

SPECIFICATIONS – JOB SPECIFIC

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Remove Subsection **105.02 PLANS AND SHOP DRAWINGS**, pages 1-32 and 1-33 of the RI Standard Specifications for Road and Bridge Construction in its entirety and replace with the following:

**SECTION 105.02
PLANS AND SHOP DRAWINGS**

Unless otherwise modified elsewhere in the Contract Documents, Section 105.02 of the Rhode Island Standard Specification for Road and Bridge Construction is revised as follows:

105.02 PLANS AND SHOP DRAWINGS. Plans shall be supplemented by Contractor-prepared Shop Drawings as necessary to control the Work and prosecution. Shop Drawings consisting of details that are not included in the Plans but required for the Work shall be furnished to the Department. Copies of any calculations required or used to prepare the Shop Drawings shall be furnished with the submission. Manufacturer's engineering data for prefabricated material, including that for falsework and forms shall be furnished with each set of Shop Drawings.

- 1) The Contractor shall submit to the Department for approval or documentation, the necessary Shop Drawings in a timely manner so as not to adversely affect the Contractor's accepted schedule. The Contractor shall not perform work for items requiring shop drawings before receiving approval of the corresponding Shop Drawings. This approval shall neither confer upon the State nor relieve the Contractor of any responsibility for the accuracy and completeness of the drawings, conformity with Contract requirements and successful completion of the Contract. Prior to approval of the Contractor's shop drawing, the Contractor bears all risk and all costs of delays for items related to the respective shop drawing.
- 2) Shop Drawings illustrate the Contractor's way it intends to carry out the design concepts contained in the Contract and are not part of the Contract. The Contractor's submission of a Shop Drawing represents to the Engineer that the Contractor (i) coordinated the Shop Drawing with the Contract; (ii) verified and measured the field dimensions and other information; (iii) calculated all details, construction and performance criteria; and (iv) reviewed and accepted the Shop Drawings as its means and methods.
- 3) Submission of Shop Drawings. All shop drawings shall be submitted in a timely fashion such that the Contractor's accepted schedule will not be adversely impacted by the submittal process.

Shop drawing submittals shall be via PDF files submitted electronically by the Contractor into the Department's web-based Project Management Portal (PMP), per RIDOT procedure posted in the Documents Tab. Each shop drawing submittal shall be accompanied by design computations, cuts from manufacturers' catalogs, and/or all other supporting technical bulletins and data. Upon the Department's request, once shop drawings have been approved or approved as noted, the Contractor shall submit for the record four (4) hard copy sets of shop drawings to the Department.

- a) All Shop Drawings shall be stamped by a Rhode Island Registered Professional Engineer. The stamping of Shop Drawings shall be in accordance with the applicable requirements of the Rhode Island Board of Registration for Professional Engineers, or other Boards of Professional Registration, as applicable.
- 4) **Approval of Shop Drawings** All shop drawings will be reviewed and returned to the Contractor for appropriate action within 14 calendar days from receipt of the submission or resubmission, or as detailed in the Contract.
- a) Shop drawings that are found to be erroneous, lacking required Professional Engineer stamps, lacking information necessary to control construction, or not in conformance with accepted design criteria will be rejected and returned to the Contractor. The Contractor shall address the Engineer's comments and resubmit revised shop drawings.
 - b) Shop drawings designated "Approved-As-Noted" may be used by the Contractor to commence corresponding work subject to satisfying the written conditions of the approval; such shop drawings shall be revised according to the notes (as applicable) and transmitted to the Engineer within fourteen calendar days of such approval.
- 5) There shall be no claims for additional payment by the Contractor, nor will there be an extension of time under Section 108.03 for delays resulting from resubmissions due to incomplete Shop Drawings; for the time taken by the Contractor to submit revised Shop Drawings caused by an erroneous submission; or by a previous submission either lacking the information necessary to control construction; or for not conforming to accepted design criteria. In addition, the Engineer's review time of the revised Shop Drawings will not constitute justification for an extension of time.
- 6) The Contract price includes the cost of furnishing all Shop Drawings, including resubmissions

SECTION 108.03

PROSECUTION AND PROGRESS

In accordance with **Section 108.03, PROSECUTION AND PROGRESS, Para. a., General Requirements, 1 Project Schedule Program**

The Schedule Level for this Contract is Schedule Level B.

**CODE 108.1000
PROSECUTION AND PROGRESS**

In accordance with Section 108.08, Failure to Complete on Time, Para. a., Phased Completion, Interim Completion and Substantial Completion the following defines the Interim and Substantial Completion Dates and Associated Liquidated Damages:

Substantial Completion: The project shall be completed within 60 days after the issuance of a notice to proceed.

All Contract work shall be completed, as defined by Section 101.71.

Liquidated Damages: \$2,000 per calendar day.

CODE 824.9901
TYPE 2, TYPE 2A STRUCTURAL STEEL WELD REPAIRS

DESCRIPTION: This work shall consist of repairing cracks in beam/girder webs and/or connection plate welds all as indicated and detailed on the plans or as directed by the Engineer. The work under this item shall include NDT testing, removing and disposing portions of existing structural steel; field drilling, grinding, welding, and painting portions of existing structural steel elements; local deleading (including proper personnel protection and collection & disposal of paint removed); surface preparation; any miscellaneous shields, staging, access, access equipment, scaffolding; temporary protective shielding for utilities; field measurements; shop drawings; and other incidental items required to finish this work, complete in place and accepted by the Engineer, in accordance with the Contract Documents and as specified in this Special Provision.

MATERIALS:

- All welding shall be performed in accordance with the latest edition of the ANSI/AASHTO/AWS D1.5 Bridge Welding Code.
- Weld electrodes shall be minimum Grade 60

CONSTRUCTION METHODS: The Contractor's operation shall be in accordance with the Maintenance and Protection of Traffic Plan included in the contract drawings and the restrictions noted in the TMP and Contract CS pages.

The Contractor shall retain the services of a certified testing agency to conduct visual inspection and non-destructive testing of existing cracks in structural steel members to accurately define the end of the crack. Dye-penetrant and/or magnetic particle testing will be required for the non-destructive testing. The costs for the testing and submission of reports shall be included for payment under this item. Once the limits of the crack have been identified by the testing, the Contractor shall remove the cracked portion of the weld by grinding or other suitable means. The surfaces shall then be prepared and welded as detailed on the drawings.

All areas shall be surfaced prepared as required prior to any testing. Payment for localized de-leading is included under this item of work. The removal and disposal of paint including the protection of personnel and the environment shall be in accordance with the latest Environmental Protection Agency and the RI Department of Environmental Management's regulations.

The areas shall be repaired prior to repainting existing structural steel as described elsewhere in the Contract Documents. Existing structural steel shall be painted in accordance with Section 825 of the Rhode Island Standard Specifications for Road and Bridge Construction, Amended 2018, including all revisions, except that the steel shall receive a primer suitable for direct exterior exposure without a finish coating. Payment for

the primer finish shall be considered incidental to and included for payment under this item of work.

The Contractor shall exercise due caution and take all necessary precautions to prevent damage to existing utilities. The Contractor shall design, furnish, fabricate, erect and remove temporary protective shielding to protect the existing utilities to the satisfaction of the Utility Company. The installation of temporary protection shall be in accordance with the Utility Company standard procedures and specifications, and shall be considered incidental to this item of work.

METHOD OF MEASUREMENT: "ITEM CODE 824.9901 TYPE 2, TYPE 2A STRUCTURAL STEEL WELD REPAIRS" will be measured for payment by the unit "EACH" for each crack repaired, in accordance with the contract drawings, this Special Provision and/or as directed by the Engineer.

BASIS OF PAYMENT: The accepted quantity of "ITEM CODE 824.9901 TYPE 2, TYPE 2A STRUCTURAL STEEL WELD REPAIR" will be paid for at their respective contract price per "EACH" as listed in the Proposal. The price so stated shall constitute full and complete compensation for all labor, tools, materials, testing, and equipment, and all incidentals required to complete the work as described in these Special Provisions and elsewhere in the Contract Documents, complete and accepted by the Engineer.

CODE 824.9910
TYPE 1 STEEL BEAM / GIRDER REPAIRS

DESCRIPTION: This item of work shall consist of supplementing and/or strengthening corroded portions of the existing steel beams/girders with additional new structural elements, and in some cases removal and replacement of indicated portions of existing structural steel as indicated on the Contract Drawings and as specified in this Special Provision. The work under this item shall include removing and disposing portions of existing structural steel; furnishing, fabricating, erecting, and painting new structural elements and portions of existing steel with a prime coat only; local deleading (including proper personnel protection and collection & disposal of paint removed all in accordance with the applicable sections of Section 826 of the RI Standard Specifications); surface preparation; any miscellaneous shields, staging, access, access equipment, scaffolding; field drilling; field bolting; temporary protective shielding for utilities; field measurements; shop drawings; and any other incidental items required to finish this work, complete in place and accepted by the Engineer, in accordance with the Contract Documents and as specified in this Special Provision.

MATERIALS: All structural steel components shall be in accordance with Section 824 of the RI Standard Specifications for Road and Bridge Construction, Amended 2018, including all revisions and the following:

- All welding shall be performed in accordance with the latest edition of the ANSI/AASHTO/AWS D1.5 Bridge Welding Code.
- All structural steel shall conform to ASTM A441 Grade 46 (M270 Grade 50 is an acceptable substitute).
- All bolts shall be high strength bolts ASTM F3125 GRADE A325.
- All washers shall conform to the requirements of ASTM Designation F436. Nuts (unless designated otherwise) shall be heavy hexagonal nuts conforming to ASTM Designation A563.
- Epoxy resin paste shall be a high modulus, high strength, structural epoxy paste adhesive conforming to ASTM C-881 Types I, II, & IV, Grade 3, Classes B&C.

CONSTRUCTION METHODS: The Contractor's operation shall be in accordance with the Maintenance and Protection of Traffic Plan sheets included in the Contract Drawings and the restrictions noted in the TMP and CS pages.

The Contractor shall assure that no debris or any other foreign materials falls onto the ground beneath the structure. Should any debris fall to the ground despite this assurance, all work shall stop until such time as the debris has been recovered to the satisfaction of the Engineer, and a revised procedure of operation has been submitted by the Contractor to the Engineer for review and approval. Any damage or injury resulting from falling debris shall be the sole responsibility of the Contractor. Any delay

caused as a result of cessation of work and approval of the revised procedure of operation shall not relieve the Contractor of any of his responsibilities under this Contract, including the timely completion of work. Any additional costs incurred as a result of debris falling shall be borne solely by the Contractor.

Existing dimensions, material types, and member sizes, were obtained from the original Contract Drawings. Prior to fabrication of any steel component, the Contractor shall obtain field measurements of all dimensions and layout information which may affect his fabrication work. No separate payment will be made for these field measurements. This is considered incidental to this item. The Contractor shall submit detailed shop drawings in sufficient time to allow for review and approval by the Engineer prior to fabrication. The State will not be responsible for any additional time or cost to the Contractor as a result of the Contractor's errors in taking field measurements.

The existing steel surfaces shall be cleaned of all scale, rust, loose paint, and other loosely adherent foreign matter detrimental to achieving a level and uniform faying surface. The steel surface preparation shall be performed prior to the repair. The contact surfaces between the existing steel and new steel shall be cleaned, surface prepared and painted, as a minimum, with the primer coat prior to the installation of the supplemental steel. The cost of any localized de-leading to prepare the area shall be included under this item of work.

The removal and disposal of paint including the protection of personnel and the environment shall be in accordance with the latest Environmental Protection Agency and the RI Department of Environmental Management's regulations. The work shall include Personnel and Environmental Protection and Containment, Collection, Storage and Disposal of Debris and Spent Materials as described under Section 826 of the RI Standard Specifications, including all revisions.

Except as noted on the plans, bolts shall be tightened in accordance with the "Turn of the Nut" method. Bolts indicated to not be fully tightened shall use lock nuts or double nuts.

The Contractor shall exercise due caution and take all necessary precautions to prevent damage to existing utilities. The Contractor shall design, furnish, fabricate, erect and remove temporary protective shielding to protect the existing utilities to the satisfaction of the Utility Company. The installation of temporary protection shall be in accordance with the Utility Company standard procedures and specifications, and shall be considered incidental to this item of work.

In the event that the existing steel to remain is damaged during any of the Contractor's operations, the Contractor shall replace, repair, or reinforce the damaged area as may be necessary to restore the damage to pre-existing conditions. This work shall be performed by the Contractor as ordered by the Engineer at no additional cost to the

State, including the design necessary to restore the steel to its original structural integrity. The design must be submitted to the State for review and approval and be stamped by a RI Professional Engineer.

New and existing structural steel shall be painted in accordance with the relevant sections of Section 825 of the Rhode Island Standard Specifications for Road and Bridge Construction, Amended 2018, including all revisions, except that the steel shall receive a primer suitable for direct exterior exposure without a finish coating, intermediate and top coats are not necessary. Payment for the primer finish shall be considered incidental to and included for payment under this item of work.

METHOD OF MEASUREMENT: "ITEM CODE 824.9910 TYPE 1 STEEL BEAM / GIRDER REPAIRS" will be measured for payment by the "POUND" of steel material actually furnished, fabricated, and installed in accordance with this Special Provision and elsewhere in the Contract Documents and/or as directed by the Engineer.

BASIS OF PAYMENT: The accepted quantity of "ITEM CODE 824.9910 TYPE 1 STEEL BEAM / GIRDER REPAIRS" will be paid for at the contract unit price per "POUND" as listed in the Proposal. The price so stated will constitute full and complete compensation for all labor, material, tools, equipment, and all incidentals required to finish the work as described in this Special Provision and elsewhere in the Contract Documents, complete in place and accepted by the Engineer.

CODE 824.9925
REMOVE DISPOSE AND REPLACE BUILT-UP CROSS BRACE DIAPHRAGMS

DESCRIPTION:

The work under this item shall include removal and disposal of the designated cross brace diaphragms, connection plates, nuts and bolts; furnishing, fabricating, installing, and painting of new structural elements; local deleading (including proper personnel protection and collection & disposal of paint removed); any miscellaneous shields, staging, access, access equipment, scaffolding; field measurements; shop drawings; surface preparation; field drilling; field bolting; temporary protective shielding for utilities; or other incidental items required to complete this work, complete in place and accepted by the Engineer, in accordance with the Contract and as specified in this Special Provision.

MATERIALS: All structural steel components shall be in accordance with Section 824 of the RI Standard Specifications for Road and Bridge Construction, Amended 2013, including all revisions and the following:

- All welding shall be performed in accordance with the latest edition of the ANSI/AASHTO/AWS D1.5 Bridge Welding Code.
- All structural steel shall conform to ASTM A441 Grade 46 (M270 Grade 50 is an acceptable substitute).
- All bolts shall be high strength bolts ASTM F3125 Grade A325.
- All washers shall conform to the requirements of ASTM Designation F436. Nuts (unless designated otherwise) shall be heavy hexagonal nuts conforming to ASTM Designation A563.

CONSTRUCTION METHODS:

The Contractor's operation shall be in accordance with the Maintenance and Protection of Traffic Plan sheets included in the Contract Drawings and the restrictions noted in the TMP and CS pages.

The Contractor shall assure that no debris or any other foreign materials falls onto the ground beneath the structure. Should any debris fall to the ground despite this assurance, all work shall stop until such time as the debris has been recovered to the satisfaction of the Engineer, and a revised procedure of operation has been submitted by the Contractor to the Engineer for review and approval. Any damage or injury resulting from falling debris shall be the sole responsibility of the Contractor. Any delay caused as a result of cessation of work and approval of the revised procedure of operation shall not relieve the Contractor of any of his responsibilities under this Contract, including the timely completion of work.

Existing dimensions, material types, and member sizes, were obtained from the original Contract Drawings. Prior to fabrication of any steel component, the Contractor shall obtain field measurements of all dimensions and layout information which may affect his fabrication work. No separate payment will be made for these field measurements. This is considered incidental to this item. The Contractor shall submit detailed shop drawings in sufficient time to allow for review and approval by the Engineer prior to fabrication. The State will not be responsible for any additional time or cost to the Contractor as a result of the Contractors errors in taking field measurements.

The existing steel surfaces shall be cleaned of all scale, rust, loose paint, and other loosely adherent foreign matter detrimental to achieving a level and uniform faying surface. The steel surface preparation shall be performed only in the general area of repair. The contact surfaces between the existing steel and new steel shall be cleaned, surface prepared and painted, as a minimum, with the primer coat prior to the installation of the supplemental steel. The cost of any localized de-leading to prepare the area shall be included under this item of work.

The removal and disposal of paint including the protection of personnel and the environment shall be in accordance with the latest Environmental Protection Agency and the RI Department of Environmental Managements Regulations. The work shall include Personnel and Environmental Protection and Containment, Collection, Storage and Disposal of Debris and Spent Materials as described under Section 826 of the RI Standard Specifications, including all revisions.

Except as noted on the plans, bolts shall be tightened in accordance with the "Turn of the Nut" method. Bolts indicated to not be fully tightened shall use lock nuts or double nuts.

The Contractor shall exercise due caution and take all necessary precautions to prevent damage to existing utilities. The Contractor shall design, furnish, fabricate, erect and remove temporary protective shielding to protect the existing utilities to the satisfaction of the Utility Company. The installation of temporary protection shall be in accordance with the Utility Company standard procedures and specifications, and shall be considered incidental to this item of work.

In the event that the existing steel to remain is damaged during any of the Contractor's operations, the Contractor shall replace, repair, or reinforce the damaged area as may be necessary to restore the damage to pre-existing conditions. This work shall be performed by the Contractor as ordered by the Engineer at no additional cost to the State, including the design necessary to restore the steel to its original structural integrity. The design must be submitted to the State for review and approval and be stamped by a RI Professional Engineer.

Structural steel shall be painted in accordance with Section 825 of the Rhode Island Standard Specifications for Road and Bridge Construction, Amended 2018, including all revisions, except that the steel shall receive a primer suitable for direct exterior exposure without a finish coating. Payment for the primer finish shall be considered incidental to and included for payment under this item of work.

METHOD OF MEASUREMENT:

“ITEM CODE 824.9925 REMOVE DISPOSE AND REPLACE BUILT-UP CROSS BRACE DIAPHRAGMS” will be measured for payment by the “Pound” steel material actually furnished, fabricated, and installed in accordance with this Special Provision and/or as directed by the Engineer.

BASIS OF PAYMENT:

The accepted quantity of “ITEM CODE 824.9925 REMOVE DISPOSE AND REPLACE BUILT-UP CROSS BRACE DIAPHRAGMS” will be paid for at the contract unit price per “Pound” as listed in the Proposal. The prices so stated shall constitute full and complete compensation for all labor, materials, tools, equipment, and all incidentals required to finish the work as described in this Special Provision and elsewhere in the Contract Documents, complete in place and accepted by the Engineer.

CODE 937.1000

MAINTENANCE AND MOVEMENT OF TRAFFIC PROTECTION

DESCRIPTION. Subsection 937.05.2; Failure to Comply, part a. Maintenance, of the Standard Specifications, requires that a daily charge be deducted from monies due the Contractor for failure to adequately and safely maintain traffic control devices along any portion of the project.

The charge for this Contract will be \$7,500.00 per day.

Subsection 937.05.2; Failure to Comply, part b. Movement, of the Standard Specifications, requires that an appropriate charge be deducted from monies due the Contractor for failure to remove and/or relocate traffic control devices for compliance with the traffic-related work restrictions included in the Transportation Management Plan or to otherwise meet changes in traffic conditions, construction operations, or other conditions affecting the safety and/or mobility of the traveling public. Failure to comply with this requirement will result in a charge of \$2,000.00 per half hour per lane (paved shoulders will be counted as lanes) per direction of travel.