

DESCRIPTION

This work shall consist of the miscellaneous repairs of the bridge control system including removing, furnishing and installing the electric clock, the limit switch trip plates, the position indicators and miscellaneous equipment in accordance with the contract documents and as directed by the Engineer.

MATERIALS

A. Limit Switch Fabricated Trip Plate. Materials for the fabrication of the trip plates for the fully seated limit switches shall meet the requirements of the following New York State Standard Specifications:

Structural Steel 715-01

CONSTRUCTION DETAILS

This work shall be in accordance with the applicable requirements of the latest edition of the following codes and standards:

1. National Fire Protection Association, National Electrical Code (NEC)
2. New York State Department of Transportation Standard Specifications
3. National Electrical Contractors Association, NECA 1, Standard Practices for Good Workmanship in Electrical Contracting.

Basis of Acceptance

All shop drawings submitted shall follow the general guidelines and procedures given in the New York State Steel Construction Manual. No installation or rehabilitation work may take place until the shop drawings and procedures have been approved by the Engineer.

The work for the control system repairs shall include, but not be limited to, the following:

A. Removal.

The Contractor shall remove all existing equipment, devices and appurtenances required for replacement. All removed equipment shall become properties of the Contractor and shall be properly disposed of away from the construction site.

B. Limit Switch Trip Plate.

The Contractor shall:

- a. Measure and record the exact dimensions of the existing trip plate at each location and prepare working drawings for the fabrication of the trip plates based upon the measured data.
- b. Remove existing limit switch trip plates.
- c. Grind smoothly the surface of the existing steel and weld new fabricated trip plates to the existing steel as shown in plans.
- d. Prime and paint the trip plates and the working surface of the existing steel with a corrosion-resistant paint coating.
- e. Adjust existing fully seated limit switches as necessary to provide a smooth seating of the span at its fully closed position.
- f. Coordinate this work with other work of the project.

C. Position Indicator.

The Contractor shall:

- a. Furnish the position indicators and transmitters for the replacement of the existing equipment as shown in plans.
- b. Remove the existing position indicators and transmitters from the existing control console and the machinery respectively.
- c. Repair the opening from the removed indicators on the console to fit the replacing indicators.
- d. Install the replacing position indicators at locations as shown. All necessary modifications to the existing mounts, supports, attachments, gearing, hardware shall be furnished to properly install the assembly.
- e. Adjust and test the position indicators through at least two complete runs of the bridge to ensure the proper indication of the span angular position. If any test has failed, the Contractor shall make corrections and repeat the testing sequence until the operation of the indicators is satisfactory to the Engineer.
- f. Coordinate this work with other work of the project.

D. Electric Clock.

The Contractor shall replace the mal-functional electric clock on the control desk with a factory sealed, self-starting, synchronous, electric clock. The input to the clock shall be 120 volts AC. The existing mount shall be modified as necessary to properly install the new clock.

METHOD OF MEASUREMENT

This work will be measured for payment on a lump sum basis.

BASIS OF PAYMENT

The lump sum price bid shall include the cost of furnishing all labor, materials, and equipment necessary to satisfactorily complete the work, including the cost of the removal of existing equipment.