

CONTRACT DOCUMENTS

**STREAMFLOW REHABILITATION
ASSISTANCE PROGRAM**

HOMINY CREEK DEBRIS REMOVAL

TOWN OF CANTON

HAYWOOD COUNTY, NORTH CAROLINA



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**STREAMFLOW REHABILITATION
ASSISTANCE PROGRAM**

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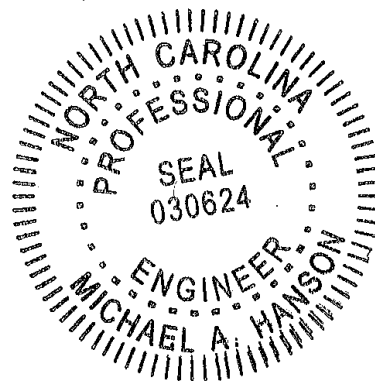
TOWN OF CANTON

HAYWOOD COUNTY, NORTH CAROLINA

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February 2023

PROJECT NO. 22.03036

TOWN OF CANTON, NC
STREAMFLOW REHABILITATION ASSISTANCE PROGRAM -
HOMINY CREEK DEBRIS REMOVAL

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TOWN OF CANTON, NC
STREAMFLOW REHABILITATION ASSISTANCE PROGRAM -
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DIRECT SOLICITATION FOR BIDS
TOWN OF CANTON
STREAMFLOW REHABILITATION ASSISTANCE PROGRAM
HOMINY CREEK DEBRIS REMOVAL

Bids for the project entitled **Streamflow Rehabilitation Assistance Program Hominy Creek Debris Removal** will be received by the **McGill Associates, P.A.** until **2 p.m. local time on Wednesday, March 8, 2023** via email to jonathan.herman@mcgillassociates.com (Maximum attachment 15 MB).

THE PROJECT GENERALLY CONSISTS OF: installation of erosion control devices; upland vegetation clearing for site access; removal of trees, stumps, and brush within the perimeter of the channel to ground level; removal of down trees, logs, drifts, debris and other obstructions lying wholly or partially within the channel; felling of damaged trees to natural channel bottom; bank shaping to re-establish stable channel banks; hauling and disposal of material at approved off-site disposal area; grading, seeding, and mulching and site restoration. Completion of work is expected with 90 days of notice to proceed.

Bidders must comply with all laws and regulations of the State of North Carolina.

Each Bidder shall be responsible for the review of all addenda for the project and shall acknowledge the addenda on the bid form.

The Owner reserves the right to reject any and all Bids, to waive informalities, or to reject non-conforming, non-responsive, or conditional bids. The Owner reserves the right to award a contract to the lowest, responsive, responsible bidder or bidders, taking into consideration quality, performance and time.

Nick Scheuer

Nick Scheuer – Town Manager
Town of Canton

INSTRUCTIONS TO BIDDERS FOR THE CONTRACT

NOTE: THE FOLLOWING "INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACTS" FORM IS USED FOR THE PURPOSES OF THE CONTRACT OF THIS PROJECT.

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

MODIFIED INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACTS

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by



AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
A Practice Division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

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CONSTRUCTION SPECIFICATIONS INSTITUTE

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ARTICLE 1 – DEFINED TERMS

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the Modified General Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

A. *Issuing Office* – The office from which the Contract Documents are to be issued and where the bidding procedures are to be administered.

B. *Disadvantaged Business Enterprise (DBE)* – A business meeting one of the following criteria:

1. Minority Business Enterprise (MBE) – A qualified socially and economically disadvantaged minority-owned business certified by any state and/or Federal agency.
2. Women’s Business Enterprise (WBE) – A qualified independent business at least 51% owned by a woman or women and certified by any state and/or Federal agency.

C. *Unbalanced Bid* - An unbalanced bid is one that meets the following criteria:

1. A mathematically unbalanced Bid is one that contains lump sum or unit bid items that do not appear to reflect reasonable actual costs. Those reasonable actual costs would include a reasonable proportionate share of the Bidder’s anticipated profit, overhead costs, and other indirect costs that the Bidder anticipates for the performance of the items in question.
2. A materially unbalanced Bid is one that produces a reasonable doubt that Award to the low Bidder, who submitted the mathematically unbalanced Bid, would result in the lowest ultimate cost to the Owner.

D. *Responsible Bidder* - A bidder who has demonstrated the attribute of trustworthiness, as well as quality, fitness, capacity, and experience to satisfactorily perform the work described in the Contract Documents.

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

2.01 Complete sets of the Bidding Documents may be obtained from the Issuing Office upon payment of the fee stated in the advertisement or invitation to bid. The fee is non-refundable.

2.02 Complete sets of Bidding Documents shall be used in preparing Bids. Neither the Owner nor the Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

3.01 The Owner may make such investigations as he deems necessary to determine the qualifications of the Bidder to perform the work and the Bidder shall furnish to the Owner all such information

and data for this purpose as the Owner may request. The Owner reserves the right to reject any Bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the contract, and to complete the work contemplated therein. Conditional bids will not be accepted.

3.02 NOT USED

3.03 To demonstrate Bidder's qualifications to perform the Work, after submitting its Bid and within five (5) days of Owner's request, Bidder shall submit (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information:

- A. Evidence of Bidder's authority to do business in the state where the Project is located.
- B. Bidder's state or other contractor license number, if applicable.
- C. Subcontractor and Supplier qualification information; coordinate with provisions of Article 13 of these Instructions, "Subcontractors, Suppliers, and Others."
- D. Other required information regarding qualifications.

3.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

3.05 NOT USED

ARTICLE 4 – EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE CONDITIONS

4.01 *Site and Other Areas*

- A. The Site is identified in the Bidding Documents. By definition, the Site may include rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

4.02 *Existing Site Conditions*

- A. Subsurface and Physical Conditions; Hazardous Environmental Conditions
 - 1. The Bidding Documents identify:
 - a. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site.

- b. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
 - c. reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.
 - d. Technical Data contained in such reports and drawings.
- 2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the Modified General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.
- 3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the Modified General Conditions will apply.
- 4. Geotechnical Report: The Bidding Documents may contain a Geotechnical Report. If included, the Geotechnical Report describes certain select subsurface conditions that are anticipated to be encountered by Contractor during construction in specified locations. The Geotechnical Report is a Contract Document.
 - a. The conditions described in the Geotechnical Report are intended to reduce uncertainty and the degree of contingency in submitted Bids. However, Bidders cannot rely solely on the conditions described. Bids should be based on a comprehensive approach that includes an independent review and analysis of the Geotechnical Report, all other Contract Documents, Technical Data, other available information, and observable surface conditions. Not all potential subsurface conditions are described in the Geotechnical Report.
 - b. Nothing in the Geotechnical Report is intended to relieve Bidders of the responsibility to make their own determinations regarding construction costs, bidding strategies, and Bid prices, nor of the responsibility to select and be responsible for the means, methods, techniques, sequences, and procedures of construction, and for safety precautions and programs incident thereto.
- B. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.
- C. Adequacy of Data: Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 4.02, 4.03, and 4.04 of the Modified General Conditions. Provisions concerning responsibilities for the adequacy of

data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 4.03 of the Modified General Conditions.

4.03 *Site Visit and Testing by Bidders*

- A. Bidder shall conduct Site visits during normal working hours and shall not disturb any ongoing operations at the Site. The Owner may require site visits by the Bidder to be scheduled with the Owner in advance.
- B. The Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions. However, on request, and to the extent the Owner has control over the Site, and schedule permitting, the Owner will provide Bidder access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.
- C. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- D. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

4.04 *Owner's Safety Program*

- A. Site visits and work at the Site may be governed by an Owner's Safety Program. As the General Conditions indicate, Bidders are responsible for complying with Owner's Safety Program, if any.

4.05 *Other Work at the Site*

- A. Reference is made to the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 5 – BIDDER'S REPRESENTATIONS

5.01 It is the responsibility of each Bidder before submitting a Bid to:

- A. examine and carefully study the Bidding Documents, and the other related data identified in the Bidding Documents;

- B. visit the Site and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. become familiar with and satisfy itself as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work;
- D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site including Underground Facilities that may be made available by the Owner and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in the Contract Documents.
- E. consider the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs;
- F. agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;
- G. become aware of the general nature of any work that may be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
- H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder; and
- I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

5.02 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

- 5.03 No verbal agreement or conversation with any officer, agent or employee of the Owner, either before or after the execution of the Contract, shall affect or modify any of the terms or obligations therein.

ARTICLE 6 – NOT USED

ARTICLE 7 – SITE AND OTHER AREAS

- 7.01 The Site is identified in the Contract Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

ARTICLE 8 – INTERPRETATIONS AND ADDENDA

- 8.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to the Engineer in writing. Interpretations or clarifications considered necessary by the Engineer in response to such questions will be issued by Addenda delivered by either mail or approved electronic means to all parties recorded by the Engineer as having received the Bidding Documents. Questions received less than five (5) days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect. Contractor waives the right to rely on information provided by the Engineer which is not provided in writing and in the form of a formal Addendum.
- 8.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.
- 8.03 Failure of any Bidder to receive any such Addenda shall not relieve said Bidder from any obligation under his Bid as submitted.
- 8.04 All Addenda so issued shall become a part of the Contract Documents.
- 8.05 Prospective Bidders are cautioned concerning the use of a Post Office Box address as Addenda cannot be sent via overnight carrier to Post Office Boxes.

ARTICLE 9 – BID SECURITY

- 9.01 A Bid must be accompanied by Bid security made payable to the Owner in an amount of **five percent (5%)** of Bidder's maximum Bid price and in the form of a certified check, bank money

order, or a Bid bond (on the form included or the standard form of the surety company) issued by a surety meeting the requirements of Paragraphs 5.01 and 5.02 of the Modified General Conditions.

- 9.02 The Bid security of the apparent Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned as necessary. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within ten (10) days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults. The Bid security of all other Bidders may be retained by Owner until the earlier of ten (10) days after the Effective Date of the Agreement or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned as necessary.

ARTICLE 10 – CONTRACT TIMES

- 10.01 The number of calendar days within which, Milestones are to be achieved and the Work is to be substantially completed and ready for final payment are set forth in the Agreement.

ARTICLE 11 – LIQUIDATED DAMAGES

- 11.01 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 12 – SUBSTITUTE AND “OR-EQUAL” ITEMS

- 12.01 The Contract for the Work, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or “or-equal” items. Whenever it is specified or described in the Bidding Documents that a substitute or “or-equal” item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Agreement.
- 12.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of “or-equal” or substitution requests are made at Bidder's sole risk.

ARTICLE 13 – SUBCONTRACTORS, SUPPLIERS AND OTHERS

- 13.01 The Contract Documents may require the identification of certain Subcontractors, Suppliers, individuals, or entities to be submitted to Owner in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five (5) days after Bid opening, submit to Owner a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement

with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by Owner. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute. In which case apparent Successful Bidder shall submit an acceptable substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.

- 13.02 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in the Modified General Conditions.
- 13.03 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.

ARTICLE 14 – PREPARATION OF BID

- 14.01 The Bid Form included with the Bidding Documents shall be used and shall not be altered, contain any unauthorized additions, deletions, or conditional bids.
- 14.02 The Bidder shall not add any provision reserving the right to accept or reject an award, or to enter into a Contract pursuant to an award.
- 14.03 The Bid shall not contain irregularities of any kind which make the Bid incomplete, indefinite, or ambiguous as to its meaning.
- 14.04 All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternate, and unit price item listed therein. Alternative Bids will not be considered unless specifically shown on the Bid Form. In the case of optional alternatives the words "No Bid," "No Change," or "Not Applicable" may be entered.
- 14.05 A Bid by a corporation shall be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown.
- 14.06 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown.

- 14.07 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.
- 14.08 A Bid by an individual shall show the Bidder's name and official address and shall be signed by the individual.
- 14.09 A Bid by a joint venture shall be executed by each of the joint venturers in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.
- 14.10 All names shall be printed in ink below the signatures.
- 14.11 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 14.12 Street, postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 14.13 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid.
- 14.14 [Not Used]
- 14.15 All attachments, certifications or acknowledgements attached to the Bid shall be executed in the same manner as the Bid.

ARTICLE 15 – BASIS OF BID; COMPARISON OF BIDS

15.01 *Lump Sum*

- A. Bidders shall submit a Bid on a lump sum basis as set forth in the Bid Form.

15.02 *Base Bid with Alternates*

- A. Bidders shall submit a Bid for the base Bid as shown on the Bid Form and include a separate price for each alternate described in the Bidding Documents and as provided for in the Bid Schedule. The price for each alternate will be the amount added to or deleted from the base Bid if Owner selects the alternate.

15.03 *Unit Price*

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Bid Schedule.
- B. The total of all estimated prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price. The final quantities and Contract Price will be determined in accordance with the Modified General Conditions.

- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

15.04 *Allowances*

- A. For cash allowances the Bid price shall include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with the Modified General Conditions.

15.05 Bids will be compared on the basis of the totals of the lump sum and/or unit prices bid. The resulting Total Contract Bid Price will be compared which will include and cover the furnishing of all materials, and the performance of all labor requisite for proper completion of all the work called for under the accompanying Contract, and in the manner set forth and described in the Contract Documents.

15.06 The lowest Bidder will be that Bidder whose Bid totals the lowest number of dollars as determined above.

ARTICLE 16 – SUBMITTAL OF BID

16.01 The Bid Form in the Bidding Documents is to be completed and submitted with the Bid security.

16.02 A Bid shall be received no later than the time and date prescribed. A Bid shall be sent or delivered to the place or sent to the email address indicated in the advertisement or invitation for bids. Hard copy bids shall be submitted in a single (one (1)) envelope system. The envelope shall be plainly marked with the Project title, Owners name and address in the middle of the envelope and the name, address of Bidder in the upper lefthand corner of the envelope. Electronic bids shall be submitted in a single email under 15 megabytes. A request for an FTP link shall be made to upload any electronic files over 15 megabytes. The email message shall include the Project title, the company name, address of Bidder. Bid submittals shall contain the Bid and any other required information as defined in the advertisement or invitation for bid or bid documents.

16.03 Bids sent electronically: the email with the Bid shall have “BID ATTACHED” and the project name in the Subject line. Emailed Bids shall be sent to jonathan.herman@mccgillassociates.com.

**Jonathan Herman
McGill Associates, P.A.
1240 19th Street Lane NW
Hickory, North Carolina 28601**

- 16.04 If received prior to the designated time of opening, bids will be securely kept, sealed. Bids received subsequent to the designated time of opening will be returned to the Bidder unopened.

ARTICLE 17 – MODIFICATIONS AND WITHDRAWAL OF BID

- 17.01 A Bid may be withdrawn prior to the Bid opening by the Bidder by providing an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.
- 17.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 17.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 17.03 No Bid may be withdrawn for a period of 60 days after Bids have been opened pending the execution of a Contract with the successful bidder except as provided for in Section 143-129.1 of the North Carolina General Statutes. A Bidder must file a duly signed written notice within the time frame allowed under applicable General Statutes with the Owner and Engineer promptly after the time set for the opening of bids that demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, and that the Bidder desires to withdraw its Bid. The Owner and Engineer will review the request and if approved the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 18 – NOT USED

ARTICLE 19 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 19.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 20 – EVALUATION OF BIDS AND AWARD OF CONTRACT

- 20.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids if there is a reasonable doubt that the bid will result in the lowest overall cost to the Owner even though it may be the low evaluated bid, or if it is so unbalanced as to be tantamount to allowing an advanced payment.
- 20.02 Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor informalities not involving price, time, or changes in the Work.
- 20.03 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
- 20.04 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 20.05 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.
- 20.06 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work in accordance with the Contract Documents.
- 20.07 If Owner awards the contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid.

ARTICLE 21 – CONTRACT SECURITY AND INSURANCE

- 21.01 The Modified General Conditions, and as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it shall be accompanied by such bonds and insurance documentation.

ARTICLE 22 – SIGNING OF AGREEMENT

- 22.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement along with the other Contract Documents which are identified in the Agreement as attached thereto. Within 10 days thereafter,

Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. The Owner shall thereafter set a time and place for a Preconstruction conference. One fully signed counterpart of the Contract Documents shall be provided to the Contractor following review from the Owner's legal counsel.

ARTICLE 23 – RETAINAGE

- 23.01 Provisions concerning Contractor's rights to deposit securities in-lieu of retainage are set forth in the Agreement.

ARTICLE 24 – COMMENCEMENT OF WORK

- 24.01 Upon execution and delivery of the Contract and the delivery of the required Performance and Payment Bonds and insurance certificates and policies by the Contractor to the Owner, the Contractor will be notified to proceed with the work of the Contract. The work of the Contract shall be commenced within ten (10) days following such notification or as otherwise specified in the Notice to Proceed.
- 24.02 The Contractor shall notify the Engineer, in writing, of his intention to enter upon the site of the work at least three (3) days in advance of such entrance.

BID FORM

Town of Canton

STREAMFLOW REHABILITATION ASSISTANCE PROGRAM

HOMINY CREEK

Contract Identification and Number

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ARTICLE 1 – BID RECIPIENT

This Bid is submitted to:

Jonathan Herman
McGill Associates, P.A.
1240 19th Street Lane NW
Hickory, North Carolina 28601

1.01 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for **60** days after the date of the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

- A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged.

Addendum No.

Addendum Date

- B. Bidder has visited the Project Site and has become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress and performance of the Work.
- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures, including Underground Facilities, at or contiguous to the Site which have been included as a part of the Contract Documents.
- E. Bidder has obtained and carefully studied (or accepts the consequences for not doing so) all additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site which may affect

EJCDC C-410 Bid Form
McGill Associates Standard

cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.

- F. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- I. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder or, if no written response was made by Engineer, that Bidder has resolved the issue to its satisfaction prior to the submittal of its Bid.
- J. The Bidding Documents are sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
- K. Bidder will submit written evidence of its authority to do business in the state where the Project is located not later than the date of its execution of the Agreement.
- L. Bidder has not relied upon any information provided by the Engineer except information which is part of the Bidding Documents and is in writing and in the form of a formal addendum.
- M. The submission of a Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of the Bid Documents and the Instructions to Bidders, and that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents.

ARTICLE 4 – FURTHER REPRESENTATIONS

4.01 Bidder further represents that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

EJCDC C-410 Bid Form
McGill Associates Standard

The undersigned proposes to accomplish the work as described in the following at the unit prices and/or lump sum price shown. In the event of a discrepancy in the unit prices and the extended prices, the unit prices shall prevail.

LUMP SUM BASE BID

Lump Sum Base Bid Price: _____
_____ dollars
(words)

(\$ _____)
(numbers)

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete within 75 calendar days after the date when the Contract Times commence to run as provided in the Modified General Conditions, and will be completed and ready for final payment in accordance with the Modified General Conditions within 90 calendar days after the date when the Contract Times commence to run.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the Contract Times.

EJCDC C-410 Bid Form
McGill Associates Standard

ARTICLE 7 – ATTACHMENTS TO THIS BID

7.01 The following documents are attached to and made a condition of this Bid:

- N. Required Bid security
- O. List of Proposed Subcontractors
- P. Required Bidder Qualification Statement with Supporting Data
- Q. Affidavit of Non-Collusion
- R. (List other documents as pertinent)

ARTICLE 8 – BID SUBMITTAL

This Bid Submitted By:

If Bidder is:

An Individual

Name (typed or printed): _____

By: _____ (SEAL)
(Individual's signature)

Doing business as: _____

A Partnership

Partnership Name: _____ (SEAL)

By: _____
(Signature of general partner -- attach evidence of authority to sign)

Name (typed or printed): _____

A Corporation

Corporation Name: _____ (SEAL)

State of Incorporation: _____
Type (General Business, Professional, Service, Limited Liability): _____

By: _____
(Signature -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____ (CORPORATE SEAL)

Attest _____

Date of Authorization to do business in North Carolina is _____

EJCDC C-410 Bid Form
McGill Associates Standard

A Joint Venture

Name of Joint Venture: _____

First Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of first joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Second Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of second joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

Bidder's Business Address _____

Phone No. _____ Fax No. _____

SUBMITTED on _____, 20____.

State Contractor License No. _____ (not required).

EJCDC C-410 Bid Form
McGill Associates Standard

Notice of Award

Date: _____

Project: _____

Owner: _____

Owner's Contract No.: _____

Contract: _____

Engineer's Project No.: _____

Bidder: _____

Bidder's Address: _____

You are notified that your Bid dated _____ for the above Contract has been considered. You are the Successful Bidder and are awarded a Contract for _____.

The Contract Price of your Contract is _____ Dollars (\$ _____).
_____ copies of the proposed Contract Documents (except Drawings) accompany this Notice of Award.

You must comply with the following conditions precedent within ten (10) days of the date you receive this Notice of Award.

1. Deliver to the Owner [_____] (_____) fully executed counterparts of the Contract Documents.
2. Deliver with the executed Contract Documents the Contract security [Bonds] and other documents as specified.

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Contract Documents.

Owner

By: _____
Authorized Signature

Title

ACCEPTED

Contractor

By: _____
Authorized Signature

Title

LIST OF PROPOSED SUBCONTRACTORS		
Name	Owner's Contact Person	Work to be Performed
	Name: Telephone: Address:	
	Name: Telephone: Address:	
	Name: Telephone: Address:	
	Name: Telephone: Address:	
	Name: Telephone: Address:	

QUALIFICATIONS STATEMENT

THE INFORMATION SUPPLIED IN THIS DOCUMENT IS CONFIDENTIAL TO THE EXTENT PERMITTED BY LAWS AND REGULATIONS.

Please certify that the following statements are true and fill in requested information below.

1. The Bidder firm or business has never failed to complete a construction or service contract awarded to it.
2. The Corporate Officer, Partner, Joint Venture participant or Proprietor has never failed to complete a construction or service contract awarded to them in their name or when acting as a principal of another entity.
3. There are no judgments, claims, disputes or litigation pending or outstanding involving the Bidder or any of its officers (or any of its partners if a partnership or any of the individual entities if a joint venture).
4. The Bidder has received no OSHA Citations, Notifications of Penalty (monetary or other), or other safety violations in any state within the last 5 years.
5. The Bidder anticipates to use the following pieces of major equipment for **debris removal** on the Owner's Project. **At least one item must be listed for Bid to be considered responsive.**

ITEM	PURCHASE DATE

The Bidder was the operator or managed the operation of the equipment listed above or a similar type on the following **two** projects within the last 5 years (**two projects must be provided for Bid to be considered responsive.**

PROJECT NAME	OWNER OR DESIGN ENGINEER (PROVIDE NAME & TELEPHONE)	CONTRACT DATES (PROVIDE START AND FINISH DATES)	TYPE OF WORK

**I HEREBY CERTIFY THAT THE STATEMENTS AND INFORMATION IN THE QUALIFICATIONS
STATEMENT OF THIS CONTRACT ARE TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF.**

NAME OF ORGANIZATION: _____

BY (PRINT NAME): _____

SIGNATURE: _____

TITLE: _____

DATE: _____

MODIFIED AGREEMENT BETWEEN OWNER AND CONTRACTOR

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by



AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
A Practice Division of the
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**MODIFIED AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

THIS AGREEMENT is by and between _____ (“Owner”) and
_____ (“Contractor”).

Effective Date of Agreement: _____

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: *installation of erosion control devices; upland vegetation clearing for site access; removal of trees, stumps, and brush within the perimeter of the channel to ground level; removal of down trees, logs, drifts, debris and other obstructions lying wholly or partially within the channel; felling of damaged trees to natural channel bottom, hauling and disposal of material at an approved off-site disposal area; grading, seeding, and mulching and site restoration.*

ARTICLE 2 – ENGINEER

- 2.01 The Project has been designed by McGill Associates, P.A. (Engineer), which is to act as Owner’s representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 3 – CONTRACT TIMES

3.01 *Time of the Essence*

- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

3.02 *Dates for Substantial Completion and Final Payment*

- A. The Work will be substantially completed within 75 calendar days, and completed and ready for final payment in accordance with the Modified General Conditions within 90 calendar days.

3.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 3.02 above, plus any extensions thereof allowed in accordance with Article 12 of the Modified General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner **\$750.00** for each calendar day that expires after the time specified in Paragraph 3.02 above for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner **\$750.00** for each calendar day that expires after the time specified in Paragraph 3.02 above for completion and readiness for final payment until the Work is completed and ready for final payment.

ARTICLE 4 – CONTRACT PRICE

- 4.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount equal to the sum of the amounts determined pursuant to Paragraphs 4.01.A, and 4.01.B below:
 - A. For lump sum work an amount equal to the percentage completed of specific items of work provided by the Contractor as a schedule of values for the Lump Sum work.
 - B. For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item. The unit price for each item is as supplied in the Bid for the project.

ARTICLE 5 – PAYMENT PROCEDURES

5.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 14 of the Modified General Conditions. Applications for Payment will be processed by Engineer as provided in the Modified General Conditions.

5.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 25th day of each month during performance of the Work as provided in Paragraph 5.02.A.1 below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the Modified General Conditions (and in the case of Unit Price Work based on the number of units completed).

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the Modified General Conditions.
 - a. 95 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 97.5 percent of the Work completed, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the Modified General Conditions and less 250 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

5.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the Modified General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 14.07.

ARTICLE 6 – CONTRACTOR'S REPRESENTATIONS

- 6.01 In order to induce Owner to enter into this Agreement, Contractor makes the following representations:
 - A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
 - B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has reviewed all General and Supplementary Conditions applicable to the Work.
 - E. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and

procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor's safety precautions and programs.

- F. Based on the information and observations referred to in Paragraph 6.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 7 – MISCELLANEOUS

7.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the Modified General Conditions and the Supplementary Conditions.

7.02 *Assignment of Contract*

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

7.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

7.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

7.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 7.05:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 8 – CONTRACT DOCUMENTS

8.01 Contents

- A. The Contract Documents consist of the following:
1. This Agreement (pages __ through __, inclusive).
 2. Performance bond (pages __ through __, inclusive).
 3. Payment bond (pages __ through __, inclusive).
 4. Other bonds (pages __ through __, inclusive).
 5. Notice of Award (pages __ through __, inclusive).
 6. Modified General Conditions (pages 1 through 82, inclusive).
 7. Supplementary Conditions (pages __ through __, inclusive).
 8. Specifications as identified in the table of contents of the bound Project Manual.
 9. Drawings consisting of __ sheets with each sheet bearing the following general title: _____
 10. Addenda (numbers __ through __, inclusive).
 11. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages __ through __, inclusive).
 12. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Notice to Proceed (pages __ through __, inclusive).
 - b. Work Change Directives.
 - c. Change Orders.
- B. The documents listed in Paragraph 8.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 8.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the Modified General Conditions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. Counterparts have been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or have been identified by Owner and Contractor or on their behalf.

OWNER:

By: _____
Title: _____

Attest: _____
Title: _____

Address for giving notices:

Pre-Audit Statement: This instrument has been preaudited in the manner required by the Local Budget and Fiscal Control Act as amended.

By: _____
Title: _____
Date: _____

Approved as to Form:

By: _____
Title: _____
Date: _____

CONTRACTOR

By: _____
Title: _____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____
Title: _____

Address for giving notices:

License No.: _____

Agent for service of process:

PERFORMANCE BOND

CONTRACTOR:

SURETY *(name and address of principal place of business):*

OWNER:

Town of Canton
85 Summer Street
Canton, North Carolina 28716

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):*

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the

Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper

payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

PAYMENT BOND

CONTRACTOR:

SURETY *(name and address of principal place of business):*

OWNER:

Town of Canton
85 Summer Street
Canton, North Carolina 28716

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):*

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

(seal)

Contractor's Name and Corporate Seal

(seal)

Surety's Name and Corporate Seal

By: _____

Signature

By: _____

Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____

Signature

Attest: _____

Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by

anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has

rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

ATTACH INSURANCE CERTIFICATES HERE

CERTIFICATE OF OWNER'S ATTORNEY

I, the undersigned, _____, the duly authorized and acting legal representative of _____, do hereby certify as follows:

I have examined the attached contract(s) and performance and payment bond(s) and the manner of execution thereof. I am of the opinion that each of the aforesaid agreements are adequate and have been duly executed by the Owner acting through its duly authorized representative, who has full power and authority to execute agreements on behalf of the Owner, and that the foregoing agreements constitute valid and legally binding obligations upon the Owner executing the same in accordance with the terms, conditions and provisions thereof.

Signature: _____

Date: _____

NOTICE TO PROCEED

Date: _____

Project: Streamflow Rehabilitation Assistance Program Hominy Creek Debris Removal

Owner: Town Canton

Owner's Contract No.:

Contract:

Engineer's Project No.: 22.03036

Contractor:

Contractor's Address:

You are notified that the Contract Times under the above Contract will commence to run on _____ . On or before the 10th day following this date, you are to commence work and start performing your obligations under the Contract Documents. In accordance with the Agreement, the date of Substantial Completion is _____, and the date of Final Completion is _____.

Contractor

Town of Canton

Owner

Authorized Signature

Given by:

Authorized Signature

Title

Title

Date

Date

GENERAL CONDITIONS OF THE CONTRACT

NOTE: THE FOLLOWING "MODIFIED STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT" FORM IS USED FOR THE PURPOSES OF THE CONTRACT OF THIS PROJECT.

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

MODIFIED STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by



AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
A Practice Division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

These Modified General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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MODIFIED STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 3. *Application for Payment*—The form provided in the Contract Documents is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 5. *Bid*—the offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 6. *Bidder*—the individual or entity who submits a Bid directly to Owner.
 7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
 9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 11. *Construction Field Representative (CFR)*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.

12. *Contract*—the entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.
13. *Contract Documents*—those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
14. *Contract Price*—the Monies payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
15. *Contract Times*—The number of calendar days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
16. *Contractor*—the individual or entity with whom Owner has entered into the Agreement.
17. *Cost of the Work*—See Paragraph 11.01 for definition.
18. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
19. *Effective Date of the Agreement*—the date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
20. *Engineer*—the individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
22. *General Requirements*—Sections of Division 1 of the Specifications.
23. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
24. *Hazardous Waste*—the term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

26. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
27. *Milestone*—a principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
28. *Notice of Award*—the written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement. The Notice of Award shall not be construed as an agreement or contract. Contractor has no rights or remedies against Owner until the Notice to Proceed has been issued.
29. *Notice to Proceed*—a written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
30. *Owner*—the individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
31. *PCBs*—Polychlorinated biphenyls.
32. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
33. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
34. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
35. *Project Manual*—the bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents. The Project Manual contains any and all addenda issued, documents executed by the Owner and Contractor or Engineer after bidding, and all attachments and exhibits thereto, up to and including the executed copy of the Notice to Proceed.
36. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

38. *Schedule of Submittals*—a schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *Schedule of Values*—a schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *Subcontractor*—an individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be fully utilized for the purposes for which it is intended. As a precedent condition to Substantial Completion the Owner shall have received all certificates of occupancy and any other necessary permits for beneficial occupancy. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder*—the Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—that part of the Contract Documents which amends or supplements these Modified General Conditions.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, material man, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
48. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water

levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.

- 49. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
- 50. *Unit Price Work*—Work to be paid for on the basis of unit prices.
- 51. *Work*—the entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
- 52. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives:*

- 1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or

authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day*:

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective*:

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents or general standards of workmanlike construction or published authorities which govern the proper use and application of a particular material or component, including but not limited to literature published by manufacturers and trade organizations; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide*:

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.

- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish. The Owner shall have authority to review and reject any bonds as nonconforming.
- B. Within fifteen (15) calendar days after the Effective Date of the Agreement, but before any Work at the Site is started, Contractor shall deliver to Owner, with a copy to Engineer, certificates and other evidence of insurance requested by Owner which Contractor is required to purchase and maintain in accordance with paragraphs Article 5 of these Modified General Conditions. The Owner shall have the authority to review and reject any insurance as nonconforming.

2.02 *Copies of Document*

- A. Engineer shall furnish to the successful Contractor up to three (3) sets of the Project Manual. Additional sets will be made available by the Engineer to the Contractor at the cost set forth in the Advertisement for Bids for this project or the actual cost for reproduction whichever is greater.

2.03 *Commencement of Contract Times; Notice to Proceed*

- A. The Contractor shall complete all of the work contracted herein, in an acceptable manner and within the established Contract Time. The Contract Time shall commence on the start date given in the Notice to Proceed, and shall run continuously each and every calendar day following, except as herein provided, and in accordance with paragraph 17.02. Times shall be of the essence of this Agreement.

2.04 *Starting the Work*

- A. The Contractor shall commence work on or before the tenth (10th) calendar day after the date of the Notice to Proceed or as may be differently stated in the Notice to Proceed. Contractor shall not start work prior to the date set in the Notice to Proceed.

2.05 (Intentionally Deleted)

2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a Preconstruction Conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the Contractor's schedule for completion of the work, policies and procedures for submittal of Shop Drawings and other submittals, presentation and processing of Applications for Payment, and maintaining records required by the Contract Documents. If agreed between Owner and Contractor, the Preconstruction Conference may be held prior to the commencement of the Contract Times.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the

Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of, and legally bind each respective party.

2.07 *Submission and Acceptance of Schedules*

- A. Prior to presentation of the first Application for Payment, the Contractor shall submit the following schedules. No progress payment shall be made to Contractor until acceptable Schedules are submitted to Engineer. All schedules shall be coordinated and shall be logically related in time and value for the various stages of work.
1. The Progress Schedule. The Progress Schedule shall be computer generated, utilizing the critical path method (CPM), indicating the dates and duration for completing the various stages of the Work, including any milestones. The level of detail a number of tasks shown in the Progress Schedule shall be commensurate with the complexity of the work. The Progress Schedule shall be acceptable to Engineer if at a minimum it clearly and accurately demonstrates an orderly progression and completion of the work within the contract times. Contractor shall be solely responsible for scheduling and completing the work within the contract time. Any approval or acceptance of the schedule shall not impose on Engineer responsibility for the progress schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility for completion within the contract time.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect as of the date Engineer sealed, signed, and dated the Contract Documents, except as may be otherwise specifically stated in the Contract Documents.
2. The Contract Documents shall be deemed to include applicable building codes, laws and regulations, relevant published industry and trade organization standards, as well as the published requirements of any product manufacturer. However, no such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby. Contractor's failure to notify Engineer of any such discrepancy prior to commencement of Work shall constitute a waiver of Contractor's right to seek additional compensation or damages for any alleged discrepancy later discovered by Contractor.
 - a. Contractor (and any Subcontractor responsible for the performance of all or any part of such Work) shall field verify the accuracy of all grades, elevations, dimensions, locations, orientation and measurements. This shall include locations of any underground utilities or other features which may be shown generally on the drawings for informational purposes only. The Engineer shall be promptly notified in writing of any discrepancies. Contractor's failure to notify Engineer of any such discrepancy prior to

commencement of Work shall constitute a waiver of Contractor's right to seek additional compensation or damages for any alleged discrepancy later discovered by Contractor.

2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04. Contractor's failure to notify Engineer of any such discrepancy prior to commencement of Work shall constitute a waiver of Contractor's right to seek additional compensation or damages for any alleged discrepancy later discovered by Contractor.
 - a. In the event Contractor determines that some aspect of the Contract Documents require clarification or interpretation by Engineer, Contractor shall submit a Request for Information (RFI) in writing to Engineer in a format provided by Engineer. RFIs may only be submitted by the Contractor and shall be in the form required by Engineer. Verbal RFI or a RFI presented on an unapproved form shall be rejected. Any delay caused by Engineer's refusal to accept a verbal RFI or a RFI presented on an unapproved form will be attributed solely to Contractor. Each RFI shall be limited to a single issue. Information that is discernible from the Contract Documents as well as issues concerning construction means, methods, techniques, sequences or safety will not be addressed by Engineer.
 - b. Contractor shall clearly and concisely state the issue for which clarification or interpretation is sought and why a clarification or interpretation is needed. The RFI process shall not be used by Contractor to seek approval for proposed "or-equal" or substitute materials or equipment.
 - c. Engineer's review of or responses to RFIs shall not constitute an approval, direction, or procedure related to the construction means, methods, techniques, sequences, or safety.
 - d. Responses to Contractor RFIs will not change any requirement of the Contract Documents. In the event Contractor believes that a response to an RFI will cause a change in the Contract Price or Contract Time, Contractor shall give written notice of the Claim to Engineer.
 - e. If Contractor wishes to make Claim for an adjustment of the Contract Price or an extension of the Contract Times, or both, written notice as provided in Paragraph 10.05 shall be given before proceeding to execute the Work. Failure to give such written notice shall waive Contractor's right to seek an adjustment of the Contract Price or an extension of the Contract Times.

B. Resolving Discrepancies:

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. The provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 Amending and Supplementing Contract Documents

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
 1. A Field Order;
 2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or
 3. Engineer's written interpretation or clarification.

3.05 Reuse of Documents

- A. Contractor and any Subcontractor or Supplier shall not:
 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
 2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation of such documents by Engineer.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for ordinary record keeping purposes.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend, and hold harmless Engineer, and the Owner and their employees, principals, agents, successors, insurers, sureties and assigns, from and against any and all liabilities, claims, causes of actions, suits of any nature, fines, penalties, expenses, costs, losses, and damages (including but not

limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of, resulting from, or relating to the unauthorized use, reuse, or modification of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Engineer's consultants, including electronic media editions, by Contractor, its employees, agents, or any other person or entity for whom Contractor is legally liable.

3.06 *Electronic Data*

- A. The data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon include both printed copies (also known as hard copies) and electronic files. To the extent that any discrepancy exists between electronic files and hard copies, the hard copies shall govern.
 - 1. The Engineer may, but shall not be obligated to, make copies of requested Drawings in electronic format for the Contractor's convenience and to facilitate the Contractor's administration of the Project. Because information presented on electronic files can be modified, unintentionally or otherwise, the Engineer reserves the right to remove all indications of ownership from each electronic display. Notwithstanding the removal of indications of ownership, the Engineer's copyright interest in such files and the information contained therein shall not be abridged or abated by such action. The use of electronic files prepared by the Engineer shall not in any way relieve the contractor of its duty to fully comply with the Contract Documents nor negate the Contractor's responsibility for coordination of other trades, and taking field measurements.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. To the extent that any errors are detected, the receiving party shall provide written notice to the transferring party, which party shall correct such errors identified within the 60 day acceptance period.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefore as provided in Paragraph 10.05.

- B. In the event the Project involves private land, upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Contract Documents identify:

1. If during the preparation of these Contract Documents, subsurface or geotechnical explorations were conducted which are relevant in the discretion of the Engineer to the scope of the work, the findings of such will be included in the Appendix of the Specifications. The Contractor shall be responsible for obtaining such reports and explorations it deems necessary and advisable for the performing of the Work in accordance with the Contract Documents.
2. Information and data reflected in the Contract Documents with respect to existing structures and facilities at or contiguous to the Site are based upon information obtained from varying sources which may include reports, drawings or other data of those facilities presently on file with the Owner. The Owner and Engineer do not guarantee the accuracy of any such information. The Contractor shall be responsible for field verifying all conditions and measurements and for determining the suitability of the site for the proposed Work.

B. *Limited Reliance by Contractor on Technical Data Authorized:* any reports and drawings which have been identified in Article 4.02 A 1 are not Contract Documents. However, in the event the Engineer specifically calls out and designates certain information in such reports and drawings as "Technical Data" then Contractor shall have a limited right to rely upon the accuracy of the designated Technical Data. Other than the designated Technical Data, any information provided and depicted on the Drawings is merely intended to be a general representation of the physical conditions likely be encountered during the Work and shall not constitute a guarantee or warranty by the Engineer or Owner that actual conditions will not vary from that which is depicted. Except for the Contractor's right to rely on the designated technical data, which is limited as more specifically shown below, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions, or information.
4. The information provided herein and depicted on the project drawings are not guaranteed by the Owner or Engineer to be more than a general representation of the physical conditions likely to be encountered during the Work.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor discovers or should reasonably have discovered, or otherwise reasonably believes that any subsurface or physical condition that is uncovered or revealed either:

1. is of such a nature as to establish that any “Technical Data” on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
2. is of such a nature as to require a change in the Contract Documents; or
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents; and is not in the area of the project bid as Unclassified Excavation;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer’s Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner’s obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer’s findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor’s cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such circumstance must meet the conditions of Paragraph 4.03. A; and
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any consequential damages, including but not limited to claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project, and Contractor expressly and specifically releases any and all damages related thereto. Any damages for suspension or idle time shall be limited to the Contractor's actual cost of labor or equipment costs, including a reasonable markup for overhead but shall not include a markup for profit.

4.04 *Underground Facilities*

- A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Contract Documents:
1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and

- d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. Not Shown or Indicated:

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefore as provided in Paragraph 10.05.
3. Generally, service connections are not indicated on the project drawings. Contractor shall be responsible for locating all existing underground utility installations in advance of excavation.

C. Underground Utility Damage Prevention Act:

1. Contractor shall be required and agrees to comply with all the provisions of any applicable underground utility damage prevention act (however titled) and hereby agrees, to the fullest extent permitted by Laws and Regulations, to indemnify, defend, and hold harmless Owner, Engineer, and their employees, principals, agents, successors, sureties, insurers and assigns, including any of their Related Entities, if any, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to Contractor's failure, or the failure of anyone for whom Contractor is responsible, to so comply with the requirements of said act, except the Contractor shall not be required to indemnify any person or entity for acts attributable to the sole negligence of such person or entity.

4.05 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* Reference is made to the Contract Documents for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.
- B. *Limited Reliance by Contractor on designated Technical Data Authorized:* Contractor may rely upon the accuracy of any designated "Technical Data" contained in such reports and drawings, but such reports and drawings are not Contract Documents, and Contractor's reliance on the designated Technical Data is limited to the extent specifically described in set forth in Article 4.02 B. Except for such reliance on such "Technical Data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for

Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.

- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefore as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefore as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents. The Owner shall be solely responsible for determining the adequacy and sufficiency of the bonds for the Project.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions. The Owner shall be responsible for determining the sufficiency and adequacy of such bonds and insurance.

5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Contract Documents, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain. The Owner shall be solely responsible for determining the adequacy and sufficiency of the insurance requested under the Contract Documents and any certificates of insurance which are furnished hereunder.

- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Contract Documents, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.
- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Neither Owner nor Engineer represents that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the cap contract documents, including under the indemnities granted in the Contract Documents.

5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
 - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 - 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting there from; and
 - 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle; and

7. claims for damages arising out of Contractor's performance or providing of professional architectural or engineering services in accordance with Paragraph 6.21.B.

B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insured's (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Contract Documents, all of whom shall be listed as additional insured's, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insured's, and the insurance afforded to these additional insured's shall provide primary coverage for all claims covered thereby;
2. include the specific coverages herein required or required by Laws or Regulations, whichever is greater;
3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 60 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Contract Documents to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
6. include completed operations coverage:
 - a. Such insurance shall remain in effect for two years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured identified in the Contract Documents to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

- C. Satisfactory certificates of insurance shall be submitted and attached to the executed Agreement for Construction between the Owner and Contractor. In connection with the provisions set forth in the Modified General Conditions, the Notice to Proceed will not be issued until satisfactory certificates of insurance are filed.

D. Specified Limits of Insurance Required to be Carried by Contractor

1. Worker's Compensation and Employer's Liability

This insurance shall protect the Contractor and Owner and the Engineer against all claims under applicable state workmen's compensation laws. The Contractor and Owner shall also be protected against claims for injury, disease, or death of employees that, for any reason, may not fall within the provisions of a workmen's compensation law. This policy shall include an "all states" endorsement.

The liability limits shall be not less than:

Worker's Compensation	Statutory
Employer's Liability	\$500,000 each occurrence

2. Comprehensive Automobile Liability

This insurance shall be written in comprehensive form and shall protect the Contractor and Owner and engineer against all claims for injuries to members of the public and damage to property of others arising from the use of motor vehicles, and shall cover operation on or off the site of all motor vehicles licensed for highway use, whether they are owned, non-owned, or hired.

The liability limits shall be not less than:

Bodily Injury	\$1,000,000 each person
	\$1,000,000 each occurrence
Property Damage	\$1,000,000 each occurrence
	\$1,000,000 aggregate

3. Comprehensive General Liability

This insurance shall be written in comprehensive form and shall protect the Contractor and Owner against all claims arising from injuries to persons other than his employees or damage to property of the Owner or others arising out of any act or omission of Contractor or his agents, employees, or Subcontractors. The policy shall also include protection against claims insured by usual personal injury liability coverage and shall include a "protective liability" endorsement to insure the contractual liability assumed by the Contractor under the indemnification provisions in the Modified General Conditions, and "Completed Operations and Products Liability" coverage (to remain in force during the correction or warranty period required under this Agreement).

To the extent that the Contractor's work, or work under his direction, may require blasting, explosive conditions, or underground operations, the comprehensive general liability coverage shall contain no exclusion relative to blasting, explosion, collapse of building, or damage to underground property.

Bodily Injury	\$1,000,000 each person
	\$1,000,000 each occurrence
Property Damage	\$1,000,000 each occurrence
	\$2,000,000 aggregate

4. Umbrella Liability Policy

This insurance shall protect the Contractor against all claims in excess of the limits provided under the workmen's compensation and employer's liability, comprehensive automobile liability, and general liability policies. The liability limits of the umbrella liability policy shall not be less than \$5,000,000.

E. Contractor covenants and agrees that the insurance coverage and limits required by the Contract Documents shall in no way be considered or used in any manner as a limit or cap of any kind on any liability or obligation that Contractor may otherwise have, including, without limitation, liability under the indemnification provisions contained herein.

1. by requiring such insurance and insurance limits, neither Owner nor Engineer represents that such coverage and limits will necessarily be adequate to protect Contractor.
2. Contractor shall be responsible for any deductible or self-insured retention.

5.05 *Owner's Liability Insurance*

A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

A. Contractor shall purchase and maintain Builder's Risk insurance for the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Contract Documents or required by law). Contractor shall be responsible for all associated costs for such insurance. This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Contract Documents, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;
2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Contract Documents.
3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials

and equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;
 6. include testing and startup; and
 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued. The Owner shall be solely responsible for determining the adequacy and sufficiency of such Builders Risk insurance.
- B. Unless otherwise provided in the Contract Documents, Contractor shall purchase and maintain such boiler and machinery insurance or any other additional property insurance required by the Contract Documents or Laws and Regulations, which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Contract Documents, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest in the project and shall be listed as an insured or additional insured.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 60 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Contract Documents. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.
- E. (Intentionally deleted)

5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees there under. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of

or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued. This Waiver of Subrogation shall survive the completion or termination of this Agreement.

- B. Owner, and Contractor waive all rights against each other, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:
1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner, or any other loss of profits or other consequential damages; and
 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them. This provision shall survive the completion and/or termination of the Agreement.

5.08 Receipt and Application of Insurance Proceeds

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the Monies so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall

adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party fails to purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. The Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.

Contractor shall provide competent, qualified, on-site, supervision at all times during construction activities including supervision of the activities of the sub-contractor(s), vendors and suppliers through a Resident Superintendent. The Resident Superintendent shall be on-site at any time that work is ongoing at the project. Sub-contractors shall not work independently on the project without on-site supervision provided Resident Superintendent. A resume for the Resident Superintendent shall be submitted to the Engineer for approval prior to commencing work. Such resumes shall include projects that they were in responsible charge of, that are of similar work in scope and value with owner's references. Contractor shall not change the

Resident Superintendent without written approval from the Engineer. However, the approval of any supervisor by the Engineer shall not relieve the Contractor of its obligation to properly supervise and perform the Work.

- B. If at any point during the progress of the Work the Owner determines, in its sole discretion, that the Resident Superintendent is inadequately performing its services, the Owner may direct in writing the Contractor to replace the Resident Superintendent within thirty (30) days of such notification. The resumes of any proposed new Resident Superintendent shall be submitted to the Engineer for approval prior to their commencement of work on the project.
1. The Resident Superintendent shall provide Owner and Engineer with a written daily field report containing, as a minimum, the following information:
- a. the number of personnel on site, identified by craft or trade, employer and work activity, and the number of hours worked during the workday;
 - b. the types and numbers of equipment on site and the time each piece of equipment was used or stood idle during the workday;
 - c. any materials or equipment received on site during the workday; and
 - d. the identification and quantity of any unit price work, if any, installed during the day.

Said daily field reports shall be submitted to Owner and Engineer not less than weekly.

- C. For purposes of giving or receiving notices, directives, Change Orders, or any other information from Owner or Engineer to Contractor, Contractor shall designate a specific individual as Project Manager to receive such notices, directives, Change Orders, or other information. If the person so designated by Contractor is not available, Contractor shall (in writing addressed to Owner and Engineer) identify the individual who is acting as his authorized representative.
- D. Contractor acknowledges that its obligation to complete the Work in accordance with the Contract Documents shall not be affected or amended as a result of any act by Engineer or any other Owner's consultant, or as a consequence of any field inspections or observations or approval of any Application for Payment, or in regard to any other duty performed by Engineer or other Owner's consultant for the benefit of Owner, unless Owner and Engineer shall expressly approve Contractor's action in advance in writing specifically identifying the action approved. Furthermore, Contractor shall not be relieved of any responsibility to complete the Work in conformity with the contract Documents as a consequence of any knowledge of non-conformity obtained by an Owner's representative, including Engineer, whether or not such representative acts or fails to act on such knowledge. Contractor acknowledges and agrees that any representative retained by Owner to act for Owner's benefit, including Engineer, shall have no duty or responsibility to Contractor, except where specifically stated herein, and no act or failure to act by such Owner's representative shall relieve Contractor of its obligations to perform all requirements under this Contract, except as specifically approved in writing otherwise.

6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.
- C. No Work shall be done between 6 p.m. and 7 a.m. without permission of Owner. However, emergency work may be accomplished without prior permission. No Night Work may be undertaken without permission of Owner.
- D. Each occasion Contractor works in excess of 45 hours per week, or outside of the hours of 7:00 am and 6:00 pm, or on weekends or holidays, the Contractor shall reimburse Owner for any and all costs and expenses (including, but not limited to, Engineer's fees and expenses associated with additional Observation and Contract Administration) incurred by Owner as a result of such schedule. Contractor covenants and agrees that Owner may retain, deduct, and/or offset monies due to Owner pursuant to this Paragraph from monies due to Contractor under the Agreement. Contractor further covenants and agrees that Owner retains the right to make such deduction or offset at any time prior to and including final payment and that the imposition and the deduction and/or offset of such monies shall not be subject to any notice or claim provisions of the Contract Documents.

6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
 - 1. To the extent possible, all warranties shall run to and be enforceable by Owner. Contractor agrees to assign to Owner at the time of final completion of the Work, or as otherwise required by the Contract Documents, any and all Subcontractor and Supplier warranties relating to materials and labor used in the Work and Contractor further agrees to perform the Work in such a manner to preserve any and all Subcontractors' and Suppliers' warranties. Contractor shall provide Owner assistance, throughout the duration of such warranties, in enforcing the obligations of Subcontractors and Suppliers. If necessary as a matter of law, Contractor may retain the right to enforce directly any such Subcontractors' and Suppliers'

warranties during the one-year period following the date of Substantial Completion established by Paragraph 14.04. Contractor includes in this warranty materials and equipment specified by Engineer by brand name. The warranty provided in this Paragraph 6.03 shall be in addition to and not in limitation of any other warranty required by the Contract Documents or otherwise prescribed by law and shall be in addition to all other rights and remedies available to Owner. All warranty obligations are cumulative to and in addition to all remedies available to Owner pursuant to the Contract Documents and applicable law.

- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.
- D. Materials and equipment stored off site shall be stored in a bonded, secure warehouse. Any such materials and equipment stored off site shall be available for review by Engineer's representative. Material and equipment shall be stored and maintained while in storage in a manner consistent with the manufacturer's recommendations. Such maintenance during storage, or prior to startup shall be documented and presented to the Engineer. Risk of loss of stored materials and equipment shall be on Contractor, whether titled in the name of the Contractor or whether title previously passed to the Owner as a result of payment for the stored materials and equipment.
- E. The Contractor shall have responsibility for the care of all equipment and materials, including those furnished by the Owner, if any, and shall bear the risk of injury, loss, or damage to any part thereof by action of the elements or from any other cause, until final completion. Contractor shall rebuild, repair, restore, and make good all injuries, losses, or damages to any portion of the Work or the equipment or materials occasioned by any cause before completion and acceptance of the Work and shall bear the expense therefore. Contractor shall, at no additional cost to Owner, provide temporary measures and suitable structures as they might be necessary to protect the Work or any portion thereof from damage.
- F. Suspension of the Work or the granting of an extension of time for any cause whatever shall not relieve Contractor of his responsibilities for the Work as specified herein including the continuing care and maintenance of stored materials and equipment as well as work accomplished to date.
- G. If the equipment furnished by the Contractor differs in dimension, orientation, horsepower requirements, pipe connection sizes, or is otherwise non-conforming to the Contract Documents, the Contractor shall be responsible for the furnishing of all properly-sized connecting piping, motor starters, motor controls, and electrical wiring and connections, and all other work required to properly install the equipment in complete operating condition. Further, such non-conforming equipment or materials shall be submitted as a "Substitute" in accordance with Section 6.05 of the Modified General Conditions, including and subject to Paragraph 6.05. E. *Engineer's Cost Reimbursement*. No additional compensation by the Owner to the Contractor will be made with respect to such "Substitutes".

6.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.
3. Contractor shall submit to the Engineer an adjusted Progress Schedule whenever the progress of the Work is behind the current, approved Progress Schedule as defined in paragraph 2.07 A.1 of the Modified General Conditions, or upon the Engineer's request and whenever the Engineer determines in its discretion that the Work cannot be substantially complete in the time remaining. The adjusted Progress Schedule must be submitted within ten (10) days of Engineer's written request and prior to the Contractor's next application for payment.
4. Owner shall have the right to direct a postponement or rescheduling of any date or time for the performance of any part of the Work that may interfere with the operation of Owner's premises or any tenants or invitees thereof. Contractor shall, upon Owner's request, reschedule any portion of the Work affecting operation of the premises during hours when the premises are not in operation. Any postponement, rescheduling, or performance of the Work under this Paragraph 6.04.A.3 may be grounds for an extension of the Contract Times, if permitted under Article 12, and an equitable adjustment in the Contract Price, if permitted under Article 12 and (i) the performance of the Work was properly scheduled by the Contractor in compliance with the requirements of the Contract Documents and (ii) such rescheduling or postponement is required for the convenience of the Owner.

6.05 *Substitutes and "Or-Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the Contract Documents contain a description followed by words reading "or an approved equivalent" or "or approved equal" item or "substitution is permitted," other items of material or equipment or material or equipment of other suppliers may not be submitted to Engineer for review. If the description contains or is followed by words reading "or an approved equivalent" or "or approved equal" item or "substitution is permitted," other items of material or equipment or material or equipment of other suppliers may be substituted to Engineer for review under the circumstances described below.

1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that

no change in related Work will be required, it may be considered by Engineer as an “or-equal” item, in which case review and approval of the proposed item may, in Engineer’s sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

- a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics; and
 - 2) it will reliably perform at least equally well the function and achieve the results intended by the design concept of the completed Project as a functioning whole; and
 - 3) it has a proven record of performance and availability of responsive service; and
 - 4) it is equal or better in form, features, operation and maintenance cost and general configuration; and
 - 5) it conforms to the requirements of the Contract Documents in all respects, except for make and manufacturer or supplier and minor details of specified equipment; and
- b. Contractor certifies in writing that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items:

- a. If in Engineer’s sole discretion an item of material or equipment proposed by Contractor does not qualify as an “or-equal” item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefore. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances. Applications for approval of substitute items of material or equipment will not be accepted by the Engineer if made as part of a Shop drawing submittal. The application for use of substitute material or equipment must be made prior to the submission of a shop drawing by a written communication clearly labeled "Request for Substitution". Substitute items proposed by Shop Drawings for materials or

equipment will be rejected by the Engineer unless previously approved in a separate application.

- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified; and
 - d) Contractor accepts the installation instructions, warranty and correction obligations contained in the product manufacturer's literature in connection with the proposed substitution as if such, information pertaining to the new product was originally specified in the Contract Documents; and
 - 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
 - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty; and
 - 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services; and
 - 4) And shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.
- e. If a proposed substitution affects a correlated function, adjacent construction, or the work of other contractors, then the necessary changes and modifications to the affected work are considered an essential part of the proposed substitution, to be accomplished by Contractor as a part of the Work, if and when approved.

- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
1. Proposed substitutions may be rejected without explanation and will not be considered unless one or more of the following conditions exists:
 - a. Required for compliance with interpretation of code requirements or insurance regulations then existing.
 - b. Unavailability of specified products, through no fault of Contractor.
 - c. Subsequent information discloses inability of specified products to perform properly or to fit in designated space.
 - d. Manufacturer/fabricator refuses to certify or guarantee performance or specified product as required.
 - e. When in the judgment of Owner or Engineer, that a substitution would be substantially to Owner's best interests, in terms of cost, time, or other considerations.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Contractor shall be liable to Owner for any and all costs and expenses (including, but not limited to, Engineer's fees and expenses) incurred by Owner as a result of evaluating a substitute proposed or submitted by the Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B, and reflecting changes in the Contract Documents, whether or not Engineer approves a substitute so proposed or submitted by Contractor. Contractor covenants and agrees that Owner may retain, deduct, and/or offset monies due to Owner pursuant to this Paragraph 6.17.D.4 from monies due to Contractor under the Agreement. Contractor further covenants and agrees that Owner retains the right to make such deduction or offset at any time prior to and including final payment and that the imposition and the deduction and/or offset of such monies shall not be subject to any notice or claim provisions of the Contract Documents. Such payment is an obligation separate and apart from the Contractor's obligation to pay liquidated damages for delay, if any.

- F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.
- B. As part of the Bid or the Proposal, the Owner may require the identity of the Contractor's proposed Subcontractors and Suppliers of Equipment or Materials in order to better evaluate the Proposal or Bid. In the instance where identification of Suppliers is required, supply only one name per equipment or material item.
- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Owner or Engineer may furnish to any such Subcontractor, Supplier, or other individual, entity, or organization, to the extent practicable, information about amounts paid to Contractor for Work performed. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any Monies due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade. Owner and Engineer assume no responsibility for the overlapping or omission of parts of the Work by various Subcontractors or Suppliers in their subcontracts with the Contractor, as this is solely the Contractor's responsibility.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insured's or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same. This Waiver of Subrogation provision shall survive the completion and/or termination of this Agreement.
- H. As soon as possible, but in no case more than 30 days after receipt of the Notice of Award, and prior to the first application for payment, the Contractor shall provide the Engineer with a list of sub-contractors along with the division of their work.

6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others.
- B. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees

necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefore as provided in Paragraph 10.05.

6.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.
- B. A certified sales tax statement shall be provided with each and every pay application, even if there were no sales tax during that period.

6.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

- 1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
- 2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.
 4. Only materials and equipment that are to be used directly in the Work shall be brought to and stored on the Project site by Contractor. After equipment is no longer required for the Work, it shall be promptly removed from the Project site. If Contractor uses any portion of the new Work prior to the date of Substantial Completion of the entire Work, such items shall be restored to their new condition.
- B. *Removal of Debris during Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction including, but not necessarily limited to, (i) deviations from the Drawings and Specifications made during construction; (ii) details in the Work not previously shown; (iii) changes to existing conditions or existing conditions found to differ from those shown on the Drawings; (iv) the actual installed position of all mechanical, electrical equipment, piping, ductwork, access panels, valves, drains, stub outs, etc.; and (v) such other information as Owner or Engineer may reasonably request. These record documents together with all approved samples and a counterpart of all approved Shop Drawings will be available to Engineer and Owner for reference. Contractor's Record Documents shall be available for review by Engineer as part of the pay application process. A pay application will not be considered until the Record Documents are shown complete through that application period. Upon completion of the Work, these Record Documents, Samples, and Shop Drawings will be delivered to Engineer for Owner. Final payment and any retainage shall not be due and owing to Contractor until the Record Documents, marked by Contractor, as required above are delivered as required above.

6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
1. all persons on the Site or who may be affected by the Work;
 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
- G. Nothing contained in the Contract Documents shall be construed to require or authorize Engineer or Owner to supervise or be in any way responsible for Contractor's compliance with any applicable safety regulations, codes, or procedures. Engineer and Owner shall have no duty to

inform the Contractor of any safety violations, and should Engineer or Owner voluntarily point out safety violations, such actions shall not be construed to mean that Engineer or Owner has assumed any responsibility for Contractor's compliance with any applicable safety regulations, codes, or procedures. Contractor is solely responsible for Project safety.

- H. Contractor shall promptly report in writing to Owner and Engineer all accidents arising out of or in connection with the Work that cause death, personal injury, or property damage, giving full details and statements of any witnesses.

6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07) and the submittal procedures described elsewhere in these Contract Documents. In the event of any conflict between the submittal procedures noted above and this Paragraph 6.17, the more stringent requirements shall control. Each submittal will be identified as Engineer may require. Contractor represents and warrants that all Shop Drawings shall be prepared by persons and entities possessing expertise and experience in the trade for which the Shop Drawing is prepared and, if required by the Contract Documents or applicable Laws or Regulations, be a licensed architect or engineer, as appropriate.

1. *Shop Drawings:*

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to

show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:*

- a. Submit number of Samples specified in the Specifications.
 - b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Submittal Procedures:*

1. Before submitting each Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples. Engineer's review and approval will be only to determine if the items covered by the submittals will, after

installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. Engineer's review is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance responsibility of Contractor as required by the Contract Documents. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Except as otherwise expressly provided herein, Engineer's approval of any submittal shall not in any way be deemed to release Contractor from full responsibility for complete and accurate performance of the Work in accordance with the Contract Documents; neither shall such approval release Contractor from any liability imposed upon Contractor by any provision of the Contract Documents. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.
4. Contractor acknowledges that the processing of Shop Drawings and other submittals often requires extensive and time-consuming reviews by many individuals and that the time required for such reviews are directly related to the clarity, completeness, and accuracy of such submittals. Contractor covenants and agrees that Contractor's responsibilities include, but are not limited to, reviewing and coordinating each submittal with all other related or affected work and approving each submittal before submitting same to Engineer for approval. As a part of its Basic services to Owner, Engineer will review up to two submissions of all Contractor submittals required by the Contract Documents. However, if Engineer is required to:
 - a. review a third or subsequent submission of any submittal, or
 - b. review more than the number of copies of each submittal specified in the Contract Documents, or
 - c. review submittals in addition to those required by the Contract Documents, or
 - d. review submittals for proposed substitutions for previously approved items, then

Contractor shall be liable to Owner for any and all costs and expenses (including, but not limited to, Engineer's fees and expenses) incurred by Owner as a result thereof. Contractor covenants and agrees that Owner may retain, deduct, and/or offset Monies due to Owner pursuant to this Paragraph 6.17.D.4 from monies due to Contractor under the Agreement.

Contractor further covenants and agrees that Owner retains the right to make such deduction or offset at any time prior to and including final payment and that the imposition and the deduction and/or offset of such monies shall not be subject to any notice or claim provisions of the Contract Documents. Contractor acknowledges that this obligation is separate and apart from the obligation to pay liquidated damages for delay, if any.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

F. *Professional Certification:*

1. When professional certification of performance criteria of materials, systems, or equipment is required by the Contract Documents, Contractor shall provide the person or party providing the certification with full information on the relevant performance requirements and on the materials, systems, or equipment that are expected to operate at the Project site. The certification shall be based on performance under the operating conditions generally prevailing or expected at the Project site. Engineer shall be entitled to rely upon the accuracy and completeness of such certification.

6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing. Contractor's refusal or failure to continue with the Work in a timely manner as a result of any dispute that arises will constitute a material breach of the Agreement. Owner shall be entitled to specific performance of provisions requiring delivery of warranties and other required documentation.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee. If an equipment or material failure occurs during the Contractor's warranty period, the Contractor's warranty period shall be extended by a period of time, equal to the down time of the equipment, or time until the material failure was corrected to the Owner's satisfaction.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work which is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
 6. any inspection, test, or approval by others; or
 7. any correction of defective Work by Owner.

6.20 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, Contractor and Subcontractor(s) (the "Indemnitors") shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, insurers, agents, consultants and subcontractors of each and any of them (the "Indemnitees") from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of, resulting from, or relating to the Contractor's or its employees', agents' or Subcontractors' (or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable) actions, activities or omissions, negligent or otherwise, or breach or failure to perform this Agreement on or near Owner's property or easement, or arising in any way out of, resulting from, or relating to any of the Work to be performed under this Contract, including, without limitation, claim for bodily injuries, sickness, disease, or death, or to injury to or destruction of tangible property, or other economic damages such as fines, penalties, or other losses, including the loss of use resulting therefrom, except such obligation shall not require indemnity in favor of any party whose negligence solely call such loss. To the extent that any portion of this provision is deemed contrary to law or to otherwise be unenforceable, the parties agree that such offending portion or portions shall be severed from this provision and the remaining provisions shall be enforceable to the maximum extent permitted at law. In the event of any conflict in the construction of this provision, the parties agree that the interpretation requiring the fullest obligation and indemnity shall prevail.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any

individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, and Contractor expressly waives any right to any such limitation. Contractor shall include in any and all subcontracts a provision requiring each Subcontractor to likewise waive any limitation on amount or type of damages, compensation, or benefits payable for or to the Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

- C. Contractor's indemnity obligations under this Paragraph 6.20 shall also specifically include, without limitation, all fines, penalties, damages, liability, costs, expenses (including, but not limited to, reasonable fees and charges of engineers, architects, attorneys, and other professionals, and all court or mediation or other dispute resolution costs), and punitive damages (if any) arising out of, or in connection with, any (i) violation of or failure to comply with any law, statute, ordinance, rule, regulation, code, or requirement of a public authority that bears upon the performance of the Work by Contractor, a Subcontractor, or any person or entity for whom either is responsible, specifically including, but not limited to, any violations of the federal Occupational Safety and Health Act (as applied in the state in which the Project is located or any of the Work is performed) or the safety requirements under Article 6 of these Modified General Conditions; (ii) means, methods, procedures, techniques, or sequences of execution or performance of the Work; and (iii) failure to secure and pay for permits, fees, approvals, licenses, and inspections as required under the Contract Documents, or any violation of any permit or other approval of a public authority applicable to the Work, by Contractor, Subcontractor, or any person or entity for whom either is responsible.
- D. Contractor shall indemnify and hold harmless all of the Indemnities from and against any and all costs and expenses (including, but not limited to, reasonable fees and charges of attorneys) incurred by any of the Indemnities in enforcing any of Contractor's defense, indemnity, and hold-harmless obligations under this Contract.
- E. No contention by Contractor that a certain claim is beyond its indemnity obligations herein required shall relieve Contractor of the obligation to provide indemnity until final judgment by a court of competent jurisdiction holding that there exists no duty on the part of Contractor to undertake any indemnity obligation under the circumstances of any particular claim.

6.21 *[Section Removed]*

6.22 *[Section Removed]*

ARTICLE 7 – [REMOVED]

ARTICLE 8 – OWNER’S RESPONSIBILITIES

8.01 *Communications to Contractor*

- A. Except as otherwise provided in these Modified General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

- A. Owner’s duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner’s identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *(Intentionally deleted)*

8.07 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

- A. Owner’s responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *(Intentionally deleted)*

8.12 *(Intentionally deleted)*

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents and will not be changed without written consent of Owner and Engineer. Except for those responsibilities of the Engineer to decide matters in dispute between the Owner and contractor, the Engineer's services are being performed solely for Owner's benefit, and no other party or entity shall have any claim against Engineer because of the performance or non-performance of such services.

9.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work. No act or omission of the Engineer and performing observation of the Work shall relieve the Contractor of its primary obligation to perform Work in strict accordance with the Contract Documents. No deviation from the Contract Documents shall be deemed to be conforming Work and unless documented in a written Change Order signed by all Parties, except as provided for minor deviations which may be addressed by Field Orders as set forth below.

- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Construction Field Representative (CFR)*

- A. Engineer may furnish a CFR to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such CFR and assistants will be as provided in the Contract Documents, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Contract Documents.
- B. Limitations of Authority: Contractor shall have no right to rely on the CFR in performing any of the following unless Contractor first receives a written instructions of the Engineer and otherwise the CFR shall not:
1. shall not undertake any of the responsibilities of the Contractor, the Subcontractors, or the Contractor's superintendent;
 2. shall not authorize any deviation from the Contract Documents;
 3. shall not stop Work;
 4. shall not expedite the work for the Contractor;
 5. shall not advise on or issue directions relative to any aspect of the means, methods, techniques, safety, sequences, or procedures of construction;
 6. shall not authorize the Owner to occupy the Project in whole or in part;
 7. shall not participate in the performance of specialized field or laboratory tests.

9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefore as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work there under. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 21 days of the event giving rise to the question in accordance with the provisions of Paragraph 10.5 with a request for formal decision.
 - 1. In connection with Contractor's responsibilities with respect to requests for information (RFIs), see Paragraph 3.03.A.2.a and 3.03.A.2.b.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

- C. Engineer's written decision with respect to any such Claim will be a condition precedent to any exercise of rights or remedies a party may have under law.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision unless either party proves, by the preponderance of the evidence, that Engineer's decision was made arbitrarily and capriciously, with no evidence whatsoever to support Engineer's decision.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them. As a condition of the Contractor accepting the right to perform the Work required under this Agreement, the Contractor on behalf of itself, its subcontractors, employees, sureties, and assigns does prospectively release any such claim as to Engineer and Contractor agrees its sole remedy shall be under the Contract to request additional time and compensation from the Owner in strict accordance with the provisions of this Agreement.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work. Neither the professional activities of Engineer, nor the presence of Engineer or its employees or consultants at the Project site, shall relieve Contractor of its obligations, duties, and responsibilities under the Contract Documents.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Construction Field Representative, if any, and assistants, if any.

9.10 *(Intentionally deleted)*

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided). A change in the Contract Price or the Contract Times shall be accomplished only by a written Amendment, a written Change Order, or a written Work Change Directive. Contractor waives the right to additional compensation or time unless it first obtains such documents, properly executed by the appropriate parties, prior to performing any additional Work. No course of conduct or dealings between the parties, no expressed or implied acceptance of alterations or additions to the Work, and no claim that Owner has been unjustly enriched by any alterations or additions to the Work shall be the basis of any claim for an increase in any amount due under the Contract Documents or a change in any time period provided for in the Contract Documents unless such written documentation is obtained, as such written documentation is a condition precedent to the Contractor's recovery of additional money or time.
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefore as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
 - 1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A, or otherwise nonconforming work or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 - 2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.
- B. Agreement on any Change Order shall constitute a full and final settlement of all matters relating to the change in the Work that is the subject of the Change Order, including, but not limited to, all direct and indirect (including without limitation delay, disruption, impact, loss of efficiency, and extended overhead) costs associated with such change, or the cumulative effect of changes through the date of the subject Change Order, and any and all adjustments to the Contract Price and the Contract Times. Implied in every Change Order, unless expressly reserved by Owner or Contractor, is a waiver of all known and unknown claims arising out of or otherwise associated with the Change Order, including a waiver of an applicable federal or state anti-claim waiver statute or common law principal of similar effect. In the event a Change Order increases the Contract Price, Contractor shall include the Work covered by such change Order in Applications for Payments as if such Work were originally part of the contract Documents.

10.04 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change. Owner shall be charged with responsibility for enforcing this provision.
- B. Contractor shall keep the surety informed of the progress of the Work, and, where necessary, obtain the surety's consent to, or waiver of, (i) notice of changes in the Work; (ii) request for reduction or release of retention; (iii) request for final payment; and/or (iv) any other item required by the surety. Owner shall be notified by Contractor and shall be carbon copied, in writing, with all communications between the Contractor and the surety. Owner may, in Owner's sole discretion, inform the surety of the quality and progress of the Work and obtain consents as necessary to protect Owner rights, interest, privileges, and benefits under and pursuant to any bond issued in connection with the Work.

10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 21 days) after the start of the event giving rise thereto; provided, however, that the claimant shall use its best efforts to furnish Engineer and the other party, as expeditiously as possible, with notice of any Claim including, without limitation, those in connection with concealed or unknown conditions,

once such Claim is recognized, and shall cooperate with Engineer and the party against whom the Claim is made in any effort to mitigate the alleged or potential damages, delay, or other adverse consequences arising out of the condition that is the cause of such a Claim. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
1. Deny the Claim in whole or in part;
 2. Approve the Claim; or
 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05. C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.
1. The notice required by Paragraph 10.05.B is a condition precedent to the assertion of any claim by Contractor. The right of Owner to receive written notice of claims under Paragraph 10.05.B may not be waived or modified by Owner or Engineer except in writing signed by Owner, and Contractor waives the right to rely on any purported waiver of this written notice by verbal instructions or other conduct of Owner or Engineer.
 2. Contractor's written notice of a Claim shall be made by written request seeking a Change Order and specifying the grounds therefore and the relief sought. Contractor shall attach to each Application for Payment a schedule of outstanding and unresolved Contractor Claims. By attaching and submitting such schedule with its Application for Payment, Contractor shall be deemed to have certified that the only outstanding and unresolved Claims of which it has

notice at the time of the Application for Payment are those identified in the schedule attached to its Application for Payment. A schedule of outstanding and unresolved requests for change orders and claims shall be required of each Subcontractor submitting an application for payment to Contractor that is to be included in Contractor's Application for Payment to Owner. Owner and Engineer shall each rely upon Contractor's schedule of outstanding and unresolved Claims as inclusive of any and all Claims Contractor is then on notice of, and Contractor's acceptance of payment in response to an Application for Payment shall constitute a waiver and release of any and all Claims not identified in Contractor's schedule of outstanding and unresolved Claims not identified in Contractor's schedule accompanying such Application for Payment. Contractor shall require that each Subcontractor waive and release any and all requests for change orders and claims the Subcontractor is on notice of at the time it submits its application for payment to Contractor and which is not identified in its application for payment by acceptance of payment from Contractor.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work, but only to the extent authorized and approved by Owner in writing before such charges and expenses are incurred.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
 - g. The cost of utilities, fuel, and sanitary facilities at the Site.

- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance Contractor are required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances:*

1. Contractor agrees that:
 - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. Contingency Allowance:

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Unless otherwise stipulated in the Contract Documents, for Unit Price Work, Contractor shall be paid an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the actual quantity of each item as determined by the Engineer pursuant to paragraph 9.07. Variations between the actual quantity and the estimated quantity for items of Unit Price Work, including increases and decreases in quantities, as a result of any Change Orders, shall not serve as a basis for an adjustment in the unit price of the item.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 Change of Contract Price

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the

Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

1. If Owner is entitled to reimbursement or payment from Contractor under or pursuant to the Contract Documents, such payment shall be made promptly upon demand of Owner. Notwithstanding anything contained in the Contract Documents to the contrary, if Contractor fails to promptly make any payment due Owner, or Owner incurs any costs and expenses to cure any default of Contractor or to correct defective Work, Owner shall have an absolute right to offset such amount against the Contract Price and may, in Owner's sole discretion, elect either to (1) deduct an amount equal to that which Owner is entitled from any payment then or thereafter due Contractor from Owner, including payment of retainage, or (2) issue a written notice to Contractor reducing the Contract Price by an amount equal to that which Owner is entitled.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to new unit prices or a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

- d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
- e. where Work is deleted from the Contract prior to commencement of that Work without substitution of other similar Work, one hundred percent (100%) of the Contract cost attributable to the Work, plus a Contractor's markup of ten percent (10%) on the amount of deleted cost, shall be deducted from the Contract Price. However, in the event that material submittals have been approved and orders placed for said materials, a lesser amount equal to the greater of (i) one hundred percent (100%) of the Contract cost attributable to the deleted Work, minus reasonable order cancellation, material restocking, and similar fees, plus a Contractor's fee of five percent (5%) on the amount of deleted cost, or (ii) eighty percent (80%) of the Contract Price shall be deducted from the Contract Price. The credit to the Owner as a result of deletions in the work which results in a for reduced premiums on labor and material bonds, payment and performance bonds shall in all cases be one hundred percent (100%) of the reduction in premium. When both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.
- f. To the extent the Owner performs work as a result of any omission or breach of the Contractor, the Owner shall be entitled to an overhead mark-up consistent with the provisions set forth in this section.

12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times may be extended in an amount equal to the time lost due to such delay if a Claim is made therefore as provided in Paragraph 12.02.A and if the performance of the Work is not, was not, or would not have been delayed by any other cause for which the Contractor is not entitled to an extension of the Contract Times under the Contract Documents. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God. Contractor acknowledges and agrees that adjustments in the Contract Times will be permitted for a delay only to the extent such delay (i) is not caused, or could not have been anticipated, by Contractor; (ii) could not be limited or avoided by the Contractor's timely notice to Owner of the delay or reasonable likelihood that a delay will occur; and (iii) is of a duration not less than one day. In no event will claims for delay be allowed where alleged

delays do not impact the critical path of the Contractor as demonstrated on the relevant schedule provided by the Contractor for the period of time in which the delay allegedly occurred.

- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.
 - 1. If a claim is made as provided in Paragraph 12.03.A and this Paragraph 12.03.C for delay due to abnormal weather conditions, the time extension to be awarded to Contractor, if any, shall be calculated using the following standard baseline ("standard Baseline") of monthly anticipated adverse weather delay days for the project location, and extensions shall only be granted for days lost in any given month in excess of the number of days shown in the Standard Baseline for the same given month. The Standard baseline shall be regarded as the established normal and anticipatable number of calendar days for each month during which construction activity shall be expected to be prevented and suspended by cause of adverse weather. Suspension of construction activity for the number of days each month as listed in the Standard Baseline shall be included in the Contractor's scheduling of weather-dependent activities and shall not be eligible for extension of Contract Time.

Monthly Contract Allowance (MCA) in days												
Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Days	8	6	6	7	5	8	7	5	6	3	5	7

- 2. Adverse Weather is defined as the occurrence of one or more of the following conditions which prevents exterior construction activity or access to the site within twenty-four (24) hours:
 - a. Precipitation (rain, snow, and/or ice) in excess of two-tenths inch (0.20") liquid measure.
 - b. Standing Snow in excess of one inch (1.00")
- 3. Adverse Weather may include, as deemed by Engineer, "dry-out" or "mud" days:
 - a. For rain days above the standard baseline,
 - b. Only if there is a hindrance to site access or site work such as earthwork; and,

- c. At a rate no greater than one (1) make-up day for each day or consecutive days of rain beyond the standard baseline that total one inch (1.00”) or more, liquid measure, unless specifically recommended otherwise by Engineer.
- 4. Actual adverse weather delay days must prevent work on critical exterior activities for fifty percent (50%) or more of Contractor’s scheduled workday. The number of actual adverse weather delay days shall be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather days exceeds the number of days anticipated by the Standard Baseline in Paragraph 12.03.C.1, and providing that all other contractually-required conditions are met, qualifying delays will be converted to calendar days and additional calendar days will be added to the Contract times for each qualifying delay in excess of the Standard Baseline.
- 5. Upon commencement of on-site activities and continuing throughout construction, Contractor shall be responsible for accurately measuring and recording the daily the occurrence of adverse weather on-site.
- 6. Within 30 days of the last day of any month (hereinafter referred to as the “Reporting Month”), Contractor shall submit a written Adverse Weather Report, including copies of Contractor’s daily weather reports and applicable climatological data from the National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location, unless Engineer allows an additional period of time for submission of said report. Notwithstanding any other provisions, failure to submit the required written report within the time specified above shall be deemed to be and shall constitute a waiver by Contractor of any and all claims for delay due to adverse weather conditions occurring during said Reporting Month.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project. Time extensions due to weather delay shall not entitle Contractor to any claim, compensation, or recovery for extended overhead.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.
- F. Contractor shall be liable to Owner and shall pay Owner for a percentage of all costs incurred by Owner and Engineer in investigating, analyzing, negotiating, arbitrating, and litigating any claim against Owner or Engineer for costs or damages due to any alleged delaying or Contractor in the performance of the Work, which percentage shall be equal to the percentage of Contractor’s total delay claim which is determined to be false or to have no basis in law or in fact.
- G. To the fullest extent permitted by law, and notwithstanding anything to the contrary in the Contract Documents, an extension of the Contract Time, to the extent permitted under Paragraph 12.02, shall be the sole remedy of Contractor for any (i) delay in the commencement, prosecution, or completion of the Work, (ii) hindrance or obstruction in the performance of the

Work, (iii) loss of productivity, or (iv) other similar claims (collectively referred to in this Paragraph 12.03.G as “Delays” whether or not such Delays are foreseeable, unless a Delay is caused by acts of Owner constituting active interference with Contractor’s performance of the Work, and only to the extent such acts continue after Contractor furnishes Owner with notice of such interference. In no event shall Contractor be entitled to any compensation with any Delay, including, without limitation, consequential damages, lost opportunity costs, impact damages, or other similar remuneration. Owner’s exercise of any of its rights under the Contract Documents (including, without limitation, ordering changes in the Work, or directing suspension, rescheduling, or correction of the Work), regardless of the extent or frequency of Owner’s exercise of such rights or remedies, shall not be construed as active interference with Contractor’s performance of the Work.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 Notice of Defects

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 Access to Work

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor’s safety procedures and programs so that they may comply therewith as applicable.

13.03 Tests and Inspections

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
 - 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such

inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.
- G. Contractor shall be responsible for inspection of portions of the work already performed to determine that such portions are in proper condition to receive subsequent Work. Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the Work conforms strictly to the Contract requirements. Contractor shall keep full and detailed inspection records and Owner and Owner's authorized representatives shall be afforded access to, and shall be permitted to audit and copy, Contractor's inspection records relating to the Project., and Contractor shall preserve these records for a period of five years after final payment or for such longer period of time as may be required by law.

13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefore as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the

parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefore as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, or if the Work interferes with the operation of the existing facility, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others). Retesting which is necessary as a result of failed testing or defective work shall be at the Contractor's expense.
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- C. At any time during the progress of the Work and up to the date of final acceptance, the Engineer shall have the right to reject any Work that does not conform to the requirements of the Contract Documents, even though such Work has been previously inspected and paid for. Any omissions or failure on the part of the Engineer to disapprove or reject any Work or materials at the time of inspection shall not be construed as an acceptance of any defective Work or materials.

13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. repair such defective land or areas; or
 - 2. correct such defective Work; or

3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefore as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance

with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.

- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefore as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work and the Owner's expenses and compensation for the Engineer's additional services made necessary by Contractor's default, neglect, or failure. Contractor covenants and agrees that Owner may retain, deduct, or offset Monies due to Owner pursuant to this Paragraph 13.09.C from Monies due to Contractor under the Contract Documents. Contractor further covenants and agrees that Owner retains the right to make such reduction or offset at any time prior to and including final payment and that the imposition and the deduction and/or offset of such Monies shall not be subject to any notice or Claim provisions of the Contract Documents.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.
- B. Detail Breakdown of Contract Amount: except in cases where unit prices form the basis for payment under the Contract, the Contractor shall, in accordance with Paragraph 2.07.3, submit a complete itemization of the Contract Amount showing the value assigned to each part of the

work, including an allowance for profit and overhead. Upon approval of the itemization of the Contract Amount by the Engineer, it shall be used as the basis for all Applications for Payment.

14.02 *Progress Payments*

A. Applications for Payments:

1. At the date established for each progress payment (but not more often than once a month), Contractor shall submit to the Engineer an Application for Payment for Work done and materials delivered and stored on the Site. Each Application for Payment shall be computed on the basis of Work completed on all items listed in the Detail Breakdown of Contract Amount (or on unit prices), less retainage. The Contractor shall furnish the Engineer and Owner all reasonable information required for obtaining the necessary data relative to the progress and execution of the Work. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or another location agreed to in writing, the Application for Payment shall be accompanied by evidence that the materials and equipment are covered by appropriate property insurance, all of which must be satisfactory to the Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments shall be governed by N.C. General Statute Section 143-134.1.
4. Payment for Stored Materials and Equipment: The following conditions apply to payment for stored materials and equipment allowed by Article 14.02.A.1.:
 - a. Except in the instance of a material or equipment item that involves little or no installation cost, payment for stored materials or equipment shall not exceed fifty percent (50%) of the value of the item on the Schedule of Values (for lump sum contracts) or fifty percent (50%) of the value the pay item (for unit price contracts) that covers the materials or equipment being claimed. For material or equipment items that involve little or no installation cost, the percentage of the value of the item that will be paid for stored materials will be as agreed upon by the Engineer, Owner, and Contractor.
 - b. Contractor shall submit paid invoices or releases of Lien from the e materials and equipment suppliers with each Application for Payment containing a request for payment for that particular item of stored materials or equipment.
 - c. Payment for stored materials and equipment is generally intended to apply only to major materials and equipment items, as determined by the Engineer.
5. Each Application for Payment shall be accompanied by the following, all in form and substance in accordance with the Contract Documents and satisfactory to Owner:

- a. In accordance with Paragraph 10.05.F.2, a current schedule of outstanding and unresolved Contractor Claims;
 - b. A current Contractor's lien waiver and duly executed and acknowledged sworn statement showing all Subcontractors and Suppliers with whom contractor has entered into subcontracts, the amount of each such subcontract, the amount requested for an Subcontractor and Supplier in the requested progress payment, and the amount to be paid to Contractor from such progress payment, together with similar sworn statements from all Subcontractors and Suppliers;
 - c. Duly executed waivers of mechanic's and material man's liens from all Subcontractors and, when appropriate, from Suppliers and lower tier subcontractors establishing payment or satisfaction of payment of all amounts requested by Contractor on behalf of such entities or persons in any previous Application for Payment; and
 - d. All information and materials required to comply with the requirements of the Contract Documents or reasonably requested by Owner or Engineer.
 - e. Contractor's social security number (if an independent contractor) or federal employer identification number (if a corporation, partnership, or proprietorship), as appropriate.
 - f. Contractor shall annotate the record copy of the Drawings to show all changes made each period as a condition for Engineer's recommendation of payment.
 - g. Contractor shall provide a certified sales tax statement with its pay application.
6. Contractor shall also comply with the following specific requirements:
- a. Title to all materials and equipment purchased by the Contractor for the Work shall pass to the Owner at the time Owner makes payment for such materials and equipment. The Contractor shall comply with any procedures established by the Owner to secure, evidence, or establish the Owner's title to such materials and equipment.
 - b. With each application for payment, Contractor shall submit to Owner a written list identifying each location where materials are stored off the Project site and the value of materials at each location. Contractor shall procure insurance satisfactory to Owner for materials stored off the Project site in an amount not less than the total value thereof.
 - c. The consent of any surety shall be obtained to the extent required prior to payment for any materials stored off the Project site.
 - d. Representatives of Owner and Owner's lender, if any, shall have the right to make inspections of the storage areas at any time.
 - e. Such materials shall be: (1) protected from diversion, destruction, theft, and damage to the satisfaction of Owner and Owner's lender, if any; (2) specifically marked for use on the Project; and (3) segregated from other materials at the storage facility.

B. Review of Applications:

1. Engineer will, within 10 days after receipt of each complete Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
 - b. That Engineer is legally liable or responsible for any defects in the Work performed by the Contractor; or
 - c. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

- d. to make any examination to ascertain how or for what purposes Contractor has used the Monies paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
 - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.
 - e. there are other items warranting a set-off against the amount requested by Contractor, including, but not by way of limitation, errors or overpayments on prior payments to Contractor.

C. Payment Becomes Due:

- 1. Within thirty (30) days after receipt of a Contractor's Request for Payment with Engineer's recommendation, the Owner shall:
 - a. Pay the Application for Payment as recommended by the Engineer.
 - b. Pay such other amount as Owner decides is due the Contractor, informing the Contractor and Engineer in writing stating the reasons for paying the amended amount.
 - c. Withhold payment informing the Contractor and the Engineer of his reasons for withholding payment.

D. Reduction in Payment:

- 1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;

- b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - c. there are other items entitling Owner to a set-off against the amount recommended; or
 - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
 - e. Failure of the Contractor to make payments due to Subcontractors, material suppliers, or employees.
 - f. Damage to another Contractor or any allegations of damage caused to another Contractor
 - g. The Owner reasonably believes that the Contractor cannot complete the Work within the Contract Price.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
 3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

E. Other Payment to Contractor Provisions

1. Credit for Uncorrected Work: Should the Owner direct the Contractor to leave uncorrected Work that has been damaged or that was not performed in accordance with the Contract Documents, an equitable deduction from the Contract Amount shall be made to compensate the Owner for the Uncorrected Work.
2. Payment for Removal of Rejected Work and Materials: The removal of Work and materials rejected in accordance with paragraph 13.06.A of the Modified General Conditions and the re-execution of acceptable work by the Contractor shall be at the expense of the Contractor, and he shall pay the cost of replacing the Work of other contractors destroyed or damaged by the removal of the rejected Work or materials and the subsequent replacement of acceptable Work.
 - a. Removal by Owner: Removal of rejected Work or materials and storage of materials by the Owner, in accordance with paragraph 13.09.A of the Modified General Conditions, shall be paid by the Contractor within thirty (30) days after written notice to pay is given by the Owner. If the Contractor does not pay the expenses of such removal and after ten (10) days written notice being given by the Owner of his intent to sell the materials, the Owner may sell the materials at auction or at private sale and will pay the Contractor the

net proceeds therefrom after deducting all the costs and expenses that should have been borne by the Contractor.

14.03 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall review the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefore.
 - 1. If after the performance of such Substantial Completion Review, Engineer determines that the Work is not substantially complete, Contractor shall be liable to Owner for any and all costs and expenses (including, but not limited to, Engineers fees and expenses) incurred by the Owner as a result of each such failed review thereafter.. Contractor covenants and agrees that Owner may retain, deduct, and/or offset monies due to the Owner pursuant to this Paragraph 14.04.B.1 from monies due to Contractor under the Agreement. Contractor further covenants and agrees that Owner retains the right to make such deduction or offset at any time prior to and including final payment and that the imposition and the deduction and/or offset of such monies shall not be subject to any notice or claim provisions of the Contract Documents.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a proposed certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a proposed list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the proposed certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the proposed certificate to Owner, notify Contractor in writing, stating the reasons therefore. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised list of items to be completed or corrected) reflecting such changes from the proposed certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the proposed certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and

guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the final certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
 - 2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefore. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is fully complete, inclusive of all requirements of the Contract, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

1. If after the performance of such final completion inspection, Engineer determines that punch list items, site or project cleanup activities remain or the Work is otherwise not fully complete in accordance with all of the requirements of the Contract Documents, Contractor shall be liable to Owner for any and all costs and expenses (including, but not limited to, Engineer's fees and expenses) incurred by the Owner as a result thereof. Contractor covenants and agrees that Owner may retain, deduct, and/or offset Monies due to the Owner pursuant to this Paragraph 14.06.A.1 from Monies due to Contractor under the Agreement. Contractor further covenants and agrees that Owner retains the right to make such deduction or offset at any time prior to and including final payment and that the imposition and the deduction and/or offset of such Monies shall not be subject to any notice or claim provisions of the Contract Documents.

14.07 *Final Payment*

A. Application for Payment:

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.
4. Contractor must submit to the Engineer within thirty (30) days of the Final Completion date, all Maintenance and Operating Manuals, schedules, guarantees, equipment test reports, and

record drawings noting all changes during construction. Failure to submit all items listed will give cause to the Engineer to deny final payment recommendation to the Owner.

B. Engineer's Review of Application and Acceptance:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due:

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 Final Completion Delayed

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 Waiver of Claims

- A. The making and acceptance of final payment will constitute:
 1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefore as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will justify termination for cause:
 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
 2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
 3. Contractor's repeated disregard of the authority of Engineer; or
 4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
 1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
 2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
 3. complete the Work as Owner may deem expedient, including hiring contractors on any contractual basis including payment under a cost plus contract
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other

dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 10 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of Monies due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 *Owner May Terminate For Convenience*

- A. Owner may, at any time, terminate the contract in whole or in part for Owner's convenience and without cause. Termination by Owner under this Paragraph 15.03 shall be by a notice of termination prepared by the Owner and delivered to Contractor indicating intent to terminate for convenience and the effective date thereof.
 - 1. (Intentionally deleted)
 - 2. (Intentionally deleted)
 - 3. (Intentionally deleted)
 - 4. (Intentionally deleted)
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.
- C. Upon receipt of a notice of termination for convenience, Contractor shall immediately, in accordance with instruction from Owner, proceed with performance of the following duties regardless of delay in determining or adjusting amounts due under this Paragraph 15.03.B:
 - 1. Cease operations as specified in the notice;
 - 2. Place no further order and enter into no further subcontracts for materials, labor, services, or facilities except as necessary to complete continued portions of the Contract;
 - 3. Terminate all subcontracts and orders to the extent they relate to the Work terminated;

4. Proceed to complete the performance of Work not terminated; and
 5. Take actions that may be necessary, or that Owner may direct, for the protection and preservation of the Work.
- D. Upon such termination, Contractor shall recover as its sole remedy payment of the percentage of the Contract Price equal to the percentage of the Work performed satisfactorily and not previously paid for as determined by the Engineer. Contractor hereby waives and forfeits all other claims for payment and damages, including, without limitation, anticipated profits or revenue or other economic loss arising out of or resulting from such termination.
- E. Owner shall be credited for:
1. Payments previously made to Contractor for the terminated portion of the Work;
 2. Claims which Owner has against Contractor under the contract; and
 3. The value of the materials, supplies, equipment, or other items that are to be disposed of by contractor that are part of the Contract Price.

15.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner does not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

If this project is a State Construction Project and/or for a public Owner, Dispute Resolution shall be governed by RULES IMPLEMENTING MEDIATED SETTLEMENT CONFERENCES IN NORTH CAROLINA PUBLIC CONSTRUCTION PROJECTS adopted February 26, 2002.

If the project is a private project, Dispute Resolution shall be as follows:

- A. Either Owner or Contractor, when mutually agreed to by both parties, may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the North Carolina Rules of

Mediated Settlement Conferences then in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the Engineer and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

- B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:
 - 1. Files for Arbitration in accordance with the N.C. Arbitration Act, which arbitration shall be governed by the current Construction Arbitration rules of the American Arbitration Association; or
 - 2. Agrees with the other party to submit the Claim to another dispute resolution process;

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 - 1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these Modified General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these Modified General Conditions.

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

SUPPLEMENTARY CONDITIONS

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by



AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
A Practice Division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

These Supplementary Conditions have been prepared for use with the Modified Standard General Conditions of the Construction Contract (No. C-700, 2007 Edition). Their provisions are interrelated and a change in one may necessitate a change in the other.

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The following SUPPLEMENTARY CONDITIONS are provided to clarify sections of the MODIFIED INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACTS.

Ref: Article 11.

Add the following paragraph:

11.02 Liquidated Damages shall be \$500 per calendar day.

MEET NORTH CAROLINA ONE-CALL CENTER

North Carolina One-Call is a Corporation formed and funded by participating utility companies and municipalities in the interest of community and job safety and improved service through damage reduction to the utilities.

A one call toll free number, **1-800-632-4949**, provides an avenue to all of the participating members from any point within the State of North Carolina.

Anyone proposing to excavate, dig, bore, tunnel, blast or disturb the earth in any manner in which buried utilities may be damaged is requested to call the toll-free number between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday, forty-eight hours before starting the proposed work.

Within minutes of your telephone call, the participating members will be made aware of your plans and will be given pertinent information that has been provided by you about your planned work. You will be told the names of the participating members from whom you can expect a response. If there are buried facilities in the path of your activity, the route of the utilities will be staked and/or marked at no expense to you. If there are no facilities in the area of the planned work, you will be called or notified by a representative of the participating company accordingly.

Should a non-participating utility operator be serving your area, we recommend that you call them on an individual basis. All utility operators, whether company or municipality, will be provided an opportunity to become a member of North Carolina One-Call.

Naturally, knowing the route of the utilities, the excavator is expected to exercise caution and to avoid damage as the project progresses.

Damage prevention doesn't just happen - it is a planned and orderly process through which each of us can participate - **Yes, we can and will dramatically reduce damages to the utilities in the State of North Carolina! Thanks for your help.**

BEFORE YOU DIG

IN THE INTEREST OF COMMUNITY AND JOB SAFETY

AND IMPROVED SERVICE

[CALL North Carolina One-Call](https://www.ncoc.org/)

1-800-632-4949

Contractor's Application for Payment No. _____

Application Period:		Application Date:
To (Owner): Town of Canton	From (Contractor):	Via (Engineer):
Project: Streamflow Rehabilitation Assistance Program Hominy Creek Debris Removal	Contract:	
Owner's Contract No.:	Contractor's Project No.:	Engineer's Project No.: 22.03036

Application For Payment Change Order Summary

Approved Change Orders	1. ORIGINAL CONTRACT PRICE.....	\$ _____
Number Additions Deductions	2. Net change by Change Orders.....	\$ _____
	3. Current Contract Price (Line 1 ± 2).....	\$ _____
	4. TOTAL COMPLETED AND STORED TO DATE	
	(Column F total on Progress Estimates).....	\$ _____
	5. RETAINAGE:	
	a. X _____ Work Completed.....	\$ _____
	b. X _____ Stored Material.....	\$ _____
	c. Total Retainage (Line 5.a + Line 5.b).....	\$ _____
	6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c).....	\$ _____
	7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application).....	\$ _____
	8. AMOUNT DUE THIS APPLICATION.....	\$ _____
	9. BALANCE TO FINISH, PLUS RETAINAGE	
	(Column G total on Progress Estimates + Line 5.c above).....	\$ _____

Contractor's Certification

The undersigned Contractor certifies, to the best of its knowledge, the following:

(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;

(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and

(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor Signature

By:	Date:
-----	-------

Payment of:	\$ _____	(Line 8 or other - attach explanation of the other amount)
is recommended by:	_____	_____ (Date)
	(Engineer)	
Payment of:	\$ _____	(Line 8 or other - attach explanation of the other amount)
is approved by:	_____	_____ (Date)
	(Owner)	
Approved by:	_____	_____ (Date)
	Funding or Financing Entity (if applicable)	

Progress Estimate - Lump Sum Work

Contractor's Application

[illegible]

Progress Estimate - Unit Price Work

Contractor's Application

[illegible]

Stored Material Summary

Contractor's Application

[illegible]

SALES TAX REIMBURSEMENT STATEMENT

CONTRACTOR _____

PROJECT Streamflow Rehabilitation Assistance
Program Hominy Creek Debris Removal

OWNER Town of Canton

FOR PERIOD _____

VENDOR	ADDRESS	INVOICE	DATE	AMOUNT	N.C. TAX	COUNTY TAX	COUNTY NAME

I, _____, being duly sworn, certify that the foregoing statement of sales tax paid in connection with the referenced contract does not contain sales or use taxes paid on purchases of tangible personal property purchased by such contractors for use in performing the contract which does not annex to, affix to or in some manner become a part of the building or structure being erected, altered or repaired for the governmental entities as defined by G.S. 105-164.14(c) and is to the best of his/her belief, true and correct.

Sworn to before me this _____ day of _____, 201 _____

My commission _____

Signature

Title

Notary Public

EJCDC[®]

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

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e-mail: aschwartz@nspe.org

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www.acec.org

American Society of Civil Engineers
1801 Alexander Bell Drive, Reston, VA 20191-4400
(800) 548-2723
www.asce.org

Work Change Directive

No. _____

Date of Issuance: _____ Effective Date: _____

Project:	Owner:	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.:

Contractor is directed to proceed promptly with the following change(s):

Item No.	Description

Attachments (list documents supporting change):

Purpose for Work Change Directive:

Authorization for Work described herein to proceed on the basis of Cost of the Work due to:

- ☐ Nonagreement on pricing of proposed change.
- ☐ Necessity to expedite Work described herein prior to agreeing to changes on Contract Price and Contract Time.

Estimated change in Contract Price and Contract Times:

Contract Price \$ _____ (increase/decrease) Contract Time _____ (increase/decrease)
days

Recommended for Approval by Engineer:	Date
Authorized for Owner by:	Date
Received for Contractor by:	Date
Received by Funding Agency (if applicable):	Date:

Change Order

No. _____

Date of Issuance: _____ Effective Date: _____

Project:	Owner:	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.:

The Contract Documents are modified as follows upon execution of this Change Order:

Description:

Attachments (list documents supporting change):

CHANGE IN CONTRACT PRICE:

Original Contract Price:

\$ _____

[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____

\$ _____

Contract Price prior to this Change Order:

\$ _____

[Increase] [Decrease] of this Change Order:

\$ _____

Contract Price incorporating this Change

\$ _____

CHANGE IN CONTRACT TIMES:

Original Contract Times: ☐ Working ☐ Calendar days

Substantial completion (days or date): _____

Ready for final payment (days or date): _____

[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____:

Substantial completion (days): _____

Ready for final payment (days): _____

Contract Times prior to this Change Order:

Substantial completion (days or date): _____

Ready for final payment (days or date): _____

[Increase] [Decrease] of this Change Order:

Substantial completion (days or date): _____

Ready for final payment (days or date): _____

Contract Times with all approved Change Orders:

Substantial completion (days or date): _____

Ready for final payment (days or date): _____

RECOMMENDED:

By: _____
Engineer (Authorized Signature)

Date: _____

Approved by Funding Agency (if applicable):

ACCEPTED:

By: _____
Owner (Authorized Signature)

Date: _____

ACCEPTED:

By: _____
Contractor (Authorized Signature)

Date: _____

Date: _____

Change Order

Instructions

A. GENERAL INFORMATION

This document was developed to provide a uniform format for handling contract changes that affect Contract Price or Contract Times. Changes that have been initiated by a Work Change Directive must be incorporated into a subsequent Change Order if they affect Price or Times.

Changes that affect Contract Price or Contract Times should be promptly covered by a Change Order. The practice of accumulating Change Orders to reduce the administrative burden may lead to unnecessary disputes.

If Milestones have been listed in the Agreement, any effect of a Change Order thereon should be addressed.

For supplemental instructions and minor changes not involving a change in the Contract Price or Contract Times, a Field Order should be used.

B. COMPLETING THE CHANGE ORDER FORM

Engineer normally initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Contractor, or requests from Owner, or both.

Once Engineer has completed and signed the form, all copies should be sent to Owner or Contractor for approval, depending on whether the Change Order is a true order to the Contractor or the formalization of a negotiated agreement for a previously performed change. After approval by one contracting party, all copies should be sent to the other party for approval. Engineer should make distribution of executed copies after approval by both parties.

If a change only applies to price or to times, cross out the part of the tabulation that does not apply.

Field Order
No. _____

Date of Issuance: _____ Effective Date: _____

Project:	Owner:	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.:

Attention:
You are hereby directed to promptly execute this Field Order issued in accordance with Modified General Conditions Paragraph 9.04.A, for minor changes in the Work without changes in Contract Price or Contract Times. If you consider that a change in Contract Price or Contract Times is required, please notify the Engineer immediately and before proceeding with this Work.

Reference: _____
(Specification Section(s)) (Drawing(s) / Detail(s))

Description:

Attachments:

	Engineer:
--	-----------

Receipt Acknowledged by Contractor:	Date:
-------------------------------------	-------

Copy to Owner

Certificate of Substantial Completion

Project:	
Owner:	Owner's Contract No.:
Contract:	Engineer's Project No.:

This [tentative] [definitive] Certificate of Substantial Completion applies to:

- ☐ All Work under the Contract Documents: ☐ The following specified portions of the Work:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby declared and is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

A [tentative] [definitive] list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as provided in the Contract Documents except as amended as follows:

- ☐ Amended Responsibilities ☐ Not Amended

Owner's Amended Responsibilities:

Contractor's Amended Responsibilities:

The following documents are attached to and made part of this Certificate:

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

<hr/> Executed by Engineer	<hr/> Date
----------------------------	------------

<hr/> Accepted by Contractor	<hr/> Date
------------------------------	------------

<hr/> Accepted by Owner	<hr/> Date
-------------------------	------------

AFFIDAVIT OF COMPLIANCE WITH N.C. E-VERIFY STATUTES

I, _____ (the individual attesting below), being duly authorized by and on behalf of _____ (the entity bidding on project hereinafter "Employer") after first being duly sworn hereby swear or affirm as follows:

1. Employer understands that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law in accordance with NCGS §64-25(5).
2. Employer is a person, business entity, or other organization that transacts business in this State and that employs 25 or more employees in this State. (mark Yes or No)
 - a. YES _____, or
 - b. NO _____
3. Employer understands that employers employing 25 or more employees in this State must use E-Verify. Each employer, after hiring an employee to work in the United States, must verify the work authorization of the employee through E-Verify in accordance with Article 2, Chapter 64 of the North Carolina General Statutes.
4. Employer's subcontractors comply with E-Verify, and if Employer is the winning bidder on this project Employer will ensure compliance with E-Verify by any subcontractors subsequently hired by Employer.

This ____ day of _____, 20____.

Signature of Affiant

Print or Type Name: _____

Title: _____

State of _____ County of _____

Signed and sworn to (or affirmed) before me, this the ____

day of _____, 20____.

My Commission Expires:

Notary Public

(Affix Official/Notarial Seal)

QUALIFICATIONS STATEMENT

Prepared by



Issued and Published Jointly by



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www.nspe.org

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www.acec.org

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(800) 548-2723
www.asce.org

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QUALIFICATIONS STATEMENT

**THE INFORMATION SUPPLIED IN THIS DOCUMENT IS CONFIDENTIAL TO THE EXTENT
PERMITTED BY LAWS AND REGULATIONS**

1. SUBMITTED BY:

Official Name of Firm:

Address:

2. SUBMITTED TO:

3. SUBMITTED FOR:

Owner:

Project Name:

TYPE OF WORK:

4. CONTRACTOR'S CONTACT INFORMATION

Contact Person:

Title:

Phone:

Email:

5. AFFILIATED COMPANIES:

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Name: _____

Address: _____

6. TYPE OF ORGANIZATION:

☐ SOLE PROPRIETORSHIP

Name of Owner: _____

Doing Business As: _____

Date of Organization: _____

☐ PARTNERSHIP

Date of Organization: _____

Type of Partnership: _____

Name of General Partner(s): _____

☐ CORPORATION

State of Organization: _____

Date of Organization: _____

Executive Officers:

- President: _____

- Vice President(s): _____

- Treasurer: _____

- Secretary: _____

☐ LIMITED LIABILITY COMPANY

State of Organization:

Date of Organization:

Members:

☐ JOINT VENTURE

Sate of Organization:

Date of Organization:

Form of Organization:

Joint Venture Managing Partner

- Name:

- Address:

Joint Venture Managing Partner

- Name:

- Address:

Joint Venture Managing Partner

- Name:

- Address:

7. LICENSING

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Jurisdiction: _____

Type of License: _____

License Number: _____

Jurisdiction: _____

Type of License: _____

License Number: _____

8. CERTIFICATIONS

CERTIFIED BY:

Disadvantage Business Enterprise: _____

Minority Business Enterprise: _____

Woman Owned Enterprise: _____

Small Business Enterprise: _____

Other (_____): _____

9. BONDING INFORMATION

Bonding Company: _____

Address: _____

Bonding Agent: _____

Address: _____

Contact Name: _____

Phone: _____

Aggregate Bonding Capacity: _____

Available Bonding Capacity as of date of this submittal: _____

10. FINANCIAL INFORMATION

Financial Institution: _____

Address: _____

Account Manager: _____

Phone: _____

INCLUDE AS AN ATTACHMENT AN AUDITED BALANCE SHEET FOR EACH OF THE LAST 3 YEARS

11. CONSTRUCTION EXPERIENCE:

Current Experience:

List on **Schedule A** all uncompleted projects currently under contract (If Joint Venture list each participant's projects separately).

Previous Experience:

List on **Schedule B** all projects completed within the last 5 Years (If Joint Venture list each participant's projects separately).

Has firm listed in Section 1 ever failed to complete a construction contract awarded to it?

☐ YES ☐ NO

If YES, attach as an Attachment details including Project Owner's contact information.

Has any Corporate Officer, Partner, Joint Venture participant or Proprietor ever failed to complete a construction contract awarded to them in their name or when acting as a principal of another entity?

☐ YES ☐ NO

If YES, attach as an Attachment details including Project Owner's contact information.

Are there any judgments, claims, disputes or litigation pending or outstanding involving the firm listed in Section 1 or any of its officers (or any of its partners if a partnership or any of the individual entities if a joint venture)?

☐ YES ☐ NO

If YES, attach as an Attachment details including Project Owner's contact information.

12. SAFETY PROGRAM:

Name of Contractor's Safety Officer: _____

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Include the following as attachments:

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) OSHA No. 500- Log & Summary of Occupational Injuries & Illnesses for the past 5 years.

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) list of all OSHA Citations & Notifications of Penalty (monetary or other) received within the last 5 years (indicate disposition as applicable) - IF NONE SO STATE.

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) list of all safety citations or violations under any state all received within the last 5 years (indicate disposition as applicable) - IF NONE SO STATE.

Provide the following for the firm listed in Section V (and for each proposed Subcontractor furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) the following (attach additional sheets as necessary):

Workers' compensation Experience Modification Rate (EMR) for the last 5 years:

YEAR		EMR	
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____

Total Recordable Frequency Rate (TRFR) for the last 5 years:

YEAR		TRFR	
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____

Total number of man-hours worked for the last 5 Years:

YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____

Provide Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) Days Away From Work, Days of Restricted Work Activity or Job Transfer (DART) incidence rate for the particular industry or type of Work to be performed by Contractor and each of Contractor's proposed Subcontractors and Suppliers) for the last 5 years:

YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____

13. EQUIPMENT:

MAJOR EQUIPMENT:

List on **Schedule C** all pieces of major equipment available for use on Owner's Project.

I HEREBY CERTIFY THAT THE INFORMATION SUBMITTED HEREWITH, INCLUDING ANY ATTACHMENTS, IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NAME OF ORGANIZATION: _____

BY: _____

TITLE: _____

DATED: _____

NOTARY ATTEST:

SUBSCRIBED AND SWORN TO BEFORE ME

THIS _____ DAY OF __, 20__

NOTARY PUBLIC - STATE OF _____

MY COMMISSION EXPIRES: _____

REQUIRED ATTACHMENTS

1. Schedule A (Current Experience).
2. Schedule B (Previous Experience).
3. Schedule C (Major Equipment).
4. Audited balance sheet for each of the last 3 years for firm named in Section 1.
5. Evidence of authority for individuals listed in Section 7 to bind organization to an agreement.
6. Resumes of officers and key individuals (including Safety Officer) of firm named in Section 1.
7. Required safety program submittals listed in Section 13.
8. Additional items as pertinent.

SCHEDULE A

CURRENT EXPERIENCE

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

SCHEDULE B

PREVIOUS EXPERIENCE (Include ALL Projects Completed within last 5 years)

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

SCHEDULE B

PREVIOUS EXPERIENCE (Include ALL Projects Completed within last 5 years)

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

SCHEDULE C - LIST OF MAJOR EQUIPMENT AVAILABLE

[illegible]

TECHNICAL SPECIFICATIONS

PART 1 - GENERAL**1.1 RELATED DOCUMENTS**

A. Drawings and general provisions of the Contract, including Modified General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes:

1. Project information.
2. Work covered by Contract Documents.
3. Phased construction.
4. Work by Owner.
5. Work under separate contracts.
6. Future work.
7. Purchase contracts.
8. Owner-furnished products.
9. Contractor-furnished, Owner-installed products.
10. Access to site.
11. Coordination with occupants.
12. Work restrictions.
13. Specification and drawing conventions.

B. Related Section:

1. Division 01 Section "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT INFORMATION

A. Project Identification: **Streamflow Rehabilitation Assistance Program – Hominy Creek Debris Removal** (McGill Associates Project No. **22.03036**)

B. Project Location: **The project consists of 1,840 linear feet of debris removal across 15 separate areas within Hominy Creek along Asheville Highway (US-23) in Canton, NC.**

C. Owner: **Town of Canton, Administrative Office located at 85 Summer Street, Canton, NC 28716**

Owner's Representative: **Mr. Nick Scheuer, Town Manager**

D. Engineer: **McGill Associates, PA, 5400 Trinity Road, Suite 107, Raleigh, NC 27607**

1.4 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of the Project is defined by the Contract Documents and consists of the following:

B. Installation of erosion control devices; upland vegetation clearing for site access; removal of trees, stumps, and brush within the perimeter of the channel to ground level; removal of down trees, logs, drifts, debris and other obstructions lying wholly or partially within the channel; felling of damaged trees; hauling and disposal of material at approved off-site disposal site; grading, seeding, and mulching and site restoration; and removal of debris.

C. Type of Contract

1. Project will be constructed under a single prime contract.

1.5 PHASED CONSTRUCTION

A. NOT USED

1.6 WORK BY OWNER

A. NOT USED

1.7 WORK UNDER SEPARATE CONTRACTS

A. NOT USED

1.8 FUTURE WORK

A. NOT USED

1.9 PURCHASE CONTRACTS

A. NOT USED

1.10 OWNER-FURNISHED PRODUCTS

A. NOT USED

1.11 CONTRACTOR-FURNISHED, OWNER-INSTALLED PRODUCTS

A. NOT USED

1.12 ACCESS TO SITE

A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits, designated temporary construction easements, points of access and as indicated by requirements of this Section.

B. Use of Site: Limit use of Project site to designated temporary construction easements and points of access indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Limits: Confine construction operations to designated temporary construction easements and points of access.
2. Driveways, Walkways and Entrances: Keep driveways, loading areas, and entrances serving premises clear and available to Land Owner and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.13 COORDINATION WITH OCCUPANTS

NOT USED Work Restrictions, General: Comply with restrictions on construction operations.

1. Comply with limitations on use of public streets and other requirements of authorities having jurisdiction.

B. On-Site Work Hours: Limit work on site to daylight hours, except as otherwise indicated or approved by the Owner. All other work on site shall be conducted in accordance with the requirements of the Modified General Conditions.

C. Existing Utility Interruptions: Do not interrupt utilities.

D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption on site with Owner.

1. Notify Engineer not less than 3 business days in advance of proposed disruptive operations.
2. Obtain Engineer's written permission before proceeding with disruptive operations.

1.14 SPECIFICATION AND DRAWING CONVENTIONS (Not Used)

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 012100

ALLOWANCES

NOT USED

END OF SECTION 012100

PART 1 - GENERAL**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Modified General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Sections:
 - 1. Division 01 Section "Product Requirements" for administrative procedures for handling requests for substitutions made after Contract award.

1.3 MINOR CHANGES IN THE WORK

- A. Engineer will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time.

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Engineer will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. ""
 - 2. Within time specified in Proposal Request or 10 days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.

- c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - e. Quotation Form: Use forms acceptable to Engineer.
- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Engineer.
 - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - 4. Include costs of labor and supervision directly attributable to the change.
 - 5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - 6. Comply with requirements in Division 01 Section "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
 - 7. Proposal Request Form: Use form acceptable to Engineer.

1.5 ADMINISTRATIVE CHANGE ORDERS

- A. Allowance Adjustment: Refer to Division 01 Section "Allowances" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect actual costs of allowances.
- B. Unit Price Adjustment: Refer to Division 01 Section "Unit Prices" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect measured scope of unit price work.

1.6 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Proposal Request, Engineer will issue a Change Order for signatures of Owner and Contractor.

1.7 WORK CHANGE DIRECTIVE

- A. Work Change Directive: Engineer may issue a Work Change Directive. Work Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 - 1. Work Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Work Change Directive.
 - 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

PART 1 - GENERAL**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Modified General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Sections:
 - 1. Division 01 Section "Allowances" for procedural requirements governing the handling and processing of allowances.
 - 2. Division 01 Section "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
 - 3. Division 01 Section "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.
 - 4. Division 01 Section "Submittal Procedures" for administrative requirements governing the preparation and submittal of the submittal schedule.

1.3 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule. A cost-loaded Critical Path Method Schedule may serve to satisfy requirements for the Schedule of Values.
 - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with continuation sheets.
 - b. Submittal schedule.
 - c. Items required to be indicated as separate activities in Contractor's Construction Schedule.
 - 2. Submit the Schedule of Values to Engineer at earliest possible date but no later than 7 days prior to the date scheduled for submittal of the initial Applications for Payment.

- B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values.
1. Identification: Include the following Project identification on the schedule of values:
 - a. Project name and location.
 - b. Name of Engineer.
 - c. Engineer's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
 2. Arrange the schedule of values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or Division.
 - b. Description of the Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Dollar value as a percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
 3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide multiple line items for principal contract amounts as appropriate which include separate costs for items such as shop drawings, and project closeout items such as, but not limited to demobilization, project restoration and final cleanup, furnishing Operation and Maintenance manuals, punch list activities, equipment demonstration, operator training and Project Record Documents.
 4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 5. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.
 6. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
 7. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.

- a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place shall be proportionately applied to other line items in the Schedule of Values.
8. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.4 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by Engineer and paid for by Owner.
 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: Progress payments shall be submitted to Engineer by a specific day of the month to be established at the pre-construction conference. The period covered by each Application for Payment is one month, ending on the specific day of the month that is established at the pre-construction conference.
- C. Application for Payment Forms: Use forms provided in Contract Documents.
- D. Application Preparation: Complete every entry on form. Execute by a person authorized to sign legal documents on behalf of Contractor. Engineer will return incomplete applications without action.
 1. Entries shall match data on the schedule of values and Contractor's Construction Schedule. Use updated schedules if revisions were made.
 2. Include amounts for all work completed since the previous Application for Payment by including amounts for all work completed on the project and subtracting those quantities included on previous Applications for Payment. Include only amounts for work completed through the cut-off date established at the pre-construction conference.
 3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- E. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed.
 1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
 2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.

3. Provide summary documentation for stored materials indicating the following:
 - a. Materials previously stored and included in previous Applications for Payment.
 - b. Work completed for this Application utilizing previously stored materials.
 - c. Additional materials stored with this Application.
 - d. Total materials remaining stored, including materials with this Application.
 4. Reimbursement for stored materials shall not exceed 50 percent of the unit price bid for the associated line item or as shown in the Schedule of Values for that portion of the work, unless otherwise agreed upon by the Engineer and Owner .
- F. Retainage: The Owner may retain a portion of the amount otherwise due the Contractor. Except as provided elsewhere, the amount retained by the Owner shall be limited to the following:
1. Withholding of not more than 5 percent of the payment claimed until work is 50 percent complete.
 2. When the contract is 50 percent complete no further retainage shall be withheld from periodic payments. However, the Owner may reinstate retainage (up to 5 percent) if they feel the work is unsatisfactory. The Owner may withhold additional retainage as necessary from periodic payments in a sum necessary to maintain total retainage of 2.5 percent of contract cost through the completion of the project.
 3. When the work is substantially complete (operational or beneficial occupancy), the withheld amount shall be further reduced below 5 percent to only that amount necessary to assure completion.
 4. The Owner may accept securities negotiable without recourse, conditions or restrictions, a release of retainage bond or an irrevocable letter of credit provided by the Contractor in lieu of all or part of the cash retainage.
- G. For unit price projects, the Contractor may use the “Progress Estimate – Unit Price Work” form included with the Contract Documents, or a similar form that provides the required information.
- H. Sales Tax Statement: When requested by the Owner, each request for progress payment submitted by the Contractor shall include a sales tax reimbursement statement. The Contractor shall utilize the form provided with the Contract Documents, or a similar form that provides the required information and certification.
- I. Transmittal: Submit three signed and notarized original copies of each Application for Payment to Engineer by a method ensuring receipt. One copy shall include waivers of lien and similar attachments if required.

1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- J. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from entities lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.
1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
 2. When an application shows completion of an item, submit conditional final or full waivers.
 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 4. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.
 5. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.
- K. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
 2. Schedule of Values.
 3. Contractor's construction schedule.
 4. Sales tax statement (as necessary)
 5. Products list.
 6. Schedule of unit prices.
 7. Submittal schedule.
 8. List of Contractor's staff assignments.
 9. List of Contractor's principal consultants.
 10. Copies of building permits.
 11. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 12. Any other requirements described in the Modified General Conditions of the Contract.
- L. Progress Applications for Payment: Administrative actions and submittals that must precede or coincide with submittal of each Progress Application for Payment include the following:
1. Updated Schedule of Values.
 2. Updated Contractor's construction schedule.
 3. Sales tax statements (as necessary).
 4. Certified payroll statements (as necessary).
 5. Summary of stored materials.

6. Any other requirements described in the Modified General Conditions of the Contract.
- M. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
 3. Any other requirements described in the Modified General Conditions of the Contract.
- N. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. Updated final statement, accounting for final changes to the Contract Sum (Final Adjusting Change Order issued by Engineer).
 4. Contractor's Affidavit of Release of Liens.
 5. Consent of Surety to Final Payment.
 6. Evidence that claims have been settled.
 7. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
 8. Final liquidated damages settlement statement.
 9. Record Documents.
 10. General warranty letter.
 11. Sales tax statements (as necessary).
 12. Any other requirements described in the Modified General Conditions of the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

UNIT BID ITEM SUMMARY

[illegible]

SALES TAX REIMBURSEMENT STATEMENT

CONTRACTOR _____

PROJECT _____
OWNER _____
FOR PERIOD _____

VENDOR	ADDRESS	INVOICE	DATE	AMOUNT	N.C. TAX	COUNTY TAX	COUNTY NAME

I, _____, being duly sworn, certify that the foregoing statement of sales tax paid in connection with the referenced contract does not contain sales or use taxes paid on purchases of tangible personal property purchased by such contractors for use in performing the contract which does not annex to, affix to or in some manner become a part of the building or structure being erected, altered or repaired for the governmental entities as defined by G.S. 105-164.14(c) and is to the best of his/her belief, true and correct.

SALES TAX REIMBURSEMENT STATEMENT

Sworn to before me this _____ day of _____, 20____

My commission expires _____

Signature

Title

Notary Public

01300.1 SCOPE

This section covers the method of measurement and payment for items of work under this contract.

01300.2 GENERAL

The total Bid Price for each section of the contract shall cover all work required by the Contract Documents. All costs in connection with the proper and successful completion of the work including furnishing all materials, equipment, supplies, and appurtenances; providing all construction plant, equipment, and tools; and performing all necessary labor and supervision to fully complete the work, shall be included in the lump sum prices bid. All work not specifically set forth as a pay item in the Bid Form shall be considered a subsidiary obligation of the Contractor and all costs in connection therewith shall be included in the prices bid.

01300.3 ESTIMATED QUANTITIES

All estimated quantities stipulated in the Bid Form or other Contract Documents are approximate and are to be used only a) as a basis for estimating the probable cost of the work and b) for the purpose of comparing the bids submitted for the work. The actual amounts of work done and materials furnished under unit price items may differ from the estimated quantities. In some cases a unit price item has been added to the bid schedule for the purpose of establishing a cost basis in the event work associated with that item is required. No guarantee is expressed or implied that the quantities shown in the bid schedule shall be required to fulfill the Contract. The basis of payment for work and materials will be the actual amount of work done and materials furnished. The Contractor agrees that he will make no claim for damages, anticipated profits, or otherwise on account of any difference between the amounts of work actually performed and materials actually furnished and the estimated amounts thereof.

END OF SECTION 013000

SECTION 013100 PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Modified General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General project coordination procedures.
 - 2. Administrative and supervisory personnel.
 - 3. Coordination drawings.
 - 4. Requests for Information (RFIs).
 - 5. Project meetings.
- B. Related Sections:
 - 1. Division 01 Section "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
 - 2. Division 01 Section "Execution Requirements" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
 - 3. Division 01 Section "Closeout Procedures" for coordinating closeout of the Contract.
 - 4. Division 01 Section "General Commissioning Requirements" for coordinating the Work with Owner's commissioning authority.

1.3 DEFINITIONS

- A. RFI (Request for Information): Request from Contractor seeking information and clarification from the Engineer during construction.

1.4 COORDINATION

- A. Coordination: The Contractor shall coordinate its construction operations with those of others to ensure efficient and orderly installation of each part of the Work. The Contractor shall be responsible for the coordination of each of their

subcontractors' schedules. Contractor and each subcontractor shall coordinate its operations with operations included in different Sections that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 2. Coordinate installation of different components with other contractors to ensure maximum performance and accessibility for required maintenance, service, and repair.
 3. Make adequate provisions to accommodate items scheduled for later installation.
 4. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of all components.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of Contractor's Construction Schedule.
 2. Preparation of the Schedule of Values.
 3. Installation and removal of temporary facilities and controls.
 4. Delivery and processing of submittals.
 5. Progress meetings.
 6. Preinstallation conferences.
 7. Startup and adjustment of systems.
 8. Project closeout activities.

1.5 KEY PERSONNEL

- A. Key Personnel Names: Within 15 days after the Notice to Proceed date, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and email addresses. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.

1. Make copies of list available on site at all times for Owner's and Engineer's use and keep list current at all times.

1.6 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately upon discovery of the need for additional information, interpretation, or clarification of the Contract Documents, Contractor shall prepare and submit an RFI.
 1. RFIs shall originate with Contractor. Engineer will return RFIs submitted to Engineer by other entities controlled by Contractor with no response.
 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
 1. Project name, including Owner.
 2. Date.
 3. Name of Contractor.
 4. Name of Engineer.
 5. RFI number, numbered sequentially.
 6. RFI subject.
 7. Specification Section number and title and related paragraphs, as appropriate.
 8. Drawing number and detail references, as appropriate.
 9. Field dimensions and conditions, as appropriate.
 10. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 11. Contractor's signature.
 12. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: Software-generated form acceptable to Engineer.
- D. Engineer's Action: Engineer will review each RFI, determine action required, and respond. Allow seven (7) working days for Engineer's response for each RFI. RFIs received by Engineer after 1:00 p.m. will be considered as received the following working day.
 1. The following RFIs will be returned without action:

- a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for coordination information already indicated in the Contract Documents.
 - d. Requests for adjustments in the Contract Time or the Contract Sum.
 - e. Requests for interpretation of Engineer's actions on submittals.
 - f. Incomplete RFIs or inaccurately prepared RFIs.
- 2. Engineer's action may include a request for additional information, in which case Engineer's time for response will date from time of receipt of additional information.
- 3. Engineer's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 01 Section "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Engineer in writing within 10 days of receipt of the RFI response.
- E. Upon receipt of Engineer's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Engineer within seven (7) days if Contractor disagrees with response.
- F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Contractor shall be prepared to discuss the log and the status of pending RFIs at all Progress or Coordination Meetings.
- G. Improper or Frivolous RFI: Improper and/or Frivolous RFI's shall be defined as RFI's that request information that is clearly indicated on or reasonably inferable from Contract Documents.
 - 1. Will be returned unanswered, will be removed from the Contractor's RFI log, and the number assigned will be assigned to subsequent RFI.
 - 2. At the Contractor's request, after notification by Engineer that a RFI is improper or frivolous, the RFI will be processed with processing costs charged to Contractor as follows:
 - a. The Contractor shall reimburse the Owner for the Engineer's account for time spent in processing improper or frivolous RFI's at the rate of the Engineer's current standard hourly fee schedule for personnel and associated expenses.

1.7 PROJECT MEETINGS

- A. General: Engineer will schedule and conduct meetings and conferences at Project site, unless otherwise indicated.

1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Engineer of scheduled meeting dates and times.
 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 3. Minutes: Engineer will record significant discussions and agreements achieved and distribute the meeting minutes to everyone concerned, including Owner and Contractor.
- B. Preconstruction Conference: Engineer will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Engineer, but no later than 15 days after execution of the Agreement.
1. Conduct the conference to review responsibilities and personnel assignments.
 2. Attendees: Authorized representatives of Owner, Engineer, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Discuss items of significance that could affect progress of the work.
 4. Minutes: Engineer will record and distribute meeting minutes.
- C. Progress Meetings: Engineer will conduct progress meetings on a monthly basis or as necessary.
1. Coordinate dates of meetings with preparation of payment requests.
 2. Attendees: In addition to representatives of Owner and Engineer, each contractor, subcontractor, supplier, and other entity involved with current progress or planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Topics for discussion at these meetings will be determined as necessary based on the status of Project including, but limited to:
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

- 1) Review schedule for next period.
 - b. Review present and future needs of each entity present.
4. Minutes: Engineer will record and distribute the meeting minutes to each party present and to parties requiring information.
 - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.
- D. Coordination Meetings: Engineer will conduct Project Coordination meetings as necessary. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and preinstallation conferences.
 1. Attendees: In addition to representatives of Owner and Engineer, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meetings shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Review and correct or approve minutes of the previous Coordination Meeting. Review other items of significance that could affect progress. Topics for discussion at these meetings will be determined as necessary based on the status of Project.
 3. Contractor's Construction Schedule: Review progress since the last Coordination Meeting. Determine whether contract is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - a. Schedule Updating: Revise combined Contractor's construction schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.

- 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Work hours.
 - 10) Hazards and risks.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Change Orders.
4. Reporting: Engineer shall record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.
- E. Project Closeout Conference: Engineer shall schedule and conduct a Project Closeout Conference, at a time convenient to Owner and Contractor, prior to the scheduled date of Substantial Completion.
1. Conduct the conference to review requirements and responsibilities related to Project closeout.
 2. Attendees: Authorized representatives of Owner, Engineer, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Discuss items of significance that could affect or delay Project closeout.
 4. Minutes: Entity conducting meeting will record and distribute meeting minutes.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013200 CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Modified General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Contractor's Construction Schedule.
 - 2. Submittals schedule.
 - 3. Field condition reports.
 - 4. Start-up construction schedule.
 - 5. Special reports.
- B. Related Sections:
 - 1. Division 1 Section "Payment Procedures" for submitting the Schedule of Values.
 - 2. Division 1 Section "Project Management and Coordination" for submitting and distributing meeting and conference minutes.
 - 3. Division 1 Section "Submittal Procedures" for submitting schedules and reports.
 - 4. Division 1 Section "Quality Requirements" for submitting a schedule of tests and inspections.

1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
 - 2. Predecessor Activity: An activity that precedes another activity in the network.
 - 3. Successor Activity: An activity that follows another activity in the network.

- B. Cost Loading: The allocation of the Schedule of Values for the completion of an activity as scheduled. The sum of costs for all activities must equal the total Contract Sum, unless otherwise approved by Engineer.
- C. CPM: Critical Path Method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of the Project.
- D. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- E. Event: The starting or ending point of an activity.
- F. Float: The measure of leeway in starting and completing an activity.
 - 1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date. No claims shall arise from the use of float by either party.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- G. Resource Loading: The allocation of manpower and equipment necessary for the completion of an activity as scheduled.

1.4 SUBMITTALS

- A. Format for Submittals: Submit indicated submittals in accordance with Section 013300.
- B. Construction Schedule: Initial schedule, of size required to legibly display entire schedule for entire construction period.
- C. Submittals Schedule: Arrange the following information in a tabular format:
 - 1. Scheduled date for initial submittals.
 - 2. Specification Section number and title.
 - 3. Submittal category (action or informational).
 - 4. Description of the Work covered.
 - 5. Scheduled date for Engineer's final release or approval.

- D. Field Condition Reports: Submit at time of discovery of differing conditions.
- E. Start-up construction schedule.
 - 1. Approval of cost-loaded start-up construction schedule will not constitute approval of schedule of values for cost-loaded activities.
- F. Special Reports: Submit at time of unusual event.

1.5 COORDINATION

- A. Contractor shall coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of subcontractors.
- B. Contractor shall coordinate Construction Schedule with the Schedule of Values, subcontractors, submittal schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from entities involved.
 - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE (CPM METHOD)

- A. CPM Schedule: Prepare Contractor's construction schedule using a cost-loaded, time-scaled CPM network analysis diagram for the Work.
- B. Time Frame: Extend schedule from date established for the Notice to Proceed to date of final completion.
 - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- C. Activities: Treat each aspect of the work as a separate numbered activity for each principal element of the Work. Comply with the following:
 - 1. Activity Duration: Define activities such that no activity is longer than 20 days, unless specifically allowed by Engineer.
 - 2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 days, as separate

- activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
3. Submittal Review Time: Include review and resubmittal times indicated in Division 01 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Construction Schedule with submittal schedule.
 4. Startup and Testing Time: Within the Construction Schedule, include an appropriate number of days for startup and testing based on the scope of the project.
 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for administrative procedures necessary for certification of Substantial Completion.
 6. Punch List and Final Completion: Include not more than 30 days for punch list and final completion.
- D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
1. Work Restrictions: Construction Schedule shall account for and show the effect of the following items on the schedule:
 - a. Coordination with existing construction.
 - b. Limitations of continued occupancies.
 - c. Uninterruptible services.
 - d. Use of premises restrictions.
 - e. Seasonal variation/restrictions.
 - f. Environmental control.
 2. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - a. Subcontract awards.
 - b. Submittals.
 - c. Purchases.
 - d. Deliveries.
 - e. Installation.
 - f. Tests and inspections.
 - g. Adjusting.
 - h. Startup and placement into final use and operation.
- E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, Final Completion and other project-specific milestones.
- F. Cost Correlation: At the head of schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of the Work performed as of dates used for preparation of payment requests.

1. Refer to Division 01 Section "Payment Procedures" for cost reporting and payment procedures.
- G. Upcoming Work Summary: At monthly intervals, prepare a summary report indicating activities scheduled to occur or commence prior to submittal of the next schedule update. Summarize the following:
1. Unresolved issues.
 2. Unanswered RFIs.
 3. Rejected or unreturned submittals.
 4. Notations on returned submittals.
- H. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.
- I. Computer Scheduling Software: Prepare schedules using a software program that has been developed specifically to manage construction schedules.

2.2 SUBMITTALS SCHEDULE

- A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by Progress schedule. Include time required for review, resubmittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Progress Schedule.
 2. Submittal: Submit concurrently with the first complete submittal of Contractor's Construction Schedule.

2.3 FIELD CONDITION REPORTS

- A. Immediately upon discovery of a difference between field conditions and the Contract Documents, notify Engineer to discuss these differences. Based on those conversations, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Distribution: Distribute copies of approved schedule to Engineer, Owner, subcontractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
 - 1. Post copies in Project meeting rooms and temporary field offices.
 - 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 013200

PART 1 - GENERAL**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Modified General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Preconstruction photographs.
 - 2. Periodic construction photographs.
 - 3. Final completion construction photographs.
 - 4. Preconstruction video recordings.
 - 5. Periodic construction video recordings.
- B. Related Sections:
 - 1. Division 01 Section "Submittal Procedures" for submitting photographic documentation.
 - 2. Division 01 Section "Closeout Procedures" for submitting photographic documentation as project record documents at Project closeout.
 - 3. Division 01 Section "Demonstration and Training" for submitting video recordings of demonstration of equipment and training of Owner's personnel.
 - 4. Division 02 Section "Demolition" for photographic documentation before building demolition operations commence.
 - 5. Division 31 Section "Site Clearing" for photographic documentation before site clearing operations commence.

1.3 COSTS

- A. The cost for photographic documentation services shall be considered incidental to the work and shall be included in the bid. No separate payment will be made for photographic documentation.

1.4 INFORMATIONAL SUBMITTALS

- A. Video Recordings: Submit video recordings within seven (7) days of recording.

1. Submit video recordings in digital video disc format acceptable to Engineer.
2. Identification: With each submittal, provide the following information:
 - a. Name of Project.
 - b. Name of Contractor.
 - c. Date video recording was recorded.
 - d. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
 - e. Weather conditions at time of recording.
3. The digital file for each video shall include the following:
 - a. Date stamp by video camera.
 - b. File names indicative of the description of the videos.
 - c. Unique sequential identifier (as necessary).

1.5 USAGE RIGHTS

- A. Contractor shall transfer copyright usage rights to Owner for unlimited reproduction of photographic documentation.

PART 2 - PRODUCTS

2.1 PHOTOGRAPHIC MEDIA

- A. Digital Video Recordings: Provide high-resolution, digital video disc in format acceptable to Engineer.

PART 3 - EXECUTION

3.1 CONSTRUCTION PHOTOGRAPHS

- A. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.
 1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- B. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
 1. Date and Time: Include date and time in file name for each image.

2. Field Office Images: Maintain one set of images accessible in the field office at Project site, available at all times for reference. Identify images in the same manner as those submitted to Engineer.
- C. Preconstruction Photographs: Before starting construction, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Engineer.
1. Flag construction limits before taking construction photographs.
 2. Take photographs necessary to show existing conditions adjacent to property before starting the Work.
 3. Take photographs of existing buildings either on or adjoining property as necessary to accurately record physical conditions at start of construction.
 4. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.
- D. Periodic Construction Photographs: Take photographs monthly, coinciding with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.
- E. Engineer-Directed Construction Photographs: From time to time, Engineer will instruct Contractor about number and frequency of photographs and general directions on vantage points. Select actual vantage points and take photographs to show the status of construction and progress since last photographs were taken.
- F. Final Completion Construction Photographs: Take photographs after date of Substantial Completion for submission as project record documents. Engineer will inform Contractor of desired vantage points.
- G. Additional Photographs: Engineer may request photographs in addition to periodic photographs specified.
1. Three days' notice will be given, where feasible.
 2. In emergency situations, take additional photographs within 24 hours of request.
 3. Circumstances that could require additional photographs include, but are not limited to, the following:
 - a. Special events planned at Project site.
 - b. Immediate follow-up when on-site events result in construction damage or losses.
 - c. Photographs to be taken at fabrication locations away from Project site. These photographs are not subject to unit prices or unit-cost allowances.
 - d. Substantial Completion of a major phase or component of the Work.
 - e. Extra record photographs at time of final acceptance.

- f. Owner's request for special publicity photographs.

3.2 CONSTRUCTION VIDEO RECORDINGS

- A. Recording: Mount camera on tripod before starting recording, unless otherwise necessary to show area of construction. Display continuous running time and date. At start of each video recording, record weather conditions from local newspaper or television and the actual temperature reading at Project site.
- B. Narration: Describe scenes on video recording by audio narration by microphone while video recording is recorded. Include description of items being viewed, recent events, and planned activities. At each change in location, describe vantage point, location, direction (by compass point), and elevation or story of construction.
 - 1. Confirm date and time at beginning and end of recording.
 - 2. Begin each video recording with name of Project, Contractor's name, and Project location.
- C. Preconstruction Video Recording: Before starting construction, record video recording of Project site and surrounding properties from different vantage points, as directed by Engineer.
 - 1. Flag construction limits before recording construction video recordings.
 - 2. Show existing conditions adjacent to Project site before starting the Work.
 - 3. Show existing buildings either on or adjoining Project site to accurately record physical conditions at the start of construction.
 - 4. Show protection efforts by Contractor.
- D. Periodic Construction Video Recordings: Record video recording monthly, coinciding with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last video recordings were recorded.

END OF SECTION 013233

PART 1 - GENERAL**1.1 REQUIREMENTS**

- A. This section specifies the methods and requirements for the submissions applicable to Shop drawings, Working drawings, Product data, Samples, Request for substitutions, Test procedures, and Construction and Submittal schedules. Drawings and general provisions of the Contract, including Modified General and Supplementary Conditions and other Specification Sections, apply to this Section.
- B. All submittals shall be clearly identified by reference to the Specification Section, Paragraph, Drawing number, or Detail as applicable.
- C. All submittals shall be submitted by the Contractor and the Contractor shall be solely responsible for the coordination and management of all submittals. No submittals received directly from material/equipment suppliers or subcontractors will be accepted unless otherwise agreed upon by all parties. The Engineer's review comments and markup submittals will be returned to the Contractor who shall promptly coordinate and return the comments and markup submittals to the appropriate parties.
- D. The Contractor shall submit to the Engineer a detailed submittal schedule in accordance with the Modified General Conditions.
- E. The Contractor shall be responsible for the accuracy and completeness of the information contained in each submittal and shall assure that the material, equipment, and method of work shall be as described in the submittal. Submittal documents shall be edited to clearly show only those items to be included in the contract. All extraneous materials shall be crossed out or otherwise obliterated. The Contractor shall be solely responsible for the coordination of submittals so that work will not be delayed. Different categories of submittals shall be scheduled so that one will not be delayed for lack of coordination or approval of another. No extensions of time will be allowed because of failure to properly schedule or manage submittals.

1.2 SUMMARY

- A. Related Sections:
 - 1. Division 01 Section "Payment Procedures" for submitting Applications for Payment and the schedule of values.

2. Division 01 Section "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
3. Division 01 Section "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Engineer's responsive action. Action submittals are those submittals indicated in individual Specification Sections as action submittals or those inferred by the work shown on the drawings or detailed in the project documents.
- B. Informational Submittals: Written and graphic information and physical samples that do not require Engineer's responsive action. Informational submittals are those submittals indicated in individual Specification Sections as informational submittals.
- C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.
- D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.
- E. Time/Days: Where days are referenced as a measurement of time the unit shall be calendar days.

1.4 SUBMITTALS SCHEDULE

- A. Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or modifications to submittals noted by the Engineer and additional time for handling and reviewing submittals required by those corrections.
 1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
 2. Format: Arrange the following information in a tabular format:
 - a. Specification Section number and title.
 - b. Submittal category: Action, informational.
 - c. Name of subcontractor, if applicable.
 - d. Description of the Work covered.

- e. Scheduled date for Engineer's final release or approval.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Engineer's Digital Data Files: Electronic copies of the Contract Drawings and project specifications may be provided by Engineer for Contractor's use in preparing submittals only if detailed in other Sections of the Contract Documents. In cases where Engineer provides electronic copies of these documents, Engineer makes no representations as to the accuracy or completeness of digital data files as they relate to the Contract Drawings. Please refer to the Modified General Conditions for more details regarding the use of the Engineer's digital data files.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 - 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
- C. Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- D. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 - 1. Initial Review: Based on the complexity of the submittal, allow 7 to 21 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.
 - 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 - 3. Resubmittal Review: Based on the complexity of the submittal, allow 7 to 21 days for review of each resubmittal.
- E. Each submittal shall be accompanied by the transmittal cover contained in this section. The cover sheet shall be printed in a bright unique color of paper (color selected per project) and affixed to paper copies of each submittal. The information required for each submittal is contained on the cover sheet and shall be furnished for each submittal.

- F. Submittal Identification Number: A unique four (4) character number shall be assigned by the Contractor and shall be noted on the transmittal cover sheet accompanying each submittal. Submittal numbers shall have the following format:
1. The first character shall be a SD, W, S, or M, which represents Shop Drawing Data (SD), Working Drawing (W), Sample (S), or Operating/Maintenance Manual (M).
 2. The next digits shall be the specification section number.
 3. The next digits shall be a three digit number (001 – 999) assigned to sequentially number each submittal.
 4. The last character is a letter, A-Z, indicating the submission, or resubmission of the same data, i.e., A – 1st submittal, B- 2nd submittal, etc.
 5. A typical submittal number would be:
SD-15800-013-A
where:
SD = shop drawing
15800 = technical specification section 15800
013 = contractor's submittal number 013
A = 1st submittal
- G. Deviations: All deviations from the Contract Documents shall be identified on submittals.
- H. Paper and Electronic Copies: Unless additional copies are required for final submittal, and unless Engineer observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
- I. Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Engineer will discard submittals received from sources other than Contractor.
- J. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
1. Note date and content of previous submittal.
 2. Note date and content of revision and clearly indicate extent of revision.
 3. Resubmit submittals until they are marked with approval notation from Engineer.

- K. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- L. Use for Construction: Use only final submittals that are marked with approval notation from Engineer.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
 - 1. All submittals shall include a copy of the specification section, with addendum updates included, and all referenced and applicable sections, and each paragraph shall be check-marked to indicate that the submitted material is in compliance with the specification or marked to indicate requested deviations from the specified requirements. If deviations are noted and/or requested each deviation shall be underlined and denoted by a number in the margin to the right with a detailed description of the deviation on a separate sheet.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. Mark each copy of each submittal to show which products and options are applicable.
 - 2. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance or variations with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 - 3. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.

- c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
- 4. Submit Product Data before or concurrent with Samples.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
 - 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance and variation with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
 - 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 24 by 36 inches.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
 - 1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 - 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
 - 3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.

4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit 2 full sets of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Engineer will return one (1) submittal with options selected.
- E. Contractor's Construction Schedule: Comply with requirements specified in Division 01 Section "Construction Progress Documentation."
- F. Application for Payment: Comply with requirements specified in Division 01 Section "Payment Procedures."
- G. Schedule of Values: Comply with requirements specified in Division 01 Section "Payment Procedures."
- H. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment. Include the following information in tabular form:
 1. Name, address, and telephone number of entity performing subcontract or supplying products.
 2. Number and title of related Specification Section(s) covered by subcontract.
 3. Drawing number and detail references, as appropriate, covered by subcontract.
- I. Coordination Drawings: Comply with requirements specified in Division 01 Section "Project Management and Coordination."
- J. Equipment Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that the manufacturer has reviewed the Contract drawings and specifications, including all addendums, and that the equipment and related accessories included in the shop drawing submittal are suitable for installation in the applications proposed for the project. Include evidence of manufacturing experience where required.
- K. Maintenance Data: Comply with requirements specified in Division 01 Section "Operation and Maintenance Data."

2.2 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.

- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit two (2) paper copies and one electronic copy in a PDF format of design documents, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
 - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, design calculations and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer.
- B. Project Closeout and Maintenance/Material Submittals: Refer to requirements in Division 01 Section "Closeout Procedures."
- C. Submittal Transmittal: Contractor shall include with each submittal a transmittal form as contained at the end of this section. Include all information required by the form including Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ENGINEER'S ACTION

- A. Engineer will not review submittals that do not bear required cover sheet and ***Contractor's approval and signature*** and will return them without action.
- B. Engineer will review each submittal, make marks to indicate corrections or modifications required, and return it. The transmittal form included in this section contains a copy of the review stamp to be completed by the Engineer. The Engineer will complete the stamp for each submittal and will mark stamp appropriately to indicate action.
- C. Informational Submittals: Engineer will review each submittal and will not return it, or will return it if it does not comply with requirements. Engineer will forward each submittal to appropriate party.

- D. Incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.
- F. Submittals will be returned to the Contractor under one of the following codes.

Code 1 – FURNISH AS SUBMITTED, No Exceptions – The review indicates that the material, equipment or work method complies with the project documents. In this event the contractor may begin to implement the work method or incorporate the material or equipment covered by the submittal.

Code 2 – FURNISH AS SUBMITTED, Make corrections noted – The review indicates that there are limited corrections required for the material, equipment or work method. In this event the contractor may begin to implement the work method or incorporate the material or equipment covered by the submittal in accordance with the noted corrections.

Code 3 – NOT APPROVED (See Notes), Revise and resubmit – The review indicates that the submittal is insufficient or contains incorrect data, copies or other information. Except at his own risk, the Contractor shall not undertake work covered by this submittal until such time as it is revised and meets the requirements of code 1 or 2.

Code 4 – NOT APPROVED, Rejected – The review indicates that the submittal does not comply with the project documents and is unacceptable for incorporation into the project. Except at his own risk, the Contractor shall not undertake work covered by this submittal until such time as it is revised and meets the requirements of code 1 or 2.

Code 5 – Receipt Acknowledged – The review indicates that the material is for information purposes only and the Engineer has taken no action as none is required.

3.3 EFFECT OF REVIEW OF CONTRACTOR'S SUBMITTALS

- A. The Engineer's review of submittal information provided by the Contractor based upon his review of the drawings, specifications, other project documents and proposed methods of work or information regarding materials or equipment shall not relieve the Contractor of his responsibility for errors therein and shall not be regarded as an assumption of risks or liability by the Owner or the Engineer, or by any officer or employee thereof, and the Contractor shall have no claim under the contract on the account of the failure, or partial failure, of the method of work, material, or equipment so reviewed. A mark of "No Exceptions" or "Make Corrections Noted" shall mean that the Owner has no objection to the Contractor,

upon his own responsibility, using the plan or method of work proposed, or providing the materials or equipment proposed.

3.4 COSTS FOR REVIEW OF RESUBMITTALS

- A. The Contractor shall be responsible for the completeness of each submittal and identifying deviations from the project requirements. Any submittal that may require more than two (2) reviews by the Engineer shall be assessed a review charge for time spent in processing shop drawings at the rate of the Engineer's current standard hourly fee schedule for personnel assigned to the shop drawing review and associated expenses. This charge, covering the cost of engineering and administration, shall be assessed against progress payments.

3.5 SUBMITTAL LOG

- A. Prepare, maintain, and submit a tabular log of submittals organized by the submittal number. Contractor shall be prepared to discuss the log and the status of pending submittals at all Progress or Coordination Meetings.

3.6 CONTRACTOR'S APPROVAL COVER SHEET

- A. To be printed on a bright unique color of paper selected for this project and used to designate a Shop Drawing or Informational Submittal and permanently attached or made a part of each submittal.

CONTRACTOR'S SUBMITTAL TRANSMITTAL
Submittal # _____

McGILL ASSOCIATES, P.A.

OWNER: _____

- ☐ 55 Broad Street, Asheville, NC 28801
- ☐ 1240 19th Street Lane NW, Hickory, NC 28601
- ☐ 118 Mabry Hood Road, Suite 400, Knoxville, TN 37922
- ☐ 5 Regional Circle, Suite A, Pinehurst, NC 28374

ADDRESS: _____

Date:	Engineer's Project No:
Project:	Spec. Reference:
Contractor:	Drawing Reference:

TO:		CONTRACTOR'S SUBMITTAL NO: (Check One):	
		<input type="checkbox"/> An Original Submittal <input type="checkbox"/> A 2 nd Submittal of <i>(original Submittal No.)</i> <input type="checkbox"/> A _____ Submittal of <i>(original Submittal No.)</i> <input type="checkbox"/> Product Data for Information Only <input type="checkbox"/> An O&M Submittal for Information Only	
ATTN: FROM:			
Item #	Subject of Submittal / Equipment Supplier	Equipment Designations(s) / Specification Section(s):	

Complete Either (a) or (b) below:

- ☐ (a) We have verified that the material, equipment or other information contained in this submittal meets all the requirements specified or shown (no exceptions).

☐ (b) We have verified that the material, equipment or other information contained in this submittal meets all the requirements specified or shown, except for the following deviations (list deviations):

Notes/Comments:

By this submittal, I hereby represent that I have determined and verified all field measurements and dimensions, field construction criteria, materials, dimensions, catalog numbers and similar data and I have checked and coordinated each item with other applicable shop drawings, equipment, trades and all Contract requirements.

Signature of Contractor's Authorized Representative

Date

3.6 ENGINEER'S APPROVAL COVER SHEET

To be attached to each submittal.

SHOP DRAWING REVIEW

ENGINEER'S REVIEW	RESPONSE REQUIRED OF CONTRACTOR
<input type="checkbox"/> Furnish As Submitted, No Exceptions	<input type="checkbox"/> Confirm
<input type="checkbox"/> Furnish As Submitted , Make Corrections Noted	<input type="checkbox"/> Resubmit
<input type="checkbox"/> Not Approved (See Notes), Revise and Resubmit	
<input type="checkbox"/> Not Approved, Rejected, See Notes	
<input type="checkbox"/> Receipt Acknowledged (Not subject to Engineer's Review or Approval)	

The Engineer's review of this shop drawing is for general conformance with the design concept, contract documents, specifications and drawings. Markings or comments shall not be construed as relieving the Contractor from compliance with the project plans and specifications, nor departures there from, and does not relieve the Contractor from errors and omissions in the submittal or from the Contractor's responsibility of addressing any deviations from the contract documents, specifications and drawings. The Contractor remains solely responsible for details and accuracy, for confirming and correlating and verifying all quantities and dimensions at the jobsite, for selecting fabrication processes, for the means, methods, techniques, and sequence of construction, coordinating work with other trades, and performing all work in a safe manner. Engineer's approval shall not relieve Contractor of its obligation to perform construction in accordance with the Contract Documents. Any approval by Engineer shall not constitute an approved change or substitution unless Contractor has previously advised Engineer in writing of such proposed change or substitution and obtained Engineers written approval of such change or substitution.

McGill Associates, P. A.

By: _____

Date: _____

END OF SECTION 013300

PART 1 - GENERAL**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Modified General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
- B. Related Sections:
 - 1. Division 1 Section "Payment Procedures" for requirements for Applications for Payment for Substantial and Final Completion.
 - 2. Division 1 Section "Execution Requirements" for progress cleaning of Project site.
 - 3. Division 1 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
 - 4. Divisions 2 through 33 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete with request.
 - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.

4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 5. Prepare and submit Project Record Documents, operation and maintenance manuals, property surveys, and similar final record information.
 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
- B. Inspection: Submit a written request for inspection for Substantial Completion. Upon receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Engineer, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Results of completed inspection will form the basis of requirements for final completion.

1.4 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:
1. Submit a final Application for Payment according to Division 01 Section "Payment Procedures."
- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.5 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Engineer for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. As necessary, remove snow and ice to provide safe access to the work area.
 - f. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
- B. Construction Waste Disposal: Comply with waste disposal requirements in the Modified General Conditions of this contract and as noted in the General Construction Notes in the Plans.

END OF SECTION 017700

(Standard Form Attached)

CONTRACTOR'S FINAL AFFIDAVIT AND WAIVER OF LIEN

PROJECT: _____

OWNER: _____

CONTRACTOR: _____

CONTRACT AMOUNT: _____
STATE OF: _____
COUNTY OF: _____

CONTRACT DATE: _____
DATE: _____

This is to certify that all claims for labor, material, services and any other just claims arising out of the performance of this Contract have been satisfied, except for payment to subcontractors to be made out of retainage presently being held by the Owner, and that no claims or liens exist against this Contractor in connection with this contract; that to the best of our knowledge no claims or liens exist, and if any such claims or liens appear after payment of the retained amount due on the Contract, this Contractor shall save the Owner harmless on account thereof. After payment of the retained amount the undersigned does hereby waive, release and relinquish any and all claims or rights of lien presently held or hereafter accruing upon the above project.

CONTRACTOR: _____

BY: _____

TITLE: _____

Sworn to and subscribed before me this

_____ day of _____ 201_____

(Notary Public)

My Commission expires: _____

SALES TAX REIMBURSEMENT STATEMENT

CONTRACTOR _____

PROJECT _____

OWNER _____

FOR PERIOD _____

VENDOR	ADDRESS	INVOICE	DATE	AMOUNT	N.C. TAX	COUNTY TAX	COUNTY NAME

I, _____, being duly sworn, certify that the foregoing statement of sales tax paid in connection with the referenced contract does not contain sales or use taxes paid on purchases of tangible personal property purchased by such contractors for use in performing the contract which does not annex to, affix to or in some manner become a part of the building or structure being erected, altered or repaired for the governmental entities as defined by G.S. 105-164.14(c) and is to the best of his/her belief, true and correct.

Sworn to before me this _____ day of _____, 201 _____

My commission expires _____

Signature _____

Title _____

Notary Public _____

PART 1 - GENERAL**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Modified General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

1. Protecting existing vegetation to remain.
2. Removing existing vegetation.
3. Clearing and grubbing.
4. Stripping and stockpiling topsoil.
5. Removing above- and below-grade site improvements.
6. Disconnecting, capping or sealing, and abandoning site utilities in place.
7. Temporary erosion and sedimentation control measures.

- B. Related Sections:

1. Division 01 Section "Temporary Facilities and Controls" for temporary utility services, construction and support facilities, security and protection facilities, and temporary erosion and sedimentation control measures.
2. Division 01 Section "Execution" for field engineering and surveying.
3. Division 01 Section "Construction Waste Management and Disposal".
4. Division 02 Section "Demolition" for demolition of buildings, structures, and site improvements.
5. Division 02 Section "Selective Demolition" for partial demolition of buildings or structures.

1.3 DEFINITIONS

- A. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
- B. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil; but in disturbed areas such as urban environments, the surface soil can be subsoil.

- C. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil and is the zone where plant roots grow.
- D. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction, as indicated on Drawings or as designated by the Engineer.
- E. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction, as indicated on Drawings or as designated by the Engineer.
- F. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

1.4 MATERIAL OWNERSHIP

- A. All cleared materials shall become Contractor's property and shall be removed from Project site.

1.5 SUBMITTALS

- A. Existing Conditions: Documentation of existing trees and plantings, adjoining construction, and site improvements that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing.
 - 1. Use sufficiently detailed photographs or videotape.
 - 2. Include plans and notations to indicate specific wounds and damage conditions of each tree or other plants designated to remain.
- B. Record Drawings: Identifying and accurately showing locations of capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.6 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.
- B. Work on Adjoining Property: Work on adjoining property will be not permitted without the written consent of the property owner and the Engineer. This shall include, but not limited to temporary access to the Work, storage of materials and any ground disturbing activities.

- C. Utility Locator Service: Notify appropriate utility locator services for area where Project is located a minimum of 72 hours prior to commencing site clearing activities.
- D. Do not commence site clearing operations until temporary erosion and sedimentation control and plant/tree protection measures are in place.
- E. The following practices are prohibited within protection zones:
 - 1. Storage of construction materials, debris, or excavated material.
 - 2. Parking vehicles or equipment.
 - 3. Foot traffic.
 - 4. Erection of sheds or structures.
 - 5. Impoundment of water.
 - 6. Excavation or other digging unless otherwise indicated.
 - 7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.
- F. Do not direct vehicle or equipment exhaust towards protection zones.
- G. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Locate and clearly identify trees, shrubs, and other vegetation to remain or to be relocated. Wrap a 1-inch blue vinyl tie tape flag around each tree trunk at 54 inches above the ground.
- C. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL (Not Used)

3.3 TREE AND PLANT PROTECTION (Not Used)

3.4 EXISTING UTILITIES

- A. Locate, identify, and disconnect utilities indicated to be removed or abandoned in place.
- B. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Engineer not less than three (3) days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Engineer's written permission.
- C. Excavate for and remove underground utilities indicated to be removed.

3.5 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and non-woody debris, and legally dispose of them off site per the General Construction Notes. Landfill tipping fees are the responsibility of the contractor.
- B. Debris shall not be burned.

3.6 CLEANUP CONDITIONS

- A. All activities will be performed in strict accordance with the following:
 - 1. Removal of debris will be limited to vegetative materials. Excavation of soil/sediment shall not be undertaken. Uprooted stumps may be pulled from the ground (no excavation) but, shall include no more than minimal amounts of soil attached to roots. Debris removal will be restricted to that within the site segment or designated by the Town.
 - 2. Debris will be removed from the project site and disposed of at an approved upland disposal site. No on site burning of debris will be allowed during this project. Chipping of debris is allowed but, must be directly into an enclosed haul vehicle for off-site disposal as noted above. Landfill tipping fees are the responsibility of the contractor.
 - 3. Debris shall not be placed in wetlands.

4. Allowable equipment will generally include hydraulic excavators equipped with mechanical thumb or grapple attachment, loaders, winches mounted on tracked or rubber-tired equipment, portable winches, and chain saws.
5. Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.
6. Equipment shall operate adjacent to the stream and not within the stream unless prior approval is granted. Where necessary, trees can be cut for access to work sites; however, mechanized land clearing will not occur within wetlands at any time. Crossing a stream to gain access to the opposite bank is permissible. Crossing sites should be selected to minimize damage to the streambank and aquatic habitat.
7. No activity may cause more than minimal adverse impact on navigation.
8. All Points of Access across private property shall be kept free of materials, equipment and debris unless specific arrangements have been secured by the Contractor with the property owner and the Town has been notified in writing of such arrangements. At no time shall any owner of a parcel providing a Point of Access be restricted from beneficial use of the entire parcel outside the agreed temporary easement.
9. In the event of a spill of petroleum products or any other hazardous waste, the Contractor shall report it to 1) the City, and 2) the NC Division of Water Quality at 919-733-5083, Ext. 526 or 1-800-662-7956. Provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.

END OF SECTION 311000

PART 1 - GENERAL**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Pruning existing vegetation.
- B. Related Sections:
 - 1. Division 31 Section "Site Clearing".

PART 2 - PRODUCTS (Not Used)**PART 3 - EXECUTION****2.1 PREPARATION**

All trees, stumps, and brush within the perimeter of the channel within the designated project segments shall be cut as close to ground level as conventional tools permit. Trees shall be felled in such a manner as to avoid damage to other trees, property, and objects outside the limits of clearing. Down trees, logs, drifts, boulders, debris and other obstructions lying wholly or partially within the channel shall be removed. Piling, piers, headwalls, and sediment bars will not be disturbed. No herbicide treatment will be applied. The use of explosives is expressly prohibited for this project. Selective snagging, where possible, shall be performed primarily with hand operated equipment or small equipment used in a manner that will minimize soil, water, and other resource disturbances. Special attention shall be given to visual resources protecting and maintaining key shade, food, and den trees and to stabilization of disturbed areas.

END OF SECTION 311300

PART 1 - GENERAL**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Modified General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This section covers the furnishing of all labor, equipment and materials necessary for the proper restoration of existing surfaces disturbed or damaged as a result of construction operations which are not specifically scheduled or specified for topsoil and seeding, paving, landscaping or other surfacing.
- B. In general, the types of replacement included in this section are seeding along driveways, roadways, ditches, lawns and landscaped areas, and curb and gutter.
- C. Any damage to existing structures shall be repaired using materials and workmanship equal to, or better than, those of the original construction.

1.3 DEFINITIONS

- A. CABC – Crushed aggregate base course.
- B. NCDOT – North Carolina Department of Transportation.
- C. PSI – Pounds per square inch.

1.4 SUBMITTALS

- A. All submittals shall be in accordance with the requirements of the pertinent specification sections referenced herein.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 SEEDING DISTURBED AREAS

- A. All ground surfaces disturbed by construction activity, which are not classified as lawns, landscaped areas, or pavement areas, but would be classified as open fields, shall be raked smooth and seeded in accordance with the appropriate paragraph(s) within Section 329200 entitled Turf and Grasses. Large rocks, clumps of earth and excessive spoil material shall be removed from the area prior to seeding.
- B. Shoulders of all roads shall be restored as specified for lawns and landscaped areas.
- C. Wooded areas not classified as lawns shall be restored to as near their original condition as possible.

3.2 NOT USED

3.3 DRIVEWAYS

- A. Unless otherwise noted, unpaved driveways shall be surfaced with not less than 4 inches of CABC, topped with 4 inches of stone, gravel, or other materials equal to that found in the original driveway. Driveways shall be left in a condition better than their original condition.
- B. Concrete drives shall be replaced with 4,000 PSI concrete and shall have equal thickness and reinforcing steel to that of the original drive. Prior to placing the concrete a 6-inch aggregate base course shall be placed in the drive area.
- C. Unless otherwise noted, bituminous or asphaltic concrete drives shall be restored to original base and asphalt thicknesses or a minimum of 6 inches of aggregate

base course and a 2-inch surface course, whichever is greater. Base material shall be compacted in 3-inch lifts and Type SF 9.5A or S 9.5B asphalt compacted in 2-inch lifts to match existing pavement section. All work shall be in accordance with the appropriate paragraph(s) of Section 321216 entitled Bituminous Paving.

3.4 ROADWAY REPLACEMENT

- A. Bituminous or Asphaltic pavements shall include all areas paved with blacktop, built up pavements or oil and stone, tar and stone and similar pavements constructed with a bituminous or asphalt and stone materials.
- B. Immediately upon completion of installation of underground piping and structures, the trench shall be backfilled and the roadway shall be repaired. Provide materials as specified in the Contract Drawings. If, in the opinion of the Engineer, the area adjacent to the excavation has not been damaged to the extent that the base course need to be replaced, restoration may consist of a surface course of sufficient thickness to meet the existing pavement.
- C. Unless otherwise noted, bituminous or asphaltic concrete roadways shall be restored to original base and asphalt thicknesses or a minimum of 6 inches of aggregate base course and a 2-inch surface course, whichever is greater. Base material shall be compacted in 3-inch lifts and Type SF 9.5A or S 9.5B asphalt compacted in 2-inch lifts to match existing pavement section. All work shall be in accordance with the appropriate paragraph(s) of Section 321216 entitled Bituminous Paving.
- D. Portland cement concrete roadways shall be replaced with 4,000 PSI concrete and shall have equal thickness and reinforcing steel as the original roadway. An aggregate base course with a thickness of 6 inches shall be placed prior to the placing of concrete.
- E. Differential settlement of restored pavements shall be corrected immediately.
- F. The Contractor shall repair and restripe any traffic markings that were damaged, removed or covered during construction. All work shall be done in accordance with NCDOT requirements and specifications.
- G. All existing manhole and valve covers shall be raised, as required, by the Contractor prior to paving. The cost of this work shall be included in the unit bid prices for other related work and no additional payment shall be made.

3.5 DITCHES

- A. Ditches shall be regraded to the original grade and line. The surface of all ditches shall be returned to the same condition as found before commencing work.

3.6 LAWNS AND LANDSCAPED AREAS

- A. Lawns and landscaped areas shall be regraded and replaced as follows:
 - 1. Grading shall be to the grade existing before construction of the work under this Contract.
 - 2. Lawn replacement shall be in accordance with the appropriate paragraph(s) within Section 329200 entitled Turf and Grasses. Topsoiled areas shall be replaced with topsoil of equal quality and quantity.
- B. Landscaped areas shall be replaced with shrubs, hedges, ornamental trees, flowers, or other items to original condition.

3.7 NOT USED

3.8 DAMAGE TO STRUCTURES

- A. Any damage to existing structures shall be repaired of materials and workmanship equal to those of original construction. Extensively damaged structures, where the structural stability has been affected or which cannot be repaired in a suitable fashion shall be replaced entirely. Replacement shall not commence until approval of the plan of replacement has been given by the Engineer. Replacement costs shall be responsibility of the Contractor.

END OF SECTION 322905

PART 1 - GENERAL**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Modified General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This section covers the furnishing of all labor, equipment and materials necessary for the establishment of vegetation in all areas of the site disturbed by construction operations and all earth surfaces of embankments including rough and fine grading, topsoil if required, fertilizer, lime, seeding and mulching. The Contractor shall adapt his operations to variations in weather or soil conditions as necessary for the successful establishment and growth of the grasses or legumes.
- B. Related Sections:
 - 1. Division 31 Section "Site Clearing" for topsoil stripping and stockpiling.
 - 2. Division 31 Section "Earth Moving" for excavation, filling and backfilling, and rough grading.

1.3 DEFINITIONS

- A. Duff Layer: The surface layer of native topsoil that is composed of mostly decayed leaves, twigs, and detritus.
- B. Finish Grade: Elevation of finished surface of planting soil.
- C. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- D. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. This includes insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. It also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- E. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. These include insects, mites, grubs,

mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.

- F. Planting Soil: Standardized topsoil; existing, native surface topsoil; existing, in-place surface soil; imported topsoil; or manufactured topsoil that is modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
- G. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or top surface of a fill or backfill before planting soil is placed.
- H. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
- I. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil, but in disturbed areas such as urban environments, the surface soil can be subsoil.

1.4 SUBMITTALS

- A. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture stating the botanical and common name, percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
 - 1. Evidence of State certification of each seed mixture for turfgrass sod and plugs. Include identification of nursery source and name and telephone number of supplier.
- B. Product Certificates: For soil amendments and fertilizers, from manufacturer.
- C. Certificates of Inspection as required by law or governing authorities to accompany shipments.
- D. Source of mulch for approval and five (5) gallon bucketful physical sample.
- E. Proposed planting schedule, indicating dates for all work during normal seasons for such work. Once accepted, revise dates only as approved in writing, after documentation of reasons for delays.
- F. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance of turf and grasses during a calendar year. Submit before expiration of required initial maintenance periods.

1.5 QUALITY ASSURANCE

- A. No material substitutions will be permitted without the prior written approval of the Engineer.
- B. All materials shall be applied in strict accordance with manufacturer's written instructions.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Products shall be packed and shipped in a manner which will not damage them.
- B. Damaged products shall be rejected upon delivery and promptly removed from the site.
- C. Products which must be stored prior to installation shall be protected from damage and theft.
- D. Seed and Other Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws, as applicable. During handling and storing, the seed shall be cared for in such a manner that it will be protected from damage by heat, moisture, rodents, or other causes.
- E. Bulk Materials:
 - 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
 - 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
 - 3. Accompany each delivery of bulk fertilizers, lime, and soil amendments with appropriate certificates.

1.7 PROJECT CONDITIONS

- A. Schedule and coordinate work with all trades involved.
- B. Verify that the areas of work have been properly contoured and brought to final grade prior to beginning work.
- C. Consult record drawings and installers to determine actual underground utility and drainage system locations in the vicinity of this work. Damage to known or unrecorded utilities will be repaired at the Contractor's expense.

- D. Notify the Engineer of any unforeseen conditions which will affect plant installation or growth.
- E. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with initial maintenance periods to provide required maintenance from date of planting completion.
 - 1. Optimum Spring Planting: April 1 – May 1.
 - 2. Optimum Fall Planting: September 1 – October 1.
- F. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.

1.8 MAINTENANCE SERVICE

- A. Initial Turf Maintenance Service: Provide full maintenance by skilled employees. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until Final Acceptance of the project by the Owner.
- B. Initial Meadow Maintenance Service: Provide full maintenance by skilled employees. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until Final Acceptance of the project by the Owner.
- C. Continuing Maintenance Requirements: Throughout the warranty period of the Work, excluding conditions of vandalism, theft, accident, acts of God and Owner's negligent maintenance, Contractor shall be responsible for making any and all necessary repairs to planted areas which may include or may result from, the lack of fully established growth of turfs and grasses and/or soil erosion from project areas. In such instances, Contractor shall be responsible for restoring these areas to originally accepted conditions as well as full establishment of turfs and grasses or other groundcovers in the area. The Contractor shall also be responsible for any damages to adjacent areas impacted by the lack of proper turf and grass establishment.

PART 2 - PRODUCTS

2.1 FERTILIZERS

- A. The quality of fertilizer and all operations in connection with the furnishing of this material shall comply with the requirements of the North Carolina Fertilizer Law and regulations adopted by the North Carolina Board of Agriculture.

- B. For all areas to be seeded which are not classified as lawns, but would be classified as open fields, fertilizer shall be free-flowing, ready mixed 10-10-10 grade commercial fertilizer. Upon written approval of the Engineer a different grade of fertilizer may be used, provided the rate of application is adjusted to provide the same amounts of plant food.
- C. For all areas to be seeded which are classified as lawns, fertilizer shall be as follows:
 - 1. Fertilizer tablets: Agriform Planting Tablets 20-10-5 as manufactured by Scotts-Sierra Horticultural Products, or equal, may be used at installer's option.
 - 2. Encapsulated fertilizer: Osmocote 19-6-12 as manufactured by Scotts-Miracle Gro, or equal, may be used at installer's option.
- D. During handling and storing, the fertilizer shall be cared for in such a manner that it will be protected against hardening, caking, or loss of plant food values. Any hardened or caked fertilizer shall be pulverized to its original conditions before being used.

2.2 LIME

- A. Lime: The quality of lime and all operations in connection with the furnishing of this material shall comply with the requirements of ASTM C 602, agricultural liming material containing a minimum of 80 percent calcium carbonate equivalent and as follows:
 - 1. Class: O, with a minimum of 95 percent passing through No. 8 sieve and a minimum of 55 percent passing through No. 60 sieve.
 - 2. Provide lime in the form of free-flowing ground dolomitic limestone.
- B. During the handling and storing, the lime shall be cared for in such a manner that it will be protected against hardening and caking. Any hardened or caked lime shall be pulverized to its original condition before being used.

2.3 SEED

- A. Grass seed shall be fresh, clean, dry, new-crop seed complying with the requirements of the North Carolina Seed Law and regulations adopted by the North Carolina Board of Agriculture.
- B. Seed shall have been approved by the North Carolina Department of Agriculture or any agency approved by the Engineer before being sown, and no seed will be accepted with a date of test more than nine (9) months prior to the date of sowing. Such testing however, will not relieve the Contractor from responsibility for furnishing and sowing seed that meets these specifications at the time of sowing.

When a low percentage of germination causes the quality of the seed to fall below the minimum pure live seed specified, the Contractor may elect, subject to the approval of the Engineer, to increase the rate of seeding sufficiently to obtain the minimum pure live seed contents specified, provided that such an increase in seeding does not cause the quantity of noxious weed seed per square yard to exceed the quantity that would be allowable at the regular rate of seed.

- C. During handling and storing, the seed shall be cared for in such a manner that it will be protected from damage by heat, moisture, rodents, or other causes.
- D. Seed shall be entirely free from bulblets or seed of Johnson Grass, Nutgrass, Sandbur, Wild Onion, Wild Garlic, and Bermuda Grass. The specifications for restricted noxious weed seed refers to the number per pound, singly or collectively, of Blessed Thistle, Wild Radish, Canada Thistle, Corncockle, Field Bindweed, Quackgrass, Didders, Dock, Horsenettle, Bracted Plantain, Buckhorn or Wild Mustard; but in no case shall the number of Blessed Thistle or Wild Radish exceed 27 seeds of each per pound. No tolerance on weed seed will be allowed.
- E. Seed Purity: All seed species shall consist of seed with not less than a 95 percent germination rate, not less than 85 percent pure seed, and not more than 0.5 percent weed seed:

2.4 MULCH

- A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, threshed straw of wheat, rye, or oats which is free of noxious weeds or other species which would grow and be detrimental to the specified grass.
- B. Wood Fiber Mulch: Biodegradable, dyed-wood, cellulose-fiber mulch; nontoxic and free of plant-growth or germination inhibitors; with a maximum moisture content of 10 percent (± 2 percent); organic matter 99.4 percent (± 0.2 percent); ash content 0.6 percent (± 0.2 percent) water holding capacity of 1050 grams water/100 grams dry fiber. and a pH range of 4.5 to 6.5.

2.5 TACKIFIER

- A. Tackifier shall consist of an asphalt emulsion in accordance with ASTM D 977, Grade SS-1; shall be nontoxic and free of plant-growth or germination inhibitors.

2.6 WATER

- A. Water shall be clean, clear water free from any objectionable or harmful chemical qualities or organisms and shall be furnished by the Contractor.

2.7 EROSION-CONTROL MATERIALS

- A. Erosion-Control Blankets: Biodegradable wood excelsior, straw, or coconut-fiber mat enclosed in a photodegradable plastic mesh. Include manufacturer's recommended steel wire staples, 6 inches long.
- B. Erosion-Control Mats: Cellular, non-biodegradable slope-stabilization mats designed to isolate and contain small areas of soil over steeply sloped surface. Include manufacturer's recommended anchorage system for slope conditions.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to be planted for compliance with requirements and other conditions affecting performance.
 - 1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
 - 2. Do not mix or place soils and soil amendments in frozen, wet, or muddy conditions.
 - 3. Suspend soil spreading, grading, and tilling operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
 - 4. Uniformly moisten excessively dry soil that is not workable and which is too dusty.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Engineer and replace with new planting soil.

3.2 PROTECTION OF EXISTING STRUCTURES, UTILITIES, TREES AND VEGETATION

- A. Protect existing structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings indicated to remain in place against unnecessary cutting, breaking or skinning of roots, skinning and bruising of bark, and smothering of trees by stockpiling construction materials or excavated materials, excess foot or vehicular traffic, or parking of vehicles within drip line. Provide wood or metal stakes 48 inches in height, set on eight (8) to 10 foot centers,

connected by 2-inch minimum brightly colored flagging tape or fabric fencing to protect trees and vegetation to remain. Set perimeter of protection at the drip line of trees to remain unless approved otherwise by the Engineer.

- B. Provide protection for roots over 1-1/2 inch in diameter cut during construction operations. Coat cut faces with an emulsified asphalt, or other acceptable coating, formulated for use on damaged plant tissues. Temporarily cover exposed roots with wet burlap to prevent roots from drying out and cover with earth as soon as possible.
- C. The Contractor shall not remove or damage trees and shrubs which are outside the Clearing Limits established by the Owner or those within the Clearing Limits designated to remain.
- D. Repair trees scheduled to remain and damaged by construction operations in a manner acceptable to the Engineer. Repair damaged trees promptly to prevent progressive deterioration caused by damage.
- E. Replace trees scheduled to remain and damaged beyond repair by construction operations, as determined by the Engineer, with trees of similar size and species. Repair and replacement of trees scheduled to remain and damaged by construction operations or lack of adequate protection during construction operations shall be at the Contractor's expense.
- F. Protect adjacent and adjoining areas from hydroseeding, hydromulching, and tackifier overspray.
- G. Protect grade stakes set by others until directed to remove them.

3.3 GRADING

- A. Rough grading shall be done as soon as all excavation required in the area has been backfilled. The necessary earthwork shall be accomplished to bring the existing ground to the desired finish elevations as shown on the Contract Drawings or otherwise directed.
- B. Fine grading shall consist of shaping the final contours for drainage and removing all large rock, clumps of earth, roots and waste construction materials. It shall also include thorough loosening of the soil to a depth of 6" by plowing, discing, harrowing or other approved methods until the area is acceptable as suitable for subsequent landscaping operations. The work of landscaping shall be performed on a section by section basis immediately upon completion of earthwork.
- C. Upon failure or neglect on the part of the Contractor to coordinate his grading with seeding and mulching operations and diligently pursue the control of erosion and siltation, the Engineer may suspend the Contractor's grading operations until such time as the work is coordinated in a manner acceptable to the Engineer.

3.4 SECURING AND PLACING TOPSOIL

- A. Topsoil shall be secured from areas from which topsoil has not been previously removed, either by erosion or mechanical methods. Topsoil shall not be removed to a depth in excess of the depth approved by the Engineer.
- B. The area or areas from which topsoil is secured shall possess such uniformity of soil depth, color, texture, drainage and other characteristics as to offer assurance that, when removed the product, will be homogeneous in nature and will conform to the requirements of these specifications.
- C. All areas from which topsoil is to be secured, shall be cleaned of all sticks, boards, stones, lime, cement, ashes, cinders, slag, concrete, bitumen or its residue and any other effuse which will hinder or prevent growth.
- D. In securing topsoil from a designated pit, or elsewhere, should strata or seams of material occur which do not come under the requirements for topsoil, such material shall be removed from the topsoil or if required by the Engineer, the pit shall be abandoned.
- E. Before placing or depositing topsoil upon any areas, all improvement within the area shall be completed, unless otherwise approved by the Engineer. The areas in which topsoil is to be placed or incorporated shall be prepared before securing topsoil for use.
- F. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.5 SEEDBED PREPARATION

- A. The Contractor shall cut and satisfactorily dispose of weeds or other unacceptable growth on the areas to be seeded. Uneven and rough areas outside of the graded section, such as crop rows, farm contours, ditches and ditch spoil banks, fence line and hedgerow soil accumulations, and other minor irregularities which cannot be obliterated by normal seedbed preparation operations, shall be shaped and smoothed as directed by the Engineer to provide for more effective seeding and for ease of subsequent mowing operations.
- B. The soil shall then be scarified or otherwise loosened to a depth of not less than 6 inches except as otherwise provided below or otherwise directed by the Engineer. Clods shall be broken and the top 2 to 3 inches of soil shall be worked into an acceptable seedbed by the use of soil pulverizers, drags, or harrows; or by other methods approved by the Engineer.

- C. On 2:1 slopes a seedbed preparation will be required that is the same depth as that required on flatter areas, although the degree of smoothness may be reduced from that required on the flatter areas if so permitted by the Engineer.
- D. On cut slopes that are steeper than 2:1, both the depth of preparation and the degree of smoothness of the seedbed may be reduced as permitted by the Engineer, but in all cases the slope surface shall be scarified, grooved, trenched, or punctured so as to provide pockets, ridges, or trenches in which the seeding materials can lodge.
- E. On cut slopes that are either 2:1 or steeper, the Engineer may permit the preparation of a partial or complete seedbed during the grading of the slope. If at the time of seeding and mulching operations such preparation is still in a condition acceptable to the Engineer, additional seedbed preparation may be reduced or eliminated.
- F. The preparation of seedbeds shall not be done when the soil is frozen, extremely wet, or when the Engineer determines that it is in an otherwise unfavorable working condition.
- G. Limestone may be applied at the rate described below as a part of the seedbed preparation, provided it is immediately worked into the soil. If not so applied, limestone and fertilizer shall be applied as described below.

3.6 APPLICATION OF LIMESTONE, FERTILIZER, SEED, AND MULCH (GENERAL)

- A. Equipment to be used for the application, covering or compaction of limestone, fertilizer, and seed shall have been approved by the Engineer before being used on the project. Approval may be revoked at any time if equipment is not maintained in satisfactory working condition, or if the equipment operation damages the seed.
- B. Limestone, fertilizer, seed and mulch shall be applied within 24 hours after completion of seedbed preparation unless otherwise permitted by the Engineer, but no limestone or fertilizer shall be distributed and no seed shall be sown when the Engineer determines that weather and soil conditions are unfavorable for such operations.

3.7 FERTILIZATION AND LIMING

- A. Following seedbed preparation, fertilizer shall be applied to all areas to be seeded so as to achieve the application rates shown below. Fertilizer shall be spread evenly over the seedbed and shall be lightly harrowed, raked, or otherwise incorporated into the soil for a depth of ½ inch.

- B. Fertilizer need not be incorporated in the soil as specified above when mixed with seed in water and applied with power sprayer equipment. The seed shall not remain in water containing fertilizer for more than 30 minutes when a hydraulic seeder is used.
- C. Agricultural limestone shall be thoroughly mixed into the soil according to the rates indicated below. The specified rate of limestone application may be reduced by the Engineer if pH tests indicate this to be desirable. It is the responsibility of the Contractor to obtain such tests and submit the results to the Engineer for adjustment in rates.
- D. In the absence of a soil test, the following rates of application of fertilizer and lime shall be to all areas to be seeded which are not classified as lawns, but would be classified as open fields:
1. Lime: 4,000 pounds per acre
 2. Fertilizer: 1,000 pounds per acre
- E. For all areas to be seeded which are classified as lawns, fertilizer and lime shall be applied at the following rates:
1. Lime: 92 pounds per 1,000 square feet
 2. Fertilizer: 23 pounds per 1,000 square feet
- F. When adverse seeding conditions are encountered due to steepness of slope, height of slope, or soil conditions, the Engineer may direct or permit that modifications be made in the above requirements which pertain to incorporating limestone into the seedbed; covering limestone, seed, and fertilizer; and compacting the seedbed. Such modifications may include but not be limited to the following:
1. The incorporation of limestone into the seedbed may be omitted on:
 - a. Cut slopes steeper than 2:1;
 - b. On 2:1 cut slopes when a seedbed has been prepared during the excavation of the cut and is still in an acceptable condition; or
 - c. on areas of slopes where the surface of the area is too rocky to permit the incorporation of the limestone.
- G. It shall be the responsibility of the Contractor to make an additional application of maintenance fertilizer in the amount of 650 pounds per acre (15 pounds per 1,000 square feet) following the initial establishment of groundcover. This application shall occur when vegetation is three (3) inches in height or 45 days after initial seeding, whichever comes first.

3.8 **SEEDING**

- A. Seeding shall commence as soon as preparation of the seedbed has been completed. Do not broadcast or drop seed when wind velocity exceeds 5 mph or until the surface is suitable for working and is in proper condition. Seed mixtures may be sown together provided they are kept in a thoroughly mixed condition during the seeding operation.
- B. All disturbed areas shall be seeded unless specifically indicated to receive other types of plantings or groundcovers.
- C. Seed may be uniformly sown over the seedbed by a mechanical method suitable for the slopes and size of the areas to be seeded. Broadcast type seeders, windmill hand seeder or approved mechanical power drawn seed drills may be utilized.
 - 1. Do not use wet seed or seed that is moldy or otherwise damaged.
 - 2. Do not seed against existing trees.
- D. For all areas to be seeded which are not classified as lawns, but would be classified as open fields, seed species and application rates shall be as follows:
 - 1. Spring/Summer (Normally April 1 to August 31):
 - a. 100 pounds of Ky-31 tall fescue per acre.
 - 2. Fall and Winter (Normally September 1 to March 31):
 - a. 85 pounds of Ky-31 tall fescue and 15 pounds of rye grain per acre.
 - 3. On cut and fill slopes having 2:1 or steeper slopes, add 15 pounds of sudangrass to the planned seeding in summer seeding or 25 pounds of rye cereal per acre in fall and winter seeding, if seeded September to February.
 - 4. These seeding rates are prescribed for all sites with less than 50 percent ground cover and for sites with more than 50 percent ground cover where complete seeding is necessary to establish effective erosion control vegetative cover. On sites having 50 to 80 percent ground cover where complete seeding is not necessary to establish vegetative cover, reduce the seeding rate at least one-half the normal rate.
- E. For all areas to be seeded which are classified as lawns, seed species and application rates shall be as follows:
 - 1. "Rebel" turf type fescue3 pounds per 1,000 square feet
 - 2. "Falcon" turf type fescue3 pounds per 1,000 square feet
 - Total Mix..... 6 pounds per 1,000 square feet**

- F. Care shall be taken to adjust the seeder for seeding at the proper rate before seeding operations are started and to maintain their adjustment during seeding. Seed in hoppers shall be agitated to prevent segregation of the various seeds in the mixture.
- G. Immediately after application, harrow, drag, rake, or otherwise work seedbed so as to cover the seed with a layer of soil. The depth of covering shall be as directed by the Engineer. If two kinds of seed are to be used which require different depths of covering, they shall be sown separately.
- H. When a combination seed and fertilizer drill is used, fertilizer may be drilled in with the seed after limestone has been applied and worked into the soil. If two kinds of seed are being used which require different depths of cover, the seed requiring the lighter cover may be sown broadcast or with a special attachment to the drill, or drilled lightly following the initial drilling operation.
 - 1. The rates of application of limestone, fertilizer, and seed on slopes 2:1 or steeper or on rocky surfaces may be reduced or eliminated.
 - 2. Compaction after seeding may be reduced or eliminated on slopes 2:1 or steeper, on rocky surfaces, or on other areas where soil conditions would make compaction undesirable.
- I. Protect seeded areas with erosion-control mats where shown on Drawings; install and anchor according to manufacturer's written instructions.

3.9 MULCHING

- A. All seeded areas shall be uniformly mulched in a continuous blanket immediately after seeding. The mulch shall be applied so as to permit some sunlight to penetrate and the air to circulate and at the same time, shade the grounds, reduce erosion and conserve soil moisture. Approximately 25 percent of the ground shall be visible through the mulch blanket.
- B. To achieve the coverage described above, it will be necessary to apply straw mulch to seeded areas at a rate of approximately 4,000 pounds per acre (92 pounds per 1,000 square feet) or wood fiber mulch at a rate of 1,600 pounds per acre (37 pounds per 1,000 square feet).
- C. Mulch shall be uniformly spread by hand or by approved mechanical spreaders or blowers which will provide an acceptable application as described above.
- D. Before mulch is applied on cut or fill slopes which are 3:1 or flatter, and ditch slopes, the Contractor shall remove and dispose of all exposed stones in excess of 3 inches in diameter and all roots or other debris which will prevent proper contact of the mulch with the soil.

- E. Care shall be exercised to prevent displacement of soil or seed or other damage to the seeded area during the mulching operations.
- F. The Contractor shall take sufficient precautions to prevent mulch from entering drainage structures through displacement by wind, water, or other causes and shall promptly remove any blockage to drainage facilities which may occur.

3.10 TACKIFIER

- A. Emulsified asphalt or organic tackifier shall be sprayed uniformly on mulch as it is ejected from blower or immediately thereafter. Tackifier shall be applied evenly over area creating uniform appearance. Application rates and method of application will vary with conditions, be approved by the Engineer, and shall be applied in sufficient amount to assure that the mulch is properly held in place. Where the binding material is not applied directly with the mulch it shall be applied immediately following the mulch operation.
- B. The Contractor shall cover/protect structures, poles, fences and other appurtenances if mulch binder is applied in such a way that it may come in contact with or discolor those structures or appurtenances. Mulch and binder shall be applied by suitable blowing equipment at closely controlled application rates in a manner acceptable to the Engineer.
- C. Asphalt shall not be used in freezing weather.

3.11 HYDROSEEDING

- A. Hydroseeding: Mix specified seed, fertilizer, and fiber mulch in water, using equipment specifically designed for hydroseeding applications. Continue mixing until uniformly blended into homogeneous slurry suitable for hydraulic application.
 - 1. Mix slurry with fiber-mulch tackifier in accordance with manufacturer's recommendations.
 - 2. Fiber mulch shall be mixed into the slurry such that the application rate of the fiber mulch is 1,500 to 2,000 pounds per acre.
 - 3. Apply slurry uniformly to all areas to be seeded in a one-step process in accordance with the application rates described herein.
- B. When a hydraulic seeder is used for application of seed and fertilizer, the seed shall not remain in water containing fertilizer for more than 30 minutes prior to application unless otherwise permitted by the Engineer.

3.12 EROSION CONTROL MATERIALS

- A. Install all erosion control materials in accordance with manufacturer's recommendations and as shown on Drawings.

3.13 TURF RENOVATION

- A. Renovate existing turf damaged by Contractor's operations, such as storage of materials or equipment and movement of vehicles.
 - 1. Reestablish turf where settlement or washouts occur or where minor regrading is required.
 - 2. Install new planting soil as required.
- B. Remove sod and vegetation from diseased or unsatisfactory turf areas; do not bury in soil.
- C. Remove topsoil containing foreign materials such as oil drippings, fuel spills, stones, gravel, and other construction materials resulting from Contractor's operations, and replace with new planting soil.
- D. Mow, dethatch, core aerate, and rake existing turf.
- E. Remove weeds before seeding. Where weeds are extensive, apply selective herbicides as required. Do not use pre-emergence herbicides.
- F. Remove waste and foreign materials, including weeds, soil cores, grass, vegetation, and turf, and legally dispose of them off Owner's property.
- G. Till stripped, bare, and compacted areas thoroughly to a soil depth of 6 inches.
- H. Apply soil amendments and initial fertilizers required for establishing new turf and mix thoroughly into top 4 inches of existing soil. Install new planting soil to fill low spots and meet finish grades.
- I. Apply seed and protect with straw mulch as required for new turf.
- J. Water newly planted areas and keep moist until new turf is established.

3.14 TURF MAINTENANCE

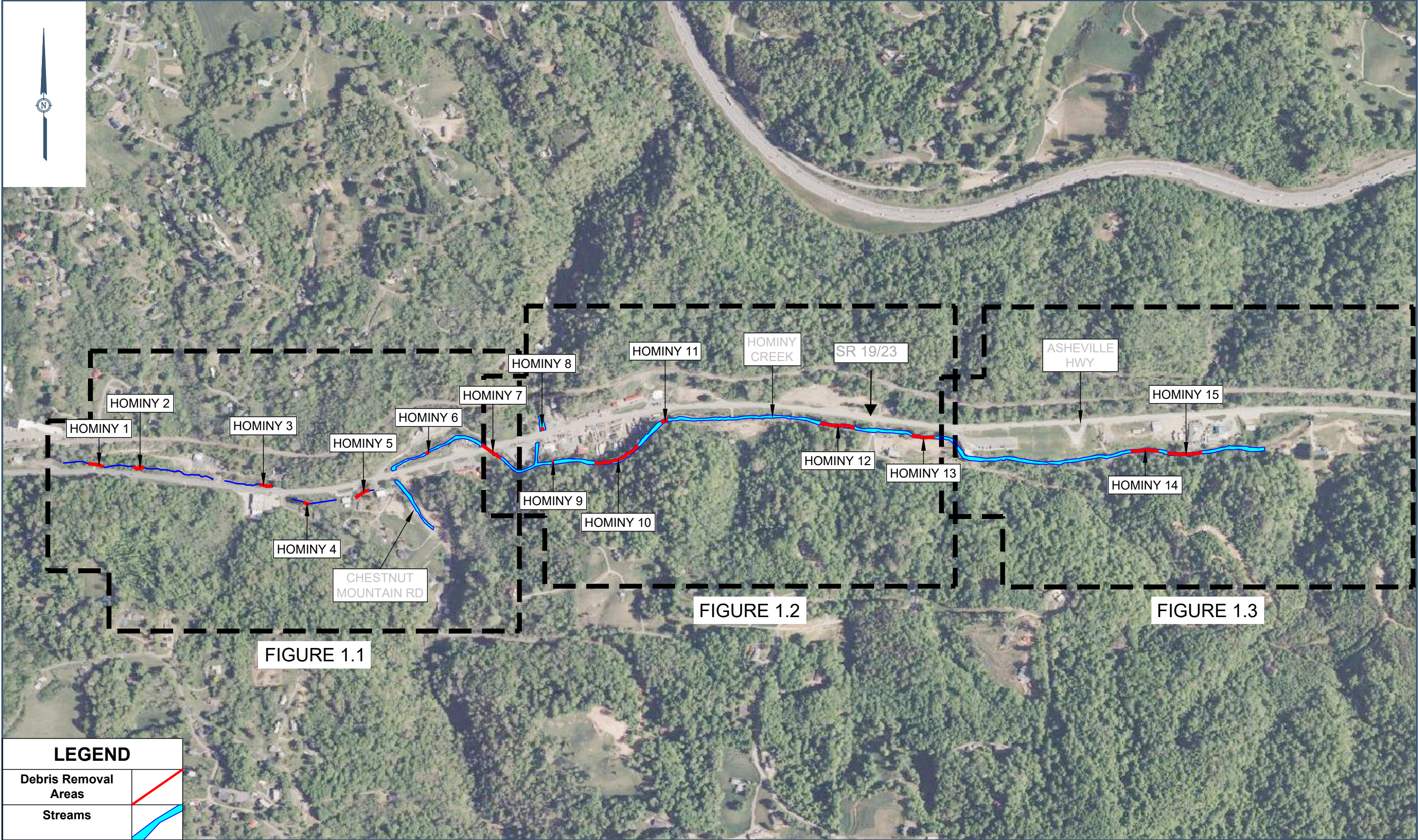
- A. The Contractor shall keep all seeded areas in good condition, reseeding and mowing if and when necessary as directed by the Engineer, until a good lawn is established over the entire area seeded and shall maintain these areas in an approved condition until final acceptance of the Contract.

- B. Grassed areas will be accepted when a 95 percent cover by permanent grasses is obtained and weeds are not dominant. On slopes, the Contractor shall provide against washouts by an approved method. Any washouts which occur shall be regraded and reseeded until a good sod is established.
- C. Areas of damage or failure due to any cause shall be corrected by repair or by being completely redone as may be directed by the Engineer. Areas of damage or failure resulting either from negligence on the part of the Contractor in performing subsequent construction operations or from not taking adequate precautions to control erosion and siltation as required throughout the various sections of the specifications shall be repaired by the Contractor as directed by the Engineer at no cost to the Owner.

3.15 CLEANUP AND PROTECTION

- A. Promptly remove soil and debris created by turf work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after plantings are established.
- C. Remove nondegradable erosion-control measures after grass establishment period.

END OF SECTION 329200



LEGEND	
Debris Removal Areas	
Streams	



1240 19th Street Lane NW
Hickory, NC 28601
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mcgillassociates.com

DATE 11/7/2022	PROJECT # 22.03036
OFFICE MANAGER MH	DESIGNER AL
PROJECT MANAGER JH	REVIEWER JH

STREAMFLOW REHABILITATION ASSISTANCE PROGRAM
HOMINY CREEK DEBRIS REMOVAL

TOWN OF CANTON

HAYWOOD COUNTY , NORTH CAROLINA

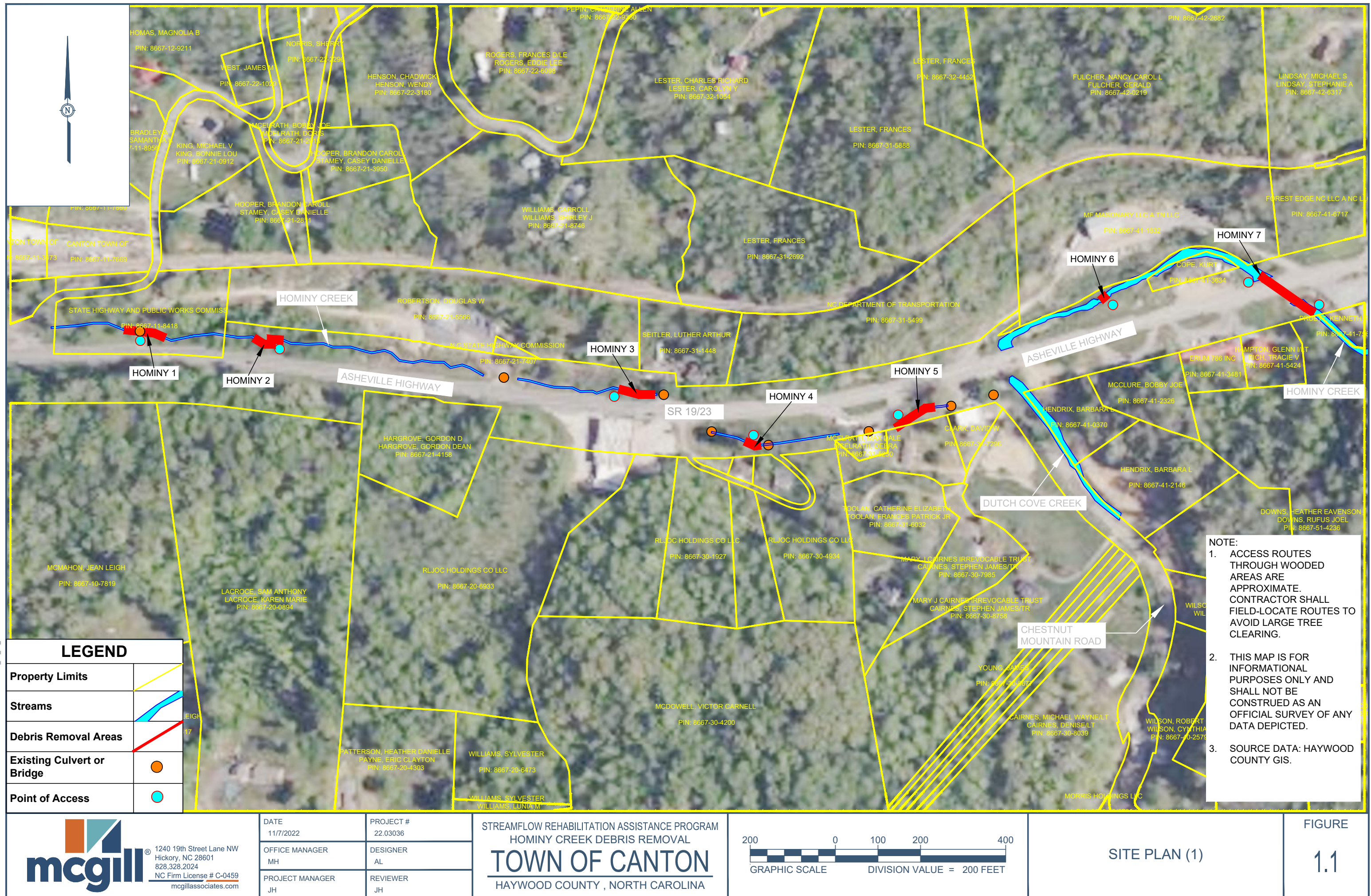
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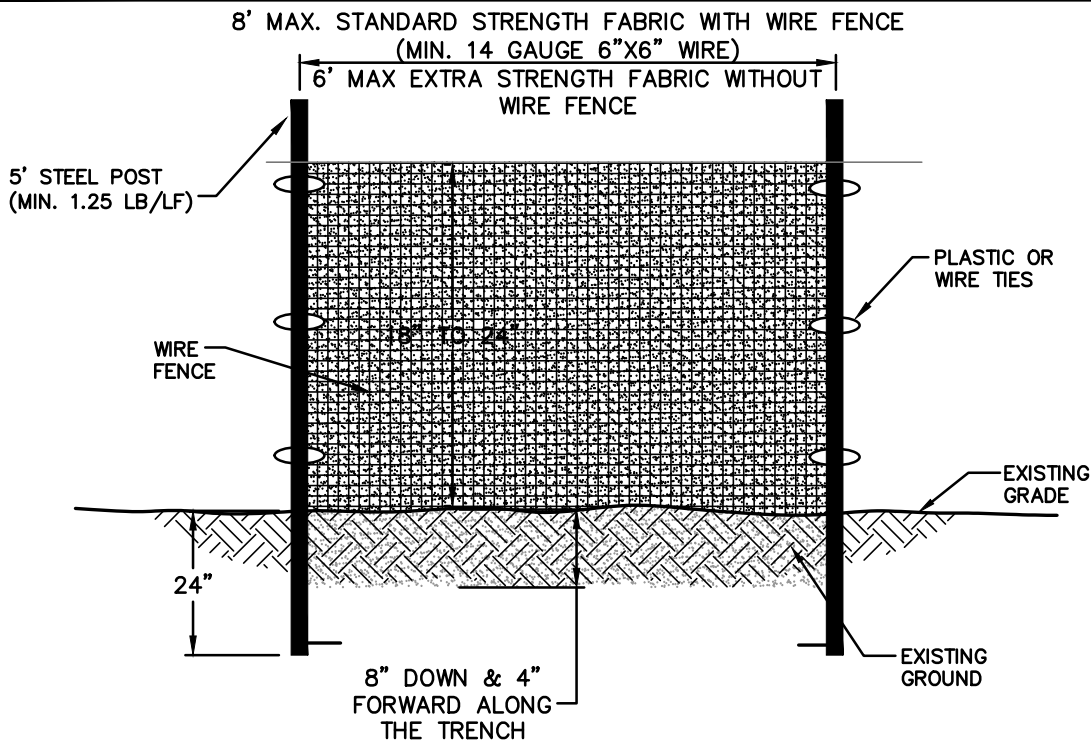
GRAPHIC SCALEDIVISION VALUE = 600 FEET

OVERVIEW MAP

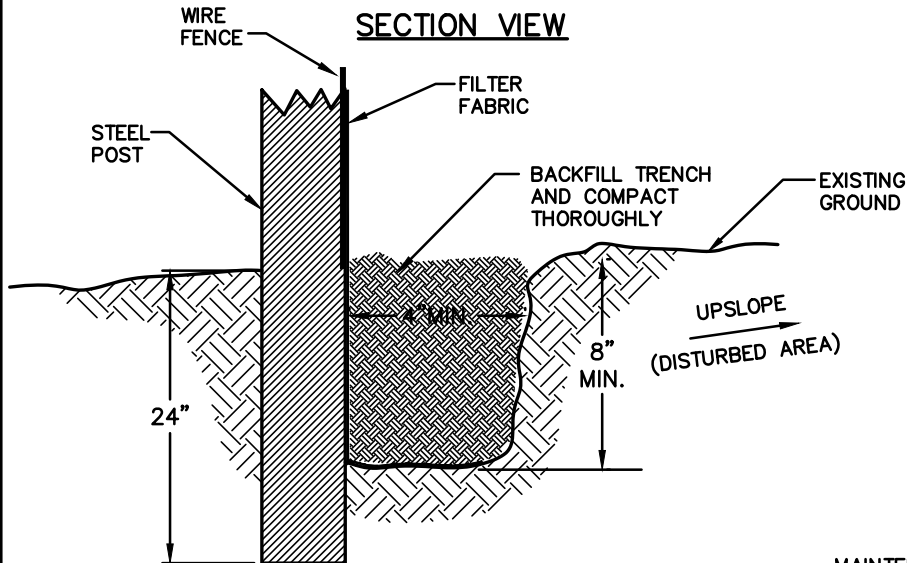
FIGURE

1





PLAN SYMBOL



NOTES:

1. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND DAILY DURING PROLONGED RAINFALL. REPAIR SHALL BE MADE AS NECESSARY.
2. FABRIC SHALL BE REPLACED PROMPTLY IF FOUND TO BE IN DISREPAIR.
3. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT AND WHEN DEPOSITS REACH APPROXIMATELY 1/3 HEIGHT OF BARRIER.
4. REFERENCE NCDEQ LAND QUALITY SECTION DESIGN MANUAL: 6.62.

MAINTENANCE:

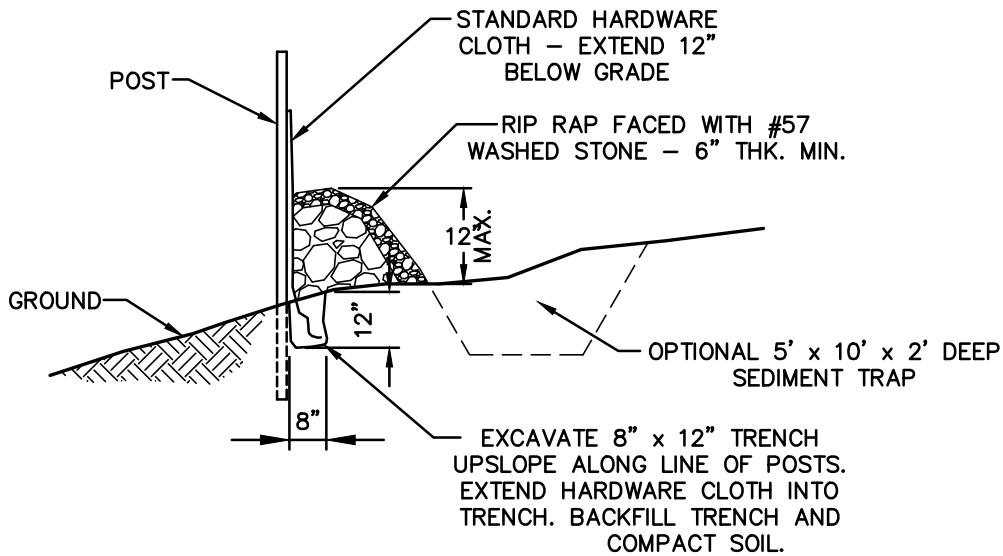
1. INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.
4. REMOVE ALL FENCING MATERIALS UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

SLOPE	SLOPE LENGTH(FT)	MAXIMUM AREA(SQFT)
<2%	100	10,000
2 TO 5%	75	7,500
5 TO 10%	50	5,000
10 TO 20%	25	2,500
>20%	15	1,500

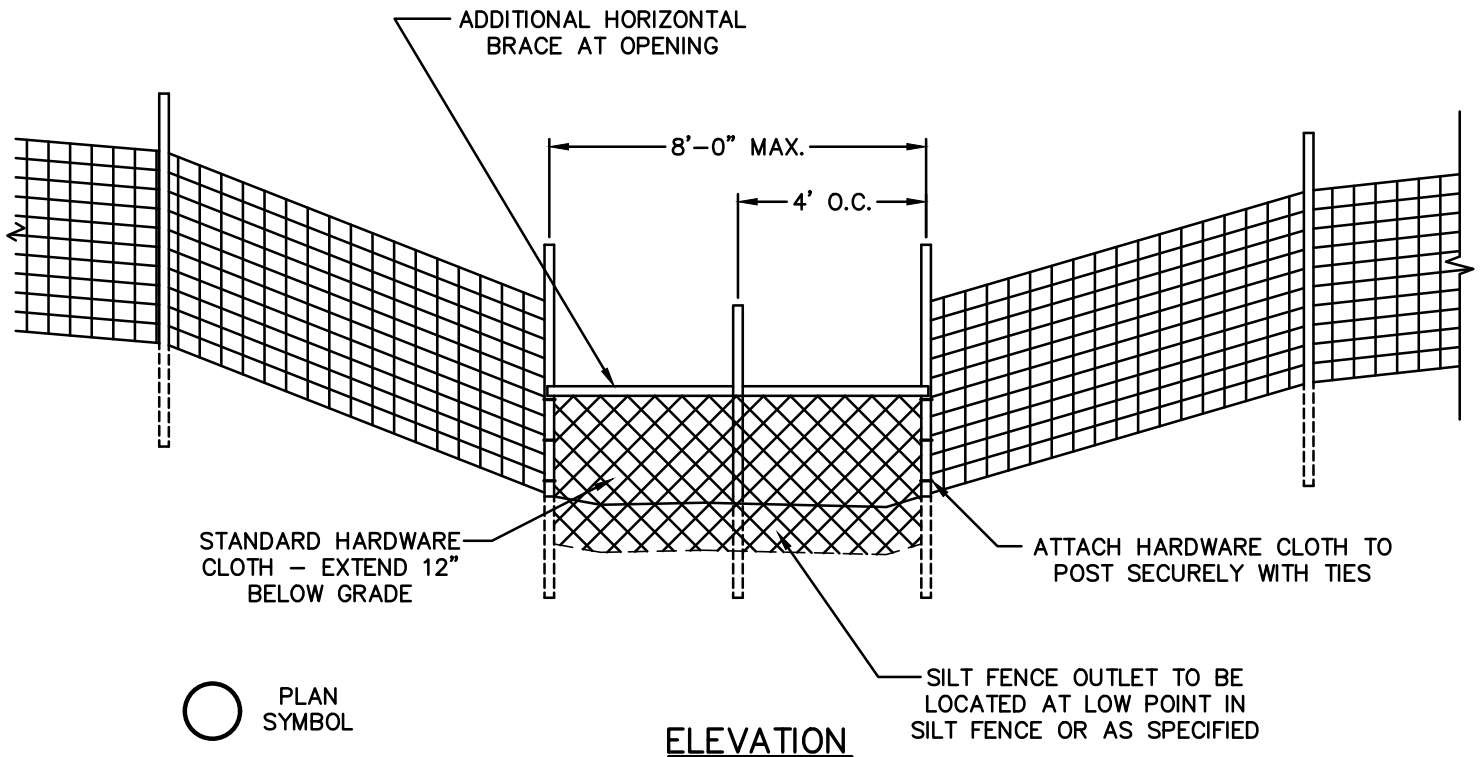
SILT FENCE

NOT TO SCALE

P:\2022\22-03017-ALEXANDERCONC-ALT STATE EMERG FUNDS ADMIN\DRAWINGS\EROSION CONTROL DETAILS.DWG PLOT DATE 8/5/2022 2:43 PM JONATHAN M. HERMAN



SECTION



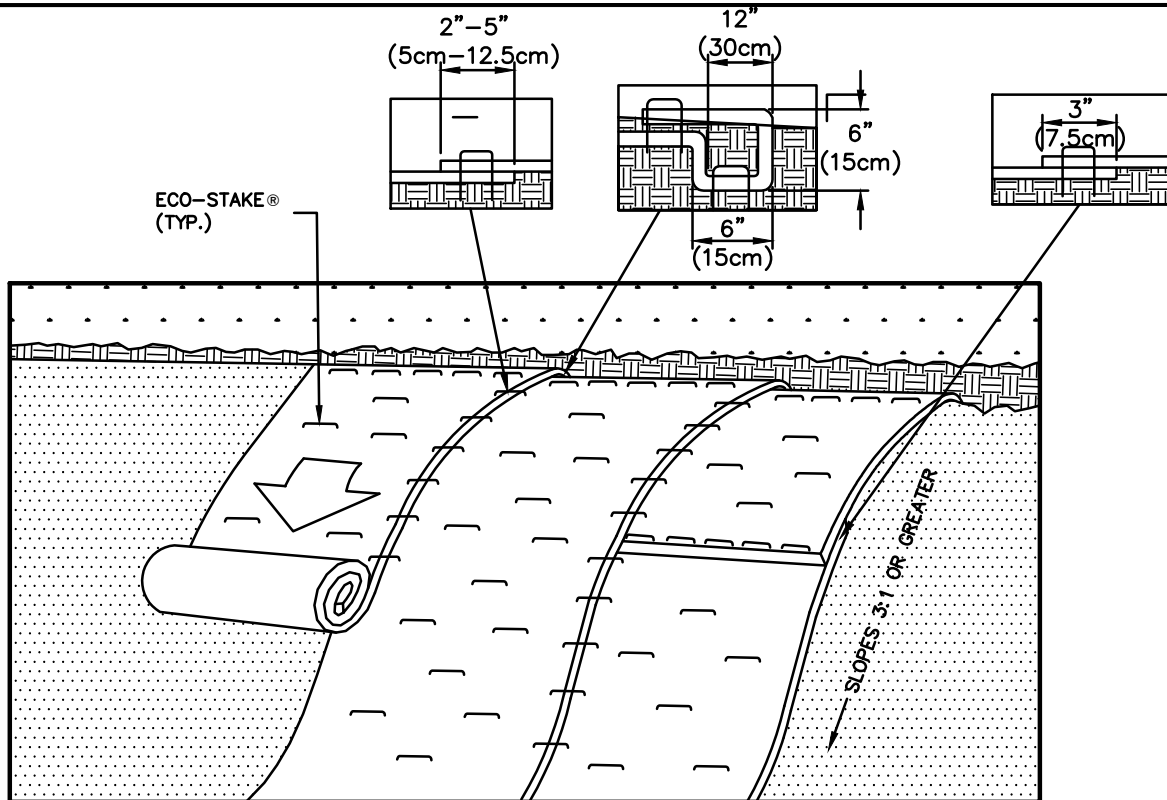
ELEVATION

SILT FENCE - OUTLET

NOT TO SCALE

NOTES:

1. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND DAILY DURING PROLONGED RAINFALL. REPAIR SHALL BE MADE AS NECESSARY.
2. FABRIC SHALL BE REPLACED PROMPTLY IF FOUND TO BE IN DISREPAIR.
3. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT AND WHEN DEPOSITS REACH APPROXIMATELY 1/3 HEIGHT OF BARRIER.
4. SILT FENCE OUTLETS SHALL BE LOCATED AT LOW POINTS IN CONTINUOUS RUNS OF SILT FENCE.



NOTES:

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
3. ROLL THE RECP'S DOWN OR HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING AND SPACING STAKES IN APPROPRIATE LOCATIONS PER MANUFACTURER RECOMMENDATIONS.
4. THE EDGES OF PARALLEL RECP'S MUST BE STAKED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON RECP'S TYPE.
5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAKE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP'S WIDTH.
6. IN LOOSE SOIL CONDITIONS, THE USE OF STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.
7. INSTALLATION OF MATTING SHALL CONFORM TO MANUFACTURER'S REQUIREMENTS.
8. MATTING SHALL BE: US EROSION CONTROL PRODUCTS US-2SC NN OR APPROVED EQUAL. INSTALL ON ALL DISTURBED SLOPES (CHOSEN PRODUCT MUST BE RATED FOR SLOPES 3:1 OR GREATER).

SLOPE MATTING INSTALLATION

NOT TO SCALE

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General Construction Notes

1. No design survey is available for this project. Specific coordinates associated with each project component have not been established to standard survey accuracy and may need further clarification in the field.
2. The project contract will give the Contractor right-of-entry permission to POA Routes and Debris Removal Areas within private property. The Contractor will have access to unpaved areas of public rights-of-way to conduct project activities.
3. The Contractor will have access to the POA Routes and Debris Removal Areas during daylight hours Monday through Friday. Any work on private property outside of these hours must be approved by the Landowners.
4. Due to the limited access area and the minimal land disturbance from the proposed activities Construction Entrances will not be installed. The Contractor shall be responsible for removal of soils tracked off site on to public rights of way.
5. The Contractor is responsible for implementing all necessary traffic control and safety measures in accordance with the US Department of Transportation Manual on Uniform Traffic Control Devices when working within public rights-of-way.
6. The intent of this project is to remove woody debris. Live vegetation may be removed only to provide access. The clearing of live, healthy trees greater than 3 inches in diameter is prohibited unless otherwise approved by the Town. When required, live vegetation shall be trimmed or cut at ground level. Root ball removal or similar soil disturbing activities are not allowed.
7. The Contractor is responsible for removing vegetation or other impediments from within the POA during construction. Should the Contractor opt to utilize an alternate POA, coordination with the property owners of these parcels and any associated costs are the sole responsibility of the Contractor. Contractor shall notify the Town of intent to utilize additional/alternate POAs. Contractor shall restore the POA by grading, seeding, replacement of gravel, or other measures to match preconstruction conditions once construction on that project segment has been approved and prior to final acceptance.
8. All POA routes shall have before and after photographs provided by the Contractor. The Contractor shall restore all disturbed areas to equal or better condition as approved by the Town.
9. The Contractor shall enter Debris Removal Areas at the approximate location of the Access Points identified on the plans. Access Points shall be approximately perpendicular with the river and shall not exceed 20 feet in width.

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10. There are no designated stockpile or staging areas for this project. The Contractor shall arrange for and bear all costs associated with stockpiling or staging areas needed to complete the project. There shall be no staging or stockpiling of equipment within public rights-of-way.
11. A perimeter silt fence shall be installed and maintained between disturbed areas and any nearby waterbodies (i.e. streams, ditches, wetlands, etc.). Any installed silt fence shall be removed after the project work has been approved by the Town.
12. If cultural resources are discovered inside the work area, stop all activities that may disturb the cultural resource and contact the North Carolina State Historic Preservation Office.
13. The Contractor shall remove all woody debris and trash from the designated Debris Removal Areas to the greatest extent practicable. Cutting or moving debris that is outside the Debris Removal Areas, except for the purposes of access, is not within the scope of this project.
14. Contractor shall utilize necessary equipment and manpower to remove debris. All woody debris extracted from the Debris Removal Area shall be immediately loaded and hauled to the designated off-site Debris Disposal Area. No debris shall be temporarily piled or placed within public rights-of-way. Please note that dredging of accumulated sediment is outside of the scope of this project.
15. The Contractor may extract debris from the channel using one of the following methods:
 - a. Lifting – Debris moved by lifting the debris up in the air to a new location.
 - b. Dragging – Debris moved by dragging the debris across the ground surface or riverbed. The practice is only allowed in the riverbed where timber mats or existing in-channel material can be used to prevent disturbance to the riverbed.
 - c. Floating – Debris may be moved across the river on a boat or suspended in the water.
 - d. Other methods – As approved by the Engineer and Town.
16. Contractor shall restore and stabilize all disturbed areas within the project limits following construction.

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General Erosion Control Notes

1. To the extent practical, silt fences shall be placed 10 feet from the limits of disturbance to avoid damage during operation of equipment.
2. The Contractor is responsible for installing silt fence along the perimeter of any disturbed areas to prevent sediment movement to water bodies.
3. All erosion control devices such as silt fences, etc., shall be maintained in workable condition for the life of the project and shall be removed at the completion of the project only on the engineer's approval. If during the life of the project, a storm causes soil erosion which changes finish grades or creates "gullies" and "washed areas", these shall be repaired at no extra cost, and all silt washed off of the project site onto adjacent property shall be removed as directed by the engineer at no extra cost. The Contractor shall adhere to any approved erosion control plans whether indicated in the construction plans or under separate cover.
4. Disposable material
 - a. Clearing wastes (i.e. waste products generated by the proposed construction activities) shall be removed from the site and properly disposed of at the Contractor's expense, unless specified otherwise.
 - b. Abandoned utilities such as culverts, water pipes, hydrants, castings, pipe appurtenances, utility poles, etc., shall be the property of the specific utility agency, or company having jurisdiction. Before the Contractor can remove, destroy, salvage, reuse, sell, or store for Contractor's own use any abandoned utility, the Contractor must present to the owner written permission from the utility involved.
5. The Contractor shall control all dust by periodic watering and shall provide access at all times for property owners within the project area and for emergency vehicles. All open ditches and hazardous areas shall be clearly marked in accordance with applicable laws and the specifications.

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North Carolina Land Quality Section Erosion Control Notes

General: All erosion control measures are to be performed in strict accordance with requirements of the North Carolina Department of Environmental Quality (NCDEQ), Division of Energy, Mineral, and Land Resources (DEMLR), Land Quality Section. The following construction sequence shall be complied with for all work.

1. This project is under the 1-acre threshold requiring formal "erosion and sediment control approval" from the North Carolina Department of Environmental Quality (NCDEQ), Division of Energy, Mineral, and Land Resources (DEMLR), Division of Land Quality, or the local authorized program. The Contractor shall comply with and implement erosion control measures as stated herein.
2. Install all erosion control measures as required by the North Carolina Department of Environmental Quality, Division of Energy, Mineral, and Land Resources, Land Quality Section.
3. Seeding and mulching shall be applied to disturbed point of access areas of stream banks if they are not used longer than 7 days. Silt fences in these areas shall not be installed closer than 5' from flowing water unless field conditions prevent sufficient clearance. All silt fences shall be inspected and cleaned as needed after each rain.
4. Erosion control matting shall be applied on all slopes greater than 3:1.
5. Seed and mulch denuded area shall be applied within time frame specified (see Seeding Specifications below). Seed and soil amendments shall be placed on a prepared seedbed. Soil amendments shall be incorporated into topsoil/root zone before seeding.

Seeding Specifications

General Seeding Specifications

The following apply to all seeded areas:

1. Firm seedbed before seeding (e.g. tracking with dozer or other equipment).
2. Apply the following to all seeded areas:

1. Soil Amendments

Lime

2,000 Lbs

Fertilizer (10-10-10)

1,000 Lbs/Acre

2. Mulch

Straw

60-80 Bales

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If hydroseeding, wood cellulose may be used in addition to straw mulch at the rate of 1,000 lbs per acre.

3. All slopes 3:1 or steeper shall be covered by erosion control matting instead of mulch.
4. Maintenance: Re-fertilize if growth is not fully adequate, re-seed, re-fertilize and mulch immediately following erosion or other damage. All seeded areas shall be maintained until final acceptance of project .

General Seed Mix

The following seed mix shall be applied to all disturbed areas:

Summer Application (May 1 – Aug. 15):

German Millet (<i>Setaria italica</i>)	40 Lbs
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Late Winter/Early Spring Application (January 1 – May 1):

Rye Grain (<i>Secale cereale</i>)	120 Lbs
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Erosion Control Maintenance Plan

1. All erosion and sediment control practices shall be checked for stability and operation following every runoff producing rainfall but in no case not less than once every week. Any needed repairs shall be made immediately to maintain all practices as designed.
2. Sediment shall be removed from behind the silt fence when it becomes approx. 0.5 feet deep at the silt fence. The silt fence shall be repaired as necessary to maintain a barrier.
3. All seeded area shall be fertilized, reseed as necessary, and mulched according to specifications in the seeding specification to maintain a vigorous and dense vegetative cover.
4. Maintain all matting that has been placed on slopes and in ditches. Check for good ground contact and for the occurrence of any erosion under the matting. Monitor and repair or replace as necessary.
5. The Contractor shall maintain self-inspection reports as required by NCDEQ and the NPDES construction stormwater permit. Self-inspections are to be conducted after each phase of the project for the record of the installation and maintenance of the erosion control measures.