

I-70 Frontage Road Improvements

Old US 40 / CR 314

Project Leadership Team / Technical Team Meeting #2.5
November 1, 2011

Jim Bemelen, I-70 Corridor Manager
David Singer, I-70 Corridor Env. Manager
Benjamin Acimovic, Project Manager
Janet Gerak, Project Env. Manager



Review of PLT #2

- New cancellation protocol – consistent with Clear Creek County Schools
- PLT #2 presentation and minutes on website
- Discussion but no decisions
- This is an updated version of presentation from PLT #2

Process Overview

- Categorical Exclusion for frontage road improvements east of Idaho Springs to Hidden Valley
- Project Schedule
 - PLT/TT Meeting August 31, 2011
 - Scoping September 7, 2011
 - PLT/TT Meeting #2 October 26, 2011
 - PLT/TT Meeting #2.5 November 1, 2011
 - Field Inspection Review December 2011
 - Final Office Review March 2012
 - Ad date for Phase I April 2012
 - Construction of Phase I Summer /Fall 2012
- Anticipating \$6M project budget - for design and construction



Agenda

- 9:05 New Introductions
- 9:15 Updates
- 9:30 Greenway Process
- 9:45 Work Plan Review
- 10:00 Screening Criteria
- 10:15 Break
- 10:30 Cross sections, decision areas,
and conceptual costs
- 11:45 Next Steps

Step 1
Define Desired Outcomes
and Actions

Step 2
Endorse the Process

Step 3
Establish Criteria

Step 4
Develop Alternatives and Options

Step 5
Evaluate, Select, and Refine
Alternatives and Options

Step 6
Finalize Documentation and
Evaluation Process



New Introductions

- Project Leadership Team / Technical Team (PLT/TT) new members
 - Rafting community representatives Suzen Raymond and John Rice
 - Colorado State Patrol Captain Ron Prater



Updates: Frontage Road website

The screenshot shows the Colorado Department of Transportation (CDOT) website. The header includes the CDOT logo with the slogan "Taking care to get you there" and the text "DEPARTMENT OF TRANSPORTATION". A navigation menu contains links for HOME, TRAVEL CENTER, NEWS, BUSINESS CENTER, PROGRAMS, PROJECTS, ABOUT CDOT, and LIBRARY. A search bar is located in the top right corner. The main content area is titled "I-70 Frontage Road - East of Idaho Springs".

What is the I-70 Frontage Road Improvements Project?

The Colorado Department of Transportation (CDOT) has initiated the I-70 Frontage Road Improvements project as part of the commitments from the I-70 Mountain Corridor Programmatic Environmental Impact Statement (PEIS). The goal of this project is to develop context sensitive solutions (CSS) for the Frontage Road to provide enhanced safety and mobility for vehicles, pedestrians, and bicyclists. Project ideas will be developed and studied in coordination with the Project Leadership Team and will be evaluated for environmental impacts in a Categorical Exclusion (Cat Ex).

This project will be developed in two phases:

Phase I - Construction is planned for Spring/Summer 2012. The Frontage Road reconstruction project limits are between the old US 40 bridge (Doghouse Bridge) and just west of the Hidden Valley/Central City Interchange (Exit 243).

Phase II - Future Construction - Phase II will include approximately two miles of frontage road and Greenway construction or reconstruction between eastern Idaho Springs (I-70 Exit 241) and the Hidden Valley/Central City Interchange (Exit 243). This also includes the full width of the Phase I section for use as part of the Greenway.

The final Cat Ex will provide environmental clearance for both Phase I and Phase II of the Frontage Road.

I-70 Frontage Road Improvements

How does this project interact with the Twin Tunnels Environmental Assessment (EA)?

The I-70 Frontage Road project is independent of the Twin Tunnels project, but elements of the Frontage Road are expected to be used as part of the detour during construction of the Twin Tunnels project. Both projects have similar core values and stakeholders. Phase I of the I-70 Frontage Road project is state funded and will provide immediate safety benefits to the existing Frontage Road with construction starting in Spring/Summer 2012. It is anticipated that Phase I of the Frontage Road project will be completed in time for use as part of the detour for Twin Tunnels Improvements.

<http://www.coloradodot.info/projects/i70twinTunnels>

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Updates: Open House comments

Received at Twin Tunnels EA Open House – September 27th

- “Some inconvenience now, better access later.”
- Offer to provide survey data and bore tests of frontage road
- Offer to lease office and warehouse space for contractors.
- Emergency responders request for a special access at the dirt road/doghouse bridge intersection to avoid I-70 congestion
- Can the transitions be used to enhance greenway facilities or access to the river?



Updates

- Relocates and water/sewer plans
- Doghouse rail bridge sufficiency



Updates: Greenway

- Greenway refinement process
 - Participant suggestions
 - “doodle” date scheduling
 - Interim v ultimate
 - CDOT v local responsibilities
- Additional funding opportunities
 - CDOT Transportation Enhancement Grants requested mid-Nov. to Dec 1
 - GOCO



Work Plan

- Elements for consideration and approval
 - Project Context Statement
 - Desired Outcomes
 - Team and Roles
 - Public Involvement Plan



Work Plan: Context Statement

- I-70 is Colorado's only east-west Interstate. The adjacent frontage road (CR 314) provides access to local businesses, recreation, and residences and an alternate east west connection for vehicles, bikes, and pedestrians.
- Between Idaho Springs and Hidden Valley, the frontage road is parallel to I-70 and Clear Creek. It provides a natural crossing for wildlife and connects local communities to regional services, recreation, and I-70.



Work Plan: Desired Outcomes

- Complete design and environmental for corridor from Exit 241 to 243
- Enable Phase I construction Summer 2012
- Enhance the experience for Greenway users and facilitate recreational use of Clear Creek



Work Plan: Teams and Roles

- **Project Leadership Team / Technical Team (PLT/TT):** Collaborative team that ensures consistency with the CSS 6-Step Process and provides multidisciplinary experts in all Core Values.
- **Project Staff:** Multidisciplinary team includes experts in planning, design, public process, and communication.
- **Issue Task Forces (ITF):**
 - ITF to be formed for Greenway issues
 - ITF may be formed for utilities
 - Coordinating with Twin Tunnels EA ITFs' for SWEEP, ALIVE and Section 106 issues.



PLT/TT Meeting #2.5 11/1/2011

Work Plan: Public Involvement Plan

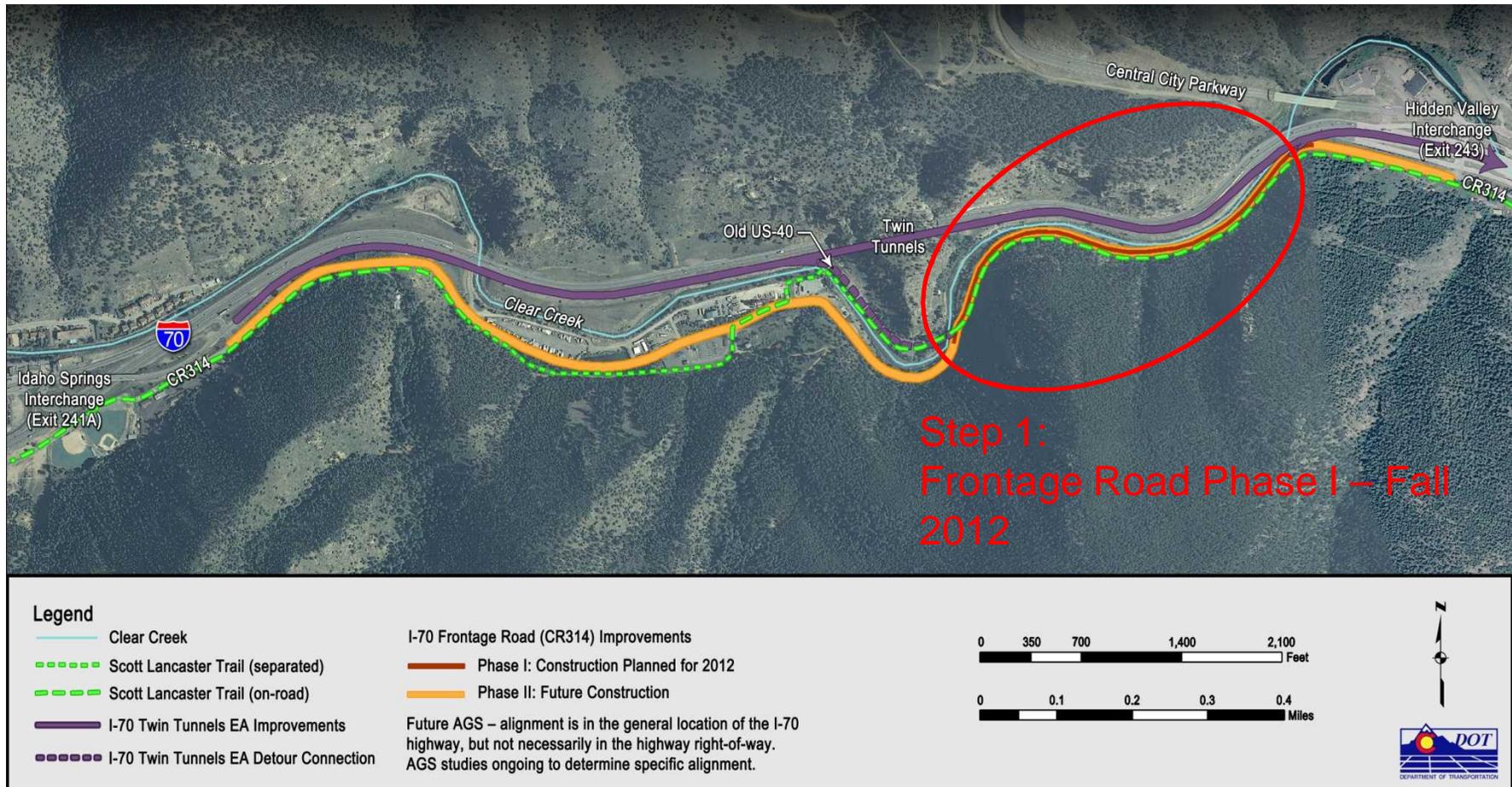
- PLT oversight
- CDOT hosted website
- Monthly newsletters to stakeholders
- Coordination with Twin Tunnels Public outreach



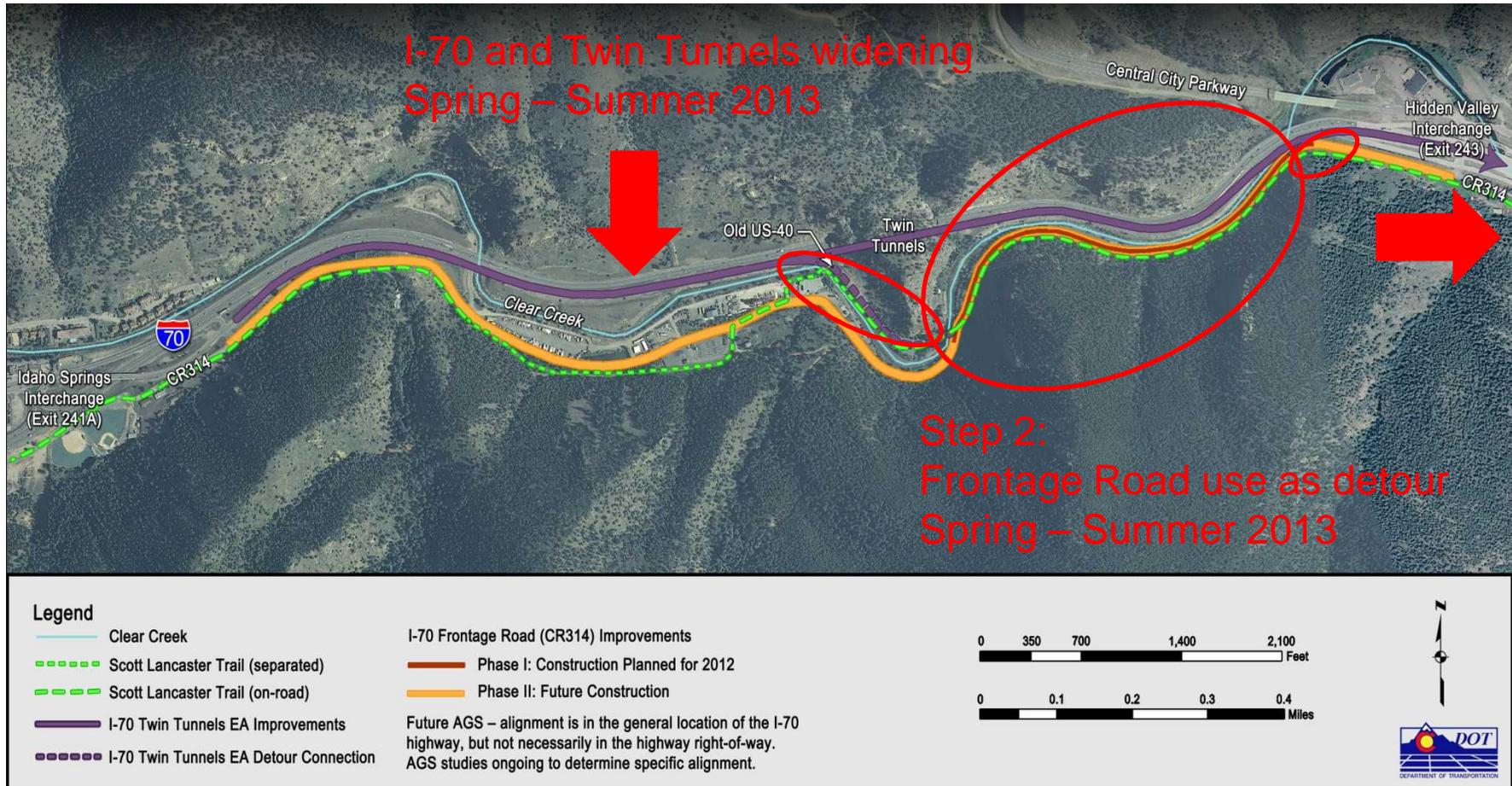
Timing and Interactions between Twin Tunnels EA & I-70 Frontage Road Cat Ex

Step No.	Step Name	Timeline
1	Frontage Rd Phase I	Open Fall 2012
2	Frontage Rd used as I-70 detour and Twin Tunnels improvements	Spring – Summer 2013
3	Restoration of Phase I of Frontage Road after use as detour	Immediately after detour use Fall 2013
4	Frontage Rd Phase II	TBD based on funding

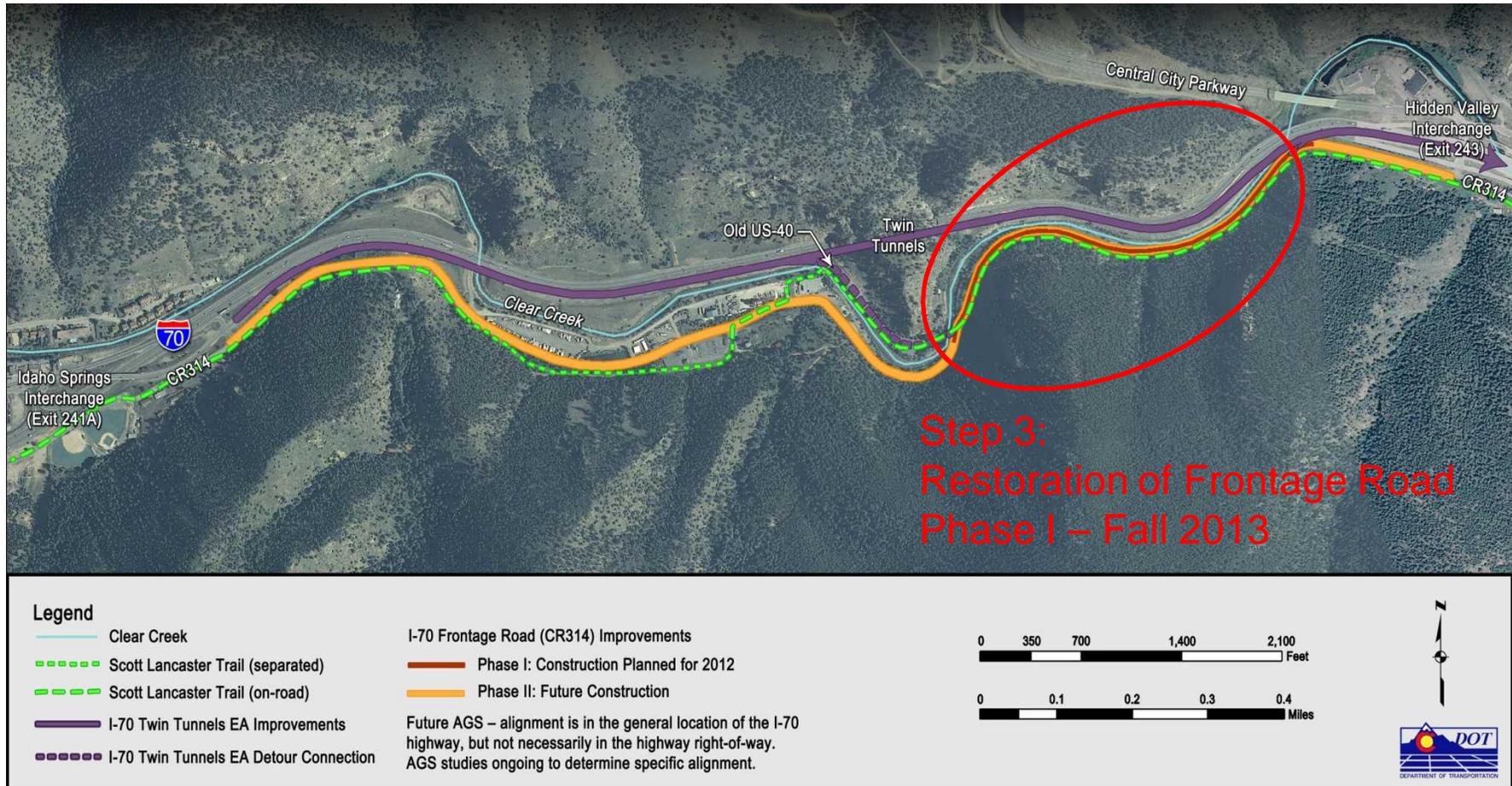
Timing and Interactions between Twin Tunnels EA & I-70 Frontage Road Cat Ex



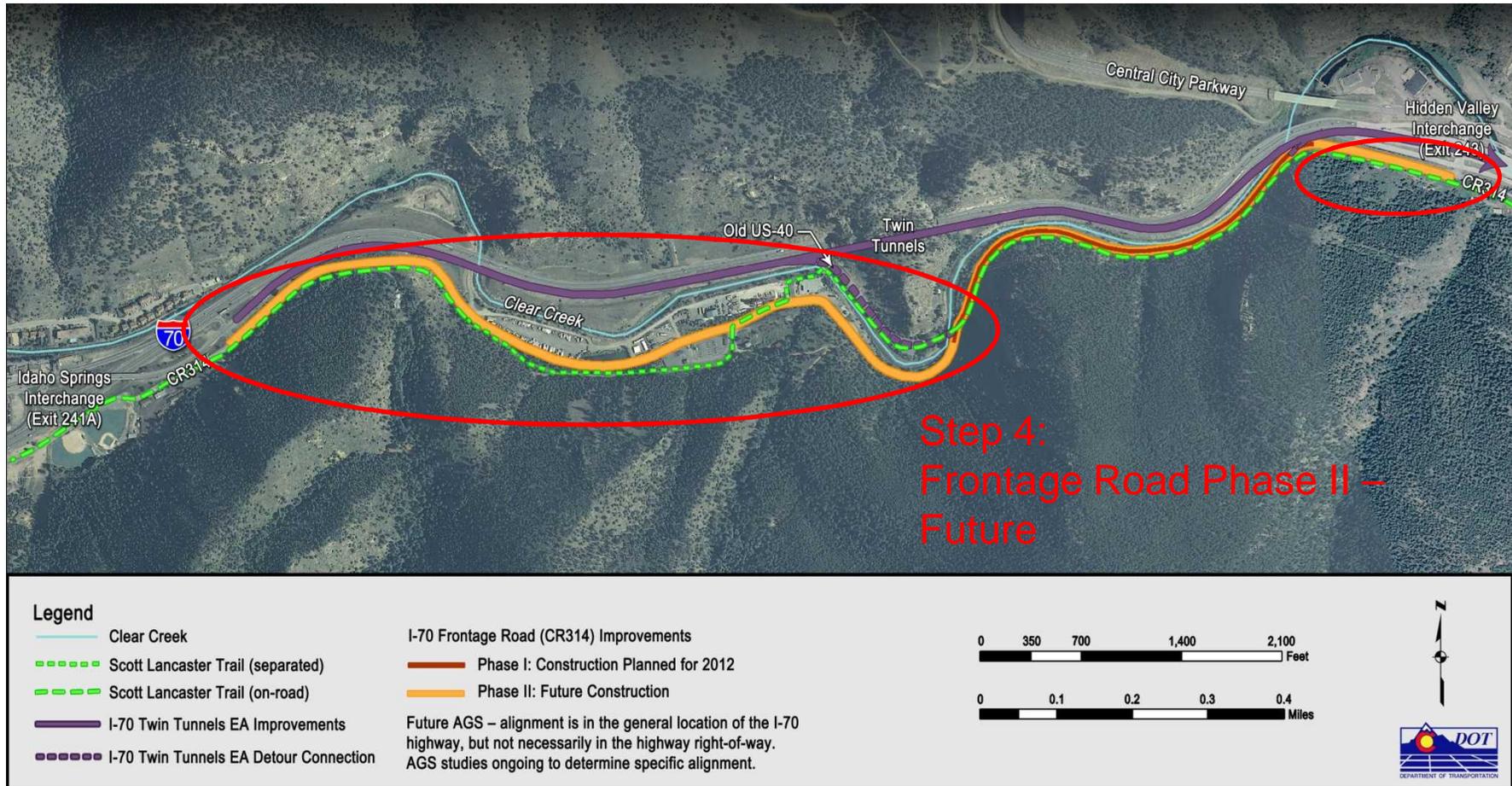
Timing and Interactions between Twin Tunnels EA & I-70 Frontage Road Cat Ex



Timing and Interactions between Twin Tunnels EA & I-70 Frontage Road Cat Ex



Timing and Interactions between Twin Tunnels EA & I-70 Frontage Road Cat Ex



Screening Criteria

IDAHO SPRINGS - AREA OF SPECIAL ATTENTION REPORT

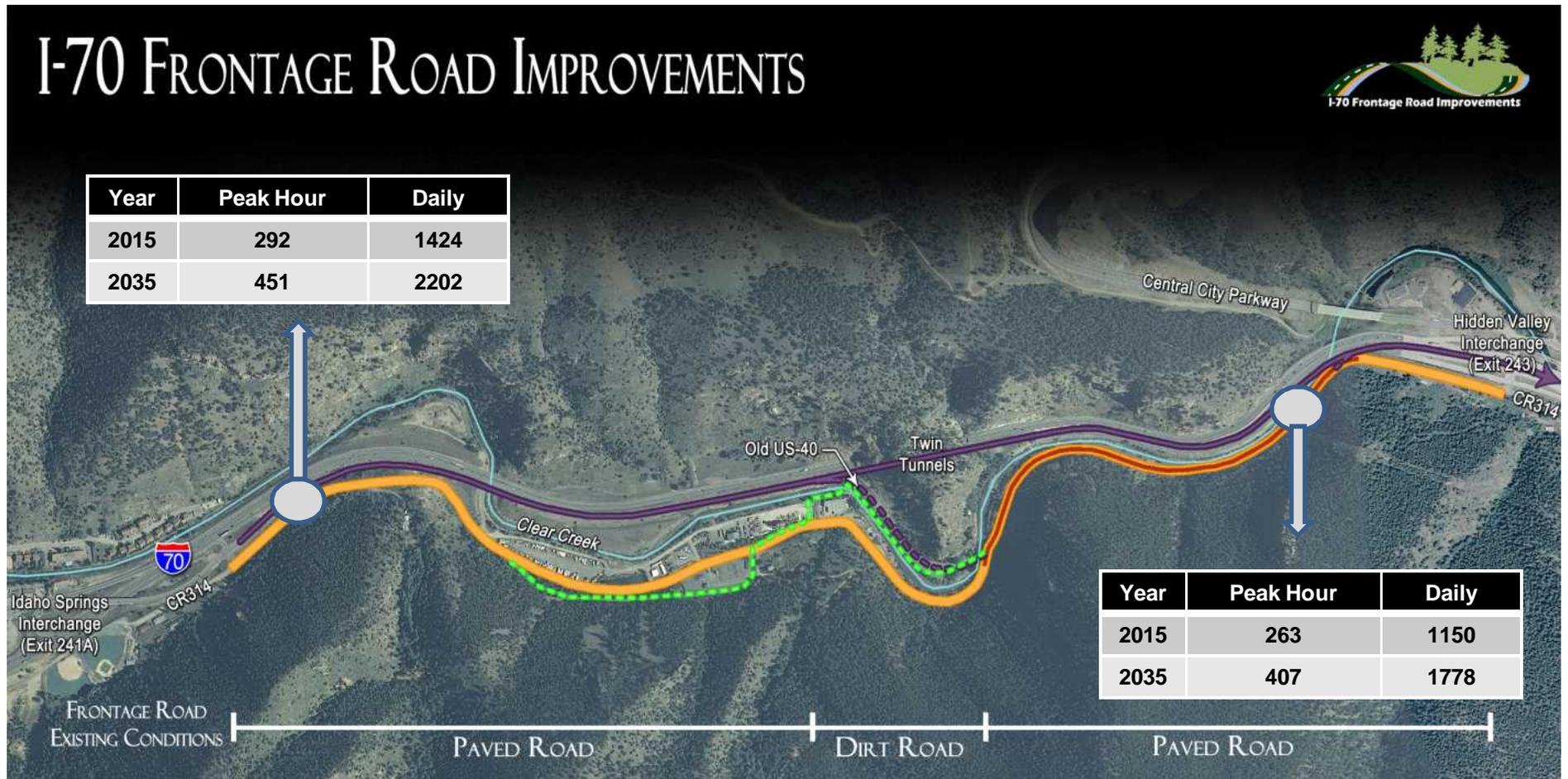
MOUNTAIN MINERAL BELT

MARCH 2011

- Based on Idaho Springs ASA recommended criteria
- Also includes PEIS and project specific suggestion
- Review Draft Criteria
 - Mobility
 - Healthy Town
 - Environmental
 - Sustainability

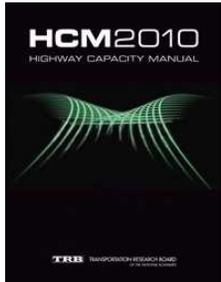


Traffic Projections



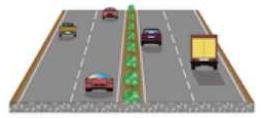
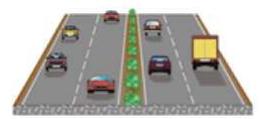
Notes: Traffic Count information provided by Clear Creek County for various day and times in 2009, 2010, and 2011

PLT/TT Meeting #2.5 11/1/2011



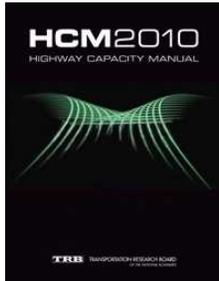
Level of Service (LOS)

Two-Lane Highways

LOS	Flow Conditions	<u>Class II Highways</u> PTSF (%)	Technical Descriptions
A		≤ 40	Speed would be controlled primarily by roadway conditions.
B		$> 40 - 55$	Passing demand and passing capacity are balanced.
C		$> 55 - 70$	Most vehicles are traveling in platoons. Speeds are noticeably curtailed.
D		$> 70 - 85$	Platooning increases significantly. Passing demand is high, but passing capacity approaches zero.
E		> 85	Demand is approaching capacity. Passing is virtually impossible. Speeds are seriously curtailed.

Notes:

- PTSF: Percent Time Spent Following → the freedom to maneuver and the comfort and convenience of travel.
- LOS F exists whenever demand flow in one or both directions exceeds the capacity of segment. Operating conditions are unstable, and heavy congestion exists.



Level of Service (LOS)

Signalized Intersections

LOS	Control Delay (s/veh)	Technical Descriptions
A	≤ 10	v/c is low and either progression is exceptionally favorable or the cycle length is very short . If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.
B	$> 10 - 20$	v/c is low and either progression is highly favorable or the cycle length is short . More vehicles stops that with LOS A
C	$> 20 - 35$	v/c is high and either progression is favorable or the cycle length is moderate .
D	$> 35 - 55$	v/c is high and either progression is ineffective or the cycle length is long . Many vehicles stop and individual cycle failures are noticeable.
E	$> 55 - 80$	v/c is high and either progression is unfavorable or the cycle length is long . Individual cycle failures are noticeable.
F	> 80	v/c is very high and either progression is very poor or the cycle length is long . Most cycles fail to clear the queue

Notes:

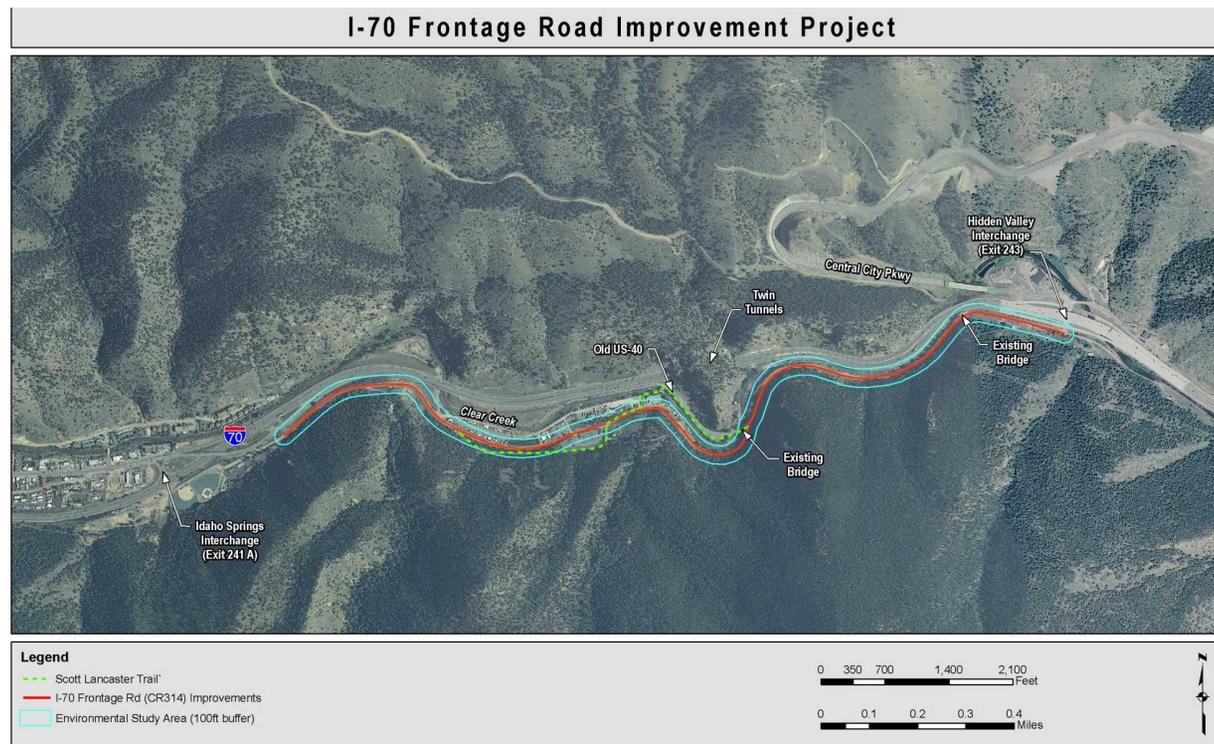
- Volume to capacity ratio (v/c) ≤ 1.0

Break?



Frontage Road Cross Section

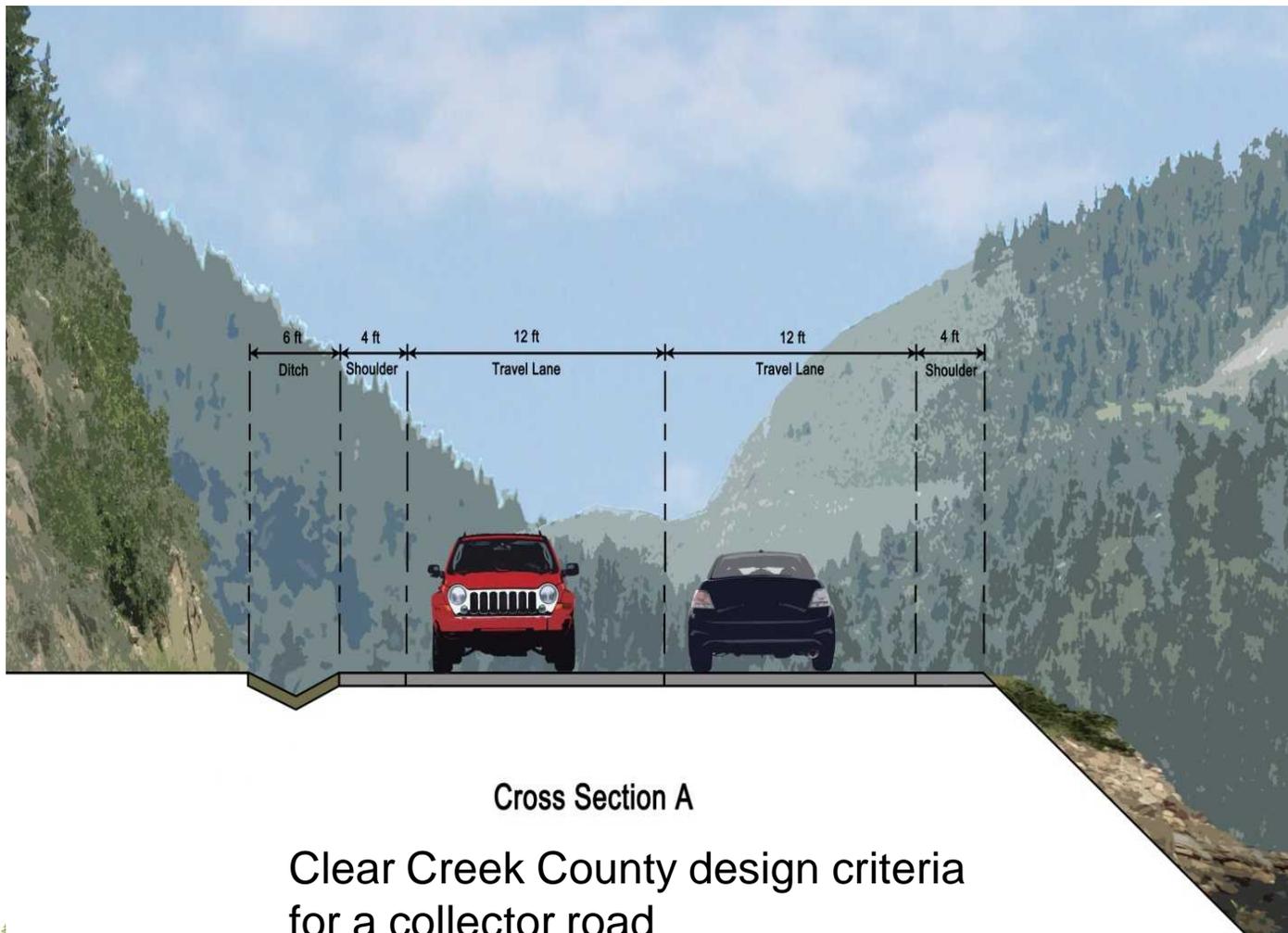
- Cross Section Options
- Review Decision Areas



Cross sections developed

Cross Section	Description	Total Width	Greenway Trail accommodation
Cross Section A	Clear Creek County Collector section	38'	On road
Cross Section B	Clear Creek County Collector section with trail	50'	Trail separated with barrier
Cross Section C	Clear Creek County Collector section with trail on cantilever and wall	46'	Trail separated with barrier
Cross Section D	Clear Creek County Collector section with trail and boulder rock wall	50'	Trail separated with barrier
Cross Section E	Clear Creek County Collector section with detached trail	varies	Detached trail
Cross Section F	Clear Creek County Local Access section	32'	On road

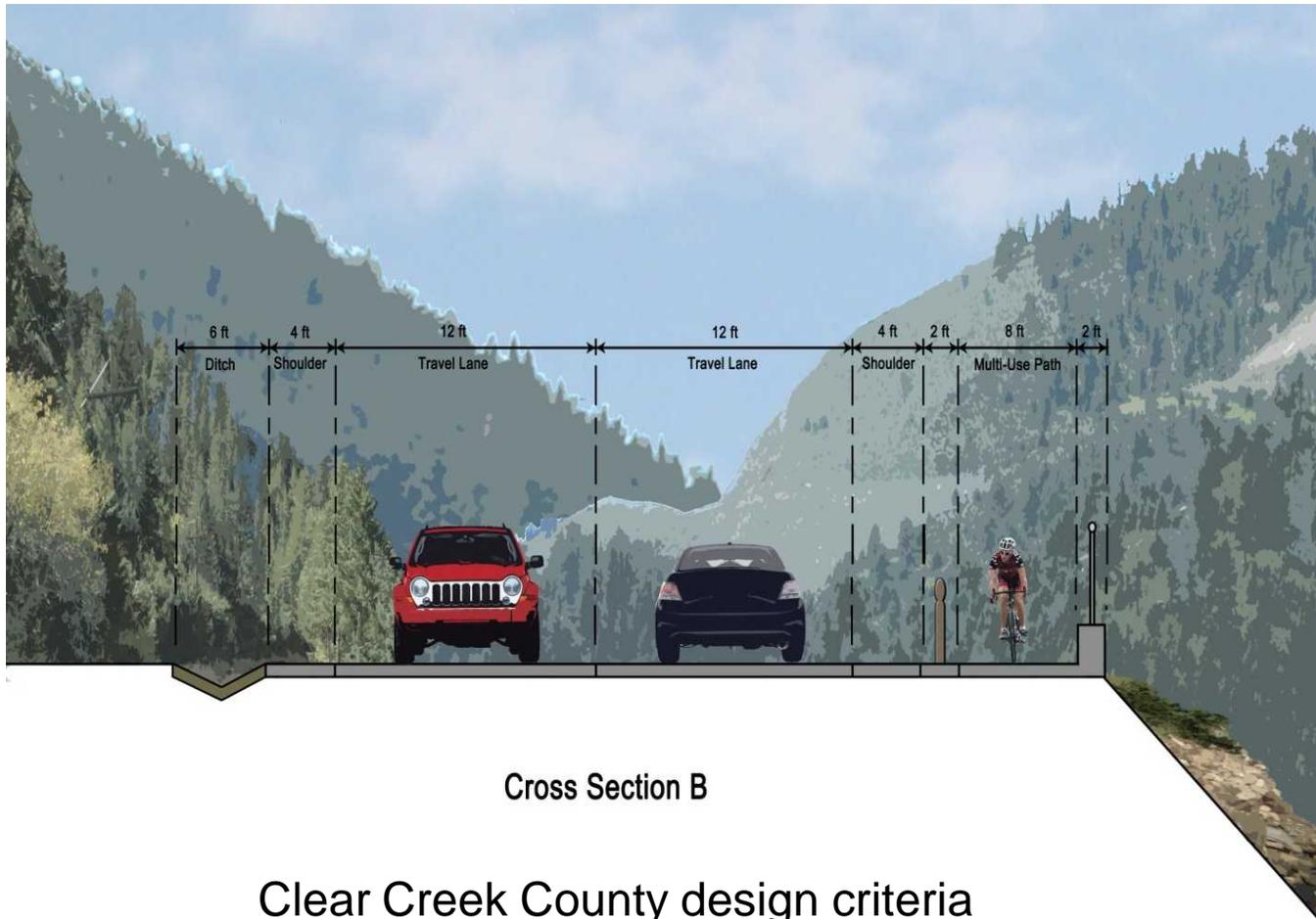
Cross Section A – 38' shared



Cross Section A

Clear Creek County design criteria
for a collector road

Cross Section B – 50' with trail

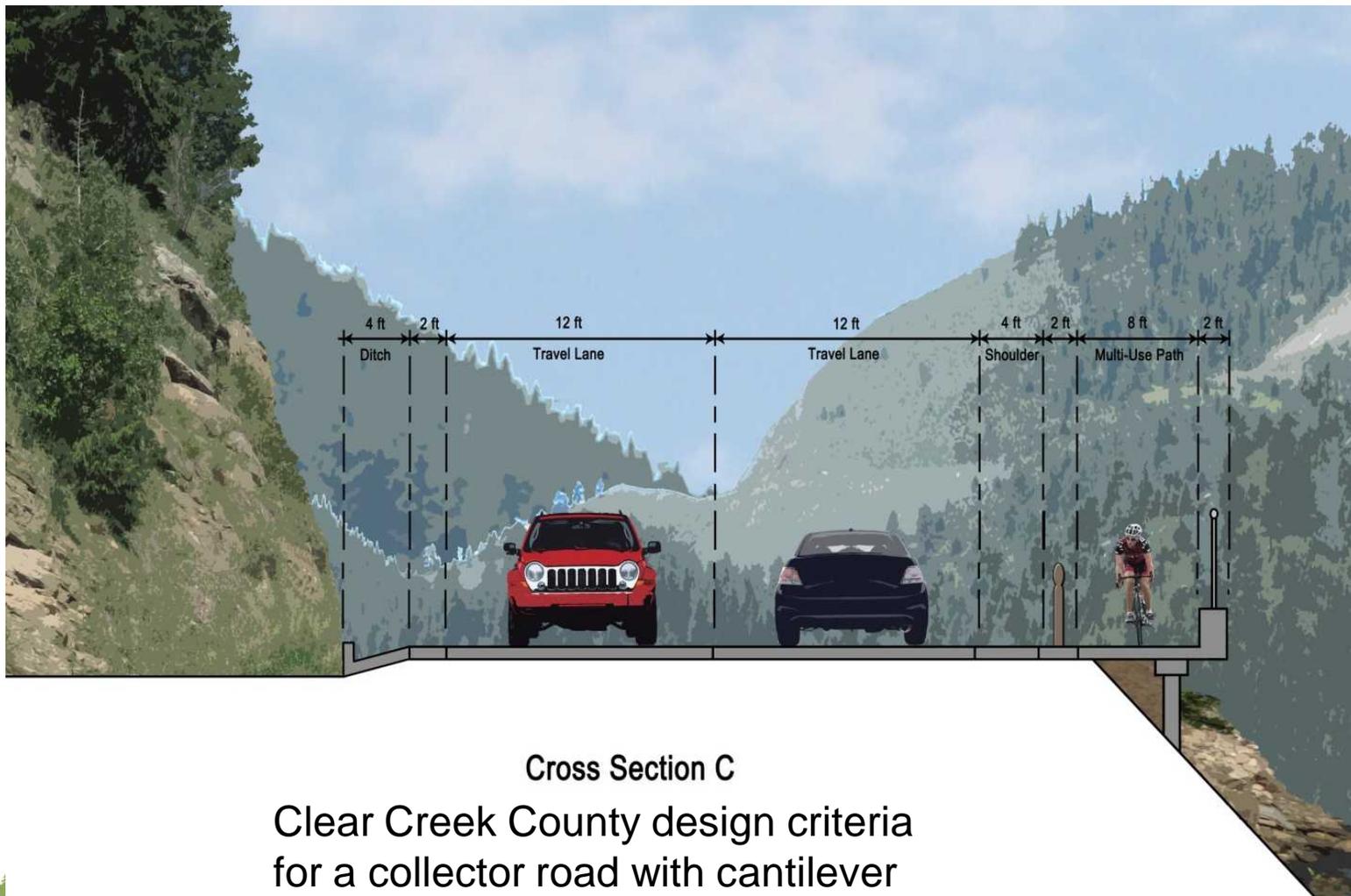


Cross Section B

Clear Creek County design criteria
for a collector road with trail

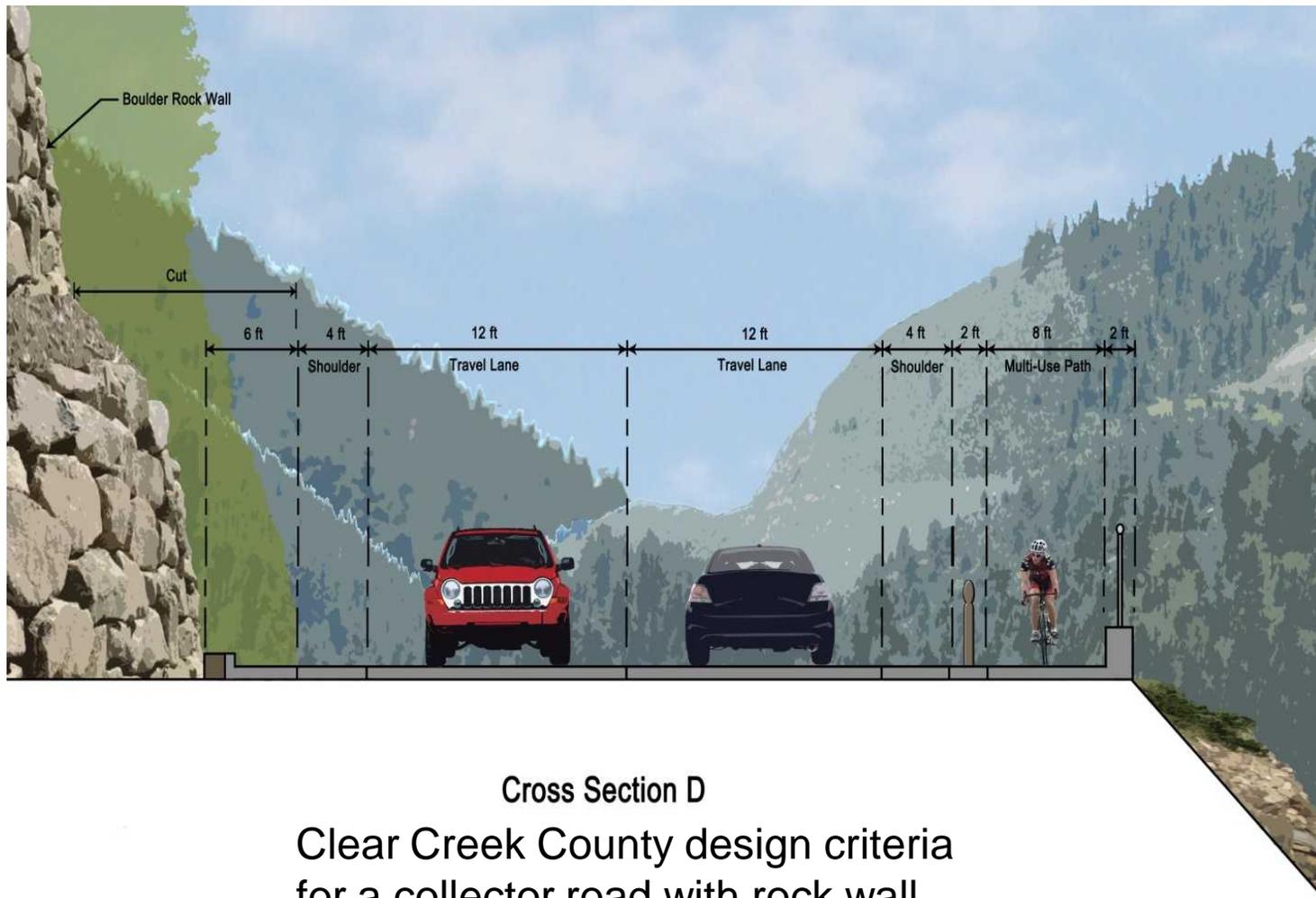


Cross Section C – 46' cantilever trail



Cross Section C
Clear Creek County design criteria
for a collector road with cantilever

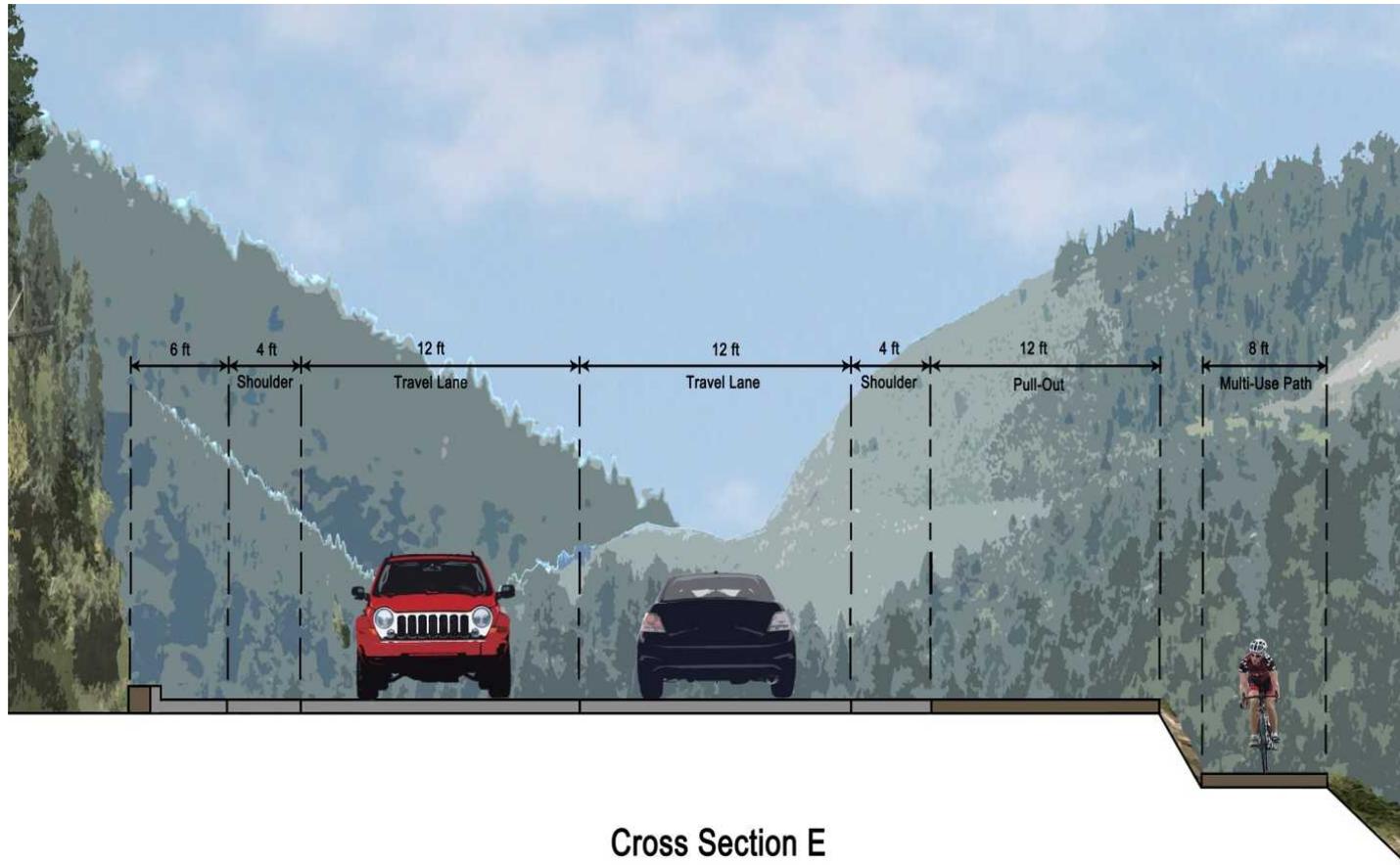
Cross Section D – 50' with trail



Cross Section D

Clear Creek County design criteria
for a collector road with rock wall

Cross Section E – detached trail

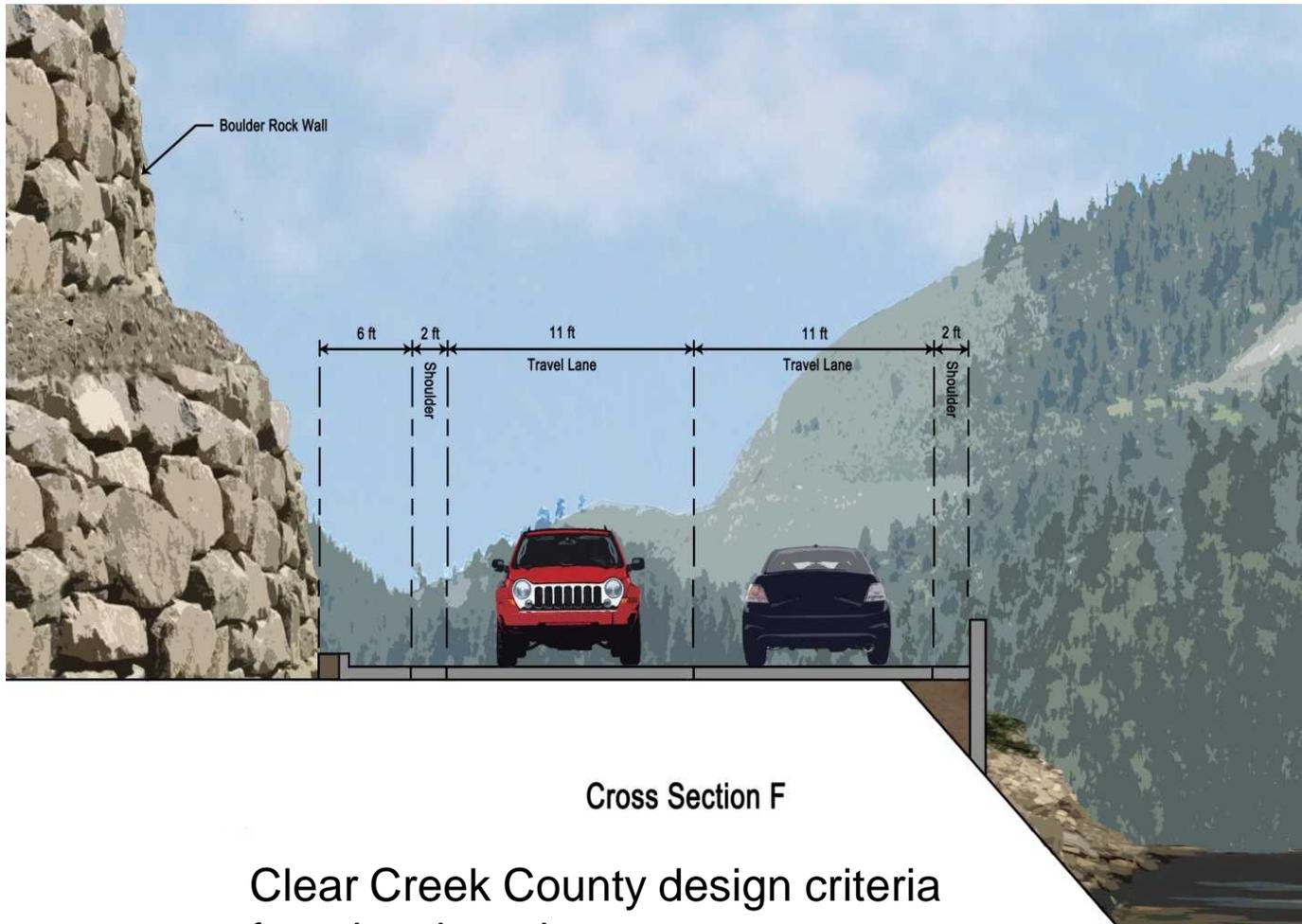


Cross Section E

Clear Creek County design criteria for a collector road with detached trail with varied width

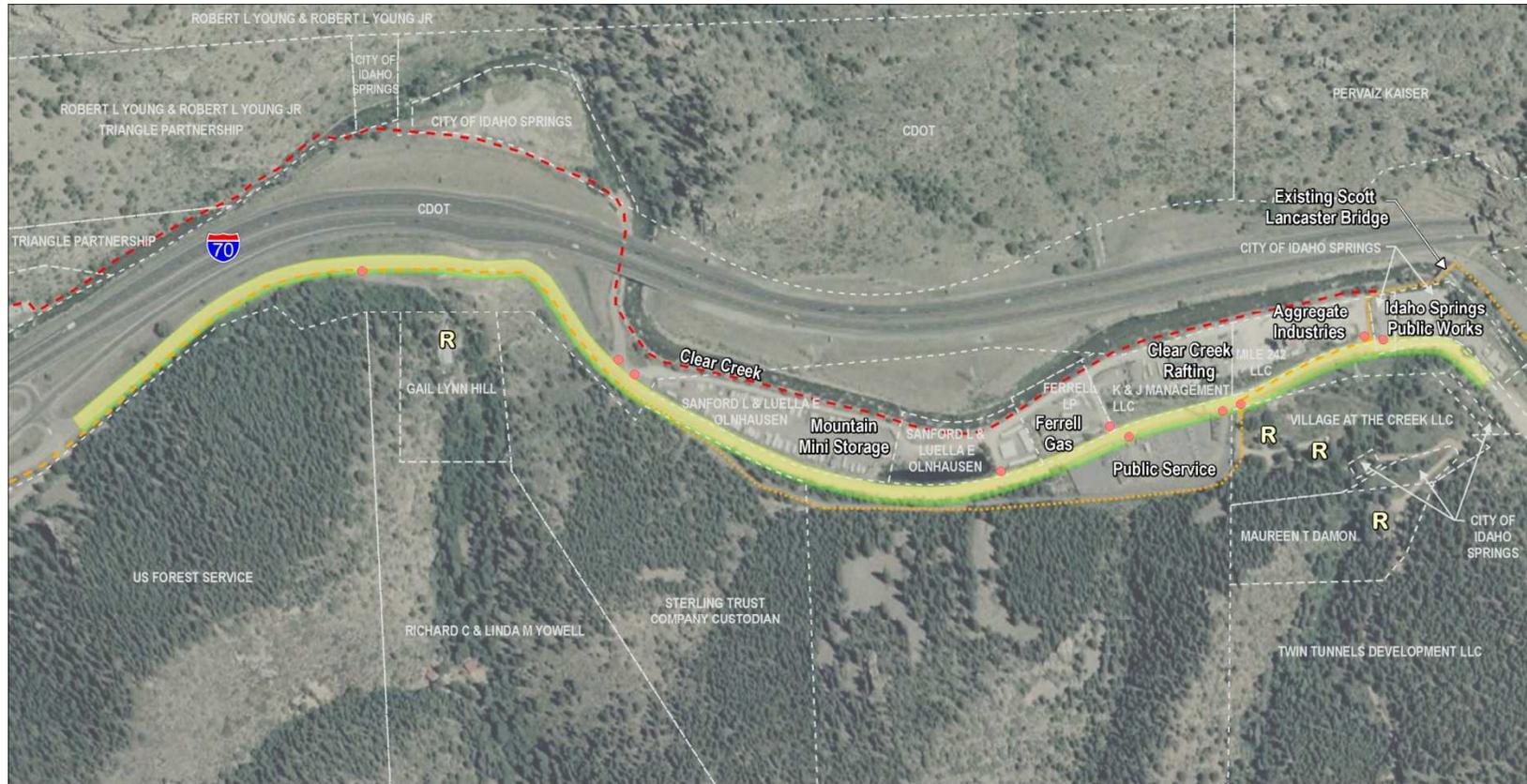


Cross Section F – 32' (narrow)

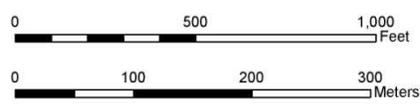


Clear Creek County design criteria
for a local road

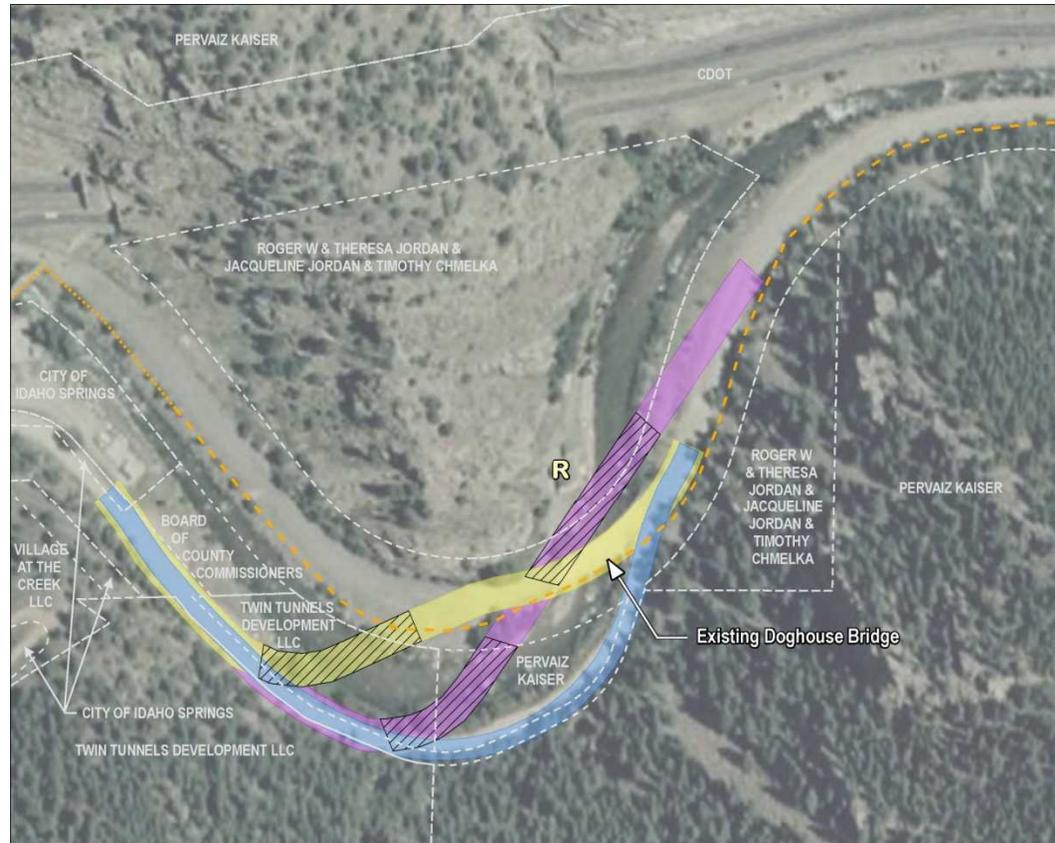
Western Decision Area



- Legend**
- Business/Residential Access
 - Scott Lancaster Trail (on-road)
 - Scott Lancaster Trail (separated)
 - - - Proposed Greenway Trail
 - - - Property Line
 - R Residential
 - Yellow-Green Box Cross Section A
 - Light Green Box Cross Section B



Gravel / Doghouse Rail Bridge Decision Area

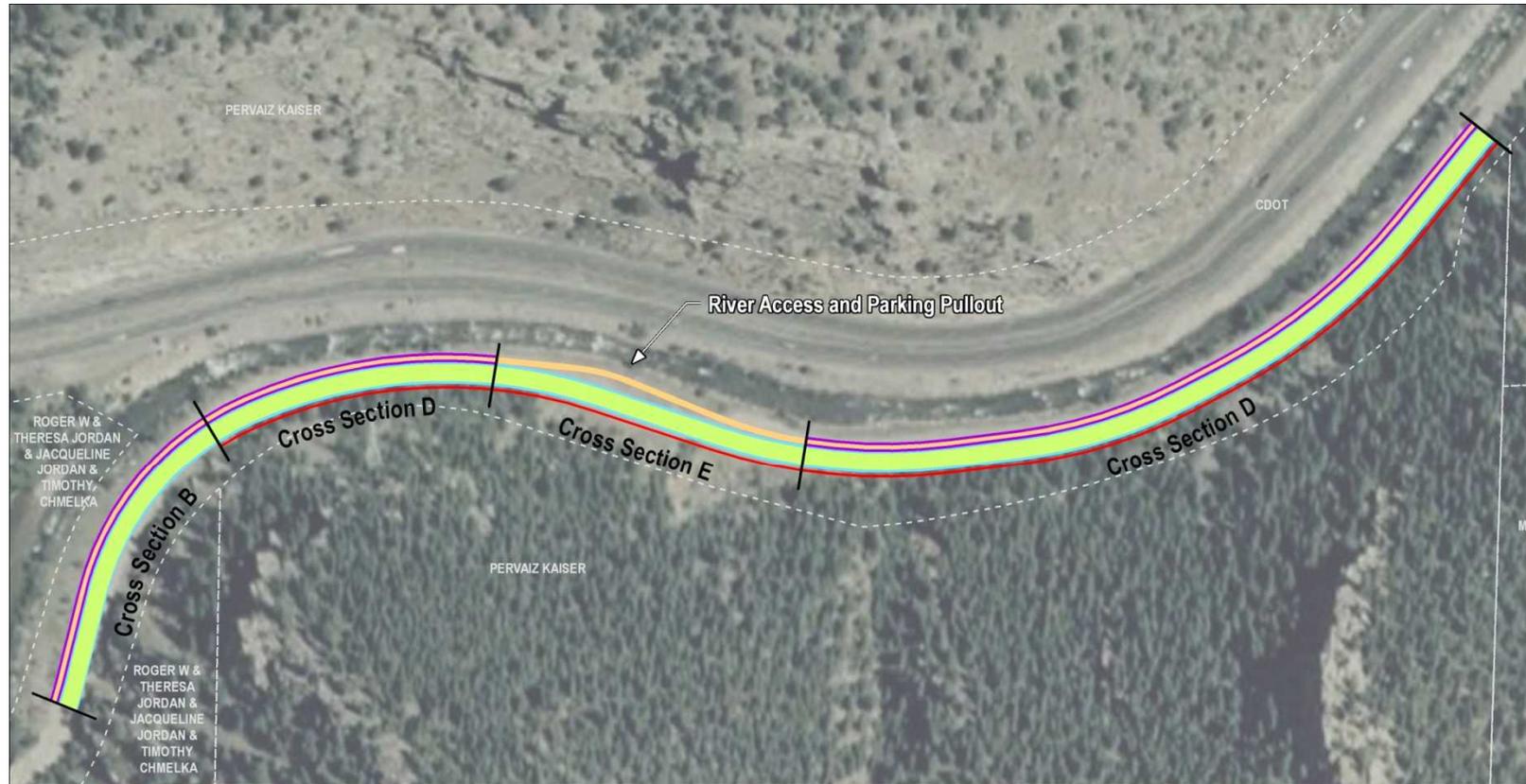


Legend

- Scott Lancaster Trail (on-road)
- Scott Lancaster Trail (separated)
- Property Line
- Residential
- Option 1 - Cross Section B
- Option 2 - Cross Section B
- Option 3 - Cross Section F
- New Bridge



East of Gravel Road Decision Area

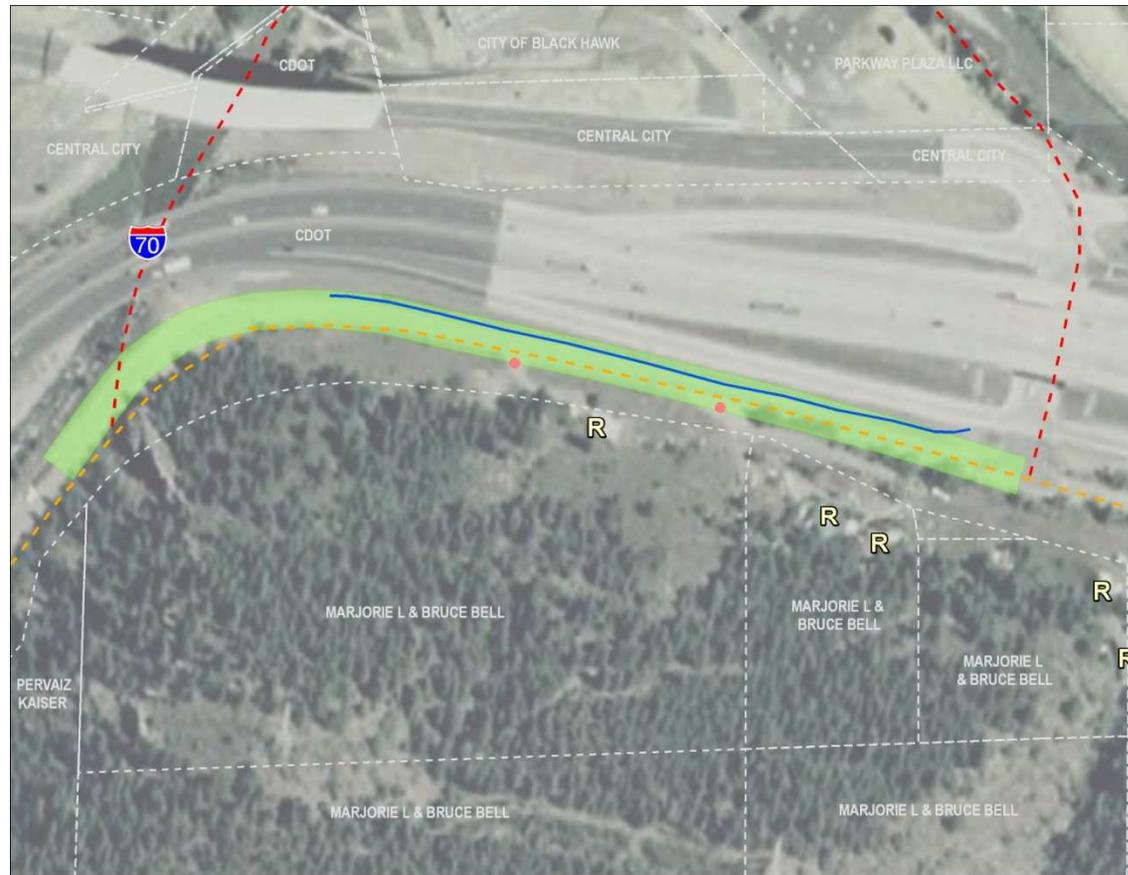


Legend

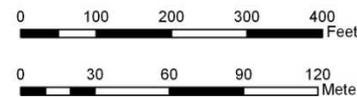
- Property Line
 - Barrier (2 ft)
 - Stacked Rock Wall
 - Trail
 - Shoulder
 - Roadway
- Combination of Cross Sections B, D, & E



Eastern Decision Area



- Legend**
- Business/Residential Access
 - Scott Lancaster Trail (on-road)
 - - - Proposed Greenway Trail
 - Existing Retaining Wall
 - R Residential
 - - - Property Line
 - █ Cross Section B



Preliminary Screening Summary

Decision Area	Option	Summary of Benefit/Drawback	Estimated Cost (millions)
Western	Combination of CS A and B	<ul style="list-style-type: none"> Impact to accesses and private property Consistent separated trail (new and existing) Potential wetland impacts 	\$5.8
Gravel/ Dog- house Bridge	Option 1 or 2 (New bridge(s))	<ul style="list-style-type: none"> New trail attached to bridge(s) Lower economic/redevelopment Lower utility coordination/extension Medium stream wetland impacts 	\$4.7
	Option 3 (CS F)	<ul style="list-style-type: none"> Narrowest cross section Trail remains in current location along Doghouse Bridge Simpler utility coordination/extension Low stream/wetland impacts 	\$3.4
East of Gravel Road	Combination of CS B, D, E	<ul style="list-style-type: none"> High flexibility to accommodate trail during detour/construction High accommodation of other greenway facilities 	\$6.7
	CS C	<ul style="list-style-type: none"> Low flexibility to accommodate trail during detour/construction (bicycle loads on cantilever) Low accommodation of other greenway facilities Potential stream/wetland impacts 	\$4.8
Eastern	CS B	<ul style="list-style-type: none"> Impact to accesses and private property Consistent separated trail 	\$3.5



PLT Actions

1. Define Desired Outcomes and Actions
2. Endorse the 6-Step Process
- 3. Establish Criteria**
- 4. Develop Alternatives or Options**
5. Evaluate, Select, and Refine Alternative or Option

Next Steps

- PLT# 1 August 31st
- Scoping Meeting - Sept 7, 2011 with PLT/TT representation
- Twin Tunnels EA Open House – Sept 27, 2011
- **PLT #2.5 November 1, 2011**
- **Greenway coordination**
- **Monthly Newsletters – next on November 25th**
- **Future PLT/TT meetings**

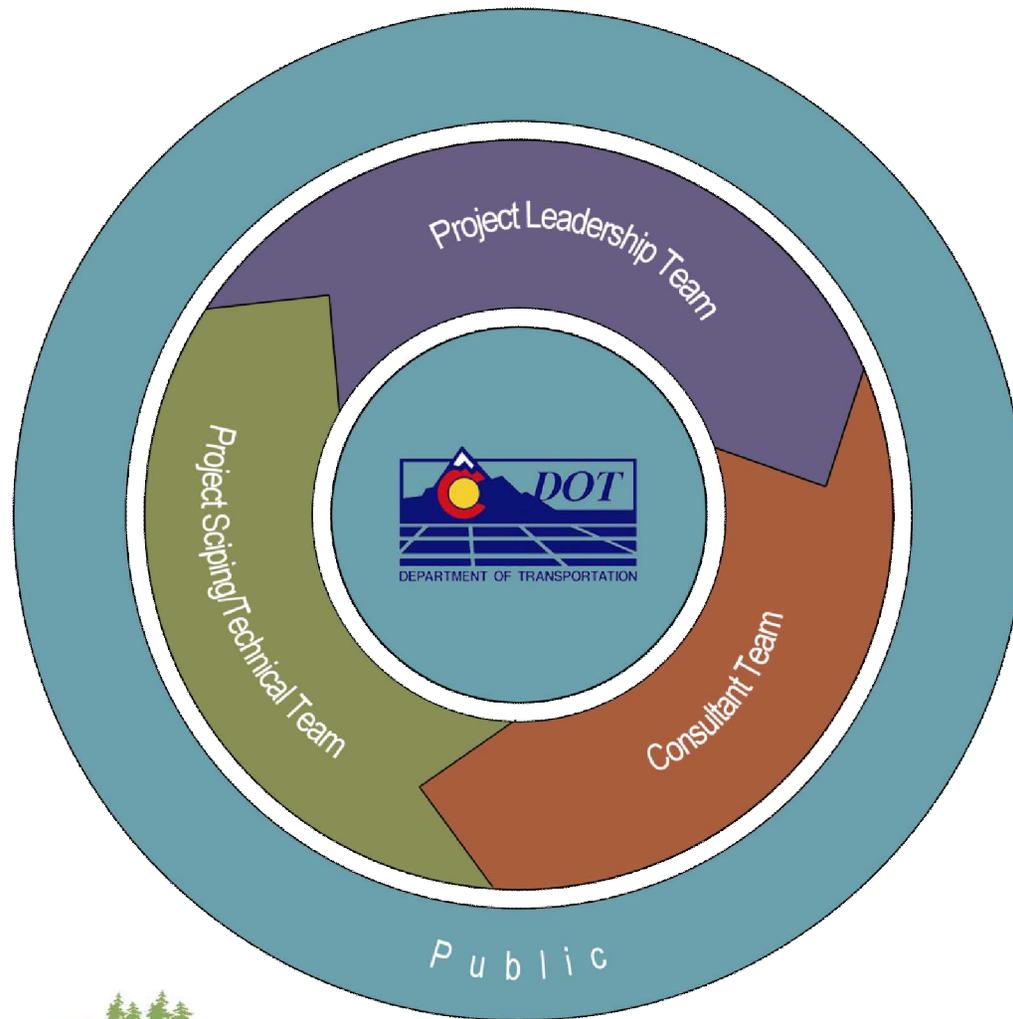


The End

- Reference slides follow



Team Organization



CDOT

Jim Bemelen - I-70 Corridor Manager
Benjamin Acimovic - Project Manager
Janet Gerak - Environmental Manager

Consultant Team

Craig Friesen - Project Manager
Jason Longsdorf - Public & Agency Coordination
Mary Keith Floyd - Environmental
Jeff Wilson - Design

Corridor Context Statement

The I-70 Mountain Corridor is a magnificent, scenic place. Human elements are woven through breathtaking natural features. The integration of these diverse elements has occurred over the course of time.

This corridor is a recreational destination for the world, a route for interstate and local commerce, and a unique place to live.

It is our commitment to seek balance and provide for twenty-first-century uses.

We will continue to foster and nurture new ideas to address the challenges we face.

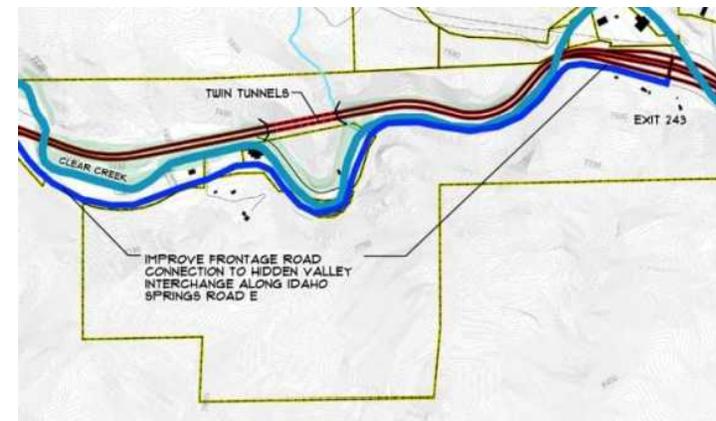
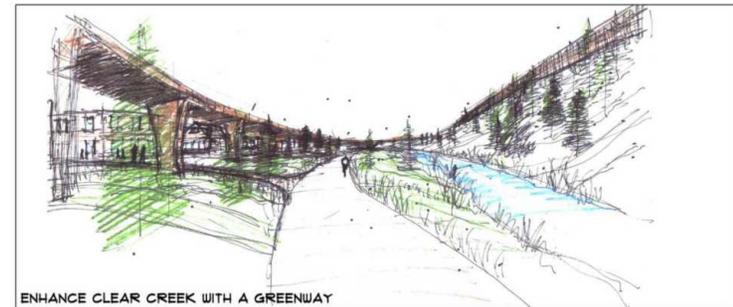
We respect the importance of individual communities, the natural environment, and the need for safe and efficient travel.

Well-thought-out choices create a sustainable legacy.

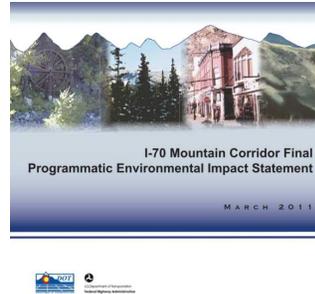


Corridor Core Values

- Sustainability
- Collaborative decision making
- Safety
- Healthy environment
- Historic context
- Community respect
- Mobility and accessibility
- Aesthetics



Tier 1 NEPA Guidance



- Preferred Alternative recommendation:
 - Six-lane component from Floyd Hill through the Twin Tunnels including a bike trail and frontage roads from Idaho Springs to Hidden Valley and Hidden Valley to US 6