Thursday, April 20th, 2017
Venue - Embassy Suites, Lincoln, NE

Begin Task Force 13 Meeting & Self-Introductions **Durkos**

- Agenda review by Durkos
- AASHTO resolution
- Joe Jones workshop/review of the RDG and TF13s role
- What is new with the TF13 website – teaser.
- Thank you to MwRSF Valerie Swartz and team for all the local assistance and recommendations.
- Recognition to TF13 Team – Neece, Boodlal, & Co-Chairs
- Federal employees (such as FHWA) – 7 registrations, 4 had paid, all canceled in last few weeks
- Total number of participants/registered for TF13 on Thursday and Friday was 78.

Recap of Miami Subcommittee Meetings **Neece**

Approval of Minutes from Fall 2016 (Miami, FL) Meeting - Approved **Durkos**

Contract for Website Services Subcommittee #1 Publications Maintenance **Lohrey/Johnson**

- Eric Lohrey & Olaf Johnson have split their roles Olaf is website developer and Eric is the technical guy.
- Removed ARTBA and AGC logos from the website
- Reconfigured website to showcase links to various guides with more clarity.
- 14 new MASH products added to Roadside Hardware Guide
  - 2 Bridge Railings
  - 2 Crash Cushions
  - 2 End Terminals
  - 3 Permanent Longitudinal Barriers
  - 4 WorkZone Barriers
  - 1 Component
- Will have to make some technical accommodations for "Self-Certifications" of MASH products by the states, as the triggering mechanism currently is the FHWA letter.
- Discussed the naming nomenclature of the TF13 designators.
- TF13 Guide Update – automatically uses the "contact" and address from the FHWA letter. Manufacturers need to review their information – example: Lindsay/Barrier Systems and changes to licensee names.
- 16 new designators assigned for MASH Systems by Co-Chairs, for products that received FHWA Eligibility letters in 2017. Products will be entered into database/website soon.
- Prepared draft drawing review instructions
- Encouraging "owners" of products to submit photographs, drawings, and other documents to ensure your product is represented. Typically it is the non-proprietary (state) products that need more information.
- Barrier guide break-out for Crash Cushions, End Terminals, Guardrail Barriers, and Work Zone are not yet updated in website but will be soon. Will allow for category-specific search attributes.
- Continue to merge "Main" and "Guide" website for a common look & remove duplicate functionality.
- Add Delineators products and/or create guide for them
- Add TMAs and other Work Zone hardware (products with FHWA letters) to TF13 guides.
- Discussion on components for standard products
  - Need specification sheets
  - Need some corrections
  - Several states expressed a need for the component drawings/specifications to be updated – to include dimensions and tolerances.
- Any questions on drawings/specifications, please reach out to Eric Lohrey

- Much spirited discussion amongst participants on "when" a product is "eligible" to be added to the TF13 guide? What is the protocol – what should it be? When it has completed all the information (photo, description, FHWA letter, drawing and REVIEW) OR only when the FHWA letter is issued? What about for states that self-certify and do not have a FHWA letter? To be determined.
- Perhaps TF13 should concentrate on non-proprietary for the states to use-as the proprietary systems/products will be sent to direcly to each state as part of the QPL/APL process?
- Chris Poole – AASHTO-TCRS most likely will NOT list proprietary products in the RDG, when it is published next. They are looking for someone to step up to take on that role.
- Durkos suggests that TF13 reach out to all states (our customers) to determine the direction of the guide. Suggested the form be a short/simple survey …
- Derwood Sheppard brought up that TF13 status within AASHTO could be the catalyst for the TF13 guide going forward, especially in light of Poole's comments.
- Karla expressed concerns that this sub-committee is experiencing "scope creep". Should be getting the basics, before adding the bells and whistles.
- A new drawing review process is underway with Karla taking the lead. Drawings will now be commented on the last page of the drawing, eliminating the need to login to the TF-13 website to post comments and/or approval.

Subcommittee - Breakout Session A

#2 - Barrier Hardware Review Groups **Smith**

Guardrails/Median Barriers Lechtenberg

- Sent out 4 or 5 for review last night, will turn off the reminder from the website, so reviewers are not bombarded.

Crash Cushions **Kruse**

- Lack of participation by reviewers – 20+ listed, only 1 participated.
- Process is not working. Suggested drawings require a sign-off, but not connected to the website, as that appears to be the process disconnect. Karla suggests that this be completed with pdf signatures only – Eric/Olaf will research the alternatives.

Terminals – much the same comments **Sheppard**

- It was discovered that John Durkos' watch was more than 13 minutes slow, thus how we can still be on schedule, yet late for the break.

Subcommittee - Breakout Session B

#3 - Bridge Railing & Transition Hardware **Bligh/Brauner**

- 41 attendees, a good portion were 1st time to attend TF13
- Website has had over 13,000 hits since October 2016 meeting
- Use and experience with the TF13 guide from participants – mostly positive. Guide is also used by local agencies.
- Should partial submittals be accepted into the guide? After discussion – straw vote taken … 6 states in favor, 5 states <u>not</u> in favor of partial submittals.
- Inclusion of test report is very important to for systems which do not have a FHWA eligibility letter.
- Guide is only as good as the information contained in it, lively discussion on how to improve.
- Is there a possibility of issuing a TF13 letter to state DOT requesting information on systems?
- John Williams of GSI agreed to serve as a leader in the review of this guide.

#11 Delineation (Chancellor Room) **Gentry/Schulz**

- Discussion of the history as to why this committee was created for Roadside Hardware.
- Discussion of the different classifications of delineators and where they fit in
- Craig discussed his comprehensive spreadsheet detailing all impact testing performed by NTPEP since 2005. Along with the impact testing performed for FDOT by TTI during summer 2016 on concrete and December 2016 on open grade friction course.
- FDOT next round of testing is scheduled for July 2017 at TTI. October 2016 cold weather open grade testing was EXPERIMENTAL testing only – different manufacturers adhered the product with different amounts of epoxy etc.
- Crowley: What is the process for accumulating/assembling the information concerning "durability" (or performance) of delineators. How does a company ADD information to the database – what is the allowable testing criteria?
- Reflectivity sheeting is not durable – identified this as a need for the delineation product. Paul has contacted and discussed with sheeting manufacturers. Currently, the testing is subjective for the reflective materials.
- Going forward, there are two routes - go NTPEP and wait 2 years or contract to 3rd party testing house yourself, then submit the information to NTPEP, etc. Tennessee is no longer doing the NTPEP testing. NTPEP will decide which lab to utilize for testing.
- Craig distributed an email list with the following proposals to address:
    - NTPEP or Accredited testing facility testing to NTPEP standard to be considered for the list, drawing and specifications are required going forward.
    - Old NTPEP data not updated will not be published by TF13, as tracking down drawings and other data would be nearly impossible.
    - Only New NTPEP or Florida DEV993 testing be considered for inclusion until some other standardized testing protocol is developed.
- Discussion was brought up to consider non-flexible (steel as an example) delineator testing protocols. Follow up to occur prior to the next meeting.

Subcommittee - Breakout Session C

#6 - Work Zone Hardware (Chancellor Room) **Eric Lohrey**

- The subcommittee is in need of a Technical Representative for Work Zone Barriers. Tech Reps coordinate drawing reviews for new Systems and Components that are proposed for inclusion in the Work Zone Barrier portion of the TF13 Roadside Hardware Guide. Anyone interested in serving for this position-contact SC #6 co-chairs.
- Jeff Smith wanted to know if Category 1 or 2 products will need to be tested to MASH, as he stated there is not protocol within MASH. Dr. Faller clarified there are MASH testing criteria, but no guidance on self-certification. Chris Poole said that the decision on this was NOT going to fall under AASHTO control and that in the future TCRS may address the issue in future editions of MASH. The categories were created by FHWA, so they will need to decide as part of the eligibility letter process. A DECISION IS NEEDED ASAP!
- Poole … TCRS is looking to reestablish the four categories. If TF13 remains with AASHTO, then TF13 could be instrumental in this regard.

  Category 1, Lightweight Devices (cones, barrels, etc. that may be self-certified by the manufacturer).
  Category 2, Heavier Channelizing Devices that need to be crash tested.
  Category 3, Other Large or Fixed Devices that need to be crash tested.
  Category 4, Trailer Mounted Devices.
- At this time the Guide only covers work zone barriers. Eric Lohrey proposed the possibility of adding other categories of work zone devices, such as the Category 1-4

devices above and TMAs. These systems are currently issued FHWA eligibility letters, and inclusion in the TF13 Guide is likely beneficial for users.

- Review of online guide was conducted – mission to collect photos, drawings and such. Possibly removal in the future of products, if information is not provided.
- Important that co-chairs assign tech representatives for drawing review
- Attributes on the guide – need to add width.
- There was a lengthy discussion on who is going to make the decisions on crash testing issues (example: how/what to test and what is the most critical test), FHWA or AASHTO. A DECISION IS NEEDED ASAP!
- Becky Golden gave a detailed and informative description of what ATSSA has done on trying to get resolution for the above issue.
    - ATSSA has already met with FHWA in December 2016 and again on April 5, 2017. At this time, it appears the FHWA position is that all applicable MASH tests need to be conducted, and that selected individual tests will no longer be waived. ATSSA also created a joint taskforce to send a letter to the to FHWA, letter sent in the fall. Letter contained support for the four categories for WZ devices. Question: If product is tested to MASH '09, does it need to be tested to MASH '16? Cited an MwRSF study that showed certain sign had high degree of failure potential and some good degree of success.
    - ATSSA spoke with AASHTO concerning similar topics with FHWA.
        - No guidance from AASHTO and states will be responsible for ensuring the products on the NHS in their states comply with '350' or MASH – dependent on the sunset dates. States solely control their QPL/APL …
        - ATSSA is willing to help to streamline the state QPL process for developers.
        - AASHTO is depending on Test Houses and State Engineers to elevate their review of products.
        - A statement was made during this meeting that other than the Cable matrix testing and clarifications on vehicle details, that MASH '16 was the same as MASH '09. Dr. Faller clarification .. Test 3-37b (end terminals) is a change to MASH '16 vs MASH '09 and it is a "substantial change".

#7 - Certification of Test Facilities – BROADCASTED **Lechtenberg/Bullard**

- Lance reports that the FARO arm technology has defined the size of his bald spot on the back of his head and he is now 'certified' – which isn't new news to most of us.
- Door opening during MASH Testing and "potential harm". Need specific wording to address the concern – currently it is all subjective. Also guidance as to whether the door should be locked or not during testing?
- ILCs
    - 2016 summary (accelerometers) needs to be available for auditors and review and an independent conclusion must be made by the lab.
    - 2017 Determine the start of event (T=0)
    - MwRSF site lists all the ILCs through 2022. All were reviewed and updated. Next fall, additional will need to be added to meet the minimum requirements for six years.
- FHWA Eligibility Form (Revision #10 is current)
    - Lab attesting to engineering analysis
    - Collection of information regarding the issues with current FHWA form needs to be sent to FHWA ASAP, as new form is in the works. Items identified so far:
        - Form still lists '350' as a possible option?

    - Form requires a signature in the engineering analysis, even when none is completed?
    - Drop down box still lists Texas Transportation Institute, instead of "A&M".
- 2012 Kia Rio track dimensions are too wide to comply with MASH. Soliciting alternate vehicles. Possibility a suggestion/change to MASH will be necessary.
- TRAP '350' vs MASH flail space dimensions … MASH is inconsistent, use '350' (metric). Motions made by Karla, 2nd by Roger – to use metric … motion passed.
- Signature page on reports for lab technicians. Is it needed?

Subcommittee - Breakout Session D

#5 - Sign, Luminaire & Traffic Signal Support Hardware Lohrey/Jollo

- Summary … need guidance from AASHTO and/or FHWA as to how/what to test to meet MASH criteria, as testing every combination isn't possible. These are families of products. Testing in the past was with smallest/lightest and heaviest/largest items. A DECISION IS NEEDED ASAP!
- Majority of TF13 attendees were present since there were no other meetings in session.
- Sign Support Guide up-to-date except for one (1) new system (SSS21a-b) that just had its drawing submitted. The drawing will be reviewed before the next meeting.
- Luminaire Support Guide remains unchanged since it was created under a pooled-fund study 2-3 years ago. There is a need to include many additional systems from a greater variety of pole manufacturers. However, the current deadline for implementation of MASH (12/31/2019) has complicated that effort.
- Discussion regarding MASH Implementation for Sign & Luminaire Supports:
  NCHRP Project 03-119 is currently in progress, and is intended to provide evaluations of common sign & luminaire supports as well as work zone devices as related to their performance during MASH testing. Results of this project are of significant interest to subcommittee members because performance criteria in MASH have changed significantly from NCHRP 350. Pendulum compliance testing is no longer accepted. A complete matrix of full-scale crash tests is now required.

  There was a discussion on what constitutes the breakaway "system" that will be accepted in accordance with MASH. The Sign Support Guide identifies the breakaway base component as the "system", whereas the Luminaire guide shows the entire structure (base plus vertical & horizontal supports) to be the "system". When considering the whole structure, there are tens of thousands of different configurations of height, weight, and attachments that are routinely installed on breakaway supports. Determining "worst case" impact conditions for MASH testing is extremely difficult and subjective with the current lack of historical test data available.

  Many subcommittee members are certain that there are very few problems in the field with safety performance of current NCHRP 350-compliant breakaway supports.

  Members also discussed a need to conduct research on roof-crush characteristics of MASH vehicles in order to establish maximum structure mass allowed to be used in conjunction with breakaway supports. The current limit of 450kg [992 lbs] for luminaire supports may be outdated for the current vehicle fleet.

FHWA Roles/Responsibilities (was Schertz presentation, pinch-hitting for Longstreet) Durkos

"2017 ATSSA TrafficExpo MASH Implementation"

- FHWA worked jointly with AASHTO on sunset dates
- FHWA will continue to provide eligibility letters
- Encourage testing to MASH '16.
- If a state has a question – how do they contact the FHWA? Through the FHWA Division Office! NJDOT reports that they went this route and were told to contact the Office of Safety. FHWA then educated the division office and the question was resolved. NJDOT recommends that the state write the letter to the FHWA Divisional office.
- NO FHWA ELIGIBILTY LETTER IS NEEDED TO RECEIVE FEDERAL FUNDING FOR PRODUCTS ON THE NHS.
- IF FHWA continues to issue eligibility letters, what can we do different or better?

Task Force 13 Executive Meeting

Attendees were: John Durkos, Lance Bullard, Rick Mauer, Jim McDonnell, Roger Bligh, Becky Golden, Chris Poole, Olaf Johnson, Karla Lechtenberg, Eric Lohrey, Craig Schulz, Paul Gentry, Greg Neece, Eric Smith, and Chuck Patterson

- Still need some Co-Chairs – particularly w/ Durkos and co-chair of TF13. Others are publications (Olaf) subcommittee.
- No dates yet for TF13 in College Station, should have those in mid-May.
- Olaf needs suggestions for survey – he will distribute a draft for Co-Chairs to review.
  - Also need the specific target audience for the survey? DOTs, Counties?
  - How important are the TF13 standardized drawings to you?
- Oodles of continued discussion on the process of submittal to the TF13 website and the hassles of obtaining the information needed from the owner of the product. Eric suggested one more appeal to proprietary system owners asking for help with providing the requested information. Roger suggested perhaps even sending them the template?
- #4 Drainage Sub-Committee – Patterson recommends to let the group decide tomorrow as to whether to sunset. Secretary note: Because of time this was not discussed.
- #8 Rail Highway Crossing – Hare and Ayton recommends sun-setting this subcommittee.
- Karla and Olaf will experiment with the concept of email submittals of reviews, instead of through the website and will report back.
- #11 Delineation – not realistic to submit all drawings, due to the product design. As an example, Pexco reportedly has ~8,000 products in the delineator market. Secretary note: Folks had a choice of Bridge Railing with Bligh or Delineators with Schulz – approximately 20 brave souls tore themselves away from the world of bridge railing to pursue their delineator dreams.
- Suggestions for the next newsletter for Mauer:
  - Meeting highlights – number of attendees State attendee rates at TF13
  - First timers attendees
  - Beg for drawings and new submittal process – simplify
  - Survey
  - Joint session success – 90 attendees, 7 online and 83 in person.
  - MASH '09 and MASH '16 differences & MASH implementation plan
- Meeting adjoined at 6pm

Dinner at Green Gateau on L Street

Enjoyable dinner, a quick 10 minute walk away. Good opportunity to visit with others in the industry.

Affiliated Committee/Activity Reports

- **AASHTO Headquarters/TF13 Status** **Jim McDonnell**
  - Approximately late 2014, AASHTO began to reorganize
  - The Strategic Management Committee is the body within AASHTO which decides how or if outside organizations are aligned with AASHTO. Structure was added in November 2016
  - Recent history of TF13
    - Liberated from the AASHTO-ARTBA-AGC Joint Committee
    - AASHTO still Supportive of TF13.
    - TCRS, HQ and SCOD sees value of some kind of continued relationship with TF13, but not likely in its current format.
    - TCRS discussed TF13 in June 2016, then the conversation moved to HQ.
    - HQ weighed the pros/cons – most importantly AASHTO is DOT centric.
  - "Habitat for Humanity" option is being offered by AASHTO – basically assistance as TF13 finds their way to our new group.
  - Continued relationship with AASHTO and TF13 through a Memorandum of Understanding – signed by both parties.
  - TF13 is the only Task Force still active – others have been sunsetted already.
  - We must remove all information showing we are part of AASHTO and also the "Task Force 13" name. We need to rebrand … A timeframe has not been established.
  - John notes that TF13 is self-sufficient and the work of the TF13 is important to the roadside safety community. We must maintain some form of connection with AASHTO. The Memorandum of Understanding would provide that connection. Since DOTs may have travel restrictions, the wording of Memo would be instrumental.
  - NJDOT suggested that the "rebranding" of the name should incorporate "safety hardware" or such – in order to assist with DOT support for travel, as the current "Task Force 13" description is often hard to explain when requesting funding for travel.
  - Clarifications on MASH
    - Technical assistance is limited at AASHTO.
    - TCRS will maintain the document
    - AASHTO is a standards development organization – not an implementer or regulator.
    - Due to legal concerns – members of AASHTO can answer questions as individuals, but NOT as AASHTO. AASHTO is a non-profit and doesn't have insurance to cover legal entanglements – thus they will only be limiting answers to document (MASH) clarifications only.
  - Test matrices … although some letters have been issued without all tests being conducted, <u>currently</u> FHWA is requesting all tests be completed for new letters.

- **AASHTO Technical Committee on Roadside Safety (TCRS)** **Poole**
  - TCRS is close to having a full representation, several new members
  - Four projects that TCRS recommended were funded
    - Zone of Intrusion with MASH parameters
    - Bridge rail testing program to confirm MASH compliance
    - Development of the next generation of PCB
    - Roadside encroachment data for clear zones
  - Future projects may include: Validation of injury information in the field to crash test

data/expectations

- Currently the committee is more reactive and less proactive
- Mainly working internally to define roles.
- Joe Jones' team is the project lead which is identifying gaps in the current RDG.
- Discussion on TF13 future – to what extent does TCRS work with TF13 in the Memorandum of Understanding.
- MASH Clarifications
- Implementation agreement with FHWA – any update needed?
- Expectation is that the RDG will be updated in 2019.
- Update to RDG (2019?) may NOT contain proprietary devices.

➔ The remainder of the meeting was broadcast via Adobe Connect ←

- **American Traffic Safety Services Association ("ATSSA")** **Golden**
  - Becky provided an update on the various work and programs currently ongoing as part of ATSSA. Including the WZ wall, summer camps, and training programs.
  - May 3-4 ATSSA Fly In (Washington DC)
  - August 23-25 ATSSA Mid-Year Meeting in Louisville, KY

Reports from Special Subcommittee Co-Chairs

#9 - Marketing **Mauer/Golden**

- Produced and published the Spring newsletter on the TF13 website.
- Received many good ideas for the next Newsletter:
  - Joint session success story – 90 attendees, 7 online and 83 in person.
  - State attendee rates at joint meeting and TF13
  - Highlight/Feature TF13 first timers attendees (interview format)
  - Plea to get volunteers to updated generic drawings
  - Outline the New submittal & review process the process & simplify
  - Survey
  - MASH '09 and MASH '16 differences
  - Highlight a specific State MASH implementation plan

- **TRB Committee AFB20 Roadside Safety** **Roger Bligh**

96th Annual TRB meeting was held January 8-12, 2017 in Washington, D.C.

- Subcommittee Meetings
  - Computational Mechanics
  - International Research Activities
  - Positive Protection in Work Zones
- Main Committee Meeting
- 3 Paper Sessions
  - Session 299 (P) – Understanding and Designing for Run-off-Road Crashes
  - Session 630 (L) – Barrier Design for Heavy Vehicles
  - Session 706 (L) – Design and Evaluation of Roadside Hardware
- 2 Group Meetings
  - Roadside Safety Data Needs & Applications
  - Computational Mechanics Simulation Forum
- Research needs statements, submitted by AASHTO-TCRS
  - Bridge Rail Testing Program to Confirm MASH Compliance (FUNDED)
  - Determination of Zone of Intrusion Envelopes under MASH Impact Conditions for Barrier Attachments (FUNDED)
  - Development of the Next Generation, MASH, Portable Concrete Barrier (FUNDED)
  - Roadside Encroachment Data for All Vehicle Types across a Range of Traffic

Volumes (FUNDED)
- Validation of Roadside Crash Injury Metrics in Real World Crashes

International Roadside Safety Conference will be held June 12-15, 2017 in San Francisco, CA

- Organized by TRB - Replaces AFB20 Summer Workshop & Meeting
- Co-Sponsored by six states: KY, MN, NE, OH, WA, WV
- *"Safer Roads, Saving Lives, & Saving Money"* To support and advance global efforts to reduce deaths and serious injuries associated with run-off-road crashes
- Highlight technological advancements and innovations involving new research as well as proven practice. Multiple technical tracks papers, presentations, exhibits, and sessions
  - Monday, Tuesday, Wednesday
    - General session with Keynote speaker
    - Morning technical sessions (3-4 concurrent sessions)
    - Two afternoon technical sessions (3-4 concurrent sessions)
    - Reception (Monday evening)
    - Subcommittee meetings (Tuesday or Wednesday evening)
  - Thursday AFB20 Committee Meeting

Update of ongoing research projects related to Roadside Safety

- **NCHRP** **Mark Bush**
  - **FY2017 NCHRP Projects: (Contract Execution)**
    - 17-81 Incorporating Road Safety Planning in the Highway Safety Manual ($400,000)
    - 17-82 A Practical Approach to Fixed Objects within the Clear Zone ($500,000)
    - 17-83 Implementation and Training Materials for the Highway Safety Manual, 2nd Edition ($500,000)
    - 22-32 Development of Methods to Evaluate Side Impacts with Roadside Safety Features ($500,000)
    - 22-33 Development of a Collaborative Approach for Multi-State In-Service Evaluations of Roadside Safety Features ($650,000)
  - **FY2018 NCHRP New Approved Projects:**
    - 17-85, B-08: Application and Use of Crash Severity Safety Performance Functions ($600,000)
    - 17-86, B-09: Estimating Effectiveness of Safety Treatments in the Absence of Crash Data ($600,000)
    - 22-34, C-04: Determination of Zone of Intrusion Envelopes under MASH Impact Conditions for Barrier Attachments ($400,000)
    - 22-35, D-02: Bridge Rail Testing Program to Confirm MASH Compliance ($500,000)
    - 22-36, D-03: Development of the Next Generation, MASH, Portable Concrete Barrier ($400,000)
    - 17-88, G-01: Roadside Encroachment Data for All Vehicle Types Across a Range of Traffic Volumes ($675,000)
    - 17-89, G-03: Safety Performance of Part-Time Shoulder Use ($700,000)
    - 03-132, G-06: Improving the Safety and Efficiency of Temporary Traffic Control for Mobile Operations on Two-Lane Roadways ($300,000)
    - 03-133, G-07: Signal Timing Strategies for Non-Motorized Users ($500,000)
  - FURTHER INFORMATION IS AVAILABLE FROM THE PRESENTATION. GREG NEECE CAN PROVIDE A COPY OF THE PRESENTATION, UPON REQUEST.

- **Texas A&M Transportation Institute** **Bullard**
  - Pin and Loop TCB – 12.5' L segments, 200ft installation
    - Tested previously as '350'
    - Free Standing was tested to MASH 3-10 & MASH 3-11 and passed
    - Pinned-down was tested to MASH 3-11 – but failed. After review the concrete slab was the failure mode. TTI Pooled Fund will advise how to go forward.
  - JJ Hooks Free Standing TCB
    - Tested to MASH 3-11. Barrier deflected about 5' and barrier broke in half, only the rebar holding the impacted 12.5' segment together.

- **Midwest Roadside Safety Facility** **Bielenberg**
  - MASH Thrie Beam Bullnose
    - 3-32 – 15 degrees at center of the nose – vehicle captured in ~20' and passed.
    - 3-34 – hit at post #2 – vehicle smoothly redirected and passed.
    - 3-35 – hit at post #3 and vehicle captured, small snag on 9th post. Passed.
    - MwRSF pooled fund voted this week to continue the program and run 4 additional tests.
  - Top-Mounted Socket for Weak Post MGS – use for culvert fill heights 1-3ft
    - Conducted pendulum and bogie tests to evaluation steel socket and posts
    - Conducted bogie tests with concrete socket
    - More work to come …
  - 34" Approach Guardrail Transitions (NE)
    - MASH 3-21 was ran and passed
    - Future tests include MASH 3-20

- **FHWA/George Mason University** **Marzougi**
  - Vehicle Model Verification
    - 2010 Toyota Venza (a crossover) was evaluated using concrete median barrier
  - Models posted on CCSA Website now include 2012 Toyota Camry, 2010 Toyota Yaris, 2006 Chevy Silverado
  - Vehicle Dynamic Validations
    - Based simulation on trees and utility poles. Conducted pendulum testing on poplar tree samples.
    - Then ran simulation on 5" and 7" wood cylinders at speeds of 30, 50, 70, 100 k/h
    - Will develop other models for additional tree types

Technical Presentations: relevant research on roadside design and hardware.

FAST Act Guardrail Safety Training program **Boodlal**

- ARTBA, KLS, FHWA on original project Team
- Team now includes several additional members, each with more than 30 years of knowledge.
- 4-6 months from kick-off in the states until the deliverables are made. Deliverables include:
  - 1 day designer training
  - 2 day installer training, 2nd day is with manufacturers.
  - 5 technical briefs. 14 briefs are currently available, which are tailored to the state
  - Roadside Safety Pocket Guide
  - Checklists
  - Train-The-Mentor Program (new aspect)
  - Guardrail Safety Training - a web-based classroom instruction
  - Resource Charts

New/Old Business **Durkos**

- Location of 2017 Fall TF13 Meeting in College Station, TX – date is not established yet.
- Location of Various 2017-2018 Meetings
    - TF13 Spring 2018 in Lincoln, NE
    - TF13 Fall 2018 will be held in a TTI pooled fund group member state
- Executive Committee Summary
- Review of Task Force 13 "To Do List", generated from meeting.
    - Olaf Survey
    - Subcommittee #11 needs tech reps
    - Email review for Karla's group vs web-based review.
    - States/Members to suggest names for new Task Force 13 (TF13) name.
- Meeting concluded approximately noon on Friday April 21st, 2017

Task Force 13 Meeting notes respectfully submitted and finalized on May 22nd, 2017 by TF13 Secretary: Greg Neece of Trinity Highway Products LLC.
