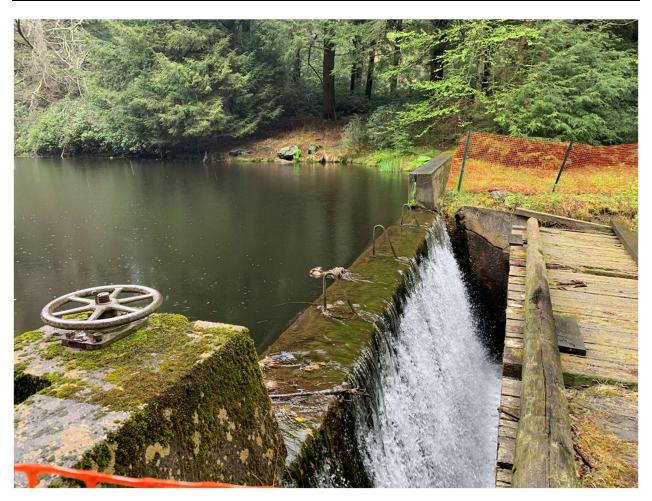
Becker Pond Dam Removal

Project Manual



August 2024

Table of Contents

DIVISION 0 – BIDDING REQUIREMENTS, CONTRACT FORMS, AND CONDITIONS OF THE CONTRACT

01 01 01	PROJECT TITLE PAGE
01 10 01	TNC CONTRACT FOR SERVICES - 2023
00 21 13	INSTRUCTIONS TO BIDDERS
00 22 13	NOTICE TO CONTRACTORS
00 31 46	PERMITS
00 41 00	BID FORM
00 41 10	BID BOND
00 51 00	NOTICE OF AWARD
00 52 00	AGREEMENT
00 52 10	TNC CONFLICT INQUIRY FORM
00 52 20	CONFIDENTIALITY AGREEMENT
00 55 00	NOTICE TO PROCEED
00 61 13.13	PERFORMANCE BOND
00 61 13.16	PAYMENT BOND
00 63 49	WORK CHANGE DIRECTIVE FORM
00 63 57	CHANGE ORDER FORM
00 70 00	STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT
00 73 00	SUPPLEMENTARY CONDITIONS

DIVISION 1 – GENERAL REQUIREMENTS

01 10 00	SUMMARY OF WORK
01 22 00	MEASUREMENT AND PAYMENT
01 26 00	CONTRACT MODIFICATION PROCEDURES
01 35 13	SPECIAL CONDITIONS
01 57 14	FLOW MANAGEMENT AND EROSION AND SEDIMENT CONTROL
01 71 13	MOBILIZATION AND DEMOBILIZATION

DIVISION 2 – EXISTING CONDITIONS

02 40 00 DEMOLITION

DIVISION 31– EARTHWORK

31 11 00	CLEARING AND GRUBBING
31 23 00	EARTHWORK
31 35 19	BIOENGINEERING TREATMENT
31 53 13	LARGE WOOD

DIVISION 32– EXTERIOR IMPROVEMENTS

32 90 00 SITE PLANTINGS



Contract Number:			
TNC Accounting Information			
Project Name:			
Project-Award-Activity #:			
	☐ Public Funds		
Source of funds:	☐ Private funds		
source of funds:	☐ Private funds with donor restrictions		
	☐ Private funds as match for public funds		

CONTRACT FOR SERVICES

This Contract for Services (the "Contract") is entered into by and between The Nature Conservancy, a District of Columbia non-profit corporation ("TNC"), through the following U.S. office:

TNC Business Unit Name:	
TNC Business Unit Office Address:	
TNC Contact Name and Title:	
TNC Contact Email Address:	

and the following person or entity ("Contractor"):

Name of Contractor:	
(Include DBA, if any)	
Address:	
Telephone:	
Email Address:	
Name of Representative (if applicable):	
Type of Entity (if applicable):	
State of Incorporation (if applicable):	

- 1. **Services**. TNC engages Contractor to provide the services, goods and/or deliverables (collectively, the "Services") described in **Exhibit A** ("Description of Services") in accordance with the terms and conditions of this Contract.
- 2. **Payment**. TNC will compensate Contractor for the Services by paying a "Contract Fee" as follows:
 - a. Contract Fee Amount (inclusive of all taxes; exclusive of reimbursable expenses): US \$ [\$\$\$\$\$]
 - b. **Contract Fee Payment Schedule**:
 - i. US \$ [\$\$\$\$] Advance payment upon signature of the Contract by both Parties.
 - ii. US \$ [\$\$\$\$] Payment One upon receipt and approval by TNC of Product [#].
 - iii. US \$ [\$\$\$\$\$] Payment Two upon receipt and approval by TNC of Product [#].
 - iv. US \$ [\$\$\$\$\$] Payment Three upon receipt and approval by TNC of Product [#].
 - v. [Add additional payments as necessary]
 - c. <u>Reimbursable Expenses</u>: Contractor agrees to furnish (or reimburse TNC for) all tools, supplies, and materials to accomplish this Contract, and shall incur all expenses associated with performance, except as expressly provided herein. TNC may reimburse the Contractor for specific eligible expenses as follows:

\square None. TNC will not reimburse the Contractor for any expenses.
☐ TNC will reimburse the Contractor for the following eligible expenses up to a maximum amount of US \$
(inclusive of all taxes):

d. Invoices and Payments. Unless additional acceptance criteria are defined in Exhibit A, TNC shall provide approval of Services and deliverables within 30 days of receipt. Requests for payment of the Contract Fee must be submitted to TNC in the form of an invoice itemizing the Services performed or delivered during the invoice period. Invoices will be subject to review and approval by TNC, and TNC may deny payment of requests received more than sixty (60) days after the final deadline for the completion of Services. TNC will make all payments either (i) by check, subject to TNC's receipt from Contractor of a properly completed IRS Form W-9, or (ii) via Vendor ACH, subject to Contractor's completion of TNC's Vendor ACH Enrollment Form. Expenses authorized for reimbursement by TNC must be: (i) substantiated by adequate documentation (such as receipts), unless waived in writing by TNC; (ii) reasonable in amount; (iii) related to and in furtherance of the Contract purposes; and (iv) submitted with Contractor's invoices for payment. In the event of early termination of the Contract and upon receipt of any termination notice, with or without cause, Contractor shall not incur any further expenses, without express written consent by TNC. TNC shall not pay any expenses to third parties on behalf of the Contractor.

<u>Term</u>. This Contract shall become effective upon the last signature date below and expires on [INSERT SPECIFIC EXPIRATION DATE] (the "Contract Term"). Any deadlines set forth herein may be extended only with TNC's prior written consent, which may be provided by email so long as they remain within the Contract Term. Time is of the essence in the performance of this Contract.

3. **Termination**.

- a. **For Convenience**. TNC may terminate this Contract for convenience at any time upon two weeks' written notice to Contractor. TNC will pay Contractor for the Services that have been satisfactorily performed, as determined by TNC, as of the termination date. Contractor shall submit a final invoice within fourteen days following termination of services.
- b. For Default. TNC may immediately terminate this Contract for default by written notice to Contractor if Contractor fails to provide satisfactory Services or deliverables, if the Services or deliverables cannot be performed in accordance with Applicable Laws (defined below) or TNC's policies, or if Contractor fails to perform any material duty, obligation, or covenant under this Contract, whether for circumstances within or beyond Contractor's control. Should termination occur as a result of Contractor's default, TNC may, without limiting any other remedies available to it under Applicable Laws, reduce the fees owed to reasonably account for unsatisfactory completion of the work, or recover damages from Contractor resulting from Contractor's default and offset any amounts payable to Contractor against such damages.
- c. <u>Refund of Advanced Payments</u>. Regardless of the reason for termination, to the extent the balance of any advance payments made by TNC exceeds the total payments due to Contractor for Services satisfactorily completed, Contractor must promptly return the excess advance payments within fourteen (14) days.
- 4. <u>Conflict of Interest Determination</u>. Contractor represents and warrants that, to the best of Contractor's knowledge, the information Contractor has provided on TNC's Conflict of Interest Inquiry Form (attached as Exhibit B) is true and correct. If any of the information Contractor has provided changes during the term of this Contract, Contractor agrees to promptly notify TNC in writing of such change. The parties acknowledge that publicly traded companies engaging in the normal course of business, government agencies, and universities are not required to submit a Conflict Inquiry Form.

5. Inde pendent Contractor Status; No Benefits.

The parties intend this Contract to create an independent contractor-client relationship and not an employee-employer relationship. Contractor is solely responsible for the conduct and control of the Services and fulfilling Contractor's duties and obligations under this Contract. Contractor is not an agent or employee of TNC, and no partnership, joint venture, or principal-agent relationship exists. Neither party will have any right, power, or authority by virtue of this Contract to create any obligation, express or implied, on behalf of the other party.

a. <u>Independent Contractor</u>. The parties expressly intend this Contract to create an independent contractor-client relationship and not an employee-employer relationship. Contractor is solely responsible for the conduct and

Updated June 2023 Page 2 of 10

control of the Services and fulfilling Contractor's duties and obligations under this Contract. Contractor is not an agent or employee of TNC, and no partnership, joint venture, or principal-agent relationship exists. Neither party will have any right, power, or authority by virtue of this Contract to create any obligation, express or implied, on behalf of the other party. Contractor warrants and represents that Contractor (i) shall timely file and pay all self-employment taxes and other amounts due with respect to payments received hereunder; (ii) may perform work for other clients during this engagement; and (iii) is customarily engaged in an independently-established trade, occupation, profession, or business.

- b. No Benefits. Contractor acknowledges and agrees, and it is the intent of the parties that neither Contractor nor any employees or subcontractors of Contractor be eligible for or receive any TNC-sponsored benefits as either a contractor or employee. Such non-eligible benefits include, but are not limited to, paid vacation, sick leave, holiday leave, notice prior to dismissal, severance, garden leave, overtime pay, medical insurance, and 401(k) participation. If Contractor is reclassified by a state or federal agency, local authority, or court as an employee, Contractor will become a reclassified employee and will receive no benefits except those mandated by U.S. state or federal law, even if by the terms of TNC's benefit plans in effect at the time of such reclassification Contractor would otherwise be eligible for such benefits on a retroactive or prospective basis.
- c. <u>Disclosure</u>. TNC will not provide unemployment compensation coverage for Contractor. Contractor is not entitled to unemployment insurance benefits unless unemployment compensation coverage is provided by Contractor or some other entity.
- 6. <u>Taxes.</u> Contractor is responsible for filing and paying its own taxes and for complying with the requirements of any applicable tax laws. TNC will not withhold or pay on behalf of Contractor or any of Contractor's employees any U.S. Federal, state, or local income tax, payroll tax, or any excise, sales, or use tax of any kind. TNC will report to the IRS on Form 1099 all fees paid to Contractor, as and to the extent required by Applicable Laws.
- 7. **Performance of Work**. Contractor represents and warrants that Contractor is qualified and will perform the Services in accordance with the highest standards of Contractor's profession or craft. Contractor is responsible for the complete performance of the Services notwithstanding the use of any subcontractors or work performed by anyone else under Contractor's direction or control. Contractor will not be paid for any Services found by TNC to be unsatisfactory.
- 8. <u>Liability; Indemnification</u>. Contractor agrees that it is entering into this Contract and performing the Services entirely at Contractor's own risk. Contractor, on behalf of Contractor and Contractor's employees, subcontractors, and agents, agrees to indemnify, defend, and hold harmless TNC and its directors, officers, employees, agents, and assigns (collectively, the "Indemnified Parties") from and against any and all liabilities, demands, damages, claims, losses, costs, settlements, judgments, fines, penalties, or expenses, including reasonable attorneys' fees and costs, (collectively, "Claims") that directly or indirectly arise out of, relate to, or result in any way from the performance of this Contract, (including but not limited to reclassification as an employee as describe above) whether or not the Claims have merit, involve third parties, or are caused or alleged to be caused by Contractor or any of the Indemnified Parties; provided, however, that Contractor will not be responsible for Claims arising from the sole negligence, gross negligence, or willful misconduct of any of the Indemnified Parties.
- 9. Insurance. Prior to commencing the Services and during the Contract Term, Contractor must have and maintain the following insurance policies: (a) workers' compensation insurance coverage as required by Applicable Laws; (b) commercial general liability insurance (including contractual liability if the Contract Fee is \$100,000 or more or if requested by TNC) of at least \$1,000,000 per incident, written on an occurrence basis, and covering the Services that are the subject of this Contract, including any related claims; (c) automobile liability insurance, covering all owned and nonowned vehicles used in performing the Services, with a liability limit of at least \$1,000,000 per occurrence; (d) professional liability insurance in the amount of at least \$1,000,000 if Contractor is providing professional services (such as consulting, engineering, design, appraisal, or surveying services); and (e) umbrella coverage of at least \$4,000,000 if the Contract Fee is \$100,000 or more, or if requested by TNC. Contractor's insurance policies must be primary to TNC's insurance policies. Before any of the Services commence, the foregoing requirements must be evidenced by one or more Certificates of Insurance, showing TNC as an additional named insured and requiring at least 30 days advance written notice to TNC of any cancellation, renewal, reduction in limits, or coverage or other material change of the policies. TNC reserves the right to request additional documentation, such as one or more policy endorsements, deemed reasonably necessary to ensure such requirements have been met.

Updated June 2023 Page 3 of 10

- 10. Work Product; Intellectual Property. Contractor retains all right, title, and interest in works, inventions, and other intellectual property original to or owned by Contractor prior to the execution of this Contract or created outside the scope of this Contract. If the Services involve the creation of intellectual property including, but not limited to, inventions, concepts, processes, reports, derivative works, studies, photographs, software (including in both object code and source code form), drawings, designs, writings, related drafts, supporting materials, or data (collectively, the "Works"), TNC will own all right, title, and interest, including copyrights, and, if applicable, patent rights, in and to the Works. Contractor agrees that all copyrightable Works are "works made for hire" as defined under the copyright laws of the United States. To the extent that any of the Works are not works made for hire, Contractor unconditionally assigns to TNC and TNC's successors and assigns all right, title, and interest, including copyright, and other intellectual property rights, in and to the Works in all media (whether now known or later developed) worldwide and in perpetuity. Contractor grants to TNC a worldwide, non-exclusive, royalty-free, perpetual license to use, reproduce, distribute, modify, exercise, practice, perform, and exploit any assets subject to Contractor's patents, copyrights, or other intellectual property rights, to the extent that such license is necessary for TNC to enjoy all rights associated with ownership of the Works. Upon request of TNC, Contractor will deliver to TNC all tangible copies (including digital copies) of the Works and will execute and complete all documentation necessary to establish TNC's ownership of the Works. Contractor warrants and covenants that the Works will not infringe on the patent rights, copyrights, or other intellectual property rights of Contractor or third parties.
- 11. <u>Use of TNC Name and Logo</u>. Unless expressly authorized in writing in this Contract or in a separate written agreement, Contractor may not use TNC's name, logo, or other intellectual property in any manner, whether in conjunction with the Services or otherwise, except (a) to deliver invoices or other notices to TNC and (b) within acknowledgements of TNC funding, as authorized in writing by TNC.
- 12. Confidential Information. In performing the Services, Contractor might have access to information, whether verbal, in writing, in electronic format, or in any other tangible form, disclosed by TNC, directly or indirectly, to Contractor that is (a) identified as confidential, or (b) disclosed in a manner in which TNC reasonably communicates, or that Contractor should reasonably have understood, should be treated as confidential, whether or not designated as "confidential" (collectively, "Confidential Information"). Confidential Information includes, without limitation, data sets, personal data (including donor data), marketing plans, research, products, technologies, software source code, software object code, data collection functionalities, trade secrets, pre-publication patent applications, research and development, know-how, and other information relating to TNC and its operations, programs, or systems. Contractor may not publish or divulge any Confidential Information without TNC's prior consent and agrees to use Confidential Information solely in furtherance of the Services. Contractor must use appropriate security procedures to safeguard Confidential Information. Contractor acknowledges and agrees that in the event Contractor receives any personal identifying information (i.e., information that identifies or can be used to identify an individual or that relates to an identified individual), Contractor (i) will be subject to a TNC IT Security review prior to such transfer or exchange and (ii) Contractor will comply with all Applicable Laws relating to the protection of personal identifying information. In addition, Contractor must comply with any additional requirements relating to protection of data as set forth in this Contract and/or as specified in any exhibits to this Contract.
- 13. Compliance with Laws and other Safeguards. Contractor represents, warrants, and agrees that Contractor:
 - a. can lawfully work in the United States and/or the countries where the Services will be performed;
 - b. has or will obtain at Contractor's expense (except to the extent otherwise explicitly stated in this Contract) any permits, licenses, or authorizations required to perform the Services. This includes, without limitation, a property owner's prior permission to enter upon private property and any related permissions for completion of the project;

Updated June 2023 Page 4 of 10

- c. will take affirmative steps to inform TNC, prior to signing this Contract, if it is a privately held entity in which a Government Official has equity ownership or, in the case of an individual person providing services as an independent contractor, if the Contractor is a Government Official for any government other than a U.S. local, state, or federal government agency;
- d. will comply with all statutes, laws, ordinances, executive orders, rules, regulations, court orders, and other governmental requirements for the jurisdiction(s) in which the Services are performed and any other jurisdiction(s) in which Contractor is organized or authorized to do business;
- e. will work with, and require all authorized subcontractors to work with, TNC to identify material risks and develop and implement appropriate environmental and social safeguards (e.g., consistent incorporation of free, prior, and informed consent) when and if the Services could directly impact Indigenous Peoples or Local Communities (IPLCs). Implementations plans must include periodic consultation with TNC;
- f. will not employ any person who is less than 18 years old, unless permissible by applicable laws in the jurisdiction where the Contractor is performing the Services. Under no circumstances shall the Contractor employ any person who is less than 16 years old, *even if* permissible by the applicable laws;
- g. will comply with all applicable anti-bribery or anti-corruption laws and regulations. To that end, Contractor shall not either directly or indirectly, pay, offer, promise to pay, or give anything of value (including any amounts paid by TNC) to any person, including an employee or official of a government, with the reasonable knowledge that it will be used for the purpose of obtaining any improper benefit or to improperly influence any act or decision by such person for the purpose of obtaining, retaining, or directing business. Any amounts paid by TNC to Contractor will be for services actually rendered in accordance with the terms of this Contract. Contractor shall not accept bribes or kickbacks in any form. The Contractor further represents, warrants, and agrees that it has not committed any of the acts prohibited herein or been accused of making or authorizing any acts prohibited herein;
- h. will comply with all applicable counterterrorism, anti-money laundering and economic sanctions laws. To that end, the, Contractor represents and warrants that, to the best of Contractor's knowledge, Contractor and Contractor's subsidiaries, principals, and beneficial owners, if any:
 - i. are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any government agency;
 - ii. (A) are not included on the Specially Designated Nationals and Blocked Persons lists maintained by the U.S. Treasury's Office of Foreign Assets Control, the United Nations Security Council Consolidated List, or similar lists of proscribed entities identified as associated with terrorism; and (B) will not engage in transactions with, or provide resources or support to, any such individuals or organizations or anyone else associated with terrorism;
 - iii. are not a person or entity with whom transacting is prohibited by any trade embargo, economic sanction, or other prohibition of law or regulation; and
 - iv. have not conducted, and will not conduct, their operations in violation of applicable money laundering laws, including but not limited to, the U.S. Bank Secrecy Act and the money laundering statutes of any jurisdictions to which they are subject, and no action or inquiry concerning money laundering by or before any authority is pending;
- i. will comply with all applicable human rights laws, statutes, regulations, and codes as well as any human rights policy, standard operating procedure, guideline, or procedure adopted by TNC and shared with Contractor. Furthermore, in performing the Services, the Contractor shall respect human rights by: (a) identifying, preventing, and mitigating any potential or actual adverse human rights impacts resulting from its activities or the activities of its subcontractors, suppliers, or similar third parties; and (b) remediating any actual adverse human rights impacts which it causes or to which it contributes as soon as is practicable. Finally, the Contractor represents and warrants that neither Contractor nor any of its employees has been found at fault or penalized for any human rights violations or creating an adverse impact on human rights;

Updated June 2023 Page 5 of 10

_

¹ For purposes of this Contract, TNC defines a "Government Official" as any official or employee of any government, political party, or public international organization, and any candidate for political office, regardless of whether the person purports to act in a private capacity or serves without compensation. For purposes of this definition, the "government" means any agency, department, embassy, instrumentality, or other governmental entity, including any company or other entity owned or controlled by the government.

- j. will not discriminate against any individual or group based on race, religion, age, sex, national origin, citizenship, disability, sexual orientation, genetic information, or veterans/national guard/military reserve status. If any U.S. government funds are transferred under this Contract, Contractor is also subject to Title VI of the Civil Rights Act of 1964 and related statutes, which prohibit discrimination based on race, color, national origin, age, or disability in federally funded programs;
- k. if the Services involve new construction or alterations of existing structures or facilities, Contractor will ensure that the Services comply with the Americans with Disabilities Act (ADA), including the latest ADA Standards for Accessible Design and any other applicable accessibility requirements arising under federal, state, or local lawChoose a building block.
- I. will not take any actions that might cause TNC to be in violation of the laws, statutes, regulations, or similar rules mentioned in this Section (collectively, "Applicable Laws");
- m. will immediately notify TNC in writing if any of the representations, warranties, certifications, statements, or agreements in this Section change before or during the Contract Term; and
- n. will include provisions at least as restrictive as these in all permitted subcontracts (except for subcontracts purchasing commercially available, off-the-shelf goods or services).

If TNC determines that any of the representations, warranties, certifications, statements, or agreements in this Section are false, no longer valid, or have materially changed, whether the Contractor is at fault or not, TNC may terminate this Contract effective immediately upon written notice to Contractor, with no further obligation by TNC under this Contract, including payment, and TNC may pursue all available remedies under Applicable Laws.

14. Governing Law; Forum. This Contract and claims relating to this Contract will be interpreted, construed, and governed by the laws of the state in which the TNC Business Unit set forth on the first page this Contract is located (excluding such state's choice of law principles, if any). In the event of any litigation over the interpretation or application of any of the terms of this Contract, litigation will be conducted in the state in which the TNC Business Unit set forth on the first page of this Contract is located.

15. Miscellaneous Terms and Conditions.

- a. Notices. Any notice, request, or demand made by either party to this Contract must be in writing and must be sent and deemed delivered as follows: (i) in person delivered immediately; (ii) by mail, postage prepaid, certified (return receipt requested) delivered three business days after sending; (iii) by a nationally recognized, next-day delivery service with tracking information and requesting next-business day delivery delivered the next business day; or (iv) email delivered the next business day.
- b. Assignment; Subcontracting. Contractor may not assign this Contract or subcontract any portion of the Services without TNC's prior written consent, which may be granted via email or by the inclusion of the subcontract description in Exhibit A. TNC's consent may be granted or withheld in TNC's sole discretion. In the event a subcontract is approved, Contractor agrees and warrants that: (i) each individual shall be properly classified as either employee or subcontractor, (ii) it will ensure work is satisfactorily performed by said individuals, and (iii) it is fully responsible and liable for the satisfactory performance of all work performed hereunder. Contractor shall remain fully liable for all work by any subcontractors as if such services were performed by Contractor alone.
- c. Code of Conduct; Helpline. TNC expects itself and everyone with whom it does business to conduct themselves in ways that are consistent with its TNC's Code of Conduct found at www.nature.org/codeofconduct. Anyone (whether an employee of TNC or not) may contact the TNC Helpline (anonymously, if desired) with questions, concerns, or suspected violations at www.nature.org/tnchelpline.
- d. Entire Agreement; Amendments; Order of Precedence. This Contract will become binding when signed by both parties and, together with its exhibits, which are hereby incorporated into and made a part of this Contract, constitutes the entire agreement between the parties and supersedes all prior or contemporaneous communications, both oral and written, between the parties relating to the Services described in this Contract. Unless explicitly stated otherwise in this Contract, no amendment to this Contract, including a change in the Description of Services, will be effective unless in a writing signed by both parties. In the event of a conflict, priority will be given to documents in the following order: (i) provisions in the main body of this Contract; (ii) provisions of any exhibit pursuant to Section 17 below, if applicable; (iii) Description of Services set forth in Exhibit A; and (iv) any additional exhibits or attachments to this Contract.

Updated June 2023 Page 6 of 10

- e. <u>Severability; No Waiver</u>. If any provision of this Contract is found to be invalid by a court of competent jurisdiction, the other provisions will not be affected by that finding. No delay in exercising any right or remedy under this Contract by either party will constitute a waiver of that right or remedy or of any other right or remedy under this Contract or under Applicable Laws.
- f. **Joint and Several Liability**. If two or more persons or entities are identified as Contractor in this Contract, their obligations under this Contract are and will be joint and several.
- g. <u>Counterparts</u>. This Contract may be executed in one or more counterparts, each of which will be deemed an original and all of which will constitute the complete Contract.
- h. <u>Consent to electronic signatures</u>. Facsimile or scanned signatures on this Contract and any related documents, and digital or electronic signatures where authorized under Applicable Laws, will be fully binding for all purposes.
- i. <u>Authorization to Sign</u>. Contractor represents and warrants that the person signing this Contract on behalf of Contractor is duly authorized to sign this Contract on Contractor's behalf.
- j. <u>Force Majeure</u>. This Contract may be immediately terminated by either party by providing written notice to the other party, and TNC shall pay Contractor for all Services that have been satisfactorily performed as of the date of termination, if acts of God, war, terrorism, widespread pandemics, or other similar circumstances make performance of the Contract illegal, commercially impractical, unsafe, or inadvisable.
- k. <u>Survival</u>. The "Liability; Indemnification," "Confidential Information," and "Intellectual Property" Sections of this Contract will survive the expiration or earlier termination of the Contract.

	nis Contract is further subject to the additional terms and conditions set for	orth in the
following Exhibit C (and subsequent	exhibits, in the event more than one option is selected):	
☐Additional Service Terms and	Conditions Exhibit	
☐Data Protection Agreement		
☐U.S. Government Laws and Re	gulations Exhibit	
☐State/Local Government Tern	s and Conditions Exhibit	
☐Private Funder Terms and Co	ditions	
□Other:		
□None		
In consideration of the above, TNC and C	ontractor execute this Contract effective as of the later date of signature b	elow.
The Nature Conservancy	[Contractor's Name]	
By: (signature)	By: (signature)	
Print Name:	Print Name:	
Title:	Title (if applicable):	
Date:	Date:	
Exhibits:		

Updated June 2023 Page 7 of 10

Exhibit A: Description of Services Exhibit B: Conflict Inquiry Form

Exhibit C:

EXHIBIT A

Description of Services

The Description of Services comprises the Project Documents including, but not limited

to: this Project Manual, the Drawings, the Permits

EXHIBIT B

Conflict Inquiry Form

See Section 00 52 10 of these Specifications

EXHIBIT C

Not Used

SECTION 00 21 13 INSTRUCTION TO BIDDERS

ARTICLE 1 – DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
 - A. Issuing Office The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents are available in electronic format at https://interfluve.filecamp.com (username: Becker, password: Pond).
- 2.02 Complete sets of the Bidding Documents must be used in preparing Bids; neither Owner nor Engineer assume 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 No award will be made to any Bidder who cannot meet all of the following requirements:
 - A. They shall not have defaulted nor turned the work over to the bonding company on any contract within three years prior to the bid date.
 - B. They shall maintain a permanent place of business.
 - C. They shall have adequate personnel and equipment to perform the work expeditiously.
 - D. They shall have suitable financial status to meet obligations incidental to the work.
 - E. They shall have appropriate technical experience satisfactory to the Engineer and the Owner in the class of work involved.
 - F. They shall be registered with the Secretary of State to transact business in Massachusetts.
 - G. They shall provide a minimum of three (3) references for previous dam removal and/or river restoration projects.

100% Design Specifications Revised: 8/12/24

- H. They shall not have failed to complete previous contracts on time, including approved time extensions
- 3.02 To demonstrate Bidder's qualifications to perform the Work, Bidder shall submit written evidence such as financial data, present commitments, and such other data as may be called for below.
 - A. The Contractor shall provide references (type of work performed, project owner, total cost of contract, and reference with telephone number) for at least three dam removal and/or river restoration projects. References will be checked for satisfactory execution of the primary tasks involved in the Becker Pond Dam Removal project, including:
 - 1. Strict environmental regulations in and around water bodies;
 - 2. Implementation and maintenance of erosion control measures;
 - 3. Preparation and restoration of access pathways;
 - 4. Stream diversion and water control;
 - 5. Demolition, and proper disposal, of dam infrastructure;
 - 6. Earthwork, including excavation and fill;
 - 7. Removal, and proper disposal, of impounded sediment;
 - 8. Installation of large wood structures;
 - 9. Installation of biodegradable fabric for bank and slope stabilization;
 - 10. Excavation and construction of stream channel and streambanks; and
 - 11. Establishment of native grasses, forbs, shrubs, and trees.
 - B. Contractor selection will be contingent upon positive responses from references.
- 3.03 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

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

- 4.01 The Site is accessible via public way (East Street) and Owner property (on foot) and may be visited to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. 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. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.
- 4.02 Site visits by the Bidder are restricted to between **8:00 a.m. and 4:30 p.m. Monday through Friday**. Visitors must confirm the date and time of the site visit with the Owner at least two days prior to the site visit.
- 4.03 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 Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
 - C. Become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work;
 - D. 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;
 - E. 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;
 - F. Become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
 - G. 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

- H. Determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.
- 4.04 The submission of a Bid will constitute an incontrovertible representation by the Bidder that the Bidder has complied with every requirement of this Article 4, 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 generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

ARTICLE 5 – PRE-BID CONFERENCE

- 5.01 A mandatory pre-bid conference and site visit will be held **in person** at **1:00pm** local time on **Monday**, **September 30, 2024**. To schedule a site visit, bidders are required to contact the Owner and Engineer at **klombard@tnc.org** and **swiding@interfluve.com**.
- 5.02 Representatives of Owner and Engineer will be present to discuss the Project. Bidders are required to attend and participate in the conference. Engineer will transmit to all prospective Bidders of record such Addenda as the Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

ARTICLE 6 – SITE AND OTHER AREAS

6.01 The Site is identified in the Bidding 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 7 – INTERPRETATIONS AND ADDENDA

- 7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to the Owner and Engineer in writing via email at klombard@tnc.org and swiding@interfluve.com by 5:00pm on Friday, October 4, 2024. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 7.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.

ARTICLE 8 – BID SECURITY

NOT USED

ARTICLE 9 – CONTRACT TIMES

9.01 The number of days within which, or the dates by 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 10 – LIQUIDATED DAMAGES

10.01 Provisions for liquidated damages, if any, are set forth in the Agreement.

ARTICLE 11 – SUBSTITUTE AND "OR-EQUAL" ITEMS

11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or "orequal" 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.

ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS AND OTHERS

- 12.01 If the Supplementary Conditions require the identity 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 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.
- 12.02 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next 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. As provided in Paragraph 7.06 of the General Conditions 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.
- 12.03 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.
- 12.04 Engagement of minority firms, women's business enterprises, and labor surplus area firms are encouraged. Bidder shall submit the Minority Business Participation Letter of Intent included with the Bidding Documents to demonstrate a good faith effort to use such firms in the Project.

ARTICLE 13 – PREPARATION OF BID

- 13.01 The Bid Form is included with the Bidding Documents. Additional copies may be obtained from Engineer. The bid form shall be submitted via email and labeled: "Bid Form."
- 13.02 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 Bid item and allowance item listed therein. In the case of optional alternatives the words "No Bid," "No Change," or "Not Applicable" may be entered.
- 13.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer 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.

- 13.04 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.
- 13.05 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.
- 13.06 A Bid by an individual shall show the Bidder's name and official address.
- 13.07 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.
- 13.08 All names shall be printed in ink below the signatures.
- 13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.10 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 13.11 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. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

ARTICLE 14 – BASIS OF BID; COMPARISON OF BIDS

14.01 *Lump Sum*

- A. Bidders shall submit a Bid on individual sections or any combination of sections as set forth in the Bid Form.
 - 1. Bidders may submit a Bid for any of the separate sections or any combination of sections as provided in the Bid Form. Submission of a Bid on any section signifies Bidder's willingness to enter into a Contract for that section alone at the price offered.
 - 2. Bidders offering a Bid on one or more sections shall be capable of completing the Work within the time period stated in the Agreement.

14.02 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 Paragraph 13.03 of the 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.

14.03 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 Paragraph 13.02.B of the General Conditions.

14.04 Completion Time Comparisons

Bid prices will be compared after adjusting for differences in the time designated by Bidders for Substantial Completion. The adjusting amount will be determined at the rate set forth in the Contract Documents for liquidated damages for failing to achieve Substantial Completion for each day before or after the desired date appearing in Article 9 above.

ARTICLE 15 – SUBMITTAL OF BID

- 15.01 The Bid Form is to be completed and submitted with the following documents:
 - A. List of Proposed Subcontractors;
 - B. List of Proposed Suppliers;
 - C. List of Qualification Projects Including References;
 - D. Evidence of authority to do business in the Commonwealth of Massachusetts;
 - E. Contractor's License No.:
 - F. Conflict of Interest Inquiry Form;
 - G. Minority Business Participation Letter of Intent;
 - H. Proposed Schedule for Project Completion; and
 - I. Confidentiality Agreement

15.02 A Bid shall be submitted no later than the date and time prescribed via email as indicated in the advertisement or invitation to bid. Submitted information must include Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by any other required documents. No bids will be accepted by mail or other delivery system. The emailed bid shall be addressed to the Owner and submitted to swiding@interfluve.com and klombard@tnc.org.

ARTICLE 16 - MODIFICATION AND WITHDRAWAL OF BID

- 16.01 A Bid may be modified or withdrawn by 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.
- 16.02 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 – OPENING OF BIDS

17.01 Bids will be opened at the time and place indicated in the Advertisement or Invitation to Bid. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids upon request and at the discretion of the Owner.

ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

18.01 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 19 – NON-RESIDENT CONTRACTORS

19.01 The successful bidder, if a corporation established under laws other than the Commonwealth of Massachusetts, shall file, at the time of the execution of the contract,

- with the Owner, notice of the name of its resident attorney, appointed as required by the laws of the Commonwealth of Massachusetts.
- 19.02 The successful bidder, if not a resident of Massachusetts, and not a corporation, shall file, at the time of execution of the contract, with the Owner a written appointment of a resident of the Commonwealth of Massachusetts, having an office or place of business therein, to be his true and lawful attorney upon whom all lawful processes in any actions or proceedings against him may be served; and in such writing, which shall set forth said attorney's place of residence, shall agree that any lawful process against him which is served on said attorney shall be of the same legal force and validity as if served on him and that the authority shall continue in force so long as any liability remains outstanding against him in Massachusetts.
- 19.03 The power of attorney shall be filed in the office of the Secretary of State if required, and copies certified by the Secretary shall be sufficient evidence thereof. Such appointment shall continue in force until revoked by an instrument in writing, designating in a like manner some other person upon whom such processes may be served, which instrument shall be filed in the manner provided herein for the original appointment.
- 19.04 A Non-resident Contractor shall be deemed to be:
 - A. A person who is not a resident of the Commonwealth of Massachusetts.
 - B. Any partnership that has no member thereof resident of the Commonwealth of Massachusetts.
 - C. Any corporation established under laws other than those of the Commonwealth of Massachusetts.

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. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.
- 20.02 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.
- 20.03 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.

- 20.04 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.
- 20.05 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.
- 20.06 If the Contract is to be awarded, Owner will award the Contract to the Bidder whose Bid is in the best interests of the Project.

ARTICLE 21 – CONTRACT SECURITY AND INSURANCE

21.01 Article 6 of the General Conditions, 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.

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 15 days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. Provided that full public and private funding of the Project has been secured by the Owner in writing, within ten days thereafter, Owner shall deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification. If full funding has not been secured in writing, the Owner will contact the Successful Bidder to discuss the anticipated timeline for signing of the Agreement.

END OF SECTION

SECTION 00 22 13 NOTICE TO CONTRACTORS

PART 1 RECEIPT OF BIDS

- A. Sealed bid proposals for Becker Pond Dam Removal project will be received by The Nature Conservancy.
- B. Bids will only be accepted via email at klombard@tnc.org and swiding@interfluve.com at 5:00pm, Friday, October 18, 2024, after which they will not be received or accepted. There is a 15 MB size limit on emails that can be received at this address.
- C. A summary of all bids received will be provided to bidders upon request.

PART 2 GENERAL DESCRIPTION OF WORK

In general, this project, located on an unnamed brook in Berkshire County, Massachusetts includes the removal of the dam embankment and construction of a channel through the impoundment from approximately 650 feet upstream of the dam to a point just downstream of the dam. The Work includes, but is not limited to, the following:

- 1. Preparing access, clearing and grubbing, and installing erosion control;
- 2. Water control;
- 3. Demolition, and proper disposal, of dam infrastructure;
- 4. Removal, and proper disposal, of impounded sediment;
- 5. Earthwork, including excavation and fill;
- 6. Installation of large wood structures;
- 7. Installation of biodegradable fabric for bank and slope stabilization;
- 8. Seeding and planting; and
- 9. Application of mulch.

PART 3 TYPE OF BID

Bid shall be on a unit price basis for respective bid items identified in the bid.

PART 4 DOCUMENT EXAMINATION AND PROCUREMENT

The Contract Documents may be examined at the following locations:

https://interfluve.filecamp.com

username: Becker password: Pond

Paper copies can be provided upon a request, in writing, to **swiding@interfluve.com**. A fee will be charged to cover the cost of reproduction.

PART 5 QUALIFICATION

Each bid must be accompanied by a list of references for at least three dam removal and/or river restoration projects. Information for each project shall include associated description, cost, and reference including telephone number.

PART 6 BID AND CONTRACT SECURITY

The successful bidder will be required to provide bid, performance, and payment bonds, each in the amount of one hundred percent (100%) of the contract price and payable to The Nature Conservancy.

PART 7 STATE INSPECTION

Work performed on this project shall be subject to inspection by representatives of local, state, and federal agencies.

Such inspection shall in no sense make the State Government a party to this contract, unless said Government is also the Owner, and will in no way interfere with the rights of either party hereunder.

Representatives of the local, state, and federal agencies shall be given Right of Access to all portions of the proposed work, including but not limited to, actual work site, storage yards, offsite manufacturing and fabricating location, and job records.

PART 8 PRE-BID CONFERENCE

A <u>mandatory</u> pre-bid conference will be held <u>on site</u> at 1:00pm on Monday, September 30, 2024, as described in Section 00 21 13 – Instructions to Bidders. Bidders are required to attend.

PART 9 COMPLETION DATES

The Project shall be fully complete in accordance with the Contract Time indicated in Section 00 52 00 Agreement, Article 4 B. 1. (Dates for Substantial Completion and Final Payment). Plantings and planting warranties may extend beyond this date.

PART 10 OWNER'S RIGHT TO REJECT BIDS

Owner reserves the right to waive irregularities and to reject any or all bids.

END OF SECTION

SECTION 00 31 46 PERMITS

PART 1 APPLICABLE PERMITS

- A. The following are the applicable permits for work under the Contract:
 - 1. Attached
 - a) Town of Mount Washington Wetlands Protection Act Restoration Order of Conditions, DEP File Number 232-046
 - b) MassDEP Section 401 Water Quality Certification, #23-2226-005
 - c) NHESP File No. 18-37448
 - d) Section 404 Army Corps of Engineers Permit, NAE-2020-01622
 - e) MEPA Final Record of Decision, EEA File No. 16226
 - 2. Attached and to be Completed by Contractor
 - a) N/A
 - 3. Not Attached but to be Completed or Obtained by Contractor
 - a) USEPA's NPDES Storm Water Pollution Prevention Plan (SWPPP)
 - b) USEPA's NPDES General Permit for Stormwater Discharges from Construction Activities (CGP)
 - c) Town of Mount Washington Driveway Permit (if necessary)
 - 4. Not Attached, expected to be provided by Owner prior to Notice to Proceed. No in-water work may commence until the following are received.
 - a) Chapter 91 License

END OF SECTION

PROJECT IDENTIFICATION: Becker Pond Dam Removal

ARTICLE 1 - BID RECIPIENT

1.01 This Bid is submitted to:

The Nature Conservancy, herein after referred to as Owner, and Inter-Fluve, Inc., herein after referred to as Engineer.

1.02 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. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.
- 2.02 Bidder acknowledges that execution of a contract is subject to receipt of all state and federal permits necessary to complete the work.

ARTICLE 3 – BIDDER'S REPRESENTATIONS

- 3.01 In submitting this Bid, Bidder represents that:
 - A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

<u>Addendum No.</u>	<u>Addendum, Date</u>

- B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and has satisfied itself as to all 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 adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Bidder has considered the information known to Bidder itself; 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 any 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; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, 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 given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies 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 collusive 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 engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid 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 e execution of the Contract.

ARTICLE 5 - BASIS OF BID

5.01	Bidder will price(s):	complete	the \	Work in	accordance	with	the	Contract	Documents	for	the	following
	BASE BID								(\$)
			(W	ords)					(Figure	es)		

BASE BID SCHEDULE

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price (Figure)	Total Estimated Bid Price
1	Mobilization & Demobilization	LS	1		
2	Flow Management, Erosion and Pollution Control	LS	1		
3	Clearing and Grubbing	1.5	AC		
4	Dam Demolition and Disposal	LS	1		
5	Earthwork – On-Site Reuse	CY	215		
6	Earthwork – Off-Site Disposal	CY	501		
7	Large Wood – Logs	EA	15		
8	Large Wood – Logs with Rootwads	EA	15		
9	Surface Fabric Treatment	SY	330		
10	Native Seed Application	AC	0.75		_
11	Container Plants (2 Gallon Shrubs)	EA	10		

>Continued >

ALTERNATIVE ITEMS

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price (Figure)	Total Estimated Bid Price
ADD/ ALT 1	Access Entrance: Alternative 1	LS	1		
ADD/ ALT 2	Access Entrance: Alternative 2	LS	1		
ADD/ALT 3a	Container Plants – (3 Gallon Trees) Quercus velutina (Black Oak)	EA	1		
ADD/ALT 3b	Container Plants (3 Gallon Trees) Tsuga canadensis (Hemlock)	EA	1		
ADD/ALT 3c	Container Plants (3 Gallon Trees) Acer saccharum (Sugar Maple)	EA	1		
ADD/Alt 4	NHESP-Approved Biologist	Day	1		

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
 - A. List of Proposed Subcontractors;
 - B. List of Proposed Suppliers;
 - C. List of Qualification Projects Including References;
 - D. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
 - E. Contractor's License No.:
 - F. Conflict of Interest Disclosure Form;
 - G. Minority Business Participation Letter of Intent; and
 - H. Proposed Schedule for Project Completion.

ARTICLE 8 – DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

BIDDER: [Indicate correct	t name of bidding entity]
By: [Signature]	
[Printed name]	
(If Bidder is a corporation evidence of authority to	n, a limited liability company, a partnership, or a joint venture, attach sign.)
Attest: [Signature]	
[Printed name]	
Title:	
Submittal Date:	
Address for giving notice	s:
Telephone Number:	
Fax Number:	
Contact Name and e-ma	il address:
Bidder's License No.:	
	(where applicable)

BID BOND

BIDDE	R (Name and Address):				
SURET	Y (Name and Address of Principa	al Place of Bu	siness):		
OWNE	R (Name and Address):				
	d Due Date: escription <i>(Project Name and Inclu</i>	ide Location):			
Da	nd Number: te <i>(Not earlier than Bid due date)</i> : nal sum	:			¢.
Pe	-	(Wanda)			\$ (Figures)
Surety : Bid Bo	and Bidder, intending to be legally		•	r representative.	(Figures)
Surety a Bid Bor	and Bidder, intending to be legally and to be duly executed by an authors.	bound hereb	agent, or	r representative.	(Figures)
Surety : Bid Bor BIDDE Bidder	and Bidder, intending to be legally	bound hereborized officer,	SURET Surety's	r representative.	(Figures) y, do each cause th
Surety : Bid Bon BIDDE Bidder	and Bidder, intending to be legally and to be duly executed by an authors.	bound hereborized officer,	agent, or	r representative.	(Figures) y, do each cause th (Seal)
Surety : Bid Bon BIDDE Bidder	and Bidder, intending to be legally nd to be duly executed by an author CR s Name and Corporate Seal	bound hereborized officer,	SURET Surety's	r representative. Y S Name and Corporate Seal	(Figures) y, do each cause th (Seal)
Surety : Bid Bon BIDDE	and Bidder, intending to be legally nd to be duly executed by an author CR s Name and Corporate Seal Signature	bound hereborized officer,	SURET Surety's	r representative. SY S Name and Corporate Seal Signature (Attach Power o	(Figures) y, do each cause th (Seal)
Surety : Bid Bor BIDDE Bidder'	and Bidder, intending to be legally nd to be duly executed by an authorized and Corporate Seal Signature Print Name Title	bound hereborized officer,	SURET Surety's	r representative. Name and Corporate Seal Signature (Attach Power of Print Name) Title	(Figures) y, do each cause th (Seal)
Surety a Bid Bor	and Bidder, intending to be legally nd to be duly executed by an author CR s Name and Corporate Seal Signature Print Name	bound hereborized officer,	SURET Surety's By:	r representative. SY S Name and Corporate Seal Signature (Attach Power of Print Name	(Figures) y, do each cause th (Seal)

August 2024

parties, such as joint venturers, if necessary.

- 1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
- 2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
- 3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
- 4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
- 5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
- 6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.
- 7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
- 8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
- 9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
- 10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
- 11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.



NOTICE OF AWARD

Date of Iss	suance:			
Owner:		Owner's Contract No.:		
Engineer:		Engineer's Project No.:		
Project:		Contract Name:		
Bidder:				
Bidder's A	ddress:			
TO BIDDE	R:			
	re notified that Owner has accepted your B stract, and that you are the Successful Bidder		r the	
	[describe Work, alternates	, or sections of Work awarded]		
The Contra	act Price of the awarded Contract is: \$	[note if subject to unit prices, or cost-plus]		
	· ·	nent accompany this Notice of Award, and one copy of Award, or has been transmitted or made available accompany the Notice of Award]		
	a set of the Drawings will be delivered se	parately from the other Contract Documents.		
You m of Award:	nust comply with the following conditions pre	cedent within 15 days of the date of receipt of this Not	ice	
1.	Deliver to Owner []counterparts of the	e Agreement, fully executed by Bidder.		
2.		e Contract security <i>[e.g., performance and payment bo</i> d in the Instructions to Bidders and General Condit		
3.	Other conditions precedent (if any):			
	e to comply with these conditions within the Notice of Award, and declare your Bid securi	time specified will entitle Owner to consider you in def ty forfeited.	ault,	
counterpa		onditions, Owner will return to you one fully executed ional copies of the Contract Documents as indicated in		
Owner:				
	Authorized Signature			
By:	<u> </u>			
Title:				
Copy: En	gineer			
	EJCDC° C-510	, Notice of Award.		

SECTION 00 52 00 AGREEMENT

THIS	AGRE	EMEN	T is dated as of the	_ day of	_ in the year of			
by and between The Nature Conservancy, hereinafter called Owner, and								
hereir	after ca	lled Co	ntractor. Owner and Contra	actor, in considera	tion of the mutual covenants			
hereir	after se	t forth,	agree as follows:					
1.1 ARTICLE 1 - WORK								
	A.		actor shall complete all Woments. The Work is generall					
		1.	Preparing access, clearing	and grubbing, and	d installing erosion control;			
		2.	Water control;					
		3.	Demolition, and proper di	sposal, of dam inf	rastructure;			
		4.	Removal, and proper disp	osal, of impounde	d sediment;			
		5.	Earthwork/grading includ	ing excavation and	d fill;			
		6.	Installation of large wood	structures;				
		7.	Installation of biodegrada	ble fabric for bank	and slope stabilization;			
		8.	Seeding and planting; and					

Application of mulch.

9.

1.2 ARTICLE 2 - THE PROJECT

A. The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

BECKER POND DAM REMOVAL

1.3 ARTICLE 3 - ENGINEER

A. The Project has been designed by

Inter-Fluve 220 Concord Avenue Cambridge, Massachusetts 02138

who is hereinafter called Engineer and who is to act as Resident Project 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.

1.4 ARTICLE 4 - CONTRACT TIMES

- A. Time of the Essence
 - 1. 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.
 - 2. This contract is contingent on receipt of all permits.
- B. Dates for Substantial Completion and Final Payment
 - 1. The Work will be completed and ready for final payment in accordance with paragraph 15.06 of the General Conditions within **135 days** of receipt of the Notice to Proceed or by **April 14**, **2025** whichever is sooner. Plantings and planting warranties may extend beyond this date.
- C. Liquidated Damages
 - 1. Contractor and Owner recognize that time is of the essence as stated in Paragraph 1.4.A above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 1.4.B above, plus any extensions thereof allowed in accordance with the Contract. 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):

- a) Substantial Completion: Contractor shall pay Owner \$500 for each business day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 1.4.B.1 above for Substantial Completion until the Work is substantially complete.
- b) Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$500 for each business day that expires after such time until the Work is completed and ready for final payment.
- c) Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

1.5 ARTICLE 5 - CONTRACT PRICE

- A. Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraph 1.5.A.1below:
 - 1. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

1.6 ARTICLE 6 - PAYMENT PROCEDURES

- A. Submittal and Processing of Payments
 - 1. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.
- B. Progress Payments; Retainage
 - 1. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 1st day of each month during performance of the Work as provided in Paragraphs 1.6.B.1.a), below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

- a) 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 Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract
 - 1) __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
 - 2) __95__ percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- 2. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 200 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

C. Final Payment

1. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

1.7 ARTICLE 7 - INTEREST

A. All amounts not paid when due shall bear interest at the rate of _7_ percent per annum.

1.8 ARTICLE 8 - CONTRACTOR'S REPRESENTATIONS

- A. In order to induce Owner to enter into this Agreement, Contractor makes the following representations:
 - 1. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.

- 2. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, 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.
- 3. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- 4. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- 5. Contractor has considered the information known to Contractor itself; 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; and (3) Contractor's safety precautions and programs.
- 6. Contractor has obtained and carefully studied (or assumes responsibility for 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 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 Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto.
- 7. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no 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.

- 8. Contractor is aware that it is the Contractor's responsibility to maintain the security of construction access gates for the Project Site and coordinate with the property owner/manager of the Site throughout the project.
- 9. 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.
- 10. 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.
- 11. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- 12. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.
- 13. The Contractor agrees to defend and indemnify the Owner and Engineer, and their respective officers, directors, members, partners, principals, and employees (collectively, "Indemnitees") from and against any and all claims, damages, causes of action, liability, and costs including reasonable attorneys' fees and costs, arising from or in any way related to the performance of the Work under this Contract or alleged to relate in any way to the Work performed under this Contract. This indemnity obligation includes any claim, cause of action, demand, liability or cost arising from or in any way related to any act or omission of any Subcontractor or Supplier of the Contractor. The Contractor is not obligated to indemnify the Indemnitees for damages that are judicially determined to have been caused by the negligence or intentional misconduct of the Indemnitees.

1.9 ARTICLE 9 - CONTRACT DOCUMENTS

A. Contents

- 1. The Contract Documents consist of the following:
 - a) Instruction to Bidders
 - b) Notice to Contractors
 - c) Permits
 - d) This Agreement.
 - e) Bid bond.
 - f) Performance bond.
 - g) Payment bond.
 - h) General Conditions.
 - i) Supplementary Conditions.
 - j) General Requirements, Existing Conditions, Earthwork and Exterior Improvements as listed on the project title page of the Contract Documents.
 - k) Drawings with each sheet bearing the following general title: "Becker Pond Dam Removal".
 - 1) Addenda (numbers to , inclusive).
 - m) Exhibits to this Agreement (enumerated as follows):
 - 1) Conflict of Interest Inquiry Form.
 - 2) Contractor's Bid.
 - 3) Evidence of Contractor's authority to do business in the state of Massachusetts.
 - 4) Documentation submitted by Contractor prior to Notice of Award.
 - 5) Confidentiality Agreement.

- n) The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - 1) Notice of Award
 - 2) Notice to Proceed.
 - 3) Work Change Directives.
 - 4) Change Orders.
- 2. The documents listed in Paragraph 1.9.A.1 are attached to this Agreement (except as expressly noted otherwise above).
- 3. There are no Contract Documents other than those listed above in this Article 9.
- 4. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

1.10 ARTICLE 10 – MISCELLANEOUS

A. Terms

1. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

B. Assignment of Contract

1. 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.

C. Successors and Assigns

1. 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.

D. Severability

1. 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.

E. Safety

1. Neither the professional activities of the Engineer, nor the presence of the Engineer at the construction/project site, shall impose any duty on the Engineer, nor shall it relieve the Contractor and all subcontractors of any of their responsibilities and duties to perform the Work in accordance with the Contract Documents and to comply with any health or safety precautions required by any regulatory agencies. The Engineer does not have authority to control any contractor or its employees in connection with their work or any health or safety programs or procedures. The Client agrees that the Contractor and Subcontractors are solely responsible for job site safety. Accordingly, the Client shall require the contractor and all subcontractors to defend, indemnify, and hold harmless the Engineer from any and all claims, losses, suits, damages, and liabilities, including attorneys' fees and costs, arising in any way from such Contractors' or Subcontractors' services or work product, except to the extent caused by the sole negligence of the Engineer.

F. Contractor's Certifications

- 1. 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 1.10F:
 - a) "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 - b) "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;
 - c) "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

d) "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.

NTRACTOR or on their behalf. Agreement will be effective on,	_(which is the Effective Date of the
OWNER:	CONTRACTOR:
By:	By:
[CORPORATE SEAL]	[CORPORATE SEAL]
Attest	Attest
Address for giving notices:	Address for giving notices:
(If OWNER is a corporation, attach evidence of authority to sign. If OWNER is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of OWNER-CONTRACTOR Agreement.)	License No(Where applicable) Agent for service of process:
	(If CONTRACTOR is a corporation or a partnership attach evidence of authority to sign.)
Designated Representative:	Designated Representative:
Name:	Name:
Title:	Title:
Address:	Address:

END OF SECTION



CONFLICT INQUIRY FORM

311	EP 1. DESCRIPTION OF PARTIES & TRANSACT	STEP I. DESCRIPTION OF PARTIES & TRANSACTION					
	ne of individual or organization entering into nsaction with TNC:						
	gal identity of individual or organization* entering or transaction with TNC (select one):	☐ Individual☐ For-Profit Organization☐ Non-Profit Organization					
	ganization" includes a for profit corporation, partnership, trust, estate, corporated entity, a foundation, public board, commission, 501(c)(3) o		tion, an				
Type of Transaction (select one):		 □ Contract for Services □ Purchase Order □ Real Estate Transaction □ Other 					
If you selected "Other" or "Real Estate," include description here (for real estate, describe property, size, and type of deal (sale, gift, lease, etc.)):							
STI	EP 2: DEFINITIONS & QUESTIONS (Complete *g	only* the section relevant to your organiza	tion)				
 (1) TNC Key Employees and Board of Directors: Please refer to the <u>attached list</u> of Key Employees and members of Board of Directors (includes individuals who have left relevant TNC positions within the past five (5) years). (2) TNC Trustee: Individuals serving as a Trustee or Advisor to TNC. (3) Substantial Contributors: Individuals or organizations who have made total aggregate contributions to TNC of (i) ≥ US \$5 million during the current fiscal year or (ii) ≥ US \$25 million within the last five (5) fiscal years. Fiscal years run 				(i) ≥			
from July 1st through June 30th. (4) Family Members and Close Relatives: Family members of any individual listed above, such as spouse, domestic partner, parent, sibling, child, dependent, other progeny and ancestors.				stic			
SECTION 1. INDIVIDUALS (explain any "yes" answers in Step 3):			Yes	No			
a. Are you now, or have you been in the last five (5) fiscal years, (i) a TNC "Key Employee" or (ii) a member of the TNC Board of Directors?							
b. Are you now, or have you been in the last twelve (12) months, (i) a TNC Employee, (ii) a Chapter Trustee, or (iii) a member of a Country Program Advisory Council or a similar advisory group?							
C	Are you a Substantial Contributor to TNC?						
d. To your knowledge, are you a family member or close relative of any individual identified in paragraphs a, b, or c above?							
			•				

SE	CTION 2. FOR-PROFIT ORGANIZATIONS (explain any "yes" answers in Step 3):	Yes	No
a.	Is your organization a Substantial Contributor to TNC?		
b.	Now, or at the time of the proposed transaction, to the best of your knowledge, do any of the following (individually or collectively with other such persons) (i) own more than 35% of the stock or value of your organization (directly or indirectly) and/or (ii) have a controlling influence over the organization's management or policies (ex. key management or board member):		
	 TNC employee (or former employee who left within the last twelve (12) months); TNC Key Employee; TNC Board Member; Substantial Contributor to TNC; TNC Chapter Trustee or Advisory Council Member for TNC or TNC's related entities (or former 		
	 trustees/members who left within the last twelve (12) months); and/or Family members or close relatives of the above individuals. 		
C.	Now, or at the time of the proposed transaction, have or will any TNC Key Employees or members of the Board of Directors serve in the following positions of your organization?		
	 Officer, director, trustee, key employee, or partner; Member (if your organization is a limited liability corporation); and/or Shareholder (if your organization is a professional corporation). 		
SE	CTION 3. NON-PROFIT ORGANIZATIONS (explain any "yes" answers in Step 3):	Yes	No
a.	Now, or at the time of the proposed transaction, do any of the following (individually or collectively with other such persons) have the ability to influence management of the entity:		
	 TNC employee (or former employee who left within the last twelve (12) months); TNC Key Employee; TNC Board Member; Substantial Contributor to TNC; 		
	 Substantial Contributor to TNC; TNC Chapter Trustee or Advisory Council Member for TNC or TNC's related entities (or former trustees/members who left within the last twelve (12) months; and/or Family members or close relatives of the above individuals. 		

STEP 3: COMMENTS (Explain any "yes" answers checked above. Attach additional pages as necessary.)

STEP 4: NOTICE OF TNC CODE (OF CONDUCT & SIGNATURES				
TNC expects itself and everyone with whom it does business to conduct themselves in ways that are consistent with TNC's Code of Conduct found at www.nature.org/codeofconduct . Anyone (whether a part of TNC or not) may contact the TNC Helpline (anonymously, if desired) with questions, concerns, or suspected violations at www.nature.org/tnchelpline .					
The undersigned certifies the info	The undersigned certifies the information in the inquiry form is true and correct to the best of their knowledge.				
Signature:					
Printed Name:					
Title (if for an organization):					
I .					
Address:					

TNC COVERED PERSONS

The following are individuals who are currently or have been, during the preceding five (5) fiscal years, a TNC "Key Employee" or a member of the Board of Directors.

List Current as of April 22, 2022

Current Key Employees	Former Key Employe	ees*	Current Board of Directors	Prior Board Members
Keith Arnold Matt Arnold Nathalie Augustin David Banks Matt Brown Jan Glendening Meg Goldthwaite Katharine Hayhoe Tom Neises James Page Michael Tetreault Darci Vetter Leonard Williams	Justin Adams Kacky Andrews James Asp Charles Bedford Michelle Beistle* Karen Berky Giulio Boccaletti Mark Burget Mario D'Amico Maria Damanaki Michael Doane* William Ginn Elizabeth Gray Santiago Gowland Wisla Heneghan Sherri Hammons Steve Howell Jack Hurd Charlotte Kaiser* Joe Keenan Marianne Kleiberg* Leonardo Lacerda* Richard Loomis	William McGoldrick* Robert McKim Brian McPeek Pascal Mittermaier Bola Olusanya* Jeffrey Parrish* Seema Paul Hugh Possingham Glenn Prickett Aurelio Ramos Lynn Scarlett Theresa Shaw* Michael Sweeney* Heather Tallis Mark Tercek Ian Thompson* Marc Touitou Bill Ulfelder* Joni Ward* Peter Wheeler Janine Wilkin Heather Wishik Hazel Wong Heather Zichal	James Attwood, Jr. Amy Batchelor John Bernstein Michelle DePass William Frist Joseph Gleberman Harry Hagey Margaret Hamburg Fred Hu Shirley Ann Jackson Sally Jewell Nancy Knowlton Edwin Macharia Claudia Madrazo Jennifer Morris Ana M. Parma Douglas Petno Sergio Rial Vincent Ryan Brenda Shapiro Frances A. Ulmer Kevin Weil Ying Wu	David Blood Shona L. Brown Gretchen C. Daily Steven A. Denning Laurence Fink Andrew Liveris Jane Lubchenco Jack Ma Craig McCaw Thomas J. Meredith Thomas Middleton Stephen Polasky Rajiv Shah Mark Tercek Kent Thiry Thomas J. Tierney Moses Tsang P. Roy Vagelos Margaret C. Whitman

*Current TNC Employee; No longer considered Key Employee.

TNC's Related Entities (If applicable)

Key Employees (members of Related Entity leadership team):

Current Fiduciary Board Members, if applicable:

SECTION 00 52 20 CONFIDENTIALITY AGREEMENT

PART 1 SENSITIVE INFORMATION

- A. In preparing a project bid and/or performing the Services, a Bidder or Contractor might have access to information, whether verbal, in writing, in electronic format, or in any other tangible form, disclosed by TNC, directly or indirectly, to Bidder or Contractor that is (a) identified as confidential, or (b) disclosed in a manner in which TNC reasonably communicates, or that Bidder or Contractor should reasonably have understood, should be treated as confidential, whether or not designated as "confidential" (collectively, "Confidential Information").
- B. Confidential Information includes, without limitation, endangered species data, historical and/or archaeological data, other scientific and/or technical data sets, personal data (including donor data), marketing plans, research, products, technologies, software source code, software object code, data collection functionalities, trade secrets, pre-publication patent applications, research and development, know-how, and other information relating to TNC and its operations, programs, or systems.
- C. Bidder or Contractor may not publish or divulge any Confidential Information without TNC's prior consent and agrees to use Confidential Information solely in furtherance of the Services.
- D. Bidder or Contractor must use appropriate security procedures to safeguard Confidential Information. Contractor acknowledges and agrees that in the event Bidder or Contractor receives any personal identifying information (i.e., information that identifies or can be used to identify an individual or that relates to an identified individual), Contractor (i) will be subject to a TNC IT Security review prior to such transfer or exchange and (ii) Contractor will comply with all Applicable Laws relating to the protection of personal identifying information. In addition, Bidder or Contractor must comply with any additional requirements relating to protection of data as set forth in this Contract and/or as specified in any exhibits to this Contract.

I acknowledge receipt of this Confidentiality Agreement and agree to abide by its terms a Bidder and/or as a Contractor for this project.					
Name	Date				

END OF SECTION



NOTICE TO PROCEED Owner: Owner's Contract No.: Contractor: Contractor's Project No.: Engineer's Project No.: **Engineer:** Project: Contract Name: **Effective Date of Contract:** TO CONTRACTOR: Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on , 20]. [see Paragraph 4.01 of the General Conditions] On that date, Contractor shall start performing its obligations under the Contract Documents. No Work shall be done at the Site prior to such date. In accordance with the Agreement, [the date of Substantial Completion is , and the date of readiness for final payment is number of days to achieve Substantial Completion is ______, and the number of days to achieve Before starting any Work at the Site, Contractor must comply with the following: [Note any access limitations, security procedures, or other restrictions] Owner: **Authorized Signature** By: Title: Date Issued: Copy: Engineer



PERFORMANCE BOND

CONTRACTOR (name and address):	SURETY (name and address of principal place of business):		
OWNER (name and address):			
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 Amount:	f the Construction Contract):		
Modifications to this Bond Form: None	See Paragraph 16		
CONTRACTOR AS PRINCIPAL	SURETY		
(seal)	(seal)		
Contractor's Name and Corporate Seal	Surety's Name and Corporate Seal		
Ву:	Ву:		
Signature	Signature (attach power of attorney)		
Print Name	Print Name		
Title	Title		
Attact	Attort		
Attest: Signature	Attest:Signature		
Title	Title		
Notes: (1) Provide supplemental execution by any addition Contractor, Surety, Owner, or other party shall be consider	al parties, such as joint venturers. (2) Any singular reference to		
EJCDC® C-610	, Performance Bond		
Copyright © 2013 National Society of Professional	Engineers, American Council of Engineering Companies,		

- 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:
 - 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 (name and address):	SURETY (name and address of principal place of business):		
OWNER (name and address):			
CONSTRUCTION CONTRACT			
Effective Date of the Agreement:			
Amount: Description (name and location):			
2 cool ip do i (name ana 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		
	ereby, subject to the terms set forth below, do each cause		
this Payment Bond to be duly executed by an authorize	ed officer, agent, or representative.		
CONTRACTOR AS PRINCIPAL	SURETY		
(seal)	(seal)		
Contractor's Name and Corporate Seal	Surety's Name and Corporate Seal		
Ву:	Ву:		
Signature	Signature (attach power of attorney)		
Print Name	Print Name		
	 Title		
Attest:	Attest:		
Signature	Signature		
Title Tit	le		
Notes: (1) Provide supplemental execution by any addition	al parties, such as joint venturers. (2) Any singular reference		
to Contractor, Surety, Owner, or other party shall be consid	lered plural where applicable.		

- 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.
- 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 nonpayment 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).
- 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.
- 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;
 - The name of the person for whom the labor was done, or materials or equipment furnished;
 - 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;
 - 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:
 - 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:



			Change Order No.
Date of Issuance:		Effective Da	te:
Owner:		Owner's Cor	ntract No.:
Contractor:		Contractor's	s Project No.:
Engineer:		Engineer's P	· ·
Project:		Contract Na	-
The Contract is modified as follows upo	n execution of this (Change Order:	
Description:			
Attachments: [List documents supportin	g change]		
CHANGE IN CONTRACT F	PRICE	CHAN	IGE IN CONTRACT TIMES
			ges in Milestones if applicable]
Original Contract Price:		Original Contract Tir	
Φ.		1	ion:
\$		Ready for Final Payn	nent:
[Increased [Decreased] from manifestals.	anners of Change		days or dates
[Increase] [Decrease] from previously orders No to No:	approved Change	Orders No to No	e] from previously approved Change
Orders No to No		L	o ion:
\$			nent:
·			
			days
Contract Price prior to this Change Ord	er:	Contract Times prior	r to this Change Order:
		Substantial Complet	ion:
\$		Ready for Final Payn	nent:
			days or dates
[Increase] [Decrease] of this Change Or	der:		e] of this Change Order:
_			ion:
\$		Ready for Final Payn	nent:
			days or dates
Contract Price incorporating this Chang	e Order:	Contract Times with	all approved Change Orders:
		Substantial Complet	ion:
\$			nent:
			days or dates
RECOMMENDED:	ACCE	EPTED:	ACCEPTED:
Ву:	By:		y:
	Owner (Au	thorized Signature)	Contractor (Authorized Signature
Engineer (if required)		т	itle
Engineer (if required) Title:	_ Title Date		rate



Ву:	 Date:
Title:	

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by



Issued and Published Jointly by







Endorsed by





These General Conditions have been prepared for use with the Agreement Between Owner and Contractor for Construction Contract (EJCDC® C-520, Stipulated Sum, or C-525, Cost-Plus, 2013 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other.

To prepare supplementary conditions that are coordinated with the General Conditions, use EJCDC's Guide to the Preparation of Supplementary Conditions (EJCDC® C-800, 2013 Edition). The full EJCDC Construction series of documents is discussed in the Commentary on the 2013 EJCDC Construction Documents (EJCDC® C-001, 2013 Edition).

Copyright © 2013:

National Society of Professional Engineers 1420 King Street, Alexandria, VA 22314-2794 (703) 684-2882

www.nspe.org

American Council of Engineering Companies 1015 15th Street N.W., Washington, DC 20005 (202) 347-7474

www.acec.org

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

www.asce.org

The copyright for this document is owned jointly by the three sponsoring organizations listed above. The National Society of Professional Engineers is the Copyright Administrator for the EJCDC documents; please direct all inquiries regarding EJCDC copyrights to NSPE.

NOTE: EJCDC publications may be purchased at www.ejcdc.org, or from any of the sponsoring organizations above.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

TABLE OF CONTENTS

		Pag	
ARTICL	.E 1 – I	Definitions and Terminology	1
1	01	Defined Terms	1
1	02	Terminology	5
ARTICL	_E 2 – I	Preliminary Matters	6
2	01	Delivery of Bonds and Evidence of Insurance	6
2	02	Copies of Documents	6
2	03	Before Starting Construction	6
2	.04	Preconstruction Conference; Designation of Authorized Representatives	7
2	.05	Initial Acceptance of Schedules	7
2	.06	Electronic Transmittals	7
ARTICL	_E 3 — I	Documents: Intent, Requirements, Reuse	8
3	3.01	Intent	8
3	3.02	Reference Standards	8
3	3.03	Reporting and Resolving Discrepancies	8
3	3.04	Requirements of the Contract Documents	9
3	3.05	Reuse of Documents	0
ARTICL	_E 4 — (Commencement and Progress of the Work1	0
4	.01	Commencement of Contract Times; Notice to Proceed	0
4	.02	Starting the Work	0
4	.03	Reference Points	0
4	.04	Progress Schedule	0
4	.05	Delays in Contractor's Progress	1
		Availability of Lands; Subsurface and Physical Conditions; Hazardous Environmenta 	
5	5.01	Availability of Lands1	2
5	5.02	Use of Site and Other Areas1	2
5	5.03	Subsurface and Physical Conditions1	3
5	5.04	Differing Subsurface or Physical Conditions	3
5	.05	Underground Facilities	5

5.06	Hazardous Environmental Conditions at Site	16
ARTICLE 6	– Bonds and Insurance	18
6.01	Performance, Payment, and Other Bonds	18
6.02	Insurance—General Provisions	19
6.03	Contractor's Insurance	20
6.04	Owner's Liability Insurance	22
6.05	Property Insurance	22
6.06	Waiver of Rights	24
6.07	Receipt and Application of Property Insurance Proceeds	25
ARTICLE 7	– Contractor's Responsibilities	25
7.01	Supervision and Superintendence	25
7.02	Labor; Working Hours	26
7.03	Services, Materials, and Equipment	26
7.04	"Or Equals"	26
7.05	Substitutes	27
7.06	Concerning Subcontractors, Suppliers, and Others	29
7.07	Patent Fees and Royalties	30
7.08	Permits	31
7.09	Taxes	31
7.10	Laws and Regulations	31
7.11	Record Documents	32
7.12	Safety and Protection	32
7.13	Safety Representative	33
7.14	Hazard Communication Programs	33
7.15	Emergencies	33
7.16	Shop Drawings, Samples, and Other Submittals	33
7.17	Contractor's General Warranty and Guarantee	35
7.18	Indemnification	36
7.19	Delegation of Professional Design Services	37
ARTICLE 8	– Other Work at the Site	37
8.01	Other Work	37
8.02	Coordination	38
8.03	Legal Relationships	38

ARTI	CLE 9 –	Owner's Responsibilities	39
	9.01	Communications to Contractor	39
	9.02	Replacement of Engineer	39
	9.03	Furnish Data	39
	9.04	Pay When Due	39
	9.05	Lands and Easements; Reports, Tests, and Drawings	39
	9.06	Insurance	40
	9.07	Change Orders	40
	9.08	Inspections, Tests, and Approvals	40
	9.09	Limitations on Owner's Responsibilities	40
	9.10	Undisclosed Hazardous Environmental Condition	40
	9.11	Evidence of Financial Arrangements	40
	9.12	Safety Programs	40
ARTI	CLE 10	 Engineer's Status During Construction 	40
	10.01	Owner's Representative	40
	10.02	Visits to Site	40
	10.03	Project Representative	41
	10.04	Rejecting Defective Work	41
	10.05	Shop Drawings, Change Orders and Payments	41
	10.06	Determinations for Unit Price Work	41
	10.07	Decisions on Requirements of Contract Documents and Acceptability of Work	41
	10.08	Limitations on Engineer's Authority and Responsibilities	41
	10.09	Compliance with Safety Program	42
ARTI	CLE 11	– Amending the Contract Documents; Changes in the Work	42
	11.01	Amending and Supplementing Contract Documents	42
	11.02	Owner-Authorized Changes in the Work	43
	11.03	Unauthorized Changes in the Work	43
	11.04	Change of Contract Price	43
	11.05	Change of Contract Times	44
	11.06	Change Proposals	44
	11.07	Execution of Change Orders	45
	11.08	Notification to Surety	46
ARTI	CLE 12	– Claims	46

	12.01	Claims	46
ART	ICLE 13	– Cost of the Work; Allowances; Unit Price Work	. 47
	13.01	Cost of the Work	47
	13.02	Allowances	49
	13.03	Unit Price Work	50
ART	ICLE 14	– Tests and Inspections; Correction, Removal or Acceptance of Defective Work	. 51
	14.01	Access to Work	51
	14.02	Tests, Inspections, and Approvals	51
	14.03	Defective Work	52
	14.04	Acceptance of Defective Work	52
	14.05	Uncovering Work	52
	14.06	Owner May Stop the Work	53
	14.07	Owner May Correct Defective Work	53
ART	ICLE 15	Payments to Contractor; Set-Offs; Completion; Correction Period	. 54
	15.01	Progress Payments	54
	15.02	Contractor's Warranty of Title	57
	15.03	Substantial Completion	57
	15.04	Partial Use or Occupancy	58
	15.05	Final Inspection	58
	15.06	Final Payment	58
	15.07	Waiver of Claims	60
	15.08	Correction Period	60
ART	ICLE 16	– Suspension of Work and Termination	. 61
	16.01	Owner May Suspend Work	61
	16.02	Owner May Terminate for Cause	61
	16.03	Owner May Terminate For Convenience	62
	16.04	Contractor May Stop Work or Terminate	62
ART	ICLE 17	– Final Resolution of Disputes	. 63
	17.01	Methods and Procedures	63
ART	ICLE 18	– Miscellaneous	. 63
	18.01	Giving Notice	63
	18.02	Computation of Times	63
	18.03	Cumulative Remedies	63

18.04	Limitation of Damages	. 64
18.05	No Waiver	.64
18.06	Survival of Obligations	.64
18.07	Controlling Law	. 64
18.08	Headings	. 64

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 Defined Terms

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. 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.
 - 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.
 - Agreement—The written instrument, executed by Owner and Contractor, that sets forth
 the Contract Price and Contract Times, identifies the parties and the Engineer, and
 designates the specific items that are Contract Documents.
 - 3. Application for Payment—The form acceptable to Engineer which 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. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 - 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 - 6. Bidding Documents—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 - 7. Bidding Requirements—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 - 8. Change Order—A document 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, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 - 9. Change Proposal—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 - 10. Claim—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision

- regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer has declined to address. A demand for money or services by a third party is not a Claim.
- 11. Constituent of Concern—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5101 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
- 12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
- 13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
- 14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
- 15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
- 16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
- 17. Cost of the Work—See Paragraph 13.01 for definition.
- 18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
- 19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
- 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 does not change the Contract Price or the Contract Times.
- 22. Hazardous Environmental Condition—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
- 23. Laws and Regulations; Laws or Regulations—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
- 24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

- 25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
- 26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
- 27. *Notice to Proceed*—A written notice 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.
- 28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
- 29. *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.
- 30. Project—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
- 31. Project Manual—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
- 32. Resident Project Representative—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.
- 33. Samples—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
- 34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.
- 35. 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.
- 36. Shop Drawings—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
- 37. 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, and such other lands furnished by Owner which are designated for the use of Contractor.

- 38. Specifications—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
- 39. *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.
- 40. 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 utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.
- 41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
- 42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
- 43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, 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 a Subcontractor.
- 44. 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.
- 45. 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 but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
- 46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
- 47. 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; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
- 48. Work Change Directive—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

A. The words and terms discussed in the following paragraphs 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 Article 10 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
 - 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 15.03 or 15.04).

E. Furnish, Install, Perform, Provide:

- 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.
- 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. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words

- "furnish," "install," "perform," or "provide," then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- 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. *Bonds*: 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.
- B. Evidence of Contractor's Insurance: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. Evidence of Owner's Insurance: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 Copies of Documents

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 Before Starting Construction

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 - a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 - a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 Preconstruction Conference; Designation of Authorized Representatives

- A. Before any Work at the Site is started, a 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 schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- 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 and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 - The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will 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 therefor.
 - 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 - Contractor's Schedule of Values will be acceptable to Engineer as to form and substance
 if it provides a reasonable allocation of the Contract Price to the component parts of the
 Work.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, 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.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 Reference Standards

- A. Standards Specifications, Codes, Laws and Regulations
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, 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, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. 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 part of the Contract Documents prepared by or for Engineer.

3.03 Reporting and Resolving Discrepancies

A. Reporting Discrepancies:

1. Contractor's Verification of Figures and Field Measurements: Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

- 2. Contractor's Review of Contract Documents: If, before or 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) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) 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 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
- 3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. Resolving Discrepancies:

- Except as may be otherwise specifically stated in the Contract Documents, the
 provisions of the part of the Contract Documents prepared by or for Engineer shall take
 precedence in resolving any conflict, error, ambiguity, or discrepancy between such
 provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); 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 Requirements of the Contract Documents

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 Reuse of Documents

- A. Contractor and its Subcontractors and Suppliers shall not:
 - 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 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 by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- 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 record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

- 4.01 Commencement of Contract Times; Notice to Proceed
 - A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 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.

4.04 Progress Schedule

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

- 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. 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, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 Delays in Contractor's Progress

- A. If Owner, Engineer, 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 Times and Contract Price. 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.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. 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. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - 1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. abnormal weather conditions;
 - 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 - 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.
- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 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.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made 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.

5.02 Use of Site and Other Areas

- A. Limitation on Use of Site and Other Areas:
 - 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 - If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, 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 any such claim, and against all 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 directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. Removal of Debris During Performance of the Work: During the progress of the Work the Contractor shall keep the Site and other adjacent 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 and adjacent areas 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 of 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 structures or land to stresses or pressures that will endanger them.

5.03 Subsurface and Physical Conditions

- A. Reports and Drawings: The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
 - those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
 - 3. Technical Data contained in such reports and drawings.
- B. Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on 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:
 - 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.

5.04 Differing Subsurface or Physical Conditions

- A. *Notice by Contractor*: If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site 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 5.03 is materially inaccurate; or
 - 2. is of such a nature as to require a change in the Drawings or Specifications; 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;

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 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. Engineer's Review: After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. Owner's Statement to Contractor Regarding Site Condition: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. Possible Price and Times Adjustments:
 - 1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, 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 condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - 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 Paragraph 13.03; and,
 - c. 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.
 - 2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - Contractor knew of the existence of such condition at the time Contractor made a 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 otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site

and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or

- c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
- 3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
- 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 Underground Facilities

- A. Contractor's Responsibilities: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent 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 Supplementary Conditions:
 - 1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; 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 information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. Notice by Contractor: If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then 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 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.
- C. Engineer's Review: Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and

- recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. Owner's Statement to Contractor Regarding Underground Facility: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. Possible Price and Times Adjustments:
 - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - 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 Paragraph 13.03;
 - 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; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
 - If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 - 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
- 5.06 Hazardous Environmental Conditions at Site
 - A. *Reports and Drawings*: The Supplementary Conditions identify:
 - 1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 - 2. Technical Data contained in such reports and drawings.
 - B. Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on 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:

- 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 removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) 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 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. 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, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
- H. 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, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. 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 (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. 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 the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

- 6.01 Performance, Payment, and Other Bonds
 - A. Contractor shall furnish a performance bond and a payment bond, 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. 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 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
 - B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond

- 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 the accompanying bond.
- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then 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 bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 Insurance—General Provisions

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor

- to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, 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.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 Contractor's Insurance

- A. *Workers' Compensation*: Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 - claims for damages because of bodily injury, occupational sickness or disease, or death
 of Contractor's employees (by stop-gap endorsement in monopolist worker's
 compensation states).
 - 4. Foreign voluntary worker compensation (if applicable).
- B. Commercial General Liability—Claims Covered: Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
 - 1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 - 2. claims for damages insured by reasonably available personal injury liability coverage.
 - 3. 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 therefrom.
- C. Commercial General Liability—Form and Content: Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
 - 1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.

- b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
- 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
- 3. Broad form property damage coverage.
- 4. Severability of interest.
- 5. Underground, explosion, and collapse coverage.
- 6. Personal injury coverage.
- 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
- 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. Automobile liability: Contractor shall purchase and maintain automobile liability insurance against 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. The automobile liability policy shall be written on an occurrence basis.
- E. Umbrella or excess liability: Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. Contractor's pollution liability insurance: Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.
- G. Additional insureds: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. Contractor's professional liability insurance: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial

Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.

- I. General provisions: The policies of insurance required by this Paragraph 6.03 shall:
 - 1. include at least the specific coverages provided in this Article.
 - 2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 - contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
 - 4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 - be appropriate for the Work being performed and provide protection from claims that 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.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 Owner's Liability Insurance

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, 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.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 Property Insurance

- A. Builder's Risk: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."

- 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, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; 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 Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
- 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
- 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).
- 5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
- 6. extend to cover damage or loss to insured property while in transit.
- allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
- provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
- 10. not include a co-insurance clause.
- 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
- 12. include performance/hot testing and start-up.
- 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. Notice of Cancellation or Change: All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this

Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.

- C. *Deductibles*: The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. Partial Occupancy or Use by Owner: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. Additional Insurance: If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. Insurance of Other Property: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 Waiver of Rights

- All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, 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 insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the 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 Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, 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 or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
 - 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; and
- 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 occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.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, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, 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 builder's risk insurance and any other property insurance applicable to the Work.

6.07 Receipt and Application of Property Insurance Proceeds

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 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. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 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, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 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, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work 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.
- 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.

7.04 "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 Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
 - If Engineer in its sole discretion determines that 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, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, 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;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) it has a proven record of performance and availability of responsive service; and
 - 4) it is not objectionable to Owner.
- b. Contractor certifies 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.
- B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. Engineer's Evaluation and Determination: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. Effect of Engineer's Determination: Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. Treatment as a Substitution Request: If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 Substitutes

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
 - Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.

- 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
- 3. 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:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.

b. will state:

- 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
- 2) 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
- 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.

c. will identify:

- 1) all variations of the proposed substitute item from that specified, and
- 2) available engineering, sales, maintenance, repair, and replacement services.
- d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. Engineer's Evaluation and Determination: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. Reimbursement of Engineer's Cost: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the

- Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. Effect of Engineer's Determination: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 Concerning Subcontractors, Suppliers, and Others

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.
- Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. 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 the right of Owner to the completion of the Work in accordance with the Contract Documents.

- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. 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.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. 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.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.
- O. Nothing in the Contract Documents:
 - 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
 - shall create any obligation on the part of Owner or Engineer to pay or to see to the
 payment of any money due any such Subcontractor, Supplier, or other individual or
 entity except as may otherwise be required by Laws and Regulations.

7.07 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. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors 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 specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. 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.

7.08 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 the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *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.

7.10 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 or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and 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 such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if

any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 Record Documents

A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.12 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
 - other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, 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 Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- 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 7.12.A.2 or 7.12.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 at its expense (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 protection 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 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
- G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 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.

7.14 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.

7.15 *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.

7.16 Shop Drawings, Samples, and Other Submittals

- A. Shop Drawing and Sample Submittal Requirements:
 - 1. Before submitting a Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated the 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 and equipment 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.
 - 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 of that submittal, and that Contractor approves the 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 set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.
- B. Submittal Procedures for Shop Drawings and Samples: Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. Shop Drawings:

- a. Contractor shall submit the number of copies required in the Specifications.
- 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 7.16.D.

2. Samples:

- a. Contractor shall submit the number of Samples required in the Specifications.
- b. Contractor shall 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 7.16.D.
- 3. 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. Other Submittals: Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.

D. Engineer's Review:

- Engineer will provide timely review of Shop Drawings and Samples in accordance with
 the Schedule of Submittals acceptable to Engineer. 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 or to safety precautions or programs incident thereto.
- 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
- 4. Engineer's review and approval of a Shop Drawing or Sample 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 7.16.A.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 will document any such approved variation from the requirements of the Contract Documents in a Field Order.

- 5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
- 6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
- 7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.
- 8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. Resubmittal Procedures:

- 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.
- 2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
- 3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 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 Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 - 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 that 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;
- 6. the issuance of a notice of acceptability by Engineer;
- 7. any inspection, test, or approval by others; or
- 8. any correction of defective Work by Owner.
- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, 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 the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission 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.
- 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 7.18.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, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 Delegation of Professional Design Services

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 Other Work

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or

- alter others' work with the written consent of Engineer and the others whose work will be affected.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 Coordination

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - an itemization of the specific matters to be covered by such authority and responsibility;
 - 3. the extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 Legal Relationships

- If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner for whom the Owner is responsible causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. 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.
- 3. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual

- rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.
- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) 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 any such claims, and against all 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 damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

- 9.01 *Communications to Contractor*
 - A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.
- 9.02 Replacement of Engineer
 - A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.
- 9.03 Furnish Data
 - A. Owner shall promptly furnish the data required of Owner under the Contract Documents.
- 9.04 Pay When Due
 - A. Owner shall make payments to Contractor when they are due as provided in the Agreement.
- 9.05 Lands and Easements; Reports, Tests, and Drawings
 - A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
 - B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
 - C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 Change Orders

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.
- 9.08 Inspections, Tests, and Approvals
 - A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.
- 9.09 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.
- 9.10 Undisclosed Hazardous Environmental Condition
 - A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.
- 9.11 Evidence of Financial Arrangements
 - A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).
- 9.12 Safety Programs
 - A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
 - B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

- 10.01 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.
- 10.02 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.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. 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.

10.03 Project Representative

A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. 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 Supplementary Conditions.

10.04 Rejecting Defective Work

A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 Shop Drawings, Change Orders and Payments

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. 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, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 Determinations for Unit Price Work

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 Decisions on Requirements of Contract Documents and Acceptability of Work

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 Limitations on Engineer's Authority and Responsibilities

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, 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.
- 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.
- 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 15.06.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 10.08 shall also apply to the Resident Project Representative, if any.

10.09 Compliance with Safety Program

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 Amending and Supplementing Contract Documents

A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

1. Change Orders:

- a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
- b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
- 2. Work Change Directives: A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents

governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. Field Orders: Engineer may authorize minor changes in the Work if the changes 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. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 Owner-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. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 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, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 Change of Contract Price

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 - where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 - 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or

- 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).
- C. *Contractor's Fee*: When applicable, 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 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.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 11.04.C.2.a and 11.04.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. 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 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 Change of Contract Times

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 Change Proposals

A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

- 1. Procedures: Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
- 2. Engineer's Action: Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
- Binding Decision: Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. Resolution of Certain Change Proposals: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 Execution of Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 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;
 - changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 - 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 - 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 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.

ARTICLE 12 – CLAIMS

12.01 *Claims*

- A. *Claims Process*: The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
 - 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 - 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
 - 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. Submittal of Claim: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. Review and Resolution: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.

D. Mediation:

- 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
- If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal

- and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.
- 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. Denial of Claim: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. Final and Binding Results: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

- A. Purposes for Determination of Cost of the Work: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 - 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 - 2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- 3. Costs Included: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work 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 13.01.C, 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, and 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 13.01.
- 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.
- 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 6.05), 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 communication 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 that Contractor is required by the Contract Documents to purchase and maintain.
- C. 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, expediters, 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 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here 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 Paragraph 13.01.B.
- D. Contractor's Fee: When the Work as a whole 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, Change Proposal, Claim, set-off, or other 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 11.04.C.
- E. *Documentation*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, 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.

13.02 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*: Contractor agrees that:
 - 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
 - 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*: 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.

13.03 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. Payments to Contractor for Unit Price Work will be based on actual quantities.
- 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. 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 the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
 - the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - Contractor believes that it is entitled to an increase in Contract Price as a result of having
 incurred additional expense or Owner believes that Owner is entitled to a decrease in
 Contract Price, and the parties are unable to agree as to the amount of any such increase
 or decrease.

ARTICLE 14 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 Access to Work

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction 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.

14.02 Tests, Inspections, and Approvals

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- 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, obtaining, and paying for all inspections and tests required:
 - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 - to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 - 3. by manufacturers of equipment furnished under the Contract Documents;
 - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. 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. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 Defective Work

- A. Contractor's Obligation: It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority*: Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects*: Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. Costs and Damages: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 Acceptance of Defective Work

A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages 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. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.

- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then 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, and provide all necessary labor, material, and equipment.
 - If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages 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 pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. 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, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 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, then 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.

14.07 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, 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, then 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 14.07, 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, 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 incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. 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.

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 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 Progress Payments

A. Basis for Progress Payments: The Schedule of Values established as provided in Article 2 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 during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.

B. Applications for Payments:

- 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. 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 at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
- 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 will be as stipulated in the Agreement.

C. Review of Applications:

- Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, 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 13.03, 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; or
 - b. 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 money 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 15.01.C.2.
- Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. Payment Becomes Due:

 Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. Reductions in Payment by Owner:

- In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. 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;
 - I. there are other items entitling Owner to a set off against the amount recommended.
- 2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, 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, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

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 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 Contractor's Warranty of Title

A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 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 and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of 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 therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

F. 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 punch list.

15.04 Partial Use or Occupancy

- 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:
 - At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be 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 15.03.A through E for that part of the Work.
 - At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work 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 therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 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 6.05 regarding builder's risk or other property insurance.

15.05 Final Inspection

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, 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, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 Final Payment

A. Application for Payment:

 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, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

- 2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
- 3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) 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, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.
- B. Engineer's Review of Application and Acceptance:
 - 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 have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. 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 15.07. 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. Completion of Work: The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.
- D. Payment Becomes Due: Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 Waiver of Claims

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 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 Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such other adjacent areas;
 - 2. correct such defective Work;
 - 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 to 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. 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 repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- 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, 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 are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 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 written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 Owner May Terminate for Cause

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 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);
 - Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
 - declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, 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 complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.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 the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds 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.
- F. 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, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 Owner May Terminate For Convenience

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 Contractor May Stop Work or Terminate

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) 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 or Engineer do 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 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or 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 are not intended to preclude Contractor from submitting a Change Proposal 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 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution*: The following disputed matters are subject to final resolution under the provisions of this Article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
 - 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.
- B. *Final Resolution of Disputes*: For any dispute subject to resolution under this Article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 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, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 Computation of Times

A. When any period of time is referred to in the Contract 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.

18.03 Cumulative Remedies

A. The duties and obligations imposed by these 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. 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.

18.04 Limitation of Damages

A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 No Waiver

A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 Survival of Obligations

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

18.07 *Controlling Law*

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

18.08 Headings

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

SECTION 00 73 00 SUPPLEMENTARY CONDITIONS

PART 1 SUPPLEMENTARY CONDITIONS

1.1 SUPPLEMENTARY CONDITIONS

- A. These Supplementary Conditions amend and supplement Section 00 70 00- Standard General Conditions of the Construction Contract, EJCDC C-700 (2013 Edition). All provisions which are not so amended or supplemented remain in full force and effect.
- B. The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.
- C. The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.
- D. Amendments and Supplements
- E. The following are instructions that amend or supplement specific paragraphs in the General Conditions and other Contract Documents.

1.2 ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

- A. SC-1.01 Defined Terms
 - 1. Add the following new paragraph immediately after paragraph 1.01.A.20:
 - "A. Engineer's Consultant An individual or entity having a contract with Engineer to furnish services as Engineer's independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions.

1.	Engineer's Co	onsultants	are ide	entified	as	follows:
a.	Not Used_					•••

- 2. Delete Paragraph 1.01.A.28 in its entirety and insert the following in its place:
 - "28. Owner--The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed. The Owner for this project is The Nature Conservancy."
- 3. Add the following new paragraph immediately after Paragraph 1.01.A.48:

- "49. Property Owner--The individual or entity upon which the contract work will or may occur as depicted on the Contract Drawings. The Property Owners for this project are as listed below:
- a. The Nature Conservancy.
- b. Ian Collins & Malaika Benjamin"
- 4. Amend Paragraph 1.01.A.32 to read as follows:
 - "32. Resident Project Representative The authorized representative of Engineer or Owner who may be assigned to the Site or any part thereof."

1.3 ARTICLE 2 - PRELIMINARY MATTERS

- A. SC-2.02 Copies of Documents
 - 1. Delete Paragraph 2.02.A in its entirety and insert the following in its place:
 - "A. Owner shall furnish to Contractor one copy of the Contract Documents in portable document format (PDF) and one hard copy of the Contract Drawings."

1.4 ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

- A. SC-3.03 Reporting and Resolving Discrepancies
 - 1. Add the following new paragraph immediately after Paragraph 3.03B.1.b.
 - "2. In case of conflict between dimensions shown on the Drawings and those in the Specifications, the dimensions on the Drawings shall govern. If the conflict is other than dimensions, the documents shall be given precedence in the following order: Agreement, Specifications, and Drawings."

1.5 ARTICLE 4 – COMMENCEMENT AND PROGESS OF THE WORK

- A. SC-4.05 Delays in Contractor's Progress
 - 1. Add the following new text to Paragraph 4.05.C.2:
 - "Abnormal weather conditions shall be defined as precipitation in excess of 2-inch depth over a 24-hour period. Contractor shall provide costs that anticipate five days of abnormal weather conditions throughout the duration of this contract."

1.6 ARTICLE 5 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

- A. SC-5.03 Subsurface and Physical Conditions
 - 1. Add the following new paragraph(s) immediately after paragraph 5.03.B.3:

"C. In the preparation of Drawings and Specifications, Engineer or Engineer's Consultants relied upon the following drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Facilities) which are at or contiguous to the Site:

Base mapping that is incorporated as part of the Drawings.

D. Copies of reports and drawings itemized in SC-5.03.C that are not included with Bidding Documents may be examined at the offices of Inter-Fluve, located at 220 Concord Ave, Second Floor, Cambridge, MA 02138 during regular business hours. These reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Contractor may rely as identified and established above are incorporated therein by reference. Contractor is not entitled to rely upon other information and data utilized by Engineer and Engineer's Consultants in the preparation of Drawings and Specifications."

1.7 ARTICLE 6 - BONDS AND INSURANCE

- A. SC-6.03 Contractor's Insurance
 - 1. Add the following new Paragraphs immediately after Paragraph 6.03.J:
 - "K. The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:
 - 1. Worker's Compensation, and related coverages under Paragraph 6.03.A of the General Conditions:

a. State: Statutory

b. Applicable Federal (e.g., Longshoreman's): Statutory

c. Employer's Liability: \$100,000 Each Accident

\$500,000 Disease-Policy Limit

\$100,000 Disease-Each Employee

2. Contractor's General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions which shall include Contractors Protective, Products, and Completed Operations and Contractual Liability (c.u., collapse and underground coverage to be included. Blasting and explosion coverage required if there will be blasting under the contract):

a. General Aggregate:	\$5,000,000
b. Products and Completed Operations Aggregate	\$2,000,000
c. Personal and Advertising Injury	\$1,000,000
d. Each Occurrence Limit:	\$2,000,000
e. Fire Damage Limit:	\$50,000
f. Medical Payments:	\$5,000

Contractor's General Liability Insurance must not contain any exclusion, limitation, definition, or other provision that has the effect of excluding or barring coverage for (a) bodily injury or property damage caused by or arising out of flooding, storm surge, water invasion or intrusion, surface water, backed-up water, waves, weather conditions, moisture, mold, mildew, bacteria, or water-caused deterioration, and (b) bodily injury claims pursued by persons who work or perform services on, or are otherwise located at, the Project site.

- 3. Automobile Liability under Paragraph 6.03.D of the General Conditions:
- a. Combined Single Limit for Bodily Injury and Property Damage: \$1,000,000
- 4. Builder's Risk and Installation Floater Coverage: Limit equal to the total insurable value of all materials and equipment to be built and/or installed.
- 5. Contractor's Pollution Liability under Paragraph 6.03.F of the General Conditions:
- a. Contractor shall at its own expense procure Contractors Pollution Liability/ Environmental Liability Insurance with Project-dedicated limits of Five Million Dollars (\$5,000,000) per claim or occurrence and Ten Million Dollars (\$10,000,000) in the aggregate, providing defense and indemnity coverage for all pollution events (including sudden and gradual) causing bodily injury, property damage (including loss of use), environmental/natural resource damage, remediation costs (including on-site and off-site), restoration costs, emergency response costs, product liability, non-owned disposal sites, fines, and penalties, due to or arising out of a pollution event or pollution condition caused by or arising from Contractor's actions, errors, or omissions in connection with the Project, with no exclusions for asbestos,

silica, lead, fungus, mold, naturally occurring hazardous substances, water intrusion, construction defects, or contractual liability, with coverage commencing no later than the commencement of Contractor's Work and continuing through a claim reporting period extending for ten (10) years following Final Completion of the Work, with deductibles or self-insured retentions acceptable to the Owner and to be satisfied by Contractor at its sole expense except where liability arises out of the sole negligence of the Owner.

- 6. Subcontractors' Insurance Requirements: Contractor shall ensure that each of its subcontractors shall, prior to commencement of any work on the Project, procure and thereafter maintain at all times during their performance of any such work, insurance equivalent to the amounts set forth in Paragraphs 1, 2, and 3 above. In addition, Contractor shall ensure that each subcontractor complies with the following provisions and requirements:
- a. Each subcontractor's insurance policies required herein shall expressly provide, by endorsement or otherwise, that such insurance is primary to and shall not require or permit contribution from any insurance procured by the Owner;
- b. Each subcontractor's insurance policies required herein shall expressly provide, by endorsement or otherwise, that each of such subcontractor's insurers waive any and all subrogation rights that such insurers may have against the Owner:
- c. Each subcontractor shall agree in writing that any deductibles, retentions, co-pays, or other charges applicable to the insurance policies required herein shall be paid for, satisfied by, and at the sole cost of each such subcontractor, and that the Owner shall not be obligated to pay any such deductibles, retentions, co-pays, or other charges;
- d. To the extent that any subcontractor does not comply with the requirements set forth herein, Contractor shall defend, indemnify, and hold harmless the Owner against all claims, suits, losses, liabilities, and damages resulting therefrom; and
- e. Each subcontractor shall comply with the requirements of Section 7 below to the same extent as Contractor.
- 7. Other Insurance Requirements:
- a. In the event Contractor fails to procure or maintain any required insurance or fails to satisfy a deductible for any of the insurance policies specified above or in the General Conditions and/or Supplemental Conditions, the Owner may, at its election, without waiving any other rights the Owner has under this Agreement or under applicable law, secure and maintain such insurance or satisfy any

unsatisfied portion of the deductible at Contractor's sole cost, which cost the Owner may elect to offset against any monies owed Contractor.

- b. Coverage under each of the insurance policies specified above shall be primary to, and not contributory with, any insurance procured or carried by the Owner.
- c. Each of the insurance policies specified above shall be issued by insurance companies authorized to do business in each state in which the Project is located (in whole or in party) or in which any work or services on the Project is performed.
- d. Contractor's compliance with the foregoing insurance requirements shall be evidenced by both (i) Certificates of Insurance and (ii) related policy endorsements signed by an authorized representative of the insurance company, delivered to the Owner prior to commencement of any work or services by Contractor. Contractor shall not be entitled to any payment until the Owner receives all such documentation.
- e. All insurance Contractor is required to provide under this Agreement shall provide for an unqualified period of notice to the Owner of not less than thirty (30) days in the event of cancellation, non-renewal or material reduction in coverage, and of not less than ten (10) days in the event of cancellation for non-payment of premiums.
- f. Upon the Owner's request, Contractor shall promptly provide the Owner with complete copies of any and all insurance policies, certificates, endorsements, and other insurance information relating to the insurance required above.
- g. In the event Contractor fails to procure or maintain any of the required insurance above, the Owner may, without waiving any other rights the Owner has under this Agreement or under applicable law, secure and maintain such insurance at Contractor's sole cost, which cost the Owner may elect to offset against any monies owned Contractor.
- 8. Additional Insureds:
- a. The Nature Conservancy
- b. Inter-Fluve, Inc."

- B. SC-6.04 Owner's Liability Insurance
 - 1. Add the following new Paragraphs immediately after Paragraph 6.04.B:

"C. Owner's Protective Liability coverage required by Paragraph 6.04.A of the General Conditions shall provide coverage for not less than the following amounts:

a. Each occurrence: \$1,000,000

b. Aggregate: \$2,000,000"

- C. SC-6.05 Property Insurance
 - 1. A. Delete Paragraphs 6.05.A F in its entirety

1.8 ARTICLE 7 - CONTRACTOR'S RESPONSIBILITIES

- A. SC-7.04 "Or-Equals"
 - 1. Delete last sentence of Paragraph 7.04.A and insert the following in its place:
 - "Unless the Specification or description contains or is followed by words reading "like", "equivalent", or "or equal" are allowed, Contractor shall provide the proprietary item or the item from the list of the named supplier(s). Where the Specification or description contains or is followed by words reading "like", "equivalent" or "or-equal" items are permitted, other items of material or equipment or material or equipment of other suppliers may be submitted to Engineer for review and acceptance under the circumstances described below."
 - 2. Add the following new paragraph(s) after 7.04.E:
 - "F. "Or-Equal" Evaluation. Engineer will record time required by Engineer in evaluating "or-equal" proposed or submitted by Contractor pursuant to paragraph 7.04.A.1. Whether or not Engineer approves an "or-equal" item so proposed or submitted by Contractor, Contractor shall reimburse Owner for charges of Engineer and Engineer's Consultants for evaluating each such proposed "or-equal." Submittal of "or-equal" request shall be construed as evidence of Contractor's agreement to pay such charges, with no added cost to Owner.
 - G. Charges shall be \$150.00 for each staff-hour spent by Engineer and Engineer's Consultants for evaluating each "or-equal"."
- B. SC-7.05 Substitutes
 - 1. Add the following new paragraph after 7.05.F:

"G. Substitution Evaluation. Engineer will record time required by Engineer and Engineer's Consultants in evaluating substitute proposed or submitted by Contractor pursuant to Paragraphs 7.05.A.2 and 7.05.B and in making changes in the Contract Documents (or in the provisions of any other direct contact with Owner for work on the Project) occasioned thereby. Whether or not Engineer approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for charges of Engineer and Engineer's Consultants for evaluating each such proposed substitute.

H. Charges shall be \$150.00 for each staff-hour spent by Engineer and Engineer's Consultants for evaluating each substitute."

C. SC-7.11 Record Documents

1. Add the following new paragraph immediately after Paragraph 7.11.A:

"B. Final payment will not be made to Contractor unless Record Document requirements are met."

D. SC-7.18 Indemnification

1. Replace Paragraph 7.18.A with the following:

"The work to be performed under this Contract shall be performed entirely at the Contractor's risk. To the maximum extent permitted by law, the Contractor shall defend, indemnify, and hold harmless the Owner, its affiliates and successors. and their respective officers, directors, employees, and agents, from and against any and all Liabilities arising out of death, personal injury, property damage, trespass, nuisance, environmental or natural resource injury or contamination, and any other liability, damage, or loss, arising out of or by reason of any act, error, omission, breach of this Agreement, violations of any easement or other agreement or authorization granting access, violations of any law, regulation, permit, or authorization, statutory liability, strict liability, or willful misconduct of the Contractor, its contractors, subcontractors, and consultants of any tier, and its or their employees, representatives, and agents, except to the extent such Liabilities are the result of the willful misconduct or gross negligence of the Owner, its affiliates and successors, or their respective officers, directors, and employees. Each of the foregoing indemnitees shall have the right to control its own defense of any of the foregoing matters through legal counsel of its own choosing, the expense of which shall be borne by the Contractor. As used in this paragraph, the term "Liabilities" means any and all actions, lawsuits, claims, liabilities, losses, demands, damages, penalties, and expenses (including without limitation reasonable attorneys' fees, consultants' and experts' fees, and court costs), of any kind or nature, including without limitation indirect, incidental, and, losses, damages, penalties and expenses."

1.9 ARTICLE 8 – OTHER WORK AT THE SITE

- A. SC-8.03 Legal Relationships
 - 1. Add the following new paragraph immediately after Paragraph 8.03 and renumber following paragraphs:
 - "A. Claims Between Contractors: Should Contractor cause damage to the Work or property of any separate contractor at the Site, or should any claim arising out of the Contractor's performance of the Work at the Site be made by any separate contractor against Contractor, Owner, Engineer, Engineer's Consultants, or the construction coordinator, Contractor shall promptly attempt to settle with such separate contractor by agreement, or to otherwise resolve the dispute by arbitration or at law.
 - B. Contractor shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner, Engineer, Engineer's Consultants, the construction coordinator and the officers, directors, partners, employees, agents and other consultants and subcontractors of each and any of them from and against all claims, costs, losses and damages (including, but not limited to, fees and charges of engineers, architects, attorneys, and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any separate contractor against Owner, Contractor, Engineer, Engineer's Consultants, or the construction coordinator to the extent said claim is based on or arises out of the Contractor's performance of the Work. Should a separate contractor cause damage to the Work or property of Contractor or should the performance of work by any separate contractor at the Site give rise to any other Claim, Contractor shall not institute any action, legal or equitable, against Owner, Engineer, Engineer's Consultants, or the construction coordinator or permit any action against any of them to be maintained or continued in its name or for its benefit in any court or before any arbiter which seeks to impose liability on or to recover damages from Owner, Engineer, Engineer's Consultants or the construction coordinator on account of any such damage or Claim.
 - C. If Contractor is delayed at any time in performing or furnishing Work by any act or neglect of a separate contractor, and Owner and Contractor are unable to agree as to the extent of any adjustment in Contract Times attributable thereto, Contractor may make a Claim for an extension of times in accordance with Article 12. An extension of the Contract Time shall be Contractor's exclusive remedy with respect to Owner, Engineer, Engineer's Consultants, and construction coordinator for any delay, disruption, interference, or hindrance caused by any separate contractor. This paragraph does not prevent recovery from Owner, Engineer, Engineer's Consultant, or construction coordinator for activities that are their respective responsibilities."

1.10 ARTICLE 10 - ENGINEER'S STATUS DURING CONSTRUCTION

A. SC-10.01 Project Representative

Add the following new paragraphs immediately after Paragraph 10.01.A:

- 1. "The Resident Project Representative (RPR) will be Engineer's employee or agent at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions. RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall be through or with the full knowledge and approval of Contractor. The RPR shall:
 - a) Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals, and schedule of values prepared by Contractor and consult with Engineer concerning acceptability.
 - b) Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.
 - c) Liaison:
 - 1) Serve as Engineer's liaison with Contractor, working principally through Contractor's authorized representative, assist in providing information regarding the intent of the Contract Documents.
 - 2) Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-site operations.
 - 3) Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
 - d) Interpretation of Contract Documents: Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
 - e) Shop Drawings and Samples:
 - 1) Record date of receipt of Samples and approved Shop Drawings.
 - 2) Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
 - f) Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.

100% Design Specifications Revised: 8/12/24

- g) Review of Work and Rejection of Defective Work:
 - 1) Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
 - 2) Report to Engineer whenever RPR believes that any part of Contractor's work in progress will not produce a completed Project that conforms generally to the Contract Documents or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
- h) Inspections, Tests, and System Startups:
 - 1) Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.
 - 2) Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.
- i) Records:
 - 1) Record names, addresses, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
 - 2) Maintain records for use in preparing Project documentation.
- j) Reports:
 - 1) Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.
 - 2) Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.

- 3) Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, damage to property by fire or other causes, or the discovery of any Hazardous Environmental Condition.
- 4) Contractor will be required to submit weekly payroll records to Owner for hourly, as well as salaried staff.
- k) Payment Requests: Review Applications for Payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.
- l) Certificates, Operation and Maintenance Manuals: During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Specifications to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

m) Completion:

- 1) Participate in a Substantial Completion inspection, assist in the determination of Substantial Completion and the preparation of lists of items to be completed or corrected.
- 2) Participate in a final inspection in the company of Engineer, Owner, and Contractor and prepare a final list of items to be completed and deficiencies to be remedied.
- 3) Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the Notice of Acceptability of the Work.

2. The RPR shall not:

- a) Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
- b) Exceed limitations of Engineer's authority as set forth in the Contract Documents.
- c) Undertake any of the responsibilities of Contractor, Subcontractors, Suppliers, or Contractor's superintendent.

- d) Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work unless such advice or directions are specifically required by the Contract Documents.
- e) Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
- f) Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
- g) Accept Shop Drawing or Sample submittals from anyone other than Contractor.
- h) Authorize Owner to occupy the Project in whole or in part."
- B. SC-10.08 Limitations on Engineer's Authority and Responsibilities
 - 1. Add the following new paragraph immediately after Paragraph 10.08.E:

"F. Resident Project Representative shall be authorized to observe all or any part of the Work, and to observe the preparation or manufacture of materials to be used. In case of any dispute arising between Contractor and Resident Project Representative as to materials furnished or the acceptability of the Work, the Resident Project Representative shall have the authority to reject Work which Resident Project Representative believes to be defective, or that Resident Project Representative believes will not produce a completed Project that conforms to the Contract Documents. Resident Project Representative shall not be authorized to stop or suspend Work on the Project. Resident Project Representative shall not be authorized to revoke, alter, enlarge, relax or release any requirements of these Specifications, nor to approve or to accept any portion of the Work, nor issue instructions contrary to the Drawings and Specifications. Resident Project Representative shall in no case act as foreman or perform other duties for Contractor, or interfere with the management of the Work by Contractor. Any advice given by Resident Project Representative given to Contractor shall in no circumstances be construed as binding Owner, Engineer, or Engineer's Consultants in any way or releasing Contractor from fulfillment of the terms of the Agreement."

1.11 ARTICLE 13 - COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

A. SC-13.01 Cost of the Work

Add the words "project managers" after the words "general managers," in Paragraph 13.01.C.1.

B. SC-13.02 Allowances

Amend Paragraph 13.02.A as follows: replace the word "sums" with "unit price(s)".

C. SC-13.04 Rental Rates

Add the following new paragraphs immediately after Paragraph 13.03.E.3:

"13.04 Equipment Rental Rates for Extra and Cost-Plus Work

- 1. For any Contractor-owned machinery, trucks or equipment, or equipment authorized by the Engineer the Contractor will be allowed a rate that does not exceed the rental rate set forth in the current edition of the "Rental Rate Blue Book", as published by K III Directory Corporation of San Jose, California (referred to herein as the rental Rate Blue Book). All Rate Adjustment Tables and amendments will be applied. If the Contractor submits a lower rate, it will be accepted by the Engineer.
 - 1. Should the proper completion of the Work require equipment of a type not covered by the above-mentioned schedule, the Engineer will allow the Contractor a reasonable rental rate based on that prevailing in the area of the Work and shall be incorporated in the Contract before the Work is begun. However, the Contractor must disclose to the Engineer the specific sources of any rates it proposes in this connection.
 - 2. For machinery, trucks or equipment, which the Contractor must obtain by rental, the Contractor shall inform the Engineer of its need to rent the equipment and of the rental rate for that equipment prior to using it on the Work. If that use and rate are acceptable to the Engineer, the Contractor shall be paid the actual rental for the equipment, provided that rate does not exceed the rental rate set forth in the Rental Rate Blue Book, including all Rate Adjustment Tables and amendments. The Contractor shall provide the Engineer with a copy of the paid receipt for the rental expense incurred.
 - 3. The estimated operating cost per hour will apply only to the actual time the equipment is operating. Operators will be paid as stated hereinbefore for labor except for certain trucks listed in the Rental Rate Blue Book as to which trucks said Rental Rate Blue Book indicates that the cost of the operators is included in the pertinent rates.
 - 4. For equipment which is already on the Project, OWNER will pay the applicable hourly, weekly or monthly rates, as applicable, for the actual time the equipment is assigned to the Cost-Plus Work. The period of assignment for each piece of equipment shall start when the equipment commences to be used for the Work ordered by the Engineer, and shall continue until the time which the Engineer designates for termination of that work.

- 5. For equipment which has to be brought to the Project exclusively for use on Cost-Plus Work, Owner will pay all loading and unloading costs and all transportation costs to and from the Project Site; provided, however, the cost of return transportation from the Project Site shall not exceed that of moving the equipment to that Site. If such a piece of equipment is self-propelled, and is driven to the Project Site under its own power, then the Owner will pay only operating costs and labor costs for the transportation to and from the Project Site. The Owner will not pay for loading, unloading, and transportation costs, however, if the equipment is used for other than cost-plus work while on the Project Site, with the exceptions stated herein.
- 6. The Owner will pay the applicable rental rate for a minimum of 8 hours in each 24-hour day, excluding Saturdays, Sundays, and legal holidays during which the Contractor does no work. The daily usage period shall start at the time the Contractor begins to use the equipment for cost-plus work and when the equipment is released by the Engineer from use for such work. The Owner will make payment to the Contractor at the applicable hourly rate for the actual time the equipment is being used for cost-plus work in excess of the minimum 8 hours per day. If, however, certain pieces of equipment remain idle during any day or portion of a day within such a rental period, the Owner will pay for those periods at 50 percent of the applicable rate (exclusive of operating costs) set forth in the Rental Rate Blue Book.
- 7. For rented equipment not owned by the Contractor or a subsidiary, affiliate or parent company (no matter how far up the chain of ownership) of the Contractor, the following maximum rates shall apply:
- a. The daily rate per hour shall apply when the equipment is specifically assigned to the Work by the Engineer for a period of 7 consecutive calendar days or less.
- b. The weekly rate per hour shall apply when the assigned time exceeds 7 consecutive calendar days but does not exceed 21 consecutive calendar days.
- c. The monthly rate per hour shall apply when the assigned time exceeds 21 consecutive calendar days.
- 8. The applicable daily, weekly, or monthly rate will be determined at the expiration of 21 calendar days or upon release of the equipment, whichever occurs first. Interruptions of the rental period, when equipment is used on other than assigned cost-plus work, will not constitute a warrant for a rental rate applicable to shorter periods occasioned by such interruptions.
- 9. For equipment owned by the Contractor or a subsidiary, affiliate, or parent company (no matter how far up the chain of ownership) of the Contractor, the maximum hourly rate to be used shall be the monthly rate as set forth in the current edition of the Rental Rate Blue Book, including all Rate Adjustment Tables and amendments divided by 176 (176 working hours per month).

- 10. All equipment used must, in the judgment of the Engineer, be in good working condition and suitable for the purpose intended; and the Engineer reserves the right to determine the size and number of units of equipment to be used. The manufacturer's ratings shall be the basis for all classifications. Trucks will be classified by cubic yard capacity to be determined by water level volume of the body as measured from the length, width, and height, without sideboards.
- 11. No percentage will be added to the amounts charged for equipment rental, whether based on the Rental Rate Blue Book, including all Rate Adjustment Tables and amendments, or on the agreed-upon rental rates for equipment not covered in the aforesaid schedule."

1.12 ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

- A. SC-14.02 Tests, Inspections, and Approvals
 - 1. Delete Paragraph 14.02.B and subparagraphs in their entirety and insert the following in its place:
 - "B. Contractor 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 as otherwise provided in the Contract Documents."

1.13 ARTICLE 15 - PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

- A. SC-15.01 Progress Payments
 - 1. Add the following language to the end of Paragraph 15.01.B.1:
 - 2. "a. Contractor shall include with Application for Payment proof that all employee, subcontractor, and vendor obligations have been met from the previous Progress Payment. Contractor shall submit subcontractor and vendor release forms; and certified payroll reports which include labor classifications, pay rates, and fringe benefit rates for employees."

B. SC-15.06 Final Payment

1. A. Add the following new sentence at the beginning of Paragraph 15.06.A.2:

"All applications for payment, consent of surety and release of liens shall be on the following forms:

AIA Form G702 Application and Certificate for Payment

AIA Form G706A Contractor's Affidavit of Release of Liens

AIA Form G707 Consent of Surety to Final Payment"

END OF SECTION

SECTION 01 10 00 SUMMARY OF WORK

PART 1 GENERAL

A. SUMMARY

- 1. General work included in this section:
 - a) Furnish all labor, materials, and equipment required in accordance with provisions of the Contract Documents.
 - b) Coordinate work with all other trades.
 - c) Although such work may not be specifically indicated, furnish and install all miscellaneous items incidental to or necessary to complete the work.

B. WORK COVERED BY CONTRACT

- 1. The Work includes, but is not limited to the furnishing of the labor, materials, and equipment and the Construction of the following:
 - a) Preparing access, clearing and grubbing, and installing erosion control;
 - b) Water control;
 - c) Demolition, and proper disposal of, dam infrastructure;
 - d) Removal, and proper disposal, of impounded sediment;
 - e) Earthwork, including excavation and fill;
 - f) Installation of large wood structures;
 - g) Installation of biodegradable fabric for bank and slope stabilization;
 - h) Seeding and planting; and
 - i) Application of mulch.

C. CONTRACTOR'S USE OF PREMISES

- 1. Contractor shall limit use of the area within the Limits of Disturbance for Work and storage and allow for:
 - a) Work by other contractors/subcontractors
- 2. Contractor shall coordinate use of premises under direction of Owner and Engineer.
- 3. Contractor assumes full responsibility for the protection and safekeeping of products and materials Contractor has stored on site.
- 4. Contractor shall move any stored products or materials, under Contractor's responsibility, that interfere with operations of the Owner or other contractors/subcontractors.
- 5. Contractor shall obtain and pay for the use of any additional storage or work areas if needed for Contractor operations.
- 6. Contractor shall confine all materials storage, equipment storage, and employee and subcontractor parking to areas within the limit of work.
- 7. The use, parking, and storage of motorized vehicles and machinery must be conducted in conformance with project permit requirements. Refueling operations must be conducted in conformance with project permit requirements.
- 8. Contractor shall restore any areas used for materials storage, equipment storage, and employee and subcontractor parking to their original condition or better following the completion of Project Work, unless specified otherwise.
- 9. Contractor shall provide sanitary facilities within the designated staging
- 10. No parking shall be allowed on East Street.

D. WORK SEQUENCE

- 1. Contractor shall sequence operations to allow for efficient progress of Work.
- 2. Work as described in the Drawings must be fully complete as indicated in the Agreement $-00\,52\,00$. Plantings and planting warranties may extend beyond this date.

- 3. Contractor is responsible for sequencing operations to perform all Work shown on the Drawings. Sequences other than those specified will be considered by Engineer, provided they will result in completion of the work as shown on the Drawings.
- 4. Contractor shall conduct all on site work during regular working hours which are defined as weekdays, 7:00 a.m. to 7:00 p.m., holidays excluded. Contractor may apply to work outside of regular working hours and may do so upon written approval from the Engineer and Owner.

E. LINES AND GRADES

- 1. Provide all survey, layout, and measurement work required.
 - a) Locate and protect control points prior to starting site work, and preserve all permanent reference points during construction.
 - 1) Make no changes or relocations without prior written notice and approval by the Engineer.
 - 2) Report to Engineer when any reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
 - 3) Require surveyor to replace Project control points and all Federal, State, City, County and private land monuments that may be lost or destroyed.
 - i. Establish replacements based on original survey control.
 - ii. Comply with local and State requirements for monument replacement and restoration.
 - b) Establish lines and levels, locate and lay out by instrumentation and similar appropriate means.
 - c) From time to time, verify layouts by the same methods.
 - d) Maintain a complete, accurate log of all control and survey work as it progresses.
 - e) On request of the Engineer, submit documentation to verify accuracy of survey work.

F. REGULATORY REQUIREMENTS

1. Comply with all Federal, State, and local laws, regulations, codes, permits, and ordinances applicable to the Work.

- 2. References in the Contract Documents to local codes shall mean Town of Mount Washington and Berkshire County, Massachusetts.
- 3. Other standards and codes that apply to the Work are designated in the Specifications.

G. ACCESS BY GOVERNMENT OFFICIALS

1. Authorized representatives of government agencies shall at all times have access to the Work where it is in preparation or progress. Contractor shall provide proper facilities for access and inspection.

H. EASEMENTS AND RIGHTS-OF-WAY

- 1. Confine construction operations to the immediate vicinity of the location indicated on Drawings and use due care in placing construction tools, equipment, excavated materials, materials, and supplies, so as to cause the least possible damage to property and interference with traffic.
- 2. Any work proposed outside the limits of active construction shown on the Drawings shall be reviewed in advance by the Owner, Property Owner, and Engineer and agreed to in writing prior to commencement. Changes to the limit of work may require regulatory agency review.

I. FENCES

- 1. Maintain all fences affected by the Work until the Work is complete. Erect temporary fencing per OSHA requirements.
- 2. Keep gates closed and locked when not in use.

J. PROTECTION OF PUBLIC AND PRIVATE PROPERTY

- 1. Protect, shore, brace, support, and maintain sheetpile, formwork, pipes, drains, and other materials that are part of or otherwise affected by construction operations.
- 2. Restore to their original condition, pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences, manholes and manhole rims and covers, drainage relief pipes, and other surface structures affected by construction operations, together with sod and shrubs, in yards and parking areas, whether within or outside the work area or easement. Remove all gravel from staging areas.
- 3. Use new materials for replacements of all items.
- 4. Contractor shall be responsible for all damage to streets, roads, highways, shoulders, ditches, embankments, culverts, bridges, and other public or

- private property, regardless of location or character, that may be caused by transporting equipment, materials, or workers to or from the Work or any part or site thereof, whether by Contractor or Contractor's subcontractors or suppliers.
- 5. Make satisfactory and acceptable arrangements with Owner of, or the agency or authority having jurisdiction over, any damaged property concerning its repair, replacement, or payment of costs incurred in connection with the damage.
- 6. In areas where the Contractor's operations are adjacent to or near a utility and such operations may cause damage which might result in considerable expense, loss, and inconvenience, the operation shall be suspended until all arrangements necessary for the protection thereof have been made by the Contractor.
- 7. Notify all utility offices that may be affected by the construction at least 48 hours in advance. Before activities that may expose utilities, any utility having jurisdiction shall grant permission and may oversee the operation. Should service of any utility be interrupted due to the Contractor's operation, the proper authority shall be notified immediately. Contractor shall cooperate with the said authority in restoring the service as promptly as possible and shall bear any costs incurred.

K. MAINTENANCE AND TRAFFIC

- 1. Maintain entry and access roads. Roads and paved areas used by the Contractor shall be restored to pre-project or better condition prior to project completion.
- 2. Conduct Work to interfere as little as possible with public travel, whether vehicular or pedestrian.
 - a) Whenever it is necessary to cross, close, or obstruct roads, driveways, and walks, whether public or private, provide and maintain suitable and safe bridges, detours, or other temporary measures for accommodation of public and private travel.
 - b) Do not block access to any residence or business.
 - c) Comply with all rules and regulations of the Town, County, or State authorities regarding the closures of public streets or highways to use of public traffic. No public road shall be closed to the public except by express permission of the public agency responsible for the road.
 - d) Do not close any street or portion thereof without first notifying and receiving approval from the Fire Department and Police Department.

Conduct operations to minimize interference with emergency vehicle access.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 01 22 00 MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 SUMMARY

A. This Section describes the basis of measurement and payment for the contract items.

1.2 GENERAL

- A. All bid items shall include all preparatory work, personnel, labor, materials, tools, equipment, supplies, transportation, services, cleanup, incidentals, and other work necessary to complete (furnish and install) the work associated with that bid item. All bid items are to be furnished and installed by Contractor, unless otherwise noted.
- B. All bid items listed and described below include, but are not limited to the work described under each section. All bid items are subject to the requirements listed in the Contract Drawings.

1.3 UNIT PRICE

- A. Each unit price stated on the Bid Proposal Form shall constitute full compensation as herein specified for each item of work completed in accordance with the requirements of the Contract Documents including Drawings and Specifications, including all clean up and restoration.
- B. All costs in connection with the Work, including furnishing all materials, machinery, supplies, and appurtenances; providing all construction equipment and tools; and performing all necessary labor, coordination, supervision, and management to fully complete the Work shall be included in the unit prices stated on the Bid Proposal Form. All Work not specifically set forth as a separate bid item herein shall be considered an incidental cost or a subsidiary obligation of the Contractor and all costs in connection therewith shall be included in the amounts and prices submitted on the Bid Proposal Form. The price on the Bid Proposal Form shall include all tasks and operations necessary to complete the Work.

1.4 ESTIMATED QUANTITIES

A. All estimated quantities provided in the Construction Contract are approximate and are to be used only as a basis for determining the initial Contract Price. Owner does not represent that the listed description of lump sum pay items is either comprehensive or unique. The Contractor shall be responsible to make independent quantity estimates in order to determine the actual quantities necessary to construct the project as shown in the Drawings and described in the

Specifications. The Contractor agrees to make no claim for damages, anticipated profits, or otherwise due to any difference between the quantities of Work actually performed or materials furnished and placed and the estimated quantities included in the Bid Proposal Form.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 MEASUREMENT AND PAYMENT ITEMS

A. Contractor shall provide a billboard for displaying the project permits and other necessary information in accordance with the project permits.

B. Mobilization & Demobilization

- 1. Work includes, but is not limited to, work necessary for movement to and from the project site, including traffic control, per the Contract Documents. Also includes all the insurance, administrative time, temporary facilities, field engineering, and bonds necessary to complete the work.
- 2. Work includes installation of a stabilized construction entrance.
- 3. Work for this item shall include, but is not limited to, activities to prepare project access and staging from a point at the intersection of the two Alternative Access roads to the Becker Pond Dam Site along the access route and in the staging area as shown on the Drawings. Refer also to Add/Alts 1 and 2.
- 4. Following project completion, work for this item includes activities required to restore the area within the Limit of Work associated with the project access and staging from a point at the intersection of the two Alternative Access roads to the Becker Pond Dam Site along the access route and in the staging area. Work shall include all activities to restore the access route and staging area to the pre-project condition including seeding and mulching.
- 5. Work for this item includes installation of Erosion & Sediment Controls, preparation of the staging areas, installation of all high-visibility fencing, all protections for private property, and preparation of the ground surface to protect it from the impacts of heavy equipment exclusive of the areas within the definition of Add/Alts1 and 2. Refer also to Add/Alts1 and 2.
- 6. Measurement. No measurement for this pay item will be made.

7. Payment. According to the lump sum price as stated on the Bid Proposal Form.

C. Flow Management, Erosion and Pollution Control

- 1. Work includes, but is not limited to, administrative time, the installation, maintenance, and removal of erosion and sediment control devices, pollution control devices, and water control measures per the Contract Documents. These control devices and measures may include, but are not limited to: dewatering, stream diversion, silt fence, erosion control blanket, temporary seeding, turbidity curtains, oil absorbing booms, and bulk bags per the Contract Documents. Work also includes removal of trapped sediment associated with sediment control devices.
- 2. Measurement. No measurement for this pay item will be made.
- 3. Payment. According to the lump sum price as stated on the Bid Proposal Form.

D. <u>Clearing and Grubbing</u>

- 1. Work includes, but is not limited to, administrative time, vegetative clearing required to complete the work, including removing and stockpiling trees and shrubs from the work area to furnish wood for Large Wood and slash installation. Stockpiling of wood and slash is incidental.
- 2. Work for this item does not include clearing and grubbing within the footprint of the Limit of Work associated with Access Alternative 2. Refer to Add/Alt -2.
- 3. Measurement. No measurement for this pay item will be made.
- 4. Payment. According to the lump sum price as stated on the Bid Proposal Form.

E. Dam Demolition and Disposal

- 1. Work includes, but is not limited to, administrative time and work necessary to remove the full vertical and horizontal extents of the dam and related appurtenances, including excavation and fill below proposed grades, removal and breaking up of concrete, and offsite disposal of concrete, the footbridge, signs, fencing, and associated items.
- 2. Measurement. No measurement for this pay item will be made.
- 3. Payment. According to the lump sum price as stated on the Bid Proposal Form.

F. <u>Earthwork – On-Site Reuse</u>

- 1. Work includes, but is not limited to, administrative time, all earthwork including excavation; subgrade excavation; subgrade preparation; sorting, testing, and stockpiling; fill; compaction; and fine grading of earthen material per the Contract Documents.
- 2. Measurement. The estimated quantity for this item of work shall be the final pay quantity, unless the dimensions of any portion of the item are revised by the Engineer, or the item or any portion of the item is eliminated. If the dimensions of any portion of the item are revised, and the revisions result in the increase or decrease in the estimated quantity of work, the final pay quantity for the item will be revised in the amount represented by the changes in the dimensions, and the compensation for the item will be based on the revised quantity multiplied by the bid unit price for the item. The estimated quantity is based on comparison of existing and design terrain surfaces, and reflects in-place volumes.
- 3. Payment. Payment for Earthwork On-Site Reuse will be made at the Contract price per cubic yard, which shall be compensation in full for all labor, materials, equipment and other expenses necessary to complete the work as specified for this item.

G. Earthwork – Off-Site Disposal

- 1. Work includes, but is not limited to, administrative time, all earthwork, including excavation, subgrade excavation, subgrade preparation, fine grading, transportation, testing, and legal off-site disposal of excavated impounded sediment per the Contract Documents.
- 2. Measurement. The estimated quantity for this item of work shall be the final pay quantity, unless the dimensions of any portion of the item are revised by the Engineer, or the item or any portion of the item is eliminated. If the dimensions of any portion of the item are revised, and the revisions result in the increase or decrease in the estimated quantity of work, the final pay quantity for the item will be revised in the amount represented by the changes in the dimensions, and the compensation for the item will be based on the revised quantity multiplied by the bid unit price for the item. The estimated quantity is based on comparison of existing and design terrain surfaces, and reflects in-place volumes.
- 3. Payment. Payment for Earthwork Off-Site Disposal will be made at the Contract unit price per cubic yard as stated on the Bid Proposal Form, which shall be compensation in full for all labor, materials, equipment and other expenses necessary to complete the work as specified for this item.

H. <u>Large Wood - Logs (Salvaged)</u>

- 1. Work includes, but is not limited to, administrative time, excavation, subgrade preparation, installation of Large Wood, and furnishing and installing anchoring connections and slash, complete and in place.
- 2. Measurement. Large Wood Logs shall be measured on the basis of each piece of Large Wood installed in the work, complete and in place. Installation of slash shall be considered incidental to Large Wood. Anchoring hardware shall be considered incidental to Large Wood.
- 3. Payment. Large Wood Logs will be paid at the Contract unit price per piece of large wood installed, complete and in place, which shall be compensation in full for all labor, materials, equipment and other expenses necessary to complete the work as specified for this item.

I. Large Wood – Logs with Rootwads (Salvaged)

- 1. Work includes, but is not limited to, administrative time, excavation, subgrade preparation, Large Wood Logs with Rootwads installation, and furnishing and installing of anchoring connections and slash, complete and in place.
- Measurement. Large Wood Logs with Rootwads shall be measured on the basis of each piece installed in the work, complete and in place. Installation of slash shall be considered incidental to Large Wood Logs with Rootwads. Anchoring hardware shall be considered incidental to Large Wood Logs with Rootwads.
- 3. Payment. Large Wood Logs with Rootwads will be paid at the Contract unit price per piece installed, complete and in place, which shall be compensation in full for all labor, materials, equipment and other expenses necessary to complete the work as specified for this item.

J. Surface Fabric Treatment

- 1. Work includes, but is not limited to, administrative time, furnishing and installing fabric, wood stakes, and wood staples per the Contract Documents. Note that subgrade preparation and seeding of Surface Fabric Treatment are included in separate bid items. Trenching to secure the Surface Fabric Treatment is incidental to this Item.
- 2. Measurement. Surface Fabric Treatment shall be measured on the basis of per square yard installed and exposed (overlapping fabric and buried fabric not included in measurement), complete and in place.

3. Payment. Surface Fabric Treatment will be paid at the unit price per square yard of Surface Fabric Treatment installed, complete and in place, which shall be compensation in full for all labor, materials, equipment and other expenses necessary to complete the work as specified for this item.

K. <u>Native Seed Application</u>

- 1. Work includes, but is not limited to, administrative time, the procurement and installation of the seed mix, maintenance and guarantee through the warranty period as described in Section 32 90 00 Site Plantings and as shown in the Drawings. Cover crop and mulch shall be incidental to this Item.
- 2. Measurement. Seeding will be measured per acre seeded per the Drawings and Specifications. The Contractor shall submit invoices of seed materials purchased to demonstrate rates of seed application.
- 3. Payment. Payment for this item will be made at the contract per acre price in the Construction Contract, which shall be compensation in full for all labor, materials, equipment and other expenses necessary to complete the work as specified for this item.

L. Container Plants (2 Gallon Shrubs)

- 1. Work for this item shall include, but is not limited to, administrative time, furnishing Container Plants (2 Gallon Shrubs), preparing the site, excavating the hole, planting, stabilizing, irrigating and otherwise maintaining through the Warranty Period as shown in the Drawings and described in Section 32 90 00 Site Plantings.
- 2. Measurement. Container Plants (2 Gallon Shrubs) shall be measured per each installed as shown on the Drawings and as specified.
- 3. Payment. Payment for this items will be per live installed plant at the contract unit price in the Construction Contract, which shall be compensation in full for all labor, materials, equipment, and other expenses necessary to complete the work as specified for this item.

M. <u>ADD/ALT – 1 Access Entrance: Alternative 1</u>

1. Work for this item shall include, but is not limited to, activities to prepare project access and staging area between East Street and the intersection of the two Alternative Access Entrance options along the Alternative 1 access route as shown on the Drawings.

- 2. Work for this item does not include preparing the stabilized construction entrance, that work is considered part of the Mobilization and Demobilization Item.
- 3. Work for this item includes activities required to prepare the area within the Limit of Work associated with Access Entrance Alternative 1 for work. It includes installation of Erosion & Sediment Controls, preparation of the staging area, installation of all high-visibility fencing, all protections for private property, and preparation of the ground surface to protect it from the impacts of heavy equipment.
- 4. Following project completion, work for this item includes activities required to restore the area within the Limit of Work associated with Access Entrance Alternative 1. Work shall include all activities to restore the access route and staging area to the pre-project condition (on the private residential property) and to restore the access road (on TNC property) including seeding and mulching.

N. ADD/ALT – 2 Access Entrance: Alternative 2

- 1. Work for this item shall include, but is not limited to, activities required to prepare project access between East Street and the intersection of the two Alternative Access Entrance options along the Alternative 2 access route as shown on the Drawings.
- 2. Work for this item includes application and fees for any local driveway permits that may be required by the Town of Mount Washington.
- 3. Work for this item does not include preparing the stabilized construction entrance. That work is considered part of the Mobilization and Demobilization Item.
- 4. Work for this item includes activities required to prepare the area within the Limit of Work associated with Access Entrance Alternative 2 for work.
- 5. Work for this item includes clearing and grubbing within the footprint of the Limit of Work associated with Access Alternative 2.
- 6. Work for this item includes installation of Erosion & Sediment Controls, preparation of the ground surface to protect wetland resource areas and other areas from the impacts of heavy equipment.
- 7. Following project completion, work for this item includes activities required to restore the area within the Limit of Work associated with Access Entrance Alternative 2. Following project completion, work shall

include all activities to restore the access pathway to a permanent pedestrian-only trail including seeding and mulching.

O. ADD/ALT – 3(a, b, and c) Container Plants (3 Gallon Trees)

- 1. Work for this item shall include, but is not limited to, administrative time, furnishing Container Plants (3 Gallon Trees), preparing the site, excavating the hole, planting, stabilizing, irrigating and otherwise maintaining through the Warranty Period as shown in the Drawings and described in Section 32 90 00 Site Plantings.
- 2. Measurement. Container Plants (3 Gallon Trees) will be measured per each installed as shown on the Drawings and as specified.
- 3. Payment. Payment for this item will be per live installed plant at the contract unit price in the Construction Contract, which shall be compensation in full for all labor, materials, equipment, and other expenses necessary to complete the work as specified for this item.

P. <u>ADD/ALT – 4 NHESP-Approved Biologist</u>

- 1. Work for this item shall include, but is not limited to, administrative time, and labor, mileage, and other incidental fees, associated with furnishing an NHESP-Approved Biologist, to remain on site to perform the duties required during the active period as defined in the NHESP permit. Refer to 00 31 46 Permits.
- 2. Measurement. NHESP-Approved Biologist will be measured per day on site during the active period as defined in the NHESP permit.
- 3. Payment for this item will be per day at the contract unit price in the Construction Contract, which shall be compensation in full for all labor, materials, equipment, and other expenses necessary to complete the work as specified for this item.

END OF SECTION

SECTION 01 26 00 CONTRACT MODIFICATION PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.

1.2 ADMINISTRATIVE REQUIREMENTS

A. Engineer will issue through the Resident Project Representative supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on Work Change Directive form (Section 00 63 49 EJCDC Document C-940 Work Change Directive).

1.3 PROPOSAL REQUESTS

- A. Engineer-Initiated Proposal Requests: Resident Project Representative 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. Proposal Requests issued by the Resident Project Representative are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
 - 2. Within 5 days after receipt of Change 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 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.

- B. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to the Resident Project Representative.
 - 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 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.
 - 5. If a proposed change requires substitution of one product or system for a specified or pre-approved product or system, refer to and comply with the material and product requirements described in the applicable section(s).

1.4 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Proposal Request, Resident Project Representative will issue a Change Order for signatures of Owner and Contractor on Change Order form [Section 00 63 57 EJCDC C-941 Change Order].

1.5 CONSTRUCTION CHANGE DIRECTIVE

- A. Work Change Directive: Resident Project Representative may issue a Work Change Directive on EJCDC Document C-940 Work Change Directive. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
 - 1. Construction 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 Construction 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

SECTION 01 35 13 SPECIAL CONDITIONS

PART 1 GENERAL

- A. DEFINED TERMS
 - 1. "Owner" The Nature Conservancy
 - 2. "Engineer" or "Resident Project Representative" or "Owner's Representative" Inter-Fluve

B. PRECONSTRUCTION CONFERENCE

- 1. A preconstruction conference shall be held at the project site within 2 weeks after award of the Contract. Owner will notify the Contractor as to the date and time of the conference upon contract award. Contractor's Project Manager and Project Superintendent, Owner's technical representative, and Contractor's Subcontractor Representatives shall attend. Project design intent, materials requirements, construction approach and sequencing, materials sources, construction methods, and scheduling will be reviewed and any questions or procedures will be clarified.
- 2. The agenda of the preconstruction conference shall incorporate the following items:
 - a) Distribution and discussion of:
 - 1) List of Subcontractors.
 - 2) Projected Construction Schedules.
 - b) Critical work sequencing.
 - c) Project coordination:
 - 1) Designation of responsible personnel.

- d) Procedures and processing of the following:
 - 1) Submittals.
 - 2) Field Orders.
 - 3) Work Change Directives.
 - 4) Requests for Information.
 - 5) Deactivation Requests.
 - 6) Change Orders.
 - 7) Applications for Payment.
- e) Permit Requirements.
- f) Adequacy of distribution of Contract Documents.
- g) Procedures for maintaining Record Documents.
- h) Use of premises:
 - 1) Office, work and storage areas.
 - 2) Owner's requirements
- i) Construction facilities and construction aids.
- j) Temporary utilities.
- k) Safety and first-aid procedures.
- 1) Housekeeping procedures.

C. ACCESS AND SEQUENCING CONSTRAINTS AND DEPENDENCIES

- 1. Access is off of East Street. Two Access Alternatives have been permitted. Only one will be implemented. Alternative 1 shall be considered the standard assumption, Alternative 2 shall be considered the alternate assumption.
- 2. Access at the construction site entrance may be through private residential property along an existing access road (Alternative 1), or through Owner property along a to-be-constructed access road (Alternative 2).

- 3. If the Owner is unable to obtain the access easement for implementation of Alternative 1, the Contractor shall implement Alternative 2.
- 4. High-visibility fencing should be installed across access points as shown on the plans in accordance with the permit conditions for installation of mesh products.
- 5. East Street is an unpaved road, portions of which are not maintained during the winter season. Snow removal along portions of the public way should be anticipated and may be required. The Town of Mount Washington plows East Street to the Massachusetts/Connecticut state line.
- 6. No parking is allowed on East Street.

D. AIR, LAND AND WATER POLLUTION

- 1. The Contractor is advised that several permits have been obtained for the Project and are listed in Section 00 31 46 Permits and included in Appendix A of the Specifications. The Contractor is fully responsible for complying with terms and conditions of these permits.
- 2. The Contractor is responsible for submitting an application for and receiving coverage under the USEPA's NPDES General Permit for Stormwater Discharges from Construction Activities for this project. See also 01 57 14 Flow Management and Erosion and Sediment Control.
- 3. Pollution of natural resources of air, land and water by operations under this Contract shall be prevented, controlled, and abated in accordance with the rules, regulations, and standards adopted and established by the Massachusetts Department of Environmental Protection, the United States Environmental Protection Agency, and in accordance with the permits listed in Section 00 31 46 Permits.
- 4. The Contractor shall furnish, install and maintain temporary and permanent erosion and sediment control as described in 01 57 14 Flow Management and Erosion and Sediment Control and shown in the Drawings, in accordance with the provisions of US EPA's NPDES General Permit for Stormwater Discharges from Construction Activities.
- 5. The Contractor shall apply for and receive coverage under the abovementioned permit by submitting a Notice of Intent for Storm Water Discharges Associated with Construction Activity Under an NPDES General Permit, coordinating Owner signatures, paying the application fee, and implementing the permit.
- 6. The Contractor shall be solely responsible for complying with the requirements of the Construction General Permit.

- 7. The Contractor shall be responsible for providing all inspections, documentation, record keeping, maintenance, remedial actions, repairs required by the permit. All inspections, maintenance, and records required in the General Permit shall be the sole responsibility of the Contractor. The word "Permitee" in these referenced paragraphs shall mean "Contractor". Standard forms for logging all required inspection and maintenance activities shall be used by the Contractor. All inspection and maintenance forms used on this Project shall be turned over to the Engineer in accordance with the inspection schedule outlined in the General Permit.
- 8. The Contractor shall have all logs, documentation, inspection reports on site for Engineer's review and shall post the permit on site. The Contractor shall immediately rectify any shortcomings noted by the Engineer. All meetings with the state agencies or any local authority shall be attended by both the Engineer and the Contractor or their representatives. No work required by said entities, and for which the Contractor would request additional compensation, shall be started without approval from the Engineer. No work required by said entities and for which the changes will impact the design or requirements of the Contract documents or impact traffic shall be started without approval from the Engineer.
- 9. The Contractor shall immediately notify the Engineer of any site visits by Permitting Authorities performed in accordance with US EPA's NPDES General Permit for Stormwater Discharges from Construction Activities.
- 10. If the Contractor fails to perform the requirements as listed in the applicable permits, the Engineer will issue a Work Order detailing the required action. The Contractor shall start the required action within twenty-four (24) hours of receipt of the Work Order and continue the required action until the Project is brought into compliance with the permit. Failure to perform the required action as specified, shall subject the Contractor to a \$1000/calendar day deduction.
- 11. The Contractor shall review and abide by the instructions contained in the permit package. The Contractor shall indemnify and hold the Owner harmless for any fines or sanctions caused by the Contractor's actions or inactions regarding compliance with the permit or erosion control provisions of the Contract Documents.

E. PROJECT SIGNS

- 1. Furnish and install Contractor's standard sign approved by Owner.
 - a) Install in location approved by Owner.

- 2. Prior to any construction activity, including access, the Contractor shall install a sign stating that the area is closed at each of the locations indicated on the Drawings.
 - a) The sign shall say "Site temporarily closed for construction No access."
 - b) The sign shall be produced and erected utilizing durable materials and methods of construction to withstand all weather conditions and potential inundation.
- 3. Prior to any construction activity, including access, a sign shall be displayed at the site not less than two square feet or more than three square feet in size bearing the words, "Massachusetts Department of Environmental Protection [or, "MassDEP"] File Number 232-0046".
- 4. Signs not listed in this Specification permitted only upon approval of Owner.
- F. SUBMITTALS: The following submittals are required:
 - 1. Construction Schedule
 - a) Prior to the preconstruction conference, the Contractor shall submit to the Engineer and Owner a schedule illustrating in bar chart form the anticipated commencement date and duration of each of the major work tasks. The schedule should address the phasing of construction in a manner that will provide good project coordination. The Contractor will be required to update or modify the written construction schedule as necessary to accurately reflect the rate and progress on the project.
 - 2. Construction Operations Plan (Section 01 71 13- Mobilization and Demobilization), including, but not limited to:
 - a) Control of Water Plan (Section 01 57 14 Flow Management and Erosion and Sediment Control);
 - b) Spill Prevention Plan (Section 01 57 14 Flow Management and Erosion and Sediment Control);
 - c) Final Draft of the Storm Water Pollution Prevention Plan (Section 01 57 14 Flow Management and Erosion and Sediment Control); and
 - d) Demolition Plan (Section 02 40 00 Demolition).
 - 3. Itemized list of Mobilization Costs (Section 01 71 13- Mobilization and Demobilization)

- 4. Materials Submittals
 - a) Materials Certifications are required for the following items:
 - 1) Fully Threaded Rod Fasteners and associated hardware (Section 31 53 13 Large Wood)
 - 2) Woven Coir Fabric (Section 31 23 00 Earthwork)
 - 3) Non-woven Coir Fabric (Section 31 23 00 Earthwork)
 - 4) Seed, Mulch (Section 32 90 00 Site Plantings)
 - 5) Container Plants (Section 32 90 00 Site Plantings)
- 5. Planting Operations Plan (Section 32 90 00 Site Plantings)
- 6. 3-Year Plant Maintenance Plan (Section 32 90 00 Site Plantings)
- 7. Invasive Species Management Plan (Section 32 90 00 Site Plantings)
- 8. The Contractor shall make the following submittals to the Owner and the Engineer for their evaluation consistent with the timing indicated below:

Submittal	Required Timing and Description	
Construction Schedule	To accompany bid; updated schedule submitted prior to the preconstruction conference.	
Construction Operations Plan – includes: Temporary Access Design Revised Construction Sequence and Schedule Control of Water Plan Spill Prevention Plan Final draft of the Storm Water Pollution Prevention Plan (SWPPP) Traffic Control Plan Demolition Plan	The Construction Operations Plan must be submitted to the Town of Mount Washington for review and approval 45 days prior to the start of construction. Accepted plan required prior to Mobilization.	
Itemized List of Mobilization Costs	Submitted prior to preconstruction conference.	
Materials Certifications	Accepted submittal required prior to delivery of material to site.	
Planting Operations Plan	Within 14 days of Notice to Proceed.	

Submittal	Required Timing and Description
3-Year Plant Maintenance Plan	Within 14 days of Notice to Proceed.
Invasive Species Management Plan	Within 14 days of Notice to Proceed.

G. SURVEY CONTROL

1. Survey control has been established at the site and is noted on the Drawings. All subsequent surveying needed for or incidental to the layout or construction staking shall be the responsibility of the Contractor. Stakes and markers shall be provided by the Contractor as necessary to control the work and assure construction is in conformance to the Drawings and Specifications, and as otherwise directed by the Engineer. Following staking of the Work, the Engineer may make field-based adjustments to the layout as necessary to meet current site conditions. Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various Contract items of work involved and no additional compensation will be made therefore.

H. DUST AND SPILLAGE CONTROL

1. The Contractor shall at all times limit migration of dust away from the project site by means of sweeping, sprinkling or other approved methods. The Contractor shall be responsible for the alleviation or prevention of dust nuisance caused by his own operations. In order to minimize traffic hazards and public nuisance arising out of the Contractor's operations, Contractor shall ensure that adjacent properties and improved surfaces of surrounding streets stay free and clean of silt, tracked mud, dust, etc., coming from or in any way related to construction. At a minimum, such cleanup shall occur prior to termination of each day's work. The Engineer may determine that such a traffic hazard or public nuisance requires an immediate cleanup. Such immediate corrective measures shall be at the expense of the Contractor. Full compensation for any water or other method used for dust and spillage control required of this section, shall be considered as included in the prices paid for the various Contract items of work involved and no additional compensation will be allowed therefore.

I. CONTRACTOR'S SUPERINTENDENT'S FIELD OFFICE

- 1. Equipment: Cell phone and sanitary facilities.
- 2. Maintain complete field file of shop drawings, Operations and Maintenance Manuals, Permits, posted Contract Drawings and Specifications, and other files of field operations including provisions for maintaining "As Recorded Drawings."

J. DRAWINGS AND CONTRACT DOCUMENTS FOR CONTRACTOR USE

- 1. One copy of the Contract Documents in portable document format (PDF) and one hard copy of the Contract Drawings will be provided to the Contractor.
- 2. The Contractor shall pick up all "no-charge" documents within 14 days from date of Notice to Proceed.

K. ORDER OF CONSTRUCTION AND CONSTRUCTION SCHEDULE

- 1. The submitted construction schedule shall account for schedule of subcontracts and include proper sequence of construction, various crafts, purchasing time, submittals approval, material delivery, and similar time-consuming factors. Show in schedule as a minimum, earliest starting, earliest completion, latest starting, latest finish, and free and total float for each task or item. Evaluate schedule not less than weekly. Update, correct, and rerun schedule and submit to Engineer to show rescheduling necessary to reflect true job conditions. When shortening of various time intervals is necessary to correct for behind schedule conditions, indicate steps to implement and accomplish work in shortest schedule. Information shall be submitted to Engineer in writing with revised schedule. Contractor shall refer to the construction sequence provided in the Drawings.
- 2. If Contractor does not take necessary action to accomplish work according to schedule, he may be ordered by the Engineer in writing to take necessary and timely action to improve work progress. Order may require increased work forces, extra equipment, extra shifts or other action as necessary. Should Contractor refuse or neglect to take such action authorized, under provisions of this contract, Owner may take necessary actions including, but not necessarily limited to, withholding of payment and termination of contract.

L. PROJECT MEETINGS

- 1. The Engineer shall conduct construction meetings involving:
 - a) Contractor's project manager.
 - b) Contractor's project superintendent.
 - c) Owner's designated representative(s).
 - d) Engineer's designated representative(s).
 - e) Contractor's subcontractors as appropriate to the work in progress.
 - f) Local, state, and federal agency staff as appropriate to the work in progress.
- 2. Conduct meetings weekly.
- 3. The Engineer shall take meeting minutes and submit copies of meeting minutes to participants and designated recipients identified at the Preconstruction Conference. Corrections, additions or deletions to the minutes shall be noted and addressed at the following meeting.
- 4. The Engineer shall schedule meetings for most convenient time frame.
- 5. The Engineer shall have available at each meeting full chronological file of all previous meeting minutes.

M. SPECIAL CONSIDERATIONS

- 1. Contractor shall be responsible for negotiations of any waivers or alternate arrangements required to enable transportation of materials to the site.
- 2. Contractor shall maintain conditions of access road to site such that access is not hindered as the result of construction related deterioration.
- 3. Contractor shall note the time-of-year restrictions included in the permits in Appendix A. Work performed during the inactive season, between November 1 and April 14, may proceed without time-of-year restrictions for rare and endangered species protection. Work performed during the active season, between April 15 and October 31, is subject to restrictions and additional requirements. Refer to Section 00 31 46 Permits, Appendix A NHESP File No. 18-37448. If project work extends into the active season, the Contractor will be responsible for furnishing the services of an NHESP-approved biologist at no additional expense to the Owner.

100% Design Specifications Revised: 8/12/24

- 4. No in-water work shall commence until receipt of any pending permits. See Section 00 31 46 Permits.
- 5. The footprint and volume of temporary placed fill, including water control measures and sediment traps placed within Land Under Water are subject to permit requirements. See Section 00 31 46 Permits.
- 6. Contractor shall monitor weather forecasts and water levels to protect equipment and site from high water and flooding.

N. HISTORICAL AND ARCHAEOLOGICAL

- 1. The Contractor is advised that the project area potentially contains archaeological or historical objects that may have significance from a historical or scientific standpoint.
- 2. If during the course of construction, evidence of deposits of historical or archaeological interest is found, the Contractor shall cease operations affecting the find and shall notify the Engineer. No further disturbance of the deposits shall ensue until the Contractor has been notified by the Engineer that the Contractor may proceed.
- 3. The Contractor's schedule shall anticipate up to two (2) working days of delays in the event that evidence of deposits of historical or archaeological interest is found. This 2-day cumulative delay is already anticipated in the completion date/working days and no additional time will be allowed. All work and consequential delay costs for this required schedule flexibility shall be considered incidental to the Contract and no additional measurement or payment will be made. In the event that archaeological materials are encountered that necessitate changed conditions, or if the cumulative delay is greater than two (2) working days, then compensation to the Contractor for lost time or changes in construction resulting from the find shall be determined in accordance with changed or extra work provisions of the Contract Documents.

O. ADDRESSES

- 1. All notices and letters, and communications directed to Owner shall be addressed and delivered to The Nature Conservancy. Notice shall also be sent via email when any hard copies of documents are sent to the Owner via a postal service.
- 2. All duties and responsibilities assigned to Engineer in the Contract Documents, with the corresponding rights and authority will be assumed by Inter-Fluve and their duly authorized agents. All notices, letters and communication directed to Engineer shall be addressed and delivered to Inter-Fluve, 220 Concord Avenue, 2nd Floor, Cambridge, MA 02138 or

in electronic format to **Sarah Widing** at Inter-Fluve, **swiding@interfluve.com**.

- 3. The business addresses of Contractor given in the Bid Form and Contractor's office at the site of the Work are hereby designated as the places to which all notices, letters, and other communication to Contractor will be delivered.
- 4. Either Owner, Contractor, or Engineer may change its address at any time by an instrument in writing delivered to the other two.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

100% Design Specifications Revised: 8/12/24

SECTION 01 57 14 FLOW MANAGEMENT, EROSION, AND SEDIMENT CONTROLS

PART 1 GENERAL

1.1 SUMMARY

A. Section Addresses:

- 1. Minimizing the pollution of air, water, or land; controlling noise; disposing of solid waste materials; and protecting deposits of historical or archaeological interest.
- 2. Implementing standard measures to protect the environment, and conducting work in accordance with all local, state, and federal regulations and permits.
- 3. Providing construction operations that avoid or minimize damage to adjacent or resident natural resources, avoid air and noise pollution, and otherwise comply with the environmental permits (Section 00 31 46 Permits and Appendix A Permits).

1.2 SUBMITTALS

- A. Prepare all submittals in accordance with the procedures identified in Section 01 35 13 Special Conditions
- B. Control of Water Plan
- C. Spill Prevention Plan
- D. Storm Water Pollution Prevention Plan (SWPPP).
- E. Construction Operations Plan. See Section 01 71 13 Mobilization and Demobilization.

1.3 RELATED SECTIONS

- A. Section 00 31 46 Permits
- B. Section 01 35 13 Special Conditions
- C. Section 01 71 13 Mobilization and Demobilization
- D. Section 31 23 00 Earthwork
- E. Section 32 90 00 Site Plantings

- F. Section 31 35 19 Bioengineering Treatment
- G. Appendix A Permits

PART 2 PRODUCTS

2.1 EQUIPMENT

- A. Earthwork shall be completed in conditions free of actively-flowing water. Diversion and bypass of in-stream flows shall be implemented and shall use temporary dams, gravity or pumped diversion pipelines or open conveyances, and upland discharge or other methods.
- B. Dewatering from the work area may include the use of sump pumps, temporary pipelines for water movement, rock or gravel placement, and other methods.
- C. In the case where pumps are used, small-wire mesh caging shall be used to prevent fish and other aquatic organisms from being drawn into the pump system.

2.2 MATERIALS

- A. Oil absorbent booms
 - 1. Shall be 5-inch diameter, minimum, and constructed of an outer mesh that encapsulates oil absorbent filler material.
 - 2. Shall be capable of absorbing all hydrocarbons including, oil, gasoline, diesel and lubricating oils.
 - 3. Shall not sink when saturated with oil.

B. Silt Fence

1. A heavy-duty sliced or hand installed woven geotextile silt fence shall be provided and maintained in accordance with manufacturer specifications.

C. Erosion Control Blanket

1. If installed in the spring, erosion control blanket shall be North American Green (NAG) style C125BN 100% biodegradable coconut fiber mat or equivalent. This material shall meet the following criteria:

<u>Parameter</u>	Procedure/Test	Criterion
Thickness	ASTM D6525	0.23 inches
Transverse Direction Tensile Strength	ASTM D6818	145.2 lbs/ft
Transverse Direction Elongation	ASTM D6818	12.9%
Machine Direction Tensile Strength	ASTM D6818	206.4 lbs/ft
Machine Direction Elongation	ASTM D6818	15.3%
Mass/Unit Area	ASTM D6475	9.79 oz./sq.yd
Roll Width	Measured	6 feet - 8 inches
Roll Length	Measured	108 feet

If installed in fall or winter, erosion control blanket shall be CS2 straw coir fiber blanket (fall/ winter installation) or equivalent. This material shall meet the following criteria:

<u>Parameter</u>	Procedure/Test	Criterion
Thickness	ASTM D6525	0.4 in
Transverse Direction Tensile Strength	ASTM D6818	100x100 lb/ft
Transverse Direction Elongation	ASTM D6818	30%
Mass/Unit Area	ASTM D6475	8.8 oz./sq.yd
D 11 xx2 14	3.6	0.0
Roll Width	Measured	8 feet
Roll Length	Measured	112.5 feet

D. Wattles shall be 9-inch diameter, 7-pound density North American Green style 08CN7 100% biodegradable coconut fiber coir or excelsior wattles (logs) or equivalent. The wattles should meet or exceed the following criteria:

<u>Parameter</u>	<u>Criterion</u>
Density	$7 \mathrm{lbs/ft^3}$
Flow Velocity	5 ft/sec
Diameter	8 inches
Standard Length	10 feet

E. Wood Stakes

1. Material requirements for Wood Stakes are specified in Section 31 35 19 - Bioengineering Treatment.

F. Wood Staples

Material requirements for Wood Staples are specified in Section 31 35 19
 Bioengineering Treatment.

G. Seed

1. Material requirements for Seed are specified in Section 32 90 00 - Site Plantings.

PART 3 EXECUTION

3.1 CONSTRUCTION

- A. No work requiring erosion control shall commence until the SWPPP has been reviewed and accepted by the Engineer.
- B. No work requiring dewatering shall commence until the Water Control Plan has been reviewed and accepted by the Engineer.
- C. The Contractor shall furnish, install, maintain, and remove erosion and sediment control devices as shown in the Drawings, or as otherwise required to prevent the discharge of sediment or sediment-laden to protected resources or the active flowing stream.
- D. If any of the installed measures require repair or are rendered ineffective during construction, these measures shall be replaced or repaired by the Contractor and brought back to effective condition at no extra cost.
- E. The Contractor shall adhere to all time-of-year (TOY) restrictions set forth in the project permits. Refer to Section 00 31 46 Permits and Appendix A Permits for more information on TOY restrictions. Construction activities during the inactive season (November 1 to April 14) may proceed without restriction. Construction activities during the active season are subject to restriction.

3.2 PROTECTION OF PROPERTY

A. Land Protection:

- 1. Refer to the Drawings for additional Erosion and Sedimentation Control measures.
- 2. Except for any work or storage area and access routes specifically assigned for the use of the Contractor, the areas outside the limits of construction shall be preserved in their present condition. Contractor shall confine his activities to areas defined for work as shown on the Drawings.

100% Design Specifications Revised: 8/12/24

- 3. Manage and control all work or storage areas, access routes and embankments to prevent water or sediment from entering nearby water or land adjacent to the work site.
- 4. Unless Earthwork is immediately paved or surfaced, protect all side slopes and backslopes immediately upon completion of final grading.
- 5. Except for areas designated in the Drawings to be cleared, the Contractor shall not deface, injure or destroy trees and vegetation, nor remove, cut, or disturb them without approval of the Owner's Representative. Any damage caused by the Contractor's equipment or operations shall be restored as nearly as possible to its original condition at the Contractor's expense.
- 6. Silt fence shall be installed prior to clearing and grubbing to control sediment from leaving the project limits. The Contractor may submit alternate methods of establishing perimeter sediment control in locations where silt fence installation is deemed impractical or problematic. The Contractor shall not make this substitution without prior approval of the Engineer.

B. Project Access, Staging and Storage Areas

- 1. Access corridor and potential staging and storage areas are shown on the Drawings.
- 2. The Contractor shall prepare the access entrance in accordance with the approved Temporary Access Design as described in the Construction Operations Plan. The Plan shall comply with all permit requirements.
- 3. The Contractor shall prepare the access routes, in accordance with the approved Temporary Access Design as described in the Construction Operations Plan. The Plan shall comply with all permit requirements.
- 4. The Contractor shall be responsible for any repairs, replacement or payment required to return any vegetation, structures, grading or other facilities disturbed in the course of this project by the Contractor, his employees or subcontractors, to the same condition as existed before the project was started. Such repairs, replacement or payment shall be at the Contractor's expense.

C. Haul Routes

1. The Contractor is required to determine and observe any restrictions placed on travel over public or private roads.

- 2. The Contractor shall be responsible for any repairs, replacement or payment required to return public or private roads damaged in the course of this project by the Contractor, his employees or subcontractors, to the same condition as existed before the project was started. Such repairs, replacement or payment shall be at the Contractor's expense.
- 3. The Contractor shall be responsible for limiting spillage of spoils and other impacts from passage of haul vehicles and other operations to comply with road use requirements and to ensure a safe operating environment.

3.3 FLOW MANAGEMENT

- A. Earthwork shall be completed in conditions free of actively-flowing water.
- B. The Contractor shall perform dewatering in excavations and other work locations to facilitate completion of the work.
- C. Water control shall follow:
 - 1. these specifications,
 - 2. all applicable regulations,
 - 3. all permit conditions, and
 - 4. all guidelines set forth in the USEPA NPDES General Permit for Stormwater Discharges from Construction Activities.
- D. Contractor staff responsible for Flow Management, Erosion and Sediment Control shall be identified at the pre-construction conference. 24-hour emergency contact information for this staff shall be provided to the Owner. Refer to 01 35 13 Special Conditions.
- E. The Contractor shall provide all equipment and materials necessary for water control. The Contractor shall have on hand, at all times, sufficient pumping and other equipment and machinery in good working condition and shall have available, at all times, competent workers for the operation of the pumping equipment. Adequate standby equipment shall be kept available to ensure efficient operation and maintenance of diversions during power failure.
- F. The Contractor shall provide all equipment and personnel to implement the Control of Water Plan. Refer to 01 71 13 Mobilization and Demobilization.
- G. The Contractor shall provide all equipment, documentation (including the Stormwater Pollution Prevention Plans (SWPPP)), and personnel to maintain compliance with the USEPA NPDES Construction General Permit. Refer to 01 71 13 Mobilization and Demobilization.

100% Design Specifications Revised: 8/12/24

- H. The Contractor is advised that the project area may be subject to groundwater recharge resulting in saturated soil conditions.
- I. Active flows shall be diverted around the active work area during construction of the new channel. Diversion methods shall comply with the requirements described in the permits, Section 00 31 46 Permits and Appendix A Permits. The 50% annual exceedance flow (i.e., the 2-year average annual return period flow) is estimated to be approximately 80 cubic feet per second (cfs), the 95th percentile daily mean flow is 0.13 cfs and the 50th percentile is 1 cfs.
- J. Fish rescue: Fish shall be rescued from residual pools by the Owner following any diversion of streamflow that will dewater the main channel. Fish must be collected via seining, nets, or hand capture and removed to the main channel downstream. The Contractor shall notify the Owner and Engineer two weeks prior to diversion and dewatering activities to allow for coordination of fish rescue teams.
- K. Pump inlets shall be screened to prevent fish from entering the pump system.
- L. Contractor shall provide drainage for the site grading at all times. Divert surface runoff from excavations and trenches.
- M. Contractor shall maintain standby diversion and dewatering equipment on the job site.
- N. Discharge of a temporary bypass system must be accomplished in a way that does not cause erosion or turbidity downstream of the project site.
- O. Control of surface runoff shall include operations adequate to bypass, divert, or remove all flowing water.
 - 1. Utilize methods necessary to effectively prevent erosion and sedimentation and include the following:
 - a) Retardation: Mechanically retard rate of runoff by construction of diversion ditches, terraces, and berms. Divert runoff to protect drainage courses.
 - b) Protect side and backslopes as soon as rough grading is complete by accelerated growth of permanent vegetation, temporary vegetation, mulching, or netting.
 - c) Remove temporary protection prior to final grading operations.

3.4 EROSION AND POLLUTION CONTROL

- A. Erosion Control measures shall be in place prior to any ground disturbing activity on the site.
- B. The Contractor shall perform erosion control for the duration of the Contract. The Contractor may use the measures specified and shown in the Drawings, or alternative measures of the Contractor's own design to ensure satisfactory performance and that the erosion control requirements of all applicable permits are met.
- C. Wattles shall be placed to control rill erosion.
- D. Fully biodegradable erosion control blanket shall be secured on slopes steeper than 3:1, not including streambanks which are covered under other provisions.

E. Dust Control:

- 1. No construction activity shall take place without applying all such reasonable measures as may be required to prevent particulate matter from becoming airborne so that it remains visible beyond the limits of construction. Reasonable measures may include paving, frequent road cleaning, planting vegetative groundcover and the application of water.
- 2. Utilize methods and practices of construction to eliminate dust in full observance of agency regulations.
- 3. The Owner's Representative will determine the effectiveness of the dust control program and may request the Contractor to provide additional measures, at no additional cost to the Owner.
- F. In consultation with the Owner and private property owners, identify and stake the limits of work.
- G. After the limits of work have been identified and staked, install Silt Fence as shown in the Drawings, or as otherwise required to ensure satisfactory completion of the work while preventing discharge of sediment or sediment-laden water to protected resources or the active flowing stream. Silt Fence shall be installed prior to clearing and grubbing to control sediment from leaving the project limits. The Contractor may submit alternate methods of establishing perimeter sediment control in locations where silt fence installation is deemed impractical or problematic. The Contractor shall not make this substitution without prior approval of the Owner's Representative.

H. Solid Waste Disposal:

- 1. Collect solid waste on a daily basis.
- 2. Provide disposal of solid waste to an approved solid waste disposal site.

I. Control of Chemical Waste:

- 1. Store and dispose of chemical wastes in accordance with all applicable regulations.
- 2. Take special measures to prevent chemicals, fuels, oils, greases, herbicides, and insecticides from entering drainage ways.
- 3. Do not allow water used in onsite material processing, concrete curing, cleanup, and other waste waters to enter drainage way(s) or stream(s).

J. Burning:

1. Do not burn material on site.

K. Control of Noise:

 Contractor shall control noise according to the provisions of the Massachusetts DEP Code of Massachusetts Regulations (CMR) 310CMR 7.10 "Noise" and any and all other local, state, federal, and trade requirements.

3.5 MAINTENANCE

A. Erosion control features shall be maintained by the Contractor for the duration of the project.

3.6 REMOVAL OF FACILITIES AND SUPPLIES

A. Following the conclusion of project construction and upon approval of the Owner's Representative, the flow management and erosion control facilities and materials shall be removed, and the areas impacted by these operations shall be restored to their original condition. Materials used in flow diversion and erosion control activity shall become property of the Contractor and removed from the site at the Contractor's sole expense.

B. Completion of Work:

- 1. Upon completion of work, leave area in a clean, natural-looking condition.
- 2. Ensure all indications of temporary construction and activities incidental to construction of required permanent work are removed upon completion of work.
- 3. Grade, fill and seal all disturbed area. Disturbed areas, as shown in the Drawings, shall be seeded and mulched according to Section 32 90 00 Site Plantings.
- 4. Upon completion of work, perform project clean-up activities. Remove all materials and dispose of off-site in accordance with applicable regulations. Engineer shall review project clean-up. Project clean-up is not considered complete until the Engineer accepts the work.

END OF SECTION

100% Design Specifications Revised: 8/12/24

SECTION 01 71 13 MOBILIZATION AND DEMOBILIZATION

PART 1 GENERAL

1.1 SUMMARY

- A. Mobilization shall consist of preparatory work and operations performed by the Contractor, including, but not limited to, those necessary for the transportation and movement of personnel, traffic control, equipment, supplies, and incidentals to and from the project site; for necessary permits, submittals, notifications and other documentation including billboard for display; for the establishment of all offices and other facilities necessary for work on the project; for premium on contract bonds; for insurance for the contract; for installation of erosion and sedimentation controls; and for other work and operations that must be performed or costs incurred before beginning Work on the various items on the project site and after the Work is completed.
- B. Mobilization shall also include the construction of temporary access ways; construction of any temporary crossings needed to complete the Work; installation of temporary fencing; installation of protection measures for utilities and/or infrastructure within the Limit of Work; and the necessary preparatory work required to allow for the safe and stable movement of all vehicles that are required to construct the improvements shown.
- C. Demobilization shall consist of work and operations necessary to disband all mobilized items and clean up the site. The removal of all temporary access ways, signs, temporary fencing, erosion and sedimentation controls, and temporary facilities or works and the restoration of surfaces to an equal or better than existing condition shall also be included as part of demobilization.
- D. Mobilization and demobilization costs for subcontracted work shall be considered to be included.

1.2 RELATED SECTIONS

- A. Section 00 31 46 Permits
- B. Section 01 57 14 Flow Management, Erosion, and Sediment Controls
- C. Section 02 40 00 Demolition

1.3 SUBMITTALS

A. Itemized list of Mobilization costs.

B. Construction Operations Plan

- 1. Prior to the preconstruction conference, the Contractor shall submit to the Engineer and Owner a Construction Operations Plan (COP) that adheres to all permits and permit conditions. The plan shall detail the Contractor's approach to the project, including the temporary access design, updated construction sequencing plan, control of water plan, stormwater pollution prevention plan, spill prevention plan, traffic control plan, demolition plan, and other details related to the Contractor's anticipated means and methods. The COP shall describe the methods for dredging, which shall be completed in accordance with USACE Section 404 Permit (NAE-202-01622). The Contractor shall not mobilize equipment to the site before the COP is reviewed by the Engineer and accepted by the Owner. The Contractor shall not mobilize equipment before all pre-construction permit conditions are met, including, but not limited to, Conditions 14 and 15 of the Combined 401 Water Quality Certification Dredge and Fill **Permit** requiring MassDEP review of a dredging plan and a dredge material dewatering plan.
- 2. Temporary Access Design Two alternative temporary access alignments are included in the drawings. The Contractor shall provide a final intended design in the COP for enabling temporary access in accordance with the plans and specifications and project permits.
- 3. Construction Sequencing and Schedule –The Contractor shall provide a final intended construction sequence for review, to be included in the COP.
- 4. Control of Water Plan The Contractor shall describe the approach to the required water control, local dewatering, and erosion and turbidity control measures, including sequencing and intended means and methods. The Contractor shall also demonstrate the anticipated capacities of water conveyance measures used for water control, and demonstrate that the planned capacities are adequate for the anticipated streamflow during the period of construction. Refer also to Section 00 31 46 Permits, Section 404 Army Corps of Engineers Permit, NAE-2020-01622.
- 5. Storm Water Pollution Prevention Plan (SWPPP)— The Contractor shall include the SWPPP in the COP. The SWPPP shall include a Spill Prevention Plan. The SWPPP shall include the information required for compliance with the EPA NPDES Construction General Permit. Refer to Section 01 57 14 Flow Management Erosion and Sediment Controls.
- 6. Traffic Control Plan The Contractor shall provide an intended traffic control plan to ensure site and public safety associated with movement of equipment, materials, and forces entering and exiting the site and to

- promote general awareness of the construction activity to be included in the COP.
- 7. Demolition Plan Prior to the preconstruction conference, submit plan detailing demolition approach for approval by the Engineer as part of the Construction Operations Plan. The Demolition Plan should consist of narrative and/or sketches detailing demolition means and methods, phasing, schedule, and sequencing with other work items, such as flow management, diversion, erosion control, and excavation to demonstrate how the dam will be breached in a safe and controlled manner. The Plan shall also include provisions for and discussion of retaining demolition debris within the active demolition work area. Refer to Section 02 40 00 Demolition.

1.4 DELIVERY, STORAGE, AND HANDLING

A. As part of Mobilization, the Contractor shall provide safe storage for materials intended for the Work until such materials have been incorporated in the completed project.

1.5 **DEFINITIONS**

A. Controlling Agency: any agency, department, commission, or other party that requires standards to be met for the installation, modification, or documentation of a feature.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 PROTECTION AND SITE PREPARATION

- A. Contractor shall provide a billboard for displaying the project permits.
- B. Traffic Control must comply with all applicable laws, regulations and permits. Maintaining a work environment that provides for the safety of the public at the interface of the right-of-way is of utmost importance.
- C. Invasive Species Management Contractor shall be required to thoroughly clean the exterior, undercarriage, and tires/tracks of his/her equipment with a high pressure washer at a maintenance facility prior to bringing the equipment on site. Cleaning will substantially reduce the chance of spreading invasive exotic plants from a previous work site. pMachinery that has not been cleaned in this manner will not be allowed on site.
- D. Stake the limits of disturbance prior to ground disturbance in coordination with the Owner and private property owners.

- E. Provide barricades, coverings, or other types of protection necessary to prevent damage to existing items indicated to remain in place.
- F. Provide a protected location to temporarily store existing items that may be temporarily moved or removed during the work period. Reset the temporarily moved or removed materials following completion of work.
- G. Protect and maintain bench marks, monuments or other established reference points and property corners. If disturbed or destroyed, replace at Contractor's expense to full satisfaction of the Engineer and controlling agency.
- H. Refer to the Drawings for general notes on and locations of utilities.
- I. Maintain free of damage, existing sidewalks, structures, utilities, and pavement, not indicated to be removed. Any item known or unknown or not properly located that is inadvertently damaged shall be repaired to original condition. All repairs to be made and paid for by Contractor.
- J. Provide full access to public and private premises, fire hydrants, street crossings, sidewalks and other points as designated by Engineer to prevent interruption of travel.
- K. Upon completion of the project, the Contractor shall install simple oak stakes and rope around site to keep out foot traffic.

END OF SECTION

100% Design Specifications Revised: 8/12/24

SECTION 02 40 00 DEMOLITION

PART 1 GENERAL

1.1 **SUMMARY**

- A. Demolition, removal, and off-site disposal of existing concrete, masonry, and metal within project limits.
- B. Demolition, removal and off-site disposal of the existing footbridge, signs, fencing, shed, and related items.

1.2 ADMINISTRATIVE REQUIREMENTS

- A. Coordination with the Owner for the material disposal location
- B. Pre-demolition meeting
- C. Scheduling
 - 1. Employ necessary means to meet project time lines without compromising material salvage activities.
 - 2. Notify the Engineer in writing if a delay is anticipated for any reason.

1.3 SUBMITTALS

- A. The Contractor shall provide the following materials prior to beginning any work of this Section. Work shall not begin until the materials have been reviewed by the Engineer and accepted by the Owner:
 - 1. Construction Operations Plan. See Section 01 71 13–Mobilization and Demobilization.

1.4 QUALITY ASSURANCE

A. Offsite disposal of demolition debris shall be accomplished in accordance with all applicable laws and regulations.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 EXAMINATION

- A. The Owner and Engineer do not guarantee that the true existing conditions is reflected on the Drawings. The Contractor is responsible for understanding the existing conditions at the site.
- B. Ground-truth the existing conditions and correlate with project requirements to determine extent of structure demolition required.
- C. If unanticipated mechanical, electrical, or structural elements are encountered, investigate and measure the nature and extent of the element. Notify the Engineer to coordinate a resolution prior to continuing with the work.

3.2 PROTECTION AND SITE PREPARATION

- A. Prevailing weather conditions and weather forecast shall be considered.

 Demolition work shall not proceed when extreme weather conditions constitute a hazard to the workers and Site.
- B. Refer to Section 01 71 13–Mobilization and Demobilization for additional protection and site preparation measures.

3.3 **DEMOLITION**

- A. Becker Pond Dam is an earthen embankment with a concrete core wall, spillway surface, training walls, and apron. The substructure of the dam has not been investigated in detail but shall be removed regardless of the nature of material encountered.
- B. The Contractor shall fully demolish and remove the full lateral and vertical extents of the existing dam structure, footbridge, and associated items within the limits shown on the Drawings and described herein. All concrete components of the structure shall be removed within the limits shown along with all associated appurtenances. The limits of removal shall be field verified in the presence of the Engineer prior to the start of activity and upon completion of demolition to confirm removal of full extents.
- C. Breaching the dam with a full impoundment shall not be allowed. The Control of Water Plan shall include provisions for drawing down the impoundment and rescuing/relocating isolated wildlife prior to removing/breaching the existing dam. Breaching of existing dam requires provisions for river user safety, including clearing river users prior to dam breach and performing a measured, controlled breach to minimize resultant flood wave. No demolition, including

- access, shall occur prior to installing exclusion signage at the project site, as specified in Section 01 35 13 Special Conditions.
- D. Use of explosives is not allowed.
- E. The Contractor shall perform the demolition in a controlled manner, with due regard to the safety and preservation of residents and residential property, pedestrians, resident wildlife, Engineer and staff, adjacent natural resources, and their own forces.
- F. The Contractor shall use demolition methods that will allow complete removal of demolition debris from the site. The Contractor shall prevent demolition debris or dust from entering areas outside of the limits of disturbance as shown on the Drawings.
- G. The Contractor shall use demolition methods that will not result in degradation or impairment of the existing natural resources and/or environmental qualities, including but not limited to water, soil, or air quality.
- H. The Contractor shall use demolition methods that will not result in degradation or impairment of existing infrastructure near the dam, including avoiding any damage to the existing structure as shown on the Drawings.

3.4 REMOVAL

- A. Masonry and concrete components of the dam shall be removed and disposed of at an offsite location in accordance with all applicable rules and regulations. No demolished concrete shall be spoiled within the construction site.
- B. The Contractor shall perform breaking and debris size reduction as necessary for loading into transport vehicles and offsite disposal. All masonry and concrete components within the extents of dam demolition and within other excavation and clearing areas within the limits of disturbance shall be removed in their entirety.
- C. All concrete, rebar, rock, timber, signs, fencing and other material associated with the dam and footbridge demolition not approved for reuse shall be sent to an approved facility for recycling or disposal.

3.5 RESTORATION

A. Upon completion of work, the Contractor shall remove debris, trim surfaces, and leave work sites clean to a condition satisfactory to the Engineer.

END OF SECTION

SECTION 31 11 00 CLEARING AND GRUBBING

PART 1 GENERAL

1.1 SUMMARY

- A. Clearing and Grubbing shall consist of clearing and grubbing operations as required to install the work shown on the Drawings.
- B. Disturbance of the ground surface, including, but not limited to grubbing activities, is prohibited in areas identified as "No Ground Disturbance" on the Drawings.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 PROTECTION AND SITE PREPARATION

- A. Protect existing trees and other vegetation that do not interfere with the Work or are not marked for removal.
- B. Repair or replace trees and vegetation damaged by construction operations. If trees or vegetation that have not been identified for removal and reuse or disposal become damaged, as determined by the Owner, during the course of the work, the Contractor shall initiate the following remedial actions, as appropriate, at no cost to the Owner.
 - 1. Repair to be performed by Certified Arborist.
 - 2. Remove trees which cannot be repaired or restored to full growth status.
 - 3. Replace removed trees with new trees of minimum 4-inch caliper.

3.2 SITE CLEARING

- A. The Contractor and Engineer shall review and confirm the limits of Clearing and Grubbing prior to commencement of the Work, and shall clearly mark woody vegetation and trees to be maintained, to be removed, and to be salvaged as part of the clearing operation.
 - 1. Remove and grub trees, shrubs, brush, downed timber, rotten wood, heavy growth of grass and weeds, vines, rubbish, and debris within the limits of excavation.
- B. Harvest and stockpile logs, rootwads, and slash for use in Large Wood Structures.

- C. Cleared vegetation shall be disposed in accordance with all applicable regulations.
- D. Noxious and/or invasive vegetative species including Japanese knotweed, Phragmites, black swallow-wort, gray willow, and multiflora rose within the clearing limits shall be cleared from the site using methods that minimize the potential for mobilization and/or propagation off site. Dispose of the vegetative material in accordance with applicable regulations. See Section 32 90 00 Site Plantings for details.
- E. Disposal of Waste Materials:
 - 1. Cleared materials and waste materials not designated for reuse shall be disposed of off-site by the Contractor in accordance with all applicable regulations.
 - 2. Burning, as a means of waste disposal, is not permitted.

3.3 FIELD QUALITY CONTROL

A. Upon completion of the site clearing, obtain Engineer's acceptance of the extent of clearing.

END OF SECTION

SECTION 31 23 00 EARTHWORK

PART 1 GENERAL

1.1 **SUMMARY**

- A. Supply of all materials, labor, tools, and equipment to construct the pilot channel, valley slopes, and adjacent areas as shown on the Drawings and described in these Specifications.
- B. Work under this section includes:
 - 1. Excavation and salvage/reuse or offsite disposal of impounded sediment;
 - 2. Excavation and salvage/reuse or offsite disposal of earthen material associated with the demolition and excavation of the Becker Dam;
 - 3. Excavation and salvage/reuse of material within the Limit of Work;
 - 4. Grading to achieve the lines and grades shown on the Drawings;
- C. This section includes: rock, and soil material for use in construction of the pilot channel, valley slopes, and adjacent areas, including, but not limited to, the following:
 - 1. Salvaged Material
- D. Disturbance of the ground surface, including, but not limited to earthwork cut activities, is prohibited in areas identified as "Do Not Disturb" on the Drawings.

1.2 **REFERENCES**

- A. MassDOT Standard Specifications and Supplements (MHD) latest edition
- B. American Society for Testing and Materials (ASTM)
 - 1. ASTM D422, Standard Test Method of Particle-Size Analysis for Soils
 - 2. ASTM D698, Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lb/ft3).
 - 3. ASTM D1557, Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/f(2,700 Kn-m/m)).
 - 4. ASTM D2487, Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System.)

- 5. ASTM D4253, Standard Test Methods for Maximum Index Density of Soils Using a Vibratory Table.
- 6. ASTM D4254, Test Methods for Minimum Index Density of Soils and Calculation of Relative Density.
- 7. ASTM D6913/D6913M Standard Test Methods for Particle Size Distribution (Gradation) of Soils Using Sieve Analysis

1.3 **RELATED SECTIONS**

- A. Section 01 57 14 Flow Management, Erosion, and Sediment Controls
- B. Section 01 71 13 Mobilization and Demobilization
- C. Section 02 40 00 Demolition
- D. Section 31 35 19 Bioengineering Treatment

1.4 **DEFINITIONS**

- A. Controlling Agency: any agency, department, commission, or other party that requires standards to be met for the installation, modification, or documentation of a feature.
- B. Deleterious Material: materials that include, but are not limited to, the following: asphalt, wood, clay brick, clay tile, plastic, gypsum, gypsum plaster, wallboard, roots, and all other organic matter.
- C. Field Set: An element to be constructed with onsite observation from the Engineer to review the final layout, location, configuration, and alignment. The Installation Contractor shall make field adjustments to final configuration following concurrence by the Engineer at no additional cost to the Owner.
- D. Salvaged Earthen Material: Salvaged Earthen Material shall be soil material excavated from within the limits of grading that shall generally be a well-blended mix of equal parts sand (granular material) and organic soil (fine material composed of organic matter), free of chemical contaminants, stumps, other deleterious materials, and rocks or organic material greater than 2 inches in diameter. Salvaged Earthen Material shall be blended as needed, and/or stockpiled for eventual use by the Contractor to construct required fills and backfills. Salvaged Soil that is not reused in construction of the work shall be properly disposed of in an accepted off-site facility.

1.5 QUALITY ASSURANCE

A. Materials and methods of construction shall comply with the ASTMI: American Society for Testing Materials International standards.

- B. Layout and Grading: After staking out the work, and before beginning final construction, the Contractor shall obtain the Engineer's acceptance for layout and grades:
 - 1. The Contractor shall stake out the limits of pilot channel excavation and obtain acceptance from the Engineer prior to beginning excavation operations.
- C. Grade Control: Establish and maintain required lines and elevations. Review grades and lines the Engineer prior to starting work and periodically as work progresses.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Salvaged Materials
 - 1. Salvaged materials shall be approved by the Engineer as suitable prior to incorporation into the Project.
 - 2. Salvaged Earthen Material
 - a) Earthen material excavated from within the grading limits shown on the Drawings shall be stockpiled for potential reuse in fill areas.
- B. All other excavation
 - 1. All other excavation materials shall be unclassified, and may be highly saturated and muck soils. Soft or saturated soils to be reused or spoiled shall be stockpiled on site for drying in such a manner to minimize drying time.
 - 2. The Contractor shall implement erosion control measures, in accordance with the Construction Operations Plan and the SWPPP, to prevent fugitive emissions from stockpiles. See Section 01 71 13 Mobilization and Demobilization.

PART 3 EXECUTION

3.1 PROTECTION AND SITE PREPARATION

A. Perform all Earthwork in strict compliance with the Construction Operations Plan. See Section 01 71 13 – Mobilization and Demobilization and Section 01 57 14 Flow Management, Erosion, and Sediment Control.

- B. Excavation performed above the waterline shall proceed such that excavation spoils are carried away from the water, or otherwise collected and contained before being allowed to contact surface waters.
- C. Protect existing surface and subsurface features on site and adjacent to the site as follows:
 - 1. Provide barricades, coverings, or other types of protection necessary to prevent damage to existing items indicated to remain in place.
 - 2. Protect and maintain bench marks, monuments or other established reference points and property corners. If disturbed or destroyed, replace at Contractor's expense to full satisfaction of the Engineer and controlling agency.
 - 3. Verify location of utilities. Omission or inclusion of utility items does not constitute non-existence or definite location. Secure and examine local utility records for location data and call Dig Safe at 1-888-DIG-SAFE (1-888-344-7233).
 - a) Take necessary precautions to protect existing utilities from damage due to any construction activity.
 - b) Repair damages to utility items at Contractor's expense.
 - c) In case of damage, notify Engineer at once so protective measures may be taken.
 - 4. Maintain free of damage: existing sidewalks, structures, and pavement, not indicated to be removed. Any item known or unknown or not properly located that is inadvertently damaged shall be repaired to original condition. All repairs to be made and paid for by Contractor at no additional cost to the Owner.
 - 5. Provide full access to public and private premises, fire hydrants, street crossings, sidewalks and other points as designated by Engineer to prevent serious interruption of travel.
 - 6. Maintain stockpiles and excavations in such a manner to prevent inconvenience or damage to structures on-site or on adjoining property.
 - 7. Avoid surcharge or excavation procedures that can result in heaving, caving, or slides.
- D. Salvageable Items: Carefully remove items to be salvaged, and maintain unless otherwise directed.

E. Dispose of waste materials to be removed, in accordance with all applicable laws, regulations, and permits, off-site. Burning, as a means of waste disposal, is not permitted.

3.2 SITE EXCAVATION, GRADING, AND INSTALLATION OF FILLS

- A. The work includes all operations in connection with excavation, construction of fills and embankments, rough grading, and disposal of excess materials required to attain the finish lines and grades as shown on the Drawings.
- B. Excavation and Grading: Perform as required in the Drawings.
 - 1. Pilot channel excavation shall be carried out with on-site observation by the Engineer.
 - 2. Drawings may indicate existing grade, subgrade, and finished grade required for construction of project. Stake all units, structures, piping, roads, parking areas, and walks and establish their elevations. Perform other layout work required. Replace property corner markers to original location if disturbed or destroyed.
 - 3. Protection of finish grade: During construction, shape and drain embankment and excavations. Protect graded areas against action of elements prior to acceptance of work. Reestablish grade where settlement or erosion occurs.
 - 4. Excavations performed shall be contained with sedimentation and erosion controls in accordance with the conventions described in the US EPA NPDES Construction General Permit.
 - 5. Excavate to elevations and dimensions indicated or specified. Do not carry the channel excavation deeper than the typical subgrade elevation shown on the Drawings. Excavation carried below subgrade shall be replaced with appropriate fill material as determined by the Engineer. The Contractor shall bear all costs for correcting over-excavated areas.
 - 6. Varying soil moisture contents will be encountered during the excavation. The Contractor shall be equipped to handle excavation with moisture content ranging from dry to very wet during excavation, handling, loading, transport, and disposal. See Section 01 57 14 Flow Management Erosion and Sediment Controls for limitations on spillage over the access route in the Project site and along haul routes on public roads.
 - 7. The Contractor shall be responsible for managing, separating, and sorting salvaged material on site and for the transport and placement of salvaged material to be incorporated into the Work.

- 8. Removal of obstructions and undesirable materials in excavation includes, but is not necessarily limited to, removal of old foundations, existing construction, logs, riprap, and any other materials which may be concealed beneath the waterline or present grade, as required to perform the Work as indicated on the Drawings. If undesirable material and obstructions are encountered during excavation, remove material and replace with appropriate fill material.
- 9. Excavated materials not earmarked for salvage, stockpile, and reuse as fill, or that remain after all fills are complete, shall be disposed of by the Contractor offsite in accordance with all applicable laws and regulations.
- 10. Do not carry excavations beyond the limits shown on the Drawings. No extra compensation will be made to Contractor for excavation beyond the grades shown on the drawings without prior approval by the Engineer.
- 11. Protection of structures: Prevent new and existing structures to remain from becoming damaged due to construction operations.
- 12. Shoring: Shore, sheet pile, slope, or brace excavations as required to prevent them from collapsing. Remove shoring as backfilling progresses but only when banks are stable and safe from caving or collapse.
- 13. Drainage: Control grading so that ground is pitched to prevent water from running into areas beyond the limits of work. Provide pumping required for keeping excavated spaces clear of water during construction as required to facilitate excavation progress. Discharge of pumped water shall be in strict compliance with the Construction Operations Plan. Refer to Sections 01 71 13 Mobilization and Demobilization and Section 01 57 14 Flow Management, Erosion, and Sediment Controls.
- 14. Compact as required to obtain specified density listed below. Control moisture for each layer necessary to meet compaction requirements.
- 15. Install Surface Fabric Treatment as described in Section 31 35 19 Bioengineering Treatment.
- C. Construct fills as required in the Drawings.
 - 1. Construct embankments and fills at locations and to lines and grades indicated. Completed fill shall correspond to shape of typical cross section or contour indicated regardless of method used to show shape, size, and extent of line and grade of completed work.
 - 2. Prepare native surface to receive fill material by removing all loose soil and organic material, logs, rocks, overhangs, or other material or features

- that may interfere with placement and compaction in accordance with these specifications
- 3. Provide approved fill material from salvaged onsite sources as described in these specifications.
- 4. Place 0.75-foot to 1.0-foot layers horizontally and compact each layer prior to placing additional fill.
- 5. Compact as required to obtain densities specified in Section 3.4 Compaction Density Requirements. Control moisture for each layer necessary to meet requirements of compaction.
- 6. Install Surface Fabric Treatment as described in Section 31 35 19 Bioengineering Treatment.

3.3 EARTHWORK TOLERANCES

A. Slope Grading

1. When completed, the average plane of the slopes shall conform to the slopes indicated on the Drawings, and no point on the completed slopes shall vary from the designated plane by more than 0.5 feet measured at right angles to the slope.

B. Channel Grading

- 1. The proposed cut-slopes are not intended to be prescriptive. The intent of excavation activities is to remove fill material or impounded sediment that is on top of the historic native material, which is likely to consist of cobbles, boulders, and rock. If historic native material is encountered above the proposed grade, it shall remain in place. If historic native material is not encountered at the proposed grade, no further excavation is requested.
- 2. For locations where underlying historic native material is not encountered, when completed, channel grades shall conform to the grades and notes indicated on the Drawings. The grading tolerance is +/- 0.3 feet in all areas unless otherwise described.

3.4 COMPACTION DENSITY REQUIREMENTS

- A. Obtain approval from Engineer with regard to suitability of soils and acceptable subgrade prior to subsequent operations.
- B. Provide dewatering system necessary to successfully complete compaction and construction requirements.

- C. Remove frozen, loose, wet, or soft material and replace with suitable material as accepted by Engineer.
- D. Stabilize subgrade with well graded granular materials as necessary to achieve satisfactory placement and consolidation of design fill.
- E. Compact installed materials to the following densities:

MATERIAL	COMPACTION DENSITY
Valley Slopes:	85 percent, ASTM D698
Borrow Pit Fill:	85 percent, ASTM D698

3.5 FIELD QUALITY CONTROL

- A. The Contractor shall verify that all design grades have been achieved per the Drawings. The Owner's Representative shall review finished areas of grading and check for conformance with the Drawings.
- B. Testing Agency: The Contractor will engage a qualified independent compaction density testing agency to perform field quality-control testing.
- C. The extent of compaction density testing will be as necessary to demonstrate compliance with Specifications.
- D. Should any compaction density test or subgrade inspection fail to meet Specification requirements, the Contractor shall perform corrective work as necessary.
- E. The Contractor shall pay for all costs associated with corrective work and retesting resulting from failure to pass compaction density tests.

END OF SECTION

SECTION 31 35 19 BIOENGINEERING TREATMENT

PART 1 GENERAL

1.1 SUMMARY

- A. Provide all labor, materials, equipment and supervision necessary for work shown on the Drawings and the Specifications. The work of this Section includes, but is not limited to, the following items:
 - 1. Surface Fabric Treatment.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM)
 - 1. ASTM D 6525 Test for Measuring Nominal Thickness of Permanent Rolled Erosion Control Products
 - 2. ASTM D 1117 Standard Guide for Evaluating Non-woven Fabrics
 - 3. ASTM D 6475 Test for Measuring Mass Per Unit Area of Erosion Control Blankets
 - 4. ASTM D 1388 Test for Stiffness of Fabrics
 - 5. ASTM D 6818 Test for Ultimate Tensile Properties of Turf Reinforcement Mats
 - 6. ASTM D 1777 Test for Thickness of Textile Materials
 - 7. ASTM D 4595 Test for Tensile Properties of Geotextiles by the Wide-Width Strip Method
 - 8. ASTM D 3776 Test for Mass Per Unit Area (Weight) of Fabric
- B. Erosion Control Technology Council (ECTC)
 - 1. Standard Specification for Rolled Erosion Control Products

1.3 SUBMITTALS

- A. Prior to ordering, provide Certificates of Compliance for all materials required for fabrication and installation, certifying that each material complies with, or exceeds, specific requirements. This includes, but is not limited to:
 - 1. Non-woven Coir Fabric

- 2. Woven Coir Fabric
- 3. Wood Staples
- 4. Wood Stakes

1.4 RELATED SECTIONS

- A. 31 23 00 Earthwork
- B. 32 90 00 Site Plantings

PART 2 PRODUCTS

2.1 WOVEN AND NON-WOVEN COIR FABRIC

A. The inner (non-woven) layer of coir fabric used in Surface Fabric Treatment shall be North American Green (NAG) style C125BN 100% biodegradable coconut fiber mat or equal as reviewed and accepted by the Engineer. The fabric shall be delivered in roll widths as specified below. The fabric shall meet the following criteria:

<u>Parameter</u>	Procedure/Test	Criterion	
Thickness	ASTM D6525	0.23 inches	
Transverse Direction Tensile Strength	ASTM D6818	145.2 pounds per foot	
Transverse Direction Elongation	ASTM D6818	12.9%	
Machine Direction Tensile Strength	ASTM D6818	206.4 pounds per foot	
Machine Direction Elongation	ASTM D6818	15.3%	
Mass/Unit Area	ASTM D6475	9.79 ounces per square yard	
Roll Width	Measured	6 feet - 8 inches	
Roll Length	Measured	108 feet	

B. The outer (woven) layer used in Surface Fabric Treatment consists of woven coir fabric that shall be a high strength 700 Weight (100% coconut fiber), continuously woven mat (i.e., without seams) with the following minimum average roll properties:

<u>Parameter</u>	Procedure/Test	Criterion
Thickness	ASTM D5199	0.35 inches
Tensile Strength (wide width, dry)	ASTM D4595	1512 pounds per foot x 1032 pounds per foot
Mass per unit area (min)	ASTM D5261	20.6 ounces per square yard
Open Area	Measured	50%, maximum
Roll Width	Measured	13.1 feet
Roll Length	Measured	165 feet

- C. The woven coir fabrics shall consist of 100% biodegradable, continuously woven mats, without seams. Nylon, plastic, or other non-biodegradable fiber material in any of the coir fabrics is not acceptable.
- D. Each roll of coir fabric shall be packaged individually in a suitable sheet, wrapper, or container to protect the fabric from damage due to ultraviolet light, moisture, and mud during normal storage and handling.
- E. Each roll of coir fabric shall be identified with a tag or label securely affixed to the outside of the roll on one end. The label shall include the manufacturer or supplier, the style number, and the roll and lot numbers.
- F. Store all coir fabrics elevated off the ground and ensure that they are adequately covered to protect the material from damage. Protect coir fabrics from sharp objects which may damage the fabric. Coir fabrics damaged during transport, storage or placement shall be replaced at the Contractors expense.
- G. The Engineer may randomly select and obtain samples from rolls of coir fabric after arrival on the site and prior to installation to compare to previously submitted samples.

2.2 WOOD STAKES

A. Wood Stakes shall be used to anchor all coir fabrics. Wood Stakes shall be wooden stakes solid and free of knots or defects. Wood Stakes shall be 18 inches in length. Wood Stakes shall be wedge shaped with a minimum equivalent diameter equal to 1.5 inches at the top and should come to a point at the bottom. Wood Stakes should be constructed by cutting a standard grade nominal 2-inch by

4-inch lumber lengthwise along the diagonal to create wedge shaped stakes, or by some other method resulting in a stake of dimensions accepted by the Engineer.

2.3 WOOD STAPLES

- A. Wood Staples shall be used in a supplemental manner after fabrics have been secured with Wood Stakes in spot areas to eliminate slack in fabric installation, and to ensure the fabrics are securely held in contact with the underlying soil.
- B. Wood Staples shall be 12 inches in length, untreated wooden staples solid and free of knots or defects.
- C. Pre-approved: North American Green EcoSTAKES (12-inch) are pre-approved.

2.4 SEED

A. For Seed see Section 32 90 00 - Site Plantings.

PART 3 EXECUTION

3.1 COMPACTION AND DENSITY REQUIREMENTS

- A. Confirm subgrade is in accordance with the requirements of Section 31 23 00 Earthwork
- B. Provide the dewatering system necessary to successfully complete compaction and construction requirements.
- C. Remove frozen, loose, wet, or soft material and replace with suitable material in conformance with Section 31 23 00 Earthwork.
- D. Compaction densities shall comply with the following requirements:

MATERIAL Surface Fabric COMPACTION DENSITY 85 percent, ASTM D698

E. The Engineer reserves the right to require the Contractor to engage a qualified Subcontractor to provide compaction testing as needed for verification.

3.2 INSTALLATION

- A. Surface Fabric Treatment
 - 1. Surface fabric shall be installed along disturbed banks and ground as shown on the Drawings.
 - 2. The subgrade for Surface Fabric Treatment shall be graded to a smooth condition free from depressions and protruding rocks, sticks, and other

- debris which may prevent a smooth application or that may damage the fabric. Care shall be taken to remove all objects that would interfere with application or damage the coir fabrics.
- 3. Key trench the edge of fabric 1 foot (minimum) at the bottom and top of the bank as shown on the Drawings. Place Wood Stakes on 3-foot centers in the key trench, pound flush with trench bottom. The location of the key trenches shall be reviewed by the Engineer in the field at the time of construction.
- 4. Surface Fabric Treatment shall extend up the bank slope to the elevation as shown on the Drawings.
- 5. Apply Seed per Section 32 90 00 Site Plantings to the prepared subgrade prior to placement of coir fabrics.
- 6. Place Wood Stakes at 3-feet on center. Intersperse with Wood Staples at 18-inch on center. The Wood Stakes are intended to hold the fabric in place. The Wood Staples are intended to hold the fabric in close contact with the ground. Wrinkles, folds, and gaps between the ground and the fabric are not acceptable. Place additional Wood Stakes and Wood Staples as needed.
- 7. Place woven coir fabrics, as shown on the Drawings, overlying non-woven fabric. The coir fabrics shall be placed and anchored as shown on the Drawings using Wood Stakes. Wood Stakes shall be placed through both layers of coir fabrics. It is not required to anchor the non-woven and woven fabrics individually.
- 8. Wood Stakes and Wood Staples shall be eased between the fibers of the woven coir fabric. Cutting the woven coir fabric to place the Wood Stakes is not allowed.
- 9. Damaged coir fabric shall be repaired or replaced. If damaged coir fabric has a tear of 6 inches or smaller, scrap fabric may be placed beneath damaged woven coir fabric such that it extends 24 inches beyond the damaged area in all directions. Stake around the tear with 4 Wood Stakes on 12-inch centers. Coir fabrics with tears greater than 6 inches shall be removed and replaced at the Contractor's expense.

- 10. Following completion of each Surface Fabric Treatment bank installation, review the installation for areas of loose fabric or locations of voids between fabric and soil. Secure these areas with supplemental Wood Stakes or Wood Staples to ensure that fabrics are tight and in solid contact with the underlying soil. The Engineer will review fabric staking in identified areas of loose fabric or voids. If additional staking/stapling is necessary, the Contractor shall perform the corrective action at no expense to the Owner.
- 11. Maintenance: Seed placed in Surface Fabric Treatment areas shall be watered by the Contractor in accordance with Section 32 90 00 Site Plantings.

3.3 FIELD QUALITY CONTROL

- A. The Contractor shall verify that all design grades have been achieved in accordance with the Drawings. The Engineer will review finished areas of grading and check for conformance with the Drawings.
- B. Testing Agency: Owner will engage a qualified independent testing agency to perform field quality-control testing.
- C. Compaction density testing will be as necessary to demonstrate compliance with these Specifications.
- D. Should any compaction density test or subgrade inspection fail to meet Specification requirements, the Contractor shall perform corrective work as necessary at no additional cost to the Owner.
- E. Contractor shall pay for all costs associated with corrective work and retesting resulting from failing compaction density tests.
- F. When completed, the average plane of the slopes shall conform to the slopes indicated on the Drawings, and no point on the completed slopes shall vary from the designated plane by more than 0.5 feet measured at right angles to the slope.

END OF SECTION

SECTION 31 05 16 SITE PLANTINGS

PART 1 GENERAL

1.1 SUMMARY

- A. Work shall include, but not be limited to, acquisition, storage, installation and maintenance of seed, mulch, tree, and plant stock in accordance with these Specifications and as shown on the Drawings or as otherwise accepted by the Engineer.
- B. Work shall include the removal and proper disposal of invasive plants, through manual or mechanical means in accordance with these Specifications and as shown on the Drawings or as otherwise accepted by the Engineer.
- C. Work shall include all equipment, labor, materials, and technical expertise to perform the activities required during the Warranty period. Refer to Section 3.5 Quality Control and Assurance.

1.2 REFERENCES

- A. Seeding shall be performed in accordance with the provisions of
 - 1. American Water Works Association (AWWA)
 - 2. Standard Methods of the Association of Official Agricultural Chemists (current edition).
 - 3. United States Department of Agriculture, (USDA):
 - a) Federal Seed Act (2018).
- B. Tree and Shrub Planting shall be performed in accordance with the provisions of
 - 1. American Standard for Nursery Stock (ASNS).
 - 2. ANSI Z60.1
- C. Mulch shall be applied in accordance with the provisions of
 - 1. North American Weed Management Association (NAWMA)

1.3 SUBMITTALS

- A. Submittals shall be prepared and submitted in accordance with Specification 01 35 13 Special Conditions.
- B. Materials Certifications for Seed Mixes, Container Plants, Mulch
- C. Planting Operations Plan
 - 1. The Contractor shall submit
 - a) A final plant list. The list shall be reviewed by the Engineer and accepted by the Owner. All plants and seed mixes shall be composed of species native to Berkshire County in accordance with The Vascular Plants of Massachusetts: A County Checklist First Revision (Dow Cullina, M, B Connolly, B Sorrie, and P Somers. 2011. MA NHESP DFW). Available from Massachusetts state archive: http://archives.lib.state.ma.us. State-listed plants and seeds shall not be used: https://www.mass.gov/infodetails/list-of-endangered-threatened-and-special-concern-species.
 - b) A proposed local weather station to be used to track weather patterns and precipitation in the Project Area.
 - c) A time schedule that indicates dates for delivery of plants to the site, storage and handling of planting material, and the completion of work to indicate start of the Warranty Period. The schedule shall be reviewed by the Engineer and accepted by the Owner.
 - d) A certificate of compliance showing where the plants were grown and listing all transplants, age or size as specified, grade, and quantity.
 - e) A watering log. The Contractor shall document all watering activities and precipitation events that satisfy water requirements as recorded at an accepted local weather station.

D. 3-Year Plant Maintenance Plan

1. The Contractor shall submit a 3-year Plant Maintenance Plan to be reviewed by the Engineer and accepted by the Owner. This Maintenance Plan will address the maintenance of the installed vegetation to achieve the minimum guarantee requirements outlined in Section 3.6.E. and Section 3.6.F. of this Specification. The Maintenance Plan shall consider vegetation management and invasive species control, the provision of a prior approved water source, materials to be used for irrigation, methods for protection against animal browse, and a schedule for site maintenance inspections and activities.

- 2. Vegetation management and invasive species control in all seeded and planted areas will be the sole responsibility of the Contractor during the 3-year warranty period for vegetation.
- E. Invasive Species Management Plan
 - 1. The Subcontractor shall submit
 - a) A Plan that describes all materials and methods for proper harvest and disposal of invasive plants according to local and state guidelines to maintain a project area free of invasive plants through the Warranty period.
 - b) The Plan shall also describe the Subcontractor's methods for preventing introduction of invasive species to the Project Area.

PART 2 PRODUCTS

2.1 MATERIALS

A. Seed

- 1. All plants and seed mixes shall be composed of species native to Berkshire County in accordance with The Vascular Plants of Massachusetts: A County Checklist First Revision (Dow Cullina, M, B Connolly, B Sorrie, and P Somers. 2011. MA NHESP DFW). Available from Massachusetts state archive: http://archives.lib.state.ma.us. State-listed plants and seeds shall not be used: https://www.mass.gov/info-details/list-of-endangered-threatened-and-special-concern-species.
- 2. Seed mix and cover crop shall be reviewed by the Engineer and accepted by the Owner.
- 3. Seed mix for Native Seed Application in the former impoundment and under surface fabric shall be a custom mix from New England Wetland Plants "NATIVE SEED APPLICATION FOR BECKER POND DAM REMOVAL" or equivalent. Application rate is 40 PLS lb/acre. Custom seed mix composition shall consist of:

Botanical Name	Common Name	Indicator	% By Weight
Elymus canadensis	Canada Wild Rye	FACU+	21.00%
Elymus riparius	Riverbank Wild Rye	FACW	20.00%
Andropogon gerardii	Big Bluestem	FACU	19.00%
Schizachyrium scoparium	Little Bluestem	FACU	14.00%
Bidens frondosa	Beggar Ticks	FACW	9.00%
Onoclea sensibilis	Sensitive Fern	FACW	5.00%
Eupatorium fistulosum (Eutrochium fistulosum)	Hollow-Stem Joe Pye Weed	FACW	2.00%
Aster prenanthoides (Symphyotrichum prenanthoides)	Zigzag Aster	FAC	2.00%
Eupatorium perfoliatum	Boneset	FACW	2.00%
Eupatorium maculatum (Eutrochium maculatum)	Spotted Joe Pye Weed	OBL	2.00%
Agrostis perennans	Upland Bentgrass	FACU	2.00%
Juncus tenuis	Path Rush	FAC	1.00%
Scirpus cyperinus	Wool Grass	FACW	1.00%
			100.00%

4. Seed mix for restoration of disturbed areas, accesses, and staging areas shall be a custom mix from New England Wetland Plants "LOGGING ROAD MIX AMENDED FOR NATIVE BERKSHIRE COUNTY" or equivalent. Application rate is 50 PLS lb/acre. Seed mix composition shall consist of:

		<u>% B</u>	У
Botanical Name	Common Name	Indicator Weig	tht
Schizachyrium scoparium	Little Bluestem	FACU 33.0	00%
Sorghastrum nutans	Indian Grass	UPL 32.0	00%
Andropogon gerardii	Big Bluestem	FAC 32.0	10%
Agrostis perennans	Upland Bentgrass	FACU 2.0	00%
Juncus tenuis	Path Rush	FAC 1.0	00%
		100.0	10%

- 5. Additional cover crop shall consist of a species native to Berkshire County and shall be reviewed by the Engineer and accepted by the Owner.
- 6. The delivered seed mix shall be healthy and vigorous and free of noxious weed seeds. Any adjustments or substitutions in seed species or composition shall be reviewed by the Engineer. Seeds that have become wet, moldy, or otherwise damaged, or do not meet the Specifications shall be legally disposed of offsite and replaced at Contractor's expense.
- 7. Any seed mixes other than listed above must meet prior written approval by the Engineer or Owner.
- 8. All seed mixes must follow these requirements for inspection and acceptance. Each bag of seed delivered shall be clearly labeled including the following information.

- a) The common name genus, species and subspecies (when applicable).
- b) The amount of Pure Live Seed (PLS) pounds of each species in each seed mix.
- c) The total delivered weight, in pounds, of each seed mix.
- d) The state and county of origin of each species of seed used in mixes.
- e) The name and address of the seed supplier.

B. Mulch

- 1. Mulch shall be seedless straw mulch according to MHD Section M6.04.2 "Straw Mulch" and MHD Section 767 "Mulching; Seed for Erosion Control." Mulch shall be applied at a rate of 2 tons per acre.
- 2. Straw Mulch shall be seed free, consisting exclusively of stalks or stems of grain after threshing.

C. Plant Materials

- 1. All plants shall be species native to Massachusetts and nursery grown in accordance with good horticultural practices. At the time of delivery, all plant material furnished shall meet the grades established by the latest edition of the American Standard for Nursery Stock, (ASNS) ANSI Z60.1 and shall conform to the size and acceptable conditions as listed in the Contract, and shall be free of all foreign plant material. All plant material shall comply with State and Federal laws with respect to inspection for plant diseases and insect infestation.
- 2. Live woody or herbaceous plant material, except cuttings, rhizomes, and tubers, shall be vigorous, well formed, with well-developed fibrous root systems, free from dead branches, and from damage caused by an absence or an excess of heat or moisture, insects, disease, mechanical or other causes detrimental to good plant development. Deciduous trees that have solitary leaders shall have only the lateral branches thinned by pruning. Trees having a damaged or missing leader, multiple leaders, or Y-crotches shall be rejected. Root balls of plant materials shall be solidly held together by a fibrous root system and shall be composed only of the soil in which the plant has been actually growing. Root balls shall be free of weed or foreign plant growth. Plant materials shall be nursery grown stock. Plant material, with the exception of cuttings, gathered from native stands shall be held under nursery conditions for a minimum of one full growing season, shall be free of all foreign plant material, and meet all of

the requirements of these Specifications and the Drawings. Container-grown plants shall be plants transplanted into a container and grown in that container sufficiently long for new fibrous roots to have developed so that the root mass will retain its shape and hold together when removed from the container, without having roots that circle the pot. Plant material which is root bound, as determined by the Engineer, shall be rejected.

- 3. Any adjustments or substitutions in plants species, sizes, container types, or quantities, shall be reviewed by the Engineer and approved by the Owner. Immediately upon delivery and until installation, plant material shall be shaded and watered to ensure that the plants remain alive and healthy. The Contractor shall store plants in a shaded on-site location and kept moist throughout the entire storage and installation period. A thorough watering is required every 24 hours. Plants shall not be stored on-site for more than 2 weeks prior to installation.
- 4. Plant material size and general specifications shall be in accordance with the special provisions below.
- 5. Plant materials must originate no more than 100 miles from the project site, unless approved by the Engineer.
- 6. All plants shall be inspected by the Engineer prior to installation.

D. Container Plants

- 1. Container Plants may also be referred as potted stock, or simply pots.
- 2. Containerized plants shall be used in the planting areas shown on the Drawings. Containerized plants shall be supplied by the Contractor and shall include shrubs and trees. Plant materials shall be healthy and vigorous with well-developed root systems.
- 3. Container plants shall be free of weed or foreign plant growth. Average height to spread proportions and branching shall be in accordance with the applicable sections, illustrations, and accompanying notes of the ASNS. All plant material shall be purchased from a nursery licensed to sell plants the Commonwealth of Massachusetts. Plants which have been determined by the Engineer to have suffered damage for the following reasons will be rejected:
 - a) Girdling of the roots, stem, or a major branch.
 - b) Deformities of the stem or major branches.
 - c) Lack of symmetry.

- d) Dead or defoliated tops or branches.
- e) Defects, injury, and condition which renders the plant unsuitable for its intended use. Plants that are grafted shall have roots of the same genus as the specified plant.
- 4. Containers shall be sufficiently rigid to hold the root mass during propagation and protect it during shipping.
- 5. The dimensions of containers shall be pre-approved by the Engineer.
- 6. Container stock shall conform to American Standard for Nursery Stock guidelines for caliper versus container size (ASNS Z60.1-2004).
- 7. Species shall be potted (containerized) with the number of plants and species within the planting treatment area according to the following table:

Common Name	Latin Name	# Plants	Spacing on-center	Moisture Tolerance
TREES		3 gal		
			15 ft	Dry
Black oak	Quercus velutina	1		Mesic
Hemlock	Tsuga canadensis	1	15 ft	Mesic
Sugar maple	Acer saccharum	1	15 ft	Mesic
SHRUBS		2 gal		
Mountain Laurel	Kalmia latifolia	10	3 ft	Mesic

PART 3 EXECUTION

3.1 SEED

A. Apply Seed at the rate provided in these Specifications.

B. Seeding:

- 1. Dry seed shall be broadcast for all areas. Seed may be broadcast mechanically or by hand. Seed application method must be pre-approved by the Engineer. Hydroseeding is preferred for areas with slopes steeper than 3:1.
- 2. Care of Seeded Areas. All seeded areas shall be protected and maintained throughout the construction of the project and until the work is accepted. No construction traffic will be allowed over a seeded or planted area once

the seed and erosion control measures have been completed. Foot traffic shall be minimized; workers shall travel along completed banks only in designated areas. Any damage to seeded areas caused by construction traffic or construction activities shall be repaired and re-seeded at no cost to the Owner.

- 3. The seed shall be broadcast under erosion control measures.
- 4. Seed shall not be installed when the ground is snow covered.

C. Re-seeding

- 1. All re-seeding activities shall be in accordance with these Specifications.
- 2. Dry seed shall be broadcast on re-seeding areas in densities according to the above specifications for disturbed areas.

3.2 MULCHING

- A. Straw mulch shall be applied at 2 tons (4000lb) per acre; no mulch shall be applied on the Surface Fabric.
- B. Disturbed areas, as shown in the Drawings, shall be seeded and mulched as soon as practical after completion of grading operations. The mulch shall be applied within the period specified for germination of the seed.
- C. Mulch shall be applied over areas disturbed during construction that will not be covered by fabric treatment, and around tree and shrub installations. The Item 'Mulching' does not pertain to mulching associated with Section 01 57 14 Flow Management, Erosion, and Sediment Controls.

D. Mulching:

- 1. To the extent practicable, mulch shall be placed on the same date the seed is applied.
- 2. Mulch shall be placed over all seeded areas except for areas covered by fabric.

3.3 PLANTING

A. Planting shall occur in areas as shown on the Drawings.

- B. Planting shall not be permitted during the following conditions unless otherwise approved:
 - 1. Temperatures less than 32 degrees Fahrenheit
 - 2. Temperatures greater than 90 degrees Fahrenheit
 - 3. Saturated soil conditions
 - 4. Wind velocities greater than 20 mph.
- C. Apply water as needed during and after planting to meet the warranty period survival criteria. During the construction of all bank treatments that incorporate plant material, apply water as required to minimize stress on the plant materials.
- D. Immediately prior to installation of all woody plants, apply water to all soil, erosion control fabric, or other material within one foot of the woody plants. Apply the water at a rate of 0.15 gallons per square foot.

E. Container Plants:

- 1. Planting hole (pit) size: Pits shall be 3 times the width of the rootball or plant container. Depth of the pits shall correspond to the height of the rootball, measured from the bottom to the lower extent of the root flare, ensuring that the root flare will not be covered. The sides and bottom of pit shall be scarified to prevent glazed soils.
- 2. Subsurface conditions: The Engineer shall be notified immediately of all subsurface drainage or soil conditions which the Contractor shall consider detrimental to growth or survival of plant material. Contractor shall state condition and submit proposal for correction, including the cost of the correction. No work shall be performed on the affected portion until approval of the correction method is obtained from the Owner in writing.
- 3. If the coir fabric must be cut to install an individual planting, comply with repair requirements for damaged fabric described in Section 35 42 34 Bioengineering Treatment. Small cuts may be made in the coir fabric to allow for plant installation. Cuts shall be a single slit no longer than 6 inches and parallel to the river bank. Cuts shall be repaired with stakes, sewing, or other means as described in the Specifications and accepted by the Engineer.
- 4. Immediately prior to planting container plant material, prepare the rootearth mass by cutting. The root-earth mass shall receive three vertical cuts, each spaced equidistant about the perimeter. Each cut, about 1/2-inch deep, shall begin at the top of the root-earth mass and continue to the bottom.

- 5. The Container Plant shall be removed from the container immediately prior to planting to prevent desiccation of the roots. All plants shall be set approximately plumb and to a depth sufficient for the top of the root mass to be even with the soil surface. Topsoil shall then be filled in around the root mass to half the depth, tamped to remove all air pockets and thoroughly watered, after which the remainder of the topsoil shall be placed. The plant shall then be thoroughly watered.
- 6. Some plants will be concentrated in near-bank regions. Exact planting locations will be determined by the Engineer in the field.
- F. Prevention of invasive species infestation: Prior to planting or seeding, all personnel must ensure that equipment, clothing and footwear is clean and free of seeds. Equipment and personnel may be subject to inspection prior to site entry.

G. IRRIGATION:

- 1. Immediately prior to the installation of all Container Plants, apply water to all soil that contacts the plants. Apply water at a rate of 0.15 gallon per square foot.
- 2. All plants shall be watered during planting and all plants shall be watered at least twice each week during weeks where the average daily temperature exceeds 55 degrees (F) and when precipitation during the same week has been less than 1 inch, as determined by local National Weather Service data.
- 3. Watering shall be sufficient to provide moist soil to a depth of 6 inches, as determined by the Engineer. If soil is sufficiently moist, as determined by the Engineer, the required watering may be reduced.
- 4. Trees or shrubs planted after October 15 shall be thoroughly watered at the time of planting, after which, subsequent watering will not be required until April 1 of the following year.
- 5. The Contractor shall maintain a watering log for all plants installed on the project, indicating dates of watering and weather events. Log shall be submitted for final payment.
- 6. In case of drought, this plan may be altered in coordination with the Engineer.
- 7. All plants shall be watered during planting and all plants shall be watered at least twice each week during weeks where the average daily temperature exceeds 55 degrees (F) and when precipitation is less than 1 inch, as determined by local National Weather Service data..

3.4 TREE AND SHRUB PROTECTION

A. Rodent Protection

- 1. Rodent protection shall be installed on all trees and shrubs.
- 2. Rodent Protection shall be 15" solid biodegradable rodent guard.
- 3. Rodent Protection must be installed to penetrate the ground to a minimum depth of 6 inches to prevent burrowing beneath the plastic.
- B. Other trees and shrubs shall be protected in a sufficient manner to achieve the minimum guarantee requirements through the Warranty Period as described in Section 3.5 Quality Control and Assurance.

3.5 QUALITY CONTROL AND ASSURANCE

A. General

1. The Subcontractor shall provide all equipment, labor, materials, and technical expertise to install, maintain, and irrigate site plantings through the completion of the project, demobilization, and for the Warranty Period.

B. Warranty:

- 1. The Warranty period shall extend for three years. The Warranty period shall begin immediately following plant and seed installation.
- 2. The Warranty shall include maintenance of the planting and seeding areas as described in the approved 3-year Plant Maintenance Plan and as described in Section 3.5.D and 3.5.E of this specification.
- 3. The Warranty shall include the control of invasive plants to maintain a project area free of invasive plants through the Warranty period as described in the Invasive Species Management Plan in Section 1.3.E of this Specification.

C. Maintenance Plan

1. The Subcontractor shall develop and follow a 3-year Project Maintenance Plan as described in Section 1.3.D of this specification.

D. Seeded Areas: Minimum guarantee requirements

1. Seeded areas guarantee: Areas that do not meet seed success criteria for native seed mix establishment on July 1st after the installation date shall be re-seeded during the first available seeding period, as determined by the

- Engineer and Wetland Scientist. Re-seeding shall be performed at the Subcontractor's expense, and in conformance with these Specifications.
- 2. Seeding success criteria: The Contractor will conduct surveys to verify seeding success. An area will be considered satisfactory if it meets the following criteria:
 - a) A minimum of 80 percent intended vegetative cover (noxious weeds and undesirable non-native species will not be considered to be intended vegetation);
 - b) Not more than 10% of the seeded area with bare spots larger than 1 square foot; and vegetation in healthy condition.
- E. Container Plant stock: Minimum guarantee requirements
 - 1. Container Plant guarantee: The Subcontractor shall replace all Container plants judged by the Contractor, within 1-, 2- and 3-years of the installation date, to be dead or in less than vigorous health. Plant replacements shall be of the same species, quality and size as originally installed, or with substitutes pre-approved in writing by the Contractor. Replanting shall be performed at the Subcontractor's expense.
 - 2. Replanting shall be conducted according to the original planting specifications.
 - 3. The Contractor will conduct inspections at 1, 2- and 3-year dates following the installation date and will notify Subcontractor of plants needing replacement.
 - 4. Replanting must be conducted within 30 days of notification during acceptable planting periods (March June, Sept. Nov.). Deviations from this plan must be pre-approved in writing by the Contractor.

End of Section