

# State of California

## DEPARTMENT OF TRANSPORTATION CALIFORNIA TRAFFIC CONTROL DEVICES COMMITTEE

Minutes of Meeting  
December 10, 2015

Caltrans Headquarters  
1120 N Street  
Caltrans Basement Board Room  
Sacramento, California 95814

### Committee Members in Attendance:

Hamid Bahadori, Chair  
Mark Greenwood, Chair-Elect  
Rick Marshall, Vice-Chair-Elect  
Lt. Scott Baland  
Bryan Jones  
Emma Olenberger  
Mike Sallaberry  
Duper Tong  
Jay Walter  
William Winter

### Committee Staff:

Chris Engelmann, Committee Secretary  
Don Howe, Chief, Signs Branch, Office of Traffic Engineering

### Also Present:

Javier Almaguer, Caltrans, District 6  
Johnny Bhullar, Caltrans, Headquarters  
John Ciccarelli, Bicycle Solutions  
Laurentiu Dusciuc, Alta Planning + Design  
Tom Hallenbeck, Caltrans Division Chief of Traffic Operations  
Markus Heiman, Sacramento Area Council of Governments (SACOG) Capital Valley Regional  
Service Authority for Freeways and Expressways (CVR – SAFE)  
Vivien Hoang, Federal Highway Administration  
Andrew Lee, Parisi Transportation Consulting  
Keri O'Connor, Caltrans, District 6  
Sergio Ruiz, Caltrans, District 4, Pedestrian and Bicycle Branch  
Walt Seifert, Sacramento City/County Bicycle Advisory Committee  
Rob Stinger, Caltrans, District 2

## **ORGANIZATION ITEMS**

### **1. Introduction**

Chair Bahadori called the meeting of the California Traffic Control Devices Committee (CTCDC) to order at 9:42 a.m. He invited the committee, staff, and members of the public to introduce themselves.

### **2. Membership**

#### **a. Election of Chairman and Vice Chairman**

Committee Member Marshall nominated Committee Member Greenwood as Chair.

**MOTION:** Committee Member Marshall nominated Committee Member Greenwood as Chair. Committee Member Walter seconded. Motion carried unanimously.

**MOTION:** Committee Member Winter nominated Committee Member Marshall as Vice-Chair. Chair Greenwood seconded. Motion carried unanimously.

#### **b. Welcome new members**

Secretary Engelmann introduced new Committee Member Mike Sallaberry of the San Francisco Municipal Transportation Agency, replacing Dan Gutierrez.

Secretary Engelmann introduced new Alternate Member Tony Powers of Dokken Engineering, replacing Mike Sallaberry.

#### **c. Appreciation Certificates**

Tom Hallenbeck, Caltrans Division Chief of Traffic Operations, presented Mr. Singh with a Certificate of Appreciation and recognized the work of Devinder Singh, who served as Executive Secretary of the CTCDC from 2000-2014. Committee Members Bahadori and Sallaberry and Chair Greenwood, as well as John Ciccarelli, described how much they had appreciated and enjoyed working with Mr. Singh.

Secretary Engelmann recognized Alternate Members Michael Kenney, Dan Gutierrez, Chuck Gunther, and Lt. David Ricks.

### **3. Approval of Minutes of the September 3, 2015 Meeting**

**MOTION:** Vice-Chair Marshall moved to approve the September 3, 2015 California Traffic Control Devices Committee Meeting Minutes as presented. Member Bahadori seconded. Motion carried unanimously.

### **4. Public Comments**

There was no public comment.

### **5. Items under Experimentation**

#### **I. Final Report on Yellow LED Border on Ped Signals – Rob Stinger, Caltrans**

- See item 12-9 in Discussion Items.

Secretary Engelmann reported that Mr. Stinger would be presenting the item later today.

## AGENDA ITEMS

### 6. Public Hearing

#### **CONSENT ITEMS (minor discussion with vote expected)**

##### **15-28: Confirm subcommittee participants for SB 632 inquiry**

Secretary Engelmann reported that the Senate Transportation Housing Committee had requested the CTCDC to review some proposed legislative text for SB 632. For the sake of timeliness, he suggested creating a subcommittee to go over the features of the bill and provide some comments by mid-2016. Those volunteering for the task were Committee Member Bahadori, Chair Greenwood, Member Walter and Secretary Engelmann.

Committee Member Bahadori explained that this bill proposes to extend the current definition of school zoning in California. However, there is no reasoning or research behind it. It is trying to codify yet another engineering issue into state law.

Committee Member Jones said that he would join the subcommittee.

#### **INFORMATION ITEMS (New items that may be voted on or brought back as an Action Item in a future meeting)**

##### **15-18: Proposal for street names for bridges over paths and at path intersections**

Walt Seifert of the Sacramento City/County Bicycle Advisory Committee gave a presentation, summarized below.

- Street name signage is a subset of wayfinding (or “guide”) signs.
- Existing conditions are that street name signs are not usually placed at the intersections of bike paths and streets. The other part of the proposal is to put street name signage on bridges or street overcrossings of bike paths.
- Mr. Seifert showed photographs illustrating the problem of lack of signage.
- He outlined the existing guidance in the CA Manual on Uniform Traffic Control Devices (CA MUTCD).
- He explained the proposal for street name signage both at bike path intersections and at bridges and overcrossings, and their benefits.
- He addressed Caltrans’ concerns and offered options.
- He shared comments he had received from the California Bicycle Advisory Committee.

#### Committee Member Questions and Comments

Committee Member Bahadori asked how many thousands of bike crossings are involved. Committee Member Winter commented that occasionally the County of Los Angeles paints markings on the trail as an aid to wayfinding; this minimizes the vandalism problem.

#### Public Comment

John Ciccarelli of Bicycle Solutions spoke of the value of bicyclists being able to orient themselves in a new place, and of the equity issue with motorists. He urged the committee not to exempt controlled access facilities that are closed to bicyclists. For path facility names, he suggested the D-1-1-2-3-b-c series signs introduced in the 2009 federal MUTCD. He also suggested a mileage marking technique used in Livermore. He mentioned that recreational

riders try to develop a sense of how far they can get in a given amount of time; mileage marking facilitates this ability.

Vivien Hoang of the Federal Highway Administration suggested providing options to local agencies for flexibility. She also suggested having standard sign placement.

#### Committee Member Questions and Comments

Committee Member Olenberger stressed the importance of wayfinding. As to pavement markings versus elevated markings, her preference was for elevated markings – while biking she is not often looking at the ground, and while in a group she may entirely miss pavement markings.

Committee Member Winter noted that for Class 1 bike trails in Los Angeles, they turn almost exclusively to the Los Angeles County Metropolitan Transportation Authority (MTA) in financing the work. If this proposal were to be mandated, the financial impact is an important consideration.

Committee Member Walter stated that from the city's perspective, he supported the idea of providing guidance for bicycle paths, but disagreed that it should be mandatory. He felt that optional would be the right way to go and that many local agencies would follow that recommended guidance. He also supported flexibility in the signage – many local bike paths and facilities have particular themes as to the type and design of their signage. He added that maintenance of additional signs in the inventory is always a concern.

Committee Member Bahadori cautioned that if the committee is leading toward mandatory regulation, it needs to be a process. Cities and counties need to be informed that they must do an inventory; costs of installation and maintenance must be considered. Regarding the exemption of Caltrans, he added that the committee had decided long ago in “one state, one law.”

Committee Member Sallaberry mentioned sign clutter in parks, but supported the idea of having street name signage and wayfinding.

Committee Member Jones recommended for the committee to consider making it a “shall” because signs for a trail are minimal cost compared to the construction of a trail, and because we don't consider maintenance for vehicle roadways when building them, so we shouldn't consider maintenance for active transportation. There is a concern of equity for all modes of transportation. He was in favor of painting signs on structures in lieu of putting up metal signs, because of the metal theft problem.

Committee Member Bahadori stressed that if we mandate a new standard with cost implications, we need to ensure that the cities and counties are fully aware.

Committee Member Winter confirmed that this was an Information Item. He said that the blowback occurring at the national level when the font on street signs on major roads was mandated to be enlarged, ultimately led the Federal Highway Administration (FHWA) to back off from that particular item in the mandate. He offered to check with his region's Metropolitan Planning Organization (MPO) to get a sense of cost implications there, and bring that information forward to another meeting.

Committee Member Jones stated that if street names for vehicles are a “should,” then bicycles ought to be the same.

Committee Member Tong supported optional rather than mandatory signage. The financial burden on cities and counties should be considered.

Chair Greenwood felt that the pavement marking option should be seriously considered.

Committee Member Bahadori suggested for the committee to have new information the next time the issue is discussed. Issues such as numbers of crossings, potential statewide, adhesive or drilling on bridges, side-mounted signs, stenciling on the pavement, etc. need to be researched.

Committee Member Tong suggested forming a subcommittee to collect information. Committee Members Winter, Walter, and Jones volunteered.

Vice-Chair Marshall had narrowed down four points needing decisions:

- Is it a “should” or a “shall”?
- Can there be flexibility in color and design?
- Can there be an option to use a destination rather than a proper name?
- Can markings be used instead of signs?

Committee Member Tong added the question of type of mounting for the sign.

Vice-Chair Marshall asked if there would be value in identifying streets below on overpasses.

#### **15-22: Overview of CA MUTCD updates (information only)**

Secretary Engelmann reported on significant changes for 2014 CA MUTCD Revision 1.

- The MUTCD will become more of a living document with updates published at least annually.
- Changes or additions are indicated by an orange line in the left margin.
- Minor edits are done and grammatical errors corrected.
- The office will provide a file online containing all changes, that can be printed and inserted into the manual.
- FHWA agreed to use Interim Approval 16, the Optional Use of Bicycle Signal Faces, statewide.
- Section 4C.102(CA) Bicycle Signal Warrants is deleted.
- Section 4D.104(CA) Optional Use of Bicycle Signal Faces is modified.
- Section 2B.55 Photo Enforced Signs is revised to match CVC 21455.5.
- Figure 2B-29 changes “Bridge Out” to “Bridge Closed”. “Meter On” and “Prepare to Stop” signs are included.
- Signs with the exit number within the panel are deleted in Section 2E.31 Interchange Exit Numbering.
- Section 3B.16 Stop and Yield Lines is updated to reflect the adoption of federal standards for yield lines.
- Section 4D.26 Yellow Change and Red Clearance Intervals updates the text.
- In Section 4D.27 and others, the term “extinguishable” is replaced with “activated blank-out”.
- In Section 6F.01 Types of Devices, Manual for Assessing Safety Hardware (MASH) references are included.

- Section 6F.109(CA) Construction Funding Identification (C47[CA] Series) Signs are included to provide uniformity in construction zones.
- Section 6I.102(CA) and Figure 6I-1(CA) Emergency Scene Ahead W90(CA) signs are included.

#### Committee Member Questions and Comments

Committee Member Winter asked if FHWA had any compliance issues with Revision 1. Secretary Engelmann assured him that they had none. Committee Member Winter asked if any updates of the federal manual are coming up. Secretary Engelmann thought that perhaps next year there may be one. Committee Member Winter commented on the usefulness of having prior manuals archived on the website, and encouraged Secretary Engelmann to continue that practice.

Committee Member Walter asked if there will be a 2016 California edition at some point. Secretary Engelmann responded that the document will continue to be called the *2014 California MUTCD*, with revised pages. The format being followed is similar to the *Caltrans Highway Design Manual* – they have editions with updates. Once we have a new federal manual, the number will change to the *2016 California MUTCD*.

Committee Member Bahadori added that Caltrans always keeps the versions of its manuals for use in case of depositions.

Chair Greenwood recommended that updates be published annually. His city has some policies that renew every nine months, and it is a management nightmare.

#### **15-23: Request to add “ROADSIDE” as alternate on SG49C FREEWAY ASSIST CALL 511 sign**

Markus Heiman of Sacramento Area Council of Governments (SACOG) Capital Valley Regional Service Authority for Freeways and Expressways (CVR – SAFE) gave a presentation, summarized below.

- SACOG is getting ready to begin a modernization of the Call Box program.
- A Call Box alternative is to use 511 for roadside assistance.
- Where removals are proposed, many are to be replaced with SG49C signs, which could be confusing to the public.
- The 511 system connects callers from cell phones to the same call center as the call box. The call center can tell which CHP area the call is originating from.
- The wording change for SG49C is requested because many of the served routes are not freeways.

#### Committee member Questions and Comments

Committee Member Bahadori asked if the 511 system operates 24/7; Mr. Heiman confirmed that it does. The 511 system also has weather, traffic congestion, CHP incidents, local agency incidents, the Caltrans roadways jpeg and streaming video images, etc.

Committee Member Bahadori asked what percentage of 511 calls are for motorist assistance. Mr. Heiman answered that the number is very low. He said that the 511 call center can dispatch freeway service patrol to rescue stranded motorists; its purpose is to remove as much of the burden from CHP and the 911 system as possible.

## Public Comment

There was no public comment.

## Committee Member Questions and Comments

Vice-Chair Marshall asked about specific language for adoption. Secretary Engelmann suggested developing language – basically replacing the word “freeway” with the optional use of the word “roadside”. Both would still be choices.

**MOTION:** Vice-Chair Marshall moved to make this an Action Item for Caltrans to develop the appropriate language and publish it. Committee Member Jones seconded. Motion carried unanimously.

## **ACTION ITEMS (Continuing discussion from prior meetings with vote expected)**

None

## **7. Request for Experimentation**

### **15-24: Request to experiment with bike boxes in the City of Mountain View**

Laurentiu Dusciuc of Alta Planning + Design gave a presentation, summarized below.

- Bike boxes allow bicyclists to get ahead of queuing traffic, increasing their visibility and improving their left turn position.
- Mr. Dusciuc showed an overhead photograph of the intersection of Rengstorff Ave. and Montecito Ave./Jewell Place, an existing bike boulevard route that is problematic due to its offset geometry.
- He showed the proposed improvements with bicycle boxes and signal modifications.

The Committee Members chose to combine their questions with Agenda Item 15-25.

### **15-25: Request to experiment with bike boxes in the Town of Tiburon**

Sergio Ruiz of Caltrans District 4, Pedestrian and Bicycle Branch, reported on the item – a joint request from Caltrans District 4 and the Town of Tiburon. Mr. Ruiz referred to plans in the agenda packets. Andrew Lee explained the specifics.

- A large volume of students ride across the Route 131 State Highway intersection with Blackfield Drive/Greenwood Cove Drive. A large volume of recreational cyclists also use the route.
- The purpose of the request is to provide a designated queueing area for both cyclists going through the intersection and cyclists turning left. It also indicates a conflict zone between bicyclists and motorists turning right.
- The proposed solution provides a southbound bike lane in advance of the bike box and a northbound bike lane.

## Commissioner Questions and Comments

Committee Member Sallaberry suggested trying the bike box marking without the “Wait Here” marking. Mr. Lee thought this to be a good idea. Committee Member Sallaberry commented that the “Wait Here” marking could be confusing – is it for motorists or for bicyclists?

## Public Comment

Mr. Ciccarelli commented on the substantial difference between the two proposals: the Mountain View bike lane positions the bicyclist on the left of same-direction motor traffic. Committee Member Jones explained that it is a bike boulevard, so there is no bike lane coming up from the right. Mr. Ciccarelli explained his concern using the photograph.

Committee Member Sallaberry suggested for the designer to consider adjusting the design during the experiment according to Mr. Ciccarelli's concern.

Committee Member Walter agreed with Mr. Ciccarelli's concerns and made a suggestion regarding the split-phase signal operation – it provides the opportunity to combine the left and the through, allowing for the right turn.

Secretary Engelmann asked if they had received FHWA's approval. Mr. Dusciuc answered that FHWA is reviewing the application.

Mr. Dusciuc explained the reasons for the design.

Committee Member Bahadori felt that bicycle and traffic volume of the intersection should be known as part of a Request for Experimentation. Committee Member Jones stated that information is collected from the greater subdivision area; this is not a high-vehicle area. Mr. Bahadori noted that data on bicycle accidents at the intersection would also be useful.

Committee Member Jones confirmed that the city would be agreeable to doing before-and-after data collection.

Committee Member Olenberger expressed concern about bicyclists having to weave in traffic to get to their positions in the bike box. Committee Member Jones stated that the intersection is low-volume.

Committee Member Sallaberry encouraged both proposal groups to review the FHWA website regarding bicycle boxes; FHWA currently has 25 active experiments, and their guidance will be useful. He also suggested for the proposal groups to look at an active experiment at Columbia, Missouri regarding the bicycle detection symbol.

Mr. Ciccarelli asked if any consideration has been given to eliminating the motor vehicle throughway at the intersection. Committee Member Jones noted that there is a fire station on that corner.

Committee Member Walter asked how important it is for the committee to have the experiments be consistent in terms of the markings. Chair Greenwood commented that there are so many new possibilities and new devices that consistency was not an issue for him.

Secretary Engelmann pointed out that only the Tiburon proposal has received FHWA approval to continue.

Committee Member Sallaberry commented that the Mountain View proposal actually consists of two elements: the bike boxes and the intersection guide markings.

**MOTION:** Committee Member Walter moved to approve the experimentation for Mountain View's bike boxes subject to FHWA approval. Committee Member Winter seconded. Motion carried unanimously.

**MOTION:** Committee Member Jones moved to approve the experimentation for Tiburon’s bike boxes. Committee Member Winter seconded. Motion carried unanimously.

**15-26: Request to experiment with Kit Fox Crossing Signs**

Javier Almaguer of Caltrans District 6 stated that the idea for the signs originated during a road improvement project in Bakersfield, in coordination with the U.S. Fish and Wildlife Service. The intent is to avoid, minimize, and mitigate any impacts to species listed as endangered.

Caltrans has expressed concern: there is no approved kit fox sign. Caltrans tried to have the requirement removed, however, U.S. Fish and Wildlife insisted – they do not want to let Caltrans amend a biological opinion. Caltrans is now attempting to meet the requirement.

There is data to support kit fox mortality on roads.

Caltrans was here today not to advocate for the signs, but to discern whether to move forward with the experiment to place the signs on the state routes.

Committee Member Questions and Comments

Committee Member Winter asked about the range of the kit fox. Mr. Almaguer answered that the highest density is in Kern County; its historical range is the Central Valley. It has adapted to urban areas quite well.

Committee Member Winter asked if this would be precedent-setting. Mr. Almaguer responded that U.S. Fish and Wildlife does not want to apply this generally to other species.

Committee Member Winter asked about the level of recognition of the kit fox via the sign. Mr. Almaguer responded that county residents are quite cognizant of the kit fox.

Committee Member Winter suggested that instead of “Crossing”, the sign should read “Next [x] Miles”. Mr. Almaguer agreed. He also surmised that a biologist should have been daily monitoring the fatality rate on Morning Drive. He felt that there should be enough data to show before and after numbers.

At the request of Committee Member Tong, Mr. Almaguer described the kit fox, which is about the size of a domestic cat. He was not aware of any traffic collisions caused by the kit fox. The goal of the signs was to make drivers aware of the presence of kit foxes in the area, to reduce the number of vehicular strikes.

He continued that additional signage was a concern to Caltrans; however, Caltrans was trying to show good faith with one of its agencies in complying with the mitigation requirement.

Secretary Engelmann asked if the kit fox is active in the daytime or at night. Mr. Almaguer replied that it is primarily nocturnal.

Secretary Engelmann stated that speaking in terms of the MUTCD, we generally provide warning signs in situations when a condition is not readily apparent to a driver.

Secretary Engelmann asked if Caltrans has checked with the FHWA on this matter. Mr. Almaguer responded that the FHWA may have been involved; he would need to check.

Committee Member Bahadori pointed out that the purpose of animal crossing warning signs has not been to save the life of the animal; it has been to warn drivers of the presence of

animals large enough to damage a vehicle and cause a driver to lose control. Mr. Almaguer noted that the area is becoming built up with homes, and the likelihood that vehicle strikes will increase is high.

Mr. Almaguer added that one benefit of the experiment from Caltrans' perspective was that they could put to rest the effectiveness of signs. Possibly they could head off any future requirements from U.S. Fish and Wildlife when they have empirical data.

Committee Member Bahadori pointed out the low known mortality rate. Experimenting with the signs was not a big deal, but the signs would not prevent vehicle/animal accidents from happening. He cautioned about introducing many different signs into the manual because just one creature was killed.

Committee Member Walter pointed out that the request itself states that Caltrans must first get approval from FHWA.

Committee Member Winter commented that in the past, a request to install a peacock sign had been rejected. The manual states that deer warning signs (W11-3) can only be installed after confirmation from a Department of Fish & Wildlife warden having jurisdiction in the area that a substantial problem exists. For this situation, he was thus willing to make a motion to approve.

**MOTION:** Committee Member Winter moved to approve the request to experiment with Kit Fox Crossing signs. Committee Member Jones seconded.

Committee Member Bahadori commented that Deer Crossing signs were never meant to protect the deer, but the motorists.

Committee Member Sallaberry commented that with this small nocturnal animal, the way to reduce mortality would be to lower the prevailing traffic speed.

Committee Member Olenberger suggested that with this area starting to be built out, the option of adding underway safe passages could be considered.

Vice-Chair Marshall noted that in discussions with Caltrans staff, it came to his attention that a third location is involved. Committee Member Winter said that would be fine for the motion.

Secretary Engelmann asked if any other mitigation measures will be implemented. Mr. Almaguer replied that this is not the only one; the Thomas Roads Improvement Program (TRIP) has implemented many mitigation measures.

Committee Member Jones noted the yellow beacon on the top of some of the visual renderings. Keri O'Connor of Caltrans District 6 responded that the proposal was to place the beacons on signage going in one direction but not the other, to see if there was a difference. Committee Member Jones felt that the flashing beacon would not help with what they are trying to accomplish.

Committee Member Winter did not object for the beacons to be included in the motion.

Chair Greenwood stated that should this item pass, it is because the appropriate resource agency has identified an endangered species where traffic is the hazard; that is a major criteria for whatever animal next comes before the committee.

Committee Member Walter voiced fundamental disagreement: this committee and CTCDC in general should not be governed by what a federal agency (other than FHWA) says they want to see. He appreciated the idea that an experiment might be in order for a situation like this.

Committee Member Winter noted that the MUTCD is adopted by a variety of federal agencies, including U.S. Fish and Wildlife.

Committee Member Bahadori stressed that CTCDC is not an instrument to protect endangered species; there are other measures to take for that. The sign should be used only when the animal crossing causes damage to the vehicle or the persons. This would not set a good precedent.

Committee Member Sallaberry suggested distinguishing between the two different signs: one as a warning sign and one as informational/public awareness.

**VOTE:** Motion passed by a vote of 8 in favor and 2 opposed.

## **8. Discussion Items**

### **12-9: Report on Yellow LED Border Pedestrian Signal**

Rob Stinger, Chief of the Traffic Engineering Operations Office in Caltrans District 2, gave a presentation.

1. The basic problem was how to alert right-turning motorists that a pedestrian is waiting to use the crosswalk.
2. An idea was to install a yellow LED border for visibility.
3. Mr. Stinger submitted an evaluation plan to FHWA in 2011.
4. The percent change was to be evaluated in three categories :
  - Pedestrian-vehicle conflicts
  - Pedestrian crossing violations
  - Repeated button pushes
5. Flyers were strapped to signal poles encouraging people to take a quick online survey.
6. Leotek Electronics helped to develop a prototype Yellow Pedestrian Border (YPB). The final prototype had 1" spacing between each light.
7. A YouTube video was posted.
8. All five intersections studied were in Redding. Video detection cameras and DVR equipment recorded the before and after treatment. The survey flyers were strapped to the pedestrian poles during testing.
9. Cumulative results showed:
  - 17.1% reduction in pedestrian vehicle conflict
  - 28.4% reduction in pedestrian violations
  - 60.2% reduction in extra button pushes

Mr. Stinger explained the various factors affecting the results.

10. Only 15 people responded to the survey with three of the responses rejected. The response was favorable overall.
11. The conclusion was that YPB is a positive enhancement.
12. The recommendation was to allow YPB to be used as an optional feature on standard countdown pedestrian signals.
13. Mr. Stinger sent the final report to FHWA in November 2014. They forwarded copies to the Signals Technical Committee (STC) of the National Committee on Uniform Traffic Control Devices (NCUTCD).
14. The NCUTCD two-paragraph response stated that they "...did not believe there was an overwhelming need to allow the lighted border."
15. Mr. Stinger gave an in-person presentation to the STC in June 2015. The strongest opposition came from the member representing the visually impaired community, she was concerned about people with low visual acuity.
16. To bring perspective to that concern, Mr. Stinger researched the data in Redding and found that with over one million YPB crossings, no complaints or concerns were reported.
17. Among the FHWA's final remarks were the suggestion to expand the experiment in California if the CTCDC approves.
18. Mr. Stinger played an informational Caltrans video on YPBs.

#### Committee Questions and Comments

Secretary Engelmann stated that Caltrans' official position is that they support this idea. With sufficient data, the FHWA might eventually come around. The Caltrans Division of Research and Innovation is willing to fund and perform an additional experimentation with this device; it is just a matter of finding locations to implement it. Secretary Engelmann asked the Committee Members to consider their own regions.

Mr. Stinger commented that the equipment for the experimentation is custom-made.

Mr. Howe noted that the Division of Research and Innovation would more than likely employ a research university in the state for the experimentation.

In answer to Committee Member Bahadori's question, Mr. Stinger stated that he looks at the YPBs as optional rather than mandatory. The 16 custom-made modules for Redding cost around \$10,000 total.

Mr. Sallaberry suggested using the YPB to test pedestrian behavior in more unusual crosswalk configurations.

Committee Member Jones commented that the national committee is the reason there isn't much innovation – local agencies are not able to produce a lot of data. This is where California can come in.

Secretary Engelmann suggested having the LED lights flash. Mr. Stinger responded that during design they had decided not to overkill with flashiness.

#### Public Comment

There was no public comment.

#### Committee Questions and Comments

Secretary Engelmann suggested that the discussions continue. He would obtain contact information for the Caltrans Division of Research, Innovation and System Information (DRISI). Committee Members would be notified regarding submittal of any potential locations for experimentation they want to address.

The Committee Members affirmed that they would look favorably on additional experiments with this device.

#### **Membership, Appreciation Certificates**

The committee revisited this agenda item to recognize Johnny Bhullar, former California MUTCD Editor.

Secretary Engelmann presented a certificate of appreciation to Mr. Bhullar. Chair Greenwood and Committee Member Bahadori expressed their thanks to him for his work. Mr. Bhullar recalled his time as CA MUTCD Editor.

#### **15-27: Centerline Marking ADT Thresholds**

Secretary Engelmann introduced to the committee a discussion on the concept of ADT thresholds when centerlines are required versus optional. The request is whether to consider raising the ADT when centerlines are required.

#### Committee Questions and Comments

Committee Member Bahadori asked about the history of the issue. Mr. Howe accessed and displayed the federal MUTCD standard. Committee Member Bahadori asked where the numbers had come from.

Chair Greenwood commented that deleting the centerline would cause a consistency issue; Secretary Engelmann agreed.

Committee Member Bahadori commented that deviations require a very strong reason based on science. The committee would need to support any change with such research.

Committee Member Jones stated that some research has been done on having outside lines versus centerlines, and how that affects drivers' speed on different types of roads. A number of communities are starting to consider letting people use the outside lines versus the centerline.

He continued that possibly the solution is to have the requestors provide information from their communities – there might be research available.

#### Public Comment

Mr. Ciccarelli spoke about centerlines in terms of bike boulevards, and the caliber of the bicycling experience on the streets used to stitch together crosstown networks. The issue of centerlines on rural roads is different – bicyclists want to be passed with more clearance. He wished to discourage the use of centerlines on low-volume residential streets.

Mr. Bhullar suggested tackling the issue in terms of “should” for particular applications rather than “shall”.

#### Committee Questions and Comments

Committee Member Sallaberry saw value in using centerlines in some situations, for example, improvisory bike lanes and encouragement of slower speed traffic. He also sought to better understand the rationale for the proposal.

Committee Member Bahadori commented that much of the research comes from the Transportation Research Board (TRB); these numbers were researched as a result of many head-on collisions.

Committee Member Winter agreed with his colleagues that the background and research are needed.

Committee Member Jones commented on the changes in road use since the research was done in the 1950s. The assumptions and definition of the problem now need to be re-evaluated in order to create a safer street network in our communities.

Committee Member Bahadori added that last year TRB had done such an exercise – for over 50 years the same minimum value had been used for yellow stoplight timing. After the study, the minimum value was changed.

Mr. Ciccarelli suggested contacting the Chair of the Markings Technical Committee of the National Committee on Uniform Traffic Control Devices (NCUTCD) for the research background.

### **9. Tabled Items**

#### **15-15: Proposal for striping a space for bicycle use at locations with right-turn-only lanes**

Secretary Engelmann reported that they are getting information from the California Bicycle Advisory Committee (CBAC) and the Caltrans Traffic Safety Steering Committee district engineers on how to pursue striping this 4' space. The item will come back at a future meeting for discussion and vote.

Chair Greenwood commented that there used to be an agenda item towards the end of meetings for committee member comments on other issues of concern. Committee Member Bahadori asked the committee if they would like to continue this practice.

Committee Member Walter mentioned that an example today would be the Mountain View bike boxes. What is the committee responsible for, and what are we expected to be doing in terms of advocating and helping these projects be presented to the committee?

Committee Member Walter inquired about whether the sponsor of an item should ask questions ahead of time that the committee would be asking.

Committee Member Sallaberry commented that new members would benefit from having an orientation package. Chair Greenwood noted that there is a Request for Experiment packet on the website; it outlines basic information that should be known.

Committee Member Jones suggested for the committee to find well-prepared Requests for Experiment and PowerPoint presentations, and put them on the web page. Secretary

Engelmann noted that there are examples on the webpage, but they may be old. The Guidelines can show the data to incorporate – ADTs, pedestrian volumes, and so on.

Chair Greenwood suggested to incorporate all the presenter's materials in the meeting packet. Today some well-done plans had been presented but the committee had not had time to review them.

He suggested that presentations be limited to five minutes, to keep them brief and to the point.

Committee Member Winter suggested that the Chair help Caltrans in setting the meeting agenda. Secretary Engelmann noted that Caltrans has strict guidance on legislation-related items: they cannot contact with the Legislature – they must go through their Legislative Affairs Office.

Committee Member Bahadori mentioned that all along the committee has been trying to say that engineering standards and issues should not be codified into state law. Making a law is a political process, whereas these are technical issues.

Committee Member Jones commented that Caltrans is coming out with the Main Street Guidelines, but there are some conflicts with the MUTCD. It would be beneficial for the committee to check these innovative manuals that Caltrans is publishing, to ensure that ideas are incorporated and that there are no conflicts with the MUTCD. Committee Member Bahadori noted that the committee had done that for the Highway Design Manual.

#### **10. Next Meeting**

March 3, 2016  
Caltrans District 5  
1150 Laurel Lane  
San Luis Obispo, CA

#### **11. Adjourn**

Chair Greenwood adjourned the meeting at 2:04 p.m.