STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

CALIFORNIA TRAFFIC CONTROL DEVICES COMMITTEE

MEETING OF THE

CALIFORNIA TRAFFIC CONTROL DEVICES COMMITTEE

220 SOUTH DAISY AVENUE, BUILDING A

SANTA ANA, CALIFORNIA

THURSDAY, SEPTEMBER 2, 2010

9:07 A.M.

Reported by:
Troy Ray

1 A P P E A R A N C E S

2 Committee Members

3 John Fisher, Chairman

4 Hamid Bahadori

5 Jason Babico

6 Farhad Mansourian

7 Wayne Henley

8 Robert Maynard

9 Jeff Knowles

10 Merry Banks

11

12 CalTrans Personnel

13 Devinder Singh, Committee Secretary

14 Peter Caruso

15 Gordon Wong

16 Roberta McLaughlin

17 Joe Rouse

18 Johnny Bhullar

19 Haissam Yahya

20 Luu Nguyen

21 Lee Haber

22

23

24

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1
2 A P P E A R A N C E S (Continued)
3 Also Present
4 Monica Suter
City of Santa Ana
5
Joe El Harake
6
Steve Pyburn
7 Federal Highway Administration, California Division
8 Mina Layba, Legislative Affairs Manager
City of Thousand Oaks
9
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P R O C E E D I N G S

9:07 a.m.

COMMITTEE CHAIRMAN FISHER: I'd like to call the meeting to order. I'd like to welcome you all to the September 2nd, 2010, meeting of the California Traffic Control Devices Committee. As you know, we hold one meeting in the northern half of the state and then the next meeting in the southern half, and we continue to rotate. And we find ourselves today in the nice city of Santa Ana, California, which happens to be the most populous city in Orange County.

And I'd like to acknowledge several people who have really made our stay here very well coming. There's Olcio Jaime. Thank you. And is Caesar hear? There's also Caesar who helped us out. And the person who helped to coordinate the meeting for us and made sure that they were attentive to all of our needs is Monica Suter from the City of Santa Ana. So I'd like to acknowledge Monica and invite you to make any statement about your -- the venue here and your city here.

MS. SUTER: Well, thank you --

COMMITTEE CHAIRMAN FISHER: And as she's walking up here, I'd like to remind anyone who has a comment to make it at the microphone so our comments can be recorded.

MS. SUTER: Welcome, everybody. We're really

happy to have you all here. It's great to see a lot of Caltrans involvement here too, and the Committee and all.

As you mentioned, I'm Monica Suter with the City of Santa Ana. And I want to thank members of our staff who helped put everything together, got the donuts and the water and made sure the room was set up.

Thank you, John, and on behalf of the Committee and everybody.

We have this little map for those of you who weren't here before. It has various lunch options. So we -- this area here isn't right where all the food areas are, so if you have any questions and if you even get a lunch today -- I don't know how that's going to work -- I want to make sure you all have access to this. So those are all at the front counter there.

And with that, I would like to defer to the Committee and welcome all of you and hope you enjoy your stay. If you have any questions, please feel free to see me, or Olcio, or Ozzie, otherwise known as.

Thank you.

COMMITTEE CHAIRMAN FISHER: Thank you, Monica.

And as far as I can remember, I don't think we've held a meeting in Santa Ana, California.

SECRETARY SINGH: This is the first time.

COMMITTEE CHAIRMAN FISHER: First time. And I

don't know what took us so long, but --

(Conversation with audience member beyond range of microphone.)

COMMITTEE CHAIRMAN FISHER: This microphone is strictly for recording. And we have -- we do have the microphone that we can -- let me clarify. These are for recording only, so they won't broadcast. We can use this one. We can use this one, but I don't feel we need to, and I think it would be rather awkward to go passing this back and forth. So I just ask that when we have statements to make, let's make sure we speak up loud and clear.

And when we invite the audience to make comments, or invite them up, please go to the podium, and make sure that you state your name and affiliation so that we can get that on the record as well.

At this point in time, I'd like to have introduction of the CTCDC members, starting with Farhad.

COMMITTEE MEMBER MANSOURIAN: Good morning, everybody. Farhad Mansourian, Marin County Works director. I'm one of the two representatives for the counties. And I want to apologize in advance. If you see me wandering around and walking around, it's because my back and I are having an argument today, who's in charge, and I'm just trying to win that argument. So I mean no

disrespect.

COMMITTEE MEMBER BABICO: My name is Jacob Babico. I work for the County of San Bernardino. I represent the CSACs of southern California.

COMMITTEE MEMBER MAYNARD: Robert Maynard, representing California Highway Patrol.

COMMITTEE MEMBER BAHADORI: I'm Hamid Bahadori, representing Automobile Club of Southern California.

COMMITTEE CHAIRMAN FISHER: And I'm John Fisher, representing the League of California Cities, and I work for the City of Los Angeles DOT.

SECRETARY SINGH: Devinder Singh, secretary for the Committee.

COMMITTEE MEMBER HENLEY: I'm Wayne Henley with Caltrans, and I'm the Caltrans rep.

COMMITTEE MEMBER BANKS: Good morning. My name is Merry Banks, and I'm from AAA of Northern California.

COMMITTEE MEMBER KNOWLES: And I'm Jeff Knowles from the City of Vacaville, also representing the League of California Cities.

COMMITTEE CHAIRMAN FISHER: Great, thank you.

And so we have a quorum here, but I'm told that because of flight arrangements, we will not have -- we're not likely to have a quorum after 1:00, so therefore, it

is our intention to complete the agenda and all discussions by 1:00 at the very latest and not a minute after.

So in that regard, I plan that we not have a lunch break. We will have, probably, a break maybe around sometime between 10:30 and 11:00, but we intend to go through the agenda without a lunch break. So just that you're forewarned.

And I will introduce the guests.

I'd also like to mention that our restrooms are over in the hallway there, just about 40 feet from this room here.

And at this point in time, I'd like to have those who are in the audience introduce themselves, including the Caltrans staff that has come down for the last few days to join us in our workshops.

(Thereupon, all those in attendance identified themselves.)

COMMITTEE CHAIRMAN FISHER: Okay. Thank you, all.

COMMITTEE MEMBER BAHADORI: I don't think we've ever had so many Caltrans people in the audience.

COMMITTEE CHAIRMAN FISHER: We have a lot of Caltrans representation here.

Over the last few days we've had workshops. We

had workshops on Tuesday, Wednesday; and that was to go over the approximate 2009 MUTCD changes in Part 3 and Part 6, the part on striping and the part on construction traffic management. And I'm happy to say that we remain on schedule.

We have gone through all the comments from the FHWA for Part 3 and Part 6. We completed that task yesterday, even stayed a little bit late to do it; so I commend those who stayed late and joined us to make sure we could stay on schedule. And in particular, Johnny Bhullar, who is --

SECRETARY SINGH: He's not here.

COMMITTEE CHAIRMAN FISHER: -- is not here, but I think he'll be here later. I just want to thank him, and I want to thank all the Caltrans staff who came down and helped us with our deliberations and our discussions to help move this forward, because it has been our intention to adopt the 2011 California MUTCD in the early part of the calendar year, we're hoping maybe around February, and we remain on schedule for that.

We believe that the sooner that we can act on the California MUTCD after the Federal MUTCD is adopted the better because otherwise there are questions, there's uncertainty, and we feel resolving it at the earliest possible time serves everyone better who practices

transportation in the State of California. So I'm happy to say we remain on schedule for that.

Before we get to our agenda items, I want to -- I'm informed that -- I'll get to that. I'm informed that item 10-11 has been deferred. We don't have representation here by the sponsoring -- I'm sorry, City of Stockton. Is that 10-11?

SECRETARY SINGH: 10-10.

COMMITTEE CHAIRMAN FISHER: 10-10, I'm sorry. 10-10. Stockton isn't here today, so we intend to defer that to our next meeting, which will be in northern California. So that will not be on the agenda.

And I think we're going to have probably somewhat of an extended discussion on Item 10-9, but other than that, we have a relatively light agenda.

So I'd like to move through the other items that appear on the agenda quickly so that we can have time for Item 10-9, but -- and I intend to put that at the end of the agenda; but does anyone else believe we should take another item out of order?

Okay. Well, with that said, I'd like to have the adoption of the minutes from the previous meeting. We were all provided a copy.

COMMITTEE MEMBER BAHADORI: I make a motion we adopt the minutes of the last meeting, April 15, 2010, of

the Devices Committee.

COMMITTEE CHAIRMAN FISHER: Do we have a second?

COMMITTEE MEMBER MANSOURIAN: Second.

COMMITTEE CHAIRMAN FISHER: Okay. So moved and seconded. I'd like to hear approval of the minute. All say "aye."

(Ayes.)

COMMITTEE CHAIRMAN FISHER: Okay. So approved.

And at this point in the meeting, we would like to invite public comments if there are any. We ask that speakers addressing the Committee come to the podium so that the comments can be recorded. Make sure when you come to the podium you indicate your name and affiliation. And if during the meeting you come several times to the podium, please repeat it each time so that it can get recorded for the minutes.

Do we have any items?

Yes, please come forward.

And keep in mind that the public comments cannot be on an item that is on the agenda. We will discuss that at the appropriate time.

MR. CARUSO: My name is Peter. I'm with traffic operations. I have a comment on something that's not on the agenda. It was something that was briefly discussed in San Jose last year, and that was the height of

regulatory signs or signs on barricades. And that is the issue of specifically the height of signs.

Let me show you an example. I took a picture of -- we've put on barricades, we put signs that are sometimes one foot off the ground, and we're doing speed limit signs and double and triple speed zones, and there's nothing that prevents this in MUTCD. And we're seeing either stop signs that will be discussed, as well as speed limit signs that are put up. And I'd like to see what the Committee thinks, if we could get this changed.

Specifically, I'd like to ask Robert if this is something the police are comfortable enforcing, CHP.

COMMITTEE MEMBER MAYNARD: Yeah, there would be no problem with enforcement as far as I can tell. You know, the height may be subject to discussion on how high it should be, but as long as the officer feels that it's obvious to the motorist, that the motorist can see it, you know, it's the proper color scheme for enforcement, so I don't see any issues with it.

MR. CARUSO: Section 6F0.3 says "Signs Ground Mounted," which I'm presuming this is, "shall be no less than five feet in height"; yet, we show a picture in our standard details showing the minimum for signs on barricades to be one foot. So I think we have a little conflict in this.

And, you know, I understand that if you want to put "Uneven Pavement" or something like that on these barricades, I think that's what was intended, but I don't think we're intending to put a regulatory sign, which could be a stop sign with vehicles five cars back can't see a stop sign.

COMMITTEE CHAIRMAN FISHER: Okay. Thank you for that.

Under public comments, we really aren't allowed to deliberate on the item, but we appreciate your giving us the information, and --

COMMITTEE MEMBER BAHADORI: Mr. Chairman, I think that's a very legitimate concern. I would like to report back for the next meeting by Caltrans looking at this in conjunction with CHP. If we are creating trap conditions that the motorists are not in a position to see these regulatory signs effectively, then they may be subjected to fines where they had no knowledge of that regulation being in place. I'm not saying that the speaker's point is 100 percent legitimate or not, I'm saying I would like to see it on our next agenda as a report.

COMMITTEE CHAIRMAN FISHER: Okay. I think that, you know, yesterday we discussed Part 6, temporary traffic control, and I think from what -- the photo we saw, that this would be part of that discussion.

And so are you saying you want a report back, or are you asking Caltrans to look at that as part of the discussion?

COMMITTEE MEMBER BAHADORI: I'm saying this is the first time I hear of such concern. And we need to look at that as part of finalizing that section 6H or G or whichever one that belongs to.

COMMITTEE CHAIRMAN FISHER: Do you want to come up to the podium?

MR. WONG: My name is Gordon. I work for Caltrans traffic operations. I'm in charge of Part 6. And the question brought in front of the Committee, I already have an answer for it.

The answer is in the same section, Section 6F0.3, sign placement. And the answer is, California MUTCD currently allowing barricade-mounted signs that is one feet above the ground. And also, there is an option saying those signs, if mounted on portable support, should be no longer -- to be used on portable support for longer than three days. And there are a series of signs that are allowed on the portable support. And the subject in question is the speed limit regulatory sign, and that's not one of the signs that's allowed on the barricades.

COMMITTEE MEMBER BAHADORI: Mr. Chairman, may I ask a question?

COMMITTEE CHAIRMAN FISHER: Yes.

COMMITTEE MEMBER BAHADORI: Gordon, so regulatory signs are not allowed on barricades?

MR. WONG: No. There are certain regulatory signs are allowed.

COMMITTEE MEMBER BAHADORI: How about the stop signs and the speed limit signs?

MR. WONG: No.

COMMITTEE MEMBER BAHADORI: Okay. So both of those pictures, or at least the picture about the speed limit sign that the speaker shared with the Committee, that sign is not legally installed. Is that what you're saying?

MR. WONG: However, that is an option, so it says or "other similar type signs." So it's -- MUTCD language is weak, it's allowing other similar signs, so you can argue that those are other similar signs.

COMMITTEE MEMBER BABICO: Mr. Chairman --

COMMITTEE CHAIRMAN FISHER: Keep in mind, we don't want to really get into a debate on this.

MR. WONG: I'm just giving you the answer.

COMMITTEE CHAIRMAN FISHER: If we have more than a couple of minutes of discussion, we're going to have to agendize this; but, Jacob, I'll go to you next.

COMMITTEE MEMBER BABICO: I believe that signing,

warning or regulatory, it's a common use, and it's temporary because they are in the construction zones, and commonly used, especially when the signal lights is blacked out; they use the barricade type 1, and they put the stop sign, which is acceptable. And the ground mounting is only for permanent signing, the five-foot clearance. But you can go for a one-day construction, have the 25 work speed zone on a barricade type 1. If you want to be visible, put it on barricade type 3. It's commonly used.

COMMITTEE CHAIRMAN FISHER: Okay. Why don't we do this: I think probably if we had the time to read the section and review it and absorb it, we would come to a conclusion regarding the appropriateness of the barricade signing.

Can we do this: Agendize for our next meeting just an informational item to come back to us regarding the appropriateness of those types of barricade signs. And then I think we'll all have a full understanding of their applications.

And, Gordon, I guess you'd be the lead on that, right?

MR. WONG: I sure will.

COMMITTEE CHAIRMAN FISHER: All right. Appreciate it. And I thank you for bringing that to our

attention.

Okay. Are there any other public comments?

Monica, come up to the podium.

MS. SUTER: Thank you, John. Monica Suter, City of Santa Ana. I'm also a member of the Signals Technical Committee of the National Committee that recommends to federal highways what's in the 2009 and so on.

Why I bring that up is one of the items that we talked about a couple years ago or within the last couple years was the issue of, since safety is a big goal that we have nationally to reduce crashes, that we look at, and something that came out of the Signals Technical Committee and then was recommended to federal highways as part of the National Committee, was this issue of how we define speed more consistently.

The reason why that matters is the results you get very substantial in terms of what an engineer would recommend. And the federal highways did not feel they had adequate time to put that out, is what their response was, why they didn't put it in there at this time. But I was hoping that perhaps California could take a little bit of a leadership role on this and define, say, approach speed in the beginning.

And we had a definition that came out of the Committee and was recommended. And so it actually had

quite a bit of consensus, something to the effect of the approach speed would be the speed at which it's either the 85th percentile, or if not known, it's the posted plus five or ten or based on engineering judgment. The idea being it will be a lot closer to the actual flow rate that the motorists are, in this case, traveling, which means that adequate response times and traffic operations would be better accommodated by using real numbers rather than numbers that may be arbitrary because they're politically influenced, as we all know.

So in light of safety, I just wanted to share that comment, that I think if -- and John and myself have a copy of it, what came out of National Committee. And then if this could be passed on to the members and also federal highways to consider looking at and seeing if we can define it in the front end of the book, and then where they say you can use the posted statutory or 85th percentile, they say that in many places, it's kind of awkward, I think it's also a liability issue down the road, because which one's which, and people will use different ones, and then that can be challenged later.

But instead define what approach speed is, explain how that works, and that we want to make sure we're conservative in the number we use in the interest of pedestrian and bicyclist safety also, not just motorists.

And then with that definition, replace that wording throughout. And we'll probably be more conservative in most cases throughout the manual in light of safety if we do that.

Thank you.

COMMITTEE CHAIRMAN FISHER: Any other comments from the public or people present?

Okay. We conclude the public comment. And we go to our agenda items where we have a public hearing.

And prior to adopting any rules or regulations prescribing uniform traffic control standards and specifications, keep in mind that they are placed pursuant to Section 21400 of the California Vehicle Code, and that requires Caltrans to consult with local agencies and hold public hearings before any items are adopted. So the public hearing that we're about to have satisfies that requirement of Section 21400 of the California Vehicle Code.

Before we get into the individual agenda items I would just like to remind all of our members here, we hold the responsibility of sponsoring items for agencies and bringing them and agendizing them for this Committee, and we have the responsibility to sponsor them on behalf of others, but also we have the responsibility to add value to the request. So I've always felt we are not obligated

to simply forward the request; we are there to look at it, scrutinize it, help the local agency, strengthen it if possible. And sometimes that takes a little bit of time, a little bit of back-and-forth discussion.

Often an agency that wants an item sponsored comes to us at the last minute, and we feel pressured to forward it immediately so that it can be agendized, but I'd just like to remind us that I think we have an obligation to work with that entity to make sure that the item that comes before us has been vetted, has been strengthened, has been scrutinized, and that we've given all of the wisdom and advice we can before it comes to this Committee so that when it does arrive at this Committee, it has the greatest success of being approved and moved forward.

I know we've had several items that have come to us that the agency really felt they wanted to get on the agenda quickly, and sometimes it either wasn't necessary to put on the agenda, or they needed to go to the FHWA first, or maybe if it had been vetted a little bit more, they would have proposed something a little bit different. So I know we're all trying to do that as we work with our entities, but I'd just like to remind everyone that that is a responsibility we have to work with those entities and to strengthen their proposal, spend a little time for

them and add value.

Also, we have the responsibility of once we approve an experiment, we need to get back to those entities and make sure they're proceeding with their experiment to make sure they're making progress and to make sure that they are reporting to us the results of their experimentation so that we can have that information and know if it's working out and know if it's proceeding and know if we're going to have information which will help us determine if we should adopt revised guidelines in the California MUTCD. So I'd just like -- I think we all know that, but I'd just like to remind us all that we do have those obligations.

COMMITTEE MEMBER KNOWLES: Mr. Chairman.

COMMITTEE CHAIRMAN FISHER: Yes.

COMMITTEE MEMBER KNOWLES: On that note, and for the minutes, do we have an appropriate person that agencies should contact to see whether a particular idea is in conformance with the California MUTCD? I think one of our experiments, that was exactly the issue, is I let them know that I couldn't see a conflict, but I think they wanted a more official word. And I thought, well, maybe that would just come out in the discussion before the Committee that actually this conforms. So if we could get that in the minutes who they should contact --

SECRETARY SINGH: That's my responsibility.

COMMITTEE MEMBER KNOWLES: Okay. So if an agency in this process has a concern about whether a local practice is conforming with the California MUTCD, they should contact Devinder --

SECRETARY SINGH: Yes.

COMMITTEE MEMBER KNOWLES: -- the secretary of the California Traffic Control Devices Committee for that feedback.

SECRETARY SINGH: Yes.

COMMITTEE MEMBER KNOWLES: And his contact information is on the website for the Committee.

COMMITTEE CHAIRMAN FISHER: All right. So I think we could give that feedback because we, you know, are knowledgeable on that, but if there's still a question and they don't consider that good enough, then Devinder is the ultimate source.

COMMITTEE MEMBER KNOWLES: I think in that case, having that official e-mail or whatever it might be, gives them a little bit more security in their practice that might be a little bit out of the ordinary but still conforming with the manual.

COMMITTEE CHAIRMAN FISHER: Right. Good thought on that.

Okay. I'd like to go then to Item 10-08, which

is a proposal to amend Section 2D.19 regarding business auxiliary signs. And Jacob Babico from San Bernardino County is the lead on this item.

COMMITTEE MEMBER BABICO: Mr. Chairman, the County of San Bernardino received a request from the community and the chamber of commerce of the Wrightwood area to designate a segment of State Highway 2 as a business district. The community of Wrightwood is consisting of about a little bit over 3,000 population, and there are so many commercial businesses, stores on either side of the State Route 2 that would like to establish it as a business district, especially the economy nowadays is so vital that we need to any means we want to have those businesses improved and grow.

For that reason, a couple years ago I approached Caltrans District 8 in view of that request. They were saying that if you read the policy, the policy states that any segment of that state route has to be within the city's jurisdiction, meaning urbanized. And that will leave the unincorporated area out of that requirements of the business district.

That's the reason I decided this time -- they came back again to us to request the same thing -- that we need to revise Section 2D-19, which I am requesting a very slight friendly change just to add to that to read "if a

city or congested area," then we change it to "unincorporated area" so that Caltrans district within the state can entertain this request even when these -- the segment of the state route fall within the unincorporated area.

And in support to that, I received a letter from our First District Supervisor, Board of Supervisor Mr. Brad Mitzelfelt, in supporting to the chamber's request. I'm passing a copy to all members of the Committee.

And with that, I would like respectfully to request the Committee to adopt this change.

COMMITTEE MEMBER BAHADORI: Mr. Chairman, for the purposes of discussion, I make a motion that we approve the request made by the County of San Bernardino.

COMMITTEE MEMBER KNOWLES: Second.

COMMITTEE CHAIRMAN FISHER: Okay. It's been moved and seconded.

Now let's have discussion on the item.

Jacob, can you read again what the proposed revised language is and how it is -- what would change?

COMMITTEE MEMBER BABICO: Yes, right. If you look on page 8, under Section 2D.19, which is in the lower half of the page, the option, it reads, "The business M4-3," at sign, "see Figure 2D-4, may be used to designate

an alternate route that branches from a numbered route, passes through the business portion of a city, and rejoins the numbered route beyond that area."

So I would like to add, when it says "of a city," say, "or unincorporated area," not "congested area." That is much clearer that any segment of state facilities within the unincorporated area can be included within this section.

COMMITTEE MEMBER BAHADORI: Mr. Chairman, county, city is just a political designation; it really doesn't mean a whole lot. So I don't see any problem why we shouldn't -- why the city should benefit from the sign and the county unincorporated should be deprived. It's just some political line they draw here and there.

COMMITTEE CHAIRMAN FISHER: Okay. So if the motion is approved, as I understand it, was to add the words "or unincorporated area."

COMMITTEE MEMBER BAHADORI: Correct, yes.

COMMITTEE CHAIRMAN FISHER: Is everyone understanding of that? The agenda item said "or congested area."

Okay. Any more discussion for the members here?

Okay. Do we have any public comment on this proposal?

MS. McLAUGHLIN: Roberta McLaughlin, Caltrans

Division of Traffic Operations.

Just some typo on the wording on the option, if you look at the last sentence there, it says, "rejoins the numbered route beyond that are."

COMMITTEE MEMBER BAHADORI: Which page are you on?

MS. McLAUGHLIN: On page 6. And I'm assuming that's the wording that we're looking at.

COMMITTEE MEMBER BAHADORI: Page 6.

MS. McLAUGHLIN: Page 6 of 32. Middle of the page under the option statement. We've added in red, "or unincorporated area," but the last part of the sentence wasn't modified properly, "rejoins the numbered route." It used to say "beyond the city," and now we meant to say "that area," but we got an "are" in there, a-r-e. So it's up to the Committee, but my recommendation, "beyond the city or that area."

COMMITTEE MEMBER BAHADORI: Oh, yeah, the letter "A" is missing.

COMMITTEE MEMBER BABICO: Just one question. If we say "and rejoins the numbered route beyond that city," or "that area," sometimes these business bypasses, they rejoin the numbered route still within that city boundary, within that city limit.

MS. McLAUGHLIN: Understood.

COMMITTEE MEMBER BABICO: So somebody's going to take this and say, in your case, the business district route reconnects to the primary highway within the city boundary, you don't qualify; then we're going to have somebody else bringing another item to the Committee.

So do we want to make it a little more flexible? Just say "and rejoins the numbered route," period, just leave it there.

SECRETARY SINGH: Mr. Chairman, this is the current language of California MUTCD, so we are discussing only the other part, and the black wording exists in California MUTCD.

COMMITTEE MEMBER BAHADORI: I understand.

MS. McLAUGHLIN: Except it currently says "beyond the city."

SECRETARY SINGH: They're two different sections. 2D.18 talks about beyond the city, 2D.19, that's the current language.

MS. McLAUGHLIN: Are we sure there's not a typo there?

SECRETARY SINGH: No, no. That's the current language.

MS. McLAUGHLIN: Okay. So but you have the opportunity -- the Committee has the opportunity to revise that language.

SECRETARY SINGH: Then we need to bring it a second time.

MS. McLAUGHLIN: That's for the Committee to decide.

COMMITTEE CHAIRMAN FISHER: Would the sponsor of the motion like to consider that as a friendly amendment and that it might be editorial in nature?

COMMITTEE MEMBER BAHADORI: Mr. Chairman, I believe it's editorial. It satisfies the intent. It's just making further clarification to avoid another item on the agenda two years from now.

COMMITTEE CHAIRMAN FISHER: So who -- I'm sorry, who is the sponsor of the motion?

SECRETARY SINGH: Hamid and Jeff.

COMMITTEE CHAIRMAN FISHER: Okay. Hamid, do you want to consider that as a friendly amendment?

COMMITTEE MEMBER BAHADORI: Absolutely.

COMMITTEE CHAIRMAN FISHER: Okay. All right.

Any other comments from the public?

MR. ROUSE: Joe Rouse, Caltrans headquarters.

And I know my area is HOV, but I have a particular interest in this, and I just wanted to ask Mr. Babico, is this business route planned to follow the state route or separate from the state out, because Caltrans policy is that the business route is established

separately. It almost appears, based on the proposal, that they're looking to designate an existing state route as a business route at the same time.

COMMITTEE MEMBER BABICO: Yes.

MR. ROUSE: Okay.

COMMITTEE MEMBER BABICO: The state route encompasses or passes through the community of Wrightwood. And the Wrightwood community is just east of L.A. County. And there are so many resource areas, especially for skiing, rentals, lodging, motels, stores, real estate on both sides of the state route and inside the community.

MR. ROUSE: Okay. Because I just wish to point out the language that says "The sign may be used to direct motorists to an established U.S. or state numbered business route from a state highway."

COMMITTEE MEMBER BABICO: It is.

MR. ROUSE: So that would indicate to me that it is a separate -- separately-designated facility other than State Route 2.

COMMITTEE MEMBER BABICO: Well, it is a state route, and there are businesses on both sides of the -- but there are no signs to be established to address the motorists, especially the tourists coming from outside areas, different states that, hey, there are some businesses they can entertain and patronize there.

COMMITTEE CHAIRMAN FISHER: If I understand the intent of the motion, the current language just says you could use this sign as a bypass route through a city. But there are unincorporated areas that have business districts that aren't technically cities. So the only intent here was just to open it up to the unincorporated areas that have business districts as well. All the other language is already in the California MUTCD.

MR. ROUSE: Okay. Understood. I'm just trying to understand the nature of the proposal, because Caltrans has specific policies for establishing business routes.

COMMITTEE MEMBER BAHADORI: That was --

COMMITTEE MEMBER BABICO: That was -- if I may. That was the response from the -- from District 8, they said if we can revise this section to read "city or unincorporated area --"

MR. ROUSE: Then they would adopt your business --

COMMITTEE MEMBER BABICO: -- "they will adopt the request."

MR. ROUSE: Okay. Understood. All right. Thank you.

MR. BHULLAR: Johnny Bhullar with Caltrans, editor of California MUTCD.

And just a minor comment. Our rebuttal was right

actually. If you look at the very last word on that sentence, it's not "are," but it's "area." So I do want to make that clear.

COMMITTEE CHAIRMAN FISHER: Right. That's part of our motion.

Okay. Any other comments from the public?

Hearing none, I bring it back to the Committee.

Is there any additional discussion?

COMMITTEE MEMBER HENLEY: I'm not sure -- you know, I've been to Wrightwood a number of times, and Route 2 is their main street, essentially their only street. I mean, there are cabins and homes off the Route 2. So this is not going to really be an alternate route. I think -- it sounds to me like you just want to designate Route 2 through Wrightwood as a business district; is that right?

COMMITTEE MEMBER BABICO: But many people, especially from -- tourists from other states, they don't realize that. And there are so many businesses inside, off the state route they cannot see them. They don't recognize them.

COMMITTEE MEMBER HENLEY: So is Wrightwood going to run a -- consider it, you know, basically another parallel road to Route 2 through --

COMMITTEE MEMBER BABICO: Well, there are roads.

COMMITTEE MEMBER HENLEY: Oh, there are.

COMMITTEE MEMBER BABICO: Oh, yeah. It's a community.

COMMITTEE MEMBER HENLEY: So they're going to designate one of them as a business route.

COMMITTEE MEMBER BABICO: Right.

COMMITTEE MEMBER HENLEY: Okay.

MR. WONG: Gordon Wong, Caltrans.

My question on this issue is who will have the authority to designate such routes, things were opening to unincorporated area, who will be paying for all the signage and maintaining then? Who has the rights to send in application? Is this Committee going to approve all the application that comes in for unincorporated area that are to be designated as a business route to a state route?

COMMITTEE MEMBER BAHADORI: Mr. Chairman, can I insert something here?

COMMITTEE CHAIRMAN FISHER: Yes.

COMMITTEE MEMBER BAHADORI: We are not here to debate the policy on this issue, we are not here to debate the procedure, we are not here to debate anything. The only thing is that any policy that's in place now that's applicable to the cities should equally be available to unincorporated county areas. That's all we're doing. Anything beyond that, I think, is another proposal, needs

to come back.

COMMITTEE CHAIRMAN FISHER: And I'd just like to add that certainly that would have to be in coordination with Caltrans regarding the designation of a business bypass route in that you'd have to coordinate with them to ask them to post that signing on the freeway. And there are already established procedures for that.

So the only item before us is whether to allow the use of that sign in an unincorporated area that has a business district. Just keep that in mind.

Any other comments from the Committee?

Do we have any motion to approve this item as proposed in the motion?

SECRETARY SINGH: There was a motion made by Hamid, seconded by Jeff.

COMMITTEE CHAIRMAN FISHER: Okay. I'd like to then take a vote on this.

All those in favor, say "aye."

(Ayes.)

COMMITTEE CHAIRMAN FISHER: Any opposed?

Any abstentions?

COMMITTEE MEMBER KNOWLES: I have, you know, a question about what we just voted on.

There was one proposed amendment, which was to put a period after "route" and delete "beyond that

area."

SECRETARY SINGH: Yes, yes.

COMMITTEE MEMBER KNOWLES: Is that we voted on?

SECRETARY SINGH: Yes.

COMMITTEE MEMBER KNOWLES: So we didn't add the "A," we actually deleted the last --

SECRETARY SINGH: No, we added "A," area.

COMMITTEE MEMBER KNOWLES: Well, but I mean if we -- do we go beyond the route, period? I mean, did we do "numbered route," period, or did we vote on "beyond that area"?

COMMITTEE CHAIRMAN FISHER: Now, let's compare notes, because my notes -- and if I'm wrong, please advise, my notes indicate that what Roberta suggested "and rejoins the numbered route beyond the area" or -- excuse me -- "and rejoins the numbered route beyond the city or that area."

SECRETARY SINGH: "Beyond the city or that area."

COMMITTEE CHAIRMAN FISHER: Okay. Is that what -- what your notes indicate?

COMMITTEE MEMBER BAHADORI: I have no problem with leaving it as is, but there's a possibility that somebody's going to find the case two years from now and say, oh, but rejoins the route within the area, not beyond

the city limit. We'll deal with it when it comes up. I'm comfortable leaving it alone.

COMMITTEE MEMBER KNOWLES: I was just confused. I heard a friendly amendment offered, it was agreed to consider it, but then I didn't hear anybody say after considering it we, you know, put that in the motion, so I just wanted clarification. Okay. Good.

SECRETARY SINGH: We'll just leave "A" alone. We'll deal with that if it comes up.

COMMITTEE CHAIRMAN FISHER: Okay. Was that a unanimous vote on that item? Okay. All right. Great, thank you. Okay. One item checked off.

I indicated that we're going to take Item 10-09 after we've addressed the other. So our next item is Item 7-7, experimentation by implementation of two new school site loading signs. That was an experiment requested by the City of San Francisco.

Merry, do you want to apprise us of that experiment?

COMMITTEE MEMBER BANKS: Yes, thank you.

Dropping children off in school zones is one of the biggest areas of consternation we hear about at AAA. It's -- we have 500 cars all going to the same place at the same time. You can imagine what that's like when it's just, you know, one little circular driveway. And I'm

sure all of you have -- know, because you've probably seen it in your neighborhood or experienced it with your own schools.

The City of San Francisco was quite concerned about it, because there were a lot of accidents and near crashes and near misses there. A PTA advocate designed some -- two new signs that we want -- they wanted to experiment with. So they were put into 15 zones. And sadly, little change in the driver behavior was observed. In one of the areas there was a very small sample, so we're not quite sure about that one, there was only two or three vehicles. But overall, this was not the solution to the problem of the loading and unloading of your children.

So we have concluded that -- they have concluded the experiment and need to know if there's anything else to do.

SECRETARY SINGH: The reason, Mr. Chairman, I put on the agenda is because this was experiment, and we need to put closure on the item. So city said the signs were not beneficial, so we need to put closure on the item. So Committee can make recommendations, I can remove from the agenda.

COMMITTEE MEMBER BAHADORI: So we're just basically closing the experiment? It was not successful.

COMMITTEE MEMBER BANKS: It was not successful.

SECRETARY SINGH: Yes.

COMMITTEE CHAIRMAN FISHER: Merry, I had a question. We're getting this information it didn't work. Did they actually do a study to quantify or to show how it was not successful?

COMMITTEE MEMBER BANKS: They observed beforehand, before they put them up, and then they observed like when they were put up, and the road behavior of the parent drivers did not change. The people had no disregard for -- I mean, they had complete disregard for the signs no matter what was there, and it was just like I'm going to get in there, I'm going to drop my kid off wherever I want, wherever I can find a spot, and I don't care that I can't do it over here in the bus lane. People just had the attitude that, you know, I'm dropping my kid off, I get my 20 seconds in front of the school and I'm out of here. And they don't care where, sadly. And you know, mostly everyone drops their kid off now; we don't see a lot of kid walking to school anymore.

COMMITTEE CHAIRMAN FISHER: Okay. So I guess that's an informational item in effect, and do we have to take action to --

SECRETARY SINGH: Yes,to put closure on it.

COMMITTEE CHAIRMAN FISHER: -- to close the experiment?

SECRETARY SINGH: We were not following the procedure before, if we want to put closure officially, then there should be a motion from Committee, saying the roadway condition need to be restored as it was originally before the experimental devices. It is under the guidelines of experimentation.

COMMITTEE CHAIRMAN FISHER: Merry, is it their intent then to put in standard signs that have been adopted in the California MUTCD?

COMMITTEE MEMBER BANKS: Yes. What they had before were standard signs that people disregarded, so they wanted to try something different looking for a magic solution. But now they'll go back to the standard signs and still, you know, try to figure out if there's any way to improve, you know, the ingress to the schools.

COMMITTEE CHAIRMAN FISHER: Do we have a motion to close the experiment?

COMMITTEE MEMBER MANSOURIAN: So moved.

COMMITTEE MEMBER BABICO: I second it.

COMMITTEE CHAIRMAN FISHER: All right. Farhad, and Jacob second.

Any more discussion? Any discussion or comments from those in the audience? Okay.

All of those in favor of closing the experiment say "aye."

(Ayes.)

COMMITTEE CHAIRMAN FISHER: Any nos, abstentions?

Okay. So moved.

Okay. We had a request for an experimentation Item 10-10 that has been that has been deferred to the next meeting.

Why don't we go through our informational items.

And, Wayne, brief us on the status of speed limit procedures.

COMMITTEE MEMBER HENLEY: We're really fortunate today to have Roberta McLaughlin here because she's been sort of our lead in the area of speed limits in the last couple years, and she is prepared to give us a summary of what she's found since we've changed our policy.

MS. McLAUGHLIN: Roberta McLaughlin, Caltrans Traffic Operations Division of Signs of Markings.

I don't have a summary, per se, other than just what information -- what little information has been sent in to our office. If you remember, the Traffic Operations Policy Directive 0904 asked agencies to send us in information based on their engineering traffic surveys that were done after the change in Section 2B.13 of the California MUTCD. Specifically the concern was with the new changes that speed limits were being raised all over the state because of the additional information that we

asked to look at 85th percentile and the way we applied our new guidelines within five miles per hour to the 85th percentile and documenting in writing the reasons why the five-mile-per-hour reduction would be applied would be part of their study.

So we were asking them to send in information on current posted speed limit, what the measured 85th percentile speed would be, what their recommended new speed limit would be, and then if they applied the five-mile-per-hour reduction, what were the reasons for applying that reduction.

To date, less than a dozen responses have been received, primarily from Marin County, I believe, actually most of the members on the Committee have gotten their agencies to participate. Marin County has sent us some, City of L.A. has sent them, and then a handful from Caltrans districts.

So we really don't have a lot of information from those studies. And what I do get quite often is phone calls from various agencies that may have sat through my courses that I conducted last year with CHP and explaining how to apply the new guidelines; and a lot of the phone calls, are, you know, is this a good reason to use the five-mile-per-hour reduction, and kind of give me a lot of details of what they were doing, they would go back,

finish their report, but I haven't seen final reports. So I'm not sure where these reports are in the process.

And what we would like to do is have you folks remind your representative agencies as well as the League of Cities and the county organizations to please try to get this information. And what we were asking for is only a 12-month period. So any engineering traffic survey that was done between July 1st, 2009, and July 1st, 2010, if they could send us a summary of those items, and this topic is online, so they can go back and review what was requested of them.

I think the concern is they thought they would have to send in their whole report and Caltrans would sit there with a fine-toothed comb and try to figure out if it was a reasonable report or not. That's not what we were looking for, we were just looking for a summary of the findings from the final reports.

So that's all I have for today. And I'll address any questions from the Committee.

COMMITTEE CHAIRMAN FISHER: Hamid.

COMMITTEE MEMBER BAHADORI: Mr. Chairman, I think this is time to move on and decide it. It's just we have God knows how many hours, hundreds of hours of discussion on this. We have had full-day workshops. We have had, I lost track, maybe six, seven meetings of Devices

Committee. We have had meetings when Caltrans director, and CHP commissioner attended and testified. This is not a new policy anymore. This policy for setting speed limits has been in place since July of 2004, just following the seven-year review cycle, almost all speed limits in California should have been subjected to this.

The State of California legislature has looked into this. There was an informational, joint informational meeting by the state assembly and the state senate, and both you and I and Monica and a few others, we were there, we testified. The state legislators, the senators and the assembly people have looked into this.

I think this is settled procedure. This is settled law. I don't see any point in just prolonging this and discussing this. And we have had enough discussion. My suggestion is that this gets off the agenda, let's move on.

There is a policy that Caltrans has adopted in July of 2004, not in 2009. In 2009 was a reaffirmation of the policy that was adopted in 2004. There was no other policy in place before 2009. The whole discussion in 2009 was just a reaffirmation of the policy that was adopted in 2004. There was no other policy in place before 2009.

The whole discussion in 2009 was just a reaffirmation of what was adopted as part of the MUTCD

last cycle. We are now into a new cycle of MUTCD, and it's just -- it kind of, for lack of a better word, it just makes me tired looking at this item all over again. I hope that the vendor some day puts a chronology on this thing together and keeps track of these things. I think the Committee has spent well over 100 hours of Committee time discussing this.

COMMITTEE CHAIRMAN FISHER: Yes, Jeff.

COMMITTEE MEMBER KNOWLES: Mr. Chairman, I was contacted by the league with regards of concerns of cities on this particular issue. I think I was just contacted last week. And I should note from the city's perspective, and, you know, we didn't have a lot of data when we went through this before, that three weeks ago I had to take 40 speed limits to city council, I think 15 were speed limit increases. And so I had my staff -- since in July of 2008 we had to raise 45 some-odd speed limits based on the previous cycle, you know, the 2003 rules. And so in preparation for the city council report, I had them go out and study four representative locations where we had increased speed limits hoping I could put in my report that where we had increased speed limits before there had been no change.

Well, because three out of the four surveys in my little test sample went up significantly, I had them stop

doing more surveys because obviously I wasn't going to be able to state in my report that increasing the speed limit hadn't had any significant impact on travel speeds on the roadways.

This remains an issue. We find that when we resurvey things based on the 2003 rules, about a quarter of our speed limits go up that we're studying. And the 2009 rules were even tighter than the 2003 rules based on the severity of the unusual conditions and the documentation required.

So what I'd like to point out is that I would be more than happy to have my staff continue to, you know, collect the data, but it takes time. So I don't want to do it if there's no point. If the general feeling within the Committee is regardless of the data, the issue's closed, then why have my staff spend a week's worth of time conducting surveys if nobody cares about the effect it's having on local roads?

If it's still open to discussion, then it's worth my time based on the results we're seeing to go ahead and collect the data. And, of course, I'm probably going to need to collect data on streets where we didn't increase speed limits, at the same time, I collect them on all the streets that we did so we can see what the general trend was in the city so that it means something. But if the

case is closed, I'm not going to have my staff spend time on it.

COMMITTEE CHAIRMAN FISHER: Well, Roberta, can you remind us again why we are sending you information?

MS. McLAUGHLIN: The purpose of receiving the information and then looking at the trend is that the perceived concern was by tightening up the rules in 2009 we would have to raise speed limits on surface streets primarily, those that are lower speed limits, that say below 50 miles per hour, and as a result, we would end up with higher speed limits pretty much across the board. But we're not seeing that on every case.

The cases where the speed limit may need to be raised were probably set artificially low the first time through or during the last cycle of their study. So by raising the speed limit, they're applying the rules more closely now. And we did not ask for them to go back and measure a new 85th after this new posted speed limit; that was not part of the information we were collecting. But essentially we wanted to get some kind of feel, how many speed limits were having to be raised when they applied the 2009 rules with their new engineering traffic surveys.

CHAIRMAN FISHER: Roberta, did you want information only on those speed limits that were being changed?

MS. McLAUGHLIN: All ENTs done between July 1st, 2009, and July 1st, 2010.

COMMITTEE CHAIRMAN FISHER: Okay. So if the speed limit is remaining the same, you want information on that?

MS. McLAUGHLIN: Yes. Yes.

COMMITTEE CHAIRMAN FISHER: Okay.

MS. McLAUGHLIN: But it was a -- it was not a hard and fast thou shall send in the information, because, you know, we were just looking for a way of gathering information.

COMMITTEE MEMBER MANSOURIAN: Mr. Chairman, Farhad. If you remember, I was the one who with Caltrans director and CHP commissioner were trying to finally bring this to a halt. This was really an attempt by the Caltrans director who was departing at that time to gather data exactly as Roberta said, that if we now were having significant statewide problem, that he would or his predecessor would reconsider, which then we don't know what that meant because I said what does that mean? That means you bring it back to the Committee, and then CHP, Caltrans, and the Committee will start the three-way arguments all over again? And he said, well, you know, we see.

I just want you to know at the last county public

works reports, I brought this up. And out of 58 counties, I think 50, 51 were present, and only 1 county had issues, and who I gave Roberta's information, that's Contra Costa County, and I urged them to send you that. I mean, issues doesn't mean problems, just like, yeah, they had to do it.

So I agree with Hamid, I think we're well done, you know, this is over, and if there is some future attempts, we can start that process all over. But the joint senate assembly looked into that because at that time there were many bills introduced. Some said forget about any of these, it's whatever city councils want, that was one extreme, all the way to let's start all over again. So I think we're done with this. Everybody's happy. And it's a don't-tell-don't-ask policy right now.

Roberta is right, people don't want to send information because they don't want to be second-guessed. That's really what it is.

COMMITTEE CHAIRMAN FISHER: Robert.

COMMITTEE MEMBER MAYNARD: And I agree with the point that was just made. When it's a voluntary compliance whether you send in your information, then you really leave it up to the individual entity to determine what information they're going to send in. Is it just the stuff that we see as a problem or are we really going to send all of them in, are we not going to send them in

because we think Caltrans is going to second-guess us.

You can't even rely on the quality of the data that's coming in to begin with. It doesn't say anything; you don't know if that's a true representation of everything that's happening out there.

So I agree with the comments that have been made. I think we should just close it and move on and not worry about trying to even gather any more data on the issue. We don't know the quality of the data we're getting to begin with.

MS. McLAUGHLIN: Sounds like to me it might be a good graduate student study that they could go out and collect this data and try to hit random locations to collect maybe -- I would not suggest you go out and send your staff and do a lot of studying at this time unless you want to prepare something for a professional meeting or if there's still concerns that we're seeing a trend in some fashion.

The one thing I have observed in the phone calls and the e-mails that I do get is now a lot of cities and counties are going to their elective officials and saying Caltrans is making us do this. And so then I get the phone calls from the political types asking to explain our policy. We do that. And they seem to be fine with the policy, it's just that the cities and counties are now

saying because Caltrans made these changes, that's why we have to apply it.

COMMITTEE MEMBER MANSOURIAN: We're using the last Caltrans director made us do it.

MS. McLAUGHLIN: I'm not to blame.

COMMITTEE CHAIRMAN FISHER: Hamid.

COMMITTEE MEMBER BAHADORI: Mr. Chairman, one thing I'm glad that Chief Maynard brought it up is that the state legislature, when they look at this in that informational legislative hearing, both Senator Lowenthal and Assemblyman Mike Hank who co-chaired that meeting, they finally said that, well, it seems we have struck a good balance, that we are avoiding the speed traps, we are not subjecting people to undue fines and all that.

At the same time, we are offering flexibility to the locals under certain conditions to use conditions not readily apparent to drivers as spelled out in (inaudible) and other documents to go to a lower speed if they need. I just -- this has been looked from like all different angles, from the professional, from the legislatures, from the attorneys, from traffic engineering communities, from ITE perspective -- institute of Transportation Engineers for the record.

And then if we want to look at the trends, and I agree that if it's going to be a Ph.D. dissertation or

maybe a master's thesis or something like that, then you have to look at everything, you've got to look at other changed conditions in those streets and even the change in the speed limit, you have to go back and see how many of these tickets that you issued were issued to people who were driving perfectly safe because the speed limit was lowered artificially to begin with and then the speed went up.

And we discuss with the legislators in the legislative hearing that you can't just use the speed itself as an indicator, you have to look, okay, so what, is this causing more accidents, are there more traffic speed-related accidents, what are the consequences, all the number of legal issues that you have to look at.

So I -- and if someone wants to do a research project, great. You know, that's maybe a good academic exercise, but I don't think it's a very productive use of this Committee to kind of pursue this in perpetuity with no end.

COMMITTEE CHAIRMAN FISHER: Okay.

COMMITTEE MEMBER BABICO: Mr. Chairman.

COMMITTEE CHAIRMAN FISHER: Yes, Jacob.

COMMITTEE MEMBER BABICO: I believe, understanding Roberta, is that she is reminding us that the TOPD 09-04 is -- one of the requirements is to collect

these new studies after the implementation of this directive. If the Committee wishes to close that, then she needs to know that so she will be -- she will not be in deviation of that TOPD.

Is that what I'm understanding from Roberta?

MS. McLAUGHLIN: The time period was specified in the TOPD. Our job now is to summarize that data. But what I'm saying today is there's very little data to look at, and it's, like we mentioned already, it's not quality data because it's not very representative of what's going on across the state.

So if you would like me to summarize what I have so far, I can do that, and we can present that at the next regular meeting of the Committee.

COMMITTEE MEMBER BABICO: Or the Committee will suggest or recommend to Caltrans to close this item.

COMMITTEE CHAIRMAN FISHER: Well, okay. I'd like to make a comment.

Keep in mind we are not debating the wisdom of the speed limit procedures, we are simply at the last leg of the process. And we know that the director became personally involved in determining what the final language should be and issued a directive. But as a condition of that, he promised others that information would be collected and reviewed to see how well it's being applied.

COMMITTEE MEMBER BAHADORI: Not in perpetuity. There was a sunset.

COMMITTEE CHAIRMAN FISHER: Right.

COMMITTEE MEMBER BAHADORI: He said one year. And over the last period thousands of the speed limits have been done in California, only they received half a dozen. If people had a problem, they would have sent it to Caltrans.

COMMITTEE CHAIRMAN FISHER: Okay. So I think, one, we need to follow through with the process as promised by the director, and now is the time to get your information in, if you intend to send it.

I know, Roberta, we're going to send you information the first week or second week in October --

MS. McLAUGHLIN: Very good.

COMMITTEE CHAIRMAN FISHER: -- which will have a few more locations. And I'd like to ask others to contact their local agencies, particularly Jeff and Farhad and Jacob and myself, just to make sure we followed up with this process so that we can conclude it. And, you know, cities like Long Beach and Pasadena, my area, maybe even Santa Ana, I would like to have that information to share with you, and then we've completed the process. And I think we have to go that step.

COMMITTEE MEMBER BABICO: Mr. Chairman, then I

think the burden is on the cities and the counties that feel strongly about this to comply with the deadline. The policy directive asked for a specific deadline, he said send your information by this time. They didn't say send your information when you have nothing else to do.

If it's -- and we don't want to leave this -- my discomfort with this is to leave it as an open-ended item on the Devices Committee agenda, because we have spent God-awful hours and resources and negotiations and all kinds of stuff, and I don't want to repeat it at all kinds of levels. And just saying to the cities and the counties that, oh, maybe in July 2011 if you have a new speed survey that you think Caltrans should see, send it to Caltrans, what's the value of that?

SECRETARY SINGH: Mr. Chairman, when Caltrans issued the policy, during that discussion there were a lot of concern from the local agencies, you know, are we going to end up increasing the speed? And the director told, we'll collect one-year data; if you guys have concern, we'll revisit.

So there's no concern. I think we should close it. That's it. One year passed like last year.

COMMITTEE CHAIRMAN FISHER: But I do think we need to respect the directive and respect what the district -- or what the director asked for in supplying

that data.

SECRETARY SINGH: And we are doing it, the time has expired.

COMMITTEE MEMBER BAHADORI: Time expired.

MS. McLAUGHLIN: May I add something?

COMMITTEE MEMBER BABICO: In one year, in that one-year period, hundreds if not thousands of speed surveys have been done throughout California.

COMMITTEE CHAIRMAN FISHER: But we haven't submitted the information to Roberta.

MS. McLAUGHLIN: Out of courtesy --

COMMITTEE MEMBER BAHADORI: If people were concerned, they would have been sending Caltrans stuff left and right; they wouldn't wait two years from now, and say, oh, by the way, now, I have two or three locations I want to share with you. And as the chief mentioned, what is the quality of that? We have to go and look at those streets specifically one at a time and see what has happened. That's all I'm saying.

MS. McLAUGHLIN: Mr. Chairman, a point of clarification. The TOPD specified the time period, however, I don't think there was a deadline specified and when those reports should be sent or that summary of information should be sent in.

So my recommendation is that we set -- if you

would like to go back to your representative agencies, November 1st deadline, and then by the January meeting we can have that summarized and considered completed.

COMMITTEE CHAIRMAN FISHER: Okay. So she's asking that we remind those who have information to share that we get it to Roberta no later than November 1st and that we will consider the item closed regarding speed limits.

MS. McLAUGHLIN: Works for me.

COMMITTEE CHAIRMAN FISHER: Okay. Any other comments on this information?

COMMITTEE MEMBER BAHADORI: If there is going to be a report coming back on the data that comes from the cities, that report, I, for one, would expect a very comprehensive report. Every single street that the cities and the counties are reporting has to be fully evaluated; not that the 85th was 35 and I posted it at 30 and then I changed it to 40, now the 85th is 36. What is that supposed to tell us? You have to have the whole gamut of things on the street. You have to have the background, when historically it was posted, number of tickets that were issued, the geometry if there's been change, if there's been ADT changes, if there are land use changes; otherwise, the statistics that's going to be presented to the Committee, you're going to look at them, you're going

to say, so what?

MS. McLAUGHLIN: My plan is not to do a statistical analysis more than a tabulation of what was sent in to perhaps address the concern that all speed limits will have to go up; and granted, we will not get a good percentage of what's been done. My thoughts are that it's not thousands of speed limits have been looked at. And I believe some agencies may have even hesitated to complete those after the July 1st, 2010, deadline so they were not compelled to send in the information, it was outside of that study period. It's just a perception I've gotten from some of the phone calls and things.

COMMITTEE MEMBER BAHADORI: Yeah, Ms. McLaughlin, I don't want to argue and debate a report that has not yet been in front of the Committee, but if you come back in January and you say that four cities or five cities in California have reported to us, and of ten percent of their locations they had to raise their speed limit, and at five percent or fifty percent of those ten percent locations, the 85th percentile went up by four miles per hour, what is the Committee supposed to conclude from that report?

COMMITTEE MEMBER MANSOURIAN: Mr. Chairman, can I jump --

COMMITTEE MEMBER BAHADORI: I'm not trying to get

to that point, but what I'm saying is are we going to continue studying more?

COMMITTEE CHAIRMAN FISHER: I don't know that a report's going to come to the Committee.

COMMITTEE MEMBER MANSOURIAN: Can I jump in?

COMMITTEE CHAIRMAN FISHER: Yes.

COMMITTEE MEMBER MANSOURIAN: I think that's the issue. I feel Hamid's passion for the data that is going to come in is very few, and it could be -- it could be coming across as, oh, my God, the sky's falling and now what do we do?

I think what Roberta's suggesting, and hearing Hamid's concern, this report should not come before the Committee; just issue that report, whether you get 12 samples or 50 samples, just issue it. And the fact that cities and counties, you want to send it to us so we can distribute it, I, on behalf of Jacob and I, we'll be happy to distribute it to the counties. It doesn't need to come before the Committee. This item is concluded. I mean, we're hearing it. Just send us the report individually, and we'll distribute it.

MS. McLAUGHLIN: We could even post it online.

COMMITTEE MEMBER MANSOURIAN: That's what I mean. And it's over. If Caltrans director -- if one of the cities or counties, if CHP at some future point think, oh,

my God, this is alarming, and let's open the whole thing, then we have always that option.

COMMITTEE CHAIRMAN FISHER: Okay. I'd like to conclude the discussion on this item since it is only an informational item, but I think we can see that speed limits are still a passionate issue.

COMMITTEE MEMBER MANSOURIAN: But the direction is this is not coming to the Committee, right? I think that's what Hamid was --

COMMITTEE CHAIRMAN FISHER: This was strictly a report that the district director -- or not district, that the director asked for --

COMMITTEE MEMBER MANSOURIAN: Correct.

COMMITTEE CHAIRMAN FISHER: -- and it sounds like it's an internal Caltrans procedure as I understand it.

Okay. So thank you for that information.

COMMITTEE MEMBER KNOWLES: And that was November 1st?

COMMITTEE CHAIRMAN FISHER: November 1st. Okay.

And then we have Item 10-7 regarding the workshops.

Wayne or Johnny?

COMMITTEE MEMBER HENLEY: Johnny, why don't you handle this.

MR. BHULLAR: Johnny Bhullar with Caltrans. I'm

the editor of California MUTCD.

First of all, I want to thank everyone for their time the last two days for the Workshop #3 that we had, and, of course, also thanks to Monica and the City of Santa Ana staff for bearing with us and listening to us, all the boring stuff for two days and helping us out with all the facilities.

So basically, as most of you might be familiar, we have been reviewing the 2009 MUTCD starting earlier this year. In December they came out with, and of course, we have taken the charge upon ourselves and, of course, also through the recommendation of the Committee, rather than taking two full years, we're going to do it in one year. So so far we are on track and happy to report that.

And what we have done is we have also started posting information online. I haven't sent an e-mail out because we just started doing that a couple of weeks ago. And we have started posting the parts that are ready already, that are ready for review. And they are open for the public, and they have been posted on our website as California MUTCD 2011 Draft. That's what we are calling it.

And they're going to remain open to the public through the end of the year, so that it's not that -- it's a 30-day comment period when everyone looks at a probably

1200-page manual and does not have the time, so as the parts are -- parts are going to get ready, starting next week we'll be posting another part. So almost on a weekly basis we will be making these parts available as soon as they're becoming ready. Right now we have about three parts already online.

So with the workshop so far we scheduled four workshops because we do take a look at our commitment and our, timing but also realize that this year, actually, we are asking a lot from the Committee. Rather than just the three meetings or four meetings of one day, in addition to that there are sets of two-day workshops where we are taking up everyone's time. So with that, we had three meeting -- three workshops. The last workshop for our 2009 adoption of the MUTCD is slated for October 18th and 19th.

SECRETARY SINGH: No, 19th and 20th.

MR. BHULLAR: Oh, 19th and 20th. Thanks, Devinder, for pulling that up.

And that one is in Sacramento. And what we did is the first workshop was in Sacramento, the last one is there, and, of course, we had the second one in Costa Mesa and this third one was here, the last two days. So we have been trying to also geographically spread it out.

So the last workshop that is remaining is only on

Part 4, traffic signals and railroad issues. So the California Public Utility Commission engineers, they have been reviewing some of the stuff internally, and through their Committees, and they will be coming in at the October workshop and bringing in what their recommendation is. And for those of you familiar with the 2009, they have combined Part 10 and 8 into just Part 8 So it's going to be a Part 4, traffic signals; and Part 8, railroad issues workshop.

So with that, basically what I want to inform the Committee is the timelines that we are looking at, how we are going to be implementing it. Basically, as I stated, since we are already posting these parts online and having them open to the public through December 31st so everyone has the time between now and the end of the year to be reviewing and providing us with their comments as indicated on our website where to go and how to go about and provide us with the written comments.

So basically after that what we are looking forward as to the process to complete this effort is going to be that in January, end of January or February, and maybe now might be a good time, but I leave it up to the Committee to decide if you want to decide on a date, but the next meeting of the Committee, I'm going to be requesting at least a two-day meeting. The reason being,

the first day will be a public hearing, but a public meeting, however, that should be devoted to all -- all that should be devoted to all the comments that we are -- we would have received by the end of the year on the draft 2009 adoption of the MUTCD. So that way we do not take up the regular meeting or try to rush through things.

So if I get -- at least as we have done two-day workshops on all four workshops on the 2009 adoption, if I get at least one day that is devoted solely to all the comments that we received, and I'll be sharing that with the Committee, and then collectively we can make a decision on some of those issues as to how we are going to be addressing them, I think that will be really the best thing.

So also by the time even though I'm posting online the 2009 and the review of that, anything automatically that gets approved or recommended by the Committee to Caltrans since January of this year until next year and all those like-recommended policies, we always do incorporate them when we issue the new manual.

So our goal is probably at the end of January or February when we get the next meeting, at that meeting, whatever the final outcome is for the 2009 adoption and the draft 2011 California MUTCD, after that, within a matter of maybe a month, month and a half of cleaning up

at the most, we will be ready, and we will be issuing a new -- brand new manual, will have incorporated the 2009. So that's the game plan and that's the information. I'm willing to hear concerns or any other plans or at least if anyone has any questions for me.

COMMITTEE CHAIRMAN FISHER: Jeff.

COMMITTEE MEMBER KNOWLES: I hope you're not surprised that a lot of cities aren't looking at all this material at this point but kind of like the request for speed limit data. It would be good to give us a firm deadline so we could go to our membership and request comments by a certain date so you have enough time to incorporate that into a staff report for the next meeting. So if you could give us a hard date, at least we can take one last chance at inviting members to comment.

MR. BHULLAR: Thanks, Jeff. Yes, actually that line is already there, which is December 31st of 2010.

COMMITTEE MEMBER KNOWLES: And that will give you enough time?

MR. BHULLAR: Yes. That will give me enough time. The only thing is that what I lacked in is that, as you know, during the summer, the last two, three months I've been busy taking some vacation and a lot of other things going on, and, as you know, the governor's not helping with the furloughs, so we're not able to do enough

sometimes during the weekdays, so I have not been able to send an e-mail notification out. So I will be forwarding that to Devinder next week, and Devinder will probably be forwarding to you folks. And I'll really appreciate if you can disseminate that information.

Basically what it's going to tell them is provide them with a link, the location, how to review it, where to go, provide the input and the comment, and, of course, it will have that December 31st, 2010, deadline.

COMMITTEE CHAIRMAN FISHER: Who should the comments be directed to?

MR. BHULLAR: The comments are going to be directed to a website that we have created, which is the California MUTCD e-mail account that we have set up.

COMMITTEE CHAIRMAN FISHER: Okay.

MR. BHULLAR: So that way it's not my personal e-mail account, but California MUTCD e-mail account where it can go, and we can collect all that information. Or you can also fax it. You can write it. So I have all that information on that website.

COMMITTEE CHAIRMAN FISHER: Thank you, Johnny.

I'd now like to conclude the other information items, then take a break, then go to Item 10-9.

And the other information items are the status of signs and other traffic control devices.

Would that be you, Devinder, to give us a summary of that?

SECRETARY SINGH: It's already mentioned in the agenda basically, so the list of some sign need to be listed in the California MUTCD. Johnny also shared with the Committee members, just reminder to the local MUTCD, you know, which sign need to be replaced by certain date.

The next item, "No Idling" sign, the Committee recommended during the last meeting we adopted that sign, so policy is posted on the website.

The "Clear The Way" sign, Committee recommended to go to the FHWA. I sent report to the FHWA, we wrote letter. In the back up summary I put the word "denied," the FHWA did not deny the request basically, they asked for more information. They ask us to collect human factor data. Caltrans and MTC has decided not to pursue. So we're not going to pursue for the symbol sign, we will live with the national MUTCD standard sign. That's on the "Clear The Way" sign.

The TA, typical application, for the bicycle accommodation is in the process to adopt. Hopefully in a week or two week we will have official policy posted on the website.

That's only information items, so local agencies and Committee be aware about the status of these items.

COMMITTEE CHAIRMAN FISHER: Okay.

COMMITTEE MEMBER KNOWLES: Mr. Chairman, I had one question on 10-2, because I -- so it's an information items. I just wanted to ask, so the T- -- because we didn't really talk about it yesterday. The TAs we recently approved that included bicycle details, will they be in the MUT- -- the CA MUTCD?

SECRETARY SINGH: Correct. It will be in the CA MUTCD. I know what we're going to do, we're going to issue a policy, and it will posted on the website. We're going to be finalizing the California MUTCD 2011; the TAs will be part of the CA MUTCD 2011.

COMMITTEE MEMBER KNOWLES: Great. Thank you.

COMMITTEE CHAIRMAN FISHER: Thank you. Johnny was mentioning the timetable for receiving comments and reviewing items and issue the 2011 California MUTCD and indicated that we'd have a two-day workshop, or rather a two-day meeting, one day to go over regular agenda items, the other day, I guess, to go for comments and such. Do we want to set that meeting date now?

SECRETARY SINGH: Yes.

COMMITTEE CHAIRMAN FISHER: It was going to be either late January or early February; is that correct?

SECRETARY SINGH: January, late January's okay?

COMMITTEE CHAIRMAN FISHER: Well, we have the

National Committee meeting I think January the 20th, something like that.

MR. BHULLAR: National Committee meeting is, I think, 17th through the 20th.

SECRETARY SINGH: We have 26th, 27th January.

MR. BHULLAR: So actually I will be happy if it's a little bit into February, because coming back from the National Committee, it will give me time to clean up some of the items.

COMMITTEE MEMBER BAHADORI: Mr. Chairman, may I ask a question of logistics?

I'm glad that Mr. Knowles brought it up. If -- the people who are reviewing this, the counties and the cities and all the other stakeholders, consultants, and advocacy groups, everybody, they're going to send you their comments by December 31st. Some of those comments could be substantial changes to what the Committee has already reviewed in the workshops and has approved. So are you suggesting that you bring those changes directly to the Committee meeting?

MR. BHULLAR: No. Basically at the Committee meeting, and what -- I'm going to be bringing all those comments that are substantial. And then through the public hearing process we are going to deal with the substantial comments in comparing them with our draft

proposal that we have already agreed to in the workshops.

COMMITTEE MEMBER BAHADORI: Yeah. That's what I'm saying. So if -- I have no idea, there could be one or two or there could be twenty or fifty that are substantial. That can be a very long agenda for that one meeting of the Devices Committee.

Do you want to make that decision after December 31st depending on how many comments you have received and how significant they are?

MR. BHULLAR: See, that's the reason why I was offering at least one full day devoted just to this, the substantial comments.

COMMITTEE MEMBER BAHADORI: You are talking about a day-and-a-half kind of Committee meeting.

MR. BHULLAR: Okay. Sure.

SECRETARY SINGH: Two-day meeting.

COMMITTEE MEMBER BAHADORI: Two-day meeting.

MR. BHULLAR: At least if we decided two-day meeting now, at that time we can figure out if the work is less or more and go from there.

COMMITTEE CHAIRMAN FISHER: And is it possible that with the two-day meeting, you know, we may be able to get through our regular agenda items in half a day, and, therefore, that would really be a day and a half to go over the comments and to consider them and such.

So we'll plan on a two-day meeting sometime in early February. Can we set the date now? I know we've got holidays in February.

SECRETARY SINGH: Okay. 2nd and 3rd or 9th and 10th? There's holidays too, I don't know. So 2nd and 3rd is Wednesday, Thursday; 9th, 10th is also Wednesday and Thursday.

MR. BHULLAR: I'm open if the other Committee members are okay with the dates.

COMMITTEE CHAIRMAN FISHER: Okay. So the options are February 2nd and 3rd, and 9th and 10th?

SECRETARY SINGH: 9th and 10th.

COMMITTEE CHAIRMAN FISHER: Okay.

COMMITTEE MEMBER BAHADORI: Way down the road. We can make it if those days work.

COMMITTEE CHAIRMAN FISHER: Yeah, I don't have any real commitments for that. But want to make it February 2 and 3?

SECRETARY SINGH: 2 and 3.

COMMITTEE CHAIRMAN FISHER: Okay. And I guess that meeting would be in northern California?

SECRETARY SINGH: Yes.

COMMITTEE CHAIRMAN FISHER: Okay. Do we have some idea where we'd want to meet?

SECRETARY SINGH: Sacramento would be

appropriate, because if Caltrans have to send lot of people for this meeting to address comments,then, Sacramento would be the appropriate place for the meeting.

COMMITTEE CHAIRMAN FISHER: Okay.

SECRETARY SINGH: Unless Marin County. Last time we adopted California MUTCD 2004 in Marin County.

MR. BHULLAR: Why not have it in Vacaville this time? It's not that far, and it's not far from the airport either.

SECRETARY SINGH: When we adopted California MUTCD 2004, we were in Marin County.

COMMITTEE MEMBER BAHADORI: Maybe it's good to set the precedent that every MUTCD is going to be adopted in Marin County.

MR. BHULLAR: No, but I think -- I mean, I'll offer Vacaville, because the last two days it was really tough for Jeff, so this time we don't want him to be driving.

COMMITTEE CHAIRMAN FISHER: As long as we don't change it at the last minute.

Jeff, would you be able to arrange for the hosting of the meeting?

COMMITTEE MEMBER KNOWLES: Well, I'm just trying to think about other than the council chambers where we can be mic-ed up for the recording.

COMMITTEE CHAIRMAN FISHER: Okay.

COMMITTEE MEMBER KNOWLES: We certainly have a very large conference room that would work. And these were brought for the recording purposes?

SECRETARY SINGH: You don't need to worry about this.

COMMITTEE MEMBER KNOWLES: We'd love to host it.

COMMITTEE CHAIRMAN FISHER: Okay. So we'll plan on having it in Vacaville. If for some reason that doesn't work out, our fallback is Sacramento then.

All right. We've gone through all of our agenda items except for Item 10-09. I'd like to take a ten-minute break and reconvene at ten minutes to 11:00, and we'll discuss that item.

(Recess taken.)

COMMITTEE CHAIRMAN FISHER: Okay. The time is 10:59. We are resuming the meeting of the California Traffic Control Devices Committee, and we're on Item 10-09. We indicated that the meeting has to adjourn by 1:00. That leaves us two hours, if we need to, to discuss the item. Hopefully we can resolve it much before then, but at least we have that luxury of time.

And Wayne Henley is sponsoring that item, so I'll turn it over to Wayne.

COMMITTEE MEMBER HENLEY: You know, there are a

few, you know, subjects that we deal with that stir more passion than, of course, speed limits. And I think -- you know, and so we've just finished the speed limit issue, and now we have another one that's -- oh, stirs almost as much passion, and that's, you know, it's called preferential lanes at this point, I think; at least that's what we're calling it in the MUTCD. And there's a couple things happening here.

Caltrans is reviewing its HOV guidelines and, of course, we're looking at the 2009 Federal MUTCD, and so those are coming together, and so we're proposing to make some minor changes or at least identify our preferences in the 2009 MUTCD.

And Roberta here has been a lead on our speed limits, and so she's volunteered to be the lead on our markings. And so she'll be talking about preferred lane markings.

COMMITTEE CHAIRMAN FISHER: You do like punishment, don't you?

COMMITTEE MEMBER BAHADORI: You do speed limits, you do HOV, what else?

MS. McLAUGHLIN: Yeah, and how the two combine, I'm not sure; but Roberta McLaughlin, Caltrans Division of Traffic Operations, Office of Signs and Markings.

So the signs part covers the speed limits. And

actually my coworker Don Howe is the signs expert and, however, my district experience in speed limit within District 2 for a number of years is why I got the speed limit position. But I'm also here today to talk about markings, so that's my primary area of expertise for the California MUTCD, and was involved with the workshop over the last two days on the markings portion, Part 3 of the Federal MUTCD.

So today our item, we're going to follow pretty much along the agenda item. So if you do have your agenda, please turn to page 10. And we were unable to bring up the figures from that. We'll start with page 10. Everybody will have that in front of them.

And this proposal is to adopt the double wide solid or double wide broken white line marking for -- the agenda says "HOV." We actually were talking preferential lanes, which is the more generic term for these types of lines and lanes that we're talking about today, and primarily in California, and to revise the California MUTCD Section 3B.23 and add a new figure, 3B-26 (California).

So today we're primarily looking at the existing California MUTCD. And we're going to be making some request for some revisions to that to accommodate some new striping for preferential lanes in California; however,

when we get into the discussion, we are adopting some of the federal recommendations that are in the 2009 manual.

Yesterday during the workshop we spent a lot of time going through those details. Today we plan on emphasizing just the request on hand, which is a revision, again, of Section 3B.23 of the California manual. And those are the figures that you'll have at the end of this agenda item.

And with that, in addition to myself speaking today, I've asked Jerry Champa here of our -- he's representing our Traffic Safety Program and he sits on the Caltrans Freeway Task Force. And I also have Joe Rouse. Joe Rouse is our managed lane program manager, and he -- both of these gentlemen were at the workshop over the last two days as well.

And we also have another special guest, Joe El Harake. Joe over here was instrumental in instituting the HOV lanes in Orange County many years ago and was involved with District 12 at the time. And he's one of our HOV experts that we've asked to be here, so if we have particular questions perhaps on the history or some of the development of the current striping, we can address those to Mr. El Harake.

Okay. So why are we here today? It's motivated by four distinct actions, and short of reading what's on

the agenda, we anticipate adopting the 2009 federal manual for the new standards, which they have a new section for preferential lanes. And in that chapter there's numerous options presented, but today we're going to concentrate on our specific proposal of two white wide solid lines separated by a minimal distance of about four to eight inches for prohibited crossing, and then we will propose a broken set of double wide white lines for where access would be permitted.

We're also in the state, we're adding express lanes, which are special-use lanes reserved for HOV and toll-paying single occupant, specifically on I-680 -- is that correct -- location? District 4, we will be installing some express lanes here in the near future. Numerous locations.

And the third item, what's motivating our request today is the evolution of the department's operational policy and practices that supports and even encourages the use of unlimited or continuous access operation for HOV lanes. More specifically, District -- Orange County has asked for continuous access on their facilities, whereas now they have a number of areas where it's restricted access. And so they -- the request is to change the system to allow for continuous access. So this is what we're trying to make a change in Orange County.

And we do have some other representatives, Mr. Lee Haber here is from District 12 that could also address some of the specific concerns with that project.

And then the fourth item of why we're being here today is the implementation of the action plan for Challenge Area 5 of the California Strategic Highway Safety Plan. And Jerry will address some of those issues today as well.

The most significant changes and benefits from this proposal include the elimination of yellow stripes from the current standard practice for limited access, HOV operation. In southern California there's an abundance of yellow barrier striping, and this was developed years ago. I was not involved in that development. However, yellow indicates traffic going in opposite directions. So the plan is to try to eliminate that yellow striping and replace it with something that's more in line with the federal manual.

Item number 2 under the significant change is again, as we mentioned, the adoption of the 2009 Federal MUTCD double broken wide white striping configuration as the new standard to delineate the lane line between unlimited and continuous access of preferential lanes and the adjacent general purpose lanes.

The new standard will replace the current

striping detail with either an eight-inch or four-inch single broken white line that's employed to indicate that a lane change is permitted. So currently we have normal striping, broken white stripe that allows for access into or out of the preferential lane.

So the primary reason is we want to get some uniformity in striping throughout the State of California, and we also want to make the striping unique and substantially more conspicuous than what we have out there now so that it improves the driver's recognition of lanes with special-use conditions or requirements. This will simplify driver decision making and thereby improve driver performance and freeway corridors, which undeniably have the most complex infrastructure operating conditions in the state if not in the nation. And this is reflected in the Strategic Highway Safety Plan Challenge Area 5 collision trends.

On many metropolitan areas, especially in California, the sheer width, condition, pavement color, location, and longitudinal paving joints collectively diminish the visibility of the existing striping, especially under challenged environmental conditions, wet weather, darkness, and headlight glare. Wider striping and the value added by contrast treatment along the length of the broken stripes, in other words, we add black paint

in some cases along the white stripe, especially on concrete pavement to increase their visibility, it will increase the driver's ability to see, recognize, and comprehend the edge lines and lane lines. And this is also some of the findings out of the studies with older drivers; wider stripes is recommended -- is one of the recommendations that come out of the older driver studies.

And for many, many years we've used wide dotted white lines for freeway auxiliary lanes, all or most which terminate within a mile, have proven to be valuable in reducing the number of unnecessary lane changes in high speed and density locations that are subject to unstable flow. In other words, it helps the drivers decide whether they're going to change lanes or not, and it's more easy to see.

So primarily the concerns, what we've heard so far by partners and stakeholders is that motorcyclists, especially those who choose to lane split, which is allowed in California, when the pavement and the marking material is wet, we've done some additional -- tried to find some studies that allude to the skid resistance of wet thermoplastic. And a lot of the recommendations is that you make it more skid resistant by adding rougher elements. Some of those are the glass beads, and there's also angular elements you can add to thermoplastic to

improve the skid resistance. So that can be addressed.

And then drivers of passenger vehicles, they may be confused by the striping detail that has not been used or even tested on California's freeways, and the wider striping detail may produce a perception of a narrow lane, which can cause severe braking or unexpected response. And also the cost to place and maintain the pavement markings.

So at this time what I'd like to do is, before I turn it over to Jerry for some additional background information, I would -- can we look at the figures so we get a -- that would be page 19, Gordon -- so we can kind of see what's in the current California manual and what we're proposing today.

And do we have that laser pointer?

COMMITTEE MEMBER BAHADORI: Roberta, just one question for purpose of clarification.

MS. McLAUGHLIN: Yes.

COMMITTEE MEMBER BAHADORI: The double wide white line that you're proposing, we have many variations of treatment of HOV separation lanes on the California freeways.

MS. McLAUGHLIN: Correct.

COMMITTEE MEMBER BAHADORI: At any location, do we have this standard in place, or this is a brand new

standard?

MS. McLAUGHLIN: The double white wide lines, I believe, is used in some locations.

No?

It's the yellow is what we're currently --

COMMITTEE MEMBER BAHADORI: No, no, yellow, I'm clear on that. So we have many, many HOV lanes, hundreds of miles of HOV lanes in California, unfortunately with different standards. But you are not picking any of the existing standards that are currently on the ground to make it uniform for the state, instead you are proposing a brand new standard?

MS. McLAUGHLIN: First of all --

COMMITTEE MEMBER BAHADORI: No, I just want to understand if I understand it clear.

MS. McLAUGHLIN: The new standard as proposed by the federal manual.

COMMITTEE MEMBER BAHADORI: That's an option, one of the federal options.

MS. McLAUGHLIN: Correct.

COMMITTEE MEMBER BAHADORI: Okay.

MS. McLAUGHLIN: And I -- did you want some clarification on --

COMMITTEE MEMBER BAHADORI: No, I just wanted to make sure I understand it clearly.

MS. McLAUGHLIN: Okay. So this is the existing 3B-26 in the California manual. And we have the double solid white line, wide white, excuse me. And let's see. Actually, this is the new proposal, isn't it?

Page 19.

So we would -- then page 19, and eliminated 3B-26 of the federal, sheet 1 of 2, and sheet 2 of 2 has been crossed out. And then the second sheet of 3B over here, this is the -- let's move to the next screen.

This is federal. Yes, we're crossing this out.

Next page.

And this is what we're proposing for full-time and part-time concurrent lanes where exit and entering movements are permitted, we would go to a double broken system. And keeping in mind that this is preferential lane marking, so there's occasions when you may need them on surface streets where you may have bus lanes, taxi lanes, and so that's what this side of the document or figure is showing is on surface streets.

And next page. Excuse me, sorry, that was the end of it.

So this is where it's permitted. And the first figure we looked at on 19 is where it's prohibited to use the double solid wide lines, wide white lines. That's a mouthful.

And we can't get those two up at the same time, but you have that in your handout, so those are the figures that we would be referring to.

Okay. So and one thing I want to just mention before we move on to Jerry also is that currently we have District 12 in Orange County that is ready to implement the new changes as soon as they get their approval, and then also we have some other locations, express lanes I mentioned in District 4 that we'd like to use the new striping as well. And then eventually there will be a system, and I believe Joe's office will be working on an implementation plan throughout the state and how this will be incorporated in other existing HOV or preferential lanes in the future.

So primarily today we're trying to get some approvals for District 12 and District 4 to move with their projects.

COMMITTEE MEMBER BAHADORI: One question, Ms. McLaughlin.

MS. McLAUGHLIN: Sure.

COMMITTEE MEMBER BAHADORI: So is Caltrans' intention to adopt these standards ahead of the full adoption of MUTCD in February or March of this year?

MS. McLAUGHLIN: That would be correct. And what we're doing is modifying or coming to the Committee to

modify the California manual in the meantime, and then as part of the adoption of the federal changes into the California manual, these will be incorporated into that document as well.

COMMITTEE CHAIRMAN FISHER: And I had a question. And it's not to get into the meat of the subject, but just to clarify what your proposal is.

On the drawing on the right, it shows -- it says double wide lines, but it's drawn as if it were a narrow line.

MS. McLAUGHLIN: That's a graphical --

COMMITTEE CHAIRMAN FISHER: Okay. So if we were to approve that, I assume that would be corrected in the drawing.

MS. McLAUGHLIN: Correct. I have a note to that effect.

COMMITTEE CHAIRMAN FISHER: Okay. And then where it's dashed --

MS. McLAUGHLIN: And let me just clarify that for the audience, too.

Mr. Fisher is referring to this. It appears that those are the normal width lines, but those would be the fatter lines like we've shown over here. And in the text it does say double solid wide white where crossing's prohibited.

COMMITTEE CHAIRMAN FISHER: Okay. And then the other question is whether it's dashed on the approach to the side street --

MS. McLAUGHLIN: Correct.

COMMITTEE CHAIRMAN FISHER: -- would that be corrected so that the spacing of those dashed lines is the same as the spacing for lane lines?

MS. McLAUGHLIN: If you read the text, and also the federal manual allows this as well, when you approach to allow the right turns into an intermediate intersection or driveway, "commercial entrance" they call it here, you can use dotted wide white. So it's very similar to what we call, the layman's term, "elephant tracking."

COMMITTEE CHAIRMAN FISHER: Okay.

MS. McLAUGHLIN: So we have an option. That's reflected here in the text. So what was currently in the manual was a single dotted system. So we widened that out to a wide dash.

COMMITTEE CHAIRMAN FISHER: So is that -- is it your intent for that to be dotted?

MS. McLAUGHLIN: You have that option. It's not a shall. You can go to the broken or you can go to the dotted. We can change the illustration if that's maybe more clear. But the idea here is that this isn't an access point into the lane, it's allowing people to turn

right into this side street.

COMMITTEE CHAIRMAN FISHER: Right. But is there any intended difference between that dashed or dotted line versus the dashed line on the left drawing?

MS. McLAUGHLIN: This one is for continuous access. So vehicles that qualify to get into the preferential lane can either go in or they can go out at any time. This one is to allow any vehicle, whether they qualify for the preferential lane use or not, can come into this area and make the right turn.

COMMITTEE CHAIRMAN FISHER: Okay. So that's to allow access to any vehicle.

MS. McLAUGHLIN: Correct.

COMMITTEE CHAIRMAN FISHER: Whereas the other one is to allow access only for HOVs.

MS. McLAUGHLIN: Correct. And in addition, and just a point of clarification, it's not showing on this illustration, I believe these double asterisks might refer to it in the note if we move down to the bottom, applicable symbol or word. So you have the diamond symbol on those lanes as well as other words that might be clarification to the driver that that's a special use lane.

COMMITTEE MEMBER BAHADORI: Mr. Chairman.

COMMITTEE CHAIRMAN FISHER: Hamid?

COMMITTEE MEMBER BAHADORI: Just regardless of where we're going to go with this, one suggestion. The commercial -- any reference to "commercial entrance," I suggest you change it to "private access." Because on some of the BRT routes, there will be residential units also that will need access.

MS. McLAUGHLIN: Okay.

COMMITTEE MEMBER BAHADORI: We don't want somebody to do that and then we have to go through like the whole kind of process to allow them to have broken access. If you just call it "side street" or "private access," it includes both commercial and residential.

MS. McLAUGHLIN: Correct. And that would be a clarification on this figure. Are you also suggesting we go in the text and make those changes as well?

COMMITTEE MEMBER BAHADORI: Yes. And that's not my comment on approving this standard, I'm just saying regardless where we go, change "commercial access" to "private access" to include residential as well.

MS. McLAUGHLIN: Okay. So noted.

COMMITTEE CHAIRMAN FISHER: So on the drawing on the right where you said it would likely be dotted because it provides unrestricted access into that lane, do you want to then show that on your drawing that it's not broken but rather dotted?

MS. McLAUGHLIN: In this area here?

COMMITTEE CHAIRMAN FISHER: Yes.

MS. McLAUGHLIN: Say again.

COMMITTEE CHAIRMAN FISHER: Well, you indicated that that line is likely to be dotted because it provides unrestricted access into the lane to go to the private entrance or side street versus the broken line on the left drawing, which is intended to allow access only for HOVs.

Do I understand that correctly?

MS. McLAUGHLIN: That's correct.

COMMITTEE CHAIRMAN FISHER: So if that's correct, you'd want to change that to say, instead of double broken wide white, to a double dotted wide white.

MS. McLAUGHLIN: We can do that, right, we can make that change.

COMMITTEE CHAIRMAN FISHER: Okay.

MS. McLAUGHLIN: And it's similar on bike lanes and things. We've done that as you approach an intersection.

COMMITTEE MEMBER BAHADORI: One other question for clarification.

When you say "wide white line," it means any -- it means anything more than four inches, anything wider than four inches, because four is normal, right?

MS. McLAUGHLIN: When I say "wide," the

definition is at least twice the normal width of a normal line; and normal line is defined as four inches.

COMMITTEE MEMBER BAHADORI: So --

MS. McLAUGHLIN: We're talking eight inches or more.

COMMITTEE MEMBER BAHADORI: Is that specifically clarified in the section somewhere?

MS. McLAUGHLIN: I believe so, but --

COMMITTEE MEMBER BAHADORI: So that somebody does not interpret that as a six-inch-wide line being a wide line.

MS. McLAUGHLIN: Correct. I'll have to look through the text.

COMMITTEE MEMBER BAHADORI: Okay. If it's not there, we need to -- regardless, again, I'm not commenting on the proposal, I'm saying regardless of where this thing is going to go, there needs to be a definition that wide line means at least twice as wide as the minimum.

MS. McLAUGHLIN: And Joe is indicating to me in my ear that it's specified as eight inches in Chapter 3 of the California MUTCD.

COMMITTEE MEMBER BAHADORI: Right. Thanks.

MS. McLAUGHLIN: Okay. With that, I'm going to ask Jerry to come up and give us just a little bit more background. I've asked him to keep it brief, but he has

some other illustrations he'd like to share with you as well. And he's been working very, shall I say, closely with District 12 in their proposal.

So thank you.

Jerry?

MR. CHAMPA: Thank you, Roberta, and thank you for the opportunity to establish the foundation for what I think is a key part of the department's, the proposal you're hearing this morning, and also do just a little bit of marketing, if you will.

Roberta mentioned that there are four kind of driving -- initiatives driving this proposal. I call it kind of a convergence, and hopefully it's a harmonic convergence of these things.

One of them is the safety initiative that's been called a couple different things, but now we do call it the Statewide Strategic Highway Safety Plan Challenge Area 5. It's the focus on our -- really, it's a focus on a subset of freeways, our urban freeway system. It includes other high-speed multi-lane highways, but primarily it is an urban freeway trend, which I'm going to get to in a minute.

I am speaking on behalf of the department's Traffic Safety Program this morning. Janis Bently is the manager but could not be here this morning. I was also

selected to speak because I am also speaking as the co-lead of the department's Freeway Safety Task Force. This group basically is responsible for the establishment of the Challenge Area 5.

This group started about eight or nine years ago, and I do want to introduce just a couple -- two or three more people who are here who are on that Committee and have been for some time.

Haissam Yahya, who was already introduced as the traffic safety engineer for District 8, San Bernardino, the inland empire; Luu Nguyen, District 7, again has a primary responsibility for safety, managing safety hot spots and collision problems on urban freeways in the L.A. basin.

The third person that couldn't be here is Jason Osmond, he's the District 12 traffic safety engineer. And Jason, ironically enough, is in a deposition today because of a lawsuit about a collision, a freeway collision, a disabling accident, a disabling injury accident, otherwise he would have been here as well. And again, I just want to say that these three people in particular are responsible for managing safety on the L.A. metropolitan area's freeway system and other state highways. Okay. They have been part of this effort for some time.

What I want to do next, I guess, I don't -- I'll

be as brief as possible and try and complement Roberta as much as possible.

Stop me if I start to repeat what you either already presented or planned to repeat.

I think the best way to establish the foundation is to share a little data. And I did hand out two documents. They're summary sheets. I would like them to be distributed to those in the audience rather than show them up here. There are copies right back here if somebody wants to hand them out.

The department is always reluctant to share collision data, especially that which indicates a trend or problem; so please, probably best if you left this stuff here before you left today. It's just data though, keep that in mind. And it really is harmless.

I do want to mention that managing safety on our urban freeway system is challenging in and of itself, primarily because the public demands mobility and congestion relief, and that is what's king in an area like this. It's also the freeway reputation as being the safest type of highway also kind of gets in the way. Urban freeways are different than the basic freeway.

So the information that you have there, I just want to emphasize two things in here. The first one I think is a system-wide trend analysis over ten years.

It's a state highway system collision trends. It's just a summary, and this is a partial summary that basically indicates what's happened on a subset of the system, the urban freeway system.

COMMITTEE MEMBER BAHADORI: Which one are you talking about?

MR. CHAMPA: At the top it says "State Highway System Collision Trends."

COMMITTEE MEMBER BAHADORI: Okay. Thank you.

MR. CHAMPA: Sorry. And what it points out here is that there's only one significant part of the state highway system that has seen -- experienced the opposite of what is a state and national trend. Over the last ten years the number of fatal collisions on our urban freeway system have increased by 28 percent. I think everybody probably knows that over the last two years there's been a decrease in fatal collisions statewide and nationally on all highways. So this sticks out like a sore thumb. It's the only part of our state highway system, and it's substantially different in terms of its performance.

Now, to take the next sheet is just a little closer look at that urban freeway trend. These are selected --

COMMITTEE CHAIRMAN FISHER: I'm sorry, you said 28 percent. Where does that appear here?

MR. CHAMPA: Under "Fatal Collisions and Urban Freeways."

COMMITTEE CHAIRMAN FISHER: Oh, okay.

MR. CHAMPA: It's kind of highlighted in gray. Okay? And there's other trends that are related, but this is the one that is the most remarkable, as I say, compared with all other facility types --

COMMITTEE MEMBER BAHADORI: It's 28 percent compared to what?

MR. CHAMPA: The fatal collision numbers ten years ago.

COMMITTEE MEMBER BAHADORI: Ten years. So it's 28 percent over that.

MR. CHAMPA: Yeah. And actually, before -- this is the more recent trend analysis. It's not the absolute more recent, but the Challenge Area 5 for the Strategic Highway Safety Plan, it went back ten years from, I think, 1990- -- 2006. So this has been the trend for at least 15 years, and possibly longer.

COMMITTEE CHAIRMAN FISHER: And is that increase per million vehicles miles, or is it just based on the delta of the numbers?

MR. CHAMPA: Good question. I don't want to go too far into the technical analysis here.

COMMITTEE CHAIRMAN FISHER: Right.

MR. CHAMPA: What this represents strictly numbers.

COMMITTEE CHAIRMAN FISHER: Okay.

COMMITTEE MEMBER BAHADORI: So in terms of VMT, it could actually be a reduction?

MR. CHAMPA: No. VMT has not increased as much during that time period.

COMMITTEE MEMBER BAHADORI: How -- what's the percentage increase over a decade on VMT on urban freeways?

MR. CHAMPA: The note on the bottom does indicate that VMT has increased 17 percent during the same time period. And this is a very general and superficial way of presenting the trend. If you look deeper and you look at -- slice and dice it many different ways, which we've done, there's a lot of other ways to present this problem. But that's not why I'm here today. I would love to talk about this, but I don't think we have time to get into too much detail.

COMMITTEE MEMBER BAHADORI: Since you are -- Mr. Chairman, may I ask a question?

Since you're presenting these statistics in the context of HOV standards, HOV lane standards, do you have any idea what percentage of these increases have been caused by HOV lane violations or what percentage of

freeway accidents in general are caused by HOV lane violations?

MR. CHAMPA: I don't know that, I'm not prepared to talk about that today. There has been research --

COMMITTEE MEMBER BAHADORI: So what is the value of these statistics in context of the decision on the HOV lane standards?

MR. CHAMPA: I'll go -- if I may, I'll go one step further and talk about the next handout that gets a little closer to that issue. But again, this is not a topic that can be discussed in a very short period of time.

The relevance is, as you drill down further, and taking a look at the next sheet which lists about 25 freeway -- consider segments of freeways, almost all of these are the entire route within a county, there are a change over ten years represented on the right-hand side, an increase in fatal collisions. And what's notable here is that you have both a significant number of fatal collisions and then the increase is rather dramatic and remarkable.

Overall on these, I think there's a 37-percent increase in this ten-year period. If you look at the select 14 of the most vital freeway corridors, you get about an 82 percent increase in that ten-year period, and

you get 7 that have prominently heavy HOV lanes, you still see the 80 percent increase. So we know there's a relationship, but there is national research proposed and ongoing right now that is just beginning to scratch the surface on these connections and relationships.

What we do know and what I was planning on saying later is that there is a direct relationship between lane changing, the frequency, number of lane changes, and collision rates and frequencies; i.e., the wider the highway, the more potential lane changes. And also there's a direct relationship between the complexity of the highway and the number of lane changes and the collision rate frequency.

COMMITTEE MEMBER MAYNARD: So by converting from limited access to continuous access, aren't you increasing lane changes?

MR. CHAMPA: In this case there are other factors at play. In particular, it's the concentration -- and again, I don't know if we have the time to get into this. It's the concentration of lane changing and weaving movements created by limited access, ingress-egress areas where you are concentrating all of the conflict at one small location on the highway system, and then you're requiring what we call two-sided weaving in a more concentrated stream as they move from the left side to the

right side and from the right side to the left side.

COMMITTEE MEMBER MAYNARD: But is that anecdotal or do you have -- because that kind of data is not coded on a collision report, so how are you determining that those are the lane changes you're talking about and not a lane change over in the regular travel lanes?

MR. CHAMPA: This has been studied and documented, most recently in Texas and in California, and it was a UC Berkeley PATH research study on this.

COMMITTEE MEMBER MAYNARD: There's one more on your table. You're talking about a ten-year difference in the increase and fatalities on these corridors, and you're talking about having HOV lanes. How many of these corridors had HOV lanes added to them during that ten-year period?

MR. CHAMPA: I don't have that information.

COMMITTEE CHAIRMAN FISHER: You know, I know this isn't the main focus of what you're here to present, but I do have to ask, to what degree do you believe that the dramatic change in fatal collisions is due to the degradation of travel speeds on freeways where congestion has certainly gotten much worse in the last ten years and the collisions may be related to the sudden slowing or stopping of traffic or maybe possibly making lane changes to avoid stopping in your lane?

Do you have any information in that regard?

MR. CHAMPA: I can only share right now anecdotal information, and this is a result of about an eight-year study that's ongoing and, as I said, being formalized every year in terms of national and state research.

What we do know is that during the peak hours, the extended peak-hour periods where we have quite a bit of congestion in the urban areas, like in the L.A. basin, that the frequency and rate of severe collisions almost goes to zero. That's not to say that you still don't have them, but when you look at the time-of-day plot of -- I think we've done a ten-year collision study, and what you see is a huge dip in the peak hours where speeds are slowing. And it's really when all the highways come to a stop and drivers are forced to drive much slower and carefully because of that.

As you pointed out, we still have hot spots where part of the freeway is in congestion. This is the worst situation possible, when the right lane is backed up because of merging or an off ramp backing up onto the freeway. Some lanes are moving free flow and others are stopped, and drivers are trying to get out of that lane, and others are trying to get into that lane.

COMMITTEE CHAIRMAN FISHER: Or at the threshold of congestion where you've got fast traffic here, suddenly

it's stopped here, and they're not prepared for it.

MR. CHAMPA: Yes, that is also part of the problem. And we've seen that more in rural areas when you go from a really rural long-distance rural drive and all of a sudden you come into a metropolitan area.

COMMITTEE MEMBER BAHADORI: Mr. Chairman?

COMMITTEE CHAIRMAN FISHER: Yes, Hamid.

COMMITTEE MEMBER BAHADORI: These are very, very troubling statistics, especially in light of significant improvement in automotive safety. Now more -- much more, maybe the majority, the overwhelming majority of the fleet on the road, they have dual air bags, they have crash cushions, they have window screens, anti-lock braking system, a lot more cars have those features now compared to ten years ago. And then when you see these fatalities going up, significant concern.

And we have been part of your state highway safety initiative and would love to work with you on that one further, but I'm still trying to wrap my mind around what does these data have to do with the HOV lane separation standards, and without really knowing the detail of these statistics, to make sure that adopting a state standard that has never been tested, it is completely brand new, is not going to make this even worse. That's what I'm trying to struggle with.

MR. CHAMPA: Well, keep in mind -- and I can jump around here, but let me say again what the major objective of the entire initiative, which we call our freeway safety or our Challenge Area 5, which is focused on urban freeways and lane changing in particular. The objective is really -- and this is the engineering part of it. It's multi-disciplinary. There are enforcement, there are education components as well. But the engineering effort so far, really what's driving it is to provide drivers in those complex environments with clearer, more continuous, and valuable information to help them make better decisions, basically better decisions, fewer mistakes while driving. And I've characterized this as unnecessary lane changes. And there is this direct connection between driver error.

What we see is that it's not driver behavior in terms of always being a drunk driver or a sleepy driver or irresponsible driving at 90 miles an hour, we see collision concentrations on the highway, which means significant numbers of people are having a problem at a specific location on the highway.

So in light of this, what we've done in terms of our effort and research and also in consultations with federal agencies, with other states and other disciplines, is we do have -- we're relying upon research that has been

done for decades probably that establishes a relationship between noticeable signs, more noticeable striping patterns, wider striping and safety, the reduction of collisions.

The most recent study that I have, at least a summary of was done by the state of Missouri as part of a safety initiative and a smoother roads initiative, the state treated more than 2,000 miles of its principle highways, including urban freeways. And in that 2,000 miles, they then performed a research evaluation to see what strategies and on what types of highways they were able to notice benefits.

Overall they definitely confirmed, so far, and it's still under evaluation, but the initial evaluation showed somewhere from six- to ten-percent reduction in collisions across the board, urban freeways where they widened stripes to make them more noticeable, that had the best reduction, 56 percent, in collisions after evaluation, and was the highest in the terms of the benefit-cost ratio. So Missouri did this because they had to prove to the voters that this is a worthy investment to continue that program. Now, based on the results they're going to continue investing in this way.

So, you know, again, there's a lot of things to point to. Nationally this is a trend. Wider stripes are

used in a number of states. I don't have the numbers. Florida probably gets the credit for starting this with their Older Driver Initiative in the '90s. And again, there are clear benefits and benefit-cost ratios that justify the investment. So that's the general justification from a safety standpoint.

I don't think I answered all your questions.

COMMITTEE MEMBER BAHADORI: The information you gave is very helpful. Thank you.

MR. CHAMPA: So again, what we're trying to do is provide more continuous and conspicuous direct information what we think is valuable to the driver and at a low cost in terms of implementation. And by the way, the striping detail that the MUTCD adopted in 2009 has been used by other states, primarily on the eastern seaboard for more than 15 years, and I think it goes to say also that the FHWA or the MUTCD Committee on markings, I think, has done quite a bit of research and evaluation of these practices, and I would say the successful use of this practice in these other states is one of the reasons they adopted it.

So it is somewhat new to California. Keep in mind that we do use contrast treatment on freeways, it's the reverse of this, if you will; two black painted stripes next to a broken white stripe is common on a number of freeways.

COMMITTEE MEMBER BAHADORI: Mr. Chairman, may I ask?

Since you're involved in that state Strategic Highway Safety Plan, do you recall what percentage in general statewide of the fatality accidents on freeways are motorcycle accidents?

MR. CHAMPA: No, I don't have that with me.

Does anyone --

COMMITTEE MEMBER BAHADORI: That's okay.

MR. CHAMPA: We can provide that afterward or before the next meeting.

I'm going to defer the exercise looking at the details, unless there's a need to. So I'd like to wrap up at this point, unless there's any other questions.

The exhibits, by the way, are to basically -- I didn't mean it as an exercise, but if you look at those, it's kind of a test to see which one strikes you the -- what's most noticeable of all the striping details.

COMMITTEE MEMBER BAHADORI: One last question I have for you, for now.

When you were doing your -- as part of your Strategic Highway Safety Committee discussions, what was the thinking, what was the reason for not picking one of the current HOV lane separation standards, and we have a whole cafeteria, variety garden, variety of stuff, and

completely introduce a brand new HOV lane separation that we have never tested in California at all when we have hundreds of miles on all these other different types of standards? What did you think is a good approach to -- if the HOV lane separation standard is a cause of the accidents going up, how would that help by introducing a completely brand new standard that the drivers in California are not even exposed to?

MR. CHAMPA: There's a number of ways to answer.

One of the -- to work backwards, what we do know is that when we adopt something innovative or new, drivers recognize it immediately. The best value is usually the initial years, maybe except for the initial week of implementation, but drivers notice, they pay attention, they start thinking; and that's what we want, a more noticeable stripe.

I think the primary reason though, the initiatives that are driving this in parallel, is the fact that the 2009 MUTCD is requiring the department to eliminate the use of yellow. So we knew we had to go to something completely different over most of the system, which is the double wide parallel solid white lines; that's the most -- that's the largest change in terms of the lane miles on the system that are going to change as a result of the 2009 MUTCD in California. So again, there's

an adjustment there.

The double broken, as I said before, we've used wider single white broken skip lines using contrast treatment and that -- with success. And by the way, again, the greater the conspicuity is the goal here and, I think, setting apart preferential lanes from everything else.

Keep in mind that with the national trend and the safety need, we're going to start using -- we are already planning to use wider lane line stripes on freeways, at least those that are exhibiting a high collision history. So the regular stripes, the four inch, whether it's an edge line on the right or left side or between all lanes, we're going to start seeing six-inch white stripes there, which is already allowed per our California or Federal MUTCD, again, based on the engineering's assessment --

COMMITTEE CHAIRMAN FISHER: Based on what you said, that hasn't come to the Committee yet.

MR. CHAMPA: And I'm not sure how that will. I believe right now it's at the discretion of an engineer to use wider striping in situations that warrant that. So I don't know if there's really a need for a change.

COMMITTEE CHAIRMAN FISHER: No, I thought the details as shown in whatever it is, 3A-101 CA to 3A-108, 3A, prescribe the width of a line to be used for specific

purposes. And to my recollection, it prescribes four inches for a lane line and eight inch for a so-called barrier line. If there's going to be a change, wouldn't that have to be shown in those details and come back to the Committee?

MR. CHAMPA: It's possible. I'm not going to be able to answer that question.

Roberta, are you?

MS. McLAUGHLIN: Roberta, Caltrans Traffic Operations.

I believe in the text there is an allowance for going to wider lines, lane lines for additional emphasis. And I can spend some time looking it up, but it's in Chapter 3 currently.

COMMITTEE CHAIRMAN FISHER: Right, but wouldn't you have to show that in your details as to when you apply that?

MS. McLAUGHLIN: Right. We'd have to add a new detail to the construction plans -- the details in the manual aren't to be comprehensive.

COMMITTEE CHAIRMAN FISHER: No, the details as shown in 3A-101, figure 3A-101, figure 3A-108, they describe everything as far as striping.

MS. McLAUGHLIN: I'll have to get back to you on that.

COMMITTEE CHAIRMAN FISHER: Okay.

MS. McLAUGHLIN: I believe the text allows to go to a wider lane line for additional emphasis. If we needed a new detail, you're correct, we would have to come back to the Committee.

COMMITTEE CHAIRMAN FISHER: Okay.

MR. CHAMPA: And I do want to emphasize that the -- in the striping proposal here what we found is that in light of the trends nationally, you see this as you cross over to Nevada on I-15, you see it in Florida, you've seen it in a lot of other eastern states. The idea here is that the double broken is definitely more conspicuous. And in light of the trend towards using wider stripes and, again, our contrast treatment, our contrast treatment basically establishes a 12-inch wide lane line when you combine the four-, two- or three-inch black that bracket a white. So with that in mind, if we're treating everything with contrast treatment, pretty soon all the stripes are looking closer and closer at the same width.

Striping is one of several engineering strategies, by the way, that we're recommending and pursuing implementation of. This is not the solution, this is one of the incremental features that we need to start using on the system. So don't want to imply that

this is our silver bullet by any means.

COMMITTEE MEMBER BAHADORI: So the proposed standard is two wide white lines separated by black or separated by pavement?

MR. ROUSE: Joe Rouse, HOV program manager, been helping out with some of these details.

Yes, what we're looking at is we would separate those two, be they solid or be they broken, they would be separated by a painted black stripe.

COMMITTEE MEMBER BAHADORI: So it will be two wide white lines separated by black paint, not pavement.

MR. ROUSE: By a black paint, yes. That is a typical standard practice, particularly when we paint centerlines; you have a yellow stripe and then you have a black stripe in the middle.

COMMITTEE MEMBER BAHADORI: And typical RPM treatments on both sides?

MR. ROUSE: Yes.

COMMITTEE MEMBER BAHADORI: Okay. Because the figure doesn't show RPM --

MR. ROUSE: No, we don't have the RPMs on there yet.

COMMITTEE MEMBER BAHADORI: But I assume you have the RPMs.

MR. ROUSE: And I also want to emphasize for the

benefit of the Committee that the double broken would also be used in the case of -- when you have a limited access facility and you have an ingress-egress point, that double broken detail would also be utilized there to indicate the ingress-egress points. That was something what was not missed.

Another detail that I want to pass along to the Committee is that currently for part-time lanes, such as what we have in northern California, the lanes are typically striped like a normal traditional lane with a four-inch stripe. This proposal changes the current language in the California MUTCD to require the double broken be utilized on those facilities as well. So any -- be it a preferential lane -- because the Federal MUTCD doesn't make any distinction between part-time and full-time operations, they say any preferential lane needs to have this special type of striping. We are wanting to adopt that language as well.

COMMITTEE MEMBER MAYNARD: So down here where you're converting from limited access to continuous access, you already have that buffer area, and you're using that area to play with for your proposed double skip stripe.

What happens up in the bay area where you don't have any real estate for that? What gives up the real

estate? The lane? The shoulder? Where does the real estate come from for this 20 inches of double strip stripe lane that you're creating?

MR. CHAMPA: Essentially in the implementation plan, planning for this is continuing right now. In this case, what we're proposing to do is to use the stripe as the basic lane line separating the preferential lane from the adjacent general purpose lane. So what you'll find is a little more striping material within the lane, the actual traffic lane, the 12-foot lane.

So --

COMMITTEE MEMBER MAYNARD: No. The stripes separate the lane, they're not in the lane.

MR. CHAMPA: There's a theoretical --

COMMITTEE CHAIRMAN FISHER: In other words, the lane narrows by five inches or so.

COMMITTEE MEMBER MAYNARD: That's what I'm saying. You give up real estate in the lane or the shoulder; somebody has to give to get that extra space.

MR. CHAMPA: Yes.

COMMITTEE MEMBER MAYNARD: Right, okay.

MR. CHAMPA: You're correct. And as I referred to previously, what is a very common practice on Portland cement concrete pavement, at least in southern California, is the use of 12-inch wide stripes. We don't add width to

the road, we just add the striping material to get the benefit of having more conspicuous striping. So this is the same -- this is the same concept as what we do already --

COMMITTEE MEMBER BAHADORI: Mr. Chairman.

MR. CHAMPA: -- placing more material on the theoretical lane line.

COMMITTEE MEMBER BAHADORI: This standard is -- I don't want to introduce the terms that the feds are using because I feel very uncomfortable with them because they're very ambiguous, but for lack of another term, this is for the so-called, what the feds call contiguous, but there are some, as -- again, as the feds call, buffer separated. What happens -- I'm not even going to say buffer separated.

What happens to an area that today in Orange County, all over the place, where you have a kind of an island separation where there are two double yellows separated by sometimes even as much as six feet or eight feet, and they -- what kind of treatment -- will the same lines or the same treatment replace the existing double yellows?

MR. ROUSE: Yes, they would. In the case of what's happening here in District 12, many of the facilities have that four-foot, we'll call it an island as

you refer to. That space is going to be reduced basically -- it's basically going to be eliminated and it's going to be turned over into the shoulder. The district has a policy that they're working on where the priority is first returning back into the inside shoulder --

COMMITTEE MEMBER BAHADORI: Not necessarily, you can't turn it into a shoulder because sometimes those areas are very limited and you have to change the geometry going way way back to allow the lane to shift so that you can add it to the shoulder. Just because you have it, it doesn't mean you can add it to the shoulder, because you've got to transition the lane way back and your underpass, you have bridge abutments, you have all kinds of things.

COMMITTEE CHAIRMAN FISHER: He's saying you'd be zigging and zagging if you did that.

MR. ROUSE: Well, I agree with you. And each case is going to have to be engineered separately. But if -- we have a priority as to where we would see that excess space be returned. Highest priority is the inside shoulder; after that it would be lane widths.

COMMITTEE MEMBER BAHADORI: If you cannot do that, if you cannot do that, that island is going to be left alone as is, only you change the double yellow to

this new treatment.

MR. CHAMPA: The intent is going to be more of a corridor approach. And maybe Lee Haber can address a little bit more. He's the manager for this conversion program.

But if you think about it as a corridor, it won't be done in pieces. I think the -- right now the plan is Orange County has projects, corridor-long projects to convert, so it won't be just a little piece at a time. So you will -- you will see one shift maybe, but not several.

COMMITTEE CHAIRMAN FISHER: But I think he's asking -- I think he's asking a generic question.

If the line you're proposing is a double wide white line, eight inch, eight inch with a separation of three or eight inches, whatever it may be, what is then your treatment where you have a so-called painted island to buffer the non-HOV traffic from the HOV traffic?

COMMITTEE MEMBER BAHADORI: Thank you. John said it much better.

MR. ROUSE: That excess space that is in that island, that will be removed by the narrowing of the stripe, that excess space, our highest priority is to return that into the inside shoulder. If that cannot be done, then it will be returned into extra lane width, because in a lot of cases, you already have an 11-foot

lane, and we would like to get that lane width back up to a standard 12-foot width.

COMMITTEE CHAIRMAN FISHER: So you might even have --

MR. ROUSE: So there's a whole list of priorities.

COMMITTEE CHAIRMAN FISHER: So you might even have a 13- or 14-, 15-foot lane width, but you don't envision ever having to paint a painted island; is that correct?

MR. ROUSE: That is correct. That is correct. And again, we would not -- we would not exceed, we would probably not exceed a 12-foot lane.

MR. CHAMPA: I do have to add that this is one of the additional incremental safety benefits that we're expecting in corridors where we have basically given up the inside shoulder for the sake, sometimes, of adding lanes. This is going to incrementally improve those situations. So you have a wider shoulder, at least for the purposes of improving the drainage in the median, a little bit of reduction in glare. Just incremental benefits to having a wider shoulder.

COMMITTEE MEMBER BAHADORI: And one last question on this one, on this standard.

This is a standard for preferential lane. Case

in point, City of Los Angeles is experimenting with a BRT on the Wilshire corridor. They have, I think, a few miles, and they want to expand it. So that Wilshire BRT, or any other BRT, or any exclusive-use lane on a city or a county arterial must also comply with this new standard then, right? Because this is going to be the standard for the preferential lanes, not only HOV lanes.

MS. McLAUGHLIN: Roberta, Traffic Operations.

That's correct. BRT, can we explain what that is?

COMMITTEE MEMBER BAHADORI: The bus rapid transit.

COMMITTEE CHAIRMAN FISHER: Bus rapid transit.

MS. McLAUGHLIN: For the notes, for the notes.

COMMITTEE CHAIRMAN FISHER: Transit priority lane.

COMMITTEE MEMBER BAHADORI: Or any exclusive lane. If it's a taxi only, if it's a tour bus only, whatever the designation may be, if it's a preference exclusive lane on any arterial, any highway, this is going to be the standard for that separation.

MS. McLAUGHLIN: Right. And there would be an implementation time that -- you know, in other words, a new project going out today would not follow these standards, but over a period of time we would have that

transitioned to this new standard.

COMMITTEE MEMBER BAHADORI: That's another story we'll get to.

MS. McLAUGHLIN: Exactly.

COMMITTEE CHAIRMAN FISHER: Robert.

COMMITTEE MEMBER MAYNARD: Highway patrol has always argued for, you know, not losing lane width and not losing shoulder width; you know, we believe those are key safety considerations. But my question is, by losing the buffer separation between the speed differential lanes, the HOV lane and the regular lane, and getting rid of that buffer of separation and now returning it to the shoulder, what have you lost or changed safety-wise on that corridor?

MR. CHAMPA: Well, and again, this is based primarily on the research that was done, I mentioned before, published I think in late 2007 by either UC Berkeley Traffic Safety Center and PATH, cooperatively, which basically showed, and this is -- I'll just refer to the data. I'm trying to make this clear.

This is one of the more controversial subjects when you talk about HOV lanes, is they compared a substantial amount of the system; and what I'm talking about is they compared freeways with HOV lanes in southern California, they did a study, more than half of the

current system, and they compared that with a similar set of freeways with HOV lanes with -- in northern California that have -- one has that continuous access between the lanes, southern California has the buffer and the limited access. And the findings on the corridors that they compared -- okay, so this is the actual numbers -- they found significant lower collision rates in northern California. Now, these are just the corridors they compared.

So the general -- the general conclusion from the research was that the use of the continuous access as we practice in northern California versus the practice that we have today in southern California, is that the continuous access system is as safe or safer than having the buffer separation.

COMMITTEE MEMBER BAHADORI: Are you -- are you --

COMMITTEE MEMBER MAYNARD: You're talking, the argument between continuous access and limited access, not the buffer in between the traffic differential, the speed differential lanes, and if that is the case, if that's the argument, that continuous lanes are safer, continuous access are safer, then why aren't all lanes changed to continuous access? Why are we still having this separated and continuous?

MR. CHAMPA: It's a good question.

It's got to do with a number of factors, not just the width of the buffer or the presence of a buffer. It's primarily the location of access openings relative on the left side of the freeway relative to access openings on the right side of the freeway, and also the length of the access opening. These are all factors, which based on changing traffic conditions as traffic volumes increase, these things have to adjust as well. So we're continually -- and right now, as Joe had mentioned, Joe Rouse here is leading an effort to update and evolve our HOV technical guidelines. These are some of the subject matter of that update effort.

Basically, based on lessons learned, we're changing the design requirements for not just striping and signing, but how we locate access points.

COMMITTEE MEMBER MAYNARD: So why if the argument is that continuous access is safer than limited access, why isn't everything going to continuous access?

MR. CHAMPA: And Joe will join me.

I would say it this way: A well-designed limited access system can operate just as safe as a continuous access system. It's got to do with changes in traffic volumes and needing to adjust to meet the changes in traffic volumes and weaving volumes and other features out on the highway.

Joe.

COMMITTEE CHAIRMAN FISHER: Before we continue, I'd like to gauge where we are in the presentation, because I want to make sure you've had an opportunity to make your full presentation. But we've been peppering you with questions because maybe we think you're pretty much done with it, and it's time to have that interaction.

So how much more time do you need for your presentation?

MS. McLAUGHLIN: One more comment, and then you can address the question perhaps.

To address the concern with motorcycles, there is an SHSP specifically looking at motorcycle safety. And one of the concerns is pavement markings that they're looking at specifically. So through that effort, hopefully we'll have some information on fatality rates and things with motorcycles and the types of accidents they're experiencing.

COMMITTEE CHAIRMAN FISHER: But on your presentation, I want to make sure you've had an opportunity to get through it before we ask more questions.

MS. McLAUGHLIN: I believe -- I have completed what I've asked. Before you, you have the changes in the verbiage as well as the illustrations in the California

MUTCD, and that's all presented in your handout.

COMMITTEE CHAIRMAN FISHER: Okay. So you've made your presentation --

MS. McLAUGHLIN: Yes.

COMMITTEE CHAIRMAN FISHER: -- and I guess we're asking questions regarding --

MS. McLAUGHLIN: So let Joe -- maybe, perhaps, Joe could address Robert's question.

COMMITTEE MEMBER BAHADORI: One question.

Are you familiar with the TTI, Texas Transportation Institute study that they said -- they did a study only limited in the Dallas-Fort Worth area, and they recommended the safest way for designing the HOVs is buffer-separated minimum four-feet limited access?

MR. CHAMPA: I'm not familiar with exactly that study.

COMMITTEE MEMBER BAHADORI: They said we understand this is apple pie and motherhood and this is under perfect condition, but they said in a perfect condition, if you already have a four-foot buffer-separated limited access, don't go and convert it to a continuous access contiguous without buffer. So that study, of course, was limited only for that, so I understand that's the areas where there is no need for separation, but I would be hard pressed, just common

sense, defying the fact that if you have a buffer and limited access, it's not as safe or is even less safe than a continuous access where you've differential speeds of in excess of 35, 40 miles per hour during congested hours.

MR. CHAMPA: Yeah. And I would -- at least Joe and I will answer that. Jerry Champa.

We have consulted with and met with Texas research officials about that study. This was a few years back. One element of --

COMMITTEE MEMBER BAHADORI: About four years back.

MR. CHAMPA: -- of one study did do a before-and-after evaluation, and based on that, the Dallas area officials had actually decided they would use barrier separation, not buffer separation moving forward, because of the bad experience they had on one or two corridors when HOV was added.

COMMITTEE MEMBER BAHADORI: And continuing on the chief's question, if your studies and your analysis find that the continuous access is equally as safe, why don't we go to continuous access for all California, make it the standard?

MR. ROUSE: Let me just make one final comment on the TTI study.

The TTI study actually compared

barrier-separated --

COMMITTEE MEMBER BAHADORI: Barrier separated.

MR. ROUSE: -- facilities versus buffer facilities. There was no comparison of buffer separated to continuous access. Texas has not implemented any continuous access facilities in the Dallas area to my knowledge.

To address the question that was first presented by Chief Maynard, one of the reasons why we are continuing to retain the limited access option is primarily because of the advent of express lanes. Express lanes, because of their very nature, because they collect tolls and because there is the potential for toll evasions and toll violations, the practice has been and continues to be that they need to have some sort of limited access in order to minimize those toll evasions. Right now there's currently no real cost-effective technology that would allow for continuous access with express lanes.

We had some conversations with the Metropolitan Transportation Commission in the bay area. We talked to them about their express lane network that they're proposing, and we had asked them if they had considered the possibility of continuous access for these very reasons that Jerry has already outlined.

They told us that they were not interested in

using continuous access because their financiers had an issue with it. The term in the toll industry is "leakage." And they felt there would be too much loss of revenue by using continuous access.

COMMITTEE MEMBER MAYNARD: I think we're talking apples and oranges.

We are completely against continuous access for toll lanes as well because they are unenforceable. We're not talking about toll lanes, we're talking about the 405 Freeway going through Orange County. Why is that not continuous access?

MR. ROUSE: I can also address that.

I actually had this conversation Doug Failing, who was the district director for Caltrans District 7 for a number of years. As many of you probably know, he is now in charge of freeway operations for L.A. Metro.

And I asked him if there was any interest, at least at Metro, about converting to continuous access. And he told me no. The reason why is their feeling is they do want -- they want to discourage short-term use of the lane. They want the lanes to be used by folks who are -- the preference is travel long distances.

He told me flat out, he says, once we get you in the lane, we don't want you to get out, we want you to stay in it until you're ready to get out.

So it sounded to me, best way I can interpret that is that they want to discourage short trips in the lane.

COMMITTEE MEMBER BAHADORI: So what's the difference in Orange County? I understand Mr. Failing's concerns, and the longer commute distance use of HOV and minimizing the friction getting in and out at more and more locations, but if that's the reason, and if you have two counties, except that we have drawn some political boundary which doesn't mean to the motorist anything as far as they're concerned, Orange, San Diego, L.A., they're all the same place, if L.A. is already telling you they're never going -- never is such a long time -- that they have no plans going to a continuous access, why does Orange County want to convert almost all their HOVs to continuous access? It's the same system, same metropolitan area, same driver population, same driving culture.

MR. CHAMPA: Again, the studies continue, HOV preferential lanes are evolving study looking at the mobility and capacity differences between those two systems, that's ongoing today to see which actually performs better overall. So there's still questions out there.

COMMITTEE MEMBER BAHADORI: Okay. And I did not have this concern at all when we had the yellow striping.

This becomes a concern when we are introducing a white line striping for separation. And there are a lot of people -- and our perspective is a little bit different because we have 51 million members, and I was telling Mr. Fisher and Roberta the other day that you wouldn't believe how many letters we get every year, people coming from other states getting trapped in the Orange County toll lanes, either 91 or the toll roads, and they get charged with like hundred, $150 fees because they didn't pay $2.

So in this specific case, people coming from other areas and people who are living in the region, if you're converting everything to white, and there is a white in Orange County that allows continuous access, and there is a white in L.A. that doesn't allow continuous access, and there is a white in Riverside that doesn't allow continuous access, it's the same region, it just confuses the heck out of the motorists.

MR. CHAMPA: We have one more question. Let me just respond.

COMMITTEE CHAIRMAN FISHER: And I'll go to Merry next, but I'd like to offer that the item before us is not really to discuss where we should allow continuous or non-continuous access, but what striping pattern to use when the agency determines they want continuous or

non-continuous access. And I know that is an item of significance and one that is deserving of debate, but that -- I just remind everyone, that's not the item before us right now.

MS. McLAUGHLIN: And -- Roberta.

One more point of clarification. We are talking toll roads as well as a preferential lane. So what we're talking about today could be applied to toll roads as well as express lanes, hot lanes, and HOV lanes.

COMMITTEE CHAIRMAN FISHER: Okay. Let's go to Merry.

Thank you.

COMMITTEE MEMBER BANKS: What is your -- what is the formula for determining when you can get out of the lane when you have it non-continuous?

MR. ROUSE: Access points to and from a limited access HOV lane are generally placed near those intersections where they have the highest demand, interchanges I should say; we're talking limited-access facilities. We place them -- it's averaged out to be, what, every -- (conversation with someone beyond microphone lane) -- that's the physical layout, but I'm talking about the actual placement of them between interchanges are at roughly, what, at one every couple of miles thereabouts? So they serve two or three

interchanges at a time. But they're placed primarily closest to the most important traffic generators; that's the primary.

COMMITTEE MEMBER BANKS: And how does a visiting person know when they're going to be able to get out of that lane? If you're driving from San Francisco to Disneyland with your family and you're in a -- in the HOV lane, how do you know when am I going to get my chance to get out of here so I can exit off?

MR. ROUSE: We have standard signing that is placed at each -- in advance of each of those access points.

COMMITTEE MEMBER BANKS: How far in advance would you guess?

MR. ROUSE: Typically about half a mile.

COMMITTEE MEMBER BANKS: Half a mile, okay.

MR. ROUSE: It's all -- we have a complete standard; our HOV guidelines that include those signing standards are located online, and I'd be happy to direct that to you if you'd like to see them.

COMMITTEE MEMBER BANKS: Changing to the new system, would that -- would you keep it the same way as every couple of miles to be able to access? Would there be less opportunity to access? I guess we can -- we won't have that problem.

MR. ROUSE: Jerry referred to -- Jerry referred to the changes that we're making to the HOV guidelines.

One of those changes is that we would increase the length of those openings, but we would also -- in changing the length of those openings, we would also change -- Haissam mentioned a 500-foot number, and what that 500 foot refers to is 500 feet per lane change. So the number of lanes you have to get across to exit the freeway, between the point that you exit the HOV lane and you exit the freeway, it's 500 feet per lane change, we're actually looking to increase that standard.

COMMITTEE MEMBER BANKS: Okay.

MR. ROUSE: And by increasing that standard, we are looking at most likely extending the amount of spacing between the openings. So there would be less frequent openings. Now, some have asked for an exemption to that, and we're also working on developing that.

So it's really hard to say at this point what the exact impacts of this design change will be, but again, we have standard signing practices for those ingress and egress openings as part of the adoption of the 2009 MUTCD, that material will be in there as well, so there shouldn't be a whole lot of change as far as our signing practices for those details.

COMMITTEE MEMBER BANKS: Thank you.

COMMITTEE MEMBER BAHADORI: Mr. Chairman, I know it's a little bit out of the norm, but we're thinking of moving completely away from yellow for the lane separation.

There's a gentleman in the audience, Joe El Harake, some of you know him, he has the whole history of where this yellow started, yellow business. I don't know if it's of any interest of the Committee to know why we even started using yellow when we did on the freeway.

MS. McLAUGHLIN: It may be of a benefit, but we're eliminating the yellow because it's meant for traffic going in opposite directions. We want to get rid of the yellow entirely across the state.

COMMITTEE MEMBER BAHADORI: Yeah, but we have been using it rather successfully for the last 15 years.

MS. McLAUGHLIN: As a barrier stripe. But the yellow gives a mixed message; and it's -- yellow is not allowed by the federal manual.

I also wanted to make one other clarification.

With the experience in District 12 after -- well, first of all, the OCTA, Orange County Transportation Authority, has made the request for continuous access based on some of their experience where they have continuous access on their facilities down here.

District 12 informs me that once they place the continuous access, of course, they'll be looking at the experience. And the OCTA has offered to do some surveys among drivers to see how they're liking it. But that was where the request came from, was the commuters wanting to have continuous access.

The one advantage of going with a double white wide broken stripe is if at any time in the future you want to come back and restrict your access, it is very simple to come back and add the continuous double white wide solid lines. So that was one advantage to going to the double white broken.

COMMITTEE CHAIRMAN FISHER: Roberta, since the 3B-26 that the feds adopted shows a single broken white line for permitted access and your proposal is a double broken white line, would we still be in substantial compliance?

MS. McLAUGHLIN: I believe we are. Because the double white broken is shown -- and I hate to say the term, but was shown as a buffer facility in the federal manual, but we've discussed this with Scott Wainwright of FHWA, and he agreed that the double white wide broken is in conformance with the federal manual.

COMMITTEE CHAIRMAN FISHER: So that's not shown in what we have before us.

MS. McLAUGHLIN: It was not part of the federal manual before, so you will not see it in the existing 3B-26 federal drawing. Keeping in mind -- the 3B-26 -- there was a federal 3B-26, however, and keeping in mind there is a whole new chapter in the Federal MUTCD that goes into a lot more detail than what we have here today.

COMMITTEE CHAIRMAN FISHER: So it would be in substantial compliance.

MS. McLAUGHLIN: Yes. We have discussed this with FHWA, Scott Wainwright in their Washington D.C. office.

COMMITTEE CHAIRMAN FISHER: Okay. So you mentioned one advantage that if you wanted to make it restricted access, you could just continue your double white pattern as a solid line.

MS. McLAUGHLIN: Correct.

COMMITTEE CHAIRMAN FISHER: Are there any other advantages over the single broken line?

MS. McLAUGHLIN: Well, I think Jerry's alluded to some of those; but the additional emphasis of having the double system being consistent, indicating that that's a special lane versus just having a single white broken line which could -- even though it's wide, could be misconstrued as a normal lane line, so the double system adds that additional emphasis.

COMMITTEE CHAIRMAN FISHER: Okay. Any more questions for our Caltrans experts up here?

Yes, Robert.

COMMITTEE MEMBER MAYNARD: The double solid white lines, they're not currently allowed in the Vehicle Code, right? I mean, there's an issue of driving to the left of double solid lines.

MS. McLAUGHLIN: The double white solid lines are specified in the section for preferential lanes that the driver is not to cross over those to enter or exit preferential lanes. However, there is another section which you're referring to, talking about driving to the left of a double parallel lines.

There needs to be an edit or a change in the Vehicle Code to indicate color. It's assumed that that color is yellow for two-way traffic, and it's meant for divided highways in which you have oncoming traffic not to drive to the left, indicating a no-passing zone or that the driver is not to drive to the left of those double parallel lines, however, the color is not indicated in the Vehicle Code. And we're ready to process that amendment with the Department of Motor Vehicles.

COMMITTEE MEMBER MAYNARD: You can't process it with the DMV, it's got to go to the legislature --

MS. McLAUGHLIN: Correct, correct, understood.

COMMITTEE MEMBER MAYNARD: So how do we adopt something that's putting everybody in violation of the Vehicle Code?

COMMITTEE CHAIRMAN FISHER: Right, but doesn't that -- I mean, that says you can't drive to the left of double lines, but these are double broken lines.

MS. McLAUGHLIN: If we do solid. And currently that's what we have with the yellow system --

COMMITTEE MEMBER MAYNARD: Don't we have a white line?

MS. McLAUGHLIN: Or the edge, indicating an edge stripe, but you -- on right-hand side. But the -- again, there is some confusion with the Vehicle Code, and we do have some double solid white lines I believe in some of our facilities, I can't recall.

COMMITTEE CHAIRMAN FISHER: Come to the podium.

MR. EL HARAKE: This is Joe El Harake, former Caltrans employee.

There's a Section 21655.8 that says double parallel solid stripe. That is on the freeway only. So it's blind to the color. 21655.8. It's a double parallel solid stripe. And that was adopted after implementation of HOV. Initially in 1985 when we did the first HOV, basically a buffer on the 91 eastbound and 55 Freeway, we didn't have any language basically defining the buffer, so

we had signs saying "Do Not Cross." So this was adopted later on to say for, you know, defining the buffer.

COMMITTEE MEMBER MAYNARD: But this says to drive over to cross it, it doesn't say you can drive to the left of it, and 21460 says you may not drive to the left of solid parallel lines.

MR. EL HARAKE: Yeah, this one was adopted for the freeway. It says freeway only I believe.

COMMITTEE MEMBER MAYNARD: But it doesn't talk about where you can drive, it talks about crossing the line.

MR. EL HARAKE: Crossing the -- right.

COMMITTEE MEMBER MAYNARD: That's not the same as driving to the left of solid parallel lines.

MR. EL HARAKE: Yeah, that's correct.

COMMITTEE CHAIRMAN FISHER: So what you need to fix is 21460, not 21655.

MR. EL HARAKE: That's correct, 21460 was --

COMMITTEE MEMBER BAHADORI: But the same section you refer to, 21655.8 also says that you can only exit or enter these lanes where a single broken line is in place.

MR. EL HARAKE: Right.

COMMITTEE MEMBER BAHADORI: So if you go to a double broken line, that needs to be cleaned up also because that -- because still there is no definition of

what a double broken white line means. We don't have anything like that in our standard. And the Vehicle Code, here it says you can enter or exit these exclusive preferential lanes only where a single broken line is in place. So you need to change that also.

MS. McLAUGHLIN: Correct. Yes.

COMMITTEE MEMBER BAHADORI: But back to what Chief Maynard said is that if you're asking this Committee to make a recommendation for adoption of the standard contingent upon the legislative action, I mean, just probably these are cleanups, they're going to make it part of an omnibus bill, it's not even a bill, but still, we are approving the standard today that's in violation of the Vehicle Code. Can we even do that?

Okay. This is going to be something that somebody's going to put in a 75-page transportation omnibus bill; nobody's even going to notice that it's there. I'm trying to exaggerate the point. It's going to get approved. But still you expect us to anticipate the legislative action that the legislature's going to decide not to approve. And so if we approve this as a standard, and you guys run and you adopt this section of the national MUTCD ahead of the rest of the MUTCD and issue a policy directive and start designing your projects based on this standard that is in violation of the California

Vehicle Code, when -- who knows when that action may happen?

If you can get it in this legislative cycle -- except if you give it an urgency, probably they're not going to give urgency to this. If you can't get an urgency, it's going to become effective January 1st. If you can't get it in this legislative cycle, which may be already late, you cannot do a Vehicle Code change until January 1st, 2012.

COMMITTEE CHAIRMAN FISHER: So we got the chicken and egg here. I think you wanted to get our input before you drafted the proposed revised legislation; but after you get our input, what would be the timing of getting the legislation to make whatever we want to pick legal?

MR. ROUSE: Joe Rouse from Caltrans again. I can address the legislative issues.

We are aware of the discrepancies within the Vehicle Code. We have been aware of that. We did attempt to see if we could have gutted some existing legislation that was pending before the legislature that had stopped. And we had support to be able to do that, however, the deadline passed before we could make those changes. So it's looking as if we would need to introduce some legislation within the next session.

Now, I believe the governor was supposed to call

an extraordinary session of the legislature to deal with the budget. Whether something like this could be slipped into that, I don't know, I would need to talk with our legislative affairs representatives to find out if that's possible. But our attempts to get it into the previous session of the legislature that just ended did not work out.

COMMITTEE MEMBER BAHADORI: Yeah, because the reason -- one of things that we have been going through, the MUTCD, as Mr. Bhullar said, for six days now, three workshops, as a cardinal rule in going through the MUTCD, National MUTCD, we don't adopt sections that are in violation of the Vehicle Code. Their double broken white line is in violation of the Vehicle Code for access point to the exclusive preferential lane because the Vehicle Code clearly says that the exit -- the entrance or exit may be made only in areas designated for those purposes where a single broken line is in place.

So that's -- so that's what I'm saying, is that I understand -- I'm not arguing about the standard, I'm just saying that how do you expect to formally -- Caltrans adopt a standard before the Vehicle Code is modified? We cannot adopt a standard in violation of Vehicle Code provisions.

COMMITTEE MEMBER MANSOURIAN: Mr. Chairman.

COMMITTEE CHAIRMAN FISHER: Farhad.

COMMITTEE MEMBER MANSOURIAN: We've had this discussion before, and I don't recall when, but we were adamant and, I believe, if I recall correctly, we asked Caltrans to ask attorney general's office to come back with advice. And I think the end result was we were adamant in not approving anything or recommending anything that violated the existing state law, being CVC.

If we cross that line, then we will be barraged -- and by no means I'm saying this has no merits, this has zillion merits, no question about it -- then we will be approving a lot of stuff subject to some future Vehicle Code amendment, which we have no idea how it goes.

COMMITTEE CHAIRMAN FISHER: And I agree wholeheartedly.

COMMITTEE MEMBER MANSOURIAN: So you want to urge us in the time we have left is to get other feedback from other members, whether it's Caltrans or other people present here, because some of the items we discussed today are really not something for us to deal with.

COMMITTEE CHAIRMAN FISHER: And I think it's -- it gets to the heart of the matter, and that's why I wanted to understand more specifically, unless there's a special session of the legislature and they agree to take this up, other than that, when would be the soonest time

that this legislation could be effective? Would it be January 2012?

MS. McLAUGHLIN: That would be correct, if we were to go into the next session, which we would submit after January of 2011.

COMMITTEE MEMBER BAHADORI: If you can attach an urgency clause to your legislation, it becomes effective 30 days after the governor signs; but the legislature has to accept to take it as an urgency, which they may not. If they don't, then you've pushed to January '12.

COMMITTEE CHAIRMAN FISHER: Okay. So I think a lot of us are torn. If we were to agree with you that this is a good idea -- and I'm one of those people who agrees that your proposal is a good idea -- we can't act on that. And so all we can indicate at the most is we prefer this or we prefer that, but we can take no action to adopt it.

So short of that, in that we've got -- you want to start implementing something soon, but you don't have the legal authority to do it, why aren't we looking at some sort of interim striping that will carry us through for the next two years until such time that you can get your legislation?

For example, that could be the solid white line or the broken white line, double width. I mean, it's not

your preference, obviously, but it's legal. So why wouldn't we want to pursue some interim design until you can get where you really want to be?

MS. McLAUGHLIN: The single white line presents a problem because it's -- it's discouraging lane changes, but it is permitted. So you can cross over a single wide white line. That would not give us the same emphasis of --

COMMITTEE MEMBER BAHADORI: Let me ask Mr. Fisher's question in another context.

What is the urgency of doing the changes? These lanes are just working fine. I'm not questioning the merits of the proposal and all that stuff, but what I'm saying is that rather than trying to rush and get into a legal dilemma and legal problem, instead of doing them in 2011, why not do them in 2012 and do them rightly? The lanes are functioning fine. And I don't see anybody say, oh, we are doing this to improve safety because we have so many accidents on the HOV lanes and this has to be addressed right away.

And as Mr. El Harake said, like, for example, Orange County lanes have been in operation since the late '80s, they have been functioning fine for 22 years. Even if you want to change as part of your statewide comprehensive implementation program, you come up with an

implementation program, and if Orange County wants to go first, by all means, they have the money, they go first and they change it. But maybe it needs to be pushed back for implementation to 2012 rather than 2011.

MR. CHAMPA: Jerry Champa.

I want to address, and I'll introduce Lee Haber after me to address one part of your question, which was are the lanes operating adequately today.

It is actually a fact that we have been investigating and remediating collision hot spots on the limited access facilities down here in Orange County for about the last three or four years. The research that PATH did was initially recommended and sponsored in order to help us identify how to revise our standards. So it was to study these locations in greater detail and come up with recommended guidelines, new criteria in order to improve the system. So we do have problems on the system today with the current striping configuration.

Lee can address the question you had about the urgency.

MR. HABER: Good afternoon. My name is Lee Haber. Caltrans District 12, traffic operations.

With regards to the urgency issue or the timing, currently District 12 has a 22 Freeway facility which is about 11 miles in length, we've got HOV with continuous

access that was done under a demonstration project. We also have a portion of Route 55 between the 22 and the 91 that was converted to limited -- excuse me, to continuous access, again, as a demonstration project.

Based on what those were observed in terms of function and driver behavior, the 22 also received positive results on a public survey, came back quite high with public favoring continuous access.

The OCTA has asked us to move forward to convert to continuous access; and as such, we are partnering with them on a three-year conversion plan. So we will begin converting the facilities in Orange County to continuous access. We have approximately about 225 lane miles of HOV in Orange County that we will be moving forward to convert to continuous access. With that, we have two different patterns on the 22 and the 55. They're quite similar, just some issues on the number of pavement markers that are out there, reflectors.

However, if we're going to make a sizeable shift in the HOV or presentation lane markings, it would be better, we feel, to move forward with this earlier rather than later as this conversion effort gets underway; otherwise, we face the possibility of having a multitude of striping patterns out there on the freeway facilities in Orange County and even other parts of the state that

may adopt this and move forward.

I believe a portion of I-15 in District 8 has moved forward to continuous access as well. I do not know which striping pattern they have adopted. And then you have the I-680 aspect in the bay area.

So I hope that addresses your timing.

COMMITTEE MEMBER BAHADORI: That addresses, but what I'm saying is that it doesn't matter what OCTA wants, it doesn't matter what SANDAG wants, it doesn't matter what Caltrans wants. If the Vehicle Code says you can't do it, you cannot do it until you change the Vehicle Code.

MR. HABER: I understand that. I just wanted to let you know what we're looking at from the operations side.

COMMITTEE MEMBER BAHADORI: And some of the increases you have seen, like 200 percent increase, is in Contra Costa County that they don't even use yellow.

COMMITTEE CHAIRMAN FISHER: Okay. So --

COMMITTEE MEMBER KNOWLES: Mr. Chairman.

COMMITTEE CHAIRMAN FISHER: Okay. Jeff. And then I'd like to say something.

COMMITTEE MEMBER KNOWLES: Well, and along the lines of what you had said before, even though we might not be able to prove this, we can give you feedback of additional details we need for implementation.

For example, I was just looking at these various diagrams; I always have a concern when something says a wide stripe, I don't know whether that's six, eight, ten, you know, in terms of the right side concurrent lane, you know, where San Jose has both bike lanes and busses, preferential lanes, I'm not clear how this gets striped at an intersection where I've got dashed six-inch lines for the bike line, I've got dashed wide white that are some width, some spacing also at the intersection, I've got queue-jumping lanes, transit queue-jumping lanes up and down San Pablo corridor.

I'd really like to know how wide these lanes are, how big that gap is so that I can get a feel on the surface streets that this is going to be really clear to bicyclists who already do some very interesting things on the road. So a little bit more detail would help me, even an intersection detail, you know, like some of our bicycle details, so agencies have a clear idea of exactly how this would be laid out. There's a whole lot of dashed lines. I can see at some intersections with a combination of preferential diamond lanes like San Jose has and bike lanes on top of that and then a right-turn pocket, and transitioning across that could be quite confusing.

I should note for the Committee, as a born in southern California now resident in northern California, I

find both striping means very intuitive, and I don't have any problem with the continuous access in northern California, the yellow lines and the limited access down here.

And I think this may be based on the statistics a bit like crosswalks, a little bit counterintuitive in terms of what feels safest, but then where we're having collisions -- and keep that in mind with that, until we see the actual statistics laid out in some type of collision diagram, some things that seem safer, actually aren't, and especially where you concentrate lane movements with rapid lane changes in a very short period of time. That is the main difference I feel in southern California with the limited access that we don't have in northern California, is the need to anticipate an off ramp and then do the multiple lane changes and then get to the off ramp I need to be at. That does complicate my life down here.

COMMITTEE CHAIRMAN FISHER: I guess we're in a dilemma. We can't approve something that doesn't -- where the legal authority doesn't exist. So what is it you want from us today? Do you want kind of a straw poll of our preference, do you want us to approve something that's non-yellow but legal as an interim striping pattern, or what are you seeking from us today?

MS. McLAUGHLIN: A point of clarification that the existing Figure 3B-26 does have the double solid white line, wide -- double solid wide white lines, so those are available in the current manual; however, they would have the single wide broken stripe in the current manual.

What I would like to entertain, and I thought I had heard it earlier from Mr. Bahadori, that you could vote with the contingent that the Vehicle Code would have to be -- the change to the Vehicle Code would have to be processed. The timing is pretty much out of our control, however.

We've tried to get in on this legislative session to do that, and the time is passed, but we may be able to do an emergency. I'm not familiar with that process, but we could work with our legislative office to determine if that's something we could deal with here in the next -- between now and January.

So as far as --

COMMITTEE CHAIRMAN FISHER: So that would be contingent upon the legislature approving it sometime between now and January 1st, correct?

MS. McLAUGHLIN: That would be our attempt to do that.

COMMITTEE CHAIRMAN FISHER: Okay. And then if that shouldn't happen, then if we were to take an approval

based on that contingency, then that approval would be null and void.

MS. McLAUGHLIN: Right. And at some point we'll be adopting the federal standards.

COMMITTEE CHAIRMAN FISHER: But only after the legislation --

MS. McLAUGHLIN: Correct.

COMMITTEE CHAIRMAN FISHER: -- comes in line.

COMMITTEE MEMBER BAHADORI: You know what, let me share with the Committee something. You may even do it, you may be able to do it even with the existing Vehicle Code without changes. Hate to say this myself --

MS. McLAUGHLIN: Please do.

COMMITTEE MEMBER BAHADORI: -- but it says -- it says that "No person driving a vehicle may cross over this double lines to enter into or exit from exclusive or preferential use lanes. An entrance or exit may be made only in areas designated for these purposes or where a single broken line is in place."

So if you designate the area clearly, you may go with the first allowance and say that, yeah, I don't have a single broken line, I have a double broken line, but I'm designating it as an exit or entrance.

MS. McLAUGHLIN: Correct.

COMMITTEE MEMBER BAHADORI: I'm stretching; I'm

playing with words here.

COMMITTEE CHAIRMAN FISHER: Yeah, but what about 21460?

COMMITTEE MEMBER BAHADORI: Yeah, the 21460 says, "When a double parallel solid line are in place, no person driving a vehicle shall drive to the left thereof, except as permitted in this section." And that section goes further on for the -- or, no, it goes to another section for the exclusive lanes.

MS. McLAUGHLIN: I would like to offer information out of the driver's handbook. They have illustrations in the driver's handbook. I'm specifically looking at page 32, which you do not have available to you folks, but let me illustrate what they have. In talking about -- maybe Gordon can bring it up. Very good, Devinder.

If you look at the illustration at the top there, they talk about the series of yellow line -- lane markings. And notice it has red arrows indicating two-way traffic. However, when you read the notes, they talk about -- and this is very fundamental to driving education and as drivers we all assume this, but note number one says the solid yellow line, if -- no passing if that solid line is on your side, indicating a no-passing zone. The other side has a broken line, so they can pass on that

side.

However, in the second note, the illustration shows two double parallel yellow lines, but the note says double solid lines, with no mention of color for some reason, do not pass, but it's assumed with two-way traffic, and the regulations in the MUTCD is that two-way traffic separated by yellow striping.

And then the third one is talking about the broken being on your side allowing -- broken yellow, in fact, may pass if movement can be made safely.

And then if you read further down under line colors, two solid yellow lines means no passing, never drive to the left of these lines unless you are, in the third note, in a car pool lane that has a designated entrance on the left.

So a car pool lane, you are allowed to be on the double yellow side, or on the left side of the double yellow lines.

Whether this is in total agreement with the Vehicle Code, I think that we've seen in the vehicle -- we understand that there's a clarification. I've also -- and I -- quite frankly, I don't know how it's done administratively, but the officers out there understand we're usually talking about two-way traffic and yellow striping, according to that code. Unfortunately, the

color's been left out of that section.

The other way to handle that would be to have the exception for carpool lanes and refer to the Vehicle Code section which talks about preferential lanes.

COMMITTEE MEMBER BAHADORI: I understand all the constraints and the stress that you have with this thing, especially with all these pending projects and decisions that you need, but the more I'm thinking, I don't know how even you guys -- regardless what the Committee says here today, I don't see how you guys can adopt this as your standard without first amending the Vehicle Code. And forget what the Committee's going to say; internally, if you want to adopt it and make it a state policy, a state standard, how can you do that when you're in clear violation of the Vehicle Code 21460 without fixing that first?

COMMITTEE MEMBER BABICO: Did they come to us for the approval pending? The Vehicle Code would be --

COMMITTEE MEMBER BAHADORI: But if they cannot get the change in the Vehicle Code until January 2012, what difference does it make what we say?

COMMITTEE CHAIRMAN FISHER: Farhad.

COMMITTEE MEMBER MANSOURIAN: I kind of want us to figure out which way we want to go, because we keep switching on Caltrans. Either they have no authority, we

have no authority, then this item is done. I mean, we need to figure that part out, not just keep talking about it; or give them our recommendation contingent upon the amendment to CVC. It's one of those two.

So here is my -- I have a two-part question.

Roberta, Caltrans is all in favor of your proposal, so Caltrans is speaking with one voice, correct?

MS. McLAUGHLIN: Yes.

COMMITTEE MEMBER MANSOURIAN: I have a question for Chief Maynard.

Is CHP in support -- forget about CVC for now -- of what Caltrans is proposing?

COMMITTEE MEMBER MAYNARD: We still have some issues and concerns that I don't think have been fully addressed. We haven't talked about some of them, such as with the double wide broken line you're creating a traffic lane basically wide enough for a motorcycle to use to split traffic. And now you potentially are setting up another hazardous situation where you've got motorcyclists traveling faster than the regular traffic lane. The HOV lane is going to be going faster than that, but the motorcycle's going to be going slightly faster than them. So the motorist is going to have to be anticipating traffic coming up behind them that they're not -- they shouldn't be looking for. There are some things we

haven't talked about that we have some concerns about.

COMMITTEE MEMBER MANSOURIAN: So can I follow up?

So these are significant issues that sounds like we can't wrap up. So here is my recommendation: Because of the players involved, that's State Department of Transportation, San Diego Planning Agency, Orange County Planning Agency, these are heavy hitters, how about if we allow Caltrans and Orange County Transportation Authority and others to figure out whether they can amend CVC or not, okay; and how about if we here decide either October 19th or 20th, I know it's a workshop, but it can be noticed as a Committee meeting with one item, we know whether these items, whether legislation can be amended. If it is, then I urge you work with CHP between now and then, and if they cannot get CVC amendment, then there is no reason for us to hear it. That's my offer of trying to wrap up these two issues.

COMMITTEE CHAIRMAN FISHER: Okay. I just want to ask Chief Maynard one question.

You said it could invite motorcycles. But from what I'm hearing, the stripe is eight inches, three or four inches, eight inches, that's about 20 inches. Are you saying that you believe that would invite motorcyclists?

COMMITTEE MEMBER MAYNARD: You are creating a

wider space, yes, it could invite, yes, it will invite them, it will invite them.

COMMITTEE CHAIRMAN FISHER: Okay. I've got --

COMMITTEE MEMBER MAYNARD: It don't mean they're all going to be there.

COMMITTEE CHAIRMAN FISHER: Okay. I've got an opinion on that; but it sounds like, you know, there's an issue you need to resolve, too.

COMMITTEE MEMBER MAYNARD: And we've heard some discussion that perhaps there could be other treatments, such as reflectors or raised sections down between the stripes that would definitely discourage that, but that's not talked about here.

COMMITTEE CHAIRMAN FISHER: There wouldn't be any between, but there would be on the outside. Because there's no room in between if you've only got four inches.

So I know when we had our workshop yesterday I was discussing the procedure for approving something else I wanted to pursue, and I was told we could act on it in our February meeting and there would be time enough then for it to get into the 2011 California MUTCD.

If you're successful in getting the legislation, it's possible you could bring it to us at our February 2nd meeting, and if you've got everything in order, you've had discussions with the highway patrol, the Committee could

approve it at that time, and that would get it into the 2011 MUTCD. You'd have the legal backing, it would be in compliance with the federal standard, and -- but that would be four months from now. Is that an option you'd want to pursue?

MR. ROUSE: Joe Rouse from Caltrans HOV.

With regards to what you said, Mr. Fisher, I will point out that under the current California MUTCD we do have an option of continuing to use what is being used in District 12 right now for continuous access. I believe that would address the needs that they have as far as their schedule is concerned.

Your proposal for us to come back after attempting to address the legislative issues, I have no problems with, and I believe I can speak for my colleagues behind me in that regard. I believe too that deferring this until we get legislation into place is probably in keeping with our schedule as far as with we would be able to make these changes happen anyway.

So what I'm saying in short is that I agree with your recommendation that we go back and sit down with CHP and with others to ensure that we can get these legislative changes moving, and in the interim we have a process that we can continue to move forward with.

I will point out to the Committee, however, that

if we are to utilize -- if District 12 is allowed to utilize the detail that is currently specified in the MUTCD of the single broken white and we are able to come to terms with CHP on the use of a double broken, if we can address their concerns to their satisfaction, and we come back to the Committee with that double broken proposal and District 12 has already moved forward with projects with the single broken, that means more work that has to go back and be redone in the future.

COMMITTEE MEMBER BAHADORI: I understand that completely, but I just -- so that I know we have a lot of friends at OCTA and SANDAG and all that, and we don't want them to come back and say that the Devices Committee is holding up the conversion projects. Devices Committee is not holding up the conversion project, it is the need to amend the CVC.

Now, back to your question, it will be extremely unfortunate if they go with the standard that they have to go back and change it two years later, but by the same token, by adopting these standards, all the HOV lanes in California have to change, all of them have to change. I have no idea how many hundreds of miles there are, maybe in excess of a thousand miles, I have no idea, you guys have the statistics; but even what you have, the continuous access that you have now in northern California

is not going to be compliant. Everything must change.

So what Orange County's going to do on maybe 20, 30 miles of freeway is very unfortunate that they might have to redo it, but that's not a critical issue, because you have to change all the HOVs all over California. This is going to be less than one percent of the total.

COMMITTEE MEMBER KNOWLES: Mr. Chairman --

COMMITTEE MEMBER BAHADORI: That's bad, you know, it's bad if it happens; but one thing I just for the purpose of clarification I wanted to say, I didn't want people out there to say that, oh, the Devices Committee hold up the HOV lane separation standard. It's not the Committee, it's the need to do the CVC amendment.

COMMITTEE CHAIRMAN FISHER: Jeff.

COMMITTEE MEMBER KNOWLES: Figure 3B-26 CA Diagram D, now I don't think I heard anything that said it's against the California Vehicle Code for that option, which is the Orange County continuous design. You know, we were talking about the continuous parallel lines. This is the broken parallel lines. You know, there's nothing in the Vehicle Code that prohibits the Committee from approving that particular design which would eliminate the need for the county to do anything a second time, allow the project to go forward. So there's nothing that keeps us from taking that one kind of out of order and saying --

or critiquing that, because we do have the ability to approve that now under the California Vehicle Code --

MR. PYBURN: Is that the proposed 3B-26 or the existing 3B-26?

COMMITTEE MEMBER KNOWLES: The proposed. What's shown on page 21, the lower case D striping example.

COMMITTEE CHAIRMAN FISHER: Well, we could, but this anticipates that there would be the double wide white stripe upstream and downstream.

COMMITTEE MEMBER KNOWLES: Well, they can pick their battle. I mean, as a striping project, you'd much rather do the two parallel dashes together rather than trying to do traffic control and come back later and do -- try to get the spacing perfect on a matching side by side stripe.

COMMITTEE CHAIRMAN FISHER: Right, but couldn't you proceed with your project installing a single solid line now or broken line that anticipates the other line going in? So that when -- if you get the legislative approval, you just add the other eight-inch line four inches from the one you would have painted?

COMMITTEE MEMBER BAHADORI: All you need to do is just offset that by about four, five inches.

COMMITTEE MEMBER KNOWLES: It's not that easy to get your striping perfectly in sync, your machine to sync

up perfectly; and you've got another road closure, you're going to endanger the public a second time to go back and re-stripe. You just want to do that once.

COMMITTEE CHAIRMAN FISHER: Okay.

COMMITTEE MEMBER KNOWLES: I'm just saying there's nothing that prohibits us from going forward with that particular detail.

COMMITTEE CHAIRMAN FISHER: Okay. I'd like to close the discussion because we do have an added item that I wasn't aware of earlier that we need to give five minutes to.

So do you want to -- are you asking us to defer this item until our February meeting?

MR. ROUSE: I believe -- I believe that that would probably be the best thing to do. And in the interim, as has been pointed out, we have -- we have the option of if scheduling projects becomes an issue, then they will need to go forward with the single wide broken.

COMMITTEE MEMBER BAHADORI: I would also like you to think about the alternative that Mr. Mansourian mentioned. If you think that in the session, if the governor calls back the legislature to a session for budget, if you can get this in and do your amendment as part of the omnibus bill and get the governor to sign it, this is like -- they don't care about this, they're going

to approve it, it's just a matter of going through the process. If you think you can get it done, then you may want to agendize it, the first part of the workshop as maybe a one-hour or a two-hour meeting and then be adjourned and go to a workshop. Then we can get it done October 20th also.

MR. ROUSE: I will certainly pursue that route, I will pursue that route.

COMMITTEE CHAIRMAN FISHER: Okay. Great. We'll take this up -- yes, Devinder.

SECRETARY SINGH: Public comment.

COMMITTEE CHAIRMAN FISHER: Oh, that's right, thank you. We've got four minutes, I'm sorry about that, and I had overlooked that we need to entertain public comment.

Are there any people that would like to speak -- all those who want to speak to this issue from the public, please stand.

Just Steve? Then come up to the podium and -- we've got two people? I'm sorry, just Steve or anybody else?

SECRETARY SINGH: Just Steve.

COMMITTEE CHAIRMAN FISHER: Okay. So we've got four minutes.

Steve?

MR. PYBURN: Steve Pyburn, Federal Highway Administration, California Division. I don't believe four minutes is appropriate time for this public comment.

Our interest in this item is twofold; one, first and foremost is safety of the traveling public, and there's a disservice in this state by having everybody who wants an HOV lane to define their own standard. We need one standard that's in substantial conformance with the Federal MUTCD adopted statewide. What's proposed is one standard for one type of preferential lane, that is, buffer separated. It does not address barrier-separated HOV lanes, and it does not address contiguous HOV lanes.

Now, what are examples of those two types? Buffer separated is a toll lane where you have a physical barrier between the lane and the general purpose lane. The striping does not address that condition. Contiguous HOV lanes are similar to those in the bay area where there is just a -- and District 3 where there's just a lane line between the preferential lane and the general purpose lanes. This standard doesn't address that either.

Regarding figure -- the proposed 3B-26 with the right side access, a couple of questions come to mind that are not addressed. And one has been touched on earlier, and that is, how do you accommodate bike lanes in these locations? That detail needs to be added to this. If

you're going to put a preferential lane on an arterial, it may have a bike lane.

Now, I asked Caltrans if there's been many requests for arterial preferential lanes, and the answer was no. It may not be a big deal, but as proposed you have a conflict with the bike lane striping approved in the California MUTCD and the proposed preferential lane striping on the arterial.

We hear a lot about District 8, we also know that District 3, District 4, 12, and 11 have different ways of doing their HOV lanes. Approval needs to be brought by or supported by all of the districts. We've already found that the standard already approved in the California MUTCD in 3B-26 is not consistently applied. Why it's not consistently applied is not my concern; but you have a standard, it's not being applied, maybe it's not supported by all the districts. Again, our concern is statewide consistency for the driver.

Page 16 of the proposed -- of the item, the proposed report at the very bottom references the HOV guidelines for other configurations where striping may be needed.

Mr. Chairman, if you would like me to stop and continue public comments at a future meeting, please just indicate that.

COMMITTEE CHAIRMAN FISHER: You know, this item was deserving of a lot more discussion, and I didn't mean to overlook the public comment, and certainly we want the federal perspective on this. And I think, as you're pointing out, there are a lot of other details that need to be resolved.

Since we're short on time, I think it would be helpful maybe if the FHWA met with the Caltrans staff after the meeting to kind of go over some of these concerns, and I would ask that if and when you come back at the February meeting, you had looked at all of these concerns, you give us a full set of drawings that show what would happen if you do have a buffer area between HOV traffic and concurrent traffic. I know Caltrans may not be planning that now because freeway space is limited, but keep in mind this is a standard for the whole state, a county or a city may want to exercise some sort of buffered HOV lane, and I think we do need to have a companion standard for California that goes along with the federal standard.

I would ask that we have a complete set of drawings for that as well as details similar to what's shown in Figure 3A-101 through 3A-108 so we can see exactly not only schematically how it fits in, but what the exact detail is. And since we're going to agendize

this for the February meeting, there's time to go over that, develop those details and think through this, coordinate with the CHP and work with the legislature in the meantime. And the bicycle detail, if you can look at that as well.

So I appreciate those comments. I think some of these can be discussed off-line and worked out. And I would ask you all to work together off-line to see if we can bring this to fruition in February.

In the meantime, as I juggled things around on the agenda, we did have someone who wanted to speak on Item 10-11 regarding the summary of speed limits studies, and she came a long way and thought it might be later in the meeting, but I did want to give her a chance to speak on that issue.

If anyone has to leave because they need to get to the airport, please do so if you need to, but I'd like to give Mina a chance to speak to our issue on speed limits.

MS. LAYBA: Good afternoon, Committee members. And I know you're probably anxious to go to lunch, so I promise not to be duplicitous as Committee Member Jeff Knowles pulled me aside and let me know what happened during the item as it came up.

Again, my apologies to everyone here for bringing

us back to that item. I drove down from Ventura County and thought I'd be here in time after all the hearings not knowing that things would get shuffled.

Long story short is when I saw the agenda come up for this meeting, I noted that particular item, and I went to my engineering department and I said, did we turn in our data, because obviously under a dozen respondents provided data on speed limits. And they hadn't seen any information on it. I called Canejo Valley cities, they hadn't seen any outreach for it, and also some other colleagues that we have in San Gabriel Valley that had participated in a joint assembly and senate hearing this past November.

Long story short is I am here to volunteer services. Our public works director is on the Public Works League of California Cities Policy Committee; our mayor is on the Transportation and Public Works Committee. We'd like to see if we can help Mr. Knowles, the representative, get some Listserv information out, get an article out as well on their weekly bulletin. They have a weekly bulletin. To get information and data into Caltrans to help them with that study.

What I'm a bit disappointed about is my understanding is that this study will be really an internal, study because at the hearing on the joint

assembly and senate transportation meeting, when I had a moment to talk to Chair Lowenthal and now his wife a chair of the assembly Committee, they had thought that that information would lead to some conclusion. I didn't realize, and I think many of the cities didn't realize that when former Chief Kempton -- excuse me, former director Kempton when there was a decision of a no change to the MUTCD and that he further directed a study, we thought that study would make some sort of conclusion. We had no idea that that wasn't going to make a difference any which way.

What I'd like to recommend to Caltrans and to the Committee is a couple of things. I appreciate the extension of the collection of data, but one thing that many of the engineers from my community as well as other cities brought up was that many of their affected areas, arterials, are unfortunately not going to be surveyed for yet another year, another two years. So that the ones that they're concerned about are not going to be in the data pool that is presented to Caltrans. So please keep that in mind.

And if it's really going to be an internal study, and one thing that was brought up by Senate Chair Lowenthal, was that there is no direct researcher data. Perhaps knowing that there are many segments that are not

going to come up to expire during this collection period, they periodically collect data so that if things of this nature come back, if the speed limit issue comes back again, that Caltrans does have data, not just from one segment or one period of time, but also from preceding times. Because I think the problem we had in vetting the speed limit issue was truly that one city was bringing one set of data, another city was bringing one set of data, we didn't have any uniformity of collection.

So now that there is an idea of collecting data, perhaps we can look at this going forward and maybe periodically collecting data as we move forward.

Other than that, I just wanted to thank the Committee for always being open to us bringing the issue, being fair about the issue. And if we could also ask that Caltrans provide the published study as they conclude to the cities and the counties that were interested in this in addition to that to the Assembly Committee as well as the Senate Committee because they were interested in hearing about this information.

So thank you again. My apologies for my tardiness. And that's it. Thank you.

COMMITTEE CHAIRMAN FISHER: Thank you, Mina. Okay. With that, yes, Roberta.

MS. McLAUGHLIN: Robert, Traffic Operations.

We also had one other add-on. And this is from a previous meeting and our workshop on sign section. There was a question that had come up about the differences in fluorescent sheeting or signs that are florescent versus normal colors. It appears on several charts in Chapter 2. I've invited 3M to just do a really quick little discussion, just more for information on the Committee to explain why a particular color or sign might be fluorescent versus a normal color.

So if we could please ask for -- how much time do we need? Ten minutes?

COMMITTEE CHAIRMAN FISHER: Some people have to leave to catch air flights, but since this would be an informational item --

MS. McLAUGHLIN: Right. Right. Right. So this is a request of the Committee from that workshop.

So I'm going to turn it over to our 3M representative.

(Committee Members Mansourian, Bahadori, and Banks leave the meeting.)

MR. DORNAK: Good afternoon. My name is Eric Dornak. I'm with 3M company. Today I have Mike Williams, also with 3M.

Caltrans asked us, like Roberta said, to come in just to give a brief little information presentation on

fluorescents. And please, this is an open dialog; if you guys have questions, please shoot them at me.

The presentation that we just passed out, if you ask why do we have fluorescents, I think the first page of that Powerpoint kind of summarizes it, wherein the driving conditions of our motorists, there's a lot of clutter out there. It's signs, it's pavement markings, traffic, and, of course, the human emotions of navigating a vehicle. And so fluorescents were developed in the mid 1990s to help motorists, help drivers recognize signage where they can make a -- make a decision on which way to go for information purposes for warning and so on.

Fluorescence is not a color. There's no such thing as we want a fluorescent color. It is a -- the fluorescence is a photochemical property that only a small number of colorants do possess. And that does include red. As you can see, I did not give a sample of a fluorescent red sign, but red is a fluorescent color also that you can -- technically you can put it on a stop sign and you can have fluorescent red stop signs.

But the basics of fluorescents, if you take a look at the next chart, it's how do fluorescents work. Is the light rays from the sun, ROYGBIV, red, orange, yellow, green, blue, indigo, and violet, as these energy wavelengths are coming in from the atmosphere, the low,

the small-energy wavelengths, which are the red, orange, and yellows, are coming in; they are coming in, they are hitting a sign, and then they're basically reflecting back out to the motorists. Where the blue, the indigo, the violet, which are high-energy light, high-energy properties, are basically dissipating on the sign and it becomes heat.

Fluorescents, those colors that can have the ability to, you know, convert those shorter wavelengths into longer wavelengths, the reds, the orange, and yellows, that's basically the phenomenon of fluorescence. If you just keep looking through the charts, you can see the chart that says fluorescent color, where, especially that fluorescent yellow sign, is where the sign is absorbing all of the energy, all the light rays from the sun and then trans- -- it's basically transmitting that, the higher wavelengths, the blues, the indigos, and basically turning them into yellow. So when someone sees a yellow sign, a florescent yellow sign, the color what they're looking at is more vivid, more brighter, that they're getting more yellow back from that particular sign.

One thing to note is fluorescent signs typically do not have the same type of warranty as non-florescent signs, and basically what's happening is these high-energy

colors are baking the sign. As a matter of fact, when I was speaking with our -- the laboratory, one of the scientists who helped invent fluorescent sheeting for 3M, he was explaining that the our first go-around with fluorescents, the signs wouldn't even last a week, they would white out because of the ultraviolent. So a lot of the signs -- you know, so we had a -- 3M, we're an engineering company, they threw some resources at it, and they were able to get the sheeting to last ten years as compared to one week. So just for a standard, you know, that's the reason why fluorescents don't normally -- they tend to fade over time with a southward sign.

Florescent orange has been used in the work zone for many, many years. Fluorescent yellow-green, as now in the MUTCD, is a requirement for school zones. And then you have fluorescent yellow as well.

The last chart that I gave you in the presentation, it's just to give you an example of the brightness levels of fluorescent versus non-fluorescent. This is by no means a specification at all, this is for informational purposes only; but you can tell that the luminance levels of a fluorescent sign is two to three times -- typically, two to three times brighter than a non-fluorescent sign. Fluorescents are only for daytime use, and that does include dawn and dusk, not at

nighttime.

Any questions so far? Nothing?

It's a wonderful product. Just to give you an example of some of the other states, what the other states are doing, Arizona, Nevada -- Nevada just adopted it, but they do now have a standard for warning signs that will be fluorescent yellow. Utah does have a specification as well as Oregon, which is evaluating it currently. So some of the other states are using it.

Yes, sir.

COMMITTEE CHAIRMAN FISHER: What does the MUTCD say about florescent colors other than what we know about, fluorescent yellow-green for crossings and fluorescent red for emergencies? Are they allowed?

MS. McLAUGHLIN: I do not have Part 2 with me. I don't know if somebody else has --

SECRETARY SINGH: It's optional. It may be used instead of --

MS. McLAUGHLIN: It's an option when additional emphasis is needed.

Does it talk about fluorescent specifically there? Gordon, can you highlight it? We're looking -- can you search for fluorescent?

But this issue came up in our workshop because I believe in the national manual there was some references

and charts regarding fluorescent colors; and what I'm hearing here today, additional brightness during the day, so not necessarily additional brightness at night --

COMMITTEE CHAIRMAN FISHER: That's correct.

MS. McLAUGHLIN: -- is that correct?

So primarily we're talking about the fluorescent color in school areas -- school zones, and so that additional -- normally school would be held during the day. So that's why those representations.

But let's see. We're talking in pedestrian crossing signs, that's another, if used, it is an option.

So if you look where the fluorescent, where it is highlighted there -- I'll read it because it's small print.

"If used in the in-street pedestrian crossing signs --"

COMMITTEE CHAIRMAN FISHER: No, I know it's allowed for crossings and schools, but you said they're using it in Arizona and other states. So other than for crossings and emergency purposes, are fluorescent colors allowed on signs?

MR. DORNAK: Yes. They're used for -- for these particular states, they are using for critical warnings. You know, curves, things of that nature.

COMMITTEE CHAIRMAN FISHER: So where in the MUTCD

does it say you can do that?

MR. DORNAK: That's a good question.

MS. McLAUGHLIN: It's a federal -- in the federal manual, and I don't know if it's in here.

Sorry, I have to use the microphone.

Roberta, Traffic Operations.

In the federal manual, that was some of the new language that came up; and sorry, I can't -- we looked at it in our workshop. So I don't --

COMMITTEE MEMBER KNOWLES: Because I don't remember that discussion.

MS. McLAUGHLIN: My federal manual went with Johnny in the car, so I don't have my federal manual.

COMMITTEE MEMBER KNOWLES: Because I remember that discussion also, and they didn't address the issue, but I could have sworn in the sign section it said you couldn't -- you weren't supposed to use signs that had significant different luminosity in the daytime, you know, under different light conditions. They needed to be much more consistent, which the state of the art seems to be at this point in time.

So it's like they approved the colors and they approved fluorescents, but they put in that condition that they shouldn't be affected by light conditions, and yet they are affected by light conditions. So is 3M looking

at that issue?

MR. DORNAK: I can find that out for you. I'll definitely get back to Roberta to report back to the Committee.

COMMITTEE CHAIRMAN FISHER: Okay. I mean, because if they are allowed, I was not aware of it. So that's information.

MS. McLAUGHLIN: So unless we have any other questions, Eric, this is pretty much just an informational educational, because this fluorescent issue did come up, and we were trying to deal with it. And specifically where it was required, why would somebody choose to use or is it a requirement to use fluorescent colors.

COMMITTEE CHAIRMAN FISHER: Now, in the samples you've handed out, you show a florescent yellow-green.

SECRETARY SINGH: Right here. That's the new federal --

MS. McLAUGHLIN: So if we -- Gordon has pulled up the federal document. It's an option. The approved fluorescent version of the standard red, yellow, green, or orange color may be used as an alternative to the corresponding standard color. So it looks like it is an option.

COMMITTEE CHAIRMAN FISHER: Thank you for that. You can use them. So in that example you've got

fluorescent yellow-green, which is a decidedly different color than yellow. But on your other sign you've got the warning sign where you show presumably yellow on the left side. What color is that on the right side? Fluorescent yellow?

MR. DORNAK: This is fluorescent yellow, fluorescent yellow on the right.

COMMITTEE CHAIRMAN FISHER: I see.

MR. DORNAK: Fluorescent.

COMMITTEE CHAIRMAN FISHER: And as you've indicated, the fluorescent colors wear out sooner, but they have -- I think you said about a ten-year life.

MR. DORNAK: Correct.

COMMITTEE CHAIRMAN FISHER: That compares with what, the non-fluorescent colors?

MR. DORNAK: Non-fluorescent colors typically -- manufacturer warranties, the prismatic sheetings have a tendency -- they're warrantied for 12 years, however, that is a measurable reflected level for 12 years. The light for the sign, which will meet the new federal administration's minimum reflective guidelines and all that, some of those signs can last up to 20 years, depending on the location, the type of exposure that it's getting from the sun. So it really depends on where the sign is located at, knock on wood it doesn't get

graffitied and knocked down and things of that nature, but typically the signs are warrantied for 12 years. The higher prismatics as you go down in the different levels of signing materials, the warranties are less.

COMMITTEE CHAIRMAN FISHER: And since these signs are more effective during the day and have little additional effectiveness at night, where are these other signs -- what type of signs are these other states using that are fluorescent? Are they warning signs, are they guide signs, construction signs or what?

MR. DORNAK: Well, basically, the orange is used in work zones. And I live in Las Vegas, so I can speak with competence on what's going on in Nevada; but the specification in Nevada, they are using the fluorescent not only on the aluminum, but they are putting them on the reboundable devices as well; so drums and cones of that nature, as well as the roll-up type of signage. The fluorescent yellow-green for school zones.

Some of the agencies have been using fluorescent yellow-green just as pedestrian crossing, but with it being mandated that you need to use yellow-green in school zones, we're introducing the fluorescent yellow to be used in some other -- some other applications such, you know, as a pedestrian crossing, maybe not near a school zone.

The fluorescent yellow is also being used on

guide signs as the informational bar, as the exit only, trucks only, things of that nature, as well as, you know, for Nevada's sake, they're putting the fluorescent yellow pretty much across the board on all their warning signs out there in the Nevada desert where there's not a whole lot of anything. They definitely want drivers to -- if there is a -- you know, some type of engineering feature in the road that they need to warn the driver, the fluorescent yellow sign will stand out.

Now, at night, we're talking about fluorescents, however, when you talk about the different levels of sheetings, at night the sheeting will appear to be regular yellow. You just don't have those shorter wavelengths from the sun being converted into the fluorescent color that you see today. So basically what you're getting is the light from your headlamps, which is not bright enough, I guess, to convert that, you don't have that -- you don't have the energy as the sun to turn that -- you know, to turn it into fluorescence. The sign is going to appear regular yellow. It's just going to be a standard yellow sign in the evenings.

COMMITTEE CHAIRMAN FISHER: Is anyone using fluorescent green?

MR. DORNAK: Not that I'm aware of. We do not make a fluorescent green; we just make the fluorescent

yellow-green.

And the fluorescent red, we partnered with TTI back in the late 1990s to do a study in conjunction with TTI and the Federal Highway Administration on the benefits of fluorescence with this fluorescent red stop sign. So that was a one-time let's try it out just to see if this fluorescence, you know, does work, if you put it in red. But only certain colors have the ability to possess that fluorescent -- you know, the fluorescent color that you see.

COMMITTEE CHAIRMAN FISHER: Very interesting.

COMMITTEE MEMBER BABICO: During the nighttime, does the fluorescent have the same quality of reflectivity as a diamond grade?

MR. DORNAK: Well, yes. I mean, in a sense. What you're looking at, in this example, these two products, the yellow, the fluorescent yellow and the more whiter product here, the whiteness product is a diamond grade. So at night the signs -- you're using retroreflection, and the signs are designed to basically -- it will have the same performance as, you know, day and night, for retroreflectivity, it's just the sign is going to appear to be a regular yellow, not a fluorescent yellow. The sign will look like regular yellow.

I do have another handout in my backpack, if Mike can grab -- is just a color chart of -- you can see what regular yellow looks like compared to fluorescent yellow.

COMMITTEE MEMBER BABICO: But the curve warning sign, if you look at it, the left-hand side and the right-hand side at night will be acting like a diamond grade sheeting for reflectivity purposes, because they are diamond grade on the left-hand side.

MR. DORNAK: This particular product?

COMMITTEE MEMBER BABICO: Yes.

MR. DORNAK: No, this is not a -- this is a high-intensity product, this is a beaded product, honeycomb. So I understand what you're saying, but for this particular -- just for information only, for this particular sign right here, this is not a -- it is not a, quote, one quote, diamond grade.

COMMITTEE MEMBER BABICO: But this one is to the left-hand side?

MR. DORNAK: Yes -- no. That is high intensity as well. None of those. If they look like honeycombs, that is a high intensity -- that is an ASTM Type 3 sign.

COMMITTEE MEMBER BABICO: Okay.

COMMITTEE CHAIRMAN FISHER: Are there any other questions for our guests from 3M?

MR. DORNAK: I do have copies for everybody. But

if you're taking a look at regular diamond grade yellow, take a look at this one and this one. At night this will perform the same as this one.

COMMITTEE MEMBER BABICO: Right. Right.

COMMITTEE CHAIRMAN FISHER: I have one other question.

MR. DORNAK: Yes, sir.

COMMITTEE CHAIRMAN FISHER: Without getting real specific, what is the percent difference in cost from a regular sign versus a fluorescent sign?

MR. DORNAK: We offer the fluorescent sheetings in the higher ASTM categories, the Type 9 and Type 11s. So when you take a look at Type 9, Type 11 sheetings, the -- you know, you're probably looking at 75 cents a square foot more per square foot.

So to give you an example, you know, it's $4 a square foot for a Type 11, 4.75 for the fluorescent. It does kind of range in that ballpark.

Now, obviously the higher-performing products that you're looking at there, where it says ASTM Type 11 as compared to ASTM Type 4, the middle column, there's a larger -- you're looking at about $2 more a square foot from that jump as well as the Type 1 sheetings to the ASTM Type 4s. So within the category of -- if you're already using a higher-prismatic material, that percentage is not

very great for the type of performance you're going to get. Now, if you're jumping from the lowest in performing type of material, yeah, then there's going to be -- obviously there's going to be a greater, greater jump. You can pay up to $4 a square foot more.

COMMITTEE CHAIRMAN FISHER: Okay. Thank you.

MR. DORNAK: Thank you very much.

COMMITTEE CHAIRMAN FISHER: Okay. With that, we will adjourn the meeting.

(Thereupon the California Department of Transportation Traffic Control Devices Committee adjourned at 1:22 p.m.)

CERTIFICATE OF REPORTER

I, TROY RAY, an Electronic Reporter, do hereby certify that I am a disinterested person herein; that I recorded the foregoing California Traffic Control Devices Committee; that it was thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said meeting, nor in any way interested in outcome of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand this 27th day of September 2010.

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TROY RAY