

## Summary Minutes Of The

### AASHTO Bridge Rating and Design Products Meeting

June 12 - 13, 2013

Seattle, WA

#### **Table of Contents**

General Information – Meeting of the Bridge Design & Rating Task Force.....	3
Agenda Item 0: Review Agenda/Assign Minute Recorder.....	3
Agenda Item 1: Prior Business .....	3
1a. Review April Meeting Minutes.....	3
1b. Review Action Items .....	3
Agenda Item 2: Financial Overview and Work Plan Summary.....	3
2a. Update on Phase 15 (FY 2011) (Drilled Shaft) .....	3
2b. Update on Phase 16 (FY2012) (R/C Slab System) .....	3
2c. Update on Phase 17 (FY2013).....	4
Agenda Item 3: Update on BrD/BrR Licensees (FY 2013).....	4
3a. Product Report.....	4
3b. Service Unit Report.....	4
3c. Licensing Options – Consultant Unlimited.....	4
Agenda Item 4: Support and Maintenance Report .....	4
4a. Incident and Support Summary .....	4
4b. Progress on Bug Resolution .....	4
4c. Enhancement List Update .....	4
4d. Maintenance Issues .....	4
4e. Support Website Facelift .....	4
Agenda Item 5: Update on BrD/BrR 6.5 .....	4
5a. Progress and Schedule Review.....	4
5b. SLI Testing for 6.5 update .....	5
5c. Beta TAG Meeting .....	5
5d. Beta TAG Schedule .....	5
5e. 6.5.1 Progress Update.....	5
Agenda Item 6: Enhancements .....	5
6a. Curved Girder Import Utility – 2013-BrDR-024 .....	5
6b. Culvert UI-Engine Consistency Estimate – 2013-BrDR-025.....	5
6c. Analysis Template Vehicle Export Estimate – Dean email of 5/2/13 .....	5
6d. TAG Maintenance Bucket Estimates – 2012-VO-111 .....	5
6e. Ignore Positive Moment at Supports in Ratings – NMDOT.....	5
6f. User Interface Improvements.....	5
6g. Illinois DOT Culvert Enhancements.....	5
Agenda Item 7: Miscellaneous Items.....	6
7a. Unlimited Consultant License – 2013-BrDR-014 .....	6
7b. Software Distribution – 2013-BrDR-028.....	6
7c. Modernization Project Update .....	6
7d. Reports TAG Update .....	6
7e. International Request – BrR Educational License .....	7
Agenda Item 8: Third Party Issues.....	7
Agenda Item 9: User Group.....	7
9a. Summary Minutes from the April 2013 Meeting .....	7
9b. User Group Meeting Responses to Date .....	7



9c.	Schedule for sending out User Group Meeting reminders .....	7
9d.	User Group Survey draft.....	7
9e.	Discussion of Upcoming Meeting with UG President .....	8
9f.	MDX & DESCUS Import Utility.....	8
Agenda Item 10:	Work Plan.....	8
10a.	FY 2014 Work Plan.....	8
10b.	Future Work Plans .....	8
Agenda Item 11:	FHWA Update .....	8
Agenda Item 12:	Marketing / Training.....	9
12a.	IBC Workshop .....	9
12b.	Marketing and Outreach Strategy .....	9
Agenda Item 13:	Review Action Item list from this meeting .....	9
Agenda Item 14:	TF Executive Session (as needed).....	9



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

Date: Wednesday, June 12, 2013

Participants:

AASHTO	Judy Skeen Jan Edwards	Project Manager Program Director	Bridge AASHTOWare
SCOJD	Bruce Johnson	Oregon DOT	SCOJD Liaison
T&AA	Wally Ballou	Kansas DOT	T&AA Liaison
BrD/R Task Force	Tim Armbrecht Jeff Olsen Bryan Silvis Dean Teal Todd Thompson Amjad Waheed Mark Faulhaber (Thurs. only) Tom Saad	Illinois DOT Montana DOT Virginia DOT Kansas DOT South Dakota DOT Ohio DOT Kentucky TC FHWA Resource Center	Chair Bridge Design (BrD) Bridge Design (BrD) Bridge Design (BrD) Bridge Rating (BrR) Bridge Rating (BrR) Bridge Management (BrM) FHWA Liaison
BrD/R Contractor	Jim Duray Herman Lee	Baker Baker	
Bridge Design/ Rating User Group	Chris Lowe	Virginia DOT / IG President	Bridge Design (BrD)

Notes Taker: Dean Teal

### Agenda Item 0: Review Agenda/Assign Minute Recorder

Tim Armbrecht opened the meeting.

Items 4e, 'Support Website Facelift', 7d, 'Reports TAG update', 7e, 'International Educational License Request', and 9f, 'MDX Import Utility', were added to the agenda.

### Agenda Item 1: Prior Business

#### 1a. Review April Meeting Minutes

Minutes of the April 2013 Task Force meeting in Ft. Worth, TX were reviewed and approved as-is.

#### 1b. Review Action Items

Bryan reviewed the action items and provided updates to the TF.

### Agenda Item 2: Financial Overview and Work Plan Summary

#### 2a. Update on Phase 15 (FY 2011) (Drilled Shaft)

Baker gave an update with no discussion to follow.

#### 2b. Update on Phase 16 (FY2012) (R/C Slab System)

Baker gave an update with no discussion to follow.



### 2c. Update on Phase 17 (FY2013)

Baker gave an update. Only some of the funding added to T&M by amendment will be needed. Most of FP11, some of FP14 and all of FP13 is scheduled for 6.5.1. The support web site upgrade should be completed by the end of the month.

### Agenda Item 3: Update on BrD/BrR Licensees (FY 2013)

#### 3a. Product Report

A discussion was held on various licensing issues related to both consultants and state agencies.

#### 3b. Service Unit Report

Service Unit report was provided and reviewed by the Task Force with no additional discussion.

#### 3c. Licensing Options – Consultant Unlimited

This item was removed and will be discussed in agenda item 7a.

### Agenda Item 4: Support and Maintenance Report

#### 4a. Incident and Support Summary

Baker reviewed the Incident and Support Summary report. The one unresolved critical bug at the time the report was made involved a Cb fix for 3D analysis and has been resolved. The Madero COM issue was also resolved for Beta 2.

#### 4b. Progress on Bug Resolution

Baker reviewed Maintenance Progress reports for 6.5 and 6.6 releases. 2 of the 5 assigned incidents for 6.5 release shown in the report were resolved last Friday. One of the remaining, VI 12059, may have been resolved last year. The 53 resolved incidents for 6.6 release shown in the report will be included in the 6.5 release.

#### 4c. Enhancement List Update

The Beta TAG Enhancement Buckets and BrDR Enhancement lists were reviewed.

#### 4d. Maintenance Issues

There were no maintenance issues discussed.

### 4e. Support Website Facelift

The Contractor presented a PowerPoint presentation on the progress of the support website facelift. The Task Force offered the following comments:

- Remove V/O references
- Add tags so a Google or Bing search can find it
- Add a JIRA link to the top of the page or some more visible spot

The Task Force would like a demonstration shown at the user group meeting.

### Agenda Item 5: Update on BrD/BrR 6.5

#### 5a. Progress and Schedule Review

Baker had the following comments on 3D analysis:

- 6.5.0 beta 3 will be released to the TAG with “flexible” rigid link elements instead of “master/slave” elements. A more refined (finer mesh) analysis is needed to get correct results.
- Users need to be made aware that 3-D analysis is not for the novice user.
- It was suggested that we provide an example at the user group meeting. Showing how to start with a coarse mesh and keep refining until the correct results are achieved.
- It was noted that results from a 3-D analysis should be verified by the engineer.

More Discussion followed regarding

1. Proper use of 3-D
2. Training to use 3-D
3. How to identify correct or incorrect results

The Contractor provided a PowerPoint presentation that graphically showed the differences between using 1, 2, 4 & 8 elements. 8 elements, in this presentation, was observed to be approaching the “correct” answer.

The 6.5.0 proposed schedule is as follows

- Beta 3 delivered on June 14<sup>th</sup> and give the TAG until the 25<sup>th</sup> to conclude testing
- Acceptance build should be delivered the week of July 8<sup>th</sup> giving the TAG a couple of days to verify
- Release 6.5.0 on July 15<sup>th</sup>



### 5b. SLI Testing for 6.5 update

The Task Force was told that testing is in progress right now and we will be given a report at a later date.

### 5c. Beta TAG Meeting

Dean provided a report of 6.5 TAG meeting that was held in the Contractor's office May 7-9.

- 74 incidents got reported during the 3 day event
- It was felt that incident reporting was up some from previous years due to the availability of the beta 1 build prior to the meeting.
- It was felt that too much time was spent on short listing items from the updated enhancement list. Next year it is planned to send the list out in advance and have the TAG read and prepare in advance.

Baker noted that some items in the software should be rewritten

- 15 years ago girder spacing and span lengths got stored as reference lines. Baker feels that in a rewrite we should change back to girder spacing and span lengths.

### 5d. Beta TAG Schedule

Schedule was discussed under agenda item 5a.

### 5e. 6.5.1 Progress Update

It was agreed that when we release 6.5.1 we would like to avoid database scripts. The Task Force agreed that if we can't avoid it, then a database script can be part of 6.5.1 package.

The Contractor told the Task Force that window development will start soon with possible beta testing starting in October.

## **Agenda Item 6: Enhancements**

### 6a. Curved Girder Import Utility – 2013-BrDR-024

No estimate is available yet for an import utility for MDX. The Contractor noted that 300 commands need to be addressed. The Contractor will look one more time at determining the feasibility of an import utility. See agenda item 9f.

### 6b. Culvert UI-Engine Consistency Estimate – 2013-BrDR-025

Four requested culvert enhancements with estimates were discussed. The Task Force directed the work be completed after July 1<sup>st</sup>. If possible the Task Force would like this work included in 6.5.1. At a minimum the Task Force would like the first and last items (Incident #'s 12339 & 12608) be included in 6.5.1. If this work cannot be included in 6.5.1 then it will be included in version 6.6.0.

### 6c. Analysis Template Vehicle Export Estimate – Dean email of 5/2/13

This enhancement will be developed under Task Force directed work and will be included in version 6.6. The Task Force will discuss this enhancement further during the November Task Force meeting.

### 6d. TAG Maintenance Bucket Estimates – 2012-VO-111

Discussion on this item was deferred until the Nov. meeting when we have collected more information on item #1 (Rate for both positive and negative LL demand regardless of the sign of the factored total demand).

### 6e. Ignore Positive Moment at Supports in Ratings – NMDOT

Baker noted that the help already has a note that indicates the AASHTO engine doesn't use this feature. The Task Force felt the AASHTO engine should use it.

### 6f. User Interface Improvements

Bryan Silvis updated the Task Force on the history of this agenda item.

The Task Force discussed the summary of interface improvement suggestions. Bryan will present an update on UI Improvement efforts at the User Group meeting.

### 6g. Illinois DOT Culvert Enhancements

The Illinois DOT is willing to fund their two requested enhancements using service units. Their preference would be to include these enhancements in 6.6. The decision can be deferred to the November Task Force meeting work plan discussion.



**Agenda Item 7: Miscellaneous Items**

**7a. Unlimited Consultant License – 2013-BrDR-014**

The Task Force discussed investigating the opportunity to offer an Unlimited BrD and BrR license to consultants (beginning in FY15). The license would allow the consultant to use the software on an unlimited number of workstations and to do work for more than one DOT without getting the DOT approvals that they are required to get now for the Special Consultant licensing option. The license would allow the consultant to put the software on an unlimited number of workstations located in more than one location of the consultant's offices. The consultant would be required to provide one contact to support the use of the software with the support hours limited to 120. This Unlimited license would not afford the licensee to receive User Group Meeting attendance expense reimbursement.

From the contractor perspective, if a consultant wanted to load their Unlimited software version in a virtual environment, Baker could deliver the Unlimited version currently provided to the DOT BrD/BrR Unlimited licensees.

The Task Force will consider this as a licensing option for FY15 following further discussion during the Task Force meeting in November.

**7b. Software Distribution – 2013-BrDR-028**

Baker presented a summary of current BrDR/BrD/BrR distribution types. Options for potential solutions to be implemented to allow licensees to download BrD/BrR software electronically from a secured site were discussed. The Task Force decided to continue to move forward with this initiative to have something in place for the delivery of 6.6.

**7c. Modernization Project Update**

The modernization workshop with Anthony Lattanze will be scheduled for August 29-30, 2013. It is proposed that a number of Task Force members, as well as TAG members, join the contractor for this workshop. TF members Judy, Tim, Dean, Amjad and Todd will check their availability. Dean will contact a number of TAG members for their availability. T&AA - Dan Wyly and Wally Ballou are invited as well.

**7d. Reports TAG Update**

Amjad Waheed presented the following review of the Report TAG's progress:

Report TAG meeting was held on May 9, 2013, in Baker's Office in Pittsburgh. Members of the Beta TAG who were in Baker's office to test new version also joined the meeting along with staff from Michael Baker Corporation.

A summary of the previous telephone call held on May 1, 2013, was presented to the RTAG. Amjad also shared the emailed comments/suggestions received from the RTAG members. Baker had provided a list of reports available within BrDR. Baker had provided the requested list that was distributed to all RTAG members. On request, Baker gave a presentation and walked through the reports available to the BrDR users. A few points noted by the RTAG members:

1. No PDF reports were being generated in DR programs. Output reports were generated in the XML format. PDF reports were preferred as those reports are usually independent of operating system or browsers
2. Some users complained that the headers of the XML reports could not be copied and pasted in other reports
3. At Bridge Explorer level, a very limited number of reports were currently available
4. RTAG members noted that some headers and other formatting of the XML reports were needed to be revised
5. All dead loads were combined in the reports. They should preferably be listed separately



6. The reports generated in the DR programs should display what elements of the bridge had been checked during rating
7. Naming convention of the reports generated to be standardized
8. The report should clearly print default values used in the analysis
9. Truss reports needed to be improved & enhanced
10. Improve the summary reports to provide necessary information and simplify other reports in BrD & BrR programs to document input & output to support design and load rating
11. Provide report summaries for different structure types in the help menu. A tabular sample was provided to Baker by Jeff Olsen during the RTAG meeting in Pittsburgh.

Another task before the RTAG is to go through the 19 Report enhancements and provide recommended disposition of the enhancement requests (It was noted that a new report enhancement request was added to the Report bucket since RTAG's meeting in May, 2013.)

#### Next Steps

1. RTAG would review the enhancement requests and the areas of improvement identified above here and develop recommendations.
2. All recommendations by the RTAG would be prioritized
3. RTAG would make a presentation during the DR Users Group meeting in Virginia in August, 2013

RTAG would provide a report to the TF during Virginia meeting

#### 7e. International Request – BrR Educational License

AASHTO received a request for special pricing for an educational license of BrR from a professor at the Costa Rica Institute of Technology working on a bridge monitoring research project. Educational licenses are for class room use only.

After discussion, the Task Force agreed that the current priority for product development is focused on increasing the functionality of the product, and not marketing to non-AASHTO members at this time.

#### Agenda Item 8: Third Party Issues

Todd Thompson touched base with the third party contractors and advised them that they are invited to meet with the Task Force in Virginia Beach, VA on the morning after the Task Force Meeting (August 8).

During the meeting with the third party contractors the Task Force would like to suggest that they define to the users in some documentation what features they use and what features they don't use.

#### Agenda Item 9: User Group

##### 9a. Summary Minutes from the April 2013 Meeting

Baker provided the draft of the summary minutes from the Ft. Worth meeting in the meeting packet.

##### 9b. User Group Meeting Responses to Date

Thirty-nine attendees are currently registered. Judy sent a User Group Meeting reminder email to all invitees on May 29.

##### 9c. Schedule for sending out User Group Meeting reminders

Reminder updates will be sent out as the meeting dates approach.

##### 9d. User Group Survey draft

Judy presented a draft 2013 BrDR User Group survey developed from feedback received from the Task Force since the April Task Force Meeting. The BrDR survey will need to be finalized prior to June 24 (date six weeks prior to the User Group Meeting) in order to get the survey out, responses received, and summary PowerPoint developed for presentation during the User Group meeting.



9e. Discussion of Upcoming Meeting with UG President

Chris Lowe walked the Task Force through the draft agenda for the User Group meeting. Proposals to change the User Group name need to be sent to the Users prior to the meeting to be able to vote on a change at the meeting according to the charter.

9f. MDX & DESCUS Import Utility

The Task Force will lead a discussion on MDX and DESCUS users during the User Group meeting to start a discussion on their needs.

**Agenda Item 10: Work Plan**

10a. FY 2014 Work Plan

No discussion

10b. Future Work Plans

Deferred to the Nov. meeting

**Agenda Item 11: FHWA Update**

NBIP Oversight Progress Report:

The Performance Year 2013 National Bridge Inspection Program (NBIP) Progress Report has been disseminated to Division Offices. It is available to all upon request; please contact your FHWA Division Bridge Engineer if you wish to receive a copy of the report. The purpose of this report is to provide an overview of the progress being made under the NBIP, discuss FHWA's stewardship and oversight activities, summarize metric performance results from PY 2013, and list other significant inspection related activities. FHWA is open to suggestions for improvement of the program.

Comment Period on NBIP Oversight Program:

A Federal Register notice requesting public comment on the process FHWA utilizes to assess State's compliance with the NBIS was published on June 7, 2013. This notice, Document 2013-13526, was developed in accordance with Section 1111 of MAP-21 (23 U.S.C. 144(h)(3)(A)(i)) which requires the Secretary to consult with states, federal agencies and other interested parties on procedures to conduct NBIS reviews. FHWA implemented a risk based, data driven NBIS assessment process in 2011 and updated the

metrics based upon recommendations from Divisions and the joint FHWA/AASHTO task force. FHWA anticipates continuing to use the risk based, data driven process and will consider the comments received for possible improvements to the process. Both the public inspection list and the official publication for this document can be found at: [http://www.archives.gov/federal-register/FHWA Draft Memorandum Highlighting the Need to Load Rate for SHV's](http://www.archives.gov/federal-register/FHWA%20Draft%20Memorandum%20Highlighting%20the%20Need%20to%20Load%20Rate%20for%20SHV's):

The purpose of this memorandum is to clarify FHWA's position on the analysis of *Specialized Hauling Vehicles* (SHVs) as defined in the AASHTO Manual for Bridge Evaluation (MBE) during bridge load rating and posting to comply with the requirements of the *National Bridge Inspection Standards* (NBIS). The intent of the load rating and posting provisions of the NBIS is to insure that all bridges are appropriately evaluated to determine their safe live load carrying capacity considering all unrestricted legal loads, including State routine permits, and that bridges are appropriately posted if required, in accordance with the MBE.

FHWA LRFR Webinar No. 8:

The recordings of LRFR Webinar No. 8 and past webinars in this FHWA series to support LRFR implementation can be found at [http://www.fhwa.dot.gov/bridge/lrfd/FHWA/AASHTO Asset Management Webinar](http://www.fhwa.dot.gov/bridge/lrfd/FHWA/AASHTO%20Asset%20Management%20Webinar): At the request of the AASHTO Subcommittee of Bridges and Structures (SCOBS), FHWA in partnership with AASHTO conducted a one-hour webinar on "Asset Management Plan Per MAP-21" for State Bridge Engineers and Division Bridge Engineers. The webinar took place on Wednesday, March 6. A recording of the Asset Management webinar can be found at <http://youtu.be/OGiJeUGI4kl>

FHWA/AASHTO Announcement of SHRP2 Implementation Assistance Program:

In February, FHWA—in partnership with AASHTO—launched the SHRP2 Implementation Assistance Program. Thirty four States, the District of





Columbia, and the FHWA Federal Lands Highway Divisions will participate in the initial round of the program to deploy six “SHRP2 Solutions.” Transportation agencies across the Nation will put into practice one or more of these six SHRP2 products on 108 different transportation projects. The successful start to the deployment of “SHRP2 Solutions” demonstrates the high interest in these new technologies and innovations, and the willingness of transportation agencies to step up as early adopters. If you would like additional information or have questions about the program, please contact Carin Michel, FHWA SHRP2 Implementation Manager at [goSHRP2@dot.gov](mailto:goSHRP2@dot.gov).

### **Agenda Item 12: Marketing / Training**

#### **12a. IBC Workshop**

Dean presented an AASHTOWare Bridge Rating presentation at the International Bridge Conference (IBC) in Pittsburgh, PA on June 5.

Judy will give a presentation on the Bridge Products at the September IHEEP meeting in Overland Park, KS.

#### **12b. Marketing and Outreach Strategy**

The West Virginia DOT is interested in securing a demonstration copy of the Bridge Rating product.

### **Agenda Item 13: Review Action Item list from this meeting**

Dean Teal read the action items recorded during the meeting for the information of attendees.

### **Agenda Item 14: TF Executive Session (as needed)**

Executive Session adjourned at 4:30pm.

