

# Specification Section 460

## Subarticle 460-1

### ORIGINATION

Date: 5-2-2025

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### COMMENTARY

To prevent the misuse of A490 bolts and to align Department contract documents with AASHTO policy language.

### INDUSTRY COMMENTS AND RESPONSES

*(Please note all comments and responses are verbatim as received. The Specifications Office does not alter typos or grammar.)*

BLACK = Comment **BLUE** = Specifications Response **GREEN** = Change Made to Specification

Name: Kendal Forrester

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Date: 8-15-25

COMMENT: 460-1.1.2 Miscellaneous components request adding two additional examples to the list:

8. Access doors and associated components and railings

9. Drip Bars on weathering steel girders

**Response:** **Response:** This is not part of the revision. Submit propose revision per State Specifications Office procedures.

Request to strike the word "middle" from the 6th paragraph in section 460-4.2.2: "Mark diaphragms in the middle upper portion of the web." so that it reads "Mark diaphragms in the upper portion of the web." This allows the mark to be seen while the diaphragms are stack during fabrication operations and when stacked for shipping.

**Response:** This is not part of the revision. Submit propose revision per State Specifications Office procedures.

Request to [add] to section 460-4.3.1 Cutting, Shearing and Machining the following to the last sentence of the section: "Web splice plates [and pier diaphragm webs in box girders] may be rolled parallel to the length.

**Response:** This is not part of the revision. Submit propose revision per State Specifications Office procedures.

Request to [add] to the final sentence of the 2nd paragraph in Section 406-4.3.4.5.1 General: "Only use heat-cambering on horizontally curved primary members to adjust cut cambering with the approval of the Engineer [or in accordance with approved procedures in the fabricator's

quality control plan]." This will avoid production delays for minor heat shaping of horizontally curved girders.

Response: This is not part of the revision. Submit propose revision per State Specifications Office procedures.

Request to [add] the following to the 1st sentence of section 460-4.4.2.5: "[The design engineer will] Account for torsion induced deflections..." Need to define who has the responsibility to account for torsion. We believe the responsibility needs to be on the design engineer so that any fabrication requirements to overcome torsion will be shown in the bid drawings, avoiding scope and cost changes being discovered during shop drawing detailing.

Response: This is not part of the revision. Submit propose revision per State Specifications Office procedures.

Request to add the following sentence to section 460-4.4.2.2. "Trapezoidal bridge members are to be detailed and fabricated to the no-load fit condition."

Response: This is not part of the revision. Submit propose revision per State Specifications Office procedures.

Comment on section 460-4.5.1: In accordance with AASHTO/NSBA steel bridge fabrication specification S2.1, support member in a no-load condition unless directed otherwise by the Engineer.

Response: This is not part of the revision. Comment is noted.

Suggest modifying the last sentence of section 460-4.5.1.1 from "Account for end rotations and deflections as necessary, and submit the procedure to the Engineer for review." to "The engineer will estimate end rotations and deflections, and will prescribe the fit conditions, for fabrication and for erection, in consultation with the fabricator and erector."

Response: This is not part of the revision. Submit propose revision per State Specifications Office procedures.

Section 460-4.4.2.5 request adding the shop drawing for tub girders will be detailed in the no-load condition. For plate girders, the fit condition for fabrication is normally no-load, but may be steel dead load, if directed by The Engineer.

Response: This is not part of the revision. Submit propose revision per State Specifications Office procedures.

Section 406-5.4.8 recommend adding: "These representative fastener assemblies may be re-used once, without additional engineer approval, provided the nuts spin freely."

Response: This is not part of the revision. Submit propose revision per State Specifications Office procedures.

Section 460-5.4.11.1 request adding the following or something similar to the end of the section: "The fastener assemblies may also be fully tightened by rotating the bolt when it is more easily accessible than the nut. Procedures for this are described in the RCSC 2020 and must be followed."

Response: This is not part of the revision. Submit propose revision per State Specifications Office procedures.

Request the addition of the following to section 460.7.1.3: "10. The design Engineer will provide estimates of any expected rotation or deflection of curved or skewed members, for erection planning, as the members transition from the fabricated no-load condition to the erected steel dead load condition, and the final constructed full load condition. " "11. The design Engineer will provide guidance to the erector, for accommodating any such rotation or deflection."

Response: This is not part of the revision. Submit propose revision per State Specifications Office procedures.

General comment on section 460. There are numerous callouts referencing the Engineer. We request "or his representative" be added to these callouts. Examples: Section 460-5.4.8.1 final sentence "In the presence of the Engineer [or his representative], and on a daily basis, determine the job inspection snug-tight torque as specified herein." Section 460-5.4.11.1 first sentence "...in the presence of the Engineer [or his representative],..." Section 460-5.4.11.1 3rd paragraph "...in the presence of the Engineer [or his representative],..." Section 460-7.9.1 second to last sentence "...Weekly meetings shall be held with the Engineer [or his representative] to..."

Response: This is not part of the revision. However, refer to Section 1-3 Definitions regarding the meaning of "Engineer."

**ACTION TAKEN: NONE**

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Date: 8-20-25

COMMENT: 460-5.4.5 Splice Plate Filler Material: additional filler material may be added provided the total thickness of filler plates is 1/4" or less. (current requirement is 3/16" or less; 1/4" material is more common to have on hand and would reduce the amount of RFIs the engineer has to review)

Response: This is not part of the revision. Submit propose revision per State Specifications Office procedures.

460-6 Welding: "...Ultrasonic testing may be performed using either conventional UT or phased array ultrasonic testing (PAUT) in accordance with AWS D1.5 [or D1.1], provided personnel and equipment meet the applicable code requirements. Engineer approval is not required if PAUT is performed per code." (Aligns FDOT specs with the latest AWS Bridge Welding Code (which has explicit PAUT provisions); PAUT produces digital scan records, which aid QA/QC and dispute resolution)

Response: This is not part of the revision. Submit propose revision per State Specifications Office procedures.

**ACTION TAKEN: NONE**