

Meetinghouse Creek Stormwater Wetland and Habitat Restoration Project, Riverhead, NY

Project Manual



September 2023

This project has been funded wholly or in part by the United States Environmental Protection Agency under assistance agreement (CE97230303) to NEIWPCC in partnership with the Peconic Estuary Partnership (PEP). The contents of this document do not necessarily reflect the views and policies of NEIWPCC, PEP, or the EPA, nor does NEIWPCC, PEP, or the EPA endorse trade names or recommend the use of commercial products mentioned in this document.

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**TOWN OF RIVERHEAD
SUFFOLK COUNTY, NEW YORK**

**2023 ANNUAL CONSTRUCTION
CONTRACT**

APRIL 2023

Prepared By:
Engineering Department
Town of Riverhead
1295 Pulaski Street
Riverhead, NY 11901
(631) 727-3200 Ext. 201

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200 HOWELL AVENUE
RIVERHEAD, NY 11901
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**TOWN OF RIVERHEAD
NOTICE TO BIDDERS**

Sealed bids for **MEETINGHOUSE CREEK STORMWATER WETLAND AND HABITAT RESTORATION PROJECT** will be received by the Town Clerk of the Town of Riverhead at Town Hall, 200 Howell Avenue, Riverhead, New York, 11901, until **11:00 a.m. on January 25, 2024** at which time all bids received shall be opened and read aloud.

Bid Specifications and/or Plans may be obtained by visiting the Town of Riverhead website at www.townofriverheadny.gov on or after January 4, 2024. Click on "Online Services" and "Bids" and follow the instructions to register.

**BY ORDER OF THE TOWN BOARD
OF THE TOWN OF RIVERHEAD**

DIANE M. WILHELM, TOWN CLERK

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INSTRUCTIONS TO BIDDERS

1. RECEIPT AND OPENING OF BIDS

Pursuant to Town Board Resolution, the Town of Riverhead invites bids on the forms herein provided for the 2023 Annual Construction Contract, with associated time, date and place indicated in the Notice to Bidders.

2. FORM, PREPARATION AND PRESENTATION OF PROPOSAL

In submitting the bid, the bid sheets furnished are to be filled in but not detached from the Contract Form. In no case is the Contract Form to be filled in or signed by the bidder. The complete bid for this work shall be enclosed in a sealed envelope properly endorsed. All blank spaces for bid prices must be filled in, in ink, in both words and figures, with the total or gross sum for which the bid is made. Bids that contain any omission, erasure, alteration, addition or items not called for in the itemized proposal form or that contract irregularities of any kind may be rejected. In case of discrepancy between the unit price and total amount bid for any item, the unit price, as expressed in words, shall govern.

3. BID SECURITY

- (A) The bid must be accompanied by a certified check on the solvent bank or trust company with its principal place of business in New York State, or an acceptable bid bond, in an amount equal to not less than five percent (5%) of the total bid, made payable to the Town of Riverhead (herein identified as the Town), as assurance that the bid is made in good faith. The certified checks or bid bonds will be returned after execution of the contract between the Town and the successful bidder; the certified check or bid bond of the successful bidder will be retained until signing and execution of the conformed contract.
- (B) The successful bidder, upon his failure or refusal to execute and deliver the contract insurance and bonds required within fourteen (14) days after the date of notice of acceptance of his bid, shall forfeit to the Town, as liquidated damages for such failure or refusal, the security deposited with his bid.

4. QUALIFICATIONS OF BIDDERS

- (A) Forms or qualifications of bidders, giving evidence of sufficient facilities, equipment, experience and financial ability to ensure completion of the work will be provided, and the three lowest bidders shall be prepared to file at the option of the Town said form, properly filled in and sworn to in the Office of the Town Clerk within seven (7) days after the opening of bids.
- (B) Information contained in any statement of financial ability shall be not more than thirty (30) days old at the time of submission. If a financial statement is already

on file with the Town Clerk, a new one need not be submitted provided the information contained therein is not more than thirty (30) days old at the time of the opening of bids and provided the contractor has not materially changed since submission of said statement.

5. REJECTION OF BIDS

- (A) The Town Board reserves the right to reject any bid if the evidence submitted in the qualifications statement of an investigation of such bidder fails to satisfy the Town Board that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted.
- (B) The Town Board reserves the right to reject any and all bids, in whole or in part, to waive any information in any or all bids, and to accept the bid or part thereof which it deems most favorable to the Town after all bids have been examined and/or checked. No bid shall be withdrawn for a period of forty-five (45) days after being publicly opened and read.
- (C) The Town Board reserves the right to reject any bids, in whole by a low bidder in which the owner of the low bidder has violated Prevailing Wage and Supplemental Payment Requirements of the Labor Law, and any other labor provisions, including but not limited to child labor violations, failure to pay wages, or unemployment insurance tax delinquencies within the past five (5) years. An owner is defined in this paragraph as an individual who owns more than 50% of a past or present company.

6. WITHDRAWAL OF BID

- (A) Any bid may be withdrawn prior to the Bid Opening Date and Time specified above or authorized postponement.
- (B) Bids may not be withdrawn before forty-five (45) days after the Bid Opening Date and Time, unless a clerical mistake or error is claimed by the Bidder.
- (C) If a Bidder claims to have made a clerical mistake or error in his Bid, he shall notify the Owner within the time limitations set forth in General Municipal Law Section 103 (11) (a) together with all documentary evidence in support of the Bidder's claim of a bid mistake or error.

7. BIDDER'S RESPONSIBILITY

- (A) The Bidder shall include the complete cost of furnishing all materials, labor and equipment necessary to complete the work in accordance with the plans and specifications, including all other expenses incidental thereto.

- (B) Bidders must examine the plans and specifications and exercise their own judgement as to the nature and amount of the whole of the work to be done, and for the bid prices, must assume all risks of variance by whomever made in computation or statement of amounts or quantities necessary to fully complete the work in strict compliance with the contract documents.
- (C) The contractor shall assume all risks and responsibility and shall complete the work in whatever material and under whatever conditions he may encounter or create, without extra cost to the Town.
- (D) No plea of ignorance or misunderstanding of conditions that exist or that may hereafter exist, or of conditions or difficulties that may be encountered in the execution of the work under this contract, as a result of failure to make the necessary examinations and investigations, will be to fulfill in every detail all of the requirements of the contract documents, or will be accepted as a basis for any claims whatsoever for extra compensation or for extension of time.

8. CONSTRUCTION TERMS AND CONDITIONS

The successful bidder is warned that the work specified in the Conditions of Contract, together with the Information to Bidders, Form of Bid, Plans and Specifications and Instruction of the Town Engineer will be strictly enforced.

The term Town Engineer shall include his duly authorized representative.

9. SECURITY FOR FAITHFUL PERFORMANCE AND MAINTENANCE

(NOT APPLICABLE FOR THIS CONTRACT)

10. FOREIGN CONTRACTORS

Foreign contractors must comply with the provisions of Articles 9A and 16 of the Tax Law, as amended, prior to submission of a bid for the performance of this work. The certificate of the New York State Tax Commission to the effect that all taxes have been paid by the foreign contractor shall be conclusive proof of the payment of taxes. The term "foreign contractor" as used in this subdivision means in the case of an individual, a person who is a legal resident of another state or foreign country; and in the case of a foreign corporation, one organized under the laws of a state other than the State of New York.

11. LIEN LAW

All persons submitting bids represent and warrant that they have reviewed, are aware, and agree to be bound by is specifically called to the provisions of Section 25, including Subdivision 5, Section 25A and 25B of the New York State Lien Law, as amended, which mandates that every assignment of moneys, or any part thereof, due or to become due under a contract for a public improvement shall contain a covenant by the assignor that he will receive any moneys advanced thereunder by the assignee and will hold the right to receive such moneys as a trust fund to be first applied to the payment of trust claims as defined in section seventy-one of the lien law, and that he will apply the same to such payments only, before using any part of the moneys for any other purpose.in relation to funds being received by a contractor for a public improvement declared to constitute trust funds in the hands of such contractor to be applied first to the payment of certain claims. Pursuant to Section 220-a of the Labor Law all contractors and subcontractors and subcontractors to subcontractors shall file an affidavit attesting to the payment to employees.

12. SUBCONTRACTORS AND SUPPLIERS

Within five days after receipt from the Town Engineer of notice to begin work, the contractor will furnish written notice of names of all subcontractors to be employed on the project and the general items of work to be dome by them. Simultaneously, the contractor shall furnish written notice of the names and suppliers of materials to be used on the project. The town may disapprove, for good cause, any subcontractor or material supplier selected by the contractor by giving written notice of its disapproval within five (5) days after receiving the names of subcontractors and material suppliers, to the contractor who shall thereupon promptly notify the town of the names of the subcontractor or material supplier selected in replacement which shall again be subject to approval by the town.

13. PROTECTION OF UNDERGROUND FACILITIES

Attention is called to New York State General Business Law Article 36, section 764; New York State Public Service Law section 119-b and New York State Code Rule 753, also known as Dig Safely New York. The successful bidder acknowledges, agrees and warrants that bidder has read, is familiar with and agrees to comply with the provisions addressed in the afore-mentioned legal sections. Section 1918 of the Penal Law as follows:

Subpart 753-3 DUTIES OF EXCAVATORS

753-3.1 Timing of notice for excavation or demolition.

- a. 1. Before commencing or engaging in any non-emergency excavation or demolition, each excavator shall provide notice of the location and date of the planned excavation or demolition to the one-call notification system serving the vicinity in which the excavation or demolition is to take place.

2. Such notice shall be served at least two (2) but not more than ten (10) working days, not including the date of the call, before the commencement date of the excavation or demolition.

14. REFUSAL TO WAIVE IMMUNITY

Pursuant to the provisions of Section 103-A of the General Municipal Law, in the event that the bidder or any members, partner, director or officer of the bidder, should refuse when called before a grand jury to testify concerning any transaction or contract had with the State, any political subdivision thereof, a public authority or with any public department, agency or official of the State, of any political subdivision thereof or of an authority, to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant questions concerning such transaction or contract, such person, and any firm, partnership or corporation of which he is a member, partner, firm director or officer shall be disqualified from thereafter selling to or submitting bids to or receiving awards from or entering into any contracts with any municipal corporation or any public department, agency, or official thereof, for goods, work or services, for a period of five (5) years after such refusal, and any and all contracts made with any municipal corporation or any public department, agency or official thereof on or after the first day of July, 1959, by, such person and any firm, partnership or corporation of which he is a member, partner, director or officer may be canceled or terminated by the municipal corporation without incurring any penalty or damages on account of such cancellation of termination, but any monies owing by the municipal corporation for goods delivered or work done prior to the cancellation or termination shall be paid.

15. ADDENDA AND INTERPRETATIONS

Every request for information or interpretation of the Contract Documents or Drawings must be emailed to: Drew Dillingham, P.E., Town Engineer, email address: dillingham@townofriverheadny.gov or mailed to: Drew Dillingham, P.E., Town Engineer, Town of Riverhead, 1295 Pulaski Street, Riverhead, NY 11901, and to be given any consideration, must be received at least five (5) days prior to the date fixed for the opening of bids. Any such interpretations or supplemental instructions will be in the form of written addenda, and will be mailed to all prospective bidders. The failure of any bidder to receive any such addenda will not relieve the bidders of any obligations under his bid as submitted. Any addenda so issued shall become part of the Contract Documents.

16. LIQUIDATED DAMAGES

Liquidated damages in the amount of Two Hundred Fifty Dollars and 00 Cents (\$250.00) will be assessed for each consecutive calendar day of delay in starting or completing assigned work not excusable as provided in the Contract Documents.

17. EXEMPTION FROM SALES AND USE TAXES

In accordance with Chapter 513 of the laws of 1974 adopted by the New York State Legislature, amending Section 1115(a) of the Tax Law, specifically paragraphs 15 and 16, regarding political subdivisions, such as the Town of Riverhead, as described in subdivision (a) paragraph (L) of Section 1116 of the tax laws, of the State of New York are exempt from the payment of sales and use taxes imposed on tangible personal property within the limitations specified in Tax Law Section 1115 (a) (15) and (16).

- (15) Tangible personal property sold to a contractor, subcontractor or repairman for use in erecting structure or building of an organization described in subdivision (a) of Section 1116, or adding to, altering or improving real property, property or land of such an organization, as the terms real property, property and land are defined in the real property tax law; provided, however, no exemption shall exist under this paragraph unless such tangible personal property is to become an integral component part of such structure, building or real property.
- (16) Tangible personal property sold to a contractor or repairman for use in maintaining, servicing or repairing real property, or land of an organization described in subdivision (a) of Section 1116, as the terms real property, property or land are defined in the real property tax law are also exempt from payment of sales and use taxes; provided, however, no exemption shall exist under this paragraph unless such tangible personal property is to become an integral component part of such structure, building or real property.

Contractors entering into contract with the Town of Riverhead shall be exempt from payment of sales and use tax described above. Procedures and forms are available to the contractor direct from the Instructions and Interpretations Unit, State of New York, Department of Taxation and Finance, State Campus, Albany, New York 12227.

18. METHOD OF AWARD

This bid and bid specifications are part of a competitive procurement process, which is intended to serve the best interests of the Town of Riverhead. The Town will award to the vendor(s)/bidder(s) whose proposal is determined to be the lowest responsible bidder.

Notwithstanding an award pursuant to these specifications, the Town does not guarantee that the Town will purchase any goods or services awarded under these specifications and the Town reserves the right to purchase any goods or services included as a part of this bid from any means legally available to it, including but not limited to New York State Office of General Services, County of Suffolk Shared Services Initiative/Purchasing Cooperative, and such other governmental entities as set forth under and in compliance with New York State General Municipal Law without notice to the vendor if it is deemed appropriate and in the bests interests of the Town and the vendor/bidder shall have no recourse to the Town for any lost profit resulting from this action. In addition, the Town

of Riverhead reserves the right to allow all municipal and not for profit organizations authorized under the General Municipal Laws of the State of New York, to purchase any goods and/or services awarded as a result of this bid in accordance with the latest amendments to NYS GML 100 through 104. However, it is understood that the extension of such contracts is at the discretion of the vendor and the vendor is only bound to any contract between the Town of Riverhead and the vendor.

19. TIME FOR COMMENCEMENT OF WORK

The bidder, when submitting his bid, must be prepared to commence work not later than ten (10) days after receiving a Town of Riverhead Purchase Order and the scope of work from the Town Engineer unless the Town Engineer shall authorize a different commencement time.

Work shall commence as stipulated in the construction schedule provided by the Town of Riverhead or alternate schedule provided by the Contractor subject to approval by the Town Engineer and/or other Town personnel and shall meet the stipulations of this contract. The entire work must be satisfactorily completed and the project improvements available for use within the completion time stipulated. For additional information see Conditions of Contract, Section 5, Time of Completion.

20. PAYMENTS

Upon completion of the work under this contract, the contractor shall notify the Town Engineer of his completion. The Town Engineer will then make a final inspection and submit to the contractor a "punch list" if required. Upon final acceptance of the work by the Town Engineer, the contractor shall be paid one lump sum payment equal to the final progress payment and the amount retained from previous progress payments. On large projects exceeding 60 days to complete, the Contractor shall submit monthly progress payments based on applicable contract items unit price bid or percentage complete for lump sum items as confirmed by the Town Engineer. The Contractor shall review proposed quantities/percentages with site inspector prior to submittal for confirmation of accuracy. Contractor shall submit a Receipt on company letterhead in the amount billed, a signed Town of Riverhead Voucher, Certified Payroll Records, Wage Disclaimer and the No Lien Affidavit attesting to the payment of employees. Payment shall not be processed until all necessary paperwork is received.

21. NYS LABOR LAW

The contractor and each and every subcontractor performing work at the site of the project to which this contract relates shall comply with the applicable provisions of the Labor Law, as amended, of the State of New York.

22. NYS WAGE RATES

The rates of wages determined by the New York State Industrial Commissioner pursuant to the Labor Law, which are to be paid on this project, are set forth herein immediately following.

INSERT NYSDOL PREVAILING WAGE RATES

23. INSURANCE REQUIRED BY THE TOWN OF RIVERHEAD

The successful bidder will be required to procure and pay for the following types of insurance, in accordance with the provisions of the Conditions of Contract:

- (A) Workers' Compensation Insurance.
- (B) Public Liability and Property Damage.
- (C) Contractor's Liability and Contractor's Property Damage.
- (D) Owner's Protective Public Liability and Property Damage.

Insurance documents meeting the requirements of Conditions of Contract, Section 38, Contractor's Insurance, shall be submitted within 14 calendar days from the date of award. Failure to provide acceptable insurance certificate(s) within this time frame shall result in the termination of Primary Contractor status.

24. TERM OF CONTRACT

The term of the contract award shall be one year from award of contract. The Town of Riverhead shall have the option of extending the awards of this contract in six (6) month intervals when mutually agreed upon by Town and contractor. If not extended, the end date of this contract shall be one year from the date of contract award.

25. CERTIFIED PAYROLL RECORDS

State of New York Department of Labor

On September 10, 1997, Governor Pataki signed into law Assembly Bill 6394-B amending Article 8, Section 220, of the NYS labor Law to include the following language:

Every contractor and sub-contractor shall submit to the department of jurisdiction within thirty (30) days after issuance of its first payroll, and every thirty (30) days thereafter, a transcript of the original payroll record, as provided by this article, subscribed and affirmed as true under penalties of perjury. The DEPARTMENT OF JURISDICTION shall be required to receive and maintain such payroll records.

The original payrolls or transcripts shall be preserved for three years from the completion of the work on the awarded project.

This law took effect on November 9, 1997.

Form PW12 is included in this package for contractor's convenience and must be completed, for the current payment request period, including all payroll information for all employees and subcontractor employees including but not limited to laborers, mechanics, foremen, supervisors, etc.

Department of Labor
Bureau of Public Work

WEEKLY PAYROLL

For Contractor's Optional Use. The use of this form meets payroll notification requirements, as stated on the Payroll Records Notification.

THIS CERTIFICATION MUST BE COMPLETED ON EACH WEEKLY PAYROLL FORM USED BY THE CONTRACTOR OR SUBCONTRACTOR

Date	<hr style="border-top: 1px solid black;"/>		
I		(Name of signatory party)	(Title)
do hereby state:		<p>(1) That I pay or supervise the payment of the persons employed by _____</p> <p style="text-align: right;">(Contractor or Subcontractor)</p>	
		, that during the payroll period commencing on the _____	

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

- Each laborer, worker, or mechanic listed in paid, as indicated on the payroll, an amount applicable basic hourly wage rate plus the as listed in the contract, except as noted in S

(1) That I pay or supervise the payment of the persons employed by

<p>(1) That I pay or supervise the payment of the persons employed by _____</p>	<p>from the full weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as</p>
<p style="text-align: center;">(Contractor or Subcontractor)</p>	
<p>_____, that during the payroll period commencing on the _____</p>	
<p>day of _____, 20_____, and ending the _____ day of _____ 20_____,</p>	
<p>all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said _____</p>	
<p>from the full weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as</p>	
<p style="text-align: center;">(Contractor or Subcontractor)</p>	

(2) That any payrolls submitted for the above period are correct and complete; that the wage rates for laborers, workers, or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer, worker or mechanician conform with the work he/she performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeships and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

- In addition to the basic hourly wage rates paid to each laborer, worker or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 4(c).

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

- Each laborer, worker, or mechanician listed in the above-referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

EXCEPTION (CRAFT)	EXPLANATION

REMARKS:

SIGNATURE

THE WILFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE ARTICLES 8 AND 9.

a(3)(b), the initial list is expected to be issued no later than 120 days after the Act's effective date, at which time it will be posted on the OGS website.

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, Bidder/Contractor (or any assignee) certifies that once the prohibited entities list is posted on the OGS website, any Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract awarded in response to the solicitation, must certify at the time the Contract is renewed, extended or assigned that it is not included on the prohibited entities list.

During the term of the Contract, should the TOWN OF RIVERHEAD receive information that a person is in violation of the above-referenced certification, the TOWN OF RIVERHEAD will offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then the TOWN OF RIVERHEAD shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages, or declaring the Contractor in default.

The TOWN OF RIVERHEAD reserves the right to reject any bid or request for assignment for an entity that appears on the Department of Labor's prohibited entities list prior to the award of a contract, and to pursue a responsibility review with respect to any entity that is awarded a contract and appears on the Department of Labor's prohibited entities list after contract award.

Signature: _____
Print Name: _____
Title: _____
Company: _____
Date: _____

PERSONAL PERFORMANCE FORM
STATEMENT TO BE SUBMITTED
WHEN WORK IS PERFORMED PERSONALLY
(SECTION 10001, TITLE 18, US CODE)

I, _____, hereby certify that I am the

Title _____ of _____
Name of Firm Submitting Statement

Prime Contractor or Subcontractor _____ for _____
Nature of Work

at _____, located in _____
Name of Building work being done _____
City and State

under contract number _____
Government Contract No. (See No. 3 Below)

that _____
State All Work or List the Specific Classes of Work

was done personally by _____
Names of Person(s) Performing Work & Their Connection w/ Firm

that no wages were received for the labor performed; that no mechanics or laborers were employed in the prosecution thereof; and that the work was done during the following periods: _____ to _____

Beginning Date _____ **Ending Date** _____

Last date on which work was performed at the site was _____, _____

Signature

Title

Section 10001 of Title 18 of the United State Code (Criminal Code and Criminal Procedures) shall apply to such statements – 72 Stat 887, 18 U.S.C., among other things, provides that whoever knowingly and willfully makes or uses a document or writing containing any false, fictitious or fraudulent statement or entry, in any matter within the jurisdiction of any department or agency of the United State, shall be fined not more than \$10,000 or imprisoned not more than five years, or both)

Instructions for Submission of Statements of Work Performed Personally

- 1. Prime contractors or subcontractors who perform the work are required to submit in lieu of weekly statements of compliance and payrolls with respect to the payment of wages pursuant to the Copeland Anti-kickbacks regulations, a certified statement clearly showing (1) their contractual relationship,; (2) the scope and dates of work performed (3) that they received no wages; and (4) that no mechanics or laborers were employed in the prosecution of the work. The aforementioned sample form sets forth the wording described for such certified statements.**
- 2. Prime contractors are responsible for the submission of the certified statements of subcontractors. Subcontractors' statement should be forwarded to the prime contractor for transmission to the Government contracting officer or his designated representative. Statements of prime contractors and subcontractors should be submitted as soon as possible after the last date on which work was performed at the site.**
- 3. To facilitate identification of the project involved, prime contractors should provide their subcontractors with the Government contract number (if exists) or project name as called for on statement form.**
- 4. Prime contractors should furnish their subcontractors with copies of the sample statement form so as to facilitate submission of the necessary information.**

26. NO LIEN AFFIDAVIT & WAGE DISCLAIMER

State of New York Department of Labor

Pursuant to Section 220-a of the New York State Labor Law all contractors, subcontractors and subcontractors to subcontractors must file an affidavit pertaining to the payment of all laborers and mechanics, exclusive of supervisory employees.

Affidavit Form 220 and Town of Riverhead Wage Disclaimer Form is included in this package for contractor's convenience. Unless given at later date, leave project number blank.

NOTE: Bidders are advised that this is not a contract authorizing any work. It is the option of the Town to authorize work at any time of the year. Any Town department or agency can use this contract. Work will be assigned as project develop and purchase orders will be issued to the contractor for projects as they arise in accordance with the specifications and bid price of applicable items of this contract.

MUNICIPAL CORPORATION

TOWN OF RIVERHEAD
200 HOWELL AVENUE
RIVERHEAD, NY 11901

CONTRACT NAME: _____ PROJECT No.: _____

AFFIDAVIT

Pursuant to Section 220-a of the Labor Law and Town of Riverhead Requirements

Note: All contractors, subcontractors, and subcontractors of subcontractors must file this statement for each payment period requested.

I, _____, _____
Name _____ Title _____

of _____ Contractor _____
Name of Firm _____ Subcontractor _____
Project No.: _____ With: _____
Contractor Name _____

for _____
Indicate Nature of Work _____

at _____ hereby certify that all laborers have been paid in full for period ended
_____, 20 _____. and that there is now due and owing from it/me to any and all laborers (laborers include all laborers,
mechanics, foremen and supervisory employees) for daily or weekly wages or supplements on account of labor performed upon the
work under said contract, the following amounts to the persons whose names are set forth below opposite such amounts. (If none, so
state.)

\$ _____ due and owing to _____
\$ _____ due and owing to _____
\$ _____ due and owing to _____
\$ _____ due and owing to _____

Use additional sheet if necessary.

I further certify that I have contracted with the firms listed below as subcontractors, for labor to be performed upon the work under
said contract for the current pay period requested. (If none, so state.)

Names and Address of Subcontractors	Type of Work
_____	_____
_____	_____

Use additional sheet if necessary

Signature

STATE OF NEW YORK

SS:

COUNTY OF: _____

On this _____ day of _____ 20_____, personally appeared before me _____
to me known and known to me who being by me duly sworn said that he is _____
(Officer)

of _____ the _____
(Contractor or Subcontractor) (Corporation or Partnership)

for which he executed the foregoing statement, for and in behalf of the said _____ contractor; that he
has read the said statement so signed by him and known to be the seal thereof and that the same is true and to his own knowledge.

Dated: _____
Notary Public

Section 220-c Labor Law. Any Contractor or subcontractor who shall upon his oath verify any statement required to be filed under
this act which is known by him to be false, shall be guilty of perjury and punishable as provided by Section One Thousand Six
Hundred and Thirty-Three of the Penal Law.

TOWN OF RIVERHEAD
WAGE DISCLAIMER

Note: All contractors, subcontractors, and subcontractor of subcontractors must file this statement for each payment period request.

DATE: _____

TO: TOWN OF RIVERHEAD

FROM: _____
(Contractor)

PROJECT: _____

To our knowledge, the laborers listed on the attached certified payrolls have been paid the prevailing wage rates as established by the Department of Labor.

Signature

Title

Date

27. MINORITY AND WOMEN OWNED BUSINESSES (MWBE)

(Not applicable to this contract)

PROPOSAL FORM

**TOWN OF RIVERHEAD
SUFFOLK COUNTY, NEW YORK**

**PROPOSAL
FOR**

2022 ANNUAL CONSTRUCTION CONTRACT

**TOWN OF RIVERHEAD
200 HOWELL AVENUE
RIVERHEAD, NEW YORK 11901**

Town of Riverhead
Riverhead, NY

The undersigned bidder has carefully examined the Contract Documents for the proposed construction and will provide all necessary labor, materials, equipment and incidentals as necessary and called for by the said Contract Documents in the manner prescribed therein and in said contract, and in accordance with the requirements of the Town Engineer at the following unit and/or lump sum prices:

Meetinghouse Creek Stormwater Wetland and Habitat Restoration Project

NEIWPCC, PEP, Town of Riverhead NY

Itemized Proposal

11/27/2023

Item No.	Description	Quantity	Unit	Unit Cost	Total Cost
1	Mobilization/Demobilization	1	LS		
2	Erosion, Pollution and Water Control Measures	1	LS		
3	Temporary Access and Traffic Control	1	LS		
4	Clearing and Grubbing	1	AC		
5	Excavation and Off-Site Disposal	3,300	CY		
6	Select Borrow	770	CY		
7	Wetland Soil	910	CY		
8	Topsoil	60	CY		
9	Erosion Control Fabric	790	SY		
10	Fabric Encapsulated Soil Lifts	850	LF		
11	Permeable Paver System	6,260	SF		
12	Rock Type A	190	TON		
13	Rock Type B	460	TON		
14	Rock Type C	220	TON		
15	Water Control Structure	1	LS		
16	24-Inch Reinforced Concrete Pipe Class III	48	LF		
17	6-Inch Polyethylene Pipe	26	LF		
18	Microtopography	1	LS		
19	Permanent Access	1	LS		
20	Gate	1	LS		
21	2-Inch Plug Plants	17,560	EA		
22	3-Gallon Container Plants	160	EA		
23	Seed	2	AC		
				Grand Total	
Add Alternate					Total Cost
A1	Utility Removal and Disposal	1	LS		

PROPOSAL FORM

The undersigned hereby acknowledges receipt of the following Addenda (if any):

Addendum No.

Dated

Signature of person, firm or corporation making this proposal:

(Contractor)

(Title)

P.O. Address: _____

Telephone No.: _____ Dated: _____
The full names and address of all persons interested in the Proposal or principals are as follows:

Name

Address

The Town Board reserves the right to award this contract to the lowest qualified bidder and to reject and declare invalid any or all bids deemed not in the best interest of the Town. In awarding this contract, the Town is not bound by the quantities stated in the Proposal Form. It is emphasized that the quantities are approximations only. No guarantee is made for any quantities stated nor is a guarantee made to the total bid or alternate total bid. Such total bid or alternate total bid is for the purpose of guidance in awarding the contract only. Payment shall be on the basis of actual work done at the unit prices quoted.

Upon acceptance of this bid, the undersigned binds himself or themselves to enter into a written contract with the Town not later than fourteen (14) days after the date of notice of the acceptance of his bid and to furnish the required security for faithful performance of the terms of said contract and the insurance as required by the Conditions of Contract, and to process the work diligently so as to complete all the work required under this contract within the time frame as dictated by the Town Engineer.

STATEMENT OF NON-COLLUSION

As per Chapter 751 of the Laws of 1965, an amendment to the General Municipal Law sponsored by the New York State Department of Law, all bids, proposals and contracts awarded or accepted by a municipality must contain a statement of non-collusion. By submission of this bid or proposal, the bidder certifies that:

- (A) This bid or proposal has been independently arrived at without collusion with any other bidder or with any competitor or potential competitor;
- (B) This bid or proposal has not been knowingly disclosed and will not be knowingly disclosed prior to the opening of bids or proposals for this project to any other bidder, competitor or potential competitor;
- (C) No attempt has been or will be made to induce any other person, partnership or corporation to submit or not to submit a bid or proposal;
- (D) The person signing this bid or proposal certifies that he has fully informed himself regarding the accuracy of the statements contained in this certification and under the penalties of perjury, affirms the truth thereof such penalties being applicable to the bidder as well as to the person signing in its behalf;
- (E) That attached hereto (if corporation bidder) is a certified copy of resolution authorizing the execution of this certificate by the signature of this bid or proposal in behalf of the corporate bidder.

Resolved that _____ be authorized

(Name of Corporation)

to sign and submit the bid or proposal of this corporation for the following project:

(Describe Project)

and to submit in such bid or proposal the certificate as to non-collusion required by Section One Hundred Three D (103-D) of the General Municipal Law as the act and deed of such corporation and for any inaccuracies or misstatements in such certificates, this corporate bidder shall be liable under the penalties of perjury.

The following is a true and correct copy of the resolution adopted by:

Corporation at a meeting of its Board of Directors on the _____ day of _____, 20 ____.

(Seal of Corporation)

Secretary

Legal name of person, firm or corporation making this Bid:

Dated: _____

(Bidder's Seal)

NOTES:

- (1) Where a bidder is a firm, the bid must be signed in the name of the firm by a member of the firm who must sign his own name immediately thereunder as _____, Partner.
- (2) Where a bidder is a corporation, the bid must be signed in the name of the corporation by a duly authorized officer or agent thereof having knowledge of the matters stated in the bid and such officer or agent shall also subscribe his own name, the office he holds, and the seal of the corporation must be affixed.
- (3) The bid must be sworn to by the person signing it, using one of the appropriate forms of acknowledgement that follow.
- (4) The bidders shall date the Form of Affidavit, fill in all blank spaces and complete the "Questionnaire" which follows as part of the bid.
- (5) In case of any discrepancy in the bidder's extensions or total, the Town Engineer's computation of extensions and totals will govern.

PROPOSAL FORM

FORM OF AFFIDAVIT WHERE BIDDER IS AN INDIVIDUAL

STATE OF NEW YORK)
) ss.:
COUNTY OF))

_____, being duly sworn, deposes and says: I am the person described in and who executed the foregoing bid and the several matters therein state are in all respects true.

(Signature of person who signed bid)

Subscribed and sworn to before me this
____ day of _____, 20 ____.

(Notary Public)

FORM OF AFFIDAVIT WHERE BIDDER IS A FIRM

STATE OF NEW YORK)
) ss.:
COUNTY OF)

_____ being duly sworn, deposes and says: I am a member of _____, the firm described in and which executed the foregoing bid. I subscribed the name of the firm thereto on behalf of said firm, and the several matters therein stated in all respects are true.

(Signature of person who signed bid)

Subscribed and sworn to before me:

this _____ day of _____, 20__.

(Notary Public)

PROPOSAL FORM

FORM OF AFFIDAVIT WHERE BIDDER IS A CORPORATION

_____, being duly sworn, deposes and says: I am the
_____, of _____, the
above named corporation, whose name is subscribed to and which executed the foregoing
bid. I reside at _____, State of
_____. I have knowledge of the several matters therein stated and
they are in all respects true.

(Signature of person who signed bid)

Subscribed and sworn to before me this

day of _____, 20____.

(Notary Public)

PROPOSAL FORM

BIDDER MUST SIGN THIS FORM BEFORE A NOTARY PUBLIC

Bid or Contract Number _____

STATE OF NEW YORK)
) ss.:
COUNTY OF)

That in connection with the above bid or contract of _____ I _____ the *(applicable herein), (an officer or agent of the corporate applicant, namely its _____), swears or affirms under the penalties of perjury, that no other person will have any direct or indirect interest in this proposal except _____ (in case of a corporation, all officers of the corporation and stockholders owning more than 5% of the corporation and stock must be listed. Use separate sheet in necessary.)

That *(none of the officers or stockholders are) related to any officer or employee of the Town of Riverhead except _____.

That there is not any state or local officer or employee or a member of a board of commissioners of a local public authority or other public corporation within the county (exclusive of a volunteer fireman or civil defense volunteer) interested in such application.

(Signature)

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

(Notary Public)

*Cross out phrase not appropriate.

NOTE: It is not forbidden that individuals working for the Town of Riverhead or any other municipalities bid on contracts but only that such interest be revealed when they do bid.

FORM OF BID BOND

The Form of Bid Bond shall be AIA Document A310

CONDITIONS OF CONTRACT

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CONDITIONS OF CONTRACT

1. CONTRACT DOCUMENTS AND DEFINITIONS

The Notice to Bidders, Instructions to Bidders, Proposal Form, Form of Bond, Conditions of Contract, General Conditions, Specifications, Form of Contract, Construction Drawings, together with any Addenda, shall form part of this Contract, and the provisions thereof shall be as binding upon the parties hereto, as if they were herein fully set forth. The table of contents, titles, heading, headlines, and marginal notes contained herein are solely to facilitate reference to various provisions of the Contract Documents and in no way affect, limit or cast light upon the interpretation of the provisions to which they refer. Whenever the term "Contract Documents" is used, it shall mean and include the Notice to Bidders, Instructions to Bidders, Proposal Form, Form of Bond, Conditions of Contract, General Conditions, Plans & Specifications, Form of Contract and any Addenda. In case of any conflict or inconsistency between the provisions of the contract and those of the Specifications, the provisions of this contract shall govern.

Extra Work: The term "extra work" as used herein, refers to and includes all work required by the Town, which in the judgement of the Town Engineer involves changes in or additions to work required by the Specifications and any Addenda in their present form and which is not covered by the price in the Form of Bid.

Subcontractor: The term "subcontractor" shall mean any person, firm, or corporation supplying labor and material for work at the site of the project but not including the parties to this contract.

Notice: The term "notice" as used herein, shall mean and include written notice. Written notice shall be deemed to have been duly served when delivered to, or at last known business address of, the person, firm or corporation for who intended, or his, their, or its duly authorized agents, representatives, or officer, or when enclosed in a postage prepaid wrapper or envelope addressed to such person, firm or corporation at his, their or its last known business address and deposited in a United States mailbox.

Directed, Required, Approved, Acceptable: Whenever the Contract Documents refer to the work or its performance, "directed", "required", "permitted", imply the direction, requirement, permission, order, designation or prescription of the Town Engineer and "approved", "satisfied", or "satisfactory", "in the judgement of", and words of like import, shall mean approved, or acceptable to, or satisfactory to, or in the judgement of the Town Engineer.

2. SCOPE OF SERVICES

The contractor will furnish all labor, materials, suppliers, equipment and other facilities necessary or proper for, or incidental to, the work contemplated by this contract as required by, and in strict accordance with the applicable Plans and Specifications and Addenda prepared by the Town Engineer and/or required by, and in strict accordance

with, such changes as are ordered and approved pursuant to this contract, and will perform all other obligations imposed on him by this contract. It is specifically understood that this contract does not guarantee any minimum or maximum quantities of work. Quantities will be as ordered by the Town from time to time, and unit bid prices will govern. The quantities in the proposal are for bidding purposes only.

3. COMPENSATION TO BE PAID TO THE CONTRACTOR

- (A) Agreed Prices: It is understood and agreed that the contractor will accept as payment in full the summation of the products of the actual quantities in place upon the completion of the work, as determined by the Town Engineer's measurements, by the unit prices bid, no allowances being made for anticipated profit or for reasons of variations from the estimated quantities set forth in the Form of Bid.
- (B) Extra Work: The town may, at any time, by a written order and without notice to the sureties, require the performance of such extra work or changes in the work as it may find necessary or desirable. The amount of compensation to be paid to the contractor for any extra work, as so ordered, shall be determined as follows:
 - 1. By such applicable unit prices, if any, as set forth in the contract; or
 - 2. If no such unit prices are set forth, then by unit price or by a lump sum mutually agreed upon by the town and the contractor; and
 - 3. If no such unit prices are set forth and if the parties cannot agree upon unit prices or a lump sum; then by actual net cost in money to the contractor of the materials, permits, wages of applied labor, premiums for Worker's Compensation Insurance, payroll taxes required by law, rental for plant and equipment used (excluding small tools) to which total cost will be added twenty (20) percent as full compensation for all other items of profit costs and expenses, including administration, overhead, superintendence, insurance, insurance other than Workers' Compensation Insurance, materials used in temporary structures, allowances made by the contractor to subcontractors, additional premiums upon the performance bond of the contractor and the use of small tools.

4. TIME OF ESSENCE

Inasmuch as the provisions of the contract relating to the time of performance and completion of the work are for the purpose of enabling the town to proceed with the construction of a public improvement in accordance with a predetermined program, such provisions are of the essence of this contract.

5. TIME OF COMPLETION

The Town shall assign a construction schedule indicating a start date and a completion date. If said schedule is not acceptable to the contractor, the contractor shall notify the town in writing, postmarked within 14 days from date of receipt of construction schedule. This notification shall include an alternative construction schedule. The alternative

construction schedule completion date shall not exceed twenty-eight (28) calendar days from the original completion date assigned by the Town. Failure to comply with time of completion shall constitute liquidated damages and termination of primary contractor.

6. LIQUIDATED DAMAGES

The time limit being essential to and of the essence of this contract, the primary contractor hereby agrees that the Town shall be and is hereby authorized to deduct and retain out of the money which may be due or may become due to said contractor under this agreement, the sum of the cost of completing the work by the secondary contractor, including overhead charges, services, inspector's wages, and interest on the money invested that the Town will suffer by reason of such default. The Town shall have the right to extend the time for the completion of said work.

7. TERMINATION OF PRIMARY CONTRACTOR

Termination of primary contractor shall include all work in progress and pending. All existing and pending purchase orders pertaining to work issued through the Town-wide Construction Contract shall be hereby considered void. All items previously awarded to terminated contractor shall be hereby awarded to corresponding secondary contractors. Termination of primary contractor shall extend the duration of the contract. At the discretion of the Town of Riverhead, termination of contractor shall warrant disqualification from awarding specific items or all items in succeeding Town construction contracts or other capital improvement projects, etc.

8. EXTENSIONS OF TIME. NO WAIVER.

If the contractor shall be delayed in the completion of his work by reason or reasons of unforeseeable causes beyond his control and without his fault or negligence, including but not restricted to; acts of God, the public enemy, fires, floods, epidemics, quarantine restrictions, strikes, riots, civil commotion or freight embargoes, the period herein specified for completion of his work shall be extended by such time as shall be fixed by the Town.

No such extension of time shall be considered a waiver by the Town of its right to terminate the contract for abandonment or delay by the contractor as hereinafter provided, or relieve the contractor from full responsibility for performance of his obligations hereunder.

9. WEATHER

During unsuitable weather, all work must stop when such work would be subject to injury and the contractor shall transfer his men and materials to those parts of the work where weather conditions will not have any effect on the workmanship to any damages on account of such damages or suspension, and he must protect any work that might be injured by the elements and make good any work that is injured.

10. CONTRACT SECURITY

(Not Applicable to this contract)

11. LAWS AND ORDINANCES

In the execution of the contract, the contractor will be required to observe and obey all federal, state, county and local laws, ordinances, codes and regulations relating to the performance of the contract including but not limiting labor employed thereon, materials supplied, obstructing streets and highways, maintaining signals, storing, handling and use of explosives and all other general ordinances and state statutes affecting him or his employees of his work hereunder in his relations with the municipality or any other persons, and also all laws, codes, ordinances controlling or limiting the contractor while engaged in executing the work under the contract.

As a condition of the contract, the contractor shall and does hereby agree to comply with all requirements of the Labor Laws of the State of New York.

The contractor shall comply with the provisions of Sections 291-299 of the Executive Law and Civil Rights Law, shall furnish all information and reports deemed necessary by the State Commission for Human Rights, the Attorney General and the Industrial Commissioner for purposes of investigation to ascertain compliance with such sections of the Executive Law and Civil Rights Law.

The contract may be forthwith canceled, terminated or suspended, in whole or in part, by the contracting agency upon the basis of a finding made by the State Commissioner for Human Rights that the contractor has not complied with these laws.

The contract hereby expressly agrees to comply with all the provisions of the Labor Law and any and all amendments thereto, insofar as the same are applicable to the contract. The Labor Law, as amended, provides that no laborer, workman or mechanic in the employ of the contractor, subcontractor or other person doing or contracting to do the whole or a part of the work contemplated by this contract, shall be permitted or required to work more than eight (8) hours in any one (1) calendar day, except in cases of extraordinary emergency caused by fire, flood or danger to life or property; that no such person shall be employed more than eight (8) hours in any day or more than five (5) days in any week except in such emergency; that the wages to be paid for a legal day's work as herein before defined, to laborers, workmen or mechanics upon the work called for under this contract or upon any materials used upon, or in connection therewith, shall not be less than the prevailing rate for a day's work in the same trade or occupation in the locality within the State where such work is to be done and each laborer, workman or mechanic employed by the contractor, subcontractor or other person about or upon the work shall be paid the wages herein provided; that employees engaged in the construction

maintenance, and repair of highways and in water works construction outside the limits of cities and villages are no longer exempt from the provisions of the labor Law which require that payment of the prevailing rate of wages and the eight (8) hour day.

Section 222 of the Labor Law, as amended by Chapters 556 and 557 of the Laws of 1933, provides that preference in employment shall be given to citizens of the State of New York who have been residents of Suffolk County for at least six (6) consecutive months immediately prior to the commencement of their employment. Each person so employed shall furnish satisfactory proof of residence in accordance with rules adopted by the Industrial Commissioner. Person other than citizens of the State of New York shall be employed only when such citizens are not available. Section 222 further provides that upon the demand of the State Industrial Commissioners, the contractor shall furnish a list of names and addresses of all his subcontractors and further provides that a violation of this section shall constitute a misdemeanor and shall be punishable by a fine of not less than Fifty Dollars (\$50.00) nor more than Five Hundred Dollars (\$500.00) or by imprisonment for not less than thirty nor more than ninety days, or both fine and imprisonment.

Section 220-A of the Labor Law, as amended by Chapter 472 of the Laws of 1932, provides that before payment is made by or on behalf of the State or any city, county, town or village or other civil division of the state of any sums due on account of a contract for a public improvement, it is the duty of the comptroller or the financial officer of the municipal corporation to require the contractor and each and every subcontractor to file a certified statement in writing, in satisfactory form, certifying to the amount then due and owing to any and all laborers for daily or weekly wages on account of labor performed upon the work of the contractor, setting forth herein the names of the persons whose wages are unpaid and the amount due each respectively.

Section 220-B of the Labor Law, as so amended, provides that any interested person who shall have previously filed a protest in writing objecting to the amounts due or to become due to him for daily or weekly wages for labor performed on the public improvement for which the contract was entered into, or if for any reason, it may be deemed advisable, the comptroller of the state or financial officer of the municipal corporation may deduct from the whole amount of any payment on account thereof of the sums or sum admitted by any contractor or subcontractor in such statement or statements so filed to be due and owing by him on account of labor performed and may withhold the amount so deducted for the benefit of the laborers for daily work, weekly wages, whose wages are unpaid as shown by the verified statements filed by any contractor or subcontractor and may pay directly to any person the amount or amounts so shown to be due for such wages.

Section 220-C of the Labor Law, as so amended, provides the penalty for making of a false oath or verification.

Section 220-D of the Labor Law provides that the advertised specifications for every contract for the construction, reconstruction, maintenance and/or repair of highways to which the state, county, town and/or village is a party shall contain a provision stating the

minimum rate of hourly wage that can be paid, as shall be designated by the Industrial Commissioner, to the laborers employed in the performance of the contract whether by the contractor, subcontractor or other person doing or contracting to do the whole or part of the work completed by the laborers shall be paid not less than such hourly minimum rate of wage. Any person or corporation that willfully pays, after entering into such contract, less than such stipulated minimum hourly wage scale shall be guilty of a misdemeanor and upon conviction, shall be punished for a first offense by a fine of Five Hundred Dollars (\$500.00) or by imprisonment; for a second offense by a fine of One Thousand Dollars (\$1,000.00) and in addition thereto, the contract on which the violation has occurred shall be forfeited, and no such person or corporation shall be entitled to receive any sum nor shall any officer, agent or employee of the state pay the same or authorize its payment from the funds under his charge or control to any person or corporation for work done upon any contract, on which the contractor has been convicted or a second offense in violation of the provisions of this section.

The minimum wage rates established by the Industrial Commissioner, State of New York, for this contract are set forth herein above as part of "Instructions to Bidders, Section 21 "NYS Wage Rates"

12. QUALIFICATIONS FOR EMPLOYMENT

No person under the age of sixteen (16) years and no person currently serving sentence in a penal or correctional institution shall be employed to perform any work on the project under this contract. No person whose age or physical condition is such as to make his employment dangerous to his health or safety or to the health or safety of others, shall be employed to perform any work on this project; provided, however, that such restrictions shall not operate against the employment of physically handicapped persons, otherwise employable, where each person may be safely assigned to work which they can ably perform.

13. NONDISCRIMINATION

There shall be no discrimination because of race, creed, or color in the employment of persons for work under this contract, whether performed by the contractor or any subcontractor. Neither shall the contractor or subcontractor or any person acting on behalf of the contractor or subcontractor discriminate in any manner against or intimidate any employee hired for the performance of work under this contract on account of race, creed, or color.

14. PAYMENTS OF EMPLOYEES

The contractor and each of his subcontractors shall pay each of his employees engaged in work on the project under this contract in full (less deductions made mandatory by law) not less often than once each week. Certified payrolls shall be submitted to the Town Engineer before payment to the contractor is processed. Affidavit attesting to payment or amount owed to employees shall be submitted before payment to contractor is processed.

15. ESTIMATES AND PAYMENTS

Upon successful completion of all work, the contractor shall submit an invoice to the Town Engineer for approval. Upon approval by the Town Engineer, payment will be made to the contractor within thirty (30) calendar days provided the payment request is correct and complete. Where large projects exist that will take more than 60 days to complete the contractor may submit monthly invoices for work completed as follows.

(A) Monthly: At the end of each calendar month during the progress of the work, the Town Engineer shall make an approximate estimate of the work satisfactorily completed, based upon the prices set forth in the Form of Bid. In consideration of the work completed, the Town will pay or cause to be paid to the contractor the amount estimated by the Town Engineer as due him less five (5%) percent.

The making of any such estimate or payment made thereon shall not be taken or construed as an acceptance by the Town of any work so estimated and paid for. The five (5%) percent of the amount of the monthly estimate remaining unpaid will be retained by the Town as a guarantee that the contractor will faithfully and completely fulfill all obligations imposed by the contract and specifications, and against any damages caused the Town by reason of any failure on the part of the contractor to fulfill all conditions and obligations herein contained.

(B) Final Estimate: After the completion and acceptance of the work specified and contracted for, the Town Engineer will make a final estimate of all the work done. Thereafter, the Town will pay the full amount, less prior payments, less any amounts retained to complete the work according to the provisions of the specifications, less any money paid by the Town by reasons of said contractor having failed to carry out faithfully and completely all the obligations and requirements herein contained. Upon final settlement, according to the conditions herein specified and not until such settlement shall have been made, will the contractor be relieved from the obligations assumed in the contract.

(C) Measurement for Payment: The Town Engineer shall make due measurement of work completed during the progress of the work and his estimate shall be final and conclusive evidence of the amounts of work performed by the contractor under and by virtue of this agreement and shall be taken as full measure of compensation to be received by the contractor.

(D) No payments will be made for materials delivered to the site which have not been incorporated into the work.

16. ACCEPTANCE OF FINAL PAYMENT CONSTITUTES RELEASE

The acceptance by the contractor of final payment shall be, and shall operate as a release to the Town from all claims and all liabilities to the contractor for all the things done or

furnished in connection with this work and for every act and neglect of the Town and others relating to or arising out of, this work, excepting to the contractor's claims for interest upon the final payment, if this payment be improperly delayed. No payment, however, final or otherwise, shall operate to release the contractor or his sureties from any obligations under this contract or the performance bond or maintenance bond.

17. CONSTRUCTION REPORTS

The contractor shall submit to the Town Engineer prior to commencing any work under this contract, a detailed schedule and plan of operations indicating the manner in which the contractor proposes to prosecute the work and a time schedule therefor. Such schedules are not intended to bind the contractor to a predetermined plan or procedure, but rather to enable the Town Engineer to coordinate the work of the contractor with work required of and to be performed by others. The detailed schedule shall include a list of the subcontractors and material suppliers he proposes to use on the work.

18. INSPECTION AND TESTS

All material and workmanship shall be subject to inspection, examination and test by the Town Engineer at any time during the construction and at any and all places where manufacturing of materials used and/or construction is carried on.

If at any time before final acceptance of the entire work, the Town Engineer considers necessary or advisable an examination of any portion of the work already completed, by removing the same, the contractor shall upon request, furnish promptly all necessary facilities, labor and materials for such examination. If such work is found to be defective in any material respect, due to the fault of the contractor or any subcontractor, contractor shall be liable for the expense for such examination and of satisfactory reconstruction.

If, however, such approval and consent shall have been given and such work is found to meet the requirements of this contract, the contractor shall be recompensed for the expense of such examination and reconstruction in the manner herein provided for the payment of cost of extra work.

The selection of laboratories and/or agencies for the inspection and tests of supplies, materials or equipment shall be subject to the approval of or designated by the Town. Satisfactory documentary evidence that the material has passed the required inspection and tests must be furnished to the Town Engineer prior to the incorporation of the material in the work.

Any rejected work will be removed from the site of the project completely at the expense of the contractor.

19. PLANS AND SPECIFICATIONS: INTERPRETATIONS

The contractor shall keep at the site of the work one copy of the plans and specifications. Bidding of this contract shall be based on the information and data contained herein. Materials of construction and component installation shall conform to the general requirements of the specifications and details contained at the end of the specifications. The Town Engineer will provide plans and directions for specific drainage projects as projects arise. System configurations, arrangements, elevations, materials and methods are to be as directed by the Town Engineer on a specific project basis.

20. SUPERINTENDENCY BY CONTRACTOR

At the site of the work, the contractor shall give his constant, personal attention to the work or employ a construction superintendent or foreman who shall have full authority to act for the contractor. It is understood that such representative shall be acceptable to the Town Engineer and shall be one who can be contained in that capacity for the particular job involved unless he ceases to be on the contractor's payroll. The contractor's superintendent and foreman must be able to read and speak the English language.

21. CONTRACTOR'S TITLE TO MATERIALS

No materials or supplies for the work shall be purchased by the contractor or any subcontractor subject to a chattel mortgage or under a conditional sale or other agreement by which an interest is retained by the seller. The contractor warrants that he has good title to all materials and supplies used by him in the work.

22. PROTECTION OF WORK, PERSONS AND PROPERTY

Precaution shall be exercised at all times for the proper protection of all persons, property and work the contractor shall give notice to the owners of utilities which may serve the area and request their assistance in predetermining the location and depth of various pipes, conduits, manholes, and other underground facilities. The safety provisions of applicable laws and building and construction codes shall be observed. Machinery, equipment and all hazards shall be guarded or eliminated in accordance with the safety provisions of the manual of Accident Prevention in Construction published by the Associated General Contractors of America, to the extent that such provisions are not in contravention of applicable law. The contractor shall furnish entirely at his own expense any and all additional safety measures deemed necessary by the Town to adequately safeguard the traveling public.

23. REPRESENTATIONS OF CONTRACTOR

The contractor represents and warrants:

- (A) That he is financially solvent and that he is experienced in, and competent to, perform the type of work involved under this contract and able to furnish the plant, materials, supplies and/or equipment to be furnished for the work; and
- (B) That he is familiar with all federal, state and municipal law, ordinances and regulations which may in any way affect the work of those employed thereunder, including but not limited to any special acts relating to the work; and
- (C) That such work required by these contract documents as is to be done by him can be satisfactorily constructed and used for the purpose for which is intended and that such construction will not injure any person or damage any property; and
- (D) That he has carefully examined the specifications and project site and that from his own investigations he has satisfied himself as to the nature of the work, the character of equipment and other facilities needed for the performance of the work, and the general local conditions which may in any way affect the work or its performance.

24. AUTHORITY OF THE TOWN ENGINEER

In the performance of the work, the contractor shall abide by all orders and directions and requirements of the Town Engineer and shall perform work to the satisfaction of the Town Engineer at such time and places, by such methods, and in such manner and sequence as he may require. The Town Engineer shall determine the amount, quality, acceptability, and fitness of all parts of the work, shall interpret the plans, specifications, contract documents and any extra work orders and shall decide all other questions in connection with the work. The Town Engineer may require contractor to amend, adjust, or modify plans prior to and during progress of work as may be necessary in his or her reasonable opinion to prevent improper execution of the work and/or public necessity or welfare require. The Town Engineer shall confirm in writing any oral orders, directions, requirements or determinations. The enumeration herein or elsewhere in the contract documents of particular instance in which the opinion, judgement, discretion or determination of the Town Engineer shall control or in which work shall be performed to his satisfaction or subject to his approval or inspection, shall not imply that only matters similar to those enumerated shall be so governed and performed, but without exception all the work shall be governed and so performed. Note, in the event the contractor shall refuse or fail to prosecute the work, including but not limited to, amend, adjust, or modify plans or any part thereof, with due diligence as will ensure its commencement and completion within such period of time herein specified (or any duly authorized extension thereof) or set by the Town Engineer, the Town may exercise its right to terminate the contract (See Contract Provision 29 "Town's Right to Terminate Contract").

25. CHANGES AND ALTERATIONS

The Town Engineer reserves the right to make alterations in locations, line, grade, plan, form or dimensions of the work, or any part thereof, either before or after the commencement of construction. If such alteration diminishes the amount of work to be done, no claim for damages or anticipated profits will be warranted on the work which may be dispensed with. If such alterations increase the amount of work, such increases shall be paid for according to the quantity of work actually done and at the prices for such work as contained in the schedule of prices.

26. CORRECTION OF WORK

All work and all materials whether incorporated into the work or not, all processes of manufacture and all methods of construction shall be at all times and places subject to the inspection of the Town Engineer who shall be the final judge of quality, materials, processes of manufacture and methods of construction suitable for the purpose for which they are used. Should they fail to meet his approval, they shall be forthwith reconstructed, made good and replaced and/or corrected as the case may be, by the contractor, at his own expense.

If, in the opinion of the Town Engineer it is not desirable to replace any defective or damaged materials or to reconstruct or correct any portion of the work injured or not performed in accordance with the contract documents, the compensation to be paid to the contractor thereunder shall be reduced by such amount as in the judgement of the Town Engineer shall be equitable. The contractor expressly warrants that his work shall be free from any defects in materials or workmanship and agrees to correct any defects which may appear within one year following the final completion of the work. Neither the acceptance of the completed work nor payment therefor shall operate to release the contractor or his sureties from any obligations under or upon this contract.

27. WEATHER CONDITIONS

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

28. THE TOWN'S RIGHT TO WITHHOLD PAYMENTS

The Town may withhold from the contractor so much of any approved payments due him as may, in the judgement of the Town be necessary:

- (A) To assure the payment of just claims then due and unpaid of any persons supplying labor or materials for the work;
- (B) To protect the Town from loss due to defective work not remedied; or
- (C) To protect the Town from loss due to injury to persons or damage to the work or property of other contractors or subcontractors or others, caused by the act or neglect of the contractor or any of his subcontractors. The Town shall have the right, as agent for the contractor, to apply such amounts so withheld in such manner as the town may deem proper to satisfy such claims or to secure such protection. Such applications of such money shall be deemed payments for the account of the contractor.

29. THE TOWN'S RIGHT TO TERMINATE CONTRACT

The Town of Riverhead may terminate this contract if:

- (A) the contractor shall be adjudged bankrupt or make an assignment for the benefit of creditors; or
- (B) a receiver or liquidator shall be appointed for the contractor for any of his property and shall not be dismissed within 20 days after such appointment, or the proceedings in connection therewith shall not be stayed on appeal within the said 20 days; or
- (C) the contractor shall refuse or fail, after notice or warning from the Town Engineer to supply enough properly skilled workmen or proper materials to the job; or
- (D) the contractor shall refuse or fail to prosecute the work or any part thereof with such diligence as will ensure its completion within the period herein specified (or any duly authorized extension thereof) or shall fail to complete the work within said period; or
- (E) the contractor shall fail to make prompt payments to persons supplying labor or materials for the work; or
- (F) the contractor shall fail or refuse to comply with laws, ordinances or the instruction of the Town Engineer or otherwise be guilty of a substantial violation of any provisions of this contract.

- (G) the contractor refuses or fails to meet one or more of the time frames indicated in 41. Term of Contract.
- (H) The contractor is found to not be in compliance with New York State Department of Labor prevailing wage rate requirements.

Upon the determination by the Town of Riverhead to terminate this contract, and in any such event, the Town, without prejudice to any other rights or remedy it may have, may give seven (7) days notice to the contractor, terminate the employment of the contractor and his rights to proceed with as to the entire work or (or at the option of the Town) as to any portion thereof as to which delay shall have occurred, and may take possessions of the work and complete the work by contract, secondary contractor or otherwise, as the Town may deem appropriate. In such case, the contractor will not be entitled to receive any further payment until the work is finished. If the unpaid balance of the compensation to be paid to the contractor thereunder shall exceed the expense of so completing the work (including compensation for additional managerial, administrative and inspection services and any damages for delay), such excess shall be paid to the contractor. If such expense shall exceed such unpaid balance, the contractor and his sureties shall be liable to the Town for such excess. If the right of the contractor to proceed with the work is so terminated, the Town may take possession of and utilize in completing the work, such materials, appliances, supplies, plant and equipment as may be on the site of the work and necessary thereof. In addition, the Town may terminate this contract immediately upon its determination that a safety hazard exists that cannot be corrected in any other fashion other than contract termination. Contractor shall be entitled to payment for services rendered to the point of contract termination.

30. CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

If the work shall be stopped by order of the court or other public authority for a period of three (3) months or more without act or fault of the contractor or any of his agents, servants, employees or subcontractors, the contractor may, upon ten (10) days' notice to the town, discontinue his performance of the work and/or terminate the contract; in which event, the liability of the Town immediately preceding (Paragraph 31), the contractor shall not be obligated to pay to the Town any excess of the expense of completing the work over the unpaid balance of the compensation to be paid to the contractor thereunder.

31. RESPONSIBILITY FOR WORK

The contractor agrees to be responsible for the entire work embraced in this contract until its completion and final acceptance by the Town of Riverhead. The contractor further agrees that any imperfect and/or damaged work that may be discovered at any time before the completion and acceptance of work shall be removed and/or replaced in conformity with the requirements of this contract without charge to the Town. Such removal and replacement will be performed as soon as practicable following receipt of written notice from the Town Engineer that the work is imperfect and/or damaged. The

contractor further agrees that the inspection of the work by the Town Engineer of his or her designee shall not relieve him of any obligation to do sound and reliable work. Furthermore, such inspection and/or partial payment for work shall not preclude the Town Engineer from requiring removal and/or replacement at a later time. Neither shall such inspection or partial payment be deemed to be acceptance of any work.

2. USE OF PREMISES AND REMOVAL OF DEBRIS

The contractor expressly undertakes at his own expense:

- (A) To store his apparatus, materials, supplies and equipment in such orderly fashion at the site of the work as will not unduly interfere with the progress of his work or the work of any of his subcontractors;
- (B) To frequently clean up all refuse, rubbish, scrap materials and debris caused by the operations to the end that at all times, the site of the work shall present a neat, orderly and workmanlike appearance;
- (C) Before final payment hereunder to remove all surplus material, temporary structures, plants of any descriptions and debris of every nature resulting from his operations.

33. SUITS OF LAW

The contractor shall indemnify and hold harmless the Town and its employees from and against all suits, claims, demands or actions for any injury sustained or alleged to be sustained by any party or parties in connection with the construction of the work or any part thereof, or any commission or omission of the contractor, his employees or agents of any subcontractor, and in case of any such action shall be brought against the Town, the contractor shall immediately take charge of and defend the same at his own cost and expense.

34. POWER OF THE CONTRACTOR TO ACT IN AN EMERGENCY

In case of an emergency which threatens loss or injury to property and/or safety of life, the contractor will be permitted to act as he sees fit without previous instructions from the Town Engineer. He shall notify the Town Engineer thereof immediately and any compensation claimed by the contractor due to extra work made necessary because of his acts in such emergency shall be submitted to the Town Engineer for approval.

Where the contractor has not taken action but has notified the Town Engineer of an emergency indicating injury to persons or damage to adjoining property or to the work being accomplished under this contract, then upon authorization from the Town Engineer to prevent such threatened injury or damage, he shall act as instructed by the Town Engineer. The amount of reimbursement claimed by the contractor on account of any such action shall be determined in the manner provided herein for the payment of extra work.

35. PROVISION REQUIRED BY LAW DEEMED INSERTED

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

36. SUBLetting – SUCCESSOR AND ASSIGNS

The contractor shall not sublet any part of the work under this contract nor assign any money due him hereunder without first obtaining the written consent of the town. This contract shall insure the benefit of and shall be binding upon the parties hereunder and upon their respective successors and assigns, but neither party shall assign or transfer his interest herein in whole or in part without consent of the other.

37. GENERAL MUNICIPAL LAW CLAUSE

Pursuant to the provisions of Section 103-a of the General Municipal Law, in the event that the bidder or any member, partner, director or officer of the bidder, should refuse, when called before a grand jury to testify concerning any transaction or contract had with the state, any political subdivision thereof, a public authority or any public department, agency or official of the state or of any political subdivision thereof or of a public authority, to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant question concerning such transaction or contract, such person, and any firm, partnership, or corporation of which he is a member, partner, director or officer shall be disqualified from thereafter selling to or submitting bids to or receiving awards from or entering into any contracts with any municipal corporation or any public department, agency or official thereof for goods, work or services for a period of five (5) years after such refusal, and any and all contracts made with any municipal corporation or any public department, agency or official thereof on or after the first day of July, 1959, by such person, and by any firm, partnership or corporation of which he is a member, partner, director or officer may be canceled or terminated by the municipal corporation without incurring any penalty or damages on account of such corporation for goods delivered or work done prior to the cancellation or termination shall be paid.

38. CONTRACTOR'S INSURANCE

The contractor shall not commence any work until he has obtained, and had approved by the Town, all the insurance required under this contract as enumerated herein:

Workers' Compensation Insurance
Public Liability and Property Damage Insurance

Contractor's Protective Liability and Property Damage Insurance
Owner's Protective Public Liability and Property Damage Insurance
Automobile Public Liability and Property Damage Insurance

The contractor shall not permit any subcontractor to commence any operation on the site until satisfactory proof of carriage of the above-required insurance has been posted with and approved by the Town.

(A) Workers' Compensation Insurance: The contractor shall take out and maintain, during the life of this contract, Workers' Compensation Insurance for all his employees employed at the site of the project, and in case of any of the work being sublet, the contractor shall require all subcontractors similarly to provide Workers' Compensation Insurance for all the latter's employees unless such employees are covered by the protection afforded by the contractor. Limits: statutory for Workers' Compensation, One Million Dollars (\$1,000,000) Employers Liability.

(B) Public Liability and Property Damage Insurance: The contractor shall take out and maintain during the life of this contract such Public Liability and Property Damage Insurance as shall protect him or any subcontractor performing work covered by this contract from claims for damages for personal injury including accidental death as well as from claims for property damage which may arise from operations under this contract, whether such operations be completed by the contractor or by any subcontractor, or by anyone directly or indirectly employed by either of them, and the amounts of such insurance shall be as follows:

Public Liability Insurance in an amount not less than Two Million Dollars (\$2,000,000) combined single limit for bodily injuries, including wrongful death, and property damage. The Town of Riverhead must be named as an additional insured.

(C) Liability and Property Damage Insurance: the above policies for Public Liability and Property Damage Insurance must be so written as to include Contractor's Protective Liability and Property Damage Insurance to protect the contractor against claims arising from the operations of any subcontractor. The Town of Riverhead shall be named as additional insured.

(D) Owner's Protective Public Liability and Property Damage Insurance: The contractor shall furnish to the Town, with respect to the operations he or any of his subcontractors perform, a regular Protective Public Liability Insurance policy for, and in behalf of the Town, providing for a limit of not less than Two Million Dollars (\$2,000,000) for all damages arising out of bodily injuries to, or death of, one person and subject to that limit for each person, a total limit of Four Million Dollars (\$4,000,000) for all damages arising out of bodily injuries to, or death of, two or more persons in any one accident; and regular Protective Property Damage Insurance providing for a limit of not less than Four Million Dollars (\$4,000,000)

for damages arising out of injury to, or destruction of, property during the liability of the Town. The coverage provided under this policy must not be affected if the Town performs work in connection with the project either for or in cooperation with the contractor or as an aid thereto whether the same be a part of the contract or separate therefrom, by means of its own employees or agents, or if the Town directs or supervises the work to be performed by the contractor.

(E) Automobile Public Liability and Property Damage Insurance: The contractor shall take out and maintain during the life of the contract such Automobile Public Liability and Property Damage Insurance as shall protect him and any subcontractor performing work covered by this contract from claims for damages for personal injury, including accidental death as well as from claims for property damage which may arise from operations under this contract, whether such operations be by himself or by a subcontractor or by anyone directly or indirectly employed by either of them and the amounts of such insurance shall be as follows:

Automobile Public Liability Insurance in an amount not less than One Million Dollars (\$1,000,000) combined single limit for bodily injuries, including wrongful death, and property damage. The Town of Riverhead must be named as an additional insured.

Automobile Property Damage Insurance in an amount of not less than Two Million Dollars (\$2,000,000) for damages on account of any accident and in an amount of not less than Two Million Dollars (\$2,000,000) for damages on account of all accidents.

38A. HOLD HARMLESS CLAUSE

To the fullest extent permitted by law, the contractor shall indemnify and hold harmless the Owner and their agents and employees from and against all claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expense (i) 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 and (ii) is caused in whole or in part by any negligent act or omission of the contractor, any subcontractor, and anyone directly or indirectly employed by any of them or anyone for whose acts may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Town shall be entitled to retain an attorney of its own choosing with the cost of legal fees, including appeals, to be borne by the Contractor. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in the paragraph.

39. CLAIMS AGAINST TOWN OFFICIALS AND EMPLOYEES

The Contractor expressly agrees and represents that the contractor shall make no claim and shall bring no action pursuant to any federal or state laws, including, but not limited to 42 U.S.C. § 1983, against any Town official or employee in his/her individual or personal capacity for any act, omission, or statement made or done relating to, or arising out of, this contract and expressly waives its rights to bring such a claim pursuant to any federal or state laws, including, but not limited to 42 U.S.C. § 1983.

40. PROOF OF CARRIAGE OF INSURANCE

The contractor shall furnish the Town with certificates of each insurer insuring the contractor under this contract except with respect to subdivision "D". In respect to this paragraph, the contractor shall furnish the Town with the original insurance policy.

Both certificates, as furnished, and the insurance policy, as required, shall bear the policy numbers, the expiration date of the policy and the limits of liability thereunder. Both the certificates and the policy shall be endorsed to provide the Town with any notice of cancellation at least five (5) days prior to the actual date of such cancellation.

The insurance company utilized must have a minimum AM Best Rating of "A-VII".

41. TERM OF CONTRACT

Upon request for proposal by the Town, the Contractor shall provide a complete proposal, acceptable to the Town and suitable for Purchase Requisition preparation within 30 days of the request. The Contractor further agrees that he will begin the work herein embraced within ten days of issuance of a Town of Riverhead Purchase Order, unless the consent of the Town, in writing, is given to begin at a later date, and that he will prosecute the same so that it shall be entirely completed and performed within 30 days of the issuance of a Purchase Order or the Town prescribed completion date. No extension beyond the date of completion fixed by the terms of this contract shall be effective unless in writing signed by the Town. The extension will be granted if in the opinion of the Engineer the Contractor has exercised all due diligence to complete the work by the town prescribed completion date. This extension shall be for such time and upon such terms and conditions as shall be fixed by the Town, which may include a charge for engineering and inspection expenses actually incurred upon the work. Notice of application for such extension shall be filed with the Town Engineer at least fifteen days prior to the date of completion fixed by the terms of this agreement. Unless individual awards from the contracts are extended the end date of this contract shall be one year from the date of contract award.

41. FAILURE TO PERFORM

In the event that the contractor shall refuse or fail to prosecute the work or any part thereof with such diligence as will ensure its completion within the period herein specified (or any duly authorized extension thereof) or shall fail to complete the work within said period the Town reserves the right to terminate this contract and the bidder/contractor MAY BE BARRED FROM BIDDING ON FUTURE TOWN CONTRACTS FOR A PERIOD AS DETERMINED BY THE TOWN.

GENERAL CONDITIONS

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1. DEFINITION OF TERMS

Whenever the following words and expressions are used in the Specifications, it is understood that they have the meaning defined below:

Plans: All official drawings or reproductions of drawings pertaining to the work or to any structure connected therewith.

Specifications: The body of directions, requirements, descriptions, etc. contained in this document, together with all documents of any description and agreements made (or to be made) pertaining to the methods or manner of performing the work and/or to the quantities and quality of materials to be furnished and accepted under this contract.

Town: Town Board of the Town of Riverhead.

Town Engineer: The Town Engineer or his duly authorized representative.

Contract: Collectively, the contract executed by the Town and the contract, Notice to Bidders, Instruction to Bidders, Proposal Form, Form of Bond, Conditions of Contract, General Conditions, Specifications, Addenda, Performance Bonds, and all supplemental agreements made or to be made.

Instructor: An authorized representative of the Town assigned to make any and all necessary inspections of the work performed and the materials furnished by the contractor.

Materials: Any approved materials acceptable to the Town and conforming to the requirements of these specifications.

Work: All of the work proposed to be accomplished at the site of the project, and all such other work as is in any manner required to accomplish the complete project. This includes all plant, labor, materials, supplies, equipment and other facilities and acts necessary or proper or incidental to the carrying out and completion of other terms of this contract. The term "work performed" shall be construed to include the materials delivered to and suitably stored at the site of the project.

2. STANDARDS OF WORKMANSHIP

The apparent silence of the specifications as to any detail or and apparent omission from them of a detailed description concerning any work to be done and materials to be furnished shall be regarded as meaning that only the best general practice observed in the latest current construction work is to prevail and that only material and workmanship of first quality is to be used in this connection and all interpretations of these specifications shall be made upon this basis.

3. SAMPLES

The contractor shall furnish for approval, all samples as directed. The work shall be in accordance with approved samples. Samples shall be submitted in ample time so as to prevent delay in fabrication or ordering of materials, allowing for a reasonable time for the Town Engineer to consider the samples submitted, and is necessary, to permit a re-submission of samples to the Town Engineer until approval is given.

Work and material shall be furnished and executed in accordance with approved samples, in every aspect. Each sample shall be labeled, bearing material, name and quality, contractor's name, date and other pertinent data. Unless otherwise specified, samples shall be in duplicate and of adequate size to show quality, type, color, range and finish and texture of material. Materials shall not be ordered until approval is received in writing from the Town Engineer.

4. MANUFACTURED MATERIALS

Where several materials are specified by name, the Town Engineer shall have the right, before execution of the contract, to require any and all bidders to state the materials upon which they based their bid. Where any materials are specified by name or trade name, or by catalog number of a company or companies, the contractor shall furnish the article mentioned unless approval of the Town Engineer is obtained in writing for a substitution. Should the contractor desire to substitute other materials for one or more specified by name, he shall apply in writing for such permission and state credit or extra involved. He shall also provide supporting data and samples for the consideration of the Town Engineer.

Unless particularly specified otherwise, all manufactured articles, materials and equipment shall be applied, assembled, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer and including the necessary preparation to properly install the work. Where reference is made to manufacturer's directions, the contractor shall submit such directions to the Town Engineer as required.

The materials used in construction shall be disposed so as not to endanger the work, and so that full access may at all times be had to partly completed work and structures and they shall be so disposed as to cause no injury to those having access to the work or any of the units.

All labor shall be performed in the best and most workmanlike manner by mechanics skilled in their respective trades. Standards of work required throughout shall be of such grades as will bring first-class results only. The type of labor employed by the contractor shall be such as will ensure the uninterrupted continuity of the entire work, without conflict of any kind.

5. LABORATORY

Laboratories shall be designated by the Town Engineer for testing the materials to be used under the contract. Where tests are made by other than the designated laboratories, two certified copies showing correctly the chemical analysis and physical tests shall be furnished to the Town Engineer.

6. SHOP DRAWINGS

The contractor shall submit to the Town Engineer, four (4) copies of all shop drawings and schedules and no work shall be fabricated until his approval has been given. All shop drawings submitted to the Town Engineer must bear the contractor's stamp of approval evidencing that the drawings have been checked.

The contractor will make any corrections in the drawings required by the Town Engineer and will file with the Town Engineer four (4) corrected copies. Approval by the Town Engineer of such drawings or schedules shall not relieve the contractor from responsibility for:

- (a) Errors of any sort in shop or setting drawings or schedules;
- (b) Deviations from Plans and Specifications unless the contractor, at the time of submission of said drawings and schedules, has given notice to the Town Engineer of any such deviations.

7. PERMITS

7.1 Municipal: All work in connection with the installation of pipes or other underground structures of a like nature either within or without the limits of the highway, shall follow all the provisions as contained herein together with the provisions, as they apply, of the Highway Law, Road Openings, Section 149 and Section 198 of Town law, with all subsequent changes, additions or corrections thereto.

7.2 Suffolk County: All permits required for opening country roads and making connections with county drains will be obtained by the Town. A copy of the permit which must be kept on the job site at all times will be supplied to the contractor. The contractor will not be permitted to open any county road or make any connection to any county drain until he has been supplied with the necessary permit.

7.3 State of New York: The contractor shall obtain all necessary New York State highway permits whenever the contract requires any work to be done within or upon existing state highway right-of-ways. These permits shall be obtained from the District Office in Hauppauge prior to the performance of the work. Upon application for the permit, the contractor will be required to supply the following:

- (1) Three (3) copies of a sketch or print showing description and location of the proposed work. These prints will be supplied to the contractor by the Town Engineer.
- (2) Contingent liability insurance for the state (in addition to his own liability insurance) shall be furnished in amounts and manner as required by the State of New York. The contingent protective liability and complete operations liability insurance policy to cover:

“The people of the State of New York and/or the Highway Superintendent covering liability arising with respect to all operations through highway permits by permitted by anyone acting by, through or for the permitted, including omissions and supervisor acts of the State”, in the amount of personal injury (including death) and property damage as required.

8. PLANS AND SPECIFICATIONS

The contractor will be furnished with five (5) sets of Plans and Specifications giving all the details and dimensions necessary for carrying out the work. One copy of Plans and Specifications furnished to the contractor must be kept constantly at the site. Anything shown on the Plans and not mentioned in the Specifications or mentioned in the Specifications and not shown on the Plans and all work and materials necessary for the completion of the work according to the intent and meaning of the contract shall be furnished, performed and done as if the same were both mentioned in the Specifications and shown on the Drawings. Any conflict or inconsistency between the figures and scale of Drawings shall be submitted by the contractor to the Town Engineer whose decisions hereon shall be conclusive.

In the event the meaning of any portion of the Specifications or Drawings or any supplementary drawings or instructions of the Town Engineer is deemed ambiguous, the same shall be understood to call for the best type of construction, both as to materials and workmanship, which reasonably can be interpreted.

All materials and workmanship must be strictly in accordance with the Plans and Specifications.

Additional copies of Plans and Specifications, when requested will be furnished to the contractor at cost of reproduction.

The contractor shall furnish to each of the subcontractors and materials men such copies of the Contract Documents as may be required for their work.

9. CUTTING, PATCHING AND DIGGING

The contractor shall do all curing, fitting or patching of his work that may be required to make its several parts come together properly and fit it to receive or be received by work

of other contractors shown upon or reasonably implied by Drawings and Specifications for the completed structure, and he shall make good after them as the Town Engineer may direct. Any cost caused by defective or ill-timed work shall be borne by the party responsible therefor.

The contractor shall not endanger any work by cutting, digging or otherwise, and shall not cut or alter the work of any other contractor except with the consent of the Town Engineer.

10. ERRORS, OMISSIONS AND DISCREPANCIES

- a) If any errors, omissions or discrepancies appear in the drawings, specifications or other documents, the contractor shall, within ten (10) days from receiving such drawings, specifications or documents, notify the Town Engineer in writing of such errors or omissions. In the event of the contractor's failing to give such notice, he will be held responsible for the results of any such errors or omissions and the cost of rectifying the same.
- b) If, in the opinion of the contractor, any work is shown on drawings, or details, or is specified in such a manner as will make it impossible to produce a first class piece of work, or should discrepancies appear between the drawings and/or specifications, he shall refer the same to the Town Engineer or his representative for interpretation before proceeding with the work. If the contractor fails to make such references to the Town Engineer no excuse will thereafter be entertained for failure to carry out the work in a satisfactory manner as directed.
- c) Should a conflict occur in or between the drawings and specifications and/or existing conditions, the contractor shall be deemed to have estimated on the more expensive way of doing the work, unless he shall have asked for and obtained the decision in writing from the Town Engineer before the submission of bids, as to which method or materials will produce the results to the best interests of the Town.

11. TEMPORARY TOILET

The contractor shall provide and maintain a sanitary temporary toilet where deemed necessary and as directed by the Town Engineer. The temporary toilet shall be enclosed and weatherproof and kept in a sanitary condition at all times. Upon removal of the temporary outside toilet, the vault shall be disinfected, filled and all evidence of the toilet removed from the site.

12. PROPER METHOD OF WORK AND PROPER MATERIALS

The Town Engineer shall have the power in general to direct the order and sequence of the work, which shall be such as to permit the entire work under this contract to be begun and to proceed as rapidly as possible and such as to bring the several parts of the work to a successful completion at about the same time.

If at anytime before the commencement or during the progress of the work the materials and appliances used or to be used appear to the Town Engineer as insufficient or improper for assuring the quality of the work required, or the required rate of progress, he may order the contractor to increase their efficiency or to improve their character, and the failure of the Town Engineer to demand any increase of such efficiency or improvement shall not release the contractor from his obligation to secure the quality of work or the rate of progress specified.

During freezing or inclement weather, no work shall be done except such as can be done satisfactorily and in a manner to secure first class construction throughout. All work shall be done in such a manner as will properly protect and support existing permanent structures, pipe lines, etc.

13. INSPECTION

Inspectors shall be authorized to inspect all work done on materials furnished. Such inspections may extend to all parts of the work and to the preparation or manufacture of the materials to be used. In case of any dispute arising between the contractor and the inspector as to materials furnished or the manner of performing the work, the inspector shall have the authority to reject material or suspend the work until the question at issue shall be referred to and decided by the Town Engineer. The inspector shall not be authorized to revoke, alter, enlarge, relax or release any requirements of these specifications, not to approve or accept any portion of the work, not to issue instruction contrary to the plans and specifications. The inspector shall in no case act as foreman or perform other duties for the contractor or interfere with the management of the work by the latter.

Any advice which the inspector may give the contractor shall in no way be construed as binding the Town Engineer nor the Town in any way, nor releasing the contractor from the fulfillment of the terms of the contract.

The contractor shall be conclusively presumed to be acquainted with all existing conditions and to guarantee that all work and materials shall, upon final completion of the work, be turned over to the Town in a complete and perfect condition and the contractor shall be responsible for the proper care, maintenance and protection of all work and material until his entire contract is completed and all work and materials found in good condition and accepted. The contractor will be held responsible for the entire work until completed and accepted by the Town.

The contractor shall, at all times, provide the Town Engineer, assistants and inspectors under him with necessary facilities for determining both on the job and at the places of manufacture, that all work being performed and all materials being manufactured are strictly in accordance with the contract.

Until acceptance of work by the Town, the contractor shall be responsible for all damages to the work including action of the elements or any other cause whatsoever. The

contractor shall continuously and adequately protect the work against damage from any cause.

14. WAIVER

Neither the inspection by the Town or any part of their employees, nor any order, measurement or certificate by the Town Engineer nor any order by the Town for the payment of any money, nor any payment for or acceptance of, the whole or any part of the work by the Town Engineer or the Town nor any extension of time nor any possession taken by the Town or its employees shall operate as a waiver of any provision of this contract or of any power herein reserved to the Town or any right to damages herein provided; nor shall any waiver of any breach of the contract constitute a waiver of any subsequent breach. Any remedy provided in this contract shall be construed as cumulative in addition to each and every remedy herein provided.

15. WATER AND ELECTRIC POWER

All water and electric power supply for construction purposes must be provided by the contractor. The cost shall be borne by the contractor. The Contractor shall obtain all permits and utilize portable RPZ's as required by the Riverhead Water District when requesting connection to hydrant.

16. MACHINERY AND EQUIPMENT

All machinery, equipment, trucks and vehicles used in the prosecution of the work or in connection therewith, shall at times be in proper working condition.

The contractor shall be responsible for curtailing noise, smoke, fumes, or any other nuisance resulting from his operations. He shall, upon written notification from the Town Engineer, make any repairs, replacements, adjustments, and additions and furnish mufflers when necessary to fulfill these requirements.

17. RIGHT TO USE WORK

The Town may enter upon and use the whole or any portion of the work, which may be in condition to use any time previous to its final acceptance by the Town. Such use shall not constitute or be evidence of acceptance by the Town of the whole or any part of the material furnished or work performed under the contract.

18. NOTICE OF WARNING

If the contractor shall fail to make prompt payment to persons supplying labor or materials for the work, or refuse or fail to supply enough properly skilled workmen or proper materials or refuse or fail to prosecute the work or any part thereof with such diligence as will insure its completion within the period herein specified (or any duly authorized extension thereof) or fail to complete the work within said period or refuse or

fail to regard laws, ordinances, codes, instruction of the Town Engineer then the Town shall forward by registered mail to the contractor, at the address given in the contract, a Notice of Warning, and in the event the contractor fails to comply with said Notice of Warning within five (5) days from receipt thereof, the Town shall have the right to terminate the contract.

19. WARNING SIGNS

Contractor shall provide and maintain proper luminous warning and detour signs where directed by the Town Engineer and as directed by the Contract Documents.

Obstruction such as stored materials, equipment and excavations shall be marked with no less than two (2) lights which shall be no more than four (4) feet apart.

All lights shall be kept burning from one-half hour before sunset until one-half hour after sunrise.

20. ACCIDENT PREVENTION

During the performance of the work, the contractor shall exercise all reasonable precautions for the protection of persons and property. The safety provisions of applicable laws, building and construction codes shall be observed. Machinery, equipment and all other physical hazards shall be guarded in accordance with the safety provisions of the Manual of Accident Prevention in Construction published by the Associated General Contractors of America to the extent that such provisions are not inconsistent with federal, state or municipal laws or regulations.

If any operation, practice or condition is deemed by the Town Engineer to be unsafe, he shall notify the contractor in writing to take corrective action. Where in the opinion of the Town Engineer any operation, practice or condition shall be promptly discontinued and before the affected part of the work is resumed, remedial action taken.

The Town reserves the right to remedy any neglect on the part of the contractor as regards the protection of the work which may come to its attention, after twenty-four (24) hours notice in writing; except that in cases of emergency, it shall have the right to remedy any neglect without notice, and in either case to deduct the cost of such remedy from money due the contractor.

Nothing in the foregoing paragraphs shall be construed as relieving the contractor from full responsibility at all times for safe prosecution of the work.

21. DAMAGES

The contractor shall pay and make good all losses or damages arising out of any cause connected with the contract and shall indemnify and save harmless the Town from any and all claims and any and all liability or responsibility of every nature against the Town

or any of its officers or agents, by reason of, or connected with the work or materials furnished under the contract and shall pay all costs and expenses of every kind, character, and nature whatsoever, occurring upon or arising out of the contract.

22. MAINTENANCE OF TRAFFIC

Under this Contract no asphaltic or concrete material is to be placed unless the Town Engineer is present. In addition, no work is to be performed until the methods used to control traffic at the job site in accordance with the New York State Department of Transportation's Manual of Uniform Traffic Control Devices (MUTCD) are approved by the Town Engineer. Failure to comply with this requirement will lead to non-payment and possible replacement of any material placed.

The requirements of Item 619.01 of the Standard Specifications of the New York State Department of Transportation shall be adhered to, with the following additions:

- a) Access to private driveways must be maintained at all times.
- b) All piles of excavated material shall be removed from the roadway area daily.
- c) The Contractor shall also inspect the contract area after and/or during every rainstorm or windstorm to ascertain what work is necessary to properly maintain and protect pedestrian, vehicular safety, new and/or adjacent work, and existing property. This is especially true on nights and weekends and at other times when no work is in progress. The cost of this inspection and execution of the work required shall be included in the unit price bid for various other items.
 1. Any costs to correct adverse conditions expended by the Town or other outside forces will be deducted from monies owed the Contractor at a rate of two and one-half (2-1/2) times the actual cost incurred.
 2. All provisions of Item 61901, "Maintenance and Protection of Traffic," must also be complied with. Non-conformance with the above requirements of performance may be the basis for implementation of the non-payment clause as specified under "Basis of Payment" for each item.
- d) It shall be required that the length of the existing curb or sidewalk removal or excavation necessary in advance of daily installation of new curb or sidewalk shall be limited to the average length, as determined by the Town Engineer of the new concrete curb or sidewalk that can be placed in the following day of operation.
- e) Construction shall also be limited to one side of any continuous street or intersection only until said side construction is completed and open to traffic.

The Contractor's attention is directed to the following checklist of the most prevalent undesirable traffic and safety conditions that occur during construction:

- a) Traffic Control Devices - Signs, barricades, barrels, etc. shall conform with the New York State Manual of Uniform Traffic Control Devices, and/or as directed by the Commissioner.
- b) Improper Detouring of Traffic - Contractors shall submit detour plans to the Town Engineer prior to construction. Insufficient and improper detour signs shall not be used and the Town Engineer will not accept the excuse that signs were stolen or vandalized. It shall be the Contractor's Responsibility to maintain these signs at all times.
- c) Storing Building Materials - Materials, dirt piles, etc., shall not be stored in or adjacent to intersections or at any locations where sight distance is critical.
- d) The Contractor shall maintain a safe, unobstructed area for pedestrian and vehicular traffic.
- e) The Contractor shall provide sufficient signs, flashers, etc., at locations where there are obstructions in the roadway. All manholes and appurtenances protruding two inches or more above the existing ground shall have a flasher and a barrel conforming to N.Y.S. M.U.T.C.D.
- f) The Contractor shall notify the Police Department, Fire Department, U.S. Post Office, Suffolk County, the School District, Town Jitney Program, etc., of street closings daily. Confirmation of daily notices of agencies contacted, including Town services contacted, shall be faxed to the Highway Department every day.
- g) The Contractor shall maintain at all times, one lane of roadway, suitable for emergency vehicles.
- h) The Contractor shall maintain all existing official traffic control devices, stop signs, parking signs, street signs, etc.
- i) The Contractor shall maintain traffic on fill or other surfaces that are subject to the development of pot holes.
- j) The Contractor shall use sufficient flagmen equipped with two-way radios, if required (minimum of two (2) flag people at all times) at locations where traffic or physical conditions require their services. (Note: N.Y.S. M.U.T.D. requires the use of a proper flag and a traffic vest.) Side streets shall be properly closed with cones and/or barricades, or the use of flagmen to prevent traffic from entering the work zone.

k) When directed, the Contractor shall furnish and apply liquid calcium chloride daily for the prevention of dust nuisance.

In addition, the Contractor may be directed to furnish and apply liquid calcium chloride on a Saturday, Sunday, or a legal holiday for the prevention of dust nuisance.

Non-conformance with any of the above requirements shall be the basis for implementation of a non-conformance fine of Five Hundred Dollars (\$500.00) a day, for each and every day of non-conformance.

23. PROTECTION OF LAND MARKERS, TREES, SHRUBS, AND PROPERTY

Wherever in the conduct of the work, a monument making a point of public or private survey is encountered or brought to view by excavation, the fact shall at once be communicated to the Town Engineer. In no case shall the contractor remove the same until the location for resetting shall have been made by the Town Engineer. All monuments or land markings exposed to view when the work is first undertaken shall be carefully preserved and the greatest care exercised to prevent injury to or disturbance of position of the monument.

The unit price of all items shall include the cost of restoring to its former condition any sidewalks or curbs, as well as restoring any trees, shrubs or lawns that may be damaged during this construction. No additional payment will be made.

The contractor is required at his own expense to obtain any and all permits for use of private property if he uses such property for storage, transportation or accomplishment of the work under the contract. Private property shall be cleaned up neatly, any damage repaired and premises restored to their original condition.

24. PROTECTION OF UTILITIES

The contractor shall familiarize himself with the existence of structures of municipal and other public service corporations on or adjoining the site of the work, for the area within the scope of the contractor's work. The contractor shall be responsible for calling for a mark out given reasonable opportunity to work in cooperation with the owners of these utilities in the work, reconstruction or alteration of these structures. Such reconstruction and alteration shall be so conducted as to delay or interfere as little as practicable with the work of the contractor. Any additional cost of various items or work because of these utilities shall be included in the price bid for these items.

The Town Engineer shall direct the public utility corporations to shift or remove those utility structures that may be necessary to permit the contractor to carry out the work in accordance with the plans. The contractor shall not remove or cause to be removed, any

structure or part of a structure owned by a public utility corporation without the approval of the Town Engineer.

The contractor shall cooperate with the public utility corporation whose structures (aerial, surface or subsurface) are within the limits of or along the outside of the right-of-way, to make it possible for them to maintain uninterrupted service. The contractor shall conduct his operations in such a way as not to delay or interfere as little as practicable with the work of the utility corporation.

BID AWARD ACKNOWLEDGEMENT

I, _____ on behalf of _____
(Name) (Identify Contractor/Vendor, i.e.: Self, Business or
Corporate Entity)

acknowledge that I have read the bid specifications and all such terms and conditions, including the Town reservation of right to make purchases of materials, equipment, or supplies, or to contract for services, when available, through the county in which the political subdivision or district is located or through any county with-in the state as set forth in General Municipal Law 103(3) and the TOWN reserves the right to make purchases of materials, equipment, or supplies, or to contract for services available pursuant to sections one hundred sixty-one and one hundred sixty-seven of the state finance law through the office of general services as set forth in General Municipal Law 104 provided such purchase or service may be made upon the same terms, conditions and specifications at a lower price and fully understand and agree to all such terms and conditions set forth in the bid specifications.

Signature: _____

Print Name: _____

Title: _____

Dated: _____

**TOWN OF RIVERHEAD
SUFFOLK COUNTY, NEW YORK**

2023 ANNUAL CONSTRUCTION CONTRACT

FORM OF CONTRACT

FORM OF CONTRACT

THE TOWN OF RIVERHEAD 2023 ANNUAL CONSTRUCTION CONTRACT,
RIVERHEAD, NEW YORK

CONTRACT DATED _____, 20 ____ BY AND BETWEEN THE TOWN OF
RIVERHEAD (HEREIN CALLED THE "OWNER" AND _____
(HEREIN CALLED THE "CONTRACTOR")

WITNESSETH, the Town and the Contractor, in consideration of the premises and of the mutual covenants, considerations and agreements contained, agree as follows:

The Notice to Bidders, Instruction to Bidders, Proposal Form, Form of Bond, Conditions of Contract, General Conditions, Specifications, Form of Contract, Construction Drawings, and Plans, together with any Addenda, shall form part of this contract, and the provisions thereof shall be as binding upon the parties hereto as if they were herein fully set forth. The Table of Contents, title, heading, headlines and marginal notes contained herein are solely to facilitate reference to various provisions of the Contract Documents and in no way affect, limit or cast light upon the interpretation of the provisions to which they refer. Whenever the term "Contract Documents" is used, it shall mean and include the Notice to Bidders, Instruction to Bidders, Proposal Form, Form of Bond, Conditions of Contract, General Conditions, Specifications, Form of Contract, Construction Drawings, and any Addenda. In case of any conflict or inconsistency between the provisions of the conditions of this contract shall govern.

IN WITNESS THEREOF, the parties hereunto set their hands and seals, and such of them as are corporations have caused these presents to be signed by their duly authorized officers.

NOTE: Quantities of any or all items may be increased, decreased or eliminated in their entirety at the option of the Town prior to or after award of the contract.

Total Bid

(written in words) _____ Dollars _____

(figures)

ATTEST: TOWN OF RIVERHEAD

SUPERVISOR

CONTRACTOR

TITLE

FORM OF CONTRACT

STATE OF NEW YORK

)
ss:
COUNTY OF SUFFOLK)

On this _____ day of _____, 20____ before me personally appeared
_____.

(Town Supervisor)

The duly elected and qualified Supervisor of the Town of Riverhead, the corporation described in and which executed the foregoing instrument, to me known and known to me to be such Supervisor of the Town of Riverhead; and he being by me duly sworn did depose and say; that he is the Supervisor of the Town of Riverhead; that he resided at

_____, Suffolk County, New York; that he knows the corporation seal of said Town of Riverhead; that the seal affixed to said instrument is such corporate seal; and that he executed the same as such Supervisor for the purpose herein mentioned.

Notary Public

FORM OF CONTRACT

Acknowledgement by Contractor if a PARTNERSHIP

STATE OF NEW YORK)
)Ss:
COUNTY OF SUFFOLK)

On this _____ day of _____ 20 __, before me personally appeared _____ to me known to by the person described in and who executed the foregoing instrument and who acknowledged to me that he executed the same.

Notary Public

Acknowledgement by Contractor if a PARTNERSHIP

STATE OF NEW YORK)
)Ss:
COUNTY OF SUFFOLK)

Notary Public

FORM OF CONTRACT

Acknowledgement by Contract if a CORPORATION

STATE OF NEW YORK)
)Ss:
COUNTY OF SUFFOLK)

On this _____ day of _____, 20 __, before me personally came _____ to me known, who being by me duly sworn, did depose and say that he resides at _____ of _____ in the state of _____ that he is the _____ of the _____ the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Corporation; and that he signed his name thereto by like order.

Notary Public

SECTION 00 22 13
NOTICE TO CONTRACTORS

PART 1 ORDER OF PRECEDENCE

A. This Specifications package incorporates Town of Riverhead-specific contract terms with EJCDC (Engineers Joint Contracts Documents Committee) general contract terms. In the event that there is a conflict between the two series of documents, the Town of Riverhead-specific elements shall apply.

PART 2 RECEIPT OF BIDS

A. [Not used. Refer to Section 1 of the 2022 Town of Riverhead Annual Construction Contract.]

PART 3 GENERAL DESCRIPTION OF WORK

In general, this project, located on Meetinghouse Creek, near Main Road, Riverhead, New York includes constructing a stormwater treatment wetland with a permanent maintenance access way on Meetinghouse Creek, just south of Main Road. The Work includes, but is not limited to, the following:

1. Relocating signs and utilities;
2. Installing (and removing) construction-period sediment and erosion control measures;
3. Implementing traffic control;
4. Clearing and grubbing for access and staging;
5. Establishing water control;
6. Excavating and disposing of deleterious and unsuitable material;
7. Grading including construction of wetland and channel forms and microtopography;
8. Installing permanent water control structures and constructing embankment and permanent access out of imported material;
9. Installing seeding and plantings.

PART 4 TYPE OF BID

A. [Not used. Refer to the 2022 Town of Riverhead Annual Construction Contract.]

PART 5 DOCUMENT EXAMINATION AND PROCUREMENT

A. [Not used. Refer to the 2022 Town of Riverhead Annual Construction Contract.]

PART 6 QUALIFICATION

A. [Not used. Refer to the 2022 Town of Riverhead Annual Construction Contract.]

PART 7 BID AND CONTRACT SECURITY

A. [Not used. Refer to the 2022 Town of Riverhead Annual Construction Contract.]

PART 8 STATE INSPECTION

A. [Not used. Refer to the 2022 Town of Riverhead Annual Construction Contract.]

PART 9 PRE-BID CONFERENCE

A. [Not used. Refer to the 2022 Town of Riverhead Annual Construction Contract.]

PART 10 COMPLETION DATES

A. [Not used. Refer to the 2022 Town of Riverhead Annual Construction Contract.]

PART 11 OWNER'S RIGHT TO REJECT BIDS

A. [Not used. Refer to the 2022 Town of Riverhead Annual Construction Contract.]

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) USACE Section 404 and General Permit No. 27 (NAN-2022-01112-EBR)
 - b) Town of Riverhead Floodplain Permit
 - c) Town of Brookhaven Department of Recycling and Sustainable Materials Management conditional acceptance (dated Oct 28, 2022)
 - d) Town of Riverhead Building-Zoning Permit
 - e) NYSDEC SPDES (Owner coverage)
 - 1) NYSDEC Acknowledgement of Notice of Intent (NOI) dated July 11, 2023
 - 2) Stormwater Pollution Prevention Plan (SWPPP) dated September 2023
 - f) NYSDEC Freshwater Wetlands Permit No. 1-4730-01079/00002
2. Attached and to be Completed by Contractor
 - a) NYSDEC SPDES
 - 1) SWPPP Contractor / Subcontractor Certification Form – Provided in Appendix E of SWPPP dated September, 2023
3. Not Attached but to be Completed or Obtained by Contractor
 - a) NYSDEC Long Island Well Permit for Temporary Dewatering (groundwater quality provided in Appendix D)
 - b) NYSDOT Highway Work Permit, pre-project correspondence is attached.
4. Not Attached, expected to be provided by Owner prior to Notice to Proceed.
 - a) N/A

END OF SECTION

NOTICE OF AWARD

Date of Issuance:

Owner: Owner's Contract No.:

Engineer: Engineer's Project No.:

Project: Contract Name:

Bidder:

Bidder's Address:

TO BIDDER:

You are notified that Owner has accepted your Bid dated [] for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

[*describe Work, alternates, or sections of Work awarded*]

The Contract Price of the awarded Contract is: \$ [] *[note if subject to unit prices, or cost-plus]*

[] unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically. *[revise if multiple copies accompany the Notice of Award]*

a set of the Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

1. Deliver to Owner [] counterparts of the Agreement, fully executed by Bidder.
2. Deliver with the executed Agreement(s) the Contract security *[e.g., performance and payment bonds]* and insurance documentation as specified in the Instructions to Bidders and General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any):

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

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner:

Authorized Signature

By:

Title:

Copy: Engineer

SECTION 00 52 00
AGREEMENT

THIS AGREEMENT is dated as of the _____ day of _____ in the year of _____ 20_____
by and between The Town of Riverhead, hereinafter called Owner, and _____,
hereinafter called Contractor. Owner and Contractor, in consideration of the mutual covenants
hereinafter set forth, agree as follows:

1.1 ARTICLE 1 - WORK

A. Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described in Section 00 22 13 Notice to Contractors, Part 2 General Description of Work.

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:

Meetinghouse Creek Stormwater Wetland and Habitat Restoration Project

1.3 ARTICLE 3 - ENGINEER

A. Construction will be managed by

Town Engineer
Town of Riverhead
1295 Pulaski Street
Riverhead, NY 11901

who is hereinafter called Engineer and who may act as Resident Project Representative, may assume all duties and responsibilities, and shall 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 **## days of receipt of the Notice to Proceed** or by **[Month Day, Year]**, whichever is sooner. Plantings and planting warranties may extend beyond this date.

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.1 below:

1. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

1.6 **ARTICLE 6 - PAYMENT PROCEDURES - REFER TO THE TOWN OF RIVERHEAD 2023 ANNUAL CONSTRUCTION CONTRACT**

1.7 **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.

1.8 ARTICLE 9 - CONTRACT DOCUMENTS

A. Contents

1. The Contract Documents consist of the following:
 - a) Town of Riverhead 2023 Annual Construction Contract
 - b) Notice to Bidders,
 - c) Instructions to Bidders,
 - d) Proposal Form,
 - e) Form of Bond,
 - f) Conditions of Contract,
 - g) General Conditions,
 - h) Specifications,
 - i) Form of Contract,
 - j) Construction Drawings, together with any
 - k) Addenda (numbers to , inclusive),

- l) Notice to Contractors
- m) Permits (Refer to Appendix A)
- n) This Agreement.
- o) Supplementary Conditions.
- p) Drawings with each sheet bearing the following general title:
Meetinghouse Creek Stormwater Wetland and Habitat Restoration Project
including NYSDOT Standard Attachments.
- q) Exhibits to this Agreement (enumerated as follows):
 - 1) Conflict of Interest Disclosure Form.
 - 2) Contractor's Bid.
 - 3) Evidence of Contractor's authority to do business in the
State of New York.
 - 4) Documentation submitted by Contractor prior to Notice of
Award.
- r) 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.
 - 5) Permits not included in Appendix A

2. The documents listed in Paragraph 1.8.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.

1.9 ARTICLE 10 – MISCELLANEOUS

A. Terms

1. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions in the 2023 Annual Construction Contract.

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 1.9F:
 - 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.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in duplicate. One counterpart each has been delivered to OWNER and CONTRACTOR. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or on their behalf.

This Agreement will be effective on _____, ____ (which is the Effective Date of the Agreement).

OWNER:

By: _____

[CORPORATE SEAL]

Attest _____

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.)

Designated Representative:

Name: _____

Title: _____

Address: _____

CONTRACTOR:

By: _____

[CORPORATE SEAL]

Attest _____

Address for giving notices:

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:

Name: _____

Title: _____

Address: _____

END OF SECTION

NOTICE TO PROCEED

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

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 _____] **or** [the number of days to achieve Substantial Completion is _____, and the number of days to achieve readiness for final payment is _____].

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 the Construction Contract*):

Amount:

Modifications to this Bond Form: None See Paragraph 16

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

CONTRACTOR AS PRINCIPAL

Contractor's Name and Corporate Seal

By: _____
Signature

Print Name

Title

Attest: _____
Signature

Title

SURETY

Surety's Name and Corporate Seal

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

Print Name

Title

Attest: _____
Signature

Title

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

14. Definitions

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

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

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

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

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

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

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

16. Modifications to this Bond are as follows:

PAYMENT BOND

CONTRACTOR (*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 the Construction Contract*):

Amount:

Modifications to this Bond Form: None See Paragraph 18

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

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal

(*seal*)

Surety's Name and Corporate Seal

(*seal*)

By: _____
Signature

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

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

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

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

Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

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

16. Definitions

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

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

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

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

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

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

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

18. Modifications to this Bond are as follows:

Work Change Directive No.

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

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

Description:

Attachments: *[List documents supporting change]*

Purpose for Work Change Directive:

Directive to proceed promptly with the Work described herein, prior to agreeing to changes on Contract Price and Contract Time, is issued due to: *[check one or both of the following]*

- Non-agreement on pricing of proposed change.
- Necessity to proceed for schedule or other Project reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price \$ [increase] [decrease].
Contract Time days [increase] [decrease].

Basis of estimated change in Contract Price:

- Lump Sum Unit Price
- Cost of the Work Other

RECOMMENDED: AUTHORIZED BY: RECEIVED:

By:	By:	By:
Engineer (Authorized Signature)	Owner (Authorized Signature)	Contractor (Authorized Signature)
Title:	Title:	Title:
Date:	Date:	Date:

Approved by Funding Agency (if applicable)

By: Date:
Title:

Change Order No. _____

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

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

Description:
Attachments: *[List documents supporting change]*

CHANGE IN CONTRACT PRICE		CHANGE IN CONTRACT TIMES <i>[note changes in Milestones if applicable]</i>	
Original Contract Price: \$ _____		Original Contract Times: Substantial Completion: _____ Ready for Final Payment: _____ days or dates	
[Increase] [Decrease] from previously approved Change Orders No. ___ to No. ___: \$ _____		[Increase] [Decrease] from previously approved Change Orders No. ___ to No. ___: Substantial Completion: _____ Ready for Final Payment: _____ days	
Contract Price prior to this Change Order: \$ _____		Contract Times prior to this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates	
[Increase] [Decrease] of this Change Order: \$ _____		[Increase] [Decrease] of this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates	
Contract Price incorporating this Change Order: \$ _____		Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for Final Payment: _____ days or dates	

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By: _____ Engineer (if required)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized Signature)
Title: _____	Title: _____	Title: _____
Date: _____	Date: _____	Date: _____

Approved by Funding Agency (if applicable)

By: _____ 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 (EJCD® 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 EJCD's Guide to the Preparation of Supplementary Conditions (EJCD® C-800, 2013 Edition). The full EJCD Construction series of documents is discussed in the Commentary on the 2013 EJCD Construction Documents (EJCD® C-001, 2013 Edition).

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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.

1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
2. *Agreement*—The written instrument, 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:*
 1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. 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:
 1. 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;
 2. 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.
 1. 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.
 3. 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:*

1. 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:
 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or 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.
 1. 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 whom 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.
2. 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;
2. 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:

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

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:
 - a. 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:
 - a. 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;
 - 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; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
2. 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:

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

C. Contractor shall not be responsible for 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).
 - 3. 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.
 3. 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.
 5. 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:
 1. 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.
7. 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.
9. 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

- A. 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:
 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by,

arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial 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.
 - 1. 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 consider 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.
 1. 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.
- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require 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:
 - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
 - 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any 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
 3. 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.
- 2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review 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:*
 1. 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:

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
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:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work 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;
2. an itemization of the specific matters to be covered by such authority and responsibility; and
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*

A. 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.

B. 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:
 1. 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.
3. *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:
 1. 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;
 2. 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.
 2. 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.
- B. *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:
 - 1. 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
 - 2. 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:
 - 1. 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
 - 3. 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;
 2. 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.
 - 1. 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.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. *Review of Applications:*

1. 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.
6. 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:*

1. 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:*

1. 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;
 - l. 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:

1. 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.
2. 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:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, 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:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract 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:
 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);
 2. 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:
 1. 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):
 - 1. 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;
 - 2. 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
 3. 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 Consultants are identified 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 Town of Riverhead (Town).”

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. Town of Riverhead.”
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 Town of Riverhead Town Hall 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: Refer to Town of Riverhead 2023 Annual Construction Contract.

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 Town and to be satisfied by Contractor at its sole expense except where liability arises out of the sole negligence of the Town.

- d. To the extent that any subcontractor does not comply with the requirements set forth herein, Contractor shall defend, indemnify, and hold harmless the Town 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:

- 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 Town.
- 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 part) 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 Town prior to commencement of any work or services by Contractor. Contractor shall not be entitled to any payment until the Town 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 Town 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 Town's request, Contractor shall promptly provide the Town 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 Town may, without waiving any other rights the Town has under this Agreement or under applicable law, secure and maintain such

insurance at Contractor's sole cost, which cost the Town may elect to offset against any monies owned Contractor.

8. Additional Insureds:

- a. The Town of Riverhead
- b. Engineer or Engineer's Representative

B. SC-6.04 Owner's Liability Insurance

1. Refer to Town of Riverhead 2023 Annual Construction Contract.

C. SC-6.05 Property Insurance

1. Refer to Town of Riverhead 2023 Annual Construction Contract.

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.
- 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) Relocating signs and utilities;
 - b) Installing (and removing) construction-period sediment and erosion control measures;
 - c) Implementing traffic control;
 - d) Clearing and grubbing for access and staging;
 - e) Establishing water control;
 - f) Excavating and disposing of deleterious and unsuitable material;
 - g) Grading including construction of wetland and channel forms and microtopography;
 - h) Installing permanent water control structures and constructing embankment and permanent access out of imported material;
 - i) Installing seeding and plantings.

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 project site.
7. 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.
8. Contractor shall provide sanitary facilities within the designated staging area.

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 within the timeline specified within the Contract with the Town of Riverhead. 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 3:30 p.m., holidays excluded.

Contractor may apply to work outside of regular working hours 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 Riverhead and/or Suffolk County, New York.
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.

I. FENCES

1. Maintain all fences affected by the Work until completion of the Work. Erect temporary fencing per OSHA requirements.
2. Keep gates closed and locked when not in use.
3. No gate shall open towards or on to a public right-of-way.

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. 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.
- C. Erosion, Pollution, and Water 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. Temporary Access and Traffic Control
 - 1. Work includes, but is not limited to, administrative time, the installation, implementation, maintenance, and removal of temporary access measures and traffic control measures, per the Contract Documents. These control

devices and measures may include, but are not limited to: constructing access from the Main Road right-of-way per the Contract Documents and obtaining the services of appropriate flaggers in accordance with federal, state, and local requirements.

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.

E. Clearing & Grubbing

1. Work includes, but is not limited to administrative time and all vegetative clearing required to complete the work including removal and proper disposal of cleared material.
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. Excavation and Off-Site Disposal

1. Work includes, but is not limited to, administrative time, all earthwork, including excavation of deleterious and unsuitable material, temporary stockpiling for dewatering prior to hauling if necessary, subgrade excavation, subgrade preparation, fine grading, transportation, testing, and legal off-site disposal of excavated earthen materials per the Contract Documents.
2. Measurement. Excavated material taken offsite will be measured by the cubic yard as determined from a hauling log (to include capacity of vehicle, proportion filled, number of trips, and other such information, (i.e., time-stamped/dated photos) to determine the total volume of material delivered to the Engineer.
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.

G. Select Borrow

1. Work includes, but is not limited to, administrative time, the furnishing and installation of material for use in the project at locations shown on the Drawings. Salvaged material supplied by the Owner that meets the specified gradation may be used in this Item. After flow is activated,

minor adjustments or modifications to the material may be necessary. If adjustments or modifications are necessary, the work shall occur within 14 days from the date that flow is activated and shall be incidental to Select Borrow.

2. Measurement. Select borrow shall be measured by the tons of material meeting the product specification installed in the work, complete and in place. The Contractor shall furnish the Engineer with weight tickets from state-certified scales for each load of material installed in the work.
3. Payment. Select borrow will be paid for at the Contract unit price per ton installed, which shall be compensation in full for all labor, materials, equipment and other expenses necessary to complete the work as specified for the Item.

H. Wetland Soil

1. Work includes, but is not limited to, administrative time, the furnishing and installation of materials for use in the project in locations shown on the Drawings. Salvaged material supplied by the Owner that meets the material specifications may be used in this Item. After flow is activated, minor adjustments or modifications may be necessary. If adjustments or modifications are necessary, the work shall occur within 14 days from the date that flow is activated and shall be incidental to Wetland Soil.
2. Measurement. Wetland Soil shall be measured by the tons of material meeting the material specifications installed in the work, complete and in place. The Contractor shall furnish the Engineer with weight tickets from state-certified scales for each load of material installed in the work.
3. Payment. Wetland Soil will be paid for at the Contract unit price per ton installed, which shall be compensation in full for all labor, materials, equipment and other expenses necessary to complete the work as specified for the Item.

I. Topsoil

1. Work includes, but is not limited to, administrative time, the furnishing and installation of material for use in the project in locations shown on the Drawings. Salvaged material supplied by the Owner that meets the specifications may be used in this Item.
2. Measurement. Topsoil shall be measured by the tons of material meeting the specified gradation installed in the work, complete and in place. The Contractor shall furnish the Engineer with weight tickets from state-certified scales for each load of material installed in the work.

3. Payment. Topsoil will be paid for at the Contract unit price per ton installed, which shall be compensation in full for all labor, materials, equipment and other expenses necessary to complete the work as specified for the Item.

J. Rock Type A

1. Work includes, but is not limited to, administrative time, the furnishing and installation of aggregates for use in the project in locations shown on the Drawings. Salvaged aggregate and aggregate supplied by the Owner that meets the specified gradation may be used in this Item. After flow is activated, minor adjustments or modifications to the material placement may be necessary. If adjustments or modifications are necessary, the work shall occur within 14 days from the date that flow is activated and shall be incidental to Rock Type A.
2. Measurement. Rock Type A shall be measured by the tons of material meeting the specified gradation installed in the work, complete and in place. The Contractor shall furnish the Engineer with weight tickets from state-certified scales for each load of channel bed material installed in the work.
3. Payment. Rock Type A will be paid for at the Contract unit price per ton installed, which shall be compensation in full for all labor, materials, equipment and other expenses necessary to complete the work as specified for the Item.

K. Rock Type B

1. Work includes, but is not limited to, administrative time, the furnishing and installation of aggregates for use in the project in locations shown on the Drawings. Salvaged aggregate and aggregate supplied by the Owner that meets the specified gradation may be used in this Item. After flow is activated, minor adjustments or modifications to the bed and/or bank material may be necessary. If adjustments or modifications are necessary, the work shall occur within 14 days from the date that flow is activated and shall be incidental to Rock Type B.
2. Measurement. Rock Type B shall be measured by the tons of material meeting the specified gradation installed in the work, complete and in place. The Contractor shall furnish the Engineer with weight tickets from state-certified scales for each load of channel bed material installed in the work.
3. Payment. Rock Type B will be paid for at the Contract unit price per ton installed, which shall be compensation in full for all labor, materials,

equipment and other expenses necessary to complete the work as specified for the Item.

L. Rock Type C

1. Work includes, but is not limited to, administrative time, the furnishing and installation of aggregates for use in the project in locations shown on the Drawings. Salvaged aggregate and aggregate supplied by the Owner that meets the specified gradation may be used in this Item. After flow is activated, minor adjustments or modifications to the bed and/or bank material may be necessary. If adjustments or modifications are necessary, the work shall occur within 14 days from the date that flow is activated and shall be incidental to Rock Type C.
2. Measurement. Rock Type C shall be measured by the tons of material meeting the specified gradation installed in the work, complete and in place. The Contractor shall furnish the Engineer with weight tickets from state-certified scales for each load of channel bed material installed in the work.
3. Payment. Rock Type C will be paid for at the Contract unit price per ton installed, which shall be compensation in full for all labor, materials, equipment and other expenses necessary to complete the work as specified for the Item.

M. Microtopography

1. This item includes compensation in full for all labor, materials, equipment and other expenses necessary to complete the Work as specified for this Item, including disturbing and turning over the existing surface 1 foot above and below (+/-) from the grades shown in the Drawings.
2. Measurement. Microtopography shall be measured by the number of 8-hour shifts completed by an excavator and operator with specific application to this work. Minimum capacity shall be Caterpillar 312 excavator or equivalent, or as otherwise reviewed and approved by the Owner.
3. Payment. Payment for Microtopography will be made at the Contract unit price per day, which shall be compensation in full for all labor, materials, equipment and other expenses necessary to complete the Work as specified for this item.

N. Erosion Control Fabric

1. Work includes, but is not limited to, administrative time, furnishing and installing: fabric and anchors, per the Contract Documents. Note that

subgrade preparation and seeding are included in separate bid items. Trenching to secure the Erosion Control Fabric is incidental to this Item.

2. Measurement. Erosion Control Fabric 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. Erosion Control Fabric shall be paid at the unit price per square yard of Erosion Control Fabric 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.

O. Fabric Encapsulated Soil (FES) Lifts

1. Work includes, but is not limited to, administrative time, furnishing and installing forms, fabric (including both inner non-woven and outer woven fabric), stakes, and staples for the construction of FES Lifts, per the Contract Documents. Note that subgrade preparation, backfill, and seeding of FES Lifts are included in separate bid items.
2. Measurement. Fabric Encapsulated Soil Lift shall be measured on the basis of lineal face foot of lift installed measured parallel to the channel centerline, complete and in place.
3. Payment. Fabric Encapsulated Soil Lift shall be paid at the unit price per lineal face foot of Fabric Encapsulated Soil Lift 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.

P. Fabric Covered Slope

1. Work includes, but is not limited to, administrative time, furnishing and installing: fabric (including both the inner woven and outer non-woven coir fabric), wood stakes, and wood staples, per the Contract Documents. Note that subgrade preparation and seeding of Fabric Covered Slope are included in separate bid items. Trenching to secure the Fabric Covered Slope is incidental to this Item.
2. Measurement. Fabric Covered Slope 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. Fabric Covered Slope shall be paid at the unit price per square yard of Fabric Covered Slope 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.

Q. Access Road Surface Treatment

1. Work includes, but is not limited to, administrative time, production of shop drawings and review, furnishing and installing: the access road surface treatment per the Contract Documents. Procurement and installation of all materials specific to this Item are incidental to this Item.
2. Measurement. Access Road Surface Treatment shall be measured on the basis of per square foot installed, complete and in place.
3. Payment. Access Road Surface Treatment shall be paid at the unit price per square foot of Access Road Surface 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.

R. Reinforced Concrete Water Control Structure with Sump, Frame, and Grate

1. Work includes, but is not limited to, administrative time, production of shop drawings and review, furnishing and installing all components of the assembly associated with the Reinforced Concrete Water Control Structure with Sump, Frame, and Grate (with the exception of the Reinforced Concrete Pipe and PET Pipe, which are separate line items) per the Contract Documents. Procurement and installation of all materials specific to this Item are incidental to this Item.
2. Measurement. Reinforced Concrete Water Control Structure with Sump, Frame, and Grate shall be measured on the basis of per square foot installed, complete and in place.
3. Payment. Reinforced Concrete Water Control Structure with Sump, Frame, and Grate shall be paid at the unit price per square foot of Access Road Surface 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.

S. Reinforced Concrete Pipe

1. Work includes, but is not limited to, administrative time, furnishing and installing: the Reinforced Concrete Pipe per the Contract Documents. Procurement and installation of all materials specific to this Item are incidental to this Item.
2. Measurement. Reinforced Concrete Pipe shall be measured on the basis of linear foot installed, complete and in place.

3. Payment. Reinforced Concrete Pipe shall be paid at the unit price per linear foot of Reinforced Concrete Pipe 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.

T. Dual-Wall HDPE Pipe

1. Work includes, but is not limited to, administrative time, furnishing and installing: the high-density poly-ethylene (HDPE) Pipe per the Contract Documents. Procurement and installation of all materials specific to this Item are incidental to this Item.
2. Measurement. HDPE Pipe shall be measured on the basis of linear foot installed, complete and in place.
3. Payment. HDPE Pipe shall be paid at the unit price per linear foot of HDPE Pipe 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.

U. Permanent Access

1. Work includes, but is not limited to, administrative time, the installation, implementation, of permanent access measures per the Contract Documents. These measures may include, but are not limited to: constructing access from the Main Road right-of-way in accordance with federal, state, and local requirements.
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.

V. Gate

1. Work includes, but is not limited to, administrative time, furnishing and installing: the Gate per the Contract Documents. Procurement and installation of all materials specific to this Item are incidental to this Item.
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.

W. Plug Plants – 2-inch

1. Work for this item shall include, but is not limited to, administrative time, furnishing Plug Plants 2-inch, preparing the site, hand digging the hole,

planting, stabilizing, irrigating and otherwise maintaining (including invasive species control) through the Warranty Period as shown in the Drawings and described in Section 32 90 00 – Site Plantings.

2. Measurement. ‘Plug Plants - 2-inch’ will be measured per each installed as shown on the Drawings and as specified.
3. Payment for Item ‘Plug Plants 2-inch’ shall 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.

X. Container Plants – 3-gallon

1. Work for this item shall include, but is not limited to, administrative time, furnishing Container Plants 3-gallon, preparing the site, excavating the hole, planting, stabilizing, irrigating and otherwise maintaining (including invasive species control) through the Warranty Period as shown in the Drawings and described in Section 32 90 00 – Site Plantings.
2. Measurement. ‘Container Plants 3-gallon’ will be measured per each installed as shown on the Drawings and as specified.
3. Payment for Item ‘Container Plants 3-gallon’ shall 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.

Y. Seed - Upland

1. Work includes, but is not limited to, administrative time, the procurement and installation of the seed mix and maintenance (including invasive species control) through the warranty period as described in Section 32 90 00 – Site Plantings and as shown in the Drawings. Cover (nurse) crop and mulch shall be incidental to this Item.
2. Measurement. Seed – Upland 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.

Z. Seed – Forested Wetland

1. Work includes, but is not limited to, administrative time, the procurement and installation of the seed mix and maintenance (including invasive species control) through the warranty period as described in Section 32 90 00 – Site Plantings and as shown in the Drawings. Cover (nurse) crop and mulch shall be incidental to this Item.
2. Measurement. Seed – Forested Wetland 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.

AA. Seed – High Marsh

1. Work includes, but is not limited to, administrative time, the procurement and installation of the seed mix and maintenance (including invasive species control) through the warranty period as described in Section 32 90 00 – Site Plantings and as shown in the Drawings. Cover (nurse) crop and mulch shall be incidental to this Item.
2. Measurement. Seed – High Marsh 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.

BB. Seed – Low Marsh

1. Work includes, but is not limited to, administrative time, the procurement and installation of the seed mixes and maintenance (including invasive species control) through the warranty period as described in Section 32 90 00 – Site Plantings and as shown in the Drawings. Cover (nurse) crop and mulch shall be incidental to this Item.
2. Measurement. Seed – Low Marsh 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.

CC. Plant Protection and Warranty

1. Work includes, but is not limited to, administrative time, the procurement and installation of plant protection measures and maintenance measures through the warranty period as described in Section 32 90 00 – Site Plantings and as shown in the Drawings.
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.

DD. ADD ALT-1 Utility Relocation

1. Work includes, but is not limited to, administrative time, the installation, implementation, of utility relocation per the Contract Documents.
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.

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.
- B. The contents of this section are supplemental to Section 00 21 12 – 2023 Town of Riverhead Annual Construction Contract and refer to terms defined in EJCDC C-700 Standard General Conditions 2013. In the event that instructions in this section contradict instructions in the 2023 Town of Riverhead Annual Construction Contract, the 2023 Town of Riverhead Annual Construction Contract takes precedence.

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.

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 [EJCDC C-941, form included at end of Part 3].

1.5 CONSTRUCTION CHANGE DIRECTIVE

A. Work Change Directive: Resident Project Representative may issue a Work Change Directive on [EJCDC Document C-940]. 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 Town of Riverhead
2. "Engineer" or "Resident Project Representative" or "Owner's Representative" – Drew Dillingham, P.E.

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 meeting 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.
- l) Housekeeping procedures.

C. ACCESS AND SEQUENCING CONSTRAINTS AND DEPENDENCIES

- 1. Access is off of Main Road.
- 2. Access is to be constructed.

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 NYS SPDES Stormwater Permit for 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 New York Department of Environmental Conservation, 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 the NYS SPDES Stormwater Permit for Construction Activities.
5. The Contractor shall apply for and receive coverage under the above-mentioned permit by submitting a Notice of Intent for Stormwater Discharges Associated with Construction Activity Under an NYS SPDES Stormwater Permit for Construction Activities, 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 Stormwater 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 "Permittee" 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 NYS SPDES Stormwater Permit for 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 project information sign near the staging area adjacent to Sumner Street.
 - a) The sign layout will be provided to the Contractor by the Owner in electronic format of a quality suitable for printing.
 - 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, Meetinghouse Creek Stormwater Wetland and Habitat Restoration.
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)
3. Itemized list of Mobilization Costs (Section 01 71 13- Mobilization and Demobilization)
4. Control of Water Plan (Section 01 57 14 Flow Management and Erosion and Sediment Control)
5. Spill Prevention Plan (Section 01 57 14 Flow Management and Erosion and Sediment Control)
6. Final Draft of the Storm Water Pollution Prevention Plan (Section 01 57 14 Flow Management and Erosion and Sediment Control)
7. Materials Submittals
 - a) Materials Certifications are required for the following items:
 - 1) Select Borrow (Section 31 23 00 – Earthwork)
 - 2) Wetland Soil (Section 31 23 00 – Earthwork)
 - 3) Top Soil (Section 31 23 00 – Earthwork)
 - 4) Rock Type A (Section 31 23 00 – Earthwork)
 - 5) Rock Type B(Section 31 23 00 – Earthwork)

- 6) Rock Type C (Section 31 23 00 – Earthwork)
- 7) Woven Coir Fabric (Section 31 23 00 - Earthwork)
- 8) Non-woven Coir Fabric (Section 31 23 00 - Earthwork)
- 9) Seed, Mulch (Section 32 90 00 - Site Plantings)
- 10) Plug Plants, Container Plants (Section 32 90 00 - Site Plantings)
- 11) Planting Operations Plan (Section 32 90 00- Site Plantings)
- 12) 3-Year Project Maintenance Plan (Section 32 90 00- Site Plantings)
- 13) Invasive Species Management Plan (Section 32 90 00- Site Plantings)
- 14) Access Road Surface Treatment (Section 31 23 00 - Earthwork)
- 15) Reinforced Concrete Water Control Structure with Sump, Frame and Grate (Section 31 50 00 Special Drainage Structure)
- 16) Anti-Seep Collar (Section 31 50 00 Special Drainage Structure)
- 17) Reinforced Concrete Pipes (Class 3) (Section 31 50 00 Special Drainage Structure)
- 18) Polyethylene Pipes (Section 31 50 00 Special Drainage Structure)
- 19) Maintenance Access Gate

b) Shop Drawings are required for the following items:

- 1) Reinforced Concrete Water Control Structure with Sump, Frame, and Great and all appurtenances including Pipes, End Treatments, etc...
- 2) Access Road Surface Treatment
- 3) Maintenance Access Gate

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: <ul style="list-style-type: none"> • Temporary Access Design • Revised Construction Sequence and Schedule • Control of Water Plan • Final draft of the Storm Water Pollution Prevention Plan (SWPPP) • Traffic Control Plan • Demolition Plan 	Submitted prior to preconstruction conference. 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.
Shop Drawings	Accepted submittal required prior to delivery of material to site.
Planting Operations Plan and Invasive Species Management Plan	Within 14 days of Notice to Proceed.
3-Year Project Maintenance Plan	Within 14 days of Notice to Proceed.

G. SURVEY CONTROL

1. Contractor shall establish survey control at the site. 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 their 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, 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 any time-of-year restrictions included in the permits in Appendix A.
4. No in-water work shall commence until receipt of any pending permits. See Section 00 31 46 – Permits.
5. Contractor shall monitor weather forecasts and water levels to protect equipment and site from high water and flooding.
6. 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.

N. ADDRESSES

1. All notices and letters, and communications directed to Owner shall be addressed and delivered to the Town of Riverhead, Attn: Drew Dillingham, Town Engineer; dillingham@townofriverheadny.gov; 631.727.3200 x 604; 1295 Pulaski Street, Riverhead, NY 11901. 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 the Town Engineer and their duly authorized agents. All notices, letters and communication directed to Engineer shall be addressed and delivered to Riverhead Town Hall.
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**

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. NYSDEC Dewatering Permit
- C. Control of Water Plan
- D. Spill Prevention Plan
- E. Storm Water Pollution Prevention Plan (SWPPP).
- F. SPDES Stormwater Discharge Permit for Construction Activities (Contractor)
- G. 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. If necessary, diversion and bypass of in-stream flows 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.

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>	<u>Procedure/Test</u>	<u>Criterion</u>
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>	<u>Procedure/Test</u>	<u>Criterion</u>
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
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 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

1. 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 water control work shall commence until a dewatering permit has been obtained from NYS DEC. Pre-project correspondence with NYSDEC related to a permit application for this project is attached. Refer to Section 00 31 46 - Permits and Appendix A Permits
- 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 any 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.

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.

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. 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 NYS SPDES General Permit for Stormwater Discharges from Construction Activities.
- D. Contractor staff responsible for Erosion, Pollution and Water 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 NYS SPDES Stormwater Permit for Construction Activities. Refer to 01 71 13 Mobilization and Demobilization.
- 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 channels shall comply with any and all requirements described in the permits, Section 00 31 46 - Permits and Appendix A Permits.
- J. Provide drainage for the site grading at all times. Divert surface runoff from excavations and trenches.

- K. Contractor shall maintain standby diversion and dewatering equipment on the job site.
- L. Discharge of a temporary bypass system, if necessary, must be accomplished in a way that does not cause erosion or turbidity downstream of the project site.
- M. 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.
- N. High-flow events that exceed typical daily management flows may be passed through the worksite provided that proper precautions are taken prior to the flow event. Proper precautions include measures to prevent damage to the work area, to public and private property, and infrastructure. Furthermore, proper precautions must also prevent permit violations including, but not limited to, the discharge of sediment to points downstream. Following such an event, measures must be taken to restore the work site and environs to a condition where work may resume in accordance with these specifications.

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:

1. Contractor shall control noise according to the 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

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 01 57 14 – Flow Management, Erosion, and Sediment Controls

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 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.

2. Temporary Access Design – A draft temporary access alignment is 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 diversion, local dewatering, and erosion and turbidity control measures, including sequencing and intended means and methods. The Contractor should also demonstrate the anticipated capacities of water conveyance measures used for stream diversion, and demonstrate that the planned capacities are adequate for the anticipated streamflow during the period of construction.
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 NYS SPDES Stormwater Permit for Construction Activities. 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, in accordance with NYDOT standards, 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 in the Town, to be included in the COP.

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. Stake the limits of disturbance prior to ground disturbance in coordination with the Owner and private property owners.
- D. Provide barricades, coverings, or other types of protection necessary to prevent damage to existing items indicated to remain in place.
- E. 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.
- F. 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.
- G. Refer to the Drawings for general notes on and locations of utilities.
- H. 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.
- I. 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.

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.

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 identified as "Protect" on the drawings.
- 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. Clearing and Grubbing shall be limited to extents of Earthwork and the extents of the access alignments and staging areas as indicated on the Drawings. 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. Cleared vegetation will be disposed in accordance with all applicable regulations.

- C. Noxious and/or invasive vegetative species including, but not limited to Phragmites, multiflora rose, Japanese knotweed, or purple loosestrife 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.
- D. 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 wetland, stream channel, sediment forebay, micropool, embankment, and adjacent areas as shown on the Drawings and described in these Specifications.
- B. Work under this section includes:
 - 1. Excavation and offsite disposal of all excavated material, including
 - a) Deleterious material defined as soil containing viable propagules of invasive plants, woody vegetation and stumps, roots, rush, refuse, stones, clay lumps, or similar objects;
 - b) Unsuitable material as defined in Section 203-1.03 of the NYSDOT Standard Specifications;
 - 2. Provision and placement of wetland soil;
 - 3. Provision and placement of select borrow and topsoil to construct the embankment;
 - 4. Provision of materials for and installation of Access Road Surface Treatment,
 - 5. Provision and placement of rock; and
 - 6. Grading and installation of earthen and fabric material to achieve the lines and grades shown on the Drawings.
- C. This section includes rock, aggregate, soil, and geotextile material for use in construction of the wetland, channel, embankment, and adjacent areas, including, but not limited to, the following:
 - 1. Rock Type A
 - 2. Rock Type B
 - 3. Rock Type C
 - 4. Select Borrow

5. Topsoil
6. Wetland Soil
7. Geotextile

D. This section also includes the Access Road Surface Treatment, which includes subsurface preparation, procurement, and installment of a permeable surface treatment suitable for protecting the crest of the embankment by service vehicles and, in some locations, flowing water.

E. Procurement and installation of geotextile fabric in locations designated on the plans shall be considered incidental.

1.2 REFERENCES

- A. NYSDOT Standard Specifications and Supplements – latest edition
 1. Section 203-3.03.C Compaction
- B. New York State Standards and Specifications for Erosion and Sediment Control – latest edition
- C. American Association of State Highway and Transportation Officials (AASHTO)
 1. AASHTO M288, Standard Specification for Geosynthetic Specification for Highway Applications
 2. AASHTO T85, Specific Gravity of Coarse Aggregate
 3. AASHTO T89, Standard Method of Test for Determining the Liquid Limit of Soils
 4. AASHTO T90, Standard Method of Test for Determining the Plastic Limit and Plasticity Index of Soils
 5. AASHTO T96, Test for Resistance to Degradation for Small-Size Coarse Aggregate
- D. American Society for Testing and Materials (ASTM)
 1. ASTM C88, Standard Test Method for Soundness of Aggregates by use of Sodium Sulfate or Magnesium Sulfate
 2. ASTM C127, Test Method for Relative Density (Specific Gravity) and Absorption of Coarse Aggregate

3. ASTM C136/C136M, Standard Test Methods for Sieve Analysis of Fine and Coarse Aggregates
4. ASTM C535-03, Standard Test Method for Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
5. ASTM D422, Standard Test Method of Particle-Size Analysis for Soils
6. ASTM D698, Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³)
7. ASTM D1557, Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³)
8. ASTM D2487, Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System.)
9. ASTM D4253, Standard Test Methods for Maximum Index Density of Soils Using a Vibratory Table
10. ASTM D4254, Test Methods for Minimum Index Density of Soils and Calculation of Relative Density
11. ASTM D4972, Standard Test Method for pH of Soils
12. ASTM D5312, Standard Test Method for Durability of Rock for Erosion Control Under Freezing and Thawing Conditions
13. ASTM D6473, Standard Method for Specific Gravity and Absorption of Rock for Erosion Control
14. 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 31 35 19 – Bioengineering Treatment

1.4 DEFINITIONS

- A. A-Axis: The longest axis of an individual rock.

- B. B-Axis: The B-axis of an individual rock is the intermediate axis, neither the longest nor shortest of the three mutually-perpendicular sides of the rock.
- C. Controlling Agency: Any agency, department, commission, or other party that requires standards to be met for the installation, modification, or documentation of a feature.
- D. Deleterious Material: Materials that include, but are not limited to, the following: viable propagules of invasive plants, woody vegetation and stumps, roots, rush, refuse, stones, clay lumps, or similar objects.
- E. 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.

1.5 SUBMITTALS

- A. Rock Types A, B, and C
 - 1. Rock Types A, B, and C are gradations of coarse and fine aggregates to be used to construct the sediment forebay, the channel, the micropool, and erosion protection on the spillway and at the outlet as shown on the Drawings.
 - 2. The Contractor shall submit the following information to the Engineer and gain approval prior to hauling material to the project site.
 - a) Rock source location, name of supplier, and phone number of contact person at the supply facility.
 - b) Photographs of representative samples.
 - c) Certification of gradation and test results indicating material qualities meeting the specified material requirements including:
 - 1) Gradation
 - 2) Specific gravity
 - 3) Absorption
 - 4) Abrasion
 - 5) Resistance to breaking
 - 6) Freeze-thaw – Exception may be made if material is otherwise approved by the Engineer.

3. Tests on additional samples may be required by the Engineer to determine whether the rock meets the specification. The Contractor will be responsible for the costs of additional test(s) that fail to meet the specification.

B. Soils

1. Soil is material to be used in reconstructing the wetland, within the FES lifts, and to construct the embankment as shown on the Drawings.
2. Soil shall be select borrow, topsoil, or wetland soil as defined in this specification.
3. The Contractor shall submit the following information to the Engineer and gain approval prior to hauling material to the project site.
 - a) Soil source location, name of supplier, and phone number of contact person at the supply facility.
 - b) Certification of gradation and test results indicating material qualities meeting the specified material requirements including:
 - 1) Gradation
 - 2) pH
 - 3) Plasticity index

C. Geotextile

1. Geotextile is a geosynthetic material to be used as a separator under rip rap (as slope protection) and as a separator under the Access Road Surface Treatment.
2. The Contractor shall submit the following information to the Engineer and gain approval prior to hauling material to the project site.
 - a) Soil source location, name of supplier, and phone number of contact person at the supply facility.
 - b) Certification indicating material qualities meeting NYSDOT requirements for the intended uses.

D. Access Road Surface Treatment

1. The Access Road Surface Treatment may be any material or any assembly of materials that provides surface protection for heavy service vehicles and, in some locations, flowing water.
2. The Contractor shall submit a shop drawing to the Engineer and gain approval prior to procuring or hauling material to the project site. The shop drawing shall include:
 - a) If a permeable paver system is to be used, provide the technical information for the product including all system components. Include submittals for all components furnished separately from any specialized paver product, which may include, but is not limited to: permeable pavement surface, bedding aggregate layer, and base course aggregate layer.
 - b) If a custom surface treatment is to be used, provide a detailed sketch of the surface treatment and components, which may include, but is not limited to: surface treatment, bedding layer, base course layer. Include submittals for all components.

1.6 **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. Establish layout and grades before beginning work to ensure that installed aggregates meet the final/proposed grades.
- C. Grade Control: Establish and maintain required lines and elevations. Review grades and lines the Engineer prior to starting work and as work progresses.
- D. Testing: The engineer will periodically inspect rock delivered to the sight. The engineer may request testing in addition to the certification required in Section 1.5 A.2.C. to ensure that material from the quarry or stone source meets specifications.
 1. Provide test results for each lot. A lot is considered to be 500 cubic yards. If test results are within the specifications, the Engineer may increase the lot size to 1,000 cubic yards.
 2. Additional testing on rock samples may be requested by the Engineer to verify that the material meets the specification. The Contractor shall be

responsible for the costs of additional test(s) that fail to meet the specification.

3. Any materials rejected shall be removed, disposed of and replaced by the Contractor at no additional expense to the Owner.

PART 2 PRODUCTS

2.1 MATERIALS

A. General Properties

1. All Rock (Type A, Type B, and Type C) shall conform to the following requirements:
 - a) Rock Type shall be naturally occurring, rounded to sub-angular aggregate.
 - b) Rock shall be free of chemical and physical contaminants prior to being delivered to the site.
 - c) Rock shall be clean, hard, natural particles, that are free of earth, humus, clay or other coatings, shale or shaley partings, deleterious materials, or deleterious substances.
 - d) Rock shall be free of cracks and fractures, resistant to weathering and to water action, and be free from overburden, spoil, shale, limestone, structural defects, and organic material.
 - e) Crushed rock, reclaimed asphalt pavement, reclaimed hydraulic cement concrete, glass, ceramics, or any other slag materials shall not be used.
 - f) Unless otherwise allowed, Rock shall meet the following quality requirements:

Table 1: Criteria for Aggregate Quality

Test	Test Method	Acceptance Criteria
a. Apparent Specific Gravity	AASHTO T 85 or ASTM C127	2.65 minimum
b. Water Absorption	AASHTO T 85 or ASTM C127	3% maximum
c. Abrasion	AASHTO T 96 or C535-03	35% maximum after 500 revolutions
d. Resistance to Breaking	ASTM C535-03	Each specimen shall be prepared from separate piece of rock and mean compressive strength of 9 specimens (after striking out the lowest value from 10 specimens) shall be greater than 11,500 psi.
e. Freeze-Thaw	ASTM D5312	2% maximum loss

2.2 ROCK TYPE A

A. Rock Type A shall be a well-graded coarse gravel material that conforms to the following gradation:

% Passing	Nominal Size of Material (B-axis) (inches)
100%	5.0
84%	3.5
50%	2.0
30%	1.0
16%	0.3
10%	0.2
5%	0.05

2.3 ROCK TYPE B

A. Rock Type B shall be a rip rap material that conforms to the following gradation:

% Passing	Nominal Size of Material (B-axis) (inches)
100%	12
85%	9
50%	6
16%	3

2.4 ROCK TYPE C

A. Rock Type C shall be a rip rap material that conforms to the following gradation:

% Passing	Nominal Size of Material (B-axis) (inches)
100%	24
85%	20
50%	12
16%	6

2.5 SELECT BORROW

A. Select Borrow shall be a well-graded mixture of granular and fine-grained soils and/or aggregate with a maximum particle size of 4 inches and 30 to 35% by weight passing the No. 200 sieve.

B. Fines fraction passing the No. 200 sieve shall have a plasticity index of less than 6.

C. Select Borrow shall have an organic content of 3% or less by weight.

D. Select Borrow shall be free of unsuitable or deleterious materials.

2.6 TOPSOIL

A. Topsoil shall be Type B as defined in Section 713-01 of the NYSDOT Standard Specifications.

2.7 WETLAND SOIL

- A. Wetland Soil shall be composed of Select Borrow overlain by 6 inches of compost.
- B. Compost shall be Type A as defined in Section 713-15 of the NYSDOT Standard Specifications.

2.8 GEOTEXTILE

- A. Geotextile shall meet the NYSDOT specifications for slope protection where used beneath rip rap and for separation where used beneath Access Road Surface Treatment.
- B. Approved list: <https://www.dot.ny.gov/divisions/engineering/technical-services/technical-services-repository/alme/pages/470-1a.html>

2.9 ACCESS ROAD SURFACE TREATMENT

- 1. The embankment and Access Road Surface Treatment shall meet HS-20 loading criteria.
- 2. The Access Road Surface Treatment shall meet the open area requirements in accordance with the permit specifications. The open area must be greater than or equal to 50%.

2.10 ALL OTHER EXCAVATION

- A. Those materials deemed as 'deleterious' or 'unsuitable' may be highly saturated and may require drying or dewatering by temporary stockpiling before disposal. Handling of such material after excavation and before disposal shall be considered incidental to excavation and offsite disposal.
- B. 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.
- C. The Contractor shall implement erosion control measures in accordance with the New York State Standards and Specifications for Erosion and Sediment Control (latest edition), 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.
- 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 New York 811.
 - 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 which 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 off site in accordance with all applicable laws, regulations, and permits. 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. 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.
 2. 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.
 3. Excavations performed shall be contained with sedimentation and erosion controls in accordance with the conventions described in the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-20-001).
 4. 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.
 5. 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.

6. 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.
7. Removal of obstructions and undesirable materials in excavation includes, but is not necessarily limited to, removal of old foundations, existing construction, logs, riprap, utility poles, 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 as directed by the Engineer.
8. 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.
9. 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.
10. Protection of structures: Prevent new and existing structures to remain from becoming damaged due to construction operations.
11. 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.
12. 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 New York State Standards and Specifications for Erosion and Sediment Control (latest edition), the Construction Operations Plan, and the SWPPP. Refer to Sections 01 71 13 – Mobilization and Demobilization and Section 01 57 14 – Flow Management, Erosion, and Sediment Controls.

C. Construct fills as required in the Drawings.

1. The finished subgrade shall be reviewed by the Engineer and must be accepted prior to placement of fill materials including, but not limited to Rock, Select Borrow, Wetland Soil, and other soil or soil/aggregate mixes or fabric materials.
2. Prior to embankment construction, the surface on which the embankment is to be placed shall be thoroughly compacted to the satisfaction of the Engineer.

3. Construct embankments and fills at locations and to lines, grades, and thicknesses indicated in the Drawings. 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.
4. Embankment construction shall not take place on frozen earth nor shall frozen soil be placed in any embankments.
5. Provide accepted fill material from imported and salvaged onsite sources as described in these specifications.
6. Place Rock Type A such that the constructed channel bed is a well-mixed, consolidated streambed, avoiding segregation between particle sizes within the specified gradation. Place Rock Type A in lifts not exceeding 8 inches thickness. Consolidate each lift by tamping with the excavator bucket or vibratory plate compactor. Water jet each lift after consolidation, prior to placement of subsequent lifts.
7. Rip rap and geotextile shall be placed in accordance with the construction appendix of AASHTO M288, Standard Specification for Geosynthetic Specification for Highway Applications.
8. Place Select Borrow in 8-inch layers horizontally and compact each layer prior to placing additional fill.
9. Wetland Soil shall be constructed by placing Select Borrow to within 6 inches of final grade. Place 3 inches of Compost over the Select Borrow and rip it in (i.e., break up the placed Select Borrow and mix in the Compost in place). Place another 3 inches of compost on top as finishing material.
10. 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.

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. Embankment Grading

1. When completed, embankment grades shall conform to the grades indicated on the Drawings. The grading tolerance for the embankment is +0.2 feet (no under) difference from planned finish grades.

C. Channel and FES Lift Grading

1. When completed, channel grades shall conform to the grades indicated on the Drawings. The grading tolerance for the channel bed is +0.2 feet (no under) difference from planned finish grades at Rock Type A installation locations and +/- 0.2 feet in all other areas.

D. Rip Rap Grading

1. When completed, Rock Types B and C shall conform to the grades indicated on the Drawings. The grading tolerance for Rock installation is +/-0.2 feet difference from planned finish grades.

E. Access Road Surface Treatment

1. The finish surface of the Access Road Surface Treatment shall conform to the grades indicated on the Drawings. The grading tolerance for the access road surface treatment is +0.2 feet (no under) difference from planned finish grades.

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 meet 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. Methods to stabilize subgrade must be accepted by the Engineer prior to implementation.
- E. The Contractor shall carry out compaction in accordance with the Construction Operations Plan.
- F. Compact installed materials to the following densities:

MATERIAL	COMPACTION DENSITY
Rock Type A:	90 percent, ASTM D698

Wetland Soil:	85 percent, ASTM D698
Select Borrow for embankment construction:	95 percent, ASTM D698
Topsoil for FES construction	Visual method, per engineer

G. Compaction of Select Borrow for embankment construction shall meet the requirements of Section 203-3.03 of the NYSDOT Standard Specifications and these Specifications.

H. Compaction of materials associated with the Access Road Surface Treatment shall be in accordance with manufacturer's specifications (if product is proposed). Otherwise, compaction shall meet the requirements of Section 203-3.03 of the NYSDOT Standard Specifications and these Specifications.

I. Compaction of materials associated with the Reinforced Concrete Water Control Structure with Sump, Frame, and Grate and culvert shall be in accordance with NYS DOT specifications.

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 shall engage a qualified independent compaction density testing agency to perform field quality control testing of embankment to demonstrate compliance with Specifications, per NY DOT 203-3.03.C

C. For Fabric Encapsulated Soil lifts (FES), Wetland Soil, and Rock Type A the Engineer shall conclude from visual observation that adequate compaction has been attained.

D. Should any compaction density inspection or test, or any 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 inspections or 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. Fabric Encapsulated Soil (FES) Lifts.
2. Fabric Covered Slope (FCS).

1.2 REFERENCES

A. American Society for Testing and Materials (ASTM)

1. ASTM D6525, Test for Measuring Nominal Thickness of Permanent Rolled Erosion Control Products
2. ASTM D1117, Standard Guide for Evaluating Nonwoven Fabrics
3. ASTM D6475, Test for Measuring Mass Per Unit Area of Erosion Control Blankets
4. ASTM D1388, Test for Stiffness of Fabrics
5. ASTM D6818, Test for Ultimate Tensile Properties of Turf Reinforcement Mats
6. ASTM D1777, Test for Thickness of Textile Materials
7. ASTM D4595, Test for Tensile Properties of Geotextiles by the Wide-Width Strip Method
8. ASTM D3776, 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
- B. Submit at minimum two (2) photographs or two (2) sketches of proposed forms to be used for FES lift construction, showing section and orthogonal views.

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 Fabric Encapsulated Soil Lifts and Fabric Covered Slope 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:

Parameter	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	Min: 6 feet - 8 inches
Roll Length	Measured	108 feet

B. The outer (woven) layer used in Fabric Encapsulated Soil Lifts and Fabric Covered Slope 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:

Parameter	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.

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" x 4" 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 CONSTRUCTION FORMS

A. Construction forms shall be used to facilitate construction FES lifts. Forms equivalent to those shown on the Drawings shall be supplied by the Contractor.

2.5 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:

<u>MATERIAL</u>	<u>COMPACTION DENSITY</u>
FES Lifts	85 percent, ASTM D698
Fabric Covered Slope	95 percent, ASTM D698

- E. The Engineer reserves the right to test compaction as needed for verification.

3.2 INSTALLATION

- A. Fabric Covered Slope (FCS)
 - 1. Fabric Covered Slope shall be installed along disturbed banks and ground as shown on the Drawings.
 - 2. The subgrade for Fabric Covered Slope 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. Anchor trench the edge of fabric at the toe of the bank as shown on the Drawings. Backfill the trench with the appropriate fill material identified in the Drawings.
 - 4. Key trench the edge of fabric at the top of the bank as shown on the Drawings. Place Wood Stakes in the key trench, pound flush with finished grade. The location of the key trenches shall be coordinated with the Engineer in the field at the time of construction.
 - 5. The Fabric Covered Slope shall extend up the slope to the elevation as shown on the Drawings.
 - 6. Apply Seed per Section 32 90 00 - Site Plantings to the prepared subgrade prior to placement of coir fabrics.
 - 7. Place Wood Stakes on and Wood Staples as shown on the Drawings.
 - 8. Place woven coir fabrics on top of the underlying nonwoven fabrics as shown on the Drawings. Anchor the fabrics with Wood Stakes and Wood Staples as shown on the Drawings. It is not required to anchor the

nonwoven and woven fabrics individually Wood Stakes and Wood Staples shall be inserted through both layers of coir fabrics.

9. 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.
10. 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.
11. Following completion of each Fabric Covered Slope 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.
12. Maintenance: Seed placed in Fabric Covered Slope treatment areas shall be watered by the Contractor in accordance with Section 32 90 00 - Site Plantings.

B. Fabric Encapsulated Soil (FES) Lifts

1. Perform all shaping of the subgrade to the elevations, lines and grades shown on the Drawings. The subgrade area to be covered by the fabric 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 fabric.
2. Install FES Lift (fabrics, fills, wood staples, wood stakes, rhizomes, and seed) as shown on the Drawings. FES Lift height shall be as accepted by the Engineer in the field at the time of construction. Cutting of the coir fabrics to facilitate wood staple placement is not allowed. It is not required to anchor the nonwoven and woven fabrics individually. After installation, wood staples shall be installed such that the top-notch points upstream and the notch if flush with the finished grade. After installation, wood stakes shall protrude 2-4" from the finished grade. Broken or damaged wood staples and wood stakes shall be removed and replaced at the Contractor's expense. Fabric shall be handled with care such that the fabric is not damaged. Fabric shall be installed such that it is even,

smooth, and taut, such that the fabric is in direct contact with the underlying soil in all areas.

3. See Section 31 00 00 Earthwork for FES Lift backfill requirements.
4. See Section 32 90 10 Revegetation for seed and rhizome requirements.
5. Note that rhizomes and seed are installed prior to wrapping fabric.
6. Damaged coir fabric shall be repaired or replaced. If damaged coir fabric has a tear of 6 inches or less, scrap fabric may be placed beneath damaged coir fabric such that it extends 24 inches beyond the damaged area in all directions. Staple around the tear with a minimum 6 wooden staples on maximum 12-inch centers. Coir fabrics with tears greater than 6 inches shall be replaced at the Contractor's expense.
7. Finished FES lifts shall have no loose coir fabric. Areas with loose coir fabric shall be staked with tapered wood stakes to hold coir fabrics firmly to underlying soil.
8. See Section 32 90 10 Revegetation for specifications for planting vegetation through the finished FES Lifts.

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. 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.
- D. Contractor shall pay for all costs associated with corrective work and retesting resulting from failing compaction density tests.
- E. 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 50 00

SPECIAL DRAINAGE STRUCTURE

PART 1 GENERAL

1.1 SUMMARY

- A. Supply of all materials, labor, tools, and equipment to construct the special drainage structure, the Reinforced Concrete Water Control Structure with Sump, Frame, and Grate, as shown on the Drawings and described in these Specifications.
- B. Work under this section includes:
 - 1. Preparation of subgrade.
 - 2. Procurement or fabrication of reinforced concrete Drainage Structure including interior steps.
 - 3. Procurement or fabrication of appurtenant structures including, but not limited to the following. Inclusive of all hardware, adhesives, and ancillary materials to assemble in accordance with NYSDOT Standards.
 - 1) Frames
 - 2) Grates
 - 3) Trask Racks
 - 4) Anti-Seep Collar
 - 5) Reinforced Concrete Pipe
 - 6) HDPE Pipe
 - 7) Cutoff Wall
 - 8) End Section
 - 4. Installation of all elements of the Reinforced Concrete Water Control Structure with Sump, Frame, and Grate and all associated appurtenances.

1.2 REFERENCES

- A. NYSDOT Standard Specifications, Details, and Supplements – latest edition
 - 1. NYS DOT 603 Specification Culverts and Storm Drains

2. NYS DOT 604 Specification Drainage Structures
3. NYS DOT 603-01 Reinforced Concrete Pipe End Sections and Concrete Collars Detail
4. NYS DOT 603-04 Cutoff Wall Detail
5. NYS DOT 604-02 Drainage Structure Detail
6. NYS DOT 655-01 Rectangular Grates Details
7. NYS DOT 655-02 Parallel Bar Frames and Grates Detail
8. NYS DOT 655-04 Reticuline Grates Detail
9. NYS DOT 655-07 Welded Frames and Proof Loaded Cast Steel or Iron Frames and Curb Boxes Detail
10. NYS DOT Specification 603.99010008 – Trash Rack

B. NYS DEC Standard Specifications for Erosion and Sediment Control

1.3 RELATED SECTIONS

A. 31 23 00 Earthwork

1.4 DEFINITIONS

A. Not Used

1.5 SUBMITTALS

A. Materials Certifications

Provide materials certifications to demonstrate that component materials comply with NYS DOT Standards to be reviewed and accepted by the Engineer prior to use on the project.

1. Concrete
2. Rebar

B. Product Certifications

Provide product certifications to demonstrate that component elements comply with NYS DOT Standards and with the Drawings to be reviewed and accepted by the Engineer prior to use on the project.

1. Frames
2. Grates
3. Trash Racks
4. Anti-Seep Collar
5. Reinforced Concrete Pipe
6. HDPE Pipe
7. End Section

C. Shop Drawings

1. Provide a shop drawing illustrating the complete assembly of components associated with the Reinforced Concrete Water Control Structure and appurtenant structures with respect to the location and construction of earthwork elements including the micropool, the embankment/access road, and the outlet from the stormwater wetland.
2. Shop Drawings shall be reviewed by the Engineer prior to the procurement, delivery, or use of proposed materials on the project.
3. Alternative configurations may be considered provided that the outlet control function remains consistent with the design intent.

1.6 QUALITY ASSURANCE

- A. Materials and methods of construction shall comply with the NYS DOT and ASTMI: American Society for Testing Materials International standards.
- B. Grade Control: Establish and maintain required lines and elevations. Review grades and lines the Engineer prior to starting work and as work progresses.

PART 2 PRODUCTS

2.1 MATERIALS

A. Refer to NYSDOT Standards and Specification for Materials Properties Requirements for:

1. Concrete
2. Rebar
3. Frames
4. Grates
5. Trask Racks
6. Anti-Seep Collar
7. Reinforced Concrete Pipe
8. PVC Pipe
9. Cutoff Wall
10. End Section

PART 3 EXECUTION

3.1 PREPARATION

- A. Excavation shall conform to the applicable portions of NYS DOT Specifications.
- B. Subgrade shall conform to the applicable portions of NYS DOT Specifications.
- C. Installation of appurtenant structures shall conform to the applicable portions of the NYS DOT Specifications

3.2 TOLERANCES

A. Reinforced Concrete Water Control Structure

1. The elevations of the inlet knockouts, outlet knockouts, slots, and grates have been designed to meet regulatory requirements for stormwater treatment and for safety. The elevation tolerance for each of these elements is -0.1 feet (no over) from designed elevations.

3.3 FIELD QUALITY CONTROL

A. The Contractor shall verify that all design elevations and water control dimensions have been achieved per the Drawings. The Owner's Representative shall review the assembly and check for conformance with the Drawings.

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, mechanical, or chemical 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. NYSDOT Standard Specifications and Supplements – latest edition
- B. Plant Nomenclature: Conform to the latest edition of "Standardized Plant Names" as adopted by the American Joint Committee of Horticultural Nomenclature (AJCHN).
- C. 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).
- D. Tree and Shrub Planting shall be performed in accordance with the provisions of
 1. American Standard for Nursery Stock (ASNS).
 - a) ANSI Z60.1
- E. Mulch shall be applied in accordance with the provisions of

1. North American Weed Management Association (NAWMA)
- F. New York State Department of Agriculture and Markets, New York Lime Law (Section 9A of Agriculture and Markets Law related to Sale of Agricultural Liming Materials)
- G. American Society for Testing and Materials (ASTM)
 1. ASTM D4972, Standard Test Method for pH of Soils

1.3 SUBMITTALS

- A. Submittals shall be prepared and submitted in accordance with Section 01 35 13 – Special Conditions.
- B. Materials Certifications for Seed Mixes, Container Plants, Herbaceous Plants, Mulch
- C. Two-Year Project Maintenance Plan
 1. The Contractor shall submit a two-year Project 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.C and Section 3.6.D of this Specification. The Maintenance Plan shall consider 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. The Project Maintenance Plan shall describe the vegetation management activities that will be performed to maintain the vegetation during the Warranty Period.
 3. Vegetation management all areas where vegetation will be installed as part of this project will be the sole responsibility of the Contractor during the Warranty Period.
 4. The Maintenance Plan shall be submitted 30 days prior to commencement of planting operations.
- D. 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. The list shall include scientific name, common name, size, quantity by species, and genetic source location.

- b) The name of an existing local weather station to be used to track weather patterns and precipitation in the Project Area.
- c) A time schedule that indicates dates for commencement and completion of the tagging of plants in the nurseries, delivery of plants to the site, 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. Delivery schedule must be provided at least 10 calendar days prior to the first day of delivery.
- d) A certificate of compliance showing where the plants were grown and listing all transplants, age or size as specified, grade, and quantity. All plants shall be tagged so that proper identification can be made.
- e) The Contractor shall submit a watering log that documents all watering activities and precipitation events that satisfy water requirements as recorded at an accepted local weather station.
- f) Product sheets and application rates for all soil amendments including fertilizers and pH amendments such as liming materials, etc.
- g) Chemical analysis and composition percent for all plant fertilizers.
- h) Chemical name, common name, chemical formula, calcium carbonate equivalent, and mesh size for all liming materials.

2. The Planting Operations Plan shall be submitted 30 days prior to commencement of planting operations.

E. Invasive Species Management Plan

1. The Contractor shall submit
 - a) An Invasive Species Management 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 Contractor's methods for limiting introduction of invasive species to the Project Area.
 - c) If Contractor is directed by the Town and Engineer to utilize chemical herbicides as part of invasive plant management for the site, the Contractor shall submit an Herbicide Application Plan at least 30 days prior to commencement of chemical control of

invasive plants and agreed upon and signed by the Engineer including schedule of herbicide application, boundaries of areas receiving herbicides, application methods and equipment, and native plant protection measures. The herbicide application plan shall include:

- 1) NYSDEC Aquatic Pesticide Permit. The Contractor shall obtain a NYSDEC Aquatic Pesticide Permit and provide to the Engineer 30 days prior to commencement of control of invasive plants.
- 2) Pesticide Business and Certified Applicators: The Contractor shall identify the licensed pesticide business performing the application; business registration number; name of certified applicator(s) performing work, NYSDEC certified applicator identification number(s), and certified applicator telephone number(s) and provide to the Engineer 30 days prior to commencement of control of invasive plants.
- 3) Pesticide product labels for all products to be used for the control of invasive plants including the EPA registration number; manufacturers label; the percentage of active ingredient in any proposed herbicide; and proposed herbicide application rate. Glyphosate-based herbicides are not approved for use without prior approval from the Owner and Engineer.
- 4) All pesticides must be handled, stored, and applied in strict conformance with manufacturer's instruction and product labels.
- 5) Documentation that any proposed herbicides or surfactants/additives are authorized for use in or adjacent to aquatic habitats in New York State.
- 6) Worker's Qualifications: Names and addresses of five similar projects that each certified applicator has worked on during the past two years.

1.4 RELATED SECTIONS

- A. Section 31 32 11 - Earthwork

PART 2 PRODUCTS

2.1 MATERIALS

A. Seed

1. Seed mixes shall be commercially prepared and supplied in sealed containers. Each bag of seed delivered shall be clearly labeled including the following information.
 - a) Common name genus, species, and subspecies (when applicable).
 - b) Lot number.
 - c) The total delivered weight, in pounds, of each seed mix.
 - d) The amount of Pure Live Seed (PLS) pounds of each species in each seed mix, minimum percent germination and hard seed, maximum percent weed seed content, state and county of origin of each species, date tested.
 - e) Origin of seed. All seed vendors must have a business license issued by supplier's state with a "seed dealer" endorsement.
 - f) The name and address of the seed supplier.
2. Native Seed Mixes shall include:
 - a) Low Marsh and High Marsh- Pinelands Nursery Wetlands Grass and Sedge Mix or approved equivalent,
 - b) Forested Wetland- Pinelands Nursery Riparian Buffer Mix or approved equivalent, and
 - c) Upland-Northeast Coastal Grassland Mix or approved equivalent.
3. Native Seed Mixes shall be from Pinelands Nursery or approved equivalent.
4. Native Seed Mixes shall be applied at a rate of 18 lbs PLS per acre.
5. Cover crop shall be added to all seeded areas and shall consist of oats (*Avena sativa*) at a rate of 15lb PLS per acre in addition to the Native Seed Mix.
6. Temporary Cover Crop Seed

Soil stockpiles and cleared and graded areas shall receive cover crop seed for temporary stabilization, if necessary. A temporary cover crops shall be used to stabilize stockpiles and areas of the site where construction activities have temporarily or permanently ceased for more than 7 days and earthwork will not resume within 14 days.

- a) During the spring and summer months, temporary cover crop shall consist of oats (*Avena sativa*) at 30 lbs PLS per acre. All seed shall be fresh, recleaned seed of the most recent crop. Minimum percent pure seed shall be 95%, minimum germination rate 80%.
- b) After August, temporary cover crop shall consist of certified "Aroostook" winter/cereal rye (*Secale cereale*) at 50 lbs PLS per acre. All seed shall be fresh, recleaned seed of the most recent crop. Minimum percent pure seed shall be 95%, minimum germination rate 80%.
7. The specified seed mixes shall be healthy and vigorous and free of noxious weed seeds. Weed seed shall be a maximum 1 percent by weight of the total mixture.
8. The Contractor is to use seed material with a genetic source from regions less than 200 miles from the project site, if possible, and from northeastern states, if seed material is not available within 200 miles from the project site. Other seed material may only be used only if approved by the Engineer.
9. Any adjustments or substitutions in seed species or composition shall be reviewed by the Engineer and accepted by the Owner prior to installation.
10. Seeds that have become wet, moldy, or otherwise damaged, or do not meet the Specifications will be rejected at no cost to the Owner and shall be legally disposed of offsite and replaced at Contractor's expense.
11. All seeding operations shall be completed prior to the commencement of any planting of woody species.
12. Seed shall be installed in all disturbed areas inside the limits of disturbance above Ordinary High Water.

B. Straw Mulch

1. Straw Mulch shall be in an air-dried condition, free of noxious weeds, seeds, and other materials detrimental to plant life. Hay is not acceptable. In lieu of Certified Weed-Free Straw, the Contractor shall provide documentation that the material is steam or heat treated to kill seeds, or shall provide U.S., or Massachusetts Department of Agriculture laboratory test reports, dated within 90 days prior to the date of application, showing

that there are no viable seeds in the straw. Straw mulch shall be suitable for spreading with mulch blower equipment. The straw shall be accompanied by the certification, labels, and/or marking twine at the time of delivery to the project site. Straw delivered to the project without such information may be rejected at the Engineer's discretion, and removed from the project site by the Contractor at no cost to the Owner.

2. Straw Mulch shall be seed free, consisting exclusively of stalks or stems of grain after threshing.

C. Plant Materials

1. **Nursery Certifications:** The Contractor shall submit an inspection certificate on nursery letterhead with the name of plants including botanical common names, quality, and size. Inspection certificates required by law shall accompany each shipment invoice to certify that all plants are free from disease and infestation and shall be filed with the Engineer.
2. All plants shall be species native to coastal New York State 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.
3. **Plant Labels:** Plants shall have durable waterproof labels in weather-resistant ink attached to plants or containers. Labels shall indicate the correct botanical plant name and variety. Any adjustments or substitutions in plants species, sizes, container types, or quantities, shall be reviewed by the Engineer and accepted by the Owner.
4. Plant materials must originate no more than 200 miles from the project site, unless approved by the Owner.
5. The Contractor shall notify the Engineer 48 hours prior to the delivery of plant material.
6. **Plant Storage and Protection:** Plants shall be stored in a shaded on-site location and kept moist throughout the entire installation period. Plants must not be stored on-site for more than 10 days before planting. Plants stored on-site for more than 10 days will be rejected and shall be replaced at no cost to the Owner. Store and protect plants not planted on the day of arrival at the site as follows:

- a) Plants shall be thoroughly watered every 24 hours.
- b) Do not store plant material directly on concrete or bituminous surfaces.
- c) Plants not installed on the day of arrival at the Project Site shall be stored and protected in designated areas from direct exposure to wind and sun. Use silt fencing to protect plants from wind desiccation.
- d) All sites used for temporary storage of plants must be upland areas enclosed with temporary herbivory fence to prevent grazing by deer.

7. 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. Container Plants shall be used in areas designated for re-vegetation as shown on the Drawings. Container Plants shall be supplied by the Contractor and shall include shrub and tree seedlings. 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. 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. Container Plants species and quantities are listed on the Planting Plan in the Drawings. No substitutions shall be accepted, except with the written approval from the Owner's Representative.
8. Plants not conforming to these requirements will be rejected by the Owner's Representative and shall be replaced by the Contractor at no cost to the Owner.

E. Herbaceous Plants (includes Plug Plants):

1. Plug size will be in accordance with ANSI Z60.1. Plugs in trays will be grown over a sufficient duration of time for new fibrous roots to have developed and for the root mass to retain its shape and hold together when removed from the trays and containers. The trays will be sufficiently rigid to hold the root mass shape and protect the root mass during shipping.

F. Planting Soil

1. Topsoil for Planting Soil: Refer to Section 31 23 00 – Earthwork
2. Soil Amendments: Lime application if necessary to attain suitable soil pH Restoration Areas of 6.0 to 7.0 (inclusive). Application methods, scheduling, equipment, lime product, and application rate should be included in the approved Planting and Maintenance Plan.

G. Fertilizer

1. Commercial Fertilizer (5-5-5): Each planted tree/shrub shall be fertilized with a 30 g tablet(s), 8- to 9-month slow-release fertilizer with a 5-5-5 nitrogen-phosphorus-potassium ratio. Fertilizer shall be balanced with the inclusion of trace minerals and micronutrients.
2. Commercial Fertilizer (8-6-12): Each herbaceous plant plug shall be fertilized with 1 oz of 8- to 9-month slow-release fertilizer with a 8-6-12 nitrogen-phosphorus-potassium ratio. Fertilizer shall be balanced with the inclusion of trace minerals and micronutrients.

H. Mulch

1. Peat Moss: Shall be imported Canadian sphagnum peat moss, brown, finely granulated material, passing a ½-inch sieve, free of weed, seed, sticks, woody roots, stones and mineral matter harmful to plant life and of such physical condition that it can be readily incorporated with the topsoil. Furnish material conforming to the following criteria:

- a) pH value: 3.0 to 5.0.
- b) Moisture: Not less than 25 percent nor more than 50 percent.
- c) Organic Material: Not less than 47 percent (90 percent dry basis).

2. Mulch: Shredded Wood fiber produced from either hardwood or softwood trees, free of tannic acid, leaves, young green growth, wood shavings, sawdust or other objectionable foreign material.

I. Handling

1. Handling and shipping shall be done in a manner that is not detrimental to the plant material. The nursery shall furnish a notice of shipment in triplicate at the time of shipment of each truck load or other lot of plant material. The original copy shall be delivered to the Engineer, the duplicate to the consignee and the triplicate shall accompany the shipment to be furnished to the Engineer at the job site. The notice shall contain the following information:
 - a) Name of shipper.
 - b) Date of shipment.
 - c) Name of commodity (including all names as specified in the Contract).
 - d) Consignee and delivery point.
 - e) Point from which shipped.
 - f) Quantity contained.
 - g) Size (height, runner length, caliper, etc., as required).
 - h) Signature of shipper by authorized representative.
2. Plant material shall be packed for shipment in accordance with prevailing practice for the type of plant being shipped, and shall be protected at all times against drying, sun, wind, heat, freezing, and similar detrimental conditions both during shipment and during related handling.

3. No substitution of plant material, species, or variety shall be permitted unless evidence is submitted in writing to the Engineer that a specified plant cannot be obtained and has been unobtainable since the Award of the Contract. If substitution is permitted, it can be made only with written acceptance by the Engineer. The nearest variety, size, and grade, as accepted by the Engineer, shall then be furnished. When substitution is allowed, use current ASNS standards to determine the correct rootball volume (container) of the substituted material that corresponds to that of the specified material. These substitutions shall be reviewed by the Engineer and must be at no cost to the Owner.
4. Plants delivered as a single unit of 25 or less of the same size, species, and variety, shall be clearly marked and tagged. Plants delivered in large quantities of more than 25 must be segregated as to variety, grade, and size; and one plant in each 25, or fraction thereof, of each variety, grade, and size shall be tagged.
5. The Engineer will make an inspection of plant material at the source when requested by the Engineer. However, such preliminary review and acceptance shall not be considered as final acceptance for payment. Final inspection and acceptance (or rejection) will only occur when the plant material has been delivered to the Contract site. The Contractor shall notify the Engineer, not less than 48 hours in advance, of plant material delivery to the project.

PART 3 EXECUTION

3.1 SEED

- A. Apply Seed at the rate specified on the Drawings.
- B. Seeding Near Bank and Within Fabric Encapsulated Soil Lifts:
 1. Dry seed shall be broadcast under the coir fabric at densities according to these Specifications.
 2. Do not walk on seeded areas after germination period has commenced.
- C. Seeding (All Disturbed Areas):
 1. The application method for seeding shall be reviewed and accepted by the Engineer prior to commencement of the work. Hydroseed methods are preferred for areas with slopes steeper than 3:1. Dry seed may be broadcast mechanically or by hand.
 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. Do not seed during excessive wind. Do not seed when ground is saturated, frozen, snow-covered, or when air temperature exceeds 90 degrees Fahrenheit or during periods when the ground surface is too dry for the seed to germinate. Contractor shall not seed immediately following rain and shall avoid application during periods of or within 24 hours preceding expected rainfall. Seeding may not occur if standing water is present on the area to be seeded.
4. The seed shall be broadcast under erosion control measures.

D. Seeding Dates

1. Restoration Areas: March 15 - May 1.
2. Temporary Crop Seeding
 - a) Temporary seeding shall occur within 24 hours after finished grade is achieved.
 - b) Should finished grade be achieved outside of a viable seeding window, the Contractor shall be required to provide soil erosion control via hydromulching, or other methods, in compliance with New York State Standards and Specifications for Erosion and Sediment Control. Temporary crop shall then be applied at the start of the next seeding window

E. Re-Seeding

1. Dry seed shall be broadcast on re-seeding areas in densities specified above for disturbed areas.

3.2 MULCHING

- A. Straw mulch shall be applied at 2 tons (4000lb) per acre; no mulch shall be applied within the Fabric Encapsulated Soil lifts.
- 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 with the exception of areas covered by fabric.

3.3 PLANTING

- A. Planting shall occur in areas as shown on the Drawings. Plant material locations and planting area outlines shall be staked on the project site by the Contractor and approved by the Engineer before any plants or beds are installed.
- B. Planting Dates:
 - 1. Trees and Shrubs – Spring Season- April 1 to May 15
 - 2. Herbaceous Plants – Spring Season- April 15 to June 15
- C. Herbivore protection must be installed at the time of plant installation.
- D. 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. Wind velocities greater than 20 mph.
- E. Woody trees and shrubs may not be planted in standing water or excessively high groundwater conditions unless otherwise approved by the Engineer.
- F. Planting operations must be completed after the commencement of any invasive plant control, soil preparation, liming, or seeding operations in those zones.
- G. 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.

- H. 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 5 gallons per square yard.
- I. 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. To encourage well-aerated soil to be available to the root system for favorable root growth, plant pits shall be constructed with sides sloping towards the base; vertical sides shall not be used.
 2. Backfill pits with planting soil and firm to the appropriate level.
 3. Prior to placing a tree or shrub, a fertilizer tablet shall be placed in the bottom of each plant pit. At no time shall fertilizer be placed in the water column or on top of the soil surface. Soluble fertilizers should not be placed in direct contact with the rootstocks.
 4. Immediately prior to planting container plant material, prepare the root-earth 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.
 6. The tops of the rootstock mass of all trees and shrubs shall be a minimum of 1 inch below the soil surface. Tree/shrubs shall be set plumb and in center of planting pit, with the root system oriented downward, and held in position until sufficient soil has been firmly placed around the root mass.
 7. Improper planting that results in air pockets, shallow planting, exposed roots or leaning plants is unacceptable and shall be corrected at Contractor's expense.
 8. Irrigate plants thoroughly after planting by watering all soil that contacts the plants with 5 gallons of water per square yard (1 inch layer of water).
 9. 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.

10. 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.

J. Herbaceous Plants:

1. Plugs shall be planted at a depth of no more than 1 inch deeper than grown in the nursery. The top of the rootstock mass shall be a minimum of 1 inch below the soil surface. Plants shall be set plumb, with the root system oriented downward, and held in position until sufficient soil has been firmly placed by hand around the root mass. The plant shall be set even with or slightly higher than the surrounding grade. It shall be unacceptable to step on or around planting holes for the purpose of placing backfill. Should the root mass be over developed the Contractor shall score the bottom of the plug to ensure better growth of the plug.
2. Fertilizer shall be placed in the bottom of each planting hole prior to placing a plug. At no time shall fertilizer be placed in the water column or on top of the soil surface. Soluble fertilizers should not be placed in direct contact with the rootstocks.

K. Maintenance

1. Contractor shall maintain plant life, including weed removal and management as necessary to keep plant materials free from invasive vegetation, insects and disease, immediately after placement until plants are well established and exhibit a vigorous growing condition. Continue maintenance until termination of warranty period.
2. Maintenance shall occur monthly or as needed to maintain plant life. Maintenance to include:
 - a) Mechanical weeding of tree/shrub pits.
 - b) Remedy damage from use of insecticides.
 - c) Maintaining herbivory protection including maintenance after storms to ensure proper plant growth.

L. 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 5 gallons per square yard.
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. All plants must receive at least 5 gallons per square yard (1 inch layer of water) per week through natural rainfall or irrigation during the growing season between April 1 and October 15. Provide additional watering during periods of dry weather when required or when directed.
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. 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.
5. In case of drought, this plan may be altered in coordination with the Engineer.

3.4 PROTECTION OF PLANTINGS

A. Browse Protection

1. Temporary Browse Protection Fence shall be installed and maintained to completely enclose all wetland planting areas to discourage waterfowl and deer from browsing new plantings. The fence shall be a minimum of 5 feet above existing grade and posts shall be a combination of non-tropical hardwood stakes and steel T-posts. The Browse Protection Fence shall be repaired as necessary during the Warranty Period and shall be removed at the end of the warranty period, or as directed by the Engineer.
2. Materials
 - a) Hardwood Stakes: 2" x 2" x 84" (minimum) untreated, non-tropical hardwood stakes with pointed tip. Stakes should be free from large knots that weaken the stake.
 - b) Black Polypropylene Deer Exclusion or Utility Fence (TENAX, DeerBusters, or approved equivalent), UV-stabilized, 60" height (minimum), minimum 600 lb breaking strength.

- c) Steel T-posts: 84" (minimum) studded posts, 1.33 lbs per foot gauge
- d) 3-Ply twisted Jute Twine: 84 lbs (minimum) tensile strength
- e) 1" metallic Mylar Flash Tape: Silver flash tape trailing at least 10 inches from twine every four feet.
- f) Heavy Duty Zip-Ties: UV-stabilized, 120 lbs tensile strength

B. Rodent Protection

- 1. Rodent protection shall be installed on all trees and shrubs.
- 2. Rodent Protection shall be 15-inch solid biodegradable rodent guard.
- 3. Rodent Protection must be installed to penetrate the ground to a minimum depth of 4 inches to prevent burrowing beneath the plastic.

C. Trees and shrubs shall be protected in a sufficient manner to achieve the minimum guarantee requirements through the Warranty Period as described in Section 3.6 Quality Control and Assurance.

3.5 INVASIVE PLANT MANAGEMENT

- A. 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.
- B. Contractor shall conduct invasive plant management through mechanical weed removal and herbicide application as necessary to keep plant materials free from invasive vegetation, insects and disease, immediately after placement until plants are well established and exhibit a vigorous growing condition. Invasive plant management shall continue until termination of warranty period.
- C. Maintenance shall occur monthly or as needed to maintain plant life.
- D. The Contractor shall be responsible for the mechanical removal of any of the above invasive plants on a regular basis to maintain health of planted vegetation. Mechanical weed removal shall consist of the removal stems and rhizomes by hand pulling, hand digging, or cutting.
- E. During the maintenance period, the Contractor shall perform twice-yearly (April and early to mid-August) surveys with the Engineer followed by a meeting to decide methods for the invasive species control, i.e., mechanical control, herbicide treatment, etc.

F. Invasive plants to be removed include, but are not limited to *Phragmites australis* (Common reed grass), *Persicaria perfoliata* (Mile a minute vine), *Lythrum salicaria* (Purple loosestrife), *Artemisia vulgaris* (mugwort), *Polygonum cuspidatum* (Japanese Knotweed), *Ampelopsis brevipedunculata* (Porcelin Berry), *Lonicera japonica* (Japanese Honeysuckle), *Rosa multiflora* (Multiflora rose), *Celastrus orbiculata* (Asiatic Bittersweet), *Ailanthus altissima* (Tree of Heaven), *Berberis thunbergii* (Japanese barberry), *Eleagnus umbellata* (Autumn olive), *Ligustrum obtusifolium* (Japanese privet), *Ligustrum vulgare* (Common privet), *Phalaris arundinacea* (Reed canary grass), *Morus alba* (White mulberry), Large Grey Willow/Rusty Willow (*Salix atrocinerea*/*Salix cinerea*), and poison ivy. All native vegetation shall remain undisturbed.

G. Mechanical Control of Invasive Plants

1. Mechanical weed removal shall consist of the removal stems and rhizomes by hand pulling, hand digging, or cutting.
2. *Phragmites australis* stands that cannot be controlled through hand pulling or digging shall be maintained through repeated cutting of the aboveground stems. In the early spring (March – April), *Phragmites* shall be cut to 6 inches in height and not lower. All cut material and thatch shall be hand-raked and removed. Cutting shall be performed using commercial hedge trimmers, weed whacker, and hand pruners. No native herbaceous plants or woody shrubs will be removed or damaged. *Phragmites* shoots will be re-cut again in early June. If there is substantial growth of native vegetation, *Phragmites* will be cut to a height of 18 inches above soil level or above the height of any native vegetation present. One additional cutting may occur when the *Phragmites* is in flower (late August – September) if there is substantial height difference between *Phragmites* and native vegetation to allow for cutting of *Phragmites* without damage to native vegetation. All cut material and thatch shall be hand-raked and removed.

H. Herbicide Application

1. Target Invasive Plants: Herbicides may only be applied to Common Reed (*Phragmites australis*). Applications shall consist of an imazapyr-based herbicide with a non-ionic surfactant.
2. The limits of herbicide application areas must be flagged or staked out and approved by the Engineer prior to herbicide application.
3. Herbicides shall not be applied directly or indirectly to native vegetation. All native vegetation shall remain undisturbed.
4. Herbicides shall not be applied directly or indirectly to planted/seeded vegetation. All planted/seeded shall remain undisturbed.

5. Foliar herbicides shall only be applied via wiping with a backpack sprayer wrapped with cloth, wick stick, or other controlled means to prevent damage to native vegetation. No broadcast spraying of herbicides is authorized. No runoff of herbicide from the plant to the ground or nearby vegetation is authorized.
6. No initial herbicide treatment of Phragmites shall be conducted prior to excavation of the existing marsh sediments and Phragmites rhizomes in order to minimize overall herbicide volume.
7. Herbicides shall be preferentially applied between August 15 and October 1 to maximize effectiveness of herbicide application. All herbicide applications shall be applied by a New York State certified herbicide applicator. Applicators shall be experienced in working in sensitive ecological habitats.
8. All herbicide applications shall be done at times when wind does not exceed a velocity of eight miles per hour. Herbicides should not be applied if air temperature is less than 50 degrees Fahrenheit or rain is expected within the next 24 hours.
9. Herbicides shall be furnished and applied thoroughly, with assurance that manufacturer's recommended rates of the correct chemicals are used at proper times in the prescribed manner, for the complete eradication of invasive vegetation.
10. Mixing and usage of herbicides shall be the sole responsibility of the contractor and shall be conducted in accordance with manufacturer's specifications. The contractor shall provide a support vehicle available with clean water tank and spill control equipment.

I. Site Management to Minimize Spread of Invasive Plants: Fragments of Phragmites roots resulting from excavation shall be collected on a daily basis from excavation areas and haul routes to prevent their incorporation into the restored habitats or to prevent transport downstream or to adjacent sites. Collected Phragmites roots shall be disposed of at an approved off-site facility.

3.6 QUALITY CONTROL AND ASSURANCE

- A. General
 1. The Contractor 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. Worker's Qualifications

1. The persons performing the planting and their supervisor shall be personally experienced in the planting and caring of plant material and shall have been regularly employed by a company engaged in the planting and caring of plant material for a minimum of 2 years.

C. Warranty

1. The Warranty period shall extend for three years. The Warranty period shall begin immediately following plant and seed installation.
2. Contractor shall submit a signed two-year planting Warranty at least 30 calendar days prior to commencement of planting, which is conditional of 90% survival of the planted contract quantity as detailed on the plans. Seeded areas shall be acceptable when the grass provides at least 85% coverage in each seeding area with no bare area greater than thirty-six (36) inches in diameter.
3. The Warranty shall include maintenance of the planting and seeding areas as described in the approved two-year Project Maintenance Plan and as described in Section 3.5 of this specification.
4. The Contractor shall be solely responsible for plant survival. Losses attributed to herbivores, disease, rodents, flooding, drought, wind, ice, or site soils will not lower the minimum survival or coverage requirements.
5. The Contractor shall replace all dead, or less than vigorous, plants necessary to achieve a minimum 90 percent of the planted Contract quantity. Planting areas or portions of planting areas in which 90 percent survival is not reached shall be replanted during the appropriate planting season to achieve a minimum of 90 percent of the planted Contract quantity.
6. At the end of the two-year plant Warranty, the Owner's Representative shall determine whether the plants planted in the planting areas meet the conditions of the guarantee. Any planting areas or portions of planting areas not meeting the requirements of the guarantee shall be replanted in accordance with this section.
7. Replanting must be conducted within 30 days of Owner's determination and notification during planting periods described in this section.
8. Plant replacements must be of the same species, quality, and size as originally installed, or with substitutes pre-approved in writing by the Owner. Replanting shall be performed at the expense of the Contractor.

D. 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.

E. Maintenance Plan

1. The Contractor shall develop and follow a two-year Project Maintenance Plan as described in Section 1.3.C of this specification.

F. 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 Owner. Re-seeding shall be performed at the Contractor's expense, and in conformance with these Specifications.

2. Seeding Success Criteria: The Owner will conduct surveys to verify seeding success. An area will be considered satisfactory if it meets the following criteria:

- a) A minimum of 85 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.

3. Replacement seed shall be guaranteed for an additional six months starting from the date of re-seeding. The Engineer shall identify the replacement seed mix to be used.

G. Tree, Shrub, Live Cutting and Plant stock: Minimum Guarantee Requirements

1. Tree and Shrub Guarantee: The Contractor shall replace all plants judged by the Owner, within 1- and 2-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 Owner.

2. Planting Success Criteria

- a) A minimum of 90 percent of the planted Contract quantity.

3. Replanting shall be conducted according to the original planting specifications.

4. The Owner will conduct inspections at 1- and 2-year dates following the installation date and will notify Contractor of plants needing replacement.
5. Replanting must be conducted within 30 days of notification during acceptable planting periods. Deviations from this plan must be pre-approved in writing by the Owner.
6. Replacements shall be guaranteed an additional twelve (12) months.

H. Invasive Plant Management

1. The Contractor shall submit all New York State required pesticide permits to the Owner at least 5 days preceding herbicide application.
2. The Contractor shall submit an annual log of herbicide applications verifying products/rates, application methods, weather conditions during and after treatment, confirming areas and dates of treatment.
3. Worker's Qualifications: Any invasive plant control services via chemical methods shall be performed by experienced NYSDEC certified pesticide/herbicide applicators. Certified operators shall only be permitted to conduct applications when the certified applicator is on site and working in conjunction with the operators. The certified applicator will be on site at all times and engaged in the actual application.

All herbicides shall be applied in accordance with the manufacturer's instructions, NYSDEC regulations, and the approved NYSDEC Aquatic Pesticide permit for the project. All pesticide labeling must be followed in reference to any restrictions to being utilized in or near shorelines or freshwater wetlands.

End of Section