

Twin Tunnels Environmental Assessment



Purpose:	Technical Team Meeting		
Day:	Thursday	Date:	October 20, 2011

Location:	CDOT , Golden - Trail Ridge Conference Room
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Participants:

Attendee	Representing	
Ben Acimovic	CDOT R 1	Y
Phyllis Adams	Upper CC	Y
Carol Anderson	EPA	Y
Rick Beck	Clear Creek Co	Y
Jim Bemelen	CDOT R 1	Y
Rena Brand	USACE	N
Tom Breslin	Clear Creek Co	Y
Allan Brown	Atkins	Y
Steve Cook	DRCOG	Y
Maria D'Andrea	Jefferson Co.	Y
Jim DiLeo	CDPHE	Y
Gary Frey	Colorado Trout Unlimited	Y
Janet Gerak	CDOT R 1	Y
Stephanie Gibson	FHWA	Y
Dave Hattan	FHU	Y
Vanessa Henderson	CDOT EPB	N
Randy Jensen	FHWA	Y
Nicolena Johnson	Clear Creek EMS	N
Carol Kruse	USFS	N
Jack Morgan	Idaho Springs	Y
Jason Longsdorf	Parsons Brinckerhoff	Y
Gina McAfee	Jacobs	Y

Attendee	Representing	
Bill Macy	Idaho Springs	N
Tim Mauck	Clear Creek Co.	Y
Alison Michael	USFWS	N
Cindy Neely	Clear Creek Co.	Y
Pat Noyes	Pat Noyes	Y
Kevin O'Malley	Clear Creek Co.	Y
Amy Pallante	SHPO	N
Ty Petersburg	Colorado Parks &	N
Ron Prater	CSP	N
Bob Quinlan	Jacobs	N
Colleen Roberts	CH2M HILL	Y
Martha Rudolph	CDPHE	N
Steve Rudy	DRCOG	N
David Singer	CDOT	Y
Jo Ann Sorensen	Clear Creek Co.	Y
Darin Stavish	CDOT R 1	Y
Melinda Urban	FHWA	Y
Mary Jo Vobedja	CH2M HILL	Y
Rebecca White	CDOT Local Affairs	N
Mandy Whorton	CH2M HILL	N
Kevin Wright	FHWA	Y

Discussion Items

The purpose of the meeting was to discuss progress on the Twin Tunnels Environmental Assessment. Items show in **bold** are action items. Items **highlighted** represent decisions made during the meeting. Both action items and decisions are summarized at the end of these notes.

Introductions and Schedule

Participants introduced themselves.

Jim Bemelen opened the meeting. The EA schedule may be slipping a little bit but they are hoping to make up some time by having a shortened Department of Interior review period.

Doghouse Rail Bridge

The Twin Tunnels detour route will use the doghouse rail bridge – the bridge crossing Clear Creek south of I-70 at the Twin Tunnels – to route vehicles from I-70 to the frontage road. A recent study by SEH found the doghouse rail bridge is not structurally adequate to support interstate traffic, although it is adequate for the current level of frontage road traffic. Therefore, the bridge will require rehabilitation to accommodate interstate highway traffic. After construction, the County will have a bridge with a better sufficiency rating.

Pictures were passed around of the bridge to show meeting attendees its location within the project area. **Rick Beck will email the SEH report on structural adequacy to Jim Bemelen.**

It was asked if the Frontage Road project would impact this bridge. The Frontage Road Project team is considering an alignment that would bypass the current dirt road section. That alignment would construct a new bridge over Clear Creek near the west end of the project area and then use the doghouse rail bridge to connect back to the current frontage road. If that alignment is chosen, it is possible the bridge may need rehabilitation to support increased frontage road traffic volumes; the expectation is the volumes will go up significantly over time, but currently there is no data to confirm that. If this were the case, the bridge rehabilitation would be a requirement of the Frontage Road project rather than the Twin Tunnels project. If the frontage road does not use the doghouse rail bridge, then the need for rehabilitation would result solely from the Twin Tunnels project.

It was questioned if the frontage road and doghouse rail bridge needed to accommodate interstate traffic for use in emergency situations should interstate traffic need to be routed onto the frontage road. If the Frontage Road alignment were change to use the doghouse rail bridge, then the doghouse rail bridge and frontage road would need to accommodate interstate traffic. **It was agreed that the next meeting would include an update on the Frontage Road alignment.**

Thank you to Clear Creek County for providing the traffic counts.

The contractor who will be brought on board in early 2012 may be able to come up with some innovative ideas for the bridge rehabilitation. Insuring clearance for recreational users on Clear Creek will be taken into consideration during the design of the rehabilitation.

Status of the EA

Scoping Report. An outline of the scoping report was distributed (Attachment 2). The draft report will be done in a couple of weeks.

Schedule. The EA is on a very aggressive schedule, with the decision document to be signed in September 2012. The technical teams are performing field work to gather existing conditions data and will finish this work by the end of the month.

Section 4(f) Evaluation. It was asked if both the Twin Tunnels and Frontage Road projects will have a Section 4(f) evaluation. Because the Frontage Road is not federally funded it does not need to comply with Section 4(f) and will not have a Section 4(f) evaluation. CDOT will still minimize and mitigate impacts to recreation resources, but that will not occur under the umbrella of Section 4(f). The Twin Tunnels will have a Section 4(f) evaluation for the historic Twin Tunnels and recreational resources.

It was discussed that the Twin Tunnels Section 4(f) evaluation could be submitted to the Department of the Interior (DOI) as a separate document from the EA, prior to the release of the EA, in order to shorten the overall project schedule. **Stephanie Gibson will call the DOI to inquire if the Section 4(f) evaluation can be submitted separately from the EA to shorten the overall project schedule.**

It was suggested as a good idea for the Section 106 Issue Task Force to review the Section 4(f) evaluation before it is submitted to the DOI. **Stephanie Gibson will research if there are any legal issues on the ITF reviewing the Section 4(f) evaluation.**

Tolling as an Element of the Twin Tunnels Project Policy

Tolling is still being considered, in the form of a managed lane. CDOT Executive Director Don Hunt has confirmed that only the new lane would be tolled or managed. If a lane is free today, it will remain free. CDOT has no intention of tolling existing capacity. The current concept is that the new lane would be free most of the time, and the managed lane operation would only go into effect during congested periods.

Tolling is under consideration for congestion management and not for revenue generation. CDOT also needs to consider a managed lane to be consistent with the study of such lanes on other projects in Colorado.

The final decision on implementing a managed lane has not been made; it is being studied through the DynasT model at the University of Arizona. Once the results of that study are presented to the Executive Director at the end of October, management will make a decision about moving forward with a managed lane in the EA and associated community coordination.

It was asked whether Don Hunt will make the decision to *implement* a managed lane or to *analyze* a managed lane in the EA. The final decision on tolling may be a policy decision at CDOT, or it may be a project team decision based on evaluation criteria the team will need to develop. If the data indicates a managed lane would be effective, the direction will be to analyze it in the EA, and the project staff will come back to the Project Leadership Team and Technical Team for further discussion. The decision will be made within the same time frame as the EA.

CDOT has recently met with a national expert on tolling and are discussing tolling operations with him.

Managed Lane Operations

Fees. It was asked what the difference is between tolling and managed lanes. The difference between the two concepts is that a tolled lane is the same toll all the time and a managed lane toll changes depending on traffic conditions.

CDOT will identify a minimum speed that the managed lane must achieve, and CDOT will change the toll to maintain that speed. Concern was voiced about safety because the changing fee could cause drivers to weave in and out of the managed lane. Advanced signing would solve that problem.

It was inquired if carpool lanes are being considered. No, only a tolled lane is under consideration.

Roadway section. The managed lane will be buffer separated with double white lines and space in between. This concept is used successfully in other states and is very effective. Steep fines and peer pressure keeps drivers in the correct lane despite the lack of a physical barrier.

Jack Morgan said I-15 from Provo to Salt Lake City is using the concept of changing fees and buffer- rather than barrier-separated lanes. It is causing chaos because the number of lanes being tolled and the amount of the toll change frequently and create traffic jams of people trying to get out of the managed lanes.

Managed lane location. How will the managed lane be effective if it's only for two or three miles, and the congestion is relieved immediately east of the Twin Tunnels. Would drivers actually pay to use the lane in this location? CDOT has the same question and they are studying it through the traffic modeling. Other states' experience indicates that people will pay to use the managed lane, even in this situation. CDOT does not think they can toll farther east (to the base of Floyd Hill) because it might affect traffic trying to get into the left hand exit to US 6.

It was noted that there is a big difference between people willing to pay tolls for commuting on I-25 & E-470 and recreational users on I-70. There is great concern about charging people to visit the mountains via the I-70 corridor because there are no alternate routes to use.

It was asked whether the entry and exit points would be in multiple locations or at beginning and end only. That decision has not yet been made, but in theory, drivers could enter at any location.

EA Analysis

The traffic team is studying the performance of the system under various toll scenarios for the managed lane, described further at the end of these minutes in the Traffic Update.

The template of the road and tunnel is the same whether there is a managed lane or not; the width needed for the buffer separation would come out of the shoulders, with a design variance. Therefore, the EA is moving forward independent of the tolling decision.

The EA will analyze the Proposed Action with two options: with tolling, and without tolling. The main differences are likely to be in traffic, safety, noise, and air quality, and other resources

are unlikely to be affected. If tolling is not analyzed in the EA, the Alternatives chapter will document why it was eliminated from consideration.

Community Involvement

Tim Mauck requested clarification of the community's role in the tolling discussion and decision-making process. He feels CDOT is piece meal tolling in the I-70 corridor. He stated the decision could be made elsewhere in the corridor to toll all lanes to generate revenue, and that would affect the tolling decisions made for the Twin Tunnels project. Jack Morgan stated that CDOT must get buy-in from the communities to toll. Tim asked whether community consent for a managed lane for the Twin Tunnels project would result in the ability of CDOT to toll elsewhere or in a different manner within that community, without consulting the community.

The FASTER legislation requires the High Performance Tolling Enterprise to consult with communities anytime tolling decisions are made; if tolling were to change in the Twin Tunnels area in the future, CDOT would be required to consult with the community.

Although Federal legislation allows state DOTs to toll existing capacity, Colorado state legislation requires CDOT to consult with communities and provides communities the ability to stop tolling if they do not agree with it. Through the 1401 process, communities have legal recourse. Mike Cheroutes from the High Performance Tolling Enterprise will meet with communities in the area before the final decision on tolling is made. Project Leadership Team, Technical Team, resource agency, and community input and approval will be very important on the tolling decision.

It was asked if the 1401 process allows a single community to hold up the entire process if they don't agree with tolling in a large corridor. For example, if CDOT wants to toll US 36 and all but one of the surrounding communities agree with tolling, can the one dissenting community hold up the entire process? How does CDOT address tolling when some communities want it, and others don't? In that case, CDOT could make the decision to toll in concert with the majority of communities, and the dissenting communities can file suit against CDOT if they wish. It was clarified that all communities in the US 36 corridor have stated they agree with extending the HOT lane all the way to Boulder. However, improvements on C-470 did not move forward because one community disagreed with tolling.

It was requested that CDOT consider the views of citizens throughout the state on tolling, since a large portion of the state's population travels through the I-70 corridor throughout the year. I-70 is not the same as US 36 or C-470, where people have nearby alternate routes; there are no nearby alternate routes to I-70 through the Twin Tunnels.

The community involvement for managed lanes for the Twin Tunnels project will occur as part of the NEPA process. FHWA will not approve tolling unless CDOT can show analysis of the tolling and community consultation.

Current legislation provides several different ways to toll interstates. If a state DOT reconstructs a portion of an interstate, they are allowed to toll the entire system, including existing capacity, with FHWA approval. SAFETEA-LU provides several other ways to toll, but all tolling requires FHWA approval.

Resource Agency Involvement and Approval

It was asked how resource agency input is considered, given the fact that communities have veto power. If the EA analyzed a managed lane option and a non-tolled option in the EA, and air quality was better under the managed lane option, APCD could only approve the managed lane option. If CDOT chose the non-tolled option because of community rejection of the managed lane concept, APCD would not be able to approve the non-tolled option if it made air quality worse. There is concerned about that scenario.

Tolling would need to be in the RTP for air quality conformity, so APCD could acknowledge that tolling is in the RFP. It was confirmed that a plan amendment would need to occur through DRCOG in order to fund the project with a managed lane.

Resource agencies will be part of the discussion on tolling, through the Technical Team. Agency input is extremely important, and FHWA would coordinate with the resource agencies to work through any issues if agencies disagreed with the tolling plan.

Traffic Update

DynasT Model. The traffic and tolling study is using the DynasT model developed by the University of Arizona. It will look at a managed lane, a general purpose lane, and do-nothing scenarios to provide information on how congestion, travel time, speeds, vehicle hours of delay, and other variables are impacted. The model is complex and includes different toll amounts and the use of alternate routes such as US 285. When the tolling study is complete in late October, it will be presented to the CDOT Executive Director.

VISSIM Model. A separate VISSIM model is being used to analyze traffic during the construction period.

Safety Study. The team is analyzing the safety data received from Idaho Springs. There are a few discrepancies in the numbers between state patrol and Idaho Springs records that he needs to resolve. The discrepancy may be because the Colorado State Patrol responded to some of the accidents rather than the Idaho Springs police.

Of the 584 accidents in the study area this year, 56% of accidents are with fixed objects, meaning that the vehicles left the road and hit the guardrail or something else not in the travel lane. 10% of accidents are sideswipe, and 5% are overturning. All of those accident types indicate that people are driving too fast for the roadway geometry. About 30% of accidents happen when roads are icy, so the weather is not the primary driver. About 50% of accidents happen at nighttime. The safety report will summarize all of this information.

The highest accident section is between the Twin Tunnels and Hidden Valley and most of the accidents can be attributed to cars going too fast. Specifically, 72% of accidents are with fixed objects, 7% are sideswipes, and 4% are overturning vehicles; thus, 83% of accidents can be attributed to traveling too fast in this particularly area, versus 70% throughout the entire project area.

It was noted that driver distraction causes a lot of the accidents, particularly at the curve by the Hidden Valley interchange. It is planned to improve the geometry for that curve.

The data will be broken down by each curve and the design team will use it in the design of the tunnel widening, rebuilding the bridge at Hidden Valley, and improving roadway safety.

Status of the Issue Task Forces

The Issue Task Force (ITF) Purpose Statements for the SWEEP, ALIVE, and Section 106 ITFs(Attachment 2) were reviewed. The ITFs for the Twin Tunnels and Frontage Road projects have been combined to eliminate duplicative work and reduce the number of meetings needed.

The SWEEP ITF will study mitigation and enhancements for water resources and aquatic species in the Twin Tunnel area. They will have three meetings. The first meeting was Wednesday, October 19, and the second meeting will be Wednesday, November 30.

The ALIVE ITF will concentrate on wildlife linkages and connectivity across the I-70 corridor. They will have two meetings; the first meeting is scheduled for Wednesday, November 9. Although the project isn't within any of the linkage interference zones identified in the ALIVE MOU, additional studies completed in September 2011 inventoried all of the crossings in the corridor and included guidelines for an implementation process similar to that outlined in the SWEEP MOU. There are opportunities to improve linkages and permeability in this area, even though it is not within a linkage interference zone.

The Section 106 ITF is focused on historic issues and met on September 16. They modified the Area of Potential Effects during that meeting. They will reconvene after the historic survey has been completed.

It was stated that the Frontage Road needs to have an ITF for recreational resources. **Ben Acimovic said they are forming a Greenway ITF at their next Frontage Road PLT meeting.**

Other Issues

It was announced that the Transportation Commission approved \$60M in funding for the Twin Tunnels at their meeting this morning.

The meeting was adjourned at 10:35. The next Technical Team meeting will be on Thursday, November 17 from 9:00 - 11:00 in the Trail Ridge conference room at CDOT in Golden.

DECISION LIST	
Decision	Made by
The next meeting will include an update on the Frontage Road alignment.	Group

ACTION ITEMS			
No.	Technical Team Meeting	Responsibility	Status
1	Email the SEH report on the doghouse rail bridge to Jim Bemelen.	Rick Beck	
2	Call the DOI to inquire if the Section 4(f) evaluation can be submitted separately from the EA, and prior to the release of the EA, to shorten	Stephanie Gibson	

ACTION ITEMS			
No.	Technical Team Meeting	Responsibility	Status
	the overall project schedule.		
3	Research if there are any legal issues on the ITF reviewing the Section 4(f) evaluation.	Stephanie Gibson	
4	Ben Acimovic said they are forming a Greenway ITF at their next Frontage Road PLT meeting.		

Twin Tunnels Environmental Assessment

Technical Team
Meeting Notes, 10/20/2011

Attachment 1



I-70 Twin Tunnels Environmental Assessment Technical Team

**Thursday, October 20, 2011
Golden Residency
9:00 am – 12:00 pm**

1. Introductions and Schedule (Bemelen)
2. Doghouse rail bridge condition (Bemelen)
3. Status of EA (Singer)
4. Tolling as an element of the Twin Tunnels project(Bemelen)
5. Traffic Update (Hattan)
6. Status of Issue Task Forces (Noyes)
 Purpose for each
 Combined teams for Frontage Road and Twin Tunnels projects
7. Next Technical Team Nov, 17, 2011 (Bemelen)
 Presenting the conceptual design of the tunnel and roadway

Handouts

Agenda
Scoping Report Outline
ITF purpose statements

Date	Group	Purpose
Oct. 20	TT	Review Environmental Scoping Present Issue Task Forces Progress
Nov. 3	PLT	Present Environmental Status Discuss Refinements to the Proposed Action (MOVED FROM OCT. 6 th MEETING)
Nov. 17	TT	Present Environmental Status Present Issue Task Forces Progress Discuss Refinements to the Proposed Action (MOVED FROM OCT. 6 th MEETING)
Dec.	PLT and TT	Proposed Action Footprint Dates for future meetings Present Issue Task Forces Progress
Jan	NO PLT or TT	
Feb	PLT	Schedule and Project Status Discuss Impacts
	TT	Discuss Impacts Present Issue Task Forces Progress
Mar	PLT	Schedule and Project Status Discuss Mitigation
	TT	Discuss Mitigations Final Reports from Issue Task Forces
Apr	NO PLT or TT	
May	PLT and TT	Present highlights of the EA Discuss the Public Hearing
June	NO PLT or TT	
June	Public Hearing	Present the Process, EA results, solicit comments
July	PLT	Next Steps for the PLT Discuss results of the Public Hearing
July	TT	Discuss results of the Public Hearing Close the TT

Twin Tunnels Environmental Assessment

Technical Team
Meeting Notes, 10/20/2011

Attachment 2

Scoping Report Outline

Introduction

- Project Background
- Purpose and Need
- Summary of Transportation Conditions
- Summary of Environmental Conditions
- Proposed Action
- Public Involvement Approach
- Project Leadership Team
- Technical Team
- Issue Task Forces

Notification of Scoping

- Agency Scoping Notification and Outreach
- Public Scoping Notification and Outreach

Scoping Meetings

- Locations and Attendance
 - Agency Scoping Meeting
 - Public Scoping Meeting
- Meeting Format and Content
 - Agency Scoping Meeting
 - Public Scoping Meeting

Scoping Comments

- Agency Scoping Comments
 - Scoping Meeting Comments
 - Written Comments
- Public Scoping Comments
 - Scoping Meeting Comments
 - Written Comments

Appendices

Summary of Transportation Conditions

- Summary of previous and current evaluations, critical issues and problem areas, and constraints for each of the following: roadway, structures, geotechnical, tunnel, traffic, safety, bicycle/pedestrian conditions

Summary of Environmental Resources in the Project Area

- Resource-by-resource summary of conditions, Tier 2 commitments, and methodologies

Agency Scoping Meeting Materials

- Agency scoping invitations
- Sign-in sheet
- Presentation slides
- Handouts
- Written comments

Public Scoping Meeting Materials

- Announcements and advertising
- Press releases
- Sign-in sheet
- Presentation slides
- Handouts
- Display boards
- Written, website, and email comments

Twin Tunnels Environmental Assessment

Technical Team
Meeting Notes, 10/20/2011

Attachment 3

ALIVE Working Group

(A Landscape Level Inventory of Value Ecosystem Components)

Goal:

Increase the permeability of the I-70 Corridor to terrestrial and aquatic species to provide and maintain long-term protection and restoration of wildlife linkage areas, improve habitat connectivity, and preserve essential ecosystem components.

Outcomes/Actions:

Use the MOU to implement corrective actions to solve permeability problems identified in the linkage interference zones.

Use the MOU framework for ongoing coordination between stakeholders

Work cooperatively to maximize effective and efficient use of limited resources

SWEEP Working Group

(Stream and Wetland Ecological Enhancement Program)

Goal:

Improve, enhance, and protect water resources and ecological services in the I-70 Corridor by including mitigation and/or enhancements in advance of and during project development, project design, project construction, and system operations and maintenance, and maintaining those mitigations or enhancements into the future. Water resources include: water quality, wetland and riparian ecosystems, fisheries, aquatic-dependent communities, water supply, and recreational opportunities.

Outcomes/Actions:

Use the MOU established as the framework to assure the protection of water resources.

Develop recommendations for mitigation and/or enhancement for the streams, rivers, lakes, and reservoirs in the Twin Tunnel area.

Section 106 Programmatic Agreement (Historic)

Goal:

Using the Programmatic Agreement and the historic context for the I-70 Mountain Corridor, CDOT will facilitate planning and streamline development of the Twin Tunnels Environmental Assessment in consultation with the FHWA, SHPO and the other corridor consulting parties.

Outcomes & Actions:

- Plan, design and implement the Twin Tunnels in accordance with the principles of Context Sensitive Solutions.
- Plan, design and implement the Twin Tunnels EA in accordance with the I-70 Mountain Corridor Programmatic Agreement, fully executed in April 2008.
- Provide substantial opportunities during the Twin Tunnels EA for consulting party input concerning design and construction options and variances.
- Consider direct, indirect, and cumulative effects on historic properties and consider measures to improve existing conditions affecting historic properties.
- Seek agreement among FHWA, CDOT and the consulting parties when making decisions on the Twin Tunnel EA.