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General Information – Meeting of the Bridge Task Force

Date: Wednesday, June 28 – Thursday, June 29, 2017

Participants:

AASHTO	Judy Tarwater	AASHTO	Project Manager
SCOJD	Bruce Johnson	Oregon DOT	SCOJD Liaison
T&AA	Will Holmes	Kentucky DOT	T&AA Liaison
BrM Task Force	Eric Christie	Alabama DOT	Vice-Chair
	Beckie Curtis	Michigan DOT	Bridge Management
	Mark Faulhaber	Kentucky TC	Bridge Management
	Bruce Novakovich	Oregon DOT	Bridge Management
	Thomas Martin	Minnesota DOT	Bridge Management
	Derek Constable	FHWA Liaison	Bridge Management
BrM Contractor	Jeremy Shaffer	Bentley	Bridge Management
	Josh Lang	Bentley	Bridge Management
	Josh Johnson	Bentley	Bridge Management
	Zac Boyle	Bentley	Bridge Management
Guests	Craig Nazareth	Rhode Island DOT	Future TF Member
	Todd Springer	Virginia DOT	BrMUG Representative
	Craig Boone	Washington DOT	

General Discussion

The meeting was convened at 10:30am.

Agenda Item 00: Review Agenda / Assign Minutes Recorder

The AASHTO Project Manager and a Task Force member will take the meeting minutes. The agenda was reviewed and a new agenda item was added to discuss the status of on-going discussions/issues with the Nebraska DOT, Manitoba IT, and the Pennsylvania DOT.

Agenda Item 13: Outstanding DOT Issues

Agenda Item 01: Prior Business

1a. Review April Meeting Minutes (Handout SW-1a)

Minutes from the April 4 – 5, 2017 Task Force meeting held in Memphis, TN were reviewed. The meeting minutes were approved as-is.

1b. Review April Meeting Summary Minutes (Handout SW-1b)

The Summary Minutes for the April Task Force Meeting in Memphis, TN were developed and reviewed by a Task Force member prior to posting for Task Force review and approval at this meeting. The Task Force approved the summary meeting minutes as-is. These will be forwarded to the BrMUG President for distribution to the BrMUG members.

Agenda Item 02: Project Update

2a. Budget and Schedule (Handout SW-2a)

FY17 BrM MSE



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Bentley presented the budget report for the FY17 MSE contract. All billings reported include invoices issued through 05/31/17. Most of the work to date under the MY17 MSE contract has been under TM1 (Project Management and Administrative Services) – 83%, TM2 (Customer Support) – 104%, TM3 (Maintenance Services) – 88%, TM6 (Task Force Directed Tasks) – 94%, 6.16 (Deferred Tickets) – 113%, and TM7 (Quality Assurance Reviews) – 100%. TM6.1 – TM6.15 are complete. The overall budget spent to date is on target – 90%.

FY17 BrM 5.3 Project

Bentley requested additional funding to support the development of approved enhancements (element orphan report-BRMBETA-1546, column headers-BRMBETA-1533, moving elements to different structure units-BRMBETA-1549) and all other related cost that occur due to the extension of the beta testing. This request was approved under TM1A (Beta Testing Enhancements).

2b. Customer Support Statistics (Handout SW-2b)

Bentley presented an overview of the customer support hours by agency for FY2017. Agencies with the highest support levels (over 50 hours) include Delaware, Florida, Kansas, Kentucky, Michigan, New Hampshire, North Dakota, Rhode Island, Utah and Virginia. Alabama, Alaska, California, Colorado, Hawaii, Idaho, New York, Oregon, Tennessee, Vermont, and Wyoming have each used in excess of 25 support hours.

The customer support hours are relatively high; however, this was anticipated with so many agencies implementing 5.2.3. It was also discussed that the customer support is anticipated to be high in FY18 due to the continuation of states implementing 5.2.3. While some states have started implementing 5.2.3, there are several states that have not even begun their transition.

2c. Service Unit Status (Handout SW-2c)

Bentley presented the service status report as of 06/16/17. In general, a majority of the service unit projects are on track. Five (5) projects, City of Phoenix, Massachusetts, New Hampshire, New Jersey, and Texas have been placed on hold at the request of the agencies.

The Task Force expressed some concern that Bentley might not have sufficient resources to address all the requested service unit work.

Bentley advised that there are issues with customers desiring to connect to InspectTech work. Two agencies, California and Manitoba, have existing contracts directly with Bentley (outside of the service unit process).

- California – Need for TFS experience
- Manitoba – Support for BrM implementation and future enhancement to move to the OSEM data structure

The Task Force also discussed ongoing issues with the synchronization process between InspectTech and BrM. There is a huge backlog with setting up and executing a sync between InspectTech and BrM. Bentley management is aware of the issue. The customer perception is that Bentley is Bentley and why can't it get fixed, NOW! The Task Force continues to hear from affected DOTs that this needs to be addressed regardless of who "owns" the problem.



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2d. License Revenue Report (Handout SW-2d)

The AASHTO Project Manager provided a summary of FY 17 license activity (and revenue) as of 06/06/17.

2e. Service Unit Report (Handout SW-2e)

The AASHTO Project Manager provided a summary of service unit activity as of 06/10/17.

Agenda Item 03: FHWA Update

FHWA STAFFING CHANGES:

- FHWA Administrator not named yet.
- Dr. Jean Nehme, formerly of AZDOT, replaces Dr. Hamid Gasemi as Long-Term Infrastructure Performance Program Team Leader at Turner Fairbanks Highway Research Center. The Long-Term Bridge Performance Program, led by Rob Zobel is under this team.
- USDOT Secretary has identified their priorities as safety, infrastructure, innovation, regulatory reform.

LAWS, REGULATIONS, POLICY:

- The NBIS regulatory update is #1 on the new FHWA administration's priority list of regulations. MAP-21 Section 1111 article 144(h)(6) specified that within 3 years of date of enactment (2012) the NBIS shall be updated to include (a) the methodology, training, & qualifications for inspectors, and (b) the frequency of inspection with consideration of risk-based approach.
- Specifications for the National Bridge Inventory is under review by the Office of Bridge & Structures. After address of review comments and legal review, preparations will be made for Federal Register notice providing opportunity for public comment.

ASSET MANAGEMENT PLAN AND PERFORMANCE MEASURES WORKSHOPS:

- Two day workshops on rule requirements and implementation have been scheduled. Day one focus is asset management plan. Day two focus is performance management. Bridge and pavement breakout sessions will be held on day two. Bridge breakout session is 5.5 hours with session topics that include (1) asset management plan (provide bridge context to Day one general discussion), (2) BMS, (3) performance measures and target setting. Intended audience is State DOTs, MPOs, and FHWA Division representatives.

Tentative Schedule			
FHWA Region	States	Location	Dates
Mid-America States	Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota, Texas, and Wisconsin	Kansas City	June 22-23
Southern States	Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Puerto Rico, South Carolina, Tennessee, Virginia, and West Virginia	Raleigh	July 11-12
Northern States	Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, and Vermont	Boston (Cambridge)	August 21 week
Western States	Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming	Phoenix	Sept 11 week**



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**week of BrMUG

BRIDGE MANAGEMENT PEER EXCHANGE:

- Purpose is to exchange experiences and initiatives in bridge management. Topics from prior exchanges included agency processes, documentation and reports, LCCA, functional improvement policies, preservation policies, staffing/training, maintenance, data, etc. These exchanges will emphasize asset management plans, performance measures, and BMS. The last exchanges were conducted 2008-2009.
- Duration: 2.5 days
- Funding: FHWA intends to fund attendance by one State DOT and one FHWA Division Office representative.

Tentative Schedule		
Mid-America States	Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota, Texas, and Wisconsin	Oct 16-20, 2017
Southern States	Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Puerto Rico, South Carolina, Tennessee, Virginia, and West Virginia	Nov 27- Dec 1, 2017
Northern States	Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, and Vermont	Feb 26 – Mar 2, 2018
Western States	Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming	Apr 23-27, 2018

KEY DATES:

• **AM Plan Rule:**

Rule Release	10/24/16
Rule Effective	10/02/17
Initial Plan Submittal	04/30/18
Final Plan Submittal	06/30/19
Penalty Application	10/01/19

• **PM2 Rule (Bridge Performance Measures):**

Effective date	05/20/17
NBI Data Submittal	03/15 annually
Minimum Condition Level Determination	prior 10/01 (annually)
Target Establishment	One year from effective date (targets need established one year from effective date in accord with MAP-21 requirement however reporting to FHWA is by the start of federal fiscal year)
Target Reporting	10/01/18
Performance Period Target Setting & Reporting	10/01/18 and biennially thereafter
Target Adjustment Mid-Performance Period	10/01/20 (biennially)



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First Performance Period	01/01/18-12/31/18
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Following the FHWA presentation the Task Force discussed the following FHWA-related issues.

- How to implement a culvert rating within a bridge/culvert coding guide
- Performance measures for bridges owned by MPOs

The Task Force made the decision to add an MPO field to BrM. Josh Johnson created a JIRA ticket, #PONWEB 2867, to support this action. This will not be part of BrM 5.3, but is included in the list of deferred tickets for consideration in BrM 5.4.

Agenda Item 04: 5.3 Update

The next release of BrM 5.3, Beta 5 will be delivered to the beta testers on July 3. Wrap-up testing will be a two week cycle, followed by:

- Release Candidate (RC) 1: July 17 – August 11
- Beta Test Review Gate: August 14 – August 18
- Package Release and Close Out Review Gate: August 21 – 25
- Final release of BrM 5.3: August 28 – 31

The BrM 5.3 Project Contract will expire on 08/31/17. The Task Force made the decision to not submit a contract mod request to SCOA at this time; however, the possible need for a contract extension will be discussed during the bi-weekly Task Force Conference Calls.

Password parameters will be set if the password is changed to OCE (it was a bug) – this discussion was off topic.

Cross Section Module

The Task Force discussed the makeup of the page header on the Cross Section Module. A bug was discovered in the channel cross section tool. The Snd/Elevation Indication will default to Elevation and will be changed to soundings as the majority of the Task Force members agreed this was the best approach.

The Task Force discussed the fact that the header currently includes the district. The Task Force decided the “Division: XX, District: XX” information in the Cross Section header is not necessary.

The Task Force also discussed the fact that the sub-header on each of the sections currently reference “Scour Items”. “Scour Items” should be changed to “General Information”.

Bentley advised that an error was discovered in the Check Scripts. The correction will be re-posted as independent scripts in the near future. This issue is not connected to the Beta 5 release. Craig Nazareth advised that the scripts for the install scripts will overwrite any ‘local’ default values in the parameters table. Bentley will make a switch within the script to forego making default parameters within the database.



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Agenda Item 05: BrM TAG Activities - Updates

The Task Force discussed the need to establish a process to capture user needs prior to the user group meeting so a release can be fully developed and delivered prior to the annual BrMUG. The idea of a two-year cycle with a ‘patch/bug-release’ in the interim was discussed; however, there was not a consensus to go this route for this next release. Establishing a cycle based on the release of a new coding guide was also discussed; however, this would require knowledge of the date of release of the new coding guide.

It was decided that this year the Task Force will work to develop a pre-loaded list to have the members rank their needs prior to the BrMUG meeting.

5a. Testing TAG

It appears that a majority of the issues found by the beta testing TAG found have been fixed in the last release; Beta 5.

- The Task Force will review the Testing TAG member list following the release of the RC1
- The Task Force discussed whether there would have been any benefit to have had a week of testing in Pittsburgh – Bentley advised that they felt on-site testing would have been beneficial if there was adequate time to include in the beta testing phase, but the schedule and timing of this release were prohibitive for on-site testing; additionally, a couple of Task Force members felt that Pittsburgh on-site testing of the first beta release would have been a waste of time due to the unusually large amount of fatal flaws in the first beta. They felt more time would have been expended waiting on fixes to make the software operable than than being used for actual testing. This has not been the case in the past. Bentley suggested that on-site testing be schedule around 2/3rds to ¾ quarters of the way through the beta testing phase. This would mitigate the potential issue with the first beta release, but also provide the benefit of onsite testing. He also noted that while onsite testing is very productive and beneficial, it is also expensive and could add significant costs to the ‘release’ portion of the contract.

5b. Reports TAG

The Reports TAG has taken a break. The Task Force has a goal to have something to present on BrM Reporting for the BrMUG meeting.

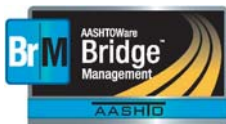
5c. Multi-Media TAG

The Multi-Media TAG has stalled out. The Task Force reached out to the user community to ask for volunteers; however, to date there has been little interest. The Task Force decided they may be able to put together an initial list of needs to present to the users at the BrMUG meeting.

5d. DB TAG

DB TAG Chair – Thomas Martin’s rotation off the Task Force at the end of June will create a void in the leadership of the DB TAG. Thomas’ contribution to the Task Force and the DB TAG have been enormous and he will be missed. In his absence, Craig Nazareth will take over Chair responsibility for the Database TAG going forward.

Discussion was initiated to look into the future with alternatives to a relational database for the benefit of application data sharing, maybe similar to T-19, or Beckie’s vision of BrDR sharing from design to rating to



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management. Compliments were cast to the group, their work over the past three years, the Task Force members and the vendor at what they've done thus far and how they are now ready to take the paradigm shift to understand the 'relational db' is not the only answer for data storage, exchange and reporting.

A vision was cycled around the entirety of the 'circle of life' of a bridge (including the adjacent roadway, planning, estimating, design, on and on). "Web Service to BRD" was proposed as a BrM sponsored RIPI project (i.e. part of the Load Rating FDS that was not included for the general users). This may end up being a multi-phased proposal to accommodate the various major efforts needed for this. One significant part will be creating the web-services within AASHTOWare Bridge Design.

Agenda Item 06: Crowd Funded Enhancements

6a. Tunnel Enhancements (FDS) (Handout SW-6a)

Caltrans is interested in changing the current tunnel enhancement FDS. The Task Force is willing to consider the requested changes; however, the existing FDS needs to be updated to reflect Caltrans proposed changes for Task Force review.

Agenda Item 07: BrM Future Versions – What to include

7a. Prioritize Enhancements (Handout SW-7a)

Bentley presented the BrM enhancement list pulled from active JIRA tickets. The Task Force asked Bentley to add a column to the BrM Enhancement Priority List to document the approximate level of effort for each enhancement.

The Task Force reviewed the Utility Tree pyramid used in the Michigan DOT.

The Task Force discussed the details of the JIRA tickets included on the BrM Enhancement Priority List. Some of the smaller enhancements will be handled under the MSE. A 5.4 Project will be established to support the development of larger enhancements which require FDS documents. The current enhancement list is a combination of enhancements from previous User Group priority lists as well as items that are on the Task Force's radar.

The Task Force walked through the detailed requirements for the Multi-Media Enhancement.

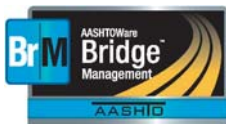
Agenda Item 08: FY2018 Submission to SCOA

The FY18 BrM MSE contract was signed by AASHTO Management and forwarded to Bentley Systems for execution on June 5, 2017. The executed contract has been received by AASHTO.

Agenda Item 9: 2017 BrMUG Meeting

10a. Agenda

The Task Force walked through the BrMUG draft agenda with Todd Springer, VDOT (BrMUG representative). Agenda items to present information on 5.3 enhancements were added and additional end user presentations were discussed. At the conclusion of the discussion the agenda content was completed. Judy Tarwater agreed to edit the agenda version to be published to reflect the changes discussed.



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The BrMUG President suggested (via email) asking all attendees to provide information on their “BrM Role” within their agency. To support this request, attendees will be asked to select the categories that best describe their BrM Role within their agency. In addition, at the time of attendee self-introductions during the BrMUG meeting, attendees will be asked to discuss their BrM Role.

10b. BrM End User Survey (Handout SW-9b)

The Task Force reviewed the draft 2017 BrM End User Designee survey developed using the 2016 survey as a starting point and incorporating questions submitted from NDOR as well as a couple of questions on agency development work outside of the service unit process. The survey should go out in mid-July and responses should be received by September 1.

Agenda Item 10: VDOT Deterioration Modeling

Todd Springer (VDOT) presented an overview of the Virginia DOT’s vision on how bridge deterioration modeling should be handled.

Agenda Item 11: Review Action Items

The meeting Action Items were reviewed.

Agenda Item 12: Draft Quarterly Status Report

Bentley walked the Task Force through the current version of the document. The Task Force reviewed the content and edited to reflect current activities.

Agenda Item 13: Outstanding DOT issues

13a. Nebraska DOR

NDOR has been reluctant to move from 5.2.1 to 5.2.3 mainly because their enterprise installation of 5.2.1 meets their needs reasonably well. They currently have a version of 5.2.3 (release 3) installed in a QA environment and are reviewing it. They intend to use it for collecting inspection reports and not for bridge management, at least in the near future. They will investigate the bridge management features to see if these could enhance what we do and be adapted to reflect our agency practices.

PONWEB-2604 – The AASHTOWare Bridge Task Force made what was felt to be the best decision for the user community based on feedback from the user group community, specifically, users advised that they do not want the ‘read-only’ for inspection status to lock everything. During 2015 BrMUG meeting the Task Force made users aware that only the INSPEVNT would be read-only as a part of the locked inspection status. - Nebraska DOR was caught off guard about the locking of an inspection – they thought that Locked means everything is locked (when in fact it only locked the records in the INSPEVNT and pon_elem_insp). Only an administrator can go into the system and unlock all of the record bridge record at the time of the approval of the inspection. NDOR, found it unacceptable to not have control over locked inspection status for items not in the INSPEVNT table. NDOR worked with Paul Jensen to modify BrM 5.2.3 so that it crashes if users attempt to save new input for locked inspections. This is an inelegant and costly modification, but it is done.

PONWEB-2612 – As we understand it, NDOR is using the same position in datadict that Bentley used when they created new columns. However, the order number in datadict only affects the positioning of the columns in PDI files. The positioning being different does not affect anything related to the import, nor



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the software itself. Nonetheless, a later version of BrM will include re-ordering database columns and ensuring that datadict matches the physical database structure. – NDOR advised that this issue has been resolved, at least for now.

PONWEB-2666 – We appreciate the documentation provided by NDOR and have confirmed that this issue is a bug which was not found during alpha nor beta testing. This bug goes back to 5.2.2 and is very isolated in its affects. In response to the ticket, the issue has been corrected in BrM 5.3. In the interim, a simple workaround can be used, you can either 1) recreate the tab, or 2 update it in the database.

The Nebraska DOR confirmed that the following miscellaneous issues verbally reported by Paul Jensen do not affect NDOR's installation of BrM.

- GUID Datatype
- Application Programming Interface (API)
- Forms Builder
- Model View Controller

13b. Manitoba Infrastructure and Transportation

The AASHTO Project Manager received a call from the Manitoba IT agency to discuss issues with the status of their BrM development project with Bentley. The Manitoba project is being handled under a direct contract between Manitoba IT and Bentley Systems (outside of the service unit project process). From Manitoba's perspective the project is behind schedule and no deliverables have been delivered to date. The project has also experienced serious staff turnover on both the Manitoba IT team and the Bentley project team.

Following the discussion, increased emphasis has been placed on the project by the Bentley team and all parties are working together to get everyone on the same page. Bentley will deliver the initial contract deliverables following feedback from Manitoba on custom reports and screens. Once the deliverables are delivered, Manitoba will compare the deliverables to OSEM and make decisions on what additional changes will be required to convert their implementation to the OSEM data format. Manitoba IT is also interested in bring Paul Thompson on board under a Bentley Service Unit project to serve in the role of facilitator between Manitoba and Bentley.

13c. PennDOT

PennDOT uses BrM as a 'backend' database to store their bridge data. PennDOT has a customized interface, iForms, that connects to the BrM database. Customized tables are used to store their data; therefore, all their custom tables will need to be customized to support the GUID implementation.

PennDOT does not appear to use the core product itself for anything (management, inspection, or anything in between). This is the crux of their dilemma. The GUIDs require some work for their external systems, and provide essentially no benefit for them. However, the bridge engineers have a lot of interest in the new modules that will be delivered with BrM 5.3 (most notably cross sections). A majority of the systems functionality that they use appears to be homegrown (but may be based off of BrM).

PennDOT has already developed a customized solution to support their tunnel inventory.



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Agenda Item 14: Executive Session

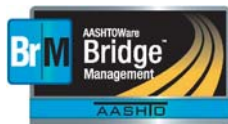
Product financials for May 2017 and Project Five Year Projection Financial reports were distributed to the Task Force during the Executive Session.

The meeting adjourned at 5:00pm.



Attachment A: Listing of Bridge Task Force, TRT, TAG and User Group Personnel

AASHTOWare Bridge Task Force		
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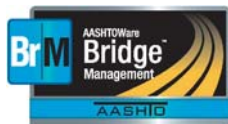
BrDR Design Tool TAG (DTAG)

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BrDR Reports TAG (RTAG)		
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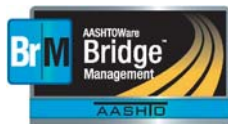
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