

**Summary Minutes Of The
AASHTOWare Bridge Design-Rating (BrDR) Task Force Meeting
August 1, 2019
South Lake Tahoe, CA**

Table of Contents

General Information – Meeting of the Bridge Design & Rating Task Force	2
Agenda Item 0: Review Agenda/Assign Minutes Recorder	2
Agenda Item 1: Prior Business	2
1a. Review June Meeting Minutes	2
1b. Review Action Items	2
Agenda Item 2: User Group	2
2a. Summary Minutes from the June Task Force Meeting	2
2b. Discussion / RADBUG Follow-up Actions.....	2
2c. Third Party Developer Training Session	3
Agenda Item 3: Modernization	4
3a. Project Update and Schedule Review	4
3b. TAG Update	4
3c. 6.8.4 and 7.0 Beta Testing	4
Agenda Item 4: Enhancements	4
4a. Incorporate Ohio Corrugated Metal Pipe Spreadsheet – AI 2018-BrDR-065.....	4
4b. Support Active Directory Domain Services – AI 2019-BrDR-001	4
4c. Rating Tool LRFR MCB, LRFR Multi-girder (R/C, P/S, Steel)	5
Agenda Item 5: Miscellaneous Topics	5
5a. Update BrDR Product Brochure – AI 2019-BrDR-065.....	5
5b. BrDR Website Marketing – AI 2019-BrDR-066.....	6
5c. Collaboration with SIMON – AI 2019-BrDR-041	6
Agenda Item 6: International Licensing.....	6
Agenda Item 7: Marketing Activities.....	7
Agenda Item 8: Review Action Item list from this meeting	7
Agenda Item 9: Task Force Executive Session (as needed).....	7



General Information – Meeting of the Bridge Design & Rating Task Force

Date: Thursday, August 1, 2019

Participants:

AASHTO	Judy Tarwater	AASHTO	Project Manager
SCOA	Tim Armbrrecht - absent	SCOA	SCOA Liaison
T&AA	Will Holmes	T&AA	T&AA Liaison
BrDR Task Force	Todd Thompson	South Dakota DOT	Chair
	Mark Bucci	Louisiana DOTD	Bridge Rating (BrD)
	Joshua Dietsche	Wisconsin DOT	Bridge Rating (BrR)
	Michael Johnson	Idaho TD	Bridge Rating (BrR)
	Dean Teal	Kansas DOT	Bridge Design (BrD)
	Tom Saad - absent	FHWA	FHWA Liaison
	Vinacs Vinayagamoorthy	California DOT	Bridge Rating (BrR)
BrDR Contractor	Herman Lee	Michael Baker, International	BrDR Contractor
	Geoff Trees	Michael Baker, International	BrDR Contractor
Guests	Josh Lang	Mayvue	BrM Contractor

Notes Taker: Judy Tarwater and Dean Teal.

Agenda Item 0: Review Agenda/Assign Minutes

Recorder

Todd Thompson opened the meeting at 8:00am. The agenda was reviewed and no additional topics were added.

Agenda Item 1: Prior Business

1a. Review June Meeting Minutes

Minutes from the June 12 - 13, 2019 Task Force Meeting in Traverse City, MI were reviewed. One minor change was made to Dean Teal's name on page 18. With that correction, the meeting minutes were approved.

1b. Review Action Items

Vinacs reviewed the Action Items and updates were provided to the Task Force.

Agenda Item 2: User Group

2a. Summary Minutes from the June Task Force Meeting

The summary minutes for the June BrDR Task Force meeting in Traverse City, MI were provided. Judy Tarwater will post these on the SharePoint site for Task Force review and comment. Once in final form, the summary minutes will be forwarded to David Schroeder (Secretary RADBUG) for posting on the RADBUG website.

2b. Discussion / RADBUG Follow-up Actions

The Survey was open to the BrDR community from June 20, 2019 through July 19, 2019. 118 responses were received, 53 member state agencies (from 29 different member states), 7 local agencies, 0 U.S. agencies, and 58 consultants.



Five (5) responses from	Kansas
Four (4) responses from	Illinois
Three (3) responses from	California, Connecticut, and Wisconsin
Two (2) responses from	Alabama, Louisiana, Massachusetts, Mississippi, Montana, New Mexico, Pennsylvania, South Dakota, and Utah
One (1) response from	Arizona, Colorado, Idaho, Iowa, Manitoba, Michigan, Minnesota, Missouri, New Jersey, New York, Oklahoma, Rhode Island, Tennessee, Virginia, and West Virginia

The Task Force discussed the survey responses and identified the following main areas of concern.

- Level of Difficulty – The Task Force discussed one approach to raising this ranking is to invest more in training. We can invest in developing additional user training videos; however, existing videos have not historically been viewed very often. One idea is that we might need to better market the delivery and availability of specific videos.
- Bugs – Everyone wants a cleaner program. Some bugs (with workarounds) were specifically targeted to not be corrected given the fact that the code would be sunset in the near future (with modernization). Users need to understand that a majority of the program crashes are the result of bad models / incorrect input. The analysis does

not complete because the data input by the user is incorrect. Some of the user frustration may be due to the fact that fixes for bugs reported one year are not delivered until the new release the following year. The Bridge Rating discussion group (member agencies) rated fixing bugs as a higher priority than feature enhancements. Survey respondent with BrDR experience between one and five years are rating the product lower than users who have used the product for six or more years. Experienced users know the workarounds and have less issues with using the program.

- User Discussion Forum – This could be an option to help address some of the support issues. Consultants have expressed issues with them not being able to contact Baker directly.

The Task Force discussed the fact that some of the presentations contain inaccuracies. It would be optimal if we could work with the presenter to get the inaccuracies corrected before the presentations are posted on the aashtobr.org website.

The Task Force discussed the fact that most states have best practices for how they use BrDR. It would be great to be able to pull together all the best practices for compilation and distribution to the BrDR community.

2c. Third Party Developer Training Session

The Third Party Developer API training session was well received. . The developers have expressed wanting to have the ability to take more control of the software; however, the level of access needs to be controlled to ensure the



third party plug-in is not capable of corrupting the data stored in BrDR.

The Task Force would like to see this session continued in future years; however, ground rules should be set up front to ensure we remain focused on the purpose of the session, to provide API training to the third party developers.

Agenda Item 3: Modernization

3a. Project Update and Schedule Review

All 6.8.4 functionality has been delivered for testing. Beta testing is still ongoing. The major concern is identifying and resolving all the remaining bugs. The BrDR user community wants to take delivery of 6.8.4 as soon as it is ready for production rather than waiting to release it with 7.0. The Task Force decided to direct Baker to focus on 6.8.4 with less emphasis on 7.0 until after 6.8.4 is released. A 6.8.4 patch could be released with 7.0 to correct bugs. The sunset of 6.8.4 could be extended past 06/30/21.

It should be noted that only 6.8.4 can be used to compare the results produced by the Legacy engine and the modernized engine to ensure the accuracy of the modernized engine, since only the 6.8.4 version has the modernized engine and Legacy engine. Any fixes made to the 6.8.4 modernized engine will be incorporated into the 7.0 version.

7.0 functionality will not be fully completed until the end of October. Beta testing will likely not begin until the beginning of November.

The Task Force made the decision to move forward with a second contract mod for the Modernization Project to extend the contract end date to the spring/summer of 2020.

3b. TAG Update

Dean Teal reported that there have been no recent changes to the TAG membership. However, Tyler Haney (Jacobs) expressed an interest in joining the TAG going forward.

3c. 6.8.4 and 7.0 Beta Testing

Five (5) beta testers are testing 6.8.4 today and tomorrow. Dean, Mike, and Vinacs will join the testing efforts following the conclusion of the Task Force meeting (for the remainder of today and tomorrow).

Agenda Item 4: Enhancements

4a. Incorporate Ohio Corrugated Metal Pipe Spreadsheet – AI 2018-BrDR-065

Baker presented a draft bridge workspace culvert example using aluminum with three culvert type options: corrugated metal pipe, spiral rib metal pipe, and structural plate pipe. The example also included alternative culvert shapes (circular, arch and pipe arch) and options for various metal culvert properties. The example presented incorporates the details that agencies have customized from the Ohio corrugated metal pipe spreadsheet.

Mike Johnson advised that Michigan and Montana have also developed several customizations to the Ohio spreadsheet. Both Michigan and Montana are members of the TAG.

4b. Support Active Directory Domain Services – AI 2019-BrDR-001

The Task Force was recently contacted by the Colorado DOT to request information on the Task Force's strategy to move forward with the ability to use Active Directory Groups for account setup/control to support the



implementation and use of BrDR. The Task Force is interested in moving forward with a BrDR Active Directory initiative. California and Michigan are both also interested in moving forward with including Active Directory services in BrDR. This enhancement will be added to the enhancement list for 7.2.

4c. Rating Tool LRFR MCB, LRFR Multi-girder (R/C, P/S, Steel)

During the April 2019 Bridge Task Force meeting in Alexandria, VA, Jonathan Mallard inquired about the status of the Rating Tool enhancement to include LRFR for MCB and Multi-Girder R/C, P/S, Steel Superstructures.

After extensive discussion and based on fact that the enhancement is not fully funded and Baker's current work load and limited remaining capacity, the Rating Tool - LRFR for MCB and Multi-Girder R/C, P/S, Steel Superstructures enhancement will be considered for inclusion in BrDR 7.2.

As a follow-up to the April Task Force meeting (AI 2019-BrDR-034), Todd Thompson sent an email to Virginia DOT and Indiana DOT on May 16, 2019 to provide them with an update on the status of the Rating Tool - LRFR for MCB and Multi-Girder R/C, P/S, Steel Superstructures enhancement. Todd conveyed the following in that message.

VDOT was in attendance at the April 2019 Task Force meeting and provided the case to get the Rating Tool - LRFR for MCB and Multi-Girder R/C, P/S, Steel Superstructure enhancement in a future release of BrDR. The Task Force informed Jonathan that the enhancement was not included in the original scope of the 7.1 work plan due to the fact that the enhancement was not fully funded. VDOT was also advised that

unfortunately the enhancement cannot be added to the 7.1 work plan (June 2020 release date) at this late date due to the fact that the contractor's capacity is maxed out. This is true even taking into consideration the temporary contractor staff that will be working on the 7.1 release. In conversations with the contractor, adding additional staff resources at this point would not be efficient and attempting to add the LRFR Rating Tool to 7.1 would jeopardize the on-time delivery of a quality release.

Todd told VDOT that the soonest the enhancement could be incorporated into the product is in release 7.2. Jonathan requested the Task Force commit to include this enhancement into a future project plan. Todd advised that the Task Force will take this into consideration during the November Task Force meeting if funding to support this enhancement is identified. The Task Force is willing to commit up to 7.6 Service Units to support the effort. California may also be interested in committing up to 4.0 Service Units.

Agenda Item 5: Miscellaneous Topics

5a. Update BrDR Product Brochure – AI 2019-BrDR-065

Baker presented updated Bridge Design and Bridge Rating product brochures for Task Force review and comment.

The Task Force made the decision to hold off on finalizing the updated product brochures until after 6.8.4 and 7.0 are released. Judy will forward these updated brochures to the Task Force for review and comment following the release of 6.8.4 and 7.0 for final review prior to accepting the content for distribution.



5b. BrDR Website Marketing – AI 2019-BrDR-066

Baker management has advised that Michael Baker will not support the aashto/mbakercorp website going forward and the team has been asked to move the support site at their earliest opportunity. The Task Force discussed the issue that the Baker support website is often down and unavailable to the BrDR user community. To ensure the BrDR support website is operational and available going forward, the Task Force made the decision to move both the BrDR and BrM support websites to the aashtowarebridge.com / aashtowarebridge.org website currently hosted by Mayvue. The new, combined, website will be re-skinned to follow the AASHTOWare website branding guidelines. Links to the new aashtowarebridge support website will also be added to the product pages on the aashtoware.org website.

The Task Force also discussed the need to look into web search engine optimization to ensure web searches on bridge design / bridge rating keywords yield results that include the AASHTOWare products.

5c. Collaboration with SIMON – AI 2019-BrDR-041

Josh Dietsche had a conversation with Chris Garrell, the SIMON representative on 07/15/19. The take aways from their discussion included the following.

- SIMON is still very interested in working with BrDR. Chris Garrell advised that he has had multiple inquiries about if and when SIMON would be compatible with BrDR. Chris suggested that he might be interested in

attending a future task force to discuss possible options to move forward.

- Current it appears that an import/export tool would be best option.
- SIMON is currently working with Michael Baker (Dave Formesky) for spec updates and as much as they can afford for enhancements; however, their budget is very lean.
- Chris also asked if the Task Force would consider a joint funding initiative to support the development of the import/export tool

Josh committed to working to get a cost estimate for a SIMON import/export tool. (It's possible that the tool may actually be limited to providing the ability to pull SIMON files into BrDR.) Chris Garrell advised that he is currently developing his budget for next year and, at this point, he is interested in a rough cost estimate for planning purposes. The Task Force directed Michael Baker put together a rough cost estimate for a SIMON import tool.

Agenda Item 6: International Licensing

AI Engineers approached Judy Tarwater to ask about the possibility of AASHTO offering a condensed version of BrDR (i.e. a version with only a limited number of structure types) that could be licensed to international customers at a lower price. She mentioned she is working with government entities in Ethiopia and is hoping to help them find software that they can use to support their bridge design and rating needs. Since all of their complex structures are contracted out, the software needed for their in-house use needs to support only basic structure types. Elizabeth believe BrDR could be a potential solution for them if we are able to offer a "light" version at a reduced price.



Elizabeth forwarded the following information on the specific structure types they use (and would like to be supported by the software solution they choose).

- Bridge types they need to be able to design
 - Simply supported beam type of analysis and design is the only choice all consulting firms use for road and bridge projects due to the simplicity and ease of construction
 - Slab, t-girder and box-girder are the common geometry used for simply supported type of bridge design.

Agenda Item 7: Marketing Activities

Akeia Carter advised that she is currently working on a marketing plan for BrDR and BrM. Once complete, Akeia will review the draft plan with Judy Tarwater prior to forwarding to the Task Force.

Tinika Fowlkes and Akeia Carter are working to include information on what problems the software products can solve in future versions of software marketing materials. Tinika is also working on a Customer Play Book to document the customer experience.

The Task Force discussed needing to market Baker training to the user community. Training could also be included as an optional 'bundle' for new licenses.

Agenda Item 8: Review Action Item list from this meeting

Judy Tarwater read the action items recorded during the meeting.

Agenda Item 9: Task Force Executive Session (as needed)

Meeting was adjourned at 3:55pm.

