

MASTER SERVICE AGREEMENT

This Master Service Agreement (“Agreement”) is entered into on April 15, 2020 (“Effective Date”) by and between Fort Bend Grand Parkway Toll Road Authority, a local government corporation (“Authority”), and Vaca Underground Utilities, Inc., (“Contractor”).

RECITALS

The Authority has determined it is in the Authority’s best interest to engage a professional service provider for the services described herein;

The Authority and Contractor (collectively, “Parties”) have read and understood the terms and provisions set forth in this Agreement and have been afforded a reasonable opportunity to review this Agreement with their respective legal counsel; and

NOW, THEREFORE, in consideration of the premises, mutual promises, covenants, obligations and benefits herein contained, the Authority and Contractor agree as follows:

I.

SERVICES

Section 1.01. Services. Contractor shall perform services for the Authority provided in **Exhibit A** of this Agreement (“Services”), and Contractor shall be compensated for Services duly approved in the manner set forth in Article II of this Agreement. In addition, approval of services not reflected in **Exhibit A** (“Additional Services”) shall be evidenced by a separate written proposal or service order (“Job Order”), countersigned by the Authority or its designee, which shall include the service to be performed, duration of performance, the location, and the fees. All fees described in the Job Order shall include charges for labor, materials, insurance, equipment, and any other items required to perform the work in the Additional Services. Contractor may not deviate from approved Services without the prior written consent of the Board of Directors (“Board”) or its designee.

Section 1.02: Frequency of Services. Contractor shall perform the Services based on the schedule provided in **Exhibit A**, provided, however, the Authority or Authority Manager may modify the schedule based on actual conditions. Moreover, Contractor agrees to inform the Authority Manager if the frequency of Services should be altered. The Parties agree that the schedule attached in **Exhibit A** is intended to be a guide and best estimation of the frequency of Services to be performed during the term of this Agreement. Contractor acknowledges that the frequency of the services to be performed is estimated and the Authority can make no representations as to the actual number of times that Contractor will be requested to perform such services.

Section 1.03: Equipment, Tools, Labor. Contractor shall furnish the necessary labor and use its own equipment and tools necessary to perform the Services. Contractor shall be responsible for the maintenance of said equipment and tools and **shall hold the Authority harmless from any damage or repairs to the equipment caused by or related to the performance by Contractor of the Services.**

II.

COMPENSATION

Section 2.01. Payment for Services. In consideration for the Services, the Authority will pay the Contractor as described in **Exhibit B** of this Agreement. Contractor shall submit 3 detailed monthly invoices (together with any back-up documentation requested by the Authority, including, but not limited to, copies of all completed and accepted/closed Job Orders), one for work performed

on each toll road, pursuant to this Agreement or any Job Order. These monthly invoices must be submitted to the Authority no later than 15 calendar days after month's end. All work completed under this Agreement is issued, tracked, approved, closed, and paid based on Job Orders. All cost items in the monthly invoice must come from a Job Order approved/closed by the Authority or those costs will be rejected.

Such invoices shall be sent to the Authority's bookkeeper and Authority's manager:

Authority's Bookkeeper

Ms. Kristina Dowling

Mike Stone & Associates

1950 Lockwood Bypass

Richmond, Texas 77469

Phone: (832) 924-8757

Email: KristinaDowling@MikeStoneAssociates.com

Authority's Manager

Mr. Michael Stone

Mike Stone & Associates

1950 Lockwood Bypass

Richmond, Texas 77469

Phone: (832) 735-7385

Email: MikeStone@MikeStoneAssociates.com

Payment shall be made within forty-five (45) days of the approval of Contractor's invoice by the Authority. Interest shall not be paid on service invoices.

Contractor agrees that upon completion of the work called for hereunder, it will furnish the Authority, with proof, satisfactory to the Authority, that all labor, material and equipment for which Contractor has been paid, have been satisfied and paid, unless the Authority waives such proof. Upon furnishing such proof, or waiver thereof, the amount billed by Contractor will be reviewed by the Authority for approval and all undisputed amounts shall be paid to Contractor in accordance with this Section.

III.

GENERAL CONDITIONS

Section 3.01. Contractor's Duties. Contractor covenants with the Authority to furnish its best skill and judgment in performing the Services for the Authority. Contractor agrees to furnish efficient business administration and superintendence and to use its best efforts to furnish at all times an adequate supply of workmen, materials and equipment and to perform the Services in the most expeditious and economical manner. Contractor agrees to exercise reasonable diligence in performing the Services, using the degree of care and skill that a prudent person in the same or similar profession would use.

Section 3.02. Relationship of Authority and Contractor. Contractor has been retained by the Authority for the sole purpose and to the extent set forth in this Agreement. It is understood and agreed that all work so done by Contractor shall meet with Authority approval, but that the detailed manner and method of performing the Services shall be under the control of Contractor. Contractor's relationship to the Authority during the term of this Agreement is that of an independent contractor. The relationship between the Authority and Contractor is not exclusive.

Section 3.03. Insurance and Indemnification. Before commencing any work hereunder, Contractor shall furnish certificates of its insurance and copies of any required endorsements to the Authority evidencing the following insurance coverage, which coverage shall be maintained throughout the term of this Agreement. Certified copies of each policy shall be furnished to the Authority upon the Authority's request. Contractor shall not violate or knowingly permit to be violated any condition of the insurance policies required by this Agreement. Nothing contained in this Section shall limit or waive Contractor's legal or contractual responsibilities to the Authority or others. Cancellation or expiration of any of said insurance policies shall not preclude the Authority from recovery for any liability arising under this Agreement.

Contractor shall obtain the following insurance from companies having a Best's rating of B+/VII or better and licensed to transact business in the State of Texas:

- A. Workers' Compensation Insurance covering liability arising out of Contractor's employment of workers and anyone for whom the employer may be liable for workers' compensation claims at limits as imposed by statute. Workers' compensation insurance is required, and no alternative forms of insurance shall be permitted.
- B. Employer's Liability Insurance Limitations with limits of not less than \$500,000.
- C. Commercial General Liability Insurance with limits not less than:
 - a. Each occurrence – \$1,000,000
 - b. General aggregate - \$2,000,000
 - c. Products-Completed Operations Aggregate - \$2,000,000
 - d. Personal & Advertising Injury - \$1,000,000
- D. Comprehensive Automobile Liability Insurance with limits not less than \$1,000,000 (combined)
- E. Excess Liability: \$2,000,000/\$2,000,000.

Contractor's insurance shall include the following endorsements:

- A. The Authority and the Authority's agents and employees shall be added as additional insureds to all coverage required under this Agreement for all liability arising out of Contractor's work under this Agreement, except for workers' compensation insurance, as to the full limits of liability provided by each insurance policy (including limits greater than the minimum limits required herein).
- B. All required insurance shall be endorsed to provide that coverages afforded under the policy will not be canceled or modified without at least seven days prior written notice to the Authority. Renewal certificates shall be provided at least 30 days prior to the termination date of the current certificates of insurance during the term of this Agreement.
- C. Inasmuch as Authority and Contractor intend that all of Contractor's insured loss and liabilities fall upon Contractor's insurers, without recourse against Authority, Contractor agrees to cause all of its policies of insurance maintained in force or procured by Contractor to provide, if necessary by endorsement, that each such insurer fully waives subrogation against the Authority and its agents and employees.
- D. All of the aforesaid policies shall be endorsed to provide that the coverage provided to the Authority as an additional insured will be on a primary basis, and not in excess of other insurance coverage available to the Authority, and that neither Contractor nor its insurer will seek contribution or recovery from the Authority or such other insurance available to the Authority.
- E. Contractor shall cause its subcontractors, including all persons hired by Contractor who are not Contractor's employees, who perform any part of the work hereunder, to be added

as additional insureds to all coverage required under this Agreement, as to the full limits of liability provided by each insurance policy (including limits greater than the minimum limits required herein).

TO THE FULLEST EXTENT PERMITTED BY LAW, THE CONTRACTOR, FOR ITSELF AND ITS SUCCESSORS AND ASSIGNS, AGREES TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE AUTHORITY AND ITS OFFICERS, DIRECTORS, MANAGERS, REPRESENTATIVES, AND AGENTS, FROM EVERY LOSS, DAMAGE, INJURY, COST, EXPENSE, CLAIM, JUDGMENT, OR LIABILITY OF EVERY KIND OR CHARACTER (INCLUDING SPECIFICALLY ATTORNEYS' FEES, COURT COSTS AND OTHER EXPENSES INCURRED IN ENFORCING THIS INDEMNITY PROVISION), WHETHER IN CONTRACT, TORT, OR OTHERWISE, WHICH ARISES DIRECTLY OR INDIRECTLY FROM THE CONTRACTOR'S WILLFUL, INTENTIONAL, RECKLESS OR NEGLIGENT (WHETHER ACTIVE, PASSIVE, OR GROSS) ACTS OR OMISSIONS RELATED TO OR ARISING FROM THIS AGREEMENT. THIS INDEMNITY AND HOLD HARMLESS PROVISION WILL APPLY WHETHER SUCH ACTS OR OMISSIONS ARE CONDUCTED BY THE CONTRACTOR OR ANY SUBCONTRACTOR OR AGENT OF THE CONTRACTOR.

THIS INDEMNITY AGREEMENT IS INTENDED TO MEET THE TEXAS "EXPRESS NEGLIGENCE RULE" BECAUSE CONTRACTOR AGREES THAT IT APPLIES AND IS ENFORCEABLE EVEN AS TO LOSSES, DAMAGES, INJURIES, EXPENSES, CLAIMS, CAUSES OF ACTION, JUDGMENTS OR LIABILITIES JOINTLY OR CONCURRENTLY CAUSED BY THE NEGLIGENCE OR OTHER FAULT OF THE AUTHORITY. THE TERM "FAULT" IN THE PREVIOUS SENTENCE INCLUDES THE VIOLATION OR BREACH BY THE AUTHORITY OF ANY COMMON LAW DUTY, ANY TERM OF THIS AGREEMENT, OR ANY STATUTE OR REGULATION.

THIS INDEMNIFICATION OBLIGATION IS IN ADDITION TO ALL OTHER LEGAL, EQUITABLE, OR INDEMNIFICATION REMEDIES AVAILABLE TO THE AUTHORITY. THIS INDEMNIFICATION OBLIGATION SURVIVES THE TERMINATION OR EXPIRATION OF THIS AGREEMENT.

CONTRACTOR DOES HEREBY WAIVE, RELEASE AND FOREVER RELINQUISH AND DISCHARGE THE AUTHORITY FROM ALL OF CONTRACTOR'S CAUSES OF ACTION ARISING FROM BODILY INJURY OR DEATH OR DAMAGE TO ANY PROPERTY ARISING OUT OF THE SERVICES, REGARDLESS OF WHETHER THE INJURY OR DAMAGE IS CAUSED IN FULL OR IN PART BY THE NEGLIGENCE OR OTHER FAULT OF THE AUTHORITY.

Section 3.04. Term and Termination. This Agreement is for a two-year term and all pricing for all Services shall be firm for the two-year duration of the term beginning on July 1, 2020 and ending on June 30, 2022. The Contractor is required to maintain lighting along the roadway or right-of-way and ancillary facilities uniformly and consistently throughout the Agreement term. Continued poor performance of work or failure to perform will cause the Contractor to be declared in default of the Agreement. In the event the Contractor is declared in default, the Authority's sole remedies shall be either (i) terminate the Agreement, or (ii) give Contractor a notice to cure. After receiving a notice to cure, Contractor shall have thirty calendar days to cure the default. Contractor shall not be entitled to any payment or further payment other than for work performed or material, equipment, or supplies furnished prior to such termination. The Authority does not waive any other remedy allowed under Texas law.

The Authority may request to renew the Agreement, at the same terms and conditions, and with future pricing revised according to the Consumer Price Index: CPI-U Based Price Adjustment Calculations for Houston, Texas. Renewals, if any, will be in one-year increments, not to exceed three years for the entire contract. Renewals will only be requested by the Authority if the Contractor is performing as expected. Contractor will be expected to execute a new Agreement if a renewal is requested by the Authority.

Section 3.05. Agreement Controls. To the extent that there is any inconsistency between the provisions of this Agreement and any attachments or exhibits hereto, the terms of this Agreement shall control. Any terms and conditions described in any attachments, exhibits, or Job Orders that are unrelated to the description of the services to be performed, duration of performance, the location, and the fees shall have no effect and shall not be considered part of this Agreement.

Section 3.06. Regulatory Requirements. All work will be done in strict compliance with all applicable city, county, state and federal rules, regulations and laws and any codes which may apply to the services being provided. Contractor will obtain all permits and licenses required to perform the services and will be responsible for securing inspections and approvals of its work from any entity having jurisdiction over Contractor's services.

Section 3.07. Safety and Health Standards. Contractor shall observe and comply with all applicable federal, state and local health and safety laws and regulations.

Section 3.08. Inspection. The Authority and its duly authorized representatives shall have the right to inspect all Services being performed hereunder at any time. Contractor agrees to maintain adequate records and documentation satisfactory to the Authority to support the changes and expenses related to all Services performed hereunder and to maintain such records and documentation for at least four years. The Contractor will provide such back-up documentation to the Authority upon request.

Section 3.09. Warranty. In addition to other common law and statutory warranties, whether implied or express, Contractor's warranty applies to materials, parts, labor and workmanship for one year from the date of completion of the services. Contractor shall transfer all manufacturers' warranties to the Authority.

Section 3.10. Assignability. Contractor shall not assign its rights or obligations or any sum that may accrue to it hereunder without the written consent of the Authority, which shall be granted or denied in the Authority's sole discretion.

Section 3.11. Modifications. This Agreement shall be subject to amendment, change or modification only with the prior mutual written consent of the Authority and Contractor.

Section 3.12. Force Majeure. In the event either party to this Agreement is rendered unable, wholly or in part, by force majeure including an act of God; strikes; lockouts, or other industrial disturbances; acts of the public enemy; orders of any kind of government of the United States or the State of Texas or any civil or military agency (other than a party to this Agreement); insurrections; riots; epidemics; landslides; lightning; earthquakes; fires; hurricanes; storms; floods; droughts; arrests; civil disturbances; explosions; or other inability similar to those enumerated; to carry out its obligations under this Agreement, it is agreed that party shall give written notice of such act to the other party as soon as possible after the occurrence of the cause relied on and shall, thereafter, be relieved of its

obligations, so far as they are affected by such act, during the continuance of any inability so caused, but for no longer.

Section 3.13. Agreement Subject to Applicable Law. This Agreement and the obligations of the parties hereunder are subject to all rules, regulations and laws which may be applicable by the United States, the State of Texas or any other regulatory agency having jurisdiction.

Section 3.14. Governing Law. This Agreement is governed in accordance with the laws of the State of Texas and shall be enforceable in the county in which the Authority is located.

Any suit arising out of this agreement must be brought in Fort Bend County.

Section 3.15. Waiver. No waiver or waivers of any breach or default by a party hereto of any term, covenant or condition or liability hereunder of performance by the other party of any duty or obligation hereunder will be deemed a waiver thereof in the future, nor will any such waiver or waivers be deemed or construed to be a waiver of subsequent breaches or defaults of any kind, character or description, under any circumstances.

Section 3.16. Intended Beneficiaries. This Agreement is for the sole and exclusive benefit of the Authority and Contractor and will not be construed to confer any benefit upon any other party.

Section 3.17. Severability. The provisions of this Agreement are severable, and if any provision or part of this Agreement or the application thereof to any person or circumstance is ever held by any court of competent jurisdiction to be invalid or unconstitutional for any reason, the remainder of this Agreement and the application of such provision or part of this Agreement to other persons or circumstances will not be affected hereby.

Section 3.18. Notice. Any notice, demand, request, or other instrument authorized or required to be given under this Agreement shall be deemed to have been given only upon receipt. Any required notices may be given by first class mail, postage prepaid, or by overnight delivery service to the address set forth below:

Fort Bend Grand Parkway Toll Road Authority
c/o The Muller Law Group, PLLC
202 Century Square Boulevard
Sugar Land, Texas 77478
Attention: Richard L. Muller, Jr.

Vaca Underground Utilities, Inc

Everardo Vaca

5271 Elberta st

Houston TX 77050

Attn:_____

Section 3.19. List of Local Government Officers. In accordance with Section 176.0065, Texas Local Government Code, a list of local government officers of the Authority may be obtained by contacting the Authority's records administrator at (281) 500-6050.

Section 3.20. Form 1295. Prior to execution of this Agreement by the Authority, the Contractor will be required to submit a Texas Ethics Commission Form 1295. For details related to this disclosure, please see: https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm


Section 3.21. Boycott Israel; Companies Engaged in Business with Iran, Sudan, or Foreign Terrorist Organizations. Contractor certifies and agrees that it (i) does not, nor will not so long as the Agreement remains in effect, boycott Israel, as such term is defined in Chapter 808, Texas

Government Code, and (ii) is not identified on a list prepared and maintained under Sections 806.051, 807.051 or 2252.153, Texas Government Code.


[EXECUTION PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in multiple copies, each of equal dignity, as of the date set forth on the first page hereof.

FORT BEND GRAND PARKWAY TOLL ROAD
AUTHORITY

By: 
Bobbie Tallas (May 14, 2020 10:11 CDT)
Print Name: Bobbie A. Tallas
Title: Vice President

Vaca Underground Utilities, Inc.

By: 
Everardo Vaca (May 13, 2020)
Print Name: Everardo Vaca
Title: President

EFFECTIVE DATE

THIS AGREEMENT IS EFFECTIVE ON THE DATE IT IS APPROVED BY THE FORT BEND COUNTY COMMISSIONERS COURT, AND IF NOT SO APPROVED SHALL BE NULL AND VOID.

DATE OF COMMISSIONERS COURT APPROVAL: _____

AGENDA ITEM NO.: _____

EXHIBIT A

Scope of Services & Schedule

[EXHIBIT PAGE FOLLOWS]

A.1 REQUIREMENTS & SPECIFICATIONS

The Contractor shall perform Illumination and Electrical Repair Services in accordance with the Texas Department of Transportation's (TxDOT) Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges adopted November 1, 2014, except as noted or revised in the agreement.

A.1.1 General

The Contractor shall provide the necessary manpower and equipment to perform all work outlined within this Agreement. Equipment shall include, but is not limited to tools, roadway and traffic control devices and equipment, vehicles and apparatus, signs, personal protective safety gear and equipment, communication devices, materials and supplies. The Contractor, as needed, shall be responsible for securing separate sites for employee parking, storage and stockpiling of materials and equipment and offices. Equipment being utilized for roadway work may be stored in the right-of-way overnight but must be located a minimum of thirty feet from the edge of the roadway.

The Contractor shall perform all work in a manner that precludes damage or destruction of non-work zone areas and/or non-right-of-way areas.

The Contractor will only be paid for work which is actually performed and accepted by the Authority and authorized by the Authority through contract or directive from the Authority's Representative, Mike Stone Associates, Inc.

The Contractor is required, under the Hazardous Communication Act, to provide, with each delivery of applicable hazardous substances as defined by the act, material safety data sheets to the Authority. The Contractor shall maintain a current file of these documents that are producible at the Authority's request.

The Contractor shall be required to provide proof of insurance, certified payrolls with invoices, and upon the request of the Authority material/supply invoices verifying purchases.

The Contractor shall perform maintenance services, repairs, replacements, relocations, removals and installations in a manner consistent with the outlined scope of services, overall industry best practices and in accordance with the Texas Department of Transportation's (TxDOT) Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges adopted November 1, 2014; National Electric Code (NEC); OSHA and all applicable industry codes in affect at the time of the performance of the specific work.

A.1.2 Silence of Specifications

Within this Agreement, the apparent silence of specifications as to any detail, or the apparent omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practice is to prevail and that only material and workmanship of the finest quality are to be used. All interpretations of this Agreement shall be made on the basis of this statement. The items furnished under this contract shall be new, unused of the latest product in production to commercial trade

and shall be of the highest quality as to materials used and workmanship. Manufacturer furnishing these items shall be experienced in design and construction of such items and shall be an established supplier of the item proposed.

A.1.3 Work Flow Process

All work to be completed under this Agreement will be issued, tracked, approved, closed and paid based on work orders that are administered through an online Work Order System managed by the Authority. The Authority will issue, track, approve and close all Work Orders. Once a work order is issued by the Authority, the Contractor will have a certain period of time to respond to the work order and resolve/repair the issue based on the assigned priority of the work order (see Section A.1.4 Service Response Prioritization).

A.1.4 Service Response Prioritization and Penalty

The Contractor shall respond to the Authority's request for service as established by the following levels of service prioritization:

Priority 1 – Incident / Emergency Service Call

1. Issued via telephone for immediate response by the Contractor. Work order will be issued by the Authority following the service call.
2. Requires communication within 1 hour of notification for service.
3. Requires response to the incident within 24-hours of the initial notification. At this time, contingent upon inspection by the Authority, the Priority may be reclassified or closed.
4. If the Contractor does not arrive on-site, prepared to take necessary action within 24 hours from initial notification of a Priority 1 Service Call, \$1000.00 per day, per service call, shall be deducted from the Contractor's monthly invoice for each hour past the allowed response time it took the Contractor to be on-site.

Priority 2 – Non-Routine Maintenance / Non-Emergency Asset Damage Service Call

1. Issued via work order by the Owner.
2. Requires communication and planned resolution of the service issue within one business day of such notification for service.
3. Requires resolution of the issue within one to thirty calendar days as jointly determined by the Owner and the Contractor at the time the resolution is proposed by the Contractor.
4. If the Contractor does not respond to the Authority with a planned resolution of a Priority 2 Service Call within one business day of notification for services, \$1,000.00 per business day, per service call, shall be deducted from the Contractor's monthly invoice for each business day past the allowed response time it took the Contractor to respond with a planned resolution of the service call.

Priority 3 – Routine Maintenance Service Call

1. Issued via work order by the Authority.

2. Contractor has one to thirty calendar days to complete service request as jointly determined by the Authority and Contractor at the time the service is requested.
3. If the Contractor does not complete a Priority 3 Service Call within thirty calendar days from the time the service was requested, \$1,000.00 per calendar day, per service call, shall be deducted from the Contractor's monthly invoice for each calendar day past the allowed completion time it took the Contractor to complete the service call.

A.1.5 Mobilization

Mobilization costs will not be paid for directly. The Contractor's proposed prices shall be considered inclusive of all overhead (i.e. material, parts, tools, equipment, machinery, computers, cell phones/radios, consumables, supplies, toll charges, etc.) and profit.

A.1.6 Toll Charges

Contractor will be responsible for all applicable toll charges required to perform the maintenance activities of the Authority. Excessive toll violations by the Contractor during the maintenance contract will be counted against the Contractor's Contract Performance.

A.1.7 Prevailing Wage Rates

Contractor must comply with Texas Government Code (GC) 2258, Prevailing Wage Rates. Accordingly, GC 2258 requires the Contractor to compensate any worker employed on a public works project not less than as applicable per the Wage Rates for Building Construction and Road Bridge Construction section.

A.1.8 Staff and Vehicle Identification

Any staff, subcontractors, vehicles and machinery used by the Contractor for maintenance of the toll roads must have proper identification. The Contractor's staff must either wear uniforms with Contractor's company name and/or Identification (ID) tags worn by each staff and visible at all times. The Contractor's vehicles and machinery must also be identified with the Contractor's company name/logo easily visible and large enough to be seen within 50 feet of the vehicle.

A.1.9 Health and Safety Measures

The Contractor shall observe and comply with all applicable federal, state and local health and safety laws and regulations. The Contractor shall ensure that proper health and safety measures are performed and enforced at all times for the traveling public, agents and representatives of the Authority and the Contractor and Subcontractor employees. The Contractor must have and properly utilize safety equipment for all work on the toll roads. Safety equipment must meet all safety laws and regulations and be in sufficient condition to perform properly and provide the safety it was intended to provide.

A.1.10 Staffing and Subcontractors

At least 51% of the contract value awarded from this Agreement must be performed by the Contractor.

Key staff include but are not limited to Project Manager, Maintenance Supervisor, Traffic Control Supervisor and Field Supervisors. Key staff and subcontractors proposed by the Contractor cannot be

replaced without prior written approval by the Authority. All key staff of the Contractor and subcontractors and at least one person in each crew must be able to effectively communicate both verbally and in writing in English.

A.2 SCOPE OF WORK

All work performed as part of the Illumination and Electrical Repair Services contract will comply with the Texas Department of Transportation's (TxDOT) Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges adopted November 1, 2014. The TxDOT Standard Specifications, along with associated TxDOT Standard Plans and Special Specifications will govern all work performed by the contractor, except as stated or modified below.

A.2.1 TxDOT Special Specification 6000 – Illumination Maintenance

TxDOT Special Specification 6000 "Illumination Maintenance", included as Attachment C-1 to this agreement, is hereby amended with respect to the clauses cited below. No other clause or requirements are waived or changed.

The Authority will not furnish any luminaires, luminaire poles, mast arms, anchor bolts, and transformer bases. The Contractor will be required to supply all materials for all bid items. Material costs should be included in the pricing for all items on the bid sheet.

A.2.2 TxDOT Special Provision to Item 502 - Barricades, Signs, and Traffic Handling

Barricades, Signs, and Traffic Handling will be performed and invoiced as stated in TxDOT Standard Specifications – Item 502, and as modified by Special Provision 502-001, included as Attachment C-2 to this Agreement. Barricades, signs and traffic handling will be billed as Type 4 and will be measured by the hour. The Authority will work with the selected Contractor to estimate traffic control hourly quantities before work orders are issued.

Any work performed by the Contractor in the right-of-way may be subject to implementation of traffic control measures and lane closures at the discretion of the Authority. For all lane closures, the Contractor will coordinate with the Authority at least 48 hours in advance. Lane closures shall not be scheduled during the following peak traffic hours, unless approved by the Authority:

Monday – Friday: 6:00 a.m. - 9:00 a.m. and 4:00 p.m. - 7:00 p.m.

Some traffic control measures, and lane closures may require the use of a certified law enforcement officer; this requirement will be at the discretion of the Authority. Payment for any law enforcement personnel requested by the Authority will be addressed as stated in Section B.1.1 Force Account Work.

EXHIBIT B

Compensation

[EXHIBIT PAGE FOLLOWS]

B.1 PAYMENT

The Contractor will invoice the Authority monthly, and the Contractor will submit three (3) separate invoices so that services performed on each road are billed separately. The monthly invoice will reference all completed and accepted/closed Work Orders. The monthly invoice will also include quantity completed of each item on the Pricing Forms and associated to a completed, approved and closed Work Order.

The Contractor will be compensated monthly based on an invoice submitted and Work Orders completed by the Contractor and approved/closed by the Authority. All work completed under this contract is issued, tracked, approved, closed and paid based on Work Orders. All cost items in the monthly invoice must come from a Work Order approved/closed by the Authority or those costs will be rejected.

B.1.1 FBGPTRA Special Provision to Item 9 – Measurement and Payment

All Force Account work performed as part of the Illumination and Electrical Repair Services Contract will comply with FBGPTRA Special Provision to Item 9, included as Attachment C-3 to this agreement. After any work order is issued that involves Force Account Work, the contractor will provide estimated costs to the Authority before proceeding. The Authority must review and approve cost estimates before work begins. Priority 1 and emergency response costs will be handled on an individual basis and may not require cost estimates before work is approved, if directed by the Authority.

PRICING FORM

ITEM NO	ITEM DESCRIPTION	UNIT	2020-21 UNIT PRICE	ESTIMATED QUANTITY	EXTENDED PRICE		2021-22 UNIT PRICE
BASE BID							
0502-6022	BARR, SIGNS, TRAF HANDLE (TY-4)	HR	250.00	200	\$ 50,000.00	-	250.00
6000-6003	REPLACE ABOVE-GROUND CONDUIT	LF	20.00	50	\$ 1,000.00	-	20.00
6000-6006	REPLACE UNDERGROUND CONDUIT	LF	10.00	50	\$ 500.00	-	10.00
6000-6009	REPLACE CONDUCTOR	LF	2.00	50	\$ 100.00	-	2.00
6000-6016	INSTALL ELECTRICAL SPLICE	EA	70.00	5	\$ 350.00	-	70.00
6000-6017	REPAIR ABOVE-GROUND CONDUIT	EA	20.00	5	\$ 100.00	-	20.00
6000-6018	REPAIR UNDERGROUND CONDUIT	EA	10.00	5	\$ 50.00	-	10.00
6000-6020	ROAD BORE	LF	15.00	500	\$ 7,500.00	-	15.00
6000-6023	REPLACE ROADWAY ILLUMASSEMBLY (HPS)	EA	2,250.00	5	\$ 1,1250.00	-	2250.00
6000-6029	REPLACE UNDERPASS LUMINAIRE (HPS)	EA	225.00	2	\$ 450.00	-	225.00
6000-6032	REPLACE UNDERPASS LUMINAIRE (LED)	EA	550.00	2	\$ 1,100.00	-	550.00
6000-6038	REPLACE LUMINARE FIXTURE (HPS)	EA	225.00	5	\$ 1,125.00	-	225.00
6000-6041	REPLACE LUMINARE FIXTURE (LED)	EA	550.00	5	\$ 2750.00	-	550.00
6000-6043	REPLACE LUMIAIRE POLE	EA	3,500.00	5	\$ 17,500.00	-	3,500.00
6000-6044	REPLACE LUMIAIRE ARMS	EA	750.00	5	\$ 3,750.00	-	750.00
6000-6056	INSTALL GROUND BOX	EA	600.00	2	\$ 1,200.00	-	600.00
6000-6057	INSTALL GROUND BOX W/ APRON	EA	900.00	2	\$ 1,800.00	-	900.00
6000-6059	INSTALL FOUNDATION	EA	2,200.00	5	\$ 11,000.00	-	2,200.00
6000-6063	REPLACE HAND HOLE COVER	EA	70.00	10	\$ 700.00	-	70.00
6000-6065	REPLACE BALLAST	EA	185.00	50	\$ 9,250.00	-	185.00
6000-6068	REPLACE FUSED DISCONNECT	EA	600.00	1	\$ 600.00	-	600.00
6000-6069	REPLACE LAMP SOCKET (POLE MOUNT FIXTURE)	EA	50.00	20	\$ 1,000.00	-	50.00
6000-6070	REPLACE LAMP SOCKET (UNDERPASS FIXTURE)	EA	50.00	5	\$ 250.00	-	50.00
6000-6072	REPLACE LAMP (POLE MOUNT FIXTURE)	EA	60.00	200	\$ 12,000.00	-	60.00
6000-6073	REPLACE LAMP (UNDERPASS FIXTURE)	EA	60.00	50	\$ 3,000.00	-	60.00
6000-6077	REPLACE LENS (POLE MOUNTED FIXTURE)	EA	70.00	25	\$ 1,750.00	-	70.00
6000-6078	REPLACE LENS (UNDERPASS FIXTURE)	EA	70.00	10	\$ 700.00	-	70.00
6000-6082	REPLACE FUSE	EA	45.00	50	\$ 2,250.00	-	45.00
6000-6083	REPLACE FUSE HOLDER	EA	125.00	10	\$ 1,250.00	-	125.00
6000-6085	REPLACE STARTING AID	EA	50.00	10	\$ 500.00	-	50.00
6000-6093	REPLACE HAND-OFF-AUTO SWITCH	EA	75.00	5	\$ 375.00	-	75.00
6000-6106	TROUBLESHOOT FOR REPAIRS	HR	125.00	20	\$ 2,500.00	-	125.00
6000-6109	REPLACE PHOTOCCELL	EA	50.00	25	\$ 1,250.00	-	50.00
9	FORCE ACCOUNT WORK		-	-			
BASE BID TOTAL				148,900.00			
ALTERNATE BID							
6000-6045	MAINTAIN ROADWAY ILLUMINATION	EA	135.00	554	\$ 47,250.00	-	135.00
6000-6048	MAINTAIN UNDERPSAS FIXTURE	EA	135.00	219	\$ 29,565.00	-	135.00
ALTERNATE BID TOTAL				76,815.00			

ATTACHMENT C – SPECIAL SPECIFICATIONS AND PROVISIONS

- Attachment C-1: TxDOT Special Specification 6000 – Illumination Maintenance
- Attachment C-2: TxDOT Special Provision to Item 502 – Barricades, Signs, and Traffic Handling
- Attachment C-3: FBGPTRA Special Provision to Item 9 – Measurement and Payment

[ATTACHMENT PAGE FOLLOWS]

Special Specification 6000

Illumination Maintenance



1. DESCRIPTION

Maintain, install, repair, or replace the various appurtenances related to existing illumination systems.

2. LICENSES AND CERTIFICATION

Provide personnel with electrical licensing and electrical certification in accordance with Item 7, "Legal Relations and Responsibilities," and all applicable Special Provisions to Item 7, "Legal Relations and Responsibilities."

3. MATERIALS

Unless otherwise noted on the plans, the Department will furnish luminaires, luminaire poles, mast arms, anchor bolts, and transformer bases. Assume responsibility for all materials furnished by the Department. Use material furnished by the Department for this contract only.

Furnish all materials required to repair breaks or shorts in electrical conductors and cables, including, but not be limited to, all concrete, ground boxes, wire mesh, conduit, conductors, and pipe casing. Ensure materials furnished by the Contractor meet all Department standards and specification requirements.

Return unused or removed salvageable material to the Department upon completion of work and before final payment, at the location shown on the plans or as directed. Dispose of any unsalvageable material in accordance with federal, state, and local regulations.

When performing maintenance on luminaires, verify if fixtures are covered under the manufacturer's warranty. If warranty applies, coordinate with the Department and follow any necessary procedures to have the manufacturer replace or repair fixtures.

4. EQUIPMENT

Furnish all equipment, tools and machinery necessary for the proper prosecution of the work. This will include, but is not limited to, an aerial device capable of reaching, installing and erecting all overhead lights and poles, trenching machine, boring machine, underground conductor detectors, underground fault detectors and splicing tools.

Ensure equipment, tools, and machinery is at the worksite and is in good repair and operating condition before beginning work. Immediately repair or replace any equipment that may affect the quality of the work, as directed.

5. WORK METHODS

Conform to the latest edition of the National Electric Code (NEC) as adopted by the Texas Department of Licensing and Regulations, local utility requirements, the requirements of this Item, and the pertinent requirements of the following Items:

- Item 104, "Removing Concrete"
- Item 400, "Excavation and Backfill for Structures"
- Item 416, "Drilled Shaft Foundations"

- Item 421, "Hydraulic Cement Concrete"
- Item 431, "Pneumatically Placed Concrete"
- Item 432, "Riprap"
- Item 440, "Reinforcing Steel"
- Item 476, "Jacking, Boring or Tunneling Pipe or Box"
- Item 610, "Roadway Illumination Assemblies"
- Item 613, "High Mast Illumination Poles"
- Item 614, "High Mast Illumination Assemblies"
- Item 616, "Performance Testing of Lighting Systems"
- Item 618, "Conduit"
- Item 620, "Conductors"
- Item 621, "Tray Cable"
- Item 622, "Duct Cable"
- Item 624, "Ground Boxes"
- Item 627, "Treated Timber Poles"
- Item 628, "Electrical Services"
- Item 652, "Highway Sign Lighting Fixtures"

Perform work on this contract as directed. Maintain existing roadway illumination systems as directed. Perform a monthly inspection to determine if any maintenance of the illumination system are needed and provide a detailed report to the Engineer. Provide proper maintenance or repairs within 48 hr. of notification. Submit completed maintenance log as directed. Coordinate electric power issues with local utility company.

The term "duct cable" as used herein consists of a complete assembly of conductors enclosed in a high density polyethylene duct.

Perform maintenance, installation, removal, or replacement activities located near any overhead or underground utilities using established industry and utility safety practices. Consult with the appropriate utility company before beginning such work.

Maintain, install, repair or replace the following items in accordance with the details as shown on the plans, the NEC and as directed:

5.1. **Conduit.** Install, remove, or replace conduits in accordance with Item 618, "Conduit." Use 90° "sweep" type elbows on conduits entering a ground box or foundation.

5.2. **Electrical Conductors.** Install, remove, or replace electrical conductors in accordance with Item 620, "Electrical Conductors."

Strap cable as required when installing or replacing conductors in aerial runs. This work is subsidiary to this Item.

5.3. **Tray Cable.** Install, remove, or replace tray cable in accordance with Item 621, "Tray Cable."

5.4. **Duct Cable.** Install, remove, or replace duct cable in accordance with Item 622, "Duct Cable."

5.5. **Conduit or Duct Cable Repair and Conductor Splices.** Notify the Engineer when an underground break in duct cable or conduit must be located or if a short in a conductor must be located.

Expose the break or short, install the ground box, repair the conduit or duct cable, perform the electrical splices, and backfill. Backfill in accordance with the construction methods of Item 400, "Excavation and Backfill for Structures." New ground boxes will be paid for under, "Install Ground Box."

When a ground box is not needed, expose the break or short, repair conduit or duct cable, remove damaged conductors, and install new conductors. Replace up to 3 ft. of conduit when repairing duct cable, regardless of the number of conduits in trench. Only one repair will be considered for payment per trench. If more than 3 ft. of conduit or duct cable needs to be replaced the additional will be paid for under "Replace Underground Conduit" or "Replace Duct Cable." Replacement of conductors will be paid for under "Install or Replace Conductor." Backfill in accordance with the construction methods of Item 400, "Excavation and Backfill for Structures."

An electrical splice will include the replacement of up to 3 ft. of conductor, regardless of the number of conductors in the conduit. Only one splice will be considered for payment per conduit. If more than 3 ft. of conductor needs to be replaced the additional will be paid for under "Install or Replace Conductor."

Above-ground conduit repairs performed in conjunction with a bid item will be considered subsidiary to the pertinent bid item. Above-ground conduit repairs not performed in conjunction with a bid item will include the replacement of up to 3 ft. of conduit per repair. If more than 3 ft. of conduit must be replaced, the additional will be paid for under "Replace Above-Ground Conduit."

- 5.6. **Bore Operations.** Place underground wiring under roadways by boring in accordance with the construction methods for boring as outlined in Item 476, "Jacking, Boring or Tunneling Pipe or Box." Bore a minimum of 60 in. below the roadway surface (and a minimum of 36 in. below the ditch flow-line) and extend 10 ft. outside the edge of the roadway or as directed. Placement of conduit for the length of the bore will be considered subsidiary to this bid item. Electrical conductors will be paid for under the bid item "Install or Replace Conductor."
- 5.7. **Install, Remove, or Replace Roadway Illumination Assembly.** Install, remove, or replace roadway illumination assemblies. This will include the base, pole, luminaire arms, luminaire, and required wiring.
- 5.8. **Install, Remove, or Replace Underpass Luminaire.** Install, remove, or replace underpass luminaires. This will include the luminaire, junction box, mounting hardware, and required wiring.
- 5.9. **Install, Remove, or Replace Induction Fluorescent Fixture.** Install, remove, or replace induction fluorescent fixture.
- 5.10. **Install, Remove, or Replace Luminaire.** Install, remove, or replace luminaire.
- 5.11. **Replace High Mast Luminaires.** Replace high mast luminaires.
- 5.12. **Replace Luminaire Pole.** Replace luminaire pole. Removing and reinstalling existing luminaires and arms is subsidiary to this item.
- 5.13. **Replace Luminaire Arms.** Replace luminaire arms.
- 5.14. **Maintenance of Roadway Illumination.** Maintain roadway illumination assemblies including replacement of lamps, fuses, fuse holder, starting aid, photocells, ballasts, and other work required to keep lights operational. Relevel the fixture. Clean the reflector and inside and outside of lens with an approved cleaning solution.
- 5.15. **Maintenance of High Mast Illumination.** Maintain high mast illumination assemblies including lowering the ring assembly and the replacement of lamps, fuses, fuse holder, starting aid, photocells, ballasts, and other work required to keep lights operational. Re-aim the lights and clean the lenses and reflectors as directed. Clean the reflector and inside and outside of lens with an approved cleaning solution. Maintain mechanical and electrical equipment as directed.
- 5.16. **Maintenance of Overhead Sign Lighting.** Maintain overhead sign lighting for large signs mounted over the roadway including replacing the ballast, lamps, fuses and lamp sockets in order to properly restore the

lighting to satisfactory operation. Install in accordance with the details shown on the plans or as directed. Clean the reflector and inside and outside of lens with an approved cleaning solution.

- 5.17. **Maintenance of Underpass Fixtures.** Maintain HPS underpass fixtures including the replacement of lamps, fuses, fuse holder, starting aid, photocells, ballasts, and other work required to keep lights operational. Relevel the fixture. Clean the reflector and inside and outside of lens with an approved cleaning solution.
- 5.18. **Maintenance of Induction Fluorescent Fixtures.** Maintain induction fluorescent fixtures including the replacement of lamps, fuses, fuse holder, starting aid, photocells, ballasts, and other work required to keep lights operational. Relevel the fixture. Clean the reflector and inside and outside of lens with an approved cleaning solution.
- 5.19. **Scheduled Preventive Maintenance of Roadway Illumination Assembly.** Inspect and perform the following listed items according to the schedule provided by the Engineer:
- Inspect and maintain all foundation anchor bolts, nuts, and washers.
 - Prep and touch up rust spots with cold galvanizing spray.
 - Replace lamp and clean fixtures as directed.
 - Replace ballast as directed.
 - Level fixture.
 - Inspect electrical system.
 - Repair shorts or open circuits.
- 5.20. **Scheduled Preventive Maintenance of High Mast Assembly.** Complete and sign "Luminaire Preventive Maintenance for High Mast Lighting" reports. Fill out forms legibly and completely. List all materials used at each location.
- Inspect and perform the following listed items according to the schedule provided by the Engineer:
- Inspect and fill gearbox lubrication reservoir.
 - Lubricate grease fittings.
 - Adjust brake mechanism to proper torque.
 - Inspect cable drum.
 - Inspect all wire rope and cables for deterioration or wear.
 - Inspect safety lanyard.
 - Lower ring and inspect mechanism.
 - Inspect all foundation anchor bolts, nuts, and washers.
 - Inspect welds around baseplate and ground sleeve for visible cracks.
 - Prep and touch up rust spots with cold galvanizing spray.
 - Replace lamps and clean fixtures as directed.
 - Replace ballasts as directed.
 - Replace aviation warning (obstruction) lamps as directed.
 - Inspect electrical system.
 - Repair short or open circuits as directed.
 - Raise ring to proper position.
- 5.21. **Replace Electrical Services.** Replace electrical services in accordance with Item 628, "Electrical Services."
- 5.22. **Replace Service Pole.** Replace service poles by removing the existing service pole, installing the new pole and related electrical service equipment, installing conduit including the elbow below ground for underground service feed or the weatherhead for overhead service feed, and connecting and installing electrical service. Install in accordance with Item 628, "Electrical Services."
- 5.23. **Install Ground Box.** Install ground boxes in conformance with the details shown on the plans and Item 624, "Ground Boxes." When shown on the plans, provide a Class "A" concrete apron conforming to Item 421,

"Hydraulic Cement Concrete." Place ground box to line and grade as approved. All wiring connections required inside the ground box will be considered subsidiary to this bid item.

- 5.24. **Remove Ground Box.** Remove ground box and fill hole with approved fill to at least 6 in. below conduit level. Remove conductors from conduit back to the point of termination. Uncover enough conduit that 90° bends can be removed and conduit reconnected. Clean conduit as per Item 618, "Conduit," and pull and terminate new conductors. Conduit replaced within 5 ft. of the ground box will be subsidiary to this Item. Cleaning of conduit and pulling of conductors will be paid under "Install or Replace Conductor." Backfill in accordance with the construction methods of Item 400, "Excavation and Backfill for Structures." If more than 5 ft. of conduit or duct cable needs to be replaced the additional will be paid for under "Replace Underground Conduit" or "Replace Duct Cable."
- If applicable, ground box removal includes removing the existing riprap apron.
- 5.25. **Install Foundation.** Install foundation for roadway illumination assemblies as shown on the plans and in accordance with the materials and construction methods outlined in Item 416, "Drilled Shaft Foundations."
- 5.26. **Remove Foundation.** Remove foundations in accordance with Item 610, "Roadway Illumination Assemblies," and Item 104, "Removing Concrete." Backfill in accordance with the construction methods of Item 400, "Excavation and Backfill for Structures."
- 5.27. **Replace Transformer Base.** Replace transformer base in accordance with the plans or as directed. The removal of the pole, mast arm, and luminaire for replacement of the transformer base only will be considered subsidiary to the pertinent bid items.
- 5.28. **Replace Transformer Base Cover.** Replace damaged or missing covers on existing transformer bases.
- 5.29. **Replace Hand Hole Cover.** Replace damaged or missing covers on existing illumination poles.
- 5.30. **Install Ground Rod.** The installation of ground rods will include running a properly sized copper grounding conductor to the ground connection.
- 5.31. **Replace Ballast.** Replace ballast for pole mounted, underpass, sign and wall pack fixtures in accordance with the details shown on the plans or as directed.
- 5.32. **Replace Ballast (High Mast Lighting).** Replace ballast for high mast fixtures.
- 5.33. **Install or Replace Fused Disconnect.** Install or replace fused disconnect.
- 5.34. **Replace Lamp Socket.** Replace lamp socket for pole mounted, underpass, high mast and wall pack fixtures.
- 5.35. **Replace Lamp.** Replace lamps for pole mounted, underpass, sign and wall pack fixtures. Clean the reflector and inside and outside of lens with an approved cleaning solution.
- 5.36. **Replace Lamp (High Mast Lighting).** Replace lamp for individual high mast fixtures. Clean the reflector and inside and outside of lens with an approved cleaning solution.
- 5.37. **Replace Wall Pack Luminaires.** Replace wall pack luminaires on structures, rest areas, maintenance warehouses, and other facilities.
- 5.38. **Replace Lens.** Replace pole mounted, underpass, sign, wall pack or high mast luminaire lenses.
- 5.39. **Replace Wall Pack Guard.** Replace wall pack guard.
- 5.40. **Replace Fuses.** Replace fuses for pole mounted, underpass, sign and wall pack fixtures, and fused disconnects.

- 5.41. **Replace Fuse Holders.** Replace fuse holder for pole mounted, underpass, sign and wall pack fixtures.
- 5.42. **Replace Breakaway Fuse Holders.** Replace breakaway fuse.
- 5.43. **Replace Starting Aid.** Replace starting aid for pole mounted, underpass, sign and wall pack fixtures.
- 5.44. **Replace Photocells and Brackets.** Replace photocells and brackets.
- 5.45. **Replace Control Transformer.** Replace the control transformer.
- 5.46. **Replace Control Circuit.** Replace the control circuit.
- 5.47. **Replace Aviation Warning Fixtures.** Replace the aviation warning (obstruction) fixtures.
- 5.48. **Replace Aviation Warning Lamp.** Replace the aviation warning (obstruction) fixture lamp
- 5.49. **Replace Hand-Off-Auto Switch.** Replace three position Hand-Off-Automatic control switch.
- 5.50. **Replace Contactor.** Replace electromagnetic contactors.
- 5.51. **Replace Meter Bases.** Replace meter bases according to electrical service provider's requirements.
- 5.52. **Replace Time Clocks.** Replace time clocks.
- 5.53. **Replace Breaker Panel.** Replace breaker panel.
- 5.54. **Install or Replace Circuit Breaker.** Install or replace circuit breakers.
- 5.55. **Replace Flexible Power Cable or Cord.** Replace flexible power cable or cord.
- 5.56. **Replace Twist Lock Connectors.** Replace twist lock connectors.
- 5.57. **Replace Safety Lanyard.** Replace safety lanyard.
- 5.58. **Raise and Lower Ring (High Mast Lighting).** Raise and lower ring in order to perform various maintenance and repair items.
- 5.59. **Restrap Existing Conduit.** Restrap existing conduit in accordance with the details shown on the plans or as directed.
- 5.60. **Replace Missing Nuts, Washers, and Other Hardware.** Replace missing nuts washers, and other miscellaneous hardware.
- 5.61. **Troubleshoot for Repairs.** Troubleshoot location as directed to identify work needed for repairs.
- 5.62. **Project Inspections.** Inspect and review the project to determine if any items are in need of repair and provide the Engineer with a list of these items. Make repairs to those items as approved. All repairs will be paid for by their respective pay items.
- 5.63. **Install or Replace Safety Switch.** Install or Replace Safety Switch.
- 5.64. **Replace 5/16 in. Wire Rope.** Replace 5/16 in. wire rope with swaged terminals.
- 5.65. **Replace 3/8 in. Wire Rope.** Replace 3/8 in. wire rope with swaged terminals.
- 5.66. **Replace High Mast Winch.** Replace high mast winch.

- 5.67. **Replace Wire Rope Pulley.** Replace wire rope pulley.
- 5.68. **Replace Electrical Cable Pulley.** Replace electrical cable pulley.
- 5.69. **Install or Replace Access Hole Cover.** Replace damaged or missing access covers on existing high mast poles.
- 5.70. **Replace High Mast Springs.** Replace high mast spring set.
- 5.71. **Remove and Reinstall High Mast Pole for Repairs.** Remove and reinstall high mast pole from the foundation to perform any repairs to internal components.

6. MEASUREMENT

This Item will be measured as follows.

- 6.1. **Conduit.** By the foot of conduit installed, removed, or replaced. This will include the installation of all hardware necessary to attach and connect the conduit, and any excavation, backfill and compaction.
- Install Above-Ground Conduit
 - Remove Above-Ground Conduit
 - Replace Above-Ground Conduit
 - Install Underground Conduit
 - Remove Underground Conduit
 - Replace Underground Conduit
- 6.2. **Electrical Conductors.** By the foot of electrical conductor installed, removed, or replaced.
- Install Conductor
 - Remove Conductor
 - Replace Conductor
- 6.3. **Tray Cable.** By the foot of tray cable installed, removed, or replaced.
- Install Tray Cable
 - Remove Tray Cable
 - Replace Tray Cable
- 6.4. **Duct Cable.** By the foot of duct cable installed, removed, or replaced. This will include excavation, backfill, and compaction.
- Install Duct Cable
 - Remove Duct Cable
 - Replace Duct Cable
- 6.5. **Conduit or Duct Cable Repair and Conductor Splices.**
- Install Electrical Splice. By each electrical splice installed per conduit.
 - Repair Above-Ground Conduit. By each conduit location repaired. This will include the installation of all hardware necessary to attach and connect the conduit
 - Repair Underground Conduit. By each conduit location repaired. This will include excavation, placement of conduit, backfill and compaction.
 - Repair Underground Duct Cable. By each duct cable location repaired. This will include excavation, placement of duct cable, backfill and compaction.
- 6.6. **Road Bore.** By the foot of road bore. This will include conduit installed.

- 6.7. **Install, Remove, or Replace Roadway Illumination Assembly.** By each assembly installed, removed, or replaced. This item includes all wiring and hardware connections above the foundation.
- Install Roadway Illumination Assembly (HPS)
 - Remove Roadway Illumination Assembly (HPS)
 - Replace Roadway Illumination Assembly (HPS)
 - Install Roadway Illumination Assembly (LED)
 - Remove Roadway Illumination Assembly (LED)
 - Replace Roadway Illumination Assembly (LED)
- 6.8. **Install, Remove, or Replace Underpass Luminaire.** By each luminaire installed, removed, or replaced.
- Install Underpass Luminaire (HPS)
 - Remove Underpass Luminaire (HPS)
 - Replace Underpass Luminaire (HPS)
 - Install Underpass Luminaire (LED)
 - Remove Underpass Luminaire (LED)
 - Replace Underpass Luminaire (LED)
- 6.9. **Install, Remove, or Replace Induction Fluorescent Fixture.** By each fixture installed, removed, or replaced.
- Install Induction Fluorescent Fixture
 - Remove Induction Fluorescent Fixture
 - Replace Induction Fluorescent Fixture
- 6.10. **Install, Remove, or Replace Luminaire.** By each luminaire installed, removed, or replaced.
- Install Luminaire (HPS)
 - Remove Luminaire (HPS)
 - Replace Luminaire (HPS)
 - Install Luminaire (LED)
 - Remove Luminaire (LED)
 - Replace Luminaire (LED)
- 6.11. **Replace High Mast Luminaires.** By each high mast luminaire replaced.
- 6.12. **Replace Luminaire Pole.** By each pole replaced.
- 6.13. **Replace Luminaire Arms.** By each luminaire arm replaced.
- 6.14. **Maintain Roadway Illumination.** By each luminaire pole maintained.
- 6.15. **Maintain High Mast Illumination.** By each high mast pole maintained.
- 6.16. **Maintain Overhead Sign Lighting.** By each sign light maintained.
- 6.17. **Maintain Underpass Fixture.** By each underpass fixture maintained.
- 6.18. **Maintain Induction Fluorescent Fixture.** By each induction fluorescent fixture maintained.
- 6.19. **Scheduled Preventive Maintenance (Roadway Illumination Assembly).** By each roadway illumination pole. (Replacing lamp and ballast is subsidiary to this bid item.)
- 6.20. **Scheduled Preventive Maintenance (High Mast Assembly).** By each high mast pole regardless of the number of luminaires on the ring. (Replacing lamps and ballast is subsidiary to this bid item.)

- 6.21. **Replace Electrical Service.** By the each electrical service replaced.
- 6.22. **Replace Service Pole (Timber, Steel, or Concrete).** By each service pole replaced.
- Replace Timber Service Pole
 - Replace Steel Service Pole
 - Replace Concrete Service Pole
- 6.23. **Install Ground Box.** By each ground box installed.
- Install Ground Box
 - Install Ground Box w/ Apron
- 6.24. **Remove Ground Box.** By each ground box removed.
- 6.25. **Install Foundation.** By each foundation installed.
- 6.26. **Remove Foundation.** By each foundation removed.
- 6.27. **Replace Transformer Base.** By each base replaced.
- 6.28. **Replace Transformer Base Cover.** By each cover replaced.
- 6.29. **Replace Hand Hole Cover.** By each cover replaced.
- 6.30. **Install Ground Rod.** By each ground rod installed.
- 6.31. **Replace Ballast.** By each ballast replaced.
- 6.32. **Replace Ballast (High Mast Lighting).** By each high mast ballast replaced.
- 6.33. **Install or Replace Fused Disconnect.** By each fused disconnect installed or replaced.
- Install Fused Disconnect
 - Replace Fused Disconnect
- 6.34. **Replace Lamp Socket.** By each lamp socket replaced for pole mounted, underpass, and wall pack fixtures.
- Replace Lamp Socket for pole mounted fixtures
 - Replace Lamp Socket for underpass fixtures
 - Replace Lamp Socket for wall pack fixtures
 - Replace Lamp Socket for high mast fixture
- 6.35. **Replace Lamp.** By each lamp replaced for pole mounted, underpass, and wall pack fixtures.
- Replace Lamp for pole mounted fixtures
 - Replace Lamp for underpass fixtures
 - Replace Lamp for wall pack fixtures
- 6.36. **Replace Lamp (High Mast Lighting).** By each lamp replaced.
- 6.37. **Replace Wall Pack Luminaire.** By each wall pack replaced.
- 6.38. **Replace Lens.** By each lens replaced
- Replace Lens for pole mounted fixture
 - Replace Lens for underpass fixture
 - Replace Lens for wall pack fixture

- Replace Lens for high mast fixture
- 6.39. **Replace Wall Pack Guard.** By each guard replaced.
- 6.40. **Replace Fuse.** By each fuse replaced.
- 6.41. **Replace Fuse Holder.** By each fuse holder replaced.
- 6.42. **Replace Breakaway Fuse Holder.** By each breakaway fuse holder replaced.
- 6.43. **Replace Starting Aid.** By each starting aid replaced.
- 6.44. **Replace Photocell and Bracket.** By each photocell and bracket replaced.
- 6.45. **Replace Control Transformer.** By each transformer replaced.
 - Replace Control Transformer for High Mast
 - Replace Control Transformer for Electrical Service
- 6.46. **Replace Control Circuit.** By each control circuit replaced.
 - Replace Control Circuit for High Mast
 - Replace Control Circuit for Electrical Service
- 6.47. **Replace Aviation Warning Fixture.** By each obstruction fixture replaced.
- 6.48. **Replace Aviation Warning Lamp.** By each obstruction lamp replaced.
- 6.49. **Replace Hand-Off-Auto Switch.** By each H-O-A control switch replaced.
- 6.50. **Replace Contactor.** By each electromagnetic contactor replaced.
- 6.51. **Replace Meter Base.** By each meter base replaced.
- 6.52. **Replace Time Clock.** By each time clock replaced.
- 6.53. **Replace Breaker Panel.** By each breaker panel replaced.
- 6.54. **Install or Replace Circuit Breaker.** By each circuit breaker installed or replaced.
 - Install Circuit Breaker
 - Replace Circuit Breaker
- 6.55. **Replace Flexible Power Cable or Cord.** By foot of cable or cord replaced.
- 6.56. **Replace Twist Lock Connector.** By each twist lock connector replaced.
- 6.57. **Replace Safety Lanyard.** By foot of chain replaced. Associated hardware is considered subsidiary to this item.
- 6.58. **Raise and Lower Ring (High Mast Lighting).** By each ring raised and lowered (not part of scheduled preventive maintenance).
- 6.59. **Restrap Existing Conduit.** By each strap installed.
- 6.60. **Replace Missing Nuts, Washers, and Other Hardware.** By each nut, washer, or miscellaneous hardware replaced.

- 6.61. **Troubleshoot for Repairs.** By the man-hour of troubleshooting.
- 6.62. **Project Inspections.** By the month.
- 6.63. **Install or Replace Safety Switch.** By each safety switch installed or replaced.
 - Install Safety Switch
 - Replace Safety Switch
- 6.64. **Replace 5/16 in. Wire Rope.** By each 5/16 in. wire rope with swaged terminals replaced.
- 6.65. **Replace 3/8 in. Wire Rope.** By each 3/8 in. wire rope with swaged terminals replaced.
- 6.66. **Replace High Mast Winch.** By each winch replaced.
- 6.67. **Replace Wire Rope Pulley.** By each wire rope pulley replaced.
- 6.68. **Replace Electrical Cable Pulley.** By each electrical cable pulley replaced.
- 6.69. **Install or Replace Access Hole Cover.** By each access cover installed or replaced.
 - Install Access Hole Cover
 - Replace Access Hole Cover
- 6.70. **Replace High Mast Springs.** By each high mast spring set replaced.
- 6.71. **Remove and Reinstall High Mast Pole for Repairs.** By each high mast pole removed and reinstalled.

7. **PAYMENT**

The work performed and the materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit prices bid for the various designations. This price is full compensation for furnishing all material, equipment, labor, fines, tools, and incidentals necessary to complete the work.

Lane closures will be paid for under Special Specification "Lane Closures."

Special Provision to Item 502

Barricades, Signs, and Traffic Handling



For this project, Item 502, "Barricades, Signs, and Traffic Handling," of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Article 502.2., "Construction," is supplemented by the following:

Provide the traffic control described below and as shown.

Type	Description	Unit
1	1 Lane Closure – 2 Lane Road, No Shoulders - TCP(2-2b)	HR
2	1 Lane Closure – 2 Lane Road, Paved Shoulders – TCP(1-3), TCP (2-3a) Shoulder Closure – 2 Lane Road, Paved Shoulders –TCP (2-1)	HR
3	Lane Closures – Multilane Conventional/Divided Highways – TCP(2-4), TCP(2-6), and TCP(1-5)	HR
4	Freeway Lane Closures (includes closure of necessary Entrance and Exit ramps) – TCP(6-1) thru TCP(6-5)	HR
5	Freeway Lane Closures (includes closure of necessary Entrance and Exit ramps) – TCP(6-1) thru TCP(6-7)	HR

Article 502.3., "Measurement," is voided and replaced by the following:

502.3. Measurement.

Barricades, Signs, and Traffic Handling, Furnish Additional Truck Mount Attenuator, Furnish Additional Port Changeable Message, and Furnish Additional Arrow Board will be measured by the hour.

Article 502.4., "Payment," is voided and replaced by the following:

502.4. Payment. The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid at the unit price bid for "Barricades, Signs, and Traffic Handling" of the type specified, "Furnish Additional Truck Mount Attenuator", "Furnish Additional Port Changeable Message", and "Furnish Additional Arrow Board". This price is full compensation for installation, maintenance, adjustments, replacements, removal, materials, equipment, labor, tools, and incidentals, except as paid for under Item 510.

FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY
SPECIAL PROVISION TO ITEM 9
MEASUREMENT AND PAYMENT

Item 9, "Measurement and Payment," of the Texas Department of Transportation Standard Specifications is hereby amended with respect to the clauses cited below. No other clauses or requirements are waived or changed.

Section 9.7.1.1., "Labor", is revised to read in its entirety as follows:

Compensation will be made for payroll rates for each hour that the labor and foremen or others approved by the Engineer are actually engaged in the work. In no case will the rate of wages be less than the minimum shown in the Contract for a particular category. An additional 15% of this sum will be paid as compensation for overhead, superintendence, profit, and small tools.

Section 9.7.1.2., "Insurance and Taxes", is revised to read in its entirety as follows:

An additional 55% of the labor cost, excluding the 15% compensation provided in Section 9.7.1.1., "Labor", will be paid as compensation for labor insurance and labor taxes including the cost of premiums on non-project specific liability (excluding vehicular) insurance, workers compensation insurance, Social Security, unemployment insurance taxes, and fringe benefits.

Section 9.7.1.3., "Materials", is revised to read in its entirety as follows:

Compensation will be made for materials associated with the work based on actual delivered invoice costs, less any discount. An additional 15% of this sum will be paid as compensation for overhead and profit.