INVITATION FOR BIDS

AND

CONTRACT DOCUMENTS

FOR

PROJECT NUMBER 1210307
POND SUPPLEMENTAL LIGHTING
SEA CENTER TEXAS
BRAZORIA, COUNTY, TEXAS

Gisela Alanis, Contract Manager, CTCM, CTPM
Email: gisela.alanis@tpwd.texas.gov
Direct Line: 512-389-4480

BIDS DUE NO LATER THAN
2:00 PM (CT), August 22, 2019

ISSUE DATE: July 19, 2019
# TABLE OF CONTENTS

## GENERAL INFORMATION:

<table>
<thead>
<tr>
<th>Title Page</th>
<th>No. of Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>1</td>
</tr>
<tr>
<td>Notice to Bidders</td>
<td>2</td>
</tr>
<tr>
<td>Instructions to Bidders</td>
<td>4</td>
</tr>
</tbody>
</table>

## CONTRACTOR'S BID SUBMITTALS:

<table>
<thead>
<tr>
<th>Contractor’s Bid</th>
<th>No. of Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Contractor’s Qualification Statement</td>
<td>5</td>
</tr>
</tbody>
</table>

## CONDITIONS OF THE CONTRACT:

<table>
<thead>
<tr>
<th>Terms and Conditions (Construction)</th>
<th>No. of Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>26</td>
</tr>
<tr>
<td>Prevailing Wage Rates</td>
<td>4</td>
</tr>
<tr>
<td>Payment Bond</td>
<td>1</td>
</tr>
<tr>
<td>Agreement between Owner and Contractor</td>
<td>2</td>
</tr>
<tr>
<td>Contractor’s Progress Payment Affidavit</td>
<td>1</td>
</tr>
<tr>
<td>Contractor’s Final Payment Affidavit</td>
<td>1</td>
</tr>
<tr>
<td>Contractor’s Consent of Surety</td>
<td>1</td>
</tr>
</tbody>
</table>

## SPECIFICATIONS AND DRAWINGS:

<table>
<thead>
<tr>
<th>Technical Specifications</th>
<th>No. of Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>28</td>
</tr>
<tr>
<td>Drawings and Plans</td>
<td>4</td>
</tr>
</tbody>
</table>
NOTICE TO BIDDERS

Sealed bids will be received by the Contracting Branch, Infrastructure Division, Texas Parks and Wildlife Department, 4200 Smith School Road, Austin, Texas 78744, UNTIL 2:00 P.M. (CST), AUGUST 22, 2019 for Project Number 1210307, Sea Center Texas, Lake Jackson, Brazoria County, Texas. The bid opening will be conducted in A-100 Conference Room. The estimated range of construction cost is $40,000.00 to $70,000.00.

Project includes – BASE BID ITEMS: Furnish all labor, tools, equipment, materials and incidentals to add supplemental lighting at the Harvest Kettle stairs at all 36 rearing ponds in accordance with the Bidding and Contract Documents.

ADDITIVE ALTERNATE BID ITEM NO. 1: Furnish all labor, tools, equipment, materials and incidentals to replace the relocated fixture with a new LED fixture in accordance with the Bid and Contract Documents.

Performance Period: All work shall be completed in One hundred twenty (120) calendar days commencing on the date specified in the Notice to Proceed. This performance period includes completing the various aspects required to complete the Work, including submittal of all PR Submittals, mobilization, procurement, installation, testing, inspection and delivery of documents.

Minimum Experience Requirements: Bidder must meet minimum qualifications requirements as stipulated in Terms and Conditions, paragraph 44 to be eligible for contract award.

A pre-bid conference will NOT be conducted for this Project. A visit to the project site is not mandatory, however, TPWD strongly encourages potential bidders to view the project site and offers no guarantee that the project site will be accessible to potential bidders at any time other than the time specified in this solicitation package. Therefore, failure to take advantage of the site visit time listed herein may result in potential bidders who are unable to visit the project site at all. Failure to give proper consideration to site conditions when preparing the bid will not constitute grounds for additional compensation. Site Visits can be scheduled by contacting Roger Padon, Construction Manager at 512/627/4417. Sea Center Texas is located at 302 Medical Drive, Lake Jackson, Brazoria County, Texas, 77566.

Contact Information: For technical information and information regarding administration of the contract, contact Contract Manager, Gisela Alanis, 512/389-4480 or at gisela.alanis@tpwd.texas.gov.

To view and download full Bidding and Contract Documents, visit the TWPD web site using: http://tpwd.texas.gov/business/bidops/current_bid_opportunities/construction/

INSTRUCTIONS TO BIDDERS

1. **BIDS:** Bids must be received in the Infrastructure Division of the Texas Parks and Wildlife Department (TPWD) Austin, Texas NO LATER THAN the date and time specified in the Notice to Bidders. Bids received after this time will not be considered and will be returned unreviewed. **Bidders are advised that TPWD's Headquarters Complex does not open until 8:00 A.M. Bidders should plan their delivery method accordingly.** Each bid shall be submitted on the Contractor's Bid form provided.

**FAXED AND/OR EMAILED BIDS WILL NOT BE ACCEPTED. BIDS MUST BE ENCLOSED IN A SEALED ENVELOPE, BOX, OR CONTAINER CLEARLY MARKED ON THE OUTSIDE AS AN “OFFICIAL BID” AND SHALL INCLUDE THE FOLLOWING INFORMATION:** PROJECT NUMBER, PROJECT DESCRIPTION, PROJECT LOCATION, BID OPENING DATE AND TIME.

Bids shall have all blanks fully and legibly completed including a price for all alternates and/or unit costs when listed under the base bids on which a bid is submitted. Failure to do so shall result in rejection of the bid. Corrections in the bidder's bid shall be legible and initialed. The bid form shall show no alterations or qualifications of any kind. **Bids must be signed by an individual who has the authority to legally bind the firm.** TPWD reserves the right to require a bidder to furnish documentary evidence of Bidder's signature authority.

Corrections, deletions, or additions to bids may be made by email provided such emails are received in correct and comprehensive form prior to the opening time of bids and an original reflecting said corrections, deletion, or additions must be submitted to TPWD within two (2) business days of submitted email. No telephonic instructions will be accepted. **Email corrections, deletions or additions to bids shall be sent to contracting@tpwd.texas.gov, attention: Gisela Alanis, Contract Manager.** This is the only address that will be used for receipt of corrections, deletions, or additions. TPWD shall NOT be responsible for failure of electronic equipment or operator error.

TPWD reserves the right to reject any or all bids—and to waive any or all informalities in connection therewith. TPWD does not bind itself to accept the lowest bid or any part thereof and reserves the right to ask for new bids for the whole or parts. The mere opening and reading aloud of a bid shall not constitute TPWD’s acceptance of the suitability of a bidder or a bid. The competency and responsibility of the bidders will be considered in making an award. TPWD reserves the right to award, partially award, or not award a contract if no responses are deemed acceptable; and may re-solicit as determined necessary and in the best of the State of Texas.

2. **BASIS OF AWARD:** Determination of the low bidder will be based on the lowest responsible base bid and/or a combination of the base bid and alternate bids. Alternates accepted will be considered in determining the low bidder, but TPWD does not obligate itself to accept an alternate or to accept alternates in any order listed unless otherwise stipulated elsewhere in the Invitation for Bids and Contract Documents.

3. **UNIT PRICE/ESTIMATED QUANTITY BIDS:** If the Bid furnished with this project requires a bid on a unit price/estimated quantity basis, the Bidder shall enter a unit price in the space provided therefor and a total item price based upon the estimated quantities shown on the bid form. Unit prices entered shall be the full price to TPWD including materials, labor, services, taxes, bonds, rentals, overhead, profit, etc., for the work described. Quantities shown reflect measurements taken from the Drawings and are assumed correct for bidding purposes. Final contract price will be based on actual quantities of work installed as determined by TPWD and Contractor upon completion of the work.
Award of contract shall be based upon the summation of the various unit price bids, but in case of error the unit prices shall govern, and computations will be checked for accuracy before award is made.

Prices will also be reviewed for balance prior to award, and obvious imbalance in favor of work scheduled for early completion or subject to significant expansion after award may be grounds for rejection of the bid.

4. **BID SECURITY:** Unless otherwise stipulated in the Invitation for Bids and Contract Documents, only projects in which the total contract price exceeds $25,000.00, will require bid security. **Bids exceeding $25,000.00 must be accompanied by a bid bond, certified check or cashier's check drawn to the order of the Texas Parks and Wildlife Department for not less than five percent (5%) of the total amount of the bid (including total of all separate bids for one or more projects bid and multiple base bids and/or alternate bids and/or optional bids and/or allowances).** Therefore, to ensure adequate bid security, bidders should calculate bid security based on the highest possible monetary award. Certified checks and cashier checks must be originals. No other forms of bid security or checks will be accepted. **Bid will be rejected if the appropriate security is not furnished in the form specified above and by the time set for the bid opening.**

Bid security for the three (3) lowest bidders may be retained by TPWD until the successful bidder executes the contract, and if required, furnishes bonds and certificates of insurance. All other bid security will be returned as soon as practical after bid opening.

Bid security for the successful bidder will be returned following execution of the contract and submission of satisfactory bonds and insurance. If the successful bidder fails to return the signed contract (and bonds and certificate of insurance when required) within the time specified, the bid security may be forfeited not as a penalty but as liquidated damages.

5. **INSURANCE REQUIREMENTS:** The successful Contractor must certify the minimum insurance coverages as set forth by the contract, specifically, the Terms and Conditions, paragraph 12. The required insurance information shall be submitted within ten (10) calendar days from receipt of Notice of Selection. Failure to timely meet this requirement may result in disqualification of the bid and forfeiture of the bid security, if any. In such circumstances, TPWD shall be authorized to proceed with award to the next highest ranking, responsive and responsible bidder.

6. **BONDING REQUIREMENTS:** If the total contract price exceeds $25,000.00, a Payment Bond must be furnished by the successful Contractor. If the total contract price exceeds $100,000.00 a Payment Bond and a Performance Bond must be furnished by the successful Contractor. All bonds submitted shall be the original form bearing original signatures and seal. (See also Terms and Conditions)

7. **DISCREPANCIES:** Should any Bidder find discrepancies between Invitation for Bids and Contract Documents, or should Bidder be in doubt as to their exact meaning, Bidder should notify the Owner at once. The Owner may then, at its option, issue addenda clarifying same. The Owner will not be responsible for oral instructions or for misinterpretation of Invitation for Bids and Contract Documents.

8. **ADDENDA:** The Owner reserves the right to issue addenda at any time prior to the bid opening. (See also Terms and Conditions). All addenda shall be acknowledged as received on the Contractor’s Bid Form. **BIDDER’S FAILURE TO ACKNOWLEDGE RECEIPT OF ADDENDA MAY RESULT IN REJECTION OF BID.**

No oral explanation in regard to the meaning of the Bidding Documents will be made and no oral instructions will be given before the award of the contract. The Owner requests that all discrepancies, omissions or questions as to the meaning of Drawings and Specifications shall be communicated in writing.
to the Contract Manager for interpretation by Tuesday, August 12, 2019 to the attention of Gisela Alanis, Contract Manager at the address stated below or via email to gisela.alanis@tpwd.texas.gov.

9. **PROHIBITED COMMUNICATIONS:** Upon issuance of this solicitation, TPWD, its representative(s), or partners will not answer questions or otherwise discuss the contents of this Solicitation with any potential Bidder or their representative(s), except for the written inquiries described in the foregoing paragraph. Attempts to ask questions by phone or in person will not be allowed or recognized as valid.

**Failure to observe this restriction may disqualify Bidder.** Bidder shall rely only on written statements issued through or by TPWD’s contracting staff. This restriction does not preclude discussions between affected parties for the purposes of conducting business unrelated to this solicitation.

10. **LABOR LAWS:** Contractors must comply with all labor laws established by State and Federal statutes. (See also Terms and Conditions).

11. **STATE SALES TAX:** The Owner qualifies for exemption from State and Local Sales and Use Taxes pursuant to the provisions of the Texas Tax Code (Title 2, Chapter 151, Subsection 151.309).

The Contractor shall comply with applicable provisions of Chapter 34, Rules 3.291 and 3.357 of the Texas Administrative Code, or other procedures as may be prescribed by the State Comptroller of Public Accounts.

12. **CONTRACTOR QUALIFICATIONS:** A Contractor's Statement of Qualifications must be submitted with the bid. Failure to properly complete and provide a Contractor's Statement of Qualifications shall be cause for the Contractor's bid being rejected by the Owner. The Owner may make such investigations as necessary to determine the ability of the Contractor to perform the work and reserves the right to reject any bid if the evidence submitted and/or obtained through investigation fails to satisfy the Owner that the Contractor is properly qualified to carry out the obligations of the Agreement.

13. **VENDOR PERFORMANCE TRACKING SYSTEM:** In evaluating responses, the Owner may consider information related to past contract performance of a Bidder including, but not limited to CPA’s Vendor Performance Tracking System (VPTS) available at http://www.txsmartbuy.com/vpts. Prior work performance with the Owner and other state agencies or governmental entities which are familiar with a Bidder’s performance, depending on problems encountered, may be grounds for disqualification. In addition, Bidders involved in litigation with the Owner or another state agency may be disqualified.

14. **TEXAS IDENTIFICATION NUMBER:** Prior to any payment by Owner for the work or services required herein, the Contractor must be assigned a TEXAS IDENTIFICATION NUMBER (TIN) by the State Comptroller of Public Accounts. A space has been provided on the Contractor's Bid Form for provision of a TEXAS IDENTIFICATION NUMBER if available. If selected Contractor has not been assigned a TIN, the application form will be provided at Notice of Selection.

15. **SPECIAL REQUIREMENTS:** Bidders should refer to all of the Bidding and Contract Documents for special project requirements, if any, that may affect bidding.

16. **CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION:** Bidder certifies that the responding entity and its principals are eligible to participate in this transaction and have not been subjected to suspension, debarment, or similar ineligibility determined by any federal, state or local governmental entity and the Bidder is in compliance with the State of Texas statutes and rules relating to procurement and that Bidder is not listed on the federal government's terrorism watch list as described in Executive Order 13224.
17. **PROTEST PROCEDURES:** Any Actual or prospective Respondent who is aggrieved in connection with this solicitation, evaluation, or award of any contract resulting from this solicitation may formally protest as provided in TPWD’s rules at [TAC, Title 31, Part 2, Chapter 51, Subchapter L, Rule 51.350](#).

18. RESERVED.

19. RESERVED.

20. RESERVED.
CONTRACTOR’S
BID
SUBMITTALS
CONTRACTOR'S BID

Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744

Having carefully examined the Invitation for Bids and Contract Documents. 1210307, Sea Center Texas, Lake Jackson, Brazoria County, Texas for the Texas Parks and Wildlife Department, as well as the premises and conditions affecting this work, and all other contract documents, the undersigned proposes to furnish all labor, equipment and materials necessary to complete the work for the sum of:

BID SCHEDULE

<table>
<thead>
<tr>
<th>BASE BID ITEMS</th>
<th>LUMP SUM PRICE</th>
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<tr>
<td>1 Furnish all labor, equipment, materials, and incidentals necessary to add supplemental lighting at the Harvest Kettle stairs at all 36 rearing ponds in accordance with the Invitation for Bids and Contract Documents.</td>
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TOTAL LUMP SUM BASE BID

$ (Total Base Bid Price written in words)

ADDITIVE ALTERNATE BID ITEM NO. 1

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<tr>
<th>LUMP SUM PRICE</th>
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<tr>
<td>1 Furnish all labor, equipment, materials, and incidentals necessary to replace the relocated fixture with a new LED fixture in accordance with the Bid and Contract Documents.</td>
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TOTAL BASE BID AND ADDITIVE ALTERNATE BID ITEM NO. 1

$ (Total Base Bid and Additive Alternate Bid Item No. 1 written in words)

EACH BID ITEM INCLUDES ANY AND ALL APPURTENANT WORK AND ITEMS NECESSARY FOR FULLY FUNCTIONAL AND OPERATIONAL SYSTEMS, COMPLETE AND IN PLACE, IN ACCORDANCE WITH THE INVITATION FOR BIDS AND CONTRACT DOCUMENTS.

BASE BID, AND ADDITIVE ALTERNATE BID ITEM NUMBER 1 will be evaluated and determination of the low bidder will be based on responsiveness and responsibility of the bidder. HOWEVER, THE OWNER RESERVES THE RIGHT TO AWARD TO THE LOW BIDDER ANY COMBINATION OF BID ITEMS OR TO REJECT ALL BIDS.
BIDDER UNDERSTANDS AND ACKNOWLEDGES THAT BIDDER MUST MEET THE MINIMUM QUALIFICATION AND/OR EXPERIENCE REQUIREMENTS SET FORTH IN PARAGRAPH 44 OF TERMS AND CONDITIONS TO BE ELIGIBLE FOR AWARD OF THIS CONTRACT. BIDDER, BY SIGNING THIS BID, AFFIRMS THAT BIDDER MEETS SUCH MINIMUM REQUIREMENTS. FAILURE TO MEET ANY OF THE MINIMUM QUALIFICATIONS SHALL RESULT IN REJECTION OF THE BID.

The undersigned further agrees that, if awarded the Contract, the work will be completed within one hundred twenty (120) calendar days commencing on the date specified in the Notice to Proceed. This performance period includes completing the various aspects required to complete the Work, including submittal of all PR Submittals, mobilization, procurement, installation, testing, inspection and delivery of documents.

The undersigned agrees that when written notice of bid acceptance is furnished by the Owner within sixty (60) calendar days after the bid opening date, the undersigned will, within the stipulated time, execute and deliver the contract and all required bonds, certificates of insurance, and PR-1 and PR-2 submittals to the Owner. Failure to timely provide the insurance certificate, bonds, and submittals shall be grounds for disqualification of bid and forfeiture of bid security. In such circumstances, TPWD shall be authorized to proceed with award to the next lowest, responsive and responsible bidder.

If the above bid amount exceeds $25,000.00, the undersigned shall include herewith security in the form of a bid bond, certified check, or cashier's check for an amount not less than five percent (5%) of the total amount of the bid to be awarded by Owner, unless otherwise stipulated under Terms and Conditions. To ensure adequate bid security, bidders should calculate bid security based on the total amount of all base bids plus all additive alternate bids (if any). The bid security will be returned to or forfeited by the undersigned in accordance with the Bid Security provision in the Instructions to Bidders. The undersigned further agrees that this bid security is the appropriate measure of liquidated damages which the Owner will sustain by the failure of the undersigned to execute and deliver said contract and required documents.

The undersigned agrees that this bid will not be withdrawn for a period of sixty (60) calendar days from the date set for the bid opening, and the undersigned further agrees that the bid security will be forfeited in the event this bid is withdrawn before expiration of said sixty (60) calendar days.

By the signature hereon affixed, the bidder hereby certifies that neither the bidder, nor the firm, corporation, partnership, or institution represented by the bidder, or anyone acting for such firm, corporation, or institution has violated the antitrust laws of this State, codified in Section 15.01 et seq., Texas Business and Commerce Code, or the Federal antitrust laws, nor communicated directly or indirectly the bid made to any competitor or any other person engaged in such line of business.

Pursuant to Texas Government Code, Title 10, Subchapter A, §2155.004 (a), Bidder acknowledges that Bidder has not received compensation for participation in the preparation of the specifications for this project.

Pursuant to Texas Government Code, Title 10, Subchapter A, §2155.004 (b), §2155.006 (c), and Subchapter B, §2261.053 (c), Bidder certifies that the individual or business entity named in this bid is not ineligible to receive the specified contract and acknowledges that this contract may be terminated, and payment withheld if this certification is inaccurate.

By signing this bid, Bidder certifies that if a Texas address is shown as the address of the Bidder, Bidder qualifies as a Texas Resident bidder as defined in Texas Administrative Code, Title 1, Part 5, Chapter 111, Subchapter A, §111.2 (10).

By signature hereon, the bidder hereby certifies that he/she is not currently delinquent in the payment of any
franchise taxes owed the State of Texas under Chapter 171, Tax Code. Making a false statement as to corporate tax status is a material breach of contract.

Bidder certifies that the bidding entity and its principals are eligible to participate in this transaction and have not been subjected to suspension, debarment, or similar ineligibility determined by any federal, state or local governmental entity and that bidder is in compliance with the State of Texas Statutes and Rules relating to procurement and that bidder is not listed on the Federal Government’s Terrorism Watch List as described in Executive Order 13224. Entities ineligible for federal procurement are listed at http://www.sam.gov.

By signing this bid, a bidder affirms that he has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor or service to a public servant in connection with the submitted bid.

Bidder agrees that any payments due under this contract will be applied towards any debt, including but not limited to delinquent taxes and child support, which is owed to the State of Texas.

Bidder agrees to comply with Texas Government Code, Title 10, Subtitle D, §2155.4441, relating to use of services contracts for products produced in the State of Texas.

Bidder certifies that if a Texas address is shown as the address of the Bidder on this bid, Bidder qualifies as a Texas Bidder as defined in Section 2155.444(c) of the Texas Government Code.

If Bidder is required to make a certification pursuant to Section 2270.002 of the Texas Government Code, Bidder certifies that Bidder does not boycott Israel and will not boycott Israel during the term of the contract resulting from this solicitation. If Bidder does not make that certification, Bidder must indicate that in its bid and state why the certification is not required.

Pursuant to Texas Government Code, Title 10, Subchapter F, §§ 2252.151-2252.154, TPWD may not enter into a contract with a company (as defined by Texas Government Code, Title 8, Subchapter A, § 806.051) that is identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Texas Government Code, §§ 806.001, 807.051 or 2252.153. By signing this bid, Bidder certifies that it is not a company identified on a list as prepared and maintained by the Texas Comptroller of Public Accounts pursuant to Texas Government Code, §§ 806.001, 807.051 or 2252.153.

By signature hereon, the bidder acknowledges that Texas Government Code, Title 10, Subchapter F, §§ 2252.201-2252.205 requires that all iron or steel products produced through a manufacturing process used in this project must be produced in the United States. By signing this bid, Bidder certifies that its bid price represents full compensation for compliance with the requirements of Texas Government Code, Title 10, Subchapter F, §§ 2252.201-2252.205.

By signing this bid, Bidder acknowledges and understands that the acceptance of funds by the Bidder or any other entity or person directly under this Contract, or indirectly through a subcontract under this Contract, shall constitute acceptance of the authority of the State Auditor’s Office, Comptroller or other agency of the State of Texas, TPWD or any successor agency, to conduct an audit or investigation in connection with those funds. The Bidder further agrees to cooperate fully with the above parties in the conduct of the audit or investigation, including providing access to any information the state auditor considers relevant to the investigation or audit. The Bidder shall ensure that this paragraph concerning the State’s authority to audit funds received indirectly by subcontractors through the Bidder and the requirement to cooperate is included in any subcontract it awards.

Bidder represents and warrants that the provision of goods and services or other performance under the contract will not constitute an actual or potential conflict of interest or reasonably create an appearance of impropriety.
If applicable, pursuant to Texas Family Code, Title 5, Subtitle D, §231.006(d), regarding child support, the Bidder certifies that the individual or business entity named in this bid is not ineligible to receive the specified payment and acknowledges that this contract may be terminated and payment may be withheld if this certification is inaccurate. Furthermore, Bidder must provide, in the spaces(s) below, the name and Social Security number of an individual owner, a sole proprietor and all partners, shareholders, or owners with an ownership interest of at least 25% of the business entity prior to award of contract.

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<th>Name</th>
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**FEDERAL PRIVACY ACT NOTICE:** This notice is given pursuant to the Federal Privacy Act. Disclosure of your Social Security Number (SSN) is required under Section 231.006(c) and Section 231.302(c)(2) of the Texas Family Code. The SSN will be used to identify persons that may owe child support. The SSN will be kept confidential to the fullest extent allowed under Section 231.302(e), Texas Family Code.

Bidder certifies that they are in compliance with Texas Government Code, Title 6, §669.003, relating to contracting with executive head of a State agency. If §669.003 applies, Bidder will complete the following information in order for the bid to be evaluated:

Name of former executive: ___________________________
Name of State agency: ___________________________
Date of separation from State agency: _________________
Position with Bidder: ___________________________
Date of employment with Bidder: _________________

THE REST OF THIS PAGE INTENTIONALLY LEFT BLANK
RECEIPT IS HEREBY ACKNOWLEDGED OF THE FOLLOWING ADDENDA TO THIS IFB (INITIAL IF APPLICABLE)

No. 01 _____  No. 02 _____  No. 03 _____  No. 04 _____  No. 05 _____  No. 06 _____  No. 07 _____

WARNING:  BIDDER’S FAILURE TO ACKNOWLEDGE RECEIPT OF ADDENDA MAY RESULT IN REJECTION OF BID.

BIDDER’S AFFIRMATION:  SIGNING THIS BID WITH A FALSE STATEMENT IS A MATERIAL BREACH OF CONTRACT AND SHALL VOID THE SUBMITTED BID OR ANY RESULTING CONTRACTS, AND THE BIDDER SHALL BE REMOVED FROM ALL BID LISTS.

_____________________________________________  By_______________________________________  
Name of Contracting Firm  Authorized Signature  Date

_____________________________________________  ____________________________
Address  Printed Name

City               State         Zip               Title

__________________________  ____________________________
(Area Code) Phone Number  (Area Code) Phone Number

__________________________  ____________________________
Email address  (Area Code) FAX Number

__________________________  ____________________________
Texas Identification Number  (Area Code) Cell Number
## CONTRACTOR’S QUALIFICATION STATEMENT

**COMPLETE ALL SECTIONS OF THIS FORM AND SUBMIT WITH BID**

<table>
<thead>
<tr>
<th>PROJECT NO.</th>
<th>LOCATION:</th>
<th>BID DATE:</th>
</tr>
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<tbody>
<tr>
<td>1210307</td>
<td>Sea Center Texas</td>
<td>August 22, 2019</td>
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### FIRM

<table>
<thead>
<tr>
<th>ADDRESS</th>
<th>PHONE</th>
<th>FAX</th>
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### Individual _______ Partnership_______ Corporation ________

If incorporated, under the laws of the State of _______________________ with principal place of business in _________________________

### PRINCIPALS IN FIRM AND YEARS EXPERIENCE IN CONSTRUCTION:

<table>
<thead>
<tr>
<th>NAME</th>
<th>TITLE</th>
<th>PHONE</th>
<th>NO. OF YEARS</th>
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### FIRM HISTORY:

List firm history below including any other business names used.

<table>
<thead>
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<th>From</th>
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<th>Firm Name</th>
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Has firm, under its current or former name(s) ever failed to complete a project, defaulted on a contract, or been engaged in litigation over a contract? _____ Yes _____ No. If so, state particulars of most recent occurrence on separate sheet(s) and attach to this form.

### CONSTRUCTION CAPABILITIES:

FIRM’S AVERAGE ANNUAL CONSTRUCTION VOLUME $ ____________________ Percentage of this volume by construction categories:

<table>
<thead>
<tr>
<th>Building</th>
<th>Mech.-HVAC</th>
<th>Hwy/Roads</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
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<thead>
<tr>
<th>Electrical</th>
<th>Utility Lines</th>
<th>Earthwork</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
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<thead>
<tr>
<th>Plumbing</th>
<th>Utility Plants</th>
<th>Site Work</th>
<th>Other</th>
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</thead>
<tbody>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
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</tbody>
</table>
BONDING INFORMATION: Indicate agency/surety through which bonding will be obtained.

<table>
<thead>
<tr>
<th>AGENCY</th>
<th>Address</th>
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</thead>
<tbody>
<tr>
<td>City/State/Zip</td>
<td>E-Mail</td>
</tr>
<tr>
<td>Phone</td>
<td>Fax</td>
</tr>
<tr>
<td>Agent’s Name</td>
<td>Agent’s</td>
</tr>
<tr>
<td></td>
<td>Phone</td>
</tr>
<tr>
<td>Name of Power of Attorney from Bond Company</td>
<td>Expiration</td>
</tr>
<tr>
<td></td>
<td>Date</td>
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</tbody>
</table>

BONDING COMPANY

<table>
<thead>
<tr>
<th>Address</th>
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<tbody>
<tr>
<td>City/State/Zip</td>
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<tr>
<td>Email</td>
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<tr>
<td>Phone</td>
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<tr>
<td>Fax</td>
</tr>
<tr>
<td>Name of Representative</td>
</tr>
</tbody>
</table>

EXPERIENCE RECORD

List minimum of three (3) projects (attach additional sheets if necessary) that are at least 50% completed (50% completed projects will be counted towards successful projects) and have been completed within the last (5) years and that demonstrate similar experience. (Per the minimum qualifications located in the Terms and Conditions, paragraph 44.)

1.

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Contract Amount</th>
<th>Beginning $</th>
<th>Ending: $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Location</td>
<td>Address</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Owner (Firm/Agency)</td>
<td>Phone</td>
<td></td>
<td></td>
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<tr>
<td>City</td>
<td>State</td>
<td>Zip</td>
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<tr>
<td>Project Owner’s Rep familiar with project</td>
<td>Email</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contract Start Date (Date of Notice to Proceed)</td>
<td>Contract Duration (Calendar Days)</td>
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<tr>
<td>If Project is still under construction, then provide percentage complete</td>
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<tr>
<td>Project A/E Name</td>
<td>A/E Phone</td>
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EXPERIENCE RECORD: (CONTINUED)

2.

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<tr>
<th>Project Description</th>
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<th>Ending: $</th>
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3.

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</table>
**EXPERIENCE RECORD: (CONTINUED)**

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<thead>
<tr>
<th>4.</th>
<th>Project Description</th>
<th>Contract Location</th>
<th>Contract Amount</th>
<th>Beginning $</th>
<th>Ending: $</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Project Description for Project 1210307 (Pond Supplemental Lighting)</td>
<td>Project Location</td>
<td>Contract Amount</td>
<td>Beginning $</td>
<td>Ending: $</td>
</tr>
<tr>
<td></td>
<td></td>
<td>City</td>
<td>State</td>
<td>Zip</td>
<td></td>
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<tr>
<td></td>
<td>Project Owner (Firm/Agency)</td>
<td>Address</td>
<td>Phone</td>
<td></td>
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<td>Contract Duration (Calendar Days)</td>
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<th>5.</th>
<th>Project Description</th>
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<td>Contract Amount</td>
<td>Beginning $</td>
<td>Ending: $</td>
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<td></td>
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<td>A/E Phone</td>
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</tbody>
</table>
HUB AND TPWD CONTRACTING EXPERIENCE:

Please indicate if the firm is a Texas Certified Historically Underutilized Business (HUB): _____ YES  _____ NO
If yes, please indicate gender and ethnicity:  Gender: _____ Male _____ Female
Ethnicity ____________________________________________ (Asian Pacific Islander, Black American, Hispanic American, Native American)
Service Disabled Veteran: _____ YES  _____ NO

Has firm ever done business with TPWD? _____ YES  _____ NO
If yes, list the most recent project number(s): _______________________________________________________

I hereby certify that all information provided above and attached is true and correct. Furthermore, I hereby authorize you to contact the references listed above and authorize release of information from such references to Texas Parks and Wildlife Department. I hereby certify that my firm is not debarred or suspended from performing work for the U.S.A. or the State of Texas.

Name of Firm

Signature of Owner or Officer

Title of Person Signing

Date
CONDITIONS
OF THE
CONTRACT
AGREEMENT BETWEEN OWNER AND CONTRACTOR

STATE OF TEXAS  PROJECT NO. 1210307

COUNTY OF TRAVIS  CONTRACT NO. _________

THIS AGREEMENT, made this _____ day of __________, 20__ by and between the STATE OF TEXAS, acting through the TEXAS PARKS AND WILDLIFE DEPARTMENT, hereinafter called the OWNER, and INSERT CONTRACTOR COMPANY NAME, hereinafter called the CONTRACTOR.

WITNESSETH: That for and in consideration of the payments and agreements hereinafter described, to be made and performed by the OWNER, the CONTRACTOR hereby agrees with the OWNER to commence and complete certain public works described as: Base Bid Items and Additive Alternate Bid Item No. 1, Pond Supplemental Lighting, Sea Center Texas, Brazoria County, Texas, for the use and benefit of the OWNER as described in the Bidding and Contract Documents prepared by TEXAS PARKS AND WILDLIFE DEPARTMENT. The Contract Documents include all parts of this Invitation for Bids including, but not limited to, Specifications, Scope of Work, and Terms and Conditions for Project Number 1210307. The Contract Documents are hereby incorporated by reference into this Contract Number _________.

In the event that there is a conflict, this contract and its attachments take priority over all other documents. Following the contract in order of priority are the Terms and Conditions; Invitation for Bids and Contract Documents, and Contractor’s Bid.

The consideration to be paid by the OWNER to the CONTRACTOR for furnishing all the materials, supplies, machinery, equipment, tools, labor, superintendence, insurance, and other accessories and services necessary to complete the said Project in accordance with the Contract Documents is the not to exceed amount of INSERT AMOUNT Dollars and No Cents ($xx,xxx.xx).

The CONTRACTOR hereby agrees to complete all work within One Hundred twenty (120) calendar days, commencing on the date specified in OWNER’S written "Notice to Proceed." Time is of the essence with this contract.

The CONTRACTOR further agrees to comply with applicable statutes governing construction contracts including the provisions of V.T.C.A., Texas Government Code, Title 10, Subtitle F, Chapter 2253 requiring Payment Bonds; and to comply with all of the Terms and Conditions of this contract.

Payments by OWNER shall be warrants issued by the Comptroller of Public Accounts out of monies appropriated to the Texas Parks and Wildlife Department for such purpose and shall be made upon OWNER'S acceptance of all portions of work as prescribed in the Specifications.

The dispute resolution process provided for in Tex. Gov’t Code, Chapter 2260, and the procedures provided in Title 31, Part 2, Chapter 51, Subchapter J of the Texas Administrative Code shall be used by the Owner and the Contractor to attempt to resolve any claim for breach of contract in an amount less than $250,000.00 made by the Contractor, that is not resolved under procedures described throughout the Terms and Conditions of the Contract. Contract disputes for a claim of $250,000.00 or more shall be governed by Civil Practice and Remedies Code, Chapter 114.

The venue of any suit brought for any breach of this Contract is hereby fixed in any court of competent jurisdiction in Travis County, Texas. All payments under this Contract shall be due and payable in Travis County, Texas.

The Contractor hereby assigns to Owner any and all claims for overcharges associated with this Contract which arise

This Agreement is subject to cancellation, without penalty, either in whole or in part, if funds are not appropriated by the Texas Legislature or otherwise made available to the Texas Parks and Wildlife Department for the specified services under this Agreement.

The said parties for themselves, their heirs, successors, executors, administrators, and assigns, do hereby agree to full performance of the covenants herein contained.

IN WITNESS WHEREOF, the parties to these presents have executed this Contract in two (2) counterparts, each of which shall be deemed an original, in the day and year first above written.

Contractor:

By: ___________________________ Date: ___________________________
Title: ___________________________

Owner: Texas Parks and Wildlife Department

By: ___________________________ Date: ___________________________
Title: ___________________________
STATE OF TEXAS

COUNTY OF ___________________

Project Number 1210307
Contract Number ______

KNOW ALL MEN BY THESE PRESENTS:

That we, __________________________________________________________________________, as PRINCIPAL,

and _____________________________________________________________________________, as SURETY(IES),

Surety Address: ___________________________________________________________________________________________
Surety Phone:     __________________________________________  Surety Fax:_______________________________________

are hereby held and firmly bound unto the State of Texas in the penal sum of:
____________________________________________________________________________ Dollars ($___________)
for the payment, whereof, the said PRINCIPAL and SURETY(IES) bind themselves, their heirs, executors,
administrators, successors, and assigns jointly and severally, firmly by these presents.

The conditions of this obligation are such that whereas the PRINCIPAL entered into a certain contract dated
______________________, 20__, hereto attached, and made a part hereof, with the State of Texas, acting by and
through the Texas Parks and Wildlife Department, to commence and complete certain public works described as:

Pond Supplemental Lighting, Sea Center Texas, Lake Jackson, Brazoria County, Texas

NOW THEREFORE, the conditions of this obligation are such that, if the PRINCIPAL shall promptly make
payment to all claimants as defined in TITLE 10, TEXAS GOVERNMENT CODE, CHAPTER 2253, as amended,
supplying labor and materials in the prosecution of the work provided for in said contract and any and all duly authorized
changes to said contract that may hereafter be made, notice of such changes to the SURETY(IES) being hereby
waived, then, this obligation shall be null and void, otherwise it shall remain in full force and effect.

This bond is made and entered into solely for the protection of all claimants supplying labor and materials in the
prosecution of the work provided for in said contract, and all such claimants shall have a direct right to action under the
bond as provided in TITLE 10, TEXAS GOVERNMENT CODE, CHAPTER 2253, as amended.

IN WITNESS WHEREOF, the above bound parties have executed this instrument under their several seals this
_____ day of ________________, 20__, the name and corporation seal of each corporate party being hereto affixed
and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

PRINCIPAL
BY_________________________________

SURETY
BY_________________________________
CONTRACTOR’S PROGRESS PAYMENT AFFIDAVIT

STATE OF TEXAS
COUNTY OF __________

BEFORE ME THE UNDERSIGNED AUTHORITY, on this day personally appeared

who being
duly sworn, on oath, says that he/she is a duly authorized representative of

, CONTRACTOR, and all terms of the Contract for the completion of certain public works described as

Pond Supplemental Lighting, Sea Center Texas, Lake Jackson, Brazoria County, Texas

have been satisfactorily completed to the extent indicated on the attached voucher and that ALL sums of money due for payrolls, bills for material and equipment, and other indebtedness connected with the Work for which OWNER or its property might in any way be responsible, to the best of his/her knowledge and belief have been paid or will be paid or otherwise satisfied within ten days after receipt of the requested payment from the OWNER, or within the period of time required by Title 10, Texas Government Code, Section 2251.022.

Affiant agrees to indemnify and hold Owner harmless from any liens, debts or obligations which arise as a result of labor or materials provided by or through Affiant to the project. Affiant further agrees to indemnify and hold harmless all real property on which the improvements were constructed and all interests in such property, including leasehold interests, from any liens, debts, or obligations arising from any labor or materials provided by or through Affiant to the project.

Payments to subcontractors for labor and/or materials which are pending or disputed as of the date hereof are:

<table>
<thead>
<tr>
<th>Individual or Company Name</th>
<th>Mailing Address</th>
<th>Amount Owed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

Instructions: Affidavit must be signed by an individual owner, a partner in a partnership, or by a person authorized by bylaws or Board of Directors to sign for a corporation. If Contractor is a joint venture or partnership of individuals, either may sign, but if a joint venture in which a corporation is a party, separate affidavits must be executed by each corporation and by each individual owner or partnership.

__________________________
Signature

__________________________
Title

Sworn to and subscribed before me this ____ day of ________ 20__.

(SEAL)

Notary Public in and for
__________________________ County, Texas
CONTRACTOR'S FINAL PAYMENT AFFIDAVIT

STATE OF TEXAS  PROJECT NUMBER  1210307
COUNTY OF _________  CONTRACT NUMBER

BEFORE ME THE UNDERSIGNED AUTHORITY, on this day personally appeared

who being duly sworn, on oath, says that he/she is a duly authorized representative of


CONTRACTOR,
and that all terms of the Contract for the completion of certain public works described as

Pond Supplemental Lighting, Sea Center Texas, Lake Jackson, Brazoria County, Texas

have been satisfactorily completed and that ALL sums of money for payrolls, bills for material and equipment, and other indebtedness connected with the Work for which Owner or its property might in any way be responsible, to the best of his/her knowledge and belief, have been paid or will be paid or otherwise satisfied within ten days after receipt of final payment from the Owner, or within the period of time required by Title 10, Texas Government Code, Section 2251.022. Payments not made in full at the date of this affidavit are listed below.

Affiant hereby waives all claims against the Owner. (List any exceptions):

Affiant agrees to indemnify and hold Owner harmless from any liens, debts or obligations which arise as a result of labor or materials provided by or through Affiant to the project. Affiant further agrees to indemnify and hold harmless all real property on which the improvements were constructed and all interests in such property, including leasehold interests, from any liens, debts, or obligations arising from any labor or materials provided by or through Affiant to the project.

Final payments to subcontractors for labor and/or materials which are pending or disputed as of the date hereof are:

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Sworn to and subscribed before me this _____ day of _______ 20__

(SEAL)

Notary Public in and for
____________________ County, Texas
CONSENT OF SURETY COMPANY TO FINAL PAYMENT

PROJECT NO. Project Number 1210307  CONTRACT NO. ____________________________

TITLE OF PROJECT Pond Supplemental Lighting

PROJECT LOCATION Sea Center Texas  CONTRACT DATE ____________________________

OWNER: Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744

CONTRACTOR: ________________________________
(Name)
______________________________
(Address)
______________________________
(City, State, Zip Code)

SURETY COMPANY: ________________________________
(Name)
______________________________
(Address)
______________________________
(City, State, Zip Code)

on bond of ______________________________________, Contractor, hereby approves of the final payment by Owner to Contractor on the above Contract, and agrees that final payment to the Contractor shall not relieve Surety Company of any of its obligations to Owner as set forth in said Surety Company's bond.

IN WITNESS WHEREOF, Surety Company has hereunto set its hand this _____ day of ________________, 20__.

SURETY COMPANY:

By: ________________________________
(Signature)

______________________________
(Printed Name)

______________________________
(Title)
NON-USE OF ASBESTOS CONTAINING MATERIALS AFFIDAVIT - CONTRACTOR

STATE OF TEXAS §
COUNTY OF §

Project Name: Gus Engeling WMA, Gathering Lodge & Bunkhouses
Project Number: 127282

By the signature below, the signatory for the Contractor certifies that neither he nor the firm, corporation, partnership or institution represented by the signatory or anyone acting for the firm providing Construction Services for this project, including Subcontractors, have utilized materials, procedures or processes that knowingly or intentionally contain asbestos materials.

Signature: ____________________________________________
Printed Name: ____________________________________________
Title: ____________________________________________
Company: ____________________________________________
Date: ____________________________________________

State of Texas
County of ____________

Sworn to and subscribed before me on the _______ day of _________, 20___ by ________________ (name/signature of signer) the undersigned authority on behalf of said Contractor.

(Personalized Seal)

Notary Public’s Signature

My commission expires: ________
CONSTRUCTION DOCUMENTS
TERMS AND CONDITIONS
(Construction)

1. DEFINITIONS: As used throughout this contract, the following terms have the meaning set forth below:
   (a) Owner- The Texas Parks and Wildlife Department (TPWD) acting on behalf of the State of Texas.
   (b) Owner’s Designated Representative (ODR)- the individual assigned by the Owner to act on its behalf and to undertake certain activities as specifically outlined in the Contract. The ODR is the only party authorized to direct changes to the scope, cost, or time of the contract. For the purposes of this contract, the ODR shall be Owner’s, Project Manager, Doug Sauve.
   (c) Contractor- The individual, corporation, limited liability company, partnership, firm, or other entity contracted to furnish the materials and to perform all Work under the contract with the Owner.
   (d) Contract- means the entire agreement between the Owner and the Contractor, including all of the Contract Documents.
   (e) Contract Documents- means those documents identified as a component of the agreement (contract) between the Owner and the Contractor. These may include, but are not limited to, Drawings, Specifications, Terms and Conditions, and all pre-bid and/or pre-proposal addenda.

2. SITE: The site of the Work is 302 Medical Drive, Lake Jackson, Brazoria County, Texas.

3. DESCRIPTION OF WORK: Furnish all labor, materials, tools, equipment and incidentals necessary for performance of all Work associated with Project Number 1210307, Pond Supplemental Lighting at Sea Center Texas as shown on the drawings and as specified in the Invitation for Bids and Contract Documents.

4. PERFORMANCE TIME: The Contractor shall complete all Work, including clean-up required by the contract within One hundred twenty (120) calendar days after the date specified in the Notice to Proceed.

5. INQUIRIES: All inquiries in regard to the Invitation for Bids and Contract Documents, to include any discrepancies thereto and administration of the contract, should be directed to Gisela Alanis, Contract Manager, 512/389-4480 or at gisela.alanis@tpwd.texas.gov.

6. EXAMINATION OF SITE: Bidders should visit the site and be thoroughly familiar with job conditions such as the location, accessibility, and general character of the site and/or building prior to submitting a bid. Visits shall be scheduled with Roger Padon, Construction Manager at 512/627-4417. Bidders are strongly encouraged to visit the site and be familiar with the site conditions. Failure to give proper consideration in the bid to site conditions will not constitute grounds for additional compensation.

7. VENUE: Venue is hereby fixed in Travis County, Texas.

8. LABOR, MATERIALS, AND WORKMANSHIP:
(a) Unless otherwise specified herein, the Contractor shall furnish and pay for all labor, materials, equipment, tools, construction equipment, and machinery, water, heat, utilities (unless otherwise specified in the Invitation for Bids and Contract Documents), transportation, and other facilities and services necessary for the proper execution and completion of this contract. All materials incorporated in the Work shall be new and of the quality specified, and all Work shall be performed in a skillful and workmanlike manner. Where manufacturer’s names are mentioned in these contract documents, it has been done in order to establish a standard of quality and construction, not to preclude the use of equal or superior materials or products of other manufacturers. However, substitutions must have Owner’s prior approval.

(b) Unless otherwise indicated in the Contract Documents, equipment and material shall be installed in accordance with recommendations of the manufacturer to include such tests as manufacturer recommends. Both materials and workmanship shall be subject to the inspection of the Owner or its representative, who will require the Contractor to correct defective workmanship or material without cost to the Owner.

9. **INTENT OF THE CONTRACT DOCUMENTS:**

(a) The intent of the Invitation for Bids and Contract Documents is to include all of the Work for the contract price and within the contract time. All Invitation for Bids and Contract Documents are to be considered as cooperative. All Work not specified and/or not shown on the drawings, but which is necessary for the completion and/or functioning and operation of the project, shall be understood and implied as part of the contract to be performed by the Contractor for the contract price. Such Work shall be executed by the Contractor in the same manner and with the same character of material as other portions of the contract without extra compensation.

(b) It is the intention of the Invitation for Bids and Contract Documents to call for finished Work, tested, and ready for operation. Any apparatus, material or Work described in the Invitation for Bids and Contract Documents and any incidental accessories necessary to make the Work complete in all respects and ready for operation (even though not particularly specified) shall be furnished, delivered, and installed by the Contractor without additional expense to the Owner. Minor details not usually shown or specified but necessary for proper installation and operation are included in the Work just as if therein specified or shown.

(c) The Drawings depict the location and quantity of elements of the Work. The specifications indicate quality. All documents are intended to be complementary to produce the Work. Requirements of the specifications not included in the drawings or schedules or shown on the drawings and/or schedules and not included in the specifications shall be of like effect as if shown or mentioned in both. Explanatory notes on the drawings shall take precedence over conflicting drawn-out indications. Figured dimensions on drawings shall take precedence over scale measurements. Where figures are lacking, scale measurements may be followed, but in all cases the measurements are to be checked from the Work in place and those measured dimensions taken at the site shall take precedence over scale dimensions in drawings.

(d) In the event of conflict between Drawings and Specifications, the Specifications shall prevail. In the event of conflict among provisions of Specifications, using the CSI format, what is called for in the division of the predominant discipline will govern inconsistent provisions found elsewhere.
(e) In the event of conflict among the drawings, the large-scale drawings prevail over the small-scale drawings. Figures given on drawings shall govern over scaled measurements from drawings.

(f) Prior to commencing the Work, in order to facilitate its responsibilities for completion of the Work in accordance with and as reasonably inferable from the Contract Documents, prior to pricing or commencing the Work, the Contractor shall examine and compare the Contract Documents, information furnished by the Owner, relevant field measurements made by the Contractor and any visible or reasonably anticipated conditions at the site affecting the Work. This duty extends throughout the construction phase prior to commencing each particular Work activity and/or system installation.

(g) The Owner does not warrant or make any representations as to the accuracy or completeness of the information furnished to the Contractor by the Owner. The Contractor shall promptly report in writing to the Owner the discovery of any apparent error, omission or inconsistency in the Contract Documents prior to execution of the Work. It is recognized, however, that the Contractor is not acting in the capacity of a licensed design professional, and that the Contractor's examination is to facilitate construction and does not create an affirmative responsibility to detect errors, omissions or inconsistencies or to ascertain compliance with applicable laws, building codes or regulations. If, however, the Contractor fails to perform the examination and reporting obligations of these provisions, the Contractor shall be responsible for any avoidable costs or direct damages.

(h) All Work shall be performed and furnished by the Contractor in accordance with accepted construction industry practices.

(i) A duplication of Work is not intended by the Contract Documents and any duplication shall not become a basis for extra cost to the Owner.

10. PERMITS AND LAWS: Contractor shall comply with all laws, ordinances, statutes, rules and regulations applicable to the project, including but not limited to those pertaining to the collection, transportation and disposal of trash and refuse and shall obtain such permits, licenses or other authorizations as may be required.

If applicable governmental laws, rules, regulations or ordinances conflict with the Contract Documents, then such laws, rules, regulations, or ordinances shall govern instead of the Contract Documents, except in such cases where the Contract Documents exceed them in quality of materials or labor, then the Contract Documents shall be followed.

11. LABOR, LAWS AND WAGES:

In the execution of this contract, the Contractor must comply with all applicable State and Federal laws, regulations and rules including but not limited to those concerned with labor, equal employment opportunity, safety and minimum wages. The Contractor shall obtain and pay for all permits required in connection with the execution of Contractor’s Work. The Owner shall be furnished with certified copies of these permits if the Owner so requests. If such laws, regulations or rules conflict with the Invitation for Bids and Contract Documents, then the laws, regulations or rules, shall govern instead of the Invitation for Bids and Contract Documents, except in such cases where the Invitation for Bids and Contract Documents exceed them in quality of materials or labor, then the Invitation for Bids and Contract Documents shall be followed.

(a) Duty to Pay Prevailing Wage Rates. The Contractor shall not pay less than the wage scale of the various classes of labor as shown on the prevailing wage schedule provided by Owner in the bid or proposal specifications. The specified wage rates are minimum rates only. Owner is not bound to pay any claims for additional compensation made by any
Contractor because the Contractor pays wages in excess of the applicable minimum rate contained in the Contract. The prevailing wage schedule is not a representation that qualified labor adequate to perform the Work is available locally at the prevailing wage rates.

(b) Notification to Workers. Contractor shall post the prevailing wage schedule in a place conspicuous to all workers on the Project Site. When requested by Owner, Contractor shall furnish evidence of compliance with the Texas Prevailing Wage Law and the addresses of all workers.

i. Pursuant to Tex. Gov’t Code § 2258.024, Contractor shall keep, on site, true and accurate records showing the name and occupation of each worker employed by the Contractor or subcontractors and the actual per diem wages paid to each worker. The record shall be open to inspection by the ODR and their agents at all reasonable hours for the duration of the contract.

ii. With each application for progress payment, Contractor shall make available upon request certified payroll records, including from subcontractors of any tier level, on Form WH-347 as promulgated by the U.S. Department of Labor, as may be revised from time to time and in unlocked and unprotected Excel format, along with copies of any and all Contract Documents between Contractor and any Subcontractors. Pursuant to Tex. Penal Code §§ 37.02 and 37.10, Employees of Contractor and subcontractors, including all tier levels, shall be subject to prosecution for submitting certified payroll records that contain materially false information.

iii. The prevailing wage schedule is determined by Owner in compliance with Tex. Gov’t Code, Ch. 2258. Should Contractor at any time become aware that a particular skill or trade not reflected on Owner’s prevailing wage schedule will be or is being employed in the Work, whether by Contractor or by Subcontractor, Contractor shall promptly inform ODR of the proposed wage to be paid for the skill along with a justification for same and ODR shall promptly concur with or reject the proposed wage and classification.

iv. Contractor is responsible for determining the most appropriate wage for a particular skill in relation to similar skills or trades identified on the prevailing wage schedule. In no case, shall any worker be paid less than the wage indicated for laborers.

v. Pursuant to Tex. Labor Code § 214.008, Misclassification of Workers; Penalty. The Owner requires Contractor and all subcontractors properly classify individuals as Employees or Independent Contractors.

(c) Penalty for Violation. Contractor, and any Subcontractor, will pay to the State a penalty of sixty dollars ($60) for each worker employed for each day, or portion thereof, that the worker is paid less than the wage rates stipulated in the prevailing wage schedule.

(d) Complaints of Violations.

i. Owner’s Determination of Good Cause. Upon receipt of information concerning a violation, Owner will conduct an investigation in accordance with Tex. Gov’t Code, Ch. 2258 and make an initial determination as to whether good cause exists that a violation occurred. Upon making a good cause finding, Owner will retain the full amounts claimed by the claimant or claimants as the difference between
wages paid and wages due under the prevailing wage schedule and any supplements thereto, together with the applicable penalties in accordance with Tex. Gov’t Code § 2258.023, such amounts being subtracted from successive progress payments pending a final decision on the violation.

ii. **No Extension of Time.** If Owner’s determination proves valid that good cause existed to believe a violation had occurred, Contractor is not entitled to an extension of time for any delay arising directly or indirectly from the arbitration procedures.

iii. **Cooperation with Owner’s Investigation.** Contractor shall cooperate with Owner during any investigations hereunder. Such cooperation shall include, but not necessarily be limited to, timely providing the information and/or documentation requested by Owner, which may include certified payroll records on Form WH-347 as promulgated by the U.S. Department of Labor, as may be revised from time to time and in unlocked and unprotected Excel format; and copies of any and all Contract Documents between Contractor and any Subcontractors.

iv. **Notification to Owner.** In the event Contractor or Subcontractor elect to appeal an initial determination made pursuant to Paragraph 2.2.3.1, the Contractor and/or Subcontractor, as applicable, shall deliver notice thereof to Owner.

12. **INSURANCE REQUIREMENTS:**

(a) Contractor shall carry insurance in the types and amounts indicated in this Article for the duration of the Contract. The insurance shall be evidenced by delivery to Owner of certificates of insurance executed by the insurer or its authorized agent stating coverages, limits, expiration dates and compliance with all applicable required provisions. Upon request, Owner, and/or its agents, shall be entitled to receive without expense, copies of the policies and all endorsements. Contractor shall update all expired policies prior to submission for monthly payment. Failure to update policies shall be reason for withholding of payment until renewal is provided to Owner.

(b) Contractor shall provide and maintain all insurance coverage with the minimum amounts described below until the end of the warranty period unless otherwise stated in these Terms and Conditions. Failure to maintain insurance coverage, as required, is grounds for suspension of Work for cause.

(c) Contractor shall deliver to Owner true and complete copies of certificates and corresponding policy endorsements prior to the issuance of any Notice to Proceed.

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

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

(f) The insurance coverage and limits established herein shall not be interpreted as any representation or warranty that the insurance coverage and limits necessarily will be adequate to protect Contractor.
(g) Coverage shall be written on an occurrence basis by companies authorized and admitted to do business in the State of Texas and rated A or better by A.M. Best Company or similar rating company or otherwise acceptable to Owner.

(h) **Insurance Coverage Required.**

i. **Workers’ Compensation.** Insurance with limits as required by the Texas Workers’ Compensation Act, with the policy endorsed to provide a waiver of subrogation in favor of Owner, employer’s liability insurance of not less than:

- $1,000,000 each accident;
- $1,000,000 disease each employee; and
- $1,000,000 disease policy limit.

ii. **Commercial General Liability Insurance.** Including premises, operations, independent contractor’s liability, products and completed operations and contractual liability, covering, but not limited to, the liability assumed under the indemnification provisions of this Contract, fully insuring Contractor’s liability for bodily injury (including death) and property damage with a minimum limit of:

- $1,000,000 per occurrence;
- $2,000,000 general aggregate;
- $5,000 Medical Expense each person;
- $1,000,000 Personal Injury and Advertising Liability;
- $2,000,000 products and completed operations aggregate;
- $50,000 Damage to Premises Rented to You; and

Coverage shall be on an “occurrence” basis.

The policy shall include coverage extended to apply to completed operations and explosion, collapse, and underground hazards. The policy shall include endorsement CG2503 Amendment of Aggregate Limits of Insurance (per Project) or its equivalent.

If the Work involves any activities within fifty (50) feet of any railroad, railroad protective insurance as may be required by the affected railroad, written for not less than the limits required by such railroad.

iii. **Asbestos Abatement Liability Insurance,** including coverage for liability arising from the encapsulation, removal, handling, storage, transportation, and disposal of asbestos containing materials. *This requirement applies if the Work or the Project includes asbestos containing materials.*

The combined single limit for bodily injury and property damage will be a minimum of $1,000,000 per occurrence.
*Specific requirement for claims-made form: Required period of coverage will be determined by the following formula: continuous coverage for life of the Contract, plus one (1) year (to provide coverage for the warranty period), and an extended discovery period for a minimum of five (5) years which shall begin at the end of the warranty period.

Employer’s liability limits for asbestos abatement will be:

$500,000 each accident;

$500,000 disease each employee; and

$500,000 disease policy limit.

If this Contract is for asbestos abatement only, the Special Form builder’s risk or Special Form installation floater (e) is not required.

iv. Comprehensive Automobile Liability Insurance, covering owned, hired, and non-owned vehicles, with a minimum combined single limit for bodily injury (including death) and property damage of $1,000,000 per accident. No aggregate shall be permitted for this type of coverage.

Such insurance is to include coverage for loading and unloading hazards.

v. Special Form Builder’s Risk Insurance, if applicable (or Special Form installation floater for instances in which the project involves solely the installation of material and/or equipment). Coverage shall be Special Form, including, but not limited to, fire, extended coverage, vandalism and malicious mischief, theft and, if applicable, flood, earth movement and named storm. Builder’s risk and installation floater limits shall be equal to 100 percent of the Contract Sum plus, if any, existing property and Owner-furnished equipment specified by Owner. The policy shall be written jointly in the names of Owner and Contractor. Subcontractors shall be named as additional insureds. The policy shall have endorsements as follows:

1. This insurance shall be specific as to coverage and not contributing insurance with any permanent insurance maintained on the property.

2. This insurance shall not contain an occupancy clause suspending or reducing coverage should Owner partially occupy the Site and before the parties have determined Substantial Completion.

3. Loss, if any, shall be adjusted with and made payable to Owner as trustee for the insureds as their interests may appear. Owner shall be named as loss payee.

4. For renovation projects or projects that involve portions of Work contained within an existing structure, refer to Paragraph 62 of these Terms and Conditions for possible additional builder’s risk insurance requirements.

5. For Owner furnished equipment or materials that will be in care, custody or control of Contractor, Contractor will be responsible for damage and loss.
6. For those properties located within a Tier 1 or 2 windstorm area, named storm coverage must be provided with limits specified by Owner.

7. For those properties located in flood prone areas, flood insurance coverage must be provided with limits specified by Owner.

8. Builder’s risk insurance policy shall remain in effect until Substantial Completion.

(i) Policies must include the following clauses, as applicable:

i. This insurance shall not be canceled, materially changed, or non-renewed except after thirty (30) days written notice has been given to Owner.

ii. It is agreed that Contractor’s insurance shall be deemed primary with respect to any insurance or self-insurance carried by Owner for liability arising out of operations under the Contract with Owner.

iii. Owner, its officials, directors, employees, representatives, and volunteers are added as additional insureds as respects operations and activities of, or on behalf of the named insured performed under Contract with Owner. The additional insured status must cover completed operations as well. This is not applicable to workers’ compensation policies.

iv. A waiver of subrogation in favor of Owner shall be provided in all policies.

(j) Without limiting any of the other obligations or liabilities of Contractor, Contractor shall require each Subcontractor performing Work under the Contract, at Subcontractor’s own expense, to maintain during the term of the Contract, the same stipulated minimum insurance including the required provisions and additional policy conditions as shown above. As an alternative, Contractor may include its Subcontractors as additional insureds on its own coverage as prescribed under these requirements. Contractor’s certificate of insurance shall note in such event that Subcontractors are included as additional insureds and that Contractor agrees to provide workers’ compensation for Subcontractors and their employees. Contractor shall obtain and monitor the certificates of insurance from each Subcontractor in order to assure compliance with the insurance requirements. Contractor must retain the certificates of insurance for the duration of the Contract plus five (5) years and shall have the responsibility of enforcing these insurance requirements among its Subcontractors. Owner shall be entitled, upon request and without expense, to receive copies of these certificates.

(k) Workers’ compensation insurance coverage must be provided for all workers at all tier levels and meet the statutory requirements of Tex. Lab. Code § 401.011(44) and specific to construction projects for public entities as required by Tex. Lab. Code § 406.096.

13. INDEPENDENT CONTRACTOR: The Contractor shall not render the Contractor to an employee, officer or agent of the Owner for any purpose. The Contractor is and shall remain an independent contractor in relationship to the Owner. The Owner shall not be responsible for withholding taxes from payments made under the Contract. The Contractor shall have no claim against the Owner for vacation pay, sick leave, retirement benefits, social security, worker’s compensation, health or disability benefits, unemployment insurance benefits, or employee benefits of any kind.

14. PERFORMANCE AND PAYMENT BONDS: If the total contract price exceeds $25,000, the Contractor shall execute a Payment Bond to the Owner in the amount of the total contract price. If
the total contract price exceeds $100,000, the Contractor shall execute a **Payment Bond** and a **Performance Bond** to the Owner in the amount of the total contract price. The performance bond is payable to the State in the full amount of the Contract and is solely for the protection of the State and is conditioned on the faithful performance of the Work in accordance with the Contract Documents. The payment bond is payable to the State in the full amount of the Contract and is solely for the protection and use of payment bond beneficiaries who have a direct contractual relationship with the Contractor or a supplier of required materials or labor. Each bond shall be executed by a corporate surety or corporate sureties duly authorized to do business in the State of Texas **and on forms provided by the Owner and approved by the Attorney General of Texas**. Corporate sureties authorized to issue bonds shall be qualified and comply with relevant provisions of the Texas Insurance Code. All Performance and Payment Bonds shall be executed by sureties which are licensed to do business in the State of Texas and which are included in the list of companies in the current U.S. Department of the Treasury Circular 570, “Companies holding Certificates of Authority as Acceptable Sureties on Federal Bonds and Acceptable Reinsuring Companies”, Sections 9304 through 9308 of Title 31 of the U.S. Code Annotated. The Contractor shall submit the executed performance and payment bonds to the Owner within the time stipulated within these documents. The process of requiring and accepting bonds and making claims there under shall be conducted in compliance with Chapter 2253, *Texas Government Code*. If for any reason a statutory payment or performance bond is not honored by the surety, the Contractor shall fully indemnify and hold the Owner harmless of and from any costs, losses, obligations or liabilities it incurs as a result. Owner shall furnish a copy of the payment bond and the related Contract to any qualified person seeking copies who complies with §2253.026, *Texas Government Code*. Claims on payment bonds must be sent directly to the Contractor and his surety in accordance with § 2253.041, *Texas Government Code*. All Payment Bond claimants are cautioned that no lien exists on the funds unpaid to the Contractor on such Contract, and that reliance on notices sent to the Owner may result in loss of their rights against the Contractor and/or his surety. The Owner is not responsible in any manner to a claimant for collection of unpaid bills and accepts no such responsibility because of any representation by any agent or employee. When the value of the Contract between the Owner and the Contractor is less than $25,000.00, claimants and their rights are governed by Texas Property Code, §§ 53.231 – 53.239. These provisions set out the requirements for filing a valid lien on funds unpaid to the Contractor as of the time of filing the claim, actions necessary to release the lien and satisfaction of such claims. If the Contractor fails to submit such bond within the time stipulated herein, Owner may disqualify the bid. In such circumstances, TPWD shall be authorized to proceed with award to the next lowest, responsive and responsible bidder.

15. **ADDENDA:** Any addenda issued in writing by the Owner during the period of bidding shall be included in the bid and Bidder's receipt of addenda shall be acknowledged in the bid form. Such addenda shall become a part of the contract and shall modify the Contract Documents accordingly. Oral changes in the Work made during the period of bidding will not be binding. **BIDDER'S FAILURE TO ACKNOWLEDGE RECEIPT OF ADDENDA MAY RESULT IN REJECTION OF BID.**

16. **RESERVED.**

17. **MEASUREMENT AND BASIS OF PAYMENT:** The various items in the bid schedule will be paid at the unit or lump sum price bid. These prices shall be full compensation for furnishing all material, labor, equipment, tools, power, transportation, superintendence, overhead, and profit necessary to complete the construction of the various items of the project listed in the bid schedule. It is not the intent of the bid schedule to itemize each and every labor, material or incidental requirement. Any requirement, explicit or implied as determined by the Owner for project completion, including testing, and not specifically mentioned in the bid schedule shall be included in items with which they would be considered subsidiary. The measurement units that may be used are abbreviated on the bid schedule as follows:
18. **LICENSING OF TRADES:** Contractor shall comply with all applicable provisions of State law related to license requirements for skilled tradesmen, contractors, suppliers and or laborers, as necessary to accomplish the Work. In the event Contractor, or one of its Subcontractors, loses its license during the term of performance of the Contract, Contractor shall promptly hire or contract with a licensed provider of the service at no additional cost to Owner.

19. **CHANGES AND CHANGED CONDITIONS:**

(a) The Owner may, in writing, order changes in the Contract Documents within the general scope of the contract.

(b) The Contractor shall promptly notify the Owner in writing of subsurface or latent physical conditions differing materially from those indicated in this contract or unknown unusual physical conditions at the site, before proceeding further with the Work.

(c) If changes pursuant to this section increase or decrease the cost of, or time required for, performing the Work, then upon assertion of a claim in writing by the Contractor prior to the making of final payment under the contract, a written equitable adjustment by change order may be made. However, no adjustment shall be made unless the written notice required therein was given timely, or unless the Owner waives the requirement therefore. If the adjustment cannot be agreed upon, the dispute shall be decided pursuant to the paragraph entitled “Disputes”.

(d) It is recognized by the parties hereto and agreed by them that the Specifications and Drawings may not be complete or free from errors, omissions and imperfections or that they may require changes or additions in order for the Work to be completed to the satisfaction of Owner and that, accordingly, it is the express intention of the parties, notwithstanding any other provisions in this Contract, that any errors, omissions or imperfections in such Specifications and Drawings, or any changes in or additions to same or to the Work ordered by Owner and any resulting delays in the Work or increases in Contractor’s costs and expenses arising out of such errors, shall not constitute or give rise to any claim, demand or cause of action of any nature whatsoever in favor of Contractor, whether for breach of Contract, or otherwise; provided, however, that Owner shall be liable to Contractor for the sum stated to be due Contractor in any Change Order approved and signed by both parties, it being agreed hereby that such sum, together with any extension of time contained in said Change Order, shall constitute full compensation to Contractor for all costs, expenses and damages to Contractor, as permitted under Tex. Gov’t Code, Chapter 2260.

(e) **Unit Prices:** If unit prices are stated in the Contract Documents or subsequently agreed upon, and if the quantities originally contemplated are so changed in a Proposed Change Order that application of the agreed unit prices to the quantities of Work proposed will cause substantial inequity to Owner or Contractor, the applicable unit prices shall be equitably adjusted as agreed to by the parties and incorporated into a Change Order.

(f) Any unexpected circumstance which necessitates an immediate change in order to avoid a delay in progress of the Work may be expedited by verbal communication authorization between Contractor and Owner, with written confirmation following within twenty-four (24) hours. A limited scope not to exceed estimate of costs and time will be requested prior to authorizing Work to proceed. Should the estimate be impractical for any reason, ODR may authorize the use of detailed cost records of such Work to establish and confirm the actual costs and time for documentation in a formal change order.
(g) **Pricing Change Order Work:** The amounts that Contractor and/or its Subcontractor adds to a Change Order for profit and overhead will also be considered by Owner before approval is given. The amounts established hereafter are the maximums that are acceptable to Owner.

i. For Work performed by its forces, Contractor will be allowed their actual costs for materials, the total amount of wages (including benefits) paid for labor, plus the total cost of State and Federal payroll taxes and of worker’s compensation and comprehensive general liability insurance, plus additional bond and builders risk insurance cost if the change results in an increase in the premium paid by Contractor. To the total of the above costs, Contractor will be allowed to add a percentage as noted below to cover overhead and profit combined. Allowable percentages for overhead and profit on any specific change shall not exceed fifteen (15) percent for the first $10,000 of value for self-performed Work or portion thereof, ten (10) percent for the second $10,000 of value for self-performed Work or portion thereof and seven and a half (7.5) percent for any value of the self-performed Work that exceeds $20,000.

ii. For subcontracted Work each affected Subcontractor shall figure its costs, overhead and profit as described above for Contractor’s Work, all Subcontractor costs shall be combined, and to that total Subcontractor cost Contractor will be allowed to add a maximum mark-up of ten (10) percent for the first $10,000 of subcontracted Work value or portion thereof, seven and half (7.5) percent for the second $10,000 of subcontracted Work value or portion thereof, and five (5) percent for any value of the subcontracted Work exceeding $20,000.

iii. All proposed costs for change order Work must be supported by itemized accounting of material, equipment and associated itemized installation costs in sufficient detail, following the outline and organization of the established Schedule of Values, to permit analysis by A/E and ODR using current estimating guides and/or practices. Photocopies of Subcontractor and vendor proposals shall be furnished unless specifically waived by ODR. Contractor shall provide written response to a change request within twenty-one (21) days of receipt.

20. **DISPUTES:**

(a) The dispute resolution process provided for in Tex. Gov’t Code, Chapter 2260, and the procedures provided in Title 31, Part 2, Chapter 51, Subchapter J of the Texas Administrative Code shall be used by the Owner and the Contractor to attempt to resolve any claim for breach of contract made by the Contractor, that is not resolved under procedures described throughout the Terms and Conditions of the Contract.

(b) Nothing herein shall hinder, prevent, or be construed as a waiver of Owner’s right to seek redress on any disputed matter in a court of competent jurisdiction.

(c) Nothing herein shall waive or be construed as a waiver of the State’s sovereign immunity.

21. **PAYMENTS TO CONTRACTOR:**

(a) If the contract time (or valid extension thereof) exceeds thirty (30) calendar days then upon presentation of a properly executed voucher, progress payments equal to 90% of the value of Work performed may be made monthly on estimates approved by the Owner. Such voucher shall be accompanied by Contractor’s Progress Payment Affidavit form furnished by Owner. Upon payment therefore, title to the property shall vest in the Owner. This
provision shall not be construed as relieving the Contractor from sole responsibility for all material and Work upon which payments have been made or the restoration of any damaged Work, or as waiving the right of the Owner to require the fulfillment of all of the terms of the contract. Final payment will be made after all Work is completed and accepted

(b) Final Payment constitutes a waiver of all claims by the Owner, relating to the condition of the Work except those arising from:

i. Faulty or defective Work appearing after Substantial Completion (latent defects); and/or

ii. Failure of the Work to comply with the requirements of the Contract Documents; and/or

iii. Terms of any warranties required by the Contract, or implied by law; and/or

iv. Claims arising from personal injury or property damage to third parties.

(c) The final payment shall not become due until the Contractor submits to the Owner the following:

i. A fully executed Contractor’s Final Payment Affidavit form furnished by Owner. Also, if required by Owner, the Contractor shall submit other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of claims arising out of the contract, to the extent and in such form as may be designated by the Owner. If any Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify it against any such claim;

ii. Two (2) sets of approved project submittals and all equipment and materials warranties/guarantees as provided by suppliers and/or manufacturers;

iii. One (1) set of “as-built” drawings and specifications showing all changes to the original construction documents. Drawings also shall show routing of underground outside utilities and conduits with actual dimensions from buildings or other known landmarks.

iv. If contract exceeds $25,000, Consent of Surety to Final Payment form provided by Owner.

(d) The Owner may reduce any Construction Voucher prior to payment to the extent necessary to protect the Owner from loss on account of actions of the Contractor, including, but not limited to:

i. Defective Work not remedied;

ii. Damage to Work of a separate contractor;

iii. Failure to maintain scheduled progress;

iv. Failure to comply with the requirements of Texas Government Code Chapter 2258 (Prevailing Wage Law); or

v. For Contracts with a value of less than $25,000 for which no payment bond is posted, receipt of written notice by the Owner of unpaid bills, filed in conformance with §
53.232, Texas Property Code. Any funds so withheld shall be released to the Contractor if he furnishes a bond or release of lien as provided in § 53.236, Texas Property Code;

vi. Failure to maintain a current record set of "As-Built" documents on site; and/or

vii. Failure to maintain or to allow Owner's inspection of payroll records.

(e) Submission of an Application for Final Payment by the Contractor constitutes a waiver of all claims and liens by the Contractor except those specifically identified in writing and submitted to the ODR prior to the application for Final Payment.

(f) Regardless of approval and issuance of Final Payment, the Contract is not deemed fully performed by the Contractor and closed out until the expiration of all warranty periods.

22. TERMINATION FOR DEFAULT:

(a) The Owner may, without prejudice to any right or remedy terminate the employment of the Contractor and take possession of the site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor, under the following circumstances:

i. Persistent or repeated failure or refusal, except during complete or partial suspensions of Work authorized under the Contract Documents, to supply enough properly skilled workmen or proper materials;

ii. Persistent disregard of laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, including Owner;

iii. Persistent failure to prosecute the Work in accordance with the Contract Documents, and to insure its completion within the time, or any extension thereof, specified in this contract;

iv. Failure to remedy defective Work condemned by the Owner;

v. Failure to pay subcontractors, laborers, materialmen and suppliers pursuant to Texas Government Code Chapter 2251;

vi. Persistent endangerment, by the Contractor or its Subcontractors or other vendors, of the safety of labor or of the Work itself;

vii. Failure to maintain statutory bonds, if applicable and required herein, or failure to maintain insurance as required herein; or

viii. Any other material breach of the Contract.

ix. Contractor’s insolvency, bankruptcy, or demonstrated financial inability to perform the Work.

(b) The Owner reserves the right to terminate at any time for any of the above-listed reasons or causes. Owner’s failure to exercise the right to terminate in any instance or for any proper reason shall not be construed as waiver of the right to do so in any other instance or for any other proper reason.

(c) The Owner shall give the Contractor and its Surety (if applicable) fifteen (15) days’ prior written notice of its intent to terminate for any of the above reasons. If the Contractor or the Surety demonstrates, to the satisfaction of the Owner, that the condition or conditions upon which the notice of termination is based have been removed, corrected, or will not recur, then the Owner shall rescind the notice and the Contract shall continue unmodified, and the Contractor shall not be entitled an extension of time. Should the Contractor or the surety fail to so demonstrate within thirty days following receipt of such notice, or fail to satisfy the Owner that the condition or conditions upon which the notice of termination is based have been removed, corrected, or will not recur, the Owner may arrange for completion of the Work and deduct the cost thereof from the unpaid Contract sum.
remaining, including the cost of additional Architect/Engineer services made necessary by
such default or neglect, in which event no further payment shall then be made to the
Contractor, by the Owner until all costs of completing the Work shall have been paid. If
the unpaid balance of the Contract Sum exceeds the costs of finishing the Work, including
compensation for the Architect/Engineer's additional services made necessary thereby,
such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the
Contractor or his surety shall pay the difference to the Owner. This obligation for payment
shall survive the termination of the Contract. The Owner reserves the right, where the
Contract is terminated for cause, to take assignment of any and all contracts between the
Contractor and its Subcontractors, vendors and suppliers, and the ODR shall promptly
notify the Contractor of the contracts the Owner elects to assume. Upon receipt of such
notice, the Contractor shall promptly take all steps necessary to affect such assignment.

23. TERMINATION FOR CONVENIENCE OF OWNER: Prior to, or during the performance of
the Work, the Owner reserves the right to terminate the Contract for unforeseen causes not limited
to court orders, loss of funding, acts of the federal government to discontinue the Work, etc., that
may occur and render the Owner’s continued performance of the Contract impossible or illegal.
Upon such an occurrence, the following procedures will be adhered to:

(a) The Owner will immediately notify the Contractor in writing, specifying the reason for and
the effective termination date of the Contract. Such notice shall also contain any
instructions necessary for the protection, storage or decommissioning of incomplete Work
or systems, and for safety;
(b) After receipt of the notice of termination, the Contractor shall immediately proceed with
the following obligations, regardless of any delay in determining or adjusting any amounts
due at that point in the contract and shall:

i. Stop all Work;
ii. Place no further subcontracts or orders for materials or services;
iii. Terminate all subcontracts for convenience;
iv. Cancel all material and equipment orders as applicable;
v. Take action that is necessary to protect and preserve all property related to this Contract
which is in the possession of the Contractor.

(c) Within 30 days of the notice of termination, the Contractor shall submit the final termination
settlement proposal to the Owner based upon costs up to the date of termination, any
provable loss (excluding anticipated profits and the cost for preparation of the final
termination settlement proposal). If the Contractor fails to submit the proposal within the
time allowed, the Owner may determine the amount due to the Contractor because of the
termination and shall pay the determined amount to the Contractor.

(d) If the Contractor and the Owner fail to agree on the settlement amount, the matter will be
handled as a dispute through administrative procedures as established in paragraph entitled
“Disputes” of these Terms and Conditions (Construction).

24. WARRANTY OF CONSTRUCTION:

(a) Contractor warrants to the Owner that all Work shall be executed in accordance with the
Contract Documents, complete in all parts and in accordance with approved practices and
customs, and of the best finish and workmanship. Unless otherwise specified, all materials
and equipment incorporated in the Work under the Contract shall be new. The Owner may,
at its option, agree in writing to waive any failure of the Work to conform to the Contract
Documents, and to accept a reduction in the Contract Price for the cost of repair or
diminution in value of the Work by reason of such defect. Absent such a written agreement,
however, the Contractor's obligation to perform and complete the Work in accordance with
the Contract Documents shall be absolute and is not waived by any inspection or observation by the Owner, Architect/Engineer or others, by making any progress payment or final payment, except as provided in §19, by the use or occupancy of the Work or any portion thereof by the Owner, at any time, or by any repair or correction of such defect made by the Owner.

(b) Except as otherwise specified, the Contractor shall repair all defects in materials, equipment or workmanship appearing within one year from the date of Substantial Completion of the Work as a whole. Upon receipt of written notice from the Owner of the discovery of any defects, the Contractor shall promptly and at its own cost remedy the defects and replace any property damaged therefrom. In case of emergency where delay would cause serious risk of loss or damage to the Owner, or if the Contractor, after notice, fails to proceed promptly and remedy within fifteen (15) days or within another period of time which has been agreed to in writing, in compliance with the terms of the warranty and guarantee, the Owner may have the defects corrected and the Contractor and his surety shall be liable for all expenses incurred.

(c) Where a particular piece of equipment or component of the Work for which a separate warranty is required under the Contract Documents is placed in continuous service before Substantial Completion, the date of service commencement shall be certified by the Architect/Engineer and the Warranty Period for that equipment or component shall run from the date so certified. In addition to the Contractor's warranty and duty to repair, as set forth in herein, the Contractor expressly assumes all warranty obligations required under the Contract Documents for specific building components, systems and equipment. The Contractor may satisfy any such obligation by obtaining and assigning to the Owner a complying warranty from a manufacturer, supplier, or subcontractor. Where an assigned warranty is tendered and accepted by the Owner which does not fully comply with the requirements of the Contract Documents, the Contractor shall remain liable to the Owner on all elements of the required warranty that are not provided by the assigned warranty.

25. INDEMNIFICATION AND HOLD HARMLESS:

Indemnification of Owner. The Contractor covenants and agrees to FULLY INDEMNIFY and HOLD HARMLESS, the Owner and the elected officials, employees, officers, directors, volunteers, and representatives of the Owner, individually or collectively, from and against any and all costs, claims, liens, damages, losses, expenses, fees, fines, penalties, proceedings, actions, demands, causes of action, liability and suits of any kind and nature, including but not limited to, personal or bodily injury, death and property damage, made upon the Owner directly or indirectly arising out of, resulting from or related to Contractor’s activities under this Contract, including any acts or omissions of Contractor, any agent, officer, director, representative, employee, consultant or the Subcontractor of Contractor, and their respective officers, agents, employees, directors and representatives while in the exercise of performance of the rights or duties under this Contract. The indemnity provided for in this paragraph does not apply to any liability resulting from the negligence of the Owner, officers or employees, separate Contractors or assigned contractors, in instances where such negligence causes personal injury, death or property damage. IN THE EVENT CONTRACTOR AND OWNER ARE FOUND JOINTLY LIABLE BY A COURT OF COMPETENT JURISDICTION, LIABILITY WILL BE APPORTIONED COMPARATIVELY IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS, WITHOUT WAIVING ANY GOVERNMENTAL IMMUNITY AVAILABLE TO THE STATE UNDER TEXAS LAW AND WITHOUT WAIVING ANY DEFENSES OF THE PARTIES UNDER TEXAS LAW.

(a) The provisions of this Indemnification are solely for the benefit of the parties hereto and not intended to create or grant any rights, contractual or otherwise, to any other person or entity.
(b) Promptly advise the Owner in writing of any claim or demand against the Owner or the Contractor known to the Contractor related to or arising out of the Contractor’s activities under this Contract.

26. **FORCE MAJEURE:**

The Owner may grant relief from performance of contract if the Contractor is prevented from performance by an act of war, order of legal authority, act of God, or other unavoidable cause not attributable to the fault or negligence of Contractor. The burden of proof for the need of such relief shall rest upon the Contractor. To obtain release based on force majeure, the Contractor shall file a written request with the Owner.

27. **DELAYS AND EXTENSION OF TIME:**

(a) The Contractor may be granted an extension of time because of changes ordered in the Work or because of unforeseeable delays not within the control of or arising from the fault of either the Contractor or Owner caused by the following:

i. Unusual delay in the delivery of materials, components or equipment to be incorporated into the Work. Strikes and labor disputes (but not the availability of adequately skilled labor, unless such impact is caused solely by the conduct of the Owner);

ii. Physical damage to the Work caused by circumstances beyond the control of the Contractor;

iii. War, civil unrest or insurrection;

iv. Other unforeseeable causes beyond the control of either the Contractor or the Owner, including inclement weather, but not for delays that merely extend the duration of non-critical activities, or which consume only float without delaying the project completion date.

(b) Claims or extensions of time must be made in writing within thirty (30) calendar days after the onset of the event or circumstance giving rise to the delay, except in the case of inclement weather, claims for which shall be submitted in writing within 30 calendar days after cessation of the cause of the delay. All time extension claims shall be supported by sufficient written evidence to justify the claim. In the case of a continuing cause of delay, only one claim is necessary. Claims for extensions of time shall be stated in numbers of whole calendar days. In case of claims for extension of time because of inclement weather, such extension of time shall be granted only because such inclement weather prevented the execution of major or critical path items of Work.

28. **NO DAMAGES FOR DELAY:** THE CONTRACTOR HAS NO CLAIM FOR MONETARY DAMAGES FOR DELAY OR HINDRANCES TO THE WORK FROM ANY CAUSE, INCLUDING WITHOUT LIMITATION ANY ACT OR OMISSION OF THE OWNER.

29. **COMPLIANCE WITH LAWS AND SAFETY PRECAUTIONS AND PROGRAMS:**

(a) Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work and it shall be the duty and responsibility of the Contractor and all of its subcontractors to be familiar and comply with all requirements of Public Law 91-596, 29 U.S.C. Secs. 651, et seq., the Occupational Safety and Health Act of 1970, (OSHA) and all amendments thereto, and to enforce and comply with all of the provisions of this Act.
(b) It shall be the duty and responsibility of the Contractor and all of its subcontractors to comply with any and all state and federal statutes, rules, and regulations, including but not limited to those relating to hazardous materials.

(c) In any emergency affecting the safety of persons or property, the Contractor shall act, at his discretion, to prevent threatening damage, injury or loss provide Owner with prompt notice if Contractor believes that any significant changes in the Work or variations from Contract Documents have been caused by Contractor’s emergency response. Any additional compensation or extension of time claimed by the Contractor resulting from emergency Work shall be considered in accordance with paragraph entitled “Changes and Changed Conditions”.

30. CONTRACT COMPLETION AND LIQUIDATED DAMAGES:

(a) Contract Period: This contract must be completed within the specified number of days commencing on the date stated in the Notice to Proceed. Unless specifically stated as “working day”, the term “day “or “calendar day” shall mean every day of the year. Contractor shall submit a schedule for normal working days.

(b) The Owner has determined that the completion of the Work in this contract is critical to the proper operation of the facility, and the Contractor's failure to complete the Work within such time will cause damage to the Owner. Since exact damages are difficult to determine or forecast, the sum of $339.22 per calendar day is hereby established by the parties as a reasonable estimate of just compensation to the Owner for the failure of the Contractor to complete the Work by the time set forth in the contract or authorized extension thereto. Said sum will be deducted from the money due or to become due to the Contractor, not as a penalty, but as liquidated damages and added expense including administrative and inspection costs for each and every calendar day the Work or any portion thereof shall remain incomplete after the expiration of the time limit set in the contract or authorized extension.

(c) Charges for liquidated damages will begin accumulating on the first calendar day following the final contract completion date and continue until the date of final acceptance as established by the Owner. Final acceptance will not be issued until all punch list items have been completed, as verified by Owner.

31. CONSTRUCTION SUBMITTALS:

(a) GENERAL:

i. A TPWD standard Submittal Cover Sheet must accompany each numbered submittal set. One Submittal per Submittal Cover Sheet.

ii. The number of copies of submittals required for each item shall be not less than one (1) electronic copy, unless specified otherwise, for Owner’s use, plus the number of additional copies that the Contractor desires for his own use.

iii. The Contractor must double-check and sign all submittals before forwarding them to the Owner for review and action.

iv. The Architect/Engineer and the Owner will review the submittal data. If there are no exceptions taken to the submittal, the original and three copies will be retained by the Owner. All remaining copies will be returned to the Contractor. The Contractor must keep one copy at the jobsite at all times.

v. If further action is required by the Contractor, Owner will retain three copies of the submittal data for the Owner’s use and return all remaining copies to the Contractor.
vi. Any and all costs, direct or indirect, incurred by Owner in reviewing submittals in excess of two (2) times will be charged to the Contractor and deducted from the total price for the Work.

vii. Owner’s approval of shop drawings and/or any aspects of the Work shall not act to transfer Contractor’s responsibility for, nor relieve Contractor from the performance of any of Contractor’s duties set forth in the contract documents.

(b) PRE-CONSTRUCTION SUBMITTALS: The following PR Submittals shall be submitted by the Contractor for the Owner’s review and approval. Contractor’s failure to obtain approval of PR submittals will not constitute grounds for additional time. Owner will provide more specific clarification regarding the requirements for each PR Submittal.

i. Submittal PR-1 – To be submitted by the Contractor for the Owner’s review and approval within twenty-one (21) calendar days from receipt of Notice to Proceed. Owner’s Approval of PR 1 submittals is a prerequisite to the scheduling of the pre-construction meeting and start of construction activities. Contractor’s failure to obtain approval of PR submittals will not constitute grounds for additional time

1. Contractor’s Superintendent: List of name and qualifications of the person designated as project superintendent.
2. Subcontractors/Materials Suppliers: List of all subcontractors and major material/equipment suppliers that Contractor and Contractor’s major subcontractors propose to use. This list shall include correct names, mailing addresses and phone numbers.
3. Contractor’s Authorized Representatives: List of names and titles of Contractor’s representatives authorized to sign contractual documents and construction vouchers.
4. Licensed Craftspersons: List of names, qualifications and licenses of all licensed crafts required by the contract documents.

ii. Submittal PR-2 – To be submitted by the Contractor for the Owner’s review and approval within twenty-one (21) calendar days from receipt of Notice to Proceed. Owner’s Approval of PR 2 submittals is required prior to requesting payment. Contractor’s failure to obtain approval of PR submittals will not constitute grounds for additional

1. Schedule of Values, itemizing material and labor for each classification of Work.
   (a) Owner will provide forms entitled “Schedule of Values” for the Contractor’s use in preparing the breakdown. After contract award, the Owner will also provide further clarification including an example.
   (b) Itemization of material and labor costs is required so the Owner may make progress payments on materials delivered. For each bid item or classification of Work to be listed in the “Type of Work” column on the Schedule of Values, the Contractor shall multiply the unit bid price by the estimated quantity for each bid item to arrive at the “Contract Cost” for each such bid item. Contractor shall separately itemize material and labor costs for each such bid item in the “Type of Work” column.

2. Work Progress Schedule (in duplicate) of Contractor’s Proposed Construction Schedule for Work tasks in relation to the entire project.
Owner will provide a schedule bar chart form to aid the Contractor in preparing a schedule. The Contractor shall follow this format and must indicate all Work tasks as well as differentiate critical path Work tasks from non-critical path tasks showing the beginning and ending dates for each critical and non-critical path Work task.

3. Submittal Register: Submittal Register shall be organized by specification section, listing all items to be furnished for review and approval by the A/E and the Owner, including anticipated sequence and submittal dates.

(c) MATERIAL SUBMITTALS: - To be submitted to Owner prior to the installation of any materials. It is the Contractor’s responsibility to incorporate lead time required for review, resubmittal, ordering, manufacturing, fabrication and delivery. Contractor is responsible if a delay in lead time planning affects the critical path.

i. Contractor shall submit manufacturer’s information on all materials and equipment, regardless of whether substitutions are being requested.

ii. Substitution requests must be submitted early enough to allow time for evaluation by the Owner and for resubmittal, if required. Material substitutions will not be allowed following this 10-day period.

iii. No materials shall be ordered or installed until submittals for such materials have been received and acted upon by the Owner.

32. PRECONSTRUCTION CONFERENCE: After issuance of the Notice to Proceed letter, approval of Pre-Construction (PR) submittals and prior to start of Work, a conference between the Owner and the Contractor will be held to discuss provisions of the Contract Documents and to coordinate the Work effort. The Contractor's jobsite Superintendent is required to attend. At that time the Contractor shall be furnished additional sets of Contract Documents.

33. ANTIQUITIES: Contractor shall take precaution to avoid disturbing primitive records and antiquities of archaeological, paleontological or historical significance. No objects of this nature shall be disturbed without written permission of Owner and the Texas Historical Commission. When such objects are uncovered unexpectedly, the Contractor shall stop all Work in close proximity and notify the ODR and the Texas Historical Commission of their presence and shall not disturb them until written permission and permit to do so is granted. All primitive rights and antiquities, as defined in Chapter 191, Texas Natural Resource Code, discovered on the Owner’s property shall remain property of State of Texas, the Texas Historical Commission. It is determined by Owner, in consultation with the Texas Historical Commission that exploration or excavation of primitive records or antiquities on Project Site is necessary to avoid loss, Contractor shall cooperate in salvage Work attendant to preservation.

34. OWNER'S INSPECTION – QUALITY ASSURANCE:

(a) The Owner will employ a Project Inspector who will periodically inspect and observe the construction progress, procedures, and materials of the Contractor for the purpose of providing quality assurance for the Owner. Such observations by Owner shall not be construed as construction supervision nor indication of approval of the manner or location in which the Work is being performed as being a safe practice or place. The Contractor shall offer full cooperation to facilitate these observations and shall be responsive to questions from the Owner's Inspector regarding methods, equipment, materials, and intentions in pursuing the Work or any particulars thereof.

(b) Contractor shall notify Inspector when Work is ready for inspection or testing. It shall be Contractor's responsibility to give such notifications sufficiently in advance of other Work to prevent delays. A minimum of five (5) working days advance notice is required, and Contractor shall include in his Work schedule such notice periods for inspections and/or
testing. Failure to do so shall cause any certifications of testing to be void and require the Contractor to re-test at the Owner's request. All expenses for re-testing shall be borne by the Contractor.

(c) Tests cannot be conducted, and Work cannot be covered up until the Inspector observes and authorizes continuation of Work. The Contractor shall bear all costs for re-tests and for removal and replacement of construction resulting from unauthorized continuation.

(d) Should ODR fail to make the necessary inspection within the agreed period, Contractor may proceed with cover-up Work after making every reasonable effort to contact the ODR and after documenting the Work but is not relieved of responsibility for Work to comply with requirements of the Contract Documents.

(e) If applicable, all permanent utilities shall be connected before final tests are conducted for equipment and systems. Final operational tests shall be conducted prior to project acceptance by the Owner. The Contractor shall provide the materials, energy, equipment and personnel to conduct the tests required in the contract.

(f) If the Owner rejects materials that have been incorporated into the project, any testing performed to prove compliance will be at the expense of the Contractor.

(g) No Work shall be performed on weekends or State-designated holidays unless approved by the inspector.

35. **NON-APPROPRIATION OF FUNDS:** Any contract resulting from this solicitation is subject to termination or cancellation, without penalty to TPWD, either in whole or in part, subject to the availability of state funds. TPWD is a state agency whose authority and appropriations are subject to actions of the Texas Legislature. If TPWD becomes subject to a legislative change, revocation of statutory authority, or lack of appropriated funds which would render TPWD’s or contractor’s delivery or performance under the contract impossible or unnecessary, the contract will be terminated or cancelled and be deemed null and void. In the event of a termination or cancellation under this Section, TPWD will not be liable to contractor for any damages, which are caused or associated with such termination, or cancellation and TPWD will not be required to give prior notice.

36. **CONSTRUCTION MATERIALS:**

(a) **Materials:**

   i. All materials shall be new and of the quality specified. Materials shall be free from defects.

   ii. Unless otherwise indicated in the specifications, material shall be installed in accordance with the manufacturer’s recommendations and shall include such tests as manufacturer recommends.

(b) **Storage and Protection of Materials:**

   i. The Contractor is responsible for all damages to Work performed and material delivered until completion and final acceptance of Work. All materials shall be suitably stored to be protected from damage. Watertight storage facilities of suitable size with floors raised above the ground shall be provided for all materials subject to damage from exposure to the weather. Other materials shall be stored on blocks off the ground. Materials shall be stored to permit easy access for inspection and identification. Any material that has deteriorated, become damaged or otherwise unfit for use, shall not be used in the Work (as judged by Owner). Upon completion of all Work, or when directed, the Contractor shall remove storage facilities from the site.

   ii. If applicable, during construction, open ends of all drains, piping and conduit, and all openings in equipment, shall be closed before leaving the Work at any time so as to prevent the entrance of all foreign matter.
37. **EXECUTION OF THE WORK/CONSTRUCTION SITE AND JOB CONDITIONS:**

(a) **Superintendence:** Contractor shall employ a competent person or persons who will be present at all times at the Project Site during the progress of the Work to supervise or oversee the Work. The competent persons are subject to the approval of ODR through the submittal process stated in Item 30. Contractor shall not change approved staff during the course of the project without the written approval of ODR unless the staff member leaves the employment of Contractor.

(b) **Jobsite:** The Contractor will be provided with designated space in the immediate vicinity of the job site for use during construction. Unauthorized damage to any existing utilities, building facilities, structures, or plant life shall be repaired by the Contractor at no expense to the Owner. The Contractor shall take precautions necessary to protect persons and property against injury or damage and shall be responsible for any such injury or damage. The Contractor shall not allow any unsafe or unsanitary conditions to develop as a result of Contractor’s operations for the duration of construction.

(c) **Utilities:** Water and electrical power are available and will be furnished by the Owner at no charge to the Contractor. However, any temporary connections, appurtenances or extensions shall be provided by the Contractor at no cost to the Owner and removed from the premises at the conclusion of the contract.

(d) **Telephone:** There is no telephone service at the site available to the Contractor. Contractor shall maintain a cellular or mobile telephone at the site and notify the ODR of the number.

(e) **Toilet Facilities:** The Contractor shall provide and maintain in neat, sanitary condition temporary toilets and other necessary accommodations for employees’ use to comply with the regulations of the State Department of Health or other jurisdiction. The Owner will designate a location on the site for the Contractor to place temporary toilets.

(f) **Trash and Debris:** The Contractor shall not allow trash or debris to accumulate on the site. At the end of primary segments (installation and removal) of the project, Contractor shall clean the entire area of any litter resulting from Contractor’s efforts and shall leave the area “broom clean”. The Contractor shall maintain the premises as clean and presentable as good construction practices will allow at all times.

(g) **Project Identification:** There shall be no project signs of any size or type allowed on the project site or surrounding Texas Parks and Wildlife Department property at any time unless Federal Funds are used.

(h) **Fire Protection:** The Contractor shall take stringent precautions against fire. Open fires are not allowed unless approved in writing by Owner.

(i) **Other Activities:** The Contractor shall perform the Work without interfering with other contractors’ Work or Owner’s activities to the extent possible and with as little delay.

(j) **Field Office:** The Owner will provide the Contractor with a site on which the Contractor may place a small, temporary office structure.

38. **SITE OPERATIONS:** During construction of this project the site will remain open to public visitation. It is the responsibility of the Contractor to maintain convenient access and egress to facilities in a manner to be approved by the Owner. The Contractor shall also be responsible for public safety at the construction site. All temporary fencing, barricades, warning lights, signs, and flagmen shall be provided and maintained in good condition throughout the course of the project. The Contractor shall maintain security of construction sites.
39. **PROTECTION OF SITE:** The Contractor shall protect all trees and shrubs adjacent to construction site, and if Contractor finds that the Work will require removal of trees the Contractor shall obtain approval of Owner prior to removal. The Contractor shall be held liable for removal of trees without prior approval of Owner.

40. **UNDERGROUND OBSTACLES:** The approximate location of existing underground improvements and utilities is shown on the drawings according to the best information available to the Owner; in addition, the Contractor will make every effort to establish the exact location of such underground improvement or utility by contacting owners of same and by prospecting in advance of all trenching and subsurface excavations.

41. **CUTTING AND PATCHING:** Where indicated in the construction documents, this project requires cutting into existing construction for the performance of the Work and requires subsequent fitting and patching to restore the existing Work to original condition.

   (a) **Utilities:**
      i. Do not cut and patch utilities until all necessary approvals and coordination requirements are accomplished.
      ii. Before cutting services, which are to remain permanently or temporarily in service, provide by-pass system as necessary to maintain service.
      iii. After by-pass and cutting, cap, valve or plug and tightly seal remaining portion of service piping or conduit to prevent entrance of moisture and foreign matter.

   (b) **Structural Work:**
      i. Do not cut and patch structural Work in a manner that would result in a reduction of load-carrying capacity or of load-deflection ratio.

   (c) **Inspection:**
      i. Before cutting, examine items to be cut and patched and the conditions under which the Work is to be performed. If unsafe or otherwise unsatisfactory conditions are encountered, take corrective action before proceeding with the Work.
      ii. Meet at the Work site with all trades involved in cutting and patching. Review areas of potential interference and conflict between the various trades. Coordinate layout of the Work and resolve potential conflicts before proceeding with the Work.

42. **AS-BUILT DOCUMENTS:** The Contractor shall set aside one set of construction drawings and specifications to be used for keeping a record of all changes made during construction. The Contractor shall be responsible for keeping these drawings and specifications current and neatly noting with colored pencil or ink the actual conditions of the Work and show and reference all changes made during construction. These drawings will be checked once each month by the Owner and partial payments will not be made to the Contractor until the Owner verifies that the records are being properly kept. Such inspections shall not constitute review or approval of the as-built documents for accuracy or completeness. These construction drawings shall be turned over to the Owner at the completion of the project. Final payment will not be made until these documents have been received and approved by the Owner.

43. **CLEAN-UP:** The Contractor shall remove all waste products, dust, dirt, debris, packaging, trash, fingerprints, grease containers, and other deleterious materials and marks from the site upon completion of the Work. Refer to individual specification sections for special cleaning required by that section. Contractor is expected to leave the project in spotless, “like new” condition.

44. **MINIMUM QUALIFICATIONS:** CONTRACTOR MUST SHOW EVIDENCE OF THREE (3) SUCCESSFUL CONSTRUCTION PROJECTS SIMILAR TO THIS PROJECT (AS JUDGED BY OWNER) TO BE ELIGIBLE FOR AWARD OF THIS CONTRACT. THIS EXPERIENCE
MUST HAVE OCCURRED WITHIN THE PAST FIVE (5) YEARS, MEASURED BACKWARDS FROM THE ISSUE DATE OF THIS SOLICITATION.

45. **OCCUPATIONAL SAFETY AND HEALTH STANDARDS:** Prior to trenching below a depth of four (4) feet (if applicable), a Contractor must submit separate pay items for: (i) trench safety to be determined by the linear feet of trench excavated, and (ii) special shoring requirements, if any, to be determined by the square feet of shoring used, pursuant to Texas Government Code, Title 10, Chapter 2166, Section 2166.303. Such pay item(s), following calculation as required above, shall be quoted on the basis of a total lump sum price.

46. **RIGHT TO AUDIT/RECORDS RETENTION:**

Contractor understands that acceptance of funds under this contract acts as acceptance of the authority of the State Auditor’s Office, TPWD or any successor agency, to conduct an audit or investigation in connection with those funds. Contractor further agrees to cooperate fully with the above parties in the conduct of the audit or investigation, including providing all records requested. Contractor shall ensure that this paragraph concerning the State’s authority to audit funds received indirectly by subcontractors through Contractor and the requirement to cooperate is included in any subcontract it awards. Contractor shall maintain and retain supporting fiscal and any other documents relevant to showing that any payments under this Contract funds were expended in accordance with the laws and regulations of the State of Texas, including but not limited to, requirements of the Comptroller of the State of Texas and the State Auditor. Contractor shall maintain all such documents and other records relating to this Contract and the State’s property for a period of seven (7) years after the date of submission of the final invoices or until a resolution of all billing questions, whichever is later. Contractor shall make available at reasonable times and upon reasonable notice, and for reasonable periods, all documents and other information related to the Work of this Contract. Contractor and the subcontractors shall provide the State Auditor with any information that the State Auditor deems relevant to any investigation or audit. Contractor must retain all Work and other supporting documents pertaining to this Contract, for purposes of inspecting, monitoring, auditing, or evaluating by TPWD and any authorized agency of the State of Texas, including an investigation or audit by the State Auditor. Contractor shall cooperate with any authorized agents of the State of Texas and shall provide them with prompt access to all of such State’s Work as requested. Contractor’s failure to comply with this Section shall constitute a material breach of this Contract and shall authorize TPWD and the State of Texas to immediately assess appropriate damages for such failure.

47. **RESERVED.**

48. **RESERVED.**

49. **RESERVED.**

50. **IMMIGRATION REFORM:** The Contractor represents and warrants that it shall comply with the requirements of the Immigration Reform and Control Act of 1986 and 1990 regarding employment verification and retention of verification forms for any individuals hired on or after November 6, 1986, who will perform any labor or services under the Contract and the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA) enacted on September 30, 1996.

51. **CIVIL RIGHTS:** The Contractor agrees that no person shall, on the ground of race, color, religion, sex, national origin, age, disability, political affiliation, or religious belief, be excluded from the participation in, be denied the benefits of, be subjected to discrimination under, or be denied employment in the administration of, or in connection with, any program or activity funded in whole or in part with funds available under this Contract. The Contract shall comply with Executive Order 11246, “Equal Employment Opportunity,” as amended by Executive Order 11375,

52. **FEDERAL, STATE AND LOCAL REQUIREMENTS:** Contractor shall demonstrate on-site compliance with the Federal Tax Reform Act of 1986, Section 530 of the Revenue Act of 1978, dealing with issuance of Form W-2’s to common law employees. Contractor is responsible for both federal and State unemployment insurance coverage and standard Worker’s Compensation insurance coverage. Contractor shall comply with all federal and State tax laws and withholding requirements. The State of Texas shall not be liable to Contractor or its employees for any Unemployment or Worker’s Compensation coverage or federal or State withholding requirements. **Contractor shall indemnify the State of Texas and shall pay all costs, penalties or losses resulting from Contractor’s omission or breach of this Section.**

53. **SEVERABILITY CLAUSE:** If any provision of this Contract is construed to be illegal or invalid, such construction will not affect the legality or validity of any of its other provisions. The illegal or invalid provision will be deemed severable and stricken from the contract as if it had never been incorporated herein, but all other provisions will remain in full force and effect.

54. **NO WAIVER:** Nothing in this Contract shall be construed as a waiver of the state’s sovereign immunity. This Contract shall not constitute or be construed as a waiver of any of the privileges, rights, defenses, remedies or immunities available to the State of Texas. The failure to enforce or any delay in the enforcement of any privileges, rights, defenses, remedies or immunities available to the State of Texas under this Contract or under applicable law shall not constitute a waiver of such privileges, rights, defenses, remedies or immunities or be considered as a basis for estoppel. The Owner does not waive any privileges, rights, defenses or immunities available to the Owner by entering into this Contract or by its conduct prior to or subsequent to entering into this Contract.

55. **DECEPTIVE TRADE PRACTICES; UNFAIR BUSINESS PRACTICES:** Contractor represents and warrants that it has not been the subject of allegations of Deceptive Trade Practices violations under Tex. Bus. & Com Code, Chapter 17 or allegations of any unfair business practice in any administrative hearing or court suit and that Contractor has not been found to be liable for such practices in such proceedings. Contractor certifies that it has those officers who have served as officers of other entities who have been the subject of allegations of Deceptive Trade Practices violations or allegations of any unfair business practices in an administrative hearing or court suit and those such officers have not been found to be liable for such practices in such proceedings.

56. **FELONY CRIMINAL CONVICTIONS:** Contractor represents and warrants that Contractor has not and Contractor’s employees have not been convicted of a felony criminal offense or that if such a conviction has occurred, Contractor has fully advised the Owner as to the facts and circumstances surrounding the conviction.

57. **ASSIGNMENTS:** The Contractor shall not assign its rights under the Contract or delegate the performance of its duties under the Contract without prior written approval from the Owner.

58. **PATENT, TRADEMARK, COPYRIGHT AND OTHER INFRINGEMENT CLAIMS:** Contract agrees to defend and indemnify the Owner and State from claims involving infringement or violation of patents, trademarks, copyrights, trade secrets, or other proprietary rights, arising out of the Owner’s or the State’s use of any good or service provided by the Contractor as a result of this solicitation.

59. **proprietary or confidential information; Texas Public Information Act:**
(a) Any proprietary, trade secret or otherwise confidential information Bidder includes in its Bid must be clearly labeled as proprietary or confidential information, and Bidder must identify the specific exception to disclosure in the Public Information Act (PIA). Merely making a blanket claim the entire Bid is protected from disclosure because it contains some proprietary information is not acceptable and shall make the entire Bid subject to release under the PIA. In order for the Owner to initial the process of seeking an Attorney General opinion on the release of proprietary or confidential information, the specific provisions of the Bid that are considered by the Bidder to be proprietary or confidential must be clearly labeled as described herein. Any information which is not clearly identified as proprietary or confidential shall be deemed to be subject to disclosure pursuant to the PIA.

(b) Information the Bidder provides to the Owner in response to this solicitation will be considered public and subject to disclosure under the Texas Public Information Act.

(c) Contractor is required to make any information created or exchanged with the state pursuant to this contract, and not otherwise excepted from disclosure under the Texas Public Information Act, available in a format that is accessible by the public at no charge to the state. Contractor will make sure information not excepted from disclosure available in an electronic format that is accessible to the public unless Contractor receives written approval from Owner to provide information in a different format, and such approval becomes a part of this Contract.

60. U.S. DEPARTMENT OF HOMELAND SECURITY’S E-VERIFY SYSTEM

By entering into this Contract, the Contractor certifies and ensures that it utilizes and will continue to utilize, for the term of this Contract, the U.S. Department of Homeland Security’s E-Verify system to determine the eligibility of:

(a) All persons employed to perform duties within Texas, during the term of the Contract; and

(b) All persons (including subcontractors) assigned by the Respondent to perform Work pursuant to the Contract, within the United States of America.

The Contractor shall provide, upon request of Texas Parks and Wildlife Department, an electronic or hardcopy screenshot of the confirmation or tentative non-confirmation screen containing the E-Verify case verification number for attachment to the Form I-9 for the three most recent hires that match the criteria above, by the Contractor, and Contractor’s subcontractors, as proof that this provision is being followed.

If this certification is falsely made, the Contract may be immediately terminated, at the discretion of the state and at no fault to the state, with no prior notification. The Contractor shall also be responsible for the costs of any re-solicitation that the state must undertake to replace the terminated Contract.

62. INTERNET-BASED PROJECT MANAGEMENT SYSTEMS

At its option, TPWD may administer its design and construction management through an Internet-based management system. In such cases, the Contractor shall conduct communication through this media and perform all Project related functions utilizing this database system. This includes correspondence, submittals, Request for Information, vouchers or payment request and processing, amendments, Change Orders and other administrative activities.

(a) Accessibility and Administration.
i. When used, TPWD will make the software accessible via the Internet to all Project team members.

ii. TPWD shall administer the software.

(b) Training. When used, TPWD shall provide training to the Project team members.
PROJECT SPECIFICATIONS MANUAL
100% Issued for Bid

SEA CENTER TEXAS – POND SUPPLEMENTAL LIGHTING
TPWD PROJECT NUMBER: 1210307

TEXAS PARKS AND WILDLIFE

June 26, 2019

PREPARED BY:

EEA Consulting Engineers

TABLE OF CONTENTS

DIVISION 01 – GENERAL REQUIREMENTS
01 00 00 Special Conditions

DIVISION 26 – ELECTRICAL
26 00 00 Electrical General Conditions
26 05 19 Conductors and Cables 600V and Less
26 05 33 Raceway and Boxes for Electrical Systems
26 51 00 Lighting

Pages
11
6
7
3
PART 1 GENERAL

1.1 SUMMARY

A. Section includes electrical materials and methods. In the event of conflict between the Supplemental Pond Lighting Specifications and the Special Conditions, Supplementary Conditions, and Uniform General Conditions, the following priority order shall apply in resolving such conflicts: Special Conditions, Supplementary Conditions, Uniform General Conditions, and then Supplemental Pond Lighting Specifications.

B. The scope of work shall include complete provisions for electrical power distribution to all lighting, devices, appliances, and equipment shown on the construction documents.
   1. Provisions include, but are not limited to, all supplies, materials, equipment, tools, and labor.
   2. Provisions also include all miscellaneous materials required to complete the work shown including, but not limited to, supports, hangers, raceways, boxes, sleeves, seals, equipment pads, wiring connectors, terminals, labels, signs, and markers
   3. The construction documents include all plans, elevations, details, diagrams, schedules, and notes on the drawings and the written specifications including any items mentioned in either the specifications or on the drawings but not in the other.
   4. Where used on the plans and in the specifications and where not specifically noted otherwise, the term “provide” and the term “install” shall mean furnish, install, connect, and test.
   5. Unless explicitly noted “by others” or “existing”, all items shown graphically or specified by notes and details on the plans shall be furnished, installed, connected, and tested as needed.

C. In addition to the general scope described above, the work shall include:
   1. Application for temporary and permanent electrical service, Permitting, Inspection, and payment of all associated fees.
   3. Equipment rental.
   4. Temporary construction power and lighting. GFCI receptacles shall be used for all construction power.

D. The intent of the drawings and specifications is to set forth the general requirements and equipment necessary for the functioning of the electrical system. The drawings and specifications do not provide a complete list of materials and work required. All miscellaneous electrical components required by good practice and workmanship for the complete installation of the electrical system shall be provided by the contractor.

E. Related Sections:
   1. This and all other division 26 specifications, the construction drawings, general contract provisions, and division 1 specifications shall be considered collectively as the total general requirements for the electrical equipment and electrical system.
installation and all special systems shown or described on the electrical or “E series” sheets.

1.2 REFERENCES

A. Materials, equipment, and the work performed shall comply with current requirements, rules and regulations of and, where applicable, be certified by the following standards, codes and organizations:
   1. American National Standards Institute (ANSI)
   3. Americans with Disabilities Act (ADA)
   4. ASHRAE/IES 90.1
   5. Institute of Electrical and Electronics Engineers (IEEE)
   9. National Electrical Manufacturer’s Code (NEMA)
   11. National Fire Protection Associations (NFPA)
   13. Underwriter’s Association (UL)
   14. Where discrepancies are found between the requirements of these standards codes, ordinances, regulations and the drawings and specifications, the contractor should notify the engineer prior to installation. Installed work that fails to comply with the requirements of the above shall be replaced at contractor’s expense.

B. Uniform General Conditions, including Supplementary General Conditions.

C. Division 1 – General Requirements, Section 01000 – Special Conditions.

1.3 DEFINITIONS

A. Unless otherwise specified or indicated, electrical and electronics terms used in these specifications, and on the drawings, shall be as defined in IEEE Std 100.

B. The technical sections referred to herein are those specification sections that describe products, installation procedures, and equipment operations and that refer to this section for detailed description of submittal types.

C. The technical paragraphs referred to herein are those paragraphs in PART 2 - PRODUCTS and PART 3 - EXECUTION of the technical sections that describe products, systems, installation procedures, equipment, and test methods.

1.4 SUBMITTALS

A. Submittal requirements shown here shall be used in conjunction with the requirements of the other specification sections. Where in conflict, the more stringent requirements shall apply.
B. For each product required to be submitted, provide the following
   1. Product Data: Submit catalog data showing manufacturer’s name and contact
      information, all standard features, dimensions, weights, listings and product labels,
      material types, finishes and clearly indicating which optional features will be provided.
      a. Include amperage and voltage ratings, over-current protective device ratings,
         AIC ratings, etc.
      b. Where multiple sizes are listed, indicate sizes to be used.
      c. Where multiple products are shown on the same page, indicate which products
         to be used.
   2. Shop Drawings (where applicable): Manufacturer or contractor prepared drawings
      showing all relevant dimensions, weights, electrical and mechanical connection
      requirements, conduit entry points, assembly requirements, lifting requirements, lifting
      points, and required clearances.
      a. Include dimensioned plan views and elevations.
      b. Include all relevant electrical diagrams including schematic and interconnection
         diagrams for power, signal, and control wiring.

C. Submittals shall be organized by specification section, provided with a table of contents,
   and a cover page with all pertinent project information including contractor’s name and
   contact information, project name and number, and specification sections submitted.

D. Rejected submittals shall be resubmitted within 15 calendar days of notification of rejection.

E. Any equipment covered by division 26 specifications that is installed by the contractor
   without submittal approval and is not in compliance with the appropriate specifications
   shall be replaced at the contractor’s expense.

F. As-Constructed Record Drawings: The Contractor shall maintain a master set of As-
   Constructed Record Drawings that show changes and any other deviations from the
   drawings. The markings must be made as the changes are done. At the conclusion of
   the job, these As-Built Record Drawings shall be transferred to AutoCad electronic files
   by the engineer and shall be complete and delivered to the Owner’s Representative prior
   to final acceptance.

1.5 CLOSEOUT SUBMITTALS

A. Refer to UGC 12.1.

B. DIVISION 1 – GENERAL REQUIREMENTS – Section 01000 – Special Conditions 1.13.

C. In accordance with the UGC and SC, provide a closeout submittal in a three ring binder in
   addition to a combined PDF containing the following information in addition to items
   specified in other sections.
   1. As constructed drawings showing the actual locations of installed equipment, site
      raceways and boxes.
   2. Operation and Maintenance data
   3. Shop Drawings
   4. Test results
5. Actual circuit arrangements at panels and equipment. Provide complete, typed as built of all panel schedules.

D. Operation and Maintenance Data: At the end of construction, provide the owner with an 8.5x11 bound manual in a three ring binder in addition to a combined PDF including the following information:
   1. Provide product data as defined under submittals.
   2. Provide manufacturer’s installation and maintenance instructions for normal operation, routine maintenance and testing, and emergency maintenance procedures.
   3. Spare parts listing; source of replacement parts and supplies; and recommended maintenance procedures and intervals.

E. Shop Drawings: At end of construction, provide owner with a final draft, new copy of all shop drawings that were field modified after the original submittal was approved.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products shown on the construction documents with minimum five years documented experience.
   1. Manufacturer shall maintain or certify an independently operated service center capable of providing training, support, parts, and maintenance services.

B. Supplier: Authorized distributor

C. Installer: A state licensed electrician with documented experience installing all equipment specified here in shall directly supervise all work. Where noted in the specifications, required by code, or required by the manufacturer, installer shall be a manufacturer trained and/or certified installer of the specific product to be installed.

D. Testing Agency: Where required by the construction documents, equipment manufacturer, or code; testing shall be performed by an agency
   1. With the documented experience and properly calibrated, fully functioning equipment.
   2. That is a member company of the International Electrical Testing Association or is a nationally recognized testing laboratory (NRTL).
   3. That is acceptable to the authority having jurisdiction.
   4. Testing may be required to be performed by an independent agency. Refer to individual specification sections for detailed testing requirements.

1.7 QUALITY ASSURANCE

A. Inclusion of specific products in these specifications and on the plans does not mean that said products may be used for all applications in all environments. Products may only be used where approved either in the specification installation requirements sections or on the plans. Where the construction documents do no explicitly state what products are acceptable for an application, the most robust products specified are assumed to be the minimum requirement.

B. Regulatory Requirements
1. The contractor shall comply with the requirements of all laws, rules, regulations, code and ordinances that have been adopted by the federal, state, and local authorities having jurisdiction (AHJ). All equipment, materials, means and methods shall be acceptable to the AHJ’s.

2. Electrical installations shall conform to IEEE C2, NFPA 70, local codes and specified requirements herein. Equipment, materials, installation, and workmanship shall be in accordance with the mandatory and advisory provisions of NFPA 70 unless more stringent requirements are specified or indicated.

3. In each of the publications referred to herein, consider the advisory provisions to be mandatory, as though the word, "shall" had been substituted for "should" wherever it appears.

C. Standard Products

1. Unless otherwise approved, all equipment shall be new, properly designed, from a reputable manufacturer meeting the specification qualifications, in compliance with the specification requirements, and in full working order.

2. Where two or more items of the same class of equipment are required, these items shall be products of a single manufacturer; however, the component parts of the item need not be the products of the same manufacturer unless stated in the technical section.

3. Listing and Labeling: Where required, all electrical components, devices, and accessories shall be listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction and marked for the intended use. Testing agency shall be UL unless noted otherwise or pre-approved by owner and AHJ.

4. Products shall have been in satisfactory commercial or industrial use prior to bid opening. The minimum time of use shall be 2 years. The 2-year period shall include applications of equipment and materials under similar circumstances and of similar size. Longer periods may be specified for specific products. The product shall have been on sale on the commercial market through advertisements, manufacturers’ catalogs, or brochures during the 2-year period.

D. Material and Equipment Manufacturing Date

1. Products manufactured more than 2 years prior to date of delivery to site shall not be used, unless specified otherwise.

E. All equipment used for testing shall be in full working order and calibrated per the manufacturer’s recommendations.

1.8 WARRANTY

A. The equipment items shall be supported by service organizations which are within 100 miles to the project site in order to render service to the equipment on a regular and emergency basis during the warranty period of the contract. The contractor shall respond to requests for non-critical maintenance and repairs within the 24 hours. Contractor shall respond to the site within eight hours for emergency equipment breakdown. The severity of the need will be communicated when the Owner calls for assistance.
1.9 COORDINATION

A. All power outages shall be coordinated in writing with the owner a minimum of one (1) week prior to the outage.

B. If the owner will occupy any portion of the facility during any period of construction, cooperate fully with the owner or his representative during construction operations to minimize conflicts and to facilitate owner usage so as not to interfere with the owner’s operations.

C. The drawings are diagrammatic. They do not show switches, power and data outlets, special systems components (FA, Access Control, AV, etc), electrical equipment, equipment connections, required raceways, etc. in their exact dimensioned locations. The contractor must carefully review the field conditions and plans to identify conflicts and areas that require coordination.

D. Coordinate electrical and special systems equipment rough in with millwork, signs, mechanical and plumbing systems, sprinkler systems, architectural and structural elements, and the owner’s representative. Minor changes in electrical equipment locations and layout that are required by site conditions or order by the design team prior to performance of work shall be made by the contractor without additional charges to the owner.

E. Maintain required NEC working space and dedicated equipment spaces around all electrical equipment, control panels, etc that are subject to maintenance, testing, or user interface. Coordinate with other trades prior to installation. If clearance cannot be provided, the contractor shall notify the engineer prior to rough-in.

F. Coordinate color selections for luminaires and all device plates with owner.

G. Contractor shall be responsible for field coordinating with other trades.

H. Coordinate arrangement, mounting, and support of electrical equipment:
1. To allow maximum possible headroom unless specific mounting heights that reduce headroom are indicated.
2. To provide for ease of disconnecting the equipment with minimum interference to other installations.
3. To allow right of way for piping and conduit installed at required slope.
4. To allow for the appropriate installation of furniture and equipment relative to receptacles and switches.

I. Coordinate installation of required supporting devices and set sleeves in cast-in-place concrete, masonry walls, and other structural components as they are constructed.

J. Coordinate location of access panels and doors for electrical items that are behind finished surfaces or otherwise concealed.

K. Obtain and review shop drawings, product data, manufacturer’s wiring diagrams, and manufacturer's instructions for equipment furnished under other sections.
L. Determine connection locations and requirements.

M. Sequence rough-in of electrical connections to coordinate with installation of equipment.

N. Sequence electrical connections to coordinate with start-up of equipment.

1.10 DELIVERY STORAGE AND HANDLING

A. Store in clean, dry space located above grade and protect from dirt, water, construction debris, traffic, freeze, and where applicable, deterioration from sun light.

B. Maintain factory wrapping or provide additional canvas or plastic cover for all large electrical equipment. Follow all manufacturer recommendations for humidity and max/min temperatures for storing electrical equipment.

1.11 SAFETY

A. The Contractor shall follow all industry standard safety procedures.

   1. The Contractors shall be responsible for training all personnel under their employ in areas concerning safe work habits and construction safety. The Contractor shall continually inform personnel of hazards particular to this project and update the information as the project progresses.

   2. The Contractor shall secure all electrical rooms, to limit access, prior to energizing any high voltage switchgear and shall control access during the project after energization. The Contractor shall post and maintain warning and caution signage in areas where work is on going near energized equipment. The Contractor shall cover all energized live parts when work is not being done in the equipment. This includes lunch and breaks.

   3. The Contractor shall strictly enforce OSHA lock out/tag out procedures. Initial infractions shall result in a warning; a second infraction shall result in the removal of the workman and his foreman from the site. Continued infractions shall result in removal of the Contractor from the site.

1.12 SHORING AND EQUIPMENT SUPPORTS

A. Provide all permanent and temporary bracing, anchoring, supports, and shoring required to firmly stabilize and secure all raceways, boxes, enclosure, equipment, and devices.

B. Provide free standing racks to supports equipment. Racks shall be securely bolted to the floor, wall, and or ceilings. Where secured to only one surface, provide angle bracing so that racks have a minimum of 4 attachment points.

C. Provide concrete housekeeping pads for floor mounted electrical equipment. Coordinate with flooring contractor for installation.

   1. 3000PSI, with rebar reinforcement.
   2. Provide dowels for connection to new or existing adjacent slabs
   3. Pad shall be 4” thick and protrude a minimum of 1” beyond the edge of equipment.
   4. Chamfer top edges of slab
1.13 TEMPORARY CONSTRUCTION POWER AND LIGHTING

A. Provide temporary power service per utility company specifications
   1. Contractor shall be responsible for securing permits and coordinating temporary
      service with utility provider.
   2. Provide temporary power service pole per utility company specifications.
   3. Provide service feeder from temporary service point to construction trailers and power
      distribution assemblies to serve power tools and construction equipment.

B. Provide panel or assembly containing GFCI receptacles for power tools to be used on site.

C. Provide temporary power cables neatly trained and protected from damage.

D. Provide temporary lighting throughout area of construction. Install at ceiling level out of way
   of construction work.

PART 2 PRODUCTS

2.1 GENERAL REQUIREMENTS

A. Equipment to be installed outdoors, in corrosive or hazardous environments shall be rated
   for the intended use.

B. Compliance with the requirements of the contract documents shall not relieve the contractor
   of the responsibility of providing equipment that is new, properly designed, from a
   reputable manufacturer, and in full working order.

C. If conflicts occur between the specifications and drawings, the higher quality, price or
   quantity shall be provided and installed.

D. If there is any question as to quality, size or quantity necessary, the contractor shall provide
   a written request for clarification from the Engineer. Contractor shall be responsible for
   any additional expenses incurred as a result of the contractor's failure to obtain
   clarification during the solicitation period or after award.

E. Detailed product specifications are included in other specification section and on the plans.

2.2 FINISHES

A. Electrical equipment shall have factory-applied painting systems which shall, as a minimum,
   meet the requirements of NEMA 250 corrosion-resistance test.

2.3 GROUT

A. Nonmetallic, Shrinkage-Resistant Grout: ASTM C 1107, factory-packaged, nonmetallic
   aggregate grout, noncorrosive, non-staining, mixed with water to consistency suitable for
   application and a 30-minute working time,
PART 3 EXECUTION

3.1 FIELD APPLIED PAINTING
   A. Paint electrical equipment as required to match finish of adjacent surfaces or to meet the indicated or specified safety criteria.

3.2 FIELD PROGRAMMING
   A. Electrical contractor shall be responsible for the coordination and payment of programming for all programmable devices and equipment including, but not limited to, lighting controls, circuit breakers, etc.
   B. Where required, the manufacturer of the product shall be engaged to perform the programming.

3.3 EXAMINATION
   A. If a conflict is found between the specification and plans, notify the Architect or Engineer of the conflict.
   B. Verify equipment is ready for electrical connection, for wiring, and to be energized.
   C. Verify existing conditions are as shown on the plans and that adequate space is available for the equipment for installation.

3.4 EXISTING WORK
   A. Maintain in service existing systems that are required for life safety or ongoing operations during construction.
   B. Remove exposed abandoned equipment wiring connections, conduit, and boxes, including abandoned connections, conduit, and boxes above accessible ceiling finishes.
   C. Disconnect abandoned utilization equipment and remove wiring connections. Remove abandoned components when connected raceway is abandoned and removed. Install blank cover for abandoned boxes and enclosures not removed.
   D. Extend existing equipment connections using materials and methods compatible with existing electrical installations, or as specified.
   E. Contractor to remove all abandoned wire near the surface and leave all wiring buried in place.

3.5 INSTALLATION
   A. The installation requirements shown here are general scope requirements. More detailed information is provided for each of these topics in other specifications and on the plans.
B. No foreign systems such as piping, duct work, etc shall be installed above electrical equipment.

C. Grounding and Bonding
   1. All circuits shall be provided with NEC compliant green ground conductor sized per NEC 250, UNO.
   2. All equipment shall be properly bonded.
   3. Provide grounding electrodes as specified on plans and as required by code.

D. Raceways, Boxes and Enclosures
   1. Provide complete raceway systems from source to all loads with dedicated supports for each raceway element.
   2. Provide all required back boxes and supports for wiring devices, sensors, etc.
   3. Provide pull box at appropriate locations for all power and special systems raceways whether shown on plans or not.

E. Electrical connections and terminations.
   1. Make all connections and terminations within the power distribution system and between the distribution system and the equipment served.
   2. Make conduit connections to vibrating equipment using flexible conduit. Use liquidtight flexible conduit with watertight connectors in damp or wet locations.
   3. Install suitable strain-relief clamps and fittings for cord connections at outlet boxes and equipment connection boxes.
   4. Provide calibrated torque wrenches and screwdrivers and tighten terminals, lugs and bus joints using it.

F. Equipment wiring requirements
   1. Install disconnect switches, controllers, control stations, and control devices as required for equipment.
   2. Install terminal block jumpers to complete equipment wiring requirements.
   3. Install interconnecting conduit and wiring between devices and equipment to complete equipment wiring requirements.

G. Identification
   1. Provide appropriate labels for all equipment, wiring devices, conductors, cables, box, and enclosures.
   2. Provide warning signs for electrical equipment and buried circuits.

H. Code and manufacturer requirement compliance
   1. Install work in compliance with the latest edition of the NEC, City and Owner design criteria manuals, and the authority having jurisdiction.
   2. Apply, install, connect, erect, use, clean, adjust, and condition materials and equipment as recommended by the manufacturers in their published literature.
   3. All terminals, lugs and bus joints shall be tightened per the manufacturer's torque recommendations.

I. Arrangement and planning
   1. Arrange electrical work in neat, well-organized manner.
   2. Do not block future connection points of electrical service.
3. Install all electrical work parallel or perpendicular to building lines unless noted otherwise, properly supported with purpose-designed apparatus, in a neat manner.
4. Maintain required NEC working space and dedicated equipment spaces around all electrical equipment subject to maintenance, testing, or user interface. Coordinate with other trades prior to installation.
5. Do not block equipment control panels with lighting, raceways, structural elements or other equipment. Orient equipment so that control panels do not face structural elements or other equipment that will restrict access.
6. Coordinate with engineer before installation if any of the above conditions can not be met due to undiscovered site conditions or if locations shown on plans are field determined to be in conflict with equipment and structures called for on other plans.

J. Cutting and Patching
1. Make opening through masonry and concrete by core drilling in acceptable locations. Restore openings to original condition to match remaining surrounding materials.
2. Provide sleeves for penetrations through floors and walls
3. Seal all openings using appropriate materials
4. Where existing conditions are not documented, perform ground penetrating radar scan of structural element to be cut.

END OF DOCUMENT
SECTION 26 05 19 - CONDUCTORS AND CABLES 600V OR LESS

PART 1 GENERAL

1.1 SUMMARY

A. Section includes building wire and cable and wiring connectors and connections.

1.2 REFERENCES

A. International Electrical Testing Association:

B. National Fire Protection Association:
   1. NFPA 70 - National Electrical Code.

C. Uniform General Conditions, including Supplementary General Conditions.

D. Division 1 – General Requirements, Section 01000 – Special Conditions.

1.3 SUBMITTALS

A. Product Data: Submit catalog data showing all standard features, dimensions, weights, listings and product labels, material types, finishes and clearly indicating which optional features will be provided.
   1. Include amperage and voltage ratings.
   2. Where multiple sizes are listed, indicate sizes to be used.
   3. Where multiple products are shown on the same page, indicate which products to be used.

1.4 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations of components and circuits.

B. Uniform General Conditions, including Supplementary General Conditions.

C. Division 1 – General Requirements, Section 01000 – Special Conditions.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

B. Installer: A licensed electrician with documented experience installing all equipment specified here in shall directly supervise all work. Where noted in the specifications or
required by the manufacturer, installer shall be a manufacturer trained and/or certified installer of the specific product to be installed.

1.6 QUALITY ASSURANCE

A. Provide wiring materials located in plenums with peak optical density not greater than 0.5, average optical density not greater than 0.15, and flame spread not greater than 5 feet (1.5 m) when tested in accordance with NFPA 262.

B. Perform Work in accordance with all applicable city, state, and federal requirements.

C. Maintain one copy of each document on site.

D. Source Limitations: All components required for a complete functioning system as described here in shall be obtained through one source from a single manufacturer.

E. Listing and Labeling: Where required, all electrical components, devices, and accessories shall be listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction and marked for the intended use. Testing agency shall be UL unless noted otherwise or pre-approved by owner and AHJ.

1.7 FIELD MEASUREMENTS

A. Verify field measurements are as indicated on Drawings.

1.8 COORDINATION

A. Where wire and cable destination is indicated and routing is not shown, determine routing and lengths required.

B. Wire and cable routing indicated is approximate unless dimensioned.

PART 2 PRODUCTS

2.1 SYSTEM DESCRIPTION

A. Product Requirements: Provide products as follows:
   1. Solid, insulated conductor in raceway for feeders and branch circuits 10 AWG and smaller.
   2. Conductor not smaller than 12 AWG for power and lighting circuits.

B. Wiring Methods: Provide the following wiring methods:
   1. Underground Locations: Use only building wire, Type XHHW insulation, in raceway.

2.2 BUILDING WIRE

A. Manufacturers:
   1. AETNA
2. American Insulated Wire Corp.
3. Colonial Wire Model
4. Encore Wire Model
5. General Cable Co. Model
6. Republic Wire Model
7. Rome Cable Model
8. Service Wire Co. Model
9. Southwire Model
10. Superior Essex Model
11. Substitutions: With engineer approval.

B. Product Description: Single conductor insulated wire.
   2. Insulation Voltage Rating: 600 volts.
   3. Insulation Temperature Rating: 90 degrees C.

C. Grounding conductors, where insulated, shall be colored solid green or identified with green color as required by the NEC. Conductors intended as a neutral shall be colored solid white, or identified as required by the NEC.

2.3 WIRING CONNECTORS

A. Provide factory-fabricated, metal connectors of the size, rating, material, type and class as required by manufacturer of the equipment and the NEC. The following types, classes, kinds and styles should be used only where appropriate and as noted
   1. Solderless Pressure Connectors
   2. Crimp
   3. Threaded
   4. Insulated Spring Wire Connectors with plastic caps for 10 AWG and smaller
   5. Pre-insulated multi-tap connectors
   6. Epoxy resin type splicing kits.

B. Wiring connectors shall be insulated to 600V. Conducting components shall match conducting material of wiring (copper, unless noted otherwise).

2.4 TERMINATIONS

A. Terminal Lugs for Wires 6 AWG and Smaller: Solderless, compression type copper.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify raceway installation is complete and supported.
3.2 PREPARATION

A. Clean conductor surfaces before installing lugs and connectors.

3.3 EXISTING WORK

A. Remove exposed abandoned wire and cable, including abandoned wire and cable above accessible ceiling finishes. Patch surfaces where removed cables pass through building finishes.

B. Disconnect abandoned circuits and remove circuit wire and cable. Remove abandoned boxes when wire and cable servicing boxes is abandoned and removed. Install blank cover for abandoned boxes not removed.

C. Provide access to existing wiring connections remaining active and requiring access. Modify installation or install access panel.

D. Extend existing circuits using materials and methods compatible with existing electrical installations, or as specified.

E. Clean and repair existing wire and cable remaining or wire and cable to be reinstalled.

3.4 INSTALLATION

A. Neatly train and lace wiring inside boxes, equipment, and panelboards.

B. Install electrical cable, wire and connectors as indicated, in accordance with the manufacturer’s written instructions, the applicable requirements of NEC and the National Electrical Contractors Association’s “Standard of Installation”, and as required to ensure that products serve the intended functions.

C. Wiring Installation in Raceways
   1. Wire and cable shall be pulled into clean dry conduit. Do not exceed manufacturer’s recommended values for maximum pulling tension.
   2. Do not install the conductors until the raceway system is complete and properly cleaned.
   3. Pull conductors together where more than one is being installed in a raceway.
   4. Use UL listed pulling compound or lubricant, when necessary; compound must not deteriorate conductor and insulation.
   5. Do not use a pulling means, including fish tape, cable or rope, which can damage the raceway.
   6. Place an equal number of conductors for each phase of a circuit in same raceway.
   7. All conduits shall contain a green grounding conductor. Conduit, wireways, or boxes shall not be used as the equipment grounding conductor.

D. Cable:
   1. Protect exposed cable from damage.
   2. Use suitable cable fittings and connectors.
E. Wiring Connections and Terminations
   1. Install splices, taps and terminations, which have equivalent-or-better mechanical
      strength and insulation as the conductor. Make splices, taps and terminations to carry
      full ampacity of conductors without perceptible temperature rise.
   2. Keep conductor splices and taps accessible and to a minimum. Splice branch circuits
      only in accessible junction or outlet boxes. Where terminations of cables that are
      installed under this Section are to be made by others, provide pigtail of adequate
      length for neat, trained and bundles connections, minimum 5 feet at each location,
      unless noted otherwise on drawings.
   3. Splices below grade are not allowed.
   4. Use splice, tap and termination connectors, which are compatible with the conductor
      material.
   5. Make splices, taps, and terminations to carry full ampacity of conductors with no
      perceptible temperature rise.
   6. Tape un-insulated conductors and connectors with electrical tape to 150 percent of
      the insulation value of conductor and label as spare.
   7. Power and Lighting Circuits:
      a. For 10 AWG and smaller, use insulated spring wire connectors with plastic caps
         on lighting and receptacle circuits.

F. Wiring Within An Enclosure:
   1. The Contractor shall utilize panel wire-ways when they are provided.
   2. Where wireways are not provided, the Contractor shall neatly tag and bundle wires
      and secure to sub-panel at a minimum of every three inches.

G. Separate neutral conductors shall be provided for each single phase circuit.

H. Do not band any conductor either permanently or temporarily during installation to radii less
   than four times the outer diameter of 600-volt insulated conductors.

3.5 WIRE COLOR

A. General:
   1. For wire sizes 10 AWG and smaller, install wire colors in accordance with the
      following for each phase A,B,C, and Neutral:
      a. Brown (A), Yellow (B), Purple (C) for circuits at 277/480 volts single or three
         phase.
      b. Black (A), Red (B) for single phase circuits at 120/240 volts.

B. Neutral Conductors: White.

C. Branch Circuit Conductors: Install three or four wire home runs with each phase uniquely
   color coded.

D. Feeder Circuit Conductors: Uniquely color code each phase.

E. Ground Conductors:
   1. For 6 AWG and smaller: Green.
3.6 FIELD QUALITY CONTROL

A. Before final acceptance, the Contractor shall make voltage, insulation, and load tests, necessary to demonstrate to the Owner’s representative the satisfactory installation and proper performance of all circuits.

   1. All testing shall be witnessed by TPWD representatives and all test results shall be documented in writing and signed by the electrician.
   2. Test results below 50 megohms shall be cause for rejection of the wiring installation.
   3. Replace and retest all non-compliant conductors.
   4. Provide written log of testing results to owner with closeout documents.

END OF SECTION
PART 1 GENERAL

1.1 SUMMARY

A. Section includes:
   1. Conduit and tubing
   2. Surface raceways
   3. Wireways
   4. Outlet boxes
   5. Pull and junction boxes
   6. Enclosures and Cabinets

B. Related Sections:
   1. The requirements of this specification shall be followed when installing raceway for all mechanical, controls, electrical, and special systems work covered by other specifications.

1.2 REFERENCES

A. American National Standards Institute:
   1. ANSI C80.1 - Rigid Steel Conduit, Zinc Coated.
   2. ANSI C80.3 - Specification for Electrical Metallic Tubing, Zinc Coated.

B. National Electrical Manufacturers Association:
   1. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
   2. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies.
   3. NEMA OS 1 - Sheet Steel Outlet Boxes, Device Boxes, Covers, and Box Supports.
   4. NEMA OS 2 - Nonmetallic Outlet Boxes, Device Boxes, Covers, and Box Supports.
   5. NEMA RN 1 - Polyvinyl Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit.
   6. NEMA TC 2 - Electrical Polyvinyl Chloride (PVC) Tubing and Conduit.
   7. NEMA TC 3 - PVC Fittings for Use with Rigid PVC Conduit and Tubing.

C. Underwriters Laboratories Inc.:
   1. Products shall be listed where required by the NEC
   2. Fire-stopping products shall be listed.

D. Uniform General Conditions, including Supplementary General Conditions.

E. Division 1 – General Requirements, Section 01000 – Special Conditions.
1.3 SUBMITTALS

A. Product Data: Submit catalog data showing all standard features, dimensions, weights, listings and product labels, and clearly indicating which optional features will be provided for the following items:
   1. Metal conduit
   2. Flexible metal conduit.
   3. Liquidtight flexible metal conduit.
   5. Raceway fittings and supports.
   6. Conduit bodies.
   7. Surface raceway.
   8. Wireway.
   9. Pull and junction boxes.
  10. Enclosures and cabinets

B. Manufacturer's Installation Instructions: Submit application conditions and limitations of use stipulated by Product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, and installation of Product.

1.4 CLOSEOUT SUBMITTALS

A. Project Record Documents:
   1. Record actual routing of all underground conduits.
   2. Record actual locations and mounting heights of outlet, pull, and junction boxes larger than 4”x4”.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

B. Installer: A state licensed electrician with documented experience installing all equipment specified here in shall directly supervise all work. Where noted in the specifications, required by core, or required by the manufacturer, installer shall be a manufacturer trained and/or certified installer of the specific product to be installed.

1.6 QUALITY ASSURANCE

A. Listing and Labeling: Where required, all electrical components, devices, and accessories shall be listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction and marked for the intended use. Testing agency shall be UL unless noted otherwise or pre-approved by owner and AHJ.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store in clean, dry space located above grade and protect from dirt, water, construction debris, traffic, freeze, and where applicable, deterioration from sun light.
PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Subject to the requirements of the specifications, products by the following manufacturers may be used for raceways and boxes. UL listed substitutions that are compliant with these specifications are acceptable provided compliance with all specification requirements are clearly indicated on the submittal.

1. Apleton
2. Carlon Electrical Products
3. Hubbell Wiring Devices
4. Thomas & Betts Corp.
5. Walker Systems Inc.
6. The Wiremold Co.
7. Wheatland Tube Company
8. Allied Tube & Conduit
9. B I A
10. Cantex
11. Southwire
12. Eastern
13. Pass & Seymour
14. Hoffman

2.2 SYSTEM DESCRIPTION

A. Provide raceway and boxes as specified below for power and lighting.
   1. Provide raceway and boxes for all wiring, equipment; lighting; and wiring devices shown on plans.
   2. Provide raceway and boxes at other locations as required for splices, taps, wire pulling, equipment connections, and compliance with regulatory requirements. Raceway and boxes are shown in approximate locations unless dimensioned. Provide raceway to complete wiring system.

B. Underground:
   1. Provide Schedule 80 nonmetallic conduit for straight runs that are buried and/or in concrete. All joints shall be glued together.

C. Exterior Above Grade Locations:
   1. Provide corrosion resistant fiberglass or stainless steel supports.
   2. All hardware shall be stainless steel
   3. All conduit shall be Schedule 80 PVC.
   4. Provide corrosion resistant outlet, junction, and pull boxes boxes, gasketed, rated NEMA 3R min.

2.3 METAL CONDUIT

A. Rigid Steel Conduit:
   1. ANSI C80.1.
3. Continuously welded seams.
4. Uniform wall thickness and cross section.
5. Manufacturer applied lubricating and corrosion retarding coating applied to interior of conduit.

B. Intermediate Metal Conduit (IMC): Rigid steel.

C. Fittings and Conduit Bodies:
   1. NEMA FB 1
   2. Material to match conduit.
   3. Couplings and connectors: threaded
   4. Expansion Fittings: OZ Type DX, concrete tight, provide for \( \frac{3}{4} \)" movement in all directions and/or 30 degrees deflection in any direction

2.4 NONMETALLIC CONDUIT

A. Product Description: NEMA TC 2; Schedule 80 PVC.
   1. Schedule 80 PVC to be used where buried or embedded.
   2. Use schedule 80 PVC conduit for any exposed exterior or interior applications requiring corrosive resistant PVC conduit.

B. Fittings and Conduit Bodies: NEMA TC 3

C. Liquid tight non-metallic flexible conduit (LNMFC).
   1. Color: Grey
   2. Core Material: Rigid PVC Encapsulated within Flexible PVC
   4. Length is limited to a maximum of 6'.

2.5 WIREWAY

A. Wireways shall be of steel construction general purpose rain tight for outdoor applications with knockouts.

B. Knockouts: Manufacturer's standard.

C. Size: as indicated on Drawings.

D. Cover: Hinged cover with full gaskets.

E. Fittings: Lay-in type with removable top, bottom, and side; captive screws.

F. Finish: Rust inhibiting primer coating with gray enamel finish.

2.6 OUTLET BOXES

A. Nonmetallic Outlet Boxes: NEMA OS 2.
B. Cast Boxes: NEMA FB 1, Type FD, aluminum or cast feralloy. Furnish gasketed cover by box manufacturer. Furnish threaded hubs.

C. Outlet box accessories as required for each installation, including mounting brackets, cable clamps and metal straps for supporting outlet boxes, compatible with outlet boxes being used and meeting requirements of individual situations.

D. Provide deep type cast metal weatherproof exterior outlet wiring boxes of the type, shape and size, including depth of box, with threaded conduit ends, cast metal face plate with spring-hinged waterproof cap suitably configured for each application, including face plate gasket and fasteners. Provide PVC type outlet boxes only in corrosive areas rated as NEMA 4X.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify outlet locations and routing and termination locations of raceway prior to rough-in.

3.2 EXISTING WORK

A. Remove concealed abandoned raceway to its source.

B. Disconnect abandoned outlets and remove devices. Remove abandoned outlets when raceway is abandoned and removed. Install blank cover for abandoned outlets not removed.

C. Clean and repair existing raceway and boxes to remain or to be reinstalled.

3.3 INSTALLATION

A. Provide complete raceway systems from source to all loads with dedicated supports for each raceway element.

B. Arrange raceway and boxes to present a neat appearance; allow for future expansion; provide access where needed; and maintain headroom and clearances for equipment, egress, etc.

C. Fasten raceway and box supports to structure and finishes in accordance with all requirements of the NEC and the construction documents.

D. Ground and bond raceway and boxes in accordance with all requirements of the NEC and the construction documents.

E. Identify raceway and boxes in accordance with all requirements of the NEC and the construction documents.

F. Paint exposed raceway and boxes to match the surface to which they are attached.
3.4 INSTALLATION - RACEWAY

A. Raceway Supports
   1. Provide support at each junction box and load.
   2. Provide supports at intervals per code and manufacturer recommendations.
   3. Support cables in vertical raceways per NEC 300.19.
   4. Arrange raceway supports to prevent misalignment during wiring installation.
   5. Additional supporting requirements are specified in other specification sections.

B. Raceway Routing
   1. Raceway routing is shown in approximate locations unless dimensioned. Route to complete wiring system.
   2. The conduit routing shown on the construction documents is diagrammatic.
      a. Coordinate interior routing with other trades; structure; existing and new utilities, ductwork, piping; and other existing conditions as required for a complete, conflict free installation.
      b. Coordinate site routing with other trades; structure; new and existing buried utilities, new and existing paved areas, conduit sleeves, and landscaping before digging to avoid conflicts, damage, and to allow for future installations.
   3. Route exposed conduit parallel to structural elements. Follow all surface contours; do not route in free air from point to point. Where physically possible, install on top side of structural elements to conceal from view. Paint to match structure to which it is attached.
   4. Maintain clearance between raceway and piping for maintenance purposes.
   5. Install no more than equivalent of three 90 degree bends between boxes. Install conduit bodies to make sharp changes in direction, as around beams.

C. Install raceways so that it drains to junction and pull boxes to avoid moisture traps at low points; install junction box with drain fitting at low points in conduit system.

D. Install suitable pull string or cord in each empty raceway except sleeves and nipples.

E. Close ends and unused openings in surface raceways, wireways, boxes, and enclosures.

F. Cut conduit square using saw or pipe cutter; de-burr cut ends.

G. Bring conduit to shoulder of fittings; fasten securely.

H. Join nonmetallic conduit using cement as recommended by manufacturer. Wipe nonmetallic conduit dry and clean before joining. Apply full even coat of cement to entire area inserted in fitting. Allow joint to cure for minimum 20 minutes.

I. Install conduit hubs or sealing locknuts to fasten conduit to sheet metal boxes in damp and wet locations and to cast boxes.

J. Install suitable caps to protect installed conduit against entrance of dirt and moisture.
K. Surface Raceway: Install flat-head screws, clips, and straps to fasten raceway channel to surfaces; mount plumb and level. Install insulating bushings and inserts at connections to outlets and corner fittings.

3.5 INSTALLATION – BOXES, ENCLOSURES, CABINETS

A. General Requirements
   1. Seal all unused openings.
   2. Support boxes independently of conduit.
   3. Install boxes without damaging or removing insulation, cutting structural elements, or damaging finishes.

B. Wiring Device Boxes
   1. Install gang box where more than one device is mounted together. Do not use sectional box.
   2. Adjust mounting locations to be flush with finished surface.

3.6 INTERFACE WITH OTHER PRODUCTS

A. Locate outlet boxes to allow luminaires positioned as indicated.

3.7 ADJUSTING

A. Adjust flush-mounting outlets to make front flush with finished wall material.

B. Install knockout closures in unused openings in boxes.

3.8 CLEANING

A. Clean interior of boxes to remove dust, debris, and other material.

B. Clean exposed surfaces and restore finish.

END OF SECTION
PART 1 GENERAL

1.1 SUMMARY

A. Section includes luminaires and accessories.

1.2 REFERENCES

A. Uniform General Conditions, including Supplementary General Conditions.
B. Division 1 – General Requirements, Section 01000 – Special Conditions.

1.3 SUBMITTALS

A. Shop Drawings: Indicate dimensions and components for each luminaire not standard product of manufacturer.

B. Product Data: Submit catalog data showing all standard features, dimensions, listings and product labels, material types, finishes and clearly indicating which optional features will be provided.

1. Where multiple sizes are listed, indicate sizes to be used.
2. Where multiple products are shown on the same page, indicate which products to be used.

1.4 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

B. Supplier: Authorized distributor

C. Installer: A licensed electrician with documented experience installing all equipment specified here in shall directly supervise all work.

1.5 QUALITY ASSURANCE

A. Source Limitations: All components required for a complete functioning luminaire as described here in shall be obtained through one source from a single manufacturer.

B. Listing and Labeling: Where required, all electrical components, devices, and accessories shall be listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction and marked for the intended use. Testing agency shall be UL unless noted otherwise or pre-approved by owner and AHJ.
1.6 WARRANTY

A. Provide manufacturer’s standard form clearly stating that manufacturer agrees to repair or replace equipment, materials, and associated auxiliary components that fail or deteriorate within the specified warranty period.

B. Warranty Period:
1. One (1) year from the date of substantial completion for luminaires for workmanship.
2. Five (5) year from the date of substantial completion for luminaires. This is to include all components of the LED fixture.

1.7 DELIVERY STORAGE AND HANDLING

A. Store in clean, dry space located above grade and protect from dirt, water, construction debris, traffic, freeze, and where applicable, deterioration from sun light.

B. Maintain factory wrapping or provide additional canvas or plastic cover. Follow all manufacturer recommendations for humidity and max/min temperatures for storing.

PART 2 PRODUCTS

2.1 LUMINAIRES

A. Manufacturers:
1. Manufacturers shall be as listed in the luminaire schedule

B. Product Description: Complete luminaire assemblies, with features, options, and accessories as scheduled.

PART 3 EXECUTION

3.1 PREINSTALLATION COORDINATION

A. Examine the area of installation to verify adequate space and mounting provisions are provided for the specified luminaire prior to order luminaires.

3.2 INSTALLATION

A. Lighting Conductors and Conduit
1. Provide ground wire and one neutral conductor per circuit in all lighting conduit.
2. All conductors serving luminaires shall be routed in conduit.
3. Make wiring connections to branch circuit using building wire with insulation suitable for temperature conditions within luminaire.
B. Install accessories furnished with each luminaire.

3.3 FIELD QUALITY CONTROL
A. Operate each luminaire after installation and connection. Inspect for proper connection and operation.

3.4 ADJUSTING
A. Aim and adjust luminaires.

3.5 CLEANING
A. Remove dirt and debris from enclosures.
B. Clean photometric control surfaces as recommended by manufacturer.
C. Clean finishes and touch up damage.

3.6 PROTECTION OF FINISHED WORK
A. Relamp luminaires having failed lamps at Substantial Completion.

END OF SECTION