



PROJECT:	I-70 Frontage Road Improvement (Old US 40/CR 314)
PURPOSE:	PLT/TT #3
DATE/TIME HELD:	December 15, 2011: 1:00pm – 4:00pm
LOCATION:	Idaho Springs City Hall – 1711 Miner Street, Idaho Springs, CO

Meeting Minutes

1. Meeting Goal and Agenda Review

Jason Longsdorf reviewed the agenda and informed the group that we have already gone through the first four steps of the CSS process. During the meeting today we will try to get through Step 5. We will discuss input from recent meetings, summarize values, and briefly discuss the screening criteria and variances.

2. CSS Step 5: Confirm alignment and sections

During this meeting the alignment and cross sections were reviewed. At the end of the meeting there was a general endorsement of the refined options and specific issues that still need to be resolved were identified.

3. Process overview and website reminder

All of meeting materials and presentations can be found on the website:

<http://www.coloradodot.info/projects/i70frontageroad-idahosprings>

4. New Introductions

There were a couple of new people including Hugh Osborne and Jim Van Dyne. Jim is the CDOT Project Engineer and will oversee constructability review. The Lancaster's were also invited to be part of the PLT/TT.

5. Input from recent meetings

- Avoidance of Gem Power Plant remnants – This will be a part of Phase II because Phase I does not impact the area. Ben Acimovic stated that CDOT will look at this community resource and take steps to avoid the Gem Power Plant. The Project Team will confirm that there are no impacts but more information for this location is needed before we can confirm impacts.
- Rock Wall life span and maintenance requirements – This will be discussed during the Engineering Coordination Meeting on December 21st, 2011. Clear Creek County will be



involved and the Project Team will get the County's questions answered as soon as possible.

- Utility Coordination Process – Xcel and Comcast are starting their process to underground their utility lines. These companies will be doing this work at their own cost.
 - Idaho Springs utility extension - Mayor Morgan said that they have not and likely won't find money to put water or sewer lines in with the Phase I project, but there isn't any official word yet. To include the sewer lines in Phase I design, the Project Team will need to know by the first couple weeks in January 2012 if there will be enough money or not.
 - CDOT letter to document Lancaster Bridge protections – Jason Longsdorf will provide a copy to the Lancaster's. The letter will also be posted on the website.
 - Clear Creek County Board Meeting endorsement: During this meeting the purpose of the project was discussed and the team answered a lot of questions for the County. The commission endorsed the stay on alignment approach at the Gravel/Doghouse Bridge Decision Area. The Team talked to the commission about the different sections, but they didn't comment on any specific design aspects.
 - Clear Creek County Comments on FIR Documents: These will be addressed on December 21st 2011 at the Engineering Meeting.
6. Summarize values, screening criteria and variances
- Corridor Core Values: Sustainability, Collaborative decision making, safety, healthy environment, historic context, community respect, mobility and accessibility, aesthetics.
 - The values were listed in the Screening Criteria, which is located in the Concept Development Report. A summary of the preferred alternative and key features of the alternative can also be found in the report.
 - The USACE would rather see an avoidance alternative to cantilevers. The Project Team needs to present to the USACE if cantilevers are avoided (rock walls), what impacts this would cause compared to using the cantilevers.
 - The Eastern section will more than likely be the responsibility of the Twin Tunnels project due to the Twin Tunnels curve flattening on I-70 that will move the county road to the south with their project. They are working to minimize impacts to the Bell Property.
 - FHWA legal has come back and said that they would like a better explanation of the reasoning for Phase I, because they don't know if the current description is good enough



to show independent utility. The Project Team is looking at other improvements that are outside the Phase I area. We are looking at possibly doing some trail work on the western section and also exploring other options.

- FHWA Legal has requested that we demonstrate that one project doesn't trigger the need for the other project and that the frontage road project makes sense for bike/ped, mobility and safety. We need to explain why Phase I is Phase I without the Twin Tunnels project being connected to it. There needs to be a more of a justification of the start and end points for Phase I. We are looking to see if we can expand Phase I beyond its current extent.
- Mrs. Bell wanted to know if CDOT knew where all the underground tunnels are that go under I-70. Ben Acimovic stated that CDOT has maps that show where the voids are and this will be looked at under the EA project. Jim VanDyne and Mrs. Bell will take a look at the maps to see if they can provide additional information. Jim also stated that unknown voids are a risk because not all the voids can be found.

7. Review alignment and cross sections

- Western Decision Area: Cross Sections B, A, B
- Gravel/Doghouse Bridge: Cross Section F
- Phase I: Cross Sections B, D, E, D,
- Eastern Decision Area: Cross Section B - Possibility of restricting this to Cross Section A or F depending on decisions made by Clear Creek County with respect to impacts to the Bell Property.
- FIR Plan Wall Locations – There will be a relatively short cantilever at Wall 10 beginning a few hundred feet east of the dog house rail bridge. Wall 11 will be approximately 1800 ft long with a 28 ft max height beginning immediately east of Wall 10 and continuing east until the frontage road and creek separate.

8. Endorse refined option

Refinements include:

- 10 foot paths
- Determining maintenance needs on the walls
- Clarify what happens on the curve – in relation to the Gem Power Plant



- Trail crossing the road – what will that look like

This project looked at the design criteria:

- Design speed – maintain existing speed (CDOT knows it will cause huge delays during I-70 Twin Tunnels construction, but this is a frontage road and needs to be used as one before and after Twin Tunnels detour)
- Alignment
- Slope/cut/fill - rockery wall
- Disturbance – minimized impacts where possible, will not disturb any bridge structures.

Clear Creek Greenway

- Greenway design plans shows a barrier with 2' clearance, 8' path, and 2 ft shoulder
- AASHTO guidance requires at least 3 feet clearance from obstructions
- Need for 42" topple bar on guardrail to prevent bicyclists who accidentally strike the guardrail from falling over it into the traffic lanes or off the edge of the trail down the slope towards the creek. Please define what a topple bar is
- Transition of shared use path into eastern section

Greenway rails – roadside options

- Possibly use a timber rail instead of a jersey barrier, but would still need a topple bar on top of the rail. This would cause wildlife crossing and visual issues.
- The Project Team looked at Guidelines for building a path next to a roadway. Topple barrier would cause an impact to wildlife, recreation access, and visual. Therefore, the team looked at other possible options. Jeff Wilson presented two additional cross section options that show no barrier between the road and trail or between the trail and the river. There would be a barrier on the short cantilever section at Wall 10 between the cantilever and the steep drop off into Clear Creek
- Jeff stated that federal design guidelines (specifically the 1999 AASHTO Guide for Development of Bicycle Facilities (AASHTO)) suggest that if there is a minimum 5 ft space between the roadway and the trail, a barrier isn't necessary. Throughout this project the space between the roadway and the trail could be anywhere from 5 to 8 ft. This cross



section would consist of more of a detached trail without vertical barriers. With the barriers removed, this also reduces the negative wildlife and visual impacts. This space in between the roadway and trail may also address water quality issues. The majority of the roadway where cross section B or D is used could include this concept.

- The detour would not have to use the trail area and this trail could be built during Phase I. The Twin Tunnels could pave or fill in the 5' separation space between the trail and roadway, if more space was needed, but that is unlikely that they would need to. If the Twin Tunnels project does fill in the space, they would have to restore it to natural ground or whatever features or material was placed in there prior to the detour.
- There were a couple of questions about the timber rails as a possibility for the barrier. The timber may not be locally and readily available if a vehicle was to run into it and it would need to be replaced. Whatever material the timber rail is made of could potentially not be available or the material available may not quite match, resulting in a maintenance problem
- If barriers were used, they couldn't go in before the Twin Tunnels detour because they cannot have the Twin Tunnels put them in after they are done with construction to widen the EB bore to include a third lane This would cause the two projects to be joined.
- A barrier (topple bar) on top of the cantilever wall would be required to have spaces no larger than 6" in diameter. There is a small section on Phase I that will have a cantilevered wall and other cantilever sections are likely on Phase II.
- The Project Team would like the PLT/TT to consider the "no barriers" design concept approach and the Team would also appreciate some direction from the PLT regarding any design details they feel are important as well as the level of support they anticipate from their constituencies.
- The 5' separation between the road and trail could potentially be natural ground, rocks, grass, etc. This is up for discussion and constructability depending on the location of bedrock. It would probably be pervious, gravel or natural ground, with the exception of the cantilever section, because of the wall this section would have to be impervious. Water would run to the natural ground from this impervious section. The flow from the impervious section would be directed to avoid erosion and sediment problems.
- It was mentioned that we could put rumble strips within the 2 ft shoulder, but rumble strips cause safety concerns for bicyclists and would require wider shoulders.



- The recovery area that is outside the trail may be able to be vegetated but suitable plant species need to be carefully selected to ensure survival.
- The team would like to get feedback on a 5' separation without barriers. Once comments are received, the Team will put together some pros and cons of this cross section option. The graphics will then be posted on the website.
- Overall thought was that the open cross section is nice and provides more recreational opportunity and is almost like having a pedestrian lane for jogging. The PLT/TT has more technical questions in terms of maintenance or hazards of fall off, collection of sediment, and snow removal.
- This option meets AASHTO safety guidelines for a road with this volume of traffic for present and future.
- It was stated that there has been some bike path failure on the Georgetown Silver Plume trail which doesn't have barriers. That trail was not designed to current standards, and it has a problem with drainage and erosion. This trail should not have the same issues as the County and CDOT are working closely together to develop proper and adequate drainage that will function properly in the long-term and avoid these kinds of issues
- It is possible that there could be signs and pavement markings on the trail to discourage people from parking on the trail. There will be parking by the Doghouse Bridge and the pull-out section in Phase I. Another option is to have signs that say where the next river access is (so many feet or miles from this access). The Team is coordinating with the rafting companies to identify locations that are critical to their operations and with fishermen to develop user-friendly accesses that will minimize parking on the trail.
- A question about the possibility of having a curb on the outside of the trail was also mentioned, but a curb would create a drainage barrier, would need a 2 ft recovery area, and be subject to being damaged by snow plows.
- The Project Team will put together a graphic that shows where there could be more than a 5 ft space between the road and the trail. The Team will provide the PLT/TT with the layout for Phase I first and then a few weeks later provide layouts for Phase II.
- General endorsement of the cross section of the alignment was received today by the PLT/TT.

9. Next Steps



Follow up:

- Slides and main reasons pros/cons and identify where the 5 ft spaces or greater are located
- Concept drawing of the east end crossing for the trail
- Independent utility decision from FHWA Legal
- Identify where the eastern termini for our Frontage Road project is
- Research and provide examples of Rock wall maintenance
- Confirm on the curve – avoid Gem Power Plant remnants
- Pull-out (Cross Section E) how that will work with the new cross section options

Next:

- Clear Creek County will evaluate the new cross sections and talk to others to get information about what they think about it by the end of the day Tuesday the December 21st, 2011.
- Engineering Meeting is scheduled for December 21st, 2011.
- Idaho Springs City Council Meeting (not the planning commission) – follow up in January
- PLT/TT Meetings –January 18, 2012, Idaho Springs City Hall 1 to 4pm.
- Greenway ITF #2 – The Stakeholders and CDOT can talk about issues at PLT/TT meetings instead. If there are still unresolved issues, then another Greenway ITF meeting can be held. A status update for all members of the Greenway ITF will be sent out in January 2012.
- Final Office Review (FOR) – March 2012
- Advertisement – April 2012
- Construction Spring/Summer/Fall 2012