



I-70 Bakerville to Eisenhower-Johnson Memorial Tunnels (EJMT) Westbound Auxiliary Lane Technical Team (TT) Meeting #4

Meeting Summary

January 13, 2023, 1:00 PM - 3:00 PM

In Person and Virtual Meeting

1. Welcome and Agenda Review

Mandy Whorton/Peak Consulting Group welcomed the group, and did a roll call of participants:

- Ben Davis, CDOT
- Francesca Tordonato, CDOT
- Maria Rocken, CDOT
- Christiana Lacombe, CDOT
- Shannon Mero, CDOT
- Andrew Malewski, CDOT
- Carrie DeJiacomo, Ulteig
- Angy Casamento, Ulteig
- Lindsey Wickman, Ulteig
- Kory Kleinknecht, Ulteig
- Brian Dabling, FHWA
- Steve Cook, DRCOG
- Margaret Bowes, I-70 Coalition
- Tracy Sakaguchi, CMCA
- Rob Goodell, Loveland Ski Area
- Amy Saxton, Clear Creek County
- Nicole Malandri, US Forest Service
- Mandy Whorton, Peak Consulting Group
- Loretta LaRiviere, Peak Consulting Group
- Wendy Wallach, Peak Consulting Group

1. Welcome and Meeting Purpose

Mandy Whorton (Peak Consulting) said the focus of today's meeting will be on the auxiliary lane widening and the US 6 interchange. The team will review the widening options which include widening to the north side, towards the median, or a balance of both. In addition, the team will also review three design options for the US 6 interchange. Prior to discussing the widening and the US 6 interchange, the design team will review the recommendations for the previously discussed design options for the start and the end of the aux lane which were presented at the last Tech Team meeting.

2. Project Update

The project team met with Rob Goodell (Loveland Ski Area) in December to review the US 6 interchange options near the ski area. The team wanted to understand implications for the ski area before the options were presented to the Tech Team directly. Overall, there was agreement that the interchange



options had some positive benefits and would have little effect on the Loveland Ski Area operations. Meeting notes will be distributed soon.

The project team also met with CDOT Maintenance to discuss operations near EJMT. The team gained insight on the over-height sensor system that alerts EJMT of over-height trucks, triggers the signal and redirects them over the tunnel and back to US 6. Snow removal and snow storage operations at the tunnels were also discussed.

Carrie DeJacommo (Ulteig) said we are still waiting on design survey which does affect our ability to move forward with some of the concepts. The survey should be complete by the end of the month and then real-time information can be applied.

There have been some conversations about restroom facilities at the chain stations, however it is too early in the design process to discuss any details. There are a lot of different parameters still to be determined for the chain stations such as number, location, lighting, and amenities. Some considerations are site specific and dependent on other design elements such as the widening and wildlife crossing locations.

3. Decision Schedule

Mandy said there was discussion about a decision schedule at the last Tech Team meeting. A schedule has been developed. Mandy reviewed the schedule (attached) and highlighted that there has already been discussion about the beginning transition and the ending transition of the aux lane and today the team will be discussing the US 6 interchange and the widening concepts. Conversation has started for the wildlife underpass crossings but we're waiting to integrate those. The chain stations and other features such as the specifics of the roadway, pavement, and bridges will be progressed as the design recommendations are accepted and survey is received.

4. Recommendation of Beginning and Termini for Auxiliary Lane

Beginning- 3A-East of Bakerville exit

Lindsey Wickman (Ulteig) said, based on the information discussed at the last Tech Team meeting in addition to the other meetings (Loveland Ski Area & CDOT Maintenance), the team is recommending Option 3A, which starts east of the Bakerville exit. The Bakerville interchange has low traffic counts at the ramps and is not a significant concern. Starting the aux lane further east alleviates concerns with weaving vehicles on a curve accessing the beginning of the auxiliary lane and with trucks needing to move over to access the chain station. Option 3A has less potential conflicts and starts the aux lane at a flatter grade providing the greatest benefit for trucks.

Tracy Sakaguchi (CMCA) said she and Carrie had a conversation about Option 3A and CMCA would prefer not to have conflicts at the chain station; therefore, she is supportive of the option to start the aux lane east of the Bakerville exit.

Decision: The Technical Team agreed Option 3A is the best option for the beginning of the auxiliary lane.

Termini-1B-Tie-in at brake check



Lindsey said for the ending location of the auxiliary lane we are recommending Option 1B, which would tie in at the brake check area prior to the Eisenhower Johnson Memorial Tunnel (EJMT). The brake check area is on the north side of I-70 prior to the tunnel parking entrance. As trucks approach EJMT, they can either exit at the brake check or use the taper to merge into the through lanes and safely maneuver into the lane prior to the tunnel entrance. The grades begin to flatten at this location which is also beneficial.

There is a skier tunnel for Loveland Ski Area that goes underneath I-70 near the brake check that allows skiers to have access from the north side of the interstate to the south side near the building at Loveland Ski Basin. CDOT maintenance uses the area east of the skier tunnel entrance on the north side for snow storage. There may be concerns about drainage thus the entrance to the tunnel will be protected and if necessary extended. Also in this area, Loveland uses a trail to access their water building (northeast of the skier tunnel) and access will need to be maintained.

From conversations with CDOT Maintenance, there may be opportunities to improve operations near the tunnel, which may entail potentially closing one of the driveways at the parking area. Currently, over-height trucks pull off at the middle driveway entrance and then return to traffic at the driveway closest to the tunnel. re Locating the over-height sensor further east to detect over-height trucks sooner, allowing them to exit at the brake check area ramp, and return to traffic at the first driveway would be beneficial. A decision has not been made and additional investigation is needed.

Ben Davis (CDOT) said as design progresses, we need to ensure we're having regular conversations with maintenance because snow storage and water quality treatment are important issues. The team should also consider the need to accommodate staging areas for the contractor (materials and trucks) for any tunnel maintenance projects.

Decision: The Technical Team agreed Option 1B is the best option for the ending of the auxiliary lane.

5. Design Options and Evaluation Matrices

US 6 Interchange

Option 1C: Extending the Existing Acceleration Lane

Lindsey said this option is most similar to existing conditions and would utilize the same US 6 off and on-ramps. The option has the potential for a buried structure which may help address existing icing concerns. The team has not fully investigated the structure type, but two structures may be required. With the new structures returning to the existing location, construction phasing could be a bit of a challenge to keep traffic flowing during construction.

Lindsey said this option is beneficial because it provides a longer westbound acceleration lane onto I-70. However, the option doesn't change the alignment configuration under I-70, thus the traffic will remain at a skew. The westbound on-ramp to I-70 remains a 15 mile per hour curve, but there is a slight improvement over existing conditions for the turning movement.

Option 2C: Realigning to the East

Lindsey said this option shifts the interchange to the east and results in a perpendicular crossing (not a skew) with respect to I-70. The structure type for this option could be a buried structure or a traditional



bridge. The realignment does cause an increase in grade for the westbound ramps from approximately 1% to 4% grade underneath I-70. Like Option 1C, this option maintains the westbound on ramp at a 15 mile per hour curve and a longer acceleration lane onto I-70.

From the design team's meeting with Loveland, Lindsey said Loveland Ski Area indicated that having access to US 6 directly across the parking lot is neither positive nor negative for their operations. Loveland Ski Area's main parking lot is further west and this option wouldn't have significant impacts to the ski area access.

Rob Goodell (Loveland Ski Area) said on any given day, the initial volume of traffic will be heading to Loveland Basin, which is further to the west and can accommodate approximately one thousand cars. Once that lot fills up, they start transitioning and directing people east to the valley. The Loveland Ski School lot closest to the building fills up first. The lot directly across from the proposed access to US 6 would be the last lot to fill up. There is a slight concern about vehicles crossing all lanes of traffic, but that's something that can be discussed as the design develops. A longer parallel merge lane for those coming off WB I-70 onto WB US 6 would be a significant improvement (not currently shown in the drawings) and continuing the merge lane as far east as possible to give ample merging opportunity is ideal.

Ben said the skewed bridge structure that would be removed is at an age where it could potentially be replaced and this option allows for better constructability with the proposed structure not along the existing alignment under I-70.

Christy Lacombe (CDOT) asked, with the shifting of the underpass and the removal of the existing bridge, if the intent would be to replace the structure location with fill. Carrie confirmed the bridges would come out and be replaced with fill to support I-70.

Christy said, with any of the alternatives, it would be nice to have a median separate the different directions of the westbound ramps to help prevent wrong way movements. Christiana asked if backcountry skier access could be formalized with this option at the on-ramp?

Lindsey said the team hasn't looked at any sort of formalized recreational access at this point in design. The CSS evaluation does include a measure for improving recreation and recreational access, so this can easily be carried forward and discussed further.

Brian Dabling (FHWA) said the Federal Highways perspective would be to restrict access within the right-of-way for the safety and operations of the interstate and this should be kept in mind. In addition, the Forest Service would need to be involved in that discussion. Additional information is needed as it is dependent on the access control line (A-line) which is defined by legal right-of-way. He said the Highway Easement Deed may need to be redefined depending on the design moving forward.

Mandy added the team has talked about the removal of the existing westbound ramp alignment areas being an option for formalized parking. Currently, there is a significant amount of informal parking occurring on the ramps which is not well-defined or safe.

Carrie asked if the FHWA would be opposed to formalized parking on the north side?



Brian said it would depend on where the A-line would be located. If within interstate ROW, and the A-line were to be inclusive of that new alignment, it poses challenges. Ultimately the unfettered access is undesirable. Defining the locations of formal parking would have to demonstrate that there's no negative impact on the operations or safety of the interstate ROW and the interstate itself.

Christy asked if defining that A-line to include the clear zone and the ROW, would anything outside the A-line would be acceptable for other use?

Brian said the A-line is dependent on the legal survey and who is responsible. For anything within interstate ROW, FHWA has to provide or grant access to it. FHWA does try to limit those points to maintain control. The right-of-way department defines the location of the A-line.

Mandy asked if the abandoned roadway area within current interstate right-of-way could be repurposed.

Brian said it might necessitate a redefining of the Highway Easement Deed. The EJMT Deed wasn't fully executed until five years ago. Many historical corridors don't have a defined deed.

Option 3C Realignment to the East with Separated EB On-Ramp

Lindsey said this option realigns the interchange to the east and provides a separated I-70 EB on-ramp that provides eastbound I-70 traffic direct access to the existing EB chain station. Currently EB I-70 does not have access to this chain station. Option 3C would require retaining walls to separate the I-70 EB on-ramp from US 6. This option allows the recreational traffic in front of Loveland Ski Area to be separated from the EB I-70 on ramp traffic.

Lindsey said there are some challenges with this option. Driver expectancy will change with the existing interchange use. There are significant elevation differences from EB I-70 and US 6 that would require large retaining walls. From the current data available, the retaining walls are estimated to be approximately 40 feet tall within a narrow footprint. This option also has a 180 degree turn which would present challenges for trucks coming from the east on US 6 to access I-70 EB. Rob was concerned it may cause backups along US 6 for trucks to make that movement, although volumes coming from the east on US 6 are low. Traffic accessing the EB I-70 on ramp, making the hard left and hard right to the ramp, could also back up traffic.

Lindsey said some benefits include the direct access for I-70 into the eastbound chain station and the grade separation between EB I-70 on ramp and US 6. Similar to 2C, a 4% grade occurs under I-70 and the merge lane for the I-70 WB off ramp to WB US 6 could be extended to more of a parallel merge ramp to assist in the merging movement.

Mandy said the main reason we looked at this option was to explore a way to separate the Loveland Ski Area traffic from I-70, but it doesn't achieve that goal without significant drawbacks and is not a preferred option. The design team wanted to present this option simply to show that separating the EB I-70 on ramp and US 6 was explored. This option would replace the on-ramp, give Loveland Ski Area a frontage road and provide direct chain station access from EB I-70.



Mandy said the team has not developed the traffic modeling to identify any traffic concerns such as back-ups for any of the options. There is a concern for Option 3C, that traffic back-ups on US 6 could be substantial which ultimately may cause traffic to come to a stop. Travelers from the west would have to make a hard left and then to make a hard right to get onto the on-ramp.

Christy agreed this is not an ideal option, especially on Sunday evenings when travelers coming from Keystone and Arapahoe Basin are diverting off I-70 currently on the west side of the tunnels, which causes substantial back-ups on US 6 in the project area as they transition back onto I-70.

Tracy dislikes Option 3C as hazardous material trucks coming over Loveland Pass would need to make a hard left and then a hard right to get back onto mainline I-70 and that is a very difficult movement. The EB chain down station was originally developed for those coming off Loveland Pass.

Carrie said with Option 3C, the chain station would be accessible from EB I-70, whereas this is not provided in the other two options.

Tracy said she would be okay if the team didn't move forward with this one. Tracy also noted vertical clearance under I-70 would need to be checked for any option. Any truck over 13'-6" must exit at US 6 and go over Loveland Pass, thus any design should require appropriate vertical clearance underneath the mainline.

Mandy said it seems like there is agreement that this option is undesirable.

Ben said he supports the idea of this option as he would like to separate the eastbound US 6 movement and make this area into more of a traditional interchange or on-ramp. Unfortunately, any potential layout to accommodate a traditional interchange has negative impacts.

Discussion by the group led back to the first 2 options. Lindsey confirmed Option 1C keeps traffic essentially on the same alignment with the same operations. Option 2C realigns it to the east, making it perpendicular to the mainline.

Carrie said additional differences between Option 1C and 2C is 2C provides additional storage for the WB I-70 off ramp traffic making the left turn onto US 6. In the existing alignment, left turning traffic does back up and tends to impede WB I-70 off ramp traffic that is trying to move freely onto WB US 6 to go over Loveland Pass. Option 2C will also provide more distance between the off-ramp from eastbound I-70. In addition, the team will explore designing a parallel acceleration for the I-70 WB off-ramp to transition onto WB US 6.

Tracy asked if either 1C or 2C reconfigure the transition from US 6 to I-70 westbound, or does the on-ramp to westbound I-70 stay the same as it currently is? And would the curvature going from US 6 to I-70 westbound be improved?

Carrie said the on-ramp to westbound I-70 stays the same in both options. The curvature is improved over existing conditions and will have a standard acceleration length onto I-70, whereas right now it is substandard.

Mandy said the first option keeps the same access to back country skiing and the Forest Service Road that exists on the north side of I-70.



Brian asked what the grade is on I-70 where the westbound on-ramp comes into mainline, and whether it gets steeper as you head west. The grade is approximately 6% at this location.

Lindsey reviewed the CSS Evaluation Matrix with the group but did not review Option 3C as it was already determined to be undesirable. She said green represents best, yellow is better, and no color is fair. She noted that the matrix is not comparing the options against each other, but rather it's comparing the option to existing conditions.

Safety

Option 1C maintains the existing alignment underneath I-70 where there currently is a less than 1% grade, whereas the new realignment to the east would be at a 4% grade.

Mobility and Accessibility

Originally the design team believed Option 2C would be an improvement for Loveland Ski Area traffic but after gaining insight from Rob, much of the traffic continues further west and only a small fraction of traffic utilizes the parking directly across from the improved interchange.

Option 1C is classified as best for geotechnical hazards because it is along the existing alignment and there are no rock cuts or retaining walls anticipated.

Community

Lindsey said with what we heard from the FHWA, defining formalized parking for recreational access may be a challenge, but will be discussed as we get further into design.

Mandy asked if the survey, once received, will affect any of the recommendations?

Lindsey said the data available in this area is sufficient and survey should not change these options.

Mandy said the proposed structure in Option 1C, would be longer and remain at a diagonal with respect to I-70, which adds concern to constructability and longer-term maintenance.

Lindsey said, from the information collected from CDOT, the data suggests a replacement of the structures is needed to improve existing conditions. The structure inspections for all structures within the project limits are scheduled to occur this year approximately between May to September. Thus, additional information regarding structures condition will be available then.

Brian said this structure may be eligible for Bridge Enterprise funding.

Mandy Whorton asked if the structure would be eligible for Bridge Enterprise funding if the new structure is in a different location compared to existing. Carrie noted the bridge, whether at the original alignment or new alignment as proposed in Option 2C, would be eligible for Bridge Enterprise if the condition met requirements for replacement and the relocation is identified in an approved study.

As far as maintenance, the existing structure and the structure proposed in Option 1C, is on a skew which does cause the overall bridge length to be longer. Option 2C would have a shorter structure due to not being on a skew under I-70.



Mandy said there seems to be a consensus supporting Option 2C. It does have more rock cut but that is the only potential negative. It is better than existing with an improvement to the geometry and traffic flow.

Decision: The Technical Team had no objections to recommending Option 2C.

Widening to the north/median/balanced

Lindsey said reviewing the widening will require looking at the entire project length of approximately 6 miles. The review will start from the EJMT entrance on the far west end of the project and work to the east. The design line work assumes the widening will only occur to westbound traffic and will not change the location of the eastbound lanes.

EJMT to the US 6 Interchange

The biggest concern between EJMT and US 6 is the potential landslide area to the north. This area is also constrained with a narrow median which includes a concrete barrier and narrow shoulders. Adding the auxiliary lane to the median in this area, would likely impact eastbound lanes which should be avoided. Narrower shoulders may be required to widen to the north to avoid cutting into the landslide area as much as possible.

Brian pointed out, if the westbound on-ramp from US 6 could be built as a standard diamond on-ramp it would minimize cutting into the landslide area due to removing the need for 2 lanes widening to the north (the acceleration lane and the auxiliary lane). He realizes a diamond interchange ramp is not feasible because of the grades in the area and the cuts that would be needed to fit the ramp in become additional safety concerns with the landslide. For these reasons, Brian wanted to acknowledge the diamond on ramp for westbound is not an option.

US 6 Interchange to Dry Gulch

Lindsey said in this segment, the concern for a landslide still exists and impacts to this area should be avoided. The paved median ends and transitions into a grassed median with guardrail. There is still limited space in the median, but it is not as constrained as with the concrete barrier. On the north side, a Forest Service Road exists and should be avoided. There are also some identified ditch wetlands along the road on the north side and they would likely be impacted if we widen to the north as they would get filled in with embankment.

Mandy said Francesca Tordonato (CDOT) thinks a formal jurisdictional determination for all the wetlands may make sense. On the north side there are a number of ditch wetlands which may be jurisdictional but confirming that and having discussions with the U.S. Army Corps to understand mitigation commitment early on may be helpful. There are very high value wetlands on the south side of I-70 so it may not be an even trade-off in terms of acreages.

Francesca agreed the wetlands and fens on the south side are sensitive so an approved jurisdictional determination would help clarify the mitigation needs.



Carrie said knowing that we have a restricted median between EJMT and to the east of US 6, is the group comfortable agreeing that widening to the north through this stretch would be desirable. The alternative would be to shift eastbound traffic or take away the inside shoulders in both directions.

Brian said he assumes the paved median is used for maintenance purposes, snowplow operations, and emergency response, so he thinks moving north would be preferred from the maintenance perspective rather than encroaching on eastbound lanes.

The actual boundary for highway use is defined in the Forest Service Easement, and it may have to be adjusted as we explore widening. If the definition doesn't currently exist, it should be a goal of the project to formalize the easement.

Nicole Malandri (US Forest Service) said the Highway Easement Deeds are to facilitate transportation and maintenance of the highway. She thought that I-70 had survey markers and boundaries that are already delineated. She would like to see the easement in a GIS layer for final analysis to determine what is included within the Highway Easement Deed and where it might extend.

Brian said the survey boundaries may have never been recorded, but now is the time to make those changes. There are several deeds for corridors that have never been recorded because they weren't a priority. The CDOT right-of-way team has been working through a backlog and there typically is not a need for the Deed until a project comes up such as this one.

Mandy said once we receive the survey, the deed will be updated.

Lindsey said moving further east towards Dry Gulch, depending on the Forest Service Road and the wetlands on the north side, this segment may be where a balance of expanding to the north and the median is desirable to limit impacts on both sides.

Brian said the Forest Service Road will be part of the A-line discussion as this come off of the ramps. Typically, FHWA likes to limit access points and this may require a larger discussion in formalizing the recreational parking access to the west.

Lindsey said throughout the project there are two potential wildlife underpasses. One location is shown in this section near MP 217.3. Just east of the wildlife crossing there is memorial site for a plane crash. The memorial appears far enough off the interstate that it should not be impacted.

Dry Gulch to Herman Gulch

This area also has ditch wetlands and drainage structures that will have to be considered. Once the team receives survey, we will have a better understanding if the structures will need to be extended. There is a steep drop-off area along the eastern part of Forest Service Road which may require fill if the alignment shifts to the north.

Brian said the team should consider the possibility of the wildlife crossings and the structures at US 6 being similar type structures as that would present an advantage in constructability and bidding. Essentially having the same structures for all three locations would be beneficial.



Mandy said the size of the wildlife crossings will be dictated by the length needed to cross I-70, but they will likely be wider to accommodate wildlife. If the crossing is on a skew, it will be longer and wider.

Carrie said we are specifically looking at underpasses because of the grades on the south side of the interstate and there will likely be two structures with an opening in the median to let daylight in to encourage wildlife to use them.

Continuing further east, the ditch wetlands remain on the north side. A common theme appears that widening to the north supports the future growth of I-70 EB as it preserves the median for eastbound widening where larger impacts are anticipated for any future widening of eastbound I-70 to the south.

Amy Saxton (Clear Creek County) noted that according to the Aesthetic Guidelines it is preferable visually to widen to the north instead of the median and Clear Creek County supports that.

Lindsey said as we approach the Herman Gulch interchange there is an avalanche chute/debris run to be aware of. The Herman Gulch interchange, unlike the US 6 interchange, has formalized recreational parking. It is difficult to know if widening to the north or the median at Herman Gulch is preferred as two side-by-side structures exist and the space between them is unknown and structure details will be needed to widen to either direction. Survey will help to provide information we need. Ultimately as the project progresses these structures may be replaced thus shifting to the north would be feasible. With the current recreational activities, shifting to the north is not expected to impact the trailheads, recreational access, or the existing small building just south of the parking lot.

There is a potential for a small fill wall to protect that building and the trailhead, perhaps a Type 9 barrier.

Herman Gulch to Bakerville

Lindsey said at Watrous Gulch the wetlands and gulch area would need to be protected and the structure possibly extended. In addition to the gulch, a westbound chain station exists. When survey is complete and the design is formalized, the chain station may move, become larger or be consolidated with the other chain station in the project area that exists closer to Bakerville. Adding the auxiliary lane to the north and preserving the chain station in the current location may require rock cuts and stabilization.

Some of the existing rock cuts do not meet the Aesthetic Guidelines for the I-70 Mountain Corridor so, if impacted, new rock cuts would meet the guidelines. There is about 1800 feet of rock cuts that would be impacted in this area near this chain station. In addition, the second proposed wildlife underpass crossing is just east of this rock cut at approximately MP 220.1.

Brian asked if we have started talking about wildlife fencing in the crossing areas.

Lindsey said we have discussed high level details regarding the wildlife fencing. The fencing would at least span between the two crossings, but more realistically span the entire project length from approximately the Eisenhower Johnson Memorial Tunnels (EJMT) to Bakerville.

Colorado Parks and Wildlife have voiced a concern about the length of the wildlife fence and access.



As we approach Bakerville the second chain station, furthest east within the project limits, exists. Currently, steep backslopes exist and present a concern for widening. With the aux lane being added to the north the slopes would need to be stabilized to preserve both the additional lane and the chain station.

Near the Bakerville interchange there are potential rock cuts on both the east and west sides of the interchange.

The decision has been made to start the auxiliary lane east of Bakerville which, in addition to the rock cut, ditch wetlands exist in this area.

6. Design Options and Evaluation Matrices for Auxiliary Lane

Lindsey said the matrix is divided into four sections. For every section and for each criteria, the team has weighed adding the aux lane to the median and the north. There are a few locations where going towards the median may be considered the best option, but overall, the north appears to be more favorable.

The four segments are:

- EJMT to US 6
- US 6 to MP 217.5 (East of Dry Gulch)
- MP 217.5 to MP 219 (Herman Gulch)
- MP 219 to Bakerville

The paved median in the segment from EJMT to US 6 is too narrow, thus the team is recommending widening to the north.

The conceptual Advanced Guideway System (AGS) alignment does not cross the median in the second and third segments and runs parallel on the north side so widening to the median could be considered to accommodate the AGS in the future.

Carrie said discussion seems to agree with widening to the north overall. Once we get survey and confirm information such as where the wetlands and structure piers are, the team can start to pinpoint locations where the design may need to go to median. Once those location are determined, they will be discussed with the Tech Team to ensure the team is in agreement.

Mandy said the recommendation for the widening is not a formal recommendation, but rather a guideline suggesting the design goes north unless there are problems, and those will be separate discussions. The median is important to preserve, but when it can't be preserved, there will be another discussion. Everyone agreed with the recommendation.

7. Decision Schedule/Additional Discussion

Mandy reviewed the decision schedule again and said the team is comfortable with the beginning and ending transitions. There has been good progress on the widening options today, but survey is still needed to confirm full widening to the north. For the US 6 interchange, it seems people are comfortable



with Option 2C, so the design team will move forward with that option. The two preferable wildlife underpass crossings have been identified. Chain Stations will be the next discussion but survey is needed to determine the best locations and options for improvements. Other features such as bridge replacement and water quality pond locations will not occur until March or later.

6. Next Steps

The group agreed the 2nd Friday of the month from 1:00-3:00 p.m. is a good time for the Technical Team meetings.

Mandy said we may cancel the February meeting because, with the delay in receiving the survey information, it may be more beneficial to wait until March to have the next meeting.

- Loretta LaRiviere (Peak Consulting) will send out the invitation to the Technical Team through August.

Carrie suggested we send the PLT an update of the project. Ben said there is a lot of overlap between the TT and PLT but it would be nice to send the PLT an update of where we are now and where we're headed. An email update will be developed and sent out.

Mandy said we should start to think about the public meeting. Public meetings would be a good topic for the Project Leadership Team (PLT) to give input on (timing, location, and format).

Brian said we will need to extend an invitation to the public meeting to the back country skier groups. They will be interested in hearing about the rock cuts and extending the Forest Service Road to the west and any changes to access and parking.

Rob Goodell said Loveland Ski Area would be happy to host the public meeting at the new Valley facility.



COLORADO

Department of Transportation

Westbound Bakerville to EJMT Auxiliary Lane

TT Meeting #4

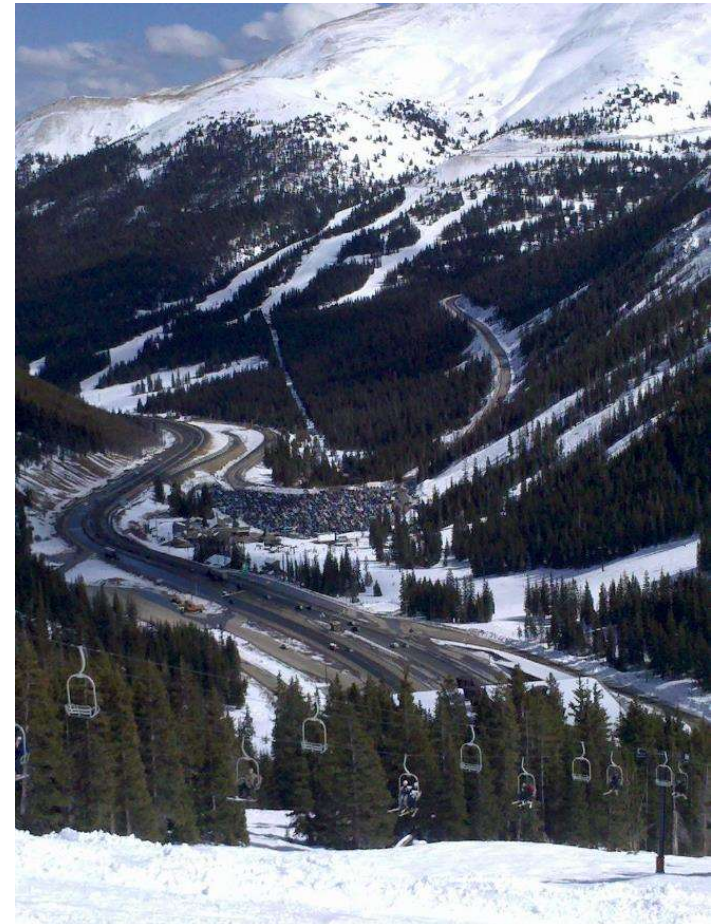
January 13, 2023



Meeting Agenda

- Welcome and Introductions (10 minutes)
- Project Update (10 minutes)
- Decision Schedule (5 minutes)
- Recommendations for beginning and termini of auxiliary lane (15 minutes)
- Design Options and Evaluation Matrices (75 minutes)
- Next Steps (5 minutes)

MEETING PURPOSE: Evaluate initial design options against CSS criteria to recommend concepts for further development.





Ground Rules

- Maximize productivity
- Share time so that everyone can participate
- Stay on point and on time
- Record issues needing future discussion in parking lot
- Close decisions and identify action items





- Meeting with Loveland on US 6 Interchange
- Meeting with CDOT Maintenance
- Survey





Element	Options	Considerations	Timeframe	Decision
Beginning Transition	East of Bakerville, West of Bakerville and at Bakerville	Trailhead facilities, truck merging and grades, interaction with Chain Station, On/Off Ramp traffic, and geohazard impacts.	January 2023	Beginning of lane
Ending Transition	East of brake check, at brake check, at signal	Truck grades and merging, improve access points to parking area at EJMT, proximity to tunnel with lane drop.	January 2023	End of lane
Widening	North/Median/Balanced	Future EB widening, geohazards, paving in the median, wetlands, and environmental impacts.	January/February 2023	Alignment Option
US 6	Three to five options, two eliminated due to steep vertical grades and geohazard impacts.	Loveland access, parking along WB off ramp, WB off ramp free flow movement, storage at stop sign, interchange wayfinding, and input from Tech Team on evaluation matrix.	January/ February 2023	Interchange selection
Wildlife Crossings	Four locations	Topography, interaction with change stations and recreation sites	November 2022	Preliminary Recommendation for two locations (MP 217.3- Dry Gulch and MP 220.1 - Kearney Gulch); Wildlife fencing from Bakerville to EJMT.



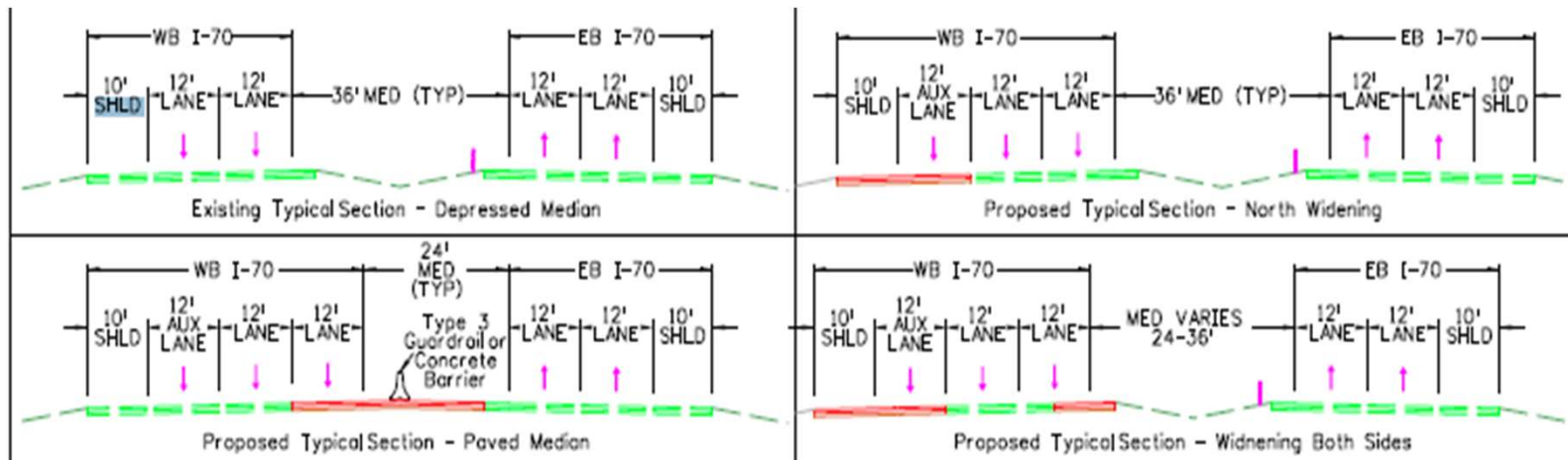
Decision Schedule

Element	Options	Considerations	Timeframe	Decision
Chain Stations	Improve at current location, relocate and/or expand	Geohazard impacts, positive separation, acceleration/deceleration lanes, added capacity, and input from Tech Team on evaluation matrix.	February/March 2023	Locations of chain stations
Other (e.g. water quality, bridges)	Water Quality - Treatment options for de-icing; Bridge replacement or widening.	Water quality pond locations; Existing conditions of bridges and ability to widen structure, doesn't preclude EB widening, and input from Tech Team on evaluation matrix.	March 2023	Design related to water quality and bridges



Design Options and Evaluation

- Widening north/median/balanced
- US 6 Interchange





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Next Steps

- Finalize recommendation for US 6
- Finalize recommendation for widening
- Future Meetings
 - 2nd Friday of the Month?