

AASHTOWare Bridge Design-Rating (BrDR) Task Force Summary Meeting Minutes
April 12 – 13, 2016
Lake Tahoe, NV

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

Date: Tuesday, April 12, 2016 – Wednesday, April 13, 2016

Participants:

AASHTO	Judy Skeen Jan Edwards	AASHTO AASHTO	Project Manager Program Director
BrDR Task Force	Todd Thompson Joshua Dietsche Jeff Olsen Dean Teal Amjad Waheed	South Dakota, DOT Wisconsin DOT Montana DOT Kansas DOT Ohio DOT	Chair Bridge Rating (BrR) Bridge Design (BrD) Bridge Design (BrD) Bridge Rating (BrR)
BrDR Contractor	Jim Duray Herman Lee	Baker Baker	BrDR Contractor BrDR Contractor
Guests	Tim Armbrecht Scot Becker Richard Pickings	Illinois DOT Wisconsin DOT BridgeSight	SCOBs T-18 Committee SCOBs T-19 Committee

Notes Taker: Jeff Olsen / Judy Skeen

Agenda Item 0: Review Agenda/Assign Minutes

Recorder

Todd Thompson opened the meeting at 10:10am. Jeff Olsen was assigned as the meeting minute's recorder. The agenda was reviewed.

Agenda Item 1: Prior Business

1a. Review January Meeting Minutes

Minutes from the January 26 – 28, 2016 Task Force Meeting in New Orleans, LA were reviewed and approved as written.

1b. Review Action Items

Jeff Olsen reviewed the Action Items and provided updates to the Task Force.

Agenda Item 2: Financial Overview and Work Plan Summary

2a. Update on Phase 20 (FY2016)

FP 1 is 75% complete. Specification updates are extensive this year. We generally budget a fixed amount for this item, but it's difficult to predict because we don't have the specification changes when we develop the MS&E work plan.

2b. Update on 6.8 Release Work Plan

Baker advised that, through the end of March, FP17 (Rating Tool) is 10% complete; FP 9 (Strain Compatibility Modification for PS Beam Capacity) is 50% complete; FP8 (Curved Girder Part IIIc-Steel Girder Diaphragm Spec Checking) is 60% complete; and FP4 (Maintenance Items), FP5 (LFD DF 1994 Guide Spec), and FP6 (Nonstandard Gage for Floor System) are 70% complete. FP11 thru FP16 are now 100% complete and were



delivered with version 6.7.1 release. FP 19 and FP21 have not been billed but are complete. Baker will get started on FP 20 by the end of April and will start work on FP18 after the 6.8 release because they need to capture screenshots to revise the tutorials.

2c. Update on P/S Design Tool Work Plan

Baker advised that they have finished the development and alpha testing. It will be distributed to Beta testers on April 18th.

2d. Update on FE Engine Modernization Work Plan

Baker advised that FP1, FE Engine Conversion task, is 70% complete, which means that the development is complete.

Agenda Item 3: Update on BrD/BrR Licensees (FY 2016)

3a. Product Report

Judy Skeen presented a product license summary report developed from the Excel output from AASHTOWare Manager. The report included licenses ordered as of 04/05/16.

Item	FY2014	FY2015	FY2016
Bridge Design - 120-Day Evaluation License	13	2	8
Bridge Design Developer License	0	1	1
Bridge Design Educational License	7	9	13
Bridge Design Single Workstation Option	3	2	1
Bridge Design Special Consultant Option	35	35	36
Bridge Design Unlimited Option	18	17	17
Bridge Design/Rating Service Units	30	31	50
Bridge Rating - 120-Day Evaluation License	13	3	14
Bridge Rating Agency Sponsored Consultant Licenses	2	2	2

Item	FY2014	FY2015	FY2016
Bridge Rating Developer License	4	3	4
Bridge Rating Educational License	7	11	17
Bridge Rating Single Workstation Option	24	20	17
Bridge Rating Special Consultant Option	261	339	369
Bridge Rating Unlimited Option	31	33	34
Sponsored Consultant Licenses (Bridge Rating) - No Fee	125	128	93
Sponsored Consultant Licenses (Bridge Rating) - No Fee	124	110	91

Judy directed the Task Force to the full report which is posted on SharePoint under the Br Design-Rating directory. Br Design-Rating -> BrDR Licenses -> FY2016 -> BrDR EndUserDesignee 040516 with Summary – CURRENT.

The full report includes FY2016 licenses ordered to date.

- sorted by Agency Name
- shaded by license type

3b. Service Unit Report

Baker presented the service unit summary report. A total of 41.8 service units were recently donated to support the enhancements included in the 6.8 Project Contract mod #2.

3c. Evaluation Software Report

The current summary of BrDR software evaluations was discussed.

Agenda Item 4: Support and Maintenance Report

4a. Incident and Support Summary

Baker presented the Defect History Report. 1,966 bugs have been reported; 32 new bugs since the last meeting. Currently there are 27 total unresolved BrDR bugs. The defect history shows spikes in the number of bugs following



each release. Todd asked if there is something that can be done to reduce this. Baker suggested that more Beta testing could help.

The report shows one critical bug (BRDRSUP-752). This bug has been fixed for 6.8 Beta 1.

4b. Progress on Bug Resolution

Baker reviewed Maintenance Progress reports for the 6.8.0 release as of 04/01/16. For the 6.8.0 Release, out of 169 total reported incidences, 12 remain and are assigned for resolution. Baker reported that as of this meeting, 7 more have been added for a total of 19 unresolved incidences. None of the 22 remaining bugs will impact the 6.8 release.

Baker reviewed Maintenance Progress reports for the 6.8.1 release as of 04/01/16. For the 6.8.1 release, out of 35 total reported incidences, 13 remain and are assigned for resolution.

4c. Enhancement List Update

Baker presented the enhancement lists. There were no changes to the Bucket List and no new enhancements have been added since the last meeting. The Task Force discussed the enhancement voting for the upcoming RADBUG meeting. Since there will be no enhancements added to the legacy software after release 6.8, we will not do enhancement voting this year. Instead we may solicit ideas for the Tier 1 enhancements to be added to the third phase of the Modernization. This will be discussed further during the RADBUG discussion in the June Task Force meeting.

4d. Maintenance Issues

No discussion.

4e. Bug Policy

There was no discussion on the issue policy, but the Task Force agreed to change the name “bug” to “issue” on future agendas.

Agenda Item 5: Update on 6.8

5a. Progress and Schedule Review

Baker had sent an email out to the group on 4/6/16 stating that they have finished testing both Version 6.8 and the Prestressed Design Tool. Baker will send out Beta 1 versions for both products on Monday, April 18. Version 6.8 Beta 1 is for installation testing. Beta 2 will be ready for the beta testing session in Pittsburgh, April 26 -28.

5b. TAG Update

6.8 beta testing will be conducted April 26 -28 at Michael Baker offices in Pittsburgh, PA. Dean Teal is coordinating the scheduling and logistics of the beta testing effort with Baker and the members of the BrDR Beta TAG. Dean presented a list of the current TAG members and the members that will be attending the testing session in Pittsburgh. Todd requested that he be removed from the TAG list.

Agenda Item 6: Update on P/S Design Tool and FE Engine Modernization

6a. Finite Element Engine Conversion Status

Development of the FE Engine Conversion is complete. Baker requested that we modify the end date for this contract to December 2016 to correspond with the end date of the Prestress Design Tool contract. The request was approved by the Task Force. The current contract ends on April 30, 2016 and will need to be modified to extend the end date to December 31, 2016.

6b. P/S Design Tool Update and Demo

The Prestressed Design Tool will be distributed to the TAG for testing on April 18. Baker gave a



demonstration of the tool with emphasis on the features that were completed since the last Task Force meeting. Baker reported that they ran 32 test bridges and got good comparison with results from BrD. Tim passed along that Phil is requesting that someone do a presentation on the Design Tool at this year's RADBUG. The Task Force discussed this and thought it best to have a member of the Prestress Design Tool TAG do the presentation instead of a TF member or the contractor.

6c. Rating Tool Update

Baker reported that the Rating Tool will be ready for beta testing by mid-May. Allowing 2 ½ months for beta testing will align with an “end of July” release. Todd requested the Baker provide monthly updates to keep Idaho DOT informed on progress.

6d. Regression Tool Update

Baker reported that the Regression tool is scheduled to be released at the end of September. We discussed the option of switching the schedules for the Regression Tool with that of the Rating Tool. The Regression Tool is funded with RIPI money and needs to be spent in FY 2016 (by the end of June). This will be discussed further during a conference call on April 28.

Agenda Item 7: Modernization

7a. Update

To date, we have received formal commitments from twelve (12) agencies Nine (9) of the twelve (12) participating agencies have committed the full contribution requested in the project solicitation. Four (4) additional agencies have expressed an interest in the project; however, AASHTO has not yet received their official project commitment form.

The Task Force has made the decision to use BrDR licensing fees, originally planned to be banked and used to support enhancements in Phase 3 of the project, to supplement the funding short-fall for Phases 1 and 2. In addition, the Task Force secured a commitment from the AASHTOWare Program Development Pool from the Special Committee on Joint Development (SCOJD) to support the Task Force's initiative to secure sufficient funding to support this very important project.

The project was initiated April 1, 2016 and the signed three-year contract was forwarded to Michael Baker last week for execution. Agencies contributing funding in this fiscal year (FY2016) were invoiced this week.

The Task Force made the decision that the BrDR Modernization Project will support TAG representation from all project participants. Project participants will also be allowed to have more than one TAG representative if they license both the Bridge Rating and Bridge Design Unlimited licenses (one representative for each). The Task Force will discuss the details of starting up the BrDR Modernization TAG during the June Task Force meeting.

Agenda Item 8: Enhancements

8a. Estimate for adding sponsorship information to Special Consultant version (2016-BrDR-016)

Baker presented an estimate for adding the capability to display notice on the Connect dialog and About dialog indicating the sponsoring agency of the licensee and the usage limitations. This notice would be displayed on the following licensing options:

- AASHTOWare Design Special Consultant Option



- AASHTOWare Rating Special Consultant Option
- AASHTOWare Bridge Design/Rating special Consultant Option – Single Interface
- AASHTOWare Bridge Design Agency Sponsored Consultant License – No Fee
- AASHTOWare Bridge Rating Agency Sponsored Consultant License – No Fee

The development estimate is \$9,000. The Task Force made the decision to fund this enhancement via Task Force Directed Work and incorporate the delivery the release 6.8.1.

Agenda Item 9: Miscellaneous Topics

9a. Support for old versions of database migration

Baker asked how far back the database migration should be maintained. Surveying the users may be appropriate to see what older versions are still being used. It was thought that 6.0 and forward would cover all agencies. Iowa DOT was using version 5.3, but recently advised that they were planning to upgrade to a newer version.

9b. 6.8 FP1 JIRA 553 3D FEM hinge modeling study

Baker summarized the study performed by Baker's staff to incorporate hinges in the 3D FEM analysis for multigirder bridges. Currently, any model that contains a hinge cannot be analyzed using 3D analysis. The only option is to analyze hinge models as a line girder. The Task Force discussed this enhancement and decided an estimate should be prepared to determine the level of effort required to implement the enhancement. Once the estimate is complete, the Task Force will make a decision on whether or not the enhancement could be considered for incorporation into the legacy system or wait for implementation in the modernized software.

Agenda Item 10: Third Party Issues

10a. Meeting with Richard Pickings (4:00 Tuesday)

Richard Pickings provided the Task Force with an overview of his background and association with the AASHTOWare Bridge products and his current efforts in the area of PGSuper, PGSplice and bridge data exchange formats. Richard is very interested in looking for opportunities to support better bridge data exchange from one bridge application to another.

Long-term Strategy

The Task Force will extend an invitation to third party BrDR developers to attend the RADBUG meeting in August and the following day's Task Force meeting. The Task Force meeting discussion will include an update on the modernization effort.

Agenda Item 11: User Group

11a. Summary Minutes from January Meeting

The summary minutes for the January BrDR Task Force meeting in New Orleans were provided but have not been reviewed by the Task Force. Judy Skeen will post these on SharePoint for Task Force review and comment by 04/22/16.

Agenda Item 12: Work Plans

12a. FY2016 MSE Work Plan Amendment 1 Draft

Baker presented the draft FY16 MSE contract amendment #1.

12b. Planning Estimates

No discussion.

12c. Future Work Plans

No discussion.



Agenda Item 13: FHWA Update

Tom Saad was unable to attend the meeting. Tom forwarded the FHWA report the week following the meeting. His report follows:

FHWA Update for BrDR Task Force, April 12, 2016

PY 2015 NBIOP Summary Report:

The PY 2015 National Bridge Inspection Oversight Program summary report was issued in late January, 2016. Overall, **88 percent** of the metrics, nationwide, were assessed to be at the satisfactory performance level, a five percent improvement over PY 2014, and a 17 percent increase from the baseline assessment. In general, this metric assessment demonstrates that the program is performing well and improving.

Load rating (Metric 13) continues to be the most challenging program area, with only 35% satisfactory in PY 2015. Plans of Corrective Action (PCAs) for this metric typically require a relatively long time period (years instead of months) to complete due to the level of effort and cost associated with conducting load ratings. Emphasis will continue to be placed on improving metric 13 over the coming years. Please contact your FHWA Division Bridge Engineer if you are interested in receiving a copy of this report.

FAST Act Truck Size and Weight Provisions:

The FHWA Associate Administrator for Operations distributed a Memorandum dated February 24, 2016 addressing truck size and weight (TS&W) issues included in the FAST Act that became effective as early as October 1, 2015. FHWA Division offices were notified that the provisions may affect States' compliance with 23 CFR 650 Subpart C, the National Bridge Inspection Standards. The FHWA Office of Bridges and Structures worked closely with the Office of Operations to develop this memo as the

TS&W provisions in the FAST Act will have an impact on our nation's bridges. Additional guidance on the impact of these loads is being developed by the Office of Bridges and Structures. Please contact your FHWA Division Bridge Engineer for a copy of this memorandum and questions and answers that were prepared to further explain these provisions of the FAST Act.

NHI Course on Load Rating of Highway Bridges:

The 4-day National Highway Institute Course 130092, *LRFR for Highway Bridges*, was delivered in the States of Texas, Florida, Kentucky and Virginia in the first quarter of 2016. Please see the National Highway Institute website to host this course in your State.

FHWA names new Executive Director:

FHWA Administrator Greg Nadeau recently announced that Mr. Walter C. (Butch) Waidelich, Jr., will be the Federal Highway Administration's (FHWA) new Executive Director, responsible for providing leadership and direction to FHWA's operations and functioning as the Chief Operating Officer.

Nadeau stated that 'Butch brings an incredible breadth of agency wide leadership and Federal-aid program experience to this pivotal position. He has worked in leadership positions in five division offices from Team Leader to Division Administrator in the largest, most complicated State program FHWA oversees. He has served as Director of Field Services (DFS) West - overseeing the activity of 16 division offices and is currently the Associate Administrator for Infrastructure.



Agenda Item 14: Five Year Projection for BrDR

The five year projection is available on SharePoint. The most recent version is labeled as "current" under Br Executive \ Financials.

Agenda Item 15: Licensing Issues

15a. University Licenses

University licensees for DOT research projects were discussed during the January Task Force meeting in New Orleans. Universities conducting research on behalf of agency BrDR Unlimited Licensees are allowed to license the BrDR Special Consultant Option. This agenda item will be removed from future agendas.

15b. Special Consultant Option Licensees

No discussion.

15c. Third-Party Add-Ons

Judy Skeen provided an overview of the email communiques and telephone discussions she has had with Bede Yoo from Midas since the January Task Force meeting. She has provided detailed responses to his first two post-January meeting emails and will respond with a brief, simplified response to his third email request to form a partnership with AASHTO.

15d. Future of Bundling Modules (Post-Modernization)

The Prestressed Design Tool will be provided to all BrD and BrR licensees, with the exception of the Developers License, in FY2017. The Task Force may consider delivering the PS Design Tool only with BrD in subsequent years and, at some point, consider licensing it as a separate module after the completion of phase two.

The Rating Tool will be included with BrR. There is no need to include it with BrD, and it would not function as a stand-alone tool as it needs the data from BrR to function.

Agenda Item 16: Marketing Activities

16a. Marketing General

- 2016 RADBUG
 - The Task Force made the decision to not conduct a BrDR EUD survey this year.
 - SWAG – The Task Force made the decision go with the Infinity backpack.
- Nebraska Department of Roads - Paul Jensen is working with NDOR and has reported a couple of issues with BrDR reports not being available for trusses and floor girder systems. The Task Force discussed the fact that this functionality is not yet included in the product. To request these to be added as a BrDR enhancement, NDOR would need to submit an enhancement request to the Task Force to recommend the addition of these two report types.
- AASHTOWare Bridge Newsletter
 - Features of the new release
 - BrDR Modernization
 - Chairman's Article
 - Vice-Chairman's Article
 - Rating Tool
 - Prestressed Design Tool
 - Regression Tool

Agenda Item 17: Review Action Item list from this meeting

Jeff Olsen read the action items recorded during the meeting.

Agenda Item 18: Task Force Executive Session (as needed)

The meeting adjourned Wednesday, April 13, 2016 at 3:45pm.

