SECTION 00 01 00 CONTRACT DOCUMENTS

LAKES OF TAYLOR BRIDGE REHABILITATION

City of Taylor 23555 Goddard Road Taylor, MI 48180

05-16-2025



25251 Northline Road, Taylor MI, 48180

TAY 3276-02T

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SECTION 00 11 13 ADVERTISEMENT FOR BIDS

Lakes of Taylor Bridge Rehabilitation

City of Taylor has implemented online project bidding using the **Quest Construction Data Network** (**QuestCDN**). Only electronic bids submitted through www.questcdn.com will be accepted for this project.

Sealed Bids will be received by the City of Taylor through QuestCDN until 10:00 a.m., Local Time, 06-17-2025. Shortly after the bid closing time a bid tabulation will be prepared and posted online.

Bids will be received for the following Work:

Rehabilitation of seven timber bridges throughout the Lakes of Taylor Golf Course

Contract Documents may be examined at the following locations:

Contract Documents for bidding purposes are only available from QuestCDN starting on 05-16-2025. Contract Documents can be viewed and downloaded by registering for free with QuestCDN online (www.questcdn.com) or by calling 952-233-1632. The QuestCDN Project Number for this project is 9697039 and may be used to look up the project.

- A. There is a Twenty Two Dollars (\$22.00) nonrefundable fee for downloading the Contract Documents in pdf format. Bidders must download the Documents from QuestCDN to be included on the Plan Holders List and to receive any Addenda posted for the project.
- B. Bids will be received electronically through QuestCDN as outlined in Section 00 21 13 Instructions to Bidders. There is a Forty Two Dollars (\$42.00) non-refundable fee for submitting a Bid

Each Bid will be accompanied by a bid bond, in the amount of at least **five (5)** percent of the amount bid, drawn payable to City of Taylor as security for the proper execution of the Agreement.

A non-mandatory pre-bid conference will be held on 05-27-2025 at 10:00 AM, Local Time at Lakes of Taylor Golf Course, 25505 Northline Road. Representatives of the Owner and the Engineer will be present to discuss the project. Bidders are encouraged to attend and participate in the conference. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference.

An additional consideration will be given to City of Taylor-based Contractors as explained in the Contract Documents.

City of Taylor reserves the right to accept or reject any or all bids and to waive any informality in any bids should it consider same to be in its best interest. City of Taylor further reserves the right to award all or part of the bid as budget allows.

Bids may not be withdrawn for the period of 90 days after date of receiving bids.

Inquiries will be directed to Kelly McRobb-Ackland, Engineer at Phone: (734) 947-2627 or email: kackland@WadeTrim.com.

Questions will be received until 6/10/2025 at 5:00 PM. No further questions will be answered after this date and time.

SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS

PART 1 GENERAL

1.01 DEFINED TERMS

- A. Terms used in these Instructions to Bidders have the meanings assigned to them in the General Conditions.
- B. The term "Bidder" means one who submits a Bid to Owner as distinct from a subbidder who submits a Bid to a Bidder.
- C. The term "Successful Bidder" means the lowest, qualified, responsible Bidder to whom the Owner makes an award.
- D. The term "Owner" means City of Taylor, 23555 Goddard Road, a Municipal Corporation and being a party of the first part of this Contract.
- E. The term "Engineer" means Wade Trim Associates, Inc., 25251 Northline Road, Taylor MI, 48180, or a duly authorized representative.

1.02 BIDDERS QUALIFICATIONS

- A. No Bid will be considered from any Bidder unless known to be skilled and regularly engaged in work of a character similar to that covered by the Contract Documents. In order to aid the Owner in determining the responsibility of any Bidder, the Bidder, within 48 hours after being requested in writing by the Owner to do so, must furnish evidence, satisfactory to the Owner, of the Bidder's experience and familiarity with Work of the character specified, and Bidder's financial ability to properly prosecute the proposed Work to completion within the specified time. The evidence requested may include the following:
 - 1. Address and description of the Bidder's plant or permanent place of business.
 - 2. Bidder's performance records for all Work awarded to or started by Bidder within the past three years.
 - 3. An itemized list of the Bidder's equipment available for use on the proposed Contract.
 - 4. Bidder's financial statement, including statement of ownership of equipment necessary to be used in executing Work under Contract.
 - 5. Evidence that the Bidder is authorized to do business in the state in which the project is located, in case of a corporation organized under the laws of any other state; and,
 - 6. Such additional information as will satisfy the Owner that the Bidder is adequately prepared to fulfill the Contract.

1.03 EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- A. It is the responsibility of each Bidder before submitting a Bid, to:
 - 1. Examine the Contract Documents thoroughly,
 - 2. Visit the site to familiarize himself with local conditions that may in any manner affect cost, progress or performance of the Work,

- 3. Consider federal, state, and local Laws and Regulations that may affect cost, progress, performance, or furnishing of the Work; and
- 4. Study and carefully correlate Bidder's knowledge and observations with the Contract Documents and such other related data; and
- Promptly notify the Engineer in writing of conflicts, errors, ambiguities or discrepancies which Bidder has discovered in or between Contract Documents and such related documents.
- 6. Purchase official Procurement Documents from the Engineer in order to be included on the project Plan Holder List and be considered eligible for bidding.
- B. Reference is made to the Supplementary Conditions for the identification of those reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which have been relied upon by the Engineer in preparing the Contract Documents.
 - If such reports are not included as appendices to the Contract Documents, the Owner will
 make copies available to any Bidder requesting them. These reports are included for
 reference only and are not guaranteed as to accuracy or completeness, nor are they part
 of the Contract Documents.
 - Bidder may rely upon the general accuracy of the "technical data" contained in such reports but not upon other data, interpretations, opinions or information contained in such reports or otherwise relating to the subsurface conditions at the site, nor upon the completeness thereof for bidding or construction purposes.
 - 3. Before submitting their Bid each Bidder will, at Bidder's own expense, make such additional investigations and tests as the Bidder may deem necessary to determine Bidder's Bid for performance of the Work in accordance with the time, price and other terms and conditions of the Contract Documents.
- C. On request, the Owner will provide each Bidder access to the site to conduct such investigations and tests as each Bidder deems necessary for submission of their Bid. Bidder must fill all holes and clean up and restore the site to its former conditions upon completion of such investigations and tests.
- D. The lands upon which the Work is to be performed, rights-of-way for access thereto and other lands designated for use by the Contractor in performing the Work are identified in Section 01 11 00 Summary of Work or on the plans.
- E. The locations of utilities as shown on the Plans are taken from sources believed to be reliable. Neither the Owner nor the Engineer will be responsible for any omissions of, or variations from, the indicated location of existing utilities which may be encountered in the Work.
 - 1. The submission of a Bid will constitute an incontrovertible representation by the Bidder that the Bidder has complied with every requirement of this Article, that without exception the Bid is based upon performing and furnishing the Work required by the Contract Documents and applying the specific means, methods, techniques, sequences or procedures of construction (if any) that may be shown, indicated or required by the Contract Documents, that Bidder has given the Engineer written notice of all conflicts, errors, ambiguities and

discrepancies that Bidder has discovered in Contract Documents and the resolution by the Engineer is acceptable to Bidder, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performing and furnishing the Work, and that the time stated in the Proposal is sufficient to complete the project.

1.04 PRE-BID CONFERENCE

- A. An in-person, non-mandatory pre-bid conference will be held, and representatives of the Owner and the Engineer will be present to discuss the Project.
- B. Bidders are not required to attend and participate in the conference to be considered responsive.
- C. Engineer will transmit to prospective Bidders a record of such Addenda as the Engineer considers necessary in response to questions arising at the meeting. Oral statements made during the meeting may not be relied upon and will not be binding or legally effective.

1.05 INTERPRETATIONS AND ADDENDA

- A. Should any prospective bidder find discrepancies in, or omissions from the Plans, Specifications or other parts of the Contract Documents, the prospective bidder may submit a written request to the Engineer for an interpretation thereof. The person submitting the request will be held responsible for its prompt delivery at least seven (7) days prior to the date for opening of Bids. Questions received less than seven (7) days prior to the date for opening of bids will not be answered. Any interpretation of inquiry will be made by Addendum duly issued to all prospective bidders.
- B. Any change in or addition to the Contract Documents deemed necessary by the Owner must be made in the form of an Addendum issued to all prospective bidders who have taken out Contract Documents and all such Addenda will become a part of the Contract Documents as though same were incorporated into same originally. Oral explanations and information do not constitute official notification and are not binding.

1.06 BID SECURITY

- A. Bid Security must be made payable to the Owner, in an amount of 5 percent of the Bidder's maximum Bid price and in a form as indicated in Section 00 11 13 Advertisement for Bids. Bid Bonds, if indicated as acceptable in Section 00 11 13, will be issued on the form included in the Contract Documents by a Surety meeting the requirements of paragraph 5.01 of Section 00 72 00 General Conditions.
- B. Bid Security of the Successful Bidder will be retained until such Bidder has executed Section 00 52 00 Agreement and furnished the required Contract Security, whereupon it will be returned; if the Successful Bidder fails to execute and deliver the Agreement and furnish the required Contract Security within 15 days of the Notice of Award, the Owner may annul the Notice of Award and the Bid Security of that Bidder will be forfeited.
- C. 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 earliest of the seventh day after the "Effective Date of Agreement" (which term is defined in the General Conditions) or the expiration of the hold period on the Bids. Bid Security of other Bidders will be returned within 14 days of the Bid opening, unless indicated otherwise in the Advertisement.

1.07 CONTRACT TIME

A. The number of days within which, or the date by which, the Work is to be Substantially Completed, if applicable, and also completed and ready for final payment (the Contract Time) are set forth in the Agreement.

1.08 SUBSTITUTE AND "OR-EQUAL" ITEMS

- A. The Contract, if awarded, will be on the basis of materials and equipment described in the Plans or specified in the Specifications without consideration of possible substitute or "orequal" items.
- B. Whenever it is indicated in the Plans or specified in the Specifications that a substitute or an "or-equal" item of material or equipment may be furnished or used by the Contractor if acceptable to the Engineer, application for such acceptance will not be considered by the Engineer until after the effective date of the Agreement.
- C. In addition, in no case will the Engineer's denial of the Contractor's application give rise to any claim for additional cost, it being understood by the Contractor that acceptance of substitute or an "or equal" item of material is at the sole discretion of the Engineer.

1.09 RECEIPT AND FORM OF BID

- A. Bids must be submitted at the time and place indicated in the Advertisement for Bids and must be accompanied by the Bid Security and other required documents.
 - 1. Bids must be submitted electronically as specified herein.
- B. Bids received after the scheduled time and place indicated in the Advertisement for Bids will be returned unopened.
- C. Owner invites bids on the Proposal and any other form(s) attached thereto.
- D. The complete set of Contract Documents must be used in preparing Bids; neither the Owner nor the Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Contract Documents.
- E. Bidder must acknowledge of receipt of Addenda as provided for in the electronic bidding platform. Failure to acknowledge Addenda will be cause for rejection of bid.
- F. The Legal Status of Bidder Form, located in Section 00 43 45 Legal Status of Bidder, must be submitted with each Bid and must clearly state the legal position of a Bidder. In the case of a corporation, the home address, name and title of all officers must be given. In the case of a partnership, show names and home addresses of all partners. If an individual, so state. Any individual bid not signed by the individual must have attached, thereto, a power of attorney evidencing authority to sign.
- G. Other documents to be attached to the Proposal and made a condition thereof are identified in the Proposal.
- H. A tabulation of the amounts of the base bids and any alternates will be made available after the opening of Bids.
- I. To obtain Contract Documents and submit a Bid:

- 1. Must proceed to the QuestCDN website at www.questcdn.com.
- 2. Select the project as listed in the Advertisement from the list of projects. Prospective Bidders must register for a free membership on QuestCDN and download the Contract Documents in digital form under "Download Bid Documents." There is a non-refundable fee(s) as stated in the Advertisement to download the documents and bid the project.
- Prospective Bidders will be asked to sign into their account or create a free QuestCDN account by clicking the "Join" link. Contact QuestCDN at (952) 233-1632 or info@questcdn.com for assistance regarding membership registration, downloading the project, and vBid online bid submittal.
- 4. The QuestCDN Project Number fo this project is listed in the Advertisement.
- 5. To access the Bid Form, click the online bidding button at the top of bid advertisement. The online bid button will be available when the project is published and open for bidding.
- Addenda will be issued through the QuestCDN electronic bidding site. Prospective
 Bidders must download the bid documents to become a plan holder and receive
 addenda notices. It is the sole responsibility of the Bidder to obtain and review all
 addenda.
- 7. The Contractor shall submit a Certificate of Insurance with his Bid showing the current insurers and limits of liability being carried. In instances where the current insurer or limits of liability do not meet the Owner's requirements but can be revised if the Bidder is awarded the Contract, this must be so stated in a separate letter attached to the Certificate of Insurance. It shall be further stated that a revised Certificate of Insurance meeting all of the Owner's requirements shall be provided within five (5) days of award of this Bid to the Bidder.
- The Bidder shall execute the Non-Collusion Affidavit as contained in these Specifications.
 This form must be completed and signed prior to the Bidder submitting his Proposal to the Owner.
- 9. The Bidder certifies the price bid in this Proposal is correct and complete as intended by the Bidder for Work covered by this Proposal, further, that all information given in or furnished with this Proposal, is correct, complete and submitted as intended by the Bidder, and the Bidder does hereby waive any right or claim he may now have or which may hereafter accrue to him, by reason of errors, mistakes, or omissions made by the Bidder in this Proposal, to refuse to execute the Contract if awarded to him, or to demand the return of the Bid deposit or to be relieved from any of his obligations as set forth in said Bid deposit required with this Proposal.
- 10. The Bidder certifies that no officer or employee of the City of Taylor is personally or financially interested, directly or indirectly, in this Proposal, or in any Contract which may be made under it, or in the purchase or sale of any materials or supplies for the Work to which it relates, or any portion of any expected profits thereto.
- 11. The Bidder certifies that, as of the date of this Proposal, he is not in arrears to the City of Taylor for debt or Contract.

1.10 MODIFICATIONS 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.
- B. If, within 24 hours after Bids are opened, any Bidder files a duly signed written notice with the Owner and promptly thereafter demonstrates to the reasonable satisfaction of the Owner that there was a material and substantial mistake in the preparation of their Bid, that Bidder may withdraw their Bid and the Bid Security will be returned.
 - 1. Thereafter, at the sole option of the Owner, that Bidder will be disqualified from further Bidding on the Work to be provided under the Contract Documents.
- C. When one or more of the bidders is based in the City of Taylor, then the City will give an additional consideration to all Taylor-based firms in determining the lowest Bidder. This additional consideration shall be as follows:

Amount of Bid	Percent Consideration
\$0 to \$30,000	3%
\$30,001 to \$100,000	2%
\$101,000 on up	1%

When the amount of the Bid minus the applicable consideration makes a Taylor-based firm the lowest responsive and responsible Bidder, the Contract will be awarded to such Taylor-based firm for the original Bid amount.

1.11 AWARD OF CONTRACT

- A. Owner reserves the right to reject any and all Bids for any reason, to waive any and all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, non-responsive, unbalanced, or conditional Bids.
- B. Discrepancies between words and figures will be resolved in favor of words. Discrepancies in the multiplication of units of work and unit prices, will be resolved in favor of unit price.
- C. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.
- D. In evaluating Bids, the Owner will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data if requested in the Bid forms. It is the Owner's intent to accept alternates (if any are accepted) in the order in which they are listed in the Bid form but the Owner may accept them in any order or combination.
- E. Subject to the approval of the Owner, the Contract will be awarded to the lowest responsive and responsible Bidder. Responsibility of Bidder will be determined on basis of past performance and Work of similar character, equipment and labor available to do the Work and financial status. The lowest responsive and responsible Bidder will be determined based upon the total of the Base Bid and any selected Alternates.

- F. The Contract will be considered to have been awarded after the approval of the Owner has been duly obtained and a formal Notice of Award duly served on the Successful Bidder by the Owner.
- G. If the Contract is to be awarded, the Owner will give the Successful Bidder a Notice of Award within 90 days after the day of the Bid opening, unless such other time is specified in the Advertisement for Bids.
- H. The Contract will not be binding upon the Owner until the Agreement has been duly executed by the Bidder and the duly authorized officials of the Owner.

1.12 SIGNING OF AGREEMENT

- A. Within fifteen (15) days after the Owner gives a Notice of Award to the Successful Bidder, the Contractor must sign and deliver the specified number of counterparts of the Agreement to the Owner with all other Contract Documents attached.
- B. Within ten (10) thereafter, the Owner will deliver two (2) fully signed counterparts to the Contractor. Engineer will identify, date or correct those portions of the Contract Documents not fully signed, dated or executed by the Owner and the Contractor and such identification, dating or correction will be binding on all parties.

1.13 STARTING WORK

A. The Bidder declares that if awarded the Contract, he is prepared to and will start the Work and complete the entire Project in accordance with the provisions set forth in the Contract Documents.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 00 42 43 PROPOSAL

Owner: City of Taylor Project: Lakes of Taylor Bridge Rehabilitation Project Location: Lakes of Taylor Golf Course **BIDDER INFORMATION** Bidder Name: By (Printed Name): Address: _____ Phone No: Bidder proposes and agrees, if their Bid is accepted, to enter into an Agreement with the City of Taylor in the form included in the Contract Documents to complete all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in the Agreement, and in accordance with the Contract Documents. In submitting their Bid, Bidder represents, as more fully set forth in the Agreement, that: Bidder has examined copies of Contract Documents, (consisting of Project Manual dated 05-16-2025) which Bidder understands and accepts as sufficient for the purpose, including any and all Addenda officially issued, the receipt of which has been acknowledged. A. Addendum _____ Date: _____ B. Addendum _____ Acknowledged by: ______Date: _____

Bidder has examined the surface and subsurface conditions where the Work is to be performed, the legal requirements and local conditions affecting cost, progress, furnishing or performance of the Work, and has made such independent investigations as Bidder deems necessary.

C. Addendum _____ Date: _____

Bidder, by submitting a Bid, agrees that their Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any Agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or a corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for himself any advantage over any other Bidder or over the Owner.

Bidder agrees to complete the Work, in accordance with the Contract Documents, for the following Contract Price:

Item	Description	Quantity	Unit	Unit Price	Amount
1	Bridge #1	1	LS	\$	\$
2	Bridge #2	1	LS	\$	\$
3	Bridge #3	1	LS	\$	\$
4	Bridge #4	1	LS	\$	\$
5	Bridge #5	1	LS	\$	\$
6	Bridge #6	1	LS	\$	\$
7	Bridge #7	1	LS	\$	\$

Total Base Contract Price (Items 1 through 7) \$ _____

Item	Description	Quantity	Unit	Unit Price	Amount
8	Bridge #1 Alternative	1	LS	\$	\$
9	Bridge #2 Alternative	1	LS	\$	\$
10	Bridge #3 Alternative	1	LS	\$	\$
11	Bridge #4 Alternative	1	LS	\$	\$
12	Bridge #5 Alternative	1	LS	\$	\$
13	Bridge #6 Alternative	1	LS	\$	\$
14	Bridge #7 Alternative	1	LS	\$	\$

Total Alternative Contract Price (Items 8 through 14) \$

Bidder, by submitting a Bid, thereby certifies that Bidder or a qualified designated person in Bidder's employ has examined the Contract Documents provided by the Owner for bidding purposes. Further, they certify that Bidder or Bidder's qualified employee has reviewed the Bidder's proposed construction methods and finds them compatible with the conditions which Bidder anticipates from the information provided for Bidding.

Bidder, by submitting a Bid, agrees to complete the Work under any job circumstances or field conditions present and/or ascertainable prior to bidding. In addition, Bidder agrees to complete the Work under whatever conditions Bidder may create by Bidder's own sequence of construction, construction methods, or other conditions he may create, at no additional cost to the Owner.

Bidder, by submitting a Bid, declares that Bidder has familiarized them self with the location of the proposed Work and the conditions under which it must be constructed. Also, Bidder has carefully examined the Plans, the Specifications, and the Contract Documents, which Bidder understands and accepts as sufficient for the purpose, and agrees that Bidder will Contract with the Owner to furnish all labor, material, tools, and equipment necessary to do all Work specified and prescribed for the completion of the Project.

Bidder will provide a bid bond, in the amount of at least **five (5)** percent of the amount Bid, drawn payable to City of Taylor as security for the proper execution of the Agreement.

Bidder, by submitting a Bid, agrees that if awarded Contract, to sign the Agreement and submit satisfactory bonds and certificates of insurance coverage and other evidence of insurance required by the Contract Documents within 15 days after the date of Owner's Notice of Award.

Bidder, by submitting a Bid, agrees that time is of the essence and, if awarded Contract, that the Work will be Completed on or before the dates/days as specified in the Agreement.

Liquidated damages, as specified in the General Conditions, Supplementary Conditions and Agreement, will also apply to the Substantial Completion date.

Engineering and inspection costs incurred after the final completion date will be paid by the Contractor to the Owner as specified in the Conditions of the Contract and Agreement.

Proposals may not be withdrawn for a period of 90 days after bid opening.

The following documents are made a condition of this Proposal:

- A. Required Bid Security
- B. Legal Status of Bidder
- C. Non-Collusion Affidavit
- D. Statement of Qualifications
- E. Current Certificate of Insurance

SECTION 00 43 13 BID BOND FORM

KNOW ALL BY THESE PRESENT hereinafter called the Principal, a community, and duly Owner, hereinafter called Owner, i (\$) for the pathe said Surety, bind ourselves, our severally, firmly by these presents.	corporation duly org y authorized to trar , hereinafter can the sum of yment of which su Ir heirs, executors,	ganized under the laws nsact business in the st alled the Surety, are hel m well and truly to be n	of the State of ate of Michigan, as Surety, d and firmly bound unto the Dollars nade, the said Principal and
WHEREAS, the Principal has subr	nitted a Bid for Lal	kes of Taylor Bridge Re	habilitation.
NOW, THEREFORE, if the Owner Contract with the Owner in accordable specified in the Contract Document of Contract and for the prompt of the event of the failure of the Principal pays to the Owner the diffusion of the Principal pays to the Owner the diffusion of the Principal pays to the Owner the diffusion of the Work covered remain in full force and effect.	ance with the term nents with good ar payment of labor a lipal to enter such ference not-to-exc er amount for whice	is of such Bid, and give and sufficient surety for the and material furnished in Contract and give such seed the penalty hereof the Owner may in go	such Bond or Bonds as may ne faithful performance of the prosecution thereof, or in Bond or Bonds, if the between the amount od faith contract with another
Signed and sealed this	day of	, 20	
(Witness)	(F	Principal)	
		Fitle)	
(Witness)	(S	Surety)	
	— Т)	 Γitle)	

SECTION 00 43 45 LEGAL STATUS OF BIDDER

(The Bidder should check the appropriate box and complete the information requested therein)

☐ A corporation, duly authorized and doing business under the whose signature is affixed to this Bid	e laws of the State of Michigan, for whom I, is duly authorized to execute contracts.
☐ A limited liability company, duly authorized and doing busine for whom, whose signature is affixed contracts.	
☐ A partnership, all partners with their addresses are:	
☐ An individual, whose signature is affixed to this Bid.	

SECTION 00 45 13 STATEMENT OF BIDDER'S QUALIFICATIONS

This P	Proposal is submitted in the name of:		
(Print))		
	undersigned hereby designates the following business communications may be served or mailed:	s address to which all notices, directions or	
Street:	t: Cit	y:	
State:	:Zip	Code:	
The ur	undersigned hereby declares their legal status as che	cked below:	
	Sole Proprietor		
	Sole Proprietor doing business under an assumed	name	
	Co-partnership		
The As	Assumed Name of the Co-Partnership is registered in	the County of	
	Corporation incorporated under the laws of the Sta	te of	
The Co	Corporation is:		
	authorized to conduct business in the State of		
	not now authorized to conduct business in the State of		
	possess all required licenses for the work being bid		
	limited liability corporation		
The na	name, titles, and home addresses of all persons who allows:	are officers or partners in the organization are	
Name:	e:	Fitle:	
Addres	ess:		
Name:	ə:	Title:	
Addres	9SS:		
Name:	e:	Title:	
Addres	ess:		
		Title:	
Addres	ess:		
Signed	ed this, 20_		
Ву:			
Printed	ed Name:		
Title:			

SECTION 00 45 19 NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of)	
) ss:	
County of)	
	, being first duly sworn, deposes and says that:
They are the of (Position Bidder that has submitted the attached Bid;	n) of (Firm), the
They are fully informed with respect to the preparation pertinent circumstances respecting such Bid;	n and contents of the attached Bid and of all
Such Bid is genuine and is not a collusive or sham bid	d;
or agreed, directly or indirectly, with any other Bid bid in connection with the Contract Documents for refrain from bidding in connection with the Contract indirectly, sought by agreement, collusion, commor person to fix the price or prices in the attached overhead, profit or cost element of the Bid price of through any collusion, conspiracy, connivance or Taylor, or any person or other entity interested in	iant, has in any way colluded, conspired, connived dder, entity or person to submit a collusive or sham or which the attached Bid has been submitted or to act Documents or has in any manner, directly or unication or conference with any other Bidder, entity Bid or that of any other Bidder or to fix any or the Bid price of any other Bidder or to secure unlawful agreement any advantage against City of the proposed Contract Documents; and
conspiracy, connivance or unlawful agreement or representatives, owners, employees or parties ha	
Name of Bidder:	
Signed By:	
Fitle:	
Subscribed and sworn to me this day of	
	Notary Public
	County, Michigan
	Acting in the County of:
Notary Seal	My Commission Expires:

SECTION 00 51 00 NOTICE OF AWARD

Attention:	Date:
Project: Lakes of Taylor Bridge Rehabilitation	
Pursuant to the provisions of Article 1.11 of the Instruction notified that the	(Owner) during a
Meeting held on,, the above referenced Project in the amount of	, 20 has directed the acceptance of your Bid for
This Project consists of: Rehabilitation of seven timbe Course as delineated in your Bid submitted to City of	
Please comply with the following conditions within 15, 20	days of the date of this Notice of Award; that is by
Deliver to Engineer () fully execu- 00) including all the Contract Documents.	ted counterparts of the Agreement (Section 00 52
Deliver with the executed Agreement the Contract Sec Documents, as specified in the General Condition	
Deliver with the executed Agreement the Insurance C specified in the General Conditions (Article 5, Sec	
Please do not date Agreement and Contract Security executed by them.	(Bonds), as these will be dated by the Owner when
It is important to comply with these conditions and tim within the time specified will entitle Owner to consider and to declare your Bid Security forfeited.	
Within 10 days after you comply with those conditions of the Agreement with the Contract Documents attach	
In accordance with paragraph 2.05 of the General Col Engineer the required schedules prior to the schedulir	
Owner:	
Authorized Signature:	

Copy to Wade Trim Associates, Inc.

SECTION 00 52 00 AGREEMENT

This Agreement, made and entered into this between City of Taylor hereinafter called Owner, Contractor, in consideration of the mutual covena	and	hereinafter called
Contractor will complete the Work as specifie generally described as follows:	ed or indicated in th	ne Contract Documents. The Work is
Rehabilitation of seven timber bridges the	roughout the Lakes	s of Taylor Golf Course
The Work will be substantially completed on or be payment in accordance with paragraph 14.11 of \$ 31-2026.		
Engineering and inspection costs incurred after the Contractor to the Owner prior to final payment au		ompletion date will be paid by the
Charges will be made at such times and in such a provided however said charges will be in acc time the costs are incurred.		
The costs of the Engineer incurred after the spec Contractor's progress payments.	ified final completion	on date will be deducted from the
Owner and Contractor recognize that time is of the suffer financial loss if the Work is not Substantially above, plus any extensions thereof allowed in accrecognize the delays, expense and difficulties invactual loss suffered by the Owner if the Work is not requiring any such proof, the Owner and the Contractor will pay the Owner after the time specified in paragraph 1.03.A above Substantially Complete.	ly Complete within coordance with Artic volved in proving in not Substantially Contractor agree that Six Hundred Dolla	the time specified in paragraph 1.03.A cle 12 of Section 00 72 00. They also a legal or arbitration proceeding the complete on time. Accordingly, instead at as liquidated damages for delay (but ars (\$600.00) for each day that expires
Liquidated damages charged will be deducted from	om the Contractor's	s progress payment.
Owner will pay Contractor as provided in the atta accordance with the Contract Documents.	ched Proposal for	performance of the Work in
Progress payments and retainage under this Cor 524 (MCLA 125.1561 et seq.). That Act is incorporated Contract. Without excluding any provisions of the and summarize certain provisions, the following was a summarized to the contract of the	orated herein by re Act from this Con	eference and made a part of this
Person representing the Contractor who will subr	mit written requests	s for progress payments will be:
Person representing the Owner to whom request	s for progress pay	ments are to be submitted will be:
Contractor's representative, listed above, will sub	mit Applications fc	Payment on the form provided in the

Contract Documents in accordance with Article 14 of Section 00 72 00. Applications for Payment will be processed as provided in Section 00 72 00.

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

- Contractor has considered the nature and extent of the Contract Documents, Work, locality, and all local conditions and federal, state and local laws, and regulations that may affect cost, progress, performance, or furnishing of the Work.
- Contractor has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which were relied upon in the preparation of the Plans and Specifications and which have been identified in the Supplementary Conditions (Section 00 73 00).
- Contractor has made or caused to be made examinations, investigations and tests and studies of such reports and related data in addition to those referred to above as the Contractor deems necessary for the performance of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, tests, reports or similar data are or will be required by the Contractor for such purposes.
- Contractor has correlated the results of such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.
- Contractor has given Engineer written notice of conflicts, errors or discrepancies that Engineer has discovered in the Contract documents and the written resolution thereof by Engineer is acceptable to the Contractor.

The Contract Documents which comprise the entire Contract between the Owner and the Contractor are attached to this Agreement, made a part hereof, and consists of the following:

Procurement Requirements (including the Advertisement for Bids, Instructions to Bidders, Proposal, Legal Status of Bidder, and other Documents listed in the Table of Contents thereof).

This Agreement

Performance and other Bonds

Notice of Award

Notice to Proceed (if issued)

Conditions of the Contract (including Section 00 72 00 - General Conditions and Section 00 73 00 - Supplementary Conditions, if any)

Specifications contained within Division 01 through 49 of the Project Manual

Addenda numbers _____ to ____, inclusive

Documentation submitted by the Contractor prior to Notice of Award

Any Modification, including Change Orders, duly delivered after execution of Agreement.

Terms used in this Agreement which are defined in Article 1 of Section 00 72 00 will have the meanings indicated in Section 00 72 00.

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

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

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

IN WITNESS WHEREOF, the parties hereto have signed this Agreement in three counterparts. One counterpart each has been delivered to Owner and Contractor, and one counterpart has been delivered to the Engineer. The Contract Documents have been signed or identified by Owner and Contractor.

This Agreement will be effective on, 20	<u>-</u>
Owner: City of Taylor	
Ву:	
Attest:	
Address for giving notices:	
Contractor:	
Ву:	
Authorized Signature:	
Attest:	
Address for giving notices:	
License No.	
Agent for service of process:	

SECTION 00 55 00 NOTICE TO PROCEED

To:		Date:	, 20
Attention:			
Project: Lakes of Taylor Bridge Rehabilitation			
Please note that the Contract Time under the 20 Within ten (10) days of this date you a Completion and Final Completion are set fort, respectively.	re to start performing the W	ork. The dates of	of Substantial
The following conditions must be met by Con	tractor:		
In accordance with Article 2.05 of Section 00 the required Schedules prior to the schedules			to the Engineer
In accordance with Article 2.05 of Section 00 Construction Meeting from the Engineer			
Notify the Engineer a minimum of three (3) fu Meeting.	ıll working days' notice to so	chedule a Pre-C	onstruction
Notify the Engineer three (3) full working days the Project.	s in advance of any staking	requirements or	other activity on
Work at the site must be started by	, 20		
Owner:			
Authorized Signature:			

COPY TO Wade Trim Associates, Inc.

SECTION 00 60 00 - PROJECT FORMS

PART 1 GENERAL

1.01 AVAILABLE FORMS

- A. The following Project Forms are available for use by Owner, Contractor and/or Engineer for this project and are located in Exhibit 1of the Contract Documents:
 - 1. Certificate of Substantial Completion
 - 2. Change Order
 - 3. Change Proposal
 - 4. Construction Change Requisition / Work Change Directive
 - 5. Field Order
 - 6. Non-Compliance Notice / Order to Remove Defective Work
 - 7. Open Items List
 - 8. Request for Final Inspection
 - 9. Request for Information
 - 10. Substitution Request Form
 - 11. Warranty Data Sheet

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION



CERTIFICATE OF SUBSTANTIAL COMPLETION

350.02

(Rev. 04/2020)

WT Project No.:	Project Name:				
Owner / Municipality:					
Owner Project No.:	Department:				
Project Location:					
Contractor:	Subo	contractor:			
Contract Date.:	Dat	e of Issuance:			
Project or Designated Po	rtion Shall include:				
Substantial Completion	of the Project or portion there	and found to be Substantially Complete. The date of of designated above is hereby established as the date of commencement of applicable warranties			
DEFINITION OF DATE C	F SUBSTANTIAL COMPLETION				
construction is sufficiently	complete, in accordance with the Cor	ortion thereof, is the date certified by ENGINEER when tract Documents, so OWNER can occupy or utilize the ended, as expressed in the Contract Documents.			
include any items on such	list does not alter the responsibility of C The date of commencement of warran	pared by ENGINEER, is attached hereto. The failure to CONTRACTOR to complete all Work in accordance with ties for items on the attached list will be the date of final			
The responsibilities of OV insurance shall be as follows:	·	v, maintenance, heat, utilities, damage to the Work and			
(Note - OWNER's and CONTRACTOR's legal and insurance counsel should determine and review insurance requirements and coverage; CONTRACTOR shall secure consent of surety company, if any.) OWNER shall have 45 days after receipt of this certificate during which he may make written objection to ENGINEER and CONTRACTOR as to any provisions of the certificate or attached list. Such objection may be cause for this Certificate of Substantial Completion to be null and void.					
Engineer's Signature	Print Name	 Date			



CHANGE ORDER NO.____

305.08 (Rev. 042020)

Prepared By:		Date of Issuance:		
WT Project No.:	Project	Name:		
Owner / Municipality:	,			
Owner Project No.:	Depar	tment:		
Project Location:	•			
Contractor:		Subcontractor:		
The Contract Document	s are modified as follows up	oon execution of this Change Order:		
Attachments: (List docu	ments supporting change):			
CHANGE IN CONTRACT PRICE CHANGE IN CONTRACT TIME				
Original Contract Price:		Original Contract Times: Working Days Calendar Days		
\$		Substantial Completion (date):		
		Ready for final payment (daté):		
from previous	usly approved Change	from previously approved Change		
Orders No. to No.	:	Orders No. to No. :		
\$		Substantial Completion (days): Ready for final payment (days):		
Contract Price prior to this	s Change Order:	Contract Times prior to this Change Order:		
\$		Substantial Completion (date): Ready for final payment (date):		
Ψ		ready for final payment (date).		
of this Char	nge Order:	of this Change Order:		
\$		Substantial Completion (days): Ready for final payment (days):		
Contract Price incorporating this Change Order:		Contract Times with all approved Change Orders:		
\$		Substantial Completion (date): Ready for final payment (date):		
Ψ		Ready for final payment (date).		
RECOMMENDED:	ACCEPTED:	ACCEPTED:		
By:	By:	By:		
By:	nature) Owner (Aut	thorized Signature) By: Contractor (Authorized Signature)		
Date:	Date:	Date:		



CHANGE PROPOSAL NO.____

305.01 (Rev. 04/2020)

Prepared By:			Date of Issuance:		
WT Project No.:	Project N	lame:			
Owner / Municipality:	•				
Owner Project No.:	Depart	ment:			
Project Location:	<u> </u>	'			
Contractor:		Subcontractor:			
This Change Proposal is submitted in accordance with Paragraph 10.06 of the General Conditions. If this Change Proposal is accepted, either in whole or in part, a Change Order will be issued to modify the Contract Documents accordingly. Detailed Description of Proposed Change:					
Attachments: (List docu	uments attached supporting	equested change)):		
CHANGE IN	CONTRACT PRICE	CHA	ANGE IN CONTRACT TIME		
	ested Proposal:		is requested Change Proposal:		
\$	·	Substantial (Completion (days): nal payment (days):		
Engineer's Decision on Change Proposal:					
ENGINEER:	OWNER:		CONTRACTOR:		
By:	gnature) By: Owner (Auth		By:		
Engineer (Authorized Sig	gnature) Owner (Auti	norized Signature)	Contractor (Authorized Signature)		
Date:	Date:		Date:		



CONSTRUCTION CHANGE REQUISITION WORK CHANGE DIRECTIVE

Prepared E	Ву:					Date: Page:	
WT Project			Project	Name:			·——· · · · ·
	unicipality:		110,000				
Owner Pro			Depai	tment:			
Project Lo							
Contracto				Subcon	tractor:		
Descriptio	n or Work:						
Reason:							
Item No.		Description		Unit	Quantity Increase (Decrease)	Unit Price	Amount Increase (Decrease)
1101		2000p.:.011		<u> </u>	(200,000)	Giner nec	(200,000)
_							
						Net Cost	
Request	for Contract ⁻	Time Extension:	Add		Days N	Not Applicable	
Contracto	or (Representa	ative)	Date		de Trim (Repres	sentative)	Date



CONSTRUCTION CHANGE REQUISITION WORK CHANGE DIRECTIVE

No. (continued)

			Date: _ Page: _	of
	orization: Approved Approved Approved Approved areasto do the work outlined a pasis of payment as indicated.	roved as Noted bove under the direc	• •	accept
Contract Time:	Add Time Extension of	_ Days	Not Applicable	
Accepted By:	Contractor (Rep	oresentative)		Date
Recommended By	: Wade Trim (Re	presentative)		Date
Approved By:	Owner (Repre	esentative)		Date



FIELD ORDER NO. _____

305.04 (Rev. 04/2020)

Page:	1	of	
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WT Project No.:				Project Na	ame:		
Owner / Municip	pality:						
Owner Project N	No.:		Department:		nent:		
Project Location	n:						
Contractor:					Subc	ontractor:	
Date:							
Prepared by:							
Subject / Descri	iption:						
Classification:	C	Clarification	or	Interpretati	ion of (Contract Dod	cuments
	N	Minor Change in Work (No Change in Contract Price and/or Time)					
	N	/linor Change in Addition to Work (Requires Change in Contract Price and/or Time)					

Reason:



NON-COMPLIANCE NOTICE / ORDER TO REMOVE DEFECTIVE WORK NO.____

330.06 (Rev. 01/2018)

Job No.:			Date) :
Project:			Time	»:
Attention:				
You are hereby notified that:				
does not conform to the Contract	Requirements. The Specification	on violated in Section	,Article	<u> </u>
Drawing No Unc				·,
., .	y be required to be removed and	·		stil the defeative work has been
removed.	y be removed and replaced at n	o cost to the Owner. No	work shall continue un	ill the delective work has been
It shall be the Contractor's responshall be submitted to the Owner address the deficiency. If you refu with sufficient documentation that the Notice as possible, but no late	and his authorized representati ute the initial findings, it is your r at your position can be evaluate	ve for their review and of esponsibility to make yo d. All actions described	concurrence that said on the concurrence that said on the concurrence that said on the concurrence that said of the concurrence that	corrective action will adequately ne Owner and his representative
			Resident Project Repre	sentative (Signature)
	Non-Compliance I	Notice Received By Co		
		, , ,		
Received On: Date		Ву:	(Signati	ure)
		Title:		
Corrective action to be taken by C	Contractor:			
	<u></u>	Ву:	(Signatı	ure)
Date			(Oignati	
	Owner's	s Acknowlegeme	nt	
Accepted	Accepted as Noted	Unad	cceptable	Pricing
		Ву:		
Date		·	(Signatu	ure)



OPEN ITEMS LIST

350.01

(Rev. 01/2019)

					Construction Start Date:
WT Pro	ject No.:		Project	Name:	
Owner /	/ Municipality:				
Owner	Project No.:		Departn	nent:	
Project	Location:				
Contrac	ctor:				Subcontractor:
Item No.		Description of Item	Initials	Date	te Actions to be Taken to Close Initials Date

Close out of all items verified by Field Engineer:	Signature:	Date:	
	_		

Comments:

- 1) This Open Items List is to be immediately inserted in the Inspection folder for each assignment by the assigned Inspector or the assigned Field Engineer.
- 2) Anyone can make entries on this list, but each entry must be initialed and dated. Items(s) entered must be reported to the assigned Field Engineer immediately.
- 3) Action to be taken should be confirmed with the assigned Field Engineer.
- 4) Verification for completion can be initialed and dated by the assigned Inspector but must also be verified by the assigned Field Engineer.
- 5) This form is not contractrual to contract completion.



REQUEST FOR FINAL INSPECTION

350.06 (Rev. 04/2020)

WT Project No.:	P	roject Name:		
Owner / Municipality:	1-			
Owner Project No.:		Department:		
Project Location:				
Contractor:		Subconti	ractor:	
	is hereby declared to be	e substantially comp		ntatives of CONTRACTOR and aat a project punch list should be
Develop Preliminar	y Punch List		Date:	
	er, Contractor and Engir 2 weeks to prepare the			
Complete Prelimina	ary Punch List Items		Date:	
Responsibility: Contr Contractor shall have	ractor e 2 weeks to complete t	he items on the pu	nch list.	
Develop Final Pund	ch List (if needed)		Date:	
	er, Contractor and Engir and final punch list will l		2 weeks by Engi	neer.
Complete Final Pur	nch List Items		Date:	
Responsibility: Contr Contractor shall have	ractor e 2 weeks to complete t	he items on the sec	cond and final pu	unch list.
Process Final Payn	nent		Date:	
	weeks to review and s nent upon satisfactory co			
This notice signed and	dated through mutual a	greement of CONT	RACTOR and E	ENGINEER will initiate the time
sequence for the approv	ed execution of finalizin	g		
Contract in		, Michigan, date	d	
COPY: OWNER		Date:		
		ENGINEER's	Representative	-
		Date:		
		CONTRACTO)R's Representa	tive

[Contractor to Insert logo here]

REQUEST FOR INFORMATION (RFI) NO. _

311-01 (Rev. 04/2020)

		Page: 1_ of
WT Project No.:	Project Name:	
Owner / Municipality:		
Owner Project No.:	Department:	
Project Location:	·	
Contractor:	Subcontractor:	
RFI Subject:		
Division:	Spec Section:	
Plan Sheet No(s).:	Dogwood Dogwood Date	
Date Received:	Requested Response Date	2 :
Returned to Contractor		
	ng Contract Price and/or Schedule?	
Contract Price Impact:	Contract Schedule Impact:	
Information Requested		
Attachments		



R	FI	N	10)_		
•			-	-		

Page: of

Response	
Response	
Attachments	
Response by:	Date:

THIS REPLY IS GIVEN WITH THE EXPRESSED UNDERSTANDING THAT IT DOES NOT CONSTITUTE BASIS FOR CHANGE IN PRICE OR TIME OF THE CONTRACT UNLESS OTHERWISE INDICATED.



SUBSTITUTION REQUEST FORM

310.06 (Rev. 04/2019)

WT Project No.:	Project Name:			
Owner / Municipality:				
Owner Project No.:	Department:			
Project Location:				
Contractor:	Subo	ontractor:		
Specification Section:		Article No.:		
Specified Product:				
Proposed Substitution:				
·	 xceed in any respect, proposed substi 	tution?	Yes	No
·	limensions shown on Plans?	idiloii.	Yes	No
	other trades more than original product	?	Yes	No
Does warranty differ from			Yes	No
Does substitution affect of	cost to OWNER?		Yes	No
Does substitution result in	n any license fee or royalty?		Yes	No
If you indicated "Yes" to a	any of the items above, attach thoroug	h explanation for	the following:	
2. Summarize ex	ifferences between proposed substitut operience with product and manufactuate technical data and literature.			
	that the function, appearance, and q tem, and that all information above an			on is equivalent or
Submitted by:	Date	Date Submitted:		
Company:				
Address:				
Telephone:	Ema	l:		
Signature:				
		_		

ACTION STATUS					
ENGINEER'S REVIEW	RESPONSE REQUIRED OF CONTRACTOR				
 Approved (A) Approved as Noted (AN) Revise and Resubmit (RR) Not Approved - See Remarks (NA) 	None Confirm Resubmit				

Engineer's review is for general conformance with the design concept and contract documents. Markings or comments should not be construed as relieving the contractor from compliance with the project requirements, nor departures therefrom. The contractor remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes, for techniques of assembly, and for performing his work in a safe manner.

WADE TRIM

By:	Date:



WARRANTY DATA SHEET

350.07 (Rev. 04/2020)

			Date: _	
			Page: _	of
WT Project No.:	Project	Name:		
Owner / Municipality:				
Owner Project No.:	Departn	nent:		
Project Location:		1		
Contractor:		Subcontracto		
Contractor Address:		Phon	e:	
Project Description:				
Supplier/Vendor: Address:		Phone:		
Manufacturer:		Serial No.		
		_ Asset / Part Nan	ne:	
Location:		Owner ID No.:		
Warranty Provider:				
Warranty Type (labor, parts, pa	arts and labor, etc.)	<u></u>		
Warranty Description:				
Warranty Class/Limitations:	Limited	1 year	2 year	
		,	<u> </u>	
	Other:			
		Initial	Reading:	
Warranty Expiration Date:		Maximum	Reading:	
Exclusions:				
Comments:				

Attachment: Copy of Warranty

SECTION 00 61 12.13 LABOR AND MATERIAL PAYMENT BOND FORM

Bond No	
under the laws of the State of, and duly authorize hereinafter called the "Principal," andexisting under the laws of the State ofState of Michigan, as Surety, hereinafter called "	, a corporation organized and, and duly authorized to transact business in the
sum ofDo United States of America, to be paid to the said 0	llars (\$) lawful money of the Obligee, to which payment well and truly to be made, we ors, successors and assigns, jointly and severally, firmly
	ch that, WHEREAS, the above Principal has entered into f, 20, for
Herein referred to and made a part hereof as full written herein, and	y and to the same extent as if the same were entirely

WHEREAS, it was one of the conditions of the award of the said Obligee, pursuant to which said contract

was entered into, that these presents should be executed.

AND WHEREAS, this Bond is given in compliance with and subject to the provisions of Act No. 213 of the Public Acts of Michigan for the year 1963, as amended, including all notices, time limitation provisions and other requirements set forth therein, which are incorporated herein by reference.

AND THE SAID SURETY, for value received, hereby stipulates and agrees that no change, extension of time, or any other forbearance, alteration or addition to the terms of the contract or to the Work to be performed thereunder or the Contract Documents accompanying the same will in anywise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, or any other forbearance, alteration or addition to the terms of the contract or to the Work or to the Contract Documents.

NOW, THEREFORE, the condition of this obligation is such that if all claimants as defined in Act No. 213 of the Public Acts of Michigan for the year 1963, as amended, are timely paid for all labor and material used or reasonably required for use in the performance of the contract, then this obligation will be void; otherwise, it will remain in full force and effect.

TAY 3276-02T Lakes of Taylor Bridge Rehabilitation

Signed and sealed this day of, 20		
Signed, sealed and delivered in the presence of:		
Witness for Contractor:		
	(Principal)	
	(Title)	
By:		
Witness for Surety:		
	(Surety)	
	(Title)	
By:		
	(Attorney-in-Fact)	Seal
Address of Surety:		
Telephone:		

SECTION 00 61 13.13 PERFORMANCE BOND FORM

Bond No	
under the laws of the State of, and duly authorize hereinafter called the "Principal," and existing under the laws of the State of State of Michigan, as Surety, hereinafter called ", as Ob	, a corporation organized and, and duly authorized to transact business in the Surety", are held and firmly bound unto bligee, and hereinafter called "Obligee," in the just and full
sum of De	ollars (\$) lawful money of the Obligee, to which payment well and truly to be made, we
	ors, successors and assigns, jointly and severally, firmly
	ich that, WHEREAS, the above Principal has entered into f, 20, for
Herein referred to and made a part hereof as full written herein, and	y and to the same extent as if the same were entirely
WHEREAS, it was one of the conditions of the a was entered into, that these presents should be	ward of the said Obligee, pursuant to which said contract executed.
time, or any other forbearance, alteration or additional performed thereunder or the Contract Document obligations on this bond, and it does hereby wait	ereby stipulates and agrees that no change, extension of ition to the terms of the contract or to the work to be a accompanying the same will in anywise affect its we notice of any such change, extension of time, or any erms of the contract or to the Work or to the Contract

NOW, THEREFORE, if the above Principal will in all respects comply with the terms and conditions of said contract, and their obligations thereunder, including the Contract Documents therein referred to and made a part thereof, and such alteration as may be made in such contract or Contract Documents, as herein or therein provided for, then this obligation will be void; otherwise, this bond and obligation will be and remain in full force and effect.

Documents.

TAY 3276-02T Lakes of Taylor Bridge Rehabilitation

Signed and sealed this day of,	20	
Signed, sealed and delivered in the presence of:		
Witness for Contractor:		
	(Principal)	
	(Title)	
By:		
Witness for Surety:		
	(Surety)	
By:		
	(Attorney-in-Fact)	Seal
Address of Surety:		
Telephone:		

SECTION 00 61 19.13 MAINTENANCE AND GUARANTEE BOND FORM

Bond No
KNOW ALL BY THESE PRESENT, That we,, a corporation organized and existin under the laws of the State of, and duly authorized to transact business in the State of Michigan, hereinafter called the "Principal," and, a corporation organized and existing under the laws of the State of, and duly authorized to transact business in the State of Michigan, as Surety, hereinafter called "Surety", are held and firmly bound unto as Obligee, and hereinafter called "Obligee" in
, as Obligee, and hereinafter called "Obligee," in the just and full sum of Dollars (\$) lawful money of the United States of America, to be paid to the said Obligee, to which payment well and truly to be made, we bind ourselves, our heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.
THE CONDITIONS OF THIS OBLIGATION is such that, WHEREAS, the above Principal has entered in a contract with the said Obligee, dated the day of, 20, for
Herein referred to and made part hereof as fully and to the same extent as if the same were entirely written herein, and
NOW THEREFORE, the condition of this obligation is that under the Contract Documents, Contractor has agreed with Owner that for a period of one (1) year from the date of payment of the Final Estimate, Contractor will keep in good order and repair any defect in the Work, either by Contractor or its Subcontractors that may develop or be discovered during said one (1) year period due to improper materials, defective equipment, workmanship, or arrangements and any other work affected in making good such imperfections. Contractor also agreed to promptly make such repairs as directed by Owner for replacement of the Work, without cost to Owner, except for such parts of the Work as may have been disturbed without the consent of Contractor after the final acceptance of the Work, whenever directed so to do by notice from Owner. If Contractor fails to make such repair within one (1) week from the date of receipt of such notice, then Owner will have the right to purchase such materials and employ such labor and equipment as may be necessary for the purpose and to undertake, to and make such repairs and charge the cost thereof to Contractor and receive payment for the same promptly from the Contractor or Surety.
If any repair is necessary to be immediately made to protect persons or property then, and in such event Owner may, but will not be required to, take immediate steps to repair such defects without notice to Contractor. In such event, Owner will not be required to obtain the lowest bid for the performance of the Work or any part thereof, and all sums actually paid therefore will be charged to the Contractor or Surety In this regard, the judgment of Owner will be final and conclusive. Contractor will, for a period of one (1) year from the date of payment of the Final Estimate, keep the Work in good order and repair, except for such parts of the Work which may have been disturbed without the consent of Contractor after the final acceptance of the Work. Contractor will further, whenever notice is given as hereinbefore specified, promptly proceed to make the repair as in said notice directed or reimburse Owner for any cost incurred by Owner in making such repairs.
If Contractor or Surety fail to do as hereinbefore specified, they will jointly and severally indemnity, defend, and hold harmless Owner from and against all and any losses, costs, suits, and actions for damages of every kind and description brought or claimed against Owner for or on account of any injury or damage to persons or property received or sustained by any party or parties by or from any of the act of omissions or through the negligence of Contractor, its Subcontractors, Suppliers, servants, agents, or employees in connection with the Work and then from any and all claims arising under the Workmen's Compensation Act of the State of Michigan.
IN WITNESS WHEREOF, the parties hereto have caused this Maintenance and Guarantee Bond to be executed by their respective authorized officers this, 20

TAY 3276-02T Lakes of Taylor Bridge Rehabilitation

Signed, sealed and delivered in the presence of:		
Witness for Contractor:		
	(Principal)	
	(Title)	
By:		
Witness for Surety:		
	(Surety)	
	(—————————————————————————————————————	
By:		
	(Attorney-in-Fact)	Seal
Address of Surety:		
Telephone:		

SECTION 00 62 75 ENGINEER'S CERTIFICATE FOR PAYMENT

Job Number:	Certificate Number: .	Date:
Owner:		Contractor:
Project:		
Contract Date:		
Substantial Completion:		Extended To:
Final Completion:		Extended To:
***********	***********	*****************************
Original Contract Price:		Total Earned To Date:
Adjustments to Quantities: _		Retention:
Extras:		Deductions:
Total Change Orders:		Total Withheld:
Amended Contract Price:		Total Net Due:
Less Total Net Due:		Less Previous Certificates:
Balance on Contract:		Balance Due This Certificate:
************	*********	****************
E	NGINEER'S CERTIFICA	TE FOR PAYMENT
Engineer to the best of Engineer in the Contract Documents certain	er's knowledge, information tifies to the Owner that: (1 In accordance with the Co	ne data comprising the above application, the on, and belief and subject to the limitations stated) Work has progressed to the point indicated, (2) ntract Documents, and (3) Contractor is entitled
Certified Bv:		Date:

SECTION 00 62 76 CONTRACTOR'S APPLICATION FOR PAYMENT

Job Number:	Application No:	Date:		
Owner: Contractor:				
Project:				
Contract Date:				
Period of this Application:	to	o		
***********	***********	****************		
Total Earned To Date:	Less T	otal Earned to Due:		
Previous Certificate:	Total Ea	arned this Application:		
	CONTRACTOR'S CERTIFIC	CATION		
the Work covered by this App Documents, that all amounts	olication for Payment has been cor have been paid by Contractor for	ctor's knowledge, information, and belief in pleted in accordance with the Contract Work for which previous Certificates for that current payment shows herein is now		
By:	Title:			
	CONTRACTOR'S DECLAR	RATION		
furnished any material, susta encountered or created, or or compensation from the Owne items set forth in the Contract Change Orders for Work issu	ined any loss, damage, or delay for therwise done anything for which I er or its agents, and the Engineer of the tas dated above executed between the dead above in writing as prove	nis Application, performed any work, or any reason, including soil conditions will ask, demand, sue for, or claim or its agents, in addition to the regular en myself and the Owner and in the vided thereunder, except as I hereby make set forth on the itemized statement		
Rv:	Title.			

SECTION 00 65 20 SWORN STATEMENT

State of Michigan	
County of}	
being duly sworn, deposes and says:	
That	is the (Contractor) (Subcontractor)
for an improvement to the following described real property situated in	
County, Michigan	

That the following is a statement of each Subcontractor and Supplier and laborer, for which the payment of wages or fringe benefits and withholdings is due but unpaid, with whom the (Contractor) (Subcontractor) has (contracted) (subcontracted) for performance under the contract with the Owner or lessee thereof, and that the amounts due to the persons as of the date hereof are correctly and fully set forth opposite their names, as follows:

Name of Subcontractor/ Supplier/ Laborer	Type of Improvement Furnished	Total Contract Price	Amount Already Paid	Balance to Complete (optional)	Amount of Laborer Wages Due but Unpaid	Amount of Laborer Fringe Benefits and Withholdings Due But Unpaid
	TOTALS:					

(Some columns are not applicable to all persons listed)

Contractor has not procured material from, or subcontracted with, any person other than those set forth on the reverse side and owes no money for the improvement other than the sums set forth on the reverse side.

Deponent further says that they make the foregoing statement as the (Contractor) (Subcontractor) or as _____ of the (Contractor) (Subcontractor) for the purpose of representing to the Owner or lessee of the described on the reverse side premises and their agents that the property described on the reverse side is free from claims of construction liens, or the possibility of construction liens, except as specifically set forth on the reverse side and except for claims of construction liens by laborers which may be provided pursuant to Section 109 of the Construction Lien Act, Act No. 497 of the Public Acts of 1980, as amended, being section 570.1109 of the Michigan Compiled Laws.

Warning to Owner: Owner or Lessee of the property described herein may not relay on this Sworn Statement to avoid claim of a Subcontractor, supplier or laborer who has provided a Notice of Furnishing pursuant to Section 109 of the Construction Lien Act to the Designee or to the Owner or Lessee if the Designee is not named or has died.

Warning to Deponent: A person, who with intent to defraud, gives a false Sworn Statement, is subject to criminal penalties as provided in Section 110 of the Construction Lien Act, Act No. 497 of the PUblic Acts of 1980, as amended, being Section 570.1110 of the Michigan Complied Laws.

day of	, 20	
Notary Public:		
	County, Michigan	
My Commission Expires:		
•		

INSTRUCTIONS

A Sworn Statement in the preceding form must be provided before any Contractor or Subcontractor can file a Complaint, Cross-Claim, or Counter-Claim to enforce a construction lien.

An Owner or lessee may withhold payment to a Contractor or Subcontractor who has not provided a Sworn Statement. Owner or lessee may withhold from a Contractor or Subcontractor who has provided a Sworn Statement the amount sufficient to pay all sums shown on the statement as owing Subcontractors, Suppliers, and laborers, or the amount shown to be due to lien claimants who have provided Notices of Furnishing pursuant to the Construction Lien Act of 1980.

Owner or lessee may rely on a Sworn Statement to avoid a lien claim unless the lien claimant has provided the Owner or lessee with a Notice of Furnishing pursuant to the Construction Lien Act of 1980.

If the contract provides for payments by the Owner to the Contractor, if any, in the normal course of construction, but the Owner elects to pay lien claimants directly, the first time the Owner elects to make payment directly to a lien claimant they will provide at least 5 business days' notice to the Contractor of the intention to make direct payment. Subsequent direct disbursements to lien claimants need not be preceded by the 5-day notice provided in this section unless the Owner first returns to the practice of paying all sums to the Contractor.

SECTION 00 72 00 - GENERAL CONDITIONS

ARTICLE 1 DEFINITIONS

1.01 DEFINED TERMS

- A. Wherever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof:
 - 1. Addenda -- Written or graphic instruments issued prior to the opening of Bids which clarify, correct or change the Contract Documents.
 - Agreement -- The written Agreement between Owner and Contractor covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.
 - Application and Certificate for Payment -- The form included in the Contract Documents
 which is to be used by Contractor in requesting progress or final payment and which is to
 be accompanied by such supporting documentation as is required by the Contract
 Documents.
 - 4. Bid -- The offer or proposal of the bidder submitted on the prescribed form setting forth the price(s) for the Work to be performed.
 - 5. Bidding Requirements -- The Advertisement for Bids, Instructions to Bidders, Supplementary Instructions to Bidders, Proposal, Legal Status of Bidder, Bid Bond, and any other documents identified in the Proposal, to be submitted with the Bid.
 - 6. Bonds -- Bid, Performance and Payment bonds and other instruments of security.
 - 7. Change Order -- A written order to Contractor, reviewed by Engineer and signed by Owner, issued after execution of the Contract, authorizing a change in the Work or an adjustment in the Contract Price or the Contract Time. The Contract Price and Contract Time may be changed only by Change Order. A Change Order signed by Contractor indicates Contractor's agreement therewith, including that the Change Order constitutes a final adjustment in the Contract Price or Contract Time for all issues addressed or described in the Change Order.
 - 8. Change Proposal -- A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

9. Claims --

a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or

- seeking other relief with respect to the terms of the Contract.
- b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
- c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, arising after Engineer has issued a recommendation of final payment.
- d. A demand for money or services by a third party is not a Claim.
- 10. Constituents of Concern -- Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
- 11. Contract -- The entire and integrated written contract between Owner and Contractor concerning the Work.
- 12. Contract Documents -- Those items so designated in the Agreement, and which together comprise the Contract.
- 13. Contract Price -- The monies or other considerations payable by Owner to Contractor for completion of acceptable Work in accordance with the Contract Documents as stated in the Agreement.
- 14. Contract Time -- The number of days or the date stated in the Agreement:
 - a. to achieve Substantial Completion of all or any specified portions of the Work, and;
 - b. to complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment in accordance with paragraph 14.11.
- 15. Contractor -- The person, firm or corporation with whom Owner has entered into the Agreement.
- 16. Cost of the Work -- The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined in paragraph 12.01.
- 17. Day -- A calendar day of 24 hours measured from midnight to the next midnight.
- 18. Defective -- An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, in that it does not conform to the Contract Documents or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to Engineer's recommendation of final payment.
- 19. Drawings -- See Plans.
- 20. Effective Date of 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.
- 21. Electronic Document -- Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
- 22. Electronic Means -- Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow:
 - a. the transmission or communication of Electronic Documents:
 - b. the documentation of transmissions, including sending and receipt;
 - c. printing of the transmitted Electronic Document by the recipient;
 - d. the storage and archiving of the Electronic Document by sender and recipient; and
 - e. the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.
- 23. Engineer -- The person, firm, or corporation identified in the Supplementary Instructions to Bidders hired by Owner to prepare Plans and Specifications for the Project and to assist Owner in interpreting Plans and Specifications during the performance of the Work. Engineer's authority and responsibility are set forth in the Contract between Owner and Engineer. Contractor acknowledges and agrees that Engineer's obligations and duties under Engineer's contract with Owner are obligations and duties to Owner only, and Engineer has no independent obligation to Contractor of any kind, including but not limited to providing services, or to take any action or to refrain from taking action on behalf of Contractor or any Subcontractor, Sub-Subcontractor or Supplier.
- 24. Field Order -- A written order issued by Engineer which clarifies or interprets the Contract Documents or orders minor changes in the Work in accordance with paragraph 9.04 and paragraph 9.05 but which does not involve a change in the Contract Price or the Contract Time.
- 25. Hazardous Environmental Conditions -- The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
 - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
 - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
 - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
- 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.
- 27. Lump Sum -- Construction Work where Owner pays a single stipulate price (Lump Sum) for the entire scope of Work; plus or minus alternates and/or allowances. However, unit prices may be required for individual items of Work for the purposes of changes, additions, or deletions.
- 28. Milestone -- A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of the Work.
- 29. Notice of Award -- The written notice by Owner to the apparent successful Bidder stating that, upon compliance by the apparent successful Bidder with the conditions precedent enumerated therein, within the time specified, Owner will sign and deliver the Agreement.
- 30. Notice to Proceed -- A written notice given by Owner to Contractor (with a copy to Engineer) fixing the date on which the Contract Time will commence to run and on which Contractor will start to perform Contractor's obligation under the Contract Documents.
- 31. Owner -- The public body or authority, corporation, limited liability company, association, partnership, or individual with whom Contractor has entered into the Agreement and for whom the Work is to be provided and as identified in the Supplementary Instructions to Bidders.
- 32. Partial Utilization -- Use by Owner of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.
- 33. Plans -- The part of the Contract Documents which graphically show the extent, character and Scope of the Work to be furnished and performed by Contractor and which have been prepared or approved by Engineer or Owner; sometimes also referred to as Drawings.
- 34. Progress Schedule -- A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.
- 35. Project -- The total construction of which the Work to be provided under the Contract Documents may be the whole or a part as indicated elsewhere in the Contract Documents.
- 36. Project Manual -- The volume assembled for the Project which may include, among other parts, Procurement Requirements, Contracting Requirements and Specifications.
- 37. Proposal -- The offer or bid of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
- 38. Radioactive Material -- Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 as amended.
- 39. Resident Project Representative -- The authorized representative of Engineer who may be assigned to the Site or any part thereof.
- 40. 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.

- 41. Schedule of Submittals -- A schedule, prepared and maintained by Contractor, of required Submittals and the time requirements for Engineer's review of the Submittals.
- 42. 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.
- 43. Shop Drawings -- All drawings, diagrams, illustrations, schedules and other data or information required by the Contract Documents which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate material or equipment for some portion of the Work.
- 44. Site -- Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
- 45. Specifications -- That part of the Contract Documents which consist of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.
 - a. Project Specifications are those portions of the Contract Documents which have been prepared specifically for this Project and which are identified by the job number in the lower right-hand corner of each page.
 - b. Standard Specifications are Specification sections that are the same from Project to Project as of the revision date shown in the lower left-hand corner of the page.
- 46. Subcontractor -- An individual, firm or corporation having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
- 47. Submittal -- A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers' instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
- 48. Substantial Completion -- The Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer as evidenced by the Certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it was intended; or if no such certificate is issued, when the Work is complete and ready for final payment as evidenced by Engineer's written recommendation of final payment in accordance with paragraph 14.11. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

- 49. Supplementary Conditions -- The part of the Contract Documents which amends or supplements these General Conditions.
- 50. Supplementary Instructions to Bidders -- The part of the Contract Documents which amends or supplements the Instructions to Bidders.
- 51. Supplier -- A manufacturer, fabricator, supplier, distributor, material man, or vendor having a direct contract with Contractor, or with any Subcontractor, or with Owner, to furnish materials or equipment to be incorporated in the Work by Contractor or any Subcontractor.
- 52. Unit Price -- Construction Work where Owner pays a fixed sum (Unit Price) per each completed unit of Work. Units are listed on the Proposal Form.
- 53. Utilities Underground or above ground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any structures or encasements containing such facilities, which have been installed to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems, water or other liquids or chemicals.
- 54. Work -- The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents.
- 55. Work Change Directive -- A written directive to Contractor, issued on or after the Effective Date of the Agreement and signed by Owner and reviewed by Engineer, ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed as provided in paragraph 4.03 or to emergencies under paragraph 6.18. A Work Change Directive will not change the Contract Price or Contract Time but is evidence that the parties expect that the change directed 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 Time as provided in paragraph 10.01.

1.02 TERMINOLOGY

- A. The following words, terms, or phrases are not defined but, when used in the Contract Documents, have the following meaning:
 - 1. Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed," "as approved" or terms of like effect or import are used; or the adjectives "reasonable," "suitable," "acceptable," "proper" or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of Engineer as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate, in general, the completed Work for compliance with the technical 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 will not be effective to assign to Engineer any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to

- undertake responsibility contrary to the provisions of paragraph 9.10 or any other provision of the Contract Documents.
- 2. The word "furnish," when used in connection with services, materials, or equipment, will 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.
- 3. The word "install," when used in connection with services, materials, or equipment, will mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
- 4. The words "perform" or "provide," when used in connection with services, materials, or equipment, will mean to furnish and install said services, materials, or equipment complete and ready for intended use.
- 5. 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.
- B. 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 INSURANCE

A. When Contractor delivers the executed Agreement to Owner, Contractor will also deliver to Owner such Bonds and Insurance Certificates and other evidence of Insurance requested as Contractor may be required to furnish in accordance with Article 5. No Work at the site may begin or progress payments made to Contractor until all Bonds and Insurance Certificates in the form and substance required in Article 5 have been submitted and approved by Owner.

2.02 COPIES OF DOCUMENTS

A. Owner will furnish to Contractor up to five (5) copies of the Contract Documents (including at least one fully signed counterpart of the Agreement) as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

2.03 COMMENCEMENT OF CONTRACT TIME; NOTICE TO PROCEED

A. Time is of the essence in the performance of the Work. The Contract Time will commence to run on the 30th 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 Time commence to run later than the 30th day after the effective date of the Agreement. Time limits stated in the Contract Documents are of the essence of the Agreement.

2.04 STARTING THE PROJECT

A. Contractor will start to perform the Work within 10 days of when the Contract Time commences to run, but no Work will be done at the Site prior to the date on which the Contract Time commences to run. Contractor will notify Engineer at least 3 working days in advance of the

time Contractor intends to start Work.

2.05 PRECONSTRUCTION MEETING

- A. Within 10 days of the Effective Date of the Agreement and prior to the delivery of materials or the start of any construction, Contractor will request a Preconstruction Meeting from Engineer. A minimum of 3 full working days' notice will be required.
- B. Prior to the scheduling of the Preconstruction Meeting, Contractor will submit to Engineer for review:
 - 1. A preliminary Progress Schedule indicating the starting and completion dates of the various stages of the Work, including any Milestones specified in the Contract Documents;
 - 2. A preliminary Schedule of Submittals which will list each required Submittal and the times for submitting, reviewing and processing such Submittal;
 - 3. An estimated monthly payment schedule, and a preliminary Schedule of Values for all of the Work.
- C. The Preconstruction Meeting will be held for review and acceptance of the schedules, to establish procedures for handling Shop Drawings and other Submittals, for processing Applications for Payment, and to establish a working understanding among the parties as to the Work

2.06 ELECTRONIC TRANSMITTALS

- A. Except as otherwise stated elsewhere in the Contract, Owner, Engineer, and Contractor may send, and will accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor will jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

ARTICLE 3 CONTRACT DOCUMENTS INTENT AND REUSE

3.01 INTENT

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.

- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- G. Nothing in the Contract Documents creates:
 - any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
 - any obligation on the part of Owner or Engineer to pay or to see to the payment of any
 money due any such Subcontractor, Supplier, or other individual or entity, except as may
 otherwise be required by Laws and Regulations; or
 - 3. any obligation on the part of Engineer to Contractor.

3.02 REFERENCE TO STANDARDS AND SPECIFICATIONS OF TECHNICAL SOCIETIES

- A. Reference to standards, specifications, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, will mean the latest standard, specification, manual, 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.
- 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 Work, 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 furnished and performed whether or not it is specifically called for.
- C. No provision of any standard, specification, manual, code or instruction will be effective to change the duties and responsibilities of Owner, Contractor or Engineer, or any of their Subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor will it be effective to assign to Owner, Engineer or any of Engineer's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of paragraph 9.10 or any other provision of the Contract Documents.

3.03 REPORTING AND RESOLVING DISCREPANCIES

A. Before undertaking each part of the Work, Contractor will carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor has a duty to and will promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor should reasonably have discovered and will obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

- B. 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 will report it to Engineer in writing at once, and, Contractor will not proceed with the Work affected thereby (except in an emergency as authorized by paragraph 6.18) until receiving written instruction or clarification from Engineer or Owner. However, Contractor will not be liable to Owner or Engineer for failure to report any such conflict, error, ambiguity or discrepancy unless Contractor knew or reasonably should have known thereof.
- C. Except as otherwise specifically stated in the Contract Documents or as may be provided by amendment or supplement issued by one of the methods indicated in paragraph 3.05, the provisions of the Contract Documents will take precedence in resolving any conflict, error, ambiguity or discrepancy between the provisions of the Contract Documents and;
 - 1. the provisions of any standard, specification, manual, code or instruction (whether or not specifically incorporated by reference in the Contract Documents); or
 - 2. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 REQUIREMENTS OF CONTRACT DOCUMENTS

- A. During the performance of the Work and until final payment, Contractor and Owner will submit to Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve
 - 1. the performance or acceptability of the Work under the Contract Documents,
 - 2. the design (as set forth in the Drawings, Specifications, or otherwise), or
 - 3. other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in paragraph 11.01.

3.05 ORDER OF PRECEDENCE

A. In resolving conflicts, errors or discrepancies between Plans and Specifications,

- 1. Figured dimensions will govern over scaled dimensions;
- 2. Plans will govern over Standard Specifications;
- 3. Project Specifications will govern over Standard Specifications and Plans.

3.06 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 in one or more of the following ways:
 - 1. a Field Order (pursuant to paragraph 9.05), or,
 - 2. a Change Order (pursuant to paragraph 10.01.A.1), or
 - 3. a Work Change Directive Order (pursuant to paragraph 10.01.A.2)
- B. In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, in one or more of the following ways:
 - 1. a Field Order (pursuant to paragraph 9.05),
 - 2. Engineer's review of a Shop Drawing or Sample (pursuant to paragraph 6.21), or
 - 3. Engineer's written interpretation or clarification (pursuant to paragraph 9.04).

3.07 REUSE OF DOCUMENTS

- A. Neither Contractor nor any Subcontractor, manufacturer, fabricator, Supplier, distributor, or other person or organization performing or furnishing any of the Work under a direct or indirect contract with Owner:
 - will have or acquire any title to or ownership rights in any of the Plans, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Engineer's Consultant, and
 - they will not reuse any of such Plans, Specification, other documents or copies on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.

3.08 ELECTRONIC DATA

- A. Except as otherwise stated elsewhere in the Contract Documents, Owner, Engineer and Contractor may transmit, and will accept, Project-related correspondence, text, data, documents, drawings, information and graphics, including but not limited to Shop Drawings and other Submittals, in electronic media or digital format, either directly or through access to a secure Project website.
- B. 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; REFERENCE POINTS

4.01 AVAILABILITY OF LANDS

A. Owner will furnish, as indicated in the Contract Documents and not later than the established date for beginning Work on the Contract, the lands upon which the Work is to be performed, rights of way and easements for access thereto, and such other lands which are designated for the use of Contractor. Owner will identify any encumbrances or restrictions not of general application but specifically related to use of lands so furnished with which Contractor will have to comply in performing the Work. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by Owner, unless otherwise provided in the Contract Documents. Contractor will provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment unless otherwise provided in the Contract Documents.

4.02 SUBSURFACE AND PHYSICAL CONDITIONS; INVESTIGATIONS AND REPORTS

- A. Reference is made to the Supplementary Conditions for identification of those reports of investigations and tests of subsurface and physical conditions at the Site or otherwise affecting cost, progress or performance of the Work which have been reviewed in preparation of the Contract Documents. Such reports are not guaranteed as to accuracy or completeness and are not part of the Contract Documents.
- B. The locations of utilities or other physical conditions relating to existing surface or subsurface structures at or contiguous to the Site as shown on the Plans are taken from drawings from sources believed to be reliable. Neither Owner nor Engineer will be responsible for any omissions of, or variations from, the indicated location of existing utilities which may be encountered in the Work.
- C. Contractor will draw its own conclusions as to the general accuracy of the "technical data" contained in such reports and drawings, and confirms such reports and drawings are not Contract Documents. Contractor may not rely upon or make any Claim against Owner, Engineer or any of Engineer's Consultants with respect to:
 - the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto, or
 - 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings, or
 - 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such data, interpretations, opinions or information.
- D. The cost of all the following will be included in the Contract Price and Contractor will have full responsibility for:
 - 1. reviewing and checking all such information and data,
 - 2. locating all Utilities during construction,

- 3. coordination of the Work with the owners of such Utilities, and
- 4. the safety and protection of all such Utilities as provided in paragraph 6.15 and repairing any damage thereto resulting from the Work.

4.03 UNFORESEEN PHYSICAL CONDITIONS

- A. If Contractor discovers one or both of the following physical conditions of surface or subsurface at the Project or improvement Site, before disturbing the physical condition, Contractor will immediately notify Owner and Engineer of the physical condition; and follow up within 48 hours in writing:
 - 1. A subsurface or a physical condition at the Site differing materially from those indicated in the Contract Documents, or
 - 2. An unknown physical condition at the Site of a nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for the improvement project.
- B. Engineer's Review. After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in paragraph 4.03.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. Owner's Statement to Contractor Regarding Site Condition. After receipt of Engineer's written findings, conclusions, and recommendations, Owner will issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. Possible Price and Times Adjustments:
 - Contractor will be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must fall within any one or more of the categories described in paragraph 4.03.A;
 - b. with respect to Work that is paid for on a Unit Price basis, any adjustment in Contract Price will be subject to the provisions of paragraph 12.03; and
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times pursuant to paragraph 10.05.

- 2. Contractor wil not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
 - the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment: or
 - c. Contractor failed to give the written notice as required by paragraph 4.03.A.
- If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment will be set forth in a Change Order or Work Change Directive.
- 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of Owner's written statement to Contractor regarding the subsurface or physical condition in question.

4.04 UTILITIES

- A. Contractor's Responsibilities. The information and data shown or indicated in the Contract Documents with respect to existing Utilities at or adjacent to the Site, if any, is based on information and data furnished to Owner or Engineer by the owners of such Utilities, including Owner, or by others.
 - 1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
 - 2. the cost of all of the following will be included in the Contract Price, and Contractor will have full responsibility for:
 - a. reviewing and checking all information and data regarding existing Utilities at the Site;
 - b. locating all Utilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Utilities, during construction; and
 - d. the safety and protection of all existing Utilities at the Site, and repairing any damage thereto resulting from the Work.
- B. Notice by Contractor. If Contractor believes that an Utilities that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor will, 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 6.18), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

- C. Engineer's Review. Engineer will:
 - promptly review the Utilities and conclude whether such Utilities was not shown or indicated in the Contract Documents,
 - 2. or was not shown or indicated with reasonable accuracy;
 - 3. obtain any pertinent cost or schedule information from Contractor;
 - 4. prepare recommendations to Owner regarding Contractor's resumption of Work in connection with the Utilities in question;
 - determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Utilities;
 - 6. and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- D. During such time, Contractor will be responsible for the safety and protection of such Underground Facility.
- E. Owner's Statement to Contractor Regarding Utilities. After receipt of Engineer's written findings, conclusions, and recommendations, Owner will issue a written statement to Contractor (with a copy to Engineer) regarding the Utilities in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- F. Possible Price and Times Adjustments:
 - 1. Contractor will be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Utilities at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Utilities in question;
 - b. With respect to Work that is paid for on a Unit Price basis, any adjustment in Contract Price will be subject to the provisions of paragraph 12.03;
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and
 - d. Contractor gave the notice required in paragraph 4.04.B.
 - If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment will be set forth in a Change Order.
 - 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30

days after Owner's issuance of Owner's written statement to Contractor regarding the Underground Facility in question.

4.05 REFERENCE POINTS

A. Owner will provide engineering surveys for construction to establish property corners, monuments, bench marks and similar reference points which in Contractor's judgment are necessary to enable Contractor to proceed with the Work. Contractor will be responsible for the preservation of established reference points and will make no changes or relocations without the prior written approval of Owner. Contractor will report to Engineer whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations. Reference points destroyed by negligence of Contractor will be replaced by Owner at the expense of Contractor. Construction Staking will be furnished by Owner as provided in Division 01 of the Specifications.

4.06 CONSTITUENTS OF CONCERN

- A. Owner will be responsible for any Constituents of Concern uncovered or revealed at the Site which was not shown or indicated in Plans or Specifications or identified in the Contract Documents to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work at the Site. Owner will not be responsible for any such materials brought to the Site by Contractor, Subcontractor, Suppliers or anyone else for whom Contractor is responsible.
- B. Upon discovering any such material, Contractor will immediately:
 - 1. stop all Work in connection with such Hazardous Environmental Condition and in any area affected thereby (except in emergency as required by paragraph 6.18), and
 - notify Owner and Engineer (and thereafter confirm such notice in writing). Owner will
 promptly consult with Engineer concerning the necessity for Owner to retain a qualified
 expert to evaluate such Hazardous Environmental Condition or take corrective action, if
 any.
- C. Contractor will not be required to resume Work in connection with such Hazardous Environmental Condition or in any such affected areas until after Owner has obtained any required permits related thereto and delivered to Contractor special written notice:
 - 1. specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or
 - 2. specifying any special conditions under which such Work may be resumed safely.
- D. If Owner and Contractor cannot agree as to entitlement to, or the amount, or extent of an adjustment, if any, in Contract Price or Contract Terms as a result of such Work stoppage or such special conditions under which Work is agreed by Contractor to be resumed, either party may make a Claim therefor as provided in paragraph 11.01.
- E. If after receipt of such special 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 such portion of the Work that is in connection with such condition, or in such affected area, to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to, or the amount, or extent of an adjustment, if any, in Contract

- Price or Contract Time as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in paragraph 11.01. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with paragraph 7.01.
- F. To the fullest extent permitted by Laws and Regulations, Owner will indemnify and hold harmless Contractor, Subcontractors, Engineer, Engineer's Consultants and the officers, directors, employees, agents, other consultants and subcontractors of each and any of them from and against all claims, costs, losses, damages and expenses arising out of or resulting from such condition per this paragraph 4.06, 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, and
 - 2. nothing in this paragraph 4.06 will obligate Owner to indemnify any person or entity from and against the consequences of that person's or entity's own negligence.
- G. The provisions of paragraph 4.03 are not intended to apply to the presence of Constituents of Concern or Hazardous Environmental Conditions uncovered or revealed at the Site.

ARTICLE 5 BONDS AND INSURANCE

5.01 PERFORMANCE AND OTHER BONDS

- A. Contractor will furnish performance and payment Bonds, on the form included in the Contract Documents, 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 will remain in effect at least until 1 year after the date when final payment becomes due, except as otherwise provided by Laws and Regulations or as specified in the Contract Documents or Bond. Contractor will also furnish such other Bonds as are required by the Supplementary Conditions.
- B. All Bonds will be in the forms prescribed by the Contract Documents and be executed by such Sureties as
 - 1. are licensed to conduct business in the state where the Project is located, and
 - 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 U.S. Department of Treasury, Financial Management Service, Surety Bond Branch.
- C. Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.
- D. If Surety on any Bond furnished by Contractor is declared as 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 clauses (1) and (2) of paragraph 5.01, Contractor will within 5 days thereafter substitute another Bond and Surety, both of which will be acceptable to Owner.

5.02 LICENSED INSURERS AND SURETIES

A. Bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor will 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.

5.03 INSURANCE

- A. Contractor will purchase and maintain during the term of the Project such insurance as will protect him, Owner(s) and Engineer(s) from Claims arising out of the Work described in this Contract and performed by Contractor, Subcontractor(s) or Sub subcontractor(s) consisting of:
 - 1. Workers' Compensation Insurance including Employer's Liability to cover employee injuries or disease compensable under the Workers' Compensation Statutes of the states in which Work is conducted under this Contract; disability benefit laws, if any; or Federal compensation acts such as U.S. Longshoremen or Harbor Workers', Maritime Employment, or Railroad Compensation Act(s), if applicable. Self-insurance plans approved by the regulatory authorities in the state in which Work on this Project is performed are acceptable.
 - 2. An occurrence form Commercial General Liability policy to cover bodily injury to persons other than employees and for damage to tangible property, including loss of use thereof, plus appropriate endorsements to protect Owner and Engineer against Claims, demands, and lawsuits from employees of Contractor and Subcontractors, including the following exposures:
 - a. All premises and operations.
 - b. Explosion, collapse and underground damage.
 - c. Contractor's Protective coverage for independent contractors or Subcontractors employed by him.
 - d. Broad form blanket, contractual liability for the obligation assumed in the Indemnification or Hold Harmless agreement found in the General Conditions or Supplementary Conditions of this Contract.
 - e. Personal Injury Liability endorsement with no exclusions pertaining to employment.
 - f. Products and Completed Operations coverage. Coverage will extend through the Contract guarantee period.
 - g. Broad form property damage.
 - h. Cross liability endorsement.
 - For design professional additional insureds, ISO Endorsement CG 20 32 04 13, "Additional Insured-Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
 - Comprehensive Automobile Liability policy to cover bodily injury and property damage
 arising out of the ownership, maintenance or use of any motor vehicle, including owned,
 non-owned and hired vehicles. Comprehensive General Liability and the Comprehensive

- Auto Liability will be written by the same insurance carrier, though not necessarily in one policy.
- 4. Contractor will purchase for Owner an Owner's Protective Liability policy to protect Owner, Engineer, their consultants, agents, employees and such public corporations in whose jurisdiction the Work is located for their liability for Work performed by Contractor, the Subcontractor(s) or the Sub subcontractor(s) under this Contract.
- 5. When a limit of liability is identified in the Supplementary Conditions, Contractor will purchase a Builder's Risk Installation Floater in a form acceptable to Owner covering property of the Project for the full cost of replacement as of the time of any loss which will include, as named insureds,
 - a. Contractor,
 - b. all Subcontractors,
 - c. all Sub subcontractors,
 - d. Owner, and Engineer(s) or Architect(s), as their respective interests may prove to be at the time of loss, covering insurable property which is the subject of this Contract, whether in place, stored at the Site, stored elsewhere, or in transit at the risk of the insured(s).
 - e. Coverage will be effected on an "All Risk" form including, but not limited to, the perils of fire, wind, vandalism, collapse, theft, flood and earthquake, with removal of passive design error exclusion. Except as may otherwise be required by Owner, Contractor may arrange for such deductibles as Contractor deems to be within Contractor's ability to self-assume, but Contractor will be held solely responsible for the amount of such deductible and for any co-insurance penalties. Any insured loss will be adjusted with Owner and Contractor and paid to Owner and Contractor as Trustee for the other insureds.
- 6. Umbrella or Excess Liability:
 - a. Contractor is granted the option of arranging coverage under a single policy for the full limit required or by a combination of underlying policies with the balance provided by an Excess or Umbrella Liability policy equal to the total limit(s) requested. Umbrella or Excess policy wording will be at least as broad as the primary or underlying policy(ies) and will apply both to Contractor's General Liability and Automobile Liability Insurance and will be written on an occurrence basis.
- 7. Railroad Protective Liability:
 - a. Where any of the Work is within a railroad right-of-way or where a limit of liability is identified in the Supplementary Conditions, Contractor will provide coverage in the name of each railroad company having jurisdiction over rights of way across which Work under the Contract is to be performed. The form of policy and the limits of liability will be determined by the railroad company(ies) involved. See Section 00 73 00 Supplementary Conditions for limits and coverage requested.
- 8. Contractor's Professional Liability Insurance:

- a. If Contractor will provide or furnish professional services under this Contract through a delegation of professional design services or otherwise, then Contractor will be responsible for purchasing and maintaining applicable professional liability insurance. This insurance will provide protection against Claims arising out of performance of professional design or related services caused by a negligent error, omission, or act for which the insured party is legally liable. It will be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- B. Owner's responsibilities in respect of purchasing and maintaining insurance are set forth below:
 - Owner will assume responsibility for such boiler and machinery insurance as may be required or considered to be necessary by Owner in the course of construction, testing or after completion.
 - a. Owner will assume responsibility for such insurance as will protect Owner against any loss of use of Owner's property due to those perils insured pursuant to paragraph 1 above.

5.04 LIMITS OF LIABILITY

A. The required limits of liability for insurance coverages required in paragraphs 5.03 will be not less than those specified in Section 00 73 00 - Supplementary Conditions .

5.05 NOTICE OF CANCELLATION OR INTENT NOT TO RENEW

A. Policies will be endorsed to provide that at least 30 days written notice will be given to Owner and to Engineer of cancellation, intent not to renew, or material modification of the coverage.

5.06 EVIDENCE OF COVERAGE

- A. Prior to commencement of the Work, Contractor will furnish to Owner and Engineer, Certificates of Insurance in force on current Accord® Certificate of Insurance form. Other forms of Certificate are acceptable only if;
 - 1. they include all of the items prescribed in the current Accord® Certificate of Insurance form, including agreement to cancellation provisions outlined in paragraph 5.05 above; and
 - 2. they have approval of Owner and Engineer.
- B. Prior to the commencement of the Work, Contractor will furnish to Owner complete "originally signed" copies of the Owner's Protective Liability Policy. The number of copies will be the same as the number of counterparts of the Agreement. Owner reserves the right to request complete copies of other policies if deemed necessary to ascertain details of coverage not provided by the certificates. Such policy copies will be "Originally Signed Copies," and so designated.

5.07 QUALIFICATION OF INSURERS

A. In order to determine financial strength and reputation of insurance carriers, all companies providing the coverages required will be licensed or approved by the Insurance Bureau of the state in which the Project is located and will have a financial rating not lower than XI and a

policyholder's service rating no lower than B+ as listed in A.M. Best's Key Rating Guide, current edition. Companies with ratings lower than B+:XI will be acceptable only upon written consent of Owner.

5.08 DAMAGE CLAIMS - ACKNOWLEDGMENT AND REPORTS

- A. Contractor will furnish to Owner an acknowledgment receipt from the insurance carrier for each damage claim against the Project. The receipt will include the insurance carrier's assigned claim number.
- B. Upon request, Contractor or Contractor's insurance carrier will also furnish to Owner a status report on all damage claims. This report will include inspections made, the disposition of claims, and what action has been taken towards settlement of each claim.
- C. Failure of Contractor to comply with this paragraph 5.08 may result in the amount of such damage claims being withheld from Contractor's monthly pay estimate. Such withholding will be reimbursed in the monthly pay estimate following compliance with this paragraph.

5.09 COST OF INSURANCE

A. The unit cost of the insurance herein specified will not be a specific bid item, but the cost of such insurance will be included by Contractor in the various prices bid.

5.10 WAIVER OF RIGHTS

- A. Owner and Contractor intend that all policies purchased in accordance with paragraph 5.03 will protect Owner, Contractor, Subcontractors, Engineer, Engineer's Consultants (and all other persons or entities identified in the Supplementary General Conditions to be listed as insureds or additional insureds in such policies) and will provide primary coverage for all losses and damages caused by the perils covered thereby. Such policies will contain provisions to
- B. 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.
- C. Owner and Contractor waive all rights against each other and their respective officers, directors, employees and agents for all losses and damages caused by, arising out of or resulting from any of the perils covered by such policies and any other property insurance applicable to the Work; and in addition, waive all such rights against Subcontractors, Engineer, Engineer's Consultants and any other persons or entities identified in the Supplementary General Conditions to be listed as insureds or additional insureds under such policies for loss and damages so caused. None of the above waivers will 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.

5.11 RECEIPT AND APPLICATION OF INSURANCE PROCEEDS

A. Any insured loss under the policies of insurance required by paragraph 5.03.A.5 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. If no other special agreement is reached the damaged Work will be repaired or replaced, the monies so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order, Field Oder or Work Change Directive.

B. Owner as fiduciary will have power to adjust and settle any loss under the policies required by paragraph 5.03.A.5 with the insurers unless one of the parties in interest will object in writing within fifteen days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary will 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 will adjust and settle the loss with the insurers.

ARTICLE 6 CONTRACTOR'S RESPONSIBILITIES

6.01 SUPERVISION AND SUPERINTENDENCE

- A. Contractor will supervise 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 will be solely responsible for the means, methods, techniques, sequences and procedures of construction. Contractor will be responsible to see that the finished Work complies with the Contract Documents. However, if specific means, methods, techniques, sequences and procedures of construction are prescribed in the Plans or Specifications, Contractor will be responsible to comply therewith, but may implement such prescribed Work in a manner of Contractor's choosing so long as the Work complies with the requirements of the Plans and Specifications.
- B. At all times during the progress of the Work, Contractor will assign and maintain a competent superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances. Any superintendent or foreman who neglects to have Work done in accordance with the Plans and Specifications will be removed from the Project. The superintendent will be Contractor's representative at the Site and will have authority to act on behalf of Contractor. All communications given to the superintendent will be as binding as if given to Contractor.

6.02 LABOR AND WORKING HOURS

A. Contractor will provide competent, suitably qualified personnel in their various duties. Contractor will at all times maintain good discipline and order at the Site. Except as otherwise required for the safety or protection of persons, the Work, property at the Site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the Site will be performed during regular working hours (7:00 a.m. to 7:00 p.m.), and Contractor will not permit the performance of Work on Sunday or any legal holiday without Owner's written consent given after prior written notice to Engineer.

6.03 SERVICES, MATERIALS AND EQUIPMENT

- A. Unless otherwise specified in the Contract Documents, Contractor will furnish 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 furnishing, performance, testing, start up and completion of the Work.
- B. All materials and equipment will be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Contract Documents will expressly run to the benefit of Owner. If required by Engineer, Contractor will furnish satisfactory evidence, (including reports of required tests) as to the kind and quality of

materials and equipment to be incorporated in the Work. Contractor will not use material in the Work until Shop Drawing or Submittals have been reviewed by Engineer. All materials which do not meet the requirements of the Specifications at the time they are to be used will be rejected, and unless otherwise permitted by Engineer, will be plainly marked and removed immediately from the Work.

C. All materials and equipment will be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, Supplier or distributor, except as otherwise provided in the Contract Documents.

6.04 SUBSTITUTES AND "OR-EQUALS"

- A. Whenever an item of materials or equipment is specified or described in the Contract Documents for installation in the Work by using the name of a proprietary item or the name of a particular manufacturer, fabricator, supplier or distributor; or means, methods, techniques, sequences and procedures of construction are prescribed in the Plans or Specifications; the specification or description is intended to establish the type, function and quality required or the means, methods, techniques, sequences and procedures of construction required. Unless the specification or description contains or is followed by words indicating that no like, equivalent or "or-equal" item or no substitution is permitted, other items of material or equipment or materials or equipment of other manufacturers, fabricators, suppliers or distributors; or other means, methods, techniques, sequences and procedures of construction may be accepted by Engineer under the following circumstances:
 - "Or-Equal": 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 acceptance of proposed substitute items.
 - 2. Substitute Items: 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 6.04.A; or a proposed means, methods, techniques, sequences and procedures of construction are different from what is prescribed in the Plans or Specifications, it will be considered a proposed substitute item.
- B. Contractor will submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment or means, methods, techniques, sequences and/or procedures proposed is essentially equivalent to that named and an acceptable substitute therefor. The procedure for review by Engineer will include the following, as supplemented in the Specifications, and as Engineer may decide is appropriate under the circumstances. Requests for review of substitute items of material and equipment will not be accepted by Engineer from anyone other than Contractor.
- C. If Contractor wishes to furnish or use a substitute, Contractor will make written application to Engineer on the Substitution Request Form provided for acceptance thereof, certifying that the proposed substitute will:
 - 1. perform adequately the functions and achieve the results called for by the general design,
 - 2. be similar in substance to that specified,

- 3. and be suited to the same use and capable of performing the same function as that specified.
- 4. The application will state the extent, if any, to which the evaluation and acceptance of the proposed substitute will prejudice Contractor's achievement of Substantial Completion on time, whether or not acceptance of the proposed substitute for use in the Work will require a change in the Contract Documents (or in the provisions of any other direct contract with Owner for work on the Project) to adapt the design to the proposed substitute, and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty.
- D. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by Engineer in evaluating the proposed substitute. Engineer may require Contractor to furnish additional data about the proposed substitute.
- E. All data to be provided by Contractor in support of any proposed "or-equal" or substitute item will be at Contractor's expense. Engineer will be the sole judge of acceptability, and Engineer's determination will be final and binding, may not be reversed through an appeal under any provisions of the Contract Documents, and no "or-equal" or substitute will be ordered, installed or utilized without Engineer's prior written acceptance. Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any "or-equal" or substitute which has been approved by Engineer.
- F. Engineer will record time required by Engineer and Engineer's consultants in evaluating substitutions proposed by Contractor and in making changes in the Contract Documents occasioned thereby. Whether or not Engineer accepts a proposed substitute, Contractor will reimburse Owner for the charges of Engineer and Engineer's consultants for evaluating any proposed substitute and in making any changes in the Contract Documents resulting therefrom.

6.05 CONCERNING SUBCONTRACTORS

- A. Contractor will not employ any Subcontractor, Supplier or other person or organizations, including those who are to furnish the principal items of materials or equipment, whether initially or as a substitute, against whom Owner or Engineer may have reasonable objection. Contractor will furnish Engineer a complete list of any Subcontractor, Supplier or other person or organization furnishing principal items of material or equipment within 4 days of request. Failure to object to any Subcontractor, Supplier, other person or organization by Owner or Engineer will not constitute a waiver of any right of Owner or Engineer to reject defective Work.
- B. If Owner or Engineer, after due investigation, has reasonable objection to any Subcontractor, Supplier, other person or organization proposed by Contractor after the Notice of Award, Contractor will submit an acceptable substitute and the Contract Price will be increased or decreased by the difference in cost occasioned by such substitution, and an appropriate Change Order will be issued. Contractor will not be required to employ any Subcontractor, Supplier, other person or organization against whom Contractor has reasonable objection.

- C. Contractor will not award Work to Subcontractor(s), in excess of 50% of the Contract Price, without prior written approval of Owner.
- D. Contractor will be fully responsible for all acts and omissions of Contractor's Subcontractors, Suppliers and of persons and organizations performing or furnishing any of the Work under a direct or indirect contract with Contractor just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents will create for the benefit of any such Subcontractor, Supplier of other person or organization any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other person or organization, nor will it create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any Subcontractor, Supplier or other person or organization. Owner or Engineer may furnish to any Subcontractor, Supplier or other person or organization, to the extent practicable, evidence of amounts paid to Contractor on account of specific Work done.
- E. Contractor will be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with Contractor. Contractor will require all Subcontractors, Suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. If the amount of the subcontract or the nature of the Work to be performed thereunder warrants, Owner may require Subcontractor to furnish, for the benefit of Owner and Contractor jointly, Bonds in an amount proportioned to the amount of Subcontractor's subcontract, and for the same purpose and under the same specifications as those of the general Contract. The Surety on the general Contract will not be eligible to furnish such Subcontract Bonds.
- 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 and additional insured on the property insurance provided in paragraph 5.03.A.5, the agreement between Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, Engineer's Consultants and all other additional insureds for all losses and damages caused by, arising out of or resulting from any of the perils 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. Contractor will file a true copy of such agreement with Owner.

6.06 PATENT FEES AND ROYALTIES

A. Contractor will 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 will be disclosed by Owner in Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Contractor will defend, indemnify and hold harmless Owner and Engineer and anyone directly or indirectly employed by either of them from and against all claims, costs, losses, damages and expenses arising out of or resulting from 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, and will defend all such claims in connection with any alleged infringement of such rights.

6.07 PERMITS AND LICENSES

A. Contractor will obtain and pay for all construction permits and licenses. Owner will assist Contractor, when necessary, in obtaining such permits and licenses. Contractor will pay all governmental charges, permit, review, 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. Contractor will pay all charges of utility owners for connections to the Work.

6.08 LAWS AND REGULATIONS

- A. Contractor will give all notices and comply with all laws, ordinances, rules, and regulations applicable to furnishing and performance of the Work. Neither Owner nor Engineer will be responsible for monitoring Contractor's compliance with any Laws, ordinances, rules, and Regulations.
- B. If Contractor performs any Work that is contrary to such laws, ordinances, rules and regulations, Contractor will bear all claims, costs, losses, damages and expenses caused by, arising out of, or resulting therefrom. However, it will not be Contractor's primary responsibility to make certain that the Specifications and Plans are in accordance with such laws, ordinances, rules, and regulations, but this will not relieve Contractor of Contractor's obligations under paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated Contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to, or on the amount, or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

6.09 TAXES

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

6.10 USE OF PREMISES

A. Contractor will confine construction equipment, the storage of materials and equipment and the operations of workers to the Project Site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, rights of way, permits and easements, and will not unreasonably encumber the premises with

construction equipment or other materials or equipment. Contractor will 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. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor will promptly settle with any such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law. Contractor's continuing obligations under paragraph 6.24 will be applicable to any claim hereunder.

6.11 REMOVAL OF DEBRIS AND CLEANING

A. During the progress of the Work, Contractor will keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work Contractor will remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and will leave the Site clean and ready for occupancy by Owner at Substantial Completion of the Work. Contractor will restore to their original condition all property not designated for alteration by the Contract Documents. If Contractor will fail to keep the above noted areas cleaned of dust or debris resulting from Contractor's operations, Contractor will be so notified in writing by Engineer. If within 24 hours after receipt of such notice Contractor will fail to clean such areas satisfactorily, Owner may have such other agency as Ownerhe will designate, perform the work and all costs of such cleaning will be paid for by Contractor.

6.12 LOADING STRUCTURES

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

6.13 PROTECTION OF UTILITIES

A. When it is possible for construction operations to endanger any public or private utility, conduit, or structure, Contractor will notify the utility owner of this possibility, and safeguard and support such utilities, conduits, or structures. Where it is the policy of any utility owner to make its own repairs to damaged conduit or other structures, Contractor will cooperate to the fullest extent with the utility, and Contractor will see that Contractor's operations interfere as little as possible with these operations, and Contractor will assume the cost of any charge against Owner therefor. In cases where existing Utilities or Utility service connections are encountered, Contractor will perform Contractor's operations in such a manner that service will be uninterrupted, and the cost thereof will be at Contractor's expense, unless otherwise provided.

6.14 RECORD DOCUMENTS

A. Contractor will maintain in a safe place at the Site 1 record copy of all Specifications, Plans, Addenda, Change Orders, Work Change Directives, and Field Orders, in good order and annotated to show all changes made during construction. These record documents together with all Samples and all Shop Drawings will be available to Engineer for examination and will be delivered to Engineer for Owner upon completion of the Work.

6.15 SAFETY AND PROTECTION

A. Contractor will be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor will take all necessary

precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to:

- 1. all persons on the Work Site or who may be affected by the Work,
- 2. all the Work and materials or 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, and Utilities and not designated for removal, relocation or replacement in the course of construction.
- B. Contractor will comply with all applicable Laws and Regulations and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and will erect and maintain all necessary safeguards for such safety and protection. Contractor will notify owners of adjacent property, Utilities, and utility owners when prosecution of the Work may affect them.
- C. Contractor will restore, at Contractor's own expense, any public or private property damaged or injured in consequence of any act or omission on Contractor's part, or on the part of Contractor's employees or agents, to a condition equal or better than that existing before such injury or damage was done. If Contractor neglects to restore or make good such damages or injury, Owner may, upon 48 hours' notice, proceed to restore or make good such damage or injury and to order the cost thereof deducted from any monies that are due, or may become due, to Contractor for this Work.
- D. Contractor's duties and responsibilities for the safety and protection of the Work will continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with paragraph 14.11 that the Work is Acceptable.
- E. Contractor will comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- F. Contractor will inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- G. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with paragraph 14.11 that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- H. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

6.16 SAFETY REPRESENTATIVE

A. Contractor will be responsible to designate for itself and its employees, and its Subcontractors a qualified and experienced safety representative at the Site whose duties and responsibilities will be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.17 HAZARD COMMUNICATION PROGRAM

A. Contractor will be responsible for coordinating any exchange of 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 applicable Laws or Regulations.

6.18 EMERGENCIES

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor, without special instruction or authorization from Owner or Engineer, is obligated to act to prevent threatened damage, injury or loss. Contractor will 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. 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 to document the consequences of such action.

6.19 SHOP DRAWINGS AND SAMPLES

- A. Contractor will submit Shop Drawings required by the Contract Documents to Engineer for review, in accordance with an accepted schedule. All Submittals will be identified as Engineer may require and in the number of copies specified in the Specifications. The 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 materials and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by paragraph 6.21.
- B. Contractor will also submit all samples required by the Contract Documents to Engineer for review in accordance with an accepted schedule. Each Sample will be identified clearly 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 6.21. The number of each sample to be submitted will be as specified in the Specifications.

6.20 SUBMITTAL PROCEDURES

- A. Before submitting each Shop Drawing or Sample, Contractor will have determined and verified:
 - all field measurements, quantities, dimension, specified performance criteria, installation requirements, manufacturer's recommendations, material, catalog numbers and similar information with respect thereto,
 - 2. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly and installation pertaining to the performance of the Work, and
 - all information relative to Contractor's responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programs incident thereto.
- B. Contractor will 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.

- C. Each Submittal will bear a stamp or specific written indication that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to review and approval of that Submittal.
- D. At the time of each submission, Contractor will in writing call Engineer's attention to any deviations that the Shop Drawings or Samples may have from the requirements of the Contract Documents. This notice will 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 of each such variation.
- E. Contractor will make corrections required by Engineer and will return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review. Contractor will direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
- F. Contractor will furnish required Submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of Shop Drawings, sample, or other item requiring approval, and Contractor will be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
- G. If Contractor requests a change of a previously approved Submittal item, Contractor will be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

6.21 ENGINEER'S REVIEW

- A. Engineer will review Shop Drawings and Samples in accordance with the Schedule of Submittals accepted by Engineer as required by paragraph 2.05. Engineer's review will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and will not extend to means, methods, sequences, techniques or procedures of construction or to safety precautions or programs incident thereto. The review of a separate item as such will not indicate review of the assembly in which the item functions.
- B. Engineer's review of Shop Drawings or samples will not relieve Contractor from responsibility for any variations from the Contract Documents unless Contractor has in writing called Engineer's attention to such variation at the time of submission and Engineer has given written concurrence to the specific variation, nor will any concurrence by Engineer relieve Contractor from responsibility for errors or omissions in the Shop Drawings. Engineer's review will not relieve Contractor from responsibility for complying with the requirements of paragraph 6.20.
- C. Where a Shop Drawing or sample is required by the Contract Documents or the Schedule of Submittals accepted by Engineer per paragraph 2.05, no related Work will be commenced until the Submittal has been reviewed by Engineer.

6.22 CONTINUING THE WORK

A. Contractor will carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any

disputes or disagreements, except as Contractor and Owner may otherwise agree in writing.

6.23 CONTRACTOR'S GENERAL WARRANTY AND GUARANTEE

- A. Contractor warrants and guarantees to Owner, Engineer, and Engineer's Consultants that all work will be in accordance with the Contract Documents and will not be defective. Contractor's warranty and guarantee excludes defects or damage caused by:
 - abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or their employees, agents, or representatives, or any person or entity for whom Contractor is responsible; or
 - 2. normal wear and tear under normal usage.
- B. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents will 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 of any progress or final payment by Engineer;
 - 3. the issuance of a certificate of Substantial Completion or any payment by Owner to Contractor under the Contract Documents;
 - 4. use or occupancy of any part of the Work by Owner;
 - 5. any acceptance by Owner or failure to do so;
 - 6. any review or approval of a Shop Drawing or Sample Submittal or the issuance of a notice of acceptability by Engineer per paragraph 14.11;
 - 7. any inspection, test or approval by others; or
 - 8. any correction of defective Work by Owner.
- C. If Contract requires Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned Contract.
- D. Contractor will assign to Owner all warranties extended to Contractor by material Suppliers and Subcontractors. If an assignment of warranty requires the material Supplier or Subcontractor to consent to same, then Contractor will secure the material Supplier's or Subcontractor's consent to assign said warranties to Owner.
- E. The warranties provided in this section will be in addition to, and not in limitation of, any other warranty or remedy required by law.

6.24 INDEMNIFICATION

A. To the fullest extent permitted by law, Contractor will indemnify, defend (with counsel acceptable to Owner) and hold harmless Owner, Engineer and any additional indemnitees identified in the Supplementary Conditions and their respective directors, officers, members,

partners, affiliates, employees, agents and successors, from and against any and all liabilities, claims, causes of action, lawsuits, liens, injuries, damages, losses and expenses (collectively "Demands") to the extent caused by, arising out of, resulting from or occurring in connection with:

- Contractor's breach of, or failure to comply with, the Agreement, the Contract Documents, or any other contract that it enters into regarding the Work, including any default in performance; or
- Personal injury or death to any person (including, but not limited to, Contractor, Contractor's employees, Subcontractors, Subcontractors' employees, and material Suppliers) or injury to or destruction of property (including claims for loss of use) caused by, arising out of, resulting from, or in any way connected with
 - a. the Work,
 - b. any activity associated with the Work, or
 - c. the operations or acts of commission or omission of Contractor, Contractor's employees, Subcontractors, Subcontractors' employees, material suppliers, or anyone for whom Contractor is legally liable in the performance of Work, whether arising before or after completion of the Work.
- B. To the extent caused by, arising out of, resulting from, or occurring in connection with the provisions of the above paragraph 6.24.A, Contractor's indemnity obligations under this Agreement will include, but are not limited to:
 - Indemnity for all damages and judgment interest, all costs and fees, including, but not limited to, all defense costs, expenses and actual attorneys' fees, and all settlement payments relating to, arising out of, resulting from or in any way connected with any demand requiring indemnity by this Agreement;
 - 2. All expenses, including but not limited to, costs, expenses and actual attorneys' fees, incurred in securing and enforcing indemnity from Contractor if Contractor fails or refuses promptly to fulfill any of the indemnity obligations under this Agreement;
 - 3. All indemnification obligations imposed upon Owner or Engineer, or both, arising out of or in connection with the Work; and
 - 4. Indemnification for any penalties and/or fines arising or resulting from Contractor's or any Subcontractor's failure to comply with laws and/or regulations applicable to its/their Work.
- C. Contractor's duty to indemnify under subpart A.2. of paragraph 6.24 is limited to the negligence of Contractor, Contractor's employees, Subcontractors, Subcontractor's employees, material Suppliers, or anyone for whom Contractor is legally liable in the performance of the Work, whether arising before or after the completion of the Work.
- D. The indemnification rights under this Agreement will not be construed to negate, abridge, or otherwise reduce any other right or obligations of indemnity which would otherwise exist.
- E. Owner, at its option, may select counsel to defend any demand brought against it without impairing any obligation of Contractor to provide indemnification.

- F. The indemnification provisions under this Agreement will survive the completion or termination of this Agreement.
- G. In the case of claims by any employee of Contractor, anyone directly or indirectly employed by Contractor, or anyone for whose acts Contractor may be liable, the indemnification obligations under this Agreement will not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor under workers' compensation acts. Such obligations will not be construed to negate, abridge or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Agreement.
- H. Indemnification, additional insured and hold harmless obligations of Contractor and Subcontractor under the Contract Documents will survive the termination of this Agreement.
- Contractor and Subcontractors will compel their insurance company to waive subrogation
 against Owner, Engineer and Contractor and Subcontractors identified as additional insureds
 in the Contract Documents, including any municipal entity now existing or newly created during
 the term of the Contract Documents.

6.25 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 or procedures. Contractor will not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, equipment, structures, means, methods, techniques or sequences of construction 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 will cause such services or certifications to be provided by a professional properly licensed in the state in which the project is located, whose signature and seal will appear on all drawings, calculations, specifications, certifications, and other Submittals prepared by such professional. Shop Drawings and other Submittals related to the Work designed or certified by such professional, if prepared by others, will bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer will be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals.
- D. Pursuant to this paragraph 6.25, Engineer's review or 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 or approval of Shop Drawings and other Submittals (except design calculations and design drawings) will be only for the purpose stated in paragraph 6.21.
- E. Contractor will not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 7 WORK BY OTHERS

7.01 RELATED WORK AT SITE

- A. In addition to and apart from the Work under the Contract Documents, Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If any part of Contractor's Work depends on proper execution or results upon the work of any such other contractor or utility owner, Contractor will inspect and promptly report to Engineer in writing any delays, defects or deficiencies in such other work that render it unavailable, or unsuitable for such proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of the other work as fit and proper for integration with Contractor's Work except for latent or non-apparent defects and deficiencies in the other work.
- C. Contractor will afford each contractor who is party to such a direct contract, and each utility owner, (and Owner, if Owner is performing the additional work with Owner's employees), proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and will properly connect and coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, Contractor will do all cutting, fitting and patching of Contractor's Work that may be required to make its several parts come together properly and integrate with such other work. Contractor will 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.
- D. If the performance of additional work by other contractors, utility owner, or Owner was not noted in the Contract Documents, written notice thereof will be given to Contractor prior to starting any such additional work. If Contractor believes that the performance of such additional work by Owner or others involves additional expense to Contractor, or requires an extension of the Contract Time, Contractor may make a Claim therefor as provided in paragraph 11.01. Claims for delay or inconveniences due to operations of such other parties for work noted in the Contract Documents will not be allowed.

ARTICLE 8 OWNER'S RESPONSIBILITIES

8.01 COMMUNICATION TO CONTRACTOR

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

8.02 REPLACEMENT OF ENGINEER

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

8.03 FURNISHING DATA

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

8.04 PAY WHEN DUE

A. Owner will make payments to Contractor promptly after they are due as provided in paragraphs 14.05 and 14.11.

8.05 LANDS AND EASEMENTS; REPORTS AND TESTS

A. Owner's duties in respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of investigations and tests of subsurface and latent physical conditions at the Site.

8.06 CHANGE ORDERS

A. In connection with Owner's rights to request changes in the Work in accordance with Article 10, Owner (especially in certain instances as provided in paragraph 10.01) is obligated to execute Change Orders.

8.07 INSPECTIONS, TESTS, AND APPROVALS

A. Owner's responsibility in respect to certain inspections, tests and approvals is set forth in paragraph 13.02.

8.08 LIMITATION ON OWNER'S RESPONSIBILITY

A. Owner will 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 furnishing or performance of the Work. Owner will not be responsible for Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.

8.09 UNDISCLOSED HAZARDOUS MATERIALS

A. Owner's responsibility in respect of undisclosed Constituents of Concern uncovered or revealed at the Site is set forth in Paragraph 4.06.

8.10 OWNER'S DESIGNATED REPRESENTATIVE

A. Owner will designate a person to act as its representatives during the performance of the Work. Owner's designated representative will attend meetings and perform on behalf of Owner all obligations required of Owner under the provisions of the Contract Documents.

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 will be as set forth in the Contract Documents.

9.02 VISITS TO SITE

A. Engineer may make visits to the Site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed Work, and to determine solely

for the benefit of Owner, in general, if the Work is proceeding in accordance with the technical requirements of the Contract Documents. It will not be the responsibility of Engineer to make exhaustive or continuous on Site inspections to check the quality or quantity of the Work.

9.03 RESIDENT PROJECT REPRESENTATIVE

A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more continuous observation of the Work. A Resident Project Representative will act as directed by and under the supervision of Engineer. Resident Project Representative's dealings in matters pertaining to the on Site Work will in general be only with Engineer and Contractor, and dealings with Subcontractors will only be through or with the full knowledge of Contractor. The Resident Project Representative's duties and responsibilities include:

1. Schedules:

 Review the Progress Schedule, Schedule of Submittals and Schedule of Values prepared by Contractor.

2. Conferences:

a. Arrange a schedule of progress meetings and other job conferences as required in consultation with Engineer and Owner, and notify those expected to attend in advance.

3. Liaison:

a. Serve as Engineer's liaison with Contractor, working principally through Contractor's superintendent and assist him in understanding the intent of the technical aspects of the Contract Documents. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on Site operations.

4. Shop Drawings and Samples:

- a. Advise Engineer and Contractor, or Contractor's superintendent, immediately of the commencement of any Work requiring a Shop Drawing or Sample submission if the submission was identified on the schedule and has not been reviewed by Engineer.
- 5. Review of Work, Rejection of Defective Work, Inspections, and Tests:
 - a. Conduct on Site observations of the Work and report to Engineer whenever Resident Project Representative believes that technical aspects of any executed Work is unsatisfactory, faulty or defective or does not meet the requirements of any inspections, tests or approval required to be made or has been damaged prior to final payment; and advise Engineer when Resident Project Representative believes that any partially completed portion of the Work should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
 - b. Observe, record and report to Engineer appropriate details relative to test procedures and startups.
 - c. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the outcome of these inspections and report to Engineer.

6. Modifications:

a. Consider Contractor's suggestions for modifications in Plans or Specifications and report them to Engineer.

7. Reports:

a. Prepare periodic reports as required of progress of the Work and Contractor's compliance with the approved Progress Schedule and Schedule of Submittals.

8. Completion:

 Verify that all items on final list of items requiring completion or correction have been completed or corrected and make recommendations to Engineer concerning acceptance.

9. Exceptions:

- a. Resident Project Representative:
 - 1) Shall not authorize any deviation from the Contract Documents or approve any substitute materials or equipment.
 - 2) Shall not approve or accept any portion of the completed Work.
 - Shall not undertake any of the responsibilities of Contractor, Subcontractors or Contractor's superintendent, or expedite the Work.
 - 4) Shall not advise on or issue directions relative to any aspect of the means, methods, techniques, sequences or procedures of construction unless such is specifically called for in the Contract Documents.
 - 5) Shall not advise on or issue directions as to safety precautions and programs in connection with the Work.
 - 6) Shall not advise on or issue directions regarding Contractor's failure to comply with Laws and Regulations applicable to the furnishing or performance of the Work.

9.04 CLARIFICATIONS AND INTERPRETATIONS

A. Engineer will issue with reasonable promptness such written clarifications or interpretations of the Contract Documents as Engineer may determine necessary, which will be consistent with or reasonably inferable from the overall intent of the Contract Documents.

9.05 AUTHORIZED VARIATIONS IN WORK - FIELD ORDER

A. Engineer may authorize minor adjustments in the Work to avoid obstructions or interferences which do not involve an adjustment in the Contract Price or the Contract Time, and which are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner, and also on Contractor who will perform the change 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 request for a Change Proposal may be made therefore as provided in paragraph 10.06 or a Claim may be submitted as set forth in paragraph 11.01.

9.06 REJECTING DEFECTIVE WORK

A. Engineer will have authority to disapprove or reject completed portions of the Work which Engineer believes to be defective and 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.

9.07 SHOP DRAWINGS, CHANGE ORDERS, AND PAYMENTS

- A. Engineer's responsibility for Shop Drawings and samples are set forth in paragraphs 6.19 through 6.21 inclusive.
- B. Engineer's responsibilities as to Change Orders are set forth in Articles 10, 11, and 12.
- C. Engineer's responsibilities in respect of Applications for Payment are set forth in Article 14.

9.08 DETERMINATIONS FOR UNIT PRICE WORK

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review Engineer's preliminary determinations with Contractor 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 10.06.

9.09 DECISIONS ON DISAGREEMENTS, CLAIMS

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work performed thereunder. Claims, disputes and other matters relating to the acceptability of the Work, or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the Work, will be referred initially to Engineer in writing with a request for a formal decision in accordance with this paragraph 9.09.
- 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 11.01.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of paragraph 11.01.
- D. In this capacity 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.

9.10 LIMITATIONS ON ENGINEERS RESPONSIBILITIES

- A. Neither Engineer's authority to act under this Article 9 or elsewhere in the Contract Documents, nor any decision made by Engineer in good faith either to exercise or not exercise such authority, will give rise to any duty or responsibility of Engineer to Owner or Contractor, any Subcontractor, any manufacturer, fabricator, Supplier, distributor, surety, or any other person, 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 furnishing or performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents. These limitations on authority and responsibility will also apply to Engineer's Consultant's, Resident Project Representative and assistants.

- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer will not be responsible to Contractor or any Subcontractor, or Supplier, or to their agents or employees for injuries, damages, claims, losses, or expenses (including attorney's fees) of whatsoever kind resulting from or caused by any act or omission of Engineer in preparation for, arising from, relating to, or concerning the Project. Such acts or omissions include, but are not limited to, Engineer's negligence, tortuous conduct, errors, omissions, strict liability, breach of contract, or breach of warranty. Engineer makes no representations to Contractor, Subcontractors, Suppliers or their agents or employees regarding or respecting any work performed by Engineer in preparation for, arising from, relating to, or concerning the Project.
- E. Neither Contractor, its agents or employees, nor any Subcontractors or Suppliers or their agents or employees, are intended beneficiaries of Engineer's agreement with Owner, nor are such parties intended beneficiaries of Engineer's duties or responsibilities arising therefrom. Engineer disclaims all duties to Contractor, Subcontractors, Suppliers or their agents or employees arising from, relating to, or concerning Engineer's involvement in the Project. Owner and Contractor further agree to notify all Contractor's, Subcontractors or Suppliers of this disclaimer of Engineer's liability and require them to abide by this disclaimer.

ARTICLE 10 AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK 10.01 AMENDING AND SUPPLEMENTING CONTRACT DOCUMENTS

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 - 1. Change Orders:
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve;
 - 1) the performance or acceptability of the Work,
 - 2) the design (as set forth in the Drawings, Specifications, or otherwise), or
 - 3) other engineering or technical matters, without the recommendation of Engineer. Such an amendment will be set forth in a Change Order.
 - 2. Work Change Directives:

- a. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including paragraph 10.04 regarding change of Contract Price.
- b. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the issuance of the Work Change Directive.
- c. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

Field Orders:

- a. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and Contractor, which will perform the Work involved promptly.
- b. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor will submit a Change Proposal as provided herein.

10.02 OWNER-AUTHORIZED CHANGES IN THE WORK

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes will be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive.
- B. Upon receipt of any such document, Contractor will promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work will be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph 10.02 will obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

10.03 UNAUTHORIZED CHANGES IN THE WORK

A. Contractor will not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in paragraph 6.18 or in the case of uncovering Work as provided in paragraph 13.03.

10.04 CHANGE OF CONTRACT PRICE

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price will comply with the provisions of paragraph 10.06. Any Claim for an adjustment of Contract Price will comply with the provisions of paragraph 11.01.
- B. An adjustment in the Contract Price will be determined as follows:
 - 1. where the Work involved is covered by Unit Prices contained in the Contract Documents, then by application of such Unit Prices to the quantities of the items involved (subject to the provisions of paragraph 12.03); or
 - where the Work involved is not covered by Unit Prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 10.04.C.2); or
 - where the Work involved is not covered by Unit Prices contained in the Contract
 Documents and the parties do not reach mutual agreement to a lump sum, then on the
 basis of the Cost of the Work (determined as provided in paragraph 12.01) plus a
 Contractor's fee for overhead and profit (determined as provided in paragraph 10.04.C).
- C. Contractor's Fee: When applicable, Contractor's fee for overhead and profit will 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 paragraph 12.01.B.1 and 12.01.B.2, Contractor's fee will be 15 percent;
 - b. for costs incurred under paragraph 12.01.B.3, Contractor's fee will be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of paragraphs 10.04.C.2.a and 10.04.C.2.b is that Contractor's fee will be based on:
 - a fee of 15 percent of the costs incurred under paragraphs 12.01.B.1 and 12.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and
 - 2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor;
 - provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
 - d. no fee will be payable on the basis of costs itemized under paragraphs 12.01.B.4, 12.01.B.5, and 12.01.C;

- e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to 5 percent of such net decrease; and
- f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee will be computed on the basis of the net change in accordance with paragraphs 10.04.C.2.a through 10.04.C.2.e, inclusive.

10.05 CHANGE OF CONTRACT TIMES

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times will comply with the provisions of paragraph 10.06. Any Claim for an adjustment in the Contract Times will comply with the provisions of paragraph 11.01.
- B. An adjustment of the Contract Times will be subject to the limitations set forth in paragraph 12.04, concerning delays in Contractor's progress.

10.06 CHANGE PROPOSALS

- A. Contractor will submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seeking other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.
 - 1. Procedures: Contractor will submit each Change Proposal to Engineer promptly (but in no event later than 5 days) after the start of the event giving rise thereto, or after such initial decision. Contractor will submit supporting data, including the proposed change in Contract Price or Contract Time (if any) to Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data will be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal and consider any comments or response from Owner regarding the Change Proposal.
 - 2. Engineer's Action: Engineer will review each Change Proposal and, within 30 days after receipt of Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions will be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under paragraph 11.01.
 - 3. Binding Decision: Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under paragraph 11.01.

B. Resolution of Certain Change Proposals: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of paragraph 11.01.

10.07 EXECUTION OF CHANGE ORDERS

- A. Owner and Contractor will execute appropriate Change Orders covering:
 - changes in the Contract Price or Contract Times which are agreed to by the Parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 - 2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 - 3. changes in the Work which are:
 - a. ordered by Owner pursuant to paragraph 10.02,
 - b. required because of Owner's acceptance of defective Work under paragraph 13.08 or Owner's correction of defective Work under paragraph 13.09, or
 - agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 - 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under paragraph 10.06, or Article 16.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this paragraph 10.07, it will be deemed to be of full force and effect, as if fully executed.

10.08 NOTIFICATION TO SURETY

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

ARTICLE 11 CLAIMS

11.01 CLAIMS

- A. Claims Process: The following disputes between Owner and Contractor will be submitted to the Claims process set forth in this Article:
 - 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 - 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and

- 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. Submittal of Claim: The party submitting a Claim will deliver it directly to the other party to the Contract promptly (but in no event later than 10 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim will also furnish a copy to Engineer, for its information only. The responsibility to substantiate a Claim will rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor will certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. Review and Resolution: The party receiving a Claim will review it thoroughly, giving full consideration to its merits. The two parties will seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.

D. Mediation:

- At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
- 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
- 3. Owner and Contractor will each pay one-half of the mediator's fees and costs.
- E. Partial Approval: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 16 for final resolution of disputes.
- F. Denial of Claim: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 16 for final resolution of disputes.
- G. Final and Binding Results: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a

Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 12 COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

12.01 COST OF WORK

- A. Purposes for Determination of Cost of the Work: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this paragraph 12.01 are used to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. Costs Included: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those prevailing in the locality of the Project, will not include any of the costs itemized in paragraph 12.01.C, and will include only the following items:
 - 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees will include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs will include, but not be limited to, salaries and wages plus the cost of fringe benefits, which will include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.
 - 2. Costs 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 will accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor will 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 will obtain competitive bids from Subcontractors acceptable to Owner and Contractor and will 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 will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this paragraph 12.01.
 - 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. 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.
 - b. 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 will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts will cease when the use thereof is no longer necessary for the Work.
 - The rental rate established for each piece of Contractor owned equipment, including appurtenances and attachments to the equipment, used will be determined by use of the Rental Rate Blue Book for Construction Equipment, Volume 1, 2 or 3, as applicable; the edition which is current at the time the Work was started will apply. The established rental rate will be equal to the "Monthly" rate divided by 176; modified by the rate adjustment factor and the applicable map adjustment factor, plus the "Estimated Operating Costs per Hour."
 - 2) For equipment not listed in the Rental Rate Blue Book, Volume 1, 2 or 3, the rental rate will be determined by using the rate listed for a similar piece of equipment or by proportioning a rate listed so that the capacity, size, horsepower, and age are properly considered.
 - 3) For equipment for which there are no comparables in the Rental Rate Blue Book, Volume 1, 2 or 3, the monthly rate will be reasonable, but not more than 5 percent of the current list price, or invoice, of the equipment. The base hourly rate will then be determined by dividing the monthly rate by 176 to which 20 percent will be added to the sum which will account for adjustments and operating costs.
 - c. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by laws and regulations.
 - d. 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.
 - e. 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 5.03), 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 will include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining:

- 1) The cost of utilities, fuel, and sanitary facilities at the Site.
- 2) The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.
- C. Costs Excluded: The term Cost of the Work will not include any of the following items:
 - 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 12.01.B.1 or specifically covered by paragraph 12.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by Contractor's fee.
 - 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 - 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 - 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 - 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 12.01.B.
- D. Contractor's Fee: When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee will be determined as set forth in paragraph 10.04.C.
- E. Documentation: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 12, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer on a daily basis, an itemized cost breakdown together with supporting data.

12.02 ALLOWANCES

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and will cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. Cash Allowances: Contractor agrees that:
 - the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - 2. Contractor's costs for unloading and handling of the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the

- Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. Contingency Allowance: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price will be correspondingly adjusted.

12.03 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 Proposal.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each Unit Price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review Engineer's preliminary determinations with Contractor on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph 12.03.E.
- E. Within 30 days of Engineer's written decision under the preceding paragraph 12.03.D, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking and adjustment in the Contract Price if:
 - the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimate quantity of such item indicated in the Proposal (in no event will any change in quantities of less than 25% be considered a material or significant change from the estimated quantities); and
 - 2. there is no corresponding adjustment with respect to any other item of Work.

12.04 DELAYS IN CONTRACTOR'S PROGRESS

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor will be entitled to request an equitable adjustment in the Contract Times and Contract Price. However, Contractor's entitlement to an adjustment of the Contract Times or Contract Price is expressly conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor will not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and

- interference attributable to and within the control of a Subcontractor or Supplier will be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor will be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include only the following:
 - 1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. acts or failures to act of utility owners (other than those performing other works at or adjacent to the Site by arrangement with Owner, as specified in paragraph 7.01); and
 - acts of war or terrorism.
- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
 - 1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
 - Contractor will not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor will not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
 - 3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 10.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
 - 1. The circumstances that form the basis for the requested adjustment;
 - 2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
 - 3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
 - 4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
 - 5. The impact on Contract Price, in accordance with the provisions of paragraph 10.04.
- F. Contractor will also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised Progress Schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of

- the delay, disruption, or interference on the critical path to completion of the Work.
- G. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by paragraphs 4.03 and 4.06.
- H. Paragraph 7.01 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- Contractor will not be entitled to any adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.
- J. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 5 days of the commencement of the delaying, disrupting, or interfering event.
- K. Where Contractor is prevented from completing any part of the Work within the Contract Time (or Milestones) due to delay beyond the control of both Owner and Contractor, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay will be Contractor's sole and exclusive remedy for such delay. In no event will Owner or Engineer be liable to Contractor, any Subcontractor, any Supplier, or any other person or organization, or to any surety or employee or any agent of them, for 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 resulting from:
 - 1. delays caused by or within the control of Contractor (or Subcontractor or Supplier);
 - delays beyond the control of both Owner and Contractor, including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, or acts of neglect by utility owners or other contractors performing other work;
- L. Nor will Owner or Engineer or each of them be liable to Contractor for any claims, costs, losses or damages sustained by Contractor on or in connection with any other project or anticipated project.
- M. Nothing in this paragraph 12.04 bars a change in Contract Price to compensate Contractor due to delay, interference, or disruption directly attributable to actions or inactions of Owner or anyone for whom Owner is responsible. Except for an adjustment to the Contract Times and Contract Price, Contractor will not be entitled to and hereby waives any and all damages that it may suffer by reason of such delay or for any Act of God, including but not limited lost profits, overhead, and other consequential damages.

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

13.01 ACCESS TO WORK

A. Owner, Engineer and Engineer's representatives, other representatives of Owner, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspection and testing. Contractor will provide proper

and safe conditions for such access and advise Owner and Engineer of Contractor's Site safety procedures and programs so that Owner and Engineer may comply therewith as applicable.

13.02 TESTS AND INSPECTIONS

- A. Contractor will give Engineer and testing agency at least 24-hour notice, unless otherwise specified, of readiness of the Work for all required inspections, tests or approvals, and will cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. If any Law and Regulation, code, or order of any public body having jurisdiction requires any Work or part thereof to specifically be inspected, tested or approved, Contractor will assume full responsibility therefor, pay all costs in connection therewith and furnish Engineer the required certificates of inspection, testing or approval.
- C. Contractor will also be responsible for and will pay all costs in connection with any inspection or testing required in connection with Owner's or Engineer's acceptance of a manufacturer, fabricator, Supplier or distributor of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.
- D. The cost of all other inspections, tests and approvals required by the Contract Documents will be paid by Owner unless otherwise specified.
- E. All inspections, tests or approvals other than those required by law, ordinance, rule, regulation, code or order of any public body having jurisdiction will be performed by organizations acceptable to Owner and Contractor or by Engineer if so specified.
- F. Cost of materials to be used in inspection and transportation costs will be paid for by Contractor.
- G. Neither observations by Engineer nor inspections, tests or approvals by others will relieve Contractor from Contractor's obligations to perform the Work in accordance with the Contract Documents.

13.03 UNCOVERING WORK

- A. If any Work that is to be tested, inspected or approved is covered without written concurrence of Engineer, or contrary to the written request of Engineer, it will, if requested by Engineer, be uncovered by Contractor for Engineer's observation. Such uncovering will be at Contractor's expense unless Contractor has given Engineer timely written notice of Contractor's intention to cover such Work and Engineer has not acted with reasonable promptness in response to such notice.
- 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, will 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. Except as otherwise specified in paragraph 13.04, the cost of Work will be paid for as follows:
 - 1. If it is found that such Work is defective, Contractor will bear all the expenses of such uncovering, exposure, observation, inspection and testing, and of satisfactory reconstruction, (including, but not limited to, fees and charges of engineers, architects,

- attorneys, and other professionals) and an appropriate deductive Change Order will be issued. If the parties are unable to agree as to the amount or extent of any change in Contract Price or Contract Time, Owner may make a Claim as provided in paragraph 11.01.
- 2. If, however, such Work is not found to be defective, Contractor will be allowed an increase in the Contract Price or an extension of the Contract Time or both, directly attributable to such uncovering, exposure, observation, inspection, testing, and reconstruction. If the parties are unable to agree as to the amount or extent of any change in Contract Price or Contract Time, Contractor may make a Claim as provided in paragraph 11.01.

13.04 DEFECTIVE WORK

- A. Contractor's Obligation: It is Contractor's obligation to assure that the Work is not defective.
- B. Engineer's Authority: Engineer has the authority to determine whether Work is defective, and to reject defective Work.

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 furnish or 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 will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, 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. If required by Engineer or Owner, Contractor will promptly either correct all defective Work, whether or not fabricated, installed or completed, or if the Work has been rejected by Engineer, remove it from the Site and replace it with non-defective Work. Contractor will pay all claims, costs, losses, damages and expenses caused by or resulting from such correction or removal (including, but not limited to all costs of repair or replacement of work of others) and will take no action that would void or otherwise impair Owner's special warranty or guarantee, if any, on such Work.

13.07 GUARANTEE PERIOD

- A. If within 1 year after the date of Substantial Completion (or such longer period of time as may be prescribed by Laws or Regulations or 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, Contractor will promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. repair defective land or areas;
 - 2. correct such defective Work;
 - 3. if the defective Work has been rejected by Owner, remove it from the Site and replace it with Work that is not defective, and

- 4. satisfactorily correct or repair or remove and replace any damage to other Work or the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or the rejected Work removed and replaced, and all claims, costs, losses, damages and expenses caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement or work of others) will be paid by Contractor.
- C. Repair or replacements made under the guarantee will bear an additional 1 year guarantee dated from the acceptance of repair or replacement.

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, also Engineer) prefers to accept it, Owner may do so. Contractor will pay all claims, costs, losses, damages and expenses attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness). In such case, if 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 will be entitled to an appropriate reduction in the Contract Price. 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, or if Contractor fails to perform the Work in accordance with the Contract Documents (including any requirements of the Progress Schedule), Owner may, after 48 hours' written notice to Contractor and Contractor's Surety without prejudice to any other remedy Owner may have, correct and remedy any such deficiency.
- B. In exercising Owner's rights and remedies under this paragraph 13.09, Owner will proceed expeditiously. To the extent necessary to complete corrective and 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 will allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer's consultants such access to the Site as may be necessary to enable Owner to exercise Owner's rights and remedies under this paragraph 13.09.
- C. All claims, costs, losses, damages and expenses incurred or sustained by Owner in exercising such rights and remedies 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. Owner will be entitled to an appropriate reduction in the Contract Price equivalent to such claims, costs, losses, damages and expenses including 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 will not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by Owner of Owner's rights under this Article 13.

ARTICLE 14 PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 SCHEDULES

- A. At least 10 days prior to submitting the first Application for Payment, Contractor will submit to Engineer a final Schedule of Submittals, and, where applicable, a Schedule of Values for the Work. These schedules will be satisfactory in form and substance to Engineer as provided in Article 2.
- B. The Schedule of Values will include quantities and unit prices aggregating the Contract Price and will subdivide the Work into component parts. Each unit cost so established will include its proportionate share of Contractor's general operating charges such as profit, overhead, supervision, insurance, bond premiums, interest, equipment cost, depreciation and rental, contingencies, expendable tools, equipment and supplies. The total cost of the items and quantities Contractor lists in the Schedule of Values will equal the total Contract Price established in the Proposal.
- C. The Schedule of Values will include a complete set of detailed work sheets on bid take off and bid summary covering estimated general conditions expense (field overhead), general overhead, profit mark ups and revisions leading to the final bid amount.
- D. When the Schedule of Values is approved by Engineer, it will become part of the Agreement and will be used as the basis for Contractor progress payments.
- E. Progress payments based upon Unit Price Work will be based upon the number of units completed.

14.02 APPLICATION FOR PROGRESS PAYMENT

- A. At least 20 days before each Application for Payment falls due (but not more often than once a month), Contractor will submit to Engineer for review an Application for Payment, Contractor's Declaration, Payment Schedule, and updated Progress Schedules indicating the anticipated completion dates of the various stages of the Work and estimated payments during the next 3 months. Contractor's Application for Payment will be filled out on the form provided in the Contract Documents and signed by Contractor covering the Work completed as of the date of the Application for Payment and accompanied by such supporting documentation as is required by the Contract Documents and as Engineer or Owner may reasonably require. The Payment Schedule will be on the form provided in the Contract Documents or in a format acceptable to Engineer or Owner. On the second and all subsequent payments, partial Waivers of Lien and Sworn Statement will be required for all Work completed and paid for on previous certificates.
- B. 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 will also be accompanied by such data, satisfactory to Owner, as will establish Owner's title to the material and equipment and protect Owner's interest therein, including applicable insurance. A receipted vendor's invoice showing the quantities of materials and the amounts paid will be required and will accompany the Application for Payment.

C. Retainage with respect to progress payments will be in accordance with paragraph 14.03, and it will be retained until after completion of the entire Work and its final acceptance. When the amount to be retained is reduced to less than 10 percent, Contractor will file with Owner the written consent of the Surety to such reduction and will furnish an affidavit that all Contractor's indebtedness by reason of the Contract has been paid.

14.03 RETAINAGE

- A. On Contracts with a dollar value of \$30,000 and greater or on Contracts that provide for more than 3 progress payments, progress payments and retainage will be governed by the provisions of any statutes, rules or regulations regarding retention and these are incorporated herein by reference and made a part of this Contract.
- B. If there are no statutes, rules, or regulations applicable to retention, retainage will be 10%, or such an amount as Owner deems necessary.

14.04 REVIEW OF APPLICATIONS FOR PROGRESS PAYMENT

- A. Engineer will, within 10 days after receipt of each Contractor's Application for Payment and Payment Schedule, including each resubmittal, either indicate in writing a recommendation of payment and present an Engineer's Certificate for Payment to Owner, or may 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.
- B. Engineer's recommendation of any payment requested in Contractor's Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's review of the Contractor's Application for Payment and Certificate for Payment and the accompanying data and schedules, as an experienced and qualified design professional that to the best of Engineer's knowledge, information and belief;
 - 1. the Work has progressed to the point indicated;
 - 2. the quality of the Work is in accordance with the technical aspects of the Contract Documents subject to an evaluation of the Work as a functioning Project upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for any Unit Price Work under paragraph 12.03, and any qualifications stated in the recommendation; and
 - 3. 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.
- C. However, by recommending any such payment Engineer will not thereby be deemed to have represented that:
 - 1. exhaustive or continuous on-Site inspections have been made to check the quality or the quantity of the Work; or
 - 2. involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - 3. 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.

- D. Neither Engineer's review of Contractor's Work for the purpose of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - 1. to supervise, direct or control the Work;
 - 2. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
 - 3. for the failure of Contractor to comply with Laws and Regulations applicable to the furnishing or performance of Work;
 - 4. for any failure of Contractor to perform or furnish Work in accordance with the Contract Documents;
 - 5. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price;
 - 6. to determine that title to any Work, materials, or equipment has passed to Owner free and clear of Liens.
- E. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make such representations as stated above to Owner. Engineer may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
 - 1. the Work is defective, or completed Work has been damaged requiring correction or replacement;
 - 2. the Contract Price has been reduced because of Change Orders;
 - 3. Owner has been required to correct defective Work in accordance with paragraph 1309, or has accepted defective Work in accordance with paragraph 13.08;
 - 4. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - 5. Engineer has actual knowledge of the occurrence of any of the events enumerated in paragraph 15.02.

14.05 PAYMENT BECOMES DUE

- A. Thirty (30) days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of paragraph 14.05.B) become due, (or only if Owner is a public agency, within 15 days after Owner receives the funds which are to be provided by a department or agency of the federal or state government, whichever is later, or in accordance with any time periods required by any applicable statute, rule or regulation) and when due will be paid by Owner to Contractor.
- B. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - 1. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from

- Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries,
- 2. adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
- 3. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
- Contractor has failed to provide and maintain required bonds or insurance;
- 5. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
- Owner has incurred extra charges or engineering costs related to Submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
- 7. The Work is defective, requiring correction or replacement;
- 8. Owner has been required to correct defective Work in accordance with paragraph 13.09, or has accepted defective Work pursuant to paragraph 13.08;
- 9. The Contract Price has been reduced by Change Orders;
- 10. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause:
- 11. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
- 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;
- 13. there are other items as set forth in the Contract Documents entitling Owner to a set off against the amount recommended; or
- 14. Owner has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.04.E.1 through 14.04.E.5.
- C. 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 will 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. The reduction imposed will be binding on Contractor unless Contractor duly submits a Change Proposal contesting the reduction.
- D. If it is subsequently determined that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by paragraph 14.05.

14.06 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 at the time of payment free and clear of all Liens, claims, security interests and encumbrances (hereafter in these General Conditions referred to as "Liens").

14.07 SUBSTANTIAL COMPLETION

- A. When Contractor considers the entire Work ready for its intended use Contractor will notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a Certificate of Substantial Completion. Contractor will at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer will 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. Once Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary Certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer will attach to the certificate a punch list of items to be completed or corrected before final payment. Owner will have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefore. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final Certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary Certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner will bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion Contractor will promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner will have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and

complete or correct items on the punch list.

14.08 PARTIAL UTILIZATION

- A. Use by Owner of completed portions of the Work may be accomplished prior to Substantial Completion of all the Work subject to the following:
 - 1. Owner at any time may request Contractor in writing to permit Owner to use any part of the Work which Owner believes to be substantially complete and which may be so used without significant interference with construction of the other parts of the Work. If Contractor agrees, Contractor will certify to Owner and Engineer that said part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time thereafter Owner, Contractor and Engineer will make an inspection of that part of the Work to determine its status of completion.
 - a. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving reasons therefor.
 - b. If Engineer considers that part of the Work to be substantially complete, Engineer will execute and deliver to Owner and Contractor a certificate to that effect, fixing the date of Substantial Completion for that part of the Work, attaching thereto a punch list of items to be completed or corrected before final payment.
 - 2. Prior to issuing a certificate of Substantial Completion for that part of the Work, Engineer will deliver to Owner and Contractor a written recommendation as to the division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, maintenance, utilities and insurance for that part of the Work, which will become binding upon Owner and Contractor at the time of issuing the definitive certificate of Substantial Completion for that part of the Work unless Owner and Contractor will have otherwise agreed in writing and so informed Engineer.
 - Owner will have the right to exclude Contractor from any part of the Work which Engineer
 has so certified to be substantially complete, but Owner will allow Contractor reasonable
 access to complete or correct items on the punch list.
 - 4. In lieu of the issuance of a certificate of Substantial Completion as to part of the Work, Owner may take over operation of a facility constituting part of the Work whether or not it is Substantially Complete if such facility is functionally and separately usable; provided that prior to any such takeover, Owner and Contractor have agreed as to the division of responsibilities between Owner and Contractor for security, operation, safety, maintenance, correction period, heat, utilities and insurance with respect to such facility.

14.09 FINAL INSPECTION

A. Upon written notice from Contractor that the Work is complete, Engineer will 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 will immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.10 FINAL APPLICATION FOR PAYMENT

- A. After Contractor has completed all corrections to the satisfaction of Engineer and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked up record documents and other documents (all as required by the Contract Documents), and after Engineer has indicated that the Work is acceptable, subject to the provisions of paragraph 14.13, Contractor may make application for final payment following the procedure for progress payments.
- B. The final Application for Payment will be accompanied by all documentation called for in the Contract Documents and such other data and schedules as Engineer may reasonably require, consent of Surety, if any, to final payment, together with complete and legally effective releases or waivers, satisfactory to Owner, of all Liens arising out of or filed in connection with the Work.
- C. In lieu of the releases or waivers of Lien, if approved by Owner, Contractor may furnish receipts or releases in full; an affidavit of Contractor that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that 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.
- D. If any Subcontractor, manufacturer, fabricator, Supplier or distributor fails to furnish a release or receipt in full, Contractor may furnish a Bond or other collateral satisfactory to Owner to indemnify Owner against any Claim or Lien.

14.11 FINAL PAYMENT AND ACCEPTANCE

- A. 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 (all as required by the Contract Documents), Engineer is satisfied that to the best of Engineer's knowledge, information and belief as a design professional that the Work has been completed and Contractor has fulfilled all of Contractor's obligations under the Contract Documents, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's Certificate for Payment and present the application to Owner for payment. At that time Engineer will give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of paragraph 14.13.
- B. Otherwise, Engineer will return the Application to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor will make the necessary corrections and resubmit the Application.
- C. If the Application and accompanying documentation are appropriate as to form and substance, Owner will, within 45 days (or within the time period required by any applicable statute, rule or regulation) after receipt thereof pay Contractor the amount recommended by Engineer less any amounts of Owner claimed set-offs allowed under the Contract Documents, including but not limited to any applicable liquidated damages as determined by Owner. If Owner rejects the Application, Owner will do so in writing stating the appropriate sections of the Contract Documents upon which the rejection is based. Contractor may take the necessary remedial actions and resubmit the Application.

14.12 FINAL COMPLETION DELAYED

A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner will, upon receipt of Contractor's final Application for Payment and recommendation of Engineer, and without terminating the Agreement, 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 will be submitted by Contractor to Engineer with the Application for such payment. Such payment will be made under the terms and conditions governing final payment, except that it will not constitute a waiver of Claims.

14.13 WAIVER OF CLAIMS

- A. The making and acceptance of final payment will constitute:
 - 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 14.09, or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; and will not constitute a waiver by Owner of any rights in respect of Contractor's existing or continuing obligations under the Contract Documents; and,
 - 2. a waiver of all Claims by Contractor against Owner other than those previously made in writing and still pending in accordance with Article 16.

14.14 LATE PAYMENTS

A. Monies not paid when due hereunder, except monies involving Federal and/or State Loans, Grants, or other sources which are delinquent because of no fault of Owner, will bear interest at the maximum rate allowed by law at the time and place of the Project.

ARTICLE 15 SUSPENSION OF WORK AND TERMINATION

15.01 OWNER MAY SUSPEND WORK

A. Owner may, at any time and without cause, suspend the Work or any portion thereof for a period as Owner may deem necessary by notice in writing to Contractor and Engineer. If it should become necessary to stop work for an indefinite period, Contractor will store all materials in such manner that they will not become an obstruction, nor become damaged in any way, and Contractor will take every precaution to prevent damage or deterioration of the Work performed; provide suitable drainage by opening ditches and drains, and erect temporary structures where necessary. Contractor may request an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if Contractor makes a Claim therefor as provided in paragraph 11.01.

15.02 OWNER MAY TERMINATE FOR CAUSE

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if Contractor takes any equivalent

- or similar action by filing a petition or otherwise under any other federal or state law in effect at such time;
- a petition is filed against Contractor under any chapter of the Bankruptcy Code as now or hereinafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against Contractor under any other federal or state law in effect at the time relating to bankruptcy or insolvency;
- 3. Contractor makes a general assignment for the benefit of creditors;
- 4. a trustee, receiver, custodian or agent of Contractor is appointed under applicable law or under contract, whose appointment or authority to take charge of property of Contractor is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of Contractor's creditors;
- 5. Contractor admits in writing an inability to pay its debts generally as they become due;
- Contractor persistently fails 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 2.05 as revised from time to time);
- 7. Contractor disregards Laws and Regulations of any public body having jurisdiction;
- 8. Contractor disregards the authority of Engineer or Owner; or,
- Contractor otherwise violates any provisions of the Contract Documents.
- B. Owner may, after giving Contractor (and the Surety, if there be one) 7 days' written notice, and to the extent permitted by Laws and Regulations, terminate the services of Contractor, exclude Contractor from the Site, 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), incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, finish the Work as Owner may deem expedient, and/or enforce the rights available to Owner under any applicable Performance Bond.
- C. In such case, Contractor will not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, damages and expenses sustained by Owner arising out of or resulting from completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, damages and expenses exceed such unpaid balance, Contractor will pay the difference to Owner. Such claims, costs, losses, damages and expenses incurred by Owner will be reviewed as to reasonableness by Engineer and when so approved, incorporated in a Change Order, but when exercising any rights or remedies under this paragraph, Owner will not be required to obtain the lowest price for the Work performed.
- D. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor or its Surety then existing or which may thereafter accrue. Any retention or payment of monies due Contractor by Owner will not release Contractor from liability.

15.03 TERMINATION FOR CONVENIENCE

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy, elect to terminate the Agreement. In such case, Contractor will be paid (without duplication of any items):
 - 1. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination;
 - 2. for actual 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; and
 - 3. for reasonable expenses directly attributable to protecting work as a result of termination.
- B. Contractor will not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.
- C. Upon such termination, Contractor will:
 - 1. Immediately discontinue Work on the date and to the extent specified in the notice except to the extent necessary to protect Work in place;
 - 2. Place no further orders for materials, services, or facilities, other than as may be necessary or required for completion of such portion of Work under the Contract that is not terminated:
 - Promptly make every reasonable effort to obtain cancellation upon terms reasonably satisfactory to Owner of all purchase orders and subcontracts to the extent they relate to the performance of Work terminated or assign to Owner those orders and subcontracts and revoke agreements specified in such notice;
 - Reasonably assist Owner, as specifically requested in writing, in the maintenance, protection and disposition of property acquired by Owner under the Contract Documents, as may be necessary;
 - 5. Complete performance of any Work which is not terminated; and
 - 6. Deliver to Owner an affidavit regarding the identity of potential unpaid Subcontractors or Suppliers and the amounts due to each.

15.04 CONTRACTOR MAY STOP WORK OR TERMINATE

- A. If Owner has failed to pay Contractor any sum finally determined to be due in accordance with the time limits specified in paragraph 14.05, Contractor may upon 7 days' written notice to Owner and Engineer, stop the Work until payment of all amounts then due.
- B. If through no act or fault of Contractor, the Work is suspended for a period of more than 90 days by Owner, or under an order of court or other public authority, then Contractor may, upon 7 days written notice to Owner and Engineer and provided Owner or Engineer does not remedy such suspension or failure within that time, terminate the Agreement and recover from Owner payment on the same terms as provided in paragraph 15.03.
- C. The provisions of this paragraph 15.04 will not relieve Contractor of Contractor's obligations under paragraph 6.22 to carry on the Work in accordance with the Progress Schedule and

without delay during disputes and disagreements with Owner.

ARTICLE 16 FINAL RESOLUTION OF DISPUTES

16.01 METHODS AND PROCEDURES

- A. Disputes Subject to Final Resolution: The following disputed matters are subject to final resolution under the provisions of this Article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
 - 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents and arising after final payment has been made.
- B. Final Resolution of Disputes: For any dispute subject to resolution under this Article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, the following dispute resolution process will be followed:
 - a. The parties will submit the dispute to mediation under the mediation procedures outlined in the Construction Industry Arbitration Rules and Mediation Procedures of the American Arbitration Rules.
 - b. If the dispute is not resolved by mediation, the parties will proceed to resolve the dispute by arbitration in accordance with the Construction Industry Arbitration Rules and Mediation Procedures of the American Arbitration Association. The decision of the arbitrator(s) will be final and binding and is enforceable in 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 to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
 - 1. in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended;
 - 2. by registered or certified mail postage prepaid to, the last business address known to the giver of the notice;
 - 3. or delivered in person to such person by a commercial courier service or otherwise to the recipient's place of business; or
 - 4. by secure file transfer with receipt documentation or other document control software.

17.02 COMPUTATION OF TIME

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 GENERAL

- 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 will not 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 Law or Regulation, 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.
- B. All representations, warranties and guarantees made in the Contract Documents will survive final payment and termination or completion of this Agreement.

17.04 PROFESSIONAL FEES AND COURT COSTS INCLUDED

A. Whenever reference is made to "claims, costs, losses, damages and expenses," it will include in each case, but not be limited to, all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs.

17.05 NONDISCRIMINATION OF EMPLOYMENT

A. Contractor will agree not to discriminate against any employee or applicant for employment, to be employed in the performance of this Contract, with respect to Contractor's hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, sex, age, religion, national origin or ancestry, height, weight, or marital status, or any other classification protected by law, and to require a similar covenant on the part of any Subcontractor employed in the performance of the Contract.

17.06 POST COMPLETION DATE ENGINEERING AND INSPECTION COSTS

- A. All engineering and inspection costs incurred after the specified completion date will be paid by Contractor to Owner prior to final payment authorization. However, Contractor will not be charged with any post completion date engineering and inspection costs when the delay in completion of the Work is due to the following and Contractor has promptly given written notice of such delay to Owner or Engineer:
 - 1. to any preference, priority or allocation order duly issued by Owner;
 - to unforeseeable causes beyond the control and without the fault or negligence of Contractor, including but not restricted to, acts of God, or of the public enemy, acts of Owner, acts of another contractor in the performance of a Contract with Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and,
 - 3. to any delays of Subcontractors or Suppliers occasioned by any of the causes specified in this Article.

B. Charges after the specified completion date will be made at such times and in such amounts as Engineer will invoice Owner, provided, however said charges will be in accordance with Engineer's current rate schedule at the time the costs are incurred. Engineering and inspection costs so incurred will be deducted from Contractor's progress payments.

17.07 WAIVER OF CONSEQUENTIAL DAMAGES

- A. Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract or the Work. This mutual waiver includes but is not limited to:
 - damages incurred by Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
 - damages incurred by Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit in connection with any other project or anticipated project.
- B. This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination or default. Nothing contained in this Section will be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents. Contractor also waives any Claim for consequential damages against Engineer where such Claims arise out of or relate in any way to the Project or the Contract Documents.

17.08 NO WAIVER

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

17.09 CONTROLLING LAW

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

17.10 HEADINGS

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

END OF SECTION

SECTION 00 73 00 - SUPPLEMENTARY CONDITIONS

PART 1 GENERAL

1.01 SUMMARY

- A. These Supplementary Conditions amend and supplement Section 00 72 00 General Conditions and other provisions of Contract Documents as indicated below. Provisions that are not so amended or supplemented remain in full force and effect.
- B. The terms used in these Supplementary Conditions that are defined and have the meanings assigned to them in Section 00 72 00 General Conditions.

1.02 MODIFICATIONS TO GENERAL CONDITIONS

A. SGC-1.01 Defined Terms

1. The definition for "Substantial Completion" in Section 00 72 00 - General Conditions will be revised as follows:

Substantial Completion -- The Work (or a specified part thereof) has progressed to the point where, in the opinion of the Engineer as evidenced by the Certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it was intended; or if no such certificate is issued, when the Work is complete and ready for final payment as evidenced by the Engineer's written recommendation of final payment in accordance with Article 14.11 of Section 00 72 00 - General Conditions. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

B. SGC-4.02 Subsurface and Physical Conditions; Investigations and Reports

- 1. In the preparation of Plans and Specifications, the Engineer has relied upon the following reports and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work: None
- 2. Copies of the following reports and/or tests are attached as Exhibits: None

C. SGC-5.03 Additional Insured

1. Add the following language as a new Article 5.03.A.9 of Section 00 72 00 - General Conditions:

City of Taylor, Wade Trim Associates, Inc., and Wade Trim Associates, Inc. 's Subconsultant(s), and any other person or entity required to be named as an additional insured under the Contract Documents, including each of the aforementioned's respective parent companies, affiliates, subsidiaries, officers, directors, employees, and agents, are required to be designated as additional insureds on all policies of insurance required by Article 5.03 of the Section 00 72 00 - General Conditions and elsewhere in the Contract Documents (except for Worker's Compensation insurance and Professional Liability insurance, unless otherwise specifically required by the Contract Documents).

D. SGC-5.04 Limits of Liability

1. The required limits of liability for insurance coverages requested in Article 5.03 of Section 00 72 00 - General Conditions will be not less than the following:

SGC-5.04.A Worker's Compensation

Coverage A – Compensation: Statutory

Coverage B - Employer's Liability

Each Accident: \$100,000

Disease - Policy Limit: \$500,000

Disease - Each Employee: \$100,000

SGC-5.04.B Comprehensive General Liability

General Aggregate: \$2,000,000

Products – Com/Ops Aggregate: \$1,000,000

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

Each Occurrence: \$1,000,000

Fire Damage (any one fire): \$100,000

Medical Expense (any one person): \$100,000

SGC-5.04.C Comprehensive Automobile Liability

Bodily Injury: \$500,000

Property Damage: \$500,000

or combined single limit: \$1,000,000

SGC-5.04.D Owner's Protective

Policy to be written with City of Taylor, Michigan, and its Officials, Officers, Agents, Representatives, Employees, Boards, Commissions and Volunteers, as the Insured, and Wade Trim Associates, Inc., and any other entities or Sub-Consultants, as Additional Insured.

General Aggregate: \$2,000,000

Each Occurrence: \$1,000,000

SGC-5.04.E Builder's Risk-Installation Floater

Cost to Replace at Time of Loss

SGC-5.04.F Umbrella or Excess Liability: \$2,000,000

E. SGC-12.04 Lump Sum Work

1. Add the following new paragraph after Article 12.03 of Section 00 72 00 - General Conditions, which is to read as follows:

12.04 LUMP SUM WORK

- a. When additional work or deletion of work, which is covered by a lump sum item, is required due to a modification, not a normal overrun or underrun in estimated quantities, payment or credit for the work will be based upon apparent unit prices which will be derived by dividing the lump sum price by the estimated plan quantities.
- b. Renumber subsequent paragraphs accordingly.

F. SGC-18 Liquidated Damages

1. Liquidated damages, if applicable, are referenced in the Proposal and Agreement. The requirements for liquidated damages should be included herein.

ARTICLE 18 LIQUIDATED DAMAGES

- a. If the Contractor fails to Substantially Complete the Work within the Contract Time, or extension of time granted by the Owner, then the Contractor will pay to the Owner the amount for liquidated damages as specified in the Agreement for each calendar day that the Contractor will be in default after the time stipulated in the Contract Documents. The liquidated damages charged will be deducted from the Contractor's progress payments.
- b. Contractor will not be charged with liquidated damages or any excess cost when the delay in Substantial Completion of the Work is due to the following and the Contractor has given written notice of such delay within seven (7) calendar days to Owner or Engineer.
- c. To any preference, priority or allocation order duly issued by the Owner.
- d. To unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to, acts of God, or of the public enemy, acts of the Owner, acts of another Contractor in the performance of a Contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and
- e. To any delays of subcontractors occasioned by any of the causes specified in paragraph "a" and "b" of this Article.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 00 91 13 ADDENDUM

To all prospective Bidders and others concerned, YOU ARE HEREBY ADVISED THAT the Contract Documents for the above referenced Project are revised in accordance with the following:

Section	Description of Change
	D
Sheet	Description of Change
Attachments to this Addendum:	
This Addendum is hereby incorporated into the originabove and is considered as binding as though original must be noted in the place provided in Section 00 42	ally appearing therein. Receipt of this Addendum

05-16-2025 00 91 13 - 1 Addendum



C:\PW_WORK\BCAIN\D1593887\TAY3276 - LAKES OF TAYLOR LOCATIONS.DWG PLOTTED 2/27/2025 8:49 AM BY CAIN, BLAKE

25251 Northline Rd. Taylor, MI 48180 734.947.9700 www.wadetrim.com LAKES OF TAYLOR GOLF COURSE PEDESTRIAN STRUCTURE REHABILITATION

SITE MAP

JOB NO.

TAY3276-02T

SHEET

© Wade Trim Group, Inc.

WT: BC 02-24-25

1.) Description of Structure:

This is a timber bridge located east of the restroom/shelter area between hole #5 and tee box #5. It consists of nine spans, for an overall length of 87'-0". The deck is made up of two layers of timber placed across the bridge. The top layer is 9'-0" out-to-out and made up of nominal 2x8 boards, and the bottom layer is 10'-0" out-to-out and made up of nominal 3x8 boards. There is a 1'-0" high timber curb along both sides of the bridge, full length. The superstructure consists of six 3x12 stringers spaced at 16" center-to-center. The substructure has a timber abutment at each end and eight piers. The piers consist of two, 8" diameter posts that are 8'-0" center-to-center, with a 3x12 attached to either side.

2.) Scope of Work:

- a.) This Section describes the method of measurement and basis of payment for all items of work included in the Contract and specified in the Proposal. The CONTRACTOR shall provide all labor, material, tools, equipment and services required to complete the Work specified herein and indicated on the Plans.
- b.) THE OWNER WILL MAKE NO ALLOWANCES FOR ITEMS NOT INCLUDED IN THE PROPOSAL.

3.) Items of the Proposal:

Improvements as described in Section 7, Work Items and as shown on the drawings, will be paid for at the Contract Unit Price per Lump Sum. Price shall be payment in full for all labor, material, and equipment required. This work consists of removal and replacement of the bridge deck, including the top and bottom layer of timber decking and the timber curb, removal and replacement of concrete along the west edge of the bridge to eliminate trip hazards, a gutter downspout to be added along the east edge of the shelter to convey water away from the bridge, and all other items necessary to complete the job, including full site restoration that meets or exceeds existing conditions. All workmanship and materials shall conform to the 2020 MDOT Standard Specifications for Construction unless noted otherwise. The Contractor shall provide all labor, materials, tools, equipment and services required to complete the Work specified herein and indicated on the Plans and directed by the Engineer.

4.) Materials:

a.) All lumber for bridges shall be kiln dried southern pine dimensional lumber. All 8x8 members shall be dense select structural with Fb (REP) = 2350 psi (MIN). 3x8 deck planks and remaining timber members shall be #1 or better with Fb (REP) = 1700 psi

(MIN). All lumber shall be pressure treated per specifications and is compatible with galvanized fasteners.

- a1.) Base bid top deck planks shall be 2x8 # 1 or better with Fb (REP) = 1700 psi (MIN). Provide 1/8" gap between deck planks.
- a2.) Alternative bid top deck planks shall be 2x8 composite decking. Provide 1/8" gap between deck planks.
- b.) All steel fasteners shall be hot dipped galvanized as noted below or unless otherwise noted:

Fasteners (Bolts, Nails, Screws per ASTM A153 (MIN 1.0 OZ/SFT))

- c.) All nails shall be galvanized spiral shanked coated nails for exterior use unless otherwise noted.
- d.) All concrete work shall be done in accordance with the latest ACI 325 code requirements and standards. Concrete shall be a minimum of F'c = 3500 psi at 28 days. All details and accessories shall conform to the latest ACI 325 standard detailing manual.
- e.) Gutters shall be field formed using continuous forming roller to a 6-inch gutter shape. Downspouts shall be minimum 3-inch by 4-inch that match in color and materials. Base metal shall be prefinished aluminum made up of alloy 3105/5005, hardness H14 in thickness 0.032 ASTM B209. Exterior finish shall be Dura Coat with a color as selected by the client. The interior finish shall be polyester resin, white in color. Contractor shall verify length prior to fabrication. There shall be one downspout that drains underground with flow towards the creek.

5.) Schedule:

The work shall be completed in Fall of 2025. Additional work is being completed at Lakes of Taylor under other contracts and coordination will be required. Access shall be maintained throughout the course during the project. Contractor shall finish one bridge before moving on to the next. Schedule shall be coordinated with Alec Grant, Director of Golf at Lakes of Taylor Golf course (734) 287-2100.

6.) Construction:

Construction methods shall be in accordance with the MDOT Standard Specifications for Construction 2020 and errata's.

7.) Work Items:

The work shall be paid at the Contract Unit Price of Lump Sum for Pedestrian Structure #1 Rehabilitation. The following are included work items that are a part of the pay item:

<u>Structure, Rem Portions</u> – This work consists of removing and disposing of the brackets, bolts, timber curb, and timber decking for the length of the bridge. The top and bottom layer of timber decking and the timber curb shall be removed for the length of the bridge.

Timber and Lumber, Treated, Furn and Place – This work consists of furnishing and placing the treated timber deck plank and timber curb. The deck consists of two layers with the top layer being 9'-0" wide and the bottom layer being 11'-0" wide. The top timber planks shall be 2x8 and the bottom planks shall be 3x8. Bottom layer of decking shall be placed diagonally at a 45-degree angle and the top layer shall be placed transversely. Decking shall be fastened with #12 x 3" galvanized deck screws. Use three deck screws at plank ends and two screws at interior connections to stringers. All toenail connections shall be pre-drilled to prevent splitting. Provide a 1/8" gap between deck planks. The timber curb shall consist of 8x8 timber. Curb shall be fastened to an 8x8 spacer and timber deck with two countersunk 5/8" thru bolts. The spacers should be 6'-0" max apart. See detail provided.

Decking Alternative, Furn and Place-This work consists of furnishing and placing a composite deck plank, treated timber deck plank, and timber curb. The deck consists of two layers with the top layer being 9'-0" wide and the bottom layer being 11'-0" wide. The top composite planks shall be 2x8 and the bottom planks shall be treated timber 3x8. Bottom layer of decking shall be placed diagonally at a 45-degree angle and the top layer shall be placed transversely. Decking shall be fastened with #12 x 3" galvanized deck screws. Use three deck screws at plank ends and two screws at interior connections to stringers. All toenail connections shall be pre-drilled to prevent splitting. Provide a 1/8" gap between deck planks. The timber curb shall consist of 8x8 timber. Curb shall be fastened to an 8x8 spacer and timber deck with two countersunk 5/8" thru bolts. The spacers should be 6'-0" max apart. See detail provided.

<u>Sidewalk, Rem</u> – This work consists of removing and disposing of concrete under the shelter. The removal limits shall be 3'-0" wide and along the east edge of shelter (approximately 30'-0" long). Contractor to field verify limits.

<u>Sidewalk, Conc, 6 inch</u> – This work consists of preparing, forming, placing and finishing concrete under the shelter as directed by engineer. The concrete shall be 3'-0" wide and along the east edge of shelter (approximately 30'-0" long). The concrete shall match the elevation to the timber decking east of the shelter. Contractor to field verify limits.

<u>Gutters and Downspouts</u> – This work includes but is not limited to furnishing and installing all preformed metal gutter, downspouts, and accessories. Contractor shall field verify gutter and downspout measurements prior to fabrication. Gutters and downspouts shall be secured to the shelter structure with manufacturers approved straps and fasteners. Contractor shall treat or isolate with protective material, any contacting surfaces of dissimilar material. Any joints between gutter sections or at downspout connections shall be sealed on the interior surface with a gunnable grade, single component polyurethane caulk. Downspout shall run underground below concrete. Manufacturer shall provide touch up paint for any damaged areas that involve minor scratches or abrasions.

The following quantities are estimated and for informational purposes only.

Item No.	Description	Quantity	Units
1	Mobilization, Max	1	LSUM
2	Structures, Rem Portions	1	LSUM
3	Timber and Lumber, Treated, Furn and Place	1092	SFT
4	Sidewalk, Rem	10	SYD
5	Sidewalk, Conc, 6 inch	90	SFT
6	Gutter and Downspout	70	LFT







25251 Northline Rd. Taylor, MI 48180 734.947.9700 www.wadetrim.com LAKES OF TAYLOR GOLF COURSE PEDESTRIAN STRUCTURE REHABILITATION

BRIDGE #1 GENERAL PLAN

JOB NO.

TAY3276-02T

SHEET



ADD GUTTER EACH SIDE OF OPEN SHELTER AND DOWNSPOUT

REMOVE & REPLACE TOP & BOTTOM LAYER TIMBER DECKING



REPLACE CONCRETE **UNDER SHELTER**

C:\PW_WORK\BCAIN\D1593887\TAY3276 - LAKES OF TAYLOR LOCATIONS.DWG PLOTTED 2/27/2025 8:49 AM BY CAIN, BLAKE

25251 Northline Rd. Taylor, MI 48180 734.947.9700 www.wadetrim.com

LAKES OF TAYLOR GOLF COURSE PEDESTRIAN STRUCTURE REHABILITATION

BRIDGE #1 PHOTOS

JOB NO.

TAY3276-02T

SHEET

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WT: BC 02-24-25

1.) Description of Structure:

This is a timber bridge located east of tee box #5, with a length of 37'-10" and a width of 11'-2". The deck is made up of two layers of timber placed across the bridge. The top layer is 10'-0" out-to-out and made up of nominal 2x8 boards and the bottom layer is 10'-0" out-to-out and made up of nominal 3x8 boards. There is a 30'-4" long timber approach to the north of the bridge, and a 31'-0" long timber approach to the south. The approaches are made up of two layers of timber placed transversely across the approaches. The top layer is 10'-0" out-to-out and made up of nominal 2x8 boards and the bottom layer are 11'-2" out-to-out and made up of nominal 3x8 boards. The superstructure consists of two girders that are 3'-7" high that also act as a barrier on each side of the bridge. Between the girders there are six 3x12 stringers spaced at 17½" center-to-center. The stringers connect into 6x12 cross members that runs transversely to the bridge. There are six cross members, including one at each abutment. The substructure has a concrete abutment at each end. There is a timber approach on either end of the bridge consisting of timber decking and timber pile bents. The curb is open to allow drainage.

2.) Scope of Work:

- a.) This Section describes the method of measurement and basis of payment for all items of work included in the Contract and specified in the Proposal. The CONTRACTOR shall provide all labor, material, tools, equipment and services required to complete the Work specified herein and indicated on the Plans.
- b.) THE OWNER WILL MAKE NO ALLOWANCES FOR ITEMS NOT INCLUDED IN THE PROPOSAL.

3.) Items of the Proposal:

Improvements as described in Section 7, Work Items and as shown on the drawings, will be paid for at the Contract Unit Price per Lump Sum. Price shall be payment in full for all labor, material, and equipment required. This work consists of removal and replacement of the bridge deck, including the top and bottom layer of timber decking, removal and replacement of timber cross members 1S and 2S, removal and replacement of top and bottom layer of timber approach and timber curb, cleaning and painting of timber barrier, placing riprap, and all other items necessary to complete the job, including full site restoration that meets or exceeds existing conditions. All workmanship and materials shall conform to the 2020 MDOT Standard Specifications for Construction unless noted otherwise. The Contractor shall provide all labor, materials, tools, equipment and services required to complete the Work specified herein and indicated on the Plans and directed by the Engineer.

4.) Materials:

- a.) All lumber for bridges shall be kiln dried southern pine dimensional lumber. All 6x12 and 8x8 members shall be dense select structural with Fb (REP) = 2350 psi (MIN). 3x8 deck planks and remaining timber members shall be #1 or better with Fb (REP) = 1700 psi (MIN). All lumber shall be pressure treated per specifications and is compatible with galvanized fasteners.
 - a1.) Base bid top deck planks shall be 2x8 # 1 or better with Fb (REP) = 1700 psi (MIN). Provide 1/8" gap between deck planks.
 - a2.) Alternative bid top deck planks shall be 2x8 composite decking. Provide 1/8" gap between deck planks.
- b.) All steel fasteners shall be hot dipped galvanized as noted below or unless otherwise noted:

Fasteners (Bolts, Nails, Screws per ASTM A153 (MIN 1.0 OZ/SFT))

Joist hangers & brackets per ASTM653, G 185 (MIN 0.9 OZ/SFT)

- c.) All nails shall be galvanized spiral shanked coated nails for exterior use unless otherwise noted.
- d.) All Coating: Shall be High Gloss Alkyd Enamel; two finish coats over primer. Not less than 7.5 mil dry film thickness.

First Coat: Alkyd primer/undercoater.

- Tnemec Series V10 Modified Alkyd Primer
- Sherwin-Williams PrepRite Wall & Wood Primer B49 Series

Second and Third Coats: Alkyd Enamel.

- Tnemec Enduratone Series 1028
- Sherwin-Williams Pro Industrial Urethane Alkyd B54W151
- e.) Riprap, Plain: Provide natural stone and broken concrete with footprint dimensions from 8 to 16 inches and an in-place thickness of at least 16 inches. The Contractor may use smaller pieces to fill spaces for better slope protection.

5.) Schedule:

The work shall be completed in Fall of 2025. Additional work is being completed at Lakes of Taylor under other contracts and coordination will be required. Access shall be maintained throughout the course during the project. Contractor shall finish one bridge before moving on to

the next. Schedule shall be coordinated with Alec Grant, Director of Golf at Lakes of Taylor Golf course (734) 287-2100.

6.) Construction:

Construction methods shall be in accordance with the MDOT Standard Specifications for Construction 2020 and errata's.

7.) Work Items:

The work shall be paid at the Contract Unit Price of Lump Sum for Pedestrian Structure #2 Rehabilitation. The following are included work items that are a part of the pay item:

<u>Structure, Rem Portions</u> – This work consists of removing and disposing of the brackets, bolts, timber decking on the bridge and approach, and timber cross member 1S and 2S. The top and bottom layer of timber decking shall be removed for the length of the bridge. The top and bottom layer of the timber decking shall be removed for the length of the North and South approach. The timber curb shall be removed for the length of the North and South approach.

Timber and Lumber, Treated, Furn and Place – This work consists of furnishing and placing timber cross members 1S and 2S, treated timber deck plank, and timber approach. The deck consists of two layers with the top layer being 10'-0" wide and the bottom layer being 10'-0" wide. The top timber planks shall be 2x8 and the bottom planks shall be 3x8. Bottom layer of decking shall be placed diagonally at a 45-degree angle and the top layer shall be placed transversely. Decking shall be fastened with #12 x 3" galvanized deck screws. Use three deck screws at plank ends and two screws at interior connections to stringers. All toenail connections shall be pre-drilled to prevent splitting. Provide a 1/8" gap between deck planks. The top layer of timber approach shall be 2x8 by 10' wide and the bottom planks shall be 3x8 by 11'-2" wide. The timber curb along the approaches shall consist of 8x8 timber. Curb shall be fastened to an 8x8 spacer and timber deck with two countersunk 5/8" thru bolts. The spacers should be 6'-0" max apart. See detail provided.

<u>Decking Alternative</u>, <u>Furn and Place</u>-This work consists of furnishing and placing timber cross members 1S and 2S, composite deck plank, and composite approach. The timber cross members shall be 6x12. The deck consists of two layers with the top layer being 10'-0" wide and the bottom layer being 10'-0" wide. The top composite planks shall be 2x8 and the bottom planks shall be treated timber 3x8. Bottom layer of decking shall be placed diagonally at a 45-degree angle and the top layer shall be placed transversely. Decking shall be fastened with #12 x 3" galvanized deck screws. Use three deck screws at plank ends and two screws at interior connections to stringers. All toenail connections shall be pre-drilled to prevent splitting. Provide a 1/8" gap between deck planks. The top

layer of approach shall be composite planks 2x8 by 10' wide and the bottom treated timber planks shall be 3x8 by 11'-2" wide. The timber curb along the approaches shall consist of 8x8 timber. Curb shall be fastened to an 8x8 spacer and timber deck with two countersunk 5/8" thru bolts. The spacers should be 6'-0" max apart. See detail provided.

Clean and Paint - This work consists of cleaning and painting the inside and outside face of the barrier along the deck. Finish color to be selected by the Engineer. Use sufficient water under pressure to remove salt contaminant, dirt, and other detrimental foreign matter without damaging the wood. Stop the cleaning operation if damage to existing paint coverage occurs. In this situation, adjust the water pressure to remove foreign material without damaging or removing existing paint coverage. Prepare surfaces in accordance with manufacturer's instructions for specified coatings and indicated materials, using only methods and materials recommended by coating manufacturer, and as follows: Remove surface irregularities by scraping or sanding to produce uniform substrate for coating application; apply one coat primer of type recommended by coating manufacturer for maximum coating adhesion. Seal knots, pitch streaks, and sap areas with sealer: Duron Dura Clad 180 HR Ready-Mixed Aluminum, or equal. Fill nail recesses with putty or a glazing compound. Let fillers dry, then sand surfaces smooth. Apply each coat to uniform coating thickness in accordance with manufacturer's instructions, not exceeding manufacturer's specified maximum spread rate for indicated surface; thins, brush marks, roller marks, orange-peel, or other application imperfections are not permitted. Allow manufacturer's specified drying time, and ensure correct coating adhesion, for each coat before applying next coat. Inspect each coat before applying next coat; touch-up surface imperfections with coating material, feathering, and sanding if required; touch-up areas to achieve flat, uniform surface without surface defects visible from 5 feet. Do not apply succeeding coat until Engineer has approved previous coat; only Engineer-approved coats will be considered in determining number of coats applied. Remove dust and other foreign materials from substrate immediately prior to applying each coat. Where coating application abuts other materials or other coating color, terminate coating with a clean sharp termination line without coating overlap.

<u>Riprap, Plain</u> – This work consists of placing riprap, plain. The riprap will be placed along the face of the abutment with an additional 3'-0" beyond each side of the abutment. The riprap will extend 5'-0" from face of the abutment. The riprap shall be placed at both the north and south abutment.

The following quantities are estimated and for informational purposes only.

Item No.	Description	Quantity	Units
1	Mobilization, Max	1	LSUM
2	Structures, Rem Portions	1	LSUM
3	Timber and Lumber, Treated, Furn and Place	1181	SFT
4	Clean and Paint	606	SFT
5	Riprap, Plain	23	SYD







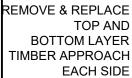
25251 Northline Rd. Taylor, MI 48180 734.947.9700 www.wadetrim.com LAKES OF TAYLOR GOLF COURSE PEDESTRIAN STRUCTURE REHABILIATATION

BRIDGE #2 GENERAL PLAN

JOB NO.

TAY3276-02T

SHEET



REMOVE & REPLACE TIMBER CURB FOR THE LENGTH OF SOUTH & NORTH APPROACH



REMOVE & REPLACE TOP & BOTTOM LAYER TIMBER DECKING REMOVE & REPLACE
1S AND 2S STRINGERS
& BRACKETS



ADD RIPRAP

C.IPW_WORKIBCAINID15938871TAY3276 - LAKES OF TAYLOR LOCATIONS.DWG PLOTTED 2/27/2025 8:49 AM BY CAIN, BLAKE



25251 Northline Rd. Taylor, MI 48180 734.947.9700 www.wadetrim.com LAKES OF TAYLOR GOLF COURSE PEDESTRIAN STRUCTURE REHABILITATION

BRIDGE #2 PHOTOS

JOB NO.

TAY3276-02T

SHEET

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WT: BC 02-24-25

1.) Description of Structure:

This is a timber bridge located east of fairway #5, with a length of 37'-6" and a width of 11'-2". The deck is made up of two layers of timber placed transversely across the bridge. The top layer is 10'-0" out-to-out and made up of nominal 2x8 boards and the bottom layer is 10'-0" out-to-out and made up of nominal 3x8 boards. The superstructure consists of two girders that are 3'-7" high that also act as a barrier on each side of the bridge. There is a 31'-0" long timber approach to the north of the bridge, and a 31'-2" long elevated timber approach to the south. The approaches are made up of two layers of timber placed transversely across the approaches. The top layer is 10'-0" out-to-out and made up of nominal 2x8 boards and the bottom layer is 11'-2" out-to-out and made up of nominal 3x8 boards. A curb runs the length of the north and south approach.

2.) Scope of Work:

- a.) This Section describes the method of measurement and basis of payment for all items of work included in the Contract and specified in the Proposal. The CONTRACTOR shall provide all labor, material, tools, equipment and services required to complete the Work specified herein and indicated on the Plans.
- b.) THE OWNER WILL MAKE NO ALLOWANCES FOR ITEMS NOT INCLUDED IN THE PROPOSAL.

3.) Items of the Proposal:

Improvements as described in Section 7, Work Items and as shown on the drawings, will be paid for at the Contract Unit Price per Lump Sum. Price shall be payment in full for all labor, material, and equipment required. This work consists of removal and replacement of the bridge deck, including the top and bottom layer of timber decking, removal and replacement of top and bottom layer of timber approach, cleaning and painting of barrier, removal and replacement of curb, placing riprap, and all other items necessary to complete the job, including full site restoration that meets or exceeds existing conditions. All workmanship and materials shall conform to the 2020 MDOT Standard Specifications for Construction unless noted otherwise. The Contractor shall provide all labor, materials, tools, equipment and services required to complete the Work specified herein and indicated on the Plans and directed by the Engineer.

4.) Materials:

a.) All lumber for bridges shall be kiln dried southern pine dimensional lumber. All 8x8 members shall be dense select structural with Fb (REP) = 2350 psi (MIN). 3x8 deck planks and remaining timber members shall be #1 or better with Fb (REP) = 1700 psi

(MIN). All lumber shall be pressure treated per specifications and is compatible with galvanized fasteners.

- a1.) Base bid top deck planks shall be 2x8 # 1 or better with Fb (REP) = 1700 psi (MIN). Provide 1/8" gap between deck planks.
- a2.) Alternative bid top deck planks shall be 2x8 composite decking. Provide 1/8" gap between deck planks.
- b.) All steel fasteners shall be hot dipped galvanized as noted below or unless otherwise noted:

Fasteners (Bolts, Nails, Screws per ASTM A153 (MIN 1.0 OZ/SFT))

- c.) All nails shall be galvanized spiral shanked coated nails for exterior use unless otherwise noted.
- d.) All Coating: Shall be High Gloss Alkyd Enamel; two finish coats over primer. Not less than 7.5 mil dry film thickness.

First Coat: Alkyd primer/undercoater.

- Tnemec Series V10 Modified Alkyd Primer
- Sherwin-Williams PrepRite Wall & Wood Primer B49 Series

Second and Third Coats: Alkyd Enamel.

- Tnemec Enduratone Series 1028
- Sherwin-Williams Pro Industrial Urethane Alkyd B54W151
- e.) Riprap, Plain: Provide natural stone and broken concrete with footprint dimensions from 8 to 16 inches and an in-place thickness of at least 16 inches. The Contractor may use smaller pieces to fill spaces for better slope protection.

5.) Schedule:

The work shall be completed in Fall of 2025. Additional work is being completed at Lakes of Taylor under other contracts and coordination will be required. Access shall be maintained throughout the course during the project. Contractor shall finish one bridge before moving on to the next. Schedule shall be coordinated with Alec Grant, Director of Golf at Lakes of Taylor Golf course (734) 287-2100.

6.) Construction:

Construction methods shall be in accordance with the MDOT Standard Specifications for Construction 2020 and errata's.

7.) Work Items:

The work shall be paid at the Contract Unit Price of Lump Sum for Pedestrian Structure #3 Rehabilitation. The following are included work items that are a part of the pay item:

<u>Structure, Rem Portions</u> – This work consists of removing and disposing of the brackets, bolts and timber decking on the bridge and approach. The top and bottom layer of timber decking shall be removed for the length of the bridge. The top and bottom layer of the timber decking and timber curb shall be removed for the length of North and South approach.

Timber and Lumber, Treated, Furn and Place – This work consists of furnishing and placing the treated timber deck plank, timber approach, and timber curb. The deck consists of two layers with the top layer being 10'-0" wide and the bottom layer being 10'-0" wide. The top timber planks shall be 2x8 and the bottom planks shall 3x8. Bottom layer of decking shall be placed diagonally at a 45-degree angle and the top layer shall be placed transversely. Decking shall be fastened w/ #12 x 3" galvanized deck screws. Use three deck screws at plank ends and two screws at interior connections to stringers. All toenail connections shall be pre-drilled to prevent splitting. Provide a 1/8" gap between deck planks. The top layer of approach shall be timber planks 2x8 by 10' wide and the bottom treated timber planks shall be 3x8 by 11'-2" wide. The timber curb along the approaches shall consist of 8x8 timber. Curb shall be fastened to an 8x8 spacer and timber deck with two countersunk 5/8" thru bolts.

Decking Alternative, Furn and Place-This work consists of furnishing and placing the composite deck plank. The deck consists of two layers with the top layer being 10'-0" wide and the bottom layer being 10'-0" wide. The top composite planks shall be 2x8 and the bottom planks shall be treated timber 3x8. Bottom layer of decking shall be placed diagonally at a 45-degree angle and the top layer shall be placed transversely. Decking shall be fastened with #12 x 3" galvanized deck screws. Use three deck screws at plank ends and two screws at interior connections to stringers. All toenail connections shall be pre-drilled to prevent splitting. Provide a 1/8" gap between deck planks. The top layer of approach shall be composite planks 2x8 by 10' wide and the bottom treated timber planks shall be 3x8 by 11'-2" wide. The timber curb along the approaches shall consist of 8x8 timber. Curb shall be fastened to an 8x8 spacer and timber deck with two countersunk 5/8" thru bolts. The spacers should be 6'-0" max apart. See detail provided.

<u>Clean and Paint</u> – This work consists of cleaning and painting the inside and outside face of the barrier along the deck. Finish color to be selected by the Engineer. Use sufficient water under pressure to remove salt contaminant, dirt, and other detrimental foreign matter without damaging the wood. Stop the cleaning operation if damage to

existing paint coverage occurs. In this situation, adjust the water pressure to remove foreign material without damaging or removing existing paint coverage. Prepare surfaces in accordance with manufacturer's instructions for specified coatings and indicated materials, using only methods and materials recommended by coating manufacturer, and as follows: Remove surface irregularities by scraping or sanding to produce uniform substrate for coating application; apply one coat primer of type recommended by coating manufacturer for maximum coating adhesion. Seal knots, pitch streaks, and sap areas with sealer: Duron Dura Clad 180 HR Ready-Mixed Aluminum, or equal. Fill nail recesses with putty or a glazing compound. Let fillers dry, then sand surfaces smooth. Apply each coat to uniform coating thickness in accordance with manufacturer's instructions, not exceeding manufacturer's specified maximum spread rate for indicated surface; thins, brush marks, roller marks, orange-peel, or other application imperfections are not permitted. Allow manufacturer's specified drying time, and ensure correct coating adhesion, for each coat before applying next coat. Inspect each coat before applying next coat; touch-up surface imperfections with coating material, feathering, and sanding if required; touch-up areas to achieve flat, uniform surface without surface defects visible from 5 feet. Do not apply succeeding coat until Engineer has approved previous coat; only Engineer-approved coats will be considered in determining number of coats applied. Remove dust and other foreign materials from substrate immediately prior to applying each coat. Where coating application abuts other materials or other coating color, terminate coating with a clean sharp termination line without coating overlap.

<u>Riprap, Plain</u> – This work consists of placing riprap, plain. The riprap will be placed along the face of the abutment with an additional 3'-0" beyond each side of the abutment. The riprap will extend 5'-0" from face of the abutment. The riprap shall be placed at both the north and south abutment.

The following quantities are estimated and for informational purposes only.

Item No.	Description	Quantity	Units
1	Mobilization, Max	1	LSUM
2	Structures, Rem Portions	1	LSUM
3	Timber and Lumber, Treated, Furn and Place	1265	SFT
4	Clean and Paint	600	SFT
5	Riprap, Plain	23	SYD







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BRIDGE #3 GENERAL PLAN

JOB NO.

TAY3276-02T

SHEET

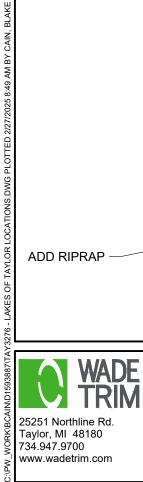


REMOVE & REPLACE CURB ALONG THE LENGTH OF THE **APPROACH**

REMOVE & REPLACE TOP & BOTTOM LAYER TIMBER DECKING BRIDGE



ADD RIPRAP



25251 Northline Rd. Taylor, MI 48180 734.947.9700 www.wadetrim.com

LAKES OF TAYLOR GOLF COURSE PEDESTRIAN STRUCTURE REHABILITATION JOB NO.

TAY3276-02T

SHEET

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BRIDGE #3 PHOTOS

WT: BC 02-24-25

1.) Description of Structure:

This is a covered timber bridge located west of tee box #7 just east of Beech Daly, with a length of 37'-0" and a width of 11'-2". The deck is made up of two layers of nominal 2x8 boards placed across the bridge. The top and bottom layer are 10'-0" out-to-out. The superstructure consists of two girders that are 3'-7" high that also act as a barrier on each side. Between the girders there are six 3x12 stringers spaced at 17½" center-to-center. The stringers connect into a 6x12 cross member that runs transversely to the bridge. There are six cross members, including one at each abutment.

2.) Scope of Work:

- a.) This Section describes the method of measurement and basis of payment for all items of work included in the Contract and specified in the Proposal. The CONTRACTOR shall provide all labor, material, tools, equipment and services required to complete the Work specified herein and indicated on the Plans.
- b.) THE OWNER WILL MAKE NO ALLOWANCES FOR ITEMS NOT INCLUDED IN THE PROPOSAL.

3.) Items of the Proposal:

Improvements as described in Section 7, Work Items and as shown on the drawings, will be paid for at the Contract Unit Price per Lump Sum. Price shall be payment in full for all labor, material, and equipment required. This work consists of removal and replacement of the bridge deck, including the top and bottom layer of timber decking, cleaning and painting of (barrier, roof fascia, columns, and exposed roof members), and all other items necessary to complete the job, including full site restoration that meets or exceeds existing conditions. All workmanship and materials shall conform to the 2020 MDOT Standard Specifications for Construction unless noted otherwise. The Contractor shall provide all labor, materials, tools, equipment and services required to complete the Work specified herein and indicated on the Plans and directed by the Engineer.

4.) Materials:

- a.) All lumber for bridges shall be kiln dried southern pine dimensional lumber. 3x8 deck planks and remaining timber members shall be #1 or better with Fb (REP) = 1700 psi (MIN). All lumber shall be pressure treated per specifications and is compatible with galvanized fasteners.
 - a1.) Base bid top deck planks shall be 2x8 # 1 or better with Fb (REP) = 1700 psi (MIN). Provide 1/8" gap between deck planks.
 - a2.) Alternative bid top deck planks shall be 2x8 composite decking. Provide 1/8" gap between deck planks.

b.) All steel fasteners shall be hot dipped galvanized as noted below or unless otherwise noted:

Fasteners (Bolts, Nails, Screws per ASTM A153 (MIN 1.0 OZ/SFT))

- c.) All nails shall be galvanized spiral shanked coated nails for exterior use unless otherwise noted.
- d.) All Coating: Shall be High Gloss Alkyd Enamel; two finish coats over primer. Not less than 7.5 mil dry film thickness.

First Coat: Alkyd primer/undercoater.

- Tnemec Series V10 Modified Alkyd Primer
- Sherwin-Williams PrepRite Wall & Wood Primer B49 Series

Second and Third Coats: Alkyd Enamel.

- Tnemec Enduratone Series 1028
- Sherwin-Williams Pro Industrial Urethane Alkyd B54W151

5.) Schedule:

The work shall be completed in Fall of 2025. Additional work is being completed at Lakes of Taylor under other contracts and coordination will be required. Access shall be maintained throughout the course during the project. Contractor shall finish one bridge before moving on to the next. Schedule shall be coordinated with Alec Grant, Director of Golf at Lakes of Taylor Golf course (734) 287-2100.

6.) Construction:

Construction methods shall be in accordance with the MDOT Standard Specifications for Construction 2020 and errata's.

7.) Work Items:

The work shall be paid at the Contract Unit Price of Lump Sum for Pedestrian Structure #4 Rehabilitation. The following are included work items that are a part of the pay item:

<u>Structure, Rem Portions</u> – This work consists of removing and disposing of the brackets, bolts and timber decking for the length of the bridge. The top and bottom layer of timber decking shall be removed for the length of the bridge.

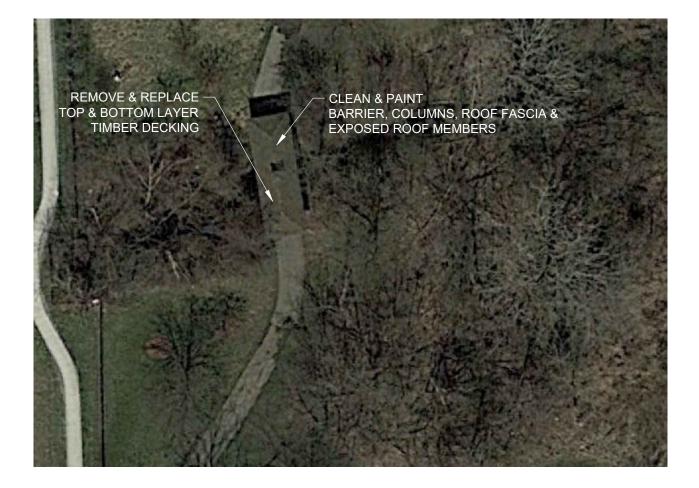
<u>Timber and Lumber, Treated, Furn and Place</u> – This work consists of furnishing and placing the treated timber plank deck. The deck consists of two layers with the top layer being 10'-0" wide and the bottom layer being 10'-0" wide. The top timber planks shall be 2x8 and the bottom planks shall 3x8. Bottom layer of decking shall be placed diagonally at a 45-degree angle and the top layer shall be placed transversely. Decking shall be fastened with #12 x 3" galvanized deck screws. Use three deck screws at plank ends and two screws at interior connections to stringers. All toenail connections shall be predrilled to prevent splitting. Provide a 1/8" gap between deck planks.

<u>Decking Alternative</u>, <u>Furn and Place</u>-This work consists of furnishing and placing the composite deck plank. The deck consists of two layers with the top layer being 10'-0" wide and the bottom layer being 10'-0" wide. The top composite planks shall be 2x8 and the bottom planks shall be treated timber 3x8. Bottom layer of decking shall be placed diagonally at a 45-degree angle and the top layer shall be placed transversely. Decking shall be fastened with #12 x 3" galvanized deck screws. Use three deck screws at plank ends and two screws at interior connections to stringers. All toenail connections shall be pre-drilled to prevent splitting. Provide a 1/8" gap between deck planks.

Clean and Paint - This work consists of cleaning and painting the inside and outside face of the barrier along the deck, columns, roof fascia, and exposed roof members. Finish color to be selected by the Engineer. Use sufficient water under pressure to remove salt contaminant, dirt, and other detrimental foreign matter without damaging the wood. Stop the cleaning operation if damage to existing paint coverage occurs. In this situation, adjust the water pressure to remove foreign material without damaging or removing existing paint coverage. Prepare surfaces in accordance with manufacturer's instructions for specified coatings and indicated materials, using only methods and materials recommended by coating manufacturer, and as follows: Remove surface irregularities by scraping or sanding to produce uniform substrate for coating application; apply one coat primer of type recommended by coating manufacturer for maximum coating adhesion. Seal knots, pitch streaks, and sap areas with sealer: Duron Dura Clad 180 HR Ready-Mixed Aluminum, or equal. Fill nail recesses with putty or a glazing compound. Let fillers dry, then sand surfaces smooth. Apply each coat to uniform coating thickness in accordance with manufacturer's instructions, not exceeding manufacturer's specified maximum spread rate for indicated surface; thins, brush marks, roller marks, orange-peel, or other application imperfections are not permitted. Allow manufacturer's specified drying time, and ensure correct coating adhesion, for each coat before applying next coat. Inspect each coat before applying next coat: touch-up surface imperfections with coating material, feathering, and sanding if required; touch-up areas to achieve flat, uniform surface without surface defects visible from 5 feet. Do not apply succeeding coat until Engineer has approved previous coat; only Engineer-approved coats will be considered in determining number of coats applied. Remove dust and other foreign materials from substrate immediately prior to applying each coat. Where coating application abuts other materials or other coating color, terminate coating with a clean sharp termination line without coating overlap.

The following quantities are estimated and for informational purposes only.

Item No.	Description	Quantity	Units
1	Mobilization, Max	1	LSUM
2	Structures, Rem Portions	1	LSUM
3	Timber and Lumber, Treated, Furn and Place	370	SFT
4	Clean and Paint	1245	SFT







LAKES OF TAYLOR GOLF COURSE PEDESTRIAN STRUCTURE REHABILITATION

BRIDGE #4 GENERAL PLAN

JOB NO.

TAY3276-02T



CLEAN & PAINT REPORT REPORT OF STATE OF STATE OF MEMBERS

REMOVE & REPLACE
TOP & BOTTOM LAYER
TIMBER DECKING

WADE TRIM

C:\PW_WORK\BCAIN\D1593887\TAY3276 - LAKES OF TAYLOR LOCATIONS.DWG PLOTTED 2/27/2025 8:49 AM BY CAIN, BLAKE

25251 Northline Rd. Taylor, MI 48180 734.947.9700 www.wadetrim.com LAKES OF TAYLOR GOLF COURSE PEDESTRIAN STRUCTURE REHABILITATION

BRIDGE #4 PHOTOS

JOB NO.

TAY3276-02T

SHEET

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WT: BC 02-24-25

1.) Description of Structure:

This is a covered timber bridge located south of hole #8, along the west side of fairway #8, with a length of 37'-4" and a width of 11-2". The deck is made up of two layers of nominal 2x8 boards and the bottom layer is 10'-0" and made up of nominal 3x8 boards. The top and bottom layer are 10'-0" out-to-out. The superstructure consists of two girders that are 3'-7" high that also act as a barrier and curb on each side. Between the girders there are six 3x12 stringers spaced at 17½" center-to-center. The stringers connect into a 6x12 cross member that runs transversely to the bridge. There are six cross members, including one at each abutment. The substructure has a concrete abutment at each end.

2.) Scope of Work:

- a.) This Section describes the method of measurement and basis of payment for all items of work included in the Contract and specified in the Proposal. The CONTRACTOR shall provide all labor, material, tools, equipment and services required to complete the Work specified herein and indicated on the Plans.
- b.) THE OWNER WILL MAKE NO ALLOWANCES FOR ITEMS NOT INCLUDED IN THE PROPOSAL.

3.) Items of the Proposal:

Improvements as described in Section 7, Work Items and as shown on the drawings, will be paid for at the Contract Unit Price per Lump Sum. Price shall be payment in full for all labor, material, and equipment required. This work consists of removal and replacement of the bridge deck, including the top and bottom layer of timber decking, removal and replacement of timber cross member 3S and 6S, cleaning and painting (barrier, roof fascia, columns, and exposed roof members), placing riprap, and all other items necessary to complete the job, including full site restoration that meets or exceeds existing conditions. All workmanship and materials shall conform to the 2020 MDOT Standard Specifications for Construction unless noted otherwise. The Contractor shall provide all labor, materials, tools, equipment and services required to complete the Work specified herein and indicated on the Plans and directed by the Engineer.

4.) Materials:

a.) All lumber for bridges shall be kiln dried southern pine dimensional lumber. All 6x12 members shall be dense select structural with Fb (REP) = 2350 psi (MIN). 3x8 deck planks and remaining timber members shall be #1 or better with Fb (REP) = 1700 psi (MIN). All lumber shall be pressure treated per specifications and is compatible with galvanized fasteners.

- a1.) Base bid top deck planks shall be 2x8 #1 or better with Fb (REP) = 1700 psi (MIN). Provide 1/8" gap between deck planks.
- a2.) Alternative bid top deck planks shall be 2x8 composite decking. Provide 1/8" gap between deck planks.
- b.) All steel fasteners shall be hot dipped galvanized as noted below or unless otherwise noted:

Fasteners (Bolts, Nails, Screws per ASTM A153 (MIN 1.0 OZ/SFT))

Joist hangers & brackets per ASTM653, G 185 (MIN 0.9 OZ/SFT)

- c.) All nails shall be galvanized spiral shanked coated nails for exterior use unless otherwise noted.
- d.) All Coating: Shall be High Gloss Alkyd Enamel; two finish coats over primer. Not less than 7.5 mil dry film thickness.

First Coat: Alkyd primer/undercoater.

- Tnemec Series V10 Modified Alkyd Primer
- Sherwin-Williams PrepRite Wall & Wood Primer B49 Series

Second and Third Coats: Alkyd Enamel.

- Tnemec Enduratone Series 1028
- Sherwin-Williams Pro Industrial Urethane Alkyd B54W151
- e.) Riprap, Plain: Provide natural stone and broken concrete with footprint dimensions from 8 to 16 inches and an in-place thickness of at least 16 inches. The Contractor may use smaller pieces to fill spaces for better slope protection.

5.) Schedule:

The work shall be completed in Fall of 2025. Additional work is being completed at Lakes of Taylor under other contracts and coordination will be required. Access shall be maintained throughout the course during the project. Contractor shall finish one bridge before moving on to the next. Schedule shall be coordinated with Alec Grant, Director of Golf at Lakes of Taylor Golf course (734) 287-2100.

6.) Construction:

Construction methods shall be in accordance with the MDOT Standard Specifications for Construction 2020 and errata's.

7.) Work Items:

The work shall be paid at the Contract Unit Price of Lump Sum for Pedestrian Structure #5 Rehabilitation. The following are included work items that are a part of the pay item:

<u>Structure, Rem Portions</u> – This work consists of removing and disposing of the brackets, bolts, timber decking for the length of the bridge, and timber cross members 3S and 6S. The top and bottom layer of timber decking shall be removed for the length of the bridge.

<u>Timber and Lumber, Treated, Furn and Place</u> – This work consists of furnishing and placing timber cross members 3S and 6S and treated timber deck plank. The timber cross members shall be 6x12. The deck consists of two layers with the top layer being 10'-0" wide and the bottom layer being 10'-0" wide. The top timber planks shall be 2x8 and the bottom planks shall 3x8. Bottom layer of decking shall be placed diagonally at a 45-degree angle and the top layer shall be placed transversely. Decking shall be fastened with #12 x 3" galvanized deck screws. Use three deck screws at plank ends and two screws at interior connections to stringers. All toenail connections shall be predrilled to prevent splitting. Provide a 1/8" gap between deck planks.

<u>Decking Alternative</u>, <u>Furn and Place</u>-This work consists of furnishing and placing timber cross members 3S and 6S and the composite deck plank. The timber cross members shall be 6x12. The deck consists of two layers with the top layer being 10'-0" wide and the bottom layer being 10'-0" wide. The top composite planks shall be 2x8 and the bottom planks shall be treated timber 3x8. Bottom layer of decking shall be placed diagonally at a 45-degree angle and the top layer shall be placed transversely. Decking shall be fastened with #12 x 3" galvanized deck screws. Use three deck screws at plank ends and two screws at interior connections to stringers. All toenail connections shall be pre-drilled to prevent splitting. Provide a 1/8" gap between deck planks.

<u>Clean and Paint</u> – This work consists of cleaning and painting the inside and outside face of the barrier along the deck, columns, roof fascia, and exposed roof members. Finish color to be selected by the Engineer. Use sufficient water under pressure to remove salt contaminant, dirt, and other detrimental foreign matter without damaging the wood. Stop the cleaning operation if damage to existing paint coverage occurs. In this situation, adjust the water pressure to remove foreign material without damaging or removing existing paint coverage. Prepare surfaces in accordance with manufacturer's instructions for specified coatings and indicated materials, using only methods and

materials recommended by coating manufacturer, and as follows: Remove surface irregularities by scraping or sanding to produce uniform substrate for coating application; apply one coat primer of type recommended by coating manufacturer for maximum coating adhesion. Seal knots, pitch streaks, and sap areas with sealer: Duron Dura Clad 180 HR Ready-Mixed Aluminum, or equal. Fill nail recesses with putty or a glazing compound. Let fillers dry, then sand surfaces smooth. Apply each coat to uniform coating thickness in accordance with manufacturer's instructions, not exceeding manufacturer's specified maximum spread rate for indicated surface; thins, brush marks, roller marks, orange-peel, or other application imperfections are not permitted. Allow manufacturer's specified drying time, and ensure correct coating adhesion, for each coat before applying next coat. Inspect each coat before applying next coat: touch-up surface imperfections with coating material, feathering, and sanding if required; touch-up areas to achieve flat, uniform surface without surface defects visible from 5 feet. Do not apply succeeding coat until Engineer has approved previous coat; only Engineer-approved coats will be considered in determining number of coats applied. Remove dust and other foreign materials from substrate immediately prior to applying each coat. Where coating application abuts other materials or other coating color, terminate coating with a clean sharp termination line without coating overlap.

<u>Riprap, Plain</u> – This work consists of placing riprap, plain. The riprap will be placed along the face of the abutment with an additional 3'-0" beyond each side of the abutment. The riprap will extend 5'-0" from face of the abutment. The riprap shall be placed at both the north and south abutment.

The following quantities are estimated and for informational purposes only.

Item No.	Description	Quantity	Units
1	Mobilization, Max	1	LSUM
2	Structures, Rem Portions	1	LSUM
3	Timber and Lumber, Treated, Furn and Place	394	SFT
4	Clean and Paint	1254	SFT
5	Riprap, Plain	23	SYD







LAKES OF TAYLOR GOLF COURSE PEDESTRIAN STRUCTURE REHABILITATION

BRIDGE #5 GENERAL PLAN

JOB NO.

TAY3267-02T

CLEAN & PAINT BARRIER, COLUMNS, ROOF FASCIA, & **EXPOSED ROOF MEMBERS**



CLEAN & PAINT BARRIER

REMOVE & REPLACE TOP & BOTTOM LAYER TIMBER DECKING

REMOVE & REPLACE **CROSS MEMBER** 3S &6S



ADD RIPRAP **EACH SIDE**



25251 Northline Rd. Taylor, MI 48180 734.947.9700 www.wadetrim.com

LAKES OF TAYLOR GOLF COURSE PEDESTRIAN STRUCTURE REHABILITATION

BRIDGE #5 PHOTOS

JOB NO.

TAY3276-02T

SHEET

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WT: BC 02-24-25

1.) Description of Structure:

This is a covered timber bridge located between hole #8 and tee box #9, with a length of 37'-4" and a width of 11'-2". The deck is made up of two layers of nominal 2x8 boards placed across the bridge. The top and bottom layer are 10'-0" out-to-out. The superstructure consists of two girders that are 3'-7" high that also act as a barrier rail and curb on each side. Between the girders there are six 3x12 stringers spaced at 17½" center-to-center. The stringers connect into a 6x12 cross member that runs transversely to the bridge. There are six cross members, including one at each abutment. The substructure has a concrete abutment at each end.

2.) Scope of Work:

- a.) This Section describes the method of measurement and basis of payment for all items of work included in the Contract and specified in the Proposal. The CONTRACTOR shall provide all labor, material, tools, equipment and services required to complete the Work specified herein and indicated on the Plans.
- b.) THE OWNER WILL MAKE NO ALLOWANCES FOR ITEMS NOT INCLUDED IN THE PROPOSAL.

3.) Items of the Proposal:

Improvements as described in Section 7, Work Items and as shown on the drawings, will be paid for at the Contract Unit Price per Lump Sum. Price shall be payment in full for all labor, material, and equipment required. This work consists of removal and replacement of the bridge deck, including the top and bottom layer of timber decking, removal and replacement of superstructure brackets, cleaning and painting (barrier, roof fascia, columns, and exposed roof members), placing riprap, and all other items necessary to complete the job, including full site restoration that meets or exceeds existing conditions. All workmanship and materials shall conform to the 2020 MDOT Standard Specifications for Construction unless noted otherwise. The Contractor shall provide all labor, materials, tools, equipment and services required to complete the Work specified herein and indicated on the Plans and directed by the Engineer.

4.) Materials:

a.) All lumber for bridges shall be kiln dried southern pine dimensional lumber. 3x8 deck planks and remaining timber members shall be #1 or better with Fb (REP) = 1700 psi (MIN). All lumber shall be pressure treated per specifications and is compatible with galvanized fasteners.

- a1.) Base bid top deck planks shall be 2x8 #1 or better with Fb (REP) = 1700 psi (MIN). Provide 1/8" gap between deck planks.
- a2.) Alternative bid top deck planks shall be 2x8 composite decking. Provide 1/8" gap between deck planks.
- b.) All steel fasteners shall be hot dipped galvanized as noted below or unless otherwise noted:

Fasteners (Bolts, Nails, Screws per ASTM A153 (MIN 1.0 OZ/SFT))

Joist hangers & brackets per ASTM653, G 185 (MIN 0.9 OZ/SFT)

- c.) All nails shall be galvanized spiral shanked coated nails for exterior use unless otherwise noted.
- d.) All Coating: Shall be High Gloss Alkyd Enamel; two finish coats over primer. Not less than 7.5 mil dry film thickness.

First Coat: Alkyd primer/undercoater.

- Tnemec Series V10 Modified Alkyd Primer
- Sherwin-Williams PrepRite Wall & Wood Primer B49 Series

Second and Third Coats: Alkyd Enamel.

- Tnemec Enduratone Series 1028
- Sherwin-Williams Pro Industrial Urethane Alkyd B54W151
- e.) Riprap, Plain: Provide natural stone and broken concrete with footprint dimensions from 8 to 16 inches and an in-place thickness of at least 16 inches. The Contractor may use smaller pieces to fill spaces for better slope protection.

5.) Schedule:

The work shall be completed in Fall of 2025. Additional work is being completed at Lakes of Taylor under other contracts and coordination will be required. Access shall be maintained throughout the course during the project. Contractor shall finish one bridge before moving on to the next. Schedule shall be coordinated with Alec Grant, Director of Golf at Lakes of Taylor Golf course (734) 287-2100.

6.) Construction:

Construction methods shall be in accordance with the MDOT Standard Specifications for Construction 2020 and errata's.

7.) Work Items:

The work shall be paid at the Contract Unit Price of Lump Sum for Pedestrian Structure #6 Rehabilitation. The following are included work items that are a part of the pay item:

<u>Structure, Rem Portions</u> – This work consists of removing and disposing of the brackets, bolts and timber decking for the length of the bridge. The top and bottom layer of timber decking shall be removed for the length of the bridge.

<u>Timber and Lumber, Treated, Furn and Place</u> – This work consists of furnishing and placing the treated timber plank deck. The deck consists of two layers with the top layer being 10'-0" wide and the bottom layer being 10'-0" wide. The top timber planks shall be 2x8 and the bottom planks shall 3x8. Bottom layer of decking shall be placed diagonally at a 45-degree angle and the top layer shall be placed transversely. Decking shall be fastened w/ #12 x 3" galvanized deck screws. Use three deck screws at plank ends and two screws at interior connections to stringers. All toenail connections shall be pre-drilled to prevent splitting. Provide a 1/8" gap between deck planks.

Decking Alternative, Furn and Place-This work consists of furnishing and placing the composite deck plank. The deck consists of two layers with the top layer being 10'-0" wide and the bottom layer being 10'-0" wide. The top composite planks shall be 2x8 and the bottom planks shall be treated timber 3x8. Bottom layer of decking shall be placed diagonally at a 45-degree angle and the top layer shall be placed transversely. Decking shall be fastened with #12 x 3" galvanized deck screws. Use three deck screws at plank ends and two screws at interior connections to stringers. All toenail connections shall be pre-drilled to prevent splitting. Provide a 1/8" gap between deck planks. The timber curb shall consist of 8x8 timber. Curb shall be fastened to an 8x8 spacer and timber deck with two countersunk 5/8" thru bolts. The spacers should be 6'-0" max apart. See detail provided.

<u>Clean and Paint</u> – This work consists of cleaning and painting the inside and outside face of the barrier along the deck, columns, roof fascia, and exposed roof members. Finish color to be selected by the Engineer. Use sufficient water under pressure to remove salt contaminant, dirt, and other detrimental foreign matter without damaging the wood. Stop the cleaning operation if damage to existing paint coverage occurs. In this situation, adjust the water pressure to remove foreign material without damaging or removing existing paint coverage. Prepare surfaces in accordance with manufacturer's instructions for specified coatings and indicated materials, using only methods and materials recommended by coating manufacturer, and as follows: Remove surface irregularities by scraping or sanding to produce uniform substrate for coating application; apply one coat primer of type recommended by coating manufacturer for maximum

coating adhesion. Seal knots, pitch streaks, and sap areas with sealer: Duron Dura Clad 180 HR Ready-Mixed Aluminum, or equal. Fill nail recesses with putty or a glazing compound. Let fillers dry, then sand surfaces smooth. Apply each coat to uniform coating thickness in accordance with manufacturer's instructions, not exceeding manufacturer's specified maximum spread rate for indicated surface; thins, brush marks, roller marks, orange-peel, or other application imperfections are not permitted. Allow manufacturer's specified drying time, and ensure correct coating adhesion, for each coat before applying next coat. Inspect each coat before applying next coat; touch-up surface imperfections with coating material, feathering, and sanding if required; touch-up areas to achieve flat, uniform surface without surface defects visible from 5 feet. Do not apply succeeding coat until Engineer has approved previous coat; only Engineer-approved coats will be considered in determining number of coats applied. Remove dust and other foreign materials from substrate immediately prior to applying each coat. Where coating application abuts other materials or other coating color, terminate coating with a clean sharp termination line without coating overlap.

<u>Riprap, Plain</u> – This work consists of placing riprap, plain. The riprap will be placed along the face of the abutment with an additional 3'-0" beyond each side of the abutment. The riprap will extend 5'-0" from face of the abutment. The riprap shall be placed at both the north and south abutment.

The following quantities are estimated and for informational purposes only.

Item No.	Description	Quantity	Units
1	Mobilization, Max	1	LSUM
2	Structures, Rem Portions	1	LSUM
3	Timber and Lumber, Treated, Furn and Place	374	SFT
4	Clean and Paint	1254	SFT
5	Riprap, Plain	23	SYD







LAKES OF TAYLOR GOLF COURSE PEDESTRIAN STRUCTURE REHABILITATION

BRIDGE #6 GENERAL PLAN

JOB NO.

TAY3276-02T





CLEAN & PAINT BARRIER, COLUMNS, ROOF FASCIA, & EXPOSED ROOF **MEMBERS**

REMOVE & REPLACE TOP & BOTTOM LAYER TIMBER DECKING

REMOVE & REPLACE ALL BRACKETS ON SUPERSTRUCTURE



ADD RIPRAP **EACH SIDE**



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LAKES OF TAYLOR GOLF COURSE PEDESTRIAN STRUCTURE REHABILITATION

BRIDGE #6 PHOTOS

JOB NO.

TAY3276-02T

SHEET

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WT: BC 02-24-25

1.) Description of Structure:

This is a timber bridge located along fairway #9, approximately 150 feet east of the condominiums, with a length of 37'-2" and a width of 11'-2". The deck is made up of two layers of nominal 2x8 boards placed across the bridge. The top and bottom layer are 10'-0" out-to-out. The superstructure consists of two girders that are 3'-7" high that also act as a barrier rail and curb on each side. Between the girders there are six 3x12 stringers spaced at 17½" center-to-center. The stringers connect into a 6x12 cross member that runs transversely to the bridge. There are six cross members, including one at each abutment.

2.) Scope of Work:

- a.) This Section describes the method of measurement and basis of payment for all items of work included in the Contract and specified in the Proposal. The CONTRACTOR shall provide all labor, material, tools, equipment and services required to complete the Work specified herein and indicated on the Plans.
- b.) THE OWNER WILL MAKE NO ALLOWANCES FOR ITEMS NOT INCLUDED IN THE PROPOSAL.

3.) Items of the Proposal:

Improvements as described in Section 7, Work Items and as shown on the drawings, will be paid for at the Contract Unit Price per Lump Sum. Price shall be payment in full for all labor, material, and equipment required. This work consists of removal and replacement of the bridge deck, including the top and bottom layer of timber decking, removal and replacement of timber stringers, removal and replacement of timber cross members, cleaning and painting of barrier, and all other items necessary to complete the job, including full site restoration that meets or exceeds existing conditions. All workmanship and materials shall conform to the 2020 MDOT Standard Specifications for Construction unless noted otherwise. The Contractor shall provide all labor, materials, tools, equipment and services required to complete the Work specified herein and indicated on the Plans and directed by the Engineer.

4.) Materials:

a.) All lumber for bridges shall be kiln dried southern pine dimensional lumber. All 3x12 and 6x12 members shall be dense select structural with Fb (REP) = 2350 psi (MIN). 3x8 deck planks and remaining timber members shall be #1 or better with Fb (REP) = 1700 psi (MIN). All lumber shall be pressure treated per specifications and is compatible with galvanized fasteners.

- a1.) Base bid top deck planks shall be 2x8 #1 or better with Fb (REP) = 1700 psi (MIN). Provide 1/8" gap between deck planks.
- a2.) Alternative bid top deck planks shall be 2x8 composite decking. Provide 1/8" gap between deck planks.
- b.) All steel fasteners shall be hot dipped galvanized as noted below or unless otherwise noted:

Fasteners (Bolts, Nails, Screws per ASTM A153 (MIN 1.0 OZ/SFT))

Joist hangers & brackets per ASTM653, G 185 (MIN 0.9 OZ/SFT)

- c.) All nails shall be galvanized spiral shanked coated nails for exterior use unless otherwise noted.
- d.) All Coating: Shall be High Gloss Alkyd Enamel; two finish coats over primer. Not less than 7.5 mil dry film thickness.

First Coat: Alkyd primer/undercoater.

- Tnemec Series V10 Modified Alkyd Primer
- Sherwin-Williams PrepRite Wall & Wood Primer B49 Series

Second and Third Coats: Alkyd Enamel.

- Tnemec Enduratone Series 1028
- Sherwin-Williams Pro Industrial Urethane Alkyd B54W151
- e.) Riprap, Plain: Provide natural stone and broken concrete with footprint dimensions from 8 to 16 inches and an in-place thickness of at least 16 inches. The Contractor may use smaller pieces to fill spaces for better slope protection.

5.) Schedule:

The work shall be completed in Fall of 2025. Additional work is being completed at Lakes of Taylor under other contracts and coordination will be required. Access shall be maintained throughout the course during the project. Contractor shall finish one bridge before moving on to the next. Schedule shall be coordinated with Alec Grant, Director of Golf at Lakes of Taylor Golf course (734) 287-2100.

6.) Construction:

Construction methods shall be in accordance with the MDOT Standard Specifications for Construction 2020 and errata's.

7.) Work Items:

The work shall be paid at the Contract Unit Price of Lump Sum for Pedestrian Structure #7 Rehabilitation. The following are included work items that are a part of the pay item:

<u>Structure, Rem Portions</u> – This work consists of removing and disposing of the brackets, bolts, timber decking for the length of the bridge, timber stringers, and timber cross members. The top and bottom layer of timber decking shall be removed for the length of the bridge.

<u>Timber and Lumber, Treated, Furn and Place</u> – This work consists of furnishing and placing the treated timber stringers, timber cross members, and timber plank deck. The timber stringers shall be 3x12 and timber cross members shall be 6x12. The deck consists of two layers with the top layer being 10'-0" wide and the bottom layer being 10'-0" wide. The bottom timber planks shall be 3x8 wide and the top planks shall be 2x8. Bottom layer of decking shall be placed diagonally at a 45 degree angle and the top layer shall be placed transversely. Decking shall be fastened w/ #12 x 3" galvanized deck screws. Use three deck screws at plank ends and two screws at interior connections to stringers. All toenail connections shall be pre-drilled to prevent splitting. Provide a 1/8" gap between deck planks.

<u>Decking Alternative</u>, <u>Furn and Place</u> - This work consists of furnishing and placing the treated timber stringers, timber cross members, and composite plank deck. The timber stringers shall be 3x12 and timber cross members shall be 6x12. The deck consists of two layers with the top layer being 10'-0" wide and the bottom layer being 10'-0" wide. The bottom timber planks shall be 3x8 and the top planks shall be composite 2x8 planks. Bottom layer of decking shall be placed diagonally at a 45 degree angle and the top layer shall be placed transversely. Decking shall be fastened w/ #12 x 3" galvanized deck screws. Use three deck screws at plank ends and two screws at interior connections to stringers. All toenail connections shall be pre-drilled to prevent splitting. Provide a 1/8" gap between deck planks.

<u>Clean and Paint</u> – This work consists of cleaning and painting the inside and outside face of the barrier along the deck. Finish color to be selected by the Engineer. Use sufficient water under pressure to remove salt contaminant, dirt, and other detrimental foreign matter without damaging the wood. Stop the cleaning operation if damage to existing paint coverage occurs. In this situation, adjust the water pressure to remove foreign material without damaging or removing existing paint coverage. Prepare surfaces in accordance with manufacturer's instructions for specified coatings and indicated materials, using only methods and materials recommended by coating manufacturer, and as follows: Remove surface irregularities by scraping or sanding to produce uniform substrate for coating application; apply one coat primer of type recommended by coating manufacturer for maximum coating adhesion. Seal knots, pitch streaks, and sap areas with sealer: Duron Dura Clad 180 HR Ready-Mixed Aluminum, or equal.

Fill nail recesses with putty or a glazing compound. Let fillers dry, then sand surfaces smooth. Apply each coat to uniform coating thickness in accordance with manufacturer's instructions, not exceeding manufacturer's specified maximum spread rate for indicated surface; thins, brush marks, roller marks, orange-peel, or other application imperfections are not permitted. Allow manufacturer's specified drying time, and ensure correct coating adhesion, for each coat before applying next coat. Inspect each coat before applying next coat; touch-up surface imperfections with coating material, feathering, and sanding if required; touch-up areas to achieve flat, uniform surface without surface defects visible from 5 feet. Do not apply succeeding coat until Engineer has approved previous coat; only Engineer-approved coats will be considered in determining number of coats applied. Remove dust and other foreign materials from substrate immediately prior to applying each coat. Where coating application abuts other materials or other coating color, terminate coating with a clean sharp termination line without coating overlap.

The following quantities are estimated and for informational purposes only.

Item No.	Description	Quantity	Units
1	Mobilization, Max	1	LSUM
2	Structures, Rem Portions	1	LSUM
3	Timber and Lumber, Treated, Furn and Place	657	SFT
4	Clean and Paint	595	SFT







LAKES OF TAYLOR GOLF COURSE PEDESTRIAN STRUCTURE REHABILITATION

BRIDGE #7 GENERAL PLAN

JOB NO.

TAY3276-02T





REMOVE & REPLACE **TOP & BOTTOM LAYER** TIMBER DECKING



CLEAN & PAINT BARRIER





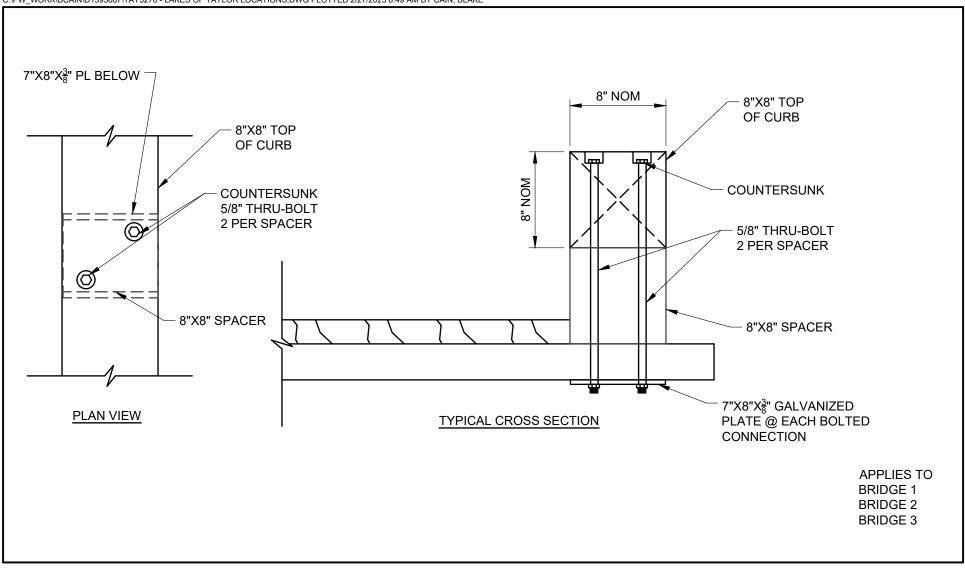
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LAKES OF TAYLOR GOLF COURSE PEDESTRIAN STRUCTURE REHABILITATION

BRIDGE #7 PHOTOS

JOB NO.

TAY3276-02T





LAKES OF TAYLOR GOLF COURSE PEDESTRIAN STRUCTURE REHABILITATION

CURB DETAIL

JOB NO.

TAY3276-02T