City of Clemson Finance Department  
Procurement Coordinator  
1250 Tiger Blvd, Suite 2  
Clemson, SC 29631

Hard copies may be delivered to the above address ONLY between the hours of 8:00 AM and 5:00 PM EST, Monday through Friday, excluding holidays observed by the City of Clemson Government. Bid must meet required specifications and must be of a quality that will adequately serve the use and purpose for which intended.

Submittals or modifications received after the due date and time will not be considered. City of Clemson Government assumes no responsibility for the premature opening of submittals not properly addressed and identified and/or delivered to the proper designation. Late submittals properly addressed to the City of Clemson shall be returned to the respondent unopened.

Each offeror shall complete and return forms found in Section III and IV with their offer. Each solicitation shall contain the following completed forms and documents.

- a. Bidders Checklist
- b. Bidders Declaration
- c. Bid Form
- d. Bid Bond
- e. SC Immigration Form
- f. Certificate of Non-Discrimination
- g. Non-Collusion Affidavit
- h. SC Ethics in Public Contracting Affidavit
- i. W9
- j. SC I-312
- k. Debarement Certification
- l. BABBA Certification
- m. Addenda Acknowledgement Form (if applicable)

More than one response received for the same work from an individual, firm, partnership, corporation, or association under the same or different names will not be considered. Reasonable grounds for believing any applicant is interested in more than one bid for the same work will cause the city to reject all bids from the applicant. If the city believes collusion exists among applicants, bids from participants in

collusion will not be considered.

Conditions, limitations, or provisions attached by the applicant to the bid forms may cause its rejection. Bids containing items not included in the form of bids will be considered irregular.

Any offer submitted as a result of this solicitation shall be binding on the offeror for ONE HUNDRED TWENTY (120) CALENDAR DAYS FOLLOWING THE SPECIFIED OPENING DATE. Any proposal for which the offeror specifies a shorter acceptance period may be rejected.

#### **MODIFICATION AND WITHDRAWAL OF BIDS**

Withdrawal prior to time for receiving bids: Bids may be modified or withdrawn by appropriate document duly executed and delivered to the place where bids are to be submitted at any time prior to the deadline for submitting bids. Bid withdrawals will not prejudice applicant's rights to submit a new bid prior to the deadline for submitting bids.

Withdrawal after the time for receiving bids: After the period for receiving bids has expired, no bid may be withdrawn, modified, or explained, except as provided for in the below article.

#### **AWARD OF CONTRACT**

To extent permitted by applicable state and federal laws and regulations, the city reserves the right to reject any and all bids, to waive any and all informalities, and to disregard nonconforming, non-responsive, or conditional bids. Bids may be considered irregular and subject to rejection if they show serious omission, unauthorized form alterations, use of unauthorized forms, unauthorized alternate bids, incomplete or unbalanced unit prices, or other irregularities. In case of error in the extension of prices in the bid, the unit price will govern. No bid shall be altered, amended, or withdrawn, unless the acceptance date has expired, after the opening date of bids. Negligence on the part of the contractor in preparing the bid confers no right for the withdrawal of the bid after it has been opened. Any mistake, which is obviously a clerical one, such as an error in price extension, or in placement of decimal points, reversal of prices, FOB destination, FOB point of origin, etc., may be corrected by the City of Clemson after verification is made by the applicant. However, under no circumstances can unit prices be changed.

Contract will be awarded by the city pursuant to applicable law. Nothing contained herein shall place duty upon the city to reject bids or award bids based upon anything other than the city's sole discretion as described herein. The city will award the project at the city's discretion.

#### **Definitions**

The words "Bidder", "Offeror", "Proposer", "Respondent", "Vendor", and "Contractor" are used interchangeably throughout this solicitation, and are used in place of the person, firm, or corporation submitting a proposal/response/offer/bid.

End of Section I



## **SECTION II- GENERAL TERMS & CONDITIONS**

**ITB 2025-01-001**

**Abel Road/Curtis Circle Sidewalk Improvement Project**

**Grant Number :: 4-CE-23-001**



**CITY OF**  
**Clemson**  
**SOUTH CAROLINA**

**CITY OF CLEMSON, SOUTH CAROLINA**  
**GENERAL TERMS & CONDITIONS FOR SOLICITATIONS**

**RIGHTS RESERVED BY CITY**

The City reserves the right to reject any or all proposals/bids; to waive any informality or irregularity not affected by law; to evaluate, in its absolute discretion, the proposals submitted; and to award the contract based on the established criteria and according to the proposal which best serves the interest of the City. Further, the City of Clemson may make any investigations deemed necessary to determine bidder's ability to perform the work, and bidder shall furnish all information and data requested by the city. The city reserves the right to reject any bid from any bidder that the city considers not properly qualified to carry out agreement obligations or able to satisfactorily complete the work on schedule.

**INTERPRETATION AND ADDENDA**

From time to time, the City may have to release written changes to a solicitation due to an inadvertent error or omission on the part of the City or to an inquiry from an interested vendor during the question phase of the solicitation. No verbal interpretation made to any respondent as to the meaning of this solicitation shall be binding on the City. Offerors are cautioned that any statements made by the City staff that materially changes any portion of this solicitation shall not be relied upon unless they are subsequently ratified in writing and distributed as an addendum by the City. It shall be the offeror's responsibility to acknowledge receipt of addenda and ascertain that its proposal includes all addenda. Failure to do so may deem an offeror's proposal non-responsive.

No changes to the published terms and conditions, scope of work, minimum requirements, or insurance and bonding requirements will be considered unless they are submitted in compliance with the deadline for the questions or clarification phase of the solicitation. Any changes to the published terms and conditions, scope of work, minimum requirements, or insurance and bonding requirements will be published in a formal, written addendum. The City is not obligated to make any changes to the published solicitation based on an inquiry from a vendor. The City will not consider "red-line" amendments to any contract with the successful bidder, as all requests for changes must be posed in the question phase and accepted in a formal addendum. If the offeror discovers any ambiguity, conflict, discrepancy, omission or other errors in the solicitation, offeror shall immediately notify the City of such error in writing and request modification or clarification of the document. The offeror is responsible for clarifying any ambiguity, conflict, discrepancy, omission, or other error in the solicitation, or it shall be deemed waived. Where there appears to be a conflict between the solicitation and any addenda issued, the last addendum issued will prevail. Contractors are advised to check the website for addenda before submitting their bids.

**ACCEPTANCE OF CONTENT**

Before submitting an offer, each offeror shall make all investigations and examinations necessary to ascertain all site conditions and requirements affecting the performance of the contract and to verify any representations made by the City upon which the proposal will rely. If the offeror receives an award as a result of its proposal, failure to have made such investigations and examinations will in no way relieve the offeror from its obligation to comply in every detail with all provisions and requirements of the contract documents, nor will a plea of ignorance of such conditions and requirements be accepted as a basis for any claim whatsoever by the contractor for additional compensation.

### **ALTERATIONS OF SOLICITATION AND ASSOCIATED DOCUMENTS**

Alterations of city documents are strictly prohibited and will result in automatic disqualification of the bidder's solicitation response. If there are "exceptions" or comments to any of the solicitation requirements or other language, then the supplier may make notes to those areas, but may not materially alter any document language.

### **SIGNATURE (BIDDERS DECLARATION) FORM**

Offers shall include a signed Signature Form. Offers that do not include a signed Signature Form will not be accepted as complete and shall not be considered. The Signature Form must be signed in ink (not typed) in the appropriate space(s) by an authorized officer or employee of the offeror.

### **NONRESIDENT TAXPAYER REGISTRATION AFFIDAVIT**

Non-resident companies receiving income from business conducted in the State of South Carolina are required to pay taxes to the State of South Carolina on that income. To facilitate this requirement, a nonresident offeror must register with the South Carolina Secretary of State or the South Carolina Department of Revenue. In compliance with Sections 12-8-540 and 12-8-550 of the South Carolina Code of Laws, an offeror located outside of the State of South Carolina that receives a contract from the City must furnish to the City Form I-312, Nonresident Taxpayer Registration Affidavit Income Tax Withholding, properly executed and signed. If an offeror is not presently registered with the appropriate state office, it may indicate the intent to do so should it be awarded a contract. Questions concerning this form may be directed to the South Carolina Department of Revenue at (844) 898-8542.

### **DETERMINATION OF RESPONSIBILITY**

City may make such investigation as it deems necessary to determine the ability of an offeror to furnish the required services, and the offeror shall furnish to the City all such information and data for this purpose as the City may request. City reserves the right to reject any proposal if the evidence submitted or investigation of such offeror fails to satisfy the City that offeror is properly qualified to carry out the obligations of a contract and to deliver the services contemplated therein. Offerors will fully inform themselves as to the conditions, requirements, and scope of work before submitting their offer. Failure to do so will be at the offeror's own risk.

### **QUALIFICATIONS-BASED SOLICITATION**

Negotiations shall be conducted beginning with the offeror whose qualifications are deemed to rank highest among all offers received in response to this solicitation. If a contract satisfactory and advantageous to the City can be negotiated at a price considered fair and reasonable, the award shall be made to that offeror. Otherwise, negotiations with the offeror ranked first shall be formally terminated and negotiations with the offeror ranked second shall be conducted.

### **CONTRACT AND CONTRACT DOCUMENTS**

Following the award to the successful offeror (the "Contractor"), the Contractor and the City shall execute the Standard Contract Form, a copy of which is attached hereto for reference. The Standard Contract Form, together with the attachments listed therein, will constitute the "Contract" between the Contractor and the City.

### **REQUIREMENTS OF THE CONTRACTOR**

The Contractor shall (i) have the professional qualifications, experience, expertise, and personnel to timely perform the Project, (ii) have the requisite licenses, certifications, and permits from all public

entities having jurisdiction over Contractor or the Project and shall maintain such licenses, certifications, and permits during the term of the Project, (iii) become familiar with the Project site and the local conditions under the Project is to be performed, (iv) comply with all instructions and shall perform services in a manner commensurate with the highest professional standards by qualified and experienced personnel performing the same or similar services in the same or similar location, and (v) assume full responsibility to City for the improper acts and omissions of its contractors, consultants, or others, if any, employed or retained by Contractor in connection with the Project.

#### **RESPONSIBILITY OF THE CITY**

Among other things, the City will provide Contractor access to all information in City's possession that City reasonably determines is necessary for Contractor to perform the Project. The project manager will coordinate with Contractor, and facilitate coordination with other City personnel, as reasonably necessary to allow Contractor to adequately perform the Project.

#### **PAYMENT TERMS**

Unless otherwise agreed by the City and the Contractor, Contractor shall submit monthly invoices to the City for the work performed under the Contract by the 10<sup>th</sup> day of the month following the month in which such work is performed. Such invoices shall reference this Contract by number and shall be accompanied by any reasonably required supporting materials, documentation, or data, including a monthly progress report, if applicable. The City shall pay Contractor for such invoice within 30 days of receipt, provided the same has been reviewed and approved by the project manager, which review shall occur within five (5) business days of receipt. Should the project manager approve payment in an amount less than that submitted by the Contractor in the invoice, then the unpaid portion of such invoice shall be retained until approved, and the City and the Contractor shall work together in good faith to resolve such discrepancy. Upon receipt of payment from the City, the Contractor shall immediately pay all sub-contractors, sub-consultants, materialmen, suppliers, or laborers, as applicable, the amounts they are due for the work covered by such payment.

#### **CITY OF CLEMSON BUSINESS LICENSES**

The Contractor shall secure and pay for any and all licenses, permits, and certificates that may be necessary for proper execution and completion of the contract, and which are legally required when proposals are received, or negotiations concluded.

Specifically, Contractor must obtain all business license(s) required by the Clemson City Code and Ordinances. A City Business License is not required to submit a proposal however, any offeror that receives an award under this RFP shall be required to obtain a City Business License before work can begin. For further information on the provisions of the City Business License Regulations and their applicability to this contract, contact the Clemson City Business License Division at (864) 624-1147 or [businesslicense@cityofclemson.org](mailto:businesslicense@cityofclemson.org).

Contractor shall inform all of its subcontractors and/or sub-consultants performing services hereunder that a like business license requirement applies to them, and Contractor shall further disclose the names and addresses of all of Contractor's subcontractors performing services hereunder to City's Business License Division at [businesslicense@cityofclemson.org](mailto:businesslicense@cityofclemson.org) or (864) 624-1147.

#### **COMPLIANCE WITH LAWS**

General. Contractor, in the performance of work under the Contract, shall fully comply with all applicable federal, state, county, or municipal laws, rules, regulations, ordinances, including, if applicable, the

Americans with Disabilities Act (“ADA”) and the regulations promulgated thereunder, including ADA Title II, and shall hold the City harmless from any liability resulting from failure of such compliance.

Equal Employment Opportunity. Contractor and all subcontractors, suppliers, and vendors shall comply with all federal, state, county, or municipal laws, rules, regulations, ordinances, and orders regarding affirmative action to ensure equal employment opportunities and fair employment practices. Failure to file any report due under such orders will result in suspension of periodic progress payments. Contractor shall ensure unlimited access to the Project sites for all equal employment opportunity compliance officers.

Employment Discrimination. Contractor agrees not to discriminate against any employee or applicant for employment because of race, religion, color, sex, gender identity, sexual orientation, age, handicap, or national origin; however, some conditions may be a bona fide occupational qualification reasonably necessary for the normal operations of Contractor. Contractor agrees to post in conspicuous places, visible to employees and applicants for employment, notices setting forth the provision of this nondiscrimination clause.

Compliance with the South Carolina Illegal Immigration Reform Act. Each offeror shall certify in writing and include with its proposal that, as to any contract subsequently entered into between the offeror and the City, the offeror will verify the employment status of any new employees and require any subcontractors or sub-subcontractors performing services under such contract to verify their new employees’ status, per the terms of the South Carolina Illegal Immigration Reform Act, and as set out in Title 41, Chapter 8 of the South Carolina Code of Laws.

Compliance with Anti-Discrimination Provisions of Section 11-35-5300, Code of Laws of South Carolina, 1976. If the Contract shall have a total potential value of \$10,000.00 or more, and/or unless such goods and/or services are offered to City for at least 20% less than the lowest certifying business, then, by entering into the Contract, Contractor certifies to City that Contractor is not currently engaged in, nor will it engage in, the boycott of a person or entity based in or doing business with World Trade Organization members and/or those with which the United States has free trade or other agreements aimed at ensuring open and nondiscriminatory trade relations, with the understanding that failure to make such affirmative certification shall affect an automatic termination of the Contract.

Ethics in public contracting affidavit. To comply with the provisions of Section 8-13-100 *et seq.* of the South Carolina Code of Laws, each offeror shall certify in writing and include with its proposal that its offer was made without fraud, that it has not offered or received any kickbacks or inducements from any other offeror, supplier, manufacturer, or subcontractor in connection with the offer, and that it has not conferred on any public employee, public member, or public official having official responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money services, or anything of more than nominal value.

Each offeror shall certify further that no relationship exists between itself and the City, another person, or organization that interferes with fair competition or constitutes a conflict of interest with respect to a contract with the City.

Non Collusion affidavit. As part of its proposal, each offeror shall include the attached non-collusion affidavit, duly signed by a principal of the offeror certifying that it is not a party to any collusive action or any action that may be in violation of the Sherman Antitrust Act. Any or all proposals shall be rejected if

there is any reason for believing that collusion exists among the offerors. The City may or may not, at its discretion, accept future proposals for the same work from participants in such collusion.

### **INDEMNIFICATION**

Contractor shall indemnify, defend, and hold City, and its respective officers, officials, contractors, employees, agents, and representatives (collectively, "Indemnitees"), free and harmless from and against any and all losses, injuries, death, damages, liabilities, claims, deficiencies, demands, actions, suits, judgments, interest, awards, penalties, fines, costs or expenses of any kind or nature, including reasonable attorneys' fees and costs, the costs of enforcing any right to indemnification hereunder, and the costs of pursuing any insurance providers (collectively, "Losses"), arising out of or occurring in connection with (i) any claim for property damage or personal injury, including death, to the extent resulting from or arising out of the negligence or willful misconduct of Contractor, its subcontractors, employees, agents, or representatives under the Agreement, or (ii) any claim that City's or an Indemnitee's use or possession of any goods or use of any services hereunder infringes or misappropriates the patent, copyright, trade secret, or other intellectual property right of any third party. Notwithstanding Contractor's obligation to defend City, at Contractor's sole cost and expense, hereunder, City shall have the option to appear and defend such action or claim on its own behalf. Contractor shall not enter into any settlement without the City's prior written consent. The foregoing indemnity shall survive the expiration or termination of the Contract.

### **INSURANCE**

The Contractor shall procure and maintain insurance for the duration of this Contract against any and all claims for injuries to persons or damages to property which may in any way arise from, or in connection with, the performance of the work hereunder by the Contractor, its subcontractors, employees, agents, or representatives for not less than any limits of liability shown below with a carrier authorized to do business in the State of South Carolina.

All coverage shall be primary and shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability. Original endorsements, signed by a person authorized to bind coverage on its behalf, shall be furnished to the City by the successful offeror.

**Certificate of insurance must be presented to the city before a notice to proceed is issued.**

**Commercial General Liability:** Contractor shall maintain insurance for protection against all claims arising from injury to person or persons not in the employ of Contractor and against all claims resulting from damage to any property due to any act or omission of Contractor, its subcontractors, employees, agents, or representatives in the operation of the work or the execution of the Contract.

Contractor shall maintain general liability coverage required for a period of not less than five years after final completion of the Project. General liability coverage must include products or completed operations coverage. Where the work to be performed involves excavation or other underground work or construction, the property damage insurance provided shall cover all claims due to destruction of subsurface property, such as wire, conduits, pipes, etc., caused by Contractor's operation. The minimum shall be as follows:

Bodily Injury (Injury or Accidental Death) and Property Damage    \$1,000,000 per occurrence

**Comprehensive Automobile Liability:** Contractor shall maintain automobile liability insurance for protection against all claims arising from the use of vehicles, rented vehicles, or any other vehicle in the

prosecution of the work included in the Contract. Such insurance shall cover the use of automobiles and trucks on and off the site of the Project. The minimum amounts of automobile liability insurance shall be as follows:

Bodily Injury (Injury or Accidental Death) and Property Damage \$1,000,000 Combined Single Limit

South Carolina Workers' Compensation Insurance: Contractor shall maintain workers' compensation insurance for all of Contractor's employees who are in any way connected with performance under the Contract. Such insurance shall comply with all applicable state laws and provide a waiver of subrogation against City, its officers, officials, employees, agents, and representatives.

South Carolina Workers' Compensation	Statutory Limits
Employers' Liability Insurance	\$500,000 Each Accident \$500,000 Disease Each Employee \$500,000 Disease Policy Limit

Professional Liability Insurance: If providing a professional service, the Contractor shall maintain professional liability insurance to cover errors or acts of omission by the Contractor, its subcontractors, employees, agents, and representations in the performance of its obligations herein:

Professional Liability \$1,000,000

Contractor shall provide the City with a certificate(s) of insurance showing proof of insurance acceptable to the City. Certificates containing wording that releases the insurance company from liability for non-notification of cancellation of the insurance policy are not acceptable. Certificates showing proof of such insurance shall be submitted to the City prior to commencement of services under the Contract by email to [bburton@cityofclemson.org](mailto:bburton@cityofclemson.org). Further, it shall be an affirmative obligation upon the Contractor to advise City by e-mail to [bburton@cityofclemson.org](mailto:bburton@cityofclemson.org), within two days of the cancellation or substantive change of any insurance policy set out herein, and failure to do so shall be construed to be a breach of the Contract. The Certificate Holder name and address is to be displayed as follows:

City of Clemson  
1250 Tiger Blvd  
Clemson, SC 29631

The general liability policy is to contain or be endorsed to name the City, its officers, officials, employees, agents, and representatives as additional insured as respects the liability arising out of the activities performed under the Contract. Such coverage shall be primary and shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

Contractor or its insurers are responsible for payment of any liability arising out of workers' compensation, unemployment, or employee benefits offered to its employees. Insurance is to be placed with insurers with a current A.M. Best's rating of not less than A:VII and licensed to do business in the State of South Carolina, unless otherwise acceptable to the City. Contractor shall not self-insure in satisfaction of any insurance requirement hereunder without the express, written approval of City. Contractor shall insure that its subcontractors hereunder comply with the insurance requirements set

out herein, and when requested by the City, Contractor shall agree to obtain and furnish copies of certificates of insurance evidencing coverage for each subcontractor.

Should Contractor cease to have insurance as required during any time, all work by Contractor pursuant to the Contract shall cease until insurance acceptable to the City is provided.

Deductibles, Co-Insurance Penalties, & Self-Insured Retention: Contractor shall agree to be fully and solely responsible for any costs or expenses as a result of a coverage deductible, co-insurance penalty, or self-insured retention; including any loss not covered because of the operation of such deductible, co-insurance penalty, or self-insured retention.

### **TERMINATION OF THE CONTRACT**

Termination by City for Convenience. City, in its sole discretion, may terminate this Contract, in whole or in part, at any time without cause by providing at least 30 calendar days' prior written notice to Contractor, specifying the extent to which performance of the work under the Contract is terminated and the date upon which such termination becomes effective. Termination of this Contract shall not relieve either party of any obligation incurred to the other prior to termination, and the City shall pay Contractor for all services rendered and costs reasonably incurred prior to termination.

Termination by City for Cause. In addition to any other rights that City may have hereunder, this Contract may be terminated, in whole or in part, by City on written notice to Contractor, specifying the extent to which performance of the work under the Contract is terminated and the date upon which such termination becomes effective (i) if Contractor materially breaches any provision of this Contract and either the breach cannot be cured or, if the breach can be cured, it is not cured by Contractor within 15 calendar days after Contractor's receipt of written notice of such breach, or (ii) if Contractor (A) becomes insolvent, (B) is generally unable to pay, or fails to pay, its debts as they become due, (C) files, or has filed against it, a petition for voluntary or involuntary bankruptcy or pursuant to any other insolvency law, (D) makes or seeks to make a general assignment for the benefit of its creditors, or (E) applies for, or consents to, the appointment of a trustee, receiver, or custodian for a substantial part of its property or business. Termination of this Contract shall not relieve either party of any obligation incurred to the other prior to termination, and the City shall pay Contractor for all services rendered and costs reasonably incurred prior to termination, provided, however, that should City terminate this Contract for cause as provided hereunder, then City may proceed to have the Project completed by another contractor or consultant, and the Contractor shall be liable to the City for any costs incurred by City that are greater than what City would have paid had the Contractor performed as required by the Contract.

Termination by City for Non-Appropriation. Notwithstanding anything herein to the contrary, the Contract shall be subject to immediate cancellation without damages or further obligation when funds are not appropriated (or are appropriated and subsequently withdrawn) or otherwise made available to support continuation of performance of the Contract in a subsequent fiscal period or appropriated year.

Termination by Contractor. If City repeatedly fails to perform its material obligations to Contractor for a period of 30 calendar days after receiving written notice from Contractor of its intent to terminate hereunder, Contractor may terminate performance under the Contract by written notice to City. In such event, Contractor shall be entitled to recover from City as though City had terminated Contractor's performance for convenience as described above.



## **MISCELLANEOUS**

**Independent Contractor.** Contractor shall at all times be considered an independent contractor of City hereunder, and neither Contractor nor its subcontractors, employees, agents, or representatives shall, under any circumstances, be considered employees of City. City shall not be legally responsible for negligence or other wrongdoing, either intentional or unintentional, by Contractor or Contractor's subcontractors, employees, agents, or representatives. City shall not deduct from payment to Contractor any federal or state unemployment taxes, federal or state income taxes, social security tax, or other amounts for benefits to Contractor. Further, City shall not provide to Contractor any insurance coverage or other benefits, including workers' compensation coverage, normally provided by City for its employees.

**Notices.** All notices or other communications required hereunder shall be in writing and shall be deemed given effectively if delivered personally, delivered by an express courier (with confirmation), mailed by certified or registered mail (return receipt requested), sent via facsimile (with confirmation), or delivered by email (with confirmation) to the named party at the address provided or at such other address as may be designated by either party in writing to the other party by like notice.

**Entire Agreement.** The Contract (including any schedules, exhibits, addenda, or attachments hereto, and the other documents and instruments referred to in the Contract) constitutes the entire agreement between the parties and supersedes all prior agreements and understandings, both written and oral, between the parties with respect to the Project.

**Governing Law; Venue.** The Contract and the rights, obligations, and remedies of the parties hereto shall in all respects be governed by and construed in accordance with the laws of the State of South Carolina. Venue for the resolution of all disputes regarding the terms of the Contract or the performance thereunder, whether in law or in equity, shall be exclusively in the federal or state courts of Clemson County, South Carolina.

**Severability.** If any part or provision of the Contract is held invalid or unenforceable under applicable law, such invalidity or unenforceability shall not in any way affect the validity or enforceability of the remaining parts of the Contract.

**Non-Waiver.** Failure by the City or Contractor at any time to enforce the provisions of the Contract shall not be construed as a waiver of any such provisions or any subsequent breach. Such failure to enforce shall not affect the validity of the Contract, or any part thereof, or the right of the City or Contractor to enforce any provision at any time in accordance with its terms.

**Assignment.** Contractor shall not assign, transfer, convey, or otherwise dispose of any award or any or all of its rights, title, or interest in the Contract, in whole or in part, without the prior written consent of the City.

**Successors and Assigns.** The rights and obligations of the City and Contractor herein shall inure to, and be binding upon, the respective successors and permitted assigns of the parties hereto.

**Protests.** The City of Clemson will follow protests and appeals in accordance to the Clemson Code of Ordinances, Sec 7-11.

**PUBLIC RECORD and FOIA REQUESTS**

After an award is made, copies of the proposals will be available. Pursuant to the South Carolina Freedom of Information Act (FOIA), City will provide copies of records in its custody unless the records are exempt from disclosure under S.C. Code Ann. §30-4-40.

**Proprietary and/or Confidential Information**

Your proposal is a public document under the South Carolina Freedom of Information Act (FOIA), except as to information that may be exempt from disclosure under the FOIA in the City's sole discretion. If you cannot agree to this standard, please do not submit your offer.

All information that you desire to be treated as confidential and/or proprietary must be **CLEARLY AND SPECIFICALLY** identified, and each page containing confidential and/or proprietary information, in whole or in part, must be stamped and/or denoted as **CONFIDENTIAL**, in bold, in a font of at least 12-point type, in the upper right-hand corner of the page. ***All information not so noted and identified may be disclosed by the City.*** Blanket-type identification by designating whole pages or sections as containing confidential and/or proprietary information will not ensure confidentiality.

**Definitions**

The words "Bidder", "Offeror", "Proposer", "Respondent", "Vendor", and "Contractor" are used interchangeably throughout this solicitation, and are used in place of the person, firm, or corporation submitting a proposal/response/offer/bid.

End of Section II

## **SECTION III- TECHNICAL SPECIFICATIONS**

**ITB 2025-01-001**

**Abel Road/Curtis Circle Sidewalk Improvement Project**

**Grant Number :: 4-CE-23-001**





CONTRACT DOCUMENTS AND SPECIFICATIONS FOR:

**Abel Road/Curtis Circle Sidewalk Improvement Project**

**Grant Number :: 4-CE-23-001**

**2024**

CITY OF CLEMSON

January 2025

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SECTION 00200

**INFORMATION TO BIDDERS**

1) GENERAL:

The City of Clemson is soliciting bids for the construction and installation of the following:

The installation of approximately 3000 LF of curb and Gutter, 2500 LF of sidewalk with associated pedestrian ramp and ADA requirements, 1200 LF of storm drainage and associated structures, 1200 LF drinking water distribution lines with associated distribution and service connections, installation of fire hydrants, and replacement of asphalt pavement, tree removal, pavement markings and erosion control for sidewalk installation

The successful low bidder will be expected to begin work within 10 days following the Notice to Proceed.

2) USE OF SEPARATE BID FORMS:

These Contract Documents include a complete set of bidding and Contract forms which are for the convenience of bidders. They may be detached or photocopied from the Contract Documents for purposes of bidding.

3) AWARDING OF CONTRACT:

Bids may be held by the City of Clemson for a period not to exceed one-hundred and twenty (120) days from the date of the opening of bids for the purpose of reviewing the bids and investigating the qualifications of bidders prior to awarding of the contract.

4) INTERPRETATIONS OR ADDENDA:

No oral interpretation will be made to any Bidder as to the meaning of the Contract Documents or any part thereof. Any inquiry received three or more days prior to the date fixed for opening of Bids will be given consideration. Every interpretation made to a Bidder will be in the form of an Addendum to the Contract Documents, and when issued, will be on file in the office of the Owner and the office of the Engineer at least two days before Bids are opened. In addition, all Addenda will be mailed or faxed to each person holding Contract Documents, but it shall be the Bidder's responsibility to make inquiry as to the Addenda issued. All such Addenda shall become part of the Contract and all Bidders shall be bound by such Addenda, whether or not received by the Bidders.

5) INSPECTION OF SITE:

Each Bidder shall visit the site of the proposed work and fully acquaint himself with the existing conditions there and schedule of work relating to construction and labor, and should fully inform himself as to the facilities involved, the difficulties and restrictions attending the performance of the Contract. The Bidder should thoroughly examine and familiarize himself with the Drawings, Technical Specifications, and all other Contract Documents. The Contractor by the execution of the Contract shall in no way be relieved of any obligation under it due to his failure to receive or examine any form or legal instrument or to visit the site and acquaint himself with the conditions there existing and the City of Clemson will be justified in rejecting any claim based on facts regarding which he should have been on notice as a result thereof.

6) ALTERNATIVE BIDS:

- A) All Bids must be submitted on forms supplied by the City of Clemson and shall be subject to all requirements of the Contract Documents, including the Drawings, and this INFORMATION TO BIDDERS. All Bids must be regular in every respect and no interlineations, excisions or special conditions shall be made or included in the Bid Form by the Bidder.
- B) Bid Documents, including the Bid and the Bid Guaranty shall be enclosed in envelopes (outer and inner), both of which shall be sealed and clearly labeled with the words "Bid Documents", project number, name of Bidder, Bidders License No., Contractor's License No., and date and time of Bid opening in order to guard against premature opening of the Bid.
- C) The City of Clemson may consider as irregular any Bid on which there is an alteration of or departure from the Bid Form hereto attached and at its option may reject the same.
- D) If the Contract is awarded, it will be awarded by the City of Clemson to a responsible Bidder on the basis of the lowest Bid and the selected Alternative Bid items if any. The Contract will require the completion of the work according to the Contract Documents.
- E) Each Bidder shall provide, if requested, the following information:

**PRINCIPALS:**

Names

Social Security Numbers

Home Address, including City, State & Zip Code

**FIRM:**

Name

Treasury Number

Address, including City, State & Zip Code

7) BID GUARANTY:



- A) The Bid must be accompanied by a Bid Guaranty which shall not be less than five percent (5%) of the amount of the Bid. At the option of the Bidder, the guaranty may be a certified check, bank draft, negotiable U.S. Government Bond (at par value), or a Bid Bond in the form of the attached. The Bid Bond shall be secured by a guaranty or a surety company holding certificates of authority as accepted sureties (31 CFR 223). No Bid will be considered unless it is accompanied by the required guaranty. Certified check or bank draft must be made payable to the order of the City of Clemson. Cash deposits will not be accepted. The Bid guaranty shall insure the execution of the Agreement and the furnishing of the Surety Bond or Bonds by the successful Bidder, all as required by the Contract Documents.
- B) Revised Bids submitted before the opening of Bids, whether forwarded by mail or telegram, if representing an increase in excess of two percent (2%) of the original Bid, must have the Bid Guaranty adjusted accordingly, otherwise the Bid will not be considered.
- C) Certified checks or bank drafts, or the amount thereof, Bid Bonds, and negotiable U.S. Government bonds of unsuccessful Bidders will be returned as soon as practical after the opening of the Bids.

8) COLLUSIVE AGREEMENTS:

- A) Each Bidder submitting a Bid to the City of Clemson for any portion of the work contemplated by the documents on which Bidding is based shall execute and attached thereto, a statement substantially in the form herein provided, to the effect that he has not entered into a collusive agreement with any other person, firm, or corporation with regard to any Bid submitted.
- B) Before executing any subcontract the successful Bidder shall submit the name of any proposed subcontractor for prior approval by the Engineer and The City of Clemson. The Contractor shall not use any unapproved Subcontractors nor shall any additional compensation be allowed because of rejection by the Engineer or the City of Clemson of any Subcontractor.

9) STATEMENT OF BIDDER'S QUALIFICATIONS:

Each Bidder shall, upon request of the City of Clemson, submit on the form furnished for that purpose a statement of the Bidder's qualifications, his experience record in constructing the type of improvements embraced in the contract, his organization and equipment available for the work contemplated, and when specifically requested by the City of Clemson, a detailed financial statement. The City of Clemson shall have the right to take such steps as it deems necessary to determine the ability of the Bidder to perform his obligations under the Contract and the Bidder shall furnish the City of Clemson all such information and data for this purpose as it may request. The right is reserved to reject any Bid where an investigation of the available evidence or information does not satisfy the City of Clemson that the Bidder is qualified to carry out properly the terms of the Contract.

10) UNIT PRICES:

The unit price for each of the several items in the proposal of each Bidder shall include its pro rata share of overhead and profit so that the sum of the products obtained by multiplying the quantity shown for each item by the unit price Bid represents the total. Any Bid not conforming to this requirement may be rejected as informal. The special attention of all Bidders is called to this provision, for should conditions make it necessary to revise the quantities, no limit will be fixed for such increased or decreased quantities, nor extra compensation allowed, provided the net monetary value of all such additive and subtractive changes in quantities of such items of work (i.e., difference in cost) shall not increase or decrease the total original contract price by more than twenty-five percent (25%), except for work not covered in the Drawings and Technical Specifications as provided for in the General Conditions.

11) CORRECTIONS:

Erasures or other changes in the Bids must be explained or noted over the signature of the Bidder.

12) TIME FOR RECEIVING BIDS:

- A) Bids received prior to the advertised hour of opening will be securely kept and sealed. The officer whose duty to open them will decide when the specified time has arrived, and no Bid received thereafter will be considered: except that when a Bid arrives by mail after the time fixed for opening, but before the reading of all other Bids is completed, and it is shown to the satisfaction of the City of Clemson that the non-arrival on time was due solely to delay in the mail for which the Bidder was not responsible, such Bid will be received and considered.
- B) Bidders are cautioned that, while telegraphic modifications of Bids may be received as provided above, such modifications, if not explicit and if in any sense subject to misinterpretation, shall make the Bid so modified or amended, subject to rejection.

13) OPENING OF BIDS:

At the time and place fixed for the opening of Bids, the City of Clemson will cause to be opened and publicly read aloud every Bid received with the time set for receiving Bids, irrespective of any irregularities therein. Bidders and other persons properly interested may be present, in person or by representative.

14) WITHDRAWAL OF BID:

Bids may be withdrawn or written or telegraphic request dispatched by the Bidder in time for delivery in the normal course of business to the time fixed for opening; provided that written confirmation of any telegraphic withdrawal over the signature of the Bidder is placed in the mail and postmarked prior to the time set for Bid opening. The Bid guaranty of any Bidder withdrawing his Bid in accordance with the foregoing conditions will be returned promptly.

15) AWARD OF CONTRACT - REJECTION OF BIDS:

- A) Award will be made to the lowest responsible, responsive BIDDER. A responsive bidder is defined as one whose bid is complete and submitted in accordance with the contract documents without excision, special conditions or alternate bids (unless specifically requested in the bid form). A responsible bidder is defined as one who maintains a permanent place of business, has adequate plant equipment to complete the work properly and within the established time limit, has adequate financial status to meet his obligations contingent to the work, is properly licensed, and is considered by the City of Clemson and Engineer to be capable of performing the work in accordance with the contract documents.
- B) The City of Clemson reserves the right to consider as unqualified to do the work any Bidder who does not habitually perform, or does not plan to perform, with his own forces the major portion of the work involved in construction of the improvements embraced in this Contract. The maximum amount of subcontract work shall not exceed 30 percent of the total project cost without prior approval of the City of Clemson. The City of Clemson reserves the right to either accept or reject any bid where the planned subcontract amount exceeds 30% of the total bid amount.
- C) The City of Clemson may hold all bids for a period not to exceed one-hundred and twenty (120) days from the date of opening the bids for review before awarding the contract.

16) EXECUTION OF AGREEMENT - PERFORMANCE AND PAYMENT BOND:

- A) Subsequent to the award and within ten (10) days after the prescribed form are presented for signature, the successful Bidders shall execute and deliver to the City of Clemson an Agreement in the form included in the Contract Documents in such number of copies as the City of Clemson may require.
- B) Having satisfied all conditions of award as set forth elsewhere in these documents, the successful Bidders shall, within the period specified in paragraph "A" above, furnish a surety bond in a penal sum no less than the amount of the Contract as awarded, as security for the faithful performance of the Contract, and for the payment of all persons, firms, or corporations to whom the Contractor may become legally indebted for labor, materials, tools, equipment, or service of any nature including utility and transportation services, employed or used by him in performing the work. Such bond shall be in the same form as that included in the Contract. Documents and shall bear the same date as, or a date subsequent to that of the Agreement. The current power of attorney for the person who signs for any surety company shall be attached to such bond. All bonds shall be countersigned by a resident agent of the State in which the work takes place.

17) CONTRACTOR LICENSES:

The Bidder shall have a valid Contractor's license at the time of the Bid to Bid and perform work in the State of South Carolina. The limits of such licenses must be equal to or greater than the work on which a Bid is submitted. The Contractor's license number is to be written on the outside of the Bid envelope. Failure to list the Contractor's license numbers may be cause for the Bid to be rejected.

18) BUSINESS LICENSES:

The Bidder shall have an active and updated City of Clemson Business License prior to mobilization to the project site and must maintain said business license throughout the duration of the Contract, and any lost working time as a result of not being in possession or not updating a business license will be the sole responsibility of the Bidder. This shall apply to any general contractor or sub-contractors associated with the project.

19) TIME FOR COMPLETION:

The substantial completion time for this project is **180** consecutive days to begin on the date designated on the Notice to Proceed. The completion time for this project is **225** consecutive days to begin on the date designed on the Notice to proceed. If the project remains uncompleted past the completion date, the Bidder will become liable for liquidated damages in the amount of \$1000.00 per calendar day for each day the project remains uncompleted.

20) LIQUIDATED DAMAGES:

- A) Should the lowest responsive Bidder fail or refuse to enter into a contract within 7 days after receipt of the written notice of award, the Bidder shall forfeit to the City of Clemson, as liquidated damages for failure or refusal to enter into a contract with the City of Clemson, the Bid Guaranty presented as security for the Bid.
- B) The Bidder must agree to commence work and complete the project as stipulated in the Contract. The Bidder must also agree to pay \$1000.00 per day as liquidated damages as specified in the Special Provisions for each calendar day that the work remains incomplete after the contract completion date.

21) LICENSES AND PERMITS:

The statement of Bidder must secure all State and local building permits required. Such permits must be readily available at all times for inspection.

22) STATEMENT OF BIDDER'S QUALIFICATIONS:

The Statement of Bidder's Qualifications is not required to be submitted with the Bid. If requested by the City of Clemson after the Bid, the Statement of Bidder's Qualifications is to be completed and returned to the City of Clemson within five (5) days of such request. Failure by the Bidder to complete the Statement of Bidder's Qualifications within 5 days may result in the Bid being rejected by the City of Clemson.

23) INSPECTION:

The work is to be jointly inspected by the Engineer and the City of Clemson. All work is subject to inspection and approval of the Engineer, the City of Clemson, South Carolina Department of Health and Environmental Control and South Carolina Department of Transportation. The Contractor shall immediately repair and rework any and all work not approved by the above approving agencies.

**END OF SECTION**

SECTION 00300

**BID FORM**

**Abel Road/Curtis Circle Sidewalk Improvement Project**

BIDDER: \_\_\_\_\_

DATE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

TELEPHONE NUMBER: \_\_\_\_\_

CONTRACTOR'S LICENSE NO: \_\_\_\_\_

TO OWNER: CITY OF CLEMSON  
1250 Tiger Boulevard  
Clemson, SC 29631

1) The undersigned, having familiarized himself with the existing conditions of the Project Area affecting the cost of the work, and with the Contract Documents (which includes Invitation for Bids, the form of Bid, Technical Specifications, and Drawings) on file in the office of the Owner hereby proposes to furnish all Supervision, technical personnel, labor, materials, machinery, tools, appurtenances, equipment and services, including utility and transportation services required to construct the project in accordance with the above listed documents at, and for the prices for work in place for the following items and quantities:

## Abel Road/Curtis Circle Sidewalk Improvement Project Bid Form

### Base Bid

Item number	Item	Unit	Quantity	Unit Price	Sub-Total	Production Location, other than USA
1	Mobilization	LS	1			
2	Traffic Control	LS	1			
3	Demolition	LS	1			
4	Clearing & Grubbing	LS	1			
5	Backfill, Grading, Stabilization	LS	1			
6	Erosion Control	LS	1			
7	Tree Protection	LS	1			
8	Tree Removal	Each	18			
9	18" Curb & Gutter	LF	2958			
10	5' Sidewalk	LF	2515			
11	Pedestrian Ramps	LF	80			
12	ADA Handrail	LF	160			
13	ADA Curb Ramp	EA	14			
14	Bus Shelter PAD	Sqft	70			
15	Partition Curb <2'	LF	25			
16	Bus Shelter: Landscape Forms	Each	1			
17	15" HP Storm	LF	1213			
18	4'x4' Catch Basin <8' depth	Each	13			
19	36" Junction Box	Each	3			
20	Stormwater tie-in exiting	Each	3			
21	Thermoplastic Pavement Marking	LS	1			
22	Signage Package	LS	1			
23	CL 315 PVC Water Line 2"	LF	746			
24	CL 350 DIP Water Line 6"	LF	391			
25	Hydrant Assembly	Each	1			
26	2" Water Line Tie-In	Each	1			
27	6" Water Line Tie-in	Each	2			
28	6" Gate Valve	Each	1			
29	2" Gate Valve	Each	2			
30	Services w/new Meter Box (long)	Each	5			

31	Services w/new Meter Box (short)	Each	4			
32	1" Pex-A (private service)	LF	460			
33	Asphalt Paving	LF	200			

**Total Bid Base Bid:** \_\_\_\_\_

**Total Bid Amount Written Out:**

\_\_\_\_\_

\_\_\_\_\_

Bid Items 12,16, 22, 26,27,28,29, 30 and 31 are required to follow Build America, Buy America Act (BABAA). All Iron and Steel used on this project must be produced in the United States. This project is subject to the Build America, Buy America Act (BABAA) requirements under Title IX of the Infrastructure Investment and Jobs Act (“IIJA”), Pub. L. 177-58. Absent an approved waiver, 95% of all iron and steel used in this project must be produced in the United States, as further outlined by the Office of Management and Budget’s Memorandum M-22-11, “Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure.”, October 25,2023.

A minimum of 95% of all iron and steel used in the project must be produced in the United States—this means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. Any request for substitute or “or equal” shall include the Manufacturer’s Certification of compliance with the Build America, Buy America Act (BABAA) requirements. Documentation of BABAA compliance must be provided by the contractor for iron and steel, used in the project. Written evidence from the manufacturer or supplier will be required that identifies the item purchased; affirms the location of manufacture as within the United States; and is signed by an authorized company representative

2) The Contractor acknowledges that the quantities noted above are not intended to specifically identify all possible permanent and/or temporary components, including labor required to successfully bid and complete the project. Accordingly, it is the contractor’s sole responsibility to provide a comprehensive total cost to complete the entire project as represented in the drawings and specifications, within these unit prices. If the contractor feels there is a discrepancy in the units listed herein versus what is represented in the drawings or a unit item is missing that should be included it is the Contractor’s sole responsibility to bring any such concern to the Owner and Engineer’s attention within the specified portion of the bid phase, and failure to do so does not relieve the contractor of the requirement to complete the project in accordance with approved contract documents and governing codes and regulations, including but not limited to ADA and OSHA.



3) The Contractor acknowledges that additional items may be required or requested by the Owner during the construction of the project, and will be added to or deducted from the Contract Sum by appropriate modification if the scope of work or estimated quantities of work required by the Contract Documents are increased or decreased. "By Order of the Owner's Representative" is the method at which use of the unit prices are determined. If work is deemed necessary to add such items otherwise not indicated by the drawings, the contract unit price for such items will prevail in and change order agreement for such items.

4) IN SUBMITTING THIS Bid, the Bidder understands that the right is reserved by the City of Clemson to reject any and all Bids. If written notice of the acceptance of this bid is mailed, telegraphed or delivered to the undersigned within forty-five (45) days after the opening thereof, or at any time thereafter, before this bid is withdrawn, the undersigned agrees to execute and deliver an agreement in the prescribed form and furnish the required bond within ten (10) days after the agreement is presented to him for signature.

5) Security in the sum of \_\_\_\_\_ dollars (\$ \_\_\_\_\_)

the form of \_\_\_\_\_ is submitted herewith in accordance with the

INSTRUCTION TO BIDDERS.

6) Bidder's signature hereto is a statement in proof that the undersigned has not entered into a collusive agreement with any person in respect to this bid or any other bid or the submitting of Bids for the Contract for which this Bid is submitted.

- A) Neither the said Bidder or any of its officers, partners, owners, agents, representative, employees or parties in interest, including his affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other bidder, firm or person to fix the price or prices the attached Bid or of any other bidder, or to fix any overhead, profit or cost element collusion, conspiracy, connivance or unlawful agreement any advantage against the OWNER or any person interested in the proposed Contract; and
- B) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

Signed: \_\_\_\_\_

Title: \_\_\_\_\_

7) Bidder's signature hereto is a statement in proof that the undersigned has received and understands any addendum which have been issued as part of this solicitation, If no addendums have been issued then this does not need to be filled out.

Addendum #1            Date:: \_\_\_\_\_  
Verification Signature: \_\_\_\_\_

Addendum #2            Date:: \_\_\_\_\_  
Verification Signature: \_\_\_\_\_

Addendum #3            Date:: \_\_\_\_\_  
Verification Signature: \_\_\_\_\_

**END OF SECTION**

SECTION 00501

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, \_\_\_\_\_  
\_\_\_\_\_, as Principal, and \_\_\_\_\_ as Surety, are  
hereby held and firmly bound unto the **CITY OF CLEMSON**, as OWNER, in the penal sum of  
\$ \_\_\_\_\_ for the payment of which, well and truly to be mad, we hereby  
jointly and severally bind ourselves, successors and assigns.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 2025.

The Conditions of the obligation is such that whereas the Principal has submitted to the City of  
Clemson a certain BID, attached hereto and hereby made a part hereof to enter into a contract  
in writing, for the **Abel Road/Curtis Circle Sidewalk Improvement Project**.

NOW, THEREFORE,

- A) If said Bid shall be rejected, or
- B) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attachment hereto (properly completed in accordance with said BID) and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these present to be signed by their proper officers, the day and year first set forth above.

---

Principal

---

Surety

IMPORTANT - Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended), be authorized to transact business in the state where the project is located.

**END OF SECTION**

SECTION 00502

**PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS: that

\_\_\_\_\_  
Contractor

\_\_\_\_\_  
Contractor Address

a \_\_\_\_\_, hereinafter called  
Principal,  
Corporation, Partnership or Individual

\_\_\_\_\_  
Surety

\_\_\_\_\_  
Surety Address

hereinafter called Surety, are held and firmly bound unto:

City of Clemson  
Owner

1250 Tiger Boulevard, Clemson, SC 29631  
Owner Address

Hereinafter called Owner, in the penal sum of \_\_\_\_\_ dollars (\$ \_\_\_\_\_)  
in lawful money of the United States, for the payment of which sum well and truly to be made,  
we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a  
certain contract with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_ 2025, a copy  
of which is hereto attached and made a part hereof for the construction of: **Abel Road/Curtis  
Circle Sidewalk Improvement Project.**

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms,  
SUBCONTRACTORS, and corporations furnishing materials for or performing labor in the  
prosecution of the WORK provided for in such contract, and any authorized extension or  
modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and  
coke, repairs on machinery, equipment and tools, consumed or used in connection with the  
construction of such WORK, and all insurance premiums on said WORK, and for all labor,  
performed in such WORK whether by SUBCONTRACTOR or otherwise, then this obligation  
shall be void; otherwise to remain in full force and effect.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety  
and its BOND shall be in no way impaired or affected by any extension of the time within which

the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these present to be signed by their proper officers, the day and year first set forth above.

\_\_\_\_\_  
Principal (L.S.)

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

Countersigned by South Carolina Resident Agent

\_\_\_\_\_  
Name (Typed)

\_\_\_\_\_  
Agency Name

\_\_\_\_\_  
Agency Address

\_\_\_\_\_  
Signature

IMPORTANT - Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended), be authorized to transact business in the state where the project is located; and be regulated by the respective state insurance commission. limitation

**END OF SECTION**

SECTION 00503

**PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS: that

\_\_\_\_\_ Contractor

\_\_\_\_\_ Contractor Address

a \_\_\_\_\_, hereinafter called Principal,

and \_\_\_\_\_ Surety

\_\_\_\_\_ Surety Address

hereinafter called Surety, are held and firmly bound unto:

City of Clemson  
Owner

1250 Tiger Boulevard, Clemson, SC 29631  
Owner Address

Hereinafter called Owner, in the penal sum of \_\_\_\_\_ dollars, (\$\_\_\_\_\_) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by the presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the principal entered into a certain contract with the Owner, dated the \_\_\_\_\_ day of \_\_\_\_\_, 2025, a copy of which is hereto attached and made a part of hereof for the construction of: **Abel Road/Curtis Circle Sidewalk Improvement Project.**

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of

failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder of the SPECIFICATIONS accompanying the same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in THREE (3) counterparts, each one of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 2024.

\_\_\_\_\_  
Principal Secretary

Seal (above)

Seal (above)

\_\_\_\_\_  
Witness to Surety

\_\_\_\_\_  
Witness to Principal

\_\_\_\_\_  
Address

\_\_\_\_\_  
Address

**ATTEST:**

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Surety Secretary

By: \_\_\_\_\_



\_\_\_\_\_  
\_\_\_\_\_  
Address

By: \_\_\_\_\_  
Attorney-In-Fact

\_\_\_\_\_  
Surety

\_\_\_\_\_  
\_\_\_\_\_  
Address

Countersigned by South Carolina Resident Agent:

\_\_\_\_\_  
Name (Typed)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Agency Name

\_\_\_\_\_  
Agency Address

NOTE: Date of BOND must not be prior to date of Contract. If CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended), be authorized to transact business in the state where the PROJECT is located; and be regulated by respective state insurance commission.

**END OF SECTION**

SECTION 00504

**CONTRACT**

THIS AGREEMENT made this \_\_\_\_\_ day of \_\_\_\_\_, 2025, by and between \_\_\_\_\_ (a corporation organized and existing under the laws of the State of South Carolina) hereinafter called the CONTRACTOR, and the City of Clemson, SC hereinafter called the OWNER.

WITNESSETH, that the Contractor and the local Public Agency for the considerations stated herein mutually agree as follows:

ARTICLE I: Statement of Work. The Contractor shall furnish all supervision, technical personnel, labor, materials, tools, equipment and services, including utility and transportation services, and perform and complete all work required for the construction of the Improvements embraced in the Project, all within **180** days from the date of Notice to Proceed, the completion time for this project is **225** from the date of Notice to Proceed; namely **Abel Road/Curtis Circle Sidewalk Improvement Project** all in strict accordance with the Contract Documents including all Addenda thereto, numbered.

ARTICLE II: The Contract Price. The Owner will pay the Contractor for the performance of the Contract, in current funds, the sum of \$ \_\_\_\_\_ dollars or as shown in the Bid Schedule, for the total quantities of work performed, at the unit prices stipulated in the bid, for the several respective items of work completed, subject to additions and deductions as provided in the General Conditions

ARTICLE III: Contract. The executed contract documents shall consist of the following:

- |                           |                             |
|---------------------------|-----------------------------|
| A) This Agreement         | F) General Conditions       |
| B) Addenda                | G) Supplemental Conditions  |
| C) Invitation to Bid      | H) Technical Specifications |
| D) Information to Bidders | I) Drawings                 |
| E) Signed Copy of Bid     |                             |

THIS AGREEMENT, together with other documents enumerated in this Article III, which said other documents are as fully a part of the Contract as if hereto attached or herein repeated, forms the Contract between the parties hereto. In the event that any provision of any component part of this Contract conflicts with any provisions of any other component part of this Contract the provision of the component part first enumerated in this Article III shall govern, except as otherwise specifically stated.

IN WITNESS WHEREOF, the parties hereto have caused this AGREEMENT to be executed in THREE (3) original copies on the day and year first written.

CITY OF CLEMSON, SC  
Owner

BY: ANDY BLONDEAU

---

Signature

CITY ADMINISTRATOR  
Title

&

---

Contractor

BY: \_\_\_\_\_

---

Signature

---

Title

**END OF SECTION**

SECTION 00505

**CONTRACT CHANGE ORDER FORM**

Project : \_\_\_\_\_

Date : \_\_\_\_\_

Change Order No. \_\_\_\_\_

Contractor : \_\_\_\_\_

Description (quantities, units, unit prices, change in contract time, etc.) and necessity of changes (attach adequate documentation, maps, correspondence, etc.) :

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Please attach documentation with associated changes (show increase and decrease in contract price):

Original Contract Price: \$ \_\_\_\_\_

Total Decrease of this Change Order: \$ \_\_\_\_\_

Total Increase of this Change Order: \$ \_\_\_\_\_

Net (Increase) / (Decrease) in Contract Price: \$ \_\_\_\_\_

Current Contract Price after this Change Order: \$ \_\_\_\_\_

The sum of \$ \_\_\_\_\_, is hereby (added to) / (deducted from) the total contract price, and the total adjusted contract price to date thereby is \$

\_\_\_\_\_. The time provided for completion in the contract is (unchanged) / (increased) / (decreased) by \_\_\_\_\_ calendar days. This document shall become an amendment to the contract and all provisions of the contract will apply hereto.

Liquidated damages will be assessed: \_\_\_\_\_ (yes) / (no) \_\_\_\_\_ \$ / days \_\_\_\_\_.

Total \$ \_\_\_\_\_.

Recommended by: \_\_\_\_\_  
Engineer Date

Accepted by: \_\_\_\_\_  
Contractor Date

Approved by: \_\_\_\_\_  
Owner Date

**END OF SECTION**

SECTION 00506

**NOTICE OF AWARD**

To: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Project: **Abel Road/Curtis Circle Sidewalk Improvement Project**

The OWNER has considered the BID submitted by you for the above described WORK in response to its Advertisement for Bids dated \_\_\_\_ day of \_\_\_\_\_ 2025 and Information for Bidders.

You are hereby notified that your BID has been accepted for items (base bid) in the amount of \$ \_\_\_\_\_.

You are required by the Information for Bidders to execute the Agreement and furnish the required CONTRACTOR'S Performance BOND, Payment BOND, and certificates of insurance within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said BONDS within ten (10) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your BID as abandoned and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as way be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER. Dated this \_\_\_\_ day of \_\_\_\_\_ 2024.

CITY OF CLEMSON  
Owner

By: ANDY BLONDEAU

\_\_\_\_\_  
Signature

CITY ADMINISTRATOR  
Title

**ACCEPTANCE OF NOTICE**

Receipt of the above NOTICE OF AWARD is hereby acknowledged by, this the \_\_\_\_\_ day of \_\_\_\_\_ 2025.

By: \_\_\_\_\_

\_\_\_\_\_  
Title

**END OF SECTION**

SECTION 00507

**NOTICE TO PROCEED**

TO: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

DATE: \_\_\_\_\_

**PROJECT: Abel Road/Curtis Circle Sidewalk Improvement Project**

You are hereby notified to commence work in accordance with the Agreement dated this \_\_\_\_\_ day of \_\_\_\_\_ 2025 and you are to substantially complete the WORK within **180** consecutive calendar days thereafter. The date of substantial completion of WORK is therefore the \_\_\_\_\_ day of \_\_\_\_\_ 2025. You are to complete the work within **225** consecutive calendar days thereafter. The date of substantial completion of WORK is therefore the \_\_\_\_\_ day of \_\_\_\_\_ 2025.

CITY OF CLEMSON  
Owner

By: NATHAN HINKLE

\_\_\_\_\_

Signature

CITY ENGINEER  
Title

**ACCEPTANCE OF NOTICE**

By: \_\_\_\_\_

\_\_\_\_\_

Title

**END OF SECTION**



SECTION 01000

**GENERAL CONDITIONS**

1) **CONTRACT & CONTRACT DOCUMENTS:**

The plans, specifications, and addenda, hereinafter enumerated shall form part of this contract and the provisions thereof shall be as binding upon the parties hereto as if they were herein fully set forth. The table of contents titles, heading, running headlines and marginal notes contained herein and in said documents are solely to facilitate reference to various provisions of the contract documents and in no way affect, limit or cast light on the interpretations of the provisions to which they refer.

Contents

1	Contract and Contract Documents	25	Payments to Contractor
2	Definitions	26	Acceptance of Work and Final Payment
3	Additional Instructions and Detail Drawings	27	Acceptance of Final Payment as Release
4	Shop Drawings and Samples	28	Payments by Contractor
5	Materials, Services & Facilities	29	Insurance
6	Contractor's Title to Materials	30	Contract Security
7	Inspection and Testing of Materials	31	Assignments
8	"Or Equal" Clause	32	Mutual Responsibility
9	Patents	33	Separate Contracts
10	Surveys, Laws, and Regulations	34	Subcontracting
11	Contractor's Obligations	35	Engineer's Authority
12	Weather Conditions	36	Stated Allowances
13	Protection of Work and Property, Emergency	37	Use of Premises and Removal of Debris
14	Interpretations	38	Quantities of Estimate
15	Reports, Records and Data	39	Rights-of-Way and Suspension of Work
16	Superintendence by Contractor	40	Warranty for One Year after Completion of Contract
17	Changes in Work	41	Notice and Service Thereof
18	Extras	42	Required Provisions Deemed Inserted
19	Time for Completion and Liquidated Damages	43	Protection of Lives and Health
20	Correction of Work	44	Wages and Overtime Compensation
21	Subsurface of Conditions	45	Prohibited Interests
22	Claims for Extra Cost	46	Conflicting Conditions
23	Right of Owner to Terminate Contract	47	Public Convenience and Protection
24	Construction Schedule and Periodic Estimates		

2) **DEFINITIONS:**

A) **Contractor:** A person, firm or corporation with whom the contract is made by the Owner.

- B) Subcontractor: A person, firm or corporation supplying labor and materials, or only labor, for work at the site of the project for and under separate contract or agreement with the Contractor
- C) Work on or at the Project: Work to be performed at the location of the project, including the transportation of materials and supplies to or from the location of the project by employees of the Contractor and any Subcontractor.

3) ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS:

The Contractor will be furnished additional instructions and detail drawings as necessary to carry out the work included in the Contract. The additional drawings and instructions thus supplied to the Contractor will coordinate with the Contract Documents and will be so prepared that they can be reasonably interpreted as part thereof. The Contractor shall carry on the work in accordance with the additional detail drawings and instructions, The Contractor and the Engineer will prepare jointly:

- A) A schedule fixing the dates at which special detail drawings will be required; such drawings, if any, to be furnished by the Engineer in accordance with said schedule; and
- B) A schedule fixing the respective dates for the submission of shop drawing, the beginning of manufacture, testing and installation of materials, supplies, and equipment, and the completion of the various parts of the work; each such schedule to be subject to change from time to time in accordance with the progress of the work.

4) SHOP DRAWINGS AND SAMPLES:

Submit to the Engineer for approval, in accordance with the requirement of Section 01340.

- A) Samples: Contractor shall also submit to the Engineer for approval, all samples required by Section 01340. All samples will have been checked by and stamped with the approval of the Contractor, identified clearly as to material, manufacturer, any pertinent catalog numbers and the use for which intended.
- B) Deviations: At the time of each submission, Contractor shall in writing call the Engineer's attention to any deviations that the Shop Drawings or samples may have from the requirements of the Contract Document.
- C) Engineer's Review: Engineer will review and approve with reasonable promptness Shop Drawings and samples, but his review and approval shall be only for conformance with the design concept of the project and for compliance with the information given in the Contract Documents. The approval of a separate item as such will not indicate approval of the assembly in which the item functions. Contractor shall make any corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and resubmit new samples until approved. Contractor shall direct specific attention in writing or on resubmitted Shop Drawings to revisions other than the corrections called for by Engineer or previous submissions. Contractor's stamp of approval on any Shop Drawing or sample shall constitute a representation to Owner and Engineer that Contractor has either determined and verified all quantities, dimensions, field construction criteria, materials, catalog numbers and similar data or he assumes full responsibility for doing so, and that he has reviewed or coordinated each Shop Drawing or sample with the requirements of the work and Contract Documents.
- D) Contractor's Records: Where a Shop Drawing or sample submission is required by the Specifications, no related work shall be commenced until the submission has been approved by Engineer. A copy of each approved shop drawing and each approved

sample shall be kept in good order by Contractor at the site and shall be available to Engineer.

- E) Contractor's Responsibility: Engineer's approval of Shop Drawings or sample shall not relieve Contractor from his responsibility for any deviations from the requirements of the Contract Documents unless Contractor has in writing called the Engineer's attention to such deviation at the time of submission and Engineer has given written approval to the specific deviation, nor shall any approval by Engineer relieve Contractor from responsibility for errors or omissions in the Shop Drawings.

5) MATERIALS, SERVICES AND FACILITIES:

Materials, services and facilities shall be furnished by the Contractor.

- A) It is understood that except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, gas, lights, power, transportation superintendence, taxes, insurance, temporary construction of every nature, and all other services and facilities of every nature whatsoever necessary to execute, complete and deliver the work within the specified time.
- B) Any work necessary to be performed after regular working hours, on Sundays, or legal holidays, shall be performed without additional expense to the Owner.

6) CONTRACTOR'S TITLE TO MATERIALS:

No materials or supplies for the work shall be purchased by the Contractor or by any Subcontractor subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller. The Contractor warrants that he has good title to all materials and supplies used by him in the work, free from all liens, claims or encumbrances.

7) INSPECTION AND TESTING OF MATERIALS:

Unless otherwise specifically provided for in the specifications, the inspection and testing of material and finished articles to be incorporated in the work at the site shall be made by bureaus, laboratories, or agencies approved by the Owner. The cost of such inspection and testing shall be paid by the Contractor.

- A) Certification by Contractor: Where the detailed specifications call for certified copies of mill or shop tests to establish conformance of certain materials with the specifications, it shall be the responsibility of the Contractor to assure delivery of such certifications to the Owner. No materials or finished articles shall be incorporated in the work until such materials and finished articles have passed the required tests. The Contractor shall promptly segregate and remove rejected material and finished articles from the site of the work.
- B) Guaranty: The testing and approval of materials by the laboratory, or laboratories, shall not relieve the Contractor of any of his obligations to fulfill his contract and guarantee of workmanship and materials as called for in paragraph entitled "General Warranty for One Year After Completion of Contract" herein. The Contractor may, at his option and at his own expense, cause such other tests to be conducted as he may deem necessary to assure suitability, strength, and durability of any material or finished article.

8) "OR EQUAL" CLAUSE:

The phrase "or equal" shall be construed to mean that material or equipment will be acceptable only when, in the judgment of the Engineer, they are composed of parts of equal quality, or equal workmanship and finish, designed and constructed to perform or accomplish the desired result as efficiently as the indicated brand, pattern, grade, class, make or model. Written approval will be obtained from the Engineer prior to installation.

9) PATENTS:

The Contractor shall hold and save the Owner and its officers, agents, servants, al).d employees harmless from liability of any nature or kind, including cost and expenses for, or on account of, any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the contract, including its use by the Owner, unless otherwise specifically stipulated in the Contract documents. If the Contractor uses any design, device or materials covered by letter, patent, or copyright, he shall provide for such use by suitable agreement with the Owner of such patented or copyrighted design, device or material. It is mutually agreed and understood that, without exception, the contract prices shall include all royalties or costs arising from the use of such design, device or materials, in any way involved in the work. The Contractor and/or his sureties shall indemnify and save harmless the Owner of the project from any and all claims for infringements by reason of the use of such patented or copyrighted design, device or materials or any trademark or copyright in connection with work agreed to be performed under this contract, and shall indemnify the Owner for any cost, expense or damage which it may be obliged to pay by reason of such infringement at any time during the prosecution of the work or after completion of the work.

10) SURVEYS, LAWS AND REGULATIONS:

The Contractor shall keep himself fully informed of all laws, ordinances and regulations of State, City and County in any manner affecting those engaged or employed in the work, or the materials used in the work, or in any way affecting the conduct of the work, and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over same. If any discrepancy or inconsistency should be discovered in this contract, or in the drawings or specifications herein referred to, in relation to any such law, ordinance, regulation, order or decree, he shall forthwith report the same in writing to the Owner. He shall at all times himself observe and comply with all such existing and future laws, ordinances and regulations, (to the extent that such requirements do not conflict with Federal laws or regulations) and shall protect and indemnify the Owner and its agents against any claims or liability arising from or based on the violation of any such law, ordinance, regulations, order or decree, whether by himself or by his employees.

11) CONTRACTOR'S OBLIGATIONS:

The Contractor shall, in good workmanlike manner, so and perform all work and furnish all supplies and materials, machinery, equipment, facilities and means, except as herein otherwise expressly specified, necessary or proper to perform and complete all the work required by this contract, within the time herein specified, in accordance with provisions of this contract and said specifications, and in accordance with the plans and drawings covered by this contract and any and all supplemental plans and drawings and in accordance with the directions of the Engineer as given from time to time during the progress of the work. He shall furnish, erect, maintain and remove such construction plant and such temporary works as may be required. The contractor shall observe, comply with, and be subject to all terms, conditions,

requirements and limitations of the contract and specifications, and shall do, carry on and complete the entire work to the satisfaction of the Engineer and the Owner.

12) WEATHER CONDITIONS:

In the event of temporary suspension of work or during inclement weather, or whenever the Engineer shall direct, the Contractor will, and will cause his subcontractors to, protect carefully his and their work and materials against damage or injury from the weather. If, in the opinion of the Engineer, any work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or any of his Subcontractors to so protect its work, such materials shall be removed and replaced at the expense of the Contractor.

13) PROTECTION OF WORK AND PROPERTY, EMERGENCY:

The Contractor shall at all times safely guard the Owner's property from injury or loss in connection with this contract. He shall at all times safely guard and protect his own work and that of adjacent property from damage. The Contractor shall replace or make good any such damage, loss or injury unless such be caused directly by errors contained in the contract or by the Owner or by his duly authorized representatives. In case of emergency which threatens loss or injury of property and/or safety of life, the Contractor will be allowed to act, without previous instructions from the Engineer, in a diligent manner. He shall notify the Engineer immediately thereafter. Any claim for compensation by the Contractor due to such extra work shall be promptly submitted to the Engineer for approval. Where the Contractor has not taken action but has notified the Engineer of an emergency threatening injury to persons or damage to the work or any adjoining property, he shall act as instructed or authorized by the Engineer. The amount of reimbursement claimed by the Contractor on account of any emergency action shall be determined in the manner provided in paragraph entitled "Changes in Work" of these specifications.

14) INTERPRETATIONS:

If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of these proposed contract documents, he may submit to the Engineer a written request for an interpretation thereof. The person submitting the request will be responsible for its prompt and actual delivery. Any interpretation of such documents will be made only by addendum duly issued, and a copy of such addendum will be mailed or delivered to each person receiving a set of such documents. The Owner will not be responsible for any other explanation or interpretation of such documents which anyone presumes to make on behalf of the Owner before expiration of the ultimate time set for the receipt of bids.

15) REPORTS, RECORDS AND DATA:

The Contractor shall submit to the Owner such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data as the Owner may request concerning work performed or to be performed under this contract.

16) SUPERINTENDENCE BY CONTRACTOR:

The Contractor shall employ only competent and skilled men on the work. The contractor shall have a competent Superintendent or Foreman present at all times when the work is in progress, who shall have full authority to act for the Contractor. It is understood that such representative

shall be acceptable to the Engineer and shall be one who can be continued in that capacity for the particular job involved unless he ceases to be on the Contractor's payroll. The Contractor shall, upon demand from the Engineer, immediately remove any Superintendent, Foreman or workman whom the Engineer may consider incompetent or undesirable.

17) CHANGES IN WORK:

No changes in the work covered by the approved contract documents shall be made without having prior written approval of the Owner. Charges or credits for the work covered by the approved change shall be determined by one or more, or a combination of, the following methods:

- A) Unit bid prices previously approved
- B) An agreed lump sum
- C) The actual cost of:
  - 1) Labor, including foreman
  - 2) Materials entering permanently into the work
  - 3) The ownership or rental cost of construction plant and equipment during the time of use on the extra work
  - 4) Power and consumable supplies for the operation of power equipment
  - 5) Insurance
  - 6) Social security and old age and unemployment contributions

18) EXTRAS:

Without invalidating the contract, the Owner may order extra work or make changes by altering, adding to or deducting from the work, the contract sum being adjusted accordingly, and the consent of the surety being first obtained where necessary or desirable. All the work of the kind bid upon shall be paid for at the price stipulated in the proposal, and no claims for any extra work or materials shall be allowed unless the work is ordered in writing by the Owner, or the Engineer acting officially for the Owner, and the price is stated in such order. Extra work shall be performed only upon the execution of authorized change orders as set forth in the preceding paragraph.

19) TIME FOR COMPLETION AND LIQUIDATED DAMAGES:

It is hereby understood and mutually agreed by and between the Contractor and the Owner that the date of beginning and the time for completion as specified in the contract of the work to be done hereunder are essential conditions of this contract; and it is further mutually understood and agreed that the work embraced in this contract shall be commenced on a date to be specified in the Notice to Proceed.

- A) Regular Prosecution of Work: The Contractor agrees that said work shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and the Owner, that the time for completion of the work described herein is a reasonable time for completion of same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.
- B) Liquidated Damages: If the Contractor shall neglect, fail, or refuse to complete the work within the time herein specified, or any proper extensions thereof granted by the Owner, then the Contractor does hereby agree, as a part consideration for the awarding of this contract, to pay to the Owner the amount specified in the contract not as a penalty but as

liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the Contractor shall be in default after the time stipulated in the contract for completing the work. The said amount is fixed and agreed upon by and between the Contractor and the Owner because of the impracticality and extreme difficulty of fixing and ascertaining the actual damages the Owner would in such event sustain, and said amount is agreed to be in the amount of damages which the Owner would sustain and said amount shall be retained from time to time by the Owner from current periodical estimates.

- C) Extension of Time for Completion: It is further agreed that time is of the essence of each and every portion of this contract and of the specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the contract an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this contract. Provided, that the Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due:
- a) To any preference, priority or allocation order duly issued by the Government
  - b) To unforeseeable cause beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God, or of the public enemy, acts of the Owner, acts of another contractor in the performance of a contract with the Owner; fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather; and
  - c) To any delays of subcontractors or suppliers occasioned by any of the causes specified in subsections 1 and 2 of this article.

Provided, further, that the Contractor shall, within seven (7) days from the beginning of such delay, unless the Owner shall grant a further period of time prior to the date of final settlement of the contract, notify the Owner in writing of the causes of delay, who shall ascertain the facts and extent of delay and notify the Contractor within a reasonable time of its decision in the matter, and grant such extension of time as the Owner shall deem suitable and just.

Agreed upon delays shall be recorded at an agreement number every thirty (30) days of contract time and/or each pay-application. The written notice shall include days of delay accrued along with an updated contract completion date. If delays are not reported with five (5) days of the notice requirement it is assumed that the prior thirty (30) day period did not have any delays in it.

20) CORRECTION OF WORK:

All work, all materials, whether incorporated in the work or not, all processes of manufacture, and all methods of construction, shall be at all times and places subject to the inspection of the Engineer, who shall be the final judge of the quality and suitability of the work, materials, processes of manufacture, and methods of construction of the purposes for which they are used. Should they fail to meet his approval, they shall be forthwith reconstructed, made good, replaced and/or corrected, as the case may be, by the Contractor at his own expense. Rejected material shall immediately be removed from the site. If, in the opinion of the Engineer, it is undesirable to replace any non-conforming defective OR damaged materials or to reconstruct or correct any portion of the work injured or not performed in accordance with the contract documents, the compensation to be paid to the Contractor hereunder shall be reduced by such amount as, in the judgment of the Engineer, shall be equitable.

21) SUBSURFACE CONDITIONS FOUND DIFFERENT:

Should the Contractor encounter subsurface and/or latent conditions at the site materially differing from those shown on the plans or indicated in the specifications, he shall immediately give notice to the Engineer of such conditions before they are disturbed. The Engineer will thereupon promptly investigate the conditions, and if he finds that they materially differ from those shown on the plans or indicated in the specifications, he will at once make such changes in the plans and/or specifications as he may find necessary; any increase or decrease of cost resulting from such changes to be adjusted in the manner provided in paragraph 17 of these specifications. Where no specific subsurface conditions are indicated or specified, no increase in cost will be considered in regards to subsurface conditions encountered.

22) CLAIMS FOR EXTRA COSTS:

No claim for extra work or cost shall be allowed unless the same was done in pursuance of a written order of the Engineer, as aforesaid, and the claim presented with the first estimate after the changed or extra work is done. When work is performed under the terms of subparagraph 17C of these specifications, the Contractor shall furnish satisfactory bills, payrolls and vouchers covering all items of cost and when requested by the Owner, give the Owner access to accounts relating thereto.

23) RIGHT OF OWNER TO TERMINATE CONTRACT:

In the event that any of the provisions of this contract are violated by the Contractor or by any of his subcontractors, the Owner may serve written notice upon the Contractor and the surety of its intention to terminate the contract, such notices to contain the reasons for such intention to terminate the contract, and unless within 10 days after the serving of such notice upon the Contractor, such violation or delay shall cease and satisfactory arrangement or correction be made, the contract shall, upon the expiration of said 10 days, cease and terminate. In the event of any such termination, the Owner shall immediately serve notice thereof upon the surety and the Contractor, and the surety shall have the right to take over and perform the contract; provided, however, that if the surety does not commence performance thereof within 10 days from the date of the mailing to such surety of notice of termination, the Owner may take over the work and prosecute same to completion by contract or by force account for the account and at the expense of the Contractor, and the Contractor and his surety shall be liable to the Owner for any excess cost occasioned the Owner thereby, and in such event the Owner may take possession of and utilize in completing the work such materials, appliances and plant as may be on the site of the work and necessary therefore. If the Contractor should die, be declared an incompetent, be declared bankrupt or insolvent, make an assignment for the benefit of creditors during the term of his contract, the Owner may terminate the contract in the manner and under the procedure set forth above with the exception that no notices to the Contractor shall be required, but in lieu thereof the Owner must make a reasonable effort to notify the estate of the Contractor, his guardian, assignee, or legal representative of the intention to terminate and fact of termination, if there is any such guardian, assignee, or legal representative at the time the Owner desires to terminate.

24) CONSTRUCTION SCHEDULE AND PERIODIC ESTIMATES:

Immediately after execution and delivery of the contract and before the first partial payment is made, the Contractor shall deliver to the Owner an estimated construction progress schedule in form satisfactory to the Owner, showing the proposed dates of commencement and completion



of each of the various subdivisions of work required under the contract documents and the anticipated amount of each monthly payment that will become due the Contractor in accordance with the progress schedule.

- A) Contractor's Estimate: The contractor shall also furnish
  - a) A detailed estimate, giving a complete breakdown of the contract price; and
  - b) Periodic itemized estimates of work done for the purpose of making partial payments thereon. The costs employed in making up any of these schedules will be used only for determining the basis of partial payments and will not be considered as fixing a basis for addition to or deductions from the contract price
- B) Equipment Delivery Schedule: The Contractor shall also prepare a schedule of anticipated shipping dates for materials and equipment. It is intended that equipment and materials be so scheduled as to arrive at the job site just prior to time for installation to prevent excessive materials on hand for inventory and the necessity for extensive storage facilities at the job site.

25) PAYMENTS TO CONTRACTOR:

Payments to the contractor shall be made according to the following:

- A) Not later than the 15th day of each calendar month or as specified in the Supplemental General Conditions, Section 01001, the Owner shall make a progress payment to the contractor on the basis of a duly certified approved estimate of the work performed during the preceding calendar month under this contract, but to insure the proper performance of this contract, the Owner will retain a portion of each estimate until final completion and acceptance of all work covered by this contract in accordance with the following:
  - a) Retention of up to 10% of payment claimed until construction is complete, or as follows;
  - b) The owner may retain over ten (10%) percent retainage if the owner determines, at its discretion, that the contractor is not making satisfactory progress or there is other specific cause for such retainage.
- B) In preparing estimates, the material delivered on the site and preparatory work done may be taken into consideration.
- C) All material and work covered by partial payments shall thereupon become the sole property of the Owner, but this provision shall not be construed as relieving the Contractor from the sole responsibility for the care and protection of materials and work upon which payments have been made or the restoration of any damaged work, or as a waiver of the right of the Owner to require the fulfillment of all the terms of the contract.
- D) Owner's Right to Withhold Certain Amounts and Make Application Thereof: The Contractor agrees that he will indemnify and save the Owner harmless from all claims growing out of the lawful demands of subcontractors, laborers, workmen, mechanics, material, men, and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in the furtherance of the performance of this contract. The Contractor shall, at the Owner's request, furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged, or waived. If the Contractor fails so to do, then the Owner may, after having served written notice on the Contractor, either pay unpaid bills, of which the Owner has written notice, direct, or withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the Contractor shall be resumed in accordance with the terms of this contract, but in no event shall the provisions of this sentence be construed to impose any obligations upon the

Owner to either the Contractor or his surety. In paying any unpaid bills of the Contractor, the Owner shall be deemed the agent of the Contractor, and any payment so made by the Owner shall be considered as a payment made under the contract by the Owner to the Contractor, and the Owner shall not be liable to the Contractor for any such payment made in good faith.

26) ACCEPTANCE OF WORK AND FINAL PAYMENT:

Before final acceptance of the work and payment to the Contractor of the percentage retained by the Owner, the following requirements shall be complied with:

- A) Final Inspection: Upon notice from the Contractor that his work is completed, the Engineer will make a final inspection of the work and shall notify the Contractor of all instances where his work fails to comply with the contract drawings and specifications, as well as any defects he may discover. The Contractor shall immediately make such alterations as are necessary to make the work comply with the contract drawings and specifications, and to the satisfaction of the Engineer.
- B) Operating Test: After the alterations for compliance with the contract drawings and specifications have been made, and before acceptance of the whole or any part of the work, it shall be subjected to test to determine that it is in accordance with the contract drawings and specifications. The Contractor shall maintain all work in first-class condition for a thirty (30) day operating period after the work has been completed as a whole, the final inspection has been made, and the Engineer has notified the Contractor in writing that the work has been finished to his satisfaction. The retained percentage as provided herein will not become due or payable to the Contractor until after the thirty (30) day operating period has expired.
- C) Cleaning Up: Before the work is considered as complete, all rubbish and unused material due to or connected with the construction must be removed and the premises left in a condition satisfactory to the Owner. Streets, curbs, crosswalks, pavements, sidewalks, fences and other public and private property disturbed or damaged should be restored to their former condition. Final acceptance will be withheld until such work is finished.
- D) Liens: Final acceptance of the work will not be granted and the retained percentage will not be due or payable until the Contractor has furnished the Owner proper and satisfactory evidence under oath that all claims for labor and material employed or used in the construction of the work under this contract have been settled, and that no legal claims can be filed against the Owner for such labor or material.
- E) Final Estimate: Upon completion of all cleaning up, alternations and repairs required by the final inspection or operating test, the satisfactory completion of the operating test, and upon submitting proper and satisfactory evidence to the Owner that all claims have been settled, the Contractor shall then prepare his final estimate. After review and approval of the final estimate by the Engineer and the Owner, the payment shall then become due.

27) ACCEPTANCE OF FINAL PAYMENT AS RELEASE:

The acceptance by the Contractor of final payment shall be and shall operate as a release to the Owner of all claims and all liability to the Contractor for all things done or furnished in connection with this work and for every act and neglect of the Owner and others relating to or arising out of this work. No payment, final or otherwise, shall operate to release the Contractor or his sureties from any obligations under this contract or the performance and payment bond.

28) PAYMENTS BY CONTRACTOR:

The contractor shall pay:

- A) For all transportation and utility services not later than the 20th day of the calendar month following that in which services are rendered
- B) For all materials, tools, and other expendable equipment to the extent of ninety (90) percent of the cost thereof not later than the 20th day of the calendar month following that in which such materials, tools, and equipment are delivered at the site of the project, and the balance of the cost thereof not later than the 30th day following completion of that part of the work in or on which such materials, tools, and equipment are incorporated or used; and
- C) To each of his subcontractors not later than the 5th day following each payment to the Contractor, the respective amounts allowed the Contractor on account of the work performed by his subcontractors to the extent of each subcontractor's interest therein.

29) INSURANCE:

The Contractor shall procure and shall maintain during the life of this contract, whether such operation be by himself or by a subcontractor or anyone directly or indirectly employed by either of them, such insurance as required by statute and/or ordinance to adequately protect the Owner from any claims or damages, including bodily injury or death, which may arise from them during operations under this contract.

- A) Limits of Liability: Insurance shall be obtained for not less than the limits of liability as specified in Section 01001 entitled Supplemental General Conditions.
- B) Certificates of Insurance: The contractor shall furnish the Owner, if requested, certificates showing the type, amount, class of operations covered, effective dates and dates of expiration of the policies. Such certificates shall contain substantially the following statement: "The insurance covered by this certificate will not be cancelled or materially altered except after 10 days written notice has been received by the Owner.

30) CONTRACT SECURITY:

The Contractor shall furnish a 100 percent performance bond and a 100 percent payment bond as security for the faithful performance of this contract, as security for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with this contract. The performance bond and payment bond shall be in separate instruments. Before the final acceptance, each bond must be approved by the Owner.

31) ASSIGNMENTS:

The Contractor shall not assign the whole or any part of this contract or any moneys due or to become due hereunder without written consent of the Owner. In case the Contractor assigns all or any part of any moneys due or to become due under this contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any moneys due or to become due to the Contractor shall be subject to prior claims of all persons, firms and corporations for services rendered or materials supplied for the performance of the work called for in this contract.

32) MUTUAL RESPONSIBILITY OF CONTRACTORS:

If through acts of neglect on the part of the Contractor, any other contractor or any subcontractor shall suffer loss or damage on the work, the Contractor agrees to settle with such other contractor or subcontractor by agreement or arbitration. If such other contractor or subcontractor

shall assert any claim against the Owner on account of any damage alleged to have been sustained, the Owner shall notify the Contractor, who shall indemnify and save harmless the Owner against any such claim.

33) SEPARATE CONTRACTS:

The Contractor shall coordinate his operations with those of other contractors. Cooperation will be required in the arrangement for the storage of materials and in the detailed execution of the work. The contractor, including his subcontractor, shall keep informed of the progress and the detail work of other contractors and shall notify the Engineer immediately of lack of progress or defective workmanship on the part of other contractors. Failure of a contractor to keep informed of the work progressing on the site and failure to give notice of lack of progress or defective workmanship by others shall be construed as acceptance by him of the status of the work as being satisfactory for proper coordination with his own work.

34) SUBCONTRACTING:

Subcontracting shall comply with the following:

- A) The Contractor may utilize the services of specialty contractors on those part of the work which under normal contracting practices are performed by specialty subcontractors.
- B) The contractor shall not award any work to any subcontractor without prior written approval of the Owner, which approval will not be given until the Contractor submits to the Owner a written statement concerning the proposed award to the subcontractor, which statement shall contain such information as the Owner may require.
- C) The Contractor shall be as fully responsible to the Owner for the acts and omissions of his subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons employed by him.
- D) The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and other contract documents insofar as applicable to the work of subcontractors and to give the Contractor the same power as regards terminating any subcontract that the Owner may exercise over the Contractor under any provisions of the contract documents.
- E) Nothing contained in this contract shall create any contractual relation between any subcontractor and the Owner.

35) ENGINEER'S AUTHORITY:

The Engineer shall determine the amount, quality, acceptability and fitness of the several kinds of work and materials which are to be paid for under this contract and shall decide all questions which may arise in relation to said work and the construction thereof. The Engineer's estimates and decisions shall be final and conclusive, except as herein otherwise expressly provided. In case any questions shall arise between the parties hereto relative to said contract or specifications, the determination or decision of the Engineer shall be a condition precedent to the right of the Contractor to receive any money or payment for work under this contract affected in any manner or to any extent by such question.

Interpretation of Drawings and Specifications: The engineer shall decide the meaning and intent of any portion of the specifications and of any plans or drawings where the same may be found

obscure or be in dispute. Any differences or conflicts in regard to their work which may arise between the Contractor under this contract and other contractors performing work for the Owner shall be adjusted and determined by the Engineer.

36) STATED ALLOWANCES:

Not applicable.

37) USE OF PREMISES AND REMOVAL OF DEBRIS:

The Contractor expressly undertakes at his own expense:

- A) To take every precaution against injuries to persons or damage to property.
- B) To store his apparatus, materials, supplies and equipment in such orderly fashion at the site of the work as will not unduly interfere with the progress of his work or the work of any other contractors.
- C) To place upon the work or any part thereof only such loads as are consistent with the safety of that portion of the work.
- D) To clean up frequently all refuse, rubbish, scrap materials, and debris caused by his operations, to the end that at all times the site of the work shall present a neat, orderly and workmanlike appearance.
- E) Before final payment to remove all surplus material, falsework, temporary structures, including foundations thereof, plant of any description and debris of every nature resulting from his operations, and to put the site in a neat, orderly condition.
- F) To effect all cutting, fitting or patching of his work required to make the same conform to the plans and specifications, and, except with the consent of the Engineer, not to cut or otherwise alter the work of any other contractor.

38) QUANTITIES OF ESTIMATE:

The estimated quantities of work to be done and materials to be furnished under this contract, shown in any of the documents, including the proposal, are given for use in comparing bids, and the right is especially reserved except as herein otherwise specifically limited, to increase or diminish them as may be deemed reasonably necessary or desirable by the Owner to complete the work contemplated by this contract, and such increase or diminution shall in no way vitiate this contract, nor shall any such increase or diminution give cause for claims or liability for damages.

39) RIGHTS-OF-WAY AND SUSPENSION OF WORK:

The Owner shall furnish all land and rights-of-way necessary for the carrying out of this contract and the completion of the work herein contemplated, and will use due diligence in acquiring said land and right-of-way as speedily as possible. But it is possible that all lands and right-of-way may not be obtained as herein contemplated before construction begins, in which event the Contractor shall begin his work upon such land and right-of way as the Owner may have previously acquired, and no claim for damages whatsoever will be allowed by reason of the delay in obtaining the remaining lands and right-of-way.

Should the Owner be prevented or enjoined from proceeding with the work or from authorizing its prosecution, either before or after the commencement, by reason of any litigation or by reason of its ability to procure any lands or rights-of-way for said work, the Contractor shall not

be entitled to make or assert claim for damage by reason of said delay or to withdraw from the contract except by consent of the Owner; but time for completion of the work will be extended to such time as the Owner determines will compensate for the time lost by such delay, such determination to be set forth in writing.

40) GENERAL WARRANTY FOR ONE YEAR AFTER COMPLETION OF CONTRACT:

For a period of at least one year after the completion of the contract, the Contractor warrants the fitness and soundness of all work done and materials and equipment put in place under the contract, and neither the final certificate of payment nor any provision in the Contract Documents nor partial or entire occupancy of the premises by the Owner shall constitute an acceptance of work not done in accordance with the Contract Documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The contractor shall remedy any defect in the work and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from the date of final acceptance of the work, unless a longer period is specified. The Owner will give notice of observed defects with reasonable promptness.

41) NOTICE AND SERVICE THEREOF:

Any notice to any Contractor from the Owner relative to any part of this contract shall be in writing and considered delivered and the service thereof completed, when said notice is posted by registered mail to said Contractor or his authorized representative on the work, or is deposited in the regular United States Mail in a sealed, postage prepaid envelope and the receipt thereof is acknowledged by the Contractor.

42) REQUIRED PROVISIONS DEEMED INSERTED:

Each and every provision of law and clause required by law to be inserted in this contract shall be deemed to be inserted herein, and the contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted or is not correctly inserted, then upon the application of either party the contract shall forthwith be physically amended to make such insertion or correction.

43) PROTECTION OF LIVES AND HEALTH:

In order to protect the lives and health of his employees under the contract, the Contractor shall comply with all pertinent provisions of the "Manual of Accident Prevention in Construction" issued by the Associated General Contractors of America, Inc., and shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under the contract. The Contractor alone shall be responsible for the safety, efficiency and adequacy of his plant, appliances and methods, and for any damage which may result from their failure or their improper construction, maintenance or operation.

44) WAGES AND OVERTIME COMPENSATION:

The Contractor and each of his subcontractors shall comply with all applicable State and local laws or ordinances with respect to the hours worked by laborers and mechanics engaged in work on the project and with respect to compensation for overtime.

45) PROHIBITED INTERESTS:

No official of the Owner, who is authorized in such capacity and on behalf of the Owner to negotiate, make, accept or approve or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspection, construction, or material supply contract or any subcontract in connection with the construction of the project, shall become directly or indirectly interested personally in this contract or in any part hereof. No officer, employee, architect, attorney, engineer, or inspector of or for the Owner, who is authorized in such capacity and on behalf of the Owner to exercise any legislative, executive, supervisory or other similar functions in connection with the construction of the project shall become directly or indirectly interested personally in this contract or in any part hereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the project.

46) CONFLICTING CONDITIONS:

Any provision in any of the Contract Documents which may be in conflict or inconsistent with any of the paragraphs in these General Conditions shall be void to the extent of such conflict or inconsistency.

47) PUBLIC CONVENIENCE AND PROTECTION:

The convenience and protection of the public must be provided for at all times during progress of the work. The Contractor shall be solely responsible to protect others and work from harm, conduct the work in such a manner as to insure the least practicable obstruction to the public and residents near and adjacent to the area of work. Roads and streets shall be kept open at all times or suitable detours provided. When it becomes necessary to close streets, suitable signs and barricades shall be placed adjacent to the work in proper locations and the Owner, Engineer, law enforcement agencies, fire departments, and all parties operating emergency vehicle shall be notified before the street is closed and again as it is reopened. All closed streets shall be opened at the end of each working day. Access to fire hydrants and other firefighting equipment shall be maintained at all times.

When necessary, the Contractor shall provide watchmen and lights to burn between twilight and sunrise and shall place and maintain barriers to protect the work and other from harm or damage. The Contractor shall take all necessary steps to protect life, limb and property. The Owner reserves the right to remedy any neglect on the part of the Contractor in connection with any unsafe practice or protection of work after 24 hours notice in writing and, in cases of emergency, the Owner shall have the right to remedy any neglect without previous notice. All costs incurred by the Owner in remedying neglect on the part of the Contractor shall be deducted from money due the Contractor.

**END OF SECTION**

SECTION 01001

**SUPPLEMENTAL GENERAL CONDITIONS**

1) **ENUMERATION OF PLANS, SPECIFICATIONS AND ADDENDA:**

The plans, specifications and addenda which form a part of this contract as set forth in Paragraph 1 of the General Conditions, Contract and Contract Documents are enumerated in the Table of Contents.

2) **CONTRACTOR'S AND SUBCONTRACTOR'S INSURANCE:**

As required under Paragraph 29 of the General Conditions, the Contractor shall not commence work under this contract until he has obtained all the insurance required under this paragraph and such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work on his subcontract until all similar insurance required of the subcontractor has been so obtained and approved.

- A) **Special Hazards:** The Contractor's and his Subcontractor's Public Liability and Property Damage Insurance shall provide adequate protection against use of explosives, collapse, and underground hazards.
- B) **Compensation Insurances:** The Contractor shall procure and shall maintain during the life of this contract Workmen's Compensation Insurance. In case any such work is sublet, the Contractor shall require the Subcontractor similarly to provide Workmen's Compensation. Insurance for all of the latter's employees to be engaged in such work unless such employees are covered by the protection afforded by the Contractor's Workmen's Compensation Insurance. In case any class of employees engaged in hazardous work on the project under this contract is not protected under the Workmen's Compensation Statute, the Contractor shall provide and shall cause such subcontractor to provide a Workmen's Compensation
- C) **Comprehensive General Liability Insurance:** The Contractor shall take out and maintain during the life of the contract such comprehensive general liability insurance as shall protect him and any subcontractor performing work covered by this Contract from claims for damage for personal injury, including accidental death, as well as from claims for property damage, which may arise from operations under this contract whether such operations are by himself or by any subcontractor or by anyone directly or indirectly employed by either of them. The amount of such insurance shall be as follows:
  - a) Bodily Injury and Personal Injury in an amount not less than \$500,000 per occurrence, and subject to a limit of not less than \$1,000,000 during a period of twelve months.
  - b) Property Damage Insurance in an amount not less than \$500,000 for anyone damage claim, and in an aggregate amount up to \$1,000,000 during a twelve month period.

3) **COMPREHENSIVE AUTOMOBILE LIABILITY INSURANCE:**

- A) For bodily injury, including accidental death to anyone person, in an amount not less than \$200,000 and with a limit of not less than \$500,000 on account of one accident.
- B) For property damage in an amount not less than \$150,000 per accident.

4) **BROAD FORM BLANKET CONTRACTUAL LIABILITY INSURANCE:**



- A) For bodily injury in an amount not less than \$500,000 per occurrence and not less than \$ 1,000,000 during a period of twelve months.
- B) For property damage in an amount not less than \$150,000 per occurrence and not less than \$300,000 during a period of twelve months.
- C) The Contractor shall indemnify the Owner and the Engineer as follows:
  - a) The Contractor will indemnify and hold harmless the Owner and the Engineer and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the work, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, or taking of property, including the loss of use resulting there from; and is caused in whole or part by any negligent or willful act or omission of the Contractor and Subcontractor, anyone directly or indirectly employed by any of them or anyone of whose acts any of them may be liable
  - b) In any and all claims against the Owner or the Engineer, or any of their agents or employees, by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount of type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under workmen's compensation acts, disability benefit acts or other employee benefits acts.
  - c) The obligation of the Contractor under this paragraph shall not extend to the liability of the Engineer, his agents or employees arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications.
  - d) Owner's Protective Liability Insurance: Issued in the name of the Owner for liability and property damage under 3 (a) and 3 (b) above, in the same amounts as stipulated for the Contractor.
  - e) "All Risks" Builders Risk Insurance: For the full contract value of the insurable portions of the Work.
  - f) Flood Insurance: The Contractor is required to carry flood insurance for projects located in designated flood hazard areas in which Federal Flood Insurance is available.
  - g) Proof of Coverage of Insurance: The Contractor shall furnish the Owner with a certificate showing satisfactory proof of carriage of the insurance required prior to commencing work on his contract.
  - h) Scope of Insurance: The insurance required under subparagraphs 2,3,4,5, and 7 hereof shall provide adequate protection for the Contractor and his Subcontractors, respectively, as well as the Owner, against damage claims which may arise from operations under this Contract, whether such operations be by the insured or by anyone directly or indirectly employed by him.

5) ABBREVIATIONS AND DEFINITIONS:

- A) Abbreviations used in these SPECIFICATIONS refer to the following:
  - a) OWNER: CITY OF CLEMSON
  - b) ENGINEER: CITY OF CLEMSON

B) Definitions: Wherever in the specifications or upon the drawings the words "directed", "required", "permitted", "ordered", "designated", "prescribed", or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation or prescription of the Owner is intended; and similarly, the words "approved", "acceptable", "satisfactory", or words of like import shall mean approved by, or acceptable to, or satisfactory to the Owner, unless otherwise expressly stated.

6) PHOTOGRAPHS OF PROJECT:

The Owner will photograph all rights-of-ways after awarding the project.

7) SCHEDULE OF OCCUPATIONAL CLASSIFICATIONS AND MINIMUM HOURLY WAGE RATES:

All Wage Rates shall comply with the Davis Bacon and/or the Service Contract Act (SCA) wage determinations from SAM.gov

8) NOTICE AND SERVICER THEREOF:

All papers required to be delivered to the Owner shall, unless otherwise specified in writing to the Contractor, be delivered to the Owner's representative as indicated below, and any notice to or demand upon the Owner shall be sufficiently given if delivered to the office of said representative, or if deposited in the United States Mail, in a sealed postage prepaid envelope, or delivered with charges prepaid to any telegraph company for transmission, in each case addressed to the Owner's representative as indicated below, or to such other representative of the Owner, or to such other address as the Owner may subsequently specify in writing to the Contractor for such purposes. The Owner's representative is as follows:

Mr. Nathan Hinkle  
City of Clemson  
1250 Tiger Boulevard, Suite 5  
Clemson, SC 29631

9) CORRELATION OF PLANS AND SPECIFICATIONS:

The contract, plans and specifications are to be interpreted as mutually explanatory or supplementary, and therefore any features shown in one and not in the other shall have the same force and effect as if shown by both, and shall be fully executed. Prior to execution of the work, the Contractor shall check all drawings and specifications, and shall immediately report to claimsthe Engineer all errors, discrepancies, conflicts and omissions discovered therein. All such errors, discrepancies, conflicts and omissions will be adjusted by the Engineer, by the Engineer, and adjustment by the Contractor without prior approval shall be at his own risk. The settlement of any complications arising from such adjustments shall be made by the Contractor at his own expense and to the satisfaction of the Owner.

10) OWNERSHIP OF DRAWINGS:

A) All drawings, specifications and memoranda relating to the work are the property of the Owner and are to be carefully used and returned to the Owner upon completion or cessation of the work from any cause.

- B) Contract Documents to be Furnished: Three (3) sets of specifications and plans will be furnished the Contractor without charge. Additional sets can be secured from the Engineer upon request at cost of reproduction. The Contractor shall have available on the project site at all times one (1) copy of each of said plans and specifications.

11) ORDER OF WORK:

The prosecution, order or sequence of the work shall be as approved by the Engineer, which approval, however, shall in no way affect the responsibility of the Contractor.

12) PHYSICAL DATA:

The drawings, which accompany and form a part of the contract, have been prepared on the basis of surveys and inspections of the site, and are intended to present an essentially accurate indication of the physical conditions at the site. However, this shall not relieve the Contractor of the necessity for familiarizing himself with physical conditions at the site, and any discrepancies found in the drawings shall not be grounds for claims by the Contractor against the Owner, or for non-performance of work specifically provided for under the Contract.

13) ORGANIZATION, PLANT AND PROGRESS:

The following is supplemental to Paragraph 16 of the General Conditions:

- A) The Contractor shall give his personal superintendence to the work, or shall have a competent superintendent with authority to act for him, to the satisfaction of the Engineer, on the job at all times during the progress of the work.
- B) The Contractor shall employ an ample force of properly experienced men and provide construction plant properly adapted to the work and of sufficient capacity and efficiency to accomplish the work in a safe and workmanlike manner at a rate of progress satisfactory to the Owner. All plants shall be maintained in good working order and provision shall be made for immediate emergency repairs. No reduction in the capacity of the plant employed on the work shall be made except by written permission of the Owner. The measure of the capacity of the plant shall be its actual performance on the work to which these specifications apply. Award of this contract shall not be construed as a guaranty by the Owner listed by the Contractor for use on this contract is adequate for the performance of the work.
- C) Should the Contractor fail to maintain a rate of progress which, in the opinion of the Owner, will complete work within the time limit specified, the Owner may require that additional men working, if necessary, during additional periods or shifts, or additional plant, or both, be placed on the work; or a reorganization of plant layout be effected in order that the progress of the work be brought up to schedule and so maintained. Should the Contractor refuse or neglect so to increase the number of men, working period, or plant, or to reorganize the plant layout in the manner satisfactory to the Owner, the latter may proceed under the provisions of the Contract to rectify the conditions.

14) SUPERVISION AND INSPECTION:

- A) The Owner shall require inspection by the Engineer to insure that construction conforms with the approved plans and specifications. The work shall be conducted under the general direction of the Engineer and will be inspected periodically by inspectors appointed by him. The inspectors will keep a record of work done and see

that the location and limit marks are kept in proper order, but the presence of the inspectors shall not relieve the Contractor or his responsible agent of responsibility for the proper execution of the work.

- B) The Contractor will be required to furnish at his expense such labor, organization and materials which form a part of the ordinary and usual equipment and crew of the Contractor as may be reasonably necessary in inspecting and supervising the work. Should the Contractor refuse, neglect or delay compliance with this requirement, the specified facilities may be furnished and maintained by the Owner and the cost thereof will be deducted from any amounts due, or to become due, the Contractor. Except as specified in this paragraph, or otherwise provided for in these specifications, all expenses of supervision and inspection will be borne by the Contractor.
- C) It is understood that any instruction or decision given by the Engineer is to be considered the instruction or decision of the Owner, in all cases where, under the terms of this contract, decision rests with the Engineer.
- D) The work shall be entirely under the control of the Engineer and Owner, and he or his authorized representative shall have access to same at all times. The Engineer may require the Contractor to dismiss such employees as he deems to be incompetent or careless.

15) **STANDARD TESTS, QUALITY AND GUARANTEES:**

Standard tests, quality and guarantees shall comply with the following:

- A) All materials, supplies and parts and assemblies thereof, entering into the work to be performed under these specifications, shall be tested as specified herein or otherwise required, in conformity with the contract and according to the best modern approved methods for the particular type and class of work.
- B) Unless waived in writing by the Engineer, all tests and trials shall be made in the presence of duly authorized representative of the Engineer. When the presence of the inspector is so waived, sworn statements in duplicate of the tests made and results thereof shall be furnished to the Engineer by the Contractor as soon as possible after completion of tests.
- C) Unless otherwise authorized, directed or specified, where standard published specifications of recognized authorities and organizations are mentioned, the latest revision of such specification current at the time when the work is executed shall govern.
- D) All materials and equipment used in the construction of the project shall be subject to adequate inspection and testing in accordance with accepted standards. The laboratory or inspection agency shall be selected by the Owner. The Owner will pay for all laboratory inspection service as part of the contract.
- E) Materials of construction, particularly those upon which the strength and durability of the structure may depend, shall be subject to inspection and testing to establish conformance with specifications and suitability for uses intended.
- F) In accordance with the Contract, all materials, parts and equipment furnished and incorporated in the work shall be high grade, free from defects and imperfections, of recent manufacture and unused. Workmanship shall be of the highest grade and in accordance with the best modern standard practice.

16) **STANDARD PRODUCTS:**

All materials, supplied and articles furnished shall, wherever specified and otherwise wherever practicable, be the standard products of recognized, reputable manufacturers. The standard

products of manufacturers other than those specified will be accepted when it is proven to the satisfaction of the Engineer, in accordance with the Contract, that they are equal in strength, durability, usefulness and convenience for the purpose intended. Any changes required in the details and dimensions indicated on the drawings, or the substitution of standard products other than those provided for, shall be properly made as approved by the Engineer and at the expense of the Contractor.

17) WORK ON HIGHWAY RIGHT-OF-WAY:

The Contractor shall not begin work on any right-of-way of the State, County, or City Highway Department until all required permits have been secured and the Highway Department notified by the Contractor that work is beginning. The Contractor shall conform to all requirements of the respective highway department and shall be responsible for contacting all Highway Departments to determine all requirements for the work to be done.

The Contractor shall provide a full-time flagman at all times that work is in progress for the purpose of warning and directing traffic. Proper warning signs shall be placed at each end of the area while work is in progress and shall remain in place until completion of the work. The signs shall be maintained by the Contractor at all times and shall be placed at such distance from the work area so that sufficient warning is given to oncoming traffic. All signs shall be properly lighted at night and shall conform to the latest S.C. manual on traffic control devices for streets and highways (Latest edition).

All open cuts in highway rights-of-way shall be immediately backfilled and all work to repair pavement completed immediately. All pavement cuts are to be saw cut in a straight line. All ragged and broken edges of pavement are to be recut so as to provide a smooth and straight trench line prior to repaving. All damage to adjacent pavement caused by construction operations is to be repaired at the direction of and to the satisfaction of the respective highway departments have jurisdiction over the highway's rights-of-ways. This repair work shall be done by the Contractor at no additional cost to the Owner.

Excavation material shall not be placed on the pavement side of the trench excavation along highways. All loose dirt and debris shall be removed from the pavement at the end of each working day. All open ditches are to be filled at the end of each working day and properly barricaded to prevent damage to persons and vehicular traffic. Equipment shall not be placed on the shoulders or edges of the roads and highways during shutdown. All shoulders of roads and highways shall be left in good and acceptable condition and all disturbed topsoil and grass shall be replaced.

**END OF SECTION**

SECTION 01002

**UNDERGROUND DAMAGE PREVENTION**

SOUTH CAROLINA AREA

1) **GENERAL:**

For work in South Carolina, the "Underground Damage Prevention Act" shall be followed to avoid damage to existing underground utilities.

- A) At the beginning of the project, the City of Clemson shall provide the contractor with names of all underground utility owners in the project area.
- B) Contractor Responsibilities:
  - a) The contractor shall, within a time frame of not less than 2 or no more than 10 working days prior to the start of excavation within any public right-of-way or private easement areas owed by a utility company, notify each utility over having underground utilities in the area to be excavated of the following information:
    - i) Name, address, and telephone number of the person serving the notice.
    - ii) Name, address, and telephone number of the company that will be performing the excavation.
    - iii) Anticipated starting date of the excavation and duration.
    - iv) Type of excavation to be conducted.
    - v) Location of the excavation.
    - vi) Whether or not explosives will be used.
  - b) If the notice is given by telephone, the contractor is required to keep an adequate record. In addition to serving notice of intent to perform excavation, the contractor shall:
    - i) Plan the excavation to avoid damage and to minimize interference with underground utilities in and near the construction area to the best of his abilities.
    - ii) Maintain a clearance between an underground utility and the cutting edge or point of any mechanized equipment, taking into account the known limit of control of that cutting edge or point, as is reasonably required to avoid damage, and
    - iii) Provide support for the underground utilities in or near the construction area, including backfill, as may be reasonably required by the utility owner for the protection of the underground utilities.
  - c) When excavation by a contractor results in known damage to an underground utility, the owner of the underground utility must be immediately notified and the utility be given a reasonable time to repair the damage before the contractor proceeds with the excavation in the immediate area of the damage.
- C) Utility Responsibility: Once notified, each utility must, prior to the day designated by the contractor as the anticipated start date for excavation, provide the contractor with the following information to the extent such information is reflected by records in the possession of and reasonably available to the utility owner.
  - a) The location (location by the law, is defined as a strip of land not wider than the width of the utility plus 2-1/2 feet on either side) and description of all of the underground utilities which may be damaged as a result of the excavation.

- b) The location and description of all utility markers indicating the location of the underground utilities, and
  - c) Any other information that would assist in locating and avoiding damage to the underground utilities, including providing temporary markings when necessary indicating the location of the underground utility in locations where permanent utility markers do not exist.
- D) If a utility company fails to respond to a contractor's notice or fails to locate properly its underground utilities, the contractor is free to proceed with the excavation. Neither the contractor nor the owner will be liable to the non-responding or improperly responding utility owner for damages to the facilities if the contractor exercises due care to protect existing underground utilities when there is evidence of their existence near the proposed excavation site. Information concerning the owners of underground utilities and designated contract person can be obtained from each county register of deeds and from any county or municipal inspection department having jurisdiction over the area where the underground utilities are located.
- E) To assist contractors and utility owners in meeting the requirements of this law, there is in South Carolina a "one call system" called "Palmetto Utilities", most major utilities with underground facilities in the state subscribe to this service. If a contractor provides the required notice to this organization, Palmetto Utilities will in turn, notify each individual member utility owner which has underground utilities in the area of the proposed excavation. At the time of notification, Palmetto Utilities can advise the contractor of its members that will be notified so individual contact can be made if necessary. For calls originating within South Carolina, Palmetto Utilities telephone number is 1-888-721-7877 or 811.

**END OF SECTION**

SECTION 01060

**REGULATORY REQUIREMENTS**

- 1) The following retirements of Regulatory Agencies having an interest in this project are hereby made a part of this Contract.
- 2) The construction of the project, including the letting of contracts in connection therewith, shall conform to the applicable requirements of State, territorial, and local laws and ordinances to the extent that such requirements do not conflict with Federal laws and this subchapter.
- 3) State Sales Tax: All applicable state sales tax shall be to the account of the Contractor.
- 4) Use of chemicals: All chemicals used during the project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polder, reactant or of other classification, must show approval of EPA or USDA Use of all such chemicals and disposal of residues shall be in strict conformance with instructions.
- 5) Safety and Health Regulations: The Contractor shall be solely responsible to comply with the Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PL 91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL 91-54).
- 6) Inspection by Agencies: The representatives of the SC Department of Health and Environmental Control & City Representatives shall have access to the work wherever it is, in preparation or in progress, and the Contractor shall provide proper facilities for such access and inspection.
- 7) Withholding for Non-Residents shall comply with the following:
  - A) Attention of non-resident contractors is invited to Part No, Act No. 855, Acts of the General Assembly of South Carolina 1958.
  - B) If a non-resident contractor is the successful bidder on this project, he shall be required to post surety bond, or deposit cash or securities with the South Carolina Tax Commission in compliance with the Act. Proof of such coverage shall be filed with the City of Clemson before work is started.
  - C) If the Contractor fails to comply with the requirements of the South Carolina Tax Commission, two percent (2%) of each and every payment made to the Contractor shall be retained by the City of Clemson to satisfy such requirements.
- 8) Bypassing of Wastewater: No wastewater bypassing will be permitted during construction unless a schedule has been approved by the City of Clemson.
- 9) Connection to Existing Facilities: No new construction shall be connected to existing facilities until directed by the City of Clemson.

**END OF SECTION**



SECTION 01061

**PERMITS, FEES, AND RIGHTS-OF-WAY**

**PART 1 - GENERAL**

1) **DESCRIPTION:**

Work included: This section establishes requirements pertaining to the securement and payment for licenses, utility connection fee, building permits, rights-of-way, etc. necessary for the construction of the project.

2) **SUBMITTALS:**

Submit to the City of Clemson satisfactory evidence that all necessary licenses, building permits, etc. have been secured prior to commencing the work.

**PART 2 - PRODUCTS**

No products are required for this work.

**PART 3 - EXECUTION**

1) **BUSINESS LICENSE:**

- A) Determine licenses necessary to perform the work at project location.
- B) Purchase from City of Clemson a business license for the General Contractor and all Subcontractors.

2) **BUILDING PERMITS:**

Secure all building permits required whether of temporary or permanent nature.

3) **RIGHTS-OF-WAY, UTILITY LINES:**

Provide necessary right-of-way or easements for construction of utility lines, whether on privately or publicly owned property as required by the City of Clemson.

**END OF SECTION**

SECTION 01090

**REFERENCE STANDARDS**

1) GENERAL:

DESCRIPTION: Throughout the Project Documents, reference is made to specifications and standards issued by nationally recognized professional and/or trade organizations.

- A) These referenced standards are generally identified by abbreviating the name of the organization following with the specification/standard number.
- B) Unless specifically indicated otherwise, all references to standards refer to the latest edition available at the time of the bidding.

**END OF SECTION**

SECTION 01400

**MEASUREMENT AND PAYMENT**

**PART 1 - GENERAL**

1) DESCRIPTION:

This section is the basis for payment for work to be completed under the items listed in the Bids, each amount shall include all labor, materials, tools, equipment, transportation, overhead, profit, insurance, taxes, and all other costs necessary for a complete installation and placement in service of the work. No additional compensation will be considered, except for work approved by the Owner as a change to the work as bid.

- A. MOBILIZATION (BID ITEM NO. 1): Mobilization shall be paid for as a lump sum amount and is to include the cost for insurance; payment and performance bonds; city business licenses & applicable permit fees; the contractor's cost for moving personnel, equipment, and temporary offices to the job site; and other incidentals incurred prior to beginning actual construction of the project. Payment for the cost of mobilization will be limited to a maximum of 5% of the total bid or bid alternate.
- B. TRAFFIC CONTROL (BID ITEMS NO. 2): Shall be paid for at the unit price per lump sum. Item shall include all labor, materials, signage and equipment associated with maintaining a safe and legal work environment for contractor, owner and public before and after active work hours.
- C. DEMOLITION (BID ITEMS NO. 3): Shall be paid at the unit price of a Lump Sum. Item shall include all work associated with the removal of existing materials and conditions to allow for the installation of proposed items, saw cutting, pavement removal, excavation, hauling to and from site, cleanup and site restoration, associated traffic control, landscaping, labor, materials and all other work included for the proper disposal of waste material.
- D. CLEARING & GRUBBING WITHIN RIGHT OF WAY (BID ITEM NO. 4): Shall be paid for at the unit price as a lump sum. The unit price shall include all work associated with demolition activities, disposal of waste materials, clearing within the limits of disturbance on the drawings per the specifications.
- E. BACKFILL, GRADING & STABILIZATION (BID ITEM NO. 5): Shall be paid for at the unit price per lump sum. Item shall include all work associated with clean backfill materials, grading, compaction, grass seed and straw, landscaping, hydroseeding, site restoration and hauling to and from site and all other labor, tools and equipment required for the installation stabilization of the site.
- F. EROSION CONTROL (Bid Item No. 6): Erosion Control shall be paid for at the unit price as a lump sum. The unit price shall include silt fence, construction entrances, inlet protection, concrete washout, staking, tie-straps, reinforcement materials, layout, trenching, installation, maintenance, replacement, repair and all other labor, materials, equipment and tools to complete the item to specification as shown on the drawings per the details. All erosion control items will be presented as a report during the weekly CEPSCI inspection, the contractor shall complete all stated items to the satisfaction of the inspector in the stated time frame unless circumstances have been discussed with the City prior.
- G. TREE PROTECTION (BID ITEM NO. 7): shall be paid for at the unice price as a lump sum. The unit price shall include all elements of the tree protection fencing, including layout, installation and all other labor, materials, equipment and tools to complete the

item to specifications and as shown on the drawing. This item shall be agreed upon during the pre-construction meeting, and will be installed prior to any clearing and grubbing to take place;

- H. TREE REMOVAL (BID ITEM NO. 8): shall be paid for at the unit price of each per tree removed. This unit price includes all necessary equipment, labor and consumables required to remove the trees indicated by plans. Trees may be mulched with the mulch stored in an agreed location and used for stabilization in agreed upon locations with the City.
- I. 18" CONCRETE CURB & GUTTER (BID ITEM NO.9): Shall be paid for at the unit price per linear foot. The unit price will include all concrete, form and form releases, demolition and excavation for installation, grading & subgrade preparation, hauling to and from site, layout work, screeding, finishing and flatwork, and all other labor, equipment, materials and tools to complete the item to specifications and as shown on the plans.
- J. 5' CONCRETE SIDEWALK (BID ITEM NO.10): Shall be paid for at the unit price per Linear foot. The unit price will include all concrete, form and form releases, demolition and excavation for installation, grading & subgrade preparation, layout work, screeding, finishing and flatwork, backfill, hauling to and from site, and all other labor, materials and tools to complete the item to specifications and as shown on the plans.
- K. PEDESTRIAN RAMPS (BID ITEM NO. 11): Shall be paid for at the unit price per Linear foot. The unit price will include all concrete, form and form releases, demolition and excavation for installation, grading & subgrade preparation, layout work, screeding, finishing and flatwork, backfill, hauling to and from site, and all other labor, materials and tools to complete the item to specifications and as shown on the plans.
- L. ADA HANDRAIL (BID ITEM NO. 12): Shall be paid for at the unit price per Linear foot. The unit price will include all concrete, steel, welding, form and form releases, demolition and excavation for installation, grading & subgrade preparation, layout work, screeding, finishing and flatwork, backfill, hauling to and from site, and all other labor, materials and tools to complete the item to specifications and as shown on the plans.  
**This item must comply with Buy America Build America ACT (BABAA)**
- M. ADA CURB RAMP (BID ITEM NO. 13): Shall be paid for of Each. The unit price shall include all concrete, tactile warning surfaces, form and form releases, excavation for installation, grading & subgrade preparation, material hauling to and from site, layout work, screeding, finishing and flatwork and all other material, tools and equipment required to complete the item to specification and as shown on the plans.
- N. BUS SHELTER PAD (BID ITEM NO.14): Shall be paid for at the unit price per square foot. The unit price will include all concrete, form and form releases, demolition and excavation for installation, grading & subgrade preparation, layout work, screeding, finishing and flatwork, backfill, hauling to and from site, and all other labor, materials and tools to complete the item to specifications and as shown on the plans.
- O. PARTITION CURB <2' (BID ITEM NO. 15): Shall be paid for at the unit price per linear foot. The unit price will include all concrete, form and form releases, demolition and excavation for installation, grading & subgrade preparation, hauling to and from site, layout work, screeding, finishing and flatwork, and all other labor, equipment, materials and tools to complete the item to specifications and as shown on the plans.
- P. BUS SHELTER: LANDSCAPE FORMS (BID ITEM NO. 16): Shall be paid at the unit price of Each. The unit price will include all concrete, steel, welding, form and form releases, demolition and excavation for installation, grading & subgrade preparation, layout work, screeding, finishing and flatwork, backfill, hauling to and from site, and all other labor, materials and tools to complete the item to specifications and as shown on the plans, The bus shelter should be a Landscape forms Kaleidoscope OS, 2 post

offset, solid canopy, below grade mounting, powdercoating color: Obsidian  
**This item must comply with Buy America Build America ACT (BABAA)**

- Q. 15" HP STORM (BID ITEM NO.17): Shall be paid for at the unit price per linear foot of pipe. The unit price will include all demolition and excavation for installation, grading & subgrade preparation, layout work, hauling to and from site, installation and backfill, shoring and safety equipment, cleanup and site restoration, landscaping and all other labor, materials and tools to complete the item to specifications and as shown on the plans.
- R. 4'x4' CATCH BASIN <8' DEPTH (BID ITEM NO. 18): Shall be paid for at the unit price of each. The unit price will include all demolition and excavation for installation, grading and subgrade preparation, layout work, hauling to and from the site, installation and backfill, shoring and safety equipment, cleanup and site restoration, landscaping and all other labor, materials and tools to complete the item to specifications as shown on the plans.
- S. 36" JUNCTION BOX (BID ITEM NO. 19): Shall be paid for at the unit price of each. The unit price will include all demolition and excavation for installation, grading and subgrade preparation, layout work, hauling to and from the site, installation and backfill, shoring and safety equipment, cleanup and site restoration, landscaping and all other labor, materials and tools to complete the item to specifications as shown on the plans.
- T. STORMWATER TIE-IN EXISTING (BID ITEMS 20): Shall be paid for at the unit price per each. The unit price shall include all materials, excavation, fittings, saddles, adaptors, labor, site work, labor, clean up and all other work included in the proper completion of this item to specification.
- U. THERMOPLASTIC PAVEMENT MARKING (BID ITEM NO. 21): Shall be paid for at the unit price as a Lump Sum. The unit price shall include all setup and preparation work, cleaning and drying of the roadway, application, finishing, site clean up and traffic control and all other materials, equipment, tools and to complete the item to specification.
- V. SIGNAGE (BID ITEM NO. 22): Shall be paid for as the unit price of Lump sum. The unit price shall include all materials, signpost, signs, setup and preparation work, layout application, finishing, site clean up and traffic control and all other materials, equipment, tools and to complete the item to specification.
- This item must comply with Buy America Build America ACT (BABAA)**
- W. CL 315 PVC WATER LINE (BID ITEMS NO. 23): Shall be paid for at the unit price per linear foot. The unit price shall include all equipment, materials, fittings, labor, site work, excavation, backfill, thrust blocking, carrier pipe, wire, tape, borings, testing, sterilization, cleanup, landscaping, driveway repair or replacement, and all other work included to complete the item to specification.
- X. CL 350 DIP WATER LINE (BID ITEMS NO. 24): Shall be paid for at the unit price per linear foot. The unit price shall include all equipment, materials, fittings, labor, site work, excavation, backfill, thrust blocking, carrier pipe, wire, tape, borings, testing, sterilization, cleanup, landscaping, driveway repair or replacement, and all other work included to complete the item to specification.
- This item must comply with Buy America Build America ACT (BABAA)**
- Y. HYDRANT ASSEMBLY (BID ITEMS 25 ): Shall be paid for at the unit price per each. The unit price shall include all materials, excavation, fittings, hydrants, paint, adaptors, valves, valve boxes, labor, site work, labor, clean up, grassing, landscaping repair and all other work included in the proper completion of the item to specification.
- This item must comply with Buy America Build America ACT (BABAA)**
- Z. TIE-IN (BID ITEMS 26, 27): Shall be paid for at the unit price per each. The unit price shall include all materials, excavation, fittings, saddles, adaptors, labor, site work, labor,

clean up and all other work included in the proper completion of this item to specification.

**This item must comply with Buy America Build America ACT (BABAA)**

AA. GATE VALVE (BID ITEMS NO. 28,29): Shall be paid for at the unit price per each. The unit price shall include all materials, excavation, fittings, adaptors, valves, valve boxes, concrete collars, site work, clean up, labor and all other work included for the proper installation of this item to specification.

**This item must comply with Buy America Build America ACT (BABAA)**

BB. WATER SERVICE (BID ITEMS 30,31): Shall be paid for at the unit price per each. The unit price shall include all materials, pipe, saddles, borings, meter boxes, sterilization, site work, excavation, backfill, fittings, adaptors, labor, grassing, landscaping repair and all other work associated with the proper completion of this item to specification. The delineation between same side and opposite side services will determined if service line must cross the road centerline for opposite side service replacement.

CC. 1" PEX-A (PRIVATE SERVICE) (BID ITEM NO. 32): Shall be paid at the unit price per Linear Foot. The unit price shall include all materials, fittings, pipe, masonry blocks, washed stone, excavation, backfill, adaptors, plumbing, and labor for the proper completion of this item to specifications

DD. ASPHALT PAVING (BID ITEM NO. 33): Shall be paid for at the unit price per Linear Foot. The unit price shall include all setup and preparation work, saw cutting, excavation, hauling to and from job sites, waste material disposal, stone base, tack coating and equipment, hot mix asphalt, paving and compaction equipment, finishing work, traffic control, site cleanup, proof roll and all other materials, equipment, tools and labor to complete the item to specification.

**END OF SECTION**

SECTION 01700

**CONTRACT CLOSEOUT**

**PART 1 - GENERAL**

1) **DESCRIPTION:**

Work included shall be providing compliance with the requirements of the General Conditions of these specifications for administrative procedures in closing out the project work.

2) **SUBSTANTIAL COMPLETION:**

- A) The Contractor shall notify the Engineer that, in his opinion, the total project is substantially complete. Because of having to start-up and operate units at different times, the Owner shall have beneficial use of the new work prior to the substantial completion of the total project. Substantial completion will be all units are on-line and properly operating.
- B) Upon receipt of the Contractor's notice, the Engineer shall make an inspection to determine if substantial completion is provided.
- C) If, in the Engineer's opinion, the project is not substantially complete, a written notice to the Contractor shall follow outlining reasons and deficiencies in work which comprised his decision. The Engineer's decision shall be final.
- D) Generally, substantial completion shall be defined as all units, facilities, and site work which have been properly installed or completed and have been properly functioning for not less than 30 continuous days.

3) **FINAL INSPECTION:**

The Engineer will make a final inspection for the Contractor after any and all items noted in the substantial completion inspection have been corrected. The Contractor shall notify the Engineer when a final inspection is needed. Incomplete and/or defective work shall be given to the Contractor by written notice.

4) **RE-INSPECTION:**

- A) Re-inspections required due to failure by the Contractor to make previously noted corrections will be performed by the Engineer.
- B) Re-inspections will continue until the work is acceptable to the Engineer.

5) **COMPLETION BY CONTRACTOR:**

- A) When the Engineer finds the Contractor's work acceptable, the Contractor shall be given such notice and should proceed with closeout submittals.
- B) Closeout submittals shall contain at least the following:
  - a) Project record documents.
  - b) Equipment operation and maintenance manuals and copies of start-up reports.
  - c) Warranties and bonds.
  - d) Keys and keying schedule.
  - e) Spare parts and manuals.

- f) Evidence of payment and release liens per General Conditions.
- 6) FINAL PAYMENT:
- A) Final payment to the Contractor will be made upon completion of the previous items and others required by these specifications. A final statement shall be forwarded to the Engineer. The statement shall address:
    - a) Previous change orders.
    - b) Unit prices.
    - c) Deductions for liquidated damages.
    - d) Adjusted contract sum.
    - e) Previous payments.
    - f) Amount Due.
  - B) When required, the Engineer will prepare a contract change order for adjustments not previously made.

**END OF SECTION**



SECTION 01720

**PROJECT RECORD DOCUMENTS**

**PART 1 - GENERAL**

1) **DESCRIPTION:**

Work included:

- A) Throughout progress of the Work, maintain an accurate record of changes in the work.
- B) Upon completion of the Work, deliver the recorded changes to the City of Clemson.

2) **QUALITY ASSURANCE:**

- A) Delegate the responsibility for maintenance of Record Documents to one person on the Contractor's staff as approved by the City of Clemson.
- B) Accuracy of records shall be such that future search for items shown on the Project Record Documents may rely reasonably on the information provided under this Section of the Work.

3) **PRODUCT HANDLING:**

- A) Maintain the job set of Record Documents completely protected from deterioration and from loss and damage until completion of the Work and transfer to the City of Clemson.
- B) In the event of loss of recorded data, use means necessary to again secure the data to the City of Clemson's approval.
  - a) Such means shall include, if necessary in the opinion of the City of Clemson, removal and replacement of concealing materials.
  - b) In such case, provide replacements to the standards originally required by the Contract Documents.

**END OF SECTION**

SECTION 1800

**DEPARTMENT OF COMMERCE  
GRANTS ADMINISTRATION  
COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM  
10/2023**



**CONTRACT SPECIAL PROVISIONS**

*The following CDBG Contract Special Provisions should be used with all construction contracts, including housing rehabilitation, as applicable, and professional service contracts, where CDBG funds are being used in whole or in part.*

## CONTRACT SPECIAL PROVISIONS

1. **Definitions:** For purposes of this Contract, the following terms shall have the meanings set forth below:
  - (a) “Assistance” means the CDBG grant funds provided, or to be provided, to the Grantee by the State, pursuant to the Grant Award Agreement.
  - (b) “CDBG” means Community Development Block Grant.
  - (c) “Contract” means the contractual agreement between the Owner and the Contractor to which these Contract Special Provisions have been incorporated and made a part thereof.
  - (d) “Contractor” means the contractor whose services are retained pursuant to the Contract.
  - (e) “Grantee” means the unit of local government designated as the recipient of the Assistance in the Grant Award and signing the acceptance provision of the Grant Award.
  - (f) “HUD” means U.S. Department of Housing and Urban Development, which is the federal agency that awards and has authority over CDBG funding to the State.
  - (g) “Owner” means the Grantee or Subrecipient, as applicable.
  - (h) “Project” means the project for which the services of the Contractor have been retained pursuant to the Contract which are funded, in whole or in part, with CDBG funds.
  - (i) “State” means the State of South Carolina, or that agency, agency division, or Office of State government which has been delegated the responsibility for administering the CDBG program for the State of South Carolina, as appropriate.
  - (j) “Subrecipient” means the agent of the unit of local government as designated by an agreement.
  - (k) “Labor Surplus Area” means a civil jurisdiction that has an unemployment rate at least 20% above the average unemployment rate for all states, the District of Columbia, and Puerto Rico during the previous two calendar years. The Department of Labor issues the labor surplus area list on a fiscal year basis.

2. **Prime Contractor Responsibilities:** The Contractor is required to assume sole responsibility for the complete effort and enforcement of laws and regulations under this Contract. The Owner will consider the Contractor to be the sole point of contact with regard to contractual matters. All contractors must be registered in SAM and eligible to receive federal contracts.
3. **Federal and State Laws:** The Contractor agrees to comply with all CDBG requirements as well as other federal and state laws, regulations, or Executive Orders. The State reserves the right to add or delete terms and conditions of this Contract as may be required by revisions and additions or changes in the requirements, regulations, and laws governing the CDBG Program.
4. **Procurement and Contracting:** In accordance with 2 CFR Part 200, the cost plus a percentage of cost and percentage of construction cost methods of contracting shall not be used. This provision shall supersede any conflicting provision in an executed contract document or agreement funded in whole or in part with CDBG funds.
  - (a) The Grantee shall ensure compliance with the requirements of the Build America, Buy America Act, as amended 41 U.S.C 8301 et. Seq. and all applicable HUD regulations. This domestic content procurement preference requires that all iron, steel, manufactured products, and construction materials used in covered infrastructure projects are produced in the United States.
5. **Ownership:** Ownership of all real or personal property, acquired in whole or in part with CDBG funds for use on this Project, shall be vested in the Grantee, unless otherwise authorized by the State. When the Grantee determines that the property is no longer required for the purposes of this Project, the Grantee must notify the State and obtain approval for disposition of the property in accordance with applicable guidelines.
6. **Copyright:** Except as otherwise provided in the terms and conditions of this Contract, the Contractor paid through this Contract is free to copyright any books, publications or other copyrightable materials developed in the course of the Project and under this Contract. However, HUD and the State reserve a royalty-free, non-exclusive and irrevocable license to reproduce, publish or otherwise use and to authorize others to use, for Federal government and State purposes:
  - (a) the copyright in any work developed under this Contract; and
  - (b) any rights of copyright to which a subcontractor purchases ownership with grant support.

The Federal government's rights and the State's rights identified above must be conveyed to the publisher and the language of the publisher's release form must insure the preservation of these rights.

6. **Reporting Requirements:** The Contractor agrees to complete and submit all reports, in such form and according to such schedule, as may be required by the State or HUD. Further, the Contractor agrees to require any subcontractors to submit reports that may be required and to incorporate such language in its agreements. Failure to meet deadlines with the required information could result in sanctions.

7. **Access to Records:** All records with respect to all matters covered by this Contract shall be made available at any time for audit and inspection by HUD, the State or the Grantee or their representatives upon their request.
8. **Maintenance of Records:** Records for non-expendable property purchased totally or partially with Federal funds must be retained for five years after final close-out of the grant. All other pertinent contract records including financial records, supporting documents and statistical records shall be retained for a minimum of five years after the final close-out report. However, if any litigation, claim, or audit is started before the expiration of the five-year period, then records must be retained for five years after the litigation, claim or audit is resolved.
9. **Confidential Information:** Any reports, information, data, etc., given to, prepared by, or assembled by the Contractor under this Contract, which the Grantee or the State requests to be kept confidential, shall not be made available to any individual or organization by the Contractor without prior written approval of the Grantee or the State, as applicable.
10. **Reporting of Fraudulent Activity:** If at any time during the term of this Contract anyone has reason to believe by whatever means that, under this or any other program administered by the State, a recipient of funds has improperly or fraudulently applied for or received benefits, monies or services pursuant to this Contract or any other contract, such information shall be reported immediately to the appropriate authorities.
11. **Political Activity:** None of the funds, materials, property or services provided directly or indirectly under this Contract shall be used for any partisan political activity, or to further the election or defeat of any candidate for public office or otherwise in violation of the provisions of Section 8-13-765 of the Code of Laws of South Carolina, 1976, as amended.
12. **Conflicts of Interest and Ethical Standards, South Carolina Consolidated Procurement Code:** The following provisions regarding “conflicts of interest” apply to the use and expenditure of CDBG funds by the Grantee and its subrecipients, including the Contractor.

In the procurement of supplies, equipment, construction and services, the more restrictive conflict of interest provisions of the State of South Carolina Ethics, Government Accountability and Campaign Reform Act of 1991 or of the Contractor shall apply.

In cases not governed by the above, such as the acquisition and disposition of real property and the provision of CDBG assistance to individuals, businesses and other private entities, the following provisions shall apply.

Except for eligible administrative or personnel costs, the general rule is that no person who is an employee, agent, consultant, officer, or elected or appointed official of the State or a unit of general local government or any designated public agencies or subrecipient which are receiving CDBG funds who exercise or have exercised any function or responsibilities with respect to CDBG activities assisted herein or are in a position to participate in a decision making process or gain inside information with regard to such activities, may obtain a financial interest or benefit from the activity, or have an interest in any contract, subcontract or agreement with respect thereto, or the proceeds thereunder either for themselves or those with whom they have family or business ties during their tenure or for

one year thereafter. Exceptions may be granted by the State on a case by case basis as requested upon full disclosure in writing.

Should any governmental entity, contractor, subcontractor, employee or official know or perceive any breach of ethical standards or conflict of interest under the CDBG grant awarded to the Grantee or any other CDBG grant, they shall immediately notify in writing the Department of Commerce, Grants Administration, 1201 Main Street, Suite 1600, Columbia, South Carolina, 29201. If the State finds any circumstances that may give rise to a breach of ethical standards or conflict of interest, under any grant, they shall notify the participating governmental entity and the State Ethics Commission as appropriate. The State may undertake any administrative remedies it deems appropriate, where there is a breach of ethical standards or conflict of interest under the regulations governing the CDBG Program and the State policies.

- 13. Applicable Law:** In addition to the applicable Federal laws and regulations, this Contract is also made under and shall be construed in accordance with the laws of the State. By execution of this Contract, the Contractor agrees to submit to the jurisdiction of the State for all matters arising or to arise hereunder, including but not limited to performance of said Contract and payment of all licenses and taxes of whatever kind or nature applicable hereto.
- 14. Limitation of Liability:** The Contractor will not assert in any legal action by claim or defense, or take the position in any administrative or legal procedures that he is an agent or employee of the Owner. This provision is not applicable to contracts for CDBG administration services where the Contractor is a Council of Government. The State shall not be liable for failure on the part of the Grantee or any other party to perform all work in accordance with all applicable laws and regulations. The Grantee agrees to defend, indemnify, and hold harmless the State from and against all claims, demands, judgments, damages, actions, causes of actions, injuries, administrative orders, consent agreement and orders, liabilities, penalties, costs, and expenses of any kind whatsoever, including, without limitation, claims arising out of loss of life, injury to persons, property, or business or damage to natural resources in connection with the activities of the Grantee and any other third parties in a contractual relationship with the Grantee, or a subsidiary, whether or not occasioned wholly or in part by any condition, accident, or event caused by any act or omission of the State as a result of the Assistance.
- 15. Legal Services:** No attorney-at-law shall be engaged through the use of any funds provided under this Contract in any legal action or proceeding against the State, the Grantee, any local public body or any political subdivision.
- 16. Contract:** If any provision in this Contract shall be held to be invalid or unenforceable, the remaining portions shall remain in effect. In the event such invalid or unenforceable provision is considered an essential element of this Contract, the parties shall promptly negotiate a replacement provision, which addresses the intent of such provision.
- 17. Amendments:** Any changes to this Contract affecting the scope of work of the Project must be approved, in writing, by the Owner and the Contractor and shall be incorporated in writing into this Contract. Any amendments of the original contract must have written approval by the State prior to execution.

**18. Termination for Convenience:** This Contract may be terminated for convenience in accordance with 2 CFR Part 200.

**19. Sanctions:** If the Contractor fails or refuses to comply with the provisions set forth herein, the State or Owner may take any or all of the following actions: cancel, terminate or suspend in whole or in any part the contract, or refrain from extending any further funds to the Contractor until such time as the Contractor is in full compliance.

**20. Subcontracting:** If any part of the work covered by this Contract is to be subcontracted, the Contractor shall identify the subcontracting organization and the contractual arrangements made therewith to the Owner and to the State. All subcontracts must be approved by the Owner and the State to insure they are not debarred or suspended by the Federal or State governments and to insure the Owner and the State understand the arrangements.

**21. Subcontracting with Small and Minority Firms, Women's Business Enterprise and Labor Surplus Areas:** It is national policy to award a fair share of contracts to disadvantaged business enterprises (DBEs), small business enterprises (SBEs), minority business enterprises (MBEs) and women's business enterprises (WBEs). Accordingly, affirmative steps must be taken to assure that DBEs, SBEs, MBEs and WBEs are utilized when possible as sources of supplies, equipment, construction and services. Affirmative steps shall include the following:

- (a) Including qualified DBEs, SBEs, MBEs and WBEs on solicitation lists;
- (b) Assuring that DBEs, SBEs, MBEs and WBEs are solicited whenever they are potential sources;
- (c) Whenever economically feasible, dividing total requirements into smaller tasks or quantities so as to permit maximum participation by DBEs, SBEs, MBEs and WBEs;
- (d) Where the requirement permits, establishing delivery schedules which will encourage participation by DBEs, SBEs, MBEs and WBEs;
- (e) Using the services and assistance of the Small Business Administration, Minority Business Development Agency, the State Office of Small and Minority Business Assistance, the U.S. Department of Commerce and the Community Services Administration as required; and
- (f) Requiring the subcontractor, if any, to take the affirmative actions outlined in (1) – (5) above.

**22. Debarment Certification:** The Contractor must comply with Executive Orders 12549 and 12689 regarding Federal debarment and suspension regulations prior to entering into a financial agreement for any transaction as outlined below.

- (a) Any procurement contract for goods and services, regardless of type, expected to equal or exceed the Federal procurement small purchase threshold (which is \$100,000 and is cumulative amount from all federal funding sources).
- (b) Any procurement contract for goods and services, regardless of amount, under which the Contractor will have a critical influence on or substantive control over the transaction.

In addition, no contract may be awarded to any contractors who are ineligible to receive contracts under any applicable regulations of the State.

- 23. South Carolina Illegal Immigration Reform Act:** The Owner and the Contractor are required to comply with the South Carolina Illegal Immigration Reform Act (signed June 4, 2008) requiring verification of lawful presence in the United States of any alien eighteen years of age or older who has applied for state or local public benefits, as defined in 8 U.S.C. Section 1621, or for federal public benefits, as defined in U.S.C. Section 1611.
- 24. Equal Employment Opportunity:** The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the State.

In carrying out the Project, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor must take affirmative action to ensure that applicants for employment are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by the State setting forth the provisions of this non-discrimination clause. The Contractor shall state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin. The Contractor will, in all solicitations or advertisements for employees by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin. The Contractor shall incorporate the foregoing requirements of this paragraph in all of its subcontracts for the Project unless exempted by rules, regulations, or orders of the State issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor.

The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the State advising the said labor union or workers' representatives of the Contractor's commitment under this Section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the State, or pursuant thereto, and will permit access to its books, records, and accounts by HUD and the State for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

In the event of the Contractor's noncompliance with the non-discrimination clauses of this Contract or with any of such rules, regulations, or orders, this Contract may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further State government contracts or federally assisted construction contract procedures authorized in Executive Order 11246 of September 24, 1965, or by rules, regulations, or orders of the State, or as otherwise provided by law.



- 25. Age Discrimination:** In accordance with 45 CFR, Parts 90 and 91, the Contractor agrees there shall be no bias or age discrimination as to benefits and participation under this Contract.
- 26. Section 109 of the Housing and Community Development Act of 1974:** No person in the United States shall on the grounds of race, color, national origin or sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds made available under the CDBG program of the State.
- 27. Section 504 of the Rehabilitation Act of 1973, as amended:** The Contractor agrees that no otherwise qualified individual with disabilities shall, solely by reason of his disability, be denied the benefits, or be subjected to discrimination including discrimination in employment, any program or activity that receives the benefits from the Assistance.
- 28. Section 3, Compliance and Provision of Training, Employment and Business Opportunities:** The work to be performed under this Contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, (12 USC § 1701u). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3 shall, to the greatest extent feasible be directed to low and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

The parties to this said Contract agree to comply with HUD's regulations in 24 CFR Part 75, which implement Section 3. As evidenced by their execution of this Contract, the parties to this Contract certify that they are under no contractual or other impediment that would prevent them from complying with the 24 CFR Part 75 regulations.

The contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the organization or workers' representative of the contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions; the qualifications for each; and the name and location of person(s) taking applications for each of the positions; and the anticipated date the work shall begin. The Contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 CFR Part 75, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR Part 75. The Contractor will not subcontract with any subcontractor where the Contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR Part 75.

The Contractor will certify that any vacant employment positions including training positions, that are filled (1) after the Contractor is selected but before this Contract has been executed, and (2) with persons other than those to whom the regulations of 24 CFR Part 75 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 CFR Part 75.

The Contractor agrees to submit such reports as required to document compliance with 24 CFR Part 75. Noncompliance with the regulations in 24 CFR Part 75 may result in sanctions, termination of this Contract for default, and debarment or suspension from future HUD assisted contracts.

**29. Lead-Based Paint:** The construction or rehabilitation of residential structures with any portion of the Assistance is subject to the HUD Lead-Based Paint regulations found at 24 CFR Part 35. Any grants or loans made by the Grantee for the rehabilitation of residential structures with any portion of the Assistance shall be made subject to the provisions for the elimination of lead-base paint hazards under subpart B of said regulations, and the Grantee shall be responsible for the inspections and certifications required under Section 35.14(f) thereof.

**30. Compliance with Air and Water Acts:** (Applicable to construction contracts and related subcontracts exceeding \$100,000) This Contract is subject to the requirements of the Clean Air Act, as amended, 42 USC § 7401 et seq., the Federal Water Pollution Control Act (Clean Water Act), as amended, 33 USC § 1251 et seq., and the regulations of the Environmental Protection Agency with respect to 40 CFR Part 15, as amended from time to time, and the South Carolina Stormwater Management and Sediment Reduction Act. In particular, the following are required:

- (a) A stipulation by the Contractor or subcontractor that any facility to be utilized in the performance of any nonexempt contract or subcontract is not listed on the List of Violating Facilities, issued by the Environmental Protection Agency (EPA) pursuant to 40 CFR § 15.20.
- (b) Agreement by the Contractor to comply with all the requirements of Section 114 of the Clean Air Act, as amended (42 USC § 7414) and Section 308 of the Federal Water Pollution Control Act, as amended (33 USC § 1318) relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified in said Sections 114 and 308, and all regulations and guidelines issued thereunder.
- (c) A stipulation that as a condition of award of contract prompt notice will be given of any notification received from the Director, Office of Federal Activities, EPA, indicating that a facility utilized or to be utilized for the contract under consideration is to be listed on the EPA list of Violating Facilities.
- (d) Agreement by the Contractor that the Contractor will include or cause to be included the criteria and requirements in these subparagraphs (1) through (4), in every nonexempt subcontract and requiring that the Contractor will take such action as the State may direct as a means of enforcing such provisions.

In no event shall any amount of the Assistance be utilized with respect to a facility which has given rise to a conviction under section 113(c)(1) of the Clean Air Act or Section 309(c) of the Federal Water Pollution Control Act.

**31. Federal Labor Standards Provisions:** (*Applicable to construction contracts in excess of \$2,000 or residential rehabilitation contracts involving more than eight units*)

The Project or program to which the construction work covered by this Contract pertains is being assisted by the United States of America and the Federal Labor Standards Provisions as set forth on Attachment 1 are included in this Contract pursuant to the provisions applicable

to such Federal assistance. These provisions must be complied with or sanctions will be instituted.

## Attachment 1

U.S. Department of Housing and Urban Development, Office of Labor Relations form HUD-4010 (06/2009) ref. Handbook 1344.1

**A. 1. (i) Minimum Wages.** All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached thereto and made a part thereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5 (a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification of the time actually work therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification an wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

**(ii) (a)** Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1)** The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (2)** The classification is utilized in the area by the construction industry; and
- (3)** The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

**(b)** If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve,

modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

**(c)** In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1214-0140.)

**(d)** The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

**(iii)** Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

**(iv)** If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

**2. Withholding.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federal-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension or any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for an on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

**3. (i) Payrolls and basic records.** Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1 (b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment of provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices and trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

**(ii) (a)** the contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i). This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget Under OMB Control Number 1215-0129.)

**(b)** Each payroll submitted shall be accompanied by a “Statement of Compliance,” signed by the contractor or subcontractor or his or her agent who pays for supervises the payment of the persons employed under the contract and shall certify the following:

**(1)** That the payroll for the payroll period contains the information required to be maintained under 29 CFR 5.5 (a)(3)(i) and that such information is correct and complete;

**(2)** That each laborer or mechanic (including each apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

**(3)** That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

**(c)** The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the “Statement of Compliance” required by subparagraph A.3.(ii)(b).

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### **4. Apprentices and Trainees.**

(i) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment Training Administration, Office of Apprenticeship Training, Employer and Training Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen in any craft classification shall not be greater than the ratio permitted to the contractor as to his entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as state above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ration permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved

**(ii) Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every Trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

**(iii) Equal employment opportunity.** The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract.

**6. Subcontracts.** The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 of this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

**7. Contract termination; debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act Requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause



include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

**10. (i) Certification of Eligibility.** By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

**(ii)** No part of this contract shall be subcontracted to any person or firm ineligible for award of a government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

**(iii)** The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1010, Title 18, U.S.C., "Federal Housing Administration transactions", provided in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration . . . makes, utters or publishes any statement knowing the same to be false . . . shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

**11. Complaints, Proceedings, or Testimony by Employees.** No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

**B. Contract Work Hours and Safety Standards Act.** The provisions of this paragraph B are applicable only where the amount of the prime contract exceeds \$100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

**(1) Overtime Requirements.** No Contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

**(2) Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violations of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

**(3) Withholding for unpaid wages and liquidated damages.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract, or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

**(4) Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

**C. Health and Safety.** The provisions of this paragraph C are applicable only where the amount of the prime contract exceeds \$100,000.

**(1)** No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to this health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

**(2)** The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, 40 USC 3701 et. seq.

**(3)** The Contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The Contractor shall take such action with respect to any subcontract as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

SECTION 02221

**TRENCHING, BACKFILLING FOR UTILITIES**

**PART 1 - GENERAL**

1) **DESCRIPTION:**

Work included: Trench, backfill, and compact as specified herein and as needed for installation of underground utilities associated with the Work.

2) **QUALITY ASSURANCE:**

- A) Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B) Use equipment adequate in size, capacity, and numbers to accomplish the work in a timely manner.

3) **JOB CONDITIONS:**

A) Existing Utilities:

- a) There now exists in the construction areas, waterworks, storm drainage, sanitary sewers, street paving, gas mains, underground electricity, and other utilities.
- b) Approximate location of certain underground lines and structures are shown on the plans for information only, other underground lines or structures are not shown.
- c) Locate these and other possible unknown utility lines using electronic pipe finder, or other approved means.
- d) Locate, excavate and expose all existing underground lines in advance of trenching operations.
- e) The Contractor will be held responsible for the workmanlike repair of any damage done to any of these utilities in the prosecution of his work under this Section.
- f) The Contractor shall familiarize himself with the existing conditions and be prepared to adequately care for and safeguard himself and the City of Clemson from damage.

B) Notification of intent to excavate:

- a) South Carolina Underground Utility Damage Prevention Act (S.C. Code Ann, 58-35-10, CT-SEQ, Supp. 1978) requires persons to ascertain the location of underground public utility property prior to excavation or demolition in certain situations. The Act also requires such persons to give timely notice of intent to excavate or demolish prior to commencing such operations. Failure to comply could subject the violator to a civil penalty of up to one thousand dollars (\$1,000) for each violation of the Act.
- b) Notification of intent to excavate may be given by calling this toll free number: 1-800-781-7474.

C) Protecting trees, shrubbery and lawns:

- a) Where noted by the City of Clemson, trees and shrubbery in developed areas and along the trench line shall not be disturbed unless absolutely necessary, and subject to the approval of the City of Clemson. Any such trees and shrubbery necessary to be removed shall be heeled in and replanted.
  - b) Where trenches cross private property through established lawns, sod shall be cut, removed, stacked and maintained in suitable condition until replacement is approved by the City of Clemson. Topsoil underlying lawn areas shall be removed and kept separate from general excavated materials.
- D) Clearing:
- a) Perform all clearing necessary for installation of the complete work.
  - b) Clearing shall consist of removing all trees, stumps, roots, brush and debris in the rights-of-way obtained for the Work.
  - c) All timber of merchantable size shall remain the property of the City of Clemson and shall be trimmed and cut in such lengths as directed and stacked along the edge of the right-of-way.
  - d) All other material, including trimmings from above, shall be completely disposed of in a satisfactory manner.
- E) Removing and resetting fences: Where existing fences must be removed to permit construction of utilities:
- a) Remove such fences and, as the Work progresses, reset the fences in their original location and condition.
  - b) Provide temporary fencing or other safeguards as required to prevent stock and cattle from wandering to other lands.
- F) Restoration of disturbed areas:
- a) Restore all areas disturbed by, during or as a result of construction activities to their existing or better condition.
  - b) Do not interpret this as requiring replacement of trees and undergrowth in undeveloped sections of the rights-of-way.
- G) Minimizing silting and bank erosion during construction: During construction, protective measures shall be taken and maintained to minimize silting and bank erosion of creeks and rivers adjacent to the work being performed during construction.
- H) Blasting:
- a) Store all explosives in a secure manner, complying with all laws, ordinances, and regulations.
  - b) Contractor shall be responsible for damage caused by blasting operations.

## **PART 2 - PRODUCTS**

- 1) EXCAVATED MATERIALS:
  - A) Perform all excavation of every description and of whatever substances encountered to depths indicated or specified.
  - B) Pile material suitable for backfilling in an orderly manner at safe distance from banks of trenches to avoid overloading and to prevent slides or cave-ins.
  - C) Remove and deposit unsuitable or excess materials as directed by the City of Clemson.
  
- 2) BACKFILL MATERIALS:

Provide from materials excavated for installation of utility:

- A) Select soil material free from organic matter and deleterious substances, containing no rocks or lumps over 2 inches in greatest dimension for backfill up to 12 inches above top of utility being covered.
- B) Do not permit rocks larger than 2 inches in greatest dimension in top 6 inches of backfill.

3) OTHER MATERIALS:

Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the City of Clemson.

**PART 3 - EXECUTION**

1) PROCEDURES:

A) Existing Utilities:

- a) Unless shown to be removed, protect active utility lines shown on the drawings or otherwise made known to the Contractor prior to trenching. If damaged, repair or replace immediately.
- b) If active utility lines are encountered and are not shown on the Drawings or otherwise made known to the Contractor, promptly take necessary steps to assure that service is not interrupted.
- c) If service is interrupted as a result of work under this Section, immediately restore service by repairing the damage utility.
- d) If existing utilities are found to interfere with the permanent facilities being constructed under this Section, immediately notify the City of Clemson and secure his instructions.
- e) Do not proceed with permanent relocation of utilities until written instructions are received from the City of Clemson.

B) Locations within streets or highways:

- a) Comply with S. C. Department of Highways and Public Transportation "Encroachment Permit" issued for the Work and local requirements, if applicable.
- b) Take all precautions and comply with all requirements as may be necessary to protect the improvements, including barricades for protection of traffic.
- c) Keep minimum of one lane open to traffic at all times where utility crosses street or highway.

C) Protection of persons and property:

- a) Barricade open holes and depressions occurring as part of the Work, and post warning lights on property adjacent to or with public access.
- b) Operate warning lights during hours from dusk to dawn each day and as otherwise required.
- c) 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.

D) Dewatering:

- a) Remove all water, including rainwater, encountered during trench and sub-structure work to an approved location by pumps, drains, and other approved methods.
- b) Keep trenches and site construction area free from water.

- E) 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.
- F) Maintain access to adjacent areas at all times.

2) TRENCH EXCAVATION (UNCLASSIFIED):

- A) Remove all materials of whatever substance encountered.
- B) Where trenching occurs in existing lawns, remove turf in sections and keep damp. Replace turf upon completion of the backfilling.
- C) Open cut:
  - a) Excavate for utilities by open cut.
  - b) If conditions at the site prevent such open cut, and if approved by the City of Clemson, tunneling may be used.
  - c) Short sections of a trench may be tunneled if, in the opinion of the City of Clemson, the conductor can be installed safely and backfill can be compacted properly into such tunnel.
  - d) Remove boulders and other interfering objects, and backfill voids left by such removals.
  - e) Remove wet or otherwise unstable soil incapable of properly supporting the utility, as determined by the City of Clemson, to depth required and backfill to proper grade with stone bedding material.
  - f) Excavation for appurtenances:
    - i) Excavate for manholes and similar structures to a distance sufficient to leave at least 12" clear between outer surfaces and the embankment or shoring that may be used to hold and protect the banks.
    - ii) Overdepth excavation beyond such appurtenances that has not been directed will be considered unauthorized. Fill with sand, gravel, or lean concrete as directed by the City of Clemson.
- D) Trench to the minimum width necessary for proper installation of the utility, with sides as nearly vertical as possible. Accurately grade the bottom to provide uniform bearing for the utility.
- E) Provide sheeting and shoring necessary for protection of the Work and for the safety of personnel.
- F) Depressions:
  - a) Dig bell holes and depressions for joints after the trench has been graded. Provide uniform bearing for the pipe on prepared bottom of the trench.
  - b) Except where rock is encountered, do not excavate below the depth indicated or specified.
  - c) Where rock is encountered, excavate rock to a minimum over depth of 6" below the trench depth indicated or specified, and to provide 6 inch clearance in any horizontal direction from all parts of tale utility and appurtenances.
- G) Special requirements relating to excavation for specific types of utilities shall comply with the following:
  - a) Water distribution line:
    - i) Provide depth of cover shown or minimum cover of 36 inches, whichever is greater.
    - ii) Where minimum cover only is required, carry excavations to depths necessary to properly grade the pipe on tangents and vertical curves as directed by the City of Clemson.
    - iii) Upper portion of trench may be sloped to any width which will not cause damage to adjoining structures, utilities, pavements or private property.

- b) Sewage force mains:
  - i) Grade trenches to avoid high points, unless otherwise indicated
  - ii) Provide minimum cover of 36 inches.
  - iii) Provide minimum clearance of 6 inches between pipe walls and trench wall or sheeting and bracing lines.
- c) Electrical conduit: Provide depth of cover shown or minimum cover of 36 inches, whichever is greater. Where minimum cover only is required, carry excavations to depths necessary to properly grade the conduit on tangents and vertical curves as directed by the City of Clemson.

3) BACKFILLING:

A) General:

- a) Backfill trenches and excavations immediately after the pipes are laid, unless other protection is directed or indicated.
- b) Select and deposit backfill materials with special reference to the future safety of the pipes.
- c) Reopen trenches which have been improperly backfilled, to a depth as required for proper compaction. Refill and compact as specified, or otherwise correct to the approval of the City of Clemson.
- d) Surplus material shall be disposed of as directed by the City of Clemson.
- e) Original surface shall be restored to the approval of the City of Clemson.

B) Lower portion of trench:

- a) Deposit approved backfill and bedding material in layers of 6" maximum thickness, and compact with suitable tampers to the density of the adjacent soil until there is a cover of not less than 12" over utility lines.
- b) Take special care in backfilling and bedding operations not to damage pipe and pipe coatings.

C) Remainder of trench:

- a) Except for special materials for pavements, backfill the remainder of the trench with material free from stones larger than 6" or 1:2 the layered thickness, whichever is smaller, in any dimension.
- b) Deposit backfill material in layers and compact each layer to specified minimum densities.

D) Adjacent to buildings: Mechanically compact backfill in 6 inch layers within ten feet of buildings.

E) Under roads, streets and other; paved areas:

- a) Mechanically tamp in six inch layers using heavy duty pneumatic tampers or equal.
- b) Tamp each layer to a density equivalent of not less than 98 percent of an ASTM D698 proctor Curve.
- c) Provide additional compaction by leaving the backfilled trench open to traffic while maintaining the surface with crushed stone.
- d) Refill any settlement with crushed stone and continue such maintenance until replacement of pavement is authorized by the City of Clemson.

F) Undeveloped areas:

- a) Backfill in wooded, swampy or undeveloped areas shall be in 24-inch layers compacted to 85% minimum density.
- b) Mound excavated material neatly over the ditch to provide for future settlements.

G) Lawns, roadway shoulders and other non-traffic areas:

- a) Backfill in 12 - 18 inch layers and compact to 90% minimum density.
- b) Immediately repair any settlement that occurs.

4) EXCAVATION BY JACKING-BORING:

- A) Install casings where indicated by jacking and boring.
- B) Comply with Section 02780.

**END OF SECTION**



SECTION 02700

**ASPHALT PAVING**

**PART 1 - GENERAL**

1) **SUMMARY:**

This section includes:

- A) Cold milling of existing hot-mix asphalt pavement.
- B) Mill-in-place or RAP as base material pavement repair.
- C) Hot-mix asphalt patching.
- D) Hot-mix asphalt paving.
- E) Hot-mix asphalt paving overlay.
- F) Pavement-marking.
- G) Wheel stops.
- H) Imprinted asphalt.

2) **DEFINITION:**

Hot-Mix Asphalt Paving Terminology: Refer to ASTM D 8 for definitions of terms.

3) **SUBMITTALS:**

- A) Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.
- B) Samples for Verification: For the following products, in manufacturer's standard sizes unless otherwise indicated. Each pattern and color of imprinted asphalt.
- C) Qualification Data: For qualified imprinted asphalt Installer.
- D) Material Test Reports: For each paving material.
- E) Minutes of pre-installation conference.

4) **QUALITY ASSURANCE:**

- A) Installer Qualifications: Imprinted-asphalt manufacturer's authorized installer who is trained and approved for installation of imprinted asphalt required for this Project.
- B) Regulatory Requirements: Comply with materials, workmanship, and other applicable requirements of the South Carolina Department of Transportation for asphalt paving work. Measurement and payment provisions and safety program submittals included in standard specifications do not apply to this Section.
- C) Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination." Review methods and procedures related to hot-mix asphalt paving including, but not limited to, the following:
  - a) Review proposed sources of paving materials, including capabilities and location of plant that will manufacture hot-mix asphalt.
  - b) Review condition of subgrade and preparatory work.

- c) Review requirements for protecting paving work, including restriction of traffic during installation period and for remainder of construction period.
  - d) Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
- D) Authorities Having Jurisdiction: Conform to requirements of all authorities having jurisdiction. Where conflicts exist between the requirements of the Contract Documents and those of authorities having jurisdiction, the higher quality or more restrictive requirement shall apply. For locations within areas of DOT jurisdiction, perform all work, testing, and inspections in accordance with applicable DOT standards and procedures.

5) DELIVERY, STORAGE AND HANDLING:

- A) Deliver pavement-marking materials to Project site in original packages with seals unbroken and bearing manufacturer's labels containing brand name and type of material, date of manufacture, and directions for storage.
- B) Store pavement-marking materials in a clean, dry, protected location within temperature range required by manufacturer. Protect stored materials from direct sunlight.

6) PROJECT CONDITIONS:

- A) Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities. Where Work activities encroach into public rights-of-way, provide traffic control to maintain safe transit of work area by vehicular and pedestrian traffic. All traffic control shall be in accordance with the requirements of the authorities having jurisdiction.
- B) Environmental Limitations: Do not apply asphalt materials if subgrade is frozen, wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:
  - a) During the months of December, January and February except with the written permission of the Engineer.
  - b) Lift thickness of 1.0" or less: Min surface temp: 55 deg F and rising at time of placement.
  - c) Lift thickness of 1.1" to 2.0": Min surface temp: 45 deg F and rising at time of placement.
  - d) Lift thickness of 2.1" to 3.0": Min surface temp: 40 deg F and rising at time of placement.
  - e) Lift thickness of 3.1" to 4.5": Min surface temp: 35 deg F and rising at time of placement.
- C) Pavement-Marking: Proceed with pavement marking only on clean, dry surfaces; at a minimum ambient or surface temperature of at least 55 deg F, and not exceeding 95 deg F; and at a maximum relative of 85%. Do not apply pavement markings if rain is imminent or expected before time required for adequate drying.
- D) Imprinted Asphalt Paving: Proceed with coating imprinted pavement only when air temperature is at least 50 deg F and rising and will not drop below 50 deg F within 8 hours of coating application. Proceed only if no precipitation is expected within two hours after applying the final layer of coating.
- E) Existing Utilities:

- a) There now exists in the construction areas, waterworks, storm drainage, sanitary sewers, street paving, gas mains, underground electricity, and other utilities.
  - b) Approximate location of certain underground lines and structures are shown on the plans for information only, other underground lines or structures are not shown.
  - c) Locate these and other possible unknown utility lines using electronic pipe finder, or other approved means.
  - d) Locate, excavate and expose all existing underground lines in advance of trenching operations.
  - e) The Contractor will be held responsible for the workmanlike repair of any damage done to any of these utilities in the prosecution of his work under this Section.
  - f) The Contractor shall familiarize himself with the existing conditions and be prepared to adequately care for and safeguard himself and the City of Clemson from damage.
- F) Notification of intent to excavate:
- a) South Carolina Underground Utility Damage Prevention Act (S.C. Code Ann, 58-35-10, CT-SEQ, Supp. 1978) requires persons to ascertain the location of underground public utility property prior to excavation or demolition in certain situations. The Act also requires such persons to give timely notice of intent to excavate or demolish prior to commencing such operations. Failure to comply could subject the violator to a civil penalty of up to one thousand dollars (\$1,000) for each violation of the Act.
  - b) Notification of intent to excavate may be given by calling this toll free number: 1-800-781-7474.
- G) Protecting trees, shrubbery and lawns:
- a) Where noted by the City of Clemson, trees and shrubbery in developed areas and along the trench line shall not be disturbed unless absolutely necessary, and subject to the approval of the City of Clemson. Any such trees and shrubbery necessary to be removed shall be heeled in and replanted.
  - b) Where trenches cross private property through established lawns, sod shall be cut, removed, stacked and maintained in suitable condition until replacement is approved by the City of Clemson. Topsoil underlying lawn areas shall be removed and kept separate from general excavated materials.
- H) Clearing:
- a) Perform all clearing necessary for installation of the complete work.
  - b) Clearing shall consist of removing all trees, stumps, roots, brush and debris in the rights-of-way obtained for the Work.
  - c) All timber of merchantable size shall remain the property of the City of Clemson and shall be trimmed and cut in such lengths as directed and stacked along the edge of the right-of-way.
  - d) All other material, including trimmings from above, shall be completely disposed of in a satisfactory manner.
- I) Removing and resetting fences: Where existing fences must be removed to permit construction of utilities:
- a) Remove such fences and, as the Work progresses, reset the fences in their original location and condition.
  - b) Provide temporary fencing or other safeguards as required to prevent stock and cattle from wandering to other lands.

- J) Restoration of disturbed areas:
  - a) Restore all areas disturbed by, during or as a result of construction activities to their existing or better condition.
  - b) Do not interpret this as requiring replacement of trees and undergrowth in undeveloped sections of the rights-of-way.
- K) Minimizing silting and bank erosion during construction: During construction, protective measures shall be taken and maintained to minimize silting and bank erosion of creeks and rivers adjacent to the work being performed during construction.
- L) Blasting:
  - a) Store all explosives in a secure manner, complying with all laws, ordinances, and regulations.
  - b) Contractor shall be responsible for damage caused by blasting operations.

## **PART 2 - PRODUCTS**

### 1) ASPHALT PAVING MIXES:

- A) Prime/Tack Coat: Asphalt binder or emulsified asphalt in accordance with Section 401 of the South Carolina Department of Transportation Standard Specifications for Highway Construction.
- B) Intermediate (Binder) Course: Type B Hot Mix Asphalt Intermediate Course in accordance with Sections 401 and 402 of the South Carolina Department of Transportation Standard Specifications for Highway Construction.
- C) Asphalt Surface Course: [Type B] [Type C] [Type D] Hot Mix Asphalt Surface Course in accordance with Sections 401 and 403 of the South Carolina Department of Transportation Standard Specifications for Highway Construction.

### 2) AUXILIARY MATERIALS:

JOINT SEALANT: ASTM D 6690, Type II, hot-applied, single-component, polymer-modified bituminous sealant.

### 3) PAVEMENT MARKINGS:

Thermoplastic Pavement Markings: ReflectORIZED mixture of thermoplastic binder and spherical glass beads in accordance with Section 627 of the South Carolina Department of Transportation Standard Specifications for Highway Construction.

- A) Color: As indicated.
- B) Glass Beads: AASHTO M 247, Type 1.

### 4) WHEEL STOPS:

Wheel Stops: Precast, air-entrained concrete, 2500-psi minimum compressive strength, 5 inches high by 9 inches wide by 72 inches long. Provide chamfered corners, drainage slots on underside, and holes for anchoring to substrate. Dowels: Galvanized steel, diameter 1/8" smaller than anchor holes provided in wheel stop, 24-inch minimum length.

5) IMPRINTED ASPHALT MATERIALS:

- A) Templates: Imprinted-asphalt manufacturer's standard flexible templates for imprinting pattern into hot asphalt paving. Pattern as indicated as Drawings.
- B) Coating System: Imprinted-asphalt manufacturer's standard system formulated for exterior application on asphalt paving surfaces.
  - a) Top Coating: Epoxy-modified acrylic polymer blended with sand and aggregate, formulated for exterior application on asphalt paving surfaces.
  - b) Colorant: UV-stable pigment blend, added to each coating layer.
  - c) Color: As chosen by Engineer from manufacturer's full range.

**PART 3 - EXECUTION**

1) EXAMINATION:

- A) Verify that the base course has been installed in accordance with the requirements of Division 31 Section "Earth Moving", and that it is dry and in suitable condition to begin paving.
- B) Proof-roll subgrade below pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
  - a) Completely proof-roll subgrade in one direction. Limit vehicle speed to 3 mph.
  - b) Proof roll with a loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons.
  - c) Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Engineer, and replace with compacted backfill or fill as directed.
- C) Proceed with paving only after unsatisfactory conditions have been corrected.
- D) Verify that utilities, traffic loop detectors, and other items requiring a cut and installation beneath the asphalt surface have been completed and that asphalt surface has been repaired flush with adjacent asphalt prior to beginning installation of imprinted asphalt.

2) COLD MILLING:

Clean existing pavement surface of loose and deleterious material immediately before cold milling. Remove existing asphalt pavement by cold milling to grades and cross sections indicated.

- A) Mill to a depth of equal to the new asphalt thickness.
- B) Mill to a uniform finished surface free of excessive gouges, grooves, and ridges.
- C) Control rate of milling to prevent tearing of existing asphalt course.
- D) Repair or replace curbs, manholes, and other construction damaged during cold milling.
- E) Excavate and trim unbound-aggregate base course, if encountered, and keep material separate from milled hot-mix asphalt.
- F) Transport milled asphalt to asphalt recycling facility.
- G) Keep milled pavement surface free of loose material and dust.

3) PATCHING:

- A) Hot-Mix Asphalt Pavement: Saw cut perimeter of patch and excavate existing pavement section to sound base. Excavate rectangular patches, extending 12 inches into adjacent

sound pavement, unless otherwise indicated. Cut excavation faces vertically. Remove excavated material. Recompact existing unbound-aggregate base course to form new subgrade.

- B) Tack Coat: Apply uniformly to vertical surfaces abutting or projecting into new, hot-mix asphalt paving at a rate of 0.05 to 0.15 gal./sq. Yd.
  - a) Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
  - b) Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.
- C) Patching: Fill excavated pavements with hot-mix asphalt surface course, in lifts not to exceed 3 inches thick, and compact each lift while still hot. Compact final lift flush with adjacent surface.

4) REPAIRS:

- A) Leveling Course: Install and compact leveling course consisting of hot-mix asphalt surface course to level sags and fill depressions deeper than 1 inch in existing pavements. Install leveling wedges in compacted lifts not exceeding 3 inches thick.
- B) Crack and Joint Filling: Remove existing joint filler material from cracks or joints to a depth of 1/4 inch.
  - a) Clean cracks and joints in existing hot-mix asphalt pavement.
  - b) Use emulsified-asphalt slurry to seal cracks and joints less than 1/4 inch wide. Fill flush with surface of existing pavement and remove excess.
  - c) Use hot-applied joint sealant to seal cracks and joints more than 1/4 inch wide. Fill flush with surface of existing pavement and remove excess.

5) SURFACE PREPARATION:

- A) General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared base course is ready to receive paving.
- B) Prime Coat: Apply uniformly over surface of compacted graded-aggregate base course at the rates indicated below. Apply enough material to penetrate and seal but not flood surface. Allow prime coat to cure.
  - a) Apply to macadam base course at a rate of 0.25 to 0.30 gal./sq. Yd.
  - b) Apply to marine limestone base course at a rate of 0.10 to 0.15 gal./sq. Yd.
  - c) If prime coat is not entirely absorbed within 24 hours after application, spread sand over surface to blot excess asphalt. Use enough sand to prevent pickup under traffic. Remove loose sand by sweeping before pavement is placed and after volatiles have evaporated.
  - d) Protect primed substrate from damage until ready to receive paving.
- C) Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. Yd.
  - a) Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
  - b) Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

6) HOT-MIX ASPHALT PAVING:

- A) Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand to areas inaccessible to equipment in a manner that prevents

segregation of mix. Place each course to required grade, cross section, and thickness when compacted.

- a) Place hot-mix asphalt intermediate (binder) course to the total thicknesses indicated in lifts not to exceed 4 inches in thickness.
  - b) Place hot-mix asphalt surface course to the total thicknesses indicated in lifts not to exceed 3 inches in thickness.
  - c) Spread mix at temperature of not less than 250 deg F nor more than 325 deg F.
  - d) Begin applying mix along centerline of crown for crowned sections and on high side of one-way slopes unless otherwise indicated.
  - e) Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.
- B) Place paving in a minimum number of equal width consecutive strips, up to a maximum width of 12 feet for each strip.
- a) Adjust width and number of strips as necessary to provide the minimum number while maintaining requirement for longitudinal joint spacing of successive courses as indicated below. Make adjustments in lower courses such that the top course will be applied using the minimum possible number of strips.
  - b) The width of each strip of the top course shall equal the width of the travel lane unless otherwise indicated.
  - c) After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Complete a section of each asphalt course before beginning a succeeding course.
- C) Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

7) JOINTS:

Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.

- A) Clean contact surfaces and apply tack coat to joints.
- B) Offset longitudinal joints, in successive courses, a minimum of 6 inches.
- C) Offset transverse joints, in successive courses, a minimum of 24 inches.
- D) Construct transverse joints at each point where paver ends a day's work and resumes work at a subsequent time. Construct these joints using either "bulkhead" or "papered" method according to AI MS-22, for both "Ending a Lane" and "Resumption of Paving Operations."
- E) Compact joints as soon as hot-mix asphalt will bear roller weight without excessive displacement.
- F) Compact asphalt at joints to a density within 2 percent of specified course density.

8) COMPACTION:

- A) General: Begin compaction, starting at outside edges and joints, as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.
  - a) Complete compaction before mix temperature cools to 185 deg F.

- b) Roll with an 8 to 12 ton tandem steel-wheel roller conforming to the requirements of Section 401 of the South Carolina Department of Transportation Standard Specifications for Highway Construction.
  - B) Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.
  - C) Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density: Average Density: between 98% and 102% of the target density established in accordance with SCDOT Specification SC-T-65.
  - D) Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.
  - E) Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.
  - F) Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.
  - G) Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
  - H) Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.
- 9) INSTALLATION TOLERANCES:
- A) Pavement Thickness: Compact each course to produce the thickness indicated within the following tolerances:
    - a) Intermediate (Binder) Course: Plus or minus 1/4 inch.
    - b) Surface Course: Plus 1/4 inch, no minus.
  - B) Pavement Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot straightedge applied transversely or longitudinally to paved areas:
    - a) Intermediate (Binder) Course: 1/4 inch.
    - b) Surface Course: 1/8 inch.
    - c) Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template is 1/4 inch.
  - C) Traffic-Calming Devices: Compact and form asphalt to produce the contour indicated and within a tolerance of plus or minus 1/4 inch of height indicated above pavement surface.
- 10) PAVEMENT MARKING:
- A) Do not apply pavement-markings until layout, colors, and placement have been verified with Engineer.
  - B) Allow paving to age for 30 days before starting pavement marking.
  - C) Sweep and clean surface to eliminate loose material and dust.
  - D) Surface shall be dry and free of glaze, oil, dirt, grease or other foreign contaminants.
  - E) Apply paint with mechanical equipment for the application of waterborne asphalt paint meeting the requirements of Section 625 of the South Carolina Department of Transportation Standard Specifications for Highway Construction.



- a) Apply at manufacturer's recommended rates to provide a minimum wet film thickness of 15 mils.
- b) Broadcast glass beads uniformly into wet pavement markings at a rate of 6 lb/gal.
- F) Apply thermoplastic pavement markings with mechanical equipment for the application of thermoplastic pavement markings meeting the requirements of Section 627 of the South Carolina Department of Transportation Standard Specifications for Highway Construction.
  - a) Apply at manufacturer's recommended rates to provide a finished thickness of 90 mils.
  - b) Glass beads shall be mechanically applied to the surface of the thermoplastic material immediately after it is applied to the pavement surface and while it is still molten. Uniformly apply at a rate of 12 lb per 100 sq ft.
- G) Apply to produce pavement markings of the dimensions indicated; which are straight or of uniform curvature; of consistent width; and with crisp, uniform, edges.
  - a) The finished line markings shall be free from waviness and the lateral deviations shall not exceed 2 inches in 15 feet.
  - b) No markings shall be less than the specified width.

11) WHEEL STOPS:

Securely attach wheel stops to pavement with not less than two galvanized-steel dowels embedded at one-quarter to one-third points. Securely install dowels into pavement and bond to wheel stop. Recess head of dowel beneath top of wheel stop.

12) IMPRINTING ASPHALT:

- A) General: Imprint asphalt according to manufacturer's written instructions, using manufacturer's recommended equipment.
- B) Reheating Asphalt: Soften asphalt pavement surface by heating to a depth of at least 1/2 inch without burning asphalt.
  - a) Heat to a temperature of 300 to 325 deg F immediately before applying templates.
  - b) Regularly monitor the pavement temperature to prevent overheating.
  - c) Direct flame heaters are not permitted.
  - d) If pavement is overheated and begins to emit black smoke, remove damaged pavement by milling down 1 inch and replace removed pavement with new, compacted surface course prior to resuming imprinting work.
- C) Surface Imprinting: Apply and imprint templates to a minimum depth of 1/4 inch or as required to embed precut marking material flush or barely beneath pavement surface.
- D) Coating Application: After imprinted surface has cooled, apply four layers of top coating. Do not allow traffic until coating has completely dried and cured.
- E) Coating Application: After imprinted surface is complete, apply thermoplastic texture coating and heat until fused with asphalt substrate. Once thermoplastic has completely cooled and cured, sand and apply top coating. Do not allow traffic until coating has completely dried and cured.

13) FIELD QUALITY CONTROL:

- A) Testing Agency: Contractual responsibilities for testing are identified in Division 1 Section "Quality Requirements". Responsible party will engage a qualified independent testing agency to perform tests and inspections.
- B) Thickness: In-place compacted thickness of hot-mix asphalt courses will be determined by core samples in accordance with SCDOT Specification SC-T-100.
  - a) One core sample will be taken for every 1000 sq. yd. or less of installed pavement, with no fewer than 3 samples taken, except for locations within areas of DOT jurisdiction which shall be sampled according to applicable DOT rates.
  - b) Replace and compact hot-mix asphalt where core tests were taken.
- C) Surface Smoothness: Finished surface of each hot-mix asphalt course will be tested for compliance with smoothness tolerances.
- D) In-Place Density: Testing agency will take samples of uncompacted paving mixtures and compacted pavement in accordance with SCDOT Specifications SC-T-65 and SC-T-100.
  - a) Reference maximum theoretical density will be determined by averaging results from four samples of hot-mix asphalt-paving mixture delivered daily to site, prepared according to SCDOT Specification SC-T-65, and compacted according to job-mix specifications.
  - b) In-place density of compacted pavement will be determined by nuclear gauge in accordance with SCDOT Specifications SC-T-65, SC-T-68 and SC-T-100, as applicable. One test will be taken for every 1000 sq. yd. or less of installed pavement, with no fewer than 3 tests taken, except for locations within areas of DOT jurisdiction which shall be tested according to applicable DOT rates.
- E) Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

14) DISPOSAL:

Except for material indicated to be recycled, remove excavated materials from Project site and legally dispose of them in an EPA-approved landfill. Do not allow milled materials to accumulate on-site.

15) PROTECTION:

Protect paving installations from deposition of sediments from adjoining grounds and vehicular traffic.

- A) Install and maintain erosion control measures as necessary, at boundaries of paving installations, to prevent migration of sediment onto the pavement surface.
- B) Where practicable, erect and maintain barricades to prevent construction traffic on the paving surface.
- C) Do not allow tracking of mud or debris onto the pavement surface by any vehicle.
- D) If deposition of sediment on the paving surface is noted, remove and clean the pavement surface immediately. Do not delay cleaning efforts as subsequent rainfall events may worsen potential damage.

16) ASPHALT COST INDEXING:

The cost of asphaltic materials will be indexed to the SC DOT liquid asphalt index with a base index date as of the Notice to Proceed. The change will be reviewed in intervals of no less than 30 days, as necessary. The adjustments in the unit price per ton for Liquid Asphalt Binder (LAB)

will be made based on changes in the Monthly Liquid Asphalt Index Price as shown at: <https://www.scdot.org/business/constructionletting-monthlyindex.aspx>. The adjustments in the unit prices of Overlay and Full-Depth Patching will be based on changes in the Monthly Liquid Asphalt Index Price using the same site. Changes will be calculated in the Unit Price / Ton for Overlay. The method of calculation will be as follows: The amount of change will be in brackets of 5%. From the DOT Index's right hand column (+/-) UNIT PRICE / Ton for LAB take the change in cost value for that amount of change. The change in cost value will be multiplied by the percent as documented in the Daily Report of the Asphalt Plant Inspection. The resulting cost value will be added to the affected bid item as a percent of the UNIT COST PER SQUARE YARD.

Clear, concise & detailed documentation will be required for adjustment calculations with pay applications.

17) MILL-IN-PLACE OR RAP AS BASE MATERIAL PAVEMENT REPAIR:

The procedure for mill-in-place asphalt as a base material shall adhere to the following procedure under the supervision and direction of the Engineer or designated inspector:

- A) Cold mill of the existing asphalt pavement to the full depth of the existing hot-mix asphalt and stone base material cross-section with removal of any millings greater than 2" in diameter.
- B) Compact asphalt millings with sheeps-foot roller and/or vibratory compactor to 90% Standard Proctor adding water as necessary to bring base material to optimum moisture content level.
- C) Evaluate, if necessary, the amount of crushed stone base material required to bring the asphalt cross section including asphalt millings and compact to reach 90% Standard Proctor to specified paving cross-section depth and cross-slope.
- D) Within 48 hours of compaction and under supervision of the Engineer, proof-roll subgrade with loaded 10-wheel, tandem-axle dumb truck weighing not less than 15 tons to identify soft pockets and areas of excess yielding.
- E) Excavate soft spots, unsatisfactory soils and areas of excessive pumping or rutting, as determined by the Engineer and replace with stone base material or as otherwise directed.
- F) After approval from the Engineer that the base course is prepared for paving, pave with a minimum lift thickness of 2" hot-mix asphalt cross-section. Paving must occur within 24 hours of proof-roll and free of any significant precipitation.

**END OF SECTION**

SECTION 02750

**SITE CLEARING AND EROSION CONTROL**

**PART 1 - GENERAL**

1) **RELATED DOCUMENTS:**

Drawings and general provisions of the contract, including General and Supplementary Conditions apply to this section.

2) **SUMMARY:**

This section includes the following:

- a) Protecting existing vegetation to remain
- b) Removing existing existing vegetation
- c) Clearing and grubbing
- d) Stripping and removing topsoil
- e) Removing above-grade and below-grade site improvements
- f) Temporary erosion and sedimentation control measures

3) **DEFINITIONS:**

- A) Topsoil: Natural or cultivated surface-soil layer containing any of the following properties:
  - a) organic matter and sand, silt, and clay particles
  - b) friable, pervious and black or a darker shade of brown, gray or red then underlying subsoil
  - c) reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches in diameter
  - d) free of subsoil and weeds, roots, toxic materials, or other non-soil materials
- B) Tree Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction, and defined by the drip line of individual trees or the perimeter drip line of groups of trees unless otherwise indicated.

4) **MATERIAL OWNERSHIP:**

Except for stripped topsoil to be stockpiled on site or other materials indicated to remain on the Owner's property, cleared materials shall become the contractor's property and shall be removed from the project site.

5) SUBMITTALS:

Photographs or videotape, sufficiently detailed of existing conditions of trees and plantings, adjoining construction and site improvements that might be misconstrued as damage caused by site clearing

6) QUALITY ASSURANCE:

Conform to requirements of all authorities having jurisdiction. Note: Where conflicts exist between the requirements of the contract documents and those of authorities having jurisdiction, the higher quality or more restrictive requirement shall apply.

7) PROJECT CONDITIONS:

- A) Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
  - a) Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from the Owner and authorities having jurisdiction
  - b) Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction
- B) Improvements on Adjoining Property: Authority for performing site clearing indicated on property adjoining Owner's property will be obtained by Owner before award of Contract. Do not proceed with work on adjoining property until directed by the Engineer.
- C) Salvable Improvements: Carefully remove items indicated to be salvaged and store on the Owner's premises where indicated.
- D) Utility Locator Service: Notify utility locator service for the area where the Project is located before site clearing. Do not proceed with operations until existing utilities are located and clearly marked.
- E) Do not commence site clearing operations until temporary erosion and sedimentation control measures are in place.
- F) Suspend clearing operations during wet conditions unless otherwise directed by the Engineer.

## **PART 2 - PRODUCTS**

### **1) SOIL MATERIALS:**

Satisfactory Soils: ASTM D 2487 Soil Classification Groups GW, GP, GM, SW, SP and SM, AASHTO M145 Soil Classification Groups A-1, A-2-4, A-2-5 and A-3 or a combination of these groups. Free from rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation and other deleterious materials. Note: Obtain approved borrow soil materials off-site when satisfactory soil materials are not available on-site.

### **2) EROSION CONTROL MATERIALS:**

- A) Silt Fence Geotextile: Woven geotextile fabric, manufactured for silt fence applications, made from polyolefins or polyesters, with elongation less than 20 percent, complying with AASHTO M 288 and the following, measured per test methods reference:
  - a) Grab Tensile Strength: 100 lb-f; ASTM D 4632
  - b) Permittivity: 0.05 per second (min); ASTM D 4491
  - c) UV Stability: 70 percent after 500 hours of exposure; ASTM D 4355
- B) Silt Fence Post: Steel, either integrally manufactured with the silt fence as part of a complete system or separately provided. Where separately provided, the following shall apply:
  - a) Steel Posts:
    - i) T or U cross-sectional shape
    - ii) Minimum weight: 1.3 lbs / foot
    - iii) Minimum length: 5 feet
    - iv) Shall have projections to aid in fastening wire of fabric
    - v) Shall have a metal placate welded near the bottom, such that, when driven to proper depth it will be below ground and aid stability
  - b) Fasteners: Galvanized wire or other fasteners as required for a secure installation.
  - c) Spacing: 6 feet on center (maximum).
- C) Separation Geotextile: Woven geotextile fabric, manufactured for separation applications, made from polyolefins or polyesters, with elongation less than 50 percent, complying with AASHTO M 288 and the following, measured per test methods referenced:
  - a) Survivability: Class 2; SCDOT Standard Specifications
  - b) Grab Tensile Strength: 200 lb-f; ASTM D 4632
  - c) Sewn Seam Strength: 180 lb-f; ASTM D 4632
  - d) Puncture Strength: 80 lb-f; ASTM D 4833
  - e) Apparent Opening Size: No. 60 sieve (max); ASTM D 4751
  - f) Permittivity: 0.1 per second (min); ASTM D 4491
  - g) UV Stability: 50 percent after 500 hours exposure: ASTM D 4355
- D) Woven Wire Fabric: ASTM A 116, Class 1, wire and opening sizes indicated.
- E) Erosion Control Aggregate: Naturally or artificially graded mixture of crushed gravel or stone, in accordance with the gradation requirements indicated on the Drawings and the material requirements of the SC Department of Transportation Standard Specifications for Highway Construction. Note: Material shall be free of shale, clay, friable material, debris, waste, frozen materials, vegetation, organic material or other deleterious matter.

### **3) TREE PROTECTION MATERIALS:**

- A) Fence Materials: Orange polypropylene safety mesh, as indicated. Minimum weight of 16 lbs / 4 foot x 100 foot roll.
- B) Metal Posts and Rails: Round cold-formed, electric-resistance-welded, steel pipe or tubing, with minimum yield strength of 45,000 PSI and with outside dimension, with minimum wall thickness and weight complying with ASTM F 761 for the following fence height and strength and stiffness requirements:
  - a) Fence Height: 4 feet
  - b) Duty Rating: Medium (minimum)
  - c) Tube or Pipe Diameter and Thickness: Per ASTM F 761

### **PART 3 - EXECUTION**

#### 1) PREPARATION:

- A) Protect and maintain benchmarks and survey control points from disturbance during construction.
- B) Locate and clearly flag existing utilities, trees and vegetation to remain or to be relocated.
- C) Protect existing site improvements to remain from damage during construction. Note: Restore damaged improvements to their original condition, as acceptable to the Owner.

#### 2) TEMPORARY EROSION AND SEDIMENTATION CONTROL:

- A) Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to the Stormwater Pollution Prevention Plan (SWPPP), specific to the site that complies with EPA 832/R-92-005 or the requirements of authorities having jurisdiction, whichever is more stringent.
- B) Inspect, repair and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established or final stabilization has been achieved.
- C) When directed by the Engineer, remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3) TREE PROTECTION:

- A) Erect and maintain temporary fencing around tree protection zones before starting site clearing. Remove the fence when construction is complete.
  - a) Do not store construction materials, debris or excavated material within the fenced area.
  - b) Do not permit vehicles, equipment or foot traffic within fenced the area.
  - c) Maintain the fenced area free of weeds and trash.
- B) Do not excavate within tree protection zones, unless otherwise indicated.
- C) Where excavation for new construction is required within tree protection zones, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks, comb soil to expose roots and cleanly cut roots as close to excavation as possible, per the recommendations of a horticulturist or arborist.
- D) Repair or replace trees and vegetation indicated to remain that are damaged by construction operations in a manner approved by the Engineer.
  - a) Employ an arborist or horticulturist, licensed in the jurisdiction where the Project is located, to submit details of proposed repairs and to repair damage to trees and shrubs.
  - b) Replace trees that cannot be repaired and restored to full-growth status, as determined by the Engineer.

4) UTILITIES:

Existing Utilities: Do not interrupt utilities serving facilities occupied by the Owner or others unless permitted under the following conditions and then only after arranging to provided temporary utility services according to the requirements indicated:

- a) Notify Owner and Engineer and operating utility not less than two days in advance of proposed utility interruptions
- b) Do not proceed with utility interruptions without the permission of all the parties noted above.

5) CLEARING AND GRUBBING:

- A) Remove obstructions, trees, shrubs, grass and other vegetation to permit installation of new construction.
  - a) Do not remove trees, shrubs and other vegetation indicated to remain or to be relocated.
  - b) Cut minor roots and branches of trees indicated to remain in a clean and careful manner where such roots and branches obstruct installation of new construction.
  - c) Completely remove stumps and roots greater than 1" in diameter, obstructions and debris extending to a depth of 24 inches below exposed subgrade.
  - d) Use only hand methods for grubbing within tree protection zone
- B) Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated and is to be performed immediately. Do not leave depressions overnight. Note: Place fill material in horizontal layers not exceeding a loose depth of greater than 8 inches and compact each later to a density equal to adjacent original ground.

6) TOPSOIL STRIPPING:

- A) Remove sod and grass before stripping topsoil.



- B) Strip topsoil to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials. Note: Remove subsoil and non-soil materials from topsoil, including trash, debris, weeds, roots and other waste materials.
- C) Dispose of topsoil as specified for surplus soil material in disposal article below, unless otherwise directed by the Engineer.

7) SITE IMPROVEMENTS:

- A) Remove existing above-grade and below-grade improvements and as necessary to facilitate new construction.
- B) Remove slabs, paving, curbs, gutters and aggregate base as indicated.
  - a) Unless existing full-depth joints coincide within line of demolition, neatly saw-cut length of existing pavement to remain before removing existing pavement. Saw-cut faces vertically and in straight lines.
  - b) Paint cut ends of steel reinforcement in concrete to remain to prevent corrosion.

8) DISPOSAL:

Disposal: Remove surplus material, unsuitable topsoil, obstructions, demolished materials and waste materials including trash and debris and legally dispose of them off of the Owner's property.

- a) Do not burn or chip demolished or waste materials on Owner's property.
- b) Separate recyclable materials produced during site clearing from other non-recyclable materials. Store or stockpile without intermixing with other materials and transport them to recycling facilities.

**END OF SECTION**

## SECTION 2750.4

### **Tree Removal Specifications**

- 1) DESCRIPTION The contractor shall furnish all necessary supervision, labor, vehicles and equipment capable of effective and efficient removal of specified trees. In addition, the contractor shall maintain on site at all times work is being performed, a site supervisor who represents the contractor and can adequately communicate in English, both orally and in writing.
- 2) EQUIPMENT The equipment used shall be specified by the contractor and the contractor must describe equipment to be assigned to the project. The contractor shall plan and prepare for the use and positioning of equipment as to accomplish the safe, effective and efficient removal of trees and sections of trees while not damaging improved property. Whenever any tree, or large tree sections, being removed may endanger people or property, an adequate area shall be cordoned off with tape or rope and clearly marked to prohibit access by the public or other unauthorized persons.
- 3) UTILITIES The contractor is responsible for contacting utility companies to obtain clearance/location of utilities in any tree removal areas
- 4) TREE REMOVAL The work will consist of removal of trees specified by the city of Clemson. All tree trimming and removal will be done in accordance with the National Arborists Association Standards for health and safety. Removal of trees will consist of clearing of logs, branches, limbs and brush and the area to be swept clean of all tree debris after completion of work on site. Ensure that the tree is removed to be at an elevation equal the ground line elevation. The tree lawn and turf area shall be left in a "lawn raked clean" condition upon completion of each day. Sidewalks, curbs, gutters and pavement areas will be left in a "broom cleaned" condition upon completion of work each day.
  - a) SPECIFICATIONS Note: Bidders shall be required to self-perform the required tree removals under this Scope of Work. The City of Clemson area map is provided as reference, it is the responsibility of the Bidder to inspect the Area they are bidding on to arrive at a clear understanding of the conditions to be encountered, the difficulties involved, and all other factors affecting the work proposed under this bid request.
  - b) All trees to be removed will be marked by the City of Clemson. Trees that are not marked should not be removed. In the event a tree on the Contractor's list is removed by the City prior to the Contractor's removal, the City will not provide an alternate tree of comparable size within the Area for removal by the Contractor.
  - c) Trees must be removed using acceptable industry practices for removal, including provisions outlined in ANSI A-300 and Z133 standards. Contractor(s) should expect that it might be necessary to climb trees to perform the tree removal for this specification. Extreme care shall be taken so as to prevent limbs, branches, and trunks from falling and creating damage to adjacent homes, driveways, sidewalks, streets and other property, both public and private.
  - d) Limbs and branches larger than four (4) inches in diameter shall be lowered to the ground through the use of ropes or other mechanical device.
  - e) Limbs and branches larger than four (4) inches in diameter shall be lowered to the ground through the use of ropes or other mechanical device.

- f) The Contractor is expected to follow City of Clemson ordinances and laws including noise and traffic control.
- g) It is the Contractors' responsibility to repair any damages to improved property including sidewalks, roads, drives, structures, lawn, landscaping, trees, fencing and other improvements. Ruts, divots and holes in the lawn and landscape (including HWY rights-of-ways) areas caused by removal operations are to be repaired, including reseeding with a similar grass. This does not include the gravel path along the project.
- h) The bidder will be responsible to pay for the disposal of all wood waste generated from the tree removals. The bidder may chip all wood waste on site provided it is spread evenly as to not create a future issue.
- i) All safety standards of OSHA 29 CFR 1094, ANSI Z133, and ANSI A300 shall be followed. The Contractor(s) is expected to follow safety precautions as outlined in ANSI Z133 section 5 - Electrical Hazards, including but not limited to:
  - i) If the minimal approach distance cannot be maintained during removal operations, electrical system owner/operator shall be advised before any work is performed in proximity to energized electrical conductors. The Contractor(s) is also responsible for notifying the utility companies as to when service can be restored and to cooperate with the utility companies to ensure service is restored prior to night fall each day.
  - ii) Only qualified line-clearance arborists or trainees shall be assigned to work where an electrical hazard exists.
  - iii) If the utility company must remedy a hazard before tree work can commence, the Contractor shall notify the City to establish a work plan and scheduling.

**END OF SECTION**

SECTION 02840

**EARTH MOVING**

**PART 1 - GENERAL**

1) **RELATED DOCUMENTS:**

Drawings and general provisions of the Contract, including General and Supplementary Conditions apply to this section.

2) **SUMMARY:**

This section includes the following:

- A) Preparing subgrades for slabs-on-grade, walks, pavements, lawns and grasses and exterior plants
- B) Excavating and backfilling for building and structures.
- C) Base course for concrete walks and pavements
- D) Base course for asphalt paving
- E) Subsurface drainage backfill for walls and trenches

3) **DEFINITIONS:**

- A) Backfill: Soil material or controlled low-strength material used to fill an excavation.
- B) Base Course: Course placed between the subgrade and paving materials.
- C) Bedding Course: Course placed over the excavated subgrade in a trench before laying pipe.
- D) Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill
- E) Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
  - a) Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by the Engineer. Authorized additional excavation and replacement material will be paid for according to the Contract provisions for unit prices.
  - b) Bulk Excavation: Excavation more than 10 feet in width and more than 30 feet in length.
  - c) Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by the Engineer. Unauthorized excavation, as well as remedial work directed by the Engineer, shall be without additional compensation.
- F) Fill: Soil materials used to raise existing grades
- G) Filter Aggregate: Aggregate backfill material that acts as a filter medium in subdrainage systems.
- H) Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material that exceeds 1 cubic yards. for bulk excavation or  $\frac{3}{4}$  cubic yards for footing, trench and pit excavation that cannot be removed by rock excavating equipment equivalent to the following in size and performance ratings, without systematic drilling, ram hammering, ripping, or blasting when permitted:
  - a) Excavation of Footings, Trenches and Pits: Late-model, track-mounted hydraulic excavator; equipped with a 42-inch wide, maximum, short-tip-radius rock bucket; rated at not less than 138-hp flywheel power with bucket-curling force of not less

than 28,090 lb-f and stick-crowd force of not less than 18,650 lb-f; measured according to SAE J-1179.

- b) Bulk Excavation: Late-model, track-mounted loader; rated at not less than 210-hp flywheel power and developing a minimum of 48,510 lb-f breakout force with a general-purpose bare bucket; measured according to SAE J-732.
- I) Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- J) Subgrade: Soil surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below base course, subbase, drainage fill, or topsoil materials, as applicable.
- K) Utilities: On-site underground pipes, conduits, ducts and cables, as well as underground services within buildings.

4) SUBMITTALS:

- A) Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated:
  - a) Classification according to ASTM D 2487 of each on-site and borrow soil material proposed for fill and backfill
  - b) Laboratory compaction curve according to ASTM D 698 for each on-site and borrow soil material proposed for fill and backfill
- B) Pre-Excavation Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces that might be misconstrued as damage caused by earthwork operations. Submit before earthwork begins and periodic updates throughout construction.

5) QUALITY ASSURANCE:

- A) Geotechnical Test Agency Qualifications: An independent testing agency qualified according to ASTM E 329 to conduct soil materials and rock-definition testing, as documented according to ASTM D 3740 and ASTM E 548.
- B) Authorities Having Jurisdiction: Conform to requirements of all authorities having jurisdiction. Where conflicts exist between the requirements of the Contract Documents and those of authorities having jurisdiction, the higher quality or more restrictive requirement shall apply. For locations within areas of DOT jurisdiction, perform all work, testing and inspections in accordance with applicable DOT standards and procedures.

6) PROJECT CONDITIONS:

Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by the Engineer and then only after arranging to provide temporary utility services according to requirements indicated.

- a) Notify Engineer not less than two days in advance of proposed utility interruptions
- b) Do not proceed with utility interruptions without the Engineer's written permission
- c) Contact utility-locator service for area where project is located before excavating

**PART 2 - PRODUCTS**

1) SOIL MATERIALS:

- A) General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B) Satisfactory Soils: ASTM D 2487 Soil Classification Groups GW, GP, GM, SW, SP and SM, AASHTO M 145 Soil Classification Groups A-1, A-2-4, A-2-5, and A-3, or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation and other deleterious matter.  
Note: For locations within areas of DOT jurisdiction, Satisfactory Soils shall be defined by SC DOT Standard Specifications.
- C) Unsatisfactory Soils: ASTM D 2487 Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH and PT, AASHTO M145 Soil Classification Groups A-2-6, A-2-7, A-4, A-5, A-6, A-7 or a combination of these groups. Unsatisfactory soils also include satisfactory soils not brought to within 2 percent of optimum moisture content at time of compaction. These soils are not eligible for compensation under any Unit Price provisions for removal of unsatisfactory soil.

2) AGGREGATE MATERIALS:

- A) All sand and aggregate materials shall be free of shale, clay, friable material, debris, waste, frozen materials, vegetation, organic material or other deleterious matter.
- B) Aggregate materials shall not be composed of marine limestone or slag or unless specifically allowed in the individual paragraph(s) below.
- C) Graded Aggregate Base Course (GABC): Naturally or artificially graded crushed stone (macadam) or marine limestone in accordance with Section 305 of the South Carolina DOT Standard Specifications for Highway Construction
- D) Bedding Course: Naturally or artificially graded mixture of crushed gravel or stone, in accordance with the gradation requirements for Coarse Aggregate #57 as defined by the South Carolina DOT Standard Specifications for Highway Construction.
- E) Filter Aggregate: Naturally or artificially graded mixture of crushed gravel or stone, in accordance with the gradation requirements for Coarse Aggregate #57 as defined by the South Carolina DOT Standard Specifications for Highway Construction.
- F) Sand: Natural or manufactured sand in accordance with the gradation requirements for Fine Aggregate FA-10 (natural) or FA-10M (manufactured) as defined by the South Carolina DOT Standard Specifications for Highway Construction.

3) GEOTEXTILES:

Subsurface Drainage Textile: Nonwoven, needle-punched geotextile, manufactured for subsurface drainage applications, made from polyolefins or polyesters; with elongation greater than 50 percent; complying with AASHTO M 288 and the following, measured per test methods referenced:

- a) Survivability: Class 1, Type A, B or C; SCDOT Standard Specifications
- b) Grab Tensile Strength; 90 lb-f; ASTM D 4632
- c) Puncture Strength; 60 lb-f; ASTM D4833
- d) Trapezoidal Tear: 40 lb-f; ASTM D 4533
- e) Apparent Opening Size: No. 70 Sieve (max), ASTM D 4751
- f) Permittivity: 2.2 second-1 (min); ASTM D 4491
- g) UV Stability; 70 percent after 500 hours exposure; ASTM D 4355
- h) Water Flow Rate: 150 gal/min/ft<sup>2</sup>; ASTM D 4491

**PART 3 - EXECUTION:**

1) PREPARATION:

- A) Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- B) Preparation of subgrade for earthwork operations including removal of vegetation, topsoil, debris, obstructions, and deleterious materials from ground surface is specified in Section titled "Site Clearing."
- C) Protect and maintain erosion and sedimentation controls, which are specified in Section titled "Site Clearing," during earthwork operations.

2) DEWATERING:

- A) Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades and from flooding the project site and surrounding area.
- B) Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
  - a) Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.
  - b) Where required, install a dewatering system to keep subgrades dry and convey ground water away from excavations. Maintain until dewatering is no longer required.

3) EXPLOSIVES:

Do not use explosives.

4) EXCAVATION, GENERAL:

Classified Excavation: Excavate to subgrade elevations. Material to be excavated will be classified as earth and rock. Do not excavate rock until it has been classified and cross sectioned by the Engineer, based on recommendations of the Geotechnical Testing Agency. The Contract Sum will be adjusted for rock excavation according to the unit prices included in the Contract Documents. Changes in the contract time may be authorized for rock excavation.

- a) If excavated materials intended for fill and backfill include unsatisfactory soil materials or rock, replace with satisfactory soil materials. The Contract Sum will be adjusted for replacement of unsatisfactory soils according to the unit prices included in the contract documents.
- b) Earth excavation includes excavating pavements and obstructions visible on surface; underground structures, utilities and other items indicated to be removed; together with soil, boulders and other materials not classified as rock or unauthorized excavation. Intermittent drilling; blasting, if permitted; ram hammering; or ripping of material not classified as rock excavation is earth excavation.
- c) Rock excavation includes removal and disposal of rock. Remove rock to lines and subgrade elevations indicated to permit installation of permanent construction without exceeding the following dimensions:
  - i) 24 inches outside of concrete forms other than at footings
  - ii) 12 inches outside of concrete forms at footings
  - iii) 6 inches outside of the minimum required dimension of concrete cast against grade.
  - iv) Outside dimensions of concrete walls indicated to be cast against rock without forms or exterior waterproofing treatments.
  - v) 6 inches beneath bottom of concrete slabs on grade

5) EXCAVATION FOR WALKS AND PAVEMENTS:

Excavate surfaces under walks and pavements to the indicated lines, cross-sections, elevations and subgrades



6) SUBGRADE INSPECTION:

- A) Notify the Engineer when excavations have reached required subgrade.
- B) If the Engineer, based on the recommendations of the Geotechnical Testing Agency, determines that the unsatisfactory soil is present, continue excavation and replace with compacted satisfactory backfill materials. Authorized additional excavation and replacement material or cement modified subgrade will be paid for according to the unit prices for unsuitable backfill in the contract documents.
- C) Proof-roll subgrade below the building slabs and pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades. Unless otherwise directed by the Engineer, based on the recommendations or the Geotechnical Testing Agency, perform proof-rolls as follows:
  - a) Completely proof-roll subgrade in one direction and where dimension permit, repeating proof-rolling in direction perpendicular to the first direction. Limit vehicle speed to not more than 3 miles per hour.
  - b) Proof roll with a fully loaded, 10 wheel, tandem-axle dump truck weighing not less than 15 tons.
  - c) Excavate soft spots, unsatisfactory soils and areas of excessive pumping or rutting as determined by the Engineer, based on the recommendations of the Geotechnical Test Agency and replace with compacted backfill or fill as directed.
- D) Reconstruct subgrades damaged by freezing temperatures, frost, rain accumulated water or construction activities as directed by the Engineer, based on the recommendations of the Geotechnical Testing Agency without additional compensation.

7) UNAUTHORIZED EXCAVATION:

Fill any unauthorized excavation under foundations, wall footings, utility pipes, or other construction as directed by the Engineer, based on the recommendation of the Geotechnical Testing Agency.

8) STORAGE OF SOIL MATERIALS:

Stockpile borrow soil materials and excavated, satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to efficiently drain surface water. Cover or stabilize the surface to avoid erosion from precipitation or windblow.

9) BACKFILL:

- A) Place and backfill in excavations promptly, but not before completing the following as applicable:
  - a) Making arrangements for required testing and evaluation of subdrainage requirements by the Geotechnical Testing Agency.
  - b) Construction below finished grade including, where applicable, subdrainage, dampproofing, waterproofing and perimeter insulation.
  - c) Surveying locations of underground utilities for Record Documents.
  - d) Testing and inspection of underground utilities.
  - e) Removing trash and/or debris
  - f) Removing temporary shoring and bracing and sheeting
  - g) Installation of permanent or temporary horizontal bracing on horizontally supported walls.
- B) Place backfill on subgrades free of mud, frost, snow or ice.
- C) Comply with the requirements indicated in the paragraph below titled "Compaction of Soil Backfills and Fills"

10) SOIL FILL:

- A) Plow, scarify, bench or break up sloped surfaces steeper than 1V:4H so fill material will bond with existing material
- B) Place and compact fill material in layers to required elevations as follows:
  - a) Make arrangements for required testing by the Geotechnical Testing Agency as required. Do not place subsequent layers until required testing is complete and acceptable results have been obtained and documented.
  - b) Under grass, planted areas, walks, pavements, steps, ramps, building slabs, footings and foundations use satisfactory soil materials.
- C) Place soil fill on subgrades free of mud, frost, snow or ice.
- D) Do not place soil fill on yielding or unapproved subgrade.

11) SOIL MOISTURE CONTROL:

Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.

- a) Do not place backfill or fill soil material on surfaces that are muddy, frozen or contain frost or ice.
- b) Remove and replace or scarify and air dry otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry density.

12) COMPACTION OF SOIL BACKFILLS AND FILLS:

- A) Place backfill and soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers. Note: Make arrangements for required testing by Geotechnical Testing Agency as required. Do not place subsequent layers until required testing is complete and acceptable results have been obtained and documented.
- B) Place backfill and fill soil materials evenly on all sides of structures to required elevations and uniformly along the full length of each structure.
- C) Compact soil materials to not less than the following percentages of maximum dry density according to ASTM D 698:
  - a) Under structures, building slabs, steps and pavements compact each layer of backfill or fill soil material at 98 percent.
  - b) Under walkways, compact each layer of backfill or fill soil material at 95 percent.
  - c) Under lawn or unpaved areas, compact each layer of backfill or fill soil material at 90 percent.

13) GRADING:

- A) General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross-sections, lines and elevations indicated.
  - a) Provide a smooth transition between adjacent existing grades and new grades.
  - b) Cut out soft spots, fill low spots and trim high spots to comply with required surface tolerances.
- B) Site Grading: Slope grades to direct water away from building and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
  - a) Lawn or unpaved areas: +/- 1 inch
  - b) Walks and pavements: +/- 1/2 inch

14) SUBSURFACE DRAINAGE:

- A) Subsurface Drainage (if applicable): Specified in Section titled "Subdrainage"
- B) Make arrangements for evaluation of subsurface drainage requirements by Geotechnical Testing Agency as required
- C) If the Engineer, based on recommendations of the Geotechnical Testing Agency, determines that subsurface drainage requirements differ from those indicated in the contract documents, install revised subsurface drainage as directed.
- D) Authorized adjustments of subsurface drainage will be paid for according to the contract provisions for unit prices. If the contract does not provide unit prices for subsurface drainage, adjustment will be based on mutually acceptable pricing established prior to the initiation of the work.

15) GRADED AGGREGATE BASE COURSE (GABC):

- A) Place GABC on subgrades free of mud, frost, snow or ice.
- B) Immediately prior to placing GABC, proof-roll subgrade as directed in the Subgrade Inspection paragraph above. Do not proceed with placement of the GABC until subgrade is approved.
- C) On prepared and approved subgrade, place GABC under pavements as follows:
  - a) Make arrangements for required testing by Geotechnical Testing Agency
  - b) Where indicated, install separation geotextile on prepared subgrade according to manufacturer's written instructions, overlapping sides and ends
  - c) Place GABC material over subgrade under pavements as indicated
  - d) Shape GABC to required crown elevations and cross-slope grades
  - e) Place GABC 8 inches or less in compacted thickness in a single layer
  - f) Place GABC that exceeds 8 inches in compacted thickness in layers of equal thickness, with no compacted layer no more than 8 inches thick or less than 4 inches thick. Do not place subsequent layers until required testing is complete and acceptable results have been obtained and documented.
  - g) Compact GABC at optimum moisture content to required grades, lines, cross-sections and thickness to not less than 100 percent of the maximum dry density according to ASTM D 698.
- D) Shoulders: Where installation is not bordered by concrete curb, walks or alternate confinement system, place shoulders along edges of GABC to prevent lateral movement. Construct shoulders, at least 12 inches wide, of satisfactory soil materials and compact simultaneously with each base layer to not less than 95 percent of maximum dry density according to ASTM D 698.

16) FIELD QUALITY CONTROL:

- A) Geotechnical Testing Agency: Responsible party will engage a qualified independent geotechnical engineering testing agency.
- B) Allow Geotechnical Testing Agency: to inspect and test subgrades, each fill or backfill layer and each base course layer is applicable. Proceed with subsequent earthwork only after test results for previously completed work comply with requirements.
- C) Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by the Engineer, based on recommendations of the Geotechnical Testing Agency.
- D) Geotechnical Testing Agency will test compaction of the soils and base course in place according to ASTM D 1556 or ASTM D 2922 as applicable, except for locations within areas of SCDOT jurisdiction which shall be tested according to applicable SCDOT procedures and rates. Unless otherwise indicated or required by SCDOT or other authorities having jurisdiction, tests will be performed at the following locations and frequencies:
  - a) Paving and Building Slab Areas: At subgrade, each compacted fill and backfill layer and each base course layer, at least 1 test for every 5000 sq ft or less of paved area or building slab, but in no case fewer than 3 tests.
  - b) Foundation Wall Backfill: At each compacted backfill layer, at least 1 test for each 100 feet or less of wall length but no fewer than 2 tests.

- c) Trench Backfill: At each compacted initial and final backfill layer, at least 1 test for each 300 feet or less of trench length but no fewer than 2 tests.
- E) When Geotechnical Test Agency reports that subgrades, fills, backfills, or base course have not achieved degree of compaction specified, scarify and moisten or aerate or remove and replace to depth required; recompact and retest until specified compaction is obtained.

17) PROTECTION:

- A) Protecting Graded Areas: Protect newly graded areas from traffic, freezing and erosion. Keep free of trash and debris.
- B) Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled or where they lose compaction due to subsequent construction operations or weather conditions. Scarify or remove and replace soil material to depth as directed by the Engineer; reshape and recompact.
- C) Where settling occurs before project correction period elapses, removed finished surfacing, backfill with additional soil material, compact and reconstruct surfacing. Restore appearance, quality and condition of finished surfacing to match adjacent work and eliminate evidence of restoration to greatest extent possible.

18) DISPOSAL OF SURPLUS AND WASTE MATERIALS:

Disposal: Unless directed otherwise to stockpile onsite, remove surplus satisfactory and unsatisfactory soil and legally dispose of it off of Owner's property. Remove waste material, trash, debris and legally dispose of it off of Owner's property.

**END OF SECTION**

## SECTION 02850

### PIPING GENERAL REQUIREMENTS

#### PART 1 - GENERAL

##### 1. DESCRIPTION:

- a. **Work Included:** The work described under this section specifies the general requirements for installation of a piping, valves and fittings to include general and yard piping, water lines, force mains, sewer lines, equipment piping, and process piping, and applies to all work where piping is installed. The work to install electrical conduit is not specified under this section. The contractor shall furnish all labor, equipment, tools, and materials necessary to perform all tasks required to properly install all pipe work as shown on the drawings and specified herein, in coordination with another work and in coordination with the required protection, relocation or connection to existing utilities. Any incidental work, material, or appurtenances not specifically shown, but necessary for completion of the work shall be furnished by the contractor as required.
- b. **Related Work:** Documents affecting work of this Section include, but are not necessarily limited to General conditions, supplementary conditions, and sections in Division 1 of these Specifications.

##### 2. QUALITY ASSURANCE:

- a. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this section.

##### 3. SUBMITTALS:

- a. Comply with pertinent provisions of Section 01340.
- b. **Product Data:** Shop drawings shall be submitted on all pipe, fittings, valves, sleeves, couplings, supports, and appurtenances required for complete installation of the piping. Where material being utilized is the same as specified, the contractor shall submit shop drawings and a verification statement that all piping is as specified.

##### 4. PRODUCT HANDLING:

Comply with pertinent provision of Section 01640

#### PART 2 - PRODUCTS

##### 1. PIPE AND FITTINGS:

**Materials:** All piping to include valves and fittings shall be of the type and size as shown on the drawings or specified in other sections. Materials are to be new and of standard manufacture, meeting all requirements of applicable ASTM standards. Materials not specifically covered by and meeting ASTM, AWWA, and National Sanitation Foundation standards shall not be used.

### **PART 3 - EXECUTION**

#### **1. GENERAL:**

Equipment Piping: All piping necessary for proper installation and operation of equipment shall be installed as required to fit the equipment provided. The Contractor shall be responsible for providing piping and support necessary for proper equipment installation and operation whether or not the required piping and pipe supports are shown on the drawings. All piping is to be properly installed and supported in accordance with equipment manufacturer's recommendations so as not to put strain on equipment connections and to prevent excessive vibration

#### **2. INSTALLATION:**

Installation: All piping shall be installed in a proper and workmanlike manner, properly protected and supported, free from leakage and meeting all requirements for inspection and testing as specified in other sections.

- a. Concrete Blocking: Concrete blocking shall be provided for all underground pressurized piping at all fittings, bends, and ends of pipe to prevent movement of pipe and fittings. Concrete shall be Class A (3000 psi). The concrete blocking shall bear on undisturbed earth in the bottom and sides of the trench and shall be equal to or greater than the dimensions shown on the drawings.
- b. Concrete Protection: Protection and encasement concrete shall be Class B and provided where shown on the drawings, or as necessary for protection of existing piping or utilities as directed by the City of Clemson.
- c. All piping is to be installed to the line, grade, and elevations shown on the plans.
  - i. Water lines, and all pressure piping is to be installed in a true line and grade and in a manner so as to prohibit the formation of high and low spots in the piping likely to trap air or gasses.
  - ii. Gravity, drainage, sewer, and sanitary piping shall be installed in a true line and with a constant grade as shown on the drawings.
  - iii. All fittings, valves, sleeves, couplings, and appurtenances are to be compatible with, and of equal pressure class as the piping being used.
- d. All piping through walls of the manholes shall be adequately supported, and caulked watertight with non-shrink grout.

#### **3. TESTING:**

All piping shall be pressure tested and tested for leakage. Procedures for testing are specified in other sections. All potable water lines are to be disinfected.

#### **4. CLEANUP:**

All piping shall be thoroughly cleaned of concrete, mortar, mud, dirt, debris, and rust prior to painting or coating. All areas of piping shall be cleaned up after installation to remove debris, and discarded and unused piping. The area of piping is to be graded smooth to drain and left in a condition satisfactory to the City of Clemson before piping shall be considered to be complete.

#### **5. PAINTING:**

All exposed metal piping is to be painted. PVC piping is to be painted only as directed by the City of Clemson.

**END OF SECTION**

## SECTION 02860

### WATER DISTRIBUTION SYSTEM

#### **PART 1 - GENERAL**

1) DESCRIPTION:

This section includes work for providing water distribution system and appurtenances as shown on the Drawings, specified herein and need for a complete and proper installation.

2) QUALITY ASSURANCE:

Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and methods needed for proper performance of the work in this Section.

3) SUBMITTALS:

Comply with pertinent provisions of Section 01340

4) PRODUCT HANDLING:

- A) Comply with pertinent provisions of Section 01640.
- B) Storage of PVC pipe:
  - a) Store in unit packages as received from manufacturer until just prior to use.
  - b) Stack units in such manner as to prevent deformation to pipe barrel and bells.
  - c) Protect from direct sunlight by covering with opaque material if storage period will exceed six weeks.
  - d) Avoid severe impact blows, gouging or cutting by metal surfaces or rocks.

#### **PART 2 - PRODUCTS**

1) PIPE AND FITTINGS:

- A) General:
  - a) Pipe sizes 2" and larger: Use PVC Class 315 as indicated on the drawings with integral bell and gasket.
  - b) Pipe sizes 4" and larger: Use DIP Class 350 as indicated on the drawings.
  - c) Pipe, fittings, packing, jointing materials, valves, and fire hydrants must conform to Section C of the American Water Works Association (AWWA) Standards. All materials and products which come into contact with drinking water must be certified as meeting the specifications of the American National Standards Institute / National Sanitation Foundation (ANSI/NSF) Standard 61, Drinking Water System Components - Health Effects. The certifying party shall be accredited by the American National Standards Institute.



- d) Water mains which have previously been used for conveying potable water may be reused provided they meet applicable criteria from AWWA Section C, ANSI/NSF 61 and ASTM D1785 or D2241. The mains must be thoroughly cleaned and restored practically to their original condition.
  - e) Asbestos cement pipe shall not be used in potable water systems except in the repair of existing asbestos cement lines.
  - f) Thermoplastic pipe shall not be used above grade.
- B) Pipe:
- a) PVC Pipe:
    - i) Shall conform to ASTM D 3139, and ANSI/ASTM standard D2241 (PVC 1120) and shall bear the seal of the National Sanitation Foundation (NSF).
    - ii) As indicated on the drawings all water line piping 2 inches through 12 inches shall be Class C900 PVC or Class 315 PVC.
    - iii) PVC: AWWA C905 (for pipes 14 inches through 48 inches in diameter)
    - iv) Unless otherwise specified, all fitting for PVC piping 3 inches and larger shall be M1. Ductile or cast iron fittings with a transition gasket for use with PVC Pipe.
    - v) Unless otherwise specified, all water line and service line piping smaller shall be Class 315 PVC, SDR 35 with a working pressure of 315 PSI.
  - b) Ductile Iron Pipe:
    - i) Shall comply with AWWA C150/A21.50 & AWWA C151/A21.51
    - ii) Wall thickness in accordance with Table 51.1 of ANSI/AWWA C151/A21.51 with a working pressure of 350 PSI, depth of cover indicated.
    - iii) Use cement mortar lining complying with ANSI/AWWA C104/A21.4, standard thickness.
    - iv) Ductile Iron "stream crossing" shall have a joint restraints, such as Griffin "Snap-Loc" or approved equal.
  - c) Steel: Shall comply with AWWA C200, ASTM A53 or A120.
  - d) All pipe material, solder and flux shall be lead free (less than 0.2 percent lead in solder and flux less than 8.0% lead in pipe and fittings)
  - e) Natural rubber or other material which will support microbiological growth may not be used for any gaskets, O-rings, and other products used for jointing pipes, setting meters or valves, or other appurtenances which will expose the material to water.
  - f) Lubricants which will support microbiological growth shall not be used for slip-on joints.
  - g) The use of vegetable shortening is prohibited.
  - h) The use of solvent-weld PVC pipe and fittings in water mains 4 inches and larger is prohibited.
- C) Fittings:
- a) Use 350 PSI ductile iron fittings, complying with ANSI/AWWA C110/A21.10
  - b) For use with push-on joint pipe, comply with ANSI/AWWA C111/A21.11
  - c) Use cement mortar lining complying with ANSI/AWWA C104/A21.4, standard thickness.
- D) Installation:

- a) Fittings: All PVC pressure piping shall be installed and supported uniformly and continuously over its entire length on firm stable material. Backfill in contact with the pipe shall not contain rock or debris with a diameter greater than 1 inch. Installation shall be in accordance with ASTM D2774. Class C bedding shall be used in dry suitable soil. Class C alternate bedding shall be used in wet unsuitable soil conditions.
- b) Shop Drawings: Submittals containing the pipe manufacturer and material specifications and certification statement for each size of pipe are to be submitted to the City of Clemson for approval prior to any purchase of pipe or materials by the Contractor. Pipe manufacturer shall submit written certification that the pipe furnished will meet the proceeding tests (Section E)

E) Testing:

- a) Sustained Pressure: When tested in accordance with ASTM D 1598, the pipe shall withstand sustained pressures at fiber stress indicated for 1000 hours without failure by ballooning, bursting or weeping.
  - i) Pipe Class: 200 PSI
  - ii) SDR: 21
  - iii) Hydrostatic Pressure: 420 PSI
  - iv) Fiber Stress: 4200 PSI
- b) Quick Burst Pressure:
  - i) Pipe Class: 200 PSI
  - ii) SDR: 21
  - iii) Hydrostatic Pressure: 630 PSI
  - iv) Fiber Stress: 6400 PSI
- c) Extrusion Quality: When tested in accordance with ASTM 2152, the pipe shall not flake or disintegrate following 20 minutes immersion in anhydrous acetone. This test is intended as a quality control procedure applicable for distinguishing between unfused and properly fused PVC.
- d) Impact Resistance: When tested at 73.4 degrees Fahrenheit in accordance with ASTM D2444, the pipe shall withstand a minimum impact level of 300 ft-lbs without shattering, cracking or splitting for pipe diameters between 4-12 inches.
- e) Pipe manufacturer shall certify in writing and receive the City of Clemson's approval, prior to shipment and delivery of pipe that all pipe furnished will meet above the test limits. Failure to provide the written certification shall be considered cause for the rejection of the pipe by the City of Clemson.

F) Warranty:

- a) All pipe shall be fully warranted by the pipe manufacturer against defects in material for a period of one year from date of delivery to job site. All pipe determined by the City of Clemson to be defective or pipe not meeting the above specifications shall be promptly replaced. A warranty statement shall be submitted with the certifications.
- b) If during the warranty period and as a result of testing by the City of Clemson, the pipe is found not to meet specified test conditions stated above, all the pipe is to be dug up and replaced at the Contractor's expense.

2) Valves:

A) General:

- a) 2 - 12 inch diameters - use gate valves.
- b) 12 and larger diameters - use butterfly valves.
- c) Open by turning counter clockwise.
- d) End connections as required for the piping in which they are installed.
- e) 2 inch metal operating nut with arrow indicating direction of opening.
- f) Use valves designed for a work pressure of not less than 200 PSI with a test pressure of 400 PSI unless otherwise specified or indicated.
- g) Valves to be manufactured by Mueller or American-Darling
- h) Double check valve and reduced pressure principle backflow prevention assemblies must be selected from the SC DHEC approved list. Also, each assembly must be tested by a certified tester upon installation, once annually and thereafter any repairs.
- i) Gate valves less 2 inches are to use iron-body, screw ends, double disc or wedge disc, non-rising stem, with hand wheel operator, manufacturer to approved by the City of Clemson.

B) Gate Valves (2"-12" dia.):

- a) Use resilient seated wedge valves complying with ANSI/AWWA C500, or ANSI AWWA C509 as applicable, mechanical joint end connections. Valves are to be Mueller or American Darling
- b) Resilient seated wedge valves shall:
  - i) Have all internal ferrous metal surfaces, fully coated with two-part thermosetting epoxy.
  - ii) Have integrally cast bronze stem nut
  - iii) Be designed for external stem failure when excessive closing torque is applied with no failure of the pressure retaining parts.

C) Butterfly Valves:

- a) Provide valves conforming to AWWA C504 standard, latest revision, for Class 15 GB, suitable for two-way flow with minimum pressure rating of 200 PSI(g) for 4"-12" and 150 PSI(g) for 14"-24".
- b) Disc to be offset design providing 360 degree uninterrupted seating with 90 degree operation from fully closed to fully open position.
- c) Valve body to be ductile iron with mechanical joint ends for buried service.
- d) Resilient seats to be natural or synthetic rubber (BUNA N)
- e) Shafts to be turned, ground & polished, constructed of 18-8 Type 304SS.
- f) Valve bearings shall be of Teflon or other self-lubricating material designed for a bearing pressure not to exceed  $\frac{1}{8}$  of the compressive strength of the bearing material.
- g) Shaft seals shall consist of non-adjustable, self-compensation v-type packing or O-ring seals.
- h) Buried valves shall have worm gear operator nuts conforming to AWWA C504.

3) HYDRANTS:

- A) Comply with ANSI/AWWA C502.
- B) Waterway valve opening, 4  $\frac{1}{2}$ "
- C) Six inch bell connection, two 2  $\frac{1}{2}$ " hose connections and once 4  $\frac{1}{2}$ " steamer connection.
- D) National standard screw threads on outlet nozzles. Open by turning counterclockwise, with arrow cast in top indicating direction of opening.

- E) Two part breakable safety flange shall be an integral part of barrel casting.
- F) Depth of bury 3'-6".
- G) Finish coat with red enamel.
- H) Provide one hydrant wrench for each ten hydrants.
- I) Hydrants are to be Mueller Centurion or approved equal.

4) VALVE BOXES:

- A) Provide at each buried valve.
- B) Cast iron extension type, suitable for minimum cover of 3'-6" over the pipe.
- C) Minimum inside diameter at the top of 5", minimum wall thickness of 3/16"
- D) Have the word "WATER" cast into cover.
- E) One foot wide concrete collars are to be provided around all valves not in pavement.

5) PLUGS & CAPS:

- A) Provide at all pipe ends and unused branches of fittings.
- B) All plugs and caps shall be tapped 2" and provided with 2" plugs.

6) MISCELLANEOUS PARTS & ACCESSORIES: Use standard commercial grade suitable for the type of installation or system involved, and conforming to the applicable standards and specifications of the AWWA.

7) MAGNETIC TRACING TAPE & WIRE: Magnetic tracing tape shall be placed over all water lines, both plastic and iron. Tape shall be commercial product with the word "WATER" printed on both sides. Tracing wire shall be placed over all water lines, both plastic and iron, and terminated at each valve box.

**PART 3 - EXECUTION**

1) HANDLING:

- A) Handle pipe accessories so as to ensure delivery to the trench in sound, undamaged condition. Carry pipe into position and avoid dragging. Use pinch bars or tongs for aligning or turning the pipe only on the bare end of the pipe and use care not injure pipe linings.
- B) Thoroughly clean interior of pipe and accessories before lowering pipe into trench. Keep clean during laying operations by plugging or other method approved by the City of Clemson.
- C) Before installation, inspect each piece of pipe and each fitting for defects. Replace with sound material at no additional cost to the City of Clemson if found to be defective before or after laying pipe.
- D) Gasket Storage: Store in a cool, dark place until just prior to time of installation.

2) PIPE CUTTING:

- A) Cut pipe neatly and without damage to the pipe.
- B) Unless otherwise recommended by the pipe manufacturer and authorized by the City of Clemson, cut pipe with a mechanical cutter only (i.e. pipe saw).
- C) Use wheel cutters when practicable.

D) Cut plastic pipe square and remove all burrs.

3) INSTALLATION:

- A) Air relief valves shall be provided in accordance with sound engineering practice at high points in water mains as required. Automatic air relief valves shall not be used in situations where flooding of the manhole or chamber may occur.
- B) Chambers, pits or manholes containing valves, blow-offs, meters, air relief valves or other such appurtenances to a distribution system, shall not be connected directly to any storm drain or sanitary sewer.
- C) Installation of water mains and appurtenances shall be conducted in accordance with Section C of the AWWA Standards and/or manufacturer's recommended installation procedures.
  - a) A continuous and uniform bedding shall be provided in the trench for all buried pipe.
  - b) Backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe.
  - c) Stones, other than crushed bedding, shall not come in contact with the pipe and shall not be within 6 inches of the pipe.
- D) All water mains shall be provided with a minimum of 30 inches of cover, unless pipe material is steel, concrete, DIP or other approved material, and if exposed should be insulated to prevent freezing.
- E) All tees, bends, plugs, and hydrants on lines 2 ½" in diameter and larger shall be provided with reaction blocking, tie-rods, or other approved method of restraint.
- F) All water mains shall be detectable within 3 feet with electronic locating equipment.
- G) Non-metallic pipes shall be installed with copper wire or other means of detection..
- H) Water mains shall be located out contaminated areas, unless using pipe materials that will protect (i.e. DIP with chemical restraint gaskets). Re-route line if possible.
- I) Separation of Potable Water and Sanitary Sewer Mains:
  - a) Parallel Installation: Water mains shall be laid out at least 10 feet horizontally from any existing or proposed sewer. The distance shall be measured from edge to edge. In cases where it is not practicable to maintain 10 foot separation, the Department may allow deviation on a case-by-case basis, if supported by data from the design engineer. Such deviation may allow installation of the water main closer to a sewer, provided that the water main is laid in a separate trench or on an undisturbed earth shelf located on one side of the sewer at such an elevation that the bottom of the water main is at least 18 inches above the top of the sewer.
  - b) Crossings: Water mains crossing sewers shall be laid to provide a minimum vertical separation of 18 inches between the outside of the water main the outside of the sewer. This shall be the case whether the water main is either above or below the sewer line. Whenever possible, the water main shall be located above the sewer line. Where a new water main crosses a new sewer line, a full length of pipe shall be used for both the water and sewer main and the crossing shall be arranged so that the joints of each line will be as far as possible from the point of crossing and

each other. Where a new water main crosses an existing sewer line, one full length of water pipe shall be located so both joints will be as far as possible from the sewer line as possible. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer line to prevent damage to the water main.

- c) Special Conditions: When it is impossible to obtain the distance specified in R.61-58.4(D)(12)(a) & (b) the Department may allow an alternative design. Any alternative design shall:
  - i) Maximize the distance between the water main and sewer line and joints of both.
  - ii) Use materials which meet the requirements of R.61-58.4(D)(1) for the sewer line
  - iii) Allow enough distance to make repairs to either line without damaging the other.
- d) Force Mains: There shall be at least a 10 foot horizontal separation between water mains and sanitary sewer force mains. There shall be an 18 inch vertical separation at crossing as required in R.61-58.4(D)(12)(a) & (b).
- e) Sewer Manholes: No water pipe shall pass through or come in contact with any part of a sewer manhole. Water lines may come in contact with storm sewers or catch basins if there is no other practical alternative, provided that ductile iron is used, no joints of the water line are within the storm sewer or catch basin and the joints are located as far as possible from the the storm sewer or catch basin.
- f) Drain-fields and Spray-fields: Potable water lines shall not be laid less than 25 feet horizontally from any portion of a wastewater drain field or spray field, or shall otherwise be protected by an acceptable method approved by the Department.
- J) Above-water Crossings: The pipe shall be adequately supported and anchored, protected from damage and freezing and accessible for repair or replacement.
- K) Underwater Crossings: A minimum of 2 feet of cover shall be provided over the pipe. When crossing water courses greater than 15 feet in width, the following shall be provided:
  - a) The pipe material and joints shall be designed appropriately.
  - b) Valves shall be located so the section can be isolated for testing or repair; the valves on both of crossing shall be easily accessible and not subject to flooding.
  - c) A blow-off shall be provided on the opposite side the supply service and sized in accordance with Section R.61.58.4(D)(7). Direct away blow-off away from body of water and over the ground.
  - d) Use DIP with mechanical joints for any lines being installed in rock.
- L) Any pipe, solder or flux which is used in the installation or repair of any public water system, used in any plumbing which provides water through connection to a public water system for human consumption, shall be lead free. Lead free, for solder and flux, means those containing not more than 0.2% lead. Lead free, for pipes and pipe fittings, as those containing not more than 8.0% lead. Lead joint necessary for the repair of CIP shall be exempt from the above.
- M) Cross Connection Control:
  - a) There shall be no connection between the distribution system and any pipes, pumps, hydrants or tanks whereby unsafe water or other contamination materials may be discharged or drawn into the system.

- b) No by-passes shall be allowed, unless the bypass is also equipped with an equal, approved backflow prevention device.
- c) High hazard category cross connections shall require an air gap separation or an approved reduced pressure backflow preventer.
- d) Reduced pressure principal backflow prevention assemblies shall not be installed in any area location subject to possible flooding. This includes pits or vaults which are not provided with a gravity drain to the ground's surface that is capable of exceeding the discharge rate of the relief valve. Generally, if installed in a pit, the drain line shall be twice the size of the line entering the backflow prevention device. The drain cannot empty into any type of ditch, storm drain, or sewer which could flood water back into the pit.
- e) All piping up to the inlet of the backflow prevention device must be suitable for potable water. The pipe must be AWWA or NSF approved. Black steel pipe cannot be used on the inlet side of the device.
- f) Fire line sprinkler systems and dedicated fire lines, except those in high hazard category shall be protected by an approved double check valve assembly.

4) EXCAVATION AND BACKFILLING:

Comply with pertinent provisions of Section 02221.

5) ALIGNMENT OF PIPE:

- A) Pipe lines intended to be straight shall be laid so.
- B) Where horizontal or vertical alignment requires deflection from straight line or grade, such deflection shall not exceed maximum deflection recommended by the pipe manufacturer.
- C) If alignment requires deflection exceeding recommended limits, furnish special bends or a sufficient number of shorter lengths of pipe to provide angular deflections within the allowable limits.

6) PLACING AND LAYING:

- A) General:
  - a) Lower pipe and accessories into trench by means of derrick, ropes, belt slings or other equipment approved by the City of Clemson.
  - b) Do not dump or drop any of the materials of this Section into the trench.
  - c) Except where necessary in making connections to other lines, lay pipe with bells facing in the direction of laying.
  - d) Rest the full length of each section of pipe solidly on the pipe bed.
  - e) Take up and relay pipe that has the grade or joint disturbed after laying
  - f) Do not lay pipe in water, or when trench conditions are unsuitable for the work; keep water out of the trench until jointing is completed.
  - g) Securely close open ends of pipe, fittings and valves when work is not in progress.
  - h) Where any part of coating or lining is damaged, repair to the approval of the City of Clemson and at no additional cost to the City of Clemson.
  - i) Place magnetic tracing tape directly above the pipe 12 inches below finished grade of the ditch.

- j) All mains must have a minimum cover of 30 inches. Where this is not possible, the pipe must be steel, concrete or ductile iron and insulated to prevent freezing.
    - B) Ductile Iron Pipe:
      - a) Use mechanical and push on joints and install in accordance with ANSI/AWWA C600.
      - b) Gaskets: Handle, lubricate where necessary and install in strict accordance with the manufacturer's recommendations.
    - C) Plastic Pipe:
      - a) Clean gasket, bell or coupling interior, especially the groove area.
      - b) Lubricate and insert gasket as recommended by manufacturer.
      - c) Align spigot to bell, insert spigot into bell unit contacts gasket uniformly.
      - d) Push pipe 'home' until reference mark is in proper location.
    - D) Surface Water Crossings:
      - a) Above Water Crossing: The pipe shall be adequately supported and anchored, protected from damage and freezing and accessible for repair or replacement.
      - b) Underwater Crossing: A minimum cover of two (2) feet shall be provided over the pipe. When crossing water courses greater than fifteen (15) feet in width, the following shall be provided:
        - i) Use appropriate pipe material and joints (per detail drawings)
        - ii) Valves shall be located so that the section can be isolated for testing and repair. The valves shall be easily accessible and not subject to freezing.
        - iii) A blow-off shall be provided on the on the side opposite the supply service, sized per plan details.
- 7) SETTING VALVES & VALVE BOXES:
- A) Center valve boxes on the valves, setting plumb.
  - B) Tamp earth fill around each valve box to a distance of four feet on all sides, or to the undisturbed trench face if less than four feet.
  - C) Fully open and close each valve to assure that all parts are in working condition.
- 8) INSTALLATION OF HYDRANTS:
- A) Inspect carefully, insuring that all foreign material is removed from the barrel.
  - B) Set plumb and at such elevation that connecting pipe and distribution main have same depth of cover.
  - C) Install stone drainage bed and thrust blocking as indicated.
  - D) Fully open and close each hydrant to assure that all parts are in working condition.
- 9) THRUST BLOCKS:
- A) General:
    - a) Provide thrust blocks, or metal tie-rods and clamps or lugs, on plugs, caps, tees, hydrants and bends deflecting 11% degrees or more, either vertically or horizontally and on water lines 2" in diameter or larger.
    - b) Provide concrete thrust blocking with a compressive strength of 3000 PSI in 28 days on all tees, bends, and plugs.



- c) Size of all the blocking will be determined by the City of Clemson, based on soil bearing capacity as shown on drawings.

B) Installation:

- a) Locate thrust blocking between solid ground and the fitting to be anchored.
- b) Unless otherwise shown or directed by the City of Clemson, place the base and thrust bearing sides of thrust blocking directly against undisturbed earth.
- c) Sides of the thrust blocking not subject to thrust may be placed against forms.
- d) Place thrust blocking so the fitting joints will be accessible for repair.
- e) Protect steel rods and clamps by galvanizing or by coating with bituminous paint.

10) HYDROSTATIC TESTING:

A) General:

- a) Clean and flush line of dirt and foreign material
- b) Do not perform hydrostatic tests until at least five days after installation of thrust blocking.
- c) Test pump, pipe connection, pressure gauges, measuring devices and all other necessary appurtenances to conduct tests shall be provided by the Contractor.
- d) If permanent air vents are not located at all high points, the Contractor shall install a brass corporation cocks as such points. Corporation cocks shall be left in place and all costs for providing cocks shall be borne by the Contractor.
- e) Tests shall be conducted on each line or valved section of line.
- f) Test pressures shall be 1.5 times working pressure or 200 psi minimum based on the elevation of the highest point of the section under test and corrected to the elevation of the test gauge.

B) Pressure Tests:

- a) Pressure and leakage tests must be conducted in accordance with AWWA Standard C600. The pressure must be at least 1.5 times the maximum working pressure and the duration of the test must be at least two hours, per R.61-58.4.D(11)(e). The formulas to be used for calculating the allowable leakage per hour shall be  $L = SD(P)^{0.5} / 148000$ . (L = allowable leakage (gal/hr), S = length of the pipeline tested (feet), D = diameter of pipe (inches), P = average test pressure (psig) ).
- b) All visible leaks shall be repaired regardless of the amount of leakage. Should any test of pipe disclose leakage greater than that specified above, locate and repair the defective joint or joints until the leakage is within the specified allowance and at no additional cost to the City of Clemson.

11) STERILIZATION:

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- A) Disinfection Requirements (R.61.58.4.D.(11)(f)):

- a) Disinfection of all new water mains shall be in accordance with current AWWA Standard C651 for the disinfection of water mains. In general, one approved method referred to as 'continuous feed method' is as follows:
  - i) Before being placed into service, all new mains shall be thoroughly flushed then chlorinated with not less than twenty-five (25) milligrams per liter of available chlorine.
  - ii) Water from the existing distribution system or other source of supply shall be controlled so as to flow slowly into the newly laid pipeline during the application of chlorine.
  - iii) The solution shall be retained in the pipeline for not less than twenty-four (24) hours and then flushed thoroughly with a potable water of satisfactory bacteriological quality before starting the sampling program.
- b) The contractor or owner shall collect a minimum of two (2) samples from each sampling site for total coliform analysis. The number of sites depends on the amount of new construction but must include all dead-end lines, be representative of the water in the newly constructed mains and shall be collected a minimum of every 1000 linear feet.
- c) Prior to sampling, the chlorine residual must be reduced to normal system residual levels or be non-detectable in those systems not chlorinating.
- d) These samples must be collected at least twenty-four (24) hours apart and must show the water line to be absent of total coliform bacteria.
- e) The chlorine residual must also be measured and reported.
- f) If the membrane filter method of analysis is used for the coliform analysis, non-coliform growth must also be reported.
- g) If the non-coliform growth is greater than eighty (80) colonies per one hundred (100) milliliters, the sample result is invalid and must be repeated.
- h) All samples must be analyzed by a SC DHEC certified laboratory.

**END OF SECTION**

SECTION 02900

**CONCRETE PAVING**

**PART 1 - GENERAL**

1) **SUMMARY:**

This Section includes exterior cement concrete pavement for the following:

- A) Driveways and roadways.
- B) Parking lots.
- C) Curbs and gutters.
- D) Walkways.
- E) Unit paver base.

2) **SUBMITTALS:**

Minutes of pre-installation conference.

3) **QUALITY ASSURANCE:**

- A) Manufacturer Qualifications: Manufacturer of ready-mixed concrete products who complies with the equipment, material and production requirements of Section 701 of the South Carolina Department of Transportation Standard Specifications for Highway Construction.
- B) Concrete Testing Agency Qualifications: An independent testing agency qualified according to ASTM E 329 and ASTM C 1077 to perform material evaluation tests and to design concrete mixtures.
- C) Mockups: Cast mockups of full-size sections of exposed aggregate concrete pavement to demonstrate typical joints, surface finish, texture, color, and standard of workmanship.
  - a) Build mockups in the location and of the size indicated or, if not indicated, as directed by Engineer.
  - b) Notify Engineer seven days in advance of dates and times when mockups will be constructed.
  - c) Obtain Engineer's approval of mockups before starting construction.
  - d) Maintain approved mockups during construction in an undisturbed condition as a standard for judging the completed pavement.
  - e) Demolish and remove approved mockups from the site when directed by Engineer.
  - f) Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- D) Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination."
  - a) Before submitting design mixtures, review concrete pavement mixture design and examine procedures for ensuring quality of concrete materials and concrete pavement construction practices. Require representatives, including the following, of each entity directly concerned with concrete pavement, to attend conference:
    - i) Contractor's superintendent.

- ii) Independent testing agency responsible for concrete design mixtures.
  - iii) Ready-mix concrete producer.
  - iv) Concrete pavement subcontractor.
- E) Authorities Having Jurisdiction: Conform to requirements of all authorities having jurisdiction. Where conflicts exist between the requirements of the Contract Documents and those of authorities having jurisdiction, the higher quality or more restrictive requirement shall apply. For locations within areas of DOT jurisdiction, perform all work, testing, and inspections in accordance with applicable DOT standards and procedures.

4) PROJECT CONDITIONS:

- A) Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities. Where Work activities encroach into public rights-of-way, provide traffic control to maintain safe transit of work area by vehicular and pedestrian traffic. All traffic control shall be in accordance with the requirements of the authorities having jurisdiction.
- B) Environmental Limitations: Do not install concrete paving if subgrade is frozen, wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the ambient air temperature is below, or is expected to fall below, 40 deg F during the time of placement.
- C) Pavement-Marking: Proceed with pavement marking only on clean, dry surfaces; at a minimum ambient or surface temperature of at least 55 deg F, and not exceeding 95 deg F; and at a maximum relative of 85%. Do not apply pavement markings if rain is imminent or expected before time required for adequate drying.

**PART 2 - PRODUCTS**

1) FORMS:

- A) Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth, continuous, straight, smooth exposed surfaces. Use flexible or curved forms for curves as necessary in order to prevent a chord effect in the alignment of the finished work.
- B) Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

2) STEEL REINFORCEMENT:

- A) Reinforcing Bars: ASTM A 615/A 615M, Grade 60; deformed.
- B) Plain Steel Wire: ASTM A 82, as drawn.
- C) Joint Dowel Bars: Plain steel bars, ASTM A 615/A 615M, Grade 60. Cut bars true to length with ends square and free of burrs.
- D) Tie Bars: ASTM A 615/A 615M, Grade 60, deformed.
- E) Hook Bolts: ASTM A 307, Grade A, internally and externally threaded. Design hook-bolt joint assembly to hold coupling against pavement form and in position during concreting operations, and to permit removal without damage to concrete or hook bolt.
- F) Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars, welded wire reinforcement, and dowels in place. Manufacture

bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete of greater compressive strength than concrete, and as follows:

- a) Equip wire bar supports with sand plates or horizontal runners where base material will not support chair legs.
  - b) For epoxy-coated reinforcement, use epoxy-coated or other dielectric-polymer-coated wire bar supports.
- G) Epoxy Repair Coating: Liquid two-part epoxy repair coating, compatible with epoxy coating on reinforcement.
- H) Zinc Repair Material: ASTM A 780.

3) CONCRETE MATERIALS:

- A) Concrete: Class 3000 concrete in accordance with Section 701 of the South Carolina Department of Transportation Standard Specifications for Highway Construction.
- B) Water: ASTM C 94/C 94M
- C) Admixtures: Air-entraining, accelerating, retarding, and water reducing admixtures shall be in accordance with Section 701 of the South Carolina Department of Transportation Standard Specifications for Highway Construction.

4) CURING MATERIALS:

- A) Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. dry.
- B) Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- C) Water: Potable.
- D) Evaporation Retarder: Waterborne, monomolecular film forming; manufactured for application to fresh concrete. The following are approved products:
  - a) Axim Concrete Technologies; Cimfilm.
  - b) Burke by Edeco; BurkeFilm.
  - c) ChemMasters; Spray-Film.
  - d) Conspec Marketing & Manufacturing Co., Inc.; Aquafilm.
  - e) Dayton Superior Corporation; Sure Film
  - f) Euclid Chemical Company (The); Eucobar.
  - g) Kaufman Products, Inc.; Vapor Aid.
  - h) Lambert Corporation; Lambco Skin.
  - i) L&M Construction Chemicals, Inc.; E-Con.
  - j) MBT Protection and Repair, ChemRex Inc.; Confilm
  - k) Meadows, W. R., Inc.; Sealtight Evapre.
  - l) Metalcrete Industries; Waterhold.
  - m) Nox-Crete Products Group, Kinsman Corporation; Monofilm.
  - n) Sika Corporation, Inc.; SikaFilm.
  - o) Symons Corporation; Finishing Aid.
- E) Clear Waterborne Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B. The following are approved products:
  - a) Anti-Hydro International, Inc.; AH Curing Compound #2 DR WB.
  - b) Burke by Edoko; Aqua Resin Cure.
  - c) ChemMasters; Safe-Cure Clear.
  - d) Conspec Marketing & Manufacturing Co., Inc.; W.B. Resin Cure
  - e) Dayton Superior Corporation; Day Chem Rez Cure (J-11-W).
  - f) Euclid Chemical Company (The); Kurez DR VOX.

- g) Kaufman Products, Inc.; Thinfilm 420.
  - h) Lambert Corporation; Aqua Kure-Clear.
  - i) L&M Construction Chemicals, Inc.; L&M Cure R
  - j) Meadows, W. R., Inc.; 1100 Clear.
  - k) Nox-Crete Products Group, Kinsman Corporation; Resin Cure E.
  - l) Symons Corporation; Resi-Chem Clear.
  - m) Tamms Industries Inc.; Horncure WB 30.
- F) White Waterborne Membrane-Forming Curing Compound: ASTM C 309, Type 2, Class B. The following are approved products:
- a) Anti-Hydro International, Inc.; AH Curing Compound #2 WP WB.
  - b) Burke by Edoco; Resin Emulsion White.
  - c) ChemMasters; Safe-Cure 2000.
  - d) Conspec Marketing & Manufacturing Co., Inc.; W.B. Resin Cure.
  - e) Dayton Superior Corporation; Day-Chem White Pigmented Cure (J-10-W)
  - f) Euclid Chemical Company (The); Kurez VOX White Pigmented.
  - g) Kaufman Products, Inc.; Thinfilm 450
  - h) Lambert Corporation; Aqua Kure-White.
  - i) L&M Construction Chemicals, Inc.; L&M Cure R-2.
  - j) Meadows, W. R., Inc.; 1200-White.
  - k) Symons Corporation; Resi-Chem White.
  - l) Tamms Industries, Inc.; Horncure 200-W.
- G) Special Curing Compound for Integrally Colored Concrete: ASTM C 309, water-based acyclic emulsion curing compound, formulated for use with integrally colored concrete. The following are approved products:
- a) COLORCURE Concrete Sealer; L.M. Scofield Co.
  - b) QC COLOR CURE; QC Construction Products.

5) RELATED MATERIALS:

- A) Bonding Agent: ASTM C 1059, Type II, non-redispersible, acrylic emulsion or styrene butadiene.
- B) Epoxy Bonding Adhesive: ASTM C 881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class suitable for application temperature and of grade to requirements, and as follows: Types I and II, non-load bearing, for bonding hardened or freshly mixed concrete to hardened concrete
- C) Chemical Surface Retarder: Water-soluble, liquid-set retarder with color dye, for horizontal concrete surface application, capable of temporarily delaying final hardening of concrete to a depth of 1/8 to 1/4 inch. The following are approved products:
  - a) Burke by Edeco; True Etch Surface Retarder
  - b) ChemMasters; Exposee.
  - c) Conspec Marketing & Manufacturing Co., Inc.; Delay S.
  - d) Euclid Chemical Company (The); Surface Retarder S.
  - e) Kaufman Products, Inc.; Expose.
  - f) Metalcrete Industries; Surfard.
  - g) Nox-Crete Products Group, Kinsman Corporation; Crete-Nox TA.
  - h) Scofield, L. M. Company; Lithotex.
  - i) Sika Corporation, Inc.; Rugasol-S.

6) PAVEMENT MARKINGS:

- A) Thermoplastic Pavement Markings: Reflectorized mixture of thermoplastic binder and spherical glass beads in accordance with Section 627 of the South Carolina Department of Transportation Standard Specifications for Highway Construction. Color as indicated.
- B) Glass beads: AASHTO M 247, Type 1.

7) WHEEL STOPS:

Wheel Stops: Precast, air-entrained concrete, 2500-psi minimum compressive strength, 5 inches high by 9 inches wide by 72 inches long. Provide chamfered corners, drainage slots on underside, and holes for anchoring to substrate. Dowels: Galvanized steel, diameter 1/8" smaller than anchor holes provided in wheel stop, 24-inch minimum length.

8) CONCRETE MIXTURES:

- A) Prepare design mixtures, proportioned according to Section 701 of the South Carolina Department of Transportation Standard Specifications for Highway Construction, for each type and strength of normal-weight concrete determined by either laboratory trial mixes or field experience. Use a qualified independent testing agency for preparing and reporting proposed concrete mixture designs for the trial batch method.
- B) Proportion mixtures to provide normal-weight concrete with the following properties:
  - a) Compressive Strength (28 Days): 3000 psi.
  - b) Maximum Water-Cementitious Materials Ratio at Point of Placement: in accordance with Section 701 of the South Carolina Department of Transportation Standard Specifications for Highway Construction.
  - c) Slump Limit: 5 inches, plus or minus 1 inch, except where lower slump is required for automatic machine placement or other specialized applications.
- C) Add air-entraining admixture at manufacturer's prescribed rate to result in normal-weight concrete at point of placement having an air content as follows: Air Content: 6 percent plus or minus 1.5 percent for 3/4-inch nominal maximum aggregate size
- D) Chemical Admixtures: Use admixtures according to manufacturer's written instructions.
- E) Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement according to the requirements of Section 701 of the South Carolina Department of Transportation Standard Specifications for Highway Construction as follows:
  - a) Fly Ash: 20 percent
  - b) Ground Granulated Blast-Furnace Slag: 50 percent.
- F) Color Pigment: Add color pigment to concrete mixture according to manufacturer's written instructions and to result in hardened concrete color consistent with approved mockup.

9) CONCRETE MIXING:

Ready-Mixed Concrete: Measure, batch, and mix concrete materials and concrete according to Sections 501 and 701 of the South Carolina Department of Transportation Standard Specifications for Highway Construction. Furnish batch certificates for each batch discharged and used in the Work. When air temperature is between 85 deg F and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

**PART 3 - EXECUTION**

1) EXAMINATION:

- A) Examine exposed subgrades and subbase surfaces for compliance with requirements for dimensional, grading, and elevation tolerances.
- B) For concrete curb and gutter and pavements to be subjected to vehicular traffic, proof-roll prepared subbase surface with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding.
  - a) Completely proof-roll subbase in one direction. Limit vehicle speed to 3 mph.
  - b) Proof-roll with a loaded 10-wheel tandem-axle dump truck weighing not less than 15 tons.
  - c) Subbase with soft spots and areas of pumping or rutting exceeding depth of 1/2 inch require correction according to requirements in Section titled "Earth Moving."
- C) Proceed with concrete pavement operations only after nonconforming conditions have been corrected and subgrade is ready to receive pavement.

2) PREPARATION:

- A) Remove loose material from compacted subbase surface immediately before placing concrete.

3) EDGE FORMS AND SCREED CONSTRUCTION:

- A) Set, brace, and secure edge forms, bulkheads, and intermediate screed guides for pavement to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.
- B) Clean forms after each use and coat with form-release agent to ensure separation from concrete without damage.

4) STEEL REINFORCEMENT:

- A) General: Comply with Sections 501 and 703 of the South Carolina Department of Transportation Standard Specifications for Highway Construction and CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
- B) Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.
- C) Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.
- D) Install welded wire reinforcement in lengths as long as practicable. Lap adjoining pieces at least one full mesh, and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.

5) JOINTS:

- A) General: Form construction, isolation, and contraction joints and tool edgings true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline, unless otherwise indicated.
  - a) When joining existing pavement, place transverse joints to align with previously placed joints, unless otherwise indicated.



- b) For locations within areas of DOT jurisdiction, perform all work, testing, and inspections in accordance with applicable DOT standards and procedures.
- B) Construction Joints: Set construction joints at side and end terminations of pavement and at locations where pavement operations are stopped for more than one-half hour unless pavement terminates at isolation joints.
  - a) Continue steel reinforcement across construction joints, unless otherwise indicated. Do not continue reinforcement through sides of pavement strips, unless otherwise indicated.
  - b) Provide tie bars at sides of pavement strips where indicated.
  - c) Butt Joints: Use bonding agent or epoxy bonding adhesive at joint locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
  - d) Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt-coat one-half of dowel length to prevent concrete bonding to one side of joint.
- C) Isolation Joints: Form isolation joints of preformed joint filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated.
  - a) Unless otherwise indicated, joints shall be 3/4 inch in width.
  - b) Locate expansion joints at intervals of 50 feet, unless otherwise indicated.
  - c) Extend joint fillers full width and depth of joint.
  - d) Place top of joint filler flush with finished concrete surface.
  - e) Furnish joint fillers in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections together.
  - f) Protect top edge of joint filler during concrete placement with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.
- D) Contraction (Control) Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness, as follows:
  - a) Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint with grooving tool to a 1/2-inch radius. Repeat grooving of contraction joints after applying surface finishes. Eliminate groover marks on concrete surfaces unless indicated to remain.
  - b) Spacing in Pavements: Unless otherwise indicated, locate as follows:
    - i) Locate transverse contraction joints at intervals twice the width of the pavement, not to exceed 10 feet.
    - ii) Where the pavement width exceeds 10 feet to a maximum of 24 feet, locate a longitudinal contraction joint along the centerline of the pavement.
    - iii) Where the pavement width exceeds 24 feet, locate longitudinal contraction joints at evenly spaced divisions not to exceed 10 feet.
  - c) Spacing in Curb: Unless otherwise indicated, locate contraction joints to coincide with the adjoining concrete pavement or, where an adjoining concrete pavement does not exist, at an interval of 10 feet.
- E) Edging: Tool edges of pavement, gutters, curbs, and joints in concrete after initial floating with an edging tool to a 1/2-inch radius. Repeat tooling of edges after applying surface finishes. Eliminate tool marks on concrete surfaces unless indicated to remain.

8) CONCRETE PLACEMENT:

- A) Inspection: Before placing concrete, inspect and complete formwork installation, steel reinforcement, and items to be embedded or cast in. Notify other trades to permit installation of their work.
- B) Remove snow, ice, or frost from subbase surface and reinforcement before placing concrete. Do not place concrete on frozen surfaces.
- C) Moisten subbase to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment.
- D) Comply with the requirements of Sections 501, 701, and 720 of the South Carolina Department of Transportation Standard Specifications for Highway Construction for measuring, mixing, transporting, and placing concrete.
- E) Do not add water to fresh concrete after testing.
- F) Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- G) Consolidate concrete according to Sections 501 and 720 of the South Carolina Department of Transportation Standard Specifications for Highway Construction by mechanical vibrating equipment supplemented by hand spading, rodding, or tamping. Consolidate concrete along face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square-faced shovels for hand spreading and consolidation. Consolidate with care to prevent dislocating reinforcement, dowels, and joint devices.
- H) Screed pavement surfaces with a straightedge and strike off.
- I) Commence initial floating using bull floats or darbies to impart an open textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.
- J) Curbs and Gutters: When automatic machine placement is used for curb and gutter placement, submit revised mix design and laboratory test results that meet or exceed requirements. Produce curbs and gutters to required cross section, lines, grades, finish, and jointing as specified for formed concrete. If results are not approved, remove and replace with formed concrete.
- K) Slip-Form Pavers: When automatic machine placement is used for pavement, submit revised mix design and laboratory test results that meet or exceed requirements. Produce pavement to required thickness, lines, grades, finish, and jointing as required for formed pavement. Compact subbase and prepare subgrade of sufficient width to prevent displacement of paver machine during operations.
- L) When adjoining pavement lanes are placed in separate pours, do not operate concrete installation equipment on placed concrete until it has attained 85 percent of its 28-day compressive strength.
- M) Cold-Weather Placement: Comply with Sections 501, 701, and 702 of the South Carolina Department of Transportation Standard Specifications for Highway Construction and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
  - a) Cool ingredients before mixing to maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
  - b) Cover steel reinforcement with water-soaked burlap so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.

- c) Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.
- N) Hot-Weather Placement: Comply with Sections 501, 701, and 702 of the South Carolina Department of Transportation Standard Specifications for Highway Construction and as follows when hot-weather conditions exist:
- a) Cool ingredients before mixing to maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
  - b) Cover steel reinforcement with water-soaked burlap so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.
  - c) Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

7) FLOAT FINISHING:

- A) General: Do not add water to concrete surfaces during finishing operations.
- B) Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats, or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture. Medium-to-Fine-Textured Broom Finish: Draw a soft bristle broom across float-finished concrete surface perpendicular to line of traffic to provide a uniform, fine-line texture.

8) CONCRETE PROTECTION AND CURING:

- A) General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
- B) Comply with Sections 501, 701, and 702 of the South Carolina Department of Transportation Standard Specifications for Highway Construction for cold-weather protection.
- C) Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- D) Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- E) Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound, or a combination of these as follows:
  - a) Moist Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
    - i) Water.
    - ii) Continuous water-fog spray.
    - iii) Absorptive cover, water saturated and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.

- b) Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
- c) Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.

9) PAVEMENT TOLERANCES:

Comply with tolerances of Section 501 of the South Carolina Department of Transportation Standard Specifications for Highway Construction and as follows:

- A) Elevation: 1/4 inch.
- B) Thickness: Plus 3/8 inch, minus 1/4 inch.
- C) Surface: Gap below 10-foot- long, unlevelled straightedge not to exceed 1/4 inch.
- D) Lateral Alignment and Spacing of Tie Bars and Dowels: 1 inch.
- E) Vertical Alignment of Tie Bars and Dowels: 1/4 inch.
- F) Alignment of Tie-Bar End Relative to Line Perpendicular to Pavement Edge: 1/2 inch.
- G) Alignment of Dowel-Bar End Relative to Line Perpendicular to Pavement Edge: Length of dowel 1/4 inch per 12 inches.
- H) Joint Spacing: 3 inches.
- I) Contraction Joint Depth: Plus 1/4 inch, no minus.
- J) Joint Width: Plus 1/8 inch, no minus.

10) PAVEMENT MARKING:

- A) Do not apply pavement-marking paint until layout, colors, and placement have been verified with Engineer.
- B) Sweep and clean surface to eliminate loose material and dust.
- C) Surface shall be dry and free of glaze, oil, dirt, grease or other foreign contaminants.
- D) Apply thermoplastic pavement markings with mechanical equipment for the application of thermoplastic pavement markings meeting the requirements of Section 627 of the South Carolina Department of Transportation Standard Specifications for Highway Construction.
  - a) Apply at manufacturer's recommended rates to provide a finished thickness of 90 mils.
  - b) Glass beads shall be mechanically applied to the surface of the thermoplastic material immediately after it is applied to the pavement surface and while it is still molten. Uniformly apply at a rate of 12 lb per 100 sq ft.
- E) Apply to produce pavement markings of the dimensions indicated; which are straight or of uniform curvature; of consistent width; and with crisp, uniform, edges.
  - a) The finished line markings shall be free from waviness and the lateral deviations shall not exceed 2 inches in 15 feet.
  - b) No markings shall be less than the specified width.

11) WHEEL STOPS:

Securely attach wheel stops to pavement with not less than two galvanized-steel dowels embedded at one-quarter to one-third points. Securely install dowels into pavement and bond to wheel stop. Recess head of dowel beneath top of wheel stop.

12) FIELD QUALITY CONTROL:

- A) Testing Agency: Contractual responsibilities for testing are identified in Division 1 Section "Quality Requirements". Responsible party will engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.
- B) Testing Services: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:
  - a) Obtain at least 1 composite sample for each 100 cu. yd. or fraction thereof of each concrete mix placed each day, except for locations within areas of DOT jurisdiction which shall be sampled according to applicable DOT rates. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
  - b) Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mix. Perform additional tests when concrete consistency appears to change.
  - c) Air Content: ASTM C 231, pressure method; one test for each composite sample, but not less than one test for each day's pour of each concrete mix.
  - d) Concrete Temperature: ASTM C 1064; one test hourly when air temperature is 40 deg F and below and when 80 deg F and above, and one test for each composite sample.
  - e) Compression Test Specimens: ASTM C 31/C 31M; cast and laboratory cure one set of three standard cylinder specimens for each composite sample
  - f) Compressive-Strength Tests: ASTM C 39/C 39M; test 1 specimen at 7 days and 2 specimens at 28 days. A compressive-strength test shall be the average compressive strength from 2 specimens obtained from same composite sample and tested at 28 days.
- C) Strength of each concrete mix will be satisfactory if average of any 3 consecutive compressive- strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi.
- D) Test results shall be reported in writing to Engineer, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
- E) Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Engineer but will not be used as sole basis for approval or rejection of concrete.
- F) Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Engineer.
- G) Remove and replace concrete pavement where test results indicate that it does not comply with specified requirements.

H) Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

13) REPAIRS AND PROTECTION:

- A) Remove and replace concrete pavement that is broken, damaged, or defective or that does not comply with requirements in this Section.
- B) Drill test cores, where directed by Engineer, when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory pavement areas with portland cement concrete bonded to pavement with epoxy adhesive.
- C) Protect concrete from damage. Exclude vehicular traffic from pavement for at least 7 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.
- D) Maintain concrete pavement free of stains, discoloration, dirt, and other foreign material. Sweep concrete pavement not more than two days before date scheduled for Substantial Completion inspections

**END OF SECTION**

SECTION 02950

**STORM DRAINAGE PIPE, CULVERTS, and ENDS**

**PART 1 - General**

1) **SUMMARY:**

The work under this item shall consist of furnishing and installing storm drainage pipes and relaying existing pipe of the type, size, and length called for on the Approved Drawings or as ordered, at the locations and the lines and grades designated on the Approved Drawings, or as directed by the Engineer, and in conformity with these Specifications. This item shall also include furnishing and installing storm drainage pipes in accordance with the details shown on the Approved Drawings, or as ordered. Substructures and incidental construction shall comply with the requirements of the Specifications for the various items, which constitute the completed structure. This item shall further include the furnishings and installing of pipe elbows, pipe couplers, specials of the type and size shown on the Approved Drawings, at the location, to the lines and grades designated, or as ordered by the Engineer and in conformance with these Specifications. This Item shall also include the furnishing and installing of culvert ends conforming to the details shown on the Approved Drawings or to commercial details providing equal lengths and a similar shape as approved by the Engineer and having generally comparable hydraulic characteristics.

2) **Materials:**

Pipes and culverts of the type indicated on the Approved Drawings, join sealant and materials, bedding materials, culvert ends, and elbows or specials, shall conform to the requirements of SCDOT 2007 Standard Specifications Book Section 714 and SC-M714.

3) **Construction Methods:**

Unless otherwise directed by the Engineer, all new or re-laid culverts including culverts composed of structural plates shall be installed in pipe bedding in accordance with the details as shown on the Approved Drawings and in conformance with these Specifications. Methods of excavation and backfilling shall be in conformance with SCDOT 2007 Standard Specifications Book Section 714 and SC-M-714 Section 3.3 through 3.3.14.

The placement of the pipe shall start at the downstream end and progress upstream unless otherwise approved by the Engineer. All pipes shall be carefully laid true to line and grades shown on the Approved Drawings, hubs upgrade and with the spigot ends fully entered into the adjacent hubs. Pipes and pipe arches shall be carefully jointed and firmly clamped together by approved connecting bands, which shall be properly connected before any backfill is placed.

Where indicated on the Approved Drawings or directed by the Engineer, existing pipe culverts shall be taken up and re-laid or extended and renewed in the same manner as specified herein for new pipe culverts. Where shown on the Approved Drawings or directed by the Engineer, the Contractor shall connect the proposed drainage system with existing drainage structures or pipes.

4) HDPE Pipe Details:

a) SCOPE

This specification describes 4- through 60-inch (100 to 1500 mm) ADS N-12 ST IB pipe (per ASTM F2648) for use in gravity-flow land drainage applications.

b) Pipe Requirements

ADS N-12 ST IB pipe (per ASTM F2648) shall have a smooth interior and annular exterior corrugations.

- 4-through 60-inch (100 to 15000 mm) shall meet ASTM F2648
- Manning's "n" value for use in design shall be 0.012

c) Joint Performance

Pipe shall be joined using a bell & spigot joint meeting ASTM F2648. The joint shall be soil-tight and gaskets, when applicable, shall meet the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacture and covered with a removable wrap to ensure the gasket is free from debris. A joint lubricant supplied by the manufacturer shall be used on the gasket and bell during assembly.

d) Fittings

Fittings shall conform to ASTM F 2306. Bell and spigot connections shall utilize a spun-on or welded bell and valley or saddle gasket meeting the soil-tight joint performance requirements of ASTM F2306

e) Material Properties

Material for pipe production shall be engineered compound of virgin and recycled high density polyethylene conforming with the minimum requirements of cell classification 424420C (ESCR Test Conditions)

- For 4- through 10-inch (100 to 250 mm) diameter, and 435420C (ESCR Test Condition B)
- For 12- through 60-inch (300 to 1500 mm) diameters, as defined and described in the latest version of ASTM D3350, except that carbon black content should not exceed 4%. The design engineer shall verify compatibility with the overall system including structural, hydraulic, material and installation requirements for a given application.

f) Installation

Installation shall be in accordance with ASTM D2321 and ADS recommended installation guidelines, with the exception that minimum cover in trafficked areas for 4-through 48-inch (100 to 1200 m diameters shall be one (1) foot (0.3 m) and for 60-inch (1500 mm) diameters, the minimum cover shall be two (2) feet (0.6 m) in single run applications. Backfill for minimum cover situations shall consist of Class 1



(compacted), or Class 2 (minimum 90% SPD) material. Maximum fill heights depend on embedment material and compaction level

**END OF SECTION**

**Attachment 1**

**Grantee Build America, Buy American (BABAA) Certification**

**Community Block Grant 4-CE-23-001**

# Grantee Build America, Buy America Act (BABAA) Certification

Grant Number \_\_\_\_\_

Project Name \_\_\_\_\_

Grantee Name \_\_\_\_\_

Federal Funding Agency \_\_\_\_\_

Grant Period: From \_\_\_\_\_ To \_\_\_\_\_

This project is subject to the Build America, Buy America Act (BABAA) requirements under Title IX of the Infrastructure Investment and Jobs Act ("IIJA"), Pub. L. 117-58. Absent an approved waiver, 95% of all iron and steel used in this project must be produced in the United States, as further outlined by the Office of Management and Budget's Memorandum M-22-11, "Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure.", October 25, 2023.

The Grantee Certification is to be submitted throughout the duration of the project and covers materials purchased by a contractor or by the Grantee. A Grantee representative must sign and submit this form with each draw request to certify the identified project is in compliance with BABAA requirements.

I certify, to the best of my knowledge and belief, that the above referenced project complies with Build America, Buy America Act (BABAA) as required by federal law, and that a minimum of 95% of the iron and steel permanently placed and/or stored during the above referenced period were produced in the United States, unless a waiver was granted by the the Federal Funding Agency.

I understand that a false statement on this certification may be grounds for termination of the grant agreement.

\_\_\_\_\_  
Signature of Project Grantee Representative

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\_\_\_\_\_  
Printed Name and Title of Project Grantee Representative

**Attachment 2**

**Section 3 Information Sheet for  
Contractors/Businesses**

# Section 3 Information Sheet for Contractors/Businesses

## What is Section 3?

Section 3 is a provision of the Housing and Urban Development (HUD) Act of 1968. The purpose of Section 3 is to ensure that employment and other economic opportunities generated by certain HUD financial assistance shall, to the greatest extent feasible, and consistent with existing Federal, State, and local laws and regulation, be directed to low- and very low-income persons, particularly those who are recipients of government assistance for housing, and to business concerns which provide economic opportunities to low- and very low-income persons.

## What is a Section 3 worker?

Section 3 workers are:

- Any worker who currently or when hired (within the past five years) is below documented to fit at least one of the below categories:
  - The worker's income for the previous or annualized calendar year is below the income limit established by HUD; or
  - The worker is employed by a Section 3 business concern
  - The worker is a YouthBuild participant

## What is a Targeted Section 3 Worker

- A worker employed by a Section 3 business concern; or
- A worker who currently fits or when hired (within the past 5 years) is documented to fit at least one of the following categories:
  - Living within the service area or the neighborhood of the project, meaning; or
  - A YouthBuild participant

## What is a Section 3 Business Concern?

A Section 3 Business Concern meets one of the following criteria:

- Is 51 percent or more owned and controlled by low- or very low-income persons;
- Over 75 percent of the labor hours performed for the business over the prior 3-month period were performed by Section 3 workers; or
- Is at least 51 percent owned and controlled by current public housing residents; residents who currently live in Section 8-assisted housing

## What types of economic opportunities should be made available under Section 3?

- Job training
- Employment
- Contracts

## Examples of Opportunities include:

- |                        |                         |                       |
|------------------------|-------------------------|-----------------------|
| • Accounting           | • Electrical            | • Marketing           |
| • Architecture         | • Elevator Construction | • Painting            |
| • Appliance repair     | • Engineering           | • Payroll Photography |
| • Bookkeeping          | • Fencing               | • Plastering          |
| • Bricklaying          | • Florists              | • Plumbing            |
| • Carpentry            | • Heating               | • Printing Purchasing |
| • Carpet Installation  | • Iron Works            | • Research            |
| • Catering             | • Janitorial            | • Surveying           |
| • Cement/Masonry       | • Landscaping           | • Tile setting        |
| • Computer/Information | • Machine               | • Transportation      |
| • Demolition           | • Operation             | • Word processing     |
| • Drywall              | • Manufacturing         |                       |

## Who receives priority under Section 3?

For training and employment:

- Persons in public and assisted housing
- Persons in the area where the HUD financial assistance is spent
- Participants in HUD Youthbuild programs
- Homeless persons

For contracting:

- Businesses that meet the definition of a Section 3 business concern

### **How can businesses find Section 3 workers to work for them?**

Businesses can recruit Section 3 residents in public housing developments and in the neighborhoods where the HUD assistance is being spent. Effective ways of informing residents about available training and job opportunities are:

- Contacting resident organizations, local community development and employment agencies
- Distributing flyers
- Posting signs
- Placing ads in local newspapers

### **Are recipients, contractors, and subcontractors required to provide long-term employment opportunities, not simply seasonal or temporary employment?**

Recipients are required, to the greatest extent feasible, to provide all types of employment opportunities to low and very low-income persons, including permanent employment and long-term jobs.

Grantees and contractors are encouraged to have Section 3 workers make up at least 25 percent and targeted workers make up 5 percent of their permanent, full-time staff.

A Section 3 worker who has been employed for 5 years may no longer be counted towards meeting the 25 percent for section 3 and 5 percent for targeted section 3 worker requirements. This encourages recipients to continue hiring Section 3 and targeted Section 3 workers when employment opportunities are available.

### **What if it appears an entity is not complying with Section 3?**

There is a complaint process. Section 3 and targeted workers, business concerns, or a representative for either may file a complaint if it seems a recipient is violating Section 3 requirements are being on a HUD-funded project.

### **Will HUD require compliance?**

Yes. HUD monitors the performance of contractors, reviews annual reports from recipients, and investigates complaints. HUD also examines employment and contract records for evidence that recipients are training and employing Section 3 workers and awarding contracts to Section 3 business concerns.

## Section 3 Worker Certification

A Section 3 Worker seeking the preference in training and employment provided by this part shall certify or submit evidence to the recipient contractor or subcontractor that the person is a Section 3 Worker, as defined in Section 24 CRF 75.

**Worker Name:** \_\_\_\_\_ (Print Name)

**Household Income Guidelines**

Place a check mark beside the number of people in your (the worker's) household.

Place Check	Household/ Family Size	Income Limit
	1	\$49,851.00
	2	\$57,001.00
	3	\$64,101.00
	4	\$71,201.00
	5	\$76,901.00
	6	\$82,601.00
	7	\$88,301.00
	8	\$94,001.00

**Place a check mark beside any of the following that apply below:**

\_\_\_\_\_ My income for the previous year was below the amount next to the household/family size I checked on the table above.

\_\_\_\_\_ I am employed by a Section 3 business concern.

\_\_\_\_\_ I am a Youthbuild participant.

I hereby certify that the information provided by me to be true and correct and understand any falsification of any of the information could subject me to disqualification from participation.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

# Targeted Section 3 Worker Certification

A Targeted Section 3 Worker seeking the preference in training and employment provided by this part shall certify or submit evidence to the recipient contractor or subcontractor that the person is a Targeted Section 3 Worker, as defined in Section 24 CRF 75.

**Worker Name:** \_\_\_\_\_ (Print Name)

**Household Income Guidelines**

Place a check mark beside the number of people in your (the worker's) household.

Place Check	Household/ Family Size	Income Limit
	1	\$49,851
	2	\$57,001
	3	\$64,101
	4	\$71,201
	5	\$76,901
	6	\$82,601
	7	\$88,301
	8	\$94,001

**Section 3 Project/Service Area:**

1 mile radius from 150 Abel Road, Clemson, SC. Including but not limited to the following streets: See Map.

**Place a check mark beside any of the following that apply below:**

- My income for the previous year was below the amount next to the household/family size I checked on the table above, and I live within the project/service area as defined above.
- I am employed by a Section 3 Business Concern
- I am a YouthBuild participant

I hereby certify that the information provided by me to be true and correct and understand any falsification of any of the information could subject me to disqualification from participation.

\_\_\_\_\_  
Signature

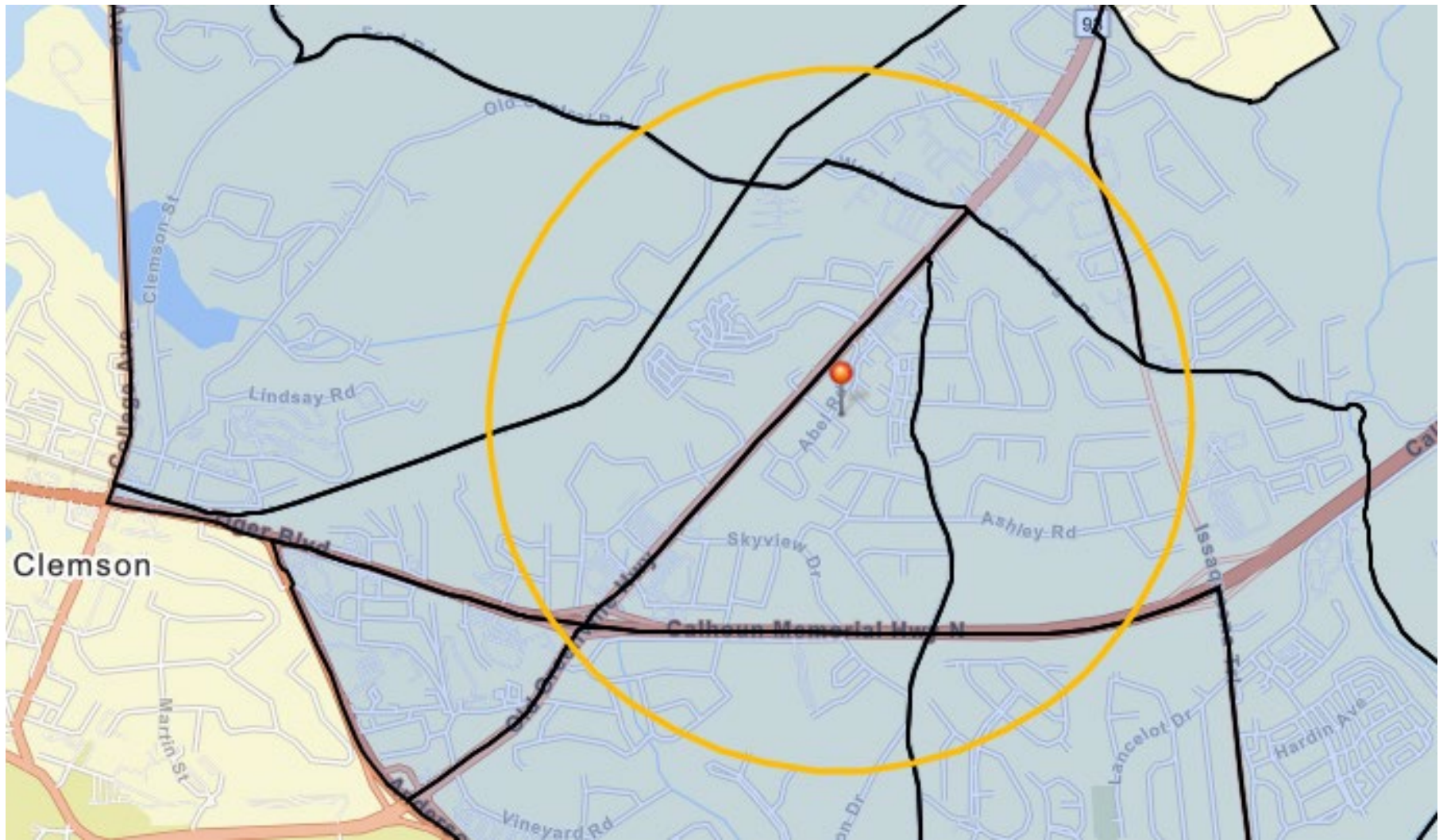
\_\_\_\_\_  
Date

This Section to be Completed by SC Department of Commerce Staff

Reviewed By: \_\_\_\_\_ Approved on Date: \_\_\_\_\_

Comments: \_\_\_\_\_





# Section 3 Business Concern Self-Certification

## BASIC INFORMATION

1. Company Name: \_\_\_\_\_
2. Company Address: \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ County \_\_\_\_\_
3. Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
Email address: \_\_\_\_\_
4. Contractor's License: Class A B C N/A License Number: \_\_\_\_\_
5. Business License \_\_\_\_\_ Number Federal ID Number \_\_\_\_\_
6. Type of Business: \_\_\_\_\_

## TYPES OF SECTION 3 BUSINESS ENTERPRISES

Please check "Yes" or "No". If you answer "YES" to one or more of the following questions, you may designate your company as a Section 3 Business Enterprise.

1. 51% or more of your business is owned by a Section 3 workers\*; or

Yes  No

*Attach list of Section 3 owners and income certifications*

2. Over 75% of the labor hours over the previous 3-month period are performed by Section 3 workers; or

Yes  No

*Attach list of employees, Section 3 employees, and self certifications*

3. At least 51% owned and controlled by current residents of public housing or Section 8 assisted housing.-

Yes  No

*Attach list of subcontracted businesses, types and amounts*

**VERIFICATION** - The company hereby agrees to provide, upon request, documents verifying the information provided on this form.

**I declare and affirm under penalty of law that the statements made herein are true and accurate to the best of my knowledge. I understand that falsifying information and incomplete statements will disqualify certification status.**

Signature of Business Owner or Authorized Representative: \_\_\_\_\_

Signature: Date: \_\_\_\_\_

Attested by: Date: \_\_\_\_\_

**\*Section 3 Worker and Targeted Section 3 Worker definitions can be found in the "Section 3 Definitions" document.**

### Attachment 3

#### Mitigation Measures and Conditions

##### **Mitigation Measures and Conditions [40 CFR 1505.2(c)]**

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure
<p><b>Historic Preservation</b></p> <p>National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<ul style="list-style-type: none"><li>● <b>SHPO</b> (letter 4.5.24) Notify if archaeological materials are encountered. Contact: John Sylvest / <a href="mailto:sylvest@scdah.state.sc.us">sylvest@scdah.state.sc.us</a> / 803-896-6129</li><li>● <b>Catawba Indian Nation</b> (letter 4.10.24) If cultural resources or human remains are encountered, stop project and notify Contact: Caitlin Rogers/ <a href="mailto:caitlinh@ccppcrafts.com">caitlinh@ccppcrafts.com</a> / 803-328-2427 ext. 226</li></ul>

**Attachment 4**

**Wage Decision SC20240037 01.05/2024**

"General Decision Number: SC20250037 01/03/2025

Superseded General Decision Number: SC20240037

State: South Carolina

Construction Type: Highway

Counties: Anderson, Greenville, Laurens, Pickens, Spartanburg and York Counties in South Carolina.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

<p>If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:</p>	<ul style="list-style-type: none"> <li>. Executive Order 14026 generally applies to the contract.</li> <li>. The contractor must pay all covered workers at least \$17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.</li> </ul>
<p>If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:</p>	<ul style="list-style-type: none"> <li>. Executive Order 13658 generally applies to the contract.</li> <li>. The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.</li> </ul>

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number      Publication Date  
 0                              01/03/2025

SUSC2011-035 09/15/2011

	Rates	Fringes
CARPENTER (Form Work Only).....	\$ 14.44	**
CEMENT MASON/CONCRETE FINISHER...	\$ 12.64	**
IRONWORKER, REINFORCING.....	\$ 15.02	**
<b>LABORER</b>		
Asphalt Includes Asphalt Distributor, Shoveler, and Spreader		
Anderson, Greenville, Laurens, Pickens, Spartanburg.....		
	\$ 11.54	**
York.....	\$ 11.62	**
Common or General		
Anderson.....	\$ 9.71	**
Greenville, Pickens.....	\$ 9.87	**
Laurens.....	\$ 8.89	**
Spartanburg.....	\$ 10.05	**
York.....	\$ 9.63	**
Luteman.....	\$ 10.76	**
Mason tender-		
Cement/Concrete.....	\$ 10.40	**
Pipelayer.....	\$ 13.98	**
Traffic Control-Cone Setter.\$	11.75	**
Traffic Control-Flagger		
Anderson, Spartanburg, York.....		
	\$ 10.13	**
Greenville, Laurens, Pickens.....	\$ 10.62	**
<b>POWER EQUIPMENT OPERATOR:</b>		
Backhoe/Excavator/Trackhoe		
Greenville, Laurens, Pickens.....		
	\$ 13.82	**
Spartanburg, York.....	\$ 13.92	**
Bulldozer.....	\$ 12.95	**
Crane.....	\$ 19.73	
Grader/Blade		
Anderson, Spartanburg, York.....		
	\$ 13.13	**
Greenville, Laurens, Pickens.....	\$ 12.62	**
Hydroseeder.....	\$ 11.00	**
Loader (Front End).....	\$ 16.80	**
Mechanic.....	\$ 17.75	
Milling Machine.....	\$ 11.84	**
Paver		
Anderson, Spartanburg, York.....		
	\$ 12.93	**
Greenville, Laurens, Pickens.....	\$ 13.61	**
Roller		
Anderson, Spartanburg, York.....		
	\$ 12.11	**
Greenville.....	\$ 12.59	**

Laurens, Pickens.....\$ 12.16 \*\*  
 Scraper.....\$ 12.71 \*\*  
 Screed.....\$ 13.09 \*\*  
 Tractor.....\$ 13.28 \*\*

TRUCK DRIVER

Dump Truck  
 Anderson, Spartanburg,  
 York.....\$ 12.75 \*\*  
 Greenville.....\$ 13.17 \*\*  
 Laurens, Pickens.....\$ 12.70 \*\*  
 Lowboy Truck  
 Anderson, Spartanburg,  
 York.....\$ 13.48 \*\*  
 Greenville, Laurens,  
 Pickens.....\$ 13.36 \*\*

-----  
 WELDERS - Receive rate prescribed for craft performing  
 operation to which welding is incidental.

=====  
 \*\* Workers in this classification may be entitled to a higher  
 minimum wage under Executive Order 14026 (\$17.75) or 13658  
 (\$13.30). Please see the Note at the top of the wage  
 determination for more information. Please also note that the  
 minimum wage requirements of Executive Order 14026 are not  
 currently being enforced as to any contract or subcontract to  
 which the states of Texas, Louisiana, or Mississippi, including  
 their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave  
 for Federal Contractors applies to all contracts subject to the  
 Davis-Bacon Act for which the contract is awarded (and any  
 solicitation was issued) on or after January 1, 2017. If this  
 contract is covered by the EO, the contractor must provide  
 employees with 1 hour of paid sick leave for every 30 hours  
 they work, up to 56 hours of paid sick leave each year.  
 Employees must be permitted to use paid sick leave for their  
 own illness, injury or other health-related needs, including  
 preventive care; to assist a family member (or person who is  
 like family to the employee) who is ill, injured, or has other  
 health-related needs, including preventive care; or for reasons  
 resulting from, or to assist a family member (or person who is  
 like family to the employee) who is a victim of, domestic  
 violence, sexual assault, or stalking. Additional information  
 on contractor requirements and worker protections under the EO  
 is available at  
<https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within  
 the scope of the classifications listed may be added after  
 award only as provided in the labor standards contract clauses  
 (29CFR 5.5 (a) (1) (iii)).

-----  
 The body of each wage determination lists the classifications  
 and wage rates that have been found to be prevailing for the  
 type(s) of construction and geographic area covered by the wage  
 determination. The classifications are listed in alphabetical  
 order under rate identifiers indicating whether the particular  
 rate is a union rate (current union negotiated rate), a survey

rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

#### Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

#### Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

#### Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

#### State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were



adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

-----  
WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to [davisbaconinfo@dol.gov](mailto:davisbaconinfo@dol.gov) or by mail to:

Branch of Wage Surveys  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to [BCWD-Office@dol.gov](mailto:BCWD-Office@dol.gov) or by mail to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to [dba.reconsideration@dol.gov](mailto:dba.reconsideration@dol.gov) or by mail to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210.

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END OF GENERAL DECISION"

## SECTION IV- REQUIRED FORMS

ITB 2025-01-001

**Abel Road/Curtis Circle Sidewalk Improvement Project**

**Grant Number :: 4-CE-23-001**



CITY OF  
**Clemson**  
SOUTH CAROLINA



Invitation To Bid  
ITB 2025-01-001  
Abel Road/Curtis Circle Sidewalk Improvement  
Issue Date: January 13, 2025

## BIDDER'S CHECKLIST

Company Name \_\_\_\_\_

Please indicate you have completed the following documentation and submit them in the following order.

### ITEM DESCRIPTION

---

Check

- Bidders Checklist
- Bidders Declaration
- Bid Form (pg. 30)
- Bid Bond (pg. 35)
- SC Immigration Form
- Certificate of Non-Discrimination
- Non-Collusion Affidavit
- SC Ethics in Public Contracting Affidavit
- W9
- SC I-312
- Debarment Certification
- Bidders BABAA Certification
- Addenda Acknowledgement Form (if applicable)

\_\_\_\_\_  
*Authorized Signature*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Printed Name*

**THIS PAGE MUST BE COMPLETED AND SUBMITTED AS PART OF YOUR BID**



---

*Title*

---

*Email*

**THIS PAGE MUST BE COMPLETED AND SUBMITTED AS PART OF YOUR BID**

**CITY OF CLEMSON  
STATE OF SOUTH CAROLINA**

**Abel Road/Curtis Curtis Sidewalk Improvement  
ITB 2025-01-001**

**BIDDERS DECLARATION**

The bidder understands, agrees and warrants:

That the bidder has carefully read and fully understands the full scope of the requirements.

That the bidder has the capability to successfully undertake and complete the responsibilities and obligations in said specifications.

That this bid may be withdrawn by requesting such withdrawal in writing at any time prior to **February 14, 2025 2:00 PM.** but may not be withdrawn after such date and time.

That the City of Clemson reserves the right to reject any or all bids and to accept that bid which will, in its opinion, best serve the public interest. The City of Clemson reserves the right to waive any technicalities and formalities in the bidding.

That by submission of this bid the bidder acknowledges that the City of Clemson has the right to make any inquiry or investigation it deems appropriate to substantiate or supplement information supplied by the bidder.

**BIDDER:**

Name	Title

Name	Title

**CITY OF CLEMSON  
STATE OF SOUTH CAROLINA**

**Abel Road/Curtis Curtis Sidewalk Improvement  
ITB 2025-01-001**

**CERTIFICATE OF NON-DISCRIMINATION**

In connection with the performance of work under this contract, the bidder agrees as follows:

The bidder agrees not to discriminate against any employee or applicant for employment because of race, creed, color, sex, national origin, ancestry or disability. The vendor shall take affirmative action to insure that employees are treated without regard to their race, creed, color, sex, national origin, ancestry or disability. Such action shall include, but not be limited to the following: employment, upgrading, demotion, transfer, recruiting or recruitment, advertising, lay-off or termination, rates of pay or other compensation and selection for training, including apprenticeship.

In the event of the bidder's non-compliance with this non-discrimination clause, the contract may be canceled or terminated by the City of Clemson. The bidders may be declared, by the City of Clemson, ineligible for further contracts with the City of Clemson until satisfactory proof of intent to comply shall be made by the vendor. The bidder agrees to include this non-discrimination clause in any sub-contracts connected with the performance of this agreement.

---

**BIDDER**

---

**SIGNATURE**

---

**TITLE**

**CITY OF CLEMSON  
STATE OF SOUTH CAROLINA**

**NON-COLLUSION AFFIDAVIT**

**Abel Road/Curtis Curtis Sidewalk Improvement  
ITB 2025-01-001**

The following affidavit is to accompany the bid:

**STATE OF** \_\_\_\_\_

**COUNTY OF** \_\_\_\_\_

Owner, Partner or Officer of Firm, \_\_\_\_\_  
**Company Name, Address, City and State**

being of lawful age, being first duly sworn, on oath says that he/she is the agent authorized by the bidder to submit the attached bid. Affidavit further states as bidder, that they have not been a party to any collusion among bidders in restraint of competition by agreement to bid at a fixed price or to refrain from bidding; or with any officer of the City of Clemson or any of their employees as to quantity, quality or price in the prospective contract; or any discussion between bidders and any official of the City of Clemson or any of their employees concerning exchange of money or other things of value for special consideration in submitting a sealed bid for:

**FIRM NAME** \_\_\_\_\_

**SIGNATURE** \_\_\_\_\_

**TITLE** \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_ day of 20\_\_\_

\_\_\_\_\_  
**NOTARY PUBLIC**



**SOUTH CAROLINA ILLEGAL IMMIGRATION REFORM ACT**  
**CONTRACTOR CERTIFICATION**

In accordance with the requirements of the South Carolina Illegal Immigration Reform Act, \_\_\_\_\_ (“Contractor”) hereby certifies that it is currently in compliance with the requirements of Title 8, Chapter 14 of the S.C. Code Annotated and will remain in compliance with such requirements throughout the term of its contract with the City of Clemson (“Owner”).

Contractor hereby acknowledges that in order to comply with requirements of S.C. Code Annotated Section 8-14-20(B), it will:

1. Register and participate in the federal work authorization program (E-Verify) to verify the employment authorization of all new employees; and require agreement from its subcontractors, and through the subcontractors, the sub-subcontractors, to register and participate in the federal verification the employment authorization of all new employees.

Contractor agrees to provide to Owner any documentation required to establish the applicability of the South Carolina Illegal Immigration Reform Act to the Contractor, subcontractor, or sub-subcontractor. Contractor further agrees that it will provide Owner with any documentation required to establish that the Contractor and any subcontractors or sub-subcontractors are in compliance with the requirements of Title 8, Chapter 14 of the S.C. Code Annotated.

Date: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

**ETHICS IN PUBLIC CONTRACTING AFFIDAVIT**

STATE OF \_\_\_\_\_)

COUNTY OF \_\_\_\_\_)

\_\_\_\_\_, being first duly sworn, deposes and says that:

1. He/She is \_\_\_\_\_(title) for/of \_\_\_\_\_  
(company/business), the Bidder that has submitted the attached Bid;
2. He/She is legally qualified and capable of signing this affidavit and is authorized to do so by Bidder;
3. He/She is fully informed regarding the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;
4. Such Bid is genuine and is made without fraud;
5. Neither the said Bidder, nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest has offered or received any kickbacks or inducements from any offeror, suppliers, manufacturer, or subcontractor in connection with the offer, and they have not conferred on any public employee, public member, or public official having official responsibility for this procurement or transaction, any payment, loan, subscription, advance, deposit of money, services, or anything of value as defined in Section 8-13-100 of the South Carolina Code of Laws; and
6. Furthermore, neither the Bidder, nor any of its officers, partners, owners, agents representatives, employees or parties in interest has any relationship with the City, another person, or organization that interferes with fair competition or that constitutes a conflict of interest with respect to a contract with the City.

\_\_\_\_\_  
DATE

\_\_\_\_\_  
COMPANY/BUSINESS

BY: \_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
PRINTED NAME

SWORN to before me this  
day of \_\_\_\_\_, 20\_\_

ITS: \_\_\_\_\_  
TITLE

Notary Public for \_\_\_\_\_(state)

My commission expires \_\_\_\_\_

By: \_\_\_\_\_  
(signature)

# Bidder's Build America, Buy America Act (BABAA) Certification

Grant Number \_\_\_\_\_

Project Name \_\_\_\_\_

Federal Funding Agency \_\_\_\_\_

This project is subject to the Build America, Buy America Act (BABAA) requirements under Title IX of the Infrastructure Investment and Jobs Act ("IIJA"), Pub. L. 117-58. Absent an approved waiver, 95% of all iron and steel used in this project must be produced in the United States- this means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. Any request for substitute or "or equal" shall include the Manufacturer's Certification of compliance with the BABAA requirements

Documentation of BABAA compliance must be provided by the contractor for a minimum of 95% of all iron and steel used in the project. Written evidence from the manufacturer or supplier will be required that identifies the item purchased; affirms the location of manufacture as within the United States; and is signed by an authorized company representative.

BABAA compliance is further outlined by the Office of Management and Budget's Memorandum M-22-11, "Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure.", October 25, 2023.

*5g' U VJXXYf' Zf' H Y dfc^YVWf' jghX' UVcj YZ = WfhZni H Uhi = \ Uj Y' fYUXZ i bXYfgHUbXZ' UbX' k J'' Vta d`mi k Jh` H Y' I 6 5 6 5 5 I` dfcj jg]cbg' Ug' fYei JfYX' Vmi ZYXYU'` Uk'' : i fh Yfa cfYZ = i bXYfgHUbX' H Uhi 6 5 6 6 5` dfcj jg]cbg' Udd`mi hc' UbmUbX' U'` dcfHcbg' cZ H jg' dfc^YVWZ' jbWi Xjb[ 'gi VVtbfUMWYX' dcfHcbg' UbX' H Uhi = WfhZnihc' H Y' VYgh cZ a mi \_bck` YX[ Y' UbX' VY]YZ H Uhi = k J'' jXybhZni Xca YghjW gci fWg' cZ 6 5 6 6 5` Vtj YfYX' dfcXi WgZ' dfcj jXY' j Yf jVUjcb' XcW' a YbHjcb' Zf' 6 5 6 6 5! Vta d' jUbWZ' UbX' k \ Yb' bYXYX' dfcj jXY' k Ujj Yf' XcW' a YbHjcb' dYf' W ffYbh[ i jXUbWV''*

*=i bXYfgHUbX' H Uhi UZUgY' ghUHa Ybhcb' H jg' WfhZniVUjcb' a UmVY[ fci bXg' Zf' fY^VWjcb' cf' hfa jbUjcb' cZ Ubm Uk UFX''*

\_\_\_\_\_  
Signature of Bidder Date

\_\_\_\_\_  
Printed Name and Title of Bidder

\_\_\_\_\_  
Name of Bidder's Company

\_\_\_\_\_  
Bidder's Company Address

\_\_\_\_\_  
Bidder's Telephone Number

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION,  
INELIGIBILITY AND VOLUNTARY EXCLUSION LOWER TIER COVERED TRANSACTIONS**

10/16

This certification is required by the regulations implementing Executive Orders 12549 and 12689, Debarment and Suspension, and 2 CFR Part 200, Participants' responsibilities. )

*(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS BELOW)*

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principles are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

**Grant Number:** 4-CE-23-001 **Name of Participant:** \_\_\_\_\_

**Address of Participant:** \_\_\_\_\_

- | Name and Title of Authorized Representative   | Signature | Date |
|---|-----------|------|
| <ol style="list-style-type: none"> <li>1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.</li> <li>2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.</li> <li>3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.</li> <li>4. The terms "covered transaction", "debarred", "suspended", "ineligible", "lower tier covered transaction", "participant", "person", "primary covered transaction", "principal", "proposal", and "voluntarily excluded", as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Orders 12549 and 12689.</li> <li>5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.</li> <li>6. The prospective lower tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- Lower Tier Covered Transactions", without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.</li> <li>7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may check the System for Award Management (SAM).</li> <li>8. 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 this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.</li> <li>9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.</li> </ol> |           |      |

# Request for Taxpayer Identification Number and Certification

Go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9) for instructions and the latest information.

**Give form to the  
requester. Do not  
send to the IRS.**

**Before you begin.** For guidance related to the purpose of Form W-9, see *Purpose of Form*, below.

<b>Print or type. See Specific Instructions on page 3.</b>	<b>1</b>	Name of entity/individual. An entry is required. (For a sole proprietor or disregarded entity, enter the owner's name on line 1, and enter the business/disregarded entity's name on line 2.)		
	<b>2</b>	Business name/disregarded entity name, if different from above.		
	<b>3a</b>	Check the appropriate box for federal tax classification of the entity/individual whose name is entered on line 1. Check only <b>one</b> of the following seven boxes.  <input type="checkbox"/> Individual/sole proprietor <input type="checkbox"/> C corporation <input type="checkbox"/> S corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate  <input type="checkbox"/> LLC. Enter the tax classification (C = C corporation, S = S corporation, P = Partnership) _____ <b>Note:</b> Check the "LLC" box above and, in the entry space, enter the appropriate code (C, S, or P) for the tax classification of the LLC, unless it is a disregarded entity. A disregarded entity should instead check the appropriate box for the tax classification of its owner.  <input type="checkbox"/> Other (see instructions) _____	<b>4</b> Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):  Exempt payee code (if any) _____  Exemption from Foreign Account Tax Compliance Act (FATCA) reporting code (if any) _____  <i>(Applies to accounts maintained outside the United States.)</i>	
	<b>3b</b>	If on line 3a you checked "Partnership" or "Trust/estate," or checked "LLC" and entered "P" as its tax classification, and you are providing this form to a partnership, trust, or estate in which you have an ownership interest, check this box if you have any foreign partners, owners, or beneficiaries. See instructions _____ <input type="checkbox"/>		
	<b>5</b>	Address (number, street, and apt. or suite no.). See instructions.	Requester's name and address (optional)	
	<b>6</b>	City, state, and ZIP code		
	<b>7</b>	List account number(s) here (optional)		

## Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

<b>Social security number</b>									
				-					
<b>or</b>									
<b>Employer identification number</b>									

**Note:** If the account is in more than one name, see the instructions for line 1. See also *What Name and Number To Give the Requester* for guidelines on whose number to enter.

## Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and, generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

<b>Sign Here</b>	Signature of U.S. person	Date
------------------	--------------------------	------

## General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9).

## What's New

Line 3a has been modified to clarify how a disregarded entity completes this line. An LLC that is a disregarded entity should check the appropriate box for the tax classification of its owner. Otherwise, it should check the "LLC" box and enter its appropriate tax classification.

New line 3b has been added to this form. A flow-through entity is required to complete this line to indicate that it has direct or indirect foreign partners, owners, or beneficiaries when it provides the Form W-9 to another flow-through entity in which it has an ownership interest. This change is intended to provide a flow-through entity with information regarding the status of its indirect foreign partners, owners, or beneficiaries, so that it can satisfy any applicable reporting requirements. For example, a partnership that has any indirect foreign partners may be required to complete Schedules K-2 and K-3. See the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

## Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS is giving you this form because they

must obtain your correct taxpayer identification number (TIN), which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid).
- Form 1099-DIV (dividends, including those from stocks or mutual funds).
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds).
- Form 1099-NEC (nonemployee compensation).
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers).
- Form 1099-S (proceeds from real estate transactions).
- Form 1099-K (merchant card and third-party network transactions).
- Form 1098 (home mortgage interest), 1098-E (student loan interest), and 1098-T (tuition).
- Form 1099-C (canceled debt).
- Form 1099-A (acquisition or abandonment of secured property).

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

**Caution:** If you don't return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding*, later.

**By signing the filled-out form**, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued);
2. Certify that you are not subject to backup withholding; or
3. Claim exemption from backup withholding if you are a U.S. exempt payee; and
4. Certify to your non-foreign status for purposes of withholding under chapter 3 or 4 of the Code (if applicable); and
5. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting is correct. See *What Is FATCA Reporting*, later, for further information.

**Note:** If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

**Definition of a U.S. person.** For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

**Establishing U.S. status for purposes of chapter 3 and chapter 4 withholding.** Payments made to foreign persons, including certain distributions, allocations of income, or transfers of sales proceeds, may be subject to withholding under chapter 3 or chapter 4 of the Code (sections 1441–1474). Under those rules, if a Form W-9 or other certification of non-foreign status has not been received, a withholding agent, transferee, or partnership (payor) generally applies presumption rules that may require the payor to withhold applicable tax from the recipient, owner, transferor, or partner (payee). See Pub. 515, *Withholding of Tax on Nonresident Aliens and Foreign Entities*.

The following persons must provide Form W-9 to the payor for purposes of establishing its non-foreign status.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the disregarded entity.
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the grantor trust.
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust and not the beneficiaries of the trust.

See Pub. 515 for more information on providing a Form W-9 or a certification of non-foreign status to avoid withholding.

**Foreign person.** If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person (under Regulations section 1.1441-1(b)(2)(iv) or other applicable section for chapter 3 or 4 purposes), do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515). If you are a qualified foreign pension fund under Regulations section 1.897(l)-1(d), or a partnership that is wholly owned by qualified foreign pension funds, that is treated as a non-foreign person for purposes of section 1445 withholding, do not use Form W-9. Instead, use Form W-8EXP (or other certification of non-foreign status).

**Nonresident alien who becomes a resident alien.** Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a saving clause. Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

**Example.** Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if their stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first Protocol) and is relying on this exception to claim an exemption from tax on their scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

## Backup Withholding

**What is backup withholding?** Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include, but are not limited to, interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third-party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

**Payments you receive will be subject to backup withholding if:**

1. You do not furnish your TIN to the requester;
2. You do not certify your TIN when required (see the instructions for Part II for details);
3. The IRS tells the requester that you furnished an incorrect TIN;
4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only); or
5. You do not certify to the requester that you are not subject to backup withholding, as described in item 4 under "*By signing the filled-out form*" above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code*, later, and the separate Instructions for the Requester of Form W-9 for more information.

See also *Establishing U.S. status for purposes of chapter 3 and chapter 4 withholding*, earlier.

## What Is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all U.S. account holders that are specified U.S. persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code*, later, and the Instructions for the Requester of Form W-9 for more information.

## Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you are no longer tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account, for example, if the grantor of a grantor trust dies.

## Penalties

**Failure to furnish TIN.** If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

**Civil penalty for false information with respect to withholding.** If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

**Criminal penalty for falsifying information.** Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

**Misuse of TINs.** If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

## Specific Instructions

### Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

- **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

**Note for ITIN applicant:** Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040 you filed with your application.

- **Sole proprietor.** Enter your individual name as shown on your Form 1040 on line 1. Enter your business, trade, or “doing business as” (DBA) name on line 2.

- **Partnership, C corporation, S corporation, or LLC, other than a disregarded entity.** Enter the entity’s name as shown on the entity’s tax return on line 1 and any business, trade, or DBA name on line 2.

- **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. Enter any business, trade, or DBA name on line 2.

- **Disregarded entity.** In general, a business entity that has a single owner, including an LLC, and is not a corporation, is disregarded as an entity separate from its owner (a disregarded entity). See Regulations section 301.7701-2(c)(2). A disregarded entity should check the appropriate box for the tax classification of its owner. Enter the owner’s name on line 1. The name of the owner entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For

example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner’s name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity’s name on line 2. If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

### Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, enter it on line 2.

### Line 3a

Check the appropriate box on line 3a for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3a.

IF the entity/individual on line 1 is a(n) . . .	THEN check the box for . . .
• Corporation	Corporation.
• Individual or • Sole proprietorship	Individual/sole proprietor.
• LLC classified as a partnership for U.S. federal tax purposes or • LLC that has filed Form 8832 or 2553 electing to be taxed as a corporation	Limited liability company and enter the appropriate tax classification: P = Partnership, C = C corporation, or S = S corporation.
• Partnership	Partnership.
• Trust/estate	Trust/estate.

### Line 3b

Check this box if you are a partnership (including an LLC classified as a partnership for U.S. federal tax purposes), trust, or estate that has any foreign partners, owners, or beneficiaries, and you are providing this form to a partnership, trust, or estate, in which you have an ownership interest. You must check the box on line 3b if you receive a Form W-8 (or documentary evidence) from any partner, owner, or beneficiary establishing foreign status or if you receive a Form W-9 from any partner, owner, or beneficiary that has checked the box on line 3b.

**Note:** A partnership that provides a Form W-9 and checks box 3b may be required to complete Schedules K-2 and K-3 (Form 1065). For more information, see the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

If you are required to complete line 3b but fail to do so, you may not receive the information necessary to file a correct information return with the IRS or furnish a correct payee statement to your partners or beneficiaries. See, for example, sections 6698, 6722, and 6724 for penalties that may apply.

### Line 4 Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

#### Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third-party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys’ fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space on line 4.

1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2).

- 2—The United States or any of its agencies or instrumentalities.
- 3—A state, the District of Columbia, a U.S. commonwealth or territory, or any of their political subdivisions or instrumentalities.
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities.
- 5—A corporation.
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or territory.
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission.
- 8—A real estate investment trust.
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940.
- 10—A common trust fund operated by a bank under section 584(a).
- 11—A financial institution as defined under section 581.
- 12—A middleman known in the investment community as a nominee or custodian.
- 13—A trust exempt from tax under section 664 or described in section 4947.

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
• Interest and dividend payments	All exempt payees except for 7.
• Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
• Barter exchange transactions and patronage dividends	Exempt payees 1 through 4.
• Payments over \$600 required to be reported and direct sales over \$5,000 <sup>1</sup>	Generally, exempt payees 1 through 5. <sup>2</sup>
• Payments made in settlement of payment card or third-party network transactions	Exempt payees 1 through 4.

<sup>1</sup> See Form 1099-MISC, Miscellaneous Information, and its instructions.

<sup>2</sup> However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

**Exemption from FATCA reporting code.** The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) entered on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37).

B—The United States or any of its agencies or instrumentalities.

C—A state, the District of Columbia, a U.S. commonwealth or territory, or any of their political subdivisions or instrumentalities.

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i).

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i).

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state.

G—A real estate investment trust.

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940.

I—A common trust fund as defined in section 584(a).

J—A bank as defined in section 581.

K—A broker.

L—A trust exempt from tax under section 664 or described in section 4947(a)(1).

M—A tax-exempt trust under a section 403(b) plan or section 457(g) plan.

**Note:** You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

### Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, enter "NEW" at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

### Line 6

Enter your city, state, and ZIP code.

## Part I. Taxpayer Identification Number (TIN)

**Enter your TIN in the appropriate box.** If you are a resident alien and you do not have, and are not eligible to get, an SSN, your TIN is your IRS ITIN. Enter it in the entry space for the Social security number. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). If the LLC is classified as a corporation or partnership, enter the entity's EIN.

**Note:** See *What Name and Number To Give the Requester*, later, for further clarification of name and TIN combinations.

**How to get a TIN.** If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at [www.SSA.gov](http://www.SSA.gov). You may also get this form by calling 800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at [www.irs.gov/EIN](http://www.irs.gov/EIN). Go to [www.irs.gov/Forms](http://www.irs.gov/Forms) to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to [www.irs.gov/OrderForms](http://www.irs.gov/OrderForms) to place an order and have Form W-7 and/or Form SS-4 mailed to you within 15 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and enter "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, you will generally have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

**Note:** Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon. See also *Establishing U.S. status for purposes of chapter 3 and chapter 4 withholding*, earlier, for when you may instead be subject to withholding under chapter 3 or 4 of the Code.

**Caution:** A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.



## Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code*, earlier.

**Signature requirements.** Complete the certification as indicated in items 1 through 5 below.

**1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.** You must give your correct TIN, but you do not have to sign the certification.

**2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983.** You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

**3. Real estate transactions.** You must sign the certification. You may cross out item 2 of the certification.

**4. Other payments.** You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third-party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

**5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLÉ accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions.** You must give your correct TIN, but you do not have to sign the certification.

## What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account <sup>1</sup>
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor <sup>2</sup>
5. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee <sup>1</sup>
b. So-called trust account that is not a legal or valid trust under state law	The actual owner <sup>1</sup>
6. Sole proprietorship or disregarded entity owned by an individual	The owner <sup>3</sup>
7. Grantor trust filing under Optional Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))**	The grantor*

For this type of account:	Give name and EIN of:
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity <sup>4</sup>
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing Form 1041 or under the Optional Filing Method 2, requiring Form 1099 (see Regulations section 1.671-4(b)(2)(i)(B))**	The trust

<sup>1</sup> List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

<sup>2</sup> Circle the minor's name and furnish the minor's SSN.

<sup>3</sup> You must show your individual name on line 1, and enter your business or DBA name, if any, on line 2. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

<sup>4</sup> List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.)

\* **Note:** The grantor must also provide a Form W-9 to the trustee of the trust.

\*\* For more information on optional filing methods for grantor trusts, see the Instructions for Form 1041.

**Note:** If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

## Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information, such as your name, SSN, or other identifying information, without your permission to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax return preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity, or a questionable credit report, contact the IRS Identity Theft Hotline at 800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 877-777-4778 or TTY/TDD 800-829-4059.

**Protect yourself from suspicious emails or phishing schemes.**

Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to [phishing@irs.gov](mailto:phishing@irs.gov). You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 800-366-4484. You can forward suspicious emails to the Federal Trade Commission at [spam@uce.gov](mailto:spam@uce.gov) or report them at [www.ftc.gov/complaint](http://www.ftc.gov/complaint). You can contact the FTC at [www.ftc.gov/idtheft](http://www.ftc.gov/idtheft) or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see [www.IdentityTheft.gov](http://www.IdentityTheft.gov) and Pub. 5027.

Go to [www.irs.gov/IdentityTheft](http://www.irs.gov/IdentityTheft) to learn more about identity theft and how to reduce your risk.

## Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and territories for use in administering their laws. The information may also be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payors must generally withhold a percentage of taxable interest, dividends, and certain other payments to a payee who does not give a TIN to the payor. Certain penalties may also apply for providing false or fraudulent information.



**NONRESIDENT TAXPAYER REGISTRATION  
AFFIDAVIT INCOME TAX WITHHOLDING**

dor.sc.gov

**Mail to: The company or individual you are contracting with.**

The undersigned nonresident taxpayer hereby certifies as follows:

Legal business name: \_\_\_\_\_ FEIN: \_\_\_\_\_

Trade name if applicable (doing business as): \_\_\_\_\_

Mailing address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

Check and complete one:

Hiring or contracting with:

Name: \_\_\_\_\_

Mailing address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

Receiving rentals or royalties from:

Name: \_\_\_\_\_

Mailing address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

I hereby certify that the above named nonresident taxpayer is currently registered with (check the appropriate box):

The South Carolina Secretary of State (SCSOS) or

The South Carolina Department of Revenue (SCDOR):

Date of registration: \_\_\_\_\_

I understand that by this registration, the above named nonresident taxpayer has agreed to be subject to the jurisdiction of the SCDOR and the courts of South Carolina to determine its South Carolina tax liability, including estimated taxes, together with any related interest and penalties.

I understand the SCDOR may revoke the withholding exemption granted under SC Code Section 12-8-550 (temporarily doing business or professional services in South Carolina) or SC Code Section 12-8-540 (rentals) at any time it determines that the above named nonresident taxpayer is not cooperating with the SCDOR in the determination of its correct South Carolina tax liability.

I hereby certify that I have examined this affidavit and to the best of my knowledge and belief, it is true, correct, and complete. I understand that under SC Code Section 12-54-44 (B)(6)(a), I can be fined and/or imprisoned for furnishing a false statement.

\_\_\_\_\_  
Signature of nonresident taxpayer (owner/partner/corporate officer when relevant)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print name

\_\_\_\_\_  
If corporate officer, state title

## INSTRUCTIONS

**Submit this form to the company or individual you are contracting with.**

**Do not submit this form to the SCDOR.**

### **Purpose of Affidavit**

A person is not required to withhold taxes for a nonresident taxpayer who submits an affidavit certifying that they are registered with either the SCSOS or the SCDOR.

### **Required Withholding Payments**

SC Code Section 12-8-550 requires persons hiring or contracting with a nonresident taxpayer to withhold 2% of each payment made to the nonresident where the payments under the contract exceed \$10,000. However, this section does not apply to payments on purchase orders for tangible personal property when those payments are not accompanied by services to be performed in this state.

SC Code Section 12-8-540 requires persons making payment to a nonresident taxpayer, of rentals or royalties at a rate of \$1,200 or more a year for the use of or for the privilege of using property in South Carolina, to withhold taxes on the nonresident taxpayer at the following rates:

- If payments are made to a nonresident taxpayer who is not a corporation, the withholding is computed at South Carolina's top marginal Individual Income Tax rate for the tax year.
- If payments are made to a nonresident taxpayer who is a corporation, the withholding is computed at 5%.

SC Code sections are available at [dor.sc.gov/policy](http://dor.sc.gov/policy).