

**Date & Time:** Friday, March 29, 2019 (No Meeting Due to Lack of Agenda Items)

**Location:** N/A

ITEM	DATE	DESCRIPTION	STATUS	DUE DATE	BALL IN COURT
1.14	3/21/16	Cast-In-Place Parapet Reinforcing Steel	Closed	<del>7/2016</del> <del>7/2017</del> 7/2018	WisDOT
		<p>Industry has expressed concerns that vertical face parapet bar steel extending out of deck causes issues with paving equipment during the deck pour. This is also an issue at wing locations. <i>BOS is currently working on updated Standard parapet reinforcing steel detailing and will provide guidance through the next update to the Bridge Manual.</i></p> <p>2016-07-19: BOS has updated a number of Standard Details to address this issue. The new Standards show two separate vertical reinforcing bars similar to the sloped face parapet details. These details will not be published at this time because of impending MASH crash testing criteria verification, but will allow a field change to be made upon request</p> <p>2017-03: BOS is continuing to work on refining the detail to avoid any conflicts and also is still assessing the MASH crash testing criteria. BOS plans on updating the Standard with the July 2017 Standards updates. Contractors may request to use modified reinforcing steel details on a project via RFI for projects that do not show the two-bar system.</p> <p>2018-03: BOS staff have created updated details and are working to verify that the use of two vertical bars in lieu of one will not cause other issues with railing attachments, etc. The updated details are likely to be published with the July 2018 updates to the Bridge Manual and soon thereafter should start showing up in contract plans. However, there may still be some outstanding MASH implementation issues that cause a delay in publishing these updates to Standards. If contractors would like to use two vertical bars in lieu of one as is detailed in current contract plans, they can submit an RFI to the project team and BOS would approve that change.</p> <p>2019-03: BOS has updated and published all Standard Details pertaining to vertical face parapets, which now show vertical bar detailing similar to the single slope parapet reinforcement detailing.</p>			

2.13	3/21/17	Filler/Cork Material Under Girders	Closed	<del>1/2018</del> 7/2018	WisDOT
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BOS would like to get more information from industry on what materials are being utilized for the '3/4" PREFORMED FILLER' that is shown to be placed on top of substructures and below the bottom flanges of girders. In some rare instances, specifically where the grade is steep, field engineers have noticed that the material isn't compressing and the girders end up bearing on the filler material instead of on the 1/2" elastomeric bearing pads. Potential options may include reducing the thickness of the filler material or changing the material type.

2017-03-21: ZTI indicated that they use a felt under girders and cork on retaining walls. They also asked why is it needed at all? More of an issue with partially poured diaphragms where the felt doesn't have enough weight on it, girder may actually bear. Some inspectors ask the contractor to seal the joint with mono, others won't allow the contractor to seal the joint. WisDOT would want whatever is used to remain in place and not hold water (for example, an open celled foam that the water would run out of, not a closed cell foam). *BOS will review the current Standard detailing practice and material requirements, and will update Standards and specs to improve performance at this location in the field.*

2018-03-28: At the November 29, 2017 Bridge Tech Committee Meeting it was decided that BOS would be revising our Standard Details (and subsequently contract plans) to utilize 1/2" preformed filler in lieu of 3/4". BOS staff reviewed the changes required based on this intent and was unable to get all of the changes incorporated into the January 2018 updates. These updates will be finalized with the July 2018 updates to the Bridge Manual.

2019-03: BOS has updated and published all Standard Details pertaining to filler/cork material under girders. Standard Details now show 1/2" preformed filler in these locations.

2.17	3/21/17	Precast Structural Approach Slabs	Closed	<del>1/2018</del> 7/2018	WisDOT
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BOS inquired with industry on what concerns or impediments are present to industry which limit/hold back the use of precast structural approach slabs.

2017-03-21: Industry indicated that one issue discussed was the Z-bar protruding from the back of the abutment.

The contractors asked what the purpose of the Z-bar is. Additionally, contractors asked if sleeper slab cure time is an issue. David Stanke (ZTI) believes that it would be better to spend more time figuring out how to pour the structural approach slab integral with the bridge deck. Contractors also wondered if standard spec language/details have been cleaned up to not require a 14 day wet cure on abutment diaphragms and whether sleeper slabs need to be HPC or not. BOS commented that designers include a note on our plans (and this is also noted in the Standard for structural approach slabs) that the structural approach slab footing is not required to be HPC. *BOS will review whether the specs have been fully updated to remove the wet cure limitation on these elements.*

2018-03-28: Aaron Bonk inquired with the contractors to see if they were still having issues with construction staff not allowing diaphragm forms to be stripped prior to the 14-day wet cure on HPC structures. Industry indicated that there are still some issues on certain projects related to this. BOS will work to add language to the superstructure Standards related to curing requirements for the diaphragms.

2019-03: From BOS's perspective, the details and specifications are clear on the diaphragm curing issue that was presented previously. If concerns come up on a specific project, the contractors should ask that the Region construction staff work directly with BOS staff to resolve any issues in the field.

3.10	3/28/18	Jacking Loads on Structure Plans	Open	<del>7/2018</del> 7/2019	WisDOT
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David Stanke inquired about bridge design engineers including jacking loads on plans requiring jacking. It has been BOS's stance that there are many variables that are controlled by the means and methods of jacking which preclude designers from placing accurate loads on the plans. David Stanke stated that industry is only looking to get service dead loads (and potentially live loads in the event that jacking is required to be done under traffic) from designers. Dave Kiekbusch stated that in a survey of other North Central States, 6 of the 7 states stated that they provide loads. BOS will review this issue, will consider adding loads on the plans, and if it is decided to go this route a policy item will be added to the Bridge Manual.

2019-03: BOS Development continues to review this issue and plans on developing a resolution in the coming months. Anticipated delivery timeline for this resolution is within the next year.

3.11 3/28/18 Uniform Spacing of Rebar in CIP Retaining Walls Closed 7/2018 WisDOT

Brent Freeman (Kraemer NA) inquired about trying to maintain consistent horizontal spacing through the length of CIP walls except for at the end panels, if possible. Brent stated that this will save time and labor by creating a more productive form, pour, and strip process. Additionally, Brent would like to see consistent footing step heights or slopes where possible. On walls with formliners, 18" steps would be best as that is the typical height of formliner panels. Aaron Bonk stated that CIP cantilever retaining walls are fairly uncommon on WisDOT projects and that when they do occur, the designer should be working to optimize the design for both material savings and labor efficiencies. BOS will look to add guidance to designers in the Bridge Manual and/or Standards. Brent will send retaining wall numbers to BOS staff to review the plans to get a better feel for the variations currently in plans.

2019-03: BOS has reviewed this issue and has determined that no additional guidance is necessary. The examples provided likely would have been approached differently by different designers, and thus there isn't widespread misunderstanding of constructability for these structure types. BOS also recommends that contractors bring these issues to the attention of the Region and/or designer during the bidding process or right after letting to determine if there is a better way to approach the layout of the reinforcing steel in CIP cantilever walls.

3.12 3/28/18 Railing Post Base Plate Dimensions Closed 7/2018 WisDOT

Brent Freeman (Kraemer NA) inquired about looking at resizing railing post base plate dimensions to not have anchors lined up below the horizontal railing elements. Adhesive anchors are most commonly used in the field and the current post base plate layouts require the railing to be positioned, anchor holes marked, railing removed, anchor holes drilled and anchors installed, reset railing, and tighten bolts. If the base plates were resized, the setting/removing/resetting of railing could be condensed to one setting. Aaron Bonk stated that BOS Development has been reviewing the anchor bolt

hole locations/parapet steel locations over the last year, and will continue to do so with the new MASH criteria. Additionally, Aaron Bonk stated that BOS does not want industry drilling directly through the base plate holes because the paint and galvanizing inevitably will be damaged in that process. BOS will continue to review/update base plate designs and will try to determine if an alternative can be developed to not require the resetting process yet doesn't have the risk of damage to the paint/galvanizing.

2019-03: BOS has reviewed the railing base plate details and no updates were able to be made at this time. The base plate configurations are developed based on constructability (interaction between anchor bolts and parapet reinforcing steel) and strength (clear cover, anchor spacing, etc. required for applied loading).

3.13 3/28/18 Bridge Deck Reinforcing Steel Clearances Closed 7/2018 WisDOT

Krissy Van Hout received feedback from industry related to tight spacing of deck reinforcing steel. BOS opened up this topic for discussion to see if this issue is common on bridge projects with continuity reinforcement over the piers or if some cases are worse than others. Industry stated that this issue is not prevalent on bridge deck pours. David Stanke indicated that at times, the pours for 56" single slope barriers become difficult due to the small width at the top of the forms. BOS will review the Chapter 17 Standards and determine if additional design guidance is necessary for the layout of continuity reinforcing steel by designers.

2019-03: BOS reviewed the Chapter 17 Standards and determined that no further updates would substantially improve deck reinforcing detailing. Additionally, due to industry's lack of concern for this detailing 'standard', BOS feels that there is sound consensus amongst designers on how to approach the plan assembly for these elements.