



Quick Links to all of the presentations that were presented during our meeting:

- [ATSSA Update - El-Zine](#)
- [Calspan Research Update - Atahan](#)
- [CCSA/ George Mason University \(GMU\) Research Update - Tahan](#)
- [MwRSF Research Update - Bielenberg](#)
- [NCHRP Updates - Turner](#)
- [Ecoposte - Cunha / Cunha](#)
- [Subcommittee 1-Lohrey](#)
- [Subcommittee 1-Heimbecker](#)
- [Subcommittee-2 Eicher / Pyde](#)
- [Subcommittee 3 - Bridge Rail & Transitions - Ghioldi / Guadry](#)
- [Subcommittee 5 – Kirchgesner/Jollo](#)
- [Subcommittee 6 – Seguin/Schrum](#)
- [Subcommittee 7 - Test Facilities – Lechtenberg/ Kovar](#)
- [Subcommittee 9 - Poynor / Peters](#)
- [Subcommittee 10 - Durkos](#)
- [Questions Regarding Material Modifications - Hubbell](#)
- [Midwest Pooled Fund Update](#)
- [Impact Performance of Water Filled Crash Cushion in Winter Conditions - Beauchamp](#)
- Texas A&M Transportation Institute Research – Kovar (pending)

Wednesday Evening Joint Meeting with Midwest Pooled Fund Group. Meeting Summary

Quick recap

Gave a recap of AASHTO Technical Committee on Roadside Safety (TCRS) meeting. Discussed upcoming publication timelines, including the 2027 Roadside Design Guide (RDG) and 2030 MASH Specification updates, alongside standardizing urban clear zone measurements.

Task Force 13 discussed committee restructuring, highlighting a critical need for computational computer modeling and proposed the revival of Subcommittee #10. Discussed the possibility of adding an International Subcommittee.

Additionally, FHWA has a severe backlog of 88 eligibility letters – issues were related to staffing constraints and political inquiries, prompting shifts toward updated submission forms and legal reviews for National Highway Institute training.

Finally, the open research discussion emphasized NCHRP Project 22-63 validation guidelines, ATSSA's W-Beam Guardrail Identification Booklet efforts, the need for an



MGS maintenance & application guide, and the systemic loss of institutional knowledge regarding highway hardware during management turnover.

AASHTO Publication & Specification Timelines – Emerson

- RDG Update: The Roadside Design Guide (RDG) is on schedule for publication in 2027.
- MASH Specifications: The complete MASH Specification document has an estimated completion date of 2030.

Technical Committee & Task Force 13 (TF13) Updates – Durkos

- Subcommittee Reorganization: Will Longstreet's previous efforts in getting Subcommittee #10 going when he was still with FHWA. The subcommittee was paused in 2017 when FHWA no longer considered Computational Mechanics as part of FHWA's submittal/review process.
- New Technical Needs: The group identified needs for the revision of Subcommittee #10 Computational Mechanics and possibly formation of a new International Subcommittee to extend the breadth and outreach of TF13.
- Committee History: Bob Bielenberg reviewed the historical role of the Computational Mechanics Committee as a former TRB subcommittee.
- Support Offer: Marc Seguin (Moovop) offered to lead both the International and Computational Mechanics initiatives.
- Modeling Education: Erik Emerson emphasized that upper management lacks an understanding of crash modeling, creating a need for an educational component.

FHWA Eligibility Letters Status – Heard on the street

- Staffing Constraints: The review team consists of only three people
- Backlog: There are currently 88 eligibility letters waiting in the queue.
- Political Delays: Escalating letters to politicians forces the team to spend time writing briefs, worsening the delay in reviewing letter requests.
- Process Changes: The submission form was updated in January and will transition to a Google platform.
- NHI Training: National Highway Institute training materials are currently undergoing legal review to improve transparency.

Research Needs NCHRP Projects & Technical Standards – Faller

- Project 22-63: Active research is focusing on Verification and Validation (V&V) guidelines, referencing European standard EN 16303:2020.
- Process Review: Members reviewed the historical FHWA Eligibility Process Flow Chart and Erik Emerson's Technical Series program.
- Urban Clear Zones: The committee discussed the design speed, adjusted clear zones, barriers, pedestrians, and cost factors for urban vs. rural areas.
- Measurement Standardization: Members debated how to measure urban clear zones from the pavement edge versus the curb face to ensure consistent terminology.



Industry Research & Knowledge Retention

- QPL Standardization: The group discussed Qualified Product List (QPL) standardization, highlighting ATSSA's eight-year effort.
- Maintenance Guides: Participants noted the success of the bullnose installation manual and maintenance guide and requested a similar guide for the Midwest Guardrail System (MGS) across various applications.
- Institutional Knowledge: Erik Emerson noted that political and management turnover causes DOTs to lose understanding of highway hardware as an interconnected system, leading them to view it strictly as a list of independent QPL/APL items.

Meeting assets for Task Force 13 Spring Meeting Thursday **Session are ready!**

Meeting summary

Quick recap

Task Force 13 held its meeting in Lincoln, Nebraska, focusing on technical updates and committee activities. John Durkos provided opening remarks and introduced the current Task Force 13 officers, noting one vacancy in the Vice President position. The group discussed the potential reactivation of Subcommittee 10 (computational mechanics), with mixed opinions on whether to immediately form a new subcommittee or wait for further developments in TRB's approach to simulation validation. Eric Lohrey Presented updates on Subcommittee 1's publication and maintenance work, highlighting new systems added to the hardware guide and the process for submitting drawings and information. Chad Heimbecker provided a website update, covering recent technical improvements and security enhancements. Carl Gaudry presented on Subcommittee 3's work regarding bridge railings and transitions, including a review of bridge rail systems and discussion of NCHRP reports on MASH equivalency. The conversation ended with plans to continue discussions on various subcommittees and their responsibilities at future meetings.

Next steps

- John: Fill the Vice President position - interested members should contact John
- Todd: Work on a solution for the microphone/audio system so remote participants can hear in-room discussions
- Unregistered attendees: See Eric Smith to complete registration
- Rick Maurer: Reduce content of future meeting minutes since presentations will be linked



Summary

Task Force 13 Leadership Updates – Durkos / Smith

John Durkos opened Task Force 13's meeting in Lincoln, Nebraska, welcoming attendees and announcing a vacancy in the Vice President position. He noted his own intention to one day step down from the chair role after 24 years but emphasized he would continue serving. The meeting included introductions from attendees, sharing their company tenure and industry experience, and approval of minutes from the previous meeting, which Rick Mauer had extensively detailed. Eric Smith provided a treasurer's report, highlighting the organization's strong financial position at \$57,134.10 and successful online registration system. John Durkos also discussed potential new subcommittees, particularly focusing on computational mechanics, which had been removed from TRB's structure but might be taken up by Task Force 13.

Subcommittee #10 Revival Discussion – Durkos

The meeting focused on discussing the potential revival of Subcommittee 10, which deals with computer simulation in highway safety. John led the discussion, explaining that while there is interest in forming the subcommittee, more time is needed to develop clear goals and determine how it will fit within TRB's evolving approach to simulation validation. The group agreed to continue discussions and potentially form a working group to help define the subcommittee's mission before making a formal decision.

Subcommittee #1 Task Force 13 Guide Updates – Lohrey

Eric Lohrey provided an update on Subcommittee 1's publication maintenance work, highlighting recent additions to the hardware guide, including new systems that have received FHWA letters. The meeting focused on updates to the Task Force 13 guide and website. John discussed the process for adding new systems to the guide, emphasizing that FHWA letters remain the gold standard for qualification. He also reviewed the decision to archive pre-NCHRP350 systems and make them available for identification purposes. Chad Heimbeckerr presented website updates, including security improvements, technical edits, and future enhancement requests. The group discussed streamlining the process for submitting new drawings and obtaining designators. John requested that Chad Heimbecker provide a summary of website usage statistics at the next meeting.

Subcommittee #2 Barrier Hardware System Designations and Database Updates – Eicher/Pyde

The meeting focused on updates to system designations and database content. Eicher reported that several new systems had been added, including the Thrie Beam Bullnose (SET03A), Delta crash cushion, TAU XR, Novus 100, and a tangent terminal. Don Pyde emphasized the importance of ensuring all product drawings are uploaded to the database and encouraged manufacturers to review and submit missing drawings. The meeting also addressed technical issues with audio



settings during the virtual presentation, with plans to restart the computer at lunchtime to resolve microphone and sound problems.

Subcommittee #3 Bridge Railing Systems Review Meeting – Gaudry

The meeting focused on reviewing bridge railing systems and transitions, with Carl Gaudry presenting updates on Subcommittee 3's work. The subcommittee currently has 139 bridge rail systems and 7 rail-to-guardrail transitions in the online guide, with 7 railings listed for review. A key discussion centered around how to handle NCHRP 20-07 Task 395, which evaluates MASH equivalency for existing NCHRP report 350 systems, as these systems lack formal any crash testing. The group debated whether to include these evaluated systems in the guide, with Eric Lohrey raising concerns about including products without definitive crash testing. The conversation ended with discussion about potentially adding this information as a resource on the website rather than incorporating it directly into the guide's inventory. The group discussed including published research studies in the hardware guide, with John Durkos suggesting that equivalency findings from national-level studies could be incorporated with appropriate tags or classifications.

Subcommittee 9 Marketing – Poyner/Peters

Stephanie and Scott presented updates on the marketing subcommittee's work, including the recently published newsletter and a new flyer about Task Force 13. The flyer was distributed at the ATSSA Expo, though feedback indicated it wasn't widely used due to the busy nature of the event. The marketing subcommittee also reported on their LinkedIn public group and requested feedback on additional promotional materials members might find useful.

Subcommittee 7 Laboratory Reporting Certification Standardization Updates – Lechtenberg

The meeting focused on updates from Subcommittee 7, particularly regarding standardized laboratory reporting and soil property testing. Jim Kovar presented findings from an Inter-Laboratory Comparison (ILC) on soil properties, noting inconsistencies in sieve analysis reporting across laboratories but highlighting good consistency in the percentage of fine material (fines defined as material passing the #200 sieve). The group discussed plans to distribute a finalized standardized report template to laboratories for review by May 22nd, with Karla Lechtenberg presenting website updates including plans to list accredited laboratories and their participation in ILCs. Vue raised a question about requiring evidence of valid certification for laboratories participating in ILCs, which the group interpreted as being the responsibility of individual laboratories to maintain.

ILC Implementation Acceleration Discussion

The group discussed accelerating the implementation of an ILC (Inter-laboratory Comparison) for vertical center of gravity (CG) measurements using a 2270P vehicle. California labs (Caltrans, Safe Technologies, E-Tech, and Karco) are already participating in a regional ILC with a shared truck, which has been circulating among them for about a month. The group agreed to potentially move



this ILC up in priority and discussed having Midwest/Eastern labs participate using a separate truck, with the possibility of regional coordination rather than all labs using the same vehicle. Regarding website updates, the group decided against including direct links to laboratory certificates, instead opting to list accrediting bodies and their websites, as maintaining direct links would create additional administrative burden. The group discussed requirements for ballot certificates for ILC participating labs, with Kovar suggesting that certificates could be included in final reports for upcoming ILC submissions.

Subcommittee 5 Support Hardware – Kirchgesner/Jollo

Greg Kirchgesner and Scott Jollo presented updates on sign luminaires and traffic signals, highlighting challenges in transitioning to MASH-compliant products and the complexity of testing various configurations. The discussion revealed ongoing issues with frangible aluminum bases for luminaire supports, with manufacturers facing challenges in acquiring bases and states struggling with long lead times. The group explored potential solutions including developing new products to meet old NCHRP 350 criteria as a stopgap measure, though legal liability concerns were raised. The conversation ended with a suggestion to take the issue to the AASTHO Technical Committee on Roadside Safety (TCRS) for further discussion and potential traction on the problem. John Durkos announced the formation of an M180 task force and requested community members to email him or Scott Jollo to participate in discussions about potential options for luminaires and sign systems.

Development in Passive Safe Posts – Cunha

A presentation was given on crash testing of passive safety posts, detailing the development and testing of a new post design that meets safety criteria through energy absorption rather than deformation. The presentation included results from various crash tests, including a surprising success in a motorcycle protection test.

Subcommittee 6 Work Zone Hardware – Seguin

The subcommittee discussed Work Zone Awareness Week. The conversation ended with an overview of new work zone products added to the Guide, including the JJ Hook Low Profile Concrete Barrier, Reblock barrier, Ape barrier system, and Pretred sustainable rubber barrier, with plans to continue showcasing new products in future meetings.

Midwest Pooled Fund Program Update – Bielenberg

Bob Bielenberg provided an update on the Midwest Pooled Fund program, which funds approximately \$1.5 million in roadside safety research annually across 22 member states. The program's recent meeting included updates on ongoing projects, including research on electric vehicle performance with guardrails, surface mounted posts for an approach guardrail transition, and new portable concrete barrier designs.



Winter Use of Water Filled Barriers – Beauchamp

Francis Beauchamp from Moovop presented research on the impact performance of water-filled crash cushions in winter conditions, demonstrating that with proper design modifications including partial filling with calcium chloride solution and using ductile plastic, the systems can maintain MASH compliance in cold temperatures. He presented test results comparing crash cushion performance in normal versus winter conditions, finding that antifreeze solution maintained similar impact performance while requiring careful fluid volume adjustment to avoid safety issues.

Questions Regarding Material Modifications – Mauer (for Hubbell)

Rick Mauer gave presentation on behalf of Jason Hubbell that discussed challenges with material modifications when bringing products between different countries, highlighting issues with steel grades, bolt coatings, and thickness measurements.

Status of AASHTO M180 – Durkos

The conversation focused on the ongoing discussions between AASHTO and the guardrail community as it relates to the status of ASHTO M180. Despite industry concerns about additional material thickness requirements, the current specification M180-25 has remained unchanged, with industry developing talking points to address the situation of material thickness and legal liabilities.

Task Force 13 Executive Meeting

The meeting focused on several key topics including liability insurance, future meeting locations, and subcommittee planning. The group discussed whether Task Force 13 needs liability insurance, with John Durkos noting that engineers typically sign off on drawings before implementation, providing some protection. They explored the possibility of holding a fall meeting in conjunction with TTI's pooled fund meeting in College Station or potentially at an IRF conference in November. Regarding subcommittees, the group discussed creating a computational mechanics subcommittee and potentially expanding international activities, with Eric Smith suggesting collaboration with IRF. The meeting also addressed technical issues with the current venue's audio system and discussed strategies to increase attendance, including reaching out to companies that haven't been actively participating.

Meeting assets for Task Force 13 Spring Meeting Friday Session are ready!

Meeting summary



Quick recap

This was Day 2 of Task Force 13's meeting, focusing on updates from various organizations and research activities. Nagham El-Zine from ATSSA presented on the M180 Task Force updates and new product rollouts, while Jim Kovar from TRB's AKL13 committee discussed changes to their committee structure and upcoming virtual mid-year meeting. Anne-Marie Turner from NCHRP provided updates on ongoing research projects, including MASH-related work and roadside safety hardware studies. Jim Kovar from TTI shared results from a pinned concrete barrier project for Caltrans and updates on their EV pooled fund research, including work on electric vehicle impact testing. Fadi Tahan from George Mason University presented on their vehicle modeling research, including updates on current and upcoming vehicle models. Bob Bielenberg from the Midwest Roadside Safety Facility concluded with updates on a new portable concrete barrier design that showed improved performance in crash testing, with lower deflections and better vehicle stability compared to traditional barriers.

Next steps

- James Kovar: Send PDF of pooled fund presentation to Rick for inclusion in meeting minutes
- Rick/Chad: Explore with Eric Smith embedding the registration process into the Task Force 13 website
- John: Obtain list of who is using the Task Force 13 website
- Rick/Team: Get current newsletter on the website
- Rick/Team: Get marketing flyer on the website
- Rick/Team: Form subcommittee 10 and develop well-defined goals to present at fall meeting
- Karla: Send new list of ILCs to labs
- Karla: Send updated lab information table to Rick after labs confirm (within 1 week)
- Karla: Provide ILC summaries table to Eric or Chad for website
- Karla/Stephanie/Scott: Finalize story for next newsletter
- Greg and Scott: Send request to luminaire manufacturers to form committee about supply issues
- Rick/Team: Investigate other hotels in Lincoln area for meeting space and potential conference room rates/UNL business partner discounts
- Jim and Karla: Review draft of newsletter story next week

Summary

Update on Relevant TF13 Topics – Durkos

The day began with technical adjustments and a brief social update about the group dinner the night before at a Brazilian steakhouse. John provided updates on Task Force 13's restructuring as a non-profit organization and their efforts to expand outreach through a mailing list representing all 50 states.

ATSSA Update – El-Zine



Nagham El-Zine from ATSSA presented updates on the M180 Task Force, including the invitation of additional companies to join the Task Force and the publication of updated W Beam Guardrail Identification and Repair Guidelines. She also discussed the New Product Rollout from the ATSSA Expo earlier in the year.

TRB Committee AKL13 Updates – Kovar

Jim Kovar provided updates on the TRB Committee AKL13, formerly known as AKD20, highlighting changes in structure and meeting formats due to new TRB guidelines. He explained that subcommittees have been replaced with focused working groups that have defined deliverables, and announced that the upcoming mid-year meeting will be held virtually rather than in person due to TRB leadership decisions. Jim Kovar encouraged participants to volunteer for paper reviews and to confirm their enrollment as friends of the committee, and outlined plans for the 2027 annual meeting in Washington D.C., including potential changes to the agenda format to make it more valuable for attendees. Jim Kovar discussed plans to potentially bring back lectern sessions to help international participants and DOTs justify travel, though everything remains under consideration due to recent changes. John Durkos from Task Force 13 proposed a future joint fall meeting with James's group if current plans don't work out, which Jim Kovar received positively and agreed to discuss further. The conversation ended with a request for Jim Kovar to provide a PDF of his presentation for inclusion in the meeting minutes.

Update on NCHRP Projects – Turner

Anne-Marie Turner from NCHRP provided an update on ongoing and upcoming MASH-related research projects, including active studies on side impacts, new test vehicles, and various roadside safety hardware assessments.

Texas A&M Transportation Institute Research – Kovar

Jim Kovar presented updates on completed research TTI projects, including a pinned concrete barrier for Caltrans and an EV pooled fund. He detailed the design and testing of the pinned concrete barrier, which included simulations and four MASH tests on different configurations. The tests showed good crashworthiness performance, with contained and redirected vehicle movement in all scenarios. Jim Kovar highlighted key deflection measurements and damage patterns observed during testing.

Portable Barrier System Test Results

Jim Kovar presented test results for a new portable concrete barrier system with vertical anchors, which successfully passed tests in both median and roadside configurations. He then provided updates on the “Designing Roadside Safety Hardware for Emerging Vehicle Types” Pool Fund,



highlighting recent projects including a MGS retrofit initiative and plans to measure impact loads from battery electric vehicles using a Rivian R1T. John asked questions about simulation model development costs and vehicle model selection, with Jim explaining that existing vehicle models were modified rather than developed from scratch, and the choice of the Silverado model over the RAM model was likely due to greater confidence in its performance for the specific application.

CCSA / GMU Research – Tahan

Fadi Tahan presented an overview of vehicle modeling research at George Mason University, highlighting their development of finite element models for various vehicle categories over 30 years. He detailed the process of reverse engineering vehicles, including purchasing new vehicles, conducting inertia testing, and creating detailed and course mesh models for different simulation purposes. Fadi Tahan also discussed current projects, including the development of models for a VW Tiguan ICE, VW ID.4, and limousine safety, with completion expected by 2027. The team's models are not made public until project completion. The vehicles are typically kept for three years before being sold to junkyards. Bob Bielenberg mentioned that Midwest has access to some EV models through Caresoft, though these models require significant validation and adjustment for their specific applications.

Midwest Roadside Safety Facility Pooled Fund Research Updates – Bielenberg

Bob Bielenberg presented updates on two research projects from the Midwest Pooled Fund. The first project involved a new portable concrete barrier design aimed at reducing deflections and improving vehicle stability. The prototype achieved lower dynamic deflections than current barriers and showed good performance in crash tests. The second project focused on testing a road closure gate mounted to a luminaire pole, where modifications were made to address windshield penetration issues in initial tests. Both projects received positive feedback from states and are moving forward with additional testing and implementation considerations.

Calspan Testing Activities Update – Atahan

Ali Atahan presented Calspan's testing activities over the past 12 months, including MASH and ASTM testing at the Buffalo Niagara International Airport facility. He detailed several key tests including Gibraltar's TL4 cable barrier testing, NY DOT's TL3 transition testing, a Saudi company's steel barrier testing, and Remcon's longitudinal channelizing device testing. The discussion included questions about vehicle eligibility for MASH testing and the differences between MASH and European (EN1317) testing requirements, particularly regarding yaw angle requirements.

New/Old Business – Durkos

Several key topics related to Task Force 13 were covered. John Durkos discussed the location of the fall meeting, noting that while TTI in College Station has first rights of refusal, other locations including Nashville, Kansas City, and potential collaboration with the International Road Federation



(IRF) meeting in November were being considered. Ron Faller, who chairs the Road Safety Committee for IRF, offered to help with abstracts and mentioned that the Kenneth A. Stonex Award would continue but be presented at the IRF event in November. The group also discussed exploring alternative hotel options in downtown Lincoln for future meetings, with Rick tasked to investigate conference room rates and potential UNL business partner discounts. The conversation ended with announcements about upcoming events including the AASHTO PEAS meeting in Savannah, Georgia, and the ATSSA mid-year meeting in Grand Rapids, Michigan.