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Subject: Technical Team Meeting #3

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Client: CDOT Region 1

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Project: I-70 Peak Period Shoulder Lane

Project No: 215164

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Meeting Date: August 12, 2013

Meeting Location: CDOT Golden

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Notes by: Lorena Jones/Gina McAfee

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**ATTENDEES:** See attached sign-in sheet

**DISTRIBUTION:** Attendees, Project File

Steve Long started the meeting; self-introductions followed. The duration of the Technical Team meetings have been extended because of the amount of information to discuss.

Stephanie White went through the logistics and introduced the handouts and the graphics hanging on the wall. She also mentioned the “parking lot” to document issues that come up in today’s meeting that we cannot resolve today.

Steve Long then went through the items on today’s meeting agenda.

## **SUMMARY OF DISCUSSION:**

### **Where We’ve Been**

1. *Steve Long*: To reiterate, the intent of the PPSL is to minimize the amount of infrastructure we build and optimize the infrastructure that exists today.

We also want to emphasize the importance of safety.

The group developed a CSS Issues Checklist—we put the issues in buckets. Where we are today is to determine left versus right and then discuss cross sections. We are trying to attack this piece by piece in a logical way. Some of these are issues we heard from the last meeting.

2. *Gina McAfee*: Interim Definition—Working with HPTE on what might be good for an interim definition. We have indicated on the Issues Schedule that in about a month, we intend to have more information to further the discussion on what the interim definition should be.
3. *Tim Mauck* (CCC Commissioner)—If this thing grows beyond the ROD and becomes an EA, do we have established criteria to base it on?

*Steve Long*: If there is a decision point that we start improvements past the original intent of a PPSL (minimize the amount of new infrastructure and optimize the existing infrastructure), I think that is a red flag that the team has to help us determine. If the project becomes such that there is no longer a PPSL project, it is the team’s responsibility to raise hands. That would depend on how we would end up on some of these early discussions.

4. *Gina McAfee*: We certainly heard numerous times the issue of the ROD compatibility and the issue of an EA versus CatEx.

5. *Tim Mauck*: What I'm interested in is why we don't have criteria set up now?
6. *Steve Long*: What would you recommend on what those things might look like? Because we haven't really defined the project yet. I'm not saying we shouldn't be challenging ourselves. There has to be a definition on what that is.
7. *Gina McAfee*: The ROD that was done for this project was unique—completely unique throughout the country, since it has a Minimum and a Maximum Program with triggers. Part of the discussion with FHWA is what constitutes non-infrastructure elements, since those are included in the Preferred Alternative Minimum Program. There are no set criteria related to what constitutes non infrastructure improvements.
8. *Tim Mauck*: It seems, then, that if this is how we are proceeding, we ought to be proceeding as small as possible. Trying to put additional lane during peak travel times in Clear Creek County—we ought to be examining to work within the existing footprint. Do you need a manage lane, then, if that's the case? Part of it to me is we are building additional shoulder in addition to the existing shoulder. The conversation about 40/42-foot lanes—I want to see how we can get this to fit within the existing footprint. Whether a managed lane, unmanaged lane, we ought to be examining this.
9. *Jack Morgan* (Idaho Springs Mayor): I agree with Tim. Whose idea are we going to take and who is going to interpret whether it is compatible with the ROD?
10. *Gina McAfee*: It is the FHWA who is the ultimate signatory and signed the ROD.
11. *Jack Morgan*: There are two signatories of the ROD—the FHWA and the DOT. There are two sides to this thing.
12. *Steve Long*: I agree, but if this group cannot determine this, then we don't have a project. There is also a threshold of safety; that you all want to be safe, too. We are talking about safety and commerce, but we have to work toward what this could be.
13. *Dick Bauman*: I think safety is more important. We can squeeze in the improvements on 38 feet or 40 feet, but it really comes down to safety. With a large percentage of people who haven't been there previously or at least not very often, safety is even more important.  

When we talk about squeezing in the standards, it works in urban areas because we have repetitive drivers. But that is a different case in the mountains.
14. *Cindy Neely*: From Clear Creek's vantage point, once you have started putting in walls in the creek, etc. you have trip the boundary. You have trip something that is beyond what should be covered in a CatEx. Look at 38 feet and see what can happen safely in that. And in terms of interim and temporary, you are not building this to take down in three years.
15. *Andi Schmid*: I think we should talk about this when we go into the roadway width discussion. We started with 38 feet; we didn't just jump to 40 feet. FHWA said that you can't do this safely within 38 feet, so we started looking at 40 feet.
16. *Steve Long*: The problem with this project, the compromise and challenges that we have, is compounding. We try to sift through the issues so we don't end up with so many alternatives. If Cindy said no infrastructure at all, then we have a challenge with that.

17. *Cindy Neely*: I think that the difficulty here is that both sides have a baseline that they feel is extremely important that they deserve. But from CCC's point, our context is we have the creek, etc. to protect.
18. *Randy Jensen*: First off, we have not decided whether 38/40/56 feet right now. We don't have 38 right now. This lane is going to operate two percent of the time or less in the corridor as a peak period lane whether managed or not. We are looking at it to balance the majority of the time. We can't answer question 1 and not look at questions 2, 3, 4, 5. We started looking at a CatEx after our attorneys have looked at it, but if it becomes into an EA, then we prepare an EA, or even an EIS.
19. *Steve Long*: Cindy, do you have a recommendation on how we can get off this point, or should we go through the process?
20. *Cindy Neely*: I think we have to follow the process, but I just wanted to make sure you know what CCC's viewpoint is. Are we all in agreement with left vs. right?
21. *Kevin Shanks*: What is the foot print that gives us safety also? There is the beginning of the project. The important thing that this team has to sort through is how narrow can we have and still give us the safety we need. It's very clear where people stand on this. And now it's just a matter of looking into the technical part of this, and move to the next step.
22. *Carol Kruse*: If this is only going to be used two percent of the time. What is the benefit of this?  
*Randy Jensen*: That is calendar time, not traffic time.
23. Jim Bemelen: We did a feasibility traffic study on this and the benefit to the public is huge. We have a summary of that study we can share with the group. *Carol Kruse*: That would be great if we can have that summary.

### **Where We Are**

1. Left versus right—It is very complicated to discuss apples to apples with left versus right. That is what we are going to dissect today.
2. Roadway width

### **Where we Are Going**

1. CSS Tracking schedule

### **Glossary of Terms**

1. *Steve Long*: We developed this to help people understand the definition of the technical terms this group is using.
2. *Jo Ann Sorensen*: Managed lane definition—There is no definition at this time of the type of vehicle that is going to be managed, correct? *Steve Long*: That is correct.

Add Active Traffic Management to Glossary.

## **LEFT VERSUS RIGHT**

1. **Steve Long:** Do I expect an answer today? Yes! But do we have to have one? No. But it would be nice to have an answer.

Today we are going to present examples throughout the country where PPSL is being used and implemented. I want to introduce Bernie again who joined us from HDR's Minneapolis office.

2. **I-35W, Minnesota** (Bernie Arseneau, HDR Minneapolis)
  - a. Bernie gave his background from working with MnDOT.
  - b. We need to figure out what the good balance is for this very unique corridor.
  - c. One of the things that we are always trying to find is how do we best deal with quality of life. Because that is what we have here—quality of life of those people on the corridor and people along the corridor.
  - d. In Minnesota— we created an idea of a managed lane and we created reliability in a sustainable way. And that is what PPSLs do. You got to look at innovative ways of managing traffic. And these managed lanes do that—sometimes you add a toll, sometimes you do not.
  - e. On I-35, we use a lot of dynamic shoulder lanes. We added an HOV lane, but the people were not really following the HOV rule. We recognize we needed to add capacity in that corridor.
  - f. What we ended up doing was taking the foot print that was out there and using every bit of it.
  - g. If you are going to use the shoulder you need to mitigate for safety. With this kind of management you can have a safe roadway.
  - h. There are ways you can do it that is transparent to the users. Another way is to build pull-outs.
  - i. We added a lane on I-35; we took the HOV lane and turned it into a HOT lane. There is a law in MnDOT that allows MnDOT to use shoulders for traffic.
  - j. We have the managed lane on the left side—and that is the more desirable for sure.
  - k. It is a great value to move into the left shoulder. The bus drivers are trained operators, they know when they approach the intersection on what to expect.
3. **US 36, Colorado** (Laycee Kolkman, HDR)
  - a. A left side managed lane—for HOV/HOT. We toll single-occupancy vehicles, we allow high-occupancy vehicle to use the lane for free. The buses are allowed to use the right shoulder to bypass traffic during congestion—through a static signing concept (that we took from MnDOT). We also use striping so the buses know that they have to yield to let traffic through.
  - b. **Gary Frey:** When we implemented these best practices, is it due to safety? Do we have an after study?

- c. *Laycee Kolkman*: To increase capacity and provide safe operations. There is no after study right now because it is still under construction. There is additional pavement on this project. Left side lane is always open. The buses will actually operate on the right shoulder lane only a portion of the time.
  - d. *Jack Morgan*: We have to understand that all of these highways—US 36, E-470—the population does not have to use these roads, but on I-70 Mountain Corridor, everyone up there has no other alternate routes. Residents up there have to use I-70.
  - e. *Steve Long*: That is a great point. We can't treat the corridor homogeneously because of this point.
4. *494 Corridor* (Bernie Arseneau)
- a. Got a high volume of traffic.
  - b. We have absorbed the shoulder and use that footprint for traffic.
  - c. We have constructed hard shoulders to be used dynamically during peak period (AM/PM).
  - d. Similar to what I-66 did in Virginia— at the interchanges we are building them out.
  - e. Needed capacity to carry the east-to-north traffic.
  - f. Provide a space for vehicles to interact as they are coming on and getting off that roadway. We use the full wall-to-wall of that highway.
  - g. Did not use left side on this. The community did not want to add that third lane on there.
  - h. Would advocate for the left side for I-70 PPSL. Based on what I've looked at, the footprint does not change whether on the left side or the right side.
  - i. *Jack Morgan*: if you have an entrance ramp coming up on the right, that didn't seem to be a problem with people.
  - j. This was driven by capacity and safety issues.
  - k. One of the reasons for managed lane approach is to create sustainability and reliability. There is a pent-up demand.
  - l. *Steve Long*: The important thing that I heard is that you have to weigh these things.
5. *MassDOT I-93*, outside Boston (Steve Long)
- a. Very heavy traffic.
  - b. Lower volume—free for all. No special striping.
- Cindy Neely*: I was just in Boston recently and had the experience to drive through this road. It is completely in an existing infrastructure. No new infrastructure built; no shoulder running at the moment. There are no accommodations at entrance ramp, but only truly used when nobody is rolling very fast. That is another thing we have to think about, we are not talking about a 60 mph lane. When you slow things down, the one on Highway 3, even on congested times, works well.

Driver expectancy on our road is significantly different from all these examples we are talking about because I-70 is not a commuter road – it is used for recreational travel.

*Steve Long*: I agree.

- c. *Nicolena Johnson* (Clear Creek EMS): How are you managing lane for incidents?
- d. *Bernie Arseneau*: It is amazing how drivers react to those lane control signals. It opens up the path and creates an easier path for emergency vehicles—for both peak and off-peak times, allowing emergency vehicles to use the shoulder lane.

## Left Side

1. Typical example of an off-ramp on the screen—interchange applications—existing condition and left side.
2. *Jack Morgan*: When you put the hard shoulder running in, you don't have to reduce the speed.
3. Cindy Neely was confused on the two graphics on the screen. She went through them step by step to understand them.
4. To control the left-hand lane, there would be a minimum of 11 signs needed to tell people what's going on.
5. *Jo Ann Sorensen*: How does it work for the decelerating traffic approaching Highway 103? It is exactly the same.
6. What happens if your existing highway is already sitting on the creek? You have to add a wall or push the main line over. That is an OR situation and there is an item on the agenda for this for the next time—creek widening vs. acceleration lane.
7. *Randy Jensen*: I would argue that you would need a deceleration lane. I think I need to see that. If you are coming into a loop, a deceleration lane is really important. For a diamond interchange, you don't have to.
8. *David Singer*: It's an estimate right now. When we transition to right side, we will see the difference between the two.
9. *Jack Morgan*: Can you communicate to the drivers that lane 6 or whatever is closed, for example, through a transponder? *Bernie Arseneau*: We don't do it through a transponder. We do it via signage.
10. *Cindy Neely*: Again, my problem is driver expectancy, because as drivers, we always look to the right side for a breakdown lane. Especially those truckers, they have to pull out on the left.
11. *Bernie Arseneau*: What makes me less concerned about it is that you only have two lanes. It is one consideration to look at, absolutely.
12. *Art Ballah* (Motor Carriers Association): Our foremost core value is safety; second is mobility. The discussions that we had are on balance. We favor the left side. The left shoulder breakdown is an issue, but I think that is going to be pretty intuitive when you are on there. Probably the issue is not getting into the left lane, but rather getting out of it.
13. *Randy Jensen*: Out of the people who travel this corridor, I would say the truckers are a majority.
14. *Art Ballah*: From our perspective, it's not a homogeneous group. We also have out-of-state truckers. We favored the left side over the right side. Another thing is the lane width issue.



15. *Steve Long*: Right side slide. What it would look like if we took the managed lane.
16. Cindy Neely interpreted the graphic that was up on the screen.
17. *Bernie Arseneau*: When we talk about driver expectation, this layout is really hard to navigate. Even if 45 mph, you still have to get out there. And if there is volume, it would be really hard to get out there. On some ramps, the acceleration lane is kind of invisible to the driver, because it is separated from the shoulder. Sometimes it doesn't even look like an acceleration lane.
18. *Cindy Neely*: Why can't we have a hard shoulder running lane without a managed lane? If we are doing this as an interim solution, until we have more studies to determine what should be done to this road?  
*Bernie Arseneau*: What the managed lane gives you is mobility and reliability. A free-flowing lane carries more traffic than a congested lane. If you did a hard shoulder running, within weeks or months, you are going to have more crashes on this lane because of congestion. That is why we built this in Minnesota so we have safer connection.
19. *Jack Morgan*: How did you build that in downtown Minnesota?  
*Bernie Arseneau*: What I'm suggesting is, it is not a good idea to dump traffic into a free-flow lane.
20. *Jack Morgan*: Are we here to build a toll road? Why don't we just say we are building a toll road and be done with it?
21. *Tom Hayden* (CCC Commissioner): On the right side, where would the trucks be? *Steve Long*: In the middle lane, not in managed lane.
22. *Jim Bemelen*: There would be a heavy surcharge for trucks if they get on this lane during peak hour.
23. *Cindy Neely*: To begin with, the managed lane wasn't going to be an option. We also heard that tolling of existing infrastructure is not going to happen?
24. *Jim Bemelen*: Lanes that are free now are not going to be tolled in the future.
25. *Jack Morgan*: So essentially you are going to be building two lanes for \$1 million?  
*Jim Bemelen*: No, it is three lanes.
26. *Jack Morgan*: People are not going to pay \$10/\$15 up there.
27. *Jim Bemelen*: We are not tolling a short lane.
28. *Cindy Neely*: What happens if we do something without a managed lane? *Jim Bemelen*: We are going to jam up three lanes in a hurry. If we do managed lane, we will have a lane that is free flowing well into the future.
29. *Steve Long*: Let's put this issue for the next meeting, so we can move on. Does the group agree with that?
30. *Cindy Neely*: Yes, we can move on.

## Right Side

1. Steve Long opened up the discussion for the right-side option.

2. *Cindy Neely*: We think of two deceleration lanes and one acceleration lane that you can give up during peak period.
3. *Don't close the off-ramps*. The business might be reluctant to close the off-ramp during peak period.
4. *Bernie Arseneau*: I want to point out, we did a demographics study in Minnesota for managed lane, and the types of people who use this lane is a big mix.  
*Carol Kruse*: Clarification— confused now—which one is the managed lane for Twin Tunnels? It is the left lane.
5. Where do you put the snow in Minnesota? *Bernie Arseneau*: We clean the lane and push it over—but with this 4 lane, you can do tandem snow plows and dump the snow on the left side—or it can be on the right.
6. *Jim Bemelen*: If your lane marking is totally obscured by snow, do you still operate the hard shoulder running? *Bernie Arseneau*: Yes.
7. *Cindy Neely*: What difference does it make that this road is not lit? *Jim Bemelen*: Striping is what's going to help a lot.

### Highway 103 Bridge

1. *Steve Long*: Can we use the 103 bridge or can't we? If we could take back the slope, we punch through a lane here, which would be the managed lane during peak periods. It might make sense to keep this for a right-side operation. If you don't want to replace this bridge, you can't move the pier, so it's not good for a left side option.
2. *Mary Jane Loevlie*: The interchange in the long-term needs improvement.
3. *Jim Bemelen*: Is there a way to replace the infrastructure? I think so.
4. *Steve Long*: Let's keep the discussion to, could you keep the bridge and put a lane here?
5. *Cindy Neely*: If you look at the deceleration lane, if you move it, it's pretty close to the creek already. *Steve Long*: That is correct. If we widen at the bridge, then yes, the impacts would be greater.

### Primary Differentiators of Left Versus Right

1. Steve Long went through the bullet points on the slide. Low possibility to avoid acceleration lane; low possibility to modify Highway 103 bridge.
2. *Andi Schmid*: Right side option—remove the rumble strips. It's the only real differentiator.
3. *Andi Schmid*: Left side—maintain the rumble strips because your GP lane is not moving in and out of the shoulder.
4. *Steve Long*: As a base case condition—there are no environmental differentiators.
5. *Cindy Neely*: Driver expectancy should be a differentiator, and I am not comfortable that there are no environmental differentiators?
6. In the segments where there are vegetated medians, you could say, it's not a differentiator, but on segments where there is no vegetated median, that is different.



7. *Jim Bemelen*: I think the issue is whether we do left or right, the issue of the snow exists, so it's not a differentiator.

## ~Morning Break~

### **Evaluation Matrix**

1. *Steve Long*: General questions about left and right side? Is there anybody who likes left side better than right side?
2. *Jo Ann Sorensen*: Are there any differences in impacts between left and right side to the environment and the community?
3. Kevin Shanks pulled up the evaluation criteria and went through the items, especially the differentiators for environmental issues.
4. *Cindy Neely*: If we make the decision how to plot this on a piece of paper and then drop this on top of the environment, that seems to be the backwards way of doing it. Rather than taking the environment first and plotting it on a piece of paper to determine impacts. If there is really no change in infrastructure—whether you put it on the left or the right—that means we should not hear later on that something is going to happen because of the left vs. the right.
5. *Steve Long*: As long as I can say that all things are equal. The bridge at Highway 103 is the only difference.
6. *Cindy Neely*: On the acceleration lane, is there a differentiator for whether left or right? *Steve Long*: No.
7. *Jo Ann Sorensen*: Regarding community, I did want to get on the record that the project area does involve housing where people are lower income, so the impacts of whatever you do may be experienced more by people of lower income or perhaps minority status, and that is not captured as a differentiator.  
*Gina McAfee*: We are definitely looking into that under the Community core value. We will make sure we list that out under the critical issue. We don't use all of these all the time, and obviously, if this was a differentiator, we would use it. Action: Add to Evaluation Matrix. [Note: This has been added as of 8/15/13.]
8. *Mary Jane: Loevlie* I don't think we've addressed the Idaho Springs visioning issue. *Steve Long*: That issue is not for left or right side, so that's why we have not discussed it yet.
9. *Cindy Neely*: Difference for emergency pull-outs for left versus right? *Steve Long*: Don't know the magnitude but we would have the exact same conversation about emergency pull-outs regardless of location.
10. *Cindy Neely*: We agree with your judgment. If there is no major differentiator, then it is a technical operational decision.
11. *Jo Ann Sorensen*: This whole project is a big-picture deal, not just a green/yellow colors on the matrix.
12. *Carol Kruse*: Some people, including myself, are having a problem making a decision on pieces of the project without determining whether we should have this project or not.

13. *Gina McAfee*: That is really a purpose and need discussion. Is there a need for this project?
14. *Carol Kruse*: I don't think it was a question of whether we agree with it. We were presented with the purpose and need. I think there is a sense that this is getting the cart before the horse.
15. *Bernie Arseneau*: Here's my take—it's incredibly clear how important this environment is to you. When walking through this, we get caught up with the environmental issues. I think what you're doing here is going through this step by step. If you can just say, okay, let's decide on whether left or right, and move on, then you can deal with environmental issues. If you say, let's take 38 feet, then that's a good start, and then you can discuss the environmental issues one by one.
16. *Mary Jane Loevlie*: if you say we have 38 feet, then maybe we can start looking at left or right. Maybe the process is out of order.
17. *Gary Frey*: I think the difficulty is because you are not hearing the no action alternative of the project.
18. *Steve Long*: We have got to go back and ask people what to do about that.
19. *Kevin Shanks*: We have nothing to compare against the no action. We definitely would compare this against the no action when we have something. Right now we have nothing.

### ~Lunch Break~

1. After the lunch break, Steve reminded the group of the roles and responsibilities of the Project Leadership Team versus Technical Team.
2. *Steve Long*: Am I pushing hard to come to a decision? In a way, because I want to be able to come to a conclusion .
3. *Cindy Neely*: Because the Technical Team doesn't give out decision. The Technical Team is supposed to provide advice on technical issues.

### **Typical Sections**

1. Steve went through the different pavement widths that could be considered for the project.
2. *Steve Long*: Let's go back to where we broke up the corridor to these 8 pieces/segments. The 8th piece is the Twin Tunnels. We really have 7 pieces that we took a lot of time sculpting to come up with the characteristics, like driver expectancy. When we think of the width, let's not think about one size fits all the segments.
3. Tammy Heffron went through the Segments slide.
  - a. Median on this project is defined as edge of pavement from east bound to edge of pavement westbound.
  - b. *Cindy Neely*: What is the width of road in the eastbound lane in the Idaho Springs segment? Tammy went through the road widths for the seven segments.
  - c. Roadway Width (Tammy Heffron):
    - i) We started with 38 feet which is existing condition.

- ii) Why don't we do 11-foot lanes? *Steve Long*: It was a difficult compromise. We can look at that again.
- iii) We added 56 feet, just to show what it would be like if we have all the space and if this is not an interim solution.
- iv) Going from 38 feet, what is the minimum we can go with that FHWA would approve. That's how we came to 48 feet. Eleven-foot lanes are still pretty tight. So we asked, what could be done to address safety? That's how we came up with 42 feet.
- v) *Jo Ann Sorensen*: Why do we have four-foot shoulders? *Jim Bemelen*: That has been the standard for a very long time.
- vi) *Cindy Neely*: Are we acknowledging the speed limit when we think about these different widths. *Jim Bemelen*: We would move the stripes a little bit. One side we would have more shoulder than the other side.
- vii) *Sergeant Gartner* (Colorado State Patrol): It is pretty scary because higher speeds come through that left lane.

## **Critical Section for Each Segment**

### Segment 1: Idaho Springs

1. Tammy Heffron notified the group that the project team looked at the critical section for each segment. Gina McAfee asked to define what critical section means for the benefit of the group. Steve Long responded it means the worst case of impacts that you would see out of the whole segment.
2. *Cindy Neely*: What you are not showing is the interface with the creek. The biggest discussion is going to be the acceleration lane. You have virtually nothing to add in this segment.
3. *Jack Morgan*: What would be the objection if we pick 38 feet?
4. FHWA is not comfortable with 38 feet because of safety. We're trying to work the corridor.

### Segment 2 (Lawson)

1. *Cindy Neely*: What about the right-of-way fence? That is right next to someone's house.
2. *Tammy Heffron*: It would impact that homeowner, which is something we need to look into.
3. *Cindy Neely*: When you stand there, there is a huge drainage problem in there, so that is a consideration.

### Segment 3: Downieville/Dumont

1. This segment has a significant median. We will talk about that in the next meeting.
2. *Cindy Neely*: We couldn't manage to walk. There is not enough space for us to walk along the back side of the guardrail because it is so steep a drop to the creek.
3. *Gary Frey*: Will you need to create a deceleration lane to get off 234. *Steve Long*: We don't know yet. But if the answer to that question is yes, how would that be affected?

*Dave Hattan*: There is no deceleration lane in Dumont.

4. *Cindy Neely*: The acceleration lane for 235 might be closed by design. During peak period, our local road system gets totally clogged, so we can't help the highway mobility problem without considering the local mobility system.
5. *Cindy Neely*: Do consider for the exit on 233 to go away entirely.
6. How are we defining auxiliary lanes? It is not accel/decel lanes. We will change auxiliary lanes to accel/decel lanes on the issues check list.

#### Segment 4: Fall River

1. *Jo Ann Sorensen*: Is this the narrowest section in the Fall River segment? *Tammy Heffron*: Of the roadway section, that is the narrowest.
2. *Cindy Neely*: There are all these strange little exits, because they don't go anywhere. For people to get off there, who think somehow they can get anywhere, so when you are looking at that one, what makes sense during peak period, we need to look at that. And study for safety, too, because there is no \_\_\_\_\_ from 234 to 240, you can't get to the interstate from the local roadway system.
3. *Nicolena Johnson*: It is the only way emergency vehicles can access the drainage, so you also need to consider that.

#### Segment 6

1. *Cindy*: As you do the accel on 103, our bike path is mashed up against the creek. The bike path is a consideration in the Lawson segment also.
2. *Jack/Mayor*: There was discussion to put the bike path under the bridge.
3. *Tammy*: The mobility in that area would have to be looked at.
4. *Emergency Service Provider*: Worth noting that 103 is pretty critical access for emergency vehicles.

#### Segment 7: East Idaho Springs

1. Segment 7 is within the CDOT right-of-way, so the baseball fields in that area would not be affected.

#### **Total Length of Retaining Walls**

1. Slide—mainline walls. These walls do not include the interstate.
2. These walls are all in the creek basically.
3. For 38 feet—zero wall. These walls shown on the slide are walls in addition to what is currently there. These numbers are for comparison one to another, they are not ultimate numbers. Next time, when we determine how far from the creek, these numbers could change. These numbers are the maximum.

#### **Safety**

1. *Andi Schmid*: You were probably asking why we look at 42 feet? The next discussion/slide will show you why.

2. *Steve Long*: What we look at is the specific conditions, but besides that, we are looking at safety and the traveling public's comfort. Another piece of it is consistency. There is a lot in play when we decide whether we do 38 feet or 42 feet. Driver comfort, lane width, shoulder width, curves, weather, speeds, driver expectation.
3. *Jack Morgan*: I don't see why the 38 feet won't work.
4. *Cindy Neely*: There is an equal responsibility to the environment and to the people who live in that corridor. That is why we are going through the CSS process. We have an environment to protect—that is what we are asking. I'm going to ask the CCC to sign off on what happens to the environment because the people in this corridor are the ones going to live with it.
5. *Tom Hayden*: Maybe, Steve, you can go and talk to the governor and explain why 38 feet won't work.
6. *Angie Drumm*: Do we bring it up to the PLT and need to work through that?
7. *Phyllis Adams*: The thing is, before now we only heard 42 feet. But when Steve said we could have 38 feet in some and 42 in some, that made me feel a little better.
8. *Art Ballah*: Again, safety is our main concern. We need a 12-foot running lane for our operations. We want the lane adjacent to be 12 feet where possible, realizing that in some case we have to go down to 11 feet. Going to less than 11 feet is a fatal flaw. If there has to be some compromise in some segments, we can look at that.
9. *Steve Long*: We need to take your comments and opinions.
10. *Mary Jane Loevlie*: Isn't there an expectation for mountain driving?
11. *Art Ballah*: It appears we have significant median that we can expand onto, but obviously the question would be how safe is it to expand onto a median versus expanding onto the shoulder?
12. *Kevin Shanks*: I want to respond to the driver expectancy issue—I was driving on I-70 westbound from Grand Mesa this past weekend . . . 12-foot shoulder lanes, on Sunday afternoon, not going more than 40 mph. I was driving an SUV, this one guy driving an Audi A6. My wife started screaming when this guy came barreling down, and we almost have a sideswipe. If that lane was only 11 feet, we would have hit. I was thinking 11 feet before, now I'm not so sure.
13. Look at two 11's and one 12 within 38.
14. *Jack Morgan*: I want to ask our visitor from Minnesota what his thoughts are so far after listening to our discussion.
15. *Bernie Arseneau*: I said before that this is a unique project. It's incumbent on the engineers to go back and look at this thing and break it down to determine what can be done.

## Primary Differentiators

1. Steve Long didn't see the need to go through each of the item on the primary differentiators slide, but gave a recapitulation of what was previously discussed.

## Miscellaneous Discussion

1. The next PLT meeting was discussed and it was agreed to hold it on Wednesday, August 21, 2013, in Idaho Springs.
2. *Jack Morgan*: We come here representing a lot of our constituents as elected officials. We have a different viewpoint than the stakeholders.

## **Issues Brought up By Technical Team and Documented on Flip Chart Sheets**

1. Lane Width
2. ROD Compatibility
3. What is the smallest width that is safe?
4. EA vs. Cat Ex
5. Definition of active traffic management; dynamic toll; median
6. What is the benefit of this project if it is only for two percent of the time?
7. Travel make up of corridor is changing
8. Mobility on the entire local network
9. There is no other road alternative
10. We can't/shouldn't treat the corridor homogeneously
11. Capacity vs. mobility
12. Driver expectancy (education)
13. Are managed lanes a requirement?
14. On- and off-ramps that can be closed, that need alteration, among others. Look at Fall River Road
15. Highway 103 Bridge
  - a. Can we modify?
  - b. Major pedestrian and creek conflict
16. Snow removal
17. Add EJ to critical issues of evaluation criteria; also Idaho Springs Visioning
18. Agreement on purpose and need
  - a. The no action alternative
19. What is interim; what is permanent?
20. Look at two 11s and one 12 within 38 feet
21. Existing drainage issue in Segment 2
  - a. Opportunity to improve



## **Next Meeting**

Monday, August 26, 2013, in Idaho Springs

## **Next Meeting's Topics**

1. Median vs. creek
2. Auxiliary lanes



I-70 EASTBOUND  
PEAK PERIOD  
SHOULDER LANE

### TECHNICAL TEAM ATTENDANCE ROSTER

August 12, 2013

425-C Corporate Circle, Golden—Trail Ridge Conference Room

INITIAL Attendance	NAME	AGENCY	E-MAIL ADDRESS	MAILING ADDRESS
✓	Adams, Phyllis	Upper Clear Creek Watershed Assoc. (UCCWA)	montanepros@juno.com	Box 1271, Idaho Springs, CO 80452
B.	Alhaj, Samer	CDOT	samer.alhaj@state.co.us	
	Arbogast, Belinda	CDOT Planning & Environmental	belinda.arbogast@state.co.us	2000 S Holly, Denver CO 80222
	Babeon, Kelly	Clear Creek Fire	kb@co.clear-creek.co.us	
AB	Ballah, Art	Colorado Motor Carriers Association	artballah@aol.com	
120B	Bauman, Dick	CDOT	rdeab278@aol.com	
	Beck, Rick	Engineer, Clear Creek County	rbeck@co.clear-creek.co.us	
JPB	Bemelen, Jim	CDOT I-70 Mtn Corridor Program	james.bemelen@state.co.us	425C Corporate Circle, Golden, CO 80016
	Bowes, Margaret	I-70 Coalition	mbowes@i70solutions.org	
	Brand, Rena	U.S. Army Corps of Engineers	rena.j.brand@usace.army.mil	
TJB	Breslin, Thomas	Administrator, Clear Creek County	tbreslin@co.clear-creek.co.us	
	Buckland, Phil	Commissioner, Clear Creek County	madcreek@ieee.org	
	Burns, Troy	CDOT Construction Engineer	troy.burns@state.co.us	
SB	Burton, Scott	Jefferson County	sburton@jeffco.us	
	Cheroutes, Mike	Director, HPTE	michael.cheroutes@state.co.us	
	Condon, Cindy	Idaho Springs	admin@idahospringsco.com	
	Conroy, Laura	CDOT	laura.conroy@state.co.us	
	D'Andrea, Maria	Transportation Engineer, Jefferson County	mdandrea@jeffco.us	
	Davenport, Lou	Apex	lou.davenport@apexdesignnpc.com	1675 Larimer Street, Suite 480, Denver, CO 80202
	Davidson, Thomas	Commissioner, Summit County	thomasd@co.summit.co.us	
AD	Drumm, Angie	CDOT Government Relations	angie.drumm@state.co.us	4201 East Arkansas Avenue, #275, Denver, CO 80222
	Duffy, Jason	Apex	jason.duffy@apexdesignnpc.com	1675 Larimer Street, Suite 480, Denver, CO 80202
	Duran, Rich	Captain, Colorado State Patrol	richard.duran@state.co.us	Colorado State Patrol, Troop 4-C, 202 Centennial Street, Glenwood Springs, CO 81601
	Eidenmueller, Dan	Corporal, Colorado State Patrol	dan.eidenmueller@state.co.us	Colorado State Patrol, Troop 4-C, 202 Centennial Street, Glenwood Springs, CO 81601
G	Frey, Gary	Colorado Trout Unlimited	gbfrey@msn.com	1272 South Routt Way, Lakewood, CO 80232


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INITIAL Attendance	NAME	AGENCY	E-MAIL ADDRESS	MAILING ADDRESS
<i>HK</i>	Kolkman, Laycee		laycee.kolkman@hdrinc.com	
	Kouprievitch, Alexander	CDOT	alexander.kouprievitch@state.co.us	
	Kramer, Jay	CDOT ROW/Survey	jay.kramer@state.co.us	
<i>RK</i>	Krehbiel, Robert	Matrix Design Group/Hydraulics	robertk@matrixdesigngroup.com	
	Krueger, Don	Clear Creek County Sherrif's Department	webadmin@clearcreeksheriff.us	
<i>mfk</i>	Kruse, Carol	U.S. Forest Service	ckruse@fs.fed.us	<i>2150 CENTRE AVE - BLDG E, FORT COLLINS, CO 80526</i>
<i>mfk</i>	Loevlie, Mary Jane	Idaho Springs	mloevlie@aol.com	
<i>mfk</i>	Long, Steve	HDR Engineering, Inc./Transportation	steve.long@hdrinc.com	1670 Broadway, Suite 3400, Denver, CO 80202
	Luther, Beth	Clear Creek County	bluther@co.clear-creek.co.us	
	Martinez, Al	CDOT Maintenance	alfonso.martinez@state.co.us	
<i>mm</i>	Mattson, Brett	<i>CDOT CSP</i> <i>Sgt. GARTNER FOR</i>	brett.mattson@state.co.us	
<i>mm</i>	Mauck, Tim	Commissioner, Clear Creek County	tim@timmauck.com	
<i>mm</i>	McAfee, Gina	HDR Engineering, Inc./Environmental	gina.mcafee@hdrinc.com	1670 Broadway, Suite 3400, Denver, CO 80202
<i>mm</i>	McGhee, Ken	CDOT	ken.mcghee@state.co.us	
	McGuire, Brendan	I-70 Coalition	bm McGuire@vailresorts.com	
	Miller, David	CDOT	david.miller@state.co.us	
	Morgan, Jack	Mayor, City of Idaho Springs	morganmkt@comcast.net	
<i>cey</i>	Neely, Cindy	Consultant, Clear Creek County	ccneely@yahoo.com	Box 532, Georgetown, CO 80444
	Noll, Thad	Summit County	thadn@co.summit.co.us	
<i>NO</i>	Ogden, Neil	CDOT/I-70 Mountain Corridor Engineering	neil.ogden@state.co.us	
	Ortiz, Ty	CDOT	ty.ortiz@state.co.us	
	Pallante, Amy	Colorado SHPO	amy.pallante@state.co.us	
	Petersburg, Ty	CPW	ty.petersburg@state.co.us	
	Peterson, Jeff	CDOT DTD Environmental	jeff.peterson@state.co.us	4201 East Arkansas Avenue, Shumate Building, Denver CO 80222
	Pierce, Becky	CDOT DTD Environmental	rebecca.pierce@state.co.us	4201 East Arkansas Avenue, Shumate Building, Denver CO 80222

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INITIAL Attendance	NAME	AGENCY	E-MAIL ADDRESS	MAILING ADDRESS
	Gibbs, Dan	Summit County	dang@co.summit.co.us	
	Gibson, Stephanie	Environmental Manager, FHWA	stephanie.gibson@dot.gov	12300 West Dakota Avenue, Suite 180, Lakewood, CO 80228
KG	Grant, Kari	HPTE	kari.grant@state.co.us	4201 East Arkansas Avenue, #230, Denver CO 80222
	Greer, Matt	Structural & Hydraulic Engineer, FHWA	matt.greer@dot.gov	
	Griffin, M.J.	Summit County	mjgriffin@co.summit.co.us	
	Gross, Al	CDOT R1 Centennial Residency/Hydraulics	alfred.gross@state.co.us	7328 S. Revere Parkway, Suite 204A, Centennial, CO 80112
	Haile, Solomon	CDOT Traffic	solomon.haile@state.co.us	
	Hailu, Azeb	CDOT Traffic	azeb.hailu@state.co.us	
	Hale, Tom		gtownadmin@earthlink.net	
	Halouska, Troy	CDOT DTD	troy.halouska@state.co.us	4201 East Arkansas Avenue, Shumate Building, Denver CO 80222
DSH	Hattan, Dave	FHU/Safety	dave.hattan@fhueng.com	
Z.S.R.	Hayden, Tom	Commissioner, Clear Creek County	clearcreektom@aol.com	
JCH	Heffron, Tammy	HDR Engineering/Bridge	tammy.heffron@hdrinc.com	1670 Broadway, Suite 3400, Denver, CO 80202
	Henderson, Vanessa	CDOT DTD	vanessa.henderson@state.co.us	4201 East Arkansas Avenue, Shumate Building, Denver CO 80222
	Hersey, Steve	CDOT Traffic	steven.hersey@state.co.us	2000 South Holly Street, Denver, CO 80226
	Hillman, Michael	IS City Council		
	Holm, David	CCWF	jdavidholm@gmail.com	
	Hurt, Joe	CSP		
	Huyck, Holly	CDOT Planning & Environmental	holly.huyck@state.co.us	
	Hymas, Darren	HDR Engineering/Roadway	darren.hymas@hdrinc.com	1670 Broadway, Suite 3400, Denver, CO 80202
GA	Jensen, Randy	Program Delivery Team Leader, FHWA	randy.jensen@dot.gov	12300 West Dakota Avenue, Suite 180, Lakewood, CO 80228
	Jepson, Dan	CDOT DTD Environmental	daniel.jepson@state.co.us	
NMJ	Johnson, Nicolena	Clear Creek EMS	nicolena.johnson@clearcreekems.com	
LGS	Jones, Lorena	HDR Engineering, Inc./Project Assistant	lorena.jones@hdrinc.com	1670 Broadway, Suite 3400, Denver, CO 80202
	Klaetsch, Jennifer	CDOT Environmental	jennifer.klaetsch@state.co.us	



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INITIAL Attendance	NAME	AGENCY	E-MAIL ADDRESS	MAILING ADDRESS
	Powers, Terrance	HDR	terrance.powers@hdrinc.com	
<i>AS</i>	Rajasekar, Leela	CDOT Traffic	leela.rajasekar@state.co.us	
	Rice, John	Clear Creek Rafting Company	john@clearcreekrafting.com	
	Rice, Ryan	Director, CDOT Division of Operations	ryan.rice@state.co.us	
	Rothermel, Eric	FHWA	eric.rothermel@dot.gov	
	Ruble, Dave	CDOT Utilities	dave.ruble@state.co.us	2000 South Holly Street, Denver, CO 80222
	Sakaguchi, Tracy	CMCA	tracy@cmca.com	
	Salamon, Mike	CDOT	michael.salamon@state.co.us	
	Salloum, Aymon	CDOT Planning	ayman.salloum@state.co.us	
	Schlaefer, Jill	CDOT DTD	jill.schlaefer@state.co.us	4201 East Arkansas Avenue, Denver CO 80222
<i>als</i>	Schmid, Andi	CDOT R1/I-70 Mountain Corridor Program	andria.schmid@state.co.us	425-A Corporate Circle, Golden, CO 80401
	Schoch, Lisa	CDOT DTD Environmental	lisa.schoch@state.co.us	4201 East Arkansas Avenue, Denver CO 80222
<i>JS</i>	Scott, Jill	CDOT	jill.scott@state.co.us	
	Shanks, Kevin	THK Associates	kshanks@thkassoc.com	
	Shendleman, Terrene (Terre)	CDOT ROW	terrene.shendleman@state.co.us	2000 South Holly Street, Denver, Colorado 80222
<i>DS</i>	Singer, David	CDOT I-70 Mtn Corridor Environmental	david.singer@state.co.us	
	Snelling, Bruce	Clear Creek County Sherrif's Department	bsnelling@clearcreeksheriff.us	
	Sohbi, Saeed	CDOT		
<i>JS</i>	Sorensen, JoAnn	Land Use Director, Clear Creek County	jsorensen@co.clear-creek.co.us	
<i>SAS</i>	Stewart, Dave	CDOT ROW/Survey	davida.stewart@state.co.us	425-A Corporate Circle, Golden, CO 80401
	Stiegelmeier, Karn	Commissioner, Summit County	karns@co.summit.co.us	
	Swartout, Sue	CDOT	sue.swartout@state.co.us	
	Swenka, David	CDOT	david.swenka@state.co.us	
	Thomas, David	CDOT Geotech	david.thomas@state.co.us	4670 Holly Street, Unit A, Denver, CO 80216
	Thomas, Scott	Apex	scott.thomas@apexdesignpc.com	1675 Larimer Street, Suite 480, Denver, CO 80202

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INITIAL Attendance	NAME	AGENCY	E-MAIL ADDRESS	MAILING ADDRESS
	Tordanato, Francesca	CDOT Planning & Environmental	francesca.tordanato@state.co.us	425-A Corporate Circle, Golden, CO 80401
<i>MM</i>	Urban, Melinda	Operations Engineer, FHWA	melinda.urban@dot.gov	
<i>Treva Wang</i>	Wang, Trever	CDOT	shingchun.wang@state.co.us	
✓	White, Stephanie	HDR Engineering/Public Involvement	stephanie.white@hdrinc.com	1670 Broadway, Suite 3400, Denver, CO 80202
	Winkle, Paul	CPW	paul.winkle@state.co.us	
	Wohlers, David	Idaho Springs Police Department	policechief@idahospringsco.com	
	Yip, Steve	CDOT Staff Bridge	man.yip@state.co.us	4201 East Arkansas Avenue, Shumate Building, Denver CO 80222

*KEVIN O'MALLEY*