

- ITEM 564.7501NN04 - STRUCTURAL STEEL REPAIR, TYPE I
- ITEM 564.7502NN04 - STRUCTURAL STEEL REPAIR, TYPE II
- ITEM 564.7503NN04 - STRUCTURAL STEEL REPAIR, TYPE III
- ITEM 564.7504NN04 - STRUCTURAL STEEL REPAIR, TYPE IV

**DESCRIPTION.** Under this item the Contractor shall perform repair work to the existing structural steel where indicated on the plans. A Type I repair involves grinding, gouging, welding, and/or bending processes as defined in the contract documents. A Type II repair involves heat straightening, bending, and making/breaking connections by welding/bolting as defined in the contract documents. A Type III repair occurs at girder webs and may include such work as steel tear repair, crack repair, and/or other impact damage repair as defined in the contract documents. A Type IV repair occurs at bracing elements including diaphragms, connecting plates, stiffeners, etc, and may include crack repair, tear repair and/or other impact damage repair as defined in the contract documents.

**MATERIALS.** Materials for this work shall meet the requirements of the New York State Steel Construction Manual (SCM), the welding procedure specifically listed in the Special Notes and subsection 700 - Materials of the Standard Specifications.

Paint, as specified	708
Structural Steel	715-01
High Strength Bolts, Nuts & Washers	715-14
Painting Procedure	740

**CONSTRUCTION DETAILS.** See the contract documents for the repair procedure required for each location. The procedure specifies all welding work which shall be done in accordance with the provisions of the SCM. Unless otherwise specified in the contract documents, the SCM establishes the workmanship standards and standards of acceptance.

All testing of the finished repair shall be done by qualified technicians in accordance with the appropriate sections of the SCM and witnessed by a representative of the State. Ultrasonic Testing shall be performed by a New York state certified technician in accordance with the SCM. Written inspection reports documenting the results of all testing shall be provided to the EIC.

All existing paint shall be removed to a distance of 150 mm from any cut line, crack or any location to be heated prior to actual cutting, gouging or heating work being performed. All workers shall wear protective clothing and respirators as required by OSHA Regulations. No work shall be performed by unprotected workers.

All damage done to the structure while performing the necessary repairs shall be corrected to the satisfaction of the Engineer at the Contractor's expense.

**METHOD OF MEASUREMENT.** This work will be measured as the number of structural steel repairs performed in accordance with the plans. One repair shall be considered the work involved to complete the repair at one location shown on the plans. Removal and disposal of existing paint shall be paid under the appropriate contract items. Localized painting of the repair location, when required by the contract documents, shall be included in the price bid for this item.

**BASIS OF PAYMENT.** The unit price bid for each structural repair shall include the cost of furnishing all labor, materials, equipment, and non-destructive testing (including visual, magnetic particle, dye penetrant, and ultrasonic testing) necessary to complete the work.