ITEM 680.99210011 - JTMC PREPARATION

DESCRIPTION:

This work shall consist of preparing the Joint Traffic Management Center (JTMC) for the installation, modification, and reconfiguration of central equipment and reconfiguration of the existing central control software to accommodate ITS equipment removals, relocation, and reconstruction in the field in accordance with the Contract Documents or as directed by the Engineer. The JTMC is located at 28-11 Queens Plaza North, Long Island City, New York.

Excluded from this item is the installation of specific transceiver pairs shown on the contract plans as separate bid items.

MATERIALS:

All material furnished, assembled, fabricated or installed, shall be new, corrosion resistant and in strict accordance with the details shown in the Contract Documents.

All central equipment furnished, installed or reconnected during the entire construction stages shall be configured and managed by the existing central software, and shall report alarm status to the central control software.

All cabling, connectors, distribution amplifiers and incidentals required for the integration and modification of the central equipment and for the reconfiguration of the existing central control software shall be supplied and installed by the contractor to ensure the ITS system remains in service during the entire project. All cabling shall be plenum rated and shielded. All cables, plugs and connectors shall be labeled and keyed to preclude improper connection.

All connectors shall be preassembled onto the cables. Installation of connectors on site is not permitted unless authorized on a case by case basis by the Engineer.

CONSTRUCTION DETAILS:

The JTMC central equipment consists of SONET equipment, communications interfaces, and video equipment housed in electronic equipment cabinets to support the existing ITS field equipment in operation. As part of this item, the central equipment shall be installed, reconfigured and/or reconnected in the existing equipment cabinets to accommodate removal, reconstruction and relocation of ITS field equipment (including temporary ITS equipment installations) during construction stages under this contract. The existing central control software shall also be reconfigured accordingly to provide control and monitoring of ITS field equipment with the advances of construction staging as shown on the Contract Documents.

All work under this item shall be closely coordinated with the Engineer and scheduled to minimize impact on the operations of the JTMC. The Contractor shall provide at least five (5) working day notice to the Engineer prior to the start of work in JTMC.

Specific Requirements:

The Contractor shall verify channel assignments and data communications of existing ITS field equipment
prior to any JTMC reconfiguration. The Contractor shall notify the Engineer of any anomalies. The Engineer will determine what action, if any, shall be taken. Once system reconfiguration starts, the Contractor shall be responsible for any repair at no cost to the State for any anomalies in the operation of the existing ITS subsystems (e.g., CCTV, Radar Detectors) not previously reported to the Engineer.

The Contractor shall relocate existing central equipment within the designated racks to accommodate the installation of new equipment, if any. Any existing equipment that will not be used at a certain construction stage shall be protectively packaged against static, bumps and vibration during transportation and storage, boxed, labeled with serial numbers and turned over to the Engineer for storage.

The Contractor shall reroute, modify, or add all necessary cabling between the existing SONET equipment and the existing MPEG Video Codecs, video matrix switch, DIGI port server, network switches, workstation servers, etc. to provide signal connection to accommodate the installation, removing, and relocation of ITS field equipment (temporary ITS equipment installations) during all construction stages.

The Contractor shall provide replacement cable where the existing cable is not of sufficient length to connect the equipment. All cables, plugs, and connectors shall be labeled and keyed to preclude improper connection. The use of ribbon cables between the equipment is not acceptable unless the cables are shielded and have an extra layer of heavy duty protection.

All cabling shall be neatly routed, tied back and tagged at 12 in. intervals indicating the function of the cable, the origin, and the destination. Cables shall clearly indicate which direction to trace to reach each termination.

**Control Software Reconfiguration**

Reconfiguration of the central control software shall include configuration of equipment ports, reestablishment of operating modes, and modification of database to reflect equipment additions, setting changes and removals.

**Testing**

In addition to the testing requirements defined in the special notes, the following testing shall be performed:

**Remote Video Switching Verification Test**

From the existing master control panel at the JTMC, demonstrate that input video and data from each of the newly installed cameras reporting to the matrix video switcher, including portable CCTV cameras, can be selected, controlled and routed to any of the outputs of the matrix video switcher. The video detection and alarm status for existing cameras not altered by the construction shall continue to be displayed and the data communications shall not be affected.

If a failure occurs the equipment shall be repaired and the test shall be rerun. If a component has been modified to correct a failure, that component shall be replaced in all like units and the test shall be rerun for each unit. In the event of a failure of equipment or software installed by others, testing will be stopped for the affected portion of the system until the problem is corrected.
METHOD OF MEASUREMENT:
This work will be measured for payment on a lump sum basis.

BASIS OF PAYMENT:
The lump sum bid for JTMC Preparation shall include the cost of furnishing all labor, materials, and equipment necessary to complete the work, with exception of installation of transceiver pairs shown on the contract plans as separate bid items.

Progress payment will be made as follows:
- Fifty percent of the lump sum bid price for JTMC preparation will be paid upon the completion of control software modifications and remote video switching verification tests.
- Forty percent of the lump sum bid price for JTMC preparation will be paid following successful completion of the central site verification test.
- Ten percent will be paid upon system acceptance.