

May 24, 2016



GOLDEN GATE BRIDGE
PHYSICAL SUICIDE DETERRENT SYSTEM
FEDERAL-AID PROJECT: BHLS-6003(051)
and
WIND RETROFIT
FEDERAL-AID PROJECT: BHLS-6003(052)

Contract No. 2016-B-1

To: Prospective Bidders

RE: **Response to Bidders' Question No. 147 through 160**

Ladies and Gentlemen:

The following are the responses to questions submitted by prospective bidders and designated as Bid Question No. 147 through 160:

BID QUESTION No. 147:

There are total of (20) Charging Station Platforms along the bridge – (10) on the west side (10) on the east side. (Ref. S004... S008). Where the cost of these stations shall be quoted: -46, -47, -48?

RESPONSE:

See Addendum 8 for revised Section 60-2.05, Payment. The costs of the 10 charging station platforms and fixed access ladders and platforms on the west side of the Bridge, designated as Type Cw, and the 10 charging station platforms and fixed access ladders and platforms on the east side of the Bridge, designated as Type Ce, are included in the Contract lump sum price for new Contract Item: CHARGING STATION PLATFORMS. This new Contract Item will be included in the revised Engineer's Estimate and Schedule of Prices in an upcoming addendum.

BID QUESTION No. 148:

Ref. Drawing No. S384. Hanger view (3). Please suggest the material of the spherical bushings and the way they are to be installed into the hanger. Please suggest the design and material of the pins to be used with these bushings.

RESPONSE:

See Addenda 6 and 8 for revised Contract Drawings and revisions to Section 60-2. As shown in Detail 3 on revised Contract Drawing M458, the spherical bushings must be maintenance-free radial spherical plain bearings. See Detail 3 for a conceptual mounting detail into the hanger. As specified in revised Section 60-2.04C(1)(c), "Shafting and Pins," the hanger pins for the bottom travelers must be stainless steel with a minimum yield strength $F_y=50$ ksi, such as ASTM A276 S21800.

BID QUESTION No. 149:

Ref. Drawing No. M458. Please suggest the material of the main hanger pin.

RESPONSE:

See Addendum 8 for revisions to Section 60-2. As specified in revised Section 60-2.04C(1)(c), "Shafting and Pins," the hanger pins for the bottom travelers must be stainless steel with a minimum yield strength $F_y=50$ ksi, such as ASTM A276 S21800.

BID QUESTION No. 150:

Acceptable HSS Grade - 55-1.02A(1)
Drwg/Det Reference: Z005

Notes for "Materials" 1b requires the HSS to be ASTM A500, Grade B for all SDS net supports. For HSS members associated with the traveler, use ASTM A1085 Grade A. Section 55-1.02A(1) contains a table describing requirements for "Other Materials". This table permits the following grades for "Carbon steel structural tubing" - ASTM A 500/A 500M, Grade B, ASTM A 501, ASTM A 847/A 847M, or ASTM A 139, Grade B

1. The Order of Precedence (Section 5-1.02) states the Specifications have a higher order of precedence over the Project Plans. Please, confirm the notes in table for the Specifications govern.
2. Please, confirm that ASTM A1085 Grade A is compatible with the requirements of this Contract and AWS D1.1 welding code.

RESPONSE:

The governing ranking of Contract parts is listed in Section 5-1.02, Contract Components. As stated in this section, Special Provisions govern over Project Plans. See Addendum 8 for revisions to Section 55. The tables in revised Section 55-1.02A(1), General, specifies hollow structural section (HSS) material for SDS net supports to comply with ASTM A500, Grade B ($F_y=46$ ksi for square and rectangular sections and $F_y=42$ ksi for round sections) and HSS material for travelers to comply with ASTM A1085, Grade A. This matches the requirements for HSS material in Note 1b under Materials on Contract Drawing Z005.

ASTM A1085, Grade A is compatible with the requirements of this Contract and AWS D1.1 welding code. Revised Section 55-1.02B(7)(a) states:

ASTM A1085, Grade A is considered a prequalified base metal. Add ASTM A1085, Grade A to listed base metals in Group II of Table 3.1, "Prequalified Base Metal – Filler Metal Combinations for Matching Strength," of AWS D1.1.

BID QUESTION No. 151:

Charpy V-notch requirements - 55-1.02A(2)

The first paragraph reads, "Structural steel plate used for the following components must comply with..."

Please, confirm this section only applies to structural steel plate, and no other components of the structural steel system.

RESPONSE:

See Addendum 8 for revisions to Section 55. In addition to structural steel plate, Charpy V-notch impact test results are required for other structural steel materials and components. Revised Section 55-1.02A(2), Charpy V-notch Requirements, states:

Provide CVN impact test results prior to fabrication when required in the specifications of the ASTM Designations for the materials listed in Section 55-1.02A(1) or when the material or component is denoted on the Plans by the callout "CVN".

BID QUESTION No. 152:

The definition of "Structural Steel" - 55-1.02A(3)

The first paragraph reads, "All steel elements shown on the Plans are structural steel unless otherwise noted."

Unless otherwise noted, is the Contractor to assume all steel used on the Project are subject to Section 55 and AWS D1.5 requirements? This appears excessive, as there are several members which could be classified more effectively under different codes (such as, miscellaneous metals, like ladders and handrails on the travelers). Please, confirm, the Contractor and the Lead Construction Engineer will be able to utilize standard industry practices for members that are not specifically structural steel.

RESPONSE:

See Addendum 8 for revisions to Sections 55 and 75.

Revised Section 75-1.03A, General, provides a listing of steel elements considered miscellaneous bridge metal. These elements include the net support tension rod system, ladders, cages, flared cages, grated steel decks, traveler grated steel decks, gates, toeboards, rungs, standard pipe, handrails, guardrails, and iron and steel hardware shown on the Plans, and specified in Section 60-2. These steel elements must comply with the requirements in Section 75.

The requirement in Section 55-1.02A(3) that steel elements shown on the Plans are structural steel unless otherwise noted remains unchanged. The Contractor must comply with the welding requirements listed in Sections 11, 55 and 75.

The Contractor and the Lead Construction Engineer may not use "standard industry practices for members that are not specifically stated to be structural steel," and must follow the Contract requirements for steel elements.

BID QUESTION No. 153:

Requirements for precut material - 55-1.02A(3)

The third paragraph reads, "All structural steel that is precut before arrival at the fabrication site must be cut so that the primary direction of rolling is parallel to the direction of the main tensile or compressive stress in the member."

1. How is the fabricator to know which direction is parallel to the direction of the main tensile or compressive stress for plates? Is there a size limit this pertains to (e.g. a plate of less than 4' x 8')?

Is this required even if there is a more economical means of utilizing a plate or other structural member?

2. If a beam or HSS is cut on a bevel, will this be required? This would prohibit the Contractor from cutting a beam longitudinally. How is this met?

3. Can the fabricator assume that rolled shapes are stressed primarily longitudinally and that square or rectangular plates and similar objects have no primary stress direction? How will this requirements be verified by the Contractor and District.

RESPONSE:

See Addendum 8 for revisions to Section 55. Revised Section 55-1.02A(3) deletes the referenced paragraph requiring structural steel that is precut before arrival at the fabrication site to be cut so that the primary direction of rolling is parallel to the direction of the main tensile or compressive stress in the member.

BID QUESTION No. 154:

Lead Abatement Qualifications - Vol 5,
Attachment N, Section II

Section II, Number 18 states, "Provide the name of a company within your Organization that will perform the lead abatement and the cleaning and painting of structural steel... Provide documentation of SSPC QP certification, ..."

Please, confirm the Contractor can perform spot lead abatement and will not be required to have the SSPC QP certifications, only the appropriate California Contractor's License to perform the work.

RESPONSE:

See Addendum 8 for revisions to Section 59. In accordance with revised Section 59-2.01D(1), the contractor who performs the work of removing hazardous coatings from structural steel must hold SSPC certification SSPC-QP2, Category A. A contractor without this certification will not be allowed to perform spot lead abatement.

BID QUESTION No. 155:

Welding Order of Precedence - 11-3.02A

The fourth paragraph states, "In the event of discrepancy, the order of priority of the provisions for welding quality control, including testing, will be 1) the Plans; 2) the Special Provisions; 3) referenced AWS welding code 4) Standard Specifications."

Since there are many intricacies with the welding code as it relates to AWS D1.1 (for HSS) and AWS D1.5 (remaining structural steel), please, revise this section such that 'referenced AWS welding code' has the highest precedence. There are many industry experts well-versed in the details of the code, many technical papers have been written to support the code and there might be inherent difficulties with have other documents with higher precedence governing the Contractor's actions and acceptability of welds performed.

RESPONSE:

The welding order of precedence listed in Section 11-3.02A will not be revised. Similar provisions have been included in other District construction contracts and Contractors have not had any difficulties following this order of precedence.

BID QUESTION No. 156:

The second paragraph states, "All welding requires inspection by the Engineer."

1. Please, confirm the Engineer does not need to be present during the performance of the welding to perform / meet the intent of "requires inspection". The inspection can occur at a later date.

RESPONSE:

In accordance with Section 11-3.02C(1), "General," the Contractor must notify the Engineer at least 3 business days before performing welding at the job site.

In accordance with Section 6-3.05, "Quality Assurance":

1. *The District will, at its sole discretion, conduct its own testing and inspection of the Contractor's work, as determined to be necessary for the District to verify compliance with the terms of the Contract, including compliance with the quality control requirements.*
2. *The Contractor must cooperate and provide access and labor as required to facilitate testing by the Engineer at no cost to the District.*
3. *The Contractor must schedule work to allow time for Quality Assurance.*

While the Engineer does not have to be present during performance of welding, the Engineer has the right to be present and perform inspection during all welding and the Engineer will decide whether or not to have a District welding inspector present during welding. The Contractor must provide the required notice to allow the Engineer, at his/her discretion, to schedule the District's welding inspection.

BID QUESTION No. 157:

2. Also, if the welding inspection has been done by the appropriate personnel (Welding Quality Control or CWI) identified in the Welding QCP, and the appropriate NDT is performed and documented, the Engineer will not be permitted to reject any of the welds, if inspected after the material has been painted and shipped to the project.

RESPONSE:

The Engineer may reject welds determined to not meet the Contract requirements, even after the material has been painted and shipped to the project. Section 6-3.04A, "General," states:

"You are solely responsible for controlling the quality of all materials and the quality of workmanship, including the finished construction."

"Notwithstanding the listing of specific test methods and frequency of tests for the QCT, you are still responsible for performing your work in accordance with the requirements of the Contract. Any and all work, materials or equipment subsequently found to be defective may be rejected by the Engineer and must still be corrected by you, notwithstanding any prior testing and inspections."

BID QUESTION No. 158:

Amended Welding QCP - 11-3.02C(2)

The fifth paragraph begins, "An amended Welding QCP or addendum to..."

1. Since subparagraph B requires the Welding QCP to contain the "anticipated work schedule:", will the QCP be required to be resubmitted if the fabrication shop intends to add a second work shift to meet the demands of the Project?

RESPONSE:

The entire Welding QCP does not need to be resubmitted if the fabrication shop intends to add a second work shift. For such a change, an addendum to the Welding QCP modifying the anticipated work schedule must be submitted. In accordance with Section 11-3.02C(2), "Welding Quality Control Plan,":

"An amended Welding QCP or addendum to Welding QCP must be submitted to, and approved by the Engineer, for any proposed revisions to the approved Welding QCP. An amended Welding QCP or addendum to Welding QCP will be required for any revisions to the Welding QCP, including but not limited to a revised WPS, additional welders, changes in NDT firms or procedures, changes in QC or NDT personnel, and updated systems for tracking and identifying welds."

As stated in Section 11-3.02C(2), the addendum to the Welding QCP must be approved prior to the start of the second work shift at the fabrication shop.

BID QUESTION No. 159:

2. Since subparagraph D requires the name, qualifications and documentation of certifications for all Welding Quality Control (QC) Inspectors, is a resubmittal of the QCP required if QC staff is added or changed?

RESPONSE:

The entire Welding QCP does not need to be resubmitted if Welding QC Inspectors are added. For such a change, an addendum to the Welding QCP must be submitted with the names, qualifications and documentation of certifications of the added inspectors. In accordance with Section 11-3.02C(2), "Welding Quality Control Plan,":

"An amended Welding QCP or addendum to Welding QCP must be submitted to, and approved by the Engineer, for any proposed revisions to the approved Welding QCP. An amended Welding QCP or addendum to Welding QCP will be required for any revisions to the Welding QCP, including but not limited to a revised WPS, additional welders, changes in NDT firms or procedures, changes in QC or NDT personnel, and updated systems for tracking and identifying welds."

As stated in Section 11-3.02C(2), the addendum to the Welding QCP must be approved prior to the Contractor allowing the added inspectors listed in the addendum to perform any quality control inspection or testing.

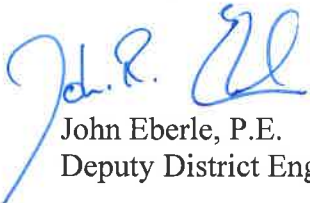
BID QUESTION No. 160:

After referencing several Record Drawings, it is still unclear as to the hardness of the existing rivets. Can the owner provide the hardness of existing rivets or the material grade of existing rivets?

RESPONSE:

See Contract Drawing Z005 and Section 2-1.06, Supplement Project Information. Based on the information in Table 3 on page 193 of "Golden Gate Bridge", Report of the Chief Engineer, September 1937, the structural steel used for the existing rivets was specified to have a minimum yield point of 30 ksi and a minimum tensile strength of 52 ksi to 60 ksi. No information was found in the report on the hardness of the existing rivets. The report is listed in the tables in Section 2-1.06, Supplement Project Information, and is available for review by Bidders.

Sincerely,

A handwritten signature in blue ink, appearing to read "J. Eberle".

John Eberle, P.E.
Deputy District Engineer