

**Minutes Of The
AASHTOWare Bridge Management Task Force Meeting
October 24 - 25, 2018
Newport, RI**

Table of Contents

General Information – Meeting of the Bridge Task Force	3
General Discussion.....	3
Agenda Item 00: Review Agenda / Assign Minutes Recorder.....	3
Agenda Item 01: Prior Business.....	3
1a. Review September Meeting Minutes (Handout NPRI-1a)	3
1b. Review September Meeting Summary Minutes (Handout NPRI-1b)	4
Agenda Item 02: Project Update	4
2a. Budget and Schedule (Handout NPRI-2a).....	4
2b. Customer Support Statistics (Handout NPRI-2b)	4
2c. Service Unit Status (Handout NPRI-2c)	4
2d. License Revenue Report (Handout NPRI-2d)	4
2e. Service Unit Report (Handout NPRI-2e)	4
Agenda Item 03: FHWA Report	5
Agenda Item 04: BrM Management Directions	7
Agenda Item 05: BrMUG Follow-up Discussion	7
5a. BrM Technical Manual Distribution.....	7
5b. Survey Response Summary (Handout NPRI-5b)	7
Agenda Item 06: BrM 5.3.01 (6.0) Project Status.....	7
6a Scheduling of Patch Releases	7
6b Multiple Closeouts and Warranties.....	8
Agenda Item 07: Functional Design Specifications – Development and Review Process	8
Agenda Item 08: BrM Enhancement Planning.....	10
8a. Tunnel Enhancements.....	10
8b. Pavement Inclusion Statement of Work	10
8c. NBI Deterioration Enhancement.....	10
8d. User Group Priorities / Funding Commitments.....	10
8e. BrM Timeout Feature.....	13
Agenda Item 09: BrM TAG Activities	13
9a. Testing TAG	13
9b. Reports TAG.....	13
9c. Database TAG	13
Agenda Item 10: FY2019 – Preliminary Discussion.....	14
10a. Catalog.....	14
10b. FY2020 MSE Work Plan	14
Agenda Item 11: Marketing Activities	14
Agenda Item 12: Draft Quarterly Status Report Content	14
Agenda Item 13: Review Action Items.....	15



REDACTED

Agenda Item 14: Executive Session..... 15
Attachment A: Listing of Bridge Task Force, TRT, TAG and User Group Personnel..... 16



REDACTED

General Information – Meeting of the Bridge Task Force

Date: Wednesday, October 24, 2018

Participants:

AASHTO	Judy Tarwater	AASHTO	Project Manager
SCOA	Tim Armbrecht	Illinois DOT	SCOA Liaison
T&AA	Will Holmes	Kentucky TC	T&AA Liaison
BrM Task Force	Eric Christie	Alabama DOT	Vice-Chair
	Derek Constable	FHWA	FHWA Liaison
	Beckie Curtis	Michigan DOT	Bridge Management
	Mark Faulhaber	Kentucky TC	Bridge Management
	Craig Nazareth	Rhode Island DOT	Bridge Management
	Bruce Novakovich	Oregon DOT	Bridge Management
BrDR Task Force	Todd Thompson	South Dakota DOT	Chair
	Dean Teal	Kansas DOT	Bridge Design (BrD)
	Josh Lang	Bentley	Bridge Management
BrM Contractor	Josh Johnson	Bentley	Bridge Management
	Zac Boyle	Bentley	Bridge Management
	Tinika Fowlkes	AASHTO	AASHTOWare
Guests			Customer Success
	Alvaro Garcia	Connecticut DOT	Manager
	Stanley Juber	Connecticut DOT	BrM User

General Discussion

Eric Christie convened the meeting at 10:45am.

Agenda Item 00: Review Agenda / Assign Minutes Recorder

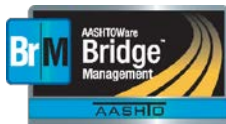
Judy Tarwater will take the meeting minutes. The agenda was reviewed and no additional topics were added at this time.

Eric advised that a conference call with Tim Jennings (T&AA Contractor) will be held on Thursday afternoon at 2:30PM with the members who will attend the BrM QA Meeting on November 7 in the Bentley Office in Pittsburgh, PA. The purpose of the call is to discuss and finalize the BrM QA Meeting Agenda. All members of the Task Force are welcome to join in on the call or alternately take a longer afternoon break.

Agenda Item 01: Prior Business

1a. Review September Meeting Minutes (Handout NPRI-1a)

Minutes from the September 20, 2018, Task Force meeting held in Santa Fe, NM were reviewed and approved as-is.



REDACTED

1b. Review September Meeting Summary Minutes (Handout NPRI-1b)

The Summary Minutes for the September Task Force Meeting in Santa Fe, NM were reviewed and approved as-is.

Agenda Item 02: Project Update

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

Bentley presented the budget report for the FY19 MSE contract. All billings reported include invoices issued through 09/30/18. Most of the work to date under the FY19 MSE contract has been under TM1 (Project Management and Administrative Services), TM2 (Customer Support), TM3 (Maintenance Services), and TM6 (Task Force Directed Tasks). The overall budget spent to date – 29%.

Bentley presented the budget report for BrM 5.3.01 (6.0) Project contract. All billings reported include invoices issued through 09/30/18. Most of the work to date under the BrM 5.3.01 Project contract has been under FP1 (Patchable Version), FP3 (Updates and Improvements to Reports), FP4 (Mapping Feature Enhancements), FP 5 (NBE Import), and FP6 (BrM 6.0 Release). The overall budget spent to date – 22%.

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

Bentley presented an overview of the customer support hours by agency as of 09/30/18. Michigan is the only agency with support hours exceeding 50. Agencies with more than 25 support hours include Kansas, Kentucky, and Oregon.

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

Judy Tarwater presented the service status report as of 08/2018. In general, a majority of the service unit projects are on track. Four (4) projects have been closed out and three (3) projects for Colorado, New Hampshire, and City of Phoenix have been placed on hold at the request of the agencies.

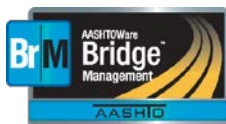
2d. License Revenue Report (Handout NPRI-2d)

Judy Tarwater provided a summary of FY19 license activity (and revenue) as of 10/04/18.

License Type	Quantity
BrM Evaluation License	1
BrM Educational License	4
HAO Service Units	1
BrM Local/Small Agency License	1
Local/Small Agency Support	1
Service Units	53
BrM Super Site License	40
BrM Developer License	0

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

Judy Tarwater provided a summary of service unit activity as of 08/29/18. 47 new service units have been ordered in FY2019.



Agenda Item 03: FHWA Report

Derek Constable provided the following FHWA update.

FHWA STAFFING CHANGES:

No indication yet of next FHWA Administrator. Tom Everett new Executive Director replacing retired Butch Wadelich.

LAWS, REGULATIONS, POLICY:

- **National Bridge Inspection Standards update:** Release for comment in Federal Register now listed as tentatively 01/04/19 in USDOT September report on rulemakings (previous report indicated 11/18). Currently responding to comments by USDOT Secretary then needs approved by White House Office of Management and Budget. Update will include among other things; (a) the methodology, training, & qualifications for inspectors and (b) the frequency of inspection with consideration of risk-based approach.
Released an 06/08/18 interim policy memo on risk based routine inspection frequency. This allows up to 48 months frequency. 48 months is within authority of current NBIS allowance with FHWA approval.
- **Coding Guide update (Specifications for the National Bridge Inventory):** Planned for release for comment with NBIS update.
- **Asset Management Plans:**
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

Initial Plan Observations:

FHWA contractor will review and prepare summary report.

High level observations of bridge content found from sample review by FHWA bridge staff:

- Some aspects done well;
 - Many are analyzing alternative funding levels
 - Many risk management analysis processes are well described
 - Some using State measures and data in addition to FHWA measures
 - Some using cross asset tradeoff analysis
 - Some described their bridge management system (BMS) in detail and how it is used within processes
 - Some defined process gaps including BMS improvement needs
- Some aspects need improved;
 - Many have not defined or meaningfully defined state of good repair
 - Many not analyzing different allocations by work type
 - Many analysis time horizons do not extend beyond 10-year TAMP period
 - Many need to better describe life cycle planning analysis and supporting deterioration models, work types, costs, and effectiveness



REDACTED

Soon to be published supplemental LCP guidance provides additional emphasis on analyzing alternative allocations by work type in addition to alternative total investments. Also the supplemental guidance includes consideration of LCC utility benefits, in addition to condition forecasts, to compare alternative total investment levels and alternative allocations by work type. Per the regulation work type info needs included in TAMPS and at a minimum includes reconstruction, rehabilitation, preservation, maintenance, and initial construction.

FHWA AM web page resources: <https://www.fhwa.dot.gov/asset/>

- Interim guidelines for risk management, financial planning, and life-cycle planning. Life-cycle planning guidance will be augmented to include separate guidance and examples for bridges and pavements. Current guidance is asset class generic.
- AM Plan Certification Guidelines that Divisions will use for review and certification. Originally released for comment in Federal Register.
- Q&As (60+)

• **Performance Management (Measures & Targets):**

Key dates

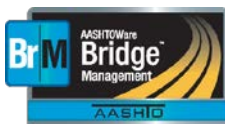
Performance Measures Rule (Bridges & Pavement)	
Rule Release	01/18/17
First Performance Period	01/01/18-12/31/2021 (4 years)
• Establish Targets*	05/20/18
• Begin Period & Target Setting Report Date	10/01/18
• Mid Period Progress Report (& Adjustment) Date	10/01/20
• End of Period Report Date	10/01/22

*Establishing targets by May 20, 2018 is approximately 130 days before 10/01/18 targets reporting date to FHWA. This does not allow MPOs 180 days to accept targets or set own targets so States should be coordinating with MPOs in advance of May 20. May 20 date selected because MAP-21 said States had a year from rule effective date to establish targets.

Reminder that FHWA published the computation procedure for FHWA calculation of condition measures used to determine baseline conditions and make significant progress determinations. This denotes the NBI datasets for baseline performance, mid-period performance and end-period performance as the June 15 archived dataset in year 1 of the performance period (processed March 15 submittal of same year), June 15 archived dataset in year 3 of the performance period, and June 15 archived dataset in year 5 (which is year 1 of the following performance period) respectively. <https://www.fhwa.dot.gov/tpm/guidance/hif18023.pdf>

OTHER ITEMS:

- National Tunnel Inventory metrics were tested by 11 pilot States and may be rolled out in spring 2019.
- FHWA BMS Workshop/Training development. 50% development submittal due in late November. If schedule is maintained, pilot will occur in May and delivery will begin in summer 2019.



Agenda Item 04: BrM Management Directions

- **Development Team Organization** - Josh Lang provided the Task Force with an overview of organizational changes currently taking place with the BrM development and support team. Bentley will assign all existing contracts to the new company. This approach would allow support to continue with no downtime. All new contract work would be contracted directly with the new company. January 1, 2019 is the anticipated drop dead date after which Bentley will no longer bill AASHTO for services performed.
- **BrM Hosting** – Josh Lang is working to arrange cloud hosting options to provide BrM hosting services via the new development company.

Agenda Item 05: BrMUG Follow-up Discussion

5a. BrM Technical Manual Distribution

The codes for the BrM Technical Manual download were emailed to the End User Designees on 10/12/18 (for all current licensees. Codes were not distributed to FHWA and Wyoming DOT since those agencies have not yet renewed their BrM license for FY2019.

As of 10/19/18, 12 copies of the BrM Technical Manual have been downloaded.

5b. Survey Response Summary (Handout NPRI-5b)

Overall the survey responses were positive. The Task Force members and Bentley staff will review the individual responses and reach out to the states as appropriate.

Agenda Item 06: BrM 5.3.01 (6.0) Project Status

6a Scheduling of Patch Releases

The Task Force discussed the testing and scheduling of patch releases.

- The testing of patch releases will be a much more shortened cycle
- The targeted testers would be users from the agencies that have features included in the specific patch (i.e. bugs/enhancements/etc.).
- With the switch in testing focus, the role of the BrM Testing TAG needs to determine given the planned quarterly releases.
- Previously, upgrading the database wasn't particularly difficult. You ran the script. As we move down the patch release path, issues with support from agency IS staffs could be complicated with the short cycles between patch releases. This issue could result in testers needing to run a series of scripts provided by Bentley (maybe customized for each tester), making it more difficult for a tester to get spun up, limited testing window.
- BrM Testing TAG members will need to be given sufficient lead time prior to each testing cycle.
- BrM Testing TAG members need to be provided with instructions on what is included with each delivered patch, and how the changes relate to specific areas of the application. – Possible one hour beta kickoff webinar (recorded for those unable to join).
- The constant patching will be a headache for some; however, the emphasis needs to be placed on the fact that implementation of the patch is *optional*.
- Bentley will stand up demo sites for testing, for those who are able/willing to test.

REDACTED

6b Multiple Closeouts and Warranties

The Task Force needs to make a decision on how to address close out processes (i.e. review gates) for multiple deliverables under one contract.

Agenda Item 07: Functional Design Specifications – Development and Review Process

The Task Force discussed the Function Design Specification development and review process.

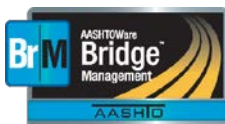
- The Task Force will be tasked to move forward with only the enhancements that are best for the product and all the states as a whole. Enhancements cannot be added to the product based solely on the fact that a state(s) is willing to fund the development. All enhancements to the core product must be in the strategic direction established for the product. Enhancements which cannot be financially supported in the long run should not be incorporated. Every enhancement to the core product adds to the ongoing maintenance and support costs down the road.

Proposed Workflow:

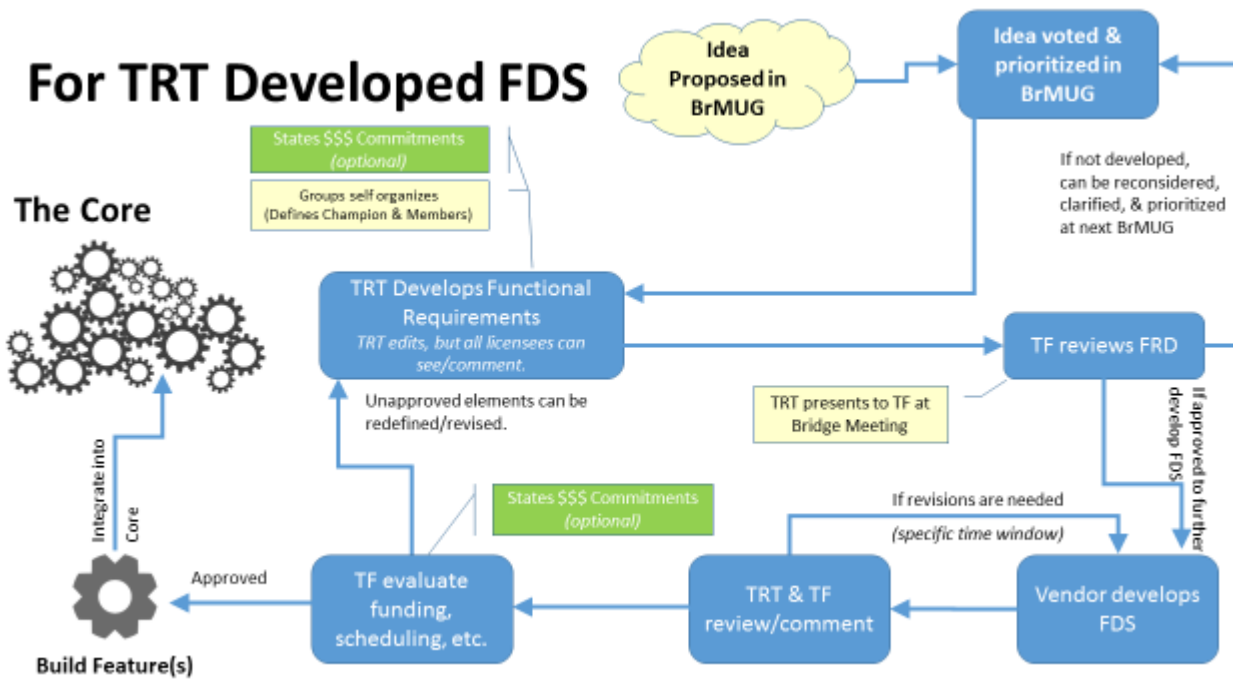
- Enhancement proposed at BrMUG
- Voted on – Prioritized and Clarified
- TRT created – Task Force member assigned as the TRT liaison?
- TRT develops the requirements document. – states can commit
- Present requirements document to the Task Force / Call with Bentley to review the requirements (Hand off)
- Task Force / Bentley develops the FDS - scope to include what the majority supports with optional items and associated costs (to allow a user to step up with the additional funding needed)
- Review comment period with TRT and Task Force

Throughout the FDS development process, care should be taken to ensure that all draft FDS documentation is marked 'DRAFT'.

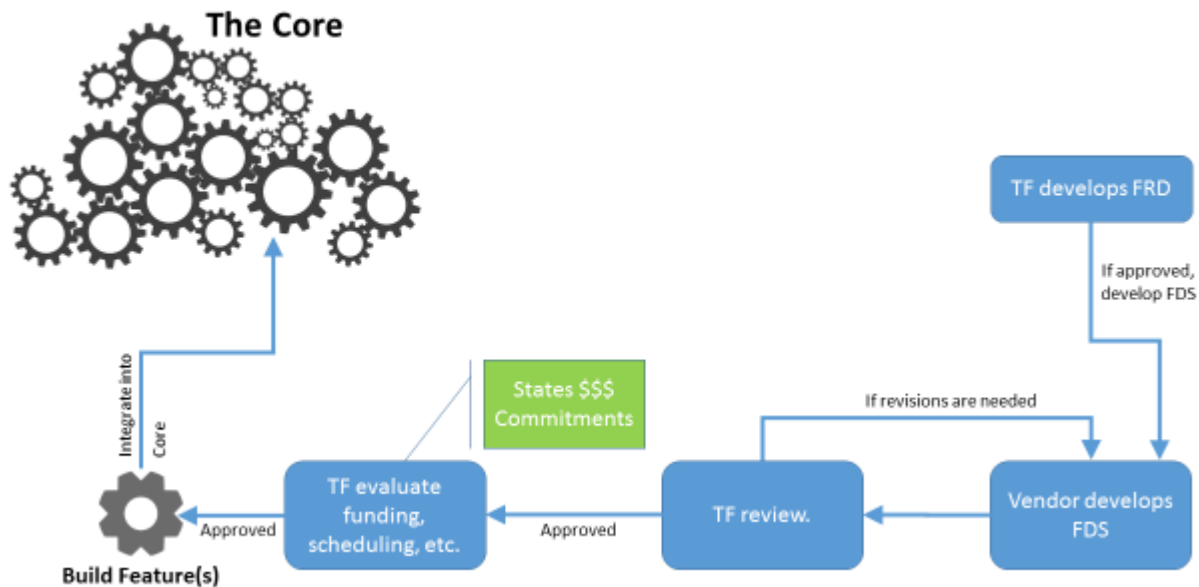
The Task Force discussed the following workflows.



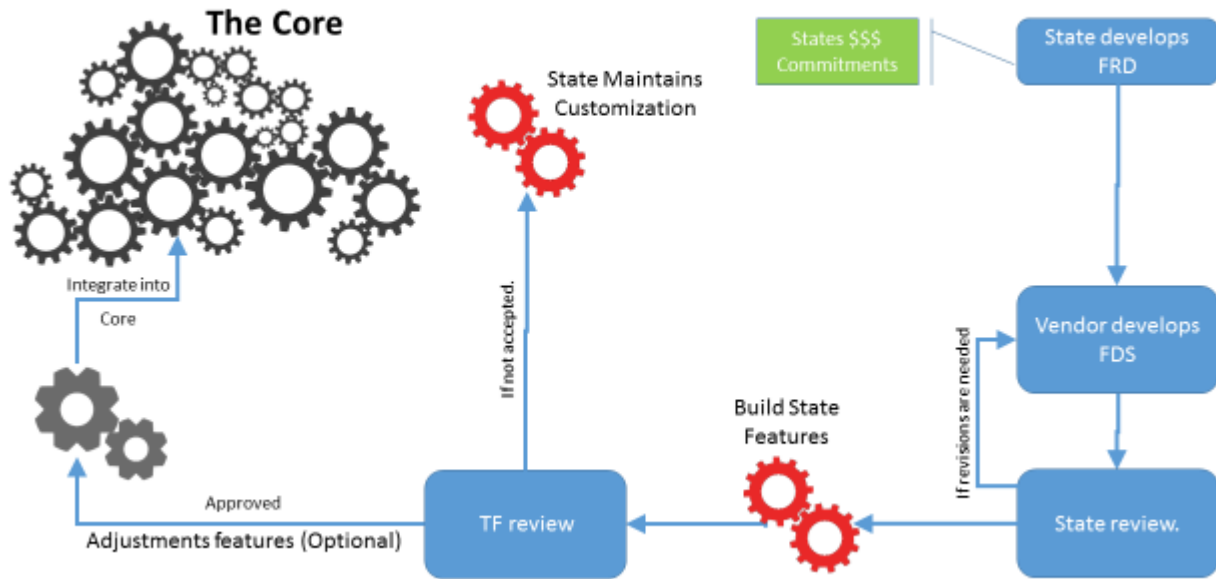
For TRT Developed FDS



TF Driven Development



For State Driven Development



Agenda Item 08: BrM Enhancement Planning

8a. Tunnel Enhancements

The following DOTs have agreed to commit service units to fund enhancements to the BrM Tunnel Module: Oregon (2), Alabama (1), Idaho (2) and Rhode Island (1)
 Bruce Novakovich developed a tunnels requirements document which has been reviewed and approved by the funding agencies.

8b. Pavement Inclusion Statement of Work

The Michigan DOT has agreed to commit three (3) service units to fund the development of the Statement of Work to support the inclusion of pavement data within BrM.

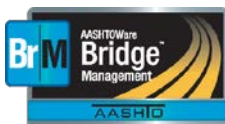
8c. NBI Deterioration Enhancement

The Michigan, Texas and Hawaii DOTs have expressed an interest in adding deterioration modeling options to break NBI data into “Families”.
 Michigan DOT would also like to have the ability to break up substructure data into pier and abutment.

8d. User Group Priorities / Funding Commitments

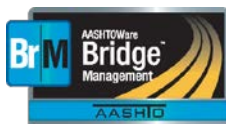
The User Group ranked the enhancements as follows.

	Enhancement	Champion Agency	Champion Contact	Agencies that voted for the enhancement
1	LCCA, Bridge by Bridge	N/A	joshua.johnson@bentley.com	AK, CA, CT, DE, HI, ID, IL, IA, KS, KY, LA, MS, NH, NJ, NM, ND, OH, OK, PA, RI, SD, TX, UT, VT, WA, WI, DC, PR



REDACTED

2	QA/QC Module	Kentucky	ryan.cram@ky.gov	AL, AK, CO, DE, FL, HI, ID, IA, KS, KY, LA, MI, NH, NM, NY, ND, OK, PA, RI, SD, UT, VT, VA, WI, DC, PR
3	Expanded Export/Import Options	N/A		AK, AZ, CO, CT, IA, LA, MA, MS, NH, NM, NY, OH, RI, TX, VT, VA, WA, WI
4	Training Videos (User Group will Form a Committee for Guidance)	California	paul.cooley@dot.ca.gov	AK, CA, DE, ID, KS, MN, NH, NM, OH, RI, TX, VT, WA
5	Clearance Tab	Kentucky	ryan.cram@ky.gov	AK, CA, CO, DE, ID, KY, LA, NH, NJ, NM, NY, ND, OH, PA, RI, SD, UT, WI
6	Work Candidates for Tunnels	Oregon	Bruce.D.NOVAKOVICH@odot.state.or.us	AK, CA, CO, CT, FL, ID, LA, OR, PA, UT, DC
7	Multimedia Interface	Kentucky	ryan.cram@ky.gov	AL, CA, HI, ID, KS, KY, LA, MI, NH, ND, PA, RI, SD, VA, DC
8	General Dashboards	N/A	zac.boyle@bentley.com	AL, AK, CO, ID, IA, KY, LA, MS, NH, ND, OH, PA, RI, SD, VT, VA, WA, WI
9	Utility Value and Health Index	Hawaii	kevin.a.murata@hawaii.gov	AK, CT, DE, HI, ID, IA, KY, LA, MS, NH, ND, OH, PA, RI, TX, UT, WA, DC
10	Maintenance Records Module	Wyoming	kevin.deaver@wyo.gov	CO, CT, NH, NJ, ND, UT, WI, WY, DC
11	Task Scheduler	Alabama	christiee@dot.state.al.us	AL, HI, IA, KY, LA, ND, PA, RI, TX, UT, VA, WI, DC, PR
12	Inspection Scheduling Module	Rhode Island	craig.nazareth@dot.ri.gov	CA, HI, MI, ND, OK, RI, SD, UT, WI, WY
13	Tool-Tip Functional Update	N/A	zac.boyle@bentley.com	FL, IA, NH, OK, PA, RI, SD, DC
14	More Finite Control of Fields (Security by Role)	Nebraska	kent.miller@nebraska.gov	CA, MI, NE
15	Detailing Results by Optimization	Massachusetts	costas.manousakis@dot.state.ma.us	ID, IA, MA, MN, OH, VT
16	Project Workflow	California	paul.cooley@dot.ca.gov	CA, ID, NJ, UT, WA



REDACTED

17	Mobile Inspection	Hawaii	kevin.a.murata@hawaii.gov	CO, HI, OK, RI, UT, DC
18	Enhance NBI Deterioration Modeling	Minnesota	david.hedeen@state.mn.us	CA, CT, ID, IA, MN, NH, NM, TX
19	Enhancing Mapping User Interface (Bounding Boxes, GIS Friendly)	N/A	-	AZ
20	Batch File for Optimizer Configurations & Tools for Analysis	Nebraska	kent.miller@nebraska.gov	MN, NE, TX
21	3D Inspection	North Dakota	nmhuether@nd.gov	LA, ND, OH, PA, UT, DC
22	Funding by Allocation Project Category	Virginia	Richard.Thompson@vdot.virginia.gov	IA, VA
23	Linked Element Deterioration	Nebraska	kent.miller@nebraska.gov	MN, NE
24	Enhance Metric Reports	Virginia	Richard.Thompson@vdot.virginia.gov	MN, NH, VA
25	Report Elements from Optimizer results	Hawaii	kevin.a.murata@hawaii.gov	HI, MA, MN
26	Performance Measures by Formula	Virginia	Richard.Thompson@vdot.virginia.gov	IA, VA
27	Allow Multiple Report Writers	District of Columbia	yared.tesfaye@dc.gov	NH, DC
28	Multimedia for Tunnels	Connecticut	stanley.juber@ct.gov	CT, DC
29	Project Completion Date by Year, More Detail, Open to Traffic	Connecticut	stanley.juber@ct.gov	CT
30	Ability to Activate/Deactivate Elements	Wisconsin	ryan.bowers@dot.wi.gov	CA, WI



REDACTED

31	Any Number of User Tables for Bridges	Oklahoma	tsutton@odot.org	OK
32	Need a Way for Admin. to View Current Users	California	paul.cooley@dot.ca.gov	CA

The current RIPI funded development (BrM/BrR Web services, Regression Testing Tool, and Results Comparison Tool) will be completed between April 2019 and June 2019. The January 2019 Patch is expected to be a bug fix patch with no enhancements included.

- Maintenance Records Module is expected to be funded by the Wyoming DOT.
- NBI Deterioration will be funded by the Michigan DOT (via the commitment of 5-6 service units).
- The Task Force plans to try to secure additional service unit funding for LCCA. (The Task Force will fund half the cost with service units funding the remaining).

8e. BrM Timeout Feature

As a follow up to previous Task Force discussions on the possibility of implementing a timeout warning feature within BrM, Mark Faulhaber broached the subject with the Project Project Manager and InfoTech to look into possible options for BrM to take advantage of the approach used within the Project software suite.

Judy Tarwater followed up with Keith Platte, Brian Korschgan, and InfoTech staff to determine their willingness to share the process and methods used within the Project product.

Agenda Item 09: BrM TAG Activities

9a. Testing TAG

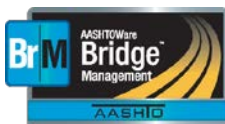
Bruce Novakovich advised that during the 10/17/18 BrM Testing TAG conference call the group decided that they want to continue to test releases in their own environments.

9b. Reports TAG

Bentley Curtis advised that the Reports TAG has been fairly inactive over the past few months. Kentucky has customized some custom reports they got from Rhode Island. They've added new features and found and fixed bugs. They will supply these reports to Bentley and the Reports TAG once they have documented the changes.

9c. Database TAG

Craig Nazareth advised that the Database TAG is waiting on information on the proposed MPO field, e.g. what exactly it is and what will it be tied to? After discussion it was decided that we should keep things simple. One field, if an agency has a bridge in two MPOs, both could be input in the field in a format such as MPO1/MPO2. Since it is possible that MPO names may change, it would be best to have the field fed by a drop down box, using the PARAMTRS table. This approach would allow an MPO name to be changed in the PARAMTRS table, instead of having to change it everywhere in the database. Another advantage of using a drop down box instead of a text box is that fact that it would force consistency in data entry.



REDACTED

The Task Force decided to place the new field on the Inventory-Admin tab below the Placecode control. The field size should be large enough to encompass at least 100 MPOs, i.e.at least 3 characters.

Change primary inspection type - Alabama noted that it was possible to remove an item from the Primary Inspection Type control on the Schedule page, but that does not remove it from the control that appears when creating a new inspection. This was tested by Bentley at the meeting, and it doesn't seem to be the case. It was postulated that this could be fixed in 6.0 (Alabama was using 5.3) or it is a caching issue.

Agenda Item 10: FY2019 – Preliminary Discussion

10a. Catalog

i. Additional Licensing Options

The Task Force discussed looking at the possibility of establishing a Consultant Training license which could be used only for the purpose of learning the software. The training license could not be used for production work. Consideration needs to be given to ensuring the training license fee includes contractor hours for support.

ii. Licensing Fee Structure

The following fee structure has been discussed in the past. Final decisions on the FY2020 license fee structure will be made during the January 2019 Task Force meeting.

	2019	2020
BrM Super Site	\$ 37,000	\$ 38,100
Asset Tier 1 (1000 bridges)	\$ 16,000	\$ 16,500
Asset Tier 2 (750 bridges)	\$ 10,600	\$ 11,000
Asset Tier 3 (250 bridges)	\$ 7,900	\$ 8,100
Enhanced Asset Tier Support	\$ 3,000	\$ 3,100

The Task Force discussed the possibility of additional license fee increases in the near future. The potential for establishing a project for solicitation was also discussed.

10b. FY2020 MSE Work Plan

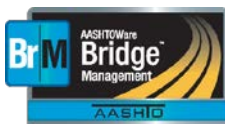
No discussion.

Agenda Item 11: Marketing Activities

No discussion.

Agenda Item 12: Draft Quarterly Status Report Content

The Task Force will discuss the upcoming BrM Quarterly Status Report during the 11/01/18 biweekly BrM Conference Call. Items discussed for inclusion: Information on the 6.0 release, List of user enhancement priorities and champions (contact champions in interested in contributing service units), and FDS Workflow Diagrams. The Task Force also discussed including Information on the status of FDS documentation in future Quarterly Status Reports, as requested by the users during the 2018 BrMUG Meeting.



REDACTED

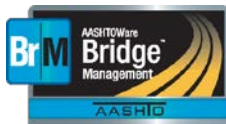
Agenda Item 13: Review Action Items

Judy Tarwater reviewed the action items recorded during the meeting.

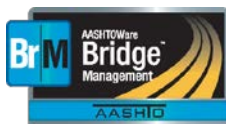
Agenda Item 14: Executive Session

An Executive Session was held on Wednesday morning at 9:35.

The meeting adjourned at 5:00pm.



AASHTOWare Bridge Task Force		
Thompson, Todd	South Dakota DOT, Chair	todd.thompson@state.sd.us
Tarwater, Judy	AASHTOWare Project Manager	jtarwater@ashto.org
Armbrecht, Tim	SCOA Liaison, Illinois DOT	tim.armbrecht@illinois.gov
Holmes, Will	T&AA Liaison, Kentucky DOT	Will.Holmes@ky.gov
Bridge Design/Rating (BrDR) Members		
Dietsche, Joshua	BrR Wisconsin DOT	joshua.dietsche@dot.wi.gov
Lu, Ping	BrR, Iowa DOT	Ping.lu@iowadot.gov
Vacant	BrD, TBD	
Saad, Tom	FHWA Liaison, FHWA Resource Center	Thomas.saad@dot.gov
Teal, Dean	BrD, Kansas DOT	dean.teal@ks.gov
Vinayagamoorthy, Vinacs	BrR, CalTrans	murugesu_vinayagamoorthy@dot.ca.gov
Bridge Management (BrM) Members		
Christie, Eric	BrM, Alabama DOT, Vice Chair	christiee@dot.state.al.us
Constable, Derek	FHWA Liaison, DC	derek.constable@dot.gov
Curtis, Beckie	BrM, Michigan DOT	CurtisR4@michigan.gov
Faulhaber, Mark	BrM, Kentucky Transp Cabinet	mark.faulhaber@ky.gov
Nazareth, Craig	BrM, Rhode Island DOT	craig.nazareth@dot.ri.gov
Novakovich, Bruce	BrM, Oregon DOT	bruce.d.novakovich@odot.state.or.us
Michael Baker International, Inc.		
Duray, James A.	BrDR Contractor	jduray@mbakerintl.com
Lee, Herman	BrDR Contractor	hlee@mbakerintl.com
Trees, Geoff	BrDR Contractor	gtrees@mbakerintl.com
Bentley Systems, Inc.		
Lang, Josh	BrM Contractor	Josh.lang@bentley.com
Johnson, Josh	BrM Contractor	Joshua.Johnson@bentley.com
Beynon, Corey	BrM Contractor	Corey.Beynon@bentley.com
Boyle, Zac	BrM Contractor	Zac.Boyle@bentley.com
Meredith, Chris	BrM Contractor	Chris.Meredith@bentley.com
BrDR Testing TAG		
Teal, Dean	Kansas DOT, TAG Chair	dean.teal@ks.gov
TBD	TBD, Co-Chair	
Befikadu, Elizabeth	AI Engineers	ebefikadu@aiengineers.com
Chernioglo, Igor	Caltrans	Igor.chernioglo@dot.ca.gov



REDACTED

Curtis, Beckie	Michigan DOT	Curtisr4@michigan.gov
Dietsche, Joshua	Wisconsin DOT	joshua.dietsche@dot.wi.gov
Gao, Yihong	Minnesota DOT	Yihong.gao@state.mn.us
Hagos, Michael	Manitoba	Michael.hagos@gov.mb.ca
Huang, George	CalTrans	George_huang@dot.ca.gov
Jones, Daniel	Alabama DOT	jonesdan@dot.state.al.us
Kappes, Lenci	Montana DOT	lkappes@mt.gov
Litchfield, Phillip	Illinois DOT	Phillip.Litchfield@Illinois.gov
Lu, Ping	BrR, Iowa DOT	ping.lu@iowadot.us
McMunn, Creightyn	Michigan DOT	mcmunnc@michigan.gov
Vinayagamoorthy, Vinacs	CalTrans	murugesu_vinayagamoorthy@dot.ca.gov
Pence, Alex	Wisconsin DOT	Alex.pence@dot.wi.gov
Ruby, Jeff	Kansas DOT	Jeff.ruby@ks.gov
Silverstrim, Damian	AI Engineers	dsilverstrim@aiengineers.com
Stone, Crystal	Illinois DOT	Crystal.stone@illinois.gov
TBD	South Dakota DOT	
Tempinson, Don	Michigan DOT	TempinsonD@michigan.gov
Waheed, Amjad	Ohio DOT	Amjad.Waheed@dot.ohio.gov
Warner, Dave	Montana DOT	dwarner@mt.gov

BrDR Design Tool TAG (DTAG)

Dietsche, Joshua	Wisconsin DOT, Chair	joshua.dietsche@dot.wi.gov
TBD	TBD, Co-Chair	
Barnett, Nicholas	Illinois DOT	Nicholas.Barnett@illinois.gov
Befikadu, Elizabeth	AI Engineers	ebefikadu@aiengineers.com
Chernioglo, Igor	Caltrans	Igor.chernioglo@dot.ca.gov
Crudele, Brenda	New York State DOT	Brenda.Crudele@dot.ny.gov
Ehrlich, Arielle	Minnesota DOT	arielle.ehrlich@state.mn.us
Kemna, Aaron	Missouri DOT	Aaron.kemna@modot.mo.gov
Ruby, Jeff	Kansas DOT	jeff.ruby@ks.gov
Schroeder, David	Montana DOT	daschroeder@mt.gov
Wagner, Brad	Michigan DOT	wagnerb@michigan.gov
Woldemichael, Berhanu	Alabama DOT	woldemichaelb@dot.state.al.us

BrDR Reports TAG (RTAG)

Curtis, Beckie	Michigan DOT, Chair	CurtisR4@michigan.gov
D'Andrea, Arthur	Louisiana DOT	Arthur.D'Andrea@la.gov
Stark, Richard	New York State DOT	Richard.Stark@dot.ny.gov
Thompson, Todd	South Dakota DOT	todd.thompson@state.sd.us
Waheed, Amjad	Ohio DOT	Amjad.Waheed@dot.ohio.gov
Wang, Cindy	Ohio DOT	Cindy.wang@dot.ohio.gov



REDACTED

BrDR Modernization TAG		
Armour, Jacob	Michigan DOT	Armourj1@michigan.gov
Coley, Dave	South Dakota DOT	David.coley@state.sd.us
Debessay, Mengisteab	New York State DOT	Mengisteab.Debessay@dot.ny.gov
Fisher, Jeremy	Ohio DOT	jeremy.fisher@dot.ohio.gov
Fuda, Julianne	New York State DOT	Julianne.fuda@dot.ny.gov
Gao, Yihong	Minnesota DOT	yihong.gao@state.mn.us
Johnson, Michael	Idaho TD	michael.johnson@itd.idaho.gov
Jones, Daniel	Alabama DOT	jonesdan@dot.state.al.us
Litchfield, Phillip	Illinois DOT	Phillip.litchfield@illinois.gov
McMunn, Creightyn	Michigan DOT	mcmunnc@michigan.gov
Pence, Alex	Wisconsin DOT	Alex.pence@dot.wi.gov
Roberts, Devin	Montana DOT	deroberts@mt.gov
Ruby, Jeff	Kansas DOT	jeff.ruby@ks.gov
Spencer, Andrew	Kansas DOT	andrew.spencer@ks.gov
Stone, Crystal	Illinois DOT	Crystal.stone@illinois.gov
Wang, Cindy	Ohio DOT	Cindy.wang@dot.ohio.gov
Ward, David	Caltrans	Dave.ward@dot.ca.gov
Wellner, Patrick	South Dakota DOT	Patrick.Wellner@state.sd.us
Westerfield, Scott	Mississippi DOT	swesterfield@mdot.ms.gov
Withers, Richard	Mississippi DOT	rwithers@mdot.ms.gov
Woldemichael, Berhanu	Alabama DOT	woldemichaelb@dot.state.al.us
BrDR User Group (RADBUG)		
George Huang	CalTrans, President (BrR)	George_huang@dot.ca.gov
Metcalf, William (Billy)	Louisiana DOTD, Vice-President (BrR)	william.metcalf@la.gov
Young, Kelly	Wisconsin DOT, Vice-President(BrD)	kelly.young@dot.wi.gov
Schroeder, David	Montana DOT, Secretary	daschroeder@mt.gov
BrM Testing TAG		
Novakovich, Bruce	Oregon DOT, Chair	Bruce.D.Novakovich@odot.state.or.us
Ahmad, Faheem	Delaware DOT	faheem.ahmad@state.de.us
Beran, Steve	Illinois DOT	Steve.beran@illinois.gov
Christie, Eric	Alabama DOT	christiee@dot.state.al.us
Cooley, Paul	CalTrans	paul.cooley@dot.ca.gov
Cram, Ryan	Kentucky Transp. Cabinet	Ryan.cram@ky.gov
Curtis, Beckie	Michigan DOT	CurtisR4@michigan.gov
Fish, Patty	Idaho DOT	patty.fish@itd.idaho.gov
Irick, Jera	Utah DOT	jrnick@utah.gov
Laughlin, Christopher	Florida DOT	Christopher.Laughlin@dot.state.fl.us
Murata, Kevin	Hawaii DOT	Kevin.A.Murata@hawaii.gov
Nazareth, Craig	Rhode Island DOT	craig.nazareth@dot.ri.gov



REDACTED

Nelson, Mike	Florida DOT	Mike.Nelson@dot.state.fl.us
O'Donnell, Larry D.	FHWA Resource Center	Larry.o'donnell@fhwa.dot.gov
Thompson, Todd	South Dakota DOT	Todd.thompson@state.sd.us
Tobey, Lance	CalTrans	Lance.tobey@dot.ca.gov

BrM Database TAG

Nazareth, Craig	Rhode Island DOT, Chair	craig.nazareth@dot.ri.gov
Barut, Joseph	Wisconsin DOT	Joseph.Barut@dot.wi.gov
Cooley, Paul	CalTrans	paul.cooley@dot.ca.gov
Coon, Amy	Kansas DOT	amy.coon@ks.gov
Cram, Ryan	Kentucky Transp. Cabinet	Ryan.cram@ky.gov
Evoy, Curt	Illinois DOT	Curt.Evoy@illinois.gov
Fish, Patty	Idaho DOT	Patty.Fish@itd.idaho.gov
Fuqua, David	Kentucky Transp. Cabinet	David.fuqua@ky.gov
Irick, Jera	Utah DOT	jirick@utah.gov
Lovato, Eric-Lee	New Mexico DOT	Eric-lee.lovato@state.nm.us
Novakovich, Bruce	Oregon DOT	bruce.d.novakovich@odot.state.or.us
Pineda, Tiffany	New Mexico DOT	Tiffany.pineda@state.nm.us

BrM Database TAG – At Large Members

Marshall, Allen	Allen R. Marshall Consulting LLC	hexageniameister@gmail.com
-----------------	----------------------------------	----------------------------

BrM Database TAG – FHWA Group

Soden, Derek	FHWA	Derek.soden@dot.gov
--------------	------	---------------------

BrM Multimedia TRT

Faulhaber, Mark	BrM, Kentucky Transp Cabinet, Chair	mark.faulhaber@ky.gov
Cooley, Paul	CalTrans	paul.cooley@dot.ca.gov
Coon, Amy	Kansas DOT	amy.coon@ks.gov
Fish, Patty	Idaho DOT	patty.fish@itd.idaho.gov
Murata, Kevin	Hawaii DOT	Kevin.A.Murata@hawaii.gov
Nazareth, Craig	Rhode Island DOT	craig.nazareth@dot.ri.gov
Schreiner, Carey	North Dakota DOT	cschreiner@nd.gov

BrM Reports TAG

Curtis, Beckie	Michigan DOT	CurtisR4@michigan.gov
Amhad, Faheem	Delaware DOT	fahem.ahmad@state.de.us
Builta, Drake	Texas DOT	Drake.builta@txdot.gov
Deaver, Kevin	Wyoming DOT	kevin.deaver@wyo.gov
Fish, Patty	Idaho DOT	patty.fish@itd.idaho.gov
Irick, Jera	Utah DOT	jirick@utah.gov
Nazareth, Craig	Rhode Island DOT	craig.nazareth@dot.ri.gov



REDACTED

Rogers, Josh	Kentucky TC	Josh.Rogers@ky.gov
BrM User Group (BrMUG)		
Drake Builta	Texas DOT, President	Drake.builta@txdot.gov
Thompson, Richard	Virginia DOT, Vice President	Richard.Thompson@vdot.virginia.gov
Jeff Vigil	New Mexico DOT, Secretary	jeff.vigil@state.nm.us
BRASS Product Representative		
Schaefer, Brenden	Wyoming DOT	Brenden.Schaefer@dot.state.wy.us

