

Oregon Traffic Control Devices Committee

[January 16, 2015](#)

Meeting Minutes

ODOT [Technical Leadership Center](#), 4040 Fairview Industrial Drive SE, Salem, Oregon

Members Present: [Jeff Wise](#), ODOT Region 5, Chairperson; [Bob Pappé](#), Secretary, ODOT State Traffic Engineer; [Brian Barnett](#), City of Springfield; [Joseph Marek](#), Clackamas County; [Jim Rentz](#), OSP; [Cynthia Schmitt](#), Marion County;

Members Present via i-link: [Mike Caccavano](#), City of Redmond; [Ed Chastain](#), Lane County; [Alex Georgevitch](#), City of Medford

Members Absent: [Pam O'Brien](#), DKS Associates, Vice Chair

Others Present: Scott Beard, Kittelson & Associates; Cecilia Hague, Washington County; Kevin Hottmann, City of Salem; Matthew Machado, City of Portland; Julia Uravich, Marion County; Doug Bish, Craig Black, Scott Cramer; Kevin Haas, Katie Johnson, Marie Kennedy, Mike Kimlinger, Justin King, Scott McCanna, Kathi McConnell, Gary Obery, Chris Rowland, Zahidul Siddique, ODOT Traffic/Roadway Section; Joel McCarroll, ODOT Region 4.

Introduction – Approval of Minutes – Additional Agenda Items

New 2015 Chair Jeff Wise called the meeting to order at 9:00 a.m. and called for introductions from all attending (see attendance above). Jeff thanked 2014 committee chair Mike Caccavano and vice-chair Ed Chastain for their service. He also noted the reappointment of Brian Barnett for another three years representing the LOC. Cindy Schmitt moved, Joe Marek seconded, and the committee approved the [November 2014 OTCDC Meeting Minutes](#).

Business from the Audience/Public Comment on Non-Agenda Topics

None to report.

January NCUTCD Meeting Report

Scott Beard [reported](#) on the January 7-9 [NCUTCD Meeting](#) held in Arlington, Virginia. He listed other Oregon Attendees as including Mike Coleman, Tom Lancaster, Peter Koonce, Lee Rodegerdts, Eric Niemeyer, Dave Smith, and himself.

Roundabouts Task Force

- Discussion on ongoing unpublished research - FHWA TOPR 34 – Task 9 having to do with Human Factors Assessment of Traffic Control Device Effectiveness to determine when and how to sign and mark roundabouts (particularly multi-lane). Also signaling roundabouts – metering signals to increase capacity, pedestrian crossing signals, and railroad preemption signals

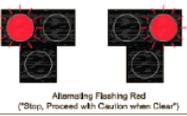
When and how to sign and mark roundabouts

Signals Technical Committee

- NCHRP 03-118 – Decision Making Framework for Signal Phasing – Decision making on left and right turn phasing, etc.
- Placement of pedestrian instruction sign – focus on making Parts 2 and 4 consistent and having the signs adjacent to the signal unless it has Braille, then Braille within 18 inches above center of push button
- Monitoring of FYA in the middle signal face – comment from a manufacturer about compatibility with conflict monitoring software which worked in the bottom position and may have to be reprogrammed to work with the center position. There was some discussion on whether it should be required to be monitored or not.
- Yellow times - Caltrans has added calculation to the CA MUTCD using either the 85th-percentile speed or posted + 7 (>30mph)/+10 (<30mph) to address political concerns
- Yellow LED border on pedestrian signals has driver expectancy issues, conspicuity issues, question of same or better benefit than the pilot light.

Signals Technical Committee – Wednesday

Bike signals at Pedestrian Hybrid Beacons - Berkeley's proposed phasing illustrated:

| | | | |
|---|--|--|--|
| <p>Phase 0 (Unactivated Beacon)</p> <p>Remains in this phase until pedestrian push button ("PB") is activated or a bike is detected</p> |  <p>All Beacon Faces Dark ("Free Flow Conditions")</p> |  <p>Steady Red Steady "Don't Walk"</p> | <p>Bicyclists and pedestrians both see flashing red (orange) when motorists see flashing red (= all-way STOP)</p> |
| <p>Phase 1 (Motorists Slow Down)</p> <p>Ashby Motorists: Flashing Yellow alerting them to Slow Down, pedestrians or bicyclists have activated the Pedestrian Hybrid Beacon (PHB).</p> <p>Bike Signal: Solid Red ("Wait") indication.</p> <p>Pedestrian Signal: Upraised Hand ("Wait") indication.</p> <p>Proposed Duration: 4 seconds</p> |  <p>Flashing Yellow ("Slow Down")</p> |  <p>Steady Red Steady "Don't Walk"</p> | |
| <p>Phase 2 (Motorists Prepare to Stop)</p> <p>Ashby Motorists: Solid Yellow alerting them to Prepare to Stop. Bikes and Pedestrians still have steady red ("Wait") indications.</p> <p>Bike Signal: Solid Red ("Wait") indication.</p> <p>Pedestrian Signal: Upraised Hand ("Wait") indication.</p> <p>Proposed Duration: 3 seconds</p> |  <p>Steady Yellow ("Prepare to Stop")</p> |  <p>Steady Red Steady "Don't Walk"</p> | |
| <p>Phase 3A (Bike/Ped Green Indication)</p> <p>Ashby Motorists: Solid Red, requiring them to Stop.</p> <p>Bike Signal: Solid Green ("Proceed")</p> <p>Pedestrian Signal: "Walk" indication</p> <p>Proposed Duration: 7 s (min) to 16 s (max). Green time to be extended when an additional blue is detected approaching intersection after PHB phasing is already activated.</p> |  <p>Steady Red ("Stop", Pedestrians/Bikes Crossing) Steady Green</p> |  <p>Steady "Walk" Indication</p> | |
| <p>Phase 3B (Bike Yellow Change Interval)</p> <p>Ashby Motorists: Solid Red, requiring them to Stop.</p> <p>Bike Signal: Steady Yellow ("yellow change interval").</p> <p>Pedestrian Signal: "Walk" indication</p> <p>Proposed Duration: 3 seconds</p> |  <p>Steady Red ("Stop", Pedestrians/Bikes Crossing)</p> |  <p>Steady Yellow Steady "Walk" Indication</p> | |
| <p>Phase 4A (All-Way Stop Condition)</p> <p>Ashby Motorists: Alternating Flashing Red, requiring them to Stop, then proceed with Caution if Clear.</p> <p>Bike Signal: Flashing Red (Stop, then proceed).</p> <p>Pedestrian Signal: Countdown phase continues.</p> <p>Proposed Duration: 14 seconds</p> |  <p>Alternating Flashing Red ("Stop, Proceed with Caution when Clear")</p> |  <p>Flashing Red Flashing Upraised Hand & Countdown</p> | |
| <p>Phase 4B (Bike/Ped Red Clearance Interval)</p> <p>Ashby Motorists: Alternating Flashing Red, requiring them to Stop, then proceed with Caution if Clear.</p> <p>Bike Signal: Solid Red ("Wait") indication.</p> <p>Pedestrian Signal: Upraised Hand ("Wait") indication.</p> <p>Proposed Duration: 3 seconds</p> |  <p>Alternating Flashing Red ("Stop, Proceed with Caution when Clear")</p> |  <p>Steady Red Steady "Don't Walk"</p> | |

FHWA Update

- Notice of Proposed Amendment (MUTCD) Status - NPA complete internal to FHWA team. OMB still determining if significant economic impact might require economic analysis which may cause some delay. If not, looking at NPA projected date of May 15, 2015. Then there will be a 6 month comment period, further internal FHWA review and projected May/June 2017 final rule. There is going to be some reduction in standards (approximately 30% in Part 4, for example) but the reworking of all the levels of mandate will not be in this Manual.

Edit Committee

- Sponsor comment form changes to make the spreadsheet submittal form to make comments more uniform
- Material from Technical Committees will be improved for consistency by always being produced in PDF format.
- Sites Open to Public Travel may be a topic for June if no NPA is in place, looking at how much of private facility roads should be covered by the MUTCD.
- Formation of a task force to look at issues associated with guidance extraneous to the MUTCD. Traffic control innovations are happening at greater speed than in the past, and there is pressure from outside groups such as [NACTO](#) to speed the MUTCD approval process. This possibly could increase the use of interim approvals to incorporate changes between Manuals.

Canadian MUTCD

- Rectangular Rapid Flashing Beacon installation guidance - above sign, limited to pedestrian use, and the Canadians are developing warrants for their use.
- Digital billboards have regulatory and safety assessment guidelines to restrict the areas of placement to disinclude interchanges, roundabouts and where they may conflict with signal installations.

Kevin asked committee members to start thinking about what OTCDC subcommittees they would like to be a part of in anticipation of FHWA possibly releasing a draft of the next edition of the MUTCD sometime in 2015. Subcommittees would be organized based on various Parts of the MUTCD. This would be an agenda item for the next OTCDC Meeting.

Pedestrian Channelization Devices in Work Zones

Cindy Schmitt and Julia Uravich discussed Marion County issues and successes in selecting and getting [pedestrian channelizing devices \(PCD\)](#) productively installed in work zones. Cindy noted problems encountered in introduction of these devices in urban federal aid projects where they're adding bike paths and sidewalks to two-way roads. To

start out with, contractors were unfamiliar with and didn't have them on hand. Then the cost of the devices was an issue which the county managed to deal with by purchasing the devices themselves at about half the cost as a workaround.

They found in utilization there isn't much specific guidance on what the primary objective is for using them between various competing benefits. There are a variety of opinions out there between the professional engineers, construction people, inspectors, etc. as to what their primary protection purpose is; whether it's to channelize pedestrians through the project, to protect them from the construction work, to protect them from things which you might have previously used traditional [Type 2 barricades](#) around, to protect them from moving traffic, etc. The problem they ran into was when billing the devices back to the project. ODOT inspectors would tell them they weren't being used properly and wouldn't be paid for under federal aid guidelines. The county wants a discussion of the rules which apply to these barriers for usefulness and federal dollars.

Note: Amongst the publications regarding PCD's brought up in the discussion were:

- [MUTCD Chapter 6, Section 6F.63 Section 6G.05](#)
- [USAB Revised Draft Guidelines for Accessible Public Rights-of-Way Chapter 3,](#)
- [Oregon 2015 Standard Specifications](#)
- [Qualified Products List](#).

Julia Uravich ran through a [PowerPoint](#) presentation discussing and illustrating the issues, including impracticality of use of PCD's in some tight work zones, when they have to be used, when they're practical, when impracticable. Projects illustrated included Ward Drive in NE Salem, Auburn Road in the Four Corners area.

Scott McCanna discussed ODOT's entry into the use of PCD's and what their original purpose was (to aid visually impaired, ADA pedestrians). They should provide hand and feet/cane guidance past hazards for this population.

Applied in the work zone, the first piece is pedestrian separation from the work area for personal safety and to prevent liability issues. They should also keep people away from excavation area drop-off's. In dealing with ADA requirements, the PDA's should keep these pedestrians on paved or concrete surfaces which are free of gravel, dirt, etc. Then there was the suggestion of using these to separate peds from traffic if we move them off the established facility into harm's way during construction as a channelizing device. Other older methods such as cones aren't good because they aren't helpful to the visually impaired. Scott noted ODOT, too has had to deal with high costs, which have since come down some.

Regarding where PCD's are now required, Scott agreed it is a bit subjective, open to interpretation. He said the MUTCD and other accessibility documents are general for a purpose, leaving each jurisdiction the room to develop their own internal policies. ODOT's first crack at this was the standard drawing, the specification or special provisions, the Traffic Control Plans Design Manual. They're not optimum and need improvement but ODOT has been gaining experience and Scott expects to change ODOT design policies

and processes and get other jurisdictions a better list of where, when and why to use the PCD's as fast as possible.

Cindy reiterated concerns over her finding projects have more confined environments in local agency use than on state highways. Scott suggested they feel free to modify their policies and procedures for their use. But he noted the state is also running into confined space issues.

What to do when there's no existing pedestrian facility? Scott's research on sources at the national level when work zones impact a roadway and require a temporary pedestrian route, it should be equal to or better than the existing facility. It is better if you can improve even an unpaved, pedestrian-used path where it's clear there is pedestrian use already. It is project specific, always.

When updating the pedestrian part of ODOT's design manual, Scott said he needs to add information on those considerations. Don't just think about the need to put in pedestrian channelization, give thought to all the details necessary to make it work for the individual project.

In terms of specifications, Bob noted ODOT works with [APWA](#). He asked if the local jurisdictions work with APWA. He suggested establishing a committee with APWA to coordinate this kind of specification. Cindy said this would be helpful.

As to the Design Manual piece, Scott offered to forward changes to the Manual to any agency which would like to be involved for comment or questions. And again, each agency is encouraged to use/modify documents to fit their own needs. Cindy said the County tries to work economically by using ODOT standards, specifications where they can but they're finding out there are many cases where project-specific modifications are necessary. But ideally, she'd like to have something covering a broad range of applications. Bob suggested getting several versions approved and on the shelf which can fit a broader range of applications.

Cindy asked if any other non-ODOT agency has had much experience with the PCD's. Nobody said yes. Mike Kimlinger said we have a sample here we can show and tell. He went and brought it out in the hallway for people to inspect. A web link was also opened for [illustration](#). The committee agreed there are still places where there appears no ideal solution and we have to address these with a good traffic control plan. Ultimately, we have to make smallest risk based choices and bidding contractors should be used to dealing with various restrictions on a job and plan for them before they bid on a job as a regular fact of life.

Bob asked again about the apparent subjectivity about deciding how and when to use the PCD's and the issue of ODOT approving payment under the federal aid rules. Scott said what he's confronting frequently now is the education piece between what's occurring at the standards and practices level and our inspectors and local agency liaisons. Sometimes last minute or after the fact, he will get calls from LAL's who talk about projects and ask what to do in the future. He suggested Cindy ask the LAL to contact Scott or

Justin King for guidance on this kind of issue when it comes up. Scott will come back to update the committee when he has information on changes to the Design Manual.

Draft School Area Guide

Gary Obery [presented](#) progress on ongoing [update work](#) on the Guide to School Area Safety and asked if there were any questions regarding the current early draft.

Bob Pappé said we haven't yet fully addressed risk factors in regard to congestion and high school aged drivers entering and exiting schools. Those were things the public was thinking justified a school zone a couple years ago. He said his review of Gary's draft reminded him of the fatal accident in June of 2013 in Marion County which was discussed in the [September 2013 meeting](#). We started a conversation of this in the committee back then but haven't gotten back to it. Joe agreed it was time to explore options to help increase safety in rural school zones. Kevin said one of the reasons why we have the 20 MPH school zone is because of the survivability factor of pedestrians being struck. One of the ideas that's floated around for a while in Oregon is whether we need a standard for a rural school speed zone (in locations where few walk or bike to school) of 35 MPH like at least one other state ([Texas](#)) has.

Cindy said there's another move rising in Marion County to ask the Legislature to change the law to permit school speed zone flashers flashing all day. She said the school speed zones the County has put up in response to the June 2013 tragedy have not significantly changed the speeds traveled in those zones.

Energy around the whole subject was high and elicited a lot of further discussion. A number of familiar issues regarding school speed zone laws and history, and arguments pro and con -- the status quo and change -- continued. Discussion turned to an idea Joe had as to whether there is a method to set up a pilot project to set rural school speed limits of around 35 MPH. Cindy said a statutory rural school speed different than the 20 MPH school speed would require legislative action and it might be better to try to set designated 35 MPH speed limits with an investigation and without the SCHOOL rider on the speed sign. The possibility of setting temporary speed limits with flashing lights included was discussed along with other variations.

The committee coalesced around the idea of further discussion regarding possibly a research project by a subcommittee of volunteers outside the committee schedule. Doug suggested also convening the Speed Zone Review Panel to look at drafting a letter to the Attorney General regarding legal issues under the current ORS. Joe, Cindy, Julia, Jim and Brian (if it doesn't conflict with his role on the SZRP) said they'd be interested in serving on the subcommittee. Gary was volunteered to organize the action. Kevin advised if a legislative concept came out of the subcommittee, it would have to be carried by a LOC or AOC entity because ODOT officially cannot take a position on any legislative initiatives.

There was discussion of where support and opposition might come from and for what reasons. Further discussion ensued on other things which might be considered by the subcommittee, including what other states are doing with their rural school zones. Doug

Bish pointed out many states have many different school zone laws so the MUTCD is general in what it says in order to allow for these differences. Kevin pointed out the Safe Routes to School program is still a critical element of school safety. Gary noted the funding is going to be changing for Safe Routes to School and there will no longer be a dedicated fund for that. Joe said it should still be a relatively inexpensive investment requiring mostly local labor to put it together. More discussion regarding current policy and legal requirements continued for a while longer. Joe Ed, Julia, Jeff and Mike Caccavano volunteered to invest more time in looking at the next draft of the Guide to School Area Safety.

Local Jurisdiction Issues - Discussion

Curve Warning Marking on Pavement – Joe Marek said Clackamas County was going to experiment with curve warning markings on the pavement in areas where people keep leaving the road and crashing. He said he'd keep the committee apprised. Mike said there is a pooled fund study going on and markings in the roadway right now. He offered to give Joe contacts.

Post meeting update: The Traffic Control Devices Pooled-Fund study has a report, "Evaluation of Elongated Pavement Markings Signs". The report is available on the TDC-PFS web page at <http://www.pooledfund.org/Details/Study/281>.

The principal investigator for this one report was David A. Noyce and his contact info is in the report (page 87 of the report, 97 of the pdf document). There are also additional reports on various TCD evaluations at this web page.

Not On Agenda

Bob Papp reported on possible legislation to close the medians on Interstate highways which ODOT is doing their best to get ahead of with proposed language for a bill. The current policy is medians of 60 feet or less should be closed. ODOT is trying to make the case for 80 feet or less be the new standard because if they want everything closed, we have at least 150 miles of median over 110 feet wide and it would be very expensive even if it's all just cable barriers.

Bob updated on the Trinity testing of ET 2000 Plus guardrails. They are only halfway through the testing. There are some accusations they're not testing the same guardrail shoe as the most recent version. ODOT has found only two reports of this variety of guardrail (of which ODOT has about 808 around the state) getting hit. Of the two which have been hit, they performed as they're supposed to.

Regarding the ARTS Program, Zahidul Siddique said the application is up on the [ARTS webpage](#) now. Applications should be submitted to the appropriate region contact. The consultant is still working on the hotspot process.

There is nothing pre-filed in the Legislature on autonomous or connected vehicles. However ODOT is [very involved](#) in this area of technology and plans this year to develop a clear policy and institutional position on connected and autonomous vehicles within the agency.

There is one pre-filed piece of legislation to increase the Interstate speed limit from 65 MPH to 70 MPH. It does not yet appear to have a lot of support. ODOT is not going to advocate for any changes in speed limits. We support the Governor's position on any transportation issues and he hasn't advocated any changes in speed limits. If the legislation already filed actually were to pass, ODOT would have to consider whether a new full Interstate speed study is needed to be sure all current 65 MPH speed limits are safe to be raised to 70 MPH.

There has been a legislative proposal for permanent photo radar by the City of Portland on high-crash corridors with high fatal and serious injury crashes. It's only geared towards Portland as drafted. No changes on red light photo law are currently being proposed.

Agenda Items for Future Meetings

Forming Subcommittees for MUTCD Review

Adjournment

Jeff adjourned the meeting at 11:49 a.m.