

Twin Tunnels Environmental Assessment



Purpose:	Project Leadership Team and Technical Team Combined Meeting		
Day:	Wednesday	Date:	December 14, 2011
Location:	CDOT Traffic Operations Center, Golden, Trail Ridge Conference Room		

Participants:

Project Leadership Team

Attendee	Representing	
Ben Acimovic	CDOT R 1	Y
Jim Bemelen	CDOT R 1	Y
Allan Brown	Atkins	Y
Kathy Connell	CDOT Trans. Comm.	Y
Tony DeVito	CDOT	Y
Angie Drumm	CDOT Local	N
Janet Gerak	CDOT R 1	N
Vanessa Henderson	CDOT EPB	Y
Randy Jensen	FHWA	Y
Gina McAfee	Jacobs	N

Attendee	Representing	
Tim Mauck	Clear Creek Co.	Y
Jack Morgan	Idaho Springs	Y
Jeanne Nicholson	CO State Senate	Y
Pat Noyes	Pat Noyes	Y
Kevin O'Malley	Clear Creek Co.	Y
David Singer	CDOT	Y
Melinda Urban	FHWA	N
Mary Jo Vobejda	CH2M HILL	Y
Rebecca White	CDOT	Y
Mandy Whorton	CH2M HILL	Y

Technical Team

Attendee	Representing	
Ben Acimovic	CDOT R 1	Y
Chuck Attardo	CDOT R 1	N
Phyllis Adams	Upper CC Watershed Assn.	Y
Carol Anderson	EPA	Y
Rick Beck	Clear Creek Co Public Works	Y
Jim Bemelen	CDOT R 1	Y
Rena Brand	USACE	N
Tom Breslin	Clear Creek Co.	Y
Allan Brown	Atkins	Y

Attendee	Representing	
Carol Kruse	USFS	Y
Mary Jane Loevlie	Idaho Springs	Y
Gina McAfee	Jacobs	Y
Bill Macy	Idaho Springs	Y
Alison Michael	USFWS	Y
Cindy Neely	Clear Creek Co.	Y
Ty Petersburg	Colorado Parks & Wildlife	N
Amy Pallante	SHPO	N
Ron Prater	CSP	Y

Attendee	Representing	
Steve Cook	DRCOG	Y
Maria D'Andrea	Jefferson Co.	Y
Jim DiLeo	CDPHE	Y
Mary Keith Floyd	Michael Baker	Y
Gary Frey	Colorado Trout Unlimited	N
Janet Gerak	CDOT R 1	N
Stephanie Gibson	FHWA	N
Dan Gibbs	Summit County	N
West Goff	Atkins	Y
Dave Hattan	FHU	Y
Vanessa Henderson	CDOT EPB	Y
Nicolena Johnson	Clear Creek EMS	N

Attendee	Representing	
Bob Quinlan	Jacobs	N
Colleen Roberts	CH2M HILL	Y
Martha Rudolph	CDPHE	N
Steve Rudy	DRCOG	Y
Tom Schilling	Intermountain Corporate Affairs	Y
Paige Singer	Center for Native Ecosystems	N
Jo Ann Sorensen	Clear Creek Co.	Y
Keith Stefanik	Atkins	Y
Mary Jo Vobejda	CH2M HILL	Y
Bert Weaver	Clear Creek Co.	Y
Mandy Whorton	CH2M HILL	Y

Discussion Items

Welcome and Introductions

Jim Bemelen reviewed the agenda. Participants introduced themselves.

Other Corridor Project Schedules and Updates

Frontage Road

FIR plans have been updated to a true 30% design with the integrated survey information. These plans will be presented for endorsement by the Project Leadership and Technical Teams at the December 15th Frontage Road PLT meeting. The Categorical Exclusion is expected to be completed in January 2012.

Inter-Regional Connectivity Study

This project is on hold until Wendy Wallach's replacement is hired.

AGS Study

Consultant selection is expected in January with the project starting off in March 2012, by which time Wendy Wallach's replacement should be identified.

Twin Tunnel Updates

Traffic analysis is continuing. The managed lane operating scenario will be an agenda item for discussion at an upcoming PLT/TT meeting, once the modeling is completed.

Ben Acimovic explained that Construction Manager/General Contractor (CMGC) is a project delivery method which allows CDOT to bring on a contractor during the design process. The contractor provides input regarding scheduling, pricing, phasing and other information that will help produce a higher quality project. Using this delivery method, CDOT will know the guaranteed maximum price for the project before construction starts. The RFP will be coming out in December and he expects to have the selected firm on board in March. The RFP will

require the CMGC to follow the I-70 Mountain Corridor Context Sensitive Solutions (CSS) process.

Pat Noyes provided an updated on the Stream and Wetland Ecological Enhancement Program (SWEEP) and A Landscape Level Inventory of Valued Ecosystems (ALIVE) Issues Task Forces (ITFs). She noted that the ITFs have been combined for the Twin Tunnels and Frontage Road projects. The SWEEP ITF has had two meetings to identify and address issues, and a third meeting will be on January 19, 2012 to finalize the recommendations. The ALIVE ITF has had one meeting to identify issues and will be meeting again on January 20, 2012 to finalize their recommendations.

Mandy Whorton provided an update on the Section 106 ITF, which has also been combined for the Frontage Road and Twin Tunnels projects. The ITF met on September 16 to confirm the area of potential effects (APE) and identify issues. An historic survey has been completed, and the eligibility and effects report will be sent to the consulting parties before the end of the year. A meeting will be held in January 2012 to discuss comments and eligibility determinations.

The Twin Tunnels EA schedule has slipped a little bit, mainly due to the traffic analysis and survey data collection. The team will be working hard to make up for the delay. The outlines for the EA chapters have been completed and the impact analysis will start based on the design information presented at today's meeting.

Design Updates

Allan Brown went through a presentation of the design alignment (see attached presentation). He said the proposed design generally maintains existing geometry and adds a third lane to the south. The curve at Hidden Valley will be reconstructed into a flatter curve to improve safety, as this is the highest crash location in the project area. The design will maintain or improve stopping sight distance and superelevation (the cross slope of the roadway on a curve) where possible.

The EA will look at two different options to maximize tunnel widening within project budget:

- A 48-foot road section throughout the project limits, and a corresponding minimum width tunnel.
- A 56-foot road section from the west project limit to Hidden Valley, with a corresponding maximum width tunnel, and a 48-foot road section from Hidden Valley to the east project limit.

Both options would:

- Not encroach on Clear Creek's 2-year or 100-year floodplains
- Entail median encroachment that conflicts with I-70 Mountain Corridor CSS Design Criteria
- Maintain or expand the vertical and horizontal separation of eastbound and westbound lanes on I-70

- Remain within existing CDOT right-of-way except at the chain station. The chain station may need to be relocated and if it is, it will be redesigned to meet I-70 Chain Station Plan requirements.
- Require retaining walls along Clear Creek. The walls would range from 2 to 20 feet tall.
- Not require exceptions to the I-70 Mountain CSS Corridor Design Criteria. The design team will continue to monitor this as the design advances.

The final design will include sediment and spill control locations, guardrail updates, address headlight glare. Aesthetics guidance and recommendations from SWEEP, ALIVE, and Section 106 task forces will also be included.

Discussion Items

Jack Morgan feels the current location of the chain station is unsafe and causes a lot of congestion. He would like to see it relocated farther west or use the exit and entrance ramps at Hidden Valley instead. Mandy Whorton said the chain station will be redesigned to meet current standards (with a separation), and the change in the chain station design would be evaluated in the EA.

Carol Kruse said during scoping only one proposed action was presented and now there are two. Mandy Whorton explained the cross sections are being studied as a range and not two separate alternatives. Mandy noted that the range of cross sections is being considered around the tunnel only, since the tunnel is the only permanent improvement being constructed by this project. The remainder of the project will consider only the narrower cross section to avoid throw-away work when future ultimate improvements are constructed.

Cindy Neely asked if CDOT is hoping to obtain the maximum tunnel width that the CMGC contractor can construct with CDOT's funds. She then asked if the tunnel width would dictate the road width at the west end of the project. Mandy Whorton stated this was correct.

Jack Morgan inquired if sight distance is improved, will safety be reduced because the east and west bound lanes will be closer together. Allan Brown said the curve geometry is not changing except at the Hidden Valley curve, and the westbound guard rail will remain where it is. He summarized that in no locations along the project would the eastbound and westbound travel lanes be closer together.

Cindy Neely is concerned about the high wall design along the creek because this is a heavy recreational use area. Mary Jo Vobejda said the I-70 Mountain Corridor Aesthetic Guidelines will be followed, and local stakeholders will be involved in the design of the walls.

JoAnn Sorensen asked if a cantilever section is needed for the 48-foot roadway section. Allan Brown said a short length of cantilever east of the Twin Tunnels is only necessary for the 56-foot roadway section.

The PLT requested a visual simulation of the walls, as viewed from the Frontage Road, be presented at an upcoming PLT/TT Meeting.

Carol Kruse inquired since two cross sections are being studied in the EA, what criteria will be used to make the decision between the 48-foot and the 56-foot roadway sections and when will

the decision be made. Randy Jensen said the EA will fully evaluate both cross sections (and general purpose and managed lane operational considerations). The decision document will state which width will be built and whether a managed lane will be included.

Cindy Neely thanked the project team for being precise in meeting the CSS criteria while still meeting all the NEPA requirements. She feels this project will be a good example for future projects to use.

Next Meeting

The focus of the January 12, 2012 PLT/TT meeting will be the Proposed Action Footprint. The meeting will be held from 9:00 - 12:00 in the Trail Ridge Conference Room.

Agenda



I-70 Twin Tunnels Environmental Assessment Combined Project Leadership and Technical Team Meeting

**Wednesday, December 14, 2011
Golden Residency
8:00 am - 11:30 am**

1. Welcome and Introductions (Bemelen)

2. Other Corridor Project Schedules and Updates (Bemelen)
 - Frontage Road (Acimovic)
 - Inter-regional Connectivity Study (Bemelen)
 - AGS Study (Bemelen)

3. Twin Tunnel Updates (Bemelen)
 - Managed Lanes (Bemelen)
 - Status of Issue Task Forces (Noyes)
 - EA Schedule (Whorton)
 - CMGC (Acimovic)

4. Design Approach and Proposed cross-section (Brown)

5. Next Combined PLT/Tech Team Jan. 12, 2012 (Bemelen)

Handouts

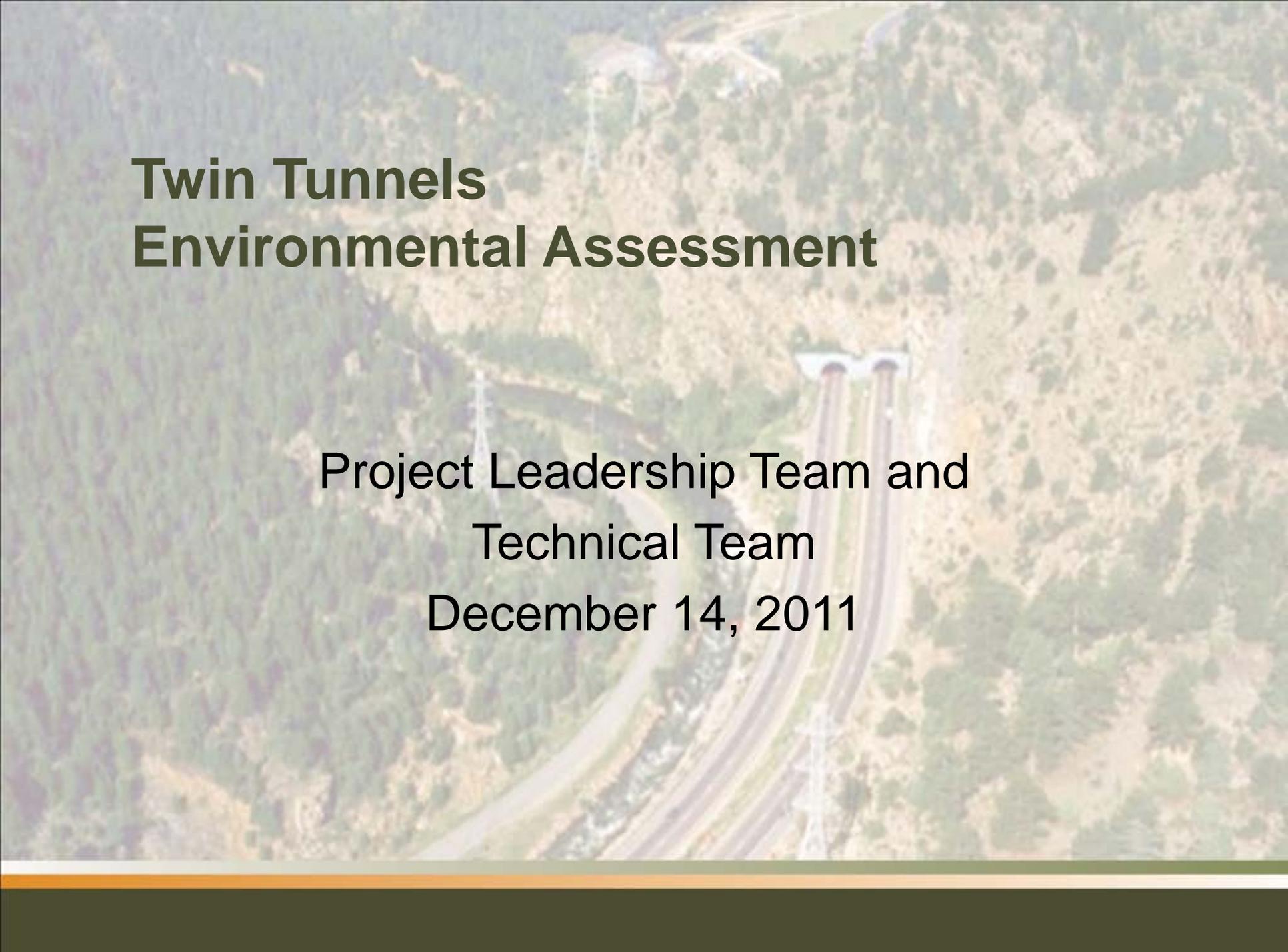
Cross Sections

Wall detail

Curve at Sta. 165+00

Date	Group	Purpose
Dec. 14	PLT and Tech Team	Proposed Action
Jan. 12	PLT and Tech Team	Proposed Action Footprint Managed Lane Process and Criteria Discussion
Jan	Section 106 ITF	
Jan	Greenway	
Jan	ALIVE	
Jan. 19	SWEEP	
Feb	PLT and Tech Team	Agenda To Be Determined
Mar	PLT and Tech Team	Schedule and Project Status Discuss Impacts Present Issue Task Force progress
Apr	PLT and Tech Team	Discuss Mitigation Final Reports from Issue Task Forces
May	PLT and Tech Team	Present highlights of the EA Discuss the Public Hearing
June	PLT or Tech Team	Agenda To Be Determined
June	Public Hearing	Present the process, EA results, solicit comments
July	PLT	Next Steps for the PLT Discuss results of the Public Hearing
July	Tech Team	Discuss results of the Public Hearing Close the Tech Team

Presentation

An aerial photograph of a multi-lane highway cutting through a dense, green forest. Two distinct tunnel entrances are visible on the right side of the road, each with a concrete structure and a dark opening. The surrounding terrain is hilly and covered in thick vegetation. The text is overlaid on the upper left and center of the image.

Twin Tunnels Environmental Assessment

Project Leadership Team and
Technical Team
December 14, 2011

Other Corridor Projects



- Frontage Road
 - » FIR plans are being updated to reflect comments.
 - » Final decisions are pending stakeholder endorsement
 - » Environmental analyses are ongoing, Jan 2012
- Interregional Connectivity Study
 - » CDOT may delay kick off until new PM is identified
- AGS Study
 - » Consultant selection expected in January 2012
 - » Project Initiation in March 2012

Managed Lanes



- Traffic analysis is ongoing
- Special focus meeting in February to discuss questions from November PLT/Technical Team Meeting
- Does not change the design for the Proposed Action (i.e., footprint is the same, only operational variations)

Construction Manager / General Contractor (CM/GC)



- RFP for Design Services released Dec 1
- RFP for CM/GC Services released Dec 1
- Designer and CM/GC firm on board in March 2012
- Both RFPs highlight CSS as vital to project success

Status of Issue Task Forces



- SWEEP
 - » Held two meetings to identify and address issues (10/19, 11/30)
 - » January 19 meeting to finalize recommendations
- ALIVE
 - » Meeting to identify issues (11/9)
 - » January meeting to finalize recommendations
- Section 106
 - » Held meeting to confirm area of potential effects and identify issues (9/16)
 - » Survey complete; eligibility and effects report will be sent to consulting parties before end of year
 - » Meeting planned for January to discuss determinations and comments
- Greenway
 - » Meeting to identify issues
 - » Additional small group meetings to resolve issues
 - » Joint planning being pursued with Clear Creek County and CDOT

Status of Environmental Assessment



- Schedule has had some delays, team working to complete on time.
 - » Traffic Analysis
 - » Survey and Design
- Data collection for existing conditions complete
- Initiating impact analysis based on design presented today
- Outlines for EA chapters complete

Elements of Design



- Generally maintains existing geometry and adds third lane to the south (widen to the outside)
- Curve at Hidden Valley reconstructed to address highest crash location
- Maintains or improves stopping sight distance and superelevation

Cross Section Variations



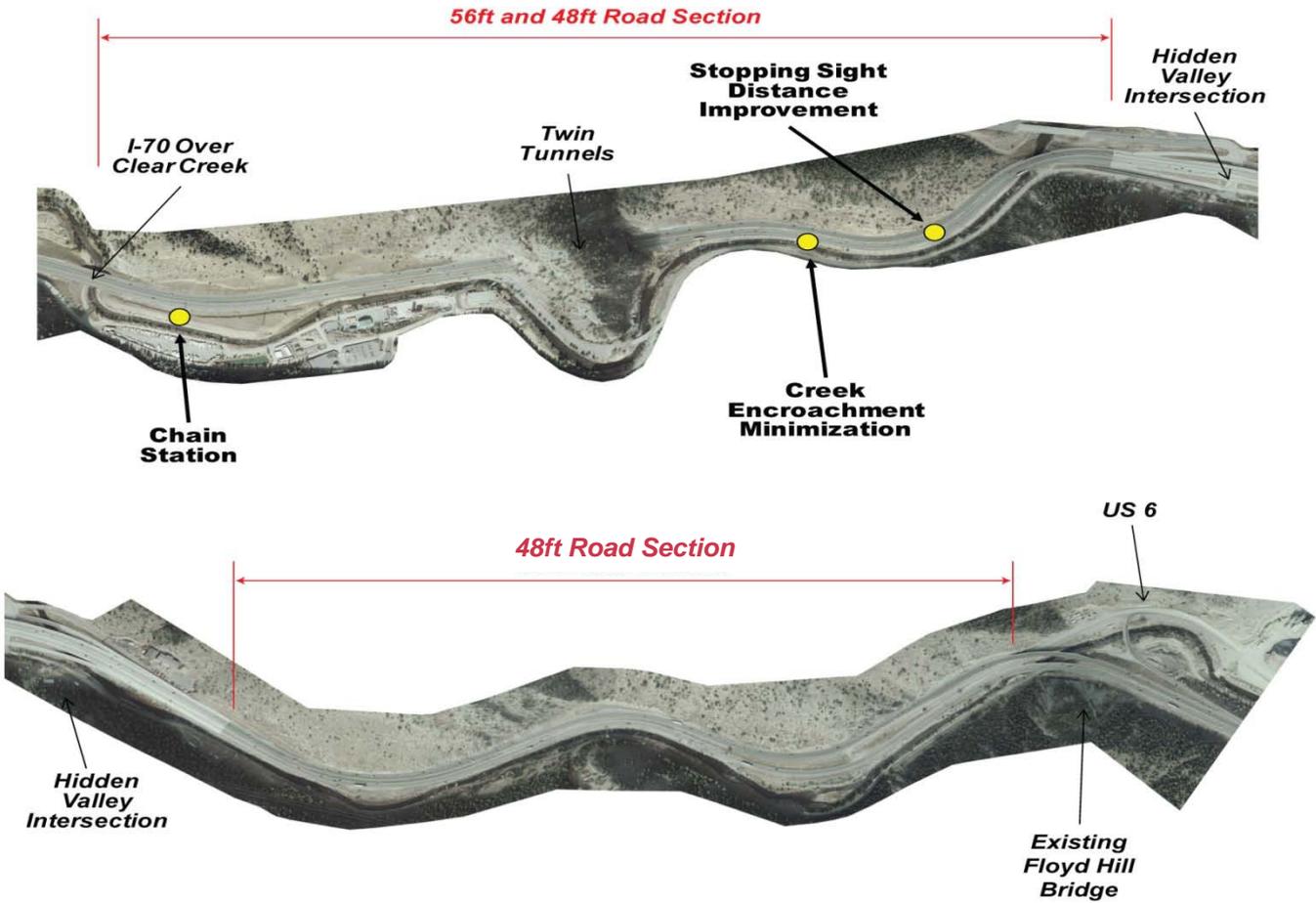
- Recommended alignment with two road sections
 - » 48-foot road section throughout project limits
 - » 56-foot road section from project start, through tunnel to Hidden Valley, 48-foot from Hidden Valley to project end (MP 244)
- Two road sections provide opportunity to maximize tunnel widening within project budget

Design for Both Cross Sections Achieve Goals



- No encroachment of Clear Creek 2-year or 100-year floodplains
- No median encroachment that conflicts with I-70 Mountain Corridor CSS Design Criteria
- Maintains or expands vertical and horizontal separation of EB and WB lanes
- Stays within existing CDOT right-of-way except at chain station
- Chain station redesigned to meet I-70 Chain Station Plan requirements
- No walls visible from the roadway exceed 12 feet (all less than 10 feet) (walls on creek side are 2 to 15-20 feet tall)
- No I-70 Mountain CSS Corridor Design Criteria exceptions at this time (will continue to monitor as design advances)

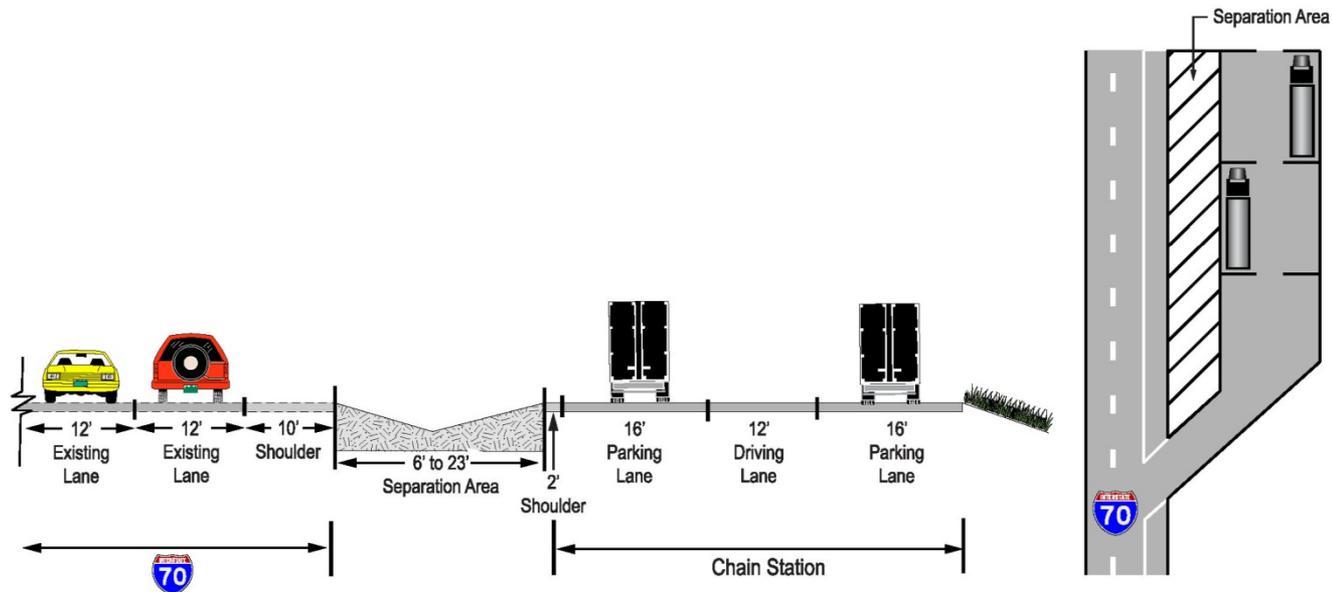
Corridor Overview



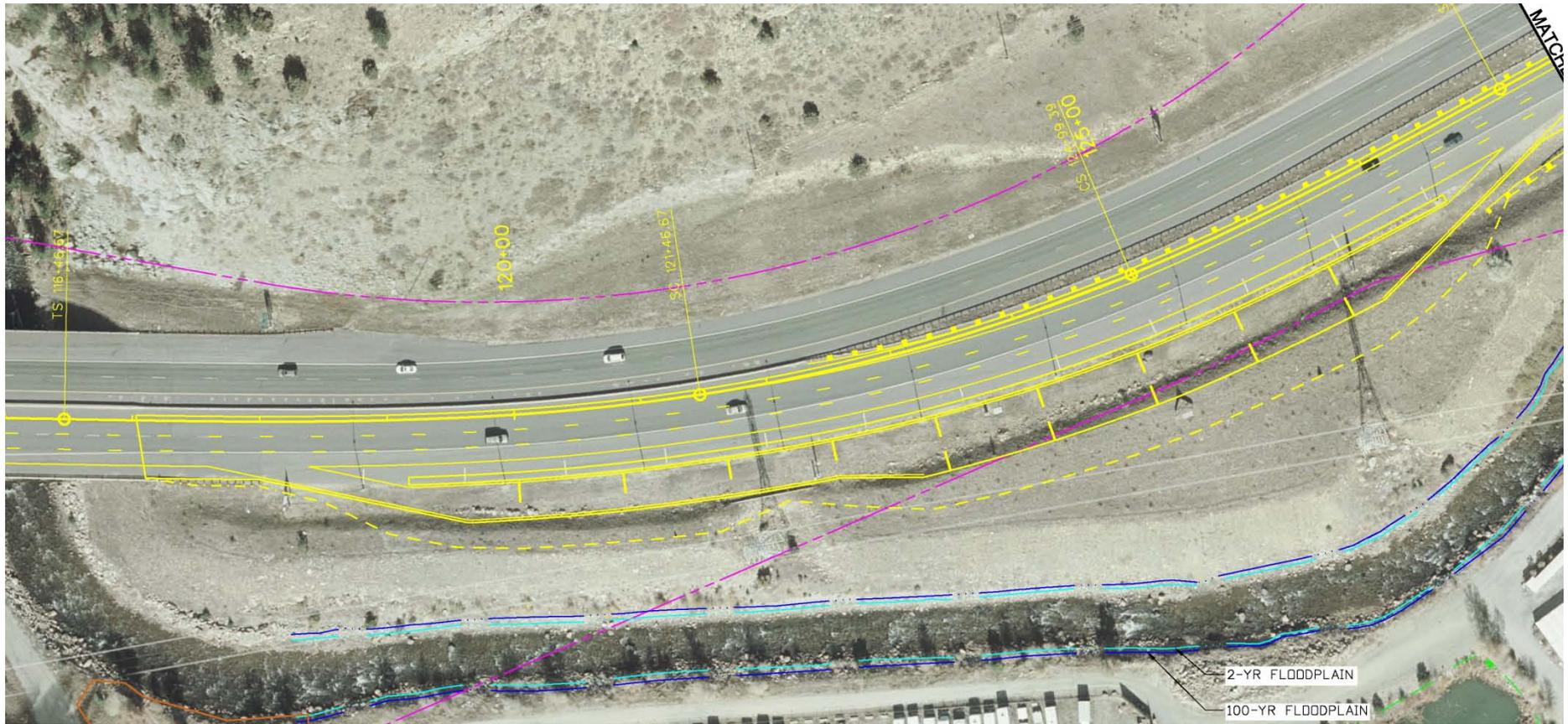
Modify Existing Chain Station



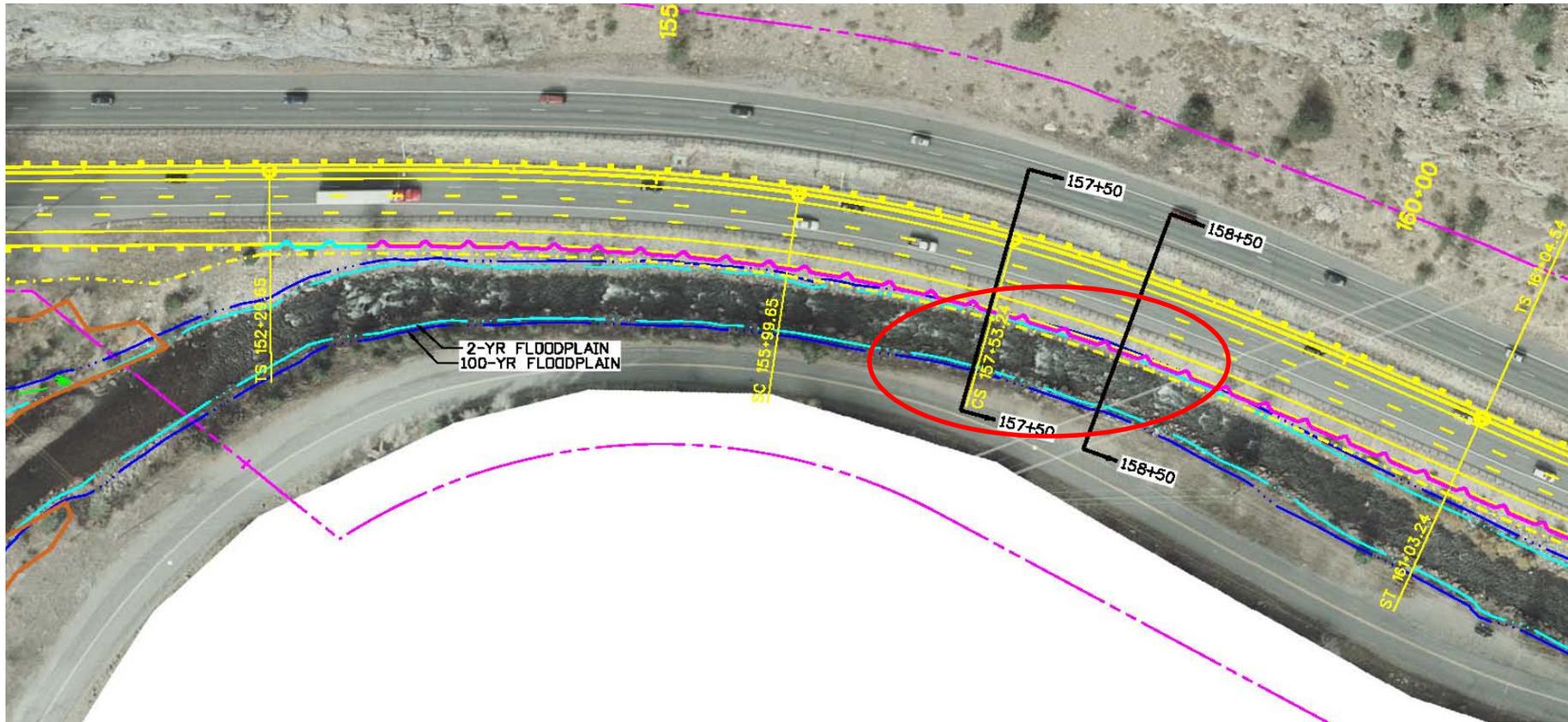
Proposed Typical Chain Station Separated From I-70 with One Driving Lane and Two Parking Lanes



Modify Existing Chain Station



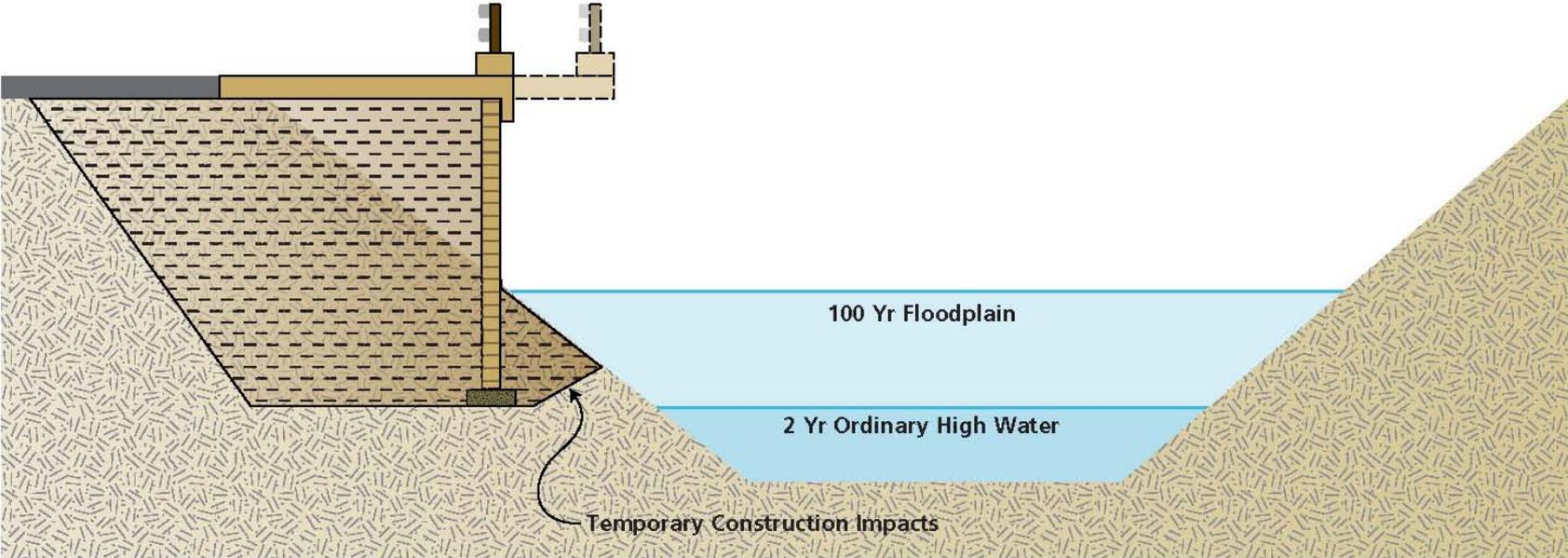
Minimize 100-yr Floodplain Encroachment



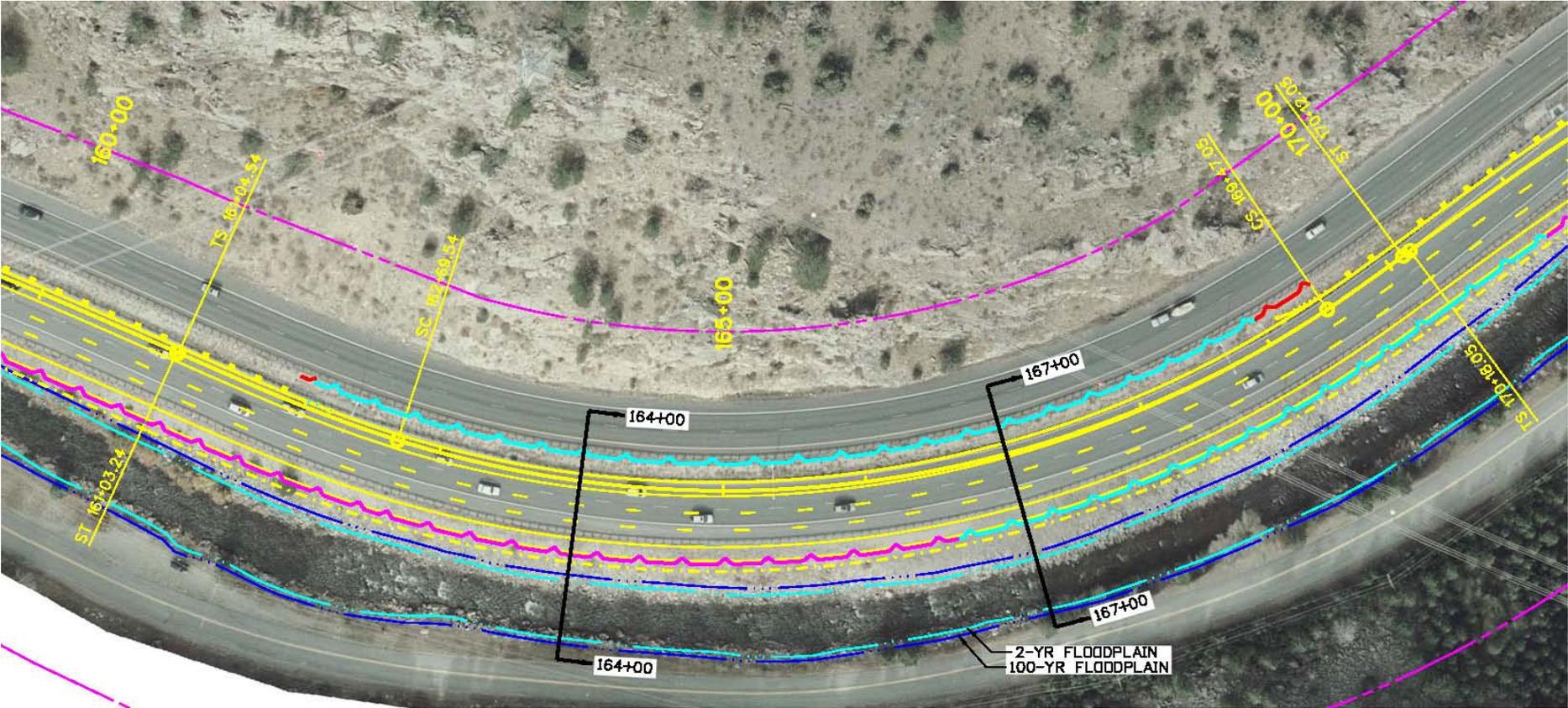
Creek Minimization Approach



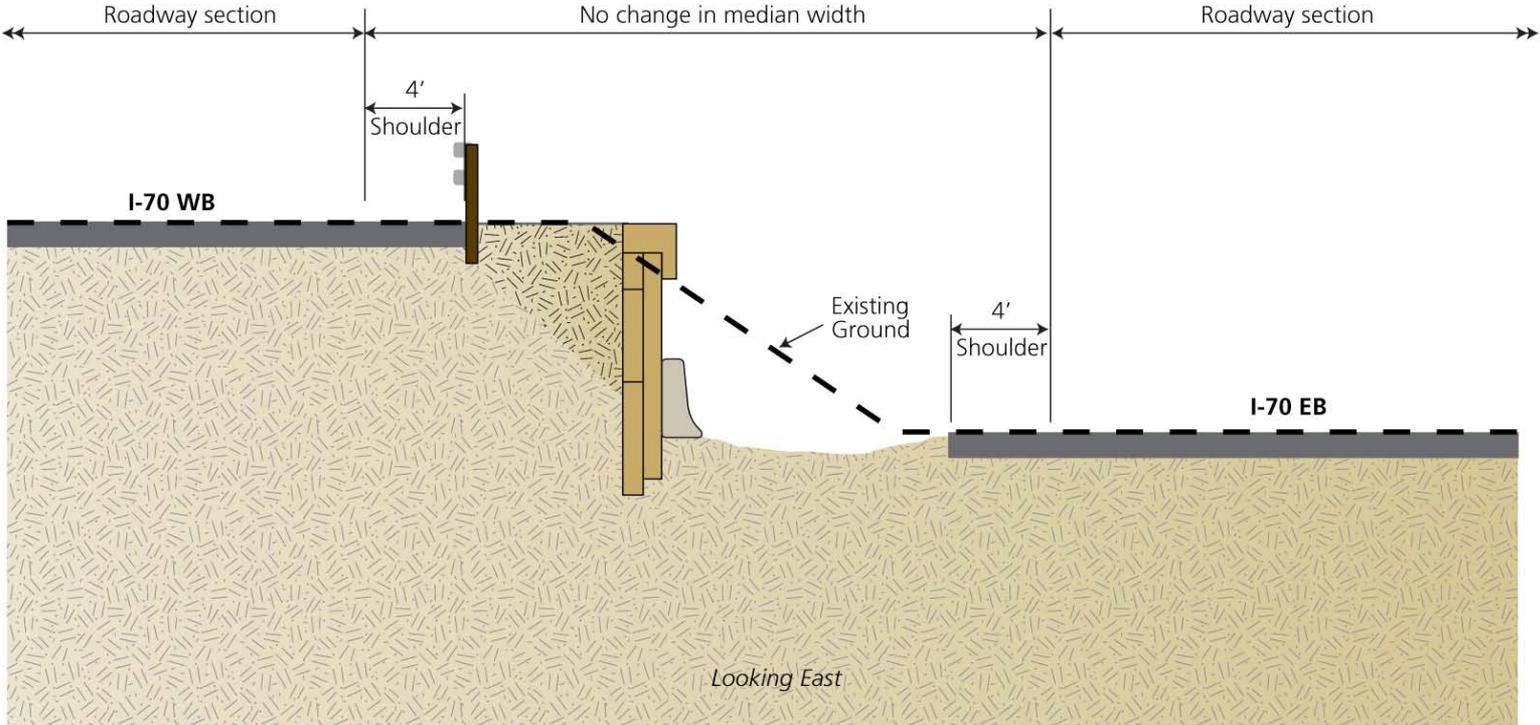
Twin Tunnels Environmental Assessment
Idaho Springs, Clear Creek County



Improving Visibility Around Curve



Improving Visibility Around Curve



Design for Both Cross Sections Achieve Goals



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Final Design Considerations



- Design details such as
 - » Sediment and spill control locations
 - » Guardrail updates
 - » Headlight glare
- Aesthetics
- Recommendations from SWEEP, ALIVE, and Section 106 task forces

Next Steps



- Conduct impact analysis based on road sections presented today
- Review traffic results
- Refine evaluation criteria for outstanding decisions
 - » Operational concept (managed vs. general purpose lanes)
 - » Impacts of 48-foot and 56-foot cross sections