

# Twin Tunnels Environmental Assessment

## Proposed Action

(Developed from Tunnel Visioning Concept Package 2)

Tunnel Entrance Existing - Eastbound



Conceptual Design - Eastbound



Existing Curve - Eastbound



Proposed Curve - Eastbound



Existing Curve - Eastbound



Proposed Curve - Eastbound



**Improve Curve Safety**

- High crash frequency
- Design speeds less than 50 mph
- Deficient sight distances
- Safety improvements indicated
- Median retaining wall improves sight distances
- Flatten tightest curve over Clear Creek to improve safety

**Widen Eastbound Tunnel**

- Perceived construction to traffic
- Perceived "black hole" effect
- Historic resource
- Natural land bridge

**Widen for 3-Lane Approach to Tunnel**

- Eastbound on-ramp from East Idaho Springs interchange becomes 3rd lane



**US 6 Interchanges**

- Retain existing configuration
- 3 eastbound lanes tie into existing bridge over Clear Creek
- Investigate improved exit to US 6/Golden

**Hidden Valley Interchange**

- Built in 1995
- Preserve as much as possible



Existing Curve - Eastbound

Proposed Curve - Eastbound



Existing Curve - Eastbound

Proposed Curve - Eastbound

**Widen to Accommodate 3 Lanes**

- Balance widening to the south to minimize encroachment on Clear Creek with retaining walls in median and near Clear Creek

**East Idaho Springs Interchange**

- Remains unchanged

**Clear Creek Issues**

- Water quality, sediment control
- Recreation resource - fishing, rafting
- Concerns over channelization
- Retaining walls to minimize encroachment

**Possible Detour Around Tunnel**

- Old US 40
- Clear Creek County Road 314 (to be closed during construction)
- Construction work and impacts to traffic will be minimized

**Variations that were recommended for consideration and eliminated**

Variation	Major issues
Eliminate 45 mph curve reconstruction	Does not address the safety issues east of the tunnels
Don't build 3rd lane or reconstruct 45 mph curve	Does not address the safety issues east of the tunnels
Reconstruct all the curves to 55 mph design	Results in impacts to the westbound lanes, to Clear Creek, and to rock faces. This work would be throw away work if the corridor design speed becomes 65 mph.
Reconstruct all the curves to 65 mph design	Results in impacts to the westbound lanes, to Clear Creek, and to rock faces.
Add cross-over to accommodate westbound reversible lane for peak periods	Reversible lane concept is no longer under consideration.

**Variations that were recommended for consideration and remain under consideration**

Variation	Major issues
Don't build 3rd eastbound lane – improve the eastbound shoulder and use it for 3rd eastbound lane during peak periods	This use of the shoulder during peak periods does not provide a shoulder for emergency responders or other users in an emergency. This does not add capacity during off-peak periods.

**Other considerations for the Proposed Action**

Peak Period Pricing	Placing a toll, which would vary based on congestion, on the new eastbound lane is being explored.
Frontage Road	The Proposed Action will be designed to ensure both I-70 and the Frontage Road have adequate room for safe effective operations.
Advanced Guideway System (AGS)	The Proposed Action will be analyzed to identify AGS alignment options and possible conflicts as they relate to the Proposed Action.
Improvements to the US6 exit ramp	This could improve operations for the eastbound lanes
Wildlife fencing	Will be discussed in the ALIVE Issue Task Force
Enhancements to aquatic/fishery resources	Will be discussed in the SWEEP Issue Task Force
Permanent water quality features	Will be discussed in the SWEEP Issue Task Force

**Twin Tunnel Stakeholder's Core Values**

Twin Tunnel Stakeholder's Core Values	How the Core Values are being addressed
<b>Safe</b> travel for people and goods. <b>Safety</b> for emergency responders and maintenance workers. A <b>safe</b> crossing for wildlife.	Crash history analysis Application of State and Federal design standards Emergency responders as members of the Technical Team ALIVE Issue Task Force and review of ALIVE Recommendation Purpose and Need
<b>Mobility</b> through safe and reliable transportation facilities.	Application of State, Federal, and I-70 Mountain Corridor design standards and operational improvements Purpose and Need
A primary access and visual <b>gateway</b> to the Mountain Mineral Belt, historic Idaho Springs and Front Range communities.	Application of the CSS Design Guidance and Application of the Mountain Mineral Belt Aesthetic Guidance NEPA resource evaluations
<b>Wildlife</b> , wildlife habitat, migration routes and access to Clear Creek.	ALIVE MOU and Issue Task Force Review of ALIVE Recommendations NEPA resource evaluation
<b>Clear Creek, as a clean, high-quality water resource, a recreational</b> asset, an aquatic resource with sustainable fisheries' habitat, a drinking water source, and a defining natural feature of the corridor.	SWEEP MOU and Issue Task Force Application of SWEEP process NEPA resource evaluation
<b>Tourist destinations and community facilities</b> , including the Scott Lancaster Trail and Bridge, the waste-water treatment plant, the planned Clear Creek Greenway, the frontage road, and Clear Creek.	Application of the CSS Decision Process and Design Guidance Consultation with Idaho Springs, Clear Creek County, and local stakeholders Section 4(f) Process NEPA resource evaluations
<b>History</b> as a defining element of Clear Creek County. Celebrating the cultural resources associated with mining and mining towns, and the first successful tunneling operation as part of the construction of I-70 west through Colorado's mountains.	Historic Issue Task Force, application of the Section 106 Programmatic Agreement, and review of Historic Context Report Section 4(f) Process NEPA resource evaluation