From: <u>Debra M. Beckwith</u>

To: BR

Subject: Bridge Advertisement (DSI 21-064) Sheared Edges for Fabricating Structural Steel

Date: Tuesday, January 24, 2023 7:35:36 AM

The EPG & Standard Specifications have been updated as described below:

Implementation Statement: Spec is effective for April letting. EPG is effective immediately for all plans not yet submitted to Design

(The Implementation Statement is a recommendation by the Development Section. The SPM is responsible for the level of implementation for any particular job.)

| Revision Date | Items Revised | Description of Change |
|---------------|----------------------|---|
| Jan. 2023 | EPG: | Sec 1080.3.3.5.6: Provision added to prevent the use |
| | <u>751.14.3.4</u> | of mechanical shearing in the fabrication of principal |
| | Bridge Standard | pieces as defined in sec 1080.2.9. Mechanical |
| | Drawings: | shearing can lead to distorted edges that if not |
| | NA | treated by planing or other means can lead |
| | MicroStation Cells: | potentially to cracks or tear out near bolt holes. It's |
| | NA | not typical practice for fabricators to use mechanical |
| | Std. Specifications: | shearing for principal pieces but adding this provision |
| | <u>1080.3.3.5.6</u> | will prevent any potential issues in particular with |
| | Standard Plans: | thin material that is not covered by the current |
| | NA | specification. |
| | Bridge Special | The revised specifications still require planing for |
| | Provisions: | sheared edges not to be welded and greater than |
| | NA | 5/8 inch thick and carrying calculated stress. Sheared |
| | | edges of thinner material, which typically see less |
| | | distortion, are not subject to edge treatment. This |
| | | provision hasn't changed except for the scope of |
| | | applicable pieces. |
| | | |
| | | EPG 751.14.3.4: Guidance has been added to alert |
| | | users of the wide flange splice tables. The splice |
| | | tables were developed prior to the increase in k1 |
| | | values for w-shapes so there can be a conflict |
| | | between the inner plates and the web-to-flange |
| | | fillet. Designers should check for this conflict before |
| | | using the tabulated wide flange splice design. |

to view more details about this (or any) revision,

use the <u>Revision Index Database</u>, located under Completed Revisions on Development's Sharepoint page.

Instructions:

Under Tables (left-hand side) double-click on RevisionRecords.

Click on the link under the Effective Date to access documentation for the completed revision.

Debra M. (Debbie) Beckwith

Structural Specialist – Development Section

Missouri Department of Transportation

Central Office – Bridge Division 105 W. Capitol Ave., P.O. Box 270, Jefferson City, MO 65102 573-522-8718 www.modot.org