

ITEM 552.2700--25 - ACCESS FOR ENGINEER'S INSPECTION AND CONTRACTOR'S WORK

1. DESCRIPTION:

- 1.01 Under this work, the Contractor shall provide access for his use, and the Engineer's close-up inspection of the work to be performed, below the structural bridge deck. The Contractor shall be able to choose the type of access that would fit the scope of the project.

2. MATERIALS:

- 2.01 The scaffolding, platform or shielding system provided shall be designed and fabricated to meet all applicable Federal and Local Laws and to satisfy the OSHA requirements. The Contractor's design for the scaffolding shall be approved by the Engineer prior to its installation.

3. CONSTRUCTION DETAILS:

- 3.01 The Contractor shall choose the means of access to be used in order to complete the contract work. Included in this work is all required safety equipment to comply with OSHA regulations.
- 3.02 The Contractor shall submit detailed shop drawings of the access system to the Engineer for approval. The drawings shall be prepared and stamped by a registered New York State Licensed Professional Engineer. The drawings shall depict all structural details and display the total access area to be installed.
- 3.03 The drawing submittal shall detail the proposed access system and include the following information:
- A. Plan and elevation of the access system in relation to the bridge structure.
 - B. The type of floor or platform to be used with all appropriate safety and fall protection measures. A description of the method that will be used to provide worker access to the system (personnel lifts, scaffolds, etc.), and the procedures and equipment that will be used to protect workers from falls shall be specified (OSHA Safety and Health Requirements, 29 CFR 1926). If a barge or another type of floating platform is used, include details regarding its construction, such as materials and dimensions, how the platform will be tied-off, how debris will be collected and off-loaded, etc.
 - C. The method by which the access system will be supported or attached to the bridge, i.e., rollers, clamps. Welding, bolting, or similar connections will not be allowed.
 - D. A design analysis of the loads imposed on the access system including: maximum dead loads (all necessary equipment) and maximum worker live loads; maximum allowable load for the floor and system; wind loads imposed on the access system; and, maximum wind velocity that the access system is designed to withstand.
 - E. A design analysis of all loads imposed on the bridge structure shall also be completed, including; the access system dead loads, worker live loads, equipment loads, construction vehicular loads, wind loads, bridge structure dead load and live load plus the impact, etc. Except as noted, the analysis shall use the loadings and design assumptions in the AASHTO Standard Specifications for Highway Bridges.

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3. CONSTRUCTION DETAILS: (cont'd)

3.03 (cont'd)

- F. Provide details on how the access system is assembled and disassembled and moved to a new location on the bridge structure as Contract work progresses. All other pertinent details relating to the access system shall be included with the shop drawings as noted or as written narrative.
- G. Provide details on how the installation and/or use of the access system will be coordinated with the maintenance and protection of traffic. Encroachments onto roadways, and/or clearances over waterways shall be clearly identified. Structures that span a navigable waterway may be subject to regulation by the U.S. Coast Guard, the U.S. Army Corps of Engineers, the NYS Thruway Authority/Canal Corporation, and the NYS Department of Environmental Conservation. Additional details regarding these regulations may be provided within the Contract Proposal.

3.03 The schedule of the proposed access system installation shall be submitted to the Engineer for approval.

3.04 Any avoidable damage to the existing bridge structure caused by the Contractor's installation or removal operations of the access system shall be repaired and paid for by the Contractor at his expense.

4. METHOD OF MEASUREMENT:

4.01 Payment will be made at the lump sum price bid.

5. BASIS OF PAYMENT:

5.01 The lump sum price bid shall include the cost for preparing the shop drawings, and all labor, materials and equipment necessary to complete the work. All work shall be done in a manner satisfactory to the Engineer.

5.02 Progress payments shall be made based on the percent of areas accessed, in square yards, installed and removed. The following formulas shall apply:

- Installed areas: $0.7 \times \text{Area of access system installed} / \text{Total Area to be installed}$.
- Removed area: $0.3 \times \text{Area of access system removed} / \text{Total Area to be installed}$.

The "Total Area to be Installed" shall be clearly shown on the approved shop drawings for this item. Payment shall only be made once for an access system installed multiple times to a certain portion of the underbridge area. Any system reinstallation necessary is at the Contractor's cost.