BID DOCUMENTS AND TECHNICAL SPECIFICATIONS

OYSTER FACTORY PARK COURTESY DOCK & OBSERVATION DECK

IFB 2015-23

For

Town of Bluffton
Beaufort County, South Carolina

February, 2015

TABLE OF CONTENTS

	PAGE NUMBERS
PART I - BIDDING REQUIREMENTS	
Project Summary	1 Page
Location Map	1 Page
Notice to Contractors and Invitation/Advertisement for Bids	2 Pages
Instructions and Information for Bidders	4 Pages
Bid Proposal	3 Pages
Bidders Qualifications	1 Page
Contractor Questionnaire	2 Pages
PART II - CONTRACT FORMS	
Contract Form	12 Pages
Standard Addendum to EJCDC C-520	1 Page
Bid Bond	2 Pages
Payment Bond	3 Pages
Performance Bond	3 Pages
PART III- SPECIFICATIONS	
DIVISION 1 - GENERAL REQUIREMENTS	
C-700 General Conditions	C-700-1 thru C-700-62
Special Conditions	9 Pages
01006 Quality Control	1 Page
02006 Erosion and Sediment Control	3 Pages
06001 Cast in Place Concrete	4 Pages
06005 Pre-stressed Concrete Piling	3 Pages
07001 Timber Pier and Timber Framing	4 Pages
07003 Marine Timber Piles	4 Pages
08004 Aluminum Floating Docks and Accessories	3 Pages

PROJECT SUMMARY

The Town of Bluffton proposes to make improvements to its existing Oyster Factory Park boat landing located at the end of Wharf Street on the May River. In the recent years we have seen an increase in use from boaters and other water related activities, both locally and from adjacent areas. The proposed upgrades will greatly improve the facility for accessing the May River and other neighboring bodies of water.

The general scope of the improvements includes the following:

1. A new 150'X8' floating dock with concrete abutment, concrete groundout pad and concrete piles
2. A new Canoe/Kayak launching dock
3. One (1), 8'X20' floating dock section (as alternate to item #2)
4. New 6' wide Timber walkway from park area to concrete abutment,
5. A new 18'X20' timber observation deck
6. New 34'X6' timber walkway access to beach

LOCATION MAP

NOTICE TO CONTRACTORS AND
INVITATION/ADVERTISEMENT FOR BIDS

Sealed bids will be received by the Town of Bluffton for the Oyster Factory Park Courtesy Dock and Observation Deck, and they are due by 2:00 p.m. (Local Time) on March 2, 2015 at Town Hall, P.O. Box 386, 20 Bridge Street, Bluffton, South Carolina (29910) at which time they will be publicly opened and read. Bids shall be clearly marked as "**IFB 2015-23 Oyster Factory Park Courtesy Dock and Observation Deck** and offerors shall submit one (1) original and four (4) copies by the stated deadline.

The work under this Contract will consist generally of the following:

A new 150'X8' floating groundout dock with concrete abutment and concrete piles
A new Canoe/Kayak launching dock
One (1), 8'X20' floating dock section (as alternate to item #2)
New 6' wide Timber walkway from park area to concrete abutment
A new 18'X20' timber observation deck
New 34'X6' timber walkway access to beach

The complete IFB and Plans are posted in the "Business/Bid Opportunities" section of the Town's website at www.townofbluffton.sc.gov. All questions regarding this solicitation should be emailed to Gerry Díaz at gdiaz@townofbluffton.com, or faxed to his attention at 843-706-4533. All questions, related answers and addendums will be posted in the same location as the IFB is posted as they come in, so that any revised information will be available to all participating Offerors. No questions will be accepted after noon on February 25, 2015. Answers to any final questions will be posted on the Town's website by 5 PM the following day.

Bidders on this Work will be required to comply with the President's Executive Order No. 11246 and Order No. 11375 which prohibit discrimination in employment regarding race, creed, color, sex or national origin.

Bidders must comply with Title VI of the Civil Rights Act of 1964, the Anti-Kickback Act, the Contract Work Hours and Safety Standards Act, and 40 CFR 33.240.

This project will be partially constructed with funds provided by the Water Recreation Resource Fund and Federal Sport Fish Restoration Fund; these will be administered by The South Carolina Department of Natural Resources.

Bids must be accompanied by a certified check or Bid Bond in the amount of five percent of the amount bid. The successful bidder must be able to provide a Payment Bond and Performance Bond within ten days of Notice of Award. These bonds must be in the amount of 100 percent of the contract amount. Provisions of the Security shall be as described in the Instruction and Information for Bidders.

Any prospective bidder, offeror, contractor or subcontractor who is aggrieved in connection with the solicitation of this contract may protest to Owner (Town of Bluffton) in accordance with Section 27 of the Town of Bluffton Purchasing Ordinance within 15 days of the date of issuance of the Notice of Intent to Award.

No bid will be considered unless the bidder is legally qualified under the provisions of the South Carolina Contractor's Licensing Law (South Carolina Code of Laws as amended on April 1, 1999, Chapter 11, Sections 40-11-10 through 40-11428).

The successful bidder must furnish proof that they have an appropriate State of South Carolina Marine Construction Contractor's License and a Town of Bluffton Business License before a contract will be executed.

Bids must be signed by an official of the company authorized to bind the offeror, and it shall contain a statement that the proposed price is good for a period of at least ninety (90) days from the Bid opening date.

The Town reserves the right to refuse any or all bids and to waive any technicalities and formalities. The Town reserves the right to negotiate with all qualified offerors. The Town may cancel this solicitation in part or in its entirety if it is in the Town's best interest to do so.

This solicitation does not commit the Town to award a contract, or to pay for any cost incurred in the preparation of your bids, or to procure or contract for any articles of goods or services.

The Town does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or in the provision of goods or services.

INSTRUCTIONS AND INFORMATION FOR BIDDERS

1. BASIS OF CONTRACT:
See Invitation/Advertisement for Bids and proposal form.

2. BID SECURITY:
See Invitation/Advertisement for Bids and Proposal form.

3. MARINE CONSTRUCTION CONTRACTOR'S LICENSE:
All contractors wishing to bid on this project must have obtained a "MARITIME or Marine Construction Contractor License" and "Marine Construction Contractor License Number". All dock construction work to be included in this project shall be done by a licensed contractor. The successful bidder must furnish proof that they have a State of South Carolina Marine Construction Contractor's License and Town of Bluffton Business License before a contract will be executed.

4. PRE-BID CONFERENCE:
A pre-bid conference for this project will be held, but attendance is not mandatory. All requests for interpretation or additional information shall be presented in the format outlined in Para. 5 of this section. February 17, 2015 at 9:00 AM.

5. INTERPRETATIONS:
No oral interpretation will be made to bidders as to the meaning of the Plans and Specifica-tions. Requests for interpretation of Plans and Specifications must be made in writing to Mr. Gerry Díaz at the Town of Bluffton, P.O. Box 386, Bluffton South Carolina (29910), or via facsimile (843) 706-4533, or by e-mail at gdiaz@townofbluffton.com no later than after noon on February 25, 2015 the date set for receipt of proposals, and failure on the part of the successful bidder to do so shall not relieve him as Contractor of the obligation to execute such work in accordance with a later interpretation by the Engineer. All interpretations made to bidders will be issued in the form of addenda to the plans and specifications and will be sent to all bidders. Such addenda are to be covered in the proposal, and in closing the Contract they will become a part thereof.

6. BIDDERS TO INVESTIGATE:

Bidders are required to submit their proposals upon the following conditions, which shall apply to and become part of every bid received, for example:

Each Bidder must satisfy himself and form his own opinion by personal examination of the location and ground of the proposed work, and by such other means as he may desire, as to the actual conditions and requirements of the work, including the materials to be excavated; must make his own interpretations and satisfy himself by his own investigations and research regarding labor and materials needed, and shall make his bid in sole reliance thereon. Any information or data furnished by the Owner or its employees for the convenience of any bidder is not guaranteed.

7. PROPOSALS:

Proposals will be opened and read as stated in the Invitation/Advertisement for Bids.

All bids must be submitted on the Bid Proposal Form furnished to the Bidder as a part of these documents and must be signed. All blanks on the proposal form must be filled in. Numbers shall be written in English words and in Arabic Numerals, and the completed form shall be without interlineation, alteration, or erasure. Failure to submit a proposal in the form requested or the inclusion of any condition, alternate, limitation or provision not called for will render the bid irregular and shall be considered sufficient cause for rejection of a bid. Failure to complete entries in all blanks in the proposal form shall be considered sufficient cause for rejection of a proposal. If the bidder is not currently able to complete the work described in the Plans and Specifications but would like to be considered for future work in the Town of Bluffton, the bidder may submit a Bid Proposal with the terms “NO BID”. A “NO BID” Bid Proposal will be considered a responsive bid.

All addenda issued shall be acknowledged in the place so designated. All alternates, if any, shall be bid on; the term "no bid" shall not be used. In the event that the Bidder does not desire to make a change in price from his Base Bid for any given alternate, he shall so indicate by using the words "no change." Proposals shall close with legal name of Bidder and be executed by one legally authorized to bind the bidding firm to a contract.

Bid Security, made payable to the Owner, shall be in the amount of five percent (5%) of the Base Bid. Security shall be a Bid Bond issued by a surety licensed to conduct business in state where project is located, and shall have attached Power of Attorney certifying bond signee. A proposal cannot be withdrawn after it is filed, unless Bidder makes written request to the Owner prior to time set for opening of bids, or unless the Owner fails to accept bid within 90 days after date fixed for opening of bids. If any bidder refuses to enter into a contract, the Owner will retain his Bid Security as liquidated damages but not as a penalty. The successful bidder must be able to provide a Payment Bond and Performance Bond within 10 days of notice to award. Samples of such bonds are contained herein and shall be in the amount of 100% of the value of the Base Bid.

Submittal: The Proposal, 4 copies, and a single copy of the Bid Security together with the Power of Attorney shall be contained in a sealed envelope bearing the Bidder's name and marine construction contractor's license number clearly addressed to the Owner as indicated on the Proposal Form. In addition, in large letters on both the front and back of the envelope, the following shall appear: "PROPOSAL FOR CONSTRUCTION. DO NOT OPEN UNTIL (INSERT TIME) O'CLOCK, (INSERT DATE)" not later than the date and hour named therein. After that time, no proposals will be received or withdrawn.

8. FORM OF AGREEMENT:

Form of Agreement will be on the enclosed Form in the Bid Documents.

9. AWARD:

The Owner's intent is to make an award within funds available to the lowest responsible bidder furnishing satisfactory performance surety.

The Owner reserves the right to reject any or all bids and to waive technicalities and informalities.

The Owner reserves the right to select the alternates to be used in determining the lowest bid. If such bid exceeds available funds, the Owner may reject all bids. The Owner will decide which is the lowest qualified bidder, and in determining such bidder, the following elements will be considered for each bidder:

a. Maintains a permanent place of business.
b. Has adequate plant, equipment and personnel to perform the work properly and expeditiously.
c. Has suitable financial status to meet obligations incident to the work.
d. Has appropriate technical experience.
e. Has acceptable construction schedule.

Awards shall be made only to responsive and responsible contractors who possess the ability or have access to resources to perform successfully under the terms and conditions of proposed procurement. Consideration must be given to such matters as contractor integrity, compliance with public policy, record of past performance, financial, and technical resources.

10. CONTRACTOR TO BE SATISFACTORY TO OWNER:

The Contract will not be awarded to any bidder or bidders who have failed in any contractual obligations to the Owner, or who have on any previous contract performed in a manner unsatisfactory to the Owner, either as to the character of the work, the fulfillment of guarantees or the time consumed in its completion.

One or more bidders shall, upon written request and prior to the letting of the contract, furnish the owner with the following information relative to his own business and that of each of the subcontractors named in his Bid Proposal.

(a) A statement of his experience, including a list of projects for which he or his firm was a responsible contractor or subcontractor; such lists shall indicate the name or identification and location of each project, the year it was completed, a brief description and the approximate dollar value of the work for which he was responsible.

(b) A statement of experience of each subcontractor named in his Bid Proposal; each statement shall include a list of projects for which the named subcontractor was a responsible contractor or subcontractor; such lists shall include the name or identification and location of each project, the year it was completed, a brief description and the approximate dollar value of the work for which the named subcontractor was responsible.

(c) The amount of capital and equipment the Bidder has available for the work of the project.

(d) The amount of capital and equipment each of the named subcontractors has available for the work of the project.

(e) A statement showing the financial assets and liabilities of the Bidder, certified to by a Certified Public Accountant.

(f) A statement from each of the named subcontractors showing his assets and liabilities, certified by a Certified Public Accountant.

11. LIQUIDATED DAMAGES:
Liquidated damages as set forth in the Bid Proposal will be assessed for each consecutive calendar day of delay in the completion of the work not excusable as provided in the Special Conditions (Section 4.03) and the Bid Proposal.

12. SURETY AND INSURANCE COMPANIES:
The Contract provides that the surety and insurance companies must be acceptable to the Owner. To avoid inconvenience, any bidder or subcontractor should confer with the Owner to determine whether the surety or insurance companies expected to be used on the work are acceptable to the Owner. (See Section C-700, Article 5.)

BID PROPOSAL

TOWN OF BLUFFTON
P.O. BOX 386
BLUFFTON, SOUTH CAROLINA 29910

ATTENTION: MR. GERRY DIAZ
PROJECT MANAGER

PROJECT TITLE: OYSTER FACTORY PARK COURTESY DOCK & OBSERVATION DECK

SUBMITTED BY: _____

Gentlemen:

Having carefully examined the Plans, Specifications and other Contract Documents relating to the project, dated December 22, 2014 (See Special Conditions, Section 1.5, for latest revision dates.) and Addendum No.(s) , and also having carefully inspected the premises and the conditions affecting the work, the undersigned hereby proposes and agrees to furnish all materials, labor skill, equipment, tools and other things of every kind and description specified, needed or used for the complete execution of all work covered by and in conformity with the aforesaid Plans, Specifications and other Contract Documents prepared by JON GUERRY TAYLOR & ASSOCIATES, INC., Consulting Engineers (hereinafter called the "Engineer") for the Town of Bluffton (hereinafter called the "Owner") and all Amendments and Addenda thereto, for the sums hereinafter stated.

SCHEDULE OF BID PROPOSAL:

Bidder must fill in quantities and unit prices in figures, make extensions of each item and total as indicated. Also include proposed construction schedule with completion date. For complete information concerning these items, see Plans and Specifications.

BID PROPOSAL

Client: **Town of Bluffton**

Date: February 2015

Proj. Name: **Oyster Factory Park Courtesy Dock & Observation Deck**

Item #	Description	Estimated. Qty.		Unit Price	Total Price
	BASE BID				
1	Clearing and Grubbing		LS		
2	Tree Protection (As Directed by Owner)		LS		
3	Erosion control & silt fence, grassing		LS		
4	Grading and Project Miscellaneous shall include all grading, including off-site removal, to meet the finished grades shown on the plans, and project staking, testing, insurance, bonds & all miscellaneous items not included elsewhere in this bid schedule to complete the project in accord with the plans & specifications.		LS		
5	Supply and install 8'x150' floating groundout dock With concrete abutment		LS		
6	Concrete piles		LS		
7	6' wide Timber walkways from sidewalk transition to concrete abutment (with retaining walls and stainless steel handrails) see plans		LS		
8	Timber walkway for beach access		LS		
9	Timber observation deck (w/ stainless steel handrails)		LF		
10	Timber Piles		LS		
				SUBTOTAL	

	ADD ALTERNATE				
1	Canoe/Kayak launch dock		LS		
2	One (1) 8'X20' floating dock section at end of courtesy dock Instead of Canoe/Kayak launch dock		LS		
3	Install marine grade solar dock and deck lighting		LS		
4	Picket handrails (in lieu of stainless steel handrails)		LS		

SUBTOTAL	
BASE BID	
ADD ALTERNATE	
BASE BID + ADD	

UNIT PRICES					
1	Concrete Piles		EA		
2	Timber Piles		EA		

For and in consideration of the sum of $1.00, the receipt of which is hereby acknowledged, the Undersigned agrees that this proposal may not be revoked or withdrawn after the time set for the opening of bids but shall remain open for acceptance for a period of ninety days following such time.

In case he be notified in writing by mail, telegraph, or delivery of the acceptance of the Proposal within ninety days after the time set for the opening of bids, the Undersigned agrees to execute within ten days a Contract (Form of Agreement between Contractor and Owner) for the work for the above stated compensation and at the same time to furnish and deliver to the Owner a Performance Bond and Payment Bond in accordance with the instructions bound in the specifications, each in an amount equal to 100 percent of the contract sum.

The Undersigned agrees to commence actual physical work on the site with an adequate force and equipment within ten days of a date to be specified in a written order from the Owner and to complete, fully, all work within 30 consecutive calendar days to reach substantial completion and an additional 15 consecutive calendar days to reach final completion for a total of 45 consecutive calendar days, or within_____consecutive calendar days if different than specified. The Undersigned Bidder agrees to pay to the Owner, Liquidated Damages as stated in the Special Conditions for each consecutive calendar day of delay in an amount not to exceed $500 per day.

Enclosed herewith is a Bid Bond in the amount of_____

_____

_____ Dollars ($_____)

being not less than 5 percent of the Base Bid. The Bid Bond must be submitted on a form acceptable to the Owner. The Undersigned agrees that the above stated amount is the proper measure of liquidated damages which the Owner will sustain by the failure of the Undersigned to execute the Contract and to furnish the performance Bond and Payment Bond in case this proposal is accepted and further agrees to the following:

If this Proposal is accepted within 90 days after the date set for the opening of bids and the Undersigned fails to execute the Contract within 10 days after written notice of such acceptance or if he fails to furnish both a Performance Bond and Payment Bond, the obligation of the Bid Bond will remain in full force and effect and the money payable thereon shall be paid into the funds of the Owner as Liquidated Damages for such failure; otherwise the obligation of the Bid Bond will be null and void.

The Bidder submits the following statement of Bidder's qualifications.

BIDDER'S QUALIFICATIONS

NAME OF BIDDER_____

STREET ADDRESS_____

TELEPHONE NO._____FAX NO._____

WHEN ORGANIZED_____

WHERE INCORPORATED_____

LICENSED TO DO BUSINESS IN THE STATE OF _____

_____

The foregoing statement of qualifications is submitted under oath:

Respectfully submitted,

Name:_____

Mailing Address:_____

By:_____

Title:_____

The legal name of the Bidder is:

_____

(Attach satisfactory evidence of the authority of the officer, or officers, signing on behalf of a corporation.)

CONTRACTOR QUESTIONNAIRE

Name of Contractor:_____

Names, addresses, and telephone numbers of three references for which contractor has performed work similar in nature and scope to this project:

_____
_____
_____
_____
_____
_____

Names, addresses, telephone numbers and general description of work to be performed by proposed subcontractors:

_____
_____
_____
_____
_____
_____

Do you have a written safety plan: _____

Can you provide information regarding safety or insurance records such as experience, OSHA incident rate, or other logs/documentation: _____

Do you have a safety manager on staff: _____

If so, please name that person: _____

Do you have a person on staff who will prepare the required traffic control plan: _____

If so, please name that person: _____

Do you have a person on staff that is qualified and certified to perform all required inspections and observations work: _____

If so, please name that person: _____

If not, please name the consultant or subcontractor who will perform these activities under contract to your firm: _____

Do you have a person on staff who will handle specialized equipment needs such as shoring mechanisms or de-watering systems: _____

If so, please name that person: _____

Have you identified the proposed project manager: _____

If so, please name that person: _____

Have you identified the proposed on-site superintendent: _____

If so, please name that person: _____

Is your firm fully cognizant of Town of Bluffton rules and regulations including, but not limited to, tree protection, environmental protection, business licenses, and other requirements: _____

Have you visited the job site: _____

If so, have you planned how to protect the property of adjacent landowners and to minimize disruption to residents: _____

_____

_____

_____

Have you identified which member of your staff will coordinate directly with residents and citizens in or adjacent to the project work area: _____

If so, please name that person: _____

Are you prepared to submit the information required per Section 10 of the "Instructions and Information to Bidders" in the Contract Documents: _____

What is your intended approach to material storage or a "lay-down yard": _____

_____

_____

Are you planning to mobilize an office trailer to this job site: _____

If so, is there a space in the trailer for the Owner's representative: _____

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

SUGGESTED FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by

AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

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

Endorsed by

CONSTRUCTION SPECIFICATIONS INSTITUTE

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

This Suggested Form of Agreement has been prepared for use with the Standard General Conditions of the Construction Contract (EJCDC C-700, 2007 Edition). Their provisions are interrelated, and a change in one may necessitate a change in the other. The language contained in the Suggested Instructions to Bidders (EJCDC C-200, 2007 Edition) is also carefully interrelated with the language of this Agreement. Their usage is discussed in the Narrative Guide to the 2007 EJCDC Construction Documents (EJCDC C-001, 2007 Edition).

Copyright © 2007 National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314-2794
(703) 684-2882
www.nspe.org

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

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

Associated General Contractors of America
2300 Wilson Boulevard, Suite 400, Arlington, VA 22201-3308
(703) 548-3118
www.agc.org

The copyright for this EJCDC document is owned jointly by the four
EJCDC sponsoring organizations and held in trust for their benefit by NSPE.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

INTRODUCTION

This Suggested Form of Agreement between Owner and Contractor for Construction Contract (Stipulated Price) ("Agreement") has been prepared for use with the Suggested Instructions to Bidders for Construction Contracts ("Instructions to Bidders") (EJCDC C-200, 2007 Edition); the Suggested Bid Form for Construction Contracts ("Bid Form") (EJCDC C-410, 2007 Edition); and the Standard General Conditions of the Construction Contract ("General Conditions") (EJCDC C-700, 2007 Edition). Their provisions are interrelated, and a change in one may necessitate a change in the others. See also the Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition), and the Narrative Guide to the 2007 EJCDC Construction Documents (EJCDC C-001, 2007 Edition).

This Agreement form assumes use of a Project Manual that contains the following documentary information for a construction project:

- Bidding Requirements, which include the advertisement or invitation to bid, the Instructions to Bidders, and the Bid Form that is suggested or prescribed, all of which provide information and guidance for all Bidders; and

- Contract Documents, which include the Agreement, performance and payment bonds, the General Conditions, the Supplementary Conditions, the Drawings, and the Specifications.

The Bidding Requirements are not Contract Documents because much of their substance pertains to the relationships prior to the award of the Contract and has little effect or impact thereafter, and because many contracts are awarded without going through the bidding process. In some cases, however, the actual Bid may be attached as an exhibit to the Agreement to avoid extensive rekeying. (The definitions of terms used in this Agreement, including "Bidding Documents," "Bidding Requirements," and "Contract Documents," are set forth Article 1 of the General Conditions.)

Suggested provisions are accompanied by "Notes to User" to assist in preparing the Agreement. The provisions have been coordinated with the other forms produced by EJCDC. Much of the language should be usable on most projects, but modifications and additional provisions will often be necessary. When modifying the suggested language or writing additional provisions, the user must check the other documents thoroughly for conflicts and coordination of terms and make appropriate revisions in all affected documents.

All parties involved in construction projects benefit significantly from a standardized approach in the location of subject matter throughout the documents. Experience confirms the danger of addressing the same subject matter in more than one location: doing so frequently leads to confusion and unanticipated legal consequences. When preparing documents for a construction project, careful attention should be given to the guidance provided in the Uniform Location of Subject Matter (EJCDC N-122).

EJCDC has designated Section 00520 for this Agreement. If this convention is used, the first page of the Agreement would be numbered 00520-1. If CSI's MasterFormat 04™ is being used for the Project Manual, consult MasterFormat 04 for the appropriate section number and number the pages accordingly.

For brevity, paragraphs of the Instructions to Bidders are referenced with the prefix "I," those of the Bid Form are referenced with the prefix "BF," and those of this Agreement are referenced with the prefix "A."

NOTE: EJCDC publications may be purchased from any of the organizations listed on the page immediately following the cover page of this document.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

SUGGESTED FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

THIS AGREEMENT is by and between _____ ("Owner") and

_____ ("Contractor").

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

ARTICLE 2 – THE PROJECT

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

ARTICLE 3 – ENGINEER

3.01 The Project has been designed by _____ (Engineer), which is to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

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

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

4.02 *Dates for Substantial Completion and Final Payment*

A. The Work will be substantially completed on or before _____, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions on or before _____.

[or]

4.02 *Days to Achieve Substantial Completion and Final Payment*

A. The Work will be substantially completed within _____ days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within _____ days after the date when the Contract Times commence to run.

4.03 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner $ N/A for each day that expires after the time specified in Paragraph 4.02 above for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension N/A thereof granted by Owner, Contractor shall pay Owner $
for each day that expires after the time specified in Paragraph 4.02 above for completion and readiness for final payment until the Work is completed and ready for final payment.

NOTE TO USER

If failure to reach a Milestone on time is of such consequence that the assessment of liquidated damages for failure to reach one or more Milestones on time is to be provided, appropriate amending or supplementing language should be inserted here.

ARTICLE 5 – CONTRACT PRICE

5.01 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 Paragraphs 5.01.A, 5.01.B, and 5.01.C below:

A. For all Work other than Unit Price Work, a lump sum of: $_____

All specific cash allowances are included in the above price in accordance with Paragraph 11.02 of the General Conditions.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

B. For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item:

UNIT PRICE WORK

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price

Total of all Bid Prices (Unit Price Work) $_____

The Bid prices for Unit Price Work set forth as of the Effective Date of the Agreement are based on estimated quantities. As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 9.07 of the General Conditions.

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

NOTES TO USER

1. *If adjustment prices for variations from stipulated Base Bid quantities have been agreed to, insert appropriate provisions.*

2. *Depending upon the particular project bid form used, use 5.01.A alone, 5.01.A and 5.01.B together, 5.01.B alone, or 5.01.C alone, deleting those not used and renumbering accordingly. If 5.01.C is used, Contractor's Bid is attached as an exhibit and listed as a Contract Document in A-9.*

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

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

6.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the _____ day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the General

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions.

   a. _____ percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and

   b. _____ percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to _____ percent of the Work completed, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less _____percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

NOTE TO USER

Typical values used in Paragraph 6.02.B are 100 percent and 200 percent respectively.

6.03 *Final Payment*

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

ARTICLE 7 – INTEREST

7.01 All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest at the rate of _____ percent per annum.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

8.01 In order to induce Owner to enter into this Agreement, Contractor makes the following representations:

A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have been identified in Paragraph SC-4.02 of the Supplementary Conditions as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Paragraph SC-4.06 of the Supplementary Conditions as containing reliable "technical data."

NOTE TO USER

Modify the above paragraph if there are no such reports or drawings.

E. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor's safety precautions and programs.

NOTE TO USER

If the Contract Documents do not identify any Site-related reports and drawings, modify this paragraph accordingly.

F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.

G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

A. The Contract Documents consist of the following:

1. This Agreement (pages 1 to __, inclusive).
2. Performance bond (pages _____ to _____, inclusive).
3. Payment bond (pages _____ to _____, inclusive).
4. Other bonds (pages _____ to _____, inclusive).
   a. _____ (pages _____ to _____, inclusive).
   b. _____ (pages _____ to _____, inclusive).
   c. _____ (pages _____ to _____, inclusive).
5. General Conditions (pages _____ to _____, inclusive).
6. Supplementary Conditions (pages _____ to _____, inclusive).
7. Specifications as listed in the table of contents of the Project Manual.
8. Drawings consisting of _____ sheets with each sheet bearing the following general title: _____ [or] the Drawings listed on attached sheet index.
9. Addenda (numbers _____ to _____, inclusive).
10. Exhibits to this Agreement (enumerated as follows):
    a. Contractor's Bid (pages _____ to _____, inclusive).
    b. Documentation submitted by Contractor prior to Notice of Award (pages _____ to _____, inclusive).
    c. [List other required attachments (if any), such as documents required by funding or lending agencies].
11. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
    a. Notice to Proceed (pages _____ to _____, inclusive).
    b. Work Change Directives.
    c. Change Orders.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

NOTE TO USER

If any of the items listed are not to be included as Contract Documents, remove such item from the list and renumber the remaining items.

B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 9.

D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

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

10.02 *Assignment of Contract*

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

10.03 *Successors and Assigns*

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

10.04 *Severability*

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

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

10.05 *Contractor's Certifications*

A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:

1. "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;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 *Other Provisions*

NOTES TO USER

1. *If Owner intends to assign a procurement contract (for goods and services) to the Contractor, see Notes to User at Article 23 of Suggested Instructions to Bidders for Procurement Contracts (EJCDC P-200, 2000 Edition) for provisions to be inserted in this Article.*

2. *Insert other provisions here if applicable.*

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

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

NOTE TO USER

See I-21 and correlate procedures for format and signing of the documents.

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

NOTE TO USER

The Effective Date of the Agreement and the dates of any Construction Performance Bond (EJCDC C-610) and Construction Payment Bond (EJCDC C-615) should be the same, if possible. In no case may the date of any bonds be earlier then the Effective Date of the Agreement.

OWNER:

_____

By: _____

Title: _____

Attest: _____

Title: _____

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 this Agreement.)

CONTRACTOR

_____

By: _____

Title: _____

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

Attest: _____

Title: _____

Address for giving notices:

_____

_____

_____

License No.: _____

(Where applicable)

NOTE TO USER: Use in those states or other jurisdictions where applicable or required.

Agent for service of process:

_____

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

STANDARD ADDENDUM
TO
EJCDC C-520 (2007 EDITION)
STANDARD FORM OF AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR
CONSTRUCTION CONTRACT (STIPULATED PRICE)
FOR THE
TOWN OF BLUFFTON

ARTICLE 3 – The phrase "act as Owner's representative," shall be deleted in Article 3.01.

ARTICLE 4 – The phrase "or other loss" shall be inserted after the phrase "financial loss" in the first sentence in Article 4.03(A).

ARTICLE 5 – In the last sentence of Article 5.01(B), the phrase "by Engineer" shall be deleted.

ARTICLE 6 – In Article 6.01(A), the phrase "by Engineer" shall be deleted. In Article 6.02(A)(1)(a), the phrase "If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, than as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and" shall be deleted. In Article 6.03, the phrase "as recommended by Engineer" shall be deleted.

ARTICLE 7 – Article 7.01 shall be deleted in its entirety.

ARTICLE 8 – Article 8.01(D) shall be deleted in its entirety. In Article 8.01(E), delete the phrase "the Site-related reports and drawings identified in the Contract Documents" and insert the phrase "any Site-related reports and drawings identified in the Contract Documents" in its place. In Article 8.01(H), insert the phrase "and Owner" after each instance of the word "Engineer" in this section.

PENAL SUM FORM

BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER *(Name and Address)*:

SURETY *(Name and Address of Principal Place of Business)*:

OWNER *(Name and Address)*:

BID
Bid Due Date:
Description *(Project Name and Include Location)*:

BOND
Bond Number:
Date *(Not earlier than Bid due date)*:
Penal sum _____ $_____
(Words) (Figures)

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

BIDDER	**SURETY**
_____(Seal)	_____(Seal)
Bidder's Name and Corporate Seal	Surety's Name and Corporate Seal
By: _____	By: _____
Signature	Signature (Attach Power of Attorney)
_____	_____
Print Name	Print Name
_____	_____
Title	Title
Attest: _____	Attest: _____
Signature	Signature
_____	_____
Title	Title

Note: Above addresses are to be used for giving any required notice. Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.

3. This obligation shall be null and void if:

3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or

3.2 All Bids are rejected by Owner, or

3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

PAYMENT BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

CONTRACT
Effective Date of Agreement:
Amount:
Description *(Name and Location)*:

BOND
Bond Number:
Date (*Not earlier than Effective Date of Agreement*):
Amount:
Modifications to this Bond Form:

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

CONTRACTOR AS PRINCIPAL	**SURETY**
_____(Seal)	
_____(Seal) Contractor's Name and Corporate Seal	Surety's Name and Corporate Seal
By: _____	By: _____
Signature	Signature (Attach Power of Attorney)
_____	_____
Print Name	Print Name
_____	_____
Title	Title
Attest: _____	Attest: _____
Signature	Signature
_____	_____
Title	Title

Note: Provide execution by additional parties, such as joint venturers, if necessary.

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.

2. With respect to Owner, this obligation shall be null and void if Contractor:

   2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and

   2.2 Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.

3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.

4. Surety shall have no obligation to Claimants under this Bond until:

   4.1 Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

   4.2 Claimants who do not have a direct contract with Contractor:
      1. Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and
      2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and
      3. Not having been paid within the above 30 days, have sent a written notice to Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.

5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.

6. Reserved.

7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.

8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.

9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

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

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, 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 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.

12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

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

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. Definitions

15.1 Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and 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.

15.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.

15.3 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract, or to perform and complete or otherwise comply with the other terms thereof.

FOR INFORMATION ONLY – (*Name, Address, and Telephone*) Surety Agency or Broker: Owner's Representative (*Engineer or other*):

PERFORMANCE BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

CONTRACT
Effective Date of Agreement:
Amount:
Description (*Name and Location*):

BOND
Bond Number:
Date (*Not earlier than Effective Date of Agreement*):
Amount:
Modifications to this Bond Form:

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

_____(Seal)
Contractor's Name and Corporate Seal

By: _____
Signature

_____
Print Name

_____
Title

Attest: _____
Signature

_____
Title

SURETY

_____(Seal)
Surety's Name and Corporate Seal

By: _____
Signature (Attach Power of Attorney)

_____
Print Name

_____
Title

Attest: _____
Signature

_____
Title

Note: Provide execution by additional parties, such as joint venturers, if necessary.

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

1. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 2.1.

2. If there is no Owner Default, Surety's obligation under this Bond shall arise after:
   - 2.1 Owner has notified Contractor and Surety, at the addresses described in Paragraph 9 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor, and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and
   - 2.2 Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 2.1; and
   - 2.3 Owner has agreed to pay the Balance of the Contract Price to:
     1. Surety in accordance with the terms of the Contract; or
     2. Another contractor selected pursuant to Paragraph 3.3 to perform the Contract.

3. When Owner has satisfied the conditions of Paragraph 2, Surety shall promptly, and at Surety's expense, take one of the following actions:

   - 3.1 Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or
   - 3.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
   - 3.3 Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 5 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or
   - 3.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:
     1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
     2. Deny liability in whole or in part and notify Owner citing reasons therefor.

4. If Surety does not proceed as provided in Paragraph 3 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 3.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.

5. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 3.1, 3.2, or 3.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To the limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:

5.1 The responsibilities of Contractor for correction of defective Work and completion of the Contract;
5.2 Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions of or failure to act of Surety under Paragraph 3; and
5.3 Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of Contractor.

6. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the 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 Owner or its heirs, executors, administrators, or successors.

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

8. 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 Contractor Default or within two years after Contractor ceased working or within two years after 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 period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

9. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.

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

11. Definitions.

11.1 Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.
11.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
11.3 Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
11.4 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or otherwise comply with the other terms thereof.

FOR INFORMATION ONLY – (*Name, Address and Telephone*) Surety Agency or Broker: Owner's Representative (*Engineer or other party*):

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

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by

AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

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

Endorsed by

CONSTRUCTION SPECIFICATIONS INSTITUTE

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

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

Copyright © 2007 National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314-2794
(703) 684-2882
www.nspe.org

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

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

Associated General Contractors of America
2300 Wilson Boulevard, Suite 400, Arlington, VA 22201-3308
(703) 548-3118
www.agc.org

The copyright for this EJCDC document is owned jointly by the four
EJCDC sponsoring organizations and held in trust for their benefit by NSPE.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

TABLE OF CONTENTS

Page

Article 1 – Definitions and Terminology 1
1.01 Defined Terms 1
1.02 Terminology 5

Article 2 – Preliminary Matters 6
2.01 Delivery of Bonds and Evidence of Insurance 6
2.02 Copies of Documents 6
2.03 Commencement of Contract Times; Notice to Proceed 6
2.04 Starting the Work 7
2.05 Before Starting Construction 7
2.06 Preconstruction Conference; Designation of Authorized Representatives 7
2.07 Initial Acceptance of Schedules 7

Article 3 – Contract Documents: Intent, Amending, Reuse 8
3.01 Intent 8
3.02 Reference Standards 8
3.03 Reporting and Resolving Discrepancies 9
3.04 Amending and Supplementing Contract Documents 9
3.05 Reuse of Documents 10
3.06 Electronic Data 10

Article 4 – Availability of Lands; Subsurface and Physical Conditions; Hazardous Environmental Conditions; Reference Points 11
4.01 Availability of Lands 11
4.02 Subsurface and Physical Conditions 11
4.03 Differing Subsurface or Physical Conditions 12
4.04 Underground Facilities 13
4.05 Reference Points 14
4.06 Hazardous Environmental Condition at Site 14

Article 5 – Bonds and Insurance 16
5.01 Performance, Payment, and Other Bonds 16
5.02 Licensed Sureties and Insurers 16
5.03 Certificates of Insurance 17
5.04 Contractor's Insurance 17
5.05 Owner's Liability Insurance 19
5.06 Property Insurance 19
5.07 Waiver of Rights 20
5.08 Receipt and Application of Insurance Proceeds 21

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

5.09 Acceptance of Bonds and Insurance; Option to Replace 21
5.10 Partial Utilization, Acknowledgment of Property Insurer 22

Article 6 – Contractor's Responsibilities 22
6.01 Supervision and Superintendence 22
6.02 Labor; Working Hours 22
6.03 Services, Materials, and Equipment 22
6.04 Progress Schedule 23
6.05 Substitutes and "Or-Equals" 23
6.06 Concerning Subcontractors, Suppliers, and Others 25
6.07 Patent Fees and Royalties 27
6.08 Permits 27
6.09 Laws and Regulations 28
6.10 Taxes 28
6.11 Use of Site and Other Areas 28
6.12 Record Documents 29
6.13 Safety and Protection 29
6.14 Safety Representative 30
6.15 Hazard Communication Programs 30
6.16 Emergencies 30
6.17 Shop Drawings and Samples 31
6.18 Continuing the Work 32
6.19 Contractor's General Warranty and Guarantee 33
6.20 Indemnification 33
6.21 Delegation of Professional Design Services 34

Article 7 – Other Work at the Site 35
7.01 Related Work at Site 35
7.02 Coordination 35
7.03 Legal Relationships 36

Article 8 – Owner's Responsibilities 36
8.01 Communications to Contractor 36
8.02 Replacement of Engineer 36
8.03 Furnish Data 36
8.04 Pay When Due 36
8.05 Lands and Easements; Reports and Tests 36
8.06 Insurance 36
8.07 Change Orders 37
8.08 Inspections, Tests, and Approvals 37
8.09 Limitations on Owner's Responsibilities 37
8.10 Undisclosed Hazardous Environmental Condition 37
8.11 Evidence of Financial Arrangements 37
8.12 Compliance with Safety Program 37

Article 9 – Engineer's Status During Construction 37
9.01 Owner's Representative 37

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

9.02 Visits to Site 37
9.03 Project Representative 38
9.04 Authorized Variations in Work 38
9.05 Rejecting Defective Work 38
9.06 Shop Drawings, Change Orders and Payments 39
9.07 Determinations for Unit Price Work 39
9.08 Decisions on Requirements of Contract Documents and Acceptability of Work 39
9.09 Limitations on Engineer's Authority and Responsibilities 39
9.10 Compliance with Safety Program 40

Article 10 – Changes in the Work; Claims 40
10.01 Authorized Changes in the Work 40
10.02 Unauthorized Changes in the Work 41
10.03 Execution of Change Orders 41
10.04 Notification to Surety 41
10.05 Claims 41

Article 11 – Cost of the Work; Allowances; Unit Price Work 42
11.01 Cost of the Work 42
11.02 Allowances 45
11.03 Unit Price Work 45

Article 12 – Change of Contract Price; Change of Contract Times 46
12.01 Change of Contract Price 46
12.02 Change of Contract Times 47
12.03 Delays 47

Article 13 – Tests and Inspections; Correction, Removal or Acceptance of Defective Work 48
13.01 Notice of Defects 48
13.02 Access to Work 48
13.03 Tests and Inspections 49
13.04 Uncovering Work 49
13.05 Owner May Stop the Work 50
13.06 Correction or Removal of Defective Work 50
13.07 Correction Period 50
13.08 Acceptance of Defective Work 51
13.09 Owner May Correct Defective Work 52

Article 14 – Payments to Contractor and Completion 52
14.01 Schedule of Values 52
14.02 Progress Payments 52
14.03 Contractor's Warranty of Title 55
14.04 Substantial Completion 55
14.05 Partial Utilization 56
14.06 Final Inspection 57
14.07 Final Payment 57
14.08 Final Completion Delayed 58

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

14.09 Waiver of Claims 58

Article 15 – Suspension of Work and Termination 59
15.01 Owner May Suspend Work 59
15.02 Owner May Terminate for Cause 59
15.03 Owner May Terminate For Convenience 60
15.04 Contractor May Stop Work or Terminate 60

Article 16 – Dispute Resolution 61
16.01 Methods and Procedures 61

Article 17 – Miscellaneous 61
17.01 Giving Notice 61
17.02 Computation of Times 62
17.03 Cumulative Remedies 62
17.04 Survival of Obligations 62
17.05 Controlling Law 62
17.06 Headings 62

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.

3. *Application for Payment*—The form 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. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

6. *Bidder*—The individual or entity who submits a Bid directly to Owner.

7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).

8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.

9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.

15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.

16. *Cost of the Work*—See Paragraph 11.01 for definition.

17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

19. *Engineer*—The individual or entity named as such in the Agreement.

20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

21. *General Requirements*—Sections of Division 1 of the Specifications.

22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.

23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.

28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.

29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.

30. *PCBs*—Polychlorinated biphenyls.

31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

32. *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.

33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.

37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.

41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.

42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.

43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.

44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be 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.

45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.

46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.

47. *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 Subcontractor.

48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

49. *Unit Price Work*—Work to be paid for on the basis of unit prices.

50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 *Terminology*

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

B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms "as allowed," "as approved," "as ordered," "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day:*

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

D. *Defective:*

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

a. does not conform to the Contract Documents; or

b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

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

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.

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

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *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 Agreement 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 Agreement. 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 Agreement, whichever date is earlier.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

2.04 *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 the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), 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 Documents;

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.

2.06 *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 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, 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 instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *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 2.05.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

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

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 component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

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

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

C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

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

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement 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, 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 Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work*: Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

2. *Contractor's Review of Contract Documents During Performance of Work*: If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation , (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

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 Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

   a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or

   b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

1. A Field Order;

2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier shall not:

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

2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.

C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

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

4.01 *Availability of Lands*

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

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 the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and

2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

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

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

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

   a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and

   b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:

   a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

   b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

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

c. Contractor failed to give the written notice as required by Paragraph 4.03.A.

3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for 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 such information and data;

b. locating all Underground Facilities shown or indicated in the Contract Documents;

c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and

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

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

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

4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.

E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.

B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.

C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.

B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.

E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 *Contractor's Insurance*

A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or

b. by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

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

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and 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;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;

4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);

5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and

6. include completed operations coverage:

a. Such insurance shall remain in effect for two years after final payment.

b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

5.05 *Owner's Liability Insurance*

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

5.06 *Property Insurance*

A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;

2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.

B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors,

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.

D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 *Waiver of Rights*

A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.

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:

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

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 utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.

B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

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

A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

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

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.

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.

6.02 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

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.

6.04 *Progress Schedule*

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

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and "Or-Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that:

1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

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; and

3) it has a proven record of performance and availability of responsive service.

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.

2. *Substitute Items:*

a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.

c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.

d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

1) shall certify that the proposed substitute item will:

a) perform adequately the functions and achieve the results called for by the general design,

b) be similar in substance to that specified, and

c) be suited to the same use as that specified;

2) will state:

a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,

b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;

3) will identify:

a) all variations of the proposed substitute item from that specified, and

b) available engineering, sales, maintenance, repair, and replacement services; and

4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

E. *Engineer's Cost Reimbursement*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. 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.

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

6.06 *Concerning Subcontractors, Suppliers, and Others*

A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. 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 moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner,

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. 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.

6.08 *Permits*

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

6.09 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 *Use of Site and Other Areas*

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

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

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

6.13 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. 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 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

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

6.15 *Hazard Communication Programs*

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

6.16 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

a. Submit number of copies specified in the General Requirements.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:*

a. Submit number of Samples specified in the Specifications.

b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Submittal Procedures:*

1. Before submitting each Shop Drawing or Sample, Contractor shall have:

a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples 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 (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

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.

6.18 *Continuing the Work*

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

6.19 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.

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 or the issuance of a notice of acceptability by Engineer;

6. any inspection, test, or approval by others; or

7. any correction of defective Work by Owner.

6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, Contractor 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 .

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 6.20.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.

6.21 *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 law.

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, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to 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 6.21, 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 6.17.D.1.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 *Related Work at Site*

A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to Contractor prior to starting any such other work; and

2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.

B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. 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. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, 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.

7.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;

2. the specific matters to be covered by such authority and responsibility will be itemized; and

3. the extent of such authority and responsibilities will be provided.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.

B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.

C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

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

8.02 *Replacement of Engineer*

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

8.03 *Furnish Data*

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

8.04 *Pay When Due*

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

8.05 *Lands and Easements; Reports and Tests*

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

8.06 *Insurance*

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

8.07 *Change Orders*

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

8.08 *Inspections, Tests, and Approvals*

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

8.09 *Limitations on Owner's Responsibilities*

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

8.10 *Undisclosed Hazardous Environmental Condition*

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

8.11 *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.

8.12 *Compliance with Safety Program*

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 pursuant to Paragraph 6.13.D.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

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

9.03 *Project Representative*

A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

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

9.05 *Rejecting Defective Work*

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

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

9.06 *Shop Drawings, Change Orders and Payments*

A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.

C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

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

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

A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.

B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

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 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

9.10 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

10.02 *Unauthorized Changes in the Work*

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

10.03 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 *Notification to Surety*

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

A. *Engineer's Decision Required*: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

C. *Engineer's Action*: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:

1. deny the Claim in whole or in part;

2. approve the Claim; or

3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.

D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.

F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

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

11.01 *Cost of the Work*

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

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

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

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

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

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, 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 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.

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

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

11.02 *Allowances*

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

B. *Cash Allowances:*

1. Contractor agrees that:

a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance:*

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 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; and

2. there is no corresponding adjustment with respect to any other item of Work; and

3. Contractor believes that Contractor 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 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

   a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;

   b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;

   c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

   d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

   e. 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 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

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

13.01 *Notice of Defects*

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

13.02 *Access to Work*

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

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

13.03 *Tests and Inspections*

A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;

2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and

3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.

F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.

B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.

D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

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

13.06 *Correction or Removal of Defective Work*

A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

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

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

1. repair such defective land or areas; or

2. correct such defective Work; or

3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and

4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

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

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

13.09 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. *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

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

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 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.

B. *Review of Applications:*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

   a. the Work has progressed to the point indicated;

   b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and

   c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

   a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; 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 moneys paid on account of the Contract Price, or

   e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

   a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;

   b. the Contract Price has been reduced by Change Orders;

   c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or

   d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. *Payment Becomes Due:*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

D. *Reduction in Payment:*

1. Owner may refuse to make payment of the full amount recommended by Engineer because:

   a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;

   b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

   c. there are other items entitling Owner to a set-off against the amount recommended; or

   d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.

2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 *Contractor's Warranty of Title*

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

14.04 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall 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 tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

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

14.05 *Partial Utilization*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.

2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

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

14.07 *Final Payment*

A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

   a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;

   b. consent of the surety, if any, to final payment;

   c. a list of all Claims against Owner that Contractor believes are unsettled; and

   d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

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

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

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

C. *Payment Becomes Due:*

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

14.08 *Final Completion Delayed*

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

14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

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

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

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

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

15.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);

2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;

3. Contractor's repeated disregard of the authority of Engineer; or

4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and

3. complete the Work as Owner may deem expedient.

C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.

E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.

F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 *Owner May Terminate For Convenience*

A. 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;

3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

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 15.03.

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 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or

2. agrees with the other party to submit the Claim to another dispute resolution process; or

3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

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

17.03 *Cumulative Remedies*

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

17.04 *Survival of Obligations*

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

17.05 *Controlling Law*

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

17.06 *Headings*

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

Copyright © 2007 National Society of Professional Engineers for EJCDC. All rights reserved.

SPECIAL CONDITIONS

(Oyster Factory Park Courtesy Dock & Observation Deck)

PART 1 - GENERAL

1.1. OWNER: The term "Owner" as used in the Contract Documents is defined as TOWN OF BLUFFTON. The "Owner's Representative" is the ENGINEER, (JON GUERRY TAYLOR & ASSOCIATES, INC.) The Engineer will act as representative of the Owner. The Engineer will be responsible for construction inspections. All Shop Drawings will be reviewed and approved by the Engineer**.**

1.2. CONTRACTOR: The Contractor shall be a qualified Marine Contractor or General Contractor licensed by the State of South Carolina and shall be capable of being Bonded at 100% of Project cost. The Contractor shall secure and pay for the required local building or construction permits (as required). The Contractor shall have a minimum of 5 years continuous experience in marine construction (or equal – as approved by the Engineer) and may be required to submit a list of previous experience on similar projects. If required, the previous experience record will be submitted to the Engineer and/or Owner for review / approval prior to award of Contract. Allow ten (10) working days experience record review/verification/approval.

1.3. RESPONSIBILITY OF CONTRACTOR: Upon award of the Contract, the Contractor will execute the Contract and is obligated to proceed under the terms of the Contract and fulfill all elements of the Contract in a manner satisfactory to the Engineer and the Owner.

It is the responsibility of the Contractor to read through the Drawings, Project Specifications, and Contract Documents thoroughly. Failure to do so is considered as negligence on the part of the Contractor and neither the Owner nor the Engineer shall be responsible for Contractor disregard.

1.4. SCOPE OF WORK: The "work" under this contract includes the furnishing of all plant, labor, materials, equipment, and all items and services of every nature whether particularly mentioned or not that will be required to complete the construction of the Project.

1.5. GENERAL DRAWINGS AND SPECIFICATIONS: The general Drawings and Specifications referred to in the Contract Documents and elsewhere are those described below, all of which were prepared by Jon Guerry Taylor & Associates., Inc. for Town of Bluffton, and bear various titles as shown below, and dated (12-22-14). Refer to Cover Sheet of the Project Drawings for Project Location Map.

PROJECT DRAWINGS:

SHEET	DRAWING TITLE
T1	COVER
C1	EXISTING SITE CONDITIONS PLAN
C2	PROJECT IMPROVEMENTS PLAN AND KEY SHEET
C3	OBSERVATION DECK & ACCESS RAMPS LAYOUT

C4	**PROFILES FOR OBSERVATION DECK & ACCESS RAMPS**
C5	**FRAMING PLAN FOR OBSERVATION DECK & ACCESS RAMPS**
C6	**OBSERVATION DECK, ACCESS RAMP, & HANDRAILS**
C7	**DETAILS & NOTES FOR OBSERVATION DECK & HANDRAILS**
C8	**CONCRETE ABUTMENT LAYOUT PLAN, DETAILS, & NOTES**
C9	**GROUNDOUT COURTESY DOCK LAYOUT PLAN & PROFILE**
C10	**GROUNDOUT COURTESY DOCK PLAN, SECTIONS, & NOTES**
C11	**FLOATING CANOE / KAYAK LAUNCH DOCK (ALTERNATE #1)**
C12	**WOODEN VERTICAL HANDRAIL PICKETS (ALTERNATE #3)**

The Contractor shall carefully check all Drawings and advise the Engineer if any errors or omissions are discovered. The Contractor shall not take advantage of any errors or omissions as full instructions will be furnished by the Engineer should any errors or omissions be discovered. Contractor shall notify the Engineer immediately if additional dimensions and/or layout information is needed for the Project. The Engineer will provide additional information as needed.

1.6. OWNER FURNISHED MATERIALS AND EQUIPMENT: Materials and equipment, indicated on the drawings as "Not in Contract" and "Not Included in Contract" will be furnished and installed by Owner, unless specified otherwise hereinafter.

1.7. LIGHTS AND POWER: The Contractor shall furnish all temporary light and power, including all wiring, lamps and miscellaneous equipment required for the completion and inspection of the work. The Contractor will pay all costs for power used in the execution of the work, including electrical permits, fuel, etc.

1.8. WATER: Contractor will furnish and pay all cost for water used in the execution of the work, and shall provide any temporary water line required. A daily supply of fresh potable water shall be provided by the Contractor for the workers.

1.9. TEMPORARY HEAT: The Contractor shall provide temporary heat as he feels is required for construction purposes and to protect and dry all work during cold weather. The Contractor shall pay for all cost of all temporary heat required during construction.

1.10. TOILETS: The Contractor shall provide and pay for all temporary toilet facilities. At least one toilet facility per 15 workmen shall be provided and maintained at least twice a week; or as required by State or local regulations – but in no case shall be less than the previously-mentioned requirements of this paragraph.

1.11. LINES, GRADES, AND MEASUREMENTS: The Contractor will establish his own working lines and grades from the basic reference lines, benchmarks, and coordinates supplied by Engineer and shall be responsible for accuracy of the same. The Contractor shall notify the Engineer immediately if additional dimensions, spacings, and/or layout information are needed for proper completion of the Work – as determined by the Contractor.

1.12. SHOP DRAWINGS: Shop Drawings and Engineering Calculations shall be submitted to the Engineer for review/comments/approval prior to commencement of fabrication of such submissible items. Allow seven (7) days for review / comments / approval by the Engineer. Shop Drawings and Engineering Calculations submitted shall be reproducible and shall be signed/sealed by a South Carolina licensed professional engineer.

1.12.a SHOP/WORKING AND CONSTRUCTION DRAWING - SUBMITTALS: The Contractor shall submit to the Owner/Engineer a complete schedule of data on materials and equipment to be incorporated in the work. Submittals shall be supported by descriptive material, such as catalogs, cuts, diagrams, performance curves and charts published by the manufacturer, to show conformance to specification and drawings requirements; model numbers alone shall not be acceptable.

Each individual submittal item for materials and equipment shall be marked to show Specification Section and paragraph number which pertains to the item.

The purpose of shop drawing submittals is to demonstrate to the Engineer that the Contractor understands the design concept. The Engineer's review of such drawings, schedules, or cuts shall not relieve the Contractor from responsibility for deviation from drawings or Specifications unless he has, in writing, called the Engineer's attention to such deviation at the time of submission, and has received from the Engineer, in writing, permission for such deviations.

Shop drawings shall be stamped by the Engineer with the following classifications:

1) <u>No Exceptions Taken.</u>

No corrections, no marks. Contractor shall submit copies for distribution.

2) <u>Make Corrections Noted.</u>

A few minor corrections. Items may be ordered as marked up without further resubmission. Submit corrected copies for distribution.

3) <u>Amend and Resubmit.</u>

Minor corrections. Item may be ordered at the Contractor=s option. Contractor shall resubmit drawings with corrections noted.

4) <u>Rejected-Resubmit.</u>

Major corrections or not in accordance with the Contract Documents. No items shall be ordered. Contractor shall correct and resubmit drawings.

Corrections to shop drawings shall not relieve the Contractor from the obligation to complete the project within the time allowed by the Contract Documents.

The Contractor shall submit shop or working drawings of concrete reinforcement, structural details, piping layout, wiring, materials fabricated especially for this project, materials for which drawings are specifically requested, and equipment. The Contractor shall also submit structural shop drawing, computations and construction procedures for jacking pits, sheeted trenches and cofferdams to be used in construction.

Such drawings shall show the principal dimensions, the weight, structural and operating features, space required clearances, etc., depending on the subjects of the drawing. When it is

customary so to do, or when the dimensions are of particular importance, the drawings shall be certified by the manufacturer as correct for this project.

No material shall be purchased or fabricated for equipment or other features until the Engineer has reviewed the shop or working drawings. All materials and work involved in the construction shall then be represented by said drawings. No work shall be done upon the foundations or any other part of a structure of which the design or construction is dependent upon the design of equipment or other features for which review is required until such review has been completed.

Six (6) copies (unless otherwise specified) of all shop or working drawings shall be submitted to the Engineer through the Contractor. Only drawings which have been checked and corrected by the material fabricator shall be submitted. The Contractor shall be responsible for the prompt submission of all shop or working drawings so that there shall be no delay to the work due to the absence of such drawings. Additional prints or drawings shall be furnished as required.

The review of shop and working drawings, etc., will be general and shall not relieve the Contractor from the responsibility for details of design, dimensions, etc., necessary for proper fitting and construction of the work required by the contract.

The Contractor shall furnish prints of all construction drawings in duplicate to the Engineer, who will retain one, set and return the other, having marked thereon such changes as he may suggest. Examination, suggestions and review by the Engineer of drawings or other data submitted to him pursuant to the provisions of this paragraph shall relate only to the apparent fitness of the items thus explained as an aid in producing the general result which is the purposed of the contract. The Engineer's examination, suggestions and review will not be directed, and shall not be understood to relate to the strength, adequacy or sufficiency of such things, which are and will remain solely the responsibility of the Contractor. At the completion of all construction and subsequent modifications, the Contractor shall prepare and deliver to the Engineer six copies of all previously submitted preliminary and shop drawings, each modified to include all subsequent additions and revisions that were made during construction. These said six copies will be identified as AS-BUILT SHOP DRAWINGS.

The Contractor shall furnish the Engineer, during the progress of the work, as many prints of all construction drawings as may be required for construction purposes.

The Contractor shall not order any material until the submitted detail drawings have been reviewed. If the Contractor departs from this procedure for his own convenience, such departure shall be at his own risk and expense, if any. The Contractor shall also give the Engineer notice, stating the quantity of material ordered and the location of the mill and shop where the material will be rolled and fabricated.

1.13. LIQUIDATED DAMAGES: Liquidated damages will apply as described in the Contract.

1.14. PAYMENT: The Contractor shall provide a Labor and Materials Payment Bond as required by the Contract Documents. Also, a partial release of lien on each draw request and a final release of lien on the final draw shall be provided to the Owner. Progress payments, less retainage, will be made monthly based on an estimate made by the Contractor and confirmed by the Engineer and Town of Bluffton Representative of the work completed. Payment requests will be submitted to the Engineer for processing and payment.

1.14.a PROJECT CLOSE-OUT AND FINAL PAYMENT: The following documents should be completed prior to requesting/submitting for final payment:

a. 100% project completion
b. Final project inspection and approval
c. Asbuilt record drawings
d. Labor and material payment release letter
e. All pertinent local and State agencies sign-offs

1.15. SCHEDULING: All construction must be coordinated with the Engineer and Owner and must be completed by the date specified in the **Notice to Proceed**. Deviation from the agreed-upon construction schedule may only take place with written permission from the Owner. A Notice to Proceed will be issued after award of Contract for the Project.

NOTE: The annual **May River Clean Up** is scheduled for Saturday, April 25th. No work will be allowed on that day. Before the Contractor leaves the job site on Friday, April 24th, the job site must be clean, safe and protected, with access to the beach available to participants.

At the Pre-Construction meeting, the Contractor shall submit a Gantt Chart Schedule of activities and cost on each bid item with starting and completion dates for each major activity on each item.

1.16. AMBIGUITIES: In the event of any ambiguities arising in the Contract, the Contract Documents will take precedence over these Special Conditions.

1.17 INSURANCE REQUIREMENTS: Contractor shall provide Certificates of General Liability Insurance with minimum limit of $1,000,000 and Workers Compensation Insurance in accordance with current State regulations. The Owner (Town of Bluffton) and the Engineer (Jon Guerry Taylor & Associates, Inc.) shall be named as Additional Insureds.

Contractor shall also be required to carry Builders Risk insurance for the Project.

Additionally, any coverage that may not be specified but is required by the type of work involved with this project shall be provided / carried by the Contractor. Longshoreman's insurance shall be required for all projects involving work in and around water or marine environment.

1.18 RETAINAGE: A retainage of 10% shall be withheld on all progress payments for all completed work for the Project.

1.19 SITE SECURITY: It will be the Contractor's responsibility to provide security at the Project Site at all times throughout the duration of the Project.

1.20 SAFETY: All aspects of Safety for the Project (including workers, inspectors, pedestrians and bystanders using the existing boat ramp, etc.) throughout the duration of the Project shall be the responsibility of the Contractor. The existing boat ramp shall remain open throughout the duration of the Project. Closure of the boat ramp may only be allowed by prior written approval by the Owner. Contractor shall coordinate with the Owner and Engineer if any portion of the existing boat ramp needs to be closed to users during the course of work for the duration of this project.

1.21 BONDS: Contractor shall provide Performance Bond and Labor & Material Payment Bond for the Project. The cost of all such bonds shall be included in Contractor's price for his bid for the Project.

PART 2 – PRODUCTS

2.01. GENERAL: All products are to be of the type specified, or if unspecified, shall meet the minimum industry or local standards. Substitution of specified products shall not be made without prior written approval of the Engineer.

2.01.a MATERIALS ON SITE: The Contractor will be required to submit a laydown area plan for materials he plans to store on site. The storage area shall be enclosed to keep materials safe from theft and for public safety reasons. All materials should be stored according to their ASTM listing/guidelines for said materials.

2.01.b BOAT RAMP ACCESS: The Contractor needs to be conscious that there is very limited parking space and a parking plan will need to be put in place. It is also the Town's intent to keep safe access to the boat ramp and beach whenever possible and specially on weekends. Closure of the boat ramp may only be allowed by prior written approval by the Owner so that we may notify residents.

PART 3 - EXECUTION

3.1. EXISTING UTILITIES AND STRUCTURES: The locations of all underground and overhead lines and structures may not be shown on the plans. The Contractor shall be responsible for locating all underground utility lines and structures before digging. Other underground utilities or structures may be in place. The Contractor shall make every effort to locate other possible unknown utility lines by use of an electronic pipe finder, or other means he may prefer, and shall excavate and expose all existing underground lines in advance of any trenching, digging, or pile driving operations. This Contractor will be held responsible for the workmanlike repair of any damage done to any utilities during work under this contract. The Contractor shall familiarize himself with the existing conditions and be prepared to adequately care for and safeguard himself and the Owner from damage.

3.2. DAMAGES DURING CONSTRUCTION: The Contractor shall hold the Owner and the Engineer harmless from any damages resulting from his work obstructing or interfering with any existing utilities, or violation of normal industry operating or safety standards.

3.3. RIGHT-OF-WAY: The necessary land for the construction of the work will be furnished by the Owner. The Owner will provide no right-of-way over other property. The Contractor shall take every possible precaution to inconvenience as little as possible the owners or tenants of adjacent property. Public road access shall not be obstructed in such a way as to inhibit traffic flow. The Contractor shall take notice of any utility easements on the site. The Contractor shall, at his own expense, repair any damage or injury to either public or private property during the progress of the work.

3.4. ACCESS ROADS: Streets, roads, and drives used by the Contractor for access to and from the site of his work shall be protected from damage in excess of that caused by the normal traffic of vehicles used for or in connection with the construction work. Any such damage shall be repaired immediately and left in good condition at the end of the construction period.

3.5. UTILITIES: The Contractor shall make his own arrangements for all utilities required for the work (see Paragraphs 1.07, 1.08, and 1.09). Contractor shall pay for all utilities including

tap fees and permits; if necessary.

3.6. REMOVAL OF OBSTRUCTIONS: The Contractor may, with the Owner's consent, remove obstructions to his operations, but they shall be removed and replaced at the Contractor's expense.

3.7. RESTORATION OF DISTURBED AREAS: All areas disturbed by, during, or remaining as a result of construction activities shall be restored to their original or better condition.

3.8. PROTECTIVE WORK: The Contractor shall furnish and install all necessary temporary works for the protection of the work, including barricades, warning signs, and flashing lights at night.

3.9. EMERGENCY WORK: The Contractor shall at all times (night, weekends, or holidays) have a responsible man available whom the Owner may contact in case of emergency repairs. Upon notification of any emergency work necessary, the Contractor's representative shall immediately take steps to make such repairs. Contractor shall supply name, address, and phone number to the Owner and Engineer at the pre-construction meeting.

3.10. CLEANING UP: At completion, remove all surplus materials and other debris resulting from work. Leave entire site in satisfactory, acceptable, broom-clean condition.

3.11. VERIFICATION: Contractor to verify that alignment gradients and elevations are correct. Commencement of work means acceptance of existing conditions.

3.12 PERMITS: Contractor shall meet the requirements of applicable local, state, and federal agencies. If Contractor is stopped or altered in construction activities due to non-compliance with permit conditions, no additional cost for work stoppage shall be paid by Owner. All permits shall be kept on site by the Contractor. Contractor shall not commence work unless he has obtained all permits required for this work from the Engineer and/or Owner. The OCRM Construction Placard shall be displayed on the Project Site at all times during construction. Contractor shall notify the Engineer at least two (2) weeks prior to mobilizing to the Project Site so the OCRM Construction Placard can be acquired.

Contractor shall be responsible for acquiring any/all building permits required for this Project.

3.13 WEATHER: Contractor shall evaluate work requirements with normal weather conditions for the appropriate time of construction. No time extensions will be granted for bad weather conditions that are normal for this project time period.

3.14 WORKING HOURS: Working hours shall be Monday through Saturday, 7:00 AM till 7:00 PM – unless otherwise modified in writing by the Owner.

3.15 PROTECTION OF PERSONS AND PROPERTY: The Contractor shall exercise every precaution to prevent injury to persons or damage to property while performing his work. It shall be the responsibility of the Contractor to resolve any and all claims concerning damage to private property as a result of his activities.

3.15a ADJUSTMENT OF DISCREPANCIES: In all cases of discrepancies between the various dimensions and details shown on drawings, or between the drawings and these specifications, the more expensive construction shall be estimated before construction is started; the matter shall be

submitted to the Owner/Engineer for clarification. Without such a decision, discrepancies shall be adjusted by the Contractor at his own risk and in settlement of any complications arising from such adjustment; the Contractor shall bear all of the extra expense involved.

3.15.b TESTING: All tests/inspections shall be the responsibility of the Contractor. Testing shall be conducted as required in the various sections of these specifications, in accordance with ASTM Standards.

3.16 ENVIRONMENTAL PROTECTION MEASURES: Environmental protection of the site environs during construction is vital. The Contractor shall comply with whatever measures are necessary to minimize oil or petroleum spills, soil erosion and siltation, and air pollution caused by his operation. The Contractor shall also comply with the applicable regulations and Best Management Practices of all legally constituted authorities relating to erosion control, and pollution prevention and control. The Contractor shall keep himself fully informed of all such regulations which in any way affect the conduct of the work, and shall at all times observe and comply with all such regulations. In the event of conflict between such regulations and the requirements of the specifications, the more restrictive requirements shall apply.

3.17 OBSERVATION: The Engineer and/or Town of Bluffton Representative will visit the Project, evaluate schedule and production, and by observation satisfy themselves that the project is being performed in substantial compliance with Contract Documents. The presence of the Engineer and/or Town Representative shall not relieve the Contractor of responsibility for the proper execution of the work in accordance with the specifications.

3.17.a PROJECT MANAGEMENT: The Contractor shall schedule and coordinate the work of the Contractor and all subcontractors and others involved to maintain the accepted progress schedule. His duties shall also include the planning of the work, the scheduling of ordering and delivery of materials, and checking and control of all work under this Contract. Construction schedules shall be submitted to the Engineer for review prior to the start of any work. Schedules shall be verified or updated at the owner's request on a monthly basis.

The Contractor shall be responsible for complete supervision and control of his subcontractors as though they were his own forces. Notice to the Contractor shall be considered notice to all affected subcontractors.

The Contractor shall appoint a qualified representative to act as the Project Coordinator, or Superintendent, who shall be responsible for coordinating all work and providing liaison with the Engineer and the Owner. The Project Coordinator or Superintendent shall, in addition, plan the work, schedule the ordering and delivery of materials, and check and control the various phases of the construction of all work under this Contract. The Project Coordinator or Superintendent shall, in all matters, represent the Contractor at the sites of the work in the absence of a Corporate Officer or Principal of the firm.

The Project Coordinator or Superintendent shall not be changed without Owner's approval unless the project Coordinator or Superintendent proves to be unsatisfactory to the Contractor and ceases to be in his employ.

3.17.b MAINTENANCE DURING CONSTRUCTION: The Contractor shall maintain the work area from the beginning of construction operations until final acceptance of the project. Special care should be taken to maintain work area safe during weekends and other non-work days. This maintenance shall constitute continuous and effective work prosecuted day by day with adequate equipment and forces to the end that the site and structures thereon are kept in satisfactory condition at all times, including satisfactory signing or marking as appropriate and control of traffic where required by use of traffic control devices as required by the State in which this project is located. Upon completion of the work, the Contractor shall remove all construction signs and barriers before final acceptance of the Project.

3.18 PRE-CONSTRUCTION CONFERENCE: A Pre-construction Conference will be arranged by the Engineer after award of Contract and before commencement of work. The Engineer will notify the Contractor of time and date for meeting. At this conference, the Contractor shall be oriented with respect to the Owner's procedures and lines of authority, contractual, administrative, and construction matters. The Contractor shall submit, prior to the Pre-construction Conference, a schedule for completion, a list of equipment, and such other documentation that may be required to assure that the project will be completed in accordance with all Contract conditions and documents.

3.19 PILE DRIVING: Contractor shall notify the Engineer at least two (2) days prior to commencement of pile driving activities so the Engineer can be onsite for observation. Contractor shall record all pile driving information (size, length, location, blows per foot, and any unusual and/or notable conditions or occurrences encountered during driving). Contractor shall provide the Engineer with a copy of all pile driving logs immediately upon completion of pile driving activities.

3.20 TEMPORARY BOAT RAMP ACCESS PLAN – It is the intent of the Town to provide boaters access to the launching ramp during construction and while construction activities permit it. The Contractor shall provide a temporary boat ramp access plan to allow boaters to access the ramp and also include/provide signage when ramp access is not possible. Also Oyster Factory will be operating their business during construction of the dock. Plan should also include provisions to minimize interruptions within permissible and safe limits.

3.21 TEMPORARY PARKING PLAN FOR CONTRACTOR EMPLOYEES – Contractor shall provide a temporary parking plan for his employees as parking in the Oyster Factory Park is limited.

END OF SECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Quality assurance and control of installation.
B. References.
C. Inspection and testing laboratory.

1.02 QUALITY ASSURANCE / CONTROL OF INSTALLATION

A. Quality control is the responsibility of the Contractor. He shall appoint an individual as the quality control monitor and shall inform the Engineer, in writing, of the name of this individual. The Engineer, or his representative, shall represent the Owner and have the right to enter the job site and inspect all installations for conformance with the Specifications.
B. Monitor quality control over suppliers, manufacturers, products, services, site conditions and workmanship to provide work of specified quality in accordance with the Contract.
C. Comply fully with manufacturers' instructions, including each step in sequence.
D. Should manufacturer's instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
E. Comply with specified standards as a minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
F. Perform work by persons qualified to produce workmanship or specified quality.
G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.03 REFERENCES

A. Should specified referenced standards conflict with Contract Documents, request clarification from Engineer before proceeding.
B. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.04 INSPECTION AND TESTING LABORATORY SERVICES

A. If needed, the Owner will appoint and pay for the services of an independent firm to perform inspections and testing as required by the contract documents or the Engineer.
B. The independent firm will perform inspections, tests, and other services specified in individual specification sections and as required by the Engineer.
C. Reports will be submitted by the independent firm to the Engineer, in duplicate, indicating observations and results of tests and indicating compliance or noncompliance with Contract Documents.
D. Contractor shall cooperate with independent firm: furnish samples of materials, design mix, equipment, tools, storage and assistance as requested.
E. Notify Engineer and independent firm 24 hours prior to expected time for operations requiring services.
F. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.
G. Re-testing required where initial tests reveal non-conformance to specified requirements shall be performed by the Engineer and paid for by the Contractor.

END OF SECTION

PART 1 - GENERAL

1.01 WORK INCLUDED

A. Contractor shall take every reasonable precaution throughout construction to prevent the erosion of soil and the sedimentation of streams, rivers, lakes, reservoirs, other water impoundments, ground surfaces, or other property as required by State and Local regulations including the S.C. Stormwater Management and Sediment Reduction Act. Work covered by this section includes all construction at the Project site.

1.02. RELATED SECTIONS

N/A

1.03 RELATED WORK

A. At the pre-construction meeting, The Contractor shall present methods for construction and applicable erosion and sediment control for Engineer's review and approval. Contractor shall, upon suspension or completion of land-disturbing activities, provide protection for permanently impacted areas. Permanent vegetation shall be established at the earliest practicable time. Temporary and permanent erosion control measures shall be coordinated to assure economical, effective, and continuous erosion and siltation control throughout the construction and post construction period.

1.04 REGULATORY REQUIREMENTS

A. Contractor shall be responsible for prevention of damage to properties outside the construction limits from siltation due to construction of the project. The Contractor will assume all responsibilities for the affected property for correction of any damages, which may occur. Erosion control measures shall be performed by the Contractor, conforming to the requirements of, and in accordance with, plans approved by applicable state and local agencies, and in accordance with the erosion control portion of the construction drawings and these specifications. Should the Contractor pump water from trenches during construction, appropriate erosion and siltation preventative measures (check dams, silt basins, seeding, etc.) shall be taken prior to discharge of pumped water into any natural water body. See Part 3 - Execution for more information.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Open mesh biodegradable mulching cloth.
B. Tack shall be with emulsified asphalt.
C. Silt fence shall consist of non-biodegradable filter fabric (Trevira, Mirafi, etc.). Silt fence shall be supported by wood or metal posts with max. spacing of 10 ft apart. If support post spacing is greater than 6 ft. apart, silt fence must be wired to galvanized wire mesh fencing.
D. Check dams shall be constructed and maintained as directed in the drawings.

PART 3 - EXECUTION

3.01 CLEARING

A. Prior to commencement of construction, silt fence shall be installed and maintained around all areas to be cleared and grubbed. Contractor shall be responsible for daily inspection and maintenance of all erosion control devices and facilities. Clearing and grubbing shall be scheduled and performed in such a manner that subsequent grading operations and remaining erosion control practices can follow immediately thereafter. Excavation, borrow, and embankment operations will be conducted such that cuts and fills will be completed to final grades in a continuous operation. All construction areas not otherwise protected shall be planted with permanent vegetative cover within 15 working days after completion of active construction or as directed by the Engineer. After proper installation, contractor shall monitor erosion control devices and systems daily, and provide needed maintenance.

3.02 STABILIZING

A. The angle for graded slopes and fills, other than where specified, shall be no greater than the angle which can be retained by vegetative cover or other adequate erosion control devices or structures. All disturbed areas that are not stable will, within 15 working days of completion of any phase of grading, be planted or otherwise provided with either temporary or permanent ground cover, devices, or structures sufficient to restrain erosion.

3.03 REGULATORY REQUIREMENTS:

A. The Contractor shall be required to implement applicable aspects of the S.C. Stormwater Management and Sediment Reduction Act and all permit conditions.
B. Whenever land disturbing activity is undertaken on a tract, a ground cover sufficient to retain erosion must be planted or otherwise provided within 15 working days on that portion of the tract upon which further active construction is not being undertaken.
C. If any clearing or earthwork is to be suspended for any reason whatsoever for longer than 15 calendar days, the areas involved shall be seeded with vegetative cover or otherwise protected against excessive erosion during the suspension period. Suspension of work in any area of operation does not relieve the Contractor of the responsibility for the control of erosion in the area. If erosion does occur prior to establishment of vegetative cover, Contractor shall replace and replant.
D. Contractor shall report all regulatory visits and initiatives to Engineer immediately. Contractor will not provide information to any regulatory representative or body unless authorized by the Engineer.
E. Contractor shall take all precautions to avoid disturbance of any kind in wetlands and in buffers as indicated on the plans. Only areas designated on the plans for construction in the buffers may be impacted by clearing. Contractor will be responsible for the repair and restoration of any areas disturbed and any penalties incurred due to such disturbance.

PART 4 - CONSTRUCTION PHASE

4.01 PRACTICES:

A. Dumping soil or sediment into any streambed or watercourse will not be allowed.
B. Maintain an undisturbed vegetative buffer where possible between a natural watercourse and trenching and grading operations.
C. Avoid equipment crossings of streams, creeks, and ditches where practicable.

PART 5 - SEDIMENT CONTROL FEATURES

5.01 GENERAL

A. All devices for sediment control shall (silt fences) be constructed at locations required to prevent erosion and sediment transport prior to beginning any excavation on the site. All devices shall be properly installed and maintained in place by the Contractor until a structure, vegetative cover, or paving makes the device no longer necessary.

5.02 DESIGN APPLICATIONS

A. Mulch shall be used for temporary stabilization of areas subject to excessive erosion, and for protection of seed beds after planting, where required.
B. Silt fences shall be used at the edge of excavation cuts or at base of slopes to restrict movement of sediment beyond the site limits.
C. Temporary berms, when used, shall be seeded and mulched or tacked immediately following their construction. Hydraulic methods or other approved methods (SCDOT specifications) may be used.
D. Where required, establish vegetative cover on all areas disturbed by the work.

5.02 MAINTENANCE

A. The Contractor shall be responsible for maintaining all temporary and permanent erosion control measures in functioning order. Temporary structures shall be maintained until such time as vegetation is firmly established, and grassed areas shall be maintained until completion of the project. Areas which fail to show at least 75% coverage of grass or which are damaged by erosion shall be immediately repaired.

5.03 REMOVAL OF SEDIMENT CONTROL DEVICES

A. All drainage structures and erosion control devices shall be left in place until the grass is established and the Engineer has approved such removal. Seed areas around devices and mulch after removing or filling temporary control devices. Contractor shall continue inspection and maintenance of such items until the project has been completed and accepted by the Owner.

END OF SECTION

PART 1 - GENERAL

1.01 DESCRIPTION

The work under this section includes all cast-in-place concrete work required of every description shown or specified. Included are the: concrete abutment, concrete groundout pad (underneath the groundout dock), and concrete access pad (at top of access ramp #4). All concrete for the project shall be ready-mix. Ready-mixed concrete is defined as Portland cement concrete produced regularly by commercial establishment and delivered to the purchaser in a plastic state.

PART 2 - PRODUCTS

2.01 MATERIALS

All materials incorporated in the concrete shall conform to the requirements and specifications herein. Contractor shall submit to Engineer the design mix for approval at the pre-construction meeting or before beginning any construction work.

2.02 PORTLAND CEMENT

All Portland Cement shall be of American manufacture which at the time it is incorporated in the mixture shall conform to requirements of ASTM C150 / C150M, **Type II**. The cement shall be the product of a mill, which has been in successful operation for at least five years. No high early strength mix will be allowed.

1. Structural Concrete: All concrete used in the concrete abutment, concrete groundout pad, and access ramp pad shall be 4,000 psi, and shall meet all requirements as specified in Section 06001.

2.03 COMPRESSIVE STRENGTH TESTS

Compressive strength tests shall be performed in accordance with ASTM C39; one set of cylinders (per ASTM C31) for each day's pour exceeding 5 cu. yd. plus additional sets for each 50 cu. yd. exceeding the first 50 cu. yd of each concrete class. One specimen tested at 7 days, 2 specimens tested at 28 days and one held in reserve.

2.04 CONCRETE TEMPERATURE

Concrete Temperature shall be measured as specified in ASTM C1064; One test for each set of compressive-strength specimens.

2.05 FINE AGGREGATE

Fine Aggregate shall conform to ASTM Designation C33.

2.06 COARSE AGGREGATE

Coarse aggregate shall be a crushed stone or gravel conforming to ASTM Designation C33, unless otherwise provided herein.

2.07 WATER

Water for work shall be fresh, clear, and free from oil, acid, alkali or organic matter. Water shall be added to the concrete mix after delivery to the site only through the approval of the Owners Representative.

2.08 ADMIXTURES

The use of any admixture in the concrete mix is subject to the approval of the Engineer and shall be approved in writing when Section 2.01 is complied with.

2.09 AIR CONTENT

The concrete mixture shall have an air content by volume of concrete of 4-1/2 percent, plus or minus 1-1/2 percent, based on measurements made immediately after discharge from the mixer. Air content shall be determined in accordance with ASTM C173 or ASTM C231.

2.10 REINFORCING STEEL

Reinforcing Steel shall be deformed billet steel, clean and free of rust, conforming to latest ASTM designation, for Grade 60 steel. The steel shall be epoxy-coated. In addition to the reinforcing indicated on the plans, the Contractor shall furnish all necessary support bars, tie bars, etc., required for properly supporting and spacing the bars in the forms. The reinforcement will be subject to certified lab testing and field inspection for rust, shape, and dimensions.

PART 3 - EXECUTION

3.01 STORAGE OF REINFORCEMENT STEEL

Reinforcing steel shall be stored in a manner that will avoid excessive rusting or coating by grease, oil, dirt and other objectionable materials. Storage shall be in separate piles or racks at least 6 inches above ground, so as to avoid confusion or loss of identification after bundles are broken.

3.02 PLACING REINFORCEMENT

Metal reinforcement before being placed shall be free from rust, scale, or other coatings that will destroy or reduce the bond. Reinforcement shall be formed to the dimensions indicated on the plans. Cold bends shall be made around a pin having a diameter of four or more times the least dimensions of the bar. Hot bends not permitted. Metal reinforcement shall be accurately placed and secured, and shall be supported by concrete or metal chairs or spacers, or metal hangers of a design approved by the Owners representative Reinforcement shall be placed in strict accordance with the manual of Standard Practice-Concrete Reinforcing Steel Institute, latest revision.

3.03 CONCRETE PLACEMENT

The construction of forms, the operation of depositing and placing concrete, and concrete finishing shall all be conducted so as to form a compact, dense, impervious surface of uniform texture throughout, and smooth face on all surfaces exposed to view. If, in the opinion of the Owners representative, any construction operation is not suitable to obtain the above finished result, he may require the Contractor to use any method or methods which will produce structures true to shape and dimensions, conforming to the above requirements and the following methods of obtaining the finished result.

1. Contractor shall not place concrete prior to inspection and approval of Owner's Representative.

3.04 FORM WORK

All concrete shall be formed unless indicated or directed otherwise. Forms shall conform to the shape, lines and dimensions of the member as called for on the plans. Forms shall be set with the upper edge true to line and grade with an allowable tolerance of 1/8 inch in any 10-foot section. Chamfer all exposed edges as indicated on the plans. Forms shall be substantial and properly tight to prevent leakage of mortar and they shall be properly braced and tied together so as to maintain position and shape and ensure safety to workmen and passersby. Temporary openings shall be provided where necessary to facilitate cleaning and inspection immediately before depositing concrete.

3.05 REINFORCEMENT

Reinforcing steel shall be in strict accordance with the manual of Standard Practice-Concrete Reinforcing Steel Institute, (latest revision). All intersections of reinforcement shall have proper lap and be wired together. Only epoxy-coated reinforcement bar shall be used.

3.06 SLUMP

Slump of concrete when placed shall be not less than 3 inches nor more than 5 inches. Slump shall be tested on site by a certified testing agency on each truckload. Test results to be submitted to the Owners Representative. Slump tests shall be performed as specified in ASTM C143; one test at point of discharge for each day's pour of each type of concrete.

3.07 REMOVAL OF WATER

Water shall be removed from excavations before concrete is deposited, unless otherwise directed by the Owners Representative. Any flow of water into the excavation shall be diverted through proper side drains to a pump, or be removed by other approved methods which will avoid washing of freshly deposited concrete or contamination from sea water. Water vent pipes and drains shall be filled by grouting or otherwise through the pouring of the concrete affected.

3.08 INSPECTION

Inspection and approval by the Owners Representative of all form work and in-place reinforcing steel must be obtained before placing concrete. Owners Representative shall require one day (24 hours) advance notice of proposed concrete placement. Such approval will in no manner relieve the Contractor of his obligation to produce the finished work as required by the plans and specifications.

3.09 PLACING OF CONCRETE

Placing of concrete shall be done only in the presence of the Owners Representative and in daylight unless an adequate lighting system is approved by the Owners Representative. All equipment for transporting the concrete shall be cleaned and all debris shall be removed from the places to be occupied by the concrete. Forms and base shall be thoroughly wetted with freshwater (no salt water allowed) or oiled. Chutes, troughs, or pipes shall be used in placing concrete so that the ingredients are not separated. Concrete shall be handled from the mixer to the place of final deposit as rapidly as practical by methods, which will prevent the separation or loss of the ingredients. It shall be deposited as nearly as practical in its final position to avoid rehandling or flowing. Mechanical vibrators of an approved type shall be used to produce proper contact of concrete with reinforcing steel and forms. Continuous spading of concrete in thin sections shall be used where required. Depositing of concrete shall be continuous. When concreting is once started, it shall be carried on as a continuous operation until the placing of the section is completed. Under no circumstances shall concrete that has partially set be deposited in the work.

3.10 PROTECTION FROM COLD

No concrete shall be placed at or below a temperature of 40 degrees F, or whenever, in the opinion of the Owners Representative, atmospheric temperature will probably fall below this limit within 24 hours after placing concrete. Concrete placed in forms shall have a temperature of not less than 70 degrees F for not less than 4 days after placing. The use of salts, chemicals, or the foreign materials in the mix to lower the freezing point of the concrete is prohibited.

3.11 PROTECTION FROM HEAT

Concrete shall not be placed in weather above 90° F unless approved by the Engineer , and ice is used to retard temperature increase during placement and curing.

3.12 METHODS OF CURING

Curing shall be accomplished by methods approved by the Owners Representative for a period of 7 days. Curing shall be started as soon after placing and finishing as free water has disappeared from the surface of the concrete.

3.12 STANDARD FINISH

Unless specified on the drawings, Standard Finish shall be given to all concrete not ordinarily exposed to view unless shown otherwise. The surface of the concrete shall not vary more than 1/4 inch when measured from a 5-foot template. All fins and other projections shall be removed carefully, and all abrupt irregularities shall be leveled.

3.13 NON-SKID FINISH

Non-Skid finish shall be used on the top surfaces of all concrete shown and in accordance with the drawings. The scored surface shall be produced by brooming with a fiber-bristle brush in a direction transverse to that of the traffic.

3.14 EXPANSION JOINTS

Expansion joints shall be incorporated at the following locations: between the end of the concrete abutment and the beginning of the concrete groundout pad, and at the end of the access ramp pad (top of access ramp #4). Expansion joints shall be 1/2" thick. The 1/2" space shall be fitted with neoprene (or other approved expansion joint material). Contractor shall clean the surface of the joint and fill with (gray) Sealtight GARDOX joint sealer as manufactured by W.R. Meadows or equal only as approved by the Engineer.

3.15 CONTROL JOINTS (groundout dock pad)

The control joints shall be formed in the fresh concrete by cutting a groove in the top portion of the slab to a depth of 1/3 of the slab thickness. Joints shall be at maximum 10 ft. spacing along the length of the groundout pad, or as described on the plans. Joints shall be cut within 24 hours of the concrete pour. Joints can be installed into concrete using a power-driven saw with diamond or carborundum blades, or may be formed in the concrete before set.

3.16 WELDED WIRE FABRIC (groundout dock pad)

Welded Wire Fabric (WWF) shall be placed in the concrete groundout pad. WWF shall be epoxy-coated and shall meet the requirements of style designation 6 x 6 – W2.9 / W2.9. WWF shall also conform to ASTM A185 (Welded Steel Wire Fabric for Concrete Reinforcement).

END OF SECTION

PART 1 - GENERAL

1.01 SCOPE:

The scope of work covered under this section shall include supplying and installing the prestressed concrete piles for the floating groundout courtesy dock and floating canoe/kayak launch dock as shown on the Drawings.

PART 2 - PRODUCTS

2.01 MATERIALS AND REQUIREMENTS:

Prestressed piles shall be manufactured and supplied to applicable sections of the "GUIDE SPECIFICATION FOR PRECAST, PRESTRESSED CONCRETE" as published in the PCI Design Handbook - Fifth Edition or latest issue, unless modified herein:

A. Modifications to GUIDE SPECIFICATIONS referenced in 2.01above:

1. Delete 1.01 B, C
2. Use 5 years in 1.02 B
3. Delete 1.03.A.1.c, d, e and f
4. 2.01.G.1 use 270
5. 2.02.A use 5000 psi (minimum)
6. 2.02.B use 3500 psi
7. Delete 2.03.D

B. Pile performance specification: 14” square prestressed concrete pile with minimum 85 kip-ft bending moment capacity, no tension allowed, using a minimum of 6 - low lax strands, and with load capacity on all 4 sides.

C. Prestress piles for floating dock units and canoe/kayak launch dock shall be driven to a top elevation of +18.5’ NGVD29 (See plans for further specifications).

D. Prestressed concrete piles shall have a written warranty for three (3) years after installation and acceptance by the Owner.

E. Prestressed concrete pile manufacturer shall submit shop drawings and engineering design calculations for piles to the Engineer for review and approval at least 30 days prior to commencing fabrication. All shop drawings submitted must be stamped with the seal of a qualified licensed South Carolina Professional Engineer.

PART 3 - EXECUTION

3.01 INSTALLATION:

A. Handling: Inspect piles in the leads, and where the pile is impaired if permitted by the Engineer repair the piles, unless the pile is damaged to such extent that it is rejected. Laterally support pile orientation is essential, take special care to maintain the orientation during driving. Take special care in supporting battered piles to prevent excess bending stresses in the pile.

B. Driving Piles: Drive without interruption to the tip elevation as indicated on the Drawings. If a pile reaches refusal before the specified pile tip elevation is reached, notify the Engineer immediately who will dictate the procedure to be followed.

C. Driving Equipment:

1. Pile Hammers: Air-, steam-, or diesel-powered of a type approved by the Engineer. The hammer furnished shall have a capacity at least equal to the hammer manufacturer's recommendation for the total weight of pile and character of subsurface material to be encountered. Operate diesel-powered hammers throughout the entire driving period at the rate recommended by the manufacturers. Maintain sufficient pressure at the hammers so that:

   a. For double-acting hammer, the number of blows per minute during and at the completion of driving of a pile is equal approximately to that at which the hammer is rated.

   b. For single-acting hammer, there is a full upward stroke of the ram.

   c. For differential-type hammer, there is a slight rise of the hammer base during each upward stroke.

2. Driving Helmets and Cushion Blocks: Use a driving helmet or cap and a cushion block or cap block approved by the Engineer to prevent impact damage to the pile. The helmet or cap and cushion-block combination shall protect the head of the pile, minimize energy absorption, and transmit hammer energy uniformly and consistently during the entire driving period. The driving helmet or cap shall fit snugly on top of the pile so that energy transmitted to the pile is uniformly distributed over the entire surface of the pile head. The cushion block may be solid or laminated softwood block, with grain parallel to the pile axis, and enclosed in a close-fitting steel housing. Use blocks of suitable thickness for the length of pile to be driven and the character of subsurface material. Generally, thicker blocks are required for longer piles and softer subsurface material. Replace cushion block if it has been damaged, split, highly compressed, charred, or burned, or has become spongy or deteriorated. Do not use small wood blocks, wood chips, rope or other material as substitutes.

3. Protection of Piles: Use driving caps or rings and followers to protect the heads of the piles, to provide uniform distribution of hammer energy, and to reduce absorption of the energy of the blow to a minimum. Driving caps may be a solid hardwood block, with grain parallel to the pile axis, enclosed in a close-fitting steel housing. Do not use wood chips, small wood blocks, rope, or other material. Pile shall be laterally supported during driving, but shall not be unduly restrained from rotation in the leads. Where pile orientation is essential, special care shall be taken to maintain orientation during driving.

3.02 TOLERANCES IN DRIVING:

Drive piles in floating docks to allow movement during entire tide cycle. Piles shall not be forced into position. Redrive piles that have heaved in excess of 4". Piles shall be checked for heaving by use of a level line stretched between piles. Piles shall be marked at the end of the workday with a temporary painted mark along the level line.

3.03 JETTING OF PILES:

Jetting will be permitted only by written approval of the Owner's Representative.

3.04 RECORDS:

Keep a complete and accurate record of each pile incorporated into the permanent structure. The record shall indicate the pile location, size, original length, (ground elevation), tip elevation, top elevation, penetration in blows per foot, hammer data including make and size, and any unusual pile behavior or circumstances experienced during driving such as redriving, heaving, weaving, obstructions, spudding, stops, and others which may occur. Forms for recording pile driving data will be furnished by the Contractor after prior approval by the Engineer. Upon completion, turn records over to the Engineer. Contractor shall notify the Engineer at least 48 hours prior to time for pile driving operations to commence so that the Engineer can plan to be on site for observation.

END OF SECTION

PART 1 – GENERAL

NOTES*:*

1.) ALL CROSS BRACING, PILE CAPS, STRINGERS & BLOCKING USED FOR CONSTRUCTION OF THE TIMBER FIXED PIERS SHALL COMPLY WITH THE REQUIRED PRESERVATIVE TREATMENT SPECIFICATIONS FOR CCA (CHROMATED COPPER ARSENATE) AS REFERENCED HEREIN.

2.) ALL TIMBER FIXED PIER DECKING AND HANDRAILS SHALL COMPLY WITH THE REQUIRED PRESERVATIVE TREATMENT SPECIFICATIONS FOR ACQ (ALKALINE COPPER QUATERNARY) OR CA (COPPER AZOLE) AS REFERENCED HEREIN. REFER TO THE END OF THIS SECTION FOR ADDITIONAL INFORMATION ON ACQ (ALKALINE COPPER QUATERNARY) OR CA (COPPER AZOLE).

1.01 DESCRIPTION OF WORK

A. The Contractor shall furnish and install all equipment, materials and appurtenances, and furnish all tools, labor and supervision necessary to construct the work with all appurtenant construction and special equipment as indicated on the Drawings including, but not limited to, the following:
   1. Installation of Timberwork including fixed observation deck and access ramps, decking, posts, railings, pile bents, seats, miscellaneous framing and special fittings.
   2. Installation of all hardware including fasteners, hurricane ties, nail clips, cables, and appurtenant accessories.

1.02 REFERENCE DOCUMENTS

The latest revision of publications listed below form a part of this specification, to the extent referenced. The publications are referred to in the text by the basic designation only. Refer to latest issue of each publication.

A. Federal Specifications (Fed. Spec.):
   1. RR-W-410C Wire Rope and Strand

B. Military Specifications (Mil. Spec.):
   1. DOD-P-21035A Paint, High Zinc Dust Content, Galvanizing Repair

C. U.S. Department of Commerce Product Standards (PS):
   1. PS 56-73 Structural Glued Laminated Timber

D. American National Standard Institute (ANSI) Standards
   1. B18.2.I Square and Hex Bolts and Screws
   2. 18.22.I Plain Washers

E. American Society for Testing and Materials (ASTM) Publications:
   1. A 123 Zinc (Hot-Galvanized) Coatings on Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates, Bars, and Strip
   2. A 153 Zinc Coating (Hot-Dip) on Iron and Steel Hardware Fasteners
   3. A 307 Carbon Steel Externally Threaded Standard Fasteners
   4. A 36 Standard Specification for Structural Steel

F. American Welding Society (AWS) Publication
   1. D1.1 Structural Welding Code, Steel

G. American Wood-Preservers' Association (AWPA) Publication:
   1. Standard U1:
   2. Category UC3B.
   3. Category UC4B.
   4. Category UC5A.
   5. Category UC5B.
   6. Category UC5C.

7. AWPA Standard T1.
8. M2 Standard for Inspection of Wood Products Treated with Preservatives
9. M4 Care of Preservative-Treated Wood Products

H. American Wood Preservers Institute (AWPI) Publications:
1. AWPI-S1-LR Shore, Beach and Marina
2. AWPI-S3-LF Bulkheads: Design & Construction-Part II
3. AWPI-S4-LR Bulkheads: Design & Construction-Part III
4. AWPI-S5-LR Bulkheads: Hardware and Fasteners

1.03 SUBMITTALS

A. Certified Test Reports: Submit for timber and fasteners:
1. Plant Inspection: Timbers bearing the quality mark, of an approved agency (SPIB,TP) in accordance with the specified standards, will be acceptable for preservative treatment. The Engineer reserves the right to conduct plant inspection of the treating process at his discretion. Notify the Engineer at least 2 weeks prior to treatment, stating where preservative treatment will be done. The Engineer shall have access to all parts of the plant during inspection of the treating process.
2. Shop Drawings: N/A

1.04 DELIVERY AND STORAGE

Close-stack treated timber and lumber material in a manner that will prevent long timbers or preframed material from sagging or becoming crooked. Keep ground underneath and within 5 feet of all such lumber free of weeds, rubbish, and combustible materials. Protect materials from weather using suitable coverings. Handle treated timber with ropes or chain slings without dropping, breaking outer fibers, bruising, or penetrating the surface with tools. Do not use cant dogs, peaveys, hooks, or pike poles. Protect hardware from corrosion.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Lumber and Timbers:
1. Solid Sawn: For members of thickness less than 3”, moisture content shall be 19%. For members of thickness larger than 3”, moisture content shall be 25%. All solid sawn lumber and timber for framing, decking, posts, and handrails shall be No. 1 Marine Grade, No. 1 PRIME, or No. 1 (as specified on the Plans); KDAT or S-dry Southern Pine, and identified by the grade mark of a recognized association or independent inspection agency using the specific grading requirements of the association recognized as covering the species used. The association or independent inspection agency shall be certified by the Board of Review, American Lumber Standards Committee, to grade the species used.
2. Preservative Treatment: Fabricate lumber and timbers as completely as practicable before preservative treatment. Preservative treat all timberwork for cross-bracing using water borne salts to provide a minimum Copper Chromated Arsenate (CCA) protection of 2.5 PCF-CCA in accordance with AWPA. Treat all stringers, blocking, and split pile caps to a minimum 0.60 PCF-CCA. Decking and handrail components shall have a minimum Alkaline Copper Quaternary (ACQ) treatment of 0.60 PCF-ACQ or Copper Azole (CA) treatment of 0.31 PCF-CA in accordance with AWPA.
    a. Pressure treatment shall conform to AWPA Publication (Latest Revision) for softwood lumber, timber and plywood pressure treated for Marine Saltwater Exposure.

B. Hardware shall include bolts with necessary nuts and washers, timber connectors, drift pins, dowels, nails, screws, spikes, and other metal fastenings. Bolt and nuts shall be hot-dipped galvanized (H.D.G.), or stainless steel (SS) alloy type 316 as indicated on the drawings and shall conform to ASTM A307. Fasteners shall be stainless steel (alloy type 316), or H.D.G. as indicated on the Drawings. Provide bolts with washers under nut and head. Timber connectors and other metal fastenings shall be of the type and size shown. Nails shall be hardend deformed, stainless steel type 316 - ring shank nails. No nail guns shall be used; drill pilot holes 1/16 inches less than nail diameter – if required to prevent splitting of the member.

1. Zinc-Coating: Coat all steel specified or indicated to be zinc-coated or galvanized by the hot-dip process in accordance with ASTM A-123 and ASTM A-153, as applicable.

PART 3 - EXECUTION

3.01 CONSTRUCTION

A. Protective Equipment: Provide personal protective equipment for all persons fabricating, field treating, or handling materials preservative treated with Chromated Copper Arsenate (CCA), Alkaline Copper Quaternary (ACQ) and/or Copper Azole (CA) as applicable.

B. Fabrication and Erection:

1. Framing: Cut and frame all lumber and timber so that joints will have fit over contact surface. Secure timbers and piles in alignment. No shimming will be permitted in making joints. Open joints are NOT acceptable. Bore holes for bolts with a bit 1/16 inch larger in diameter than the rod or bolt. Bore holes for lag screws in two parts. Lead hole for the shank shall have the same diameter as the shank. Lead hole for the threaded portion shall have a diameter equal to approximately two-thirds of the spikes with a bit of the same diameter or smallest dimensions of the spike to prevent splitting. Counterbore for countersinking wherever smooth faces are indicated or specified.
2. Framed Bents: Do not cut off tops of driven piles without authorization of the Engineer. Pile cut offs shall be sealed with an approved marine sealant (Kopper's 50 or approved equal).
3. Bracing: Align bents before bracing is placed. Provide bracing of sufficient length to provide a minimum distance of 8 inches between the outside bolt and the end of the brace when possible. Bracing and girts shall bear firmly against piles or timber to which secured. Place fillers to avoid bending the bracing more than one inch out of line when bracing bolts or the fastening are drawn up tight. Built-up fillers will not be permitted. Each filler shall be a single piece of treated lumber like that in the brace with width of not less than 6 inches and a length of not less than 12 inches. Bolt ends of bracing through the pile post, or cap with a bolt of the size as indicated on the drawings. All timber used for cross-bracing shall be No. 1 Marine Grade and treated to 2.5 PCF-CCA. Open cuts on timber below decking shall be treated with Kopper's 50 Marine Sealant, or equal only as approved by the Engineer.
4. Caps: Place timber caps to secure bearing over tops or adjacent to the supporting posts or piles and to secure an even alignment of their ends. Secure caps by bolts of the size and location as indicated on the drawings.
5. Stringers: Place the better sapwood edge of deck stringers down. Tops of stringers shall not vary from a plane more than will permit bearing of the floor on all stringers. Butt-joint and splice outside stringers, but lap interior stringers to take bearing over full width of cap or floor beam at each end. Break joints if stringers cover two spans. Connect Stringers to caps/joists at all points of contact using hurricane ties as indicated on the Drawings. Between stringers, frame and nail solid-bridging at each end and at mid-span with at least four nails for solid-bridging.

6. Decking: Make decking of a single thickness of 6" plank supported by stringers or joists. Unless otherwise indicated, lay plank with heart side down (bark side up) with 1/4 inch spacing; OR install with best side up. Spike each plank to each joist with not less than three nails per joist. Cut off ends of plank on a line parallel to the centerline of the pier. Grade planks as to thickness and lay so that adjacent planks vary no more than 1/16 inch. All decking shall have a minimum Alkaline Copper Quaternary (ACQ) treatment of 0.60 PCF-ACQ or Copper Azole (CA) treatment of 0.31 PCF-CA in accordance with AWPA.
7. Fastening: Use stainless steel alloy type 316 fasteners or H.D.G., as indicated on the Drawings. Fasteners shall be of the size and type to match each bolt under all bolt heads and nuts in contact with wood – also, as indicated on the Drawings. Vertical bolts shall have nuts on the lower end. Where bolts are used to fasten timber to timber or timber to steel, bolt members together when they are installed and retighten immediately prior to final acceptance of the contract. All bolts shall have sufficient additional threading to provide at least 1/2 inch for future retightening.
8. Coat all exposed bolts and hurricane ties/straps with coal-tar epoxy or other approved marine sealant.

C. Field Treatment:

1. Timber Work: Field treat all cuts and holes in treated piles or timbers, and all abrasions with Koppers 50 Marine Sealant accordance with AWPA M4 (latest edition). Trim all cuts and abrasions before field treatment. Paint all depressions or openings around bolt holes, joints, or daps including recesses formed by counterboring timber with Koppers 50 Marine Sealant, in accordance with AWPA M4 (latest edition) and after the bolt or screw is in place, fill with hot pitch or a bitumastic compound.
2. Galvanized Surfaces: Repair and recoat zinc coating which has been damaged to such an extent as to expose the base metal. No rethreading of galvanized bolts will be allowed. Thoroughly clean the damaged area by wire brushing and remove all traces of welding flux and loose or cracked zinc coating prior to painting. Paint cleaned area with two coats of zinc oxide-zinc dust paint conforming to Mil. Spec. DOD-P-21035. Compound paint with a suitable vehicle in the ratio of one part zinc oxide to four parts zinc dust by weight.

3.02 DESIGN LOADS

A. Framing and decking:

1. All structural framing and decking shall be designed to withstand a combined vertical dead and live load of 100 PSF applied to the full surface area of the deck. Allowable deflection shall be L/240, where L is the freespan between supports in inches.

B. Handrails:

1. Handrails shall be designed to meet the following minimum load requirements:
   a. A 50 PLF load applied in any direction at the top rail.
   b. A 200 lb. concentrated load applied at any point in any direction at the top of the rail.
   c. A 50 lb. concentrated horizontal load applied on a 1 SF area at any point in the system, including intermediate rails or other elements serving this purpose.
   d. The above loads do not have to be applied simultaneously, except where specified, but should be applied to produce maximum stress in all the components.

2. Handrails shall also comply with the latest revisions and requirements of the International Building Code including horizontal and vertical loads, and minimum and maximum distances and spacing.

END OF SECTION

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. The Contractor shall furnish and install all equipment, materials, appurtenances, tools, labor, and supervision necessary to construct the work with all appurtenant construction and special equipment as indicated on the Drawings including, but not limited to, the following:
   1. Installation of new piles

1.02 REFERENCE DOCUMENTS

The latest revision of publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only. (Refer to latest issues of publications).

A. Federal Specifications (Fed. Spec.):
   1. RR-W-410C Wire Rope and Strand
B. Military Specifications (Mil. Spec.):
   1. DOD-P-21035A Paint, High Zinc Dust Content, Galvanizing Repair
C. U.S. Department of Commerce Product Standards (PS):
   1. PS 56-73 Structural Glued Laminated Timber
D. American National Standard Institute (ANSI) Standards
   1. B18.2.I Square and Hex Bolts and Screws
   2. 18.22.I Plain Washers
E. American Society for Testing and Materials (ASTM) Publications:
   1. A 123 Zinc (Hot-Galvanized) Coatings on Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates, Bars, and Strip
   2. A 153 Zinc Coating (Hot-Dip) on Iron and Steel Hardware Fasteners
   3. A 307 Carbon Steel Externally Threaded Standard Fasteners
   4. A 36 Standard Specification for Structural Steel
F. American Welding Society (AWS) Publication
   1. D1.1 Structural Welding Code, Steel
F. American Wood-Preservers' Association (AWPA) Publication:
   1. Standard U1:
   2. Category UC3B.
   3. Category UC4B.
   4. Category UC5A.
   5. Category UC5B.
   6. Category UC5C.
   7. AWPA Standard T1.
   8. M2 Standard for Inspection of Wood Products Treated with Preservatives
   9. M4 Care of Preservative-Treated Wood Products
G. American Wood Preservers Institute (AWPI) Publications:
   1. AWPI-S1-LR Shore, Beach and Marina
   2. AWPI-S3-LF Bulkheads: Design & Construction-Part II
   3. AWPI-S4-LR Bulkheads: Design & Construction-Part III
   4. AWPI-S5-LR Bulkheads: Hardware and Fasteners

1.03 SUBMITTALS AND INSPECTION

A. Preservative Treatment Certificate: Prior to commencement of work submit one (1) copy from an approved testing organization attesting that piles to be used in the work have been treated as required by this section.

1. Shop Drawings: N/A
2. Plant Inspection: The Engineer reserves the right to perform plant inspections of the treating process at his discretion. Notify the Engineer at least 2 weeks prior to beginning the treatment, stating where preservative treatment will be done. The Engineer shall have access to all parts of the plant and shall be allowed to inspect all facets of the treating process.
3. Pile Driving Equipment: Submit to the Engineer the type of pile driving equipment to be used in accordance with paragraph 3.01-E.
4. Driving Helmets and Cushion Blocks: Submit to the Engineer the type of block to be used. Approval from the Engineer must be granted prior to driving piles.
5. Submit copies of complete pile driving record in accordance with Section 3.06.
6. Engineer reserves the right to require testing by an independent lab certified to test piles in accordance with AWPI.

1.04 DELIVERY AND STORAGE

Close-stack treated timber and lumber material in a manner that will prevent long timbers or pre-framed material from sagging or becoming crooked. Keep ground underneath and within 5 feet of all such piles free of weeds, rubbish, and combustible materials. Protect materials from weather using suitable coverings. Handle treated timber with ropes or chain slings without dropping, breaking outer fibers, bruising, or penetrating the surface with tools. Do not use cant dogs, peaveys, hooks, or pike poles. Protect hardware from corrosion. Piles and other lumber shall be unloaded in the presence of the Engineer. Piles shall be unloaded with slings or other equipment. Piles or treated timber shall **NOT** be dumped or dropped.

PART 2 - PRODUCTS

2.01 MATERIALS AND REQUIREMENTS

A. Piles: Provide Southern Pine friction clean-peeled piles conforming to ASTM D25. Minimum butt and tip circumferences must be as indicated on the plans. Piles must be in one piece. Splices will not be permitted. All timber piles shall be 8” tip (small end) diameter. Refer to Pile Length Table on the Drawings for required pile lengths.

B. Workmanship: Cut piles above the ground swell. Saw tips square with the axis of the pile. Saw vertical pile butts square with the axis of the pile. Trim or smoothly cut all knots and limbs flush with surface of the swell surrounding the knot. No strip of inner bark wider than 1/2 inch shall remain and sapwood shall not be cut through in clean-peeled piles.

C. Preservative Treatment: As prescribed in Fed. Spec. TT-W-00571J, AWPA Standard U1, Category UC5A, UC5B, & UC5C, **(2.5 lbs./cf – CCA is required).**

D. Segregation of Materials for Treatment: Separate or space material to ensure contact of treating medium with all surfaces. Whenever the quantity ordered is sufficient, treat items of different species, sizes, conditioning, and retention requirements in separate charges.

E. Incision: Incise piles that are difficult to penetrate prior to treatment; provided the incisions will not make the material unfit for the use intended.

F. Brand: Clearly and permanently brand piles in two places approximately 5 and 10 feet from the butt. The brand shall identify species, class and length, preservative, retention, supplier, and month and year of treatment.

G. Straightness Requirement: A straight line drawn from the center of the butt to the center of the tip shall not, at any point, fall further away from the center of the pile than a distance equal to 1% of the length of the pile. The surface of the pile shall not contain kinks greater than 1 inch [25 mm] in 5 feet [1.5 mm], as measured by a straightedge.

PART 3 – EXECUTION

3.01 INSTALLATION

A. Handling: Inspect piles in the leads, and where the protective shell or treated wood is impaired, between cutoff and point not less than 10 feet below the ground, repair the piles in accordance with AWPA M4 (latest edition), unless the pile is damaged to such extent that it is rejected. Laterally support pile during driving, but do not unduly restrain from rotation in the leads. Where pile orientation is essential, take special care to maintain the orientation during driving. Take special care in supporting battered piles to prevent excess bending stresses in the pile. When necessary, place collars around the pile head to prevent brooming. Do not use cant hooks. Cut piles with pneumatic tools, by sawing, or by other means approved by the Engineer.

B. Test Piles: Where required by the Owner, test piles of the same class and driven in the manner specified for all piling elsewhere in this section. The Engineer will use test pile data to determine the "calculated" pile tip elevation and the necessary driving resistance. Drive test piles in the locations indicated. Test piles that are suitably preservative treated, that are located properly, and that have adequate driving resistance, may be used in the finished work.

C. Driving Test Piles: Where required by the Owner, drive test piles without interruption to the point elevation directed. Keep a record for each test pile, the number of blows required for each test pile, the number of blows required for each foot of penetration throughout the entire length of the pile, and the penetration per blow at such intervals as directed. Include type and size of the hammer used and rate of operation. Record any unusual occurrence during pile driving.

D. Driving Piles: Drive without interruption to the specified tip elevation as indicated on the Drawings. If a pile reaches refusal prior to reaching the specified pile tip elevation, notify the Engineer who will dictate the procedure to be followed.

E. Driving Equipment: Pile Hammers: Air-, steam-, or diesel-powered or a type approved by the Engineer. The hammer furnished shall have a capacity at least equal to the hammer manufacturer's recommendation for the total weight of pile and character of subsurface material to be encountered. Operate diesel-powered hammers throughout the entire driving period at the rate recommended by the manufacturers. Maintain sufficient pressure at the hammers so that:

1. For double-acting hammer, the number of blows per minute during and at the completion of driving of a pile is equal approximately to that at which the hammer is rated.
2. For single-acting hammer, there is a full upward stroke of the ram.
3. For differential-type hammer, there is a slight rise of the hammer base during each upward stroke.

F. Driving Helmets and Cushion Blocks: Use a driving helmet or cap and a cushion block or cap block approved by the Engineer to prevent impact damage to the pile. The helmet or cap and cushion-block combination shall protect the head of the pile, minimize energy absorption, and transmit hammer energy uniformly and consistently during the entire driving period. The driving helmet or cap shall fit snugly on top of the pile so that energy transmitted to the pile is uniformly distributed over the entire surface of the pile head. The cushion block may be solid or laminated softwood block, with grain parallel to the pile axis, and enclosed in a close-fitting steel housing. Use blocks of suitable thickness for the length of pile to be driven and the character of subsurface material. Generally, thicker blocks are required for longer piles and softer subsurface material. Replace cushion block if it has been damaged, split, highly compressed, charred, or burned, or has become spongy or deteriorated. Do not use small wood blocks, wood chips, rope or other material as substitutes.

G. Protection of Piles: Square the heads and points of piles to the driving axis. Use driving caps or rings and followers to protect the heads of the piles, to provide uniform distribution of hammer energy, and to reduce absorption of the energy of the blow to a minimum. Driving caps may be a solid hardwood block, with grain parallel to the pile axis, enclosed in a close-fitting steel housing. Do not use wood chips, small wood blocks, rope, or other material. Pile shall be laterally supported during driving, but shall not be unduly restrained from rotation in the leads. Where pile orientation is essential, special care shall be taken to maintain orientation during driving.

3.02 TOLERANCES IN DRIVING

Drive vertical piles with a variation of not more than 0.25 inch per foot of pile length from the vertical for plumb piles. Driving batter piles shall be as shown on the drawings. Butts shall be within 4 inches of the location indicated. Piles shall not be forced into position. Redrive piles that have heaved in excess of 8". Piles shall be checked for heaving by use of a level line stretched between piles. Piles shall be marked at the end of the workday with a painted mark along the level line.

3.03 JETTING OF PILES

Jetting will be permitted only by written approval of the Engineer.

3.04 FITTING

Holes for bolts shall be of a size that will ensure a driving fit. Where indicated, holes shall be counter-bored for the bolt heads and washers.

3.05 SURFACE TREATMENT

After piles have been driven and cut off, all cut, bored and dapped surfaces shall be treated in accordance with AWPA M4 (latest edition).

3.06 RECORDS

Keep a complete and accurate record of each pile incorporated into the permanent structure. The record shall indicate the pile location, diameter, original length, (ground elevation), tip elevation, top elevation, penetration in blows per foot, hammer data including make and size, and any unusual pile behavior or circumstances experienced during driving such as redriving, heaving, weaving, obstructions, spudding, stops, and others which may occur. Forms for recording pile driving data will be furnished by the Contractor after prior approval by the Engineer. Upon completion, turn records over to the Engineer. Contractor shall notify the Engineer at least 48 hours prior to time for pile driving operations to commence so that the Engineer can plan to be on site for observation.

3.07 PILES DRIVEN TO REFUSAL

Do not cut off tops of driven piles without written authorization of the Engineer.

END OF SECTION

PART 1 - GENERAL

1.01 SCOPE

The work covered under this section shall consist of manufacturing and/or supplying of the floating docks units (Base Bid and Alternate #2), and canoe/kayak launch dock (Alternate #1), pile guides, cleats, fendering, and other marine hardware and accessories as may be shown or enumerated on the Plans. All materials to be manufactured or distributed by CMI/GatorDock & GatorBridge, Ravens Marine, or a pre-approved supplier by the Engineer.

1.02. GENERAL

The installing contractor shall be a qualified Marine Contractor or General Contractor licensed by the State of South Carolina. He shall secure the required local building or construction permits. The manufacturer/supplier shall be approved and shall have a minimum of 5 years continuous experience in commercial pier and dock fabrication and may be required to submit a list of previous experience on similar projects. If required, the previous experience record will be submitted to the Owner or his designated representative ten working days prior to bid opening. To ensure that all specified criteria have been met when supplying other than the specified items, the Contractor may be required to submit the following with his bid or before award of the contract:

A. Dimensional layout of floating docks and anchorage systems to be furnished under this Contract.
B. Engineering calculations showing compliance with the design criteria specified herein. All calculations will be stamped with the seal of a qualified licensed South Carolina Professional Engineer. Computations shall include as a minimum, the following:

1. Compliance with combined live and dead load requirements considering both bending and deflection.
2. Compliance with freeboard requirements under specified load conditions.

C. Typical sections or details of the following:

1. Floating docks, including flotation.
2. Anchorage system.
3. Cleats.
4. Fendering.
5. Pile guides.

PART 2 - PRODUCTS

The following requirements are a minimum and must be met by each dock fabricator in accordance with the requirements of aforementioned section entitled GENERAL. Alternate approval must be in writing from the Engineer a minimum of two weeks prior to bid opening.

2.01 MATERIALS

A. Metal for dock structures shall be 6061-T6 aluminum alloy. Metal for decking shall be 6063-T6 aluminum alloy. Both 6061-T6 and 6063-T6 shall be extruded in accordance with the requirements of applicable sections of Federal Specifications QQ-A-200.
B. Minimum dock fendering shall be 1 ½” x 10” (white) UV-resistant U.H.M.W. fendering. See Part 3 below for additional information.
C. Stainless steel bolts, nuts, washers, hinge pins, screws, and other connectors shall be type 316 stainless steel.

D. Floats shall consist of corlix aluminum pontoons with 2 pcf density closed cell polyurethane.
E. Rollers for pile guides shall be UHMW polyurethane with black ultra-violet light inhibitor added.
F. Floating docks and accessories shall have a warranty on all materials for three (3) years after acceptance by the Engineer.

2.02. DESIGN REQUIREMENTS - ACCESSORIES

A. The decking and dock unit structural framing members shall be designed to withstand a combined dead load and live load of 100 pounds per square foot. Allowable deflection shall be L/240 where "L" is the freespan between cross members in inches.
B. Hinged or bolted floating dock module connectors shall be able to withstand a load of 3000 pounds applied to the full connector.
C. Anchoring devices for floating docks shall allow free movement of the dock, while minimizing damage due to normal dock movement caused by tides, boat wakes, water fluctuation and seasonal winds. Anchoring devices shall be of sufficient number to restrain a minimum uniform lateral force of 150 pounds per linear foot applied along the entire length of the dock.

2.03. DESIGN REQUIREMENTS - STRUCTURES

A. For flotation, docks shall be designed to withstand a minimum uniform live load of 30 pounds per square foot applied vertically.
B. The flotation shall be sized and located to satisfy all of the following conditions:

1. Minimum freeboard of 18 inches (maximum 22 inches) under dead load only.
2. Minimum freeboard of 12 inches under combined dead load and live load.
3. Minimum freeboard of 12 inches under dead load plus concentrated live load of 400 pounds applied vertically at any location on the dock surface.

PART 3 - EXECUTION

3.01 FABRICATION REQUIREMENTS - ACCESSORIES

A. Where UV-resistant U.H.M.W. fendering is used, the minimum size member shall be 1 ½" x 10", secured with two (2) ½" type 316 stainless steel bolts at minimum spacing of 3'0" o.c., countersunk below the wearing surface of the exposed side. All UHMW fendering shall be white.
B. Anchoring devices, including pile guides, shall be bolted to the docks in locations and according to the details shown on the plans or shop drawings.
C. Heavy-Duty vinyl bumper rub-rails shall be installed on the top edge along the entire length and across the ends of all docks. Also, install heavy-duty vinyl corner guards at all corners. Bumpers and corner guards shall be white in color.
D. Any potentially corrosive installation of dissimilar materials shall be properly insulated to minimize or eliminate corrosion in a marine environment.
E. Hinge mount extrusions shall be welded to the frame of the dock with a continuous fillet weld unless otherwise shown on the plans.

3.02 FABRICATION REQUIREMENTS – DOCK STRUCTURES

A. Docks shall be sequentially numbered with welded hinge mount extensions that are matched in the shop, prior to shipment. Cleats and other accessories shall be welded or bolted as shown in the plans.

B. Dock manufacturer shall be responsible for ensuring that the dock units are designed and manufactured to minimally withstand Dead Loads and Live Loads as specified on Plans and in Technical Specifications, and all applicable wind, wave, and current loads for the project site.

3.03 WARRANTY

Aluminum floating dock units and accessories shall have a written warranty on all materials for three (3) years after installation and acceptance by the Owner.

END OF SECTION