

NCUTCD BTC meeting, January 4, 2017

Minutes by John S. Allen, edited by BTC

Attendance

BTC members:

Richard Moeur, Chair
John Allen, Secretary
DeWayne Carver
Dongho Chang
Ted Curtis
Mike Cynecki
Bill DeSantis
Cindy Engelhart
Bill Fox
Michael Jackson

Dwight Kingsbury
Peter Koonce
Rock Miller
Theo Petritsch
Stewart Robertson
John Schubert
Bill Schultheiss
Ryan Snyder
Ron Van Houten

Guests:

Patrick Baxter, City of Cambridge, Massachusetts
Gene Hawkins, NCUTCD Vice-Chair
Dave Kirschner, FHWA
P. D. Kiser, Nevada DOT
Joshua Mehlem, Fox Tuttle Hernandez
Luciano Rabito, Howard Stein Hudson
Brian Scharles, TAPCO
Craig Schoenberg, Toole Design Group
Gary Smart, City of Santa Barbara
Craig Toocheck, NACTO

Richard Moeur called the meeting to order at 1:06 PM

Business

The Minutes of the June 2016 meeting were approved by acclamation.

Membership: the BTC now has 13 government and 12 non-government members. There is one potential departure, Craig Williams, who works for the City of Carlsbad. He is an associate voting member for APBP. We have potential members at this meeting: Baxter, attended a previous meeting and may be confirmed at tonight's Board meeting. He will be a government member.

The BTC Web site may be folded into the NCUTCD Web site; this remains to be seen.

This is our 20th anniversary meeting. Nobody who is at the meeting today was at the first one.

DeSantis: The IA18 Task Force meeting was this morning and meets again tonight.

Bike Lane Ends Advance Warning and Bike Lane Merge Signs:

There was a discussion of the bike lane ends and bike merge signs, which address a condition not addressed previously. Maybe use two warning signs and the regulatory sign in lieu of R 3-17 and R 3-17 b?

Should the Bike Lane Merge sign be used only downstream of the Bike Lane Warning sign? Table 2C-4 tells where you should place signs in advance of a condition. We do not have a bicycle equivalent. Whom are you trying to warn, downhill vs. uphill, vertical vs. horizontal curve? Distance to warn motorists is conservative for bicyclists.

Moeur: Where there is an add-lane situation, there is no need for a warning sign. The Bike Lane Ends sign may be used downstream of warning sign as an additional warning. Moeur's understanding is that the merge sign on a freeway is intended to warn drivers in the main travel lane. If it is to warn bicyclists only, then is it too far back, and engineering judgment must be applied.

Cynecki: We shouldn't need Bike Lane Ends advance warning sign. Petritsch: Merge sign is for the motorist, ends sign for the cyclist. Maybe you don't need both but they serve different purposes. A Bike Lane Ends Ahead sign would make more sense than one right at the end. It doesn't have to be right at the end if it is not a regulatory sign. Primary target is for the cyclist.

DeSantis: Regulatory and Warning Signs was adamant that this was for lane reductions, and we should use Section 2C.42 Guidance, Lane Ends first. We have two opposite proposals.

Our priority list will address sign distance for bicycle warning signs, but for the sake of clarity, warning sign distances will not be addressed in the proposal we make today.

See the document at <http://ncutcdbtc.org/sponsors/fall16/16b-bik-02-final.pdf>

Shared Lane Marking changes

Changes in the joint BTC and Markings task force were so substantial that this is a new or significantly revised proposal. Green background has been deleted. Green lanes in IA-14 were intended only for conspicuity, not to identify right of way.

Concerns were raised that at night, the green color gets muddy and is hard to see and that it violates the principle used with bike lanes; also this involves higher operations cost. However, it

improves visibility of the SLM and has been shown to improve effectiveness.

A vote was held about retaining the green paint option and the BTC was unanimously in favor of that.

Dimensioning was discussed. With on-street parallel parking, SLMs should be centered a minimum of 12 feet from the curb. Spacing interval should be not less than 50 or more than 250 feet; wording about immediately after intersections was deleted, so no more than 50 feet.

Review stopped with line 104 of the proposal, to be resumed tomorrow.

Bike Boxes

BTC-STC task force consensus was that the stipulation in the Interim Approval IA 18, section 2C for countdown ped signals, was inappropriate. John Fisher wants signals on recall or with detection. But this issue is moot.

DeSantis read his document (refer to *BTC STC IA 18 TF recommendations.pdf*, attachment to his e-mail of January 4). We still want the option to do the continuous multi-lane bike box; Make an exception for a dedicated turn lane. Also see the item on IA-18 in the January 5 minutes.

Koonce: do not prohibit these in a downtown low-speed environment.

Adjournment.

The meeting adjourned at 5 PM to make way for the Pedestrian Task Force.

NCUTCD BTC meeting, January 5, 2017

Minutes prepared by John S. Allen, edited by BTC

Attendance

BTC members:

Richard Moeur, Chair
John Allen
Patrick Baxter
DeWayne Carver
Dongho Chang
Ted Curtis
Mike Cynecki
Bill DeSantis
Cindy Engelhart
Bill Fox

Michael Jackson
Dwight Kingsbury
Peter Koonce
Rock Miller
Theo Petritsch
Stewart Robertson
John Schubert
Ryan Snyder
Ron Van Houten

Guests:

Rob Dingess, Markings TC
Gene Hawkins, NCUTCD Vice-Chair
Joshua Mehlem, Fox Tuttle Hernandez
Adam Moore, Portland, Oregon Bureau of Transportation
Craig Toocheck, NACTO
Craig Schoenberg, Toole Design Group
Luciano Rabito, Howard Stein Hudson

Richard Moeur called the meeting to order at 1:07 PM

Business

Patrick Baxter was confirmed as a Technical Member at the morning Council session.

Pedestrian task force meeting report, issues:

- When to require a pedestrian signal face in rural and suburban areas?
- FHWA's implementation suspension for RRFBs is due to a lawsuit that claims infringement of patent rights..
- At bus stops, there is often no traffic signal or no ped head but there should be. And does it have to be ADA-compliant? Does the ADA requirement go beyond the electrical components? Must there be ramps, tactile pavement? Guidance from US Access Board is needed.
- The Pedestrian Committee idea is not dead.

- Van Houten presentation on gateway treatments to the Pedestrian Task Force.
- Guiding strips for mid-block crosswalks alerting vision-impaired pedestrians where midblock crossings may exist and providing directional crossing guidance..

Working Group on IA-18 (Bike Boxes)

Also see discussion of bike boxes in the January 4 minutes. The working group which has conferred since yesterday's BTC meeting included Bill DeSantis from the BTC and Monica Suter from Signals TC. Changes are to be sent to sponsors. The working group recommended deletion of any reference to undivided multi-lane bike boxes (the IA describes such applications, but requires use of countdown signals in such cases) and recommended the two-stage turn queuing box instead of bike box for multi-lane left turns.

No turn on red: Koonce, Petritsch: err on the side of safety. This prohibition was returned to a Shall condition, and Moeur will present it to General Council, consistent with FHWA. Dwayne Carver prepared a diagram, to be modified. DeSantis and Suter will send a revised version and new graphics.

New Bicycle Facility Installations

While the BTC waited for a report from the Automated and Connected Vehicle Task Force, an item was taken out of order in the agenda: mention of a new bicycle facility, a "protected intersection" in College Station, Texas.

Connected and Autonomous Vehicle Task Force

Schubert and Snyder are our representatives. Schubert will attend tonight's meeting. The Board wanted a good primer on this topic. BTC is providing a list of bicycling-related issues. There was a detailed discussion.

Steve Schladover (Berkeley researcher who presented at the Connected and Automated Vehicle presentation in the morning) did podcasts for Silicon-Valley innovators.

Rob Dingess talked about the far future, instrumented bicyclist helmets. What about bike lanes? Higher-level automated vehicles may not need markings for guidance and control.

Schubert: rumble strips result in avoidance behavior. Cars are programmed to watch for the white line. If there is avoidance behavior by bicyclists, then what?

Snyder: How do markings visibility, green paint figure into this? Sign and marking maintenance are an issue.

Engelhart: There was a conversation about DSRC (Dedicated Short Range Communications). Smartphone might offer another way to trigger traffic signals.

Koonce: The Feds were clear in the Smart City Challenge, try only DSRC.

Fox – So do we need a specific type of white line for a bike lane?

Toocheck: for turns, motorists merge into the bike lane. But will automated vehicles know to do that?

Dingess: A digital map and algorithms re needed. Then we build a vehicle that will know what to do wherever it is driving.

Miller: Bicycles are popular because they are inexpensive: doubling or tripling the cost to make them connected is prohibitive. It is enough of a challenge just getting people to wear helmets. Industry is concerned with our lack of uniformity: it dramatically increases the cost. Whenever we build in variability in signs and pavement markings, there is a cost. We do not have the resources to meet those challenges. Society is moving way too fast to respond in time, while industry is looking to achieve change. And what about dooring?

Dingess: AASHTO and SAE are working on the first joint specs, on pavement markings for machine vision. Additional efforts so you know what your roads would need to operate safely within that environments. Bicycling community has been very effective in getting communities to spend money. Benefits remain to be known.

Petritsch: environmental-justice issues: Car will know, if you get to a level of technology where the car can tell the need to slow down

Jackson: Mercedes predicts that manual drivers will bully automated vehicles. Dingess: Do I allow it to break the law? What they are saying is: car to operate in accord with the speed limit. What if 10% of cars are automated?

Bike Boxes (continued)

After break there was a discussion of bike boxes in connection with Interim Approval 18 issued by the FHWA. There is an issue with their being used to get to a left-turn lane or from one side of a roadway to the other. A special bicycle signal is required to indicate when it is unsafe for bicyclists to enter. Video by John Allen and Richard Moeur of one such installation in Phoenix was mentioned. It is online here: <https://www.youtube.com/watch?v=La9wMUvxhIE> . The IA requires countdown signals at multi-lane bike boxes. A joint BTC/STC task force developed revisions, which were approved by the General Council.

Raised Devices in Bikeways

This proposal was sent to Markings TC following the June 2016 BTC meeting. MTC concurred and the proposal was sent out to sponsors.

SLMs, Technical Guidance

There was a discussion of increasing speeds at which SLMs would be permitted, and distance from parked vehicles. Vote was to modify the figure with two SLM markings with and without green background, remove the other figures and text about SLM in turn lane, and add technical

guidance. The proposal is online at <http://ncutdbtc.org/sponsors/fall16/16b-bik-01-final.pdf> and was approved by the NCUTCD Council on January 6.

Review of Pending Action Items

The BTC reviewed its priority list. See page 2 of the agenda for the meeting, at <http://ncutdbtc.org/agenda/age0117.pdf>, and the priority list at <http://ncutdbtc.org/future/btcpriority.pdf>.

Adjournment

The BTC meeting adjourned at 5 PM so that members could attend the Autonomous Vehicles meeting.

The next NCUTCD meeting will be in Pittsburgh, Pennsylvania, June 28-30.