



ACEC-NH/NHDOT Highway Design Sub-Committee



**Zoom Virtual Meeting
October 12, 2021
8:00 am – 9:30 am**

Meeting Minutes

Attendees:

Jim Marshall, NHDOT (Chair)	Brian Colburn, MJ (Vice Chair)
Tobey Reynolds, NHDOT (Absent)	Ben Martin, VHB
Leah Savage, NHDOT	Jen Mercer, GM2
Corey Spetelunas, NHDOT (Scribe)	Travis Wolfel, Kleinfelder
Maggie Baldwin, NHDOT	Clinton Mercer, Jacobs
Ron Grandmaison, NHDOT	Linda Greer, Fuss & O'Neill

These meeting minutes are from the October 12, 2021 ACEC-NH/NHDOT Highway Design Sub-Committee Meeting.

1. Introductory Remarks

Corey volunteered to be the scribe for the meeting.

2. Review and approve minutes – August 10, 2021 meeting

The meeting minutes from the August 10, 2021 meeting were formally accepted as final. No September meeting was held. Corey will ensure the minutes are posted.

3. Status of OpenRoads Functionality

Jim opened the meeting inquiring about the speeds of OpenRoads Designer (ORD). It was previously noted that operating speeds were slow, and the software was suspected. ORD recently received a version update, which fixed some issues but doesn't appear to improve the speed of the software. Ben noted that opening files and simple processes can take several minutes depending on the complexity and size of the design. It was noted that the more complex the models got, the slower the software was. It was noticeably slower as they started to add their drainage design to the models. VHB has reached out to Bentley to investigate the issues and they have been finding similar results regarding the slow speeds. VHB is also investigating ProjectWise as a method to access the CADD files to help alleviate some of these issues. Bill Caswell is aware of these issues and so is Wendy Johnson. Ben mentioned that as a result of the speed/efficiency issues, they have changed some of their project scopes back to using InRoads instead of ORD.

4. Checklist Discussion

It is recognized that ORD will be producing plans that are different than what is conventionally produced, particularly cross sections. It was discussed that drainage in particular is significantly different in ORD than InRoads as ORD cannot automatically place back/ahead drainage structures correctly on cross-sections. In lieu of that, drainage profiles are being developed in ORD. Drainage profiles in InRoads would be a cumbersome, inefficient process and therefore, should not be required. NHDOT's intent has always been to use ORD "out of the box" versus trying to make the plans look a certain way just because they always have. As such, updated checklists will be required. Currently, projects are being produced in both InRoads/SS4 and ORD/Connect. Generating the same plans using both softwares would require a large amount of additional work for the projects within InRoads/SS4.

There was discussion to determine if updating checklists before ORD was a more universal expectation/requirement on new projects was worthwhile. Due to the desire to have consistent submittals and expectations for each project, hybrid checklists will be developed. These checklists will be updated to be more specific with current standards as well as to identify when particular tasks are relevant to only InRoads or ORD to help guide users.

Brian noted that the Slope and Drain checklist has been in development for several months and simply needs a final review. This will occur at the next meeting for this Sub-Committee.

Brian volunteered to update the PS&E Plan Checklist to include InRoads and ORD specific tasks in addition to a general overhaul.

Maggie noted that a Pre-Hearing checklist needs to be developed which includes the entire Preliminary Design process from project initiation and pre-Hearing up to and including the Hearing. She will work on this with input from Trent Zanes, John Butler, Mike Dugas and others. The level of detail at each phase is important so both the Consultants and the Department reviewers understand the expectations.

Brian said that checklists should not be set in stone once they are completed. As they transition to a central location, they should be considered "living documents" in order to make necessary changes as they are needed.

Maggie suggested that an annual review of checklists should be a deliverable for this Sub-Committee in order to provide the appropriate process updates. Jim suggested that this review could take place shortly after new members are appointed to the committee, which occurs every January, allowing for a fresh perspective.

5. Design Report/Design Criteria Form Practicality

The Design Report and Design Criteria Form have been available and encouraged to be used since May 2021. Initial feedback indicated there were complaints and concerns with the amount of information asked for, as well as the overall length of the document. Jim asked if the documents have been easy to use and useful to capture information as projects move forward.

Design Report: Ben noted that after the initial growing pains of collecting all the necessary information to begin to populate the Design Report, keeping it updated as the project progresses has been much

easier. Brian mentioned that his submissions have included an updated version of the Design Report from the previous submissions with all changes tracked to easily show any new information added for the reviewer.

Maggie mentioned that there are several unresolved appendices for the Design Report, namely the Traffic Analysis Memo and the Drainage Report. Both of these documents need expectations for the appropriate submission and a template to share as a sample. Leah stated that the Traffic Analysis Memo has been in the works and should be close to completion, but is more of a “list” than a “template” (with the intent of the list to be comprehensive enough that it can be used for both the traffic memo and full report). It should be reviewed a final time by resident experts such as Traffic Bureau. She will lead the effort to follow-up on completing this memo. Linda volunteered to assist with any review necessary on the Traffic Analysis Memo.

Design Criteria Form: No one has had any issues over this form and said it was easy to use.

6. Roundtable – All

Jim said that Bluebeam reviews are becoming more common and standards have been developed. Both in-house and consultant reviews should be discussed in an upcoming meeting.

Jim shared that Chapter 8 of the Highway Design Manual was being reviewed by the Policy and Records Committee today and will hopefully be sent to FHWA for final approval soon after. Three other chapters are set to follow in the near future.

Jim mentioned he would discuss with Tobey about hosting an Estimate Development Informational Session in the future, potentially before December.

Brian looked for some clarification on when Front Office meetings should occur and when projects were required to go before the Estimate Review Committee. Jim mentioned that it is usually when there is a scope or fee change and/or if different alternatives are being evaluated. He added that it is often project specific, but the general triggers for Front Office meetings should be documented. Maggie will add information to the Pre-Hearing process documentation.

Leah felt like the documents the Sub-Committee develops: Design Report, Design Criteria Form, checklists, etc. should be located in a more intuitive location for designers to use and reference, rather than on the ACEC Sub-Committee page. This can be a topic for future discussion.

Clint added to the original ORD speed discussions that Jacobs has used ProjectWise in other states and that has not solved the speed issues.

Next Meeting – November 9, 2021. *Anticipated to be held virtually through Zoom.*

Anticipated future topics from this meeting: Slope and Drain Checklist, Traffic Analysis Memo, Preliminary Design Process, Bluebeam Standards for Reviews, Design Document locations online, and Estimating Information.