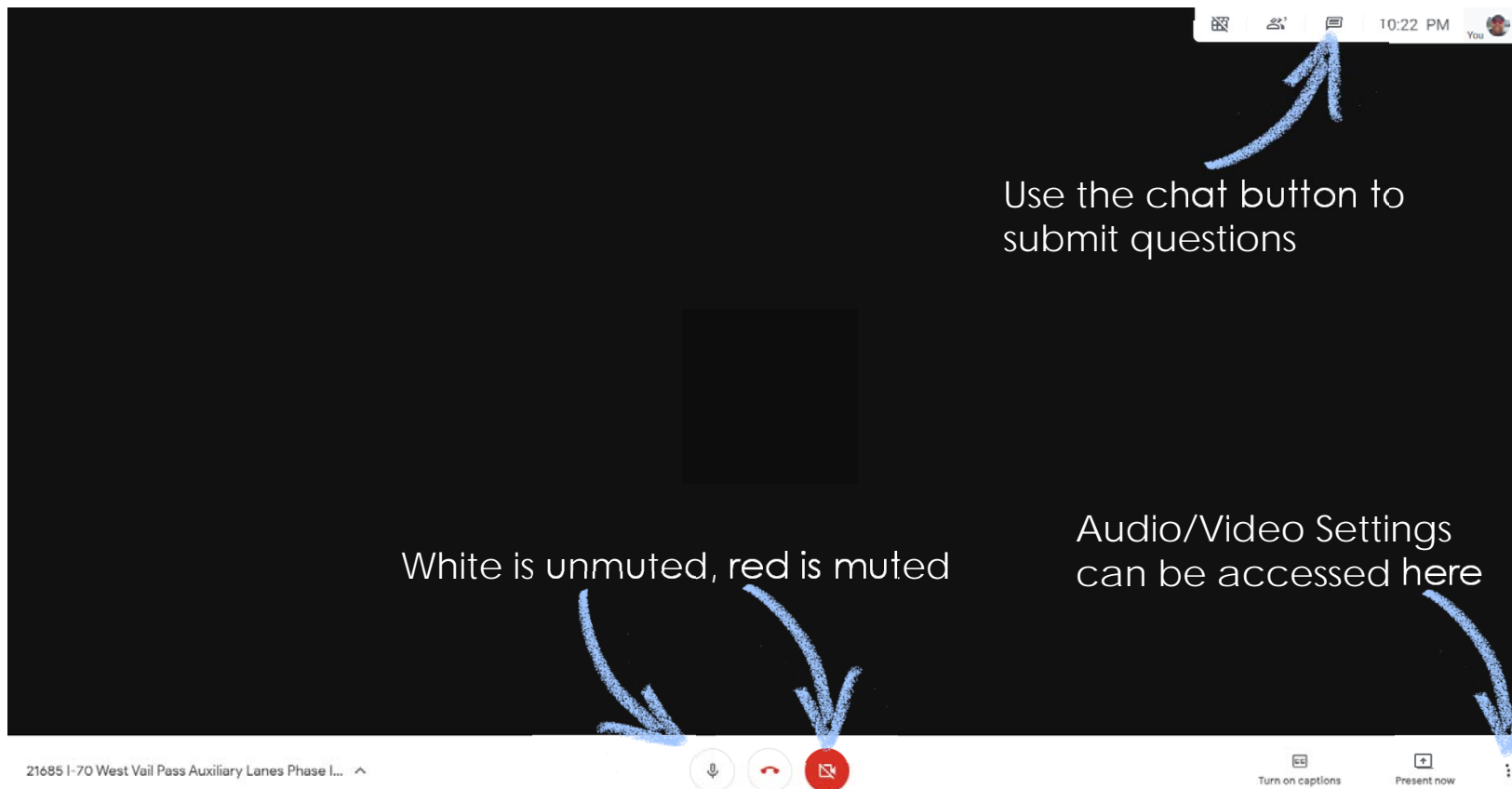




GOOGLE MEET TIPS



Also...

- Please mute your microphone/phone during the presentation
- Use the chat window to ask questions anytime throughout the presentation. Questions will be addressed at the end
- Use the Audio/Video settings to change the layout of the presentation
- We'll get started in just a few minutes!



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I-70 WEST VAIL PASS AUXILIARY LANES



21685 – I-70 WEST VAIL PASS AUXILIARY LANES PHASE I
CM/GC MANDATORY PRE-PROPOSAL MEETING – 7/21/2020



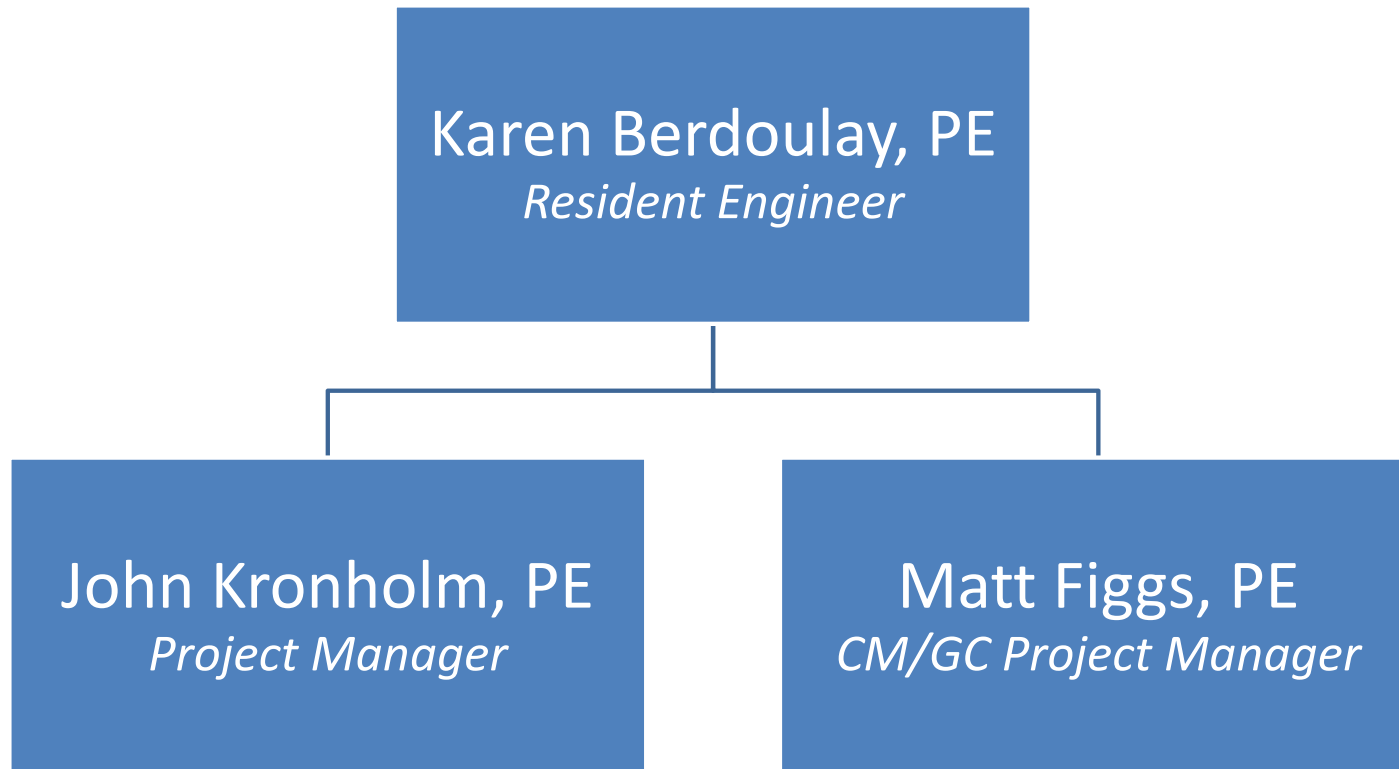
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I-70 WEST VAIL PASS AUXILIARY LANES

PROJECT TEAM



PROJECT TEAM





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I-70 WEST VAIL PASS AUXILIARY LANES

PROJECT TEAM

CM/GC Contractor
TBD

Design Consultant
TBD

Independent Cost
Estimator (ICE)
TBD



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I-70 WEST VAIL PASS AUXILIARY LANES

PROJECT BACKGROUND



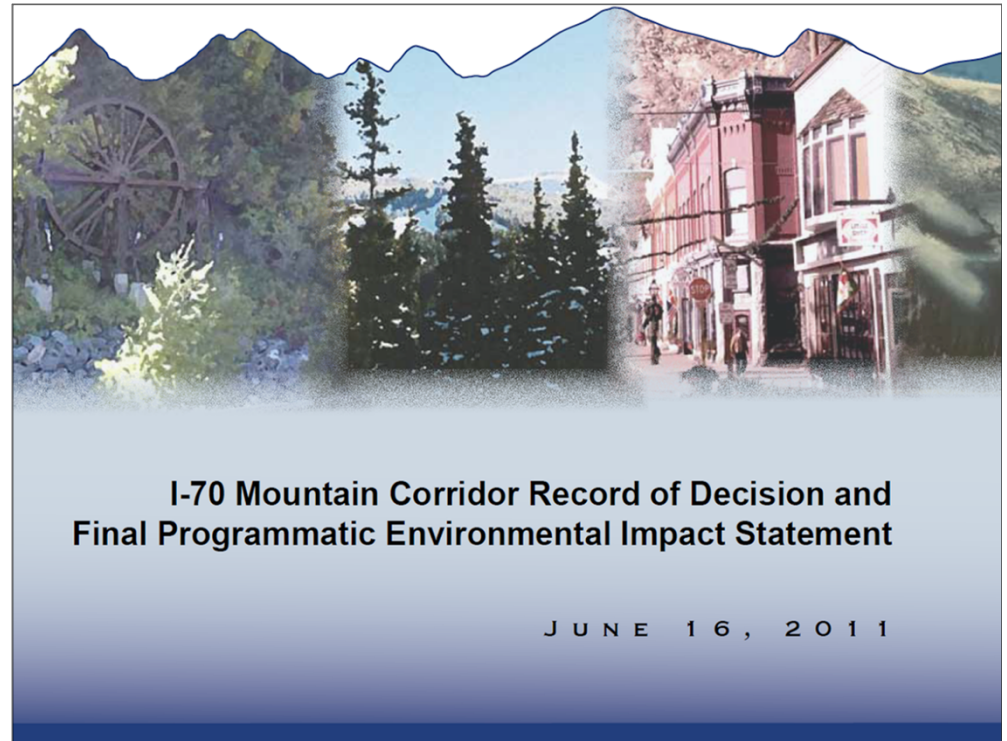
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I-70 WEST VAIL PASS AUXILIARY LANES

PROJECT BACKGROUND

I-70 MOUNTAIN CORRIDOR PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT (PEIS)

- Tier 1 PEIS initiated in 2000 and Record of Decision issued in 2011
- C-470 to Glenwood Springs
- High-level analysis
 - Alternatives
 - Environmental Scan
 - Preferred Alternative





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I-70 WEST VAIL PASS AUXILIARY LANES

PROJECT BACKGROUND

PEIS RECOMMENDATIONS

- The Tier 1 decision included three basic elements: travel mode, capacity, and general location
- Selected the Preferred Alternative, a long-term 2050 vision for the Corridor that includes:
 - Non-infrastructure components
 - An Advanced Guideway System
 - Highway improvements
- Identified Highway Improvements for West Vail Pass:
 - EB and WB auxiliary lanes from mile markers (MM) 180-190



PROJECT BACKGROUND

SIGNIFICANCE OF I-70 VAIL PASS

- **Key freight corridor**: I-70 is the only contiguous east-west interstate in Colorado on the National Highway System.
- **No resiliency**: Travel detours are long and on 2-lane mountain roads, between 1-3 hours of additional travel time, and costly.
- **Critical for quality of life**: I-70 is the critical link for tourism and local economies between the Front Range and western Colorado.





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I-70 WEST VAIL PASS AUXILIARY LANES

PROJECT BACKGROUND

SAFETY CONCERNS

- High number of crashes
- Substandard geometry including tight curves
- Speed differentials resulting in sideswipes and rear end crashes
- Narrow roadway impacts driver correction



#1 Highest on I-70

Crashes/Million vehicle miles travelled in the State (based on data from 2010-2014)



24

TIMES RUNAWAY TRUCK
RAMPS USED
(4/2015-12/2017)

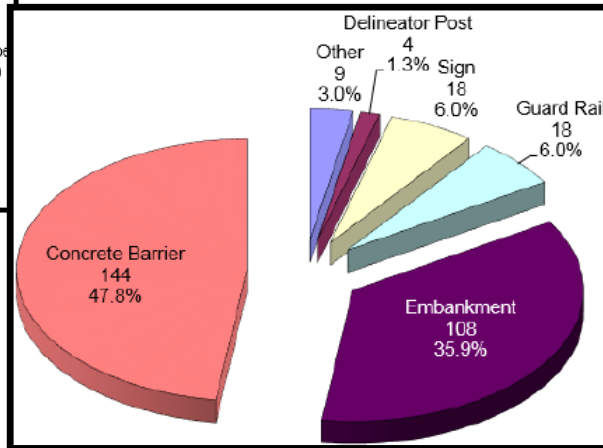
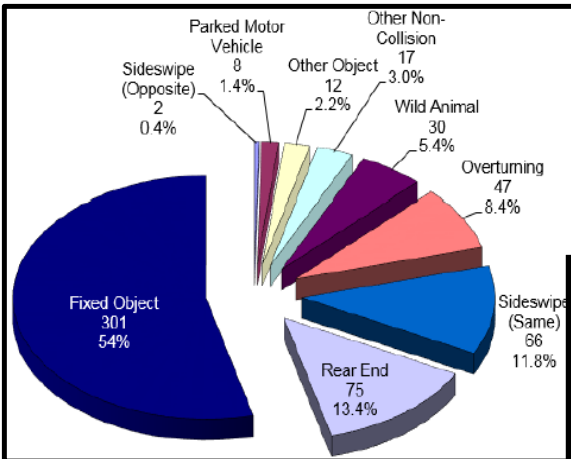


PROJECT BACKGROUND

CRASH DATA

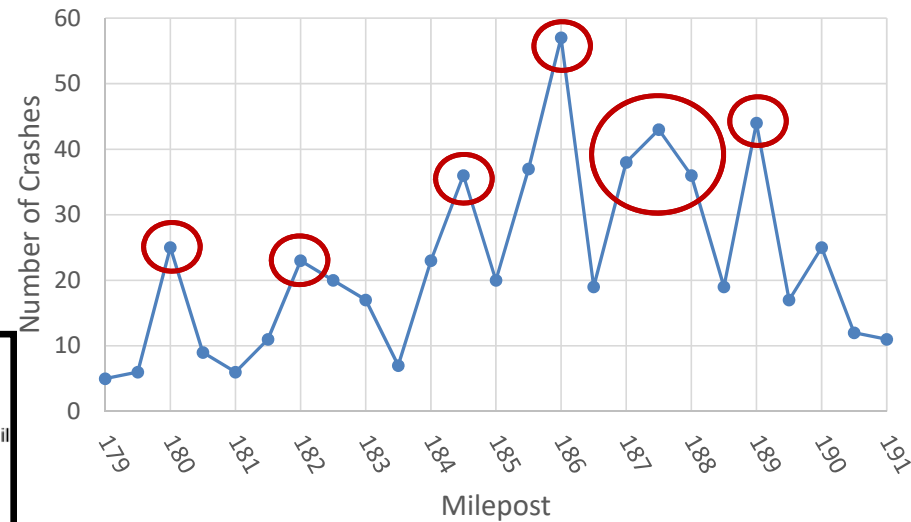
Crash Distribution by Type

558 crashes
2014-2016



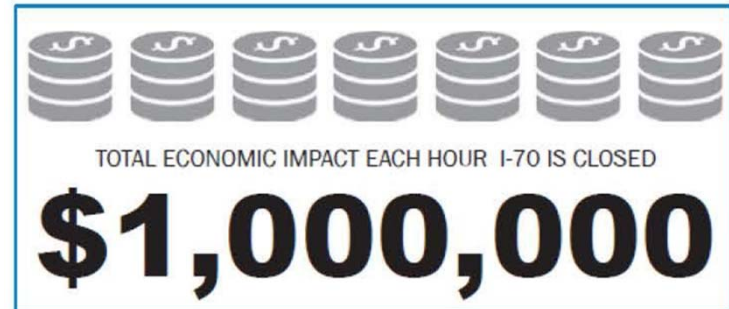
Source: CDOT Safety Assessment Report

Crashes by Milepost (2014 – 2016)





PROJECT BACKGROUND



TRAFFIC OPERATION ISSUES

- Safety issues lead to significant full road closures. With only two lanes, full closures are needed to maintain “Lane +1” for Safety.
- Steep grades & tight curves with high number of slow- moving vehicles leads to erratic lane changes and speed differentials

Year	Number of Full Closures	Number of Partial Closures	Duration of either full or partial Closures (hours)
2014	15	25	400.0
2015	33	98	476.7
2016	71	144	307.9
2017	91	163	363.5
TOTAL	210	430	1,548.1



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I-70 WEST VAIL PASS AUXILIARY LANES

CURRENT ENVIRONMENTAL ASSESSMENT & CSS PROCESS



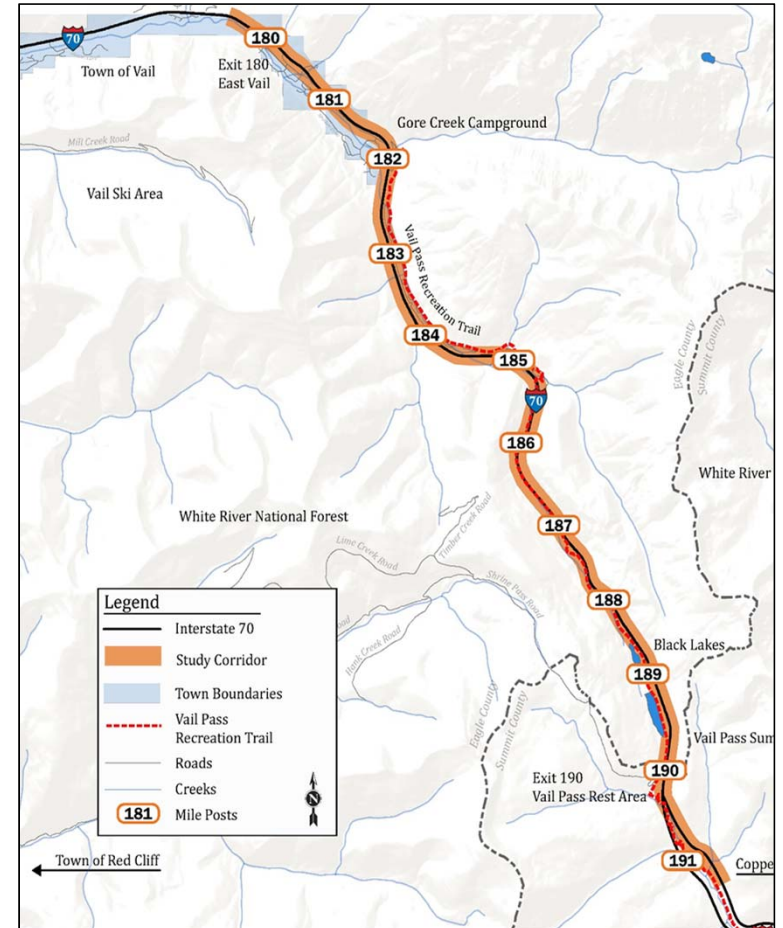
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I-70 WEST VAIL PASS AUXILIARY LANES

CURRENT EA & CSS

ENVIRONMENTAL ASSESSMENT

- Kicked-off Tier 2 NEPA Process in 2018 – Environmental Assessment
- Utilized PEIS and previous EA data (effort in 2007)





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I-70 WEST VAIL PASS AUXILIARY LANES

CURRENT EA & CSS

Purpose

The purpose of the project is to improve safety and operations on Eastbound and Westbound I-70 on West Vail Pass.

Need

This project is needed to address safety concerns and operational issues due to geometric conditions (steep grades and tight curves) and slow-moving vehicle and passenger vehicle interactions that result in inconsistent and slow travel times along the corridor. The I-70 Mountain Corridor Programmatic Environmental Impact Statement (PEIS) identified safety and mobility issues on West Vail Pass related to speed differentials due to slow-moving vehicles. *(Mobility is defined as the ability to travel along the I-70 Mountain Corridor safely and efficiently in a reasonable amount of time.)*



CURRENT EA & CSS

CONTEXT SENSITIVE SOLUTIONS PROCESS





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I-70 WEST VAIL PASS AUXILIARY LANES

CURRENT EA & CSS

CONTEXT SENSITIVE SOLUTIONS PROCESS

- Project Leadership Team (PLT), Technical Team (TT), and Issue Task Forces (ITF)
- PLT Responsibilities
 - Ensures open, collaborative process
- TT Responsibilities
 - Assist in technical aspects
 - Context, Core Values
- Ultimately FHWA and CDOT make decisions

Corridor Context

I-70 is Colorado's only east-west Interstate, providing a critical interstate economic link for the country. It also provides the only direct route between the Front Range and western Colorado. Area residents and visitors travel the corridor to access growing mountain communities, as well as local and regional recreational opportunities. Vail Pass is rich in natural beauty and unique environmental, wildlife, historic, and recreational resources.

The I-70 corridor over Vail Pass has a natural scenic beauty and dramatic views as it winds through U.S. Forest Service land. The corridor is recognized as a nationally and exceptionally significant feature of the federal interstate highway system due to its early implementation of context sensitive design, integrating a modern transportation facility with the surrounding natural environment. This section of highway is considered a historic resource due to these elements.

The steep grades, roadside terrain, and extreme weather events make I-70 over Vail Pass a challenging mountain pass to travel and maintain. Conflicts between vehicles traveling at substantially different speeds create safety problems and operational issues. Transportation improvements must preserve the natural beauty and unique resources in the corridor while improving safety and the travel experience for commerce, residents and visitors.

Core Values WHAT IS IMPORTANT?	Critical Issues WHAT IS THE CONCERN?
<p>SAFETY Improve and maintain a safe travel corridor by minimizing crashes and mitigating other safety concerns</p>	<ul style="list-style-type: none"> • Speed differentials and slow-moving vehicles create erratic maneuvers and sudden braking • Snow storage and removal affects clear zone area and sight distance • Steep grades, avalanche and rockfall areas • Substandard geometry • Runway lock ratio locations and design • Freight & traction law chain-up station locations and design
<p>OPERATIONS Address roadway operations to improve travel reliability for all road users with a modern highway system</p>	<ul style="list-style-type: none"> • Speed differentials and slow-moving vehicles result in traffic backups • Unable to respond quickly to traffic conditions and incidents • Duration and length of time for highway closures • Unable to communicate real-time conditions to corridor users • Inadequate emergency response areas/turnarounds increase time for closure • Lack of redundancy • Severe economic impact to Colorado each hour I-70 is closed
<p>CORRIDOR CHARACTER & AESTHETICS Maintain the surrounding wilderness and visual and historic resources of the project corridor and minimize impacts to nearby residents and businesses.</p>	<ul style="list-style-type: none"> • Impacts to the local communities • Maintain the context sensitive design of the road while modernizing the facility • Noise impacts to residents • Impacts to the wilderness/U.S. Forest Service land • Impacts to the high-quality views in the project corridor
<p>ENHANCED ENVIRONMENT Minimize impacts to environmental resources and identify opportunities to enhance the high-quality natural environment in the corridor.</p>	<ul style="list-style-type: none"> • Water quality and sand collection • Wildlife corridors and habitat • Threatened & endangered species habitat • Biodiversity
<p>RECREATION Provide access for all residents and visitors to recreational opportunities</p>	<ul style="list-style-type: none"> • Safety concern related to trail proximity to highway • Crowded recreation trails • Potential conflicts between multiple recreational travel modes
<p>COLLABORATIVE DECISIONMAKING Uphold commitments from the I-70 Mountain Corridor Record of Decision and utilize partnerships with stakeholders to reach decisions</p>	<ul style="list-style-type: none"> • Consensus with stakeholders on improvements that uphold commitments
<p>IMPLEMENTABILITY Identify a preferred alternative that can be funded and constructed in phases</p>	<ul style="list-style-type: none"> • Ability to construct in phases • Impacts to traveling public during construction • Trail impacts • Financial feasibility for construction
<p>SUSTAINABILITY Implement a solution that is effective to maintain</p>	<ul style="list-style-type: none"> • Project meets the needs now and into the future • Maintenance and operational financial feasibility



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I-70 WEST VAIL PASS AUXILIARY LANES

CURRENT EA & CSS

CONTEXT SENSITIVE SOLUTIONS PROCESS

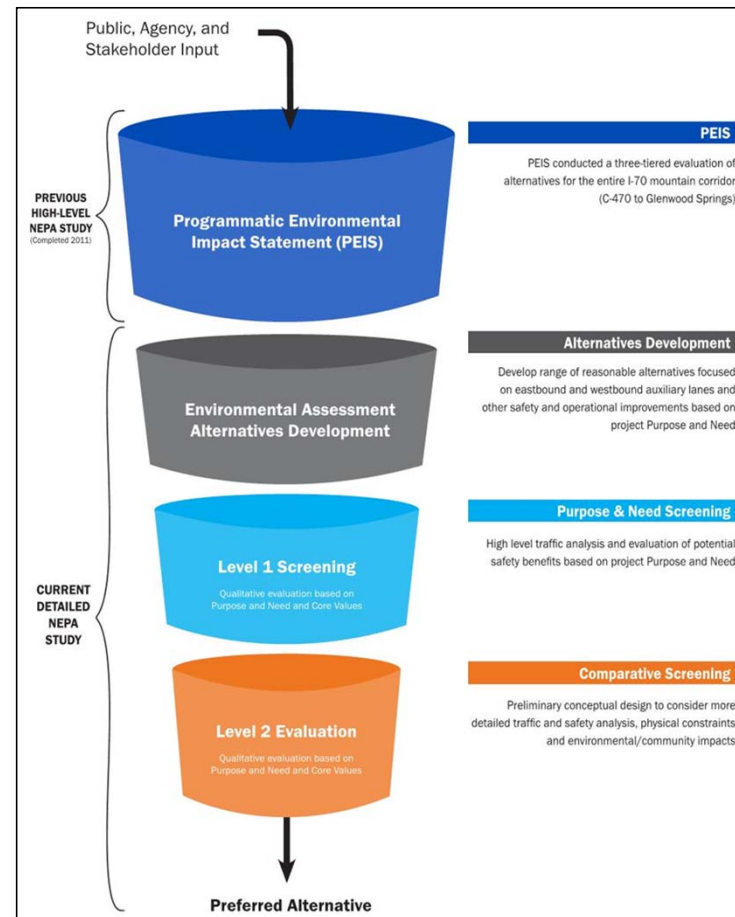
- Issue Task Forces
 - Required
 - SWEEP (wetlands and water quality)
 - ALIVE (aquatic and terrestrial wildlife)
 - Section 106
 - Project-Specific
 - Recreation
 - Emergency Services





ALTERNATIVES PROCESS

- Developed screening criteria for two levels
 - Incorporated P&N and Core Values
- Developed draft alternatives
 - Had to define “alternatives” vs. “design options”
 - No-Action
 - Five Action Alternatives
- Reviewed with TT
 - Input on alternatives screening criteria
 - Input on alternatives





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I-70 WEST VAIL PASS AUXILIARY LANES

CURRENT EA & CSS

CURRENT SCHEDULE

- EA & Tech Memos have been reviewed by CDOT, FHWA, and cooperating agencies (USFS & USFWS)
- EA is currently in legal review by FHWA
- Once finalized, EA document will be released for public review
 - 30 day comment period
- Decision Document – end of 2020





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ALTERNATIVES PROCESS



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I-70 WEST VAIL PASS AUXILIARY LANES

ALTERNATIVES

- 5 alternatives screened in Level 1
 - **No Action**
 - Existing Two Lanes with Curve Modifications and ITS Improvements
 - Aux Lanes with Full Shoulders
 - Existing Two Lanes & Operational Lanes
 - Aux Lanes with WB I-70 Realignment

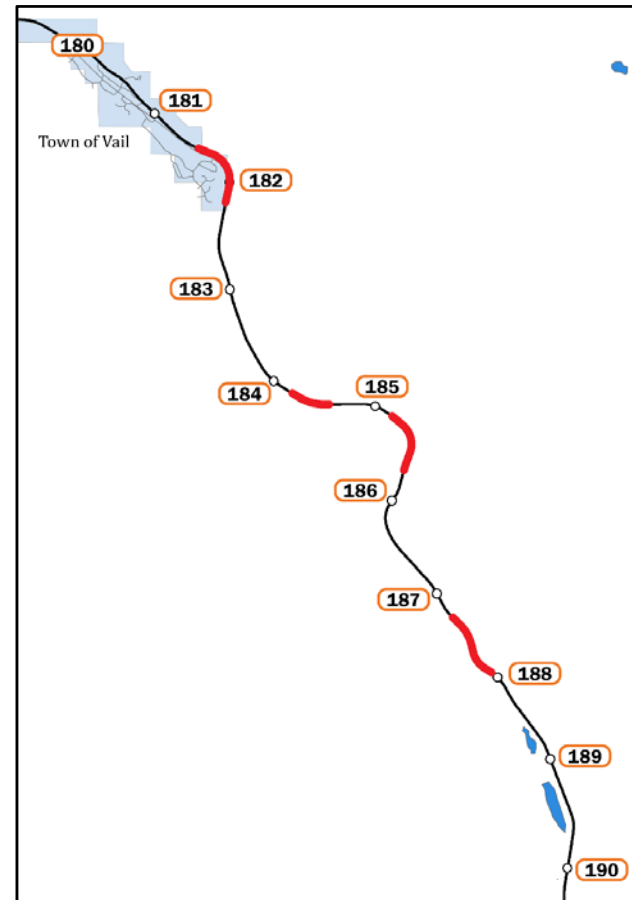
ALTERNATIVES PROCESS



ALTERNATIVES

- 5 alternatives screened in Level 1
 - No Action
 - Existing Two Lanes with Curve Modifications and ITS Improvements
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ALTERNATIVES PROCESS

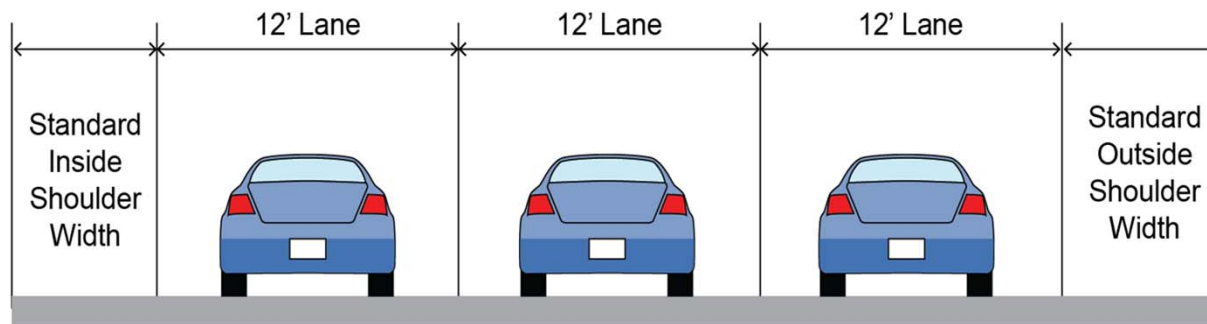




ALTERNATIVES

ALTERNATIVES PROCESS

- 5 alternatives screened in Level 1
 - No Action
 - Existing Two Lanes with Curve Modifications and ITS Improvements
 - **Aux Lanes with Full Shoulders**
 - Existing Two Lanes & Operational Lanes
 - Aux Lanes with WB I-70 Realignment

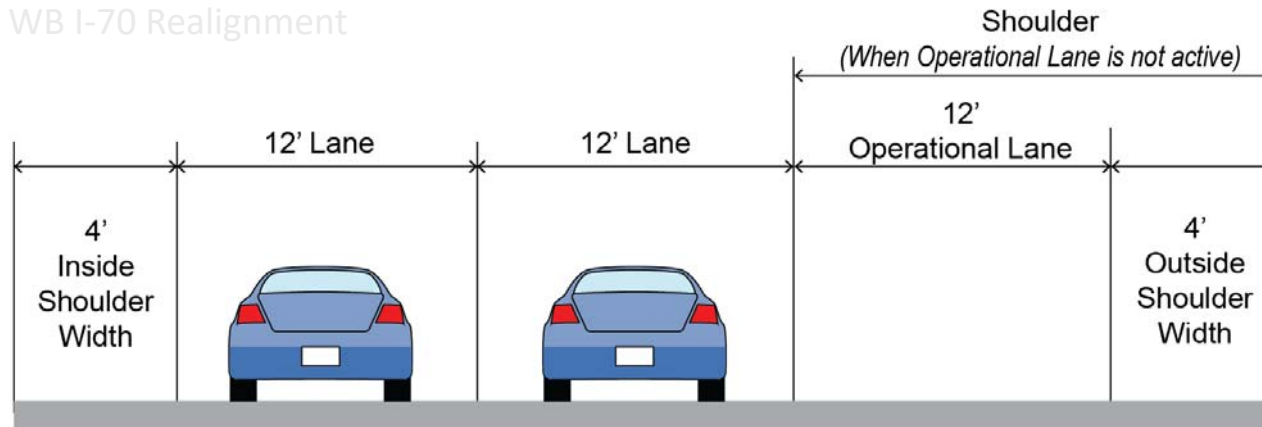




ALTERNATIVES

- 5 alternatives screened in Level 1
 - No Action
 - Existing Two Lanes with Curve Modifications and ITS Improvements
 - Aux Lanes with Full Shoulders
 - **Existing Two Lanes & Operational Lanes**
 - Aux Lanes with WB I-70 Realignment

ALTERNATIVES PROCESS

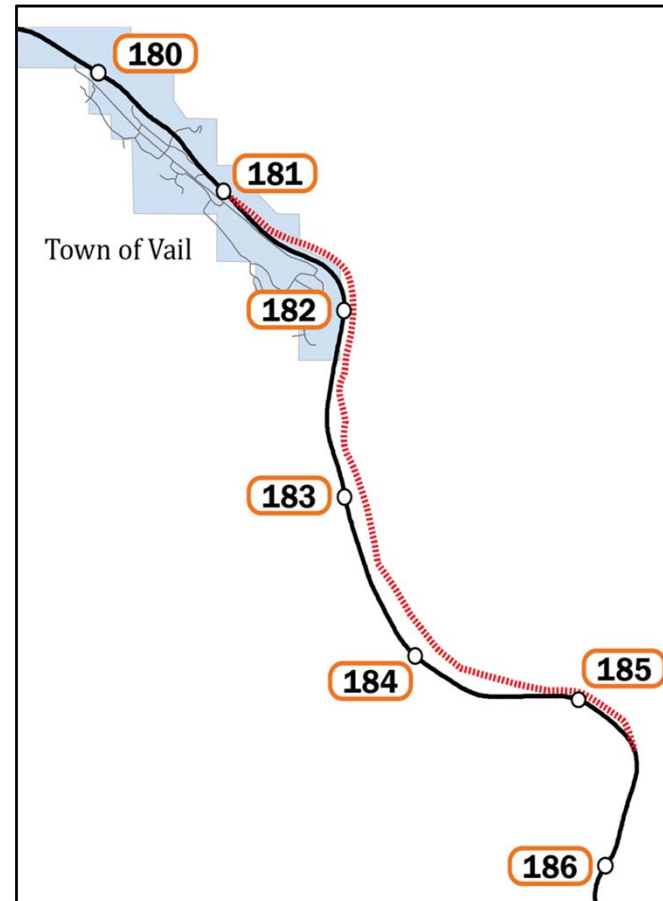




ALTERNATIVES

- 5 alternatives screened in Level 1
 - No Action
 - Existing Two Lanes with Curve Modifications and ITS Improvements
 - Aux Lanes with Full Shoulders
 - Existing Two Lanes & Operational Lanes
 - **Aux Lanes with WB I-70 Realignment**

ALTERNATIVES PROCESS





ALTERNATIVES PROCESS

SCREENING CRITERIA		NO ACTION	EXISTING TWO LANES WITH CURVE MODIFICATIONS AND ITS IMPROVEMENTS	AUXILIARY LANES WITH FULL SHOULDERS, CURVE MODIFICATIONS, AND ITS IMPROVEMENTS	EXISTING TWO LANES AND OPERATIONAL LANES WITH CURVE MODIFICATIONS AND ITS IMPROVEMENTS	AUXILIARY LANES WITH WESTBOUND I-70 REALIGNMENT, CURVE MODIFICATIONS, AND ITS IMPROVEMENTS
Purpose and Need	Safety	Does the alternative reduce crashes? NO No change in roadway conditions or traffic disruptions	YES Curve modifications reduce crashes related to curve geometry	YES Auxiliary lanes, curve modifications, and full shoulders address safety issues	YES Curve modifications and wide outside shoulder for majority of time address safety issues	YES Auxiliary lanes, curve modifications, and full shoulders address safety issues
	Operations	Does the alternative improve traffic flow? NO No change in roadway characteristics or conditions that create disruptions in traffic flow	NO No change in other roadway characteristics or conditions that create disruptions in traffic flow	YES Three travel lanes reduce traffic flow turbulence and provide area for incidents while maintaining two lanes of traffic	NO Majority of time only two travel lanes, which does not reduce disruptions in traffic flow	YES Three travel lanes reduce traffic flow turbulence and provide area for incidents while maintaining two lanes of traffic
		Does the alternative maintain or improve access for emergency response? YES Existing levels of emergency access maintained, but no improvements	YES Lane closure system with ITS signage improves access for emergency response	YES Full shoulders maintained and lane closure system with ITS signage improves access for emergency response	YES Wide outside shoulder for majority of time and lane closure system with ITS signage improves access for emergency response outside of travel lanes	NO While lane closure system improves access for emergency response, the loss of emergency turnarounds does not maintain or improve current emergency response access
		Does the alternative reduce number of full closures? NO No reduction in crashes or change in roadway characteristics that contribute to full closures	YES Slight reduction in full closures with reduced crashes related to curve geometry	YES Reduction in full closures with reduced crashes	YES Reduction in full closures with reduced crashes	YES Reduction in full closures with reduced crashes
Additional Core Values*	Enhanced Environment	Does the alternative maintain existing terrestrial wildlife connectivity? YES Existing terrestrial wildlife connectivity maintained	YES Existing terrestrial wildlife connectivity maintained	NO Existing terrestrial wildlife connectivity maintained in the lower half of the corridor; the addition of a third lane increases the barrier effect in the upper half of the corridor.	NO Existing terrestrial wildlife connectivity maintained in the lower half of the corridor; the addition of a third lane increases the barrier effect in the upper half of the corridor.	NO Change in westbound I-70 alignment does not maintain existing terrestrial wildlife connectivity as the WB bridges on the lower half of the corridor would be removed.
		Does the alternative include trail relocation away from directly adjacent to I-70? NO Trail remains in existing location directly adjacent to I-70	NO Trail remains in existing location directly adjacent to I-70	YES Widening I-70 requires trail relocation	YES Widening I-70 requires trail relocation	YES Widening I-70 requires trail relocation
	Collaborative Decision-making	Is the alternative consistent with the ROD? NO ROD includes recommendation for auxiliary lanes	NO ROD includes recommendation for auxiliary lanes	YES ROD includes recommendation for auxiliary lanes	NO ROD includes recommendation for auxiliary lanes	YES ROD includes recommendation for auxiliary lanes
SUMMARY OF RESULTS		Retained: Baseline Comparison	Eliminated	Retained	Eliminated	Eliminated
NOTES			Does not meet Purpose and Need because it does not address I-70 operational issues and does not address Core Values because it is inconsistent with the ROD	The addition of a third lane increases the distance for wildlife to cross and mitigation for this impact will be included in the refinements of the alternative.	Does not meet Purpose and Need because it does not address I-70 operational issues with only two travel lanes open majority of the time and does not address Core Values because it is inconsistent with the ROD	Does not meet Purpose and Need because it does not maintain existing emergency access and does not address Core Values because it does not maintain existing terrestrial connectivity

*Not fatal flaw criteria. No alternatives were eliminated based on these criteria.



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ALTERNATIVES PROCESS

PROPOSED ACTION





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PHASE I PROJECT



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PHASE I PROJECT

INFRA GRANT

- CDOT was awarded ~\$60M INFRA grant
 - State matching ~\$80M – total of ~\$140M
- Commitments to obligating funds by certain dates
 - Obligation of some construction funds by May 2021
 - Full obligation of INFRA funds by May 2022 (\$60.7M)
 - Complete obligation of rest of budget by end of 2022



I-70 Vail Pass Safety and Operations Improvements

INFRA APPLICATION • RURAL

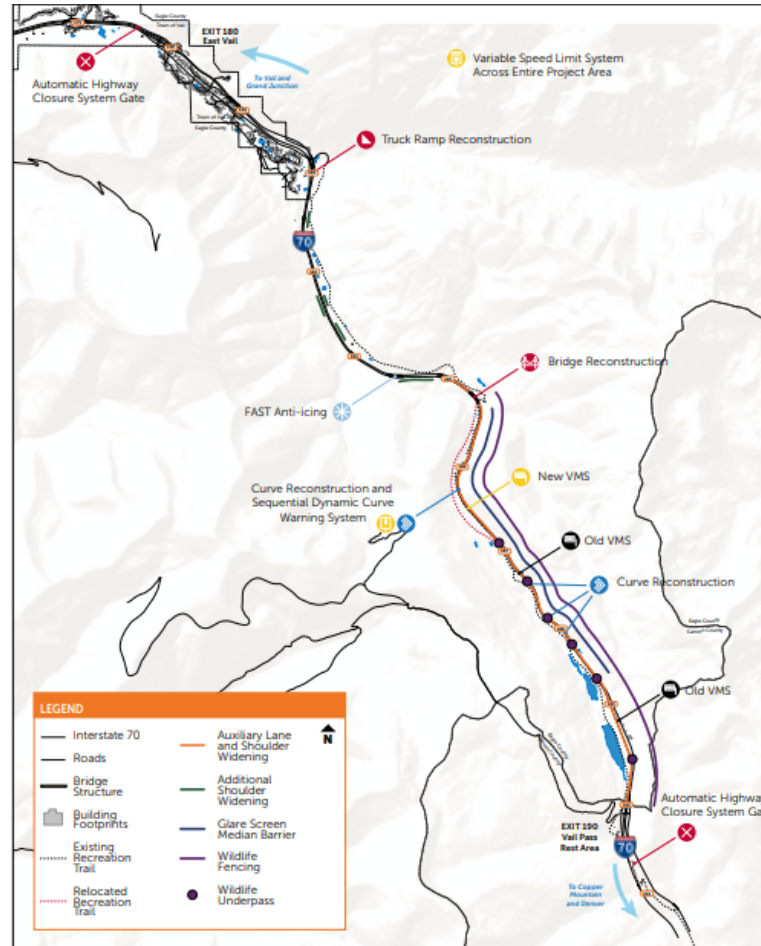
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INFRA SCOPE

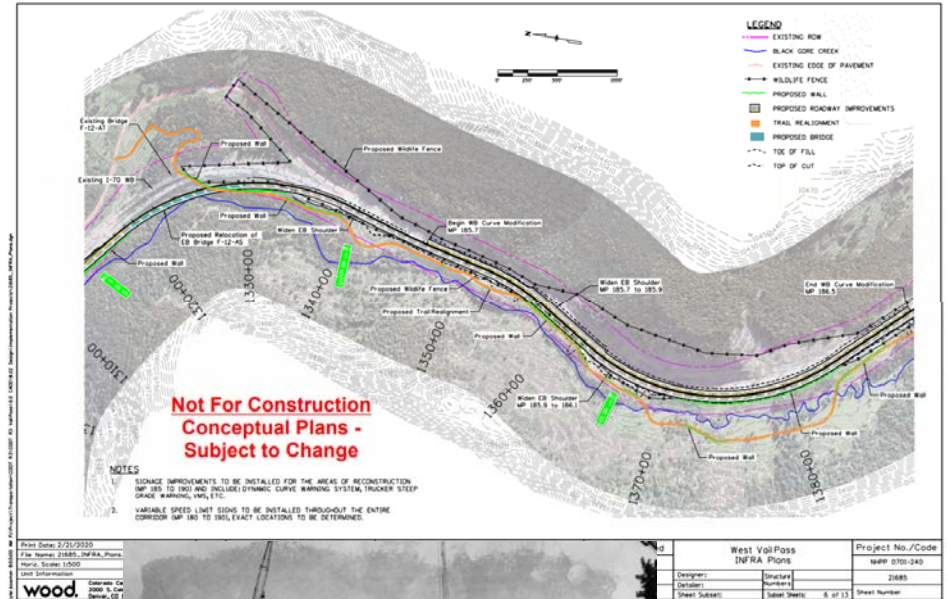
Components	Mile Post (MP)
EB auxiliary lane, with inside and outside shoulder widening, wildlife underpasses, glare screen median, and trail relocation	185-190
Wildlife fencing	185.2-190
Additional outside shoulder widening	EB 183.3-183.5 EB 184.6-184.8 WB 182.4-182.5 WB 183.3-183.4 WB 183.6-183.7
WB curve reconstruction 1, inside shoulder widening	185.6-186.5
WB curve reconstruction 2, inside shoulder widening	187.3-188.9
Bridge reconstruction with EB auxiliary lane and shoulder widening	185-185.6
Lower truck ramp reconstruction	182
Signage improvements	WB 186-190
Variable speed limit system	180-190
Automated highway closure system	180-190
FAST Anti-icing	184.3-184.5





PROJECT DESIGN & DEVELOPMENT STATUS

- Conceptual design for corridor – 10%
- Design consultant being procured concurrently
- ROW – Project within USFS easement, will need to amend the Highway Easement Deed
- On-going environmental work
 - Development of new Black Gore Creek Sediment Control Action Plan (SCAP) – SWEEP ITF
 - Development of Aesthetic Guidance (ITF)
 - Further development & approval of CSS Design Exceptions per Crest of the Rockies Area of Special Attention (ITF)
 - Coordination with ALIVE ITF
 - Coordination with Recreation ITF





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PHASE I PROJECT

PROJECT GOALS/CORE VALUES

 SAFETY	 RECREATION
 OPERATIONS	 COLLABORATIVE DECISION MAKING
 CORRIDOR CHARACTER & AESTHETICS	 IMPLEMENTABILITY
 ENHANCED ENVIRONMENT	 SUSTAINABILITY
 COMMIT TO THE CM/GC PROCESS	



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PHASE I PROJECT

NOTABLE PROJECT CONSTRAINTS/RISKS

- Weather
- Construction Safety
- CSS Process
- Schedule





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PHASE I PROJECT

WHY CM/GC?

- Allows for Contractor input during the design phase
 - CM will be on board at roughly the same time as the Design Consultant
- CM can sit at table during CSS meetings and understand constraints, as well as present constructability, cost, schedule, & phasing impacts to stakeholders
- Ability for multiple CAP packages which fits INFRA commitments
- Allows for Contractor input and development of phasing plans
- Early identification and mitigation of risks





PROCUREMENT SCHEDULE

Dates are subject to change

Public Notice Phase	Date	Time
Advertisement/Notification of Request for Mandatory Letters of Interest	6/18/2020	
Submittal of Mandatory Letters of Interest	7/16/2020	12:00 p.m. noon
First Advertisement of RFP	7/17/2020	
Mandatory Pre-Proposal Meeting - Public	7/21/2020	10:00 a.m.
Optional One-on-One Briefings - Confidential	*As Requested	
Final RFP Public Questions or Comments Due	8/7/2020	

Short List Phase	Date	Time
Submittal of Proposal	8/17/2020	12:00 p.m. noon
Short Listing Selection Panel Meeting	9/8/2020	
Short List Approval	9/11/2020	
Notification of Short List Candidates	9/11/2020	

Selection Phase	Date	Time
Selection Panel Meetings (Interviews)	10/2/2020	
CMGC Management Price Percentage Proposals Submitted	10/2/2020	
Chief Engineer Selection Approval	10/8/2020	
Contractor Notification	10/9/2020	
Contract Execution/NTP	11/6/2020	



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PHASE I PROJECT

NEXT STEPS

- Register for Optional One-on-One Briefing (Confidential) – July 23rd & 24th
 - Use link in email to project contacts – <https://signup.com/go/oXTwhaJ>
 - Only one (1) 45 minute time slot per team
- Questions on RFP sent to CDOT CM/GC Project Manager listed below by August 7th
- CDOT Project Website: <https://www.codot.gov/projects/I-70-West-Vail-Auxiliary-Lanes>
- INFRA grant narrative and conceptual plans on CDOT Procurement Website:
<https://www.codot.gov/business/designsupport/adp-db-cmgc/opportunities/cm-gc-solicitations-active/21685-i-70-west-vail-pass-auxiliary-lanes-phase-i>
- CDOT CM/GC Project Manager
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QUESTIONS?