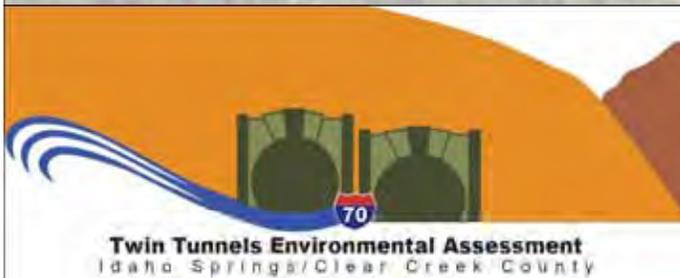


Twin Tunnels Environmental Assessment Public Hearing

Idaho Springs, Clear Creek County

July 25, 2012



Agenda

- Overview
- Project Description, Purpose and Need
- Proposed Action Design and Design Considerations
- Construction
- Impacts and Mitigation
- Schedule and Next Steps
- Comments



I-70 Mountain Corridor

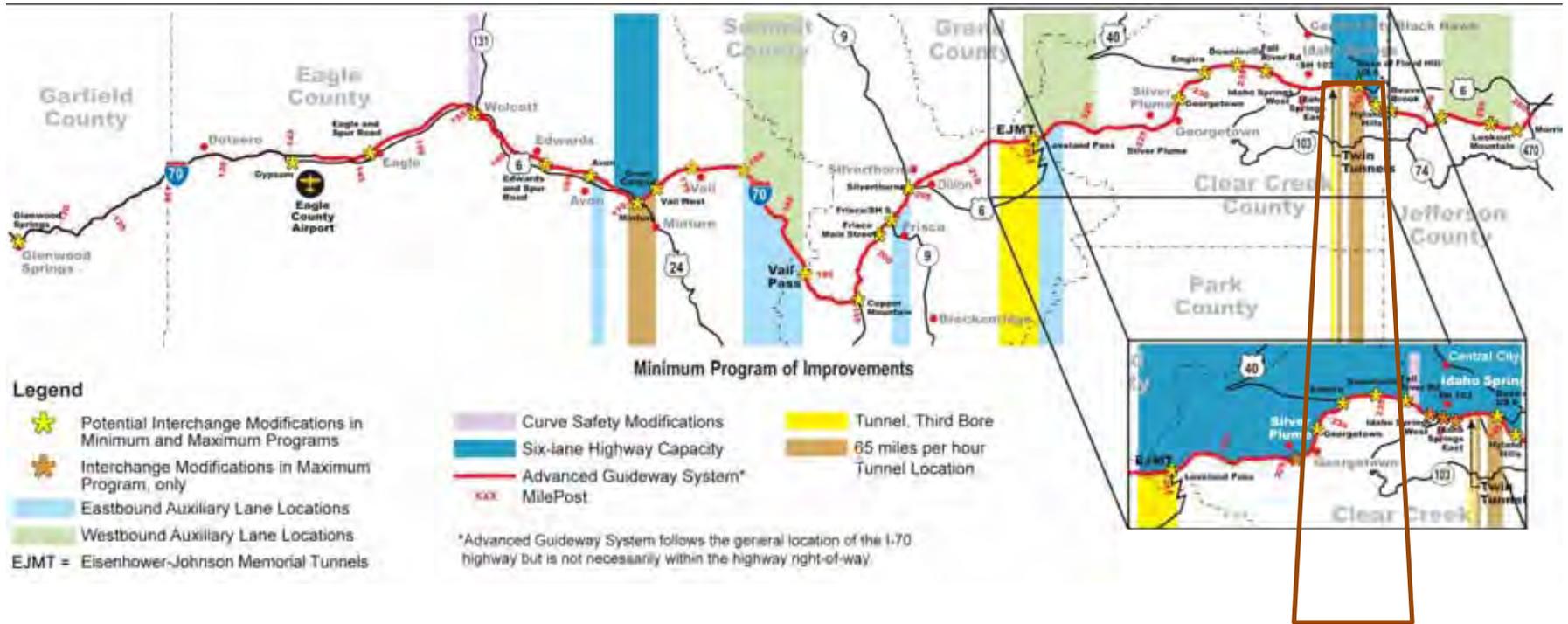


The I-70 Mountain Corridor Challenge

- Studied for more than 20 years
 - » Collaborative Effort's Consensus Recommendation (2008)
 - » Tier 1: I-70 Mountain Corridor Programmatic Environmental Impact Statement and Record of Decision (2011)
- Corridor's Context Sensitive Solutions Approach
- First Tier 2 project: Twin Tunnels EA



PEIS Preferred Alternative



Twin Tunnels Project Area



Context Statement and Core Values

I-70 is Colorado's only east-west Interstate, providing a link over the Continental Divide, interstate commerce and mountain access.

Blasted through a geological feature and contained within a narrow canyon, the Twin Tunnels symbolize Colorado's historic endeavors to improve access to and from the mountains. Currently occupying this canyon are Clear Creek, the Frontage Road, and I-70. The vision for the future includes an Advanced Guideway System with these transportation facilities.

The Twin Tunnels are a gateway for arriving and departing the mountains, provide a natural crossing for wildlife and connect local communities to national and regional services. Running parallel to I-70 is Clear Creek, a natural and recreational resource. The tunnels now are a constriction to travel and create a safety problem.

Safety

Mobility

Gateway

Wildlife

Clear Creek

Community

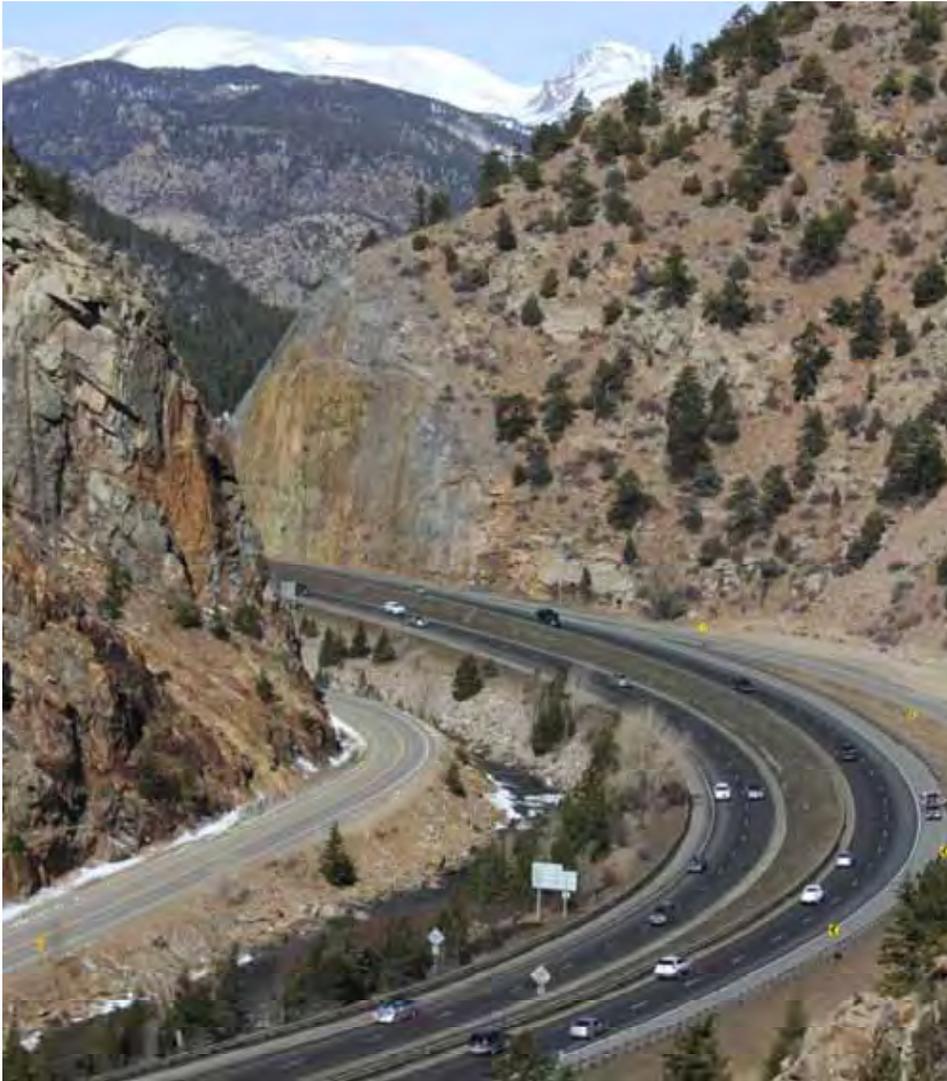
History

Twin Tunnels Purpose

- Improve eastbound highway safety, operations and travel time reliability in the Twin Tunnels area of the I-70 Mountain Corridor at the east end of Idaho Springs.



Why Eastbound Only?



- Westbound improvements are needed too, and we will do them
- Eastbound problems are worse
 - » More crashes
 - » More concentrated period of congestion (Sundays)
- Westbound is more complicated and expensive

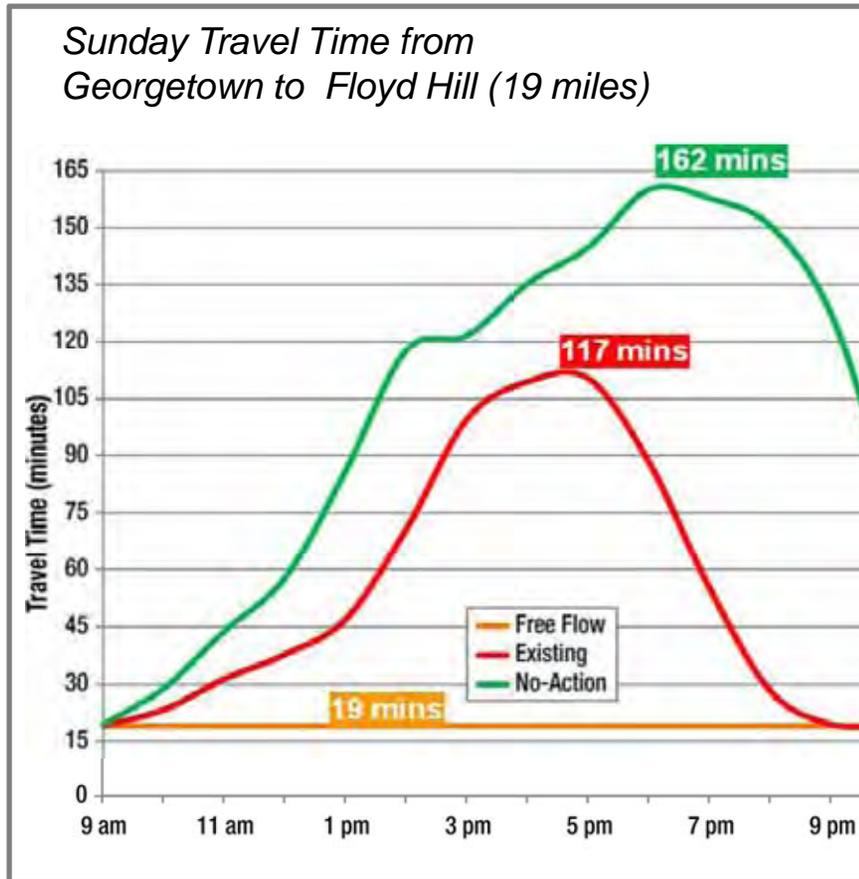
Safety Concerns

- One of the highest crash locations on the I-70 Mountain Corridor
- Crashes occur predominantly in eastbound direction
- Almost 45% of eastbound crashes occur around a single lower speed curve east of the tunnels

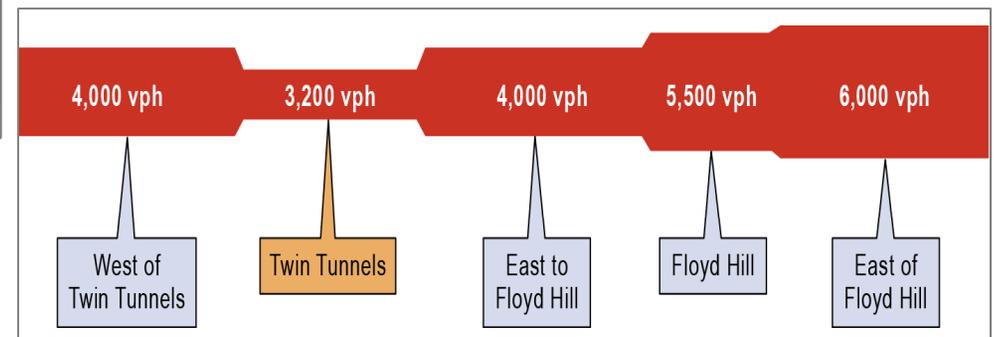


Mobility Issues

Sunday Travel Time from Georgetown to Floyd Hill (19 miles)



- Congestion and travel delays at least 20 miles upstream
- Long travel times
 - » Frustrate drivers
 - » Suppress travel
- Choke point for eastbound traffic returning to Denver on weekends



Flythrough of the Proposed Action



New Tunnel



Modified Curve



Builds on Previous Recommendations

PEIS provides framework for all projects on the Corridor

- Mode
- Capacity
- General location

Tunnel Visioning Workshop devised a site-specific concept for Twin Tunnels

- Immediate improvement
- Supports PEIS Preferred Alternative

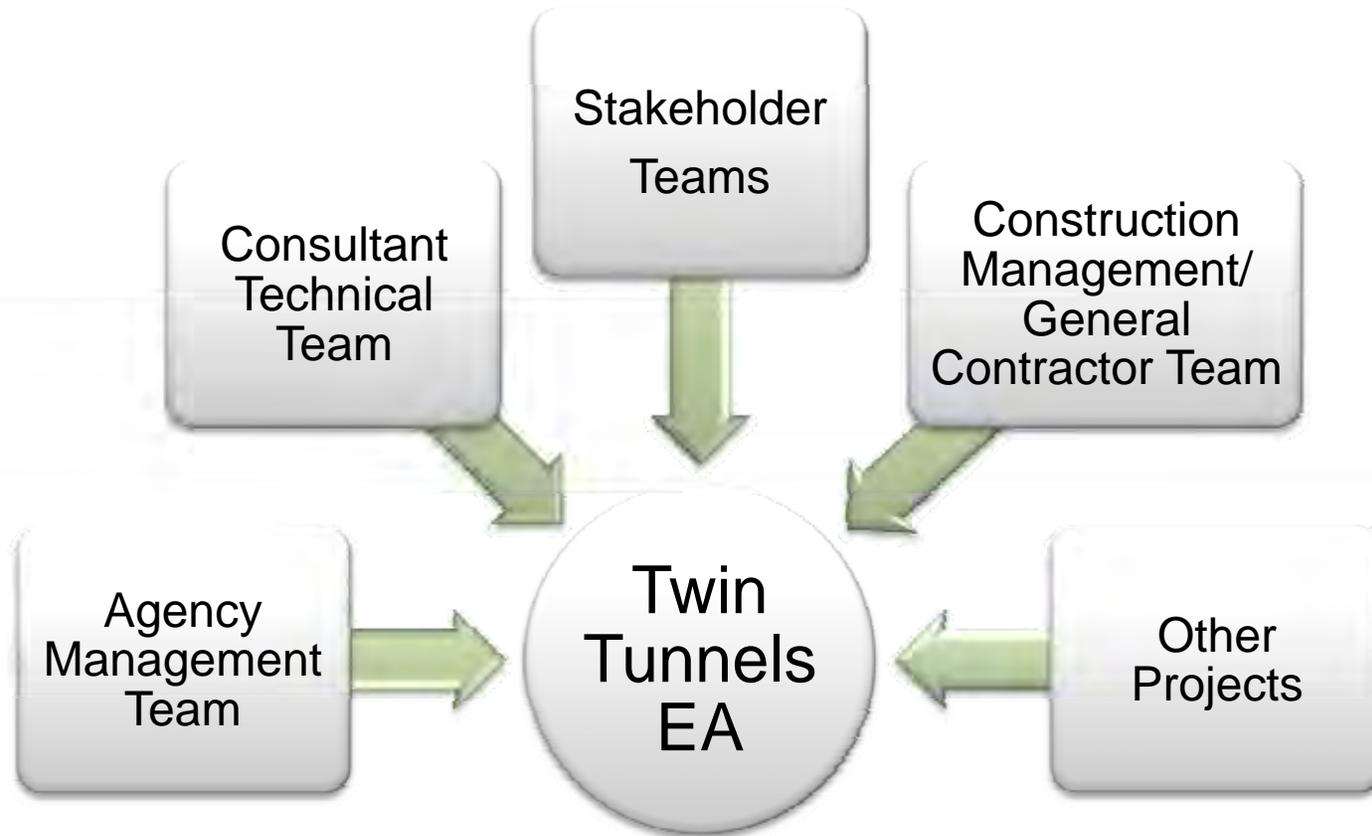
Twin Tunnels EA refined the Proposed Action

- Alignment options for widening
- Cross section variations
- Operational scenarios
- Core Values

I-70 Mountain Corridor Context Sensitive Solutions Process



Lots of Considerations and Input



Refinement of Proposed Action in EA

Long-term transportation needs

- Advanced Guideway System
- Westbound improvements
- Future design speed decision

Cross section variations

- 53-foot tunnel (and 50-foot roadway)
- 61-foot tunnel (and 56-foot roadway)

Alignment considerations

- Widen to the creek
- Widen to median
- Widen from the centerline

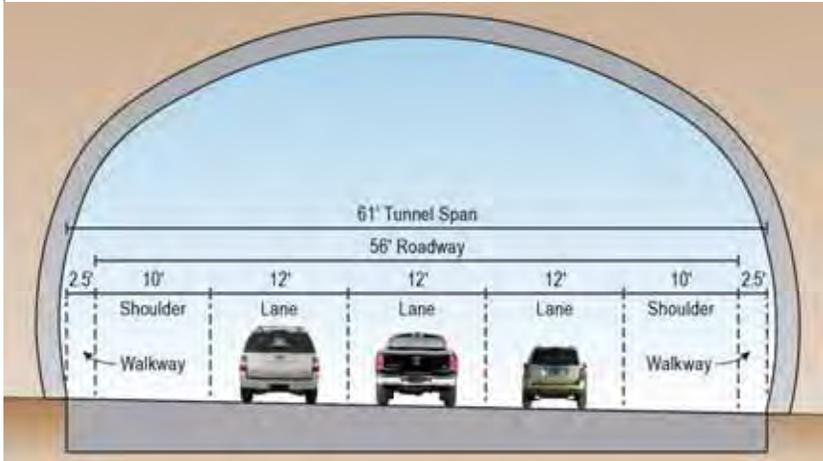
Operational scenarios

- New lane operates as managed lane (fee for use during congested periods)
- New lane operates as general purpose lane

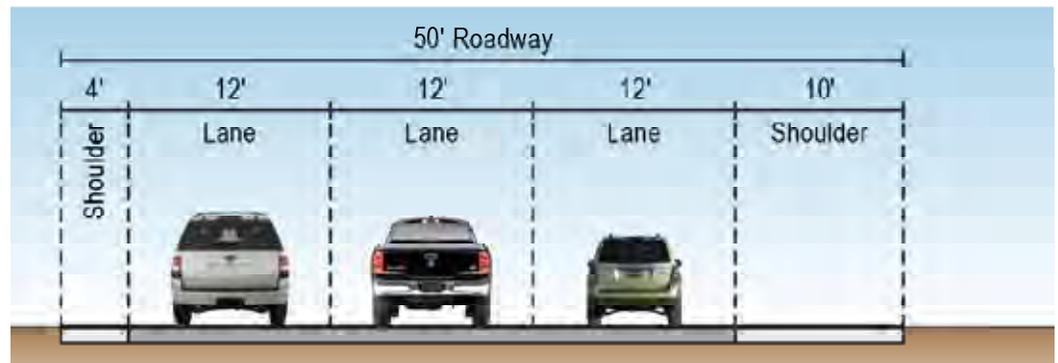
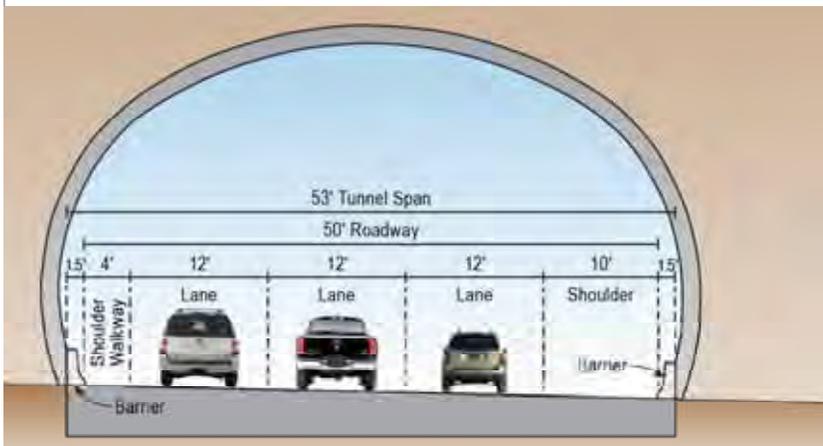
Project-Developed Core Values

Cross Section Variations

56-foot Roadway Section



50-foot Roadway Section

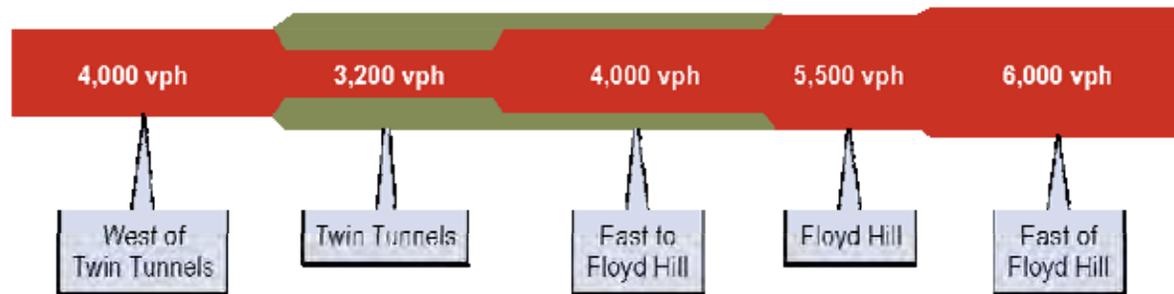


Why we prefer the 50-foot roadway section

Existing Tunnel



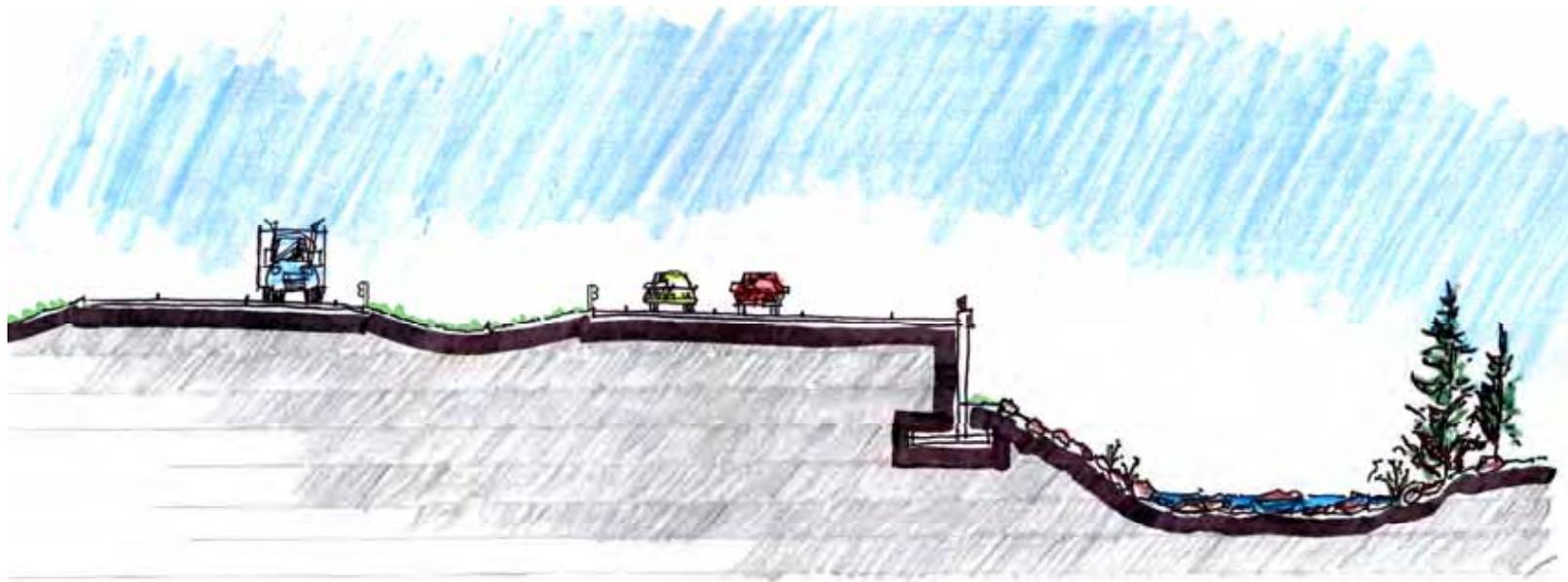
Proposed Tunnel (53-foot)



Alignment Options – Toward Creek



Comparison of Alignment Cross Sections



Alignment Options – Existing Median



Move to Creek – Eastbound View



Move to Creek – Westbound View



Alignment Options – Shift to Median



Shift to Median – Eastbound View



East Bound - Move Toward Median

Shift to Median – Westbound View



Why we think the median shift makes sense



Operating Scenarios

Simulation of managed lane sign ahead of tunnels



Managed Lane Operation Concept

- Left lane would be tolled during peak periods (other two lanes operate with no fee)
 - » Generally summer and winter Sundays, holidays, and some Saturdays
 - » All vehicles pay fee; trucks pay surcharge
 - » Fee likely to be between \$1 and \$3
- Purpose is congestion management; would not likely generate much revenue



What are the managed lane benefits?

Reliable travel times in the managed lane

- Benefits of travel time reliability would be even greater if managed lanes were extended

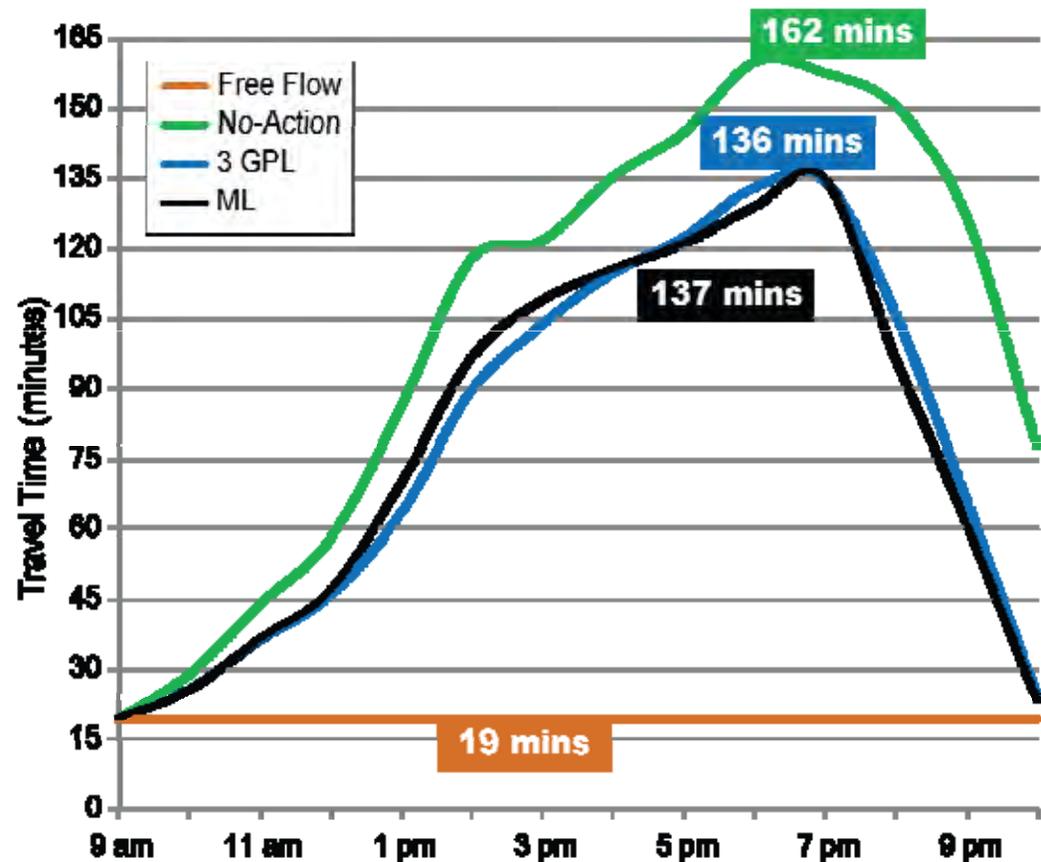
Travel speeds in managed lane exceed 45 mph more than 95% of the time

Emergency vehicles could use the managed lane to respond to accidents



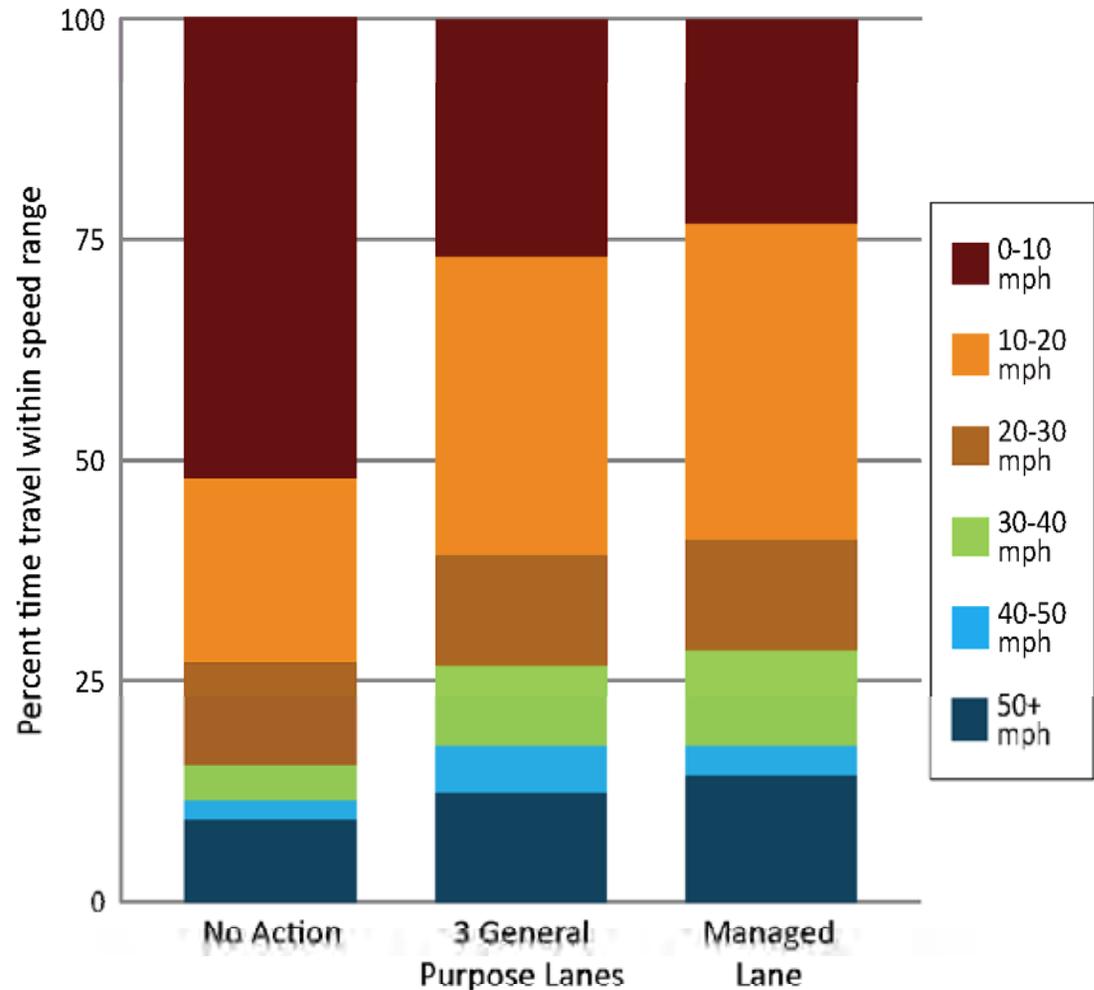
Purpose and Need: Reduced Travel Time

Proposed Action would reduce average travel time between Georgetown and top of Floyd Hill by 25 minutes on peak Sundays in 2035, compared to No Action



Purpose and Need: Reduced Congestion

- Time drivers will be traveling ≤ 10 mph in peak period in 2035
 - » No Action – more than 50% of time
 - » Proposed Action – about 25% of the time

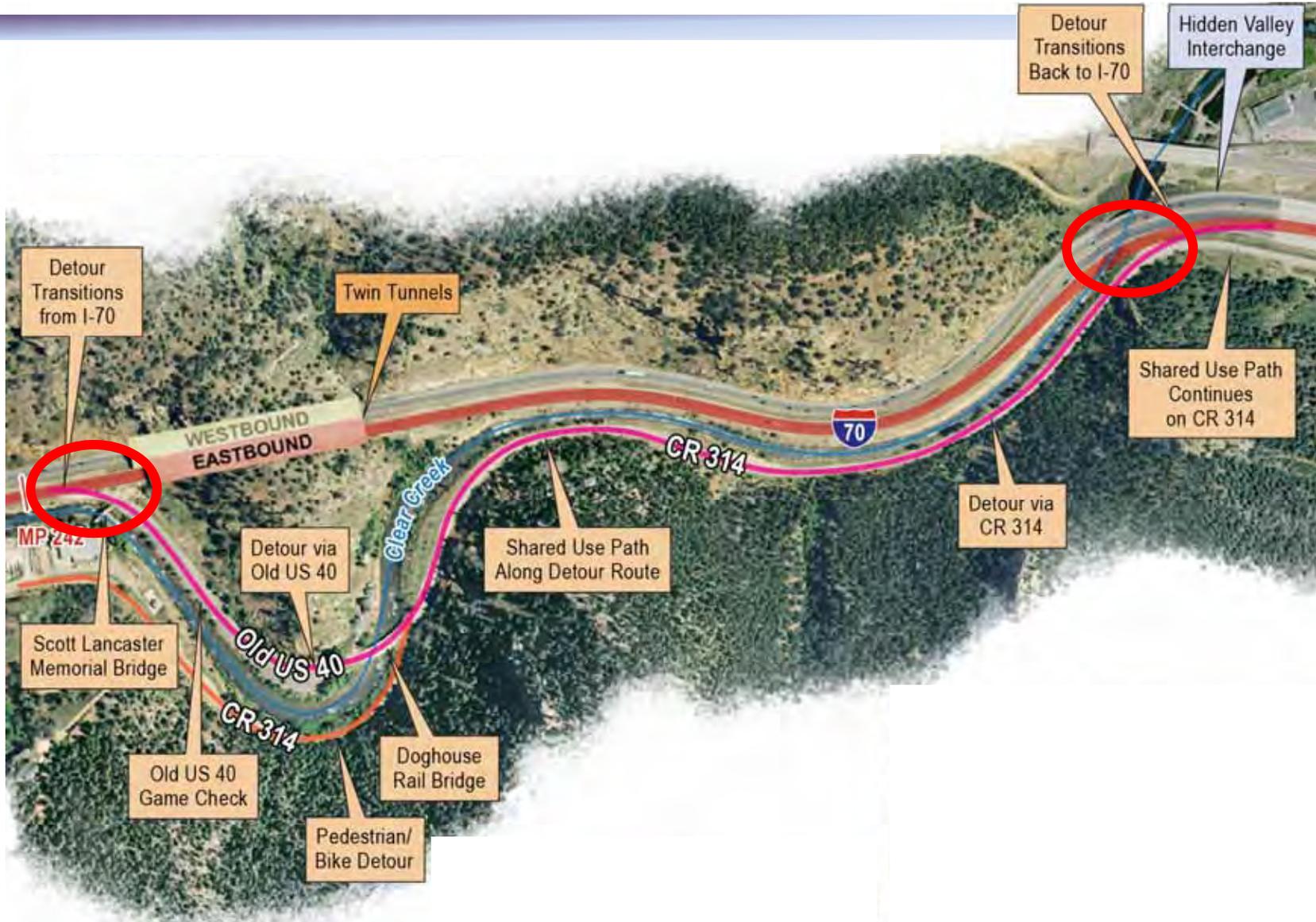


Purpose and Need: Safety

- Projected 20 to 35 percent reduction in crashes
 - » Curve modification
 - » Reduced congestion
 - » Consistent travel speeds
- Improved emergency response access and room to move crashes from the roadway
- Improved chain station that incorporates buffer from I-70



How will we construct this?



Transition around the tunnels to old US 40



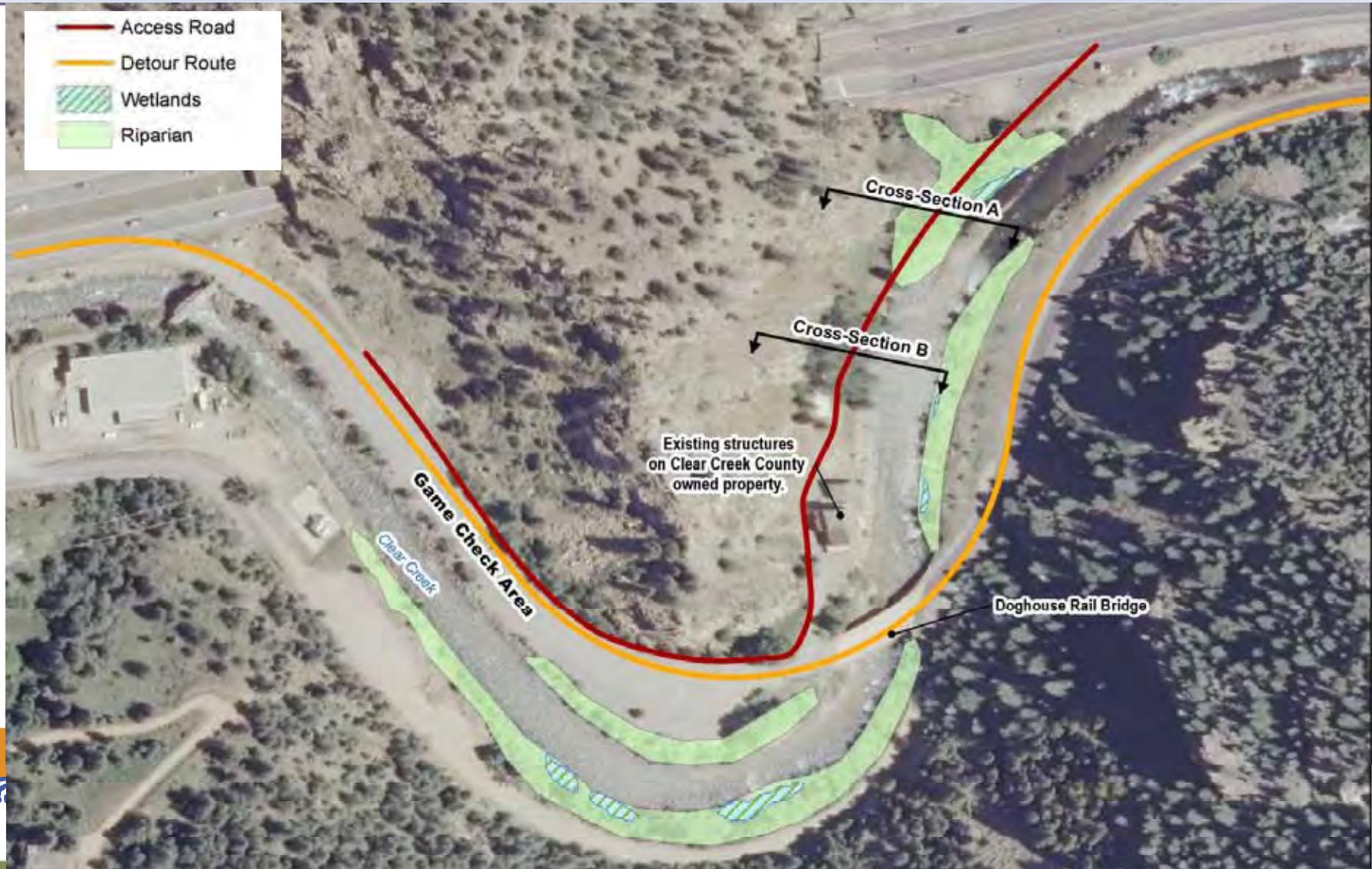
Image by Pragma for StreetView

DEPARTMENT OF TRANSPORTATION

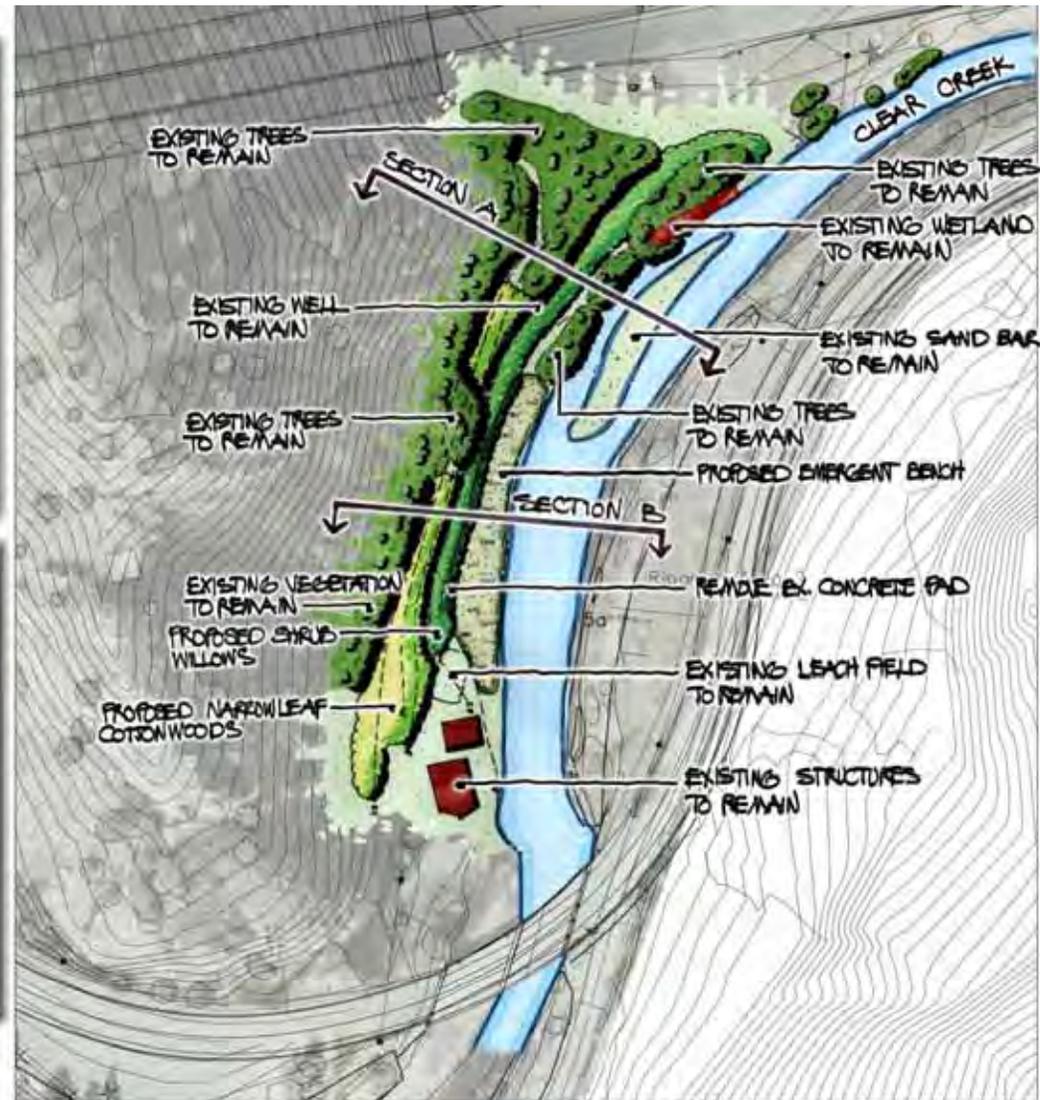
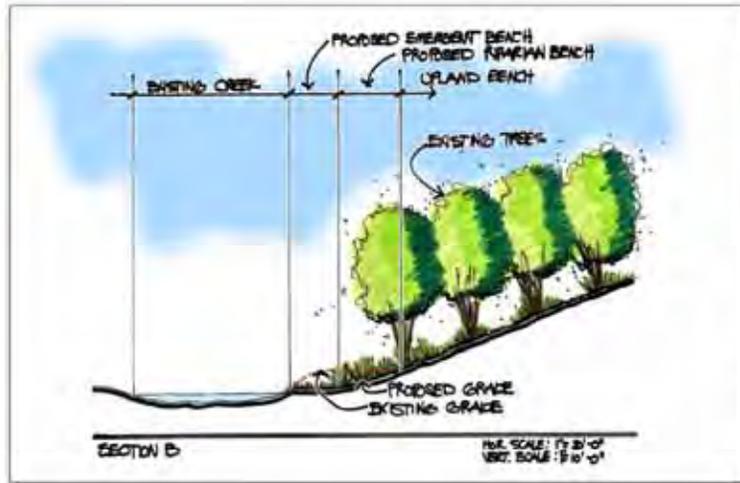
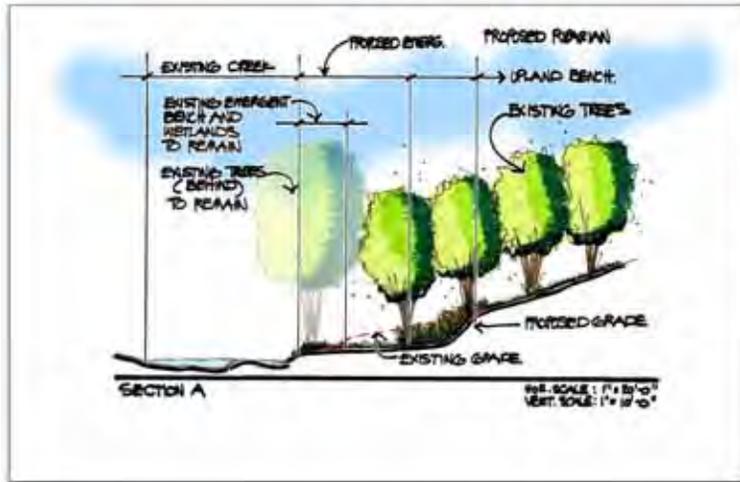
Transition back to I-70



Portal to Portal Construction Access Road



Restoration / Enhancement of Road Area



Construction Schedule

Package 1 (I-70 open) (Nov 2012 to Mar 2013)

- Prepare detour
- Construct components located outside of I-70 lanes

Package 2 (I-70 closed) (Mar to Oct 2013)

- Construct tunnel
- Widen and pave I-70
- Construct I-70 bridge over Clear Creek

Package 3 (I-70 reopens) (Nov 2013 to Mar 2014)

- Restore detour and CR 314

What will construction mean for traffic?

- More congestion, longer travel times on peak weekends
- No weekday congestion expected during detour operation, except for stoppages during tunnel blasting
- Half-hour closures for blasting during peak weekday hours could create traffic queues taking up to an hour to clear
- Traffic stoppages due to tunnel blasting would be limited to the extent possible during peak weekend periods
- Some increased traffic on alternate routes (SH 9, US 285)



Environmental Impact Analysis

- Environmental Assessment evaluates 20 social and environmental resource areas
- Proposed Action has been carefully designed to avoid most permanent impacts
- Construction impacts can generally be mitigated to return the area to existing or better conditions



Recreation Resources

- Closure of one Clear Creek boating access
- Reduced parking at Kermitts boating access and trailhead
- Visual impacts due to walls in creek
- Restoration and enhancement of the Clear Creek County Greenway
- Construction of a noise barrier to reduce noise impacts along the Scott Lancaster Memorial Trail



Visual Resources

- Visual impacts from retaining walls on Clear Creek and changes to tunnel and portals
- Visual impacts to drivers from increased roadway width and potential reduction in median space
- Recreationalists experience greater visual impacts than drivers because view duration is longer.



Existing Condition



New Retaining Walls

River Perspective



Other Permanent Impacts

- Historic Properties
 - » Nationally significant interstate feature
 - » Adverse effect due to expansion and change in portal face
- Minor loss of wildlife habitat (5 to 6 acres), primarily along roadway
- Increased volume of stormwater runoff, sediment, nutrients, chlorides and trace metals from new pavement
- Improved wildlife connectivity under the I-70 over Clear Creek bridge, and replacement of wildlife fencing to reduce wildlife mortality



Construction Impacts and Mitigation

- Dust and noise during tunnel blasting
 - » Air quality monitored during blasting
 - » Monitor noise and air blast overpressure
- Temporary degradation of water quality
 - » Install best management practices
 - » Conduct spawning survey to identify spawning areas to avoid during construction
- Change in access to project area recreation resources
 - » Coordinate with rafting companies
 - » Detour of Scott Lancaster trail



Next Steps

Environmental Assessment
(through November 2012)

- Comments on EA
- Response to Comments and Decision Document

Design
(ongoing)

Construction
(November 2012 to March 2014)



Comments and Questions

- EA and Section 4(f) Evaluation available
 - » Electronically at www.coloradodot.info/projects/i70twintunnels
 - » Hard copy at 17 locations
- Submit comments through August 4, 2012
 - » Website www.coloradodot.info/projects/i70twintunnels
 - » Drop off comment card tonight or mail to address on card
 - » Email to david.singer@dot.state.co.us
 - » Provide verbal comments tonight to the court reporters– at the microphone or privately



Comments at the Microphone

- Speaker sign-up at the entrance
- Will call speakers in order of sign up
 - » If you no longer wish to speak, let the Speaker Sign Up table know
 - » If you haven't signed up, please do so now
- Please be concise and respectful of others
- Provide your name and affiliation, if any
- Court reporter will record and transcribe your comments



Purpose and Proposed Action Comments

- Is this project necessary? Will it provide benefits?
- Is this the right solution?
- Comments about the way the solution was developed?
- Does it support the broader PEIS Preferred Alternative?
- Comments on the potential design variations:
 - » Cross Section Width – 50- or 56-foot roadway?
 - » Alignment? Toward the median or the creek?
 - » Operating Concept? Managed Lane or not?
- How do you feel about CDOT doing nothing? No Action?



Environmental Impacts and Other Issues

- Do you have concerns about specific environmental impacts?
- Do you have concern about construction impacts?
- Will the mitigation proposed be effective to reduce impacts?
- Do you have any other ideas we should consider for mitigation?
- Anything else?



Comments

- Is this project necessary? Will it provide benefits?
 - Is this the right solution?
 - Comments about the way the solution was developed?
 - Does it support the broader PEIS Preferred Alternative?
 - What do you think of the variations:
 - » Cross Section?
 - » Alignment?
 - » Operating Concept?
 - How do you feel about CDOT doing nothing? No Action?
- Do you have concerns about specific environmental impacts?
 - Do you have concern about construction impacts?
 - Will the mitigation proposed be effective to reduce impacts?
 - Do you have any other ideas we should consider for mitigation?
 - Anything else?