

with equipment, heating and lighting facilities and experienced personnel to satisfactorily perform all necessary operations. Areas where flame cutting, air carbon-arc gouging, welding, cleaning and painting are performed shall be inside permanent buildings. The required air temperature levels shall be maintained while these operations are in progress. Shop assembly of large pieces for fit-up of field connections may be performed outdoors. These provisions will not apply to steel requiring fabrication at the bridge site in the repair, alteration or extension of an existing structure.

Where work consists of repairing and extending or altering existing structures the Contractor shall make such measurements of the original construction as may be required to join accurately old and new work. Shop drawings shall include these measurements. Measurements which may appear upon contract plans to indicate the extent and nature of such repair or extension shall not relieve the Contractor of this responsibility.

Shop inspection or acceptance of shop drawings by the Department shall not relieve the Contractor of responsibility for erroneous or inconsistent dimensions, notations, omissions or other errors. All parts forming a structure shall be built in accordance with the contract. The Contractor will not be responsible for any contract plan errors.

The Fabricator shall notify OSE at least two weeks in advance of the beginning of shop fabrication, and furnish a proposed fabrication schedule for the work.

The Fabricator shall cooperate fully with the QA inspector, in his inspection of the work in progress. This shall include the storage of members completed during the QA inspector's absence, in such a manner, that he can completely and safely inspect the finished work, unless such hold or witness point inspections have received a written waiver.

Fabricated material shall not be shipped from the shop without prior hold point QA inspections unless such QA inspection is waived by OSE. Failure to conform to this requirement will result in a rating for the reference of 60% and reduction of the fabricator's rating to C or loss of pre-qualification if the fabricator's rating is currently a C.

Miscellaneous level structural steel members shall have final inspection performed at the fabrication shop. Miscellaneous structural steel members that are not complete at the scheduled inspection, have been shipped to the job site without shop inspection or do not conform to the shop drawings supplied to the QA inspector will be cause for removal of the fabricator from the pre-qualification list. The miscellaneous level fabricator will be given two written warnings 12 months prior to the third occurrence which causes removal. The fabricator may be reinstated to the prequalified list after 12 months with a request for prequalification from the fabricator and performance of facilities evaluation by the Office of Structural Engineering.

The Fabricator shall provide office accommodations having a minimum floor area of 11 m² (120 square feet) and a minimum ceiling height of 2.1 m (7 feet). This office shall be equipped with adequate working and storage facilities, lighting and electrical outlets. It shall also contain a

telephone with direct access to an outside trunk line which shall be for the exclusive use of the QA inspector.

In this specification where the terms "Main," "Secondary" or "Detail" are used, it shall be understood that reference has been made as follows: "Main," refers to material, members and fasteners that are primarily stressed by live load and structure weight; "Secondary," refers to material, members and fasteners that do not directly support live load or main members; "Detail," refers to material, members and fasteners that are essentially non stressed.

Where steel stamps are used for identification purposes, they shall be of the "mini-stress" or "stressless" type.

863.071 Fabricator Documentation Responsibility. The fabricator shall keep and maintain documentation records for each project reference number concerning;

1. Fabricator approval
2. Shop drawing approval
3. Material test reports
4. Welding qualifications
5. Quality control inspection
6. Non Destructive Testing of weldments

This documentation shall be made available for auditing, inspection and copying upon the Department's request. The documentation shall be archived for at least a five (5) year period from the date of final shipment from the fabrication shop.

Documentation systems are the fabricator's responsibility to establish. Quality control documentation shall include all material quality checks, dimensional checks, weld quality inspection, coating inspection checks, etc. to document both to the fabricator and to the Department that all fabrication has been thoroughly inspected and meets the specification requirements. Evaluation of the fabricator's performance by Departmental personnel, using forms defined in Appendix II, will include validation of the fabricator's actual records of inspection. This validation is intended to assure that rating of an individual component will reflect the overall quality of all components.

When establishing documentation records, processes and procedures it is recommended the fabricator review the QA rating forms (appendix II) which define the Department's QA requirements. The fabricator must establish sufficient QC requirements to perform quality fabrication.

863.08 Shop Drawing and Submittal Process. Structural steel and other metal structural elements which are to be assembled, main and secondary bridge structural steel or main bridge rehabilitation steel, finger joints, modular joints and non-standard joint sealing devices, pot bearings, spherical bearings and non-standard bearing devices and other similar items requiring either shop