

**Minutes Of The**  
**AASHTOWare Bridge Management Task Force Meeting**  
**June 11 - 13, 2019**                      **Traverse City, MI**

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 April Meeting Minutes.....3

    1b. Review April Meeting Summary Minutes .....4

Agenda Item 02: Project Update ..... 4

    2a. Budget and Schedule .....4

    2b. Customer Support Statistics .....4

    2c. Service Unit Project Status Report .....5

    2d. License Revenue Report.....5

    2e. Service Unit Allocation Report .....6

Agenda Item 03: FHWA Report ..... 6

Agenda Item 04: Functionally Obsolete Calculations in BrM..... 8

Agenda Item 05: End User Follow-up ..... 8

    5a. Status of Mayvue User Outreach .....8

    5b. InspectTech Sync Issues .....9

    5c. Ongoing Contact .....9

Agenda Item 06: South Carolina DOT Work Plan Scope..... 9

Agenda Item 07: Open PONWEB Tickets ..... 10

Agenda Item 08: Recent Requests for Information / Requests for Proposals..... 10

    8a. Iowa DOT RFI .....10

    8b. New Hampshire DOT RFP .....10

    8c. General Discussion .....10

Agenda Item 09: BrM 5.3.01 (6.0) Project Status..... 10

    9a Project Schedule .....10

Agenda Item 10: BrM 6.3 Project Status..... 10

Agenda Item 11: Review and Compare FY2019 MSE and FY2020 MSE..... 11

Agenda Item 12: Custom Report Issues (PONWEB-4004) ..... 13

Agenda Item 13: BrM Enhancement Planning..... 13

    13a. Review Enhancement Champions and Supporters .....13

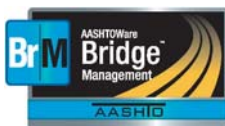
    13b. Funding Strategies for Future Enhancements.....16

    13c. BrM Inspection Locks.....17

    13d. MultiMedia Enhancement.....17

    13e. LCCA, Bridge by Bridge Enhancement.....17

    13f. Mobile Application ..... 18



**REDACTED**

13g. Pavement Enhancement ..... 18

13h. Large Enhancement via Service Units ..... 19

Agenda Item 14: BrM TAG Activities ..... 19

14a. Testing TAG ..... 19

14b. Reports TAG ..... 20

14c. Database TAG ..... 20

Agenda Item 15: Task Force Member Transitions ..... 20

15a. Knowledge Transfer – BrM and the Future Goals/Direction of the Product ..... 20

15b. Task Force TAG Liaison Assignments ..... 20

Agenda Item 16: BrM Software Patches ..... 21

16a. Frequency ..... 21

16b. Scope ..... 21

16c. Patch Release Approach Going Forward ..... 21

Agenda Item 17: Preliminary NBI Coding Guide Discussion – Planning for Solicitation ..... 21

Agenda Item 18: Marketing Activities ..... 22

Agenda Item 19: Future BrM License Fee Discussion ..... 22

Agenda Item 20: FY2019 Quality Assurance Review for Bridge Management ..... 23

Agenda Item 21: User Group ..... 23

21a. 2019 BrMUG Agenda ..... 23

21b. 2019 BrM End User Survey ..... 25

21c. Updated BrM Product Brochure ..... 25

21d. Reveal of the FDS Workflow Diagrams ..... 25

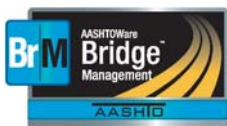
21e. BrMUG SWAG Suggestions ..... 25

Agenda Item 22: Draft Quarterly Status Report Content ..... 25

Agenda Item 23: Review Action Items ..... 26

Agenda Item 24: Executive Session ..... 26

Attachment A: Listing of Bridge Task Force, TRT, TAG and User Group Personnel ..... 27



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**General Information – Meeting of the Bridge Task Force**

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Date: Tuesday, June 11, 2019

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
	Douglas Blades	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
	Mark Bucci	Louisiana DOTD	Bridge Design (BrD)
	Josh Dietsche	Wisconsin DOT	Bridge Rating (BrR)
	Michael Johnson	Idaho TD	Bridge Rating (BrR)
	Dean Teal	Kansas DOT	Bridge Design (BrD)
	Vinacs Vinayagamoorthy	Caltrans	Bridge Rating (BrR)
BrM Contractor	Josh Lang	Mayvue	Bridge Management
	Zac Boyle	Mayvue	Bridge Management
	Anthony Hutskow	Mayvue	Bridge Management
Guests	David Hedeem	Nebraska DOT	Bridge Management
	Kent Miller	Minnesota DOT	Bridge Management
	David Fuqua	Kentucky TC	Bridge Management
	Craig Newell	Michigan DOT	Pavement

**General Discussion**

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Eric Christie convened the meeting at 8:00am. Eric welcomed the two new Task Force members, Kent Miller (Nebraska DOT) and David Hedeem (Minnesota DOT) and the two guests, David Fuqua (BrMUG Secretary, Kentucky TC) and Craig Newell (Michigan DOT). Everyone performed self-introductions.

**Agenda Item 00: Review Agenda / Assign Minutes Recorder**

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Judy Tarwater and Anthony Hutskow will take the meeting minutes. The agenda was reviewed and two additional topics were added:

Agenda Item 13g: Pavement Enhancement

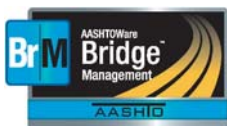
Agenda Item 13h: Large Enhancement via Service Units

**Agenda Item 01: Prior Business**

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1a. Review April Meeting Minutes

Minutes from the April 3 - 4, 2019, Task Force meeting held in Alexandria, VA were reviewed and approved as-is.



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**1b. Review April Meeting Summary Minutes**

The Summary Minutes for the April Task Force Meeting in Alexandria, VA were reviewed and approved as-is.

The Task Force members explained the process of approving meeting minutes to the new Task Force members in attendance. Specifically:

- The draft Task Force meeting minutes are completed and posted on SharePoint for Task Force review and comment approximately two weeks after each Task Force meeting.
- The amended draft Task Force meeting minutes are then reviewed and approved by the Task Force at the following Task Force meeting.
- Redacted meeting minutes are developed for distribution to the BrMUG membership. The redaction process includes removing specific budget references, mention of issues pertaining to specific State DOTs, and Task Force action items. Judy Tarwater develops the redacted minutes using the approved meeting minutes as a starting point.
- Once in final format, the redacted meeting minutes are forwarded to Paul Cooley (Caltrans) for posting on the BrMUG.com website.

With the transition of Task Force members, the Task Force discussed whether or not a task force member should be assigned the responsibility of reviewing and commenting on draft redacted minutes prior to presentation to the full Task Force. No decision was made.

**Agenda Item 02: Project Update**

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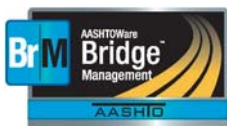
**2a. Budget and Schedule**

Mayvue presented the budget report for the FY19 MSE contract. All billings reported include invoices issued through 05/31/19. The overall budget spent to date = 96%. Mayvue advised that they will exceed certain Time and Materials categories such as customer support and will exceed the total for the MSE contract. However, Mayvue will not invoice for any contract overages this fiscal year. Mayvue advised that they will not bill AASHTO for the overrun amounts. Mayvue will make one additional request to transfer available budget monies to cover expenses not available under the areas where Mayvue charges are being accrued.

Mayvue presented the budget report for the BrM 5.3.01 (6.0) Project contract. All billings reported include invoices issued through 05/31/19. The overall budget spent to date = 76%. TM1 (Task Force Directed Work) was modified 04/18/19 to include a TM1A item (BrM 6.2 Release Tasks) which are normally included as a FP line item in the work plan. TM1B (RFI and RFP Responses) was also included under TM1 to support the development and delivery of responses to the Iowa DOT RFI and the New Hampshire DOT RFP. Mayvue advised that the version 5.3.01 (6.0 Work Plan) will be fully invoiced before the end of FY2019.

**2b. Customer Support Statistics**

Mayvue presented an overview of the customer support hours by agency as of 05/31/19. Alaska, California, Georgia, Hawaii, Illinois, Kansas, Kentucky, Los Angeles County, Michigan, Mississippi, New Hampshire, New Jersey, Oregon, Rhode Island, South Carolina, and Wyoming have used support hours exceeding 50. Agencies with more than 25 support hours include Arizona, Delaware, FHWA, Idaho, North



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Dakota, and Virginia. Mayvue estimates that approximately 90% of customer support is related to environmental issues. Support hour totals are also high due to state efforts to prepare and submit their TAMPs to FHWA.

Mayvue advised that many agencies are experiencing problems with bad data (i.e. they are finding that their data is in worse shape than they anticipated).

The Task Force members discussed whether or not additional training videos could help reduce customer support hours. It was noted that we already have training videos available to the user community and a budget has not been set aside for FY2020 to support the development of additional videos. In addition, consensus was that it is unlikely that users will spend the time to review and use the videos on a regular basis.

The Task Force also discussed the possibility of Mayvue preparing a session for the BrMUG on the top five subjects that it wishes every BrM agency knew about BrM. The BrMUG session could focus on conveying appropriate knowledge on these subjects to shore up the users' knowledge base in those areas to potentially curb or eliminate support requests relating to these issues.

Mayvue also advised that a common issue with assisting states through customer support related issues is waiting for their IT departments to provide assistance. For example, some states must request database access and it can take weeks to hear back and receive access. This slows the support process and can add hours as Mayvue continues to work to resolve the problem(s). The Task Force discussed investigating the following activities to help speed up DOT internal IT support roadblocks: 1) recommend asking DOT end users to secure access to their BrM database access up front at the beginning of each fiscal year and 2) recommend Mayvue staff "watch" a user to help streamline their support. Mayvue advised that this strategy sometimes works with bugs but does not work for other issues such as TAMP-related questions.

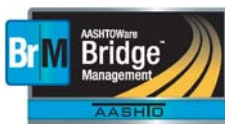
**2c. Service Unit Project Status Report**

Judy Tarwater presented the service unit status report as of 05/29/19. A majority of the service unit projects are on track. Craig Nazareth advised that the service unit status report email sent by Mayvue each quarter (to each agency) can be somewhat confusing. Mayvue agreed and as a result, created a new email format to be used for future correspondence. Mayvue presented the new email format during the Task Force meeting and it was well received.

**2d. License Revenue Report**

Judy Tarwater provided a summary of FY19 license activity as of 05/28/19.

<b>License Type</b>	<b>Quantity</b>
BrM Evaluation License	2
BrM Educational License	4*
HAO Service Units	10
BrM Local/Small Agency License	2
Local/Small Agency Support	1
Service Units	83



**REDACTED**

BrM Super Site License	47
BrM Developer License	3

\*Five (5) educational licenses were issued in FY19; however, the BrM educational license issued to Rutgers University (EDU-107-19) in September 2018 was revoked on May 3, 2019 based on confirmation that the software issued was being used in connection with work for hire, research, and graduate work, a direct violation of the agreement language.

**2e. Service Unit Allocation Report**

Judy Tarwater provided a summary of service unit activity as of 05/29/19. 83 new service units have been purchased in FY2019.

**Agenda Item 03: FHWA Report**

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Doug Blades provided the following FHWA update.

**NBIS Regulation Update**

- MAP-21 requires an NBIS update that includes (a) the methodology, training, & qualifications for inspectors, and (b) the frequency of inspection with consideration of risk-based approach.
- **NEW** – Next step is approval by the White House Office of Management and Budget in which review, comment, and reconciliation time has ranged from 3-12 months. FHWA will then post in the Federal Register for a 90-day public comment period. Given that timeline, the best estimate of post for comment date is late 2019 or 2020.
- After the comment period, it will take time to finalize, receive final approval, and publish for implementation.
- **NEW** - For current status refer to USDOT site <https://www.transportation.gov/regulations/report-on-significant-rulemakings> (note: post for comment estimated date on this site is listed as August 2019 which is optimistic given the above timeline).

**National Bridge Inventory Coding Guide Update**

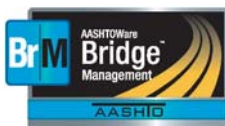
- Still planned to be released for comment with the NBIS update.

**NEW - National Bridge Inventory - Next Generation Development**

- Under development primarily to accommodate new coding guide
- Major concerns about future data submission file format
  - Current format of flat text file lacks flexibility
  - Moving to a many to one relationship for a structure and various data points
  - Pipe delimited, XML and JSON formats were discussed
    - Current plan is to utilize a JSON format
  - There will be a help desk available to assist State DOTs in the transition

**National Tunnel Inventory and Inspection Program**

- The FHWA Divisions were provided the NTIP compliance review manual in January. It includes 15 metrics and is structured like the NBIP compliance review process. The Divisions received training in March.



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- Two-year rollout with some metric assessments made by late 2019. All metrics will be assessed in 2020.
- The Divisions should now be coordinating with their State DOTs on the 2019 review.

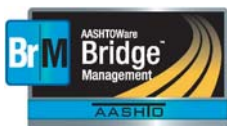
## Asset Management Plans

- Each State submitted an initial TAMP by 04/30/18. FHWA has certified the processes of all States.
- Each State shall submit a complete TAMP developed in accordance with their FHWA certified processes and demonstrate implementation by 06/30/19.
- Continue to monitor the FHWA AM page for new and updated resources. Q&As are consistently updated. A life-cycle planning handbook was recently posted.
- A life-cycle planning (LCP) document titled A Handbook on Putting the Federal Guidance into Practice was posted January 2019.
  - Supplements the 11/17 LCP guidance document.
  - Demonstrates how alternative strategies for investing in different work types can be analyzed, including comparing worst-first, moderate preservation, and aggressive preservation.
  - Performance outcomes are measured by condition and life-cycle cost.
  - Demonstrates how analysis can produce a series curves representing performance over time versus annual investment for different work allocation strategies.
  - These curves can then be used to generate the curves given in the 11/17 guidance representing performance versus total annual investment. Typical of a benefit-cost curve, this demonstrates a diminishing return at higher levels of investment (keeping in mind that the point of substantial diminishing return is higher than typical budget levels). Such curves can inform trade off decisions relative to investment strategy and targets.
  - **NEW** – Kansas DOT will be working with FHWA to conduct analysis following the guidance document and Handbook. Their work will be documented to serve as an example. Planned completion date is 02/20. Kansas is currently implementing BrM which they will use to support this effort.

## TPM – Transportation Performance Management

- Targets were reported to FHWA in 2018. Mid-performance period reports are due 10/01/20.
- FHWA resources for bridge TPM:
  - NHI one-day instructor lead bridge training. Schedule from NHI website.
  - Web-based bridge training posted to NHI website in January 2019. This free and approximately 90 minute training presents the fundamentals of the FHWA bridge TPM requirements including measures data and calculations. Should be informational to people new to bridge TPM.
  - FHWA procedure for computing the measures <https://www.fhwa.dot.gov/tpm/guidance/hif18023.pdf> ... Keep in mind FHWA ultimately calculates the baseline, two- and four-year measure values, and compares to State targets when determining if significant progress was achieved. Keep in mind that the dataset FHWA uses is a June 15 published dataset that precedes the October 1 TPM report of the same year whether baseline, mid period, or end of period report.

## Bridge Funding Programs



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- FY19 Appropriations (spending) Bill signed January 2019 authorizes \$475M for a bridge rehabilitation and replacement program.
  - Unlike a grant program this will be apportioned to eligible States by formula.
  - Eligible States are those with  $\geq 7.5\%$  poor deck area based on the NBI as of 12/31/17.
  - The apportionment weighting is by percent deck area poor as opposed to deck area poor (State with the greatest percent poor receives the largest apportionment).
  - Shall be obligated on projects in areas of State with population  $\leq 200,000$  based on census. If an eligible State has no bridges or insufficient needs in such areas, the projects may be in other areas.
  - **NEW** – These funds have been distributed to the eligible States.
- **NEW** - FY18 Appropriations Bill Competitive Highway Bridge Program applications are under review by FHWA and USDOT
  - Grant programs that provides \$225M to States with  $< 100$  people per square mile. Shall be used for bridge replacement and rehabilitation projects that demonstrate cost savings by bundling.

## Miscellaneous

- Midwest Bridge Preservation Partnership pool fund solicitation to develop deterioration models representative of the partner States has closed. Awardee has not been announced yet.
- FHWA will be publishing illustrative (plain) language to define the Good, Fair, and Poor bridge classifications.
- FHWA Workshop on BMS:
  - **NEW** - Was piloted April 16-18 at NJDOT. Most significant feedback was to offer as a 3-day workshop as opposed to 2-day to allow for receiving all modules rather than a la carte on day two. The workshop will be offered for free to public agencies starting in summer 2019.
- **NEW** – The Bridge Preservation Expert Task Group posted an 8-minute preservation video available at <https://www.youtube.com/watch?v=E8xHWtTkVOI&feature=youtu.be>
- **NEW** – An 04/17/19 FHWA memo Timeframe for Installing load Posting Signs at Bridges communicates that signs shall be installed as soon as possible but no later than 30-days after a load rating finds that a posting is required. This is consistent with the maximum 30-day timeframe established in the NTIS.

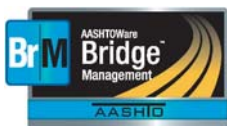
## Agenda Item 04: Functionally Obsolete Calculations in BrM

The Task Force discussed whether or not functionally obsolete calculations are needed in BrM. FHWA does not recognize functionally obsolete; however, some agencies have it in statute and local agencies in some states are still using the category. The Task Force made the decision to evaluate the need to continue to make the calculation available in BrM to support 'legacy' functionally obsolete calculations. States will be asked to provide feedback on the availability of this function via a question in the 2019 BrM EUD Survey.

## Agenda Item 05: End User Follow-up

### 5a. Status of Mayvue User Outreach

Mayvue reported that they have completed their outreach efforts for 2019. Every agency was contacted individually through this outreach effort. Although the target of the outreach effort was the end user designees, if Mayvue knew other users within the agency, these users were also contacted to allow them to be included in the conversation.





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Mayvue advised that they are open to completing this outreach effort again next year as very positive feedback was received. A lot of doors were opened and conversations started as a result of this effort.

5b. InspectTech Sync Issues

The Task Force discussed the possibility of the InspectTech sync issue being resolved. This was reported by David Hedeem who is using BrM 6.0. There shouldn't be anything different in version 6.1 that would affect the InspectTech sync. The Task Force further discussed that this issue is strictly an InspectTech problem; however, there were/are some users who view the problem as a BrM issue.

5c. Ongoing Contact

The Task Force discussed the existing environment within several of our licensee states, including Connecticut, Colorado, District of Columbia, Georgia, New Hampshire, New Jersey, New York, and Texas. The Task Force also discussed the status of the Nova Scotia DOT and Montana DOT BrM evaluations.

In addition, the Task Force discussed looking into the possibility of establishing a defined services offering for inclusion in the AASHTOWare Catalog to support BrM Setup, Configuration and Training as an item available for purchase. The Task Force discussed establishing the service as a fixed fee (which will be an increment of the BrM SU cost) to secure the described services from Mayvue. The offering would be a set rate (i.e., 8 service units = \$92,800). When purchased it would be added to the customer's order as 8 service units. Once purchased and in stored in their service unit account the project would start up in the same manner as any other service unit project. This approach would serve two purposes:

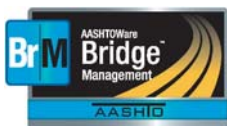
- Make the much needed services much more visible
- Support DOTs who cannot purchase service units outright because they are not initially tied to a deliverable service.

**Agenda Item 06: South Carolina DOT Work Plan Scope**

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SCDOT currently uses BrM for bridge inspections; however, they have had significant staff turnover and have a steep learning curve to get up to speed with BrM. They were able to submit their inspection data this year on time but are currently working to load rate 9,300+ bridges over the next 18 months. Six consultants have been hired to perform their load ratings. In addition to their bridge load rating effort, the SCDOT has also embarked on a separate, simultaneous, project to customize their BrM implementation.

- SCDOT is moving quickly to meet NBI requirements and wants to significantly expand the inspection module and add a useful workflow.
- The scope of the effort will benefit a vast majority of states/agencies using BrM.
- Mayvue presented the high-level SCDOT work plan and explained the details of each task.
  - **Inspection Assignment/Procedures/Page Enhancements**
  - **Mobile Inspection**
  - **Critical Findings**
  - **QC/QA**
  - **User List Enhancements**
  - **Multimedia**
  - **Notifications**
  - **Reports**



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**Agenda Item 07: Open PONWEB Tickets**

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Mayvue provided an update on open PONWEB tickets for Task Force information and review. The PONWEB ticket backlog has been growing for years. Hundreds of enhancement requests are currently documented in JIRA. Given the fact that the project budget is not sufficient to support the completion of all user identified enhancement requests, the Task Force made the decision to not spend the time to review the current enhancement list at this time.

**Agenda Item 08: Recent Requests for Information / Requests for Proposals**

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8a. Iowa DOT RFI

The IADOT issued an RFI (Structure Inventory and Inspection Management System) to evaluate alternate inspection tools. They are currently using InspectTech. Mayvue developed the BrM response and forwarded to IADOT on May 1, 2019.

8b. New Hampshire DOT RFP

The NHDOT issued an RFP for a bridge and pavement management system. Mayvue and Judy Tarwater provided an overview and progression of events of the NHDOT RFP response (e.g. perpetual license issue and firm terms and conditions). Mayvue and Judy wrote and sent a letter to NHDOT which stated that we can meet most of the requirements but cannot submit a proposal because of the inability to take exceptions to the terms and conditions which conflict with AASHTO's Master License Agreement.

8c. General Discussion

- The Montana DOT has recently reached out to AASHTOWare. A BrM demonstration webinar has been scheduled with MTDOT staff for 07/19/19 to present a BrM demonstration. Mayvue has also offered to go onsite at no cost to AASHTO to provide additional demonstrations to MTDOT decision makers.
- Washington State and Georgia DOTs are back on board with BrM after not licensing the software for some time.

**Agenda Item 09: BrM 5.3.01 (6.0) Project Status**

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9a Project Schedule

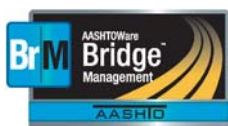
- BrM 6.2 Beta 2 was released last week (06/07/19).
- There was a discussion about how the 6.2 release is negatively impacting custom code, and how the Beta Testers need documentation of the fix to proceed. Craig Nazareth advised that the only outstanding item for 6.2 is the broken customization fix. He needs the proper documentation to give the release a green light.
- Mayvue advised that they are working to provide the beta testers with a more detailed explanation of what broke the custom code in 6.2, why it was a necessary change, and how to fix it.

**Agenda Item 10: BrM 6.3 Project Status**

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Mayvue provided a break-down of the BrM 6.3 Project Work Plan.

- Mayvue advised that the Active Directory Federal Services enhancement is more complicated than originally expected/estimated.
- The Task Force and Mayvue need to make decisions on what specific items will be included in BrM 6.3. New functionality includes: Assignment page, Scheduler, Tunnel work, NBI Deterioration.



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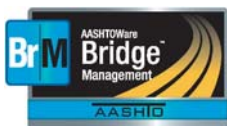
- The schedule for the 6.3 release was discussed. Mayvue’s initial beta release is tentatively scheduled for August 2019, target release is before or slightly after the BrMUG meeting. The initial beta release will include the planned new functionality at a minimum to allow the software to be fully demonstrated.
- The Task Force agreed to conduct BrM 6.3 beta testing in a piecemeal fashion (e.g. inspection assignment as it is developed).
- Josh Lang brought up re-hiring former Bentley BrM team employees to support the ability for Mayvue to quickly bring new staff on board who already have background knowledge of the software, database, etc. The Task Force did not have an issue with hiring off-shore staff. Mayvue will keep the Task Force informed on all hiring decisions.

**Agenda Item 11: Review and Compare FY2019 MSE and FY2020 MSE**

The Task Force reviewed and compared the details of the FY2019 MSE and FY2020 MSE work plans.

Mayvue provided an overview of the FY2019 MSE budget and projected overruns for customer support and maintenance.

Customer Support Hours Summary (Last 6 Years)				
Year	Total Hours	Top 5 Agencies	Hours	%
* 2019	1,947.50	New Jersey	160.25	8.23%
		Kansas	158.50	8.14%
		Rhode Island	152.50	7.83%
		Michigan	123.00	6.32%
		Oregon	114.50	5.88%
36.39%				
2018	1,519.50	Rhode Island	153.75	10.12%
		Michigan	111.75	7.35%
		Oregon	106.75	7.03%
		Kentucky	104.25	6.86%
		Virginia	97.00	6.38%
37.74%				
2017	1,713.55	Utah	193.50	11.29%
		Kentucky	170.90	9.97%
		Michigan	135.00	7.88%
		Rhode Island	108.00	6.30%
		Virginia	100.50	5.87%
41.31%				
2016	1,692.10	Wyoming	132.50	7.83%
		Michigan	118.75	7.02%
		Alabama	104.35	6.17%
		New Hampshire	103.75	6.13%
		Kansas	99.50	5.88%
33.03%				
2015	1,196.20	Florida	103.50	8.65%



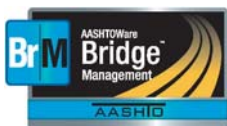
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*			Nebraska	96.50	8.07%	37.68%
			District of Columbia	91.00	7.61%	
			Idaho	88.00	7.36%	
			New Mexico	71.75	6.00%	
*	2014	563.50	Rhode Island	69.50	12.33%	44.45%
			Idaho	57.00	10.12%	
			Florida	52.00	9.23%	
			Kentucky	40.50	7.19%	
			Oregon	31.50	5.59%	

\* Through May not June (missing one month)

The FY2020 MSE is for the same amount as the FY2019 MSE and Mayvue anticipates another overrun. The overrun is anticipated to be even greater next year due to the increased rates in the FY2020 MSE. The Task Force requested Mayvue develop and present a proposed revised FY20 MSE budget which adjusts the Time and Materials task totals to more accurately reflect where the funds are likely to be charged. The Task Force directed Mayvue to propose revisions to the FY2020 MSE budget items (to remain within the same total budget) to adjust the Time and Materials task totals to more accurately reflect where the funds are likely to be charged.

- There may have been some inflation this year in terms of customer support; however, Mayvue expects the coming years to continue to follow this path because of additional support needs such as TAMP and agencies are using BrM much more heavily than in the past.
- Mayvue explained that as more users are exercising the software, issues are being discovered from past years. For instance, a user may find a bug from 5.2.3 (3 years ago) and now Mayvue is making the fix within the Maintenance MSE bucket.
  - New scenarios are arising that weren't thought of or tested when the FDS was created and the software was tested. 5.2.3 is being heavily used for years after it was released.
  - There will be a point where the quiet states become loud as they test out all the functionality.
- Mayvue is addressing all support requests including training items and trying to be as proactively as possible. Mayvue errors on the side of AASHTO / customer support satisfaction, causing the customer support hours to overrun the budget.
- Mayvue is focused on user satisfaction which leads to trying to resolve issues as quickly as possible (e.g. NJDOT issues). However, that can lead to additional work while waiting on agencies to respond.
- The MSE budget cannot support everything such as all bug fixes and enhancement requests. Mayvue hasn't pushed back on providing any support.
- High usage users are treating the software like a \$200K/year piece of software and expect support resolution as soon as possible.
  - These users aren't opposed to buying service units but it's a slow process.
  - The Task Force discussed setting hard lines on the number of support hours included in the license fee; however, the decision was made to not pursue this direction.
- Support tickets increased by ~135 tickets from 2018 to 2019.



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- Top 5 agencies each year make up ~35% to ~40% of all customer support hours for the year.

**Agenda Item 12: Custom Report Issues (PONWEB-4004)**

The Task Force discussed the PONWEB-4004 issue. Oregon DOT’s custom reports are not working in the ORDOT production environment; however, they are working properly in the Mayvue environment. Issues such as this are difficult to diagnose and are resulting in increasing customer support hours.

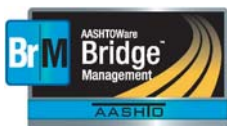
Other issues discussed include:

- The 23 metric report confusion
- Concerns relating to holding up beta testing for small / irrelevant bugs from many versions years ago. While these need to be reported, they should not slow down the release of new software.
- Crystal Reports is outdated and not supported as of 2018. The cost to upgrade all licenses to the latest version of Crystal Reports is estimated to be \$75,000 and this updated version is still 3 years old. In addition, it is possible that an upgrade of Crystal Reports could break BrM code. If issues being reported are truly related to agency specific customizations, there should not be any negative repercussions from users.
- Mayvue needs to ensure they are performing due diligence if/when they push back on reported issues. Decisions must be fully supported with definitive rationale. It must be clear that issues pushed back are definitively user issues that have been analyzed on a case by case basis. Mayvue needs to keep the Task Force informed and involved in these decisions.
- The Task Force also discussed the idea of having Mayvue contact the state before expending a ton of hours on one issue to see if they consider the issue worth going down the path.
- Another discussion point was showing the states what they are spending in customer support hours and let them know how their number of customer support hours used compares to the average usage.

**Agenda Item 13: BrM Enhancement Planning**

13a. Review Enhancement Champions and Supporters

	Enhancement	Champion Contact	Agencies that voted for the enhancement	Estimate	Possible Funding	Status
1	LCCA, Bridge by Bridge	<a href="mailto:phillip.litchfield@illinois.gov">phillip.litchfield@illinois.gov</a>	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	59	HIDOT = 2 ITD = 2 ILDOT = 10	
2	QA/QC Module	<a href="mailto:ryan.cram@ky.gov">ryan.cram@ky.gov</a>	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	35	HIDOT = 1 ITD = 5 KYTC = 5 RIDOT = 1 UTDOT = 1	



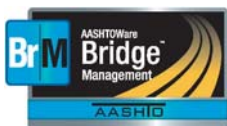
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3	Expanded Export/Import Options		AK, AZ, CO, CT, IA, LA, MA, MS, NH, NM, NY, OH, RI, TX, VT, VA, WA, WI	4.5		
4	Training Videos (User Group will Form a Committee for Guidance)	<a href="mailto:paul.cooley@dot.ca.gov">paul.cooley@dot.ca.gov</a>	AK, CA, DE, ID, KS, MN, NH, NM, OH, RI, TX, VT, WA	--		
5	Clearance Tab	<a href="mailto:ryan.cram@ky.gov">ryan.cram@ky.gov</a>	AK, CA, CO, DE, ID, KY, LA, NH, NJ, NM, NY, ND, OH, PA, RI, SD, UT, WI	7 - 10	ITD = 1 KYTC = 1 RIDOT = 1	
6	Work Candidates for Tunnels	<a href="mailto:Bruce.D.NOVAKOVICH@odot.state.or.us">Bruce.D.NOVAKOVICH@odot.state.or.us</a>	AK, CA, CO, CT, FL, ID, LA, OR, PA, UT, DC	8	ORDOT = 2 ITD = 2 RIDOT = 1 ALDOT = 1 CADOT = 2	BrM 6.3
7	Multimedia Interface	<a href="mailto:ryan.cram@ky.gov">ryan.cram@ky.gov</a>	AL, CA, HI, ID, KS, KY, LA, MI, NH, ND, PA, RI, SD, VA, DC	22 - 39	HIDOT = 1 ITD = 1 KYTC = 4 RIDOT = 1 ALDOT = 4	
8	General Dashboards	<a href="mailto:zac.boyle@mayvue.com">zac.boyle@mayvue.com</a>	AL, AK, CO, ID, IA, KY, LA, MS, NH, ND, OH, PA, RI, SD, VT, VA, WA, WI	--		
9	Utility Value and Health Index	<a href="mailto:kevin.a.murata@hawaii.gov">kevin.a.murata@hawaii.gov</a>	AK, CT, DE, HI, ID, IA, KY, LA, MS, NH, ND, OH, PA, RI, TX, UT, WA, DC	4.5		
10	Maintenance Records Module	<a href="mailto:kevin.deaver@wyo.gov">kevin.deaver@wyo.gov</a>	CO, CT, NH, NJ, ND, UT, WI, WY, DC	6	WYDOT = 6	
11	Schedule Process Functionality	<a href="mailto:christiee@dot.state.al.us">christiee@dot.state.al.us</a>	AL, HI, IA, KY, LA, ND, PA, RI, TX, UT, VA, WI, DC, PR	7	ALDOT = 4 CADOT = 1 VDOT = 2	BrM 6.3
12	Inspection Scheduling Module	<a href="mailto:craig.nazareth@dot.ri.gov">craig.nazareth@dot.ri.gov</a>	CA, HI, MI, ND, OK, RI, SD, UT, WI, WY	4	CADOT = 1 RIDOT = 1	BrM 6.3
13	Tool-Tip Functional Update	<a href="mailto:zac.boyle@mayvue.com">zac.boyle@mayvue.com</a>	FL, IA, NH, OK, PA, RI, SD, DC	4.5 - 7		
14	More Finite Control of Fields (Security by Role)	<a href="mailto:kent.miller@nebraska.gov">kent.miller@nebraska.gov</a>	CA, MI, NE			



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15	<b>Detailing Results by Optimization</b>	<a href="mailto:costas.manousakis@dot.state.ma.us">costas.manousakis@dot.state.ma.us</a>	ID, IA, MA, MN, OH, VT		MassDOT = 4	
16	<b>Project Workflow</b>	<a href="mailto:paul.cooley@dot.ca.gov">paul.cooley@dot.ca.gov</a>	CA, ID, NJ, UT, WA			
17	<b>Mobile Inspection</b>	<a href="mailto:kevin.a.murata@hawaii.gov">kevin.a.murata@hawaii.gov</a>	CO, HI, OK, RI, UT, DC			
18	<b>Enhance NBI Deterioration Modeling</b>	<a href="mailto:david.hedeen@state.mn.us">david.hedeen@state.mn.us</a>	CA, CT, ID, IA, MN, NH, NM, TX	9	MIDOT = 6 ITD = 2 CADOT = 1	BrM 6.3
19	<b>Enhancing Mapping User Interface (Bounding Boxes, GIS Friendly)</b>	-	AZ			
20	<b>Batch File for Optimizer Configurations &amp; Tools for Analysis</b>	<a href="mailto:kent.miller@nebraska.gov">kent.miller@nebraska.gov</a>	MN, NE, TX			
21	<b>3D Inspection</b>	<a href="mailto:nmhuether@nd.gov">nmhuether@nd.gov</a>	LA, ND, OH, PA, UT, DC			
22	<b>Funding by Allocation Project Category</b>	<a href="mailto:Richard.Thompson@vdot.virginia.gov">Richard.Thompson@vdot.virginia.gov</a>	IA, VA			
23	<b>Linked Element Deterioration</b>	<a href="mailto:kent.miller@nebraska.gov">kent.miller@nebraska.gov</a>	MN, NE			
24	<b>Enhance Metric Reports</b>	<a href="mailto:Richard.Thompson@vdot.virginia.gov">Richard.Thompson@vdot.virginia.gov</a>	MN, NH, VA			
25	<b>Report Elements from Optimizer results</b>	<a href="mailto:kevin.a.murata@hawaii.gov">kevin.a.murata@hawaii.gov</a>	HI, MA, MN			
26	<b>Performance Measures by Formula</b>	<a href="mailto:Richard.Thompson@vdot.virginia.gov">Richard.Thompson@vdot.virginia.gov</a>	IA, VA			
27	<b>Allow Multiple Report Writers</b>	<a href="mailto:yared.tesfaye@dc.gov">yared.tesfaye@dc.gov</a>	NH, DC			
28	<b>Multimedia for Tunnels</b>	<a href="mailto:stanley.juber@ct.gov">stanley.juber@ct.gov</a>	CT, DC			
29	<b>Project Completion Date by Year, More Detail, Open to Traffic</b>	<a href="mailto:stanley.juber@ct.gov">stanley.juber@ct.gov</a>	CT			
30	<b>Ability to Activate/Deactivate Elements</b>	<a href="mailto:ryan.bowers@dot.wi.gov">ryan.bowers@dot.wi.gov</a>	CA, WI			
31	<b>Any Number of User Tables for Bridges</b>	<a href="mailto:tsutton@odot.org">tsutton@odot.org</a>	OK			



**REDACTED**

32	<b>Need a Way for Admin. to View Current Users</b>	<a href="mailto:paul.cooley@dot.ca.gov">paul.cooley@dot.ca.gov</a>	CA			
ADD	<b>Pavement Inclusion</b>	<a href="mailto:curtistr4@michigan.gov">curtistr4@michigan.gov</a>	HI, MI	FDS = 3	MIDOT = 3	FY19 MSE
ADD	<b>BrM Timeout</b>	<a href="mailto:Mark.Faulhaber@ky.gov">Mark.Faulhaber@ky.gov</a>		3	CADOT = 1 KYTC = 1	BrM 6.3
ADD	<b>Form Designer</b>			10	CADOT = 5	BrM 6.3
ADD	<b>Active Directory</b>			2	CADOT = 1 KYTC = 1	BrM 6.3

13b. Funding Strategies for Future Enhancements

Mayvue recently reviewed all open JIRA tickets. This review included a large backlog of user enhancement submittals that have been accumulated for years. Mayvue closed enhancement requests that were no longer applicable or relevant. However, over 400 user enhancement tickets remain open following this initial review.

Example format from used in the 2018 email:

Initial Ballot Item Number	Distribute your 100 points.	Rank	Summary Title	JIRA Ticket Number	Related / Linked JIRA Ticket Numbers	2017 User Group Points (Rank)	Category	Notes
1			QA/QC Module and Track Historical Changes	<a href="#">PONWEB-2237</a> <a href="#">PONWEB-2900</a>	<a href="#">PONWEB-2194</a> <a href="#">PONWEB-2230</a>	233 (combined) QA/QC - 158 (4) Hist. Changes - 75 (10)	Database	Draft FDS has been created, <b>but it is not scheduled/planned</b> QA/QC and Track Historical Changes were separate last year. The points are combined and the rank is based off of the combined points. The actual points and rank are in <i>italics</i>
2			LCCA, Projects and Program Enhancements	<a href="#">PONWEB-2220</a>	<a href="#">PONWEB-2903</a> <a href="#">PONWEB-3203</a> <a href="#">PONWEB-3416</a>	169 (combined) Projects - 117 (6) LCCA - 72 (11)	Management	Draft FDS has been created, <b>but it is not scheduled/planned</b> LCCA & Projects were separate last year. The points are combined and the rank is based off of the combined points. The actual points and rank are in <i>italics</i>
3			Expanded Export/Import Options	<a href="#">PONWEB-2902</a>		187 (2)	Insp. & Mgmt.	Draft FDS has been created, <b>but it is not scheduled/planned</b>
4			Clearance tab	<a href="#">PONWEB-1564</a>		176 (3)	Inspection	Draft FDS has been created, <b>but it is not scheduled/planned</b>

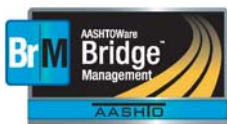
The Task Force made the decision to develop a list of bullet points to explain the need for a license fee increase and/or solicitation.

Webinars need to be set up for QA/QC, Multimedia, and Clearance Module enhancements to update the users and solicit funding contributions. Not much has occurred since the 2018 BrMUG meeting.

The Task Force made the decision to forward the draft QA/QC, Multimedia, and Clearance Module FDSs to Michigan and South Carolina as a starting point to finalizing the requirements. This could speed up the FDS finalization process and ensure consistency. The champion for each of these enhancements (or the agency) will need to facilitate the FDS revision process for their enhancement. (SCDOT does not have clearance in their high-level scope of work.)

Mayvue advised that they cannot work on the SCDOT enhancements in a silo. Mayvue will ensure that their starting points are already included in the existing FDSs and user/Task Force input will also be sought.

**NEXT STEPS:** Review the current status of the FDSs and solicit support for the three discussed efforts.





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- Champions will complete the webinars which show functionality covering the minimum needs of all agencies.
- Explain to the user group that we are close, but need additional funding to move forward.
- The Clearance Module is pretty much finalized, so start with that one and make the users aware.

There was a question relating to the inclusion of a Tool Tip within BrM. The Task Force asked for a cheaper solution, which Mayvue provided; however, to date it has not been embraced and included in a work plan.

### 13c. BrM Inspection Locks

No discussion.

### 13d. MultiMedia Enhancement

Currently, BrM does not allow users to delete multimedia. This functionality is important to BrM end users. The Task Force discussed that there needs to be an understanding on how to complete this functionality (KYTC does not believe the files should be linked). Mark Faulhaber advised that currently he must rename files before uploading in order to keep his established naming convention. This process currently requires additional steps which makes people less willing to upload photos.

### 13e. LCCA, Bridge by Bridge Enhancement

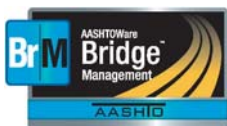
The Illinois DOT has agreed to champion the LCCA enhancement and is willing to donate 10.0 service units to support the effort. Mayvue forwarded the initial draft of the RIPI request document and latest version of the LCCA FDS to the Task Force and the Illinois DOT for review and comment. Tim Armbrrecht (ILDOT) provided minor comments on the FDS.

LCCA was the highest priority enhancement by the user community during the 2018 BrMUG. This enhancement would provide a lot of additional functionality to the users; however, states continue to appear to be unwilling to donate money to support this enhancement.

## NEXT STEPS:

- Provide Kent Miller and David Hedeem with an opportunity to review and comment on the LCCA FDS.
- Mayvue to hold a webinar with the BrM user community to explain what it is and what it does
- Allow users a short comment period (post webinar) to submit their comments on the LCCA FDS. During this time, Illinois will send an email to the states asking for others to contribute.
- Mayvue to update the LCCA FDS and send to Judy Tarwater
- Judy to forward the LCCA FDS and RIPI Request to T&AA
- LCCA Phase 1 (license fee funds + service unit donations) to get started and Phase 2 (RIPI funds) to complete the project. Phase 1 should underway by the BrMUG meeting.

Zac Boyle walked the Task Force through some of the LCCA FDS comments provided by ILDOT. A concern was raised about how long the analysis may take (recursive analysis). Mayvue acknowledged and suggested that the application analyze one bridge at a time. The Task Force advised that they, as a group, do not require additional time to review and comment on the LCCA FDS.



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The Task Force’s goal is to have the LCCA FDS approval no later than 07/31/19. The next meeting of the T&AA Task Force is 08/06/19 – 08/07/19 and it is hoped that the T&AA review can be completed during this regularly scheduled meeting.

13f. Mobile Application

Mayvue advised that they plan to present BrM mobile application functionality during the 2019 BrMUG meeting in September.

13g. Pavement Enhancement

The Michigan DOT received a high level scope document, developed by Mayvue, to incorporate the key components of their requested pavement management program. Spatial components and cross asset optimization are key requirements for their system. They need to have the ability to manage across asset types and also need the ability to address federal reporting requirements. Mayvue plans to leverage the current analysis features of BrM to support the activities for alternate asset types. Pavement data will be analyzed in 0.10 mile segments (which is a federal requirement).

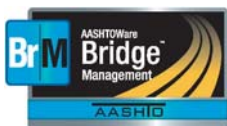
Once the Michigan DOT comes to agreement on the final project scope, they will move forward with securing service units to support the project with the hope that other states will be interested in contributing to the effort as a “pooled-fund” development activity. HPMS data will be captured with the scope of the project; however, the creation of the actual HPMS submittal file will not be included within the scope of the project.

Michigan, Hawaii, Ohio, New Hampshire, Kentucky, and Rhode Island have expressed an interest in the possible inclusion of pavement assets in BrM. The decision was made to forward the finalized scope documentation to all interested parties to see if they have an interest in participating in the funding for this project.

Mayvue advised that the MIDOT pavement inclusion project is expected to be a one to two year work effort. Cross asset optimization will require bridge and pavement to talk to each other. Once Mayvue and MIDOT reach an agreement on the final scope, MIDOT will make a large service unit purchase. MIDOT will reach out to other interested states to see if they are interested in joining the effort; however, MIDOT will proceed cautiously to ensure they don’t end up not accomplishing their main goals because other states are contributing (balancing act of like-mindedness).

HPMS is not included in the current scope (MIDOT has a solution that works well for them). Mayvue advised that they can ramp up quickly to support this workload but can only proceed hiring to a certain point before contracts are in place. Mayvue has a recruiter searching for a pavement expert, and someone with an asset management background. MIDOT advised that they plan to request the Task Force direct their portion of the MIDOT service unit income for this project to support the implementation of the pavement enhancements into the BrM core product.

Other discussion on this topic included the following:



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- Mayvue is interested in incorporating pavement management functionality into the BrM core product. However, to do so will require sufficient support from the user community to make this part of the core. Other interested DOTs include: Ohio, Hawaii, New Hampshire, Kentucky, and Rhode Island.
- The Task Force decided to discuss the incorporation of pavement data into BrM during the 2019 BrMUG.
- MIDOT will lead/manage the contract regardless of participation.
- The foundation of pavement will be as close to BrM as possible. There is only one portion that is completely Michigan specific.
- A significant portion of the work plan includes tasks to build the framework for multi-asset.

The Task Force also discussed that the fact that they may need to think about how the inclusion of pavement data in BrM might impact the Bridge Task Force (e.g. a need for a third branch for pavement)?

- Pavement will be multi-asset. It will not do everything (e.g. cross sections will not be done). We need to be clear that it will not completely mirror bridge capabilities.
- No one has invested in multi-asset in BrM to date. This project puts MIDOT in the driver's seat.
- Tunnels were created as a separate module (not multi-asset) and were not funded as multi-asset functionality.
- What makes pavements multi-assets? Bridge is hardcoded. Multi-asset architecture will be in PONPAVEMENT?

### 13h. Large Enhancement via Service Units

The Task Force discussed the idea of partnering with agencies on large agency-funded service unit projects (i.e. contributing funds) that support enhancements to the core product. The Task Force made the decision to review large service unit projects to potentially support (via funding) on a case-by-case basis.

Considerations:

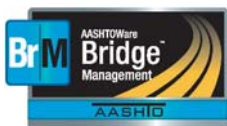
- It appears that SCDOT will work with whatever the Task Force proposes.
- The danger is having to balance miscellaneous items such as tech manuals (the AASHTO Task Force portion of the service unit fee covers that type of work)
- True cost of ownership concept! Manage buyer expectations. Will need to estimate for help, documentation, etc. within the proposal.
- Any large enhancement will create new maintenance needs and support requirements (another secondary cost)
- Need a complete scope of work first, then a state can request some or all of the fee to be waived with justification for Task Force evaluation.
- Only considered for large projects.
- The risk is a big project could consume Mayvue resources that should be working on the core product.

## **Agenda Item 14: BrM TAG Activities**

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### 14a. Testing TAG

- The TAG will have a conference call on 06/26/19 to make decisions on the 6.2 release.
- Bruce Novakovich advised that the Testing TAG will approve the 6.2 release assuming Mayvue provides the solution to fix the custom pages, etc.



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- There is a tight timeframe because the 6.2 release must be released no later than 06/28/19 because the 6.0 Work Plan expires on 06/30/19.

14b. Reports TAG

No discussion.

14c. Database TAG

- There is a lack of documentation from a database perspective (for both 6.1 and 6.2).
- The Database TAG needs to know what changes are occurring in the database. Mayvue needs to provide the Database TAG with an updated ERD.

Mayvue advised that they are continuing to update documentation in the release notes and user manual.

- Mayvue advised that they are not keeping the technical manual up to date with every release. They reported that they thought this course of action was known and agreed to.
- The User manual is capturing all technical changes with each release.
- Expected deliveries with each release
  - Database changes need to be logged and sent to the database TAG. An ERD for 6.2 should have been provided to the Database TAG.
  - Release notes which fully explain what's new and what's going with the release. Testing TAG needs to have with each beta release. Mayvue is completing this with each release.
  - Mayvue requested if something is missing from the database TAG perspective, please let Mayvue know.
- 6.2 will have a new field, comparison tool, bug fixes, program comparison tool.
  - These are being documented in the User Manual. The User Manual will show the new login screen and Program Comparison tool.
  - Mayvue's understanding is the Technical Manual will be ever-green (constantly evolving). Mayvue plans to update the Tech Manual with each major release. 6.3 would have technical manual updates.

**Agenda Item 15: Task Force Member Transitions**

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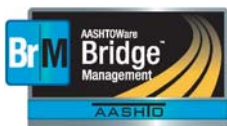
15a. Knowledge Transfer – BrM and the Future Goals/Direction of the Product

The Task Force discussed Task Force member responsibilities including; FDS reviews, service unit project approvals, making sure service units align with core objectives, bi-weekly meetings, quarterly Task Force meetings, email discussions, etc.

15b. Task Force TAG Liaison Assignments

The Task Force reviewed Mark Faulhaber's and Bruce Novakovich's Task Force member responsibilities.

- Bruce is the Task Force liaison for the Beta Testing Group. David Hedeem agreed to take over this responsibility.
- Mark is the Task Force liaison for the multimedia TAG. Kent Miller agreed to take over this responsibility.



**Agenda Item 16: BrM Software Patches**

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BrM 6.3 was the first release of the patchable version of the software. The Task Force discussed the software patch process and made the decision to use the patch release strategy exclusively for bug fixes going forward. Patch releases should not be used to deliver new functionality.

The Task Force discussed concerns with moving forward with the 6.2 patch release due to feedback from the Testing TAG advising that the patch could potentially break state custom code. Mayvue advised that configurations are okay with the 6.2 release, explaining that 6.2 will only impact true customizations (e.g. custom code). This could be custom code written by Mayvue, internally or a third party contractor. While not every state has custom code, the ones that do are important users who are heavily invested in BrM software. Mayvue clarified that this would have happened at some point, 6.2 just happens to be the release where the issues are first occurring. Mayvue committed to forwarding clear guidance to the Beta Testing TAG on how to fix custom code which was broken with the 6.2 release.

There are currently no planned patches beyond 6.2. The Task Force advised that the 6.3 release does not have to be released prior to the 2019 BrMUG. However, we should target a very close release and be able to show/demo functionality at the BrMUG Meeting.

16a. Frequency

Patches should be used to support bug fixes rather than enhancement deliveries. Full product releases will continue to be targeted for delivery just prior to the annual BrMUG meeting.

16b. Scope

Service Unit Project enhancements will be delivered with the delivery of Project Work Plan deliverables (i.e. BrM 6.4, 6.5, etc.)

16c. Patch Release Approach Going Forward

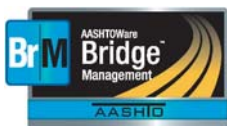
Going forward, the Task Force will be cognizant of the patch release urgency and the associated potential for introducing problems with customized software code.

**Agenda Item 17: Preliminary NBI Coding Guide Discussion – Planning for Solicitation**

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Derek Constable forwarded NBI Coding Guide information to the Task Force via email (05/07/19). In the communique, Derek made the Task Force aware of the major milestones and advised that the proposed NBIS update has made it through the USDOT Office of the Secretary General Counsel review and is awaiting Secretary approval to submit to the White House Office of Management and Budget (OMB). OMB review, comment, and reconciliation time has typically varied from 3-12 months. After which FHWA will be able to post in the Federal Register for a 90-day public review and comment period. Doing the math, that is likely to happen either late 2019 or in 2020. After that, it will take time to finalize, receive final approval, and release for implementation. The Specifications for the NBI (updated coding guide) will be made available for review and comment with the proposed NBIS update.

The Task Force discussed the details of how the NBI coding guide changes will be incorporated into BrM. The discussion included the understanding that all data will be submitted. FHWA will provide a “crosswalk”



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document for converting old NBI codes to new NBI codes for those items with a one to one relationship. For items that do not have a one to one relationship, the codes will initially be left blank to be populated during subsequent inspection cycles.

The Task Force discussed that under the best case scenario, the new coding guide would likely not be ready for implementation until mid to late 2020. The Task Force made the decision to start investigating options for implementing the new coding guide to ensure we are positioned to respond quickly to user requests for support via BrM.

The Task Force made the decision to begin the development of a list of items to be included in the NBI Coding Guide enhancement scope.

**Agenda Item 18: Marketing Activities**

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There will be two separate presentations for T-19 and T-18 on Monday, June 24th and Tuesday, June 25th.

- The T-19 presentation will focus on the whole Bridge integration, regression testing part, and program comparison.
- The T-18 presentation will be a product focus (e.g. what was included in the Newsletter).

**Agenda Item 19: Future BrM License Fee Discussion**

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The Task Force discussed the current BrM license fee structure and the anticipated costs for future BrM enhancements. The Task Force members were in agreement that there is a need for a significant increase to the BrM fee structure to align with the software's abilities and usefulness, and to support the costs associated with on-going customer support, maintenance, and enhancements needed to keep the product relevant.

The current licensing fees (with small incremental increases each year) will not be sufficient to maintain the application long term. It was decided that the Task Force needs to start communicating to the user community the need for major increases to the license fee structure. This will likely be an agenda item for the 2019 BrMUG meeting.

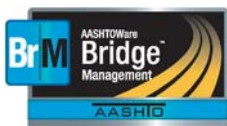
Many agencies agree with the fact that BrM license fees need to be increased. Some states have trouble purchasing service units (to support needed enhancements); therefore, an increase to the license fee would be a better approach to securing additional revenue. The Task Force discussed various approaches to increasing license fees, including:

- Increasing the annual license fee and provide hosting services at no additional charge
- Increasing the annual license fee and include one BrM service unit with each license
- Charge more for production usage.

The AASHTOWare Program has a License Fee Strategy Project underway to provide feedback to the product task forces. Feedback from the AASHTOWare project should be available to the Bridge Task Force prior to establishing the licensing structure for FY2021.

Other related issues discussed:

- We need to continue to add enhancements into the product to stay ahead of the competition.



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- The Task Force will test the water at the BrMUG to make them aware that a license fee increase coming down the road. The license fee increase will not eliminate the need for a solicitation to support the changes needed to support upcoming changes to the FHWA NBI Coding Guide.
- Mayvue advised that BrM user expectations are high: training, enhancements, rapid customer support, documentation, etc. All services are expected to be delivered with the highest of quality.
- The Task Force discussed showing the users the hard numbers. Raising the fees will be necessary to support the incorporation of new functionality within BrM. Even with an increase in license fees, BrM we still be less expensive than the competitors.
- Several hundred enhancements are currently documented in JIRA that we'd like to get integrated into the core software.

The BrM license fee increase business case should show a graphical representation over time of what the license fee should be based on standard escalation. In addition, a visual presentation of the increase in BrM functionality over time should be incorporated. Screenshots of the videos shown during the meeting could be incorporated to show increased functionality. The increase in value should be the focus of the business case. The license increase is the side effect.

**Agenda Item 20: FY2019 Quality Assurance Review for Bridge Management**

Judy Tarwater presented the results of the 2018 BrDR QA Review held 11/06/18 at the Bentley Systems, Inc. offices in Pittsburgh, PA. The matrix provides a visual summary comparing with meeting key requirements defined theS&G Notebook during FY 2018 and the prior two years.

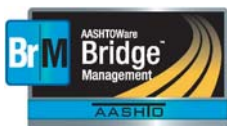
**Agenda Item 21: User Group**

21a. 2019 BrMUG Agenda

The 2019 BrMUG meeting will be held at the Seelbach Hilton Hotel in Louisville, KY. David Fuqua gave the Task Force an overview of the Seelbach Hotel and identified interesting facts about Louisville.

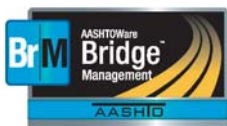
The Task Force discussed the following potential presenters/topics for possible inclusion in the BrMUG agenda.

- North Dakota would be good to present.
- Georgia went from December to May really fast and developed their TAMP. (possible 0-60 presentation by GDOT?) Clayton Bennett would be the first choice to present the GDOT story.
- Kansas is another agency that could present a good story.
- Open slots for training. The following topics were discussed for possible Mayvue training.
  - Show the '0-60' of how to get BrM up and running and how easy it is to do. Import the NBI file, then jump to the next step which is already prepared and ready to go. No sitting and waiting for the file.
  - Just like the food network – have the next step ready to go.
  - Mayvue could present the suggested training in one hour.
- Mayvue would also like to show some of the new available BrM functionality.
  - 6.3 items – what's coming in 6.3? Maybe have others present besides Zac Boyle (combination of Craig Nazareth and Zac Boyle).
    - Schedule Processes (Zac Boyle)



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- Inspection Scheduler (Craig Nazareth)
- Tunnel (Zac Boyle / Bruce Novakovich)
- NBI Deterioration (Zac Boyle) – kick off day #2 (0-60)
- Highlighting the overall features of BrM (not just the new features)
- How you can put a picture of your own bridge on the login page.
- BrM Mobile update
- Program Comparison (Zac Boyle will handle this presentation) 1st Day – 30 minutes total (combined with Webservices). Shows how you use the output / data. Washington State is the most versed in this area. Reach out to Washington DOT (Paul Evans) to see if they could give a demo of what they've done.
- BrM 7.0 – new coding guide planning (come up with a list of potential items included with these changes). Also, include 6.4 – LCCA underway. Eric Christie's presentation should also include budget concerns, license fee discussion, and NBI Coding Guide update solicitation.
- FHWA discussion (Derek Constable / Doug Blades) – 30 minutes.
- Webservices – How this service can be used to support data transfer between BrM and BrDR. 1<sup>st</sup> Day – 30 minutes total (combined with Program Comparison)
- South Carolina work plan (if one's in place) – plant the seeds, not necessary to show screenshots (TBD presenter).
- Beckie Curtis– Discuss MIDOT's need to include pavement data in BrM.
- Lessons learned – what Mayvue / Task Force continues to see are struggle points. (Zac Boyle)
  - Showing what happens if you have no structure weights (NJDOT example)
  - Optimizer lessons learned
- For Judy Tarwater's AASHTOWare Overview presentation, the Task Force decided that only a few of the survey question responses should be included. Only those questions which illustrate that users are providing the direction to the Task Force should be included in the presentation. The survey question results to be included in the presentation are:
  - Breakdown of what version agencies are using (pie chart) – Question #1
  - Satisfied with Task Force communication – Question #31
  - How satisfied are you with the inspection features provided by AASHTOWare Bridge Management – Question #17
  - How satisfied are you with the modeling, analysis, and optimization features provided by AASHTOWare Bridge Management – Question #18
  - #21A and #24A – for those have used the contractor for support
- The BrMUG meeting will not begin with the survey results presented early on the first day, rather a presentation of the program comparison tool and new BrM functionality will be early on the first day to kick off the meeting.
- Informational topics will be scheduled for later on the first day (after lunch).
- Jira Service Desk Interface – 15 minutes. Check out the new interface, functionality, and discussion on ticket submission. – Chris Meredith.
- Send something out to the champions to see if they'd like to speak during the meeting, and provide a quick update on the status.





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- BrM Mobile = 30 minutes

21b. 2019 BrM End User Survey

The Task Force and Mayvue reviewed the latest version of the User Group Meeting survey. Below are the changes that need to be made:

- Question #5 should also identify version 6.3.
- Question #17 and #18 should include a N/A option.
- Re-word question #39: take out the word “contractor”
- Add a second part to question #37.
- Question #22 – finish it off. If yes, please rate your satisfaction with Mayvue’s technical services
- Remove question #34 and #35 from the survey.
- Add a question for ‘code customizations’ (true/false) into the survey. Do you consider your BrM implementation to be “off the shelf”? What modifications have you made to customize your instance of BrM?
- Add a question stating: Are you aware that Mayvue offers setup, configuration, and training as well as TAMP training for BrM?
- Would you be interested in securing setup and training in BrM?
- Would you rather have software with a high price with a large support available or cheaper?
- Does your state or local agencies require calculating the legacy definition of structurally deficient which includes Minimum General Condition Rating, Waterway Adequacy, and Structural Evaluation?

21c. Updated BrM Product Brochure

The BrM product brochure will be updated following the release of BrM 6.2.

21d. Reveal of the FDS Workflow Diagrams

The Task Force reviewed the FDS diagrams from the Alexandria Task Force meeting. It was agreed that going forward Mayvue will include one of the three workflows in each new FDS document generated so readers are aware of the workflow associated with that specific FDS.

21e. BrMUG SWAG Suggestions

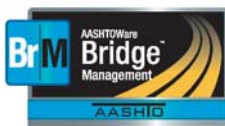
Mayvue advised that they plan to purchase BrMUG Beer Mugs for BrMUG meeting SWAG. David Fuqua also recommended Mayvue consider setting up an event at Evans Williams Distillery.

The Task Force will forward BrMUG SWAG suggestions to Judy Tarwater.

**Agenda Item 22: Draft Quarterly Status Report Content**

The next quarterly status update will be similar to the last report. The following topics will be included:

- As of 07/01/19, Kent Miller and David Hedeem are the newest members of the BrM Task Force. David Hedeem will chair the BrM Testing TAG and Kent Miller will chair the BrM Multimedia TRT.
- FDS workflow diagrams
- Progress made on LCCA – upcoming webinar for LCCA or the webinar was completed on a specific date and point to the recording.
- Information on available training videos (provide a direct link).
- User Group Meeting and user survey – reminder to compete before the meeting and provide the link.



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- 6.2 Custom Fixes Explanation (Why the Problem and How to Fix It) – call out it was for custom code only. (This information will also be included in the release notes with 6.2. This will also be an issue in 6.3.)

**Agenda Item 23: Review Action Items**

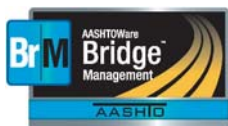
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Anthony Hutskow reviewed the action items recorded during the meeting.

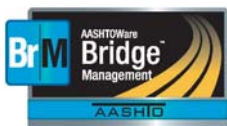
**Agenda Item 24: Executive Session**

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The meeting adjourned at 5:00pm.



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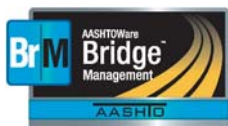
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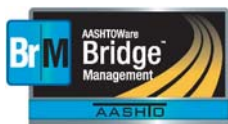
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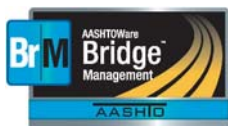
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