

TECHNICAL SPECIFICATIONS

ITEM 00687 FLASHER ASSEMBLY INSTALLATION

687.1 Description. The purpose and intent of this specification is for the Contractor to furnish all labor, materials, tools, equipment, tests, adjustments and all other incidentals necessary to install school zone flasher assemblies and warning flasher assemblies.

687.2 General. All bidders shall visit the job site prior to bidding, only if drawings are made available, in order to acquaint themselves with all job site conditions and problems, if any, and all other factors that may affect the bid. Any discrepancy between drawings and specifications shall be resolved prior to bidding.

The Contractor shall clean the job site of all debris, loose excess excavated material, etc. accumulated as a result of work performed under this contract. The Contractor shall exercise care in working around the area not to infringe on or mutilate property. The Contractor shall be responsible for any such infringement or mutilation. It is the Contractor's responsibility to restore the construction area to its original condition prior to final acceptance and payment. The Contractor shall remove any excess excavated material from the job site.

All trades are to work in cooperation with one another, and all trades, when necessary and/or as standard procedure, shall construct preliminary grounds for work to be performed by succeeding trades. It is the General Contractor's responsibility to see that all work is properly coordinated and executed.

Any Contractor having any questions concerning this project should contact The City of La Porte 281-471-5020.

687.3 Materials and Equipment. All materials and equipment furnished for installation under this contract shall be **new and unused, unless otherwise specified**. The Contractor shall install all school zone flashing signals in accordance with this specification, any and all applicable special specifications or special provisions associated with this project, and in accordance with referenced standard specifications and details as indicated below.

- A. Solar School Zone Flasher Systems. Reference Standard Specifications, Items 00624, 00648, 00683, 00688, 00690 (Polycarbonate), and 01235.
- B. AC School Zone Flasher Systems. Reference Standard Specifications, Items 00624, 00648, 00677, 00679, 00683, 00690 (Polycarbonate), and 00688.

All control equipment shall conform to appropriate ITE and NEMA Specifications and shall be furnished and installed in accordance with the drawings and specifications.

687.4 Permits, Codes, Etc. The Contractor shall be responsible for obtaining permits and inspections by regulatory bodies and shall work with the City of La Porte in obtaining power to the system from the local power utility company and notify the City of La Porte 48 hours prior to connecting the system to the local power utility company lines.

All required meter service assemblies shall be installed by the Contractor as required by the local power utility company at the Contractor's expense, unless otherwise specified and/or shown on the construction drawings.

All wiring throughout this system shall be in strict accordance with the National Electrical Code, all local applicable codes and shall also comply with all requirements of the CenterPoint Energy, in

order that service may be obtained from them. All costs for code compliance are to be included in the bid for this contract.

All construction will be in accordance with the "Texas Manual on Uniform Traffic Control Devices for Streets and Highways", (TMUTCD), and in accordance with the specifications and drawings.

687.5 All items installed under this specification, having a manufacturer's guarantee shall be installed by or under the direction of the manufacturer or his certified agent. The Contractor shall follow the manufacturer's installation procedures. It is the Contractor's responsibility to procure the installation procedures before bidding the project.

687.6 Barricades and Construction Signs. The Contractor shall furnish and install permanent and/or portable construction signs on all approaches to the project as shown on the drawings and as required by TMUTCD and City of La Porte Specification Items 00670 and 00671. All required construction signs shall be installed and in place when the Contractor is on the job site.

Closing of lanes for construction shall be done in strict accordance with the TMUTCD and as shown on the drawings. Prior to closing any section of roadway to traffic, the Contractor shall furnish and install barricades and warning signs in accordance with the "Texas Manual on Uniform Traffic Control Devices for Streets and Highways", (TMUTCD), and in accordance with Standard Specification Items 00670 and 00671.

687.7 Responsibility for Damage or Claims.

The Contractor shall hold harmless the City and its representatives from all suits, actions, or claims of any character filed as a result of injuries or damages sustained by any person or property due to neglect in safeguarding the work, the use of unacceptable materials in the execution of the contract, or any act of omission by the Contractor or his Sub-Contractors. The Contractor shall not be released from responsibility until the contract has been completed and all work accepted. Money due the Contractor under and by virtue of his contract may be retained by the City or his surety may be held until such claims have been settled and suitable evidence to that effect furnished to the City.

Unless otherwise set forth in these specifications, the Contractor shall receive no direct compensation for furnishing, erecting, and maintaining the necessary barricades, lights, flares, signs, or for any other incidentals necessary for the good and proper safety, convenience, and direction of traffic during the period prior to final inspection and acceptance by the City.

687.8 Operation and Maintenance Responsibilities. The Contractor shall accept responsibility for operation and maintenance of the flasher system beginning on the date work commences on the project through the date of final acceptance and payment of the project. Operation and maintenance responsibilities shall include, as a minimum, initiating emergency response for evaluation and, if necessary, for emergency repair operations, on the job site a maximum of 4 hours after notification by the City of La Porte of a reported system failure or malfunction. The Contractor shall pursue emergency response and repair operations with all haste in order that flashers down time will be kept to absolute minimum. In the event the Contractor fails to respond within 4 hours, the City of La Porte reserves the right to pursue the repair operations and forward all associated bills for providing this service to the Contractor for reimbursement. The City of La Porte will also inform the Contractor's bonding company of these incidents.

687.9 Guarantee. Excluding lamps, the contractor's acceptance of this contract guarantees all workmanship performed and/or materials and/or equipment furnished and installed shall be warranted for a period of two year from date of final acceptance and payment for the project. All LED lamps furnished and installed by the contractor shall be guaranteed for workmanship and performance for a period of no less than five years from the date of final acceptance and payment for the project. All incandescent lamps furnished and installed by the contractor shall be

guaranteed for workmanship and performance for a period of no less than 180 days from the date of final acceptance and payment for the project, excluding lamps. When warranty repairs are required, the Contractor shall initiate emergency repair service operations on the job site a maximum of 4 hours after notification by the City of La Porte of system failure or malfunction. The Contractor shall pursue repair operations with all haste in order that signal down time will be kept to absolute minimum. In the event the Contractor fails to respond to a request for warranty repairs within 4 hours, the City of La Porte will pursue the repair operations and forward the bills to the Contractor for reimbursement and inform his bonding company. Vandal damage and damage due to automobile accidents or acts of nature shall not be included under Contractor's guarantee. The Contractor shall sign the inspection sheet on all warranty calls.

687.10 Substitute Materials. Set forth in these specifications are definite models, materials, etc.; however, items of equal appearance, durability, performance and design will be accepted upon approval of the City of La Porte. The successful bidder is required to submit to the City of La Porte, engineering brochures and information on all materials he desires to furnish and install which are of different manufacturer or model number than specified herein. The submittal is for approval or disapproval by the City Engineer. In the event approval is not obtained, the specified items shall not be furnished and installed. The submittals shall be furnished not later than two (2) days after bid opening.

It is the Contractor's responsibility to verify these locations prior to commencing work and to insure that these locations do not result in conflicts with and/or damage to existing utilities. To this end, the Contractor shall, as a minimum, contact Texas One Call at 1-800-245-4545 a minimum of 72 hours before commencing any work in the construction area. It is the Contractor's responsibility to physically locate any electrical, communications, sewer, water, gas, of other utilities and to adjust the location of any foundations(s) as necessary to avoid damage to any existing utilities.

687.11 Field Test. All flasher assemblies installed by the Contractor shall be field tested. The contract shall not be considered complete until all the flasher assemblies have been field tested for ten (10) consecutive days without failure and/or malfunction, and to the satisfaction of the City of La Porte. Should a failure and/or malfunction occur within the 10 day test period, the test period shall be extended until the flasher assemblies have operated successfully for ten (10) consecutive days.

687.12 Special Notes

- A. A pre-construction meeting shall be scheduled by the City after award of contract, and prior to commencement of construction. The Contractor or his authorized representative will be required to attend.
- B. All work in this contract shall be performed between the hours of 8:30 a.m. and 4:30 p.m., Monday through Friday, unless prior authorization has been obtained from the City Engineer.
- C. Contractor shall notify the City of La Porte at 281-471-5020 a minimum of 24 hours prior to commencement of work so that an inspector may be assigned.
- D. The "Service Outlet Location and Data Statement" for these flashers will be supplied to the Contractor upon receipt from local power utility company.
- E. All flashing beacon heads shall be wrapped with burlap or an approved equal cover so that signal faces cannot be seen from the time of installation until placed into operation.
- F. The Contractor shall inform the City of La Porte at 281-471-5020 a minimum of 48 hours prior to placing a flasher into operation. Turn-ons shall be scheduled for Monday through Thursday during off-peak traffic periods only.

687.13 Miscellaneous

- A. Submittals. The City of La Porte traffic and Transportation Section will supply the Contractor with the drawings of the proposed improvements. Upon receipt of the drawings, the Contractor shall within two calendar days furnish the City with a copy of purchase orders, invoices, etc., with the estimated date of delivery.
- B. Time for Installation. The contractor will have five calendar days to install flashers from the time they receive their materials.
- C. Contract Duration. This contract shall be completed when the maximum expenditure is met. It is anticipated that this will occur within the designated period from the date of the purchase order.
- D. Units Assemblage. The contractor shall be required to assemble the items that are supplied to manufacture's specifications or inspector's satisfaction.
- E. Lane Closure(s). Lane Closure(s) shall be addressed with lane closure details, which will be provided to the declared winning bid.
- F. Sign Removal. Sign removal is incidental to the installation of flashers and new signs.
- G. Pedestal Pole. Poles shall be installed in accordance with drawings and Item 00683 "Traffic Signal Supports Pedestal Poles".

687.14 Measurement and Payment. The measurement and payment shall be by the lump sum bid or unit price bid as they appear on the bid sheets for the completed contract, which bids shall be for full compensation for all costs of labor, materials, tools, equipment, test, adjustments, and all other incidentals necessary to construct the complete traffic signal system, excluding all other items shown in the bid sheets in accordance with the specifications and drawings and to the satisfaction of the City Engineer.