

PROJECT MANUAL

FOR

**2013 TENNIS COURT REHABILITATION
BUTTERMILK CREEK PARK
FOND DU LAC, WI**

File No. 2013 - 063

PREPARED FOR

**CITY OF FOND DU LAC
PARKS & RECREATION DEPARTMENT
530 DOTY STREET
FOND DU LAC, WI 54936-0150**

BID DATE: THURSDAY, JUNE 27, 2013

BID TIME: 2:00 PM

CERTIFICATION PAGE

PROJECT:

**2013 TENNIS COURT REHABILITATION
BUTTERMILK CREEK PARK
FOND DU LAC, WI
FILE NO. 2013 - 063**

PROJECT CONSULTANT AND MANAGER

**FRED KOLKMANN TENNIS & SPORT SURFACES, LLC
1921 MAYFAIR ROAD
GRAFTON, WI 53024**

I hereby certify that his plan, specification, or report was prepared by me or under my direct supervision.



Fred Kolkmann, CTCB

5/13/13

Date

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SECTION 000110

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DOCUMENT 001115

**ADVERTISEMENT FOR BIDS
2013 TENNIS COURT REHABILITATION
BUTTERMILK CREEK PARK-File No. 2013-063
CITY OF FOND DU LAC, WISCONSIN**

NOTICE IS HEREBY GIVEN that sealed bids will be received in the City Administrative office located on the fourth floor of the City-County Government Center, 160 South Macy Street, Fond du Lac, Wisconsin 54936-0150 on or before 2:00 PM, June 27, 2013 at which time bids will be publicly opened and read aloud in the City Manager's conference room for the contract identified as "2013 TENNIS COURT REHABILITATION BUTTERMILK CREEK PARK". Telephone and Fax bids will not be accepted.

The work includes power washing tennis courts, testing and leveling tennis courts, repairing and color coating tennis courts.

There will be a pre-bid meeting June 19, 2013 at 2:00 pm. The meeting will be held at: Buttermilk Creek Park Tennis Courts, 700 S. Park Ave., Fond du Lac, WI 54935. The meeting is non-mandatory; however, the contractor is responsible for reviewing the site and familiarizing himself with the conditions.

Specifications and Proposal Forms may be obtained on the City's website: <http://www.fdl.wi.gov/bids.html>. All bids shall be prepared on the proposal forms provided in the specifications and shall be addressed to City of Fond du Lac, P.O. Box 150, Fond du Lac, Wisconsin. Each bid envelope shall be properly identified on the face thereof "**SEALED BID – 2013 TENNIS COURT REHABILITATION BUTTERMILK CREEK PARK FILE NO. 2013-063**". No bid shall be withdrawn for a period of (30) thirty days after the opening of said bids, without the consent of the Director of Public Works. The City of Fond du Lac may reject any or all bids on any basis and without disclosure of any reason. The failure to make a disclosure shall not result in accrual of any right, claim or cause of action against the City. The City also reserves the right to waive any formalities or informalities in bidding, and to select the bid that, in its opinion, will best serve the interests of the City.

Late proposals will not be accepted under any circumstances. Any proposal(s) received after the scheduled time for closing will be returned to the proposing firm unopened. Sole responsibility rests with the proposing firm to see that their proposal is received on time.

No bid will be opened unless the "**Bidder's Proof of Responsibility**" for 2013 is filed at least five (5) days before the scheduled time for opening of bids. Reference is made to Section 66.0901(2) and (3) Wisconsin Statutes. The Director of Public Works decision as to qualifications shall be final.

Each proposal shall be accompanied by a certified check, or bank draft, payable to the City of Fond du Lac, or satisfactory bid bond, in the amount of 5% of the gross bid as a guarantee that if the bid is accepted as the successful bid, such successful bidder will execute and file the proposed contract and performance bond within ten (10) days after notice of award of contract.

Published by authority of the City of Fond du Lac, Wisconsin on June 6 and June 13, 2013.

DOCUMENT 002100

INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS

- A. Terms used in these Instructions to Bidders which are defined in the "Standard General Conditions of the Construction Contract" EJCDC Document C-700, 2002 Edition, have the meanings assigned to them in the general Conditions.

2. QUALIFICATIONS OF BIDDERS

- A. To demonstrate qualification for the Project, each Bidder shall be prepared to submit, within 5 days of Owner's request, written evidence that bidder involved (1) maintains a permanent place of business; (2) has adequate equipment to do work properly and expeditiously within established schedules; (3) has suitable financial status to meet obligations incident to the work including a financial statement and credit references; (4) has a satisfactory experience record with work of this type and scope; and, if requested by the Owner, can provide five references for projects of a size exceeding 75 percent of the area included in this Project that are at least five years old. These references shall include project schedules, including bid date, start and completion dates, Owner and/or Engineer contacts including names, addresses and telephone numbers, and the specific components existing and installed on each referenced project; (5) submit an anticipated construction schedule and staffing plan; (6) submit "Contractor's Qualification Statement," AIA Document A305; and (7) can show evidence of authority to conduct business in the jurisdiction where the Project is located.

3. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- A. Before submitting this bid, each Bidder shall (1) examine the Contract Documents thoroughly; (2) visit the site to familiarize themselves with local conditions that may in any manner affect performance of the Work; (3) familiarize themselves with federal, state, and local laws, ordinances, rules, and regulations affecting performance of the Work; and (4) carefully correlate their observations with the requirements of the Contract Documents.
- B. Before submitting a bid, each Bidder shall at their own expense, make such surveys and investigations as they may deem necessary to determine a bid price for performance of the Work within the terms of the Contract Documents.
- C. Bidders visiting the building for estimating purposes while the building is occupied shall abide by the Owner's or tenant's rules and regulations.
- D. The submission of a bid will constitute an incontrovertible representation by the Bidder that they have complied with every requirement of this Article.

4. INTERPRETATIONS

- A. Questions about the meaning or intent of the Contract Documents shall be submitted to the Consultant in writing. Replies will be issued by Addenda mailed or delivered to all parties recorded by the Consultant as having received the Bidding Documents. Questions received less than five days prior to the date of bid opening will not be answered. Only questions answered by a formal written addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- B. The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. The intent of the documents is to include all labor and materials, equipment, and transportation necessary for the proper execution of the Work. Materials or work described in words, which so applied, have a well-known technical or trade meaning shall be held to refer to such recognized standards.

5. BID FORM

- A. The Bid Form is included in the contract Documents; additional copies may be obtained from the Consultant.
- B. The Bid Form must be completed in ink or by typewriter. The bid price of each item on the form must be stated in words and numerals; in case of a conflict, words will take precedence.
- C. Bids by corporations must be executed in the corporate name by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown adjacent to the signature.
- D. Bids by partnerships must be executed in the partnership name and signed by a partner, their title must appear under their signature and the official address of the partnership must be shown adjacent to the signature.
- E. All names must be typed or printed below the signature.
- F. The Bid shall contain an acknowledgment of receipt of Addenda (the numbers of which shall be filled in on the Bid Form).

6. BID SECURITY

- A. Each bid shall be accompanied by bid security for the sum of not less than five (5) percent of the total amount of the bid. The required security must be in the form of a certified or bank cashier's check made payable to Owner or a bid bond issued by a surety licensed to conduct business in the state where the Project is located and named in the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Federal register by the Audit Staff Bureau of Accounts, U.S. Treasury Department. The bid security of the successful bidder will be retained until they have executed the Agreement and furnished the required contract security, whereupon it will be returned; if they fail to execute and deliver the agreement and furnish the required contract security within 15 days of Notice of Award, the Owner may annul the

Notice of Award and the bid security of that bidder will be forfeited as liquidated damages. The bid security of any bidder whom the Owner believes to have a reasonable chance of receiving the award may be retained by the Owner until the seventh day after the executed Agreement is delivered by the Owner to the Contractor and the required contract security is furnished, but no longer than the sixty-first day after the bid opening. The bid security of other bidders will be returned within 10 days of the bid opening.

7. PERFORMANCE AND PAYMENT BONDS

- A.** Provide and pay for bonds covering faithful performance of the contract and the payment of all obligations arising there under, by a corporate surety acceptable to the Owner and authorized to do business in the state where the Project is located; as approved by the Owner; in accordance with statutory requirements. Provide on forms known as Bond of Public Contractor; in the amount of 100 percent of the Contract cost. The bidder shall deliver said bond to the Owner no later than the date of execution of the Contract.
- B.** Bonds shall guarantee the Contractor will satisfactorily perform each and every part of the Contract, including completion time and warranties required; guarantee payment to suppliers; allow for any additions or deductions to the Contract and completion time shall not be extended by reason of said changes, unless approved by the Owner at time of said change, provided that no notice of aforesaid alterations, additions, or omissions need be given to surety company.
- C.** The Performance and Payment Bonds are only required to apply to the construction period and the first year of the warranty period. Said bonds shall not apply to any extended warranty period beyond the first year. Such extended warranties are limited to the applicable Contractor and manufacturer.

8. CONTRACT TIME

- A.** Time of completion is important to the Owner and date for final completion is shown in Section 012000, along with provisions for liquidated damages.

9. SUBCONTRACTORS, ETC.

- A.** The Contractor, as soon as practicable, but before the award of the Contract, shall furnish to the Consultant in writing a list of the names of subcontractors proposed for the principal portions of the work. The Contractor shall not employ any subcontractor to whom the Consultant or the Owner may have a reasonable objection. Contracts between the subcontractor shall be in accordance with the terms of this Agreement and shall include the General Conditions of this Agreement insofar as applicable. Subcontractors shall meet qualification requirements listed herein.

10. SUBMISSION OF BIDS

- A. Bids shall be submitted at the time and place indicated in Document 001115, and shall be included in an opaque sealed envelope, marked with the Project title and name and address of the Bidder along with other required information, and accompanied by the bid security and other required documents.

11. MODIFICATION AND WITHDRAWAL OF BIDS

- A. Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a bid must be executed) and delivered to the place where bids are to be submitted at any time prior to the opening of bids.

12. OPENING OF BIDS

- A. Bids will be opened as indicated in Document 001115.

13. BIDS TO REMAIN OPEN

- A. All Bids shall remain open for 60 days after the day of the bid opening; but the Owner may in their sole discretion, release any bid and return the bid security prior to that date.

14. AWARD OF CONTRACT

- A. The Owner reserves the right to reject any and all bids; to waive any and all informalities; and to disregard all nonconforming or conditional bids or counter-proposals.
- B. In evaluating the bids, the Owner will consider the qualifications of the bidders; whether or not the bids comply with the prescribed requirements; and any alternates and unit prices if requested on the Bid Form. The Owner may conduct such investigations as deemed necessary to establish the responsibility, qualifications, and financial ability of the bidders, proposed subcontractors, and other persons and organizations to do the Work in accordance with the Contract documents to the Owner's satisfaction within the prescribed time. The Owner reserves the right to reject the bid of any bidder who does not pass any such evaluation to the Owner's satisfaction.
- C. If a contract is to be awarded, it will be awarded to the lowest responsible bidder whose evaluation by the Owner indicates to the Owner that the award will be in the best interests of the District.
- D. If a contract is to be awarded, the Owner will give the apparent successful Bidder a Notice of Award within 60 days after the day of the bid opening.
- E. Simultaneously, with delivery of the executed counterparts of the Agreement to Owner, the Contractor shall deliver to the Owner the required contract security.

15. SUBSTITUTIONS

- A.** The materials, products, and equipment described in the Contract Documents establish a standard of required function, dimension, appearance, and quality to be met by any proposed substitution.
- B.** A Contractor only (not distributor, representative, or other person in like capacity) may request of the Consultant a statement, a minimum of 10 days prior to bid opening, concerning acceptability of any material or device which the Contractor is uncertain of as to compliance with the Contract Documents. It shall be the sole responsibility of the Contractor to transmit such requests in writing only, in a full and complete manner, accompanying the request with all data necessary for qualification of the article and at such a date as to allow reasonable time for the examination thereof. Such data may include structural analysis, drawings, including specific details pertaining to the Project, Project Manual and modifications, and any other information deemed necessary by the Consultant. All cost incidental to the submission of this data are to be borne by the submitting Contractor.
- C.** The Consultant will examine such requests to the extent possible, but there shall be no guarantee that all requests can be examined, nor will the Consultant examine requests accompanied by inadequate data, that are received too late to be qualified, or are received after the last Addendum to the Project Manual has been issued.
- D.** If the Consultant approves any proposed substitutions, such approval will be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner. Approved substitutions may include modifications to submitted material deemed necessary by the Consultant to conform to the established standard of required function, dimension, appearance and quality set forth in the Contract Documents and shall be binding with regard to the performance of the Work, if accepted.
- E.** The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. The intent of the documents is to include all labor and materials, equipment, and transportation necessary for the proper execution of the Work. Materials or work described in words, which so applied, have a well-known technical or trade meaning shall be held to refer to such recognized standards.

END OF DOCUMENT



City of Fond du Lac
First on the Lake

CITY OF FOND DU LAC

BIDDER'S PROOF OF RESPONSIBILITY

The Bidder's Proof of Responsibility shall be filed with the Director of Public Works not later than five (5) days prior to opening of bids for projects which the bidder wishes to qualify.

This Bidder's Proof of Responsibility shall be valid for a period of one (1) calendar year and does not need to be completed for each bidding project.

All bidders on City of Fond du Lac contracts shall provide proof of responsibility in accordance with Section 66.0901(2) Wisconsin State Statutes.

Return Questionnaire To:

City of Fond du Lac
Director of Public Works
P.O. Box 150
Fond du Lac, WI 54936-0150

Note: The contents of this questionnaire shall be confidential for the exclusive use of the contracting agency and shall not be made public except by written permission of the prospective bidder.

I. Class of work in which firm is seeking qualifications (check below):

STREET, UTILITY & SITE CONSTRUCTION

- Bituminous street construction
(Prime contractor)
- Bituminous paving
- Bridge construction and repairs
 - \$0 - \$250,000
 - \$250,000 - \$500,000
 - Over \$500,000
- Bridge painting
- Concrete street construction
(Prime contractor)
- Curb & gutter repair
- Concrete paving
- Concrete pavement repairs
- Landscaping
- Pump stations & lift stations
- Reinforced concrete construction
(such as foundations, storm drainage
structures, retaining walls)
- Roadway grading & graveling
- Sanitary and storm sewer construction
 - Lateral construction only
- Sidewalk construction
- Site excavation
 - Grading and graveling
- Street lighting
- Water main construction
 - Lateral construction only
- Water Towers/Reservoirs
- Wells

BUILDING CONSTRUCTION

- General Building Construction**
(New construction, renovations, or
Remodeling)
 - \$0 - \$100,000
 - \$100,000 - \$250,000
 - Over \$250,000

Specific Categories of Building Construction

- Asbestos Abatement
- Building Demolition
- Fire Protection
- Painting
- Roofing

OTHER MISCELLANEOUS CATEGORIES

J. **EXPERIENCE:** What is the construction experience of the principal individuals, including superintendents and/or foremen, of your present organization?

Individual's Name	Present Position of Officer in your firm	Years of Construction Experience	Magnitude & Type of Work	In What Capacity

K. **CONSTRUCTION EXPERIENCE:** List below previous contracts completed pertinent to the type of work for which prequalification is desired.

YEAR/LOCATION	TYPE OF WORK	COST OF WORK

L. **WORK ON HAND:** List below present contracts on hand.

DATE AWARDED	TYPE OF WORK	PERCENT COMPLETED	ANTICIPATED COMPLETION DATE	COST OF WORK

O. CONTRACTUAL RESPONSIBILITY: Has firm ever failed in the past ten years to complete on time work awarded to it? _____ If so, state:
Date _____ Owner _____

Owner' Mailing Address _____

Full particulars for each instance: _____

P. Has firm asked to be relieved from a bid submitted by it to a public awarding authority during the past ten years? _____ If so, state:
Date _____ Claimant _____

Owner' Mailing Address _____

Full particulars for each instance: _____

Q. Financial Statement

Condition at close of business on _____ 20 _____

A. Cash \$ _____

B. Accounts Receivable \$ _____

C. Real Estate Equity \$ _____

D. Materials in Stock \$ _____

E. Equipment, Book Value \$ _____

F. Furniture and Fixture \$ _____

G. Other Assets \$ _____

Total Assets \$ _____

Liabilities

H. Accounts, Notes and Interest Payable \$ _____

I. Other Liabilities \$ _____

Total Liabilities \$ _____

Net Worth \$ _____

R. List at least three references for whom you have performed work and **GIVE COMPLETE NAMES, ADDRESSES, PHONE NUMBERS, AND DOLLAR VOLUME OF WORK INVOLVED** in all references.

S. **AFFIDAVIT**

STATE OF _____)
COUNTY OF _____)

_____ being duly sworn, deposes and says that he/she
(Name of Officer/Owner)

is the _____ of _____
(Title) (Name of Firm)

and that the answers to the foregoing questions and all statements therein contained are true and correct, and that any owner, bonding company, or other agency herein named is hereby authorized to supply the municipality, City of Fond du Lac, with any information deemed necessary to verify this statement.

(Signature of Officer/Owner)

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

Notary Public

_____, _____
County State

My Commission Expires _____

APPROVED BY:

Director of Public Works Date _____

DOCUMENT 005000

BID FORM

SUBMITTED BY:

Company: _____

Address: _____

Estimator: _____

Phone Number: _____

SUBMITTED TO:

City of Fond du Lac
Administrative Offices
160 South Macy Street
Fond du Lac, WI 54935

FOR:

2013 Tennis Court Rehabilitation
Buttermilk Creek Park
Fond du Lac, WI

PROJECT NO.:

File No. 2013 - 063

OWNER:

City of Fond du Lac
Parks & Recreation Department
530 DOTY STREET
FOND DU LAC, WI 54936-0150

The undersigned, being familiar with the local conditions affecting the cost of the work and with the Contract Documents, including the Advertisement for Bids, Instructions to Bidders, General and Supplementary Conditions, Divisions 01, 31 and 32: and Plans on file in the office of FKT&SS, LLC in accordance with the provisions thereof, hereby proposes to furnish all labor, materials, and equipment necessary for:

Acknowledgement of Addenda:

Addendum # _____

Date Received: _____

Addendum # _____

Date Received: _____

BASE BID: Cleaning of courts, leveling of low areas, installation of Armor Crack Repair System, and color coating of 5 doubles Tennis Courts with a four coat acrylic system for the sum of:

\$ _____

Alternate #1: Installation of additional Armor Crack Repair System \$ _____/lf

Alternate #2: Installation of fiberglass mesh \$ _____/sf

In submitting this bid, it is understood that the right is reserved by the Owner to reject any and all bids and it is agreed that this bid may not be withdrawn for a period of 60 days after the date of the bid opening. The Owner reserves the right to accept any or all Bid Items regardless of the order listed. It is the Owner's intent to award the contract to one contractor.

All Addenda shall become part of the bid and the work, and shall be acknowledged above in the spaces provided.

A bid shall be rejected if it contains any alteration or erasure unless the alteration or erasure is corrected as herein provided. An alteration or erasure may be crossed out and the correction thereof printed in ink or typewritten adjacent thereto and initialed in ink by the person signing the bid. The person signing the bid shall also file a certificate with the bid explaining the correction of the alteration or erasure.

Each bid must be accompanied by bid security as described in the Instructions to Bidders.

If a Corporation, what is the State of Incorporation: _____

If a Partnership, state full name of all co-partners: _____

OFFICIAL ADDRESS

FIRM NAME

By _____
Title _____
By _____
Title _____

DOCUMENT 007200

GENERAL CONDITIONS

1. GENERAL CONDITIONS

- A. The "Standard General Conditions of the Construction Contract" EJCDC Document C-700, 2002 Edition, Articles 1-17 inclusive, is hereby made a part of this Contract. A copy is included herein as part of the Contract Documents.

2. PRECEDENCE

- A. The Articles contained in the Document 007300 - Supplementary Conditions, and Sections of Division 01, General Requirements, may delete, modify or add to the provisions of the General Conditions and shall take precedence over the General Conditions.

END OF DOCUMENT

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 Law.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly By



PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
a practice division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

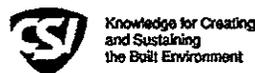
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Construction Specifications Institute

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American Council of Engineering Companies
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American Society of Civil Engineers
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These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor Nos. C-520 or C-525 (2002 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 EJCDC Construction Documents, General and Instructions (No. C-001) (2002 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. C-800) (2002 Edition).

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GENERAL CONDITIONS

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.

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's 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.A 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. The General Requirements pertain to all sections 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 in connection with the Work.

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.

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. *Related Entity*-- An officer, director, partner, employee, agent, consultant, or subcontractor.

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

38. *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.

39. *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.

40. *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.

41. *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.

42. *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.

43. *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.

44. *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.

45. *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.

46. *Successful Bidder*--The Bidder submitting a responsive Bid to whom Owner makes an award.

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

48. *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 any Subcontractor.

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

50. *Unit Price Work*--Work to be paid for on the basis of unit prices.

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

52. *Work Change Directive*--A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times

but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

A. The following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following 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 requirements of and information in the Contract Documents and conformance with the design concept of the completed 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).

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 which 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.

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*

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.

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 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 may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended 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, or Engineer, or any of, their Related Entities, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 Reporting and Resolving Discrepancies

A. Reporting Discrepancies

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor may discover 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 any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, 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 knew or reasonably should have known 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, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work

(unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

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

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

1. A Field Order;
2. Engineer's approval of a Shop Drawing or Sample; (Subject to the provisions of Paragraph 6.17.D.3); or
3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier or other individual or entity performing or furnishing all of the Work under a direct or indirect contract with Contractor, 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 Engineer's consultants, including electronic media editions; or
2. reuse any of 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 adaption by Engineer.

B. The prohibition 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. Copies of data furnished by Owner or Engineer to Contractor or 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.

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 of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that Engineer has used in preparing the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general 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 Related Entities with respect to:

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

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

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

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition at or contiguous to the Site 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 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, Owner and Engineer, and any of their Related Entities 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.

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; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a. reviewing and checking all such information and data,

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

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

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

B. Not Shown or Indicated

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

promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim 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: Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.

B. Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the general 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 Related Entities with respect to:

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

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

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

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

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

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

H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, 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 current 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 must be accompanied by a certified copy of the agent's authority to act.

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

5.02 *Licensed Sureties and Insurers*

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

5.03 *Certificates of Insurance*

A. Contractor shall deliver to Owner, with copies to each additional insured 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 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.

5.04 *Contractor's Liability Insurance*

A. Contractor shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection

from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

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

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

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

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

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

b. by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting 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, include as additional insured (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, 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 completed operations insurance;

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

5. 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);

6. 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

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment.

a. 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.

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, 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 an insured or additional insured;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, (other than 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 additional insured to whom a certificate of insurance has been issued.

B. Owner shall purchase and maintain such boiler and machinery 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, 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 an insured or additional insured.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with 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 additional insured 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 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 to be listed as insureds or additional insureds (and the officers, directors, 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 additional insureds thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, 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 to be listed as insured or additional insured (and the officers, directors, 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, partners, employees, agents, consultants and subcontractors of each and any of them for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial 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, 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 insureds, 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

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 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. The superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor. All communications given to or

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.

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.

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

received from the superintendent shall be binding on Contractor.

6.02 *Labor; Working Hours*

A. Contractor shall provide competent, suitably

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;

2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole,

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

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 that 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 in 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 or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and

c) whether or not 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;

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

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 either a Change Order for a substitute or 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 item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the 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 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 anything in the Contract Documents 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 an additional insured on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, 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, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, 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.

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 primary 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, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

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. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

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

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

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

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

C. 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 Draw-

ings or Specifications or to the acts or omissions of Owner or Engineer or , 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).

D. 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 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 acceptable 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*: Contractor shall also submit Samples to Engineer for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals.

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 determined and verified:

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

b. the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

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

d. shall also have 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.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents

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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 Drawing's 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.

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 Related Entities 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, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or

arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .

B. In any and all claims against Owner or Engineer or any of their respective consultants, agents, officers, directors, partners, or employees 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, 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.

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 via 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, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall 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 their work and will only cut or alter their 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.

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 actions or inactions.

C. Contractor shall be liable to Owner and any other contractor for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's 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 in respect of 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 in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by Engineer in preparing the Contract Documents.

8.06 *Insurance*

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

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 in 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. If and to the extent Owner has agreed to furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents, Owner's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents and will not be changed without written consent of Owner and Engineer.

9.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep

Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

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.

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 believe 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 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.

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.

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.B.

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 notice 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) is required by the provisions of any bond to be given to a surety, 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 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 Time 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 include only the following items, and shall not include any of the costs itemized in Paragraph 11.01.B.

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 at the Site. 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 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, 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, expresses, 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, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

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

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

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

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

C. Contractor's Fee: When all the Work is performed on the basis of cost-plus, Contractor's fee shall

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

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

11.02 Allowances

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

B. Cash Allowances

1. Contractor agrees that:

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

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

C. Contingency Allowance

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

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

11.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

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

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

D. 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 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).

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 Paragraph 12.01.C.2.a 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 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 the Related Entities of each of them 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. All 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, inspecting, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's Site safety procedures and programs so that they may comply therewith as applicable.

13.03 Tests and Inspections

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

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

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

2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in said 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, it must, if requested by Engineer, be uncovered 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.

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 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:

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 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.

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 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 on the Site 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, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and to any other qualifications stated in the recommendation); and

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

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

a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

b. that 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.

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 corrects to Owner's satisfaction the reasons for such action.

3. If it is subsequently determined 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.

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 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 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 will certify to Owner and Engineer that such part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion 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.

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.7;

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 or Owner's property might in any way be responsible 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 documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations

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

C. Payment Becomes Due

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

14.08 *Final Completion Delayed*

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

14.09 *Waiver of Claims*

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

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

2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance

with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

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

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.

DOCUMENT 007300

SUPPLEMENTARY CONDITIONS

1. GENERAL CONDITIONS

A. The following supplements modify, change, delete from, or add to the "Standard General Conditions of the Construction Contract", EJCDC Document C-700, 2002 Edition. Where any Article of the General Conditions is modified, or any Paragraph, Sub-paragraph or Clause thereof is modified or deleted by these supplements, the unaltered provisions of that Article, Paragraph or Clause shall remain in effect.

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

A. Replace 4.02A with the following:

4.02A Reports and Drawings: Sections of Division 01 – General Requirements will identify:

B. Change Paragraph 4.02B to read:

4.02B Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the general 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 Division 01 – General Requirements. Contractor may not rely upon or make any Claim against Owner, Engineer, or any of Engineer's Consultants with respect to:

4.02B.1, 2, and 3 are included as stated in the General Conditions.

C. Add 4.04C to read:

4.04C Cooperate with Owner and utility companies in keeping respective services and facilities in operation. Do not interrupt utility service to facilities occupied or used by Owner or others except when permitted in writing by Engineer.

D. Add 4.04D to read:

4.04D Prior to project start up, Contact Diggers Hotline (811) to locate underground utilities. On private property, where Diggers Hotline does not locate utilities, the Contractor shall retain the services of a private utility locator to determine the location of the underground utilities. The Owner's Representative shall be contacted as to the location of any private utilities. The contractor will be responsible to repair or replace any utilities damaged as part of the work.

3. ARTICLE 5 – BONDS AND INSURANCE

A. Performance and Payment Bonds:

Add 5.01.D to read:

5.01.D The bonds shall be in the amount of 100 percent of the full Contract sum. The Bonds are only required to apply to the construction period and the first year of the warranty period. Said bonds shall not apply to any extended warranty period beyond the first year. Such extended warranties are limited to the applicable Contractor and Manufacturer.

B. Contractors Liability Insurance:

Insurance required by Article 5 shall be written for not less than any limits of liability stated herein or required by law, whichever is greater and shall include contractual liability insurance as applicable to the Contractor's obligations under Paragraph 5.04. The Contractor shall maintain the following insurance coverage and minimum limits of liability, with amount of all coverage indicated on the certificates. Certificates are to be delivered to the Owner for acceptance with a copy to the Engineer for his information.

1. Worker's Compensation under Paragraphs 5.04.A.1 and 5.04.A.2 - Statutory
2. Employer's Liability - \$ 1,000,000 per accident.
3. Commercial General Liability under Paragraphs 5.04.A.3 through 5.04.A.5 (including Premises Operation; Independent Contractors' Protection; Products Liability and Completed Operation; Broad Form Property Damage):

\$ 2,000,000 General Aggregate

\$ 1,000,000 Products and Completed Operation Aggregate

\$ 1,000,000 Personal Injury and Advertising Injury Limit

\$ 1,000,000 Each Occurrence

\$ 100,000 Fire Damage Limit

\$ 10,000 Medical Expenses

Property Damage liability insurance will provide Explosion, Collapse and Underground Coverage.

Personal Injury, with employment exclusion deleted: \$1,000,000 Annual Aggregate.

4. Business Automobile Liability under Paragraph 5.04.A.6:

Bodily Injury:

\$ 1,000,000 Each Person

\$ 1,000,000 Each Occurrence

Property Damage: \$ 1,000,000 Each Occurrence

Or a combined single limit of \$ 1,000,000

5. Contractual Liability under Paragraph 5.04.A.4

Bodily Injury: \$1,000,000 Each Occurrence

Property Damage:

\$ 1,000,000 Each Occurrence

\$ 1,000,000 Annual Aggregate

6. Additional Liability coverage for Owner and Engineer will be provided:

a. By endorsement as additional insured's on Contractor's General Liability Policy.

b. Contractor's general liability carrier shall issue a separate Protective Liability policy covering Owner and Engineer.

7. The insurance must be written by a Company licensed for business in the state in which the Work is located and only by a Company acceptable to the Owner. Evidence of the coverage must be furnished prior to commencement of any work. Certificates shall state that the Owner will be notified in writing thirty (30) days prior to cancellation, material change or renewal.

C. Property Insurance:

1. Property Insurance will be provided by the Owner to the full insurable value of the property in accordance with Paragraph 5.06 of the General Conditions. Such insurance will be subject to a \$5,000 deductible in accordance with Paragraph 5.06.D of the general Conditions. The Contractor shall acquire additional insurance to cover the deductible amount.

4. ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

A. Add Paragraph 6.01.C and 6.01.D

6.01.C The Superintendent must be responsive to communications from the Engineer on a daily basis.

6.01.D Inspection at the site by the Engineer shall in no way relieve the Contractor from his responsibilities for supervision and compliance with the Contract. The Contractor's materials, tools, supplies, or debris shall not be stored or allowed to accumulate. The Owner assumes no liability or responsibility whatsoever for any damage, destruction, theft, or other acts, which may occur to the Contractor's materials or equipment as a result of his negligence.

B. Add Paragraph 6.02.C

6.02.C Regular working hours are defined as 7 AM to 5 PM Monday through Friday of each week. Work on other than those hours or days specified, including legal holidays, school holidays, Saturdays and Sundays may be granted provided the request for same is made at least 48 hours in advance and that Contractor assumes all responsibility for safeguard of Owner's property.

C. Add Paragraph 6.08:

6.08 All necessary permits required by local government agencies must be obtained and paid for by the Contractor prior to initial construction.

5. ARTICLE 9 – CONSULTANT'S STATUS DURING CONSTRUCTION

A. Add Paragraph 9.02.C:

9.02.C Consultant has no duty to halt Contractor's operations for breach of such safety laws, codes or procedures, including Contractor's maintenance of unsafe working conditions or areas.

6. ARTICLE 10 – CHANGES IN THE WORK

A. Add paragraph 10.01.C, 10.01.D, and 10.01.E:

10.01.C For changes in the work the Contractor shall submit an itemized list of quantities with the applicable unit costs and extended price for each, in such form and detail as required by the Engineer.

10.01.D The maximum that will be allowed for overhead and profit, or commission, shall be as follows, expressed as a percentage of the basic cost of the change. The allowable percentages for profit, overhead or commission may be less, depending on the nature, extent or complexity of the change, where the percentage is not commensurate with the responsibility and administration involved (such as the Contractor merely processing a Change Order to a Subcontractor) but in no event shall they exceed the following:

	Overhead and Profit	Commission
(a) To the Contractor and/or its Subcontractor for work performed with their own forces	10%	0%
(b) To the Contractor for work Performed by other than its own forces	0%	5%

10.01.E Not more than above specified percentages for overhead, profit and commission will be allowed to be added to the basic cost regardless of the number of tiers of Contractors, Subcontractors, or Sub-subcontractors.

B. Add paragraph 10.03.4:

10.03.4 In the event the Contractor ignores the Consultants direction to correct defective or non-complying work or if previously undetected defective work causes the Owner expense, the Consultant, Construction Manager and Owner, if in agreement and notwithstanding the Contractor's disagreement, may execute a Change Order to compensate the Owner for the Cost of such corrective work or repair deducted from the amount owed the Contractor.

7. ARTICLE 13 – CORRECTION PERIOD

A. Add Paragraph 13.07.B.1

13.07.B.1 The Contractor shall have 14 days after Substantial Completion to fully complete the items listed on the Substantial Completion Report. Time and expenses associated with completion of the work by the Owner and Consultant after 14 days will be assessed to the Contract. The additional costs will be reimbursed to the Owner and Consultant through a Change Order to the Contract.

8. ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

A. Add Paragraph 14.02.A.4:

14.02.A.4 Unless otherwise stated in the Agreement, the Owner will retain, until final payment 5 percent of the amount due the Contractor on account of progress payments. Reduction in the retainage will not be allowed unless the Contractor is properly and continuously expediting the remaining work to completion. Application for payment shall be made using the form located at the end of this document.

B. Add Paragraph 14.04.F:

14.04.F The Consultant shall make one Substantial Completion inspection and one final Completion Inspection for each part of the Work. If additional inspections are required due to the Contractor's failure to complete previously listed corrective or uncompleted work, the Consultants expense for conducting such reinspections and related time in processing and reviewing of requirements shall be charged to the Contractor and such payment shall be accomplished by a deductive Change Order to the Contract.

C. Add Paragraph 14.07.A.2.e:

14.07.A.2.e Prior to acceptance of the Work, the Contractor shall furnish a written warranty covering all Work specified herein, using the form at the end of the Document.

D. Add Paragraph 14.10

14.10 The final inspection and acceptance of the Work shown by the Drawings and Specifications forming a part of the Contract shall not be binding or conclusive upon the Owner if it shall subsequently appear that the Contractor has willfully, fraudulently, or through collusion with any representative of the Owner, supplied inferior materials or workmanship or has departed from the terms of this Contract. In any case, the Owner will have the right notwithstanding such final acceptance and payment, to

cause the Work to be properly performed and satisfactory materials supplied to such extent as in the opinion of the Consultant may be necessary to finish the Work, in accordance with the Drawings and Specifications. Therefore, at the cost and expense of the Contractor or the sureties on the bond, and shall have the right to recover against the Contractor and its sureties the cost of the work together with such other damages as the Owner may suffer because of the default of the Contractor in the premises the same as though such acceptance and final payment has not been made.

9. ARTICLE 17 - MISCELLANEOUS

A. Add Paragraph 17.07 Fair Employment Practice.

17.07.A The Contractor and every subcontractor shall comply with all applicable provisions, terms and conditions of applicable ordinance pertaining to fair employment practice. The Contractor, in relation to the subject Contract, shall not discriminate against any employee of, or applicant for employment with, the Contractor in the locality of the work, and shall include a similar provision against discrimination in every subcontract germane thereto, requiring employment at the Project. The words "discriminate" and "discrimination" as used herein hereby are defined and declared to mean and include discrimination or segregation on the ground or because of race, sex, religion, creed, age, color, national origin, or ancestry.

B. Add Paragraph 17.09 Minimum Wage Rate and Wage Ordinances:

17.09. Pursuant to Wisconsin Labor Laws (1) no laborer or mechanic employed directly on the Project work site by the Contractor or any subcontractor, agent, or other person doing or contracting to do all or a part of the work of the Project is permitted or required to work more hours than the prevailing hours of labor unless paid for all hours in excess of the prevailing hours at a rate of at least 1-½ times the hourly basic rate of pay.

It is in the public interest that public buildings and other public works be constructed and maintained by the best means and highest quality of labor reasonably available and that persons working on public works be compensated according to the real value of the services they perform. It is therefore the policy of this State that wages of laborers, workers, and mechanics on projects financed in whole or part by State funds should be comparable to wages paid for similar work in the community as a whole."

END OF SECTION

APPLICATION AND CERTIFICATE FOR PAYMENT NO. _____

TO: (Owner) _____

FROM: (Contractor) _____

PROJECT: _____

For work completed through the date of: _____

Contract Item	Contract Amount	% Complete	Value of Work Completed to Date

1. Original Contract Sum	\$ -	5. Less ___ % Retainage	\$ -
2. Net Change by Chg Orders	\$ -	6. Current Amount Due	\$ -
3. Contract Sum to Date (1+2)	\$ -	7. Previous Payment Amount	\$ -
4. Total Work Completed to Date	\$ -	8. Amount Due this Pay Req.	\$ -
		9. Balance to Complete Project	\$ -

CONTRACTOR'S CERTIFICATION:

The undersigned CONTRACTOR Certifies that (1) all previous progress payments received from OWNER on account of Work done under the contract referred to above has been applied to discharge in full all obligations of CONTRACTOR incurred in connection with Work covered by prior Applications for Payment Numbered 1 through ___ inclusive; and (2) title to all materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to OWNER at time of payment free and clear of all liens, claims, security interests and encumbrances (except such as covered by Bond acceptable to OWNER).

Dated _____

 Name of Contractor

By _____
 Authorized Company Representative Signature

Payment of the above AMOUNT DUE THIS PAY REQUEST is recommended by Fred Kolkmann Tennis & Sports Surfaces LLC.

Dated _____
 By _____
 Authorized FKT&SSLLC Representative

SECTION 011100

SUMMARY OF WORK

PART 1 GENERAL

1.01 SUMMARY

- A. Supply all labor, transportation, materials, apparatus, and tools necessary for the entire proper completion of this Work. Install, maintain, and remove all equipment for the proper execution of this Contract. Be responsible for the safe, proper, and lawful performance of equipment, maintenance and use of the same and perform in the best manner and everything properly incidental thereto, as stated on the Contract Documents or reasonably implied therein.

1.02 EXISTING CONSTRUCTION - VERIFICATION

- A. The existing construction may not be as shown on the plans and some modifications of the details may be required to accomplish the intent of the documents. The details shown and the information provided may have been taken from the original plans for the site, but are not represented or guaranteed by the Owner and Consultant as being accurate as to the actual "as built" and present conditions. Verify all conditions at the site and perform all work to complete the project under this Contract, regardless of variations that may be found, without additional cost to the Owner. All modifications or adjustments are to be approved in advance by the Consultant.

1.03 DEFINITIONS

- A. The words install, provide, furnish, include, supply, apply, place, or any combination thereof, are intended to be synonymous and to indicate that the material and/or work specifically mentioned is to be furnished and installed by this Contractor and/or this Contractor's Subcontractors.

1.04 PREVAILING WAGE RATES

- A. This project does not require wage rates, except those that may be mandated by the City of Fond du Lac.

1.05 PERMITS

- A. Prior to beginning any construction or demolition, provide the Consultant with copies of all required permits from the Governing Agencies where work is taking place.

1.06 SEDIMENT CONTROL

- A. Install silt fence and catch basin inlet protection, as required to prevent runoff sediment from the construction area from washing into the adjacent catch basins, streets and properties.

SECTION 011100

SUMMARY OF WORK

PART 1 GENERAL

1.01 SUMMARY

- A.** Supply all labor, transportation, materials, apparatus, and tools necessary for the entire proper completion of this Work. Install, maintain, and remove all equipment for the proper execution of this Contract. Be responsible for the safe, proper, and lawful performance of equipment, maintenance and use of the same and perform in the best manner and everything properly incidental thereto, as stated on the Contract Documents or reasonably implied therein.

1.02 EXISTING CONSTRUCTION - VERIFICATION

- A.** The existing construction may not be as shown on the plans and some modifications of the details may be required to accomplish the intent of the documents. The details shown and the information provided may have been taken from the original plans for the site, but are not represented or guaranteed by the Owner and Consultant as being accurate as to the actual "as built" and present conditions. Verify all conditions at the site and perform all work to complete the project under this Contract, regardless of variations that may be found, without additional cost to the Owner. All modifications or adjustments are to be approved in advance by the Consultant.

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1.05 PERMITS

- A.** Prior to beginning any construction or demolition, provide the Consultant with copies of all required permits from the Governing Agencies where work is taking place.

1.06 SEDIMENT CONTROL

- A.** Install silt fence and catch basin inlet protection, as required to prevent runoff sediment from the construction area from washing into the adjacent catch basins, streets and properties.

1.07 SITE RESTORATION

- A. The contractor is responsible for any damage due to the contractor's construction activity to existing lawn areas, bituminous drives and parking lots, concrete curb and gutter, concrete sidewalks, valley gutter, etc., and underground utilities, including irrigation systems, adjacent to and within the project site. The contractor shall repair all damaged items and areas to their original condition or better, at the contractor's expense.

1.08 DESCRIPTION OF WORK

A. BASE BID: Repair and Color Coat five (5) Tennis Courts

Nets:

All nets will be removed and re-installed by the park district.

Court Surface:

The entire court surface is to be power washed with a minimum pressure of 4,000 psi. All loose material is to be removed from the bituminous pavement. Any debris from the courts is to be cleaned up and disposed of properly by the contractor. Flood the entire tennis court pavement area with water to mark areas ponding water for leveling with court patch binder or similar material. The settled area is to be filled with court patch binder. This area needs to cure for 2 weeks before any further application of products. Install Armor Crack Repair System over required cracks. The City of Fond du Lac may require additional installation of Armor Crack repair or fiberglass as funding allows. After all prep work is completed, apply two coats of black acrylic filler material with sand. **NO EMULSIFIED ASPHALTS WILL BE ALLOWED.** Then two coats of color, with both color coats containing sand over the entire tennis court area.

The color system shall be Florida Ebony Green in the playing areas and Red in the background. It is important that color samples be provided to the engineer for review with the Owner prior to ordering and delivering the color coat material to the project site. The courts will then be striped for doubles play. All lines are to be white and 2" wide.

The following quantity is provided for the Contractor's convenience only, contractor is responsible for verifying his own quantities:

Armor Crack Repair	350 lineal feet
Color Coat System	3,360 square yards

1.09 ALTERNATE BID #1 FOR ADDITIONAL ARMOR CRACK REPAIR

An additional 400 lineal feet of Armor Crack repair is identified on plan page 2. The city may decide to install any amount as the funding permits

1.10 ALTERNATE BID #2 FOR FIGERGLASS INSTALLATION

An additional 6,000 sf of fiberglass installation is identified on plan page 3. The city may decide to install any amount as the funding permits, or any combination of Alternate #1 and Alternate #2.

1.11 CONSTRUCTION SCHEDULE

- A. A pre-construction conference will be held during the week before scheduled start.
- B. The courts are available for repair from July 1st to July 31st, 2013. The intent is to repair the extensive low area and re-open the courts for public use during the 2 week cure period. Once the cure period is over, the courts would be available to the contractor to finish.
- C. All work is to be fully completed by July 31st, 2013. By fully completed, it is intended all work included as part of this contract be fully completed, including items such as clean-up, repairs to existing property, and punch-list items.
- D. A pre-final inspection will be conducted two days before the scheduled completion date.

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

Not used

END OF SECTION

SECTION 012000

COORDINATION AND SCHEDULING

PART 1 GENERAL

1.01 PRE-CONSTRUCTION CONFERENCE

- A. Prior to starting any work on the Contract, the Owner, the Consultant and the Contractor will meet at the site to discuss procedures, schedules, review submittals, etc., for the work. The Contractor's superintendent and foreman, who will be on the project full-time directing the work, must attend this pre-construction conference.
- B. The pre-construction conference will be held prior to starting the project. A mutually agreed upon time will be chosen once the construction schedule is determined.

1.02 SITE ACCESS AND AVAILABILITY

- A. The site will be available to the Contractor upon receipt of the Owner's written notice to proceed, unless otherwise indicated in these specifications. Care, custody, and control of the site work area, equipment area, and material storage area are vested to the Contractor during the term of operations under the Contract.
- B. Failure to examine the project site and to become familiar with the existing conditions shall not constitute cause for complaint or claim for extra payment. The Contractor shall accept the project site, as it exists.
- C. Means of ingress or egress to sites shall not be blocked for any reason or hamper the normal operation of the site in any way unless permission is first obtained from the Owner. Fire protection and immediate access for fire-fighting equipment must be maintained at all times.
- D. Equipment and material storage areas are limited to those designated.
- E. All access roads, parking lots, grass areas or any other path necessary to be traveled across to gain access to the site shall be repaired to their existing conditions or better.

1.03 SITE PROTECTION

- A. The construction site must be protected from unauthorized personnel at all times. The installation of a semi-permanent construction fence may be required on projects that will be prolonged over a period of time. The installation of temporary fences barricades, cones and signs may also be required. No additional compensation will be made to the Contractor for construction site protection.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Verify and coordinate storage of materials or equipment, and access to the building with the Owner prior to material delivery and start of construction. Where this provision is neglected, and material is delivered to the project site when the latter is not available

to receive it, such materials shall be properly stored elsewhere at the expense of the Contractor and adequate insurance coverage provided for the off-site storage.

- B. Damage to any existing properties or new construction must be immediately reported to the Consultant.

1.05 USE OF TOBACCO PRODUCTS

- A. No person may smoke or use a tobacco product in any building or upon any grounds that is owned (or leased) and occupied by the Owner.
- B. The term "smoke" shall include smoking a cigarette, cigar, or pipe; or carrying a lighted cigarette, cigar, or pipe. The term "use of a tobacco product" shall include the chewing of tobacco or snuff, or the consumption of any other tobacco product. The utilization of any smoke or tobacco cessation product, as long as it does not generate smoke, is not prohibited under this policy.

1.06 COORDINATION WITH OWNER

- A. It is the Owner's intent that the site will be utilized in the usual manner in accordance with the normal schedule, therefore, the Contractor executing this Contract shall schedule the work so as to interfere least with normal activities and shall coordinate the Work with the Owner.
- B. Work that might interfere with the use of the facilities by the Owner shall be accomplished at a time approved beforehand by the Owner.

1.07 CONSTRUCTION SCHEDULE

- A. It is the intent to start work and to fully complete all work by the dates indicated in Division 01, Section 011100.
- B. The Contractor agrees that said Work shall be prosecuted regularly, diligently, and uninterruptedly at such a rate of progress as will ensure full completion thereof within the time stipulated. It is expressly understood and agreed, by and between the Contractor and the Owner that the time for completion of the work described herein is a reasonable time for climatic range and usual industrial conditions prevailing in this locality. It is further understood and mutually agreed that the date of beginning, rate of progress, and the time for completion of the work to be done hereunder are essential conditions for this Contract.
- C. If adverse weather conditions are the basis of a request for additional time, such a request shall be documented by data substantiating that weather conditions were abnormal for the period of time and could not have been reasonably anticipated, and that weather conditions had an adverse effect on the scheduled construction.
- D. Liquidated Damages - The Contractor and the Contractor's surety, if any, shall be liable for and shall pay the Owner the sums hereinafter stipulated as liquidated damages for each calendar day of delay once a mutually agreed upon schedule is determined. The liquidated damages per day are \$200.00.

1.08 COORDINATION OF WORK

- A. The Contractor submitting the bid to the Owner has the responsibility for coordinating the work of subcontractors and for scheduling all work so that all work required by the Contract Documents, is completed as scheduled.
- B. The Contractor shall coordinate work of various trades employed by this firm so the stated completion date is met.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 013000

SUBMITTALS

PART 1 GENERAL

1.01 WITHIN TEN (10) DAYS OF NOTICE OF AWARD

- A. Provide the Consultant with evidence of qualifications required by the Instructions to Bidders.**
- B. Provide the Owner with certificates of insurance required by the Supplementary Conditions. Submit a copy to the Consultant for its information.**
- C. List of subcontractors, if any, for review and acceptance by the Consultant, prior to executing subcontracts in accordance with the General Conditions and Instructions to Bidders.**

1.02 WITHIN TEN (10) DAYS OF CONTRACT AWARD

- A. Provide the Owner with Performance and Payment Bonds required by the Supplementary Conditions.**
- B. Submit two copies of a complete list of all materials, products, and equipment, proposed to be used in this Work to the Consultant for acceptance. The list shall clearly identify the materials, products, or equipment by the manufacturer and brand, and show the names for all items and their description. All items listed shall fully conform to the project requirements and applicable reference specifications shall be shown on the list of materials. Submittals shall include methods of handling, storage and maintenance and cleaning recommendations.**
- C. Submit samples of materials to the Consultant, as requested, with complete identifying information such as brand names, brief descriptions, source of materials, date sampled, location sampled, etc.**
- D. Submit a construction schedule to the Consultant indicating anticipated work progress, starting and completion dates, crew size, and estimated average daily progress.**
- E. Submit a schedule of values to the Consultant covering labor and materials for rough grading, base aggregate, bituminous paving, and any other components, to serve as a basis for progress payments during construction.**
- F. Provide copies of all permits and licenses necessary for the proper execution and completion of this work, which are applicable at the time the bids are received.**
- G. Refer to subsequent specification sections for specific submittals required by each section.**

1.03 DURING PROGRESS OF THE WORK

- A. Provide the Consultant with certificates of conformance to the specifications for each shipment of materials to the site.
- B. Provide the Consultant with certificates for progress payments showing a tabulation of the completed work, labor completed, materials used, and materials in approved storage at the site.

1.04 PRIOR TO OR ON THE COMPLETION DATE

- A. Provide a written notice to the Consultant and the Owner that the Work required by the Contract has been completed.
- B. The signed warranty form required in the specifications shall be submitted to the Owner, through the Consultant.
- C. Submit a waiver to the Owner that all work, materials, and equipment are free and clear of all liens, claims, security interests, and encumbrances.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 014000

QUALITY CONTROL

PART 1 GENERAL

1.01 GENERAL

- A.** All materials, systems, or assemblies shall be installed or applied in accordance with these specifications and, where not specifically designated otherwise, in accordance with the State Department of Transportation "Standard Specifications for Construction", current edition. If, in the opinion of the Contractor, any work is indicated on the plans or specified in such manner as to make it impossible to produce work of the highest quality, or should discrepancies appear between plans, or plans and specifications, the Contractor shall advise the Engineer before proceeding.
- B.** References: Without limiting the generality of other requirements of the specifications, all work specified shall conform to, or exceed the applicable requirements of the documents referenced in each section of the specifications to the extent that the provisions of such documents are not in conflict with the requirements of that section.

1.02 SURVEYING, STAKING AND SITE LAYOUT

- A.** The Contractor is responsible for performing all construction staking and site layout. If a topographic survey is required to construct the project in accordance with the specifications, the Contractor shall provide the survey from an Independent licensed, bonded and insured Land Surveyor. The Consultant will verify the construction staking, site layout and topographic survey only for quality assurance purposes.

1.03 INSPECTIONS AND TESTS

- A.** The Owner will retain and pay for the services of an Independent Engineering Firm for inspections.
- B.** The Contractor shall retain and pay an Independent Testing Agency for all construction materials testing. The testing laboratory shall submit test reports to the Engineer and Contractor within 48 hours after test has been performed.
- C.** The Consultant may request tests of any materials in addition to the tests specified. The Contractor shall pay for the additional tests if the test results show the material not in conformance with the specifications.
- D.** Repeat tests required because test results show materials not in conformance with the specifications, shall be paid for by the Contractor.
- E.** Notify the Consultant not less than 24 hours in advance whenever work is to be performed. Failure to notify the Consultant at least 24 hours in advance shall be reasonable cause for the Consultant to order a sufficient delay in the Contractor's schedule to allow time for inspections and any remedial or corrective work required. All costs of such delays, including its effects upon other portions of the work, shall be borne by the Contractor and no time extension will be permitted.

- F. When notification has been given to the Consultant by the Contractor to be present on the job site to perform inspections and the Contractor fails to show up or arrives more than two hours later than the scheduled time, all costs incurred by the Consultant shall be charged to the Contractor. The costs shall be deducted from the Contract in the form of a change order.
- G. During the construction of a project, if it is determined the Work does not conform to the requirements of the plans and specifications; the Contractor shall repair, replace or correct the Work to meet the intent of the plans and specifications. All costs incurred by the corrective work shall be borne by the Contractor. Engineering fees for inspections and tests shall also be the responsibility of the Contractor. Such fees shall be paid directly by the Contractor or be deducted from the Contract in the form of a change order.
- H. Provide documentation for all unit price items. Contractor's foreman and Consultant will confirm daily.
- I. Test samples of materials and completed work at the project site will be taken in the presence of the Consultant.
- J. Cooperate by furnishing materials required for testing, access to the work, and space for necessary storage.
- K. Properly repair sample/test location openings made in the work required for testing and inspections to the satisfaction of the Consultant.
- L. The Manufacturer of all products used must have source quality control capabilities to show conformance of the products to the specification requirements prior to shipment to the Owner.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 015000

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 USE OF EXISTING FACILITIES

- A. The Contractor may use utilities, i.e. water, electricity, etc. owned by the Owner only if approved in advance. Coordinate the use of utilities with the Owner. At no time shall utilities be wasted.
- B. The Contractor shall not interrupt the utility service for the site in any way unless agreed upon by the Owner.
- C. The Contractor shall make arrangements for portable sanitary facilities, as necessary. The Contractor shall be responsible for maintaining the cleanliness of any facility used.
- D. The Owner's telephone will not be available for Contractor use.

1.02 CONTROLS OF PUBLIC AGENCIES

- A. All Federal, State, County, City, or any other governing agency permits, licenses and fees associated with the work shall be obtained and paid for by the Contractor. Copies of all required permits must be submitted to the Consultant prior to the start of construction. If the permits have not been obtained in advance of the start construction and such non-conformance to the regulations requires a change in the scope of work, all such costs associated with the change in scope of work shall be borne by the Contractor. The Contractor shall repair, replace or correct the Work to meet the requirements of the regulating/governing body. Engineering fees for inspections and tests shall also be the responsibility of the Contractor. Such fees shall be paid directly by the Contractor or be deducted from the Contract in the form of a change order.
- B. The work shall meet the requirements of all governing codes, ordinances, laws, regulations, safety orders, and directives relating to the Work, including any specific requirements of the city and state of jurisdiction.
- C. The work on, adjacent to, or over public land, streets, alleys, or other public facilities, shall be approved by the proper authorities. Make arrangements with such authorities regarding all details, timing, materials, methods, protection, and similar items in connection with the work, including street use, work on streets, or blocking of streets. Make repairs, file bonds, conform to directions, and such other requirements that may be necessary.

1.03 REFERENCE STANDARDS

- A. Publications in effect on the date of issue of these Contract Documents shall apply to the work performed under this Contract, except when a specific date is specified.

1.04 SPECIAL CONTROLS

- A. Disturbing or disruptive noise that interferes with the normal site occupancy will not be permitted. Operations creating noise of this type must be scheduled in advance with the Owner.
- B. The Contractor shall discharge any worker creating a nuisance on the premises.
- C. Protect the building, site and adjoining property from objectionable dust and wind-blown debris.
- D. Provide necessary controls to prevent pollution of the air by odors or particulate matter.
- E. Exercise reasonable precautions to prevent vandalism and to safeguard the public at the existing building and site.
- F. Disposal of Materials:
 - 1. Load disposal materials directly into trucks by means that will prevent damage to the existing or new surfaces and to control pollution.
 - 2. No accumulation of disposal materials will be permitted at any time, except as otherwise specified. The Contractor is responsible for prompt removal from the site and disposal in a manner approved by the local authorities.
 - 3. Transport and legally dispose of materials off-site.
- G. When earth materials are exposed, the Contractor shall install adequate erosion control measures, such as silt fences, hay bales, riprap, erosion control blankets, etc., to prevent soils from exiting the site.
- H. Utilities within the project site shall be protected from receiving soils or other types of debris when extensive or copious amounts of rainfall or wind occur.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 016000

PROTECTION, REPAIR AND CLEANING

PART 1 GENERAL

1.01 PROTECTION OF EXISTING PROPERTY

- A. The construction site must be protected from unauthorized personnel at all times. The installation of a semi-permanent construction fence may be required on projects that will be prolonged over a period of time. The installation of temporary fences, barricades, cones and signs may also be required. No additional compensation will be made to the Contractor for construction site protection.
- B. Provide protective materials and methods, as required, to protect existing buildings and adjacent surfaces, features, and property. The Contractor is responsible for any damage resulting from work under this Contract.
- C. Take precautions to protect the building grounds from damage due to necessary construction traffic.
- D. Existing materials that are to be salvaged for reuse, or given to the Owner, shall be removed carefully and stored in a manner and location to prevent damage until utilized.
- E. Prevent access by the public to materials, tools, or equipment.

1.02 REPAIRS OF EXISTING PROPERTY

- A. Access to the construction site will be the responsibility of the Contractor. Property that is traveled over to gain access to the construction site will be properly repaired to the existing conditions or better, at the Contractor's expense, to the satisfaction of the Owner. This includes all bituminous, concrete, grass or other types of surfacing materials.
- B. When it is required to remove or alter the existing property, all affected areas shall be properly repaired to the existing conditions or better, at the Contractor's expense, to the satisfaction of the Owner.
- C. Existing materials designated to remain, which are damaged or defaced as a result of the work and are unsuitable for the use intended, shall be replaced at the Contractor's expense to the satisfaction of the Owner.
- D. Use approved procedures and materials to repair defective or incomplete surfaces caused or exposed by work at the project.
- E. Repairs required by the Contract, or necessary because of damage from this Work, shall use products equivalent to, and compatible with, the existing materials.

1.03 CLEANING

- A. Refer to the General Conditions for requirements pertaining to the removal of waste materials or rubbish caused by the work, and the restoration of existing areas affected by the work. In case of undue delay or dispute, the Owner may remove rubbish, materials, and equipment and charge the costs to Contractor. These actions are permissible by the Owner 48 hours after a written notice has been transmitted to the Contractor.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 021000

SELECTIVE DEMOLITION

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:

1. Removal and disposal of vegetation and topsoil.
2. Removal and disposal of existing concrete construction.
3. Removal and disposal of existing bituminous pavement.
4. Removal of existing fence construction.

1.02 PROTECTION OF EXISTING CONDITIONS

- A. Provide protection necessary to prevent damage to existing conditions indicated to remain in place. In particular, protect the existing tennis court color coating, striping and bituminous pavement surfaces.
- B. Restore all damaged areas to their original condition, as acceptable to the Owner.

1.03 SUBMITTALS REGARDING EXISTING CONDITIONS

- A. Provide pre-demolition photographs of the existing bituminous pavement and landscaped areas prior to beginning any work at the site.
- B. Bring to the attention of the Consultant in writing within 48 hours any items damaged during the demolition process that are to be salvaged for re-use. If it is determined that the damage to the item(s) could have been prevented by the Contractor taking reasonable measures or precautions, the damaged item(s) will be replaced or repaired at the Contractor's expense.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 SITE ACCESS

- A. Demolition and removal operations shall be performed to ensure minimum interference with roads, parking lots, sidewalks and pathways.
- B. Erect temporary fencing as necessary to keep people out of the work area.

SECTION 323500

FIBERGLASS MEMBRANE REPAIR SYSTEM FOR TENNIS COURTS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Crack filler
 - 2. Fiberglass membrane system

1.02 SUBMITTALS

- A. Submit filler and fiberglass material product data and specification information provided by the manufacturer.

1.03 QUALITY ASSURANCE

- A. Quality assurance personnel will perform intermittent inspections during the filling and installation of the fiberglass system.

PART 2 PRODUCTS

2.01 COURT PATCH BINDER

- A. A high strength acrylic latex bonding liquid designed to mix with Silica Sand and Portland cement.

2.02 FIBERGLASS

- A. 10 by 20 mesh resin coated fiberglass (asphalt coated fabric is not acceptable)

2.03 PLEXIBOND COATING

- A. Asbestos free, pigmented, 100% acrylic emulsion used to adhere fiberglass membranes to asphalt.
- B. White color with greenish tint

2.04 ACRYLIC RESURFACER

- A. An asbestos free, acrylic latex binder developed for job mixing with silica sand to obtain a fast drying filler coat.

PART 3 EXECUTION

3.01 FIBERGLASS MEMBRANE REPAIR

- A. Surface Preparation:

3.02 DEMOLITION

- A. Remove vegetation, improvements, or obstructions interfering with installation of new construction. Remove such items elsewhere on site or premises as specifically indicated.**
- B. Store salvaged materials on-site in a location where they will not be damaged or interfere with the use of the other facilities.**
- C. Promptly dispose of demolished materials off-site. Do not allow demolition materials and debris to accumulate on-site.**
- D. Restore all damaged underground piping and utilities.**

END OF SECTION

1. The surface to be coated must be sound, smooth and free from dust, dirt and oily material. All mildew is to be removed with pressure washer and detergent.
2. All cracks 1/8" or greater in width shall be cleaned and filled with Acrylic Crack Filler. All repaired areas shall be flush with the surrounding surface. If not, they shall be ground or rolled as needed to make them flush and even.
3. Patching – Prior to the application of surfacing materials, the entire surface shall be flooded and checked for minor depressions or irregularities. Any water ponding areas shall be marked and repaired with Court Patch Binder using the following mixture.
 - A. 100 lbs. 60 -80 mesh silica sand (dry)
 - B. 3 gallons court patch binder
 - C. 1 – 2 gallons (dry) Portland Cement

A tack coat consisting of 1 part court patch and 2 parts water shall be applied to the patch areas and allowed to dry before patching.

4. Spauled areas shall be toweled level with crack filler and/or court patch.

B. Application:

1. The Plexibond Coating shall be diluted 2 parts Plexibond to 1 part water prior to application. Apply Plexibond Coating using a "wet on wet" method. The fiberglass shall be rolled out into the Plexibond and stretched tightly over the entire surface. Adjacent panels shall be overlapped a minimum of 3". Wrinkles in the fiberglass membrane shall be corrected prior to application of the Acrylic Resurfacer.
2. Over the fiberglass membrane apply two coats of Acrylic Resurfacer as necessary to smooth out and hide the pattern of the fiberglass prior to the application of the color system. The first coat of Acrylic Resurfacer is to be applied in an east-west direction. The second coat is to be applied in a north – south direction and the contractor shall maintain a "wet" edge of material during the application process over the entire battery of courts.

C. Weather Limitations:

1. Construction activities or material applications shall be performed during rainfall or when rain is imminent. The air temperature must be at least 50 Degrees F. and rising. Do not apply when surface temperature is above 140 Degrees F.

END OF SECTION

SECTION 323550

ARMOR CRACK REPAIR SYSTEM FOR TENNIS COURTS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Filler material for cracks
 - 2. Armor crack repair system

1.02 SUBMITTALS

- A. Submit the manufacturer's certification that the court patch binder meets the specifications for the Armor Crack Repair System.
- B. Submit the manufacturer's certification that the acrylic resurfacer meets the specifications for the Armor Crack Repair System.

1.03 QUALITY ASSURANCE

- A. Crack repairs and installation of the Armor Crack Repair System shall be applied only by an installer that has been certified by A.S.T., LLC.
- B. If not certified, an employee of A.S.T., LLC is to be on-site during the crack repair and Armor installation. A.S.T., LLC is then to verify in writing that the installation has been done per their specifications.
- C. Quality assurance personnel will perform intermittent inspections during the crack repair procedure

PART 2 PRODUCTS

2.01 COURT PATCH BINDER

- A. A high strength acrylic latex bonding liquid designed to mix with Silica Sand and Portland cement.

2.02 ARMOR CRACK REPAIR SYSTEM

- A. The Armor crack repair system is a patented system designed to cover bituminous pavement structural cracks by applying successive layers of an elastomeric membrane and attaching the outer membrane surfaces to the tennis court pavement with a bonding material.

PART 3 EXECUTION

3.01 COURT PATCH BINDER

A. Surface Preparation:

1. For all cracks that are to be repaired with the Armor System, rout, sterilize and fill cracks with a mixture of silica sand and Portland cement, "crack patch binder", specifically designed for applications on tennis courts. The filler material shall be level with the adjacent surfaces.

3.02 ARMOR CRACK REPAIR SYSTEM

A. Surface Preparation

1. Thoroughly clean the surface to receive the Armor Crack Repair System by pressure washing to remove undesirable debris. The repair area surface shall not contain contaminants that would hinder the bonding ability of the built up membrane to the existing bituminous pavement or color coat system.
2. Remove all previous crack repair materials that are loose or not well bonded to the court, including existing rubberized crack filler material.

B. Installation

1. Apply in accordance with Armor System specifications.

END OF SECTION

SECTION 323600

TENNIS COURT COLOR FINISH SYSTEM

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Filler material.
 - 2. Color finish system.

1.02 SUBMITTALS

- A. Submit filler material product data and specification information provided by the manufacturer.
- B. Furnish the manufacturer's material product data and specification information stating the color finish system is especially made for use on tennis courts.
- C. Submit 2 sets of Florida Ebony Green and Red color samples to the Consultant for Owner color evaluation.

1.03 QUALITY ASSURANCE

- A. Quality assurance personnel will perform intermittent inspections during the filling and color finish system operations.

PART 2 PRODUCTS

2.01 ACRYLIC FILLER OVER BITUMINOUS PAVEMENT

- A. A cold-applied sealer manufactured with mineral fillers, suitable for mixing with graded mineral aggregate, meeting the following requirements.

Color	Black
Acrylic	44%
Pigment	40%

- B. The mineral aggregate shall be a uniformly graded, durable, clean, hard material, or manufactured sand, free of clay lumps and organic matter, meeting the following requirements.

Sieve Size	Percent Passing by Weight
No. 16	100
No. 20	85 - 100
No. 30	15 - 85
No. 40	2 - 15
No. 100	0 - 2

C. Both coats of acrylic resurfacer shall have a minimum of 600 – 700 lbs of sand per 50 liquid gallons of acrylic resurfacer.

2.02 ACRYLIC COLOR FINISH SYSTEM AND STRIPING

A. The color finish system and line striping paint shall be a non-glaring acrylic latex meeting the following requirements.

Background Color	Red
Playing Court Color	Florida Ebony Green
Line Striping Color	White
Acrylic Latex	25% minimum
Pigment (Color)	40% minimum
Pigment (Line Striping)	40% minimum

PART 3 EXECUTION

3.01 ACRYLIC EMULSION FILLER OVER BITUMINOUS PAVEMENT

A. Surface Preparation:

1. For cracks that are 1/4" wide or wider, rout, sterilize and fill cracks with a mixture of silica sand and Portland cement, "crack patch binder", specifically designed for applications on tennis courts. The filler material shall be level with the adjacent surfaces.
2. For cracks that are less than 1/4" wide, seal the cracks with a color pigmented, cold applied elastomeric sealant, specifically designed for applications on tennis courts. The sealer material shall be level with the adjacent surfaces.
3. The pavement surface must be completely cleaned of dust, dirt, debris, and all loose materials by power washing. The power washing shall be performed with a high-pressure power washer capable of providing 4,000 psi for general dirt and debris removal.
4. Tennis courts that need complete removal of the existing color coat system shall be power washed with a high-pressure power washer capable of removing the existing color coat system without causing any damage to the underlying bituminous or concrete surface.
5. On new bituminous surfaces, allow a minimum cure period of 28 days before the application of filler materials.

B. Application:

1. The following workday after bituminous placement, flood the courts with water. Depressions holding water over 1/8 inch deep shall be leveled with either a mixture of silica sand and Portland cement, "crack patch binder", or an acrylic emulsion filler. The color coat subcontractor must be present during the flood test.
2. If the leveling of the ponds requires a fine sand bituminous mix, the curing period will not start until the fine sand bituminous mix is in-place.
3. If the leveling of the ponds requires a "crack patch binder" or an acrylic emulsion filler, the leveling shall be performed after the curing period has expired.
4. Provide a minimum of two applications of the acrylic filler material at the consistency and thickness recommended by the manufacturer. Do not apply

the material too thick. An application placed too thick may cause blistering and peeling of the color coat system.

5. The filler materials shall be completely cured before applying successive applications. If the materials have not cured properly, they may cause blistering and peeling of the color coat system.
6. Apply the acrylic filler materials during good weather conditions when the air temperature is between 55 degrees F and 90 degrees F and rain is not forecast or imminent. The first coat of Acrylic Resurfacer is to be applied in an east-west direction. The second coat is to be applied in a north - south direction and the contractor shall maintain a "wet" edge of material during the application process over the entire battery of courts.

3.02 ACRYLIC COLOR FINISH SYSTEM AND STRIPING

A. Surface Preparation:

1. Do not apply the background color system until all the depressed or deficient areas have been corrected.
2. The pavement surface must be completely cleaned of dust, dirt, debris, and all loose materials before the application of the color coat system.

B. Application:

1. Apply the color finish system at a rate of 0.05 gallons per square yard, or as recommended by the manufacturer, with a squeegee to provide a uniform texture, color, and density, free of holidays or voids.
2. Apply a minimum of two applications, more if recommended by the manufacturer. Provide additional applications over the entire surface if the final application is non-uniform. Apply additional coats until a uniform surface is achieved. Do not apply the material too thick. An application placed too thick may cause blistering and peeling of the color coat system.
3. The filler materials shall be completely cured before applying successive applications. If the materials have not cured properly, they may cause blistering and peeling of the color coat system.
4. The tennis courts color coat system shall cure a minimum of 48 hours before applying the line striping paint.
5. Apply the color coat system and line striping during good weather conditions when the air temperature is between 55 degrees F and 90 degrees F and rain is not forecast or imminent.
6. Apply the line striping paint according to the U. S. Tennis Association Specifications. Do not apply the line striping paint in windy conditions. Lines are to be masked, any that are found to be crooked, wavy or out of line shall be colored out and restriped at no additional cost to the Owner.

C. Acceptable products:

1. The following manufacturer is approved for this project.

Plexipave by California Product
Laykold

TENNIS COURT COLOR COAT SYSTEM
ONE YEAR MATERIALS AND WORKMANSHIP WARRANTY

Owner: _____

Address: _____

Project: _____

Project Location: _____

Project No. _____

Date of Final Inspection: _____

Prime Contractor: _____

Address: _____

Phone Number: _____

Color Coat Contractor: _____

Address: _____

Phone: _____

This warranty stipulates that the above-named Contractor shall, during a period of one (1) year from the date of final acceptance of the Work, promptly repair any defective work without cost to the Owner. If Contractor does not promptly repair defective work, Owner may have defective work corrected or the rejected work removed and replaced, and all direct, indirect, and consequential costs of such removal and replacement (including but not limited to fees and charges of engineers, architects, attorneys, and other professionals) will be paid by the Contractor.

Before expiration of the above warranty period, the prime Contractor shall inspect the work in the presence of the Owner's representative and make necessary correction of all deficiencies not considered normal. The warranty will remain in force until the necessary repair work has been done.

Signed: _____

Title: _____

Date: _____